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GOVERNOR

KEITH T. HAYASHI
INTERIM SUPERINTENDENT

STATE OF HAWAI`I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

OFFICE OF FACILITIES AND OPERATIONS

March 1, 2022

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

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

SUBJECT: **Draft Environmental Assessment and Anticipated Finding of No Significant Impact**
Waianae High School
Girls Athletic Locker Room
Job No.: Q85216-19
Tax Map Key: (1) 8-5-015: 001 (POR.)

With this letter, the State of Hawai‘i Department of Education (Department) hereby transmits the Draft Environmental Assessment and Anticipated Finding of No Significant Impact (DEA-AFONSI) for the proposed Waianae High School Girls Athletic Locker Room situated on Tax Map Key parcel (1) 8-5-015: 001 (por.), on the island of Oahu, for publication in the next available edition of *The Environmental Notice*.

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

Should you have any questions, please contact Mitch Tamayori of our Facilities Development Branch at (808) 784-5116, or our authorized agent of this project, Greg Nakai, of PBR HAWAII at (808) 521-5631.

ESI:mt

c: Facilities Development Branch
Rochelle Nagata-Wu, WRNS Studio
Karen Lee, WRNS Studio
Greg Nakai, PBR HAWAII & Associates, Inc.

From: webmaster@hawaii.gov
To: DBEDT OPSD Environmental Review Program
Subject: New online submission for The Environmental Notice
Date: Tuesday, March 1, 2022 3:34:46 PM

Action Name

Waiʻanae High School Girls' Athletic Locker Room

Type of Document/Determination

Draft environmental assessment and anticipated finding of no significant impact (DEA-AFNSI)

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

Waiʻanae, Oʻahu

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

(1) 8-5-015:001 (por.)

Action type

Agency

Other required permits and approvals

Dust Control Plan; Noise Permit (if necessary); Americans with Disabilities Act (ADA) Compliance; Section 6E, Hawaiʻi Revised Statutes (HRS) Review; Grading, Grubbing, and Stockpiling Permits; Building Permit (electrical, plumbing, civil); Occupancy Permit; Site Development Master Application for Sewer Connection; Storm Drain Connection License (if necessary); Storm Water Quality Strategic Plan; Rules Relating to Water Quality and Storm Drainage Standards Compliance; Special Management Area (SMA) Use Permit - Minor Modification; Waiver Permit (to exceed maximum lot coverage)

Proposing/determining agency

State of Hawaiʻi, Department of Education

Agency contact name

Mitch Tamayori

Agency contact email (for info about the action)

Mitch.Tamayori@k12.hi.us

Email address or URL for receiving comments

gnakai@pbrhawaii.com

Agency contact phone

(808) 521-5631

Agency address

Facilities Development Branch, Project Management Section, State of Hawaiʻi Department of Education
3633 Waiʻalae Avenue, Room B-201
Honolulu, HI 96816

United States
Map It

Was this submittal prepared by a consultant?

Yes

Consultant

PBR HAWAII

Consultant contact name

Greg Nakai

Consultant contact email

gnakai@pbrhawaii.com

Consultant contact phone

(808) 521-5631

Consultant address

1001 Bishop Street, Suite 650
Honolulu, HI 96813
United States
Map It

Action summary

The proposed Girls' Athletic Locker Room (GALR) for the Waiʻanae High School (WHS) comprises a new building (requiring either removal or relocation of the existing Administration portable building on-campus) and an extension/widening of the fire access road to the northeast of Buildings F and D. The new building will include a Locker Room, Toilet Area, Shower Room, Storage, Laundry Room, Coach's Office, and other support spaces. This is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. The intent of this Project is to provide a gender equitable, or better, GALR to the existing Boys Athletic Locker Room.

Reasons supporting determination

Refer to Section 7.2 (Significance Criteria) of the DEA.

Attached documents (signed agency letter & EA/EIS)

- DEA-AFONSI-Waianae-HS-GALR.pdf
- DEA-05-WHS-GALR-2022-02-28-w-figures-appendices-FOR-ERP.pdf

Action location map

- Waianae-HS-GALR-Project_Site_2021_1122.zip

Authorized individual

Greg Nakai

Authorization

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

WAI'ANAE HIGH SCHOOL
GIRLS' ATHLETIC LOCKER ROOM

DRAFT ENVIRONMENTAL ASSESSMENT/ANTICIPATED FINDING OF NO SIGNIFICANT IMPACT

PREPARED FOR:
STATE OF HAWAI'I
DEPARTMENT OF EDUCATION

PREPARED BY:

PBR HAWAII
& ASSOCIATES, INC.

MARCH 2022

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LIST OF ABBREVIATIONS & ACRONYMS

The following is a list of terms, abbreviations, and acronyms used in this document.

A	
AC	Air Conditioning
ADA	Americans with Disabilities Act
AFONSI	Anticipated Finding of No Significant Impact
ALISH	Agricultural Lands of Importance to the State of Hawaiʻi
AM	Morning
AMSL	Above Mean Sea Level
B	
BALR	Boys' Athletic Locker Room
BMPs	Best Management Practices
BWS	City and County of Honolulu, Board of Water Supply
C	
CCH	City and County of Honolulu
CGG	University of Hawaiʻi Coastal Geology Group
CMU	Concrete Masonry Unit
CWPPP	Certified Water Pollution Plan Preparer
CZM	Coastal Zone Management
D	
DEA	Draft Environmental Assessment
DFM	City and County of Honolulu, Department of Facility Maintenance
DHS	State of Hawaiʻi, Department of Human Services
DFU	Drainage Fixture Unit
DLNR	State of Hawaiʻi, Department of Land and Natural Resources
DOE	State of Hawaiʻi, Department of Education
DOFAW	State of Hawaiʻi, DLNR, Division of Forestry and Wildlife
DOT	State of Hawaiʻi, Department of Transportation
DPP	City and County of Honolulu, Department of Planning & Permitting
DTS	City and County of Honolulu, Department of Transportation Services
E	
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESCP	Erosion and Sediment Control Plan
F	
FDC	Fire Department Connection
FEA	Final Environmental Assessment
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
G	
GALR	Girls' Athletic Locker Room
GPD	Gallons Per Day
H	
H-POWER	Honolulu Program of Waste Energy Recovery

HAR	Hawaiʻi Administrative Rules
HI-CHPS	Hawaiʻi Collaborative for High Performing Schools
HECO	Hawaiian Electric Company
HFD	Honolulu Fire Department
HPD	Honolulu Police Department
HRS	Hawaiʻi Revised Statutes
J	
JBPHH	Joint Base Pearl Harbor-Hickam
L	
LID	Low-Impact Development
LOS	Level of Service
LSB	Land Study Bureau
LUC	State of Hawaiʻi, Land Use Commission
LUO	Land Use Ordinance
M	
MGD	Million Gallons Per Day
MPH	Miles Per Hour
N	
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System Permit
NRCS	Natural Resources Conservation Service
O	
OPSD	State of Hawaiʻi, Office of Planning and Sustainable Development
P	
P-2	Preservation, General Zoning District (City and County of Honolulu)
PCBMP	Post-Construction Best Management Practices
PIFWO	Pacific Islands Fish and Wildlife Office
PM	Afternoon
R	
ROH	Revised Ordinances of Honolulu
RPBP	Reduced Pressure Principle Backflow Preventer
S	
SCP	Sustainable Communities Plan
SEFP	State Education Functional Plan
SFP	State Functional Plan
SHPD	State of Hawaiʻi, Historic Preservation Division
SLR	Sea Level Rise
SLR-XA	Sea Level Rise Exposure Area
SMA	Special Management Area
T	
TIAR	Transportation Impact Assessment Report
TMK	Tax Map Key
U	
UIC	Underground Injection Control
UPC	Uniform Plumbing Code

USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
W	
WHS	Wai‘anae High School
WSCP	Wai‘anae Sustainable Communities Plan

1.0 INTRODUCTION

This Environmental Assessment (EA) is prepared in accordance with Chapter 343, Hawaiʻi Revised Statutes (HRS) for the construction of the proposed Waiʻanae High School (WHS) Girls' Athletic Locker Room ("GALR").

1.1 PROJECT SUMMARY

Project Name:	Waiʻanae High School (WHS) Girls' Athletic Locker Room (GALR)
Location:	85-251 Farrington Highway in Waiʻanae, Oʻahu 96792
Judicial District:	Waiʻanae
Tax Map Key (TMK):	(1) 8-5-015:001 (por.)
Proposing Agency:	State of Hawaiʻi – Department of Education (DOE)
Landowner:	State of Hawaiʻi
Existing Uses:	Administration portable building and open space
Proposed Action:	The proposed GALR for the WHS comprises a new building (requiring either removal or relocation of the existing Administration portable building on-campus) and an extension/widening of the fire access road to the northeast of Buildings F and D. The new building will include a Locker Room, Toilet Area, Shower Room, Storage, Laundry Room, Coach's Office, and other support spaces. This is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. The intent of this Project is to provide a gender equitable, or better, GALR to the existing Boys Athletic Locker Room (BALR).
Project Area:	Less than 5,600 square feet (gross area)
Land Use Designations:	• State Land Use: *Urban* • Waiʻanae Sustainable Communities Plan Land Use Map: *Rural Residential* • County Zoning: *General Preservaton (P-2)*
Special Management Area:	The Project is located within the Special Management Area.
Permits/Approvals Required:	• Chapter 343, HRS Compliance • Dust Control Plan • Noise Permit (if necessary) • Americans with Disabilities Act (ADA) Compliance • Section 6E, Hawaiʻi Revised Statutes (HRS) Review

- Grading, Grubbing, and Stockpiling Permits
- Building Permit (electrical, plumbing, civil)
- Occupancy Permit
- Site Development Master Application for Sewer Connection
- Storm Drain Connection License (if necessary)
- Storm Water Quality Strategic Plan
- Rules Relating to Water Quality and Storm Drainage Standards Compliance
- Special Management Area (SMA) Use Permit - Minor Modification
- Waiver Permit (to exceed maximum lot coverage)

Determining Agency: State of Hawaiʻi – Department of Education (DOE)

Anticipted Determination: Finding of No Significant Impact (FONSI)

1.2 LOCATION

WHS is located at 85-251 Farrington Highway in Waiʻanae, Oʻahu, Hawaiʻi, and the campus spans across two parcels: TMK 8-5-015-001 and 8-5-002-018. The overall area of the campus of approximately 38 acres, is located between Farrington Highway and the Pacific Ocean (Figure 1). The proposed GALR will be located to the west of existing Building H Administration building where the Administration Portable building is currently located (TMK 8-5-015-001 por.).

1.3 SURROUNDING LAND USES

The GALR will be located in the "middle" of the campus and surrounded by existing buildings. The WHS campus borders a large parcel of open space to the southeast abutting the Waiʻanae Small Boat Harbor (Figure 2). Across Farrington Highway from the High School are primarily residential uses, along with the Maluhia Lutheran Church and the First Leeward Samoan Congregation (church). To the northwest of the campus is an apartment building complex.

1.4 LAND OWNERSHIP

Utilizing the Tax Map Key (TMK) system, the land under GALR is identified as TMK 8-5-015-001 (portion), which is owned by the State of Hawaiʻi (Figure 3).

Contact: Mitch Tamayori
Project Manager
Facilities Development Branch, Project Management Section
State of Hawaiʻi Department of Education
3633 Waiʻalae Avenue, Room B-201
Honolulu, HI 96816
Phone: (808) 784-5116

1.5 IDENTIFICATION OF PROPOSING AGENCY

The Department of Education (DOE) is the Proposing Agency.

Contact: Mitch Tamayori
Project Manager
Facilities Development Branch, Project Management Section
State of Hawaiʻi Department of Education
3633 Waiʻalae Avenue, Room B-201
Honolulu, HI 96816
Phone: (808) 784-5116

1.6 IDENTIFICATION OF ENVIRONMENTAL CONSULTANT

The environmental consultant is PBR HAWAII & Associates, Inc. dba PBR HAWAII.

Contact: Greg Nakai
Associate
PBR HAWAII
1001 Bishop Street
ASB Tower, Suite 650
Honolulu, HI 96813
Phone: (808) 521-5631
Fax: (808) 523-1402

1.7 COMPLIANCE WITH STATE OF HAWAIʻI AND CITY AND COUNTY OF HONOLULU ENVIRONMENTAL LAWS

During the Pre-Assessment consultation process, the City and County of Honolulu Department of Planning & Permitting (DPP) wrote: "…please refer to the State of Hawaiʻi Office of Planning and Sustainable Development, Environmental Review Program website with guidance on the required contents and processes for preparation of an Environmental Assessment at: https://health.hawaii.gov/oeqc/."

Preparation of this document is in accordance with the provisions of Chapter 343, HRS (2007) and Title 11, Chapter 200.1, Hawaiʻi Administrative Rules (HAR) pertaining to Environmental Impact Statements. Section 343-5, HRS established nine "triggers" that require either an EA or an Environmental Impact Statement (EIS). The use of State or County lands or funds requires the preparation of an EA.

1.8 IDENTIFICATION OF AGENCIES CONSULTED

1.8.1 Early Consultation

A Pre-Assessment consultation was conducted from November 2021 to December 2021 prior to the preparation of the Draft Environmental Assessment (DEA). The purpose of the Pre-Assessment

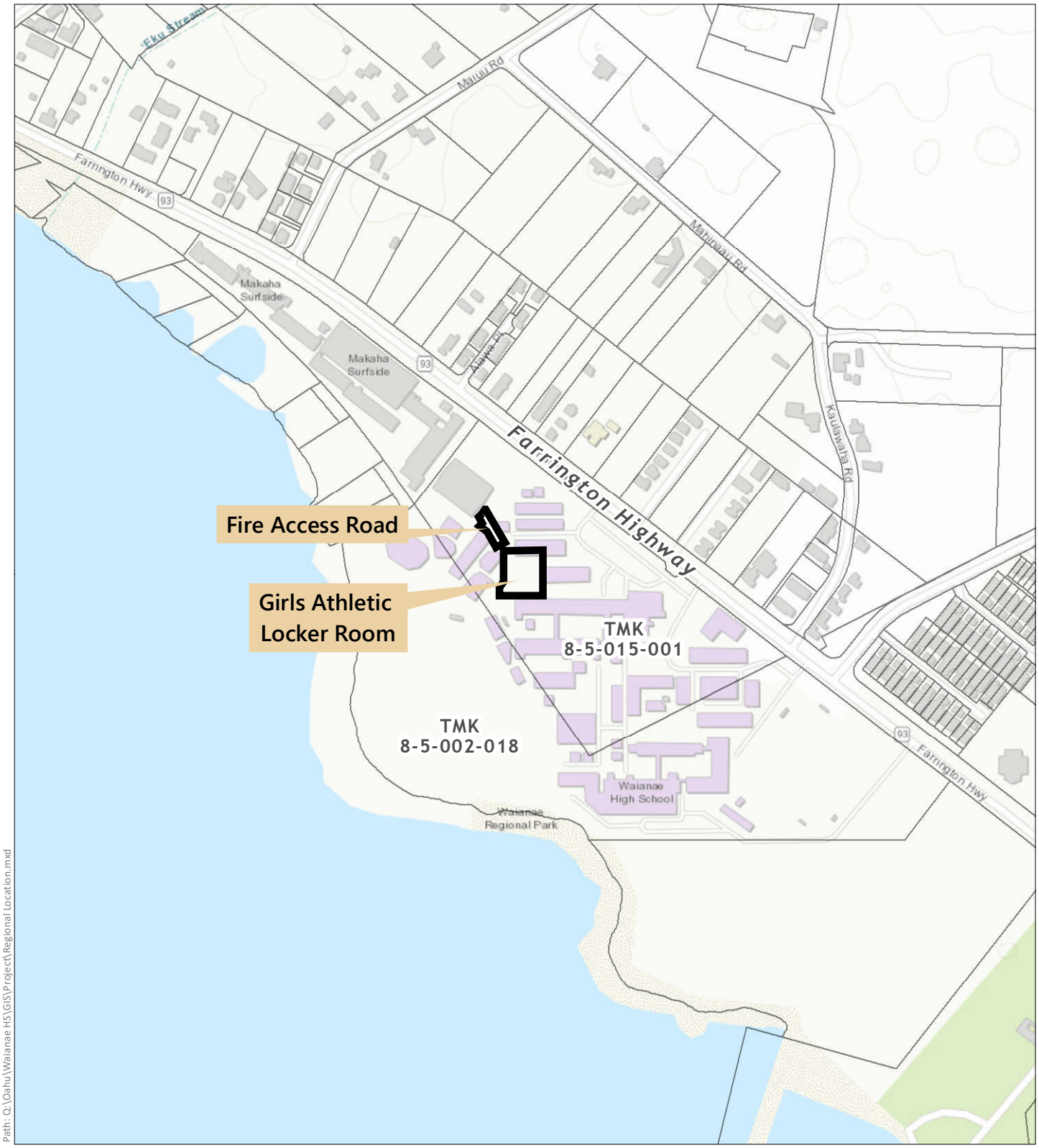
consultation was to consult with agencies, organizations, and individuals with technical expertise or an interest in, or will be affected by, the Proposed Project. This process is part of the scoping process for the DEA. Comments and input received during this period were used to identify environmental issues and concerns to be addressed in the DEA.

As part of this early consultation process, the agencies, organizations, and individuals who were sent Pre-Assessment consultation letters are listed in Table 1 below. Those who provided written comments (either by hard copy or electronically) are indicated in Table 1. Copies of the written comments and responses are reproduced in Appendix A.

Table 1: Pre-Assessment Consultation

Agencies/Organizations/Individuals	Pre-Assessment Consultation Letter Sent	Pre-Assessment Comment Received
STATE		
Environmental Review Program (ERP)	X	
Department of Accounting and General Services	X	
Department of Agriculture	X	
Department of Business, Economic Development & Tourism (DBEDT)	X	
DBEDT – Hawaiʻi State Energy Office/Strategic Industries Division	X	
DBEDT - Office of Planning and Sustainable Development	X	11/30/21
Department of Defense	X	
Department of Hawaiian Home Lands	X	
Department of Health (DOH)	X	
DOH – Environmental Health Administration	X	
Department of Human Services	X	11/16/21
Department of Labor and Industrial Relations	X	
Department of Land and Natural Resources (DLNR)	X	12/14/21
DLNR – Division of Forestry & Wildlife	X	12/14/21
DLNR – Engineering Division	X	12/14/21
DLNR – Historic Preservation Division	X	
Department of Transportation	X	12/10/21
Hawaiʻi Housing Finance and Development Corporation	X	
Office of Hawaiian Affairs	X	
FEDERAL		
U.S. Army Corps of Engineers, Honolulu District	X	
U.S. Fish and Wildlife Service	X	12/2/21
Federal Emergency Management Agency, Region IX	X	
COUNTY		
Board of Water Supply	X	11/23/21
Department of Community Services	X	11/12/21

Agencies/Organizations/Individuals	Pre-Assessment Consultation Letter Sent	Pre-Assessment Comment Received
Department of Customer Services	X	
Department of Design and Construction	X	11/26/21
Department of Environmental Services	X	
Department of Facility Maintenance	X	11/18/21
Department of Planning and Permitting	X	12/2/21
Department of Transportation Services	X	11/18/21
Oʻahu Transit Services	X	
Fire Department	X	11/22/21
Police Department	X	11/22/21
Office of Climate Change, Sustainability, and Resiliency	X	
ELECTED OFFICIALS		
State Senator Maile Shimabukuro	X	
State Representative Cedric Gates	X	
City Councilmember Andria Tupola	X	
Neighborhood Board No. 24 Chair Sharlette Poe	X	
Neighborhood Board No. 24 Education, Health, & Welfare Committee Chair Calvin Endo	X	11/8/21
Neighborhood Board No. 24 Education, Health, & Welfare Committee Chair Tammy Cabral	X	
UTILITIES		
Hawaiian Electric Company, Inc.	X	
Spectrum	X	
Hawaiian Telcom	X	
CITIZEN GROUPS/INDIVIDUALS, OTHER CONSULTED PARTIES		
Waiʻanae High School Alumni & Community Foundation	X	
University of Hawaiʻi Sea Grant College Program	X	



Path: Q:\Oahu\Waianae HS\GIS\Project\Regional Location.mxd

DATE: 12/8/2021

LEGEND

GALR

TMK Parcels

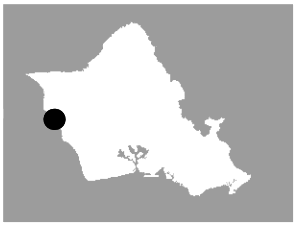


Figure 1
Regional Location

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education Island of O'ahu

North

Linear Scale (feet)

0 125 250 500

PBR HAWAII & ASSOCIATES, INC.

Source: City and County of Honolulu (2021); ESRI Online Basemap.

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

Path: Q:\Oahu\Waianae HS\GIS\Project\Surround Land Use.mxd

DATE: 12/8/2021

LEGEND

GALR

Figure 2
Surrounding Land Uses

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education — Island of O'ahu

North

Linear Scale (feet)

0 150 300 600

PBR HAWAII & ASSOCIATES, INC.

Source: City and County of Honolulu (2021); USDA Online Aerial Imagery (2021).

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

Path: Q:\Oahu\Waianae HS\GIS\Project\TMK.mxd

DATE: 12/22/2021

LEGEND

GALR

TMK Parcels

Figure 3
Tax Map Key

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education Island of O'ahu

North

Linear Scale (feet)

0 125 250 500

PBR HAWAII & ASSOCIATES, INC.

Source:City and County of Honolulu (2021);
Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

Photo 1

Photo 2

Photo 3

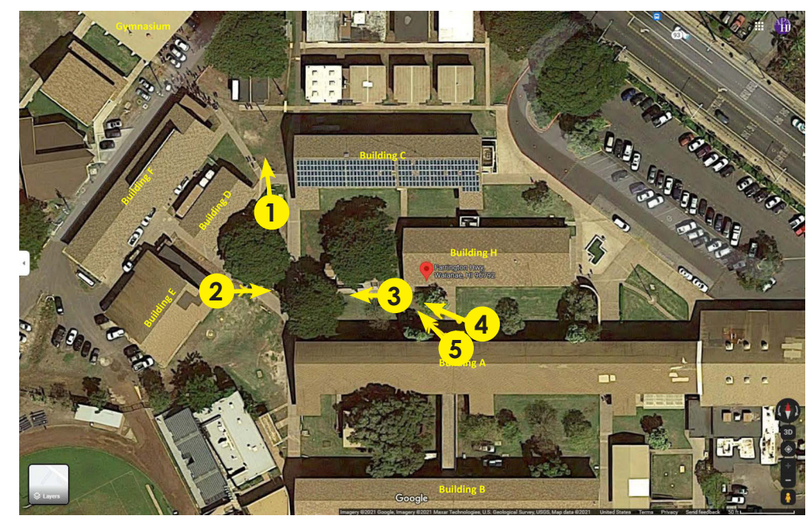


Figure 4
Site Photos (Page 1 of 2)

WAI'ANAE HIGH SCHOOL
GIRLS' ATHLETIC LOCKER ROOM

STATE OF HAWAI'I ISLAND OF O'AHU

Photo 4

Photo 5

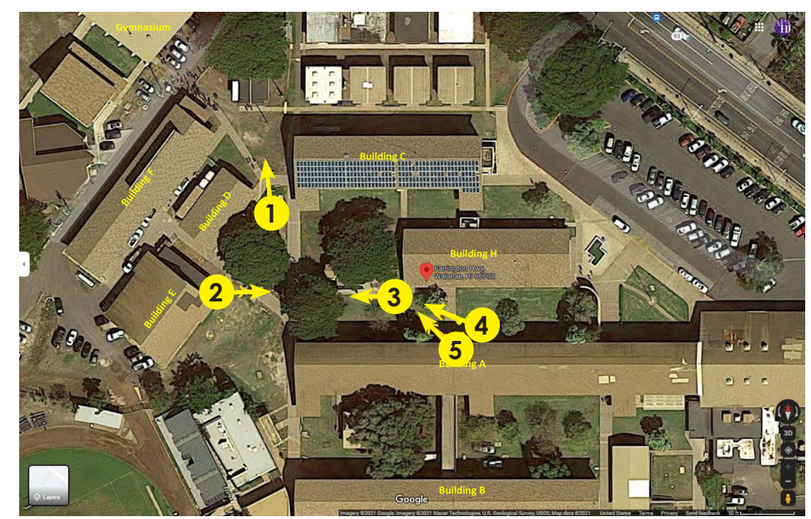


Figure 4
Site Photos (Page 2 of 2)

WAIʻANAE HIGH SCHOOL
GIRLS' ATHLETIC LOCKER ROOM

STATE OF HAWAIʻI ISLAND OF OʻAHU

2.0 PROJECT DESCRIPTION

This section provides background information and a general description of the WHS GALR ("Project").

2.1 BACKGROUND AND NEED FOR THE PROJECT

WHS has an enrollment of approximately 1,800 students from grades 9 thru 12. The mission of the school is to build a collaborative environment and culture that emphasizes responsibility, innovation, complex thinking, effective communication, and excellence. WHS is part of the Oʻahu Interscholastic Association (OIA) which recognizes athletics as an integral part of the educational program of its high schools. Its mission is to promote unity and cooperation amongst the member schools in the establishment and administration of policies and regulations for implementing an interscholastic athletic program. The association shall stress educational and cultural values, promote skills in competitive activities and foster sportsmanship and mutual respect. The Waiʻanae Seariders athletic program consists of a variety of programs including air riflery, bowling, cheerleading, cross country, football, and girls' volleyball in the Fall; boys' basketball, girls' basketball, canoe paddling, boys' soccer, girls' soccer, swimming and diving, boys' wrestling, and girls' wrestling in the Winter; and baseball, softball, tennis, track & field, and boys' volleyball in the Spring. Many of these programs utilize the existing athletic facilities and locker rooms. Existing locker room facilities include a Boys' P.E. and Athletic Locker Room and a Girls' P.E. Locker Room.

Currently, the Boys' Athletic Locker Room (BALR) is used by both the boys and girls in staggered schedules and/or sessions. Girls' sports include soccer, track & field, cross country, softball, and tennis. Volleyball and basketball teams use the gym facilities. Currently, the weight room and training room are shared by both the girls and boys. During competition, the home team will use the BALR, and the visiting team will use the Boys' P.E. Locker Room or the Girls' P.E. Locker Room if the Boys' P.E. Locker Room is being utilized by the JV team.

2.2 PROJECT OBJECTIVES

The proposed Project for the WHS comprises a new GALR building. This is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This project will provide a GALR to provide equitable facilities for all students. The intent of this Project is to provide a gender equitable, or better, GALR to the existing BALR.

2.3 DESCRIPTION OF THE PROJECT

During the Pre-Assessment consultation process, DPP wrote: "Discuss and provide proposed final plans including site, floor, and elevations." Proposed drawings and plans are provided in Appendix B (Conceptual Site Plan); Appendix C (Conceptual Landscape Plan); Appendix D (Floor, Roof,

and Reflected Ceiling Plans); Appendix E (Building Elevations and Sections); and Appendix F (Existing Site Conditions/Topography).

This Project will provide a new GALR for the school and will include a Locker Room, Toilet Area, Shower Room, Storage, Laundry Room, Coach's Office, and other support spaces. The new GALR proposed location is adjacent to the Administration Building and Classroom Building near the Girls' P.E. Locker Room and Boys' P.E. Locker Room, with the BALR and Track Field further towards the ocean. The campus also has a Gymnasium.

The new GALR proposed location is at the existing location of the Administration Portable building to the west of the existing Building H Administration Building. This Project includes either demolition or relocation of the existing Administration portable on-campus, and removal of two large canopy trees and one smaller canopy tree (see Appendix F). The Administration program which includes offices, a meeting area, and restroom, will be added to the new GALR. Additional small canopy trees will be incorporated on-campus to replace the three canopy trees removed (see Appendix C: Conceptual Landscape Plan). The proposed Project will also include an extension/widening of the fire access road to the northeast of Buildings F and D (see "Site Constraints" below).

Site Constraints

The new GALR proposed location is fairly close to other existing buildings on three sides and the storm water drainage way on the fourth side, resulting in a limited buildable area to maintain code-required fire separation distances and exterior wall openings based on fire separation distance. Flood hazard zones surrounding the Project Site significantly constrained reasonable areas to develop without required elevated ground level and infrastructure to accommodate flooding, which would have also been cost prohibitive.

The new GALR proposed location is land locked in the campus interior and does not have direct access to fire access. The Project proposes a new fire access lane connecting to an existing fire lane terminating at the drainage way, in order to avoid the construction of an emergency vehicle rated bridge. The distance from the fire access lane to the closest exterior door exceeds maximum distance and will require a variance (see Appendix I). The new GALR will also need to be fire sprinklered to meet fire safety requirements.

Other site constraints include existing communication boxes and underground lines that provide telecommunication and data access to many buildings on the campus. The proposed building footprint avoids the communication boxes but further toning and explorative potholing during construction of the existing lines is required to determine exact locations of underground lines. Rerouting and replacing the communication boxes and lines appears to be cost prohibitive. If the toning investigation is unfavorable, then program scope may be reduced, in the school's order of preference: reduction or elimination of Equipment Storage, reduction in Administration program.

Inspired by Place

The new GALR draws its inspiration from the experience of both the natural and campus context. The existing campus has been developed over the years and infilled with academic and support buildings and portables. The campus is bounded by ocean, which by nature, limits the

development in the flood hazard zones. Also, there are two storm water drainage ways that run from *mauka* to *makai*, traversing through the campus.

The new building masses are carefully located to create a variety of outdoor social and academic spaces, reinforce existing pedestrian pathways and gateways, and engage in a constructive dialog with the existing campus buildings. Located in a central location of the campus, the new GALR will be active mostly during after school hours, while its office component will be used throughout the school day. It is intended to provide as much useable outdoor spaces as possible for students and staff to congregate. The building volume mimics and relates to the nearby athletic facilities. Rooflines rise to allow for daylight and ventilation while maintaining privacy. The rooflines slope down toward the main sidewalk and the one-story Administration Building to create a more pedestrian friendly approach.

Sustainability
The Project is designed to be resource-efficient, healthy, regionally relevant, and a model for sustainability. Due to the nature of the program, security and privacy is a priority, leaving minimal viewable glazing and opportunities for daylighting and natural ventilation. The design strategy of the new GALR includes storm louvers and translucent glazing along the perimeter walls, above the sight lines, to allow natural ventilation and daylighting to filter through while still providing privacy. These fenestrations along with ceiling fan and mechanical systems helps to ventilate the building. Building and site systems will be designed to work passively and with energy and water efficiency as much as possible, putting minimal stress on the current land and infrastructure.

Materials
Designed to fit in and complement existing campus pathways, gathering spaces, and buildings, the architectural palette will draw from the existing materials on campus. Materials like asphalt shingle roofing, concrete masonry units (CMUs), and concrete will be the base of the architectural language of the new building.

2.4 PROJECT COST AND IMPLEMENTATION TIMEFRAME

The current construction budget is $3,000,000 with construction funds lapsing in June 2022. The DOE has indicated that these funds will be supplemented to allow construction of a GALR to meet the Title IX requirements. These funds do not include furniture, fixtures, and equipment. Construction of the GALR is anticipated to start Summer 2023 and expected be completed in 12 months.

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3.0 DESCRIPTION OF THE NATURAL ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

During the Pre-Assessment consultation process, DPP wrote: "Identify and summarize the impacts of environmental effects of the proposed action…measures proposed to minimize adverse effects; and alternatives to the action and their environmental effects." This section describes the existing conditions of the physical or natural environment, potential impacts of the Project to the environment, and mitigation measures to minimize impacts.

3.1 CLIMATE

The climate of Wai'anae can be characterized as hot and dry. Annual rainfall averages less than 25 inches along the coastline to 80-100 inches at the higher elevations of the Wai'anae Mountains. Daily temperatures range between 72- and 80-degrees Fahrenheit and can reach the low to mid-90s during the summer. Prevailing winds blow from a northeast direction at an average 10-13 mile per hour.

Potential Impacts and Mitigation Measures

Most of the GALR building is intended to be naturally ventilated with vents and/or fans to assist with circulation and humidity control. The GALR Administration office, meeting room, coach's office, laundry room, and towel storage room to be air conditioned with temperature and humidity controls. Exterior walls will be sealed, fully grouted CMU Mass walls to support the roof above. A low-pitched roof will minimize building height and will be sloped to drain rainwater. High windows and/or louvers will bring daylighting and ventilation into the building.

3.2 TOPOGRAPHY

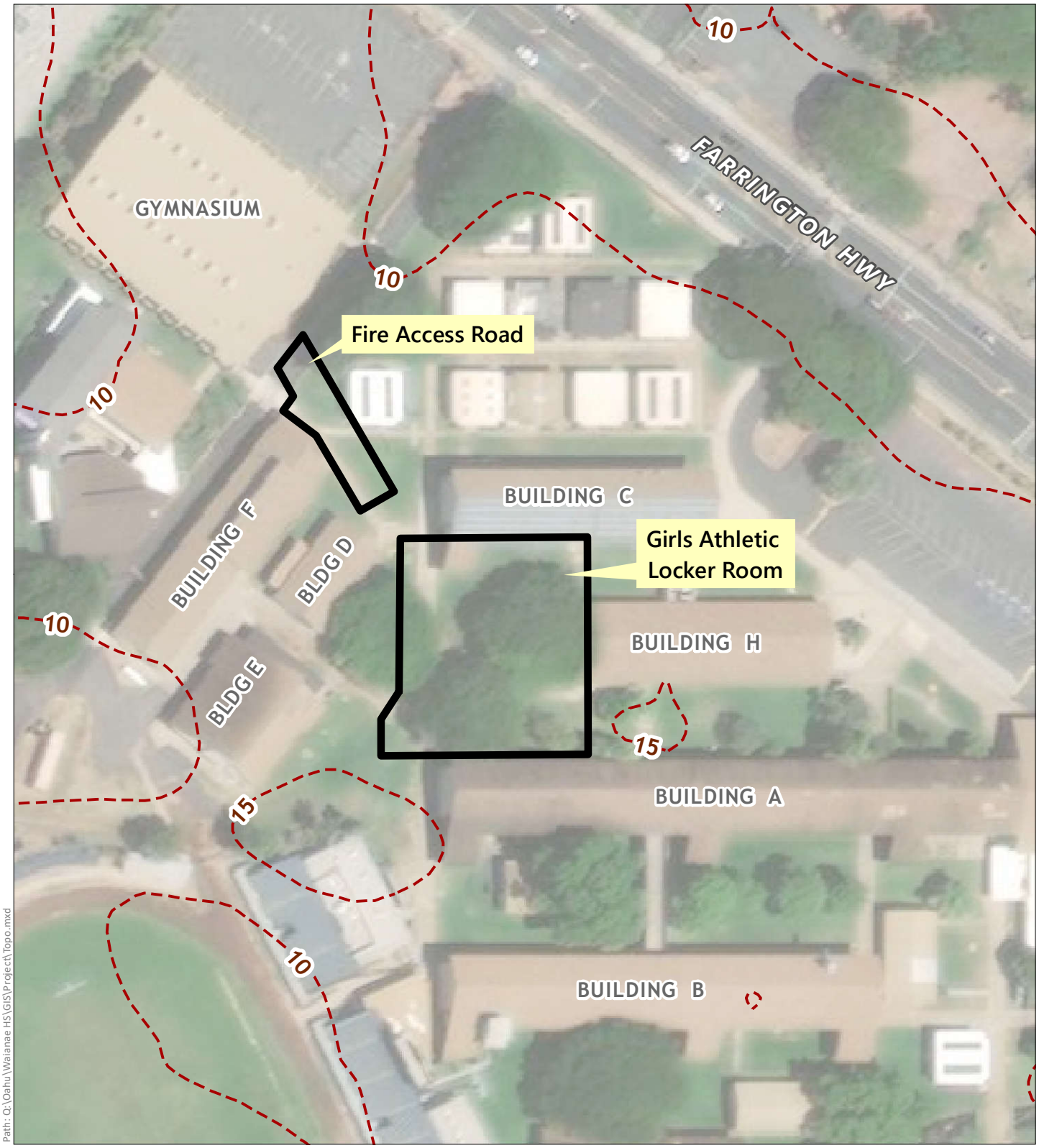
The terrain is relatively flat, having been modified during the construction of the surrounding buildings and the existing Administration portable building (see Figure 5 and Appendix F). Elevations ranges from 7 to 8 feet above mean sea level.

Potential Impacts and Mitigation Measures

The GALR will be built upon mostly graded land where the existing Administration portable building currently is sited. By replacing the existing facilities, the GALR will have a negligible effect on the topography of the area (Figure 5 and Appendix F).

3.3 SOILS

Three soil suitability studies prepared for lands in Hawai'i principally focus on the relative agricultural productivity of different land types. These studies are: 1) the U.S. Department of Agriculture Natural Resource Conservation Service Soil Survey; 2) the University of Hawai'i Land Study Bureau Detailed Land Classification; and 3) the State Department of Agriculture's Agricultural Lands of Importance to the State of Hawai'i.



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DATE: 12/8/2021

LEGEND

GALR

5-ft Contours

Figure 5
Topography

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education Island of O'ahu

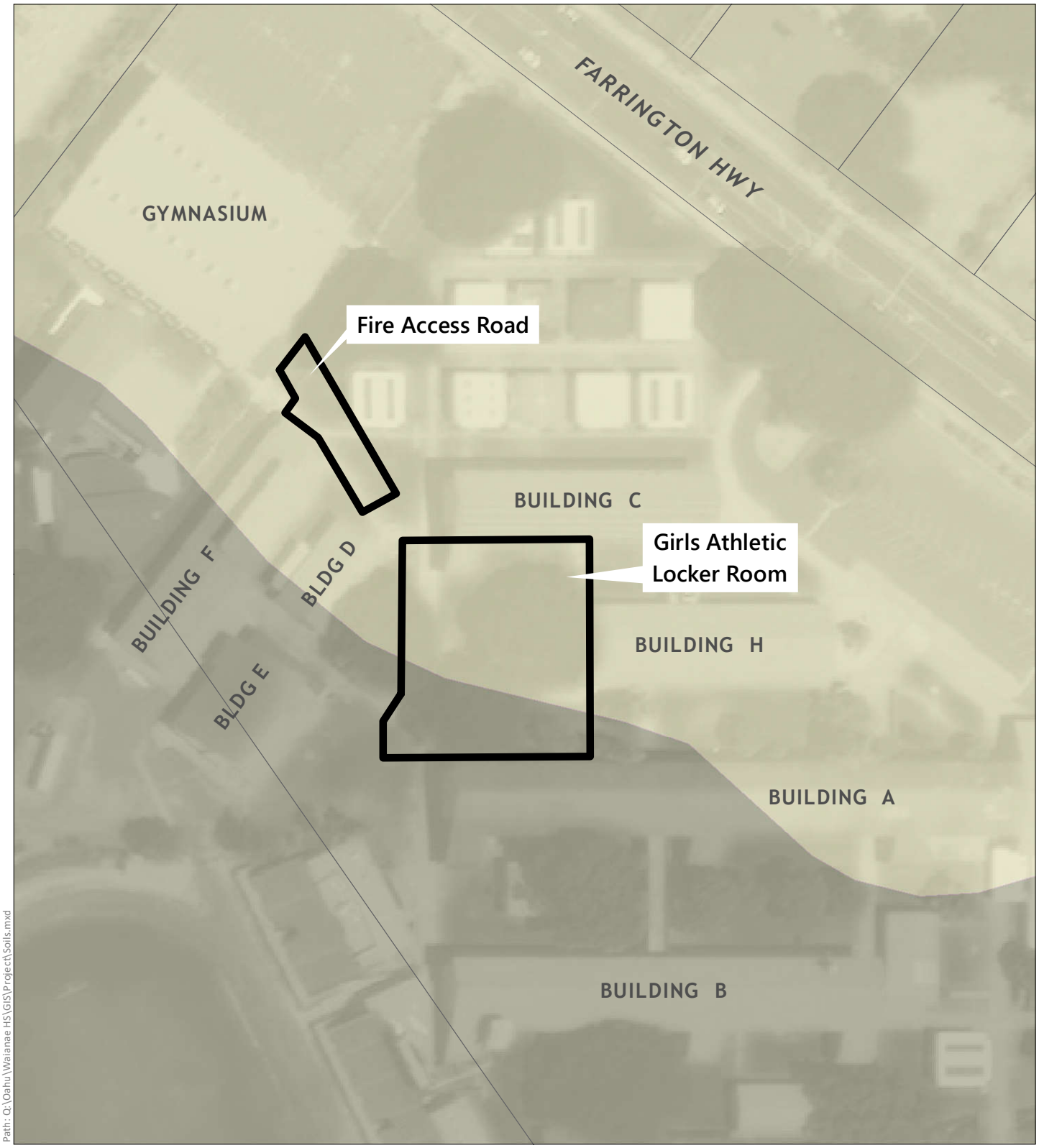
North

Linear Scale (feet)

0 25 50 100

PBR HAWAII & ASSOCIATES, INC.

Source: City and County of Honolulu (2021); USDA Online Aerial Imagery (2021).
Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.



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DATE: 12/13/2021

LEGEND

GALR

TMK Parcels

Soil Types

CR: Coral Outcrop

Mtb: Mokuleia Clay

Figure 6

Natural Resources Conservation Service Soil Survey

WAI'ANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education

Island of O'ahu

North

Linear Scale (feet)

0 25 50 100

PBR HAWAII & ASSOCIATES, INC.

Source: USDA NRCS (2020). City and County of Honolulu (2021). USDA Online Aerial Imagery (2021).

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

3.3.1 Natural Resources Conservation Service

The *Natural Resources Conservation Service, Soil Survey for the Island of Oʻahu*, classifies the soil underlying the WHS as Coral Outcrop (Soil Legend: CR) and Mokuleia Clay (Soil Legend: Mtb) (Figure 6). Coral Outcrop, which consists of coral or cemented calcareous sand, underlies about 90% of the school. The coral outcrop formed in shallow ocean water during the time the ocean stand was at a higher level. Small areas of coral outcrop are exposed on the ocean shore, on the coastal plains, and at the foot of uplands. This soil is found at elevations ranging from sea level to approximately 100 feet above sea level.

3.3.2 Land Study Bureau Detailed Land Classification

The University of Hawaiʻi Land Study Bureau (LSB) document, *Detailed Land Classification, Island of Oʻahu***,** classifies soils based on a productivity rating. Letters indicate class of productivity with A representing the highest class and E the lowest. The soils of most of the WHS campus (including the area of the Proposed Action) are unclassified by LSB.

3.3.3 Agricultural Lands of Importance to the State of Hawaiʻi

The Agricultural Lands of Importance to the State of Hawaiʻi (ALISH) system classifies important agricultural lands as Prime, Unique, or Other Agricultural Land. The land underlying the WHS campus is unclassified.

Potential Impacts and Mitigation Measures

Construction of the GALR will not have a deleterious effect on the soil in the Project Site. The GALR site has been previously modified to accommodate the existing Administration portable building. The Administration portable will be either demolished or relocated elsewhere on-campus. As such, the proposed GALR Project has no capacity to impact the availability of agricultural land for cultivation.

During the Pre-Assessment consultation process, DPP wrote: "Discuss conformance with the standard erosion and sediment control requirements. The DEA should state that the Project shall comply with the prevailing soil erosion and stormwater quality standards ("Rules Relating to Water Quality") and drainage standards ("Storm Drainage Standards")."

The proposed Project will be built upon mostly graded land where the Administration portable building is currently located at the northwest edge of the campus. By constructing on the site of the existing portable building, the Project will have a negligible effect on the topography and hydrology of the Site (Figure 5). Low-Impact Development (LID) features may also be incorporated to reduce the volume of surface water runoff and improve water quality by decreasing the amount of sedimentation and pollutants.

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 county regulations and rules for erosion, sedimentation, and dust control. Contractors will use best management practices (BMPs) to minimize erosion during construction and planting, including watering loose soils during construction, and planting groundcover over areas where

construction has been completed. Additionally, BMPs for stormwater management will be implemented to minimize impacts of the Project to 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. The estimated disturbed area should be less than one acre. Therefore, a general National Pollutant Discharge Elimination System (NPDES) Permit for construction activities should not be required.

Long-term impacts will be mitigated by the installation of LID measures to manage stormwater at this site before it is returned to the natural system. Such measures will be designed to manage stormwater in a way that better replicates natural systems, thereby slowing the flow of surface water from the site and reducing pollutants in the process, resulting in improved water quality of the downstream water bodies. No impacts to ground water resources are anticipated.

Construction and permanent post-construction BMPs and LID measures will be designed, implemented, and maintained in compliance with the Administrative Rules, Title 20, DPP, Chapter 3 – Rules Relating to Water Quality, effective August 16, 2017. Onsite drainage system improvements will be designed in accordance to DPP's Storm Drainage Standards, dated August 2017. See also the discussion in Section 4.7.3 (Drainage System) below.

3.4 HYDROLOGY

Surface Water

The campus is located on the coastal flats directly adjacent to the shoreline. The campus has two major stormwater swales streams flowing from the uplands though the campus (but do not bisect the Project Site) and discharging to the ocean. Based on accounts by the school, the stream water levels remain relatively low and only rise during heavy storms. The stream water level rises within the confines of the existing embankments but rarely to an elevation that exceeds the height of the traversing pedestrian bridges. During king tides, the water flows inland in the opposing direction, and back up through the campus.

Ground Water

According to the Honolulu Board of Water Supply's (BWS's) Waiʻanae Watershed Management Plan, the Waiʻanae Aquifer Sector (above which the WHS is located), has a sustainable yield of 3 million gallons per day (MGD) (Honolulu Board of Water Supply, Townscape, Inc., and the City and County of Honolulu Department of Planning and Permitting, 2009). According to the State of Hawaiʻi's Underground Injection Control (UIC) Program, the WHS is located below the UIC line, which means the underlying aquifer is not considered a drinking water source (State of Hawaiʻi Department of Health, Safe Drinking Water Branch, n.d.).

Wetlands

No wetlands occur directly where the GALR is proposed to be located. The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory indicates that the nearest wetlands are: 1) a Riverine (classified as **R4SBCx**), located south/southeast; and 2) a Estuarine and Marine Wetland

habitat (classified as **M2RS/ABN**), located makai (west/southwest) of the proposed Project Site (U.S. Fish and Wildlife Service, n.d.).

Classification code **R4SBCx** stands for:

System **Riverine (R)**: The Riverine System includes all wetlands and deep-water habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

Subsystem **Intermittent (4)**: This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

Class **Streambed (SB)**: Includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.

Water Regime **Seasonally Flooded (C)**: Surface water is present for extended periods especially early in the growing season but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

Special Modifier **Excavated (x)**: This Modifier is used to identify wetland basins or channels that were excavated by humans.

Classification code **M2RS/ABN** stands for:

System **Marine (M)**: The Marine System consists of the open ocean overlying the continental shelf and its associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean, and the Water Regimes are determined primarily by the ebb and flow of oceanic tides. Salinities exceed 30 parts per thousand (ppt), with little or no dilution except outside the mouths of estuaries. Shallow coastal indentations or bays without appreciable freshwater inflow, and coasts with exposed rocky islands that provide the mainland with little or no shelter from wind and waves, are also considered part of the Marine System because they generally support typical marine biota.

Subsystem **INTERTIDAL (2)**: The substrate in these habitats is flooded and exposed by tides; includes the associated splash zone.

Class **Rocky Shore (RS)**: High energy shoreline environments characterized by bedrock, stones, or boulders which singly or in combination have an areal cover 75% percent or more and less than 30 percent vegetative cover by area.

Split Class **Aquatic Bed (AB)**: Includes wetlands and deep-water habitats dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years.

Water Regime **Regularly Flooded (N)**: Tides alternately flood and expose the substrate at least once daily.

Potential Impacts and Mitigation Measures

As the anticipated total graded area (including sidewalks, utility trenching, fire lane) is 28,130 square feet, the GALR would be classified as a Category 4 project.

Category 4 projects require an Erosion and Sediment Control Plan (ESCP), Details, and Notes, prepared by a Certified Water Pollution Plan Preparer (CWPPP) as per the Rules Relating to Water Quality, and the implementation of an ESCP Coordinator during construction.

Based on preliminary discussions with the Storm Water Quality Branch, Department of Planning and Permitting, the proposed Project does not appear to require Post-Construction Best Management Practices (PCBMP). Official requirements for PCBMP will be determined by the Storm Water Quality Branch during building permit/processing.

3.5 NATURAL HAZARDS

Natural hazards like flooding, tsunami inundation, hurricanes, earthquakes, and volcanic eruptions have historically impacted the Hawaiian Islands. Climate change will also impact the Islands, as will the related sea level rise.

Flooding

During the Pre-Assessment consultation process, DPP wrote: "Discuss the Flood Zones, the chances of flooding, and any mitigation plans." Additionally, the State Department of Land and Natural Resources, Engineering Division wrote: "The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project."

Based on the State of Hawaiʻi, Department of Land and Natural Resources (DLNR), Flood Hazard Report, the GALR site is located within the Flood Hazard Zone XS, areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1-foot or with drainage areas less than 1-square mile; and areas protected by levees from 1% annual chance flood, FEMA Firm Panel 15003C0183H, FIRM Index Date and Panel Effective Date of November 5, 2014 (Figure 7). Therefore, the GALR site is not subject to Chapter 21A, Flood Hazard Areas, Revised Ordinances of Honolulu.

Tsunami

Since the early 1800s, approximately 50 tsunamis have inundated Hawaiʻi's shores. Seven historical events have caused major damage. The most recent tsunami to impact Oʻahu occurred on March 11, 2011, causing damage at several locations around the island, especially the North Shore. There are no records of inundation of lands in the vicinity of WHS during any of the recorded tsunami.

All of the WHS is located within the Tsunami Evacuation Zone (Figure 8) (City and County of Honolulu Department of Emergency Management, n.d.).

Hurricanes

Since 1980, two hurricanes have had a devastating effect on Hawaiʻi: Hurricane ʻIwa in 1982 and Hurricane ʻIniki in 1992. Long-term prediction of future hurricanes is virtually impossible. However, one should reasonably anticipate the prospect of another hurricane impacting the islands.

Hurricane events may also cause a storm surge, which is an abnormal rise of water generated by a storm, over and above the normal tidal levels. This rise in water level can cause extreme flooding in coastal areas, particularly if a storm surge coincides with a normal high tide (NOAA, n.d.). According to the National Hurricane Storm Surge Hazard Maps, the coastal area makai of the Project Site may be subject to flooding inundation of greater than six feet above ground level during a Category 3 or 4 hurricane event (National Oceanic and Atmospheric Administration (NOAA) National Hurricane Center (NHC), n.d.).

Earthquake & Volcanic Hazards

In Hawaiʻi, volcanic activity produces most earthquakes in contrast to other areas sitting on tectonic plate margins. Thousands of earthquakes occur in Hawaiʻi each year. However, the vast majority of them are undetectable through normal human senses. A few historical earthquakes have reached moderate and even disastrous magnitudes.

The last major earthquakes felt statewide were magnitudes of 6.7 and 6.0. These earthquakes occurred at Kīholo Bay along Hawaiʻi Island's Kona Coast on October 15, 2006. These earthquakes resulted in more than $100 million in damages to the northwest area of Hawaiʻi Island and minimal damage on Oʻahu. From that same event, Oʻahu was also subject to an earthquake induced electrical blackout that paralyzed the city of Honolulu and shut down the Honolulu International Airport for nearly a day.

Climate Change & Sea Level Rise

During the Pre-Assessment consultation process, the State Office of Planning and Sustainable Development (OPSD) wrote: "To assess any potential impacts of sea level rise on the proposed development area, OPSD suggest the EA refer to the findings of the Hawaii Sea Level Rise Vulnerability and Adaptation Report 2017…The EA should provide a map of the 3.2-foot sea level rise exposure area in relation to the property area…" Also during the Pre-Assessment consultation process, DPP wrote: "Provide a map and evaluate the impacts of the 0.5 feet and 3.2 feet of Sea Level Rise."

As global temperatures increase, established patterns of weather and climate are shifting. These erratic changes in weather patterns have increased the severity of events like droughts, storms, floods, and even hurricanes, while at the same time causing these events to be more difficult to predict and protect against. The fragility of the ecosystems and unique island nature of Oʻahu and the Hawaiian Islands at large makes the state particularly vulnerable to the damaging effects of climate change. Global sea levels are on the rise and have the potential to erode and even inundate coastal areas over the course of the next century.

In 2018, the City and County of Honolulu ("City") Mayor issued Directive 18-2 with the purpose of establishing policies to address, minimize risks from, and adapt to the impacts of climate change and sea level rise. This directive establishes the policy for each City department and agency to *"consider the need for both climate change mitigation and adaptation as pressing and urgent*

matters, to take a proactive approach in both reducing greenhouse gas emissions and adapting to impacts caused by sea level rise, and to align programs wherever possible to help protect and prepare the infrastructure, assets, and citizens of the City for the physical and economic impacts of climate change."

In particular, City departments and agencies are required to: *"(5) work cooperatively to develop and implement land use policies, hazard mitigation actions, and design and construction standards that mitigate and adapt to the impacts of climate change and sea level rise" as well as "(7) work cooperatively to develop a process to review applications for new development in shoreline areas in conjunction with other agencies and entities with expertise in shoreline hazards and erosion in order to protect and enhance open space, the environment especially beaches, public access to and along the shoreline, public safety, and public resources."*

These policies and procedures are addressed in accordance with the findings of the *Hawaiʻi Sea Level Rise Vulnerability and Adaptation Report* issued by the State of Hawaiʻi in December 2017. This 2017 report includes scientific modeling of sea level rise impacts such as a 3.2-foot Sea Level Rise Exposure Area (SLR-XA) as modeled by the University of Hawaiʻi Coastal Geology Group (CGG) and the 6-foot SLR line as modeled by the National Oceanic and Atmospheric Administration (NOAA) Digital Coast Sea Level Rise Viewer. These scientific models also informed the *Sea Level Rise Guidance* issued by City and County of Honolulu's Climate Change Commission, which recommended that the City start planning for a 3.2-foot SLR-XA by mid-century and a 6-foot SLR-XA in later decades.

Potential Impacts and Mitigation Measures

The proposed Project is not anticipated to have any impact or any deleterious effects on natural hazard conditions and no unique mitigation measures are planned, other than observing the International Building Code in the design of the facility (to address the potential impacts from hurricanes and earthquakes).

No portion of the GALR would be located inside the 3.2-foot SLR-XA as modeled by the University of Hawaiʻi CGG (see Figure 9), although this is projected to not occur in the worst case, until the year 2070, and in the best case 2100.

In addition, the GALR will not be built within the shoreline setback, nor will it impact or exacerbate shoreline hazards related to existing open space, nearby beaches, public access to and along the shoreline, public safety, and public resources.

