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STATE OF HAWAII
DEPARTMENT OF EDUCATION

P.O. BOX 2360
HONOLULU, HAWAII 96804

Letter No. PMS-388.12

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

February 22, 2012

TO: Mr. Gary Hooser, Director
Office of Environmental Quality Control
Department of Health

FROM: Duane Y. Kashiwai, Public Works Administrator
Facilities Development Branch

SUBJECT: **Waipahu Elementary School**
New 8-Classroom Building
Tax Map Key 9-4-010: 040, 058, 098; 9-4-029: 001, 015
Portion of Waikele, District of Ewa, Oahu, Hawaii

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

FEB 24 12:15

RECEIVED

The Department of Education, State of Hawaii, has reviewed the Draft Environmental Assessment (DEA) for the subject project and anticipates a Finding of No Significant Impact determination. Please publish this determination in the next Environmental Notice.

One printed copy of the DEA and a CD with the document in .pdf format are attached. The Environmental Notice publication form will be e-mailed to OEQC.

Should you have any questions, please contact Mr. Benjamin Miura of the Facilities Development Branch, Project Management Section at 586-0429.

DK:BM:lh

Enclosures

c: Joseph Cengia, Pacific Architects, Inc.
FDB/Project Management Section (BM)

**Waipahu Elementary DEA
WPublication Form
The Environmental Notice**

Instructions to Applicant or Agency:

1. Fill out this Publication Form and email to: oeqc@doh.hawaii.gov
2. Send a pdf copy of the EA / EIS and 2 hardcopies to OEQC. Mahalo.

Name of Project: Waipahu Elementary School New 8-Classroom Building
Applicable Law: Chapter 343, Hawai'i Revised Statutes
Type of Document: Draft Environmental Assessment
Island: O'ahu
District: 'Ewa
Tax Map Key 9-4-010: 040, 098, 9-4-029: 001, 015
Permits Required: Grubbing, Grading, and Stockpiling Permit; Building Permit for Building, Electrical, Plumbing, Sidewalk/Driveway and Demolition Work; Sewer Connection; Waiver (Height); ; NPDES; Variance from Pollution Controls; Chapter 6E Clearance

Proposing/Determination Agency: Department of Education, State of Hawai'i
Facilities Development Branch
Address 1151 Punchbowl Street, Room 501
City, State, Zip Honolulu, Hawai'i 96813
Contact and Phone Benjamin Miura, Project Coordinator @ 586-0429
Consultant Gerald Park Urban Planner
Address 95-595 Kaname'e Street #324
City, State, Zip Mililani, Hawai'i 96789
Contact and Phone T: 625-9626

Project Summary:

Short-term construction impacts include raising fugitive dust, mechanical and equipment noise, potential for construction related runoff, grubbing vegetation, land alteration, potential impacts on traffic circulation, and loss of open space used for outdoor recreation and school functions. There are no streams or historic features on the ground surface to be affected.

The project will help to mitigate the doubling up of classrooms as is now practiced and provide space for existing and future educational programs. It is not being constructed to accommodate projected increases in student enrollment.

The 8-classroom building *per se* will neither affect ambient air quality nor generate noise and use of the facility is not expected to adversely affect surrounding areas during school hours. No significant increase in vehicle traffic is anticipated as a result of this project. There should be no significant increase in domestic water usage and wastewater flow compared to existing conditions. Storm water runoff will increase but will be retained on-site.

Designed as a sustainable building, the building will have lower operating costs, conserve energy and water, provide for the health and comfort of its users, and demonstrate a State commitment to sustainable building design and energy conservation. The building will be constructed in a remote, low ground elevation corner of the school grounds and when viewed from public areas, it will appear as tall as an adjoining campus building which is constructed at a higher ground elevation.

DRAFT ENVIRONMENTAL ASSESSMENT

**WAIPAHU ELEMENTARY SCHOOL
NEW 8-CLASSROOM BUILDING**

Portion Waikele, District of 'Ewa, O'ahu, Hawai'i

Prepared for

Department of Education
State of Hawai'i
Facilities Development Branch
1151 Punchbowl Street
Honolulu, Hawai'i 96813

February 2012

DRAFT ENVIRONMENTAL ASSESSMENT

**WAIPAHA ELEMENTARY SCHOOL
NEW 8-CLASSROOM BUILDING**

DOE Project No. Q86004-07

Portion Waikele, District of 'Ewa, O'ahu, Hawai'i

Prepared in Partial Fulfillment of the Requirements of Chapter 343, Hawaii Revised Statutes and Title 11-200, Hawaii Administrative Rules, Department of Health, State of Hawai'i

Prepared for

Department of Education
State of Hawai'i
Facilities Development Branch
1151 Punchbowl Street
Honolulu, Hawai'i 96813

Prepared by

Gerald Park Urban Planner
95-595 Kaname'e Street #324
Mililani, Hawai'i 96789

and

Pacific Architects, Inc.
2020 South King Street
Honolulu, Hawai'i 96826

February 2012

PROJECT PROFILE

Proposed Action: Waipahu Elementary School
New 8-Classroom Building
DOE Project No. Q86004-07

Street Address: 94-465 Waipahu Street
Waipahu, Hawai'i 96793

Proposing Agency: Department of Education
Facilities Development Branch, Planning Section
1151 Punchbowl Street
Honolulu, Hawai'i 96813

Approving Agency: Department of Education
Facilities Development Branch, Planning Section
1151 Punchbowl Street
Honolulu, Hawai'i 96813

Tax Map Key: 9-4-010: 040
Land Area: 4.464 acres
Landowner: State of Hawai'i

Tax Map Key: 9-4-010: 098 (0.883 acres),
Land Area: 9-4-029: 001 (2.726 acres), 015 (0.147 acres)
Landowner: City and County of Honolulu

Existing Use: Public Elementary School
State Land Use Designation: Urban
Sustainable Communities Plan: Central O'ahu
SCP Urban Land Use Map: Residential and Low Density Apartment
Zoning: R-7.5 Residential
Special Management Area: Not Within Special Management Area

Need for Assessment: Chapter 343, HRS, §343-5(1) Propose the
use of state or county lands or the use of
state or county funds

Anticipated-Determination: Finding of No Significant Impact

Contact Person: Benjamin Miura, Project Coordinator
Department of Education Project Management
1151 Punchbowl Street, Room 431
Honolulu, Hawai'i 96813

Telephone: 586-0429

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1 DESCRIPTION OF THE PROPOSED PROJECT

The Department of Education, State of Hawaii, proposes to construct a new classroom building at Waipahu Elementary School located at Waikele, District of 'Ewa, City and County of Honolulu, Hawai'i. Waipahu Elementary School is located at the corner of Waikele Road and Waipahu Street approximately 0.75 miles *mauka* of Farrington Highway. A Location Map is shown in Figure 1.

Waipahu Street bisects the school creating two physically separated campuses. The "Main" campus bears Tax Map Key: 9-4-010:040 encompassing an area of 4.464 acres and is owned by the State of Hawai'i. An adjoining parcel, tax map key 9-4-010: 098 (0.883 acres) is owned by the City and County of Honolulu and occupied by the State of Hawaii. The parcel is used for school parking. A Tax Map is shown in Figure 2.

An open play field, portable classrooms, uncovered sport courts, and off-street parking area comprise the "Kahale Field" campus across Waipahu Street. It is identified as tax map key 9-4-029: 001 (2.726 acres) and 9-4-029: 015 (0.147 acres). Both parcels are owned by the City and County of Honolulu but occupied by the State of Hawai'i.

The new classroom building will be erected in a corner of the main campus. The environmental assessment discloses impacts associated with development of that site.

A. Purpose and Need for the Project

The purpose of the project is to alleviate a shortage of permanent classrooms at Waipahu Elementary School. The school has 55 classrooms for general and special education of which eight classrooms are shared with supplemental programs (4 classrooms), support programs (2 classrooms), and Headstart and pre-plus (2 classrooms). The proposed 8-classroom building will provide classrooms for general and special education, support facilities for a computer resource lab, and faculty center.

B. Site Plan

For this environmental the terms "building footprint" or "building site" are used to denote the ground level area and work area outside of the building footprint. The building site is estimated at 11,000 square feet. The term "construction area" is used to denote the project limits and is slightly larger than the building site. The construction area is estimated at 46,650 square feet and includes the building site and most of the existing parking lot. The construction area will be fenced for safety and security reasons during construction with barricades set up in the parking lot for traffic control.

The building site is located in the eastern corner of the Main campus and bounded by an existing two-story classroom building (Building "I") on the west, Waikele Gulch on the east, the school's parking lot on the north, and two and three-story walk-up apartment buildings on the south. The site is longer than it is wide (See Site Plan).

The rectangular shaped building site is flat with a sloping bank on its east side. The top of bank, on which Building "I" stands, is about 8-9 feet higher in elevation. Sections of the

bank will be cut and a retaining wall constructed. The area behind the retaining wall will be filled and leveled for a playcourt/playground.

The grade differential allows the lower level of the building to be built into the bank with two levels on top. The lower level will be used for covered parking and the two upper levels for classrooms and associated uses. The ground level will approximate the elevation of the existing parking area and the second and third levels will match the same elevations as the first and second levels of Building "1".

The new classroom building will be setback 15 feet from the east, west, and south property lines as required for other uses constructed in the residential zoning district. There is no required front yard for the building site.

C. Technical Characteristics

1. Classroom Building

An 8-classroom, three-level building with a building footprint of approximately 8,500 square feet will be constructed. The ground floor (or "parking level") will be used as covered parking for 29 vehicles. The 8 classrooms occupy the second and third levels with 4 classrooms per level. The total floor area is estimated at 17,500 square feet. The classroom building includes six general classrooms, one Special Education self-contained classroom, a Computer Resource Center, one itinerant room, one SSC/EA room, and a faculty center. Classrooms will serve both individual and multi-purpose uses.

Restrooms for boys and girls, general utility closets, mechanical and electrical rooms, and a communications room will be provided on each level. Preliminary Floor Plans are shown on Sheets A-1, A-2, and A-3.

