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JOBIE M. K. MASAGATANI
CHAIRMAN
HAWAIIAN HOMES COMMISSION

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P O BOX 1879
HONOLULU, HAWAII 96805

March 27, 2013

Mr. Gary Gill, Acting Director
Office of Environmental Quality Control
Department of Health, State of Hawaii
235 S. Beretania Street, Room 702
Honolulu, Hawaii 96813

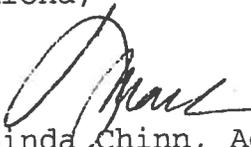
Dear Mr. Gill:

Re: Draft Environmental Assessment (DEA-AFONSI),
Kalamaula Homesteaders Association, Kiowea Park
Phase II Improvements, TMK: (2) 5-2-09:018,
Kalamaula, Island of Molokai

Please publish a notice for this community-based project in the next OEQC Environmental Notice Publication. Enclosed is a completed OEQC Publication form, two hard copies of the DEA-AFONSI, an Adobe Acrobat PDF file of the same, and an electronic copy of the publication form in MS Word. Simultaneously with this letter, we have submitted the above-listed forms and a summary of the draft EA by electronic mail to your office.

If you have any questions regarding the project, please contact Carolyn Darr, Land Agent at (808) 620-9457 or via email at carolyn.i.darr@hawaii.gov, or Nancy McPherson, Senior Planner at (808)620-9519 or via email at nancy.m.mcpherson@hawaii.gov.

Aloha,


Linda Chinn, Administrator
Land Management Division

Enclosures

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL
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**APPLICANT ACTIONS
SECTION 343-5(C), HRS
PUBLICATION FORM (JULY 2012 REVISION)**

Project Name: KIOWEA PARK PHASE II IMPROVEMENTS
Island: Molokai
District: Kalama'ula
TMK: (2) 5-2-009:018 (portion)
Permits: Building Permit, Electrical and Plumbing Permits
Approving Agency: State of Hawaii, Department of Hawaiian Home Lands
Land Management Division
P.O. Box 1879, Honolulu, HI 96707
Linda Chinn, Administrator (808) 620-9500
Applicant: Kalama'ula Homesteaders Association
P.O. Box 1025, Kaunakakai, HI 96748
Ms. Gayla Haliniak-Lloyd, President (808) 553-5393
Consultant: Architectural Drafting Service
Luigi Manera, Principal
P.O. Box 1718
Kaunakakai, HI 96748 (808) 553-9045

Status (check one only):

- DEA-AFNSI** Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqc@doh.hawaii.gov); a 30-day comment period ensues upon publication in the periodic bulletin.
- FEA-FONSI** Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqc@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.
- FEA-EISPN** Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and PDF copy (you may send both summary and PDF to oeqc@doh.hawaii.gov); a 30-day consultation period ensues upon publication in the periodic bulletin.
- Act 172-12 EISPN** Submit the approving agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to oeqc@doh.hawaii.gov). NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.
- DEIS** The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.
- FEIS** The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.
- Section 11-200-23 Determination** The approving agency simultaneously transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the applicant. No comment period ensues upon publication in the periodic bulletin.
- Statutory hammer Acceptance** The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it failed to timely make a determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and that the applicant's FEIS is deemed accepted as a matter of law.
- Section 11-200-27 Determination** The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.
- Withdrawal (explain)**

Summary (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page):

Construction of slab-on-grade 4,000 sq. ft. pavilion, 40 feet by 100 feet, 20 feet in height, located 133 feet from the shoreline, with 2 restrooms, certified kitchen and office; new septic system; and parking and drainage improvements in an existing, previously graded and developed community park on Hawaiian Home Lands. Subject property, known as Kiowea Park (ca. 1920's), is on a little over half of a 5.15-acre parcel located on the south central coast of Molokai, adjacent to historic Kapuaiwa Coconut Grove (ca. 1860's), approximately 1 mile west of Kaunakakai, identified by TMK (2)5-2-009:018. Existing facilities (ca. 1950's) include a 700 sq. ft. covered pavilion, a 320 sq. ft. restroom and shower facility, barbecue grills, cesspool, and parking lot, and installed site utilities including water, electric and telephone service. In the late 1990's, Phase I renovations included grading and fill, installation of irrigation and landscaping, and upgrading of cesspool to septic system. Kalamaula Homesteaders Association was granted a license in 2010 to manage the area and has reinitiated Phase II improvements, as park facilities are no longer adequate to serve the needs of park users. A new pavilion and restrooms will relieve pressure on existing facilities, locate new facilities further inland from coastal hazards, and better serve the recreational needs of the community.

KIOWEA PARK PHASE II IMPROVEMENTS

DRAFT ENVIRONMENTAL ASSESSMENT

**TMK: (2) 5-2-009:018
Kaunakakai, Molokai, Hawai'i**

**PREPARED FOR:
KALAMA'ULA HOMESTEADERS ASSOCIATION
MS. GAYLA HALINIAK-LLOYD, PRESIDENT
PO BOX 1025
KAUNAKAKAI, HI 96748**

**Prepared by:
Architectural Drafting Service
P.O. Box 1718
Kaunakakai, HI 96748**

MARCH 27, 2013

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I. PROJECT INFORMATION

A. PREFACE

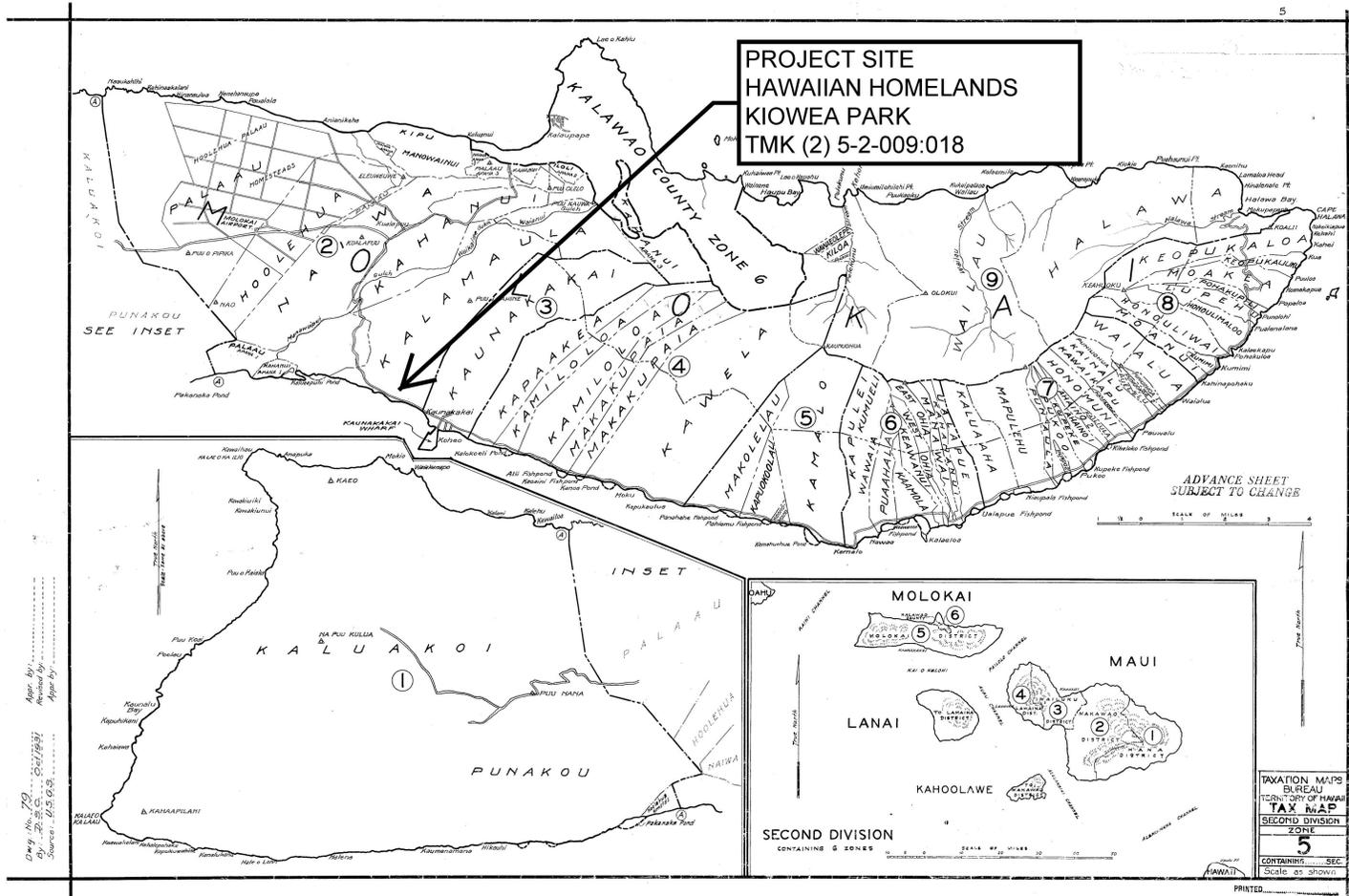
The Applicant, Kalama‘ula Homesteaders Association, intends to construct a new pavilion, certified kitchen, restroom facilities, individual wastewater system, and parking, drainage and landscaping improvements in an existing community park on Hawaiian Home Lands in Kalama‘ula, Moloka‘i order to better serve the recreational needs of the homesteaders of Molokai and the greater Molokai community. On behalf of the Applicant, and under the direction of the approving agency and land owner, the Department of Hawaiian Home Lands, this Draft Environmental Assessment has been prepared to meet the requirements of Chapter 343 of the Hawaii Revised Statutes to facilitate the proposed construction of Kiowea Park Phase II Improvements.

The subject parcel is 5.15 acres in area, lies along Molokai’s south-central shoreline, and is identified by TMK (2) 5-2-009:018. The project site consists of the western four (4) acre portion of the subject parcel. The project site is in the makai area of a larger 5,118 acre tract of Hawaiian Home Lands, consisting of most of the ahupua‘a of Kalama‘ula, which is over 6,000 acres in area and stretches from the sea to approximately 2,000 feet in elevation. *(See Figure 1, Regional Location Map, and Figure 2, TMK Location Map)*

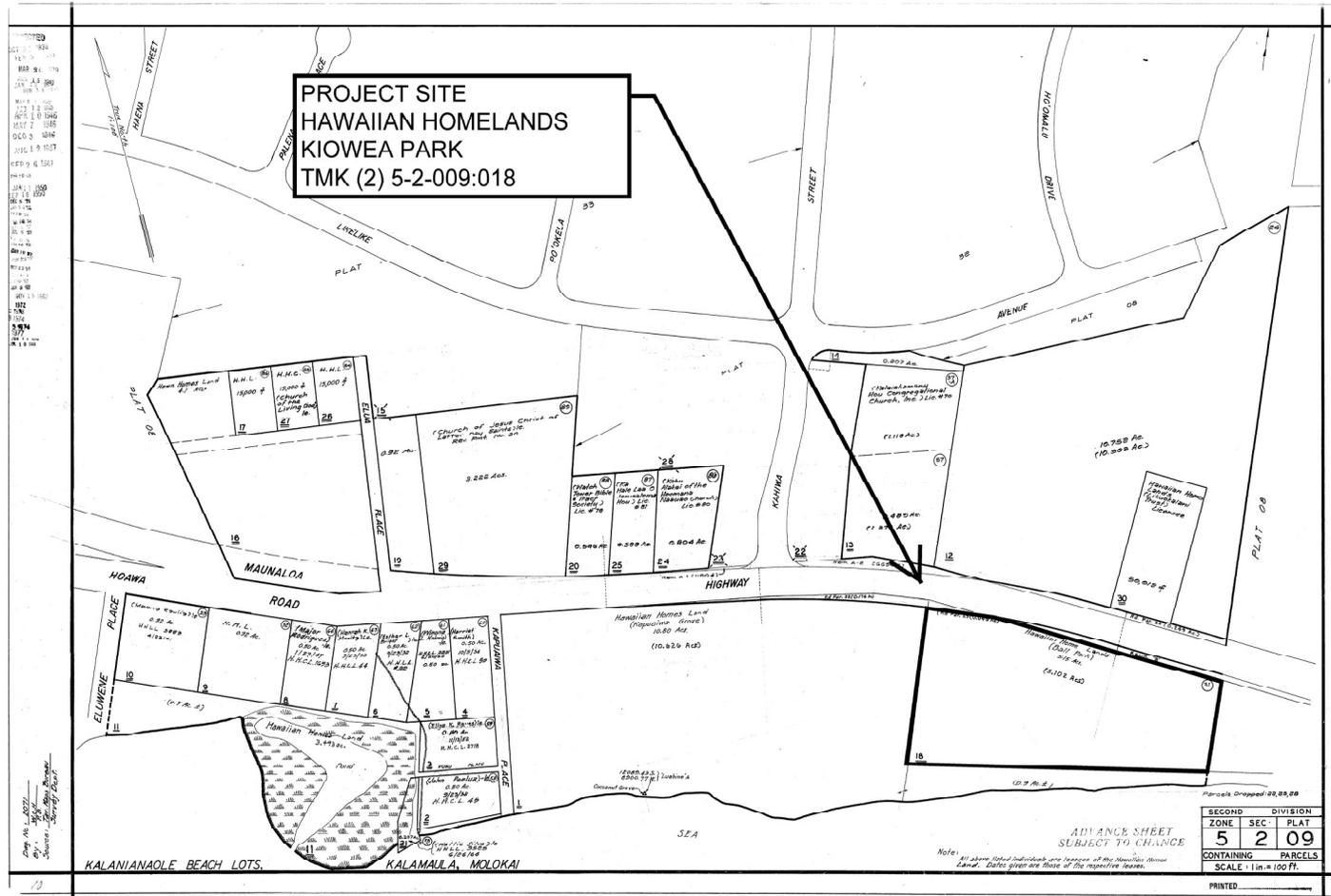
B. PURPOSE OF THE REQUEST

This Draft Environmental Assessment has been prepared in support of the proposed Kiowea Park Phase II Improvements, consisting of construction of a new pavilion 4,000 square feet in area, including enclosed certified kitchen, restrooms, and office; Individual Wastewater Treatment System (IWS); and parking, landscaping and drainage improvements. Regular use of the park by large groups, mainly for family reunions, graduation and baby parties, has strained the existing facilities. A new pavilion and restrooms will provide additional newer park facilities, relieve pressure on the existing older facilities, and better accommodate the island’s recreational needs.

KIOWEA PARK - FIGURE 01 - REGIONAL LOCATION MAP



KIOWEA PARK - FIGURE 02 - TMK LOCATION MAP



Pre-consultation requests for preliminary comments were submitted to the agencies listed in item “H” below and have been addressed throughout the environmental assessment.

C. PROJECT PROFILE

Proposed Action:	Construction of a new pavilion 4,000 square feet in area, with certified kitchen, restrooms, and office; Individual Wastewater Treatment System (IWS); and parking, landscaping and drainage improvements.
Existing Land Use:	Community Use - Park
Area of Project Site:	3.97 acres
Total Parcel Area:	5.15 acres
Access:	State Route 460 (Maunaloa Highway), via existing driveway

D. REQUIRED LAND USE AND DEVELOPMENT PERMITS & APPROVALS

The following development permits and approvals are required for the project, and are in the process of being obtained:

- IWS Approval from State Department of Health (approved)
- Building, Electrical and Plumbing Permits (in process)

The parcel is categorized for Community Use in the DHHL Molokai Island Plan, is located in the State Land Use - Rural District, is designated Rural in the Moloka'i Community Plan and is zoned Interim per Title 19, Maui County Code. The property is in the Special Management Area (SMA), is within the Tsunami Evacuation Zone and lies partially inside the FEMA flood zone. *(See Figure 1 through Figure 11)*

Pursuant to the Hawaiian Homes Commission Act, as amended, and supported by opinions issued by the State Attorney General's Office, the Hawaiian Homes Commission has exclusive control over use of Hawaiian Home Lands and exercises it through its Island Plans and planning system. DHHL may choose to not require its

beneficiaries to conform with State land use, County zoning or SMA permitting requirements, especially as they may restrict Community Use projects by and for Hawaiian Homes beneficiaries on Hawaiian Home Lands. However, project review by the DHHL Planning Office includes assessment using coastal zone management criteria and use of best practices in shoreline and erosion management. Infrastructure and site improvements have been designed to meet minimum County standards, and best practices will be employed to mitigate erosion, runoff and other potential environmental impacts during construction.

E. APPROVING AGENCY

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

F. IDENTIFICATION OF THE APPLICANT

Applicant:

KALAMA'ULA HOMESTEADERS
ASSOCIATION
MS. GAYLA HALINIAK-LLOYD, PRESIDENT
PO BOX 1025
KAUNAKAKAI, HI 96748
(808) 560-1007

Landowner:

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

G. CONSULTANT

EA Preparer:

Luigi Manera
Architectural Drafting Service
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Phone:

(808) 553-9045

Fax:

(808) 553-3952

Contact:

Luigi Manera, luigis@hawaiiantel.biz

H. PRE-CONSULTATION – AGENCIES CONTACTED

GOVERNMENT AGENCIES

1. State of Hawaii, Department of Health, Maui District Health Office
2. State of Hawaii, Department of Health, Honolulu Office
3. State of Hawaii, Department of Transportation, Statewide Planning Office
4. State of Hawaii, Department of Land and Natural Resources
5. State of Hawaii, Department of Accounting and General Services
6. State of Hawaii, Office of Hawaiian Affairs
7. State of Hawaii, Department of Hawaiian Home Lands, Molokai District Office
8. State of Hawaii, Dept. of Business, Economics and Tourism, Office Of Planning
9. County of Maui, Department of Public Works
10. County of Maui, Department of Planning
11. County of Maui, Department of Water Supply
12. County of Maui, Department of Parks and Recreation, Molokai Office
13. County of Maui, Department of Fire and Public Safety
14. County of Maui, Police Department
15. USDA, Natural Resources Conservation Service (NRCS), Molokai Office
16. Tri-Isle Soil and Water Conservation District, Molokai Office
17. United States Department of the Interior, U.S. Fish and Wildlife Service

PRIVATE AGENCIES

1. Maui Electric Company (MECO)
2. Ahupua'a Natives, Arleone Dibben-Young, Molokai

I. PRE-CONSULTATION – COMMENTS RECEIVED

GOVERNMENT AGENCIES

1. State of Hawaii, Department of Health, Clean Air Branch
2. State of Hawaii, Department of Health, Clean Water Branch
3. State of Hawaii, Department of Transportation, Highways Division, Planning Branch
4. State of Hawaii, Office of Hawaiian Affairs
5. State of Hawaii, Dept. of Business, Economics and Tourism, Office Of Planning, Coastal Zone Management Program
6. County of Maui, Department of Planning
7. County of Maui, Police Department
8. United States Department of the Interior, U.S. Fish and Wildlife Service

PRIVATE AGENCIES

1. Ahupua'a Natives, Arleone Dibben-Young

II. DESCRIPTION OF THE PROPERTY AND PROPOSED ACTION

A. PROPERTY LOCATION

The subject property is a shoreline parcel located on the south central coast of Molokai, in the area known historically as “Kapuāiwa Grove,” approximately 1 mile west of Kaunakakai, identified by TMK 5-2-009:018. The project site is on an approximately four (4) acre portion, the western side of the parcel, which lies along Molokai’s south-central shoreline. The property is bordered by Maunaloa Highway to the north, the shoreline area and ocean to the south, Kapuāiwa Grove Park to the west and a one acre portion with Kalanianaʻole Hall to the east. (See *Figure 1 and Figure 2*) “The ahupua’a of Kalama’ula, which is located near the midpoint of the south shore of Molokai, covers an area of over 6,000 acres, from sea level to over 1,700 feet elevation. Behind a narrow and relatively level coastal flat, the land rises gradually to the western heights of the east Molokai range; this slope is cut only by several narrow gulches which diagonally score the very stony landscape.” (Tomonari-Tuggle 1983)

The Kalamaula Tract (originally the Kalanianaʻole Colony) consists of 5,118 acres, or most of the original Kalama’ula ahupua’a. This parcel is mauka of Kamehameha V Highway, gently sloping upland to Pu’u Luahine (372 ft. elevation) transected with the declining slopes of Kuhuaawi Gulch and Kaluaoho Gulch. The elevation ranges from sea level to close to 1,800 feet above sea level. Kalama’ula consists of multiple uses with a growing residential community in the lowlands and coastal region, wetlands in the southwestern corridor, pastoral uses, and the community uses of Kapuāiwa Grove, Church Row, and Kūlana ‘Ōiwi Multi-Service Center (Kūlana ‘Ōiwi).