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DATE: 12/13/2021

LEGEND

GALR

TMK Parcels

Flood Hazard Zones

- XS: Areas of 0.2% Annual Chance Flood
- XS: Areas outisde 0.2% Annual Chance Flood
- AE: Areas of 1% Annual Chance Flood with Base Flood Elevations

Source: FEMA (2021). City and County of Honolulu (2021). USDA Online Aerial Imagery (2021).
Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

Figure 7

Flood Insurance Rate Map

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

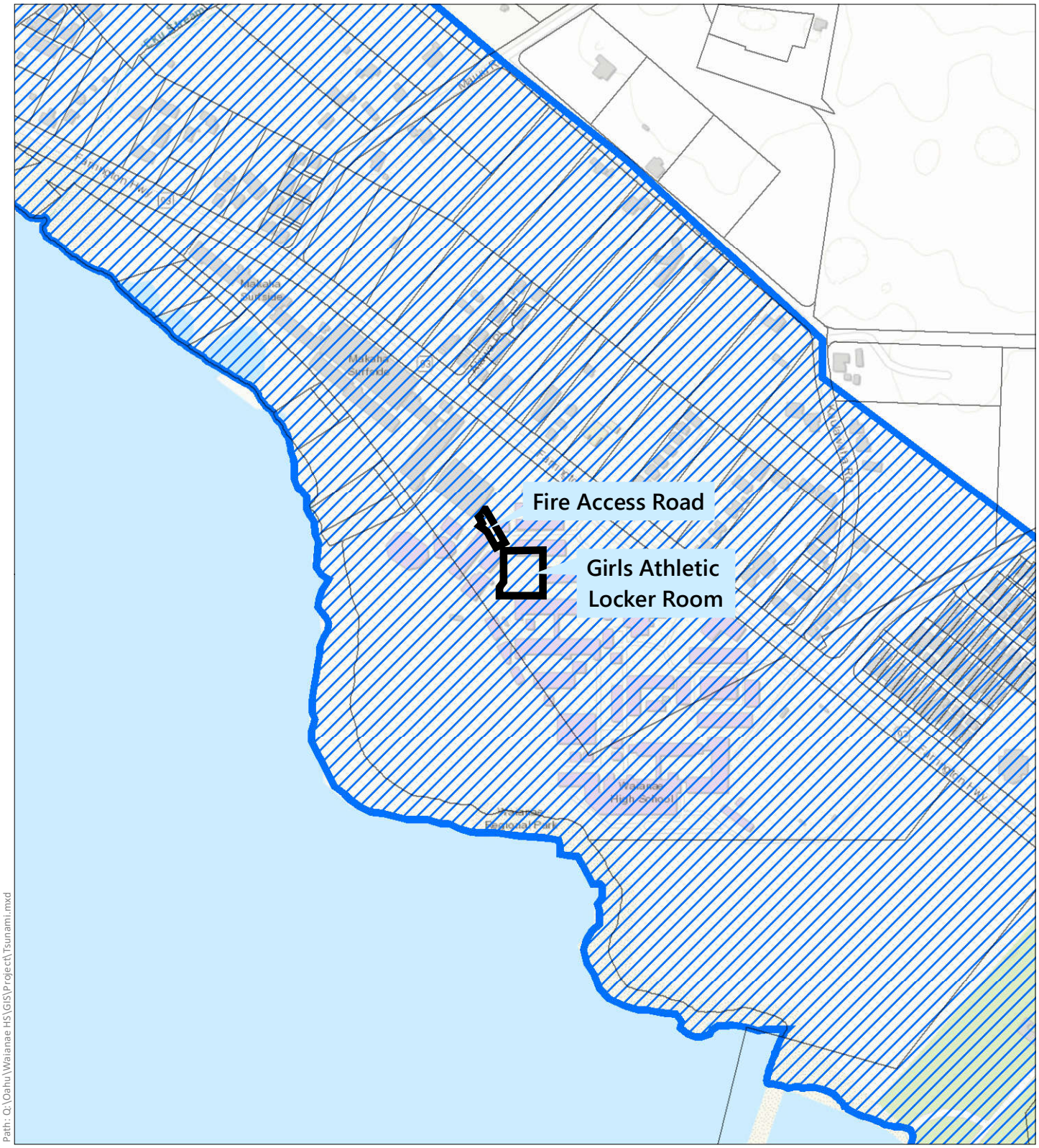
State of Hawai'i - Department of Education — Island of O'ahu

North

Linear Scale (feet)

0 25 50 100

PBR HAWAII & ASSOCIATES, INC.



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DATE: 12/22/2021

LEGEND

- GALR
- TMK Parcels
- Tsunami Evacuation Zone

Figure 8
Tsunami Evacuation Zone

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education — Island of O'ahu

North

Linear Scale (feet)

0 125 250 500

PBR HAWAII & ASSOCIATES, INC.

Source: City and County of Honolulu (2016 & 2021). ESRI Online Basemap.

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

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DATE: 12/13/2021

LEGEND

- GALR
- TMK Parcels
- 0.5-ft Sea Level Rise Exposure Area
- 3.2-ft Sea Level Rise Exposure Area

Figure 9
Sea Level Rise

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education — Island of O'ahu

North

Linear Scale (feet)
0 125 250 500

PBR HAWAII & ASSOCIATES, INC.

Source: University of Hawaii CGG & Tetra Tech, Inc (2017). City and County of Honolulu (2021). ESRI Online Basemap.
Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

3.6 FLORA & FAUNA

The WHS campus has been subject to intense human utilization since its construction in 1957. According to the USFWS National Wetlands Inventory map, within the immediate proximity of the Project Site, there are no wetlands or open bodies of water. The WHS campus includes paved walkways and landscaped areas between buildings, including the Project Site. Because the Project is being proposed where there is an existing portable building, there are no known habitats for rare, threatened, or endangered flora or faunal species (Figure 10) on the Project Site. Approximately 500 feet makai of the Project Site, along the shore and in the marine waters off the coast, is an area designated as a critical habitat for the endangered Hawaiian Monk Seal (Figure 10).

The proposed demolition plan shows two existing monkeypod trees that would be removed (see Appendix F: Existing Conditions/Topography).

Potential Impacts and Mitigation Measures

The proposed Project will involve changes and/or improvements to existing paved and landscaped areas, including the replacement of existing vegetation with small canopy trees (e.g., native lonomea (*Sapindus oahuensis*)) within the Project Site and elsewhere on-campus at a ratio of three (3) smaller canopy trees for each of the two (2) large canopy trees removed (Appendix C: Conceptual Landscape Plan). The proposed Project will involve the redevelopment of the current site of the Administration portable building, which is not known to attract or provide a habitat for any state or federally listed species. Due to intense human utilization since WHS's construction in 1957, the proposed Project is not anticipated to have any impact on protected or endangered flora or faunal species. No mitigation measures are planned.

During the Pre-Assessment consultation process, the State Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) wrote: "DOFAW recommends minimizing the movement of plant or soil material between worksites, such as in fill. Soil and plant material may contain invasive fungal pathogens, vertebrate and invertebrate pests…or invasive plant parts that could harm our native species and ecosystems…DOFAW recommends using native plant species for any necessary landscaping that are appropriate for the area…" Some ground disturbances will be necessary for construction and new landscaping related to the new GALR building. Plant and soil movement will be minimized where possible for these activities and excess soil and debris will be removed from all equipment, materials, and personnel to avoid the risk of spreading invasive species. New landscaping for the Project will incorporate grass and native plant species (lonomea) where appropriate and practicable for the intended uses of the new GALR building as well as the surrounding climate conditions (Appendix C).

During the Pre-Assessment consultation process, technical assistance was sought from the USFWS Pacific Islands Fish and Wildlife Office (PIFWO), and in response, the USFWS PIFWO noted the protected species most likely to occur within the vicinity of the Project area, and provided information on the PIFWO website (https://www.fws.gov/pacificislands/promo.cfm?id=177175840) regarding the recommended avoidance and minimization measures for these species, which are discussed below (see letter in Appendix A).

Hawaiian hoary bat

The endangered Hawaiian hoary bat/ʻōpeʻapeʻa (*Lasiurus cinereus semotus*) roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away. Additionally, Hawaiian hoary bats forage for insects from as low as 3 feet to higher than 500 feet above the ground and can become entangled in barbed wire used for fencing.

To minimize impacts to the endangered Hawaiian hoary bat, the USFWS PIFWO recommends:

- Avoiding the disturbance, removal, or trimming of woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15); and
- Avoiding the use of barbed wire for fencing.

During the Pre-Assessment consultation process, the State Department of Land and Natural Resources, Division of Forestry and Wildlife wrote: "The State listed Hawaiian Hoary Bat or ʻōpeʻapeʻa (*Lasiurus cinereus semotus*) may potentially occur in the vicinity of the project area and may roost in nearby trees."

Green sea turtle

The threatened green sea turtle/honu (*Chelonia mydas*) may nest on any sandy beach area in the Pacific Islands and exhibit strong nesting site fidelity. Nesting for the Central North Pacific distinct population segment (DPS) occurs on beaches in Pacific Islands from May through September, peaking in June and July, with hatchlings emerging through November and December.

As the Project Site is approximately 500 feet from the shore and does not involve construction on, or in the vicinity of, beaches or the modification or hardening of the coastline, no impacts to green sea turtles are anticipated.

Hawaiian seabirds

"Hawaiian seabirds" is the collective term referring to birds including the endangered Band-rumped storm-petrel/ʻakēʻakē (*Oceanodroma castro*), the endangered Hawaiian petrel/ʻuaʻu (*Pterodroma sandwichensis*), the threatened Newell's shearwater/ʻaʻo (*Puffinus auricularis newelli*), and the migratory Wedge-tailed shearwater/ʻuaʻu kani (*Ardenna pacificus*).

Newell's shearwaters are found in the highest densities on Kauaʻi with lower densities on all of the other islands, except Lānaʻi. Hawaiian Petrel populations are greatest on Maui, Lānaʻi, and Kauaʻi with lower densities on Hawaiʻi and Molokaʻi. Band-rumped storm-petrels are found in low densities throughout the islands. All islands may experience overflight at night.

For all projects, Hawaiian seabirds may traverse the Project area at night during the breeding season (March 1 to December 15). Outdoor lighting could result in seabird disorientation, fallout, and injury or mortality. Seabirds are attracted to lights and after circling the lights they may

become exhausted and collide with nearby wires, buildings, or other structures or they may land on the ground. Downed seabirds are subject to increased mortality due to collision with automobiles, starvation, and predation by dogs, cats, and other predators. Young birds (fledglings) traversing the Project area between September 15 and December 15, in their first flights from their mountain nests to the sea, are particularly vulnerable.

During the Pre-Assessment consultation process, DOFAW wrote: "Artificial lighting can adversely impact seabirds that may pass through the area at night by causing disorientation. This disorientation can result in collision with manmade structures or grounding of birds."

To minimize potential Project impacts to Hawaiian seabirds, the USFWS PIFWO recommends:

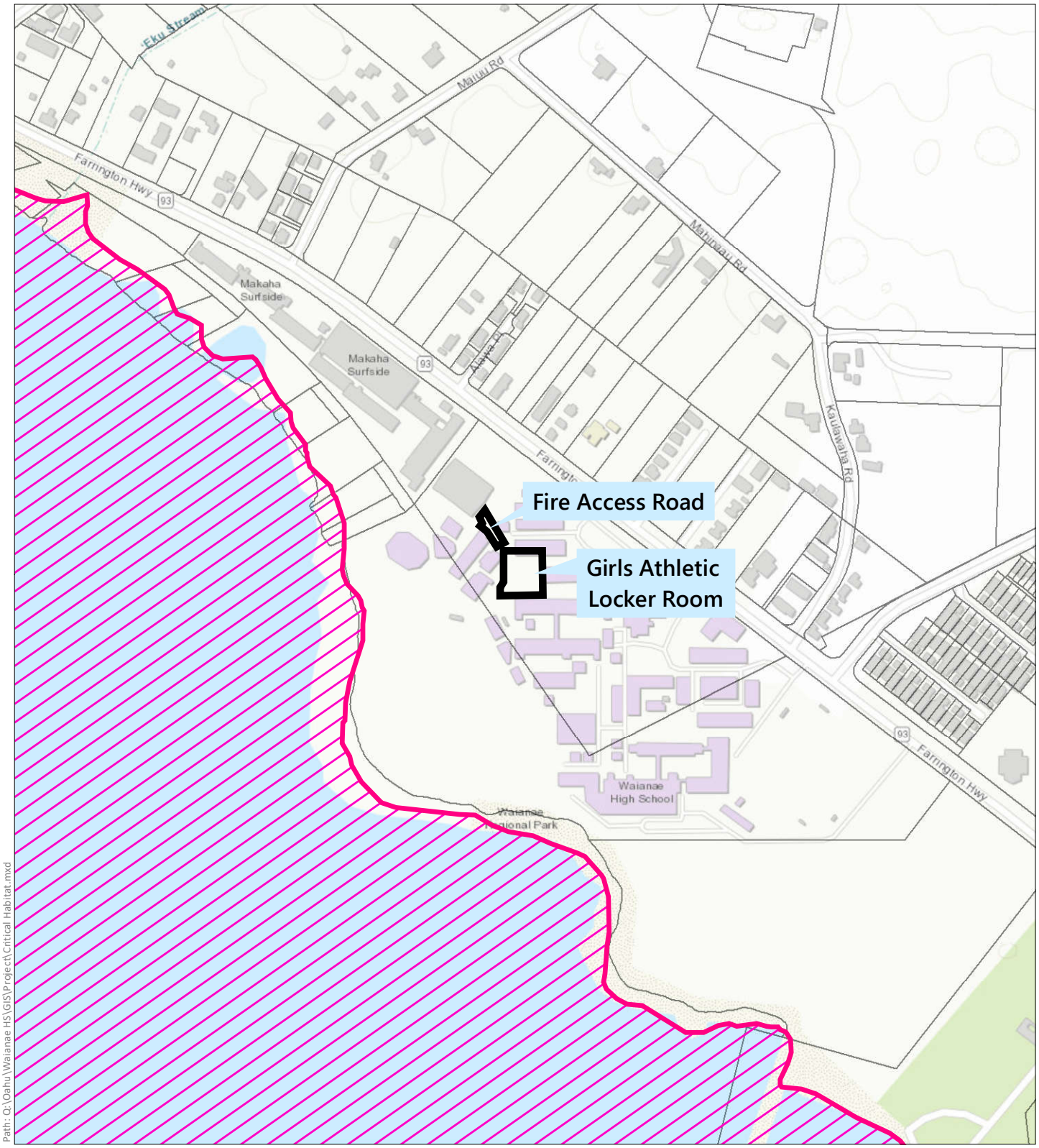
- Fully shielding all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary;
- Installing automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area; and
- Avoiding nighttime construction during the seabird fledging period, September 15 through December 15.

Wedge-tailed shearwater

Unlike other Hawaiian seabird species, wedge-tailed shearwaters/ʻuaʻu kani (*Ardenna pacificus*) nest in littoral vegetation along coastlines. Nesting adults, eggs, and chicks are particularly susceptible to impacts from human disturbance and predators.

To minimize potential Project impacts to Wedge-tailed shearwaters, the USFWS PIFWO recommends:

- Conducting surveys throughout the project area during the species' breeding season (March through November) to determine the presence and location of nesting areas;
- Timing project construction to occur outside of the breeding season (March through November) if wedge-tailed shearwaters nest within a proposed project area and construction would cause ground disturbance;
- Using light shields (if outdoor lighting is used) that are completely opaque, appropriately sized, and positioned so that the bulb is only visible from below and the light from the shielded source cannot be seen from the beach; and
- Installing automatic motion sensor switches and timer controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.



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DATE: 12/13/2021

LEGEND

- GALR
- TMK Parcels
- Critical Habitat for Hawaiian Monk Seal (endangered)

Figure 10
Critical Habitats

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education — Island of O'ahu

North — Linear Scale (feet): 0 125 250 500

PBR HAWAII & ASSOCIATES, INC.

Source: U.S. Fish and Wildlife Service (2021). City and County of Honolulu (2021). ESRI Online Basemap.

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

4.0 DESCRIPTION OF THE HUMAN ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATION MEASURES

During the Pre-Assessment consultation process, DPP wrote: "Identify and summarize the effects of a proposed action on the economic welfare, social welfare, and cultural practices of the community and State; effects of the economic activities arising out of the proposed action; measures proposed to minimize adverse effects; and alternatives to the action and their environmental effects." This section describes the existing conditions of the human environment, potential impacts of the WHS GALR, and mitigation measures to minimize any impacts.

4.1 ARCHAEOLOGICAL AND CULTURAL RESOURCES

4.1.1 Archaeological Resources

During the Pre-Assessment consultation process, DPP wrote: "Discuss the soil type and potential of encountering human burials and cultural deposits. Provide supporting documents and archaeological inventory survey, if applicable."

Two projects have been previously conducted on WHS property and another linear project occurrent on the subject parcel's *mauka* boundary. These include a field inspection for the replacement of metal bleachers within the southwest side of the WHS athletic field (Belluomini and Hammatt 2016) and a field inspection in support of the demolition of an existing swimming pool, the construction of a new two-story building, and other infrastructure improvements (Hensley et al. 2017). No archaeological features were identified in either study, with no further work recommended. Similarly, archaeological monitoring in support of a fiber optic cable along Farrington Highway immediately north of the High School did not identify any historic properties, with stratigraphy consisting of layers of fill deposited over natural sand and shelf (McElroy 2008).

For this EA, on December 14, 2021, ASM Affiliates (ASM) conducted a surface reconnaissance of the subject property, which is accessed via concrete paths from a parking lot adjacent to Farrington Highway (refer to archaeological report in Appendix G). The field inspection was limited to the proposed project areas and not the entire nearly 38-acre campus. However, a stream feature outside of the project area and situated approximately in the middle of the campus was inspected in order to observe an example of soil deposition in the project area.

The soil appears to be mostly graded, imported fill soil. Exposed portions of soil indicated previous disturbance (refer to Figure 12 of Appendix G). The stream cut observed in the bank indicated much of the project area is imported fill desposited on coral outcrop (Figure 13 of Appendix G). Similar deposition has been documented archaeologically elsewhere in the vicinity, resulting in no findings of historic properties (e.g. McElroy 2008; Shefcheck and Spear 2008; Yucha et al. 2015).

The WHS campus itself is considered a significant historic property, eligible for both the National and State Registers of Historic Properties. "The high school is an excellent example of mid-twentieth century Modern, International Style, academic architecture and campus planning in the pacific [sic] (Lebo 2017:1)." However, the proposed project will not result in the alteration or

disturbance of any of the architectural properties which are 50 years old or older at the High School.

No other historic properties of any kind were observed within the project area. The project area is largely an open, graded landscape with scattered plantings of ornamental trees (Figures 6-10 of Appendix G), with the exception of GALR location 4 (Figure 11 of Appendix G), which features a single-story cinderblock structure on a poured concrete foundation; and GALR location 1, which features a portable building on a post and pier foundation that is proposed to be relocated (Figures 8 and 9 of Appendix G).

Potential Impacts and Mitigation Measures

Given the negative findings with respect to above-ground archaeological resources of the current archaeological field inspection as well as previous archaeology at WHS, ASM concluded that the proposed development will not affect any historic properties. ASM's recommended determination of effect for the proposed project is "no historic properties affected."

Burials have previously been found in the vicinity of the current project area. However, these have been located in either sand deposits or deep limestone cave contexts, neither of which are expected to be encountered within the current project area, which is situated on Mokuleia clay, fill soil, and coral outcrop.

With respect to the historic preservation review process of the Department of Land and Natural Resources–State Historic Preservation Division (DLNR–SHPD), it is recommended that no further work needs to be conducted within the current project area prior to, or during project implementation. In the unlikely event that archaeological resources are discovered during ground-disturbing activity associated with the proposed development, work should cease in the area of the discovery and the DLNR-SHPD contacted pursuant to HAR §13-280-3. No further mitigation measures are planned.

4.1.2 Cultural Resources

This DEA utilized previous literature to determine the presence of any potential cultural resources either located within or impacted by disruption of the Project Site. In 2017, Cultural Surveys Hawaiʻi, Inc. (CSH) prepared an archaeological literature review and field inspection (LRFI) for the WHS Connection of Buildings SP and T Project, Waiʻanae Ahupuaʻa, Waiʻanae District, Oʻahu, TMKs: [1] 8-5-002:018 and 015:001. According to CSH's LRFI:

> *"The project area is located within the traditional Hawaiian land division (ahupuaʻa) of Waiʻanae (Waiʻanae Kai) in the district (moku) of Waiʻanae on the leeward coast of Oʻahu…*
>
> *Waiʻanae Kai Ahupuaʻa occupies the central portion of Waiʻanae District on the leeward coast of Oʻahu. The district originally owed its fame to its multitude of fish, especially the opportunities for deep-sea fishing from the calm lee side of Kaʻena Point, where the ocean currents meet. The term Waiʻanae refers to "mullet water" and the meaning implies an abundance of fish with the word "ʻanae" referring to full-grown mullet (Pukui et al. 1974:220). Handy and Handy (1972:468) attribute the naming of Waiʻanae to a*

large freshwater pond for mullet called Pueha [sic] (Puehu) located just inland of Pōkaʻī Bay. Today, Waiʻanae maintains its reputation as one of the best fishing locales on Oʻahu.

Another age-old characteristic of the Waiʻanae District has been the independent lifestyle and attitudes of many of the residents. There were many political struggles in the pre-Contact and early historic period, with the district varying from battlefield to refuge for dissident and/or contentious factions. This independent spirit owes its origins to generations of inhabitants conditioned to cope with a marginal physical environment. Human survival depended on consistent availability of water for cultivation and consumption along with offshore marine resources…

Today, Waiʻanae Kai Ahupuaʻa is covered by homes, farms, and gardens. Waiʻanae Valley and its people are engaged in many new projects that perpetuate Hawaiian traditions and culture. These projects range from archaeological field trips to restoring ancient loʻi terraces near Mount Kaʻala. Kaʻala Farm was developed in 1996 as a learning center for children and the community with a hale (a house), working loʻi, and access to numerous archaeological sites including heiau, terrace systems, and house sites (Cordy 2013). Construction of Waiʻanae High School began in 1956 (Honolulu Star Bulletin 11 March, 1956) with continued construction of new buildings to the present."

To investigate further the potential for cultural practices within the Waiʻanae Ahupuaʻa, an interview was conducted over a video call on December 8, 2021, with Ms. Lei Aken, who is an employee of WHS with Hawaiian cultural knowledge.

Born and raised on the Waiʻanae Coast, Lei Aken is of Native Hawaiian ancestry and has been a member of the community all her life. As her grandparents on both sides were among the first to move from Kalihi and East Honolulu to the Hawaiian Homestead in Nānākuli when it was first built, she is the second generation in her family with roots in Nānākuli and Waiʻanae.

Ms. Aken has been an employee of WHS for 28 years, the first 21 of which were in the classroom as a teacher of agriculture and natural resources courses. For the past few years, she has been serving as the full-time coordinator for WHS's Career and Technical Education (CTE) programs, including Hawaiian Studies, agriculture, and other programs, providing support for teachers to help students become successful in their classrooms. She was also one of the teachers who started the Hawaiian Studies program at WHS in the 1990s, applying Hawaiian cultural-based practices to a curriculum that resonates well with students from Waiʻanae, making learning more relevant and meaningful for a student population of which approximately 60% are of Native Hawaiian ancestry.

When asked about the presence of any Hawaiian cultural practices that occur at the school, Ms. Aken responded that there are people who gather materials (flowers, greenery, and shrubbery) for lei making all over campus, particularly if there are celebrations or lūʻau connected to the school. Other cultural practices that occur at WHS include ʻŌlelo Hawaiʻi classes that are held in a dedicated classroom, as well as the aforementioned Hawaiian Studies program, which does outplantings and work at various locations around campus and along the perimeter at the oceanside to reestablish native coastal plants. Ms. Aken expressed that there are many "pockets" of activities happening in classrooms and programs that perpetuate a Hawaiian cultural setting on campus.

Students in the agriculture program are taught traditional practices, such as erecting an ahu (altar or shrine), creating imu (traditional pit oven), and making pōhaku kuʻiʻai (stone poi pounder) and papa kuʻiʻai (poi board) to pound paʻiʻai. In addition, the marine science program practices saltwater aquaculture in their facility. Ms. Aken reflected that, although the school is doing a lot for their Native Hawaiian population, she said that "there is always room for growth." While there are numerous Hawaiian cultural practices occurring across the campus, Ms. Aken is not aware of any such practices at the exact site that the GALR building is proposed.

Regarding other cultural practitioners within the Waiʻanae Ahupuaʻa, Ms. Aken responded that the Hawaiian Studies program at WHS has a number of partnerships with organizations in the ahupuaʻa that weave in Hawaiian culture-based practices. One partnership is with Kaʻala Farm, a cultural learning center based in Waiʻanae Valley; students spend at least one day a week working with them either at the Kaʻala Farm site or with their experts at various sites within the community. Another partnership is with the Place-Based Afterschool Literacy Support (PALS) program, which provides opportunities for students and teachers to ground themselves in the community and in cultural practices. Ms. Aken also communicated that there are other organizations in the ahupuaʻa, such as the Institute for Native Pacific Education and Culture (INPEACE), MAʻO Organic Farms, and Kamehameha Schools' Community Learning Center at Māʻili, which weave in cultural-based practices and partner with schools in the community, including WHS.

When asked about potential impacts from the proposed GALR, Ms. Aken responded that she did not anticipate any negative cultural impacts resulting from the proposed Project. On the contrary, she expressed her belief that, as Native Hawaiians comprise around 60% of the student population, it would benefit Native Hawaiian wāhine to have such a facility as they play sports.

Potential Impacts and Mitigation Measures

It is anticipated that there will be no valued cultural, historical, or natural resources, including traditional and customary native Hawaiian rights, that will be affected or impaired by the GALR. As discussed in the previous section, the previous uses of the Project Site for the construction of the WHS make the presence of cultural resources within the Project Site unlikely. The CSH's LRFI for the WHS did not identify significant cultural resources within the campus and subsequent development did not uncover cultural or historic resources. Previous literature did not identify the presence of any cultural activities connected to or affected by the location of Project Site.

Information provided from the cultural interview uncovered a number of cultural practices occurring on the WHS campus and in the broader Waiʻanae community. On campus, these cultural practices include lei making, ʻŌlelo Hawaiʻi classes, Hawaiian Studies and agriculture programs, outplantings to reestablish native coastal plants, saltwater aquaculture, and other traditional practices, such as creating ahu, imu, pōhaku kuʻiʻai, and papa kuʻiʻai. Although there are various Hawaiian cultural practices occurring across the campus, no such practices occur at the exact site that the GALR building is proposed. The proposed Project is not anticipated to have a negative impact on the cultural practices occurring on campus or in the Waiʻanae Ahupuaʻa, but is anticipated to benefit student athletes, including Native Hawaiian wāhine. No mitigation measures are planned.

4.2 TRANSPORTATION

During the Pre-Assessment consultation process, the State of Hawaiʻi Department of Transportation (DOT) wrote: "…an evaluation should be provided on whether the proposed building and operation will have any local impacts on the roadways or nearby State highways. The information and assessment should be provided in the DEA, and if relevant, a Traffic Assessment or a Traffic Impact Analysis Report should be included." AECOM prepared a Transportation Impact Assessment Report (TIAR) which is summarized below and attached as Appendix H.

4.2.1 Roadways and Traffic

The key roadway in the vicinity of WHS is Farrington Highway.

Farrington Highway – Farrington Highway is a principal arterial roadway that is oriented in northwest/ southeast direction adjacent to WHS. It is the key roadway facility along the Waiʻanae coast, providing regional access as well as traffic circulation for the communities of Mākaha, Waiʻanae, Māʻili, and Nānākuli.

In the vicinity of WHS, it has four travel lanes and a painted median. Painted shoulders and sidewalks are provided on both sides of Farrington Highway. There are raised crosswalks located at Maiuʻu Road, Alawa Place, and at the WHS front parking lot exit. The location of these is shown in Figure 1 of Appendix H.

The posted speed limit in the vicinity of WHS is 25 miles per hour (mph). Farrington Highway is under the jurisdiction of the State of Hawaiʻi DOT-Highways Division.

Other Roadways – Other roadways observed for the TIAR were internal WHS roadways. Access to these roadways is controlled by WHS.

Roadway Intersection Conditions – For the TIAR, three intersections were evaluated. All three are located at WHS driveways that intersect Farrington Highway:

- Farrington Highway/WHS Gym Driveway;
- Farrington Highway/WHS Main Entrance Driveway; and
- Farrington Highway/WHS Main Exit Driveway.

The gym driveway is an unsignalized intersection with stop-sign control on the driveway approach. This driveway would provide the most direct path to the GALR site.

The main entrance driveway intersection is a one-way entrance and is controlled by a traffic signal on Farrington Highway. The main entrance driveway leads directly into the front parking lot. This lot accommodates staff, faculty and visitors and includes a loading area used by parents and school buses dropping off and picking up students.

The main exit driveway is located approximately 440 feet east of the entrance driveway on Farrington Highway. It is a one-way exit and is an unsignalized intersection with stop-sign control on the driveway approach.

There is a fourth WHS driveway on Farrington Highway located southeast of the Parking Lot exit driveway. This serves as access to the baseball field and staff/faculty parking located in the rear of WHS. This driveway intersection was not evaluated because it is not likely to have major interaction with the Girls' Locker Room area.

Existing Traffic Volumes – Intersection turning movement volumes for the base traffic condition were obtained from peak period traffic turning movement counts conducted by AECOM on Thursday, November 4, 2021. Turning movements were counted for three time periods: AM peak, Midday, PM peak. The AM peak documented morning peak hour conditions that were found to occur from 7:00 AM to 8:00 AM. The Midday counts documented conditions when WHS ended regular classes. The midday peak was found to occur from 1:30 PM to 2:30 PM. The PM peak documented the afternoon peak hour conditions that were found to occur from 3:30 PM to 4:30 PM.

Existing Intersection Operations – The study intersections were analyzed using intersection capacity methods described in the 2016 Highway Capacity Manual (HCM) and as implemented through the Synchro/Sim Traffic software.

The results of the analyses are summarized in Table 2 below for the AM peak hour, midday, and PM peak hour time periods.

Table 2 shows intersection delay for the signalized intersection and specific traffic movement delays for the unsignalized intersections. These delays, in turn, determine a level of service (LOS) that indicates the quality of operations. Definitions of LOS are included as an appendix to the TIAR (Appendix H of this EA).

As shown in Table 2, all three intersections operate acceptably for peak hour conditions with LOS of C or better for most movements. The AM peak hour experiences the busiest operational conditions. As would be expected, traffic turning left into the WHS Main Driveway experienced the greatest delay, influencing the overall operations at this intersection.

The midday and PM peak hours operate with low to average delay.

The existing year 2021 peak hour traffic operations at the three WHS Driveways on Farrington Highway could be characterized as unconstrained with an exception for a brief congested period for the left-turns into the main entrance driveway during the AM peak hour.

The TIAR also analyzed the study intersections for projected year 2023 peak hour traffic operations. It was found that the projected year 2023 peak hour traffic operations at the three WHS driveways on Farrington Highway could be characterized as very similar to the existing year 2021 conditions and would operate as unconstrained with an exception for a brief congested period for the left-turns into the main entrance driveway during the AM peak hour.

Table 2: Existing Year 2021 Peak Hour Intersection Operations

Turning Movement/Turning Movment	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Farrington Hwy/Waiʻanae HS Main Entrance - Signalized						
Overall Intersection Operations	40.2	D	4.8	A	1.8	A
Farrington Hwy/Waiʻanae HS Main Exit-Unsignalized						
Exit Left Turn	20.5	C	17.3	C	16.6	C
Exit Right Turn	18.1	C	12.6	B	11.2	B
Farrington Hwy/Waiʻanae HS Gym Dwy-Unsignalized						
Waiʻanae HS Gym Dwy exiting	15.2	C	12.6	B	12.2	B
Farrington Hwy Mākaha-Bound Left Turn into Gym Dwy	10.7	B	9.1	A	9.1	A

Notes:
AM Peak Hour: 7:00-8:00 AM, Midday Peak: 1:30-2:30 PM, PM Peak: 3:30-4:30 PM
sec/veh = seconds per vehicle, LOS = Level of Service. Hwy = Highway,
HS = High School, Dwy = Driveway

Source: Transportation Impact Assessment Report, AECOM (2022)

Potential Impacts and Mitigation Measures

The GALR at WHS is intended to serve the existing student population and is not projected to change the current sports activities at WHS. Therefore, the Project is not expected to result in an increase in student enrollment and is not expected to generate any new vehicle trips to the site. Accordingly, long-term transportation impacts are not anticipated.

Most of the potential traffic impacts would be short-term, occurring during the construction of the facility, and would be caused by construction traffic. The TIAR focuses on determining if there will be traffic impacts caused by construction of the facility. These would be temporary impacts, only occurring during construction. These impacts would no longer occur once the GALR is complete.

The TIAR identifies potential temporary traffic impacts associated with the construction of the proposed GALR. Potential traffic impacts associated with construction vehicles, construction workers, and construction parking demand were evaluated. It was found that all three components of construction activity could be accommodated by existing facilities on the WHS campus and the adjacent roadway system.

The TIAR provides the following recommendations to mitigate potential impacts of the construction activities on WHS and community traffic operations:

- ***Construction Vehicles*** – schedule delivery and hauling of construction materials in time periods that do not conflict with the peak hours identified by this study:
    - AM Peak Hour 7:00 AM to 8:00 AM
    - Midday Peak Hour 1:30 PM to 2:30 PM
    - PM Peak Hour 3:30 PM to 4:30 PM
- ***Construction Workers*** - although construction worker traffic can be accommodated at intersections associated with WHS, the general Farrington Highway corridor along the Waiʻanae Coast experiences high traffic demand during peak hour conditions. An optional recommendation would be to encourage construction workers to carpool or organize contractor van pools to help to lower regional vehicular travel demand.
- ***Construction Parking*** – although it appears that construction parking could be accommodated within the WHS campus in the vicinity of the proposed GALR site (see Section 4.2.2 Parking below), an optional recommendation would again be to encourage construction workers to carpool or organize contractor van pools to help to lower construction parking demand.

During the Pre-Assessment consultation process, the City and County of Honolulu Department of Transportation Services (DTS) wrote: "Although we have no comments to offer at this time, please apprise us when this project is included in the draft Environmental Assessment publication" (refer to letter in Appendix A). The Department of Facility Maintenance (DFM) wrote: "The Department of Facility Maintenance has no comments at this time, as we do not have any facilities or easements on the subject property."

4.2.2 Parking

A parking inventory and occupancy survey was conducted by AECOM on Thursday, November 4, 2021. The parking inventory included non-formal (not in marked stalls) parking. Total parking counted was 336, of which 97 were vacant. This represents an average parking occupancy of 71.1 percent. The largest parking lots are located along Farrington Highway and are used primarily for faculty and staff parking.

Potential Impacts and Mitigation Measures

The Project will not result in additional classroom or office space (triggering additional off-street parking requirements), or an increase to faculty, staff, student enrollment, or visitors to the campus and, therefore, will not have any long-term impacts on the availability of parking on the campus. However, short-term parking impacts may result from construction access or staging, particularly through the parking lot located adjacent to the track and field. Prior to construction, parking areas and/or alternatives for faculty, staff, and visitors should be determined to minimize impacts to on-campus parking or on-street parking on streets in the vicinity of the campus.

4.2.3 Public Transportation

The City and County of Honolulu DTS provides municipal bus service called TheBus, operated by Oʻahu Transit Services (OTS).

Routes 40 Mākaha-Ala Moana Center, Route C-CountryExpress!, Route 93 Downtown Express, and Route PH1 – Pearl Harbor Express provide service on Farrington Highway in this area.

Transit service is well-utilized by WHS students and others. Span of service is extensive. Route 40 – Mākaha Towers-Ala Moana Center is one of the few routes with 24-hour service. Route C – CountryExpress has service that runs from around 4:00 AM to 10:00 PM. Route 93 Downtown Express provides peak period express service to Downtown and runs from 3:45 AM to 6:22 AM in the morning and from 3:23 PM to 5:50 PM in the afternoon. Route PH1 – Pearl Harbor Express is a route that provides express service between the Waiʻanae Coast and Joint Base Pearl Harbor-Hickam (JBPHH) during the morning and afternoon peak periods. One bus is provided to JBPHH around 4:30 AM and one bus is provided from JBPHH at 3:10 PM.

Two eastbound bus stops are located near WHS on Farrington Highway. One is located approximately 130 feet west of the WHS Gym Driveway. The other is located approximately 130 feet east of the WHS Main Exit.

Two westbound bus stops are located near WHS on Farrington Highway. One is located approximately 60 feet east of the WHS Main Entrance. The other is located approximately 520 feet west of the WHS Gym Driveway.

In addition to public transit, there are numerous school buses that provide service for students of WHS.

Potential Impacts and Mitigation Measures

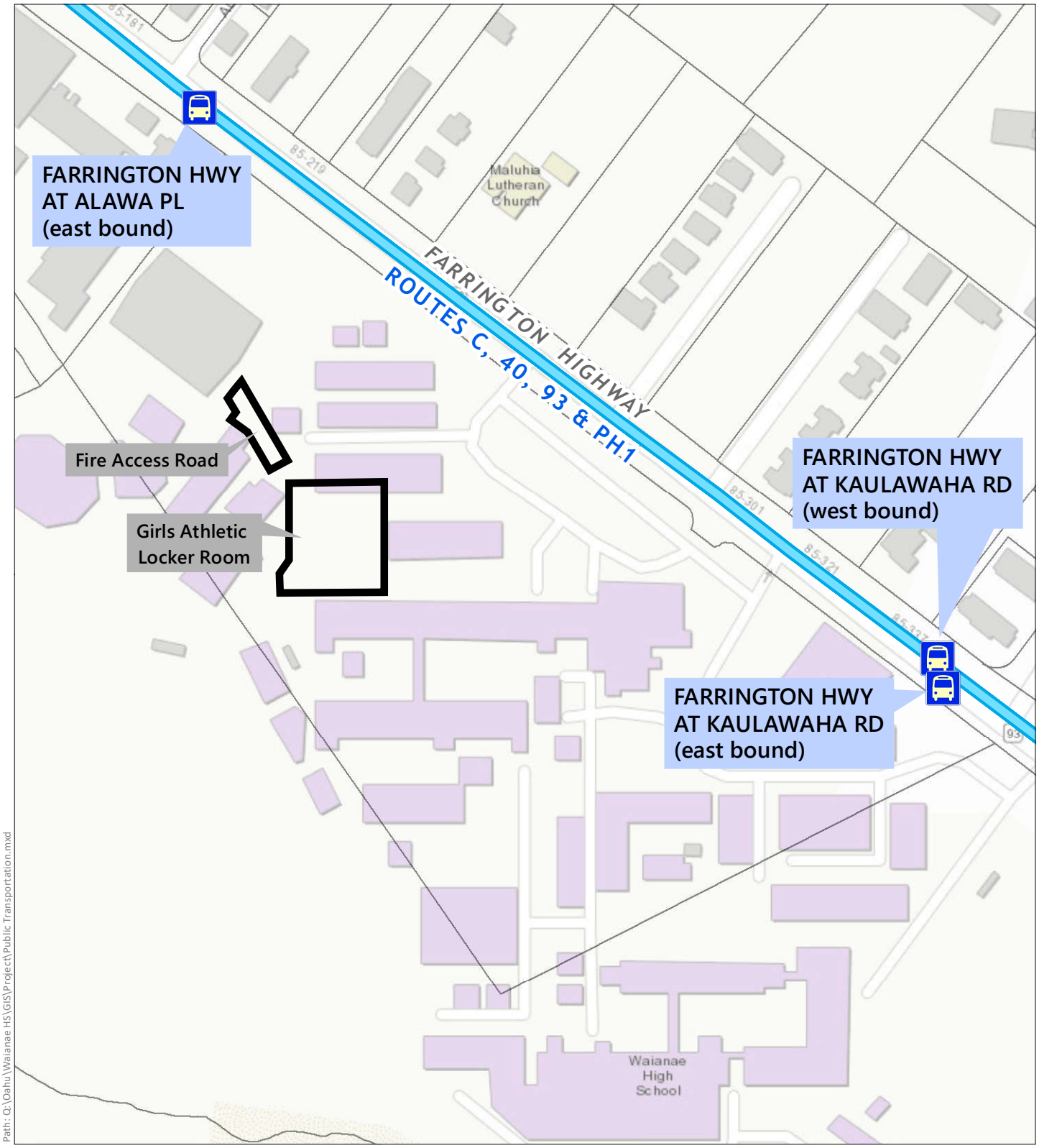
In the long-term, no change in student population is anticipated as a result of the Project; as such, the DOE anticipates no increase in public transit demand. No significant impacts to public transportation services are anticipated. No further mitigation measures are planned.

4.2.4 Bicycle and Pedestrian Facilities

There are no formal bicycle lanes on Farrington Highway, although it is shown as a "shared use path" by the Oʻahu Bike Plan Update (2019). There are painted shoulder areas between the travel lane and the curb that could be used as bike lanes and they generally used by the few bike observed as such. Bicyclists also ride on the sidewalks. There are attached sidewalks on both sides of Farrington Highway in the vicinity of WHS.

In this area, there are three crosswalks across Farrington Highway:

- WHS main entrance intersection
- WHS main exit intersection
- ʻAlawa Place intersection



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DATE: 12/13/2021

LEGEND

- GALR
- TMK Parcels
- Bus Stops
- Bus Routes

Figure 11
Public Transportation

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education — Island of O'ahu

North

Linear Scale (feet)

0 50 100 200

PBR HAWAII & ASSOCIATES, INC.

Source: Oahu Transportation Services (2021). City and County of Honolulu (2021). ESRI Online Basemap.

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

At the main entrance driveway, the crosswalk is located on the west side of the intersection and controlled by a pedestrian signal. There is also a crosswalk across the main entrance driveway.

At the main exit driveway, there is a raised crosswalk across Farrington Highway on the east side of the intersection and a crosswalk across the exit driveway.

There is also a raised crosswalk on Farrington Highway at 'Alawa Place, located approximately 330 feet west of the WHS Gym Driveway.

Potential Impacts and Mitigation Measures

The Proposed Project is not increasing enrollment or altering current traffic patterns on site that would impact the pedestrian or bike circulation along public rights-of-way. Long-term campus vehicle and pedestrian circulation will remain unchanged from existing conditions due to no change in enrollment. Students on bicycles are expected to continue to access the campus from the adjacent neighborhoods. As the proposed Project will not present any negative long-term impacts to area bicycle and pedestrian facilities, no mitigation measures are required

4.3 NOISE

Existing noise levels at and immediately adjacent to the GALR site are those typical of a high school athletics area.

Potential Impacts and Mitigation Measures

Construction activities for the Project will inevitably create temporary noise impacts. The building contractor may employ mitigation measures to minimize those temporary noise impacts including the use of mufflers and implementing construction curfew periods. Pursuant to Chapter 11-46, HAR, all project activities must comply with all community noise controls.

Once in operation, the GALR site is in the middle of the campus and will not be audible to the closest residents to WHS because of noise attenuation from other existing campus buildings and the noise generated by traffic along Farrington Highway. No mitigation measures are proposed as the noise generated as a result of the proposed Project represents no substantial change from current noise occurrences.

4.4 AIR QUALITY

The State's good air quality is largely a function of the predominant trade winds blowing from the northeast. However, during non-trade wind periods, man-made and volcanic pollutants tend to accumulate on island impacting visibility ("vog").

Potential Impacts and Mitigation Measures

The DOE recognizes the potential for impacts to air quality during construction. This could occur from additional traffic generated by construction vehicles, machinery, and dust generated during demolition and construction.

An effective dust control plan will be implemented as necessary. All construction activities will comply with the provisions of Title 11, Chapter 59, HAR related to Ambient Air Quality Standards and Section 11-60.1-33, HAR related to Fugitive Dust. Measures to control dust during various phases of construction include:

- Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
- Minimizing airborne, visible fugitive dust from shoulders and access roads;
- Controlling airborne, visible fugitive dust from debris being hauled away from the Project Site.
- 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;
- Landscaping and rapid covering of bare areas, 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 daily start-up of construction activities; and
- Installing silt screening in the areas of disturbance.

In the long-term, the proposed Project is not anticipated to have a long-term impact on air quality in the immediate vicinity. As the proposed Project will not present any long-term impacts to air quality, no mitigation measures are required

4.5 VISUAL RESOURCES

The GALR will be located in the "middle" of the campus and surrounded by existing buildings. This location is not visible from Farrington Highway or the closest residences (see Figure 12).

Potential Impacts and Mitigation Measures

The GALR building will be located in the "middle" of the campus and surrounded by existing buildings. The congruence of the proposed construction's mass and height with those of the existing buildings at WHS will not induce adverse impacts to views towards the GALR from either Farrington Highway or the closest residential properties (Figure 12). Because no adverse visual impacts are expected, no additional mitigation measures are proposed.

During the EA Pre-Assessment consultation process, Calvin Endo wrote: "Thank you for letting me know about this project at Waiʻanae High School. I'm not only the Education Chair for the Waiʻanae Neighborhood Board, but I'm also the Parent Community representative for Waiʻanae High School. I'm interested in seeing a drawing of this project to see how these building projects will fit on the campus. Our campus is old, so any improvements will be good for our school and community."

Photo A

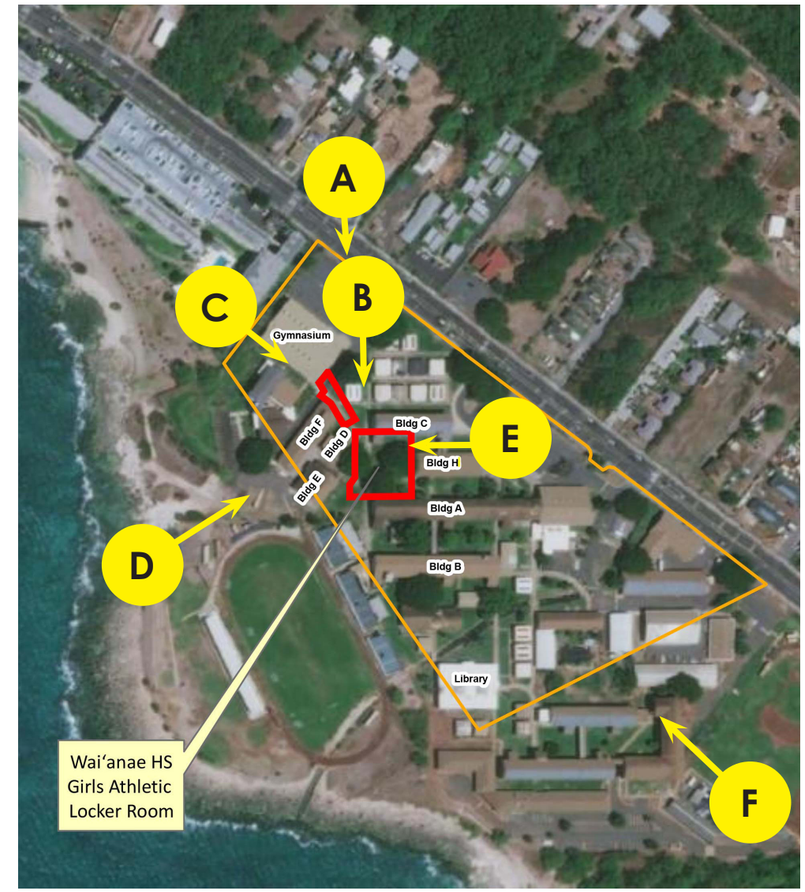
Photo B

Photo C

Photo D

Photo E

Photo F



LEGEND

- GALR
- TMK 8-5-015:001 (por.)
- X Visual Impact Analysis Photo Points

Figure 12
Visual Impact Analysis

WAI'ANAE HIGH SCHOOL
GIRLS' ATHLETIC LOCKER ROOM

STATE OF HAWAI'I ISLAND OF O'AHU

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4.6 SOCIAL & ECONOMIC CHARACTERISTICS

Before the advent of Title IX, many public high schools did not have girls' sports team, which affected the number of women who played sports in college. According to https://www.protecttitleix.com/history-1:

> *In the 1971-1972 school year only 31,852 women played college sports while 172,447 men did. Additionally women's sports teams received 2% of the average university's athletic budget. This underfunding meant that female athletic teams could not travel for games, or afford top tier coaches. Above all this meant female athletes could not be awarded scholarships, which often kept women out of the classroom as a whole.[emphasis added]*

As previously noted, the Wai'anae Seariders athletic program consists of a variety of programs including air riflery, bowling, cheerleading, cross country, football, and girls' volleyball in the Fall; boys' basketball, girls' basketball, canoe paddling, boys' soccer, girls' soccer, swimming and diving, boys' wrestling, and girls' wrestling in the Winter; and baseball, softball, tennis, track & field, and boys' volleyball in the Spring. Many of these programs utilize the existing athletic facilities and locker rooms. Existing athletic locker room facilities include a Boys' P.E. and Athletic Locker Room and a Girls' P.E. Locker Room.

Currently, the BALR is used by both the boys and girls in staggered schedules and/or sessions. Girls' sports include soccer, track & field, cross country, softball, and tennis. Volleyball and basketball teams use the gym facilities. Currently, the weight room and training room are shared by both the girls and boys. During competition, the home team will use the BALR and the visiting team will use the Boys' P.E. Locker Room or the Girls' P.E. Locker Room if the Boys' P.E. Locker Room is being utilized by the JV team.

It is possible that the lack of a separate GALR at WHS lessens the participation of female students in WHS girls' high school sports, and possibly their chances at securing athletic scholarships.

Potential Impacts and Mitigation Measures

The proposed GALR is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This Project will provide female athletes use of a facility of their own that they did not have previously. The intent of this Project is to provide a gender equitable, or better, GALR to the existing BALR.

In the short-term, the Proposed Project will contribute positively to the construction industry and construction employment. In the long-term, the Proposed Project may make girls' sports more attractive to female students at WHS to participate in. Further, there will be positive impacts for students, families, and the community at large from access to better athletic facilities, especially for those who secure college athletic scholarships. The Proposed Project will not directly generate new population to Wai'anae or the Wai'anae Coast. As the Proposed Project is likely to have a positive impact on socio-economic conditions, no mitigation measures are required.

During the Pre-Assessment consultation process, the CCH Department of Community Services wrote: "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." Also,

the State of Hawaiʻi Department of Human Services (DHS) wrote: "The DHS has reviewed the map of the project area and has no comments at this time."

4.7 INFRASTRUCTURE AND UTILITIES

4.7.1 Water System

The WHS campus is currently serviced by the municipal water system along Farrington Highway. According to the BWS Service Engineering records, domestic water is delivered to the Project Site by an existing 3-inch compound meter (Meter No. 16099444 / Premise I.D. #9882979720), and fire protection water is delivered to the campus by two (2) existing 8-inch Detector Check (D.C.) Meter Assemblies (Meter No. 2304015 / Premise I.D. # 5792122177 and Meter No. 93189605 / Premise I.D. # 4147787570).

The WHS campus domestic water system is composed of an existing 3-inch water meter, on site water lines, backflow prevention devices, hose bib assemblies, shut-off valves, etc. (refer to Exhibit 3.2.2 – Existing Site Utility Plan). Based on the BWS Cross-Connection records, a reduced pressure principle backflow preventer (RPBP) device is not currently installed immediately downstream of the existing 3-compound meter.

Domestic water service is available near the site. An existing 4-inch water line within the footprint of the proposed building would be relocated to maintain an adequate distance away from the influence of the building's footings.

Potential Impacts and Mitigation Measures

During the Pre-Assessment consultation process, the State of Hawaiʻi DLNR, Engineering Division wrote: "The applicant should include water demands and infrastructure required to meet the project needs…The applicant is required to provide water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update projections."

For the GALR, a new minimum 3-inch water line would connect to an existing 4-inch water main located in the landscaped area adjacent to Building A. Dielectric union couplings shall be provided for pipe connections of dissimilar metals.

If required by the 2002 BWS Water System Standards, a new BWS approved, RPBP devices shall be installed immediately downstream of the new water line connections. New building shut-off valve with valve box and pressure regulator assembly with valve box shall be installed within 5-feet of the new water line connection.

During the Pre-Assessment consultation period, the BWS wrote (refer to letter in Appendix A):

> *'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 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 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."

Close coordination will be maintained with the BWS to ensure that the water system will not be adversely impacted and to minimize interruption of water services to adjacent areas. During the design phase, the construction drawings will be submitted to the BWS for review and approval. Water demands and calculations will be provided to the DLNR Engineering Division for inclusion in the State Water Projects Plan Update projections.

When water is made available, the DOE will pay the BWS Water System Facilities Charges for resource development, transmission and daily storage. BWS Cross-Connection Control and Backflow Prevention requirements will be fulfilled prior to the issuance of the building permit.

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

4.7.2 Wastewater System

The WHS campus is currently serviced by three (3) 6-inch sewer laterals connected to the municipal sewer system along Farrington Highway. The buildings currently serviced by one of the existing 6-inch sewer lines include Buildings A, C, E, F, H, Gym, and the Gym Addition. The municipal sewer system along Farrington Highway is composed of an existing 42-inch reinforced concrete sewer main and sewer manholes. Wastewater generated at WHS is conveyed by a series of gravity lines, pump stations, and force mains to the Wai'anae Wastewater Treatment Plant.

Potential Impacts and Mitigation Measures

The Project will require a minimum new 4-inch sewer line connection to the existing on site 6-inch sewer line servicing Buildings A, C, E, F, H, Gym, and the Gym Addition. Since the Project will not result in an increase in the number of students and staff, there will be no increase in sanitary sewer flows. However, based on the available construction documents of the aforementioned buildings, the estimated Drainage Fixture Unit (DFU) is approximately 716.5-DFU. Per the Uniform Plumbing Code (UPC) 2012, the maximum allowable DFU for the existing 6-inch sewer line appears to have already been exceeded. To resolve the issue, the existing 6-inch sewer line and sewer lateral may need to be upsized to a new 8-inch sewer line and sewer lateral to accommodate the proposed Girl's Locker Room building. Further analysis, including field verification of the amount and type of existing plumbing fixtures per building, is warranted and

should be performed to determine the adequacy of the existing 6-inch sewer line and associated sewer lateral.

Existing 4-inch and 6-inch sewer lines (servicing Buildings C and H) traverse through the footprint of the proposed GALR. The existing 4-inch and 6-inch sewer lines would be required to be re-routed around the proposed GALR.

The re-routed sewer lines would maintain an adequate distance away from the influence of the buildings' footings. Additional clean outs and sewer manholes may be required to comply with the UPC 2012 and the 2017 Wastewater Standards.

The proposed buildings will require a minimum 4-inch sewer lines at a 2% slope. The new 4-inch sewer lines shall connect to an existing sewer line of adequate capacity.

4.7.3 Drainage System

The overall campus site drainage system comprises grassed swales, sidewalk culverts, and drain lines and headwalls at pedestrian and road crossings. The predominant drainage pattern is in the westerly direction from Farrington Highway to the ocean. The approximated drainage areas and patterns were based on a preliminary topographic survey of the Project area, available construction documents, and site observations.

Potential Impacts and Mitigation Measures

During the Pre-Assessment consultation process, the OPSD wrote:

> *"The OPSD recommends that the subject EA consider the following stormwater assessment guidance to mitigate stormwater runoff impacts…*
>
> *https://files.hawaii.gov/dbedt/op/czm/initiative/stomwater_imapct/final_stormwater_impact_assessments_guidance.pdf"*

In regards to the GALR, storm water runoff generated from Buildings C and H roof areas, sidewalks, and landscaped areas, generally sheet flow towards low points in the Project Site. Localized ponding is expected, and for larger storm events, flooding of the adjacent walkways would occur with runoff overflowing into the adjacent drainage swale.

To mitigate localized ponding and flooding at the GALR, new sidewalk culverts, trench drains, and swales should be implemented to divert runoff away from the new building towards the existing downstream drainage swale.

