



APR 08 2011

STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

November 3, 2010

TO: Ms. Katherine Kealoha, Director  
Office of Environmental Quality Control  
Department of Health

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

*DYK*

SUBJECT: Final Environmental Assessment (FEA) and Finding of No Significant  
Impact (FONSI) for Lanai High and Elementary School Master Plan  
TMK: 4-9-014: 003, 004, 002 and 4-9-002:portion 058  
Kamoku, District of Lahaina, Maui, Hawai'i

The State Department of Education (DOE) has reviewed the comments received during the 30-day public comment period for the Draft Environmental Assessment for the subject project which began on September 8, 2009. The DOE has determined that this project will not have significant environmental impacts and is issuing a Finding of No Significant Impact (FONSI). Please publish this notice in the next edition of the Environmental Notice.

One hard copy and one CD copy of the Final Environmental Assessment are attached. A completed Office of Environmental Quality Control Publication Form will be sent by electronic mail.

Should there be any questions please contact Brenda Lowrey, Planning Section, Facilities Development Branch at 377-8312, or our consultant, Gerald Park, of Gerald Park Urban Planner at 625-9626.

DYK:BL:jmb

Enclosures

c: Gerald Park, Urban Planner

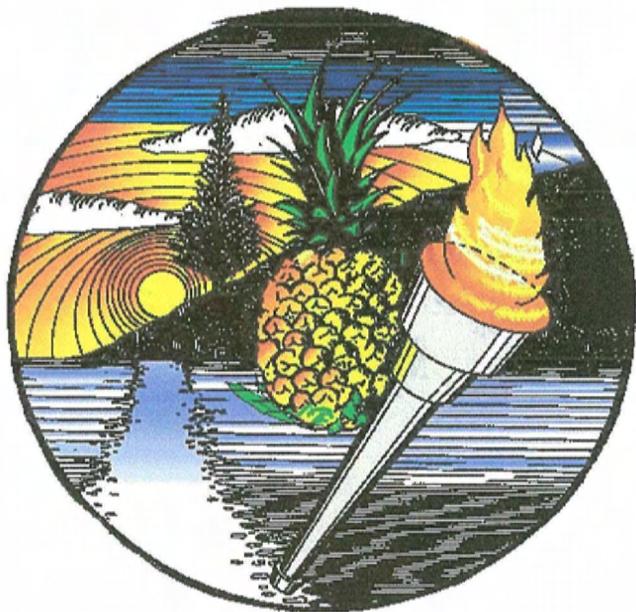
FINAL ENVIRONMENTAL ASSESSMENT

---

***LĀNA‘I HIGH AND ELEMENTARY SCHOOL  
MASTER PLAN***

Island of Lāna‘i, District of Lahaina, Maui, Hawai‘i

---



**Department of Education**  
State of Hawai‘i  
Planning Section, Facilities Development Branch  
Office of School Facilities and Support Services  
4680 Kalaniana‘ole Highway, TB1A  
Honolulu, Hawai‘i 96821

March 2011

FINAL ENVIRONMENTAL ASSESSMENT

---

**LĀNA‘I HIGH AND ELEMENTARY SCHOOL  
MASTER PLAN**

Island of Lāna‘i, District of Lahaina, Maui, Hawai‘i

---

Prepared in Partial Fulfillment of the Requirements of  
Chapter 343, Hawaii Revised Statutes and  
Hawaii Administrative Rules, Title 11, Chapter 200, State of Hawaii

Prepared for

**Department of Education**

State of Hawai‘i

Planning Section, Facilities Development Branch

Office of School Facilities and Support Services

4680 Kalanianaʻole Highway, TB1A

Honolulu, Hawai‘i 96821

Prepared by

**Gerald Park Urban Planner**

95-595 Kanamee Street #324

Mililani, Hawai‘i 96789

March 2011

## PROJECT PROFILE

---

Project: Lānaʻi High and Elementary School  
Master Plan

Proposing Agency: Department of Education  
State of Hawaiʻi

Accepting Authority: Department of Education  
State of Hawaiʻi

Location: Lānaʻi High and Elementary School  
555 Fraser Avenue  
Lānaʻi City, Hawaiʻi 96763

### Existing School Site:

Tax Map Key: 4-9-014: 003  
Land Area: 10.269 acres  
Landowner: State of Hawaiʻi  
Existing Use: Public School

Tax Map Key: 4-9-014: 004  
Land Area: 0.125 acres  
Landowner: State of Hawaiʻi  
Existing Use: Public School

### Expansion Area:

Tax Map Key: 4-9-014: 002  
Land Area: 8.017 acres  
Landowner: County of Maui  
Existing Use: County Park

Tax Map Key: 4-9-002: por. 058  
Land Area: 42.0 acres (Portion of 115 acre lot)  
Landowner: County of Maui  
Existing Use: Vacant

Tax Map Key: 4-9-014: por. 005  
Land Area: [~~Approximately 0.0968~~] **0.153** acres  
Landowner: County of Maui  
Existing Use: Vacant

Tax Map Key: 4-9-014: por. 011  
Land Area: Approximately [~~1.028~~] **2.33** acres  
Landowner: Castle & Cooke Resorts, LLC  
Existing Use: County Park, Junkyard

## PROJECT PROFILE

---

State Land Use District:	Urban and Agricultural
Lana'i Community Plan Land Use Map:	Public/Quasi Public, Park, Single-Family,
Zoning:	P-1, <b>PK-3</b> , Interim
Special Management Area	Outside Special Management Area
Need for Environmental Assessment:	Propose the use of State land and funds (§11-200-5(c)), Hawaii Administrative Rules
Anticipated Determination:	Finding of No Significant Impact
Contact Person:	Ms. Brenda Lowrey Planning Section Facilities Development Branch Office of School Facilities and Support Services 4680 Kalaniana'ole Highway, TB1A Honolulu, Hawai'i 96821  Telephone: 377-8312

Note: Substantive revisions to the text of the Draft Environmental Assessment are shown in ***bold italic*** type. Deleted text is bracketed with a ~~[strikethrough]~~.

## TABLE OF CONTENTS

---

	<u>Page</u>
<b>PROJECT PROFILE</b>	<b>i</b>
<b>TABLE OF CONTENTS</b>	<b>iii</b>
<b>FIGURES</b>	<b>iv</b>
<b>TABLES</b>	<b>iv</b>
<b>SECTION 1 DESCRIPTION OF THE PROPOSED ACTION</b>	<b>1</b>
A. Present Conditions and Need for the Project	1
B. Master Plan Concepts	1
C. Technical Characteristics	4
D. Land Ownership	15
E. Economic Characteristics	15
F. Social Characteristics	15
G. Phasing	18
H. Sustainability	19
<b>SECTION 2 DESCRIPTION OF THE AFFECTED ENVIRONMENT</b>	<b>20</b>
A. Existing Conditions	20
B. Environmental Characteristics	20
C. Land Use Plans, Policies, and Controls	35
D. Infrastructure	39
E. Socio-Economic Characteristics	44
<b>SECTION 3 SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS</b>	<b>47</b>
A. Assessment Process	47
B. Short-term Impacts	48
C. Long-term Impacts	51
D. Cumulative Impacts	61
<b>SECTION 4 ALTERNATIVES TO THE PROPOSED ACTION</b>	<b>63</b>
A. No Action	63
B. Land Acquisition Addition	63
<b>SECTION 5 AGENCIES AND ORGANIZATIONS TO BE CONSULTED IN THE ENVIRONMENTAL ASSESSMENT PROCESS</b>	<b>64</b>
<b>SECTION 6 PERMITS AND APPROVALS</b>	<b>66</b>
<b>SECTION 7 DETERMINATION OF SIGNIFICANCE</b>	<b>67</b>

<b>SECTION 8</b>	<b>LIST OF CONTRIBUTORS</b>	<b>71</b>
<b>REFERENCES</b>		<b>72</b>
<b>TECHNICAL REPORTS</b>		<b>74</b>
	<b>REPORT A</b>	<b>BOTANICAL SURVEY</b>
	<b>REPORT B</b>	<b>ARCHAEOLOGICAL ASSESSMENT REPORT</b>
	<b>REPORT C</b>	<b>CULTURAL IMPACT ASSESSMENT</b>
	<b>REPORT D</b>	<b>PHASE I ENVIRONMENTAL SITE ASSESSMENT</b>
	<b>REPORT E</b>	<b>TRAFFIC IMPACT REPORT</b>
<b>APPENDIX A</b>	<b>COMMENT LETTERS AND RESPONSES</b>	
<b>APPENDIX B</b>	<b>AGENCY DETERMINATIONS</b>	

## FIGURES

---

<u>Figure</u>	<u>Title</u>	<u>Page</u>
1	<i>Location Map</i>	2
2	<i>Vicinity Map (Aerial Photo)</i>	3
3	<i>Master Plan</i>	6
4	<i>6-Classroom Building Complex</i>	8
5a	<i>Building “A” Elevations</i>	9
5b	<i>Building “A” Elevations</i>	10
6a	<i>Tax Map</i>	16
6b	<i>Tax Map</i>	17
7	Existing Site	21
8	<i>Detailed Land Classification</i>	24
9	<i>Agricultural Lands of Importance to the State of Hawaii (ALISH)</i>	25
10	<i>Vegetation Zones</i>	29
11	<i>State Land Use Districts</i>	40
12	<i>Lana’i Community Plan</i>	41
13	<i>County Zoning</i>	42
14	Year 2034 with Project AM Peak Hour of Traffic	58
15	Year 2034 with Project PM Peak Hour of Traffic	59

## TABLES

---

<u>Table</u>	<u>Title</u>	<u>Page</u>
1	Programmed Floor Area, Lāna’i High and Elementary School	7
2	Planned Recreation Areas	13
3	Land Owners	15
4	Aquifer Classification Code	28
5	Site Inspection Findings	32
6	Land Use Controls	39
7	Socio-Economic Characteristics, 1990-2030	44
8	Lāna’i High and Elementary School Enrollment	45
9	Peak Hour Trip Generation	56
10	Existing and Projected With Project LOS Traffic Operating Conditions	57

## SECTION 1

## DESCRIPTION OF THE PROPOSED ACTION

---

The Department of Education, State of Hawai'i, has prepared a Lāna'i High and Elementary School Master Plan ("Master Plan") to guide the physical expansion and development of the school over the next 25+ years. The Master Plan encompasses the existing school facilities and grounds and approximately 50.017 acres *makai* or to the west of the school.

Lāna'i High and Elementary School is bordered by 5<sup>th</sup> Street and the Department of Hawaiian Home Lands Lāna'i Residence Lots subdivision on the north, Fraser Avenue on the east, a County of Maui recreation complex on the south, and Lāna'i Park and Tennis Courts on the west. A Location Map and Vicinity Map are shown in Figures 1 and 2.

### **A. Present Conditions and Need for the Project**

Lāna'i High and Elementary School ("hereafter Lāna'i School or school") consists of seventeen permanent structures, nine portable classrooms, two parking areas, and faculty housing spread over the 10.39 acre campus. A Department of Education Facilities Inventory (2006) reveals that several existing facilities date back to 1937 (the two parking areas, physical education field, and a paved court). The "newest" structure, classroom building "T", was built in 1976.

As the school enters the 21<sup>st</sup> century, there is a need to upgrade the physical plant to accommodate forecasted enrollment increases, provide new, modern equipment and surroundings conducive to teaching and learning, expand educational opportunities for all residents of the island, and to provide safe, clean housing for faculty (and their families).

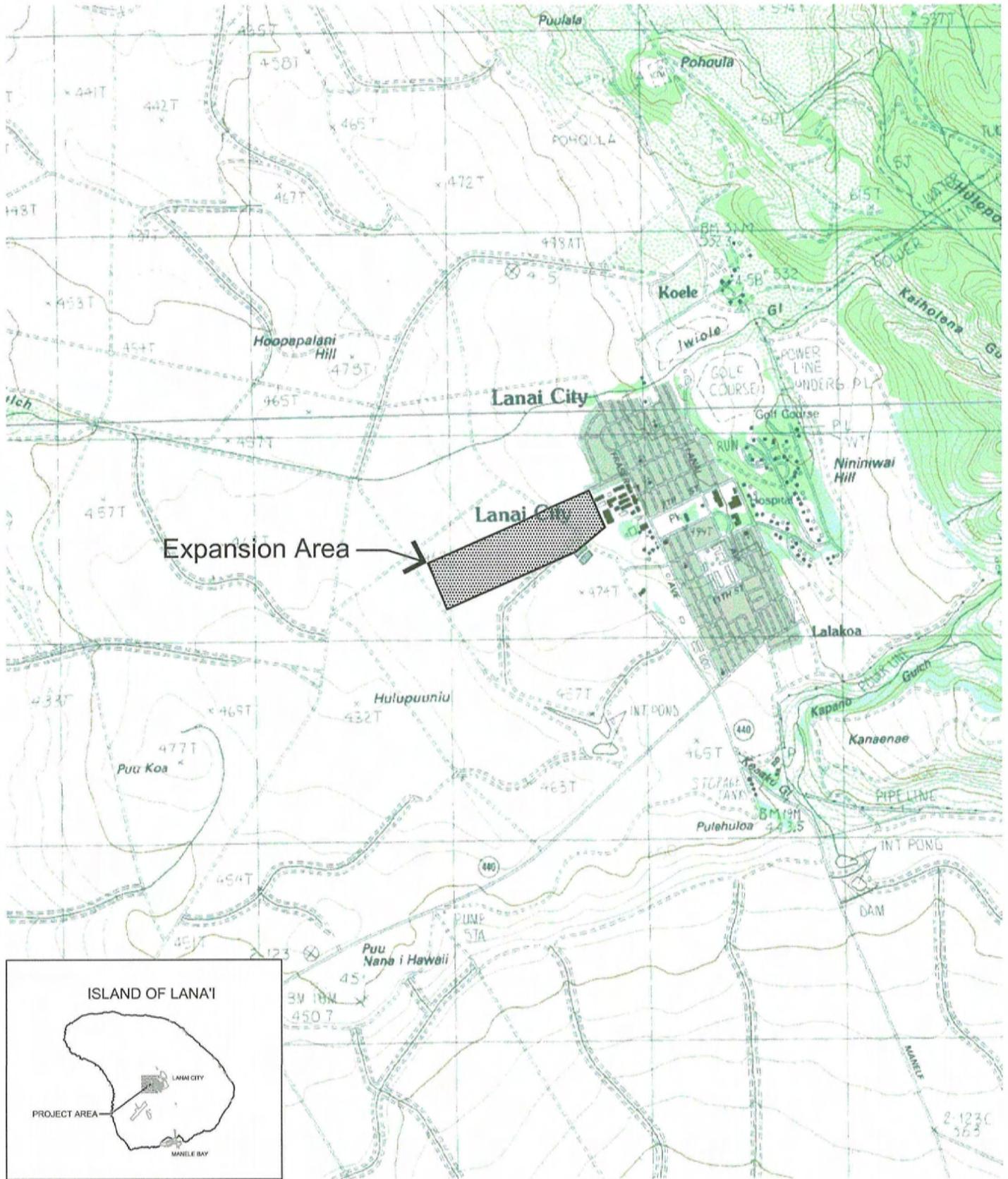
The County of Maui is proposing to transfer approximately 50.017 acres to the State of Hawaii to accommodate the land needs of the Master Plan. The Department of Education Educational Specifications requires a minimum of 50 acres for high schools and lesser acreage for middle and elementary schools. Lanai High and Elementary School is unique because the school combines elementary, middle, and high schools into one campus. The acreage proposed to be transferred is sufficient to accommodate the physical plant requirements prescribed in the Master Plan.

### **B. Master Plan Concepts**

A master planning charrette helped to develop theme concepts for the Master Plan. The charrette involved members of the school administration and teaching staff, Department of Education and Department of Accounting and General Services staff, parents, and other members of the Lāna'i community. CDS International was retained by the Department of Education as the Prime Contractor and the principal consultant in the master planning process. The master planning [charrette] was conducted from August 7 through September 22, 2004 to develop a conceptual master plan.

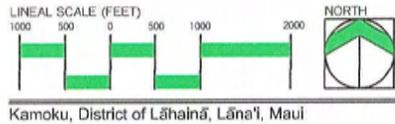
The themes forming the basis of the Master Plan are listed below.

- The overall master plan incorporates the P-20 concept described in the Guiding Principles with Pre-school, Elementary School, Middle School, High School, and Community College components on one campus, resulting in several campuses within a



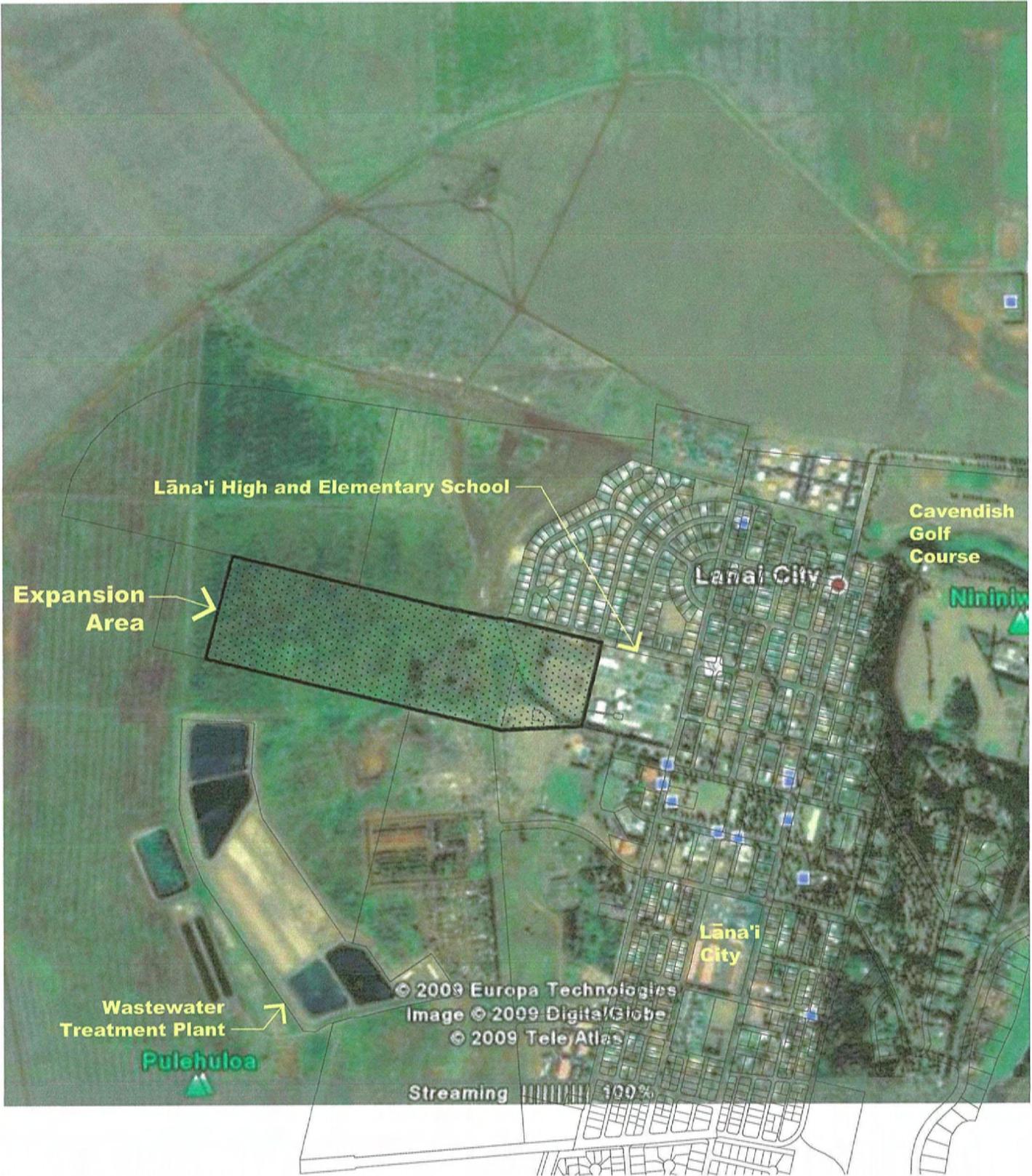
Source: USGS, Lanai South Quadrangle

Gerald Park  
Urban Planner  
March 2011



Kamoku, District of Lāhainā, Lānaʻi, Maui

Figure 1  
Location Map  
Lānaʻi High & Elementary School Master Plan



Source: Google Maps, <http://maps.google.com/maps>

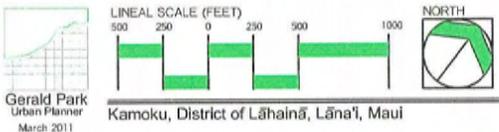


Figure 2  
Vicinity Map  
Lāna'i High & Elementary School Master Plan

campus. These campuses are separated to maintain safety and security for the students of all ages, but are still linked to unite the separate schools into one educational complex. [Note: the term P-20 is abbreviated for an initiative to focus on improving learner achievement in Hawai'i. The "P" refers to provisions for early learning (not only in pre-schools) and the "20" refers to the years of schooling thereafter---beyond a college degree and even beyond graduate school. P-20 is the code for lifelong learning (Hawaii P-20 Initiative)].

- The approach to teaching is holistic, integrating the mental, physical, and social development of the child. The Master Plan reflects this holistic approach to education.
- The campus is an important part of the community, and therefore the design will have an open welcoming feeling. The main administration building will be a "signature" building so it is immediately recognizable as the heart of the campus.
- Housing is an important incentive to attract qualified teachers to the island, and therefore a teacher-housing component is included in the Master Plan.
- Athletic facilities for all school levels are incorporated into the Master Plan, to serve functions appropriate to the different grade levels.
- For practical and economic reasons, and because the majority of the existing school buildings are in excellent condition, most of the existing structures are included in the Master Plan. Some of the buildings will be retrofitted to new uses to fit within the concepts of the Master Plan.
- In addition to desirable circulation patterns for vehicles and pedestrians, life safety issues have been taken into consideration in the Master Plan. Emergency vehicles will be able to traverse the entire campus to respond to emergency situation, and the campus will be designed to conform to all accessibility standards to accommodate the physically challenged.

### C. Technical Characteristics

The Master Plan disperses **disperses** grade levels to different parts of the existing campus and the Expansion Area. In effect, the plan proposes to create separate grade level "schools" under the umbrella of Lāna'i High and Elementary School. The spatial 're-organization' will promote cohesiveness within each grade level "school", provide state of the art improvements for a 21<sup>st</sup> century school, promote sustainability, and foster administrative and operational efficiency. In addition, space has been set aside for second parties including a pre-school operator and Maui Community College to co-locate on campus.

The Master Plan is predicated on a design enrollment of 700 students (Department of Education). The design enrollment by schools is 320 students for high school (Grades 9-12), 170 students for middle school (Grades 6-8), and 210 students for elementary school.(Grades K-5) The design enrollment for the proposed Pre-School and community college facility is undefined at this time.

For purposes of describing the location of the proposed improvements, the discussion is presented by area. There are three areas: the existing campus, Lānaʻi Park and Tennis Court (hereafter Lānaʻi Park) including the school ball field, and the Expansion Area. The Expansion Area includes land *makai* of Lānaʻi Park and portions of two lots immediately south of Lānaʻi Park that the State may acquire.

The proposed Master Plan, which is also titled Ultimate Site Plan, is reproduced as Figure 3.

## 1. Existing Campus

All existing permanent buildings will be retained, renovated, and adapted for classroom and or alternative educational uses. The existing school/[community] **public** library will [remain] **continue** as a public library. All portable and temporary structures will be removed over time. In addition, the existing faculty housing area on 5<sup>th</sup> Street will be demolished and new faculty housing constructed in the Expansion Area and/or accommodations provided in the community.

High School (Grades 9-12) and Middle School (Grades 6-8) classrooms will occupy most of the existing buildings on the present campus. The existing Administration Building will be **converted into a** shared Maui Community College **and High School Administration Satellite office** after construction of a new Administrative Center.

The Master Plan does not propose permanent new buildings for Lānaʻi School *per se*. In the future, a landscaped pedestrian walkway will be constructed from Fraser Avenue through the existing school grounds. The pedestrian walkway is part of a larger scheme to provide a unified and uniform system of walkways throughout the entire 50+ acre campus.

Approximately 1.5 acres will be set aside at the corner of Fraser Avenue and 5<sup>th</sup> Street for Maui Community College ("MCC"). The area includes space for a building and off-street parking. Plans for the college facility will be prepared by MCC. This area will become available for MCC use after new faculty housing is built. Co-locating all public education facilities on the island supports the envisioned "P-20" concept for lifelong learning.

## 2. Lānaʻi Park

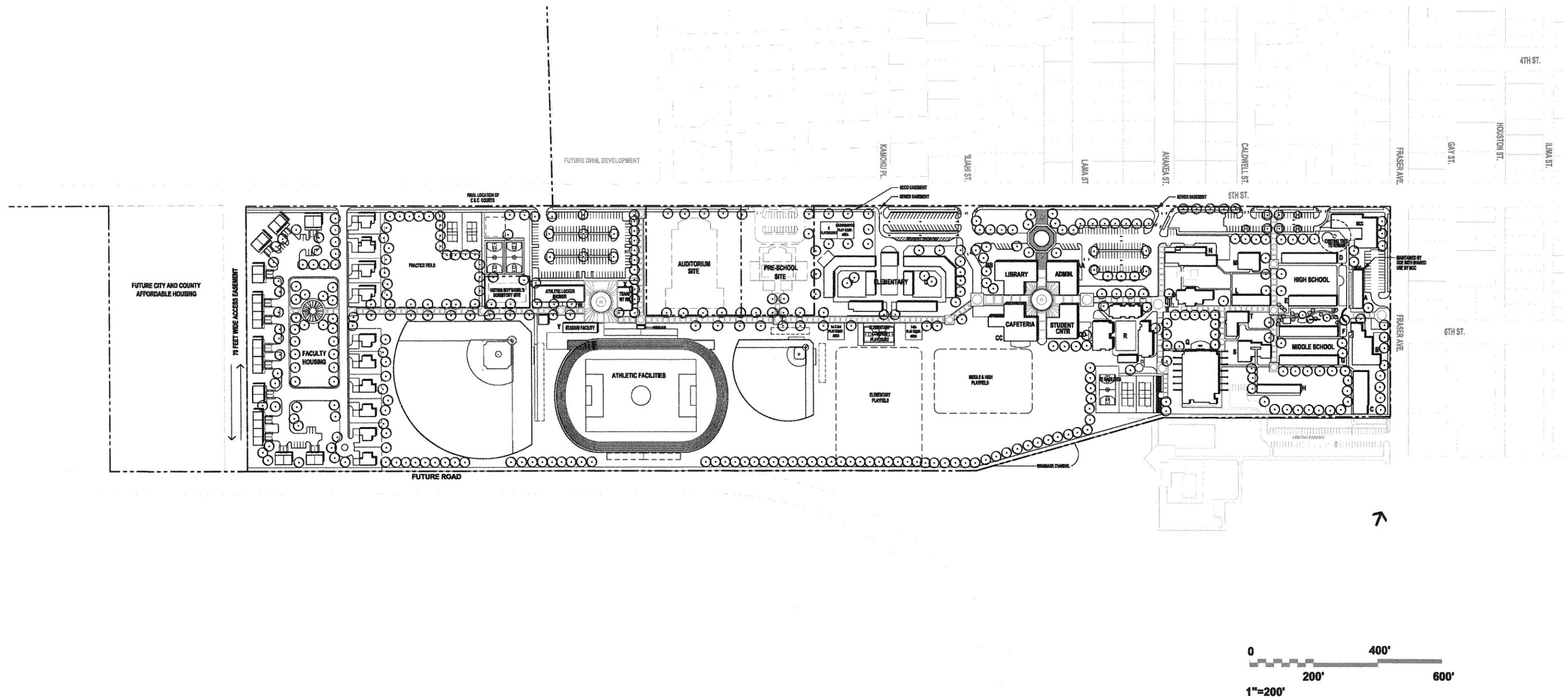
The Master Plan proposes several major new school structures on this site. A new Administrative Center, Student Center, Cafeteria, Library/Media Center, and 6-Classroom Building **Complex complex** for the High and Middle Schools will be constructed generally on the northern half of the park grounds.

Physical education and court sport facilities will be constructed on the southern half of the site and on two adjoining lots that the State is contemplating acquiring. The new facilities will be located adjacent to the school Gymnasium.

The proposed structures and functions are described below and density tabulations presented in Table 1.

### a. Administrative Center

The Administrative Center will be constructed near the center of the school along 5<sup>th</sup> Street



# LANAI HIGH & ELEMENTARY SCHOOL

PROPOSED ULTIMATE SITE PLAN

SCALE 1" = 200'

## CDS INTERNATIONAL

Architecture • Planning • Interior Design

1003 Bishop Street • Suite 400 • Honolulu, HI 96813-3499  
 Telephone: (808) 524-4200 • FAX: (808) 521-3766



10 DEC 2010

across Iliahi and Lawa Streets. The Center will function as the “front door” to the school for administrators, staff, faculty, students, parents, and visitors. Interior space is programmed for a principal’s office, vice-principal’s office, registrar, reception area, general office and record keeping, health room, work rooms, staff lounge and restroom, safety office, and storage.

The Center will also accommodate an Adult Education Center for administering adult education program and classes.

Design plans have not been prepared for the Administration Building.

**Table 1. Programmed Floor Area, Lāna’i High and Elementary School**

<b>Building</b>	<b>Floor Area (Square Feet)</b>
Administrative Center	8,190
6-Classroom Building <b>Complex</b>	14, <del>320</del> <b>909</b>
Library/Media Center	10,422
Student Center	8,362
Multi-Purpose/Cafeteria	11,412
Elementary School	25,590
<b>TOTAL</b>	<b>78,<del>296</del> 895 SF</b>

Source: CDS International, 2009.

b. Classroom Building

A new 6-Classroom Building **Complex** for Middle and High School classes will be constructed as the first improvement of Phase 1. It will be the first new permanent building constructed at the school since Building “T” (Arts and Crafts/Special Education) was erected in 1976. Classrooms for general use, news writing, general science/biology, chemistry, business, and Special Education are proposed. Storage space for maintenance equipment and supplies and restrooms will be provided.

~~[The building layout is arranged like a square. Four one-story buildings are placed on each side of the square surrounding a plaza-like interior open space. Design and use of the open space will be determined by the community. Each of three buildings accommodates two classrooms. The fourth building houses a SSC classroom, Internet room, teacher’s breakroom, and conference room.]~~

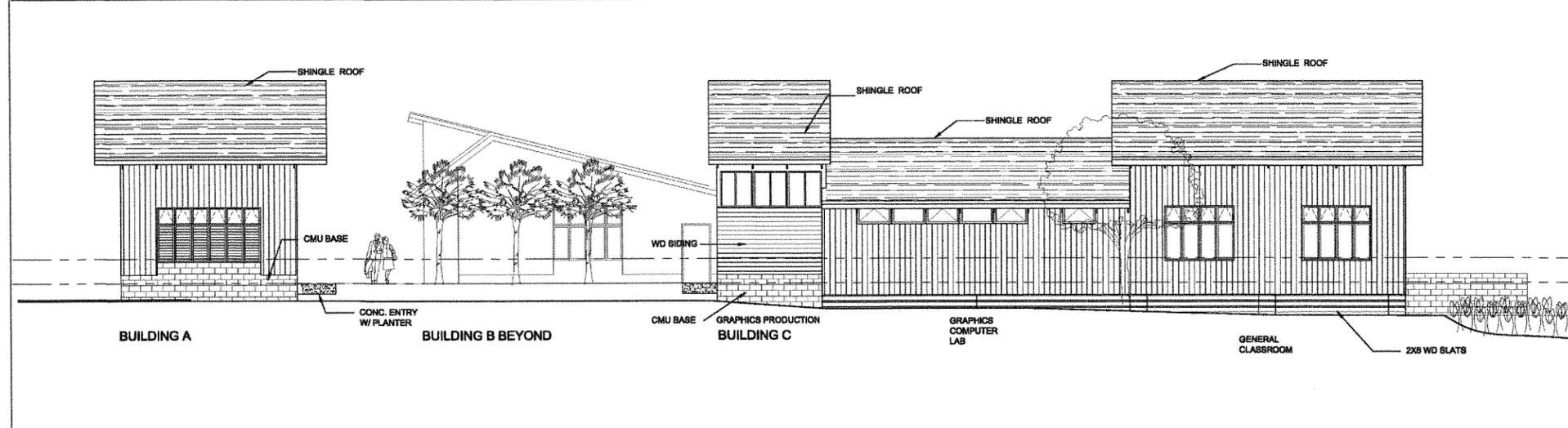
***The building layout is arranged like a “C”. Three one-story buildings are placed on the north, south, and west to create a courtyard space in the center that will include a small amphitheater and classroom gardens. While these building will hold all classrooms and special education support spaces, a smaller fourth building will house Student Services and a Teacher Workroom. This building is located between the main pedestrian spine and future parking. The classroom building will be ADA compliant.*** A Preliminary Floor Plan and Exterior Elevations are shown in Figures 4 and 5.