B. PAST AND PRESENT LAND USE

Categorized as a “kalana” in Cathy Summers’ *Molokai: A Site Survey* (Bishop Museum, 1971), Kalama’ula was an area rich with ‘uala (sweet potato) cultivation in the a’a (rocky highlands) and of fishponds, springs and other fertile agricultural and aquacultural areas near the shoreline. The winds of Kalama’ula are the ‘Ukiukiu and the Alahou. Six or seven fishponds, several springs, inland ponds, and four heiau, as well as two kahua

maika (ulu maika courses) and one site of petroglyphs, were listed as being located in Kalama'ula in *Molokai: A Site Survey* (Summers 1971: 38, 84-86). The spring, possibly called Kamaloko, which used to flow into the ocean, is located makai of the highway and west of the project site. George Cooke wrote that the spring had been covered with six feet of silt when it was relocated, that 'opae could be seen in the spring, and that ". . . John Pua'a, who located the spring for me, told me that sugar cane, bananas and taro were grown on its banks as it flowed toward the ocean." (Summers 1971: 84-86) There have been continuous traditional land and shoreline uses in the area from pre- to post-contact, as documented in Hommon and Ahlo: "Rents collected by the Konohiki of Kalama'ula between 1858 and 1861 include monies for taro patches, coconut trees, a fishpond and a squid fishery...". Use of the shoreline area and nearshore reef for subsistence has always been and continues to be important for Native Hawaiians on Molokai, as there is ". . . a significant degree of continuity from the prehistoric period since Molokai was slow to feel the effects of contact with the Western world." (Hommon and Ahlo 1983)

Major, accelerated change occurred with the arrival of Europeans starting in the 1770's, mainly in the form of faster ships, firearms, metal implements and nails, and grazing animals and commercial plantation-style farming. The latter two changes in land use and agricultural methods, coupled with unsustainable harvesting of the upland forests for koa and other woods for trade, fuel and construction, caused massive degradation of the hillsides and fringing reefs for the next 100 years. (Field et al:124-125) By the turn of the 19th century, goats, swine, sheep, cattle, horses and Axis deer were running wild over the island, eating the native vegetation down to the ground and spreading invasive plant species. Loss of forest cover compromised the watersheds and diminished water resources, erosion and siltation increased exponentially, and springs, wetlands and fishponds were inundated with mud, with soil depositions measured at a rate of one foot every six years. (Field et al:125) Molokai Ranch moved to a paddock system for cattle starting in 1898, and the American Sugar Company introduced mangrove in 1902 "...in an effort to stabilize the coastal mudflats at Pālā'au in south-central Molokai and hold back the soil washed down by heavy rains into the sea." (Field et al:126)

The Hawaiian Homes Commission Act was passed by Congress in 1921, at which time the federal government set aside 200,000 acres of land for homesteading by Hawaiians with 50 percent or more native Hawaiian blood. The author of the bill was Prince Jonah Kuhio Kalanianaʻole, Hawaii's delegate to congress. In 1922, the first homestead area settled, as a five year pilot project, was Kalanianaʻole Colony. Once the Kalanianaʻole Colony experiment was deemed a success in 1926, the homesteading program was initiated in earnest. By 1930, problems with salinity and pests moved the Commission to open up the Hoolehua area so that Kalamaula settlers could relocate there [Keesing:30]

The Kapuāiwa Grove coconut trees were originally planted by Henry Meyer under order of King Kamehameha V (Lot Kapuāiwa) in the 1800's, and the area has since been used traditionally by the Molokai population as a gathering place for the community. Large luau, hukilau and other feasts and celebrations were held regularly, and Kalanianaʻole Hall (to the east of the project site), which was used for meetings of the Ahahui o Kalanaianaʻole (founded in 1932), social events, funerary preparations and other important community functions, was built by the Ahahui in 1937 on a one acre portion of a five acre parcel granted to the society by the Hawaiian Homes Commission.

Kiowea Park comprises the remaining four acres of the subject Hawaiian Home Lands parcel in Kalama'ula. In the 1960's, the Department of Hawaiian Homelands (DHHL) constructed a 700 square foot covered pavilion, 320 sq. ft. restroom facilities, cesspool, and parking improvements, and installed site utilities including water and electrical service in order to better serve the recreational needs of the homesteader community.

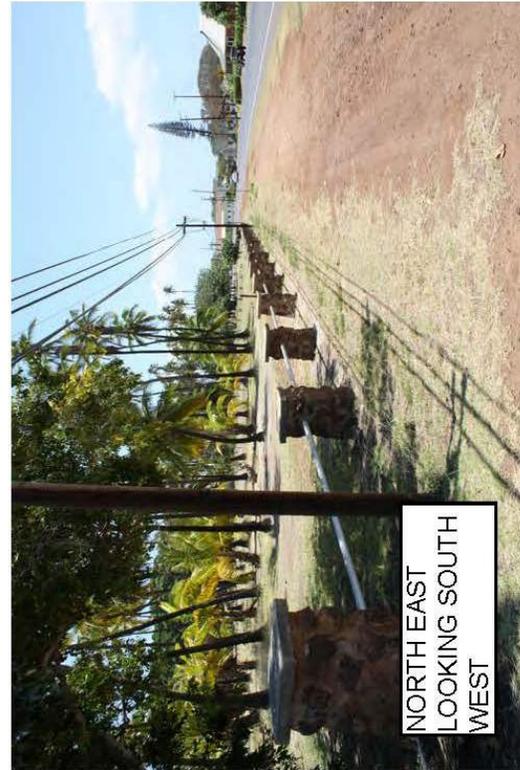
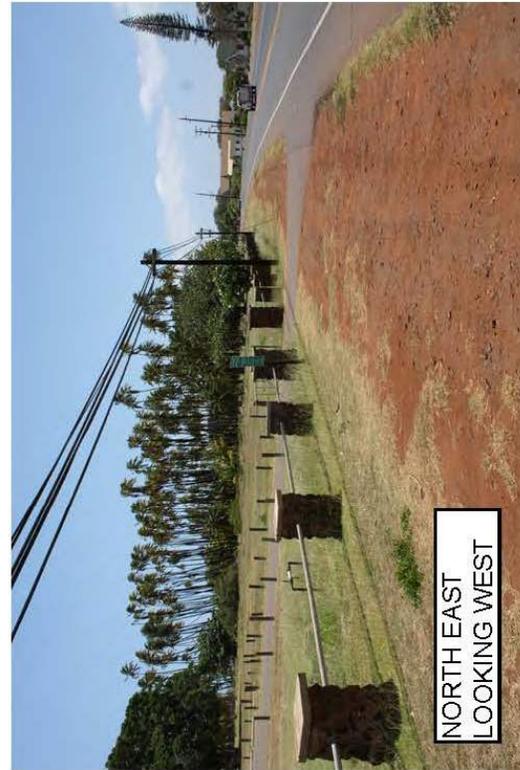
Between 1998 and 2002, the following upgrades and improvements to existing facilities were done at the park by DHHL in partnership with the Kalama'ula Homesteaders Association/Kiowea Park Improvement Advisory Committee: repairs and renovations to Kiowea Park's pavilion and restrooms; installation of an Individual Wastewater System (conversion of cesspool to septic); installation of concrete sidewalk and patio sink, irrigation system, fencing and landscaping; drainage improvements including grading and fill; and parking lot improvements.

Management and maintenance of Kiowea Park continued under the jurisdiction of DHHL through the Ahupua'a o Molokai homesteader organization until 2010. In August of 2010 DHHL authorized issuance of a license agreement with Kalama'ula Homesteaders Association (KHA) to manage, operate and maintain the grounds and pavilion of Kiowea Park, as authorized by Hawaii Administrative Rules, Section 10-4-32. KHA continues voluntary stewardship of Kiowea Park in accordance with KHA's mission.

The Kalama'ula Homesteaders Association has established a viable partnership for this project with the State of Hawaii, Department of Hawaiian Home Lands, Hawaii National Guard, and Maui County Public Works Department. The park improvements originally consisted of two phases, Phase I (renovations to existing facilities) which were exempt from Chapter 343 review and completed in the early 2000's, and Phase II (expansion), that was planned in 1998 and is now being revived. Presently, KHA's membership and its executive board perform the functions of the association. Oversight of the project for a new pavilion at Kiowea Park is performed by KHA's Kiowea Park Committee. The committee's resource support includes a drafting service under the supervision of a licensed architect, a licensed contractor, carpenters and various other skilled individuals.

The native Hawaiian homesteaders ("beneficiaries") within Molokai's Hawaiian Homestead community have priority to rent and utilize Kiowea Park and are the park's primary user population. Kiowea Park is centrally located, with facilities that are conducive to large gatherings such as picnics, baby luau, family reunions and camping. The park's amenities currently include outmoded restrooms, aging barbecue grills, and an undersized sheltered pavilion. The park facilities are in demand due in part to their central and shoreline location, and also due to relatively low rental rates as well as the limited nature of facilities elsewhere on the island. Since 2004, regular use of the park has strained existing facilities. A new pavilion and restrooms will provide relief for the existing facilities and will more adequately accommodate the island's recreational and social needs.

KIOWEA PARK - FIGURE 03 - SITE PHOTOGRAPHS - PAGE 1



KIOWEA PARK - FIGURE 03 - SITE PHOTOGRAPHS - PAGE 2



KIOWEA PARK - FIGURE 03 - SITE PHOTOGRAPHS- PAGE 3



KIOWEA PARK - FIGURE 03 - SITE PHOTOGRAPHS - PAGE 4



KIOWEA PARK - FIGURE 03 - SITE PHOTOGRAPHS - PAGE 5



C. LAND USE AND OTHER DESIGNATIONS

DHHL Land Use Designation:	CU Community Use (See Figure 11, Molokai Island Plan Land Use)
State Land Use Classification:	Rural (See Figure 4, State Land Use Map)
Moloka'i Community Plan Land Use:	R Rural (See Figure 5, Molokai Community Plan Map)
County Zoning:	Interim (See Figure 13, County Zoning Confirmation)
Flood Zone Designation:	Zone AE (area of 100-year flooding) and Zone X (See Figure 8, FHAT Map)
Special Designations	SMA (See Figure 10, SMA Map) Tsunami Inundation Zone (See Figure 9, Tsunami Evacuation Maps)

D. PURPOSE AND NEED

After years of disease and devastation brought by foreigners, in the 1920's the Hawaiian people looked with hope to Kalama'ula, Molokai as a place "I ka ho'opulapula," a place for regeneration. "For sure, you are native, softly fragrant, Kalama'ula." "*E ho'i kaua, e noho i ka 'aina*, we are leaving to live on the land. "*Me ka nani*, all 'aina is beautiful." "*He ho'i mai kaua*," "we return, to the splendor of Kalama'ula." ¹ Kalama'ula homesteaders' love for their 'āina continues with the illumination of their kupuna and ancestors. The Kalama'ula Homesteaders Association (KHA), a nonprofit 501c(3) entity since January 2010, was founded in 1961 with the purpose to "embrace our kuleana (responsibility) to malama (protect and nurture) our homesteaders and our ahupua'a. Kalama'ula homesteaders are reminded that the future is found in the past – 'I ka wa ma mua, ka wa ma hope.'"

The application of this powerful Hawaiian proverb is based on the association's purpose and mission:

- To challenge and inspire youth who live on homestead land to achieve their full potential by providing support and opportunities for advance in education;
- To promote better health for our Kalama'ula community and homesteaders outside of Kalama'ula through education; and

¹ "*Kalamaula*," song and lyrics written by the late Hannah Dudoit

- To preserve and protect Hawaii's natural environment, including Kiowea Park in Kalama'ula in particular, through stewardship of our lands consistent with Hawaiian culture and values and traditional methods of resource management.

This Draft Environmental Assessment has been prepared in support of the proposed construction of a new pavilion 4,000 square feet in area, with certified kitchen, restrooms, and office; second Individual Wastewater Treatment System (IWS); and parking and drainage improvements. Regular use of the park has strained the existing facilities. A new pavilion and restrooms will provide relief for the existing facilities and better accommodate the island's needs.

The proposed project triggers an Environmental Assessment based upon the following: HRS "§343-5 Applicability and requirements. (a) Except as otherwise provided, an environmental assessment shall be required for actions that:

(1) Propose the use of state or county lands or the use of state or county funds, other than funds to be used for feasibility or planning studies for possible future programs or projects that the agency has not approved, adopted, or funded, or funds to be used for the acquisition of unimproved real property; provided that the agency shall consider environmental factors and available alternatives in its feasibility or planning studies; provided further that an environmental assessment for proposed uses under section 205-2(d)(11) or 205-4.5(a)(13) shall only be required pursuant to section 205-5(b)".

E. ALTERNATIVES CONSIDERED

1. No Action

Analysis. As previously noted, the subject property is located in the State Rural Land Use District and is designated Community Use (CU) in the DHHL Molokai Island Plan, Community Plan Land Use "Park" in the Molokai Community Plan and Interim zoning per the Maui County Code, Title 19. The project is designed to provide a recreational facility that is adequate for the community's needs. Under the "No Action" alternative, the applicant would not be able to fulfill the intent of constructing a recreational facility that is adequate for the community it is intended to serve. This alternative was not deemed a viable option and was therefore eliminated from consideration.

2. Deferred Action

Analysis. This option would have similar consequences as the "No Action" alternative in that implementation of the project would be deferred indeterminately. There would be continued strain on the existing facilities, and additional strain would be placed on other recreation facilities in the area as the availability of park facilities would remain at the same level. Additionally, availability of Department of Hawaiian Home Lands resources as well as availability of volunteer resources offered by the homesteaders and the National Guard could be determining factors in proceeding with the development of the subject property. Further delays could jeopardize the availability of these resources.

3. UH School of Architecture Alternative

Analysis. In 1998 the School of Architecture, University of Hawaii at Mānoa proposed a Kiowea Park Renovation Project (See Appendix I, University of Hawaii at Mānoa Kiowea Park Renovation Project). The design was initially based on the concept of multiple smaller-scale structures linked with pathways, but after consultation with the Homesteader Advisory Committee, the proposal was revised to consist of a pavilion with an adjoining kitchen, in a modified "L" shape. This project design was carefully considered but ultimately did not fit the requirements of the homesteader population and was removed from consideration. It was decided that a single large structure would better suit the needs of the community by housing all facilities under one roof and creating a sense of togetherness.

No other viable alternatives were generated therefore none were considered.

III. DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

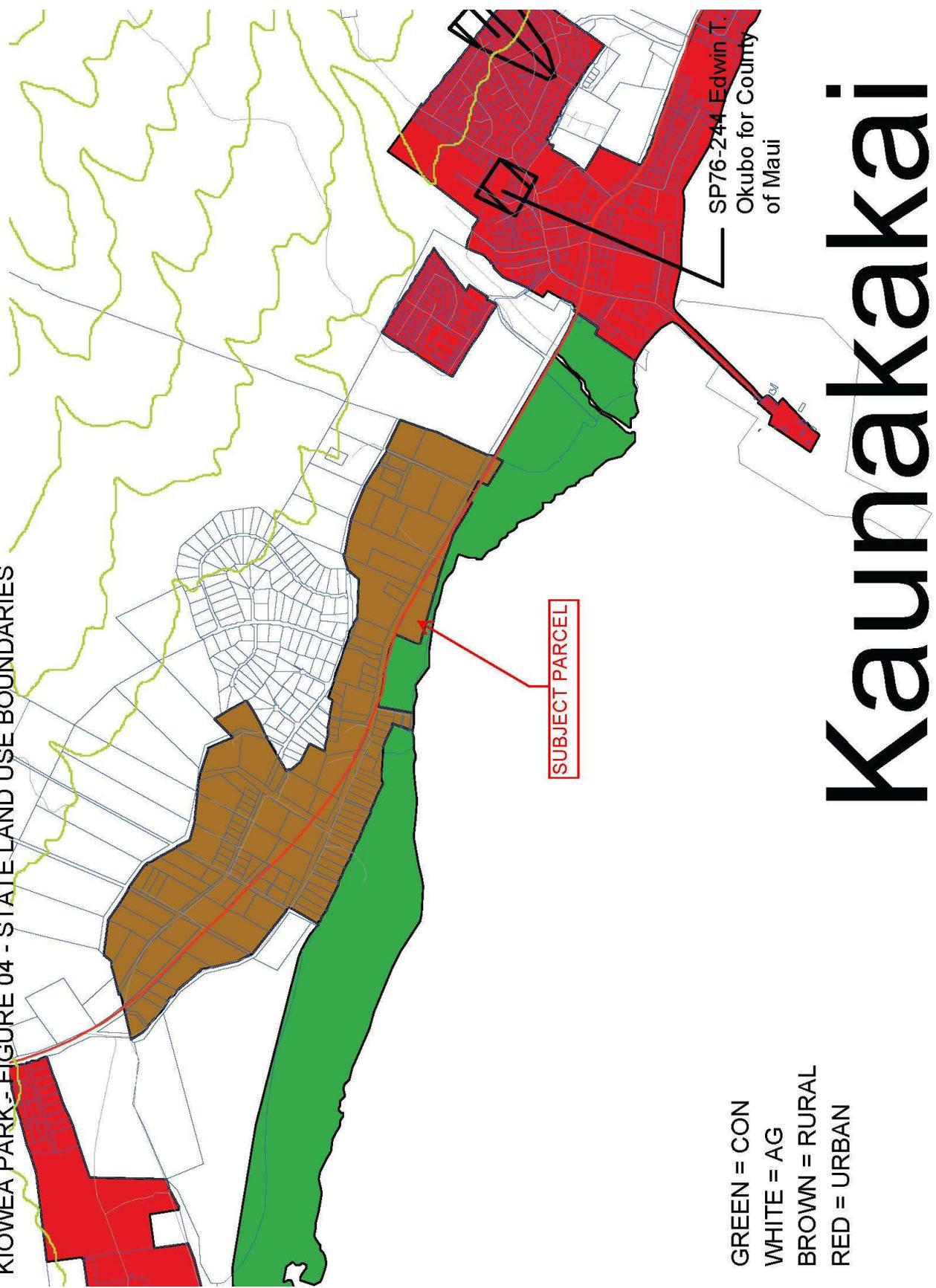
A. PHYSICAL ENVIRONMENT

1. Land Use

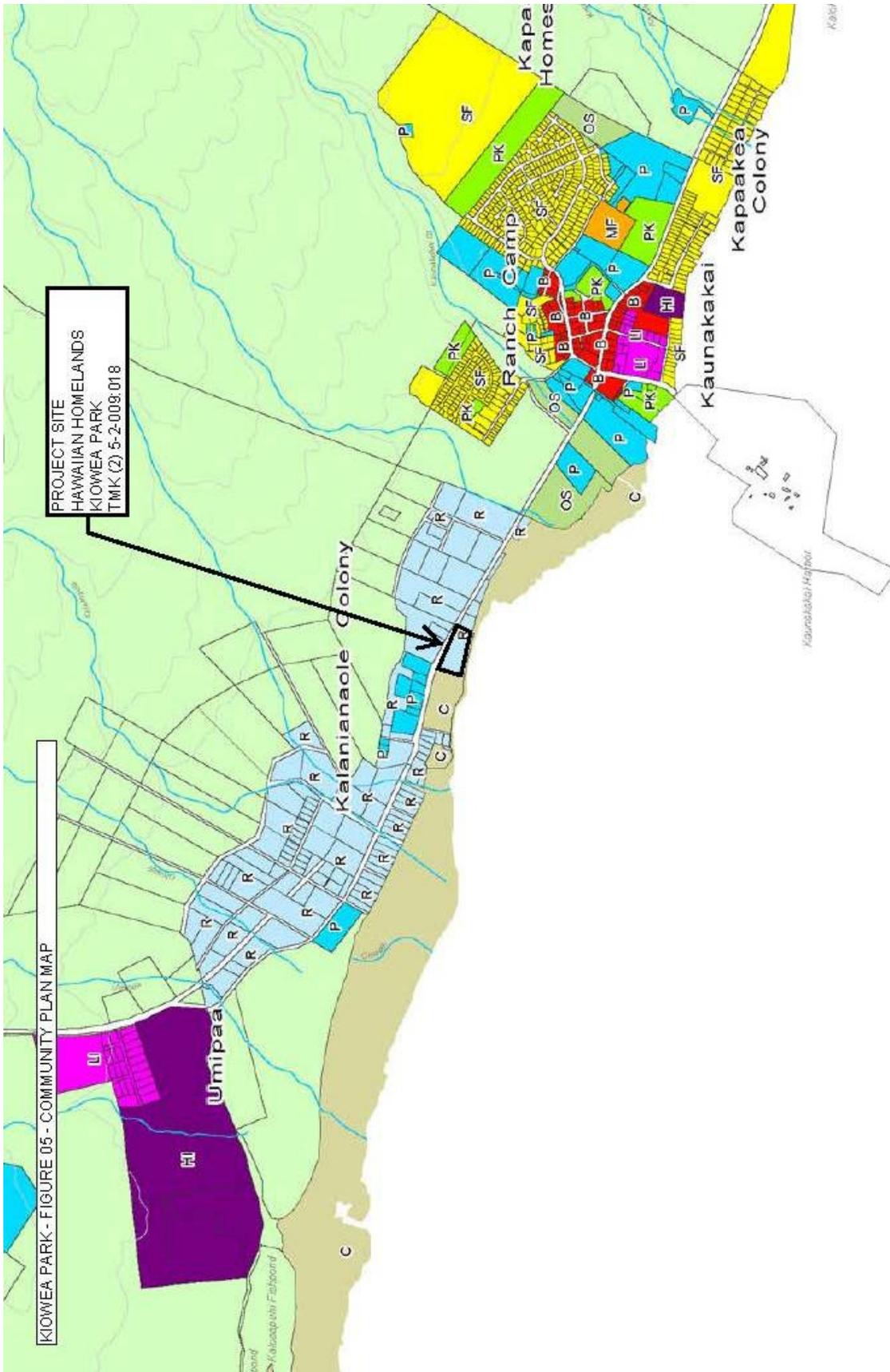
Existing Conditions. The Department of Hawaiian Home Lands' Kalama'ula tract consists of 5,117.831 acres, located west of Kaunakakai. This tract is mostly mauka of Kamehameha V Highway, gently sloping upland to Pu'u Luahine (372 ft. elevation) transected with the declining slopes of Kuhuaawi Gulch and Kaluaoho Gulch. The elevation ranges from sea level to 1,800 feet above sea level. Kalama'ula encompasses various land uses, all of a rural nature, with a growing homestead residential community in the coastal lowlands and kula (upland) region, wetlands in the southwestern corridor, pastoral use, Kapuāiwa Grove, Church Row, and Kūlana 'Ōiwi Multi-Service Center (Kūlana 'Ōiwi), which houses the offices of DHHL, Office of Hawaiian Affairs, Queen Lili'uokalani Children's Center, Kamehameha Schools, Alu Like and Na Puuwai. The area acts as a rural transition between industrial and agricultural uses to the northwest, and the more urban uses of Kaunakakai, Molokai's country town, to the east.

