


**STATE OF HAWAII**  
**DEPARTMENT OF EDUCATION**  
**KA 'OIHANA HO'ONA'AUAO**  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

OFFICE OF FACILITIES AND OPERATIONS

October 6, 2023

TO: Mary Alice Evans, Interim Director  
Office of Planning and Sustainable Development  
Environmental Review Program

FROM: Edward S. Ige   
Facilities Director, Facilities Development Branch

SUBJECT: **Final Environmental Assessment and Finding of No Significant Impact  
August Aherns Elementary School – New Classroom Building  
Job No.: Q86001-18  
Tax Map Key: (1) 9-4-059: 072, 073, and 074 (por.), and Mahoe Street and  
Waipahu Street right-of-way (no TMK)**

The State of Hawaii Department of Education (Department) hereby transmits the Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the proposed August Aherns Elementary School – New Classroom Building, situated on Tax Map Key parcels (1) 9-4-059: 072, 073, and 074 (por.), and Mahoe Street and Waipahu Street right-of-way (no TMK), on the island of Oahu, for publication in the next available edition of *The Environmental Notice*.

The DOE has reviewed the comments received for the Draft EA during the 30-day public comment period which began on March 23, 2023, and believes the mitigation measures proposed in the FEA sufficiently address the issues raised. The potential for adverse effects on historic properties, natural and cultural resources, and public infrastructure regulations are addressed in the FEA.

We have uploaded an electronic copy of this letter, the publication form, and the FEA-FONSI to your online submittal site.

Should you have any questions, please contact Aaron Geonzon, Project Coordinator of the Facilities Development Branch, Project Management Section at (808) 784-5053 or email at [aaron.geonzon@k12.hi.us](mailto:aaron.geonzon@k12.hi.us).

ESI:ag

c: Facilities Development Branch

**From:** [State of Hawaii Webmaster](#)  
**To:** [DBEDT OPSD Environmental Review Program](#)  
**Subject:** New online submission for The Environmental Notice  
**Date:** Thursday, October 12, 2023 9:27:28 AM

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**Action Name**

August Ahrens Elementary School (AAES) New Classroom Building

**Type of Document/Determination**

Final environmental assessment and finding of no significant impact (FEA-FONSI)

**HRS §343-5(a) Trigger(s)**

- (1) Propose the use of state or county lands or the use of state or county funds

**Judicial district**

‘Ewa, O‘ahu

**Tax Map Key(s) (TMK(s))**

(1) 9-4-059: Portions of 072, 073, and 074, and Mahoe Street and Waipahu Street rights-of-way (no TMK)

**Action type**

Agency

**Other required permits and approvals**

See Section 7 of Final EA

**Proposing/determining agency**

State of Hawai‘i, Department of Education

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P.O. BOX 2360  
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United States  
[Map It](#)

**Was this submittal prepared by a consultant?**



Yes

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United States  
[Map It](#)

#### Action summary

The State of Hawai'i, DOE, proposes to construct a new permanent two-story classroom building, a new play court and concrete masonry unit wall, new walkways, and a new small parking area at the AAES in Waipahu to provide necessary facilities to support the needs of the current and future student body and staff. The new classroom building (approximately 26,900 square feet) will provide approximately 13 new classrooms designed to be flexible, mixed-use spaces to support a more modern learning environment that can be adapted for student or teacher needs. The new classroom building will also incorporate other support spaces including, but not limited to, activity hubs, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. The design will complement the style of other adjacent buildings and facilities within the school campus. The project will support the existing student population and will not increase enrollment.

#### Reasons supporting determination

Refer to Section 9.4 of the Final EA for the Significance Criteria assessment

#### Attached documents (signed agency letter & EA/EIS)

- [AAES-Final-EA\\_October-2023.pdf](#)
- [10-6-23-AG-FEA-FONSI-Letter-August-Ahrens-ES-New-classroom-Bldg-Q86001-18.pdf](#)

#### Shapefile

- The location map for this Final EA is the same as the location map for the associated Draft EA.

#### Action location map

- [AAES-Proj-Location-Shapefile.zip](#)

#### Authorized individual

Kelly Staples

#### Authorization

- The above named authorized individual hereby certifies that he/she has the authority to make this

submission.

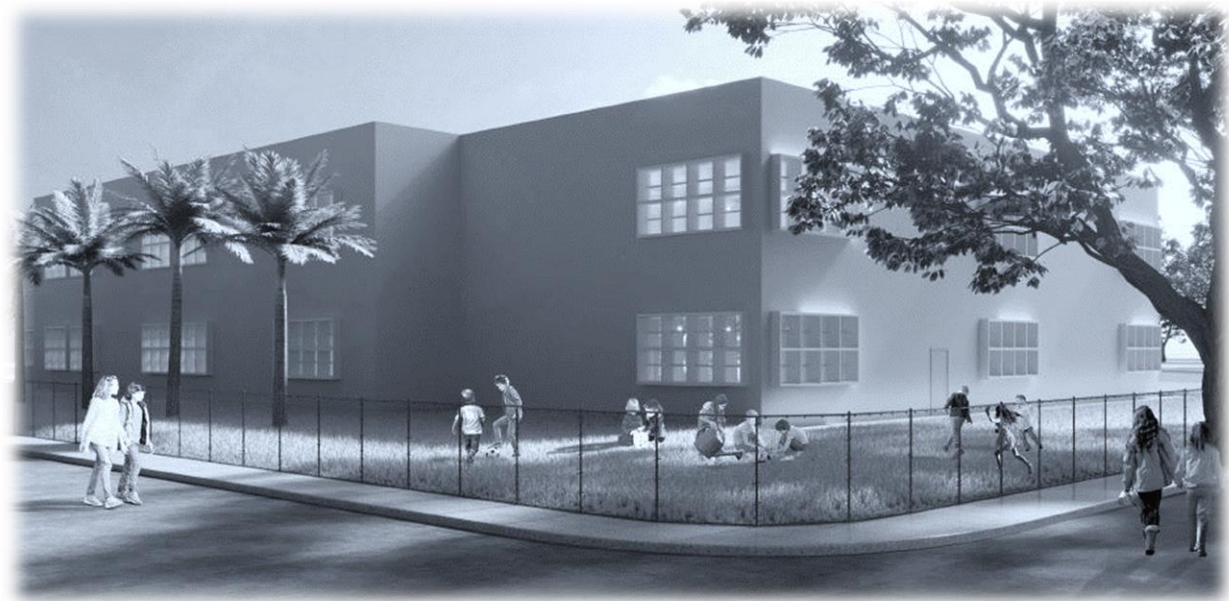
# Final Environmental Assessment

Prepared in Accordance with Hawaii Revised Statutes, Chapter 343, and  
Hawai'i Administrative Rules, Title 11, Chapter 200.1

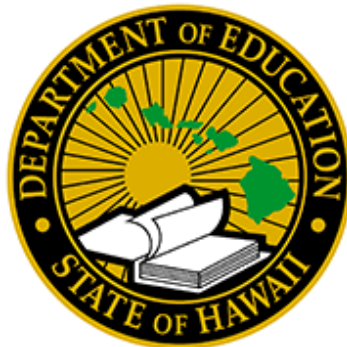
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## August Ahrens Elementary School New Classroom Building

Waipahu, Island of O'ahu, Hawai'i



October 2023



*Proposing/Determining Agency:*

**State of Hawai'i**

**Department of Education**

**1390 Miller Street**

**Honolulu, Hawai'i 96813**

# **Final Environmental Assessment**

## **August Ahrens Elementary School New Classroom Building**

Waipahu, Island of O‘ahu, Hawai‘i

October 2023

*Proposing/Determining Agency:*

**State of Hawai‘i**

**Department of Education**

1390 Miller Street

Honolulu, Hawai‘i 96813

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## **Appendices**

- Appendix A Draft natural resources assessment for August Ahrens Elementary School in Waipahu, O‘ahu. Prepared for R.M. Towill Corporation. Prepared by AECOS Inc. January 2022.
- Appendix B Draft Archaeological Literature Review and Field Inspection Report to Support Consultation with the State Historic Preservation Division for the August Ahrens Elementary School New Classroom Building Project (DOE Job No. Q86001-18), Waipi‘o Ahupua‘a, ‘Ewa District, O‘ahu. Prepared for R.M. Towill Corporation. Prepared by Cultural Surveys Hawai‘i, Inc. December 2021.
- Appendix C Transportation Management Plan for the August Ahrens Elementary School. Prepared for Benjamin Woo Architects. Prepared by Wilson Okamoto Corporation. April 2023.
- Appendix D Pre-Assessment Consultation Letters for Hawai‘i Revised Statutes, Chapter 343.
- Appendix E Draft EA Public Comment Period Comments and Responses for Hawai‘i Revised Statutes, Chapter 343.

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## ***Acronyms and Abbreviations***

%	Percent
AAES	August Ahrens Elementary School
ADA	Americans with Disabilities Act
AIS	Archaeological Inventory Survey
ALRFI	Archaeological Literature Review and Field Inspection
AMSL	Above Mean Sea Level
BMPs	Best Management Practices
BWS	Board of Water Supply
CAB	Clean Air Branch
CCH	City and County of Honolulu
CDP	Census Designated Place
CFR	Code of Federal Regulations
CIA	Cultural Impact Assessment
Cl-	Chloride
CMU	Concrete Masonry Unit
CO	Carbon Monoxide
COSCP	Central O‘ahu Sustainable Communities Plan
CSH	Cultural Surveys Hawai‘i, Inc.
CWA	Clean Water Act
CWB	Clean Water Branch, State DOH
CZM	Coastal Zone Management
dB	Decibel
dBA	A-Weighted Decibel
DCAB	Disability and Communication Access Board, DOH
DLNR	Department of Land and Natural Resources, State of Hawai‘i
DNL	Day-Night Sound Level
DOE	Department of Education, State of Hawai‘i
DOFAW	Division of Forestry and Wildlife, DLNR
DOH	Department of Health, State of Hawai‘i
DPP	Department of Planning and Permitting, CCH
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMS	Emergency Medical Services

## ***Acronyms and Abbreviations***

EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gas
GPS	Global Positioning System
HAR	Hawai‘i Administrative Rules
HECO	Hawaiian Electric Company
HPD	Honolulu Police
HRS	Hawai‘i Revised Statutes
LCA	Land Commission Awards
LID	Low Impact Development
LUO	Land Use Ordinance
LUST	Leaking Underground Storage Tank
MPH	Miles Per Hour
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NMFS	National Marine Fisheries Service
NO <sub>2</sub>	Nitrogen Dioxide
NO <sub>3</sub> +NO <sub>2</sub>	Nitrate+Nitrite-Nitrogen
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
O <sub>3</sub>	Ozone
Pb	Lead
PIFWO	Pacific Islands Fish and Wildlife Office, USFWS
PM	Particulate Matter
ROH	Revised Ordinances of Honolulu
sf	Square Feet
SHPD	State Historic Preservation Division
SIHP	State Inventory of Historic Places
SLR	Sea Level Rise
SMA	Special Management Area

### ***Acronyms and Abbreviations***

SO <sub>2</sub>	Sulfur Dioxide
TDM	Transportation Demand Management
TMK	Tax Map Keys
TMP	Transportation Management Plan
USDA	U. S. Department of Agriculture
USFWS	U. S. Fish and Wildlife Service
USGS	U. S. Geological Survey
VOG	Volcano-Associated Gases
WQC	Water Quality Certification
WQS	Water Quality Standards
WRCC	Western Regional Climate Center

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## *Section 1*

### *Project Summary*

<b>Project Name:</b>	August Ahrens Elementary School (AAES) New Classroom Building
<b>Type of Document:</b>	Final Environmental Assessment (EA) pursuant to Hawai‘i Revised Statutes (HRS), Chapter 343, and Hawai‘i Administrative Rules (HAR), Title 11, Chapter 200.1.
<b>Determination:</b>	Finding of No Significant Impact (FONSI)
<b>EA Review Trigger:</b>	Propose the use of state or county lands or the use of state or county funds
<b>Location and Landowners:</b>	AAES, 94-1170 Waipahu Street, Waipahu, Island of O‘ahu, Hawai‘i Tax Map Keys (TMKs): (1) 9-4-059: Portions of 072 (State of Hawai‘i), 073 (City and County of Honolulu [CCH], and 074 (State of Hawai‘i), and Mahoe Street and Waipahu Street rights-of-way (no TMK; CCH)
<b>Proposing/Determining Agency:</b>	State of Hawai‘i, Department of Education (DOE)
<b>Consultant:</b>	R. M. Towill Corporation
<b>Proposed Action:</b>	The State of Hawai‘i, DOE, proposes to construct a new permanent two-story classroom building, a new play court and concrete masonry unit (CMU) wall, new walkways, and a new small parking area at the AAES in Waipahu to provide necessary facilities to support the needs of the current and future student body and staff. The new classroom building (approximately 26,900 square feet [sf]) will provide approximately 13 new classrooms designed to be flexible, mixed-use spaces to support a more modern learning environment that can be adapted for student or teacher needs. The new classroom building will also incorporate other support spaces including, but not limited to, activity hubs, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. The design will complement the style of other adjacent buildings and facilities within the school campus. The project will support the existing student population and will not increase enrollment.
<b>Land Area:</b>	Approximately 1.23 acres
<b>Flood Zones:</b>	Zone D – Undetermined Flood Hazard
<b>State Land Use District:</b>	Urban
<b>Special Management Area (SMA):</b>	Not in the SMA
<b>CCH Zoning:</b>	R-5 (Residential)
<b>Permits/Approvals that may be Required:</b>	<b>STATE:</b> EA under HRS, Chapter 343; Section 402 Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) permit for construction storm water and hydrotesting discharges; HRS, Chapter 6E Review; Americans with Disabilities Act (ADA) Review; and Noise Permit; Transportation Management Plan (TMP) <b>CCH:</b> Grubbing, Grading, and Stockpiling Permit; Trenching Permit; Street Usage Permit; Construction and Traffic Control Plans; Construction Management Plan; Traffic Management Plan; TMP; Building Permit; Zoning Waiver (building height and parking requirements); and Plan Approvals

## ***Section 2*** ***Introduction and Project Description***

### ***2.1 Introduction and Purpose of the Environmental Assessment***

The State of Hawai‘i, DOE, proposes to construct a new two-story classroom building (approximately 26,900 sf), a new play court and CMU wall, new parking stalls, and new access walkways at the AAES in Waipahu, on the Island of O‘ahu, Hawai‘i. The name of the project assigned by the DOE is the AAES New Classroom Building.

The purpose of this EA is to address the requirements of HRS, Chapter 343, and HAR, Chapter 11-200.1. The specific action that requires the preparation of this EA includes the use of state lands and funds for the proposed action. This EA provides information and evaluation of the potential for adverse environmental impacts on the natural and built environment associated with the proposed project.

Pursuant to the requirements of HRS, Chapter 343, and HAR, Chapter 11-200.1, the DOE has determined that the proposed project does not have significant environmental effects warranting the preparation of an Environmental Impact Statement (EIS). Based on analysis and review of environmental conditions, project effects, proposed mitigation measures, and public comments, HHS and DCS as the approving agency, have determined that an Environmental Impact Statement is not required and that a FONSI be issued for this project.

A Draft EA for the project was published for public review in the March 23, 2023, issue of the State Department of Health (DOH), Office of Planning and Sustainable Development, Environmental Review Programs’ *The Environmental Notice*. Comments received during the public comment period are included along with the responses in **Appendix E**.

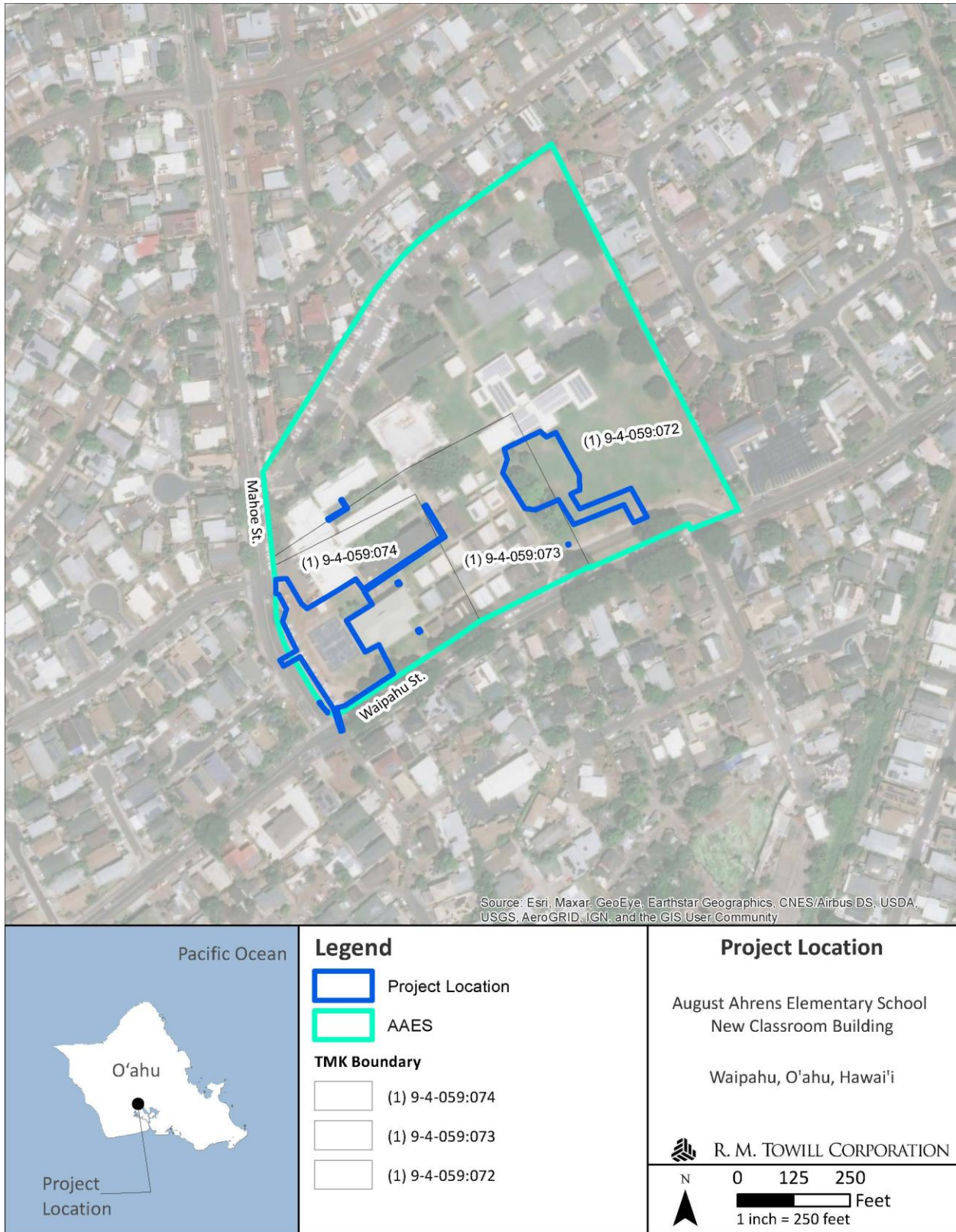
This Final EA provides additional information based on the comments received that further describes the proposed project, environmental conditions of the site, potential for significant adverse impacts, and application of mitigation measures, as appropriate, to reduce the potential for significant environmental impacts. This Final EA and accompanying FONSI will be filed with the Office of Planning and Sustainable Development, Environmental Review Program.

### ***2.2 Project Location and Property Ownership***

The State of Hawai‘i, DOE, is proposing to undertake the AAES New Classroom Building Project within the AAES campus located at 94-1170 Waipahu Street in Waipahu, Island of O‘ahu, Hawai‘i. The project site and area of disturbance is within the southwestern and south-central portions of the AAES campus, identified by TMKs (1) 9-4-059: Portions of 072 (State of Hawai‘i); 073 (CCH); and 074 (State of Hawai‘i). Connections for utilities will require work within the CCH Mahoe Street and Waipahu Street rights-of-way (no TMK). The project construction area including areas for staging, storage, construction access, entry, and activities including grading, is approximately 1.23 acres. See **Figure 2-1, Project Location and Tax Map Key**.



**Figure 2-1. Project Location and Tax Map Key**



The proposed action will include a new two-story classroom building (approximately 26,900 sf) on the southwestern corner of the AAES campus adjacent to Mahoe Street and Waipahu Street within TMK (1) 9-4-059: 074 where an existing play court is located. New parking stalls are also proposed along the southwestern portion of the AAES campus adjacent to Mahoe Street within TMK (1) 9-4-059: 074 on undeveloped land. Additionally, new access walkways are proposed within TMK (1) 9-4-059: 074 to provide paved access from the new parking stall area to and around the new classroom building and to existing concrete walkways at AAES. The proposed new play court and CMU wall will be located within TMKs (1) 9-4-059: 072 and 073 on the south-central portion of the AAES campus in an area that is currently grassed. Utility connections will require work within the CCH Mahoe Street and Waipahu Street right-of-way (no TMK).

The AAES campus is surrounded primarily by residential uses. The Lanakila Baptist Church and School is located east of the school property. The Bethel Chapel Assembly of God and Leeward Church of Christ are located south of the school property. Further makai of the AAES is the Waipahu District Park, Waipahu High School, commercial developments, Ted Makalena Golf Course, Pearl Harbor, and other residential developments. The H-1 Freeway is located approximately 0.27 miles mauka from the school property, which separates the Waipahu community from Waikele. See **Figure 2-2, Regional Project Location**.

### *2.3 Project Background & Reasonably Foreseeable Current and Future Actions*

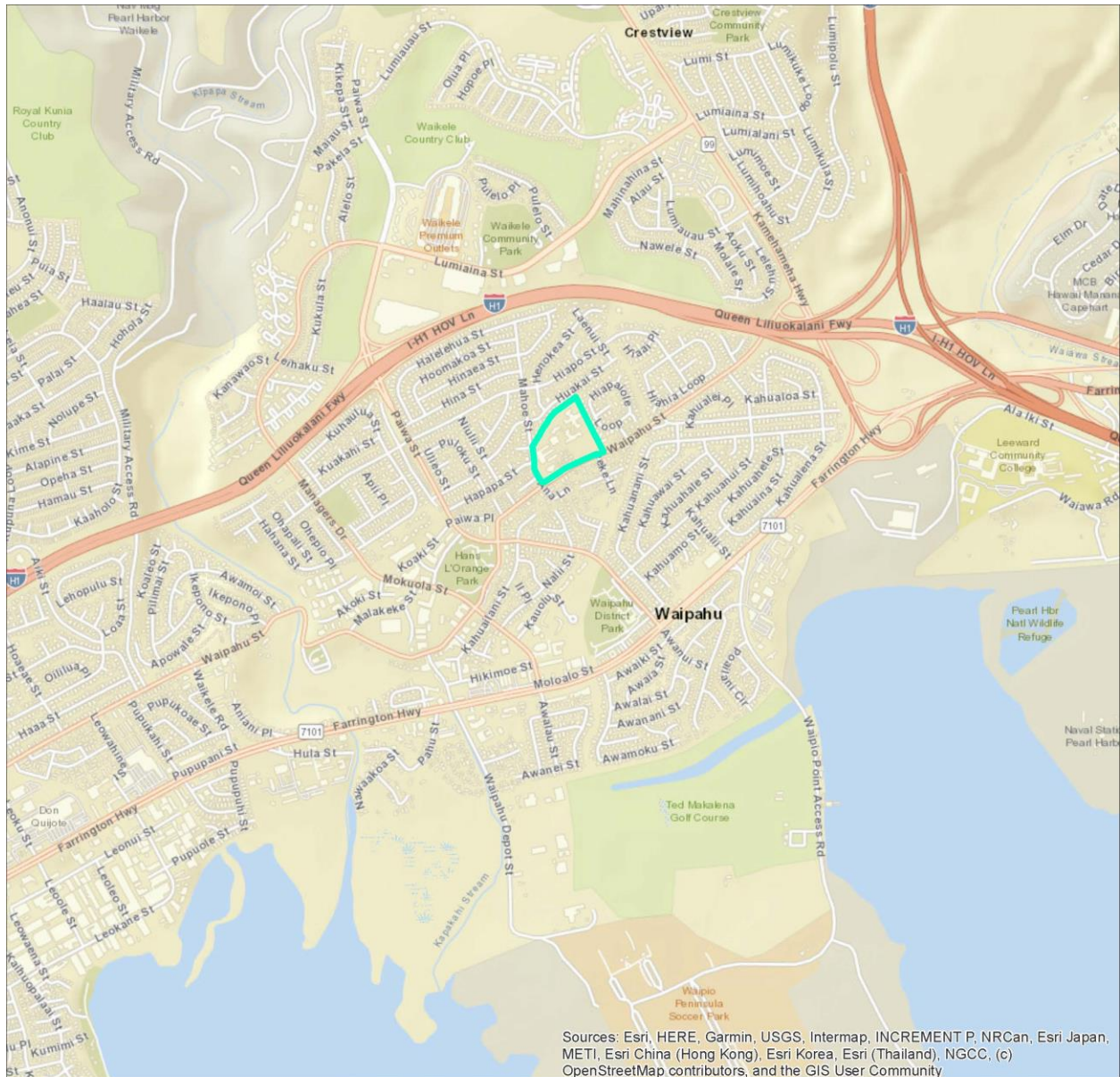
#### **Project Background**

AAES is a K-6 school located on the island of O‘ahu in the historic sugar plantation town of Waipahu, Hawai‘i. AAES was named after the first manager of O‘ahu Sugar Company, Mr. August Ahrens. The administration building and fourteen classrooms were built on three-fourths acres and AAES opened its doors to 605 students and 13 teachers on September 1, 1924.

Currently, the school encompasses 14 acres with ten (10) buildings and approximately 27 portable classrooms with approximately 1,300 to 1,500 students and 220 faculty and staff in a given year, making it the largest, single-track elementary school in the state. The permanent structures at AAES include six (6) classroom buildings, a cafeteria, two (2) serving cafeterias, and a library and administration building. Existing playground equipment is provided in various locations on campus. Also located on the school property is an existing play court with six basketball hoops on the southwestern corner of the school property, a large, grassed area comprising the southeastern corner of the school property, and parking areas provided along the northwestern edge of the property.



**Figure 2-2. Regional Project Location**



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

<p>Pacific Ocean</p> <p>O'ahu</p> <p>Project Location</p>	<p><b>Legend</b></p> <p><span style="border: 2px solid red; display: inline-block; width: 20px; height: 10px; vertical-align: middle;"></span> AAES</p>	<p><b>Regional Project Location</b></p> <p>August Ahrens Elementary School              New Classroom Building</p> <p>Waipahu, O'ahu, Hawai'i</p> <p> R. M. TOWILL CORPORATION</p> <p>N                0 1,000 2,000                Feet              1 inch = 1,941 feet</p>
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The DOE is developing an overall plan for phased improvements for the replacement and demolition of portable classroom facilities with permanent classroom space at AAES. The proposed new building is the first phase of this process and is intended to support the existing student population and would not result in an increase in students on campus. The next phase will be to remove the equivalent number of portable classrooms. While the transition from portable to permanent classrooms will result in a temporary increase in square footage on campus, as the portables are removed the overall classroom square footage would effectively be reduced to approximately the square footage before the new building. Therefore, over the long-term, classroom square footage on campus is expected to stay relatively the same, while the student population is expected to decline in the coming years. The enrollment numbers for AAES from 1995 and projected to 2028 are provided in **Table 2-1**.

**Table 2-1. AAES Historical, Current and Projected Enrollment Numbers**

<b>Year</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>Students</b>	1,630	1,621	1,628	1,489	1,297	1,221	1,263	1,233
<b>Year</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Students</b>	1,233	1,276	1,270	1,272	1,277	1,284	1,319	1,322
<b>Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>Students</b>	1,374	1,427	1,403	1,318	1,291	1,262	1,249	1,244
<b>Year</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
<b>Students</b>	1,274	1,237	1,290	1,164	1,158	1,140	1,102	1,043
<b>Year</b>	<b>2027</b>	<b>2028</b>						
<b>Students</b>	1,018	981						

AAES strives for excellence by aligning its programs to its vision and by supporting the State’s strategic plan. The school offers Advancement via Individual Determination which aims to close the achievement gap by preparing all students for college readiness and success in a global society. AAES also offers College for Every Student which aims to raise the academic aspirations and performance of underserved youth so that they can prepare for, gain access to, and succeed in college through three high-impact practices: (1) mentoring, (2) leadership through service, and (3) pathways to college. Additionally, AAES offers Success for All which is a school-wide reading program that incorporates cooperative learning strategies to help students in all grade levels achieve literacy. The school also offers robotics and physical education. Extracurricular activities include music ensemble, volleyball, and basketball.

The AAES vision:

Aspire, Adapt, Excel, and Serve.

The AAES mission:

To empower students to be caring, lifelong learners with college-career-life readiness skills who contribute to the community.

The AAES identity:

AAES is committed to engaging students by providing rigorous and relevant learning opportunities, in a safe, nurturing environment that encourages innovation, creativity, good character, and growth.

The AAES beliefs:

1. Everyone can learn!
2. Student growth and achievement should be the primary foci of all decisions impacting the work of the school.
3. Students learn in different ways and should be provided with a variety of instructional approaches and safe environments to support their learning.
4. Students are valued individuals with unique physical, cultural, social, emotional, and intellectual strengths and needs.
5. Creating a safe and nurturing environment promotes student learning.
6. Students, teachers, administrators, staff, parents, and the community collectively share the responsibility for advancing the school’s mission.
7. Continuous improvement is imperative to enable students to become confident, self-directed, lifelong learners.

The proposed project will support AAES in its vision, mission, identity, and beliefs by providing improved learning environments and facilities. The new classroom spaces will be designed as flexible, mixed-use spaces to support a more modern learning environment that can be adapted for student or teacher needs. The new classroom building will not increase student enrollment. A new play court and CMU wall, additional parking, and access walkways are also proposed.

### **Reasonably Foreseeable Current and Future Actions**

Below is the list of past, present, and future actions proposed at the AAES campus:

1. Q86001-18 New Classroom Building (proposed action covered in this EA); New Building (i.e., Building N) at the corner of Mahoe Street and Waipahu Street and play court at the west end of the field; anticipated construction 2025 – 2026.
2. Q86213-18 New Parking Lot and Covered Walkway and Shelter; New Parking Lot at the most eastern part of the field and Covered Shelter at the Drop off; construction summer - fall 2023. The new parking lot is expected to provide an additional 60 stalls for the campus.
3. Q86228-21 Whole School Renovation; Repainting interior and exterior building spaces, rekeying doors, replacing building signs, replacing wall tiles, and flooring in Building I; construction summer 2022 – 2023.
4. Q86218-19 Bldg J Restroom Renovations; summer 2022.
5. P86257-21 Bldg L Reroof; March 2022.
6. P86260-21 I Reroof; March 2022.

In addition to the above projects, the AAES is developing an overall plan for phased improvements for the replacement and demolition of portable classroom facilities with permanent classroom space. The phased construction of new permanent school facilities, located on an existing elementary school site, will expand the availability of resources and permanent classroom space for AAES’s student body, encouraging enhanced use of classroom space and learning opportunities. The proposed New Classroom Building (proposed action covered in this EA) is the

first phase of this process. As funding becomes available it is anticipated that more portables at the AAES campus will be replaced in the future.

The other past, present, and future AAES improvements projects will be completed by others and the project schedule including planning and design will be developed according to regulatory and compliance requirements.

The proposed New Classroom Building (proposed action covered in this EA) and the other past, present, and future AAES improvement projects are considered separate and independent actions and are not expected to result in negative synergistic or cumulative impacts. However, all projects would have beneficial cumulative effects due to improvements to the existing AAES campus. The projects will both renovate existing permanent buildings and retain the redevelopment of facilities on the campus to provide an overall improved learning environment comprised of permanent classroom space and support facilities for the students and faculty. Using the existing space within the AAES parcels for improved facilities is an efficient use of land and existing infrastructure. Overall, the proposed action and other reasonably foreseeable current and future actions will provide improved facilities that will allow the AAES, the largest, single-track elementary school in the state, to better serve students within the community.

The proposed New Classroom Building in particular would constitute an improvement to the use of separate and aging portable classrooms with a newer building containing modern amenities that will facilitate improved learning and teaching environments. The New Classroom Building will contain multiple connecting classrooms with 21st-Century educational technologies, HVAC environmental controls, bathroom facilities, faculty amenities such as a teacher’s lounge, and the ability to provide improved building security for AAES students and faculty (see also **Section 3.5.1.3 New Classroom Building**). The new play court and CMU wall, additional parking, and access walkways are necessary support infrastructure that will enhance the school environment.

## 2.4 Project Overview

The proposed action would involve the following:

Construction (see **Figure 2-3, Overview of the Proposed Action**):

1. New two-story classroom building (approximately 26,900 sf) on the southwestern corner of the AAES campus adjacent to Mahoe Street and Waipahu Street where an existing play court is located.

The new classroom building would provide approximately 13 new classrooms, as well as other support spaces including, but not limited to, activity hubs, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. The new classroom building is intended to provide AAES with a permanent structure designed to complement the style of other adjacent buildings within the school campus. A new fire hydrant, drain inlets, and utility connections will also be installed to support the development of the new classroom building. A gated and enclosed 2-inch-thick asphalt concrete pad will be provided on the east side of the new classroom

- building to house the building’s air-cooled condensing units. The new classroom building will support the existing student population and will not increase enrollment.
2. New 2-inch-thick asphalt concrete parking stall area (approximately six (6) 9-foot wide parking stalls and one (1) 10-foot wide loading stall) located on undeveloped land along the southwestern portion of the AAES campus adjacent to Mahoe Street. The new parking area will be connected to the existing small parking area and utilize the existing entrance from Mahoe Street. A new 6-inch-high concrete curb will be installed along the southwestern edge of the new parking area.
  3. New 4-inch-thick concrete access walkways (minimum 5 feet wide) to provide a connection from the new parking stall area to and around the east and south sides of the new classroom building and to existing concrete walkways at AAES, and to provide a connection to the new play court.
  4. New small CMU wall section within the southwestern portion of the AAES campus to connect to an existing CMU wall near the entrance of the proposed new classroom building.
  5. New 4-inch-thick concrete play court (approximately 6,890 sf) and CMU wall located on the south-central grassed portion of the AAES campus.
  6. Installation of landscaping of non-pavement areas, infiltration basin, and vegetated swale within the southwestern portion of the AAES campus.

Demolition and Removal (see **Figure 2-4, Existing Condition and Demolition Plan**):

1. Existing concrete play court (approximately 6,890 sf) located on the southwestern portion of the AAES campus in the proposed location of the new classroom building.
2. Existing concrete curb located along the west side of the existing small AAES parking pavement area east of Mahoe Street where the existing parking entrance is located on the southwest portion of the AAES campus.
3. Existing containers (approximately three) located north of the existing play court on the southwest portion of the AAES campus.
4. Existing drain inlets (approximately 2) and a headwall on the southwest portion of the AAES campus.
5. Existing walls, fences, and a gate on the southwest portion of the AAES campus.
6. Existing trees within the new classroom building (approximately four trees) and play court (approximately seven trees) construction footprints on the southwest and south-central portions of the AAES campus.

A more detailed description of the proposed action is provided in **Section 3.5**.



Figure 2-3. Overview of the Proposed Action

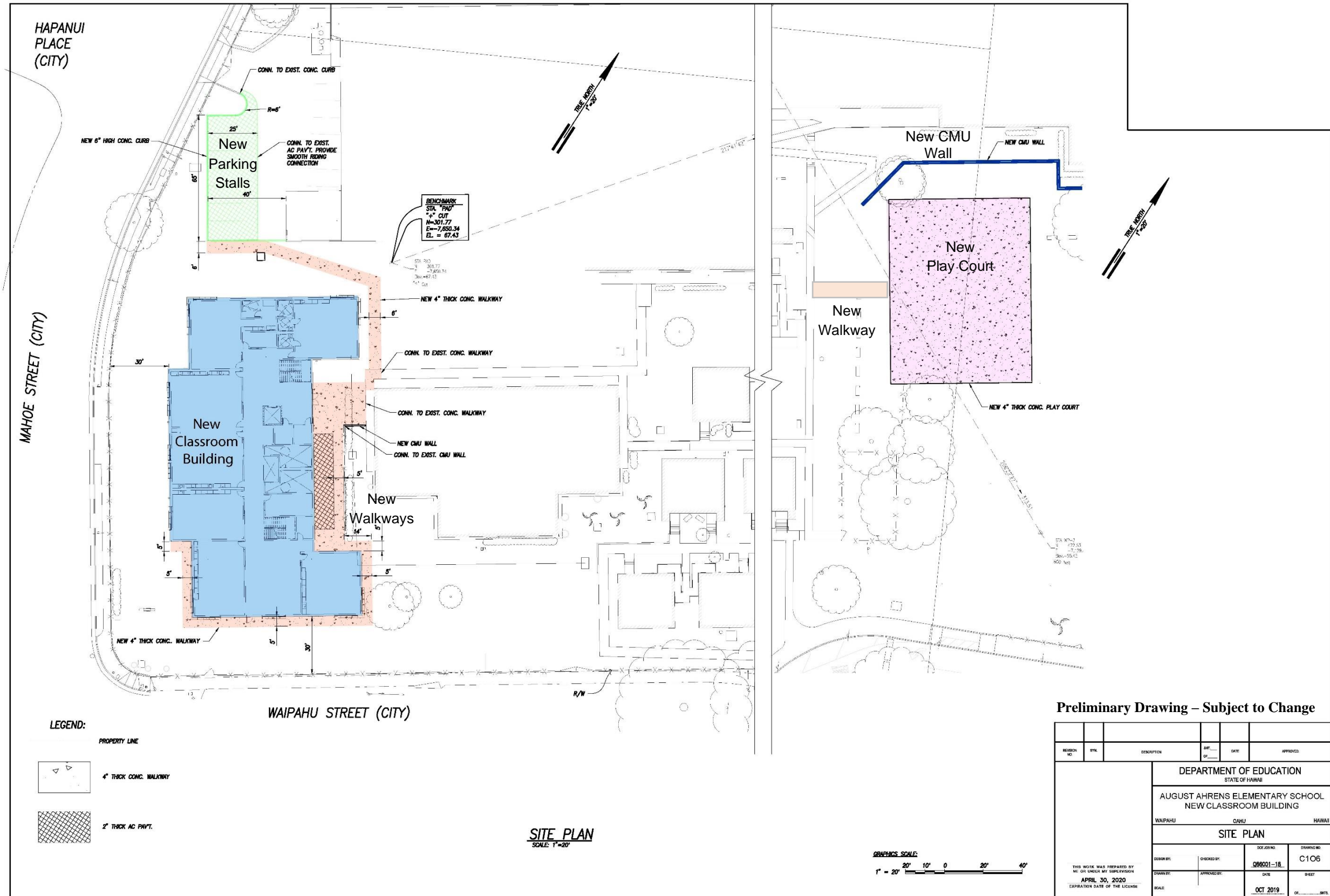
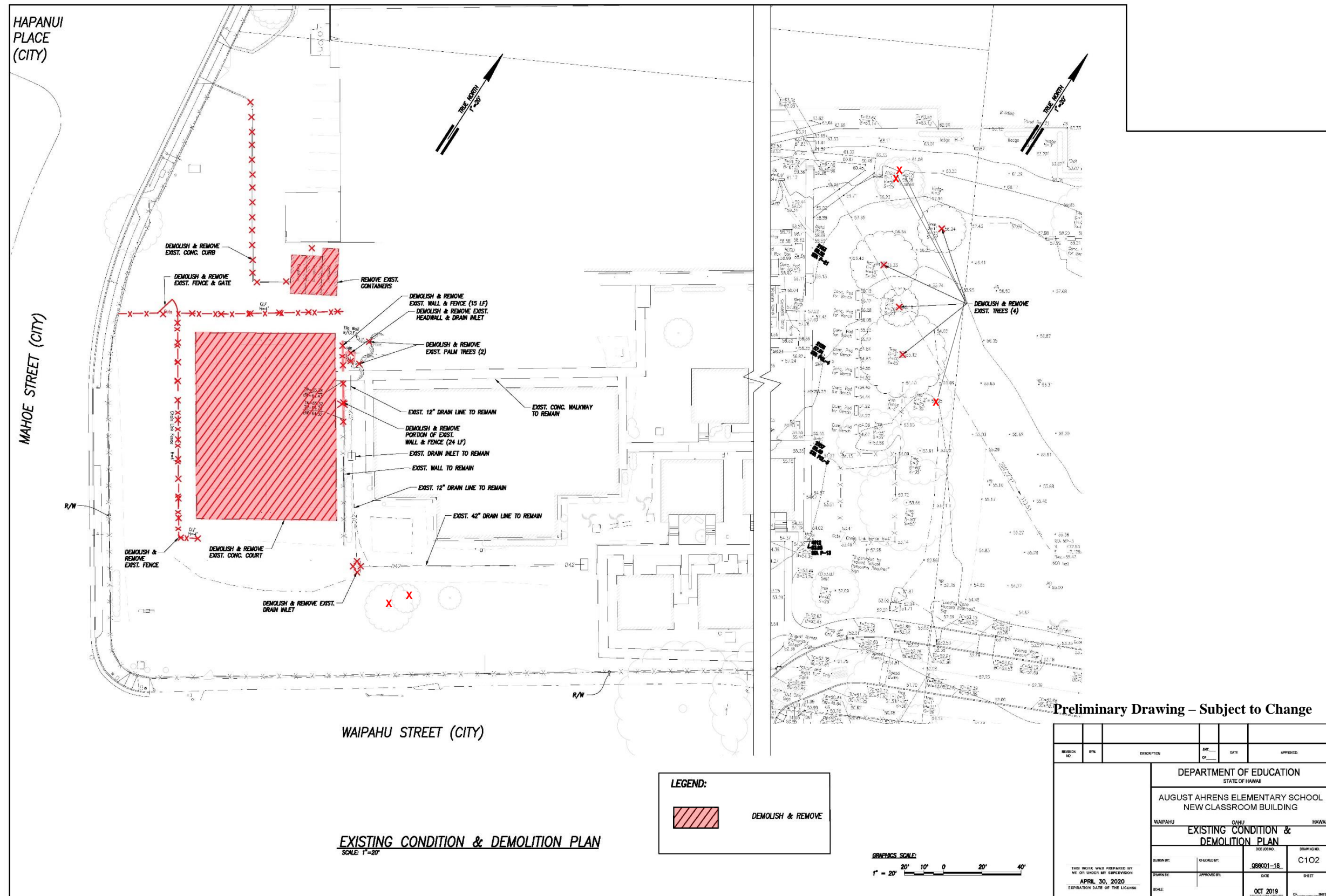




Figure 2-4. Existing Condition and Demolition Plan



Preliminary Drawing – Subject to Change

## *2.5 Project Purpose and Need*

**Purpose.** The purpose of the proposed action is to construct a new two-story classroom building (approximately 26,900 sf) to provide approximately 13 new classrooms at AAES to provide the necessary facilities to support the needs of the current and future student body and staff. The proposed action also includes a new play court and CMU wall to replace the existing play court that will be demolished for the construction of the new classroom building, new walkways to provide paved access to the school facilities, and a small parking area to serve the new building and students and staff.

**Need.** The proposed action is needed to provide the necessary facilities to support the requirements of the current and future AAES student body and staff. The new classroom building will be designed as flexible, mixed-use spaces to support a more modern learning environment that can be adapted for student or teacher needs. The new classroom building will also incorporate other support spaces including, but not limited to, activity hubs, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. The new play court and CMU wall, additional parking, and access walkways are necessary support infrastructure that will enhance the school environment. Overall, the proposed action will provide improved facilities that will allow the AAES, the largest, single-track elementary school in the state, to better serve students within the community.

## ***Section 3***

### ***Description of the Proposed Action and Alternatives***

#### ***3.1 Identification of Alternatives***

The State of Hawai‘i, DOE, proposes to construct a new two-story classroom building (approximately 26,900 sf), play court and CMU wall, walkways, and a small parking area to provide approximately 13 new classrooms at AAES to provide necessary facilities to support the needs of the current and future student body and staff.

In compliance with the provisions of HAR, Chapter 11-200.1-18(d)(7), relating to Environmental Assessments, an environmental assessment must discuss potential alternatives to the proposed action which could attain the objectives of the action in sufficient detail to explain why they were rejected. The alternatives considered include:

1. No Action Alternative
2. Delayed Action Alternative
3. Design Alternatives
4. Preferred Alternative

As part of the project alternative screening process, alternatives were analyzed to identify the least environmentally damaging practicable alternative. The following sections include a description of each alternative considered and the criteria used to determine whether the alternative meets the project's purpose and need.

#### ***3.2 No Action Alternative***

State legislation requires that a No Action Alternative be considered to serve as a baseline against which potential actions can be measured. The No Action Alternative is no change to the existing site. This alternative would not meet the purpose and need of the project. Under this alternative, the proposed AAES new classroom building would not be constructed. Without the proposed project, AAES will continue providing portable classroom buildings and would continue to experience inadequate classroom space. While the No Action Alternative would preclude the potential for adverse construction-related environmental effects it would fail to meet the project objectives and is therefore removed from further consideration.

#### ***3.3 Delayed Action Alternative***

The Delayed Action Alternative involves the construction of the project, but at a later date. Delaying the project would temporarily avoid the potential for adverse construction-related environmental effects and the need for the expenditure of funds for planning, design, development, and construction activities. However, because the potential for construction-related environmental impacts and project costs would only be delayed, impacts associated with the construction of the project would eventually be borne when the project is implemented. Additionally, while

construction costs would be averted in the short term they would be expected to ultimately be higher due to inflation or cost escalation.

Additionally, delaying the project would not provide a new permanent structure or accessory improvements to support the needs of the current and future student body and staff. Because the Delayed Action Alternative would fail to meet the project purpose and need, it is also rejected from further consideration.

### *3.4 Design Alternatives*

Several Design Alternatives were considered for the new classroom building in terms of location, building height, and configuration, however, the planned design for the proposed two-story building at the proposed site on the southwestern corner of the AAES campus was determined to be the best alternative to meet the purpose and need.

### *3.5 Preferred Alternative – Proposed Action*

Based on the existing layout at the AAES, the Preferred Alternative is to construct a new classroom building (approximately 26,900 sf) on the southwest corner of the campus; a new play court and CMU wall on the south-central part of the campus; a new small parking area north of the new classroom building to serve the new building and students and staff; and, new paved walkways for access to the school’s facilities.

The new classroom building will provide approximately 13 new classrooms designed to be flexible, mixed-use spaces to support a more modern learning environment that can be adapted for student or teacher needs. The new classroom building will also incorporate other support spaces including, but not limited to, activity hubs, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. The new play court and CMU wall, additional parking, and access walkways are necessary support infrastructure that will enhance the school environment. Overall, the proposed action will provide improved facilities that will allow the AAES, the largest, single-track elementary school in the state, to better serve students within the community.

The Preferred Alternative is the only alternative that would (1) provide the necessary facilities to support the needs of the current and future AAES student body and staff, and (2) provide the necessary support infrastructure to enhance the school environment. Because the Preferred Alternative addresses the purpose and need for the action it is selected as the proposed action for the project.

A description of the proposed action, construction activities, and estimated construction cost and schedule are provided in the following sections.

### 3.5.1 Description of the Proposed Action

The project site and area of disturbance is within the southwestern and south-central portions of the AAES campus in Waipahu, Island of O‘ahu, Hawai‘i, and identified by TMKs (1) 9-4-059: Portions of 072 (State of Hawai‘i); 073 (CCH); and 074 (State of Hawai‘i). Connections for utilities will require work within the CCH Mahoe Street and Waipahu Street rights-of-way (no TMK). The project construction area including areas for staging, storage, construction access, entry, and activities including grading, is approximately 1.23 acres.

The proposed action will include the demolition of existing infrastructure, and the construction of a new two-story classroom building, a new play court and CMU wall, new walkways, a new small parking area, a new fire hydrant, and utility connections. The proposed action will allow AAES to provide a permanent structure with the necessary facilities to support the needs of the current and future student body and staff (see **Figure 3-1, General Site Plan**).

#### 3.5.1.1 Demolition and Removal of Existing Infrastructure

Prior to the start of construction of the new school facilities, the existing approximately 6,890 sf concrete play court, and surrounding fence, walls, and gate located on the southwestern portion of the AAES campus adjacent to Mahoe Street and Waipahu Street will be demolished, and removed to provide space for the construction of the new classroom building. An existing drain inlet located south of the existing play court, a drain inlet and headwall, and four (4) trees located near the northeast corner of the existing play court will also be demolished and removed.

Additionally, north of the existing play court, there are currently three (3) existing containers and an existing concrete curb along the edge of the existing paved parking area that will be demolished and removed to provide construction access to the project site and space for the construction of the new parking area and walkways.

In addition, seven (7) trees located in the south-central grassed portion of the AAES campus will be demolished and removed to provide space for the construction of the new play court and CMU wall.

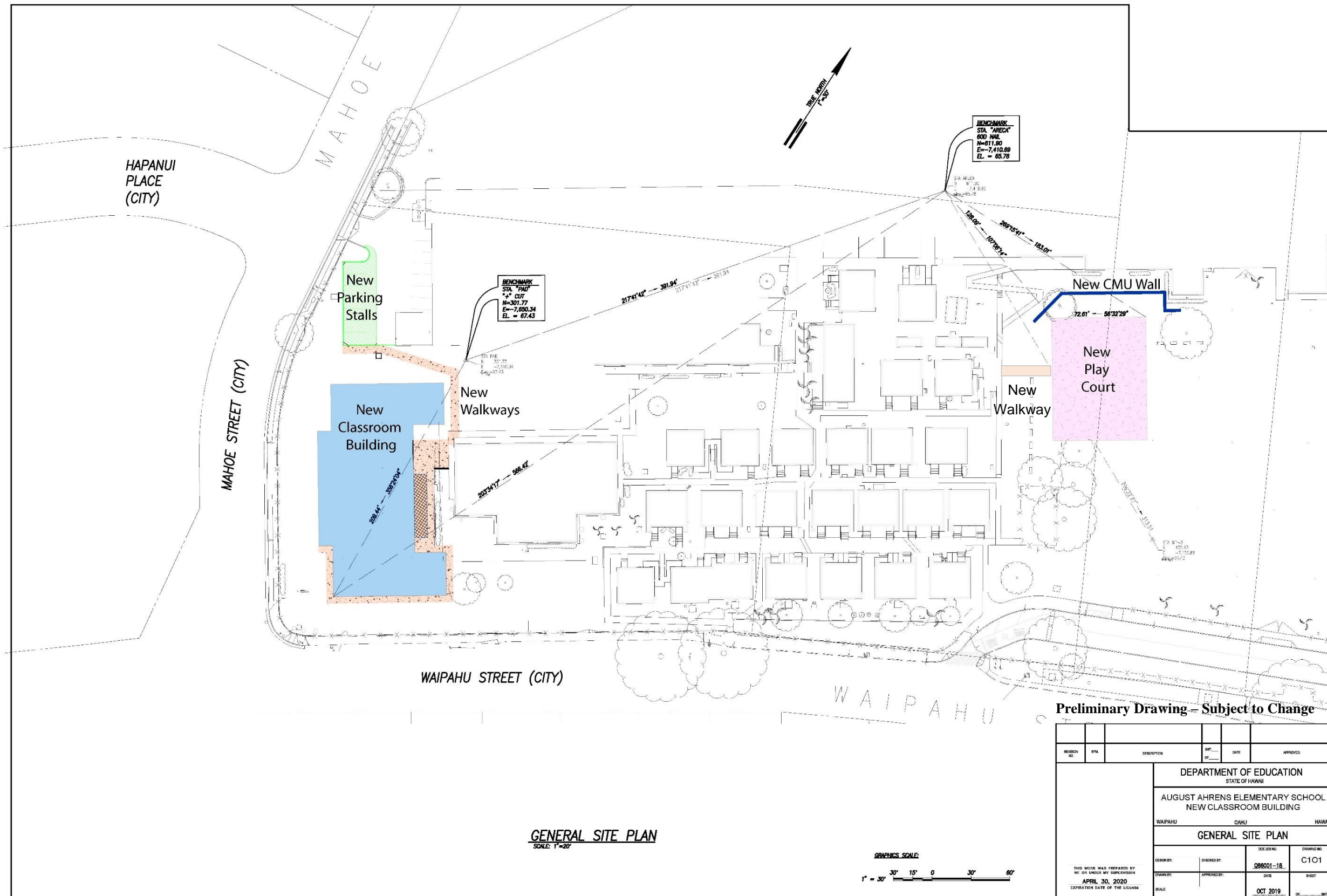
See **Figure 2-4, Existing Condition and Demolition Plan** for the location of the items discussed above to be demolished and removed.

#### 3.5.1.2 Site Grading

Following the demolition and removal of existing infrastructure, the sites for the proposed classroom building, walkways, parking stalls, play court and CMU wall, and surrounding areas will be graded.



Figure 3-1. General Site Plan



### 3.5.1.3 New Classroom Building

The proposed action will include a new two-story classroom building (approximately 26,900 sf) on the southwestern corner of the AAES campus adjacent to Mahoe Street and Waipahu Street where an existing play court is located (see **Figure 3-1**). The new classroom building is intended to provide the AAES with a permanent structure to support the needs of the current and future student body and staff. The new classroom building is not intended to increase enrollment. The design will complement the style of other adjacent buildings and facilities within the school campus.

The new classroom building will provide approximately 13 new classrooms, as well as other support spaces including, but not limited to, activity hubs, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. For the new classroom building, new elevators will comply with Americans with Disabilities Act Accessibility Guidelines 407; new classrooms will comply with Americans with Disabilities Act Accessibility Guidelines 201.1; and new toilet facilities will comply with Americans with Disabilities Act Accessibility Guidelines 213 and Chapter 6. The new classroom spaces will be designed as flexible, mixed-use spaces to support a more modern learning environment that can be adapted for student or teacher needs.

The ground floor of the new classroom building will include the following (see **Figure 3-2, New Classroom Building Ground Floor Plan**):

- Lobby
- Special education classroom
- Five classrooms
- Faculty room
- Activity hub/support room
- Support room
- Itinerant teacher room
- Intermediate distribution frame room
- Electrical room
- Restroom facilities
- Utility room

The second floor of the new classroom building will include the following (see **Figure 3-3, New Classroom Building Second Floor Plan**):

- Eight classrooms
- Support room
- Activity hub/support room
- Support room
- Intermediate distribution frame room
- Electrical room
- Restroom facilities
- Utility room

### 3.5.1.4 Utilities

Utilities to be supplied to the new classroom building include water, sewer, electrical, communications, fire alarm, and drainage.

Figure 3-2. New Classroom Building Ground Floor Plan

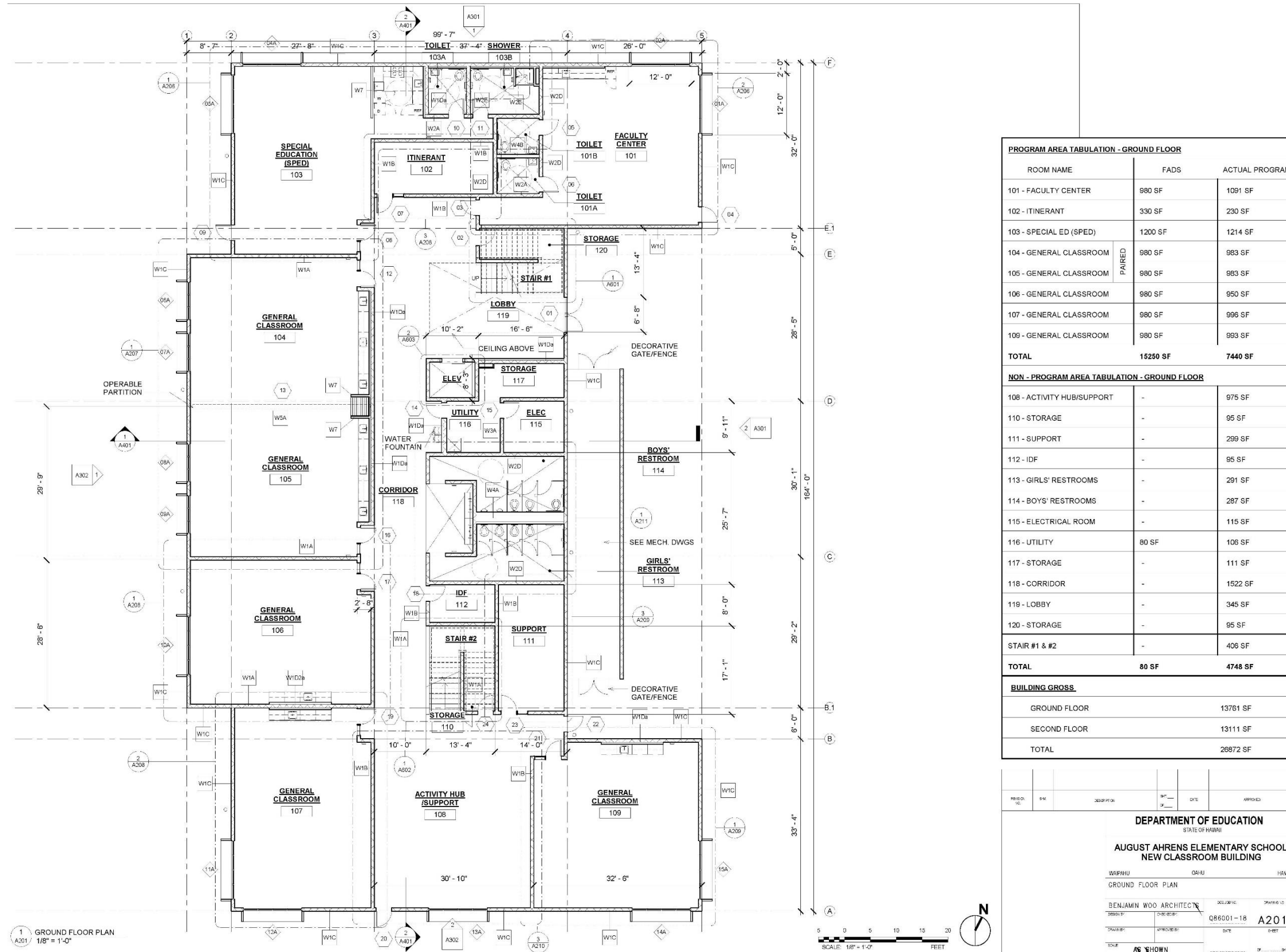
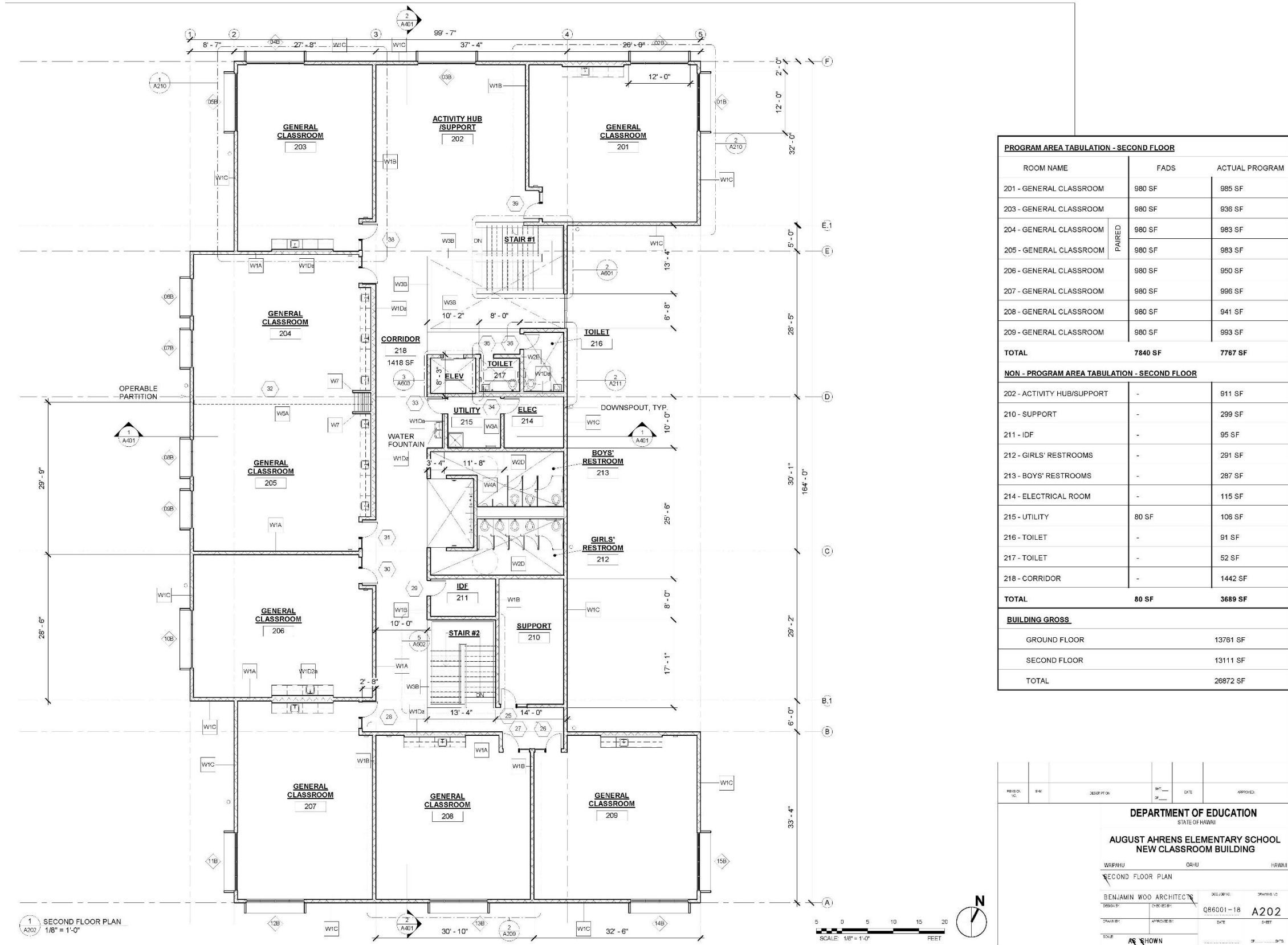




Figure 3-3. New Classroom Building Second Floor Plan



PROGRAM AREA TABULATION - SECOND FLOOR		
ROOM NAME	FADS	ACTUAL PROGRAM
201 - GENERAL CLASSROOM	980 SF	985 SF
203 - GENERAL CLASSROOM	980 SF	936 SF
204 - GENERAL CLASSROOM	PAIRED 980 SF	983 SF
205 - GENERAL CLASSROOM		983 SF
206 - GENERAL CLASSROOM	980 SF	950 SF
207 - GENERAL CLASSROOM	980 SF	996 SF
208 - GENERAL CLASSROOM	980 SF	941 SF
209 - GENERAL CLASSROOM	980 SF	993 SF
<b>TOTAL</b>	<b>7840 SF</b>	<b>7787 SF</b>

NON - PROGRAM AREA TABULATION - SECOND FLOOR		
202 - ACTIVITY HUB/SUPPORT	-	911 SF
210 - SUPPORT	-	299 SF
211 - IDF	-	95 SF
212 - GIRLS' RESTROOMS	-	291 SF
213 - BOYS' RESTROOMS	-	287 SF
214 - ELECTRICAL ROOM	-	115 SF
215 - UTILITY	80 SF	106 SF
216 - TOILET	-	91 SF
217 - TOILET	-	52 SF
218 - CORRIDOR	-	1442 SF
<b>TOTAL</b>	<b>80 SF</b>	<b>3689 SF</b>

BUILDING GROSS	
GROUND FLOOR	13761 SF
SECOND FLOOR	13111 SF
<b>TOTAL</b>	<b>26872 SF</b>

PROJECT NO.	DATE	APPROVED
DESCRIPTION	DATE	APPROVED
<b>DEPARTMENT OF EDUCATION</b> STATE OF HAWAII		
<b>AUGUST AHRENS ELEMENTARY SCHOOL NEW CLASSROOM BUILDING</b>		
WAIPIHU	OHU	HAWAII
SECOND FLOOR PLAN		
BENJAMIN WOOD ARCHITECTS	DATE	DRAWING NO.
DESIGN BY	DATE	Q86001-18
DRAWN BY	DATE	A202
SCALE	DATE	SHEET
AS SHOWN		

Water will be provided to the new classroom building via a connection to an existing 12-inch waterline located within Mahoe Street right-of-way. A new 8-inch waterline with a stub out for the building connection will be installed along with an approved Board of Water Supply (BWS) 3-inch diameter reduced pressure backflow preventer and 1-inch BWS meter (see **Figure 3-4, Utility Plan**).

An 8-inch waterline and stub out for fire sprinkler connection to the new classroom building will also be installed and connected to the existing 12-inch waterline in Mahoe Street right-of-way. The fire sprinkler waterline will be equipped with an approved BWS 6-inch diameter reduced pressure backflow preventer and DC meter. A new fire hydrant and concrete slab will also be installed north of the new classroom building and connected to water via the fire sprinkler water line (see **Figure 3-4, Utility Plan**). Water supply throughout the new classroom building, including the fire sprinkler system, will flow through 2.5-inch waterlines.

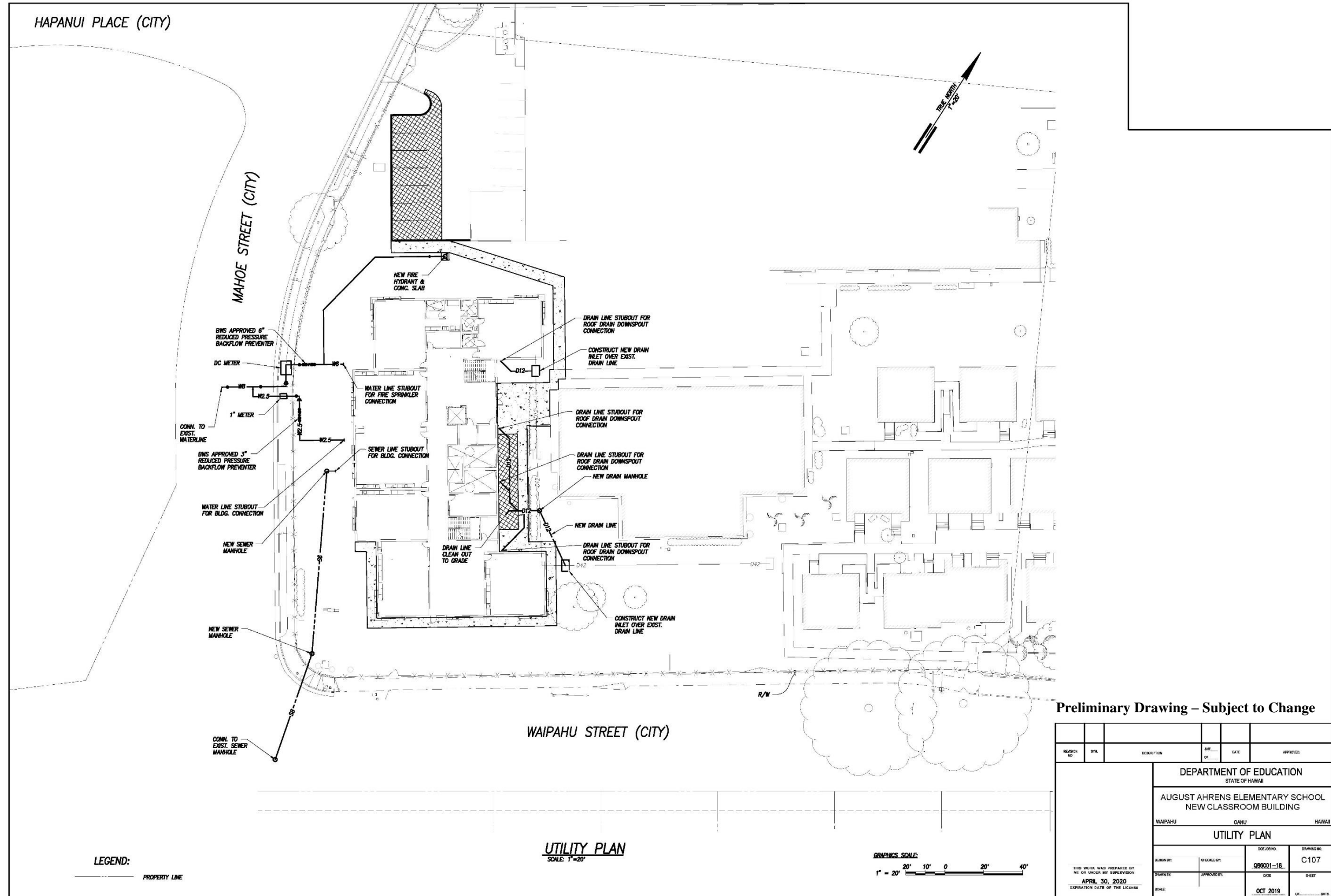
Additionally, a new sewer line, manholes, and stub out for connection to the new classroom building will be installed and connected to an existing 8-inch sewer line within the Waipahu Street right-of-way near its intersection with Mahoe Street (see **Figure 3-4, Utility Plan**). New drain line stub outs for roof drain downspout connections, drain lines, a drain manhole, and inlets will be constructed to convey and intercept rain water (see **Figure 3-4, Utility Plan**).

Electrical power, communications, and fire alarms will be provided to the new classroom building via existing connections on the AAES campus. The electrical feed to the new classroom building will come directly from the main distribution panel located in the AAES main electric room. The telecom feed will come from the main distribution frame equipment located in the AAES library. The fire alarm feed will come from the fire alarm control panel located at the AAES administration building. **Figure 3-5, Electrical Plan** indicates the connection locations and sources. A gated and enclosed 2-inch-thick asphalt concrete pad will be provided on the east side of the new classroom building to house the building’s air-cooled condensing units.

#### *3.5.1.5 New Parking Stalls*

The proposed action will include a new 2-inch-thick asphalt concrete parking stall area with approximately six (6) 9-foot wide parking stalls and one (1) 10-foot wide loading stall. The new parking area is proposed on a portion of undeveloped land located along the southwestern portion of the AAES campus adjacent to Mahoe Street. The new parking area will be connected to the existing small parking area and utilize the existing entrance from Mahoe Street. A new 6-inch-high concrete curb will be installed along the southwestern edge of the new parking area (see **Figure 3-6, Signing and Striping Plan**). The project will provide accessible parking stalls and access aisles where the new on-site parking facility is proposed in compliance with Americans with Disabilities Act Accessibility Guidelines 208 and 502. An accessible route will be provided from the accessible parking stalls and access aisles to the proposed new classroom building in compliance with Americans with Disabilities Act Accessibility Guidelines 206 and Chapter 4.

Figure 3-4. Utility Plan



Preliminary Drawing – Subject to Change

Figure 3-5. Electrical Plan

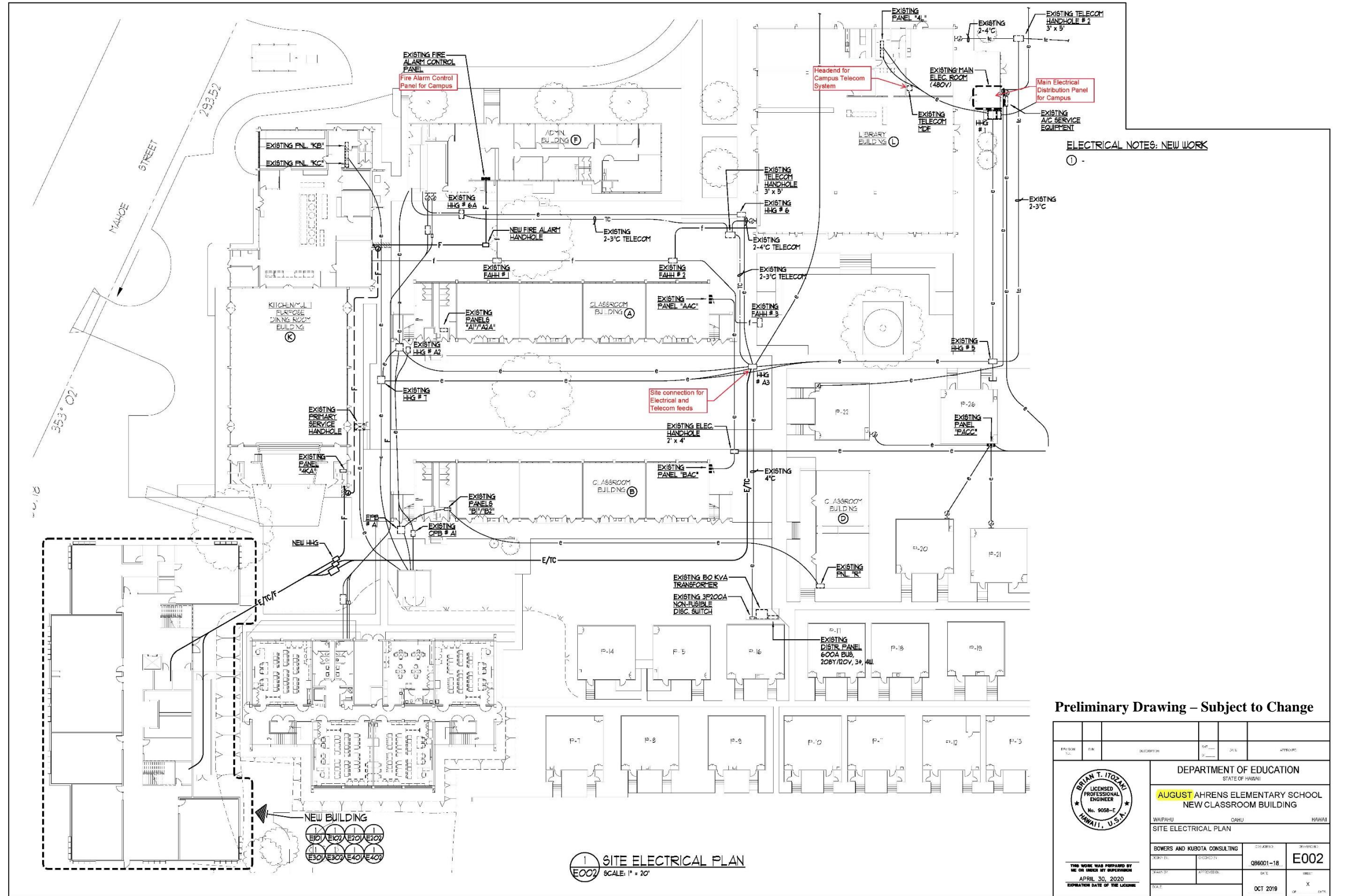
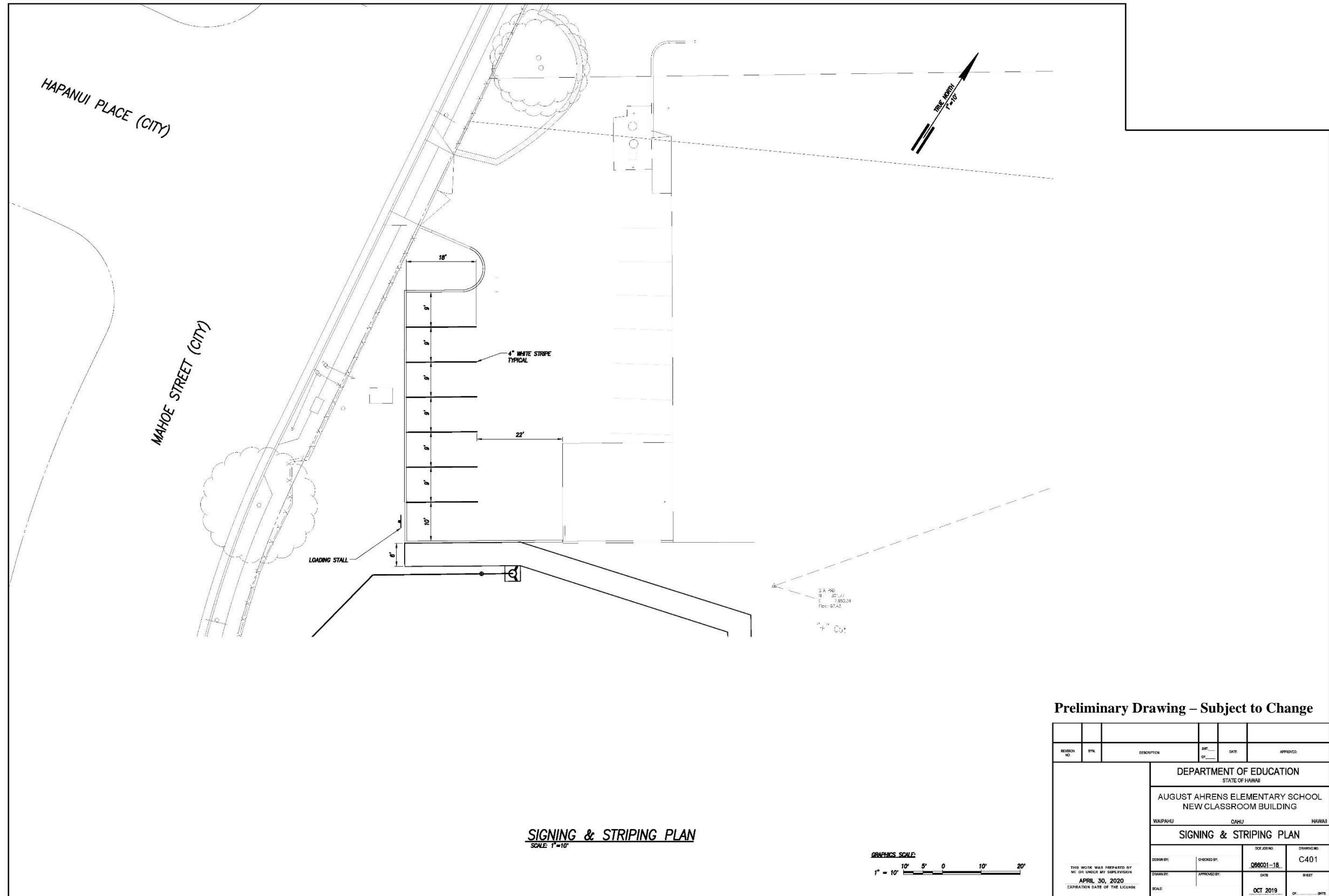


Figure 3-6. Signing and Striping Plan



### 3.5.1.6 New Walkways

The proposed action will include new 4-inch-thick concrete access walkways (minimum 5 feet wide) to provide a connection from the new parking stall area to and around the east and south sides of the new classroom building and to existing concrete walkways at AAES (see **Figure 3-1**). An accessible route will be provided from the accessible parking stalls and access aisles to the proposed new classroom building in compliance with Americans with Disabilities Act Accessibility Guidelines 206 and Chapter 4. An accessible route will also be provided to the new play court.

### 3.5.1.7 New Play Court

A new approximately 6,890 sf play court, comprised of 4-inch-thick concrete, will be constructed on the south-central portion of the AAES campus along Waipahu Street. The designated area for the proposed new play court is an existing grassed area with surrounding vegetation (trees) (see **Figure 3-1**). An accessible route in compliance with Americans with Disabilities Act Accessibility Guidelines 206 and Chapter 4 will be provided to the new play court.

### 3.5.1.8 Post Construction Best Management Practices

Post-construction Best Management Practices (BMPs) will include the installation of landscaping of non-pavement areas, an infiltration basin, and a vegetated swale within the southwestern portion of the AAES campus surrounding the new classroom building.

### 3.5.1.9 Construction Activities

Minor construction-related traffic, noise, and air quality (dust) disturbances are anticipated. Construction equipment used for this project may include but is not limited to: pile drivers, compactors, cranes, concrete mixers, concrete delivery and pump trucks, bulldozers, cranes, welders, excavators, loaders, backhoes, trenchers, graders, water trucks, dump trucks, flatbed trucks, and powered hand tools. The contractor will be required to observe and comply with all Federal, State, and local laws required for the protection of public health, safety, and the environment.

The contractor will prepare a BMPs Plan for this project. The BMPs Plan will consist of erosion control measures such as planting or hydromulching grass seedlings, erecting dust fencing/curtains, filter socks, berms, drain inlet protection, and/or other applicable erosion control devices to prevent construction-related soils and silt from mixing with storm water runoff.

Upon the completion of work, areas surrounding the project site that have been affected by construction will be restored to pre-existing conditions. The following will be required:

- All construction-related debris, including excavated material, fill material, and refuse shall be removed from the project site and disposed of properly by the contractor in compliance with applicable State and County regulations.

- All construction equipment shall be removed from the project site promptly after construction is complete.
- Any temporary modification to existing utilities, such as power or communications lines, shall be repaired to their pre-existing condition.
- Roadways providing access to the site shall be cleared of construction debris and any damage from construction traffic repaired.
- Temporary utility lines shall be removed from the site promptly after construction is complete.
- All areas damaged by construction staging shall be restored. Exposed ground areas shall be seeded or hydromulched as appropriate.

### *3.5.2 Estimated Construction Cost and Schedule*

The estimated construction cost for the project is \$20 million. Construction of the project is expected to begin in early 2025. The duration of construction will be approximately 16 months. Construction activities are planned to take place during the daytime hours with no night work expected to be required. Exact construction dates will be available when a contractor has been selected for the project and are subject to change based on permitting and design.

## ***Section 4***

### ***Description of Existing Site Conditions, Potential Impacts, and Proposed Mitigation***

This section summarizes the existing environmental setting, potential short and long-term, secondary, and cumulative effects of the proposed action, and mitigation measures. Short-term effects are from construction activities, while long-term effects continue or occur after the project is completed. Although the subject EA document does not require an assessment of impacts according to National Environmental Policy Act (NEPA) requirements, the definition of impacts, according to NEPA, provides guidance toward understanding potential environmental impacts and applicability to this project. Secondary impacts are generally defined as those induced or caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable (40 Code of Federal Regulations [CFR] §1500-1508). Potential cumulative effects may result from the incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions (40 CFR §1508.7).

#### ***4.1 Existing Site Conditions***

##### ***4.1.1 Description***

The AAES campus is located in the Waipahu area, ‘Ewa District, of O‘ahu on the corner of Mahoe Street and Waipahu Street. Single-family residential homes encompass the surrounding area of AAES, along with Leeward Church of Christ to the south and Lanakila Baptist Church and School to the east. The project site and area of disturbance for the proposed project are within the State of Hawai‘i-owned parcels, identified by TMK (1) 9-4-059: 072 and 074, and the CCH parcel, identified by TMK (1) 9-4-059: 073, all three of which comprise of AAES.

AAES opened its doors to 60 students and 13 teachers on September 1, 1924. The original layout of the campus at that time consisted of an administration building and fourteen classrooms which were built on three-fourths acres. Currently, the school encompasses 14 acres with 10 buildings and approximately 27 portable classrooms with approximately 1,500 students and 220 faculty and staff, making it the largest, single-track elementary school in the state.

The AAES building structures are located along the northern, western, and southwestern portions of the campus. Portable classrooms are primarily located along the south-central portion of the campus. A large parking lot is located along the northwest edge of the campus with an existing entrance from Mahoe Street. South of the large parking area is a small parking area with an entrance from Mahoe Street. On the southeast corner of the campus is a large open lawn area, on the southwest corner is a play court, and various playground equipment is spaced throughout the campus.



#### *4.1.2 Potential Impacts and Proposed Mitigation*

The proposed action includes the construction of a new two-story classroom building (approximately 26,900 sf), a new play court and CMU wall, new parking stalls, and new access walkways at the AAES campus.

Given the developed nature of the project site, no significant adverse environmental effects are expected. Short-term construction including demolition of the existing play court, grubbing, grading, and construction at the project site is expected to have minimal impacts and will adhere to BMPs and utilize other protective measures to minimize any impacts to environmental resources.

The new two-story classroom building will be located on the site of an existing play court on the southwestern portion of the AAES campus. The existing play court will be demolished, and a new play court and CMU wall will be built on an existing vegetated area on the south-central portion of the AAES campus adjacent to Waipahu Street.

The small parking area with access from Mahoe Street will be expanded to include six new parking stalls on a portion of the AAES campus that is currently exposed to dirt. The new parking stalls will utilize the existing driveway from Mahoe Street. New concrete walkways will provide paved access from the small parking area to the new classroom building and other facilities on campus.

Demolition to prepare the site for construction will include the removal of the existing approximately 6,890 sf concrete play court, and surrounding fence, walls, and gate; and the removal of drain inlets and headwalls, containers, curbs, and vegetation.

Access to the project site will be from Mahoe Street via the existing dirt area adjacent to the AAES small parking area entrance on the west side of the campus. A traffic control plan will be prepared and implemented, as necessary, by the contractor to ensure unimpeded traffic flow through Mahoe Street and Waipahu Street to minimize traffic circulation problems during the period of construction for delivery of construction materials, access in and out of the site by vehicles, and removal of debris.

Overall, the proposed action is expected to have beneficial social impacts on AAES students (and their families) and the broader community as it will provide improved classroom facilities; thus, increasing the learning environment and allowing AAES to deliver quality education. The proposed new classroom building will provide students with modern amenities that will be conducive to learning. No negative adverse cumulative effects are expected.

## 4.2 Climate

### 4.2.1 Description

AAES is located in Waipahu on the leeward side of the Island of O‘ahu. Weather is influenced by Hawaii’s geographic location southwest of the Pacific High region. The climate is moderate with consistent year-round temperatures, slight variations, moderate humidity, and prevailing northeasterly trade winds, typical of the climate that characterizes most of the developed areas throughout the island of O‘ahu. Northeasterly trade winds prevail over O‘ahu approximately 80% of the time, with average wind speeds ranging from 10 to 15 miles per hour (mph). The trade winds blow most strongly and consistently from April through November. Southerly or “Kona” winds occur roughly less than half the time from December through March.

This portion of O‘ahu experiences very little rainfall, with a mean annual precipitation of approximately 24 inches per year, most of which occurs between October and March (Giambelluca et al., 2014).

According to the Western Regional Climate Center (WRCC), temperatures (degrees Fahrenheit) throughout the year in Waipahu range from the high 60s to the low 80s, with an average annual precipitation of approximately 24 inches per year (WRCC 2021).

### 4.2.2 Potential Impacts and Proposed Mitigation

Implementation of the proposed action is not expected to have an impact on the region’s climate; therefore, no mitigation measures are warranted. **Section 4.7, Natural Hazards**, addresses issues related to climate change.

## 4.3 Geology and Topography

### 4.3.1 Description

**Geology.** O‘ahu is the third largest island in the state of Hawai‘i with an approximate land area of 604 square miles. It is composed of the Wai‘anae volcanic range to the west and the Ko‘olau volcanic ranges to the east, both of which were formed by shield volcanoes. The Wai‘anae range is older than the Ko‘olau range. Both volcanic ranges erupted a type of rock known as basalt. Eruption and lava flow from the Ko‘olau range banked up against the older lava flows of the Wai‘anae coast to create a plateau; this plateau makes up Central O‘ahu and is where this project is located.

The Island of O‘ahu’s current shape is from erosion and sea-level change through the millions of years after its formation. O‘ahu is divided into four main areas—the Wai‘anae Range, the Ko‘olau Range, the Schofield Plateau, and the coastal plains. Waipahu is located along the northern shore of both the Middle Loch and West Loch of Pearl Harbor in the coastal plain and extends to the southern portion of the Schofield Plateau. The coastal plains north of Pearl Harbor where the project site is located, lie atop a broad coral reef platform from the late Pleistocene that developed during interglacial periods of warmer waters and higher relative sea levels.

**Topography.** Topography is the change in elevation over the surface of a land area. An area’s topography is influenced by many factors, including human activity, underlying geologic material, seismic activity, climatic conditions, and erosion. A discussion of topography typically encompasses a description of surface elevations, slopes, and distinct physiographic features (e.g., mountains), and their influence on human activities.

AAES campus slopes gradually from the northern corner of the school campus to the southern corner. Elevation ranges from approximately 80 feet above mean sea level (amsl) at the northern portion of the school campus to approximately 60 feet amsl at the southern portion. The project site is located along the southwestern corner and south-central portion of the school campus and is generally level, situated at elevations between 60 and 70 feet asml respectively (see **Figure 4-1, Topography**).

#### *4.3.2 Potential Impacts and Proposed Mitigation*

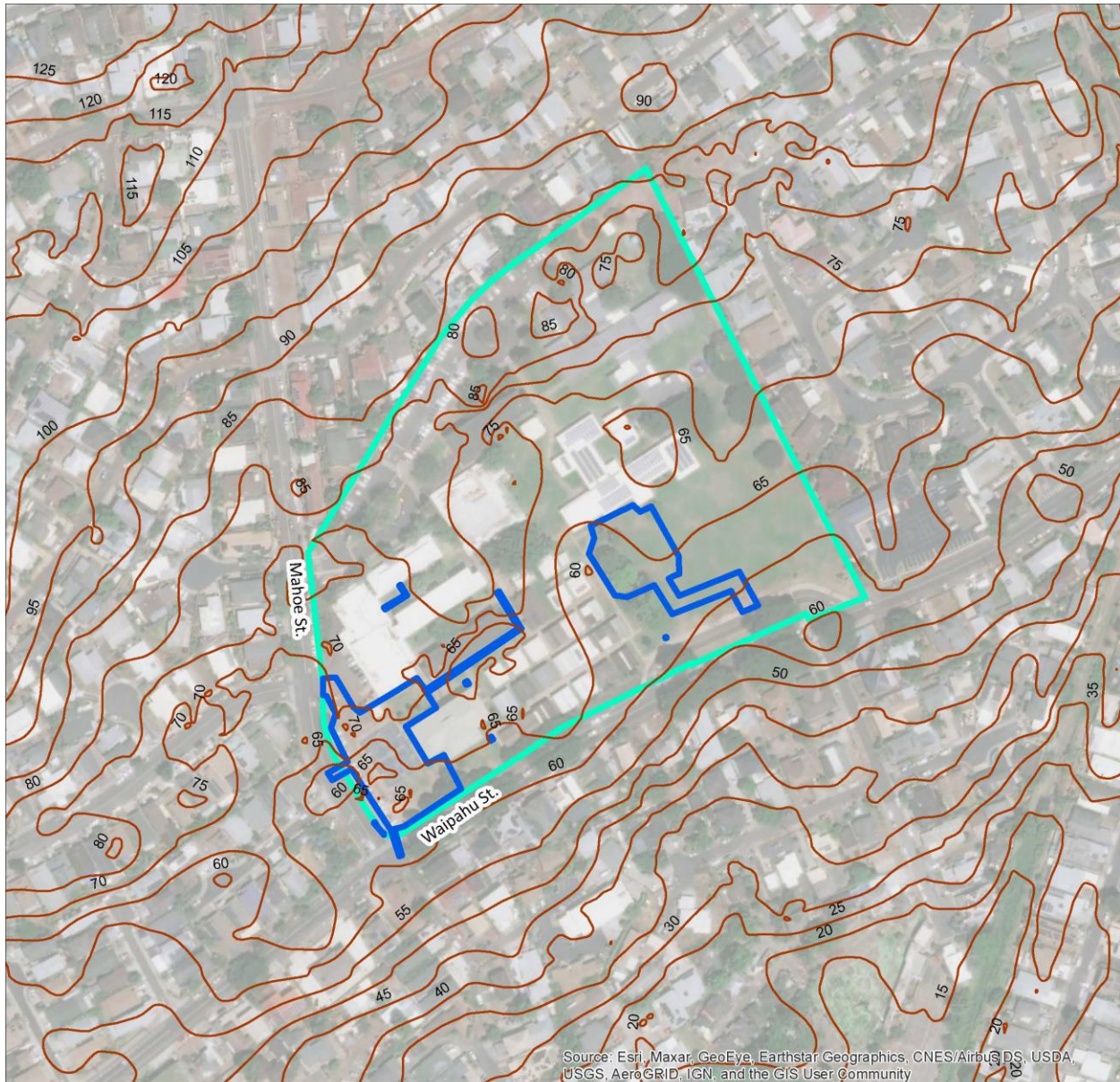
The proposed project is not expected to adversely impact the geology or topographic nature of the site because it is relatively level. The proposed project will be built upon the level and mostly-graded land where an existing play court is located at the southwestern corner of the school campus and a grassed area on the south-central portion of campus.

No substantial changes to the site’s topography will be made, although some excavation and grading will be required to accommodate the proposed facilities. Additionally, the project will require excavation for the construction of the new classroom building; however, this will have a negligible effect on the topography of the area.

The project is not anticipated to result in a significant impact on geology or topography as the proposed improvements do not involve the alteration of topographic conditions that adversely impact drainage patterns. During construction, BMPs will be implemented to prevent pollution and protect the environment. Additionally, the project will have an erosion and sedimentation control plan prepared to address all construction activities. A NPDES permit for construction storm water will be required for the project as the demolition, construction, and staging areas result in the disturbance of one (1) acre or greater of land area. No additional mitigation is recommended.

No secondary or cumulative adverse impacts to the area geology or topography are anticipated and no further mitigation is anticipated to be required.

**Figure 4-1. Topography**



<p>Pacific Ocean</p> <p>O'ahu</p> <p>Project Location</p>	<p><b>Legend</b></p> <ul style="list-style-type: none"> <li><span style="color: brown;">—</span> 5 Feet Contour</li> <li><span style="border: 2px solid blue; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> Project Location</li> <li><span style="border: 2px solid green; display: inline-block; width: 20px; height: 10px; margin-right: 5px;"></span> AAES</li> </ul>	<p><b>Topography</b></p> <p>August Ahrens Elementary School                  New Classroom Building</p> <p>Waipahu, O'ahu, Hawai'i</p> <p> R. M. TOWILL CORPORATION</p> <p>N                    0 125 250                    Feet                  1 inch = 250 feet</p>
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## 4.4 Soils and Potential for Hazardous Materials

### 4.4.1 Description

**Soils.** The term soil, in general, refers to unconsolidated materials overlying bedrock or other parent material. Soils play a critical role in both the natural and human environment. Soil structure, elasticity, strength, shrink-swell potential, and erodibility all determine the ability of the ground to support man-made structures and facilities. Soils typically are described in terms of their complex type, slope, physical characteristics, and relative compatibility or constraining properties with regard to particular construction activities and types of land use.

According to the U. S. Department of Agriculture (USDA, 2001) Soil Survey Geographic database and soil survey data gathered by Foote et al. (1972), the project area is located within Waipahu silty clay, 0 to 2 percent slopes (WzA) and Waipahu silty clay, 6 to 12 percent (WzC). See **Figure 4-2, Soil Types**.

Waipahu silty clay, 0 to 2 percent slopes (WzA) is described as follows:

This soil is nearly level and occurs on dissected terraces adjacent to the ocean. Permeability is moderately slow. Runoff is low or very slow, and the erosion hazards are none to slight. This soil is used for sugarcane and homesites. (Capability classification I if irrigated, IVc if nonirrigated; sugarcane group 1; pasture group 3).

Waipahu silty clay, 6 to 12 percent slopes (WzC) is described as follows:

On this soil, runoff is medium and the erosion hazard is moderate. This soil is used for sugarcane and homesites. (Capability classification IIIe if irrigated, IVe if nonirrigated; sugarcane group 1; pasture group 3).

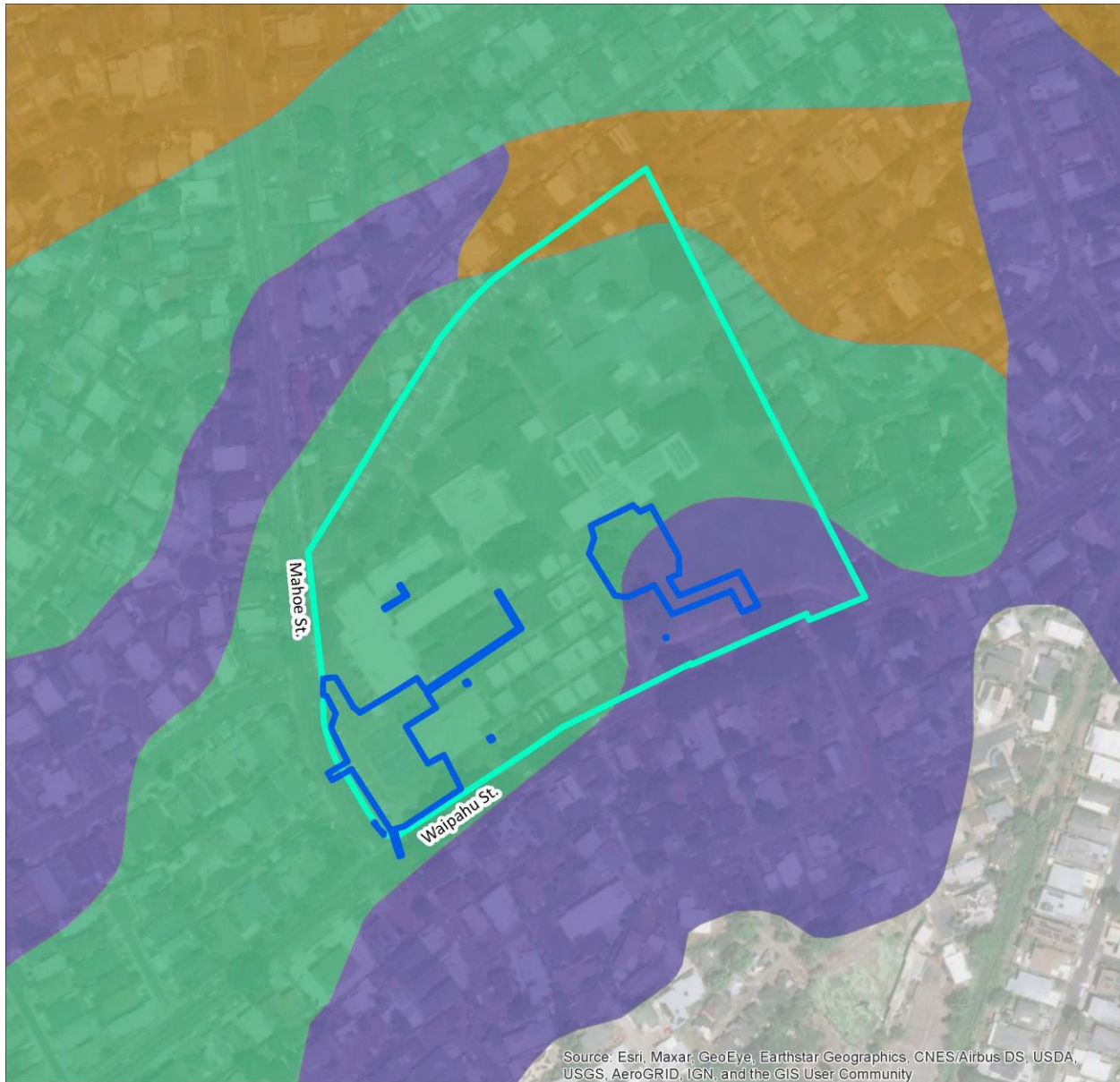
**Potential for Hazardous Materials.** Hazardous materials are defined as substances with strong physical properties of ignitability, corrosivity, reactivity, or toxicity, which may cause an increase in mortality, serious irreversible illness, incapacitating reversible illness, or pose a substantial threat to human health or the environment. Hazardous wastes are defined as any solid, liquid, contained gaseous, or semisolid waste, or any combination of wastes that pose a substantial present or potential hazard to human health or the environment. Examples of hazardous wastes include toxic or hazardous substances such as polychlorinated biphenyls, asbestos, pesticides, and radiation sources.

Issues associated with hazardous materials and wastes typically center on underground storage tanks, aboveground storage tanks, and the storage, transport, and use of pesticides and fuel. When such resources are improperly used, they can threaten the health and well-being of wildlife species, botanical habitats, soil systems, water resources, and people.