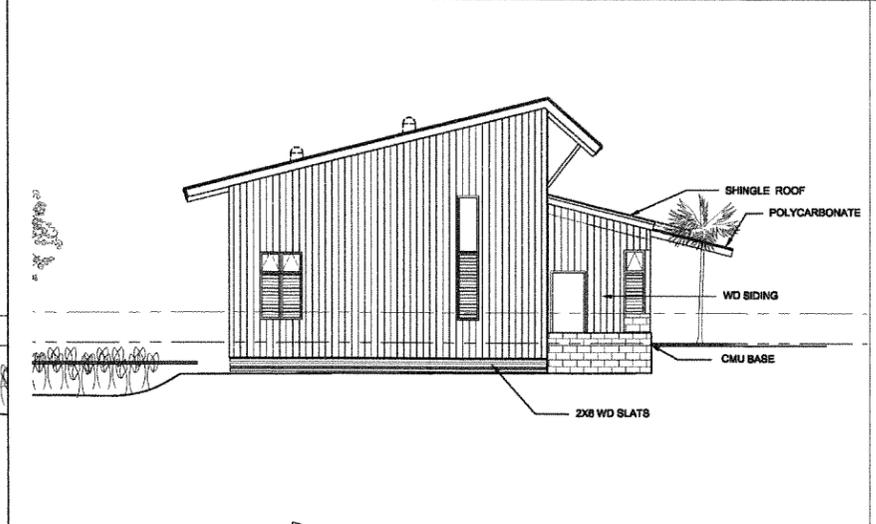


1 EAST ELEVATION (COURTYARD): BUILDING A & C  
SCALE: 1/8" = 1'-0"

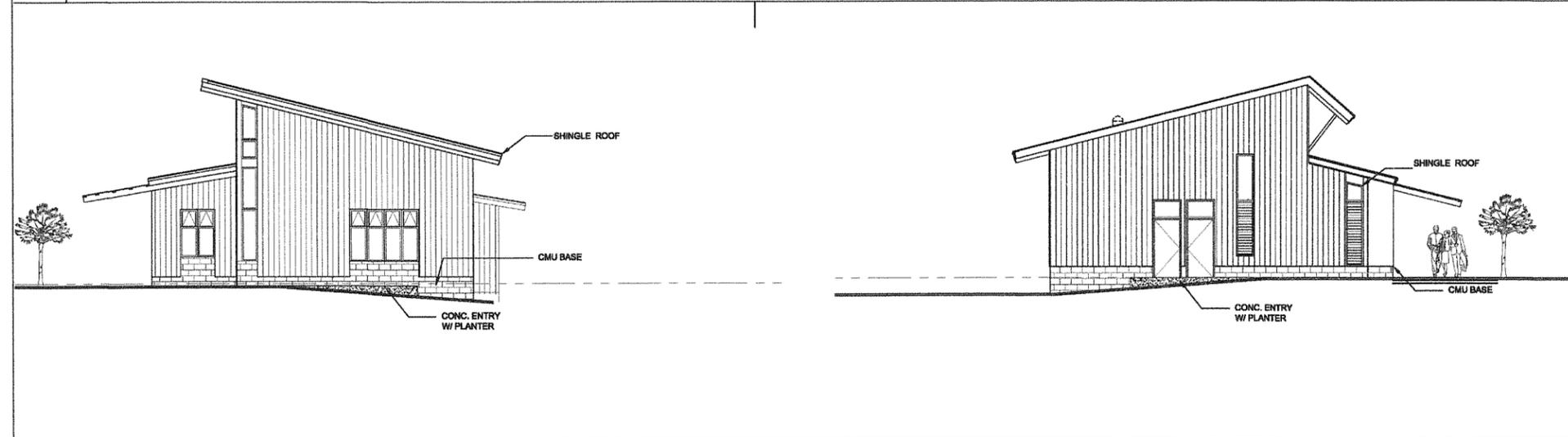
2 NORTH ELEVATION (PARKING): BUILDING A  
SCALE: 1/8" = 1'-0"



3 WEST ELEVATION: BUILDING A & C  
SCALE: 1/8" = 1'-0"



4 SOUTH ELEVATION: BUILDING C  
SCALE: 1/8" = 1'-0"

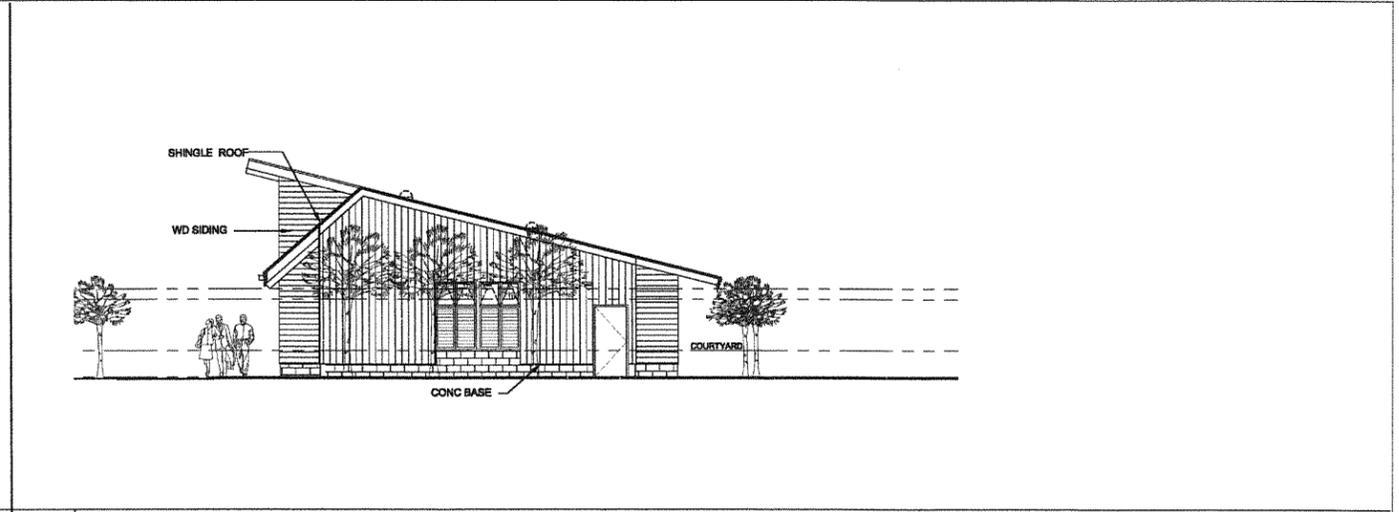
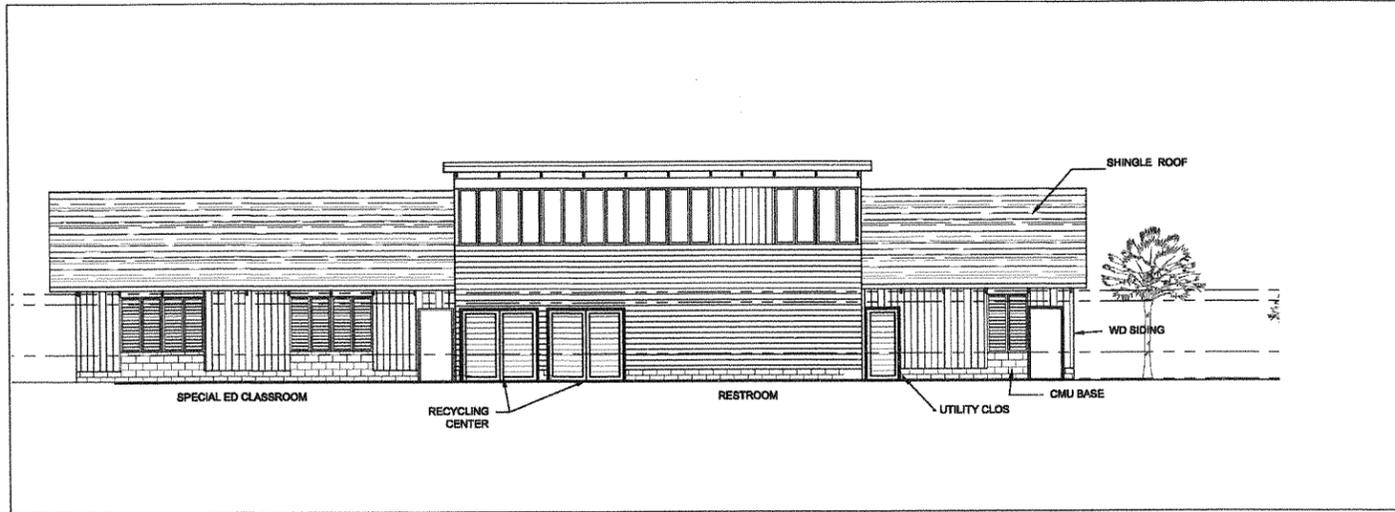


5 NORTH ELEVATION (ENTRY COURT): BUILDING C  
SCALE: 1/8" = 1'-0"

6 SOUTH ELEVATION (ENTRY COURT): BUILDING A  
SCALE: 1/8" = 1'-0"

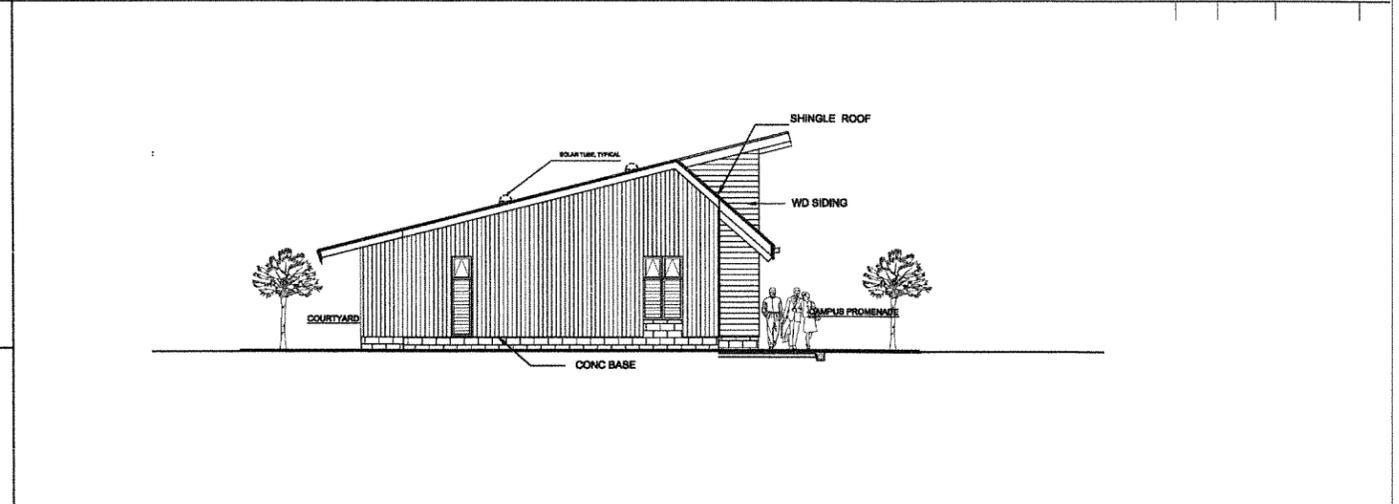
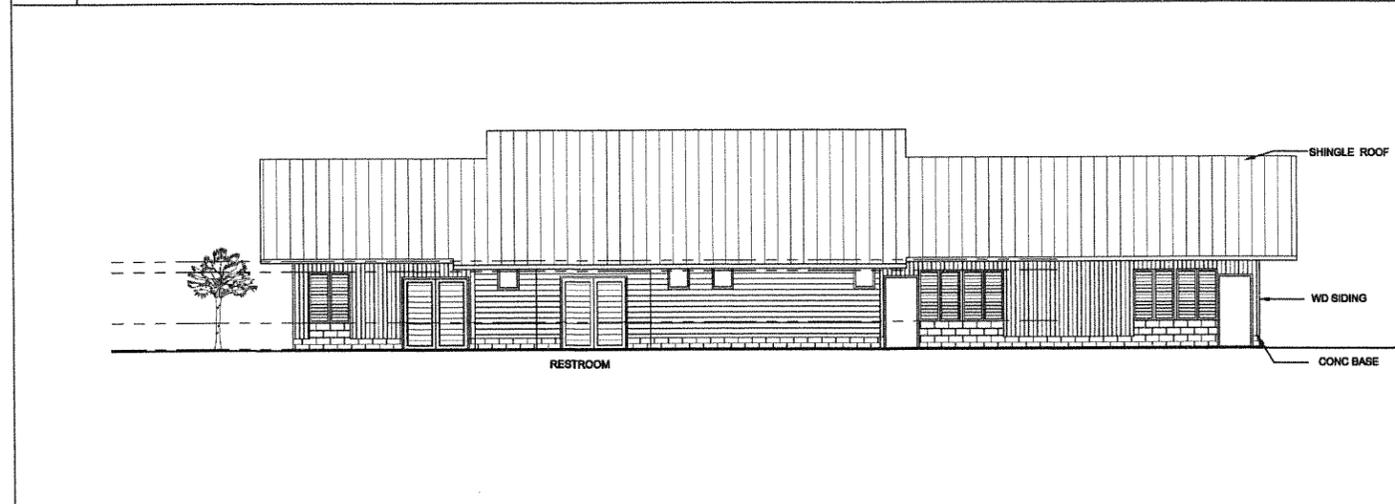


REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:
Seal:					
DEPARTMENT OF EDUCATION STATE OF HAWAII					
LANA'I HIGH AND ELEMENTARY SCHOOL CLASSROOM BUILDING LANA'I CITY, LANA'I, HAWAII					
SHIDI CONSTRUCTION INC.		DATE: 06/01-07	DRAWING NO. <b>A3.2</b>		
DESIGNED BY: KI	CHECKED BY: CS	DATE: 10.08.2010	SHEET OF 56 SHTS.		
DRAWN BY: KI	APPROVED BY: CS	SCALE: AS NOTED			



1 NORTH ELEVATION [PARKING] : BUILDING B  
SCALE: 1/8" = 1'-0"

2 WEST ELEVATION : BUILDING B  
SCALE: 1/8" = 1'-0"



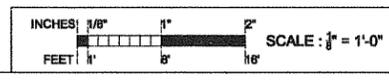
3 SOUTH ELEVATION [COURTYARD] : BUILDING B  
SCALE: 1/8" = 1'-0"

4 EAST ELEVATION : BUILDING B  
SCALE: 1/8" = 1'-0"

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

DEPARTMENT OF EDUCATION STATE OF HAWAII					
LANA'I HIGH AND ELEMENTARY SCHOOL CLASSROOM BUILDING LANA'I CITY, LANAI, HAWAII					
SHIOI CONSTRUCTION INC.			DATE JOB NO.	DRAWING NO.	
DESIGNED BY KI	CHECKED BY CS	056001-07	A3.3		
DRAWN BY KI	APPROVED BY CS	DATE	SHEET		
SCALE: AS NOTED		10.06.2010	OF 56 SHEETS		



c. Library/Media Center

The Library section of this building consists of a reading/study area, book and periodical stacks, resource areas, and circulation desk. Space for back of house functions include an office for the Librarian, a production/workroom, storage, and professional staff and materials area where books will be catalogued and repaired. The workroom can also be used by teachers and staff to prepare educational materials. A 1,200 square foot Computer Resources Center will be housed in the Library.

The production of video media is seen as a clean new industry with opportunities for Hawaii residents. Towards this end, video and multi-media production equipment will be housed in the Media Center. Students will learn about various types of media and engage in hands-on media production from concept, to storyboard, filming, editing, and production.

d. Student Center

As its name implies, this building is a place for students of all grade levels. The Center will house counselor's offices, reference materials for college and career counseling, a student activities store, and space for student activities and meetings. Areas will be set aside also for a community organization office, reading programs, and student support services.

e. Multi-Purpose/Cafeteria

The Cafeteria includes a kitchen, food preparation area, student dining room, and faculty dining room. The student dining room is planned for multi-purpose use with a permanent stage and boy's and girl's dressing/storage rooms. In addition to school related functions and activities, the facility can accommodate large gatherings such as community meetings.

f. County Tennis Courts

Existing court facilities and ball fields at Lāna'i Park will be demolished. The Master Plan proposes to relocate and reconstruct the court facilities at a site along 5<sup>th</sup> Street *makai* of the site of the proposed Pre-School.

***The Department of Parks and Recreation County of Maui commented that for the improvement of the Tennis and Basketball courts were provided through the Land and Water Conservation Fund, U.S. Department of the Interior. As such the facility is protected under federal funding requirements that the facility be kept for public recreational use into perpetuity unless replaced by a similar facility that has been similarly dedicated.***

***The Master Plan phasing schedule will be revised (See Section 1.G. Phasing, Phase 1) to relocate the playground and courts at Lāna'i Park and Tennis Courts to the new permanent location along Fifth Street, across from the County's proposed affordable housing project prior to removal of the existing facilities (Response to Department of Parks and Recreation Comment).***

### 3. Expansion Area

Approximately 42.0 acres of former pineapple fields *makai* of Lānaʻi Park comprise the “principal” Expansion Area. This acreage is part of a 115 acre parcel owned by the County of Maui.

#### a. Elementary School

The Elementary School will be relocated to the west side of the Administration Building and Cafeteria. It will be an entirely new “school” within a school with all new buildings and support facilities. Fourteen classrooms are planned for grades K-5 with seven additional classrooms for Special Education and two supplemental classrooms. The Elementary School will have its own vice-principal, counselor, and staff.

Recreation facilities to be provided include an enclosed Special Education play area, kindergarten playground with play equipment, a covered play court, and a dedicated play field.

#### b. Pre-School and Auditorium

The Master Plan allocates land for a future Pre-School and Auditorium. Both facilities are not part of the DOE improvements for Lānaʻi School but will be provided by another agency or private organization. Design plans for both facilities will be prepared by the respective providers.

The Pre-School is proposed to be located to the west of the Elementary School on an approximately 1.5 acre site fronting 5<sup>th</sup> Street. Providing a pre-school location is consistent with the P-20 educational concept.

A 2.5 acre site has been identified for a future Auditorium. The building is proposed to be sited to the west of the Pre-School and front on 5<sup>th</sup> Street.

#### c. Recreation Areas

New playfields and outdoor physical education/athletic facilities will be constructed in the Expansion Area. As shown on the Existing Site Plan (Figure 4) there is an acute shortage of recreation space at the school and nearby court and ball fields at Lānaʻi Park are shared with the school. Table 2 lists proposed recreation and sport facilities and the approximate area of each. The area calculation does not include spacing between facilities for walkways and service vehicle access.

Support facilities include an athletic locker and shower building, training and weight room, and a ticket office overlooking a stadium like track and soccer field with an oval track. A site is also identified for a dormitory to accommodate visiting boy’s and girl’s teams.

***The use of the school’s athletic ball fields by entities other than the DOE is determined by the Principal through Use of Facility requests. The Lānaʻi High and Elementary School principal values the support of the community and is open to receiving requests (Response to Lānaʻi Planning Commission Comment).***

The Master Plan also proposes a new location for the County tennis and basketball courts on 5<sup>th</sup> Street where it can be accessed by the public.

**Table 2. Planned Recreational Facilities**

<b>Facility</b>	<b>Area (Square Feet)</b>
Track and Field (with bleachers)	171,258
Baseball Field	159,216
Softball Field	55,429
Tennis Courts	46,905
Athlete Locker/Shower	7,650
Practice Field	70,510
Paved Play Courts	10,400
Middle/High School Play Field	60,000
Elementary School Play Field	98,850
Elementary School Covered Play Court	14,675
Elementary School Play Equipment	8,100
Pre-School Playground	3,600
Relocated County Play Courts	44,273
<b>Total:</b>	<b>750,866 SF or 17.24 acres</b>

Source: CDS International, 2009.

d. Faculty Housing

The *makai* end of the Expansion Area is proposed for faculty housing. As stated in the Master Plan concepts, providing housing for faculty is a key element for attracting and retaining teachers. Housing will accommodate single teachers and those with family. The proposed faculty housing area is approximately 8 acres and can accommodate up to 36 units in detached and attached dwellings. The number of proposed units is subject to change and represents a slight increase over the existing 26 teacher units. Design plans will be prepared at a later time.

Off-street parking will provided per Maui County Code requirements.

4. Infrastructure Improvements

a. Water

A 12-inch main in 5th Street will be the main source of potable and fire flow. The existing connection and water meter to the school will need to be upsized from 6" to at least an 8" size. A second 8" connection and meter to the main in the vicinity of the proposed faculty housing will be provided thereby creating a looped system.

Water demand is projected at [0.244] **0.103** million gallons per day (mgd) for consumption and irrigation.

b. Wastewater

Proposed improvements to the sanitary sewer system include gravity lines, lift station, laterals, sewer manholes and cleanouts. Wastewater will be pumped from lower areas of the campus and discharged into an existing 8-inch line near the gymnasium. Other campus areas will be served by existing and new gravity lines.

Average daily dry-weather flow is estimated at 0.0475 mgd.

#### c. Roads and Circulation

A description of the area roadway system is found in Section 2. Primary vehicle access to the school is currently provided via a driveway off Fraser Avenue between 5<sup>th</sup> and 6<sup>th</sup> Street with a student drop-off area designated as a parking lot off Fraser Avenue between 6<sup>th</sup> Street and 7<sup>th</sup> Street.

The existing driveway along Fraser Avenue will be relocated further south of the school between 5<sup>th</sup> and 6<sup>th</sup> Street and will serve the community college. No other improvements to Fraser Avenue are proposed in conjunction with the Master Plan.

5<sup>th</sup> Street will be extended to the western edge of the project site and access to the school will be provided by nine new driveways. The first two driveways will provide access to a parking lot to primarily to serve the community college in the future. The third driveway will be located at the intersection with Ahakea Street and will provide access to the school's central parking lot. This parking lot will serve faculty and staff for the elementary, middle, and high schools. The fourth driveway will be located at the intersection with Iliahi Street while the fifth driveway will be located further west. These two driveways will provide access to the student drop-off area for the elementary, middle, and high schools, as well as, another small parking lot. The sixth and seventh driveways will provide access to the new Pre-school while the eighth driveway will provide access to the new athletic fields and facilities. The ninth driveway will be located near the western edge of the project site and will provide access to the proposed new faculty housing.

#### d. Parking

Five new off-street parking areas are proposed on 5<sup>th</sup> Street. The number of stalls to be provided is 73 for the Administrative Center, 40 for the Elementary School, and 154 for the Athletic Complex. Parking for MCC and the Pre-School will be provided pursuant to the Maui County Code.

Parking for the faculty housing units will be provided within the faculty housing area. Up to thirty-six housing units may be constructed as a mix of 1, 2, and 3 bedrooms. Off-street parking needs will be determined during the design of the faculty housing and the required number of parking stalls provided per County of Maui Code.

#### e. Drainage

Drainage improvements will be constructed based on the requirements for the individual facilities. These improvements include box culverts, drain inlets, drain lines, swales, and detention basins. The plan to drain the site is to collect and direct runoff into an existing drainage channel on the south end of the school and County park. A lined or unlined open channel will be constructed extending the channel to the south corner of the Expansion Area below the proposed faculty housing. At this time, runoff will not be discharged into the proposed County of Maui detention basin but allowed to flow overland to Iwiolo Gulch which is a major drainageway. Future discharge is estimated at 292 cubic feet per second (cfs).

The play fields, ball fields, and practice fields on the southern half of the school also will be used to manage and detain stormwater on-site.

f. Power and Communication

New power and communication systems will be installed underground. Connections will be taken from existing systems along 5<sup>th</sup> Street. The existing campus will continue to be serviced from systems along Fraser Avenue.

**D. Land Ownership**

The Master Plan encompasses four tax parcels. The parcels are shown in Figures 6a and 6b and listed in Table 3. The four parcels include two parcels owned by the State of Hawaii comprising the existing school campus and two parcels owned by the County of Maui.

The County of Maui has proposed to transfer tax parcel 4-9-014:002 and 42.0 acres of the 115 acre tax parcel 4-9-002:058 to the State of Hawai'i to accommodate the school expansion. The area to be transferred is approximately 50.017 acres.

**Table 3. Land Owners**

Tax Map Key	Area (Acs)	Owner	Existing Use
4-9-014:003	10.269	State of Hawaii	Lāna'i High and Elementary School
4-9-014:004	0.125	State of Hawaii	Lāna'i High and Elementary School
4-9-014:002	8.017	County of Maui	Lāna'i Park and Tennis Courts
4-9-014:005	0.153	County of Maui	Vacant
4-9-014:011	18.692	C&C Resorts, LLC	County Park, Junkyard
4-9-002:058	115.00	County of Maui	Vacant

Source: Gerald Park Urban Planner, 2009

In addition, the State of Hawaii is contemplating acquiring, either in whole or in part, [a portion (0.0968 acres) of] tax parcel 4-9-014:005 (**0.153 acres**) from the County of Maui and a portion (1.028 **2.33** acres) of tax parcel 4-9-014:011 from Castle and Cooke Resorts, LLC.

**E. Economic Characteristics**

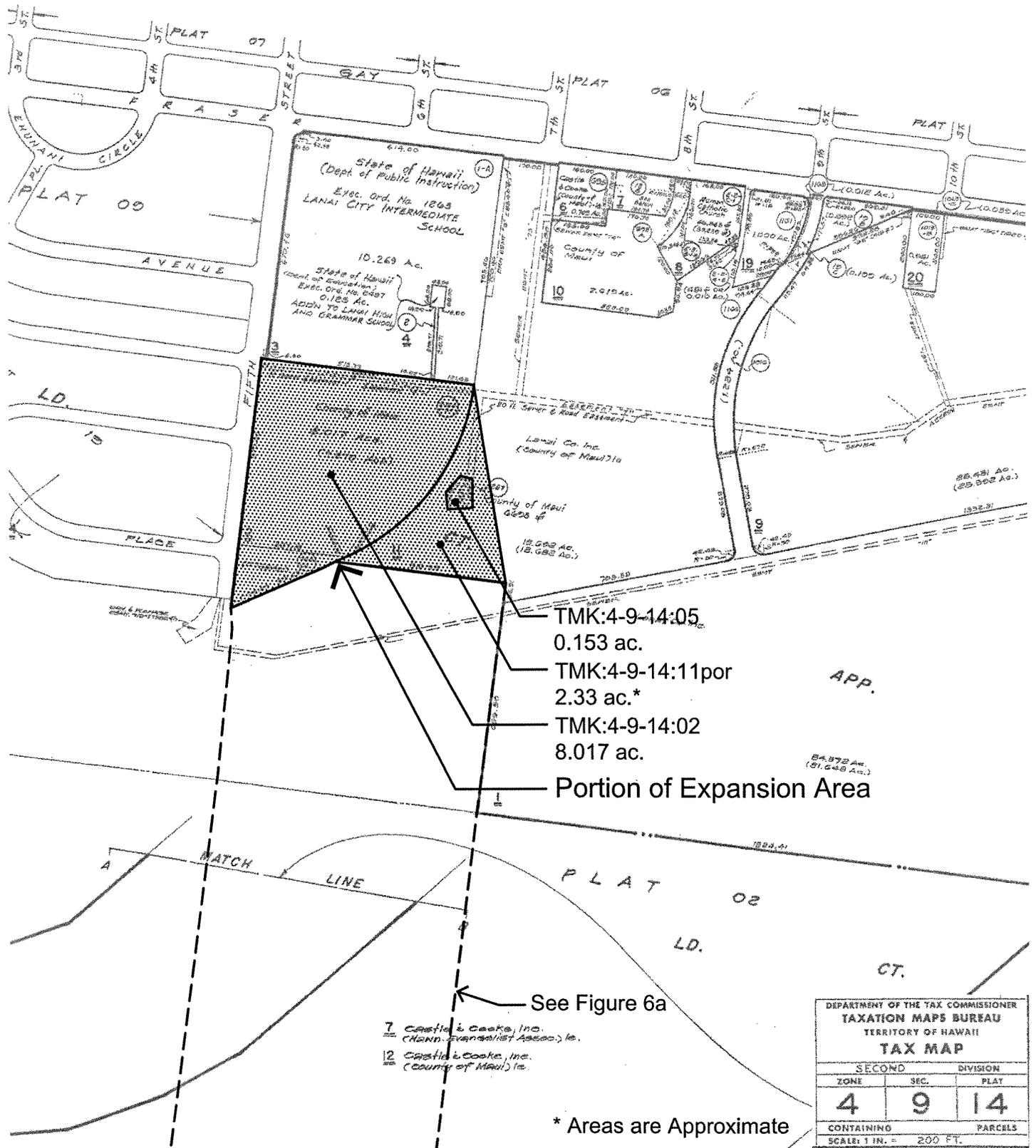
A total cost for the improvements proposed in the Master Plan has not been determined at this time. Implementation of the phased construction schedule will depend on educational needs, availability of State funds, and funding priorities.

The cost for constructing the 6-Classroom Building is estimated at \$8.0 million and funding has been appropriated by the State of Hawai'i. Construction will commence after all necessary land use approvals and building permits are received. An 18-month construction schedule is proposed.

**F. Social Characteristics**

The Master Plan provides accessible elements from the public street, sidewalk, parking areas, and between buildings and facilities to comply with the requirements of the Americans with Disabilities Act Accessibility Guidelines ("ADAAG").





Source: County of Maui, <http://www.mauiCounty.gov/index.asp?NID=1193>

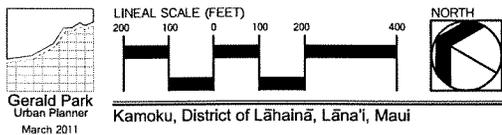


Figure 6b  
Tax Map  
Lāna'i High & Elementary School Master Plan

The interior of all buildings provides accessible facilities and elements as required by ADAAG. Areas that are used primarily by children will comply with the State of Hawaii's Children's Design Guidelines.

The Master Plan and construction of the proposed improvements will not displace any residence or business establishment.

## G. Phasing

A six (6) phase construction schedule is proposed. The proposed schedule integrates and coordinates the relocation of "schools" and the "freeing up" of existing campus buildings and classrooms with the construction of new facilities in the Expansion Area. It is a systematic expansion of school facilities from east to west. Key proposals for each phase are listed below; actions affecting buildings or improvements on the existing campus are *italicized*.

### Phase 1

- Construct new 6 classroom building (Phase 1A)
- [~~Construct new P.E. facilities (Phase 1B)~~]
- ***Relocate and construct new Lāna'i Park and Tennis Courts makai (Phase 1B)***
- *Vacate several classrooms on the existing campus. For some of the classrooms new uses are proposed; for others uses are to be determined.*

### Phase 2

- Demolish existing play courts at the Park (Phase 2A)
- Construct new Administration Building, Student Center, and Parking Area (Phase 2A)
- Construct new Library and Cafeteria adjacent to the Administration Building and Student Center (Phase 2B)
- *Vacate Administration Building, Cafeteria and Library; new uses proposed for vacated buildings.*
- *Demolish and remove wooden buildings on campus (various).*

### Phase 3

- Construct ***Elementary School***, elementary, middle and high playfields, Kindergarten playground, and Student Drop Off area [~~site and pads for elementary school~~] (Phase 3A)
- Construct Elementary School, Covered Play Court, ***and new P.E. Courts*** (Phase 3B)
- *Vacate and demolish wooden buildings (various).*
- *New uses occupy former high, middle, and elementary school classrooms.*

### Phase 4

- *Construct new pedestrian walkway spine at existing campus (Phase 4A)*
- Construct softball field, baseball field, practice field [~~and County courts~~] (Phase 4B)
- Set aside land for Non-DOE funded Auditorium and Pre-School
- Construct track facility (Phase 4C)

#### Phase 5

- Construct Faculty Housing (Phase 5A)
- *Demolish Faculty Housing on 5<sup>th</sup> Street near Fraser Avenue(Phase 5B)*

#### Phase 6

- *Maui Community College building*

### **H. Sustainability**

All new buildings, facilities, and improvements associated with Lānaʻi School will be designed and built as “sustainable” buildings per Leadership in Energy and Environmental Design (“LEED”) standards or equivalent per Act 96. The LEED rating system is a “nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED promotes a whole-building approach to sustainability by recognizing performance in five key area of human and environmental health: sustainable site development, water savings, energy efficiency, material selection, and indoor environmental quality ([www.usgbc.org](http://www.usgbc.org))). LEED silver certification or higher will be sought for the project.

***Leadership in Energy and Environmental Design (“LEED”) features to be incorporated into plans for each development phase will focus on storm water management, energy demand and efficiency, and water use. The identification of appropriate LEED features to future buildings and improvements will be left to the design team of record. Per state law, a minimum Silver level LEED certification or equivalent sustainable level of design will be pursued for all future projects (Response to Office of State Planning Comment).***

**A. Existing Conditions**

Lānaʻi High and Elementary School was originally located at Kōʻele near the current location of the 1<sup>st</sup> green at the Cavendish Golf Course (Black, 2001). The school was constructed in sometime around 1924 in conjunction with the development of Lānaʻi i City and the start of the first pineapple field plantings. In addition to the school a post office, hospital, churches, gymnasium, theater, and tennis courts were also completed (Lānaʻi Community Plan).

The present school site was deeded to the Territory of Hawaiʻi by Hawaiian Pineapple Company, Limited in 1937. The school may then have been relocated to this location sometime between 1937 and 1938 (In Black, 2001). One of the school logos is inscribed with the year 1938 which may indicate the year the school was established at its current location. Governor's Executive Order No. 1263 dated 1948 officially gave site control to the Department of Public Instruction. The school is the only public school on the island and the largest K-12 school in the State of Hawaii.

Since 1924, the school has been cited using different names. Although the original name of the school was not researched, it has been referenced as Lanai City Intermediate School (Executive Order No. 1263), Lanai High and Grammar School (Executive Order No. 2437) and the current Lānaʻi High and Elementary School.

Lānaʻi School operates on a 1-3-2 year round option. Classes generally commence at the end of July and end in the first week of June. Current enrollment numbers 540 students with a certified staff of 59 persons.

One of the unique features of the school is the availability of faculty housing on-campus consisting of eight buildings with a capacity of 26 units. For the current school year, eleven teachers reside in faculty housing

Except for football, the Pinelads and Pinelasses participate in almost all high school varsity sports including basketball, volleyball, track, wrestling, softball (girls), baseball (boys), paddling, and golf. Participation in JV sports for the above are offered if there is sufficient participation.