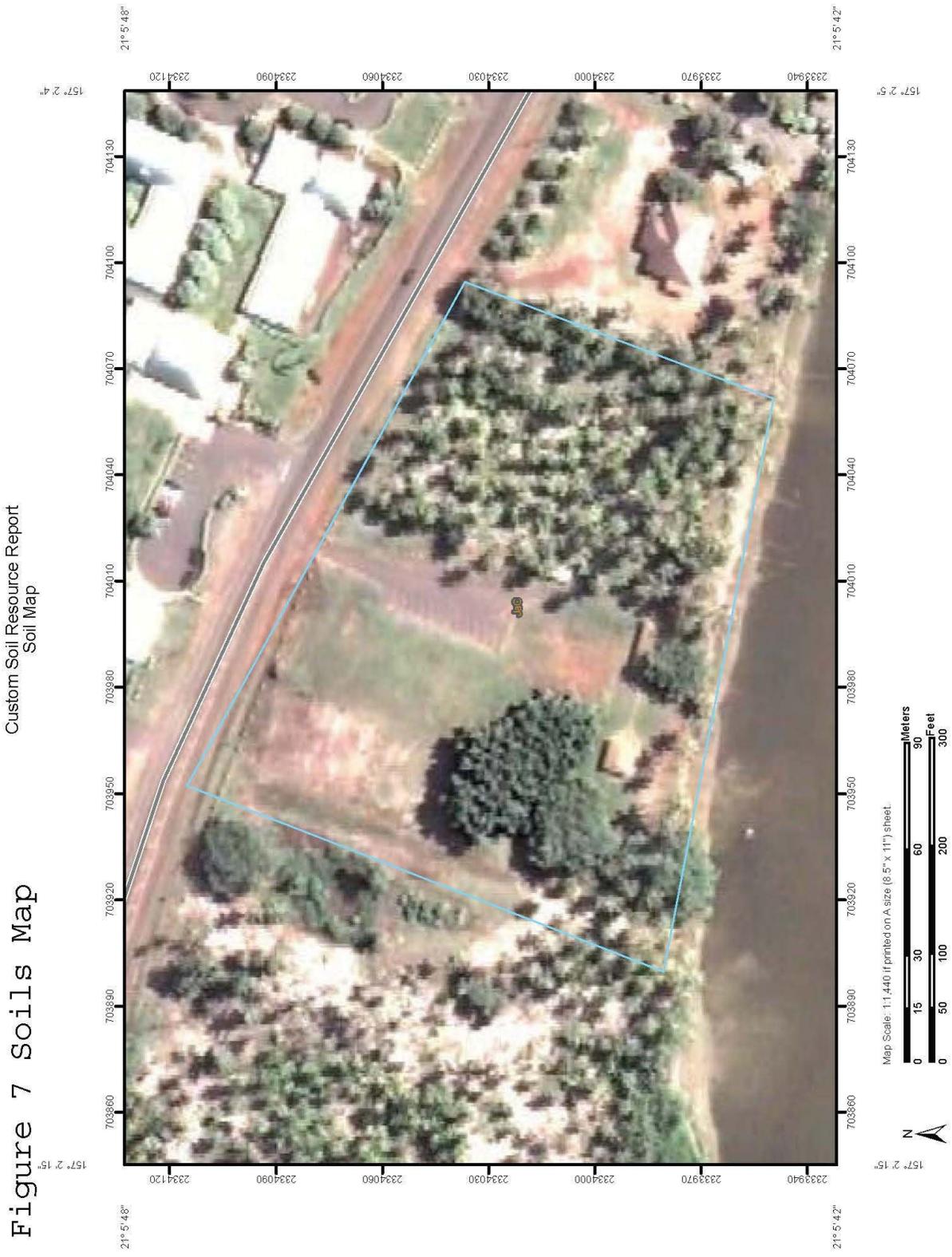
In the Department of Hawaiian Home Lands' Molokai Island Plan, the Community Use land use designation includes areas in residential communities such as school and parks sites as well as community use areas with regional significance. Activities related to community based economic development are also in this category. Community uses are found within all DHHL tracts on the island. Approximately 76 acres have been designated for Community Use within Kalama'ula. These areas include the existing "church row," Kūlana 'Ōiwi, Homelani Cemetery, Kapuāiwa Grove, Kalaniana'ole Hall and Kiowea Park, and future plans for additional community park space, kupuna housing and/or a kupuna service center. The subject property is situated in an area of Community Use and Residential land use designations. (See Figure 4, Figure 5 and Figure 11)

KIOWEA PARK - FIGURE 04 - STATE LAND USE BOUNDARIES



Kaunakakai





Potential Impacts and Mitigation Measures. From a regional and island planning perspective, Community Use usually occurs in areas that possess compatible land uses and infrastructure and public services that can accommodate such development. Kapuāiwa Grove, Kalanianaʻole Hall and Kiowea Park historically were an integral component of the original Kalanianaʻole Colony, and continue those historic community uses in a location that is still central to today's Kalamaʻula Homestead residential area.

The subject property is located in an area of existing Community Use. The subject property is also located in proximity to existing properties that are designated Community Use and Residential by the DHHL Molokai Island Plan. An off-site DHHL water system services the park and there is one onsite 2,000 gallon capacity individual wastewater system. Power and phone line access is available from MECO and Hawaiian Telcom, respectively. Existing public services are deemed adequate and are capable of servicing additional structures on the subject property. Therefore, as there is no change in the type of land use on the project site, no significant impacts are anticipated.

2. Topography and Soils

Existing Conditions. The terrain of the subject property is relatively level and free of vertical landforms. Onsite elevations range from approximately 2 to 4 feet above mean sea level (AMSL). Underlying the property and surrounding lands are soils belonging to the Jaucas-Mala-Pulehu association. This association is comprised of deep, level and gently sloping soils that are excessively drained and well-drained, have coarse-textured to fine textured underlying material and are found on alluvial fans and in drainage ways.

According to the United States Department of Agriculture, Natural Resources Conservation Service online soils report generator (as of May 2012) and the "Soil Survey of the Islands of Kauai, Oahu, Maui, Moloka'i, and Lana'i, State of Hawaii" prepared by the U.S. Department of Agriculture, Soil Conservation Service (August 1972), the soil associated with the subject property is Jaucas sand, 0 to 15 percent slopes (JaC). JaC soils consist of excessively drained, calcareous soils that occur as

narrow strips on coastal plains, adjacent to the ocean. The soil has developed in wind and water deposited sand from coral and seashells. Permeability is rapid, runoff is very slow to slow and the hazard of water erosion is no more than slight, however, wind erosion is a severe hazard where vegetation has been removed. (*Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*, August 1972, prepared by the United States Department of Agriculture, Soil Conservation Service). (See *Figure No. 7, Soils Map, and Appendix J, NRCS Custom Soil Resource Report*)

Potential Impacts and Mitigation Measures. Site work for the property will involve grubbing, excavation, and embankment for building pads, driveway aprons, parking lot and drainage improvements, utility connections, domestic water connections and IWS installation. (See *Figure 6, Site Plan and Appendix E, Estimated Preliminary Drainage Report Assumptions*)

Minor modifications to existing landforms will unavoidably occur as a result of ground altering construction activities. However, this change is not expected to have a significant impact upon the existing topography, as the proposed project will essentially retain the same elevation and topography. To the extent possible, earthwork will be kept to a minimum and cut and fill quantities will be balanced to reduce site work costs and maintain the existing drainage pattern. Erosion control measures and Best Management Practices prepared in accordance with the Maui County grading ordinance (MCC Chapter 20.08) will also be implemented during construction activities to minimize soil loss and sedimentation. (See *Appendix E Estimated Preliminary Drainage Report Assumptions*)

3. Drainage and Storm Water Runoff

Existing Conditions. As discussed above, elevations on the project site range from approximately 2 to 4 feet above mean sea level (amsl). It is estimated that the existing 50-year, 1-hour storm runoff from the project site is 5.03 cubic feet per second (cfs). The corresponding runoff volume generated is 4,225 cubic feet. The pads of the existing buildings are situated at elevations of between 2 and 4 feet AMSL. Presently,

onsite runoff sheet flows across the project site in all directions from the existing buildings.

Potential Impacts and Mitigation Measures. The proposed drainage plan is designed to maintain the existing drainage pattern of the onsite runoff. Sheet flow running across the project site will be collected by grated catch basins within the new paved parking area and conveyed to an onsite detention basin located to the north of the parking lot. *(See Figure No. 14, Detention Basin Location)*

It is estimated that the post development runoff from the project site will be 9.18 cfs, an increase of 4.15 cfs from existing conditions. The associated runoff volume generated from the developed condition is 7,711 cubic feet. Based on the County drainage standards, the project's drainage system must mitigate the increase in runoff from the site for a 50-year 1-hour storm, which is 3,456 cubic feet (7,711 cubic feet – 4,255 cubic feet). The proposed onsite detention basin will be sized to accommodate, at a minimum, the increase runoff volume generated from the 50-year, 1-hour storm.

The drainage design criteria are intended to minimize alterations to the natural pattern of the existing onsite surface runoff. The proposed drainage plan meets the requirements of Chapter 4, "Rules for the Design of Storm Drainage Facilities in the County of Maui. *(See Figure No. 14, Appendix A, Architectural Drawings and Appendix E, Estimated Preliminary Drainage Report Assumptions)*

There is a freshwater/brackish spring to the west of the subject property, at a distance from the property line of approximately 60 feet. Since the proposed project has been designed to retain all increase in storm water runoff in a detention basin on the property, and based on the distance of the spring from the property line, it is not anticipated to have any adverse effect on the spring. *(See Fig. No. 12, Kalama'ula Aerial Photo)*

4. Flood and Tsunami Zone

Existing Conditions. As reflected by the Federal Emergency Management Agency's (FEMA) flood insurance rate map for this part of the island, the property lies in both Zone "AE", an area of 100 year flooding with base flood elevations determined and Zone "X" an area determined to be outside the 0.2% annual chance floodplain. (See *Figure No. 8, Flood Hazard Assessment Report*)

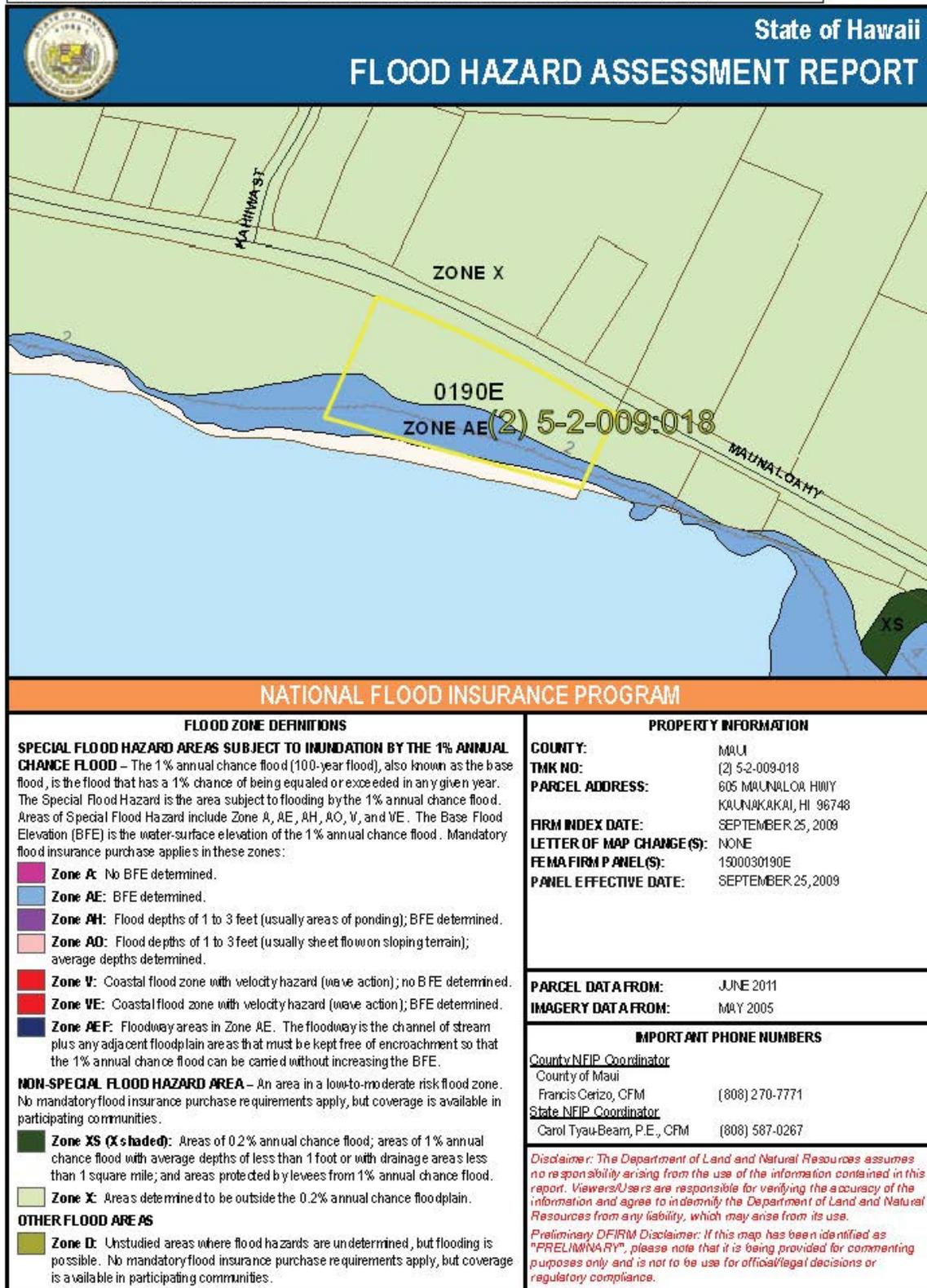
The subject parcel is within the tsunami inundation area as indicated by the County of Maui, Tsunami Flood Zone Evacuation Map, Molokai Map 3, for this part of the island. There is a Civil Defense warning siren located at Kapuaiwa Grove just to the west along Maunaloa Highway and emergency shelters are located at Kualapuu Elementary School in Kualapuu and Molokai High and Middle School in Hoolehua. (See *Figure No. 8, Flood Hazard Assessment Report and Figure No. 9, Tsunami Evacuation Maps*)

Potential Impacts and Mitigation Measures. The elevation of the subject property is above the base flood elevations determined for the area. In addition, all new structures will be located outside of the AE special flood hazard area. The project site is within the tsunami inundation area. The pavilion is designed to be open on three sides, and is set back approximately 90 feet from the existing shoreline, so is more likely to withstand a tsunami. Therefore, no significant impacts to flooding or tsunami conditions are anticipated.

5. Flora and Fauna

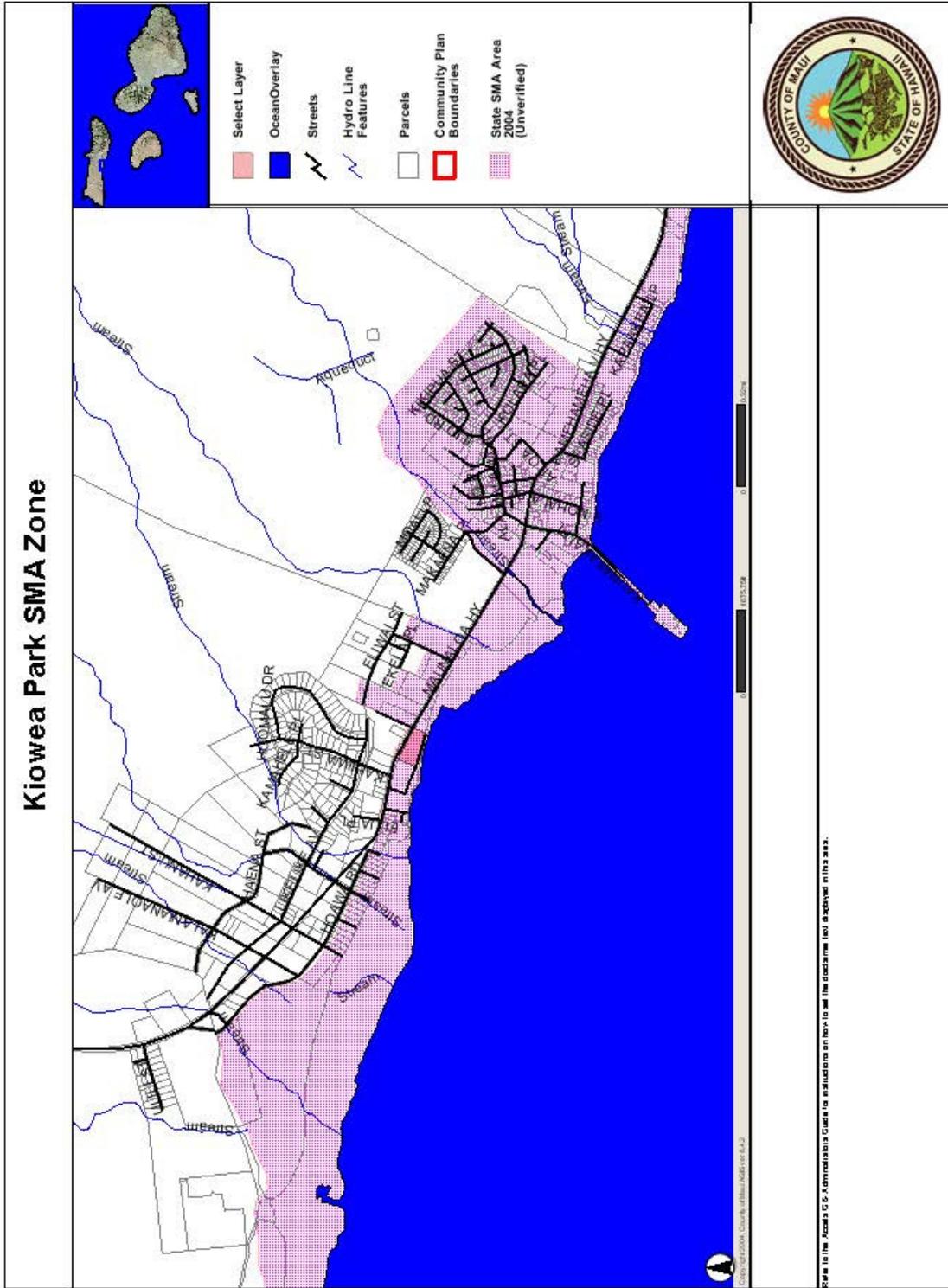
Existing Conditions. Except for the improvements cited in Chapter II, the subject property has experienced few alterations to its natural state. Plant life on the subject property primarily consists of coconut trees, kamani trees and naupaka shrubs. Animal life typically found in the area include cats, mice, rats, and mongoose, while avifauna include common mynah, house finch, barred dove, spotted dove, and Japanese white-eye. An extensive botanical survey was not conducted because of the long term human use of the site and significant grading and ground disturbance that has taken place in the past.