The height of the structure is estimated at 44 feet measured from finished grade to top of roof. The height of the building will exceed the 25-foot height limit for the zoning district and the Department of Education ("DOE") will apply for a waiver to the City and County of Honolulu Land Use Ordinance height requirement. Exterior elevations are shown on Sheets A-4 and A-5.

The building will be constructed on a poured in place concrete foundation with pre-cast concrete walls, floors, and roof slab and structural framing. A flat roof is proposed.

A courtyard/play area will be created between Building "1" and the new classroom building. Because of the sloping terrain between the two buildings (a grade difference of 8+ feet), a retaining wall will be constructed and the bank filled to create a level play area.

All program spaces will be air conditioned. The chiller unit will be situated on the north side of the building in a ground level enclosure open to the sky. Fan coil units will be located in mechanical rooms near the rooms being air conditioned.

The building will be equipped with a fire sprinkler system for fire protection.

The project will not seek LEED certification from the U.S. Green Building Council; however, it will be designed to achieve a LEED Silver rating equivalent under LEED 2009 for Schools. Architectural, mechanical, electrical, and civil engineering basis of design to promote

sustainability include maximizing natural lighting, reducing water usage, minimizing site disturbance, using materials with low (volatile organic compounds VOC), and minimizing energy consumption. Provisions for installing roof-mounted photovoltaic (PV) panels in the future are included in the building design.

2. Circulation and Parking

The existing parking lot will be extended under the new building. Twenty-nine (29) parking stalls including 2 van accessible stalls will be provided. Ten (10) off-street parking stalls are required for the new building thus the balance of 19 stalls will help to alleviate a current deficiency in school parking. Parking stalls also will be designated for alternative energy vehicles.

The covered parking area will be secured with sliding gates and new fencing along Waikele Gulch.

3. Infrastructure

Domestic water service will hook-up to the existing on-campus water system or to a transmission main in Waipahu Street. Potable water demand is estimated at 3,360 gallons per day and can be supplied by the existing system.

A new wastewater lateral will connect the classroom building to the wastewater system in Waipahu Street. The lateral will be constructed through the parking lot on parcel 098. Wastewater flow is projected at 3,150 gallons per day.

Surface and roof runoff will be directed into on-site grass swales and landscaped areas and allowed to evaporate or percolate into the ground.

Electrical power and telecommunication systems will be routed in underground conduits from existing on-campus systems, respectively.

4. Demolition

All existing pavements, walkways, fencing, and utilities within the construction area will be demolished and removed. Existing hedges and groundcover will be grubbed. Nine trees located within the construction area will be demolished they are too large to relocate and not in the best condition.

The area to be graded within the building site is estimated at approximately 4,800 square feet.

5. Landscaping

Trees and groundcover will be demolished and new trees, shrubs, and groundcover planted around the new building and in open areas near the building. An underground irrigation system will be installed.

6. Accessibility

Wheelchair and disabled access from the parking level to the 2nd and 3rd floors will be provided via an elevator on the north side of the new building.

At-grade walkways will connect the new building to adjoining walkways and the ground and 2nd levels of Building "I". Accessible bridges will be constructed from the classroom levels of the new building connecting with corresponding levels of Building "I". The main campus walkway routes thus will be accessible from the new classroom building via Building "I".

An existing parking area adjacent to Building "F" will be modified and made accessible by way of an accessible ramp to the elevator lobby in the new building.

All new walkways will be designed in compliance with Americans with Disabilities Act Accessibility Guidelines ("ADAAG").

Accessible parking stalls will be provided in the covered parking area under the building.

C. Economic Characteristics

Construction costs are estimated at \$8.0 million and will be funded by the State of Hawai'i.

Construction will commence after all construction permits are received. Construction is anticipated to commence during the 3rd quarter of 2012 with completion by the end of the 3rd quarter of 2013, a period of 12 to 15 months. The project will be built in one construction phase.

D. Social Characteristics

Located in a remote area of the school grounds, the proposed action will not displace any residence, business establishment, or school building. During construction, however, the school has agreed to not park in the existing parking lot. The parking lot will be segregated to allow the contractor to barricade a construction area and to relocate two disabled parking stalls and maintain the student drop off area behind the cafeteria

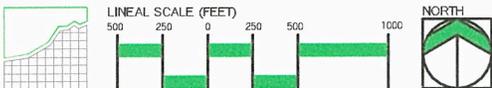
The building site was previously designated as a playground but is no longer used for that purpose. On occasion, it is used for temporary overflow parking.

A 40-foot storage container placed in the east corner of the site will be removed by the school and replaced by two smaller containers. The two containers will be located elsewhere on campus.



