

DRAFT ENVIRONMENTAL ASSESSMENT

PĀ'IA ELEMENTARY SCHOOL CAFETERIA

Pā'ia, Maui, Hawai'i

Prepared for

Department of Education
State of Hawaii
Facilities Development Branch
Project Management Section
1151 Punchbowl Street, Room 501
Honolulu, Hawaii 96813

February 2010

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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

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Department of Education
State of Hawai'i
Facilities Development Branch
Project Management Section
1151 Punchbowl Street, Room 501
Honolulu, Hawai'i 96813

Prepared by

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February 2010

PROJECT PROFILE

Proposed Action: Pā'ia Elementary School Cafeteria
Job No. 55803-08

Location: Pā'ia, Maui, Hawai'i

Proposing Agency: Department of Education
Facilities Development Branch, Planning Section
1151 Punchbowl Street, Room 501
Honolulu, Hawai'i 96813

Accepting Authority: Department of Education
Facilities Development Branch, Planning Section
1151 Punchbowl Street, Room 501
Honolulu, Hawai'i 96813

Tax Map Key: 2-5-005:004
Land Area: 9.954 acres
Landowner: State of Hawai'i

Existing Use: Public Elementary School
State Land Use Designation: Agricultural
Paia-Haiku Community Plan: Public/Quasi-Public (P)
Zoning: County Interim District
Special Management Area: Not Within Special Management Area

Need for Assessment: Use of State lands and funds §11-200-5 (b)
Anticipated Determination: Finding of No Significant Impact

Contact Person: Benjamin Miura
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Facilities Development Branch, Planning Section
1151 Punchbowl Street, Room 501
Honolulu, Hawai'i 96813

Telephone: 586-0429

TABLE OF CONTENTS

	Project Profile	i
	Table of Contents	ii
	List of Figures and Images	iv
SECTION 1	DESCRIPTION OF THE PROPOSED ACTION	1
	A. Purpose and Need for the Project	1
	B. Technical Characteristics	1
	1. Cafeteria	1
	2. Circulation and Off-Street Parking	2
	3. Infrastructure	2
	4. Demolition	3
	5. Landscaping	3
	C. Economic Characteristics	3
SECTION 2	EXISTING CONDITIONS	10
	A. Existing Uses and Structures	10
	B. Climate	10
	C. Topography	12
	D. Soils	12
	E. Water Resources	12
	1. Surface Water	12
	2. Ground Water	12
	F. Flood Hazard	12
	G. Historic Resources	12
	H. Cultural Resources	13
	I. Botanical Resources	13
	J. Wildlife Resources	13
	K. Hazardous Materials	13
	L. Land Use Controls	13
	M. Public Facilities	14
	1. Circulation	14
	2. Water	14
	3. Sewer	14
	4. Power and Communication	14
	5. Protective Services	14
SECTION 3	SUMMARY OF ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS	15
	A. Short-term Impacts	15
	B. Long-term Impacts	17
SECTION 4	ALTERNATIVES TO THE PROPOSED ACTION	20
	A. No Action	20
	B. Alternatives Sites	20

TABLE OF CONTENTS

SECTION 5	PERMITS AND APPROVALS	21
SECTION 6	AGENCIES AND ORGANIZATIONS TO BE CONSULTED	22
SECTION 7	DETERMINATION OF SIGNIFICANCE	23
REFERENCES		26
APPENDIX A	ZONING AND FLOOD CONFIRMATION	

FIGURES

Figure	Title	Page
1	Location Map	4
2	Tax Map	5
Sheet A-1.2	Site Plan	6
Sheet A-2.1	Floor Plan	7
Sheet A-4.1	Exterior Elevations	8
Sheet L-3	Landscape Planting Plan	9
Sheet A1	Conceptual Rendering	19

SITE PHOTOGRAPHS

Photograph	Title	Page
1	Section of Cafeteria Site Looking East	11
2	Partial <i>Makai</i> View of Site (Baldwin Avenue Side)	11
3	Partial <i>Makai</i> View of Site (School Side)	11
4	View of Site Towards Baldwin Avenue	11
5	<i>Mauka</i> View of Site	11

The Department of Education, State of Hawaii, proposes to construct a new cafeteria at Pā'ia Elementary School located at Pā'ia, County Maui, Hawai'i. Pā'ia Elementary School is located on Baldwin Avenue approximately 1.5 miles southeast of the town of Pā'ia. The school is bounded by land in agricultural use generally on all four sides. Holy Rosary Church is located across Baldwin Avenue from the school. A Location Map is shown in Figure 1.

The school site bears Tax Map Key: 2-5-005: 004 encompassing an area of 9.954 acres. A Tax Map is shown in Figure 2.

A. Purpose and Need for the Project

The purpose of the project is to provide Pā'ia Elementary School with a permanent cafeteria building. The cafeteria building was destroyed by fire in 2005 and students currently are served meals (breakfast and lunch) in an on-campus building.

B. Technical Characteristics

1. Cafeteria

A building site on the west side and adjacent to the school entry driveway has been selected for the site of the cafeteria. The site is at the same location as the cafeteria that was destroyed but features a slightly larger building footprint. The cafeteria will be constructed on a building site of approximately 11,200 square feet which includes the cafeteria building (approximately 8,340 square feet (See Sheet 1-1.2, Site Plan).

A serving kitchen of approximately 1,300 square feet is proposed. Meals will not be prepared at the cafeteria but prepared at and transported from a central kitchen at Kalama Intermediate School (as done under current conditions). The kitchen will be equipped with a convection oven to allow cafeteria staff to occasionally prepare simple meals if needed.

The student dining area is the largest space and principle feature of the building. The approximately 6,100 square foot space will provide students with a safe and friendly dining area. The larger space will allow all students to be served lunch during one lunch period.

The dining area will also function as a multi-purpose room for student art displays, large group instruction, and assemblies. A portable stage can be set up for musical performances or other uses. In addition, the cafeteria will serve as an emergency hurricane shelter and a meeting place for the community. The cafeteria has a maximum occupancy of 270 persons.

A 550 square feet faculty and staff dining room is also proposed. The dining will also function as a faculty lounge and meeting place for teachers (See Sheet A-2.1, Floor Plan).

Space is allocated for facilities and uses as follows:

- Custodial service center with locker and shower areas
- Repair shop
- A+ Program office for school staff
- Dressing rooms for boys and girls
- Restrooms for boys and girls
- Adult unisex restroom
- Storage space for the portable stage and chairs.

A height of the proposed single-story structure is 29'-0" measured from finished grade to top of roof ridge (See Sheet A-4.1, Exterior Elevations). The cafeteria will be erected on an on-grade poured in place concrete slab on a spread-footing foundation and with a heavy timber roof framing system. The timber framing will be supported by concrete masonry walls and topped with a standing seam metal hip roof system.

The project will incorporate sustainable design features to best conform to Hawaii High Performance School Guidelines and Leadership in Energy and Environmental Design ("LEED") guidelines. The project will not seek LEED certification from the U.S. Green Building Council, however, it will be designed to achieve LEED Silver rating equivalent under LEED 2009 for Schools. The building is designed to maximize energy performance, use natural day light, reduce water usage, reduce site disturbance, use materials with low VOC (volatile organic compounds), and provide for indoor air circulation and thermal comfort.

2. Circulation and Off-Street Parking

No major change to on-campus vehicle circulation is proposed. The building has been sited away from the school's driveway to allow for construction of a service driveway in front of the cafeteria. The driveway is sited near the "front door" of the school for ease of access of kitchen and lunch deliveries.

Two parking stalls and a loading zone will be provided on the driveway.

Because the cafeteria will be used as a gathering place for school and community activities, additional parking will be provided at an existing paved area behind the school library. The paved area will be striped to accommodate 17 parking stalls, landscaped, and lighted.

3. Infrastructure

Domestic water service will be provided an existing 3" service lateral inside the school grounds. Water use is estimated at 120 gallons per day and can be supplied by the existing system.

The school lacks a municipal wastewater system and wastewater is disposed into a septic tank and leach field system. Wastewater from the cafeteria is estimated at 100 gallons per day and will discharge into the school's wastewater system. An on-site cesspool will be cleaned out, backfilled, and removed from use.

A grease trap with a capacity of 750 gallons will be installed in the cafeteria driveway. The grease trap will be pumped monthly.

Electrical power will be routed in underground conduits from the existing on-campus electrical system.

Surface runoff with the cafeteria is estimated at 3.7 cubic feet per second. Drywells will be placed at key locations for retention of storm water. All non-paved areas will receive grassing or groundcover to minimize erosion.