KIOWEA PARK - FIGURE 08 - FLOOD HAZARD ASSESSMENT REPORT



http://agis10g.co.mau.hi.us:8080/agis/map/printMap.jsp

KIOWEA PARK - FIGURE 10 - SMA MAP



Although the U.S. Fish and Wildlife Service made note of some of the following species and their potential presence in the proximity of the proposed project, regular observations by Ahupua'a Natives coastal dune and wetland habitat manager and biologist Arleone Dibben-Young has not observed these species in the immediate project area:

- 'Ōpe'ape'a, Endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*)
- Nēnē, Endangered Hawaiian goose (*Branta sandvicensis*)
- Honu, Threatened green sea turtle (*Chelonia mydas*)
- 'Ua'u kani, Wedge-tailed shearwater (*Puffinus pacificas chlorhynchus*)
- 'Ilio-holo-i-ka-uaua, Endangered Hawaiian monk seal (*Monachus schauinslandi*)
- 'Ua'u, Hawaiian Petrel (*Pterodroma sandwichensis*)
- 'A'o, Newell's shearwater (*Puffinus auricularis newelii*)

According to Hawaii's Comprehensive Wildlife Conservation Strategy, October 1, 2005, the 'Ōpe'ape'a "...currently...may be extirpated from O'ahu, and Moloka'i."

Potential Impacts and Mitigation Measures. There are no known rare, threatened or endangered species of flora and fauna, associated with the subject property. To the extent possible, all lighting fixtures will be positioned low to the ground, be motion-triggered, and be shielded and designed for full cut-off. Effective light shields will be completely opaque, sufficiently large, and positioned so that the bulb is only visible from below and light from the shielded source cannot be seen from the beach. Furthermore, construction activities will only occur during daylight hours, and the Applicant and DHHL will investigate the potential of a lighting improvement project in order to improve all park lighting and convert existing lighting to meet U.S. Fish and Wildlife Service specifications.

Sturdy animal-proof garbage containers that reduce the attractiveness of the area to non-native and feral species, such as house mice (*Mus musculus*), rats (*Rattus spp.*), and feral cats and dogs will be used. As exotic invasive species currently dominate Hawaiian native ecosystems and coastal areas, all landscape improvements will utilize

native plants to the extent practicable.

6. Air Quality

Existing Conditions. Air quality refers to the presence or absence of pollutants in the atmosphere. It is the combined result of the natural conditions (e.g. dust from wind erosion) and emissions from a variety of pollution sources (e.g. automobiles, power generating facilities). The impact of land development activities on air quality in the area of a development project differs by project phase (site preparation, construction and occupancy) and project type. The air quality on Moloka'i is relatively good. Non-point source emissions (automobile) are not significant enough to generate a high concentration of pollutants. The good air quality can also be attributed to the region's exposure to wind, which quickly disperses concentration of emissions. The island of Moloka'i is currently in attainment of all criteria pollutants established by the Clean Air Act, as well as State of Hawaii Air Quality Standards.

Potential Impacts and Mitigation Measures. The impact of land development activities on air quality in the proposed development's locale differs by project phase (site preparation, construction and occupancy) and project type. Air quality impacts attributable to the proposed project include dust generated by construction-related activities. Site work, such as grubbing, grading, and building construction could generate airborne particulates.

Noise and dust pollution are usually the two main impacts cited by the public in construction related situations. This project will mitigate these two impacts to the extent possible, particularly as two pre-kindergarten schools across the highway have outdoor playground areas for their students and there are residential areas located in the vicinity of the proposed project.

Best Management Practices (BMPs) in accordance with Chapter 20.08, Maui County Code will be used during the construction phase of the project and the project will comply with Hawaii Administrative Rules §11-60.1-33 concerning fugitive dust during all

phases of construction. Dust control measures, including but not limited to the following, will be implemented during construction activities:

- Providing an adequate water source prior to start-up of construction for use in dust control.
- Landscaping and rapid covering of bare areas, including slopes, beginning with the initial grubbing and grading phase.
- Controlling of dust from shoulders, project entrances and other access roads.
- Providing adequate dust control measures during weekends, after hours and prior to daily start-up of construction activities.
- Controlling of dust from debris hauled away from the project site.
- Erecting a dust fence to shield nearby properties.

In addition, non-potable or reclaimed/recycled water will be used for dust control purposes during the construction phase to the extent practicable.

Regarding cumulative impacts, expansion of the recreational facility may result in a slight increase in the volume of traffic in the region, which would increase vehicular emissions such as carbon monoxide. However, this increase is not considered significant when compared to ambient air quality conditions and the overall number of vehicles in the Central Molokai area. As such, the proposed action is not anticipated to be detrimental to local air quality.

7. Noise Characteristics

Existing Conditions. The level of background noise is an important indicator of environmental quality. In a rural environment, noise is due primarily to vehicular traffic and air traffic. Invasive noise levels and the types of activities occurring in an area may affect health conditions and the overall appeal of an area or neighborhood. Ambient noise in the project area is relatively low and is generally attributable to vehicle traffic along Maunaloa Highway and other nearby roadways.

Potential Impacts and Mitigation Measures. In the short-term, the intended use could generate potentially adverse impacts during construction. Noise from heavy construction equipment, such as bulldozers, front-end loaders, and material-carrying

trucks and trailers, would be the dominant source of noise during the construction period. To minimize construction-related impacts on nearby residences, the Applicant will limit construction to normal daylight hours and comply with Chapter 11-46 of the Hawaii Administrative Rules pertaining to Community Noise Control. From a long-term perspective, expansion of the recreation facility is not expected to have a significant impact upon noise levels in the area due to the small volume of traffic generated by the project and the intermittent, predominantly weekend nature of use of the site by large groups.

Figure 11 - DHHL Land Use Classifications

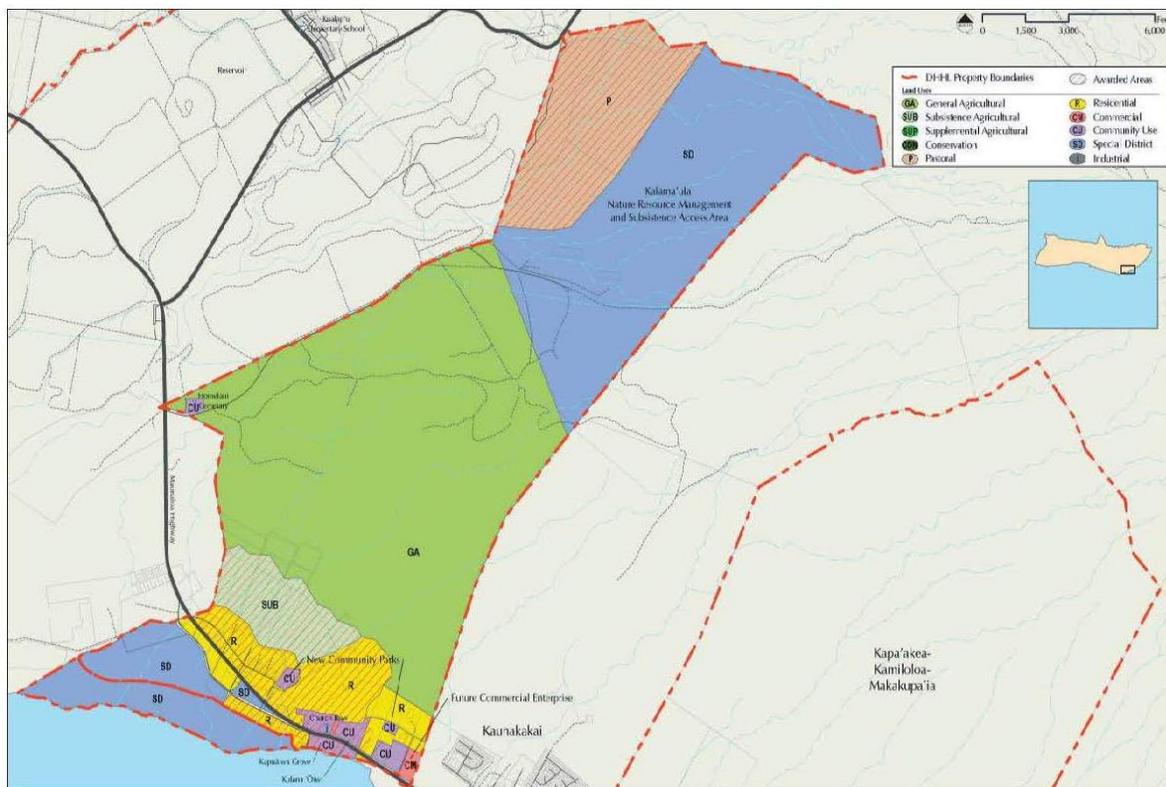


Figure 5.2 - Kalama'ula Preferred Land Use Plan



Department of Hawaiian Home Lands
Moloka'i Island Plan

Figure 12 Aerial Photo



Figure 13 Maui County Zoning Confirmation

COUNTY OF MAUI
DEPARTMENT OF PLANNING
Kalana Pakui Building
250 South High Street
Wailuku, Hawaii 96793



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

ZONING AND FLOOD CONFIRMATION FORM

(This section to be completed by the Applicant)

APPLICANT NAME Luigi Manera TELEPHONE 808 553 9045
 PROJECT NAME Kiowea Park Pavilion E-MAIL luigis@hawaiiantel.biz
 PROPERTY ADDRESS 605 Maunaloa Highway, Kalamaula, Molokai TAX MAP KEY (2) 5-2-009-018

Yes No Will this Zoning & Flood Confirmation Form be used with a Subdivision Application?
 If "Yes", answer questions A and B below:
 A) Will it be processed under one of the consistency exemptions of Section 18.04.030(B), MCC? Yes No
 If "Yes", which exemption? _____
 B) Provide the purpose of subdivision and the proposed land uses below: _____

NOTE: 1) Use a separate Zoning & Flood Confirmation Form for each Tax Map Key (TMK) number.
 2) If this will be used with a subdivision application AND if the zoning information for the subject property contains multiple State Land Use Districts, Community Plan Designations, or County Zoning, a signed and dated Land Use Designations (LUD) Map, prepared by a licensed surveyor showing all the various districts, designations, zonings, and any subdistricts, shall be submitted for review and approval.
 3) If this will be used with a subdivision application AND if there are multiple State Land Use District designations, the applicant shall procure a District Boundary Interpretation from the State Land Use Commission.

(This section to be completed by ZAED)

LAND USE DESIGNATIONS (LUD) AND OTHER ZONING INFORMATION:

STATE LAND USE DISTRICT(S) RURAL
 COMMUNITY PLAN DESIGNATION(S) RURAL
 COUNTY ZONING(S) INTERIM
 OTHER DESIGNATION(S)/COMMENTS SMA

Yes No See Additional Comments On Page Two
 Yes No See The Attached Land Use Designation Map

Yes No (SMA) SPECIAL MANAGEMENT AREA
 Yes No (PH) PLANNED DEVELOPMENT
 Yes No (PD) PROJECT DISTRICT

FLOOD INFORMATION:
 FLOOD HAZARD AREA ZONE(S) X, AE For Flood Zone AO, FLOOD DEPTH _____
 BASE FLOOD ELEVATION(S) 2' feet mean sea level, Local Tidal Datum.
 *FLOODWAY Yes No *FLOOD DEVELOPMENT PERMIT REQUIRED Yes No
 * For flood hazard area zones X or XS, a flood development permit would be required if any work is done in any drainage facility or stream area that would reduce the capacity of the drainage facility, river, or stream, or adversely affect downstream property.
 * For subdivisions in ALL FLOOD HAZARD AREA ZONES (including zones X or XS) that involve streams, gulches, low areas, or any type of draineway, a designation of the 100 year flood inundation limits or a drainage reserve may be required.

SUBDIVISION CONSISTENCY: N/A (Not Applicable)
 **The Land Use Designations (LUD) align and a unilateral agreement is not required.
 **The LUD's do not align and the available or proposed land uses appear to be:
 Consistent, with a Department of Public Works / Planning unilateral agreement.
 Not Consistent. Comments: _____

Except as permitted in Section 18.04.030(B) MCC, property containing Interim Zoning shall NOT be subdivided.
 ** All proposed subdivisions will be further reviewed during the subdivision application process to verify consistency, unilateral agreement requirements, and the conditions associated with a unilateral agreement [Section 18.04.030(D), Maui County Code].

REVIEWED & CONFIRMED BY:
Aaron Shinmoto Ruilan Wang 1/7/13
 (Signature) (Signature) (Date)
 For: AARON SHINMOTO, Planning Program Administrator, Zoning Administration and Enforcement Division

REVISION	BY



NEW PAVILION FOR:
KIOWEA PARK
 605 MAUNAKAHI HIGHWAY
 MAUNAKAHI HI 96748
 T.M.K. (2)5-2-009-018

Date	FEB. 2013
Scale	AS NOTED
Drawn	LM
Check by	LM
Job	PAVILION
Sheet No	C-1
	of Sheets

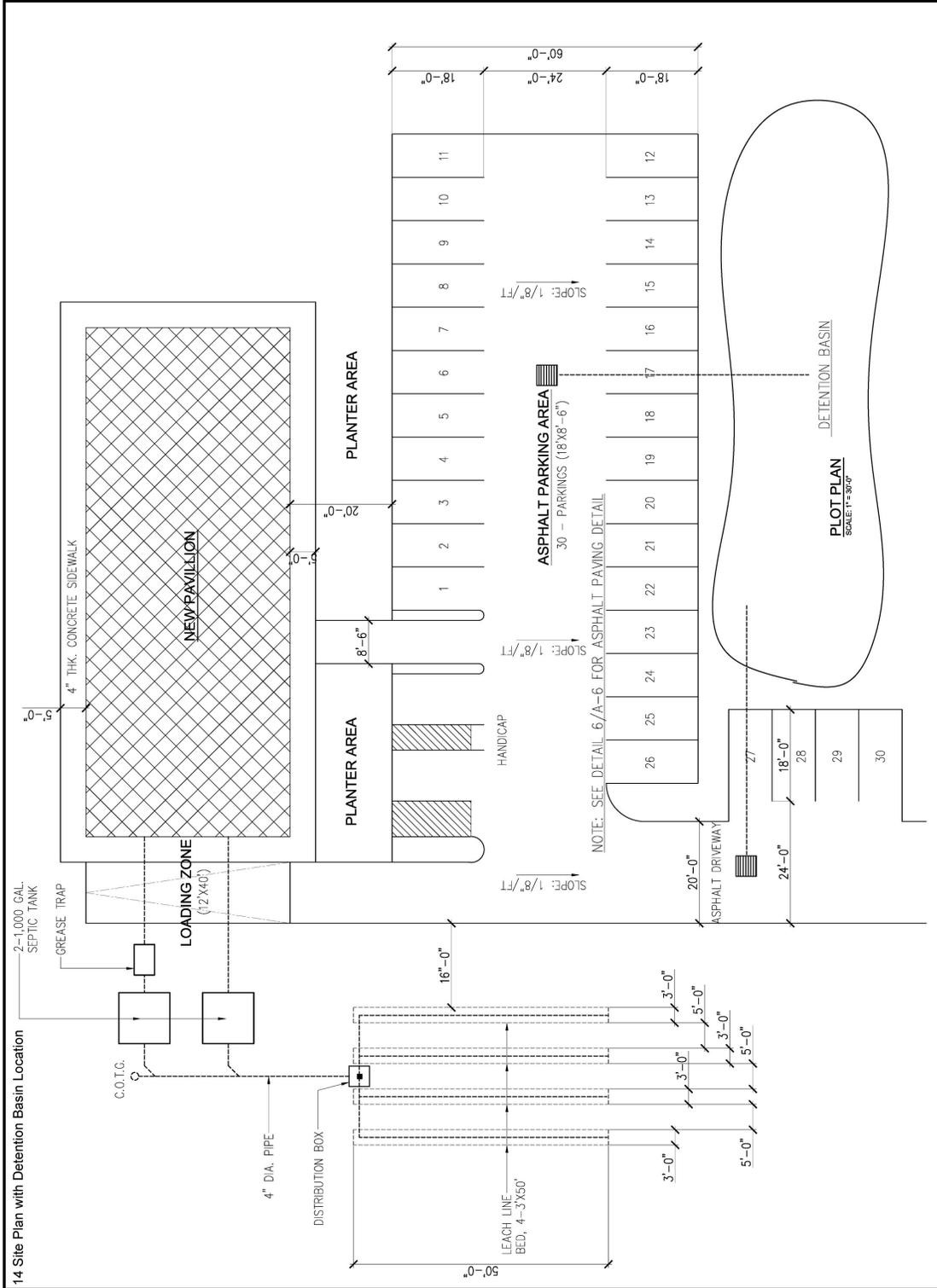


Figure 14 Site Plan with Detention Basin Location

8. Archaeological and Cultural Resources

Existing Conditions. A literature review for the Kalama‘ula ahupua‘a was conducted by DHHL staff, which included reviews of archaeological reconnaissance and inventory surveys, an archaeological and historical investigation, a historic document search, and an island-wide site survey. The winds of Kalama‘ula are the ‘Ukiukiu and the Alahou. Six or seven fishponds, several springs, inland ponds, and four heiau, as well as two kahua maika (ulu maika courses) and one site of petroglyphs, were listed as being located in Kalama‘ula in *Molokai: A Site Survey* (Summers 1971: 38, 84-86).

Pre- and Post-Contact Cultural History

The island of Molokai was traditionally divided into two districts, Kona and Koolau, with some sources identifying Kaluako‘i as a separate, third moku. The wetter, windward Ko‘olau district (“Backside”) was intensively developed for kalo in extensive lo‘i systems. The Kona or leeward, drier district that Kalama‘ula lies within supported ‘uala (sweet potato), ipu (gourd) and limited dryland taro cultivation. As stated in Tomonari-Tuggle (1990), “The south and southeastern shores of Molokai are characterized by an extensive reef flat that averages 1.5 km. wide. Combined with rich, offshore fishing grounds, this coastline was a highly productive and easily accessible marine resource area for the Kona district.” An extensive network of fishponds increased the productivity of the shoreline area exponentially, such that combined with the kalo lo‘i of the Koolau District, Moloka‘i was known as “‘Āina Momona,” the abundant, fertile land.