4.7.4 Electrical and Telecommunications Systems

WHS is served by the Hawaiian Electric Company (HECO) for electrical service, and is currently served by Hawaiian Telcom for telephone service and Spectrum (formerly Oceanic Time Warner Cable) for cable TV service. The overall contract is bid out every few years to decide the providers of that particular contract cycle.

Potential Impacts and Mitigation Measures

The new GALR building will be served by the existing HECO service. The existing service is anticipated to have adequate capacity to serve this additional electrical load. A photovoltaic (PV) system is anticipated to be provided under a separate contract. The building's electrical distribution system will be designed to facilitate installation of this PV system. The GALR roof incorporates empty conduits at the roof with pathways leading to the electrical room for future PV system.

As the Proposed Project will not present any long-term impacts to electrical and telecommunications systems, no mitigation measures are required.

4.7.5 Solid Waste

Solid waste is currently collected regularly by the City and County of Honolulu.

Potential Impacts and Mitigation Measures

During the construction phase, solid waste generated at the site is anticipated to increase over current conditions. The additional waste is expected to include materials from demolition, grading, construction and landscaping activities. Any demolition or construction waste generated by the Project will be disposed of at a solid waste disposal facility that complies with the applicable provisions (Chapter 11-58.1, HAR "Solid Waste Management Control"). Solid waste that cannot be recycled will be disposed of at landfills, the incinerator, or transfer stations. A waste-to-energy combustor, H-POWER (Honolulu Program of Waste Energy Recovery), is located at the Campbell Industrial Park and incinerates about 1,800 tons of combustible waste per day. The electricity generated is bought by HECO. Currently, the H-POWER facility receives all residential and commercial packer truck wastes on the island. Waste contractors will be asked to submit disposal receipts and invoices to ensure proper disposal of waste. The proposed Project will also comply with the provisions of Chapters 11-260 to 11-280, HAR, relating to hazardous waste.

In the long term, additional solid waste may be generated GALR. The amount of new solid waste can be accommodated by existing waste infrastructure. In addition, design elements may be considered to facilitate the separation and collection of materials for recycling.

4.8 PUBLIC SERVICES AND FACILITIES

4.8.1 Police Protection

The site is located within Honolulu Police Department (HPD) District 8 - Kapolei/Waiʻanae, which covers the area from ʻEwa to Kaʻena Point. The main police station for District 8 is the Kapolei Police Station located at 1100 Kamokila Boulevard in Kapolei. The nearest police station is the Waiʻanae Substation, located approximately 1.2 miles or approximately three minutes southeast of the WHS campus at 85-939 Farrington Highway (Figure 12).

Potential Impacts and Mitigation Measures

During the Pre-Assessment consultation process, the Honolulu Police Department (HPD) commented (see letter in Appendix A): "Based on the information provided, the Honolulu Police Department does not have any comments or concerns at this time."

WHS has approximately 6 security guards. The DOE does not anticipate that the Project will create an increased long-term demand on existing police protection services. As the proposed Project will not present any long-term impacts to police services, no mitigation measures are required.

4.8.2 Fire Protection

The Waiʻanae Fire Station is the closest fire station to the WHS campus (Figure 12), located at 85-465 Farrington Highway, approximately 1 minute or 0.6 mile southeast of WHS.

The new GALR proposed location is land locked in the campus interior and does not have direct access to fire access.

Potential Impacts and Mitigation Measures

On November 22, 2021, during the EA Pre-Assessment consultation process, the CCH Honolulu Fire Department (HFD) wrote:

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, 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.*

The Project proposes a new fire access lane connecting to an existing fire lane terminating at the drainage way, in order to avoid the construction of an emergency vehicle rated bridge. On

December 21, 2021, the HFD approved a variance from the requirement from Section 18.2.3.2.1. (Appendix I), and wrote:

> *In response to your letter of December 6, 2021 regarding the abovementioned subject, the Honolulu Fire Department (HFD) approves your request for a variance of the following:*
>
> 1. *A fire access road with a width reduced to 16 feet for portions of the road. A 20 foot width shall be maintained to the greatest extent possible.*
> 2. *A fire access road extending approximately 98 feet to a door leading to the interior of the abovementioned building equipped with fire sprinklers meeting all National Fire Protection Association 13 requirements.*

The new GALR will also need to be fire sprinklered to meet fire safety requirements.

4.8.3 Health Care Services

Health care facilities located near WHS that provide emergency services include Waiʻanae Coast Comprehensive Health Center (2.6 miles or approximately 9 minutes) or Queen's Medical Center West in ʻEwa (18.7 miles or approximately 31 minutes)

Potential Impacts and Mitigation Measures

Although there may be an unavoidable and occasional need for emergency health care services by students or employees at the WHS, the Project will not cause an increase in the number of students, and is not expected to significantly increase the need for emergency service. Additionally, the Proposed Project is not expected to have a long-term adverse impact on emergency medical providers or their ability to service the community. No mitigation measures are proposed.

4.8.4 Recreational Facilities

Recreational facilities near the WHS campus include Keaʻau Beach Park, Mākaha Beach Park, Mākaha Community Park, Mauna Lahilahi Beach Park, Waiʻanae Small Boat Harbor, Waiʻanae District Park, Pililāʻau Park, Kīpapa Park, Pōkaʻī Beach Park and Lualualei Beach Park.

Potential Impacts and Mitigation Measures

The proposed Project is not anticipated to displace any existing recreational facilities or add to the student population and create any additional demand on recreational facilities in the vicinity of the Project. No mitigation measures are proposed.

4.8.5 Schools

Public schools within the Waiʻanae District include Mākaha Elementary, Kamaile Academy PCS, Waiʻanae Elementary, Leihoku Elementary, Māʻili Elementary, and Waiʻanae Intermediate. Other schools located in the vicinity of the WHS campus include Kamehameha Preschool and Māʻili Bible Church & School (Figure 13).

Potential Impacts and Mitigation Measures

The Project will directly benefit the public school system by providing additional facilities for students attending WHS. Currently, the BALR is used by both the boys and girls in staggered schedules and/or sessions. Girls' sports include soccer, track & field, cross country, softball, and tennis. Volleyball and basketball teams use the gym facilities. Currently, the weight room, training room is shared by both the girls and boys. During competition, the home team will use the BALR and the visiting team will use the Boys' P.E. Locker Room or the Girls' P.E. Locker room if the Boys' P.E. Locker Room is being utilized by the JV team.

Additionally, the Project will have no impact on enrollment or operations of other nearby public or private schools and no mitigation measures are proposed.

4.8.6 Other Public Services and Facilities

During the Pre-Assessment consultation process, the City and County of Honolulu Department of Community Services (DCS), which administers programs to meet the human services, workforce and housing needs of economically challenged individuals and families with special needs in the City and County of Honolulu, wrote: "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" (refer to letter in Appendix A).

Also during the Pre-Assessment consultation process, DFM, which administers maintenance programs for City and County of Honolulu facilities, wrote: "The Department of Facility Maintenance has no comments at this time, as we do not have any facilities or easements on the subject property" (refer to letter in Appendix A).

During the Pre-Assessment consultation process, DHS, which licenses childcare facilities throughout the state, wrote: "The DHS has reviewed the map of the project area and has no comments at this time" (refer to letter in Appendix A).

Path: Q:\Oahu\Waianae HS\GIS\Project\Public Services.mxd

DATE: 12/13/2021

LEGEND

- GALR
- Police Stations/ Substations
- Fire Stations
- Health Care Services
- Parks
- Boating Facilities
- Schools

Figure 13
Public Services

WAI'ANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education — Island of O'ahu

North — Linear Scale (feet): 0 400 800 1,600

PBR HAWAII & ASSOCIATES, INC.

Source: City and County of Honolulu (2017 & 2021). State DOE (2020). Hawaii Association of Independent Schools (2017). ESRI Online Basemap.
Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

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5.0 LAND USE CONFORMANCE

State and County land use plans and policies and required permits and approvals relevant to the Project are described below.

5.1 STATE OF HAWAIʻI

5.1.1 State Land Use Law, Chapter 205, Hawaiʻi Revised Statutes

The State Land Use Law (Chapter 205, HRS), establishes the State Land Use Commission (LUC) and authorizes this body to designate all lands in the State into one of four districts: Urban, Rural, Agricultural, or Conservation. These districts are defined and mapped by the State Land Use Commission in order to ensure compatibility with neighboring land uses and protection of public health.

The proposed Project is located within the State Urban District; public schools are a permitted use in the State Land Use Urban District (Figure 13).

5.1.2 Coastal Zone Management Act, Chapter 205A, Hawaiʻi Revised Statutes

During the Pre-Assessment consultation process, the State OPSD wrote: "The subject EA should include an assessment with mitigation measures, if needed, as to how the proposed project conforms to each of the CZM objectives and supporting policies set forth in HRS Chapter 205A-2, as amended." Additionally, during the Pre-Assessment consultation process, DPP wrote: "The DEA should describe how the Project complies with Chapter 205A, Hawaiʻi Revised Statutes, relating to Coastal Zone Management…"

The Coastal Zone Management Area, as defined in Chapter 205A, HRS, includes all the lands of the State. Therefore, the proposed Project lies within the Coastal Zone Management Area.

The Coastal Zone Management (CZM) Program aims to provide recreational opportunities, protect historic resources, protect scenic and open space resources, protect coastal ecosystems, provide facilities for economic development, reduce hazards, and manage development. Program objectives and applicability to the proposed Project are discussed in Table 2 below:

Table 3: Coastal Zone Management Act, Chapter 205A, HRS

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
Recreational Resources			
Objective: *(A) Provide coastal recreational opportunities accessible to the public.*			
Policies:			
(A) Improve coordination and funding of coastal recreational planning and management; and			X
(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:			

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;			X
(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;			X
(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;			X
(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;			X
(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;			X
(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;	X		
(vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and			X
(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.			X
Discussion: The proposed Project is not a coastal development and is not located on the coastline. Therefore, policies regarding shoreline recreation resources and shoreline public access are not applicable to the proposed Project. The water quality standards are discussed under the Coastal Ecosystems objectives and policies.			
Historic Resources			
Objective: *(A) 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.*			
Policies:			
(A) Identify and analyze significant archaeological resources;	X		
(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and			X
(C) Support state goals for protection, restoration, interpretation, and display of historic resources.	X		

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
Discussion: Due to the extensive disturbance that the Project Site has experienced during the development of the existing campus, it is unlikely that subsurface historic resources are present. Should any archaeological or cultural remains be encountered during construction, all work in the immediate vicinity of the find will cease and the State Historic Preservation Division will be contacted for establishment of appropriate mitigation in accordance with Chapter 6E, Hawai'i Revised Statutes.			
Scenic and Open Space Resources			
Objective: *(A) Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.*			
Policies:			
(A) Identify valued scenic resources in the coastal zone management area;			X
(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;	X		
(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and			X
(D) Encourage those developments that are not coastal dependent to locate in inland areas.			X
Discussion: The Project is not coastal dependent, and is located inland, on an already-developed parcel. The Project will be in the middle of (and surrounded by) existing buildings on the WHS campus, ensuring views to and along the shoreline are minimally impacted.			
Coastal Ecosystems			
Objective: *(A) Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*			
Policies:			
(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;			X
(B) Improve the technical basis for natural resource management;			X
(C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;			X
(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			X
(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.	X		

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
Discussion: The Project will not directly impact coastal ecosystems as it is setback from the nearest shoreline. BMPs will be implemented during construction to prevent erosion and stormwater runoff during the construction phase.			
Economic Uses			
Objective: *(A) Provide public or private facilities and improvements important to the State's economy in suitable locations.*			
Policies:			
(A) Concentrate coastal dependent development in appropriate areas;			X
(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			X
(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;			X
(ii) Adverse environmental effects are minimized; and			X
(iii) The development is important to the State's economy.			X
Discussion: The Proposed Project is not a coastal dependent development.			
Coastal Hazards			
Objective: *(A) Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*			
Policies:			
(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;	X		
(B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;			X
(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and	X		
(D) Prevent coastal flooding from inland projects.			X
Discussion: Information regarding flooding, tsunami evacuation zones, hurricane storm surge hazards and sea level rise are presented in section 3.5 of this EA.			

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
Managing Development			
Objective: *(A) Improve the development review process, communication, and public participation in the management of coastal resources and hazards.*			
Policies:			
(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;			X
(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and			X
(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.	X		
Discussion: Early consultation (scoping) comments were obtained, incorporated into this EA and are reproduced in Appendix A. In addition, this EA discusses potential impacts and mitigation measures of the proposed Project and will provide an opportunity for input during the DEA Public Comment period.			
Public Participation			
Objective: *(A) Stimulate public awareness, education, and participation in coastal management.*			
Policies:			
(A) Promote public involvement in coastal zone management processes;	X		
(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			X
(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.			X
Discussion: Early consultation (scoping) comments were obtained, incorporated into this EA and are reproduced in Appendix A. In addition, this EA discusses potential impacts and mitigation measures of the proposed Project and will provide an opportunity for input during the DEA Public Comment period.			
Beach Protection			
Objective: *(A) Protect beaches for public use and recreation.*			
Policies:			
(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;			X
(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; and			X

COASTAL ZONE MANAGEMENT ACT, CHAPTER 205A, HRS (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.			X
(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			X
(E) Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.			X
Discussion: The proposed Project is located outside of the closest shoreline setback, and does not involve shoreline erosion protection structures, or actions that prohibit transit to the shoreline or lateral shoreline access.			
Marine Resources			
Objective: *(A) Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*			
Policies:			
(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;			X
(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;			X
(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;			X
(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			X
(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.			X
Discussion: The Project is located inland from the closest shoreline and will not impact marine or coastal resources.			

Path: Q:\Oahu\Waianae HS\GIS\Project\SLUD.mxd

DATE: 12/13/2021

LEGEND

GALR

TMK Parcels

State Land Use Districts

Conservation

Urban

Figure 14
State Land Use Districts

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education

Island of O'ahu

North

Linear Scale (feet)

0 125 250 500

PBR HAWAII & ASSOCIATES, INC.

Source: State Land Use Commission (2020). City and County of Honolulu (2021). ESRI Online Basemap.

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

5.1.3 Hawaiʻi State Planning Act, Chapter 226, Hawaiʻi Revised Statutes

The Hawaiʻi State Plan, Chapter 226 HRS (2007) provides guidelines for the future growth of the State of Hawaiʻi. The Hawaiʻi State Plan identifies goals, objectives, policies, and priorities for allocating the State's resources, including public funds, services, human resources, land, energy, and water. The Plan was enacted to achieve "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." Table 3 below outlines the proposed Project's conformance with each theme, goal, objective, policy, and guideline of the Plan.

5.1.3.1 Hawaiʻi State Plan, Part I: *Overall Theme, Goals, Objectives and Policies*

Table 4: Hawaiʻi State Plan, Chapter 226, HRS – Part I

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
HRS § 226-1: Findings and Purpose			
HRS § 226-2: Definitions			
HRS § 226-3: Overall Theme.			
Hawaiʻi'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 Hawaiʻi State Plan: (1) 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. (2) 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. (3) 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 Hawaiʻi's society can progress. *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 people to gain confidence and self-esteem; citizens contribute more when they possess such qualities in a free and open society.*			

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
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.			
Discussion: Education is a force that promotes self-sufficiency, social and economic mobility, and community well-being. By providing equitable athletic facilities for female students at WHS, the Project is supportive of the State's principles for a free and prosperous society. It's possible that the lack of a separate GALR at WHS, lessens the participation of female students in WHS girls' high school sports, and possibly their chances at securing athletic scholarships.			
HRS § 226-4: State Goals.			
In order to guarantee, for the present and future generations, those elements of choice and mobility that insure 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: (1) A strong, viable economy, characterized by stability, diversity and growth that enables fulfillment of the needs and expectations of Hawaiʻi's present and future generations. (2) 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. (3) Physical, social and economic well-being, for individuals and families in Hawaiʻi, that nourishes a sense of community responsibility, of caring and of participation in community life.			
Discussion: The Project will provide a better standard of education for future female students of WHS. 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.			
HRS § 226-5: Objectives and policies for population.			
(a) Objective: *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.*			
(b) Policies:			
(1) Manage population growth statewide in a manner that provides increased opportunities for Hawaiʻi's people to pursue their physical, social and economic aspirations while recognizing the unique needs of each county.			X
(2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(3) Promote increased opportunities for Hawaiʻi's people to pursue their socio-economic aspirations throughout the islands.			X
(4) Encourage research activities and public awareness programs to foster an understanding of Hawaiʻi's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawaiʻi's population.			X
(5) Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.			X
(6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.			X
(7) Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.	X		
Discussion: The Project is sited in an area where urban development for desired levels of growth was long planned (and since developed). Using the existing space within the WHS parcel for improved physical education facilities is an efficient use of land and existing infrastructure.			
HRS § 226-6: Objectives and policies for the economy in general.			
(a) Objectives: *Planning for the State's economy in general shall be directed toward achievement of the following objectives:*			
(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaiʻi's people, while at the same time stimulating 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.			X
(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.			X
(b) Policies:			
(1) Promote and encourage entrepreneurship within Hawaiʻi by residents and nonresidents of the State.			X
(2) Expand Hawaiʻi'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.			X
(3) Promote Hawaiʻi as an attractive market for environmentally and socially sound investment activities that benefit Hawaiʻi's people.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(4) Transform and maintain Hawaiʻi as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.			X
(5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawaiʻi.			X
(6) Seek broader outlets for new or expanded Hawaiʻi business investments.			X
(7) Expand existing markets and penetrate new markets for Hawaiʻi's products and services.			X
(8) Assure that the basic economic needs of Hawaiʻi's people are maintained in the event of disruptions in overseas transportation.			X
(9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.			X
(10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawaiʻi's small scale producers, manufacturers, and distributors.			X
(11) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.			X
(12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawaiʻi.			X
(13) Foster greater cooperation and coordination between the government and private sectors in developing Hawaiʻi's employment and economic growth opportunities.			X
(14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.			X
(15) Maintain acceptable working conditions and standards for Hawaiʻi's workers.			X
(16) Provide equal employment opportunities for all segments of Hawaiʻi's population through affirmative action and nondiscrimination measures.			X
(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.			X
(18) Encourage businesses that have favorable financial multiplier effects within Hawaiʻi's economy, particularly with respect to emerging industries in science and technology.			X
(19) Promote and protect intangible resources in Hawaiʻi, such as scenic beauty and the aloha spirit, which are vital to a healthy economy.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(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 Hawaiʻi--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
Discussion: The proposed Project will not have a significant impact on the overall state economy. The Project will involve the replacement of an existing Administration portable building with permanent facilities to meet the needs of future female students WHS.			
HRS § 226-7: Objectives and policies for the economy – agriculture			
(a) Objectives: *Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:*			
• Viability of Hawaiʻi's sugar and pineapple industries.			X
• Growth and development of diversified agriculture throughout the State.			X
• An agriculture industry that continues to constitute a dynamic and essential component of Hawaiʻi's strategic, economic, and social well-being.			X
(b) Policies:			
(1) Establish a clear direction for Hawaiʻi'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 Hawaiʻi's economy.			X
(6) Seek the enactment and retention of federal and state legislation that benefits Hawaiʻi's agricultural industries.			X
(7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawaiʻi's food producers and consumers in the State, nation, and world.			X

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(8) Support research and development activities that strengthen economic productivity in agriculture, stimulate greater efficiency, and enhance the development of new products and agricultural by-products.			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) In addition to the State's priority on food, 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, including the increased purchase and use of Hawai'i-grown food and food products by residents, businesses, and governmental bodies as defined under section 103D-104.			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 nonfeasible agricultural production to economically viable agricultural uses.			X
Discussion: The proposed Project will not impact the state's agricultural industry. The proposed Project will involve the replacement of an existing Administration portable building with permanent facilities to meet the needs of female students at WHS.			
HRS § 226-8: Objectives and policies for the economy – visitor industry			
(a) Objectives: *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.*			
(b) Policies:			
(1) Support and assist in the promotion of Hawai'i's visitor attractions and facilities.			X
(2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people.			X
(3) Improve the quality of existing visitor destination areas by utilizing Hawai'i's strengths in science and technology.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(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.			X
(5) Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawaiʻi's people.			X
(6) Provide opportunities for Hawaiʻi's people to obtain job training and education that will allow for upward mobility within the visitor industry.			X
(7) Foster a recognition of the contribution of the visitor industry to Hawaiʻi's economy and the need to perpetuate the aloha spirit.			X
(8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawaiʻi's cultures and values.			X
Discussion: While the proposed Project will improve educational facilities for female students at the WHS, the improvement of these facilities will not directly impact the visitor industry.			
HRS § 226-9: Objective and policies for the economy – federal expenditures			
(a) Objective: *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 Hawaiʻi's economy.*			
(b) Policies:			
(1) Encourage the sustained flow of federal expenditures in Hawaiʻi that generates long-term government civilian employment.			X
(2) Promote Hawaiʻi's supportive role in national defense, in a manner consistent with Hawaiʻi's social, environmental, and cultural goals by building upon dual-use and defense applications to develop thriving ocean engineering, aerospace research and development, and related dual-use technology sectors in Hawaiʻi's economy.			X
(3) Promote the development of federally supported activities in Hawaiʻi that respect state-wide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawaiʻi's environment.			X
(4) Increase opportunities for entry and advancement of Hawaiʻi's people into federal government service.			X
(5) Promote federal use of local commodities, services, and facilities available in Hawaiʻi.			X
(6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawaiʻi.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(7) Pursue the return of federally controlled lands in Hawaiʻi 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.			X
Discussion: The Project has no direct relation to the State's goals on federal expenditures.			
HRS § 226-10: Objectives and policies for the economy – potential growth and innovative activities.			
(a) Objective: *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 Hawaiʻi's economic base.*			
(b) Policies:			
(1) Facilitate investment and employment in economic activities that have the potential to expand and diversify Hawaiʻi's economy, including but not limited to diversified agriculture, aquaculture, renewable energy development, creative media, health care, and science and technology-based sectors.			X
(2) 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 Hawaiʻi through the export of services or products or substitution of imported services or products.			X
(3) 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.			X
(4) 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.			X
(5) 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.			X
(6) Expand Hawaiʻi's capacity to attract and service international programs and activities that generate employment for Hawaiʻi's people.			X
(7) Enhance and promote Hawaiʻi's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts.			X
(8) Accelerate research and development of new energy- related industries based on wind, solar, ocean, and underground resources and solid waste.			X
(9) Promote Hawaiʻi's geographic, environmental, social, and technological advantages to attract new economic activities into the State.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(10) Provide public incentives and encourage private initiative to attract new industries that best support Hawaiʻi's social, economic, physical, and environmental objectives.			X
(11) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research.			X
(12) Develop, promote, and support research and educational and training programs that will enhance Hawaiʻi's ability to attract and develop economic activities of benefit to Hawaiʻi.			X
(13) Foster a broader public recognition and understanding of the potential benefits of new, or innovative growth-oriented industry in Hawaiʻi.			X
(14) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawaiʻi's social, economic, physical, and environmental objectives.			X
(15) Increase research and development of businesses and services in the telecommunications and information industries.			X
(16) Foster the research and development of nonfossil fuel and energy efficient modes of transportation.			X
(17) Recognize and promote health care and health care information technology as growth industries.			X
Discussion: The Project has no direct relation to the State's goals on potential growth and innovative activities.			
HRS § 226-10.5: Objectives and policies for the economy – information industry			
(a) Objective: *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 Hawaiʻi as a leader in broadband and wireless communications and applications in the Pacific Region.*			
(b) Policies:			
(1) Promote efforts to attain the highest speeds of electronic and wireless communication within Hawaiʻi and between Hawaiʻi and the world, and make high speed communication available to all residents and businesses in Hawaiʻi.			X
(2) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawaiʻi to accommodate future growth and innovation in Hawaiʻi's economy.			X
(3) Facilitate the development of new or innovative business and service ventures in the information industry which will provide employment opportunities for the people of Hawaiʻi.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(4) 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 Hawaiʻi, using technology to communicate with their headquarters, offices, or customers located out-of-state.			X
(5) Encourage greater cooperation between the public and private sectors in developing and maintaining a well-designed information industry.			X
(6) 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 Hawaiʻi's people.			X
(7) Provide opportunities for Hawaiʻi's people to obtain job training and education that will allow for upward mobility within the information industry.			X
(8) Foster a recognition of the contribution of the information industry to Hawaiʻi's economy.			X
(9) Assist in the promotion of Hawaiʻi as a broker, creator, and processor of information in the Pacific.			X
Discussion: The Project has no direct relation to the State's goals on information industry.			
HRS § 226-11: Objectives and policies for the physical environment – land-based, shoreline, and marine resources.			
(a) Objectives: *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:*			
(1) Prudent use of Hawaiʻi's land-based, shoreline, and marine resources.	X		
(2) Effective protection of Hawaiʻi's unique and fragile environmental resources.			X
(b) Policies:			
(1) Exercise an overall conservation ethic in the use of Hawaiʻi's natural resources.			X
(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.			X
(3) Take into account the physical attributes of areas when planning and designing activities and facilities.			X
(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.			X
(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.			X
(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaiʻi.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.			X
(8) Pursue compatible relationships among activities, facilities, and natural resources.			X
(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.	X		
Discussion: By building within the existing footprint of the WHS campus, the Project furthers the State's goal of prudent land use and land conservation, for purposes such as education.			
HRS § 226-12: Objective and policies for the physical environment – scenic, natural beauty, and historic resources.			
(a) Objective: *Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawaiʻi's scenic assets, natural beauty, and multi-cultural/historical resources.*			
(b) Policies:			
(1) Promote the preservation and restoration of significant natural and historic resources.			X
(2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.			X
(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.			X
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaiʻi's ethnic and cultural heritage.			X
(5) Encourage the design of developments and activities that complement the natural beauty of the islands.			X
Discussion: The Project has no relationship to the promotion and/or availability of scenic and historic resources in the State of Hawaiʻi, as it will be flush with existing structures on campus and previous literature and development indicates there will be no impact to cultural/archaeological/historic resources.			
HRS § 226-13: Objectives and policies for the physical environment – land, air, and water quality.			
(a) Objectives: *Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:*			
(1) Maintenance and pursuit of improved quality in Hawaiʻi's land, air, and water resources.			X
(2) Greater public awareness and appreciation of Hawaiʻi's environmental resources.			X
(b) Policies:			
(1) Foster educational activities that promote a better understanding of Hawaiʻi's limited environmental resources.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(2) Promote the proper management of Hawaiʻi's land and water resources.	X		
(3) Promote effective measures to achieve desired quality in Hawaiʻi's surface, ground, and coastal waters.			X
(4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaiʻi's people.			X
(5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.			X
(6) Encourage design and construction practices that enhance the physical qualities of Hawaiʻi's communities.			X
(7) Encourage urban developments in close proximity to existing services and facilities.	X		
(8) Foster recognition of the importance and value of the land, air, and water resources to Hawaiʻi's people, their cultures and visitors.			X
Discussion: More fully utilizing the existing WHS 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 to land, air and water quality.			
HRS § 226-14: Objective and policies for facility systems – in general.			
(a) Objective: *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.*			
(b) Policies:			
(1) Accommodate the needs of Hawaiʻi's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.	X		
(2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.			X
(3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.			X
(4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.			X
Discussion: By maintaining the parcel's "Urban" State Land Use Boundary designation and existing use as a high school, the Project is in consonance with both State and County plans.			

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
HRS § 226-15: Objectives and policies for facility systems – solid and liquid wastes.			
(a) Objectives: *Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:*			
(1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.	X		
(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.			X
(b) Policies:			
(1) Encourage the adequate development of sewerage facilities that complement planned growth.			X
(2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.			X
(3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.			X
Discussion: The Project will utilize the same management of solid and liquid wastes as the rest of WHS.			
HRS § 226-16: Objective and policies for facility systems – water.			
(a) Objective: *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.*			
(b) Policies:			
(1) Coordinate development of land use activities with existing and potential water supply.	X		
(2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.			X
(3) Reclaim and encourage the productive use of runoff water and wastewater discharges.			X
(4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.			X
(5) Support water supply services to areas experiencing critical water problems.			X
(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.			X
Discussion: The Project, being connected to the existing WHS campus, exists within the bounds of an existing municipal water system (Honolulu Board of Water Supply).			

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
HRS § 226-17: Objectives and policies for facility systems – transportation.			
(a) Objective: *Planning for the State's facility systems with regard to transportation shall be directed toward the achievement of the following objectives:*			
(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.			X
(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.			X
(b) Policies:			
(1) Design, program, and develop a multi-modal system in conformance with desired growth and physical development as stated in this chapter;			X
(2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives;			X
(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties;			X
(4) Provide for improved accessibility to shipping, docking, and storage facilities;			X
(5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs;			X
(6) Encourage transportation systems that serve to accommodate present and future development needs of communities;			X
(7) Encourage a variety of carriers to offer increased opportunities and advantages to interisland movement of people and goods;			X
(8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs;			X
(9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification;			X
(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;			X
(11) Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation;			X
(12) Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives; and			X

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(13) Encourage diversification of transportation modes and infrastructure to promote alternate fuels and energy efficiency.			X
Discussion: The Project has no relationship to the provision or facilitation of transportation.			
HRS § 226-18: Objectives and policies for facility systems – energy.			
(a) Objectives: *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:*			
(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;	X		
(2) 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;			X
(3) Greater diversification of energy generation in the face of threats to Hawai'i's energy supplies and systems;			X
(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use; and			X
(5) Utility models that make the social and financial interests of Hawai'i's utility customers a priority.			X
(b) *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.*			
(c) Other Policies:			
(1) Support research and development as well as promote the use of renewable energy sources;			X
(2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth;			X
(3) 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;			X
(4) Promote all cost-effective conservation of power and fuel supplies through measures including:			
(A) Development of cost-effective demand-side management programs;			X
(B) Education;			X
(C) Adoption of energy-efficient practices and technologies; and			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(D) Increasing energy efficiency and decreasing energy use in public infrastructure;			X
(5) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses the least-cost energy supply option and maximizes efficient technologies;			X
(6) Support research, development, demonstration, and use of energy efficiency, load management, and other demand-side management programs, practices, and technologies;			X
(7) Promote alternate fuels and transportation energy efficiency;			X
(8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications;			X
(9) Support actions that reduce, avoid, or sequester Hawaiʻi's greenhouse gas emissions through agriculture and forestry initiatives.			X
(10) Provide priority handling and processing for all state and county permits required for renewable energy projects;			X
(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 Hawaiʻi.			X
Discussion: The proposed Project will incorporate energy efficient fixtures to reduce overall energy consumption from the Project. The GALR roof incorporates empty conduits at the roof with pathways leading to the electrical room for future PV system.			
HRS § 226-18.5: Objectives and policies for facility systems – telecommunications.			
(a) Objective: *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) Other Policies:			
(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

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(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
Discussion: Telecommunication needs will be coordinated with the DOE's Office of Information Technology Services (OITS) and the school.			
HRS § 226-19: Objectives and policies for socio-cultural advancement – housing.			
(a) Objectives: *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 Hawaiʻi'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 affordable housing is made available to very low-, low- and moderate-income segments of Hawaiʻi'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 Hawaiʻi's people.			X
(b) Policies:			
(1) Effectively accommodate the housing needs of Hawaiʻi's people.			X
(2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group 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 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
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.			X
(7) Foster a variety of lifestyles traditional to Hawaiʻi through the design and maintenance of neighborhoods that reflect the culture and values of the community.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(8) Promote research and development of methods to reduce the cost of housing construction in Hawaiʻi.			X
Discussion: The Project has no relationship to the availability of housing in the State of Hawaiʻi.			
HRS § 226-20: Objectives and policies for socio-cultural advancement – health			
(a) Objectives: *Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives:*			
(1) Fulfillment of basic individual health needs of the general public.			X
(2) Maintenance of sanitary and environmentally healthful conditions in Hawaiʻi's communities.			X
(3) Elimination of health disparities by identifying and addressing social determinants of health.			X
(b) Policies:			
(1) Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.			X
(2) 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.			X
(3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.			X
(4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			X
(5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.			X
(6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.			X
(7) 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.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
Discussion: The Project has no direct relationship to State of Hawaiʻi objectives and policies on health except the GALR will provide better locker room facilities for female students.			
HRS § 226-21: Objective and policies for socio-cultural advancement – education.			
(a) Objectives: *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.*			
(b) Policies:			
(1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.	X		
(2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.	X		
(3) Provide appropriate educational opportunities for groups with special needs.			X
(4) Promote educational programs which enhance understanding of Hawaiʻi's cultural heritage.			X
(5) Provide higher educational opportunities that enable Hawaiʻi's people to adapt to changing employment demands.			X
(6) 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.			X
(7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.			X
(8) Emphasize quality educational programs in Hawaiʻi's institutions to promote academic excellence.			X
(9) Support research programs and activities that enhance the education programs of the State.			X
Discussion: The proposed GALR is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This Project will provide a GALR to provide equitable facilities for all students. The intent of this Project is to provide a gender equitable, or better, GALR to the existing BALR.			
HRS § 226-22: Objective and policies for socio-cultural advancement – social services.			
(a) Objective: *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.*			

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(b) Policies:			
(1) 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.			X
(2) 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.			X
(3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawaiʻi's communities.			X
(4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.			X
(5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.			X
(6) Promote programs which assist people in need of family planning services to enable them to meet their needs.			X
Discussion: The Project has no direct relation to the provision of social services by the State of Hawaiʻi , other than providing greater equality for female students at WHS.			
HRS § 226-23: Objective and policies for socio-cultural advancement – leisure.			
(a) Objective: *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) Policies:			
(1) Foster and preserve Hawaiʻi's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.			X
(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.			X
(3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.			X
(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.			X
(5) Ensure opportunities for everyone to use and enjoy Hawaiʻi's recreational resources.	X		

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.			X
(7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawaiʻi's people.	X		
(8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.			X
(9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawaiʻi's population to participate in the creative arts.			X
(10) Assure adequate access to significant natural and cultural resources in public ownership.			X
Discussion: The proposed GALR is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This Project will provide a GALR to provide equitable facilities for all students. The intent of this Project is to provide a gender equitable, or better, GALR to the existing BALR.			
HRS § 226-24: Objective and policies for socio-cultural advancement – individual rights and personal well-being.			
(a) Objective: *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.*			
(b) Policies:			
(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.			X
(2) Uphold and protect the national and state constitutional rights of every individual.	X		
(3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.			X
(4) Ensure equal opportunities for individual participation in society.	X		
Discussion: The proposed GALR is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This Project will provide a GALR to provide equitable facilities for all students. The intent of this Project is to provide a gender equitable, or better, GALR to the existing BALR.			
HRS § 226-25: Objective and policies for socio-cultural advancement – culture.			
(a) Objective: *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 Hawaiʻi's people.*			

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(b) Policies:			
(1) Foster increased knowledge and understanding of Hawaiʻi's ethnic and cultural heritages and the history of Hawaiʻi.			X
(2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawaiʻi's people and which are sensitive and responsive to family and community needs.			X
(3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawaiʻi.			X
(4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawaiʻi's people and visitors.			X
Discussion: The Project has no direct relation to the State's goals for the advancement of culture, aside from what may be provided through individual girls' teams' coaches.			
HRS § 226-26: Objectives and policies for socio-cultural advancement – public safety.			
Objectives: *Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:*			
(1) Assurance of public safety and adequate protection of life and property for all people.			X
(2) 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.			X
(3) Promotion of a sense of community responsibility for the welfare and safety of Hawaiʻi's people.			X
(b) Policies related to public safety:			
(1) Ensure that public safety programs are effective and responsive to community needs.			X
(2) Encourage increased community awareness and participation in public safety programs.			X
(c) Policies related to criminal justice:			
(1) Support criminal justice programs aimed at preventing and curtailing criminal activities.			X
(2) Develop a coordinated, systematic approach to criminal justice administration among all criminal justice agencies.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART I. OVERALL THEME, GOALS, OBJECTIVES AND POLICIES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(3) 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.			X
(d) Policies related to emergency management:			
(1) 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.			X
(2) Enhance the coordination between emergency management programs throughout the State.			X
Discussion: The Project has no direct relation to the State's goals for public safety, aside from the fact that the Project provides a separate locker room for WHS' female students.			
HRS § 226-27: Objectives and policies for socio-cultural advancement – government.			
(a) Objectives: *Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:*			
(1) Efficient, effective, and responsive government services at all levels in the State.			X
(2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.			X
(b) Policies:			
(1) Provide for necessary public goods and services not assumed by the private sector.	X		
(2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			X
(3) Minimize the size of government to that necessary to be effective.			X
(4) Stimulate the responsibility in citizens to productively participate in government for a better Hawaiʻi.			X
(5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.	X		
(6) Provide for a balanced fiscal budget.			X
(7) Improve the fiscal budgeting and management system of the State.			X
(8) 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.			X
Discussion: 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 WHS.			

5.1.3.2 Hawaiʻi State Plan, Part II: *Planning Coordination and Implementation*

Part II of the State Plan establishes a statewide planning system to coordinate and guide all major state and county activities and to implement the overall theme, goals, objectives, policies, and priority guidelines. The system implements the State Plan through the development of functional plans and county general plans. Functional plans, general plans, and the formulation, administration, and implementation of state programs must be in conformance with the State Plan.

- State Functional Plans

State Functional Plans (SFPs) set forth the policies, statewide guidelines, and priorities within a specific field of activity, when such activity or program is proposed, administered, or funded by any agency of the state. Functional plans are developed by the state agency primarily responsible for a given functional area, which include: Agriculture, Conservation Lands, Education, Employment, Energy, Health, Higher Education, Historic Preservation, Housing, Human Services, Recreation, Tourism, and Transportation. Functional plans must identify priority issues in the functional area and contain objectives, policies, and implementing actions to address those priority issues. Actions may include organizational or management initiatives, facility or physical infrastructure development initiatives, initiatives for programs and services, or legislative proposals. Functional plans are approved by the governor and serve as guidelines for funding and implementation by state and county agencies. In addition, functional plans shall be used to guide the allocation of resources for the implementation of state policies adopted by the legislature.

- State Education Functional Plan

The applicable functional plan is the *State Education Functional Plan* (SEFP 1989). Specific SEFP policies and goals applicable to the proposed Project are discussed below.

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. [Hawaiʻi State Plan, §226-21(b)(21)]
- **Goal:** Provide facilities that are sufficient in number, functional, well-paced [sic] and compatible with the physical surroundings.

- **Discussion:** The proposed GALR is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This Project will provide a GALR to provide equitable facilities for all students. The intent of this Project is to provide a gender equitable, or better, GALR to the existing BALR.County General Plan

As established in the Part II of the State Plan, a statewide planning system implements the State Plan through the development of SFPs and county general plans. The applicable county general plan is the City and County of Honolulu General Plan, which is discussed in Section 5.2.1 of this EA below.

5.1.3.3 Hawaiʻi State Plan, Part III: *Priority Guidelines*

Table 5: Hawaiʻi State Plan, Chapter 226, HRS – Part III

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
HRS § 226-101: Purpose. *The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.*			
HRS § 226-102: Overall direction. *The State shall strive to improve the quality of life for Hawaiʻi's present and future present and future population through the pursuit of desirable courses of action in five 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.*			
HRS § 226-103: Economic priority guidelines.			
(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaiʻi's people and achieve a stable and diversified economy:			
(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.			X
(A) Encourage investments which:			
(i) Reflect long term commitments to the State;			X
(ii) Rely on economic linkages within the local economy;			X
(iii) Diversify the economy;			X
(iv) Reinvest in the local economy;			X
(v) Are sensitive to community needs and priorities; and			X
(vi) Demonstrate a commitment to provide management opportunities to Hawaiʻi residents; and			X
(B) Encourage investments in innovative activities that have a nexus to the State, such as:			
(i) Present or former residents acting as entrepreneurs or principals;			X
(ii) Academic support from an institution of higher education in Hawaiʻi;			X
(iii) Investment interest from Hawaiʻi residents;			X
(iv) Resources unique to Hawaiʻi that are required for innovative activity; and			X
(v) Complementary or supportive industries or government programs or projects.			X
(2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(3) 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.			X
(4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			X
(5) 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 on business, where scientific evidence indicates that public health, safety, and welfare would not be adversely affected.			X
(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawaiʻi's small-scale producers, manufacturers, and distributors.			X
(7) Continue to seek legislation to protect Hawaiʻi from transportation interruptions between Hawaiʻi and the continental United States.			X
(8) Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:			
(A) An industry that can take advantage of Hawaiʻi's unique location and available physical and human resources.			X
(B) A clean industry that would have minimal adverse effects on Hawaiʻi's environment.			X
(C) An industry that is willing to hire and train Hawaiʻi's people to meet the industry's labor needs at all levels of employment.			X
(D) An industry that would provide reasonable income and steady employment.			X
(9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawaiʻi business.			X
(10) Enhance the quality of Hawaiʻi's labor force and develop and maintain career opportunities for Hawaiʻi's people through the following actions:			
(A) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.			X
(B) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.			X

HAWAI'I STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(C) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired.			X
(D) Promote career opportunities in all industries for Hawai'i's people by encouraging firms doing business in the State to hire residents.			X
(E) Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on-the-job training opportunities.			X
(F) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.			X
(b) Priority guidelines to promote the economic health and quality of the visitor industry:			
(1) Promote visitor satisfaction by fostering an environment which enhances the Aloha Spirit and minimizes inconveniences to Hawai'i's residents and visitors.			X
(2) 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.			X
(3) 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.			X
(4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawai'i's significant natural, scenic, historic, and cultural resources.			X
(5) Develop and maintain career opportunities in the visitor industry for Hawai'i's people, with emphasis on managerial positions.			X
(6) Support and coordinate tourism promotion abroad to enhance Hawai'i's share of existing and potential visitor markets.			X
(7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.			X
(8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.			X
(9) Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.			X
(c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:			
(1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawaiʻi.			X
(3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.			X
(d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:			
(1) 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.			X
(2) Assist in providing adequate, reasonably priced water for agricultural activities.			X
(3) Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.			X
(4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.			X
(5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawaiʻi's agricultural community.			X
(6) Seek favorable freight rates for Hawaiʻi's agricultural products from interisland and overseas transportation operators.			X
(7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.			X
(8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.			X
(9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.			X
(10) Support the continuation of land currently in use for diversified agriculture.			X
(11) Encourage residents and visitors to support Hawaiʻi's farmers by purchasing locally grown food and food products.			X
(e) Priority guidelines for water use and development:			
(1) Maintain and improve water conservation programs to reduce the overall water consumption rate.			X
(2) Encourage the improvement of irrigation technology and promote the use of nonpotable water for agricultural and landscaping purposes.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(3) Increase the support for research and development of economically feasible alternative water sources.			X
(4) Explore alternative funding sources and approaches to support future water development programs and water system improvements.			X
(f) Priority guidelines for energy use and development:			
(1) Encourage the development, demonstration, and commercialization of renewable energy sources.			X
(2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.			X
(3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.			X
(4) Encourage the development and use of energy conserving and cost-efficient transportation systems.			X
(g) Priority guidelines to promote the development of the information industry:			
(1) Establish an information network, with an emphasis on broadband and wireless infrastructure and capability, that will serve as the foundation of and catalyst for overall economic growth and diversification in Hawaiʻi.			X
(2) 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.			X
(3) Encourage the development of small businesses in the information field such as software development, the development of new information systems, peripherals, and applications; data conversion and data entry services; and home or cottage services such as computer programming, secretarial, and accounting services.			X
(4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.			X
(5) Encourage research activities, including legal research in the information and telecommunications fields.			X
(6) Support promotional activities to market Hawaiʻi's information industry services.			X
(7) Encourage the location or co-location of telecommunication or wireless information relay facilities in the community, including public areas, where			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
scientific evidence indicates that the public health, safety, and welfare would not be adversely affected.			
Discussion: The Project has no direct relation to the State's economic priority guidelines.			
HRS § 226-104: Population growth and land resources priority guidelines.			
(a) Priority guidelines to effect desired statewide growth and distribution:			
(1) 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 Hawaiʻi's people.			X
(2) Manage a growth rate for Hawaiʻi's economy that will parallel future employment needs for Hawaiʻi's people.			X
(3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.	X		
(4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.			X
(5) 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.			X
(6) Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor islands.			X
(7) Support the development of high technology parks on the neighbor islands.			X
(b) Priority guidelines for regional growth distribution and land resource utilization:			
(1) 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.	X		
(2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.			X
(3) Restrict development when drafting of water would result in exceeding the sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(4) Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.			X
(5) 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.	X		
(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.			X
(7) Pursue rehabilitation of appropriate urban areas.			X
(8) Support the redevelopment of Kakaʻako into a viable residential, industrial, and commercial community.			X
(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.	X		
(10) Identify critical environmental areas in Hawaiʻi 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.			X
(11) Identify all areas where priority should be given to preserving rural character and lifestyle.			X
(12) Utilize Hawaiʻi'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.	X		
(13) Protect and enhance Hawaiʻi's shoreline, open spaces, and scenic resources.			X
Discussion: The Project is located in an Urban district and will address the needs of Hawaiʻi's families by providing much-needed GALR. By locating the new GALR building within an existing high school campus, the Project is in line with the State's priorities for population growth and land resources.			
HRS § 226-105: Crime and criminal justice.			
Priority guidelines in the area of crime and criminal justice:			
(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.			X
(2) 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.			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			X
(4) 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 persons who pose no danger to their community.			X
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			X
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.			X
Discussion: The Project has no direct relationship to criminal justice.			
HRS § 226-106: Affordable housing.			
Priority guidelines for the provision of affordable housing:			
(1) Seek to use marginal or nonessential agricultural land and public land to meet housing needs of low- and moderate-income and gap-group households.			X
(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.			X
(3) Improve information and analysis relative to land availability and suitability for housing.			X
(4) Create incentives for development which would increase home ownership and rental opportunities for Hawaiʻi's low- and moderate-income households, gap-group households, and residents with special needs.			X
(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaiʻi's people for the purchase of initial owner- occupied housing.			X
(6) Encourage public and private sector cooperation in the development of rental housing alternatives.			X
(7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.			X
(8) Give higher priority to the provision of quality housing that is affordable for Hawaiʻi's residents and less priority to development of housing intended primarily for individuals outside of Hawaiʻi.			X
Discussion: The Project has no relationship to affordable housing.			

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
HRS § 226-107: Quality education.			
Priority guidelines to promote quality education:			
(1) Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement;			X
(2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs;			X
(3) Initiate efforts to improve the quality of education by improving the capabilities of the education work force;			X
(4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities;			X
(5) Increase and improve the use of information technology in education by the availability of telecommunications equipment for:			
(A) The electronic exchange of information;			X
(B) Statewide electronic mail; and			X
(C) Access to the Internet.			X
Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives;			X
(6) Pursue the establishment of Hawaiʻi's public and private universities and colleges as research and training centers of the Pacific;			X
(7) Develop resources and programs for early childhood education;			X
(8) Explore alternatives for funding and delivery of educational services to improve the overall quality of education; and			X
(9) Strengthen and expand educational programs and services for students with special needs.			X
Discussion: The proposed GALR is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This Project will provide a GALR to provide equitable facilities for all students. The intent of this Project is to provide a gender equitable, or better, GALR to the existing BALR. Providing the proposed GALR puts the WHS Project in line with the above State goals.			
HRS § 226-108: Sustainability.			
Priority guidelines and principles to promote sustainability shall include:			
(1) Encouraging balanced economic, social, community, and environmental priorities;			X
(2) Encouraging planning that respects and promotes living within the natural resources and limits of the State;			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(3) Promoting a diversified and dynamic economy;			X
(4) Encouraging respect for the host culture;			X
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations			X
(6) Considering the principles of the ahupuaʻa system; and			X
(7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaiʻi.			X
Discussion: The Project has no direct relationship to the State's priority guidelines for sustainability.			
HRS § 226-109: Climate change adaptation priority guidelines.			
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:			
(1) Ensure that Hawaiʻi's people are educated, informed, and aware of the impacts climate change may have on their communities;			X
(2) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies;			X
(3) Invest in continued monitoring and research of Hawaiʻi's climate and the impacts of climate change on the State;			X
(4) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change;			X
(5) 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;			X
(6) 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;			X
(7) 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;			X
(8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities;			X

HAWAIʻI STATE PLAN, CHAPTER 226, HRS – PART III. PRIORITY GUIDELINES (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(9) 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			X
(10) Encourage planning and management of the natural and built environments that effectively integrate climate change policy.			X
Discussion: The Project is located outside the 3.2-foot SLR-XA as modeled by the University of Hawaiʻi CGG.			

5.1.4 State Environmental Policy, Chapter 344, Hawaiʻi Revised Statutes

The State Environmental Policy, as defined in Chapter 344, HRS, establishes the policy of the State of Hawaiʻi on natural resource conservation and the environment. The Project's consistency with the State Environmental Policy is outlined in Table 5 below:

Table 6: State Environmental Policy, Chapter 344, HRS

State Environmental Policy, Chapter 344, Hawaiʻi Revised Statutes (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
State Environmental Policy			
§344-3 Environmental policy. *It shall be the policy of the State, through its programs, authorities, and resources to:*			
(1) Conserve the natural resources, so that land, water, mineral, visual, air and other natural resources are protected by controlling pollution, by preserving or augmenting natural resources, and by safeguarding the State's unique natural environmental characteristics in a manner which will foster and promote the general welfare, create and maintain conditions under which humanity and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of the people of Hawaiʻi.			X
(2) Enhance the quality of life by:			
(A) Setting population limits so that the interaction between the natural and artificial environments and the population is mutually beneficial;			X
(B) Creating opportunities for the residents of Hawaiʻi to improve their quality of life through diverse economic activities which are stable and in balance with the physical and social environments;			X
(C) Establishing communities which provide a sense of identity, wise use of land, efficient transportation, and aesthetic and social satisfaction in harmony with the natural environment which is uniquely Hawaiian; and			X
(D) Establishing a commitment on the part of each person to protect and enhance Hawaiʻi's environment and reduce the drain on nonrenewable resources.			X

State Environmental Policy, Chapter 344, Hawaiʻi Revised Statutes (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
Discussion: The Project is planned in an urban area and will not involve State Conservation lands.			
Guidelines			
§344-4 Guidelines. *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:*			
(1) Population.			
(A) Recognize population impact as a major factor in environmental degradation and adopt guidelines to alleviate this impact and minimize future degradation;			X
(B) Recognize optimum population levels for counties and districts within the State, keeping in mind that these will change with technology and circumstance, and adopt guidelines to limit population to the levels determined.			X
Discussion: The Project will neither encourage nor discourage population growth.			
(2) Land, water, mineral, visual, air, and other natural resources.			
(A) Encourage management practices which conserve and fully utilize all natural resources;			X
(B) Promote irrigation and waste water management practices which conserve and fully utilize vital water resources;			X
(C) Promote the recycling of waste water;			X
(D) Encourage management practices which conserve and protect watersheds and water sources, forest, and open space areas;			X
(E) Establish and maintain natural area preserves, wildlife preserves, forest reserves, marine preserves, and unique ecological preserves;			X
(F) Maintain an integrated system of state land use planning which coordinates the state and county general plans;			X
(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.			X
Discussion: The proposed Project has no direct relationship to the management of land, water, mineral, visual, air, and other natural resources, other than that the location of the Project will minimize impacts to natural and visual resources by siting GALR where the existing Administration portable building is located in the middle of the campus, away from main roads and surrounding residential properties.			

State Environmental Policy, Chapter 344, Hawaiʻi Revised Statutes (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(3) Flora and fauna.			
(A) Protect endangered species of indigenous plants and animals and introduce new plants or animals only upon assurance of negligible ecological hazard;			X
(B) Foster the planting of native as well as other trees, shrubs, and flowering plants compatible to the enhancement of our environment.			X
Discussion: The Project is not in any critical habitat areas and will have no impact on endangered species.			
(4) Parks, recreation, and open space.			
(A) Establish, preserve and maintain scenic, historic, cultural, park and recreation areas, including the shorelines, for public recreational, educational, and scientific uses;			X
(B) Protect the shorelines of the State from encroachment of artificial improvements, structures, and activities;			X
(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.			X
Discussion: The Project is located away from the shoreline, and will have no impact on available parks, recreation, and adjoining open spaces.			
(5) Economic development.			
(A) Encourage industries in Hawaiʻi which would be in harmony with our environment;			X
(B) Promote and foster the agricultural industry of the State; and preserve and conserve productive agricultural lands;			X
(C) Encourage federal activities in Hawaiʻi to protect the environment;			X
(D) Encourage all industries including the fishing, aquaculture, oceanography, recreation, and forest products industries to protect the environment;			X
(E) Establish visitor destination areas with planning controls which shall include but not be limited to the number of rooms;			X
(F) Promote and foster the aquaculture industry of the State; and preserve and conserve productive aquacultural lands.			X
Discussion: The Project is not directly related to the State's goals for economic development.			

State Environmental Policy, Chapter 344, Hawaiʻi Revised Statutes (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(6) Transportation.			
(A) Encourage transportation systems in harmony with the lifestyle of the people and environment of the State;			X
(B) Adopt guidelines to alleviate environmental degradation caused by motor vehicles;			X
(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.			X
Discussion: The Project is not anticipated to have any impact on transportation systems.			
(7) Energy.			
(A) Encourage the efficient use of energy resources.	X		
Discussion: The design of the new GALR building will incorporate LED luminaires which are by nature much more energy efficient than legacy-type fixtures (T8 tubes).			
(8) Community life and housing.			
(A) Foster lifestyles compatible with the environment; preserve the variety of lifestyles traditional to Hawaiʻi through the design and maintenance of neighborhoods which reflect the culture and mores of the community;			X
(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;			X
(C) Encourage the reduction of environmental pollution which may degrade a community;			X
(D) Foster safe, sanitary, and decent homes;			X
(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.			X
Discussion: The proposed Project has no direct relationship to the State's environmental policy on community life and housing.			

State Environmental Policy, Chapter 344, Hawaiʻi Revised Statutes (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
(9) Education and culture.			
(A) Foster culture and the arts and promote their linkage to the enhancement of the environment;			X
(B) Encourage both formal and informal environmental education to all age groups.			X
Discussion: The proposed Project has no direct relationship to the State's environmental policy on education and culture.			
(10) Citizen participation.			
(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			X
(B) Provide for expanding citizen participation in the decision making process so it continually embraces more citizens and more issues.	X		
Discussion: This EA discusses potential impacts and mitigation measures of the proposed Project and will provide an opportunity for resident input during the DEA Public Comment period.			

5.2 CITY AND COUNTY OF HONOLULU

5.2.1 Oʻahu General Plan

During the Pre-Assessment consultation process, DPP wrote: "The DEA should describe how the Project addresses the policies and guidelines of the Oahu General Plan." The Oʻahu General Plan is the policy document for the long-range development of the Island of Oʻahu. The General Plan is a statement of general conditions to be sought in the 20-year planning horizon and policies to help direct attainment of the plan's objectives. Specific General Plan objectives 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.

Discussion: The proposed GALR is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This Project will provide a GALR to

provide equitable facilities for all students. The intent of this Project is to provide a gender equitable, or better, GALR to the existing BALR.