4. Demolition

All existing pavements, ramps, guard posts, fencing, and utilities within the project limits will be demolished and removed. Existing trees, hedges, and coconut palms within the proposed building footprint will be removed.

Approximately 28,700 feet of area will be graded for the new cafeteria, driveway, walkways, landscaping, drainage control, and associated improvements such as utility lines.

5. Landscaping

Areas between the cafeteria and the driveway and between the cafeteria and Baldwin Avenue will be landscaped (See Sheet L-3, Landscape Planting Plan). An underground irrigation system will be installed in the areas to be landscaped.

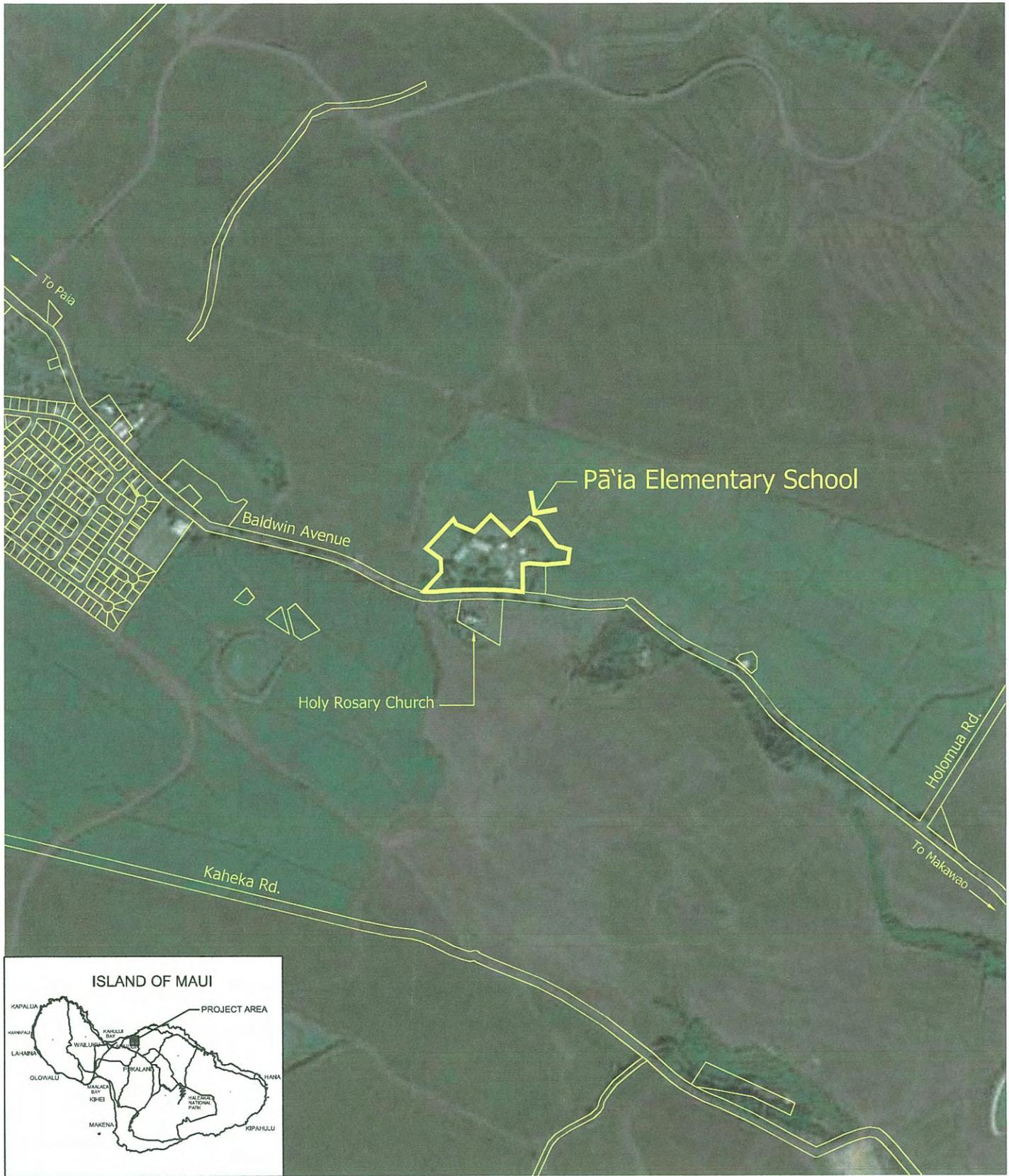
6. Accessibility

The new cafeteria building's walkways will connect to the school's existing accessible walkways. Accessible curb cuts or slope transition will be provided at the existing bus stop shelter and at the cafeteria for students dropped off in this area. All walkways will be designed in compliance with Americans with Disabilities Act ("ADA") requirements.

C. Economic Characteristics

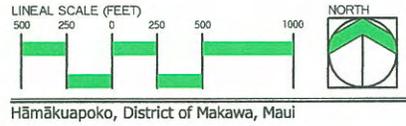
Construction costs are estimated at \$4.0 million and will be funded by the State of Hawai'i.

Construction will commence after all design plans are approved and construction permits received. Construction is projected to take 365 days with start-up in January 2011 and completion by February 2012.



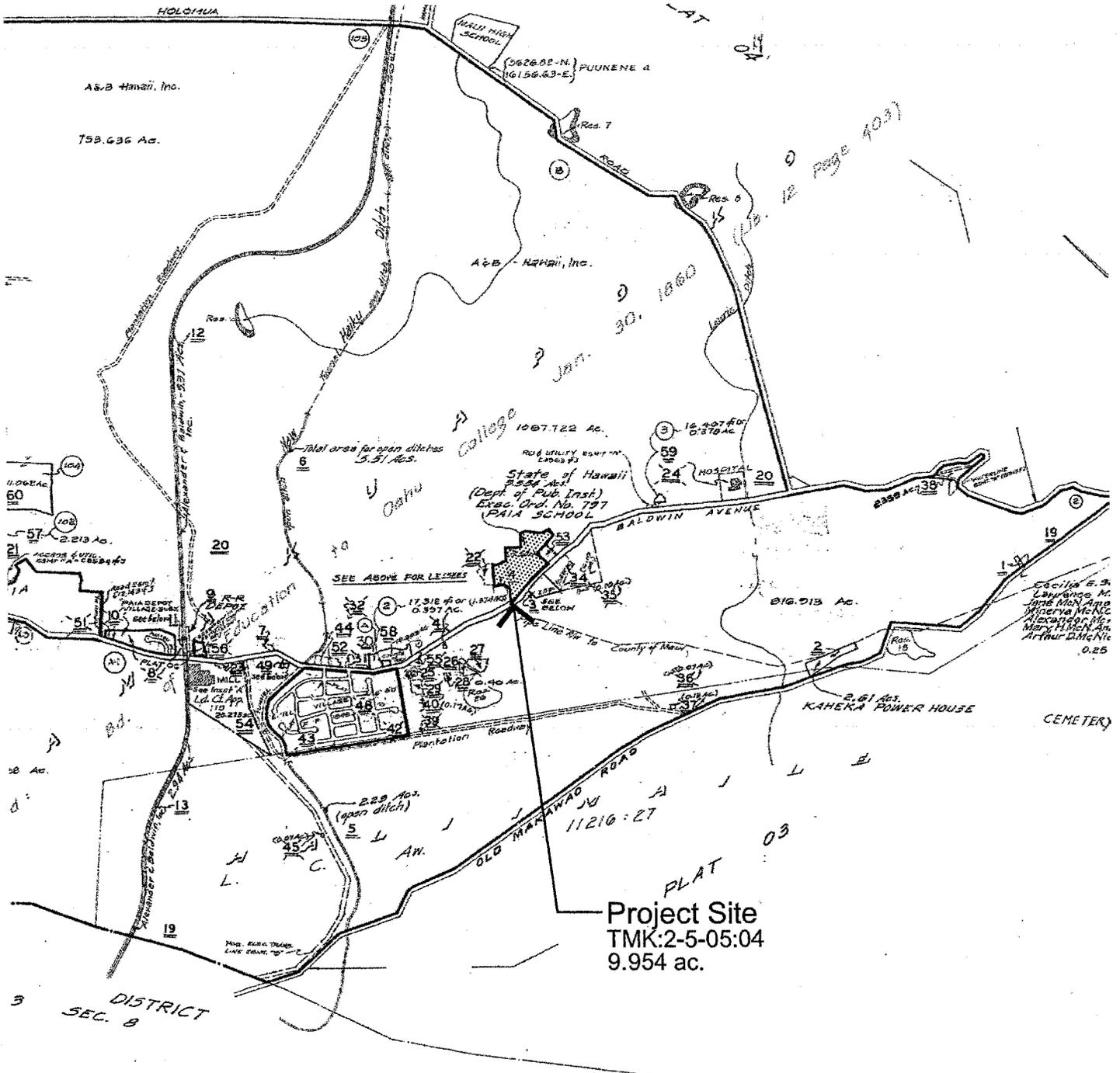
Source: Aerial-Google Earth Website

Gerald Park
Urban Planner
December 2009



Hāmākuapoko, District of Makawa, Maui

Figure 1
Location/Vicinity Map
Pā'ia Elementary School Cafeteria

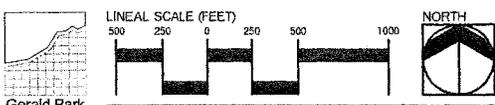


Project Site
 TMK:2-5-05:04
 9.954 ac.