Extensive cultivation of ‘uala (sweet potato) in the area was described by Handy and Handy and Summers thusly:

It is safe to assume that potatoes were grown all along this coastal plain fringed with fishponds from Waialua to Punakou. On the slopes of Kakalahale and Luahine hills, between Kaunakakai and Kalamaula, there were potato plantations. (Handy and Handy (1972:517) in Tomonari-Tuggle (1990:7-8))
...In these land divisions (*kalana*) of Kalama‘ula and Pala‘au in early days there were sweet potatoes on all the rocky (*‘a‘a*) high lands and from these places came the sweet potato eaters who knew potato cultivation... (Summers 1971:38, citing a 1922 *Ka Nupepa Ku‘oko‘a*, in Tomonari-Tuggle (1990:8))

Six fishponds are reported by Summers and Monsarrat as being in Kalama‘ula, with all of them being either buried in silt, clogged with mangrove, or otherwise destroyed. The west end of the ahupua‘a hosted three ponds, Kakokahi (alt. spelling Kahokai, 20 acres in size in 1901), ‘Ohiapilo (alt. spelling ‘Ohaipilo, 39 acres in size in 1901), and ‘Umipa‘a (described by Monsarrat as a dry pond in 1886). Kakokahi and ‘Ohiapilo were reported as filled in with mud by the 1920’s. (Summers 1971:84 and Tomonari-Tuggle 1990:8). Soil deposition has been estimated as occurring at a rate of one foot every six years by the turn of the century. (Field et al:125)

The other three ponds were located near Kapuwaiwa Grove: two unnamed ponds, one on the west side of the grove per Monsarrat and another, unlocated two-acre pond cited in Summers as being called Kamaloko by Stokes, and Kamaloko Pond (0.9 acres), located on the east side of the grove, which was clear of mangrove prior to the 1930’s, and which was described by a native informant as follows:

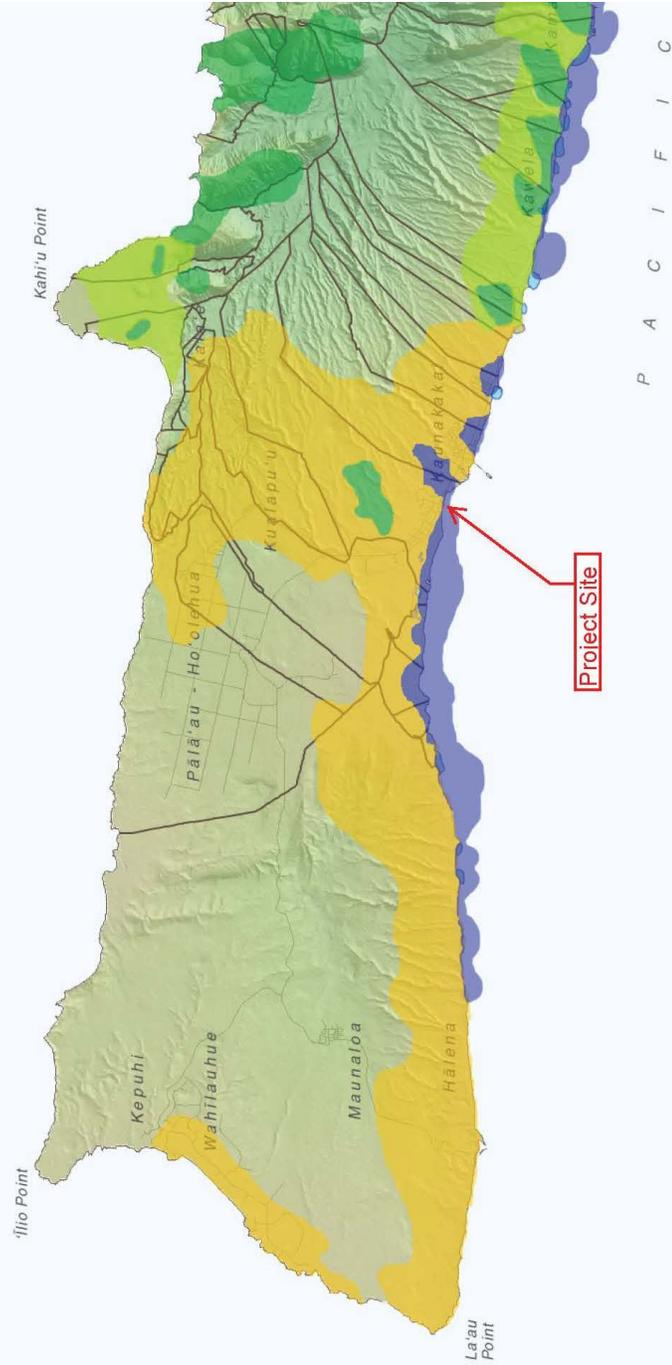
Formerly there were all kinds of fish here. There was *awa*, *aholehole*, *‘ama‘ama* and small crabs, the *‘alamihi*...The water was deep and bubbled up from the earth...The *‘o‘opu* of this place were large...the fish was kapu as it belonged to the konohiki. (Summers 1971:85)

The entire shoreline was called Hīlīa, an off-shore area extending eastward from Pakanaka Pond through Kalama‘ula, whose shoreline was once fringed with sandy beaches, and reported to be once abundant with fish, “...especially small mullet (*Mugilcephalus*), which “ran in schools so thick that the fish could be kicked onto the beach” (Tomonari-Tuggle 1983:1, and Tomonari-Tuggle 1990:8). The ‘olelo no‘eau for this shoreline area is “Ka i‘a kā wawae o Hīlīa” (the fish of Hīlīa, kicked by the feet). (Summers 1971:72) Subsistence use of inland cultivation areas and marine resources into the 19th century is documented by historical information for Kalama‘ula, including rental receipts from 1858 to 1861 for taro patches, coconut trees, a fishpond and a squid fishery (Hommon and Ahlo 1983:14-15). The Ah Lee Pond was still in operation in the 1920’s, and subsistence use of the nearshore fishery by homesteaders continues to today. (Tomonari-Tuggle 1990:9-10) (See Figure No. 15, Historic Land Uses)

FIGURE 15 HISTORIC LAND USES

REGIONAL LAND AND DEVELOPMENT

Traditional Land Divisions and Historic Land Uses



LEGEND

	Ahupua'a		Current Fishpond
Land Use circa 1850			Possible Taro Areas
	Not Permanently Inhabited		Melons & Gourds
	Kula (Sweet Potatoes)		Fishpond
	Taro		
	Kula or Dry Land Taro		

It is estimated that the island of Molokai was divided into 72 ahupua'a prior to the Māhele in 1848. Traditional community demographics and accounting were based on these districts.

During the 18th century Molokai served as a base of support for armies as they moved among the larger islands pursuing wars of conquest. Kalama'ula is referred to as a site of military encampments, including one occupation by the chief Ke'eaumoku in 1795 during Kamehameha I's preparations for launching his conquest of O'ahu. In 1790, Kalama'ula was also the site of an historic reconciliation between Kamehameha I and the chiefess Kalola, mother of Kiwala'o, the defeated chief of Hawai'i. Kalola had a residence in Kalama'ula and died shortly after promising her chiefess daughter of very high rank, Keopuolani, to Kamehameha. She is reportedly buried in ". . . her cave house at Konahale" in Kalama'ula mauka. (Tomonari-Tuggle 1983:4)

Kalama'ula was claimed as crown lands by Kamehameha III at the Mahele, and only one Land Commission Award for ten acres in the uplands was awarded. Kapuāiwa Grove is said to have been planted in the 1860s by Lot Kapuāiwa (Kamehameha V), grandson of Kamehameha I, as Moloka'i was a favorite retreat of this ali'i, although "...according to Coelho, it was planted by Rudolph W. Meyer in 1854 for Kamehameha IV." (Tomonari-Tuggle 1983:5) The grove was originally planted with 1,000 coconut trees covering an area of approximately 10 acres, representing each warrior that served under his rule and providing shelter for a royal bathing spring that once existed near the shore. Today, there are a few hundred descendants of trees remaining from the original planting, on approximately two of the original ten acres. Kapuāiwa Grove has great historical value and is an important community resource for community events and cultural activities. The project site lies in a section of the original grove, but the coconut trees have been cleared from the park area over time for safety reasons, due to their advanced age and the risk of coconuts falling from an extreme height. (*See Figure 12, Kalama'ula Aerial Photo*)

A number of springs were recorded as being in the ahupua'a of Kalama'ula, and were segregated by use: "...one was for drinking, one was for bathing, and one was for agricultural use." The pool of 'Olo'olo, located inland and to the east of the project site, was well cared for prior to annexation, and was used as a favorite bathing pool of the chiefs down to Kamehameha V. Early homesteaders relocated the spring covered in

four feet of silt, dug it out and used it for drinking water. (Tomonari-Tuggle 1990:10-11) The area is now a wetland covered in pickleweed (*batis maritima*). There is still a spring on the makai side of the highway to the west of the project site that reportedly originally flowed to the ocean and was used for agriculture (Summers 1971: 84-86).

The development of the first Hawaiian Homestead area of Kalaniana'ole Colony in 1922 is significant in the history of Kalama'ula. Named after the author of the Hawaiian Homes Commission Act (HHCA), Prince Jonah Kūhiō Kalaniana'ole, Kalaniana'ole Colony was created in 1922 to prove the feasibility of the HHCA within a five year period. It did so in two years, despite the heavy labor of clearing the thick growth of kiawe trees by hand for homes and gardens. An irrigation flume using water from a spring in Kaunakakai carried water to the Colony for bathing, laundry and farming. By 1924 a school had been built by Maui County behind the present Kulana 'Oivi complex, homes were built by all 278 homesteaders, and the land was in agricultural production with alfalfa, tomatoes, bananas, sweet potato and other truck crops. Cattle, pigs, chickens and other animals were raised, and homesteaders traded among themselves as well as selling surplus to the Honolulu market. (Tomonari-Tuggle 1990:11)

Unfortunately, the freshwater lens had possibly been depleted by the steam-driven pumps of the American Sugar Company for its ill-fated sugar cane endeavors, and the water sources in Kalama'ula began to experience increasing salinity. By 1930, many homesteaders had transferred their agricultural leases to the newly opened lands of Ho'olehua, but retained their Kalama'ula lots as residences. (PBR 1983:12 in Tomonari-Tuggle 1990:11)

Previous Archaeological Research

Cathy Summers' *Molokai: A Site Survey* (1971) listed only 15 sites in the Kalama'ula ahupuaa: six or seven fishponds, several springs, inland ponds, and four heiau, as well as two kahua maika (ulu maika courses) and one site of petroglyphs. Since 1971 a number of archaeological and site reconnaissance surveys have been conducted for the Kaunakakai and Kalama'ula areas which provide a variety of background information:

DATE	Archaeologists/Researchers	Type of report	Area surveyed/researched
April 1971	Summers, Catherine C.	Literature & Site Survey	Entire island of Molokai
Feb. 1983	Tomonari-Tuggle, M.J.	Archaeo. Recon. Survey	Road corridor, Kalama'ula mauka
Oct. 1983	Athens, J. S. & Silva, C.L.	Archaeological & Historical Investigations	Kaunakakai Wharf area
Jan. 1989	Weisler, Marshall	AIS	150 acres mauka of Ranch Camp, Kaunakakai
July 1990	Tomonari-Tuggle, M.J.	AIS	Mauka portion of Kalama'ula
April 1993	Tuggle, H. David	Archaeo. excavations	Malama Platform, Kaunakakai Wharf area
Oct. 1996	Carlson, Ingrid K.	Archaeo surface survey	Kalama'ula Multi-Service Center

Table 1 Reviewed Archaeological Reports *Source: DHHL*

To DHHL's knowledge, no archaeological studies were made of the homestead areas of Kalama'ula makai of the highway, as the lots were apportioned during the early years of the Hawaiian Homes Commission Act, prior to the enactment of laws protecting historic properties. Various grading, grubbing and road building activities have occurred over time as the Kalaniana'ole Colony was developed. There is a sacred stone within the original homestead area mauka of the highway and to the west that is in the middle of the road but that is well known and protected by a barrier. Similarly, the spring makai of the highway is protected by a berm and is well known to homesteaders in the area.

(See Figure 16, Archaeological Sites and Survey Areas)

FIGURE 16 ARCHAEOLOGICAL SITES AND SURVEY AREAS

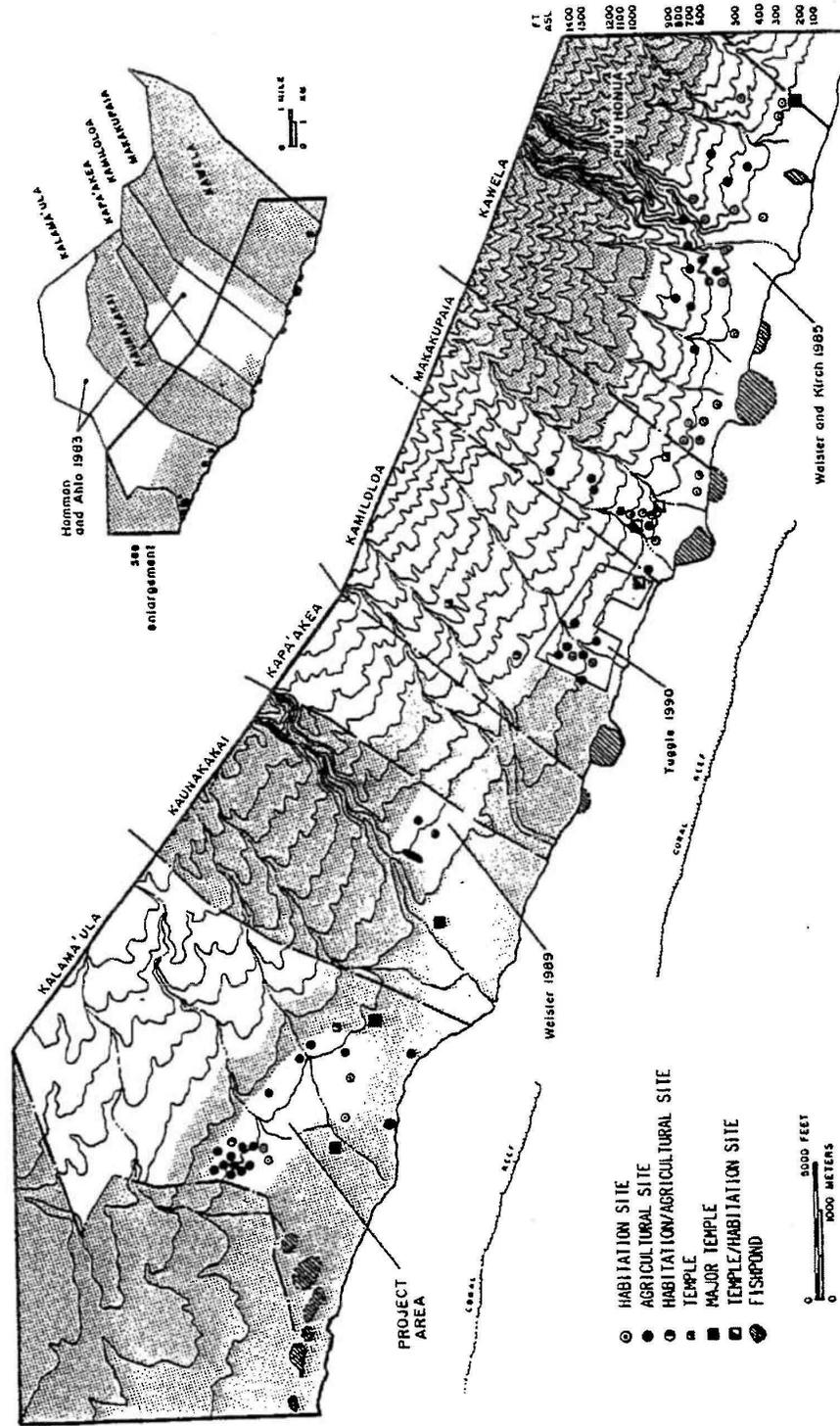


Figure 3. Other project and sites in Kalamela and vicinity. Screened areas are unsurveyed; Kawela survey boundaries are approximate; inset shows only Hommon and Ahlo 1983 survey area.

Previous Site Disturbance

While soils for the project site are listed as Jaucus Sands (NRCS 2013), erosion and lowland siltation due to deforestation and defoliation of the uplands from uncontrolled grazing of feral ungulates has caused significant deposition of soils along the low-lying coastal areas of the south shore of Molokai. (*Field et al:125*) In addition, previous improvements to the subject property were completed in the 1950's, which included extensive grading and fill, and subsequent renovations were conducted between 1998 and 2002, which also included grading and fill, as discussed under Section 2.B, "Past and Present Land Use." No encounters with cultural deposits or human remains were reported during ground disturbance for either project.

Cultural Impact Assessment. Due to the nature of the project, an informal assessment was made of potential cultural impacts. The Department notes that the project area and environs is all Hawaiian Home Lands and the project proponent is an official homesteader organization made up of native Hawaiian homesteaders from the Kalama'ula area. A number of those members are also members of Hawaiian civic and alii organizations such as the Hawaiian Civic Club, the Royal Order of Kamehameha and the Kaahumanu Society. Many homesteaders practice cultural activities on a daily or weekly basis and take the perpetuation of their culture seriously. The desire of the Kalama'ula Homesteaders' Association is ". . . to embrace our kuleana (responsibility) to malama (protect and nurture) our homesteaders and our ahupua'a. Kalamaula homesteaders are reminded that the future is found in the past – "I ka wa ma mua, ka wa ma hope."

The application of this powerful Hawaiian proverb is based on the Association's purpose and mission:

- To challenge and inspire youth who live on homestead land to achieve their full potential by providing support and opportunities for advance in education;
- To promote better health for our Kalamaula community and homesteaders outside of Kalamaula through education; and
- To preserve and protect Hawaii's natural environment, including Kiowea Park in

Kalamaula in particular, through stewardship of our lands consistent with Hawaiian culture and values and traditional methods of resource management.”

Many of the events held at Kiowea Park are family reunions. During these reunions, elders can pass on their cultural knowledge to younger generations. Graduation and baby parties serve a similar function in that they cement the bonds of ‘ohana. In addition, the annual Kuhio Day celebration promotes the honoring of the history of homesteading on Molokai and gives beneficiaries an opportunity to display their crafts and memorabilia and share their experience with the greater community.

Potential Impacts and Mitigation Measures. The construction of the proposed new improvements is not expected to have an adverse impact upon historic and cultural resources. The site has experienced extensive ground disturbance in the past due to grading and fill for previous construction projects. In addition, the coastal area of southern Molokai has experienced significant siltation since the turn of the century, caused by deforestation and feral animal grazing that exposed the soil to massive erosion events during heavy rains. There were also no significant archaeological/cultural resources previously discovered during the initial improvements.

Nonetheless, as a precautionary measure, the DHHL Molokai District office manager, who is a cultural practitioner trained in on site monitoring and care of ‘iwi kupuna, will perform on site monitoring during all ground disturbing activities. In the event that cultural deposits or human remains are encountered during ground altering construction activities, work will stop in the immediate vicinity of the find and the find will be protected from further disturbance. The State Historic Preservation Office (SHPD) will be promptly notified to determine the significance of the find and establish appropriate mitigation measures if required, as well as the Molokai Island Burial Council in the case of inadvertent discovery of human remains.

There will be short term impacts to access for cultural activities during the construction phase of the project. Native Hawaiian cultural practitioners normally have access to the

site, and the community will be notified prior to the initiation of construction and informed of the duration of the project, during which time access will be more restricted. In addition, the DHHL District Office will ensure that the other users of Kulana 'Ōiwi are informed of the timing of construction activities. Improving the facilities at the park will provide better access, improved comfort, and a better quality venue for the community's cultural practitioners, which will enhance and strengthen the practice and perpetuation of the culture of the Native Hawaiian people.

As a function of its relationship with its beneficiary lessees, DHHL is encouraging the Kalama'ula Homesteaders Association to use this EA as a starting point to begin the process of conducting oral histories and documenting the traditions and stories of the Kalaniana'ole Colony and the Kalama'ula Homestead area so that the important mo'olelo of the kupuna is not lost as these elders of the community pass away.



Fig. 17 1924 Baker photo of group at Kapuwaiwa Grove

9. Visual Resources

Existing Conditions. The subject property is a shoreline parcel. The terrain of the property is relatively level with elevations ranging from 2 feet to 4 feet above mean sea level (amsl). Plant life on the subject property primarily consists of coconut trees, kamani trees and naupaka shrubs. Existing structures built in the 1950's are 10 to 15 feet from the existing shoreline.

Depending on one's location on the site, Kalaniana'ole Hall can be seen to the east, Kūlana 'Ō'iwi and Molokai uplands to the north, Kapuwaiwa Grove to the west and the Pacific Ocean with partial views of Lāna'i to the south. (See Figure 3 and Figure 12)

Potential Impacts and Mitigation Measures. Visual resources will not be adversely impacted by the intended use. While the proposed new pavilion and bathroom facilities will alter the visual character of the site upon completion, the height of the structures will be approximately the same as the existing pavilion and bathroom facilities and therefore will not significantly alter the ocean views from Maunaloa Highway and surrounding properties. In addition, the pavilion will be open on 3 sides which will preserve views to and from the shoreline, and all new structures will be located 80 to 100 feet mauka of the shoreline, which will preserve views along the shoreline.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population

Existing Conditions. The County of Maui experienced relatively strong population growth during the past decade with the 2010 resident population reaching 158,834, a 20.9% increase over the 2000 population of 128,094 (2010 U.S. Census Data). Population growth estimates for the year 2020 are projected to reach 192,030, should growth continue at the projected rate.

In contrast, for the same time period, the island of Molokai experienced a flat growth rate as evidenced by virtually no change in its resident population. During this period,

the resident population decreased from 7,257 in 2000 to 7,255 in 2010 (2010 U.S. Census Data, in Maui County Data Book 2011:11). The population is expected to grow slowly (less than 1% per year) based on population projections of 8,014 residents in 2020 and 9,304 residents in 2035. [County of Maui Department of Planning 2012:26]

Potential Impacts and Mitigation Measures. Since the proposed action is not a population generator it is not expected to adversely alter population and demographic characteristics. The project is designed to make park users more comfortable at the existing levels of park usage, with a very slight increase over time based on population projections for the Hawaiian Homestead community.