5.2.2 Waiʻanae Sustainable Communities Plan

During the Pre-Assessment consultation process, DPP wrote: "…a discussion on compliance with the Waianae Sustainable Communities Plan should be detailed." The City and County of Honolulu has adopted the Waiʻanae Sustainable Communities Plan (WSCP) 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 Waiʻanae region. These policies, principles, and guidelines are then implemented through ordinances such as the Land Use Ordinance (zoning code). The WSCP makes the following references to "Guidelines for Civic, Public Safety, and Educational Facilities" (as it relates "Design Standards"):

Design Standards:

- *The hot, dry climate of the coastal plain zone of the Waianae District. Public buildings should therefore incorporate 'natural' cooling devices including lanais, wide roof overhangs, natural air circulation, strategically placed shade trees, and cooler colors for exterior walls.*

Discussion: The GALR building is intended to be naturally ventilated with vents and/or fans to assist with circulation and humidity control. Exterior walls will be sealed, fully grouted CMU mass walls to support the roof above. A low-pitched roof will minimize building height and will be sloped to drain rainwater. High windows and/or louvers will bring daylighting and ventilation into the building.

5.2.3 Land Use Ordinance

The Land Use Ordinance (LUO), Chapter 21 of the Revised Ordinances of the City and County of Honolulu (ROH), implements the goals and objectives of the General Plan and the WSCP. All lands within the City and County of Honolulu are zoned into specific districts. According to the Department of Planning and Permitting, the Project Site is zoned P-2 General Preservation. According to the LUO Master Use Table (Table 21-3 of the LUO), "Public uses and structures" are permitted in all zoning districts.

Discussion: The proposed Project is consistent with the LUO in that it is a public structure (a DOE locker room building) for a public use, which is a permitted use in all zoning districts regulated by the City and County of Honolulu, including the P-2 zone in which the Project is located.

During the Pre-Assessment consultation process, DPP wrote: "A zoning waiver will be required if the proposed building exceeds the P-2 General Preservation District maximum height limit of 25-feet, and/or exceeds the maximum lot coverage/building area of five percent of the zoning lot. Justification for such a waiver should be discussed and analyzed within the DEA."

Per Section 21-3.40-1 of the LUO, within the P-2 General Preservation District, the development standards are enumerated in Table 21-3.1 of the LUO. Under Table 21-3.1, the current height limit under P-2 zoning is 15 to 25 feet. Since the proposed Project is estimated to be 25 feet to accommodate the one-story building, the height is within the current height limit.

Under Table 21-3.1, the maximum building area (percent of zoning lot) is 5 percent. Since WHS has already developed several school buildings within TMK 8-5-015:001, WHS has already exceeded the maximum building area. Other recent WHS projects have Waiver Permits including Waiver 2002/W-45 for the WHS Media Building.

The proposed WHS GALR should be situated near school athletic facilities. As noted in Section 6.2, the WHS campus plan has been built out and infilled through the years, leaving limited areas to develop new structures of significant size. During a scoping meeting and initial site walkthrough with the stakeholders (DOE's administrators, school's administrators, and Athletic Director), several potential sites were identified including the southwest end of the Library (Building Q), area between Boys' P.E. Locker Room (Building E), and ROTC/Girls' P.E. Locker Room (Building F), and the renovation of the ROTC spaces in the Building F. The stakeholders selected the area southwest of the Library as the preferred site (Initial Site) due to its proximity to the athletic fields and existing locker rooms and its location remote from water drainage ways.

Initial findings of the Initial Site indicated that the site was in the projected year 2100 Sea Level Rise zone and the flood hazard AE zone. While the building could be located within the flood hazard AE zone, the finished floor elevation needed to be above elevation 13-feet. Existing grade in that area is approximately elevation 8.5 feet. The elevated building configuration and the infrastructure (ramp or lifts and stairs) necessary to support its location in the flood zone made the project cost prohibitive and deemed this site as unsuitable for the project.

Through email conversations and transmitted maps, the Design team proposed five additional options outside the flood zone for the School's consideration. Site options were limited due to existing site drainage channels, existing infrastructure, and constrained areas between existing buildings. Consideration was given to maintain fire separation from existing older structures to not trigger cost prohibitive, code required upgrades to those buildings.

The proposed site was deemed to be the best location for the proposed WHS GALR, however, it is acknowledged that implementation of the proposed Project will require a Waiver from Section 21-3.40-1 of the LUO regarding the maximum building area. The granting of the waiver will not adversely affect the health or safety of persons and will not be materially detrimental to the public welfare or injurious to nearby property improvements.

5.2.4 Special Management Area

During the Pre-Assessment consultation process, the State OPSD wrote: "…OPSD recommends that the EA specifically discuss the compliance with the requirements of SMA use under Revised Ordinances of Honolulu Chapter 25 for the proposed project by consulting with the Department of Planning and Permitting, City and County of Honolulu." Additionally, DPP wrote: "The DEA should describe how the Project complies with…Chapter 25, Revised Ordinance of Honolulu (ROH), relating to the SMA…If the Project cost will exceed $500,000.00 or may have substantial adverse or cumulative effects, a SMA Use Permit will be required for the Project."

The CCH has designated the shoreline and certain inland areas of O'ahu as being within the Special Management Area (SMA). The SMA areas are designated sensitive environments that are protected in accordance with the State's CZM policies, as set forth in Chapter 25, ROH. As shown

in Figure 15, the Project is located entirely in the Special Management Area (SMA), and is subject to the provisions of Chapter 25, ROH.

According to §25-3.1, ROH, the objectives and policies of Chapter 25 are those of the CZM Program (§205A-2, HRS), which is discussed in Section 5.1.2 of this EA.

The guidelines for the review of developments proposed in the SMA are set forth in §25-3.2, ROH, and are discussed in the table below:

Table 7: Special Management Area, Chapter 25, ROH: Review Guidelines

SPECIAL MANAGEMENT AREA, CHAPTER 25, ROH (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
§25-3.2 REVIEW GUIDELINES			
The following guidelines shall be used by the [city] council or its designated agency for the review of developments proposed in the special management area.			
(a) *All development in the special management area shall be subject to reasonable terms and conditions set by the council to ensure that:*			
(1) Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas and natural reserves is provided to the extent consistent with sound conservation principles;	**X**		
(2) Adequate and properly located public recreation areas and wildlife preserves are reserved;	**X**		
(3) Provisions are made for solid and liquid waste treatment, disposition and management which will minimize adverse effects upon special management area resources; and	**X**		
(4) Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic recreational amenities and minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.	**X**		
Discussion: (1) The Project Site is located within the WHS campus. Access to beaches and shoreline areas will be maintained throughout the period of Project construction activities and during operation of the GALR following construction. (2) The Project consists of improvements located within the existing, established WHS campus. Public recreation areas and wildlife preserves will not be affected by Project activities or operation of the proposed GALR following construction. (3) Construction activities will not generate a significant quantity of wastewater, construction waste and demolition debris. Construction and use of the proposed Project will not disrupt or otherwise adversely affect wastewater systems (see Section 4.7.2 Wastewater System). The general contractor will provide portable toilets for construction personnel. Disposal of construction and demolition debris will be in accordance with CCH and State DOH regulations. No other mitigation measures are recommended or required. Protection of existing coastal ecosystems will be ensured by contractor's strict adherence to BMPs during construction of the project. No use of the coastal ecosystem will be required. Prior			

SPECIAL MANAGEMENT AREA, CHAPTER 25, ROH (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	S	N/S	N/A
to construction, BMPs will be prepared and strictly followed to prevent potential pollutant (sediment) discharges into storm water runoff. These measures will be in place and functional before project activities begin and will be maintained throughout the construction period. As discussed in Section 4.7.3 (Drainage System), to mitigate localized ponding and flooding at the GALR, new sidewalk culverts, trench drains, and swales should be implemented to divert runoff away from the new building towards the existing downstream drainage swale. As discussed in Section 4.7.5 (Solid Waste), in the long term, additional solid waste may be generated GALR. The amount of new solid waste can be accommodated by existing waste infrastructure. In addition, design elements may be considered to facilitate the separation and collection of materials for recycling. (4) The terrain is relatively flat, having been modified during the construction of the surrounding buildings and the existing Administration portable building, and is not susceptible to landslides or erosion. The elevation ranges from 7 to 8 feet above mean sea level. The GALR will be built upon mostly graded land where the existing Administration portable building currently is sited. By replacing the existing facilities, the GALR will have a negligible effect on the topography of the area. The campus has two major stormwater swales streams flowing from the uplands though the campus (but do not bisect the Project Site) and discharging to the ocean. BMPs will be undertaken during construction activities to ensure that silt and dust will not escape the Project Site during ground disturbing activities. Based on the State of Hawaiʻi, Department of Land and Natural Resources (DLNR), Flood Hazard Report, the GALR site is located within the Flood Hazard Zone XS, areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1-foot or with drainage areas less than 1-square mile; and areas protected by levees from 1% annual chance flood. All of the WHS campus is located within the Tsunami Evacuation Zone. As discussed in Section 3.5, the proposed Project is not anticipated to have any impact or any deleterious effects on natural hazard conditions and no unique mitigation measures are planned, other than observing the International Building Code in the design of the facility (to address the potential impacts from hurricanes and earthquakes). No portion of the GALR would be located inside the 3.2-foot SLR-XA as modeled by the University of Hawaiʻi CGG (see Figure 9), although this is projected to not occur in the worst case, until the year 2070, and in the best case 2100. In addition, the GALR will not be built within the shoreline setback, nor will it impact or exacerbate shoreline hazards related to existing open space, nearby beaches, public access to and along the shoreline, public safety, and public resources. The GALR building will be located in the "middle" of the campus and surrounded by existing buildings. The congruence of the proposed construction's mass and height with those of the existing buildings at WHS will not induce adverse impacts to views towards the GALR from either Farrington Highway or the closest residential properties. Because no adverse visual impacts are expected, no additional mitigation measures are proposed. While the proposed Project Site is within the coastal zone, no coastal resources will be adversely affected.			

SPECIAL MANAGEMENT AREA, CHAPTER 25, ROH (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(b) *No development shall be approved unless the [city] council has first found that:*			
(1) The development will not have any substantial, adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect and the elimination of planning options;	**X**		
(2) The development is consistent with the objectives and policies set forth in Section 25-3.1 and area guidelines contained in HRS Section 205 A 26;	**X**		
(3) The development is consistent with the county general plan, development plans and zoning. Such a finding of consistency does not preclude concurrent processing where a development plan amendment or zone change may also be required.	**X**		

Discussion:

(1) The proposed project is not anticipated to involve a substantial degradation of environmental quality. The site has long been developed and in use as a public high school. Planning and design for the project includes mitigation measures to prevent or minimize potential adverse environmental effects. The proposed Project involves the demolition or relocation (on- or off-site) of the Administration portable building and the construction of the GALR at the Project Site. The construction of the GALR will not increase student enrollment but address an existing need to meet Title IX gender equity requirements. Therefore, the Project will not significantly contribute to impacts resulting from an increase in student or faculty population, such as increased demand on infrastructure, increased traffic, increased demand on public services or facilities, or an increased demand on natural resources in the vicinity of the Project Site. The project will not result in cumulative effects, will not involve a commitment to larger actions, and will not result in the elimination of planning options. Section 7.0 provides detailed discussion regarding cumulative and secondary impacts, and any irreversible or irretrievable commitment of resources.

(2) The proposed project is consistent with the objectives and policies set forth in Chapter 205A-2, HRS, and SMA guidelines contained in Chapter 205-A26, HRS. See Section 5.1.2 above for discussion of the project's compliance with the State's objectives and policies for the Coastal Zone.

(3) The proposed project is consistent with the Oʻahu General Plan (see Section 5.2.1); Waiʻanae Sustainable Communities Plan (see Section 5.2.2); and the LUO (see Section 5.2.3). However, it is acknowledged that implementation of the proposed Project will require a Waiver from Section 21-3.40-1 of the LUO regarding the maximum building area (see discussion in Section 5.2.3). The granting of the waiver will not adversely affect the health or safety of persons and will not be materially detrimental to the public welfare or injurious to nearby property improvements

SPECIAL MANAGEMENT AREA, CHAPTER 25, ROH (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
(c) *The [city] council shall seek to minimize, where reasonable:*			
(1) Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;			**X**
(2) Any development which would reduce the size of any beach or other area usable for public recreation;			**X**
(3) Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management area and the mean high tide line where there is no beach;			**X**
(4) Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and			**X**
(5) Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.			**X**

Discussion:

(1) The Project does not involve dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough, or lagoon.

(2) The Project Site is located within the existing WHS and does not affect any beach or other area usable for public recreation.

(3) The Project is not located where it would reduce or impose restrictions upon public access to any shoreline areas or surface waters.

(4) The proposed Project is located within the existing WHS and will not interfere with or detract from the line of sight toward the sea from the state highway nearest the coast (Farrington Highway). The GALR building will be located in the "middle" of the campus and surrounded by existing buildings. This location is not visible from Farrington Highway or the closest residences. The congruence of the proposed construction's mass and height with those of the existing buildings at WHS will not induce adverse impacts to views towards the GALR from either Farrington Highway or the closest residential properties.

(5) The Project will not adversely affect:

a. Water quality, because:

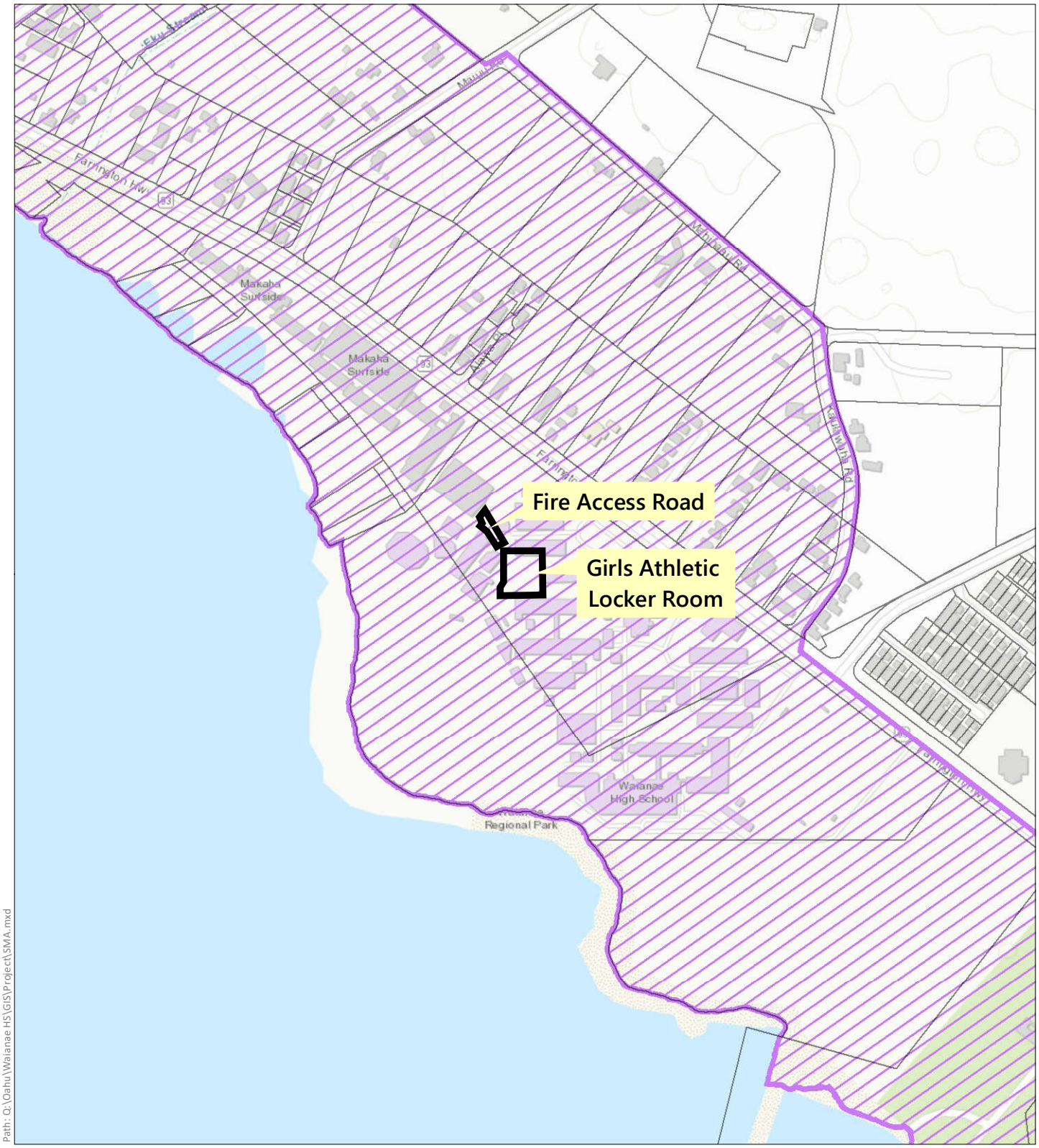
i. To mitigate localized ponding and flooding at the GALR, new sidewalk culverts, trench drains, and swales should be implemented to divert runoff away from the new building towards the existing downstream drainage swale;

ii. Construction activities will comply with all applicable Federal, State, and County regulations and rules for erosion control;

b. Existing areas of open water free of visible structures, because:

i. The proposed Project will occur on land;

SPECIAL MANAGEMENT AREA, CHAPTER 25, ROH (Key: S = Supportive, N/S = Not Supportive, N/A = Not Applicable)	**S**	**N/S**	**N/A**
c. Existing and potential fisheries and fishing grounds, because: i. Water quality will be protected as described above; d. Wildlife habitats, because: i. The proposed Project will involve the redevelopment of the current site of the Administration portable building, which is not known to attract or provide a habitat for any state or federally listed species. Due to intense human utilization since WHS's construction in 1957, the proposed Project is not anticipated to have any impact on protected or endangered flora or faunal species (refer to Section 3.6); e. Potential or existing agricultural uses of land, because: i. The Project Site has not been used for agricultural production in the recent past and is located in the State Land Use Urban district and City and County of Honolulu P-2 General Preservation zoning district.			



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DATE: 12/13/2021

LEGEND

- GALR
- TMK Parcels
- Special Management Area

Figure 15
Special Management Area

WAI'ANAE HIGH SCHOOL
GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education — Island of O'ahu

North — Linear Scale (feet): 0 125 250 500

PBR HAWAII & ASSOCIATES, INC.

Source: City and County of Honolulu (2018 & 2021). ESRI Online Basemap.

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

5.2.5 Complete Streets

Complete streets are part of a transportation and design approach that aims to create a comprehensive, integrated network of streets that are safe and convenient for all people whether traveling by foot, bicycle, transit, or automobile, and regardless of age or ability. Complete Streets move away from streets designed with a singular focus on automobiles toward a design approach that is context-sensitive, multimodal, and integrated with the community's vision and sense of place. The end result is a road network that provides safe travel, promotes public health, and creates stronger communities.

The City and County of Honolulu is committed to complete streets solutions that improve safety, accessibility, and comfort for all users, encourage physical activity, and reflect community needs and character. In 2009, State Act 54, Session Laws of Hawaiʻi (SLH) 2009 was passed, requiring all Counties and the State DOT to adopt a Complete Streets policy. The Honolulu Complete Streets Ordinance was passed by City Council and signed into law in 2012 as Ordinance 12-15 (Revised Ordinances of Honolulu (ROH) Chapter14, Article 33), establishing the complete streets policy for the City and County of Honolulu. In 2016, the City and County of Honolulu finalized its Complete Streets Design Manual and hired a Complete Streets Program Administrator to move toward implementation of improvements that make Honolulu's streets and neighborhoods safe and inviting for all users, regardless of age or ability.

The Complete Streets policy and principles are discussed below:

ROH §14-33.2 Complete streets policy; principles

(a) There is hereby established a complete streets policy and principles for the City and County of Honolulu to guide and direct more comprehensive and balanced planning, design, and construction of city transportation systems. Under this policy, the city hereby expresses its commitment to encourage the development of transportation facilities or projects that are planned, designed, operated, and maintained to provide safe mobility for all users. Every transportation facility or project, whether new construction, reconstruction, or maintenance, provides the opportunity to implement complete streets policy and principles. This policy provides that a context sensitive solution process and multi-modal approach be considered in all planning documents and for the development of all city transportation facilities and projects.

(b) Complete streets principles consist of the following objectives:

(1) Improve safety;

(2) Apply a context sensitive solution process that integrates community context and the surrounding environment, including land use;

(3) Protect and promote accessibility and mobility for all;

(4) Balance the needs and comfort of all modes and users;

(5) Encourage consistent use of national industry best practice guidelines to select complete streets design elements;

(6) Improve energy efficiency in travel and mitigate vehicle emissions by providing non-motorized transportation options;

(7) Encourage opportunities for physical activity and recognize the health benefits of an active lifestyle;

(8) Recognize complete streets as a long-term investment that can save money over time;

(9) Build partnerships with stakeholders and organizations statewide; and

(10) Incorporate trees and landscaping as integral components of complete streets.

Discussion: The proposed Project is internal to the WHS campus and does not alter the external transportation network. The existing transportation system is generally consistent with the City's Complete Streets ordinance and retains features that encourage alternative modes of transportation to and from the campus. As discussed in Sections 4.2.4 (Bicycle and Pedestrian Facilities) above, sidewalks and bicycle lanes provide pedestrian and bicycle access to WHS. At WHS, a signalized pedestrian crosswalk and a raised unsignalized crosswalk are provided. Public transit stops are located in close proximity to WHS in a manner that encourages the use of pedestrian facilities in a safe, convenient manner. The WHS campus also provides internal paved paths for easy access to the campus facilities for people of all abilities.

5.3 LIST OF REQUIRED PERMITS AND APPROVALS

During the Pre-Assessment consultation process, DPP wrote: "The DEA should disclose all permits and approvals that will be required for the Project." Anticipated permits and approvals that may be required are outlined in Table 6 below.

Table 8: Required Permits and Approvals

AGENCY	PERMIT/APPROVAL
State of Hawaiʻi	
Office of Environmental Quality Control	• Chapter 343, HRS Compliance
Department of Health	• Dust Control Plan • Noise Permit (if necessary)
Department of Health – Disability and Communication Access Board	• Americans with Disabilities Act Compliance
Department of Land and Natural Resources, Historic Preservation Division	• Section 6E, HRS Review
City and County of Honolulu	
Department of Environmental Services	• Industrial Wastewater Discharge Permit (application submitted)
Department of Planning and Permitting	• Special Management Area (SMA) Use Permit – Minor Modification • Waiver Permit (to exceed maximum lot coverage) • Grading, Grubbing, and Stockpiling Permits

AGENCY	PERMIT/APPROVAL
	• Occupancy Permit • Building Permit (electrical, plumbing, civil) • Site Development Master Application for Sewer Connection • Storm Drain Connection License (if necessary) • Storm Water Quality Strategic Plan • Rules Relating to Water Quality and Storm Drainage Standards Compliance

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6.0 ALTERNATIVES

During the Pre-Assessment consultation process, DPP wrote: "Discuss alternatives to the Project that could alter adverse impacts." In compliance with the provisions of Section 11-200.1-18(d)(7), HAR 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:

6.1 NO ACTION

The no-action alternative is no change to the existing site. While this alternative could alter adverse impacts, it would not meet the objective of the Project:

> *"The proposed project for the WHS is comprised of a new GALR building. This project is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. This project will provide a Girl's Athletic locker room to provide equitable facilities for all students. The intent of this Project is to provide a gender equitable, or better, GALR to the existing Boys Athletic Locker Room (BALR)."*

Under this alternative the proposed the WHS GALR will not be constructed. Without the proposed Project, WHS will continue to not meet Title IX gender equity requirements.

6.2 ALTERNATIVE SITES

The WHS campus plan has been built out and infilled through the years, leaving limited areas to develop new structures of significant size. During a scoping meeting and initial site walkthrough with the stakeholders (DOE's administrators, school's administrators, and Athletic Director), several potential sites were identified including the southwest end of the Library (Building Q), area between Boys' P.E. Locker Room (Building E), and ROTC/Girls' P.E. Locker Room (Building F), and the renovation of the ROTC spaces in the Building F. The stakeholders selected the area southwest of the Library as the preferred site (Initial Site) due to its proximity to the athletic fields and existing locker rooms and its location remote from water drainage ways.

Initial findings of the Initial Site indicated that the site was in the projected year 2100 Sea Level Rise zone and the flood hazard AE zone. While the building could be located within the flood hazard AE zone, the finished floor elevation needed to be above elevation 13-feet. Existing grade in that area is approximately elevation 8.5 feet. The elevated building configuration and the infrastructure (ramp or lifts and stairs) necessary to support its location in the flood zone made the project cost prohibitive and deemed this site as unsuitable for the project.

Through email conversations and transmitted maps, the Design team proposed five additional options outside the flood zone for the School's consideration. Site options were limited due to existing site drainage channels, existing infrastructure, and constrained areas between existing buildings. Consideration was given to maintain fire separation from existing older structures to not trigger cost prohibitive, code required upgrades to those buildings.

The School narrowed the site selection to two the proposed site located west of Administration Building H and an alternative site located adjacent to the locker room Building F and replacing Building D.

The differences between the proposed site and the alternative are summarized below:

Table 9: Comparison of Proposed and Alternative Sites

	Proposed Site	Alternative Site
Pros:	• Largest open area outside of water drainage ways utility corridors. • Site size allows for feasible fire separation from existing buildings to not trigger potential major code upgrades to existing buildings. • Maintains distance from classroom buildings.	• Replaces an underutilized 1957 existing ROTC Building D to make better use of the limited campus space and to allow for a modern code complaint building. • Avoids existing major utility lines. • Close to existing P.E. locker rooms, track field existing visiting team entry.
Cons:	• Administration portable building will need to be relocated and new utility connections at new location Site. • Two mature shade trees will need to be removed.	• The added project cost to demolish Building D, and for testing and removal of potential hazardous material (used as a rifle range). • Limited site area will likely require this to be an addition and may trigger potential major code upgrades to existing Building F. • Current building in use by ROTC, will need to relocate program to another space on campus. • Directly adjacent to drainage way, which may impact foundation design/construction mitigation. • Storage trailer would need to be relocated.

While development of the GALR at the alternative site will be more expensive, impacts to climate, topography, soils, hydrology, natural hazards, flora and fauna, archaeological and cultural resources, transportation, noise, air quality, visual resources, social characteristics, and public services and facilities are expected to be similar to development of the GALR at the proposed site.

Development of the GALR at the alternative site would meet the objective of the Project, helping WHS to meet Title IX gender equity requirements.

7.0 FINDINGS, SUPPORTING REASONS, AND DETERMINATION

To determine whether the WHS GALR may have a significant impact on the physical and human environment, all phases and expected consequences of the proposed Project have been evaluated, including potential primary, secondary, short-range, long-range, and cumulative impacts. Based on this evaluation, the Approving Agency (State of Hawaiʻi, Department of Education) anticipates issuing a Finding of No Significant Impact (FONSI) for the Project. The supporting rationale for this finding is presented in this chapter.

7.1 PROBABLE IMPACT, INCLUDING CUMULATIVE IMPACTS

Cumulative impacts are impacts on the environment that result from the action when added to other past, present, and foreseeable future actions by other agencies or persons. Examples of possible cumulative impacts of a proposed action could be those related to increased traffic and greater demand on water, sanitary sewer and storm drainage capacity.

The proposed Project involves the demolition or relocation (on- or off-site) of the Administration portable building and the construction of the GALR at the Project Site. The construction of the GALR will not increase student enrollment but address an existing need to meet Title IX gender equity requirements. Therefore, the Project will not significantly contribute to impacts resulting from an increase in student or faculty population, such as increased demand on infrastructure, increased traffic, increased demand on public services or facilities, or an increased demand on natural resources in the vicinity of the Project Site. Socio-economic impacts resulting from the proposed DOE project are anticipated to be beneficial. Construction will generate excise taxes, employment, income taxes, and indirect economic opportunities. The proposed Project will provide WHS with GALR necessary to address the shortage of an athletic locker room for girls. Overall, the net cumulative impact is expected to have a positive effect on WHS students and the broader community.

7.2 SIGNIFICANCE CRITERIA

Based upon the previous information presented in this document the proposed permitting and construction of the Project will likely have no significant environmental impacts. This determination is based upon the thirteen Significance Criteria outlined in Chapter 343, HRS, as amended and Title 11 Chapter 200.1-13 HAR 1996, discussed below.

(1) Irrevocably commit a natural, cultural, or historic resource;

The Project Site's status as the site for the existing Administration portable building, plus prior land disturbance suggests that the Site is absent 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.

(3) Conflict with the State's environmental policies or long-term environmental goals established by law;

The Environmental Policies enumerated in Chapter 344, HRS promote conservation of natural resources, and an enhanced quality of life for all citizens. As detailed in Section 5.1.4 above, the proposed Project does not conflict with the State's long-term environmental policies, goals, or guidelines as expressed in Chapter 344, HRS, and will not significantly impact natural resources due to the fact that the Site is already developed and has been subject to intense human utilization since the location of the WHS and surrounding area was developed for current educational uses.

(4) Have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community and State;

The Project will positively influence social welfare by furthering the Title IX gender equity requirements.

(5) Have a substantial adverse effect on public health;

The potential temporary 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. The Department of Education's practice to build sustainably will help to ensure that the proposed Project will not negatively affect public health.

(6) Involve adverse secondary impacts, such as population changes or effects on public facilities;

The Department of Education anticipates no increase in student population as a result of the proposed Project, and as a result, no increase in demand on public facilities. The Project is proposed to address needs at the current and planned enrollment levels. The new facilities provided by the new structure will help students learn and succeed in the 21st century.

(7) Involve a substantial degradation of environmental quality;

No substantial environmental degradation is anticipated. The Department of Education has committed itself to a development practice of 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 proposed Project will not have any substantial negative secondary impacts on the environment. Implementation of the proposed Project will not commit the Department of Education 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 will occupy a site that is already committed to the Administration portable building within the WHS campus; moreover, due to intense human utilization of the WHS, the proposed improvements are not anticipated to have any impact on endangered flora or faunal species. The

site contains no habitat for rare, threatened or endangered plant or animal species or their respective habitats.

(10) Have a substantial adverse effect on air or water quality or ambient noise levels;

Air Quality: No State or Federal air quality standards will be violated during or after the construction of the Project.

Water Quality: No State or Federal water quality standards will be violated during or after the construction of the Project.

Ambient Noise Levels: Construction activities for the proposed Project will inevitably create temporary noise impacts. The developer may employ mitigation measures to minimize those temporary noise impacts including the use of mufflers and implementing construction curfew periods. Pursuant to Chapter 11-46, HAR, the Project activities will comply with all community noise controls.

(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, sea level rise exposure area, beach, erosion-prone area, estuary, freshwater or coastal waters. Likewise, the Project is not anticipated to have any impact on any 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; or,

The GALR building will be located in the "middle" of the campus and surrounded by existing buildings. This location is not visible from Farrington Highway or the closest residences.

(13) Require substantial energy consumption or emit substantial greenhouse gases.

The proposed Project will not require substantial energy consumption nor produce substantial greenhouse gases. The Project will replace the energy use of existing temporary facilities and infrastructure. Additionally, the Project will implement energy efficient fixtures as feasible to reduce overall energy consumption.

7.3 ANTICIPATED DETERMINATION

On the basis of impacts and mitigation measures examined in this document and analyzed under the above criteria, it is anticipated that the Project will not have a significant effect on the physical or human environments. Pursuant to Chapter 343, HRS, the approving agency, the State of Hawaiʻi, Department of Education, is anticipated to issue a Finding of No Significant Impact (FONSI).

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8.0 REFERENCES

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APPENDIX A:
Pre-Assessment Consultation Comments and Responses

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STATE OF HAWAII
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT

DAVID Y. IGE
GOVERNOR

MARY ALICE EVANS
DIRECTOR

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: https://planning.hawaii.gov/

Coastal Zone Management Program

Environmental Review Program

Land Use Commission

Land Use Division

Special Plans Branch

State Transit-Oriented Development

Statewide Geographic Information System

Statewide Sustainability Program

202111081318SE

November 30, 2021

PBR HAWAII & Associates, Inc.
Attn: Greg Nakai
1001 Bishop Street, Suite 650
Honolulu, HI 96813-3484

Dear Mr. Nakai:

Subject: Pre-Assessment Consultation for a HRS Chapter 343 Environmental Assessment – Waianae High School Girls Athletic Locker Room and Related Actions, Waianae, Oahu, Tax Map Key: 8-5-015: 001 (por).

The Office of Planning and Sustainable Development (OPSD) is in receipt of your Environmental Assessment (EA) pre-consultation request, received on November 8, 2021, for the proposed removal and construction of buildings at Waianae High School, 85-251 Farrington Highway, Waianae, Oahu.

According to the pre-assessment consultation request, the proposed action involves removing the Administration Portable building, extending/widening the fire access road to the northeast of Buildings F and D, and constructing a new building which will serve as the Girls Athletic Locker Room.

The OPSD has reviewed the subject pre-consultation request and has the following comments to offer:

1. Hawaii CZM Law, HRS Chapter 205A, requires all state and county agencies to enforce the CZM objectives and policies. The subject EA should include an assessment with mitigation measures, if needed, as to how the proposed project conforms to each of the CZM objectives and supporting policies set forth in HRS Chapter 205A-2, as amended.

2. If the subject EA will serve as a supporting document for the SMA Use Permit application, the OPSD recommends that the EA specifically discuss the compliance with the requirements of SMA use under Revised Ordinances of Honolulu Chapter 25 for the proposed project by consulting with the Department of Planning and Permitting, City and County of Honolulu.

3. To assess any potential impacts of sea level rise on the proposed development area, OPSD suggests the EA refer to the findings of the Hawaii Sea Level Rise Vulnerability

and Adaptation Report 2017, accepted by the Hawaii Climate Change Mitigation and Adaptation Commission. The Report, and Hawaii Sea Level Rise Viewer at https://www.pacioos.hawaii.edu/shoreline/slr-hawaii/ particularly identifies a 3.2-foot sea level rise exposure area across the main Hawaiian Islands which may occur in the mid to latter half of the 21st century. The EA should provide a map of the 3.2-foot sea level rise exposure area in relation to the property area, and consider site-specific mitigation measures, to respond to the potential impacts of 3.2-foot sea level rise on the proposed development.

4. The OPSD has developed guidance documents on stormwater runoff strategies, which offer techniques to prevent land-based pollutants and sediment from potentially affecting water resources. The OPSD recommends that the subject EA consider the following stormwater assessment guidance to mitigate stormwater runoff impacts:

   - Stormwater Impact Assessments can be used to identify and analyze information on hydrology, sensitivity of coastal and riparian resources, and management measures to control runoff, as well as consider secondary and cumulative impacts to the area. https://files.hawaii.gov/dbedt/op/czm/initiative/stomwater_imapct/final_stormwater_impact_assessments_guidance.pdf

If you have any questions regarding this comment letter, please contact Sarah Chang of our office at (808) 587-2877, or by email at sarah.m.chang@hawaii.gov.

Mahalo,

Mary Alice Evans

Mary Alice Evans
Director

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
Executive Vice-President / Principal

VINCENT SHIGEKUNI
Senior Vice-President / Principal

GRANT T. MURAKAMI, AICP, LEED® AP BD+C
Senior Vice-President / Principal

KIMI MIKAMI YUEN, LEED® AP BD+C
Vice-President / Principal

TOM SCHNELL, AICP
Principal

CATIE CULLISON, AICP
Principal

THOMAS S. WITTEN, FASLA
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RAYMOND T. HIGA, ASLA
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DACHENG DONG, LEED® AP
Associate Principal

ANN MIKIKO BOUSLOG, PhD
Project Director

RAMSAY R. M. TAUM
Cultural Sustainability Planner

MICAH McMILLEN, ASLA, LEED® AP
Senior Associate

NATHALIE RAZO
Senior Associate

GRACE ZHENG, ASLA, LEED® GA, SITES® AP
Senior Associate

ETSUYO KILA
Associate

GREG NAKAI
Associate

NICOLE SWANSON, ASLA
Associate

1001 Bishop Street, Suite 650
Honolulu, Hawai'i 96813-3484
Tel: (808) 521-5631
Fax: (808) 523-1402
E-mail: sysadmin@pbrhawaii.com

printed on recycled paper

February 28, 2022

Ms. Mary Alice Evans
Director
State of Hawai‘i
Office of Planning & Sustainable Development
P.O. Box 2359
Honolulu, Hawai‘i 96804

Attn: Ms. Sarah Chang

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI‘ANAE HIGH SCHOOL GIRLS’ ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Ms. Evans:

Thank you for your letter dated November 30, 2021 (your reference number 202111081318SE), regarding the subject project. As the planning consultant for the Hawai‘i State Department of Education, we acknowledge your recommendations, and the Draft Environmental Assessment (DEA) will address the following:

1. Hawai‘i Revised Statutes (HRS) Chapter 205A.
2. Revised Ordinances of Honolulu (ROH) Chapter 25.
3. Sea level rise impact on the Project area.
4. Stormwater runoff impacts.

We value your participation in the environmental review process. Your letter will be included in the forthcoming DEA.

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: Hawai‘i State Department of Education
WRNS

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RECEIVED
NOV 19 2021
PBR HAWAII

DAVID Y. IGE
GOVERNOR

CATHY BETTS
DIRECTOR

JOSEPH CAMPOS II
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
BENEFIT, EMPLOYMENT AND SUPPORT SERVICES DIVISION
1010 Richards Street, Suite 512
Honolulu, Hawaii 96813

Re: 21-0731

November 16, 2021

Mr. Greg Nakai
Associate
PBR HAWAII & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813

Dear Mr. Nakai:

Subject: Pre-Assessment Consultation for a HRS Chapter 343 Environmental Assessment – Waianae High School Girls Athletic Locker Room and Related Actions, Waianae, Oahu, TMK 8-5-015: 001 por.

This is in response to your letter dated November 5, 2021 requesting the Department of Human Services (DHS) review and comment on the above-named project.

The DHS has reviewed the map of the project area and has no comments at this time.

If you should have any questions regarding this matter, please contact Ms. Lisa Galino, Child Care Program Specialist at (808) 586-5712.

Sincerely,

Scott Nakasone

Scott Nakasone
Assistant Division Administrator

c: Cathy Betts, Director

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
Executive Vice-President / Principal

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Fax: (808) 523-1402
E-mail: sysadmin@pbrhawaii.com

printed on recycled paper

February 28, 2022

Mr. Scott Nakasone
Assistant Division Administrator
State of Hawai'i
Department of Human Services
Benefit, Employment, and Support Services Division
1010 Richards Street, Suite 512
Honolulu, Hawai'i 96813

Attn: Ms. Lisa Galino, Child Care Program Specialist

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Nakasone:

Thank you for your letter dated November 6, 2018 (your reference number 21-0731), regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we acknowledge that your department has reviewed the map of the project area and has no comments at this time.

We value your participation in the environmental review process. Your letter will be included in the forthcoming Draft Environmental Assessment (DEA).

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: Hawai'i State Department of Education
WRNS

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 14, 2021

LD 1284

PBR HAWAII & ASSOCIATES, INC.
1001 Bishop Street, Suite 650
Honolulu, HI 96813-3484

Via email: gnakai@pbrhawaii.com

Dear Sirs:

SUBJECT: **Pre-Assessment Consultation for Environmental Assessment**
Wai'anae High School Athletic Locker Room and Related Actions
85-251 Farrington Highway, Wai'anae, Island of Oahu, Hawaii
TMK: (1) 8-5-015:001 (por.)

Thank you for the opportunity to review and comment on the subject project. The Land Division of the Department of Land and Natural Resources (DLNR) distributed copies of your request to various DLNR divisions, as indicated on the attached, for their review and comment.

Attached are comments received from our (a) Engineering Division and (b) Division of Forestry and Wildlife. Should you have any questions, please feel free to contact Barbara Lee via email at barbara.j.lee@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Attachments

Cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 19, 2021

LD 1284

MEMORANDUM

FROM:

DLNR Agencies:
.X..Div. of Aquatic Resources *(via email: kendall.l.tucker@hawaii.gov)*
_Div. of Boating & Ocean Recreation
.X..Engineering Division *(via email: DLNR.Engr@hawaii.gov)*
.X..Div. of Forestry & Wildlife *(via email: rubyrosa.t.terrago@hawaii.gov)*
_Div. of State Parks
.X..Commission on Water Resource Management *(via email: DLNR.CWRM@hawaii.gov)*
_Office of Conservation & Coastal Lands
.X..Land Division- Oahu District *(via email: barry.w.cheung@hawaii.gov)*

TO:

Tj

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: **Pre-Consultation for Draft Environmental Assessment**
Wai'anae High School Athletic Locker Room and Related Actions
LOCATION: 85-251 Farrington Highway, Wai'anae, Island of Oahu, Hawaii
TMK: (1) 8-5-015:001 (por.)
APPLICANT: **PBR HAWAII & ASSOCIATES, INC. on behalf of the Hawaii Department of Education**

Transmitted for your review and comment is information on the above-referenced project. Please review the attached information and submit any comments by the extended internal deadline of **December 10, 2021** to barbara.j.lee@hawaii.gov at the Land Division.

If no response is received by the above due date, we will assume your agency has no comments at this time. Should you have any questions about this request, please contact Barbara Lee at barbara.j.lee@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
( ) Comments are included/attached.

Signed: GSCh
Print Name: Carty S. Chang, Chief Engineer
Division: Engineering Division
Date: Dec 2, 2021

Attachments
Cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji
Ref: Pre-Consultation for Draft Environmental Assessment
Waianae High School Athletic Locker Room and Related Actions
Location: 85-251 Farrington Highway, Waianae, Island of Oahu, Hawaii
TMK(s): (1) 8-5-015:001 (por.)
Applicant: PBR HAWAII & ASSOCIATES, INC. on behalf of the Hawaii Department of Education

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high-risk areas). State projects are required to comply with 44CFR regulations as stipulated in Section 60.12. Be advised that 44CFR, Chapter 1, Subchapter B, part 60 reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zones are designated on FEMA's Flood Insurance Rate Maps (FIRM). The official FIRMs can be accessed through FEMA's Map Service Center (msc.fema.gov). Our Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT) could also be used to research flood hazard information.

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7139.
- Kauai: County of Kauai, Department of Public Works (808) 241-4896.

The applicant should include water demands and infrastructure required to meet project needs. Please note that all State projects requiring water service from their local Department/Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

The applicant is required to provide water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update projections.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: Dec 2, 2 021

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 19, 2021

LD 1284

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources *(via email: kendall.l.tucker@hawaii.gov)*
__Div. of Boating & Ocean Recreation
X Engineering Division *(via email: DLNR.Engr@hawaii.gov)*
X Div. of Forestry & Wildlife *(via email: rubyrosa.t.terrago@hawaii.gov)*
__Div. of State Parks
X Commission on Water Resource Management *(via email: DLNR.CWRM@hawaii.gov)*
__Office of Conservation & Coastal Lands
X Land Division – Oahu District *(via email: barry.w.cheung@hawaii.gov)*

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*

SUBJECT: **Pre-Consultation for Draft Environmental Assessment**
Wai'anae High School Athletic Locker Room and Related Actions

LOCATION: 85-251 Farrington Highway, Wai'anae, Island of Oahu, Hawaii
TMK: (1) 8-5-015:001 (por.)

APPLICANT: **PBR HAWAII & ASSOCIATES, INC. on behalf of the Hawaii Department of Education**

Transmitted for your review and comment is information on the above-referenced project. Please review the attached information and submit any comments by the extended internal deadline of **December 10, 2021** to barbara.j.lee@hawaii.gov at the Land Division.

If no response is received by the above due date, we will assume your agency has no comments at this time. Should you have any questions about this request, please contact Barbara Lee at barbara.j.lee@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
( ) Comments are included/attached.

Signed: DGS
Print Name: DAVID G. SMITH, Administrator
Division: Division of Forestry and Wildlife
Date: Dec 2, 2021

Attachments
Cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

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
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

December 2, 2021

MEMORANDUM *Log no. 3433*

TO: RUSSEL Y. TSUJI, Administrator
Land Division

FROM: DAVID G. SMITH, Administrator
Division of Forestry and Wildlife

SUBJECT: Division of Forestry and Wildlife Comments on Pre-Consultation for Draft Environmental Assessment (DEA) for the Wai'anae High School Athletic Locker Room Project.

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received your request for comment on the pre-consultation for a DEA pertaining to the Wai‘anae High School's proposed construction of a girls athletic locker room on the school's campus located at 85-251 Farrington Highway in Wai‘anae on O‘ahu, Hawai‘i; TMK: (1) 8-5-015:001 (por.). The proposed project will extend and widen the fire access road northeast of Buildings F and D, remove the current Administrative Portable building at the site and construct a new building in its place. This new building will include / house a girls athletic locker room, toilet area, shower, storage and laundry rooms, coach's office and additional support spaces.

The State listed Hawaiian Hoary Bat or ‘Ōpe‘ape‘a (*Lasiurus cinereus semotus*) may potentially occur in the vicinity of the project area and may roost in nearby trees. If any site clearing is required this should be timed to avoid disturbance during the bat birthing and pup rearing season (June 1 through September 15). During this period, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. The use of barbed wire should also be avoided for any construction because bat mortalities have been documented as a result of becoming ensnared by this type of fencing during flight.

Artificial lighting can adversely impact seabirds that may pass through the area at night by causing disorientation. This disorientation can result in collision with manmade structures or grounding of birds. For nighttime lighting that might be required, DOFAW recommends that all lights be fully shielded to minimize impacts. If possible, however, nighttime work that requires outdoor lighting should be avoided during the seabird fledging season from September 15 through December 15. This is the period when young seabirds take their maiden voyage to the open sea. For illustrations and guidance related to seabird-friendly light styles that also protect the dark, starry skies of Hawai‘i please visit: https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf. We recommend a monitor be present and if any seabirds are observed circling lights, they should be turned off

immediately. Any grounded seabirds should be brought to a permitted rehabber and DOFAW should be notified.

DOFAW recommends minimizing the movement of plant or soil material between worksites, such as in fill. Soil and plant material may contain invasive fungal pathogens, vertebrate and invertebrate pests (e.g., Little Fire Ants, Coconut Rhinoceros Beetles), or invasive plant parts that could harm our native species and ecosystems. We recommend consulting the O‘ahu Invasive Species Committee at (808) 266-7994 in planning, design, and construction of the project to learn of any high-risk invasive species in the area and ways to mitigate spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.

DOFAW recommends using native plant species for any necessary landscaping that are appropriate for the area (i.e., climate conditions are suitable for the plants to thrive, historically occurred there, etc.). Please do not plant invasive species. DOFAW recommends consulting the Hawai‘i-Pacific Weed Risk Assessment website to determine the potential invasiveness of plants proposed for use in the project (https://sites.google.com/site/weedriskassessment/home).

We appreciate your efforts to work with our office for the conservation of our native species. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Paul Radley, Protected Species Habitat Conservation Planning Coordinator at (808) 295-1123 or paul.m.radley@hawaii.gov.

Sincerely,

DAVID G. SMITH
Administrator

LD 1284

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
Executive Vice-President / Principal

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Senior Associate

GRACE ZHENG, ASLA, LEED® GA, SITES® AP
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November 5, 2021

Ms. Suzanne Case
Chairperson
State of Hawai'i
Department of Land and Natural Resources
Kalanimoku Building
1151 Punchbowl Street
Honolulu, HI 96809

RECEIVED
2021 NOV -8 AM 10: 43
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – WAI'ANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM AND RELATED ACTIONS, WAI'ANAE, O'AHU, TMK 8-5-015: 001 por.

Dear Ms. Case,

PBR HAWAII & Associates, Inc., is assisting the Hawai'i Department of Education (Proposing Agency) to prepare a Hawai'i Revised Statutes (HRS) Chapter 343 Environmental Assessment (EA) for the proposed Girls Athletic Locker Room (GALR) project, located in Wai'anae, O'ahu.

Wai'anae High School (WHS) is located at 85-251 Farrington Highway in Wai'anae, O'ahu, Hawai'i, and the campus spans across two parcels: TMK 8-5-015: 001 and 8-5-002: 018. The overall area of the campus of approximately 38 acres, is located between Farrington Highway and the Pacific Ocean (Figure 1). The proposed GALR will be located to the west of existing Building H Administration building where the Administration Portable building is currently located (TMK 8-5-015: 001 por.).

The proposed project for the WHS will remove the Administration Portable building, extend/widen the fire access road to the northeast of Buildings F and D, and construct a new building. This new building will include a GALR, Toilet Area, Shower Room, Storage, Laundry Room, Coach's Office, and other support spaces. This is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. The intent of this project is to provide a gender equitable, or better, GALR to the existing Boys Athletic Locker Room.

With this letter, we seek your input on the project and comments as to whether the proposed project may have an impact on any of your existing or proposed projects, plans, policies, or programs that we should consider when preparing the HRS Chapter 343 Draft EA. Please send us any comments you may have by **December 5, 2021**.* You may mail your comments to:

PBR HAWAII & Associates, Inc.
Attn: Greg Nakai
1001 Bishop Street, Suite 650
Honolulu, HI 96813-3484
gnakai@pbrhawaii.com

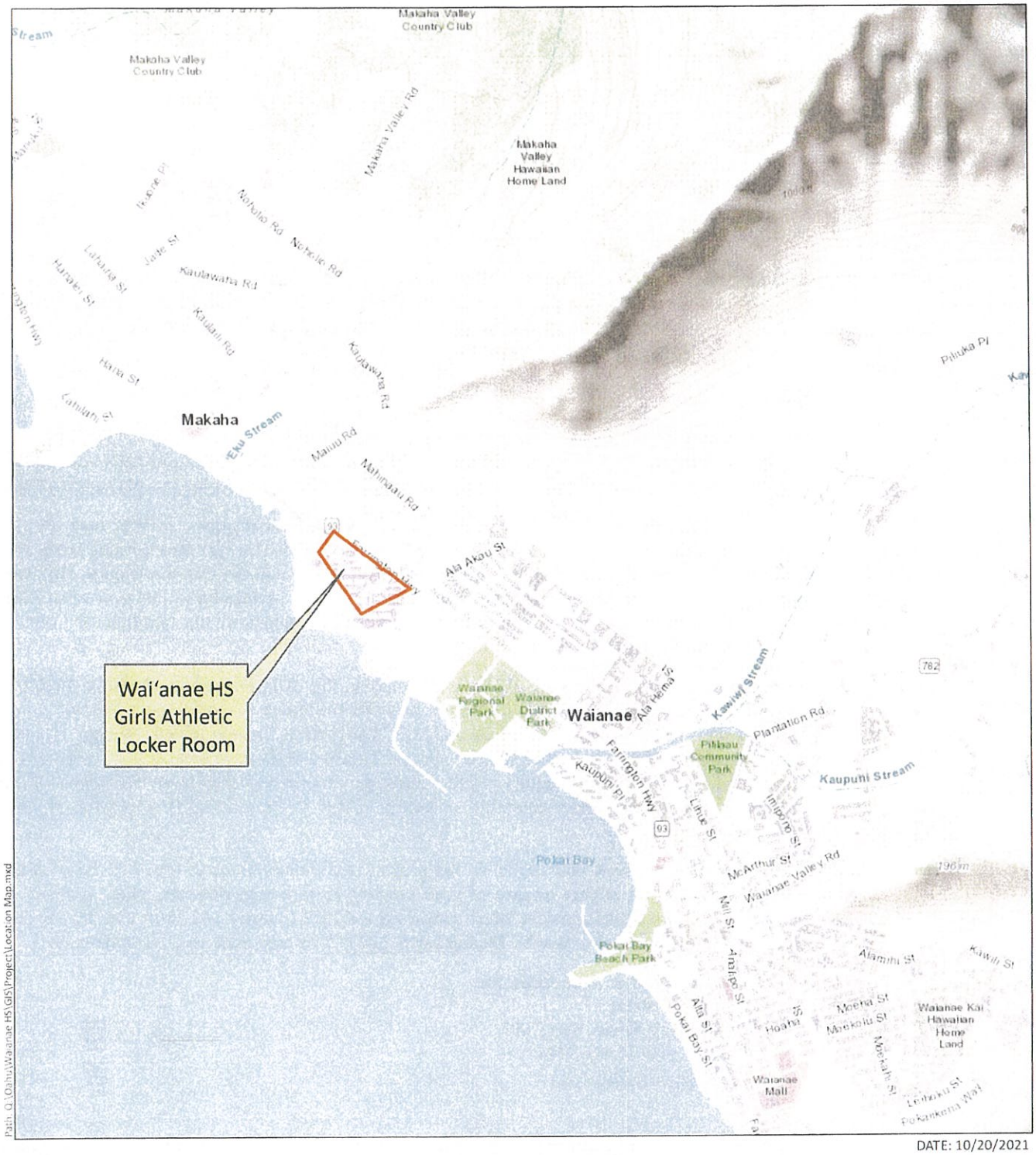
Sincerely,

PBR HAWAII

Greg Nakai
Associate

Enclosure: Regional Location Map

**A one-week extension has been granted to DLNR by G. Nakai.*



Path: Q:\Oahu\Waianae HS\GIS\Project\Location Map.mxd

DATE: 10/20/2021

LEGEND

TMK 8-5-015: 001 (por.)

Figure 1
Regional Location

WAI'ANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

State of Hawai'i - Department of Education

Island of O'ahu

North

Linear Scale (feet)

0 500 1,000 2,000

PBR HAWAII

Source: City and County of Honolulu (2021); ESRI Online Basemaps.

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

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February 28, 2022

Mr. Russell Y. Tsuji
Land Administrator
State of Hawai‘i
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawai‘i 96809

Attn: Ms. Barbara Lee

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI‘ANAE HIGH SCHOOL GIRLS’ ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Tsuji:

Thank you for your letter dated December 14, 2021 (your reference number LD 1284), regarding the subject project. As the planning consultant for the Hawai‘i State Department of Education, we acknowledge your recommendations, and the Draft Environmental Assessment (DEA) will address the following:

1. Flood Hazard Zone designation for the project.
2. Water demands and infrastructure required to meet the project needs.
3. Acknowledgement that the applicant is required to provide water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update projections
4. Acknowledgement that the Hawaiian Hoary Bat or ‘ōpe‘ape‘a (*Lasiurus cinereus semotus*) may potentially occur in the vicinity of the project area.
5. Avoidance and minimization measures regarding Hawaiian seabirds.
6. The potential of impacts to native species and ecosystems, from the movement of plant or soil material (containing contain invasive fungal pathogens, vertebrate and invertebrate pests) between worksites.
7. The selection of plant species for landscaping.

We value your participation in the environmental review process. Your letter will be included in the forthcoming DEA.

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: Hawai‘i State Department of Education
WRNS

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DAVID Y. IGE
GOVERNOR

JADE T. BUTAY
DIRECTOR

Deputy Directors
ROSS M. HIGASHI
EDUARDO P. MANGLALLAN
PATRICK H. MCCAIN
EDWIN H. SNIFFEN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
DIR1064
HWY-PS 2.7131

December 10, 2021

VIA EMAIL: gnakai@pbrhawaii.com

Mr. Greg Nakai
PBR Hawaii & Associates, Inc.
1000 Bishop Street, Suite 650
Honolulu, Hawaii 96813

Dear Mr. Nakai:

Subject: Request for Comments
Pre-Assessment Consultation for Draft Environmental Assessment
Waianae High School – Athletic Locker Room Building and various improvements
85-251 Farrington Highway
Tax Map Key No. (1) 8-5-015: 001 -Waianae, Oahu

Thank you for your letter dated November 5, 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 proposed project involves the demolition of an existing structure used as a portable administration building and the construction of an athletic locker room building for girls. The proposed work also includes the construction of offices, storage, laundry facilities, and the widening of a fire access road.

The school frontage is bordered by the State Farrington Highway (Route 93). At this time, there is no information related to all the school access points.