Source: USGS, Honolulu Quadrangle

Figure 1
 Location Map
 Waipahu Elementary School
 New 8 - Classroom Building

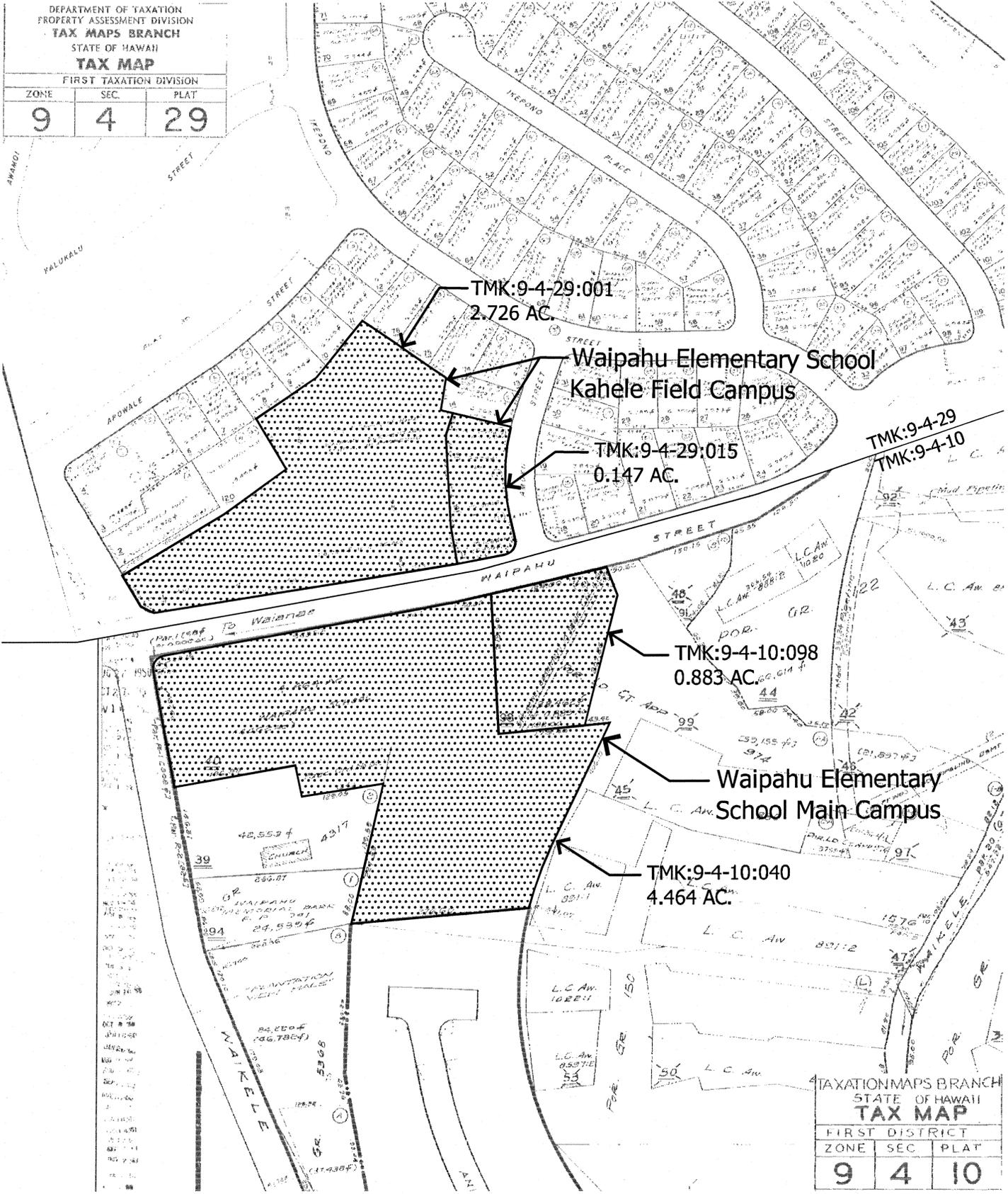


Gerald Park
 Urban Planner
 October 2011

Department of Education, State of Hawai'i

DEPARTMENT OF TAXATION
PROPERTY ASSESSMENT DIVISION
TAX MAPS BRANCH
STATE OF HAWAII
TAX MAP
FIRST TAXATION DIVISION

ZONE	SEC.	PLAT
9	4	29

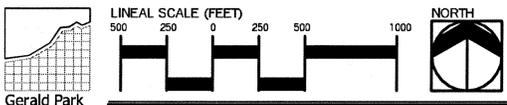


TAXATION MAPS BRANCH
STATE OF HAWAII
TAX MAP
FIRST DISTRICT

ZONE	SEC.	PLAT
9	4	10

Source: City and County of Honolulu Website

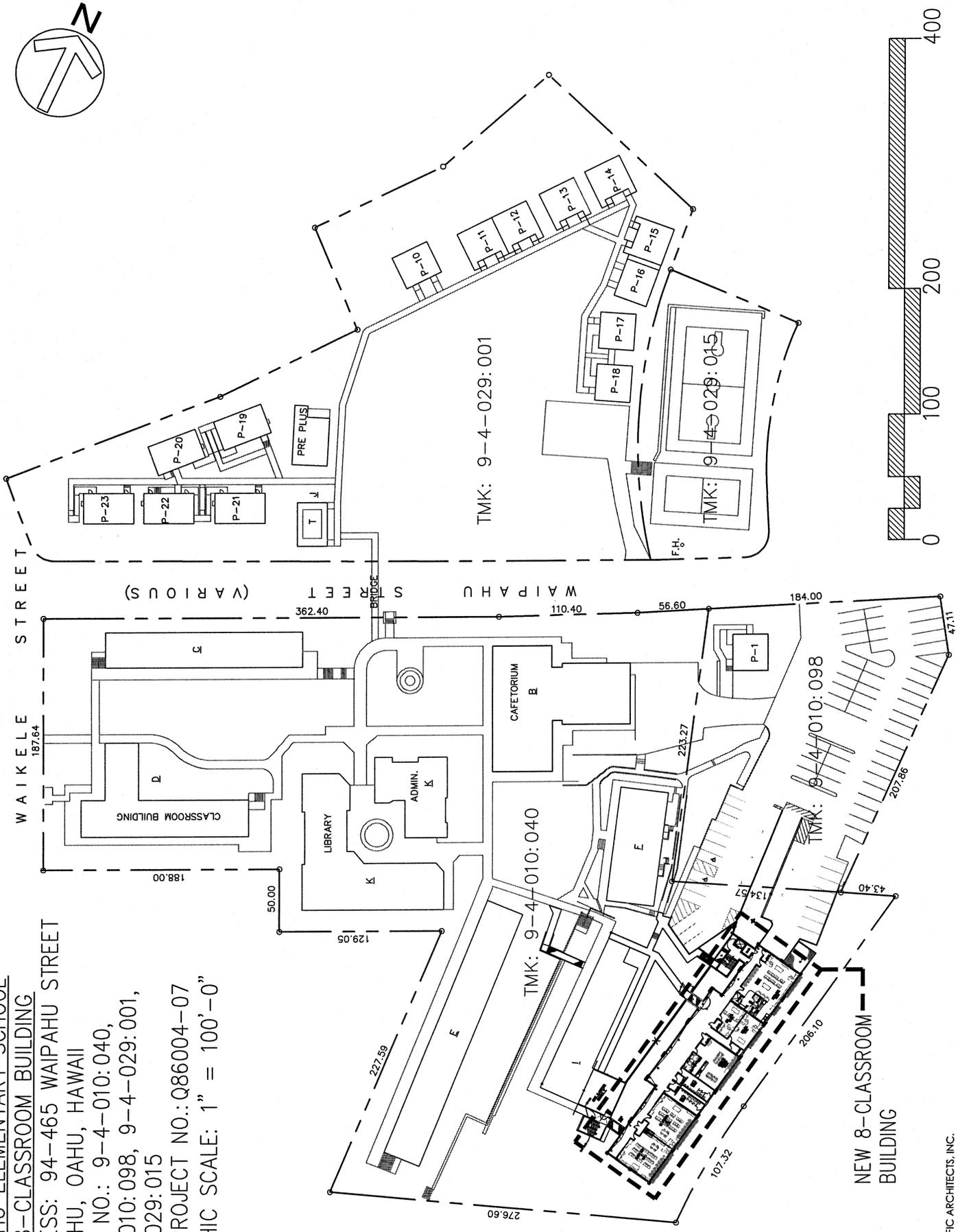
Figure 2
Tax Map
Waipahu Elementary School
New 8 - Classroom Building

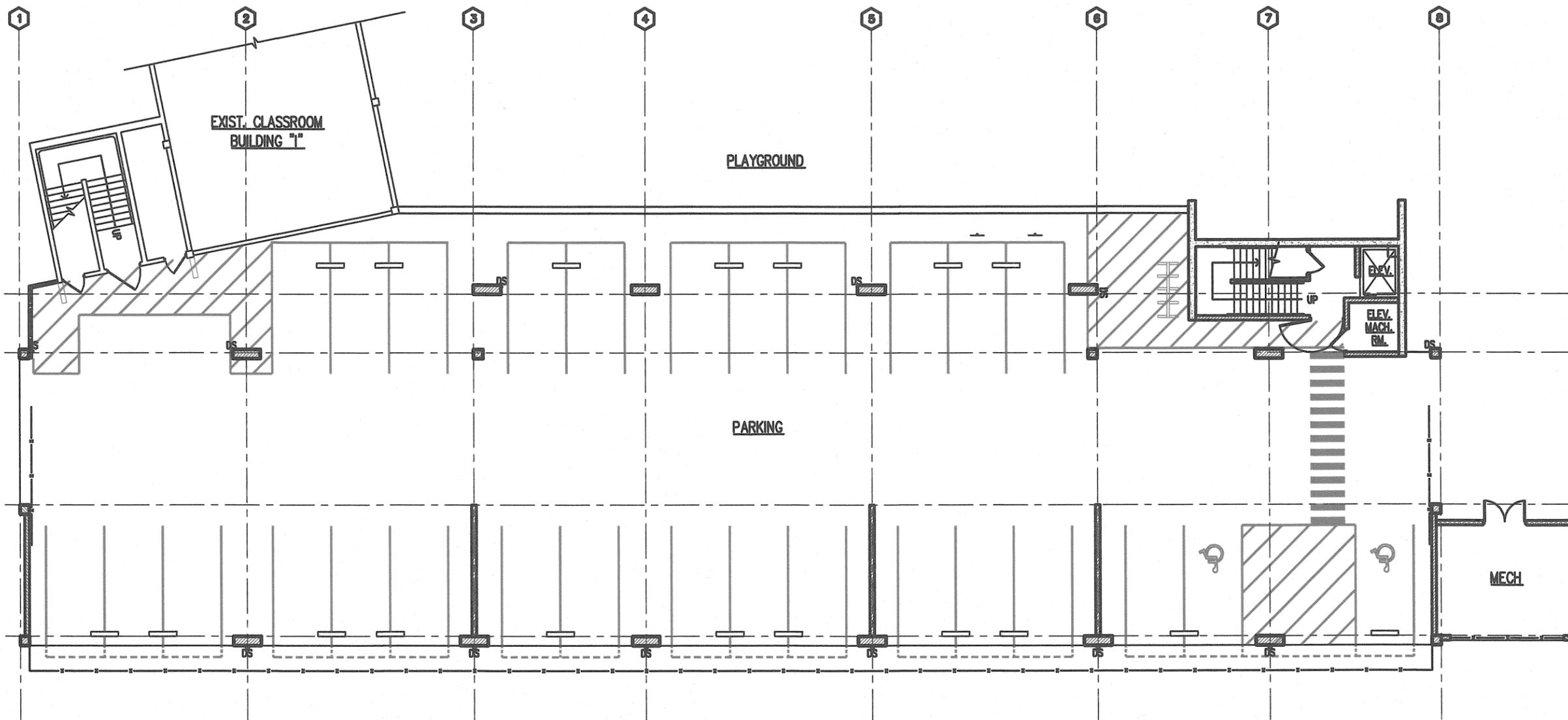


Gerald Park
Urban Planner
October 2011

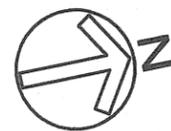
Department of Education, State of Hawaii

WAIPAHU ELEMENTARY SCHOOL
 NEW 8-CLASSROOM BUILDING
 ADDRESS: 94-465 WAIPAHU STREET
 WAIPAHU, OAHU, HAWAII
 T.M.K. NO.: 9-4-010:040,
 9-4-010:098, 9-4-029:001,
 9-4-029:015
 DOE PROJECT NO.: Q86004-07
 GRAPHIC SCALE: 1" = 100'-0"

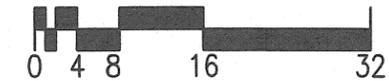




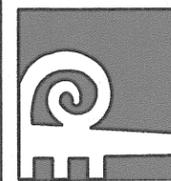
1 FIRST LEVEL PLAN
 A-1 SCALE: 1/16" = 1'-0"



GRAPHIC SCALE: 1/16" = 1'-0"



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 2020 South King Street
 Honolulu, Hawaii 96826
 808-949-1601
 fax 808-942-0054



WAIPAHU ELEMENTARY SCHOOL
 EIGHT CLASSROOM BUILDING

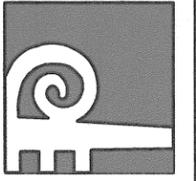
FIRST LEVEL PLAN

DATE	01/19/12
SCALE	1/16" = 1'-0"
DRAWN	JC
CHECK	CM
SHEET	

A-1

OF SHTS

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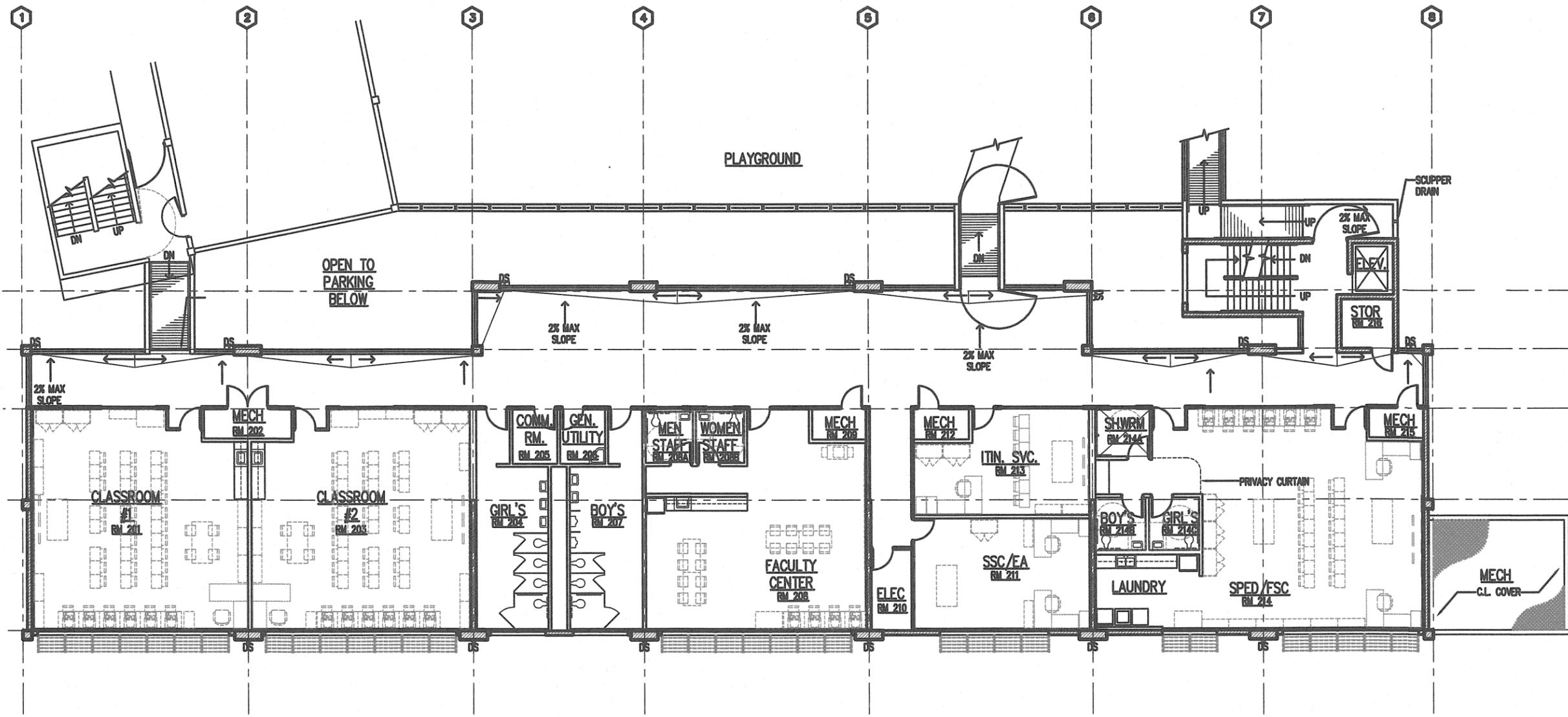
WAIPAHU ELEMENTARY SCHOOL
 EIGHT CLASSROOM BUILDING