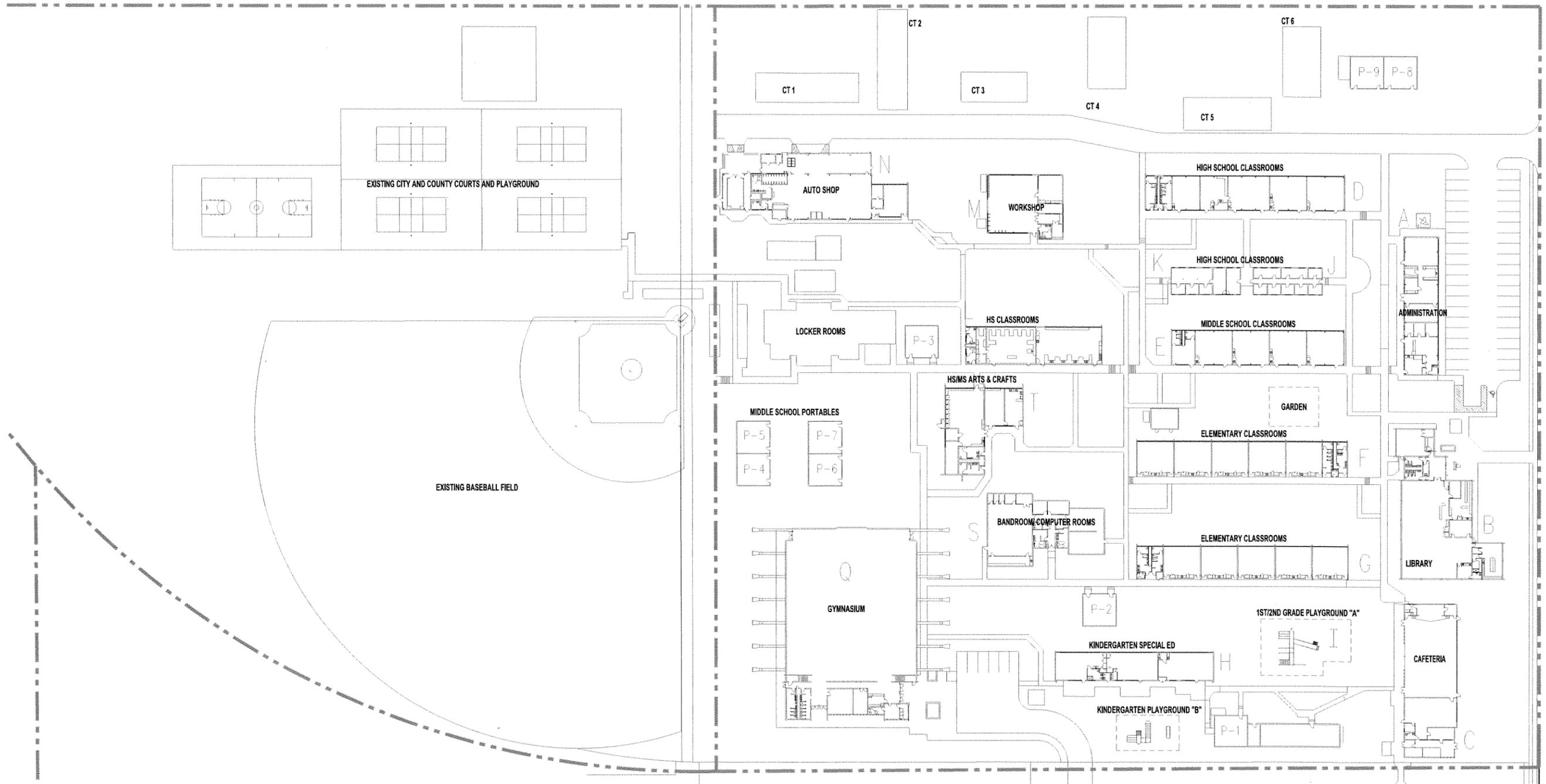
Figure 8 depicts the existing campus and associated buildings.

**B. Environmental Characteristics****1. Climate**

Climate has played an important role in the weathering of geologic materials to produce the lands which exist on Lānaʻi today. The degree of soil development, leaching, and erosion is believed highly correlated with the amount and distribution of rainfall during the weathering period.

5TH ST.

FRASER AVE.



# EXISTING SITE

- VACATED WITH NEW USE
- DEMOLISH/REMOVE
- EXPANSION
- VACATED - USE TBD

SCALE 1" = 40'



The climate on Lānaʻi is subtropical and is affected by the surrounding ocean and persistent tradewinds that fan the island. Median annual rainfall varies from 10 inches along the leeward coasts to 35 inches at Lanaihale. On occasions, southerly winds accompanied by heavy rains produce a large percentage of a year's rainfall.

Available surface and ground water is limited on Lānaʻi. There are no springs, and the only perennial stream, which does not reach the ocean, is in Maunalei Gulch. The principal source of water is from wells dug near this stream. Brackish water is found in wells along the windward coastal areas.

The northeast sector of the island, especially those lands north of the pineapple fields, is subject to continuous strong trade winds. These winds are of sufficient velocity to seriously affect cultivated crops. Soils are constantly moving and dunes are not uncommon.

## 2. Geology

The island consists of a single volcanic dome. It is believed to have been extinct longer than any volcano found on the other Hawaiian Islands. The cone, Lanaihale, is the highest point on Lanai, rising 3,370 feet above sea level. Rough mountainous lands lie between Maunalei and Kawaiu Gulches, with Lanaihale on the western boundary. These rough mountainous lands, and most of the area below 1000 feet elevation, are not suited for cultivation because of steep slopes, stones, erosion and low rainfall, combined with a lack of irrigation water. Coral sand beaches are found at Pohakuloa on the north and at Hulopa[o]e and Manele Bays on the south. There is a strip of flat, nonstony alluvial land along the windward coast. Steep marine cliffs occur along the west and south coastal areas. There is a wide reef along the windward shores (Land Study Bureau, **1967**).

## 3. Topography

The rectangular shaped Expansion Area is oriented east-west along its longitudinal axis. The lot is approximately 3,125 feet long (0.59 miles) and 820 feet wide along most of its length. It narrows to about 510 feet wide at Lānaʻi Park.

Ground elevation ranges from a high of about 1,580 feet above mean sea level at the northeastern end of the existing Lānaʻi Park to a low of 1,510 feet in the southwest corner of the proposed faculty housing area. Ground slope averages 3 to 4 percent along this gradient.

No unusual topographic features were observed during field investigations. The southwest corner of Lanai Park, however, is higher in elevation than the surrounding ground. The contours in this area suggest that the original ground surface was raised to accommodate the ball fields.

## 4. Soils

A single soil type---Waihuna clay, 0 to 3 percent slopes---covers the entire Expansion Area (Soil Conservation Service, 1972). This is a well and moderately drained soil found on Molokai and Lanai primarily in the central part of the Palawai Basin on Lanai. Runoff is slow, permeability is moderately slow, and the erosion hazard is no more than slight.

Waihuna clay is suitable for non-agricultural uses but it has a high shrink swell potential and low shear strength for building foundations.

## 5. Agricultural Suitability

### a. Land Type

The Land Study Bureau's (1967) Land Classification Map for Lāna'i (Map No. 19) classifies the Expansion Area soil as "C6" (See Figure 8). The letter indicates the master productivity rating and the numeral the land type. The master productivity rating evaluates each land type according to its general productive capacity, not for a specific crop. A five class productivity rating is applied using the letters A, B, C, D, and E with A representing the class of highest productivity and E the lowest.

There is no Class A or B rated lands on Lāna'i. This is because rainfall is inadequate and the supply of irrigation water is so limited. Class C lands, the best agricultural lands, amounts to about 4,900 acres or about 5% of the total land area (Ibid).

### b. Agricultural Lands of Importance to the State of Hawaii

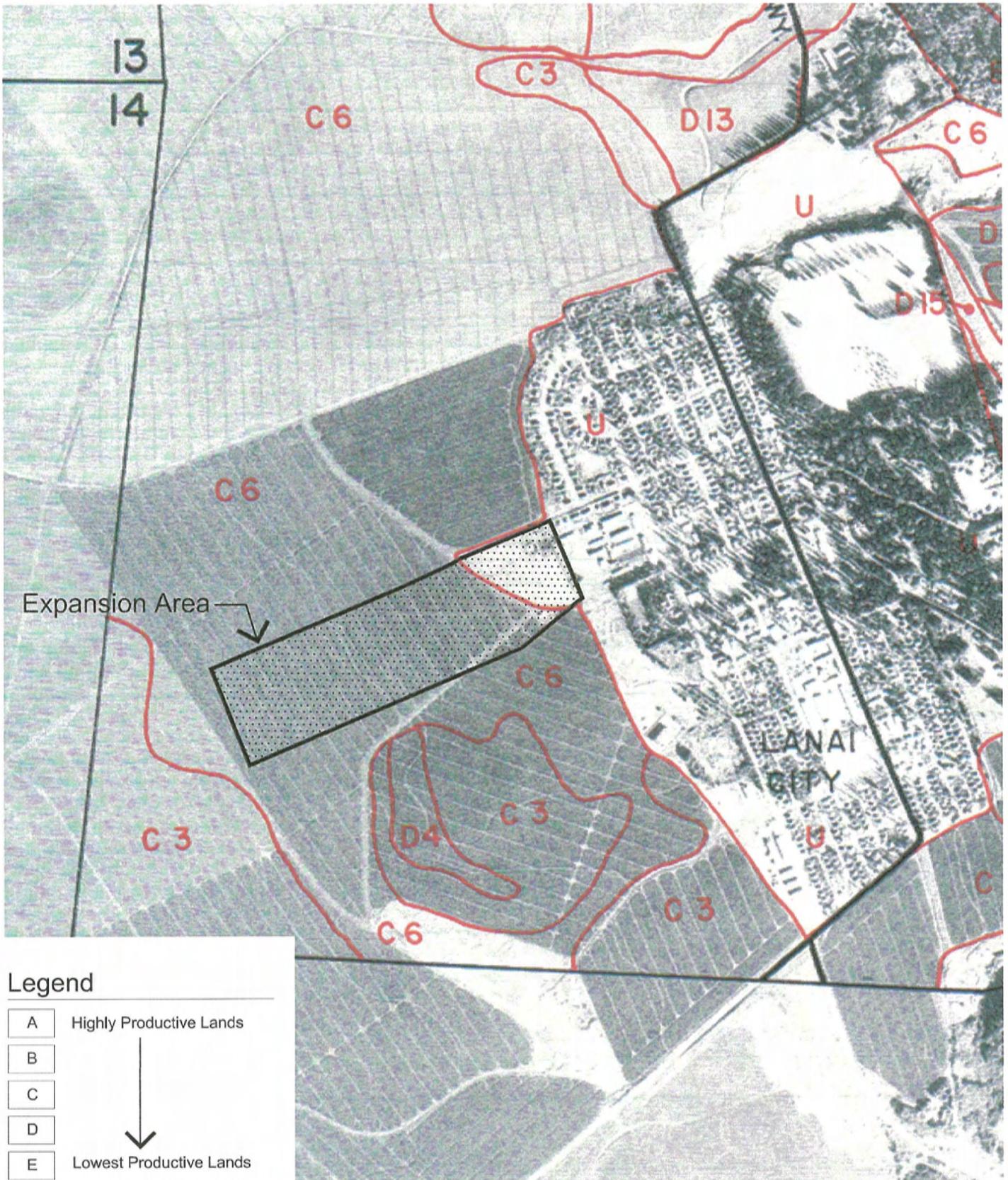
The Agricultural Lands of Importance to the State of Hawaii ("ALISH") system consist of the mapped identification of three broad classes of agricultural land. The three classes are, in order of productivity criteria, Prime Agricultural Land, Unique Agricultural Land, and Other Important Agricultural Land. Prime Agricultural land is defined as "land best suited for the production of food, feed, forage, and fiber crops. This class of land has the soil quality, growing season, and moisture supply needed to economically sustain high yields of crops when treated and managed (including water management) according to modern farming methods. Prime agricultural land gives the highest yields with the lowest inputs of energy or money and with the least damage to the environment (Department of Agriculture, 1977)".

Unique Agricultural Land is "land that has the special combination of soil quality, location, growing season, moisture supply and is used to produce sustained high quality and or high yields of a specific crop when treated and managed according to modern farming methods (Ibid)."

The ALISH map for this section of the island shows the Expansion Area on land designated "Unique Agricultural Land" (See Figure 9).

## 6. Drainage

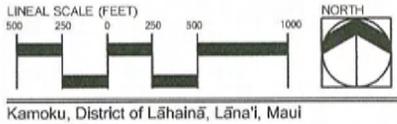
The existing drainage system at the school consists of drain inlets and culverts which collect on-site runoff and discharges south of the school through outlet structures. Runoff generally sheet flows in a north to south direction. The site is relatively flat with an average slope of about 3-5%. A watershed above the site generates approximately 159 cfs of runoff which is conveyed across Fraser Avenue through an existing 18-inch drainage culvert. Runoff is discharged into an existing drainage channel below the school which eventually drains into Iwiole Gulch (Towill, 2009).



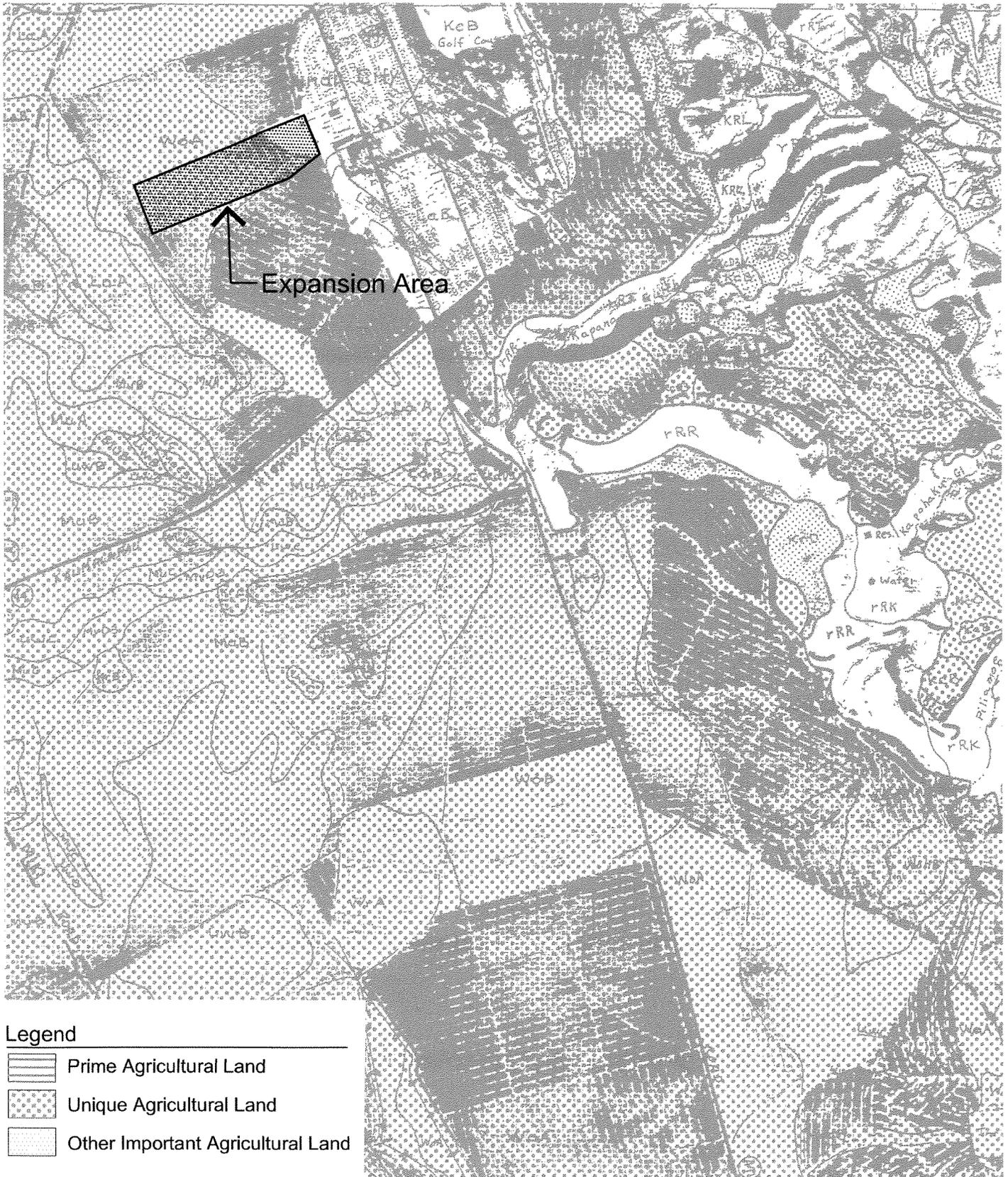
**Legend**

A	Highly Productive Lands
B	↓
C	
D	
E	Lowest Productive Lands

Source: Detailed Land Classification - Island of Lana'i  
 Land Study Bureau, University of Hawai'i, December 1967



**Figure 8**  
 Detailed Land Classification  
 Lāna'i High & Elementary School Master Plan

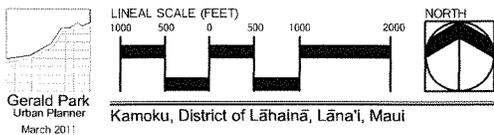


**Legend**

-  Prime Agricultural Land
-  Unique Agricultural Land
-  Other Important Agricultural Land

Source: Department of Agriculture, State of Hawaii. 1977.

Figure 9  
 Agricultural Lands of Importance  
 to the State of Hawai'i  
 Lāna'i High & Elementary School Master Plan



Gerald Park  
 Urban Planner  
 March 2011

## 7. Flood/Coastal Hazard

There are no identified flood hazards associated with the subject property. The Federal Emergency Management Agency ("FEMA") has not prepared Flood Insurance Rate Maps ("FIRM") for Lānaʻi. In lieu of the FIRM, the County of Maui Planning Department places the entire island in FIRM Flood Zone "C" which is defined as "areas of minimal flooding".

## 8. Natural Hazards

### a. Earthquake

Earthquakes are fundamental to the processes that have built and shaped the Hawaiian Islands. Unlike other areas where seismic activity accompanies movement along tectonic plate boundaries, in Hawaii most earthquakes are linked to volcanic activity. Each year, thousands of earthquakes occur in Hawaii due to volcanic activity. These events are so small that they are detectable by only the most sensitive seismic instruments. However, moderate earthquakes that can be felt occur periodically, and catastrophic ones occasionally rock the Islands (Okubo in Atlas of Hawaii, 1998).

During historical times, seismic activity has been concentrated beneath the island of Hawaii and the surrounding seafloor south of the island, in the vicinity of the "hotspot" that has fueled Hawaiian volcanoes for millions of years. Research suggests that many of the significant earthquakes on Hawaii Island have resulted from the seaward sliding of the south flanks of Kilauea and Mauna Loa along a nearly horizontal fault. This fault is thought to be the buried boundary between the ancient oceanic crust and the volcanic edifice, approximately 6 miles deep.

The most recent "major" earthquake in Hawaii occurred on October 15, 2006. The 6.5 to 6.6 magnitude earthquake occurred about 10 miles north-northwest of Kailua-Kona on Hawaii Island under the ocean.

Based on the Uniform Building Code (1997) all islands comprising the County of Maui are placed in seismic zone 2B.

### b. Volcanism

The island of Lānaʻi is a shield volcano built by eruptions at the summit and along three rift zones. The principal rift zone trended northwestward and is responsible for the conspicuous elongation of the island in that direction (McDonald & Abbott, 1970). A less conspicuous bulge on the southern side of the island is result of building on the southwest rift zone. The summit of the shield collapsed to form a caldera which was filled by lava flows. Palawai Basin is a remnant of the caldera. The basin is roughly circular with a diameter of about 2.5 miles.

The basaltic cone measures 3,370 feet high and 13 miles across. The volcano passed through a period of submergences and emergences similar to those of Oahu and the highest fossiliferous marine conglomerate known in the Hawaiian Islands is 1,070 feet above sea level on the south side of the island (Stearns, 1946)."

According to Stearns (Ibid) Lānaʻi has been extinct longer than any of the other main islands.

c. Hurricane

Hurricanes are one of a subclass of a category of weather phenomena known as tropical cyclones. Hurricanes are an intense tropical weather system with a well-defined circulation and sustained winds of 74 mph (64 knots) or higher. In the western Pacific Ocean, hurricanes are called "typhoons." Hurricanes consist of three sections: the eye which is the center; the core which is the principal area of intense winds; and the outer region which extends out from the core to the surrounding environment. Typically, the eye is about one to five miles wide, the core five to ten miles wide, and the outer region can extend up to 150 miles from the eye.

Meteorologists locate Hawai'i in the North Central Pacific Ocean which is bounded by the Equator, 140<sup>o</sup> West Longitude and the International Date Line. Hurricanes typically approach Hawai'i from the east and south directions. Storms that form in the eastern Pacific Ocean are more common and are pushed towards Hawai'i by the prevailing east-west winds.

Hurricanes are relatively rare events in the Hawaiian Islands but there is a hurricane season that runs from June through October. The historical record also shows that hurricanes have formed in "non-seasonal" months. Since 1950, five major hurricanes have passed over and through the Hawaiian Islands: Nina in 1957, Dot in 1959, Iwa in 1982, Estelle in 1986, and Iniki in 1992. Of the five, Iniki was the most intense storm to strike Hawai'i causing the most economic damage as it passed over Kaua'i and skirted Leeward Oahu ([http://www.mothernature-hawaii.com/county\\_hawaii/hurricane\\_section2-hawaii.htm](http://www.mothernature-hawaii.com/county_hawaii/hurricane_section2-hawaii.htm)).

d. Tsunami

The island of Lanai, as is all the islands comprising the Hawaiian Islands, is susceptible to tsunami. Although there is a comparatively sophisticated early warning system in place world-wide, the ability of the system to predict the size of any particular event is limited. As recently as 1957, severe damage and loss of life occurred on the island as the result of a tsunami.

Located in the center of the island and at elevations ranging between 1,510 to 1,570 feet above sea level, the Expansion Area is approximately 4.0 miles west from the nearest body of water at Honopu Bay/Pacific Ocean thus the threat of damage from and susceptibility to tsunami is low.

9. Water Resources

a. Surface Water

There are no streams, rivers, lakes, ponds, and wetlands in the Expansion Area.

b. Groundwater

The Expansion Area (and Lanai City) is situated over the Leeward aquifer system of the Central aquifer sector (Mink and Lau, 1993). Groundwater in the Leeward aquifer, (Aquifer/Status Code: 50102212/11111) is high level (not in contact with seawater) fresh water in dike compartments. Based on its groundwater status code, the aquifer is

currently used as a source of drinking water (salinity is <250 mg/l Cl<sup>-</sup>), irreplaceable, and highly vulnerable to contamination (See Table 4).

**Table 4. Aquifer Classification System**

<b>Aquifer Code</b>	<b>50102212</b>
Island Code	5 - Lanai
Aquifer Sector	01 - Central
Aquifer System	02 - Leeward
Aquifer Type, Hydrogeology	2 - High Level
Aquifer Condition	1 - Unconfined
Aquifer Type, Geology	1 - Dike
<b>Status Code</b>	<b>11111</b>
Developmental Stage	1 - Currently Used
Utility	1 - Drinking
Salinity (in mg/l Cl <sup>-</sup> )	1 - Fresh (<250)
Uniqueness	1 - Irreplaceable
Vulnerability to Contamination	1 - High

Source: Mink and Lau, 1993.

Since 1990, the Commission on Water Resource Management (“CWRM”) has commissioned several hydrological studies to develop models for estimating the sustainable yield of identified aquifers in Hawaii. In 1993, CWRM modeled the sustainable yield of the Leeward Aquifer at 3.0 million gallons per day. Wilson Okamoto (2007) reported that the sustainable yield remains 3.0 million gallons per day.

A groundwater management area is not designated for the island of Lanai (CWRM Water Management Areas Map).

#### 10. Flora

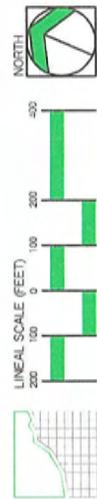
AECOS Consultants (2008) surveyed all accessible areas of the Expansion Area for botanical resources. Botanical resources are characterized below and shown on Figure 10.

“The project site is mostly covered with a scrubby growth of shrubs, scattered and typically short-stature trees (mostly under 4 m or 12 ft), and grasses. However, the nature of the vegetation changes from one end of the nearly 2690 –ft (820-m) long parcel to the other. The developed campus, beginning at Fraser Avenue, occupies a narrower parcel at the eastern end, about 820 ft. (250 m) in length. This area consists of planted and well-maintained grounds with lawns and ornamental planting beds, and only a few weedy areas where ruderal species are to be found. Hawaiian native plants have been planted in a few places on campus.

Beyond the playing field at the lower end of the school campus is found an area of disturbed land broken up into patches or weedy fields by tree lines, an energy corridor with access roads, vehicle tracks (“dirt” roads), and stockpiled soil mounds. For a variety of reasons, notably proximity to weed sources and patterns of disturbance, this area demonstrates the greatest diversity of plants within the project area. Most of the trees in this area are



Source: AECOS, Consultants, 2009 & Google Maps.  
 Aerial Photo: <http://maps.google.com/maps>



**LEGEND**

- A - Maintained areas (landscaped) existing park grounds
- B- Disturbed land, mixed tree stands/grassy meadows
- C - Lantana scrub with Christmas berry
- D - Christmas berry and old field weedy growth

**Figure 10**  
**Vegetation Zones**  
**Lāna'i High & Elementary School Master Plan**

Formosan koa (*Acacia confusa*) with brush box (*Ophostemon confertus*) and ironwood (*Casuarina equisetifolia*) present in smaller numbers. Fields are a mixture of weedy species, mostly grasses such as Guinea grass (*Urochloa maxima*) California or para grass (*Urochloa mutica*), and some Napier or elephant grass (*Pennisetum purpureum*). Most of the other species recorded here are rare or present in small numbers of localized growth.

The latter area of the disturbed ground transitions into an area of dense lantana (*Lantana camara*) scrub with low-growing or “scrubby” Christmas berry (*Schinus terebinthifolius*) trees. Also abundant are Guinea grass and sourgrass (*Digitaria insularis*). This area of scrub proved exceptionally difficult to traverse because of dense growth of thorny lantana and low trees. However, axis deer or chital (*Axis axis*) trails crisscross the area, providing exploratory access (although often on hands and knees). This vegetation zone is especially low in plant diversity. The four species mentioned are the only ones present, except along parts of former field roads that cross the parcel. The restricted flora has developed under extreme grazing pressure that limits invasion by other species, while favoring lantana and Christmas berry.

The lantana/Christmas berry shrub-scrub gives way to dense groves of Christmas berry separated by old field roads supporting more open growth. Minimal undergrowth occurs in the closed canopy forest of Christmas berry due to a combination of shading and grazing pressure.

Further out (to the southwest), the copses of Christmas berry forest give way to a savannah of scattered Christmas berry trees and grassland, with patches of lantana. Plant diversity increases in this open, old field setting.

No species that is listed by the state or federal government or considered a candidate species (USFWS, 2005, 2008), or is rare, or is of any special concern was observed at the site [Expansion Area]. Therefore, no mitigation measures are proposed based upon any species of the flora.

A number of native and early Polynesian (“canoe”) plants have been planted on the school campus. Several endemic species including koa, mao, ‘ōhi‘a, wiliwili are not listed as endangered; however, other endemics such as ko‘oko‘olau, ko‘oloa‘ula, and koki‘o ke‘oke‘o are listed as endangered. The botanical survey is reproduced in Appendix A.

## 11. Fauna

Bruner (November, 2000) conducted an “Avifaunal and Feral Mammal Survey of a 50 Acre DHHL Parcel” to the north. Native birds were not recorded during his survey. He noted, however, that native endangered waterbirds such as the Black necked Stilt (*Himantopus mexicanus knudseni*) and the Hawaiian Coot (*Fulica alba*) may have established habitat in the settling ponds associated with the sewage treatment facility located downslope of the property. The Pacific Golden Plover (*Pluvialis fulva*), a migratory species, was recorded. According to Bruner, this species is the most abundant migrant in Hawaii; they are not listed as endangered or threatened.

A total of nine non-native species were tallied on the survey. Spotted dove (*Streptopelia chinensis*) and Nutmeg manikin (*Lonchura punctulata*) were the most abundant species. The other species included ring-necked pheasant, gray francolin, common mynah, zebra

dove, northern cardinal, northern mockingbird, and Japanese white-eye. None of the nine species are listed as endangered or threatened

Feral mammals observed included axis deer, dog, and cat.

During the current archaeological and botanical surveys, a native short-eared owl or *pueo* (*Asio flammeus sandwichensis*) was observed hovering over the site. Bruner had noted that given the location and habitat available in the general area the only native species that might on occasion be seen foraging would be the Short-eared Owl or *pueo*.

Axis deer were flushed from the brush and numerous tracks and trails through the lantana indicate they are plentiful in this area. A deer blind at the western end of the Expansion Lot (or perhaps outside the Expansion Lot) indicates that deer are hunted in the area. Two carcasses---a doe and a stag---were stumbled upon at separate locations during the survey.

## 12. Environmental Site Assessment

A Phase I Environmental Site Assessment (“ESA”) for the Expansion Area was prepared by ENPRO Environmental (2009). The object of the assessment was to provide “an independent, professional opinion regarding *recognized environmental conditions* associated with the project site.” The term recognized environmental condition is defined “as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property, or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws.”

Key findings of their site inspection are summarized in Table 5 and the report is found in Appendix B. All features that were observed during the site reconnaissance, that were discovered to have been historically present at the project site are noted in the table. Items that present concerns to the project site are also noted (ENPRO 2009). Although not listed in Table [2] 5, asbestos-containing material and lead based paint were not observed on the site.

The Phase I Environmental Assessment revealed the following *recognized environmental conditions* in connection with the property:

- Historical presence of a sewer pond on the eastern portion of the project site.

This finding is considered a *recognized environmental condition* because of the potential presence of heavy metals and pesticide accumulation on the eastern portion of the project site due to materials that may have been disposed in the sewer pond.

- Historical use of the project site as agricultural land, specifically for pineapple cultivation.

This finding is considered a *recognized environmental condition* because of the potential presence of chemicals associated with former pineapple cultivation onsite.

**Table 5. Site Inspection Findings**

Onsite Environmental Features	Currently or Historically Present	Possible Environmental Concern
Hazardous Substances or Petroleum Products	Not Observed	Not Observed
Underground Storage Tank, UST	Not Observed	Not Observed
Aboveground Storage Tank, AST	Not Observed	Not Observed
Odors	Not Observed	Not Observed
Air Emissions (stacks, hoods, other point sources)	Not Observed	Not Observed
Pools of Liquid	Not Observed	Not Observed
Drums	Not Observed	Not Observed
Unidentified Substance Containers	Not Observed	Not Observed
Electrical Equipment/Possible PCBs	Not Observed	Not Observed
Hydraulic Equipment/Possible PCBs	Not Observed	Not Observed
Stains or Corrosion	Not Observed	Not Observed
Drains	Not Observed	Not Observed
Sumps	Not Observed	Not Observed
Pits, Ponds, or Lagoons	Not Observed	Not Observed
Stained Soil or Pavement	Not Observed	Not Observed
Stressed Vegetation	Not Observed	Not Observed
Evidence of Spills or Releases	Not Observed	Not Observed
Artificially Filled Areas (Solid Waste Disposal)	Not Observed	Not Observed
Waste Water	Not Observed	Not Observed
Wells	Not Observed	Not Observed
Septic Systems (cisterns, septic systems, dry wells)	Not Observed	Not Observed
Dry Cleaning Operations	Not Observed	Not Observed
Agricultural Use (pesticides/herbicides/fungicides/	Not Observed	Not Observed
Oil/Gas Production or Exploration	Not Observed	Not Observed
Remedial Activities	Not Observed	Not Observed
Other	Not Observed	Not Observed

Source: ENPRO, July, 2009.

- Use of the adjacent property to the southeast of the project site for storage and disposal of scrap metal including propane tanks, old motor boats, old cars, used batteries, etc.

This finding is considered a *recognized environmental condition* because of the potential presence of hydrocarbon-related contaminants and heavy metals associated with storage and disposal of miscellaneous debris on the adjacent property.

### 13. Archaeological Resources

Cultural Surveys Hawaii (2008) examined the Expansion Area “for surface cultural materials through systematic pedestrian inspection resulting in no significant findings. It is clear from the document research and aerial photo analysis (CSH Figure 7 and 8) that the current project area had been in continuous and active pineapple cultivation for at least 50 years, from the late historic period up into the modern era leaving little probability for significant

historic properties on the surface or in a subsurface context. The single fenceline that was encountered during the pedestrian survey is interpreted as a post-1950s fenceline based on the condition of both the milled wood and wire strands. As the densely vegetated environment of the current survey area posed difficulties for mechanical subsurface testing and the high degree of ground modification within the project area indicates a low probability of *in situ* subsurface deposits within the project area, as evidenced by observations in neighboring parcels (Conley-Kapoi and Hammatt 2005; Creed et al. 2000:18; Hammatt and Borthwick 1993:16; and Hammatt and Chiogioji 1992), no subsurface testing was undertaken (See Appendix C).

Archaeological survey of the existing school campus and Lānaʻi Park was not conducted. No building construction is proposed on the existing campus hence there was no need for an inventory survey. In the future, the site of the community college may need to be investigated prior to building construction.

Lānaʻi Park is of recent origin (circa 1976) and the various field and court surfaces appear to be built on fill land. The park was at one time used for truck farming and the potential for uncovering historical features or deposits was considered low.

#### 14. Cultural Resources

Cultural Surveys Hawaii (2009) also prepared a cultural assessment for the school expansion. The assessment was not limited to the existing school site and Expansion Area but generally considered traditional practices in the ahupuaʻa of Kamoku and the upland region that includes Lānaʻi City, Kōʻele, Kaiholema and Nininiwai. In conjunction with a literature search and review of archaeological studies for the area, the assessment included community consultation in the form of interviews with persons willing to share their knowledge of the area. The cultural assessment is reproduced as Appendix D.

This study of traditional cultural practices takes into account past practices, current day practices, and potential future practices. Traditional cultural practices include those practices of any ethnic group who has influenced the culture of the study area as well as traditional Hawaiian practices. Consultations with community informants identified cultural practices described below.

##### a. Plant Resources

Plants such as haʻuōwī (*Verbena litoralis*), ʻuhaloa (*Waltheria indica*), .pepeiao akua, bamboo shoots, guava, and lilikoi were gathered in the study area.