According to the State of Hawai‘i, Department of Health (DOH), Leaking Underground Storage Tank (LUST) list, there are no identified LUST facilities within the project area or in the immediate surroundings.



**Figure 4-2. Soil Types**



<p>Pacific Ocean</p> <p>O'ahu</p> <p>Project Location</p>	<p><b>Legend</b></p> <p> Project Location</p> <p> AAES</p> <p><b>Soil Types</b></p> <p> WzA</p> <p> WzB</p> <p> WzC</p>	<p><b>Soil Types</b></p> <p>August Ahrens Elementary School                  New Classroom Building</p> <p>Waipahu, O'ahu, Hawai'i</p> <p> R. M. TOWILL CORPORATION</p> <p>N 0 125 250                    Feet                  1 inch = 250 feet</p>
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The project area surrounds residential single-family homes and Leeward Church of Christ and Lanakila Baptist Church and School. Potential hazardous materials are not expected to be within the project area and the project is not expected to use hazardous materials.

#### *4.4.2 Potential Impacts and Proposed Mitigation*

Implementation of the proposed action would have less than significant short-term impacts on affected soils within the project area during the construction period. The proposed action includes the removal of the existing play court, soil excavation, and grading. Impacts on the soil include the potential for soil erosion and the generation of dust during grading and construction. Clearing and grubbing activities will temporarily disturb the soil retention values of the existing vegetation and expose soils to erosional forces. Some wind erosion of soils could occur without a proper watering and re-grassing program. Heavy rainfall could also cause erosion of soils within disturbed areas of land. BMPs to minimize impacts may include the following:

- Minimizing the time of construction.
- Retaining existing ground cover as long as possible.
- Constructing drainage control features early.
- Using temporary area sprinklers in non-active construction areas when ground cover is removed.
- Providing a water truck on-site during the construction period to provide for immediate sprinkling, as needed.
- Using temporary berms and cut-off ditches, where needed, for control of erosion.
- Watering graded areas when construction activity for each day has ceased.
- Grassing or planting all cut and fill slopes immediately after grading work has been completed.
- Installing silt fences, sediment traps, and diversion swales, where appropriate.
- Employee training on the proper use of BMPs.

Construction activities will comply with all applicable Federal, State, and County regulations and rules for erosion control. Grading activities for the project development will comply with the CCH grading ordinance. All construction activities will comply with the relevant provisions regulating Fugitive Dust set forth under HAR, Chapter 11-60.1-33. A NPDES permit for construction storm water will be required for the project as the demolition, construction, and staging areas result in the disturbance of one (1) acre or greater of land area.

Given the shallow depth of excavation for grading activities and implementation of soil-control BMPs, no significant impacts to soil are anticipated. All grading materials will be appropriately disposed of in accordance with State and CCH regulations or may be re-used as fill. The contractor will adhere to the DOH, Hazard Evaluation and Emergency Response guidelines for any potentially encountered hazardous contaminants or spills. Additionally, all applicable CCH and Prevention Control BMPs would be implemented to ensure that accidental releases are minimized and contained. Any hazardous waste that is generated during construction will be handled in

accordance with HAR, Chapters 11-260.1 to 11-279.1. No secondary or cumulative impacts related to soils or hazardous waste are expected from the implementation of the proposed project.

After construction, landscaping and drainage improvements will provide permanent post-construction pollution control measures and minimize the potential for soil erosion. No long-term impacts on soils are anticipated during the operation of the proposed action.

## 4.5 Water Resources and Hydrology

### 4.5.1 Surface Water

#### 4.5.1.1 Description

There are no existing sources of surface water, including streams or wetlands, located on the project site. In addition, the project area is not subject to contact with a proposed or approved water body segment designated on the State of Hawai‘i 303(d) List of Water Quality Limited Waters.

The nearest body of water is the estuary of Middle Loch Pearl Harbor approximately 0.75 miles southeast of the project site. DOH classifies Pearl Harbor as a “Class 2” inland water body, which are to be protected for recreational use, the support and propagation of aquatic life, agricultural and industrial water supplies, shipping, and navigation (HAR, Chapter 11-54-3, Classification of Water Uses). See **Figure 4-3, Surface Waters**.

The nearest waterways to the project site include the Waikele Stream located approximately 0.75 miles southwest of the project, and the Waipahu Canal located approximately 950 feet to the east (**Figure 4-3**). The Waipahu Canal drains into the Middle Loch of Pearl Harbor and the Waikele Stream drains into the West Loch of Pearl Harbor. The Waipahu Canal is not classified by DOH. Waikele Stream is classified by DOH as “Class 2” inland waters, which are to be protected for recreational purposes, the support and propagation of aquatic life, agricultural and industrial water supplies, shipping, and navigations (HAR, Chapter 11-54-3, Classification of Water Uses).

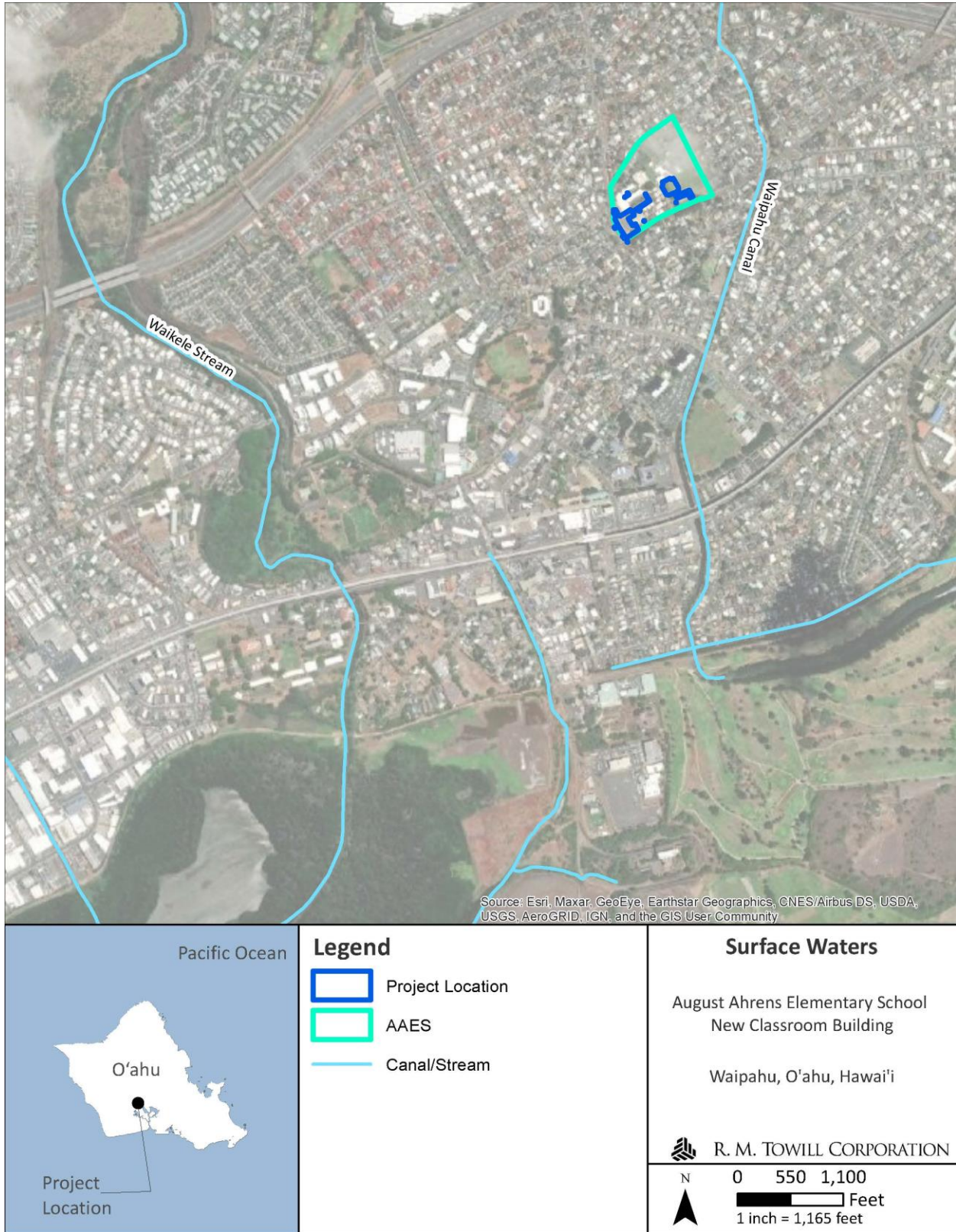
The general policies of the Hawai‘i DOH Clean Water Branch (CWB) are outlined below. These policies are as follows:

- It is the State’s position that all projects must reduce, reuse, and recycle water to protect, restore, and sustain water quality and beneficial uses of State waters.
- State policy encourages stormwater infiltration through Low Impact Development (LID) practices and discourages the treatment of stormwater as a waste product from impervious surfaces.

This EA recognizes stormwater as a potential source of irrigation, as a source of groundwater recharge and stream base flow, and as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters.



**Figure 4-3. Surface Waters**



In addition, the State has a general policy of water quality anti-degradation (HAR, §11-54- 1.1), which states that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. In the case that water quality exceeds the levels necessary to protect aquatic habitats, water quality may not be degraded without the approval of the director.

The Rules Relating to Water Quality, CCH, Administrative Rules, Title 20, Chapter 3, Amended September 17, 2018, specifies that regulated new development and redevelopment projects include LID Site Design Strategies, Source Control BMPs and Post-Construction Treatment Control BMPs to meet water quality criteria.

#### *4.5.1.2 Potential Impacts and Proposed Mitigation*

The proposed project will not impact any stream flows or channels. In addition, the proposed infrastructure will not come into contact with any 303(d) Water Quality Limited Waters, and thus will not burden waters that are already impaired.

During grading and construction, there is always the potential for soil erosion and runoff, and the generation of fugitive dust. All construction activities will comply with all applicable Federal, State, and CCH regulations and rules for erosion, sedimentation, and dust control. Contractors will use BMPs to minimize erosion during construction and planting, including watering loose soils during construction and planting ground cover over areas where construction has been completed. BMPs during construction may include the use of temporary stabilized construction ingress/egress, inlet protection, dust fence, and filter sock perimeter controls. Control measures will be in place and functional before construction activities begin and will be maintained throughout the duration of the construction period.

Additionally, BMPs for stormwater management will be implemented to minimize the impacts of the project on the area’s hydrology and existing drainage facilities, while maintaining on-site infiltration and preventing polluted runoff from storm events. These measures will address any direct impacts from construction and avoid any secondary or cumulative impacts from erosion or fugitive dust caused by construction. Following construction, exposed soils will have been built over, paved over, or landscaped to control erosion.

Construction activities pertaining to the project will comply with DOH regulations as set forth in Chapter 11-54, Water Quality Standards (WQS), and Chapter 11-55, Water Pollution Controls. Construction, grading, and drainage plans for the project will be submitted to appropriate agencies for review and approval. A NPDES permit for construction storm water may be required for the project as the demolition, construction, and staging areas result in the disturbance of one (1) acre or greater of land area.

Post-construction BMPs will include the installation of landscaping of non-pavement areas, an infiltration basin, and a vegetated swale within the southwestern portion of the AAES campus surrounding the new classroom building. Construction and permanent post-construction BMPs and LID measures will be designed, implemented, and maintained in compliance with the Administrative Rules, Title 20, Department of Planning and Permitting (DPP), Chapter 3 – Rules

Relating to Water Quality, effective August 16, 2017. Onsite drainage system improvements will be designed in accordance with DPP’s Storm Drainage Standards, dated August 2017.

No secondary or cumulative adverse impacts to the area's surface waters are anticipated and no further mitigation is anticipated to be required.

#### 4.5.2 *Groundwater*

##### 4.5.2.1 *Description*

The AAES and proposed project site are located in the Waipahu-Waiawa Aquifer System of the Peral Harbor Aquifer Sector. This aquifer sector area is the Honolulu BWS’s largest source of potable water, and the Waipahu-Waiawa Aquifer System Area is the primary source of water in the Central O‘ahu Watershed (Honolulu BWS, U.S. Army Corps of Engineers, and the CCH, Department of Environmental Services, 2007).

##### 4.5.2.2 *Potential Impacts and Proposed Mitigation*

No short- or long-term, secondary, or cumulative adverse impacts to groundwater resources are anticipated during the construction or operation of the proposed action or during the implementation of other past, present, and reasonably foreseeable future actions.

The protection of the state's underground water sources of drinking water and coastal waters will continue to be regulated through HAR, Title 11, establishing the administrative rules for the State DOH.

#### 4.6 *Wetlands*

##### 4.6.1 *Description*

Wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands play an integral role in the environment. They prevent erosion in the surrounding area through the presence of wetland-associated plants with root systems that hold soil in place. The plants also serve as a physical barrier and absorb energy from waves. Wetlands also provide a natural filtration system for runoff. Nutrients swept into the wetland from runoff are absorbed by plant roots and microorganisms that live in the soil, or stick to the soil particles themselves. Through this process, most of the nutrients and pollution in the water are absorbed and retained and are prevented from entering the ocean (EPA, 2016). Executive Order 11990, Protection of Wetlands, directs federal agencies to take action to minimize the destruction, loss, or degradation of wetlands on their properties and mandates the review of the impact of proposed actions on wetlands through NEPA.

No wetlands occur within or near the project site or the AAES campus. According to the U. S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (USFWS, 2021), the nearest wetlands include a Riverine habitat (classified as R4SBCx) located approximately 0.17 miles east of the project site; Riverine habitat (classified as R2UBH) located approximately 0.72 miles west

of the project site; Freshwater Pond habitat (classified as PUBHx) located approximately 0.73 miles west of the project site; Freshwater Emergent Wetland habitat (classified as PEM1/SS3C) located approximately 0.80 miles southwest of the project site; and Estuarine and Marine Deepwater habitat (classified as E1UBL) located approximately 0.27 miles south of the project site (see **Figure 4-4, Wetland Map**).

#### 4.6.2 Potential Impacts and Proposed Mitigation

No wetlands are located within the project area or would be impacted by the project.

During the construction, a BMPs plan and an Erosion Control Plan would be followed to prevent sediment and contaminants from impacting surface waters during construction, particularly during any in-stream work. BMPs would also be implemented to protect against inadvertent spills. A NPDES permit for construction storm water may be required for the project as the demolition, construction, and staging areas result in the disturbance of one (1) acre or greater of land area. All work proposed would adhere to regulatory requirements.

No direct, secondary, or cumulative adverse impacts to the area wetlands are anticipated and no further mitigation is anticipated to be required.

### 4.7 Natural Hazards

#### 4.7.1 Description

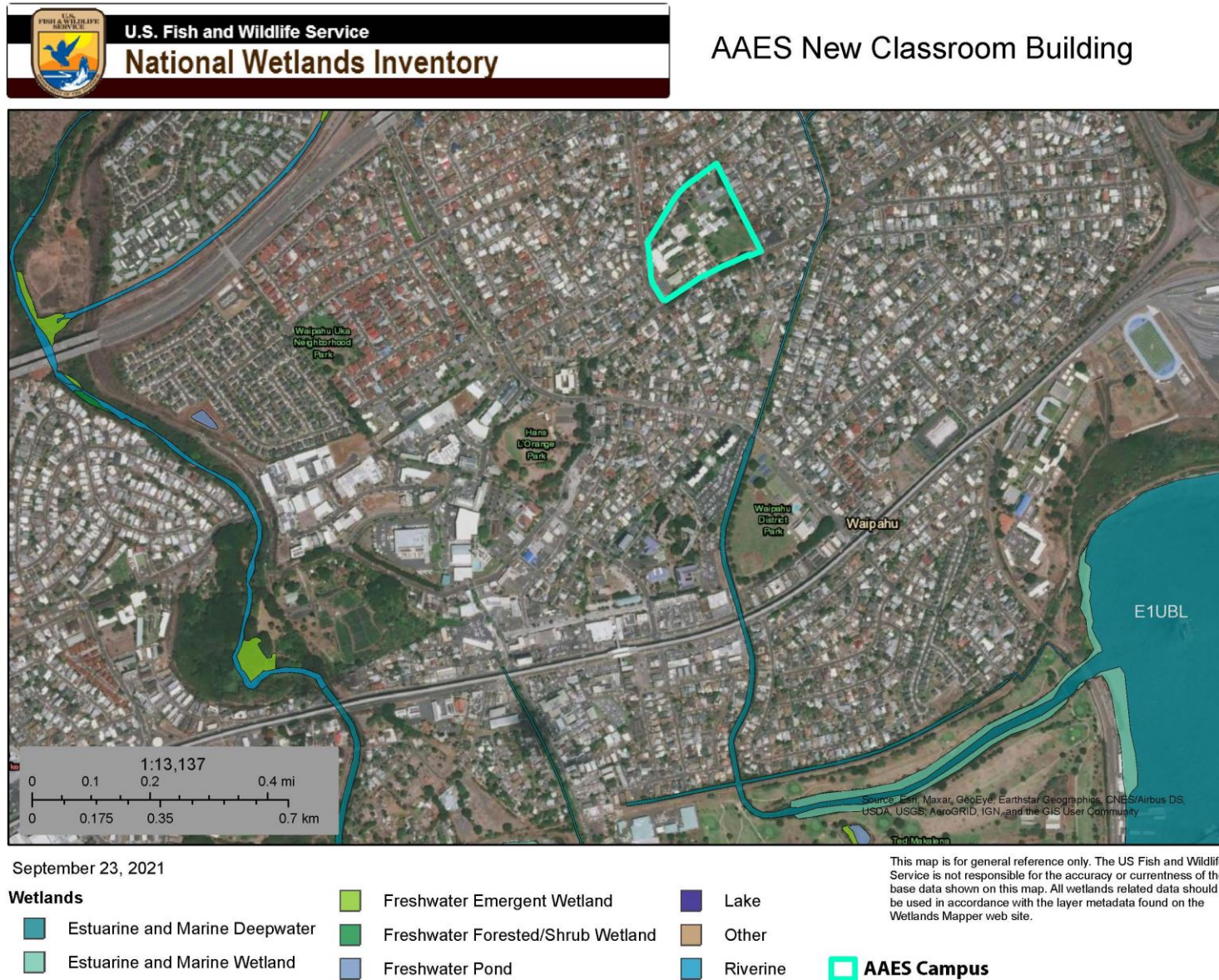
The island of O‘ahu is susceptible to potential natural hazards, such as hurricanes, tropical storms, high winds, flooding and tsunami inundation, climate change and sea level rise (SLR), earthquakes, wildfires, and volcanic activity. The island’s unique geographical challenges, aging infrastructure, and fragile logistics system require collaborative efforts to manage complex natural hazard-related issues.

**Hurricanes, Tropical Storms, and High Winds.** Hurricanes are characterized by strong tropical winds with sustained wind speeds greater than 74 mph and by widespread heavy rains in excess of six inches. Heavy rains may result in destructive flooding and strong winds can produce microbursts and mini-swirls (localized wind bursts that can reach speeds greater than 200 mph). Hurricanes are classified according to “Category”: Category 1 hurricanes have wind speeds between 74 to 95 mph; Category 2 hurricanes have winds between 96 to 110 mph; Category 3 hurricanes have wind speeds of 111 to 129 mph; Category 4 hurricanes have wind speeds from 130 to 156 mph; and, Category 5 hurricanes have wind speeds exceeding 157 mph. The weather associated with hurricanes and tropical storms can lead to storm surges, which is an abnormal rise of water generated by a storm.

Hurricanes occasionally approach the Hawaiian Islands, but rarely reach the islands with hurricane-force wind speeds. The first officially recorded hurricane in Hawaiian waters was Hurricane Hiki in August 1950. Since that time, five hurricanes have caused serious damage in Hawai‘i: Nina (1957), Dot (1959), ‘Iwa (1982), Estelle (1986), ‘Iniki (1992), and Lane (2018). It is difficult to predict when these natural occurrences may occur, but it is reasonable to expect that future events will take place and may increase in frequency due to global climate change.



Figure 4-4. Wetland Map



**Flooding and Tsunami Inundation.** According to the Flood Insurance Rate Maps (FIRM), prepared by Federal Emergency Management Agency (FEMA), the site is situated within the Flood Zone “D”, and does not fall within a special flood hazard area. Per the FEMA website (see **Figure 4-5, Flood Zones**):

The Zone D designation is used for areas where there are possible but undetermined flood hazards. In areas designated as Zone D, no analysis of flood hazards has been conducted. Flood insurance is optional and available, and the flood insurance rates for properties in Zone D are commensurate with the uncertainty of the flood risk.

The project is not located within the tsunami evacuation zone or extreme tsunami evacuation zone designated by the Hawai‘i State Civil Defense (see **Figure 4-6, Tsunami Zones**).

**Climate Change and Sea Level Rise.** Rapid anthropogenic climate change is a well-established fact within the scientific community. As a result of climate change temperatures are rising, stream flows are declining, rain intensity is increasing while total rainfall is declining, oceans are warming and acidifying, ice sheets and glaciers are melting, and sea levels are rising. Rising sea levels and increased intensity of storms will leave developed areas near coastal areas vulnerable to coastal erosion and sea water inundation. Chronic coastal flooding is occurring now, and over the next 30 to 70 years the flooding is expected to increase with SLR, impacting homes and businesses located near the shoreline.

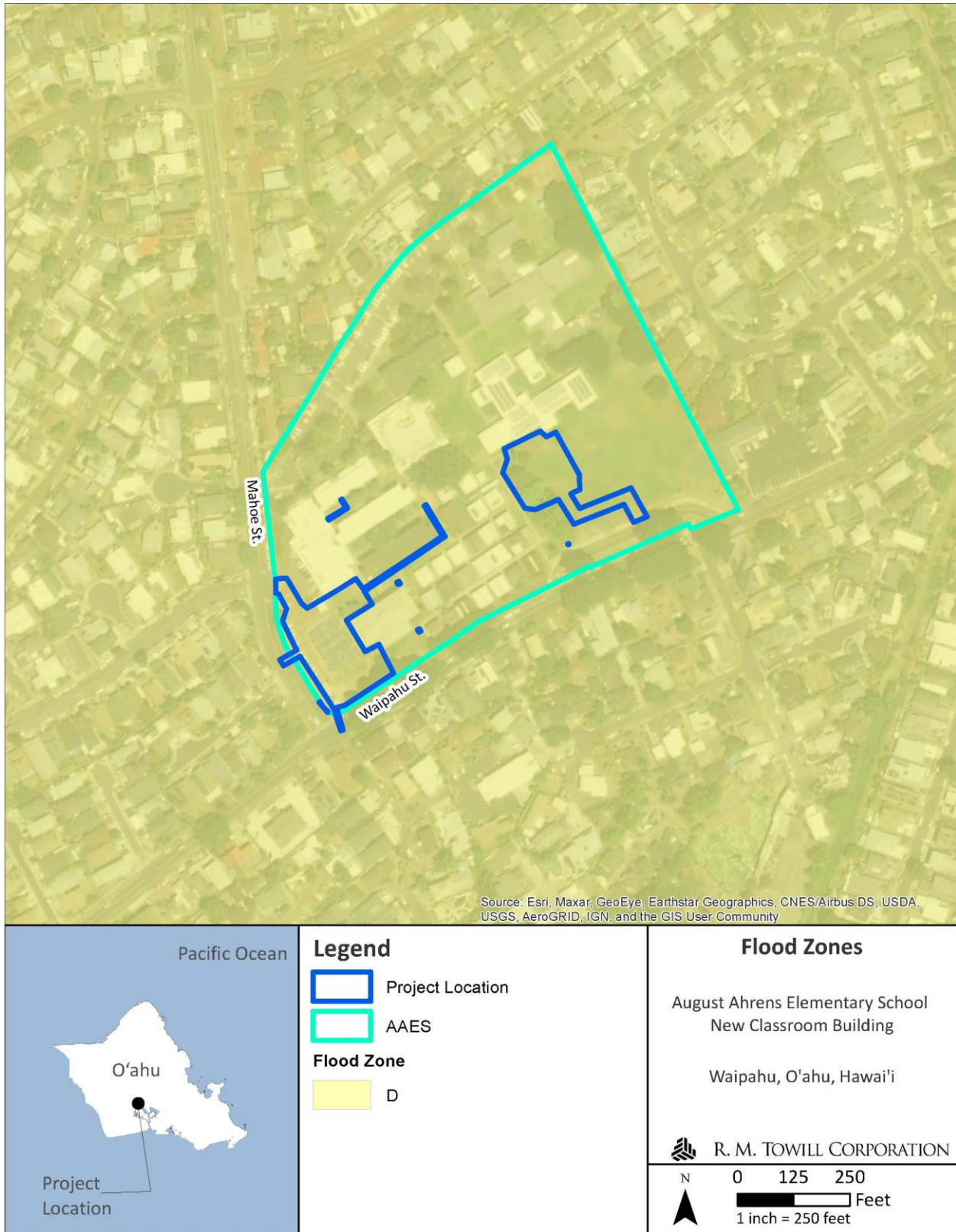
The Hawai‘i SLR Vulnerability and Adaptation Report (updated in 2018) by the Hawai‘i Climate Change Mitigation and Adaptation Commission provides a basis for recommendations on reducing exposure and increasing adaptability to the impacts of SLR resulting from human-generated greenhouse gas (GHG) emissions. Research within the report notes that the intensity and frequency of natural disasters have increased and provides projections of areas along the coast that are vulnerable to SLR. The Report recommends planning benchmarks of one (1) foot SLR for current or near term exposure, 3.2 SLR by mid- or the latter half of the century, and six (6) foot SLR by the end of the century. It is predicted by 2100 SLR will reach 3.2 feet, however, according to the Report, recent observations and projections indicate this magnitude of SLR may occur as soon as 2060. The planned project is not located along coastal areas and is outside of the 3.2 feet SLR (exposure area) and 6 feet SLR (passive flooding) scenario projections, as indicated in the Hawai‘i SLR Viewer (Hawai‘i Climate Change Mitigation and Adaptation Commission, 2017). See **Figure 4-7, Sea Level Rise Map**.

**Seismic Hazards.** Earthquakes in the Hawaiian Islands fall into three main categories: volcanic, tectonic, and mantle. The majority of earthquakes in Hawai‘i occur on and around the Island of Hawai‘i, especially in the southern districts of the island where the most active volcanoes in the State – Kilauea, Mauna Loa, and Lō‘ihi’ – are located. The last major earthquake felt on O‘ahu was the Honomu Earthquake in 1973, which resulted in minor cosmetic damage to structures.

The potential impacts of global climate change on earthquake probability are unknown. Secondary impacts of earthquakes could be magnified by climate change, as rising air temperatures facilitate soil breakdown and intense rainstorms cause greater erosion or greater susceptibility to infrastructure failure.

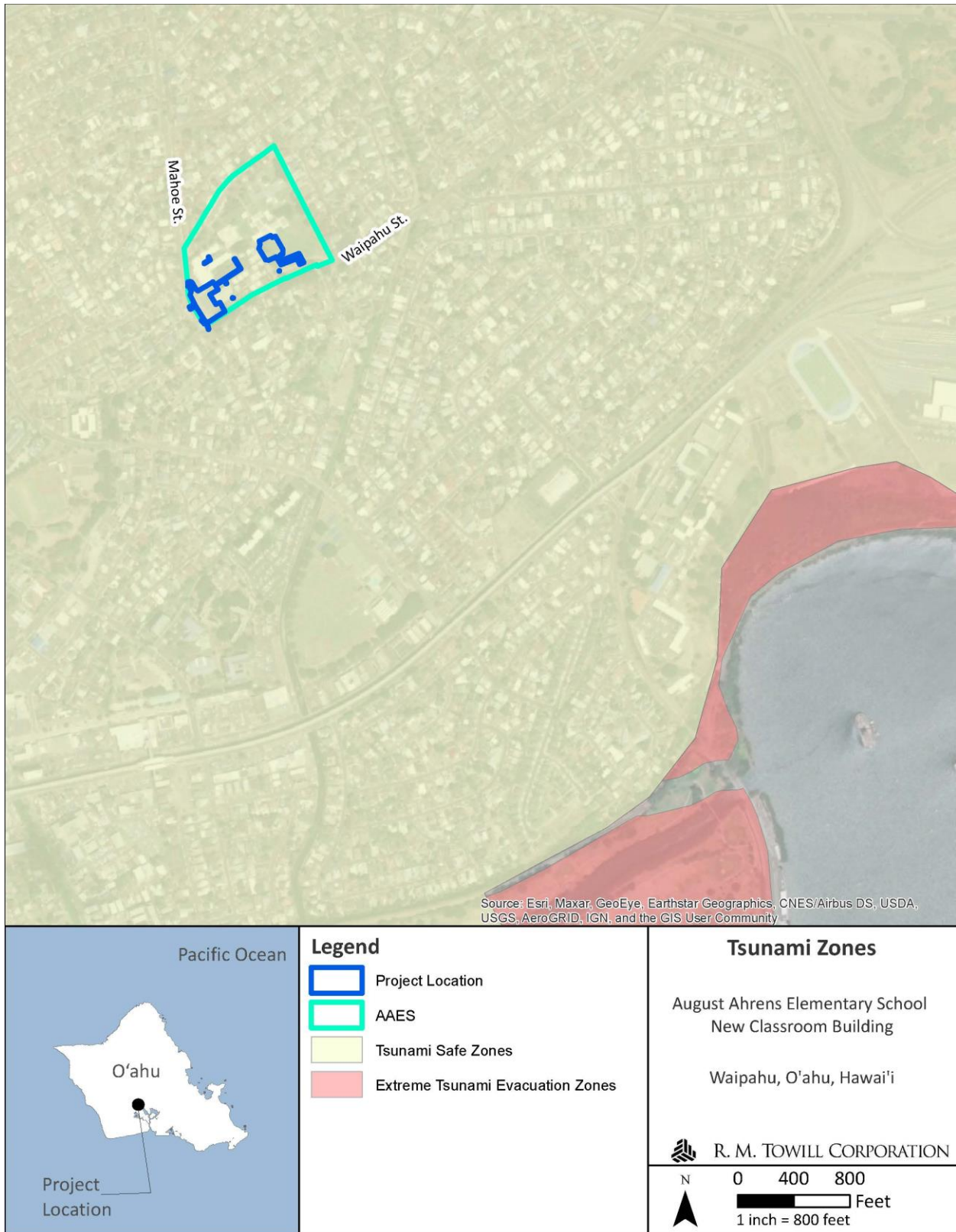


**Figure 4-5. Flood Zones**

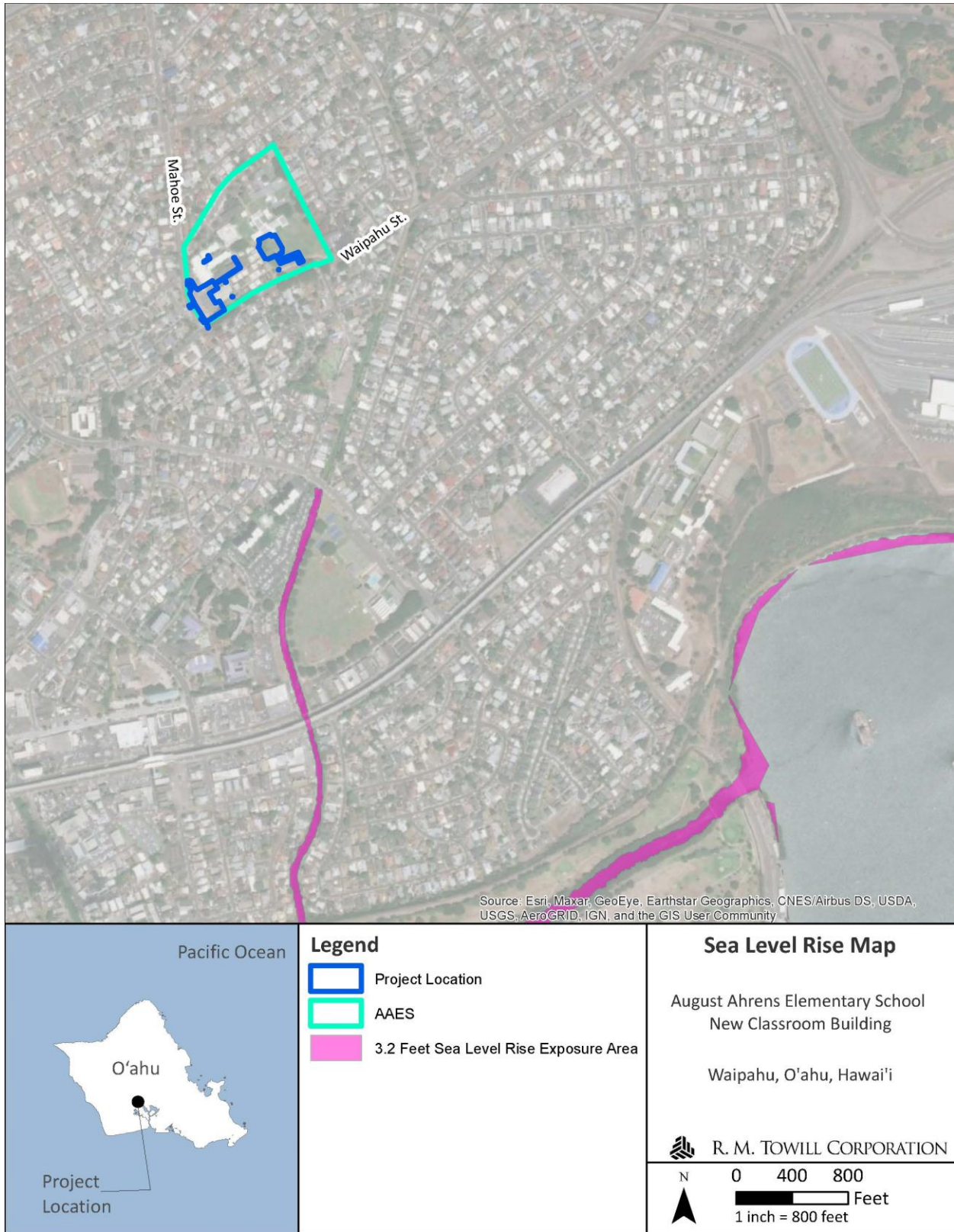




**Figure 4-6. Tsunami Zones**



**Figure 4-7. Sea Level Rise Map**



**Wildfires.** The Hawaiian Islands are vulnerable to wildland fires, especially during the summer months from prolonged drought and/or high winds. The greatest danger of fire is where developed, urbanized areas border densely vegetated areas. Overgrown vegetation close to homes, pockets of open space within subdivisions, and an increase of non-native high fire-intensity plants around developed areas pose increasing threats to commercial, community, environmental, and residential resources. A great majority of wildfires are human-caused (intentionally caused or by negligence) and often start along roadsides. Wildfires can and do also occur naturally.

#### 4.7.2 *Potential Impacts and Proposed Mitigation*

The proposed action will not increase risks to human health or result in property damage due to natural hazards, as discussed below.

**Hurricanes, Tropical Storms, and High Winds.** The effects of past storm events have caused minimal to no damage to the project area. The future threat of hurricanes to the island cannot be calculated, although the frequency of hurricane threats may increase with climate change and warming ocean waters, and the resulting rise in sea level. While waves generated by these storm events can cause coastal erosion and flooding, the project area is not located adjacent to coastal areas. If a hurricane, tropical storm, or high winds occur during construction, activities would cease, and equipment will be secured in work areas. The construction of the project will be designed to meet all applicable building code requirements for the new classroom building.

**Flooding and Tsunami Inundation.** Tsunami conditions impose no constraints on the planned project. The project area is located in Flood Zone D. Flood zone D is defined as an undetermined flood hazard area. Typically, the CCH requires a flood determination study for projects located in Zone D if there is an adjacent stream or channel; however, the project is not adjacent to a stream or channel and therefore is not subject to any regulations.

**Climate Change and Sea Level Rise.** Climate change and SLR, and associated coastal impacts are a concern for the State of Hawai‘i and the world, requiring a global response. Construction of the project would not result in or constitute a source of impact to the climate of the region. The project area is furthermore located outside of a modeled 3.2 feet SLR (exposure area) and 6 feet SLR (passive flooding) inundation zones as defined by the SLR Exposure Area.

The project design will include LID improvements and BMPs where practical and feasible to improve surface and ground water quality and manage storm water runoff. The proposed project will maximize previous and landscaped areas within the site to the extent practicable. An infiltration basin and vegetated swale will be utilized for LID. As a result, storm runoff will be detained onsite to attenuate the peak runoff flow.

The project will not require substantial energy consumption or emit substantial GHGs. Construction of the project will result in a moderate amount of energy consumed, relative to other projects. The project will implement energy-efficient fixtures as feasible to reduce overall energy consumption. Overall, the project is not expected to have an impact on the climate or contribute to climate change or SLR, as the proposed improvements will not lead to a substantial increase in GHG emissions. No additional mitigation is recommended.

**Seismic Hazards.** Construction of the planned project is not expected to be adversely affected by seismic activity as the proposed new classroom building would be constructed for a long-term design life in accordance with the Uniform and International Building Codes and other County, State, and Federal standards, which provide minimum design criteria to address the potential for damage due to seismic disturbances.

**Wildfires.** The AAES campus is surrounded by developed land comprised of primarily residential homes. The construction and long-term operation of the planned project are not expected to be adversely affected by wildfires. No adverse impacts are expected, and no mitigation measures are required.

#### 4.8 *Flora and Fauna*

Biological resources include native or naturalized plants and animals and the habitats in which they occur. Sensitive biological resources are defined as those plants and animal species listed as threatened or endangered or proposed as such, by the USFWS, National Marine Fisheries Service (NMFS), State of Hawai‘i Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW), or Division of Aquatic Resources.

The biological communities of potential concern in the project area are floral and faunal organisms. AECOS Inc. conducted various environmental surveys of the project site which were documented in a January 2022 draft report entitled *A natural resources assessment for August Ahrens Elementary School in Waipahu, O‘ahu*. The report is included in **Appendix A** to the EA. A summary of the report findings is provided below.

##### 4.8.1 *Terrestrial Flora*

###### 4.8.1.1 *Description*

According to the January 2022 AECOS report (**Appendix A**), the project area consists of developed and landscaped terrain. The dominant vegetation is mowed lawns with scattered trees. Shrubs and herbaceous plants are present around existing school buildings and along walkways.

The AECOS survey of plants across the project site yielded 46 identified species of flowering plants (no ferns or conifers or their allies were found; see **Table 4-1**). An additional 7 trees and 1 shrub, all of which are unusual ornamentals, were also observed during the survey; these ornamentals will be identified in the AECOS final report and included in the Final EA. Of the total number of species, only one (2%) is a native: *koki‘o ke‘oke‘o* (*Hibiscus arnottianus*). This decorative shrub is planted in clusters as part of the landscaping. In as much as the lawn areas are regularly mowed, we expect that more grass species are present on the campus but are not identifiable without flowering structures.



**Table 4-1. List of Plants and Their Relative Abundances at the Project Site**

Species listed by family	Common name	Status	Abundance	Notes
<i>FLOWERING PLANTS</i>				
MONOCOTS				
ARECACEAE				
<i>Dypsis lutescens</i> (H. Wendl.) Beentje & Dransfield	golden-fruited palm	Orn	U	
<i>Pritchardia pacifica</i> Seeman	Fiji fan palm	Orn	R	
<i>Roystonea</i> sp.	royal palm, juv.	Orn	R	<2>
ASPARAGACEAE				
<i>Cordyline fruticosa</i> cult.	ti	Orn	U	
<i>Dracaena marginata</i> Lam.	money tree	Orn	U	
<i>Sansevieria trifasciata</i> Prain	bowstring-hemp	Nat?	R	
COMMELINACEAE				
<i>Tradescantia zebrina</i> Bosse	wandering-jew	Orn	U	
CYPERACEAE				
<i>Cyperus gracilis</i> R. Br.	McCoy grass	Nat	O	
HELICONIACEAE				
<i>Heliconia</i> sp.	---	Orn	R	<2>
LILIACEAE				
Indet.	---	Orn	R	<2>
POACEAE				
<i>Bothriochloa pertusa</i> (L.) A. Camus	pitted beardgrass	Nat	A	
<i>Chloris barbata</i> (L.) Sw.	swollen fingergrass	Nat	U	
<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass	Nat	A	
<i>Digitaria insularis</i> (L.) Mez. ex Ekman	sourgrass	Nat	R	
<i>Eleusine indica</i> (L.) Gaertn.	beach wiregrass	Nat	U	
<i>Eragrostis pectinacea</i> (Michx.) Nees	Carolina lovegrass	Nat	A	
<i>Urochloa distachya</i> (L.) T.Q. Nguyen	---	Nat	O	
Indet.	---	Nat	U	<2>
STRELITZIACEAE				
<i>Ravenala madagascariensis</i> Sonnerat	traveler’s tree	Nat	R	
ZINGIBERACEAE				
<i>Alpinia purpurata</i> (Viel.) K. Schum.	red ginger	Nat	R	
<i>FLOWERING PLANTS</i>				
EUDICOTS				
ACANTHACEAE				
<i>Barleria repens</i> C. Nees	pink ruellia	Nat	U	
APOCYNACEAE				
<i>Plumeria pudica</i> Jacq.	fiddle-leaf plumeria	Orn	R	
ARALIACEAE				
<i>Polyscias guilfoylei</i> (W. Bull) L.H. Bailey	panax	Orn	U	
ASTERACEAE (COMPOSITAE)				
<i>Calyptocarpus vialis</i> Less.	---	Nat	C	
<i>Synedrella nodiflora</i> (L.) Gaertn.	nodeweed	Nat	R	
<i>Tridax procumbens</i> L.	coat buttons	Nat	U	
BERBERIDACEAE				
<i>Nandina domestica</i> Thunb.	heavenly-bamboo	Orn	U	

BIGNONIACEAE					
	<i>Crescentia cujete</i> L.	calabash tree	Orn	R	<1><2>
	<i>Jacaranda mimosifolia</i> D. Don	jacaranda	Orn	R	
	<i>Kigelia africana</i> (Lam.) Benth.	sausage tree	Orn	R	<1>
	<i>Parmentiera cereifera</i> Seeman	candle tree	Orn	R	<1>
	<i>Tabebuia heterophylla</i> (A. P. de Cand.) Britton	pink tecoma	Orn	U	
EUPHORBIACEAE					
	<i>Codiaeum variegatum</i> (L.) Blume	croton	Orn	R	
FABACEAE					
	<i>Albizia saman</i> F. Muell.	monkeypod	Nat	R	
	<i>Arachis glabrata</i> Benth.	rhizoma peanut	Orn	R	
	<i>Indigofera hendecaphyla</i> (Forssk.)	creeping indigo	Nat	C	
	<i>Peltocarpus pterocarpum</i> (A. P. de Can.) K. Heyne	yellow poinciana	Orn	R	<1>
MALVACEAE					
	<i>Hibiscus arnottianus</i> A. Gray	<i>koki'o ke'oke'o</i>	<b>End</b>	U	
MALVACEAE (cont.)					
	<i>Malvastrum coromandelianum</i> (L.) Garck	false mallow	Nat	R	
	<i>Sida ciliaris</i> L.	---	Nat	A	
MORINGACEAE					
	<i>Moringa oleifera</i> Lam.	<i>malúnggay</i>	Orn	O	
NYCTAGINACEAE					
	<i>Boerhavia coccinea</i> Mill.	false <i>alena</i>	Nat	C	
	<i>Bougainvillea</i> cultivar	bougainvillea	Orn	U	
PLANTAGINACEAE					
	<i>Plantago major</i> L.	common plantain	Nat	U	
PORTULACACEAE					
	<i>Portulacaria afra</i> (L.) N. Jacq.	miniature jade plant	Orn	U	
RUBIACEAE					
	<i>Gardenia taitensis</i> A. P. de Candolle	Tahitian gardenia	Orn	R	
VERBENACEAE					
	<i>Duranta erecta</i> L.	golden dewdrop	Orn	U	

STATUS = distributional status for the Hawaiian Islands:

**End** = endemic; native to Hawaii and found naturally nowhere else.

Nat = naturalized, exotic, plant introduced to the Hawaiian Islands since The arrival of the Cook Expedition in 1778 and well-established outside of cultivation.

Orn = exotic, ornamental or cultivated; plant not naturalized (established outside of cultivation).

ABUNDANCE = occurrence ratings for plants by area:

R - Rare seen in only one or perhaps two locations.

U - Uncommon- seen at most in several locations

O - Occasional seen with some regularity

C - Common observed numerous times during the survey

A - Abundant found in large numbers; may be locally dominant.

NOTE:

<1> - Tree close to proposed new play court.

<2> - Plant observed lacking fruit or flowers; identification is uncertain.

The January 2022 AECOS report notes that considerable effort has gone into landscaping and continued maintenance of the AAES campus. A number of unusual trees have been planted, all of which are ornamentals (as opposed to native species). No plants listed as threatened or endangered (HDLNR, 1998; USFWS, nd) were observed in the survey. The proposed new play court will be located in an area where several ornamental trees are located, however, none is protected by state or federal statute. Additionally, no trees listed by the CCH Exceptional Tree Program occur on the AAES campus (CCH, 2022).

The AAES campus lacks any aquatic environments, wetlands, or habitats suitable for aquatic flora. Neither federal jurisdictional waters nor designated critical habitat are present.

#### 4.8.1.2 Potential Impacts and Proposed Mitigation

The project involves the removal of four (4) trees to accommodate the new classroom building and seven (7) trees to accommodate the new play court. See **Figure 2-4, Existing Condition and Demolition Plan** for the location of the eleven (11) trees to be removed. None of the trees to be removed are protected by state or federal statutes or listed by the CCH Exceptional Tree Program (CCH, 2022). A tree replacement/relocation plan will be developed by the DOE. The project landscape plan will comply with HAR §15-217-56, Landscape and recreation space.

No threatened or endangered floral species or critical habitat for any threatened or endangered flora species occur within the project area, and terrestrial floral species that are known to occur in the project area are mostly widespread common species.

The proposed action will not result in significant adverse primary, secondary or cumulative impacts on existing flora resources within and in the vicinity of the project area, and no additional mitigation is recommended.

### 4.8.2 Terrestrial Fauna

#### 4.8.2.1 Description

According to the January 2022 AECOS report (**Appendix A**), a total of 187 individual birds of 18 species, representing 13 separate families, were recorded during the site survey (**Table 4-2**). One species recorded Pacific Golden-Plover (*Pluvialis fulva*) is an indigenous migratory shorebird species. The remaining species are non-native (alien) to the Hawaiian Islands.

Avian diversity and densities were consistent with the urban residential land-use and field and landscaped ornamental habitat at the project site. The three most abundant species – Common Mynah (*Acridotheres tristis*), Rose-ringed Parakeet (*Psittacula krameri*), and Zebra Dove (*Geopelia striata*) – accounted for 44% of all birds recorded during station counts.



**Table 4-2. List of Avian Species and Their Relative Abundances at the Project Site**

Common Name	Species	ORDER FAMILY	Status	RA
		PHASIANIDAE - Pheasants & Partridges Phasianinae - Pheasants & Allies		
Domestic Chicken	<i>Gallus gallus</i>		NN	4.5
		COLUMBIFORMES COLUMBIDAE - Pigeons & Doves		
Rock Pigeon	<i>Columba livia</i>		NN	3.5
Spotted Dove	<i>Streptopelia chinensis</i>		NN	6.5
Zebra Dove	<i>Geopelia striata</i>		NN	8
		CHARADRIIFORMES CHARADRIIDAE - Lapwings & Plovers Charadriinae - Plovers		
Pacific Golden-Plover	<i>Pluvialis fulva</i>		<b>IM</b>	2
		PELICANIFORMES ARDEIDAE		
Cattle Egret	<i>Bubulcus ibis</i>		NN	3
		PSITTACIFORMES PSITTACULIDAE		
Rose-ringed Parakeet	<i>Psittacula krameri</i>		NN	10
		PASSERIFORMES PYCNONOTIDAE - Bulbuls		
Red-vented Bulbul	<i>Pycnonotus cafer</i>		NN	7
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>		NN	†
		ZOSTEROPIDAE - White-eyes		
Warbling White-eye	<i>Zosterops japonicus</i>		NN	6.5
		TIMALIIDAE - Mockingbirds & Thrashers		
Red-billed Leiothrix	<i>Leiothrix lutea</i>		NN	1.5
		STURNIDAE - Starlings		
Common Myna	<i>Acridotheres tristis</i>		NN	23
		MUSICAPIDAE - Old World		
Flycatchers White-rumped Shama	<i>Copsychus malabaricus</i>			
		ESTRILDIDAE – Estrildid Finches		
Common Waxbill	<i>Estrilda astrild</i>		NN	1.5
Java Sparrow	<i>Padda oryzivora</i>		NN	5
		PASSERIDAE - sparrows		
House Sparrow	<i>Passer domesticus</i>		NN	
		FRINGILLIDAE - Fringilline and Carduline Finches & Allies Carduelinae - Carduline Finches and Hawaiian Honeycreepers		
House Finch	<i>Haemorhous mexicanus</i>		NN	2
		THRAUPIDAE – Tanagers Thraupinae - Core Tanagers		
Red-crested Cardinal	<i>Paroaria coronate</i>		NN	†
Saffron finch	<i>Sicalis flaveola</i>		NN	2

Status:

**IM** = Indigenous migratory species

**NN** = Alien - naturalized, non-native species (introduced).

Relative Abundance (RA): Species count / number of point-count stations (n=2).

† = Incidental observation, observed beyond the timed count.

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With the exception of Pacific Golden-Plover, all avian species recorded at the project site are non-native species naturalized in the Hawaiian Islands. None of the species recorded have special protections under state or federal endangered species statutes (listed as threatened or endangered; HDLNR, 1998, 2015; USFWS, nd).

Protected Hawaiian waterbirds include the Hawaiian Duck or *koloa maoli* (*Anas wyvilliana*), Hawaiian Coot (*Fulica alai*), the Hawaiian endemic subspecies of Common Gallinule or ‘*alae ‘ula* (*Gallinula galeata sandvicensis*), and the Hawaiian endemic subspecies of Black-necked Stilt or *ae‘o* (*Himantopus mexicanus knudseni*). These waterbird species are protected under both state and federal endangered species statutes (HDLNR, 2015; USFWS, nd). Hawaiian Duck have populations on all major Hawaiian Islands but hybridize extensively with non- native Mallard (*Anas platyrhynchos*), particularly on O‘ahu and Maui (Engilis et al. 2002; Uyehara et al. 2007; Fowler et al. 2009; VanderWerf, 2012). Hybrid ducks are not protected by these statutes.

The project site at AAES is located less than 1.25 miles from coastal waterbird habitat at Pearl Harbor National Wildlife Refuge and Pouhala Marsh Wildlife Sanctuary, and less than 500 feet from Waipahu Canal and a watercress farm. While no protected Hawaiian waterbirds were observed during the site survey, and no waterbird habitat is present at the project site, it is possible that a protected Hawaiian waterbird may overfly, forage, or otherwise utilize the project site on rare occasions. *Ae‘o* are known to forage in a range of habitats, including landscaped lawns.

Protected night-flying seabirds include Hawaiian Petrel (*Pterodroma sandwichensis*), Wedge-tailed Shearwater (*Ardenna pacifica*), Newell’s Shearwater (*Puffinus newelli*), and Band-rumped Storm-petrel (*Oceanodroma castro*). Hawaiian Petrel, Newell’s Shearwater, and Band-rumped Storm-petrel nests in high-elevation mountainous habitats, and Hawaiian Petrel and Newell’s Shearwater have recently been detected on the Island of O‘ahu (Young et al. 2019). In the summer and fall, nocturnally flying seabirds (especially fledglings) transiting to the sea from inland locations can become disoriented by exterior lighting. When disoriented, seabirds can collide with man-made structures or the ground. If not killed outright, dazed or injured birds are easy targets of opportunity for feral mammals (Podolsky et al., 1998; Ainley et al., 2001; Day et al., 2003). The primary cause of mortality in both Hawaiian Petrel and Newell’s Shearwater is predation by alien mammalian species at the nesting colonies (Ainley et al., 2001). Collision with man-made structures is considered the second most significant cause of mortality of these seabirds in Hawai‘i.

White Tern (*Gygis alba*), or *manu o Kū*, is an indigenous seabird listed as threatened under the State of Hawai‘i endangered species statute, HRS 195D (HDLNR, 2015). No individuals of White Tern were observed during this survey. In the main Hawaiian Islands, the majority of the White Tern population is found in central urban and suburban Honolulu, with a known breeding range extending from Niu Valley to Aloha Tower (isolated pairs occur at Hickam Air Force Base;

VanderWerf and Downs, 2018). White Tern nesting in the project area is doubtful, as the project is beyond this species’ known range.

The Hawaiian endemic sub-species of Short-eared Owl or *pueo* (*Asio flammeus sandwichensis*) is state-listed as endangered on O‘ahu (HDLNR, 2015). Short-eared Owl nests on the ground and is thus susceptible to mammalian predation. The species is not habitat-restricted but is increasingly scarce on O‘ahu. No evidence of Short-eared Owl was found at the project site, and preferable feeding and nesting habitat is not present on the AAES school grounds.

According to the January 2022 AECOS report (**Appendix A**), no mammals were observed during the AAES site survey, although it is likely that domestic dog (*Canis lupis familiaris*), domestic cat (*Felis catus*), small Indian mongoose (*Herpestes javanicus*), and any of the four alien Muridae (rats and mice) currently established on the Island of O‘ahu utilize this area to some extent.

While unlikely, it is possible that the endemic Hawaiian hoary bat or ‘*ōpe‘ape‘a* (*Lasiurus cinereus semotus*) utilizes resources in the project vicinity. The Hawaiian hoary bat is a solitary and rare species and is potentially widespread throughout the Main Hawaiian Islands. The principal potential impact of the project on bats would occur when site vegetation is cleared and grubbed. This species of bat uses multiple roosts within a home territory (Bonaccorso, 2015), so the disturbance associated with the removal of any particular tree would be minimal. An exception would be during the pupping season, if a female bat carrying a pup is unable to rapidly vacate a roost tree that is being felled, or if a young unattended pup is unable to flee a tree that is being felled.

#### 4.8.2.2 Potential Impacts and Proposed Mitigation

Implementation of the proposed action would result in less than significant short-term impacts on faunal resources within the project area during the construction period. The area required for construction activities may result in temporary disturbance of habitat for terrestrial fauna in the project vicinity. However, terrestrial species known to occur in the project area are mostly widespread common species and would be expected to return to the project area following the completion of construction activities.

The AAES site does not currently provide desirable habitat to native, threatened, or endangered terrestrial faunal species and no threatened or endangered species were observed within the project area. However, it is possible that species such as protected Hawaiian hoary bat, Hawaiian waterbirds, and night-flying seabirds may overfly, forage, or otherwise utilize the project site on rare occasions. To minimize impacts on these species the following mitigation measures will be implemented:

- To minimize the potential for impacts to Hawaiian hoary bat or ‘*ōpe‘ape‘a*, woody plants greater than 15 feet tall will not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15), and the use of barbed wire to top fence lines that could entangle flying bats will be avoided.

- To minimize the potential for impacts to protected Hawaiian waterbirds all construction activity will cease if an endangered waterbird enters an active construction area and work will only resume after the individual leaves the area on its own volition.
- To minimize the potential for impacts to protected night-flying seabirds construction activities will occur during daylight hours and all outdoor lighting installed will be fully “dark sky compliant” (HDLNR-DOFAW, 2016).

With the implementation of the measure above, no negative adverse impacts on native fauna species or their habitat are expected from the proposed action. Federally delineated critical habitat is not present in the project area. No equivalent habitat designation exists under state law.

The proposed action will not result in significant adverse primary, secondary or cumulative impacts to existing terrestrial faunal resources within and in the vicinity of the project area, and no additional mitigation is recommended.

## 4.9 Noise Conditions

### 4.9.1 Description

Noise is generally defined as an unwanted sound. Noise can be any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise annoying. Human responses to noise vary depending on the type and characteristics of the noise, the distance between the noise source and receptor, receptor sensitivity, and time of day.

Determination of noise levels is based on: 1) sound pressure level generated (decibel [dB] scale); 2) distance of the listener from the source of the noise; 3) attenuating and propagating effects of the medium between the source and the listener; and 4) period of exposure.

An A-weighted sound level, measured in dBA, is one measurement of noise. The human ear can perceive sound over a range of frequencies, which varies for individuals. In using the A-weighted scale for measurement, only the frequencies heard by most listeners are considered. This gives a more accurate representation of the perception of noise. The noise measure in a residential area, similar to conditions within the project area, is estimated at approximately 70 dBA. Normal conversational speech at a distance of five to ten feet is approximately 70 dBA. The dBA scale is logarithmic, so, for example, sound at 90 dBA would be perceived to be twice as loud as sound at 80 dBA.

Passenger vehicles, motorcycles, and trucks use the roads in the vicinity of the project area. Noise levels generated by vehicles vary based on several factors including vehicle type, speed, and level of maintenance. The intensity of noise is attenuated with distance. Some estimates of noise levels from vehicles are listed in **Table 4-3, Typical Noise Sources**.

**Table 4-3. Typical Noise Sources**

Source	Distance (ft)	Noise Level (dBA)
Automobile, 40 mph	50	72
Automobile Horn	10	95
Light Automobile Traffic	100	50
Truck, 40 mph	50	84
Heavy Truck or Motorcycle	25	90

mph = miles per hour

Source: Cavanaugh and Tocci, 1998

State of Hawai‘i HAR, Chapter 11-46 Community Noise Control sets permissible noise levels to provide for the prevention, control, and abatement of noise pollution in the State. The regulation creates noise districts based on land use that dictates acceptable noise levels. The project area is located within areas identified as residential use - the closest residences are located across Mahoe Street and Waipahu Street from the project site. Therefore, the project area is in a Class A zoning district, as defined by HAR 11-46 as “all areas equivalent to lands zoned residential, conservation, preservation, public space, open space, or similar type.” The maximum permissible sound level in a Class A district is 55 dBA from 7:00 am- 10:00 pm and 45 dBA from 10:00 pm-7:00 am (DOH, 1969).

The Environmental Protection Agency (EPA) has identified a range of yearly day-night sound level (DNL) standards that are sufficient to protect public health and welfare from the effects of environmental noise (EPA, 1977). The EPA has established a goal to reduce exterior environmental noise to a DNL not exceeding 65 dBA and a future goal to further reduce exterior environmental noise to a DNL not exceeding 55 dBA. Additionally, the EPA states that these goals are not intended as regulations as it has no authority to regulate noise levels, but rather they are intended to be viewed as levels below which the general population will not be at risk from any of the identified effects of noise.

Existing noise levels at and immediately adjacent to the proposed project site are those typical of an elementary school campus and residential community. The project area is located in urban, residential, and roadways in the suburban town of Waipahu. The noise environment in Waipahu is dominated by vehicular, bird, water, wind, and residential noise. The project area is not affected by airfield noise. The closest airfield to the project area is Daniel K. Inouye International Airport, which is located approximately 6 miles to the southeast.

#### *4.9.2 Potential Impacts and Proposed Mitigation*

Construction activities for the project will inevitably create temporary noise impacts. These short-term noise impacts will be most prominent throughout the site work and earthwork phases. Construction-related noise may range from 75 to 85 dBA at distances of 100 feet from the project site. The project site will be located in proximity to other AAES facilities. The nearest homes to the new classroom building site are approximately 95 feet away. Construction noise will gradually diminish as the exterior structure of the new classroom building is built and roofed. Construction noise within the new building will be attenuated by the exterior walls.

Construction is expected to occur between the hours of 7:00 am and 6:00 pm Monday through Friday, and 9:00 am to 6:00 pm on Saturdays. Sound barriers, mufflers, and other structures may be erected to reduce noise levels if they exceed Federal and State standards. Heavy truck and equipment staging areas will be located as far from noise-sensitive properties as possible.

Pursuant to HAR, Chapter 11-46, construction activities will comply with all community noise controls. The DOH Community Noise Rule specifies that residential areas may not exceed the “maximum permissible” noise level of 55 dBA during the day and 45 dBA during the night. In cases where the construction sound level exceeds or is expected to exceed the DOH’s “maximum permissible” noise levels at the property line, the contractor will obtain a noise permit from the DOH to operate vehicles, construction equipment, and power tools that emit noise levels in excess of “maximum permissible” levels. The project is not anticipated to result in a significant impact to existing noise conditions.

Once in operation, the project will generate noise consistent with the existing play court and classroom activities that are already present at the AAES campus. No long-term mitigation measures are proposed as the noise generated as a result of the proposed project represents no substantial change from current noise occurrences.

The proposed action will not result in significant secondary or cumulative impacts on existing noise conditions within the vicinity of the project area.

#### *4.10 Air Quality*

##### *4.10.1 Description*

Air quality at a given location is a function of several factors, including the quantity and type of pollutants emitted locally and regionally, as well as the dispersion rates of these pollutants. The primary factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions, and topography. Air quality is affected by stationary sources (e.g., industrial development) and mobile sources (e.g., motor vehicles).

Air quality at a given location is determined by the concentration of various pollutants in the atmosphere. National Ambient Air Quality Standards (NAAQS) are established by the EPA for criteria pollutants, including: ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter less than or equal to ( $\leq$ ) ten microns in diameter (PM<sub>10</sub>) and  $\leq$ 2.5 microns in diameter (PM<sub>2.5</sub>), and lead (Pb). NAAQS represents maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect public health and welfare.

The State of Hawai‘i DOH, Clean Air Branch (CAB), is responsible for air pollution control in the State. The primary services of the CAB include: 1) engineering, which includes engineering analysis and permitting; 2) monitoring, which performs monitoring and investigations; and 3) enforcement, in which federal and state air pollution control laws and regulations are enforced.

Air quality at and surrounding the project site is generally excellent year-round. The prevailing northeasterly trade winds tend to push any human-made or natural pollutants out to sea. During intermittent periods winds can carry “vog” (volcano-associated gasses) toward O‘ahu and the surrounding islands leading to an increase in volcanic air pollutants and a decrease in visibility.

The DOH Air Quality Monitoring Pearl City Station is located in the vicinity of the site. According to the State of Hawai‘i Annual Summary 2018 Air Quality Data, pollutants monitored at this station remain below State and Federal ambient air quality standards, indicating generally good air quality.

#### *4.10.2 Potential Impacts and Proposed Mitigation*

The proposed action would result in less than significant short-term impacts on air quality arising from construction activities. During construction, work activities will be in compliance with HAR, Chapter 11-59, Ambient Air Quality Standards, and Chapter 11-60.1, Air Pollution Control.

Ground disturbance could generate fugitive dust (e.g., PM) and the use of construction equipment (e.g., backhoes, dump trucks, vehicles) and personal vehicles to access the project area could lead to temporary increases in vehicular airborne pollutant concentrations (e.g., CO concentrations). An effective dust control plan will be implemented as necessary. All construction activities will comply with the provisions of HAR, Chapter 11-60.1-33, related to Fugitive Dust.

Measures to control dust during various phases of construction may include:

- Providing an adequate water source at the site prior to start-up construction activities.
- Irrigating the construction site during periods of drought or high winds.
- Covering and/or watering stockpiled soil.
- Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase.
- Disturbing only the areas of construction that are in the immediate zone of construction to limit the amount of time that the areas will be subject to erosion.
- Providing adequate dust control measures during weekends, after hours, and before the daily start-up of construction activities.
- Installing dust screening in the areas of disturbance.
- Controlling airborne, visible fugitive dust from debris being hauled away from the project site.

To reduce vehicle and equipment emissions, carpooling and ensuring that equipment is functioning properly should be included in regular construction work practices.



No long-term, secondary, or cumulative impacts on air quality from the operation of the proposed action are expected.

## 4.11 Visual Resources

### 4.11.1 Description

Visual resources are defined as the natural and manufactured features that comprise the aesthetic qualities of an area. These features form the overall impressions that an observer receives of an area or its landscape character. Landforms, water surfaces, vegetation, and manufactured features are considered characteristics of an area if they are inherent to the structure and function of a landscape.

The AAES campus is surrounded primarily by residential uses. Mahoe Street is located to the west and Waipahu Street is located to the south. The Lanakila Baptist Church and School is located east of the school property. The Bethel Chapel Assembly of God and Leeward Church of Christ are located south of the school property. Further makai of the AAES is the Waipahu District Park, Waipahu High School, commercial developments, Ted Makalena Golf Course, Pearl Harbor, and other residential developments. The H-1 Freeway is located approximately 0.27 miles mauka from the school property, which separates the Waipahu community from Waikele. See **Figure 2-2, Regional Project Location**. The project site is relatively flat and does not exhibit unique topographic features.

Significant views and vistas in the project vicinity identified in the Central O‘ahu Sustainable Communities Plan (COSCP) (2021) include the following:

- Distant vistas of the shoreline and Pearl Harbor from the H-2 Freeway and Kunia Road above the ‘Ewa Plain.
- Views of the Wai‘anae and Ko‘olau Mountains from Kunia Road, Kamehameha Highway, and the H-2 Freeway.
- Views of Pearl Harbor from Farrington Highway in the vicinity of Waipahu High School.
- The view of the Waipahu Sugar Mill from Waipahu Depot Road.
- The view of the Wai‘anae Mountains from the Waipahu Cultural Garden.
- The view of the Wai‘anae Mountains from Mililani High School, from Meheula Parkway near Keaolani Street, and Mililani District Park.
- The view of the upper Central O‘ahu plains toward Waialua from the intersection of Kamehameha Highway and Whitmore Avenue.
- The view of West Loch and the Wai‘anae Range from Kamehameha Highway while passing the Patsy T. Mink Central O‘ahu Regional Park.

The COSCP (2021) does not recognize any view planes encompassing the project site that would require special consideration and accommodation.

#### *4.11.2 Potential Impacts and Proposed Mitigation*

The AAES project site is not currently situated in an area that would obstruct any panoramic views identified in the COSCP.

During construction activities temporary less than significant visual impacts are expected from neighboring areas directly surrounding the project site. These impacts would be due to the presence of construction equipment within the project area.

The proposed action is expected to have less than significant long-term visual impacts. The construction of the new play court, CMU wall, walkways, and parking lot improvements will be at or near ground level and will be consistent with the appearance of the existing AAES campus facilities. While the new classroom building will represent a new structure at the AAES campus, the mass and height of the proposed building will be consistent with existing buildings at AAES and will not induce adverse impacts on any recognized view planes. Additionally, as recommended in the COSCP (2021), the new classroom building will be less than 60 feet in height; thus, further mitigating the impact of the new classroom building on any surrounding visual resources. No significant visual impacts are expected to result from this project.

### *4.12 Socio-Economic Environment and Demographics*

#### *4.12.1 Description*

**Population and Demographics.** The project site is surrounded by residential homes and has dedicated employees at AAES. According to U.S. Census Bureau, the project area is located in the Waipahu Census Designated Place (CDP) on the Island of O‘ahu and is within Census Tract 89.12. **Table 4-4** shows population and demographic information for the State, Island of O‘ahu, and Census Tract 89.12.

Hawai‘i is unique among other states in the U.S. as no single race comprises the majority of the population. According to the 2018 Census Data, “Asian” comprised the largest population in the State at 37.8% of the population, which represented 42.5% of the population of Honolulu County, 67.8% of the population of the Waipahu CDP, and 81.4% of the population of Census Tract 89.12 where the project is located. In Census Tract 89.12, “Two or More Races” was the second largest ethnic group represented at 10.8%, with “Native Hawaiian and Other Pacific Islander” was the third largest ethnic group at 4.0%. The median age in Census Tract 89.12 was 42.4 years old. This is slightly higher than the Statewide median age of 38.9 years old, Honolulu County median age of 37.6, and Waipahu CDP median age of 37.

**Table 4-4. Population and Demographics**

2018-2019 Census	State of Hawai‘i	O‘ahu	Waipahu CDP	Census Tract 89.12
Population	1,422,029	987,638	43,485	2,570
Ethnicity				
White	25%	21%	3.9%	3.2%
African American	1.8%	2.4%	0.5%	0.3%
American Indian/Alaskan Native	0.2%	0.2%	0.0%	0.2%
Asian	37.8%	42.5%	67.8%	81.4%
Native Hawaiian/Other Pacific Island	10.1%	9.5%	14.6%	4.0%
Hispanic or Latino	10.4%	10.0%	6.6%	4.0%
White alone, not Hispanic or Latino	22.1%	17.9%	3.3%	2.6%
Two or More Races	24.0%	23.5%	13.0%	10.8%
Age				
Under 5 Years	6.4%	6.5%	7.1%	4.7%
5-19 Years	17.3%	17.1%	20.7%	17.3%
20-64 Years	59.0%	59.5%	56.4%	58.4%
65 or More Years	17.3%	16.8%	15.9%	19.5%
Median Age (Years)	38.9	37.6	37	42.4

Source: 2018-2019 Census

**Income and Employment.** Statewide in 2019, approximately 9.3% of individuals earned an income below the poverty level. In Honolulu County in 2019 individuals earning below the poverty level was 7.9%. Within Census Tract 89.12 individuals earning below the poverty level was 11.8%. The median statewide household income was approximately \$85,857 (2019). The median income in Census Tract 89.12 where the project is located was \$128,542 (2019).

In May 2018, the unemployment level was about 1.9% for the island of O‘ahu and 2.2% for the State of Hawai‘i. Hawai‘i’s economy through 2019 was strong, with record-setting visitor arrivals and low unemployment. However, the COVID-19 pandemic will have far-reaching impacts on the economy of O‘ahu, in Hawai‘i, and across the nation and world. Stay-at-home regulations and travel quarantines aimed to curb the spread of the COVID-19 virus in Hawai‘i have caused many businesses to shut down or drastically reduce operations. Unemployment claims soared. The unemployment rate in May 2020 on O‘ahu island was 19.4%. The statewide unemployment in May 2020 was 21.9% (Department of Labor and Industrial Relations, 2020). As of May 2021, unemployment rates, while not at pre-pandemic levels, have lowered, with an unemployment rate of 6.7% on O‘ahu island and 8.1% statewide.

**Housing.** Of the 501 housing units in Census Tract 89.12, 78.2% of these units are owner-occupied. This is higher than the statewide and island-wide average of owner-occupied units which is roughly 58.9% and 56.2%, respectively.

#### 4.12.2 Potential Impacts and Proposed Mitigation

The proposed action has no population or housing component and would have no impact on those items. It would however have limited short-term beneficial impacts on the economy through the

provision of construction jobs, the procurement of local goods and services, and increased tax revenue. Thus, the proposed action would contribute to those beneficial impacts on the local economy.

Long-term socio-economic impacts resulting from the proposed DOE project at AAES are expected to be beneficial. Once completed, the proposed action is expected to result in long-term beneficial socioeconomic impacts by providing a permanent classroom building and necessary support facilities to serve the existing needs of the students and faculty at AAES. The construction of a new classroom building will not increase student enrollment but address an existing need for better quality facilities utilized by the student and faculty population. Additionally, no long-term jobs are anticipated due to the project. Therefore, the project will not significantly contribute to impacts resulting from an increase in student or faculty population, such as increased demand for infrastructure, increased traffic, increased demand on public services or facilities, or increased demand for natural resources in the vicinity of the project site. Beneficial secondary impacts are expected from the proposed project in the form of improved facilities necessary to deliver quality education to AAES students. Overall, the net cumulative impact is expected to have a positive effect on AAES students (and their families) and the broader community.

### *4.13 Public Facilities and Services*

#### *4.13.1 Roads and Transportation*

##### *4.13.1.1 Description*

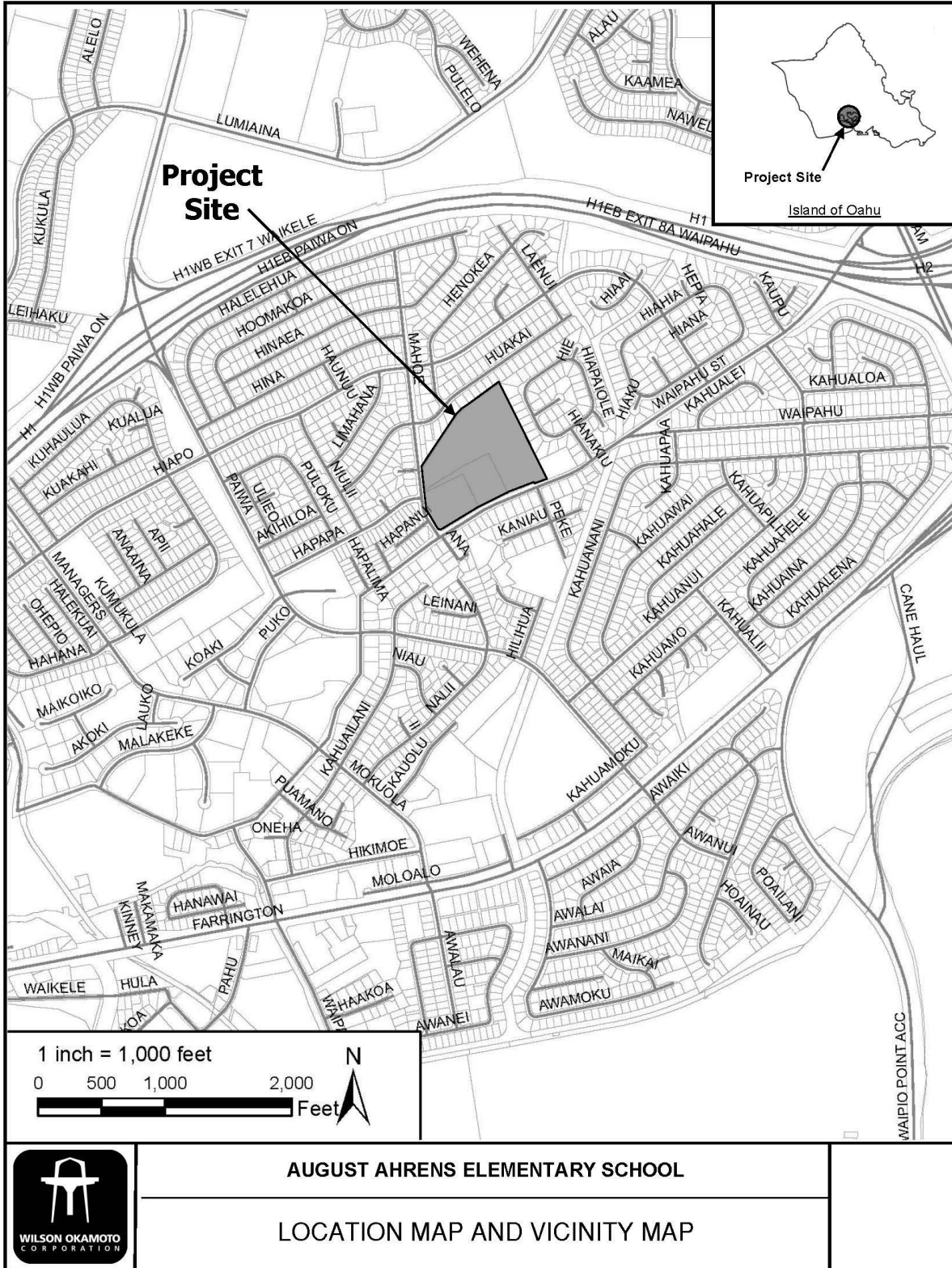
A Traffic Management Plan (TMP) was prepared to identify potential transportation management strategies that can be implemented to improve traffic operations in the vicinity of AAES and is included in **Appendix C**. The TMP document is intended to be used as a reference specifically for AAES to define management strategies already in place and identify additional management programs and other actions should they become necessary to alleviate adverse traffic operations.

The existing AAES is located adjacent to Mahoe Street north of Waipahu Street in Waipahu on the island of O‘ahu (see **Figure 4-8**). The project site is bounded by Waipahu Street to the south, Mahoe Street to the west, and residential uses to the north and east. Primary access to the project site is provided via an existing two-way driveway off Mahoe Street near the north side of the campus with secondary access to a parking area adjacent to the cafeteria provided further south near Hapapa Street. In addition, two one-way driveways serve a porte cochere for student drop-off and pick-up off Waipahu Street near the southeast corner of the project site.

#### **Area Roadway System**

In the vicinity of the project site, Waipahu Street is a predominantly two-lane, two-way roadway generally oriented in the east-west direction. At the southwest corner of the school campus, Waipahu Street intersects Mahoe Street and Ana Lane. At this signalized intersection, marked crosswalks are provided on the north, south, and east sides of the intersection. Further east, Waipahu Street intersects Peke Lane near the southeast corner of the campus where a marked crosswalk is provided on the west side of the intersection.

Figure 4-8. Location and Vicinity Map



Source: Wilson Okamoto Corporation Transportation Management Plan for August Ahrens Elementary School, Figure 1

Mahoe Street is a two-lane, two-way roadway that is generally oriented in the north-south direction. In the vicinity of the school, Mahoe Street intersects Hapanui Place, Hapapa Street, and Mahoe Place with marked crosswalks provide across the intersecting street approaches. At the intersection with Hapapa Street, the eastbound approach of the intersection is comprised of a driveway for the school. Similarly, at the intersection with Mahoe Place, the eastbound approach is comprised of a driveway for the school with traffic on the driveway approach of the intersection restricted to right-turn movements only. In addition, marked crosswalks are also provided across Mahoe Street and the school driveway at this intersection.

### **Project Characteristics and Function**

The proposed project entails the construction of a new two-story classroom building on the southwestern corner of the August Ahrens Elementary School campus adjacent to Mahoe Street and Waipahu Street where an existing play court is located. The new classroom building would provide 13 new classrooms which will be used to support the existing student population and will not increase enrollment. A new parking stall area consisting of seven parking stalls will be constructed north of the new building. The new parking area will connect to an existing parking area and utilize the existing entrance on Mahoe Street. In addition, a new concrete play court will be constructed on the south-central grassed portion of the campus. New concrete walkways will be constructed to connect the new developments to the existing concrete walkways on campus.

**Figure 4-9** shows the proposed site plan.

In addition, there is another previously approved improvement project at the school expected to be completed within the same timeframe. A new covered walkway is expected to be built along the porte cochere off Waipahu Street along with a new parking lot with 60 parking stalls off the porte cochere. The new parking area is expected to primarily be utilized by faculty and staff of the school.

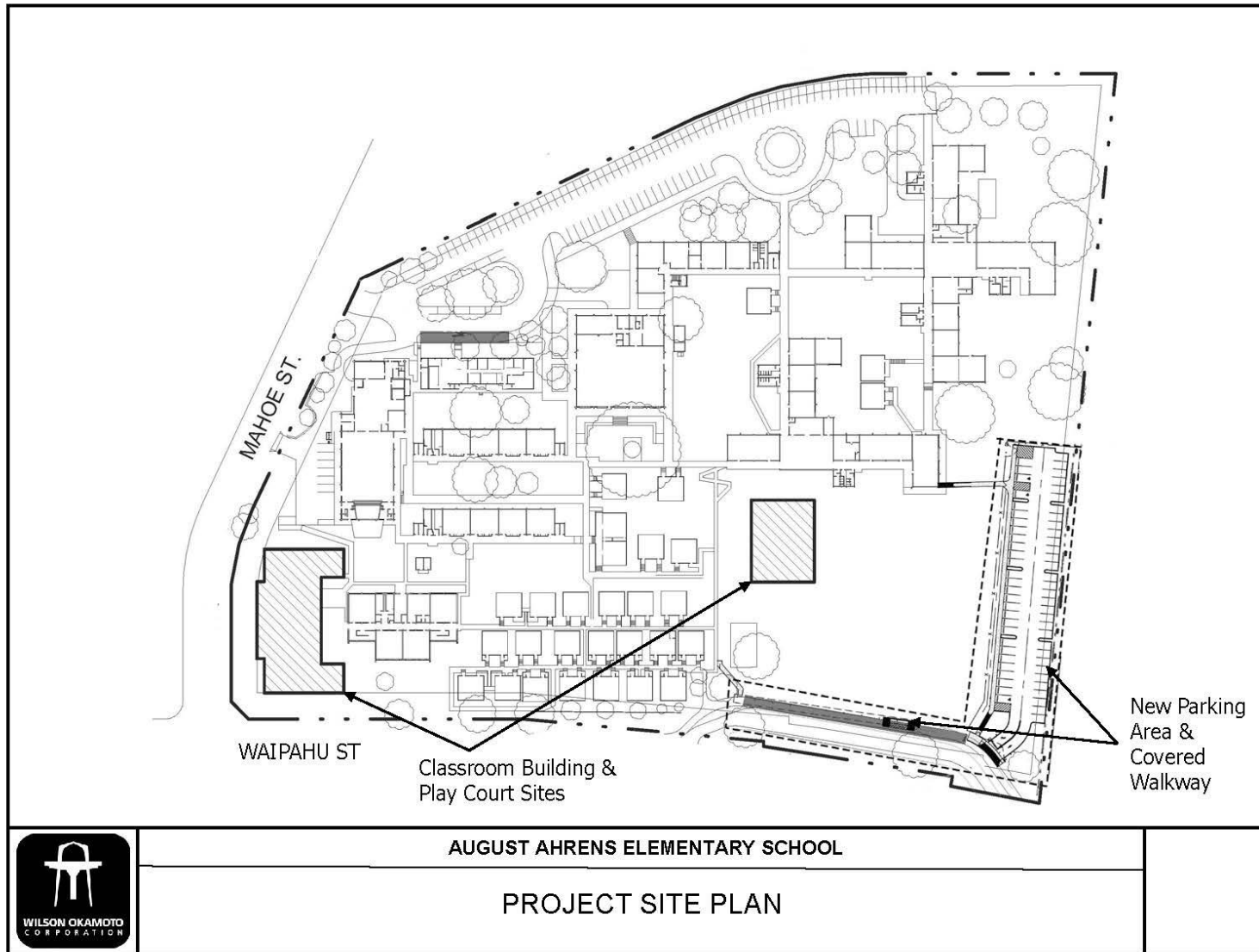
### **Daily Traffic**

#### ***Vehicular Traffic***

The proposed project is not expected to significantly change the composition of existing vehicular traffic accessing the school. As such, the daily traffic generated by the school will continue to be comprised of students, faculty, and staff (hereafter referred to as “staff”), visitors, and deliveries.

School begins at 7:45 AM and ends at 2:00 PM each weekday except for Wednesdays when school ends earlier at 1:00 PM. Student-related traffic accessing the school is clustered around the beginning and end of school hours with a portion of students dropped off/picked-up from school via school bus or private vehicle. There are two pick-up and drop-off areas designated on campus and one off-site loading area for school buses along Waipahu Street. The first on-site pick-up/drop-off area is located within the porte cochere off Waipahu Street at the southeastern corner of the site (hereinafter referred to as the “Waipahu Drop-Off”). This area is kept gated after morning drop-off hours and reopened at 2:00 PM to allow for afternoon pick-up.

Figure 4-9. Project Site Plan



Source: Wilson Okamoto Corporation Transportation Management Plan for August Ahrens Elementary School, Figure 2



In addition, turning movements from the drop-off area onto Waipahu Street are restricted to right-turn movements only by cones when the porte cochere is open before and after school. It should be noted that once the new parking area is completed off the porte cochere, access to this drop-off/pick-up area may be adjusted to allow for access to the new parking area. The second on-site pick-up/drop-off area is located off Mahoe Street within the on-site parking area along the north side of the campus near the administration building (hereinafter referred to as the “Mahoe Drop-Off”). In addition, there is an off-site loading area along Waipahu Street west of the Waipahu Drop-Off designated for school buses only between 7:00 and 8:00 AM, and 1:00 and 2:30 PM. **Figure 4-10** shows the location of the existing drop-off and pick-up areas and circulation.

Staff-related traffic accessing the school is also clustered around the beginning and end of school hours. On-site parking for staff personnel is currently provided within a parking area off Mahoe Street on the north side of the campus (hereinafter referred to as “Mahoe Parking Area”) and a smaller on-site parking area near the cafeteria with access provided off Mahoe Street near the intersection with Hapapa Street. It should be noted that access to this driveway for the smaller parking lot is gated during school hours. In addition, an additional parking area is expected to be constructed off the Waipahu Street porte cochere (hereinafter referred to as “Waipahu Parking Area”). Once construction of this parking area is completed, staff-related traffic is expected to be split between Mahoe Street and Waipahu Street.

Visitors and deliveries to the school can occur throughout the day but primarily occur during off-peak hours. Limited visitor parking is provided within the Mahoe Parking Area with access provided via Mahoe Street.

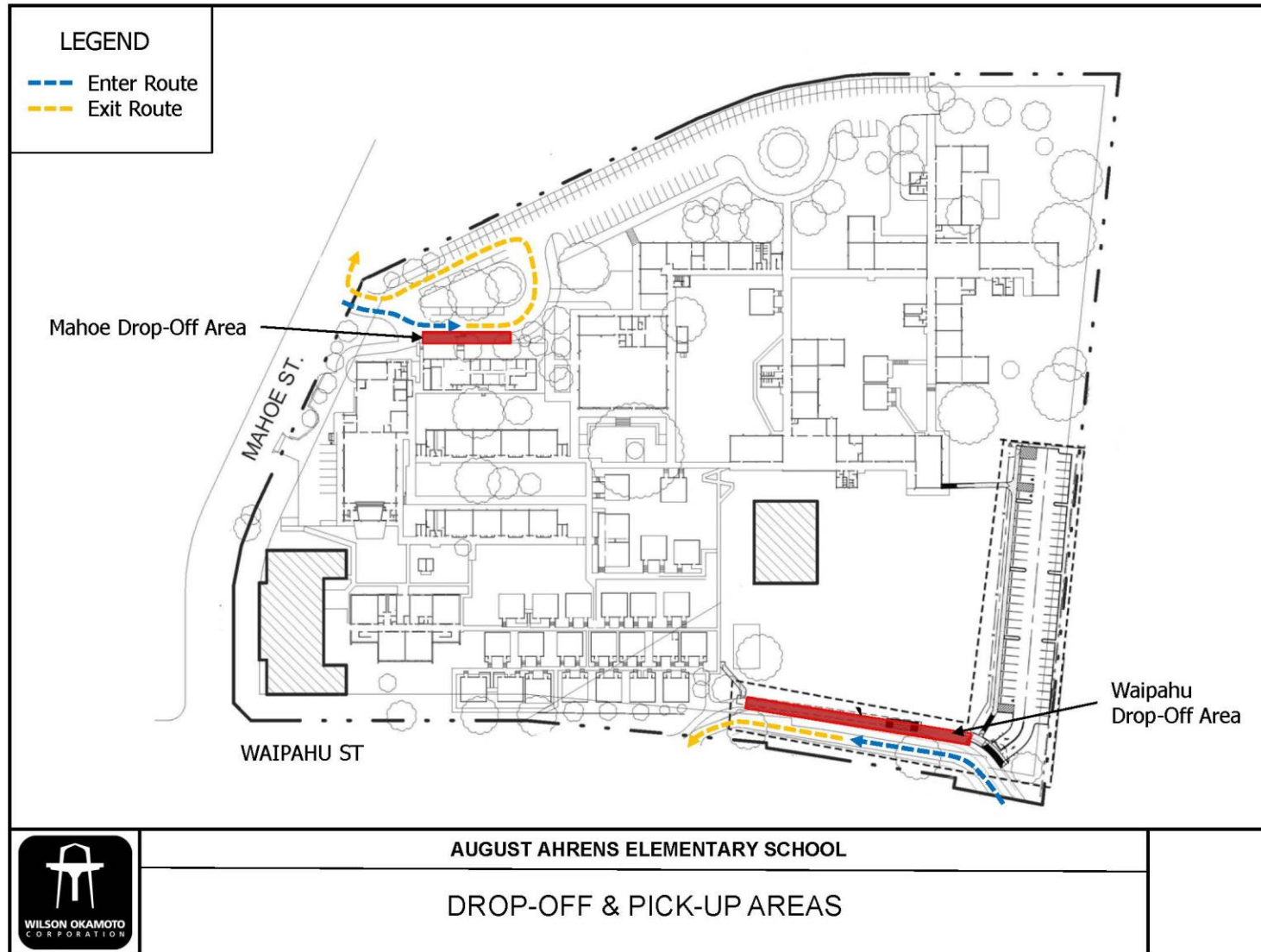
Deliveries are expected to be made via the driveways off Mahoe Street with some of the vehicles accessing the school via the smaller parking lot near the cafeteria and the remainder accessing the school near the administration building via the northern driveway similar to visitors.

Although most students, faculty, and staff are expected to drive or be driven to the project site, some may choose to utilize alternate modes of travel including walking, biking, and transit. Pedestrian, bicycle, and transit-related traffic are accommodated by on-site and off-site facilities.

### ***Pedestrian Facilities***

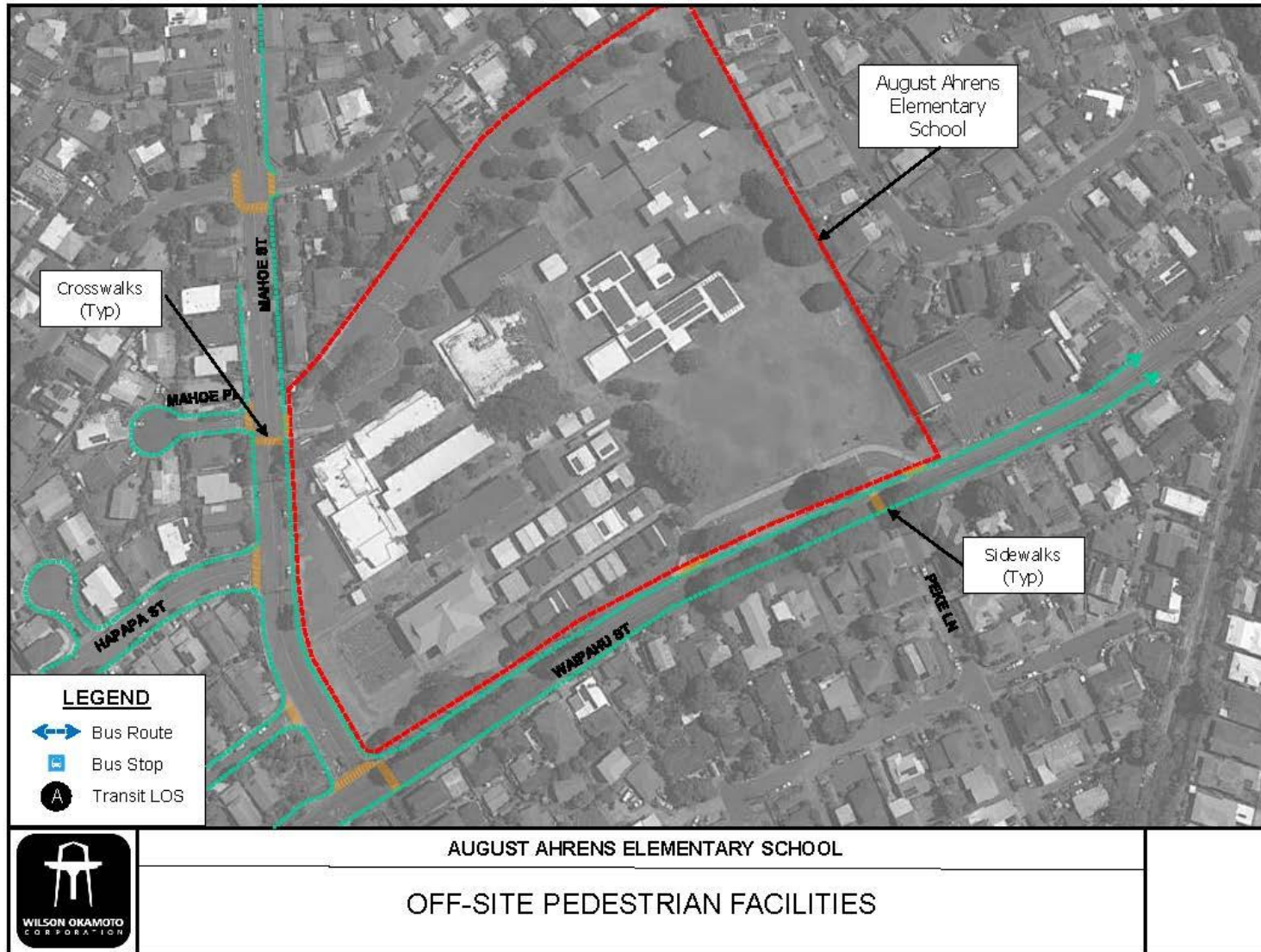
Existing off-site pedestrian facilities in the vicinity of the project include sidewalks along Waipahu Street and Mahoe Street providing access to nearby residential uses (see **Figure 4-11**). It should be noted that not all the sidewalk segments along Waipahu Street are constructed of concrete and, as such, some areas are narrow and/or in disrepair resulting in unevenness in some portions of the route along that roadway. In addition, field observations indicate that vehicles waiting for students occasionally park on the sidewalk and concrete swale along Waipahu Street near the Waipahu Drop-Off thereby reducing or blocking pedestrian access. There are signs indicating that parking is not allowed at any time, but drivers appear to ignore the posted signs.

Figure 4-10. Drop-Off and Pick-Up Areas



Source: Wilson Okamoto Corporation Transportation Management Plan for August Ahrens Elementary School, Figure 3

Figure 4-11. Off-Site Pedestrian Facilities



Source: Wilson Okamoto Corporation Transportation Management Plan for August Ahrens Elementary School, Figure 4

As previously mentioned, crossings to the school are provided across Waipahu Street at the intersections with Peke Lane and Mahoe Street. The crossing at the Peke Lane intersection is uncontrolled while the crossing at the intersection with Mahoe Street is signalized with protected crossing phases. In addition, a crossing to the school is also provided across Mahoe Street near the driveway to the Mahoe Parking Area.

Connections are provided between the on-site and off-site pedestrian facilities via existing gates at the northern driveway along Mahoe Street and near the Waipahu Drop-Off along Waipahu Street. Within the school, a network of walkways provides access to the on-site school facilities (see **Figure 4-12**).

### ***Bicycle Facilities***

In the vicinity of the project, bike facilities are limited to a shared roadway along Waipahu Street with pavement markings called sharrows. On-site facilities are also limited with only two (2) bike racks provided within the school campus that can accommodate up to 10 bikes. The proposed project is not expected to change existing bicycle facilities on and off-site.

The CCH Department of Transportation Services has a master plan for bicycle facilities referred to as the “O‘ahu Bike Plan” (Updated 2019). These plans as shown on the CCH website detail future potential bicycle facilities in the vicinity of the school including the provision of bike lanes along Waipahu Street (see **Figure 4-13**). Although these improvements are expected to expand bicycle facilities in the vicinity, the timelines for these improvements are not known at this time.

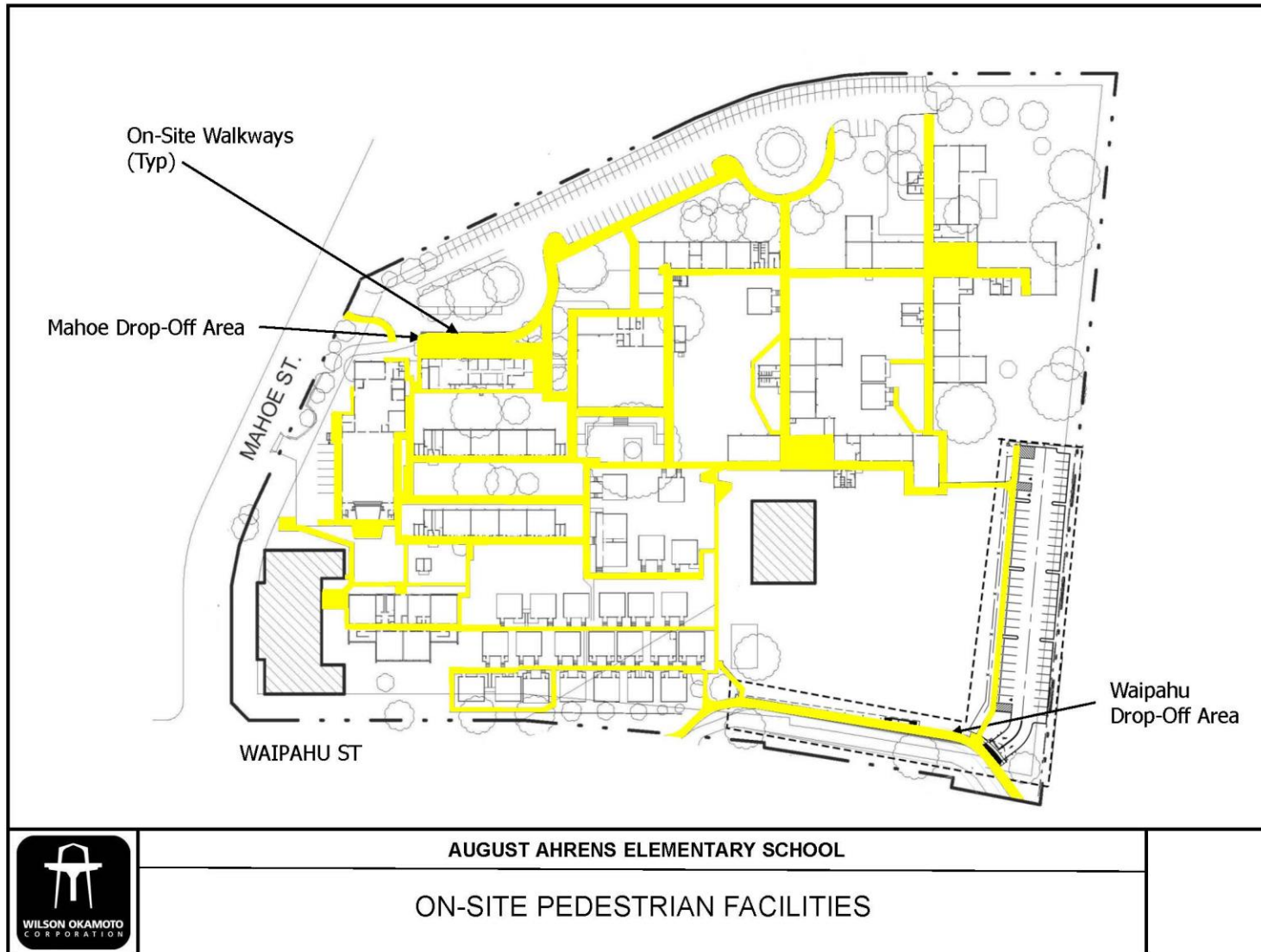
### ***Transit Facilities***

The school bus services are supplemented by transit service provided by “The Bus” which is operated by O‘ahu Transit Services for the CCH Department of Transportation Services. In the vicinity of the school, there are approximately 8 bus stops that are served by 4 unique bus routes (Routes 43, 81, 432, and W2) located within a ¼ mile of AAES (see **Figure 4-14**). The closest bus stop along Waipahu Street is located near the intersection with Peke Lane while the closest bus stop along Mahoe Street is located near the intersection with Hapanui Place. Access to transit facilities in the vicinity of the proposed project is expected to be maintained with the proposed project.

### ***Other Considerations***

As part of their Complete Streets initiative, the CCH Department of Transportation Services conducted an assessment of Mahoe Street and Waipahu Street in the vicinity of AAES. The assessment included consultations with stakeholders and a walk audit, and the development of recommended improvements in the vicinity to incorporate complete streets concepts. Most of the included recommendations entailed improvements to infrastructure within the public right-of-way including a roundabout at the intersection of Mahoe Street and Waipahu Street, curb extensions, and relocation of crosswalks and bus stops. The timeline for these more extensive improvements is not known at this time, but there was one recommendation related to illegal parking near the Waipahu Drop-Off that has been incorporated as part of the management strategies for the school.