2. Economy

Existing Conditions. Kaunakakai, the island's major population and commercial center is located midway along the southern coast. Pineapple cultivation was once a dominant force in Molokai's economy. However, the island's economy was deeply affected by the closure of Dole's pineapple operations in 1976 followed by the termination of Del Monte's activities in 1983. The island's economy was further affected by the closure of Molokai Ranch operations and the loss of 120 jobs in 2008. Today, the local economy is rooted in tourism, government, small businesses, open-field experimentation (genetically engineered seed corn) and diversified agriculture (commercial, organic, and cattle ranching).

Potential Impacts and Mitigation Measures. On a short-term basis, the development of the proposed pavilion and restroom facilities will support the economy through direct and indirect construction related employment and the purchase of materials and services. In the long term, the use of the property as a recreational facility will contribute to the local economy through the purchase of goods and services to be used at the property and the associated general excise taxes collected. The proposed action is anticipated to have a positive effect on the economic well being of the local economy.

3. Housing

Existing Conditions. The proposed construction is for a recreational facility with a pavilion, bathroom facilities and parking lot. Overnight accommodation is in the form of camping and no long term residential use is permitted

Potential Impacts and Mitigation Measures. The proposed action is not a population generator, does not involve any residential construction nor does it involve any residentially zoned or designated land, and is therefore not anticipated to have any adverse effect on the condition of housing on Molokai.

C. PUBLIC SERVICES

1. Recreational Facilities

Existing Conditions. The County Department of Parks and Recreation operates and maintains a well-developed park system on Molokai that consists of ten (10) parks totaling 41.5 acres. These facilities are spread out across the island and include five (5) community parks, four (4) neighborhood parks, and one (1) special area park. Since population centers are dispersed across the island, communities generally share park facilities. The Molokai community has access to nine (9) sports fields, six (6) tennis courts, four (4) tot lots, and three (3) sports courts. There are two improved beach parks that allow camping, one on the far west end of the island at Pāpōhaku, and One Alii Park in Makakupa'ia, two miles east of Kaunakakai.

Potential Impacts and Mitigation Measures. The proposed construction of the recreational facility is intended to improve the quality of the recreational experience at Kiowea Park for the Molokai community. This is expected to have a positive effect upon other recreational facilities on the island by alleviating some pressure on other sites, therefore there will be no negative impacts to recreational facilities.

2. Police and Fire Protection

Existing Conditions. The Maui (County) Police Department (MPD) is responsible for the preservation of the public peace, prevention of crime, and protection of life and property. The department's Molokai patrol district is headquartered in Kaunakakai and is budgeted for 28 uniformed officers. The district is divided into two (2) motorized routes with each beat patrolled by a single officer. In addition to regular patrols, the Molokai patrol district provides a community-oriented policing program and a D.A.R.E. officer, a school resource officer, and a criminal investigation detective.

The mandate of the Maui County Fire and Public Safety Department is to protect life, property, and the environment from fires, hazardous material releases and other life-threatening emergencies. The department has fourteen stations throughout the County including three (3) stations on Molokai. The Kaunakakai Station is responsible for a portion of Central Molokai, including Kaunakakai and the subject property. The Ho'olehua Station handles West Molokai and parts of Central Molokai, while the Puko'o Station covers East Molokai.

Potential Impacts and Mitigation Measures. In light of the scope of the proposed action, the proposed construction of the recreation facility will not result in an increase in the resident population nor will it extend the existing service area limits for the police and fire departments. Therefore, the proposed action is not expected to have an adverse impact upon existing police and fire protection services. It may have a positive impact on public safety by improving the facilities at Kiowea Park and lessening crowding for the large groups that use the park.

3. Schools

Existing Conditions. The island of Molokai is served by several public schools including Maunaloa, Kaunakakai, Kualapu'u, and Kilohana Elementary Schools, as well as Molokai Intermediate School and Molokai High School. Molokai's three (3) private schools, Molokai Mission School and Molokai Christian Academy, serve students from

Kindergarten through Grade 8 and Aka'ula School serves students from Grade 6 through Grade 12.

Potential Impacts and Mitigation Measures. Since the recreation facility is not a population generator, its proposed construction is not expected to have an adverse impact upon existing educational facilities.

4. Medical Facilities

Existing Conditions. Molokai General Hospital, a 30-bed rural health care facility, provides the only emergency room and urgent care clinic for residents and visitors. In addition, several private care physicians on the island provide medical care and out patient services. Emergency medical care is provided by a 24-hour ambulance facility located in Kaunakakai. Molokai Community Health Center, a Federally Qualified Health Center serves as a health and wellness center with medical and dental services, and is also located in Kaunakakai.

Potential Impacts and Mitigation Measures. Since the proposed construction of the recreation facility is not a population generator, it is not expected to have an adverse impact upon existing medical facilities.

5. Solid Waste

Existing Conditions. The Naiwa Landfill encompasses nearly 12 acres of a 25-acre parcel that is owned by the County of Maui. The landfill, which accepts solid waste for the entire island, receives approximately 17 tons of refuse per day and has an estimated capacity of 580,000 cubic yards. The 25-acre site includes composting and recycle-ables drop-off facilities. An adjacent 10-acre parcel to the southwest of the landfill is available for future expansion. The County's solid waste collection program collects and disposes of residential refuse in (3) major districts: Wailuku (including Kahului and South Maui), Makawao (including Haiku, Kula, Paia, and Pukalani) and Lahaina (West Maui). Refuse collections in Hana, Lana'i, and Moloka'i are conducted by

the County of Maui Solid Waste Division of the Department of Environmental Management.

Potential Impacts and Mitigation Measures. During the construction phase of the intended use, remnant construction waste will be transported to the Naiwa Landfill for disposal. After completion, the applicant will be responsible for disposing of any solid waste generated as a result of using the facility. Sturdy animal-proof garbage containers that reduce the attractiveness of the area to non-native and feral species, such as house mice (*Mus musculus*), rats (*Rattus spp.*), and feral cats and dogs will be used. It has therefore been determined that the proposed construction of the recreation facility will not adversely affect solid waste collection and disposal services and facilities.

D. INFRASTRUCTURE

1. Water

Existing Conditions. The County Department of Water Supply (DWS) provides domestic water service to the following areas of Moloka'i: Kawela-Kaunakakai, 'Ualapu'e, and Kalae. The State Department of Hawaiian Home Lands provides service to homestead lands on the island, while the Moloka'i Irrigation System (MIS) and the State Department of Agriculture systems in Central Moloka'i serve agricultural users. Kawela Plantation Homeowners' Association manages its own private water system near Kaunakakai, and Molokai Public Utilities operates several independent water systems that serve privately owned lands mainly in West Moloka'i. The total sustainable yield for the island of Moloka'i is 79 million gallons per day (mgd), per the Commission on Water Resources Management (CWRM). (See Figure 14, *Groundwater Sustainable Yield Map*)

Kalama'ula receives water from the DHHL owned and operated Ho'olehua Water System (HWS) which provides potable water to Ho'olehua homestead, the Molokai Airport, Moloka'i High School and Kualapu'u Elementary School, Moloka'i Ranch, and the Meyer Estate. The Kalama'ula homestead area currently uses .08 mgd. The existing HWS source has a safe source capacity of 0.58 mgd and can not meet the existing

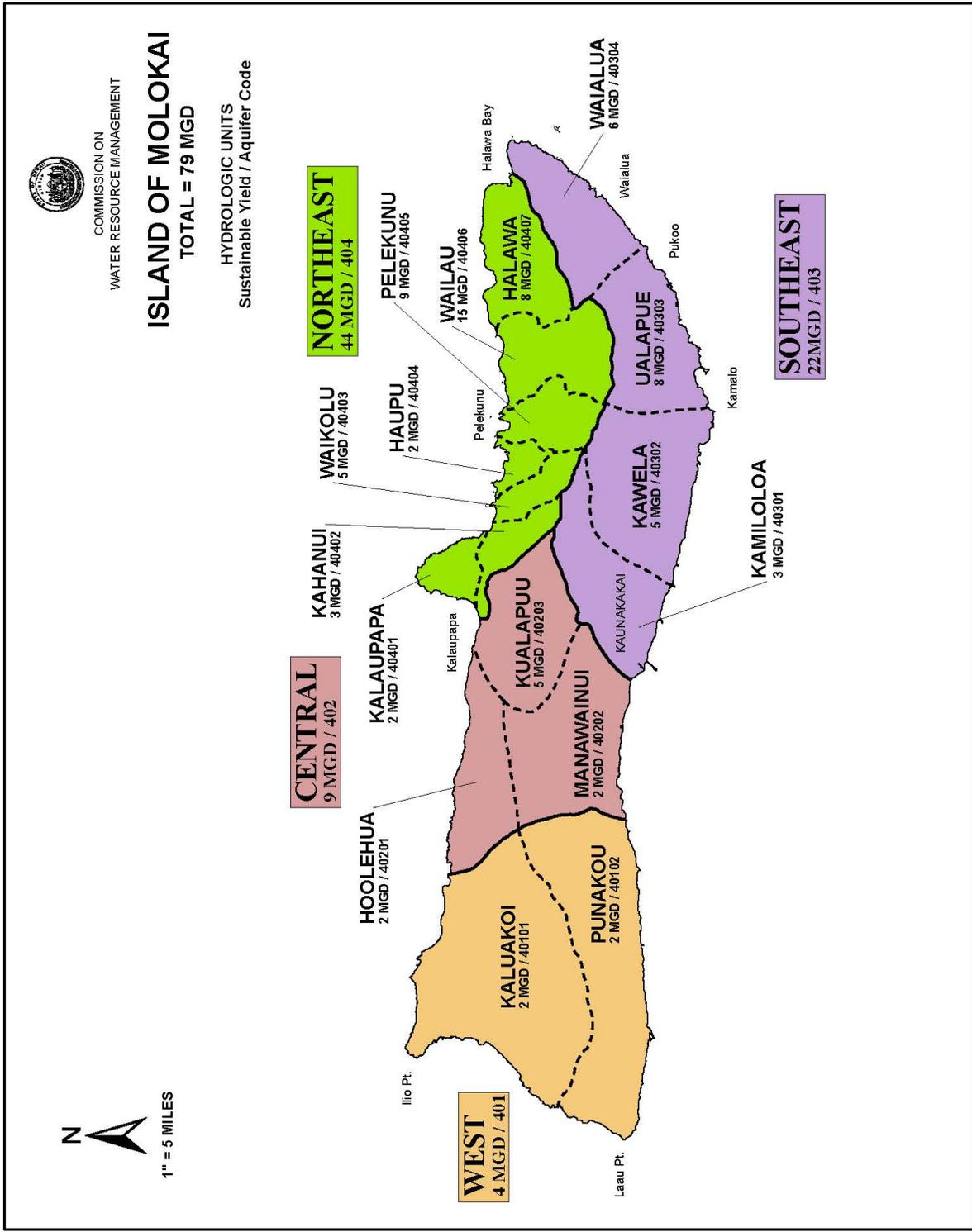
maximum daily demand of 0.63 mgd required by all existing user groups. The HWS draws its potable source from the Kualapu'u Central Aquifer (KCA). According to the CWRM, the KCA has a developable yield of 5 mgd. Estimates of existing water demand indicate that approximately 2 mgd to 2.6 mgd are withdrawn from the aquifer. Further, DHHL is legally guaranteed a 2.9 mgd reservation of water from the Kualapu'u aquifer.

The connection to the off-site water system operated and maintained by the Department of Hawaiian Homelands consists of an existing 2 inch water main. The property is currently being served by a 2 inch water meter which is more than adequate for the current water demand. The park is irrigated an average of five (5) days a month, at 9,000 gallons per irrigation day, for an average of 45,000 gallons per month, or 1,500 gallons per day (gpd). Park user demands vary by season, but over a four month period, water usage for showers and restrooms was approximately 20,000 gallons, or 167 gpd, for a total average park water usage of 1,667 gpd.

The projected increase in water usage for the proposed project is 2,000 gallons per day (highly variable flow), equivalent to the usage of a church with kitchen of 10 gpd per person. The facility will be used for approximately 200 people gathering twice a month. Since the new facility is not anticipated to significantly intensify water usage, rather provide a more comfortable recreational experience for its users, the existing water meter is sufficient to serve the increased demand generated by the Phase II improvements.

Potential Impacts and Mitigation Measures. The construction and use of the proposed recreation facility is not expected to have an adverse impact upon the DHHL potable water source, storage, and distribution network that serves the Central Moloka'i area. Non-potable or reclaimed/recycled water will be used to suppress dust during the construction phase, and the additional demand for potable water generated by the project can be served by the existing water meter. Low flow fixtures, drought tolerant landscaping, and irrigation improvements are water conservation measures that will be incorporated into the project design.

FIGURE 18 SUSTAINABLE YIELD



2. Wastewater

Existing Conditions. The County of Maui operates public sewer systems in Kaunakakai and Kualapu'u. Sewage from the Kaunakakai system is conveyed to the Kaunakakai Wastewater Reclamation Facility for treatment; treated effluent is used for irrigation and the excess is disposed of via an injection well. Wastewater collected by the Kualapu'u system flows to a private wastewater treatment facility owned by Moloka'i Ranch.

The property is not connected to the County of Maui municipal wastewater treatment system due to the cost of extending transmission lines to the Kaunakakai Wastewater Treatment Plant. There is an existing individual wastewater system on the property with approximately 2000 gallon capacity that serves the existing recreation facilities on the subject property. Wastewater problems prompted inclusion of diagnosis and repair of the problem as a Priority Project in the 2010 Molokai Regional Plan. The repairs to the septic system consisted of removal of roots growing into the septic system's distribution box and were performed in late 2011 or early 2012.

Potential Impacts and Mitigation Measures. The proposed new recreation facility will include the installation of a second individual wastewater system (IWS) with a 2000 gallon septic tank, a 350 gallon grease interceptor for the kitchen and a 30 ft. by 50 ft. leach bed on the subject property. As it is a separate system, the IWS will not have an adverse impact on the existing individual wastewater system and will have no adverse impact on the County of Maui wastewater system. A properly designed, located, installed and maintained IWS will not have an adverse impact on the environment, and the IWS' leach field will be located mauka of the new pavilion, approximately 100 feet inland from the shoreline setback area. *(See Appendix F, IWS approval from the State of Hawaii, Department of Health)*

3. Drainage

Existing Conditions. The property is characterized by level topography with elevations

ranging from 2 feet to 4 feet above mean sea level (AMSL) throughout the property.

Potential Impacts and Mitigation Measures. In a letter from the State of Hawaii Department of Hawaiian Home Lands to Mr. David Goode, Director, Department of Public Works, County of Maui, dated April 30, 2002 it states “The Department of Hawaiian Home Lands exempts itself from the County grading, drainage and parking requirements for the purpose of obtaining the necessary county permits for this community-based renovation project now in Phase 2 at Kiowea Park in Kalamaula.” (See Appendix D, *Exemption from County Grading, Drainage and Parking Requirements*).

Notwithstanding DHHL’s ability to exert its land use authority over Hawaiian Home Lands for certain beneficiary projects regarding County grading permit, drainage and parking requirements, in order to better design the project and meet minimum County standards for drainage, An Estimated Preliminary Drainage Report was prepared for this project. (See Appendix E, *Estimated Preliminary Drainage Report Assumptions*)

The existing off-site drainage pattern will be maintained and the incremental increase between pre- and post-development runoff will be retained on site in a 3,600 cubic foot detention basin. (See Figure 14 and Appendix E, *Estimated Preliminary Drainage Report Assumption*) Erosion control measures and Best Management Practices prepared in accordance with the Maui County grading ordinance (Chapter 20.08) will be implemented during construction activities to minimize soil loss and sedimentation, as well as to mitigate adverse impacts to coastal water quality and the near-shore marine environment.

The project location is approximately 90 feet from the shoreline. All runoff will be contained onsite and there will be no discharge of water from the property. The project has been designed to use very minimal amounts of water during construction. Best management practices will be used including installation of a geotextile fabric silt fence for the duration of construction of the project.

4. Roadways and Traffic

Existing Conditions. Maunaloa Highway (Highway 460) is the only roadway linking West and Central Moloka'i with Kaunakakai town and harbor. This State highway is configured as a two-way facility with paved shoulders and one (1) travel lane in each direction. The posted speed limit in the area of the subject property is 45 miles per hour. The speed limit in the immediate vicinity of the subject property is posted "School Zone When Children Are Present - 20 miles per hour."

Access to the subject property is from Maunaloa Highway. The existing access driveway will remain in place and no other access driveways are proposed. The drive right line of sight is 500 ft± and drive left line of sight 400 ft.± from the existing park access driveway. The estimated weekly number of trips generated from the proposed project is 45, which will be during non peak drive times on weekends and holidays.

The property is located on the makai side of Maunaloa Highway in the area of milepost marker 1.2. This highway is heavily used by both motorists and pedestrians. There are two pre-kindergarten schools directly across the highway from the proposed construction site which may cause traffic to make sudden stops to drop off or pick up children from school, especially during morning and early afternoon hours. Also located across the highway is the Kūlana 'Ōiwi Multi-Service Center which hosts frequent public events for the community and kupuna.

Potential Impacts and Mitigation Measures. The subject property is currently being used as a recreational facility. The construction of the Kiowea Park Phase II Improvements will update the park's facilities by constructing a new pavilion, restrooms, kitchen and office, improving facilities for an already existing use at levels comparable to current usage.

All construction personnel will be briefed on the importance of safety concerning motorists and pedestrians on Maunaloa Highway. Best management and safety practices will be utilized during the entire construction process. Parking for construction

related activities will be onsite and will not utilize any neighboring or public right of way parking to the extent possible. Ingress and egress of machinery and supplies for project construction will be done with caution. Extra caution will be exercised during school drop off times and when special events are occurring at the same time as ingress and egress of construction equipment to and from the construction site.

The proposed project is expected to generate approximately 45 trips per week. These trips will generally be related to single events during non peak hours on Saturday and Sunday. The 2011 Program Count-Summary reports for Thursday November 17, 2011 and Friday November 18 2011 by the Hawaii Department of Transportation, Highways Division, Highways Planning Survey Section contains data for the intersection of Manila Road and Maunaloa Highway, approximately 1 mile from the subject property, that shows adjusted average daily trips of 6,300 for both directions of travel, with peak hourly trips between 7:00 a.m. and 8:00 a.m. of approximately 550 per hour and peak hourly trips between 3:00 p.m. and 4:00 p.m. of approximately 530. Construction plans and engineering reports will be submitted to the Maui District Engineer for review and acceptance.

Given the relatively low number of trips expected to be generated from the proposed project in relationship to the average daily trips, and also given that the trips from the proposed project will be during non peak hours, the proposed project is not expected to have an adverse effect upon the existing roadway system nor is it anticipated to result in any significant traffic impacts besides the potential for occasional minor traffic delays during construction. Therefore, it is not anticipated that there will be a significant impact on traffic due to the Phase II Improvements. *(See Appendix G, Traffic Data)*

5. Electrical and Telephone Service

Existing Conditions. Maui Electric Company and Hawaiian Telcom provide electrical and telephone service for Molokai. In the project area, overhead utility lines located on the *makai* side of Maunaloa Highway provide these services to area residents.

Potential Impacts and Mitigation Measures. The installation of power and phone line extensions to serve the proposed new recreational facility will be coordinated with Maui Electric Company (MECO) and Hawaiian Telcom. Additional power demand will be generated by the new pavilion, mainly for the kitchen and office space. The load for the pavilion is 26.2 KVA with a 200 milliampere meter, which is a very minimum load with infrequent use. Because of the low number of customers, there is no shortage of electricity on Molokai, according to MECO. However, because the primary firm source of the island's electricity is generated by the burning of fossil fuels, renewable energy is the preferred source. Unfortunately, at this time the Kaunakakai circuit has reached the threshold for solar power and no additional systems can be added. The roof structure is rated such that photovoltaic and solar hot water panels can be added later as funding and the Kaunakakai circuit capacity for renewable energy allow.

IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

A. CHAPTER 343, HAWAII REVISED STATUTES (HRS)

Approval and construction of the proposed project would involve the use of State or County lands and State or County funds which triggers Environmental Review as set forth in Chapter 343, Hawaii Revised Statutes (HRS). The relationship of the proposed project to the Environmental Assessment Significance Criteria set forth in Chapter 343, HRS, is discussed in Section V of this document, below.