##### b. Trails

No traditional Hawaiian trails within the study area were mentioned thus it is unclear how individuals accessed upland areas for gathering plants and fruits.

##### c. Fresh Water Resources

Kamoku was noted for its upland forest and springs with areas that the Hawaiians developed into an extensive forested dry land agricultural system. When the area was used for ranching (Lanai Ranch), the owners built structures and reservoirs for capturing

water (storm water, roof runoff) for watering livestock and for drinking. The remnant of one reservoir was mentioned as being behind the 17<sup>th</sup> hole at the golf course at Kō'ele

#### d. Agricultural Practices

Pineapple was not the only agricultural activity associated with the area. LCA grants claimed land that was used for pasture, sweet potato plots, and gourd fields. The Hawaiians, in traditional times, also utilized the area for dry land agriculture as well as forest resources. Taro and yams may also have been raised in the area by the early Hawaiians.

A truck farm "Minami Gardens" was located at the school site before the school was relocated from Kō'ele. The family garden may have extended from Fraser Avenue to where the County park is today. The Minami family raised Japanese potatoes or *araimo*, carrots, lettuce, cabbage, bananas, and *won bok*. It is believed that the ***garden operated at the current school location*** from about 1924 until about 1937 when it was relocated about one mile away.

The school site and County park were not cultivated in pineapple. The pineapple fields in the 1920's and the former Minami Gardens (now the County Park) and the school were located to the west of the pineapple fields.

#### e. Hawaiian Stone Artifacts

Ulu maika, pohaku ma'a, and imu (fire pits) have been discovered and are known to be common occurrences in the pineapple fields surrounding the school and throughout the formerly cultivated areas on Lāna'i.

#### f. Hunting Practices and Deer Habitat

State of Hawai'i public hunting areas (Hunting Units 1 and 3) are located approximately two miles northeast and west of the school expansion area, respectively. Game mammals and game birds that populate these areas include axis deer, mouflon sheep, *kolohala* or Chinese ring-necked pheasant, wild turkey, gray francolin, gambles quail, erckel francolin, and dove.

It was mentioned that Lāna'i residents, as well as other residents of the State, hunt as a subsistence practice; conversely there are others that believe sport hunting is not a traditional Hawaiian practice, but rather an introduced recreational sport. These public hunting areas are the most popular game mammal hunting areas in the State contributing significantly to the Lāna'i lifestyle and economy.

#### g. Place Names

Hawaiian place names typically tell the story or significance of an area. One informant suggested further research into a few place names within the study area near the school expansion area that refer to viewing sites, conditions of the sky, and celestial bodies. These areas include Hōkūau, Kaumaikahōkū, and Pu'u nānā i Hawai'i.

#### h. Lāna'i High and Elementary School

Located originally at Kō'ele, then moved to its present location, Lāna'i High and Elementary School has been the main educational facility on the island, beginning during the ranching

era through the plantation era and into modern times. It was explained that when the Japanese immigrated to the island in the 1920s, they brought with them a strong tradition and love of education. This desire to excel in education was quickly accepted and emulated by all ethnic groups on Lānaʻi. The school was also the center of community activities, sports, dances, and social events.

In effect, the school itself holds cultural and traditional value.

#### 15. Scenic Resources

The Expansion Area has not been identified on government plans as possessing scenic resource value since most of the land was previously in pineapple cultivation. In the absence of such a designation, it is reasonable to suggest that the large tracts of former pineapple fields below Fraser Avenue presently provide scenic value as undeveloped open space.

The island of Lānaʻi was built from a single volcanic cone which today is called Lanaihale. At approximately 3,370 feet in height, Lanaihale is the most dominating visual feature on the island. The Munro Trail, which meanders along the top of Lanaihale, is a principal visitor attraction.

#### 16. Acoustical Environment

The project site experiences low noise levels. Although an acoustical study was not performed, existing ambient noise level is estimated at 42 to 44 dBA which is characteristic of agricultural areas. Presently, the predominant noise sources include sounds of nature including the wind and rustling trees and vegetation. Man's influence is heard from occasional overhead aircraft and construction sounds in the distance.

The nearest residential area is a Department of Hawaiian Home Lands subdivision ("Lands of Lanai") to the north of and adjoining 5<sup>th</sup> Street.

#### 17. Air Quality

Air quality in the general area is considered good. There are no significant sources of industrial pollution and agricultural activities that would generate airborne pollutants. Fugitive dust (both natural and from construction activities) is a common source of pollution in areas undergoing construction or awaiting construction without maintenance of any kind.

The island's wastewater treatment plant and associated effluent ponds are located to the south of the Expansion Area. While odors may emanate from the treatment process, no obnoxious odors were detected on several site visits.

### **C. Land Use Plans, Policies and Controls**

#### 1. State Land Use

Pursuant to Chapter 205 Hawai'i Revised Statutes, the Hawai'i State Land Use Law, the State Land Use Commission classifies all land in the State of Hawai'i into one of four land use districts---Agricultural, Conservation, Rural, and Urban. Land uses in the Agricultural, Rural, and Urban Districts are regulated by the State through the Land Use Law and the

counties through ordinances and regulations. Land uses in the Conservation district are regulated by the Board of Land and Natural Resources.

The land use district map for this section of Lānaʻi (Figure 11) designates the major portion of the Expansion Area Agricultural. Lānaʻi High and Elementary School and Lānaʻi Park are located within an existing Urban district. Implementation of the proposed Master Plan improvements on the 42 acre portion of the Expansion Area will require a land use district boundary amendment to the Urban district.

## 2. County General Plan

The Maui County General Plan *is* mandated by the Maui County Charter and is the guiding document for the long-range development of the County. The Plan provides policy statements in the form of goals, directions and strategies for meeting the long-term social, economic, environmental and land use needs for the general welfare and prosperity of the people through multi-level government action (General Plan, 1980). The Plan was adopted in 1980 (Ordinance No. 1052) and updated in 1990.

The General Plan is a policy plan and not a land use plan. The integration between general plan policies is intended to aid in identifying desirable land uses, population distribution, and distribution of social benefits to residents.

The County is currently in the process of updating and revising the General Plan as a Countywide Policy Plan through the year 2030.

## 3. Lānaʻi Community Plan

The Lānaʻi Community Plan (December, 1998) reflects current and anticipated conditions on the island and advances planning goals, objectives, policies and implementation considerations to guide decision-making in the region through the year 2010. The Lānaʻi Community Plan provides specific recommendations to address the goals, objectives and policies articulated in the General Plan, while recognizing the values and unique attributes of Lānaʻi in order to enhance the region's overall living environment. In effect the Lanai Community Plan applies the General Plan objectives and policies to Lanai with objectives, policies, and specific actions that would implement the General Plan. The Lānaʻi Community Plan (and all County of Maui Community Plans) provides a land use plan establishing desirable land uses consistent with plan policies and objectives.

Community Plan objectives, policies, and implementing actions applicable to the proposed expansion of Lānaʻi School are listed below.

### Land Use

Goal: Maintain and enhance Lānaʻi's rural atmosphere, respecting its vast open space character and small island town environment which are unique in the State of Hawaiʻi.

### Objectives and Policies

1. Limit State Urban district boundary expansion to areas which are designated for urban uses on the Lānaʻi Community Plan Land Use Map.

4. Recognize and respect the Community Plan land use map as an expression of residents' needs and desires.

12. Provide for adequate land use allocations for public facilities, including, but not limited to, landfill sites.

### Cultural Resources

Goal: Identify, preserve, and where appropriate, restore and promote cultural resources and practices which reflect the rich and diverse heritage found on Lānaʻi.

#### Objectives and Policies

4. Support public and private efforts to inventory, evaluate, classify and register archaeological sites to increase public knowledge of the region's cultural resources and their relative values.
8. Preserve and protect native Hawaiian rights customarily and traditionally exercised for subsistence, cultural, and religious purposes in accordance with Article XII, Section 7, of the Hawaii State Constitution, and the Hawaii Supreme Court's PASH opinion, 79 Haw.425 (1295).

#### Urban Design

Goal: Preserve and enhance the unique urban design character of Lānaʻi through consideration of planning, land use and design standards which respect the island's rural plantation history.

#### Objectives and Policies

6. Maintain existing road rights-of-way within Lānaʻi City.
12. Encourage architectural designs of government facilities to be consistent and compatible with the existing design character of Lānaʻi City and its surrounding environs.

#### Social Infrastructure

Goal: Provide a public facilities and services system which is responsive to the needs of Lanaʻi's rural island environment and lifestyle.

#### Education: Objectives and Policies:

1. Designate an appropriate site consisting of a minimum of five acres for the use of Maui Community College in consultation with the Board of Regents of the University of Hawaii.
2. Provide remedial education and language classes for adults.
3. Provide adequate and affordable daycare and preschool facilities and programs for Lānaʻi families.

4. Expand educational and career counseling services for youths.
5. Support post-secondary education, career counseling and training needs for Lānaʻi residents.

#### Implementing Actions

5. Provide access to the HITS program for the Lānaʻi High and Elementary School.
6. Encourage the development of separate elementary and secondary school campuses.

### **C. Planning Standards**

#### 2. Building Heights

Limit building heights to two stories or 30 feet above grade.

#### 3. Landscaping

Native plant species which are found on Lānaʻi shall be utilized for public and quasi-public facilities.

#### 4. Building Design

All commercial buildings and government or private infrastructure improvements shall be designed in accordance with design guidelines developed for Lānaʻi City.

The Lānaʻi Community Plan Land Use Map designates the entire 115.0 acre parcel SF (Single-Family) Proposed County Housing (See Figure 12).

Lānaʻi School and Lānaʻi Park are community planned Public/Quasi Public. This land use category includes schools, libraries, fire/police stations, government buildings, public utilities, hospitals, churches, cemeteries, and community centers.

The lot owned by Castle and Cooke Resorts LLC (Tax Map Key 9-4-014: 011) is community planned PK (Park) and P (Public/Quasi-Public). The small lot owned by the County of Maui (Tax Map Key 9-4-014: 005) is community planned PK (Park).

Both educational and recreational uses are permitted uses under the Public/Quasi Public community plan category.

#### 4. County of Maui Zoning

Just as there are several community plan designations in the vicinity of the school, so too is the zoning (See Figure 13). The zoning for Lānaʻi School and Lānaʻi Park is “P-1” (Public/Quasi-Public). This zoning district allows as a permitted use “kindergartens, elementary schools, high schools, colleges, and libraries” (Maui County Code, Title 19, Chapter 19.31, Section 19.31.020, A.f.).

The parcel owned by Castle and Cooke Resorts, LLC (Tax Map Key 4-9-014:011) is dual zoned “PK-3” (Park) and “P-1”. The Master Plan overlies the portion of the lot overlapping both zoning districts.

The Interim zoning district allows as a permitted use “libraries, kindergartens, elementary schools, intermediate schools, high schools, and universities” (Maui County Code, Title 19, Section 19.02.030.A.4). A summary of land use controls is presented in Table 6.

**Table 6. Land Use Controls**

Tax Map Key	Area (Acres)	State Land Use	Lāna‘i Community Plan	Zoning
4-9-014:003	10.269	Urban	Public-Quasi Public	P-1
4-9-014:004	0.125	Urban	Public-Quasi Public	P-1
4-9-014:002	8.017	Urban	Public-Quasi Public	P-1
4-9-014:005	0.153	Urban	Park	PK-3
4-9-014:011	18.692	Urban Agricultural	Park Public-Quasi Public	PK-3 P-1
4-9-014:058	115.00	Urban Agricultural	SF Residential Proposed County Housing	Interim PK-3 P-1

## 5. Easements

Two easements cross the Expansion Area below Lāna‘i Park. A 10-foot easement identified as Easement 111 in favor of Lāna‘i Water Company and a 10-foot wide easement for pole and wire lines in favor of Maui Electric Co. Ltd. An easement number is not provided for the latter easement.

## D. Infrastructure

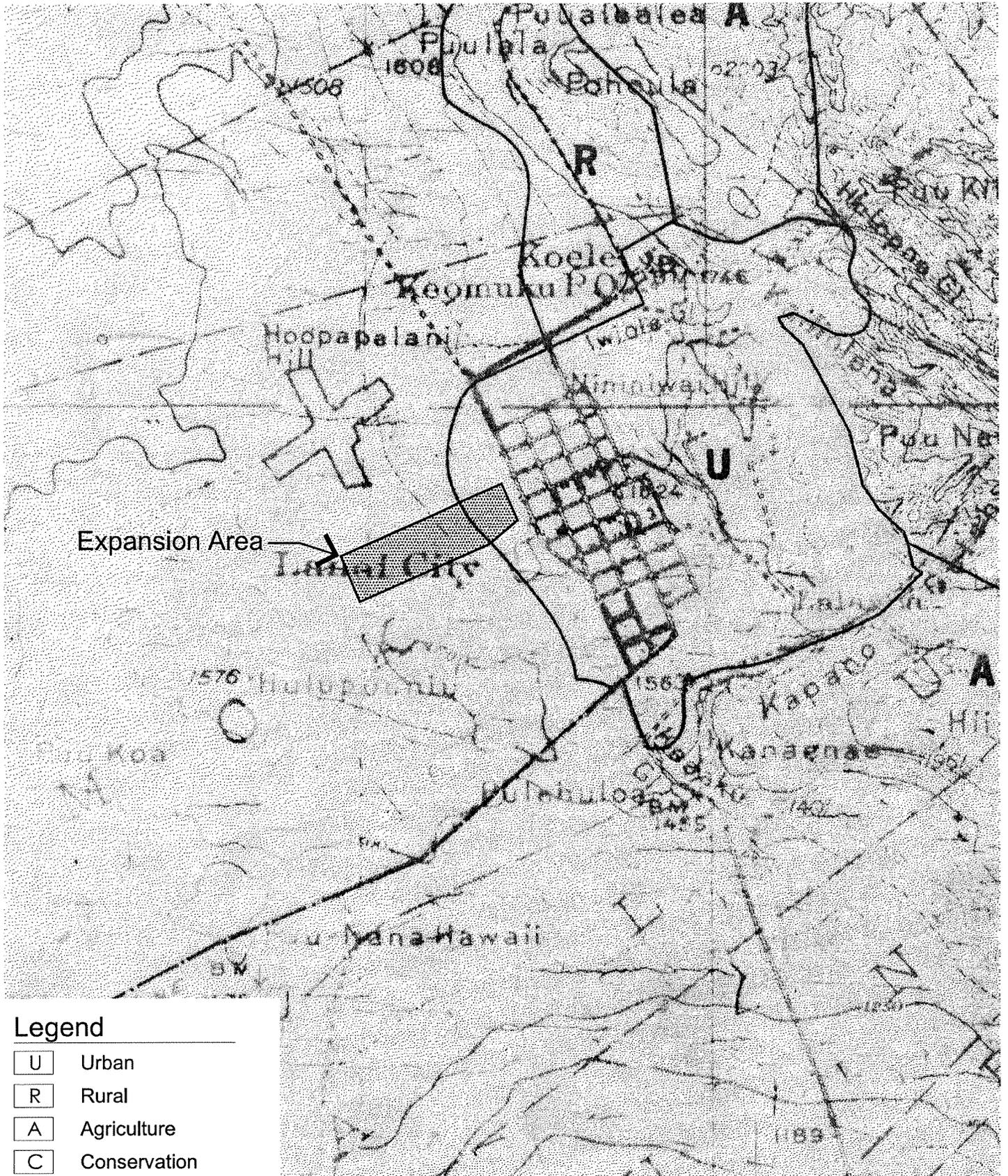
### 1. Potable Water

Domestic water service for the island is provided by a private water system owned and operated by the Lāna‘i Water Company. An existing 2.0 million gallon reservoir located atop Niniwai Hill near Lāna‘i City provides water storage. The reservoir is supplied by a 10-inch water main from the Lāna‘i Water Company’s Maunalei Wells and two (2) 8-inch water mains from Wells 3 and 6 (Munekiyo & Hiraga, 1992).

From the reservoir, water gravity flows through a system of various sized water mains. Lāna‘i School is serviced from a 12” main in 5<sup>th</sup> Street.

### 2. Wastewater System

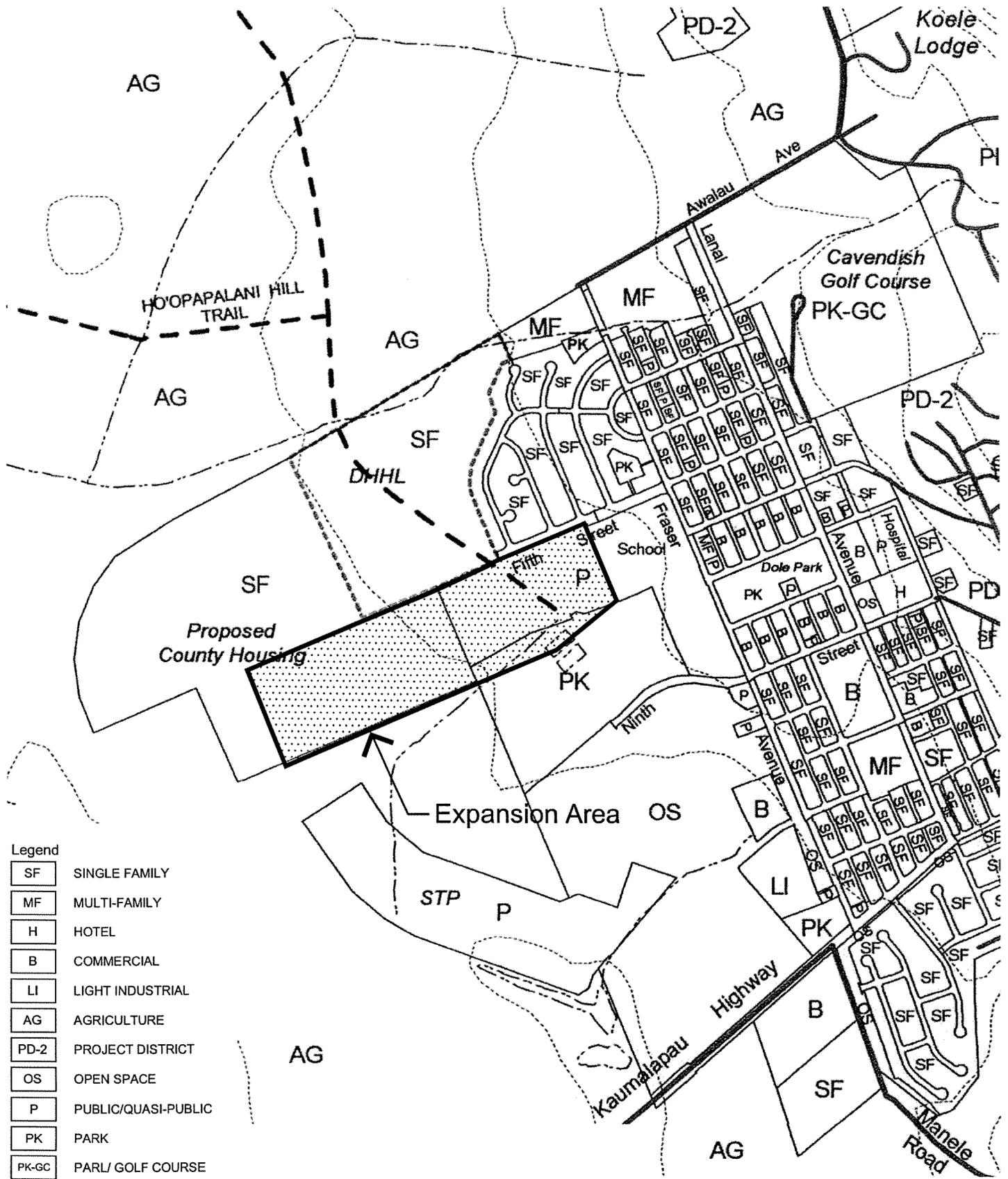
The County of Maui operates and maintains the island’s wastewater collection, treatment, and disposal system. The gravity flow system consists primarily of 8” PVC piping that collects and conveys wastewater to the Lāna‘i Wastewater Reclamation Facility located on the west side of Lāna‘i City. Constructed in 1984 by the County of Maui, it is operated and maintained by the Department of Environmental Management, Wastewater Division. The



Source: State of Hawaii, Land Use Commission,  
Lāna'i Quadrangle, Dec. 20, 1974



Figure 11  
State Land Use Districts  
Lāna'i High & Elementary School Master Plan



- Legend
- SF SINGLE FAMILY
  - MF MULTI-FAMILY
  - H HOTEL
  - B COMMERCIAL
  - LI LIGHT INDUSTRIAL
  - AG AGRICULTURE
  - PD-2 PROJECT DISTRICT
  - OS OPEN SPACE
  - P PUBLIC/QUASI-PUBLIC
  - PK PARK
  - PK-GC PARL/ GOLF COURSE

Source: Lana'i Community Plan, County of Maui  
Ordinance No. 2738, December 21, 1998

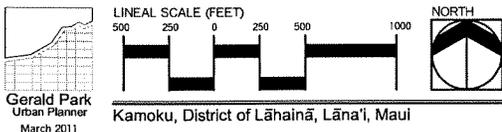
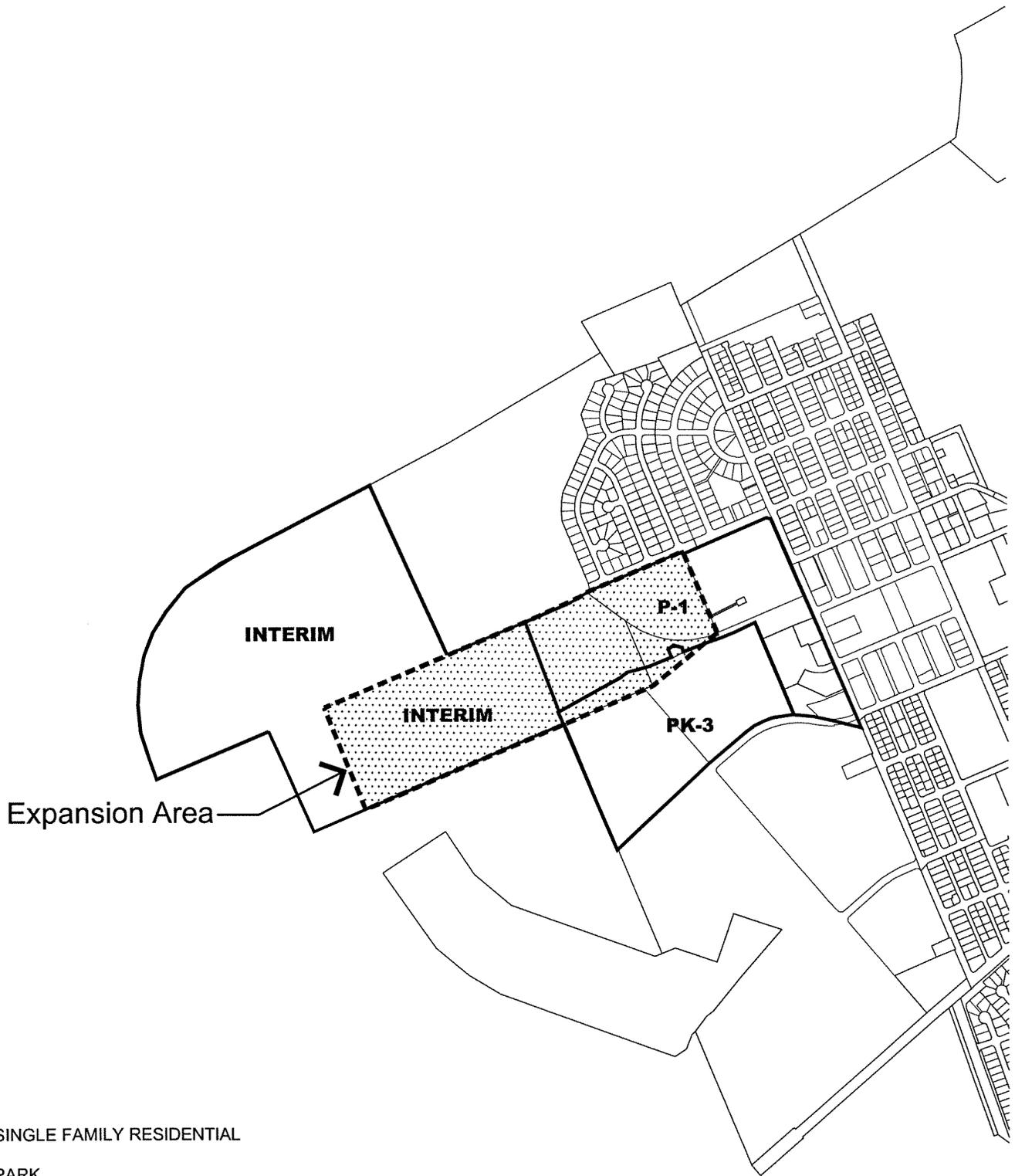


Figure 12  
Lāna'i City Community Plan  
Lāna'i High & Elementary School Master Plan



**Legend**

- SF SINGLE FAMILY RESIDENTIAL
- PK-3 PARK
- P-1 PUBLIC / QUASI-PUBLIC

Source: Lanai High & Elementary School-Land Use Map, CDS International

**Figure 13**  
**County Zoning**  
**Lāna'i High & Elementary School Master Plan**



Gerald Park  
Urban Planner  
March 2011

LINEAL SCALE (FEET)



500 250 0 250 500 1000

NORTH



Kamoku, District of Lāhainā, Lāna'i, Maui

facility has approximately 13.3 acres of infiltration and oxidation ponds which is used for the biological treatment of wastewater. The plant has a treatment capacity of 0.5 million gallons per day and current flow averages 0.3 million gallons per day.

Effluent from the facility is piped to holding ponds owned by Lanai Company located to the west of the facility for further treatment and reuse. Treated effluent is reused for irrigating the Company's Experience Golf Course at Kō'ele.

### 3. Streets and Roads

Lāna'i High and Elementary School is bounded by Fraser Avenue on the east and 5<sup>th</sup> Street on the north. Fraser Avenue is a two-way, two-lane roadway generally oriented in the north-south direction that serves as one of the major access roads through Lanai City between Kamalapau Highway and the northern edge of the city. At the northeast corner of the project site, Fraser Avenue intersects 5<sup>th</sup> Street. At this unsignalized intersection, both approaches of Fraser Avenue have one lane that serves all traffic movements. 5<sup>th</sup> Street is a two-way, two-lane roadway generally oriented in the east-west direction that provides access to the residential uses along its alignment. At the intersection with Fraser Avenue, both approaches of 5<sup>th</sup> Street have one stop-controlled lane that serves all traffic movement.

Southeast of the intersection with 5<sup>th</sup> Street, Fraser Avenue intersects 6<sup>th</sup> Street. At this unsignalized T-intersection, the northbound approach of Fraser Avenue has one lane that serves through and right-turn traffic movements while the southbound approach has one lane that serves left-turn and through traffic movements. 6<sup>th</sup> Street is a two-way, two-lane roadway generally oriented in the east-west direction that provides access to the residential and commercial uses along its alignment. At the intersection with Fraser Avenue, the westbound approach of 6<sup>th</sup> Street has one stop-controlled lane that serves left-turn and right-turn traffic movements.

During a portion of the morning peak period, the southbound left-turn traffic movement along Fraser Avenue is prohibited. Traffic cones are placed along the centerline of the roadway to ensure the restriction. The coning extends through the upstream intersection with the driveway for a parking lot that utilized as a drop-off area for the school. As such, only southbound vehicles along Fraser Avenue are able to access the parking lot. Vehicles originating from areas to the east utilize the surrounding roadway network to access 6<sup>th</sup> Street and turn left onto Fraser Avenue to access the drop-off area. Similarly, northbound vehicles along Fraser Avenue detour along 7<sup>th</sup> Street, Gay Street, and 6<sup>th</sup> Street and turn left onto Fraser Avenue to access the drop off area.

Traffic counts were taken along Fraser Avenue and 5<sup>th</sup> Street in October 2008. Turning movements were recorded manually between the morning commuter peak hours of 6:30 AM and 8:30 AM and the afternoon commuter peak hours of 3:30 PM and 5:30 PM. The traffic and turning movement counts indicate that the AM commuter peak hour of traffic occurs between 7:00 AM and 8:00 AM in the vicinity of the school. In the afternoon, the PM commuter peak hour of traffic is generally between the hours of 3:30 PM and 4:30 PM.

Traffic was analyzed using a highway capacity analysis methodology based on the concept of Level of Service ("LOS"). LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS "A" through "F"; LOS "A" representing ideal or free flow-flow traffic operating conditions and LOS "F" unacceptable or potentially congested traffic operating conditions.

Traffic count information and LOS conditions are presented in Table 9 of Section 3 of this assessment. The table presents existing and projected LOS conditions with the project. The Traffic Impact Report is reproduced in Appendix E.

#### 4. Electric and Telephone System

Electrical power and communication services for the island are provided by Maui Electric Company and Hawaiian TelCom, respectively. Wireless service is available from private vendors but coverage areas are limited. Generally the best coverage is in the Lānaʻi City area (Hart, 2007).

### E. Socio-economic Characteristics

#### 1. Population and Employment

Selected demographic and employment data for Lānaʻi is presented in Table 7.

**Table 7. Socio-Economic Characteristics, 1990-2030**

Variable	1990*	2000*	2010**	2020**	2030**
Resident Population	2,246	3,193	3,735	4,308	4,901
Households	847	1,161	1,415	1,680	1,955
Household Size	2.86	2.74	2.64	2.56	2.51
Wage and Salary Jobs	1, 534	1,630	1,891	2,162	2,248
Unemployment	4.2%	3.5%	4%	4%	4%
Labor Demand	1,395	1,840	2,124	2,428	2,727
Median Household Income	\$28,877	\$43,271	\$58,955	\$68,377	\$78,463
HUD Median, County	\$37,700	\$56,500	\$65,625	\$76,112	\$87,340

\* Historical/\*\*Projected

Source: County of Maui Planning Department, 2007.

The data indicates continued resident population growth through the projected time horizon. Historical population growth between 1990 and 2000 was 2.8%. Between 2000 and 2030, is projected grow cumulatively by 1,708 residents or slightly less than a 50% gain over the time period. This growth rate is projected to decline to 1.6% to 2015 (not shown) and 1.3% thereafter. The decline is not unique to Lanai but is also projected for Molokai and Maui over the same time period.

Household size is projected to decline from 2.86 persons to 2.51 households. Although overall resident population is projected to increase, the rate of growth and household size are projected to decrease. Smaller households suggest the possibility of fewer births, household members leaving the island for opportunities elsewhere, household members leaving one household to form their own household, and more “empty-nest” households.

Salary jobs are projected to increase as will the demand for labor. A unemployment rate of 4% is anticipated from 2010 to 2030. This suggests that although jobs are being created and there is a workforce demand to fill those jobs, there are not enough jobs to lower the unemployment rate. In effect, the number of jobs and demand for labor are in equilibrium over a 20 year period.

## 2. Public Services and Facilities

### a. Schools

Lānaʻi High and Elementary School is one of four public schools comprising the Hana-Lahainaluna-Lanai-Molokai Complex Area. Enrollment for the 2007-2008 and 2008-2009 school years are shown below:

Table 8. Lānaʻi High and Elementary School Enrollment

	<u>Capacity</u>	<u>2007-08</u>	<u>2008-09</u>
Lānaʻi High and Elementary	700	575	559
Elementary (K-6)		288	286
Middle (7-8)		101	100
High (9-12)		186	173

Source: Department of Education, 2007, 2008.

Staffing includes a principal, vice-principal, administrative staff, counselors, athletic director, food service personnel, custodians and 59 “certificated” staff.

### b. Police Protection

Police protection originates from the Lānaʻi Police Station located at the intersection of 8<sup>th</sup> Street and Fraser Avenue. Nine officers (2 commanders, 6 patrol officers, and a school resource officer) are assigned to the station. One to two officers and a commander stand watch during the day (Telephone Contact, 2009).

### c. Fire Protection

Fire protection service is provided from the Lānaʻi Fire Station on Fraser Avenue, about 0.5 miles south of the School. The station is manned by a complement of 21 men (3 captains, 6 drivers, and 12 firefighters) and 7 personnel are on duty 24 hours a day. Their equipment includes a fire apparatus and a tanker. A second fire apparatus is posted to the station for back up should an off-island fire company be summoned to Lānaʻi (Telephone Contact, 2009).

Firefighters provide first response to emergency calls but not ambulance service. Ambulance service is provided by American Medical Response from their office on 13<sup>th</sup> Street.

### d. Recreation Facilities

Two County of Maui recreation facilities border Lanai High and Elementary School on the west and south. Lānaʻi Park and Tennis Courts, an 8.017 acre park to the west, is improved with three tennis courts, two basketball courts, and a children’s playground with a play apparatus. Use of the court facilities are shared between the public and the school. The

County of Maui will transfer this property to the State of Hawaii for the planned school expansion.

To the south is a major county recreation complex featuring a gymnasium, youth center, Park Cottage, two tennis courts, softball field, Little League Field, and parking. The complex is not named *per se* but is identified by the type of recreation facility as either Lānaʻi Gymnasium and Tennis Courts, or Lanai Softball Field, or Lanai Little League Field.

Dole Park, a 7.5 acre park in the center of Lānaʻi City was built around 1922 when Lānaʻi City was established. The grassy park provides residents and visitors open space for family activities and passive recreation, benches and tables for picnicking, a pavilion for gatherings, and a nearby community center. Spanning approximately 4 city blocks (bounded by Fraser Avenue, Lanai Avenue, 7<sup>th</sup> Street and 8<sup>th</sup> Street), it has the feeling of a quaint town square with many island businesses and restaurants surrounding the park. Tall and stately Norfolk Island and Cook Island pines provide shade, character, and a vertical element.

The Lānaʻi Community Center at the corner of Lānaʻi Avenue and Eighth Street houses a community meeting facility, County offices, and is used for County Council meetings. Outdoor spaces are used for picnicking and recreation.

e. Solid Waste

Residential solid waste collection and disposal is provided by the Maui County Department of Public Works and Waste Management. Commercial disposal service is provided by a private refuse collector.