The letter provided did not have any information on the proposed building size or office capacity, and whether there will be a possible joint use as a new Administration office beside the proposed locker room. Therefore, an evaluation should be provided on whether the proposed building and operation will have any local impacts on the roadways or nearby State highways. The information and assessment should be provided in the DEA, and if relevant, a Traffic Assessment or a Traffic Impact Analysis Report should be included. The study should be prepared by a Traffic Engineer licensed in the State of Hawaii.

If you have any questions, please contact Jeyan Thirugnanam, Systems Planning Engineer, Highways Division, Planning Branch at (808) 587-6336 or by email at Jeyan.Thirugnanam@hawaii.gov. Please reference file review number PS 2021-204.

Sincerely,

JADE T. BUTAY
Director of Transportation

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& ASSOCIATES, INC.

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E-mail: sysadmin@pbrhawaii.com

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February 28, 2022

Mr. Jade T. Butay
Director of Transportation
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, Hawai'i 96813-5097

Attn: Mr. Jeyan Thirugnanam, Highways Division, Planning Branch

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Butay:

Thank you for your letter dated December 10, 2021 (your reference number DIR1064 HWY-PS 2.7131), regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we concur that an evaluation should be provided on whether the proposed building and operation will have any local impacts on the roadways or nearby State highways. We can report that the Draft Environmental Assessment (DEA) will summarize and include a Transportation Impact Assessment Report prepared by a professional engineering firm licensed in the State of Hawai'i.

We value your participation in the environmental review process. Your letter will be included in the forthcoming DEA.

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: Hawai'i State Department of Education
WRNS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai‘i 96850

In Reply Refer To:
01EPIF00-2022-TA-0080

December 2, 2021

Mr. Greg Nakai
PBR Hawai‘i & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, HI 96813-3484

Subject: Technical Assistance Regarding the Proposed Waianae High School Girls Athletic Locker Room Project, O‘ahu

Dear Mr. Nakai:

Thank you for your recent correspondence requesting technical assistance on species biology, habitat, or life requisite requirements. The Pacific Islands Fish and Wildlife Office (PIFWO) of the U.S. Fish and Wildlife Service (Service) appreciates your efforts to avoid or minimize effects to protected species associated with your proposed actions. We provide the following information for your consideration under the authorities of the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 *et seq*.), as amended.

Due to significant workload constraints, PIFWO is currently unable to specifically address your information request. The table below lists the protected species most likely to be encountered by projects implemented within the Hawaiian Islands. Based on your project location and description, we have noted the species most likely to occur within the vicinity of the project area, in the ‘**Occurs In or Near Project Area’** column. Please note this list is not comprehensive and should only be used for general guidance. We have added to the PIFWO website, located at https://www.fws.gov/pacificislands/promo.cfm?id=177175840 recommended conservation measures intended to avoid or minimize adverse effects to these federally protected species and best management practices to minimize and avoid sedimentation and erosion impacts to water quality. If your project occurs on the island of Hawai‘i, we have also enclosed our biosecurity protocol for activities in or near natural areas.

If you are representing a federal action agency, please request an official species list following the instructions at our PIFWO website https://www.fws.gov/pacificislands/articles.cfm?id=149489558. You can find out if your project occurs in or near designated critical habitat here: https://ecos.fws.gov/ipac/.

Under section 7 of the ESA, it is the Federal agency's (or their non-Federal designee) responsibility to make the determination of whether or not the proposed project "may affect" federally listed species or designated critical habitat. A "may affect, not likely to adversely affect" determination is appropriate when effects to federally listed species are expected to be discountable (i.e., unlikely to occur), insignificant (minimal in size), or completely beneficial. This conclusion requires written concurrence from the Service. If a "may affect, likely to adversely affect" determination is made, then the Federal agency must initiate formal consultation with the Service. Projects that are determined to have "no effect" on federally listed species and/or critical habitat do not require additional coordination or consultation.

Implementing the avoidance, minimization, or conservation measures for the species that may occur in your project area will normally enable you to make a "may affect, not likely to adversely affect" determination for your project. If it is determined that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may assist you with the ESA compliance. If the proposed project is funded, authorized, or permitted by a Federal agency, then that agency should consult with us pursuant to section 7(a)(2) of the ESA. If no Federal agency is involved with the proposed project, the applicant should apply for an incidental take permit under section 10(a)(1)(B) of the ESA. A section 10 permit application must include a habitat conservation plan that identifies the effects of the action on listed species and their habitats and defines measures to minimize and mitigate those adverse effects.

We appreciate your efforts to conserve endangered species. We regret that we cannot provide you with more specific protected species information for your project site. If you have questions that are not answered by the information on our website, you can contact PIFWO at (808) 792-9400 and ask to speak to the lead biologist for the island where your project is located.

Sincerely,

AARON NADIG

Digitally signed by AARON NADIG
Date: 2021.12.02 06:49:15 -10'00'

Island Team Manager
Pacific Islands Fish and Wildlife Office

Enclosures (2)

The table below lists the protected species most likely to be encountered by projects implemented within the Hawaiian Islands. For your guidance, we have marked species that may occur in the vicinity of your project, this list is not comprehensive and should only be used for general guidance.

Enclosure 1. Federal Status of Animal Species

Scientific Name	**Common Name / Hawaiian Name**	**Federal Status**	**May Occur In Project Area**
Mammals			
Lasiurus cinereus semotus	Hawaiian hoary bat/‘ōpe‘ape‘a	E	☒
Reptiles			
Chelonia mydas	green sea turtle/honu - Central North Pacific distinct population segment (DPS)	T	☒
Eretmochelys imbricata	hawksbill sea turtle/ honu ‘ea or ‘ea	E	☐
Birds			
Anas wyvilliana	Hawaiian duck/koloa	E	☐
Branta sandvicensis	Hawaiian goose/nēnē	T	☐
Fulica alai	Hawaiian coot/‘alae ke‘oke‘o	E	☐
Gallinula galeata sandvicensis	Hawaiian gallinule/‘alae ‘ula	E	☐
Himantopus mexicanus knudseni	Hawaiian stilt/ae‘o	E	☐
Oceanodroma castro	band-rumped storm-petrel Hawai‘i DPS/‘akē‘akē	E	☒
Pterodroma sandwichensis	Hawaiian petrel/‘ua‘u	E	☒
Puffinus auricularis newelli	Newell’s shearwater/‘a‘o	T	☒
Ardenna pacificus	wedge-tailed shearwater/‘ua‘u kani	MBTA	☒
Buteo solitarius	Hawaiian hawk/‘io	MBTA	☐
Gygis alba	white tern/manu-o-kū	MBTA	☐
Insects			
Manduca blackburni	Blackburn’s sphinx moth	E	☐
Megalagrion pacificum	Pacific Hawaiian damselfly	E	☐
Megalagrion xanthomelas	orangeblack Hawaiian damselfly	E	☐
Megalagrion nigrohamatum nigrolineatum	blackline Hawaiian damselfly	E	☐

Enclosure 2. Federal Status of Plant Species

Plants				
Scientific Name	**Common Name or Hawaiian Name**	**Federal Status**	**Locations**	**May Occur In Project Area**
Abutilon menziesii	koʻoloaʻula	E	O, L, M, H	☐
Achyranthes splendens var. *rotundata*	ʻewa hinahina	E	O	☐
Bonamia menziesii	no common name	E	K, O, L, M, H	☐
Canavalia pubescens	ʻāwikiwiki	E	Ni, K, L, M	☐
Colubrina oppositifolia	kauila	E	O, M, H	☐
Cyperus trachysanthos	puʻukaʻa	E	K, O	☐
Gouania hillebrandii	no common name	E	Mo, M	☐
Hibiscus brackenridgei	maʻo hau hele	E	O, Mo, L, M, H	☐
Ischaemum byrone	Hilo ischaemum	E	K, O, Mo, M, H	☐
Isodendrion pyrifolium	wahine noho kula	E	O, H	☐
Marsilea villosa	ʻihiʻihi	E	Ni, O, Mo	☐
Mezoneuron kavaiense	uhiuhi	E	O, H	☐
Nothocestrum breviflorum	ʻaiea	E	H	☐
Panicum fauriei var. *carteri*	Carter's panicgrass	E	Molokini Islet (O), Mo	☐
Panicum niihauense	lauʻehu	E	K	☐
Peucedanum sandwicense	makou	E	K, O, Mo, M	☐
Pleomele (Chrysodracon) hawaiiensis	halapepe	E	H	☐
Portulaca sclerocarpa	ʻihi	E	L, H	☐
Portulaca villosa	ʻihi	E	Le, Ka, Ni, O, Mo, M, L, H, Nihoa	☐
Pritchardia affinis (maideniana)	loulu	E	H	☐
Pseudognaphalium sandwicensium var. *molokaiense*	ʻenaʻena	E	Mo, M	☐
Scaevola coriacea	dwarf naupaka	E	Mo, M	☐
Schenkia (*Centaurium*) *sebaeoides*	ʻāwiwi	E	K, O, Mo, L, M	☐
Sesbania tomentosa	ʻōhai	E	Ni, Ka, K, O, Mo, M, L, H, Necker, Nihoa	☐
Tetramolopium rockii	no common name	T	Mo	☐
Vigna o-wahuensis	no common name	E	Mo, M, L, H, Ka	☐

Location key: O=Oʻahu, K=Kauaʻi, M=Maui, H=island of Hawaiʻi, L=Lānaʻi, Mo=Molokaʻi, Ka=Kahoʻolawe, Ni=Niʻihau, Le=Lehua

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Tel: (808) 521-5631
Fax: (808) 523-1402
E-mail: sysadmin@pbrhawaii.com

printed on recycled paper

February 28, 2022

Mr. Aaron Nadig, Island Team Manager
Pacific Islands Fish and Wildlife Office
U.S. Department of the Interior
300 Ala Moana Boulevard, Room 3-122
Honolulu, HI 96850

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Nadig,

Thank you for your letter dated December 2, 2021 (reference code: 01EPIF00-2022-TA-0080), regarding the subject project. As the planning sub-consultant for the Applicant, the Hawai'i State Department of Education, we acknowledge your comments and offer the following responses.

We acknowledge the current workload constraints of the Pacific Islands Fish and Wildlife Office to provide specific protected species information. Moreover, we acknowledge the list provided indicating the protected species most likely to be encountered in the vicinity of the project area, as well as the resources provided for recommended conservation measures. The species noted on this list most likely to occur in or near the project area and the recommended conservation efforts will be discussed in the Draft Environmental Assessment (DEA). The DEA will also discuss the location of the subject project in relation to any designated critical habitats.

We value your participation in the environmental review process. Your letter will be included in the forthcoming DEA.

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

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BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
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Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

November 23, 2021

RECEIVED
NOV 27 2021
PBR HAWAII
Acctg. Dept.

Mr. Greg Nakai
PBR Hawaii & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813-3484

Dear Mr. Nakai:

Subject: Your Letter Dated November 5, 2021 Requesting Comments on the Pre-Assessment Consultation on the Environmental Assessment for the Proposed Waianae High School Girls Athletic Locker Room Project at 85-251 Farrington Highway, Tax Map Key: 8-5-002: 018, 8-5-015: 001

Thank you for your letter regarding the proposed athletic locker room project.

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

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
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Tel: (808) 521-5631
Fax: (808) 523-1402
E-mail: sysadmin@pbrhawaii.com

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February 28, 2022

Mr. Ernest Y.W. Lau, P.E.
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawai'i 96843

Attn: Mr. Robert Chun, Project Review Branch, Water Resources Division

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Lau:

Thank you for your letter dated November 23, 2021, regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we acknowledge the Board of Water Supply's (BWS's) preliminary assessment that the existing water system is adequate to accommodate the proposed development. However, we acknowledge that the BWS reserves the right to change any position or information stated in your letter up until the final approval of the building permit application. It is further acknowledged that the final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

It is also acknowledged that:

- When water is made available, the applicant will be required to pay BWS's 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 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 construction drawings should be submitted for BWS 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.

We value your participation in the environmental review process. Your letter will be included in the forthcoming Draft Environmental Assessment (DEA).

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

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

RICK BLANGIARDI
MAYOR

ANTON C. KRUCKY
DIRECTOR DESIGNATE

November 12, 2021

PBR HAWAI'I & Associates, Inc.
Attn: Greg Nakai
1001 Bishop Street, Suite 650
Honolulu, Hawai'i 96813
Email: gnakai@pbrhawaii.com

Dear Mr. Nakai:

SUBJECT: Pre-Consultation: DRAFT Environmental Assessment
Girls Athletic Locker Room at Wai'anae High School
TMK: (1) 8-5-015:001 por., Wai'anae, O'ahu, Hawai'i

Thank you for your pre-consultation notice of a Draft Environmental Assessment for the Girls Athletic Locker Room project at Wai'anae High School.

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,

Anton C. Krucky
Director Designate

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
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GREG NAKAI
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SELENA PANG
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November 5, 2021

DCS/Admin
4569

21 NOV -8 A11:55

Ms. Sarah Allen
Director
City and County of Honolulu
Department of Community Services
925 Dillingham Blvd Suite 200
Honolulu, HI 96817

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – WAI'ANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM AND RELATED ACTIONS, WAI'ANAE, O'AHU, TMK 8-5-015: 001 por.

Dear Ms. Allen,

PBR HAWAII & Associates, Inc., is assisting the Hawai'i Department of Education (Proposing Agency) to prepare a Hawai'i Revised Statutes (HRS) Chapter 343 Environmental Assessment (EA) for the proposed Girls Athletic Locker Room (GALR) project, located in Wai'anae, O'ahu.

Wai'anae High School (WHS) is located at 85-251 Farrington Highway in Wai'anae, O'ahu, Hawai'i, and the campus spans across two parcels: TMK 8-5-015: 001 and 8-5-002: 018. The overall area of the campus of approximately 38 acres, is located between Farrington Highway and the Pacific Ocean (Figure 1). The proposed GALR will be located to the west of existing Building H Administration building where the Administration Portable building is currently located (TMK 8-5-015: 001 por.).

The proposed project for the WHS will remove the Administration Portable building, extend/widen the fire access road to the northeast of Buildings F and D, and construct a new building. This new building will include a GALR, Toilet Area, Shower Room, Storage, Laundry Room, Coach's Office, and other support spaces. This is a legislative add-on project needed to comply with Title IX gender equity requirements, per federal and state laws. The intent of this project is to provide a gender equitable, or better, GALR to the existing Boys Athletic Locker Room.

With this letter, we seek your input on the project and comments as to whether the proposed project may have an impact on any of your existing or proposed projects, plans, policies, or programs that we should consider when preparing the HRS Chapter 343 Draft EA. Please send us any comments you may have by **December 5, 2021**. You may mail your comments to:

PBR HAWAII & Associates, Inc.
Attn: Greg Nakai
1001 Bishop Street, Suite 650
Honolulu, HI 96813-3484
gnakai@pbrhawaii.com

Sincerely,

PBR HAWAII

Greg Nakai
Associate

Enclosure: Regional Location Map

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February 28, 2022

Mr. Anton C. Krucky
Director
Department of Community Services
City and County of Honolulu
925 Dillingham Boulevard, Suite 200
Honolulu, Hawai'i 96817

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Krucky:

Thank you for your letter dated November 12, 2021, regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we acknowledge the Department of Community Services' (DCS's) assessment that the proposed project will have no adverse impacts on any DCS activities or projects in the surrounding neighborhood.

We value your participation in the environmental review process. Your letter will be included in the forthcoming Draft Environmental Assessment (DEA).

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

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DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

RICK BLANGIARDI
MAYOR

ALEX KOZLOV, P.E.
DIRECTOR

HAKU MILLES, P.E.
DEPUTY DIRECTOR

November 26, 2021

RECEIVED
DEC - 1 2021
PBR HAWAII
Acctg. Dept.

PBR Hawaii & Associates, Inc.
Attn: Greg Nakai
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813-3484

Dear Mr. Nakai:

Subject: Pre-Assessment Consultation for a HRS Chapter 343 Environmental Assessment - Waianae High School Girls Athletic Locker Room and Related Actions, Waianae Oahu TMK: 8-5-015:001 por

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 768-8480.

Sincerely,

For Alex Kozlov, P.E.
Director

AK:krn (866994)

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& ASSOCIATES, INC.

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February 28, 2022

Mr. Alex Kozlov, P.E.
Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawai'i 96813

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Kozlov:

Thank you for your letter dated November 26, 2021, regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we acknowledge that the Department of Design and Construction (DDC) has no comments to offer at this time.

We value your participation in the environmental review process. Your letter will be included in the forthcoming Draft Environmental Assessment (DEA).

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

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:
21-667

November 18, 2021

PBR Hawaii & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813-3484
Attn: Mr. Greg Nakai

Dear Mr. Greg Nakai:

Subject: Pre-Assessment Consultation for a HRS Chapter 343 Environmental Assessment– Wai'anae High School Girls Athletic Locker Room and Related Actions, Wai'anae, O'ahu, TMK 8-5-015: 001 por.

Thank you for the opportunity to review and to give our input regarding the subject, "Pre-Assessment Consultation For A HRS Chapter 343 Environmental Assessment – Wai'anae High School Girls Locker Room and Related Actions."

The Department of Facility Maintenance has no comments at this time, as we do not have any facilities or easements on the subject property.

Should you have any questions, please contact Kyle Oyasato of the Division of Road Maintenance, at 768-3697.

Sincerely,

Roger Babcock, Jr., Ph.D., P.E.
Director and Chief Engineer

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& ASSOCIATES, INC.

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February 28, 2022

Mr. Roger Babcock, Jr., Ph.D., P.E.
Director and Chief Engineer
Department of Facility Maintenance
City and County of Honolulu
1000 Uluohia Street, Suite 215
Kapolei, Hawai'i 96707

Attn: Kyle Oyasato, Division of Road Maintenance

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Babcock:

Thank you for your letter dated November 18, 2021 (reference no. 21-667) regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we acknowledge that the Department of Facility Maintenance (DFM) has no comments at this time as it does not have any facilities or easements on the subject property.

We value your participation in the environmental review process. Your letter will be included in the forthcoming Draft Environmental Assessment (DEA).

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
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RICK BLANGIARDI
MAYOR

DEAN UCHIDA
DIRECTOR

DAWN TAKEUCHI APUNA
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI
DEPUTY DIRECTOR

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PBR HAWAII
Acctg. Dept.

December 2, 2021 2021/ELOG-2380(GT)

Mr. Greg Nakai
PBR HAWAII & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813-3484

Dear Mr. Nakai:

SUBJECT: Pre-Consultation Comments for Environmental Assessment
Waianae High School Girls Athletic Locker Room and Related Actions
85-251 Farrington Highway - Waianae
Tax Map Keys 8-5-015: 001 portion and 8-5-002: 018

This is in response to your letter, received November 9, 2021, requesting comments from the Department of Planning and Permitting on the scope and content to be addressed in a Draft Environmental Assessment (DEA). The proposed action involves the removal of the Administration Portable building, extending/widening of the fire access road to the northeast of Buildings F and D, and constructing a new Girls Athletic Locker Room building including a Locker Room, Toilet Area, Shower Room, Storage, Laundry Room, Coach's Office, and other support spaces at the above-referenced site (Project). The subject site is a 1,649,363-square-foot (37.864 acre) shoreline lot located in the P-2 General Preservation District and Special Management Area (SMA) in Waianae. The Project is needed to comply with Title IX gender equity requirements, per federal and state laws.

We offer the following comments:

1. The DEA should describe how the Project addresses the policies and guidelines of the Oahu General Plan. Additionally, a discussion on compliance with the Waianae Sustainable Communities Plan should be detailed. Please include information on how the Project conforms with sections related to natural, scenic, cultural, historical and residential character, and other relevant topics covered by these planning documents.

2. The DEA should describe how the Project complies with Chapter 205A, Hawaii Revised Statutes, relating to Coastal Zone Management and Chapter 25, Revised Ordinance of Honolulu (ROH), relating to the SMA.

3. If the Project cost will exceed $500,000.00 or may have substantial adverse or cumulative effects, a SMA Use Permit will be required for the Project.

4. Discuss conformance with the standard erosion and sediment control requirements. The DEA should state that the Project shall comply with the prevailing soil erosion and stormwater quality standards ("Rules Relating to Water Quality") and drainage standards ("Storm Drainage Standards").

5. A zoning waiver will be required if the proposed building exceeds the P-2 General Preservation District maximum height limit of 25-feet, and/or exceeds the maximum lot coverage/building area of five percent of the zoning lot. Justification for such a waiver should be discussed and analyzed within the DEA.

6. The DEA should disclose all permits and approvals that will be required for the Project.

7. Discuss and provide proposed final plans including site, floor, and elevations.

8. Provide a site plan showing the 40-foot shoreline setback line and 55-foot waiver line. A shoreline survey should be included in the Draft EA. A current shoreline survey within one-year certified by the State of Hawaii, may be required in the Final EA and must be reflected in the plans submitted for the SMA Use Permit to confirm compliance with the Shoreline Setback Ordinance (Chapter 23, ROH).

9. Provide a map and evaluate the impacts of the 0.5 feet and 3.2 feet of Sea Level Rise.

10. Discuss the Flood Zones, the chances of flooding, and any mitigation plans.

11. Discuss the soil type and potential of encountering human burials and cultural deposits. Provide supporting documents and archaeological inventory survey, if applicable.

12. Identify and summarize the impacts of environmental effects of the proposed action; effects of a proposed action on the economic welfare, social welfare, and cultural practices of the community and State; effects of the economic activities arising out of the proposed action; measures proposed to minimize adverse effects; and alternatives to the action and their environmental effects.

13. Discuss alternatives to the Project that could alter adverse impacts.

Lastly, please refer to the State of Hawaii Office of Planning and Sustainable Development, Environmental Review Program website with guidance on the required contents and processes for preparation of an Environmental Assessment at:

https://health.hawaii.gov/oeqc/.

Thank you for the opportunity to comment. Should you have any questions, please contact Gerald Toyomura, of our staff, at (808) 768-8056.

Very truly yours,

for Dean Uchida
Director

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
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February 28, 2022

Mr. Dean Uchida
Director
Department of Planning & Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawai'i 96813

Attn: Mr. Gerald Toyomura

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Uchida:

Thank you for your letter dated December 2, 2021 (reference no. 2021/ELOG-2380[GT]), regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we would just like to clarify that the proposed project is located on a small portion of the above TMK which is not a shoreline lot and does not involve TMK 8-5-002: 018 (or portion thereof).

Per your Department's comments, the Draft Environmental Assessment (DEA) will address:

1. The relevant policies and guidelines of the O'ahu General Plan and the Wai'anae Sustainable Communities Plan.
2. How the project complies with HRS Chapter 205A and ROH Chapter 25.
3. Acknowledgement the proposed Project will require a SMA Use Permit.
4. Compliance with prevailing soil erosion and stormwater standards.
5. Acknowledgement the proposed Project will require a maximum height limit of 25-feet and/or exceeds the maximum lot coverage/building area of 5% of the zoning lot (P-2).
6. All permits and approvals that are anticipated for the Project.
7. Proposed site and floor plans and building elevations.
8. The location of the proposed Project inland of a shoreline lot, and as such is not subject to compliance with the Shoreline Setback Ordinance.
9. Sea level rise.
10. Flood zones.
11. Soil types and potential for encountering human burials and cultural deposits.
12. Effects of a proposed action on the economic welfare, social welfare, and cultural practices of the community and State; effects of the economic activities arising out of the proposed action; measures proposed to minimize adverse effects; and alternatives to the action and their environmental effects.
13. Alternatives to the Project that could alter adverse impacts.
14. Required contents of an Environmental Assessment per HAR 11-200.1.

We value your participation in the environmental review process. Your letter will be included in the forthcoming DEA.

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai‘i State Department of Education

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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

TP11/21-867120

November 18, 2021

Mr. Greg Nakai
PBR HAWAII & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813-3484

Dear Mr. Nakai:

SUBJECT: Pre-Assessment Consultation for a HRS Chapter 343 Environmental Assessment – Waianae High School Girls Athletic Locker Room and Related Action, Waianae, Oahu
TMK 8-5-015: 001 por.

Thank you for the opportunity to provide written comments regarding the subject project. Although we have no comments to offer at this time, please apprise us when this project is included in the draft Environmental Assessment publication.

Should you have any questions, please contact Mike Motoki, of my staff, at (808) 768-6684.

Very truly yours,

J. Roger Morton
Director

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PBR HAWAII
Acctg. Dept.

PBR HAWAII
& ASSOCIATES, INC.

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February 28, 2022

Mr. J. Roger Morton
Director
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City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawai'i 96813

Attn: Mr. Mike Motoki

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Morton:

Thank you for your letter dated November 18, 2021 (reference no. TP11/21-867120), regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we acknowledge that the Department of Transportation Services (DTS) has no comments to offer at this time.

As requested, we will apprise DTS when the Draft Environmental Assessment (DEA) is available for your Department's review.

We value your participation in the environmental review process. Your letter will be included in the forthcoming DEA.

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

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

November 22, 2021

RECEIVED
NOV 27 2021
PBR HAWAII
Acctg. Dept.

Mr. Greg Nakai, Associate
PBR HAWAII & Associates, Inc.
1001 Bishop Street, Suite 650
Honolulu, Hawaii 96813-3484

Dear Mr. Nakai:

Subject: Preassessment Consultation Environmental Assessment
Waianae High School Girls Athletic Locker Room
85-251 Farrington Highway
Waianae, Hawaii 96792
Tax Map Keys: 8-5-015: 001 and 8-5-002: 018

In response to your letter of November 5, 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, 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/CM:bh

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
Executive Vice-President / Principal

VINCENT SHIGEKUNI
Senior Vice-President / Principal

GRANT T. MURAKAMI, AICP, LEED® AP BD+C
Senior Vice-President / Principal

KIMI MIKAMI YUEN, LEED® AP BD+C
Vice-President / Principal

TOM SCHNELL, AICP
Principal

CATIE CULLISON, AICP
Principal

THOMAS S. WITTEN, FASLA
Chairman Emeritus

W. FRANK BRANDT, FASLA
Founding Partner

RAYMOND T. HIGA, ASLA
Associate Principal

MARC SHIMATSU, ASLA
Associate Principal

DACHENG DONG, LEED® AP
Associate Principal

ANN MIKIKO BOUSLOG, PhD
Project Director

RAMSAY R. M. TAUM
Cultural Sustainability Planner

MICAH McMILLEN, ASLA, LEED® AP
Senior Associate

NATHALIE RAZO
Senior Associate

GRACE ZHENG, ASLA, LEED® GA, SITES® AP
Senior Associate

ETSUYO KILA
Associate

GREG NAKAI
Associate

NICOLE SWANSON, ASLA
Associate

1001 Bishop Street, Suite 650
Honolulu, Hawai'i 96813-3484
Tel: (808) 521-5631
Fax: (808) 523-1402
E-mail: sysadmin@pbrhawaii.com

printed on recycled paper

February 28, 2022

Mr. Jason Samala
Assistant Chief
Honolulu Fire Department
City and County of Honolulu
636 South Street
Honolulu, Hawai'i 96813-5007

Attn: Battalion Chief Reid Yoshida, Fire Prevention Bureau

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Samala:

Thank you for your letter dated November 22, 2021, regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we acknowledge the following.:

- 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.
- 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.
- 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 fire department access roads shall be in accordance with Section 18.2.3. (NFPA 1; 2018 Edition, Section 18.2.3.)
- Civil drawings will be submitted to the Honolulu Fire Department (HFD) for review and approval.

We value your participation in the environmental review process. Your letter will be included in the forthcoming Draft Environmental Assessment (DEA).

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

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POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

RICK BLANGIARDI
MAYOR

RADE K. VANIC
INTERIM CHIEF

OUR REFERENCE EO-DK

November 22, 2021

SENT VIA EMAIL

Mr. Greg Nakai
gnakai@pbrhawaii.com

Dear Mr. Nakai:

This is in response to your letter dated November 5, 2021 requesting input on the Pre-Assessment Consultation for the proposed Waianae High School Girls Athletic Locker Room project.

Based on the information provided, the Honolulu Police Department does not have any comments or concerns at this time.

If there are any questions, please call Major Gail Beckley of District 8 (Kapolei, Waianae) at (808) 723-8400.

Thank you for the opportunity to review this project.

Sincerely,

DARREN CHUN
Assistant Chief of Police
Support Services Bureau

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
Executive Vice-President / Principal

VINCENT SHIGEKUNI
Senior Vice-President / Principal

GRANT T. MURAKAMI, AICP, LEED® AP BD+C
Senior Vice-President / Principal

KIMI MIKAMI YUEN, LEED® AP BD+C
Vice-President / Principal

TOM SCHNELL, AICP
Principal

CATIE CULLISON, AICP
Principal

THOMAS S. WITTEN, FASLA
Chairman Emeritus

W. FRANK BRANDT, FASLA
Founding Partner

RAYMOND T. HIGA, ASLA
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Associate Principal

DACHENG DONG, LEED® AP
Associate Principal

ANN MIKIKO BOUSLOG, PhD
Project Director

RAMSAY R. M. TAUM
Cultural Sustainability Planner

MICAH McMILLEN, ASLA, LEED® AP
Senior Associate

NATHALIE RAZO
Senior Associate

GRACE ZHENG, ASLA, LEED® GA, SITES® AP
Senior Associate

ETSUYO KILA
Associate

GREG NAKAI
Associate

NICOLE SWANSON, ASLA
Associate

1001 Bishop Street, Suite 650
Honolulu, Hawai'i 96813-3484
Tel: (808) 521-5631
Fax: (808) 523-1402
E-mail: sysadmin@pbrhawaii.com

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February 28, 2022

Mr. Darren Chun
Assistant Chief of Police
Support Services Bureau
Honolulu Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, Hawai'i 96813

Attn: Major Gail Beckley, District 8 (Kapolei, Wai'anae)

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Chun:

Thank you for your letter dated November 22, 2021 (your reference no. EO-DK), regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we acknowledge that the Honolulu Police Department (HPD) does not have any comments or concerns at this time.

We value your participation in the environmental review process. Your letter will be included in the forthcoming Draft Environmental Assessment (DEA).

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

Greg Nakai

From: Calvin Endo <c.endo@seariders.k12.hi.us>
Sent: Monday, November 8, 2021 7:40 PM
To: Greg Nakai
Subject: Pre-Assessment consultation for a HRS Chapter 343 Environment Assessment - Wai'anae High School Girls Athletic Locker Room and Related Actions, Wai'anae. Oahu, TMK 8-5-015: 001 por

Aloha,

Thank you for letting me know about this project at Wai'anae High School. I'm not only the Education Chair for the Wai'anae Neighborhood Board, but I'm also the Parent Community representative for Wai'anae High School. I'm interested in seeing a drawing of this project to see how these building projects will fit on the campus. Our campus is old, so any improvements will be good for our school and community.

If you want to contact me my cell is 808-429-0132.

Calvin Endo

PBR HAWAII
& ASSOCIATES, INC.

R. STAN DUNCAN, ASLA
President / Chairman

RUSSELL Y. J. CHUNG, FASLA, LEED® AP BD+C
Executive Vice-President / Principal

VINCENT SHIGEKUNI
Senior Vice-President / Principal

GRANT T. MURAKAMI, AICP, LEED® AP BD+C
Senior Vice-President / Principal

KIMI MIKAMI YUEN, LEED® AP BD+C
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Project Director

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GRACE ZHENG, ASLA, LEED® GA, SITES® AP
Senior Associate

ETSUYO KILA
Associate

GREG NAKAI
Associate

NICOLE SWANSON, ASLA
Associate

1001 Bishop Street, Suite 650
Honolulu, Hawai'i 96813-3484
Tel: (808) 521-5631
Fax: (808) 523-1402
E-mail: sysadmin@pbrhawaii.com

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February 28, 2022

Mr. Calvin Endo
Committee Chair
Neighborhood Board No. 24
Education, Health, & Welfare Committee
84-620 Manuku Street
Wai'anae, HI 96792

SUBJECT: PRE-ASSESSMENT CONSULTATION FOR A HRS CHAPTER 343 ENVIRONMENTAL ASSESSMENT – PROPOSED WAI'ANAE HIGH SCHOOL GIRLS' ATHLETIC LOCKER ROOM PROJECT AT 85-251 FARRINGTON HIGHWAY, TMK 8-5-015: 001 por.

Dear Mr. Endo:

Thank you for your email dated November 8, 2021, regarding the subject project. As the planning consultant for the Hawai'i State Department of Education, we apologize for the delay in responding to your request for a drawing, but there were a couple of entities with whom we had been coordinating. Drawings of the proposed project are included as appendices to the Draft Environmental Assessment (DEA).

We concur that the proposed project will be good for Wai'anae High School (WHS) and the WHS community.

We can also report that we will be on the agenda for the April 5th Neighborhood Board meeting.

We value your participation in the environmental review process. Your letter will be included in the forthcoming DEA.

Sincerely,
PBR HAWAII

Greg Nakai
Associate

cc: WRNS
Hawai'i State Department of Education

APPENDIX B:
Conceptual Site Plan

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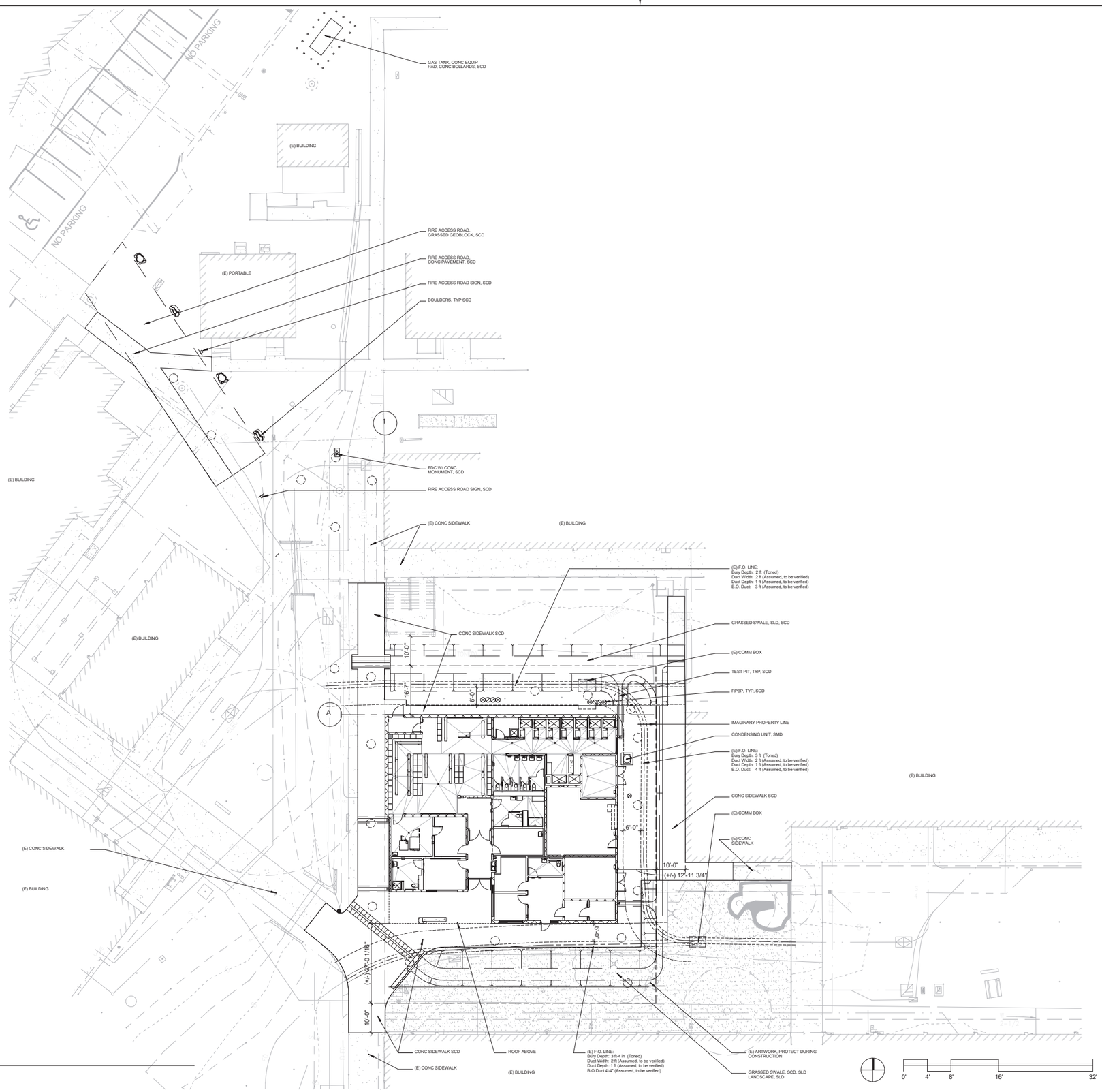

1 SITE PLAN
1/16" = 1'-0"

REV NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	
					APPROVED:

STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

WAIANAE OAHU HAWAII

SITE PLAN

WRNS STUDIO		JOB NO.	DRAWING NO.
DESIGNED BY: AW/MN/KL	CHECKED BY: KL	Q85216-19	AS-101
DRAWN BY: MN	APPROVED BY: RN	DATE 01/10/2022	SHEET OF_____SHTS
SCALE: 1/16" = 1'-0"			

FILE _____ DRAWER_____ FOLDER_____

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APPENDIX C:
Conceptual Landscape Plan

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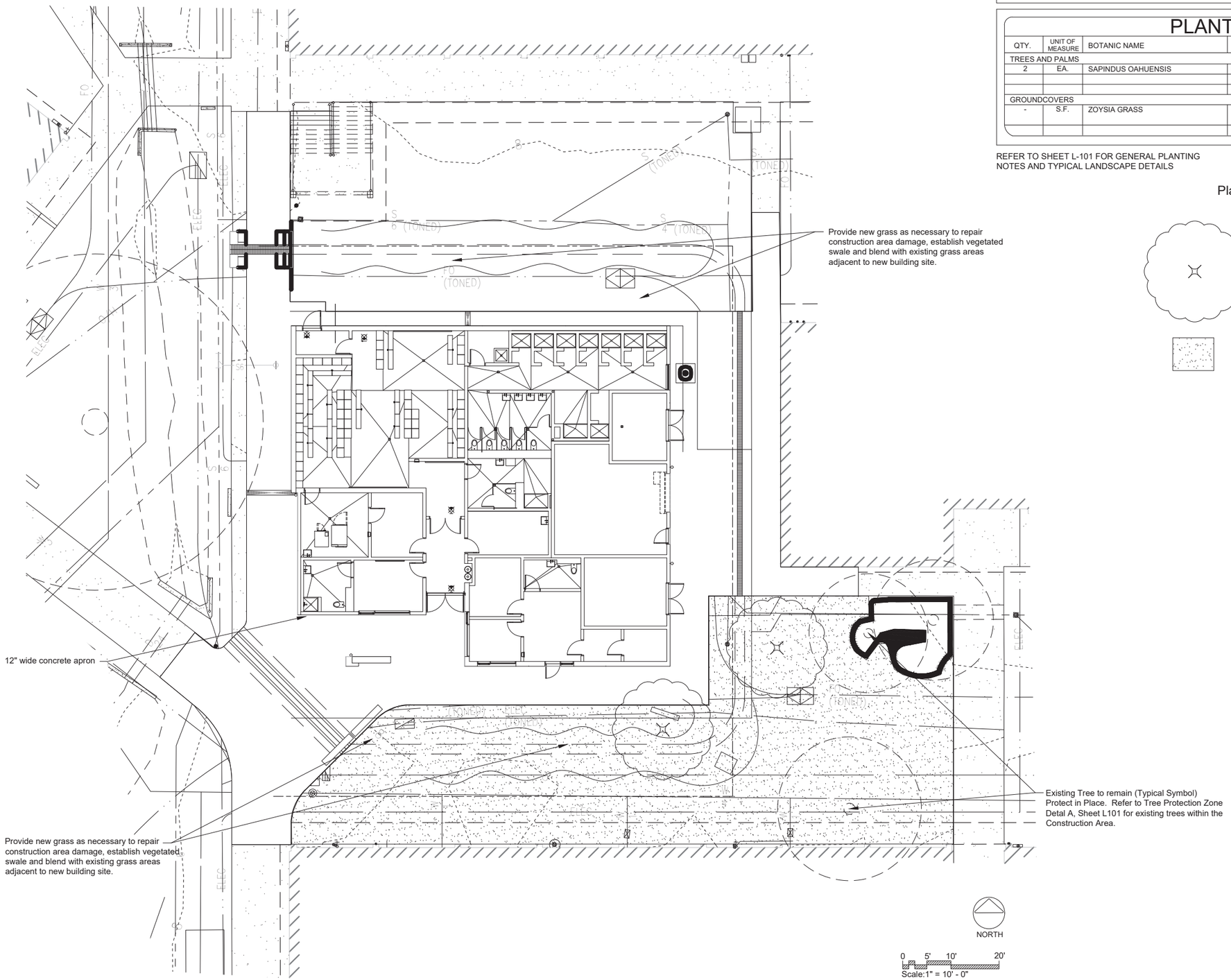
NATIVE PLANT NOTES:
DUE TO RECENT AVAILABILITY ISSUES WITH NATIVE PLANTS, IF SPECIFIED TREES ARE NOT AVAILABLE AT TIME OF PROJECT SOURCING, THE FOLLOWING ALTERNATE TREES MAY BE SUBSTITUTED (WITH SAME SIZE SPECIFICATIONS PER ALTERNATE TREE) WITH APPROVAL FROM LANDSCAPE ARCHITECT.
SENNA GUADICHAUDII (KOLOMONA) FOR LONOMEA.

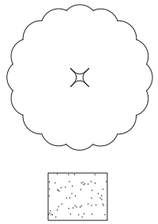
PLANT MATERIAL LEGEND

QTY.	UNIT OF MEASURE	BOTANIC NAME	COMMON NAME	SIZE	REMARKS
TREES AND PALMS					
2	EA.	SAPINDUS OAHUENSIS	LONOMEA	50 GAL	12' HT., 10' SPREAD, MIN. 2" CAL, MULTI-BRANCH
GROUNDCOVERS					
-	S.F.	ZOYSIA GRASS	TURF GRASS	STOLONS	HYDROMULCH - RE-GRASSING DISTURBED AREAS AND VEGETATED SWALES

REFER TO SHEET L-101 FOR GENERAL PLANTING NOTES AND TYPICAL LANDSCAPE DETAILS



Plant Material Legend



Canopy Tree:
Sapindus oahuensis / Lonomea (50 Gal.)

Grass

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR

JASON S. UMEMOTO
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT No. 8919
HAWAII, U.S.A.
EXP. 4/30/22

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

DEPARTMENT OF EDUCATION
STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM (GALR)
WAIPAHU HAWAII HAWAII

LANDSCAPE SITE PLAN

UMEMOTO CASSANDRO DESIGN CORP.

DESIGNED BY:	CHECKED BY:	DOE JOB NO.	DRAWING NO.
JU	JU/NC	Q85216-19	L100
DRAWN BY: JU	APPROVED BY: NC	DATE 12/20/2021	SHEET OF SHTS
SCALE:			

PERMIT SET

FILE DRAWER FOLDER

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APPENDIX D:
Floor, Roof, and Reflected Ceiling Plans

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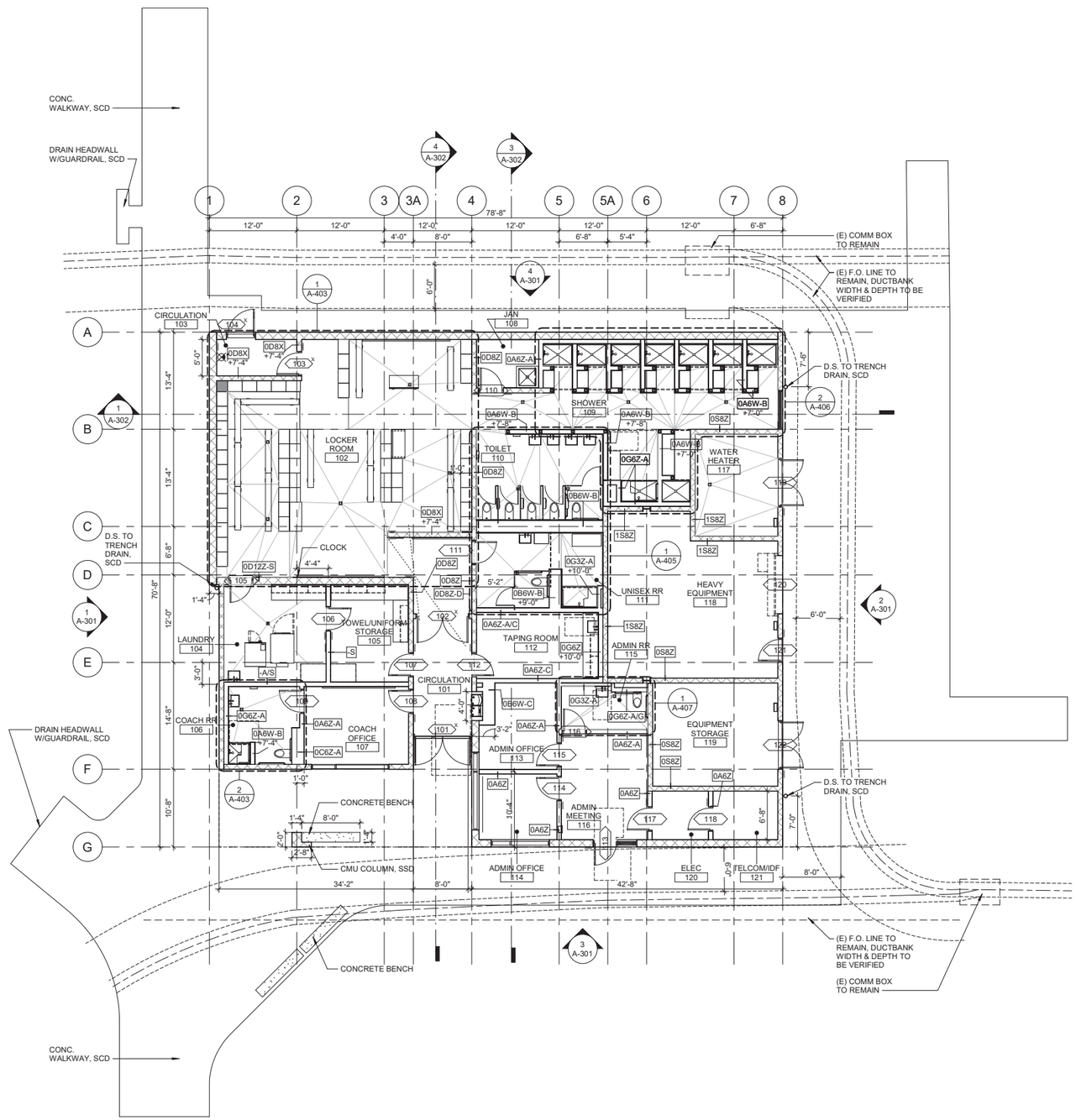

1 GROUND FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16' 32'

REV NO.	SYM.	DESCRIPTION	SHT ___ OF ___	DATE	
					APPROVED:

ADAM G. WOLFAG
LICENSED PROFESSIONAL ARCHITECT
No. 18327
HAWAII, U.S.A.

EXPIRATION DATE 04/30/2022

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SIGNATURE

STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

WAIANAE OAHU HAWAII

FLOOR PLAN

WRNS STUDIO

DESIGNED BY:	CHECKED BY:	JOB NO.	DRAWING NO.
AW/MN/KL	KL	Q85216-19	A-101
DRAWN BY: MN	APPROVED BY: RN	DATE 01/10/2022	SHEET OF ___ SHTS

SCALE: 1/8" = 1'-0"

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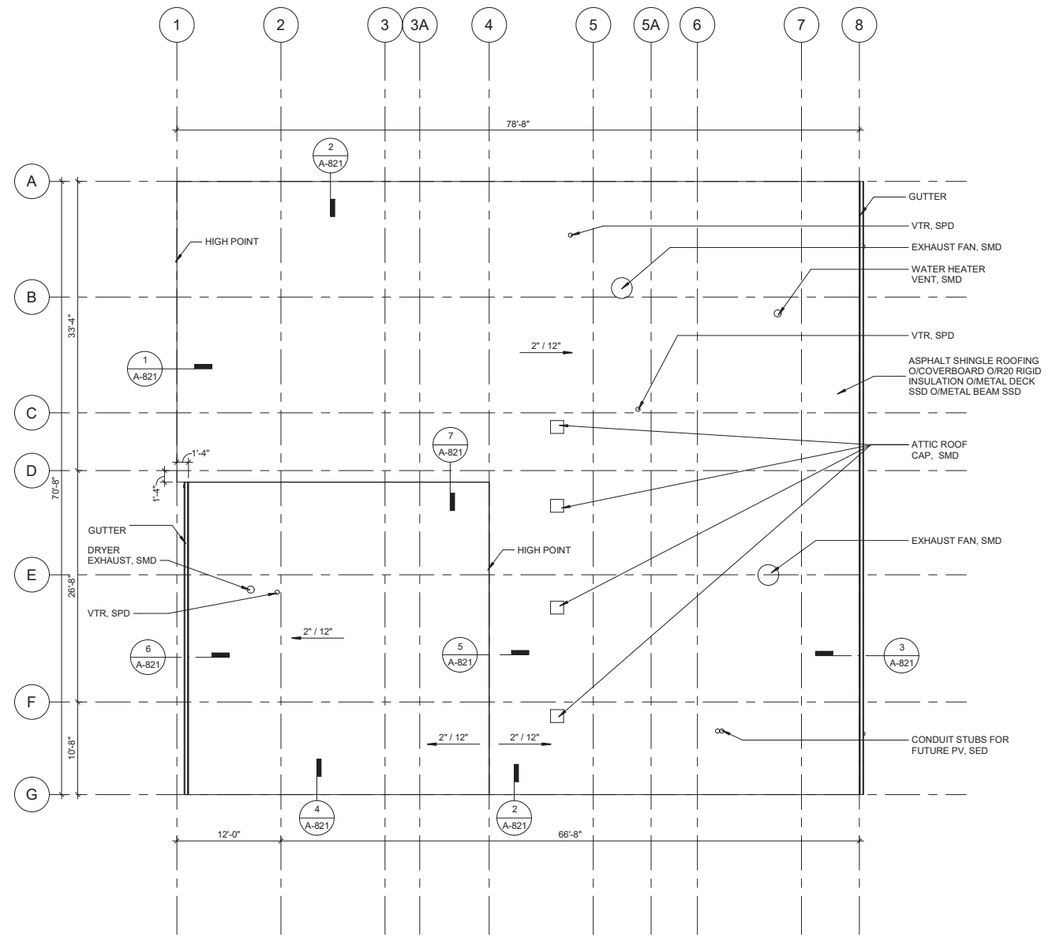

1 ROOF PLAN

1/8" = 1'-0"

0' 4' 8' 16' 32'

REV NO.	SYM.	DESCRIPTION	SHT.__ OF __	DATE	
					APPROVED:

ADAM G. WOLFAG
LICENSED PROFESSIONAL ARCHITECT
No. 18327
HAWAII, U.S.A.

EXPIRATION DATE 04/30/2022

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SIGNATURE

STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

WAIANAE OAHU HAWAII

ROOF PLAN

WRNS STUDIO

DESIGNED BY:	CHECKED BY:	JOB NO.	DRAWING NO.
AW/MN/KL	KL	Q85216-19	A-102
DRAWN BY:	APPROVED BY:	DATE	SHEET
MN	RN	01/10/2022	OF_____SHTS

SCALE: 1/8" = 1'-0"

PERMIT SET

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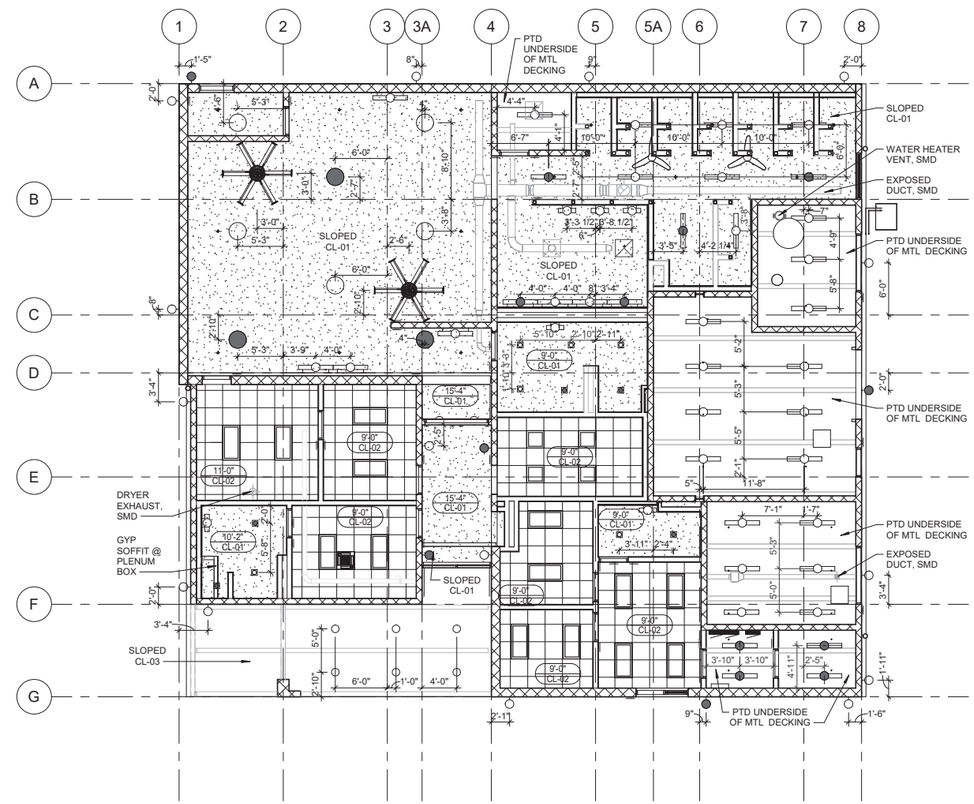

1 REFLECTED CEILING PLAN

1/8" = 1'-0"

0' 4' 8' 16' 32'

LEGEND

- CLG-1 ACOUSTICAL CEILING TILE
- CLG-2 GYPBOARD O/ METAL FRAMING
- CLG-3 CEMENTIOUS FIBER BOARD W/SOFFIT VENT O/ METAL FRAMING

REV NO.	SYM.	DESCRIPTION	SHT.___ OF ___	DATE	
					APPROVED:

ADAM G. WOLTAG
LICENSED PROFESSIONAL ARCHITECT
No. 18327
HAWAII, U.S.A.