- 3 Roman Catholic Church in the State of Hawaii - 2.00 Ac.
- 11 Alexander & Baldwin, Inc. - 0.51 ac.
- 49 Hann Telephone Co. - 6,037 ft or 0.138 ac.

TAXATION MAPS BUREAU		
TERRITORY OF HAWAII		
TAX MAP		
SECOND DIVISION		
ZONE	SEC.	PLAT
2	5	05
CONTAINING PARCELS		
SCALE: 1 in. = 1000 ft.		

Source: County of Maui, Real Property Tax Division

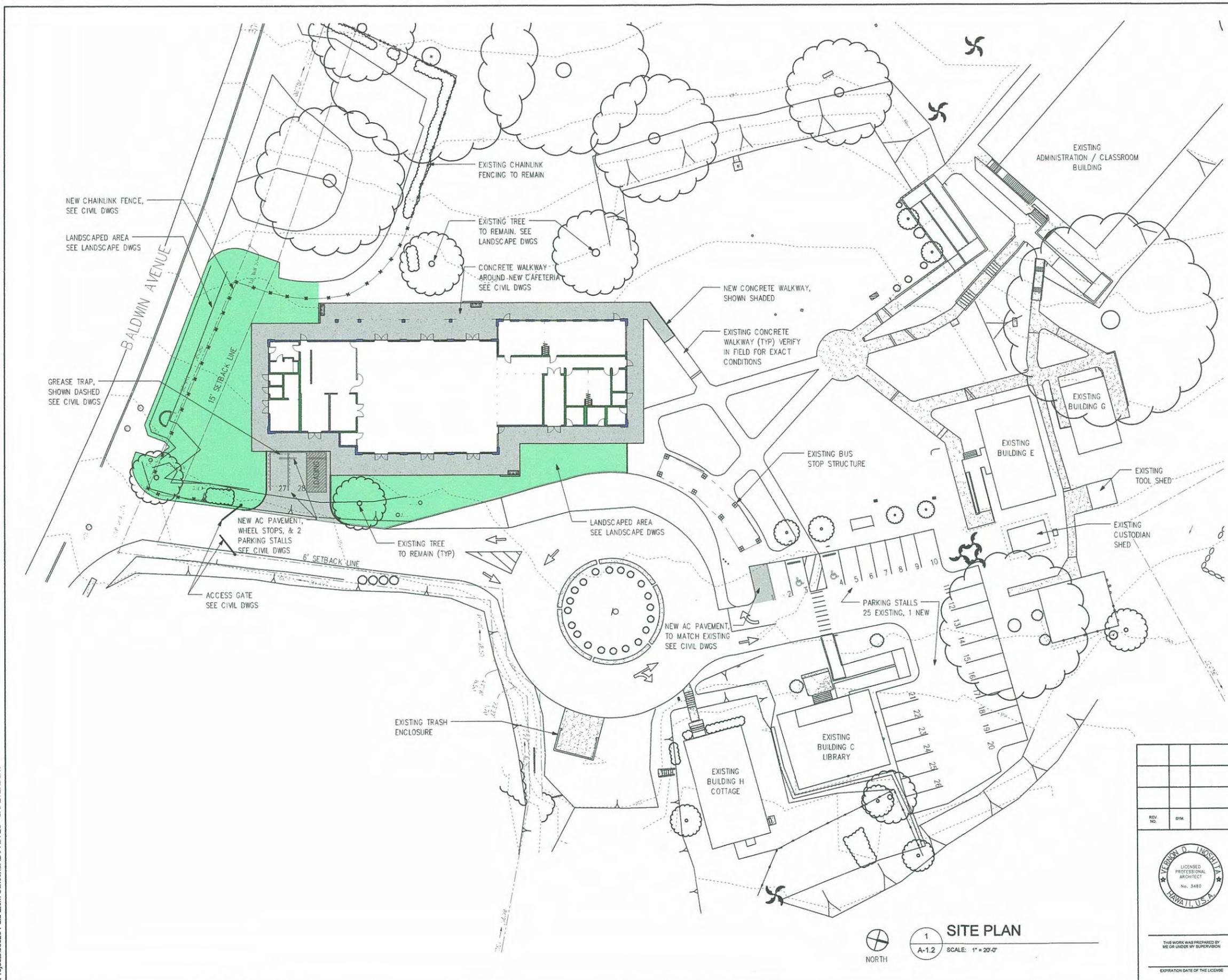


Gerald Park
 Urban Planner
 December 2009

Hāmākuapoko, District of Makawa, Maui

Figure 2
 Tax Map
 Pā'ia Elementary School Cafeteria

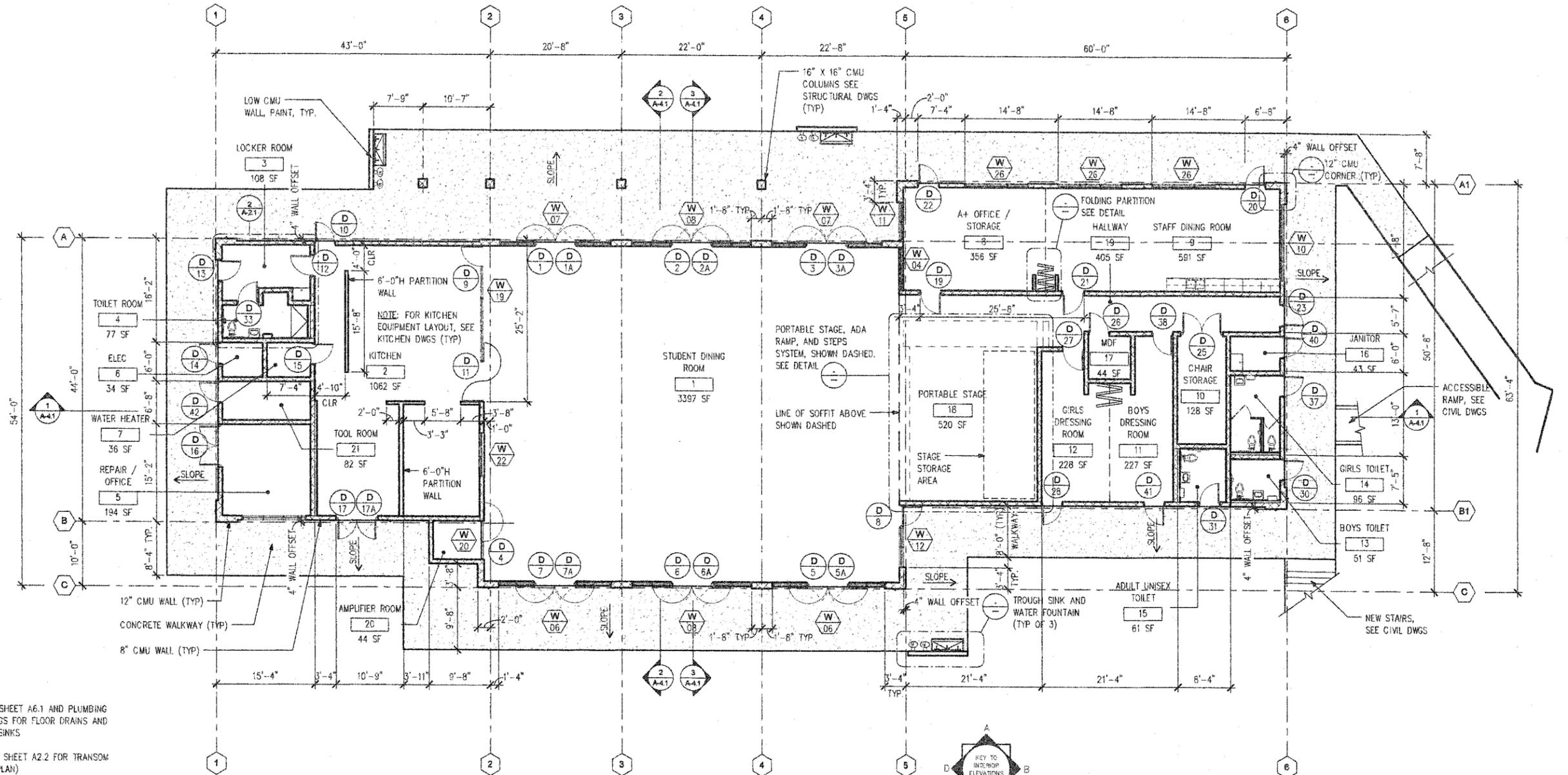
P:\Projects\08028 Paia Elem School\CAD\PAIA ES - CAFETERIA.rvt