Solid waste is disposed of at the Lānaʻi landfill located off Kaunalapau Road to the northeast of Lānaʻi Airport.

f. Medical Facilities

Lānaʻi Community Hospital, which is owned by the State of Hawaii and managed by the Hawaii Health Systems Corporation, is the only provider of emergency room and hospital care for Lānaʻi residents and visitors. The hospital is located six blocks *mauka* of the Senior Center on 7<sup>th</sup> Street. Patient services include limited acute care (4 inpatient beds), extended long-term care (10 beds), limited laboratory and radiology services, 24-hour emergency care, and outpatient dialysis. Current staffing is at 32 people (Telephone Conversation, Hospital Administrator, 2009).

## SECTION 3

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

---

### A. Assessment Process

The scope of the project was discussed with the consulting architects, staff of the Department of Education Facilities Planning Branch, and other consultants comprising the design team. 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 existing school. Environmental specialists were contracted to conduct archaeological, botanical, hazardous material assessments, and traffic studies. The sum total of consultations and field investigations helped to identify existing conditions and features which could affect or be affected by the project. These influencing conditions include:

- The Expansion Area *makai* of Lānaʻi Park is a vacant, tree and brush covered lot that was formerly in pineapple cultivation;
- Because of its former agricultural use, chemicals and pesticides may be present in the soil;
- No rare, threatened, or endangered flora or fauna inhabit the area;
- There are no surface archaeological features present;
- There are no significant cultural practices associated with the area;
- Many Lānaʻi residents consider Lanai High and Elementary School to be a cultural resource;
- The Expansion Area is not located in a flood hazard area;
- There are no streams, ponds, or wetlands present;
- Road, water, wastewater, and power systems are available to accommodate the proposed use.

The proposed expansion of Lānaʻi High and Elementary School is projected over a 25 year time horizon. Improvements will be constructed following a phasing plan and as public funds are appropriated for design and construction. The first scheduled improvement is the 6-Classroom Building **Complex**. Funds have been appropriated for its construction which is projected to begin in 2011. Design and construction money has not yet been appropriated for subsequent phases.

Construction will take place incrementally over a projected 25 year time horizon. Thus, potential environmental impacts also will occur each time new construction takes place. Impacts associated with building construction also are expected to recur at much the same scale as the previous building or improvement.

The Master Plan proposes the construction of playfields, practice fields, softball and baseball facilities, a track and field with supporting facilities including seating, a ticket office, athletic showers and lockers, a dormitory for visiting teams, and parking. These outdoor athletic facilities will require extensive grubbing, grading, and stockpiling of soil. While site work activities will generate fugitive dust, erosion, noise, and construction runoff, measures stipulated in existing and future public health and County of Maui regulations and permits

will help to mitigate excessive air, acoustical, and water pollutants. The athletic facilities are planned along the southern half of the school grounds away from educational facilities and adjoining residential uses to the north. With the exception of the track and associated buildings, impacts resulting from land altering activities alone are expected to be less pronounced and of shorter duration than improvements involving building construction.

The three general areas covered by the master plan include the existing Lāna'i High and Elementary School campus, an existing County park and portions of a second County Park, and former pineapple fields. All areas have been significantly modified to accommodate urban and agricultural uses thereon, respectively. Due to prior land altering activities there is no natural environment *per se* to be affected by the proposed action.

## **B. Short-term Impacts**

### **1. Site Work**

Site work is probably the most disruptive construction activity on the environment. This activity entails grubbing a site of vegetation, excavating for roads and utility lines, building foundations, and grading to design elevation.

Site work will expose soil thus creating opportunities for runoff and erosion. Grubbing, grading, and stockpiling activities will be performed in compliance with the County of Maui erosion control ordinance. Best Management Practices specified in Chapter 20.08 of the Maui County Code for drainage, dust control, erosion, and sediment control will be prepared for review and approval by the Department of Public Works and Environmental Management, County of Maui. Regulatory and construction related measures for controlling construction runoff and erosion include but are not limited to:

- Limiting the amount of area to be graded at any one time.
- Applying water frequently in areas of active construction.
- Erecting silt fences or curtains around active construction sites for construction runoff and dust control.
- Watering graded areas after construction has ceased for the day.
- Sodding, mulching, or planting areas immediately after final grading work has been completed.
- Installing temporary interceptor ditches and berms to direct water into detention basins or sediment traps to contain runoff on-site.
- Providing gravel ingress/egress pads at vehicle entries for construction vehicles.

### **2. Air Quality**

Site work is a persistent source of fugitive dust. Site contractors are aware that dust can be a nuisance to workers and people living or working near to work sites and it is imperative for them to maintain stringent dust controls. For this project, there is also the need for stringent dust control to keep dust from interfering with instruction. Frequent water sprinkling is probably the most effective dust control measure but the Contractor may choose to implement other measures based on their experience with projects of similar scale and scope. Measures for controlling construction runoff and erosion can also be used for dust control. The Contractor will be responsible for general housekeeping of the site and for keeping adjacent areas free of mud, sediment, and construction litter and debris. Pollution

control measures will comply with Chapter 60.1, Air Pollution Control, Administrative Rules, State Department of Health.

### 3. Noise

Construction noise, like fugitive dust, cannot be avoided. Currently, there are no significant noise generation activities nearby and low ambient noise is the norm. The dominant noise sources are the wind, vehicle traffic, and occasional aircraft flyovers (Park, 2008). Development will entail site work and construction of infrastructure and buildings. Construction related noise will be generated during all of the construction phases which will be audible in the residential areas immediately to the north of the site. Construction noise, however, will vary by the methods and pieces of equipment used during each stage of the construction process. No pile driving is anticipated but blasting, if required, will produce noise. Blasting at construction sites is usually accomplished by using numerous small charges. Blasting mats are placed over the charges to direct the explosive energy into the rock, to contain flying debris, and to muffle the explosion. If blasting is required, warning signs will be posted along roads in the vicinity of the blast site and residents notified of this activity both in advance and on the day blasting will occur.

Maximum permissible daytime (7:00 AM to 10:00 PM) noise levels for the Class A zoning district (which includes lands zoned residential) set by the State Department of Health is 55 dBA measured within the zoning district and at or beyond the property line. On occasion, construction work may temporarily exceed this standard and, per Administrative Rules (Chapter 46) of the Department of Health, the Contractor will obtain a Variance from Pollution Controls (Noise) permit prior to construction.

In general, construction activities cannot exceed the permissible noise levels for more than ten percent of the time within any twenty minute period except by permit or variance. Any noise source that emits noise levels in excess of the maximum permissible sound levels cannot be operated without first obtaining a noise permit from the State Department of Health. Although the permit does not attenuate noise per se it regulates the hours during which excessive noise is allowed.

The general contractor will be responsible for obtaining the permit and complying with conditions attached to the permit. Work will be scheduled for normal working hours (7:00 AM to 3:30 PM) Mondays through Fridays. The contractor will also ensure that motors are properly equipped with mufflers in good operating condition.

### 4. Flora and Fauna

Existing vegetation will be removed to allow for construction of the school buildings, parking lots, and athletic/recreation fields. There are neither federally listed or candidate threatened or endangered species of plants nor critical plant habitats generally found on the site. Thus, adverse effects to the flora of the site are not anticipated.

The botanical survey came across a garden on the existing school grounds (in the vicinity of Buildings E and F) where endangered plants are propagated. There are no plans to remove these plantings but they may be incorporated into a planned Hawaiian garden at their present location.

## 5. Archaeology

Aside from a modern fence line, no archaeological features were observed on the ground surface of the 42.0 acre former pineapple fields. Lāna'i Park and the two lots the State may acquire were not surveyed for archaeological resources. Given its present use for recreational activities and prior land clearing, it is not likely that there are surface features present.

***The State Historic Preservation Division (“SHPD”) has issued a “no effect” determination for the portion of the project proposed for TMK 4-9-002: 058. SHPD, however, recommends archaeological field work within the boundaries of TMK 4-9-002: 002, 003, and 004 (SHPD Comment, See Appendix B).***

Should subsurface archaeological features be unearthed during construction, work in the immediate area will cease and preservation authorities notified for investigation and proper disposition of the finds. If burials are uncovered, the County of Maui Police Department, State Historic Preservation Division, and the Maui Island Burial Council will be notified.

## 6. Construction Traffic

Construction vehicles hauling men and material will contribute to traffic on Kaunalapau Road, Fraser Avenue, and 5<sup>th</sup> Street. Material deliveries will be scheduled during non-peak traffic hours to minimize impacts on local and school traffic. Most if not all construction materials will be delivered to an on-site staging area. Some materials such as water and sewer pipe may be temporarily stockpiled off 5<sup>th</sup> Street for ease of handling and delivery to job sites within the road right-of-way. At these times, flagmen will be posted for traffic control during material loading and off-loading. Traffic delays can be expected but should not last more than a few minutes. Heavy vehicles traveling to and from the project site will comply with the provisions of Chapter 42, Vehicular Noise Control for Oahu, Hawaii Administrative Rules.

Construction in the right-of-way will require diverting traffic around work sites and temporarily interrupting the normal flow of traffic on 5<sup>th</sup> Street and Fraser Avenue. Motorists and pedestrians will be temporarily inconvenienced but this impact cannot be avoided. Traffic control plans will be submitted to the County of Maui Department of Transportation for review and approval. Measures to be taken to mitigate traffic impacts during construction work in the road right-of-way include but are not limited to:

- Posting warning signs on both sides of the work area to alert motorists of road work and to slow traffic speed;
- Positioning traffic cones or other directional devices in the roadway to guide vehicles around work areas;
- Posting flagmen to assist in traffic control;
- Providing alternative access if an entire street is to be closed; and
- Limiting road construction to between 8:00 AM and 2:30 PM, Monday through Friday.

Trenches will be covered with traffic plates during non-working hours and warning lights and signs posted for the duration of construction in the right-of-way. Off-site areas directly affected by construction will be restored to pre-construction conditions or better. Installation of infrastructure will not obstruct any residential driveways.

***It is anticipated that the site work contractor will provide an on-site area for vehicle parking during construction and provide secure parking for construction equipment at nights and on weekends. Because of the phased construction schedule, parking areas will be located on the respective project site and not limited to a single location (Response to Lāna'i Planning Commission Comment).***

## 7. Infrastructure

Temporary interruptions in water service to residential users may be required when water lines for the school are tied into the existing 8-inch line in 5<sup>th</sup> Street. Residents will be notified in advance of the interruption. The contractor will complete the connection in a timely manner to minimize inconvenience to water customers served by the line.

Waterlines will be pressure tested with water during construction and, following construction, disinfected with a chlorine solution prior to being placed online. Hydrotesting water and disinfection water will be discharged into an existing swale to the west of the property and allowed to percolate into the ground or discharged into the existing storm drainage system. Disinfection will be performed according to Department of Water Supply standards and should not pose a threat to public health and safety.

No interruption in service is anticipated for sewer line connections.

Design drawings will be prepared and submitted to the respective power and communication providers. All construction work will be coordinated with the utility provider. If public utilities need to be relocated, rerouted, or placed underground, they will be done so at the State's cost.

## 8. Economic

Public funds appropriated for the project will provide a short-term capital infusion into the local economy. Funds budgeted for construction will purchase construction materials within the County of Maui and employ local tradesmen. Revenue will accrue to the State of Hawaii in the form of general excise tax on goods and services, corporate taxes, and payroll taxes.

## 9. Landscape Material

***The origination point for landscape plantings has not been determined as part of the master planning process. In general it will be up to the selected landscape contractor to procure the specified plant materials. All plants being shipped to Lanai from the other Hawaiian Islands have to be inspected by the State Department of Agriculture and stamped prior to shipping. The inspection can be performed either at the nursery site or at the State Department of Agriculture inspection station the day prior to shipping (Response to Lāna'i Planning Commission Comment)..***

## C. Long-term Impacts

### 1. Master Plan

A grass-root, school-community based advisory committee approved the Master Plan as the blueprint for the future development of Lāna'i School. It lays out the desired location of improvements, the linkages between the existing and expanded school campus, recreation

facilities, and faculty housing. Although the focus of the plan is on a K-12 school, the Master Plan also supports of the P-20 Concept by setting aside space for a Pre-School and Community College. Indirectly, the Master Plan centralizes all public learning facilities in one accessible in-town location which is consistent with the Lānaʻi Community Plan.

The Master Plan has a shelf life of 25 years. It is anticipated that many but not all the improvements will be completed in that period of time. The Plan, however, orders the priorities and development sequencing for future funding and construction. It makes it clear to all players that enter into the decision-making process affecting the school. These players include school administrators and staff, the community, the Department of Education, the State administration, and the State Legislature. That the master plan was derived and approved by consensus between the Department of Education and the community can go far in avoiding prolonged discussion over development sequencing. The Master Plan is not a static one dimensional plan cast in stone. It is also a process that leads to desired goals. The Plan should be reviewed periodically and amended in response to changing community needs and Department of Education. If there is no need for amendments, then it should be left as is.

## 2. Physical Environment

Significant, adverse long-term impacts on the physical environment are not anticipated. The three areas proposed for expansion have been altered in the past and there is no natural environment *per se*. There are no streams, ponds, or wetlands, archaeological resources, botanical, and wildlife resources present. Game animals have been recorded in the former pineapple fields but they are migratory animals that can establish habitat elsewhere in similar areas.

Several species of rare and endangered flora are propagated and grown on the existing school grounds. There are no plans to relocate the plants thus no impacts are anticipated. If transplanted elsewhere on campus, adverse impacts are not anticipated because they are grown and maintained by man and not under “wild” conditions.

## 3. Land Use

Land uses in nearby areas should not be affected by the gradual increase in school facilities and students. The proposed use is consistent with and vertically aligned with the Lanai Community Plan land use designations and County of Maui zoning for the lots comprising the Expansion Area. School facilities can be constructed on the site of Lanai Park without changes in any land use designation once the land is transferred to the State.

Constructing school facilities *makai* of the park will require a land use district boundary amendment from the State agricultural district to the urban district, a County of Maui community plan amendment, and a change in zoning to a district consistent with the community plan. These changes, if approved, will vertically align applicable State and County land use controls for the area and help to attain the desired land use pattern of the Lanai Community Plan.

## 5. Noise

For noise control purposes, schools are considered to be a noise sensitive use and noise regulations seek to minimize actions and noise that can detrimentally affect educational

activities. Residential land uses are also treated as a noise sensitive use and public health regulations allow certain levels of noise during daylight and night hours. Noise from everyday school activities such as class bells, noise from the cafeteria during lunch periods, and students talking and laughing will be audible in the adjoining residential subdivision. School noises generally are limited to certain times of the day (e.g. recess) and certain classes (e.g. physical education, outdoor programs). The school buildings should buffer noise and the distance between the school and residences will aid in noise attenuation. Furthermore, school noises will occur principally during daylight hours when higher noise levels in residential areas are permissible.

Athletic events will generate crowd type noise of fans cheering on their team and athletic efforts in general. Noise of this type is generally spontaneous rather than constant. Moreover, since sporting events have time limitations, the source of noise should last generally no more than 3-4 hours depending on the sport. Crowd noise will not result in adverse effects principally because it is anticipated that most Lānaʻi residents will show up to support the home team.

Noise will also be generated from stationary sources such as air conditioning systems, exhaust fans, and refrigeration compressors. Most air conditioning systems and exhaust fans will be in use during daylight hours and turned off at night. Some air conditioning systems will operate 24 hours as will refrigeration compressors. Noise from stationary sources will be attenuated in part with design measures (e.g. enclosing air conditioning compressors) to comply with the Department of Health's Administrative Rules, Chapter 46 Community Noise Control.

Traffic noise from vehicles on 5th Street will be audible both on campus in areas and facilities close to the street and in the residential area in homes along the street. Traffic noise cannot be avoided and over time it becomes a common sound of urban activity. It should be noted that traffic noise probably will be the loudest during morning drop-offs for students and afternoon pick-ups.

The open play fields, baseball and softball fields, court facilities, and the proposed track will help to attenuate noise emanating from areas south of the school. In addition, the judicious use of landscaping can help to buffer sounds from outside areas surrounding the school grounds.

The sounds of overhead aircraft will be audible but these infrequent flyovers are temporary in duration and should not adversely interfere with instruction and activities.

## 6. Design

The Lānaʻi High and Elementary School Master Plan resulted from a comprehensive and intensive functional analysis and concept design process. Integral to the process was the participation of and interaction between elementary school teachers, school principals, librarians, counselors, local elected officials, representatives from the DAGS, DOE, and architects and engineers comprising the design team. In the resulting site plan and general design for the site, the placement of buildings, parking, recreation facilities, and ancillary facilities reflect the knowledge and experience of those most familiar with the existing school environment and the functional relationships that make Lānaʻi School work.

Participation of Lānaʻi residents in the design of the school does not end with the Master Plan. Many continue to participate and contribute ideas for the design of the 6-Classroom Building **Complex** providing valuable feedback about nuances with the site and environmental conditions. When the Administrative Center is designed, there is a strong sentiment that this building should be the “signature” building of the school. It is anticipated that community participation will continue with the design of other school buildings and **this** contribution will result in a school whose form and scale are appropriate to the community.

The school buildings are sited to take advantage of natural climatic factors, the sloping terrain, and the need to have the school blend with the site. The Master Plan layout also considered the interface with the existing low-rise, low-density residential subdivision to the north and knowledge of future residential development on County land to the northwest. When completed, the design of the individual school buildings should visually “complement” existing and future residential uses to the north of 5<sup>th</sup> Street.

In general, the low-rise, low-density campus will not have new buildings exceeding one floor in height. There are two exceptions however. One exception may be the proposed Auditorium which in all probability will be taller than one floor and the second is the proposed announcer’s booth at the soccer/track field. On-site and perimeter landscaping coupled with buffering (via setbacks and intervening buildings for the announcer’s booth) should highlight the physical appearance of the campus rather than the height of two buildings.

## 7. Hazardous Materials

The Expansion Area was used for cultivating pineapple for 50+ years. A Phase I Environmental Assessment identified this former use as a *recognizable environmental condition* because of the potential presence of chemicals associated with pineapple cultivation occurring on site. ~~[A Phase II Environmental Site Assessment will be performed to ascertain the presence of chemicals in the soil and the levels of concentration. If hazardous materials are discovered in levels exceeding permissible health standards and the hazard cannot be remediated, then construction of the school at this location could be delayed or another site sought.]~~ **A Phase II Environmental Site Assessment (ESA) for the project area for the first phase/classroom building project has been completed. The Phase II study involved testing soil samples collected within the project area for levels of pesticides and chemicals present and the associated levels of concentration. The results of soil testing found that the level of all tested substances was well below the need for any mitigation or concern (Response to Office of State Planning Comment). A “No Action Determination” letter from the Department of Health is included in Appendix B.** It is not in the interests of the students, parents, faculty, school administrators, and responsible agencies of the State of Hawaii to build and operate a school at a location where hazardous materials could pose a threat to public health, welfare, and safety.

***The proposed school expansion is not expected to generate hazardous materials that would jeopardize public health and safety. Hazardous materials to be used and/or generated during classroom instruction (for example as part of a chemistry lab) will be under teacher supervision. Hazardous materials will be handled and disposed per appropriate disposal protocols (Response to Office of State Planning Comment).***

## 8. Infrastructure

Improvements and or upgrades to infrastructure are common to development. As proposed, significant infrastructure upgrades are not required for the 6-Classroom Building **Complex**. In general, existing water, wastewater, drainage, and utility systems can accommodate this modest expansion. Beyond construction of this building however, improvements to on-site and off-site infrastructure systems will be required. The type of infrastructure improvements and the sequencing of improvements will be coordinated with the development phasing schedule.

Off-site infrastructure improvements should be coordinated with the Department of Hawaiian Home Lands and County of Maui. Both are developing or proposing to develop housing to the north of the school and improvements associated with residential use has implications for the school. There is a need to extend 5<sup>th</sup> Street and install new water and wastewater lines and drainage improvements to service users on both sides and ends of 5<sup>th</sup> Street. Participating in a shared program for infrastructure investment can result in capital investment savings to both the County and the State.

## 9. Public Facilities and Services

Operations of the Maui Police Department and the Lāna'i Fire Station should not be adversely affected. For fire prevention and protection purposes, each building will be equipped with fire sprinklers and fire hydrants will be provided on site as required by the fire code. On-campus fire lane will provide access to all buildings for a fire apparatus.

Solid waste and food waste will be removed daily by a private hauler contracted by the DOE. Trash awaiting removal will be stored in appropriate containers designated for that purpose. All handling and disposal of solid waste will comply with regulations of the County of Maui.

***The County of Maui Integrated Solid Waste Management Plan (February 2009) provides quantitative data (such as solid waste projections and solid waste generation rates) for developing and implementing solid waste management strategies. Solid waste projections are based on demographic forecasts for the County by island to the year 2030. Increases in waste generation are primarily the result of increases in population and employment during the planning period (ISWP, 2009). The solid waste generation model estimates solid waste generated from residential and commercial sources. The model does not include waste generation rates or projections for institutional uses such as public schools. The volume of solid waste to be generated by the project thus cannot be quantified at this time.***

***The Lanai landfill is operated by the County of Maui. The ISWMP projects the landfill has capacity to the year 2020. Modifications to the final grading plan could add approximately 3.7 more years to the life of the site. Based on solid waste projections and generation rates for the island, it is anticipated that the landfill will reach its capacity as noted with or without the proposed school expansion. The proposed strategy is to keep the Lanai landfill open and active or putting it on standby with processing of municipal solid waste for shipment to off-island markets or disposal points.***

***Solid waste generated at Lanai High and Elementary School generally consists of white paper, cardboard, plastics, food waste, fats, oil, and grease, green waste, scrap***

**metal, and general refuse. Chemicals used in science classes are disposed of following proper disposal protocols for the respective chemicals. Grubbed vegetation and construction material waste generated during construction will be disposed of by the general contractor.**

**The school collects and recycles aluminum containers, plastics, and glass as part of the HI5 program. Additional measures to reduce solid waste generation and contribution to the waste stream can be implemented by the school administration or the Department of Education (Response to Office of State Planning Comment).**

10. Traffic

Although field observations indicated that many of the existing students walk to and from school, all of the new site-generated trips were conservatively assumed to be new vehicular trips along the surrounding roadways. It was also assumed that trips associated with the proposed faculty housing were pedestrian trips to and from the school.

Trip generation calculations are based on enrollment increases in the various “schools” over existing enrollment. Thus elementary school enrollment is estimated to increase by +28 students, middle school by +14 students, and high school by +18 students. Enrollment in Pre-School and Community College, which are new “schools”, are estimated at 40 students apiece.

Table 9 Peak Hour Trip Generation

Projected Trip Ends					
AM Peak	ES	MS	HS	PS	CC
Enter	4	4	5	18	32
Exit	3	4	3	16	7
Total	7	8	8	34	39
PM Peak					
Enter	2	1	1	16	44
Exit	2	1	1	18	24
Total	4	2	2	34	68

Source: Wilson Okamoto Corporation, 2009.

In addition to trip generation rates, traffic conditions will be influenced by the relocation of existing driveways and student-drop off area from Fraser Avenue to 5<sup>th</sup> Street. Nine new driveways will be constructed along 5<sup>th</sup> Street thus diverting school related traffic from Fraser Avenue onto 5<sup>th</sup> Street.

Traffic currently accessing the school via the driveway along Fraser Avenue would instead access the school via the new driveway at the intersection of 5<sup>th</sup> and Ahakea Streets. In addition, traffic currently using the school drop-off area off Fraser Avenue would instead use the new drop-off area off 5<sup>th</sup> Street via the driveways at and near Iliahi Street.

New trips to and from the school were distributed between the school driveways based upon their related use. For example, faculty and staff were assumed to use the driveway along 5<sup>th</sup> Street at the intersection with Ahakea Street while trips associated with elementary, middle, and high school students were assumed to use the driveways at and near the intersection with Iliahi Street.

The year 2034 cumulative AM and PM peak hour traffic conditions with the implementation of the proposed improvements at Lanai School are summarized in Table 10. Peak hour traffic circulation during AM and PM peak hours with the Project are shown in Figures 14 and 15.

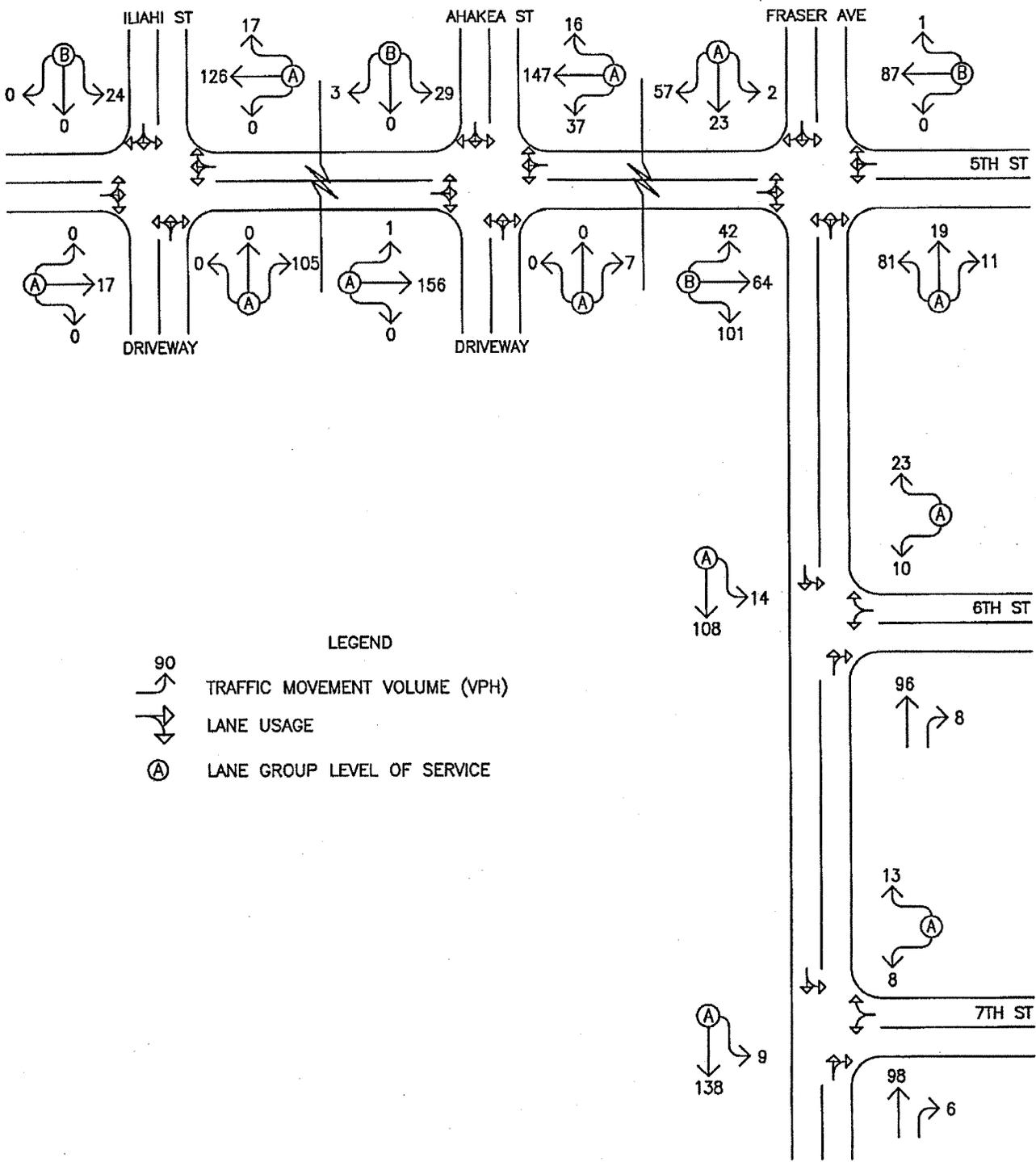
Table 10. Existing and Projected With Project LOS Traffic Operating Conditions

Intersection	Critical Movement		AM		PM	
			Exist	Year 2034 w/ Proj	Exist	Year 2034 w/ Proj
Fraser Ave/ 5 <sup>th</sup> Street	Eastbound	LT-TH-RT	B	B	A	B
	Westbound	LT-TH-RT	B	B	B	B
	Northbound	LT-TH-RT	A	A	A	A
	Southbound	LT-TH-RT	A	A	A	A
Fraser Ave/ 6 <sup>th</sup> Street	Southbound	LT-TH	A	A	A	A
	Westbound	LT-RT	B	A	A	A
Fraser Ave/ 7 <sup>th</sup> Street	Southbound	LT-TH	A	A	A	A
	Westbound	LT-TH	A	A	B	B
5 <sup>th</sup> Street/ Ahakea Street	Eastbound*	LT-TH-RT	A	A	A	A
	Westbound	LT-TH-RT	-	A	-	A
	Northbound	LT-TH-RT	-	A	-	A
	Southbound*	LT-TH-RT	A	B	A	A
5 <sup>th</sup> Street/ Iliahi Street	Eastbound*	LT-TH-RT	A	A	A	A
	Westbound	LT-TH-RT	-	A	-	A
	Northbound	LT-TH-RT	-	A	-	A
	Southbound*	LT-TH-RT	A	B	A	A

\*Approach modified to accommodate new intersection configuration.

Source: Wilson Okamoto Corporation, 2009.

The analysis shows that traffic operating conditions along Fraser Avenue in the vicinity of the school are expected, in general, to remain similar to existing conditions despite the anticipated changes in travel patterns as a result of the proposed improvements at the school and the addition of new site-generated vehicles to the surrounding roadway network.



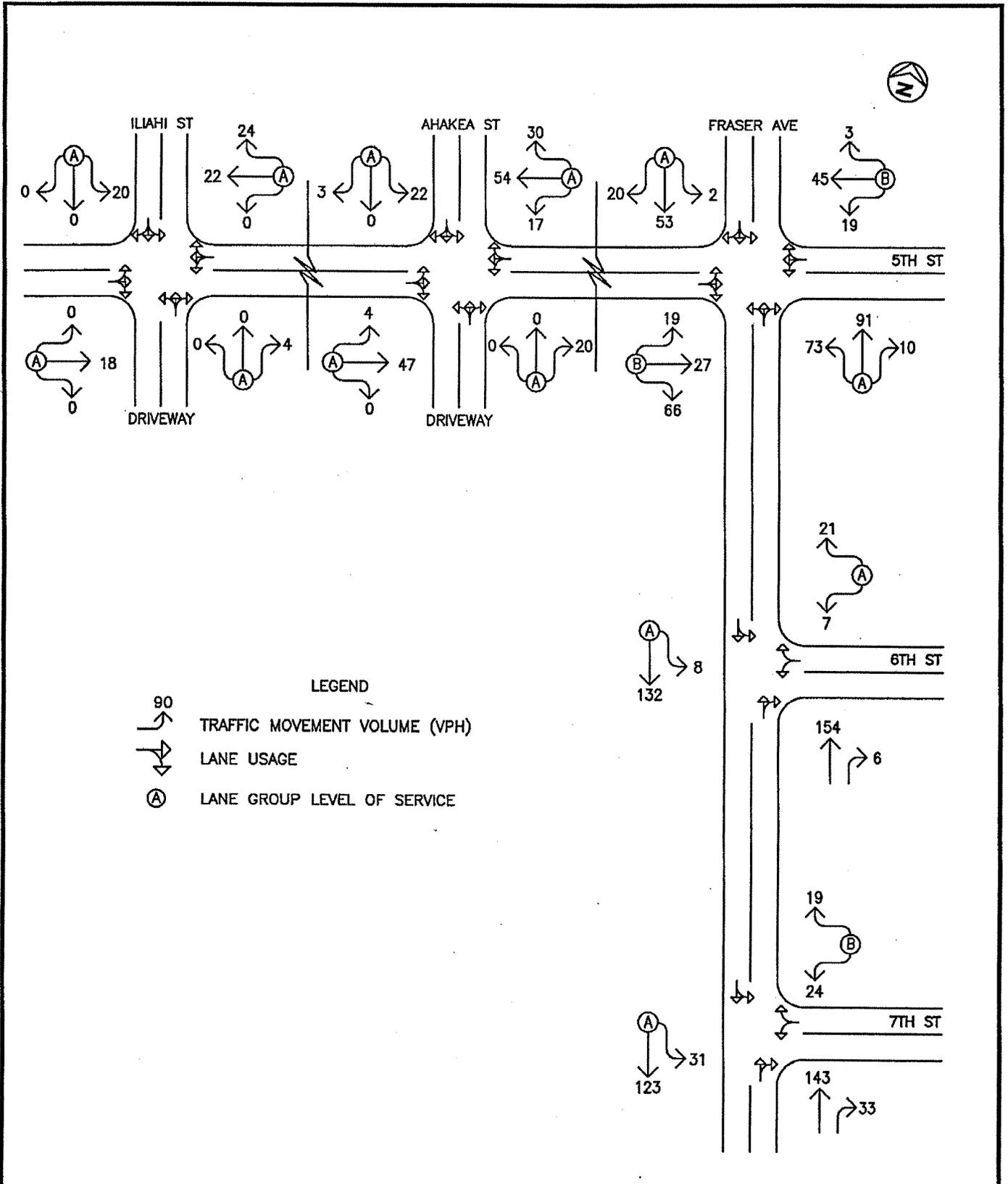
**LANAI HIGH & ELEMENTARY SCHOOL**

**YEAR 2034 WITH PROJECT**

**AM PEAK HOUR OF TRAFFIC**

**FIGURE**

14



**LANAI HIGH & ELEMENTARY SCHOOL**

**YEAR 2034 WITH PROJECT**

**PM PEAK HOUR OF TRAFFIC**

**FIGURE**

15

The westbound approach of the intersection with 6<sup>th</sup> Street is expected to improve to LOS "A" during the AM peak period while the eastbound approach of the intersection with 5<sup>th</sup> Street is expected to deteriorate to LOS "B" during the PM peak period. The remaining critical movements at these intersections, as well as, the intersection with 7<sup>th</sup> Street are expected to continue operating at levels-of-service similar to existing conditions. Along 5<sup>th</sup> Street, the critical movements at the intersection with Ahakea Street and Iliahi Street are expected to operate at LOS "A" during both peak periods with the exception of the southbound approaches of both intersections which are expected to operate at LOS "B" during the AM peak period.