EXPIRATION DATE 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

WAIANAE OAHU HAWAII

REFLECTED CEILING PLAN

WRNS STUDIO

DESIGNED BY:	CHECKED BY:	JOB NO.	DRAWING NO.
AW/MN/KL	KL	Q85216-19	A-201
DRAWN BY: MN	APPROVED BY: RN	DATE 01/10/2022	SHEET OF_____SHTS

SCALE: 1/8" = 1'-0"

FILE _____ DRAWER_____ FOLDER_____

PERMIT SET

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APPENDIX E:
Building Elevations and Sections

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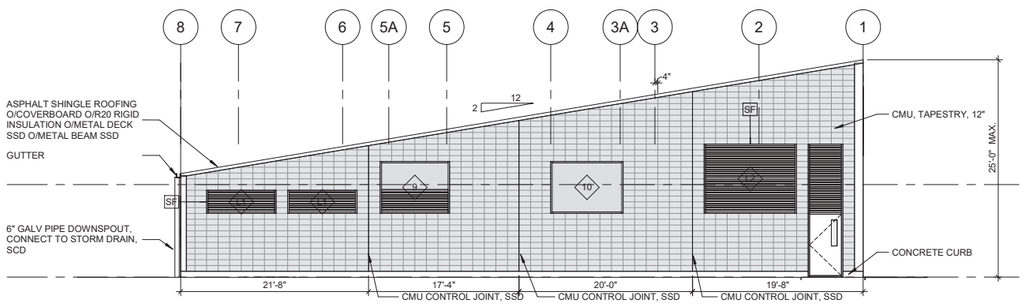
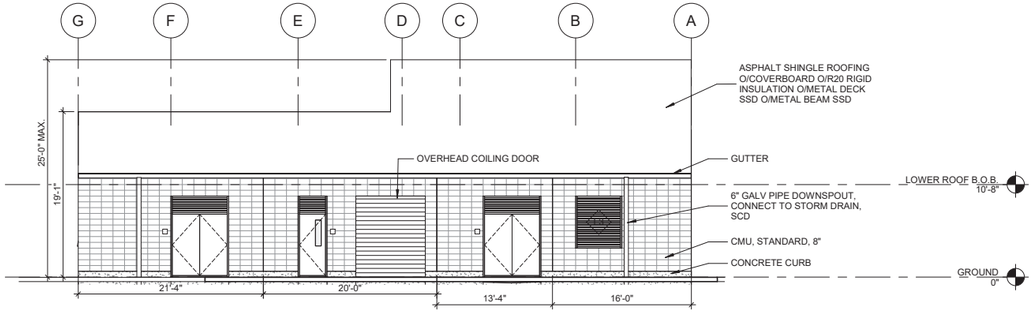
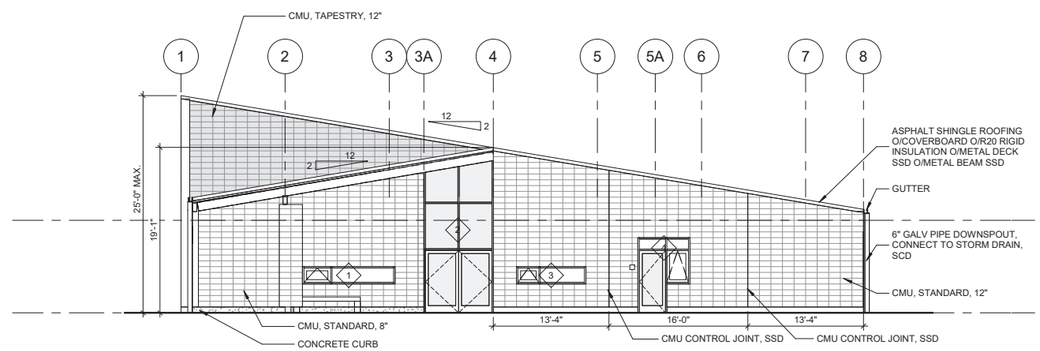


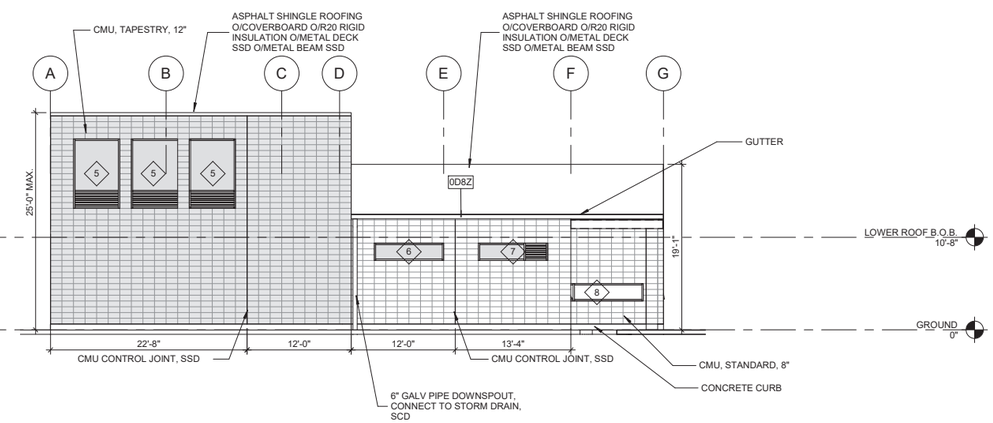
4 NORTH ELEVATION
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"



3 SOUTH ELEVATION
1/8" = 1'-0"



1 WEST ELEVATION
1/8" = 1'-0"

SHEET NOTES

1. ALL CMU SHALL BE PAINTED, SEE SPECIFICATIONS
2. ALL EXTERIOR EXPOSED STEEL SHALL BE GALVANIZED AND PAINTED, SEE SPECIFICATIONS

EXTERIOR FINISH SCHEDULE
GL-1 INSULATED GLASS.....

GL-2 INSULATED

L-1 STORM RESISTENT ALUM LOUVER, PT-, SEE SPECIFICATIONS

0' 4' 8' 16' 32'

REV. NO.	SYM.	DESCRIPTION	SHT ___ OF ___	DATE	
					APPROVED:

ADAM G. WOLTAG
LICENSED PROFESSIONAL ARCHITECT
No. 18327
HAWAII, U.S.A.

EXPIRATION DATE 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

WAIANAE OAHU HAWAII

BUILDING ELEVATIONS

WRNS STUDIO

DESIGNED BY:	CHECKED BY:	JOB NO.	DRAWING NO.
AW/MN/KL	KL	Q85216-19	A-301
DRAWN BY:	APPROVED BY:	DATE	SHEET
MN	RN	01/10/2022	OF ____ SHTS

SCALE As indicated

FILE _____ DRAWER _____ FOLDER _____

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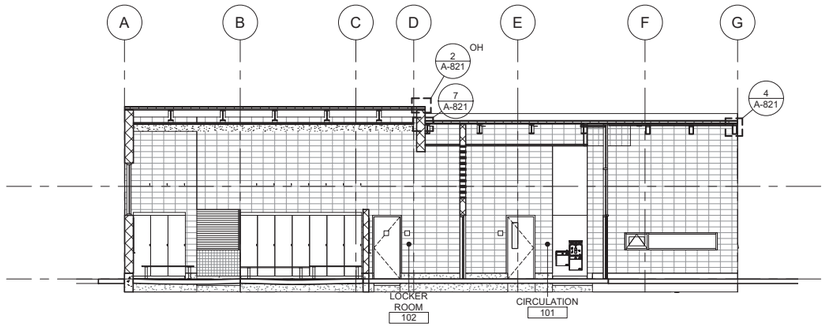

4 BUILDING SECTION 4
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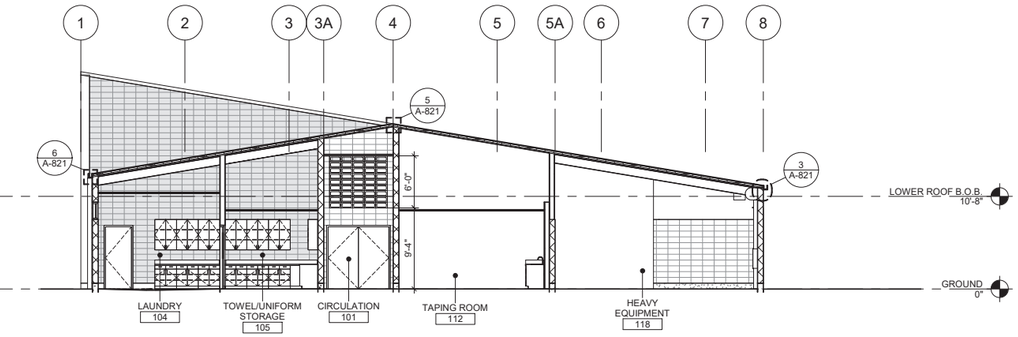

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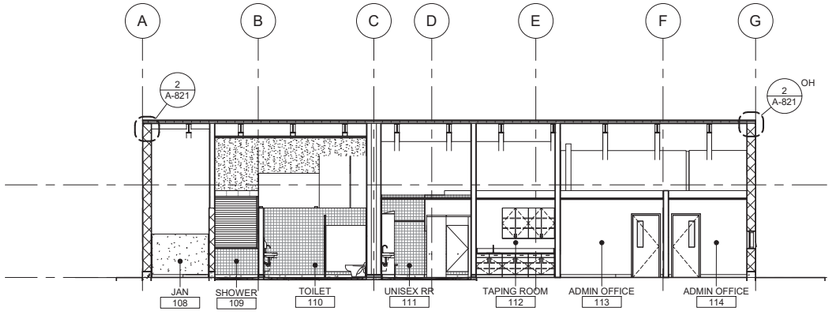

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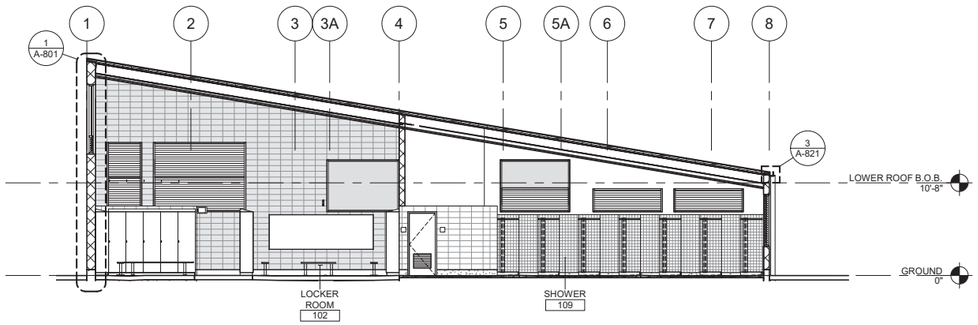

1 BUILDING SECTION 1
1/8" = 1'-0"

0' 4' 8' 16' 32'

REV NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	
					APPROVED:

ADAM G. WOLFAG
LICENSED PROFESSIONAL ARCHITECT
No. 18327
HAWAII, U.S.A.

EXPIRATION DATE 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM

WAIANAE OAHU HAWAII

BUILDING SECTIONS

WRNS STUDIO		JOB NO.	DRAWING NO.
DESIGNED BY: AW/MN/KL	CHECKED BY: KL	Q85216-19	A-302
DRAWN BY: MN	APPROVED BY: RN	DATE 01/10/2022	SHEET OF_____SHTS
SCALE: 1/8" = 1'-0"			

FILE _____ DRAWER_____ FOLDER_____

PERMIT SET

1/11/2022 5:42:05 PM

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APPENDIX F:
Existing Site Conditions/ Topography

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TMK: 8-5-15: 1

BUILDING "C"

BUILDING "D"

BUILDING "H"

BUILDING "A"

"E"

ADMINISTRATION TRAILER

Exist. Conc. Walkway to Remain (Typ.)

Contractor Shall Remove and Properly Dispose of Existing Conc. Walkway and Base Course (Typ.)

Contractor Shall Remove and Properly Dispose of Existing Tree and Rootball (Refer to Recommendations from Arborist)

Contractor Shall Remove and Relocate the Existing Admin. Trailer to a Location Determined by the DOE Rep. (Typ.)

Contractor Shall Remove and Properly Dispose of the Existing Ramp, Exterior Steps, and Appurtenances (Typ.)

Bot. of Ftg. Elev.=-5.5± (Per Plan)

(E)2-4"FO Conduit Top of Ductbank=5.0±

(E)2-4"FO Conduit Inv.=4.7±

(E)Elec. Conduit Top of Ductbank=5.0±

(E)2-4"FO Conduit Top of Ductbank=4.2±

(E)Elec. Conduit Top of Ductbank=6.67±

(E)Elec. Conduit Top of Ductbank=6.23±

(E)Elec. Conduit Top of Ductbank=6.52±

(E)2-4"Conduits

STA. 25 "Y" CUT ELEV.=7.72

1 C-200 SITE DEMOLITION PLAN 1

Graphic Scale: 1"=10'

0' 5' 10' 20' 30'

North

REV NO.	SYM.	DESCRIPTION	SHT. OF	DATE	
					APPROVED:

LICENSED PROFESSIONAL ENGINEER No. 9378-C HAWAII, U.S.A.

EXPIRATION DATE 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM (GALR)

WAIANAE OAHU HAWAII

SITE DEMOLITION PLAN 1

ENGINEERING DYNAMICS CORP.

DESIGNED BY:	CHECKED BY:	JOB NO.	DRAWING NO.
TTM	DLG	Q85216-19	C-200
DRAWN BY:	APPROVED BY:	DATE	SHEET
TTM	DLG	12/20/21	OF SHTS

SCALE: AS NOTED ON PLANS

PERMIT SET

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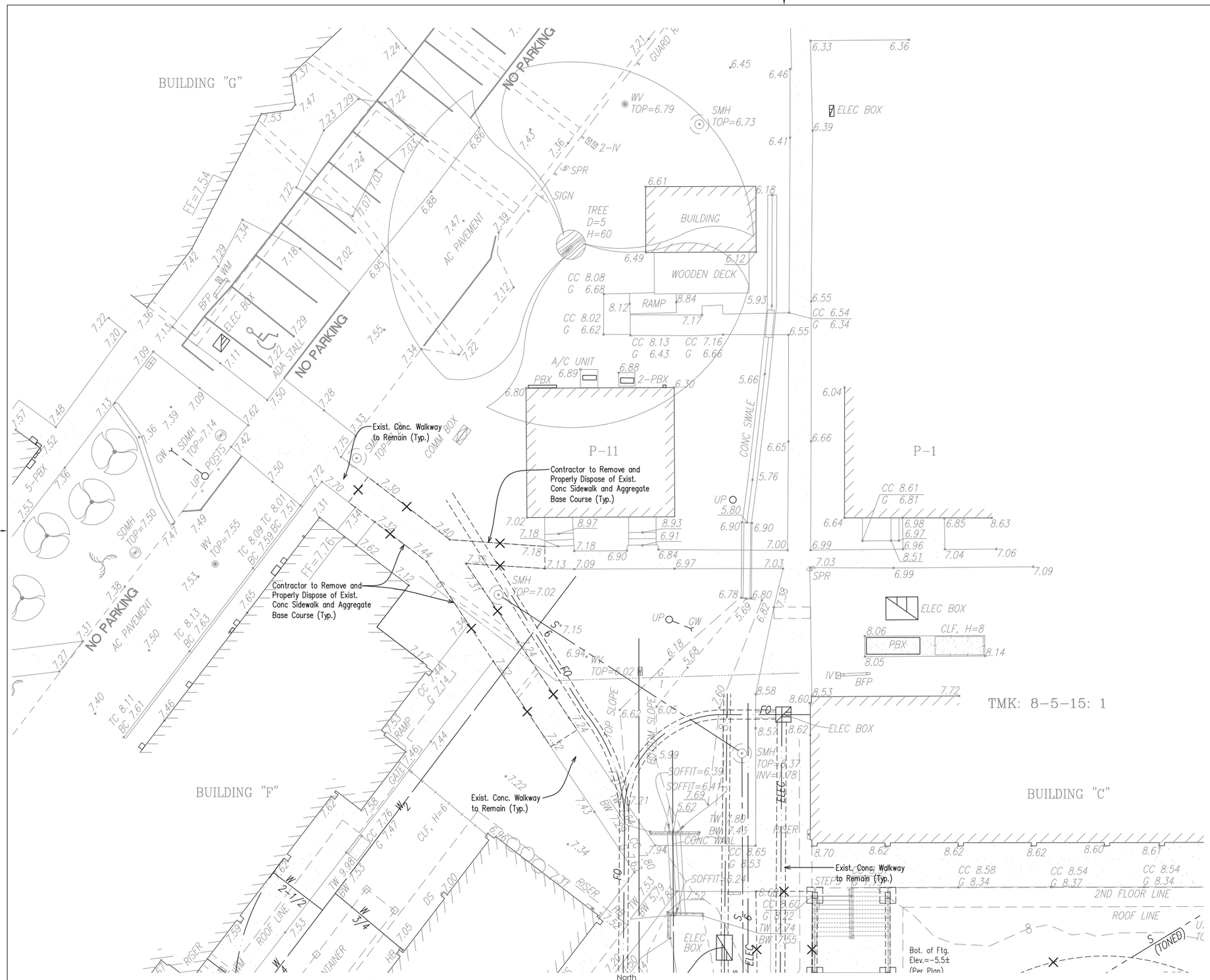

1 C-201 SITE DEMOLITION PLAN 2

Graphic Scale: 1"=10'

0' 5' 10' 20' 30'

REV NO.	SYM.	DESCRIPTION	SHT. OF	DATE	
					APPROVED:

LICENSED PROFESSIONAL ENGINEER No. 9378-C HAWAII, U.S.A. TY T. MIYABUCHI

EXPIRATION DATE 04/30/2022

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

STATE OF HAWAII

WAIANAE HIGH SCHOOL GIRLS ATHLETIC LOCKER ROOM (GALR)

WAIANAE OAHU HAWAII

SITE DEMOLITION PLAN 2

ENGINEERING DYNAMICS CORP.

DESIGNED BY:	CHECKED BY:	JOB NO.	DRAWING NO.
TTM	DLG	Q85216-19	C-201
DRAWN BY:	APPROVED BY:	DATE	SHEET
TTM	DLG	12/20/21	OF SHTS

SCALE: AS NOTED ON PLANS

PERMIT SET

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APPENDIX G:
Archaeological Report

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ASM Project 38540

January 31, 2022

Dr. Susan Lebo
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Suite 555
Kapolei, HI 96707

Re: Field inspection and background literature research support for the prepartion of an Environmental Assesment for the proposed construction of a new girls' locker room at Waiʻanae High School, 85-251 Farrington Highway, Waiʻanae (TMKs: [1] 8-5-015:001 & [1] 8-5-002:018), Waiʻanae Ahupuaʻa, Waiʻanae District, Island of Oʻahu.

Dear Susan:

As requested by PBR Hawaii & Associates (PBR), ASM Affiliates (ASM) conducted a field inspection and background literature review of TMK: (1) 8-5-015:001 and TMK (1) 8-5-002:018 in Waiʻanae Ahupuaʻa, Waiʻanae District, Island of Oʻahu. The subject parcels consist of 37.864 acres of preservation-zoned land located along the coast in Waiʻanae. In an effort to provide a comprehensive analysis, and to assess the potential for encountering significant archaeological/cultural resources, this study summarizes background research on the culture-history and archaeology of the Waiʻanae area as well as the results of a field inspection of the parcels conducted by ASM on December 14, 2021.

Description of the Subject Parcel

The subject parcels are located at 85-251 Farrington Highway (Highway 93), Wai'anae (TMKs: [1] 8-5-015:001 & [1] 8-5-002:018) and together comprise the public Waiʻanae High School (Figures 1-3). The combined parcels are located on the leeward coast of Oʻahu, *makai* (seaward) and west from Farrington Highway, along the shoreline at Pōkaʻī Bay and cover 37.864 acres. The parcels are bounded on the northeast by Farrington Highway, on the northwest by a neighboring commercial property, on the southeast by Waiʻanae District Park, and on the southwest by Pōkaʻī Bay. Geologically, the lot is situated on coral outcrop (CR)-an exposed ocean shore consisting of coral or cementer calcareous sand on Oʻahu- and Mokuleia clay (Mtb) deposits- a soil occurring on coastal plains with a nearly level surface layer (Sherrod et al. 2007; Soil Survey Staff 2020) (Figures 4 and 5). The region receives approximately 564 mm of rainfall per year, with a peak of 89 mm in January and a low of 10 mm in June (Giambelluca et al. 2013).

The current project proposed to construct an approximately 5,000-square-foot locker room in one of two sites, including tying into existing subsurface electrical conduit and water and sewer lines. Additionally, an administration portable building will be relocated to one of two sites. The vicinity of the project area is largely imported and graded fill soil and is developed with numerous buildings, ranging from cinderblock constructions on poured concrete foundations to wooden constructions on post-and-pier foundations with concrete pathways connecting the buildings. Most buildings were oriented east-west along their long axis. Much of the vegetation consists of manicured grass with ornamental tree plantings, consisting predominantly of monkeypod (*Samanea saman*). A stream runs through approximate the center of the campus, draining into the ocean at the southwest edge of the property. Two asphalt-paved roads provide vehicular access through the campus in the northwest and southeast portions of the campus and connect several asphalt-paved parking lots.

Culture-Historical Background for Waiʻanae Ahupuaʻa

The project area is located on the central coastal Waiʻanae plain on the karst flats of an emerged limestone reef approximately 750-meters from Mauna Lahilahi Beach Park and Waiʻanae Regional Park.

According to Pukui et al. (1974:220), the literal translation of Waiʻanae is "mullet water" and is associated with the legend of Pūhā-wai, the lizard goddess who coveted another woman's husband, who was subsequently returned to his wife by the wind god, Makani-ke-oe. With occasion strong winds, Waiʻanae tends to receive little rainfall, thus the areas of agricultural cultivation are largely at upper elevations; the area features exceptionally rich deep-sea fishing (Handy and Handy 1972:467-468).

Rieth (2009) writes that permanent Hawaiian settlements along the coast of Waiʻanae were likely established between the 11th through 14th centuries. Following various political conflict for the acquisition of power over the ʻEwa polity and thus dominion over Oʻahu throughout the 15th to early 19th centuries, Chief Boki was entrusted by Kamehameha the Great (Kamehameha I) as *aliʻi nui* (a high-status chief or chiefess) for the governance of Oʻahu and Waiʻanae District in 1816. Under Boki's rule, the *makaʻāinana* (commoners) of Waiʻanae were subject to cultivating large quantities of sandalwood to settle Boki's existing debts with Honolulu merchants and continue the facilitation of trade (ibid.:10). As a consequence of this, it was believed many *makaʻāinana* migrated from Waiʻanae to Honolulu in search of work as the toll of the sandalwood trade limited available food resources to the people of Waiʻanae; the factors of migration and a growing morbidity and mortality rate caused by low immunity to foreign diseases altogether lowered the populations of Waiʻanae Moku (ibid.:10).

As a result of the *Māhele ʻĀina* of 1848, Waianae Ahupuaʻa (including present-day Lualualei and Nānākuli *ahupuaʻa*) was retained by King Kamehameha III as Crown lands and only six of twelve claimants received a Land Commission Award (Cleghorn and Mooney 2016), none of which included the current project area.

In the latter half of the nineteenth century, ranching had taken over much of Waiʻanae District and many of the coastal trails were widened and graded to accommodate the newly arrived cattle, horses, and wagons. The introduction of commercial sugar cultivation to Waiʻanae also transformed the landscape and population of the area. As part of his *Itinerary of the Hawaiian Islands*, George Bowser (1880) penned the following account during a visit to Waiʻanae around 1880. His account provides a glimpse of land use in the project area vicinity as it appeared at that time:

> . . . twenty-five miles from Honolulu, is Waianae. Here I found another fine valley, of much larger dimensions than that I had just visited [Mākaha Valley]. It extends inland some six or seven miles, with an average breadth of a mile and a quarter. Mr. J.I. Dowsett has a grazing ranch here, leased from the Crown, comprising 17, 200 acres of good pasture land. At Waianae there are two good native churches, a school, and a little village of native houses. With a native guide to take him to the various points of interest in its neighborhood, and relate to him all the old stories and legends which belong to them, a visitor may spend a week very enjoyably at Waianae. Here is the sugar plantation of Messrs. Widemann & Richardson. (Bowser 1880:493)

As mentioned by Bowser (1880) in the above account, in 1879, Judge Hermann A. Widemann, Minister of the Interior under King Kalākaua, formed Waianae Sugar Company with partners G.H. and A.S. Wilcox (Dorrance and Morgan 2000). Waianae Sugar Company comprised 6,132 acres across the valleys of Mākaha, Waiʻanae, and Lualualei Ahupuaʻa and had 2,000 acres planted in sugarcane serviced by the plantation's own narrow-gauge railroad (Dorrance and Morgan 2000). Then, in July of 1895, B. F. Dillingham's Oahu Railway and Land Company (OR&L) completed laying rail between Ewa Mill and Waianae Mill, which "made it possible to reach the remote Waianae coast in an hour and a half, instead of by a day's ride on horseback, and ended the isolation of this remote corner of Oahu" (Yardley 1981:189). In addition to the transport of goods to and from the urban markets, the immigrant labor force engaged in

the construction and maintenance of the OR&L and the commercial sugarcane industry had a lasting impact on the demography of the Wai‘anae District.

Waianae Sugar experienced great success after 1915 through innovations in irrigation—tunnels and wells that rerouted the rains from the mountains into the lower valleys. However, the industry was limited by geography; and while the Waianae Company plantation on O‘ahu’s leeward coast produced some of the highest yields per acre in the world, it could not survive. In 1931, American Factors Ltd. (Amfac, Inc.) bought Waianae Sugar Company, but the impact of World War II on the sugar industry combined with the geographical limitations and arid conditions of the area, resulted in the demise of the Waianae Sugar Company in 1947, the same year that the OR&L also ceased operations expect for limited services between the pineapple plantations in central O‘ahu and the canneries in Honolulu. There was an attempt to convert the sugar fields back to ranchland, but the lack of a reliable water source persisted. Parts of the acreage were sold off as homestead lots, some of which were purchased by former plantation workers; or transformed into commercial properties. Some small-scale agricultural interests were pursued during this time including coffee, rice, and watermelons (Ladd and Yen 1972).

Prior Relevant Archaeological Studies in the Vicinity of the Current Project Area

In the first island-wide reconnaissance survey of O‘ahu by J. Gilbert McAllister (1933), several sites were recorded across Wai‘anae. These sites include five different *heiau* sites: Keaupuni (Site 155), Kahoalii (Site 156), Kalamaluna (Site 159), Kane (Site 160), and Kamaile (Site 161). Additionally, McAllister (1933) also identifies the Puehu Fishpond (Site 154). All five *heiau* are listed as destroyed and the fishpond is described as mostly filled in (Sterling and Summers 1978). Twenty-two archaeological studies have been conducted within a half-mile radius of the current project area since 1975 (Figure 15).

Studies *Makai* of Farrington Highway

The first modern archaeological study in the vicinity was a reconnaissance survey by Sinoto (1975). Five historic properties (SIHP #s 50-80-07-4822 through 4826) were recorded, which included two enclosures, one linear wall, one L-shaped wall, and a joined enclosure with an L-shaped wall. These features were reevaluated by Clark et al. (2004) which identified a total of eight features, including four archaeological features which were previously identified by Sinoto (1975). While two sites from Sinoto (1975) had since been destroyed, the remaining sites were subsumed under SIHP # 50-80-07-3967. Additionally, a burial identified by Kawachi (1992) which was exposed by Hurricane ‘Iniki, was also added to SIHP #50-80-07-3967, the known burial ground for the Kamaile complex (Kawachi 1992). The burial was found in coral outcrop soils classified as coral or cemented calcareous (USDA 1972). The area is part of a larger Kamaile complex burial ground, notably containing numerous burials within sinkholes.

In 1992 an archaeological inventory survey was conducted approximately 1,200 meters directly east of the project area by Denham et al. (1992). Over two acres were surveyed for a proposed extension of the Wai‘anae Regional Park. Ten test excavations were carried out along with six auger holes drilled along the southern boundary testing for sediment form the former Puehu Fishpond. No evidence of the fishpond or fishpond sediments was encountered, interpreted by the lack of carbon in collection samples. The stratigraphy did reveal an emergent reef environment as a result of sea level change in the past. No significant cultural deposits or historic properties were identified. In 2008, an archaeological assessment was conducted for parking improvements at Wai‘anae Regional Park (Shefcheck and Spear 2008). Six test excavations revealed shallow soil deposits over limestone bedrock. No significant cultural deposits or historic properties were identified. A subsequent archaeological monitoring project was conducted at Wai‘anae Regional Park for the reconstruction of the wastewater system (Yucha et al. 2015). Four excavation pits were dug along the sewer line alignment. Stratigraphy was consistent with the findings of Shefcheck and Spear (2008), with imported fill layers were overlying the coral shelf. No cultural deposits or historic properties were identified. However, it was recommended that on-site archaeological monitoring continue for further excavations in this area.

To the northwest of the project area, numerous archaeological studies have been conducted within and near the Mauna Lahilahi Beach Park. Douglas (1991a, 1991b) and Kawachi (1991a, 1991b) reported on two burials located in the vicinity of the Makaha Surfside Apartments. The burials were eroding out of the beach at the Kaʻena corner of the apartments along with a 30-centimeter-thick cultural layer with a shell fishhook preform, midden, and historic artifacts including buttons and a rusted nail at 54 centimeters below the surface. In 1995, two more burials were identified, again eroding out from the shoreline of Makaha Surfside Apartments and designated SIHP #50-80-07-6634. Jourdane (1995) responded to the reported burial and identified one burial on the western edge of a small cove with an evident burial pit approximately 50 centimeters thick. The second burial was found on the Nānākuli-end of the apartment complex with a faint burial pit visible in the profile. All burials were found in Beach Sand soils.

Perzinski and Hammatt (2004) documented two sites on the southeast end of the Mauna Lahilahi Beach Park including an intact cultural layer (SIHP #50-80-07-6634) and a historic basalt alignment (SIHP #50-80-07-6634). Radiocarbon dating aged the intact cultural layer to an uncalibrated age of A.D.1430. Artifacts and stratigraphy indicated continued use and settlement of the shoreline. The basalt alignment was not associated with a cultural layer and was of indeterminate function. Test units in the area identified basalt capstones and a basalt lined pit as a probable burial crypt. However, no human remains were encountered. Stratigraphy on the southern end of the project area generally consisted of layers of fill or mixed sediment, one to three cultural layers and a culturally sterile layer. While previous monitoring at Mauna Lahlahi Beach Park did not identify any historic properties (Jones and Hammatt 2003), a subsequent monitoring project for the proposed beautification of Mauna Lahilahi Beach Park (Jones and Hammatt 2009), encountered two burial sites. A historic coffin burial (SIHP #50-80-07-6704) within a layer of clay sediment was identified on the southeast portion of the project area. A previously disturbed burial (SIHP #50-80-07-6705) was located in a layer of sandy clay sediment. The burial was not associated with historical artifacts and was in the vicinity of a cultural layer; therefore, it was determined to be a Precontact burial.

An archaeological investigation (Cordy 2002) conducted over several years in the north cove area near the Makaha Surfside Apartments documented a coastal habitation site exposed along the shoreline and stretching over 425 meters along the coast and 70 meters inland (SIHP #50-80-07-4064). Documented features within the site include two burial pits with partial human remains, a possible house foundation, several twentieth century trash deposits and numerous firepits and pits of indeterminate function.

Kalihiwa and Cleghorn (2003) conducted archaeological monitoring for water system improvements in Mākaha and Waiʻanae and identified three historic properties consisting of five features. A charcoal deposit was identified, but not assigned an SIHP number. Other identified features included a portion of a concrete flume (SIHP #50-80-07-3325), which is likely associated with the Mikilua Flume. A pit feature (SIHP #50-80-07-6521), and two fire features (SIHP #50-80-07-6522) were also identified outside of their project area.

Archaeological monitoring along Farrington Highway for a Board of Water Supply project (Tulchin and Hammatt 2004). indicated sand deposits only in the western end of that project area between Jade Street and Lahilahi street. Charcoal flecking from a sand deposit provided a radiocarbon date range of A.D. 1719-1820 An archaeological inventory survey was conducted on the *mauka* side of Farrington Highway including five backhoe test excavations and pedestrian survey. No historic sites were found, and that project area had been greatly impacted by modern activities (Liebhardt and Kennedy 2010).

Studies *Mauka* of Farrington Highway

To the northeast of the project area four archaeological studies have been conducted *mauka* of Farrington Highway (Desilets 2008, Flood et al. 1994; Hammatt 2009; Hammatt and Shideler 2006, Hazlett et al. 2008; Hammatt 2009). In 1994 an archaeological inventory survey was conducted on a seven-acre parcel near Waiʻanae Intermediate School (Flood et al. 1994). Twenty-four archaeological features were identified and designated components of SIHP #50-80-07-2474. Features identified include core-filled wall, a scatter of historic artifacts, a rubbish mound, an L-shaped boulder slab alignment, a low platform, a small terrace,

fourteen unmodified sinkholes, and four modified sinkholes with traditional cultural material observed. Ten excavations carried out on ten of the features yielded traditional cultural material such as lithics, fishhook fragments a midden, assortment of historic artifacts and an assemblage extinct avifauna including true goose (*Branta sp.*), small flightless rail (*Porzana ziegleri*), a large crow (*Corvus sp*.) and a Hawaiian petrel (*Pterodroma phaeopygia).* Researchers interpreted the land to have had five basic land use patterns: refuse disposal, agriculture, ranching, habitation, and military. In 2009, an investigation for the proposed Seawind Apartment Project attempted to assess twelve features previously documented by Flood et al. (1994) as features of SIHP #50-80-07-2474 (Hammatt 2009). Nine of the features were located and reevaluated. No new historic properties were identified.

In 2006, an archeological inventory survey was conducted on 2.817 acres for the Leeward Coast Emergency Homeless Shelter project (Hammatt and Shideler 2006). A test excavation on the north corner of the parcel (TMK [1] 8-5-028:041) exposed a portion of a human burial (SIHP #50-80-07-6860). However, no additional historic properties were identified duringg subsequent monitoring at the project (Hazlett et al. 2008). In 2008 Desilets (2008) conducted a subsurface archaeological investigation at the Hawai‘i Department of Transportation Wai‘anae Baseyard, adjacent to the project area of Hammat and Shideler (2006). Stratigraphy revealed modern fill over limestone substrate and paleosol in the majority of excavations, consistent with other investigations in the area. No significant cultural material or historic properties were encountered (Desilets 2008).

Finally, one other archaeological study has been conducted *mauka* of Farrington Highway near Kaupuni Stream, northeast of the other studies mentioned. In 1997, Borthwick and Hammatt (1997) responded to the inadvertent discovery of a human burial during grading activities in a parking lot at the Church of Jesus Christ of Latter Day Saints and, as a result of subsequent monitoring, five additional burials were encountered. The burials were noted to all be found relatively close to ground surface and none of the burials were completely intact. No SIHP number was assigned to the burials (Borthwick and Hammatt 1997).

Two projects have been previously conducted on Wai‘anae High School property and another linear project occurrent on the subject parcel’s *mauka* boundary. These include a field inspection for the replacement of metal bleachers within the southwest side of the WHS athletic field (Belluomini and Hammatt 2016) and a field inspection in support of the demolition of an existing swimming pool, the construction of a new two-story building, and other infrastructure improvements (Hensley et al. 2017). No archaeological features were identified in either study, with no further work recommended. Similarly, archaeological monitoring in support of a fiber optic cable along Farrington Highway immediately north of the High School did not identify any historic properties, with stratigraphy consisting of layers of fill deposited over natural sand and shelf (McElroy 2008).

Field Inspection and Findings

On December 14, 2021, Nick Belluzzo, M.A. conducted a surface reconnaissance of the subject property, which is accessed via concrete paths from a parking lot adjacent to Farrington Highway. The field inspection was limited to the proposed project areas and not the entire nearly 38-acre campus. However, a stream feature outside of the project area and situated approximately in the middle of the campus was inspected in order to observe an example of soil deposition in the project area.

The soil appears to be mostly graded, imported fill soil. Exposed portions of soil indicated previous disturbance (Figure 12). The stream cut observed in the bank indicated much of the project area is imported fill desposited on coral outcrop (Figure 13). Similar deposition has been documented archaeologically elsewhere in the vicinity, resulting in no findings of historic properties (e.g. McElroy 2008; Shefcheck and Spear 2008; Yucha et al. 2015).

The Wai‘anae High School campus itself is considered a significant historic property, eligible for both the National and State Registers of Historic Properties. “The high school is an excellent example of mid-twentieth century Modern, International Style, academic architecture and campus planning in the pacific [sic] (Lebo 2017:1).” However, the proposed project will not result in the alteration or disturbance of any of the architectural properties which are 50 years old or older at the High School.

No other historic properties of any kind were observed within the project area. The project area is largely an open, graded landscape with scattered plantings of ornamental trees (Figures 6-10), with the exception of GALR location 4 (Figure 11), which features a single-story cinderblock structure on a poured concrete foundation; and GALR location 1, which features a portable building on a post and pier foundation that is proposed to be relocated (Figures 8 and 9).

Given the negative findings with respect to above-ground archaeological resources of the current study and previous archaeology at the High School, it is concluded that the proposed development will not affect any historic properties. The recommended determination of effect for the proposed project is “no historic properties affected.”

Burials have been found in the vicinity of the current project area. However, these have been located in either sand deposits or deep limestone cave contexts, neither of which are expected to be encountered within the current project area, which is situated on Mokuleia clay, fill soil, and coral outcrop.

With respect to the historic preservation review process of the Department of Land and Natural Resources–State Historic Preservation Division (DLNR–SHPD), it is recommended that no further work needs to be conducted within the current project area prior to, or during project implementation. In the unlikely event that archaeological resources are discovered during ground-disturbing activity associated with the proposed development, work should cease in the area of the discovery and the DLNR-SHPD contacted pursuant to HAR §13-280-3.

Should you have any question or concerns, please do not hesitate to contact me directly

Sincerely,

Nick Belluzzo, M.A.
Principal Archaeologist
Honolulu Office Director

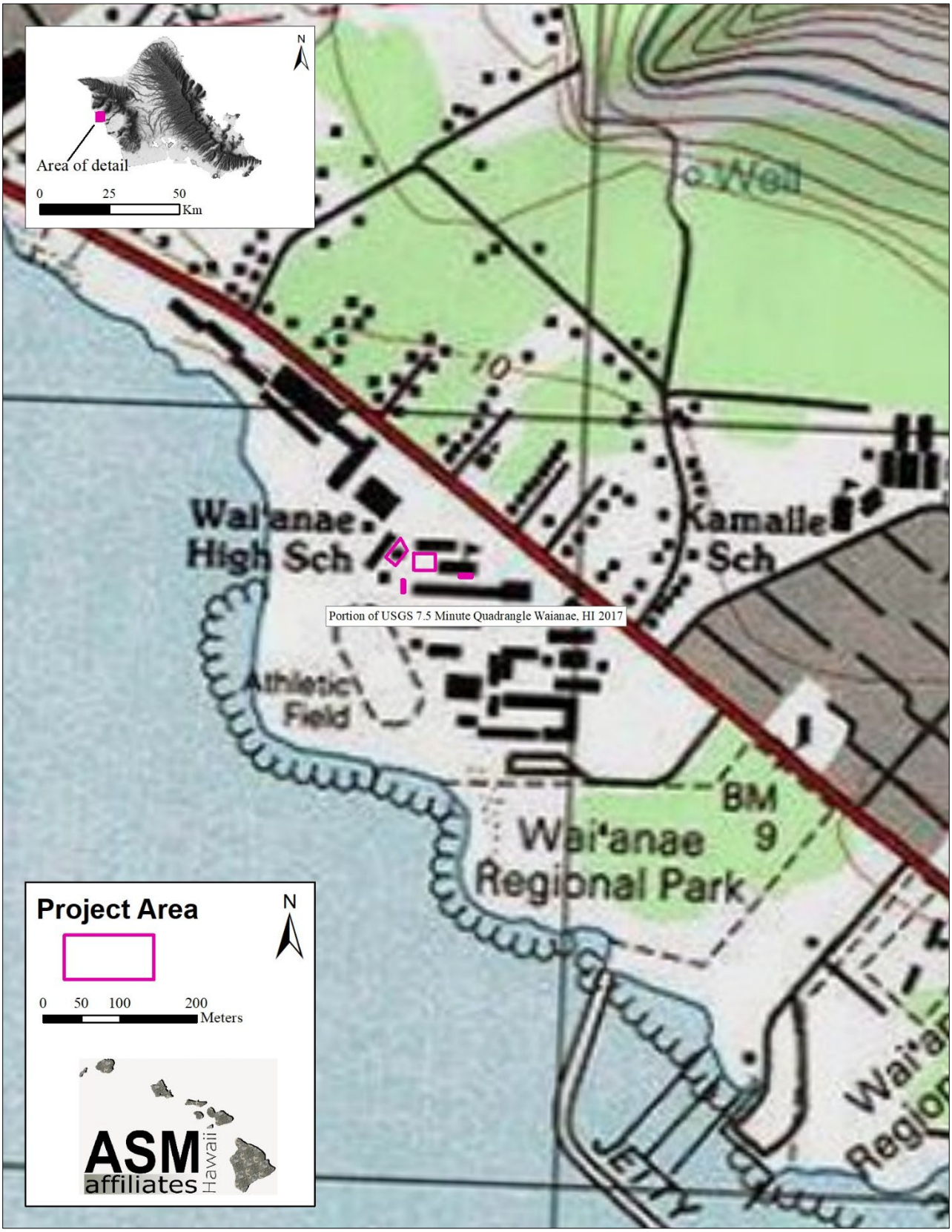

Figure 1. Subject parcel on portions of the Waianae USGS Quadrangle.

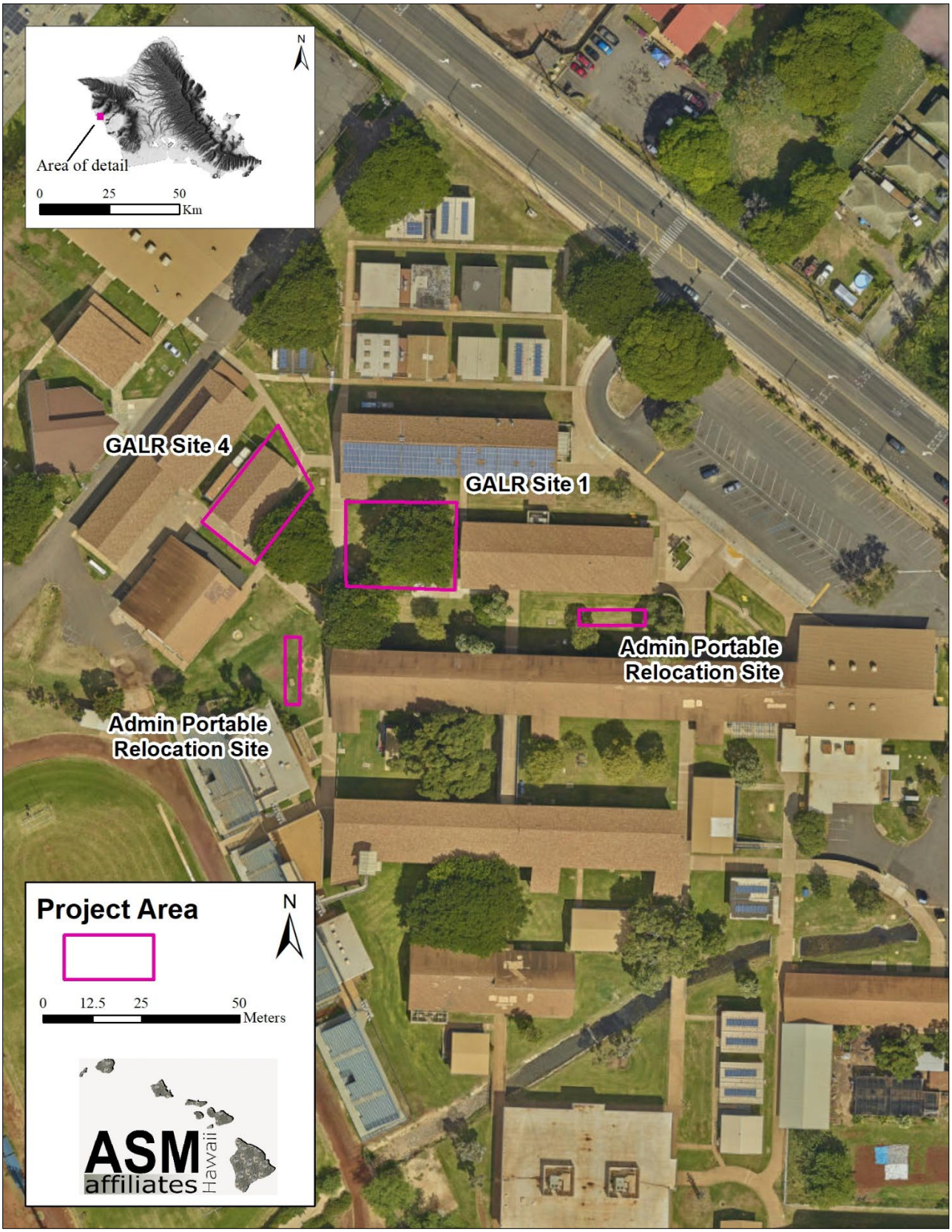

Figure 2. Satellite image of the project area.

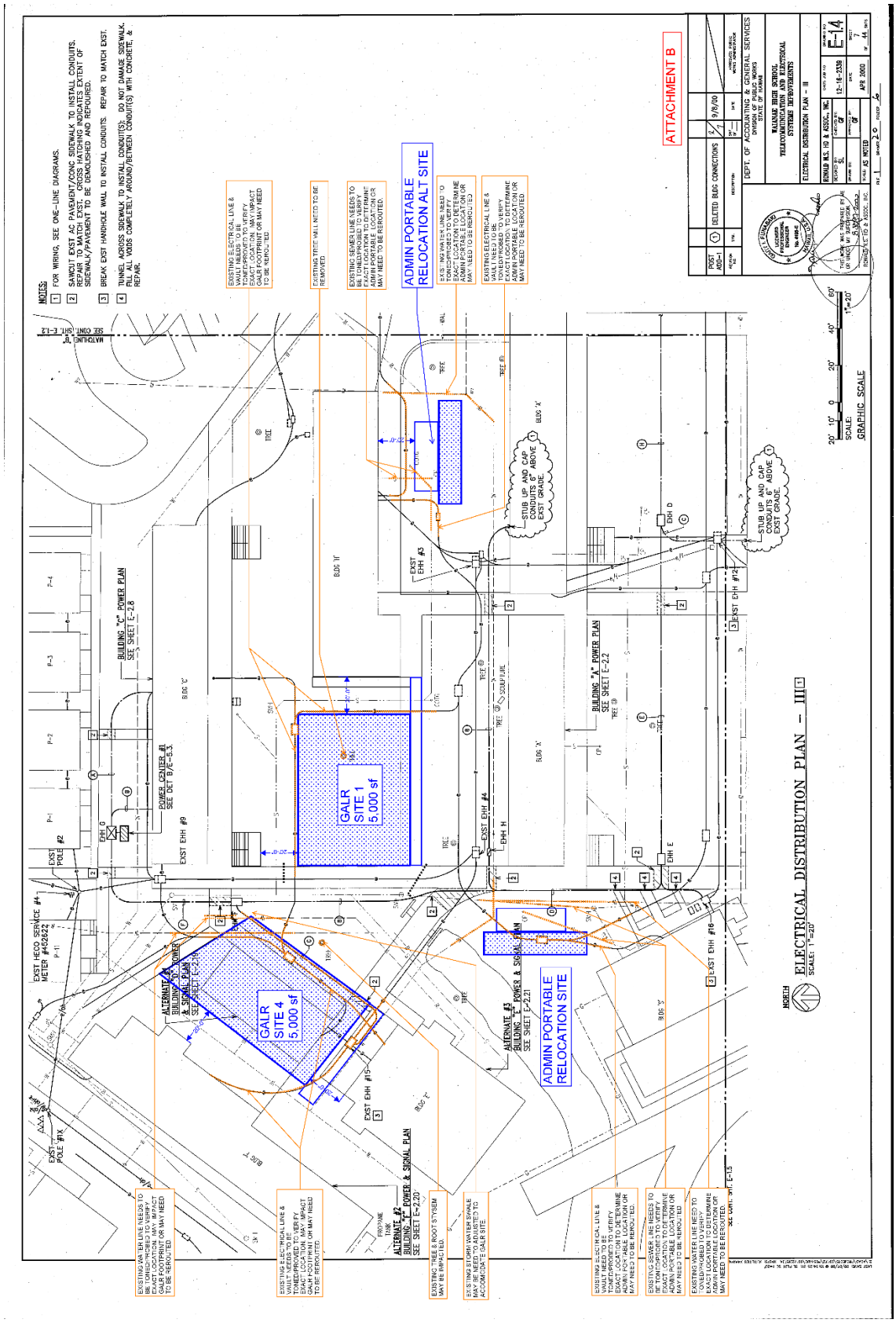

Figure 3. Site Plans for Wai‘anae High School Girls’ Locker Room.

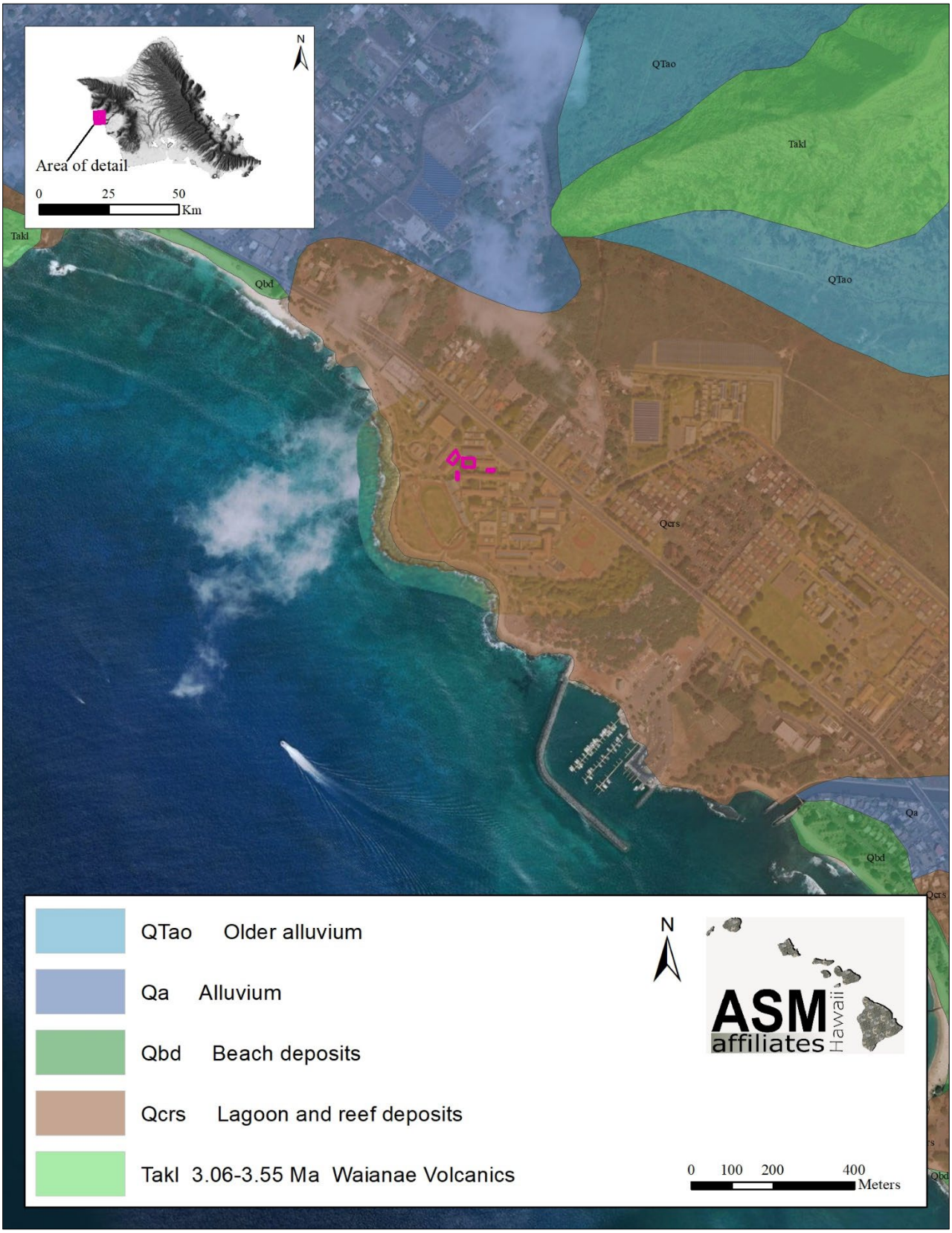

Figure 4. Geology in the vicinity of the project area (pink).

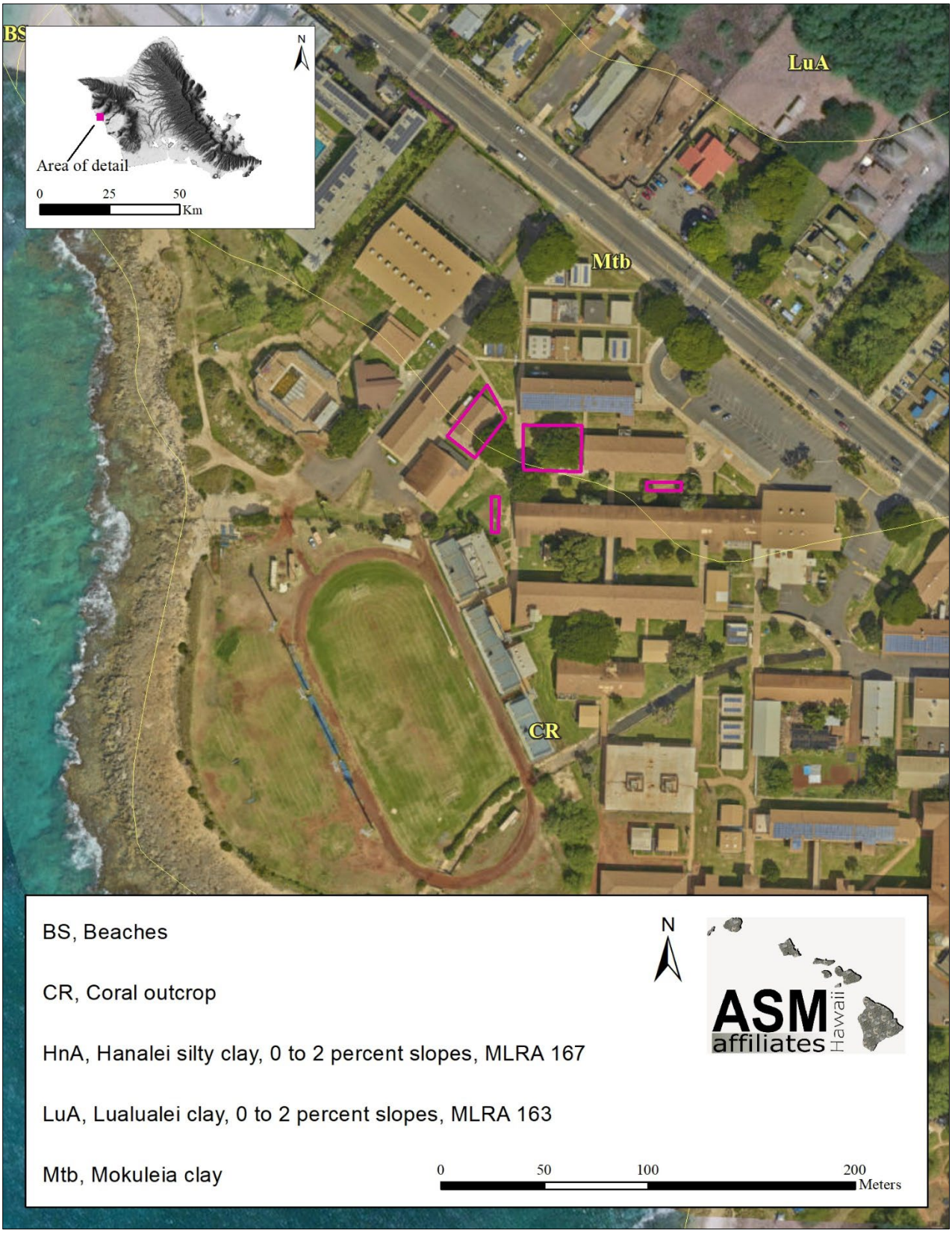

Figure 5. Soils in the vicinity of the project area (pink).