SECOND LEVEL PLAN

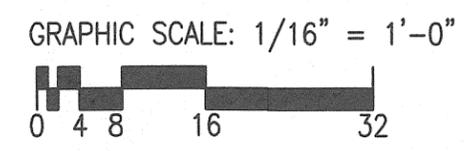
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 DRAWN JC CHECK CM
 SHEET

A-2

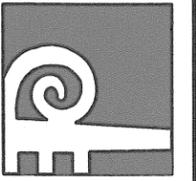
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1 SECOND LEVEL PLAN
 A-2 SCALE: 1/16" = 1'-0"



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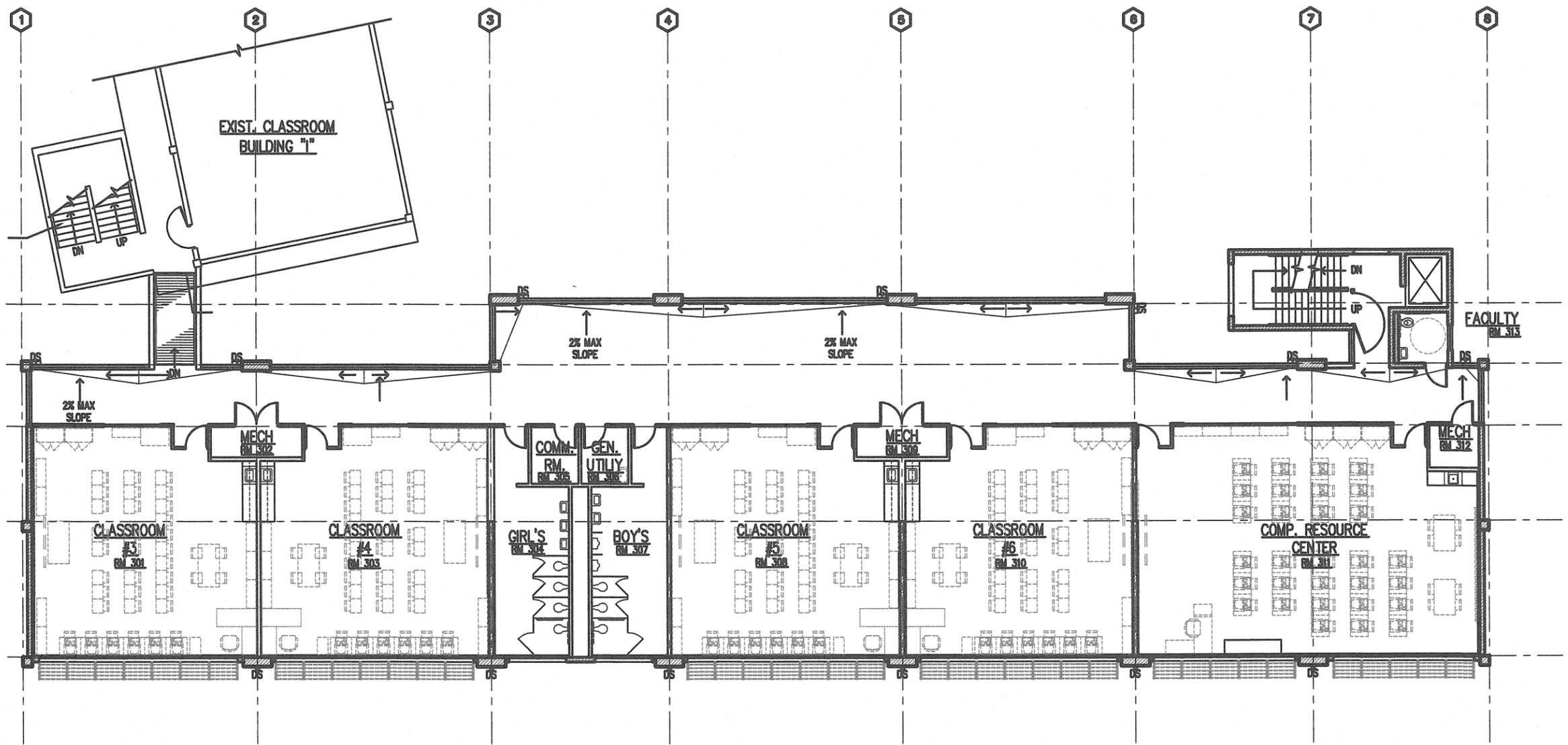
WAIPAHA ELEMENTARY SCHOOL
 EIGHT CLASSROOM BUILDING

THIRD LEVEL PLAN

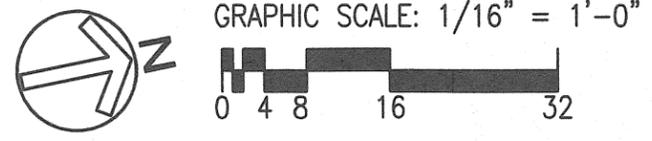
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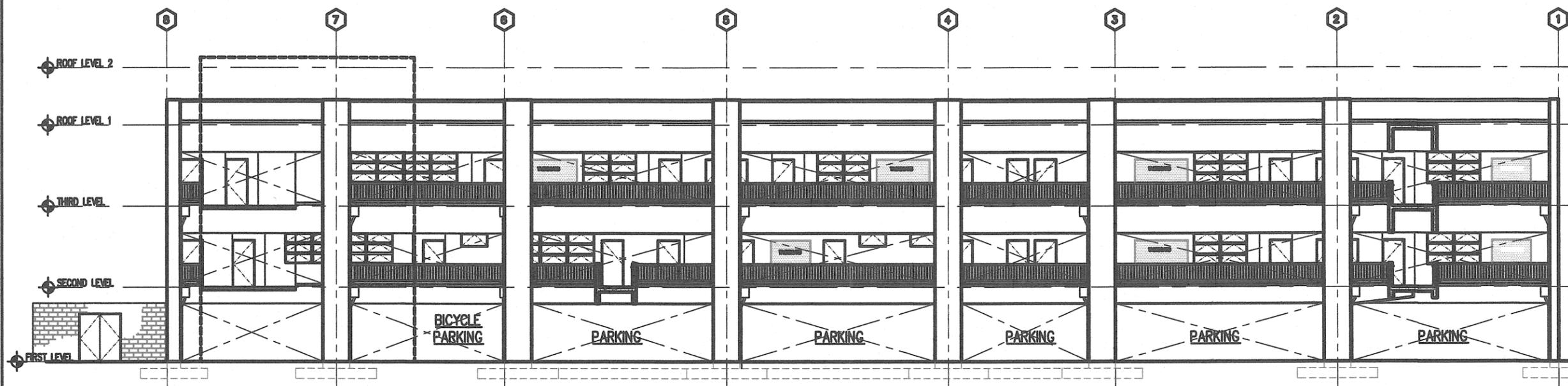
A-3