1 SITE PLAN
 A-1.2 SCALE: 1" = 20'-0"

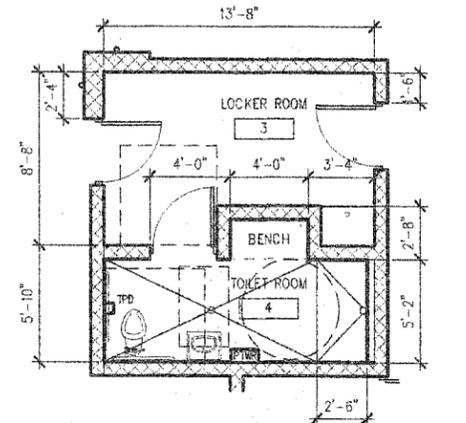
REV. NO.	SYM.	DESCRIPTION	BY	DATE	APPROVED BY

DEPARTMENT OF EDUCATION FACILITIES DEVELOPMENT BRANCH STATE OF HAWAII			
PAIA ELEMENTARY SCHOOL CAFETERIA ISLAND OF MAUI, HAWAII			
SITE PLAN			
DESIGN PARTNERS INC		DOE JOB NO.	DRAWING NO.
DESIGNED BY:	CHECKED BY:	Q55803-08	A-1.2
Author	Checker	DATE	SHEET
DRAWN BY:	APPROVED BY:	OCT 2009	OF _____ SHEETS
Author	Approver	SCALE:	1" = 20'-0"

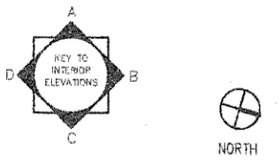


- NOTES:
1. SEE SHEET A6.1 AND PLUMBING DRAWINGS FOR FLOOR DRAINS AND FLOOR SINKS
 2. (SEE SHEET A2.2 FOR TRANSOM LEVEL PLAN)

1 FLOOR PLAN
A-2.1 SCALE: 1/8" = 1'-0"



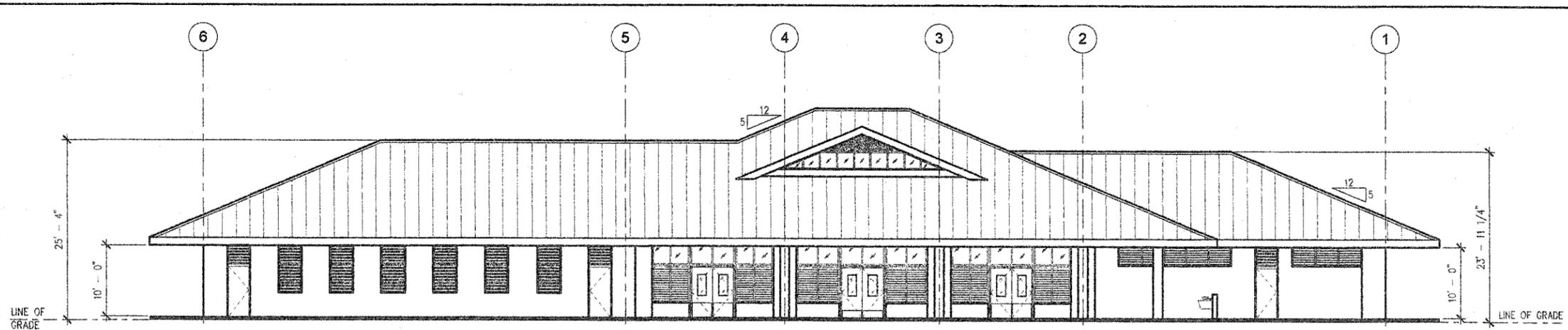
2 ENLARGED LOCKER RM PLAN
A-2.1 SCALE: 1/4" = 1'-0"



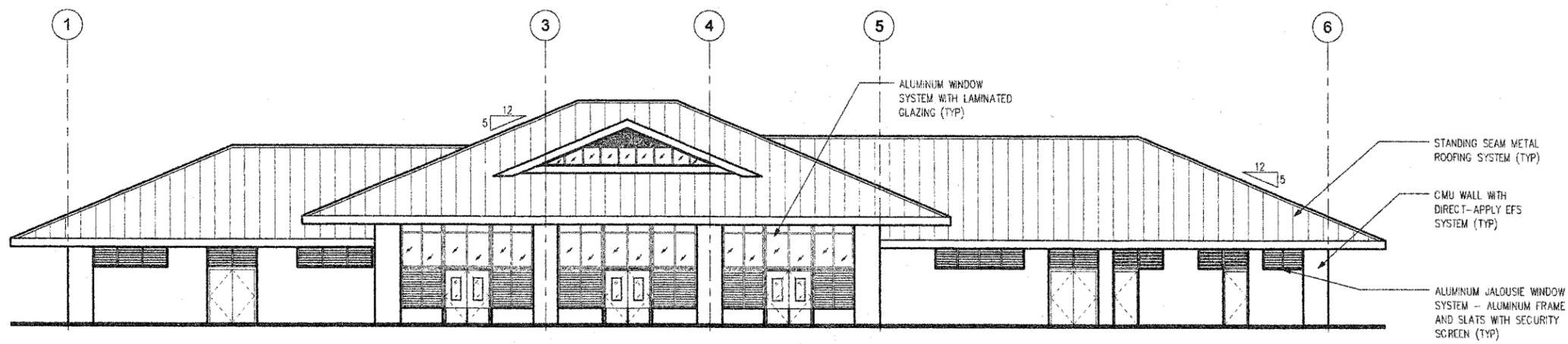
REV. NO.	DATE	DESCRIPTION	BY	DATE	APPROVED BY

DEPARTMENT OF EDUCATION FACILITIES DEVELOPMENT BRANCH STATE OF HAWAII			
PAIA ELEMENTARY SCHOOL CAFETERIA ISLAND OF MAUI, HAWAII			
FLOOR PLAN			
DESIGN PARTNERS INC <small>DESIGNED BY: NN CHECKED BY: NN</small> <small>DRAWN BY: RB APPROVED BY: VI</small>		DDBL JOB NO. Q55903-08	DRAWING NO. A-2.1
SCALE: As indicated		DATE JAN 2010	SHEET OF ____ SHEETS

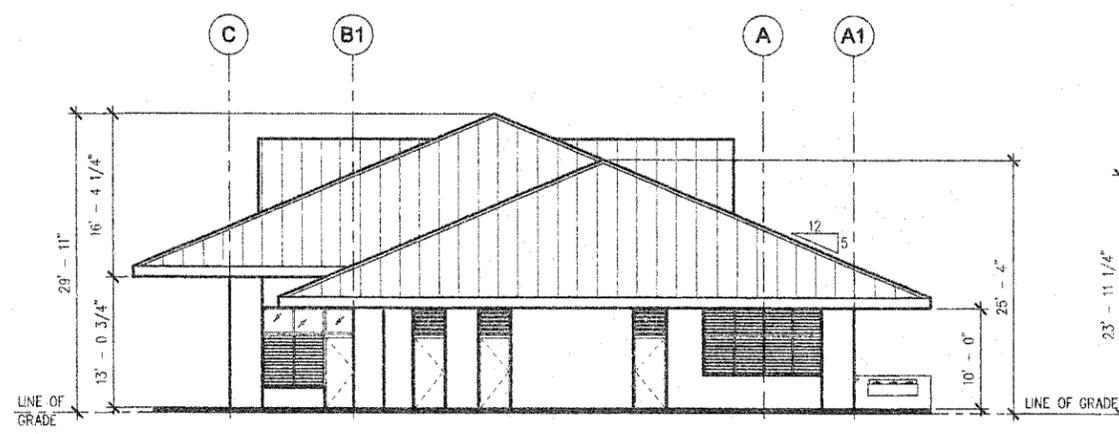
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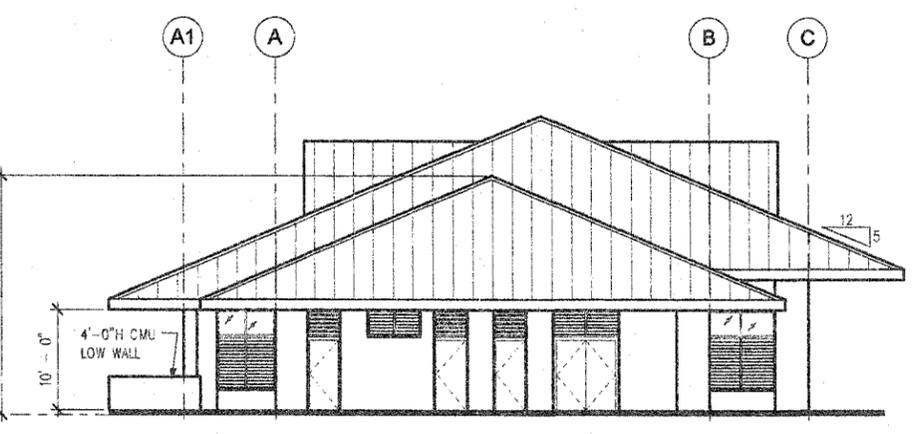
1 WEST ELEVATION
A-4.1 SCALE: 1/8" = 1'-0"