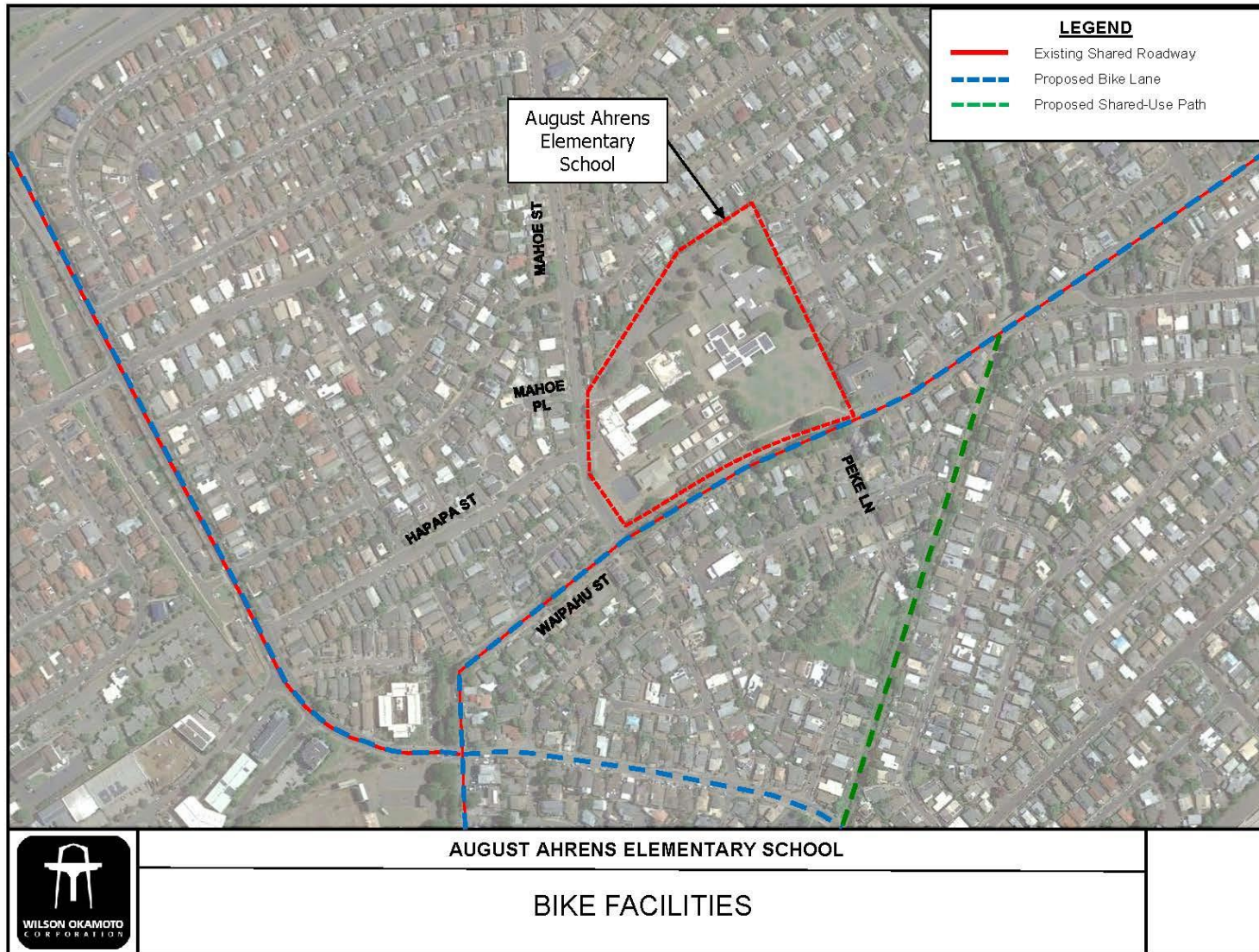
Figure 4-12. On-Site Pedestrian Facilities



Source: Wilson Okamoto Corporation Transportation Management Plan for August Ahrens Elementary School, Figure 5



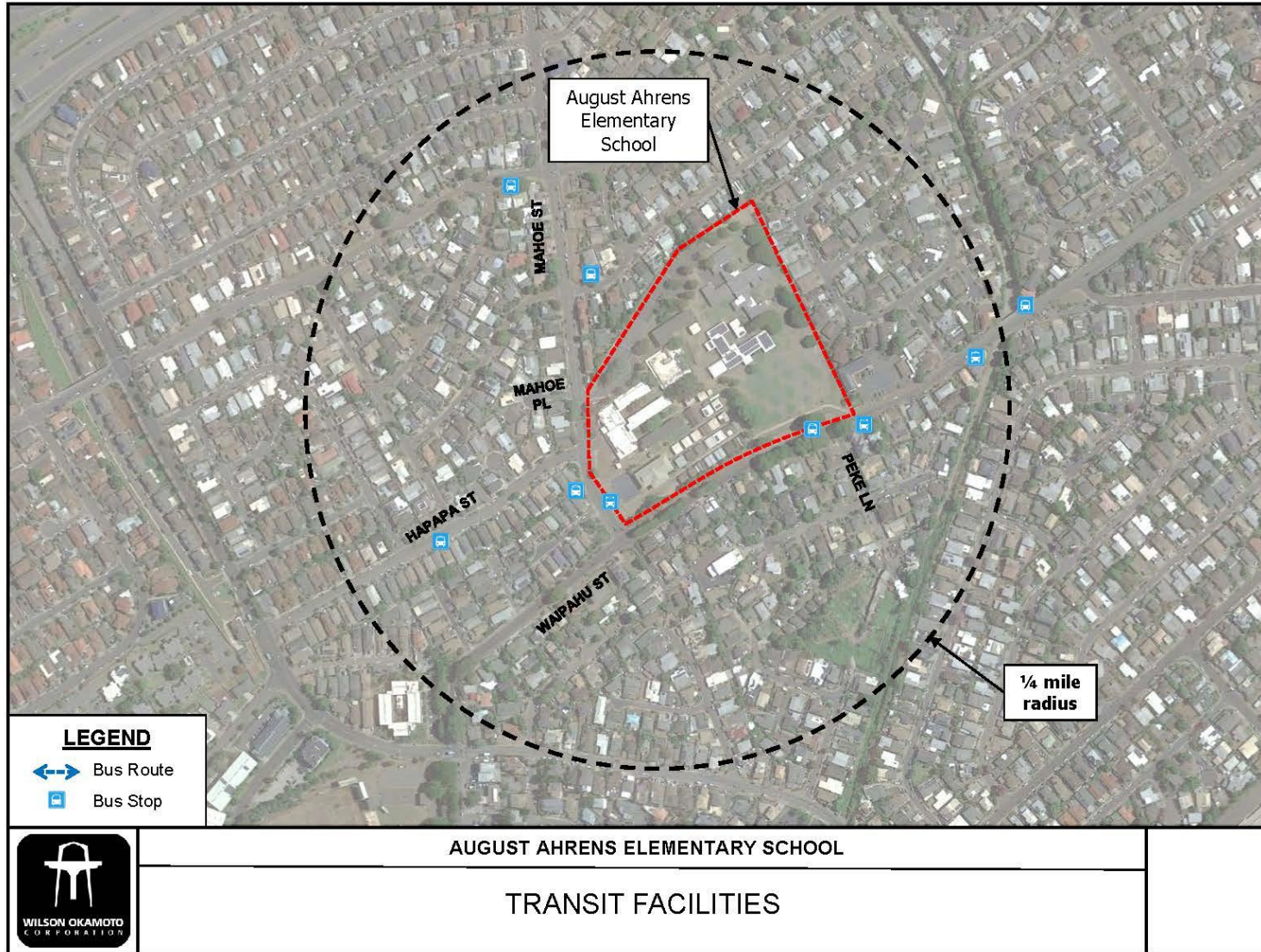
Figure 4-13. Bike Facilities



Source: Wilson Okamoto Corporation Transportation Management Plan for August Ahrens Elementary School, Figure 6



Figure 4-14. Transit Facilities



Source: Wilson Okamoto Corporation Transportation Management Plan for August Ahrens Elementary School, Figure 7



### **Special Events Traffic**

AAES occasionally holds special events on campus. These events are primarily held during off-peak, evening, or weekend hours with event-related traffic clustered around the beginning and end of the event.

### **Transportation Management Plan**

#### ***Transportation Demand Management Strategies***

Transportation demand management (TDM) strategies are policies that may be implemented to reduce or redistribute travel demand. These strategies can either reduce travel demand by making staff, faculty, and students more aware of all available transportation resources including public transit, carpooling, ridesharing, walking, and biking, as well as redistributing travel demand away from peak periods. Some of the goals of TDM measures are to reduce traffic congestion, reduce emissions, improve community health, solve parking problems, and enhance safety. Although there is a large toolbox of TDM strategies that could be implemented, the following measures are recommended based on the school’s operations and the surrounding environment:

- **Bicycle Facilities:** Encourage bicycle use as a mode of travel by providing additional bike facilities including secured parking areas. As previously noted, there are currently only two (2) bike racks provided on campus. In addition, coordinate with the CCH with regard to any future plans to incorporate additional bicycle facilities along the public roadways in the vicinity of the school.
- **Rideshare Program:** Encourage faculty and staff to participate in ridesharing. A program could be established to identify employees with similar travel routes that potentially may carpool together. In addition, priority parking could be assigned to participants of the program.
- **School Bus Program:** Promote the existing bus school program and collaborate with the State of Hawaii DOE to explore opportunities to expand service in the surrounding areas to encourage higher use of the program. Currently, less than 10% of the students utilize the provided bus program.
- **Bus Pass Program:** Promote a program that incentivizes bus passes for faculty and staff to encourage the use of public transit as a mode of travel.

#### ***Daily Transportation Management Strategies***

The following are transportation management strategies that are currently implemented by AAES:

- Designate drop-off and pick-up locations on-campus with drop-off areas designated by grade to better distribute traffic demands between the two locations. Grades K, 2, 5, and 6 are currently designated to the Mahoe Drop-Off with Grades 1, 3, and 4 designated to the Waipahu Drop-Off. Information regarding the assignment of grades to the designed areas

and drop-off and pick-up guidelines are shared with students through the school’s handbook.

- Utilize on-site personnel at the on-site drop-off areas to assist with expediting loading operations and minimizing dwell times. Currently, staff and/or volunteers are assigned to the on-campus drop-off areas, but primarily serve in a supervisory capacity rather than facilitating passenger loading operations.
- Provide crossing guards for crosswalks across Waipahu Street at the intersection with Peke Place and across Mahoe Street at the intersection with Mahoe Place and the school’s driveway to provide adequate crossing opportunities for students to/from the school. Currently, the school uses Junior Police Officers and staff/volunteers to assist with crossings at the Waipahu Street and Peke Street intersection, and the Mahoe Street, Mahoe Place, and school driveway intersection. In addition, Junior Police Officers are stationed near the driveway to the smaller parking area off Mahoe Street to facilitate the crossing of that driveway.
- Control access to the Waipahu Drop-Off Area during midday hours to minimize vehicular traffic through this area on campus. Currently, the driveways serving this area are gated between the morning drop-off period and 2:00 PM. It should be noted that these hours are expected to be adjusted once the parking area off the porte cochere is completed to allow access to this additional on-site parking area.
- Provide traffic control devices at the school’s driveways near the Waipahu Drop-Off and Mahoe Drop-Off areas during peak periods to restrict turning movements for exiting vehicles to right-turn movements only to minimize conflicts with entering vehicles. It should be noted that the school currently provides coning at both driveways to channelize vehicles.
- Provide traffic control devices along the east side of Mahoe Street to allow vehicles accessing the Mahoe Drop-Off to queue along that roadway. It should be noted that Mahoe Street is wide enough to accommodate two-way traffic (one lane in each direction) and the shoulder queuing area. In addition, the school currently provides coning along the roadway with field observations indicating that queues extend from the school driveway to Waipahu Street during the afternoon peak period.

The following are additional management strategies that should be implemented by the school to alleviate existing traffic operations on the surrounding roadways due to its daily traffic:

- Modify the designation of grades at the on-site drop-off areas to better distribute traffic demands between the two locations. Younger students who may take longer to exit/enter vehicles should be designated to the Mahoe Drop-Off with older students designated to the Waipahu Drop-Off. As previously noted, traffic control along Mahoe Street allows for on-street queuing along that roadway for vehicles accessing the Mahoe Drop-Off. Field observations indicate that the queues extending from the Waipahu Drop-Off are in excess of 20+ vehicles during the afternoon peak period with queued vehicles blocking the

westbound direction of traffic along that roadway. Although the duration of this peak demand is short, the queuing along the adjacent roadway hinders access and circulation in the vicinity. It should be noted that the Elementary School campus of the Lanakila Baptist School is also located immediately east of August Ahrens Elementary School.

- Provide supervision within both drop-off/pick areas to better facilitate drop-off and pick up activities by assisting students with entering and exiting vehicles, monitoring vehicular queues, and minimizing the dwell time of vehicles within these areas. Minimizing the dwell times for each stopped vehicle would reduce the amount of queuing on the adjacent roadways.
- Modify the access hours for the Waipahu Drop-Off to allow earlier access prior to the afternoon pick-up hours. Currently queuing along Waipahu Street prior to the 2:00 PM opening time is in excess of 20+ vehicles, some of whom could be accommodated on-site within the porte cochere.

The following are management strategies that could be considered for implementation by the school to further minimize the impact of daily traffic on the surrounding roadways and improve safety for students surrounding the school:

- Queuing at both areas should be monitored and the split between grades adjusted to equalize the demand and queuing at the on-site locations and minimize the impact to the surrounding public roadways. In addition, consideration should be given to staggering pick-up times for students by grade to reduce the afternoon peak traffic accessing the school.
- Distribute additional information to students and their parents about parking restrictions along Waipahu Street near the Waipahu Drop-Off. As previously mentioned, field observations indicate that vehicles waiting for students often park on the sidewalk and concrete swale along Waipahu Street in this vicinity reducing or blocking pedestrian access. If necessary, use on-site personnel to regulate parking in this location before and after school hours, and coordinate with the Honolulu Police Department (HPD) to provide enforcement as necessary.
- Provide guidelines to staff and faculty assigned parking in the new parking area off the Waipahu Drop-Off porte cochere to restrict vehicles from entering/exiting this parking area during peak traffic periods associated with student pick-up and drop-off before and after school hours. This parking area should only be designated for staff and faculty parking to ensure that the school can effectively manage access to this parking area.
- Restrict delivery and service vehicle access to the school to off-peak periods to minimize conflicts with student-related traffic before and after school hours.
- Work with the community and applicable agencies to establish a Safe Routes to School Program for the school. In addition, coordinate with the CCH Department of Transportation Services regarding their implementation of complete streets projects along

the adjacent roadways to facilitate and enhance access to the school through alternate modes.

#### ***Transportation Management Strategies for Special Events***

The following are transportation management strategies that could be implemented for AAES to minimize the impact of special events on the surrounding roadways and improve safety for students surrounding the school:

- Ensure that multiple events or activities are not scheduled to be held on campus concurrently. If large events are expected to be held on campus, consider staggering these events by grade or classroom to reduce the peak traffic accessing the school.
- Provide crossing guards near the start and end events for the crosswalks across Waipahu Street at the intersection with Peke Place and across Mahoe Street at the intersection with Mahoe Place and the school driveway to provide adequate crossing opportunities for to/from the school.
- Provide students and their parents with adequate information regarding changes in on-site traffic circulation and restrictions to on-site parking during events to minimize disruptions to traffic flow in the vicinity of the school.

#### ***4.13.1.2 Potential Impacts and Proposed Mitigation***

Implementation of the proposed action would result in less than significant, short-term impacts on traffic and circulation. The proposed project entails the construction of a new classroom building that is intended to support the existing student enrollment at AAES and is not anticipated to generate additional new trips in the project vicinity. As such, the proposed project is expected to have minimal impact on the surrounding roadway network.

Although student enrollment is not expected to increase with the anticipated improvements, shifts in traffic demand and circulation could necessitate the implementation of transportation management strategies for the school. A TMP was prepared to identify potential transportation management strategies that can be implemented to improve traffic operations in the vicinity of AAES (**Appendix C**). AAES currently utilizes a number of management strategies to minimize their impact on the surrounding roadway including designating on-campus drop-off/pick-up areas and providing crossing guards for adjacent crosswalks. In addition to existing management strategies, the TMP recommended that the school implement additional operational strategies including modifying the current grade designations for the drop-off areas and providing additional staffing within these areas to minimize dwell times. In addition, the TMP recommended that the school consider implementing transportation demand management strategies and additional operational strategies to further minimize their impact on the surrounding areas. Finally, the TMP recommended that consideration be given to monitoring the effectiveness of the implemented management strategies on a periodic basis to verify their effectiveness. DOE will review the recommended TMP TDM strategies for implementation at AAES to further minimize the impact of daily and special events traffic on the surrounding roadways and improve safety for students surrounding the school. DOE will also contribute to complete streets improvements as

recommended by the TMP. DOE will provide the TMP to governmental agencies, including the Hawai‘i Department of Transportation, DPP, Department of Transportation Services, and others, as appropriate, for review and approval.

Additionally, the DOE will submit a Zoning Waiver application for parking requirements to DPP following the EA process. Per the last new building that was permitted and built (Building M, BP #556902), the school has 90 marked stalls. Including Building M, 205 parking stalls are currently required, per LUO table 21-6.1. The proposed New Classroom Building (i.e., Building N) will have approximately 12,853 sf of classroom space (no offices). Per the LUO table 21-6.1 current requirement of 1 stall per 500 sf. for classrooms, 28 stalls are required for the New Classroom Building (Building N). The total parking stalls required following the construction of the New Classroom Building therefore will be  $205 + 28 = 233$ .

The New Classroom Building project will add 6 marked stalls (5 regular and 1 van accessible). Additionally, under a separate project, AAES plans to build a parking lot with 60 stalls (57 regular and 3 accessible), which is currently being permitted (BPA # A2022-06-0889). This will bring the total number of stalls provided to 156, which is short 77 stalls, to meet the required 233 stalls required. However, AAES notes that the required allocation of the parking requirement of 28 parking stalls for the New Classroom Building would be allocated from the existing 90 parking stalls, plus the 6 stalls being added for the New Classroom Building project, plus an additional 60 stalls from the new parking lot project, and that the 156 stalls are sufficient to meet the parking needs of staff and guests on campus. Additionally, as noted in **Section 2.3** AAES is developing an overall plan for phased improvements for the replacement and demolition of portable classroom facilities with permanent classroom space. Therefore, a reduced number of parking stalls is expected in the future following the removal of portable classrooms. For the interim, portables plus the New Classroom Building, a Zoning Waiver will be obtained.

Pursuant to Land Use Ordinance Section 21-6.20, Table 21-6.1, off-street parking for public uses and structures is determined by the DPP Director. The DOE will request a determination from DPP for off-street parking requirements when permanent classrooms are to be constructed. No Safe Routes to School programs have been studied or implemented at AAES or are anticipated as part of this project.

Primary construction access to the project site will be on the western portion of the AAES campus from Mahoe Street, adjacent to an existing small parking area. Additional construction access for the new play court will be from Waipahu Street within the bus and car drop-off and pick-up lane on the southern boundary of the AAES campus.

Utility connections for the new classroom building will require work within the CCH Mahoe Street and Waipahu Street right-of-way. A water line and stub out for the fire sprinkler connection to the new classroom building will be installed and connected to the existing waterline in Mahoe Street right-of-way. Additionally, a new sewer line for connection to the new classroom building will be installed and connected to an existing sewer line within Waipahu Street right-of-way near its intersection with Mahoe Street (see **Figure 3-4, Utility Plan**).

The major source of disturbance to traffic is anticipated from the delivery of construction materials and the transit of vehicles carrying workers to and from the job site. Occasional increases in construction traffic may result from the periodic movement of vehicles to and from the job site for the disposal of demolition debris. These impacts however will be short-term in duration, of relatively low scope and scale, and will cease with the completion of the project. Mitigative measures will include the planning of construction activities during the daytime hours with no night work anticipated to be required, and the use of flagmen and/or traffic controls to maintain accessibility for businesses and residents who may use the surrounding area roads. All necessary signs, lights, barricades, and other safety equipment will be installed and maintained by the project contractor to avoid impacts on vehicular traffic.

As required, a construction management plan will be submitted to the DPP for review and approval prior to the issuance of major building permits. The construction management plan will identify mitigation measures to reduce traffic and roadway impacts from construction-related vehicles. Prior to the start of construction activities, the contractor will document the condition of roadways and sidewalks and provide remedial measures, as necessary, if the condition of any roadway or sidewalk has deteriorated as a result of the related construction activities.

The contractor will obtain a street usage permit from the Department of Transportation Services for any construction-related work that may require temporary closure of any traffic lane on Mahoe Street and Waipahu Street (CCH-owned). Existing bus stops are present along the project frontage and are expected to remain at their current configuration. To ensure against interruption of bus services within the project area the DOE will coordinate roadway improvements with the Department of Transportation Services - Transportation Mobility Division. Additionally, AAES and its contractor will continue to appraise the Waipahu Neighborhood Board No. 22, Waipahu Community Association, area businesses and schools, emergency services, and O‘ahu Transit Services, Inc. of its construction plans, schedule, and any changes throughout the project planning and implementation process.

The proposed action will not result in significant adverse cumulative transportation impacts. Upon completion, the proposed action is not expected to generate any additional traffic and would have no long-term impact on roads or transportation in the vicinity of the AAES campus. The proposed project at AAES is intended to serve the existing student population through the construction of a new classroom building and additional support amenities (i.e., a new play court, parking lot improvements, new walkways, etc.). Thus, the project is not expected to increase student enrollment and is not expected to generate any new vehicle trips to the AAES campus.

#### *4.13.2 Utilities*

##### *4.13.2.1 Description*

**Electrical Supply.** The Hawaiian Electric Company (HECO) provides AAES with electrical service via power lines that run along Mahoe Street and Waipahu Street along the western and southern boundary of the school campus. The AAES main electrical distribution panel is located in the AAES main electric room. The fire alarm control panel is located at the AAES administration building.

**Telephone and Communication Facilities.** AAES is served by Hawaiian Telcom for telephone service and Spectrum (formerly Oceanic Timer Warner Cable) for cable TV service. The DOE uses both Hawaiian Telcom and Spectrum for internet service. The AAES main distribution frame equipment for telecom feed is located in the AAES library.

**Water Supply.** The CCH, BWS constructs, operates, and maintain O‘ahu’s municipal potable water system, which comprises an interconnected distribution network of reservoirs, wells, shafts, water tunnels, booster and pumping stations, and water mains. Potable water to the AAES campus is provided by the BWS system. The nearest connection for the new classroom building is an existing 12-inch water main within Mahoe Street right-of-way (see **Figure 3-4, Utility Plan**).

**Irrigation System.** Irrigation water service at AAES is provided through the same water meter used for domestic services.

**Wastewater.** Wastewater services at AAES are provided by the CCH Department of Environmental Services. An existing 8-inch sewer line located in the Waipahu Street right-of-way connects to the Municipal Sewer System. Wastewater at AAES is conveyed by a series of gravity lines, a pump station, and force mains to the Honouliuli Wastewater Treatment Plant, where it is treated and disposed of.

#### *4.13.2.2 Potential Impacts and Proposed Mitigation*

No significant impact on the existing electrical, water, and wastewater system is anticipated. In general, the relocation or modification of existing infrastructure is not expected. During construction, contractors will be required to verify locations of existing infrastructure prior to the start of construction and protect existing infrastructure to ensure against interruption of services within the project area.

**Electrical Supply.** No significant adverse impacts to electrical utilities are anticipated. Existing power connections for the AAES campus from HECO will meet the electrical needs of the proposed project. Electrical power and fire alarm system will be provided to the new classroom building via existing connections on the AAES campus. The electrical feed to the new classroom building will come directly from the main distribution panel located in the AAES main electric room. The fire alarm feed will come from the fire alarm control panel located at the AAES administration building. **Figure 3-5, Electrical Plan** indicates the connection locations and sources.

Construction of the project will not result in a significant adverse impact on the provision of electrical power at the AAES or the surrounding community. The existing HECO system has adequate capacity to meet the power requirements during construction activities and the operation of the new classroom building without causing delays or disruptions to the provision of electrical power to the surrounding community. The DOE acknowledges HECO’s need for continued access to existing easements and facilities within the project limits and will continue to coordinate with HECO for access to those facilities. No additional mitigation is recommended.



**Telephone and Communication Facilities.** The telecommunications distribution system will not be affected by the proposed action apart from the new telecommunication lines that will be connected to the existing infrastructure within the AAES campus. Telecommunications will be provided to the new classroom building via existing connections on the AAES campus. The telecom feed will come from the main distribution frame equipment located in the AAES library. **Figure 3-5, Electrical Plan** indicates the connection locations and sources. During early consultation for the project, Spectrum noted that it may have existing infrastructure on site that could be impacted by the proposed project (see **Appendix D**). To protect existing infrastructure and ensure against interruption of services, AAES and its contractor will verify locations of existing infrastructure prior to the start of construction and notify Spectrum of any work that requires special machinery, with a specific height requirement.

The project is not expected to have a significant impact, as the existing telecommunication system is adequate to support the new classroom building without causing delays or disruptions to the provision of services to the surrounding community. As the proposed project will not present any long-term impacts on telecommunication systems, no mitigation measures are required.

**Water Supply.** Water will be provided to the new classroom building via a connection to an existing 12-inch BWS waterline located within the Mahoe Street right-of-way. A new 8-inch waterline with a stub out for the building connection will be installed along with an approved BWS 3-inch diameter reduced pressure backflow preventer and 1-inch BWS meter (see **Figure 3-4, Utility Plan**).

An 8-inch water line and stub out for fire sprinkler connection to the new classroom building will also be installed and connected to the existing 12-inch BWS waterline in Mahoe Street right-of-way. The fire sprinkler waterline will be equipped with an approved BWS 6-inch diameter reduced pressure backflow preventer and DC meter. A new fire hydrant and concrete slab will also be installed north of the new classroom building and connected to water via the fire sprinkler water line (see **Figure 3-4, Utility Plan**). Water supply throughout the new classroom building, including the fire sprinkler system, will flow through 2.5-inch waterlines. A NPDES General Permit for hydrotesting waters may be obtained from the DOH, CWB.

During early consultation for the project (**Appendix D**), the BWS noted that the existing water system is adequate to accommodate the proposed development. However, this information is based upon current data, and therefore, the BWS reserves the right to change any position or information up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval. Plans will be submitted for review and approval to the BWS. DOE will continue to coordinate with the BWS on the proposed project and construction schedule to minimize impacts on the water system. When water is made available, the DOE will pay the BWS Water System Facilities Charges for resource development, transmission, and daily storage.

Where possible, DOE will utilize water conservation measures at the site. These measures may include the utilization of non-potable water for irrigation using rain catchment, drought-tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.

On-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department (HFD).

The proposed project is not expected to substantially increase water-use where it could not be accommodated by existing facilities. The proposed project would not result in significant adverse cumulative impacts on water resources.

**Irrigation System.** The proposed action will utilize the existing irrigation systems on the AAES campus. Therefore, no significant adverse impacts on irrigation systems are expected. No mitigation measures are required.

**Wastewater.** Wastewater services for the new classroom building will be provided by the CCH, Department of Environmental Services, via an existing 8-inch sewer line located in Waipahu Street right-of-way. Connection to the existing 8-inch sewer line within the Waipahu Street right-of-way will be near its intersection with Mahoe Street (see **Figure 3-4, Utility Plan**) and connected via a new 6-inch sewer line, two new sewer manholes, and a stub out for connection to the new classroom building installed along the western and southwestern boundary of the AAES campus.

The project’s sewer system will be designed per the requirements of the CCH Department of Environmental Services, Wastewater System Design Standard, dated July 2017; and the Wastewater System Standard Details, dated July 2017. All wastewater plans will conform to applicable provisions of HAR, Chapter 11-62, Wastewater Systems, and the DOH Wastewater Branch reserves the right to review the detailed wastewater plans for conformance to applicable rules.

The project is not anticipated to result in a significant impact on the existing wastewater system, as the proposed improvements will not result in a substantial increase in the generation of wastewater on the project site. No additional mitigation is recommended.

#### *4.13.3 Solid Waste*

##### *4.13.3.1 Description*

Solid waste on O‘ahu is collected by the CCH, Department of Environmental Services, Refuse Division as well as private vendors. The Department of Environmental Services, Refuse Division is responsible for the collection, transport, and disposal of most of O‘ahu’s solid waste. Solid waste at AAES is collected by West O‘ahu Aggregate, a private contractor that services the campus, and is disposed of at an approved CCH refuse site.

On the island of O‘ahu most residential and general commercial trash is hauled to the Campbell Industrial Park H-POWER (Honolulu Program of Waste Energy Recovery) Plant. This waste-to-energy plant processes over 600,000 tons of waste per year and produces up to 10 percent of this island’s electricity. Residual ash and non-combustible construction and demolition debris, as well as industrial waste, is disposed of in a landfill. The two landfills on O‘ahu are the Waimanalo Gulch Sanitary Landfill and the landfill in Nānākuli currently administered by PVT Land

Company (CCH Department of Environmental Services, 2005). PVT is Hawaii’s largest recycler by volume of material; approximately 7 million tons of wood, glass, metal, plastic, roofing materials, carpet, and concrete are recycled at PVT every year.

#### *4.13.3.2 Potential Impacts and Proposed Mitigation*

The construction of the proposed project is not expected to have long-term impacts to solid waste facilities based on the limited scope and scale of work. Short-term impacts are anticipated in the form of construction debris that will be generated requiring disposal. The construction contractor shall be responsible for the disposal of construction debris at a CCH-approved disposal site.

The proposed project is not anticipated to generate a significant quantity of solid waste during the operation of the planned new classroom building. Solid waste that is generated will be disposed of in accordance with HRS, Chapters 342H and 342I, and HAR, Chapter 11-58.1, Solid Waste Management Control. In accordance with HRS, Chapter 342G, where possible, DOE will reduce waste generation and encourage the recycling of solid waste. No secondary or cumulative impacts on solid waste facilities would occur from the implementation of the proposed project.

#### *4.13.4 Police Protection*

##### *4.13.4.1 Description*

The project site is located within Honolulu Police (HPD) District 3, which covers the area from ‘Aiea to Pearl City and Waipahu. AAES is located in Sector 1, which comprises Waipahu and Waikele. The nearest police station is the Pearl City District Station, located approximately 2.10 miles east of the AAES campus.

##### *4.13.4.2 Potential Impacts and Proposed Mitigation*

The project will not increase the on-site population and will not create long-term demand for additional police protection services. During the short term, HPD may receive increased calls regarding construction-related traffic. In addition, HPD may be required to assist with project-related construction and traffic flow. Potential traffic impacts will be mitigated through the implementation of construction staging and traffic management plans. With the proposed mitigation measures, significant project-related impacts on HPD services are not expected.

No long-term, secondary, or cumulative impacts on police protection are anticipated or expected, and no mitigation measures are necessary or recommended.

#### *4.13.5 Fire Protection*

##### *4.13.5.1 Description*

Fire prevention, suppression, and protection services for all of O‘ahu is provided by the HFD.

Fire protection in the vicinity of the AAES is provided by the HFD Waipahu Fire Station and Waikele Fire Station. The Waipahu Fire Station is located approximately 0.57 miles to the

southwest of the project site and the Waikele Fire Station is located approximately 0.55 miles to the northwest of the project site.

HFD works with the Emergency Medical Services (EMS), which dispatch the closest available unit. This may be either an EMS ambulance or a fire company and typically depends on the type of emergency and location. Since there are only 16 EMS stations on O‘ahu, fire companies are frequently the first responder.

#### *4.13.5.2 Potential Impacts and Proposed Mitigation*

As the project site is near existing structures on parcels already developed for use by AAES, and existing fire connections and hydrants are present for existing structures, the proposed project is not anticipated to create an increased demand for existing fire protection services.

Access for a fire apparatus, water supply, and building construction for the project will comply with existing codes and regulations. Fire apparatus access roads will be maintained with unobstructed width and vertical clearances in accordance with County requirements (National Fire Protection Association [NFPA] 1; 2018 Edition, Sections 18.2.3.4.1.1 and 18.2.3.4.1.2, as amended) and the Uniform Fire Code, Section 902.2.1, as amended.

Fire department access roads will be provided such that any portion of the DOE new classroom building or any portion of an exterior wall of the first story of the building is located not more than 150 feet (45 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility (NFPA 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1). The fire department access road will extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building (NFPA 1; 2018 Edition, Section 18.2.3.2.1). The fire department access roads will be in accordance with Section 18.2.3 (NFPA 1; 2018 Edition, Section 18.2.3).

A water supply approved by the County, capable of supplying the required fire flow for fire protection, will be provided to the proposed new classroom building facilities. The approved water supply will be in accordance with Section 18.4. (NFPA 1; 2018 Edition, Section 18.3.1.). Water infrastructure will be designed and installed in accordance with the Uniform Fire Code, Section 903.2, as amended and a new fire hydrant capable of providing a flow of 2,000 gallons per minute installed onsite, in accordance with the BWS Water System Standards. DOE will install a new fire hydrant and concrete slab north of the new classroom building and new water laterals to connect to an existing 12-inch BWS waterline in the Mahoe Street right-of-way (see **Figure 3-4, Utility Plan**). The proposed new on-site fire hydrant and mains will be capable of supplying the required fire flow (NFPA 1; 2018 Edition, Section 18.3.1, as amended). DOE will also install a new 8-inch water line and stub out for a fire sprinkler connection to the new classroom building to connect to the existing 12-inch BWS waterline in Mahoe Street right-of-way. The fire sprinkler waterline will be equipped with an approved BWS 6-inch diameter reduced pressure backflow preventer and DC meter. Water supply throughout the new classroom building, including the fire sprinkler system, will flow through 2.5-inch waterlines.

Plans will be submitted for review and approval to the BWS. DOE will continue to coordinate with the BWS on the proposed project and construction schedule to minimize impacts on the water system.

Civil drawings will be submitted to the City and County of Honolulu's Department of Planning and Permitting and routed to the HFD for review and approval. On-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the HFD.

The planned project would not increase the population and therefore would not increase demand for fire protection services. No direct, secondary, or cumulative impacts on fire protection are anticipated or expected, and no mitigation measures are necessary or recommended.

#### *4.13.6 Health Care and Emergency Services*

##### *4.13.6.1 Description*

Health care facilities located near AAES that provide emergency services include Hawai‘i Medical Center West in ‘Ewa and Kapi‘olani Pali Momi Medical Center in ‘Aiea. A variety of health care providers can also be found nearby in Waipahu and Pearl City.

##### *4.13.6.2 Potential Impacts and Proposed Mitigation*

The project will not increase the population in the vicinity or demand for emergency medical services. Therefore, existing medical services and facilities are anticipated to be adequate to accommodate the project. Although there may be an unavoidable and occasional need for emergency health care services by students or employees in the AAES new classroom building and on the new play court, the project is not expected to significantly increase the need for emergency services and is not expected to have a long-term adverse impact on emergency medical providers or their ability to service the community. No secondary or cumulative impacts on emergency services are expected, and no mitigation measures are proposed.

#### *4.13.7 Schools and Libraries*

##### *4.13.7.1 Description*

The DOE has a total of eight school districts and 320 public schools statewide. A number of public and private schools are located in the vicinity of the AAES campus including Lanakila Baptist Elementary School, St. Joseph Elementary School, Waikele Elementary School, Waipahu Intermediate School, and Waipahu High School. Leeward Community College, University of Hawai‘i West O‘ahu, and Hawai‘i Tokai International College are the three primary higher education institutions closest to the project site. The nearest public library is the Waipahu Public Library.

##### *4.13.7.2 Potential Impacts and Proposed Mitigation*

The proposed project will directly benefit the public school system by providing improved classrooms and facility amenities for the existing student population attending AAES. The new

classroom building will provide improved amenities to facilitate both a conducive teaching and learning environment. The proposed project will have no impact on enrollment or operations of other nearby public or private schools, and no mitigation measures are proposed.

#### *4.13.8 Recreational Resources*

##### *4.13.8.1 Description*

Recreational facilities near the AAES campus include nearby facilities such as Waipahu Uka Neighborhood Park, Hans L’Orange Neighborhood Park, Waipahu District Park, Ted Makalena Golf Course, Waipi‘o Peninsula Soccer Park, and Waipahu Cultural Garden Park.

##### *4.13.8.2 Potential Impacts and Proposed Mitigation*

The proposed action is not anticipated to displace any existing recreational facilities or create any additional demand for recreational facilities in the vicinity of the project as the proposed construction area is located within the AAES campus. While the existing play court at AAES would be temporarily displaced to build the new classroom building, a new play court would be constructed to replace it on the south-central portion of the AAES campus.

Once constructed, the proposed action is not expected to have any long-term impacts on recreational uses within the project area. Additionally, the planned project will not increase the population in the vicinity creating additional long-term use of recreational facilities. No mitigation measures are proposed.

#### *4.14 Archeological and Historic Resources*

##### *4.14.1 Description*

A draft archaeological literature review and field inspection (ALRFI) report, dated December 2021, was prepared by Cultural Surveys Hawai‘i, Inc. (CSH) for the August Ahrens Elementary School New Classroom Building Project, Waipi‘o Ahupua‘a, ‘Ewa District, O‘ahu. The complete ALRFI report is included in **Appendix B**, and a summary is provided below.

The ALRFI was designed—through detailed historical, cultural, and archaeological background research and a field inspection of the project area—to determine the likelihood that historic properties may be affected by the project, and based on findings, consider cultural resource management recommendations. The ALRFI document is intended to facilitate the project’s planning and support the project’s historic preservation and environmental review compliance.

No historic properties have been previously reported for the AAES campus or within 300 meters of the AAES campus which supports a DOE determination (as per HAR §13-275-7[a][1]) of “No historic properties affected” and no further archaeological work. The DOE will notify the State Historic Preservation Division (SHPD) of the proposed project and request a letter of determination (as per HAR §13-275-3) and concurrence with this effect determination.

## Early Historic Period

Waipi‘o Ahupua‘a was a focus of Hawaiian settlement and activity on O‘ahu during the centuries preceding Western Contact. “The populous dwelling place of the *ali‘i* (chiefly class) was formerly located on an east point of Waipi‘o Peninsula known as Lēpau” (McAllister 1933:106). The *ali‘i* at Waipi‘o were no doubt attracted to the great abundance the region offered. “The primary reason for ‘Ewa’s prominence in history and as an *ali‘i* stronghold was undoubtedly the existence of the great number of fishponds at different points around Pearl Harbor, which was ‘Ewa territory. Two of the largest were on the peninsula, and another was at its northwest corner” (Handy and Handy 1972:470).

The Handys characterize Waipi‘o and its peninsula as “an *ali‘i* stronghold” and it is known as the scene of many battles between local and invading *ali‘i* for political control of O‘ahu. Several accounts relate the “Battle of Kīpapa” during the reign of the fifteenth century *mō‘ī* (paramount chief), Ma‘ilikūkāhi, explaining how the gulch and stream in Waipi‘o got their name.

During the second half of the eighteenth century, Waipi‘o again became a focus of political intrigue and warfare on O‘ahu. In 1783, the forces of the Maui chief Kahekili gained control of the island of O‘ahu by defeating the *mō‘ī*, Kahahana, “from the powerful ‘Ewa chiefs’ line” (Cordy 1981:207). According to the nineteenth century Hawaiian historian Samuel Kamakau, the defeated O‘ahu chiefs plotted to kill the Maui chiefs. Waipi‘o was given the name “*Waipi‘o kīmopō*,” “Waipi‘o of secret rebellion,” as it became the stage for the plotting (Kamakau 1992:138). After the failure of this plot, Kahekili took revenge on the ‘Ewa and Kona districts. If correct, the population of Waipi‘o would have been decimated during the 1780s.

Kahekili and the Maui chiefs retained control of O‘ahu until the 1790s. Kahekili died at Waikīkī in 1794. His son, Kalanikūpule, was defeated the following year at the battle of Nu‘uanu by Kamehameha, who distributed the O‘ahu lands—including Waipi‘o Ahupua‘a—among his favorite followers: “[...] land belonging to the old chiefs was given to strange chiefs and that of old residents on the land to their companies of soldiers, leaving the old settled families destitute” (Kamakau 1992:376–377).

## 1800s to 1850

Native Hawaiian activity and habitation in the middle of the nineteenth century continued to be clustered in the makai lowlands and the fishponds near the coast. The landscape of the coastal plain of the ahupua‘a (traditional land division) was dominated by an extensive network of taro lo‘i (terraced pond-fields) as indicated by Land Commission Award (LCA) documents from the mid-nineteenth century Māhele.

The end of the eighteenth century and the beginning of the nineteenth century marked Hawai‘i’s entry into world trade networks. One of the chief exports at this time was sandalwood (*Santalum* spp.) or *‘iliahi*, which was prized in China for its unique fragrance and used there in the manufacture of household items, as incense, as perfume, and as medicine (St. John 1947). The central plains of ‘Ewa supplied the Hawaiian Kingdom with *‘iliahi*. The dry forests formerly



covering this region probably never came back, particularly considering the harm done to the *‘iliahi* seedlings with the introduction of cattle soon thereafter (Judd 1933).

During much of the nineteenth century, Waipi‘o Ahupua‘a was associated with John Papa ‘Ī‘ī, a significant figure and chronicler of the Hawaiian Kingdom.

‘Ī‘ī’s writings, collected in *Fragments of Hawaiian History*, provide glimpses of life within Waipi‘o Ahupua‘a during ‘Ī‘ī’s lifetime. ‘Ī‘ī mentions the “family [going] to Kīpapa from Kumelewai by way of upper Waipi‘o to make ditches for the farms” (‘Ī‘ī 1959:28) and recalls that during the visit to O‘ahu by the Kaua‘i chief Kaumuali‘i and his entourage, the chief’s attendants were provided with gifts: “from Waipi‘o in ‘Ewa and some lands of Hawai‘i came *tapa* made of *mamaki* bark” (‘Ī‘ī 1959:83). ‘Ī‘ī notes a period of famine in Waipi‘o and that the people had lived on mountain apples (*‘Ōhi‘a‘ai*), *tis*, yams, and other upland foods.

### **The Māhele and the Kuleana Act**

The most significant change in land-use patterns and allocation came with The Māhele and the privatization of land in Hawai‘i. The establishment in 1839 by Kamehameha III (Kauikeaouli) of a Bill of Rights for the people of Hawai‘i, followed by a formal constitution in 1840, hastened the shift of the Hawaiian economy from that of a subsistence-based economy to that of a market based economy. The Organic Acts of 1845 and 1846 initiated the process of the Māhele, the division of Hawaiian lands, which introduced private property into Hawaiian society.

LCAs are *kuleana* land awards or claims that were approved by the Land Commission and granted by ministers representing the Kingdom of Hawaii’s Department of the Interior. These awards were granted to tenants of the land, Native Hawaiians, naturalized foreigners, non-Hawaiians born in the islands, or long-term resident foreigners who could prove occupancy on the parcels prior to 1845. The great majority of the awarded land parcels were located in the *makai* portions of Waipi‘o, at or just above the peninsula (**Figure 4-15**). No native tenant LCA parcels were awarded within approximately 600 meters of the present project area.

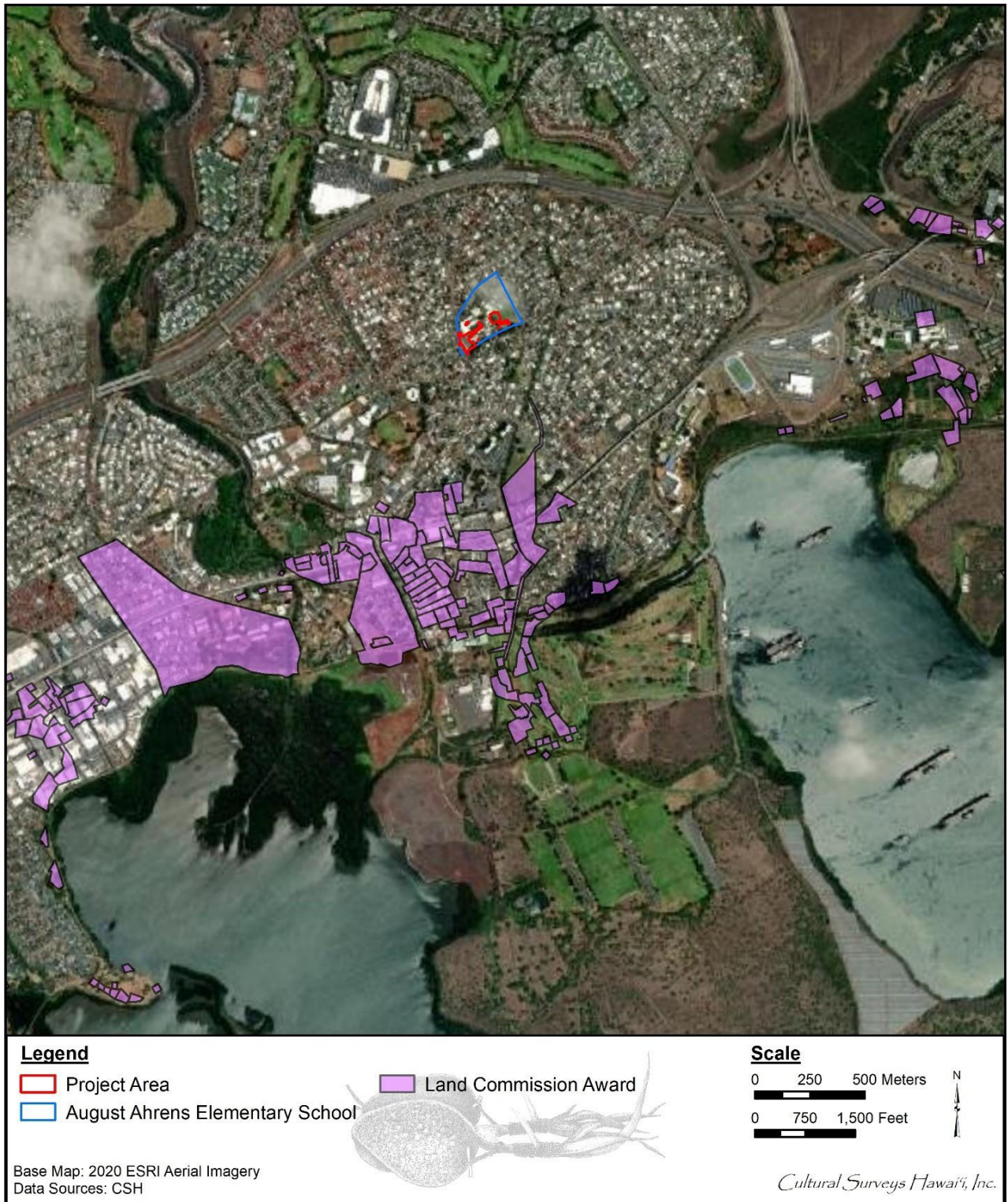
### **Mid to Late 1800s**

During the later 1800s, taro fields were converted to rice fields as Chinese immigrants began to lease and purchase land. The 1851 Bishop (RM 107) map of Waipio (**Figure 4-16**) focuses on the coastal fishponds and fisheries. The prominent east/west trending “Ala Aupuni” or Government Road is understood as the major cross-*ahupua‘a* trail on the south shore of O‘ahu and is understood to have been along the alignment of Waipahu Street fronting the present day AAES. Houses are shown *makai* of the Ala Aupuni but not *mauka* of the road.

The 1873 Alexander map of Waipio (**Figure 4-17**) shows an extensive wetland at the base of the Waipi‘o Peninsula that corresponds to the abundance of LCA claims for taro lands in that area (see **Figure 4-15**). Very few houses are indicated and none *mauka* of the Government road.

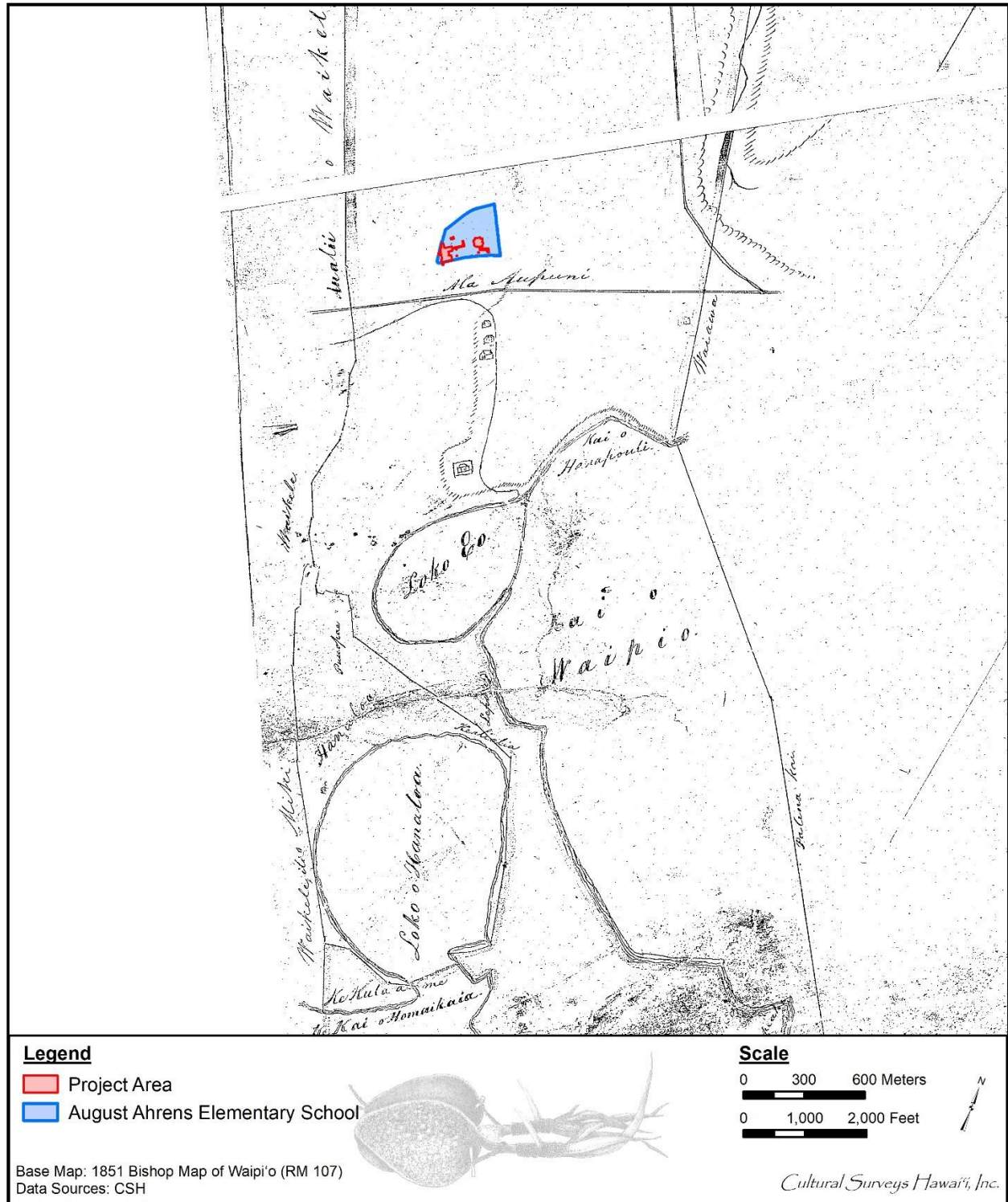
The 1894 Kananui map of Waipi‘o (**Figure 4-18**) has two labels for “Rice” west of the Loko Eo fishpond indicating relatively early adoption of widespread rice cultivation, most likely by Chinese immigrants.

Figure 4-15. Land Commission Awards in the Vicinity of the Project Area





**Figure 4-16. 1851 Bishop Map Showing AAES Project Area and Government Road**



**Figure 4-17. 1873 Alexander Map Showing AES Project Area and Government Road**

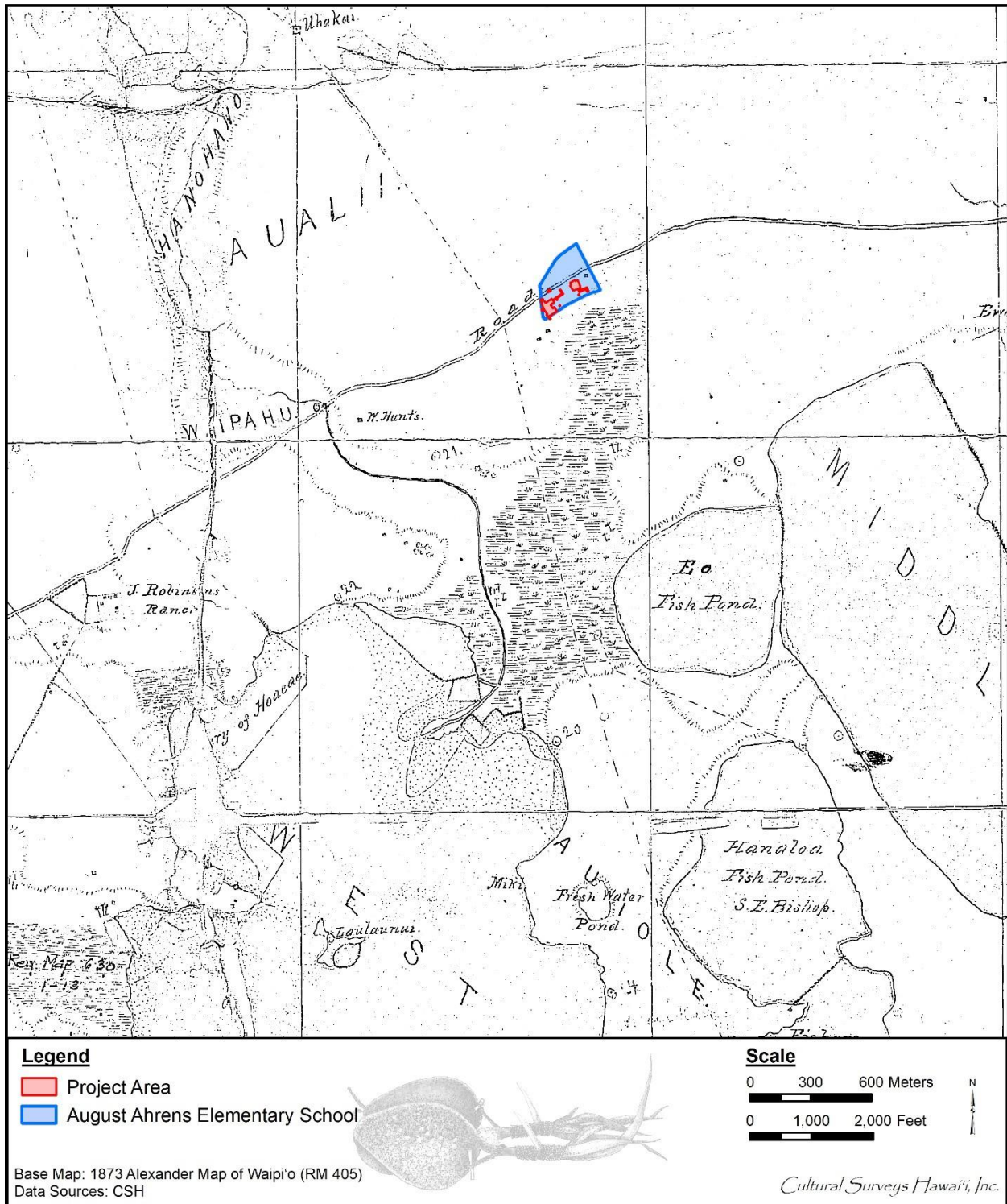
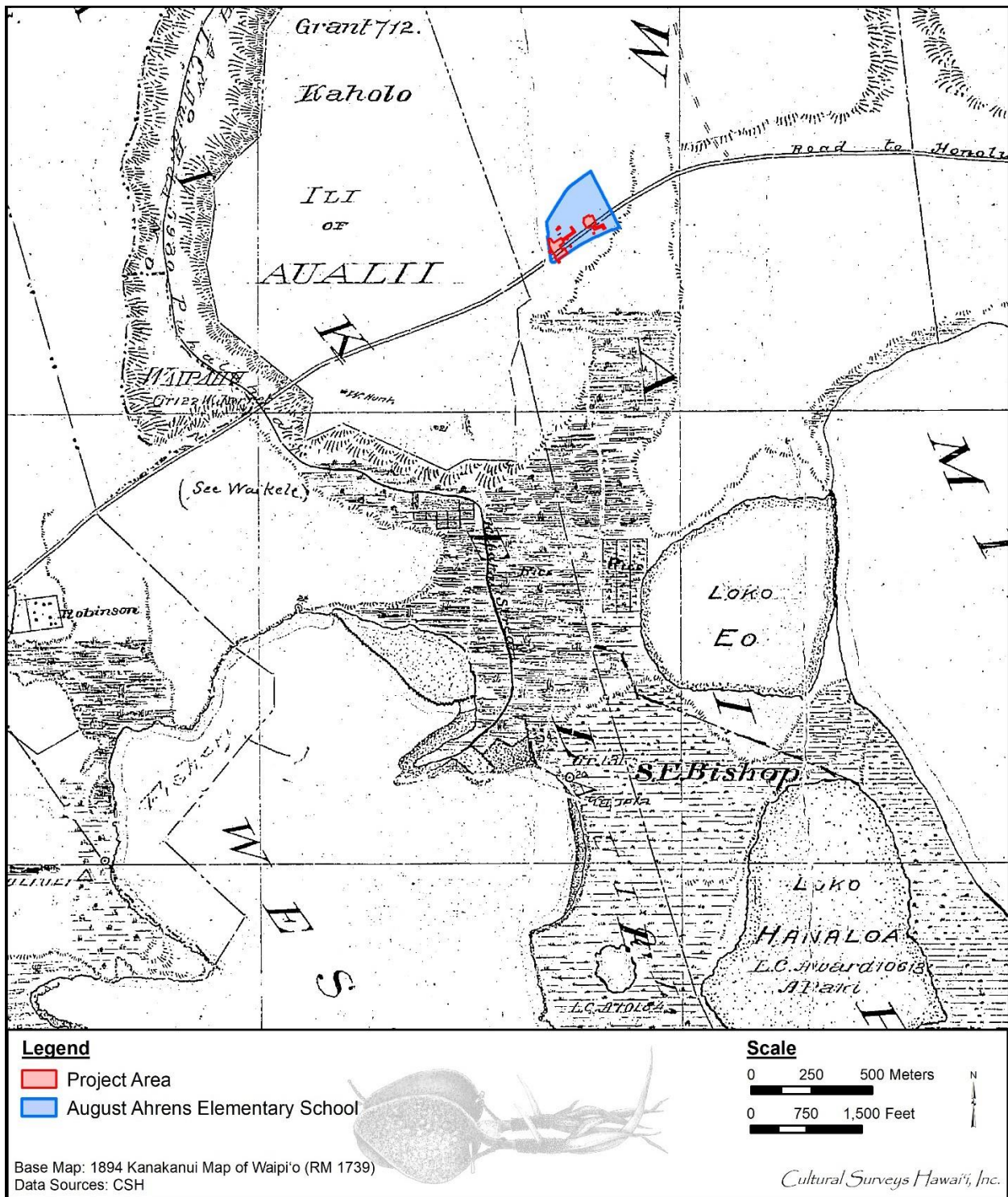




Figure 4-18. 1894 Kananui Map Showing AAES Project Area and Government Road



After John Papa ‘Ī‘ī’s death in 1870, his estate—including the Waipi‘o lands—was inherited by his daughter Irene ‘Ī‘ī Brown. Shortly after, small parcels within the *ahupua‘a* were sold off, “including a portion to James Robinson and Co. in September 1871” (Riford and Cleghorn 1986:22). It would not be until the late 1890s that large tracts of Waipi‘o land would be leased for large-scale commercial agriculture.

In 1897, the newly organized Oahu Sugar Company leased 3,400 acres of Waipi‘o from the ‘Ī‘ī estate (Condé and Best 1973:313). A few years earlier, the Oahu Railway and Land Company (OR&L) had leased a tract through Kīpapa Gulch to transport sugar and pineapple from Wahiawā to Honolulu. The growth of sugarcane in Waipi‘o would comprise the major transformation of the present study parcel during the twentieth century (**Figure 4-19**).

### 1900s

By the early decades of the twentieth century, rice farming in the area (as in the rest of the Hawaiian Islands) was in decline, beset by crop diseases and cheaper prices for rice from the mainland. Commercial agriculture became dominated by sugar, particularly with the founding and development of the Oahu Sugar Company.

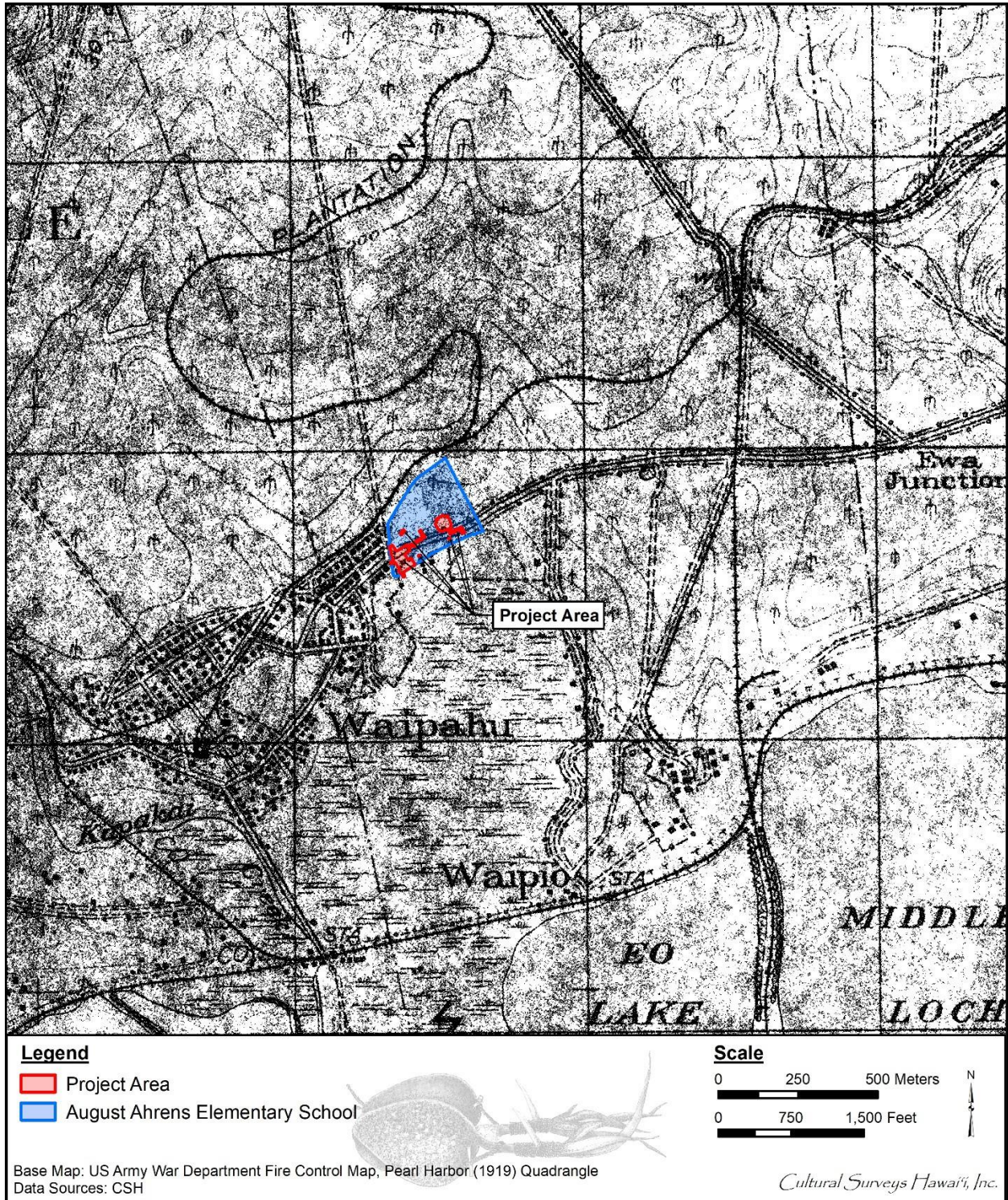
Early in the twentieth century, the U.S. Government began acquiring the coastal lands of ‘Ewa for the development of a naval base at Pearl Harbor. In 1909 the government appropriated the Waipi‘o peninsula from the ‘Ī‘ī estate. The land was valued at \$10,000 for purposes of fair compensation. At the same time, lands in *mauka* Waipi‘o were being acquired for pineapple cultivation. A lease from the John ‘Ī‘ī Estate, Ltd. to Yoshisuke Tanimoto and Kintaro Izumi in 1908 led to the formation of the Waipio Pineapple Company, which cleared and cultivated approximately 223 acres in portions of Kīpapa Gulch (Department of Land and Natural Resources Land Record Books:228–235). In 1915, Libby McNeill & Libby took over Waipio Pineapple Company’s leases and continued to cultivate pineapple in the area.

The 1919 U.S. Army War Department map shows this rapid transformation with the OR&L hugging close to the north end of middle Loch and then cutting west across the base of the Waipi‘o Peninsula to hug the north side of West Loch while plantation railroads wind into the uplands. A plantation railroad is shown as defining the north edge of the future AAES campus. While Waipahu town is rapidly growing and already abuts the west side of the future AAES campus, the *mauka* slopes to the northwest, north, and east are a sea of sugarcane. It appears the AAES campus is already planted in sugarcane. A 1922 Oahu Sugar Company map indicates commercial sugarcane cultivation within the project area. By the late 1920s, Dole was cultivating pineapple on thousands of acres in the *mauka* area of Waipi‘o.

Meanwhile, the Oahu Sugar Company was dealing with the problem of obtaining sufficient water to cultivate sugar. In 1913, a project began to transport water from the windward side of O‘ahu through the Ko‘olau Range to irrigate the fields and mill of the Oahu Sugar Company in ‘Ewa. The Waiahole Water Company, a subsidiary of Oahu Sugar, created the Waiāhole Ditch System that was “an engineering feat of epic proportion for those times” (Condé and Best 1973:37). The ditch system was completed in 1916, and with some modifications is still in use. The 1924 Evans map shows the “Upper Limits of Cane” as approximating the Waiāhole Ditch.



Figure 4-19. 1894 Kananui Map Showing AAES Project Area and Government Road





The 1928 USGS map shows the growth of Waipahu town to the southwest of the AAES campus which necessitated the creation of elementary schools. AAES, named after the first manager of the Oahu Sugar Company, opened on 1 September 1924 with an administration building and 14 classrooms serving 605 students and 13 teachers (AAES “School History and Profile” website). This 1928 map shows the school as quite compact in the southwest corner of the present campus. A straight, unimproved road heading north (the future Mahoe Street) is now depicted as bounding the west side of the campus.

The 1935 U.S. Army War Department map shows much the same scene with the large size of the school symbol reflecting the relatively large size of the AAES. It is believed that the vast majority of the campus was still in active sugarcane production.

During the 1930s, the use of Waipi‘o by the U.S. military extended well *mauka* of the peninsula at Pearl Harbor. The military began the appropriation of Kīpapa Gulch around 1938 and during World War II used the rail system to “haul large quantities of ammunition” (Condé and Best 1973:315). World War II, however, had little impact on the present project area.

The 1943 U.S. Army War Department map is quite similar with the school indicated as the most prominent construction in Waipahu east of the sugar mill.

On the 1954 USGS map, the school is now labeled as the “August Ahrens Sch.” The school seems to have enlarged significantly but is still confined to the west side of the present-day campus. The train tracks that were such a fixture on the landscape from 1919 to 1943 are now gone, replaced by a more intensive complex of cane haul roads to haul cane to the Waipahu Sugar Mill by truck.

The 1959 USGS aerial photograph shows sugarcane cultivation has retreated to the eastern 40% of the campus but the AAES buildings are still compactly in the southwest corner of the campus with seeming playing fields in between. Substantial subdivisions are being developed to the northwest and north of the school. The 1962 USDA aerial photograph shows much the same scene with increasing suburban development.

During the second half of the twentieth century, growth in Waipi‘o Ahupua‘a focused on the development of Mililani Town by Castle & Cooke, Inc. through its subsidiary, Oceanic Properties, Inc. In 1964, the state Land Use Commission redesignated 705 acres of agricultural land in Waipi‘o for urban use. The first section of Mililani Town opened in June 1968. In 1973 construction began on the H-2 freeway across Waipi‘o, connecting Mililani to the H-1 freeway.

The 1968 USGS map and 1968 USGS aerial photograph show an explosion of suburban development to the south and east of the school with substantial expansion of school buildings to accommodate the attendant increasing school-age population. The eastern 40% of the campus is still in commercial sugarcane production. The 1978 USGS orthophotoquad shows the school campus in its present form surrounded by suburban streets and homes. Commercial sugarcane cultivation has retreated to *mauka* of the H-1.

On 9 April 1995, Oahu Sugar Company closed its books as Waipahu Sugar Mill processed its final cane.

## **Previous Archaeological Research**

Previous archaeological studies in the vicinity of the project area are detailed below (**Table 4-5** and **Figure 4-20**). The location of historic properties identified by previous archaeological studies in the vicinity of the project area is depicted in **Figure 4-21** and described in **Table 4-6**.

## **Results of Fieldwork**

A field inspection of the AAES focused on the project areas, was carried out by CSH archaeologist David W. Shideler, M.A., on 17 November 2021. No surface historic properties were observed in the project areas and the prospect of significant subsurface historic properties was evaluated as low.

## **Summary of Findings**

No historic properties have been previously reported for the AAES campus or within 300 meters of the AAES campus, and no historic properties were identified in the project area during the present fieldwork, which supports a DOE determination (as per HAR §13-275-7[a][1]) of “No historic properties affected” and no further archaeological work. The DOE will notify the SHPD of the proposed project and request a letter of determination (as per HAR §13-275-3) and concurrence with this effect determination.

**Table 4-5. Previous Archaeological Studies in the Vicinity of the Project Area**

Reference	Type of Study	Location/Project	Results (SIHP # 50-80-09 unless otherwise noted)
McAllister 1933	Archaeological reconnaissance	Island-wide	Identified Site 122 (Ahuena Heiau), Site 123 (Loko Eo), Site 127 (Mokoula Heiau), Site 128 (Waipahu Spring), and Site 129 (Loko ‘Eo)
Barrera 1985	Archaeological reconnaissance survey	Approx. 585 acres at Waikele and Waipi‘o bounded on the east by Kamehameha Hwy and on the south by H-1 Freeway	Barrera (1985:3) reports, “No evidence of past utilization of any kind was observed either in the open fields or in the exposed earthen faces of irrigation ditches”; recommended no further archaeological work
Folk 1990	Archaeological reconnaissance	Waipahu St (from Amokili St to along <i>makai</i> side of AAES)	No historic properties designated (a stone wall possibly relating to an OR&L railroad bed is discussed)
Kawachi and Griffin 1990, Douglas 1990	Inadvertent burial discovery 18132	94-1049 Kahuailani St, located approx. 300 m southwest of the southwest portion of the current project area	Identified one historic property: SIHP # -4245, early post-Contact human burial; companion Douglas (1990) osteological study confirmed skeletal remains from one female Polynesian, age 40-50 years
Hammatt et al. 1993	Archaeological investigations (reconnaissance)	39.6-acre parcel in <i>ahupua‘a</i> of Waikele, bounded to the northwest by H-1 Freeway, to the northeast by Manager’s Dr	Two archaeological sites located: 1) SIHP # -530, a previously recorded petroglyph field on a bluff along the southwest boundary of the study area and included at least 28 incised figures in four distinct groups; and 2) SIHP # -4660 comprised remnants of former Oahu Sugar Plantation camp (Higashi Camp) and management residences once spread over approx. half the study area (this would be revised in Hammatt et al. 2000)
Spear 1993	Archaeological reconnaissance	Former Oahu Sugar Mill location approx. 300 m southwest of the southwest corner of the present project area	Remains of abandoned plantation camp identified; determined not significant (no SIHP # assigned)
Spear 1994	Archaeological reconnaissance (addendum to Spear 1993)	Included an additional approx. 5.5 acres adjacent to the northwest side of Spear 1993 study area	Addendum reconnaissance “showed the parcel to be an abandoned plantation camp” (Spear 1994:1) but concluded “that no archaeological sites of any significance are in the project area and it is our recommendation that no further archaeological investigations need be performed there” (Spear 1994:1)

Reference	Type of Study	Location/Project	Results (SIHP # 50-80-09 unless otherwise noted)
Cleghorn 1996	Archeological inventory survey	23 acres surrounding and including Oahu Sugar Mill approx. 300 m southwest of the southwest corner of the present project area	Oahu Sugar Co. infrastructure as observed throughout the entire study area; 60% of the infrastructure associated with the sugar mill (machinery, buildings, paved and graded roadways) and 40% associated with Oahu Sugar Co. supervisors’ residences, known as Skill Village (no SIHP # assigned)
Hammatt et al. 2000	Archeological inventory survey	40-acre parcel along the western edge of Manager’s Dr, located approx. 900 m west of the current project area	Re-identified two historic properties: SIHP # -530, pre-Contact petroglyphs, and # -4660, remnants of Oahu Sugar Co. plantation camp (Higashi Camp); follow-up to Hammatt et al. 1993
Hammatt and Chiogioji 2000	Literature review and field inspection	Farrington Hwy (from Anini Place to Waipahu Depot Rd)	No historic properties identified
Chiogioji and Hammatt 2001	Historical background study	Approx. 35,000-sq-ft parcel in Waipahu Town located on the <i>mauka</i> /'Ewa corner of the intersection of Mokuola St and Hikimoe St	No surface archaeological sites associated with traditional Hawaiian occupation observed; concluded land fill and modern activities associated with Waipahu Town eliminated any possible remnant of surface sites; additionally concluded subsurface evidence of traditional Hawaiian agricultural activities would have been severely impacted
Ostroff et al. 2001	Inadvertent burial discovery	Filipino Community Center, located 600 m southwest of the current project area	Identified one historic property: SIHP # -5882, pre-Contact human burial
Hammatt et al. 2004	Archaeological literature review and field inspection	Waipahu Streets Drainage Improvements project including the AAES campus	No historic properties identified; concluded “decades of sugarcane cultivation, would have destroyed or extensively disturbed any subsurface historic properties”
Perzinski et al. 2004	Archaeological inventory survey	13-acre parcel located immediately southwest of Waipahu High School, approx. 600 m southeast of the present project area	Three historic properties identified: SIHP # -6671, historic remnants of Brown estate consisting of concrete and cinder block foundations; SIHP # -6672, a subsurface cultural layer containing evidence of both pre- and post-Contact land use; and SIHP # -6673, a pre- and post-Contact cultural layer containing two pre- Contact flexed human burials

Reference	Type of Study	Location/Project	Results (SIHP # 50-80-09 unless otherwise noted)
Perzinski et al. 2006	Archaeological data recovery	SIHP #s -6672 and -6673 at 10-acre project area (basically same as Perzinski et al. 2004 project area) located immediately southwest of Waipahu High School, approx. 600 m southeast of the present project area	At SIHP # -6672, encountered two cultural material-bearing strata (Strata III and V); radiocarbon dating of six charcoal samples from data recovery work reported; two burials recovered (SIHP # -6673 Feature B [Burial 1] and Feature C [Burial 2])
Whitman et al. 2007	Archaeological literature review, field inspection, and cultural impact evaluation	Proposed Waipahu Depot St improvements south of Farrington Hwy	OR&L railroad bridge and ROW (SIHP#50-80-12-9714) is only historic property discussed
Runyon and Hammatt 2008	Archaeological monitoring	13.22-acre Castle & Cooke Homes Hawai‘i parcel in Waipi‘o Peninsula, immediately southwest of Waipahu High School	No historic properties identified
Tulchin et al. 2009	Archaeological inventory survey	“Makai Section” of Trunk Sewer Line for proposed Koa Ridge project, along Paiwa St, crossing H-1 freeway and running through the existing bus parking lot, south on Mokuola St, west on Moloalo St and Farrington Hwy	One historic property identified, SIHP # -6959, plantation-era irrigation infrastructure including ditches and water control feature but was 3.2 km north of present project area
Hammatt 2010	Archaeological inventory survey	Construction phase I for Honolulu High-Capacity Transit Corridor Project	Only one historic property identified, SIHP # -7751, subsurface cultural deposit ( <i>lo‘i</i> sediments), identified at proposed Waipahu Transit Center approx. 900 m south of the present study area
O’Hare et al. 2011	Archaeological literature review and field inspection	Honouliuli /Waipahu/ Pearl City Wastewater Facilities project arced around much of northern Pearl Harbor; work in the vicinity of the present project area focused on the vicinity of the Waipahu wastewater pumping station	Noted a number of native tenant LCAs in this area; short distance <i>mauka</i> of their study area significant Hawaiian community near Kapakahi Stream (Waipahu Depot Rd) and modern-day Farrington Hwy
Sroat et al. 2016	Archaeological data recovery	SIHP # -7751, located approx. 900 m south of the present project area near the proposed Waipahu Transit Station of Honolulu Rail Transit Project	Based on characteristics of Stratum IIb as well as radiocarbon dating results of speiated charcoal, Stratum IIb interpreted as <i>lo‘i kalo</i> sediment associated with pre-Contact to early post-Contact agriculture

Figure 4-20. Previous Archaeological Studies in the Vicinity of the Project Area

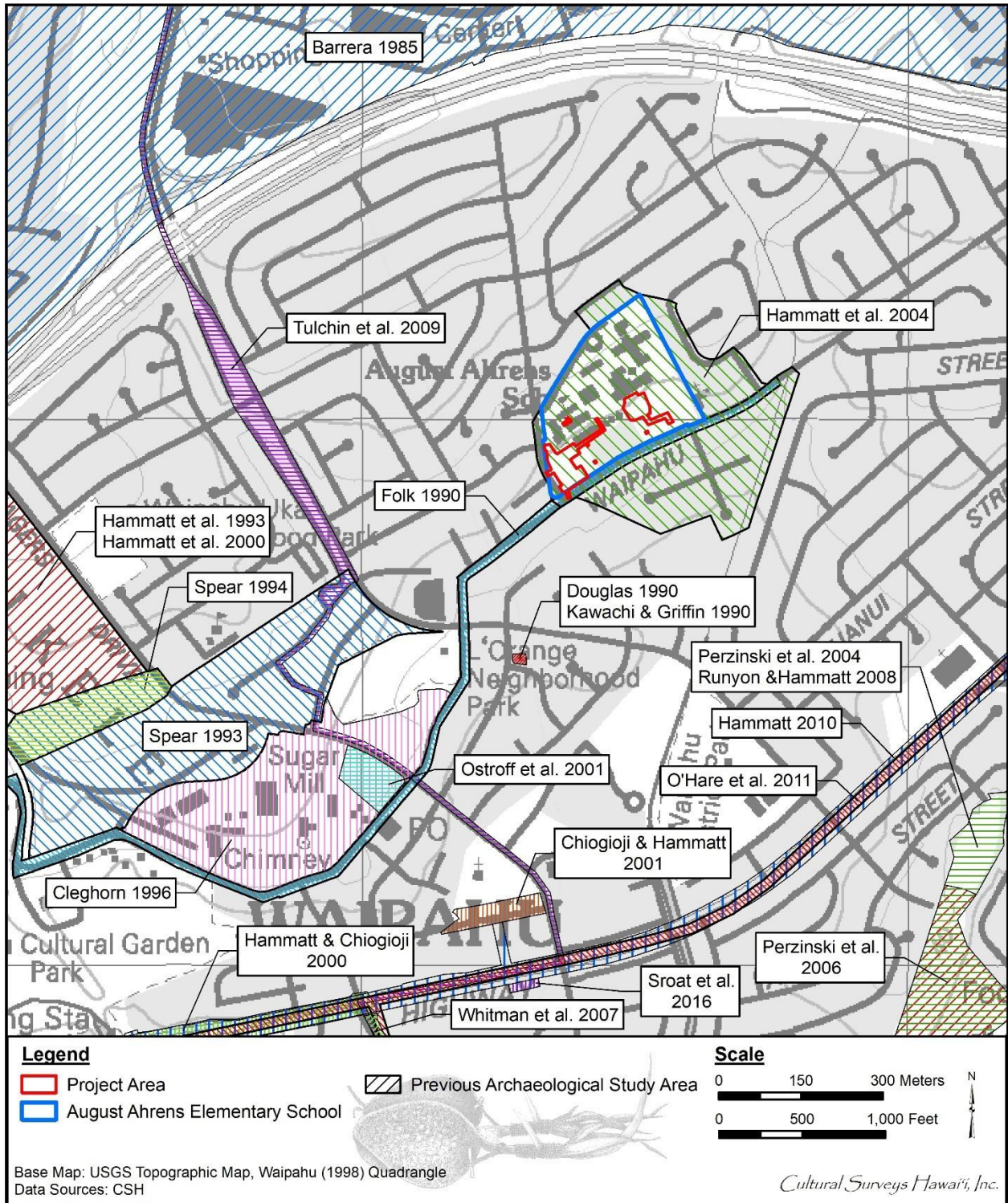
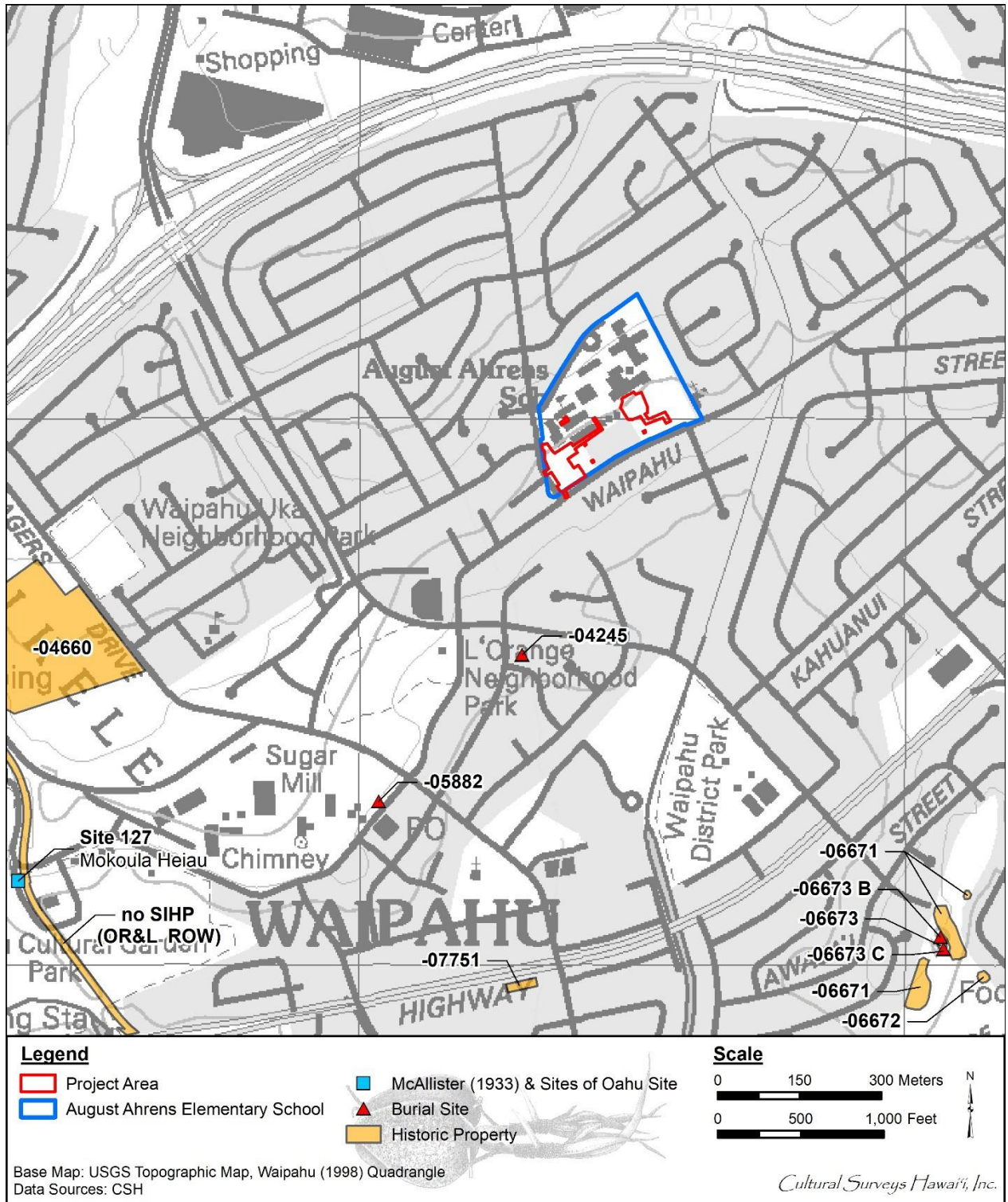




Figure 4-21. Previously Documented Historic Properties in the Vicinity of the Project Area





**Table 4-6. Previously Identified Historic Properties in the Vicinity of the Project Area**

SIHP # 50-80-09-)	Nature of Site	Comment	Source
McAlister Site 127	Heiau (Moko‘ula Heiau)	Reported as “completely destroyed for the building purposes of the neighborhood”	McAllister 1933:106
-4245	Burial (human, one individual)	Post-Contact	Kawachi and Griffin 1990
-4660	Remnants of an Oahu Sugar Co. plantation camp (Higashi Camp)	Included concrete building foundations, stone and mortar walls, road remnants, etc.	Hammatt et al. 1993, Hammatt et al. 2000
-5882	Burial (human, one individual)	Based on the lack of burial goods, a flexed burial position, and stratigraphic observations, the burial was determined to be of pre-Contact origin and ethnically Hawaiian	Ostroff et al. 2001
-6671	Historic remnants of the Brown estate	Consisting of concrete and cinder block foundations	Perzinski et al. 2004
-6672	Subsurface cultural layer	Containing evidence of both pre- and post-Contact land use	Perzinski et al. 2004
-6673	Subsurface cultural layer	A pre- and post-Contact cultural layer containing two pre-Contact flexed human burials (SIHP # -6673 Feature B (Burial 1) and Feature C (Burial 2))	Perzinski et al. 2004
-7751	Subsurface agricultural sediment (likely from cultivation of wetland <i>kalo</i> (taro)—buried <i>lo‘i</i> deposit	Carbon dating was problematic.	Hammatt 2010, Sroat et al. 2016
No SIHP # assigned (OR&L ROW)	Railroad	The Folk (1990:11, 14) study notes a stone wall “that appears to be the facing of an old railroad bed) and cites a Spencer Mason Architects (1990) study regarding an OR&L railroad Right-of-Way	Folk 1990

#### 4.14.2 Potential Impacts and Proposed Mitigation

Implementation of the proposed action is not anticipated to have short- or long-term impacts on historic properties. No historic properties have been previously reported for the AAES campus or within 300 meters of the AAES campus, and no historic properties were identified in the project area during the present fieldwork, which supports a DOE determination (as per HAR §13-275-7[a][1]) of “No historic properties affected” and no further archaeological work. The DOE will

notify the SHPD of the proposed project and request a letter of determination (as per HAR §13-275-3) and concurrence with this effect determination.

In the unlikely event that subsurface historic resources, including human skeletal remains, structural remains, cultural deposits, artifacts, native sand deposits, or sink holes are identified during the demolition and/or construction work, work in the immediate vicinity of the find will cease, the find will be protected from additional disturbance, and the SHPD will be contacted.

## **Section 5**

### **Cultural Impact Assessment**

The project requires compliance with the State of Hawai‘i environmental review process (HRS §343), which requires consideration of a planned project’s effect on traditional cultural beliefs, practices, and resources.

#### *Background*

The AAES campus is understood as adjacent to the north of the main cross-*ahupua‘a* trail across ‘Ewa District connecting with the Kona and Wai‘anae districts (known as the Ala Aupuni, Government road and Road to Honolulu, see **Figure 4-16**, **Figure 4-17**, **Figure 4-18**). Although possibly somewhat braided, this is understood as the most important pedestrian route in ‘Ewa for centuries prior to Western Contact. This evolved into a horse path, cart path, and modern Waipahu Street, and maintained its preeminence as a thoroughfare until the construction of Farrington Highway shortly after 1935. While many would have traversed this path in pre-Contact and early post- Contact times, there is no reason to believe there was other development in the immediate vicinity. The main habitation and agricultural area of Waipi‘o Ahupua‘a was quite coastal with scattered habitations and planting areas in the uplands along river bottoms and elevations of higher rainfall. There were no native tenant Land Commission Awards in the vicinity of the AAES (see **Figure 4-15**). There was no close source of potable water or significant land forms as would have attracted Hawaiians and early foreigners to linger. The AAES was somewhat distant from the rich marine resources for which ‘Ewa was famous. Nineteenth century maps such as the 1851 Bishop map (see **Figure 4-16**), the 1873 Alexander map (see **Figure 4-17**), and the 1894 Kananui map (see **Figure 4-18**) show no development in the vicinity other than the cross-*ahupua‘a* trail.

This would change with the development of commercial sugarcane agriculture particularly under O‘ahu Sugar Company. It appears that much (or all) of the AAES campus was under sugarcane cultivation from before 1919 (see **Figure 4-19**) until the construction of the AAES (opened on 1 September 1924). Commercial sugarcane cultivation in the eastern portion of the campus would continue until after 1968. The north (northwest) edge of the campus is understood to have been effectively defined by the presence there of an Oahu Sugar Company plantation railroad constructed prior to 1919 (see **Figure 4-19**) and to have been maintained until after 1943 and believed to subsequently have been converted into a haul cane road ca. 1950 and to have been used in that capacity until after 1968. As noted in the “Results of Fieldwork” section above, remnants of this railroad may be present on the AAES campus—but these possible remnants are far from the present project area(s). No other historic properties are indicated on the AAES campus or within 300 m of the campus (other than possibly the school itself and Waipahu Street).

Although the AAES is understood to be more than 97 years old, no features of the early history of the campus were observed (the AAES is not understood as having undergone any study for historic architecture to date).

### *Potential Impacts and Proposed Mitigation*

Implementation of the proposed action is not anticipated to have short- or long-term impacts on traditional or cultural practices at the project site. No impacts to ongoing cultural practices were identified within the project area and no immediate/direct changes are foreseen to known traditional cultural properties as a result of the proposed project. Public access to the project area would remain unchanged.

As provided above in **Section 4.14**, no historic properties have been previously reported for the AAES campus or within 300 meters of the AAES campus, and no historic properties were identified in the project area during the project fieldwork, which supports a DOE determination (as per HAR §13-275-7[a][1]) of “No historic properties affected” and no further archaeological work. The DOE will notify the SHPD of the proposed project and request a letter of determination (as per HAR §13-275-3) and concurrence with this effect determination.

Despite the decades of destructive modern activities and relatively few findings in the vicinity of the project area, there is always the possibility that intact artifacts or cultural deposits, including *iwi kūpuna* (ancestral human remains), may be encountered during ground disturbance. As a precautionary measure, personnel involved in construction or development activities will be informed of the possibility of inadvertent cultural or skeletal finds. As provided above in **Section 4.14.2**, in the event that historic resources are inadvertently discovered the SHPD and Police Department will be notified and construction in the area will cease until such time that work activities may be resumed as allowed by the SHPD.

Currently, no contemporary or continuing cultural or traditional practices occur within the proposed project area. The project is not located near the coast and therefore, would not affect access to marine resources. Therefore, no impacts are expected, and no mitigation measures are planned.

## ***Section 6***

### ***Relationship to Land Use Policies, Plans, and Controls***

Federal, State of Hawai‘i, and CCH policies, plans, and land use controls are established to guide development in a manner that enhances the environment and quality of life. The establishment of policies, plans, and land use controls at all levels of government are further promulgated to help ensure that the long-term social, economic, environmental, and land use needs of the community and region can be met. The proposed action’s relationship to land use policies, plans, and controls for the region and proposed activity are as follows.

#### ***6.1 Federal***

##### ***6.1.1 Americans with Disabilities Act***

The ADA of 1991 was enacted to ensure that people with disabilities have the same rights and opportunities as everyone else. The ADA prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the public. The U.S. Department of Justice revised regulations for Titles II and III of the ADA on September 15, 2010, which resulted in the revised *2010 ADA Standards for Accessible Design* (“2010 Standards”). These 2010 Standards sets minimum accessibility and design requirements for newly constructed or altered State and local government facilities, public accommodations, and commercial facilities.

The DOH, Disability and Communication Access Board (DCAB), implements the ADA and enforces guidelines for the design of buildings and facilities per HRS, Chapter 103-50. HRS, §103-50(a) states, “...all plans and specifications for the construction of public buildings, facilities, and sites shall be prepared so that the buildings, facilities, and sites are accessible to and usable by persons with disabilities.” To be consistent with the Department of Justice's standard, DCAB adopted the 2004 Americans with Disabilities Act Accessibility Guidelines as of January 1, 2011, and passed interpretive opinions consistent with the 2010 ADA Standards.

**Discussion:** The project will comply with provisions and intent of HRS, §103-50; Department of Justice's 2010 ADA Standards for Accessible Design; and the 2004 Americans with Disabilities Act Accessibility Guidelines. The project design will provide accessible parking stalls and access aisles where the new on-site parking facility is proposed in compliance with Americans with Disabilities Act Accessibility Guidelines 208 and 502. An accessible route will be provided from the accessible parking stalls and access aisles to the proposed new classroom building in compliance with Americans with Disabilities Act Accessibility Guidelines 206 and Chapter 4. An accessible route will also be provided to the new play court. Additionally, for the new classroom building, new elevators will comply with Americans with Disabilities Act Accessibility Guidelines 407; new classrooms will comply with Americans with Disabilities Act Accessibility Guidelines 201.1; and new toilet facilities will comply with Americans with Disabilities Act Accessibility Guidelines 213 and Chapter 6. The DOE will consult with and submit plans to DOH, DCAB, to ensure that the project design meets ADA requirements.

## 6.2 State of Hawai‘i

### 6.2.1 Hawai‘i State Plan

The Hawai‘i State Plan, adopted in 1978, and promulgated in HRS, Chapter 226, consists of three major parts:

- Part I, describes the overall theme including Hawai‘i’s desired future and quality of life as expressed in goals, objectives, and policies.
- Part II, Planning Coordination and Implementation, describes a statewide planning system designed to coordinate and guide all major state and county activities and to implement the goals, objectives, policies, and priority guidelines of the Hawai‘i State Plan.
- Part III, Priority Guidelines, which express the pursuit of desirable courses of action in major areas of statewide concern.

The proposed project is consistent with the objectives and policies of the Hawai‘i State Plan. The directly relevant State Plan goals, objectives, policies, and priority guidelines, along with a discussion of how the project conforms to them are provided in **Table 6-1** and discussed below.