The traffic impact report makes the following recommendations:

- Maintain sufficient sight distance for motorists to safely enter and exit all project driveways.
- Provide adequate on-site loading and off-loading service areas and prohibit off-site loading operations.
- Provide adequate turn-around area for service, delivery, and refuse collection vehicles to maneuver on the project site to avoid vehicle-reversing maneuvers onto public roadways.
- Provide sufficient turning radii at all project driveways to avoid or minimize vehicle encroachments to oncoming traffic lanes.
- Align the second driveway along 5<sup>th</sup> Street with Caldwell Street to minimize turning conflicts for entering and exiting vehicles.
- Align the third driveway along 5<sup>th</sup> Street with Ahakea Street to minimize turning conflicts for entering and exiting vehicles.
- Align the fourth driveway along 5<sup>th</sup> Street with Iliahi Street to minimize turning conflicts for entering and exiting vehicles.
- Provide adequate and safe pedestrian crossings in the vicinity of the school along roadways surrounding the project site.

Extensive improvements are planned at the Lāna'i High & Elementary School to modify and expand the existing school. With the implementation of the aforementioned recommendations, the critical traffic movements at the intersections in the project vicinity are anticipated to continue operating at levels of service similar to existing conditions. As such, the proposed project is not expected to have a significant effect on traffic operations in the project vicinity.

Crosswalks should be provided across 5<sup>th</sup> Street so that children walking to school can safely cross two travel lanes. Crossing guards and junior police officers (JPOs) can help make street crossing safer.

***The Maui Police Department commented that adding speed bumps and alternative speed control devices and posting additional speed limit signs on 5<sup>th</sup> Street would aid in speed control.***

## 11. Fiscal

State funds will be expended to staff, operate, and maintain the school. At capacity, there is a projected need for 11 administrative and 52 teaching positions. Additional full, part-time, and volunteer staffing will be working in the A+ Program, PCNC Office, Kitchen, and

Custodial Centers. The positions may be filled by DOE employees currently serving in the same capacity at other schools or people hired to fill the open positions.

The school site is not subject to real property taxes thus no revenues will accrue to the County of Maui in the form of real property taxes.

#### **D. Cumulative Impacts**

The Master Plan presented in this environmental assessment is a composite site plan, land use plan, and space to guide the expansion of Lānaʻi School. The form and scale of the plan are geared towards systematically expanding the physical plant with spaces for recreational uses that heretofore could not fit on the 10.0 acre campus.

The physical facilities, however, are shaped by more than the analytical questions of what kind of facilities are needed and where should they be placed. Participants in the master plan charrette brought divergent views to help answer the planning question, "What could Lānaʻi High and Elementary School be?" The resulting prescriptions are the themes presented in Section 1 as collectively articulated by consensus of all participants.

The themes send a clear message that Lanai residents value education, educators, and the school per se. These values also were reiterated by community informants in the cultural assessment and can be interpreted by the educational objectives and policies in the Lanai Community Plan. There is a collective desire to provide educational opportunities for pre-school children, improve the quality of public schooling in the community, promote lifelong learning, and provide the tools to foster and enhance the learning environment.

There is the potential for cumulative traffic impacts associated with residential development and school development. Cumulative impacts are anticipated however the impact will not be immediately recognizable and sustainable over a period of time. More than likely, residential development will precede school improvements after construction of the 6-Classroom Building **Complex**. School expansion depends on an increase in the number of school age children before additional buildings can be erected. Currently, the County of Maui housing project and that of the Department of Hawaiian Home Lands are the only two residential developments for owner-occupants proposed on the island.

It is anticipated that the County housing project along 5<sup>th</sup> Street will be built out well before the school. Thus the principal source of vehicle traffic along 5<sup>th</sup> Street is expected from residents that drive 5<sup>th</sup> Street to and from Fraser Avenue. During school hours and non-school hours, drivers should experience free flowing conditions. Congestion is expected to occur during morning school drop off and afternoon school pick up. During these periods, traffic tie-ups on 5<sup>th</sup> Street and adjoining intersections should last no more than one-half hour. To facilitate traffic movement, traffic cones can be set up to direct traffic, left turn movements into the drop off area prohibited, or crossing guards used for traffic control. It is anticipated that motorists will adapt to the increase in traffic around the school and the number of crosswalks in the vicinity of the school

***Faculty of Lānaʻi High and Elementary School should be provided safe, clean, and affordable housing. It is not critical that faculty housing is provided on the school site shown on the master plan. Integrating housing for school faculty into the County of Maui's affordable housing project or elsewhere in the community are preferred***

***alternatives that would benefit the faculty, community, Department of Education, and County of Maui.***

***Housing faculty off-site would also free up the land area identified for faculty housing for alternative school uses (Response to Department of Housing and Human Concerns Comment)..***

There will be a need to furnish potable water for all who reside on the island. Water is delivered through a private system and there will come a time when the water source will have to be expanded (say by increasing pumping capacity and storage) and or other water sources sought and developed. Similarly, the wastewater treatment plant capacity will have to be expanded to receive and treat increases in wastewater flow from future development. Similar improvements and upgrades will be needed to existing drainage systems and power and communication services in Lānaʻi City.

One of the goals of the Hawaii public school system is to prepare and equip all students with the knowledge and tools to tackle future individual undertaking. Toward this end, new technologies have and continue to be introduced at all grade levels in all schools. For several years, computer education has been part of the curriculum at Lānaʻi School. Students have become proficient in using computers, fluent in working with application programs, and knowledgeable with the almost unlimited communication and learning opportunities made possible by the Internet. In short, students are engaged in 21<sup>st</sup> century learning in a 20<sup>th</sup> century environment.

Lānaʻi is a small island with only one town, rather limited economic opportunities, owned by a single entity, and there is only one public school. The island owner is introducing new technologies to the island in the form of solar and wind farms (the solar farm has been operational since December 2008). The energy to be generated will be sold to off-island utility companies. Skilled people are needed to operate and maintain the facilities (and to construct) thus creating employment opportunities for island residents. While employment opportunities are not restricted to Lānaʻi residents, the basic skills of English, mathematics, science and technology, and computing taught to Lānaʻi School students can significantly benefit students in their careers, the community, Lānaʻi based technology industries, and the State as a whole in the long-term.

Public schools do not encourage economic development. Schools also are not directly responsible for changes in land use. Schools are need-based facilities provided as communities develop because there is a population base and a school age component of the population requiring an education. In turn, it is the schools that teach the basic skills for persons to enter the workforce or pursue other endeavors. These three seemingly unrelated socio-economic functions go hand in hand whereby economic development and employment opportunities attract a skilled workforce and families and an expanding population requires basic needs such as housing and public facilities and services. One of the primary services is educational facilities.

Lānaʻi School may have been in existence at the time of ranching on the island and was there to educate the children of the plantation workers. With the demise of pineapple cultivation and evolution to a visitor based industry, the school still functions to educate the children whose parents are employed in the visitor industry or engaged in commerce on the island. With or without the proposed expansion the school will continue its primary educational mission.

**A. No Action**

A No Action alternative would preclude development of the site for its planned use. The land will remain vacant, undeveloped, and all anticipated short and long-term, beneficial and adverse impacts resulting from its development will not occur. The State of Hawaii would not have to commit financial resources to build, staff, operate, and maintain the expanded educational facility and the funds that would have been expended on Lanai High and Elementary School could be allocated to alternative uses or schools.

**B. Land Acquisition Addition**

The State of Hawaii is contemplating acquiring an additional 1.030 acres (approximate) of parcel 11 from Castle & Cooke Resorts LLC. This acreage is shaped like a triangle and its acquisition would “straighten” out the property line in the vicinity of Lāna‘i Park. The State would then be able to relocate a section of the existing drainage channel further to the south. The existing outlet can then be abandoned thereby providing a seamless transition between the realigned section and the proposed extension of the channel through the Expansion Area. The beneficial impact would be to improve drainage control from Fraser Avenue to the proposed faculty housing area.

## SECTION 5

## AGENCIES AND ORGANIZATIONS CONSULTED IN THE ENVIRONMENTAL ASSESSMENT PROCESS

---

*The Draft Environmental Assessment for the Lānaʻi High and Elementary School Master Plan was published in the Office of Environmental Quality Control Environmental Notice of September 8, 2009. Publication initiated a 30-day public review period ending on October 8, 2009. The Draft Environmental Assessment was mailed to the agencies and organizations identified below. An asterisk \* identifies agencies and organizations that submitted written comments during the review period. All comment letters and responses are found in Appendix A.*

### **Federal**

\*U.S. Army Corps of Engineers, Honolulu Engineer District

### **State of Hawaii**

\*Department of Hawaiian Home Lands

Department of Health

Environmental Planning Office

\*Hazard Evaluation and Emergency Response Office

\*Department of Land and Natural Resources

Maui/Lanai Islands Burial Council

\*State Historic Preservation Division

Land Use Commission

Maui Community College

Office of Hawaiian Affairs

\*Office of Planning

Lānaʻi Public Library (Placement)

### **County of Maui**

\*Department of Environmental Management

Department of Fire and Public Safety

\*Department of Housing and Human Concerns

\*Department of Parks and Recreation

\*Department of Planning

\*Department of Public Works

\*Department of Transportation

Maui County Cultural Resources Commission

\*Police Department

### **Organizations and Elected Officials**

\*Castle and Cooke Resorts, LLC

\*Maui Electric Company

Hawaiian Telcom

Hui Malama Pono O Lanaʻi

\*Lānaʻi Planning Commission

Lānaʻi Community Advisory Council  
Lānaʻi Cultural & Heritage Center  
Lanaians for Sensible Growth  
The Honorable Charmaine Tavares, Mayor, County of Maui  
The Honorable Sol P. Kahoʻohalahala, Maui County Council  
The Honorable J. Kalani English, 8<sup>th</sup> Senatorial District  
The Honorable Mele Carroll, 13<sup>th</sup> Representative District

**Individuals**

Glenn Richardson  
Albert Morita  
Momi Suzuki  
Robert Horn  
Gary Onuma  
***\*Fairfax Reilly***

## SECTION 6

## LIST OF PERMITS AND APPROVALS

---

### **State of Hawaii**

#### Land Use Commission

Land Use District Boundary Amendment

#### Department of Health

NPDES General Permits

Discharge of Hydrotesting Water

Discharges Associated with Construction Activities

Variance from Pollution Controls (Noise Permit)

### **County of Maui**

#### County Council

Community Plan Amendment

Change of Zone

#### Department of Public Works

Building Permit

Certificate of Occupancy

Driveway Permit

Electrical and Plumbing Permit

Grading and Grubbing Permit

Land Consolidation

### **Private**

Lānaʻi Water Company

Title 11, Chapter 200 (Environmental Impact Statement Rules), 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;**

An archaeological survey of the 42.0 acres area comprising the former pineapple fields did not reveal the presence of archaeological features on the ground surface. Lāna'i Park was not surveyed because of its existing recreational use and the possibility that prior grading and the placement of fill altered the land.

During construction, should subsurface features be unearthed, work in the immediate will cease and historic authorities notified for disposition of the finds.

No traditional and cultural resources will be affected by the proposed school expansion. In contrast, the school expansion will add to the community's tradition and pursuit of education.

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

There was a time when ranching followed by pineapple cultivation were the principal use of land in the Expansion Area. Truck crops were also raised on the site of Lāna'i Park and sections of the school grounds.

Agricultural land use is now giving way to urban land uses functions. The County of Maui proposal to develop affordable housing in the area coupled with expansion of Lanai School expands rather than curtails beneficial use of the environment. It also confines development to the western edge of Lanai City thereby fostering a compact rather than linear urban form between Kaunalapau Road on the south and Awaiau Street on the north.

**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 proposed expansion does not conflict with environmental policies established in Chapter 344, HRS.

**4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;**

Short-term direct economic benefits will accrue to residents participating in the construction of the various buildings and facilities. Spillover effects can be anticipated on supply houses furnishing building materials for residents who are able provide rental

space for off-island workers. The benefits will not be sustained over a long period of time but will occur for each development phase.

Traditional cultural practices are not associated with the Expansion Area. Many residents, however, believe the school itself is a cultural resource because it serves an education, athletic, and social purpose in the community. The Master Plan will promote and not detract from these values.

**5) Substantially affects public health;**

Public health should not be substantially affected by construction activities. The expansion process will proceed incrementally over a 25 year time horizon rather than in a compressed period of time.

A public health concern is the potential for environmental hazards to be present in the soil where pineapple was cultivated. The Department of Education [will begin] **completed** a Phase II Environmental Site **Assessment for the “Lāna‘i Park” parcel where the 6-Classroom Building Complex complex, administration center, and playfields will be located** to ascertain the levels of pesticides and chemicals present and the respective levels of concentration. Findings have found no significant impact. **The Department of Education will complete Phase II Testing for the rest of the expansion site as each phase and subsequent funding is obtained.** It is not in the safety and welfare of students, parents, faculty, school administrators, and responsible agencies of the State of Hawaii to build and operate a school at a location where hazardous materials could pose a public health hazard that cannot be remediated.

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

Expansion of Lāna‘i School will not lead to an increase in population on the island. Schools are not population generators but are built to serve the population in a community.

Modest increases in water demand and wastewater flow are anticipated in proportion to the growth in the student body. Again, the phased implementation of improvements will result in a gradual rather than a sudden increase in the need for public facilities.

**7) Involves a substantial degradation of environmental quality;**

The 42.0 acre expansion area, the 8.017 acre Lāna‘i Park, and two small lots (or portions thereof) adjoining the school have been previously altered by agricultural and urban activities. Consequently, there is no natural environment *per se* to be affected.

Short-term construction related impacts are expected but can be mitigated by measures described in this Assessment. In the long-term the school will provide educational facilities for the benefit of students, faculty, and community.

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

The proposed use is consistent with County of Maui land use plans for Lāna'i City. No commitment for a larger action is anticipated beyond the Master Plan. School facilities also are expensive to build. The proposed 6-Classroom Building **Complex complex** is needed to help reorganize the school and to provide needed classrooms for the Middle and High School curricula. Beyond construction of this building future improvements are yet to be funded. The phasing schedule identifies the priority and sequencing of future improvements but is subject to external circumstances and State priorities.

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

Rare, threatened or endangered species or species proposed for such status and their respective habitat are not found on the Expansion Area.

Several endemic plants are propagated in a garden on the school grounds. Some of the endemic species are listed as rare, threatened, or endangered. There are no plans to displace the garden as part of the Master Plan.

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

Minor degradation of ambient air quality and noise levels in the vicinity of the school site will result from construction activities in the short-term. Fugitive dust and construction noise are expected consequences of any construction activity. Several measures for mitigating potential air, noise, and water quality impacts were described in this Assessment and other measures may be stipulated in construction plans and documents. Site contractors, construction managers, public health officers, and government regulators are keenly aware of potential problems resulting from improper or inadequate environmental management during construction.

**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;**

Lāna'i School is not located in a flood plain or an environmentally sensitive area. The project is not proposed along the coastline and there are no streams, ponds, or wetlands on the school site and Expansion Area.

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

Scenic vistas and view planes are not identified in County of State plans for Lāna'i The low-rise school buildings should not detract from the open space quality afforded by vast tracts of former pineapple fields *makai* of the school. In addition, the school buildings will not obstruct panoramic views of Lanaihale when viewed from adjoining land.

**13) Requires substantial energy consumption.**

Energy consumption is expected to increase as facilities are brought on-line. While this effect cannot be avoided, there are measures that architects and engineers can design

into buildings to help reduce energy consumption. Buildings can be sited to take advantage of natural lighting and cooling breezes. The use of insulated materials for walls, low- E double glazed glass, and energy efficient lighting fixtures are standard in design plans. These design measures will aid in achieving LEED silver certification or higher which is required for all new State buildings and a goal of the Master Plan. In the future, alternative energy sources such as photo-voltaic units and or wind turbines may be constructed to reduce energy costs.

## SECTION 8

## LIST OF CONTRIBUTORS

---

<b>Master Plan</b>	<i>CDS International</i>
<b>Environmental Assessment</b>	<i>Gerald Park Urban Planner</i>
<b>Archaeology and Cultural Assessment</b>	<i>Cultural Surveys Hawaii</i>
<b>Botanical Assessment</b>	<i>AECOS Consultants</i>
<b>Phase I Environmental Site Assessment</b>	<i>ENPRO Environmental</i>
<b>Topographical Survey and Civil Engineering</b>	<i>R. M. Towill, Inc.</i>
<b>Traffic Impact Assessment</b>	<i>Wilson Okamoto Corporation</i>

## REFERENCES

---

### **Lānaʻi High and Elementary School**

- AECOS, Consultants. November 2008. *Botanical survey for proposed public school facilities expansion at Lānaʻi City, Island of Lānaʻi.*
- CDS International. November 2004. *Charette Summary Report for Lanai High & Elementary School.* Prepared for State of Hawaii, Department of Accounting and General Services, Planning Branch.
- Cultural Surveys Hawaii. August 2009. *An Archaeological Assessment Report for the Lānaʻi High and Elementary School Expansion Parcel Kamoku Ahupuaʻa, Lāhainā District, Lānaʻi Island, TMK (2) 4-9-002: 058 por.* Prepared for Gerald Park Urban Planner.
- Cultural Surveys Hawaii. August 2009. *Cultural Impact Assessment for the Lānaʻi High and Elementary School Expansion Project in Kamoku Ahupuaʻa, Lahaina District, Island of Lānaʻi Island, TMK (2) 4-9-002: 058 por. and (2) 4-9-014: 002.* Prepared for Gerald Park Urban Planner.
- Department of Education, December 2006. *Department of Education-Facilities Inventory System Comprehensive Report.*
- ENPRO Environmental. July 2009. *Phase I Environmental Site Assessment. Project No. 808-00253-PH 1, Lanai City, Hawaii.* Prepared for CDS International.
- Wilson Okamoto Corporation. January 2009. *Traffic Impact Report for the Proposed Lanai High and Elementary School.* Prepared for CDS International.

### **General**

- Black, Anderson Duane. 2001. *Lanai The Elusive Hawaiian Island-the One that Captain Cook Missed.* The Vantage Press.
- County of Maui. No Date. *The General Plan of the County of Maui 1990 Update.* Adopted by Ordinance No. 2039, September 27, 1991.
- County of Maui. No Date. *Lanaʻi Community Plan.* Adopted through Ordinance No. 2738; Effective Date December 21, 1998.
- Department of Education, State of Hawaii. 1989. *State Education Functional Plan.*
- Hart, Chris & Partners, Inc. January 2007. *Maui County General Plan 2030 Telecommunications Assessment.* Prepared for Maui County Long-Range Planning Division, One Main Plaza, 2200 South High Street, Suite 335, Wailuku, Hawaii.
- Hawaii Administrative Rules, Title 11, Department of Health. 1991. *Chapter 62, Wastewater Systems.*

- Mink, John F. and L. Stephen Lau. April 1993. *Aquifer Identification and Classification for Lānaʻi: Groundwater Protection Strategy for Hawaiʻi*. Technical Report No. 190. Water Resources Research Center, University of Hawaiʻi at Mānoa. Honolulu, Hawaiʻi 96822.
- Munekiyo & Hiraga. December 2002. *Final Environmental Assessment Proposed Lanai Police Station*. Prepared for the Accepting Authority County of Maui Department of Police.
- Office of Planning, Department of Business, Economic Development and Tourism, State of Hawaii. 1996. *The Hawaii State Plan Chapter 226 Hawaii Revised Statutes 1996*.
- Townscape, Inc. February 2001. *Draft Environmental Assessment Lands of Lanaʻi, Lanaʻi City, Hawaii*. For Department of Hawaiian Home Lands, State of Hawaii.
- U.S. Department of Agriculture, Soil Conservation Service. 1972. *Soil Survey Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*. In Cooperation with the University of Hawaii Agricultural Experiment Station. U.S. Government Printing Office. Washington, D.C.
- Wilson Okamoto Corporation. October 2007. *Hawaii Water Plan Water Resource Protection Plan Public Review Draft*. Prepared for Sate of Hawaii Commission on Water Resource Management.

## TECHNICAL REPORTS

---

The Technical Reports listed below are printed as a companion document to the Draft Environmental Assessment for the Lānaʻi High and Elementary School Master Plan. ***The Technical Reports are not printed as part of the Final Environmental Assessment.***

- REPORT A** Botanical Survey for Proposed Public School Facilities Expansion at Lānaʻi City, Island of Lānaʻi.
- REPORT B** An Archaeological Assessment Report for the Lānaʻi High and Elementary School Expansion Parcel Kamoku Ahupuaʻa, Lāhainā District, Lānaʻi Island, TMK (2) 4-9-002: 058 por.
- REPORT C** Cultural Impact Assessment for the Lānaʻi High and Elementary School Expansion Project in Kamoku Ahupuaʻa, Lahaina District, Island of Lānaʻi Island, TMK (2) 4-9-002: 058 por. and (2) 4-9-014: 002.
- REPORT D** Phase I Environmental Site Assessment. Project No. 808-00253-PH 1, Lanai City, Hawaii.
- REPORT E** Traffic Impact Report for the Proposed Lanai High and Elementary School.

APPENDIX A

COMMENT LETTERS AND RESPONSES



September 1, 2009

Mr. Gerald Park, Urban Planner  
Gerald Park Urban Planner  
95-595 Kanamee Street #324  
Mililani, Oahu, Hawaii, 96789

Subject: Draft Environmental Assessment (DEA) for Lana'i High and Elementary School Master Plan  
TMK: (2) 4-9-014-003, 004, 002 and 4-9-002:058 (por.)  
Fifth Avenue and Ninth Avenue  
Lana'i City, Lana'i, Hawaii

Dear Mr. Park,

Thank you for allowing us to comment on the Draft Environmental Assessment for Lana'i High and Elementary School Master Plan.

In reviewing our records and the information received, Maui Electric Company (MECO) will be requiring access and electrical easements for our facilities to serve the subject project site. In addition there are existing electrical facilities within the planned elementary school area that needs to be relocated or rerouted. Please be advised that County of Maui permits for work within road right-of-ways may be required prior to MECO's installation. Since the project's anticipated electrical demand may have a substantial impact to our system, we highly encourage the customer's electrical consultant to submit the electrical demand requirements, project time schedule, and schedule a meeting with us as soon as practical so that service can be provided on a timely basis.

Should you have any questions or concerns, please call me at 871-2340.

Sincerely,

Ray Okazaki  
Staff Engineer



GERALD PARK  
Urban Planner

Planning  
Land Use  
Research  
Environmental  
Studies

1221 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

Telephone:  
(808) 596-7484

Facsimile:  
(808) 596-7485

e-mail:  
gparkurbanplanner  
@hawaiiainet.net

November 30, 2010

Ray Okazaki, Staff Engineer  
Maui Electric Company, Ltd.  
210 West Kaahumanu Avenue  
PO Box 398  
Kahului, Maui 96733-6898

Dear Mr. Okazaki:

Subject: Lana'i High and Elementary School Master Plan  
Tax Map Key: 4-9-014: 002, 003, 004, por. 005, por. 011  
4-9-002: por. 058  
Lana'i City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lana'i High and Elementary School Master Plan.

As disclosed in the environmental assessment, the school expansion is proposed in several phases and projected over a 25 year time horizon. The first project to be constructed will be a new 6-classroom building. The Department of Education recently awarded a design/build contract for the building. As you requested, the electrical engineering consultant for the project will consult with Maui Electric Company ("MECO") on electrical demand requirements, project scheduling, and provision of utility easements for and access to MECO on-site facilities.

It is anticipated that this consultation process between MECO and an electrical consultant will continue as new buildings and/or improvements are being designed. The involvement of MECO during the design process will keep the utility informed of expansion plans and electrical demand requirements thus allowing MECO to plan for future electrical service for the school and the island as a whole.

We thank Maui Electric Company for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: B. Lowrey, DOE



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT  
FORT SHAFTER, HAWAII 96858-5440

REPLY TO  
ATTENTION OF: CEPOH-EC-T

August 31, 2009



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT  
FORT SHAFTER, HAWAII 96858-5440

REPLY TO  
ATTENTION OF:

Regulatory Branch

File Number: POH-2009-00268

Civil Works Technical Branch

Mr. Gerald Park, Urban Planner  
95-595 Kanamee Street, Suite 324  
Mililani, Hawaii 96789

Dear Mr. Park:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Lanai High and Elementary School Master Plan, Lanai City, District of Lahaina, Maui (Tax Map Keys: 4-9-2: 58 and 4-9-14: 2, 3, and 4). The flood hazard information provided on page 24 of the DEA is correct since there are no Flood Insurance Rate Maps (FIRMs) for the island of Lanai.

However, I would like to take this opportunity to inform you that the Federal Emergency Management Agency (FEMA) has issued preliminary DFIRMS for the City and County of Honolulu that incorporated the recent hurricane study for southern areas of the State of Hawaii. The study also included the island of Lanai. All of the State's counties plan on using these FIRMs after the 90-day appeal period which will end in December 2009. Once the appeal period is over, FIRMs will be available for the southern portion of Lanai in the latter part of 2010.

The DEA has been forwarded to our Regulatory Branch to determine Department of the Army permit requirements (438-2303). They will respond to your office under separate cover.

Should you require additional information, please call Ms. Jessie Dobinckick of my staff at 438-8876.

Sincerely,

Steven H. Yamamoto, P.E.  
Chief, Civil Works Technical Branch

received  
9.28.09

Gerald Park  
95-595 Kanamee Street, # 324  
Mililani, Hawaii 96789

Dear Mr. Park:

This letter is in response to your request, dated August 25, 2009, for our review and comments regarding the Draft Environmental Assessment for the proposed Lanai High and Elementary School Master Plan, Lanai City, Island of Lanai, Hawai'i (TMK: 249014002-004 & 249002058 por.).

Based on the information furnished to our office there does not appear to be any water resources (i.e. streams and wetlands) within or around the proposed project site. Please note that under Section 404 of the Clean Water Act of 1972 (33 U.S.C. 1344), Department of Army (DA) authorization is required for any activities that result in the discharge (placement) of dredge and/ or fill material into waters of the U.S. Section 10 of the Rivers and Harbors Act (RHA) of 1899 requires that a Department of Army (DA) permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403).

Thank you for the opportunity to comment. If you have any questions, please contact Ms. Meris Bantilan-Smith, of my Regulatory staff at 808-438-7023 (FAX: 808-438-4060) or by electronic mail at [Meris.Bantilan-Smith@usace.army.mil](mailto:Meris.Bantilan-Smith@usace.army.mil). Please include File Number POH-2009-268 in any future correspondence regarding this project. Please be advised you can provide comments on your experience with the Corps' Honolulu District Regulatory Branch by accessing our web-based customer survey form at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

George P. Young, P.E.  
Chief, Regulatory Branch

received  
7.2.09



DEPARTMENT OF  
**HOUSING AND HUMAN CONCERNS**  
COUNTY OF MAUI

CHARMAINE FAVARES  
Mayor  
LORI TSUHAKO  
Director  
JO-ANN T. RIDAO  
Deputy Director

2200 MAIN STREET • SUITE 546 • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165  
MAILING ADDRESS: 200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • EMAIL: director.hhc@mauicounty.gov

September 11, 2009

Mr. Gerald Park  
Gerald Park Urban Planner  
95-595 Kanamee Street #324  
Mililani, Hawaii 96789

Dear Mr. Park:

**Subject: Draft Environmental Assessment (DEA) for Lanai High and  
Elementary School Master Plan  
Tax Map Key 4-9-014: 003, 004, 002, and 4-9-002: 058 portion  
Lanai City, District of Lahaina, Maui**

Thank you for providing the Department of Housing and Human Concerns, County of Maui (DHHC) the opportunity to comment on the above-named draft environmental assessment.

It is noted that the County of Maui, the Department of Hawaiian Home Lands, and the Department of Education are all in the master plan process for each of their respective projects. These projects are adjacent to and in the same general area of each other. Therefore, it is important that infrastructure plans be coordinated for all three projects to ensure that the proposed plans are designed to accommodate all three projects. Of note are the roadways and sewer infrastructure improvements that will be necessary to accommodate all three projects.

We have also noted that the Department of Education is proposing a housing component on the school site. The County of Maui's Lanai Affordable Housing Master Plan includes single family homeownership as well as multi-family rental units. Please address how the DOE component will affect the County project and how coordinated efforts may alleviate duplication.

Please do not hesitate to contact Ms. Jo-Ann Ridao, Deputy Director, DHHC at (808) 270-7805, should you have questions or require additional information regarding the Lanai Affordable Housing project.

Sincerely,

LORI TSUHAKO, LSW, ACSW  
Director of Housing and Human Concerns

TO SUPPORT AND EMPOWER OUR COMMUNITY TO REACH ITS FULLEST POTENTIAL  
FOR PERSONAL WELL-BEING AND SELF-RELIANCE.

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI  
200 South High Street  
Wailuku, Hawaii, USA 96793-2155

September 1, 2009

Mr. Gerald Park  
95-595 Kanamee Street #324  
Mililani, Hawaii 96789

Subject: Draft Environmental Assessment for Lanai High and Elementary School Master Plan

Dear Mr. Park,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

Don Medeiros  
Director

received  
7-5-09

September 1, 2009

DON A. MEDEIROS  
Director  
WAYNE A. BOTELHO  
Deputy Director  
Telephone (808) 270-7511  
Facsimile (808) 270-7505



CHARMAINE FAVARES  
MAYOR

DEPARTMENT OF TRANSPORTATION

COUNTY OF MAUI  
200 South High Street  
Wailuku, Hawaii, USA 96793-2155

September 1, 2009

Mr. Gerald Park  
95-595 Kanamee Street #324  
Mililani, Hawaii 96789

Subject: Draft Environmental Assessment for Lanai High and Elementary School Master Plan

Dear Mr. Park,

Thank you for the opportunity to comment on this project. We have no comments to make at this time.

Please feel free to contact me if you have any questions.

Sincerely,

Don Medeiros  
Director

September 1, 2009

DON A. MEDEIROS  
Director  
WAYNE A. BOTELHO  
Deputy Director  
Telephone (808) 270-7511  
Facsimile (808) 270-7505

CHARMAINE FAVARES  
MAYOR



November 30, 2010

GERALD PARK  
Urban Planner

Planning  
Land Use  
Research  
Environmental  
Studies

1221 Kapiolani Blvd  
Suite 211  
Honolulu, Hawaii  
96814

Telephone:  
(808) 596-7484  
Facsimile:  
(808) 596-7485

e-mail:  
gparkurbanplanner  
@hawaiiemail.net

Lori Tzuhako, Director  
Department of Housing and Human Concerns  
County of Maui  
2200 Main Street  
One Main Plaza Building, Suite 546  
Wailuku, Hawaii 96793

Dear Ms. Tzuhako:

Subject: Lāna'i High and Elementary School Master Plan  
Tax Map Key: 4-9-014: 002, 003, 004, por. 005, por. 011  
4-9-002: por. 058

Lāna'i City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lāna'i High and Elementary School Master Plan. We offer the following responses to your comments in the order they were presented.

1. Infrastructure Coordination

The County of Maui, Department of Hawaiian Home Lands, and the Department of Education have initiated discussion on a joint effort in the planning, design, and construction of road and sewer infrastructure since all three entities have projects planned in the same general area near the school. The Department of Education is of the opinion that a coordinated infrastructure development plan and the sharing of infrastructure costs for road and sewer improvements primarily along 5<sup>th</sup> Street would be in the public interest and benefit all projects.

At this time, a coordinated infrastructure improvement plan for the three projects has not been prepared. It is anticipated that on-going discussion will result in a coordinated plan between the three parties.

2. Faculty Housing

It is imperative that faculty of Lāna'i High and Elementary School be provided safe, clean, and affordable housing. It is not critical that faculty housing is provided on the school site shown on the master plan. Integrating housing for school faculty into the County of Maui's affordable housing project or elsewhere in the community are preferred alternatives that would benefit the faculty, community, Department of Education, and County of Maui.

Housing faculty off-site would also free up the land area identified for faculty housing for alternative school uses.



Lori Tzuhako  
Page 2  
November 30, 2010

We thank the Department of Housing and Human Concerns for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: B. Lowrey, DOE

CHARMAINE TAVARES  
Mayor  
JEFFREY S. HUNT  
Director  
KATHLEEN ROSS ACKI  
Deputy Director



received  
10.1.09

Mr. Gerald Park, Urban Planner  
September 28, 2009  
Page 2

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

September 28, 2009

Mr. Gerald Park, Urban Planner  
95-595 Kanamee Street, #324  
Mililani, Hawaii 96789

Dear Mr. Park:

**SUBJECT: COMMENTS ON A DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE LANAI HIGH AND ELEMENTARY SCHOOL MASTER PLAN, LOCATED AT 555 FRASER AVENUE, LANAI CITY, ISLAND OF LANAI, HAWAII; TMK(S): (2) 4-9-014:003, 004, 002 (POR.), AND TMK: (2) 4-9-002:058 (EAC 2009/0032)**

The Department of Planning (Department) is in receipt of the above-referenced document for the proposed Lanai High and Elementary School Master Plan project. The Department understands the proposed action includes the following:

1. A Master Plan to guide the physical expansion and development of the school over the next 25-plus years;
2. The Master Plan encompasses the existing school facilities and approximately 50 acres makai of the school;
3. The Draft EA is proposed by and will be accepted by the State of Hawaii Department of Education; and
4. The Department is a commenting agency on this project.