2 EAST ELEVATION
A-4.1 SCALE: 1/8" = 1'-0"



3 NORTH ELEVATION
A-4.1 SCALE: 1/8" = 1'-0"



4 SOUTH ELEVATION
A-4.1 SCALE: 1/8" = 1'-0"

REV. NO.	SYM.	DESCRIPTION	BY	DATE	APPROVED BY

			
DEPARTMENT OF EDUCATION FACILITIES DEVELOPMENT BRANCH STATE OF HAWAII			
PAIA ELEMENTARY SCHOOL CAFETERIA ISLAND OF MAUI, HAWAII			
EXTERIOR ELEVATIONS			
DESIGN PARTNERS INC		DATE: Q56803-08	DRAWING NO.: A-4.1
DESIGNED BY: Designer	CHECKED BY: Checker	DATE:	SHEET:
DRAWN BY: Author	APPROVED BY: Approver	DATE: OCT 2009	OF _____ SHEETS
SCALE: 1/8" = 1'-0"			

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PLANTING NOTES

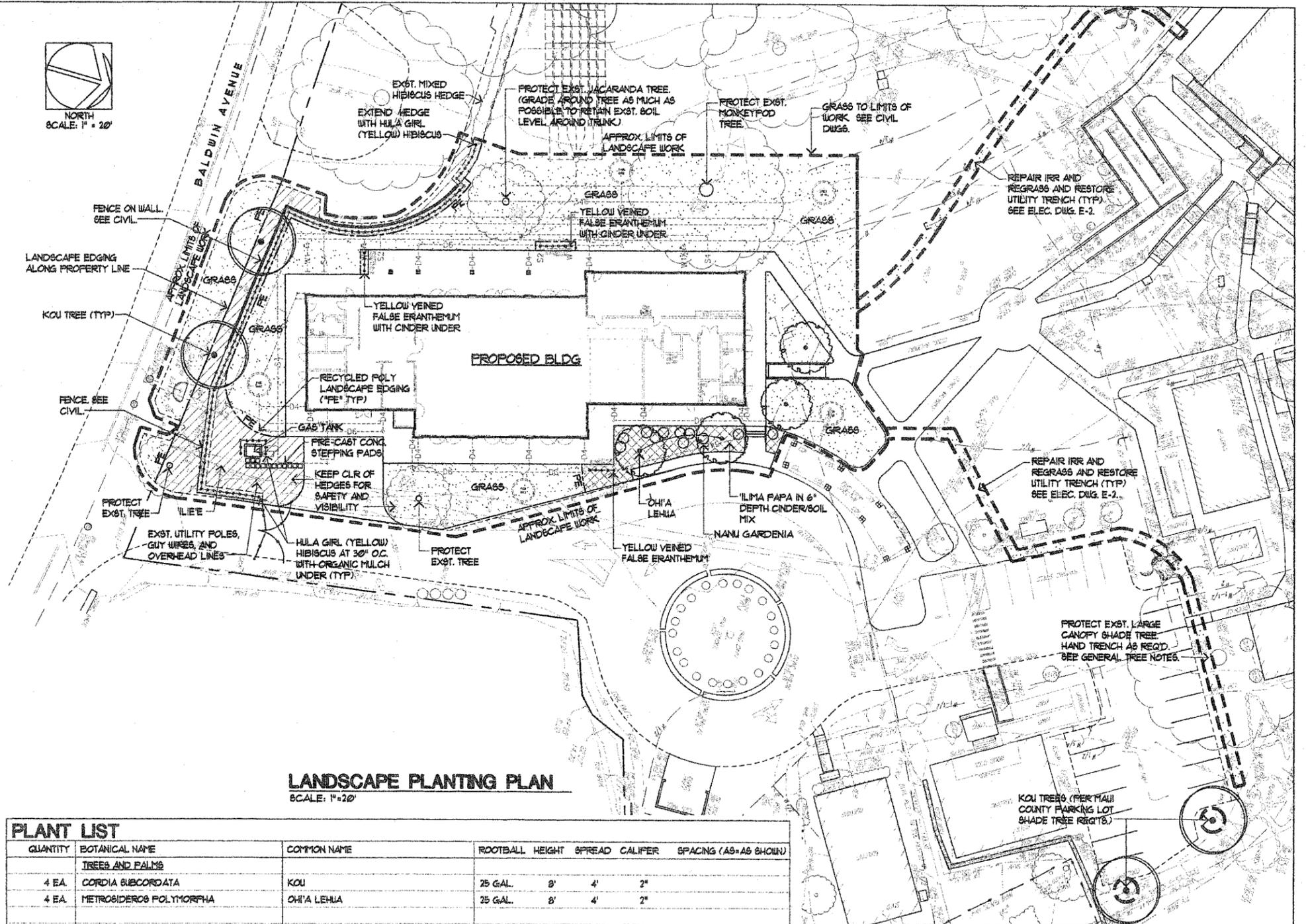
- EXCAVATE AND PREPARE SUBGRADE TO INSTALL A MINIMUM DEPTH OF 6 INCHES OF TOPSOIL (OR CINDER SOIL MIX WHERE DESIGNATED) WITHIN ALL EXPOSED AREAS. EXPOSED AREAS SHALL BE DEFINED AS AREAS WHERE DISTURBANCE OCCURS DUE TO DEMOLITION, REMOVAL, OR TRENCHING AND WHERE NO STRUCTURES OR PAVEMENTS ARE TO BE CONSTRUCTED. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE AND PROVIDE ADEQUATE QUANTITIES OF TOPSOIL. COORDINATE TO INSURE PLACEMENT TO FINISH GRADES, INCLUDING SETTLEMENT. MAINTAIN FINISH GRADES AS DESIGNED, OR MAINTAIN EXISTING DRAINAGE PATTERNS.
- PLANT QUANTITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY QUANTITIES AND PROVIDE THE QUANTITY OF PLANT MATERIALS REQUIRED AT THE SIZES AND SPACING SHOWN OR NOTED.