**Table 6-1. Hawai‘i State Plan Applicability to the Proposed Project**

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<b>§226-1: Findings and Purpose</b>			
<b>§226-2: Definitions</b>			
<b>§226-3: Overall Theme</b>			
<p><i>Hawai‘i’s people, as both individuals and groups, generally accept and live by a number of principles or values which are an integral part of society. This concept is the unifying theme of the State Plan. The following principles or values are established as the overall theme of the Hawai‘i State Plan:</i></p> <ol style="list-style-type: none"> <li>(1) <i>Individual and family self-sufficiency refers to the rights of people to maintain as much self-reliance as possible. It is an expression of the value of independence, in other words, being able to freely pursue personal interests and goals. Self-sufficiency means that individuals and families can express and maintain their own self-interest so long as that self-interest does not adversely affect the general welfare. Individual freedom and individual achievement are possible only by reason of other people in society, the institutions, arrangements and customs that they maintain, and the rights and responsibilities that they sanction.</i></li> <li>(2) <i>Social and economic mobility refers to the right of individuals to choose and to have the opportunities for choice available to them. It is a corollary to self-sufficiency. Social and economic mobility means that opportunities and incentives are available for people to seek out their own levels of social and economic fulfillment.</i></li> <li>(3) <i>Community or social well-being is a value that encompasses many things. In essence, it refers to healthy social, economic, and physical environments that benefit the community as a whole. A sense of social responsibility, of caring for others and for the well-being of our community and of participating in social and political life, are important aspects of this concept. It further implies the aloha spirit--attitudes of tolerance, respect, cooperation and unselfish giving, within which Hawai‘i’s society can progress.</i></li> </ol> <p><i>One of the basic functions of our society is to enhance the ability of individuals and groups to pursue their goals freely, to satisfy basic needs and to secure desired socio-economic levels. The elements of choice and mobility within society’s legal framework are fundamental rights. Society’s role is to encourage conditions within which individuals and groups can approach their desired levels of self-reliance and self-determination. This enables</i></p>			



S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<p>people to gain confidence and self-esteem; citizens contribute more when they possess such qualities in a free and open society.</p>			
<p>Government promotes citizen freedom, self-reliance, self-determination, social and civic responsibility and goals achievement by keeping order, by increasing cooperation among many diverse individuals and groups, and by fostering social and civic responsibilities that affect the general welfare. The greater the number and activities of individuals and groups, the more complex government’s role becomes. The function of government, however, is to assist citizens in attaining their goals. Government provides for meaningful participation by the people in decision-making and for effective access to authority as well as an equitable sharing of benefits. Citizens have a responsibility to work with their government to contribute to society’s improvement. They must also conduct their activities within an agreed-upon legal system that protects human rights.</p>			
<p><b>Discussion:</b> Education is a force that promotes self-sufficiency, social and economic mobility, and community well-being. By providing modern spaces for students of AAES, the project is supportive of the State’s principles for a free and prosperous society. Further, there will be positive impacts for students, families, and the community at large from access to better educational resources and job/workforce skills training. Moreover, the proposed action is likely to have a positive impact on socio-economic conditions by enhancing learning experiences.</p>			
<p><b>§226-4: State Goals.</b>  <i>In order to guarantee, for the present and future generations, those elements of choice and mobility that ensure that individuals and groups may approach their desired levels of self-reliance and self-determination, it shall be the goal of the State to achieve:</i></p> <ol style="list-style-type: none"> <li>(1) <i>A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai‘i’s present and future generations.</i></li> <li>(2) <i>A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.</i></li> <li>(3) <i>Physical, social and economic well-being, for individuals and families in Hawai‘i, that nourishes a sense of community responsibility, of caring, and of participation in community life.</i></li> </ol>			
<p><b>Discussion:</b> The project will provide a better standard of education for current and future students of AAES. Education is a powerful force of socio-economic mobility and will support the State’s goal of mental well-being and a stable, robust society for future generations.</p>			
<p><b>§226-5: Objective and policies for population</b></p> <ol style="list-style-type: none"> <li>(a) <i>It shall be the objective in planning for the State’s population to guide population growth to be consistent with the achievement of physical, economic, and social objectives contained in this chapter;</i></li> <li>(b) <i>To achieve the population objective, it shall be the policy of this State to:</i></li> </ol>			
<ol style="list-style-type: none"> <li>(1) <i>Manage population growth statewide in a manner that provides increased opportunities for Hawai‘i’s people to pursue their physical, social and economic aspirations while recognizing the unique needs of each county.</i></li> </ol>			X
<ol style="list-style-type: none"> <li>(2) <i>Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.</i></li> </ol>			X
<ol style="list-style-type: none"> <li>(3) <i>Promote increased opportunities for Hawai‘i’s people to pursue their socioeconomic aspirations throughout the islands.</i></li> </ol>			X
<ol style="list-style-type: none"> <li>(4) <i>Encourage research activities and public awareness programs to foster an understanding of Hawai‘i’s limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawai‘i’s population.</i></li> </ol>			X
<ol style="list-style-type: none"> <li>(5) <i>Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among states, provided that such actions do not prevent the reunion of immediate family members.</i></li> </ol>			X
<ol style="list-style-type: none"> <li>(6) <i>Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state’s population</i></li> </ol>			X
<ol style="list-style-type: none"> <li>(7) <i>Plan the development and availability of land and water resources in a coordinated</i></li> </ol>	X		

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<i>manner so as to provide for the desired levels of growth in each geographic area</i>			
<b>Discussion:</b> The project will not have a direct effect on population growth statewide as it relates to physical, economic, and social objectives, however, the project will help to provide economic opportunity by granting educators, and thereby students, enhanced learning spaces with 21st-Century educational technologies. Using the existing space within the AAES parcels for improved classroom facilities is an efficient use of land and existing infrastructure.			
<b>§226-6 Objectives and policies for the economy in general.</b>			
<i>(a) Planning for the State’s economy in general shall be directed toward achievement of the following objectives:</i>			
<i>(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai‘i’s people.</i>			X
<i>(2) A steadily growing and diversified economic base that is not overly dependent on a few industries and includes the development and expansion of industries on the neighbor islands.</i>			X
<i>(b) To achieve the general economic objectives, it shall be the policy of this State to:</i>			
<i>(1) Promote and encourage entrepreneurship within Hawai‘i by residents and nonresidents of the State.</i>			X
<i>(2) Expand Hawai‘i’s national and international marketing, communication, and organizational ties, to increase the State’s capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State.</i>			X
<i>(3) Promote Hawai‘i as an attractive market for environmentally and socially sound investment activities that benefit Hawai‘i’s people.</i>			X
<i>(4) Transform and maintain Hawai‘i as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.</i>			X
<i>(5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawai‘i.</i>			X
<i>(6) Seek broader outlets for new or expanded Hawai‘i business investments.</i>			X
<i>(7) Expand existing markets and penetrate new markets for Hawai‘i’s products and services.</i>			X
<i>(8) Assure that the basic economic needs of Hawai‘i’s people are maintained in the event of disruptions in overseas transportation.</i>			X
<i>(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.</i>			X
<i>(10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai‘i’s small-scale producers, manufacturers, and distributors.</i>			X
<i>(11) Encourage labor-intensive activities that are economically satisfying, and which offer opportunities for upward mobility.</i>			X
<i>(12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawai‘i.</i>			X
<i>(13) Foster greater cooperation and coordination between the government and private sectors in developing Hawai‘i’s employment and economic growth opportunities.</i>			X
<i>(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.</i>			X
<i>(15) Maintain acceptable working conditions and standards for Hawai‘i’s workers.</i>			X
<i>(16) Provide equal employment opportunities for all segments of Hawai‘i’s population through affirmative action and nondiscrimination measures.</i>			X
<i>(17) Stimulate the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.</i>			X
<i>(18) Encourage businesses that have favorable financial multiplier effects within Hawai‘i’s economy.</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
(19) Promote and protect intangible resources in Hawai‘i, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.			X
(20) Increase effective communication between the educational community and the private sector to develop relevant curricula and training programs to meet future employment needs in general, and requirements of new, potential growth industries in particular.			X
(21) Foster a business climate in Hawai‘i--including attitudes, tax and regulatory policies, and financial and technical assistance programs--that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry.			X
<b>Discussion:</b> The proposed project will not have a significant impact on the overall state economy. The project will provide permanent facilities to meet the existing needs of students and faculty at AAES, as well as enhance learning opportunities.			
<b>§226-7 Objectives and policies for the economy - agriculture.</b>			
(a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:			
(1) Viability of Hawai‘i's sugar and pineapple industries.			X
(2) Growth and development of diversified agriculture throughout the State.			X
(3) An agriculture industry that continues to constitute a dynamic and essential component of Hawai‘i's strategic, economic, and social well-being.			X
(b) To achieve the agriculture objectives, it shall be the policy of this State to:			
(1) Establish a clear direction for Hawai‘i's agriculture through stakeholder commitment and advocacy.			X
(2) Encourage agriculture by making best use of natural resources.			X
(3) Provide the governor and the legislature with information and options needed for prudent decision making for the development of agriculture.			X
(4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.			X
(5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawai‘i's economy.			X
(6) Seek the enactment and retention of federal and state legislation that benefits Hawai‘i's agricultural industries.			X
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawai‘i's producers and consumer markets locally, on the continental United States, and internationally.			X
(8) Support research and development activities that provide greater efficiency and economic productivity in agriculture.			X
(9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			X
(10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.			X
(11) Increase the attractiveness and opportunities for an agricultural education and livelihood.			X
(12) Expand Hawai‘i's agricultural base by promoting growth and development of flowers, tropical fruits and plants, livestock, feed grains, forestry, food crops, aquaculture, and other potential enterprises.			X
(13) Promote economically competitive activities that increase Hawai‘i's agricultural self-sufficiency.			X
(14) Promote and assist in the establishment of sound financial programs for diversified agriculture.			X
(15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.			X
(16) Facilitate the transition of agricultural lands in economically non-feasible agricultural			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>production to economically viable agricultural uses.</i>			
<i>(17) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko i‘a, māla, and irrigated lo‘i, and growth of traditional Hawaiian crops, such as kalo, ‘uala, and ‘ulu.</i>			X
<i>(18) Increase and develop small-scale farms.</i>			X
<b>Discussion:</b> The proposed project will not impact the state’s agricultural industry. The proposed project will provide new permanent classroom facilities to meet the existing needs of students and faculty at AAES.			
<b>§226-8 Objective and policies for the economy--visitor industry.</b>			
<i>(a) Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawai‘i's economy.</i>			
<i>(b) To achieve the visitor industry objective, it shall be the policy of this State to:</i>			
<i>(1) Support and assist in the promotion of Hawai‘i's visitor attractions and facilities.</i>			X
<i>(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai‘i's people.</i>			X
<i>(3) Improve the quality of existing visitor destination areas.</i>			X
<i>(4) Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.</i>			X
<i>(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawai‘i's people.</i>			X
<i>(6) Provide opportunities for Hawai‘i's people to obtain job training and education that will allow for upward mobility within the visitor industry.</i>			X
<i>(7) Foster a recognition of the contribution of the visitor industry to Hawai‘i's economy and the need to perpetuate the aloha spirit.</i>			X
<i>(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawai‘i's cultures and values.</i>			X
<b>Discussion:</b> While the proposed Project will improve educational facilities for students and faculty at the AAES, the improvement of these facilities will not directly impact the visitor industry.			
<b>§226-9 Objective and policies for the economy--federal expenditures.</b>			
<i>(a) Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral component of Hawai‘i's economy.</i>			
<i>(b) To achieve the federal expenditures objective, it shall be the policy of this State to:</i>			
<i>(1) Encourage the sustained flow of federal expenditures in Hawai‘i that generates long-term government civilian employment.</i>			X
<i>(2) Promote Hawai‘i's supportive role in national defense.</i>			X
<i>(3) Promote the development of federally supported activities in Hawai‘i that respect state-wide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawai‘i's environment.</i>			X
<i>(4) Increase opportunities for entry and advancement of Hawai‘i's people into federal government service.</i>			X
<i>(5) Promote federal use of local commodities, services, and facilities available in Hawai‘i.</i>			X
<i>(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawai‘i.</i>			X
<i>(7) Pursue the return of federally controlled lands in Hawai‘i that are not required for either the defense of the nation or for other purposes of national importance, and promote the mutually beneficial exchanges of land between federal agencies, the State, and the counties.</i>			X

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<b>Discussion:</b> The objectives and policies specified in HRS, §226-9 are not directly applicable to the project.			
<b>§226-10 Objectives and policies for the economy--potential growth and innovative activities.</b>			
(a) <i>Planning for the State's economy with regard to potential growth and innovative activities shall be directed towards achievement of the objective of development and expansion of potential growth and innovative activities that serve to increase and diversify Hawai‘i's economic base.</i>			
(b) <i>To achieve the potential growth and innovative activity objective, it shall be the policy of this State to:</i>			
(1) <i>Facilitate investment and employment growth in economic activities that have the potential to expand and diversify Hawai‘i's economy, including but not limited to diversified agriculture, aquaculture, renewable energy development, creative media, health care, and science and technology-based sectors;</i>			X
(2) <i>Facilitate investment in innovative activity that may pose risks or be less labor-intensive than other traditional business activity, but if successful, will generate revenue in Hawai‘i through the export of services or products or substitution of imported services or products;</i>			X
(3) <i>Encourage entrepreneurship in innovative activity by academic researchers and instructors who may not have the background, skill, or initial inclination to commercially exploit their discoveries or achievements;</i>			X
(4) <i>Recognize that innovative activity is not exclusively dependent upon individuals with advanced formal education, but that many self-taught, motivated individuals are able, willing, sufficiently knowledgeable, and equipped with the attitude necessary to undertake innovative activity;</i>			X
(5) <i>Increase the opportunities for investors in innovative activity and talent engaged in innovative activity to personally meet and interact at cultural, art, entertainment, culinary, athletic, or visitor-oriented events without a business focus;</i>			X
(6) <i>Expand Hawai‘i's capacity to attract and service international programs and activities that generate employment for Hawai‘i's people;</i>			X
(7) <i>Enhance and promote Hawai‘i's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts;</i>			X
(8) <i>Accelerate research and development of new energy-related industries based on wind, solar, ocean, underground resources, and solid waste;</i>			X
(9) <i>Promote Hawai‘i's geographic, environmental, social, and technological advantages to attract new or innovative economic activities into the State;</i>			X
(10) <i>Provide public incentives and encourage private initiative to attract new or innovative industries that best support Hawai‘i's social, economic, physical, and environmental objectives;</i>			X
(11) <i>Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research;</i>			X
(12) <i>Develop, promote, and support research and educational and training programs that will enhance Hawai‘i's ability to attract and develop economic activities of benefit to Hawai‘i;</i>			X
(13) <i>Foster a broader public recognition and understanding of the potential benefits of new or innovative growth-oriented industry in Hawai‘i;</i>			X
(14) <i>Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawai‘i's social, economic, physical, and environmental objectives;</i>			X
(15) <i>Increase research and development of businesses and services in the telecommunications and information industries;</i>			X
(16) <i>Foster the research and development of nonfossil fuel and energy efficient modes of transportation; and</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
(17) <i>Recognize and promote health care and health care information technology as growth industries.</i>			X
<b>Discussion:</b> While the proposed project will provide better educational facilities for both the faculty and students at the AAES, the new facilities will continue to support existing programs for elementary education, which are not at a scale to increase and diversify Hawai‘i’s economic base.			
<b>§226-10.5 Objectives and policies for the economy--information industry.</b>			
(a) <i>Planning for the State's economy with regard to telecommunications and information technology shall be directed toward recognizing that broadband and wireless communication capability and infrastructure are foundations for an innovative economy and positioning Hawai‘i as a leader in broadband and wireless communications and applications in the Pacific Region.</i>			
(b) <i>To achieve the information industry objective, it shall be the policy of this State to:</i>			
(1) <i>Promote efforts to attain the highest speeds of electronic and wireless communication within Hawai‘i and between Hawai‘i and the world, and make high speed communication available to all residents and businesses in Hawai‘i;</i>			X
(2) <i>Encourage the continued development and expansion of the telecommunications infrastructure serving Hawai‘i to accommodate future growth and innovation in Hawai‘i's economy;</i>			X
(3) <i>Facilitate the development of new or innovative business and service ventures in the information industry which will provide employment opportunities for the people of Hawai‘i;</i>			X
(4) <i>Encourage mainland- and foreign-based companies of all sizes, whether information technology-focused or not, to allow their principals, employees, or contractors to live in and work from Hawai‘i, using technology to communicate with their headquarters, offices, or customers located out-of-state;</i>			X
(5) <i>Encourage greater cooperation between the public and private sectors in developing and maintaining a well- designed information industry;</i>			X
(6) <i>Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawai‘i's people;</i>			X
(7) <i>Provide opportunities for Hawai‘i's people to obtain job training and education that will allow for upward mobility within the information industry;</i>			X
(8) <i>Foster a recognition of the contribution of the information industry to Hawai‘i's economy; and</i>			X
(9) <i>Assist in the promotion of Hawai‘i as a broker, creator, and processor of information in the Pacific.</i>			X
<b>Discussion:</b> While the proposed project will provide better educational facilities for both the faculty and students at the AAES, the new facilities will continue to support existing programs for elementary education, which are not at a scale to increase and diversify Hawai‘i’s telecommunications and information technology.			
<b>§226-11 Objectives and policies for the physical environment--land-based, shoreline, and marine resources.</b>			
(a) <i>Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:</i>			
(1) <i>Prudent use of Hawai‘i's land-based, shoreline, and marine resources.</i>	X		
(2) <i>Effective protection of Hawai‘i's unique and fragile environmental resources.</i>			X
(b) <i>To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:</i>			
(1) <i>Exercise an overall conservation ethic in the use of Hawai‘i's natural resources.</i>	X		
(2) <i>Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.</i>			X
(3) <i>Take into account the physical attributes of areas when planning and designing activities and facilities.</i>	X		



<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
(4) <i>Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.</i>			X
(5) <i>Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.</i>			X
(6) <i>Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai‘i.</i>	X		
(7) <i>Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.</i>			X
(8) <i>Pursue compatible relationships among activities, facilities and natural resources.</i>	X		
(9) <i>Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational and scientific purposes.</i>	X		
<p><b>Discussion:</b> The project is consistent with State and County land use designations and is compatible with existing activities, facilities, and natural resources on the AAES campus. The project is outside of the SMA and shoreline area. As detailed in <b>Section 4.8</b> of the EA, the project area has been subject to various environmental surveys which were documented in a January 2022 report entitled <i>A natural resources assessment for August Ahrens Elementary School in Waipahu, O‘ahu (Appendix A)</i>. There are no known state or federally listed endangered or threatened biota or critical habitats within the project area and no significant impacts to threatened or endangered species as a result of the implementation of the proposed action are expected. By building within the existing footprint of the AAES campus, the project furthers the State’s goal of prudent land use and land conservation, for purposes such as education.</p>			
<p><b>§226-12 Objective and policies for the physical environment--scenic, natural beauty, and historic resources.</b></p> <p>(a) <i>Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawai‘i's scenic assets, natural beauty, and multi-cultural/historical resources.</i></p> <p>(b) <i>To achieve the scenic, natural beauty, and historic resources objectives, it shall be the policy of this State to:</i></p>			
(1) <i>Promote the preservation and restoration of significant natural and historic resources.</i>			X
(2) <i>Provide incentives to maintain and enhance historic, cultural, and scenic amenities.</i>			X
(3) <i>Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.</i>			X
(4) <i>Protect those special areas, structures, and elements that are an integral and functional part of Hawai‘i's ethnic and cultural heritage.</i>			X
(5) <i>Encourage the design of developments and activities that complement the natural beauty of the islands.</i>			X
<p><b>Discussion:</b> The project has no relationship to the promotion and/or availability of scenic and historic resources in the State of Hawai‘i, as it will be consistent with existing structures and uses on the AAES campus. Additionally, an ALRFI report was prepared and is included in this EA document (<b>Appendix B</b>). The survey of the site returned a finding of no impact on cultural/archaeological/historic resources.</p>			
<p><b>§226-13 Objectives and policies for the physical environment--land, air, and water quality.</b></p> <p>(a) <i>Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:</i></p>			
(1) <i>Maintenance and pursuit of improved quality in Hawai‘i's land, air, and water resources.</i>			X
(2) <i>Greater public awareness and appreciation of Hawai‘i's environmental resources.</i>			X
(b) <i>To achieve the land, air, and water quality objectives, it shall be the policy of this State to:</i>			
(1) <i>Foster educational activities that promote a better understanding of Hawai‘i's limited environmental resources.</i>			X
(2) <i>Promote the proper management of Hawai‘i's land and water resources.</i>	X		
(3) <i>Promote effective measures to achieve desired quality in Hawai‘i's surface, ground and</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>coastal waters.</i>			
(4) <i>Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawai‘i’s people.</i>			X
(5) <i>Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.</i>			X
(6) <i>Encourage design and construction practices that enhance the physical qualities of Hawai‘i’s communities.</i>			X
(7) <i>Encourage urban developments in close proximity to existing services and facilities.</i>	X		
(8) <i>Foster recognition of the importance and value of the land, air, and water resources to Hawai‘i’s people, their cultures and visitors.</i>			X
<b>Discussion:</b> The project is not anticipated to have an impact on land, air, and water resources. For further discussion. Additionally, more fully utilizing the existing AAES campus and infrastructure for the improved facilities follows the State’s goal of encouraging development in proximity to existing services and facilities while reducing impacts on land, air, and water quality.			
<b>§226-14 Objective and policies for facility systems--in general.</b>			
(a) <i>Planning for the State’s facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.</i>			
(b) <i>To achieve the general facility systems objective, it shall be the policy of this State to:</i>			
(1) <i>Accommodate the needs of Hawai‘i’s people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.</i>	X		
(2) <i>Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.</i>			X
(3) <i>Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.</i>			X
(4) <i>Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.</i>			X
<b>Discussion:</b> By maintaining the parcel’s “Urban” State Land Use Boundary designation and existing use as an Elementary School, the project aligns with both State and County plans.			
<b>§226-15 Objectives and policies for facility systems--solid and liquid wastes.</b>			
(a) <i>Planning for the State’s facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:</i>			
(1) <i>Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.</i>	X		
(2) <i>Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.</i>			X
(b) <i>To achieve solid and liquid waste objectives, it shall be the policy of this State to:</i>			
(1) <i>Encourage the adequate development of sewerage facilities that complement planned growth.</i>	X		
(2) <i>Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.</i>			X
(3) <i>Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.</i>			X
<b>Discussion:</b> The project will utilize the same solid and liquid waste disposal practices as the rest of the AAES. A new sewer line, manholes, and stub out for connection to the new classroom building will be installed and connected to an existing sewer line within the Waipahu Street right-of-way near its intersection with Mahoe Street and will adequately serve the project (see <b>Figure 3-4, Utility Plan</b> ).			

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<b>§226-16 Objective and policies for facility systems--water.</b>			
<i>(a) Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.</i>			
<i>(b) To achieve the facility systems water objective, it shall be the policy of this State to:</i>			
<i>(1) Coordinate development of land use activities with existing and potential water supply.</i>	X		
<i>(2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.</i>			X
<i>(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.</i>			X
<i>(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.</i>			X
<i>(5) Support water supply services to areas experiencing critical water problems.</i>			X
<i>(6) Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.</i>	X		
<b>Discussion:</b> The existing water system is adequate to accommodate the proposed project. However, the availability of water will be confirmed when the building permit application is submitted. DOE is considering the installation of water efficient fixtures and the implementation of water efficient practices, where feasible, to reduce the increased demand on the area's freshwater resources.			
<b>§226-17 Objectives and policies for facility systems--transportation.</b>			
<i>(a) Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:</i>			
<i>(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.</i>			X
<i>(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.</i>			X
<i>(b) To achieve the transportation objectives, it shall be the policy of this State to:</i>			
<i>(1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;</i>			X
<i>(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;</i>			X
<i>(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;</i>			X
<i>(4) Provide for improved accessibility to shipping, docking, and storage facilities;</i>			X
<i>(5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;</i>			X
<i>(6) Encourage transportation systems that serve to accommodate present and future development needs of communities;</i>			X
<i>(7) Encourage a variety of carriers to offer increased opportunities and advantages to inter-island movement of people and goods;</i>			X
<i>(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;</i>			X
<i>(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;</i>			X
<i>(10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai‘i's natural environment;</i>			X
<i>(11) Encourage safe and convenient use of low-cost, energy- efficient, non-polluting means of transportation;</i>			X
<i>(12) Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>planned growth objectives; and</i>			
(13) <i>Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.</i>			X
<b>Discussion:</b> The objectives and policies specified in HRS, §226-17 are not directly applicable to the project. However, the project includes the creation of a paved parking area with space for six parking stalls. For further discussion, see <b>Section 3.5.1.5.</b>			
<b>§226-18 Objectives and policies for facility systems--energy.</b>			
(a) <i>Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:</i>			
(1) <i>Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;</i>	X		
(2) <i>Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawai‘i's dependence on imported fuels for electrical generation and ground transportation;</i>			X
(3) <i>Greater diversification of energy generation in the face of threats to Hawai‘i's energy supplies and systems;</i>			X
(4) <i>Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use; and</i>			X
(5) <i>Utility models that make the social and financial interests of Hawai‘i's utility customers a priority.</i>			X
(b) <i>To achieve the energy objectives, it shall be the policy of this State to ensure the short- and long-term provision of adequate, reasonably priced, and dependable energy services to accommodate demand.</i>			
(c) <i>To further achieve the energy objectives, it shall be the policy of this State to:</i>			
(1) <i>Support research and development as well as promote the use of renewable energy sources;</i>			X
(2) <i>Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;</i>			X
(3) <i>Base decisions of least-cost supply-side and demand-side energy resource options on a comparison of their total costs and benefits when a least-cost is determined by a reasonably comprehensive, quantitative, and qualitative accounting of their long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits;</i>			X
(4) <i>Promote all cost-effective conservation of power and fuel supplies through measures, including:</i> (A) <i>Development of cost-effective demand-side management programs;</i> (B) <i>Education;</i> (C) <i>Adoption of energy-efficient practices and technologies; and</i> (D) <i>Increasing energy efficiency and decreasing energy use in public infrastructure;</i>			X
(5) <i>Ensure to the extent that new supply-side resources are needed, the development or expansion of energy systems utilizes the least-cost energy supply option and maximizes efficient technologies;</i>			X
(6) <i>Support research, development, and demonstration of energy efficiency, load management, and other demand-side management programs, practices, and technologies;</i>			X
(7) <i>Promote alternate fuels and energy efficiency by encouraging diversification of transportation modes and infrastructure;</i>			X
(8) <i>Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications; and</i>			X
(9) <i>Support actions that reduce, avoid, or sequester Hawai‘i's greenhouse gas emissions through agriculture and forestry initiatives.</i>			X
(10) <i>Provide priority handling and processing for all state and county permits required for renewable energy projects;</i>			X

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
(11) Ensure that liquefied natural gas is used only as a cost-effective transitional, limited-term replacement of petroleum for electricity generation and does not impede the development and use of other cost-effective renewable energy sources; and			X
(12) Promote the development of indigenous geothermal energy resources that are located on public trust land as an affordable and reliable source of firm power for Hawai‘i.			X
<b>Discussion:</b> The objectives and policies specified in HRS, §226-18 are not directly applicable to the project. However, the proposed project will replace existing energy use by the temporary facilities to a similar extent and, where feasible, will incorporate energy efficient fixtures to reduce overall energy consumption from the project.			
<b>§226-18.5 Objectives and policies for facility systems--telecommunications.</b>			
(a) Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people.			
(b) To achieve the telecommunications objective, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable telecommunications services to accommodate demand.			
(c) To further achieve the telecommunications objective, it shall be the policy of this State to:			
(1) Facilitate research and development of telecommunications systems and resources;			X
(2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning;			X
(3) Promote efficient management and use of existing telecommunications systems and services; and			X
(4) Facilitate the development of education and training of telecommunications personnel.			X
<b>Discussion:</b> The objectives and policies specified in HRS, §226-18.5 are not directly applicable to the project.			
<b>§226-19 Objectives and policies for socio-cultural advancement--housing.</b>			
(a) Planning for the State's socio- cultural advancement with regard to housing shall be directed toward the achievement of the following objectives:			
(1) Greater opportunities for Hawai‘i's people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more rental and for sale affordable housing is made available to extremely low-, very low-, lower-, moderate-, and above moderate-income segments of Hawai‘i's population.			X
(2) The orderly development of residential areas sensitive to community needs and other land uses.			X
(3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawai‘i's people.			X
(b) To achieve the housing objectives, it shall be the policy of this State to:			
(1) Effectively accommodate the housing needs of Hawai‘i's people.			X
(2) Stimulate and promote feasible approaches that increase affordable rental and for sale housing choices for extremely low-, very low-, lower-, moderate-, and above moderate-income households.			X
(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.			X
(4) Promote appropriate improvement, rehabilitation, and maintenance of existing rental and for sale housing units and residential areas.			X
(5) Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
(6) <i>Facilitate the use of available vacant, developable, and underutilized urban lands for housing.</i>			X
(7) <i>Foster a variety of lifestyles traditional to Hawai‘i through the design and maintenance of neighborhoods that reflect the culture and values of the community.</i>			X
(8) <i>Promote research and development of methods to reduce the cost of housing construction in Hawai‘i.</i>			X
<b>Discussion:</b> The objectives and policies specified in HRS, §226-19 are not directly applicable to the project.			
<b>§226-20 Objectives and policies for socio-cultural advancement--health.</b>			
(a) <i>Planning for the State's socio- cultural advancement with regard to health shall be directed towards achievement of the following objectives:</i>			
(1) <i>Fulfillment of basic individual health needs of the general public.</i>			X
(2) <i>Maintenance of sanitary and environmentally healthful conditions in Hawai‘i's communities.</i>	X		
(b) <i>To achieve the health objectives, it shall be the policy of this State to:</i>			
(1) <i>Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.</i>			X
(2) <i>Encourage improved cooperation among public and private sectors in the provision of health care to accommodate the total health needs of individuals throughout the State.</i>			X
(3) <i>Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.</i>			X
(4) <i>Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.</i>			X
(5) <i>Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.</i>			X
(6) <i>Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.</i>			X
(7) <i>Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other Pacific Islanders, and Filipinos. The prioritization of affected demographic groups other than native Hawaiians may be reviewed every ten years and revised based on the best available epidemiological and public health data.</i>			X
<b>Discussion:</b> The objectives and policies specified in HRS, §226-20(b) are not directly applicable to the project. However, the project involves the development of an improved new classroom building that will benefit AAES students and staff.			
<b>§226-21 Objective and policies for socio-cultural advancement--education.</b>			
(a) <i>Planning for the State's socio- cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.</i>			
(b) <i>To achieve the education objective, it shall be the policy of this State to:</i>			
(1) <i>Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.</i>	X		
(2) <i>Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.</i>	X		
(3) <i>Provide appropriate educational opportunities for groups with special needs.</i>	X		
(4) <i>Promote educational programs which enhance understanding of Hawai‘i's cultural</i>			X



<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>heritage.</i>			
(5) <i>Provide higher educational opportunities that enable Hawai‘i's people to adapt to changing employment demands.</i>			X
(6) <i>Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.</i>			X
(7) <i>Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.</i>	X		
(8) <i>Emphasize quality educational programs in Hawai‘i's institutions to promote academic excellence.</i>	X		
(9) <i>Support research programs and activities that enhance the education programs of the State.</i>			X

**Discussion:** The project will provide a new classroom building to support the advancement of the State of Hawai‘i’s goals for education in the realms of personal development, community facilities, special needs accommodation, computers, and reading/writing education. AAES strives for excellence by aligning its programs to its vision and by supporting the State’s strategic plan. The school offers Advancement via Individual Determination which aims to close the achievement gap by preparing all students for college readiness and success in a global society. AAES also offers College for Every Student which aims to raise the academic aspirations and performance of underserved youth so that they can prepare for, gain access to, and succeed in college. The project will comply with provisions and intent of the ADA, HRS, §103-50, and 2004 Americans with Disabilities Act Accessibility Guidelines. For further discussion, see **Section 6.1.1, Americans with Disabilities Act.**

**§226-22 Objective and policies for socio-cultural advancement--social services.**

- (a) *Planning for the State's socio-cultural advancement with regard to social services shall be directed towards the achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being.*
- (b) *To achieve the social service objective, it shall be the policy of the State to:*

(1) <i>Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities.</i>			X
(2) <i>Promote coordination and integrative approaches among public and private agencies and programs to jointly address social problems that will enable individuals, families, and groups to deal effectively with social problems and to enhance their participation in society.</i>			X
(3) <i>Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawai‘i's communities.</i>			X
(4) <i>Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.</i>			X
(5) <i>Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.</i>			X
(6) <i>Promote programs which assist people in need of family planning services to enable them to meet their needs.</i>			X

**Discussion:** The objectives and policies specified in HRS, §226-22 are not directly applicable to the project.

**§226-23 Objective and policies for socio-cultural advancement--leisure.**

- (a) *Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations.*

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>(b) To achieve the leisure objective, it shall be the policy of this State to:</i>			
<i>(1) Foster and preserve Hawai‘i’s multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.</i>			X
<i>(2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.</i>			X
<i>(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.</i>	X		
<i>(4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved.</i>	X		
<i>(5) Ensure opportunities for everyone to use and enjoy Hawai‘i’s recreational resources.</i>			X
<i>(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.</i>			X
<i>(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawai‘i’s people.</i>			X
<i>(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.</i>			X
<i>(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawai‘i’s population to participate in the creative arts.</i>			X
<i>(10) Assure adequate access to significant natural and cultural resources in public ownership.</i>			X
<b>Discussion:</b> The objectives and policies specified in HRS, §226-23 are not directly applicable to the project. However, the project will provide AAES students and community members with an improved play court that is located near the school play field, which will consolidate and promote the recreational potential of natural resources.			
<b>§226-24 Objective and policies for socio-cultural advancement--individual rights and personal well-being.</b>			
<i>(a) Planning for the State’s socio-cultural advancement with regard to individual rights and personal well-being shall be directed towards achievement of the objective of increased opportunities and protection of individual rights to enable individuals to fulfill their socio-economic needs and aspirations.</i>			
<i>(b) To achieve the individual rights and personal well-being objective, it shall be the policy of this State to:</i>			
<i>(1) Provide effective services and activities that protect individuals from criminal acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment.</i>			X
<i>(2) Uphold and protect the national and state constitutional rights of every individual.</i>	X		
<i>(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.</i>			X
<i>(4) Ensure equal opportunities for individual participation in society.</i>	X		
<b>Discussion:</b> Public schools provide students with the social and intellectual capital vital to the expression of individual rights and personal well-being. By providing students with better resources, the State is empowering the next generation to fulfill their needs and aspirations, socio-economic and otherwise.			
<b>§226-25 Objective and policies for socio-cultural advancement--culture.</b>			
<i>(a) Planning for the State’s socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawai‘i’s people.</i>			
<i>(b) To achieve the culture objective, it shall be the policy of this State to:</i>			
<i>(1) Foster increased knowledge and understanding of Hawai‘i’s ethnic and cultural heritages and the history of Hawai‘i.</i>			X
<i>(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawai‘i’s people and which are sensitive and responsive to family and community needs.</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
(3) <i>Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawai‘i.</i>			X
(4) <i>Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawai‘i's people and visitors.</i>			X
<b>Discussion:</b> The objectives and policies for the advancement of culture specified in HRS, §226-25 are not directly applicable to the project, aside from what may be provided through the school curriculum.			
<b>§226-26 Objectives and policies for socio-cultural advancement--public safety.</b>			
(a) <i>Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:</i>			
(1) <i>Assurance of public safety and adequate protection of life and property for all people.</i>			X
(2) <i>Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances.</i>			X
(3) <i>Promotion of a sense of community responsibility for the welfare and safety of Hawai‘i's people.</i>			X
(b) <i>To achieve the public safety objectives, it shall be the policy of this State to:</i>			
(1) <i>Ensure that public safety programs are effective and responsive to community needs.</i>			X
(2) <i>Encourage increased community awareness and participation in public safety programs.</i>			X
(c) <i>To further achieve public safety objectives related to criminal justice, it shall be the policy of this State to:</i>			
(1) <i>Support criminal justice programs aimed at preventing and curtailing criminal activities.</i>			X
(2) <i>Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.</i>			X
(3) <i>Provide a range of correctional resources which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community.</i>			X
(d) <i>To further achieve public safety objectives related to emergency management, it shall be the policy of this State to:</i>			
(1) <i>Ensure that responsible organizations are in a proper state of readiness to respond to major war-related, natural, or technological disasters and civil disturbances at all times.</i>			X
(2) <i>Enhance the coordination between emergency management programs throughout the State.</i>			X
<b>Discussion:</b> The objectives and policies for public safety specified in HRS, §226-26 are not directly applicable to the project, aside from what may be provided through the school curriculum.			
<b>§226-27 Objectives and policies for socio-cultural advancement--government.</b>			
(a) <i>Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:</i>			
(1) <i>Efficient, effective, and responsive government services at all levels in the State.</i>			X
(2) <i>Fiscal integrity, responsibility, and efficiency in the state government and county governments.</i>	X		
(b) <i>To achieve the government objectives, it shall be the policy of this State to:</i>			
(1) <i>Provide for necessary public goods and services not assumed by the private sector.</i>	X		
(2) <i>Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.</i>			X
(3) <i>Minimize the size of government to that necessary to be effective.</i>			X
(4) <i>Stimulate the responsibility in citizens to productively participate in government for a better Hawai‘i.</i>			X

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
(5) <i>Assure that government attitudes, actions, and services are sensitive to community needs and concerns.</i>	X		
(6) <i>Provide for a balanced fiscal budget.</i>			X
(7) <i>Improve the fiscal budgeting and management system of the State.</i>			X
(8) <i>Promote the consolidation of state and county governmental functions to increase the effective and efficient delivery of government programs and services and to eliminate duplicative services wherever feasible.</i>			X
<p><b>Discussion:</b> The project will be undertaken with fiscal integrity, responsibility, and efficiency. The project will provide the public good that is an educated citizenry and fulfills the goal of government responsiveness, specifically to the needs of the students and parents of AAES.</p>			
<p><b>§226-101 Purpose.</b> <i>The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.</i></p>			
<p><b>§226-102 Overall direction.</b> <i>The State shall strive to improve the quality of life for Hawai‘i’s present and future population through the pursuit of desirable courses of action in seven major areas of statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, quality education, principles of sustainability, and climate change adaptation.</i></p>			
<p><b>Discussion:</b> The project supports the overall direction of the State of Hawai‘i with regard to quality education. The purpose of the project is to provide AAES students and staff members with an improved classroom building and play court to support the AAES educational and recreational needs. By providing students with better resources, the State is empowering the next generation to fulfill their needs and aspirations, socio-economic and otherwise.</p>			
<p><b>§226-103 Economic priority guidelines.</b></p>			
<p>(a) <i>Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai‘i’s people and achieve a stable and diversified economy:</i></p>			
<p>(1) <i>Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.</i></p>			
<p>(A) <i>Encourage investments which:</i></p>			
(i) <i>Reflect long term commitments to the State;</i>	X		
(ii) <i>Rely on economic linkages within the local economy;</i>			X
(iii) <i>Diversify the economy;</i>			X
(iv) <i>Reinvest in the local economy;</i>			X
(v) <i>Are sensitive to community needs and priorities; and</i>	X		
(vi) <i>Demonstrate a commitment to provide management opportunities to Hawai‘i residents.</i>			X
(B) <i>Encourage investments in innovative activities that have a nexus to the State, such as:</i>			
(i) <i>Present or former residents acting as entrepreneurs or principals;</i>			X
(ii) <i>Academic support from an institution of higher education in Hawai‘i;</i>			X
(iii) <i>Investment interest from Hawai‘i residents;</i>			X
(iv) <i>Resources unique to Hawai‘i that are required for innovative activity; and</i>			X
(v) <i>Complementary or supportive industries or government programs or projects.</i>			X
(2) <i>Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.</i>			X
(3) <i>Improve the quality, accessibility, and range of services provided by government to business, including data and reference services and assistance in complying with governmental regulations.</i>			X
(4) <i>Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.</i>			X
(5) <i>Streamline the processes for building and development permit and review and telecommunication infrastructure installation approval and eliminate or consolidate other burdensome or duplicative governmental requirements imposed</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>on business, where scientific evidence indicates that public health, safety, and welfare would not be adversely affected.</i>			
(6) <i>Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawai‘i’s small-scale producers, manufacturers, and distributors.</i>			X
(7) <i>Continue to seek legislation to protect Hawai‘i from transportation interruptions between Hawai‘i and the continental United States.</i>			X
(8) <i>Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:</i>			X
(A) <i>An industry that can take advantage of Hawai‘i’s unique location and available physical and human resources.</i>			X
(B) <i>A clean industry that would have minimal adverse effects on Hawai‘i’s environment.</i>			X
(C) <i>An industry that is willing to hire and train Hawai‘i’s people to meet the industry’s labor needs at all levels of employment.</i>			X
(D) <i>An industry that would provide reasonable income and steady employment.</i>			X
(9) <i>Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawai‘i business.</i>			X
(10) <i>Enhance the quality of Hawai‘i’s labor force and develop and maintain career opportunities for Hawai‘i’s people through the following actions:</i>			X
(A) <i>Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.</i>			X
(B) <i>Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.</i>			X
(C) <i>Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired.</i>			X
(D) <i>Promote career opportunities in all industries for Hawai‘i’s people by encouraging firms doing business in the State to hire residents.</i>			X
(E) <i>Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on- the-job training opportunities.</i>			X
(F) <i>Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.</i>			X
(b) <i>Priority guidelines to promote the economic health and quality of the visitor industry:</i>			
(1) <i>Promote visitor satisfaction by fostering an environment which enhances the aloha spirit and minimizes inconveniences to Hawai‘i’s residents and visitors.</i>			X
(2) <i>Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provide for adequate shoreline setbacks and beach access.</i>			X
(3) <i>Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.</i>			X
(4) <i>Encourage visitor industry practices and activities which respect, preserve, and enhance Hawai‘i’s significant natural, scenic, historic, and cultural resources.</i>			X
(5) <i>Develop and maintain career opportunities in the visitor industry for Hawai‘i’s people, with emphasis on managerial positions.</i>			X
(6) <i>Support and coordinate tourism promotion abroad to enhance Hawai‘i’s share of existing and potential visitor markets.</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
(7) <i>Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.</i>			X
(8) <i>Support law enforcement activities that provide a safer environment for both visitors and residents alike.</i>			X
(9) <i>Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.</i>			X
<b>(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:</b>			
(1) <i>Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.</i>			X
(2) <i>Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawai‘i.</i>			X
(3) <i>Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.</i>			X
<b>(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:</b>			
(1) <i>Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.</i>			X
(2) <i>Assist in providing adequate, reasonably priced water for agricultural activities.</i>			X
(3) <i>Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.</i>			X
(4) <i>Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.</i>			X
(5) <i>Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawai‘i’s agricultural community.</i>			X
(6) <i>Seek favorable freight rates for Hawai‘i’s agricultural products from interisland and overseas transportation operators.</i>			X
(7) <i>Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.</i>			X
(8) <i>Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.</i>			X
(9) <i>Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.</i>			X
(10) <i>Support the continuation of land currently in use for diversified agriculture.</i>			X
(11) <i>Encourage residents and visitors to support Hawai‘i’s farmers by purchasing locally grown food and food products.</i>			X
<b>(e) Priority guidelines for water use and development:</b>			
(1) <i>Maintain and improve water conservation programs to reduce the overall water consumption rate.</i>	X		
(2) <i>Encourage the improvement of irrigation technology and promote the use of nonpotable water for agricultural and landscaping purposes.</i>			X
(3) <i>Increase the support for research and development of economically feasible alternative water sources.</i>			X
(4) <i>Explore alternative funding sources and approaches to support future water development programs and water system improvements.</i>			X
<b>(f) Priority guidelines for energy use and development:</b>			
(1) <i>Encourage the development, demonstration, and commercialization of renewable energy sources.</i>			X
(2) <i>Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.</i>			X
(3) <i>Provide incentives to encourage the use of energy conserving technology in residential,</i>	X		



S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<i>industrial, and other buildings.</i>			
(4) <i>Encourage the development and use of energy conserving and cost-efficient transportation systems.</i>			X
<i>(g) Priority guidelines to promote the development of the information industry:</i>			
(1) <i>Establish an information network that will serve as the catalyst for establishing a viable information industry in Hawai‘i.</i>			X
(2) <i>Encourage the development of services such as financial data processing, a products and services exchange, foreign language translations, telemarketing, teleconferencing, a twenty-four-hour international stock exchange, international banking, and a Pacific Rim management center.</i>			X
(3) <i>Encourage the development of small businesses in the information field such as software development, the development of new information systems and peripherals, data conversion and data entry services, and home or cottage services such as computer programming, secretarial, and accounting services.</i>			X
(4) <i>Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.</i>			X
(5) <i>Encourage research activities, including legal research in the information and telecommunications fields.</i>			X
(6) <i>Support promotional activities to market Hawai‘i’s information industry services.</i>			X
(7) <i>Encourage the location or co-location of telecommunication or wireless information relay facilities in the community, including public areas, where scientific evidence indicates that the public health, safety, and welfare would not be adversely affected.</i>			X
<p><b>Discussion:</b> The project will provide a new classroom building to support the advancement of the State of Hawai‘i’s goals for education in the realms of personal development, community facilities, special needs accommodation, computers, and reading/writing education. AAES strives for excellence by aligning its programs to its vision and by supporting the State’s strategic plan. The school offers Advancement via Individual Determination which aims to close the achievement gap by preparing all students for college readiness and success in a global society. AAES also offers College for Every Student which aims to raise the academic aspirations and performance of underserved youth so that they can prepare for, gain access to, and succeed in college. The project will maintain water conservation programs to reduce water consumption. The project will encourage the use of energy-conserving technology in the new proposed classroom building.</p>			
<p><b>§226-104 Population growth and land resources priority guidelines.</b></p>			
<p><i>(a) Priority guidelines to effect desired statewide growth and distribution:</i></p>			
(1) <i>Encourage planning and resource management to insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawai‘i’s people.</i>			X
(2) <i>Manage a growth rate for Hawai‘i’s economy that will parallel future employment needs for Hawai‘i’s people.</i>			X
(3) <i>Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.</i>	X		
(4) <i>Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.</i>			X
(5) <i>Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands.</i>			X
(6) <i>Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor</i>			X

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<i>islands.</i>			
(7) <i>Support the development of high technology parks on the neighbor islands.</i>			X
(b) <i>Priority guidelines for regional growth distribution and land resource utilization:</i>			
(1) <i>Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.</i>	X		
(2) <i>Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.</i>			X
(3) <i>Restrict development when drafting of water would result in exceeding the sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.</i>			X
(4) <i>Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.</i>			X
(5) <i>In order to preserve green belts, give priority to state capital-improvement funds which encourage location of urban development within existing urban areas except where compelling public interest dictates development of a noncontiguous new urban core.</i>	X		
(6) <i>Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.</i>			X
(7) <i>Pursue rehabilitation of appropriate urban areas.</i>			X
(8) <i>Support the redevelopment of Kaka‘ako into a viable residential, industrial, and commercial community.</i>			X
(9) <i>Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.</i>	X		
(10) <i>Identify critical environmental areas in Hawai‘i to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.</i>			X
(11) <i>Identify all areas where priority should be given to preserving rural character and lifestyle.</i>			X
(12) <i>Utilize Hawai‘i’s limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.</i>	X		
(13) <i>Protect and enhance Hawai‘i’s shoreline, open spaces, and scenic resources.</i>	X		
<b>Discussion:</b> The project is located in an Urban district and will address the needs of Hawai‘i’s families by providing improved classroom space for AAES students. By locating the new classroom building within the existing AAES campus, the project is in line with the State’s priorities for population growth and land resources.			
<b>§226-105 Crime and criminal justice.</b> <i>Priority guidelines in the area of crime and criminal justice:</i>			
(1) <i>Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.</i>			X
(2) <i>Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders.</i>			X
(3) <i>Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.</i>			X
(4) <i>Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than incarceration for</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>persons who pose no danger to their community.</i>			
(5) <i>Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.</i>			X
(6) <i>Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.</i>			X
<b>Discussion:</b> The priority guidelines specified in HRS, §226-105 are not directly applicable to the project.			
<b>§226-106 Affordable housing.</b> Priority guidelines for the provision of affordable housing:			
(1) <i>Seek to use marginal or nonessential agricultural land, urban land, and public land to meet housing needs of extremely low-, very low-, lower-, moderate-, and above moderate-income households.</i>			X
(2) <i>Encourage the use of alternative construction and development methods as a means of reducing production costs.</i>			X
(3) <i>Improve information and analysis relative to land availability and suitability for housing.</i>			X
(4) <i>Create incentives for development which would increase home ownership and rental opportunities for Hawai‘i's extremely low-, very low-, lower-, and moderate-income households and residents with special needs.</i>			X
(5) <i>Encourage continued support for government or private housing programs that provide low interest mortgages to Hawai‘i's people for the purchase of initial owner-occupied housing.</i>			X
(6) <i>Encourage public and private sector cooperation in the development of rental housing alternatives.</i>			X
(7) <i>Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.</i>			X
(8) <i>Give higher priority to the provision of quality housing that is affordable for Hawai‘i's residents and less priority to development of housing intended primarily for individuals outside of Hawai‘i.</i>			X
<b>Discussion:</b> The priority guidelines specified in HRS, §226-106 are not directly applicable to the project.			
<b>§226-107 Quality education.</b> Priority guidelines to promote quality education:			
(1) <i>Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement;</i>	X		
(2) <i>Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;</i>	X		
(3) <i>Initiate efforts to improve the quality of education by improving the capabilities of the education workforce;</i>	X		
(4) <i>Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision- making responsibilities;</i>			X
(5) <i>Increase and improve the use of information technology in education by the availability of telecommunications equipment for:</i>			
(A) <i>The electronic exchange of information;</i>	X		
(B) <i>Statewide electronic mail; and</i>			X
(C) <i>Access to the Internet.</i>	X		
<i>Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;</i>	X		
(6) <i>Pursue the establishment of Hawai‘i's public and private universities and colleges as research and training centers of the Pacific;</i>			X
(7) <i>Develop resources and programs for early childhood education;</i>			X
(8) <i>Explore alternatives for funding and delivery of educational services to improve the</i>			X

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<i>overall quality of education; and</i>			
(9) <i>Strengthen and expand educational programs and services for students with special needs.</i>	X		
<p><b>Discussion:</b> The project will provide ample opportunities and resources to students at AAES. All of the new classrooms will provide modern, mixed-use spaces and technologies to educators and students. Providing these assets puts the AAES New Classroom Building project in line with the above State goals. The project will comply with ADA, HRS, §103-50, and 2004 Americans with Disabilities Act Accessibility Guidelines. For further discussion, see <b>Section 6.2.1, Americans with Disabilities Act.</b></p>			
<p><b>§226-108 Sustainability.</b> <i>Priority guidelines and principles to promote sustainability shall include:</i></p>			
(1) <i>Encouraging balanced economic, social, community, and environmental priorities;</i>	X		
(2) <i>Encouraging planning that respects and promotes living within the natural resources and limits of the State;</i>			X
(3) <i>Promoting a diversified and dynamic economy;</i>			X
(4) <i>Encouraging respect for the host culture;</i>			X
(5) <i>Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;</i>	X		
(6) <i>Considering the principles of the ahupua‘a system; and</i>			X
(7) <i>Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawai‘i.</i>			X
<p><b>Discussion:</b> The project will fill the need for improved classroom and recreational space at AAES, providing a community resource that will be used by future generations.</p>			
<p><b>§226-109 Climate change adaptation priority guidelines.</b> <i>Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:</i></p>			
(1) <i>Ensure that Hawai‘i's people are educated, informed, and aware of the impacts climate change may have on their communities;</i>			X
(2) <i>Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;</i>			X
(3) <i>Invest in continued monitoring and research of Hawai‘i's climate and the impacts of climate change on the State;</i>			X
(4) <i>Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;</i>			X
(5) <i>Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;</i>			X
(6) <i>Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;</i>			X
(7) <i>Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options;</i>			X
(8) <i>Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities;</i>			X
(9) <i>Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans; and</i>			X
(10) <i>Encourage planning and management of the natural and built environments that effectively integrate climate change policy.</i>			X

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<p><b>Discussion:</b> The priority guidelines specified in HRS, §226-109 are not directly applicable to the Project. However, energy-efficient lighting will be used where possible. The project is not located along coastal areas and is outside of the 3.2 feet SLR scenario projections, as indicated in the Hawai‘i SLR Viewer (Hawai‘i Climate Change Mitigation and Adaptation Commission, 2017), and is also beyond the 6-foot SLR line as modeled by the National Oceanic and Atmospheric Administration (NOAA) Digital Coast SLR Viewer. See <b>Figure 4-7, Sea Level Rise Map.</b></p>			

### 6.2.2 Hawai‘i State Functional Plans

The Hawai‘i State Plan is primarily guided by the State Functional Plans (Chapter 226, HRS) and implemented by the Department of Budget and Finance and State Land Use Commission. State Functional Plans are prepared by various state agencies to serve as the primary implementing vehicle for the goals, objectives, and policies of the Hawai‘i State Plan. While the State Plan establishes long-term objectives for Hawai‘i, the State Functional Plans focus on policies and priority actions that can be implemented in the short term. The issues, objectives, policies, and implementing actions of the Education State Functional Plan that apply to the project are discussed below.

#### Education State Functional Plan (1989)

##### **A(1): Academic Excellence**

*Policy: Emphasize quality educational programs in Hawai‘i’s institutions to promote academic excellence. [Hawai‘i State Plan, §226-21(b)(8)]*

*Goal: Provide the public schools with encouragement and support to reach a high level of effectiveness.*

##### **A(4): Services and Facilities**

*Policy: Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs. [Hawai‘i State Plan, §226-21(b)(21)]*

*Goal: Provide facilities that are sufficient in number, functional, well-paced and compatible with the physical surroundings.*

##### **B(3): Increased Use of Technology**

*Policy: Increase and improve the use of information technology in education and encourage programs which increase the public’s awareness and understanding of the impact of information technologies on our lives. [Hawai‘i State Plan, §226-21(b)(3)].*

*Goal: Develop a plan to pinpoint, analyze and use technology to improve classroom instruction.*

##### **B(5): Students with Special Needs**

*Policy: Provide appropriate educational opportunities for groups with special needs. [Hawai‘i State Plan, §226-21(b)(3)]*

*Goal: Assure appropriate educational services for individuals with special needs.*

**Discussion:** The proposed project is in accordance with the above policies and goals of the State Educational Functional Plan 1989, as the construction of the new classroom building, located appropriately on an existing elementary school parcel, will expand the availability of resources and permanent classroom space for AAES’s student body (including students with special needs). The proposed new classroom building will allow students to be placed within permanent classrooms containing many modern amenities that will facilitate improved learning and teaching environments. The project will comply with provisions and intent of the ADA, HRS, §103-50, and 2004 Americans with Disabilities Act Accessibility Guidelines.

The AAES strives for excellence by aligning its programs to its vision and by supporting the State’s strategic plan. The school offers Advancement via Individual Determination which aims to close the achievement gap by preparing all students for college readiness and success in a global society. AAES also offers College for Every Student which aims to raise the academic aspirations and performance of underserved youth so that they can prepare for, gain access to, and succeed in college.

Additionally, AAES offers Success for All which is a school-wide reading program that incorporates cooperative learning strategies to help students in all grade levels achieve literacy. The school also offers robotics and physical education. Extracurricular activities include music ensemble, volleyball, and basketball.

### 6.2.3 *Hawai‘i State Land Use Law*

The State Land Use Commission classifies all lands in the State of Hawai‘i into one of four land use designations: Urban, Rural, Agricultural, and Conservation. These districts are defined and mapped by the State Land Use Commission in order to ensure compatibility with neighboring land uses and the protection of public health. According to HRS, Chapter 205, State Land Use Law:

*“Chapter 205, HRS, Districting and classification of lands:”*

*“(a) There shall be four major land use districts in which all lands in the State shall be placed: urban, rural, agricultural and conservation. The land use commission shall group contiguous land areas suitable for inclusion in one of these four major districts. The commission shall set standards for determining the boundaries of each district provided that:*

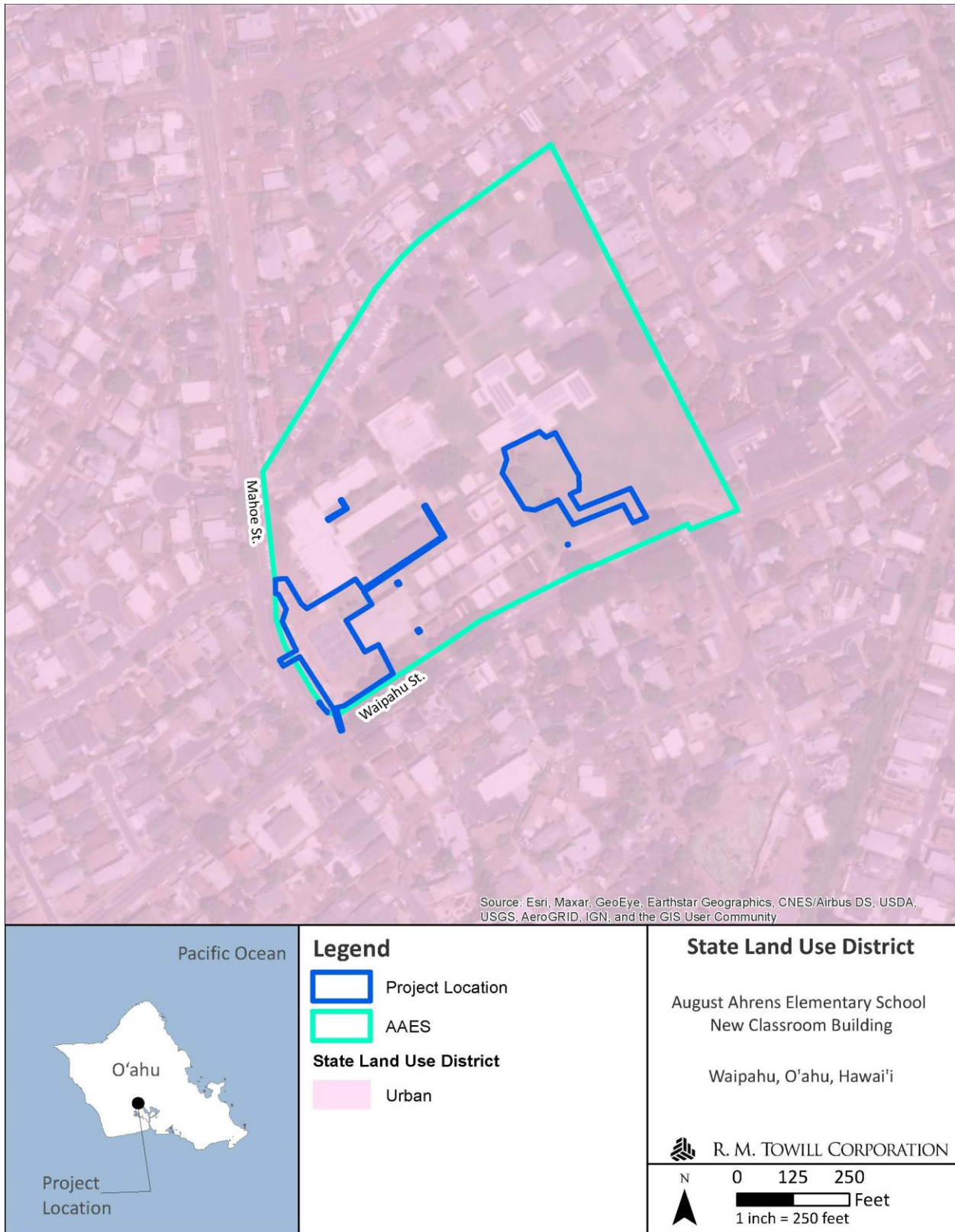
*(1) In the establishment of boundaries of urban districts those lands that are now in urban use and a sufficient reserve area for foreseeable urban growth shall be included.”*

**Discussion:** The proposed action involves the use of land within the Urban State Land Use Districts. See **Figure 6-1, State Land Use Districts**.

The proposed action is consistent with the current land use in the area and would not have significant impacts on urban development uses. In addition, public schools are a permitted use in the State Land Use Urban District. No changes to State Land Use Districts within the project boundaries are required.



**Figure 6-1. State Land Use Districts**



6.2.4 Hawai‘i State Environmental Policy

The State Environmental Policy (HRS, Chapter 344) establishes a set of guidelines to conserve the State’s natural resources and to enhance the quality of life through all State programs, authorities, and resources. The goals set forth for conservation focus on an effort to maintain and enhance the use of natural resources to create productive harmony between nature and the requirements of the people of Hawai‘i. The State Environmental Policy also sets goals to enhance the quality of life through diverse opportunities for social and economic growth in the community. These opportunities are pursued through sustainable practices and the use of renewable resources to create stable improvements in community identity, resource efficiency, and harmony with the natural environment. The policies and guidelines of the State Environmental Policy which pertain to this project are outlined in the table below.

**Table 6-2. State Environmental Policy Applicability to the Proposed Project**

S = Supportive, N/S = Not Supportive, N/A = Not Applicable	S	N/S	N/A
<b>State Environmental Policy</b>			
<b>§344-3 Environmental policy.</b> <i>It shall be the policy of the State, through its programs, authorities, and resources to:</i>			
(1) <i>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 humanity and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of the people of Hawaiii.</i>			X
(2) <i>Enhance the quality of life by:</i>			
(A) <i>Setting population limits so that the interaction between the natural and artificial environments and the population is mutually beneficial;</i>			X
(B) <i>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;</i>			X
(C) <i>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; and</i>			X
(D) <i>Establishing a commitment on the part of each person to protect and enhance Hawai‘i’s environment and reduce the drain on nonrenewable resources.</i>			X
<b>Discussion:</b> The project is planned in an urban area and will not involve State Conservation lands.			
<b>Guidelines</b>			
<b>§344-4 Guidelines.</b> <i>In pursuance of the state policy to conserve the natural resources and enhance the quality of life, all agencies, in the development of programs, shall, insofar as practicable, consider the following guidelines:</i>			
(1) <i>Population.</i>			
(A) <i>Recognize population impact as a major factor in environmental degradation and adopt guidelines to alleviate this impact and minimize future degradation;</i>			X
(B) <i>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.</i>			X
<b>Discussion:</b> The project will neither encourage nor discourage population growth.			
(2) <i>Land, water, mineral, visual, air, and other natural resources.</i>			
(A) <i>Encourage management practices which conserve and fully utilize all natural resources;</i>			X

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>(B) Promote irrigation and waste water management practices which conserve and fully utilize vital water resources;</i>			X
<i>(C) Promote the recycling of waste water;</i>			X
<i>(D) Encourage management practices which conserve and protect watersheds and water sources, forest, and open space areas;</i>			X
<i>(E) Establish and maintain natural area preserves, wildlife preserves, forest reserves, marine preserves, and unique ecological preserves;</i>			X
<i>(F) Maintain an integrated system of state land use planning which coordinates the state and county general plans;</i>			X
<i>(G) Promote the optimal use of solid wastes through programs of waste prevention, energy resource recovery, and recycling so that all our wastes become utilized.</i>			X
<b>Discussion:</b> The proposed project has no direct relationship to the management of land, water, mineral, visual, air, and other natural resources.			
<i>(3) Flora and fauna.</i>			
<i>(A) Protect endangered species of indigenous plants and animals and introduce new plants or animals only upon assurance of negligible ecological hazard;</i>			X
<i>(B) Foster the planting of native as well as other trees, shrubs, and flowering plants compatible to the enhancement of our environment.</i>			X
<b>Discussion:</b> The project is not in any critical habitat areas and will have no impact on endangered species.			
<i>(4) Parks, recreation, and open space.</i>			
<i>(A) Establish, preserve and maintain scenic, historic, cultural, park and recreation areas, including the shorelines, for public recreational, educational, and scientific uses;</i>			X
<i>(B) Protect the shorelines of the State from encroachment of artificial improvements, structures, and activities;</i>			X
<i>(C) Promote open space in view of its natural beauty not only as a natural resource but as an ennobling, living environment for its people.</i>			X
<b>Discussion:</b> The project is located away from the shoreline, and will have no impact on available parks, recreation, and adjoining open spaces.			
<i>(5) Economic development.</i>			
<i>(A) Encourage industries in Hawaii which would be in harmony with our environment;</i>			X
<i>(B) Promote and foster the agricultural industry of the State; and preserve and conserve productive agricultural lands;</i>			X
<i>(C) Encourage federal activities in Hawaii to protect the environment;</i>			X
<i>(D) Encourage all industries including the fishing, aquaculture, oceanography, recreation, and forest products industries to protect the environment;</i>			X
<i>(E) Establish visitor destination areas with planning controls which shall include but not be limited to the number of rooms;</i>			X
<i>(F) Promote and foster the aquaculture industry of the State; and preserve and conserve productive aquacultural lands.</i>			X
<b>Discussion:</b> The project is not directly related to the State’s goal for economic development.			
<i>(6) Transportation.</i>			
<i>(A) Encourage transportation systems in harmony with the lifestyle of the people and environment of the State;</i>			X
<i>(B) Adopt guidelines to alleviate environmental degradation caused by motor vehicles;</i>			X
<i>(C) Encourage public and private vehicles and transportation systems to conserve energy, reduce pollution emission, including noise, and provide safe and convenient accommodations for their users.</i>			X
<b>Discussion:</b> The project is not expected to have any impact on transportation systems.			

<b>S = Supportive, N/S = Not Supportive, N/A = Not Applicable</b>	<b>S</b>	<b>N/S</b>	<b>N/A</b>
<i>(7) Energy.</i>			
<i>(A) Encourage the efficient use of energy resources.</i>	X		
<b>Discussion:</b> The new classroom building will incorporate energy-efficient fixtures where feasible and will replace existing temporary facilities with permanent facilities, thereby minimizing additional energy use of the overall AAES campus.			
<i>(8) Community life and housing.</i>			
<i>(A) Foster lifestyles compatible with the environment; preserve the variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods which reflect the culture and mores of the community;</i>			X
<i>(B) Develop communities which provide a sense of identity and social satisfaction in harmony with the environment and provide internal opportunities for shopping, employment, education, and recreation;</i>	X		
<i>(C) Encourage the reduction of environmental pollution which may degrade a community;</i>			X
<i>(D) Foster safe, sanitary, and decent homes;</i>			X
<i>(E) Recognize community appearances as major economic and aesthetic assets of the counties and the State; encourage green belts, plantings, and landscape plans and designs in urban areas; and preserve and promote mountain-to-ocean vistas.</i>			X
<b>Discussion:</b> The project will enhance community life in the area by providing better opportunities in primary education for area residents.			
<i>(9) Education and culture.</i>			
<i>(A) Foster culture and the arts and promote their linkage to the enhancement of the environment;</i>			X
<i>(B) Encourage both formal and informal environmental education to all age groups.</i>			X
<b>Discussion:</b> The project is not directly related to environmental education; however, it will provide much-needed educational resources for students and faculty that can improve the current and future curriculum at AAES.			
<i>(10) Citizen participation.</i>			
<i>(A) Encourage all individuals in the State to adopt a moral ethic to respect the natural environment; to reduce waste and excessive consumption; and to fulfill the responsibility as trustees of the environment for the present and succeeding generations; and</i>			X
<i>(B) Provide for expanding citizen participation in the decision making process so it continually embraces more citizens and more issues.</i>	X		
<b>Discussion:</b> This EA discusses potential impacts and mitigation measures of the proposed project and provided an opportunity for resident input during the public comment period.			

### 6.2.5 Clean Water Act

The CWA is the key legislation governing surface water quality protection in the United States. Sections 401 and 402 of the Act require permits for actions that involve wastewater discharges or discharge of dredged or fill material into waters of the United States. The EPA is responsible for administering the CWA. In Hawai‘i, the EPA has delegated responsibility for implementing the Act to the State DOH, CWB, under HAR, Chapter 11-55, Water Pollution Control. States can use their WQS in Section 401 Water Quality Certification (WQC) to review and approve, condition, or deny all Federal permits or licenses that may result in discharges to State waters, including wetlands. States and tribes make decisions to deny, certify, or condition permits or licenses primarily to ensure that the activity will comply with State WQS. In addition, States and tribes

look at whether the activity will violate effluent limitations, new source performance standards, toxic pollutants, and other water resource requirements of State/tribal law or regulation. Section 402 of the CWA makes it unlawful to discharge any pollutant from a point source into navigable waters unless a NPDES permit is obtained for ground-disturbing activities equal to or greater than one acre.

**Discussion:** No jurisdictional waters are located in the project area, therefore DOH WQC under CWA, Section 401, would not be applicable to the project. A NPDES permit for construction storm water will be required for the project as the demolition, construction, and staging areas result in the disturbance of one (1) acre or greater of land area. A separate NPDES General Permit for discharges of hydrotesting waters may also be obtained from the DOH, CWB.

### 6.2.6 Hawai‘i Coastal Zone Management Program

All land and water use activities in the state must comply with HRS, Chapter 205A, Hawai‘i Coastal Zone Law. The State of Hawai‘i designates the Coastal Zone Management (CZM) Program to manage the intent, purpose, and provisions of HRS, Chapter 205(A)-2, as amended, for the areas from the shoreline to the seaward limit of the State’s jurisdiction, and any other area which a lead agency may designate for the purpose of administering the CZM Program.

The objectives of the State’s Hawai‘i CZM Program, HRS, Chapter 205(A)-2, are to protect valuable and vulnerable coastal resources such as coastal ecosystems, special scenic, and cultural values, and recreational opportunities. The objectives of the program are also to reduce coastal hazards and to improve the review process for activities planned within the coastal zone. Each county is responsible for designating a SMA that extends inland from the shoreline. Development within this SMA is subject to County approval to ensure the proposal is consistent with the policies and objectives of the Hawai‘i CZM Program.

The project is not located within the CCH SMA. However, HRS Chapter 205A requires all state and county agencies to enforce CZM objectives and policies as set forth in HRS §205A-2. Projects needing Federal permits are required by the CZM Act to be consistent with Hawai‘i’s CZM Program objectives and policies. The program outlines management objectives centered around ten areas: 1) Recreational Resources; 2) Historic Resources; 3) Scenic and Open Space Resources; 4) Coastal Ecosystems; 5) Economic Uses; 6) Coastal Hazards; 7) Managing Development; 8) Public Participation in Coastal Management; 9) Beach Protection, and 10) Marine Resources. The following discussions address the applicability of the project to the ten CZM objectives and policies.

#### **Recreational Resources**

*Objective: Provide coastal recreational opportunities accessible to the public.*

*(A) Improve coordination and funding of coastal recreational planning and management; and*

*(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:*

*(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;*

- (ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;*
- (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;*
- (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;*
- (v) Ensuring public recreational uses 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 nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;*
- (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and*
- (viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.*

**Discussion:** The proposed project is not a coastal development and is not located on the coastline or in the SMA. Therefore, policies regarding shoreline recreation resources and shoreline public access are not applicable.

BMPs would be implemented during construction (e.g., silt fencing, tarping/covering exposed and stockpiled soils, surface revegetation, etc.) of the proposed action to minimize/eliminate stormwater flow from the proposed construction site and any associated degradation of water quality of surface waters or coastal waters within the vicinity of the proposed project area.

### **Historic Resources**

*Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

*(A) Identify and analyze significant archaeological resources;*

*(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and*

*(C) Support state goals for protection, restoration, interpretation, and display of historic resources.*

**Discussion:** Due to the extensive disturbance that AAES has experienced for the development of the existing campus, it is unlikely that subsurface historic resources are present. Nonetheless, an ALRFI was prepared and is included in **Appendix B** of the EA. As provided above in **Section 4.14**, no historic properties have been previously reported for the AAES campus or within 300 meters of the AAES campus, and no historic properties were identified in the project area during the project fieldwork, which supports a DOE determination (as per HAR §13-275-7[a][1]) of “No

historic properties affected” and no further archaeological work. The DOE will notify the SHPD of the proposed project and request a letter of determination (as per HAR §13-275-3) and concurrence with this effect determination.

In accordance with HRS, Chapter 6E, and the requirements of the SHPD, DLNR, should any historic resources, including human skeletal and significant cultural remains, be identified during project activities: (1) work will cease in the immediate vicinity of the find; (2) the find will be protected from any additional disturbance; and (3) the SHPD, will be contacted immediately at (808) 692-8015 (Main Office, O‘ahu) for further instructions including the conditions under which project activities may resume. With the implementation of the abovementioned mitigation measures, the project is not anticipated to have a significant, long-term adverse impact on traditional or contemporary cultural/historical resources.

### **Scenic and Open Space Resources**

*Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal 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 land forms and existing public views to and along the shoreline;*
- (C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and*
- (D) Encourage those developments that are not coastal dependent to locate in inland areas.*

**Discussion:** The project site is not coastal dependent and is located inland and would not adversely affect coastal scenic and open space resources. The new classroom building will be adjacent to existing buildings on the AAES campus and would not impact views to the shoreline. The construction of the new play court, CMU wall, concrete walkway, and parking lot improvements will be at or near ground level. Additionally, the AAES campus is not currently situated in an area that would obstruct any panoramic views identified in the COSCP.

### **Coastal Ecosystems**

*Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

- (A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;*
- (B) Improve the technical basis for natural resource management;*
- (C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;*
- (D) 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; and*
- (E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.*



**Discussion:** The proposed project is located inland, approximately 0.80 miles away from the nearest coastal ecosystems, and is, therefore, not expected to have adverse impacts on coastal/shoreline resources, including reefs, beaches, dunes, and marine resources.

The proposed action would be completed in accordance with County, State, and Federal regulations to minimize any significant impacts on water quality in nearby coastal waters. BMPs will be implemented during construction to prevent erosion and stormwater runoff during the construction phase.

### **Economic Uses**

*Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.*

- (A) Concentrate coastal dependent development in appropriate areas;*
- (B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and*
- (C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
  - (i) Use of presently designated locations is not feasible;*
  - (ii) Adverse environmental effects are minimized; and*
  - (iii) The development is important to the State's economy.**

**Discussion:** The proposed project is not a coastal-dependent development, is not located on the coastline, is not in the SMA, and is not expected to have an adverse impact on the State’s economy. The parcels within and surrounding the project area are designated as Urban according to the State Land Use Commission district classifications. The proposed action would occur within currently developed land and would not result in permanent change of the current land use within and adjacent to the proposed project area.

### **Coastal Hazards**

*Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*

- (A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;*
- (B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;*
- (C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and*
- (D) Prevent coastal flooding from inland projects.*

**Discussion:** The proposed project is located approximately 0.8 miles inland and is not located in a tsunami zone and will not exacerbate coastal hazards. The project area is located in Flood Zone D, which is defined as an undetermined flood hazard area.

### **Managing Development**

*Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.*

- (A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;*
- (B) Facilitate timely processing of applications 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 public to facilitate public participation in the planning and review process.*

**Discussion:** The project supports the development review process, communication, and public participation. This EA is prepared pursuant to HRS Chapter 343, to conduct an environmental review of the proposed project and provides an evaluation of the potential short and long-term impacts on environmental, social, and cultural resources. The Office of Planning and Sustainable Development, Environmental Review Program, publishes notice of an EAs availability for public review and participation, providing a 30-day comment period. **Section 8** of the EA provides a record of the consultation completed for the project and a list of agencies, organizations, and individuals consulted.

### **Public Participation**

*Objective: Stimulate public awareness, education, and participation in coastal management.*

- (A) Promote public involvement in coastal zone management processes;*
- (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 issues, developments, and government activities; and*
- (C) Organize workshops, policy dialogues, and site-specific mitigation to respond to coastal issues and conflicts.*

**Discussion:** Public involvement in the proposed project will consist of a public notice of the EA in the Office of Planning and Sustainable Development, Environmental Review Program, bulletin, and consultation with agencies, organizations, and individuals. See **Section 8** for a complete list of all agencies, organizations, and individuals to be consulted for the proposed project and a record of the pre-assessment consultation that has been completed.

### **Beach Protection**

*Objective: Protect beaches for public use and recreation.*

- (A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;*

- (B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities;*
- (C) Minimize the construction of public erosion-protection structures seaward of the shoreline;*
- (D) Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner’s vegetation in a beach transit corridor; and*
- (E) Prohibit private property from creating a public nuisance by allowing the private property owner’s unmaintained vegetation to interfere or encroach upon a beach transit corridor.*

**Discussion:** The proposed project has no relationship to beach protection or access. However, the project will follow County, State, and Federal regulations pertaining to water quality standards and employ BMPs to prevent erosion and stormwater runoff during the construction phase.

### **Marine Resources**

*Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*

- (A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;*
- (B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;*
- (C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;*
- (D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and*
- (E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.*

**Discussion:** The proposed project is located inland away from marine and coastal resources. However, the project will follow County, State, and Federal regulations pertaining to water quality standards and employ BMPs to prevent adverse impacts on marine and coastal resources from construction activities.

## **6.3 City and County of Honolulu**

### **6.3.1 General Plan**

The CCH’s General Plan is the policy document for the long-range development of the Island of O‘ahu. Adopted in 1977 and most recently amended in 2021, the plan sets forth the long-range objectives and policies for the general welfare of the island over a 20-year time horizon. Combined with the regional development plans, the General Plan provides a direction and framework to guide the programs and activities of the CCH. Specific General Plan goals and policies applicable to the proposed project are discussed below.

### **Health and Education**

*Objective B – To provide a wide range of educational opportunities for the people of Oahu.*

*Policies:*

- (4) Encourage the construction of school facilities that are designed for flexibility and high levels of use.*
- (5) Facilitate the appropriate location of learning institutions from the preschool through university levels.*

**Discussion:** The project is in accordance with the CCH’s goals in education, as the construction of the new school facilities, located on an existing elementary school site, will expand the availability of resources and permanent classroom space for AAES’s student body, encouraging enhanced use of classroom space and learning opportunities.

#### *6.3.2 Central O‘ahu Sustainable Communities Plan*

The CCH has adopted the COSCP as one of eight community-oriented plans to guide public policy, investment, and decision-making through the 2025 planning horizon. The document contains policies specific to the Central O‘ahu region. These policies, principles, and guidelines are then implemented through ordinances such as the Land Use Ordinance (LUO) (zoning code). The COSCP makes the following references to Waipahu (as it relates to the location of the AAES):

#### **Community Growth Boundary**

*Generally circumscribes the existing communities of Village Park, Waipahu, Waikele, Gentry Waipi‘o, Mililani, Mililani Mauka, and Wahiawā, and planned developments of Royal Kunia, Koa Ridge Makai, Waiawa, and Mililani Technology Park.*

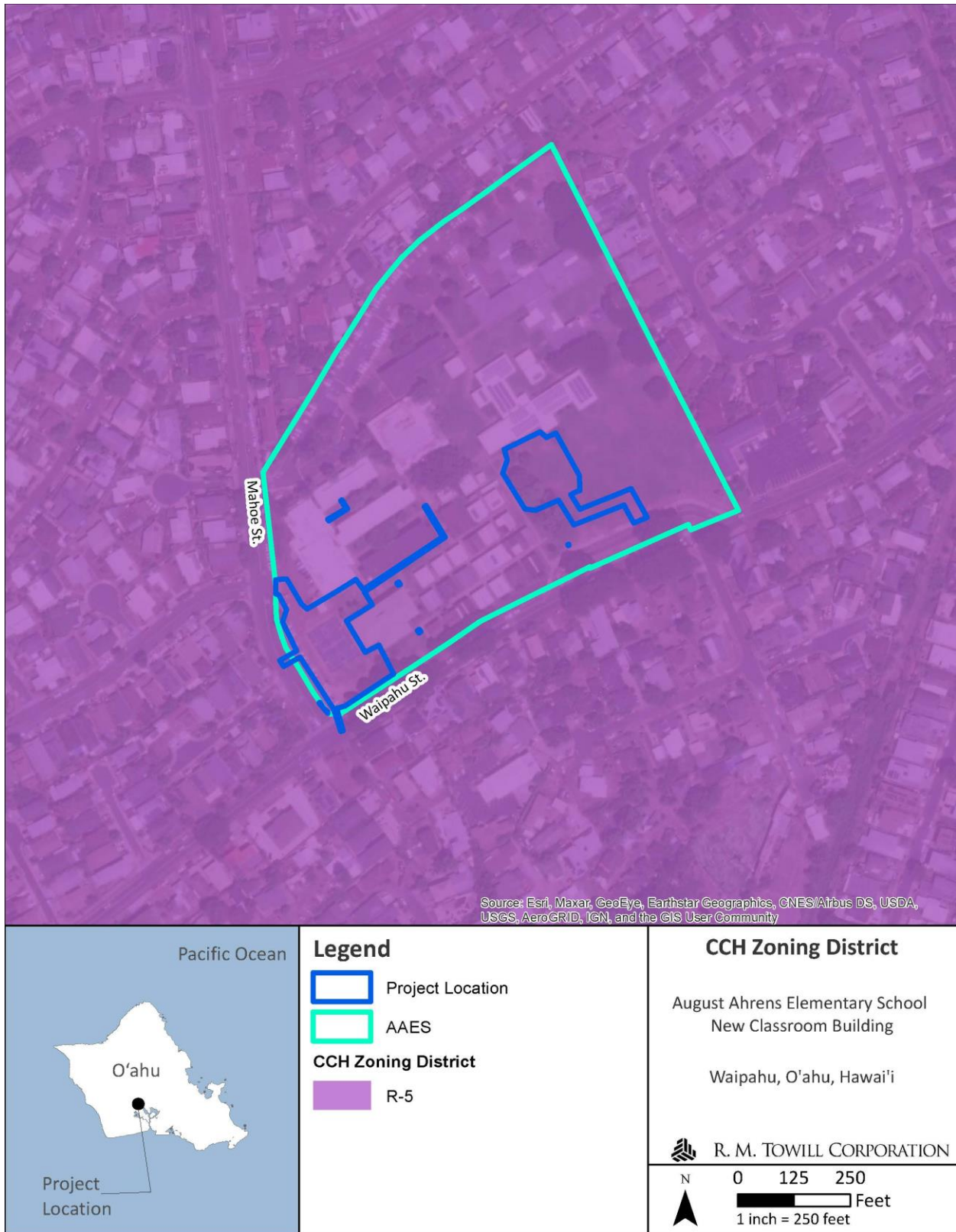
**Discussion:** While the proposed project will not encourage population growth, the project will involve the replacement of existing portable classroom facilities on the AAES campus with permanent classroom space, located within the planned Community Growth Boundary. The project will retain the redevelopment of facilities on the campus while providing necessary permanent classroom space and support facilities for the students and faculty.

#### *6.3.4 Land Use Ordinance*

The LUO, Chapter 21 of the Revised Ordinances of Honolulu (ROH), implements the goals and objectives of the General Plan and the COSCP. All lands within the CCH are zoned into specific districts. According to the DPP, the project site is zoned R-5 Residential. See **Figure 6-2, City and County of Honolulu Zoning Districts**.

In a letter dated March 29, 1988, under Special Plan Review File No. 88/SPR-16, the Department of Land Utilization determined that the AAES was an existing use and approved a minor modification to allow the construction of wooden portable classroom buildings. For the purposes of the LUO, the school is considered a public use and structure so a minor modification to the Special Plan Review Permit is not required. According to the LUO Master Use Table (Table 21-3 of the LUO), “Public uses and structures” are permitted in all zoning districts.

**Figure 6-2. City and County of Honolulu Zoning Districts**



**Discussion:** The proposed project is consistent with the LUO in that it is a public structure (a DOE classroom building) for public use, which is a permitted use in all zoning districts regulated by the CCH, including the R-5 zone in which the project is located.

Under the LUO, the current height limit under R-5 zoning is 25 feet. Since the proposed new classroom building is estimated to be a maximum of 32 feet 2 inches, the DOE will submit a Zoning Waiver application for a height exemption to DPP following the EA process.

Additionally, DOE will submit a Zoning Waiver application for parking requirements to DPP following the EA process. Per the last new building that was permitted and built (Building M, BP #556902), the school has 90 marked stalls. Including Building M, 205 parking stalls are currently required, per LUO table 21-6.1. The proposed New Classroom Building (i.e., Building N) will have approximately 12,853 sf of classroom space (no offices). Per the LUO table 21-6.1 current requirement of 1 stall per 500 sf. for classrooms, 28 stalls are required for the New Classroom Building (Building N). The total parking stalls required following the construction of the New Classroom Building therefore will be  $205 + 28 = 233$  stalls.

The New Classroom Building project will add 6 marked stalls (5 regular and 1 van accessible). Additionally, under a separate project, AAES plans to build a parking lot with 60 stalls (57 regular and 3 accessible), which is currently being permitted (BPA # A2022-06-0889). This will bring the total number of stalls provided to 156, which is short 77 stalls, to meet the required 233 stalls required. However, AAES notes that the required allocation of the parking requirement of 28 parking stalls for the New Classroom Building would be allocated from the existing 90 parking stalls, plus the 6 stalls being added for the New Classroom Building project, plus an additional 60 stalls from the new parking lot project, and that the 156 stalls are sufficient to meet the parking needs of staff and guests on campus. Additionally, as noted in **Section 2.3** AAES is developing an overall plan for phased improvements for the replacement and demolition of portable classroom facilities with permanent classroom space. Therefore, a reduced number of parking stalls is expected in the future following the removal of portable classrooms. For the interim, portables plus the New Classroom Building, a Zoning Waiver will be obtained.

The DOE will further request a determination from DPP for off-street parking requirements to manage access to the campus.

### 6.3.6 *Special Management Area*

The SMA was established to preserve, protect, and where possible, restore the natural resources of the coastal zone of Hawai‘i. Special controls on development within this area are necessary to avoid the permanent loss of valuable resources and foreclosure of management options. The review guidelines of the ROH, Chapter 25-3.2, are used by the DPP and the Honolulu City Council for the review of developments planned in the SMA. These guidelines are derived from HRS, Chapter 205A-26.

**Discussion:** The project site is not within the SMA defined by the CCH and is thus not subject to the provisions of ROH, Chapter 25.

## ***Section 7***

### ***Permits and Approvals That May Be Required***

#### ***7.1 State of Hawai‘i***

Environmental Assessment and Finding of No Significant Impact under Hawai‘i Revised Statutes, Chapter 343 (Department of Education, State of Hawai‘i)

Section 402, Clean Water Act, National Pollutant Discharge Elimination System permit for construction storm water and hydrotesting discharges (Department of Health, Clean Water Branch)

Hawai‘i Revised Statutes, Chapter 6E Review (Department of Land and Natural Resources, State Historic Preservation Division)

Americans with Disabilities Act Review (Department of Health, Disability and Communication Access Board)

Noise Permit (Department of Health)

Transportation Management Plan (Department of Transportation)

#### ***7.2 City and County of Honolulu***

Grubbing, Grading and Stockpiling Permit (Department of Planning & Permitting)

Trenching Permit (Department of Planning & Permitting)

Street Usage Permit (Department of Transportation Services)

Construction and Traffic Control Plans (Department of Planning & Permitting, Traffic Review Branch)

Construction Management Plan (Department of Planning & Permitting)

Traffic Management Plan (Department of Planning & Permitting)

Transportation Management Plan (Department of Planning & Permitting; Department of Transportation Services)

Building Permit (Department of Planning & Permitting)

Zoning Waiver (Building Height) (Department of Planning & Permitting)

Zoning Waiver (Parking Requirements) (Department of Planning & Permitting)

Plan Approval (Department of Transportation Services, Transportation Mobility Division)

Plan Approval (Board of Water Supply)

Plan Approval (Honolulu Fire Department)



## ***Section 8***

### ***Agencies, Organizations, and Individuals to be Consulted for the Environmental Assessment***

The following agencies, organizations, and individuals will be contacted during the HRS, Chapter 343, environmental review process to disclose the environmental conditions of the site, the proposed undertaking, and the potential impacts and mitigation measures that will be applied to ensure against adverse impacts.

#### ***8.1 State of Hawai‘i***

Department of Land and Natural Resources:

State Historic Preservation Division

Office of Hawaiian Affairs

Department of Health:

Clean Water Branch

Clean Air Branch

Disability and Communication Access Board

Office of Planning

Coastal Zone Management Program

Department of Accounting and General Services:

Public Works Division

Department of Transportation

Department of Hawaiian Home Lands

Office of Planning and Sustainable Development

Environmental Review Program

#### ***8.2 City and County of Honolulu***

Department of Planning and Permitting

Planning Division

Traffic Review Branch

Department of Budget and Fiscal Services

Department of Community Services

Department of Design and Construction

Department of Environmental Services

Department of Facility Maintenance

Department of Parks and Recreation

Department of Customer Services

Department of Transportation Services  
Honolulu Board of Water Supply  
Honolulu Fire Department  
Honolulu Police Department

### 8.3 *Elected Officials, Organizations and Individuals*

Hawaiian Electric Company, Inc.  
City Councilmember Brandon Elefante  
Waipahu Neighborhood Board No. 22  
Waipahu Community Association  
Spectrum  
Hawaiian Telcom  
Lanakila Baptist School  
O‘ahu Transit Services, Inc.  
Meje, Inc.  
Institute for Native Pacific Education and Culture  
Ke One O Kākuhihewa  
Na Koa Ikaika Ka Lahui Hawai‘i  
PA‘I Foundation

### 8.4 *Pre-Assessment Consultation for the Environmental Assessment*

Pre-assessment consultation letters, dated November 19, 2021, were sent to the public and private agencies, organizations, and individuals to notify and initiate consultation for the preparation of the Chapter 343, HRS, EA for the project. The purpose of the pre-assessment consultations was to accomplish the following:

- Solicit input to help identify environmental and permitting issues to be considered and addressed in the upcoming EA; and
- Inform agencies, organizations, and individuals regarding planned activities in the area and the upcoming EA process.

A list of the comments received during the pre-assessment consultation is provided in **Table 8-1**. All written comments received during the pre-assessment consultation were responded to and addressed in the content of the EA. The full record of the pre-assessment consultation comments received and the written responses addressing the comments is provided in **Appendix D**.

**Table 8-1. Comments Received During the Pre-Assessment Consultation for the EA**

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
1	Anton C. Krucky, Director Designate, Department of Community Services	11/29/21	Our review indicates that the proposed project will have no adverse impacts on any Department of Community Services activities or projects in the surrounding neighborhood.	The DOE appreciates your statement acknowledging that the proposed project will not impact any of the Department of Community Services' activities or projects.	N/A
2	Rouen Liu, Permit Engineer, Hawaiian Electric Company	12/1/21	Hawaiian Electric Company has no objection to the project. Should Hawaiian Electric have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities.	The DOE appreciates your statement expressing no objection to the subject project. The DOE acknowledges Hawaiian Electric Company's (HECO) need for continued access to existing easements and facilities within the project limits. DOE will continue to coordinate with HECO for access to those facilities.	Section 4.13.2
3	Alex Kozlov, P.E., Director, DDC	12/2/21	The Department of Design and Construction has no comments to offer at this time.	The DOE acknowledges that the Department of Design and Construction does not have any comments or concerns at this time.	N/A
4	William J. Aila, Jr., Chairman, Hawaiian Homes Commission	12/2/21	The Department of Hawaiian Home Lands acknowledges receiving the request for comments on the above-cited project. After reviewing the materials submitted, due to its lack of proximity to Hawaiian Home Lands, we do not anticipate any impacts to our lands or beneficiaries from the project.  However, we highly encourage all agencies to consult with Hawaiian Homestead community associations and other (N)ative Hawaiian organizations when preparing environmental assessments in order to better assess potential impacts to cultural and natural resources, access and other rights of Native Hawaiians.	The DOE appreciates your statement acknowledging that the proposed project will not impact any of the Department of Hawaiian Home Lands' lands or beneficiaries. The DOE will notify relevant Hawaiian Homestead community associations and other native Hawaiian organizations of the project during the publication of the EA.	N/A
5	Roger Babcock, Jr., Ph.D., P.E., Director and Chief Engineer, Department of Facility Maintenance	12/3/21	The Department of Facility Maintenance currently maintains Waipahu Street and Mahoe Street including sidewalks. During construction and upon completion of the project, any damages/deficiencies along the roadways and sidewalks along Waipahu Street and	The DOE acknowledges that the Department of Facility Maintenance currently maintains Waipahu Street and Mahoe Street including sidewalks. Prior to the start of construction activities, the contractor will document the condition of roadways and sidewalks and provide remedial measures, as necessary, if the condition of any	Section 4.13.1

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			Mahoe Street shall be repaired to City standards, and at no cost to the City and County of Honolulu.	roadway or sidewalk has deteriorated as a result of the related construction activities.	
6	Jason Samala, Assistant Chief, Honolulu Fire Department	12/3/21	1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1, as amended.)  A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2018 Edition, Section 18.2.3.2.1.)	The DOE acknowledges this comment. The proposed project will comply with the National Fire Protection Association (NFPA) 1, 2018 Edition, Sections 18.2.3.2.1, 18.2.3.2.2, and 18.2.3.2.2.1, requirements for fire department access roads.	Section 4.13.5
			2. An approved water supply capable of supply the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with Section 18.4. (NFPA 1; 2018 Edition, Section 18.3.1.)	The DOE acknowledges this comment. The proposed project will comply with the NFPA 1, 2018 Edition, Section 18.3.1, as amended. A water supply approved by the County, capable of supplying the required fire flow for fire protection, will be provided to the proposed new classroom building facilities.	Section 4.13.5
			3. The fire department access roads shall be in accordance with Section 18.2.3. (NFPA 1; 2018 Edition, Section 18.2.3.)	The DOE acknowledges this comment. The fire department access roads will be in accordance with Section 18.2.3 (NFPA 1; 2018 Edition, Section 18.2.3).	Section 4.13.5
			4. Submit civil drawings to the HFD for review and approval.	The DOE acknowledges this comment. Civil drawings will be submitted to Honolulu Fire Department for review and approval.	Section 4.13.5
7	Darren Chun, Assistant Chief of Police Support Services Bureau,	12/3/21	Based on the information provided, the Honolulu Police Department recommends that all necessary signs, lights, barricades, and other safety equipment	The DOE acknowledges this comment and will ensure the project contractor installs and maintains all necessary signs, lights, barricades, and other safety	Section 4.13.1

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
	Honolulu Police Department		be installed and maintained by the contractor during the construction phase of the project as any impacts to vehicular traffic could lead to complaints.	equipment to avoid impacts to vehicular traffic during the construction phase.	
8	Dean Uchida, Director, Department of Planning and Permitting	12/8/21	1. In a letter dated March 29, 1988, under Special Plan Review (SPR) File No. 88/SPR-16, the Department of Land Utilization determined that the August Ahrens Elementary School was an existing use and approved a minor modification to allow the construction of wooden portable classroom buildings. For the purposes of the Land Use Ordinance (LUO), the school is considered a public use and structure so a minor modification to the SPR Permit is not required.	The DOE acknowledges this comment and appreciates the Department of Planning and Permitting’s (DPP) statement acknowledging that a minor modification to the Special Plan Review Permit is not required.	Section 6.3.4
			2. In our June 3, 2015 letter to the Department of Education (DOE), we noted that the DOE should request a determination for off-street parking requirements when permanent classrooms are to be constructed. Therefore, we recommend that the DEA discuss total number of existing and proposed parking spaces, the existing parking demand, the anticipated parking demand, and how additional number of parking spaces was determined. In addition, the DEA should discuss any parking demand management strategies the school plans to employ to reduce demand for faculty and staff parking and encourage multi-modal transportation options and carpooling for all users of the site. Additionally, the DEA should discuss how the Project may affect current pick-up and drop-off strategies along with details about how the school mitigates potential impacts to the surrounding area. Finally, the DEA should discuss if and how any Safe Routes to School programs have been studied or implemented at the school.	<p>The proposed project entails the construction of a new classroom building that is intended to support the existing student enrollment at August Ahrens Elementary School and is not anticipated to generate additional new trips in the project vicinity. As such, the proposed project is expected to have minimal impact on the surrounding roadway network.</p> <p>A Transportation Management Plan (TMP) is currently in progress and expected to be prepared in conjunction with the project design. The completion date for the TMP is estimated in the mid-2023 timeframe and may follow the project’s HRS, Chapter 343, EA process; if available, the TMP will be included in the Final EA and FONSI. Following the completion of the TMP, DOE will provide the TMP to governmental agencies, including the Department of Planning and Permitting, and others, as appropriate, for review and approval. The TMP will include traffic circulation, parking, and travel demand management strategies aimed at reducing or redistributing travel demand. This would include an assessment of vanpools, car shares, bike share programs, and subsidized transit passes for employees, along with</p>	Section 2.3, 4.13.1, 6.3.4, and 7.2

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
				<p>other travel demand management strategies for the AAES.</p> <p>Additionally, The DOE will submit a Zoning Waiver application for parking requirements to DPP following the EA process. Per the last new building that was permitted and built (Building M, BP #556902), the school has 90 marked stalls. Including Building M, 205 parking stalls are currently required, per LUO table 21-6.1. The proposed New Classroom Building (i.e., Building N) will have approximately 12,853 sf of classroom space (no offices). Per the LUO table 21-6.1 current requirement of 1 stall per 500 sf. for classrooms, 28 stalls are required for the New Classroom Building (Building N). The total parking stalls required following the construction of the New Classroom Building therefore will be <math>205 + 28 = 233</math>.</p> <p>The New Classroom Building project will add 6 marked stalls (5 regular and 1 van accessible). Additionally, under a separate project, AAES plans to build a parking lot with 60 stalls (57 regular and 3 accessible), which is currently being permitted (BPA # A2022-06-0889). This will bring the total number of stalls provided to 156, which is short 77 stalls, to meet the required 233 stalls required. However, AAES notes that the required allocation of the parking requirement of 28 parking stalls for the New Classroom Building would be allocated from the existing 90 parking stalls, plus the 6 stalls being added for the New Classroom Building project, plus an additional 60 stalls from the new parking lot project, and that the 156 stalls are sufficient to meet the parking needs of staff and guests on campus. Additionally, AAES is developing an overall plan for phased improvements for the replacement and demolition of portable classroom facilities with permanent classroom space. Therefore, a reduced number of parking stalls is expected in the future following the removal of portable classrooms. For the interim, portables plus the New Classroom Building, a Zoning Waiver will be obtained. The DOE will further</p>	

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			<p>3. The DEA should list and address all relevant policies and guidelines of the Central Oahu Sustainable Communities Plan and the Oahu General Plan. The DEA should also include a discussion of whether there is a possibility that the equipment or structures will ultimately need to exceed the height limit, will be located in any required yard, or will not meet the development standards for the R-5 Residential District, as shown in LUO Section 21-3.70-1, Table 21-3.2. If that is a possibility, a Zoning Waiver should be added to the list of potentially necessary permits and approvals.</p>	<p>request a determination from DPP for off-street parking requirements to manage access to the campus.</p> <p>No Safe Routes to School programs have been studied or implemented at AAES or are anticipated as part of this project.</p> <p>The DOE acknowledges this comment. A description of the proposed project’s compliance with the O‘ahu General Plan and Central Oahu Sustainable Communities Plan is included in the EA, Section 6.3.1 and Section 6.3.2.</p> <p>Since the proposed new classroom building will exceed the height limit under R-5 zoning, a Zoning Waiver will be submitted to the Department of Planning and Permitting (DPP) following the EA process.</p>	<p>Section 6.3.1, 6.3.2, 6.3.4, and 7.2</p>
9	Kirby L. Shaw, Executive Director, Disability and Communication Access Board	12/8/21	<p>1. Because this project is being constructed on State land, it is covered by §103-50, Hawaii Revised Statutes (HRS). The construction of the August Ahrens Elementary School New Classroom Building Project is required to comply with the Department of Justice's (DOJ) 2010 ADA Standards for Accessible Design (2010 Standards) <a href="http://www.ada.gov/2010ADAstandards/index.htm">http://www.ada.gov/2010ADAstandards/index.htm</a>. To be consistent with the DOJ's standard, DCAB adopted the 2004 Americans with Disabilities Act Accessibility Guidelines (ADAAG) as of January 1, 2011 and passed interpretive opinions consistent with the 2010 ADA Standards. All new Interpretive Opinions can be viewed or downloaded at <a href="http://health.hawaii.gov/dcab/facility-access/interpretive-opinions/">http://health.hawaii.gov/dcab/facility-access/interpretive-opinions/</a>.</p>	<p>The DOE acknowledges this comment. The project will comply with provisions and intent of the ADA, HRS, §103-50, and the 2004 Americans with Disabilities Act Accessibility Guidelines.</p>	<p>Section 6.1.1</p>



No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			<p>2. If this project is receiving federal funds, it will also have to comply with the requirements under Section 504 of the Rehabilitation Act, but this is not included in the DCAB review process. If you have any questions regarding your obligations under Section 504 of the Rehabilitation Act, you should contact the federal agency that is providing federal funds for your project.</p> <p>3. Projects with construction documents that are covered by §103-50, HRS, are required to be submitted to DCAB for a formal document review.</p> <p>4. Where new on-site parking stalls are being proposed near the existing Cafeteria Building (along Mahoe Street), an accessible stall and access aisle shall be provided within this new parking facility area. An accessible route shall be provided from the new accessible stall and access aisle to the proposed new walkway adjacent to the new parking facility area. The proposed new elevator shall comply with ADAAG Section 407. At the proposed new play court, an accessible route for persons with disabilities shall be provided.</p>	<p>The DOE acknowledges this comment. The proposed will be funded in its entirety by the State; no federal funds will be used.</p> <p>The DOE acknowledges this comment. The DOE will consult with and submit plans to the Department of Health, Disability and Communication Access Board, to ensure that the project design meets Americans with Disabilities Act requirements.</p> <p>The DOE acknowledges and will comply with this requirement.</p>	<p>N/A</p> <p>Section 6.1.1 and 7.1</p> <p>Section 3.5.1</p>
10	Chinnough Colburn, Construction Coordinator, Charter Communications/ Spectrum	12/9/21	<p>The locations of existing routes and crossings were shown on the provided plans. The exact locations, and routing of all CATV facilities must be verified in the field due to construction variances. The location of the proposed project may have an effect on Spectrum’s existing CATV plant in your work area.</p> <p>However, if the work or repairs being performed requires special machinery, with a specific height requirements, the contractor performing the work, will be required to notify our office prior to performing</p>	<p>The DOE acknowledges this comment and the drawings provided. During construction, contractors will be required to verify locations of existing infrastructure prior to the start of construction and protect existing infrastructure to ensure against interruption of services within the project area. AAES and its contractor will notify Spectrum prior to performing any work that requires special machinery, with a specific height requirement.</p>	Section 4.13.2

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			<p>any work. Spectrum may need to reattach or move our plant system, in the event that we have to relocate our existing plant system, charges may apply.</p> <p>At this time, Spectrum utilizes HECO’s aerial infrastructure and the underground conduits on the school premise to provide our CATV services. Please see attached drawing with highlighting CATV sections. Before any digging toning may be required. Call “One Call Center” at 866 423-7287 to set up toning.</p>		
11	J. Roger Morton, Director, Department of Transportation Services	12/20/21	<p>1. Transportation Impact Assessment (TIA). The applicant shall perform a TIA to examine the vehicle, pedestrian, bicycle, and public transit stress and comfort levels at the nearby intersections and driveways with corresponding improvements to mitigate these impacts by applying Complete Streets principles. The applicant shall discuss the future year growth rate, trip distribution, mode split, and route assignment assumptions used in the TIA.</p> <p>The TIA should identify an appropriate speed limit for the streets adjacent to the project by analyzing conflict density and activity level, among other contextual factors, to determine the speed limit that will best minimize the risk of a person being killed or seriously injured. The National Association of City Transportation Officials Safe Speed Study methodology is recommended. A Safe Speed Study should be conducted for the longest relevant segment of a street corridor affected by the project.</p> <p>The applicant shall submit all native files (e.g., Synchro, Excel, etc.) for the raw multi-modal counts and accompanying analyses to the Regional Planning Branch at <a href="mailto:dtsplanningdiv@honolulu.gov">dtsplanningdiv@honolulu.gov</a>. Please refer to the Department of Transportation Services (DTS) TIA Guide for multimodal</p>	<p>The proposed project entails the construction of a new classroom building that is intended to support the existing student enrollment at August Ahrens Elementary School and is not anticipated to generate additional new trips in the project vicinity. As such, the proposed project is expected to have minimal impact on the surrounding roadway network.</p> <p>A Transportation Management Plan (TMP) is currently in progress and expected to be prepared in conjunction with the project design. The completion date for the TMP is estimated in the mid-2023 timeframe and may follow the project’s HRS, Chapter 343, EA process; if available, the TMP will be included in the Final EA and FONSI. Following the completion of the TMP, DOE will provide the TMP to governmental agencies, including the Department of Transportation Services, and others, as appropriate, for review and approval. The TMP will include traffic circulation, parking, and travel demand management strategies aimed at reducing or redistributing travel demand. This would include an assessment of vanpools, car shares, bike share programs, and subsidized transit passes for employees, along with other travel demand management strategies for the AAES.</p>	Section 2.3, 4.13.1, and 7.2

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			assessment tools and recommended analyses. The TIA Guide can be found at <a href="http://www4.honolulu.gov/docushare/dsweb/View/Collection-7723">http://www4.honolulu.gov/docushare/dsweb/View/Collection-7723</a> .		
			<p>2. Complete Streets. The TIA shall include a discussion of the following:</p> <ul style="list-style-type: none"> <li>i. Include a description of how the project will promote, encourage, and monitor transit use by its employees and students.</li> <li>ii. The management entity shall inform employees and parents of the City's vanpool, car share, and bikeshare programs to promote alternate modes of transportation.</li> <li>iii. Investigate the feasibility of providing employees with subsidized transit passes.</li> <li>iv. The management entity should adopt (i.e., be responsible for litter removal, cleaning and maintenance of bus stop shelter, benches and floor area) any anticipated future bus stops fronting the project site at no cost to the City.</li> <li>v. The applicant shall make a contribution for complete streets improvements as recommended by the forthcoming TIA.</li> </ul>	The DOE acknowledges this comment. Travel demand management strategies aimed at reducing or redistributing travel demand will be included as part of an overall TMP being developed for the project as provided in the response to No. 1 above. Vanpools, car shares, bike share programs, and subsidized transit passes for employees, along with other travel demand management strategies will be included as part of the overall TMP prepared for the AAES. DOE will coordinate with the City regarding the bus stops along the project frontage which are expected to remain at their current configuration. Additionally, DOE will contribute to complete streets improvements as recommended by the forthcoming TMP.	Section 4.13.1 and 7.2
			3. Street Usage Permit. A street usage permit from the DTS should be obtained for any construction-related work that may require the temporary closure of any traffic lane or pedestrian mall on a City street.	The DOE acknowledges this comment and will ensure the project contractor obtains a street usage permit from the Department of Transportation Services for any construction-related work that may require temporary closure of any traffic lane on Mahoe Street and Waipahu Street.	Section 4.13.1 and 7.2
			4. Neighborhood Impacts. The area representatives, neighborhood board, as well as the area residents, businesses, emergency personnel (fire, ambulance, and police), O‘ahu Transit Services, Inc. (TheBus	The DOE acknowledges this comment. AAES and its contractor will continue to appraise the Waipahu Neighborhood Board No. 22, Waipahu Community Association, area businesses and schools, emergency	Section 4.13.1

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			and TheHandiVan), etc., should be kept apprised of the details and status throughout the project and the impacts that the project may have on the adjoining local street area network.	services, and O‘ahu Transit Services, Inc. of its construction plans, schedule, and any changes throughout the project planning and implementation process.	
			5. Bus Stops. The project site is in the immediate vicinity of bus stops. Please coordinate roadway improvements with DTS - Transportation Mobility Division (TMD). Contact DTS-TMD at TheBusStop@honolulu.gov	The DOE acknowledges this comment and will coordinate roadway improvements with the Department of Transportation Services - Transportation Mobility Division to ensure against interruption of bus services within the project area.	Section 4.13.1
			6. Disability and Communication Access Board (DCAB). Project plans (vehicular and pedestrian circulation, sidewalks, parking and pedestrian pathways, vehicular ingress/egress, etc.) should be reviewed and approved by DCAB to ensure full compliance with Americans with Disabilities Act requirements.	The DOE acknowledges this comment. The DOE will consult with and submit plans to the Department of Health, Disability and Communication Access Board, to ensure that the project design meets Americans with Disabilities Act requirements.	Section 6.1.1 and 7.1
12	Ernest. Y.W. Lau, P.E., Manager and Chief Engineer, Board of Water Supply	12/22/21	1. The existing water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.	The DOE acknowledges this comment appreciates your statement acknowledging that the existing water system is adequate to accommodate the proposed development. The DOE acknowledges that the Board of Water Supply (BWS) reserves the right to change their position or information until the final approval of the building permit application and that the final decision on the availability of water will be confirmed when the building permit application is submitted for approval.	Section 4.13.2
			2. When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.	The DOE acknowledges that when water is made available, the DOE will be required to pay the BWS Water System Facilities Charges for resource development, transmission, and daily storage.	Section 4.13.2
			3. Water conservation measures are required for all proposed developments. These measures include utilization of non potable water for irrigation using	The DOE acknowledges this comment. Where possible, DOE will utilize water conservation measures at the site. These measures may include the utilization of non-	Section 4.13.2

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.	potable water for irrigation using rain catchment, drought-tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.	
			4. The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.	The DOE acknowledges this comment and will submit plans to the BWS for review and approval to the. DOE will continue to coordinate with the BWS on the proposed project and construction schedule to minimize impacts on the water system.	Section 4.13.2
			5. The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.	The DOE acknowledges this comment and will coordinate on-site fire protection requirements with the Fire Prevention Bureau of the Honolulu Fire Department.	Section 4.13.2 and 4.13.6
13	Jade T. Butay, Director of Transportation, Hawaii Department of Transportation	12/22/21	Based on your letter, we cannot identify whether there will be an increase in student enrollment related to the proposed action. Therefore, an evaluation should be provided on whether the proposed building, operation, and additional enrollment projection will have any local impacts on the roadways or nearby State highways. The evaluation should be provided in the DEA. If relevant, a Traffic Assessment or a Traffic Impact Analysis Report should also be included. The traffic study should be prepared by a Traffic Engineer licensed in the State of Hawai‘i.	<p>The proposed project entails the construction of a new classroom building that is intended to support the existing student enrollment at August Ahrens Elementary School and is not anticipated to generate additional new trips in the project vicinity. As such, the proposed project is expected to have minimal impact on the surrounding roadway network.</p> <p>A Transportation Management Plan (TMP) is currently in progress and expected to be prepared in conjunction with the project design. The completion date for the TMP is estimated in the mid-2023 timeframe and may follow the project’s HRS, Chapter 343, EA process; if available, the TMP will be included in the Final EA and FONSI. Following the completion of the TMP, DOE will provide the TMP to governmental agencies, including the Hawai‘i Department of Transportation, and others, as appropriate, for review and approval. The TMP will include traffic circulation, parking, and travel demand management strategies aimed at reducing or redistributing travel demand. This would include an assessment of vanpools, car shares, bike share programs, and subsidized transit passes for employees, along with</p>	Section 2.3, 4.13.1, and 7.1

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
				other travel demand management strategies for the AAES.	
14	Alan S. Downer, Administrator, State Historic Preservation Division	Received 1/20/22, Dated 11/30/20	The State of Hawaii Historic Preservation Division is in the process of moving to an online submission system. The Hawai‘i Cultural Resource Information System (HICRIS) will be the only way for SHPD to accept and process submittals. We are not accepting submissions currently, while we migrate the data from our existing systems to HICRIS. The transition period is from November 28 to December 16, 2020. Additional information on HICRIS and the launch date can be found on our website. <a href="http://dlnr.hawaii.gov/shpd/">http://dlnr.hawaii.gov/shpd/</a>	The DOE acknowledges this comment and will provide submittals to the SHPD for the project through the Hawai‘i Cultural Resource Information System.	Section 4.14

## 8.5 Draft Environmental Assessment Comments and Responses

This Final EA has been prepared to address comments received during the 30-day public comment period. As appropriate, project mitigation measures have also been prepared to address substantive issues.