OF SHTS

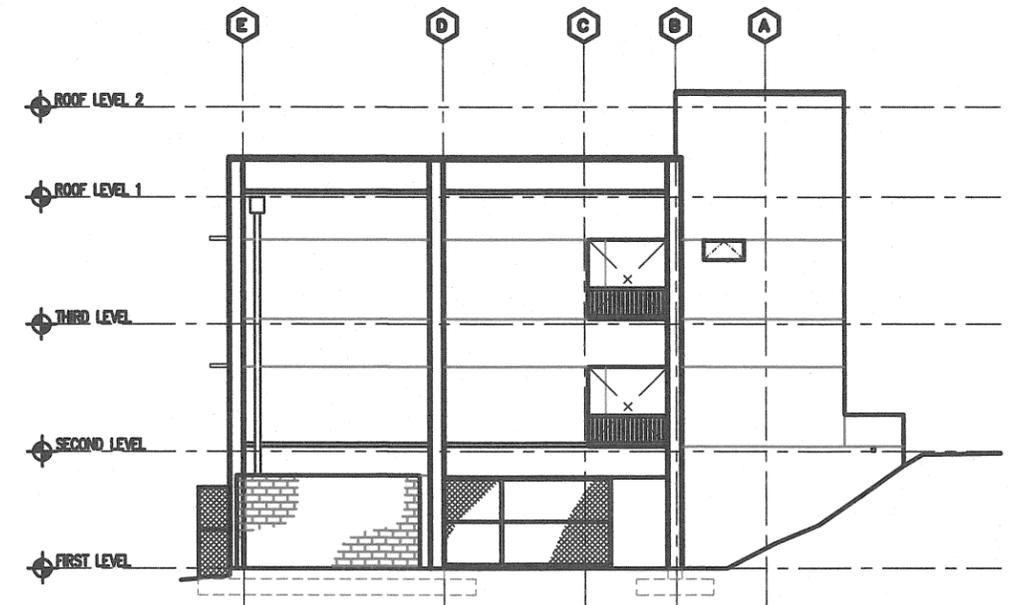


1 THIRD LEVEL PLAN
 A-3 SCALE: 1/16" = 1'-0"

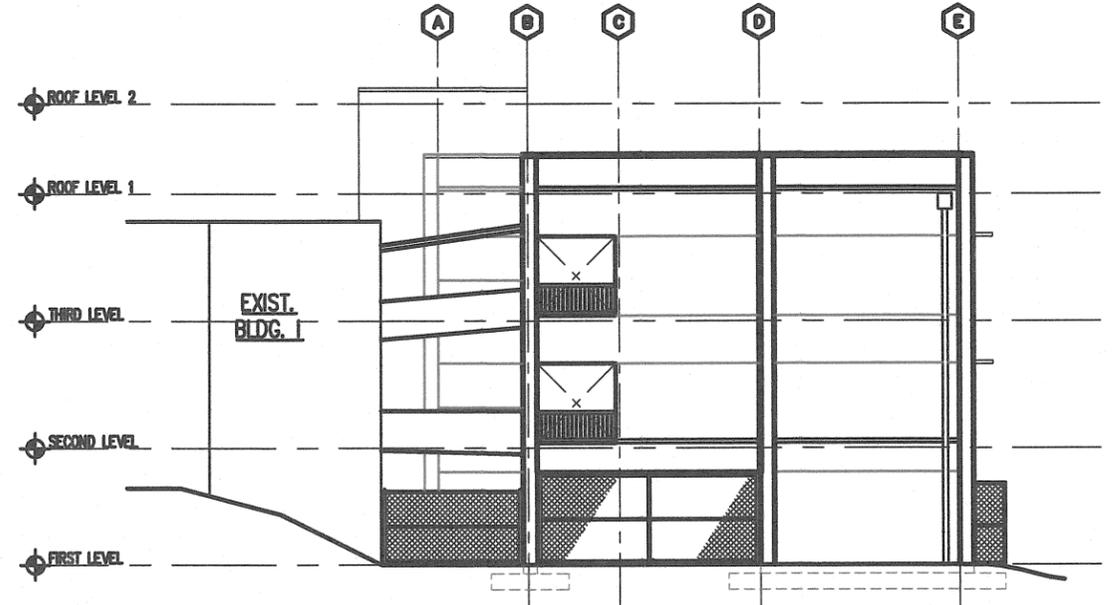




WEST ELEVATION



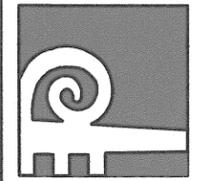
NORTH ELEVATION



SOUTH ELEVATION

1 EXTERIOR ELEVATIONS
A-4 SCALE: 1/16" = 1'-0"

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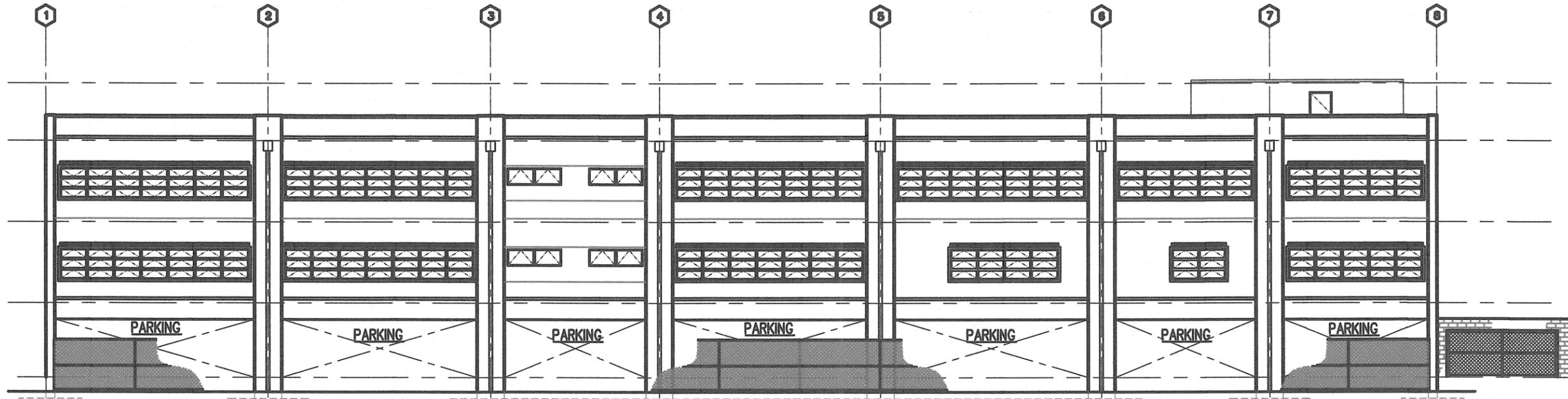
WAIPAHU ELEMENTARY SCHOOL
EIGHT CLASSROOM BUILDING

EXTERIOR ELEVATIONS

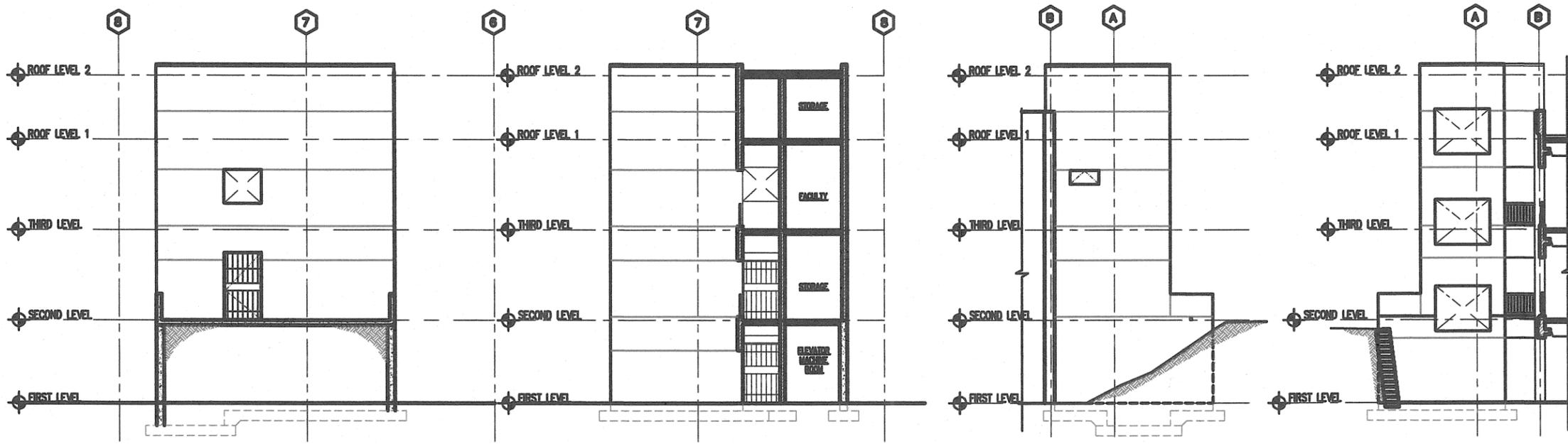
DATE 01/19/12
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DRAWN JC CHECK CM
SHEET

A-4

OF SHTS



EAST ELEVATION



WEST ELEVATION

EAST ELEVATION

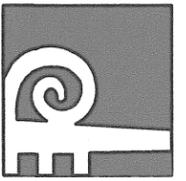
NORTH ELEVATION

SOUTH ELEVATION

STAIR AND ELEVATOR TOWER ELEVATIONS

1 EXTERIOR ELEVATIONS
A-5 SCALE: 1/16" = 1'-0"

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WAIPAHU ELEMENTARY SCHOOL
EIGHT CLASSROOM BUILDING

EXTERIOR ELEVATIONS

DATE	01/19/12
SCALE	1/16" = 1'-0"
DRAWN	JC
CHECK	CM
SHEET	

A-5

OF SHTS

2 DESCRIPTION OF THE AFFECTED ENVIRONMENT

A. Existing Conditions

Waipahu Elementary School is one of five elementary schools in the Waipahu Complex comprising the Department of Education's Pearl City-Waipahu Complex Area. The other elementary schools are August Ahrens, Honowai, Kaleiopu'u, and Waikele. The elementary schools "feed" students into Waipahu Intermediate which in turn "feeds" students into Waipahu High.

Eight permanent buildings are dispersed over the 4.64 acre main campus. The detached structures include an administration building, library, cafeteria, and five classroom buildings. Four of the classroom buildings are multi-level structures.

The school is designed for an enrollment of 1,050 students. In 2010-2011, the school reported an enrollment of 1,052 elementary school children in Grades K-6 (including Special Education). The school is thus operating at its capacity. Between 1995 and 2011, the school exceeded capacity four times (Department of Education Correspondence).

The building site is relatively flat and partly covered by grass and partly by gravel/dirt (See Photograph 1). The site is vacant except for a 40-foot long storage container placed in the southeast corner of the construction area. A 3'-6" to 7'-0" high chain link fence and an 8-foot high "stepped" CMU wall separates the building site from Waikele Gulch and apartment buildings on the east and south, respectively.



Photograph 1. Building Site Looking South. Waikele Gulch is on the Left and Apartment Buildings in the Background. Building "1" is on the Right.

An approximately 8-foot high bank separates the building site from Building “I” on top of the bank. The slope is planted with groundcover and assorted trees. Concrete pile remnants placed at the toe of the slope aid in erosion control (See Photograph 2).



Photograph 2. Three-story Building “I” on the West.