GENERAL TREE NOTES

- THE GENERAL CONTRACTOR SHALL RETAIN THE SERVICES OF A CERTIFIED ARBORIST WHO HAS BEEN CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE FOR A MINIMUM OF 5 YEARS. THE ARBORIST SHALL HAVE EXPERIENCE IN TREE PROTECTION PLANNING DURING CONSTRUCTION TREE AND ROOT PRUNING, AND TRANSPLANTING OF TREES. THE ARBORIST SHALL PROVIDE CONSULTING SERVICES AND PERFORM QUALITY ASSURANCE DUTIES DURING THE PRE-CONSTRUCTION AND CONTRACT PERIOD OF WORK.
- INSURE THAT THE TREES INDICATED TO REMAIN AND BE PROTECTED ARE PROVIDED PROPER CARE AND RETAIN GOOD HEALTH DURING THE DEMOLITION AND CONSTRUCTION PERIOD. ALTERNATIVE PROCEDURES MAY BE REQUIRED ON A TREE BY TREE BASIS AND FIELD DECISIONS BY THE ARBORIST, CONTRACTOR, AND THE CONTRACTING OFFICER TO INSURE THE SAFETY AND HEALTH OF THE TREES, FOR EXAMPLE, REROUTING OF UTILITIES, OR RELOCATION OF TREES.
- A PRE-CONSTRUCTION MEETING SHALL BE ARRANGED WITH THE CONTRACTOR, SUB-CONTRACTORS, THE CONTRACTING OFFICER, SELECTED CONSULTANTS, AND THE CONTRACTOR'S CERTIFIED ARBORIST TO REVIEW PROCEDURES FOR PERFORMING TREE RELATED WORK, WORK AROUND TREES, ACCESS ROUTES AND STORAGE AREAS, AND WHAT MEASURES MAY NEED TO BE TAKEN TO PROTECT TREES DURING THE CONSTRUCTION PERIOD.
- THE CONTRACTOR'S ARBORIST SHALL EVALUATE THE EXISTING TREES TO REMAIN AND DOCUMENT EXISTING CONDITIONS THAT HE OR SHE FEELS THAT MAY HINDER THE LONG TERM HEALTH OF THE TREE IN SPITE OF PROTECTION MEASURES PROVIDED.
- PERFORM BRANCH AND/OR ROOT PRUNING IN ACCORDANCE WITH ANSI A300 STANDARDS. DO NOT CUT ROOTS LARGER THAN 2" IN DIAMETER WITHOUT THE APPROVAL OF THE CONTRACTING OFFICER. INSURE THAT PROPER MEASURES ARE TAKEN TO PROTECT THE CROWN AND ROOT SYSTEM OF TREES FROM UNNECESSARY DAMAGE. WHEN POTENTIALLY DAMAGING CONSTRUCTION ACTIVITIES ARISE, I.E. MAJOR SUPPORT ROOT REMOVAL, EXCESSIVE ROOT REMOVAL ON ONE OR MORE SIDES OF THE TREE, MAJOR CROWN BRANCH REMOVAL, OR TREE TRANSPLANTING, INSURE ALL SUCH ACTIVITY IS PERFORMED IN A MANNER THAT WILL MINIMIZE DAMAGE TO THE TREE.
- IMMEDIATELY NOTIFY THE CONTRACTING OFFICER SHOULD DAMAGE TO A TREE OR THEIR ROOTS OCCUR. THE ARBORIST SHALL EVALUATE THE INJURY AND PROVIDE THE APPROPRIATE TREATMENT.
- DAMAGE INCLUDES, BUT IS NOT LIMITED TO: A. MECHANICAL INJURIES SUCH AS BREAKS, RIPS, FRACTURES TO TRUNK, BRANCHES OR ROOTS. B. CRUSHED ROOTS. C. COMPACTED ROOT ZONE SOIL. E. CHEMICAL CONTAMINATION. F. UNAPPROVED GRADE CHANGES. G. IMPROPER PRUNING.
- IF A TREE SHOULD DIE, REQUIRE REMOVAL OR CONTINUED REMEDIAL WORK DUE TO DAMAGE CAUSED BY WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL COMPENSATE THE STATE FOR THE FULL VALUE OF THE AFFECTED TREE. THE REPLACEMENT SHALL MEET WITH THE APPROVAL OF THE STATE.
- TREE VALUE SHALL BE DETERMINED BY METHODS OF TREE APPRAISAL IN "THE GUIDE FOR PLANT APPRAISAL (9TH EDITION)".
- THE STATE RESERVES THE RIGHT TO OBTAIN THE OPINION OF ANOTHER CERTIFIED ARBORIST SHOULD CONFLICTS ARISE.
- MAINTAIN EXISTING TREES AND PALMS DISTURBED BY WORK UNDER THIS CONTRACT UNTIL FINAL ACCEPTANCE.

SPECIAL NOTE - COQUI FROG (ELEUTHERODACTYLUS COQUI AND/OR ELEUTHERODACTYLUS PLANIROSTRIS):

- PRIOR TO TRANSPORT TO THE PROJECT, INSPECT, TAKE PRECAUTIONS AND CERTIFY THAT ALL PLANT MATERIALS, EQUIPMENT AND VEHICLES ARE FREE OF COQUI FROGS AND/OR THEIR EGGS. COQUI FROGS ARE NOCTURNAL. INSPECTIONS SHALL TAKE PLACE DURING THE EVENING.
- IN THE EVENT OF THE PRESENCE OF COQUI FROGS AND/OR THEIR EGGS, THEY SHALL BE COMPLETELY DESTROYED AND REMOVED AND THE PLANT MATERIAL, EQUIPMENT, OR VEHICLE TREATED AS RECOMMENDED BY THE STATE.
- REPORT PRESENCE OF COQUI FROGS OR EGGS TO THE HAWAII DEPT. OF AGRICULTURE PEST HOTLINE AT (808) 643-PEST (7378) OR THE MAUI INVASIVE SPECIES COMMITTEE (MISC) PH: (808) 513-6472 OR EMAIL: MISCPR@HAWAII.EDU



LANDSCAPE PLANTING PLAN

SCALE: 1"=20'

PLANT LIST

QUANTITY	BOTANICAL NAME	COMMON NAME	ROOTBALL	HEIGHT	SPREAD	CALIFER	SPACING (AS+AS SHOWN)
TREES AND PALMS							
4 EA.	CORDIA SUBCORDATA	KOU	25 GAL.	8'	4'	2"	
4 EA.	METROSIDEROS POLYTRICHA	OHIA LEHUA	25 GAL.	8'	4'	2"	
SHRUBS							
EA.	GARDENIA BRIGHAMII	NANU GARDENIA	3 GAL.	3'	2'	-	AS
EA.	HIBISCUS SP. CV. 'HULA GIRL'	HULA GIRL (YELLOW) HIBISCUS	1 GAL.	18"	12"	-	30" O.C.
EA.	POSLIDERANTHEMUM VAR. RETICULATUM	YELLOW VINED FALSE ERANTHEMUM	1 GAL.	18"	12"	-	AS
GROUND COVERS							
5F.	PLUMBAGO ZEYLANICA	'LIE'E	4" POT	6"	6"	-	12"
6F.	SIDA FALLAX VAR. 'PAPA'	'ILIMA PAPA	4" POT	6"	6"	-	12"
GRASS							
5F.	CYNODON DACTYLON	COMMON BERMUDA GRASS	SEED	-	-	-	HYDROSEED
LF.	RECYCLED PLASTIC EDGING WITH STAKES AND SPLICERS						
5F.	2" DEPTH ORGANIC COVER MULCH						
5F.	2" DEPTH BLACK CINDER COVER MULCH						
LF.	ROOT BARRIER						
EA.	PRE-CASE CONC. STEPPING PADS. 18"x18" 9Q. MIN.						

REV. NO.	CIVIL	DESCRIPTION	DATE	APPROVED BY:
DEPARTMENT OF EDUCATION FACILITIES DEVELOPMENT BRANCH STATE OF HAWAII PAIA ELEMENTARY SCHOOL CAFETERIA ISLAND OF MAUI, HAWAII LANDSCAPE PLANTING PLAN				
		MIYABARA ASSOCIATES LLC DESIGNED BY: _____ CHECKED BY: _____ DRAWN BY: _____ APPROVED BY: _____ DATE: _____ SHEET: L-3 SCALE: JANUARY 2010 OF _____ SHEETS		

A. Existing Uses and Structures

Since the school cafeteria was destroyed by fire in 2005, meals are served in a 2,900 square foot temporary building located to the northwest of the Administration building. Approximately 50-100 breakfasts and 200-225 lunches are served daily. There are three lunch periods per day and up to 100 students are fed during each lunch period.

Meals are prepared at Kalama Intermediate School and transported to Pā'ia Elementary School daily. Meals are preordered in the mornings and food that is not served is returned to the central kitchen at Kalama Intermediate School. Meals are served on paper trays then disposed in the trash.

The building site is located inside the entrance to the campus just *makai* of the entry driveway. The entire site is a grass covered lawn shaded by large canopy trees and without permanent structures. A chain link fence and hibiscus hedge aligned north-south bisects the building site. Part of the schools walkway system extends into the proposed building footprint and are remnants of the walkway to the old cafeteria. In addition an existing cesspool is located at the *mauka* edge of the proposed building footprint.

A parking lot is located *makai* of the building site adjacent to and with access from Baldwin Avenue.

Existing conditions are shown in the Site Photographs.

Paia Elementary School is part of the Kekaulike Complex of public schools in Maui County. Two prominent existing campus buildings currently used as classrooms and administrative offices were constructed sometime between 1926 and 1930. The two buildings are listed on the National and State Registers of Historic Places. The cafeteria building was constructed in 1936 and was used for that purpose until destroyed by fire in 2005.

The school has a current enrollment of 225 elementary school children in Grades K-5 and a staff of twenty-eight administrators, faculty, and support personnel. There is no cafeteria manager *per se*. Meals are delivered by van to the school from Kalama Intermediate School. The van driver serves breakfast and is assisted by one helper during lunch periods. Two student workers are sent daily to help in cafeteria operations during lunch period.