The Draft EA for this project was published for public review in the March 23, 2023, issue of the State Office of Planning and Sustainable Development, Environmental Review Programs’ *The Environmental Notice*. Comments were received during the public comment period ending on April 24, 2023.

A list of the comments received for the Draft EA and sections referenced within the Final EA to address the comments is provided in **Table 8-2** below. All written comments received during the public comment period were responded to and addressed in the content of the Final EA. The full record of the comments received and the written responses addressing the comments is provided in **Appendix E**.



**Table 8-2. Comments Received During Consultation for the Draft EA**

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
1	Christine L. Kinimaka, Public Works Administrator, Department of Accounting and General Services, State of Hawai‘i	3/31/23	Thank you for the opportunity to comment on the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities and we have no comments to offer at this time.	The DOE appreciates your statement acknowledging that the proposed project will not impact any of the Department of Accounting and General Services' activities or projects.	N/A
2	Anton C. Krucky, Director, Department of Community Services, City and County of Honolulu	3/31/23	Our review indicates that the proposed project will have no adverse impacts on any Department of Community Services activities or projects in the surrounding neighborhood.	The DOE appreciates your statement acknowledging that the proposed project will not impact any of the Department of Community Services' activities or projects.	N/A
3	Craig Uchimura, Acting Assistant Chief, Honolulu Fire Department, City and County of Honolulu	4/5/23	5. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1, as amended.)  A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2018 Edition, Section 18.2.3.2.1.)	The DOE acknowledges this comment. The proposed project will comply with the National Fire Protection Association (NFPA) 1, 2018 Edition, Sections 18.2.3.2.1, 18.2.3.2.2, and 18.2.3.2.2.1, requirements for fire department access roads. This is identified in the Final EA, Section 4.13.5.	Section 4.13.5
			6. The fire department access roads shall be in accordance with Section 18.2.3. (NFPA 1; 2018 Edition, Section 18.2.3.)	The DOE acknowledges this comment. The fire department access roads will be in accordance with NFPA 1; 2018 Edition, Section 18.2.3. This is identified in the Final EA, Section 4.13.5.	Section 4.13.5

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			7. An approved water supply capable of supply the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with Section 18.4. (NFPA 1; 2018 Edition, Section 18.3.1.)	The DOE acknowledges this comment. The proposed project will comply with the NFPA 1, 2018 Edition, Section 18.3.1, as amended. A water supply approved by the County, capable of supplying the required fire flow for fire protection, will be provided to the proposed new classroom building facilities. This is identified in the Final EA, Section 4.13.5.	Section 4.13.5
			8. Submit civil drawings to the City and County of Honolulu's Department of Planning and Permitting and route them to the HFD for review and approval.	The DOE acknowledges this comment. Civil drawings will be submitted to the City and County of Honolulu's Department of Planning and Permitting and routed to the HFD for review and approval. This is identified in the Final EA, Section 4.13.5.	Section 4.13.5
4	Kirby L. Shaw, Executive Director, Disability and Communication Access Board, City and County of Honolulu	4/10/23	1. Because this project is being constructed by a State entity on State land, it is covered by §103-50, Hawaii Revised Statutes (HRS). The construction of the August Ahrens Elementary School New Classroom Building Project will be reviewed for compliance with the Department of Justice's (DOJ) 2010 ADA Standards for Accessible Design (2010 Standards) <a href="http://www.ada.gov/2010ADASTandards/index.htm">http://www.ada.gov/2010ADASTandards/index.htm</a> . To be consistent with the DOJ's standard, DCAB adopted the 2004 Americans with Disabilities Act Accessibility Guidelines (ADAAG) as of January 1, 2011 and passed interpretive opinions consistent with the 2010 ADA Standards. All new Interpretive Opinions can be viewed or downloaded at <a href="http://health.hawaii.gov/dcab/facility-access/interpretive-opinions/">http://health.hawaii.gov/dcab/facility-access/interpretive-opinions/</a> .	The DOE acknowledges this comment. The project will comply with provisions and intent of HRS, §103-50; Department of Justice's 2010 ADA Standards for Accessible Design; and the 2004 Americans with Disabilities Act Accessibility Guidelines. This is identified in the Final EA, Section 6.1.1.	Section 6.1.1
			2. Projects with construction documents that are covered by §103-50, HRS, are required to be submitted to DCAB for a formal document review.	The DOE acknowledges this comment. The DOE will consult with and submit plans to the Department of Health, Disability and Communication Access Board, to ensure that the project design meets Americans with	Section 6.1.1 and 7.1

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
				Disabilities Act requirements. This is identified in the Final EA, Section 6.1.1 and Section 7.1.	
			3. A preliminary review of the Draft Environmental Assessment prepared by R.M. Towill Corporation prompts the following issues that we recommend that the design consultants address in their forthcoming project design. Where a new on-site parking facility is being proposed, accessible parking stalls and access aisles shall be provided in compliance with ADAAG 208 and 502. An accessible route shall be provided from accessible parking stalls and access aisles to the proposed new classroom building. The new walkways connecting to the new classroom building shall comply with ADAAG 206 and Chapter 4. New elevators shall comply with ADAAG 407. New classrooms shall comply with ADAAG 201.1. New toilet facilities shall comply with ADAAG 213 and Chapter 6. An accessible route shall be provided to the new play court.	The DOE acknowledges this comment. The project will provide accessible parking stalls and access aisles where the new on-site parking facility is proposed in compliance with Americans with Disabilities Act Accessibility Guidelines 208 and 502. An accessible route will be provided from the accessible parking stalls and access aisles to the proposed new classroom building in compliance with Americans with Disabilities Act Accessibility Guidelines 206 and Chapter 4. An accessible route will also be provided to the new play court. Additionally, for the new classroom building, new elevators will comply with Americans with Disabilities Act Accessibility Guidelines 407; new classrooms will comply with Americans with Disabilities Act Accessibility Guidelines 201.1; and new toilet facilities will comply with Americans with Disabilities Act Accessibility Guidelines 213 and Chapter 6. This is identified in the Final EA, Section 3.5.1 and Section 6.1.1.	Section 3.5.1 and 6.1.1
5	Ernest Y. W. Lau, P.E., Manager and Chief Engineer, Board of Water Supply, City and County of Honolulu	4/11/23	1. The existing water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.	The DOE acknowledges this comment and appreciates the Board of Water Supply’s (BWS) statement acknowledging that the existing water system is adequate to accommodate the proposed development. The DOE acknowledges that the BWS reserves the right to change its position or information until the final approval of the building permit application and that the final decision on the availability of water will be confirmed when the building permit application is submitted for approval. This is identified in the Final EA, Section 4.13.2.	Section 4.13.2
			2. When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.	The DOE acknowledges that when water is made available, the DOE will be required to pay the BWS Water System Facilities Charges for resource	Section 4.13.2

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
				development, transmission, and daily storage. This is identified in the Final EA, Section 4.13.2.	
			3. Water conservation measures are required for all proposed developments. These measures include utilization of non potable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.	The DOE acknowledges this comment. Where possible, DOE will utilize water conservation measures at the site. These measures may include the utilization of non-potable water for irrigation using rain catchment, drought-tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets. This is identified in the Final EA, Section 4.13.2.	Section 4.13.2
			4. The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.	The DOE acknowledges this comment and will submit plans to the BWS for review and approval. DOE will continue to coordinate with the BWS on the proposed project and construction schedule to minimize impacts on the water system. This is identified in the Final EA, Section 4.13.2.	Section 4.13.2
			5. The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.	The DOE acknowledges this comment and will coordinate on-site fire protection requirements with the Fire Prevention Bureau of the Honolulu Fire Department. This is identified in the Final EA, Section 4.13.2 and Section 4.13.6.	Section 4.13.2 and 4.13.6
6	Haku Milles, P.E., Director, Department of Design and Construction, City and County of Honolulu	4/11/23	Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments at this time.	The DOE acknowledges that the Department of Design and Construction does not have any comments or concerns at this time.	N/A
7	Dawn Takeuchi Apuna, Director, Department of Planning and Permitting, City and County of Honolulu	4/17/23	1. A Traffic Management Plan should be included in the Final EA and detail Traffic Demand Management (TDM) strategies to minimize the number of vehicular trips such as carpooling and ride sharing programs, transit, bicycle, and pedestrian incentives and other similar TDM measures. A pedestrian circulation plan should	The DOE acknowledges this comment. A Transportation Management Plan (TMP) has been prepared for the project which includes Traffic Demand Management (TDM) strategies and pedestrian facilities for the August Ahrens Elementary School. This is identified in the Final EA, Section 4.13.1, and Appendix C..	Section 4.13.1, and Appendix C

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			<p>also be included to provide accessibility and connectivity to the surrounding public sidewalks.</p> <p>2. The Draft EA notes the school currently has 90 parking spaces, proposes a total of 156 parking spaces, and 233 parking spaces would be required based on the new construction. Pursuant to Land Use Ordinance Section 21-6.20, Table 21-6.1, off-street parking for public uses and structures is determined by the Director. As referenced in our June 3, 2015, letter to the Department of Education (DOE), we note that the DOE should request a determination for off-street parking requirements when permanent classrooms are to be constructed.</p>	<p>The DOE will comply with the requirements of the Land Use Ordinance Section 21-6.20, Table 21-6.1, off-street parking for public uses and structures as determined by the Director. A Zoning Waiver application for parking will be filed following the completion of the EA process. The DOE will also request a determination from DPP for off-street parking requirements when the permanent classrooms are to be constructed. This is identified in the Final EA, Section 4.13.1.</p>	Section 4.13.1
8	Rouen Liu, Permit Engineer, Hawaiian Electric Company	4/20/23	Hawaiian Electric Company has no objection to the project. Should Hawaiian Electric have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities.	The DOE appreciates your statement expressing no objection to the subject project. The DOE acknowledges Hawaiian Electric Company’s (HECO) need for continued access to existing easements and facilities within the project limits. DOE will continue to coordinate with HECO for access to those facilities. This is identified in the Final EA, Section 4.13.2.	Section 4.13.2
9	Megumi Nakayama, Secretary, Office of Planning and Sustainable Development, Department of Business, Economic Development & Tourism	4/24/23	The Office of Planning and Sustainable Development have reviewed the DEA, but has no comments at this time.	The DOE acknowledges that the Office of Planning and Sustainable Development does not have any comments or concerns at this time.	N/A

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
10	Glenn Hayashi, Assistant Chief of Police, Support Services Bureau, Honolulu Police Department, City and County of Honolulu	4/24/23	The Honolulu Police Department has reviewed the information provided and there are no concerns at this time.	The DOE acknowledges that the Honolulu Police Department does not have any comments or concerns at this time.	N/A
11	J. Roger Morton, Director, Department of Transportation Services, City and County of Honolulu	4/26/23	<p>1. Transportation Impact Assessment (TIA). Although the Project is not expected to immediately add new student enrollment, the addition of 26,900 square feet of new classrooms creates a transportation impact and the need for mitigation. As such and consistent with the pre-consultation with DTS in December of 2021, the applicant shall perform a TIA to examine the vehicle, pedestrian, bicycle, and public transit safety, stress, and comfort levels at the nearby intersections and driveways with corresponding improvements to mitigate future impacts by applying Complete Streets principles. The applicant shall discuss the potential future year growth rate, trip distribution, mode split, and route assignment assumptions used in the TIA.</p> <p>The applicant shall submit all native files (e.g., Synchro, Excel, etc.) for the raw multi-modal counts (in the format specified at <a href="https://geocounts.com/api/format/">https://geocounts.com/api/format/</a> and the example file at <a href="https://bit.ly/DTS-count-sample">https://bit.ly/DTS-count-sample</a>) and accompanying analyses to the Department of Transportation Services Regional Planning Branch (RPB) at <a href="mailto:dtsplanningdiv@honolulu.gov">dtsplanningdiv@honolulu.gov</a>. Please refer to the Department of Transportation Services (DTS) TIA Guide for multimodal assessment tools and recommended analyses. The TIA Guide can be found at</p>	<p>The DOE understands that the Department of Transportation Services (DTS) requested that a Traffic Impact Assessment (TIA) be undertaken to address issues or concerns that may adversely impact traffic safety or congestion. In response, the DOE commissioned its traffic consultant to prepare a Traffic Management Plan (TMP) for the August Ahrens Elementary School (AAES). This is identified in the Final EA, Section 4.13.1, and Appendix C. The DOE requests that the DTS review its recommendations and strategies in the TMP to address any issues concerning the maintenance of transportation safety for the community and users of the school due to construction of the new classroom building and improvements.</p> <p>This project represents DOE’s comprehensive plan to demolish its existing inventory of portable classroom structures and to replace them with permanent classrooms to improve the quality of the school and educational environment. The proposed new classroom building is the first phase of this process and would not result in an increase in students on campus. The next phase will be to remove the portable classrooms that will be replaced. While the transition from portable to permanent classrooms will result in the temporary increase of classroom square footage on campus, as the portables are removed the overall square footage on campus would effectively be reduced. Therefore, over the long term, classroom square footage on campus is expected to stay relatively the same in accordance with</p>	Section 4.13.1, and Appendix C

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			<p><a href="http://www4.honolulu.gov/docushare/dswebNiew/Collection-7723">http://www4.honolulu.gov/docushare/dswebNiew/Collection-7723</a>.</p>	<p>DOE requirements. However, over the coming years the student population is expected to decline. DOE’s updated enrollment figures are cited in Section 2.3, Table 2-1 of the Final EA and show enrollment projections through the 2028-2029 school year.</p> <p>The DOE notes that per guidance provided in the Trip Generation Manual, site-generated trips would be attributed to growth in student enrollment. Since the proposed project is expected to serve the existing student population and no growth in enrollment is anticipated, the project is not expected to add new site-generated trips in the project vicinity. Without new site-generated trips, there can be no trip distribution, mode split, or route assignment.</p> <p>The DOE, however, notes that the AAES could manage existing traffic to better facilitate access and circulation in the vicinity. For this reason the TMP includes operational and management strategies that the school would implement as required.</p>	
			<p>2. Transportation Demand Management (TDM) Strategies. The applicant must develop and submit a TDM Strategy to DTS, incorporating the following elements:</p> <p>i. Pages 20-22 of the City's TIA Guide describes recommended TDM strategies, including, but not limited to: providing subsidized transit passes to students and staff; informing parents, staff, and visitors of vanpool and car share programs to promote alternate modes of transportation</p>	<p>The DOE acknowledges this comment. As previously noted, a TMP has been prepared for the project which includes Transportation Demand Management strategies for the AAES. This is identified in the Final EA, Section 4.13.1, and Appendix C.</p>	<p>Section 4.13.1, and Appendix C</p>
			<p>3. Complete <i>Streets</i>.</p> <p>i. Sidewalks. Applicant shall prioritize the upgrade of the sidewalk, including meeting current Americans with Disabilities Act</p>	<p>The DOE acknowledges these comments and will review them for regulatory applicability to the project. This will be completed during the design phase of the project, following the EA process.</p>	<p>N/A</p>



No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			<p>standards, on the Project's Waipahu Street frontage consistent with the proposed walkway upgrade project (Project ID #U-33 in the 2022 Oahu Pedestrian Plan) as mitigation for the Project's transportation impact. All internal Project sidewalks/pedestrian paths and those fronting the Project shall have a minimum of 5-foot, 8-foot preferred, pedestrian clear zone separate from the furniture and utility zone. Sidewalks shall incorporate the standards of the Honolulu Complete Streets Design Manual, including the placement of street furniture such as landscaping, signage, and lighting, which is intended to provide added protection for pedestrians. New sidewalks, curb ramps, curbs, and gutters must meet current Americans with Disabilities Act standards.</p> <p>ii. Installation of lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape consistent with the Complete Streets furniture zone; and trash receptacles per the Honolulu Complete Streets Design Manual, Oahu Pedestrian Plan, and any applicable streetscape plan.</p> <p>iii. Waipahu Street fronting the Project site is classified as an "Avenue" planned to have sidewalks, bike lanes, two travel lanes, bus service mixed with general purpose travel, and optional unpriced on-street parking. The typical future street cross section will resemble in concept the second design on Page 77 of the City's Complete Streets Design Manual. Additionally, a Priority 1 Bike Lane project (Project ID 1-17 in the 2019 Oahu Bike Plan), and a Walkway Upgrade project (Project ID U-33 in the 2022 Oahu Pedestrian Plan) are</p>		

No	Commentor	Date of Letter	Comments	Response	Final EA Reference Sections
			<p>planned for Waipahu Street fronting the project site. Any changes or improvements shall be designed to minimize the number and size of potential conflict areas between pedestrians, bicyclists, and turning vehicles.</p> <p>iv. Mahoe Street fronting the Project site is classified as a "Street" planned to have sidewalks, two travel lanes, bus service mixed with general purpose travel, and optional unpriced on-street parking. The typical future street cross section will resemble in concept the second design on Page 78 of the City's Complete Streets Design Manual.</p>		

## ***Section 9*** ***Summary of Effects***

In accordance with the content requirements of HRS, Chapter 343, and the significance criteria in HAR, §11-200.1-13, an applicant or agency must determine whether an action may have significant impacts on the environment, including all phases of the project, its expected consequences both primary and secondary, cumulative impact with other projects, and short- and long-term effects.

HAR, §11-200.1-24 requires a discussion of the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity. Short-term and long-term do not necessarily refer to fixed time periods but are viewed relative to environmentally significant consequences of the proposed action. **Sections 9.1** and **9.2** below discuss the extent to which the proposed action involves trade-offs among short-term and long-term gains and losses, as well as the extent to which the proposed action forecloses future options and/or narrows the range of beneficial uses of the environment.

In making the determination of whether an action may have significant impacts on the environment, HAR §11-200.1-13 established “Significance Criteria” to be applied as a basis for identifying whether significant environmental impacts will occur. According to the HAR §11-200.1, an action shall be determined to have a significant impact on the environment if it meets any one of the criteria. The relationships of the proposed action to the criteria are discussed below in **Section 9.3**. See **Table 9-1** at the end of this section for a summary of impacts and proposed mitigation.

### ***9.1 Short Term Effects***

The short-term effects associated with the proposed action will be principally during the construction phase. Noise will be temporarily generated from construction activities and the related mobilization of equipment. Construction equipment is expected to include, but not be limited to backhoe(s), loader(s), excavator(s), work trucks, and powered hand tools. All internal combustion-powered equipment will be muffled in accordance with standard engine operating practices. Upon the completion of work, noise levels will return to pre-existing ambient levels.

Fugitive dust may be generated during construction. The contractor will be required to control fugitive dust through the regular wetting of soils and ground areas susceptible to the generation of dust during work activities. Only enough water will be used to wet the surface of ground areas and prevent the generation of runoff.

Protection of water quality will be through the use of mitigative measures including silt fencing/curtains, berms, and other applicable erosion controls to prevent construction storm water related soils and silt from leaving active areas of work. BMPs would be followed to prevent sediment and contaminants from impacting surface waters during construction, particularly during any in-stream work. Specifications for the use of these measures will be through the construction

plan approval process and applicable NPDES applications that will be filed by the design consultant during the design phase.

The contractor will obtain a street usage permit from the Department of Transportation Services for any construction-related work that may require temporary closure of any traffic lane on Mahoe Street and Waipahu Street (CCH-owned) to minimize impacts to traffic in the project vicinity.

Upon completion of work all construction equipment, machinery, and personnel will be demobilized from the job site with no further disturbance to the area. All debris and waste materials will be disposed of at an approved refuse facility. Active work areas will be replanted with native and indigenous vegetation where possible.

## 9.2 *Long Term, Secondary, and Cumulative Effects*

Potential long-term direct, secondary, and cumulative impacts have been evaluated and are documented for the following resources or issues: land use; land ownership; public health and safety; roadways and traffic; utilities; public facilities and services; topography, geology, and soils; hydrology; natural hazards; climate; air quality; noise; visual resources; marine environment; terrestrial flora and fauna; historic and cultural resources; and socioeconomics. Long-term effects continue or occur after the project is completed. Secondary impacts are generally defined as those induced or caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable (40 CFR §1500-1508). Potential cumulative effects are effects that may result from the incremental consequences of an action when added to other past, present, and reasonably foreseeable future actions (40 CFR §1508.7).

A discussion of the anticipated long-term, secondary, and cumulative impacts resulting from the implementation of the proposed action is provided below:

### **Socio-Economic Environment**

The proposed action has no population or housing component and would have no impact on those items. It would however have limited beneficial impacts on the economy through the provision of construction jobs, the procurement of local goods and services, and increased tax revenue. Thus, the proposed action would contribute to those beneficial impacts on the local economy.

Long-term socio-economic impacts resulting from the proposed DOE project at AAES are expected to be beneficial. Once completed, the proposed action is expected to result in long-term beneficial socioeconomic impacts through a permanent classroom building and necessary support facilities to serve the existing needs of the students and faculty at AAES. The project will not increase student enrollment but address an existing need for better quality facilities utilized by the student and faculty population. Therefore, the project will not significantly contribute to impacts resulting from an increase in student or faculty population, such as increased demand for infrastructure, increased traffic, increased demand on public services or facilities, or increased demand for natural resources in the vicinity of the project site. Beneficial secondary impacts are expected from the proposed project in the form of improved facilities necessary to deliver quality education to AAES students. Overall, the net cumulative impact is

expected to have a positive effect on AAES students (and their families) and the broader community.

### 9.3 *Irreversible and Irrecoverable Commitment of Resources*

The proposed action would result in the irretrievable commitment of resources expended for construction and demolition activities. Financial resources and fuels used to power construction equipment and vehicles would be an irreversible and irretrievable commitment of resources. Labor required for planning, design, and construction would be irretrievable, once used.

Less than significant impacts on short-term resource use in the project area are expected due to construction activities. The proposed action would require the commitment of natural resources such as aggregate for concrete and petroleum products to fuel construction equipment. However, the amount of resources needed would not represent a significant commitment of resources. Therefore, short-term impacts on resource use in the project area due to construction activities would be considered less than significant. No long-term, secondary, or cumulative impacts on resource use are expected.

### 9.4 *Significance Criteria*

In accordance with the provisions set forth in HRS, Chapter 343, and the significance criteria in HAR, Chapter 11-200.1-13, this Final EA has determined that the project will have no significant adverse impact to air and water quality, existing utilities, noise, archaeological or cultural sites, or wildlife habitat. All anticipated impacts will be temporary and will not adversely impact the environmental quality of the area.

According to the Significance Criteria:

#### **1. Irrevocably commit a natural, cultural, or historic resource:**

The project will not irrevocably commit a natural, cultural, or historic resource. The project site’s status as an existing paved and landscaped area, plus prior land disturbance suggests that the site is absent of any natural, cultural, or historic resources potentially subject to irrevocable loss as a result of construction.

#### **2. Curtail the range of beneficial uses of the environment:**

The project will not curtail the range of beneficial uses of the environment as the site is currently developed and located within the existing AAES campus.

#### **3. Conflict with the State's environmental policies or long-term environmental goals established by law:**

The project is consistent with the environmental policies, goals, and guidelines as delineated in HRS, Chapter 344, State Environmental Policy, and as documented in this EA. Construction activities proposed under the proposed action are not expected to have any significant impacts on the surrounding natural resources due to the fact that the site is

already developed. The purpose of the project is to provide an improved classroom building and necessary support facilities to serve the existing needs of the students and faculty at AAES.

**4. Have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community and State:**

The project will result in short-term economic benefits during construction that include direct, indirect, and induced employment opportunities and multiplier impacts. The project will also positively influence social welfare by facilitating the education of students at AAES.

**5. Have a substantial adverse effect on public health:**

The potential impacts related to noise, air, or water quality during construction will be addressed through construction management practices in compliance with Federal, State, and County requirements as described in this EA. The DOE’s initiative to build sustainably will help to ensure that the proposed project will not negatively affect public health. No significant long-term impacts on public health are anticipated as a result of implementing the proposed project.

**6. Involve adverse secondary impacts, such as population changes or effects on public facilities:**

The DOE anticipates no increase in student population as a result of the proposed project, and as a result, no increase in demand for public facilities. The project is proposed to address the needs at AAES for the current enrollment levels. The new facilities provided by the new classroom building will help students learn and succeed in the 21st century.

The project would include state-of-the-art materials and resources (books, computers, equipment, supplies, etc.) available for use by students and faculty to enhance their instructional needs. The space would promote the use of various types of programs and activities as needed by courses and instructors.

**7. Involve a substantial degradation of environmental quality:**

No substantial environmental degradation is expected from the implementation of the proposed project. The proposed project will be developed in accordance with the environmental policies of HRS, Chapter 343. The analysis provided in this EA indicates that no substantial environmental degradation is anticipated or expected. Additionally, the DOE has committed itself to a development initiative for environmental sustainability. The project will need to meet minimum applicable statutes and regulations as well as the more stringent self-imposed sustainability requirements.

**8. Be individually limited but cumulatively have substantial adverse effect upon the environment or involves a commitment for larger actions:**

The project is not expected to cumulatively have a substantial adverse effect on the environment or involve a commitment for larger actions. Implementation of the proposed project will not commit the DOE to any other larger actions, and will not generate any additional actions having a cumulative effect on the environment.

**9. Have a substantial adverse effect on a rare, threatened, or endangered species, or its habitat:**

The project site does not contain known rare, threatened, or endangered species, or critical habitats. The new classroom building will occupy a site that is already committed to a portion of an existing paved play court and lawn, the new play court will involve an existing lawn area, and the proposed future new parking area will involve an undeveloped portion of campus; however, due to intense human utilization at the site, the proposed improvements are not expected to have any impact on endangered flora or faunal species. During construction, mitigation measures will be implemented to minimize potential impacts to species that may overfly, forage, or otherwise utilize the project site on rare occasions. For further discussion on proposed mitigation measures see **Section 4.8, Flora and Fauna**.

**10. Have a substantial adverse effect on air or water quality or ambient noise levels:**

The project is not anticipated to have a substantial adverse effect on air or water quality or ambient noise levels. During construction, there is the potential for temporary, short-term impacts on existing air quality, and noise conditions in the immediate project vicinity. The project will comply with Federal, State, and CCH regulations during the construction and will implement BMPs to minimize temporary impacts. For further discussion on proposed mitigation measures see **Section 4.5, Water Resources and Hydrology; Section 4.9, Noise Conditions; and Section 4.10, Air Quality**. Following the completion of construction activities, the proposed action will not have any significant impacts on air or water quality or ambient noise levels at the project site.

**11. Have a substantial adverse effect on or be likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, sea level rise exposure area, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters:**

The project site does not lie in an environmentally sensitive area such as a flood plain, tsunami zone, SLR exposure area, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters. Likewise, the project is not expected to have any impact on any environmentally sensitive areas or natural hazard conditions.



**12. Have a substantial adverse effect on scenic vistas and viewplanes, during day or night, identified in county or state plans or studies:**

The project is not anticipated to have a substantial adverse effect on scenic vistas and viewplanes, during day or night, as identified in the COSCP. Temporary construction-related visual impacts (i.e., the presence of construction equipment in and around the project area) are expected; however, once construction is completed, the proposed features would represent a small permanent visual change in the area and would be compatible with the existing visual setting of the project area. For further discussion see **Section 3.13, Visual Resources**.

**13. Require substantial energy consumption or emit substantial greenhouse gases:**

The project will not require substantial energy consumption or emit substantial GHGs. Construction of the project will result in a moderate amount of energy consumed, relative to other projects. The project will implement energy-efficient fixtures as feasible to reduce overall energy consumption.

**Table 9-1. Project Impacts Summary**

Resource Area	Potential Short-term Impacts	Long-term Impacts	Cumulative Impacts	Mitigation and BMPs	EA Section
Climate	Construction activities that require the use of heavy machinery would present a short-term increase in GHGs.	No Adverse Impact.	Minimal Cumulative Impact - because the direct impact to climate would be only short-term, and would not increase the use of machinery, the project would make no persistent contribution to cumulative impacts.	No Mitigation required.	4.2 Climate 4.7 Natural Hazards
Geology, Topography, and Soil Resources	Ground disturbing activities (i.e., during construction).	No Adverse Impact.	No Cumulative Impact.	<ul style="list-style-type: none"> <li>Erosion control measures will be employed during construction.</li> <li>Site restoration to original condition at conclusion of the project.</li> <li>Disposal will be at an approved facility or location in accordance with Federal, State, and County regulations.</li> </ul>	4.3 Geology and Topography 4.4 Soils and Potential for Hazardous Materials
Groundwater and Surface Water	Potential storm water runoff during construction.  Localized and potential increase in turbidity.	No Adverse Impact.	No Cumulative Impact.	<ul style="list-style-type: none"> <li>Construction will be regulated through NPDES, as required, in accordance with CWA regulations.</li> <li>During construction, work activities will be in compliance with HAR §11-54 WQS and §HAR 11-55 Water Pollution Control.</li> <li>Discharge pollution prevention measures will be employed in all phases of the project.</li> <li>Following construction, all areas of ground disturbance will be stabilized with appropriate materials including the use of vegetative ground cover.</li> </ul>	4.5 Water Resources and Hydrology
Wetlands	No Adverse Impact.	No Adverse Impact.	No Cumulative Impact.	No Mitigation required.	4.6 Wetlands
Natural Hazards	No Adverse Impact.	No Adverse Impact.	No Cumulative Impact.	No Mitigation required.	4.7 Natural Hazards
Terrestrial Flora	No Adverse Impact.	No Adverse Impact.	No Cumulative Impact.	<ul style="list-style-type: none"> <li>A tree replacement/relocation plan will be developed by the DOE.</li> </ul>	4.8.1 Terrestrial Flora

Resource Area	Potential Short-term Impacts	Long-term Impacts	Cumulative Impacts	Mitigation and BMPs	EA Section
Terrestrial Faunal and Avifaunal Resources	Increased lighting during the construction of the proposed project.	No Adverse Impact.	No Cumulative Impact.	<ul style="list-style-type: none"> <li>To minimize the potential for impacts to Hawaiian hoary bat or ‘ōpe‘ape‘a, woody plants greater than 15 feet tall will not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15), and the use of barbed wire to top fence lines that could entangle flying bats will be avoided.</li> <li>To minimize the potential for impacts to protected Hawaiian waterbirds all construction activity will cease if an endangered waterbird enters an active construction area and work will only resume after the individual leaves the area on its own volition.</li> <li>To minimize the potential for impacts to protected night-flying seabirds construction activities will occur during daylight hours and all outdoor lighting installed will be fully “dark sky compliant” (HDLNR-DOFAW, 2016).</li> </ul>	4.8.2 Terrestrial Fauna
Noise	Temporary source of noise above ambient levels from construction noise.	No Adverse Impact.	Minimal Cumulative Impact – other past, present, and reasonably foreseeable future actions are expected to be consistent with existing development and the direct impact to noise would only be short-term, the project would make no persistent contribution to cumulative impacts.	<ul style="list-style-type: none"> <li>Construction vehicles and machinery, and all noise attenuation equipment maintained in good operating condition.</li> <li>During construction, work activities will be in compliance with HAR, §11-46 Community Noise Control.</li> </ul>	4.9 Noise Conditions
Air Quality	Temporary and localized emissions from increased fugitive dust and odors arising from construction-related equipment, and vehicles.	No Adverse Impact.	Minimal Cumulative Impact – because the direct impact to air quality would be only short-term, the project would make no persistent contribution to cumulative impacts.	<ul style="list-style-type: none"> <li>Construction equipment and vehicles shall be maintained in proper working order to reduce air emissions.</li> <li>During construction, work activities will be in compliance with HAR, §11-59, Ambient Air Quality Standards, and §11-60.1, Air Pollution Control.</li> <li>Fugitive dust will be controlled with regular wetting of the soil by the contractor and/or by the use of dust screens, as required.</li> </ul>	4.10 Air Quality
Visual Resources	Temporary visual impacts from the presence of construction equipment and construction activities.	No Adverse Impact.	Minimal Cumulative Impact – other past, present, and reasonably foreseeable future actions are expected to be consistent visually with existing and planned development.	<ul style="list-style-type: none"> <li>Equipment will be confined to work areas.</li> <li>All construction-related equipment will be removed following the completion of work.</li> </ul>	4.11 Visual Resources

Resource Area	Potential Short-term Impacts	Long-term Impacts	Cumulative Impacts	Mitigation and BMPs	EA Section
Socio-Economic Environment and Demographics	No Adverse Impact.	No Adverse Impact.	Minimal Cumulative Impact – other past, present, and reasonably foreseeable future actions are expected to support the local economy. Because population growth on O‘ahu is anticipated to occur with or without the implementation of the proposed project no significant adverse cumulative impacts are expected.	No Mitigation required.	4.12 Socio-Economic Environment and Demographics
Transportation Facilities	Potential for limited, non-substantial short-term effects on transportation due to construction activities near the job site.	No Adverse Impact.	Minimal Cumulative Impact – other past, present, and reasonably foreseeable future actions are expected to be consistent with the transportation use of the existing development.	<ul style="list-style-type: none"> <li>The project will comply with the requirements of Land Use Ordinance Section 21-6.20, Table 21-6.1, off-street parking for public uses and structures as determined by the Director. A Zoning Waiver application for parking will be filed following the completion of the EA process. The DOE will also request a determination from DPP for off-street parking requirements when permanent classrooms are to be constructed.</li> </ul>	4.13.1 Roads and Transportation
Electrical, Water, and Wastewater	No Adverse Impact.	No Adverse Impact.	No Cumulative Impact.	No Mitigation required.	4.13.2 Utilities
Solid and Hazardous Waste	No Adverse Impact.	No Adverse Impact.	No Cumulative Impact.	<ul style="list-style-type: none"> <li>Disposal of solid waste will be handled in accordance with applicable Federal, State, and County rules and regulations.</li> </ul>	4.13.3 Solid Waste
Police, Fire, Health Care and Emergency Services	No Adverse Impact.	No Adverse Impact.	No Cumulative Impact.	No Mitigation required.	4.13.4 Police Protection 4.13.5 Fire Protection 4.13.6 Health Care and Emergency Services
Schools and Libraries	No Adverse Impact.	No Adverse Impact.	No Cumulative Impact.	No Mitigation required.	4.13.7 Schools and Libraries
Recreational Facilities	No Adverse Impact.	No Adverse Impact.	No Cumulative Impact.	No Mitigation required.	4.13.8 Recreational Facilities

Resource Area	Potential Short-term Impacts	Long-term Impacts	Cumulative Impacts	Mitigation and BMPs	EA Section
Archaeological and Cultural Resources	Potential for inadvertent discovery of cultural deposits and iwi kūpuna.	No Adverse Impact.	No Cumulative Impact.	<ul style="list-style-type: none"> <li>In accordance with HRS, Chapter 6E, in the event that historic resources, including structural remains, subsurface cultural deposits, or human skeletal remains, are identified during the construction project, all work in the immediate vicinity of the find will cease, the find will be protected from additional disturbance, and SHPD will be contacted.</li> </ul>	4.14 Archaeological and Cultural Resources
Traditional Cultural Practice	Potential for inadvertent discovery of cultural deposits and iwi kūpuna.	No Adverse Impact.	No Cumulative Impact.	<ul style="list-style-type: none"> <li>In accordance with HRS, Chapter 6E, in the event that historic resources, including structural remains, subsurface cultural deposits, or human skeletal remains, are identified during the construction project, all work in the immediate vicinity of the find will cease, the find will be protected from additional disturbance, and SHPD will be contacted.</li> </ul>	5.0 Cultural Impact Assessment

## ***Section 10 Findings and Determinations***

In accordance with the provisions set forth in HRS, Chapter 343, and the significance criteria in HAR, Chapter 11-200.1-13, this EA has evaluated and assessed the potential for environmental impacts associated with the proposed project. Pursuant to the requirements of HRS, Chapter 343, and HAR, Chapter 11-200.1, the DOE has determined that the proposed project does not have significant environmental effects warranting the preparation of an Environmental Impact Statement. Based on analysis and review of environmental conditions, project effects, proposed mitigation measures, and public comments, the DOE has determined that an Environmental Impact Statement is not required and that a FONSI is issued for this project.

The proposed project is not expected to result in significant adverse impacts to geology, soils, hydrology, stream flow, biological resources, air quality, natural hazards, historic properties, cultural resources, socioeconomics, or land uses. Minimal impacts may consist of minor traffic, noise, and air quality disturbances to businesses and residents in the area that may traverse the immediate surrounding location of the project site but will completely cease once construction is completed.

## ***References***

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## *Appendices*

- Appendix A A natural resources assessment for August Ahrens Elementary School in Waipahu, O‘ahu (DRAFT). Prepared for R.M. Towill Corporation. Prepared by AECOS Inc. January 2022.
- Appendix B Archaeological Literature Review and Field Inspection Report to Support Consultation with the State Historic Preservation Division for the August Ahrens Elementary School New Classroom Building Project (DOE Job No. Q86001-18), Waipi‘o Ahupua‘a, ‘Ewa District, O‘ahu Prepared for R.M. Towill Corporation. Prepared by Cultural Surveys Hawai‘i, Inc. December 2021.
- Appendix C Transportation Management Plan for the August Ahrens Elementary School. Prepared for Benjamin Woo Architects. Prepared by Wilson Okamoto Corporation. April 2023.
- Appendix D Pre-Assessment Consultation Letters for Hawai‘i Revised Statutes, Chapter 343.
- Appendix E Draft EA Public Comment Period Comments and Responses for Hawai‘i Revised Statutes, Chapter 343.
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## **Appendix A**

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**A natural resources assessment for August Ahrens Elementary School in Waipahu, O‘ahu (DRAFT). Prepared for R.M. Towill Corporation. Prepared by AECOS Inc. January 2022.**



# A natural resources assessment for August Ahrens Elementary School in Waipahu, O'ahu

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January 10, 2022

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# A natural resources assessment for August Ahrens Elementary School in Waipahu, O‘ahu

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January 10, 2022

**DRAFT**

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## Introduction

August Ahrens Elementary School is located at the corner of Waipahu Street and Mahoe Street in Waipahu on O‘ahu (Figure 1). Planned improvements and expansions include a new two-story classroom building, a new play court and concrete masonry wall, new parking stalls, new access walkways, and accessory improvements to this State Department of Education (DOE) facility (“AAES New Classroom Building”; herein the “Project”).

The project site and area of disturbance is within the southwestern and south-central portions of the August Ahrens Elementary School campus, identified by TMKs: (1) 9-4-059: Por 072 (State of Hawai‘i); 073 (City and County of Honolulu); and 074 (State of Hawai‘i). Connections for utilities will require work within the County street rights-of-way of Mahoe and Waipahu streets. The project construction area of 1.23 ac (0.498 ha) includes areas for staging, storage, construction access, entry, and activities such as grading.

AECOS Inc. was contracted by R. M. Towill Corp. to survey the Project areas (Figure 2) at August Ahrens Elementary School for sensitive natural resources and prepare this report of findings<sup>1</sup>.

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<sup>1</sup> This report is intended to become part of the public record and incorporated into an EA for the subject project.

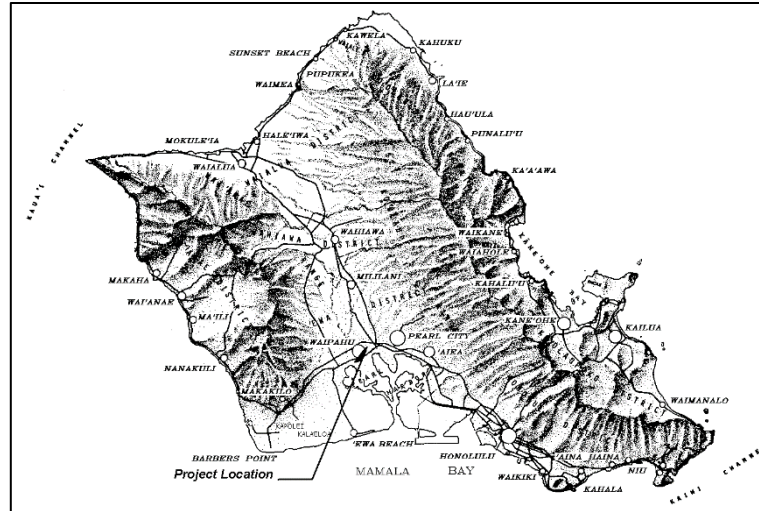


Figure 1. Project location on the Island of O’ahu.

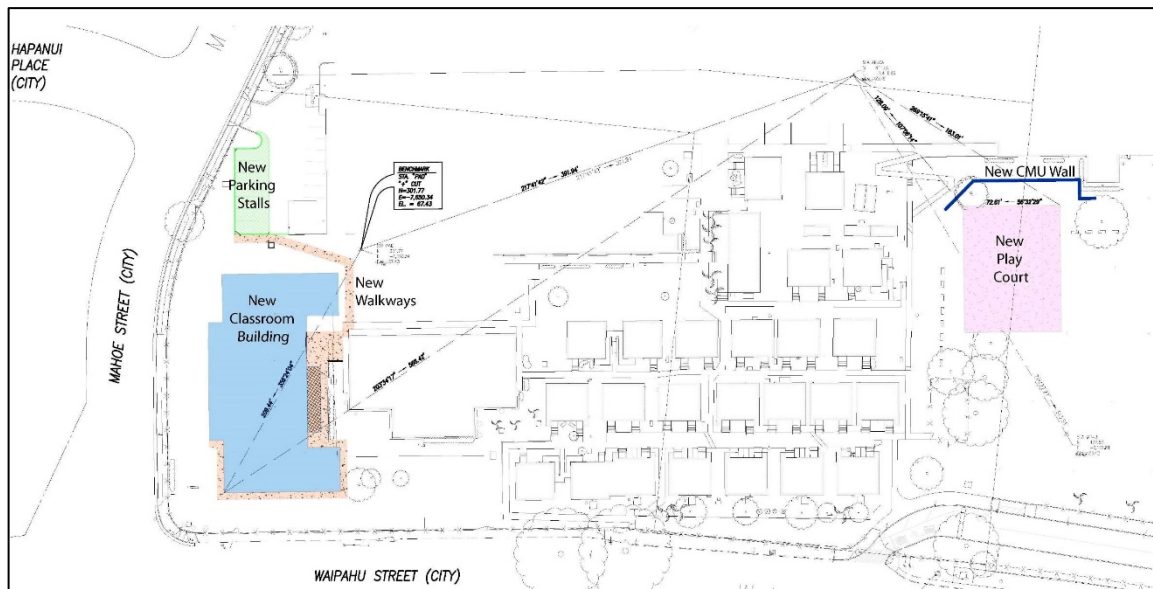


Figure 2. Portion of August Ahrens Elementary School campus showing locations of proposed additions and improvements.

Site Description

The Project area is a developed school campus on more-or less level ground. The two major Project sites are: 1) the southwest corner of the campus presently occupied by a play court and overflow staff parking (Figure 3); and 2) a play field in the south central campus covered by a row of trees and an expansive lawn





***Figure 3. Southwest corner of August Ahrens Elementary School showing existing play court and overflow parking in location of proposed new classroom building***



***Figure 4. Western portion of the expansive open field where a new play court is proposed, replacing some of the trees in the row bordering the field.***



(Figure 4, above and Cover Photo). Area 1) is proposed for the new classroom building and area 2) is proposed for a new play court (Fig. 2).

## Methods

### Botanical Survey

AECOS botanist, Eric Guinther, surveyed the Project area on November 17, 2021. Plant species were identified as they were encountered during wandering transects that covered all of the Project sites, including walkway improvement sites separate from the two main sites described above. Species names follow *Manual of the Flowering Plants of Hawai'i* (Wagner, Herbst, & Sohmer, 1990; Wagner & Herbst, 1999) for native and naturalized flowering plants *Hawai'i's Ferns and Fern Allies* (Palmer, 2003) for ferns, and *A Tropical Garden Flora* (Staples & Herbst, 2005) for ornamental plants. More recent name changes for naturalized plant species follow Imada (2019).

### Terrestrial Vertebrates Survey

#### ***Avian Survey***

A survey of extant birds was conducted by AECOS biologist, Bryson Like, in the morning hours of November 17, 2021. Birds were identified to species by visual observation, aided by Leica 8 X 42 binoculars, and by listening for vocalizations. Avian species abundance was estimated at two count stations: one at the basketball court and the other in the large field at the front of the school. A single, eight-minute avian point-count was made at each of the count stations. Additional species observed in the Project area outside of the timed counts were noted as incidental observations. Weather conditions were ideal, with unlimited visibility, no precipitation, and light winds. The avian phylogenetic order and nomenclature used in this report follows the 61<sup>st</sup> supplement to the AOS *Check-List of North and Middle American Birds* (Chesser et al., 2020, 2021).

#### ***Mammalian Survey***

A list was made of mammals encountered during the survey. Indicators of mammalian presence, such as tracks, scat, and other sign were noted. Mammalian phylogenetic order and nomenclature follow *Mammal Species of the World* (Wilson and Reeder, 2005).

## Results

### Vegetation

All the areas surveyed are developed and landscaped. The dominant vegetation is mowed lawn with scattered trees. Shrubs and herbaceous plants are present around buildings and along walkways.

### Flora

The survey of plants across the Project site yielded 46 identified species of flowering plants (no ferns or conifers or their allies were found; see Table 1). However, another 7 trees and 1 shrub remain unidentified). These unidentified plants are all unusual ornamentals that may yet be identified from notes and photos made during the survey. Of the total number of species, only one (2%) is a native: *koki'o ke'oke'o* (*Hibiscus arnottianus*). This decorative shrub is planted in clusters as part of the landscaping. In as much as the lawn areas are regularly mowed, we expect that more grass species are present on the campus but are not identifiable without flowering structures.

Table 1. Listing of plants in survey areas at August Ahrens Elementary School.

Species listed by family	Common name	Status	Abundance	Notes
<i>FLOWERING PLANTS</i>				
<i>MONOCOTS</i>				
<i>ARECACEAE</i>				
<i>Dyopsis lutescens</i> (H. Wendl.) Beentje & Dransfield	golden-fruited palm	Orn	U	
<i>Pritchardia pacifica</i> Seeman	Fiji fan palm	Orn	R	
<i>Roystonea</i> sp.	royal palm, juv.	Orn	R	<2>
<i>ASPARAGACEAE</i>				
<i>Cordyline fruticosa</i> cult.	ti	Orn	U	
<i>Dracaena marginata</i> Lam.	money tree	Orn	U	
<i>Sansevieria trifasciata</i> Prain	bowstring-hemp	Nat?	R	
<i>COMMELINACEAE</i>				
<i>Tradescantia zebrina</i> Bosse	wandering-jew	Orn	U	
<i>CYPERACEAE</i>				
<i>Cyperus gracilis</i> R. Br.	McCoy grass	Nat	O	
<i>HELICONIACEAE</i>				
<i>Heliconia</i> sp.	---	Orn	R	<2>
<i>LILIACEAE</i>				
Indet.	---	Orn	R	<2>

Table 1 (continued).

Species listed by family	Common name	Status	Abundance	Notes
<b>POACEAE</b>				
<i>Bothriochloa pertusa</i> (L.) A. Camus	pitted beardgrass	Nat	A	
<i>Chloris barbata</i> (L.) Sw.	swollen fingergrass	Nat	U	
<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass	Nat	A	
<i>Digiteria insularis</i> (L.) Mez. ex Ekman	sourgrass	Nat	R	
<i>Eleusine indica</i> (L.) Gaertn.	beach wiregrass	Nat	U	
<i>Eragrostis pectinacea</i> (Michx.) Nees	Carolina lovegrass	Nat	A	
<i>Urochloa distachya</i> (L.) T.Q. Nguyen	---	Nat	O	
Indet.	---	Nat	U	<2>
<b>STRELITZIACEAE</b>				
<i>Ravenala madagascariensis</i> Sonnerat	traveler's tree	Nat	R	
<b>ZINGIBERACEAE</b>				
<i>Alpinia purpurata</i> (Viel.) K. Schum.	red ginger	Nat	R	
<b>FLOWERING PLANTS</b>				
<b>EUDICOTS</b>				
<b>ACANTHACEAE</b>				
<i>Barleria repens</i> C. Nees	pink ruellia	Nat	U	
<b>APOCYNACEAE</b>				
<i>Plumeria pudica</i> Jacq.	fiddle-leaf plumeria	Orn	R	
<b>ARALIACEAE</b>				
<i>Polyscias guilfoylei</i> (W. Bull) L.H. Bailey	panax	Orn	U	
<b>ASTERACEAE (COMPOSITAE)</b>				
<i>Calyptocarpus vialis</i> Less.	---	Nat	C	
<i>Synedrella nodiflora</i> (L.) Gaertn.	nodeweed	Nat	R	
<i>Tridax procumbens</i> L.	coat buttons	Nat	U	
<b>BERBERIDACEAE</b>				
<i>Nandina domestica</i> Thunb.	heavenly-bamboo	Orn	U	
<b>BIGNONIACEAE</b>				
<i>Crescentia cujete</i> L.	calabash tree	Orn	R	<1><2>
<i>Jacaranda mimosifolia</i> D. Don	jacaranda	Orn	R	
<i>Kigelia africana</i> (Lam.) Benth.	sausage tree	Orn	R	<1>
<i>Parmentiera cereifera</i> Seeman	candle tree	Orn	R	<1>
<i>Tabebuia heterophylla</i> (A. P. de Cand.) Britton	pink tecoma	Orn	U	
<b>EUPHORBIACEAE</b>				
<i>Codiaeum variegatum</i> (L.) Blume	croton	Orn	R	
<b>FABACEAE</b>				
<i>Albizia saman</i> F. Muell.	monkeypod	Nat	R	
<i>Arachis glabrata</i> Benth.	rhizoma peanut	Orn	R	
<i>Indigofera hendecaphyla</i> (Forssk.)	creeping indigo	Nat	C	
<i>Peltocarpus pterocarpum</i> (A. P. de Can.) K. Heyne	yellow poinciana	Orn	R	<1>
<b>MALVACEAE</b>				
<i>Hibiscus arnottianus</i> A. Gray	<i>koki'o ke'oke'o</i>	<b>End</b>	U	

Table 1 (continued).

Species listed by family	Common name	Status	Abundance	Notes
MALVACEAE (cont.)				
<i>Malvastrum coromandelianum</i> (L.) Garck	false mallow	Nat	R	
<i>Sida ciliaris</i> L.	---	Nat	A	
MORINGACEAE				
<i>Moringa oleifera</i> Lam.	<i>malúnggay</i>	Orn	O	
NYCTAGINACEAE				
<i>Boerhavia coccinea</i> Mill.	false <i>alena</i>	Nat	C	
<i>Bougainvillea</i> cultivar	bougainvillea	Orn	U	
PLANTAGINACEAE				
<i>Plantago major</i> L.	common plantain	Nat	U	
PORTULACACEAE				
<i>Portulacaria afra</i> (L.) N. Jacq.	miniature jade plant	Orn	U	
RUBIACEAE				
<i>Gardenia taitensis</i> A. P. de Candolle	Tahitian gardenia	Orn	R	
VERBENACEAE				
<i>Duranta erecta</i> L.	golden dewdrop	Orn	U	

## Legend to Table 1

STATUS = distributional status for the Hawaiian Islands:

**End** = endemic; native to Hawaii and found naturally nowhere else.

Nat = naturalized, exotic, plant introduced to the Hawaiian Islands since  
The arrival of the Cook Expedition in 1778 and well-established  
outside of cultivation.

Orn = exotic, ornamental or cultivated; plant not naturalized  
(established outside of cultivation).

ABUNDANCE = occurrence ratings for plants by area:

R - Rare seen in only one or perhaps two locations.

U - Uncommon- seen at most in several locations

O - Occasional seen with some regularity

C - Common observed numerous times during the survey

A - Abundant found in large numbers; may be locally dominant.

NOTES:

<1> - Tree close to proposed new play court.

<2> - Plant observed lacking fruit or flowers; identification is uncertain.

## Avian Fauna

A total of 187 individual birds of 18 species, representing 13 separate families, were recorded during station counts (Table 2). One species recorded Pacific Golden-Plover (*Pluvialis fulva*) is an indigenous migratory shorebird species. The remaining species are non-native (alien) to the Hawaiian Islands.

Avian diversity and densities were in keeping with the urban residential land-use and field and landscaped ornamental habitat at the Project site. The three most abundant species—Common Mynah (*Acridotheres tristis*), Rose-ringed Parakeet (*Psittacula krameri*), and Zebra Dove (*Geopelia striata*)—accounted for 44% of all birds recorded during station counts.

**Table 2. Avian species detected at August Aherns Elementary School, December 2021.**

Common Name	ORDER FAMILY	Status	RA
<i>Species</i>			
PHASIANIDAE - Pheasants & Partridges			
Phasianinae - Pheasants & Allies			
Domestic Chicken	<i>Gallus gallus</i>	NN	4.5
COLUMBIFORMES			
COLUMBIDAE - Pigeons & Doves			
Rock Pigeon	<i>Columba livia</i>	NN	3.5
Spotted Dove	<i>Streptopelia chinensis</i>	NN	6.5
Zebra Dove	<i>Geopelia striata</i>	NN	8
CHARADRIIFORMES			
CHARADRIIDAE - Lapwings & Plovers			
Charadriinae - Plovers			
Pacific Golden-Plover	<i>Pluvialis fulva</i>	IM	2
PELICANIFORMES			
ARDEIDAE			
Cattle Egret	<i>Bubulcus ibis</i>	NN	3
PSITTACIFORMES			
PSITTACULIDAE			
Rose-ringed Parakeet	<i>Psittacula krameri</i>	NN	10
PASSERIFORMES			
PYCNONOTIDAE - Bulbuls			
Red-vented Bulbul	<i>Pycnonotus cafer</i>	NN	7
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	NN	†
ZOSTEROPIDAE - White-eyes			
Warbling White-eye	<i>Zosterops japonicus</i>	NN	6.5
TIMALIIDAE - Mockingbirds & Thrashers			
Red-billed Leiothrix	<i>Leiothrix lutea</i>	NN	1.5
STURNIDAE - Starlings			
Common Myna	<i>Acridotheres tristis</i>	NN	23

Table 2 (continued).

Common Name	Species	ORDER FAMILY	Status	RA
		MUSICAPIDAE - Old World Flycatchers		
White-rumped Shama	<i>Copsychus malabaricus</i>			
		ESTRILDIDAE – Estrildid Finches		
Common Waxbill	<i>Estrilda astrild</i>		NN	1.5
Java Sparrow	<i>Padda oryzivora</i>		NN	5
		PASSERIDAE - sparrows		
House Sparrow	<i>Passer domesticus</i>		NN	
		FRINGILLIDAE - Fringilline and Carduline Finches & Allies		
		Carduelinae - Carduline Finches and Hawaiian Honeycreepers		
House Finch	<i>Haemorhous mexicanus</i>		NN	2
		THRAUPIDAE – Tanagers		
		Thraupinae - Core Tanagers		
Red-crested Cardinal	<i>Paroaria coronate</i>		NN	†
Saffron finch	<i>Sicalis flaveola</i>		NN	2

## Key to Table 2.

## Status:

**IM** = Indigenous migratory species

**NN** = Alien - naturalized, non-native species (introduced).

Relative Abundance (RA): Species count / number of point-count stations (n=2).

† = Incidental observation, observed beyond the timed count.

## Mammals

We recorded no mammalian species during the course of this survey.

## Discussion and Recommendations

Recommendations are partly based on U.S. Fish and Wildlife Service, Animal Avoidance and Minimization Measures (USFWS-PIFWO, nd). Implementation of the recommendations (provided below as bulleted items) by the Project contractor will minimize impacts to listed species to the maximum extent practicable.

## Floral Resources

It is evident that considerable effort has gone into landscaping and continued maintenance of the August Ahrens Elementary School campus and a number of unusual trees have been planted there. All appear to be ornamentals (as opposed to native species) and no plants listed as threatened or endangered (HDLNR, 1998; USFWS, nd) were observed in our survey. The proposed new play court will be located in an area where several of these unusual trees are located, and it appears some may be removed. Although none is protected by state or federal statute, we would recommend not removing any of these specimen plantings if it is practical to avoid. No trees listed by the City and County of Honolulu Exceptional Tree Program occur on the August Ahrens Elementary School campus (C&C, 2022).

## Avian Resources

With the exception of Pacific Golden-Plover, all avian species recorded at the Project site from this survey are non-native species naturalized in the Hawaiian Islands. None of the species recorded from this survey receives special protections under state or federal endangered species statutes (listed as threatened or endangered; HDLNR, 1998, 2015; USFWS, nd).

### **Waterbirds**

Protected Hawaiian waterbirds are Hawaiian Duck or *koloa maoli* (*Anas wyvilliana*), Hawaiian Coot (*Fulica alai*), the Hawaiian endemic subspecies of Common Gallinule or *'alae 'ula* (*Gallinula galeata sandvicensis*), and the Hawaiian endemic subspecies of Black-necked Stilt or *ae'o* (*Himantopus mexicanus knudseni*). These waterbird species are protected under both state and federal endangered species statutes (HDLNR, 2015; USFWS, nd). Hawaiian Duck have populations on all major Hawaiian Islands but hybridize extensively with non-native Mallard (*Anas platyrhynchos*), particularly on O'ahu and Maui (Engilis et al. 2002; Uyehara et al. 2007; Fowler et al. 2009; VanderWerf, 2012). Hybrid ducks are not protected by these statutes.

The Project site at August Ahrens Elementary School is located less than 2 km (1.25 mi) from coastal waterbird habitat at Pearl Harbor National Wildlife Refuge and Pouhala Marsh Wildlife Sanctuary, and less than 150 m (500 ft) from Waipahu Canal and a watercress farm. While no protected Hawaiian waterbirds were observed in our survey, and no waterbird habitat is present at the Project site, it is possible that a protected Hawaiian waterbird may overfly, forage, or otherwise utilize the Project site on rare occasions. *Ae'o* are known to forage in a range of habitats, including landscaped lawns.



- If an endangered waterbird enters an active construction area, cease all construction activity. Work may resume after the individual leaves the area on its own volition.

### **Seabirds**

Protected night-flying seabirds include Hawaiian Petrel (*Pterodroma sandwichensis*), Wedge-tailed Shearwater (*Ardenna pacifica*), Newell's Shearwater (*Puffinus newelli*), and Band-rumped Storm-petrel (*Oceanodroma castro*). Hawaiian Petrel, Newell's Shearwater, and Band-rumped Storm-petrel nest in high-elevation mountainous habitat, and Hawaiian Petrel and Newell's Shearwater have recently been detected on the Island of O'ahu (Young et al. 2019). In the summer and fall, nocturnally flying seabirds (especially fledglings) transiting to the sea from inland locations can become disoriented by exterior lighting. When disoriented, seabirds can collide with man-made structures or the ground. If not killed outright, dazed or injured birds are easy targets of opportunity for feral mammals (Podolsky et al., 1998; Ainley et al., 2001; Day et al., 2003). The primary cause of mortality in both Hawaiian Petrel and Newell's Shearwater is predation by alien mammalian species at the nesting colonies (Ainley et al., 2001). Collision with man-made structures is considered the second most significant cause of mortality of these seabirds in Hawai'i.

- Deleterious impacts to transiting seabirds can be avoided if construction occurs during daylight hours and all outdoor lighting installed is fully "dark sky compliant" (HDLNR-DOFAW, 2016).

White Tern (*Gygis alba*), or *manu o Kū*, is an indigenous seabird listed as threatened under State of Hawai'i endangered species statute, HRS 195D (HDLNR, 2015). No individuals of White Tern were observed during this survey. In the main Hawaiian Islands, the majority of White Tern population is found in central urban and suburban Honolulu, with a known breeding range extending from Niu Valley to Aloha Tower (isolated pairs occur at Hickam Air Force Base; VanderWerf and Downs, 2018). White Tern nesting in the Project area is doubtful, as the Project is beyond this species' known range.

### **Owls**

The Hawaiian endemic sub-species of Short-eared Owl or *pueo* (*Asio flammeus sandwichensis*) is state-listed as endangered on O'ahu (HDLNR, 2015). Short-eared Owl nests on the ground and is thus susceptible to mammalian predation. The species is not habitat-restricted but is increasingly scarce on O'ahu. No evidence of Short-eared Owl was found at the Project site, and preferable feeding and nesting habitat is not present on the school grounds.

## Mammalian Resources

No mammals were observed during our survey, although it is likely that domestic dog (*Canis lupis familiaris*), domestic cat (*Felis catus*), small Indian mongoose (*Herpestes javanicus*), and any of the four alien Muridae (rats and mice) currently established on the Island of O‘ahu utilize this area to some extent. With the exception of the endangered Hawaiian hoary bat, all terrestrial mammals currently found on the Island of O‘ahu are alien species and most are ubiquitous.

### ***Hawaiian Hoary Bat***

While unlikely, it is possible that the native Hawaiian hoary bat or ‘ōpe‘ape‘a (*Lasiurus cinereus semotus*) uses resources within the Project vicinity. The species is solitary and rare but with a potentially widespread distribution on O‘ahu. The principal potential impact of the Project to bats would occur when site vegetation is cleared and grubbed. This species of bat uses multiple roosts within a home territory (Bonaccorso, 2015), so the disturbance associated with removal of any particular tree would be minimal. An exception would be during the pupping season, if a female bat carrying a pup is unable to rapidly vacate a roost tree that is being felled, or if a young unattended pup is unable to flee a tree that is being felled.

- Potential adverse impacts to Hawaiian hoary bat can be avoided or minimized by not clearing woody vegetation taller than 15 ft (4.6 m) between June 1 and September 15, the bat pupping season.

## Other Resources of Potential Concern

The Project areas on the campus lack any aquatic environments, wetlands, or habitats suitable for aquatic flora and fauna. Neither federal jurisdictional waters nor designated critical habitat are present.

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## **Appendix B**

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**Archaeological Literature Review and Field Inspection Report to Support Consultation with the State Historic Preservation Division for the August Ahrens Elementary School New Classroom Building Project (DOE Job No. Q86001-18), Waipi'o Ahupua'a, 'Ewa District, O'ahu Prepared for R.M. Towill Corporation. Prepared by Cultural Surveys Hawai'i, Inc. December 2021.**



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**Draft**

**Archaeological Literature Review and Field Inspection  
Report to Support Consultation with the SHPD for the  
August Ahrens Elementary School New Classroom Building  
Project (DOE Job No. Q86001-18),  
Waipi‘o Ahupua‘a, ‘Ewa District, O‘ahu  
TMK: [1] 9-4-059:074 por.,  
Waipahu Street and Mahoe Street ROWs**

**Prepared for  
R.M. Towill Corporation  
on behalf of the  
State of Hawai‘i Department of Education (DOE)**

**Prepared by  
David W. Shideler, M.A.**

**Cultural Surveys Hawai‘i, Inc.  
Kailua, Hawai‘i  
(Job Code: WAIPIO 40)**

**December 2021**

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## Management Summary

<b>Reference</b>	Archaeological Literature Review and Field Inspection Report to Support Consultation with the SHPD for the August Ahrens Elementary School New Classroom Building Project (DOE Job No. Q86001-18), Waipi'o Ahupua'a, 'Ewa District, O'ahu, TMK: [1] 9-4-059:074 por., Waipahu Street and Mahoe Street ROWs (Shideler 2021)
<b>Date</b>	December 2021
<b>Project Number(s)</b>	State of Hawai'i Department of Education (DOE) Job No. Q86001-18; Cultural Surveys Hawai'i, Inc. (CSH) Job Code: WAPIO 40
<b>Investigation Permit Number</b>	CSH completed the fieldwork component of this study under archaeological fieldwork permit number 21-10, issued by the Hawai'i State Historic Preservation Division (SHPD) per Hawai'i Administrative Rules (HAR) §13-13-282.
<b>Agencies</b>	DOE; SHPD
<b>Land Jurisdiction</b>	State of Hawai'i (DOE) for the August Ahrens Elementary School (AAES), City and County of Honolulu (portions of the project area extending into Waipahu Street and Mahoe Street)
<b>Project Proponent</b>	DOE
<b>Project Funding</b>	DOE
<b>Project Location</b>	The new classroom building project is located within the southwestern and south-central portions of the AAES at 94-1170 Waipahu Street, Waipahu, Hawai'i 96797. Waipi'o Ahupua'a, 'Ewa District, O'ahu. The project area extends into adjacent portions of Waipahu Street and Mahoe Street. The project locations are depicted on a USGS quadrangle map (Figure 1) and several additional figures.
<b>Project Description</b>	<p>The project includes the following construction components:</p> <ol style="list-style-type: none"> <li>1. New two-story classroom building (approximately 25,800 square feet [sq ft]) on the southwestern corner of the AAES campus adjacent to Mahoe Street and Waipahu Street where an existing play court is located.</li> </ol> <p>The new classroom building would provide 14 new classrooms, as well as other support spaces including, but not limited to, activity hubs, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. The new classroom building will provide a permanent structure to complement the style of other adjacent buildings within the school campus. A new fire hydrant, drain inlets, and utility connections will also be installed to support the development of the new classroom building. A gated and enclosed 2-inch-thick asphalt concrete pad</p>

	<p>will be provided on the east side of the new classroom building to house the building's air-cooled condensing units.</p> <ol style="list-style-type: none"> <li>2. New 2-inch-thick asphalt concrete parking stall area (approximately six 9-ft wide parking stalls and one 10-ft wide loading stall) located on undeveloped land along the southwestern portion of the AAES campus adjacent to Mahoe Street. The new parking area will be connected to the existing small parking area and utilize the existing entrance from Mahoe Street. A new 6-inch-high concrete curb will be installed along the southwestern edge of the new parking area.</li> <li>3. New 4-inch-thick concrete access walkways (minimum 5-ft wide) to provide a connection from the new parking stall area to and around the east and south sides of the new classroom building and to existing concrete walkways at AAES. New 4-inch-thick concrete play court and CMU wall located on the south-central grassed portion of the AAES campus.</li> <li>4. New small CMU wall section within the southwestern portion of the AAES campus to connect to an existing CMU wall near the entrance of the proposed new classroom building. The project construction area including areas for staging, storage, construction access, entry, and activities including grading, is approximately 1.23 acres.</li> <li>5. New 4-inch-thick concrete play court (approximately 6,890 sq ft) and CMU wall located on the south-central grassed portion of the AAES campus.</li> <li>6. Installation of landscaping of non-pavement areas, infiltration basin, and vegetated swale within the southwestern portion of the AAES campus.</li> </ol> <p>Demolition and removal activities will include the following:</p> <ol style="list-style-type: none"> <li>1. Existing concrete play court (approximately 6,890 sq ft) located on the southwestern portion of the AAES campus in the proposed location of the new classroom building.</li> <li>2. Existing concrete curb located along the west side of existing small AAES parking pavement area east of the Mahoe Street where the existing parking entrance is located on the southwest portion of the AAES campus.</li> <li>3. Existing containers (approximately three) located north of the existing play court on the southwest portion of the AAES campus.</li> <li>4. Existing drain inlets (approximately two) and a headwall on the southwest portion of the AAES campus.</li> <li>5. Existing walls, fences, and a gate on the southwest portion of the AAES campus.</li> </ol>
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	6. Existing trees within the new classroom building (approximately two trees) and play court (approximately four trees) construction footprints on the southwest and south-central portions of the AAES campus.
<b>Project Acreage</b>	Approximately 1.23 acres
<b>Document Purpose</b>	This investigation was designed—through detailed historical, cultural, and archaeological background research and a field inspection of the project area—to determine the likelihood that cultural resources/historic properties may be affected by the project and, based on findings, consider cultural resource management recommendations. This document is intended to facilitate the project's planning and support the project's historic preservation and environmental review compliance.
<b>Fieldwork Effort</b>	Fieldwork was accomplished on 17 November 2021 by David W. Shideler, M.A. This work required approximately 0.5 person-days to complete.
<b>Results Summary</b>	<p>The AAES campus is understood as adjacent to the north of the main cross-<i>ahupua'a</i> trail across 'Ewa District connecting with the Kona, Waiana'e districts (known as the <i>Ala Aupuni</i>, Government road and Road to Honolulu). However, the main habitation and agricultural area of Waipi'o Ahupua'a was quite coastal with scattered habitations and planting areas in the uplands along river bottoms and elevations of higher rainfall. There were no native tenant Land Commission Awards in the vicinity of the AAES. There was no close source of potable water or significant land forms and the AAES was distant from the rich marine resources for which 'Ewa was famous. Nineteenth century maps such as the 1851 Bishop map, the 1873 Alexander map, and the 1894 Kananui map show no development in the vicinity other than the cross-<i>ahupua'a</i> trail.</p> <p>This would change with the development of commercial sugarcane agriculture particularly under Oahu Sugar Company. It appears that much (or all of the AAES campus was under sugarcane cultivation from before 1919 until the construction of the AAES, opened on 1 September 1924). Commercial sugarcane cultivation in the east portion of the campus continued until after 1968. The north (northwest) edge of the campus is understood to have been effectively defined by the presence there of an Oahu Sugar Company plantation railroad constructed prior to 1919 and maintained until after 1943 (see Figure 18), and believed to subsequently have been converted into a haul cane road ca. 1950 and to have been used in that capacity until after 1968. Remnants of this railroad may be present on the AAES campus—but these possible remnants are far from the present project area(s). No other historic properties are indicated on the AAES campus or within 300 m of the campus (other than possibly the school itself and Waipahu Street).</p>

	Although the AAES is understood to be more than 97 years old, no features of the early history of the campus were observed (the AAES is not understood as having undergone any study for historic architecture to date).
<b>Recommendations</b>	No historic properties have been previously reported for the AAES campus or within 300 m of the AAES campus which supports a DOE determination (as per HAR §13-275-7[a][1]) of “No historic properties affected” and no further archaeological work. It is recommended that the DOE notify the SHPD of the proposed project and request a letter of determination (as per HAR §13-275-3) and concurrence with this effect determination.

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## Section 1 Introduction

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### 1.1 Project Background

At the request of R.M. Towill Corporation and on behalf of the State of Hawai'i Department of Education (DOE), Cultural Surveys Hawai'i, Inc. (CSH) has prepared this archaeological literature review and field inspection (LRFI) report to support consultation with the State Historic Preservation Division (SHPD) for the August Ahrens Elementary School (AAES) New Classroom Building Project (DOE Job No. Q86001-18), Waipi'o Ahupua'a, 'Ewa District, O'ahu, TMK: [1] 9-4-059:074 por. The new classroom building project is located within the southwestern and south-central portions of the AAES at 94-1170 Waipahu Street, Waipahu, Hawai'i 96797. Connections for utilities will require work within the adjacent City and County of Honolulu Mahoe Street and Waipahu Street rights-of-way (ROW). The project construction area including areas for staging, storage, construction access, entry, and activities including grading is approximately 1.23 acres.

The project area is depicted on a portion of the 1998 Waipahu U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1), a tax map plat (Figure 2), and a 2020 aerial photograph (Figure 3) along with close-up aerial photographs (Figure 4 through Figure 6) of specific portions of the campus proposed for improvements.

The project includes the following construction components:

1. New two-story classroom building (approximately 25,800 square feet [sq ft]) on the southwestern corner of the AAES campus adjacent to Mahoe Street and Waipahu Street where an existing play court is located.

The new classroom building would provide 14 new classrooms, as well as other support spaces including, but not limited to, activity hubs, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. The new classroom building will provide a permanent structure to complement the style of other adjacent buildings within the school campus. A new fire hydrant, drain inlets, and utility connections will also be installed to support the development of the new classroom building. A gated and enclosed 2-inch-thick asphalt concrete pad will be provided on the east side of the new classroom building to house the building's air-cooled condensing units. A new 6-inch-high concrete curb will be installed along the southwestern edge of the new parking area.

2. New 2-inch-thick asphalt concrete parking stall area (approximately six 9-ft wide parking stalls and one 10-ft wide loading stall) located on undeveloped land along the southwestern portion of the AAES campus adjacent to Mahoe Street. The new parking area will be connected to the existing small parking area and utilize the existing entrance from Mahoe Street. A new 6-inch-high concrete curb will be installed along the southwestern edge of the new parking area.
3. New 4-inch-thick concrete access walkways (minimum 5 ft wide) to provide a connection from the new parking stall area to and around the east and south sides of the new classroom building and to existing concrete walkways at AAES. New 4-inch-thick concrete play court and CMU wall located on the south-central grassed portion of the AAES campus.

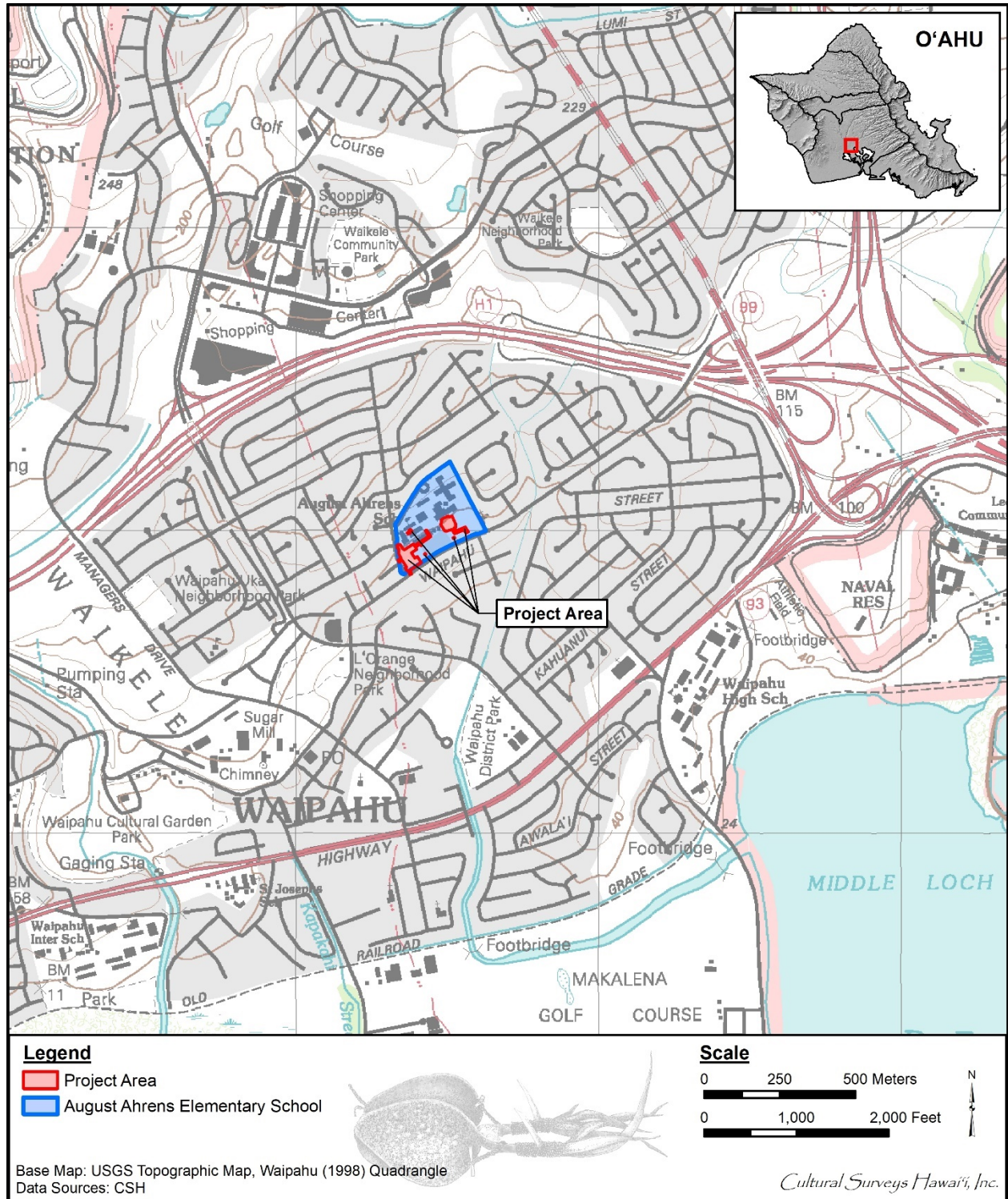


Figure 1. Portion of the 1998 Waipahu USGS 7.5-minute topographic quadrangle showing the AAES and the project area(s)

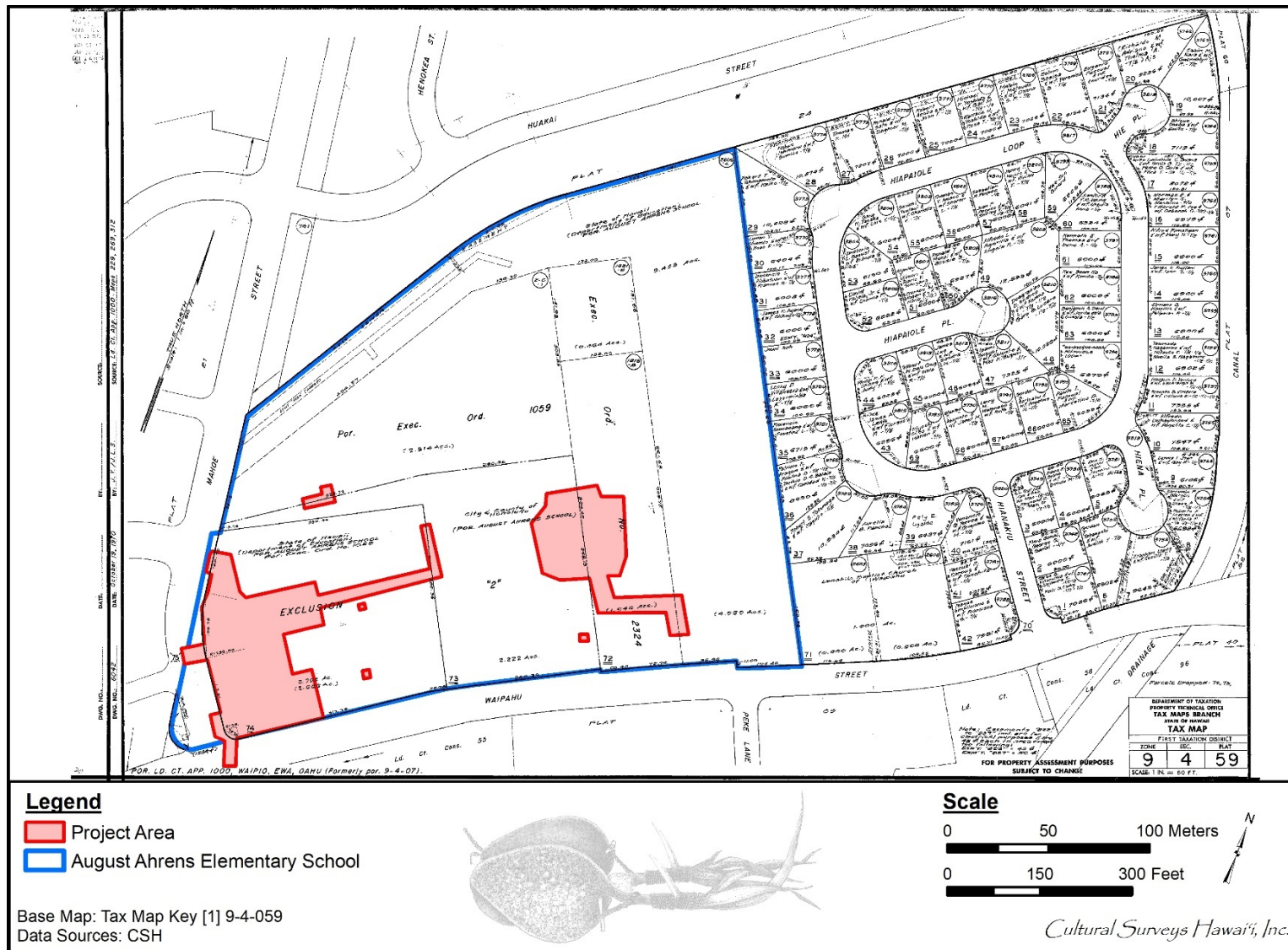


Figure 2. Tax Map Key (TMK) [1] 9-4-059 showing the AAES and the project area(s) (Hawai'i TMK Service 2019)

LRFI for the August Ahrens Elementary School New Classroom Building Project, Waipi'o, 'Ewa, O'ahu

TMK: [1] 9-4-059:074 por., Waipahu St and Mahoe St ROWs.





Figure 3. 2020 Resource Mapping Hawaii (ESRI) aerial photograph showing the AAES and the project area(s)



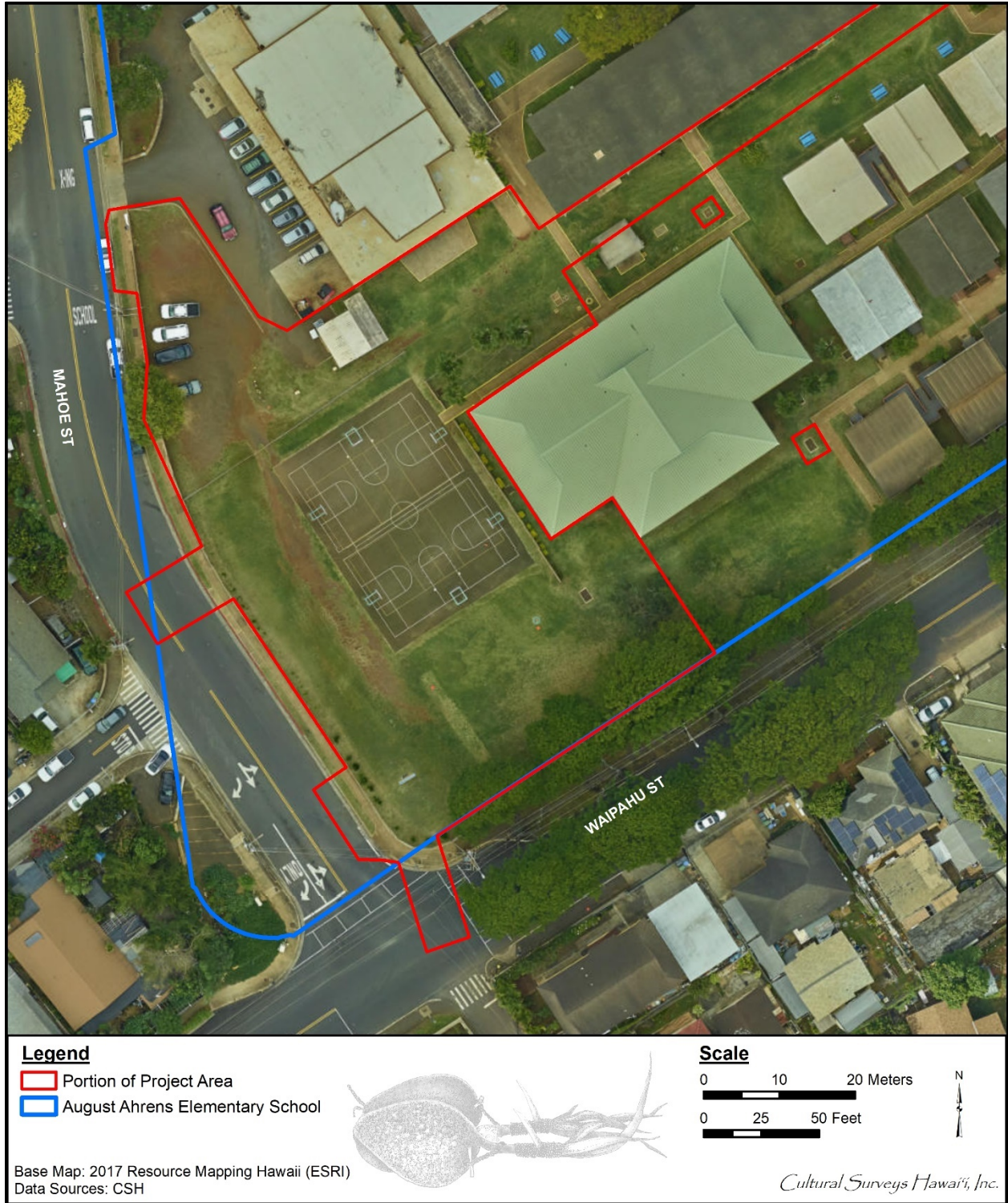


Figure 4. 2017 Resource Mapping Hawaii (ESRI) aerial photograph showing a close-up of the southwest corner of the AAES and the project area(s) in that location





Figure 5. 2017 Resource Mapping Hawaii (ESRI) aerial photograph showing a close-up of the central/west portion of the AAES and the project area(s) in that location



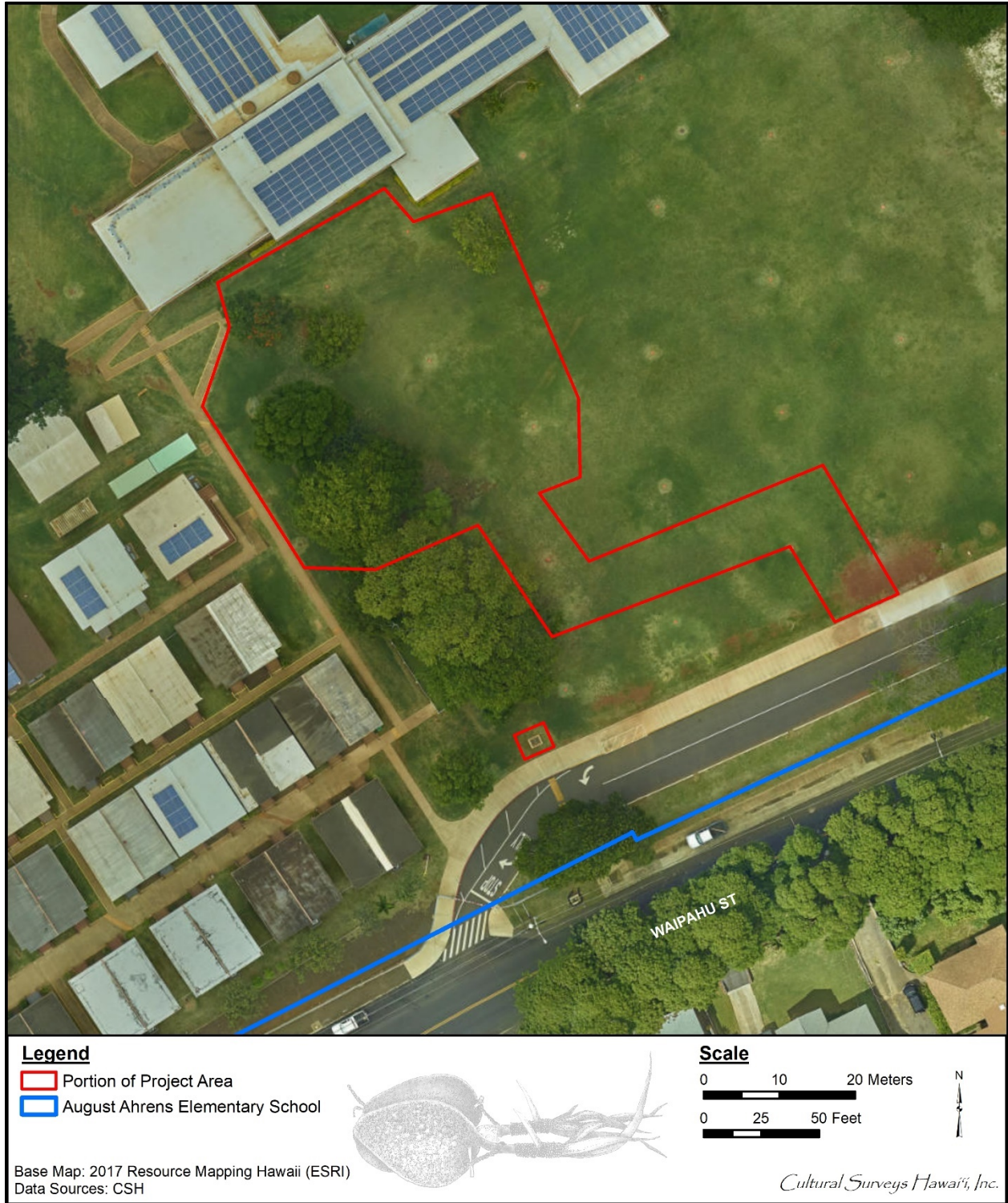


Figure 6. 2017 Resource Mapping Hawaii (ESRI) aerial photograph showing a close-up of the southeast/central portion of the AAES and the project area(s) in that location



4. New small CMU wall section within the southwestern portion of the AAES campus to connect to an existing CMU wall near the entrance of the proposed new classroom building. The project construction area including areas for staging, storage, construction access, entry, and activities including grading, is approximately 1.23 acres.
5. New 4-inch-thick concrete play court (approximately 6,890 sq ft) and CMU wall located on the south-central grassed portion of the AAES campus.
6. Installation of landscaping of non-pavement areas, infiltration basin, and vegetated swale within the southwestern portion of the AAES campus.

Demolition and removal activities will include the following:

1. Existing concrete play court (approximately 6,890 sq ft) located on the southwestern portion of the AAES campus in the proposed location of the new classroom building.
2. Existing concrete curb located along the west side of the existing small AAES parking pavement area east of the Mahoe Street where the existing parking entrance is located on the southwest portion of the AAES campus.
3. Existing containers (approximately three) located north of the existing play court on the southwest portion of the AAES campus.
4. Existing drain inlets (approximately two) and a headwall on the southwest portion of the AAES campus.
5. Existing walls, fences, and a gate on the southwest portion of the AAES campus.
6. Existing trees within the new classroom building (approximately two trees) and play court (approximately four trees) construction footprints on the southwest and south-central portions of the AAES campus.

We note that the entire AAES campus was previously addressed in a Hammatt et al. (2004) *Archaeological and Cultural Assessment in Support of the Waipahu Street Drainage Improvements Project...*, which would be considered today as a literature review and field inspection. The SHPD produced three §6E-8 review letters for that project and study (dated 23 March 2004, Log No. 2004.847, Doc. No. 0403EJ46; 17 August 2004, Log no. 2004.2513, Doc. No. 0408SC04; and 18 October 2004, Log No. 2004.3078, Doc. No. 0410EJ05) that are provided in the present Appendix A. The 17 August 2004 review specifies the present TMK (TMK [1] 9-4-059:074).

## 1.2 Document Purpose

This investigation was designed—through detailed historical, cultural, and archaeological background research and a field inspection of the project area—to determine the likelihood that cultural resources/historic properties may be affected by the project and, based on findings, consider cultural resource management recommendations. This document is intended to facilitate the project's planning and support the project's historic preservation and environmental review compliance. This study was specifically prepared to facilitate obtaining a determination letter as per Hawai'i Administrative Rules (HAR) §13-275-3

## 1.3 Environmental Setting

### 1.3.1 Natural Environment

The project area is located north of Waipi'o Peninsula in Waipi'o Ahupua'a, 'Ewa District of O'ahu, on the coastal plain south of Schofield Plateau and approximately 1,100 m northwest of the Middle Loch of Pearl Harbor. Elevations within the project area (Figure 1 through Figure 6) range from approximately 40 ft above mean sea level at the southern boundary to 80 ft at the north. Annual rainfall at the neighboring "Waipio-O Sugar Station" is 614 mm (24.2 inches) (Giambelluca et al. 2013). This is suggested to be too low for non-irrigated agriculture. Waikele Stream is located approximately 1.1 km to the southwest and a Drainage Canal is located approximately 200 m to the east.

Soils within the project area consist primarily of Waipahu silty clays, including 0 to 2% slopes soils (WzA), 2 to 6% slope soils (WzB, and 6 to 12% slope soils (WzC) (Foote et al. 1972). The Waipahu silty clay soil series is characterized as follows.