B. DHHL PLANNING SYSTEM, MOLOKAI ISLAND PLAN AND MOLOKAI REGIONAL PLAN

The DHHL Molokai Island Plan (MIP) was approved by the Hawaiian Homes Commission in June of 2005. The MIP provides recommendations for the future use of the island's 25,899 acres and indicates specific areas for priority homestead development. With respect to the island of Moloka'i, the primary objectives of the GP that guided the development of the MIP included the following:

- Designate all DHHL lands with one of the land use categories under the General Plan;
- Deliver at least 400 Residential homesteads, or an average of 20 new lots per year;
- Provide space for and designate a mixture of appropriate land uses, economic opportunities and community services in a native Hawaiian-friendly environment;
- Ensure existing homestead neighborhoods are maintained as healthy and attractive communities for future generations;
- Provide agriculture and pastoral homestead lots for subsistence and supplemental purposes;
- Provide general lease agriculture and pastoral lots of adequate size for commercial farming or ranching business purposes by native Hawaiians;
- Identify and establish a clear understanding of existing water resources available to the Hawaiian Homes Trust;
- Preserve and protect significant natural, historic and community resources on Trust lands;
- Manage interim land dispositions in a manner that is environmentally sound and does not jeopardize their future uses;
- Allow native Hawaiian use of natural resources on Trust lands for traditional and cultural purposes;
- Use no more than 1% or 266 acres on Moloka'i of DHHL lands for Commercial and

Industrial uses by 2014; and

- Establish and implement a planning system that increases beneficiary participation in the development and use of Hawaiian home lands and improves communications between DHHL and the beneficiary community.

Community Use – A total of 234 acres are designated Community Use island-wide and includes areas in residential communities such as school and parks sites as well as community use areas with regional significance. Activities related to Community Based Economic Development are also in this category. Community uses are found in all DHHL tracts on the island.

Approximately 76 acres have been designated for Community Use within Kalama‘ula. These areas include the existing “church row,” the Kulana ‘Ōiwi Multi-Services Center, Homelani Cemetery, Kapuāiwa Grove, and future plans for community park space and kūpuna housing or service center. (See Figure 11)

DESIGNATION	SETTING/INTENT PURPOSE	LOT SIZE	MINIMUM INFRASTRUCTURE
Community Use	Common areas for community uses. Includes space for parks & recreation, cultural activities, CBED, & other public amenities	TBD (see standards)	County standards

Table 2 Definition of DHHL Community Use Source: DHHL Molokai Island Plan

KALAMA‘ULA and PALĀ‘AU Land Uses

Land Use Designation	Acres	% of total
Residential	398	7.5
Subsistence Agriculture	213	4.0
Supplemental Agriculture	0	0.0
Pastoral	539	10.2
General Agriculture	2,353	44.3
Special District	1719	32.3
Community Use	83	1.5
Conservation	0	0.0
Commercial	13	0.2
Industrial	0	0.0
TOTAL	5,318	100.0

Table 3 Kalama‘ula and Palā‘au Land Use by Acreage Source: DHHL Molokai Island Plan

C. STATE LAND USE LAW

The laws regarding the State Land Use Commission and State land use districts are set forth in Chapter 205, Hawaii Revised Statutes (HRS). These laws establish four (4) land use districts in the State of Hawaii into which all lands in the State are placed: Urban, Rural, Agricultural, and Conservation. The subject property is located in the State Rural District. (See Figure 4, State Land Use Map) The use of this land for the proposed Kiowea Park recreation facility is consistent with the Rural designation for the property, which allows for “Public, quasi-public, and public utility facilities” in the Rural District, per HRS §205-5(c)(4). The beach park is a quasi-public use that is compatible with other rural uses in the area.

D. COASTAL ZONE MANAGEMENT LAW

The proposed project’s relationship to the objectives and policies of the CZM Program set forth in HRS Section 205A-2 are as follows:

§205A-2 Coastal zone management program; objectives and policies.

(a) The objectives and policies in this section shall apply to all parts of this chapter.

(b) Objectives.

(1) Recreational resources;

(A) Provide coastal recreational opportunities accessible to the public.

Relationship: *The proposed project will be accessible for use by the public.*

(2) Historic resources;

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

Relationship: *The proposed project has been designed in collaboration with the Kalamaula Homesteaders Association and*

the Department of Hawaiian Home Lands to protect, preserve and restore natural and manmade historic and prehistoric resources that are significant in Hawaiian and American history and culture.

(3) Scenic and open space resources;

(A) Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Relationship: *The proposed project has been designed in collaboration with the Kalamaula Homesteaders Association and the Department of Hawaiian Home Lands to protect, preserve and improve the quality of coastal scenic and open space resources by limiting the height of the structures to one story and grouping the facilities into one building to preserve open spaces. Landscaping has been designed to utilize existing trees, plants and ground cover consistent with the pre-development state of the property.*

(4) Coastal ecosystems;

(A) Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Relationship: *The proposed project will not disrupt any valuable coastal ecosystems, including reefs. All runoff generated from the project will be contained on the property (see preliminary drainage report) and best management practices will be employed to retain all sediment and dust within the property to the extent possible.*

(5) Economic uses;

(A) Provide public or private facilities and improvements important to the State's economy in suitable locations.

Relationship: *Use of the facilities generates income for the Kalama'ula Homesteaders Association, which benefits the local economy.*

(6) Coastal hazards;

(A) Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.

Relationship: *The proposed project has been designed to reduce*

hazard to life and property from tsunamis, storm waves, stream flooding, erosion, subsidence, and pollution by locating new structures as far from the shoreline as is feasible, as a form of strategic retreat. A setback distance based on 25 percent of the average lot depth was used to locate new structures. Since this is an unoccupied occasional use facility, extreme weather and natural events would preclude use of the pavilion as a matter of safety.

(7) Managing development;

(A) Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Relationship: *Along with the environmental review process (HEPA), the proposed project is undergoing the development review process and communication and public participation in the management of coastal resources and hazards is being encouraged and facilitated.*

(8) Public participation;

(A) Stimulate public awareness, education, and participation in coastal management.

Relationship: *Along with the environmental review process (HEPA), the proposed project is undergoing the development review process, and the community-based project and ongoing management of the park encourages public participation in coastal management.*

(9) Beach protection;

(A) Protect beaches for public use and recreation.

Relationship: *The proposed project has been designed to site all new structures the greatest distance possible from the shoreline area in order to protect the shoreline and beaches for public use and recreation.*

(10) Marine resources;

(A) Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Relationship: *The proposed project has been designed to promote the protection, use, and development of marine and coastal resources to assure their sustainability by siting all new structures the greatest distance possible from the shoreline area.*

The proposed project is consistent with the SMA guidelines set forth in HRS Section 205-A-26 as follows:

§205A-26 Special management area guidelines. In implementing this part, the authority shall adopt the following guidelines for the review of developments proposed in the special management area:

(1) All development in the special management area shall be subject to reasonable terms and conditions set by the authority in order to ensure:

(A) Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles;

Relationship: *The proposed project has been designed to provide adequate access to publicly owned and used beaches, recreation areas, and natural reserves to the extent consistent with sound conservation principles. The project is for improvements to a beach park which will improve access to the shoreline for recreation.*

(B) Adequate and properly located public recreation areas and wildlife preserves are reserved;

Relationship: *The proposed project has been designed to adequately and properly locate public recreation areas.*

(C) Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon special management area resources; and

Relationship: *The proposed project has been designed to include an individual wastewater system with grease interceptor to dispose of and manage solid and liquid waste generated by the facility,*

*consistent with State Department of Health regulations. Solid waste will be removed by the management and users of the pavilion and disposed of in the County of Maui, Naiwa landfill. Sturdy animal-proof garbage containers that reduce the attractiveness of the area to non-native and feral species, such as house mice (*Mus musculus*), rats (*Rattus spp.*), and feral cats and dogs will be used.*

(D) Alterations to existing land forms and vegetation, except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, wind damage, storm surge, landslides, erosion, siltation, or failure in the event of earthquake.

Relationship: *The proposed project has been designed to cause minimum adverse effects to water resources and scenic and recreational amenities and minimum danger of floods, wind damage, storm surge, landslides, erosion, siltation and failure in the event of earthquake.*

(2) No development shall be approved unless the authority has first found:

(A) That the development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interests. Such adverse effects shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect, and the elimination of planning options;

(B) That the development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature; and

(C) That the development is consistent with the county general plan and zoning. Such a finding of consistency does not preclude concurrent processing where a general plan or zoning amendment may also be

required.

Relationship: *The project is undergoing evaluation by the Accepting Agency, which will not issue final approvals to KHA until it has successfully found the project is in compliance with the above statements, with the exception of (C), as County land use and zoning has been supplanted by DHHL land use planning.*

(3) The authority shall seek to minimize, where reasonable:

(A) Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;

Relationship: *Not Applicable*

(B) Any development which would reduce the size of any beach or other area usable for public recreation;

Relationship: *The proposed project has been designed in a manner that will not reduce the size of the beach or other areas usable for public recreation.*

(C) Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management areas and the mean high tide line where there is no beach;

Relationship: *The proposed project has been designed in a manner that will not reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management area and the mean high tide line where there is no beach.*

(D) Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and

Relationship: *The proposed project has been designed to limit the height of the structures to one story, to group all facilities within one building and to blend in with the natural state of the subject property such as not to substantially interfere with or detract from the line of*

sight toward the sea from Maunaloa Highway.

(E) Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land. [L 1975, c 176, pt of §1; am L 1977, c 188, §10; am L 1979, c 200, §9; am L 1984, c 113, §2; am L 1994, c 3, §2]

Relationship: *The proposed project has been designed to retain all runoff and sediment within the property to minimize any effects on water quality, and will not place any structures in the water in order to protect existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land. In addition, the proposed project has sought input from the County of Maui Planning Department, has been designed in accordance with SMA policies and guidelines (see sections C and D above), the principles and methodology of the Shoreline Setback Rules, and is designed to be in consonance with HRS 226, Maui County General Plan, and Molokai Community Plan (See sections C and D below).*

E. GENERAL PLAN OF THE COUNTY

The County of Maui 2030 General Plan includes the Countywide Policy Plan and the individual Community Plans and provides long-term goals, objectives, and policies directed toward improving living conditions in the County.

Although beneficiary community use projects on Hawaiian Home Lands are not subject to County land use and zoning requirements, the proposed construction of the recreational facility is consistent with the following Countywide Policy Plan goals, objectives, policies and actions:

Countywide Policy Plan goals, objectives, policies, and actions

A. Protect the Natural Environment

Goal: Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.

Objective:

1. Improve the opportunity to experience the natural beauty and native biodiversity of the islands for present and future generations.

Policies:

- b. Preserve and reestablish indigenous and endemic species' habitats and their connectivity.
- e. Protect undeveloped beaches, dunes, and coastal ecosystems, and restore natural shoreline processes.
- f. Protect the natural state and integrity of unique terrain, valued natural environments, and geological features.
- g. Preserve and provide ongoing care for important scenic vistas, view planes, landscapes, and open-space resources.

Objective:

2. Improve the quality of environmentally sensitive, locally valued natural resources and native ecology of each island.

Policies:

- d. Utilize land-conservation tools to ensure the permanence of valued open spaces.

Objective:

3. Improve the stewardship of the natural environment.

Policies:

- a. Preserve and protect natural resources with significant scenic, economic, cultural, environmental, or recreational value.
- b. Improve communication, coordination, and collaboration among government agencies, nonprofit organizations, communities, individuals, and land owners that work for the protection of the natural environment.
- c. Evaluate development to assess potential short-term and long-term impacts on land, air, aquatic, and marine environments.

- h. Provide public access to beaches and shorelines for recreational and cultural purposes where appropriate.
- j. Support the acquisition of resources with scenic, environmental, and recreational value, and encumber their use.

B. Preserve Local Cultures and Traditions

Goal: Maui County will foster a spirit of pono and protect, perpetuate, and reinvigorate its residents' multi-cultural values and traditions to ensure that current and future generations will enjoy the benefits of their rich island heritage.

Objective:

1. Perpetuate the Hawaiian culture as a vital force in the lives of residents.

Policies:

- a. Protect and preserve access to mountain, ocean, and island resources for traditional Hawaiian cultural practices.
- c. Promote the use of ahupua'a and moku management practices.
- f. Recognize and preserve the unique natural and cultural characteristics of each ahupua'a or district.

Objective:

2. Emphasize respect for our island lifestyle and our unique local cultures, family, and natural environment.

Policies:

- a. Acknowledge the Hawaiian culture as the host culture, and foster respect and humility among residents and visitors toward the Hawaiian people and their practices.
- b. Perpetuate a respect for diversity, and recognize the historic blending of cultures and ethnicities.
- c. Encourage the perpetuation of each culture's unique cuisine, attire, dance, music, and folklore, and other unique island traditions and recreational activities.
- d. Recognize the interconnectedness between the natural environment and the cultural heritage of the islands.
- e. Protect and prioritize funding for recreational activities that support local

cultural practices, such as surfing, fishing, and outrigger-canoe paddling.

Objective:

3. Preserve for present and future generations the opportunity to know and experience the arts, culture, and history of Maui County.

Policies:

- b. Support the development of cultural centers.
- d. Foster the Aloha Spirit by celebrating the Hawaiian host culture and other Maui County cultures through support of cultural-education programs, festivals, celebrations, and ceremonies.
- e. Support the perpetuation of Hawaiian arts and culture.

Objective:

4. Preserve and restore significant historic architecture, structures, cultural sites, cultural districts, and cultural landscapes.

Policies:

- d. Protect and preserve lands that are culturally or historically significant.
- f. Perpetuate the authentic character and historic integrity of rural communities and small towns.
- g. Seek solutions that honor the traditions and practices of the host culture while recognizing the needs of the community.
- l. Foster partnerships to identify and preserve or revitalize historic and cultural sites.

F. Strengthen the Local Economy

Goal: Maui County's economy will be diverse, sustainable, and supportive of community values.

Objective:

1. Promote an economic climate that will encourage diversification of the County's economic base and a sustainable rate of economic growth.

Policies:

- a. Support economic decisions that create long-term benefits.
- c. Invest in infrastructure, facilities, and programs that foster economic diversification.

- d. Support and promote locally produced products and locally owned operations and businesses that benefit local communities and meet local demand.

Objective:

- 3. Support a visitor industry that respects the resident culture and the environment.

Policies:

- a. Promote traditional Hawaiian practices in visitor-related facilities and activities.
- d. Support the renovation and enhancement of existing visitor facilities.
- h. Foster an understanding of local cultures, customs, and etiquette, and emphasize the importance of the Aloha Spirit as a common good for all.

G. Improve Parks and Public Facilities

Goal: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.

Objective:

- 1. Expand access to recreational opportunities and community facilities to meet the present and future needs of residents of all ages and physical abilities.

Policies:

- a. Protect, enhance, and expand access to public shoreline and mountain resources.
- b. Expand and enhance the network of parks, multi-use paths, and bikeways.
- d. Expand venue options for recreation and performances that enrich the lifestyles of Maui County's people.
- f. Encourage and invest in recreational, social, and leisure activities that bring people together and build community pride.
- g. Promote the development and enhancement of community centers, civic spaces, and gathering places throughout our communities.
- h. Expand affordable access to recreational opportunities that support the local lifestyle.

Objective:

- 2. Improve the quality and adequacy of community facilities.

Policies:

- b. Provide and maintain community facilities that are appropriately designed to reflect the traditions and customs of local cultures.
- c. Ensure that parks and public facilities are safe and adequately equipped for the needs of all ages and physical abilities to the extent reasonable.
- d. Maintain, enhance, expand, and provide new active and passive recreational facilities in ways that preserve the natural beauty of their locations.
- e. Redesign or retrofit public facilities to adapt to major shifts in environmental or urban conditions to the extent reasonable.

Objective:

- 3. Enhance the funding, management, and planning of public facilities and park lands.

Policies:

- c. Provide public-recreational facilities that are clean and well-maintained.
- e. Ensure that there is an adequate supply of public restrooms in convenient locations.
- I. Improve Physical Infrastructure

Goal: Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and sustainable technologies.

Objective:

- 4. Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.

Policies:

- a. Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.
- c. Utilize appropriate infrastructure technologies in the appropriate locations.
- d. Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.
- J. Promote Sustainable Land Use and Growth Management

Goal: Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.

Objective:

1. Improve land use management and implement a directed-growth strategy.

Policies:

- b. Direct urban and rural growth to designated areas.

Objective:

3. Design all developments to be in harmony with the environment and to protect each community's sense of place.

Policies:

- c. Protect and enhance the unique architectural and landscape characteristics of each Community Plan Area, small town, and neighborhood.
- f. Use trees and other forms of landscaping along rights-of-way and within parking lots to provide shade, beauty, urban-heat reduction, and separation of pedestrians from automobile traffic in accordance with community desires.
- j. Protect rural communities and traditional small towns by regulating the footprint, locations, site planning, and design of structures.

Objective:

4. Improve and increase efficiency in land use planning and management.

Policies:

- a. Assess the cumulative impact of developments on natural ecosystems, natural resources, wildlife habitat, and surrounding uses.
- b. Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.
- C. Encourage public and private partnerships to preserve lands of importance, develop housing, and meet the needs of residents.

F. MOLOKA'I COMMUNITY PLAN

Maui County has adopted nine (9) community plans. Each community plan examines the conditions and needs of the planning region and outlines objectives, policies, planning standards, and implementing actions to guide future growth and development in accordance with the Maui County General Plan. Each community plan serves as a relatively detailed agenda for implementing the objectives and policies of the General Plan.

The subject property is located within the Moloka'i Community Plan region and is designated for Rural use by the community plan's land use map (See Figure 5, Community Plan Map). The updated community plan was adopted by Ordinance No. 3022 and went into effect on December 19, 2001. DHHL may exert its land use authority for beneficiary community use projects on Hawaiian Home Lands, therefore the project is not subject to County Community Plan land use requirements. However, the proposed construction of the recreational facility has been analyzed by the Planning Office and the consultant and found to be consistent with the community plan land use designation of Rural. The following goals, objectives, policies, and planning standards of the Moloka'i Community Plan are applicable to the proposed action:

C. Goals, Objectives, Policies and Implementing Actions

LAND USE

GOAL

Enhance the unique qualities of the island of Moloka'i to provide future generations the opportunity to experience rural and traditional lifestyles.

OBJECTIVES AND POLICIES

15. Regulate land use in a manner which reaffirms and respects customary and traditional rights of Native Hawaiians as mandated by Article 12, Section 7, Constitution of the State of Hawaii.
20. Require infrastructure concurrency for all new development including but not limited to: school and park facilities, fire and police protection, roadways, water,

and wastewater systems.

SUBSISTENCE

GOAL

The continued practice of subsistence as a part of the Moloka'i lifestyle which incorporates and fosters the traditional and cultural values of conservation, malama 'āina and 'auwana.

OBJECTIVES AND POLICIES

1. Recognize the historical, traditional and continued role of subsistence activities as an integral part of the island residents' lifestyle.
2. Encourage and protect traditional Hawaiian access as mandated by Article 12, Section 7 of the Hawaiian State Constitution and HRS 7-10.
4. Where appropriate, use subsistence considerations as a factor in the design, evaluation and permit processing of discretionary land use proposals.
5. Wherever possible, protect trails for traditional Hawaiian Access.

ENVIRONMENT

GOAL

Preserve, protect and manage Moloka'i's exceptional natural land and water resources to ensure that future generations may continue to enjoy and protect the island environment.

OBJECTIVES AND POLICIES

1. Protect and encourage the restoration of native habitats through government and private conservation, land management and educational programs.
3. Manage, protect and preserve shoreline dune formations throughout the planning region. These topographic features are a significant element of the natural setting, often contain burials, and should be protected from any actions which would detract from their scenic or cultural value.
4. Manage, protect, and where appropriate, restore reef habitats, fish ponds and other coastal resources unique to the Island of Moloka'i.
5. Protect and manage coastal water quality through best management land treatment practices.
6. Recognize and preserve traditional access and uses of the environment to

address subsistence needs of the residents of Moloka'i.

12. Recognize Native Hawaiian rights to environmental resources.
14. Preserve the island's scenic vistas and natural features, and maintain ocean view corridors along coastal roads.
15. Discourage any additional development of buildings which impact the integrity of the shoreline.
16. Establish shoreline setback plans based upon the unique cultural environmental and ecological shoreline characteristics of Moloka'i's coastline.

CULTURAL RESOURCES

GOAL

Preservation, enhancement and appropriate use of cultural resources, cultural practices and historic sites that provide a sense of history and define a sense of place for the island of Moloka'i.

OBJECTIVES AND POLICIES

1. Foster an awareness of the diversity and importance of cultural resources and of the history of Moloka'i.
3. Encourage and protect the use of ancient Hawaiian trails, cultural practices and rural lifestyles.
4. Encourage community stewardship of historic sites and recognize and respect family ancestral ties to certain sites.
5. Recognize areas of historic vegetation and significant native vegetation zones as cultural resources.

ECONOMIC ACTIVITY

GOAL

A balanced local economy which provides preferred employment levels, long-term viability and sustainability while meeting residents' needs, respecting cultural and natural resources, and is in harmony with Moloka'i's rural quasi-subsistence lifestyle

OBJECTIVES AND POLICIES

8. Support small businesses and community-based economic development.

DESIGN

GOAL

Harmony between the natural and man-made environments to ensure that the natural beauty and character of Moloka'i is preserved.