The site can be accessed on foot from the parking lot, a lawn area on the south of Building “I”, and stairways on the slope (See Photograph 3).



Photograph 3. Building Site Looking North.

The off-street parking area adjoining the building site provides seventy-seven (77) regular parking stalls on two levels and two stalls for the handicapped. The building site is occasionally used for overflow parking.

B. Climate

Waipahu can be characterized as having relative equable temperatures ranging from an annual average maximum of about 89° F in August to an annual average low of 65° F in January. The average temperature is 73.8° F. Average annual rainfall is approximately 25 to 30 inches, the majority of which falls in the months of February and December and the monthly average ranges from 1 to 3 inches. The northeasterly trades blow about 75 percent of the time at an average speed of about 10 knots (approximately 15 miles per hour) (Belt Collins Hawaii, 1998).

C. Topography

In profile, the building site is terraced from Building "I" on the west to the top of bank at Waikele Gulch on the east. Ground elevation falls from a high of approximately 75 feet above mean sea level at Building "I" to 66 feet along the bottom of the slope. Elevation for the building footprint ranges between elevation 63 and 66 feet. From the low elevation the building site falls towards Waikele Gulch where ground elevation is approximately 58 feet inside a chain link fence at the property boundary. No unusual landform or natural features are present.

D. Soils

The Soil Conservation Service (1972) maps two soil types---Helemano silty clay (HLMG) and Waipahu silty clay (WzC)---spanning the school. The former comprises about 2/3 and the latter 1/3 of the 4.6 acre property. The building footprint is on Helemano clay that developed from basic igneous rock. The soil is about 50 inches thick and underlain by a soft substratum and highly weathered igneous rock. The soil is moderately permeable, runoff is medium to very rapid, and the erosion hazard is severe to very severe.

Helemano soils are found on the sides of V-shaped gulches (such as Waikele Gulch)

E. Water Resources

1. Surface Water

There are no streams, lakes, ponds, open bodies of water, or wetlands on the school grounds.

2. Ground Water

Based on aquifer classification records (Mink and Lau, 1990), the geographic area roughly between Barbers Point on the west, West Loch of Pearl Harbor on the east, and Wahiawā on the north is situated over the Waipahu aquifer system of the Pearl Harbor aquifer sector. The basal, unconfined aquifer provides fresh drinking water, is considered ecologically important, and highly vulnerable to contamination. The aquifer is one of several basal aquifers comprising the Pearl Harbor Groundwater Management Area.

F. Flood Hazard

The Flood Insurance Rate Map (See Figure 3) for this section of Waipahu shows Waipahu Elementary School inside Flood Hazard Zone "X" Other Areas which is defined as "areas determined to be outside the 0.2% chance annual floodplain (Federal Emergency Management Agency, 2011)".

G. Historic Resources

Archaeological resources are not found on the ground surface and none are known to be associated with the building site.

H. Cultural Resources

Cultural resources are not known to be present.

I. Botanical Resources

The site is lacking in botanical diversity. A maintained Bermuda grass lawn is the predominant groundcover with monkey pod, shower, royal Poinciana, and giant Crape Myrtle trees dotting the landscape and providing shade. Shrubs include ti, bougainvillea and hibiscus. Wedelia and morning glory cover the sloping area between the building site and Building "I".

J. Wildlife Resources

Like botanical resources, wildlife resources are limited as few species were observed during a field investigation. Mynah bird, barred dove, and house sparrow were the only avian species recorded.

Koa haole brush and scrub vegetation covering the sides of Waikele Gulch may harbor mongoose and other rodents.

K. Hazardous Materials

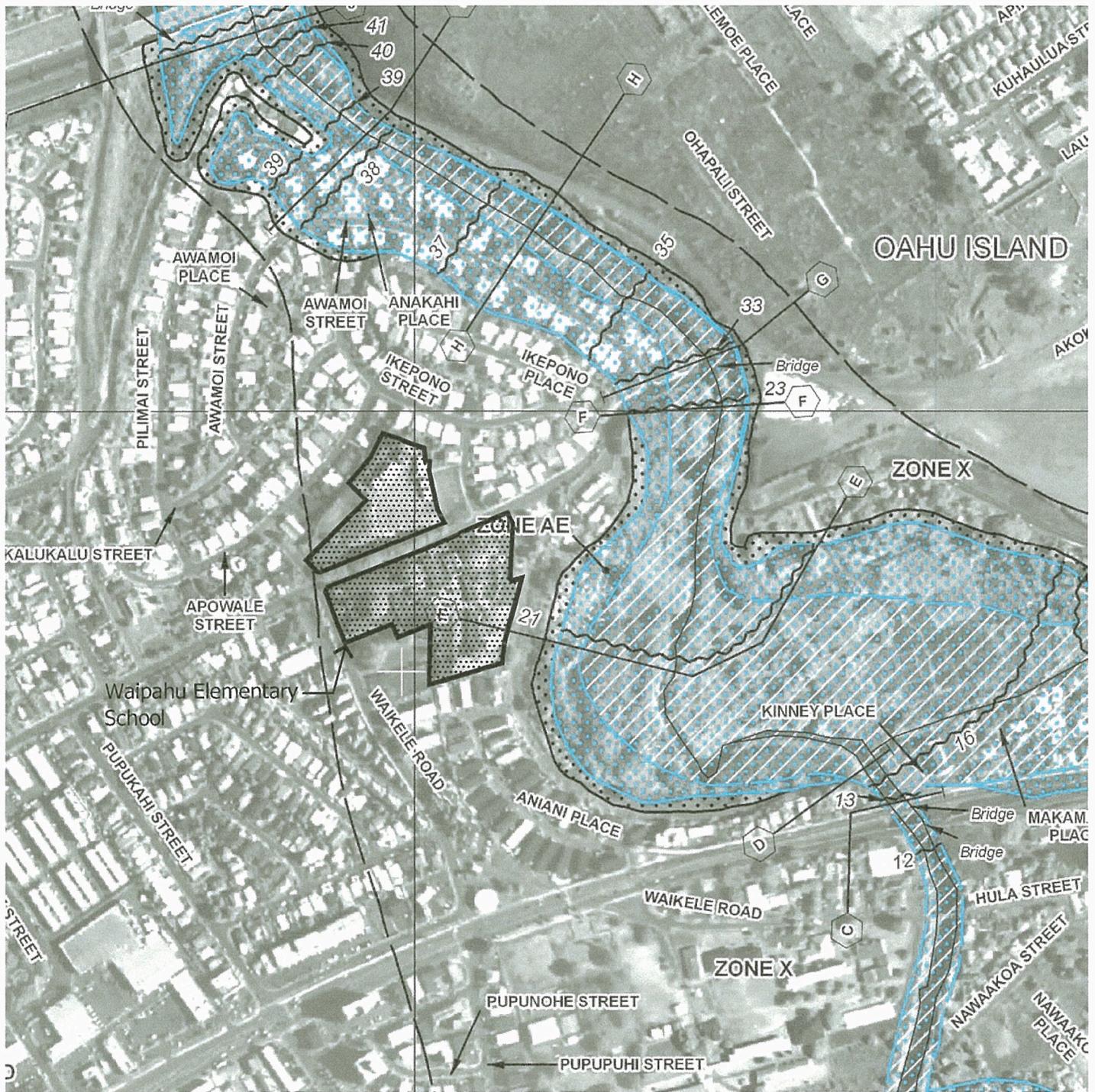
No hazardous materials are known to be associated with the building site.

L. Land Use Controls

Pursuant to Chapter 205 HRS, the Hawaii Land Use Law, the State Land Use Commission classifies all land in the State of Hawai'i into one of four classifications: Urban, Agricultural, Conservation, or Rural. Uses and activities in the Urban district are regulated by the respective counties. Waipahu Town and the neighboring communities of Waikele, Village Park, and Royal Kunia are designated Urban on state land use district boundary maps.

The Central Oahu *Sustainable* Communities Plan (2002) places Waipahu Elementary School in a Residential and Low Density Apartment district.

The school site is zoned R-7.5 Residential (Figure 4). Elementary schools are a permitted use in the residential zoning district



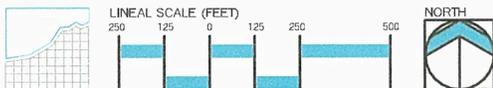
Legend

-  Special Flood Hazard Zone Subject to Inundation by the 1% Annual Chance Flood
- Zone A No Base Flood Elevations Determined.
- Zone AE Base Flood Elevation Determined.
- Zone VE Coastal Flood Zone with Velocity Hazard (Wave Action); Base Flood Elevations Determined.
-  Floodway Areas in Zone AE

-  Other Flood Areas
- Zone X 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.
-  Other Areas
- Zone X Areas Determined to be Outside the 0.2% Annual Chance Floodplain.

Source: Federal Emergency Management Agency
 Flood Insurance Rate Map
 Map Number 15003C0238G
 Date Revised: Jan. 19, 2011.