This series consists of well-drained soils on marine terraces on the island of Oahu. These soils developed in old alluvium derived from basic igneous rock. They are nearly level to moderately sloping. [...] These soils are used for sugarcane and homesites. The natural vegetation is fingergrass, bermudagrass, bristly foxtail, and kiawe. [Foote et al. 1972:134]

### 1.3.2 Built Environment

The AAES is within a large residential area of central Waipahu. Waipahu Street on the south side of the school is a major east/west vehicular artery, although it has been somewhat superseded by the Queen Lili'uokalani Freeway (H-1) 500 m to the north and Farrington Highway approximately the same distance to the south. The Waikele Center and Waikele Premium Outlets located just north of the Queen Lili'uokalani Freeway are major landmarks in the vicinity

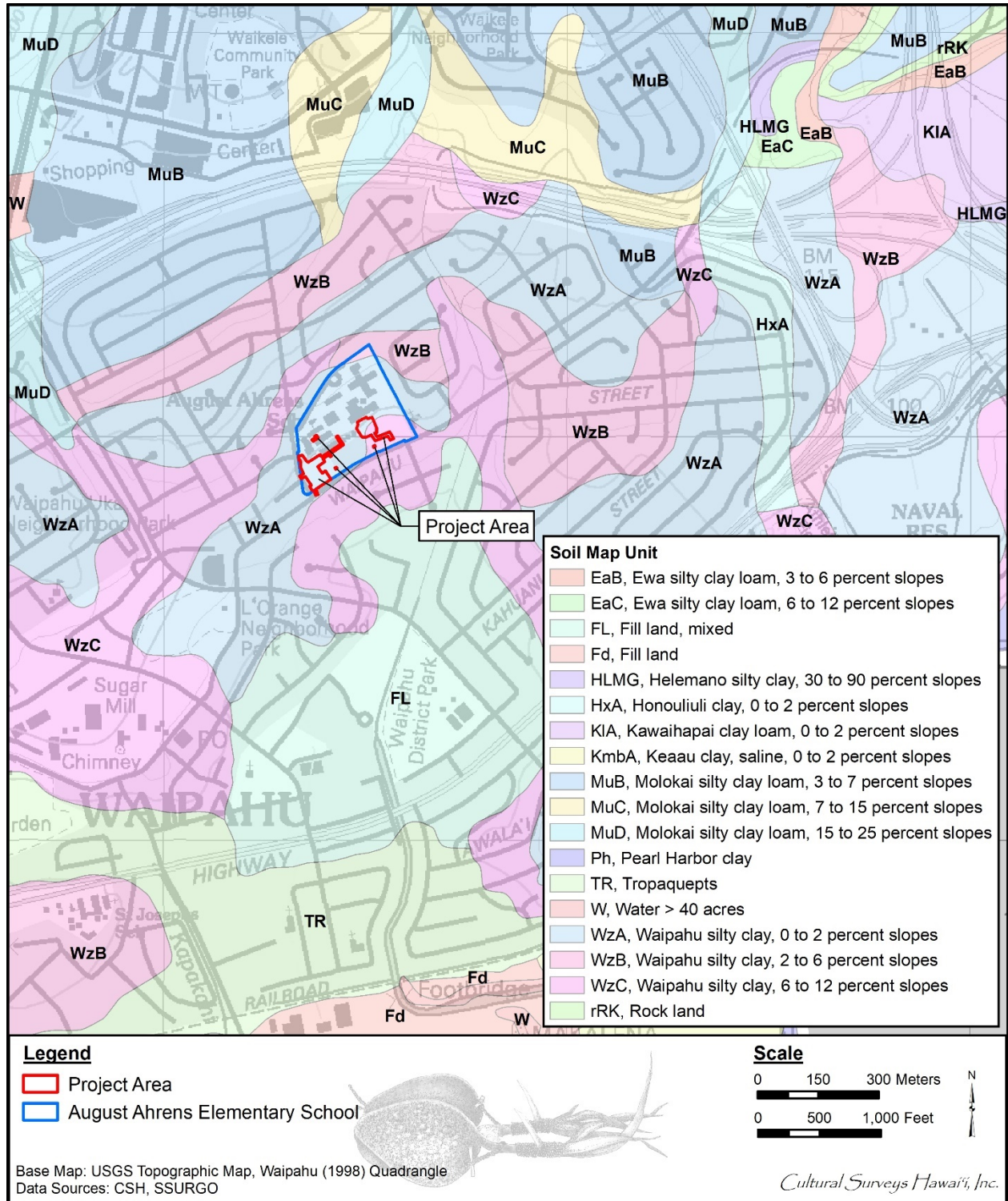


Figure 7. Portion of 1998 Waipahu USGS topographic quadrangle with overlay of *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Foote et al. 1972, USDA SSURGO 2001), indicating soil types within and surrounding the AAES project area

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## Section 2 Methods

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### 2.1 Field Methods

CSH completed the fieldwork component of this study under archaeological fieldwork permit number 21-10, issued by the SHPD pursuant to Hawai'i Administrative Rules (HAR) §13-13-282. Fieldwork was conducted on 17 November 2021 by CSH archaeologist David W. Shideler, M.A. This work required approximately 0.25 person-days to complete.

In general, fieldwork included 100% pedestrian inspection of the project area, GPS data collection, and taking representative photographs.

A 100%-coverage pedestrian inspection of the project area was undertaken for the purpose of cultural resource identification and documentation. The pedestrian survey was accomplished through systematic sweeps spaced approximately 5 m apart.

### 2.2 Research Methods

Background research included a review of previous archaeological studies on file at the SHPD; review of documents at Hamilton Library of the University of Hawai'i, the Hawai'i State Archives, the Mission Houses Museum Library, the Hawai'i Public Library, and the Bishop Museum Archives; study of historic photographs at the Hawai'i State Archives and the Bishop Museum Archives; and study of historic maps at the Survey Office of the Department of Accounting and General Services (DAGS). Historic maps and photographs from the CSH library were also consulted. In addition, Māhele records were examined from the Waihona 'Aina database (Waihona 'Aina 2021).

This research provided the environmental, cultural, historic, and archaeological background for the project area. The sources studied were used to formulate a predictive model regarding the expected types and locations of cultural resources in the project area.

## Section 3 Background Research

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### 3.1 Traditional and Historical Background

#### 3.1.1 Mythological and Traditional Accounts

Many of the legends of Waipi'o pertain to lands *makai* (seaward) of the project area closer to the margins of modern day Pearl Harbor. In Waipi'o, 'Ewa, 'Ai'ai was said to have established a *pōhaku i'a* (fish stone) at Hanapouli and a *ku'ula* named Ahu'ena (Kawaharada 1992).

In the legend of Nāmakaokapao'o, several place names in 'Ewa are mentioned including Līhu'e, Honouliuli, Hō'ae'ae and *kula o* (plain of) Keahumoa (Fornander 1919: Vol. V). Fornander describes the location of Keahumoa as the "plain before reaching Kipapa gulch" (Fornander 1919:5:274). Nāmakaokapao'o is described as a small, brave child who took a dislike to his stepfather Puali'i and pulled up the sweet potatoes Puali'i had planted at their home in Keahumoa. When Puali'i came after Nāmakaokapao'o with an axe, Nāmakaokapao'o delivered his death prayer and slew Puali'i hurling his head to a cave named Waipouli, near the beach at Honouliuli.

Between the West Loch of Pearl Harbor and Loko Eo, the lowlands were filled with terraces that extended for over a mile up into the flats of Waikele Stream (Figure 8). The lower terraces were formerly irrigated partly from Waipahu Stream, which Hawaiians believe came all the way through the mountains from Kahuku. It is said that terraces formerly existed on the flats in Kīpapa Gulch for at least 2 miles upstream above its junction with Waikele.

In the *mauka* (inland, toward the mountains) regions of Waipi'o, legend speaks of Kalelealuaka, who lived during the reign of the O'ahu chief, Kākuhihewa (Emerson 1894). Kalelealuaka was the son of Kaopele, who was born in Waipi'o, Hawai'i. Kaopele had a tendency to fall into deep trances for months at a time. While awake, he would plant plantations of supernatural proportions. However, he was never able to enjoy the fruits of his labors because he would fall into another of his deep sleeps. Once, during a deep slumber, he was mistaken for dead and taken to Wailua, Kaua'i to be offered as a sacrifice. Upon awakening, he created a life on Kaua'i and married. On Kaua'i, he had a son Kalelealuaka who he reared in his image. His son was also blessed with supernatural powers and Kaopele instructed the boy in the arts of war and combat, which Kalelealuaka exhibited during two challenges with kings of Kaua'i. One day, Kalelealuaka decided to travel to O'ahu. He took with him a boy, Kaluhe, and paddled to Wai'anae. There, he met another companion who he later named Keinoho'omanawanui, the sloven. They settled in an old plantation in the *mauka* regions of Waipi'o, formerly planted by Kaopele. This place is called Keahumoe and here they built their mountain house, named Lelepua after Kalelealuaka's magic arrows.

#### 3.1.2 Early Historic Period

Waipi'o Ahupua'a was a focus of Hawaiian settlement and activity on O'ahu during the centuries preceding Western Contact. "The populous dwelling place of the *ali'i* (chiefly class) was formerly located on an east point of Waipi'o Peninsula known as Lēpau" (McAllister 1933:106). The *ali'i* at Waipi'o were no doubt attracted to the great abundance the region offered. "The primary reason for 'Ewa's prominence in history and as an *ali'i* stronghold was undoubtedly the existence of the great number of fishponds at different points around Pearl Harbor, which was



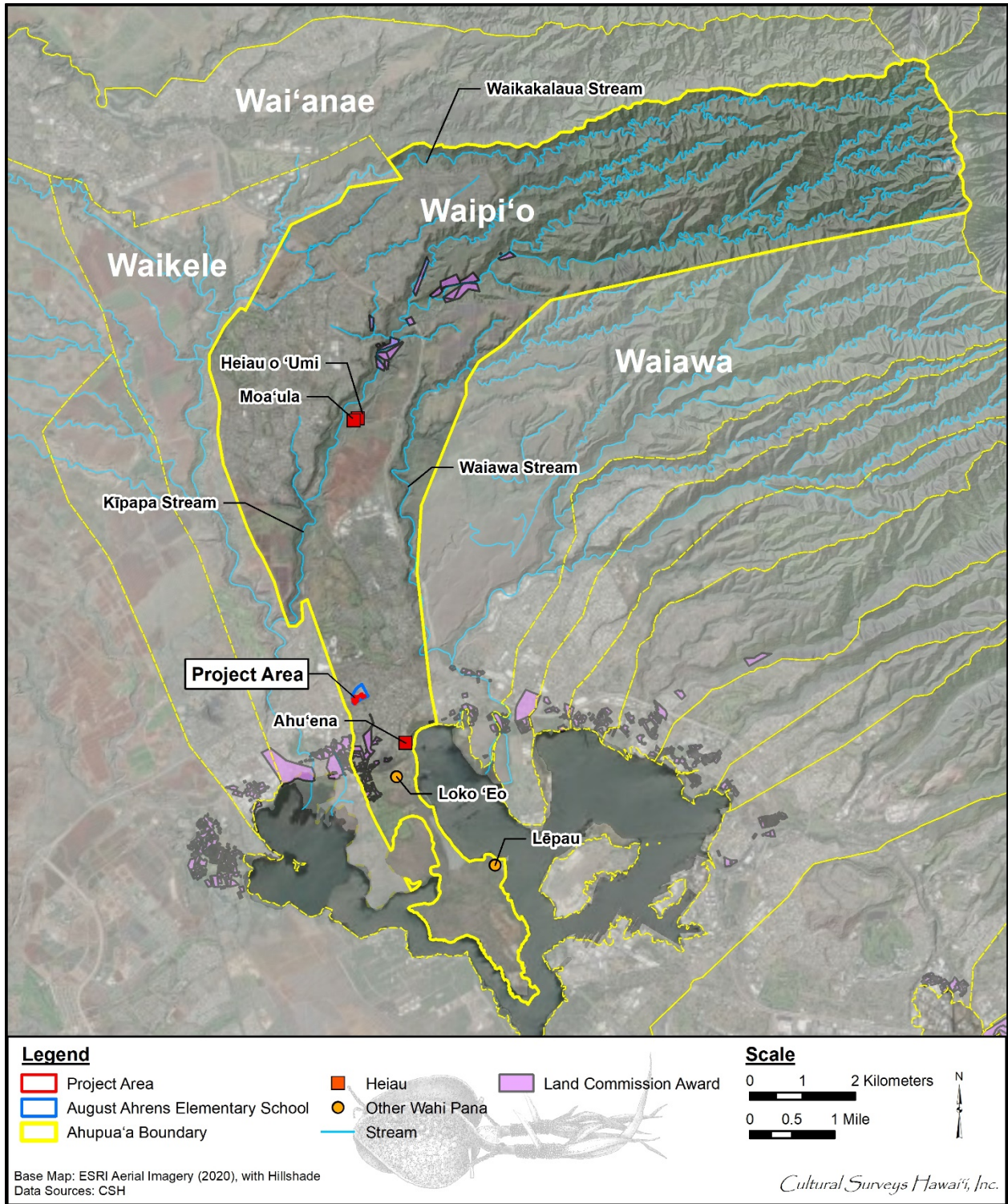


Figure 8. An overview of traditional Waipi'o Ahupua'a (base map: ESRI 2020)

‘Ewa territory. Two of the largest were on the peninsula, and another was at its northwest corner” (Handy and Handy 1972:470). There were other resources within the district of ‘Ewa as well that were attractive to an expanding population:

The lowlands, bisected by ample streams, were ideal terrain for the cultivation of irrigated taro. The hinterland consisted of deep valleys running far back into the Ko‘olau range. Between the valleys were ridges, with steep sides, but a very gradual increase of altitude. The lower parts of the valley sides were excellent for the culture of yams and bananas. Farther inland grew the ‘awa for which the area was famous. The length or depth of the valleys and the gradual slope of the ridges made the inhabited lowlands much more distant from the wao, or upland jungle, than was the case on the windward coast. Yet the wao here was more extensive, giving greater opportunity to forage for wild foods in famine time. [Handy and Handy 1972:469]

The Handys characterize Waipi‘o and its peninsula as “an *ali‘i* stronghold” and it is known as the scene of many battles between local and invading *ali‘i* for political control of O‘ahu. Several accounts relate the “Battle of Kīpapa” during the reign of the fifteenth century *mō‘ī* (paramount chief), Ma‘ilikūkāhi, explaining how the gulch and stream in Waipi‘o got their name. According to Abraham Fornander:

I have before referred to the expedition by some Hawai‘i chiefs, Hilo-a-Lakapu, Hilo-a Hilo-Kapuhi, and Punalu‘u, joined by Luakoa of Maui, which invaded O‘ahu during the reign of Ma‘ilikūkāhi. It cannot be considered as a war between the two islands, but rather as a raid by some restless and turbulent Hawai‘i chiefs, whom the pacific temper of Ma‘ilikūkāhi and the wealthy condition of his island had emboldened to attempt the enterprise, as well as the *éclat* that would attend them if successful. The invading force landed at first at Waikīkī, but, for reasons not stated in the legend, altered their mind, and proceeded up the ‘Ewa lagoon and marched inland. At Waikakalaua they met Ma‘ilikūkahi with his forces, and a sanguinary battle ensued. The fight continued from there to Kīpapa gulch. The invaders were thoroughly defeated, and the gulch is said to have been literally paved with the corpses of the slain, and received its name, ‘Kīpapa’, from this circumstance. Punalu‘u was slain on the plain which bears his name, the fugitives were pursued as far as Waimano, and the head of Hilo was cut off and carried in triumph to Honouliuli, and stuck up at a place still called Po‘o-Hilo. [Fornander 1969:2:89]

During the second half of the eighteenth century, Waipi‘o again became a focus of political intrigue and warfare on O‘ahu. In 1783, the forces of the Maui chief Kahekili gained control of the island of O‘ahu by defeating the *mō‘ī*, Kahahana, “from the powerful ‘Ewa chiefs’ line” (Cordy 1981:207). According to the nineteenth century Hawaiian historian Samuel Kamakau, the defeated O‘ahu chiefs plotted to kill the Maui chiefs. Waipi‘o was given the name “*Waipi‘o kīmopō*,” “Waipi‘o of secret rebellion,” as it became the stage for the plotting (Kamakau 1992:138). After the failure of this plot, Kahekili took revenge on the ‘Ewa and Kona districts:

[...] and when Ka-hekili learned that Elani of ‘Ewa was one of the plotters, the districts of Kona and ‘Ewa were attacked and men, women, and children were massacred, until the streams of Makaho and Niuhelewai in Kona and of Kahoa‘ai‘ai



in 'Ewa were choked with the bodies of the dead, and their waters became bitter to the taste, as eyewitnesses say, from the brains that turned the water bitter. All the O'ahu chiefs were killed and the chiefesses tortured. [Kamakau, 1992:138]

If Kamakau is correct, the population of Waipi'o would have been decimated during the 1780s. "The O'ahu society never rose again" (Cordy 1981:208).

Kahekili and the Maui chiefs retained control of O'ahu until the 1790s. Kahekili died at Waikiki in 1794. His son, Kalanikūpule, was defeated the following year at the battle of Nu'uaniu by Kamehameha, who distributed the O'ahu lands—including Waipi'o Ahupua'a—among his favorite followers: "[...] land belonging to the old chiefs was given to strange chiefs and that of old residents on the land to their companies of soldiers, leaving the old settled families destitute" (Kamakau 1992:376–377).

### 3.1.3 1800s to 1850

Native Hawaiian activity and habitation at the middle of the nineteenth century continued to be clustered in the *makai* lowlands and the fishponds near the coast (see Figure 8). The landscape of the coastal plain of the *ahupua'a* (traditional land division) was dominated by an extensive network of taro *lo'i* (terraced pond-fields) as indicated by Land Commission Award (LCA) documents from the mid-nineteenth century Māhele.

The end of the eighteenth century and beginning of the nineteenth century marked Hawai'i's entry into world trade networks. One of the chief exports at this time was sandalwood (*Santalum* spp.) or *'iliahi*, which was prized in China for its unique fragrance and used there in the manufacture of household items, as incense, as perfume, and as medicine (St. John 1947). The central plains of 'Ewa supplied the Hawaiian Kingdom with *'iliahi*. One of the first generation missionaries, Sereno Bishop, described his memories of the central O'ahu region in the 1830s:

Our family made repeated trips to the home of Rev. John S. Emerson at Waialua during those years. There was then no road save a foot path across the generally smooth upland. We forded the streams. Beyond Kīpapa gulch the upland was dotted with occasional groves of Koa trees. On the high plains the ti plant abounded, often so high as to intercept the view. No cattle then existed to destroy its succulent foliage. According to the statements of the natives, a forest formerly covered the whole of the then nearly naked plains. It was burned off by the natives in search of sandalwood, which they detected by its odor burning. [Bishop in Sterling and Summers 1978: 89]

The dry forests formerly covering this region probably never came back, particularly considering the harm done to the *'iliahi* seedlings with the introduction of cattle soon thereafter (Judd 1933).

During much of the nineteenth century, Waipi'o Ahupua'a was associated with John Papa 'Ī'ī, a significant figure and chronicler of the Hawaiian Kingdom. In an account of his birth, 'Ī'ī records the establishment of his family at Waipi'o after the ascendancy of Kamehameha on O'ahu:

John Papa 'Ī'ī was born in Kumelewai, Waipi'o, in 'Ewa, O'ahu, on the third day of August (*Hilinehu* in the Hawaiian calendar) in 1800, on the land of Papa 'Ī'ī, whose namesake he was. Papa ('Ī'ī's uncle) was the owner of the pond of Hanaloa

and two other pieces of property, all of which he had received from Kamehameha, as did others who lived on that *ahupua'a*, or land division, after the battle of Nu'uaniu. He gave the property to his *kaikuahine*, or cousin, who was the mother of the aforementioned boy. [‘I‘i 1959:20]

‘I‘i’s writings, collected in *Fragments of Hawaiian History*, provide glimpses of life within Waipi‘o Ahupua‘a during ‘I‘i’s lifetime. ‘I‘i mentions the “family [going] to Kīpapa from Kumelewai by way of upper Waipi‘o to make ditches for the farms” (‘I‘i 1959:28) and recalls that, during the visit to O‘ahu by the Kāua‘i chief Kaumuali‘i and his entourage, the chief’s attendants were provided with gifts: “from Waipi‘o in ‘Ewa and from some lands of Hawai‘i came *tapa* made of *mamaki* bark” (‘I‘i 1959:83). ‘I‘i notes how a period of famine was managed in Waipi‘o and what resources were available during the famine:

Here is a wonderful thing about the land of Waipi‘o. After a famine had raged in that land, the removal of new crops from the taro patches and gardens was prohibited until all of the people had gathered and the farmers had joined in thanks to the gods. This prohibition was called *kapu 'ohi'a* because, while the famine was upon the land, the people had lived on mountain apples (*‘Ōhi'a 'ai*), *tis*, yams, and other upland foods. On the morning of Kane an offering of taro greens and other things was made to remove the *‘Ōhi'a* prohibition, after which each farmer took of his own crops for the needs of his family. [‘I‘i 1959:77]

### 3.1.4 The Māhele and the Kuleana Act

The Organic Acts of 1845 and 1846 initiated the process of the Māhele, the division of Hawaiian lands, which introduced private property into Hawaiian society. In 1848, the crown and the *ali'i* received their land titles. The native tenants received their *kuleana* awards (individual land parcels) in 1850. It is through records for LCAs generated during the Māhele that the first specific documentation of life in Waipi‘o Ahupua‘a, as it had evolved up to the mid-nineteenth century, come to light.

The great majority of the awarded land parcels were located in the *makai* portions of Waipi‘o, at or just above the peninsula (Figure 9). No native tenant LCA parcels were awarded within approximately 600 m of the present project area. John Papa ‘I‘i was awarded most of the *ahupua'a* of Waipi‘o (including the vicinity of the present project area) in LCA 8241 comprising approximately 20,540 acres. Included in the documentation for ‘I‘i’s award is a list of “the people living on the land of Waipi‘o ‘Ewa” in 1848 (Native Register 1848:5:512–517).

A substantial award within the *ahupua'a* went to Abenera Pākī, the father of Bernice Pauahi Bishop. Part of LCA 10613 given to Pākī comprised the 350 acres of the *'ili* (land division smaller than an *ahupua'a*) of Hanaloa. Also receiving a land award (LCA 2937) in Waipi‘o was William Harbottle, who claimed 2 acres at Hanapouli‘ili.

The remaining land claims documented in the records, totaling 99 (not all of which were awarded), are for *kuleana* worked and lived upon by the Hawaiians of Waipi‘o. Predominant among the claimed land usages in Waipi‘o are 312 *lo'i*, irrigated taro patches, of various sizes; and 43 *mo'o*, or fields comprising indeterminate numbers of *lo'i*. Clearly, wetland taro cultivation was the primary agricultural pursuit within the *ahupua'a* at the mid-nineteenth century, likely reflecting a long history of taro farming. At the coast, 4 fishponds are claimed. In the more *mauka* reaches

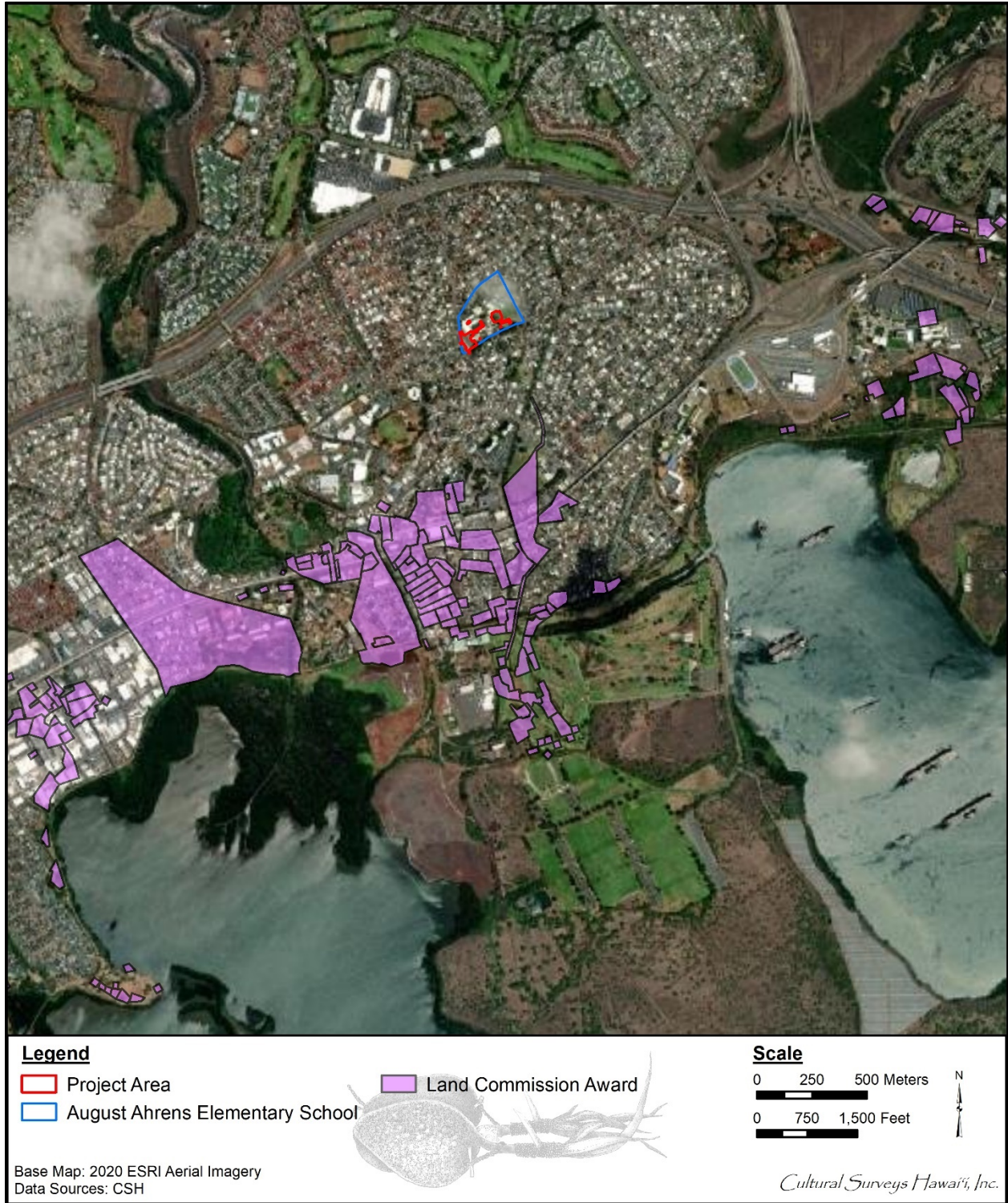


Figure 9. 2020 ESRI aerial image showing the location of native tenant LCAs near the location of the AAES campus and project area

of Waipi'o, within valley bottom areas, 53 claims were made for portions of *kula* (pasture land) and 25 for “*okipu*” or *'okipu'u* (forest clearing). The fact that several claims were made in the *mauka* regions suggests Waipi'o residents had particular locales they traveled to repeatedly. *Kula* land is a general term for open fields, pastures, uncultivated fields, or fields for cultivation, and upland (drier) in distinction from meadow or wetland (Lucas 1995:60). *Kula* lands were often used for opportunistic plantings that did not depend heavily on a consistent source of water such as bananas, sugarcane, sweet potatoes, dry land taro, etc. *Okipu'u* is defined as a forest clearing (Lucas 1995:82), a place presumably used to gather forest products and medicinal herbs and for pasturage.

In contrast to the well-populated *makai* lands of Waipi'o, the *mauka* regions were often described in nineteenth century accounts as virtually uninhabited. The missionary William Ellis describes the interior regions of 'Ewa in 1823-1824:

The plain of Eva is nearly twenty miles in length, from the Pearl River to Waialua, and in some parts nine or ten miles across. The soil is fertile, and watered by a number of rivulets, which wind their way along the deep water-courses that intersect its surface, and empty themselves into the sea. Though capable of a high state of improvement, a very small portion of it is enclosed or under any kind of culture, and in traveling across it, scarce a habitation is to be seen. [Ellis 1963:7]

Despite Ellis' impression of desuetude and absence of people in the more *mauka* reaches of 'Ewa, there is evidence that the population of Waipi'o during the early nineteenth century was not focused solely on the fertile coast. Kamakau notes, in an inventory of advances in education during the reign of Kamehameha III (from 1825 to 1854), “Schools were built in the mountains and in the crowded settlements. Waipi'o had school houses near the coast and in the uplands” (Kamakau 1992:424). The placement of a school “in the uplands” of Waipi'o suggests that some portion of the *ahupua'a* population was settled there.

Around the 1830s cattle grazing began in the *mauka* regions of Waipi'o (Bishop 1901:87). In 1847, residents of more *makai* land petitioned the Minister of the Interior, John Young, to resolve the problem of stray animals. These stray animals may have been from herds of cattle and goats grazing on the *kula* lands of Waipi'o. In addition to damage from stray animals on the lands of Waipi'o, the impact of grazing animals was noted several kilometers away at Pearl Harbor, near the present project area. Stray cattle probably continued to be a problem until large-scale agriculture was introduced in the early part of the twentieth century.

The subsequent occupation of the uplands by cattle denuded the country of ground cover, and caused vast quantities of earth to be washed down by storms into the lagoons, shoaling the water for a long distance seaward (Bishop 1901:87).

### 3.1.5 Mid- to Late 1800s

During the later 1800s, taro fields were converted to rice fields as Chinese immigrants began to lease and purchase land. The 1851 Bishop (RM 107) map of Waipio (Figure 10) focuses on the coastal fishponds and fisheries. The prominent east/west trending “Ala Aupuni” or Government Road is understood as the major cross-*ahupua'a* trail on the south shore of O'ahu and is understood to have been along the alignment of Waipahu Street fronting the present day AAES. Houses are shown *makai* of the Ala Aupuni but not *mauka* of the road.





The 1873 Alexander map of Waipio (Figure 11) shows an extensive wetland at the base of the Waipi'o Peninsula that corresponds to the abundance of LCA claims for taro lands in that area (see Figure 9). Very few houses are indicated and none *mauka* of the Government road.

The 1894 Kananui map of Waipi'o (Figure 12) has two labels for "Rice" west of the Loko Eo fishpond indicating relatively early adoption of widespread rice cultivation, most likely by Chinese immigrants.

After John Papa 'I'i's death in 1870, his estate—including the Waipi'o lands—was inherited by his daughter Irene 'I'i Brown. Shortly after, small parcels within the *ahupua'a* were sold off, "including a portion to James Robinson and Co. in September 1871" (Riford and Cleghorn 1986:22). It would not be until the late 1890s that large tracts of Waipi'o land would be leased for large-scale commercial agriculture.

In 1897, the newly organized Oahu Sugar Company leased 3,400 acres of Waipi'o from the 'I'i estate (Condé and Best 1973:313). A few years earlier, the Oahu Railway and Land Company (OR&L) had leased a tract through Kīpapa Gulch to transport sugar and pineapple from Wahiawā to Honolulu. The growth of sugarcane in Waipi'o would comprise the major transformation of the present study parcel during the twentieth century (Figure 13).

### 3.1.6 1900s

By the early decades of the twentieth century, rice farming in the area (as in the rest of the Hawaiian Islands) was in decline, beset by crop diseases and cheaper prices for rice from the mainland. Commercial agriculture became dominated by sugar, particularly with the founding and development of the Oahu Sugar Company.

Early in the twentieth century, the U.S. Government began acquiring the coastal lands of 'Ewa for the development of a naval base at Pearl Harbor. In 1909 the government appropriated the Waipi'o peninsula from the 'I'i estate. The land was valued at \$10,000 for purposes of fair compensation. At the same time, lands in *mauka* Waipi'o were being acquired for pineapple cultivation. A lease from the John 'I'i Estate, Ltd. to Yoshisuke Tanimoto and Kintaro Izumi in 1908 led to the formation of the Waipio Pineapple Company, which cleared and cultivated approximately 223 acres in portions of Kīpapa Gulch (Department of Land and Natural Resources Land Record Books:228–235). In 1915, Libby McNeill & Libby took over Waipio Pineapple Company's leases and continued to cultivate pineapple in the area.

The 1919 U.S. Army War Department map (Figure 14) shows this rapid transformation with the OR&L hugging close to the north end of middle Loch and then cutting west across the base of the Waipi'o Peninsula to hug the north side of West Loch while plantation railroads wind into the uplands. A plantation railroad is shown as defining the north edge of the future AAES campus. While Waipahu town is rapidly growing and already abuts the west side of the future AAES campus, the *mauka* slopes to the northwest, north, and east are a sea of sugarcane. It appears the AAES campus is already planted in sugarcane.

A 1922 Oahu Sugar Company map indicates commercial sugarcane cultivation (perhaps "Field 9") within the project area (Figure 15). By the late 1920s, Dole was cultivating pineapple on thousands of acres in the *mauka* area of Waipi'o.

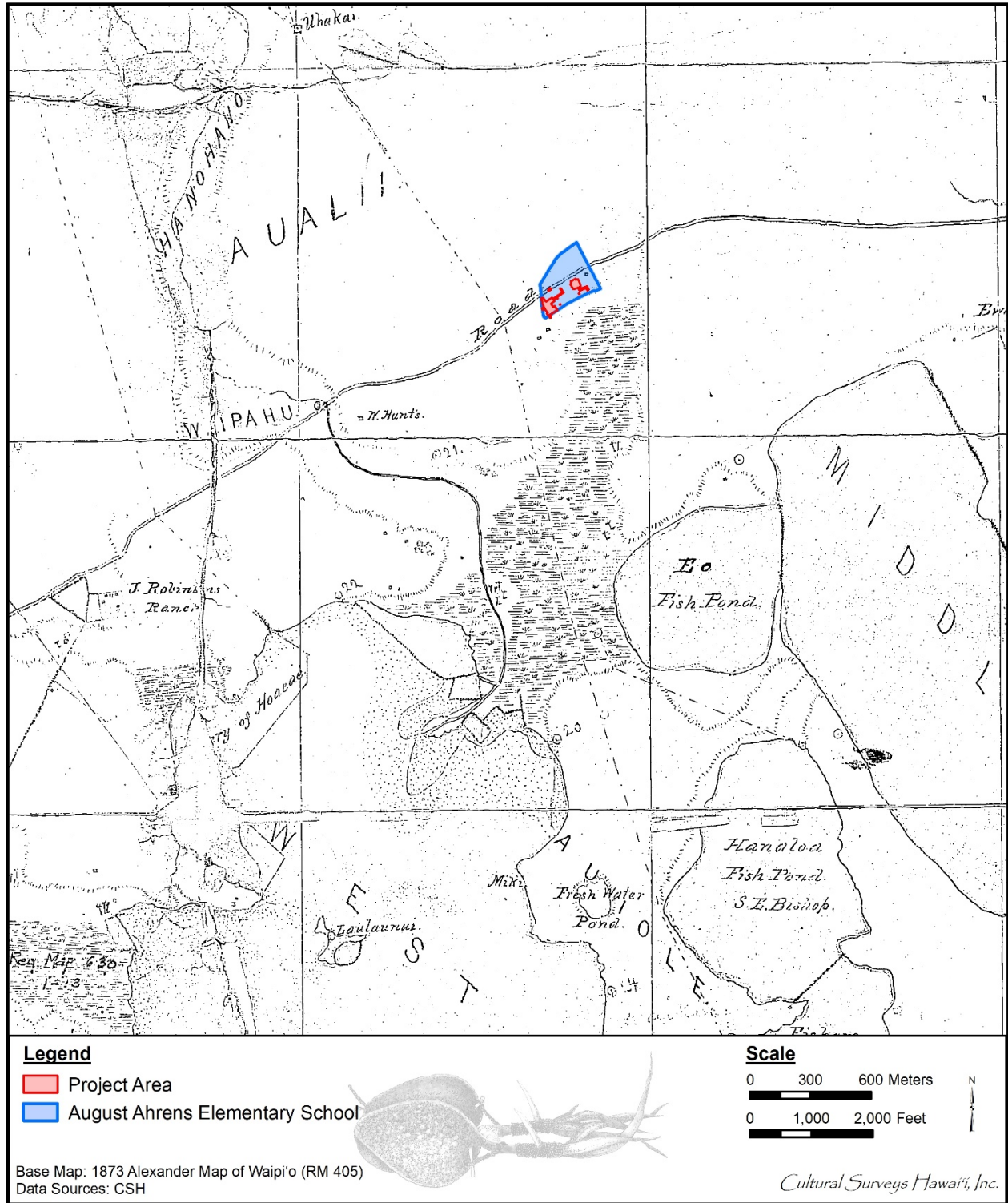


Figure 11. Portion of the 1873 Alexander (RM 405) map of Waipi'o showing the location of the AAES campus and project area (the indicated "Road" is understood as the Waipahu Street alignment in the vicinity of the AAES)



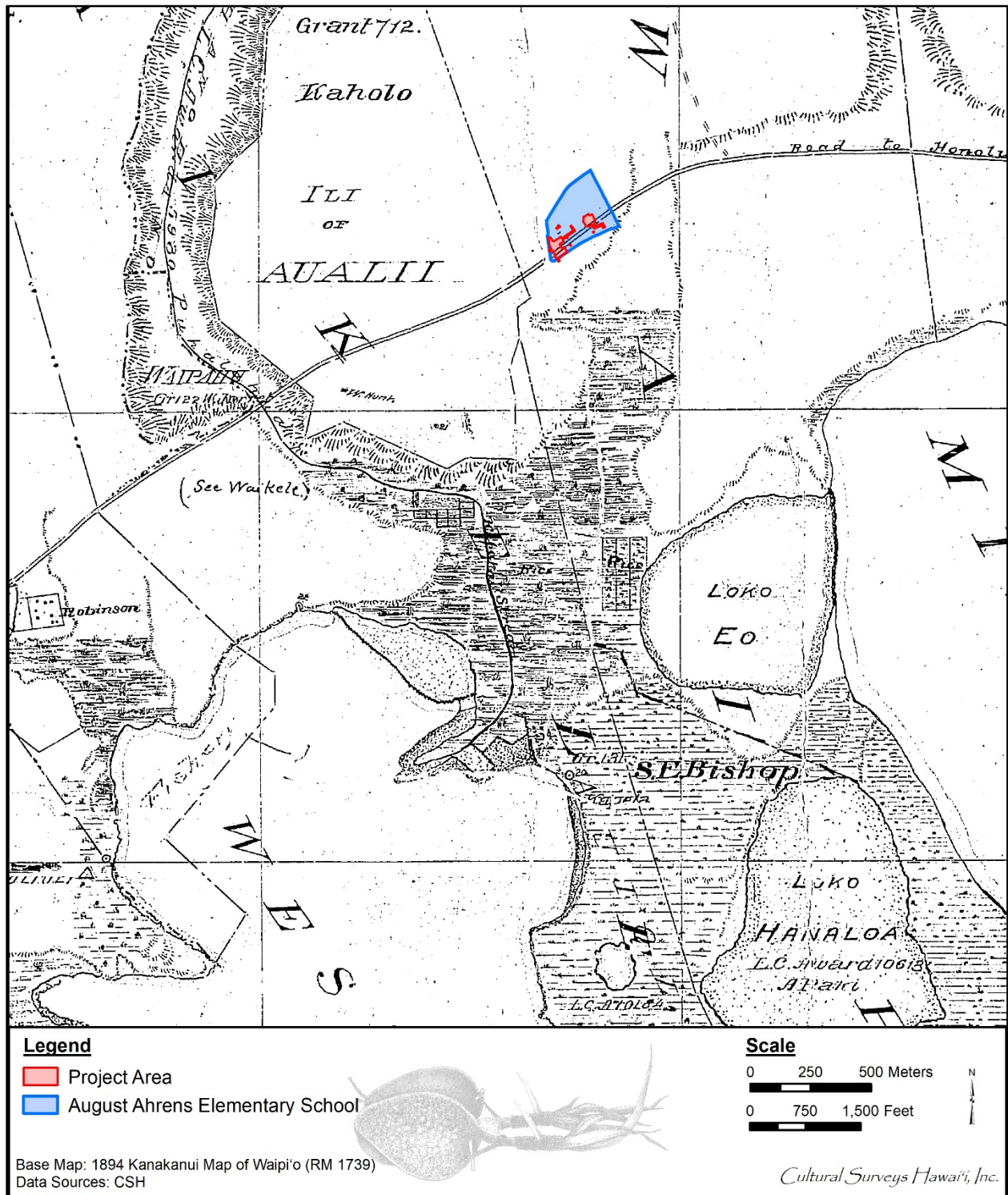


Figure 12. Portion of the 1894 Kananui (RM 1739) map of Waipi‘o showing the location of the AAES campus and project area (the Road to Honolulu or main government road is understood as the Waipahu Street alignment in the vicinity of the AAES)



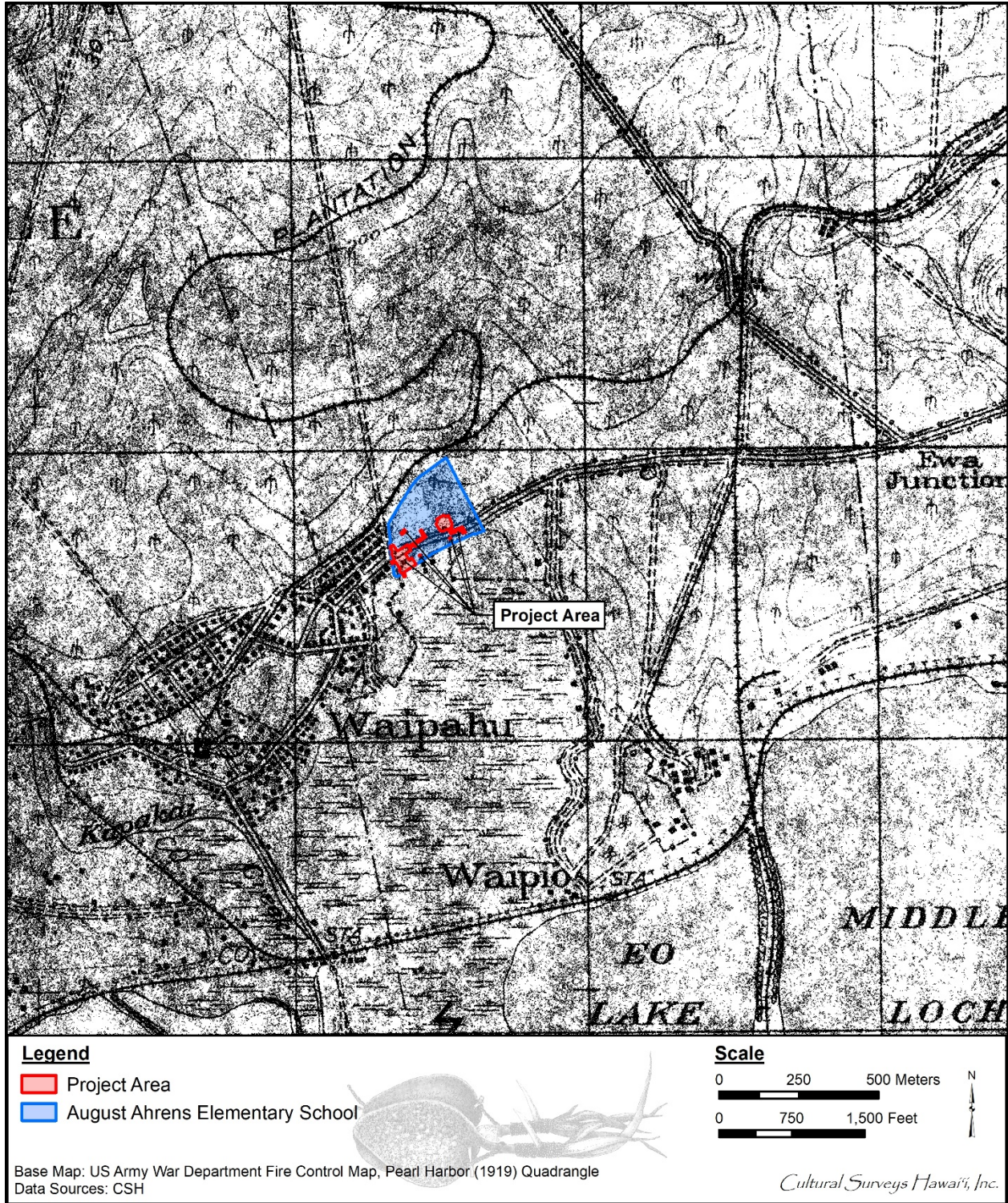


Figure 13. Portion of 1919 U.S. Army War Department fire control map, Pearl Harbor quadrangle, showing the location of the AAES campus and project area





Figure 14. Portion of the 1922 Oahu Sugar Company map, showing the location of the AAES campus and project area (from Condé and Best 1973) as within sugarcane fields (perhaps “Field 9”)

Meanwhile, the Oahu Sugar Company was dealing with the problem of obtaining sufficient water to cultivate sugar. In 1913, a project began to transport water from the windward side of O'ahu through the Ko'olau Range to irrigate the fields and mill of the Oahu Sugar Company in 'Ewa. The Waiāhole Water Company, a subsidiary of Oahu Sugar, created the Waiāhole Ditch System that was “an engineering feat of epic proportion for those times” (Condé and Best 1973:37). The ditch system was completed in 1916, and with some modifications is still in use. The 1924 Evans map (Figure 15) shows the “Upper Limits of Cane” as approximating the Waiāhole Ditch.

The 1928 USGS map (Figure 16) shows the growth of Waipahu town to the southwest of the AAES campus which necessitated the creation of elementary schools. AAES, named after the first manager of the Oahu Sugar Company, opened on 1 September 1924 with an administration building and 14 classrooms serving 605 students and 13 teachers (AAES “School History and Profile” website). This 1928 map shows the school as quite compact in the southwest corner of the present campus. A straight, unimproved road heading north (the future Mahoe Street) is now depicted as bounding the west side of the campus.

The 1935 U.S. Army War Department map (Figure 17) shows much the same scene with the large size of the school symbol reflecting the relatively large size of the AAES. It is believed that the vast majority of the campus was still in active sugarcane production.

During the 1930s, use of Waipi'o by the U.S. military extended well *mauka* of the peninsula at Pearl Harbor. The military began the appropriation of Kīpapa Gulch around 1938 and during World War II used the rail system to “haul large quantities of ammunition” (Condé and Best 1973:315). World War II, however, had little impact on the present project area.

The 1943 U.S. Army War Department map (Figure 18) is quite similar with the school indicated as the most prominent construction in Waipahu east of the sugar mill.

On the 1954 USGS map (Figure 19) the school is now labeled as the “August Ahrens Sch.” The school seems to have enlarged significantly but is still confined to the west side of the present-day campus. The train tracks that were such a fixture on the landscape from 1919 (see Figure 13) to 1943 (see Figure 18) are now gone, replaced by a more intensive complex of cane haul roads to haul cane to the Waipahu Sugar Mill by truck.

The 1959 USGS aerial photograph (Figure 20) shows sugarcane cultivation has retreated to the eastern 40% of the campus but the AAES buildings are still compactly in the southwest corner of the campus with seeming playing fields in between. Substantial subdivisions are being developed to the northwest and north of the school.

The 1962 USDA aerial photograph (Figure 21) shows much the same scene with increasing suburban development.

During the second half of the twentieth century, growth in Waipi'o Ahupua'a focused on the development of Mililani Town by Castle & Cooke, Inc. through its subsidiary, Oceanic Properties, Inc. In 1964, the state Land Use Commission redesignated 705 acres of agricultural land in Waipi'o for urban use. The first section of Mililani Town opened in June 1968. In 1973 construction began on the H-2 freeway across Waipi'o, connecting Mililani to the H-1 freeway.

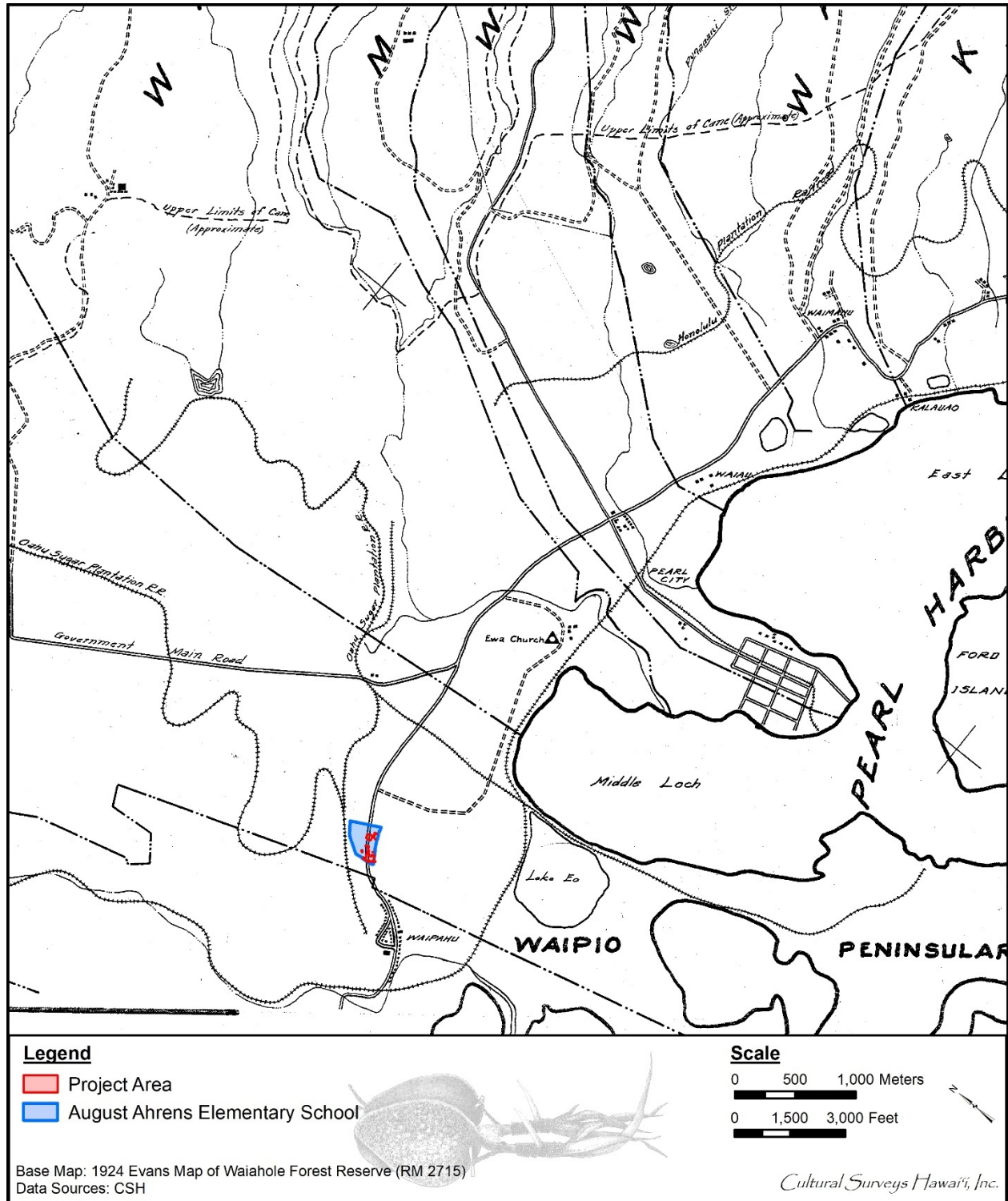


Figure 15. Portion of the 1924 Evans (RM 2715) map of Waiahole Forest Reserve showing the location of the AAES campus and project area; the Government Road is understood to bound the south edge and the Oahu Sugar railroad is understood to bound the north edge



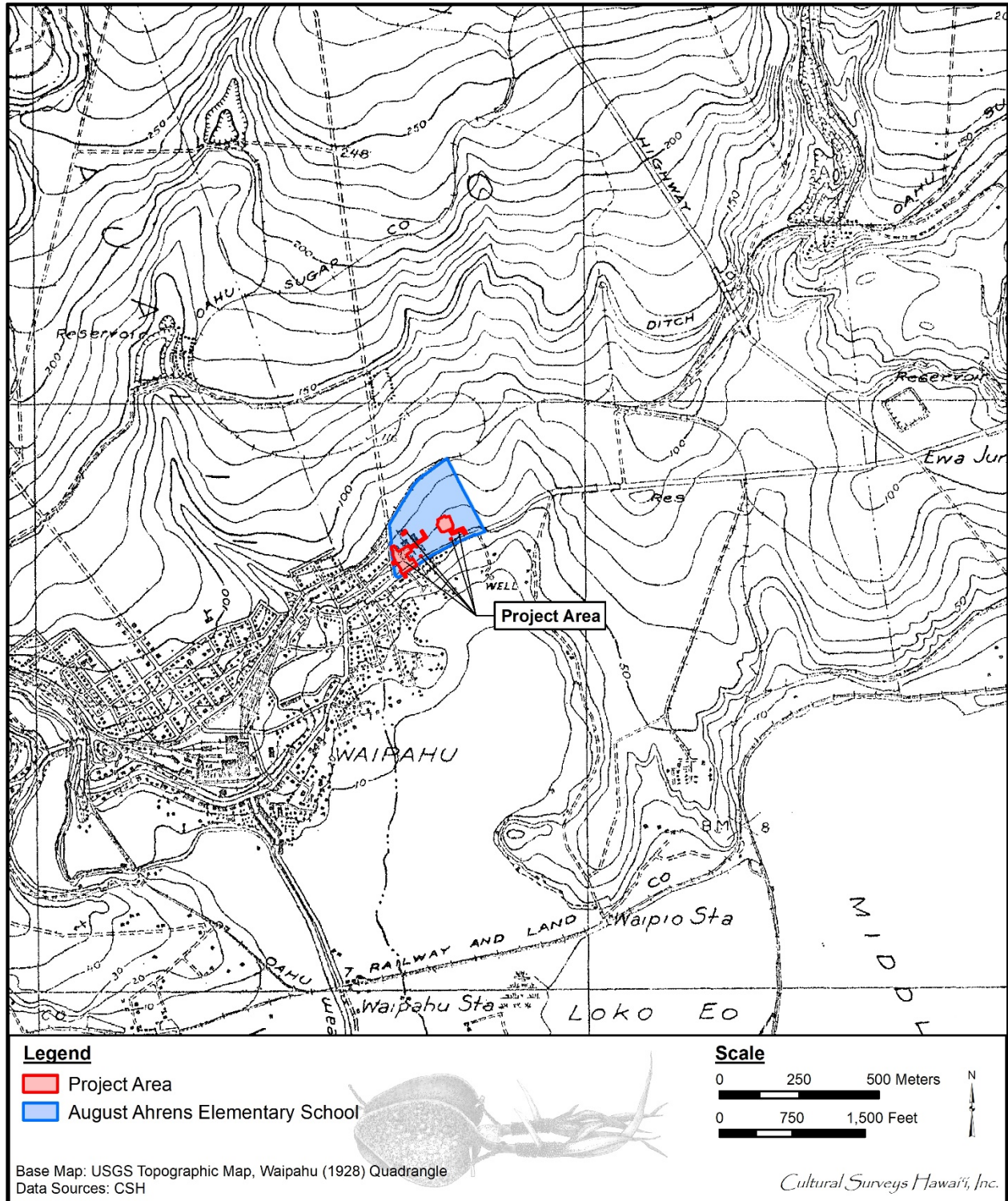


Figure 16. Portion of the 1928 USGS Waipahu topographic quadrangle showing the location of the AAES campus and project area



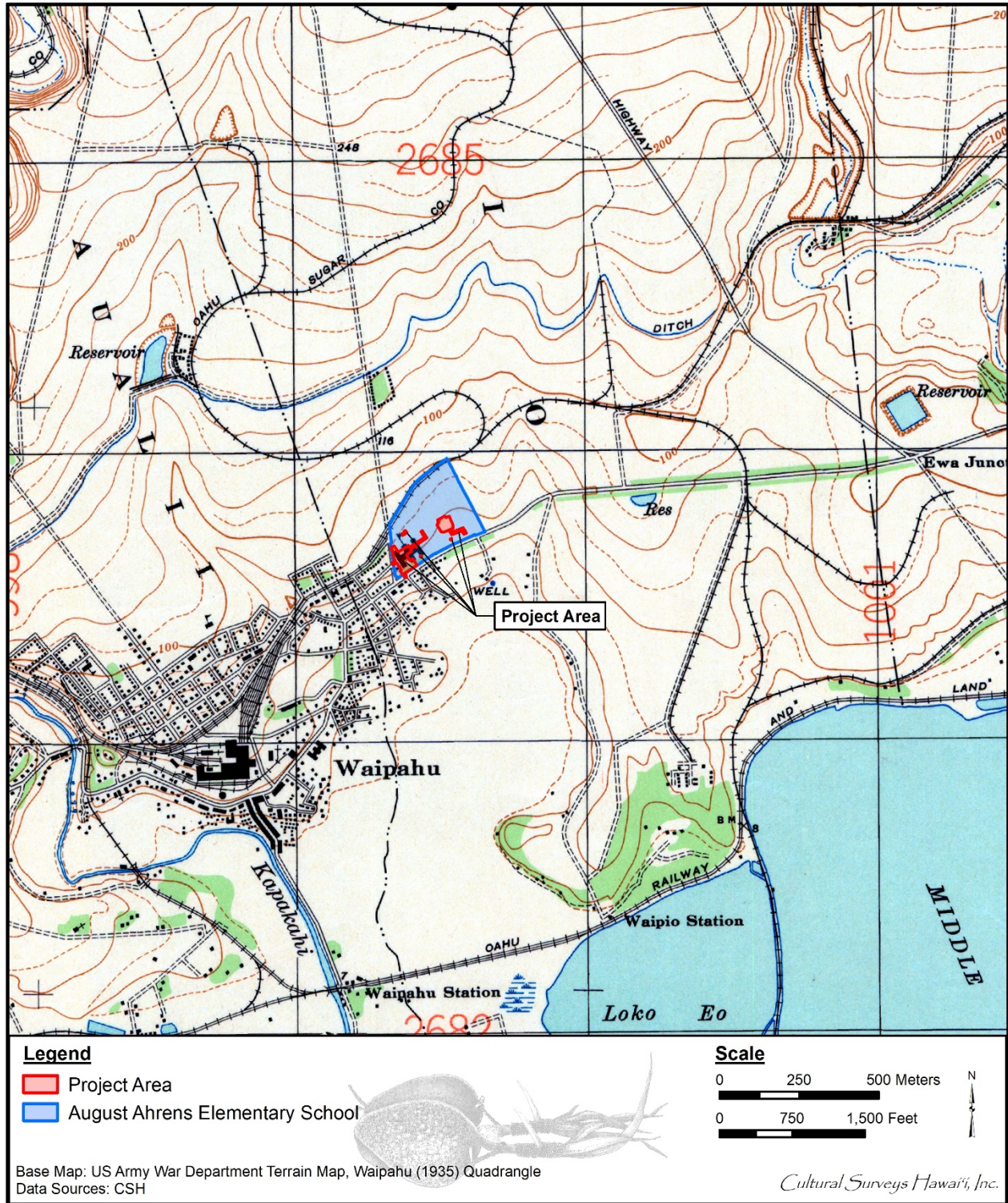


Figure 17. Portion of the 1935 U.S. Army War Department terrain map, Waipahu quadrangle showing the location of the AAES campus and project area



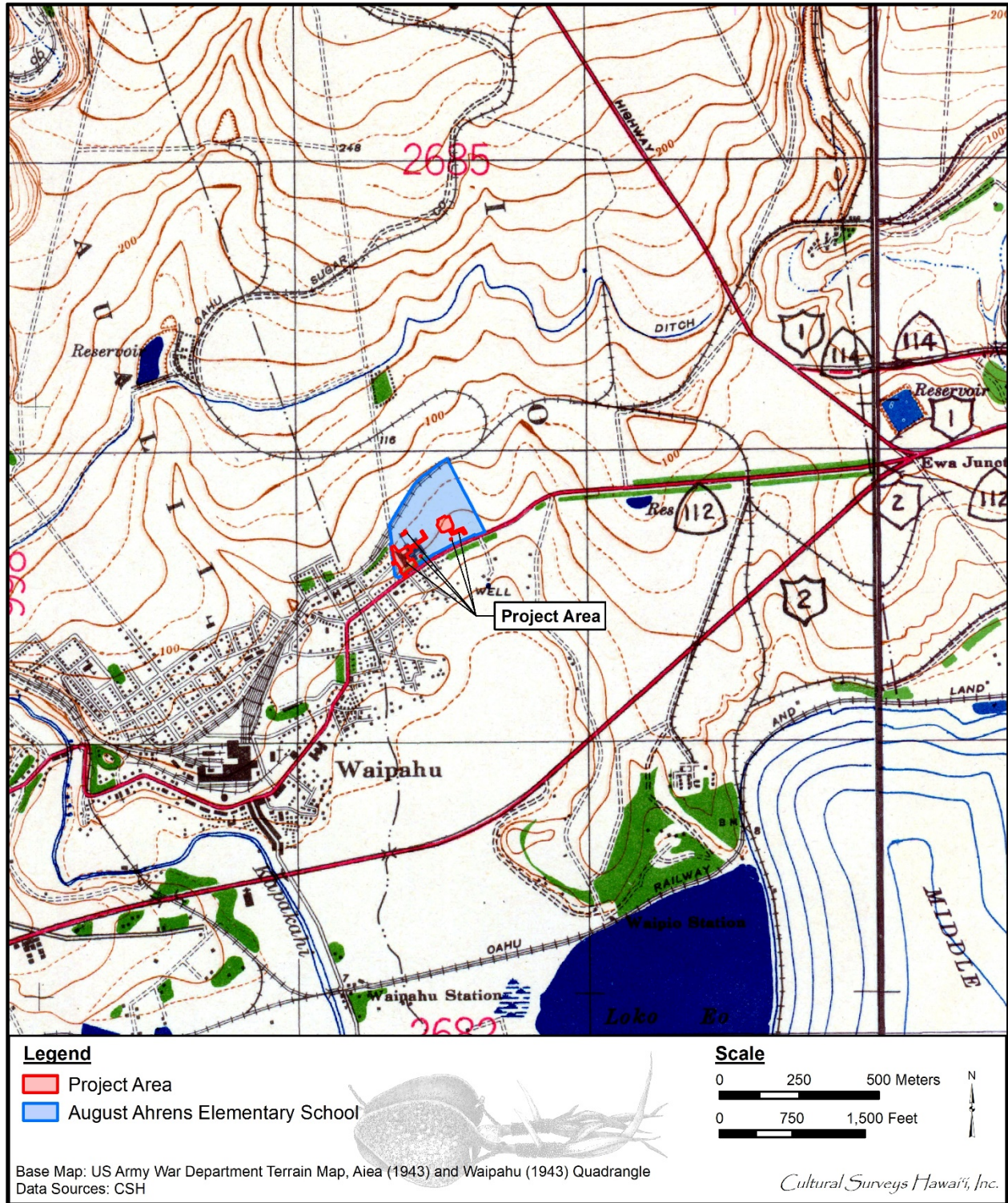


Figure 18. Portion of the 1943 U.S. Army War Department terrain map, Aiea and Waipahu quadrangles showing the location of the AAES campus and project area



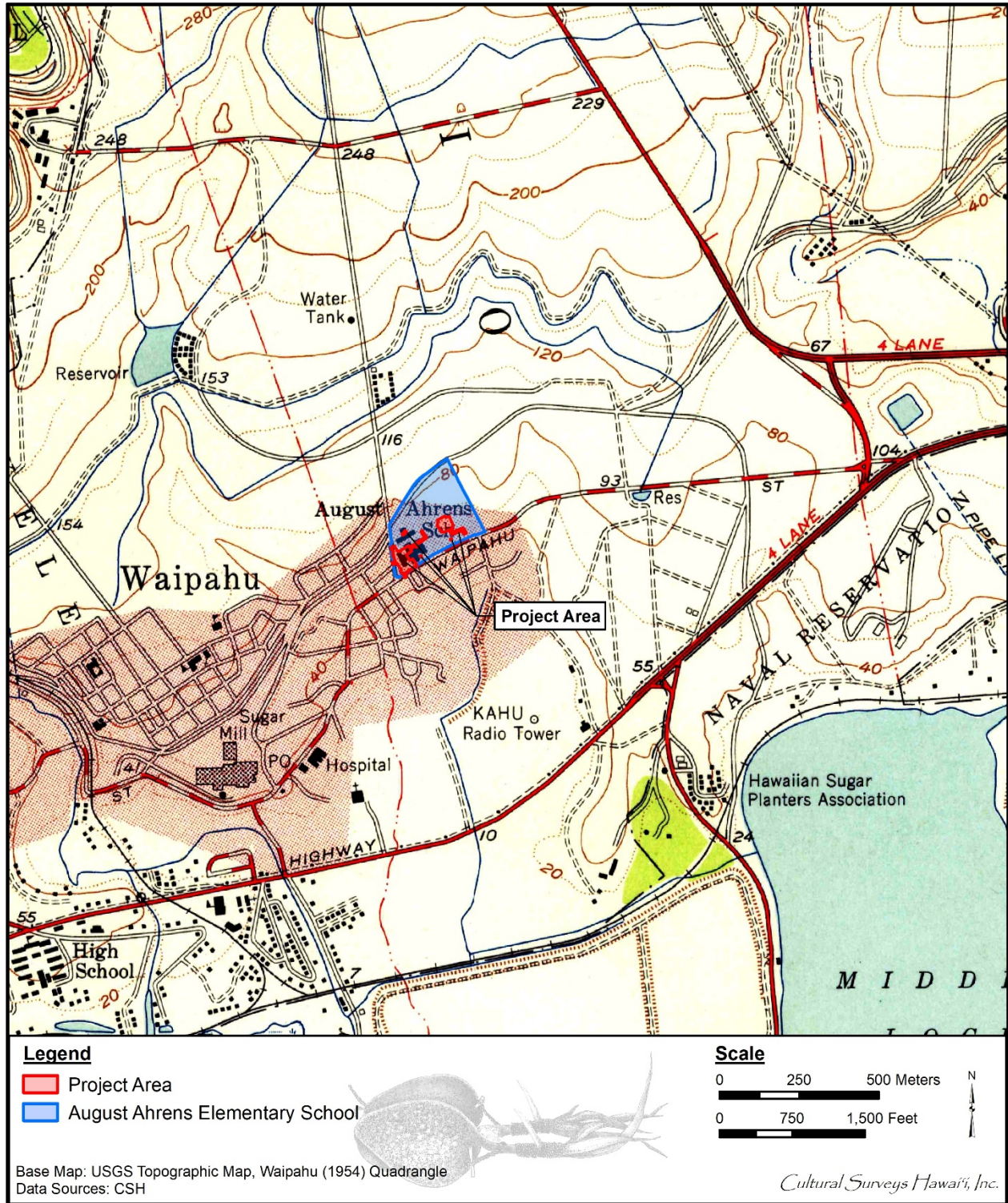


Figure 19. Portion of the 1954 Waipahu USGS topographic quadrangle showing the location of the AAES campus and project area



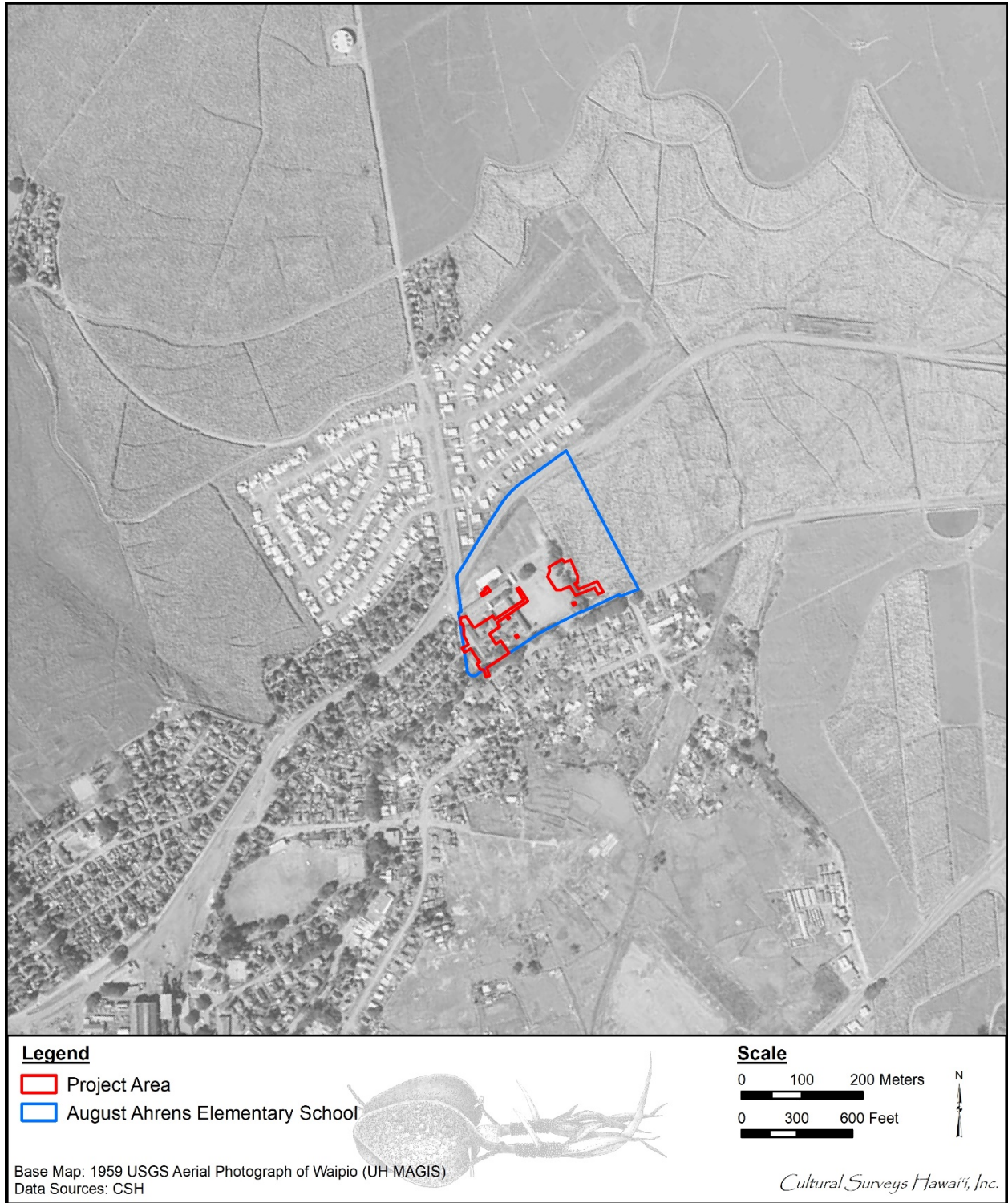


Figure 20. 1959 USGS Waipio aerial photograph (UH MAGIS) showing the location of the AAES campus and project area



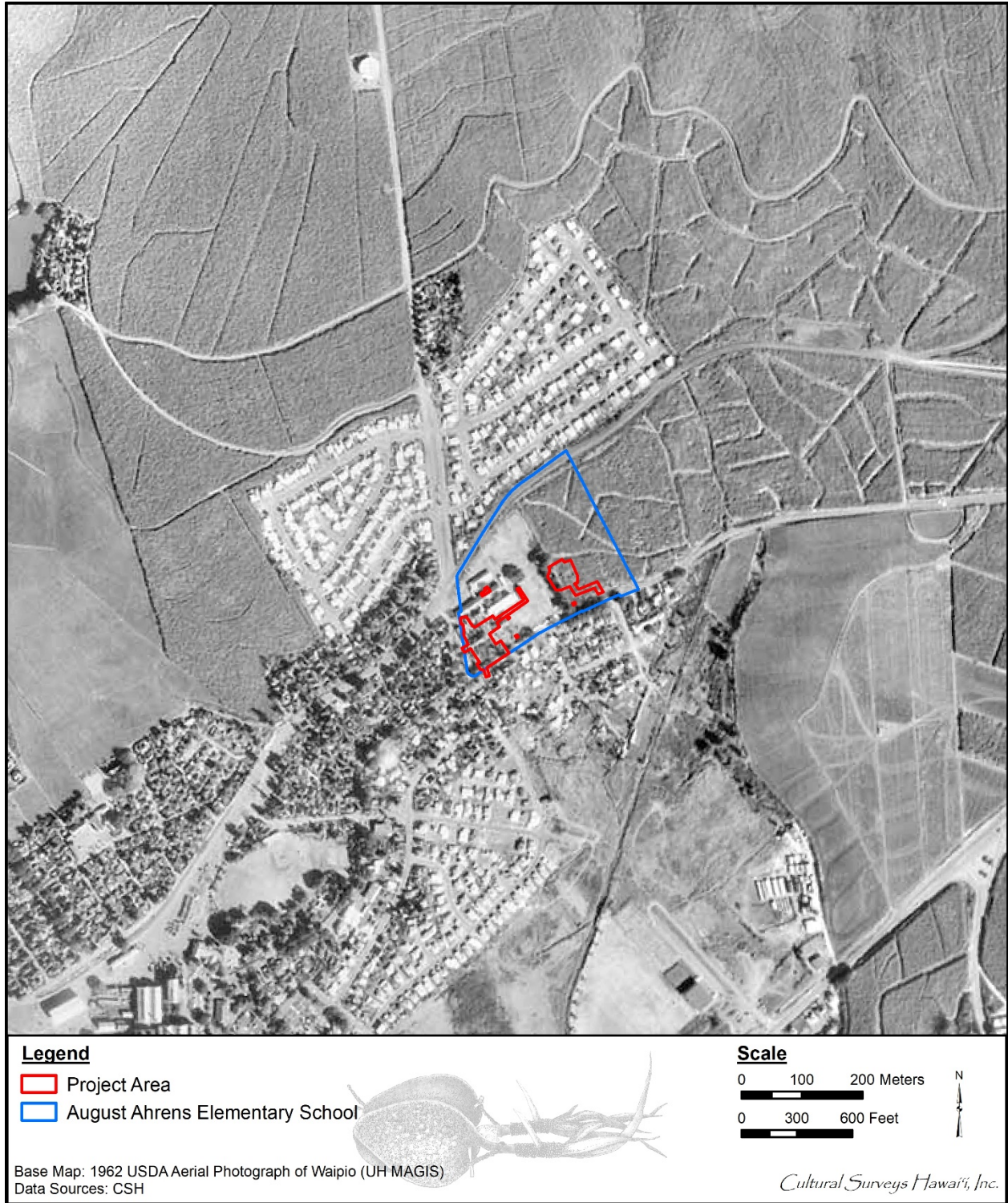


Figure 21. 1962 USDA Waipio aerial photograph (UH MAGIS ) showing the location of the AAES campus and project area

The 1968 USGS map (Figure 22) and 1968 USGS aerial photograph (Figure 23) show an explosion of suburban development to the south and east of the school with substantial expansion of school buildings to accommodate the attendant increasing school-age population. The eastern 40% of the campus is still in commercial sugarcane production.

The 1978 USGS orthophotoquad (Figure 24) shows the school campus in its present form completely surrounded by suburban streets and homes. Commercial sugarcane cultivation has retreated to *mauka* of the H-1.

On 9 April 1995, Oahu Sugar Company closed its books as Waipahu Sugar Mill processed its final cane.



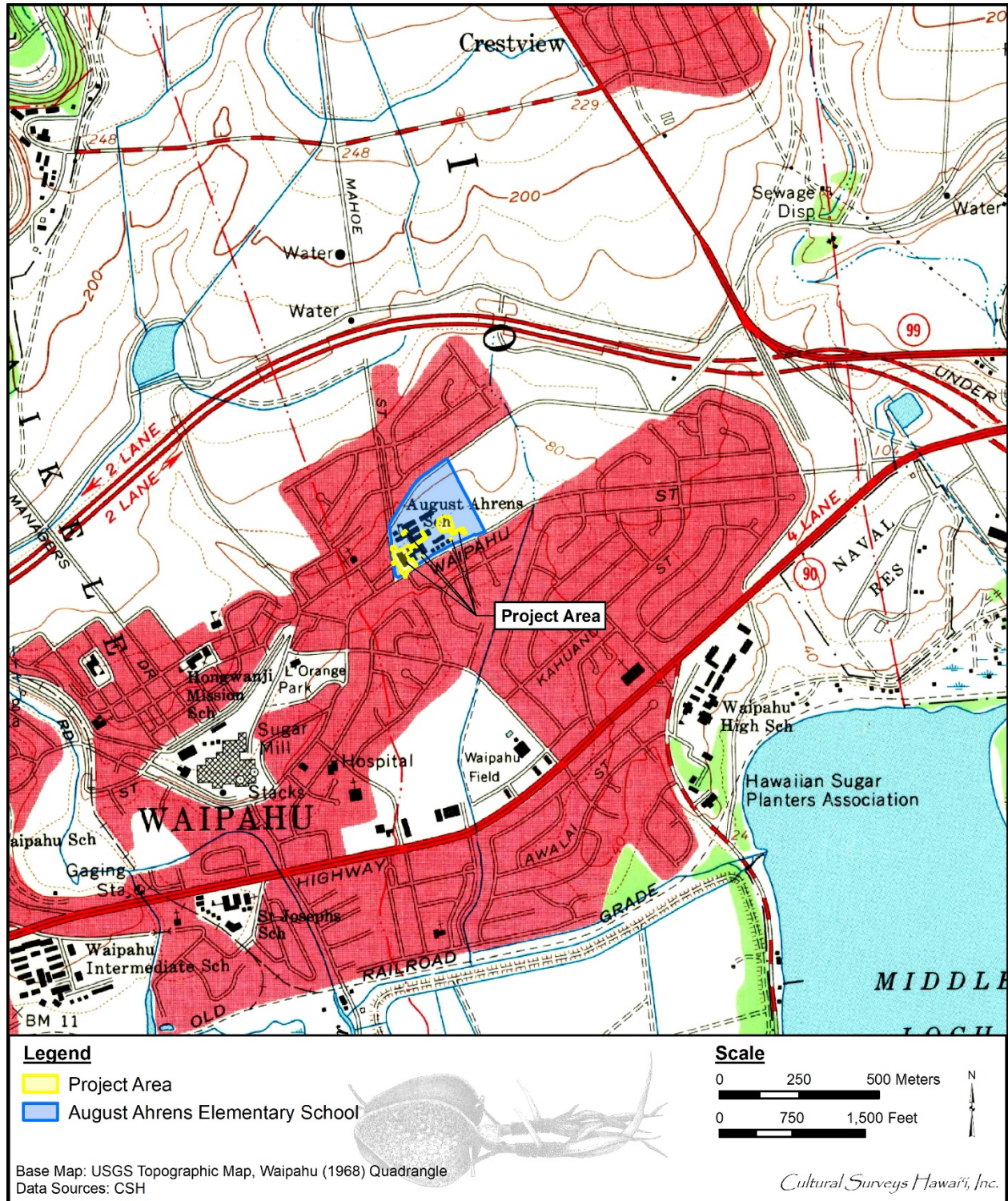


Figure 22. Portion of the 1968 Waipahu USGS topographic quadrangle showing the location of the AAES campus and project area



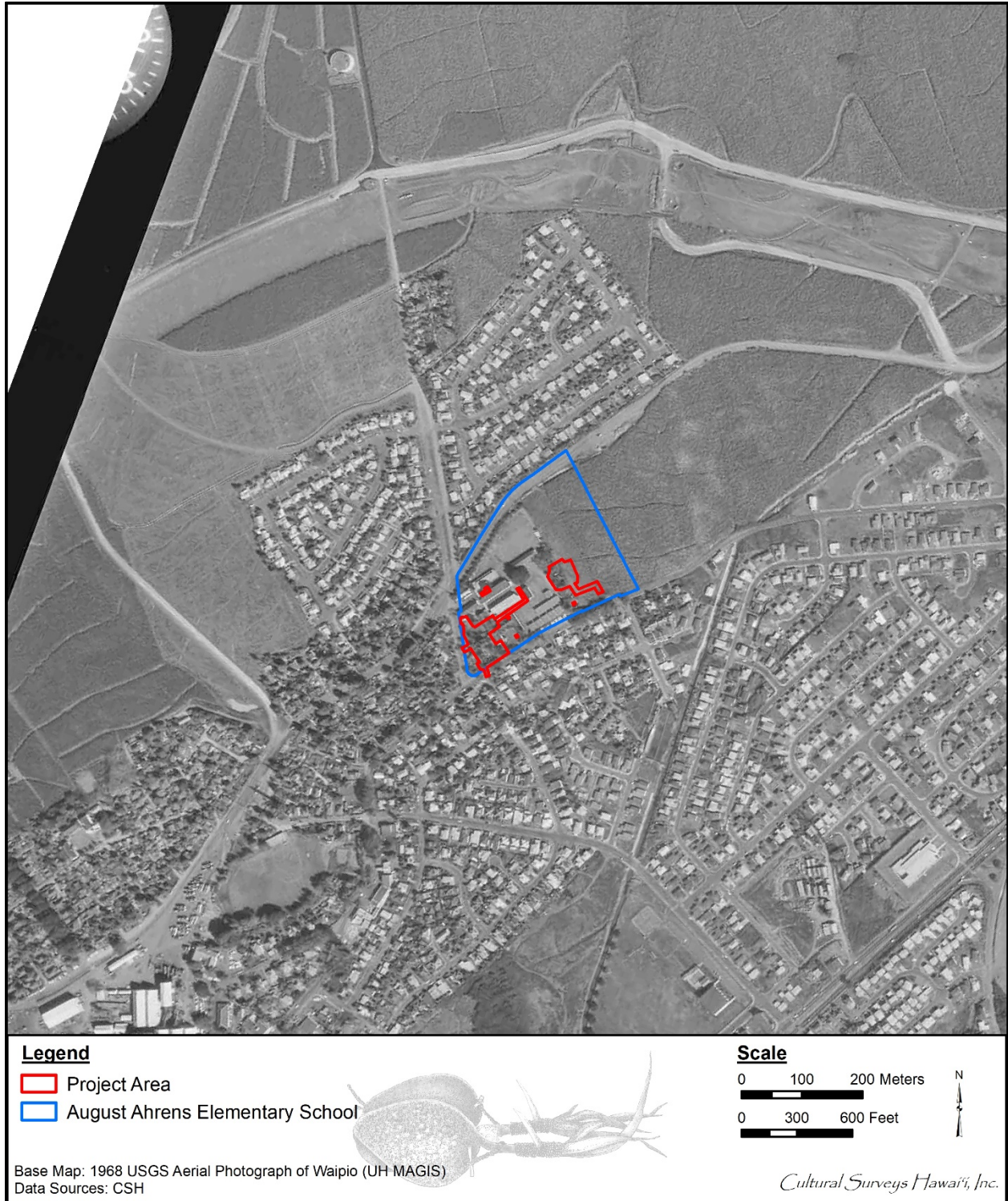


Figure 23. 1968 USGS Waipio aerial photograph (UH MAGIS) showing the location of the AAES campus and project area



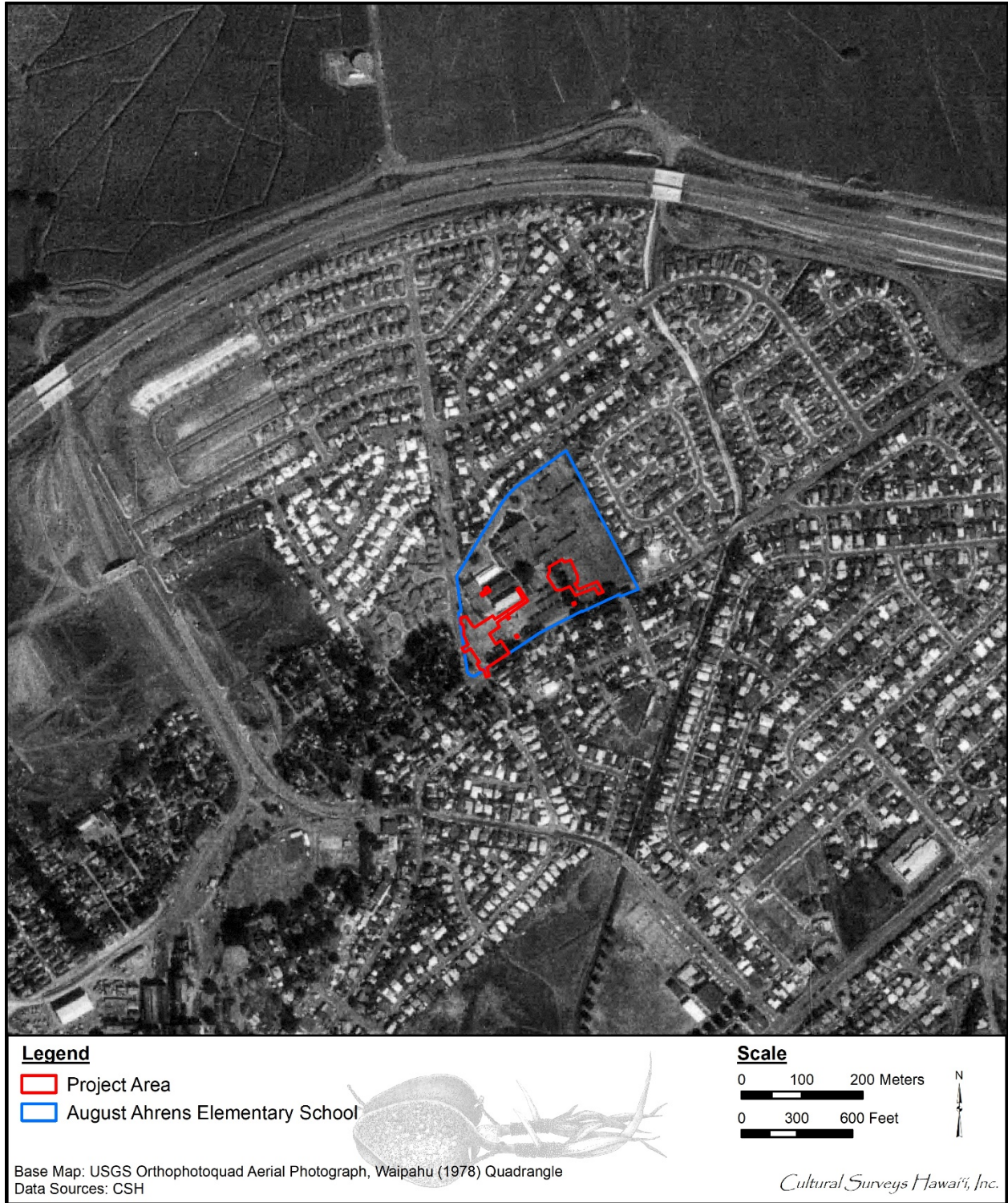


Figure 24. 1978 USGS Waipahu orthophotoquad showing the location of the AAES campus and project area

## 3.2 Previous Archaeological Research

Previous archaeological studies in the vicinity of the current project area are depicted in Figure 25 and are summarized in Table 1. The location of historic properties identified in the vicinity of the project area are shown on Figure 26 and are summarized in Table 2. A more detailed summary of these archaeological studies follows.

### 3.2.1 McAllister 1933

The earliest archaeological systematic documentation on O'ahu was conducted by J. Gilbert McAllister in the early 1930s. McAllister identified five sites in the vicinity of the AAES campus and project area: Site 122 (Ahuena Heiau), Site 123 (Loko Eo), Site 127 (Moko'ula Heiau), Site 128 (Waipahu Spring), and Site 129 (Hapupu Heiau) (see Figure 27).

Site 122 is the now destroyed 'Ahu'ena Heiau (meaning "red-hot heap"), located approximately 1.0 km southeast of the project area. McAllister describes what was left of the *heiau* (pre-Contact place of worship) during his site visit:

Site 122. Ahuena heiau, Halaulani, Waipio, just seaward of the Experimental Station of the Hawaiian Sugar Planters' Assn.

Only a small portion of paving of very small water-worn stones at the edge of the 25 foot elevation remains of what must have been an important heiau, for the site is known and remembered by all the old Hawaiians (*kamaaina*) in the district. There is a vague memory that this heiau was formerly located in the mountains in Honouliuli at Punahawele. Thrum states 'Hon. John Ii used to be the custodian of its idols.' [McAllister 1933:106]

Site 123 consists of Loko Eo, a large fish pond at the north end of Waipi'o Peninsula described by McAllister as follows.

The pond covers 137 acres. It is surrounded on three sides by land with a wall approximately 2040 feet in extent on the fourth side. The wall was about 6 feet wide of coral stone and about 4 feet high, with six *mākāhā*. The wall has been greatly widened now, forming a railroad track bed for the plantation train. [McAllister 1933:106]

Loko Eo is located approximately 1.2 km south of the project area, but was drained and filled by the military during the 1950s.

Site 127 is the now destroyed Moko'ula Heiau, located approximately 1.2 km southwest of the project area. McAllister describes what was left of the *heiau* during his site visit:

Site 127. (Destroyed) Mokoula Heiau, southwest of the main road in the village of Waipahu.

The heiau has been completely destroyed for the building purposes of the neighborhood. The site is at the edge of a 50 foot elevation which projects out into the present rice fields and was pointed out by Kaluawai, a *kamaaina* undoubtedly more than 100 years old. [McAllister 1933:106]



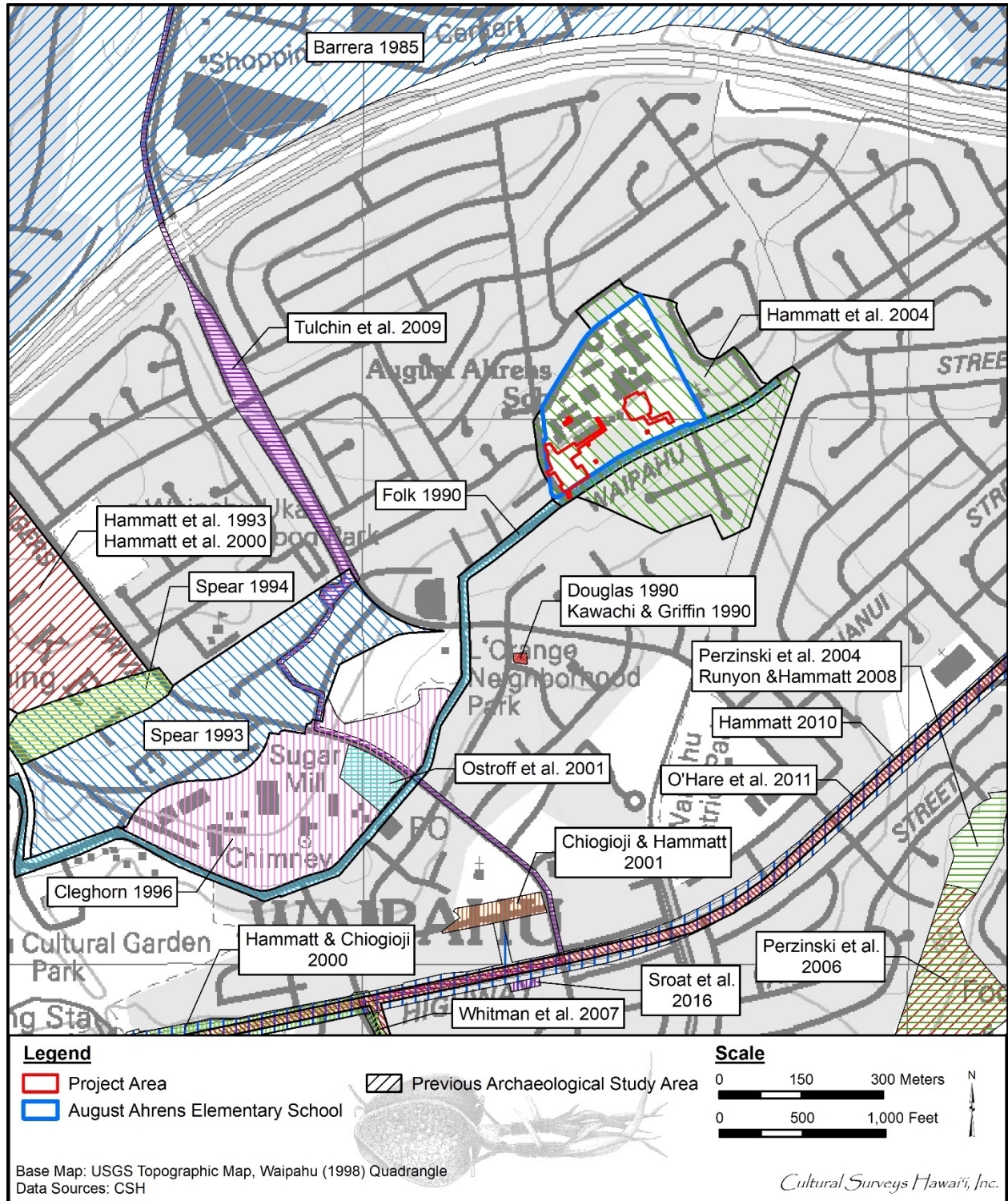


Figure 25. Previous archaeological studies in the vicinity of the AAES campus and project area (base map: 1998 Waipahu USGS topographic quadrangle)

Table 1. Previous archaeological studies in the vicinity of the project area

Reference	Type of Study	Location/Project	Results (SIHP # 50-80-09 unless otherwise noted)
McAllister 1933	Archaeological reconnaissance	Island-wide	Identified Site 122 (Ahuena Heiau), Site 123 (Loko Eo), Site 127 (Mokoula Heiau), Site 128 (Waipahu Spring), and Site 129 (Loko 'Eo)
Barrera 1985	Archaeological reconnaissance survey	Approx. 585 acres at Waikele and Waipi'o bounded on east by Kamehameha Hwy and on south by H-1 Freeway	Barrera (1985:3) reports, "No evidence of past utilization of any kind was observed either in the open fields or in the exposed earthen faces of irrigation ditches"; recommended no further archaeological work
Folk 1990	Archaeological reconnaissance	Waipahu St (from Amokili St to along <i>makai</i> side of AES)	No historic properties designated (a stone wall possibly relating to an OR&L railroad bed is discussed)
Kawachi and Griffin 1990, Douglas 1990	Inadvertent burial discovery 18132	94-1049 Kahuailani St, located approx. 300 m southwest of southwest portion of current project area	Identified one historic property: SIHP # -4245, early post-Contact human burial; companion Douglas (1990) osteological study confirmed skeletal remains from one female Polynesian, age 40-50 years
Hammatt et al. 1993	Archaeological investigations (reconnaissance)	39.6-acre parcel in <i>ahupua'a</i> of Waikele, bounded to northwest by H-1 Freeway, to northeast by Manager's Dr	Two archaeological sites located: 1) SIHP # -530, a previously recorded petroglyph field on a bluff along southwest boundary of study area and included at least 28 incised figures in four distinct groups; and 2) SIHP # -4660 comprised remnants of former Oahu Sugar Plantation camp (Higashi Camp) and management residences once spread over approx. half the study area (this would be revised in Hammatt et al. 2000)
Spear 1993	Archaeological reconnaissance	Former Oahu Sugar Mill location approx. 300 m southwest of southwest corner of present project area	Remains of abandoned plantation camp identified; determined not significant (no SIHP # assigned)

Reference	Type of Study	Location/Project	Results (SIHP # 50-80-09 unless otherwise noted)
Spear 1994	Archaeological reconnaissance (addendum to Spear 1993)	Included an additional approx. 5.5 acres adjacent to northwest side of Spear 1993 study area	Addendum reconnaissance "showed the parcel to be an abandoned plantation camp" (Spear 1994:1) but concluded "that no archaeological sites of any significance are in the project area and it is our recommendation that no further archaeological investigations need be performed there" (Spear 1994:1)
Cleghorn 1996	Archeological inventory survey	23 acres surrounding and including Oahu Sugar Mill approx. 300 m southwest of southwest corner of present project area	Oahu Sugar Co. infrastructure as observed throughout entire study area; 60% of infrastructure associated with sugar mill (machinery, buildings, paved and graded roadways) and 40% associated with Oahu Sugar Co. supervisors' residences, known as Skill Village (no SIHP # assigned)
Hammatt et al. 2000	Archeological inventory survey	40-acre parcel along western edge of Manager's Dr, located approx. 900 m west of current project area	Re-identified two historic properties: SIHP # -530, pre-Contact petroglyphs and # -4660, remnants of Oahu Sugar Co. plantation camp (Higashi Camp); follow-up to Hammatt et al. 1993
Hammatt and Chiogioji 2000	Literature review and field inspection	Farrington Hwy (from Anini Place to Waipahu Depot Rd)	No historic properties identified
Chiogioji and Hammatt 2001	Historical background study	Approx. 35,000-sq-ft parcel in Waipahu Town located on <i>mauka</i> 'Ewa corner of intersection of Mokuola St and Hikimoe St	No surface archaeological sites associated with traditional Hawaiian occupation observed; concluded land fill and modern activities associated with Waipahu Town eliminated any possible remnant of surface sites; additionally concluded subsurface evidence of traditional Hawaiian agricultural activities would have been severely impacted



Reference	Type of Study	Location/Project	Results (SIHP # 50-80-09 unless otherwise noted)
Ostroff et al. 2001	Inadvertent burial discovery	Filipino Community Center, located 600 m southwest of current project area	Identified one historic property: SIHP # -5882, pre-Contact human burial
Hammatt et al. 2004	Archaeological literature review and field inspection	Waipahu Streets Drainage Improvements project including AAES campus	No historic properties identified; concluded "decades of sugarcane cultivation, would have destroyed or extensively disturbed any subsurface historic properties"
Perzinski et al. 2004	Archaeological inventory survey	13-acre parcel located immediately southwest of Waipahu High School, approx. 600 m southeast of present project area	Three historic properties identified: SIHP # -6671, historic remnants of Brown estate consisting of concrete and cinder block foundations; SIHP # -6672, a subsurface cultural layer containing evidence of both pre- and post-Contact land use; and SIHP # -6673, a pre- and post-Contact cultural layer containing two pre-Contact flexed human burials
Perzinski et al. 2006	Archaeological data recovery	SIHP #s -6672 and -6673 at 10-acre project area (basically same as Perzinski et al. 2004 project area) located immediately southwest of Waipahu High School, approx. 600 m southeast of present project area	At SIHP # -6672, encountered two cultural material-bearing strata (Strata III and V); radiocarbon dating of six charcoal samples from data recovery work reported; two burials recovered (SIHP # -6673 Feature B [Burial 1] and Feature C [Burial 2])
Whitman et al. 2007	Archaeological literature review, field inspection, and cultural impact evaluation	Proposed Waipahu Depot St improvements south of Farrington Hwy	OR&L railroad bridge and ROW (SIHP # 50-80-12-9714) is only historic property discussed
Runyon and Hammatt 2008	Archaeological monitoring	13.22-acre Castle & Cooke Homes Hawai'i parcel in Waipi'o Peninsula, immediately southwest of Waipahu High School	No historic properties identified

Reference	Type of Study	Location/Project	Results (SIHP # 50-80-09 unless otherwise noted)
Tulchin et al. 2009	Archaeological inventory survey	“Makai Section” of Trunk Sewer Line for proposed Koa Ridge project, along Paiwa St, crossing H-1 freeway and running through existing bus parking lot, south on Mokuola St, west on Moloalo St and Farrington Hwy	One historic property identified, SIHP # -6959, plantation-era irrigation infrastructure including ditches and water control feature but was 3.2 km north of present project area
Hammatt 2010	Archaeological inventory survey	Construction phase I for Honolulu High-Capacity Transit Corridor Project	Only one historic property identified, SIHP # -7751, subsurface cultural deposit ( <i>lo'i</i> sediments), identified at proposed Waipahu Transit Center approx. 900 m south of present study area
O'Hare et al. 2011	Archaeological literature review and field inspection	Honouliuli /Waipahu/ Pearl City Wastewater Facilities project arced around much of northern Pearl Harbor; work in vicinity of present project area focused on vicinity of Waipahu wastewater pumping station	Noted a number of native tenant LCAs in this area; short distance <i>mauka</i> of their study area significant Hawaiian community near Kapakahi Stream (Waipahu Depot Rd) and modern-day Farrington Hwy
Sroat et al. 2016	Archaeological data recovery	SIHP # -7751, located approx. 900 m south of present project area near proposed Waipahu Transit Station of Honolulu Rail Transit Project	Based on characteristics of Stratum IIb as well as radiocarbon dating results of speciated charcoal, Stratum IIb interpreted as <i>lo'i kalo</i> sediment associated with pre-Contact to early post-Contact agriculture

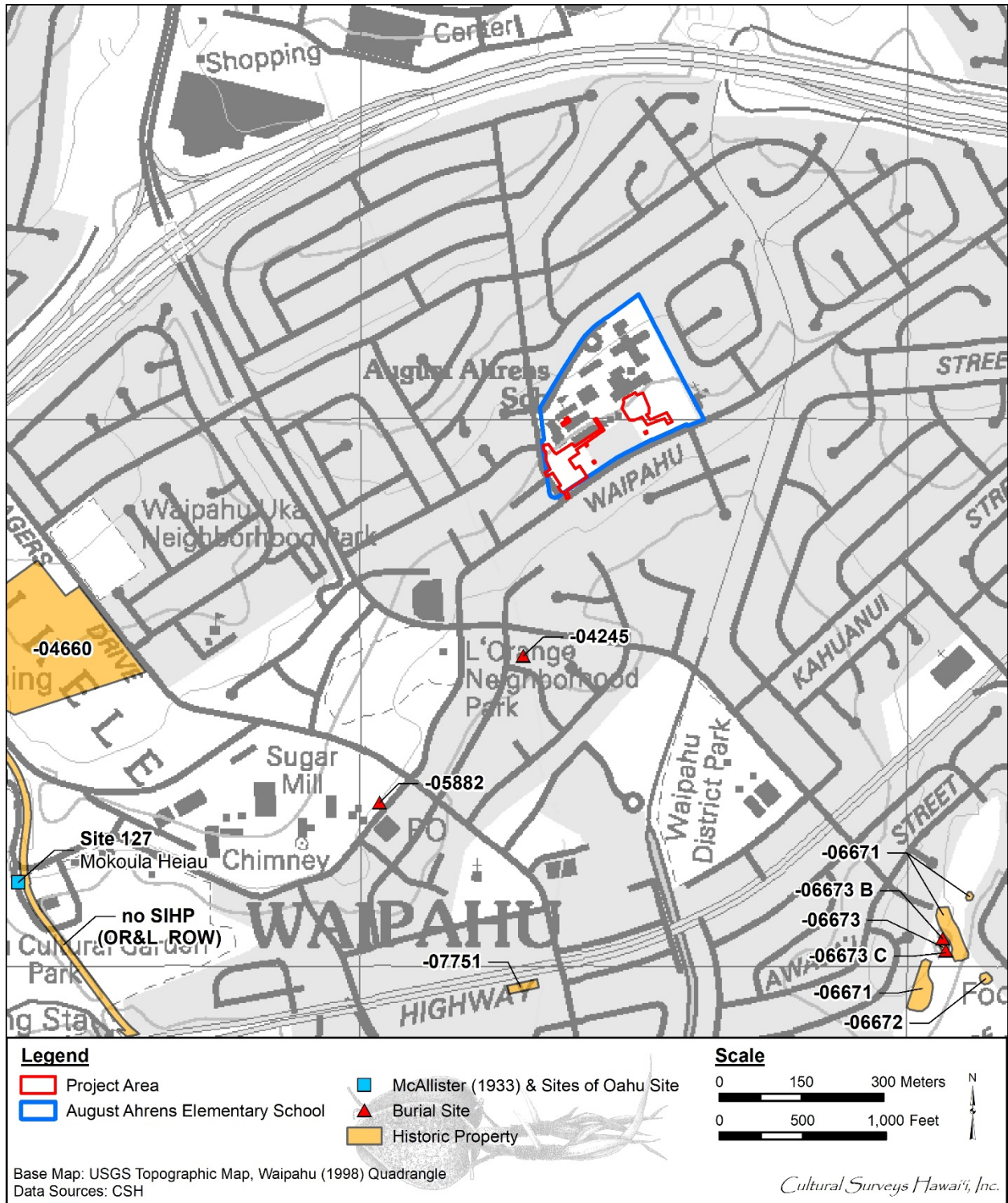


Figure 26. Historic properties in the vicinity of the AAES campus and project area (base map: 1998 Waipahu USGS topographic quadrangle)

Table 2. Table of previously identified historic properties in the vicinity of the project area

SIHP # 50-80-09-)	Nature of Site	Comment	Source
McAlister Site 127	Heiau (Moko'ula Heiau)	Reported as "completely destroyed for the building purposes of the neighborhood"	McAllister 1933:106
-4245	Burial (human, one individual)	Post-Contact	Kawachi and Griffin 1990
-4660	Remnants of an Oahu Sugar Co. plantation camp (Higashi Camp)	Included concrete building foundations, stone and mortar walls, road remnants, etc.	Hammatt et al. 1993, Hammatt et al. 2000
-5882	Burial (human, one individual)	Based on the lack of burial goods, a flexed burial position, and stratigraphic observations, the burial was determined to be of pre-Contact origin and ethnically Hawaiian	Ostroff et al. 2001
-6671	Historic remnants of the Brown estate	Consisting of concrete and cinder block foundations	Perzinski et al. 2004
-6672	Subsurface cultural layer	Containing evidence of both pre- and post-Contact land use	Perzinski et al. 2004
-6673	Subsurface cultural layer	A pre- and post-Contact cultural layer containing two pre-Contact flexed human burials (SIHP # -6673 Feature B (Burial 1) and Feature C (Burial 2))	Perzinski et al. 2004
-7751	Subsurface agricultural sediment (likely from cultivation of wetland <i>kalo</i> (taro)—buried <i>lo'i</i> deposit)	Carbon dating was problematic.	Hammatt 2010, Sroat et al. 2016
No SIHP # assigned (OR&L ROW)	Railroad	The Folk (1990:11, 14) study notes a stone wall "that appears to be the facing of an old railroad bed) and cites a Spencer Mason Architects (1990) study regarding an OR&L railroad Right-of-Way	Folk 1990

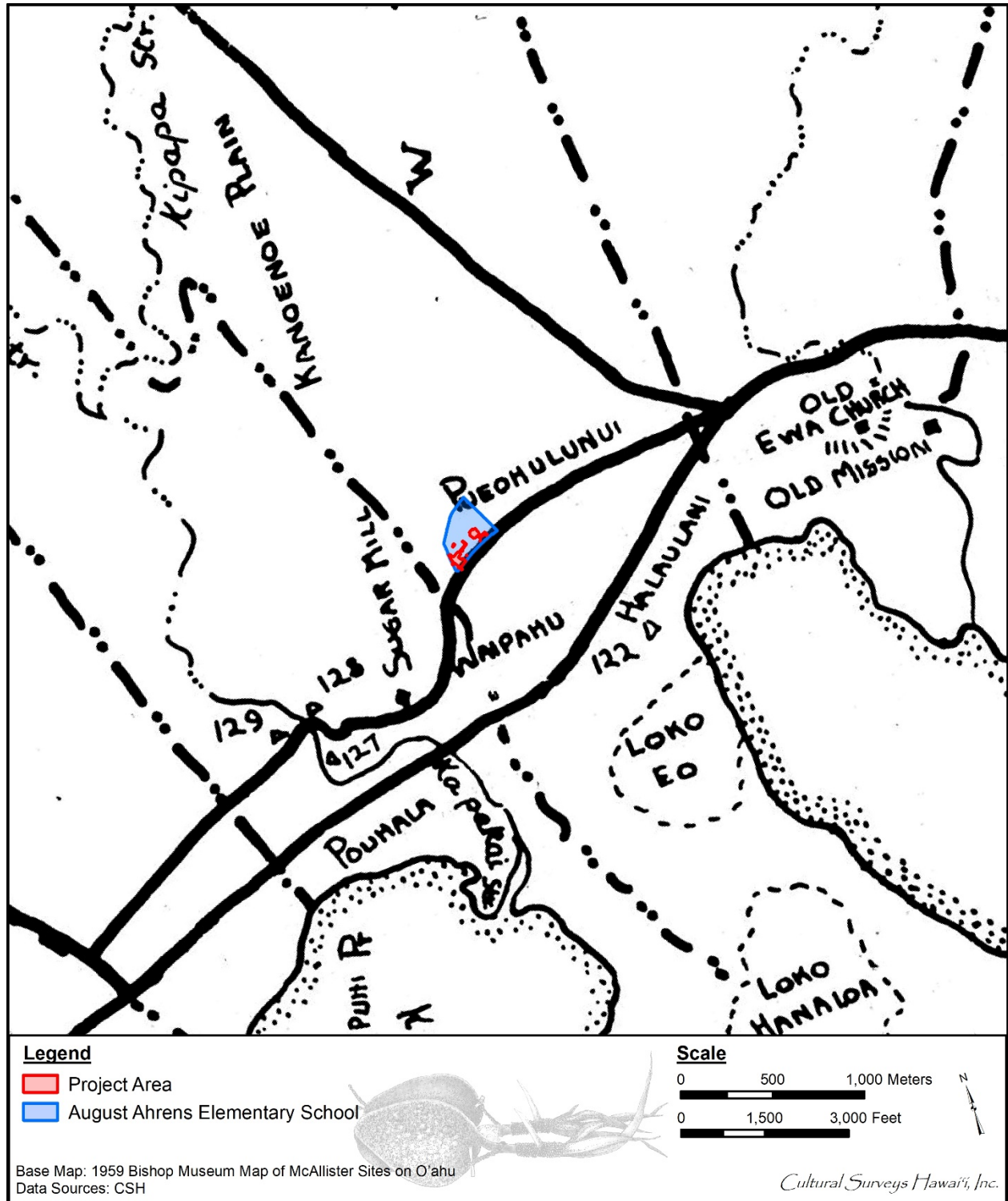


Figure 27. 1959 Bishop Museum map of Ewa showing McAllister sites in the vicinity of the AAES campus and project area including: Site 122 (Ahuena Heiau), Site 123 (Loko Eo), Site 127 (Moko'ula Heiau), Site 128 (Waipahu Spring), and Site 129 (Hapupu Heiau)

Site 128 consists of Waipahu Spring located approximately 1.0 km west of the project area. A pump had already been placed over the spring upon McAllister visit of the site. McAllister describes that the spring was the place “at which the tapa mallet appeared after having been lost in Kahuku” (McAllister 1933:106).