Figure 6. Admin portable relocation alternate site, view to the southwest.

Figure 7. Admin portable relocation alternate site, view to the northeast.

Figure 8. GALR Site 1 with admin portable to be relocated, view to the southwest.

Figure 9. GALR Site 1 with admin portable to be relocated, view to the southeast.

Figure 10. GALR Site 1, view to the northeast.

Figure 11. Admin portable relocation site (foreground) and GALR Site 4 (arrow), view to the north.

Figure 12. Example of exposed soil at GALR Site 1.

Figure 13. Stream near the center of campus, view to the south.

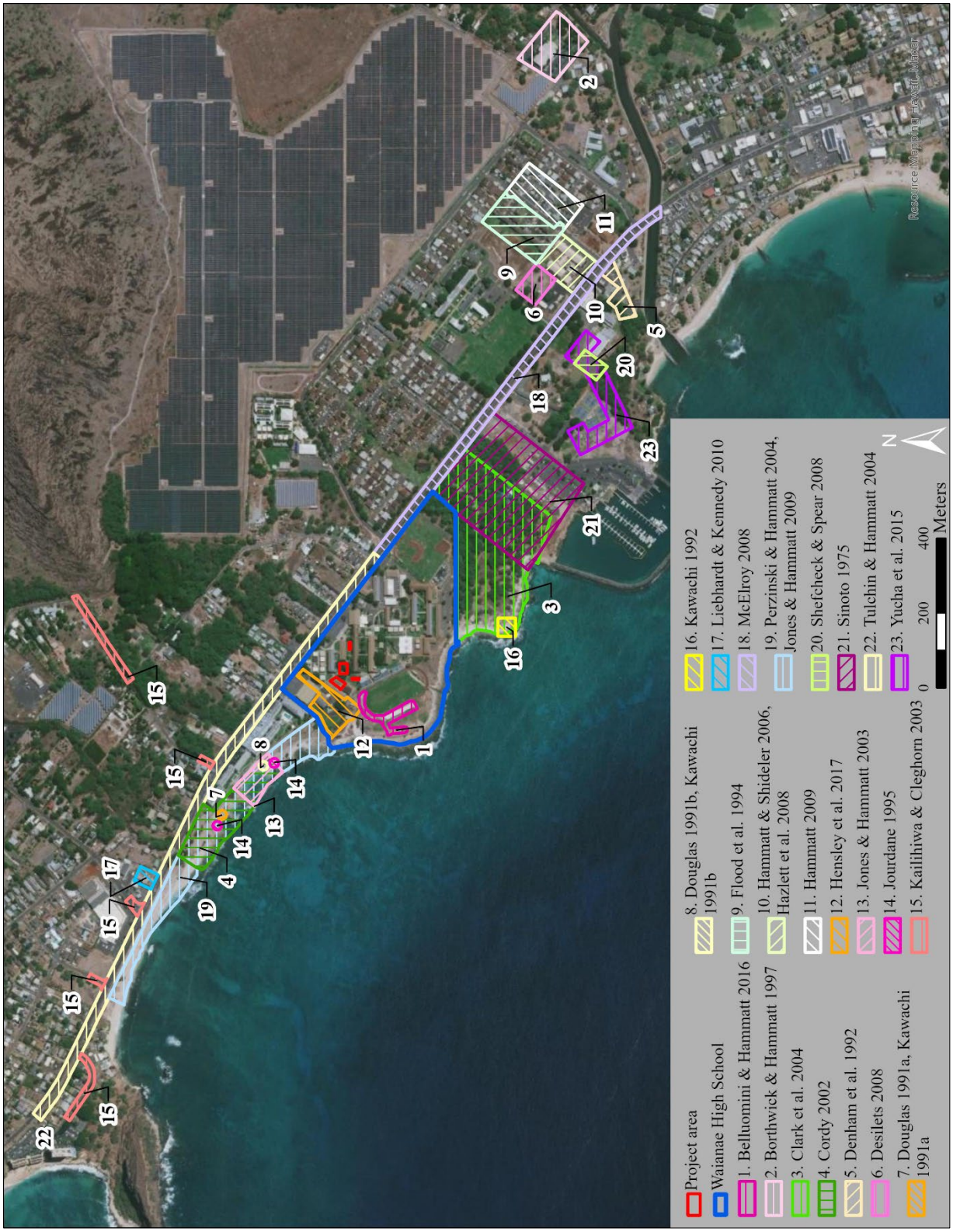

Figure 15. Map of previous archaeology which encountered human skeletal remains within 0.5 miles of the of the current subject parcel.

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APPENDIX H:

Transportation Impact Assessment Report

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WAI‘ANAE HIGH SCHOOL
GIRLS’ ATHLETIC LOCKER ROOM

Transportation Impact Assessment Report

December 2021

AECOM Technical Services, Inc.
1001 Bishop Street, Suite 1600
Honolulu, Hawai‘i 96813
Ph. (808) 521-5031

AECOM Project Number: 60670599

Transportation Impact Assessment Report

Waiʻanae High School

Girls' Athletic Locker Room

Waiʻanae, Hawaiʻi

December 2021

Prepared for:

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1.0 INTRODUCTION

Wai‘anae High School is planning to provide a new Girls’ Athletic Locker Room (GALR) for the school. The building will include a Locker Room, Toilet Area, Drying Room, Shower Room, Storage, Laundry Room, Coach’s Office, and other support spaces. This project is a legislative add-on project necessary for compliance with Title IX gender equity requirements, per federal and state laws.

Wai‘anae High School is located at Wai‘anae, O‘ahu, Hawai‘i. The campus is located within General Preservation zoned district bounded by Farrington Highway and the Pacific Ocean. East of the campus is a forest preserve and west of the campus is residential and commercial development. Figure 1 Illustrates the project area, showing Wai‘anae High School, access driveways, raised crosswalks, municipal bus stops, and adjacent development.

Existing athletic locker room facilities include a Boy's P.E. and Athletic locker room and a Girl's P.E. locker room. This project will provide a Girl's Athletic locker room (GALR) to provide equitable facilities for all students. The provision of the new GALR is not anticipated to change the current athletic programs or activities.

Because the GALR is not expected to change current athletic programs or activities, it is not anticipated there would be traffic impacts associated with the completed project. Therefore, this Transportation Impact Assessment Report (TIAR) will focus on construction-related traffic impacts.

This TIAR will address the following:

- Document existing transportation conditions at key access points to Wai‘anae High School;
- Assess the traffic operational implications of increased traffic due to construction activity generated by the proposed Girls’ Athletic Locker Room improvement;
- Identify potential impacts on parking within the Wai‘anae High School campus due to construction activity generated by the proposed Girls’ Athletic Locker Room.

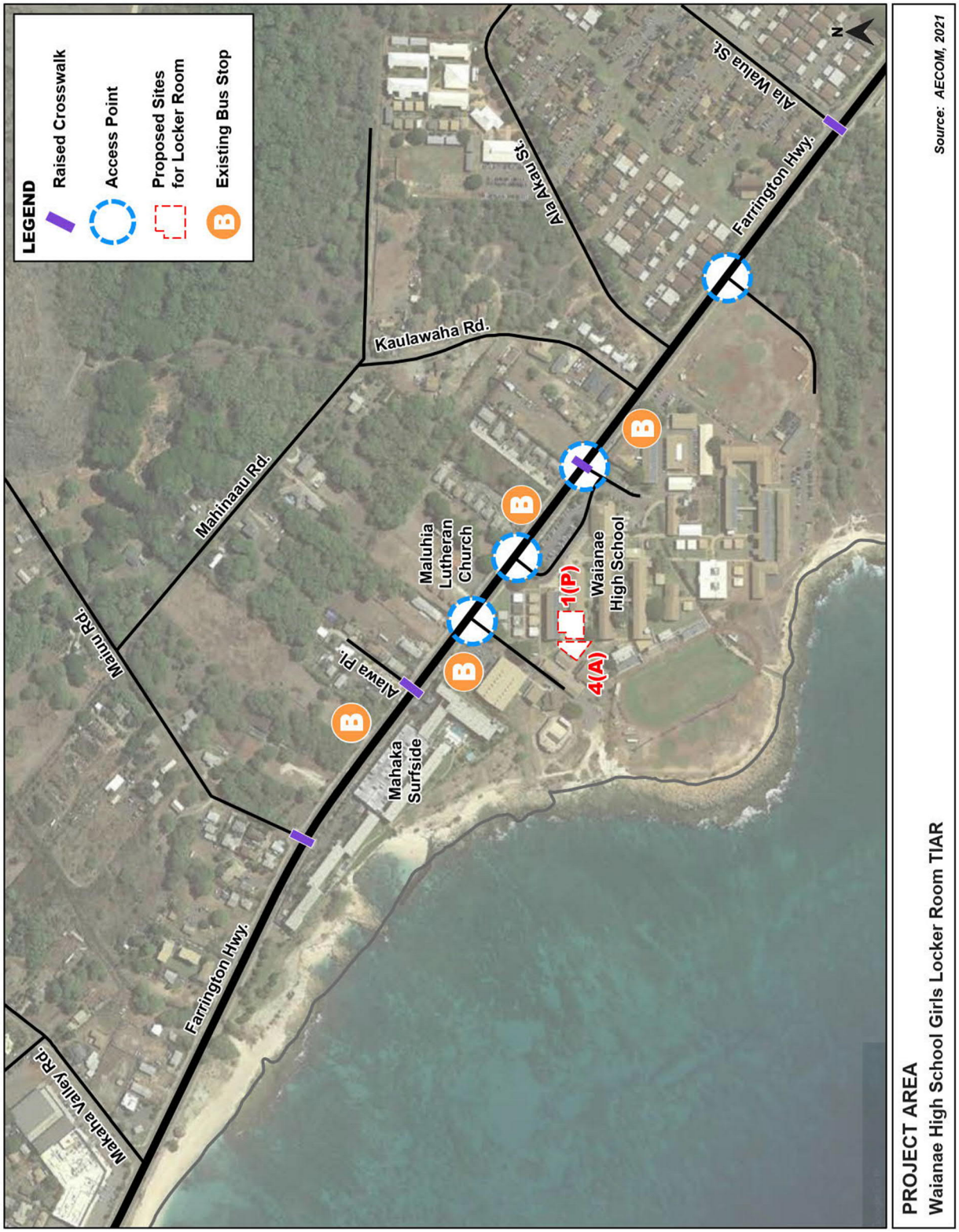


Figure 1 Project Area

2.0 EXISTING CONDITIONS

2.1 Site Location

Waiʻanae High School is bounded by Farrington Highway on its mauka side, a forest preserve area on its southeast side, the ocean on its makai side, and the Mākaha Surfside condominium on its west side.

Land use adjacent to Farrington Highway in the vicinity of Waiʻanae High School is primarily residential. The Maluhia Lutheran Church is located across Farrington Highway from Waiʻanae High School. The Waiʻanae Small Boat Harbor is located further east of the forest preserve area.

2.2 Roadway Conditions

The key roadway in the vicinity of Waiʻanae High School is Farrington Highway.

2.2.1 Roadway Descriptions

Farrington Highway is a principal arterial roadway that is oriented in northwest/ southeast direction adjacent to Waiʻanae High School. It is the key roadway facility along the Waiʻanae coast, providing regional access as well as traffic circulation for the communities of Mākaha, Waiʻanae, Māʻili, and Nānākuli.

In the vicinity of Waiʻanae High School, it has four travel lanes and a painted median. Painted shoulders and sidewalks are provided on both sides of Farrington Highway. There are raised crosswalks located at Maiuʻu Road, Alawa Place, and at the Waianae High School front parking lot exit. The location of these is shown in Figure 1.

The posted speed limit in the vicinity of Waiʻanae High School is 25 miles per hour (mph). Farrington Highway is under the jurisdiction of the State of Hawaii Department of Transportation-Highways Division (HDOT).

Other roadways observed for the TIAR were internal Waiʻanae High School roadways. Access to these roadways is controlled by Waiʻanae High School.

2.2.2 Roadway Intersection Conditions

Three intersections were evaluated. All three are located at Waiʻanae High School driveways that intersect Farrington Highway. The following intersections are noted:

- Farrington Highway/Waiʻanae High School Gym Driveway;
- Farrington Highway/Waiʻanae High School Main Entrance Driveway;
- Farrington Highway/Waiʻanae High School Main Exit Driveway.

The parking lot entrance driveway intersection is controlled by a traffic signal, while the Gym Driveway and parking lot exit driveway are unsignalized intersections with STOP-sign control on the driveway approaches.

The Gym Driveway would provide the most direct path to the site of the Girls’ Athletic Locker Room. Figure 2 is a photo of the Gym Driveway on Farrington Highway. Figure 3 is a photo of the Gym Driveway looking out toward Farrington Highway.

Figure 2 Gym Driveway Viewed from Farrington Highway

Figure 3 Gym Driveway looking out toward Farrington Highway

Figure 4 is a photo of the Gym Driveway adjacent to the existing Girls’ PE Locker Room. The proposed Girls’ Athletic Locker Room site is on the other side of the Girls’ PE Locker Room.

Figure 4 Gym Driveway next to Existing Girls’ PE Locker Room.

The main entrance to Wai‘anae High School leads to their front parking lot. This intersection is a one-way entrance and is controlled by a traffic signal on Farrington Highway. Figure 5 is a photo of the main entrance driveway.

Figure 5 Wai‘anae HS Main Entrance Driveway

The main entrance driveway leads directly into the front parking lot. This lot accommodates staff, faculty and visitors and includes a loading area used by parents and school buses dropping off and picking up students. Figure 6 is a photo of the front parking lot and drop off/pick up area.

Figure 6 Front Parking Lot & Drop Off/Pick Up Area

The main exit driveway is located approximately 440 feet east of the entrance driveway on Farrington Highway. It is a one-way exit and is an unsignalized intersection. Figure 7 is a photo of this exit driveway.

Figure 7 Wai‘anae HS Main Exit Driveway

There is a fourth Waianae High School driveway on Farrington Highway located southeast of the Parking Lot exit driveway. This serves as access to the baseball field and staff/faculty parking located in the rear of Wai‘anae High School. This driveway intersection was not evaluated because it is not likely to have major interaction with the Girls’ Locker Room area.

2.3 Pedestrian and Bicycle Conditions

2.3.1 Pedestrian Facilities

There are attached sidewalks on both sides of Farrington Highway in the vicinity of Wai‘anae High School.

In this area, there are three crosswalks across Farrington Highway:

- Wai‘anae High School main entrance intersection
- Wai‘anae High School main exit intersection
- Alawa Place intersection

At the main entrance driveway, the crosswalk is located on the west side of the intersection and controlled by a pedestrian signal. There is also a crosswalk across the main entrance driveway.

At the main exit driveway, there is a raised crosswalk across Farrington Highway on the east side of the intersection and a crosswalk across the exit driveway.

There is also a raised crosswalk on Farrington Highway at Alawa Place, located approximately 330 feet west of the Wai‘anae High School Gym Driveway.

2.3.2 Bicycle Facilities

There are no formal bike lanes on Farrington Highway. There are painted shoulder areas between the travel lane and the curb that could be used as bike lanes and they generally used by the few bike observed as such. Bicycles also rode on the sidewalks.

2.4 Public Transit Conditions

The City and County of Honolulu Department of Transportation Services (DTS) provides municipal bus service called TheBus, operated by Oahu Transit Service (OTS).

Routes 40 Mākaha-Ala Moana Center, Route C-CountryExpress!, Route 93 Downtown Express, and Route PH1 – Pearl Harbor Express provide service on Farrington Highway in this area.

Transit service is well-utilized by Waianae High School students and others. Span of service is extensive. Route 40 – Mākaha Towers-Ala Moana Center is one of the few routes with 24-hour service. Route C – CountryExpress has service that runs from around 4:00 AM to 10:00 PM. Route 93 Downtown Express provides peak period express service to Downtown and runs from 3:45 AM to 6:22 AM in the morning and from 3:23 PM to 5:50 PM in the afternoon. Route PH1 – Pearl Harbor Express is a route that provides express service between the Wai‘anae Coast and Joint Base Pearl Harbor Hickam (JBPHH) during the morning and afternoon peak periods. One bus is provided to JBPHH around 4:30 AM and one bus is provided from JBPHH at 3:10 PM.

Two eastbound bus stops are located near Wai‘anae High School on Farrington Highway. One is located approximately 130 feet west of the Wai‘anae High School Gym Driveway. The other is located approximately 130 feet east of the Wai‘anae High School Main Exit.

Two westbound bus stops are located Wai‘anae High School on Farrington Highway. One is located approximately 60 feet east of the Wai‘anae High School Main Entrance. The other is located approximately 520 feet west of the Wai‘anae High School Gym Driveway

In addition to public transit, there were numerous school buses that provided service for students of Wai‘anae High School.

2.5 Traffic Operation Conditions

2.5.1 Existing Traffic Volumes

Intersection turning movement volumes for the base traffic condition were obtained from peak period traffic turning movement counts conducted by AECOM on Thursday, November 4, 2021.

Figure 8 illustrates the base condition peak hour turning movement volumes.

Turning movements were counted for three time periods: AM peak, Midday, PM peak. The AM peak documented morning peak hour conditions that were found to occur from 7:00 AM to 8:00 AM. The Midday counts documented conditions when Wai‘anae High School ended regular classes. The midday peak was found to occur from 1:30 PM to 2:30 PM. The PM peak documented the afternoon peak hour conditions that were found to occur from 3:30 PM to 4:30 PM.

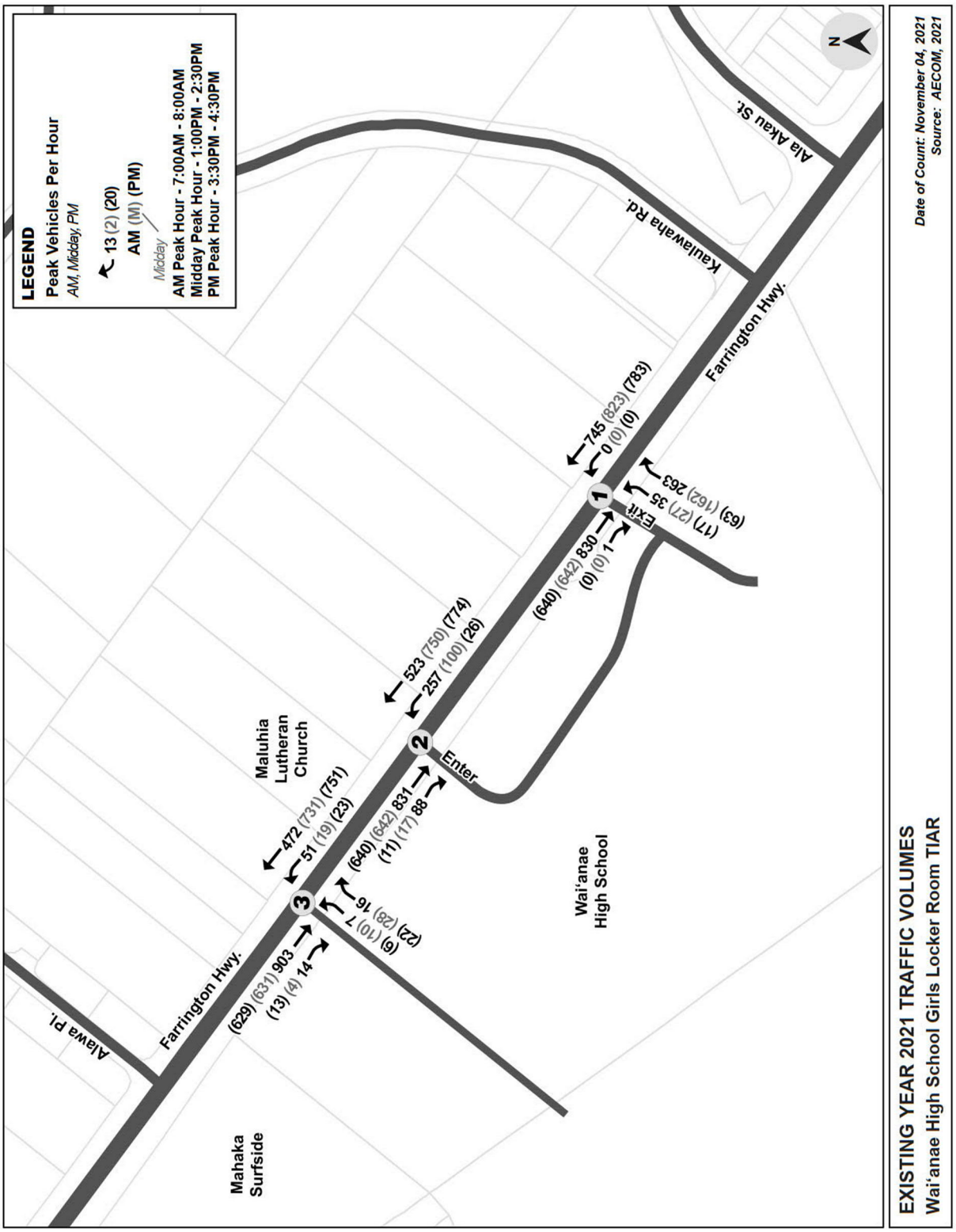


Figure 8 Existing Year 2021 Peak Hour Traffic Volumes

2.5.2 Existing Intersection Operations

The study intersections were analyzed using intersection capacity methods described in the 2016 Highway Capacity Manual (HCM) and as implemented through the Synchro/Sim Traffic software.

The results of the analyses are summarized in Table 1 for the AM peak hour, midday, and PM peak hour time periods.

The table shows intersection delay for the signalized intersection and specific traffic movement delays for the unsignalized intersections. These delays, in turn, determine a level of service (LOS) that indicates the quality of operations. Definitions of LOS are included in Appendix B of this report.

Table 1 Existing Year 2021 Peak Hour Intersection Operations

Turning Movement/Turning Movment	AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Farrington Hwy/Wai‘anae HS Main Entrance - Signalized						
Overall Intersection Operations	40.2	D	4.8	A	1.8	A
Farrington Hwy/Wai‘anae HS Main Exit-Unsignalized						
Exit Left Turn	20.5	C	17.3	C	16.6	C
Exit Right Turn	18.1	C	12.6	B	11.2	B
Farrington Hwy/Wai‘anae HS Gym Dwy-Unsignalized						
Wai‘anae HS Gym Dwy exiting	15.2	C	12.6	B	12.2	B
Farrington Hwy Mākaha-Bound Left Turn into Gym Dwy	10.7	B	9.1	A	9.1	A

Notes:
AM Peak Hour: 7:00-8:00 AM, Midday Peak: 1:30-2:30 PM, PM Peak: 3:30-4:30 PM
sec/veh = seconds per vehicle, LOS = Level of Service. Hwy = Highway,
HS = High School, Dwy = Driveway

As shown in Table 1 all three intersections operate acceptably for peak hour conditions with LOS of C or better for most movements. The AM peak hour experiences the busiest operational conditions. As would be expected, traffic turning left into the Waianae High School Main Driveway experienced the greatest delay, influencing the overall operations at this intersection.

The midday and PM peak hours operate with low to average delay.

The existing year 2021 peak hour traffic operations at the three Wai‘anae High School Driveways on Farrington Highway could be characterized as unconstrained with an exception for a brief congested period for the left-turns into the main entrance driveway during the AM peak hour.

3.0 FUTURE CONDITIONS

3.1 Proposed Development

The Wai‘anae High School Girls’ Athletic Locker Room is a new building that will improve locker room facilities provided for girls’ high school sport teams. Currently, this facility is being provided by sharing other existing facilities on the Wai‘anae High School campus. Providing a new, separate facility is not projected to change the current sports activities at Wai‘anae High School.

Because the new Girls’ Athletic Locker Room is not projected to change the current sports activities at Wai‘anae High School, long-term transportation impacts of the facility are not expected.

Most of the potential traffic impacts, would occur during the construction of the facility and would be caused by construction traffic. This TIAR focuses on determining if there will be traffic impacts caused by construction of the facility. These would be temporary impacts, only occurring during construction. These impacts would no longer occur once the Girls’ Athletic Locker Room is complete.

3.2 Potential Construction Traffic Impacts

There are three components to potential construction traffic impacts applicable to this project:

1. Construction vehicles delivering construction material and removing construction waste;
2. Construction workers;
3. Campus parking impacts.

All these components are associated with temporary traffic impacts that would only be present during construction of the project.

3.2.1 Construction Vehicles

Construction vehicles could include trucks delivering construction material, cement mixer trucks, vehicles used in construction (such as cranes), and trucks hauling construction waste away from the site. These trucks are usually low in number and can be scheduled so as not to interfere with peak campus traffic activity.

It is recommended that construction vehicles avoid the AM, Midday, and PM peak hours identified by this study.

By avoiding the peak traffic hours, traffic impacts of construction vehicles are projected to be negligible.

3.2.2 Construction Workers

Unless special arrangements are made, construction workers normally drive to the construction site in their private vehicles and park at the construction site.

It is estimated that a project of this magnitude would have around 30 to 40 construction workers. Typically, they would not be on site at the same time, but even if they were, they typically start work earlier than the usual AM peak hour. It was found that the AM peak hour for the driveways at Wai‘anae High School occur between 7:00 AM and 8:00 AM. Construction workers usually start before then, and in that case, their arrival at Waianae High School would miss the documented AM peak hour and have little impact on intersection operations.

Construction workers typically end their workday around 3:00 PM to 4:00 PM. In this case, workers leaving the project site would overlap with the observed PM peak hour in this area. Existing year 2021 PM peak hour intersection operations was found to be unconstrained during this time period. The construction workers are also projected to be making primarily right-turns out of the Wai‘anae High School Gym Driveway, a traffic movement evaluated as LOS B for both existing year 2021 and projected year 2023 PM peak hour time frames. The LOS B indicates unconstrained operation, and the construction workers are not projected to impact this operation.

3.2.3 Campus Parking Impacts

A parking inventory and occupancy survey was conducted by AECOM on Thursday, November 4, 2021. Figure 9 illustrates the parking areas on the Wai‘anae High School campus and summarizes the total number of stalls and the number of vacant stalls for each area. The parking inventory included non-formal (not in marked stalls) parking. Total parking counted was 336 and total vacant parking was 97. This represents an average parking occupancy of 71.1 percent.

If they drive, the 30 to 40 construction workers would park on campus, typically near the job site.

Because the future Girls’ Athletic Locker Room will be in the vicinity of the existing Girls’ P.E. Locker Room, the likely parking area used would be those served by the Wai‘anae High School Gym Road. Figure 4 is a photo that shows the Gym Road in the vicinity of the existing Girls’ P.E. Locker Room.

The Gym Road leads to several parking areas. As shown in Figure 9, parking areas 1, 4, 7, and 8 are served by the Gym Road.

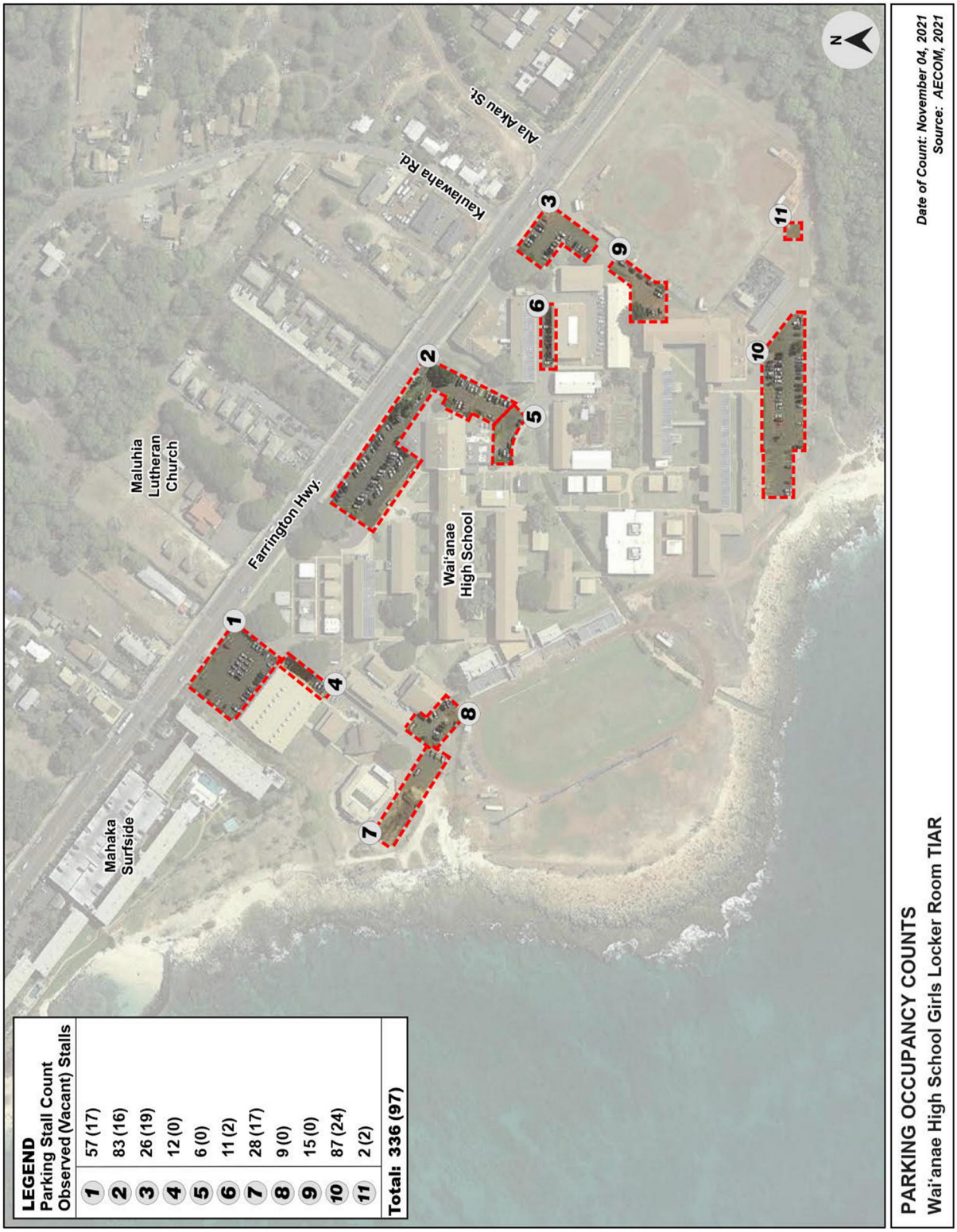


Figure 9 Wai`anae HS Parking Areas

Figure 10 Parking Area 1 - Farrington Hwy Side of Gym

Figure 11 Parking Area 4 - Front of Gym

Figure 12 Parking Area 7 – Sea Rider Production Parking

Figure 13 Parking Area 8 - Makai of ROTC

Table 2 summarizes the parking occupancy for these parking areas. As shown, the larger parking areas are not fully occupied. Overall, the available parking is close to the number of total construction workers. If more parking is needed, there is an open area makai of parking areas 7 and 8 that could serve as a construction parking area. Based on the parking inventory and occupancy evaluation, it appears that construction worker parking demand could be accommodated.

Table 2 Parking Occupancy - Lots on Gym Driveway

Parking Area	No. of Parking Spaces	No. of Vacant Spaces	Percent Occupancy
1	57	17	70.2
4	12	0	100.0
7	28	17	39.3
8	9	0	100.0
Total	106	34	67.9

Note:
Based on parking inventory conducted Thursday, November 4, 2021

3.3 Future Year 2023 Traffic Volumes

Current plans call for the completion of the Wai‘anae High School Girls’ Athletic Locker Room by year 2023.

Future peak hour traffic volumes were projected at the operations were projected at the same three intersections evaluated for existing year 2021 conditions:

- Farrington Highway/Wai‘anae High School Gym Driveway;
- Farrington Highway/Wai‘anae High School Main Entrance Driveway;
- Farrington Highway/Wai‘anae High School Main Exit Driveway.

Review of historic traffic data summarized by the State of Hawaii Department of Transportation (HDOT) indicated minimal traffic growth in this segment of Farrington Highway. However, to be conservative in the projection, a 1 percent annual growth in the through traffic on Farrington Highway was assumed in this study.

Traffic volumes associated with Wai‘anae High School were assumed to remain the same as for the existing year 2021 time frame.

The projected year 2023 peak hour traffic volumes at the analyzed intersections on Farrington Highway are shown in Figure 14.

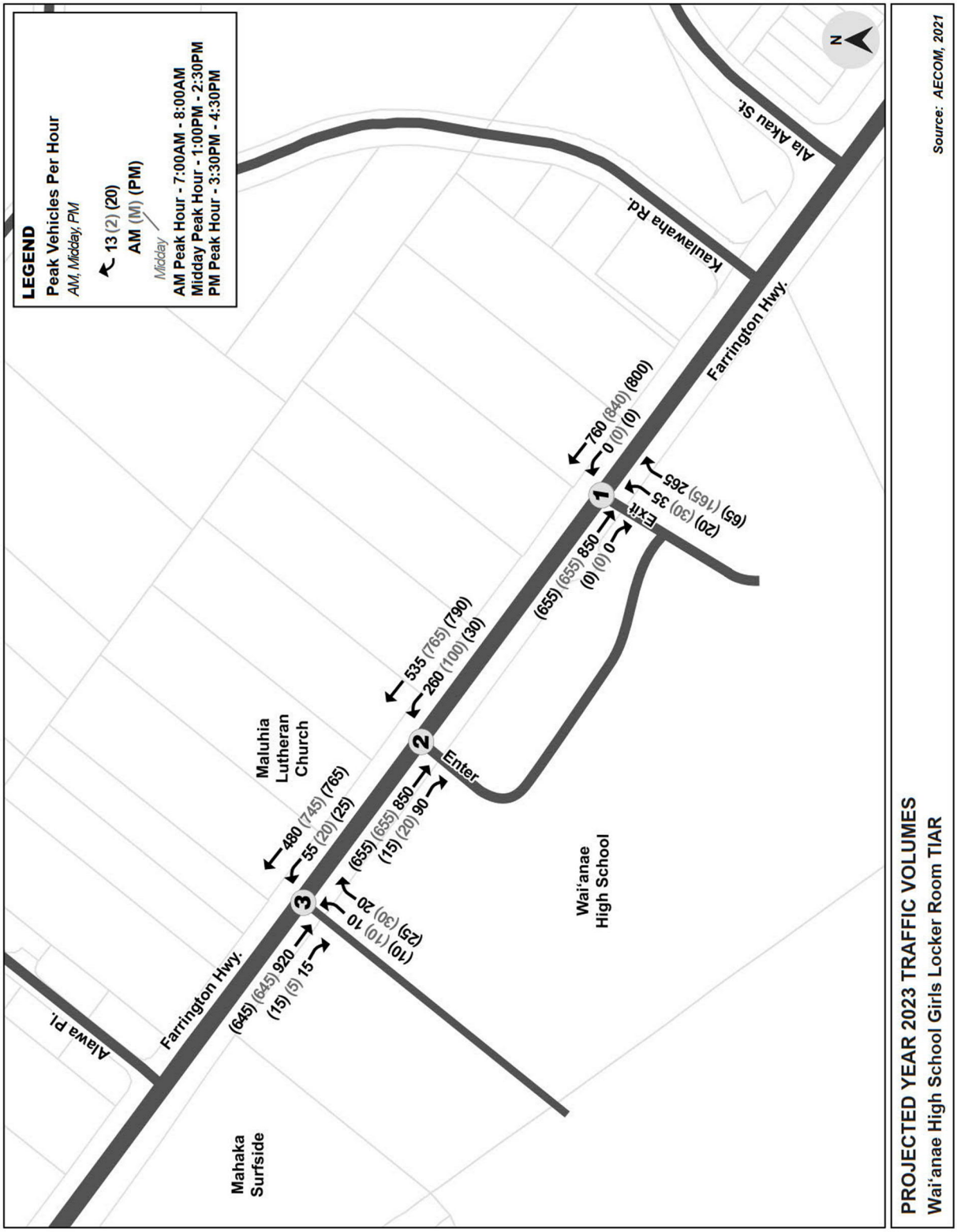


Figure 14 Projected Year 2023 Peak Hour Traffic Volumes

3.4 Future Year 2023 Traffic Operations

The study intersections were analyzed using intersection capacity methods described in the 2016 Highway Capacity Manual (HCM) and as implemented through the Synchro/Sim Traffic software.

The results of the analyses are summarized in Table 3 for the AM peak hour, midday, and PM peak hour time periods.

The table shows intersection delay for the signalized intersection and specific traffic movement delays for the unsignalized intersections. These delays, in turn, determine a level of service (LOS) that indicates the quality of operations. Definitions of LOS are included in Appendix B of this report.

Table 3 Projected Year 2023 Peak Hour Intersection Operations

Turning Movement/Turning Movment	AM Peak		Midday Peak		PM Peak	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Farrington Hwy/Wai‘anae HS Main Entrance - Signalized						
Overall Intersection Operations	41.2	D	4.8	A	1.9	A
Farrington Hwy/Wai‘anae HS Main Exit-Unsignalized						
Exit Left Turn	21.0	C	17.7	C	17.0	C
Exit Right Turn	18.7	C	12.8	B	11.3	B
Farrington Hwy/Wai‘anae HS Gym Dwy-Unsignalized						
Wai‘anae HS Gym Dwy exiting	16.0	C	12.7	B	13.0	B
Farrington Hwy Mākaha-Bound Left Turn into Gym Dwy	10.8	B	9.2	A	9.2	A

Notes:
AM Peak Hour: 7:00-8:00 AM, Midday Peak: 1:30-2:30 PM, PM Peak: 3:30-4:30 PM
sec/veh = seconds per vehicle, LOS = Level of Service. Hwy = Highway,
HS = High School, Dwy = Driveway

As shown in Table 3 traffic operations at all three intersections change very little from the operations for existing year 2021 conditions and operate acceptably for peak hour conditions with LOS of C or better for most movements. The AM peak hour would still experience the busiest operational conditions and the traffic turning left into the Wai‘anae High School Main Driveway would experience the greatest delay, influencing the overall operations at this intersection.

The midday and PM peak hours are projected to operate with low to average delay.

The projected year 2023 peak hour traffic operations at the three Wai‘anae High School Driveways on Farrington Highway could be characterized as very similar to the existing year 2021 conditions and would operate as unconstrained with an exception for a brief congested period for the left-turns into the main entrance driveway during the AM peak hour.

4.0 SUMMARY AND RECOMMENDATION

4.1 Summary

This TIAR evaluated potential traffic impacts associated with the proposed Wai‘anae High School Girls’ Athletic Locker Room building.

The Girls’ Athletic Locker Room building is a proposed improvement over the existing accommodations for girls involved in organized sports at Wai‘anae High School. It is not expected to change athletic activities at the school.

Because there is no change in activity associated with the proposed Girls’ Athletic Locker Room building, no permanent traffic impacts would be generated.

There could be temporary traffic impacts associated with the construction of the proposed Girls’ Athletic Locker Room building. Potential traffic impacts associated with construction vehicles, construction workers, and construction parking demand were evaluated. It was found that all three components of construction activity could be accommodated by existing facilities on the Wai‘anae High School campus and the adjacent roadway system.

4.2 Recommendations

The following recommendations pertain to optimizing the interaction of the construction activities with Wai‘anae High School and community traffic operations.

- Construction Vehicles – schedule delivery and hauling of construction materials in time periods that do not conflict with the peak hours identified by this study:
    - AM Peak Hour – 7:00 AM to 8:00 AM
    - Midday Peak Hour - 1:30 PM to 2:30 PM
    - PM Peak Hour - 3:30 PM to 4:30 PM
- Construction Workers - although construction worker traffic can be accommodated at intersections associated with Wai‘anae High School, the general Farrington Highway corridor along the Wai‘anae Coast experiences high traffic demand during peak hour conditions. An optional recommendation would be to encourage construction workers to carpool or organize contractor van pools to help to lower regional vehicular travel demand.
- Construction Parking – although it appears that construction parking could be accommodated within the Wai‘anae High School campus in the vicinity of the proposed Girls’ Athletic Locker Room site, an optional recommendation would again be to encourage construction workers to carpool or organize contractor van pools to help to lower construction parking demand.

5.0 REFERENCES

Transportation Research Board of the National Academics. 2016. “Urban Street.” In *Highway Capacity Manual, 6th Edition*. Washington, DC: Transportation Research Board.

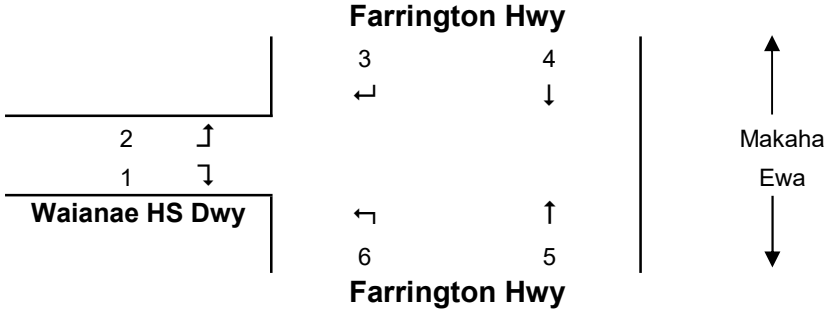
Appendix A

Traffic Count Data

Waiʻanae High School Driveway (Exit)

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: JY

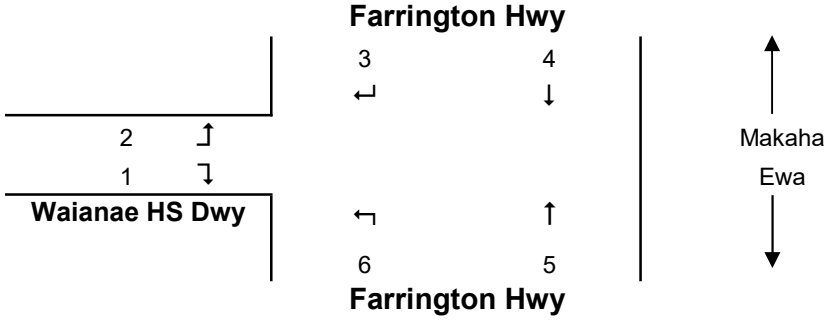


TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
6:00-6:15a	1	2	2	120	50	3	178	
6:15-6:30a	3	2	3	126	73	3	210	
6:30-6:45a	2	3	1	131	72	3	212	
6:45-7:00a	23	4	4	133	100	3	267	867
7:00-7:15a	25	3	0	209	134	0	371	1060
7:15-7:30a	56	6	1	196	156	0	415	1265
7:30-7:45a	76	10	0	231	217	0	534	1587
7:45-8:00a	106	16	0	194	238	0	554	1874
7:00-7:15a	41	7	0	131	186	0	365	1868
7:15-7:30a	14	1	0	120	121	1	257	1710
Peak Hour 7:00-8:00a	263	35	1	830	745	0		

Notes: Right before the counts, there was an accident by one of the other driveways at around 5:50 AM that may have cause a few drivers to turn into this exit-only driveway.

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 1:00p-2:30p
WEATHER: Clear
RECORDER: JY

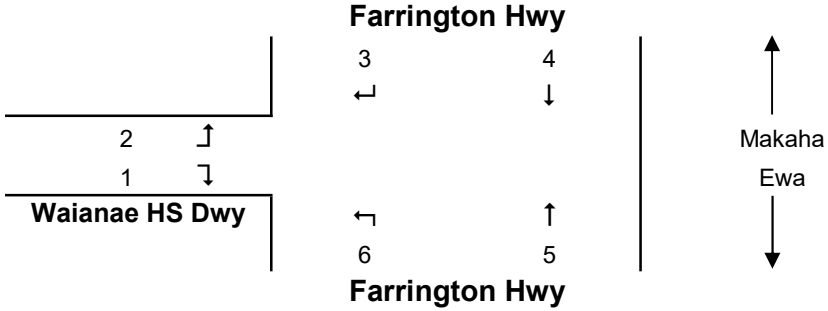


TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
1:00-1:15p	5	3	0	123	139	0	270	
1:15-1:30p	4	0	1	161	168	0	334	
1:30-1:45p	39	5	0	134	210	0	388	
1:45-2:00p	76	13	0	173	192	0	454	1446
2:00-2:15p	26	4	0	197	205	0	432	1608
2:15-2:30p	21	5	0	138	216	0	380	1654
Peak Hour 1:30-2:30p	162	27	0	642	823	0		

Notes:

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 3:00p-6:00p
WEATHER: Clear
RECORDER: JY

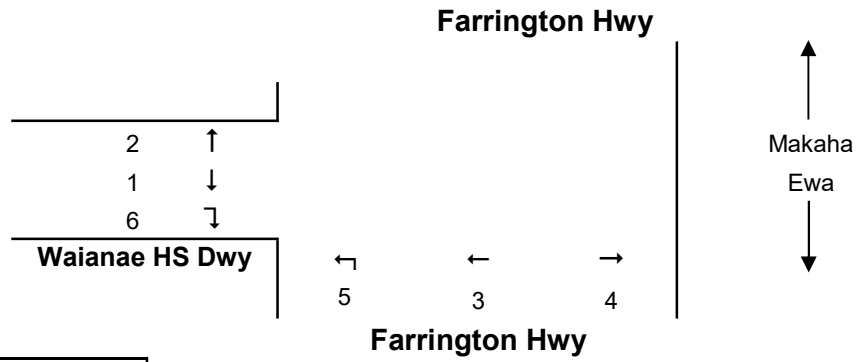


TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
3:00-3:15p	12	8	0	135	189	0	344	
3:15-3:30p	19	5	0	129	181	0	334	
3:30-3:45p	24	4	0	181	199	0	408	
3:45-4:00p	17	5	0	160	183	0	365	1451
4:00-4:15p	10	3	0	157	217	0	387	1494
4:15-4:30p	12	5	0	142	184	0	343	1503
4:30-4:45p	9	2	0	130	209	0	350	1445
4:45-5:00p	8	2	0	120	214	1	345	1425
5:00-5:15p	7	0	0	133	237	0	377	1415
5:15-5:30p	7	0	0	126	191	0	324	1396
5:30-5:45p	6	0	0	135	182	0	323	1369
5:45-6:00p	3	1	0	46	51	0	101	1125
Peak Hour 3:30-4:30p	63	17	0	640	783	0		

Notes: Counts for last 15-minute interval are not complete as the gate to this access was closed during this period.

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS PED TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: JY

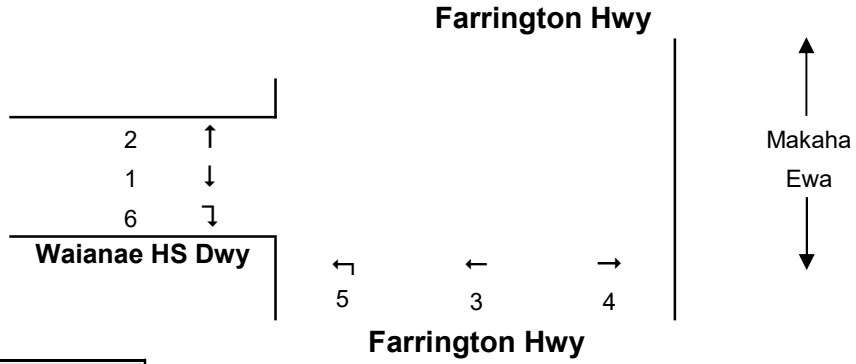


TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
6:00-6:15a	3	0	0	0	0	0	3	
6:15-6:30a	1	0	0	0	0	0	1	
6:30-6:45a	4	2	0	0	0	0	6	
6:45-7:00a	4	0	0	0	10	1	15	25
7:00-7:15a	4	3	7	2	7	0	23	45
7:15-7:30a	9	1	7	0	11	1	29	73
7:30-7:45a	4	8	14	0	13	2	41	108
7:45-8:00a	2	1	28	2	19	0	52	145
7:00-7:15a	0	1	7	0	5	0	13	135
7:15-7:30a	3	1	4	1	1	1	11	117
Peak Hour 7:00-8:00a	19	13	56	4	50	3		

Notes: Movements 1 and 2 include pedestrian movements on both sides of the sidewalk that passed through the intersection

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS PED TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: JY

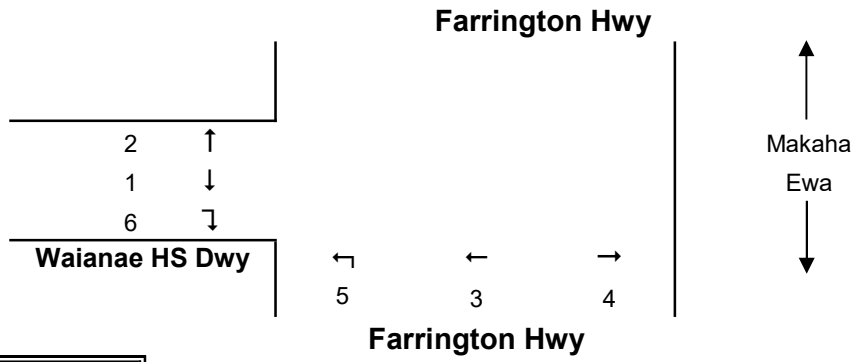


TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
1:00-1:15p	0	0	0	0	0	0	0	
1:15-1:30p	2	0	0	0	0	2	4	
1:30-1:45p	12	1	1	71	0	105	190	
1:45-2:00p	7	7	4	23	3	25	69	263
2:00-2:15p	1	16	3	2	0	7	29	292
2:15-2:30p	3	3	0	3	1	0	10	298
Peak Hour 1:30-2:30p	23	27	8	99	4	137		

Notes: Movements 1 and 2 include pedestrian movements on both sides of the sidewalk that passed through the intersection

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS PED TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: JY

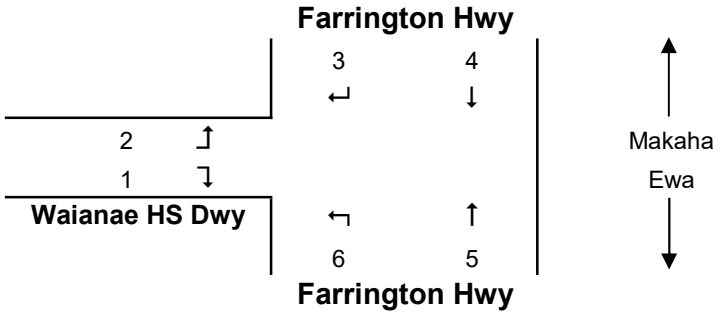


TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
3:00-3:15p	0	0	1	0	2	3	6	
3:15-3:30p	0	0	1	1	4	0	6	
3:30-3:45p	0	0	0	0	1	1	2	
3:45-4:00p	0	0	0	3	0	4	7	21
4:00-4:15p	1	4	1	1	0	5	12	27
4:15-4:30p	0	2	0	0	2	5	9	30
4:30-4:45p	2	0	0	1	0	5	8	36
4:45-5:00p	4	2	1	0	0	9	16	45
5:00-5:15p	3	1	0	0	0	0	4	37
5:15-5:30p	3	2	0	2	0	2	9	37
5:30-5:45p	0	0	0	1	0	3	4	33
5:45-6:00p	0	0	0	0	0	0	0	17
Peak Hour 3:30-4:30p	1	6	1	4	3	15		

Notes: Movements 1 and 2 include pedestrian movements on both sides of the sidewalk that passed through the intersection
Counts for last 15-minute interval are not complete as the gate to this access was closed during this period.