B. Climate

Maui's climate, like most of the State of Hawai'i, can be described as sunny, mildly temperate, moderately humid, and cooled by the northeast trade winds. Temperatures in Pā'ia range from 54^o to 94^o F, with the lowest temperatures typically occurring between December and February, and the highest temperatures in August and September. Situated at the base of Haleakala, Pā'ia is located directly in the path of the northeast trade winds. The trade winds usually range from 15 to 25 miles per hour and increase in strength during the day from March to September. Winds usually become light and variable with the absence of the trade winds.



Photograph 1.



Photograph 2.



Photograph 3.



Photograph 4.

Source: Aerial Photo-Google Earth
Photographs by: Gerald Park



Photo Key Map
GRAPHIC SCALE IN FEET
200 100 0 200 400
TRUE NORTH
SCALE: 1" IN = 400 FT.



Photograph 5.

Photograph 1. Section of Cafeteria Site Looking East.

Photograph 2. Partial Makai View of Site (Baldwin Avenue Side).

Photograph 3. Partial Makai View of Site (School Side).

Photograph 4. View of Site Towards Baldwin Avenue.

Photograph 5. Mauka View of Site.



Hämākuapoko, District of Makawa, Maui

Site Photographs
Pā'ia Elementary School Cafeteria

Pā'ia receives about 25 inches of rainfall annually. Following the wet winter/dry summer pattern typical for most of Hawai'i, the Pā'ia-Haiku region usually receives two (2) to three (3) times of its average monthly rainfall in the winter months compared to the summer months (Munekiyo & Hiraga, 2005).

C. Topography

The cafeteria site is slightly higher than adjoining ground and falls slightly in all directions. The former cafeteria was built on the higher ground which has to be expanded to accommodate a larger building footprint. Areas surrounding the building footprint will be filled to achieve design elevation and promote drainage away from the cafeteria.

D. Soils

The Soil Conservation Service (1972) maps a single soil type---Paia silty clay, 3 to 7 percent slopes (PcB)--for the entire school. Paia clay developed in material derived from basic igneous rock and the soil is about 50 inches thick and underlain by soft igneous rock. The soil is moderately permeable, runoff is slow, and the erosion hazard is slight.

E. Water Resources

1. Surface Water

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

2. Ground Water

Almost all the Pā'ia region including the elementary school overlies the Paia aquifer system of the Central Sector (Mink and Lau, 1990). The Paia aquifer is characterized by an unconfined high level aquifer on an impermeable layer of rock above an unconfined basal aquifer in flank lava flows. The upper aquifer is classified as having no potential use, low saline content (between 250 and 1,000 parts per million chloride), replaceable, and highly vulnerable to contamination.

The lower aquifer provides fresh (less than 250 parts per million chloride) basal drinking water, is irreplaceable, and moderately vulnerable to contamination (Mink and Lau, 1990).

F. Flood Hazard

The school site is located in Flood Hazard Zone "C" which is defined as areas of minimal flooding (See Appendix A).

G. Historic Resources

Two on-campus concrete buildings are constructed in the Classical-Revival architectural style. Constructed between 1926 and 1930, the buildings are used as classrooms and administrative offices. The two buildings and Pā'ia Elementary School (Site No. 50-05-1630) are listed as historic property on State and National Registers of Historic Places (State Historic Preservation Division). The school was listed as part of a multiple listing of Maui public schools on the State Register in June 1992 and the National Register in August 2000.

The Pa'ia -Haiku Community Plan does not list the school as a significant traditional place. It should be noted, however, that the list of traditional places cited in the community plan is a representative rather than comprehensive listing of historic and cultural resources found in both communities.

The site of the proposed cafeteria is the site of the cafeteria that burned down. Because of prior land altering activities associated with construction of the old cafeteria, walkways, fencing, landscaping, and a cesspool, it is unlikely that subsurface archaeological features are present on the building site.

H. Cultural Resources

Cultural resources are not known to be present on the building site.

I. Botanical Resources

Although most of the proposed cafeteria site is grassed and shaded by trees there is little botanical diversity present. Bermuda grass is the predominant groundcover with broad canopied monkey pod the primary tree species. Single specimens of coconut palm, silver trumpet, and jacaranda trees and a row of red hibiscus are planted inside the proposed building footprint and will be removed.

Royal Poinciana trees intermittently line the Baldwin Avenue right-of-way.

J. Wildlife Resources

Like botanical resources, wildlife resources appear limited as few were observed during a field investigation. Mynah bird and barred dove roosting in trees and foraging for food were the only two avian species recorded.

K. Hazardous Materials

No hazardous materials are known to be associated with the project 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 Hawaii into one of four classifications: Urban, Agricultural, Conservation, or Rural. The project site is designated Agricultural. Uses and activities in the Agricultural district are regulated by the respective counties.

The County of Maui Pa'ia-Ha'iku Community Plan (1995) designates "Paia School" Public/Quasi-Public (P). This land use designation includes schools, libraries, fire/police stations, government buildings, public utilities, hospitals, churches, cemeteries, and community centers (Ibid).

The school site is zoned County Interim (See Appendix A). Elementary schools are a permitted use in the Interim zoning district (Chapter 19.02.030 A.4, Interim Zoning Provisions).

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

M. Public Facilities

1. Circulation

Baldwin Avenue, a two-lane, two-way all weather surface road passes to the west of the school. The road connects Pā'ia town with Makawao and other Upcountry communities.

2. Water

The Department of Water Supply supplies potable water to the school through a 1 ½ water meter.

Fire flow is provided from fire hydrants along Baldwin Avenue and on the school grounds.

3. Sewer

There is no municipal wastewater and collection system servicing the school. School facilities are connected to an on-site septic tank and leach field for effluent disposal.

4. Power and Communication

Electrical power and communication systems are available on campus from overhead systems along Baldwin Avenue.

5. Protective Services

Police protection originates from the County of Maui Police Department headquarters building on Mahalani Street in Wailuku. There are three (3) patrol divisions on the island of Maui, serving the Wailuku, Lahaina, and Hana regions. The Wailuku division services Central Maui, Paia-Haiku, Upcountry and the Kihei-Makena areas (Munekiyo & Hiraga, 2005).

Fire service is provided by the County of Maui Department of Fire Control' Pā'ia Station located in Pā'ia town along Hana Highway.

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 Pā'ia Elementary 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 new cafeteria will be constructed on the same site as the previous cafeteria;
- There are no rare, threatened, or endangered flora or fauna on the cafeteria site;
- There are no archaeological resources on the property or cultural practices associated with the property;
- Pā'ia Elementary School is a registered historic site on the State and National Registers of Historic Places;
- The property is not an identified visual resource in the Paia-Haiku Community Plan;
- The property is not located in a flood hazard area;
- There are no streams, ponds, or wetlands on the premises;
- The existing water system can accommodate the proposed use; and
- The cafeteria will connect to an on-site wastewater disposal system.

A. Short-term Impacts

Site work, a necessary function to prepare the land for building the temporary and permanent improvements to follow, is the first and probably the most disruptive construction activity on the environment. Approximately 0.25 acres will be cleared and grubbed. Grubbing will remove vegetation and grading will establish preliminary and final design elevations. Trees to be retained as part of the future landscaping will be flagged and left in place.

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, it is imperative for the contractor to maintain stringent dust controls. Water sprinkling is probably the most effective dust control measure given the size of the project site 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.

Paia clay poses a slight erosion hazard under normal conditions. Dust generation can be magnified on windy days and the contractor will have to implement stringent dust control measures at those times.

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 shall 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. The cafeteria site is flat but built up and slightly higher in grade than surrounding areas. Site work will involve excavation and grading to achieve the desired finish elevation. An area of approximately 28,700 square feet will be graded. Grading quantities are estimated at 2,100 cubic yards of fill. Site work impacts can be mitigated by complying with Best Management Practices ("BMPs") specified in Chapter 20.08 of the Maui County Code for drainage, dust control, erosion, and sediment control. BMPs will be prepared for review and approval by the Department of Public Works and Environmental Management.

An NPDES permit for storm water runoff associated with construction activities will not be required because less than one acre of the total land area will be disturbed during construction.

Schools are considered noise sensitive facilities. Construction noise may be audible in classrooms and buildings near the site but exposure is expected to vary in volume, frequency, and duration. Classroom buildings are located over 50 feet from the building site and construction noise is not expected to interfere with instruction. Construction barriers or fencing may be erected around the job site for noise mitigation, dust control (with dust screens), and people safety.

Noise will vary also 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.