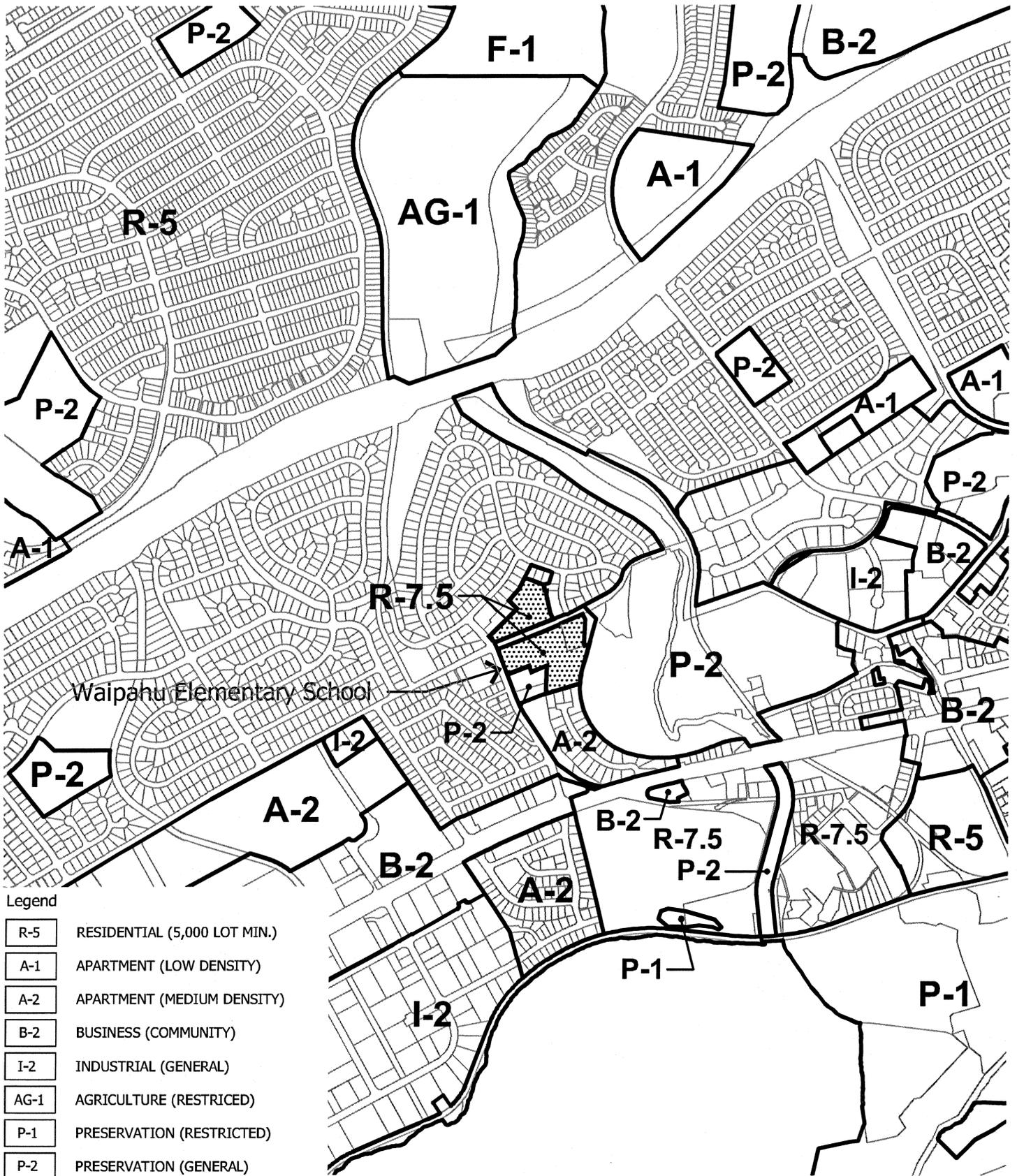
Figure 3
 Flood Insurance Rate Map
 Waipahu Elementary School
 New 8 - Classroom Building



Gerald Park
 Urban Planner
 October 2011

Department of Education, State of Hawai'i

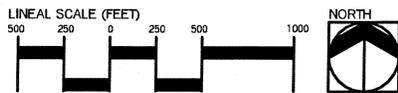
Portion Waikale, O'ahu, Hawai'i



Legend

- R-5 RESIDENTIAL (5,000 LOT MIN.)
- A-1 APARTMENT (LOW DENSITY)
- A-2 APARTMENT (MEDIUM DENSITY)
- B-2 BUSINESS (COMMUNITY)
- I-2 INDUSTRIAL (GENERAL)
- AG-1 AGRICULTURE (RESTRICTED)
- P-1 PRESERVATION (RESTRICTED)
- P-2 PRESERVATION (GENERAL)

Source: City & County of Honolulu Website



Department of Education, State of Hawai'i

Figure 4
Zoning
Waipahu Elementary School
New 8 - Classroom Building

Portion Waikēle, O'ahu, Hawai'i

The property is not located within the County delineated Special Management Area or Special District.

M. Public Facilities

1. Circulation

Waipahu Street, a two-lane, two-way County road (east/west) bisects the campus. The posted speed limit is 25 miles per hour. A pedestrian bridge over the road links both campuses.

Access to the school's parking lot is taken from Waipahu Street.

2. Water

Water service is provided by the City and County of Honolulu Board of Water Supply. Potable water is drawn from a 16-inch water main under Waipahu Street through a 4' service lateral. The lateral ties into a 3-inch water meter. From the meter, distribution lines supply water to the various buildings.

Fire hydrants located on Waipahu Street, Waikele Road, and in the parking lot provide fire flow.

3. Wastewater

Wastewater is discharged from the on-campus collection system into a municipal 8" main under Waipahu Street.

4. Power and Communication

Electrical power and communication systems are available on campus from overhead systems on Waipahu Street.

5. Protective Services

Police protection originates from the Honolulu Police Department's Pearl City District Station in Pearl City and fire service from the Waipahu Fire Station in Waipahu.

6. Solid Waste

Commercial haulers are contracted for collecting and disposing of refuse. Solid Waste is disposed at the City and County of Honolulu H-POWER waste to energy plant at Campbell Industrial Park and Waimanalo Gulch Sanitary Landfill in Leeward O'ahu.

3 SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS

The scope of the project was discussed with the consulting architect, members of the design team, and staff of the Facilities Development Branch, Department of Education. State and County agencies were contacted for information relative to their areas of expertise. Time was spent in the field noting site conditions and conditions in the vicinity of the school. The sum total of the consultations and field investigations helped to identify existing conditions and features that could affect or be affected by the project. These conditions include:

- The classroom building will be constructed in a remote corner of the school grounds occasionally used for overflow parking;
- The building site is a grassed lawn and there are no rare, threatened, or endangered flora or fauna present;
- There are no archaeological resources on the property or known cultural practices associated with the property;
- The school is not located in a flood hazard area;
- There are no streams, ponds, or wetlands on the premises; and
- Existing municipal water and wastewater systems can accommodate the classroom building.

A. Short-term Impacts

Site work, a necessary function to prepare the land for building the permanent improvements to follow, is the first and probably the most disruptive construction activity on the environment. Approximately 4,800 square feet will be cleared and grubbed. Grubbing will remove vegetation and grading will establish preliminary and final design elevations. Trees either will be demolished or relocated to other campus locations.

Site work is a persistent source of fugitive dust. Site contractors are aware that fugitive dust is a nuisance to construction workers, people living and working near work sites, and in this instance school age children and staff. Because the project is proposed on school grounds and constructed when classes are in session, it is imperative for the contractor to maintain stringent dust controls. Water sprinkling is probably the most effective dust control measure given the location of the building site, the relatively small area to be exposed by site work, and the scale of the proposed improvements. The contractor, however, may choose to implement other measures and best management practices based on their experience with similar projects and job site conditions.

Helemano soil pose a severe erosion hazard. Dust generation can be magnified on windy days and the contractor will have to implement stringent dust control measures throughout construction.

The contractor will be responsible for general housekeeping of the site and for keeping adjacent streets free of dirt, mud, and construction litter and debris. Pollution control measures will comply with Chapter 60.1, Air Pollution Control regulations of the State Department of Health.

Site work will expose soil thus creating opportunities for erosion and construction-related runoff. Site work will involve grading approximately 4,800 square feet to achieve the desired finish elevation. Grading quantities are estimated at 48 cubic yards of excavation and no embankment. Grubbing, grading, and stockpiling excavated or imported material will be performed in accordance with the Grading Ordinance of Honolulu, 1990, as amended and an approved Grading Plan. Furthermore, work will be performed in accordance with the Rules Relating to Soil Erosion Standards and Guidelines (1999) and Rules Relating to Storm Drainage Standards (2000) to reduce pollution associated with storm water runoff.

Best Management Practices (BMPS) for erosion and drainage control during construction will be incorporated into the Grading Plan. The project limits are less than one (1) acre thus a National Pollutant Discharge Elimination System ("NPDES") General Permit Authorizing Discharges of Storm Water Associated with Construction Activity will not be required from the State Department of Health.

Construction noise will vary by construction phase, the duration of each phase, and the type of equipment used during the different phases. For this project, noise will be most pronounced during the early stages when the site is grubbed, graded, and building foundations poured. Noise will diminish as the structure is erected and roofed. Once the structure is completed, most construction activities will take place inside the building and the exterior walls will help to attenuate noise.

Schools are considered noise sensitive facilities. Buildings "I" and "F" are located within 100 feet of the building site with Building "I" adjoining the building site. It is anticipated that classrooms in the two buildings will be exposed to construction noise. Both buildings are constructed of cement masonry unit walls which effectively aid in noise mitigation. Classrooms in Building "I" facing the construction area, however, are faced with operable wooden louvers which are not effective in noise attenuation. The classrooms are air conditioned and the windows can be shut to help reduce construction noise as much as practical.

Construction barriers or fencing will be erected around the site for public safety but will also aid in noise mitigation and dust control. In addition, the contractor will regularly communicate with the school administration of work to be performed and the associated working hours.

Construction could be scheduled when school is not in session [Note: construction is projected to commence during the 3rd quarter of 2012 and this alternative would require accelerating the construction schedule]. This form of mitigation would preclude dust, noise, and construction vehicle traffic from adversely affecting daily school activities and provide for the safety of students, parents, and school staff.

Work will be scheduled between the hours of 8:00 AM to 3:30 PM Mondays through Fridays. The contractor will ensure that motorized construction equipment is properly equipped with mufflers in good operating condition. All construction activities will comply with Chapter 46, Noise Control for Oahu, Title 11, Administrative Rules, State Department of Health.

Community Noise Control regulations (Chapter 46, HAR) establish a maximum permissible sound level for construction activities occurring within (acoustical) zoning districts. Land zoned residential is placed in the Class A zoning district. The maximum permissible sound level for excessive noise sources (to include stationary noise sources and construction and

industrial activities) in the Class A zoning district is 55 dBA between 7 a.m. to 10 p.m. (Chapter 46, Community Noise Control, 1996). Construction activities often produce noise in excess of the permissible daytime noise level and a variance (or Noise Permit) may be needed. The contractor will be responsible for obtaining the variance and complying with applicable conditions.