Site 129 is the now destroyed Hapupu Heiau, located approximately 1.2 km west of the project area. McAllister describes what was left of the *heiau* during his site visit:

Site 129. (Destroyed) Heiau, Waipahu, said to be named Hapupu.

The Waipahu plantation stables on the mountain side of the road across from the schoolhouse west of the town now occupy the site of the former heiau at Waikele. Nothing remains of the heiau. According to Thrum it was a ‘Heiau pookanaka, where the chief Hao was surprised during temple worship and slain with his priest and attendant chiefs by direction of the moi of Oahu, about 1650.’ The site was pointed out by Kapano. [McAllister 1933:106]

### 3.2.2 Barrera 1985

William (Bill) Barrera Jr. (1985) of Chiniago Inc. produced a brief (5-page) report on an archaeological reconnaissance survey of approximately 585 acres which he understood as at Waikele bounded on the east by Kamehameha Highway and on the south by the H-1 Freeway. This large area extended south to within approximately 400 m of the present project area. Barrera (1985:3) reports, “No evidence of past utilization of any kind was observed either in the open fields or in the exposed earthen faces of irrigation ditches.” He recommended no further archaeological work.

### 3.2.3 Folk 1990

In 1990, CSH conducted an archaeological reconnaissance for the proposed Waipahu Street widening project along Waipahu Street (generally a 75-ft wide swath including roadway, shoulders, and sidewalk) from Amokii Street on the west along the length of the *makai* side of AAES. No historic properties were identified, however, based on background research it was determined that pre-Contact and early post-Contact archaeological remains may be preserved beneath urban streets and construction (Folk 1990). Archaeological monitoring of all ground disturbances was recommended.

### 3.2.4 Kawachi and Griffin 1990 and Douglas 1990

In 1990, SHPD (Kawachi and Griffin 1990) responded to an inadvertent burial discovery at 94-1049 Kahuailani Street, located approximately 300 m southwest of the southwest portion of the current project area. The burial was discovered during grading in preparation to construct a house foundation. SHPD determined the burial to be non-Hawaiian and that disinterment would be the appropriate mitigation (Kawachi and Griffin 1990). The burial was observed to be in a supine position and was approximately 1 m below the existing ground surface. Artifacts collected during disinterment consisted of a pair of scissors, a mirror, and over a thousand colored glass beads. The artifact assemblage suggested the burial was of post-Contact origin. This burial has been designated as State Inventory of Historic Places (SIHP) # 50-80-09-4245.

Michele Douglas (1990) of the University of Hawai'i carried out a companion osteological study for the find concluding the skeletal remains were from one female Polynesian, age 40-50



years. The disposition of the remains was left to the O'ahu Island Burial Council (OIBC) and the State Historic Sites Office but the resolution is unknown to CSH.

### **3.2.5 Hammatt et al. 1993**

CSH (Hammatt et al. 1993) reported on archaeological investigations of a 39.6-acre parcel in the *ahupua'a* of Waikele bounded to the northwest by the H-1 Freeway, and to the northeast by Manager's Drive. Two archaeological sites were located: 1) SIHP # -530 was a previously recorded petroglyph field on a bluff along the southwest boundary of the study area and included at least 28 incised figures in four distinct groups; and 2) SIHP # -4660 comprised remnants of the former Oahu Sugar Plantation camp (Higashi Camp) and management residences that once spread over approximately half of the study area.

### **3.2.6 Spear 1993**

In 1993, Scientific Consultant Services (SCS) (Spear 1993) conducted a reconnaissance survey at the site of proposed rezoning and development for the Oahu Sugar Mill project (TMK: [1] 9-4-002: various) approximately 300 m southwest of the southwest corner of the present project area. Extensive cutting, grading, and bulldozer push piles were observed throughout the area. The remains of an abandoned plantation camp associated with the Oahu Sugar Company were observed in the southwestern portion of the project area, and consisted primarily of concrete and stone house foundations and historic wall segments. Spear (1993) concluded there were no significant archaeological sites within the project area and thus no further archaeological work was recommended.

### **3.2.7 Spear 1994**

SCS (Spear 1994) produced what was basically an addendum to the Spear (1993) study for the Oahu Sugar Mill project that was expanded to include additional acreage (approximately 5.5 acres adjacent to the northwest side of the Spear 1993 study area). This addendum reconnaissance "showed the parcel to be an abandoned plantation camp" (Spear 1994:1) but it was concluded "that no archaeological sites of any significance are in the project area and it is our recommendation that no further archaeological investigations need be performed there" (Spear 1994:1).

### **3.2.8 Cleghorn 1996**

In 1996, Pacific Legacy (Cleghorn 1996) conducted an archaeological inventory survey of 23 acres surrounding and including the Oahu Sugar Mill (TMK: [1] 9-4-002: por. 004) approximately 300 m southwest of the southwest corner of the present project area. Oahu Sugar Company infrastructure was observed throughout the entire study area. Sixty percent of the infrastructure was associated with the sugar mill (machinery, buildings, paved and graded roadways) and 40% was associated with Oahu Sugar Company supervisors' residences, known as Skill Village. No historic property designation was assigned to the Oahu Sugar Company infrastructure as it was considered to be "outside the scope of work" of the project (Cleghorn 1996: 13).

### **3.2.9 Hammatt et al. 2000**

In 2000, CSH (Hammatt et al. 2000) conducted an archaeological inventory survey of a 40-acre parcel along the western edge of Manager's Drive (TMK: [1] 9-4-002:005), located approximately 900 m west of the current project area. Two historic properties were identified: SIHP # -530, a pre-

Contact petroglyph field, and SIHP # -4660, the remnants (concrete building foundations, stone and mortar walls, road remnants, etc.) of an Oahu Sugar Company plantation camp (Higashi Camp). SIHP # -530 was recommended for preservation, while no further work was recommended for SIHP # -4660 (Hammatt et al. 2000).

### **3.2.10 Hammatt and Chiogioji 2000**

In 2000, CSH (Hammatt and Chiogioji 2000) conducted an archaeological assessment (literature review and field inspection) of an approximately 26,000-ft portion of Farrington Highway between Anini Place and Waipahu Depot Road, extending to within 1.0 km southwest of the present project area. No historic properties were identified during a field inspection of the study area. No further work was recommended as it was believed that decades of urban development would have removed the presence of any subsurface cultural deposits that may have once been present (Hammatt and Chiogioji 2000).

### **3.2.11 Chiogioji and Hammatt 2001**

CSH (Chiogioji and Hammatt 2001) prepared a historical background summary of an approximately 35,000-sq-ft parcel in Waipahu Town located on the *mauka*/'Ewa corner of the intersection of Mokuola Street and Hikimoe Street. During the field inspection, no surface archaeological sites associated with traditional Hawaiian occupation were observed in a portion of the project area. It was concluded that land fill and modern activities associated with Waipahu Town have eliminated any possible remnant of surface sites. Additionally, it was concluded that subsurface evidence of traditional Hawaiian agricultural activities would have been severely impacted by the importation of modern landfill materials.

### **3.2.12 Ostroff et al. 2001**

In 2001, Archaeological Consultants of the Pacific, Inc. (Ostroff et al. 2001) conducted archaeological documentation and disinterment of a human burial inadvertently discovered during the installation of a storm drain at the Filipino Cultural Center (TMK: [1] 9-4-161:001), located 600 m southwest of the current project area. The burial, designated as SIHP # -5882, was located approximately 1 m below the existing surface within a dark yellowish brown silty clay. Observations of in situ portions of the burial, not impacted by construction, indicated a flexed position. Also of note was that the burial was capped by a stratum containing historic debris but was situated within a stratigraphic layer that did not contain evidence of historic land use. Thus based on the lack of burial goods, a flexed burial position, and stratigraphic observations, the burial was determined to be of pre-Contact origin and ethnically Hawaiian (Ostroff et al. 2001).

### **3.2.13 Hammatt et al. 2004**

In 2004, CSH (Hammatt et al. 2004) conducted an archaeological and cultural assessment (literature review and field inspection) of an approximately 38-acre area in support of a proposed Waipahu Street Drainage Improvements project. The project area map (Hammatt et al. 2004:3; see Figure 28) is understood to include the entire present project area including the short extensions into Mahoe Street and Waipahu Street. The Hammatt et al. (2004) study included almost the entirety of the AAES campus (with seemingly just a sliver omitted on the northwest edge, outside the present project area, see Figure 28), and substantial adjacent areas to the east and south. No historic properties were identified during a field inspection of the study area. It was concluded that "[...] excavation and grading of the project area during construction in the area, preceded by the

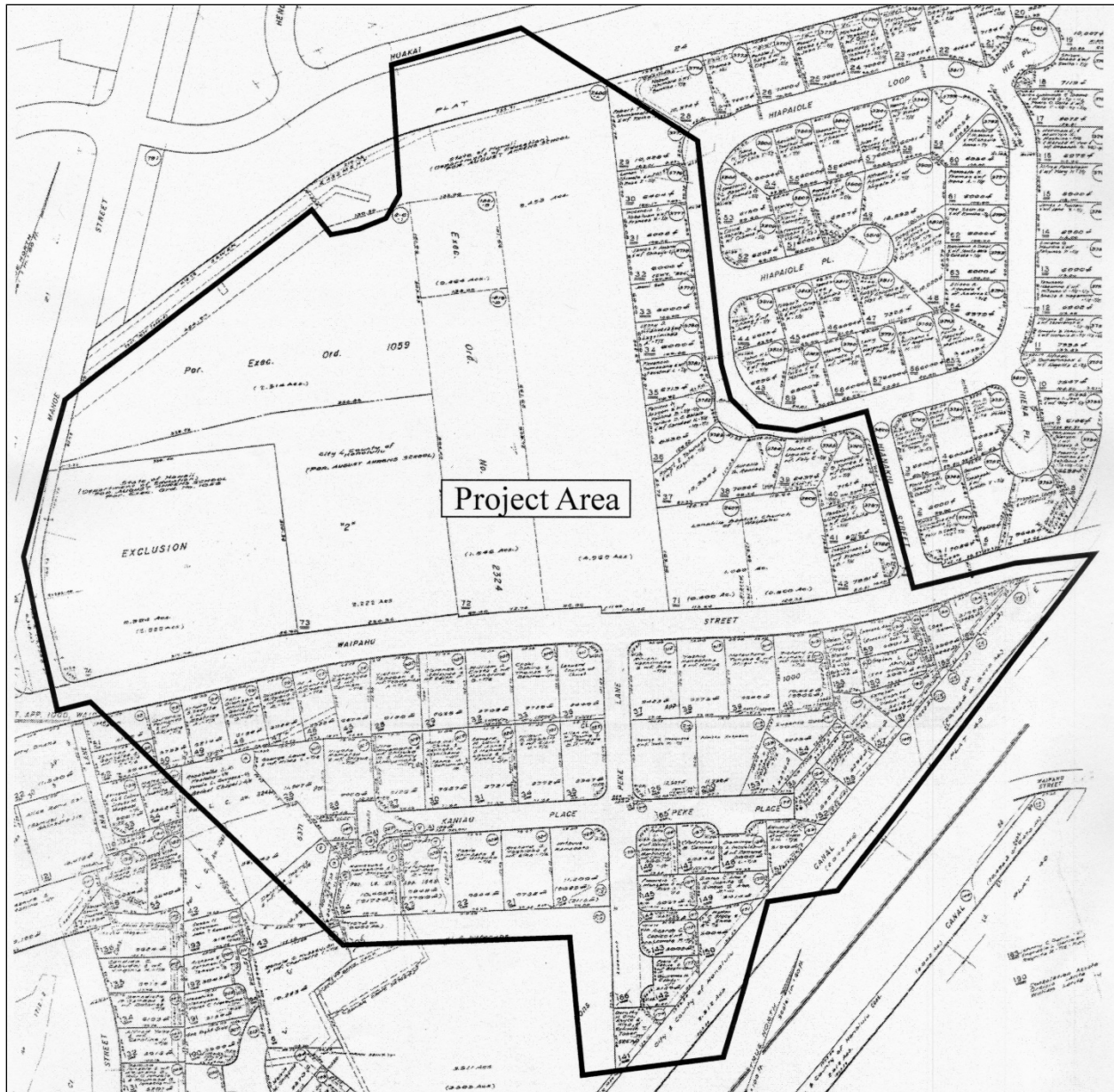


Figure 28. Project area map from the Hammatt et al. (2004:3) “Archaeological and Cultural Assessment in Support of the Waipahu Street Drainage Improvements project” understood to include the entire present project area, almost the entirety of the AAES campus, and substantial adjacent areas to the east and south

decades of sugarcane cultivation, would have destroyed or extensively disturbed any subsurface historic properties” (Hammatt et al. 2004:28). They conclude that for their study area “No further archaeological or cultural impact study work is recommended” (Hammatt et al. 2004:28).

### **3.2.14 Perzinski et al. 2004**

In 2004, CSH (Perzinski et al. 2004) conducted an archaeological inventory survey of a 13-acre parcel located immediately southwest of Waipahu High School, approximately 600 m southeast of the present project area. Three historic properties were identified: SIHP # -6671, the historic remnants of the Brown estate consisting of concrete and cinder block foundations; SIHP # -6672, a subsurface cultural layer containing evidence of both pre- and post-Contact land use; and SIHP # -6673, a pre- and post-Contact cultural layer containing two pre-Contact flexed human burials.

### **3.2.15 Perzinski et al. 2006**

CSH (Perzinski et al. 2006) prepared an archaeological data recovery report for SIHP #s -6672 and -6673 parcel located immediately southwest of Waipahu High School, approximately 600 m southeast of the present project area, in Waipi'o Ahupua'a. At SIHP # -6672, two cultural material-bearing strata (Strata III and V) were encountered. Radiocarbon dating of six charcoal samples from the data recovery work are reported. Two burials were recovered (SIHP # -6673 Feature B Burial 1] and Feature C [Burial 2]). The off-site reburial location is within South Hālawā on 'Ewa Forest Reserve lands owned by the Queen Emma Foundation.

### **3.2.16 Whitman et al. 2007**

CSH (Whitman et al. 2007) carried out an archaeological literature review, field inspection, and cultural impact evaluation for proposed Waipahu Depot Street improvements south of Farrington Highway. The OR&L railroad bridge and ROW (SIHP # 50-80-12-9714) is the only historic property discussed.

### **3.2.17 Runyon and Hammatt 2008**

CSH (Runyon and Hammatt 2008) prepared an archaeological monitoring report for a 13.22-acre Castle & Cooke Homes Hawai'i parcel in Waipi'o Peninsula, immediately southwest of Waipahu High School approximately 600 m southeast of the present project area. No historic properties were identified.

### **3.2.18 Tulchin et al. 2009**

CSH (Tulchin et al. 2009) carried out an archaeological inventory survey for a trunk sewer line alignment as part of off-site improvements for the Koa Ridge Makai Community Development project in Waipi'o and Waikele Ahupua'a. The approximately 6-km (3.7-mile) long, 6-m (20-ft) wide project corridor included a *makai* segment (nearest the present project area) that extended south along Paiwa Street, crossing the H-1 freeway and running through an existing bus parking lot (TMKs: [1] 9-4-096:149 and 9-4-002:024), then making its way south on Mokuola Street, heading west on Moloalo Street and Farrington Highway, and then making a final turn south along Waipahu Depot Road where that project area terminated at the Waipahu Wastewater Pump Station. One historic property was reported, SIHP # -6959, consisting of plantation-era irrigation infrastructure including ditches and a water control feature, but this was 3.2 km north of the present project area.

### 3.2.19 Hammatt 2010

CSH (Hammatt 2010) carried out an archaeological inventory survey of construction phase I for the Honolulu High-Capacity Transit Corridor Project. The 7.4-mile long project area extended along Farrington Highway seaward of the present study area. Only one historic property was identified in this project area, SIHP # -7751, subsurface cultural deposit (*lo'i* sediments), were identified at the proposed Waipahu Transit Center approximately 900 m south of the present study area.

### 3.2.20 O'Hare et al. 2011

CSH (O'Hare et al. 2011) carried out an archaeological literature review and field inspection for a Honouliuli/Waipahu/Pearl City Wastewater Facilities project that arced around much of northern Pearl Harbor. Work in the vicinity of the present project area focused on the vicinity of the Waipahu wastewater pumping station approximately 1,250 m south of the present project area. It was noted that there were a number of native tenant Land Commission Awards in this area and that a short distance *mauka* of their study area there was a significant Hawaiian community near Kapakahi Stream (Waipahu Depot Road) and modern-day Farrington Highway.

### 3.2.21 Sroat et al. 2016

CSH (Sroat et al. 2016) prepared an archaeological data recovery report for SIHP # -7751, located approximately 900 m south of the present project area near the proposed Waipahu Transit Station of the Honolulu Rail Transit Project. Based on the characteristics of Stratum IIb as well as radiocarbon dating results of specciated charcoal, which ranged from AD 1412–1468 within the basal portion to AD 1679–1765 or AD 1800–1940 within the upper portion, Stratum IIb is interpreted as *lo'i kalo* sediment associated with pre-Contact to early post-Contact agriculture.

## 3.3 Background Summary and Predictive Model

Waipahu Street on the *makai* edge of the campus, and indeed partially crossed by the present project (see Figure 3 and Figure 4) was the approximate route of the Ala Aupuni or Government Road which was the main cross-*ahupua'a* trail connecting the Kona and east 'Ewa districts with west 'Ewa, Wai'anae, Wahiawā and central O'ahu and Waialua districts. This trail may have always been somewhat braided in this area but this trail alignment would have been the major pedestrian path for centuries and then was the major horse and vehicular route right up through the mid-1930s (see Figure 17) until the establishment of Farrington Highway. While this route was of some import it seems unlikely there would be associated significant subsurface cultural deposits or artifacts.

In terms of the campus itself, this seems to have been too dry and too far from the coast for any development prior to twentieth century commercial sugarcane cultivation. It is possible that some subsurface remnant of the plantation railroad established along the north (northwest) side of the campus by 1919 (see Figure 13) may be present but the present project does not impact that area. No other trace of Oahu Sugar Company land use would be expected.

The AAES was established relatively early on 1 September 1924 with an administration building and 14 classrooms focused on the southwest corner of the present-day campus. It is certainly possible some subsurface remnants of this 97-year-old school may be encountered in the present project but it is thought likely that building demolition and construction over time in this area would have decreased the integrity of any such traces of the early history of the school.

## Section 4 Results of Fieldwork

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A field inspection of the AAES, focused on the indicated project area(s), was carried out by CSH archaeologist David W. Shideler, M.A., on 17 November 2021. An archaeologist's track log and a key to the following photographs showing the general location from which the photographs were taken and the approximate orientation of the photographs is provided in Figure 29.

The field inspection initially focused on the southwest project area (in the southwest corner of the AAES campus) located close to the intersection of bounding Waipahu Street and Mahoe Street. A view from the northwest corner of this portion of the project area (Figure 30) gives a general feeling for the project area, which is flat and open and dominated by a large central paved ball court. While most of this portion of the project area is in maintained lawn, the photograph of an area of informal faculty parking shows an exposure of the ground surface consistent with the designation of Waipahu silty clay soil. Another view (Figure 31) looking obliquely across the project area from the central north side shows most of this discrete southwest project area. A long narrow corridor of this project area extends to the northeast between existing buildings (Figure 32, Figure 33, and Figure 34). This southwest project area extends out into Mahoe Street near the intersection of Mahoe Street and Hapapa Street (see Figure 29 and Figure 35) and into Waipahu Street near the intersection with Ana Lane (see Figure 29 and Figure 36). Additional representative photos are supplied from the *makai* side at the southeast corner (Figure 37) and the southwest corner (Figure 38) of the southwest project area. No surface historic properties were observed in the southwest project area and the prospect for significant subsurface historic properties was evaluated as low.

The south-central project area was approached from the Waipahu Street (southeast) edge of the campus. A gate off the *mauka* (north) side of a AAES driveway that parallels Waipahu Street marks the entrance to this portion of the project (Figure 39). General views of this south-central project area are also provided from the central west (Figure 40), central northwest (Figure 41), and central northeast sides (Figure 42). No surface historic properties were observed in the south-central project area and the prospect for significant subsurface historic properties was evaluated as low.

Views of three small discrete areas of indicated drain improvements on the southeast side of the campus are provided (Figure 43, Figure 44, and Figure 45). Views of a small discrete northwest area of indicated improvements are provided in Figure 46 and Figure 47. No surface historic properties were observed in these areas and the prospect for significant subsurface historic properties was evaluated as low.

In an effort to be helpful for future development projects at AAES, a very brief field inspection was made of the north (northwest) edge of the campus, understood to have been effectively defined by the presence there of an Oahu Sugar Company plantation railroad constructed in the early twentieth century (prior to 1919, see Figure 13) and to have been maintained until after 1943 (see Figure 18), and it is believed to subsequently have been converted into a haul cane road ca. 1950 and to have been used in that capacity until after 1968 (see Figure 23). Along most of the north edge of the campus no indication of the former plantation railroad/road was observed. Approaching the west side of the north corner of the AAES campus, a narrow terrace was observed possibly relating to the former plantation railroad bed (Figure 48). It appeared that this linear



terrace was a construction of basalt boulders and cobbles as would be commensurate with a former plantation railroad bed (Figure 49). This is not close to the present project areas and is suggested to not be a concern for the present AAES projects.



Figure 29. Photo key showing the archaeologist’s track log and the general location and direction of the following photographs (base map: ESRI 2020)





Figure 30. Photo A: General view of the southwest project area from the northwest corner (Mahoe Street at right, Waipahu Street in background), view to southeast



Figure 31. Photo B: General view of the southwest project area from the central north side, view to south





Figure 32. Photo C: General view of the southwest project area, looking down the long, narrow northeast corridor, view to east



Figure 33. Photo D: General view of the southwest project area, looking down the long, narrow northeast corridor, view to southwest





Figure 34. Photo E: General view the southwest project area, looking down the northwest/southeast trending corridor at the northwest end, view to southeast



Figure 35. Photo F: General view of indicated Mahoe Street portion of the southwest project area (near the intersection with Hapapa Street at upper left), view to southwest





Figure 36. Photo G: General view of the Waipahu Street portion of the southwest project area near the intersection with Ana Lane (background, center), view to south



Figure 37. Photo H: General view of the southwest project area from southwest corner, view to north





Figure 38. Photo I: General view of the southwest project area from southeast corner, view to west



Figure 39. Photo J: General view of south-central project area from southeast end (Waipahu Street side), view to northwest





Figure 40. Photo K: General view of south-central project area from the central west side, view to northeast



Figure 41. Photo L: General view of south-central project area from the central northwest side, view to southeast (toward Waipahu Street)





Figure 42. Photo M: General view of south-central project area from the central northeast side, view to southwest



Figure 43. Photo N: View of a small, discrete portion of the project area centered on a drain south of the south-central project area, view to southwest





Figure 44. Photo O: View of a small, discrete portion of the project area centered on a *makai* drain east of the main portion of the southwest project area, view to southwest



Figure 45. Photo P: View of a small, discrete portion of the project area centered on a *mauka* drain east of the main portion of the southwest project area, view to southwest





Figure 46. Photo Q: View of a small, discrete northwest portion of the project area, view to northeast



Figure 47 Photo R: View of a small, discrete northwest portion of the project area, view to southwest





Figure 48. Photo S: View of a narrow terrace on the extreme north edge of the AAES campus (outside the present project areas), looking toward the north corner of the campus, possibly showing a former plantation railroad bed, view to northeast



Figure 49. Photo T: View of an exposed face of the narrow terrace on the extreme north edge of the AAES campus, near the north corner of the campus (outside the present project areas), possibly showing a former plantation railroad bed, seemingly constructed of basalt boulder and cobbles, view to northwest

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## Section 5 Summary and Recommendations

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### 5.1 Summary

The AAES campus is understood as adjacent to the north of the main cross-*ahupua'a* trail across 'Ewa District connecting with the Kona and Waiana'e districts (known as the Ala Aupuni, Government road and Road to Honolulu, see Figure 10, Figure 11, Figure 12). Although possibly somewhat braided, this is understood as the most important pedestrian route in 'Ewa for centuries prior to Western Contact. This evolved into a horse path, cart path, and modern Waipahu Street, and maintained its preeminence as a thoroughfare until the construction of Farrington Highway shortly after 1935. While many would have traversed this path in pre-Contact and early post-Contact times, there is no reason to believe there was other development in the immediate vicinity. The main habitation and agricultural area of Waipi'o Ahupua'a was quite coastal with scattered habitations and planting areas in the uplands along river bottoms and elevations of higher rainfall. There were no native tenant Land Commission Awards in the vicinity of the AAES (see Figure 9). There was no close source of potable water or significant land forms as would have attracted Hawaiians and early foreigners to linger. The AAES was somewhat distant from the rich marine resources for which 'Ewa was famous. Nineteenth century maps such as the 1851 Bishop map (see Figure 10), the 1873 Alexander map (see Figure 11), and the 1894 Kananui map (see Figure 12) show no development in the vicinity other than the cross-*ahupua'a* trail.

This would change with the development of commercial sugarcane agriculture particularly under Oahu Sugar Company. It appears that much (or all) of the AAES campus was under sugarcane cultivation from before 1919 (see Figure 13) until the construction of the AAES (opened on 1 September 1924). Commercial sugarcane cultivation in the east portion of the campus would continue until after 1968 (see Figure 23). The north (northwest) edge of the campus is understood to have been effectively defined by the presence there of an Oahu Sugar Company plantation railroad constructed prior to 1919 (see Figure 13) and to have been maintained until after 1943 (see Figure 18), and believed to subsequently have been converted into a haul cane road ca. 1950 and to have been used in that capacity until after 1968 (see Figure 23). As noted in the "Results of Fieldwork" section above, remnants of this railroad may be present on the AAES campus—but these possible remnants are far from the present project area(s). No other historic properties are indicated on the AAES campus or within 300 m of the campus (other than possibly the school itself and Waipahu Street).

Although the AAES is understood to be more than 97 years old, no features of the early history of the campus were observed (the AAES is not understood as having undergone any study for historic architecture to date).

### 5.2 Recommendations

No historic properties have been previously reported for the AAES campus or within 300 m of the AAES campus, and no historic properties were identified in the project area during the present fieldwork, which supports a DOE determination (as per HAR §13-275-7[a][1]) of "No historic properties affected" and no further archaeological work. It is recommended that the DOE notify the SHPD of the proposed project and request a letter of determination (as per HAR §13-275-3) and concurrence with this effect determination.



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- 1943 U.S. Army War Department terrain map, Aiea and Waipahu quadrangles. USGS Information Services, Denver, Colorado.

**USDA (U.S. Department of Agriculture)**

- 1962 Aerial photograph of Waipio (UH MAGIS, <http://magis.manoa.hawaii.edu/gis/georeferenced/index.html>).
- 2001 Soil Survey Geographic (SSURGO) database. U.S. Department of Agriculture, Natural Resources Conservation Service. Fort Worth, Texas. <http://www.ncgc.nrcs.usda.gov/products/datasets/ssurgo/> (accessed March 2005).

**USGS (U.S. Geological Survey)**

- 1928 Waipahu USGS 7.5-minute series topographic quadrangle. USGS Information Services, Denver, Colorado.
- 1954 Waipahu USGS 7.5-minute series topographic quadrangle. USGS Information Services, Denver, Colorado.
- 1959 USGS aerial photograph, Waipio. USGS Information Services, Denver, Colorado.
- 1968 Waipahu USGS 7.5-minute series topographic quadrangle. USGS Information Services, Denver, Colorado.
- 1968 USGS aerial photograph (UH MAGIS, <http://magis.manoa.hawaii.edu/gis/georeferenced/index.html>).

- 1978 USGS Orthoimagery, Waipahu Quad. (Aerial photograph). USGS Information Services, Denver, Colorado.
- 1998 Waipahu USGS 7.5-minute series topographic quadrangle. USGS Information Services, Denver, Colorado.

**Waihona 'Aina**

- 2021 *The Māhele Database*. Electronic document, <http://waihona.com> (accessed 10 April 2014).

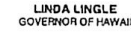


**Whitman, Kathryn, Matthew J. Bell, and Hallett H. Hammatt**

- 2007 *Archaeological Literature Review, Field Inspection, and Cultural Impact Evaluation for the Proposed Waipahu Depot Street Improvements, Waikele Ahupua'a, 'Ewa District, Island of O'ahu TMK: [1] 9-3-002: por. 009*. Cultural Surveys Hawai'i, Inc., Kailua, Hawai'i.





# Appendix A SHPD Correspondence

March 23, 2004 Log No. 2004.847, Doc. No. 0403EJ46

 <p>LINDA LINGLE GOVERNOR OF HAWAII</p>	 <p>RECEIVED MAR 25 2004 HISTORICAL</p>	<p>PETER T. YOUNG CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT</p> <p>DAN DAVIDSON DEPUTY DIRECTOR - LAND</p> <p>ERNEST Y.W. LAU DEPUTY DIRECTOR - WATER</p> <p>AQUATIC RESOURCES BOATING AND OCEAN RECREATION BUREAU OF CONVEYANCES COMMISSION ON WATER RESOURCE MANAGEMENT CONSERVATION AND COASTAL LANDS CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING FORESTRY AND WILDLIFE HISTORIC PRESERVATION KAHOOLAWE ISLAND RESERVE COMMISSION LAND STATE PARKS</p>
 <p><b>STATE OF HAWAII</b> <b>DEPARTMENT OF LAND AND NATURAL RESOURCES</b></p> <p>HISTORIC PRESERVATION DIVISION KAKUHIHEWA BUILDING, ROOM 555 601 KAMOKILA BOULEVARD KAPOLEI, HAWAII 96707</p> <p>HAWAII HISTORIC PRESERVATION      MAR 23 2004 DIVISION REVIEW</p> <p style="text-align: right;">Log #: 2004.847 Doc #:0403EJ46</p>		
<p>Applicant/Agency:      Glen T. Kimura    Kimura International</p> <p>Address:                    1600 Kapiolani Blvd., Suite 1610    Honolulu, Hawaii 96814</p> <p>SUBJECT:                  Chapter 6E-8 Historic Preservation Review-Pre EA Comments for City &amp;    County of Honolulu, Department of Design and Construction Waipahu Street    Drainage Improvements</p> <p>Ahupua`a:                  Waipahu District, Island:          `Ewa, O`ahu TMK:                        (1) 9-4-009:various</p>		
<p>1. We believe there are no historic properties present, because:</p> <p>___ a) intensive cultivation has altered the land</p> <p><input checked="" type="checkbox"/> b) residential development/urbanization has altered the land</p> <p>___ c) previous grubbing/grading has altered the land</p> <p>___ d) an acceptable archaeological assessment or inventory survey found no historic properties</p> <p><input checked="" type="checkbox"/> e) other: <u>There are no known historic sites within the project area. The drainage improvements will be in existing roadways except for a portion through developed private property. It is unlikely that significant historic sites would be found in this portion of Waipahu Street.</u></p> <p style="text-align: center;"><u>In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation division must be contacted at 692-8015.</u></p>		
<p>2. This project has already gone through the historic preservation review process, and mitigation has been completed ___.</p> <p><input checked="" type="checkbox"/> Thus, we believe that "no historic properties will be affected" by this undertaking.</p>		
<p>Aloha,</p> <p style="text-align: center;"><i>P. Holly McEldowney</i></p> <p>P. Holly McEldowney, Administrator State Historic Preservation Division</p>		

August 17, 2004, Log No. 2004.2513, Doc. No. 0408SC04

LINDA LINGLE GOVERNOR OF HAWAII		PETER T. YOUNG CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT
	<b>STATE OF HAWAII</b> <b>DEPARTMENT OF LAND AND NATURAL RESOURCES</b>	DAN DAVIDSON DEPUTY DIRECTOR - LAND
	HISTORIC PRESERVATION DIVISION KAKUHIHEWA BUILDING, ROOM 555 601 KAMOKILA BOULEVARD KAPOLEI, HAWAII 96707	YVONNE Y. IZU DEPUTY DIRECTOR - WATER
		AQUATIC RESOURCES BOATING AND OCEAN RECREATION BUREAU OF CONVEYANCES COMMISSION ON WATER RESOURCE MANAGEMENT CONSERVATION AND COASTAL LANDS CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING FORESTRY AND WILDLIFE HISTORIC PRESERVATION KAHOOLAWE ISLAND RESERVE COMMISSION LAND STATE PARKS

August 17, 2004

Mr. David W. Shideler, O'ahu Office Manager  
Cultural Surveys Hawaii  
PO Box 1114  
Kailua, Hawaii 96734

LOG NO: 2004 2513  
DOC NO: 0408SC04

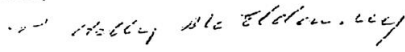
Dear Mr. Shideler:

**SUBJECT: Chapter 6E-8 Historic Preservation Review of an Archaeological Assessment in Support of the Waipahu Street Drainage Improvements Project Waipi'o, 'Ewa, O'ahu**  
**TMK: (1) 9-4-009 & 9-4-059:072 - 074**

Thank you for the opportunity to review and comment on an archaeological assessment report made for the proposed drainage improvements along Waipahu Street (Hammatt, Freeman & Shideler, 2004. Archaeological and Cultural Assessment in Support of the Waipahu Street Drainage Improvements Project Waipahu, Waipi'o Ahupua'a, 'Ewa District, O'ahu [TMK 9-4-09 and 9-4-59:72, 73, 74]). We received the subject report June 29, 2004 and provide the following comments.

You provide thorough historical and archaeological background sections, and you have conducted a field inspection of the project area. No evidence of historic sites was found. In general, the report meets the requirements of an assessment report, as outlined in HAR §13-275-5(b)(5)(A). The only items lacking are the total acreage of the proposed project area and the name(s) of the landowner(s), as indicated in HAR §13-276-5(a)(1)(B) & (2). When we receive this information, we anticipate finding the report adequate, and accepting it as final. Replacement pages may be submitted for inclusion with the report on file at our office.

Should you have any questions, please contact Sara Collins at 692-8026.

Aloha,  


P. Holly McEldowney, Administrator  
State Historic Preservation Division

SC: sky

October 18, 2004, Log No. 2004.3078, Doc. No. 0410EJ05

P

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
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PETER T. YOUNG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON  
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

October 18, 2004

Dave Shideler  
Cultural Surveys Hawaii, Inc.  
733 N. Kalaheo Avenue  
Kailua, Hawaii 96734

Log No: 2004.3078  
Doc No: 0410EJ05

Dear Mr. Shideler:

**SUBJECT: Chapter 6E-8 Historic Preservation Review  
Revisions to an Archaeological and Cultural Assessment in Support of the  
Waipahu Street Drainage Improvements Project  
Waipahu, 'Ewa, O'ahu  
TMK: (1) 9-4-009; 9-4-09:072 through 074**

Thank you for the submission of a replacement page (pg. 5) to the report *Archaeological and Cultural Assessment in Support of the Waipahu Street Drainage Improvements Project, Waipahu, Waipi'o Ahupua'a, 'Ewa District, Oahu*. (Hammatt, Freeman & Shideler, 2004) The revisions were sent in response to our earlier review (SHPD Log 2004.2513, dated August 17, 2004).

The revisions are acceptable and we can now accept the report as final. We shall place the report in our library where it will be available for public use.

Should you have any archaeological questions, please feel free to call Sara Collins at (808) 692-8026 or Elaine Jourdan at (808) 692-8027.


Aloha,

Melanie A. Chinen, Administrator  
State Historic Preservation Division

## **Appendix C**

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**Transportation Management Plan for the August Aherns Elementary School.  
Prepared for Benjamin Woo Architects. Prepared by Wilson Okamoto  
Corporation. April 2023.**



# Transportation Management Plan

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## *August Ahrens Elementary School*



Prepared for:  
Benjamin Woo Architects

Prepared by:  
Wilson Okamoto Corporation

April 2023



***TRAFFIC MANAGEMENT PLAN***  
***FOR THE***  
***AUGUST AHRENS ELEMENTARY SCHOOL***

*Prepared for:*

Benjamin Woo Architects  
600 Kapiolani Blvd, Ste 402B  
Honolulu, HI 96813

*Prepared by:*

Wilson Okamoto Corporation  
1907 South Beretania Street  
Honolulu, Hawaii 96826  
WOC Ref: 10718-01

April 2023

## **FORWARD**

The evaluation contained herein is based on information provided by the owner regarding its daily operations and traffic generation. The operational and management strategies identified in this report are offered as suggestions and may be considered for implementation should the need to improve traffic circulation in the immediate vicinity arise. This document is intended to be a reference guide and includes basic implementation strategies that can be modified to service specific needs.

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## **I. INTRODUCTION**

### **A. Purpose**

The purpose of this Traffic Management Plan (TMP) is to identify potential transportation management strategies that can be implemented to improve traffic operations in the vicinity of August Ahrens Elementary School. This document is intended to be used as reference specifically for this school to define management strategies already in place and identify additional management programs and other actions should they become necessary to alleviate adverse traffic operations.

### **B. Scope of Evaluation**

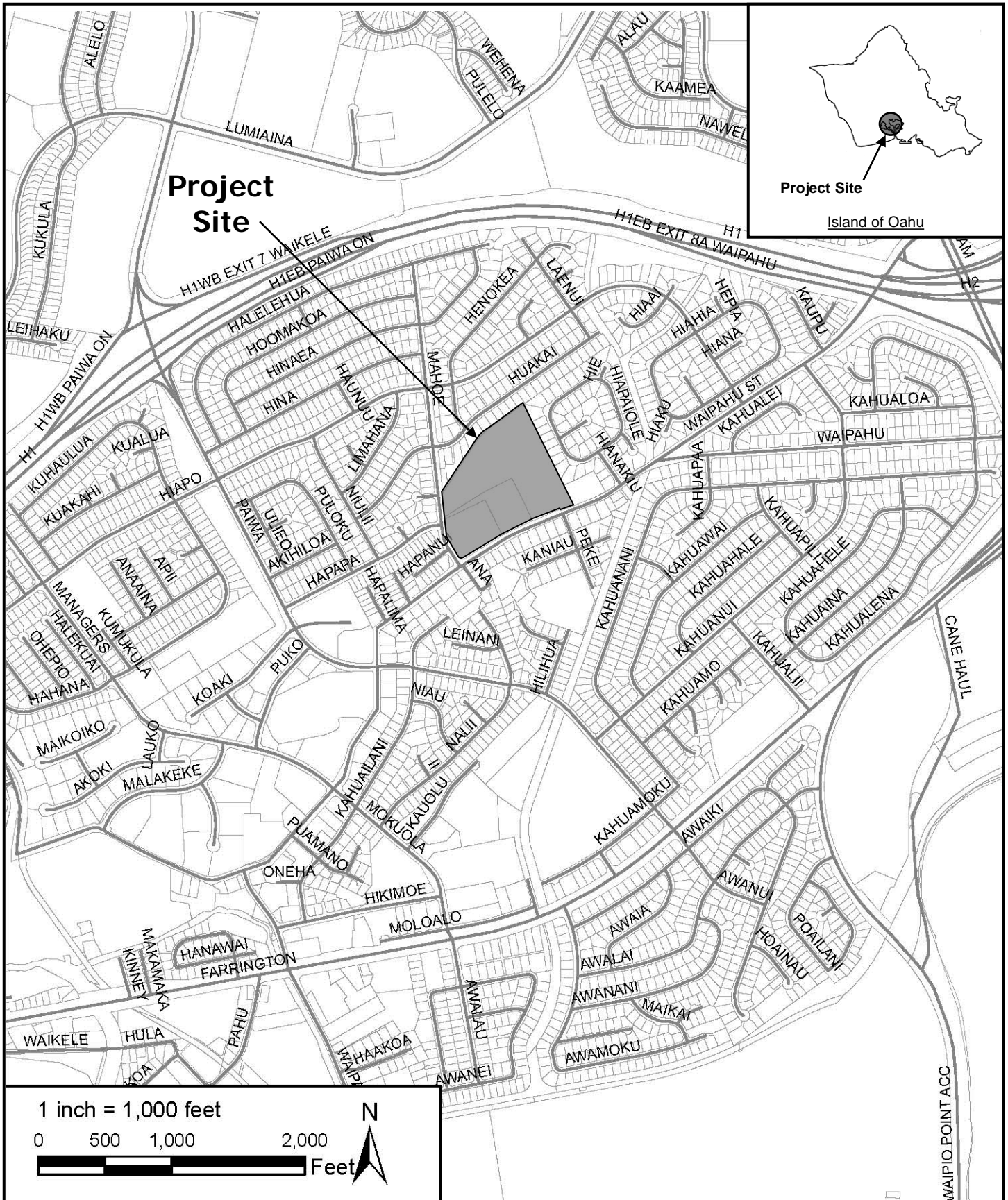
This report presents the findings and conclusions of this traffic management plan, the scope of which includes:

1. Description of the proposed project.
2. Summary of functions and traffic generation for August Ahrens Elementary School.
3. Formulation of management concepts and strategies to minimize the impact of the school on the surrounding streets as necessary.

## **II. PROJECT DESCRIPTION**

### **A. Project Location**

The existing August Ahrens Elementary School is located adjacent to Mahoe Street north of Waipahu Street in Waipahu on the island of Oahu (see Figure 1). The project site is bounded by Waipahu Street to the south, Mahoe Street to the west, and residential uses to the north and east. The project site is further identified as Tax Map Key (TMKs): 9-4-059: parcel 072-074. Primary access to the project site is provided via an existing two-way driveway off Mahoe Street near the north side of the campus with secondary access to a parking area adjacent to the cafeteria provided further south near Hapapa Street. In addition, there are two one-way driveways serving a porte cochere for student drop-off and pick-up off Waipahu Street near the southeast corner of the project site.



**AUGUST AHRENS ELEMENTARY SCHOOL**

**LOCATION MAP AND VICINITY MAP**

**FIGURE**

**1**



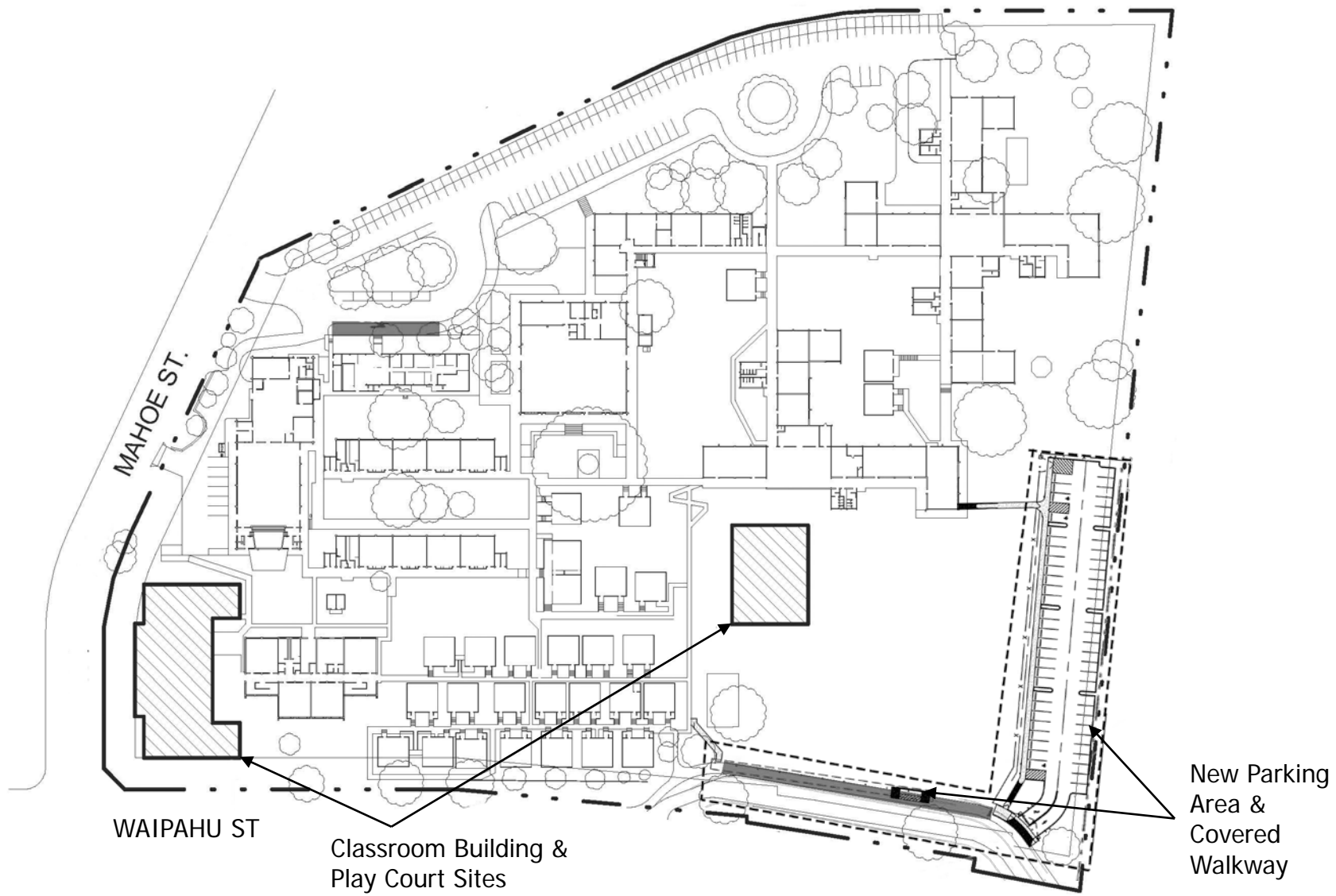
**B. Area Roadway System**

In the vicinity of the project site, Waipahu Street is a predominantly two-lane, two-way roadway generally oriented in the east-west direction. At the southwest corner of the school campus, Waipahu Street intersects Mahoe Street and Ana Lane. At this signalized intersection, marked crosswalks are provided on the north, south, and east sides of the intersection. Further east, Waipahu Street intersects Peke Lane near the southeast corner of the campus where a marked crosswalk is provided on the west side of the intersection.

Mahoe Street is a two-lane, two-way roadway that is generally oriented in the north-south direction. In the vicinity of the school, Mahoe Street intersects Hapanui Place, Hapapa Street and Mahoe Place with marked crosswalks provide across the intersecting street approaches. At the intersection with Hapapa Street, the eastbound approach of the intersection is comprised of a driveway for the school. Similarly, at the intersection with Mahoe Place, the eastbound approach is comprised of a driveway for the school with traffic on the driveway approach of the intersection restricted to right-turn movements only. In addition, marked crosswalks are also provided across Mahoe Street and the school driveway at this intersection.

**C. Project Characteristics and Function**

The proposed project entails the construction of a new two-story classroom building on the southwestern corner of the August Ahrens Elementary School campus adjacent to Mahoe Street and Waipahu Street where an existing play court is located. The new classroom building would provide 14 new classrooms which will be used to support the existing student population and will not increase enrollment. A new parking stall area consisting of seven parking stalls will be constructed north of the new building. The new parking area will connect to an existing parking area and utilize the existing entrance on Mahoe Street. In addition, a new concrete play court will be constructed on the south-central grassed portion of the campus. New concrete walkways will be constructed to connect the new developments to the existing concrete walkways on campus. Figure 2 shows the proposed site plan.



**AUGUST AHRENS ELEMENTARY SCHOOL**

**PROJECT SITE PLAN**

FIGURE

2

In addition, there is another previously approved improvement project at the school expected to be completed within the same timeframe. A new covered walkway is expected to be built along the porte cochere off Waipahu Street along with a new parking lot with 60 parking stalls off the porte cochere. The new parking area is expected to primarily be utilized by faculty and staff of the school.

**D. Daily Traffic**

**1. Vehicular Traffic**

The proposed project is not expected to significantly change the composition of existing vehicular traffic accessing the school. As such, the daily traffic generated by the school will continue to be comprised of students, faculty and staff (hereafter referred to as “staff”), visitors, and deliveries. School begins at 7:45 AM and ends at 2:00 PM each weekday except for Wednesdays when school ends earlier at 1:00 PM.

Student-related traffic accessing the school is clustered around the beginning and end of school hours with a portion of students dropped off/picked-up from school via school bus or private vehicle. There are two pick-up and drop-off areas designated on campus and one off-site loading area for school buses along Waipahu Street. The first on-site area is located within the porte cochere off Waipahu Street at the southeastern corner of the site (hereinafter referred to as the “Waipahu Drop-Off”). This area is kept gated after morning drop-off hours and reopened at 2:00 PM to allow for afternoon pick-up. In addition, turning movements from the drop-off area onto Waipahu Street are restricted to right-turn movements only by cones when the porte cochere is open before and after school. It should be noted that once the new parking area is completed off the porte cochere, access to this drop-off/pick-up area may be adjusted to allow for access to the new parking area. The second on-site area is located off Mahoe Street within the on-site parking area along the north side of the campus near the administration building (hereinafter referred to as the “Mahoe Drop-Off”). In addition, there is an off-site loading area along Waipahu Street west of the Waipahu Drop-Off designated for school buses only between 7:00 and 8:00 AM, and 1:00 and

2:30 PM. Figure 3 shows the location of the existing drop-off and pick-up areas and circulation.

Staff-related traffic accessing the school is also clustered around the beginning and end of school hours. On-site parking for staff personnel is currently provided within a parking area off Mahoe Street on the north side of the campus (hereinafter referred to as “Mahoe Parking Area”) and a smaller on-site parking area near the cafeteria with access provided off Mahoe Street near the intersection with Hapapa Street. It should be noted that access to this driveway for the smaller parking lot is gated during school hours. In addition, an additional parking area is expected to be constructed off the Waipahu Street porte cochere (hereinafter referred to as “Waipahu Parking Area”). Once construction of this parking area is completed, staff-related traffic is expected to be split between Mahoe Street and Waipahu Street.

Visitors and deliveries to the school can occur throughout the day, but primarily occur during off-peak hours. Limited visitor parking is provided within the Mahoe Parking Area with access provided via Mahoe Street. Deliveries are expected to be made via the driveways off Mahoe Street with some of the vehicles accessing the school via the smaller parking lot near the cafeteria and the remainder accessing the school near the administration building via the northern driveway similar to visitors.

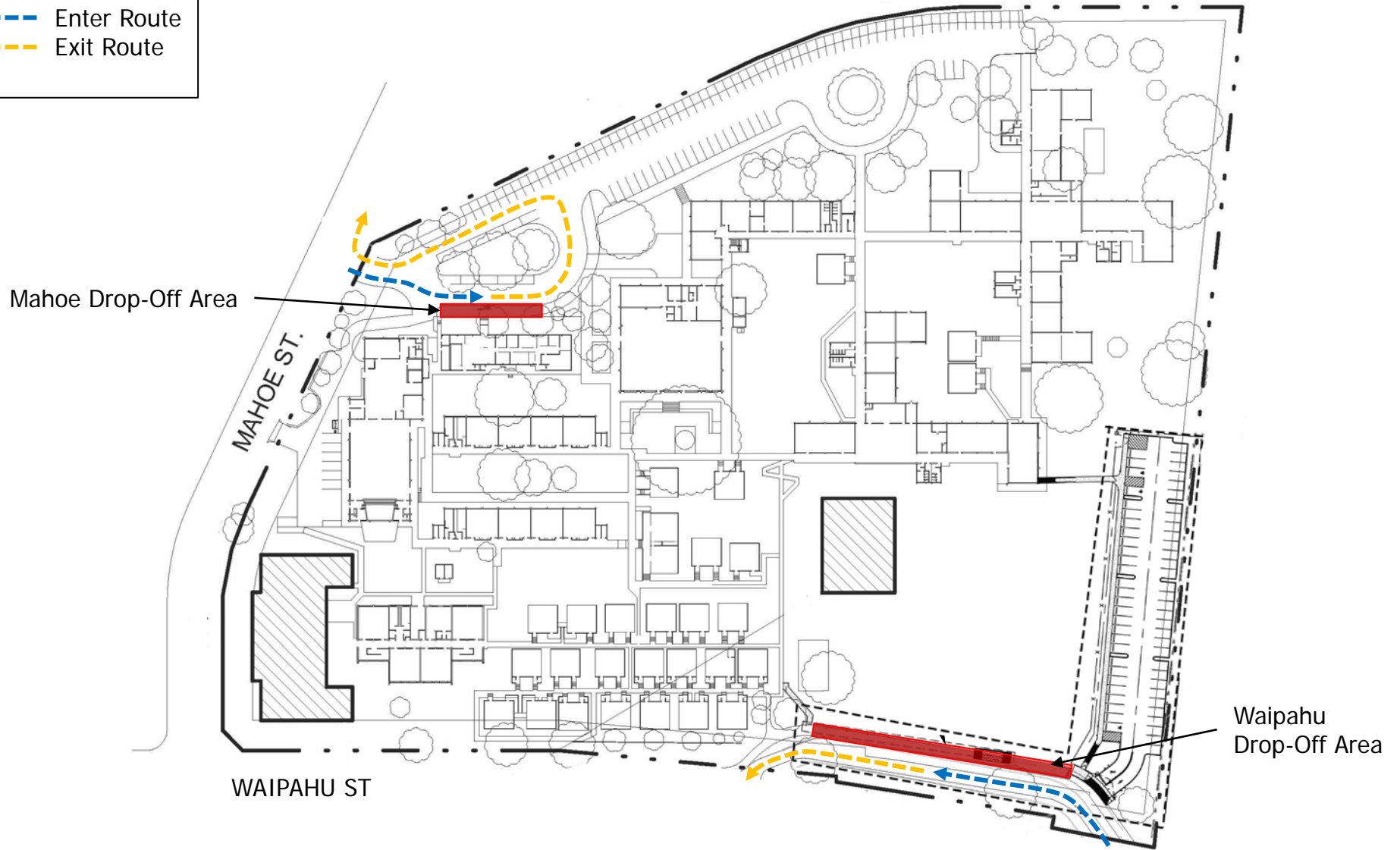
Although most students, faculty, and staff are expected to drive or be driven to the project site, some may choose to utilize alternate modes of travel including walking, biking, and transit. Pedestrian, bicycle, and transit-related traffic are accommodated by on-site and off-site facilities as detailed in the following sections.

## **2. Pedestrian Facilities**

Existing off-site pedestrian facilities in the vicinity of the project include sidewalks along Waipahu Street and Mahoe Street providing access to nearby residential uses (see Figure 4). It should be noted that not all the sidewalk segments along Waipahu Street are constructed of concrete and, as such, some areas are narrow and/or in disrepair resulting in unevenness in

**LEGEND**

- Enter Route
- Exit Route



**AUGUST AHRENS ELEMENTARY SCHOOL**

**DROP-OFF & PICK-UP AREAS**

**FIGURE**

**3**





**LEGEND**

- Bus Route
- Bus Stop
- Transit LOS



**AUGUST AHRENS ELEMENTARY SCHOOL**

**OFF-SITE PEDESTRIAN FACILITIES**

FIGURE  
4

some portions of the route along that roadway. In addition, field observations indicate that vehicles waiting for students occasionally park on the sidewalk and concrete swale along Waipahu Street near the Waipahu Drop-Off thereby reducing or blocking pedestrian access. There are signs indicating that parking is not allowed at any time, but drivers appear to ignore the posted signs.

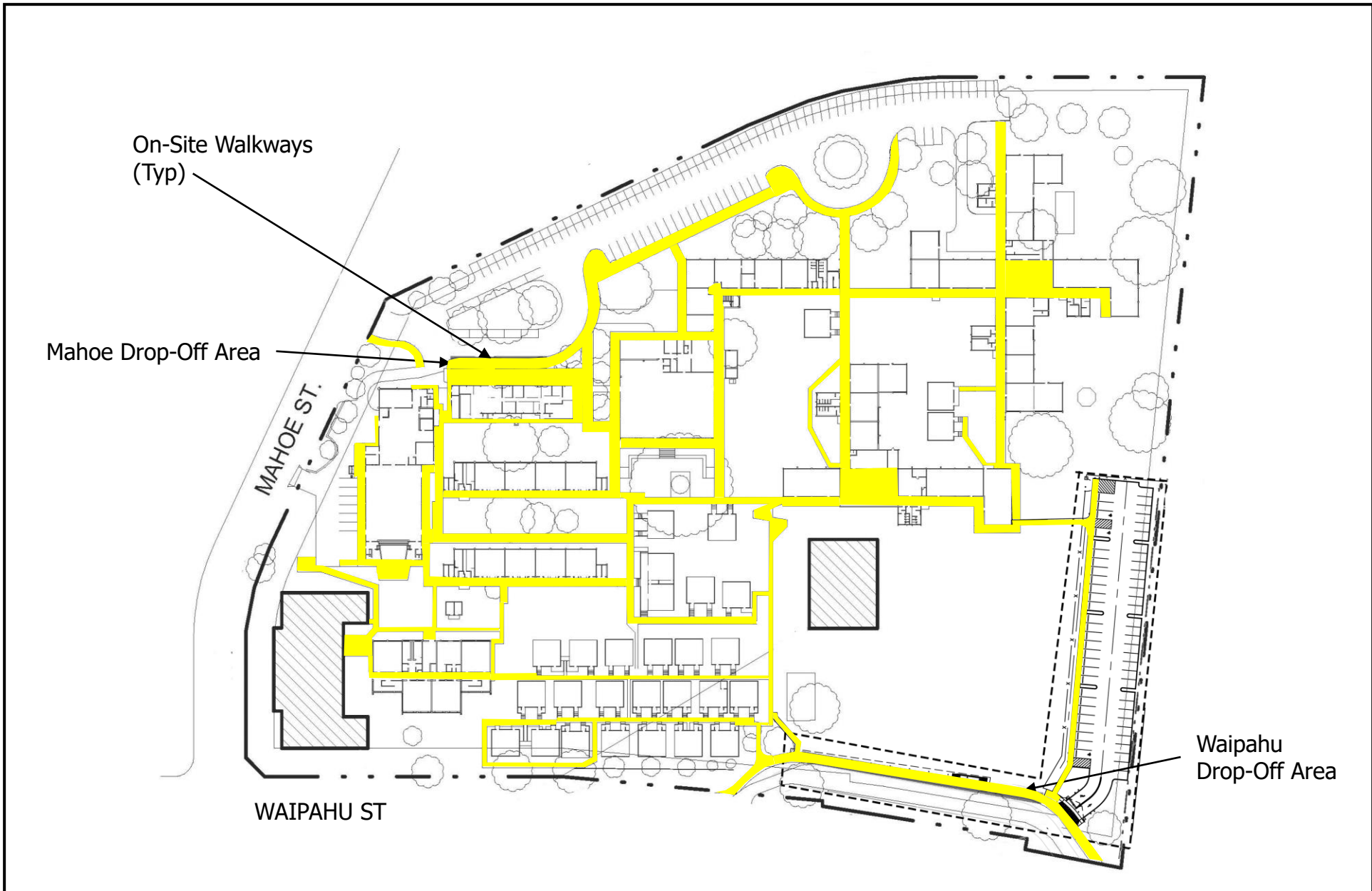
As previously mentioned, crossings to the school are provided across Waipahu Street at the intersections with Peke Lane and Mahoe Street. The crossing at the Peke Lane intersection is uncontrolled while the crossing at the intersection with Mahoe Street is signalized with protected crossing phases. In addition, a crossing to the school is also provided across Mahoe Street near the driveway to the Mahoe Parking Area.

Connections are provided between the on-site and off-site pedestrian facilities via existing gates at the northern driveway along Mahoe Street and near the Waipahu Drop-Off along Waipahu Street. Within the school, a network of walkways provides access to the on-site school facilities (see Figure 5).

### **3. Bicycle Facilities**

In the vicinity of the project, bike facilities are limited to a shared roadway along Waipahu Street with pavement markings called sharrows. On-site facilities are also limited with only two (2) bike racks provided within the school campus that can accommodate up to 10 bikes. The proposed project is not expected to change existing bicycle facilities on and off-site.

The City and County of Honolulu Department of Transportation Services has a master plan for bicycle facilities referred to as the “Oahu Bike Plan” (Updated 2019). These plans as shown in the City and County of Honolulu website detail future potential bicycle facilities in the vicinity of the school including the following the provision of bike lanes along Waipahu Street (see Figure 6). Although these improvements are expected to expand bicycle facilities in the vicinity, the timelines for these improvements are not known at this time.



**AUGUST AHRENS ELEMENTARY SCHOOL**

**ON-SITE PEDESTRIAN FACILITIES**

FIGURE

5





**LEGEND**

- Existing Shared Roadway
- Proposed Bike Lane
- Proposed Shared-Use Path

August Ahrens  
Elementary  
School

MAHOE ST

MAHOE PL

HAPAPA ST

WAIPAHU ST

PEKE LN



**AUGUST AHRENS ELEMENTARY SCHOOL**

**BIKE FACILITIES**

**FIGURE  
6**

#### **4. Transit Facilities**

The school bus services are supplemented by transit service provided by “The Bus” which is operated by Oahu Transit Services for the City and County of Honolulu Department of Transportation Services. In the vicinity of the school, there are approximately 8 bus stops that are served by 4 unique bus routes (Routes 43, 81, 432, and W2) located within a ¼ mile of August Ahrens Elementary School (see Figure 7). The closest bus stop along Waipahu Street is located near the intersection with Peke Lane while the closest bus stop along Mahoe Street is located near the intersection with Hapanui Place. Access to transit facilities in the vicinity of the proposed project is expected to be maintained with the proposed project.

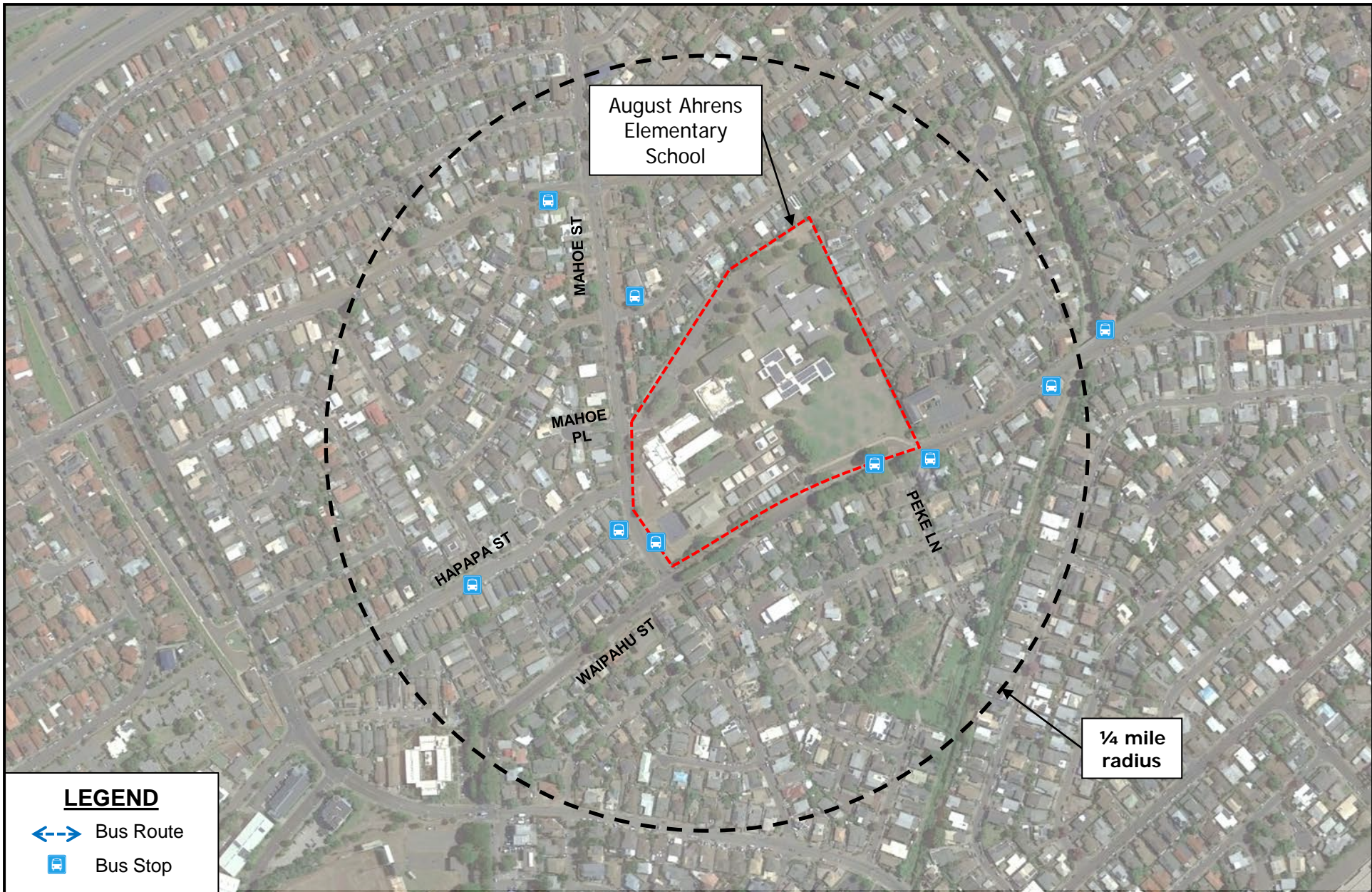
#### **5. Other Considerations**

As part of their Complete Streets initiative, the City and County of Honolulu Department of Transportation Services conducted an assessment of Mahoe Street and Waipahu Street in the vicinity of August Ahrens Elementary School. The assessment included consultations with stake holders and a walk audit, and the development of recommended improvements in the vicinity to incorporate complete streets concepts. Most of the included recommendations entailed improvements to infrastructure within the public right-of-way including a roundabout at the intersection of Mahoe Street and Waipahu Street, curb extensions, and relocation of crosswalks and bus stops. The timeline for these more extensive improvements is not known at this time, but there was one recommendation related to illegal parking near the Waipahu Drop-Off that has been incorporated into subsequent sections of this study as part of the management strategies for the school.



#### **E. Special Events Traffic**

August Ahrens Elementary School occasionally holds special events on-campus. These events are primarily held during off-peak, evening, or weekend hours with event-related traffic clustered around the beginning and end of the event. As such, traffic management strategies that could be implemented during special events





**LEGEND**

-  Bus Route
-  Bus Stop



**AUGUST AHRENS ELEMENTARY SCHOOL**

**TRANSIT FACILITIES**

**FIGURE**

**7**

is included in subsequent sections to minimize the impact of these events on surrounding roadways.

### **III. TRANSPORTATION MANAGEMENT PLAN**

#### **A. Transportation Demand Management Strategies**

Transportation demand management (TDM) strategies are policies that may be implemented to reduce or redistribute travel demand. These strategies can either reduce travel demand by making staff, faculty, and students more aware of all available transportation resources including public transit, carpooling, ridesharing, walking, and biking, as well as redistributing travel demand away from peak periods. Some of the goals of TDM measures are to reduce traffic congestion, reduce emissions, improve community health, solve parking problems, and enhance safety. Although there is a large toolbox of TDM strategies that could be implemented, the following measures are recommended based upon the school's operations and the surrounding environment:

- **Bicycle Facilities:** Encourage bicycle use as a mode of travel by providing additional bike facilities including secured parking areas. As previously noted, there are currently only two (2) bike racks provided on campus. In addition, coordinate with the City and County of Honolulu with regards to any future plans to incorporate additional bicycle facilities along the public roadways in the vicinity of the school.
- **Rideshare Program:** Encourage faculty and staff to participate in ridesharing. A program could be established to identify employees with similar travel routes that potentially may carpool together. In addition, priority parking could be assigned for participants of the program.
- **School Bus Program:** Promote the existing bus school program and collaborate with the State of Hawaii Department of Education (DOE) to explore opportunities to expand service in the surrounding areas to encourage higher use of the program. Currently less than 10% of the students utilize the provided bus program.
- **Bus Pass Program:** Promote a program that incentivizes bus passes for faculty and staff to encourage the use of public transit as a mode of travel.



**B. Daily Transportation Management Strategies**

The following are transportation management strategies that are currently implemented by August Ahrens Elementary School:

- Designate drop-off and pick-up locations on-campus with drop-off areas designated by grade to better distribute traffic demands between the two locations. Grades K, 2, 5, and 6 are currently designated to the Mahoe Drop-Off with Grades 1, 3, and 4 designated to the Waipahu Drop-Off. Information regarding the assignment of grades to the designed areas and drop-off and pick-up guidelines are shared with students through the school's handbook.
- Utilize on-site personnel at the on-site drop-off areas to assist with expediting loading operations and minimizing dwell times. Currently, staff and/or volunteers are assigned to the on-campus drop-off areas, but primarily serve in a supervisory capacity rather than facilitating passenger loading operations.
- Provide crossing guards for crosswalks across Waipahu Street at the intersection with Peke Place and across Mahoe Street at the intersection with Mahoe Place and the school's driveway to provide adequate crossing opportunities for students to/from the school. Currently the school uses Junior Police Officers (JPOs) and staff/volunteers to assist with crossings at the Waipahu Street and Peke Street intersection, and the Mahoe Street, Mahoe Place, and school driveway intersection. In addition, JPOs are stationed near the driveway to the smaller parking area off Mahoe Street to facilitate crossing of that driveway.
- Control access to the Waipahu Drop-Off Area during midday hours to minimize vehicular traffic through this area on-campus. Currently the driveways serving this area are gated between the morning drop-off period and 2:00 PM. It should be noted that these hours are expected to be adjusted once the parking area off the porte cochere is completed to allow access to this additional on-site parking area.
- Provide traffic control devices at the school's driveways near the Waipahu Drop-Off and Mahoe Drop-Off areas during peak periods to restrict turning movements for exiting vehicles to right-turn movements only to minimize conflicts with entering vehicles. It should be noted that the school currently provides coning at both driveways to channelize vehicles.
- Provide traffic control devices along the east side of Mahoe Street to allow vehicles accessing the Mahoe Drop-Off to queue along that roadway. It should be noted that Mahoe Street is wide enough to accommodate two-way traffic (one lane in each direction) and the shoulder queuing area. In addition, the school currently provides coning along the roadway with field observations indicating that queues extend from the school driveway to Waipahu Street during the afternoon peak period.

The following are additional management strategies that should be implemented by the school to alleviate existing traffic operations on the surrounding roadways due to its daily traffic:

- Modify the designation of grades at the on-site drop-off areas to better distribute traffic demands between the two locations. Younger students who may take longer to exit/enter vehicles should be designated to the Mahoe Drop-Off with older students designated to the Waipahu Drop-Off. As previously noted, traffic control along Mahoe Street allows for on-street queuing along that roadway for vehicles accessing the Mahoe Drop-Off. Field observations indicate that the queues extending from the Waipahu Drop-Off are in excess of 20+ vehicles during the afternoon peak period with queued vehicles blocking the westbound direction of traffic along that roadway. Although the duration of this peak demand is short, the queuing along the adjacent roadway hinders access and circulation in the vicinity. It should be noted that the Elementary School campus of the Lanakila Baptist School is also located immediately east of August Ahrens Elementary School.
- Provide supervision within both drop-off/pick areas to better facilitate drop-off and pick up activities by assisting students with entering and exiting vehicles, monitoring vehicular queues, and minimizing the dwell time of vehicles within these areas. Minimize the dwell times for each stopped vehicle would reduce the amount of queuing on the adjacent roadways.
- Modify the access hours for the Waipahu Drop-Off to allow earlier access prior to the afternoon pick-up hours. Currently queuing along Waipahu Street prior to the 2:00 PM opening time is in excess of 20+ vehicles, some of whom could be accommodated on-site within the porte cochere.

The following are management strategies that could be considered for implementation by the school to further minimize the impact of daily traffic on the surrounding roadways and improve safety for students surrounding the school:

- Queuing at both areas should be monitored and the split between grades adjusted to equalize the demand and queuing at the on-site locations and minimize the impact to the surrounding public roadways. In addition, consideration should be given to staggering pick-up times for students by grade to reduce the afternoon peak traffic accessing the school.
- Distribute additional information to students and their parents about parking restrictions along Waipahu Street near the Waipahu Drop-Off. As previously mentioned, field observations indicate that vehicles waiting for students often park on the sidewalk and concrete swale along Waipahu Street in this vicinity reducing or blocking pedestrian access. If necessary, use on-site personnel to

regulate parking in this location before and after school hours, and coordinate with the Honolulu Police Department (HPD) to provide enforcement as necessary.

- Provide guidelines to staff and faculty assigned parking in the new parking area off the Waipahu Drop-Off porte cochere to restrict vehicles from entering/exiting this parking area during peak traffic periods associated with student pick-up and drop-off before and after school hours. This parking area should only be designated of staff and faculty parking to ensure that the school has the ability to effectively manage access to this parking area.
- Restrict delivery and service vehicle access to the school to off-peak periods to minimize conflicts with student-related traffic before and after school hours.
- Work with the community and applicable agencies to establish a Safe Routes to School Program for the school. In addition, coordinate with the City and County of Honolulu Department of Transportation Services regarding their implementation of complete streets projects along the adjacent roadways to facilitate and enhance access to the school through alternate modes.

#### **C. Transportation Management Strategies for Special Events**

The following are transportation management strategies that could be implemented for August Ahrens Elementary School to minimize the impact of special events on the surrounding roadways and improve safety for students surrounding the school:

1. Ensure that multiple events or activities are not scheduled to be held on campus concurrently. If large events are expected to be held on campus, consider staggering these events by grade or classroom to reduce the peak traffic accessing the school.
2. Provide crossing guards near the start and end events for the crosswalks across Waipahu Street at the intersection with Peke Place and across Mahoe Street at the intersection with Mahoe Place and the school driveway to provide adequate crossing opportunities for to/from the school.
3. Provide students and their parents with adequate information regarding changes in on-site traffic circulation and restrictions to on-site parking during events to minimize disruptions to traffic flow in the vicinity of the school.

#### **IV. CONCLUSION**

August Ahrens Elementary School campus is expected to add a new classroom building on the southwest corner of the existing campus along with additional parking stalls near the new building and a new concrete play court in the south-central portion of the



campus. In addition, there is another previously approved improvement project at the school to provide a new covered walkway for the porte cochere drop-off/pick-up area along Waipahu Street and a new adjacent staff/faculty parking lot. Although student enrollment is not expected to increase with the anticipated improvements, shifts in traffic demand and circulation could necessitate the implementation of transportation management strategies for the school. It should be noted that school currently utilizes a number of management strategies to minimize their impact on the surrounding roadway including designating on-campus drop-off/pick-up areas and providing crossing guards for adjacent crosswalks. In addition, the school should implement additional operational strategies including modifying the current grade designations for the drop-off areas and providing additional staffing within these areas to minimize dwell times. In addition, the school could consider implementing transportation demand management strategies and additional operational strategies to further minimize their impact on the surrounding areas. Finally, consideration should be given to monitoring the effectiveness of the implemented management strategies on a periodic basis to verify their effectiveness.

**Contact:**

Hahn Nguyen  
Principal  
August Ahrens Elementary School  
808-307-7200

## **Appendix D**

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### **Pre-Assessment Consultation Letters for Hawai'i Revised Statutes, Chapter 343.**



DEPARTMENT OF COMMUNITY SERVICES  
CITY AND COUNTY OF HONOLULU

925 DILLINGHAM BOULEVARD, SUITE 200 • HONOLULU, HAWAII 96817  
PHONE: (808) 768-7762 • FAX: (808) 768-7792  
[www.honolulu.gov/dcs](http://www.honolulu.gov/dcs)



RICK BLANGIARDI  
MAYOR

ANTON C. KRUCKY  
DIRECTOR DESIGNATE

November 29, 2021

Mr. Brian Takeda, Planning Project Manager  
R.M. Towill Corporation  
2024 North King Street, Suite 200  
Honolulu, Hawai'i 96819  
Email: [briant@rmtowill.com](mailto:briant@rmtowill.com)

Dear Mr. Takeda:

SUBJECT: Pre-Consultation: DRAFT Environmental Assessment  
AAES New Classroom Building  
TMK: (1) 9-4-059: Portions of 072, 073, and 074, and Mahoe Street  
and Waipahu Street Rights-of-Way, Waipahu, O'ahu, Hawai'i

Thank you for your pre-consultation notice of a Draft Environmental Assessment for the August Ahrens Elementary School (AAES) New Classroom Building project.

Our review indicates that the proposed project will have no adverse impacts on any Department of Community Services activities or projects in the surrounding neighborhood.

Thank you for providing us the opportunity to comment on this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Anton C. Krucky".

Anton C. Krucky  
Director Designate

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



R. M. TOWILL CORPORATION  
SINCE 1930

Planning  
Engineering  
Environmental Services  
Photogrammetry  
Surveying  
Construction Management

March 16, 2023

Mr. Anton C. Krucky  
Director Designate  
City and County of Honolulu  
Department of Community Services  
925 Dillingham Boulevard, Suite 200  
Honolulu, Hawai'i 96817

Dear Mr. Krucky:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated November 29, 2021. The DOE appreciates your statement acknowledging that the proposed project will not impact any of the Department of Community Services' activities or projects.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

## Brian Takeda

---

**From:** Brian Takeda  
**Sent:** Wednesday, December 1, 2021 10:02 AM  
**To:** Liu, Rouen  
**Cc:** Kuwaye, Kristen; Kakazu, Lisa; Kelly Staples  
**Subject:** HECO: EA Pre-Assessmt August Ahrens Elem Sch 120121  
**Attachments:** RM Towill Letter.pdf; figure 1.pdf; figure 2.pdf; figure 3.pdf

**Importance:** High

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Rouen,

Thanks for responding. We will use your comments in the preparation of the project's Draft EA.

Brian Takeda  
Planning Project Manager  
mailto:BrianT@rmtowill.com

R. M. Towill Corporation  
2024 North King Street Suite 200  
Honolulu, Hawaii 96819  
voice: 808 842 1133 fax: 808 842 1937 web:  
<https://nam10.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.rmtowill.com%2F&data=04%7C01%7CKellyS%40rmtowill.com%7Cef208ed56c3f48718e5108d9b50567e8%7C46ef694184084602b35bd49f6d30327b%7C0%7C0%7C637739857092322181%7CUnknown%7CTWFpbGZsb3d8eyJWljiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Ikl1aWwiLCJXVCi6Mn0%3D%7C3000&msdata=JZ1w2MHcLCfGqGXbe3SvU7uXdJy4a2bvjHSauMMT7De4%3D&reserved=0>

-----Original Message-----

From: Liu, Rouen <rouen.liu@hawaiianelectric.com>  
Sent: Wednesday, December 1, 2021 9:50 AM  
To: Brian Takeda <BrianT@rmtowill.com>  
Cc: Kuwaye, Kristen <kristen.kuwaye@hawaiianelectric.com>; Kakazu, Lisa <lisa.kakazu@hawaiianelectric.com>  
Subject: Notice of EA Pre-Assessment for August Ahrens Elem School New Classroom Project, Waipahu, HI

CAUTION: External Email

Dear Mr. Takeda,

Thank you for the opportunity to comment on the subject project. Hawaiian Electric Company has no objection to the project. Should Hawaiian Electric have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities. We appreciate your efforts to keep us apprised of the subject project in the planning process. As the proposed August Ahrens Elementary School Classroom project comes to fruition, please continue to keep us informed.



Should there be any questions, please contact me at 543-7245.

Thank you,  
Rouen Liu  
Permit Engineer

-----  
CONFIDENTIALITY NOTICE: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and/or privileged information. Any unauthorized review, use, copying, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender immediately by reply e-mail and destroy the original message and all copies.

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2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



R. M. TOWILL CORPORATION  
SINCE 1930

Planning  
Engineering  
Environmental Services  
Photogrammetry  
Surveying  
Construction Management

March 16, 2023

Mr. Rouen Liu  
Permit Engineer  
Hawaiian Electric Company

Email: rouen.liu@hawaiianelectric.com

Dear Mr. Liu:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 1, 2021. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

*Hawaiian Electric Company has no objection to the project. Should Hawaiian Electric have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities.*

The DOE appreciates your statement expressing no objection to the subject project. The DOE acknowledges Hawaiian Electric Company's (HECO) need for continued access to existing easements and facilities within the project limits. DOE will continue to coordinate with HECO for access to those facilities. This is identified in the Draft EA, Section 4.13.2.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

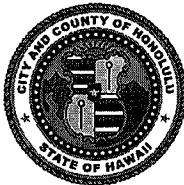
Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DEPARTMENT OF DESIGN AND CONSTRUCTION  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11<sup>TH</sup> FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 768-8480 • Fax: (808) 768-4567  
Web site: [www.honolulu.gov](http://www.honolulu.gov)

RICK BLANGIARDI  
MAYOR



ALEX KOZLOV, P.E.  
DIRECTOR

HAKU MILLES, P.E.  
DEPUTY DIRECTOR

December 2, 2021

SENT VIA EMAIL

Mr. Brian Takeda  
Briant@rmtowill.com

Dear Mr. Takeda:

Subject: Hawaii Revised Statutes (HRS), Chapter 343, Environmental Assessment (EA)  
Pre-Assessment for August Ahrens Elementary School (AAES)  
New Classroom Building Project, Waipahu, Island of O'ahu, Hawaii  
TMKs: (1) 9-4-059: Portions of 072, 073 and 074 and Mahoe Street and Waipahu Street Rights of Way (No TMK)

Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments to offer at this time.

Should you have any further questions, please contact me at (808) 768-8480.

Sincerely,

A handwritten signature in black ink, appearing to read "Alex Kozlov".

Alex Kozlov, P.E.  
Director

AK:krm (868095)

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



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Surveying  
Construction Management

March 16, 2023

Mr. Alex Kozlov, P.E., Director  
City and County of Honolulu  
Department of Design and Construction  
650 South King Street, 11th Floor  
Honolulu, Hawai'i 96813

Dear Mr. Kozlov:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 2, 2021. The DOE acknowledges that the Department of Design and Construction does not have any comments or concerns at this time.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DAVID Y. ICE  
GOVERNOR  
STATE OF HAWAII

JOSH GREEN  
LT. GOVERNOR  
STATE OF HAWAII



WILLIAM J. AILĀ, JR.  
CHAIRMAN  
HAWAIIAN HOMES COMMISSION

TYLER I. GOMES  
DEPUTY TO THE CHAIRMAN

**STATE OF HAWAII  
DEPARTMENT OF HAWAIIAN HOME LANDS**

P. O. BOX 1879  
HONOLULU, HAWAII 96805

December 2, 2021

Ref.:PO-21-358

Brian Takeda  
Planning Project Manager  
R.M. Towill Corporation  
2024 North King Street, Suite 200  
Honolulu, HI 96819  
[Briant@rmtowill.com](mailto:Briant@rmtowill.com)

Aloha Brian:

**Subject: HRS, Chapter 343, Environmental Assessment (EA)  
Pre-Assessment for August Ahrens Elementary School  
New Classroom Building Project  
Waipahu, O'ahu, Hawai'i  
TMKs: (1) 9-4-059:072por, :073por, and :074por, and  
Mahoe Street and Waipahu Street rights-of-way**

The Department of Hawaiian Home Lands acknowledges receiving the request for comments on the above-cited project. After reviewing the materials submitted, due to its lack of proximity to Hawaiian Home Lands, we do not anticipate any impacts to our lands or beneficiaries from the project.

However, we highly encourage all agencies to consult with Hawaiian Homestead community associations and other (N)ative Hawaiian organizations when preparing environmental assessments in order to better assess potential impacts to cultural and natural resources, access and other rights of Native Hawaiians.

Mahalo for the opportunity to provide comments. If you have any questions, please call Andrew H. Choy, Acting Planning Program Manager at (808)620-9481, or contact via email at [andrew.h.choy@hawaii.gov](mailto:andrew.h.choy@hawaii.gov).

Me ke aloha,

A handwritten signature in black ink, appearing to read "William J. Ailā, Jr.", written over a white background.

William J. Ailā, Jr., Chairman  
Hawaiian Homes Commission



2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



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Surveying  
Construction Management

March 16, 2023

Mr. William J. Aila, Jr., Chairman  
Hawaiian Homes Commission  
State of Hawai'i  
Department of Hawaiian Home Lands  
P.O. Box 1879  
Honolulu, Hawai'i 96805

Dear Mr. Aila:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 2, 2021 (Ref.:PO-21-358). The following has been prepared in response to your comments (your comments have been *italicized* for reference):

*The Department of Hawaiian Home Lands acknowledges receiving the request for comments on the above-cited project. After reviewing the materials submitted, due to its lack of proximity to Hawaiian Home Lands, we do not anticipate any impacts to our lands or beneficiaries from the project.*

*However, we highly encourage all agencies to consult with Hawaiian Homestead community associations and other (N)ative Hawaiian organizations when preparing environmental assessments in order to better assess potential impacts to cultural and natural resources, access and other rights of Native Hawaiians.*

The DOE appreciates your statement acknowledging that the proposed project will not impact any of the Department of Hawaiian Home Lands' lands or beneficiaries. The DOE will notify relevant Hawaiian Homestead community associations and other native Hawaiian organizations of the project during the publication of the Draft EA.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DEPARTMENT OF FACILITY MAINTENANCE  
**CITY AND COUNTY OF HONOLULU**

1000 Ulu'ohia Street, Suite 215, Kapolei, Hawaii 96707  
Phone: (808) 768-3343 • Fax: (808) 768-3381  
Website: www.honolulu.gov

RICK BLANGIARDI  
MAYOR



ROGER BABCOCK, JR., Ph. D., P.E.  
DIRECTOR AND CHIEF ENGINEER

DAWN B. SZEWCZYK, P.E.  
DEPUTY DIRECTOR

IN REPLY REFER TO:  
DRM 21-693

December 3, 2021

R.M. Towill Corporation  
Mr. Brian Takeda  
2024 North King Street Suite 200  
Honolulu, Hawaii 96819-3470

Dear Mr. Takeda:

Subject: Hawaii Revised Statutes (HRS), Chapter 343, Environmental Assessment, Pre-Assessment for August Ahrens Elementary School, New Classroom Building Project, Waipahu, TMK's: (1) 9-4-059: Portions of 072, 073 and 074, and Mahoe Street and Waipahu Street rights-of-way (No TMK)

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

The Department of Facility Maintenance currently maintains Waipahu Street and Mahoe Street including sidewalks. During construction and upon completion of the project, any damages/deficiencies along the roadways and sidewalks along Waipahu Street and Mahoe Street shall be repaired to City standards, and at no cost to the City and County of Honolulu.

If you have any questions, please call Mr. Kyle Oyasato of the Division of Road Maintenance at 768-3697.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Babcock, Jr.", is written over a horizontal line.

*br* Roger Babcock, Jr., Ph. D., P.E.  
Director and Chief Engineer

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



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Construction Management

March 16, 2023

Mr. Roger Babcock, Jr., Ph.D., P.E.  
Director and Chief Engineer  
City and County of Honolulu  
Department of Facility Maintenance  
1000 Ulu'ohia Street, Suite 215  
Kapolei, Hawai'i 96707

Dear Mr. Babcock:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 3, 2021 (Ref.: DRM 21-693). The following has been prepared in response to your comments (your comments have been *italicized* for reference):

*The Department of Facility Maintenance currently maintains Waipahu Street and Mahoe Street including sidewalks. During construction and upon completion of the project, any damages/deficiencies along the roadways and sidewalks along Waipahu Street and Mahoe Street shall be repaired to City standards, and at no cost to the City and County of Honolulu.*

The DOE acknowledges that the Department of Facility Maintenance currently maintains Waipahu Street and Mahoe Street including sidewalks. Prior to the start of construction activities, the contractor will document the condition of roadways and sidewalks and provide remedial measures, as necessary, if the condition of any roadway or sidewalk has deteriorated as a result of the related construction activities. This is identified in the Draft EA, Section 4.13.1.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

HONOLULU FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**

636 South Street  
Honolulu, Hawaii 96813-5007  
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

RICK BLANGIARDI  
MAYOR



LIONEL CAMARA JR.  
ACTING FIRE CHIEF  
SHELDON K. HAO  
ACTING DEPUTY FIRE CHIEF

December 3, 2021

Mr. Brian Takeda  
Planning Project Manager  
R.M Towill Corporation  
2024 North King Street, Suite 200  
Honolulu, Hawaii 96819

Dear Mr. Takeda:

**Subject: Preassessment Consultation for Hawaii Revised Statute Chapter 343  
Environmental Assessment for New Classroom Building Project  
August Ahrens Elementary School  
94-1170 Waipahu Street  
Waipahu, Hawaii 96797  
Tax Map Keys: 9-4-059: 072, 073 and 074**

In response to your letter dated November 19, 2021, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the submitted information and requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1, as amended.)

A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2018 Edition, Section 18.2.3.2.1.)

2. An approved water supply capable of supply the required fire flow for fire protection shall be provided to all premises upon which facilities,

Mr. Brian Takeda  
Page 2  
December 3, 2021

buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with Section 18.4. (NFPA 1; 2018 Edition, Section 18.3.1.)

3. The fire department access roads shall be in accordance with Section 18.2.3. (NFPA 1; 2018 Edition, Section 18.2.3.)
4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Reid Yoshida of our Fire Prevention Bureau at 808-723-7151 or ryoshida@honolulu.gov.

Sincerely,



JASON SAMALA  
Assistant Chief

JS/TC:gl





March 16, 2023

Mr. Jason Samala  
Assistant Chief  
City and County of Honolulu  
Honolulu Fire Department  
636 South Street  
Honolulu, Hawai'i 96813

Dear Mr. Samala:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 3, 2021 (Ref.: DRM 21-693). The following has been prepared in response to your comments (your comments have been *italicized* for reference):

1. *Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1, as amended.)*

*A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2018 Edition, Section 18.2.3.2.1.)*

The DOE acknowledges this comment. The proposed project will comply with the National Fire Protection Association (NFPA) 1, 2018 Edition, Sections 18.2.3.2.1, 18.2.3.2.2, and 18.2.3.2.2.1, requirements for fire department access roads. This is identified in the Draft EA, Section 4.13.5.