Based on the foregoing, the Department provides the following comments on the Draft EA:

1. The land use designations for the project area are as follows:
  - a. State Land Use: Urban and Agricultural
  - b. Lanai Community Plan: Single-Family, Public/Quasi-Public, and Park
  - c. County Zoning: Residential, Public/Quasi-Public (PK-3), and Park (PK-3)
  - d. Other: Not within the Special Management Area (SMA)

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793  
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7684  
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

These designations have not been verified by the Department's Zoning Administration & Enforcement Division (ZAED). Please submit a Zoning and Flood Confirmation Form to ZAED for land use designation clarification;

2. Confirm which Residential Zoning District the project falls into: R-1, R-2, or R-3;
3. The Department concurs that the use of State or County lands or funds is a "trigger" that requires compliance with Chapter 343, Hawaii Revised Statutes;
4. The Department concurs that the State of Hawaii Department of Education will be the Accepting Authority for the Draft EA;
5. Please give the Lanai Planning Commission (Commission) additional time beyond the deadline to comment as they will hold a meeting on October 21, 2009, to make comments. Their comments will be forwarded to you within one (1) week of the hearing date; and
6. An application for a State District Boundary Amendment (DBA) through Maui County will be required to re-designate the effected State Agricultural land to State Urban land. Because the effected land exceeds 15 acres, approval of the DBA would be by the State Land Use Commission.

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Joseph Prutch at [joseph.putch@mauicounty.gov](mailto:joseph.putch@mauicounty.gov) or at 270-7512.

Sincerely,

JEFFREY S. HUNT, AICP  
Planning Director

xc: Kathleen R. Aoki, Deputy Planning Director  
Clayton I. Yoshida, AICP, Planning Program Administrator  
Joseph M. Prutch, Staff Planner  
State Land Use Commission  
2009 EAC File  
General File

JSH:JMP:vb  
K:\WP\_DOCS\PLANNING\EAC\2009\0032\_LanaiSchool\MP\Comment\tr.doc

CHARMAINE TAVARES  
Mayor  
JEFFREY S. HUNT  
Director  
KATHLEEN ROSS-AOKI  
Deputy Director



COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

September 24, 2009



Mr. Gerald Park, Urban Planner  
September 24, 2009  
Page 2

xc: Kathleen R. Aoki, Deputy Planning Director  
Joseph M. Prutch, Staff Planner  
2009 EAC File  
General File

JSH:CY:JMP:vb  
K:\WP\_DOCS\PLANNING\EAC\2009\0032\_LanaiSchool\MP\CommentDeferLtr.doc

Mr. Gerald Park, Urban Planner  
95-595 Kanamee Street, #324  
Mililani, Hawaii 96789

Dear Mr. Park:

**SUBJECT: LANAI PLANNING COMMISSION (COMMISSION) COMMENTS  
ON THE DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR  
THE LANAI HIGH AND ELEMENTARY SCHOOL MASTER  
PLAN, LOCATED IN LANAI CITY, ON THE ISLAND OF LANAI,  
HAWAII; TMK(S): (2) 4-9-014:003, 004 (POR.), 002 (POR.), AND  
TMK: (2) 4-9-002:058 (EAC 2009/0032)**

The Lanai Planning Commission (Commission) reviewed the above Draft EA as a communication item at a published hearing on September 16, 2009. The Commission voted to defer their comments to the next hearing date of October 21, 2009, in order to have time to review the Draft EA and make educated comments. Their comments will be mailed to you within one (1) week of the meeting date. We understand their comments will be delivered after the deadline date, but in an email from you dated September 15, 2009, you mentioned that you would be willing to receive the Commission's comments after the close of the Commission meeting. Please be sure you or someone else familiar with the project is at the October 21, 2009 meeting to make a presentation and/or answer questions from the Commission.

Thank you for the opportunity to comment. Should you require further clarification, please contact Staff Planner Joseph Prutch at [joseph.prutch@mauicounty.gov](mailto:joseph.prutch@mauicounty.gov) or at 270-7512.

Sincerely,

for CLAYTON I. YOSHIDA, AICP  
Planning Program Administrator

for JEFFREY S. HUNT, AICP  
Planning Director



November 30, 2010

**GERALD PARK**  
Urban Planner

Kathleen Aoki, Planning Director  
Department of Planning  
County of Maui  
250 South High Street  
Kalana Pukui Building, Suite 200  
Wailuku, Hawai'i 96793

■ Planning  
Land Use  
Research  
Environmental  
Studies

Dear Ms. Aoki:

■ 1721 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

Subject: Lāna'i High and Elementary School Master Plan  
Tax Map Key: 4-9-014: 002, 003, 004, por. 005, por. 011  
4-9-002: por. 058

■ Lāna'i City, District of Lāhaina, Maui

■ Telephone:

(808) 596-7484

Facsimile:

(808) 596-7485

e-mail:

gparkurbanplanner  
@hawaiiplanet.net

Thank you for reviewing the Draft Environmental Assessment prepared for the Lanai High and Elementary School Master Plan. We offer the following response to your comments in the order they were presented.

1. Land Use Designation Confirmation

A Zoning and Flood Confirmation Form will be submitted to the Zoning Administration and Enforcement Division for land use designation confirmation.

2. Zoning

The proposed project is not within an R-1, R-2, or R-3 zoning district. Existing zoning designations are listed in Table 6. Land Use Controls and shown on Figure 13.

3. Land Use District Boundary Amendment

It is acknowledged that a state land use district boundary amendment will be required for expansion of the school beyond the existing Lāna'i Park and Tennis Courts. Application for a boundary amendment would be for the approximately 42± acres that the County of Maui proposes to transfer to the Department of Education. A petition for a boundary amendment will be submitted to the Land Use Commission since the area is greater than 15 acres prior to the Department of Education proceeding beyond the planning phase.

We thank the Planning Department for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: B. Lowrey, DOE

LINDA LINGLE  
GOVERNOR OF HAWAII



CRYSTIE IERUAHA FUKINO, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. Box 3378  
HONOLULU, HAWAII 96801-3378

In reply, please refer to:  
File: B10HEER 0908  
09-641-JP

October 1, 2009

Gerald Park  
Urban Planner  
95-595 Kanamee Street #324  
Mililani, Hawaii 96789

Facility/Site: Lāna'i High and Elementary School

Subject: Review of Draft Environmental Assessment, Lāna'i High and  
Elementary School Master Plan, Island of Lāna'i, prepared for the  
Department of Education by Gerald Park Urban Planner, August 2009

Dear Mr. Park:

The Hawai'i Department of Health (HDOH) Hazard Evaluation and Emergency Response Office (HEER Office) has reviewed the Draft Environmental Assessment and has the following comments:

Subsection 2(B)12 of the report, entitled "Environmental Site Assessment" contains information regarding evaluation of the site for hazardous substances (the HDOH HEER Office area of expertise). The findings cited in the report are quoted out of the Phase 1 Environmental Site Assessment (ESA) by ENPRO Environmental, and are consistent with my review of that Phase 1 ESA.

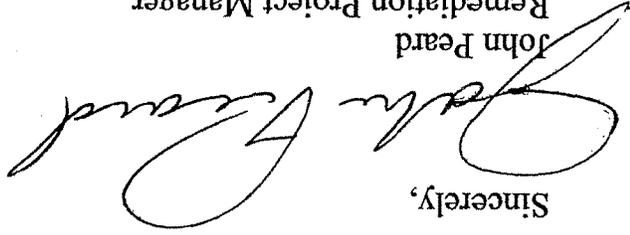
Section 7(5) of the report, entitled "Determination of Significance" notes that the Department of Education will begin a Phase 2 Environmental Site Assessment "to ascertain levels of pesticides and chemicals present and the respective levels of concentration". This action is also consistent with the findings and recommendations of the Phase 1 ESA.

The HEER Office is now working with ENPRO Environmental to finalize a Phase 2 ESA Sampling and Analysis Plan for the site. We have also met with representatives of the Dept. of Education and CDS International (site planners) regarding the development of the site Sampling and Analysis Plan. Once the Sampling and Analysis Plan is finalized and the soil sampling is conducted, the HEER Office will work with ENPRO

Environmental to review the results and help determine the need, if any, for follow-up investigations or remediation actions related to soil chemical concentrations at the site.

Please let me know if you have any questions or require additional information. I can be reached at (808) 933-9921 in Hilo or at [john.pearce@doh.hawaii.gov](mailto:john.pearce@doh.hawaii.gov). I would appreciate you forwarding a copy of this letter to Ms. Brenda Lowrey of the Department of Education Facilities Development Branch.

Sincerely,

  
John Pearce  
Remediation Project Manager

Hazard Evaluation and Emergency Response Office  
State of Hawaii Department of Health



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

**OFFICE OF PLANNING**

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

LINDA LINGLE  
DIRECTOR  
THEODORE E. LIU  
DIRECTOR  
MARK K. ANDERSON  
DEPUTY DIRECTOR  
ABBEY SETH MAYER  
OFFICE OF PLANNING

Telephone: (808) 587-2846  
Fax: (808) 587-2824

Ref. No. P-12768



September 21, 2009

Mr. Gerald Park  
Gerald Park Urban Planner  
95-595 Kanamee Street, #324  
Mililani, Hawaii 96789

Dear Mr. Park:

Subject: Draft Environmental Assessment for Lanai High and  
Elementary School Master Plan  
Tax Map Key: 4-9-014: 003, 004, 002 and 4-9-002:058 (portion)  
Lanai City, District of Lahaina, Maui, Hawaii

Thank you for sending the Office of Planning (OP) a Draft Environmental Assessment regarding the above referenced Lanai High and Elementary School Master Plan for the Department of Education, State of Hawaii.

The Office of Planning will be coordinating the State's position on areas of State concern. I am writing to request that the Final Environmental Assessment consider the impacts of the proposed project on the following issues:

- Water Resources** – Water resource protection and water quality are critical State issues. Please discuss the water requirements of the proposed project, the proposed potable and non-potable water sources to be used for the project, and what measures are proposed to reduce water demand and promote water reuse in the project. Please identify the impact of the project on the sustainable yield of affected aquifers, and the impact of the project on projected water use and system improvements contained in the County's water use and development plan.
- Agricultural Lands** – Preservation of important agricultural lands is a priority for the State and Counties. A major portion of the Master Planned area is situated on lands designated Agricultural. A petition for a change in land use designation must be submitted to the Land Use Commission for lands within the State Agricultural district. Please discuss how the loss of these lands can be justified or how other lands of equal importance can be protected.

Mr. Gerald Park  
Page 2  
September 21, 2009

3. **Public Health** – Please quantify the volume of solid waste likely to be generated by the project, and describe the impact the project will have on the County's existing and planned capacity for managing solid waste as represented in the County's solid waste management plan. Please discuss any mitigation measures to be incorporated in the project to reduce solid waste generation. If the project will have a potential to generate hazardous materials or result in the possible contamination of the air, soil, or water, please discuss how public health and safety will be protected. Please identify and discuss any potential health and environmental threats that may be present due to contamination from past or current use of the site, including findings from Phase I or Phase II environmental site assessments conducted at the site.

4. **Cultural, Archaeological, and Historic Resources** – Please identify the status of any monitoring and preservation plans being prepared for or approved by the State Historic Preservation Division.

5. **Energy Use and Impacts** – As the DEA states, all new buildings, facilities, and improvements associated with Lanai School will be designed and built as "sustainable" buildings per Leadership in Energy and Environmental Design (LEED) standards or equivalent per Act 96. Please quantify the projected energy requirements of the project by type of use, and discuss measures to be taken to reduce energy demand, promote energy efficiency, and to promote use of alternative, renewable energy sources. Please also provide a preliminary overview of LEED features that could be incorporated into the project, based on the U.S. GBC LEED checklists available.

6. **Development Timetable** – The State Land Use Commission (LUC) requires that projects seeking reclassification be substantially completed within ten years or seek incremental approvals. Development of the proposed project is anticipated to take over 25 years. The FEA should reference LUC rules (Section 15-15-50, Hawaii Administrative Rules), and provide a schedule of development for each phase of the total project and a map showing the location and timing of each increment of development.

The Office of Planning looks forward to receiving the FEA with the potential impacts and mitigation measures for the above issues addressed. If you have any questions, please call Debra Mendes in the Land Use Division at 587-2840.

Sincerely,  
  
Abbey Seth Mayer  
Director

c: Orlando Davidson, LUC



**GERALD PARK**  
Urban Planner

- Planning
- Land Use
- Research
- Environmental Studies

1721 Kapeolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

- Telephone:  
(808) 596-7484
- Facsimile:  
(808) 596-7485

e-mail:  
gparkurbanplanner  
@hawaii.net

November 30, 2010

Abbey Seth Mayer, Director  
Office of Planning  
Department of Business,  
Economic Development & Tourism  
PO Box 2359  
Honolulu, Hawaii 96804

Dear Ms. Mayer:

**Subject:** Lānaʻi High and Elementary School Master Plan  
Tax Map Key: 4-9-014; 002, 003, 004, por. 005, por. 011  
4-9-002; por. 058  
Lānaʻi City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lānaʻi High and Elementary School Master Plan. We offer the following responses to your comments in the order they were presented.

**1. Water Resources**

The projected average daily demand for the project has been revised from 0.241 million gallons per day to 0.103 million gallons per day. The revised water demand is being coordinated with the Lanai Water Company. The water source for the project is from the Lanai Central Sector.

A non-potable water source is currently not available for the project.

**2. Agricultural Lands**

As disclosed in the environmental assessment approximately 42.0 acres comprising a portion of the expansion area used to be in pineapple cultivation. The final pineapple harvest and phasing out of all pineapple operation on the island occurred in 1993. The land has been fallow since then.

For this project, justification for seeking alternative uses of agricultural land is predicated on the need for the project as stated in Section 1.A of the Draft Environmental Assessment.

To reiterate that need: As the school enters the 21<sup>st</sup> century, there is a need to upgrade the physical plant to accommodate forecasted enrollment increases, provide new, modern equipment and surroundings conducive to teaching and learning, expand educational opportunities for all residents of the island, and to provide safe, clean housing for faculty (and their families).

The proposed expansion area represents a logical extension of the existing school campus and retaining the school at its present location.



Abbey Seth Mayer  
November 30, 2010  
Page 2

It is not within the scope of this environmental assessment to discuss or recommend how other lands of equal importance should be protected.

**3. Public Health**

The County of Maui Integrated Solid Waste Management Plan (February 2009) provides quantitative data (such as solid waste projections and solid waste generation rates) for developing and implementing solid waste management strategies. Solid waste projections are based on demographic forecasts for the County by island to the year 2030. Increases in waste generation are primarily the result of increases in population and employment during the planning period (ISWP, 2009). The solid waste generation model estimates solid waste generated from residential and commercial sources. The model does not include waste generation rates or projections for institutional uses such as public schools. The volume of solid waste to be generated by the project thus cannot be quantified at this time.

The Lanai landfill is operated by the County of Maui. The ISWMP projects the landfill has capacity to the year 2020. Modifications to the final grading plan could add approximately 3.7 more years to the life of the site. Based on solid waste projections and generation rates for the island, it is anticipated that the landfill will reach its capacity as noted with or without the proposed school expansion. The proposed strategy is to keep the Lanai landfill open and active or putting it on standby with processing of municipal solid waste for shipment to off-island markets or disposal points.

Solid waste generated at Lanai High and Elementary School generally consists of white paper, cardboard, plastics, food waste, fats, oil, and grease, green waste, scrap metal, and general refuse. Chemicals used in science classes are disposed of following proper disposal protocols for the respective chemicals. Grubbed vegetation and construction material waste generated during construction will be disposed of by the general contractor.

The school collects and recycles aluminum containers, plastics, and glass as part of the HI5 program. Additional measures to reduce solid waste generation and contribution to the waste stream can be implemented by the school administration or the Department of Education.

The proposed school expansion is not expected to generate hazardous materials that would jeopardize public health and safety. Hazardous materials to be used and/or generated during classroom instruction (for example as part of a chemistry lab) will be under teacher supervision. Hazardous materials will be handled and disposed per appropriate disposal protocols.

Findings of the Phase I Environmental Site Assessment were disclosed and the Phase I Report appended in the Draft Environmental Assessment.



A Phase II Environmental Site Assessment (ESA) for the project area for the first phase/classroom building project has been completed. The Phase II study involved testing soil samples collected within the project area for levels of pesticides and chemicals present and the associated levels of concentration. The results of soil testing found that the level of all tested substances was well below the need for any mitigation or concern. A copy of the "No Action Determination" letter from the Department of Health, dated July 27, 2010 will be included in the Final Environmental Assessment.

4. Cultural, Archaeological, and Historic Resources

Monitoring and preservation plans for archaeological and historic resources have not been prepared. An archaeological assessment survey of the approximately 42.0 acre expansion area was conducted and did not reveal the presence of any archaeological features on the ground surface. More than likely years of pineapple cultivation demolished any and all such features. The State Historic Preservation Division has recommended archaeological monitoring be performed during the grubbing and grading of this area.

5. Energy Use and Impacts

Long-term energy requirements have not yet been projected. Projected energy use for each building phase will be described in the Final Lāna'i High and Elementary School Master Plan document.

Leadership in Energy and Environmental Design ("LEED") features to be incorporated into plans for each development phase will focus on storm water management, energy demand and efficiency, and water use. The identification of appropriate LEED features to future buildings and improvements will be left to the design team of record. Per state law, a minimum Silver level LEED certification or equivalent sustainable level of design will be pursued for all future projects.

6. Development Timetable

It is sufficient for the environmental assessment to disclose that a land use district boundary amendment will be required for the proposed expansion. The Department of Education, however, does not have a schedule for seeking a boundary amendment. The Department is aware of the Land Use Commission requirement that projects should be substantially completed within ten years after receiving Land Use Commission approval or request incremental approval.

A development schedule for each phase of the project and a map depicting the development schedule will be submitted as part of the petition to amend the state land use district boundary.



We thank the Office of Planning for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: B. Lowrey, DOE

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

October 1, 2009

Mr. Gerald Park  
Gerald Park Urban Planner  
95-595 Kanamee Street #324  
Millilani, Hawaii 96789

Dear Mr. Park:

Subject: Draft Environmental Assessment for Lanai High & Elementary School Master Plan

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Engineering Division, Commission on Water Resource Management, Land Division-Maui District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Historic Preservation will be submitting comments through a separate letter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

*Morris M. Atta*  
Morris M. Atta  
Administrator

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

October 1, 2009

Mr. Gerald Park  
Gerald Park Urban Planner  
95-595 Kanamee Street #324  
Millilani, Hawaii 96789

Dear Mr. Park:

Subject: Draft Environmental Assessment for Lanai High & Elementary School Master Plan

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Engineering Division, Commission on Water Resource Management, Land Division-Maui District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Historic Preservation will be submitting comments through a separate letter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

*Morris M. Atta*  
Morris M. Atta  
Administrator

LINDA LINGLE  
GOVERNOR OF HAWAII



RECEIVED  
LAND DIVISION

2009 SEP -2 A 8 11

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
HONOLULU, HAWAII 96809

September 1, 2009

TO: Morris Atta, Administrator  
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director  
Commission on Water Resource Management

SUBJECT: Lanai High and Elementary School DEA

FILE NO.: NA  
TMK NO.: (2) 4-9-014; various

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at <http://www.hawaii.gov/dlnr/cwrml>.

Our comments related to water resources are checked off below.

- 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of fixtures certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense/pp/index.htm>.
- 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <http://hawaii.gov/dbed/czm/initiative/ia.php>.

REF: LanaiSch.DEA

DRF-1A 06/19/2008

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LD/MorrisAtta  
Ref:DEALanaiHighElementarySchoolMP  
Hawaii.480

- 6. We recommend the use of alternative water sources, wherever practicable.
- 7. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM:

Additional information and forms are available at [http://hawaii.gov/dlnr/cwrmm/resources\\_permits.htm](http://hawaii.gov/dlnr/cwrmm/resources_permits.htm).

- 8. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water.
  - 9. A Well Construction Permit(s) is (are) required any well construction work begins.
  - 10. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
  - 11. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be abandoned by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
  - 12. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
  - 13. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.
  - 14. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.
  - 15. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
  - 16. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.
- OTHER:
- The document does not distinguish current use from anticipated additional water use nor clearly identify total water use requirements. Water resources on Lanai are limited, requiring careful attention to conservation standards and the maximum use of non-potable water sources for non-potable uses such as irrigation. Storm runoff may be a supplemental source. The following Conservation practices and low-flow fixtures should be fully explored:
- EPA Watersense approved plumbing fixtures/cafetieria pre-rinse sprays
  - Weather Based Irrigation Controllers
  - Low-water use plants for landscaping
  - Consider 0.5 liters/flush urinals or waterless urinals
  - Sub-metering
  - Micro-irrigation if applicable
  - Non-potable water for irrigation if available

If there are any questions, please contact Charley Ice at 587-0218.

COMMENTS

- We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone \_\_\_\_\_.
  - Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone X. The Flood Insurance Program does not have any regulations for developments within Flood Zone X.
  - Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_\_.
  - Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol T'you-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.
- Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:
- Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
  - Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.
  - Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
  - Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.
  - The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.
  - Additional Comments: \_\_\_\_\_
  - Other: \_\_\_\_\_

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed:   
ERIC T. HIRANO, CHIEF ENGINEER

Date: 9/27/09



RECEIVED  
LAND DIVISION

2009 SEP 28 A 9:05

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

August 25, 2009



MEMORANDUM

TO: DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - Maui District/Barbara Lee

FROM: Morris M. Atta *M. M. Atta*  
SUBJECT: Draft Environmental Assessment for Lanai High and Elementary School Master Plan

LOCATION: Island of Lanai

APPLICANT: Gerald Park Urban Planner on behalf of Department of Education

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by October 1, 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *M. M. Atta*  
Date: 9/27/09



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

August 25, 2009

RECEIVED  
LAND DIVISION

2009 SEP 17 A 10:04

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION

MEMORANDUM

TO: DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - Maui District/Barbara Lee

FROM: Morris M. Atta *M. M. Atta*  
SUBJECT: Draft Environmental Assessment for Lanai High and Elementary School Master Plan

LOCATION: Island of Lanai

APPLICANT: Gerald Park Urban Planner on behalf of Department of Education

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by ~~October 1, 2009~~ 2009.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: *M. M. Atta*  
Date: 9/14/09



**GERALD PARK**  
Urban Planner

- Planning
- Land Use
- Research
- Environmental
- Studies

1221 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

■ Telephone:  
(808) 596-7484  
Facsimile:  
(808) 596-7485  
e-mail:  
gparkurbanplanner  
@hawaii.net

November 30, 2010

Morris Atta  
Administrator, Land Division  
Department of Land and Natural Resources  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96809

Dear Mr. Atta:

**Subject:** Lānaʻi High and Elementary School Master Plan  
Tax Map Key: 4-9-014; 002, 003, 004, por. 005, por. 011  
4-9-002; por. 058

Lānaʻi City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lānaʻi High and Elementary School Master Plan. We offer the following responses to comments offered by several DLNR divisions in the order they were presented.

Commission on Water Resources Management

1. The Project will continue coordination with the Department of Planning, County of Maui.
2. Water demand calculations are enclosed for coordination with the Division of Engineering, Department of Land and Natural Resources.
3. Existing and proposed water demand calculations are enclosed.
4. The engineer and contractor responsible for each respective phase of work will be responsible for formulating and complying with best management practices.
16. The planned source of potable water is from the Lanai Central Sector.

Other: Existing and proposed water demand calculations are attached. A non-potable water source is currently not available.

Engineering Division

1. The Planning Department County of Maui indicated that the Federal Emergency Management Agency has not prepared a Flood Insurance Rate Map ("FIRM") for Lānaʻi. In lieu of the FIRM, the Planning Department places the entire island in FIRM Flood Zone "C".
- A Zoning and Flood Confirmation Form will be submitted to the Planning Department County of Maui for confirmation of zoning and flood hazard districts.
2. The requested water demand and calculations are enclosed for inclusion in the State Water Projects Plan Update.



Morris Atta  
November 30, 2010  
Page 2

We thank the Department of Land and Natural Resources for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

Enclosure: Water Demand Calculations

c: B. Lowrey, DOE

Project Title: Lanai School Master Plan  
 Location: Lanai, Hawaii  
 Item: Water Consumption

Job No.: 1-21350-0E  
 Prep By: AM  
 Chk By: MHO

Date: 06/22/09  
 Date: 02/20/09  
 Date: 12/17/09

Purpose: To provide calculated information to master planning Lanai School. Will be used in Draft Environmental Assessment, as request

**1. Current Estimated Water Consumption at Existing Campus**

Ans:

Given: Enrollment for school year 2007-2008 was 575 students (fr Gerald Park)  
 Existing School Area (from Autocadd):  
 Lot 2 345430 sf  
 Lot 3 461239.7 sf  
 806669.7 sf  
 18.52 acre

**DWS Standard**

Table 100-18 - Domestic Consumption Guidelines  
 Average Daily Demand for schools (higher governs)  
 60 gal/students  
 1700 gals/acre

60 gal/student x 575 students = 34,500 gal/day  
 1700 gals/acre x 18.52 acres = 31,484 gal/day

Select Average Daily Flow of 34,500 gal/day  
 Max Daily Demand 51,750 gal/day  
 1.5 x Avg Day  
 Peak Hour 103,500 gal/day  
 3.0 x Avg Day

**2. Project Water Demand for Ultimate Buildout (based on assumed enrollment of 700 students and 100 staff)**

60 gal/student x 800 students/staff = 48,000 gal/day  
 Increased area is 1825964 sf  
 41.92 ac

Proposed Area: 60.4 ac  
 1700 gals/acre x 60.4 acres = 102,743 gal/day

\* used area requirement since it yields higher water demand as indicated by DWS

\*Select Average Daily Flow of 102,743 gal/day  
 Max Daily Demand 154,114 gal/day  
 1.5 x Avg Day  
 Peak Hour 306,228 gal/day  
 3.0 x Avg Day

Fairfax A. Reilly  
P. O. Box 630111  
Lanai City, HI 96763

Ms. Brenda Lowrey  
State Department of Education  
Planning Section  
Facilities Development Branch  
Office of School Facilities and Support Services  
4680 Kalaniano'le Highway, TB1A  
Honolulu, HI 96821

October 2, 2009

Dear Ms. Lowrey,  
Re: Draft Environmental Assessment  
Lanai High & Elementary School Master Plan

The completion of the Draft Environmental Assessment in support of the Master Plan for Lanai High and Elementary School represents achievement of a clear and significant benchmark toward realizing the vision of delivery of educational services for children and adults on Lanai. We celebrate after years of attempts by the community to establish a compelling vision of quality education. Thanks to all who supported the efforts.

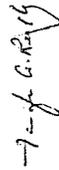
One important driving element is the P-20 concept of lifelong learning for residents of Lanai. The Master Plan incorporates the core belief that formal education must be provided from early childhood through advanced study throughout life.

The Master Plan describes the unique condition of the children and adults of Lanai in its remoteness from opportunities available to other communities. We must ensure that the educational services are available on Lanai. We cannot drive to other locations to access services. Children and adults living on Lanai must be able to compete with residents from all islands and the world. Without quality educational services on Lanai children and adults are at a distinct disadvantage.

I encourage the Master Plan to place a high priority within the Master Plan of comprehensive installation for access to the highest standards of broadband communications via fiber optic cable or wireless communications. Without access to high capacity broadband to children, staff and adults both within the complex and in the community our community will be inadequately served.

I believe comprehensive attention to the needs of the custodial needs for facilities and equipment as a major role for upkeep falls upon the custodial staff during and after construction. Adequate facilities and staffing will ensure that the new facilities are well maintained.

Sincerely,



Fairfax A. Reilly

Ms. Brenda Lowrey  
October 6, 2009  
Page 2



received  
10.08.09

October 6, 2009

Ms. Brenda Lowrey  
Planning Section  
Facilities Development Branch  
Office of School Facilities and Support Services  
4680 Kalanianaʻole Highway, TB1A  
Honolulu, Hawaii 96821

RE: Castle & Cooke Resorts, LLC Comments on Draft Environmental Assessment  
For Lanai High and Elementary School Master Plan

Dear Ms. Lowrey:

In review of the Draft Environmental Assessment (DEA) we would like to point various items that we feel should be addressed more fully. These items are:

- 1) Is the number of acres that the County will donate to the State DOE 42 or 50.017 acres?;
- 2) What is the projected date of actual construction of improvements (classrooms, infrastructure)? We understand that this EA is for a Master Plan, however some idea of when and if the project will take place should be projected;
- 3) Has there been any meetings or communications with the Lanai Water Company? If there were discussions what was the opinion of the Water Company on providing the projected 0.241 mgd of water?;

- 4) Figure 13 alludes to the fact that the project area is zoned for single family use. Besides a State District Boundary Amendment should not County Zoning also be a requirement?;
- 5) The Technical Reports listed in the Appendix were not included in the Draft EA package. We would like to review all technical reports prepared for this project.

Thank you for the opportunity to review the Draft Environmental Assessment.

Very truly yours,

Steven M. Bumbar  
President

SMB/rm

Cc: Gerald Park, Urban Planner  
95-595 Kanamee Street, #324  
Milliani, Hawaii 96789



November 30, 2010

Steven M. Bumbar, President  
Castle & Cooke Resorts, LLC  
PO Box 630310  
Lānaʻi City, Hawaii 96763

Dear Mr. Bumbar:

Subject: Lānaʻi High and Elementary School Master Plan  
Tax Map Key: 4-9-014: 002, 003, 004, por. 005, por. 011  
4-9-002: por. 058  
Lānaʻi City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lanai High and Elementary School Master Plan. We offer the following response to your comments in the order they were presented.

1. Acreage

The County of Maui has proposed donating approximately 50.017 acres to the State Department of Education to accommodate the proposed expansion of Lānaʻi High and Elementary School. The acreage includes the existing County park adjoining and makai of the school (8.017 acres) and 42.0 acres to the west of the aforementioned County park. The 42.0 acres is part of a 115.0 acre area that was transferred to the County of Maui by the former Lanai Company.

2. Construction Schedule

The first construction phase is scheduled for early 2011. The 6 Classroom building will be the first component to be constructed. The State of Hawaii has appropriated money for design and construction of the facility.

The actual construction dates of other components such as the Administration Center, Elementary School, and Play Fields have not been determined. These facilities will be programmed for construction as the need arises and funds are available and appropriated by the State for design and construction.

3. Meetings with Lanai Water Company

The estimated water demand of 0.241 million gallons per day has been revised to 0.103 million gallons per day. The revised water demand is being coordinated with the Lanai Water Company.

4. County Zoning

The approximately 42.0 acres to be transferred to the Department of Education is designated Single Family on the Lanai Community Plan. A change of zone and community plan amendment may be required prior to improving this area.

Steven Bumbar  
Page 2  
November 3, 2010

The Department of Education will apply for changes in both community plan designation and zoning prior to school expansion into the 42.0 acres. In addition, a state land use district boundary amendment from Agricultural to Urban will be required for the approximately 42.0 acres.

5. A CD with the technical reports prepared for the project is enclosed as requested.

We thank Castle & Cooke Resorts, LLC for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: B. Lowrey, DOE



GERALD PARK  
Urban Planner

■ Planning  
Land Use  
Research  
Environmental  
Studies

■ 1221 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

■ Telephone:  
(808) 596-7484

■ Facsimile:  
(808) 596-7485

■ e-mail:  
gparkurbanplanner  
@hawaiiantele.net

COPY

TO : GARY YABUTA, CHIEF OF POLICE, MAUI POLICE DEPARTMENT  
 VIA : CHANNELS  
 FROM : KIMBERLY MASSE, POLICE OFFICER III, LANAI SRO TO PLAQUE  
 SUBJECT : DRAFT ENVIRONMENTAL ASSESSMENT FOR LANAI HIGH & ELEMENTARY SCHOOL MASTER PLAN

SOME VALID CONCERNS BY OFC MASSE THAT SHOULD BE RELAYED TO PLAQUE

AC W. Myers 9/29/09

Sir, this to/from is respectfully submitted to give my input on the Draft Environmental Assessment for Lanai High & Elementary School Master Plan.

After reading the master plan, I met with Principal Pierce MYERS and went over my concerns with him. MYERS was helpful and answered all of my questions regarding this project. The following is a list of my concerns regarding the entire project phases.

1. For safety reasons, I asked if there was going to be a fence around the school. MYERS related the board talked about it, but they decided against it. As for the safety of the students, I feel there should be a fence around the entire school. Especially since the school will be expanded, it would be impossible to see who comes on campus at any time of day or night.
2. For the same concerns above, school security should be expanded by at least two more school security persons as well as cameras and security lights to cover the whole campus and to be expanded as the school expands.
3. I also felt that Maui Community College is too close to the regular school. This would be dealt with if there was a fence around the regular school to exclude MCC. MYERS related they wanted the college near the High School so our students would have easy access to classes. I felt that was a good idea, but having to deal with the previous years graduates on the first day of school each year, coming onto our campus, it is too easy if the college is right there. Another concern was due to possible sex offenders registering for college classes to get easy access to young children.
4. I was also concerned about traffic issues on Fifth Street. MYERS pointed out the new driveway entrances off of Fifth Street, to include a one way elementary drive for easy and safe drop off of elementary students. The high school and middle school would use the same drop off area as now.
5. There needs to be crosswalks at all intersections off Fifth Street to accommodate the crossing school children.
6. There will need to be one more crossing guard hired to accommodate the elementary parking and crossing area off Fifth Street.



CHARMAINE TAVARES  
MAYOR

OUR REFERENCE  
YOUR REFERENCE

COPY

**POLICE DEPARTMENT**  
COUNTY OF MAUI

55 MAHALANI STREET  
WAILUKU, HAWAII 96793  
(808) 244-6400  
FAX (808) 244-6411

September 29, 2009

GARY A. YABUTA  
CHIEF OF POLICE

CLAYTON N.Y.W. TOM  
DEPUTY CHIEF OF POLICE

received  
10.8.09

EAC 6/17

'09 SEP 30 AM 10:22

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

Mr. Gerald Park  
Gerald Park Urban Planner  
1221 Kapiolani Blvd., Suite 211  
Honolulu, HI 96814

Dear Mr. Park:

SUBJECT: DEA for Lanai High and Elementary School Master Plan  
TMK: 4-9-014: 003, 004, 002 and 4-9-002: 058 (por.)  
Lana'i City, Hawaii

Thank you for your letter of August 25, 2009, regarding the Draft Environmental Assessment for the above subject.