Community Noise Control regulations establish a maximum permissible sound level for construction activities occurring within (acoustical) zoning districts. Land zoned agricultural is placed in the Class C zoning district. The maximum permissible sound level for excessive noise sources (to include stationary noise sources and construction and industrial activities) in the Class C zoning district is 70 dBA all day and night (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.

Construction also can be scheduled when school is not in session. 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.

The project is proposed in an area that has been significantly altered by construction activities and improvements including the former cafeteria building. 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 County of Maui 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.

Because Pā'ia Elementary School is a registered historic site, the State Historic Preservation Division will review construction plans for the building to assure and maintain design consistency with other campus buildings.

Bermuda grass, a coconut palm, hibiscus hedge, and a silver trumpet tree will be demolished. These species are common to the Island of Maui 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 cafeteria is located adjacent to the driveway and construction work may, at times, temporarily impede traffic circulation. To minimize impacts, the contractor will:

- Post notices alerting drivers of scheduled work on and around the driveway;
- 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 to avoid student drop-off and pick-up times.

Vehicles carrying workers and material will contribute to traffic on Baldwin Avenue, the only direct road between Paia and Makawao. Material deliveries will be scheduled during non-peak traffic hours to minimize impact on traffic.

Minor improvements to the existing paved area to accommodate parking will not result in adverse environmental impacts.

B. Long-term Impacts

The new cafeteria will replace a temporary building that has served as the school cafeteria since 2005 when the original cafeteria was destroyed by fire. Few persons would dispute the contention that a new and larger cafeteria will benefit students, faculty, Pā'ia Elementary School as a whole, parents of students, and the Pā'ia community

Ambient air quality should not be adversely affected in the long-term. The principal source of air pollution is expected to be exhaust emissions from vehicles entering and exiting the school grounds and not the cafeteria. Emissions will be dispersed by the prevailing winds.

Cooking odors are not anticipated since the cafeteria will be a serving rather than food preparation kitchen. Meals will continue to be prepared at Kalama Intermediate School and delivered to Pā'ia Elementary School. Left over food will be returned to Kalama Intermediate School and refuse (paper trays, napkins, and plastic utensils) deposited in an on-site trash bin for collection and disposal.

Cafeteria operations and student use will generate noise during meals but this is to be expected in a congregate setting. Noise generally will be confined to within the cafeteria and should not affect classroom instruction in distant buildings. Following meals there will be minimal noise emanating from the cafeteria until after school uses occupy the building.

Aside from the school *per se*, there are no nearby noise sensitive uses such as hospitals and residential area to be affected.

Except for van that delivers daily meals (four trips per day for breakfast and lunch), no significant increase in on-campus vehicle traffic is anticipated as a result of this project. Water, power, and communication service will be extended from existing systems on the school grounds. Average demand for water is estimated at 120 gallons per day. Wastewater flow is estimated at 100 gallons per day. Both water demand and wastewater flow can be accommodated by the respective system.

Storm water runoff is projected at 3.7 cubic feet per second which is a slight increase over the estimated 2.7 cubic feet per second under existing conditions. Runoff will be directed to drywells for retention and into low spots in the landscaped areas around the cafeteria and allowed to evaporate or percolate into the ground.

Electrical consumption and associated costs will be reduced through the use of energy efficient fixtures, natural lighting, and natural ventilation. The use of insulated materials for walls and low-E glazed glass will also help in energy conservation.

The new cafeteria will present a new object to be seen on campus. At one-story in height, it will be the same height as many campus buildings. Trees and shrubs planted near or alongside the building will "soften" its mass and add a vertical element to its form. The new building will be visible to passersby on Baldwin Avenue because of its location at the front of the school.

The proposed cafeteria will be designed as a sustainable building as prescribed in 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.

As much as practical, the building will be designed to comply with design guidelines for maintaining and promoting preservation values for the entire property. The architects for the project have strived to balance sustainable building and preservation values for the building and the school. A Conceptual Rendering of the cafeteria is shown on Sheet A1, Conceptual Rendering.



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 build the facility would be foregone and the purpose of the project unachieved.

B. Alternative Sites

Four (4) on-campus locations were examined for the site of the cafeteria. The three other sites were considered unsatisfactory because of security and accessibility. Construction of a cafeteria at the other sites would have resulted in similar environmental impacts disclosed in this assessment for the preferred location.

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 Approval

County of Maui

Department of Public Works

Building, Electrical, and Plumbing Permits
Grubbing, Grading, Excavation and Stockpiling Permit

6

AGENCIES AND ORGANIZATIONS TO BE CONSULTED

State of Hawaii

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

County of Maui

Department of Environmental Management
Department of Planning
Department of Public Works
Department of Water Supply
Police Department
Fire Department

Organizations

Maui Electric Company, Ltd.
Makawao Public Library (Placement)

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 proposed cafeteria site.

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

The project does not curtail the beneficial uses of the environment. The site of the proposed cafeteria is the same site on which the burned down cafeteria was located. The proposed project is a replacement project built on the same site and serving the same purpose as the previous cafeteria.

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. It is anticipated, however, in the long-term that the project will provide more than just a cafeteria but a place for large group instruction, musical performances, assemblies, and other uses. The cafeteria will also serve as a meeting place for the community and as an emergency hurricane shelter.

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 are not anticipated.

7) Involves a substantial degradation of environmental quality;

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 does not involve a commitment for larger actions that would affect the environment or surrounding area where the cafeteria is proposed.

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

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

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.

Construction noise will be audible at different parts of the school for the duration of construction. Food service operations and students talking will generate noise during lunch periods but this is to be expected. Following lunch periods and cafeteria clean up, there should be little to no noise emanating from building users.

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;

Pā'ia 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 one-story cafeteria building will not affect scenic vistas and view planes.

13) Requires substantial energy consumption.

An increase in energy consumption is anticipated because the cafeteria is a larger space than the temporary cafeteria and the cafeteria that was destroyed by fire. Design measures stipulated in this assessment will aid in energy conservation.

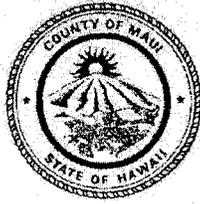
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APPENDIX A

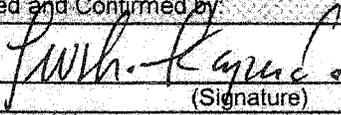
ZONING AND FLOOD CONFIRMATION

COUNTY OF MAUI
 DEPARTMENT OF PLANNING
 Kalana Paku'i Building
 250 South High Street
 Wailuku, Hawaii 96793



Zoning Administration
 and Enforcement Division
 Telephone: (808) 270-7253
 Facsimile: (808) 270 7634
 E-mail: planning@mauicounty.gov

ZONING AND FLOOD CONFIRMATION

APPLICANT INFORMATION			
APPLICANT'S NAME		State of Hawaii, Department of Education	
PHONE	(808) 925-9626	E-MAIL	gpark@biz.com
PROJECT NAME	Cafetorium		
TAX MAP KEY NO	(2) 2-5-005:004-0000		
PROPERTY ADDRESS	955 BALDWIN AVE PAIA, HI 96779		
ZONING INFORMATION			
COMMUNITY PLAN	P/QP-PUBLIC/QUASI-PUBLIC		
ZONING	STATE AG-STATE AGRICULTURAL DISTRICT INTERIM-COUNTY'S INTERIM DISTRICT SMA NONE-NOT IN THE SPECIAL MANAGEMENT AREA		
FLOOD INFORMATION			
FLOOD HAZARD AREA ZONE(S):		C-AREAS OF MINIMAL FLOODING	
BASE FLOOD ELEVATION:	N/A	mean sea level, 1929 National Geodetic Vertical Datum.	
FLOODWAY	<input type="checkbox"/> Yes	or	<input checked="" type="checkbox"/> No
FLOOD DEVELOPMENT PERMIT IS REQUIRED:	<input type="checkbox"/> Yes	or	<input checked="" type="checkbox"/> No
* For flood hazard area zones B or C; a flood development permit would be required if any work is done in any drainage facility or stream area that would reduce the capacity of the drainage facility, river, or stream, or adversely affect downstream property.			
FOR COUNTY USE ONLY			
REMARKS/COMMENTS:			
<input type="checkbox"/> Additional information required <input type="checkbox"/> Required for Agricultural Subdivisions Agricultural Assessment RFS No. _____		<input type="checkbox"/> Information submitted is correct <input type="checkbox"/> Correction has been made and initialed	
Reviewed and Confirmed by:			
 _____ (Signature)		11.09.09 _____ (Date)	
For AARON SHINMOTO, Planning Program Administrator Zoning Administration and Enforcement Division			