2. *An approved water supply capable of supply the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with Section 18.4. (NFPA 1; 2018 Edition, Section 18.3.1.)*

The DOE acknowledges this comment. The proposed project will comply with the NFPA 1, 2018 Edition, Section 18.3.1, as amended. A water supply approved by the County, capable of supplying the required fire flow for fire protection, will be provided to the proposed new classroom building facilities. This is identified in the Draft EA, Section 4.13.5.

Mr. Jason Samala

March 16, 2023

Page 2 of 2

3. *The fire department access roads shall be in accordance with Section 18.2.3. (NFPA 1; 2018 Edition, Section 18.2.3.)*

The DOE acknowledges this comment. The fire department access roads will be in accordance with Section 18.2.3 (NFPA 1; 2018 Edition, Section 18.2.3). This is identified in the Draft EA, Section 4.13.5.

4. *Submit civil drawings to the HFD for review and approval.*

The DOE acknowledges this comment. Civil drawings will be submitted to Honolulu Fire Department for review and approval. This is identified in the Draft EA, Section 4.13.5.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,



Brian Takeda

Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

POLICE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813  
TELEPHONE: (808) 529-3111 · INTERNET: [www.honolulu.gov](http://www.honolulu.gov)

RICK BLANGIARD  
MAYOR



RADE K. VANIG  
INTERIM CHIEF

OUR REFERENCE **EO-DK**

December 3, 2021

SENT VIA EMAIL

Mr. Brian Takeda  
[Briant@rmtowill.com](mailto:Briant@rmtowill.com)

Dear Mr. Takeda:

This is in response to your letter of November 19, 2021, requesting input on the Pre-Consultation, Environmental Assessment, for the proposed August Ahrens Elementary School New Classroom Building Project in Aiea.

Based on the information provided, the Honolulu Police Department recommends that all necessary signs, lights, barricades, and other safety equipment be installed and maintained by the contractor during the construction phase of the project as any impacts to vehicular traffic could lead to complaints.

If there are any questions, please call Major Thomas Taflinger of District 3 (Pearl City) at (808) 723-8803.

Thank you for the opportunity to review this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Darren Chun", with a long horizontal stroke extending to the right.

DARREN CHUN  
Assistant Chief of Police  
Support Services Bureau

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



R. M. TOWILL CORPORATION  
SINCE 1930

Planning  
Engineering  
Environmental Services  
Photogrammetry  
Surveying  
Construction Management

March 16, 2023

Mr. Darren Chun  
Assistant Chief of Police  
Support Services Bureau  
City and County of Honolulu  
Police Department  
801 South Beretania Street  
Honolulu, Hawai'i 96813

Dear Mr. Chun:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 3, 2021 (Ref.: EO-DK). The following has been prepared in response to your comments (your comments have been *italicized* for reference):

*Based on the information provided, the Honolulu Police Department recommends that all necessary signs, lights, barricades, and other safety equipment be installed and maintained by the contractor during the construction phase of the project as any impacts to vehicular traffic could lead to complaints.*

The DOE acknowledges this comment and will ensure the project contractor installs and maintains all necessary signs, lights, barricades, and other safety equipment to avoid impacts to vehicular traffic during the construction phase. This is identified in the Draft EA, Section 4.13.1.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

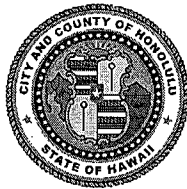
Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813  
PHONE: (808) 768-8000 • FAX: (808) 768-6041  
DEPT. WEB SITE: [www.honolulu.gov](http://www.honolulu.gov) • CITY WEB SITE: [www.honoluludpp.org](http://www.honoluludpp.org)

RICK BLANGIARDI  
MAYOR



DEAN UCHIDA  
DIRECTOR

DAWN TAKEUCHI APUNA  
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI  
DEPUTY DIRECTOR

December 8, 2021

2021/ELOG-2480(LP)

SENT VIA EMAIL

Mr. Brian Takeda  
[briant@rmtowill.com](mailto:briant@rmtowill.com)

R.M. Towill Corporation  
2024 North King Street, Suite 200  
Honolulu, Hawaii 96819

Dear Mr. Takeda:

SUBJECT: August Ahrens Elementary School  
Pre-Draft Environmental Assessment (DEA)  
94-1170 Waipahu Street - Waipio  
Tax Map Keys 9-4-059: 072, 073, and 074

This is in response to your letter, received on November 26, 2021, requesting early consultation for a DEA for the subject site, which is in the R-5 Residential District. The Project will consist of construction of a new two-story classroom building, new play court and concrete masonry unit wall, new parking spaces, new access walkways, and accessory improvements. It is noted that Project is expected to begin in early 2023 for a duration of 16 months. Construction activities are planned to take place during daytime hours with no night work anticipated.

In a letter dated March 29, 1988, under Special Plan Review (SPR) File No. 88/SPR-16, the Department of Land Utilization determined that the August Ahrens Elementary School was an existing use and approved a minor modification to allow the construction of wooden portable classroom buildings. For the purposes of the Land Use Ordinance (LUO), the school is considered a public use and structure so a minor modification to the SPR Permit is not required. In our June 3, 2015 letter to the Department of Education (DOE), we noted that the DOE should request a determination for off-street parking requirements when permanent classrooms are to be constructed. Therefore, we recommend that the DEA discuss total number of existing and proposed parking spaces, the existing parking demand, the anticipated parking demand, and how additional number of parking spaces was determined. In addition, the DEA should discuss any parking demand management strategies the school plans to employ to



Mr. Brian Takeda  
December 8, 2021  
Page 2

reduce demand for faculty and staff parking and encourage multi-modal transportation options and carpooling for all users of the site. Additionally, the DEA should discuss how the Project may affect current pick-up and drop-off strategies along with details about how the school mitigates potential impacts to the surrounding area. Finally, the DEA should discuss if and how any Safe Routes to School programs have been studied or implemented at the school.

The DEA should list and address all relevant policies and guidelines of the Central Oahu Sustainable Communities Plan and the Oahu General Plan. The DEA should also include a discussion of whether there is a possibility that the equipment or structures will ultimately need to exceed the height limit, will be located in any required yard, or will not meet the development standards for the R-5 Residential District, as shown in LUO Section 21-3.70-1, Table 21-3.2. If that is a possibility, a Zoning Waiver should be added to the list of potentially necessary permits and approvals.

Thank you for the opportunity to comment on this proposal. Should you have any questions, please contact Lena Phomsouvanh, of our staff, at (808) 768-8052, or via email at [lena.phomsouvanh@honolulu.gov](mailto:lena.phomsouvanh@honolulu.gov).

Very truly yours,



cc: Dean Uchida  
Director



March 16, 2023

Ms. Dawn Takeuchi Apuna, Acting Director  
City and County of Honolulu  
Department of Planning and Permitting  
650 South King Street, 7th Floor  
Honolulu, Hawai'i 96813

Dear Ms. Apuna:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 8, 2021 (Ref.:2021/ELOG-2480(LP)). The following has been prepared in response to your comments (your comments have been *italicized* for reference):

1. *In a letter dated March 29, 1988, under Special Plan Review (SPR) File No. 88/SPR-16, the Department of Land Utilization determined that the August Ahrens Elementary School was an existing use and approved a minor modification to allow the construction of wooden portable classroom buildings. For the purposes of the Land Use Ordinance (LUO), the school is considered a public use and structure so a minor modification to the SPR Permit is not required.*

The DOE acknowledges this comment and appreciates the Department of Planning and Permitting's (DPP) statement acknowledging that a minor modification to the Special Plan Review Permit is not required. This is identified in the Draft EA, Section 6.3.4.

2. *In our June 3, 2015 letter to the Department of Education (DOE), we noted that the DOE should request a determination for off-street parking requirements when permanent classrooms are to be constructed. Therefore, we recommend that the DEA discuss total number of existing and proposed parking spaces, the existing parking demand, the anticipated parking demand, and how additional number of parking spaces was determined. In addition, the DEA should discuss any parking demand management strategies the school plans to employ to reduce demand for faculty and staff parking and encourage multi-modal transportation options and carpooling for all users of the site. Additionally, the DEA should discuss how the Project may affect current pick-up and drop-off strategies along with details about how the school mitigates potential impacts to the surrounding area. Finally, the DEA should discuss if and how any Safe Routes to School programs have been studied or implemented at the school.*

The proposed project entails the construction of a new classroom building that is intended to support the existing student enrollment at August Ahrens Elementary School and is not anticipated to generate additional new trips in the project vicinity. As such, the proposed project is expected to have minimal impact on the surrounding roadway network.

A Transportation Management Plan (TMP) is currently in progress and expected to be prepared in conjunction with the project design. The completion date for the TMP is estimated in the mid-2023 timeframe and may follow the project's HRS, Chapter 343, EA process; as available, the TMP will be included in the Final EA and FONSI. Following the completion of the TMP, DOE will provide the TMP to governmental agencies, including the Department of Planning and Permitting, and others, as appropriate, for review and approval. The TMP will include traffic circulation, parking, and travel demand management strategies aimed at reducing or redistributing travel demand. This would include an assessment of vanpools, car shares, bike share programs, and subsidized transit passes for employees, along with other travel demand management strategies for the AAES. This is identified in the Draft EA, Section 2.3, Section 4.13.1, and Section 7.2.

Additionally, The DOE will submit a Zoning Waiver application for parking requirements to DPP following the EA process. Per the last new building that was permitted and built (Building M, BP #556902), the school has 90 marked stalls. Including Building M, 205 parking stalls are currently required, per LUO table 21-6.1. The proposed New Classroom Building (i.e., Building N) will have approximately 12,853 sf of classroom space (no offices). Per the LUO table 21-6.1 current requirement of 1 stall per 500 sf. for classrooms, 28 stalls are required for the New Classroom Building (Building N). The total parking stalls required following the construction of the New Classroom Building therefore will be  $205 + 28 = 233$ .

The New Classroom Building project will add 6 marked stalls (5 regular and 1 van accessible). Additionally, under a separate project, AAES plans to build a parking lot with 60 stalls (57 regular and 3 accessible), which is currently being permitted (BPA # A2022-06-0889). This will bring the total number of stalls provided to 156, which is short 77 stalls, to meet the required 233 stalls required. However, AAES notes that the required allocation of the parking requirement of 28 parking stalls for the New Classroom Building would be allocated from the existing 90 parking stalls, plus the 6 stalls being added for the New Classroom Building project, plus an additional 60 stalls from the new parking lot project, and that the 156 stalls are sufficient to meet the parking needs of staff and guests on campus. Additionally, AAES is developing an overall plan for phased improvements for the replacement and demolition of portable classroom facilities with permanent classroom space. Therefore, a reduced number of parking stalls is expected in the future following the removal of portable classrooms. For the interim, portables plus the New Classroom Building, a Zoning Waiver will be obtained. The DOE will further request a determination from DPP for off-street parking requirements to manage access to the campus. This is identified in the Draft EA, Section 2.3, 4.13.1, and 6.3.4.

No Safe Routes to School programs have been studied or implemented at AAES or are anticipated as part of this project. This is identified in the Draft EA, Section 4.13.1.

- 3. The DEA should list and address all relevant policies and guidelines of the Central Oahu Sustainable Communities Plan and the Oahu General Plan. The DEA should also include a discussion of whether there is a possibility that the equipment or structures will ultimately need to exceed the height limit, will be located in any required yard, or will not meet the development standards for the R-5 Residential District, as shown in LUO Section 21-3.70-1, Table 21-3.2. If that is a possibility, a Zoning Waiver should be added to the list of potentially necessary permits and approvals.*

Ms. Dawn Takeuchi Apuna, Acting Director

March 16, 2023

Page 3 of 3

The DOE acknowledges this comment. A description of the proposed project's compliance with the O'ahu General Plan and Central Oahu Sustainable Communities Plan is included in the Draft EA, Section 6.3.1 and Section 6.3.2.

Since the proposed new classroom building will exceed the height limit under R-5 zoning, a Zoning Waiver will be submitted to the Department of Planning and Permitting (DPP) following the EA process. This is identified in the Draft EA, Section 6.3.4 and 7.2.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

A handwritten signature in black ink that reads "Brian Takeda". The signature is written in a cursive, slightly slanted style.

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)



## DISABILITY AND COMMUNICATION ACCESS BOARD

1010 Richards Street, Room 118 • Honolulu, Hawaii 96813  
Ph. (808) 586-8121 • Fax (808) 586-8129

December 8, 2021

Mr. Brian Takeda  
Planning Project Manager  
R.M. Towill Corporation  
2024 North King Street  
Suite 200  
Honolulu, HI 96819-1133

Regarding: Environmental Assessment Pre-Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Oahu, Hawaii  
Tax Map Keys (TMK): (1) 9-4-059: Portions of 072 and 074, and Mahoe Street and Waipahu Street Rights-of-Way

Dear Mr. Takeda:

The Disability and Communication Access Board (DCAB) would like to thank you for the opportunity to review and comment on the Environmental Assessment Pre-Assessment for August Ahrens Elementary School New Classroom Building Project. The purpose of this review is to ensure that this project will take into account accessibility design requirements for persons with disabilities.

Because this project is being constructed on State land, it is covered by §103-50, Hawaii Revised Statutes (HRS). The construction of the August Ahrens Elementary School New Classroom Building Project is required to comply with the Department of Justice's (DOJ) 2010 ADA Standards for Accessible Design (2010 Standards) [http://www.ada.gov/2010ADASTandards\\_index.htm](http://www.ada.gov/2010ADASTandards_index.htm). To be consistent with the DOJ's standard, DCAB adopted the 2004 Americans with Disabilities Act Accessibility Guidelines (ADAAG) as of January 1, 2011 and passed interpretive opinions consistent with the 2010 ADA Standards. All new Interpretive Opinions can be viewed or downloaded at <http://health.hawaii.gov/dcab/facility-access/interpretive-opinions/>.

If this project is receiving federal funds, it will also have to comply with the requirements under Section 504 of the Rehabilitation Act, but this is not included in the DCAB review process. If you have any questions regarding your obligations under Section 504 of the Rehabilitation Act, you should contact the federal agency that is providing federal funds for your project.



Mr. Brian Takeda  
Planning Project Manager  
R.M. Towill Corporation  
Regarding: Environmental Assessment Pre-Assessment for August Ahrens Elementary  
School New Classroom Project  
December 8, 2021  
Page 2

Projects with construction documents that are covered by §103-50, HRS, are required to be submitted to DCAB for a formal document review.

A preliminary review of the Environmental Assessment Pre-Assessment prepared by R.M. Towill Corporation prompts the following issues that we recommend that the designer address in their forthcoming design. Where new on-site parking stalls are being proposed near the existing Cafeteria Building (along Mahoe Street), an accessible stall and access aisle shall be provided within this new parking facility area. An accessible route shall be provided from the new accessible stall and access aisle to the proposed new walkway adjacent to the new parking facility area. The proposed new elevator shall comply with ADAAG Section 407. At the proposed new play court, an accessible route for persons with disabilities shall be provided.

The above DCAB staff comments address the key issues found in the Environmental Assessment Pre-Assessment for August Ahrens Elementary School New Classroom Building Project but does not reflect all the elements required to be accessible. The forthcoming design documents will have to be reviewed to more accurately address all of the accessibility requirements.

Beyond DCAB's review process, program access obligations must be met under the ADA Title II provisions. This obligation may require additional means to provide access, especially where full compliance with the 2010 Standards cannot be achieved.

Should you have any questions, please feel free to contact Duane Buote, Facility Access Coordinator at (808) 586-8121 or [duane.buote@doh.hawaii.gov](mailto:duane.buote@doh.hawaii.gov).

Sincerely,



KIRBY L. SHAW  
Executive Director

c: State Department of Education  
Clifford Chu, Benjamin Woo Architects



March 16, 2023

Mr. Kirby L. Shaw, Executive Director  
State of Hawai'i  
Disability and Communication Access Board  
1010 Richards Street, Room 118  
Honolulu, Hawai'i 96813

Dear Mr. Shaw:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 8, 2021. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

1. *Because this project is being constructed on State land, it is covered by §103-50, Hawaii Revised Statutes (HRS). The construction of the August Ahrens Elementary School New Classroom Building Project is required to comply with the Department of Justice's (DOJ) 2010 ADA Standards for Accessible Design (2010 Standards) <http://www.ada.gov/2010ADAstandards/index.htm>. To be consistent with the DOJ's standard, DCAB adopted the 2004 Americans with Disabilities Act Accessibility Guidelines (ADAAG) as of January 1, 2011 and passed interpretive opinions consistent with the 2010 ADA Standards. All new Interpretive Opinions can be viewed or downloaded at <http://health.hawaii.gov/dcab/facility-access/interpretive-opinions/>.*

The DOE acknowledges this comment. The project will comply with provisions and intent of the ADA, HRS, §103-50, and the 2004 Americans with Disabilities Act Accessibility Guidelines. This is identified in the Draft EA, Section 6.1.1.

2. *If this project is receiving federal funds, it will also have to comply with the requirements under Section 504 of the Rehabilitation Act, but this is not included in the DCAB review process. If you have any questions regarding your obligations under Section 504 of the Rehabilitation Act, you should contact the federal agency that is providing federal funds for your project.*

The DOE acknowledges this comment. The proposed will be funded in its entirety by the State; no federal funds will be used.

3. *Projects with construction documents that are covered by §103-50, HRS, are required to be submitted to DCAB for a formal document review.*

The DOE acknowledges this comment. The DOE will consult with and submit plans to the Department of Health, Disability and Communication Access Board, to ensure that the project design meets Americans with Disabilities Act requirements. This is identified in the Draft EA, Section 6.1.1 and Section 7.1.

Mr. Kirby L. Shaw

March 16, 2023

Page 2 of 2

4. *Where new on-site parking stalls are being proposed near the existing Cafeteria Building (along Mahoe Street), an accessible stall and access aisle shall be provided within this new parking facility area. An accessible route shall be provided from the new accessible stall and access aisle to the proposed new walkway adjacent to the new parking facility area. The proposed new elevator shall comply with ADAAG Section 407. At the proposed new play court, an accessible route for persons with disabilities shall be provided.*

The DOE acknowledges and will comply with this requirement. This is identified in the Draft EA, Section 3.5.1.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,



Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)



December 09, 2021

R. M. TOWILL CORPORATION  
2024 North King Street Suite 200  
Honolulu, HI 96819

Attn: Mr. Brian Takeda

**Subject: August Ahrens Elementary School New Classroom Building**  
**Tax Map Key: (1) 9-4-059: 072, 073, and 074**

Dear Mr. Takeda,

The locations of existing routes and crossings were shown on the provided plans. The exact locations, and routing of all CATV facilities must be verified in the field due to construction variances. The location of the proposed project may have an effect on Spectrum's existing CATV plant in your work area.

However, if the work or repairs being performed requires special machinery, with a specific height requirements, the contractor performing the work, will be required to notify our office prior to performing any work. Spectrum may need to reattach or move our plant system, in the event that we have to relocate our existing plant system, charges may apply.

At this time, Spectrum utilizes HECO's aerial infrastructure and the underground conduits on the school premise to provide our CATV services. Please see attached drawing with highlighting CATV sections. Before any digging toning may be required. Call "One Call Center" at 866 423-7287 to set up toning.

This information has been provided to help minimize delays and prevent damage to existing CATV structures within the project area. Should you have any questions or concerns, please feel free to contact me at 808-348-8359, 808-695-3165, or email me at [Chinnough.Colburn@charter.com](mailto:Chinnough.Colburn@charter.com)

Sincerely,

A handwritten signature in black ink that reads "Chinnough Colburn".

Chinnough Colburn  
Construction Coordinator







**GENERAL CONTRACTOR'S NOTES:**

1. ***THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENT TO THE DUE AND LAWFULL PROSECUTION OF THE WORK.***
2. ***THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THESE UTILITIES AS A RESULT OF THEIR OPERATIONS. ADJUSTMENTS TO THE NEW DUCTLINE ALIGNMENT, IF REQUIRED, SHALL BE MADE TO PROVIDE THE REQUIRED CLEARANCES.***
3. ***THE CONTRACTOR SHALL BRACE ALL POLES OR LIGHT STANDARDS NEAR THE NEW DUCTLINE, MANHOLE OR HANDHOLE DURING ITS OPERATIONS.***
4. ***THE CONTRACTOR SHALL SAW-CUT A.C. PAVEMENT, CONCRETE GUTTER, AND CONCRETE SIDEWALK WHEREVER NEW MANHOLES, HANDHOLES, PULLBOXES OR DUCTLINES ARE TO BE PLACED AND SHALL RESTORE TO EXISTING CONDITION OR BETTER.***
5. ***THE UNDERGROUND PIPES, CABLES, OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM THEIR SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREAS. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.***
6. ***THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE COST FOR SUPPLEMENTARY MEASURES, WHICH WILL BE REQUIRED BY THE CITY AND COUNTY, SHALL BE BORNE BY THE CONTRACTOR.***
7. ***THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL KEEP THE PROJECT AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE OF HAWAII, DEPARTMENT OF HEALTH.***
8. ***PRIOR TO THE EXCAVATION OF THE DUCTLINE, THE CONTRACTOR SHALL REQUEST THAT SPECTRUM OCEANIC CABLE COMPANY TO LOCATE EXISTING DUCTLINE WHEREVER REQUIRED.***
9. ***THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE EXISTING CABLES OR DUCTS. ANY WORK INVOLVING EXISTING CABLES OR DUCTS SHALL BE DONE IN THE PRESENCE OF THE SPECTRUM OCEANIC INSPECTOR OR THEIR REPRESENTATIVE. TEMPORARY CABLE AND DUCT SUPPORT SHALL BE PROVIDED WHEREVER NECESSARY.***

- 10. THE CONTRACTOR SHALL NOTIFY THE SPECTRUM OCEANIC INSPECTOR 72 HOURS PRIOR TO THE START OF WORK ON CATV INFRASTRUCTURE, POURING CONCRETE, OR BACKFILLING. SPECTRUM OCEANIC'S INSPECTOR(S): PERRY SAMUELU AT 387-2496 OR PAUL CASPILLO AT 479-1637.**
- 11. WHEREVER CONNECTIONS TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES PRIOR TO EXCAVATION OF THE MAIN TRENCHES TO VERIFY THEIR LOCATIONS AND DEPTHS.**
- 12. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND FURNISH ALL LABOR AND EQUIPMENT NECESSARY TO INSTALL THE DUCTLINE IN PLACE COMPLETE.**
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT ALL REQUIRED LINES AND GRADES AND SHALL PRESERVE ALL BENCH MARKS AND WORKING POINTS NECESSARY TO LAY OUT THE WORK CORRECTLY. THE NEW DUCTLINE SHALL BE ADJUSTED BY THE CONTRACTOR TO SUIT THE EXISTING CONDITIONS AND THE DETAILS AS DESCRIBED IN THE PLANS.**
- 14. THE LOCATION OF CATV FACILITIES SHOWN ON PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AS TO ITS ACTUAL FIXED LOCATION. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING IN CLOSE PROXIMITY OF CATV FACILITIES.**
- 15. THE CONTRACTOR SHALL OBTAIN EXCAVATION PERMIT CLEARANCE FROM SPECTRUM OCEANIC'S ENGINEERING SECTION LOCATED AT 200 AKAMAINUI ST., MILILANI TECH PARK.**
- 16. FOR ANY FIELD ASSISTANCE OR VERIFICATION OF CATV FACILITIES, THE CONTRACTOR SHALL CALL SPECTRUM OCEANIC AT 625-2100 AND ASK FOR THE OSP ENGINEERING DEPARTMENT.**
- 17. ANY WORK REQUIRED TO RELOCATE CATV FACILITIES SHALL BE DONE BY SPECTRUM OCEANIC CABLE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION REQUIREMENTS AND ASSOCIATED COSTS.**
- 18. ANY DAMAGE TO SPECTRUM OCEANIC'S FACILITIES SHALL BE REPORTED TO SPECTRUM OCEANIC'S TOC DEPARTMENT AT 625-8169.**
- 19. THE CONTRACTOR SHALL TUNNEL UNDER EXISTING CONCRETE CURB AND GUTTER AS NECESSARY TO EXTEND CONDUIT INTO EXISTING CATV PULLBOX AND INTO THE PROPOSED POWER SUPPLY PULLBOX.**
- 20. ALL EXISTING IMPROVEMENTS THAT ARE DISTURBED DURING THE CONSTRUCTION PHASE SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION AT NO COST TO THE CITY IN ACCORDANCE WITH CITY'S STANDARDS.**

- 21. AT LOCATIONS WHERE EXISTING CATV PULLBOX REPLACEMENT IS PROPOSED, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTION NOT TO DAMAGE THE EXISTING CABLES IN THE PULLBOX. ALL DAMAGES TO EXISTING CABLES SHALL BE REPAIRED BY SPECTRUM OCEANIC CABLE AND PAID FOR BY THE CONTRACTOR.**
- 22. COORDINATE ALL PENETRATION OF TELEPHONE PULLBOXES WITH HAWAIIAN TEL INSPECTOR.**
- 23. SMOOTH FINISH INSIDE WALL OF EXISTING PULLBOXES AND HAND-HOLES TO ITS ORIGINAL CONDITION OR BETTER.**
- 24. ALL NEW CONCRETE ENCASED CONDUIT SHALL BE PVC PIPE-SCHEDULE 40. ALL NEW DIRECT-BUIRED CONDUIT SHALL BE PVC PIPE-SCHEDULE 80. USE OF ANY OTHER MATERIAL TYPE (GTS, ETC.) SHALL BE LIMITED TO MATCHING EXISTING FACILITES. CONNECTION OF DISSIMILAR MATERIALS TO REQUIRE APPROVAL FROM SPECTRUM OCEANIC INSPECTOR AND ENGINEERING DEPT.**
- 25. THE CONTRACTOR SHALL PLACE POLY CORD THROUGH OUT PROJECT, AND SECURE IN MANHOLES, HANDHOLES, AND PULLBOXES.**
- 26. FOR 3" CONDUITS OR LARGER, THE CONTRACTOR SHALL INSTALL NEPTCO WP1800 MULETAPE OR APPROVED EQUAL IN ALL DUCTLINES, LEAVE MULETAPE IN PLACE FOR FUTURE USE AS A PULL OR FISH LINE, UNLESS OTHERWISE NOTED. REFERENCE GTE MATERIAL CODE NO. 571154. ALL DUCTS SHALL BE CAPPED TO PREVENT ENTRY OF FOREIGN MATERIAL DURING CONSTRUCTION AND AT COMPLETION OF INSTALLATION. ENDBELLS ARE REQUIRED FOR CONDUITS 2" AND LARGER.**
- 27. PENETRATION INTO PULLBOXES IF NECESSARY TO BE FROM FACTORY INSTALLED OPENING OR FROM BRICKS POSITION. PENETRATION FROM PULLBOX WALLS IS NOT ACCEPTABLE.**
- 28. BENDS IN THE DUCT ALIGNMENT, DUE TO CHANGES IN GRADE SHALL HAVE A MINIMUM RADIUS OF 20-FEET. ALL 90-DEGREE C-BENDS AT A POLE OR AT THE BUILDING FLOOR SLAB PENETRATION, SHALL HAVE A BEND RADIUS OF 10 TIMES THE DIAMETER OF THE DUCT OR GREATER.**
- 29. MINIMUM LENGTH OF CONDUIT USED SHALL NOT BE LESS THAN 5-FEET IN LENGTH. USE OF PARTIAL CONDUIT SECTIONS ALLOWABLE IS AT SPECTRUM OCEANIC INSPECTOR(S) DISCRETION.**
- 30. ALL CONDUITS SHALL ENTER THROUGHT THE END "SHORT WALL" OF THE PULL-BOX. ENTRY SHALL BE AT 90 DEGRESS (PERPENDICULAR) TO WALL FACE WITH BENDS NO LESS THAN 12" FROM EXTERIOR WALL.**
- 31. A MINIMUM OF (2) PRECAST SECTIONS MUST BE USED ON ALL 2X4 OR 2X6 PULLBOXES.**

- 32. ALL NEW CONSTRUCTION SHALL UTILIZE CONCRETE PRECAST BASE UNLESS OTHERWISE APPROVED OR SPECIFIED BY SPECTRUM OCEANIC INSPECTOR(S).**
- 33. FOR PULL-BOX LOCATIONS WHERE VEHICULAR INTRUSION POSSIBLE, CONCRETE COLLAR REQUIRED PER SPECTRUM OCEANIC STANDARDS AND SPECIFICATIONS MANUAL. EXAMPLES INCLUDE, BUT NOT LIMITED TO, ROLLED/RIBBON CURBS, CURB / HEADERS LESS THAN 5" IN HEIGHT, VEHICLE TRAVELWAYS WITH NO DEFINED CURB / HEADER, ETC.**
- A. NON SIDEWALK AREAS, SEE FIGURE 18.1c, 19.1c AND 20.1b IN THE SPECTRUM SPECIFICATIONS MANUAL.**
- 34. WHEN THREE (3) OR MORE 4" CONDUITS ENTER ONE END WALL OF ANY PULLBOX, ONLY BRICK BASES WILL BE ALLOWED UNLESS OTHERWISE INSTRUCTED/APPROVED BY SPECTRUM OCEANIC INSPECTOR(S).**
- 35. TWO MINIMUM LAYERS OF BRICKS TO BE USED LOWER THAN THE LOWEST DUCT ENTERING THE PULLBOX. TOP LAYER OF BRICK TO BE FLUSH WITH TOP OF CONDUIT OR HIGHER.**
- 36. FOR UPGRADE/REPAIRS TO EXISTING PULL-BOXES, BRICKS MAY BE USED AND SHALL ALWAYS BE AT LEAST TWO LAYERS LOWER THAN THE LOWEST DUCT ENTERING THE PULLBOX.**
- 37. AT NO TIME SHALL CEMENT MORTAR, WOOD, OR ANY OTHER MATERIAL BE USED BETWEEN PRECAST SECTIONS.**
- 38. LEVELING OR RAISING OF BOXES TO GRADE MUST BE DONE:**
- A. PRE-CAST BASE(S) – USING GRAVEL LAYER UNDER BASE (TYPE 3B OR EQUIVALENT APPROVED BY SPECTRUM OCEANIC INSPECTOR)**
- B. BRICK BASE(S) – ADJUSTMENTS TO BRICKWORK SECTION. THE PERMANENT INSTALLATION OF WOODEN WEDGES TO ACCOMPLISH THIS PURPOSE WILL NOT BE ACCEPTED.**
- 39. 5/8" x 8' COPPER GROUND RODS SHALL BE PLACED IN ALL PULLBOXES UNLESS OTHERWISE DIRECTED BY SPECTRUM OCEANIC CABLE. GROUND RODS WILL BE PLACED IN THE CORNER 3" TO 4" FROM THE WALL AND AWAY FROM ANY CONDUIT WITH NO MORE THAN 8" STICKING UP ABOVE GROUND.**
- 40. TRENCHING TO BE CONDUCTED BY HAND DIGGING NEAR AND ACROSS EXISTING UTILITY LINES.**
- 41. MINIMUM CLEARANCE BETWEEN STREET LIGHT STAND AND FIRE HYDRANTS SHALL BE THREE FEET.**
- 42. UNDERGROUND UTILITIES SHOWN HEREON IS FOR INFORMATION ONLY. NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INSTALLATION.**

- 43. FOR UNDERGROUND CABLE LOCATING AND MARKING, FIVE WORKING DAYS ADVANCE NOTICE IS REQUIRED. THREE WORKING DAYS ADVANCE NOTICE IS REQUIRED FOR ANY INSPECTION BY A DESIGNATED REPRESENTATIVE. CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE ANY EXISTING CABLES OR DUCTS. SPECTRUM OCEANIC'S INSPECTOR OR DESIGNATED REPRESENTATIVE IS REQUIRED TO BE AT ANY JOB SITE WHENEVER THERE WILL BE A BREAKAGE INTO OR ENTRY INTO ANY STRUCTURE THAT CONTAIN SPECTRUM OCEANIC'S FACILITIES.**
- 44. CONCRETE STRENGTH SHALL BE 3000 PSI IN 28 DAYS.**
- 45. CURING AND BACKFILLING. MAINTAIN CONCRETE IN A MOIST CONDITION FOR 24 HOURS MINIMUM FOR 3,000 PSI AND 48 HOURS MINIMUM FOR 2,500 PSI BEFORE COMPACTED. BACKFILLING: 72 HOURS MINIMUM BEFORE PERMITTING MOTOR TRAFFIC LOAD ON DUCTLINE. CURING METHOD SHALL MEET SPECTRUM OCEANIC INSPECTOR'S APPROVAL.**
- 46. INSTALL 8-MIL. THICK ORANGE COLOR WARNING TAPE 4-INCH WIDE ENTIRE LENGTH OF TRENCH WHEN PLACING CATV CONDUITS. TAPE SHOULD READ "CAUTION BURIED CABLE LINE BELOW". MANUFACTURED BY HARRIS INDUSTRIES, INC. CATALOG NUMBER UT-43 OR EQUIVALENT TAPE. TAPE TO BE INSTALLED 12-INCHES BELOW GRADE.**
- 47. AFTER DUCTLINE HAS BEEN COMPLETED, A MANDREL WITH A SQUARE FRONT NOT LESS THAN 12-INCH LONG AND HAVING A DIAMETER OF ¼-INCH LESS THAN THE INSIDE DIAMETER OF DUCT, SHALL BE PULLED THROUGH EACH DUCT AFTER WHICH A BRUSH WITH STIFF BRISTLES SHALL BE PULLED THROUGH TO MAKE CERTAIN THAT NO PARTICLES OF EARTH, SAND, OR GRAVEL HAVE BEEN LEFT INSIDE. DUCTS SHALL BE COMPLETELY DRY AND CLEAN.**
- 48. METALLIC ENTRANCE CONDUITS SHALL BE GROUNDED.**
- 49. ALL CONDUITS WITHIN A BUILDING SHALL:**
- A) BE INSTALLED IN THE SHORTEST AND STRAIGHTEST POSSIBLE RUN.**
  - B) HAVE NO SECTION LONGER THAN 100-FEET NOR CONTAIN MORE THAN TWO 90-DEGREE BENDS. AN APPROVED SIZED JUNCTION BOX OR GUTTER BOX SHALL BE PLACED IF THIS IS EXCEEDED.**
  - C) ALL BENDS SHALL BE LONG SWEEP-RADIUS BENDS BUT THE INSIDE RADIUS OF THE BEND MUST NEVER BE LESS THAN TEN TIMES THE DIAMETER OF THE CONDUIT.**
- 50. ALL CONSTRUCTION MUST BE INSPECTED AND APPROVED BY SPECTRUM OCEANIC PRIOR TO THE INSTALLATION OF ANY OF ITS FACILITIES AND THE ENERGIZING OF ITS SYSTEM.**
- 51. CONTRACTOR AND/OR CUSTOMER SHALL PROVIDE SPECTRUM OCEANIC WITH SUFFICIENT INSTALLATION TIME IN THEIR OCCUPANCY TIME TABLE.**



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Telephone 808 842 1133  
Fax 808 842 1937  
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R. M. TOWILL CORPORATION  
SINCE 1930

Planning  
Engineering  
Environmental Services  
Photogrammetry  
Surveying  
Construction Management

March 16, 2023

Mr. Chinnough Colburn  
Construction Coordinator  
Charter Communications/Spectrum

Email: Chinnough.Colburn@charter.com

Dear Mr. Colburn:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 9, 2021. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

*The locations of existing routes and crossings were shown on the provided plans. The exact locations, and routing of all CATV facilities must be verified in the field due to construction variances. The location of the proposed project may have an effect on Spectrum's existing CATV plant in your work area.*

*However, if the work or repairs being performed requires special machinery, with a specific height requirements, the contractor performing the work, will be required to notify our office prior to performing any work. Spectrum may need to reattach or move our plant system, in the event that we have to relocate our existing plant system, charges may apply.*

*At this time, Spectrum utilizes HECO's aerial infrastructure and the underground conduits on the school premise to provide our CATV services. Please see attached drawing with highlighting CATV sections. Before any digging toning may be required. Call "One Call Center" at 866 423-7287 to set up toning.*

The DOE acknowledges this comment and the drawings provided. During construction, contractors will be required to verify locations of existing infrastructure prior to the start of construction and protect existing infrastructure to ensure against interruption of services within the project area. AAES and its contractor will notify Spectrum prior to performing any work that requires special machinery, with a specific height requirement. This is identified in the Draft EA, Section 4.13.2.

Mr. Chinnough Colburn

March 16, 2023

Page 2 of 2

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

A handwritten signature in black ink that reads "Brian Takeda". The signature is written in a cursive, slightly slanted style.

Brian Takeda

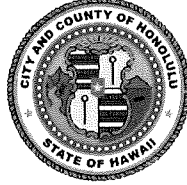
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DEPARTMENT OF TRANSPORTATION SERVICES  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 768-8305 • Fax: (808) 768-4730 • web: www.honolulu.gov

RICK BLANGIARDI  
MAYOR



J. ROGER MORTON  
DIRECTOR

JON Y. NOUCHI  
DEPUTY DIRECTOR

TP11/21-868378

December 20, 2021

Mr. Brian Takeda, Planning Project Manager  
R. M. Towill Corporation  
2024 North King Street, Suite 200  
Honolulu, Hawaii 96819

Dear Mr. Takeda:

**SUBJECT:** Hawaii Revised Statutes (HRS), Chapter 343, Environmental Assessment Pre-Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of Oahu, Hawaii  
Tax Map Keys (TMKs): (1) 9-4-059: Portions of 072, 073, and 074, and Mahoe Street and Waipahu Street rights-of-way (no TMK)

Thank you for the opportunity to provide written comments regarding the subject project. We have the following comments.

1. **Transportation Impact Assessment (TIA).** The applicant shall perform a TIA to examine the vehicle, pedestrian, bicycle, and public transit stress and comfort levels at the nearby intersections and driveways with corresponding improvements to mitigate these impacts by applying Complete Streets principles. The applicant shall discuss the future year growth rate, trip distribution, mode split, and route assignment assumptions used in the TIA.

The TIA should identify an appropriate speed limit for the streets adjacent to the project by analyzing conflict density and activity level, among other contextual factors, to determine the speed limit that will best minimize the risk of a person being killed or seriously injured. The National Association of City Transportation Officials Safe Speed Study methodology is recommended. A Safe Speed Study should be conducted for the longest relevant segment of a street corridor affected by the project.

The applicant shall submit all native files (e.g., Synchro, Excel, etc.) for the raw multi-modal counts and accompanying analyses to the Regional Planning Branch at [dtsplanningdiv@honolulu.gov](mailto:dtsplanningdiv@honolulu.gov). Please refer to the Department of Transportation Services (DTS) TIA Guide for multimodal assessment tools and recommended analyses. The TIA Guide can be found at <http://www4.honolulu.gov/docushare/dsweb/View/Collection-7723>.

2. **Complete Streets.** The TIA shall include a discussion of the following:
  - i. Include a description of how the project will promote, encourage, and monitor transit use by its employees and students.
  - ii. The management entity shall inform employees and parents of the City's vanpool, car share, and bikeshare programs to promote alternate modes of transportation.
  - iii. Investigate the feasibility of providing employees with subsidized transit passes.
  - iv. The management entity should adopt (i.e., be responsible for litter removal, cleaning and maintenance of bus stop shelter, benches and floor area) any anticipated future bus stops fronting the project site at no cost to the City.
  - v. The applicant shall make a contribution for complete streets improvements as recommended by the forthcoming TIA.
3. **Street Usage Permit.** A street usage permit from the DTS should be obtained for any construction-related work that may require the temporary closure of any traffic lane or pedestrian mall on a City street.
4. **Neighborhood Impacts.** The area representatives, neighborhood board, as well as the area residents, businesses, emergency personnel (fire, ambulance, and police), Oahu Transit Services, Inc. (TheBus and TheHandi-Van), etc., should be kept apprised of the details and status throughout the project and the impacts that the project may have on the adjoining local street area network.
5. **Bus Stops.** The project site is in the immediate vicinity of bus stops. Please coordinate roadway improvements with DTS – Transportation Mobility Division (TMD). Contact DTS-TMD at [TheBusStop@honolulu.gov](mailto:TheBusStop@honolulu.gov)

Mr. Brian Takeda, Planning Project Manager  
December 20, 2021  
Page 3

6. **Disability and Communication Access Board (DCAB).** Project plans (vehicular and pedestrian circulation, sidewalks, parking and pedestrian pathways, vehicular ingress/egress, etc.) should be reviewed and approved by DCAB to ensure full compliance with Americans with Disabilities Act requirements.

Should you have any questions, please contact Greg Tsugawa, of my staff, at (808) 768-6683.

Very truly yours,



J. Roger Morton  
Director





March 16, 2023

Mr. J. Roger Morton, Director  
City and County of Honolulu  
Department of Transportation Services  
650 South King Street, 3rd Floor  
Honolulu, Hawai'i 96813

Dear Mr. Morton:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 20, 2021 (TP11/21-868378). The following has been prepared in response to your comments (your comments have been *italicized* for reference):

1. *Transportation Impact Assessment (TIA). The applicant shall perform a TIA to examine the vehicle, pedestrian, bicycle, and public transit stress and comfort levels at the nearby intersections and driveways with corresponding improvements to mitigate these impacts by applying Complete Streets principles. The applicant shall discuss the future year growth rate, trip distribution, mode split, and route assignment assumptions used in the TIA.*

*The TIA should identify an appropriate speed limit for the streets adjacent to the project by analyzing conflict density and activity level, among other contextual factors, to determine the speed limit that will best minimize the risk of a person being killed or seriously injured. The National Association of City Transportation Officials Safe Speed Study methodology is recommended. A Safe Speed Study should be conducted for the longest relevant segment of a street corridor affected by the project.*

*The applicant shall submit all native files (e.g., Synchro, Excel, etc.) for the raw multi-modal counts and accompanying analyses to the Regional Planning Branch at [dtsplanningdiv@honolulu.gov](mailto:dtsplanningdiv@honolulu.gov). Please refer to the Department of Transportation Services (DTS) TIA Guide for multimodal assessment tools and recommended analyses. The TIA Guide can be found at <http://www4.honolulu.gov/docushare/dsweb/View/Collection-7723>.*

The proposed project entails the construction of a new classroom building that is intended to support the existing student enrollment at August Ahrens Elementary School and is not anticipated to generate additional new trips in the project vicinity. As such, the proposed project is expected to have minimal impact on the surrounding roadway network. This is identified in the Draft EA, Section 2.3.

A Transportation Management Plan (TMP) is currently in progress and expected to be prepared in conjunction with the project design. The completion date for the TMP is estimated in the mid-2023 timeframe and may follow the project's HRS, Chapter 343, EA process; as available, the TMP will be included in the Final EA and FONSI. Following the completion of the TMP, DOE

Mr. J. Roger Morton

March 16, 2023

Page 2 of 3

will provide the TMP to governmental agencies, including the Department of Transportation Services, and others, as appropriate, for review and approval. The TMP will include traffic circulation, parking, and travel demand management strategies aimed at reducing or redistributing travel demand. This would include an assessment of vanpools, car shares, bike share programs, and subsidized transit passes for employees, along with other travel demand management strategies for the AAES. This is identified in the Draft EA, Section 4.13.1 and Section 7.2.

2. *Complete Streets. The TIA shall include a discussion of the following:*

- i. *Include a description of how the project will promote, encourage, and monitor transit use by its employees and students.*
- ii. *The management entity shall inform employees and parents of the City's vanpool, car share, and bikeshare programs to promote alternate modes of transportation.*
- iii. *Investigate the feasibility of providing employees with subsidized transit passes.*
- iv. *The management entity should adopt (i.e., be responsible for litter removal, cleaning and maintenance of bus stop shelter, benches and floor area) any anticipated future bus stops fronting the project site at no cost to the City.*
- v. *The applicant shall make a contribution for complete streets improvements as recommended by the forthcoming TIA.*

The DOE acknowledges this comment. Travel demand management strategies aimed at reducing or redistributing travel demand will be included as part of an overall TMP being developed for the project as provided in the response to No. 1 above. Vanpools, car shares, bike share programs, and subsidized transit passes for employees, along with other travel demand management strategies will be included as part of the overall TMP prepared for the AAES. DOE will coordinate with the City regarding the bus stops along the project frontage which are expected to remain at their current configuration. Additionally, DOE will contribute to complete streets improvements as recommended by the forthcoming TMP. This is identified in the Draft EA, Section 4.13.1 and Section 7.2.

3. *Street Usage Permit. A street usage permit from the DTS should be obtained for any construction-related work that may require the temporary closure of any traffic lane or pedestrian mall on a City street.*

The DOE acknowledges this comment and will ensure the project contractor obtains a street usage permit from the Department of Transportation Services for any construction-related work that may require temporary closure of any traffic lane on Mahoe Street and Waipahu Street. This is identified in the Draft EA, Section 4.13.1 and Section 7.2.

4. *Neighborhood Impacts. The area representatives, neighborhood board, as well as the area residents, businesses, emergency personnel (fire, ambulance, and police), O'ahu Transit Services, Inc. (TheBus and TheHandiVan), etc., should be kept apprised of the details and status throughout the project and the impacts that the project may have on the adjoining local street area network.*

The DOE acknowledges this comment. AAES and its contractor will continue to appraise the Waipahu Neighborhood Board No. 22, Waipahu Community Association, area businesses, and schools, emergency services, and O'ahu Transit Services, Inc. of its construction plans, schedule,

Mr. J. Roger Morton

March 16, 2023

Page 3 of 3

and any changes throughout the project planning and implementation process. This is identified in the Draft EA, Section 4.13.1.

5. *Bus Stops. The project site is in the immediate vicinity of bus stops. Please coordinate roadway improvements with DTS - Transportation Mobility Division (TMD). Contact DTS-TMD at TheBusStop@honolulu.gov*

The DOE acknowledges this comment and will coordinate roadway improvements with the Department of Transportation Services - Transportation Mobility Division to ensure against interruption of bus services within the project area. This is identified in the Draft EA, Section 4.13.1.

6. *Disability and Communication Access Board (DCAB). Project plans (vehicular and pedestrian circulation, sidewalks, parking and pedestrian pathways, vehicular ingress/egress, etc.) should be reviewed and approved by DCAB to ensure full compliance with Americans with Disabilities Act requirements.*

The DOE acknowledges this comment. The DOE will consult with and submit plans to the Department of Health, Disability and Communication Access Board, to ensure that the project design meets Americans with Disabilities Act requirements. This is identified in the Draft EA, Section 6.1.1 and Section 7.1.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,



Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

## BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843  
www.boardofwatersupply.com



December 22, 2021

RICK BLANGIARDI, MAYOR

BRYAN P. ANDAYA, Chair  
KAPUA SPROAT, Vice Chair  
RAY C. SOON  
MAX J. SWORD  
NA'ALEHU ANTHONY

JADE T. BUTAY, Ex-Officio  
ROGER BABCOCK, Jr., Ex-Officio

ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.  
Deputy Manager and Chief Engineer

Mr. Brian Takeda  
R. M. Towill Corporation  
2024 North King Street, Suite 200  
Honolulu, Hawaii 96819

Dear Mr. Takeda:

Subject: Your Letter Dated November 19, 2021 Requesting Pre-Assessment Comments on the Environmental Assessment for the Proposed August Ahrens Elementary School New Classroom Project, Located Along Mahoe Street and Waipahu Street Tax Map Key: 9-4-059: 072, 073, and 074

Thank you for the opportunity to comment on the proposed new classroom building at August Ahrens Elementary.

The existing water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.

Water conservation measures are required for all proposed developments. These measures include utilization of nonpotable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.

The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at (808) 748-5443.

Very truly yours,

ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer



March 16, 2023

Mr. Ernest. Y.W. Lau, P.E.  
Manager and Chief Engineer  
City and County of Honolulu  
Board of Water Supply  
630 South Beretania Street  
Honolulu, Hawai'i 96843

Dear Mr. Lau:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 22, 2021. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

1. *The existing water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.*

The DOE acknowledges this comment appreciates your statement acknowledging that the existing water system is adequate to accommodate the proposed development. The DOE acknowledges that the Board of Water Supply (BWS) reserves the right to change their position or information until the final approval of the building permit application and that the final decision on the availability of water will be confirmed when the building permit application is submitted for approval. This is identified in the Draft EA, Section 4.13.2.

2. *When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.*

The DOE acknowledges that when water is made available, the DOE will be required to pay the BWS Water System Facilities Charges for resource development, transmission, and daily storage. This is identified in the Draft EA, Section 4.13.2.

3. *Water conservation measures are required for all proposed developments. These measures include utilization of non potable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.*



Mr. Ernest. Y.W. Lau

March 16, 2023

Page 2 of 2

The DOE acknowledges this comment. Where possible, DOE will utilize water conservation measures at the site. These measures may include the utilization of non-potable water for irrigation using rain catchment, drought-tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets. This is identified in the Draft EA, Section 4.13.2.

4. *The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.*

The DOE acknowledges this comment and will submit plans to the BWS for review and approval to the. DOE will continue to coordinate with the BWS on the proposed project and construction schedule to minimize impacts on the water system. This is identified in the Draft EA, Section 4.13.2.

5. *The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.*

The DOE acknowledges this comment and will coordinate on-site fire protection requirements with the Fire Prevention Bureau of the Honolulu Fire Department. This is identified in the Draft EA, Section 4.13.2 and Section 4.13.6.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

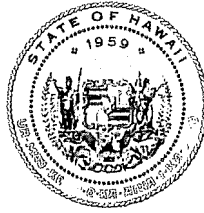
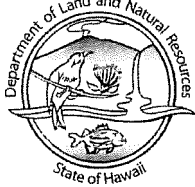
Sincerely,



Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DAVIDY, JOE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
FIRST DEPUTY

M. KALEO MANUEL  
DEPUTY DIRECTOR: WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
HOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

TO: Public, Consulting Parties. Federal, State and City Agencies

FROM: Alan S. Downer, Administrator<sup>A</sup> .V

RE: SHPD Migration of Submittals to the Hawaii Cultural Resource Information System ( HICRIS)

DATE: November 30, 2020

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Aloha,

The State of Hawaii Historic Preservation Division is in the process of moving to an online submission system. The Hawaii Cultural Resource Information System ( HICRIS) will be the only way for SHPD to accept and process submittals. We are not accepting submissions currently, while we migrate the data from our existing systems to HICRIS. The transition period is from November 28 to December 16, 2020. Additional information on HICRIS and the launch date can be found on our website. <http://dlnr.hawaii.gov/shpd/>

Mahalo,

*Alan Downer*

Alan S. Downer, Administrator



March 16, 2023

Mr. Jade T. Butay, Director of Transportation  
Hawai'i Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawai'i 96813-5097

Dear Mr. Butay:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a letter dated December 22, 2021 (Ref.: DIR 1115 HWY-PS 2.7133). The following has been prepared in response to your comments (your comments have been *italicized* for reference):

*Based on your letter, we cannot identify whether there will be an increase in student enrollment related to the proposed action. Therefore, an evaluation should be provided on whether the proposed building, operation, and additional enrollment projection will have any local impacts on the roadways or nearby State highways. The evaluation should be provided in the DEA. If relevant, a Traffic Assessment or a Traffic Impact Analysis Report should also be included. The traffic study should be prepared by a Traffic Engineer licensed in the State of Hawai'i.*

The proposed project entails the construction of a new classroom building that is intended to support the existing student enrollment at August Ahrens Elementary School and is not anticipated to generate additional new trips in the project vicinity. As such, the proposed project is expected to have minimal impact on the surrounding roadway network. This is identified in the Draft EA, Section 2.3.

A Transportation Management Plan (TMP) is currently in progress and expected to be prepared in conjunction with the project design. The completion date for the TMP is estimated in the mid-2023 timeframe and may follow the project's HRS, Chapter 343, EA process; as available, the TMP will be included in the Final EA and FONSI. Following the completion of the TMP, DOE will provide the TMP to governmental agencies, including the Hawai'i Department of Transportation, and others, as appropriate, for review and approval. The TMP will include traffic circulation, parking, and travel demand management strategies aimed at reducing or redistributing travel demand. This would include an assessment of vanpools, car shares, bike share programs, and subsidized transit passes for employees, along with other travel demand management strategies for the AAES. This is identified in the Draft EA, Section 4.13.1 and Section 7.1.

Mr. Dean Uchida, Director

March 16, 2023

Page 2 of 2

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

A handwritten signature in black ink that reads "Brian Takeda". The signature is written in a cursive, slightly slanted style.

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DAVID Y. IGE  
GOVERNOR



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

JADE T. BUTAY  
DIRECTOR

Deputy Directors  
ROSS M. HIGASHI  
EDUARDO P. MANGLALLAN  
PATRICK H. MCCAIN  
EDWIN H. SNIFFEN

IN REPLY REFER TO:  
**DIR 1115**  
**HWY-PS 2.7133**

December 22, 2021

**VIA EMAIL:** [briant@rmtowill.com](mailto:briant@rmtowill.com)

Mr. Brian Takeda  
R.M Towill, Inc.  
2024 North King Street, Suite 200  
Honolulu, Hawaii 96819

Dear Mr. Takeda:

**Subject:** Request for Comments  
Pre-Assessment Consultation for Draft Environmental Assessment  
August Ahrens Elementary School – Classroom Building and Improvements  
94-1170 Waipahu Street  
Tax Map Key No. (1) 9-4-059: 072, 073 and 074 (Portions) -Waipahu, Oahu

Thank you for your letter dated November 19, 2021, requesting for our review in preparation of a Draft Environmental Assessment (DEA) required by Chapter 343, Hawaii Revised Statutes, due to the use of State lands and State funds.

The project requires the demolition of an existing play court, fencing, and concrete curbs. The proposed construction includes a 25,800-square-foot classroom building, parking area, play court, grading, and landscape work.

The school frontages are bordered by Mahoe Street to the west and Waipahu Street to the south; both are County roadways. The school site provides a total of two access driveways on both frontages. The project site is approximately 0.65 miles from the nearby State Kamehameha Highway (Route 99).

Based on your letter, we cannot identify whether there will be an increase in student enrollment related to the proposed action. Therefore, an evaluation should be provided on whether the proposed building, operation, and additional enrollment projection will have any local impacts on the roadways or nearby State highways. The evaluation should be provided in the DEA. If relevant, a Traffic Assessment or a Traffic Impact Analysis Report should also be included. The traffic study should be prepared by a Traffic Engineer licensed in the State of Hawaii.



Mr. Brian Takeda  
December 22, 2021  
Page 2

HWY-PS 2.7133

If you have any questions, please contact Jeyan Thirugnanam, Systems Planning Engineer, Highways Divisions, Planning Branch at (808) 587-6336 or by email at [jeyan.thirugnanam@hawaii.gov](mailto:jeyan.thirugnanam@hawaii.gov). Please reference file review number PS 2021-216.

Sincerely,

A handwritten signature in black ink, appearing to read "Jade T. Butay". The signature is stylized and cursive.

JADE T. BUTAY  
Director of Transportation

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



R. M. TOWILL CORPORATION  
SINCE 1930

Planning  
Engineering  
Environmental Services  
Photogrammetry  
Surveying  
Construction Management

March 16, 2023

Mr. Alan S. Downer, Administrator  
State Historic Preservation Division  
Department of Land and Natural Resources  
Kakuhihewa Building  
601 Kamokila Boulevard, Suite 555  
Kapolei, Hawai'i 96707

Dear Mr. Downer:

**Response to Preassessment Comments for Hawai'i Revised Statutes, Chapter 343,  
Environmental Assessment for August Ahrens Elementary School (AAES) New Classroom  
Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your preassessment comments transmitted in a memo dated November 30, 2020 (received January 20, 2022). The following has been prepared in response to your comments (your comments have been *italicized* for reference):

*The State of Hawaii Historic Preservation Division is in the process of moving to an online submission system. The Hawai'i Cultural Resource Information System (HICRIS) will be the only way for SHPD to accept and process submittals. We are not accepting submissions currently, while we migrate the data from our existing systems to HICRIS. The transition period is from November 28 to December 16, 2020. Additional information on HICRIS and the launch date can be found on our website.  
<http://dlnr.hawaii.gov/shpd/>*

The DOE acknowledges this comment and will provide submittals to the SHPD for the project through the Hawai'i Cultural Resource Information System.

We appreciated your review of the subject project and allowing us this opportunity to respond. Your letter and this response will be included in the Draft EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

## **Appendix E**

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### **Draft EA Public Comment Period Comments and Responses for Hawai'i Revised Statutes, Chapter 343.**



JOSH GREEN, M.D.  
GOVERNOR  
KE KIA'ĀINA



KEITH A. REGAN  
COMPTROLLER  
KA LUNA HO'OMALU HANA LAULĀ

MEOH-LENG SILLIMAN  
DEPUTY COMPTROLLER  
KA HOPE LUNA HO'OMALU HANA LAULĀ

**STATE OF HAWAII | KA MOKU'ĀINA O HAWAII**  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | KA 'OIHANA LOIHELU A LAWELAWE LAULĀ  
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)23.041

MAR 31 2023 23 APR 11 P2:57

Aaron Geonzon  
State of Hawaii  
Department of Education  
Ka Oihana Hoonaaauao  
P.O. Box 2360  
Honolulu, Hawaii 96804

DEPT OF EDUCATION  
FACILITIES DEV BRANCH

Dear Mr. Geonzon:

Subject: Draft Environmental Assessment and Finding of No Significant Impact for August Ahrens Elementary School New Classroom Building Project  
TMK: (1)9-4-059: Portions of 72, 073 and 074 and Mahoe Street and Waipahu Street

Thank you for the opportunity to comment on the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities and we have no comments to offer at this time.

If you have any questions, your staff may call Ms. Dora Choy of the Planning Branch at (808) 586-0488.

Sincerely,

A handwritten signature in blue ink, appearing to read "CK", written over a blue line.

CHRISTINE L. KINIMAKA  
Public Works Administrator

DC:mo

c: Brian Takeda, R.M. Towill Corp.

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



R. M. TOWILL CORPORATION  
SINCE 1930

Planning  
Engineering  
Environmental Services  
Photogrammetry  
Surveying  
Construction Management

October 20, 2023

Ms. Christine L. Kinimaka, Public Works Administrator  
State of Hawai'i  
Department of Accounting and General Services  
P.O. Box 119  
Honolulu, Hawai'i 96810

Dear Ms. Kinimaka:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on March 31, 2023. The DOE appreciates your statement acknowledging that the proposed project will not impact any of the Department of Accounting and General Services' activities or projects.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

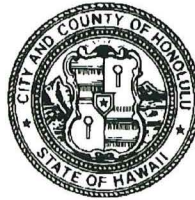
Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)



DEPARTMENT OF COMMUNITY SERVICES  
CITY AND COUNTY OF HONOLULU

925 DILLINGHAM BOULEVARD, SUITE 200 • HONOLULU, HAWAII 96817  
PHONE: (808) 768-7762 • FAX: (808) 768-7792  
[www.honolulu.gov/dcs](http://www.honolulu.gov/dcs)



RICK BLANGIARDI  
MAYOR

ANTON C. KRUCKY  
DIRECTOR  
AEDWARD LOS BANOS  
DEPUTY DIRECTOR

March 31, 2023

Mr. Brian Takeda, Planning Project Manager  
R.M. Towill Corporation  
2024 North King Street, Suite 200  
Honolulu, Hawai'i 96819

Dear Mr. Takeda:

SUBJECT: DRAFT Environmental Assessment & AFONSI  
August Ahrens Elementary School New Classroom Building  
TMK: (1) 9-4-059: Portions of 072, 073, and 074, and Mahoe Street  
and Waipahu Street Rights-of-Way, Waipahu, O'ahu, Hawai'i

Thank you for your notice of a Draft Environmental Assessment and Anticipated Finding of No Significant Impact (DEA/AFONSI) for the August Ahrens Elementary School New Classroom Building project.

Our review indicates that the proposed project will have no adverse impacts on any Department of Community Services activities or projects in the surrounding neighborhood.

Thank you for providing us the opportunity to comment on this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Anton C. Krucky".

Anton C. Krucky  
Director



## R. M. TOWILL CORPORATION

23 MAR 28 9 31 05

2024 North King Street  
 Suite 200  
 Honolulu Hawaii 96819-3470  
 Telephone 808 842 1133  
 Fax 808 842 1937  
 eMail rmtowill@hawaii.rr.com

March 23, 2023

DEPT OF COMMUNITY  
 SERVICES

Mr. Anton C. Krucky  
 Director  
 Department of Community Services  
 925 Dillingham Blvd., Suite 200  
 Honolulu, HI 96817

Dear Mr. Krucky:

**Draft Environmental Assessment and Anticipated Finding of No Significant Impact for the August Ahrens Elementary School New Classroom Building Project, 'Ewa District, Island of O'ahu, Hawai'i, Tax Map Keys: (1) 9-4-059: Portions of 072, 073, and 074, and Mahoe Street and Waipahu Street (no TMK)**

On behalf of the State of Hawai'i, Department of Education (DOE), we are providing notice that a Draft Environmental Assessment (DEA) and Anticipated Finding of No Significant Impact (AFONSI) have been prepared in accordance with Hawai'i Revised Statutes, Chapter 343, and Hawai'i Administrative Rules, Title 11, Chapter 200.1 for the August Ahrens Elementary School (AAES) New Classroom Building Project.

The proposed project includes the construction of a new permanent two-story classroom building that will replace existing but older portable classrooms. A new play court and concrete masonry unit wall, new walkways, and a new small parking area at the AAES will also be provided. These project improvements will support the needs of the current and future student body and staff. The new classroom building will be approximately 26,900 square feet and provide approximately 13 new classrooms designed to be flexible, mixed-use spaces to support a more modern learning environment that can be adapted for student or teacher needs. The new classroom building will also incorporate other support spaces including, but not limited to, activity hub, a special education room, a faculty room, storage rooms, electrical rooms, restrooms, an elevator, and IT rooms. The design will complement the style of other adjacent buildings and facilities within the school campus. The project will support the existing student population and will not increase enrollment.

The DEA and AFONSI are available for download on March 23, 2023, from the Environmental Review Program, Office of Planning and Sustainable Development, website at:  
[https://files.hawaii.gov/dbedt/erp/Doc\\_Library/2023-03-23-OA-DEA-August-Ahrens-Elementary-School-New-Classroom-Building.pdf](https://files.hawaii.gov/dbedt/erp/Doc_Library/2023-03-23-OA-DEA-August-Ahrens-Elementary-School-New-Classroom-Building.pdf). Paper copies of the DEA and AFONSI are available upon request.

Written comments on the DEA must be received or postmarked within 30 days of this notice by **April 24, 2023**, deadline.

Mr. Krucky  
March 23, 2023  
Page 2 of 2

Please submit your comments by E-Mail or mail to:

Mr. Aaron Geonzon, Project Manager  
State of Hawai`i  
Department of Education  
Ka `Oihana Ho`ona`auao  
P.O. Box 2360  
Honolulu, Hawai`i 96804  
Email: [aaron.geonzon@k12.hi.us](mailto:aaron.geonzon@k12.hi.us)

With a copy to:

Mr. Brian Takeda, Planning Project Manager  
R. M. Towill Corporation  
2024 North King Street, Suite 200  
Honolulu, Hawai`i 96819.  
E-Mail: [briant@rmtowill.com](mailto:briant@rmtowill.com)

If there are any questions, please contact Mr. Brian Takeda of R.M. Towill Corporation at (808) 842-1133 or by email at [briant@rmtowill.com](mailto:briant@rmtowill.com), or Mr. Aaron Geonzon of the State of Hawai`i Department of Education at (808) 784-5053 or by email at [aaron.geonzon@k12.hi.us](mailto:aaron.geonzon@k12.hi.us).

Sincerely,

A handwritten signature in black ink that reads "Brian Takeda". The signature is written in a cursive, slightly slanted style.

Brian Takeda,  
Planning Project Manager

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



R. M. TOWILL CORPORATION  
SINCE 1930

Planning  
Engineering  
Environmental Services  
Photogrammetry  
Surveying  
Construction Management

October 20, 2023

Mr. Anton C. Krucky, Director  
Department of Community Services  
City and County of Honolulu  
925 Dillingham Boulevard, Suite 200  
Honolulu, Hawai'i 96817

Dear Mr. Krucky:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on March 31, 2023. The DOE appreciates your statement acknowledging that the proposed project will not impact any of the Department of Community Services' activities or projects.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

HONOLULU FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**

636 South Street  
Honolulu, Hawaii 96813-5007  
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

RICK BLANGIARDI  
MAYOR



SHELDON K. HAO  
FIRE CHIEF

JASON SAMALA  
DEPUTY FIRE CHIEF

April 5, 2023

Mr. Aaron Geonzon, Project Manager  
State of Hawaii  
Department of Education  
Ka Oihana Hoonaaauao  
Post Office Box 2360  
Honolulu, Hawaii 96804

23 APR 13 AM 10:07

DEPT. OF EDUCATION  
FACILITIES DIVISION

Dear Mr. Geonzon:

Subject: Draft Environmental Assessment  
August Ahrens Elementary School New Classroom Building Project  
Ewa District, Hawaii  
Tax Map Keys (TMK): 9-4-059: Portions of 072, 073, and 074  
Mahoe Street and Waipahu Street (no TMK)

In response to a letter received from Mr. Brian Takeda of R. M. Towill Corporation, on March 28, 2023, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the submitted information and requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1, as amended.)

A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2018 Edition, Section 18.2.3.2.1.)

2. Fire department access roads shall be in accordance with NFPA 1; 2018 Edition, Section 18.2.3.



Mr. Aaron Geonzon  
Page 2  
April 5, 2023

3. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with NFPA 1; 2018 Edition, Sections 18.3 and 18.4.
4. Submit civil drawings to the City and County of Honolulu's Department of Planning and Permitting and route them to the HFD for review and approval.

The abovementioned provisions are required by the HFD. This project may necessitate additional requirements be met as determined by other agencies.

Should you have questions, please contact Acting Battalion Chief Kendall Ching of our Fire Prevention Bureau at 808-723-7154 or [kching3@honolulu.gov](mailto:kching3@honolulu.gov).

Sincerely,



CRAIG UCHIMURA  
Acting Assistant Chief

CU/MD:bh

cc: Mr. Brian Takeda



October 20, 2023

Mr. Craig Uchimura, Acting Assistant Chief  
Honolulu Fire Department  
City and County of Honolulu  
636 South Street  
Honolulu, Hawai'i 96813

Dear Mr. Uchimura:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 5, 2023. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

- 1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1, as amended.)*

*A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2018 Edition, Section 18.2.3.2.1.)*

The DOE acknowledges this comment. The proposed project will comply with the National Fire Protection Association (NFPA) 1, 2018 Edition, Sections 18.2.3.2.1, 18.2.3.2.2, and 18.2.3.2.2.1, requirements for fire department access roads. This is identified in the Final EA, Section 4.13.5.

- 2. Fire department access roads shall be in accordance with NFPA 1; 2018 Edition, Section 18.2.3.*

The DOE acknowledges this comment. The fire department access roads will be in accordance with NFPA 1; 2018 Edition, Section 18.2.3. This is identified in the Final EA, Section 4.13.5.

- 3. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with NFPA 1; 2018 Edition, Section 18.3.1.*

The DOE acknowledges this comment. The proposed project will comply with the NFPA 1, 2018 Edition, Section 18.3.1, as amended. A water supply approved by the County, capable of

Mr. Craig Uchimura, Acting Assistant Chief

October 20, 2023

Page 2 of 2

supplying the required fire flow for fire protection, will be provided to the proposed new classroom building facilities. This is identified in the Final EA, Section 4.13.5.

4. *Submit civil drawings to the HFD for review and approval.*

The DOE acknowledges this comment. Civil drawings will be submitted to the City and County of Honolulu's Department of Planning and Permitting and routed to the HFD for review and approval. This is identified in the Final EA, Section 4.13.5.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

A handwritten signature in black ink that reads "Brian Takeda". The signature is written in a cursive, slightly slanted style.

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)



## DISABILITY AND COMMUNICATION ACCESS BOARD

1010 Richards Street, Room 118 • Honolulu, Hawaii 96813  
Ph. (808) 586-8121 • Fax (808) 586-8129

April 10, 2023

Mr. Aaron Geonzon  
Project Manager  
State of Hawaii  
Department of Education  
Ka 'Oihana Ho'ona'auao  
P.O. Box 2360  
Honolulu, Hawaii 96804

23 APR 14 A10 :22

DEPT OF EDUCATION  
FACILITIES DEV BRANCH

Regarding: Draft Environmental Assessment and Anticipated Finding of No Significant Impact for the August Ahrens Elementary School New Classroom Building Project, 'Ewa Hawaii, Island of O'ahu, Hawai'i  
Tax Map Keys (TMK): (1) 9-4-059: Portions of 072, 073, and 074, and Mahoe Street and Waipahu Street (no TMK)

Dear Mr. Geonzon:

The Disability and Communication Access Board (DCAB) would like to thank you for the opportunity to review and comment on the Draft Environmental Assessment and Anticipated Finding of No Significant Impact for the August Ahrens Elementary School New Classroom Building Project. The purpose of this review is to ensure that this project will take into account accessibility design requirements for persons with disabilities.

Because this project is being constructed by a State entity on State land, it is covered by §103-50, Hawaii Revised Statutes (HRS). The construction of the August Ahrens Elementary School New Classroom Building Project will be reviewed for compliance with the Department of Justice's (DOJ) 2010 ADA Standards for Accessible Design (2010 Standards) [http://www.ada.gov/2010ADASTandards\\_index.htm](http://www.ada.gov/2010ADASTandards_index.htm). To be consistent with the DOJ's standard, DCAB adopted the 2004 Americans with Disabilities Act Accessibility Guidelines (ADAAG) as of January 1, 2011 and passed interpretive opinions consistent with the 2010 ADA Standards. All new Interpretive Opinions can be viewed or downloaded at <http://health.hawaii.gov/dcab/facility-access/interpretive-opinions/>.

Projects with construction documents that are covered by §103-50, HRS, are required to be submitted to DCAB for a formal document review.

Mr. Aaron Geonzon

Project Manager

State of Hawaii

Department of Education

Regarding: Draft Environmental Assessment and Anticipated Finding of No Significant Impact for the August Ahrens Elementary School New Classroom Building Project

April 10, 2023

Page 2

A preliminary review of the Draft Environmental Assessment prepared by R.M. Towill Corporation prompts the following issues that we recommend that the design consultants address in their forthcoming project design. Where a new on-site parking facility is being proposed, accessible parking stalls and access aisles shall be provided in compliance with ADAAG 208 and 502. An accessible route shall be provided from accessible parking stalls and access aisles to the proposed new classroom building. The new walkways connecting to the new classroom building shall comply with ADAAG 206 and Chapter 4. New elevators shall comply with ADAAG 407. New classrooms shall comply with ADAAG 201.1. New toilet facilities shall comply with ADAAG 213 and Chapter 6. An accessible route shall be provided to the new play court.

The above DCAB staff comments address the key issues found in the Draft Environmental Assessment for the August Ahrens Elementary School New Classroom Building Project but does not reflect all the elements required to be accessible. The forthcoming design documents will have to be reviewed to more accurately address all of the accessibility requirements.

Should you have any questions, please feel free to contact Duane Buote, Facility Access Coordinator at (808) 586-8121 or [duane.buote@doh.hawaii.gov](mailto:duane.buote@doh.hawaii.gov).

Sincerely,



KIRBY L. SHAW  
Executive Director





October 20, 2023

Mr. Kirby L. Shaw, Executive Director  
State of Hawai'i  
Disability and Communication Access Board  
1010 Richards Street, Room 118  
Honolulu, Hawai'i 96813

Dear Mr. Shaw:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 10, 2023. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

- 1. Because this project is being constructed by a State entity on State land, it is covered by §103-50, Hawaii Revised Statutes (HRS). The construction of the August Ahrens Elementary School New Classroom Building Project will be reviewed for compliance with the Department of Justice's (DOJ) 2010 ADA Standards for Accessible Design (2010 Standards) <http://www.ada.gov/2010ADASTandards/index.htm>. To be consistent with the DOJ's standard, DCAB adopted the 2004 Americans with Disabilities Act Accessibility Guidelines (ADAAG) as of January 1, 2011 and passed interpretive opinions consistent with the 2010 ADA Standards. All new Interpretive Opinions can be viewed or downloaded at <http://health.hawaii.gov/dcab/facility-access/interpretive-opinions/>.*

The DOE acknowledges this comment. The project will comply with provisions and intent of HRS, §103-50; Department of Justice's 2010 ADA Standards for Accessible Design; and the 2004 Americans with Disabilities Act Accessibility Guidelines. This is identified in the Final EA, Section 6.1.1.

- 2. Projects with construction documents that are covered by §103-50, HRS, are required to be submitted to DCAB for a formal document review.*

The DOE acknowledges this comment. The DOE will consult with and submit plans to the Department of Health, Disability and Communication Access Board, to ensure that the project design meets Americans with Disabilities Act requirements. This is identified in the Final EA, Section 6.1.1 and Section 7.1.

- 3. A preliminary review of the Draft Environmental Assessment prepared by R.M. Towill Corporation prompts the following issues that we recommend that the design consultants address in their forthcoming project design. Where a new on-site parking facility is being proposed, accessible parking stalls and access aisles shall be provided in compliance with ADAAG 208 and 502. An accessible route shall be provided from accessible parking stalls and access aisles to the proposed new classroom building. The new*

Mr. Kirby L. Shaw, Executive Director

October 20, 2023

Page 2 of 2

*walkways connecting to the new classroom building shall comply with ADAAG 206 and Chapter 4. New elevators shall comply with ADAAG 407. New classrooms shall comply with ADAAG 201.1. New toilet facilities shall comply with ADAAG 213 and Chapter 6. An accessible route shall be provided to the new play court.*

The DOE acknowledges this comment. The project will provide accessible parking stalls and access aisles where the new on-site parking facility is proposed in compliance with Americans with Disabilities Act Accessibility Guidelines 208 and 502. An accessible route will be provided from the accessible parking stalls and access aisles to the proposed new classroom building in compliance with Americans with Disabilities Act Accessibility Guidelines 206 and Chapter 4. An accessible route will also be provided to the new play court. Additionally, for the new classroom building, new elevators will comply with Americans with Disabilities Act Accessibility Guidelines 407; new classrooms will comply with Americans with Disabilities Act Accessibility Guidelines 201.1; and new toilet facilities will comply with Americans with Disabilities Act Accessibility Guidelines 213 and Chapter 6. This is identified in the Final EA, Section 3.5.1 and Section 6.1.1.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

A handwritten signature in black ink that reads "Brian Takeda". The signature is written in a cursive, slightly slanted style.

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

# BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843  
www.boardofwatersupply.com



April 11, 2023

RICK BLANGIARDI, MAYOR

BRYAN P. ANDAYA, Chair  
KAPUA SPROAT, Vice Chair  
MAX J. SWORD  
NA'ALEHU ANTHONY  
JONATHAN KANESHIRO

DAWN B. SZEWCZYK, P.E., Ex-Officio  
EDWIN H. SNIFFEN, Ex-Officio

ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

ERWIN M. KAWATA  
Deputy Manager

Mr. Aaron Geonzon  
State of Hawaii  
Department of Education  
P. O. Box 2360  
Honolulu, Hawaii 96804

23 APR 17 P2:51

STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
FACILITIES DEV BRANCH

Dear Mr. Geonzon:

Subject: Your Letter Dated March 23, 2023 Requesting Comments on the Draft Environmental Assessment for the August Ahrens Elementary School New Classroom Building Project at 94-1170 Waipahu Street Tax Map Key: 9-4-059: 072, 073, 074

Thank you for the opportunity to comment on the proposed new classroom building at August Ahrens Elementary School.

The existing water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.

Water conservation measures are required for all proposed developments. These measures include utilization of nonpotable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.

The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

Mr. Aaron Geonzon  
April 11, 2023  
Page 2

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at (808) 748-5443.

Very truly yours,



ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

cc: Brian Takeda, R. M. Towill Corporation





October 20, 2023

Mr. Ernest. Y.W. Lau, P.E.  
Manager and Chief Engineer  
City and County of Honolulu  
Board of Water Supply  
630 South Beretania Street  
Honolulu, Hawai'i 96843

Dear Mr. Lau:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 11, 2023. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

1. *The existing water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.*

The DOE acknowledges this comment and appreciates the Board of Water Supply's (BWS) statement acknowledging that the existing water system is adequate to accommodate the proposed development. The DOE acknowledges that the BWS reserves the right to change its position or information until the final approval of the building permit application and that the final decision on the availability of water will be confirmed when the building permit application is submitted for approval. This is identified in the Final EA, Section 4.13.2.

2. *When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.*

The DOE acknowledges that when water is made available, the DOE will be required to pay the BWS Water System Facilities Charges for resource development, transmission, and daily storage. This is identified in the Final EA, Section 4.13.2.

3. *Water conservation measures are required for all proposed developments. These measures include utilization of non potable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.*



Mr. Ernest. Y.W. Lau

October 20, 2023

Page 2 of 2

The DOE acknowledges this comment. Where possible, DOE will utilize water conservation measures at the site. These measures may include the utilization of non-potable water for irrigation using rain catchment, drought-tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets. This is identified in the Final EA, Section 4.13.2.

4. *The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.*

The DOE acknowledges this comment and will submit plans to the BWS for review and approval. DOE will continue to coordinate with the BWS on the proposed project and construction schedule to minimize impacts on the water system. This is identified in the Final EA, Section 4.13.2.

5. *The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.*

The DOE acknowledges this comment and will coordinate on-site fire protection requirements with the Fire Prevention Bureau of the Honolulu Fire Department. This is identified in the Final EA, Section 4.13.2 and Section 4.13.6.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,



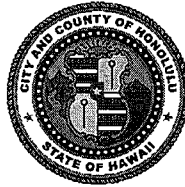
Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DEPARTMENT OF DESIGN AND CONSTRUCTION  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11<sup>TH</sup> FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 768-8480 • Fax: (808) 768-4567  
Web site: [www.honolulu.gov](http://www.honolulu.gov)

RICK BLANGIARDI  
MAYOR



HAKU MILLES, P.E.  
DIRECTOR

BRYAN GALLAGHER, P.E.  
DEPUTY DIRECTOR

April 11, 2023

SENT VIA EMAIL

Mr. Aaron Geonzon  
Aaron.geonzon@k12.hi.us

Dear Mr. Geonzon:

Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments at this time.

Should you have any further questions, please call me at (808) 768-8480.

Sincerely,

  
for Haku Milles, P.E.  
Director

HM:cf (899664)

cc: Brian Takeda - R.M. Towill Corporation

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



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Environmental Services  
Photogrammetry  
Surveying  
Construction Management

October 20, 2023

Mr. Haku Milles, P.E., Director  
City and County of Honolulu  
Department of Design and Construction  
650 South King Street, 11th Floor  
Honolulu, Hawai'i 96813

Dear Mr. Milles:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 11, 2023. The DOE acknowledges that the Department of Design and Construction does not have any comments or concerns at this time.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

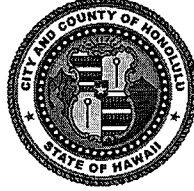
Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813  
PHONE: (808) 768-8000 • FAX: (808) 768-6041  
DEPT. WEB SITE: [www.honolulu.gov/dpp](http://www.honolulu.gov/dpp)

RICK BLANGIARDI  
MAYOR



DAWN TAKEUCHI APUNA  
DIRECTOR

JIRO A. SUMADA  
DEPUTY DIRECTOR

April 17, 2023

2023/ELOG-628(LP)

SENT VIA EMAIL

Mr. Aaron Geonzon  
[aaron.geonzon@k12.hi.us](mailto:aaron.geonzon@k12.hi.us)

Dear Mr. Geonzon:

**SUBJECT: August Ahrens Elementary School  
Draft Environmental Assessment (EA)  
94-1170 Waipahu Street - Waipahu  
Tax Map Keys 9-4-059: 072, 073, and 074**

This in response to your letter, received on March 29, 2023, requesting comments on a Draft EA for the subject Project. We understand that the Project will consist of the construction of a new two-story classroom building, new play court with concrete masonry unit wall, new parking spaces, new access walkways, and accessory improvements. For land use and zoning purposes, the use is considered a public use and structure. Our comments regarding the items to address within the Final EA are provided below.

A Traffic Management Plan should be included in the Final EA and detail Traffic Demand Management (TDM) strategies to minimize the number of vehicular trips such as carpooling and ride sharing programs, transit, bicycle, and pedestrian incentives and other similar TDM measures. A pedestrian circulation plan should also be included to provide accessibility and connectivity to the surrounding public sidewalks.

The Draft EA notes the school currently has 90 parking spaces, proposes a total of 156 parking spaces, and 233 parking spaces would be required based on the new construction. Pursuant to Land Use Ordinance Section 21-6.20, Table 21-6.1, off-street parking for public uses and structures is determined by the Director. As referenced in our June 3, 2015, letter to the Department of Education (DOE), we note that the DOE should request a determination for off-street parking requirements when permanent classrooms are to be constructed.

Mr. Aaron Geonzon  
April 17, 2023  
Page 2

Thank you for the opportunity to comment on this proposal. Should you have any questions, please contact Lena Phomsouvanh, of our Zoning Regulations and Permits Branch, at (808) 768-8052 or via email at [lena.phomsouvanh@honolulu.gov](mailto:lena.phomsouvanh@honolulu.gov).

Very truly yours,

  
*Jordan Oddy*  
FOR Dawn Takeuchi Apuna  
Director

---

cc: Brian Takeda, R.M Towill Corporation





October 20, 2023

Ms. Dawn Takeuchi Apuna, Director  
City and County of Honolulu  
Department of Planning and Permitting  
650 South King Street, 7th Floor  
Honolulu, Hawai'i 96813

Dear Ms. Apuna:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 17, 2023. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

1. *A Traffic Management Plan should be included in the Final EA and detail Traffic Demand Management (TDM) strategies to minimize the number of vehicular trips such as carpooling and ride sharing programs, transit, bicycle, and pedestrian incentives and other similar TDM measures. A pedestrian circulation plan should also be included to provide accessibility and connectivity to the surrounding public sidewalks..*

The DOE acknowledges this comment. A Transportation Management Plan (TMP) has been prepared for the project which includes Traffic Demand Management (TDM) strategies and pedestrian facilities for the August Ahrens Elementary School. This is identified in the Final EA, Section 4.13.1, and Appendix C.

2. *The Draft EA notes the school currently has 90 parking spaces, proposes a total of 156 parking spaces, and 233 parking spaces would be required based on the new construction. Pursuant to Land Use Ordinance Section 21-6.20, Table 21-6.1, off-street parking for public uses and structures is determined by the Director. As referenced in our June 3, 2015, letter to the Department of Education (DOE), we note that the DOE should request a determination for off-street parking requirements when permanent classrooms are to be constructed.*

The DOE will comply with the requirements of the Land Use Ordinance Section 21-6.20, Table 21-6.1, off-street parking for public uses and structures as determined by the Director. A Zoning Waiver application for parking will be filed following the completion of the EA process. The DOE will also request a determination from DPP for off-street parking requirements when the permanent classrooms are to be constructed. This is identified in the Final EA, Section 4.13.1.

Ms. Dawn Takeuchi Apuna, Director

October 20, 2023

Page 2 of 2

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

A handwritten signature in black ink that reads "Brian Takeda". The signature is written in a cursive, slightly slanted style.

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

## Brian Takeda

---

**From:** Liu, Rouen <rouen.liu@hawaiianelectric.com>  
**Sent:** Thursday, April 20, 2023 1:46 PM  
**To:** aaron.geonzon@k12.hi.us  
**Cc:** Kuwaye, Kristen; Brian Takeda  
**Subject:** DEA and anticipated FONSI - August Abrens Elementary School New Classroom Building

**CAUTION:** External Email

Dear Mr. Geonzon,

Thank you for the opportunity to comment on the subject project DEA. Hawaiian Electric Company has no objection. Should Hawaiian Electric have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities. We appreciate your efforts to keep us apprised of the subject project in the planning process. As the proposed August Abrens Elementary School New Classroom Building project comes to fruition, please continue to keep us informed.

Should there be any questions, please contact me at 808-543-7245.

Thank you,  
Rouen Liu  
Permit Engineer  
Hawaiian Electric Company

---

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Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



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Construction Management

October 20, 2023

Mr. Rouen Liu  
Permit Engineer  
Hawaiian Electric Company

Email: rouen.liu@hawaiianelectric.com

Dear Mr. Liu:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 20, 2023. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

*Hawaiian Electric Company has no objection to the project. Should Hawaiian Electric have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities.*

The DOE appreciates your statement expressing no objection to the subject project. The DOE acknowledges Hawaiian Electric Company's (HECO) need for continued access to existing easements and facilities within the project limits. DOE will continue to coordinate with HECO for access to those facilities. This is identified in the Final EA, Section 4.13.2.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

## Brian Takeda

---

**From:** DBEDT State Planning <dbedt.stateplanning@hawaii.gov>  
**Sent:** Monday, April 24, 2023 8:24 AM  
**To:** aaron.geonzon@kl2.hi.us  
**Cc:** Brian Takeda; Balassiano, Katia  
**Subject:** OPSD comment for August Ahrens Elementary School New Classroom Building Project

**CAUTION:** External Email

Aloha,

**Re:**  
**Draft Environmental Assessment and Anticipated Finding of No Significant Impact for the August Ahrens Elementary School New Classroom Building Project, 'Ewa District, Island of O'ahu, Hawai'i, Tax Map Keys: (1) 9-4-059: Portions of 072, 073, and 074, and Mahoe Street and Waipahu Street (no TMK)**

Thank you for the opportunity to provide input. The Office of Planning and Sustainable Development have reviewed the DEA, but has no comments at this time.

Mahalo,

**Megumi Nakayama**  
Secretary, Land Use Division  
State of Hawai'i Office of Planning & Sustainable Development  
Dept. of Business, Economic Development & Tourism  
235 S. Beretania Street, 6th Floor  
Honolulu, Hawaii 96813  
(808) 587-2842

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Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



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Construction Management

October 20, 2023

Ms. Megumi Nakayama, Secretary  
Office of Planning and Sustainable Development  
Department of Business, Economic Development & Tourism  
235 S. Beretania Street, 6th Floor  
Honolulu, Hawai'i 96813

Dear Ms. Nakayama:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 24, 2023. The DOE acknowledges that the Office of Planning and Sustainable Development does not have any comments or concerns at this time.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

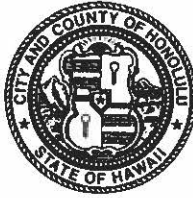
Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)



POLICE DEPARTMENT  
CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813  
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulu.org



RICK BLANGIARDI  
MAYOR

ARTHUR J. LOGAN  
CHIEF

KEITH K. HORIKAWA  
RADE K. VANIC  
DEPUTY CHIEFS

OUR REFERENCE EO-GK

April 24, 2023

SENT VIA EMAIL

Mr. Aaron Geonzon, Project Manager  
aaron.geonzon@k.12.hi.us

Dear Mr. Geonzon:

This is in response to the letter received from Mr. Brian Takeda of R.M. Towill Corporation on March 27, 2023, requesting input on the Draft Environmental Assessment and Anticipated Finding of No Significant Impact for the New Classroom Building Project at August Ahrens Elementary School in Waipahu.

The Honolulu Police Department has reviewed the information provided and there are no concerns at this time.

If there are any questions, please call Major Joseph Trinidad of District 3 (Pearl City) at (808) 723-8803.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn Hayashi".

GLENN HAYASHI  
Assistant Chief of Police  
Support Services Bureau

cc: Mr. Brian Takeda  
R.M. Towill Corporation

2024 North King Street  
Suite 200  
Honolulu Hawaii 96819-3470  
Telephone 808 842 1133  
Fax 808 842 1937  
eMail rmtowill@hawaii.rr.com



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Construction Management

October 20, 2023

Mr. Glenn Hayashi, Assistant Chief of Police  
Support Services Bureau  
Honolulu Police Department  
City and County of Honolulu  
801 South Beretania Street  
Honolulu, Hawai'i 96813

Dear Mr. Hayashi:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 24, 2023. The DOE acknowledges that the Honolulu Police Department does not have any comments or concerns at this time.

We appreciated your review of the subject document and allowing us this opportunity to respond. Your letter and this response will be included in the Final EA. Should there be any questions, please contact the undersigned by telephone at (808) 842-1133.

Sincerely,

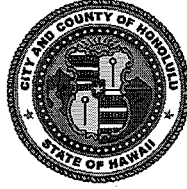
Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)

DEPARTMENT OF TRANSPORTATION SERVICES  
CITY AND COUNTY OF HONOLULU

711 KAPIOLANI BOULEVARD, SUITE 1600  
HONOLULU, HAWAII 96813  
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

RICK BLANGIARDI  
MAYOR



J. ROGER MORTON  
DIRECTOR

JON Y. NOUCHI  
DEPUTY DIRECTOR

TP4/23-901562

April 26, 2023

Mr. Aaron Geonzon, Project Manager  
State of Hawaii  
Department of Education  
P.O. Box 2360  
Honolulu, Hawaii 96804

Dear Mr. Geonzon:

**SUBJECT: August Ahrens Elementary School New Classroom Building Draft Environmental Assessment**

Thank you for the opportunity to provide written comments regarding the August Ahrens Elementary School New Classroom Building Draft Environmental Assessment. We have the following comments.

1. Transportation Impact Assessment (TIA). Although the Project is not expected to immediately add new student enrollment, the addition of 26,900 square feet of new classrooms creates a transportation impact and the need for mitigation. As such and consistent with the pre-consultation with DTS in December of 2021, the applicant shall perform a TIA to examine the vehicle, pedestrian, bicycle, and public transit safety, stress, and comfort levels at the nearby intersections and driveways with corresponding improvements to mitigate future impacts by applying Complete Streets principles. The applicant shall discuss the potential future year growth rate, trip distribution, mode split, and route assignment assumptions used in the TIA.

The applicant shall submit all native files (e.g., Synchro, Excel, etc.) for the raw multi-modal counts (in the format specified at <https://geocounts.com/api/format/> and the example file at <https://bit.ly/DTS-count-sample>) and accompanying analyses to the Department of Transportation Services Regional Planning Branch (RPB) at [dtsplanningdiv@honolulu.gov](mailto:dtsplanningdiv@honolulu.gov). Please refer to the Department of Transportation Services (DTS) TIA Guide for multimodal assessment tools

and recommended analyses. The TIA Guide can be found at <http://www4.honolulu.gov/docushare/dsweb/View/Collection-7723>.

2. Transportation Demand Management (TDM) Strategies. The applicant must develop and submit a TDM Strategy to DTS, incorporating the following elements:
  - i. Pages 20-22 of the City's TIA Guide describes recommended TDM strategies, including, but not limited to: providing subsidized transit passes to students and staff; informing parents, staff, and visitors of vanpool and car share programs to promote alternate modes of transportation.
3. Complete Streets.
  - i. Sidewalks. Applicant shall prioritize the upgrade of the sidewalk, including meeting current Americans with Disabilities Act standards, on the Project's Waipahu Street frontage consistent with the proposed walkway upgrade project (Project ID #U-33 in the 2022 Oahu Pedestrian Plan) as mitigation for the Project's transportation impact. All internal Project sidewalks/pedestrian paths and those fronting the Project shall have a minimum of 5-foot, 8-foot preferred, pedestrian clear zone separate from the furniture and utility zone. Sidewalks shall incorporate the standards of the Honolulu Complete Streets Design Manual, including the placement of street furniture such as landscaping, signage, and lighting, which is intended to provide added protection for pedestrians. New sidewalks, curb ramps, curbs, and gutters must meet current Americans with Disabilities Act standards.
  - ii. Installation of lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape consistent with the Complete Streets furniture zone; and trash receptacles per the Honolulu Complete Streets Design Manual, Oahu Pedestrian Plan, and any applicable streetscape plan.
  - iii. Waipahu Street fronting the Project site is classified as an "Avenue" planned to have sidewalks, bike lanes, two travel lanes, bus service mixed with general purpose travel, and optional unpriced on-street parking. The typical future street cross section will resemble in concept the second design on Page 77 of the City's Complete Streets Design Manual. Additionally, a Priority 1 Bike Lane project (Project ID 1-17 in the 2019 Oahu Bike Plan), and a Walkway Upgrade project

Mr. Aaron Geonzon, Project Manager  
April 26, 2023  
Page 3

(Project ID U-33 in the 2022 Oahu Pedestrian Plan) are planned for Waipahu Street fronting the project site. Any changes or improvements shall be designed to minimize the number and size of potential conflict areas between pedestrians, bicyclists, and turning vehicles.

- iv. Mahoe Street fronting the Project site is classified as a "Street" planned to have sidewalks, two travel lanes, bus service mixed with general purpose travel, and optional unpriced on-street parking. The typical future street cross section will resemble in concept the second design on Page 78 of the City's Complete Streets Design Manual.

Should you have any questions, please contact Greg Tsugawa, of my staff, at (808) 768-6683.

Very truly yours,



J. Roger Morton  
Director

cc: Brian Takeda, Project Manager  
R.M. Towill Corporation



October 20, 2023

Mr. J. Roger Morton, Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street, 3rd Floor  
Honolulu, Hawai'i 96813

Dear Mr. Morton:

**Response to Comments for Hawai'i Revised Statutes, Chapter 343, Draft Environmental Assessment for August Ahrens Elementary School New Classroom Building Project, Waipahu, Island of O'ahu, Hawai'i**

On behalf of the State of Hawai'i, Department of Education (DOE), thank you for your comments on the subject Draft Environmental Assessment (EA) transmitted on April 26, 2023. The following has been prepared in response to your comments (your comments have been *italicized* for reference):

1. *Transportation Impact Assessment (TIA). Although the Project is not expected to immediately add new student enrollment, the addition of 26,900 square feet of new classrooms creates a transportation impact and the need for mitigation. As such and consistent with the pre-consultation with DTS in December of 2021, the applicant shall perform a TIA to examine the vehicle, pedestrian, bicycle, and public transit safety, stress, and comfort levels at the nearby intersections and driveways with corresponding improvements to mitigate future impacts by applying Complete Streets principles. The applicant shall discuss the potential future year growth rate, trip distribution, mode split, and route assignment assumptions used in the TIA.*

*The applicant shall submit all native files (e.g., Synchro, Excel, etc.) for the raw multi-modal counts (in the format specified at <https://geocounts.com/api/format/> and the example file at <https://bit.ly/DTS-count-sample>) and accompanying analyses to the Department of Transportation Services Regional Planning Branch (RPB) at [dtsplanningdiv@honolulu.gov](mailto:dtsplanningdiv@honolulu.gov). Please refer to the Department of Transportation Services (DTS) TIA Guide for multimodal assessment tools and recommended analyses. The TIA Guide can be found at <http://www4.honolulu.gov/docushare/dswebNiew/Collection-7723>.*

The DOE understands that the Department of Transportation Services (DTS) requested that a Traffic Impact Assessment (TIA) be undertaken to address issues or concerns that may adversely impact traffic safety or congestion. In response, the DOE commissioned its traffic consultant to prepare a Traffic Management Plan (TMP) for the August Ahrens Elementary School (AAES). This is identified in the Final EA, Section 4.13.1, and Appendix C. The DOE requests that the DTS review its recommendations and strategies in the TMP to address any issues concerning the maintenance of transportation safety for the community and users of the school due to construction of the new classroom building and improvements.

This project represents DOE's comprehensive plan to demolish its existing inventory of portable classroom structures and to replace them with permanent classrooms to improve the quality of



the school and educational environment. The proposed new classroom building is the first phase of this process and would not result in an increase in students on campus. The next phase will be to remove the portable classrooms that will be replaced. While the transition from portable to permanent classrooms will result in the temporary increase of classroom square footage on campus, as the portables are removed the overall square footage on campus would effectively be reduced. Therefore, over the long term, classroom square footage on campus is expected to stay relatively the same in accordance with DOE requirements. However, over the coming years the student population is expected to decline. DOE's updated enrollment figures are cited in Section 2.3, Table 2-1 of the Final EA and show enrollment projections through the 2028-2029 school year.

The DOE notes that per guidance provided in the Trip Generation Manual, site-generated trips would be attributed to growth in student enrollment. Since the proposed project is expected to serve the existing student population and no growth in enrollment is anticipated, the project is not expected to add new site-generated trips in the project vicinity. Without new site-generated trips, there can be no trip distribution, mode split, or route assignment.

The DOE, however, notes that the AAES could manage existing traffic to better facilitate access and circulation in the vicinity. For this reason the TMP includes operational and management strategies that the school would implement as required.

2. *Transportation Demand Management (TDM) Strategies. The applicant must develop and submit a TDM Strategy to DTS, incorporating the following elements:*
  - i. *Pages 20-22 of the City's TIA Guide describes recommended TDM strategies, including, but not limited to: providing subsidized transit passes to students and staff; informing parents, staff, and visitors of vanpool and car share programs to promote alternate modes of transportation*

The DOE acknowledges this comment. As previously noted, a TMP has been prepared for the project which includes Transportation Demand Management strategies for the AAES. This is identified in the Final EA, Section 4.13.1, and Appendix C.

3. *Complete Streets.*
  - i. *Sidewalks. Applicant shall prioritize the upgrade of the sidewalk, including meeting current Americans with Disabilities Act standards, on the Project's Waipahu Street frontage consistent with the proposed walkway upgrade project (Project ID #U-33 in the 2022 Oahu Pedestrian Plan) as mitigation for the Project's transportation impact. All internal Project sidewalks/pedestrian paths and those fronting the Project shall have a minimum of 5-foot, 8-foot preferred, pedestrian clear zone separate from the furniture and utility zone. Sidewalks shall incorporate the standards of the Honolulu Complete Streets Design Manual, including the placement of street furniture such as landscaping, signage, and lighting, which is intended to provide added protection for pedestrians. New sidewalks, curb ramps, curbs, and gutters must meet current Americans with Disabilities Act standards.*
  - ii. *Installation of lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape consistent with the Complete Streets furniture zone; and trash receptacles per the Honolulu Complete Streets Design Manual, Oahu Pedestrian Plan, and any applicable streetscape plan.*
  - iii. *Waipahu Street fronting the Project site is classified as an "Avenue" planned to have sidewalks, bike lanes, two travel lanes, bus service mixed with general purpose travel, and optional unpriced*

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*on-street parking. The typical future street cross section will resemble in concept the second design on Page 77 of the City's Complete Streets Design Manual. Additionally, a Priority 1 Bike Lane project (Project ID 1-17 in the 2019 Oahu Bike Plan), and a Walkway Upgrade project (Project ID U-33 in the 2022 Oahu Pedestrian Plan) are planned for Waipahu Street fronting the project site. Any changes or improvements shall be designed to minimize the number and size of potential conflict areas between pedestrians, bicyclists, and turning vehicles.*

- iv. *Mahoe Street fronting the Project site is classified as a "Street" planned to have sidewalks, two travel lanes, bus service mixed with general purpose travel, and optional unpriced on-street parking. The typical future street cross section will resemble in concept the second design on Page 78 of the City's Complete Streets Design Manual.*

The DOE acknowledges these comments and will review them for regulatory applicability to the project. This will be completed during the design phase of the project, following the EA process.

Should there be any further comments or questions concerning the Final EA please contact the undersigned by telephone at (808) 842-1133. Should there be any further comments or questions concerning traffic impacts please contact Aaron Geonzon, DOE Project Coordinator of the Facilities Development Branch, Project Management Section at (808) 784-5053 or email at aaron.geonzon@k12.hi.us.

The DOE appreciated your review of the subject document and this opportunity to respond. Your letter and this response will be included in the Final EA.

Sincerely,



Brian Takeda  
Planning Project Manager

cc: State Department of Education  
Benjamin Woo Architects (Clifford Chu)