Please refer to a copy of the To-From submitted by Officer Kimberly Masse of our Lana'i District Station. Thank you for giving us the opportunity to provide comments.

Very truly yours,

*AC Deputy T. Ribao*  
Assistant Chief Wayne T. Ribao  
for: Gary A. Yabuta  
Chief of Police

c: Jeffrey S. Hunt, Maui County Planning Department

Page 2

7. A concern for parents on Fifth Street is the speeding vehicles and the blinding sun early in the mornings while traveling east bound on Fifth Street. A solution to this problem would be to add speed bumps or other type of speed control devices.

8. There should be left turn lanes added to the west bound lane of traffic on Fifth Street for easy access to all new driveways to be added.

9. There should be new school speed limit signs added to Fifth Street as well.

As for other traffic related issues, the only concern would be during the construction phase. I cannot anticipate any other problems at this time.

Thank you for your time and consideration regarding this request.

Respectfully submitted,

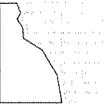


Kimberly MASSE e#11825  
Lanai SRO  
09/22/09 at 1242 hours

Officer Kimberly MASSE has brought up legitimate concerns regarding the safety of the younger children being close to the proposed college campus, and the various traffic related problems that could be addressed by suggestions that are provided. Submitted for consideration and review.



Lt. Ernest SOARES 0321  
9/24/09 @0945 Hrs.



**GERALD PARK**  
Urban Planner

- Planning
- Land Use Research
- Environmental Studies

■ 1221 Kapohahi Blvd  
Suite 211  
Honolulu, Hawaii  
96814

■ Telephone:  
(808) 596-7484  
Facsimile:  
(808) 596-7485

■ e-mail:  
gbarburbanplanner  
@hawaii.net

November 30, 2010

Gary A. Yabuta, Chief of Police  
Maui Police Department  
County of Maui  
55 Mahalani Street  
Wailuku, Hawaii 96793

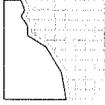
Dear Chief Yabuta:

**Subject:** Lānaʻi High and Elementary School Master Plan  
Tax Map Key: 4-9-014: 002, 003, 004, por. 005, por. 011  
4-9-002: por. 058  
Lānaʻi City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lānaʻi High and Elementary School Master Plan. We offer the following responses to your comments in the order they were presented.

1. The master plan does not propose fencing the existing campus and proposed expansion area. Perimeter fencing may be erected at certain locations as determined by future design plans or community needs.
2. The need for additional school security personnel will be determined by school administrators. Security lighting for new facilities will be considered during their design.
3. The proposed location of a future Maui Community College building was selected by the master planning committee consisting of DOE and community members.
4. A response is not required.
5. Crosswalks will be added as needed during the design of the proposed school facilities along 5<sup>th</sup> Street.
6. The need for an additional crossing guard will be considered when the elementary school is constructed along 5<sup>th</sup> Street.
7. Adding speed bumps and alternative speed control devices for traffic control is under the jurisdiction of the Department of Transportation, County of Maui.
8. A Traffic Impact Report prepared for the master plan did not recommend adding left turn lanes to access the new parking lot driveways.
9. Speed limit signs will be added along 5<sup>th</sup> Street as needed.

We thank the Maui Police Department for participating in the environmental assessment review process.



Gary A. Yabuta, Chief of Police  
Page 2  
November 30, 2010

Sincerely,

GERALD PARK URBAN PLANNER

*Gerald Park*

Gerald Park

c: B. Lowrey, DOE

CHARMAINE TAVARES  
Mayor

MILTON M. ARAKAWA, A.I.C.P.  
Director

MICHAEL M. MIYAMOTO  
Deputy Director

Telephone: (808) 270-7845  
Fax: (808) 270-7955



COUNTY OF MAUI  
**DEPARTMENT OF PUBLIC WORKS**  
200 SOUTH HIGH STREET, ROOM NO. 434  
WAILUKU, MAUI, HAWAII 96793

September 30, 2009

Mr. Gerald Park  
GERALD PARK URBAN PLANNER  
1221 Kapiolani Boulevard, Suite 211  
Honolulu, Hawaii 96814

Dear Mr. Park:

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT  
LANAI HIGH AND ELEMENTARY SCHOOL  
MASTER PLAN; TMK: (2) 4-9-014:003, 004,  
002 AND 4-9-002:058 PORTION; LANAI CITY**

We reviewed the subject application and have the following comments:

1. A road-widening lot shall be provided for the adjoining half of Fifth and Fraser to provide for a future 40 - 60 foot wide right of way and improved to County standards to include, but not be limited to pavement widening, construction of curb, gutter and sidewalk, street lights and relocation of utilities underground. Said lot shall be dedicated to the County upon completion of the improvements.
2. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations.
3. As applicable, construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.
4. As applicable, worksite traffic-control plans/devices shall conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.

Mr. Gerald Park  
September 30, 2009  
Page 2

Please call Michael Miyamoto at (808) 270-7845 if you have any questions regarding this letter.

Sincerely,

MILTON M. ARAKAWA, A.I.C.P.  
Director of Public Works

MMA:MMM:jc  
xc: Highways Division  
Engineering Division

S:\LUCAC\ZM\49014002\_003\_004\_49002058\_por\_lanai\_high\_and\_elementary\_school\_draft\_es\_jtc.wpd

received  
10.7.09



November 30, 2010

GERALD PARK  
Urban Planner

Milton M. Arakawa, A.I.C.P., Director  
Department of Public Works  
County of Maui  
200 South High Street  
Kalana O Maui Building, 4<sup>th</sup> Floor  
Wailuku, Hawaii 96793

■ Planning  
■ Land Use  
■ Research  
■ Environmental  
■ Studies

■ 1221 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

■ Telephone:  
(808) 596-7484  
Facsimile:  
(808) 596-7465

■ e-mail:  
gparkurbanplanner  
@hawaiiainet.net

Dear Mr. Arakawa:

Subject: Lāna'i High and Elementary School Master Plan  
Tax Map Key: 4-9-014: 002, 003, 004, por. 005, por. 011  
4-9-002: por. 058

Lāna'i City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lāna'i High and Elementary School Master Plan. We offer the following response to your comments in the order they were presented.

1. In regards to a road-widening lot for the adjoining half of 5th Street and Fraser Avenue, the Department of Education (DOE) would like to meet with the Department of Public Works to address the proposed requirements and the impact to the school.
2. The DOE shall construct required public improvements as required by Hawaii Revised Statutes, Maui County Code, and rules and regulations.
3. This comment is acknowledged.
4. This comment is acknowledged.

We thank the Department of Public Works for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: B. Lowrey, DOE

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAPOLEI, HAWAII 96707

LAURA H. THULEN  
GOVERNOR  
BOARD OF LAND AND NATURAL RESOURCES  
CHAIRPERSON  
OFFICE OF LAND AND NATURAL RESOURCES  
MANAGEMENT  
RUSSELL A. SMITH  
DEPUTY DIRECTOR  
SUSAN M. HARRIS  
DEPUTY DIRECTOR  
MARK C. KAWAKABA  
DEPUTY DIRECTOR  
ADAPTIVE RESOURCES  
BOB BING AND CO. INC. REPRESENTATIVE  
COMMISSION ON WATER RESOURCES MANAGEMENT  
COMMISSION ON WATER RESOURCES MANAGEMENT  
CONSERVATION AND RESOURCE DEVELOPMENT  
FORESTRY AND WILDLIFE  
HAWAIIAN HERITAGE  
HAWAIIAN HERITAGE  
HAWAIIAN HERITAGE  
HAWAIIAN HERITAGE  
STATE PARKS

**received**  
10.9.09  
via email

October 9, 2009

Mr. Gerald Park  
Gerald Park Urban Planner  
95-595 Kaname'e Street  
Mililani, Hawaii 'i 96789  
[@hawaiiintel.net](mailto:@hawaiiintel.net)

LOG NO: 2009.3466  
DOC NO: 0910PC17  
Archaeology

**SUBJECT: Chapter 6E-8 Historic Preservation Review – Draft Environmental Assessment for the Lana'i High and Elementary School Master Plan Kamoku Ahupua'a, Lahaina (Lana'i) District, Island of Lana'i**  
**TMK: (2) 4-9-002:058 por. and (2) 4-9-014:002, 003, 004**

Thank you for the opportunity to comment on the abovementioned project, correspondence for which we received on September 2, 2009.

We have reviewed and accepted an archaeological assessment report for the portion of the project which will occur within TMK (2) 4-9-002:058 (SHPD LOG NO: 2009.2980; DOC NO: 0910PC05). Based upon the negative findings of the archaeological investigation and the fact the precautionary archaeological monitoring will be undertaken during ground altering disturbance, we believe that the portion of the project proposed for TMK (2) 4-9-002:058 will have no effect on historic properties. However, we cannot comment on the master plan's effect on culturally significant historic properties that might be within the bounds of TMK (2) 4-9-014:002, 003 and/or 004 without a professional archaeological assessment. Culturally significant resources are routinely found in previously disturbed contexts, most especially those which have not been subject to residential, commercial or other forms of development.

As such, upon review of any permits associated with TMK (2) 4-9-014:002, 003 and/or 004, we recommend that an archaeological inventory survey is undertaken by a permitted archaeological consultant prior to approval of the permits by the County of Maui.

Gerald Park, Urban Planner  
Lana'i High and Elementary School Master Plan Draft Environmental Assessment  
Page 2 of 2

If you have any questions or comments regarding this letter, please contact the SHPD's Lead Maui Archaeologist, Ms. Patty Conte ([P.Conte@hawaii.gov](mailto:P.Conte@hawaii.gov)).

Aloha,

*Nancy A. McMahon*

Nancy McMahon, Deputy SHPO/State Archaeologist  
State Historic Preservation Division

c: Jeff Hunt, Director, Dept. of Planning, FAX (808) 270-7634



November 30, 2010

**GERALD PARK**  
Urban Planner

- Planning
- Land Use Research
- Environmental Studies

1221 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

■ Telephone: (808) 596-7484  
■ Facsimile: (808) 596-7485  
■ e-mail: gparkurbanplanner@hawaiiantei.net

Puaaioakalani Aiu, Administrator  
Historic Preservation Division  
Department of Land and Natural Resources  
State of Hawaii  
601 Kamokila Boulevard, Room 555  
Kapolei, Hawaii 96707

Dear Ms. Aiu:

Subject: Lānaʻi High and Elementary School Master Plan  
Tax Map Key: 4-9-014; 002, 003, 004, por. 005, por. 011  
4-9-002; por. 058

Lānaʻi City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lānaʻi High and Elementary School Master Plan. We offer the following responses to your comments in the order they were presented.

At this time, an archaeological inventory survey is not proposed for Tax Map Key 4-9-014; 003 and 004, the site of the existing Lānaʻi High and Elementary School, since no major building construction is proposed.

For Tax Map Key 4-9-014; 002, the Department of Education (DOE) plans to meet with the State Historic Preservation Division's Maui Archaeologist to review the recommendation that an archaeological survey be undertaken due to the negative findings of both survey done for the adjacent parcel to the west and the done for the County of Maui's Affordable Housing project to the north. The DOE will then follow the recommendation that results from that discussion.

We thank the State Historic Preservation Division for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

  
Gerald Park

c: B. Lowrey, DOE

LINDA LINGLE  
STATE OF HAWAII



KAULANA H. R. PARK  
CHAIRMAN  
HAWAIIAN HOMES COMMISSION  
ANTHONY A. WONG  
SECRETARY  
DEPUTY TO THE CHAIRMAN  
ROBERT J. HALL  
EXECUTIVE ASSISTANT

STATE OF HAWAII  
DEPARTMENT OF HAWAIIAN HOME LANDS  
P.O. BOX 1879  
HONOLULU, HAWAII 96805

October 9, 2009

received  
10-17-09  
PH 10/15

Mr. Gerald Park  
Gerald Park Urban Planner  
95-595 Kanamee Street #324  
Mililani, Hawaii 96789

Subject: Draft Environmental Assessment (DEA) for Lāna'i High  
and Elementary School Master Plan  
Tax Map Key 4-9-014:003, 004, 002 and 4-9-002:058  
portion.

Lāna'i City, District of Lahaina, Maui

Aloha Mr. Park:

Thank you for the opportunity to comment on the Draft Environmental Assessment (DEA) for the Lāna'i High and Elementary School Master Plan. The Department of Hawaiian Home Lands (DHHL) owns approximately 50 acres on the island of Lāna'i and we are currently in the process of developing a Lāna'i Regional Plan. The DHHL's property is adjacent to the Lāna'i High and Elementary School.

As adjacent landowners, engaging in our own planning process, it is our responsibility to participate and plan appropriately for the larger region. In addition, it is our priority to ensure that DHHL's plans are as consistent as possible with other plans in the area.

In general we support the expansion and renovation of the proposed facilities outlined in the subject master plan, but would like to provide the following comments:

- 1. The master plan should clearly describe how a water source for the DHHL's future homes and development will not be

Mr. Gerald Park  
October 9, 2009  
Page 2

- impacted by the increased use of water for the school expansion.
- 2. The master plan should consider jointly constructing infrastructure that benefits the County of Maui's Affordable Housing Project and the DHHL's residential program.
- 3. A six-foot wide easement on the south side of 5<sup>th</sup> Street, in favor of the DHHL is in process with the County of Maui. The purpose of this easement is to maintain the current alignment of sidewalk area parallel to 5<sup>th</sup> Street.
- 4. The drainage plan should ensure that drainage not flow through DHHL property.
- 5. With the anticipated increase in traffic flow, consider various types of traffic calming to prevent speeding on 5<sup>th</sup> Street.
- 6. Ensure that the capacity of the 8-inch wastewater gravity sewer line can accommodate the sewage flow from the DHHL's property.

We thank you for the opportunity to comment on the project. We will continue, as an adjacent landowner, to do what we can to assist in your planning efforts. If you have any questions, please contact Kaleo Manuel at our Planning Office at 620-9485.

Aloha and mahalo,

Kaulana H.R. Park, Chairman  
Hawaiian Homes Commission

Enclosures



November 30, 2010

Kaulana H.R. Park, Chairman  
Hawaiian Homes Commission  
91-5420 Kapolei Parkway  
Hale Kālānianaʻōle

Kapolei, Hawai'i 96707

Dear Chairman Park:

**Subject:** Lāna'i High and Elementary School Master Plan  
**Tax Map Key:** 4-9-014; 002, 003, 004, por. 005, por. 011  
4-9-002; por. 058  
**Lāna'i City, District of Lahaina, Maui**

Thank you for reviewing the Draft Environmental Assessment prepared for the Lanai High and Elementary School Master Plan. We offer the following responses to your comments in the order they were presented.

**1. Water Source**

The proposed water demand for the project will be coordinated with the State, County, and Lanai Water Company.

**2. Joint Infrastructure Development**

The County of Maui, Department of Hawaiian Home Lands, and the Department of Education have initiated discussion on a joint effort in the planning, design, and construction of road and sewer infrastructure since all three have projects planned in the same area. The Department of Education is of the opinion that a coordinated infrastructure development plan and the sharing of infrastructure costs for road and sewer improvements primarily along 5<sup>th</sup> Street would be in the public interest and benefit all projects.

At this time, a coordinated infrastructure improvement plan for the three projects has not been prepared. It is anticipated that on-going discussion will result in a coordinated plan between the three parties.

**3. Easement**

The Department of Education acknowledges the six-foot wide easement on the south side of 5<sup>th</sup> Street being negotiated between the County and DHHL and will incorporate any easements into the final master plan.

**4. Drainage Plan**

The existing drainage flow direction will be maintained through the site. The drainage flow will not be diverted to negatively affect the Department of Hawaiian Home Lands residential subdivision.

Kaulana H.R. Park  
Page 2  
November 30, 2010

**5. Traffic**

The Department of Education, Department of Hawaiian Home Lands, and the County of Maui should jointly consider traffic calming measures as the land along 5<sup>th</sup> street is developed for educational, residential, and community uses.

**6. Sewer Line Capacity**

Based on information from the Department of Environmental Management, County of Maui, the existing wastewater system currently has adequate capacity to accommodate the proposed sewer flow. Off-site improvements to the existing sewer system will be provided if required.

We thank the Department of Hawaiian Home Lands for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: B. Lowrey, DOE



GERALD PARK  
Urban Planner

- Planning
- Land Use
- Research
- Environmental
- Studies

1221 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

Telephone: (808) 596-7484  
Facsimile: (808) 596-7485

e-mail: gparkurbanplanner@hawaiianet.net

CHARMAINE TAVARES  
Mayor  
JEFFREY S. HUNT  
Director  
KATHLEEN ROSS AOKI  
Deputy Director



COUNTY OF MAUI  
DEPARTMENT OF PLANNING

October 23, 2009

received  
11.22.09

Mr. Gerald Park, Urban Planner  
October 23, 2009  
Page 2

Mr. Gerald Park, Urban Planner  
95-595 Kanamee Street, #324  
Mililani, Hawaii 96789

Dear Mr. Park:

**SUBJECT: LANAI PLANNING COMMISSION (COMMISSION) COMMENTS  
ON THE DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR  
THE LANAI HIGH AND ELEMENTARY SCHOOL MASTER  
PLAN, LOCATED IN LANAI CITY, ISLAND OF LANAI, HAWAII;  
TMK(S): (2) 4-9-014:003, 004 (POR.), 002 (POR.), AND  
TMK: (2) 4-9-002:058 (EAC 2009/0032)**

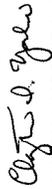
At its regular meeting on October 21, 2009, the Commission reviewed the above-referenced document and provided the following comment and/or questions:

1. How will the aquifer classifications be addressed; (Page 26, Table 4)
2. Please address how adequate parking will be provided along Fifth Street during all phases of construction;
3. Provide information on how buildings will be constructed in a "Green" manner. Maybe provide what level of LEED's certification you plan to achieve;
4. Provide details on how chemicals found in soil will be addressed; (Page 45, Summary of Environmental Impacts)
5. Explain the funding strategy for the entire length of the development and what could occur should funding become unavailable for the project;
6. Provide water calculations for dust spraying during construction and clarify that you plan to use non-potable water for this activity;
7. Provide water consumption calculations for total build out of the project. Please contact the Lanai Water Company [Attention: John Stubbard at (808) 565-3352] before preparing water calculations;

8. Provide information detailing where landscaping plants will be obtained. If plants are to be shipped to Lanai then they should be agriculturally checked for bugs before being delivered;
9. Will the athletic ball fields be available for public/organization use;
10. Will on-site drainage be above/below ground and where will it be located; and
11. The word Holopape is spelled incorrectly on Page 21, Geology.

Thank you for the opportunity to comment and for allowing the Commission the additional time to comment. Should you require further clarification, please contact Staff Planner Joseph Prutch at [joseph.prutch@mauicounty.gov](mailto:joseph.prutch@mauicounty.gov) or at 270-7512.

Sincerely,

  
CLAYTON I. YOSHIDA, AICP  
Planning Program Administrator

for JEFFREY S. HUNT, AICP  
Planning Director

xc: Kathleen R. Aoki, Deputy Planning Director  
Lanai Planning Commission  
Joseph M. Prutch, Staff Planner  
2009/EAC File  
General File

JSH:CHY:JMP:sg  
K:\WP\_DOCS\PLANNING\EAC\2009\0032\_LanaiSchool\MP\LPCComments.doc



**GERALD PARK**  
Urban Planner

■ Planning  
Land Use  
Research  
Environmental  
Studies

■ 1221 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

■ Telephone:  
(808) 596-7484  
Facsimile:  
(808) 596-7485  
e-mail:  
gparurbanplanner  
@hawaiiinternet.net

November 30, 2010

Sally Kaye, Chair  
Lānaʻi Planning Commission  
250 South High Street  
Wailuku, Maui, Hawaiʻi 96793

Dear Ms. Kaye:

Subject: Lānaʻi High and Elementary School Master Plan  
Tax Map Key: 4-9-014: 002, 003, 004, por. 005, por. 011  
4-9-002: por. 058

Lānaʻi City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lānaʻi High and Elementary School Master Plan. We offer the following responses to your comments in the order they were presented.

1. Aquifer Classification

The data source for the aquifer classification shown in Table 4 is "Aquifer Identification and Classification for Lānaʻi" by Mink and Lau (1993). The reference identifies and describes aquifers on the island and provides a status code for each. The status code represents location, hydrology, utility, water quality, and contamination potential. With respect to contamination potential, the authors state that in Hawaii, aquifers can be described simply as being either vulnerable to contamination or not vulnerable to contamination because of the geographical limits of the resources, interconnection among ground water sources, and relatively rapid time of groundwater travel. Most unconfined aquifers are vulnerable; confined aquifers may or may not. The potential for contamination used in this classification (high moderate, low, none) is the based on familiarity with environmental conditions [presumably the authors familiarity with environmental conditions.].

2. Construction Parking Along 5<sup>th</sup> Street

It is anticipated that the site work contractor will provide an on-site area for vehicle parking during construction and provide secure parking for construction equipment at nights and on weekends. Because of the phased construction schedule, parking areas will be located on the respective project site and not limited to a single location.

The 6-classroom building will be the first new building to be constructed. The project is currently in the design stage and areas for construction staging and parking will be accommodated off-street.

3. Green Buildings

All new building construction will comply at a minimum with the latest Leadership in Energy and Energy Design ("LEED") Silver Standard, or equivalent per Act 96.



Lānaʻi Planning Commission  
November 3, 2010  
Page 2

Projected energy use for each phase will be described in the Final Lanai High and Elementary School Master Plan document as well as a preliminary overview of LEED features that can be employed for all new building construction.

4. Hazardous Materials in Soils

A Phase II Environmental Site Assessment (ESA) for the project area for the first phase/classroom building project has been completed. The Phase II study involved testing soil samples collected within the project area for levels of pesticides and chemicals present and the associated levels of concentration. The results of soil testing found that the level of all tested substances was well below the need for any mitigation or concern. A copy of the "No Action Determination" letter from the Department of Health, dated July 27, 2010 will be included in the Final Environmental Assessment

5. Funding Strategy

The school expansion will be funded through the State of Hawaii capital improvements program (or CIP). Funding for the design and construction of the 6-classroom building has already been appropriated.

Funding for the remainder of the improvements has neither been requested nor appropriated.

6. Dust Control

Water quantities for dust control during construction cannot be determined at this time. Non-potable water for dust control will be utilized, if available.

7. Water Consumption Calculations

Water calculations are enclosed. Please note that the projected water demand has been revised from 0.241 million gallons per day to 0.103 million gallons per day. The revised water demand is being coordinated with the Lanai Water Company.

8. Landscape Plantings

The origination point for landscape plantings has not been determined as part of the master planning process. In general it will be up to the selected landscape contractor to procure the specified plant materials.

All plants being shipped to Lanai from the other Hawaiian Islands have to be inspected by the State Department of Agriculture and stamped prior to shipping. The inspection can be performed either at the nursery site or at the State Department of Agriculture inspection station the day prior to shipping.



9. Public Use of Athletic Fields

The use of the school's athletic ball fields by entities other than the DOE is determined by the Principal through Use of Facility requests. The Lānaʻi High and Elementary School Principal values the support of the community and is open to receiving requests.

10. On-site Drainage

On-site drainage will be accommodated by above and below ground improvements. Within the school grounds underground piping will collect and discharge runoff into unlined or lined culverts. On-site runoff will be directed to the south side of the school into an existing drainage channel. A lined or unlined open channel will be constructed extending the channel to the south corner of the Expansion Area below the proposed Faculty Housing Area.

11. Spelling

Hulopoe was erroneously spelled as Hulopae in the referenced text. The style for spelling Hulopae on page 21 is to indicate that the letter "o" in brackets should replace the preceding letter "a".

We appreciate the participation of the Lānaʻi Planning Commission in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: B. Lowrey, DOE

Enclosure: Water Demand Calculations

Purpose: To provide calculated information to master planning Lānaʻi School. Will be used in Draft Environmental Assessment, as request

1. Current Estimated Water Consumption at Existing Campus

Ans:

Given: Enrollment for school year 2007-2008 was 575 students (fr Gerald Park)  
Existing School Area (from Aulocad):  
Lot 2 345430 sf  
Lot 3 461239.7 sf  
806669.7 sf  
18.52 acre

DWS Standard  
Table 100-18 - Domestic Consumption Guidelines  
Average Daily Demand for schools (higher governs)  
60 gals/students  
1700 gals/acre

60 gal/student x 575 students = 34,500 gal/day  
1700 gals/acre x 18.52 acres = 31,484 gal/day

Select Average Daily Flow of 34,600 gal/day  
Max Daily Demand 51,750 gal/day  
Peak Hour 1.5 x Avg Day  
3.0 x Avg Day 103,500 gal/day

2. Project Water Demand for Ultimate Buildout (based on assumed enrollment of 700 students and 100 staff)

60 gal/student x 800 students/staff = 48,000 gal/day  
increased area is 1825964 sf  
41.92 ac

Proposed Area: 60.4 ac  
1700 gals/acre x 60.4 acres = 102,743 gal/day  
\* used area requirement since it yields higher water demand as indicated by DWS

Select Average Daily Flow of 102,743 gal/day  
Max Daily Demand 154,114 gal/day  
Peak Hour 1.5 x Avg Day  
3.0 x Avg Day 308,228 gal/day

CHARMAINE TAVARES  
Mayor



**DEPARTMENT OF PARKS & RECREATION**

700 Hali'a Nakoa Street, Unit 2, Wailuku, Hawaii 96793

October 22, 2009

Mr. Gerald Park  
Gerald Park Urban Planner  
95-595 Kanamee Street #324  
Milliani, Hawaii 96789

Dear Mr. Park:

**SUBJECT: Draft Environmental Assessment for Lanai High and Elementary School Master Plan, TMK: 4-9-014: 003, 004, 002, and 4-9-002: 058 Portion**

We have reviewed the subject document and submit the following comments:

1. The existing area identified in the draft as Lanai Park, includes a playground, as well as the tennis and basketball courts.
2. Be advised that funds for improvement of the Tennis and Basketball courts were provided through the Land and Water Conservation Fund (LWCF). Department of the Interior. As such, the facility is protected under federal funding requirements that the facility be kept for public recreational use into perpetuity unless replaced by a similar facility that has been similarly dedicated. We note that the demolition of these public recreational facilities is projected to occur in phase 2A and the replacement of the county courts is projected to occur in phase 4B. This will violate our prior agreement for use of the federal funds.
3. Lanai is a small community with limited resources. Notwithstanding the federal requirements, the removal of these courts with no immediate plans for replacement will have a major impact on the community. Replacement of these recreational facilities should be included in the same phase as the demolition.
4. There is no mention of replacing the county playground.

Thank you for the opportunity to review and comment on this matter. We look forward to further discussion and resolution of our concerns. Please feel free to contact me or Patrick Matsui, Chief of Planning & Development at 270-7387 should you have any additional questions on this matter.

Sincerely,

*Tamara Horcajo*  
TAMARA HORCAJO  
Director of Parks & Recreation

c: Patrick T. Matsui, Planning & Development

TH:PTM:do



GERALD PARK  
Urban Planner

- Planning
- Land Use
- Research
- Environmental
- Studies

1221 Kapiolani Blvd.  
Suite 211  
Honolulu, Hawaii  
96814

Telephone:  
(808) 596-7484  
Facsimile:  
(808) 596-7485

e-mail:  
gparkurbanplanner  
@hawaii.net

December 2, 2010

Tamara Horcajo  
Director of Parks and Recreation  
Department of Parks and Recreation  
700 Hali'a Nakoa Street, Unit 2  
Wailuku, Hawaii 96793

Dear Ms. Horcajo:

Subject: Lāna'i High and Elementary School Master Plan  
Tax Map Key: 4-9-014: 002, 003, 004, por. 005, por. 011  
4-9-002: por. 058  
Lāna'i City, District of Lahaina, Maui

Thank you for reviewing the Draft Environmental Assessment prepared for the Lanai High and Elementary School Master Plan. We offer the following responses to your comments in the order they were presented.

1. The playground at Lāna'i Park is identified as part of the Lāna'i Park and Tennis Courts on page 43 of the Draft Environmental Assessment. The play equipment will be included in the relocation of the court facilities.
- 2/3. Thank you for apprising us of the federal funding that was used to construct the court improvements. To honor the agreement that requires the facility be kept for public recreational use in perpetuity unless replaced by a similar facility, the phasing of the master plan will be updated.  
  
The revised Master Plan will propose relocating the playground and courts at Lāna'i Park and Tennis Courts to the new permanent location along Fifth Street, across from the County's proposed affordable housing project, prior to removal of the existing facilities. This revised phasing will be addressed in the Final Environmental Assessment (FEA).
4. The FEA will include replacement of the county playground as part of the relocated county park on 5<sup>th</sup> Street.

We appreciate the participation of the Department of Parks and Recreation in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

*Gerald Park*

Gerald Park

c: B. Lowrey, DOE

## APPENDIX B

### AGENCY DETERMINATIONS

- A. Department of Health, "No Action Determination", July 27, 2010
- B. State Historic Preservation Division, "No Effect Determination", October 9, 2009

LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME LEINAALA FUKINO, M.D.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. Box 3378  
HONOLULU, HAWAII 96801-3378

In reply, please refer to:  
File: EHA/HEER Office  
2010--401-JP

July 27, 2010

Duane Kashiwai, Public Work Administrator  
Hawai'i Department of Education, Facilities Development Branch  
1151 Punchbowl St. Room 431  
P.O. Box 2360  
Honolulu, HI 96804

Facility/Site: Lana'i High & Elementary School, Lana'i City, Hawai'i

Subject: No Action Determination for potential contaminant exposures in soil and soil gas at Lana'i High & Elementary School site, Lana'i City, Hawai'i, TMK:(2) 4-9-014:002 (~ 8 acres)

Dear Mr. Kashiwai:

This letter is to inform you that the Hawaii Department of Health, (HDOH), Hazard Evaluation and Emergency Response Office (HEER Office) has reviewed the Phase II Soil Sampling Report, Lanai High & Elementary School Master Plan Project, dated April 30, 2010 (revised on July 26, 2010) and conducted by ENPRO Environmental. This report describes contaminant characterization activities and results for an 8-acre site adjacent to the Lana'i High and Elementary School that is proposed for future school development use. The attached map (Figure 10 from the report cited above) shows an aerial view of the specific area examined in the investigation (the area was divided into 3 sub-units for evaluation). The investigation did not include the land directly below the surfaced area used for tennis/basketball courts occurring within sub-units 1 and 3.

Based on a review of the site investigation data in this report, the HEER Office has determined there is no evidence of a hazardous substance release on this property. The site currently poses no known threats to human health or the environment, and no action is required as a result of these findings.

Thank you for conducting an environmental evaluation of this property. Should you have any questions concerning this letter or the evaluation of data from this site, please contact John Peard at [john.peard@doh.hawaii.gov](mailto:john.peard@doh.hawaii.gov) or (808) 933-9921 in Hilo.

Letter to Mr. Duane Kashiwai  
July 27, 2010  
Page 2

Sincerely,

A handwritten signature in black ink that reads "Fenix Grange". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Fenix Grange, Supervisor  
Site Discovery, Assessment and Remediation Section  
Hazard Evaluation and Emergency Response Office

: attachment

cc: Ms. Roberta Bitzer, ENPRO Environmental  
Mr. Christopher Parker, CDS International  
Ms. Brenda Lowrey, HI Dept. of Education



Figure 10  
DECISION UNIT LOCATIONS

Approximate Scale: 1 inch = 200 feet

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

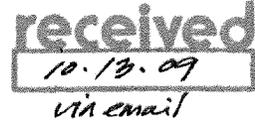
STATE HISTORIC PRESERVATION DIVISION  
601 KAMOKILA BOULEVARD, ROOM 555  
KAPOLEI, HAWAII 96707

LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI  
FIRST DEPUTY

KEN C. KAWAHARA  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS



October 9, 2009

Mr. Gerald Park  
Gerald Park Urban Planner  
95-595 Kaname'e Street  
Mililani, Hawai'i 96789  
[@hawaiiintel.net](mailto:@hawaiiintel.net)

LOG NO: 2009.3466  
DOC NO: 0910PC17  
Archaeology

**SUBJECT: Chapter 6E-8 Historic Preservation Review – Draft Environmental Assessment for the Lana'i High and Elementary School Master Plan  
Kamoku Ahupua'a, Lahaina (Lana'i) District, Island of Lana'i  
TMK: (2) 4-9-002:058 por. and (2) 4-9-014:002, 003, 004**

Thank you for the opportunity to comment on the abovementioned project, correspondence for which we received on September 2, 2009.

We have reviewed and accepted an archaeological assessment report for the portion of the project which will occur within TMK (2) 4-9-002:058 (SHPD LOG NO: 2009.2980; DOC NO: 0910PC05). Based upon the negative findings of the archaeological investigation and the fact the precautionary archaeological monitoring will be undertaken during ground altering disturbance, we believe that the portion of the project proposed for TMK (2) 4-9-002:058 will have no effect on historic properties. However, we cannot comment on the master plan's effect on culturally significant historic properties that might be within the bounds of TMK (2) 4-9-014:002, 003 and/or 004 without a professional archaeological assessment. Culturally significant resources are routinely found in previously disturbed contexts, most especially those which have not been subject to residential, commercial or other forms of development.

As such, upon review of any permits associated with TMK (2) 4-9-014:002, 003 and/or 004, we recommend that an archaeological inventory survey is undertaken by a permitted archaeological consultant prior to approval of the permits by the County of Maui.

Gerald Park, Urban Planner  
Lana'i High and Elementary School Master Plan Draft Environmental Assessment  
Page 2 of 2

If you have any questions or comments regarding this letter, please contact the SHPD's Lead Maui Archaeologist, Ms. Patty Conte ([.J.Conte@hawaii.gov](mailto:.J.Conte@hawaii.gov)).

Aloha,

A handwritten signature in cursive script that reads "Nancy A. McMahon".

Nancy McMahon, Deputy SHPO/State Archaeologist  
State Historic Preservation Division

c: Jeff Hunt, Director, Dept. of Planning, FAX (808) 270-7634