The project is proposed in an area that has been altered by construction activities and improvements. Should excavation unearth subsurface archaeological sites, artifacts, or cultural deposits, work in the immediate area will cease and the proper authorities notified for disposition of the finds. If *iwi kupuna* are uncovered and appear to be less than 50 years old, the Honolulu Police Department will be notified. If the burials appear to be more than 50 years old, then the State Historic Preservation Officer will be notified. As a matter of protocol, both agencies will be notified for inspection and proper disposition of the finds.

The Bermuda grass lawn will be grubbed and trees demolished. These species are common to the Island of O'ahu and State of Hawai'i. None are considered rare, threatened or endangered or proposed for that status.

The entry driveway is the principal vehicle access onto the school grounds. The proposed classroom building is located at the end of the parking lot and construction work may, at times, temporarily impede traffic circulation within the parking lot and on streets leading to the school. To minimize impacts, the contractor will:

- Post notices alerting faculty and parents of scheduled work on and around the driveway and the parking lot;
- Position traffic cones or other directional devices to guide vehicles around work areas;
- Post flagmen for traffic control;
- Cover open trenches with steel plates during non-working hours and post safety devices with warning lights to alert motorists of the construction area; and
- Schedule work on or in the vicinity of the driveway and parking lot to avoid student drop-off and pick-up times.

Vehicles carrying workers and material will contribute to traffic on Waipahu Street, the only road with direct access to the construction area. Material deliveries will be scheduled during non-peak traffic hours to minimize impact on traffic.

The narrow and elongated space on which the new classroom will be constructed does not provide the contractor adequate space for storing equipment and materials and staging construction activities. To provide needed space, the existing parking lot will be barricaded with the effect of displacing parking stalls for staff. The school has agreed to close the parking lot during the construction period and parking elsewhere will be sought. This impact cannot be avoided and is expected to inconvenience staff for the duration of construction.

Two parking stalls for the disabled will be relocated within the parking lot and the student drop-off area behind the cafeteria will be maintained at all times. Further, the contractor will avoid construction activities during student drop off (7:00 AM to 8:15 AM daily) and pick-up hours (1:55 PM to 2:50 PM daily) and on Wednesdays (12:40 PM to 1:15 PM).

B. Long-term Impacts

The project will help to mitigate the doubling up of classrooms as is now practiced and provide space for existing and future educational programs. It is not being constructed to accommodate projected increases in student enrollment. Historically, student enrollment has been equivalent to the design enrollment of the school.

There are no existing and proposed uses associated with the classroom building and Waipahu Elementary School that would adversely affect air quality in the long-term. The principal source of air pollution is expected to be exhaust emissions from vehicles entering and exiting the school grounds. Emissions will be dispersed by the prevailing winds.

In general, elementary schools are not significant noise generators. Noise associated with use of the classrooms can be expected and can be confined to interior spaces by walls and doors. Student noise such as talking and laughing during play may be audible in the multi-family residential units located to the south of the new classroom building. Such sounds are temporary and generally limited to certain times of the day.

The proposed courtyard/play ground will provide space for passive and active recreation. It can be viewed as a replacement for the open area that previously was but currently not used as a play ground.

A substantial increase in vehicle traffic is not anticipated since the classroom building is not a traffic generator. Ten (10) parking stalls will be provided per the parking requirements of the Land Use Ordinance, City and County of Honolulu and the 19 additional stalls will help to alleviate a current shortage of parking stalls.

Adverse impacts on existing water and wastewater systems are not anticipated. Increases in water demand and wastewater flow over existing conditions are not anticipated since the infrastructure associated with the new building will serve the same number of students and school personnel now served.

Runoff quantities have not been calculated. Construction of the building and driveway is anticipated to increase runoff quantities over existing conditions. Runoff will be directed to a 24-foot wide landscaped area on the west side of the building and allowed to evaporate or percolate into the ground. A combination of on-site/off-site mitigation measures may be undertaken such that there is no adverse impacts to adjacent properties principally Waikele Gulch.

The classroom building will present a new object to be seen on campus. New trees and shrubs planted around or near the building will "soften" its mass and add vertical elements to its form. The building may be visible to passersby on Waipahu Street and from the upper levels of the apartment buildings to the south. In scale, form, and appearance the new building will resemble existing multi-level classroom buildings in general and the adjoining 2-story Building "I" in particular.

The 8-Classroom Building will be designed as a sustainable building following LEED 2009 for School Guidelines. It is anticipated that the building will have lower operating costs, conserve energy and water, provide for the health and comfort of its users, and demonstrate a State commitment to sustainable building design.

Overall electrical consumption for the school is expected to increase. To offset the anticipated increase, architectural, electrical, and mechanical systems will be designed to comply with Hawai'i State energy code requirements. Measures such as the use of energy efficient fixtures, natural lighting, insulated building materials, and low-E glazed glass windows will promote energy conservation. In the future, installing photovoltaic (PV) panels will further promote energy conservation and reduce energy costs.

Elementary schools are a permitted use in the Residential zoning district. Adding a classroom building to an existing permitted use will not alter the character of surrounding areas, the zoning of adjacent properties, and the uses and zoning of the school property.

4 ALTERNATIVES TO THE PROPOSED ACTION

A. No Action

A no action alternative would maintain the status quo of the site thus precluding the occurrence of all environmental impacts, short and long-term, beneficial and adverse described in this Assessment. Resources committed to plan and design the facility would be foregone and the purpose of the project unachieved.

B. Alternative Sites

The building site is the only available vacant area on the Main campus large enough on which to erect the 8-Classroom Building.

C. Portable Classrooms

Portable classroom buildings are an alternative to a permanent structure. Although this type of building is portable, relatively quick to build, and less expensive to construct it will not provide the number of classrooms required and is lacking in quality and durability of a permanent structure. For this alternative, there is insufficient land area to provide the equivalent of eight classrooms (cited from Kimura, 2009).

D. Disperse Students to Other Schools

Elementary school age children could be dispersed to August Ahrens, Honowai, Kaleiopu'u, or Waikele Elementary Schools. These schools, which are part of the Waipahu Complex, are located outside the service area of Waipahu Elementary. This alternative would require justification and recommendation from the Department of Education and a policy decision by the State Board of Education.

5 PERMITS AND APPROVALS

Permits required for the project and responsible authorities are identified below. Additional permits and approvals may be required depending on final construction plans.

State of Hawaii

Department of Health

Variance from Pollution Controls (Noise Permit)

Department of Land and Natural Resources

State Historic Preservation Division Clearance (Chapter 6E)

City and County of Honolulu

Department of Planning and Permitting

Grubbing, Grading, and Stockpiling Permit

Building Permit for Building, Electrical, Plumbing, Sidewalk/Driveway and Demolition Work

Sewer Connection

Waiver (Height)

6 AGENCIES AND ORGANIZATIONS TO BE CONSULTED

State of Hawaii

Department of Health
Department of Land and Natural Resources
State Historic Preservation Division

City and County of Honolulu

Board of Water Supply
Department of Environmental Services
Department of Facilities Management
Department of Planning and Permitting
Honolulu Police Department
Honolulu Fire Department

Organizations

Hawaiian Electric Company
The Honorable Clarence K. Nishihara, 18th Senatorial District
The Honorable Henry C. Aquino, 35th Representative District
The Honorable Nestor Garcia, Honolulu City Council
Waipahu Neighborhood Board No. 23
Waipahu Public Library (Placement)

Pre-Assessment Consultation

State Historic Preservation Division

7 DETERMINATION OF SIGNIFICANCE

Chapter 200 (Environmental Impact Statement Rules) of Title 11, Administrative Rules of the State Department of Health, establishes criteria for determining whether an action may have significant effects on the environment (§11-200-12). The relationship of the proposed project to these criteria is discussed below.

1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

Natural or cultural resources are not associated with the building site.

Should excavation unearth subsurface archaeological sites, artifacts, or cultural deposits, work in the immediate area will cease and the proper authorities notified for disposition of the finds.

2) Curtails the range of beneficial uses of the environment;

The project will not curtail the beneficial uses of the environment. The building site is a grassed open space that is currently not used for school activities.

3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decisions or executive orders;

The project does not conflict with long-term environmental policies, goals, and guidelines of the State of Hawaii.

4) Substantially affects the economic or social welfare of the community or State;

The project is not anticipated to substantially affect the economic or social welfare of the community or the State.

5) Substantially affects public health;

Public health will not be adversely affected. Short-term environmental impacts in the form of fugitive dust, noise from construction equipment, and minor erosion can be expected. These impacts can and will be mitigated by measures described in this Assessment and measures, such as best management practices for erosion control, to be submitted with construction plans and documents.

6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

Substantial secondary impacts on public facilities are not anticipated.

7) Involves a substantial degradation of environmental quality;

The building site has been modified by previous site work and currently is partially planted with grass and partially covered by dirt/gravel. Field inspections and a literature review indicate there are no significant environmental resources present. Given these conditions, environmental quality will not be substantially degraded.

8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The project will not have a considerable environmental effect and does not involve a commitment for larger actions.

9) Substantially affects a rare, threatened or endangered species, or its habitat;

Flora observed on the building site are not listed or candidates for rare, threatened or endangered status.

Wildlife was not observed. The building site is devoid of environmental resources needed to sustain wildlife species or habitat thus no impact is anticipated.

10) Detrimentially affects air or water quality or ambient noise levels;

Ambient air quality will be affected by fugitive dust and combustion emissions during construction but can be controlled by measures stipulated in this Assessment. Construction noise may be pronounced during site preparation work but should diminish once the structural improvements are completed. All construction activities will comply with air quality and noise pollution regulations of the State Department of Health.

Erosion control measures will be prescribed in grading plans and best management practices prepared for the project.

11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

Waipahu Elementary School is not located in an environmentally sensitive area.

12) Substantially affects scenic vistas and view planes identified in county or state plans or studies, or;

The three-story classroom building will not affect scenic vistas and view planes.

13) Requires substantial energy consumption.

The new building will increase electrical demand for the school. However, the building will be designed to comply with Hawaii State energy codes and sustainable design features making it more energy efficient in comparison to other buildings on campus.

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