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS BICYCLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: JY

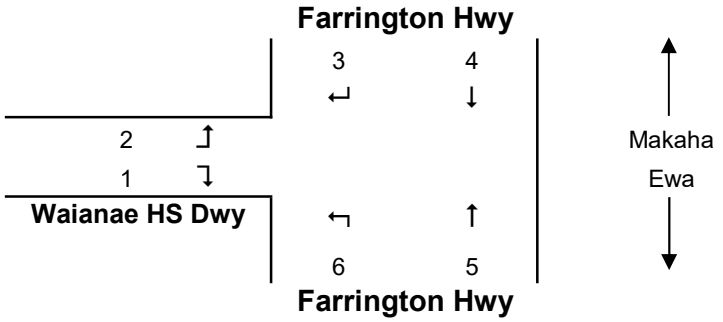


TIME PERIOD	MOVEMENT NUMBER 1	2	3	4	5	6		
6:00-6:15a	0	0	0	0	0	0	0	
6:15-6:30a	0	0	0	0	0	0	0	
6:30-6:45a	0	0	0	0	1	0	1	
6:45-7:00a	0	0	0	0	0	0	0	1
7:00-7:15a	0	0	0	1	1	0	2	3
7:15-7:30a	0	0	0	1	1	0	2	5
7:30-7:45a	0	0	0	2	1	0	3	7
7:45-8:00a	0	0	0	1	1	0	2	9
7:00-7:15a	0	0	0	0	0	0	0	7
7:15-7:30a	0	0	0	0	1	0	1	6
Peak Hour 7:00-8:00a	0	0	0	5	4	0		

Notes: Bicycles observed traveled both in the bicycle lane on the roadway and on the sidewalks around the intersection

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS BICYCLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: JY

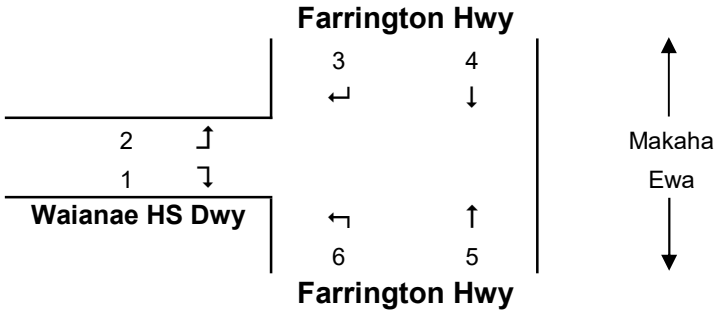


TIME PERIOD	MOVEMENT NUMBER 1	2	3	4	5	6		
1:00-1:15p	0	0	0	2	0	0	2	
1:15-1:30p	0	0	0	0	0	0	0	
1:30-1:45p	0	0	0	2	0	0	2	
1:45-2:00p	0	0	0	2	1	0	3	7
2:00-2:15p	0	0	0	1	0	0	1	6
2:15-2:30p	0	0	0	1	0	0	1	7
Peak Hour 1:30-2:30p	0	0	0	6	1	0		

Notes: 1 bike traveled from the mauka to makai movement between 1:45p-2:00p using the crosswalk

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS BICYCLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: JY



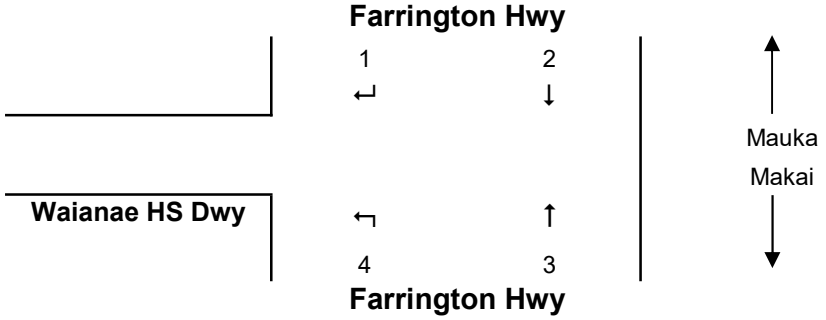
TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
3:00-3:15p	0	0	0	0	1	0	1	
3:15-3:30p	0	0	0	0	0	0	0	
3:30-3:45p	0	0	0	1	0	0	1	
3:45-4:00p	0	0	0	0	2	0	2	4
4:00-4:15p	0	0	0	0	0	0	0	3
4:15-4:30p	0	0	0	0	1	0	1	4
4:30-4:45p	0	0	0	1	1	0	2	5
4:45-5:00p	0	0	0	0	1	0	1	4
5:00-5:15p	0	0	0	1	4	0	5	9
5:15-5:30p	0	0	0	0	2	0	2	10
5:30-5:45p	0	0	0	0	1	0	1	9
5:45-6:00p	0	0	0	0	0	0	0	8
Peak Hour 3:30-4:30p	0	0	0	1	2	0		

Notes: Counts for last 15-minute interval are not complete as the gate to this access was closed during this period.
1 bike traveled from the makai to mauka movement between 5:30p-5:45p using the crosswalk

Wai‘anae High School Driveway (Entrance)

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: WYY

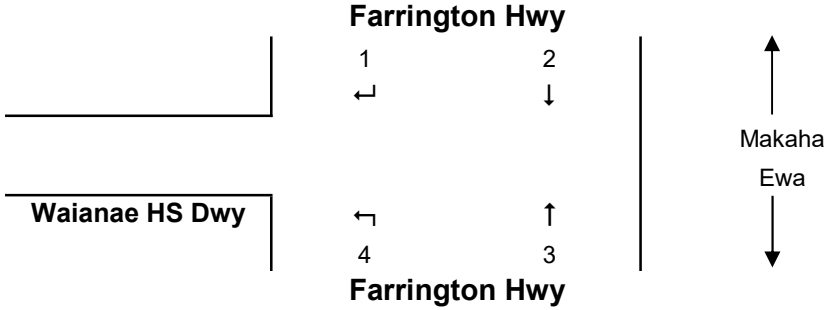


TIME PERIOD	MOVEMENT NUMBER					
	1	2	3	4		
6:00-6:15a	1	122	51	1	175	
6:15-6:30a	0	129	71	4	204	
6:30-6:45a	2	132	72	3	209	
6:45-7:00a	11	137	85	19	252	840
7:00-7:15a	13	209	104	33	359	1024
7:15-7:30a	20	197	113	49	379	1199
7:30-7:45a	23	231	148	79	481	1471
7:45-8:00a	32	194	158	96	480	1699
8:00-8:15a	9	131	147	46	333	1673
8:15-8:30a	2	120	111	11	244	1538
Peak Hour 7:00-8:00a	88	831	523	257		

Notes: Right before the counts, there was an accident at this driveway at around 5:50 AM

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 1:00p-2:30p
WEATHER: Clear
RECORDER: WYY

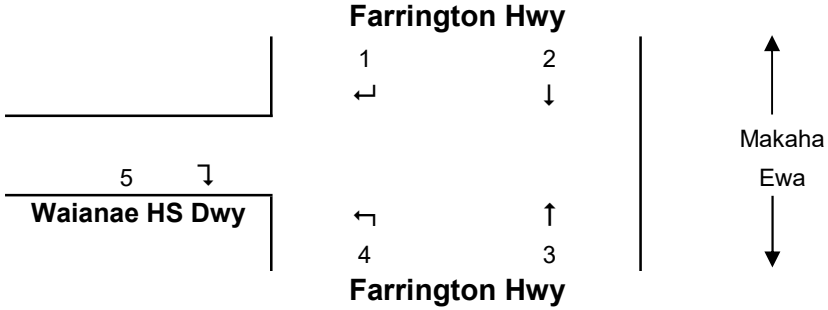


TIME PERIOD	MOVEMENT NUMBER					
	1	2	3	4		
1:00-1:15p	1	123	133	9	266	
1:15-1:30p	3	162	146	22	333	
1:30-1:45p	4	134	184	31	353	
1:45-2:00p	8	173	166	39	386	1338
2:00-2:15p	3	197	194	15	409	1481
2:15-2:30p	2	138	206	15	361	1509
Peak Hour 1:30-2:30p	17	642	750	100		

Notes:

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 3:00p-6:00p
WEATHER: Clear
RECORDER: WYY

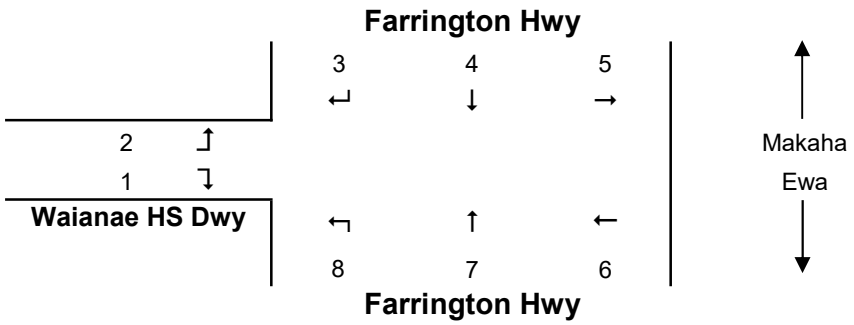


TIME PERIOD	MOVEMENT NUMBER 1	2	3	4	5		
3:00-3:15p	3	135	187	10	0	335	
3:15-3:30p	4	129	172	14	0	319	
3:30-3:45p	3	181	193	10	0	387	
3:45-4:00p	2	160	184	4	0	350	1391
4:00-4:15p	3	157	216	4	0	380	1436
4:15-4:30p	3	142	181	8	0	334	1451
4:30-4:45p	0	130	203	8	0	341	1405
4:45-5:00p	1	120	206	10	0	337	1392
5:00-5:15p	0	133	232	5	0	370	1382
5:15-5:30p	0	126	186	5	0	317	1365
5:30-5:45p	1	135	179	3	0	318	1342
5:45-6:00p	0	46	50	2	1	99	1104
Peak Hour 3:30-4:30p	11	640	774	26	0		

Notes: Movement 5 added for this count as when the gate at the other driveway closed, vehicles had to exit at this intersection

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS PED TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: WYY

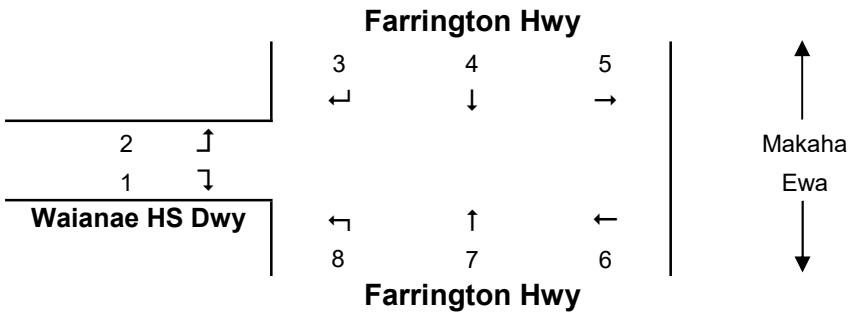


TIME PERIOD	MOVEMENT NUMBER									
	1	2	3	4	5	6	7	8		
6:00-6:15a	0	0	0	3	0	0	0	0	3	
6:15-6:30a	0	0	0	0	0	1	0	0	1	
6:30-6:45a	0	0	0	3	0	6	2	0	11	
6:45-7:00a	0	13	3	5	0	9	0	0	30	45
7:00-7:15a	0	11	22	3	0	0	0	2	38	80
7:15-7:30a	0	5	23	4	0	37	1	1	71	150
7:30-7:45a	0	20	27	14	0	4	0	0	65	204
7:45-8:00a	0	2	28	7	0	26	2	0	65	239
7:00-7:15a	0	2	11	4	0	15	1	0	33	234
7:15-7:30a	0	0	5	4	0	4	0	0	13	176
Peak Hour 7:00-8:00a	0	38	100	28	0	67	3	3		

Notes: All pedestrian movements include pedestrians entering and exiting from either the signalized entrance or the other unsignalized intersection located north of the signalized intersection.

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS PED TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 1:00p-2:30p
WEATHER: Clear
RECORDER: WYY

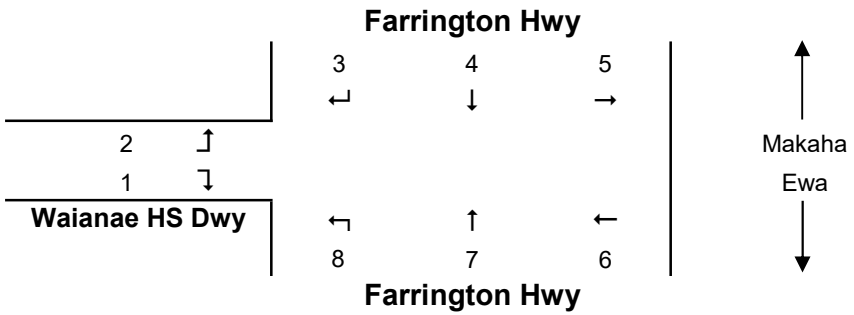


TIME PERIOD	MOVEMENT NUMBER									
	1	2	3	4	5	6	7	8		
1:00-1:15p	0	0	0	0	0	0	0	0	0	
1:15-1:30p	0	2	0	1	0	0	0	0	3	
1:30-1:45p	3	72	0	5	57	0	0	0	137	
1:45-2:00p	0	40	19	1	15	0	4	0	79	219
2:00-2:15p	0	16	14	5	1	2	18	0	56	275
2:15-2:30p	0	15	25	2	0	1	6	0	49	321
Peak Hour 1:30-2:30p	3	143	58	13	73	3	28	0		

Notes: Movements 1 and 2 include pedestrian movements on both sides of the sidewalk that passed through the intersection

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS PED TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 3:00p-6:00p
WEATHER: Clear
RECORDER: WYY



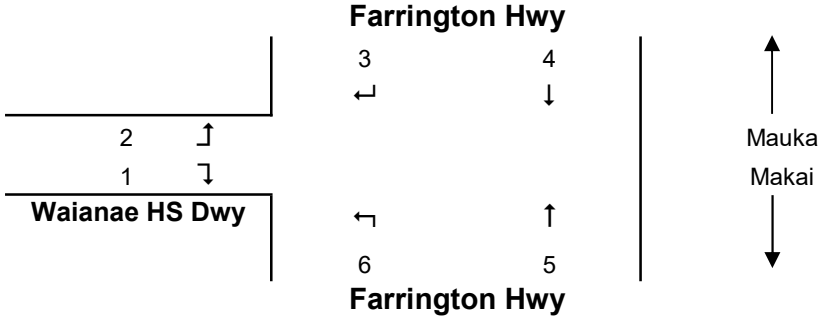
TIME PERIOD	MOVEMENT NUMBER									
	1	2	3	4	5	6	7	8		
3:00-3:15p	0	4	0	2	1	0	1	0	8	
3:15-3:30p	0	6	5	0	0	0	1	0	12	
3:30-3:45p	0	3	1	0	0	0	0	0	4	
3:45-4:00p	0	1	0	0	1	0	1	0	3	27
4:00-4:15p	1	4	2	3	0	2	3	0	15	34
4:15-4:30p	0	2	2	0	1	1	4	0	10	32
4:30-4:45p	0	6	2	1	0	1	1	0	11	39
4:45-5:00p	0	7	2	0	2	0	2	0	13	49
5:00-5:15p	2	1	0	0	0	0	1	0	4	38
5:15-5:30p	0	0	0	3	0	0	1	0	4	32
5:30-5:45p	0	0	0	0	0	0	1	0	1	22
5:45-6:00p	0	0	0	1	0	0	0	0	1	10
Peak Hour 3:30-4:30p	1	10	5	3	2	3	8	0		

Notes: Movements 1 and 2 include pedestrian movements on both sides of the sidewalk that passed through the intersection

Wai‘anae High School Driveway (by Basketball Court)

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 6:00a-8:30a
WEATHER: Clear
RECORDER: WYY

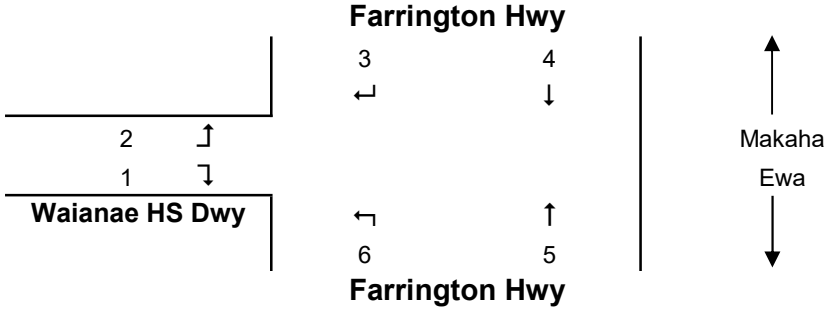


TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
6:00-6:15a	4	0	0	119	47	4	123	
6:15-6:30a	5	2	2	124	65	6	133	
6:30-6:45a	2	0	0	132	68	4	134	
6:45-7:00a	1	0	1	147	83	2	149	539
7:00-7:15a	2	0	1	220	97	7	223	639
7:15-7:30a	2	2	5	215	104	9	224	730
7:30-7:45a	4	2	5	250	139	9	261	857
7:45-8:00a	8	3	3	218	132	26	232	940
8:00-8:15a	4	4	2	136	138	9	146	863
8:15-8:30a	1	1	1	121	108	3	124	763
Peak Hour 7:00-8:00a	16	7	14	903	472	51		

Notes: Right before the counts, there was an accident at this driveway at around 5:50 AM

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 1:00p-2:30p
WEATHER: Clear
RECORDER: WYY

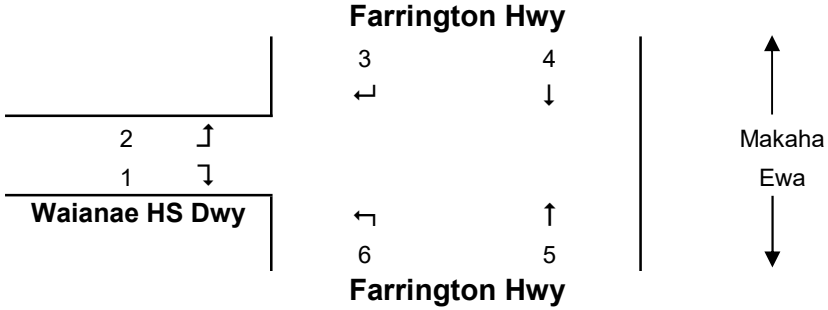


TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
1:00-1:15p	0	1	0	124	133	0	258	
1:15-1:30p	2	0	1	163	138	8	312	
1:30-1:45p	5	3	0	133	180	4	325	
1:45-2:00p	11	1	2	170	160	6	350	1245
2:00-2:15p	3	5	1	197	190	4	400	1387
2:15-2:30p	9	1	1	131	201	5	348	1423
Peak Hour 1:30-2:30p	28	10	4	631	731	19		

Notes:

WAIANAE HS GIRL'S LOCKER ROOM TRANSPORTATION ANALYSIS VEHICLE TURNING MOVEMENT FORM

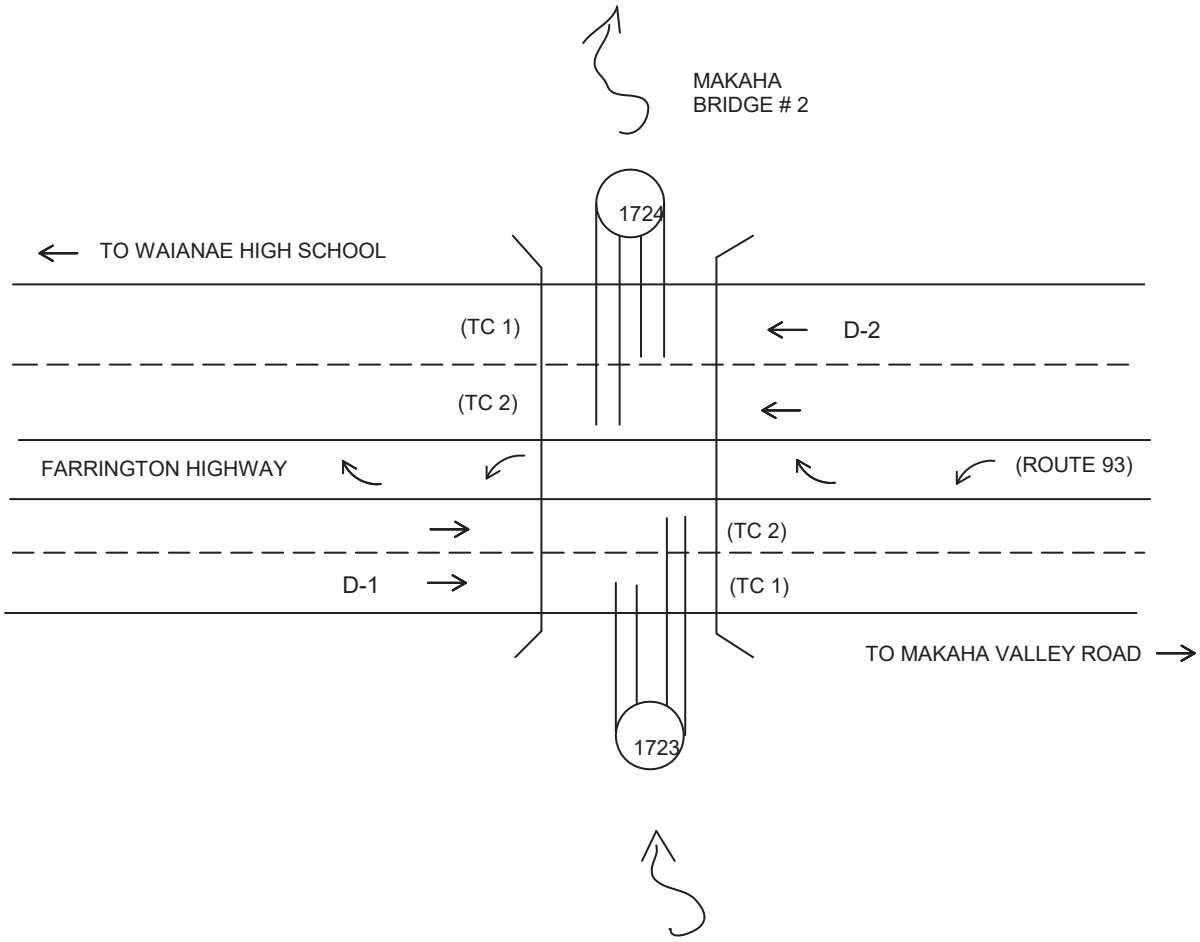
LOCATION: Farrington Hwy & Waianae HS Driveway
DATE: 11/04/2021 (Thursday)
TIME: 3:00p-6:00p
WEATHER: Clear
RECORDER: WYY



TIME PERIOD	MOVEMENT NUMBER							
	1	2	3	4	5	6		
3:00-3:15p	8	2	3	130	179	8	330	
3:15-3:30p	11	2	1	122	165	7	308	
3:30-3:45p	5	2	2	179	187	6	381	
3:45-4:00p	5	2	7	157	173	11	355	1374
4:00-4:15p	5	0	2	155	214	2	378	1422
4:15-4:30p	7	2	2	138	177	4	330	1444
4:30-4:45p	2	2	1	128	198	5	336	1399
4:45-5:00p	1	4	2	120	203	3	333	1377
5:00-5:15p	6	3	1	127	226	6	369	1368
5:15-5:30p	6	0	0	120	181	5	312	1350
5:30-5:45p	4	1	2	132	176	3	318	1332
5:45-6:00p	4	2	1	42	45	5	99	1098
Peak Hour 3:30-4:30p	22	6	13	629	751	23		

Notes: Movement 5 added for this count as when the gate at the other driveway closed, vehicles had to exit at this intersection
Counts for last 15-minute interval are not complete as the gate to this access was closed during this period.

ISLAND: OAHU
AREA: MAKAHA



Station No:	B72 0093 01234

Station Location:			
Farrington Highway between Maiuu Rd. & Makaha Valley Rd.			
Station Mileage:	12.60	GPS Coord (Latitude):	21.459019 N
		GPS Coord (Longitude):	158.204229 W
Begin Survey (Date/Time):	2-11-14 0000	End Survey (Date/Time):	2-14-14 0000
Survey Method: LOOP **HOSE** OTHER		Survey Type: VOL **CLASS** SPEED OTHER	
Survey Crew:	CA, CO, LT, RG	Module No.:	

HPMS DATA

Segment Description:

FARRINGTON HIGHWAY AT MAKAHA BRIDGE # 2 - ROAD TO WAIANAE HIGH SCHOOL TO MAKAHA VALLEY ROAD

Segment Begin LRS	12.17	Segment End LRS	13.09	Length	0.92

Facility Name	Juris	Func Class	Area Type	Route No.	Route Mile		D-1 = Direction to End of Route D-2 = Direction to Beginning of Route
FARRINGTON HIGHWAY	S	14	2	93	12.60	D-1	TO KAENA PT STATE PARK
						D-2	TO PALAILAI OVERPASS

Sketch By: GN Date: 1/31/2005 SLD: 2003

Run Date: 2015/07/01

Hawaii Department of Transportation
Highways Division — Highways Planning Survey Section
2014 Program Count - Summary

Site ID: B72009301234 **Town:** Oahu **DIR 1:** +MP **DIR 2:** -MP **Final AADT:** 17400
Functional Class: URBAN:PRINCIPAL ARTERIAL - OTHER **Count Type:** CLASS **Counter Type:** Tube **Route No:** 93
Location: Farrington Hwy btwn Maiuu Rd _Makaha Valley Rd

TIME-AM	DIR 1	DIR 2	TOTAL	TIME-AM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL
DATE : 02/12/2014															
12:00-12:15	11	10	21	06:00-06:15	91	196	287	12:00-12:15	111	149	260	06:00-06:15	147	122	269
12:15-12:30	18	9	27	06:15-06:30	108	210	318	12:15-12:30	144	170	314	06:15-06:30	136	90	226
12:30-12:45	10	12	22	06:30-06:45	137	218	355	12:30-12:45	166	122	288	06:30-06:45	107	97	204
12:45-01:00	11	7	18	06:45-07:00	126	179	305	12:45-01:00	149	145	294	06:45-07:00	115	97	212
01:00-01:15	8	12	20	07:00-07:15	155	155	310	01:00-01:15	153	115	268	07:00-07:15	101	78	179
01:15-01:30	13	14	27	07:15-07:30	101	146	247	01:15-01:30	145	128	273	07:15-07:30	127	72	199
01:30-01:45	11	15	26	07:30-07:45	103	126	229	01:30-01:45	176	150	326	07:30-07:45	111	57	168
01:45-02:00	10	6	16	07:45-08:00	90	137	227	01:45-02:00	180	148	328	07:45-08:00	103	59	162
02:00-02:15	5	15	20	08:00-08:15	92	130	222	02:00-02:15	173	181	354	08:00-08:15	100	80	180
02:15-02:30	5	11	16	08:15-08:30	109	137	246	02:15-02:30	192	149	341	08:15-08:30	79	70	149
02:30-02:45	7	24	31	08:30-08:45	85	135	220	02:30-02:45	181	152	333	08:30-08:45	69	53	122
02:45-03:00	9	22	31	08:45-09:00	105	146	251	02:45-03:00	186	158	344	08:45-09:00	72	38	110
03:00-03:15	11	42	53	09:00-09:15	88	129	217	03:00-03:15	189	141	330	09:00-09:15	69	50	119
03:15-03:30	15	61	76	09:15-09:30	99	131	230	03:15-03:30	217	126	343	09:15-09:30	57	37	94
03:30-03:45	14	92	106	09:30-09:45	104	138	242	03:30-03:45	210	127	337	09:30-09:45	40	24	64
03:45-04:00	19	120	139	09:45-10:00	104	118	222	03:45-04:00	195	145	340	09:45-10:00	51	26	77
04:00-04:15	27	88	115	10:00-10:15	116	107	223	04:00-04:15	185	117	302	10:00-10:15	40	26	66
04:15-04:30	12	85	97	10:15-10:30	97	120	217	04:15-04:30	155	131	286	10:15-10:30	40	30	70
04:30-04:45	19	96	115	10:30-10:45	128	156	284	04:30-04:45	172	138	310	10:30-10:45	36	20	56
04:45-05:00	47	95	142	10:45-11:00	141	135	276	04:45-05:00	193	158	351	10:45-11:00	26	14	40
05:00-05:15	48	89	137	11:00-11:15	137	116	253	05:00-05:15	167	173	340	11:00-11:15	28	15	43
05:15-05:30	42	105	147	11:15-11:30	101	126	227	05:15-05:30	191	125	316	11:15-11:30	20	19	39
05:30-05:45	66	128	194	11:30-11:45	122	118	240	05:30-05:45	159	121	280	11:30-11:45	18	24	42
05:45-06:00	73	143	216	11:45-12:00	132	141	273	05:45-06:00	134	134	268	11:45-12:00	12	9	21

AM COMMUTER PERIOD (05:00-09:00)	DIR 1	DIR 2	
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	06:15 AM to 07:15 AM		
AM - PEAK HR VOLUME	526	762	1288
AM - K FACTOR (%)			7.01
AM - D (%)	40.84	59.16	100.00
DIRECTIONAL PEAK			
AM - PEAK HR TIME	06:15 AM to 07:15 AM	06:00 AM to 07:00 AM	
AM - PEAK HR VOLUME	526	803	

PM COMMUTER PERIOD (15:00-19:00)	DIR 1	DIR 2	
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:00 PM to 04:00 PM		
PM - PEAK HR VOLUME	811	539	1350
PM - K FACTOR (%)			7.35
PM - D (%)	60.07	39.93	100.00
DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:00 PM to 04:00 PM	04:15 PM to 05:15 PM	
PM - PEAK HR VOLUME	811	600	

AM PERIOD (00:00-12:00)			
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	06:15 AM to 07:15 AM		
AM - PEAK HR VOLUME	526	762	1288
AM - K FACTOR (%)			7.01
AM - D (%)	40.84	59.16	100.00

PM PERIOD (12:00-24:00)			
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	02:00 PM to 03:00 PM		
PM - PEAK HR VOLUME	732	640	1372
PM - K FACTOR (%)			7.47
PM - D (%)	53.35	46.65	100.00

NON-COMMUTER PERIOD (09:00-15:00)			
TWO DIRECTIONAL PEAK			
PEAK HR TIME	02:00 PM to 03:00 PM		
PEAK HR VOLUME	732	640	1372
DIRECTIONAL PEAK			
PEAK HR TIME	02:00 PM to 03:00 PM	02:00 PM to 03:00 PM	
PEAK HR VOLUME	732	640	

6-HR, 12-HR, 24-HR PERIODS	DIR 1	DIR 2	Total
AM 6-HR PERIOD (06:00-12:00)	2,671	3,450	6,121
AM 12-HR PERIOD (00:00-12:00)	3,182	4,751	7,933
PM 6-HR PERIOD (12:00-18:00)	4,123	3,403	7,526
PM 12-HR PERIOD (12:00-24:00)	5,827	4,610	10,437
24 HOUR PERIOD	9,009	9,361	18,370
D (%)	49.04	50.96	100.00

Run Date: 2015/07/01

Hawaii Department of Transportation
Highways Division — Highways Planning Survey Section
2014 Program Count - Summary

Site ID: B72009301234 **Town:** Oahu **DIR 1:** +MP **DIR 2:** -MP **Final AADT:** 17400
Functional Class: URBAN:PRINCIPAL ARTERIAL - OTHER **Count Type:** CLASS **Counter Type:** Tube **Route No:** 93
Location: Farrington Hwy btwn Maiuu Rd _Makaha Valley Rd

TIME-AM	DIR 1	DIR 2	TOTAL	TIME-AM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL
DATE : 02/13/2014															
12:00-12:15	6	9	15	06:00-06:15	87	197	284	12:00-12:15	150	118	268	06:00-06:15	158	104	262
12:15-12:30	11	8	19	06:15-06:30	103	221	324	12:15-12:30	144	149	293	06:15-06:30	141	110	251
12:30-12:45	9	10	19	06:30-06:45	111	207	318	12:30-12:45	142	131	273	06:30-06:45	151	92	243
12:45-01:00	21	8	29	06:45-07:00	137	163	300	12:45-01:00	144	140	284	06:45-07:00	119	96	215
01:00-01:15	7	11	18	07:00-07:15	164	127	291	01:00-01:15	171	135	306	07:00-07:15	110	84	194
01:15-01:30	7	7	14	07:15-07:30	145	135	280	01:15-01:30	187	139	326	07:15-07:30	93	55	148
01:30-01:45	12	13	25	07:30-07:45	103	112	215	01:30-01:45	190	141	331	07:30-07:45	101	76	177
01:45-02:00	12	9	21	07:45-08:00	105	155	260	01:45-02:00	201	133	334	07:45-08:00	112	73	185
02:00-02:15	6	15	21	08:00-08:15	114	117	231	02:00-02:15	173	152	325	08:00-08:15	84	76	160
02:15-02:30	4	13	17	08:15-08:30	117	117	234	02:15-02:30	190	151	341	08:15-08:30	103	68	171
02:30-02:45	12	18	30	08:30-08:45	116	132	248	02:30-02:45	194	154	348	08:30-08:45	78	63	141
02:45-03:00	7	32	39	08:45-09:00	118	162	280	02:45-03:00	170	148	318	08:45-09:00	81	46	127
03:00-03:15	14	34	48	09:00-09:15	101	139	240	03:00-03:15	189	178	367	09:00-09:15	65	40	105
03:15-03:30	11	75	86	09:15-09:30	108	148	256	03:15-03:30	184	143	327	09:15-09:30	73	42	115
03:30-03:45	20	92	112	09:30-09:45	95	132	227	03:30-03:45	194	143	337	09:30-09:45	79	40	119
03:45-04:00	25	108	133	09:45-10:00	115	119	234	03:45-04:00	193	148	341	09:45-10:00	72	42	114
04:00-04:15	22	90	112	10:00-10:15	113	126	239	04:00-04:15	174	137	311	10:00-10:15	58	31	89
04:15-04:30	20	83	103	10:15-10:30	129	164	293	04:15-04:30	170	138	308	10:15-10:30	42	36	78
04:30-04:45	27	105	132	10:30-10:45	120	156	276	04:30-04:45	185	135	320	10:30-10:45	30	37	67
04:45-05:00	49	91	140	10:45-11:00	147	130	277	04:45-05:00	178	120	298	10:45-11:00	37	15	52
05:00-05:15	44	102	146	11:00-11:15	150	140	290	05:00-05:15	162	131	293	11:00-11:15	31	13	44
05:15-05:30	45	86	131	11:15-11:30	148	117	265	05:15-05:30	165	138	303	11:15-11:30	18	18	36
05:30-05:45	61	120	181	11:30-11:45	147	118	265	05:30-05:45	166	110	276	11:30-11:45	26	19	45
05:45-06:00	76	148	224	11:45-12:00	127	147	274	05:45-06:00	178	118	296	11:45-12:00	13	9	22

AM COMMUTER PERIOD (05:00-09:00)	DIR 1	DIR 2	
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	06:15 AM to 07:15 AM		
AM - PEAK HR VOLUME	515	718	1233
AM - K FACTOR (%)			6.52
AM - D (%)	41.77	58.23	100.00
DIRECTIONAL PEAK			
AM - PEAK HR TIME	06:30 AM to 07:30 AM	06:00 AM to 07:00 AM	
AM - PEAK HR VOLUME	557	788	

PM COMMUTER PERIOD (15:00-19:00)	DIR 1	DIR 2	
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:00 PM to 04:00 PM		
PM - PEAK HR VOLUME	760	612	1372
PM - K FACTOR (%)			7.26
PM - D (%)	55.39	44.61	100.00
DIRECTIONAL PEAK			
PM - PEAK HR TIME	03:00 PM to 04:00 PM	03:00 PM to 04:00 PM	
PM - PEAK HR VOLUME	760	612	

AM PERIOD (00:00-12:00)			
TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	06:15 AM to 07:15 AM		
AM - PEAK HR VOLUME	515	718	1233
AM - K FACTOR (%)			6.52
AM - D (%)	41.77	58.23	100.00

PM PERIOD (12:00-24:00)			
TWO DIRECTIONAL PEAK			
PM - PEAK HR TIME	02:15 PM to 03:15 PM		
PM - PEAK HR VOLUME	743	631	1374
PM - K FACTOR (%)			7.27
PM - D (%)	54.08	45.92	100.00

NON-COMMUTER PERIOD (09:00-15:00)			
TWO DIRECTIONAL PEAK			
PEAK HR TIME	01:45 PM to 02:45 PM		
PEAK HR VOLUME	758	590	1348
DIRECTIONAL PEAK			
PEAK HR TIME	01:45 PM to 02:45 PM	02:00 PM to 03:00 PM	
PEAK HR VOLUME	758	605	

6-HR, 12-HR, 24-HR PERIODS	DIR 1	DIR 2	Total
AM 6-HR PERIOD (06:00-12:00)	2,920	3,481	6,401
AM 12-HR PERIOD (00:00-12:00)	3,448	4,768	8,216
PM 6-HR PERIOD (12:00-18:00)	4,194	3,330	7,524
PM 12-HR PERIOD (12:00-24:00)	6,069	4,615	10,684
24 HOUR PERIOD	9,517	9,383	18,900
D (%)	50.35	49.65	100.00

Run Date: 2015/07/01

Hawaii Department of Transportation
Highways Division
Highways Planning Survey Section

Vehicle Classification Data Summary
2014

Site ID:	**B72009301234**	**Route No:**	**93**	**Date From:**	2014/02/12 0:00
Town:	**Oahu**	**Direction:**	+MP	**Date To:**	2014/02/13 23:45
Location:	**Farrington Hwy btwn Maiuu Rd _Makaha Valley Rd**				

Functional Classification: 14 URBAN:PRINCIPAL ARTERIAL - OTHER

REPORT TOTALS - 48 HOURS RECORDED

	VOLUME	%	NUMBER OF AXLES
Cycles	406	1.09%	812
PC	32337	86.76%	64674
2A-4T	3321	8.91%	6642
LIGHT VEHICLE TOTALS	36064	96.76%	72129
	HEAVY VEHICLES		
Bus	315	0.85%	788
SINGLE UNIT TRUCK			
2A-6T	526	1.41%	1052
3A-SU	65	0.17%	195
4A-SU	3	0.01%	12
SINGLE-TRAILER TRUCKS			
4A-ST	251	0.67%	1004
5A-ST	45	0.12%	225
6A-ST	1	0.00%	6
MULTI-TRAILER TRUCKS			
5A-MT	0	0.00%	0
6A-MT	0	0.00%	0
7A-MT	0	0.00%	0
HEAVY VEHICLE TOTALS	1206	3.24%	3282
CLASSIFIED VEHICLES TOTALS	37270 (A)	100.00%	75410 (B)
UNCLASSIFIED VEHICLES TOTALS	-0	-0.00%	

AXLE CORRECTION FACTOR (A/C) = 0.988

ROADTUBE EQUIVALENT(B/2) = 37705 (C)

PEAK HOUR VOLUME : 1372 2014/02/12 14:00	**PEAK HOUR TRUCK VOLUME**	**% TOTAL PEAK HOUR VOLUME**	**24 HOUR TRUCK VOLUME**	**AADT**	**% OF AADT**	**HPMS K-FACTOR (PEAK/AADT) (ITEM 66)**
SINGLE UNIT TRUCKS (TYPE 4-7)	**21**	**(65A-1) 1.53%**	**454**	**17400**	**(65A-2) 2.61%**	**7.89%**
COMBINATION (TYPE 8-13)	**7**	**(65B-1) 0.51%**	**148**		**(65B-2) 0.85%**	**7.89%**

Appendix B

Intersection Level of Service Definitions

Highway Capacity Manual 2010

Signalized intersection level of service (LOS) is defined in terms of a weighted average control delay for the entire intersection. Control delay quantifies the increase in travel time that a vehicle experiences due to the traffic signal control as well as provides a surrogate measure for driver discomfort and fuel consumption. Signalized intersection LOS is stated in terms of average control delay per vehicle (in seconds) during a specified time period (e.g., weekday PM peak hour). Control delay is a complex measure based on many variables, including signal phasing and coordination (i.e., progression of movements through the intersection and along the corridor), signal cycle length, and traffic volumes with respect to intersection capacity and resulting queues. Table 1 summarizes the LOS criteria for signalized intersections, as described in the *Highway Capacity Manual 2010* (Transportation Research Board, 2010).

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F[1]	>80	Forced flow (congested and queues fail to clear)

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.

1. If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0 LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

Unsignalized intersection LOS criteria can be further reduced into three intersection types: all-way stop, two-way stop, and roundabout control. All-way stop and roundabout control intersection LOS is expressed in terms of the weighted average control delay of the overall intersection or by approach. Two-way stop-controlled intersection LOS is defined in terms of the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns. This approach is because major-street through vehicles are assumed to experience zero delay, a weighted average of all movements results in very low overall average delay, and this calculated low delay could mask deficiencies of minor movements. Table 2 shows LOS criteria for unsignalized intersections.

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F[1]	>50

Source: *Highway Capacity Manual 2010*, Transportation Research Board, 2010.

1. If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at two-way stop-controlled intersections. Overall intersection LOS is determined solely by control delay.

Appendix C

Intersection Operations Analysis - Synchro Worksheets

Existing Year 2021 AM Peak Hour Analysis

HCM 6th Signalized Intersection Summary
8: Farrington Hwy/Farrignton Hwy & Waianae HS Ent

11/19/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	257	523	830	88
Future Volume (veh/h)	0	0	257	523	830	88
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1870	1870	1870	1870
Adj Flow Rate, veh/h			279	568	902	96
Peak Hour Factor			0.92	0.92	0.92	0.92
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			198	3356	2520	268
Arrive On Green			0.11	0.94	0.78	0.78
Sat Flow, veh/h			1781	3647	3334	345
Grp Volume(v), veh/h			279	568	495	503
Grp Sat Flow(s),veh/h/ln			1781	1777	1777	1808
Q Serve(g_s), s			10.0	1.0	7.7	7.7
Cycle Q Clear(g_c), s			10.0	1.0	7.7	7.7
Prop In Lane			1.00			0.19
Lane Grp Cap(c), veh/h			198	3356	1382	1406
V/C Ratio(X)			1.41	0.17	0.36	0.36
Avail Cap(c_a), veh/h			198	3356	1382	1406
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh			40.0	0.2	3.1	3.1
Incr Delay (d2), s/veh			211.6	0.1	0.7	0.7
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			15.9	0.1	2.1	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			251.6	0.3	3.8	3.8
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				847	998	
Approach Delay, s/veh				83.1	3.8	
Approach LOS				F	A	

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		90.0			15.0	75.0
Change Period (Y+Rc), s		5.0			5.0	5.0
Max Green Setting (Gmax), s		85.0			10.0	70.0
Max Q Clear Time (g_c+I1), s		3.0			12.0	9.7
Green Ext Time (p_c), s		4.5			0.0	8.4

Intersection Summary	
HCM 6th Ctrl Delay	40.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	263	0	745	830	0
Future Vol, veh/h	35	263	0	745	830	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	286	0	810	902	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1307	451	-	0	-	0
Stage 1	902	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	151	556	0	-	-	0
Stage 1	356	-	0	-	-	0
Stage 2	642	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	151	556	-	-	-	-
Mov Cap-2 Maneuver	270	-	-	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	642	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	270	556	-
HCM Lane V/C Ratio	-	0.141	0.514	-
HCM Control Delay (s)	-	20.5	18.1	-
HCM Lane LOS	-	C	C	-
HCM 95th %tile Q(veh)	-	0.5	2.9	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	16	51	472	903	14
Future Vol, veh/h	7	16	51	472	903	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	17	55	513	982	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1357	499	997	0	-	0
Stage 1	990	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	140	517	690	-	-	-
Stage 1	320	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	129	517	690	-	-	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	294	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	690	-	377	-	-
HCM Lane V/C Ratio	0.08	-	0.066	-	-
HCM Control Delay (s)	10.7	-	15.2	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	-	-

Existing Year 2021 Midday Peak Hour Analysis

HCM 6th Signalized Intersection Summary
8: Farrington Hwy/Farrignton Hwy & Waianae HS Ent

11/19/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	100	750	642	17
Future Volume (veh/h)	0	0	100	750	642	17
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1870	1870	1870	1870
Adj Flow Rate, veh/h			109	815	698	18
Peak Hour Factor			0.92	0.92	0.92	0.92
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			138	3356	2872	74
Arrive On Green			0.08	0.94	0.81	0.81
Sat Flow, veh/h			1781	3647	3633	91
Grp Volume(v), veh/h			109	815	350	366
Grp Sat Flow(s),veh/h/ln			1781	1777	1777	1854
Q Serve(g_s), s			5.4	1.5	4.2	4.2
Cycle Q Clear(g_c), s			5.4	1.5	4.2	4.2
Prop In Lane			1.00			0.05
Lane Grp Cap(c), veh/h			138	3356	1442	1504
V/C Ratio(X)			0.79	0.24	0.24	0.24
Avail Cap(c_a), veh/h			198	3356	1442	1504
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh			40.8	0.2	2.0	2.0
Incr Delay (d2), s/veh			12.7	0.2	0.4	0.4
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln			5.1	0.1	1.7	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			53.5	0.4	2.4	2.4
LnGrp LOS			D	A	A	A
Approach Vol, veh/h				924	716	
Approach Delay, s/veh				6.6	2.4	
Approach LOS				A	A	

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		90.0			12.0	78.0
Change Period (Y+Rc), s		5.0			5.0	5.0
Max Green Setting (Gmax), s		85.0			10.0	70.0
Max Q Clear Time (g_c+I1), s		3.5			7.4	6.2
Green Ext Time (p_c), s		7.2			0.1	5.2

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	27	162	0	823	642	0
Future Vol, veh/h	27	162	0	823	642	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	176	0	895	698	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1146	349	-	0	-	0
Stage 1	698	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	193	647	0	-	-	0
Stage 1	455	-	0	-	-	0
Stage 2	611	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	193	647	-	-	-	-
Mov Cap-2 Maneuver	323	-	-	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	611	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	323	647	-
HCM Lane V/C Ratio	-	0.091	0.272	-
HCM Control Delay (s)	-	17.3	12.6	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	0.3	1.1	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	28	19	731	631	4
Future Vol, veh/h	10	28	19	731	631	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	30	21	795	686	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1128	345	690	0	-	0
Stage 1	688	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	198	651	900	-	-	-
Stage 1	460	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	651	900	-	-	-
Mov Cap-2 Maneuver	322	-	-	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	616	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	900	-	513	-	-
HCM Lane V/C Ratio	0.023	-	0.081	-	-
HCM Control Delay (s)	9.1	-	12.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Existing Year 2021 PM Peak Hour Analysis

HCM 6th Signalized Intersection Summary
8: Farrington Hwy/Farrignton Hwy & Waianae HS Ent

11/19/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	26	774	640	11
Future Volume (veh/h)	0	0	26	774	640	11
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1870	1870	1870	1870
Adj Flow Rate, veh/h			28	841	696	12
Peak Hour Factor			0.92	0.92	0.92	0.92
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			50	3356	3077	53
Arrive On Green			0.03	0.94	0.86	0.86
Sat Flow, veh/h			1781	3647	3668	62
Grp Volume(v), veh/h			28	841	346	362
Grp Sat Flow(s),veh/h/ln			1781	1777	1777	1859
Q Serve(g_s), s			1.4	1.6	3.0	3.0
Cycle Q Clear(g_c), s			1.4	1.6	3.0	3.0
Prop In Lane			1.00			0.03
Lane Grp Cap(c), veh/h			50	3356	1530	1601
V/C Ratio(X)			0.56	0.25	0.23	0.23
Avail Cap(c_a), veh/h			198	3356	1530	1601
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh			43.2	0.2	1.1	1.1
Incr Delay (d2), s/veh			9.6	0.2	0.3	0.3
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln			1.3	0.2	0.7	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			52.8	0.4	1.4	1.4
LnGrp LOS			D	A	A	A
Approach Vol, veh/h				869	708	
Approach Delay, s/veh				2.0	1.4	
Approach LOS				A	A	

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		90.0			7.5	82.5
Change Period (Y+Rc), s		5.0			5.0	5.0
Max Green Setting (Gmax), s		85.0			10.0	70.0
Max Q Clear Time (g_c+I1), s		3.6			3.4	5.0
Green Ext Time (p_c), s		7.5			0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	1.8
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	63	0	783	640	0
Future Vol, veh/h	17	63	0	783	640	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	68	0	851	696	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1122	348	-	0	-	0
Stage 1	696	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	200	648	0	-	-	0
Stage 1	456	-	0	-	-	0
Stage 2	627	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	200	648	-	-	-	-
Mov Cap-2 Maneuver	329	-	-	-	-	-
Stage 1	456	-	-	-	-	-
Stage 2	627	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	329	648	-
HCM Lane V/C Ratio	-	0.056	0.106	-
HCM Control Delay (s)	-	16.6	11.2	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	0.2	0.4	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	22	23	751	629	13
Future Vol, veh/h	6	22	23	751	629	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	24	25	816	684	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1149	349	698	0	-	0
Stage 1	691	-	-	-	-	-
Stage 2	458	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	192	647	894	-	-	-
Stage 1	459	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	187	647	894	-	-	-
Mov Cap-2 Maneuver	317	-	-	-	-	-
Stage 1	446	-	-	-	-	-
Stage 2	604	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	894	-	529	-	-
HCM Lane V/C Ratio	0.028	-	0.058	-	-
HCM Control Delay (s)	9.1	-	12.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Future Year 2023 AM Peak Hour Analysis

HCM 6th Signalized Intersection Summary
8: Farrington Hwy/Farrignton Hwy & Waianae HS Ent

11/22/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	260	535	850	90
Future Volume (veh/h)	0	0	260	535	850	90
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1870	1870	1870	1870
Adj Flow Rate, veh/h			283	582	924	98
Peak Hour Factor			0.92	0.92	0.92	0.92
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			198	3356	2521	267
Arrive On Green			0.11	0.94	0.78	0.78
Sat Flow, veh/h			1781	3647	3335	344
Grp Volume(v), veh/h			283	582	506	516
Grp Sat Flow(s),veh/h/ln			1781	1777	1777	1808
Q Serve(g_s), s			10.0	1.0	8.0	8.0
Cycle Q Clear(g_c), s			10.0	1.0	8.0	8.0
Prop In Lane			1.00			0.19
Lane Grp Cap(c), veh/h			198	3356	1382	1407
V/C Ratio(X)			1.43	0.17	0.37	0.37
Avail Cap(c_a), veh/h			198	3356	1382	1407
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh			40.0	0.2	3.1	3.1
Incr Delay (d2), s/veh			220.0	0.1	0.8	0.7
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			16.4	0.1	2.2	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			260.0	0.3	3.9	3.8
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				865	1022	
Approach Delay, s/veh				85.3	3.9	
Approach LOS				F	A	

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		90.0			15.0	75.0
Change Period (Y+Rc), s		5.0			5.0	5.0
Max Green Setting (Gmax), s		85.0			10.0	70.0
Max Q Clear Time (g_c+I1), s		3.0			12.0	10.0
Green Ext Time (p_c), s		4.6			0.0	8.7

Intersection Summary	
HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	265	0	760	850	0
Future Vol, veh/h	35	265	0	760	850	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	288	0	826	924	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1337	462	-	0	-	0
Stage 1	924	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	145	547	0	-	-	0
Stage 1	347	-	0	-	-	0
Stage 2	636	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	145	547	-	-	-	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	347	-	-	-	-	-
Stage 2	636	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	263	547	-
HCM Lane V/C Ratio	-	0.145	0.527	-
HCM Control Delay (s)	-	21	18.7	-
HCM Lane LOS	-	C	C	-
HCM 95th %tile Q(veh)	-	0.5	3	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	20	55	480	920	15
Future Vol, veh/h	10	20	55	480	920	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	22	60	522	1000	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1389	508	1016	0	-	0
Stage 1	1008	-	-	-	-	-
Stage 2	381	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	134	510	678	-	-	-
Stage 1	313	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	122	510	678	-	-	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	285	-	-	-	-	-
Stage 2	660	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16	1.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	678	-	359	-	-
HCM Lane V/C Ratio	0.088	-	0.091	-	-
HCM Control Delay (s)	10.8	-	16	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	-	-

Future Year 2023 Midday Peak Hour Analysis

HCM 6th Signalized Intersection Summary
8: Farrington Hwy/Farrignton Hwy & Waianae HS Ent

11/22/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	100	765	655	20
Future Volume (veh/h)	0	0	100	765	655	20
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1870	1870	1870	1870
Adj Flow Rate, veh/h			109	832	712	22
Peak Hour Factor			0.92	0.92	0.92	0.92
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			138	3356	2855	88
Arrive On Green			0.08	0.94	0.81	0.81
Sat Flow, veh/h			1781	3647	3612	109
Grp Volume(v), veh/h			109	832	359	375
Grp Sat Flow(s),veh/h/ln			1781	1777	1777	1851
Q Serve(g_s), s			5.4	1.5	4.3	4.3
Cycle Q Clear(g_c), s			5.4	1.5	4.3	4.3
Prop In Lane			1.00			0.06
Lane Grp Cap(c), veh/h			138	3356	1442	1502
V/C Ratio(X)			0.79	0.25	0.25	0.25
Avail Cap(c_a), veh/h			198	3356	1442	1502
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh			40.8	0.2	2.0	2.0
Incr Delay (d2), s/veh			12.7	0.2	0.4	0.4
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln			5.1	0.1	1.8	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			53.5	0.4	2.4	2.4
LnGrp LOS			D	A	A	A
Approach Vol, veh/h				941	734	
Approach Delay, s/veh				6.5	2.4	
Approach LOS				A	A	

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		90.0			12.0	78.0
Change Period (Y+Rc), s		5.0			5.0	5.0
Max Green Setting (Gmax), s		85.0			10.0	70.0
Max Q Clear Time (g_c+I1), s		3.5			7.4	6.3
Green Ext Time (p_c), s		7.4			0.1	5.4

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	165	0	840	655	0
Future Vol, veh/h	30	165	0	840	655	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	179	0	913	712	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1169	356	-	0	-	0
Stage 1	712	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	186	640	0	-	-	0
Stage 1	447	-	0	-	-	0
Stage 2	604	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	186	640	-	-	-	-
Mov Cap-2 Maneuver	316	-	-	-	-	-
Stage 1	447	-	-	-	-	-
Stage 2	604	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	316	640	-
HCM Lane V/C Ratio	-	0.103	0.28	-
HCM Control Delay (s)	-	17.7	12.8	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	0.3	1.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	30	20	745	645	5
Future Vol, veh/h	10	30	20	745	645	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	33	22	810	701	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1153	353	706	0	-	0
Stage 1	704	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	191	643	888	-	-	-
Stage 1	452	-	-	-	-	-
Stage 2	610	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	186	643	888	-	-	-
Mov Cap-2 Maneuver	315	-	-	-	-	-
Stage 1	441	-	-	-	-	-
Stage 2	610	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	888	-	510	-	-
HCM Lane V/C Ratio	0.024	-	0.085	-	-
HCM Control Delay (s)	9.2	-	12.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Future Year 2023 PM Peak Hour Analysis

HCM 6th Signalized Intersection Summary
8: Farrington Hwy/Farrignton Hwy & Waianae HS Ent

11/22/2021

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	30	790	655	15
Future Volume (veh/h)	0	0	30	790	655	15
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1870	1870	1870	1870
Adj Flow Rate, veh/h			33	859	712	16
Peak Hour Factor			0.92	0.92	0.92	0.92
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			56	3356	3047	68
Arrive On Green			0.03	0.94	0.86	0.86
Sat Flow, veh/h			1781	3647	3647	80
Grp Volume(v), veh/h			33	859	356	372
Grp Sat Flow(s),veh/h/ln			1781	1777	1777	1856
Q Serve(g_s), s			1.6	1.6	3.2	3.2
Cycle Q Clear(g_c), s			1.6	1.6	3.2	3.2
Prop In Lane			1.00			0.04
Lane Grp Cap(c), veh/h			56	3356	1524	1592
V/C Ratio(X)			0.59	0.26	0.23	0.23
Avail Cap(c_a), veh/h			198	3356	1524	1592
HCM Platoon Ratio			1.00	1.00	1.00	1.00
Upstream Filter(I)			1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh			43.0	0.2	1.1	1.1
Incr Delay (d2), s/veh			9.7	0.2	0.4	0.3
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln			1.6	0.2	0.8	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			52.7	0.4	1.5	1.5
LnGrp LOS			D	A	A	A
Approach Vol, veh/h				892	728	
Approach Delay, s/veh				2.3	1.5	
Approach LOS				A	A	

Timer - Assigned Phs		2			5	6
Phs Duration (G+Y+Rc), s		90.0			7.8	82.2
Change Period (Y+Rc), s		5.0			5.0	5.0
Max Green Setting (Gmax), s		85.0			10.0	70.0
Max Q Clear Time (g_c+I1), s		3.6			3.6	5.2
Green Ext Time (p_c), s		7.7			0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	1.9
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	65	0	800	655	0
Future Vol, veh/h	20	65	0	800	655	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	71	0	870	712	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1147	356	-	0	-	0
Stage 1	712	-	-	-	-	-
Stage 2	435	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	-	-
Pot Cap-1 Maneuver	192	640	0	-	-	0
Stage 1	447	-	0	-	-	0
Stage 2	620	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	192	640	-	-	-	-
Mov Cap-2 Maneuver	321	-	-	-	-	-
Stage 1	447	-	-	-	-	-
Stage 2	620	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	SBT
Capacity (veh/h)	-	321	640	-
HCM Lane V/C Ratio	-	0.068	0.11	-
HCM Control Delay (s)	-	17	11.3	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	0.2	0.4	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	25	25	765	645	15
Future Vol, veh/h	10	25	25	765	645	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	27	27	832	701	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1179	359	717	0	-	0
Stage 1	709	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	183	638	880	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	595	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	177	638	880	-	-	-
Mov Cap-2 Maneuver	307	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	595	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	880	-	488	-	-
HCM Lane V/C Ratio	0.031	-	0.078	-	-
HCM Control Delay (s)	9.2	-	13	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

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APPENDIX I:

Honolulu Fire Department Variance Approval Letter

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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 21, 2021

Mr. Ty Miyabuchi, P.E
Engineering Dynamics Corp.
126 Queen Street, Suite 307A
Honolulu, Hawaii 96813

Dear Mr. Miyabuchi:

Subject: Request for Fire Code Equivalency
Waianae High School Girls Athletic Locker Room
85-251 Farrington Highway
Waianae, Hawaii 96792
Tax Map Key: 8-5-015: Portion of 001

In response to your letter of December 6, 2021 regarding the abovementioned subject, the Honolulu Fire Department (HFD) approves your request for a variance of the following:

1. A fire access road with a width reduced to 16 feet for portions of the road. A 20 foot width shall be maintained to the greatest extent possible.

2. A fire access road extending approximately 98 feet to a door leading to the interior of the abovementioned building equipped with fire sprinklers meeting all National Fire Protection Association 13 requirements.

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:bh

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