OBJECTIVES AND POLICIES

1. Encourage the provision of coco palms and other trees which exceed building heights in close proximity to all buildings except along existing facades in downtown Kaunakakai.
3. Encourage building, infrastructure and landscaping designs which respect the scale, beauty and scenic qualities of Moloka'i.
4. Encourage grass swales and dry sump rather than curbs, gutters and sidewalks for residential and rural areas.
7. Promote the maintenance of historic landscapes and streetscapes in character to the region.

INFRASTRUCTURE

GOAL

Culturally and environmentally sensitive infrastructure systems, developed and maintained in a timely fashion, which protect and preserve the safety and health of Moloka'i's residents and visitors.

OBJECTIVES AND POLICIES

Water

1. Future water allocations for agriculture/aquaculture and Hawaiian Home Lands use should be given first priority and then consideration should be given to other viable economic development initiatives.

SOCIAL INFRASTRUCTURE

GOAL

An efficient and responsive system of people-oriented public services which enable residents to live a safe, healthy and enjoyable lifestyle.

OBJECTIVES AND POLICIES

Recreation

1. Provide and maintain recreational opportunities which address the needs of residents while respecting the rural character of Moloka'i.
7. Consider the recommendations of recreational users in budgeting for

improvements and new facilities.

DEPARTMENT OF HAWAIIAN HOME LANDS

GOAL

The timely implementation of programs and settlement of Native Hawaiians on Department of Hawaiian Home Lands.

OBJECTIVES AND POLICIES

1. Encourage and support planning and implementation of Department of Hawaiian Home Lands projects that benefit native Hawaiians.
2. Ensure a water supply which will support the development of Department of Hawaiian Home Lands projects.
3. Recognize and support the "first call" allocation of water resources for Department of Hawaiian Home Lands projects.
4. Encourage cooperative planning programs with the native Hawaiian community in order to foster a desired lifestyle and perpetuate the culture.
5. Encourage the development of cooperative planning programs between the County and the Department of Hawaiian Home Lands to ensure that infrastructure and public service needs adequately address the needs of the entire Moloka'i community.
7. Support educational facilities and programs development by the Department of Hawaiian Home Lands.

D. Planning Standards

The following planning standards are specific guidelines or measures for development and design. These standards are essential in clarifying the intent of the land use and urban design objectives and policies and the Land Use Map.

DESIGN

1. Limit building height throughout the island to two stories or thirty-five feet above grade, except in the Heavy Industrial Use area, where buildings may be forty feet in height and may exceed this height subject to design review by the County.
4. Encourage the siting of buildings so that the roofline is in context with surrounding terrain.
5. Consider existing topographical features in building design, building bulk, and

height.

6. Choose materials and colors which blend with the landscape avoiding highly reflective materials.

LANDSCAPE PLANTING

1. Native plant species which are found on the island of Moloka'i should be utilized in landscaping for all new developments.
2. Require the use of xeriscaping in future landscape planting.

G. COUNTY ZONING

The subject property is zoned for Interim use by the County of Maui. Although DHHL chooses to exert its land use authority for this beneficiary community use project on Hawaiian Home Lands, therefore it is not subject to County zoning requirements, the proposed construction of the recreational facility has been analyzed and found consistent with the zoning category's permitted uses per Title 19, Section 19.02A.030, as follows: "The construction of new, or the expansion of existing, parks, playgrounds, community centers or public/quasi-public facilities, owned or operated by private or governmental agencies, and tower structures in support of a utility, provided that the utility services the new or expanded park, playground, community center or public/quasi-public facilities. On the island of Molokai, building height shall be limited to 35 feet."

V. CHAPTER 343, HRS ENVIRONMENTAL ASSESSMENT SIGNIFICANCE CRITERIA

In accordance with Title 11, Department of Health, Chapter 200 and Subchapter 6, Section 11-200-12, Environmental Impact Statement Rules, and based on the detailed analysis contained within this document, the following conclusions are supported.

1. The proposed action will *not* involve an irrevocable commitment to loss or destruction of any natural or cultural resource.

Analysis. As documented in this report, the proposed project will not involve the loss or destruction of any natural or cultural resource (**See:** Section III.A). The project will enhance the traditional use of a cultural resource, the Kiowea Park area, by providing additional facilities for traditional and customary practices of Native Hawaiians.

2. The proposed action will *not* curtail the range of beneficial uses of the environment.

Analysis. The subject property is within the DHHL Community Use designation, the State Land Use - Rural District, is designated Park by the Molokai Community Plan and zoned Interim by the County of Maui. The proposed construction of the recreation facility is consistent with the existing land uses of the subject parcel and neighboring properties, and with the land use designations of DHHL and the County of Maui. While the shoreline area and the spring are unique and important environmental or natural resources on or near the project site, all construction will avoid those areas and the use of those resources will only be temporarily impacted by the project during construction. Therefore, the proposed action will not curtail the range of beneficial uses of the environment.

3. The proposed action will *not* conflict with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

Analysis. The project is being developed in compliance with the State's long term environmental goals. As documented in this report, appropriate mitigation measures will be implemented to minimize the potential for negative impacts to the environment. The project will not have any impact on flora and fauna, and is not expected to have a negative impact on archaeological or cultural resources based on the proposed mitigation measure of on-site cultural monitoring by DHHL staff during all ground disturbing activities.

4. The proposed action will *not* substantially affect the economic welfare, social welfare, and cultural practices of the community or State.

Analysis. Short-term positive economic impacts will result from the increase in activity associated with the construction of the project. Based on the above, the proposed action will not substantially affect the economic or social welfare and activities of the community, County or State.

5. The proposed action will *not* substantially affect public health.

Analysis. The project is for construction of a pavilion and all impacts will be localized to the site, therefore the project will not have a direct impact on public health.

6. The proposed action will *not* involve substantial secondary impacts, such as population changes or effects on public facilities.

Analysis. As described in Section III.B.1 of this assessment, the proposed project is not a population generator. As described in Section III.C, public facilities are deemed adequate. The level of these impacts is minimal and will not substantially affect population changes or public facilities. The project will enhance the availability of recreational facilities on the island of Molokai.

7. The proposed action will *not* involve substantial degradation of environmental

quality.

Analysis. Mitigation measures will be implemented during the construction phase in order to minimize negative impacts on the environment. Other environmental resources such as endangered species of flora and fauna, air and water quality, and archeological resources will not be significantly impacted by the subject project because there are no known rare, threatened or endangered species of flora and fauna, and on site cultural monitoring will mitigate any potential impacts to archaeological or cultural resources that may be located above or below the soil surface of the subject property.

8. The proposed project will not produce cumulative impacts and does *not* have considerable effect upon the environment or involve a commitment for larger actions.

Analysis. The proposed project does not involve a commitment for larger action on behalf of the applicant or any public agency. The subject property is designated Community Use in the DHHL Molokai Island Plan, the State Land Use - and Molokai Community Plan - Rural, and zoned Interim by Maui County and as such, is part of the planned future growth of the region. As described in this assessment, the project will not significantly impact public infrastructure and services including roadways, drainage facilities, water systems, sewers and educational facilities. In addition, the project is not anticipated to induce an increase in population growth and will therefore not produce considerable effect on the environment nor require a commitment for larger actions by governmental agencies.

9. The proposed project will *not* affect a rare, threatened, or endangered species, or its habitat.

Analysis. As described in Section III. A. 4. of this assessment, there are no known rare, threatened, or endangered species of flora and fauna, or their habitat, at the project site. Best Practices will be employed during all construction activities to prevent any impacts

to endangered or threatened species that may be occasionally present adjacent to the shoreline in the nearshore area.

10. The proposed action will *not* detrimentally affect air or water quality or ambient noise levels.

Analysis. As described in Sections III.A.5 and III.A.6 of this assessment, there is a potential for negative impacts to air quality and ambient noise levels related to short-term construction activities. Air, noise and dust impacts will be mitigated through implementation of standard mitigation measures as identified previously in this assessment. It is not anticipated that there will be significant long term impacts to air or water quality and ambient noise levels due to the future use of the recreational facility.

11. The proposed action will *not* substantially affect or be subject to damage by being located in an environmentally sensitive area, such as flood plain, shoreline, tsunami zone, erosion-prone areas, estuary, fresh waters, geologically hazardous land or coastal waters.

Analysis. As discussed in Section III.A.3 of this assessment, the project site is situated in Zone “X” an area determined to be outside the 0.2% annual chance floodplain, (See Figure No. 8, Flood Hazard Assessment Report) and is inside the tsunami inundation area as indicated by the County of Maui. The elevation of the subject property is above the flood levels determined for the surrounding area. The subject property, while potentially in a high coastal hazard area, is protected somewhat by Molokai’s fringing reef, and DHHL will implement training for park managers and DHHL staff in disaster preparedness and evacuation protocols. Therefore the project is not expected to be impacted by flood, tsunami, or other coastal-related hazards.

12. The proposed action will *not* substantially affect scenic vistas or view planes identified in county or state plans or studies.

Analysis. As described in Section III.A.8 of this report, the subject property is a waterfront parcel with relatively level topography and the construction of the new pavilion will have a minor effect on *makai* views. Therefore, the proposed project is not expected to have any adverse effects on scenic vistas or view planes identified in county or state plans or studies.

13. The proposed action will not require substantial energy consumption

Analysis. Upon build-out of the project, energy consumption will increase marginally. However, given existing levels of usage in the area, the increase is considered insignificant. Thus, it is not anticipated that the resultant increase in energy consumption will be significant in the context of existing levels of energy usage in the region, and on the island of Molokai overall.

VI. FINDINGS AND CONCLUSIONS

This Draft Environmental Assessment prepared per HRS Chapter 343 has examined the environmental, cultural and socio-economic impacts associated with the proposed Kiowea Park Phase II Improvements project to construct a new pavilion 4,000 square feet in area, with certified kitchen, restrooms, and office; Individual Wastewater Treatment System (IWS); and parking, drainage and landscaping improvements to serve the recreational needs of the people of Molokai.

The analysis concludes that the project will not result in significant impacts to surrounding properties, natural resources, or archaeological and historic resources on the site or in the immediate area with incorporation of mitigation measures identified in this document. In addition, public infrastructure and services including roadways, sewer and water systems will not be significantly impacted by the project.

On site improvements such as grubbing and grading, power and phone line extensions, individual wastewater system installation, the construction of the pavilion, restroom facilities and parking and drainage improvements will be initiated once all applicable requirements have been met and building permits have been secured. Best practices for erosion, dust and storm water runoff management will be utilized during all construction and site improvement activities.

The subject property is located in the DHHL Island Plan Community Use land use designation, the State Rural District and is designated for Rural and Interim uses by the Moloka'i Community Plan and Maui County zoning, respectively. The proposed action is in substantial conformance with all zoning and land use classifications for the subject property.

In context of the proposed action, the existing physical and socio-economic environment has been described in the preceding chapters of this assessment. Similarly, potential impacts and appropriate mitigation measures have also been discussed and evaluated. In terms of secondary impacts, which are indirect effects that are caused by an action

and occur later in time or are farther removed in distance, the proposed action is not expected to induce significant changes in development or land use patterns, nor is it anticipated to increase property values, generate new demands for housing, public services, and infrastructure or affect population density or growth rate.

After build out, the Kiowea Park recreational facility is not expected to have an adverse impact upon the physical environment (surrounding land uses, topography and soils, flora and fauna, environmentally sensitive areas, air and noise quality, historic and cultural resources, views and open space), the socio-economic environment (population, the economy), public services (parks, schools, health care, police and fire protection, refuse collection and disposal), and infrastructure (water, sewer, roadway, electrical, and telephone systems).

In light of the foregoing, the proposed construction of the Kiowea Park recreational facility is not expected to result in significant impacts to the physical and socio-economic environment nor is it anticipated to adversely affect public services and infrastructure systems.

A Finding of No Significant Impact (FONSI) is anticipated.

VII. REFERENCES

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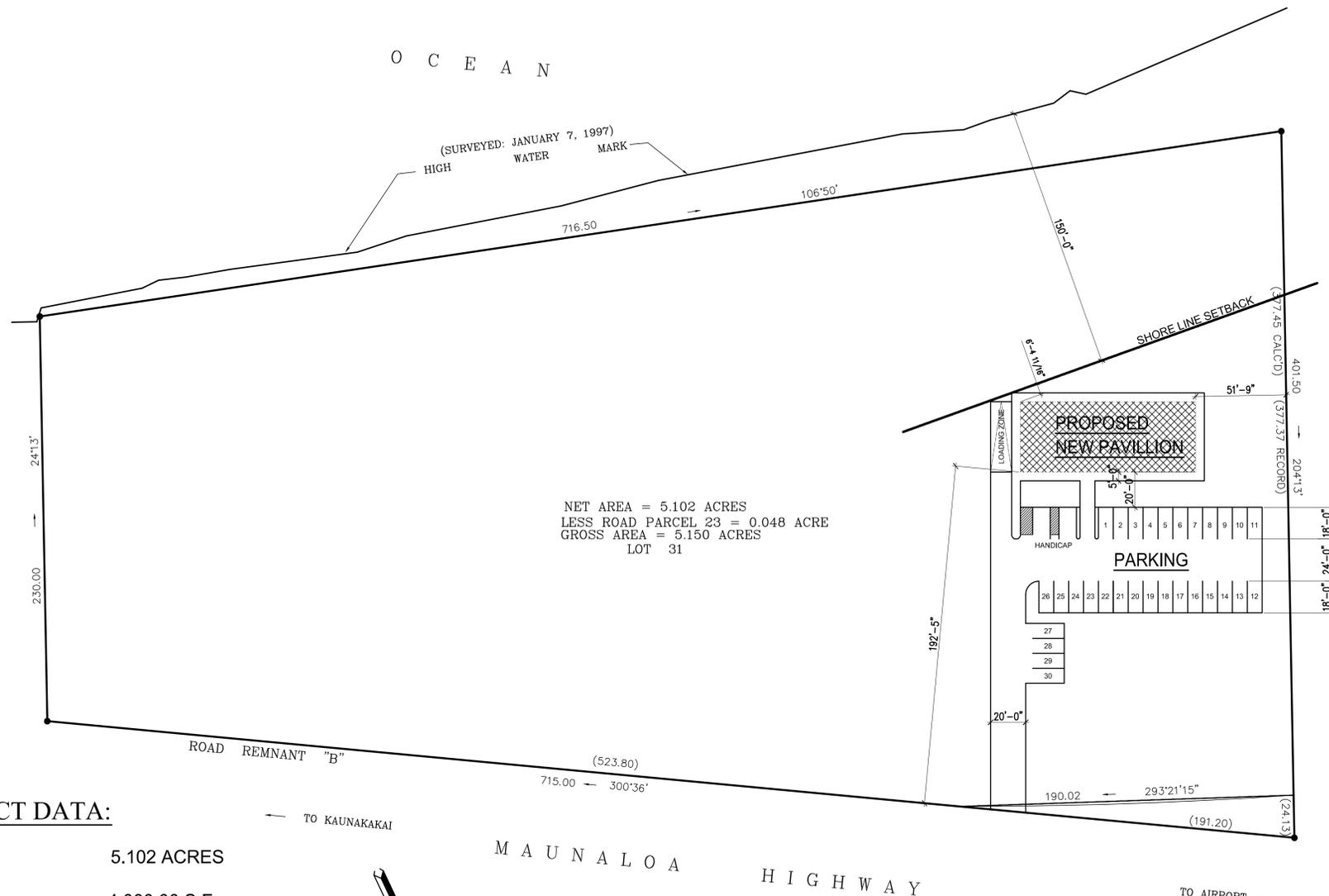
Appendix A

**Architectural
Drawings**

**PROPOSED NEW PAVILLION FOR:
 KIOWEA PARK
 605 MAUNALOA HIGHWAY
 KAUNAKAKAI, HAWAII 96748
 T. M. K. : (2) 5 - 2 - 009 : 018
 LOT AREA: 5.102 ACRES**

SPECIAL NOTES:

1. THE CONTRACTOR SHALL COORDINATE ALL THE WORK AND THE NECESSARY INFORMATION AND MATERIALS, ACCESSORIES, ANCHORS, CONNECTIONS, PATTERNS, TEMPLATES, ETC.. THAT SHALL BE DELIVERED WHEN REQUIRED IN ORDER TO PREVENT ANY DELAY IN THE PROGRESS AND COMPLETION OF WORK. COORDINATES BETWEEN ALL THE TRADES IS OF ESSENCE.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE AND EXAMINE THE EXISTING CONDITIONS. THE CONTRACTOR ON SIGNING THE AGREEMENT, WARRANTS THAT HE HAS VISITED THE SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS THERE ON. NO EXTRA PAYMENT WILL BE GIVEN FOR CONDITIONS WHICH CAN BE DETERMINE BY A THOROUGH EXAMINATION OF THE SITE AND DOCUMENTS.
3. THE CONTRACTOR SHALL NOT MAKE ANY ALTERATIONS TO THE DRAWINGS. IN ALL CASES, WHEN THERE IS A DISCREPANCY IN THE QUALITY OF AN ITEM, INSTALLATION, DETAILS, WORKMANSHIP OR OTHER CONSTRUCTION TECHNIQUES, THE CONTRACTOR SHALL USE THE BETTER QUALITY ITEM, INSTALLATION OR CONSTRUCTION TECHNIQUES PROVIDE TO PRODUCE THE BEST AVAILABLE COST OR WORK REQUIRED. IN ANY EVENT, A DISCREPANCY WITHIN THE DRAWING SHOULD IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR A DECISION BEFORE PROCEEDING WITH THE PARTICULAR WORK INVOLVED. WORK CARRIED OUT DISREGARDING THESE INSTRUCTION IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE EXPENSES OF THE CONTRACTOR.
4. IN ALL CASES, FIGURED DIMENSION TAKE PRECEDENCE OVER SCALED MEASUREMENTS. NO DIMENSION SHALL AT ANY TIME BE DETERMINED BY SCALE.
5. THE CONTRACTOR IS TO LAYOUT AND BE RESPONSIBLE FOR THE CORRECTNESS OF LAYING OUT SPACE IMPROVEMENT AND FOR LOCATING SERVICES AND UTILITIES.
6. THE CONTRACTOR SHALL INSTALL / APPLY ALL MATERIALS IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. THE CONTRACTOR SHALL CLEAN UP AND REMOVED ANY TRASH, DIRT, DEBRIS AND SPILLAGE ARISING FROM THE WORK TO THE SATISFACTION OF THE OWNER AND ARCHITECT, INCLUDING CLEANING OF DIRT, PUTTY, PAINT, ETC... FROM WORK AREAS, AND CLEANING OF WINDOWS FACES AND MULLIONS.
8. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH WORK.
9. CONTRACTOR IS TO REPAIR ANY DAMAGE TO EXISTING CONDITION TO REMAIN AND TO MATCH EXISTING AT NO EXPENSE TO THE OWNER.
10. ALL CONSTRUCTION TO CONFORM TO THE 1997 EDITION OF THE UNIFORM BUILDING CODE.(UBC). MAUI AMENDMENTS.
11. CONTRACTOR IS TO INSTALL ALL OWNER FURNISHED EQUIPMENT, INCLUDING ELECTRICAL, AND PLUMBING CONNECTIONS AS REQUIRED.
12. ALL NEW LUMBER SHALL BE TERMITE TREATED.
13. THE CONTRACTOR SHALL IMPLEMENT (BMP) BEST MANAGEMENT PRACTICE AT ALL TIMES.



PROJECT DATA:

LOT AREA:	5.102 ACRES
FLOOR AREA:	4,000.00 S.F.
BUILDING AREA:	4,000.00 S.F.
PARKING:	
STANDARD PARKING (18'X8'-6"):	30
HANDICAP PARKING:	2
LOADING ZONE (40'X12'):	1

SITE PLAN
 SCALE: 1" = 40'-0"

**Maui County Code, Chapter 16.16
 Energy Code**

I CERTIFY THAT THE PROPOSED PROJECT COMPLIES TO ARTICLE 14 OF THE MAUI COUNTY CODE, SECTION 16.16.220: LOW-RISE RESIDENTIAL ROOF HEAT GAIN REQUIREMENTS.

Signature: Edward A. Resh
 Name (Print): EDWARD A. RESH
 Title (Architect/Structural Engineer): ARCHITECT

Date: _____
 No. 3239
 State of Hawaii Professional License Number

REVISION	BY

EDWARD A. RESH
 LICENSED PROFESSIONAL ARCHITECT
 No. 3239
 HAWAII, U.S.A.

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SIGNATURE: Edward A. Resh EXPIRATION DATE: 4-30-12

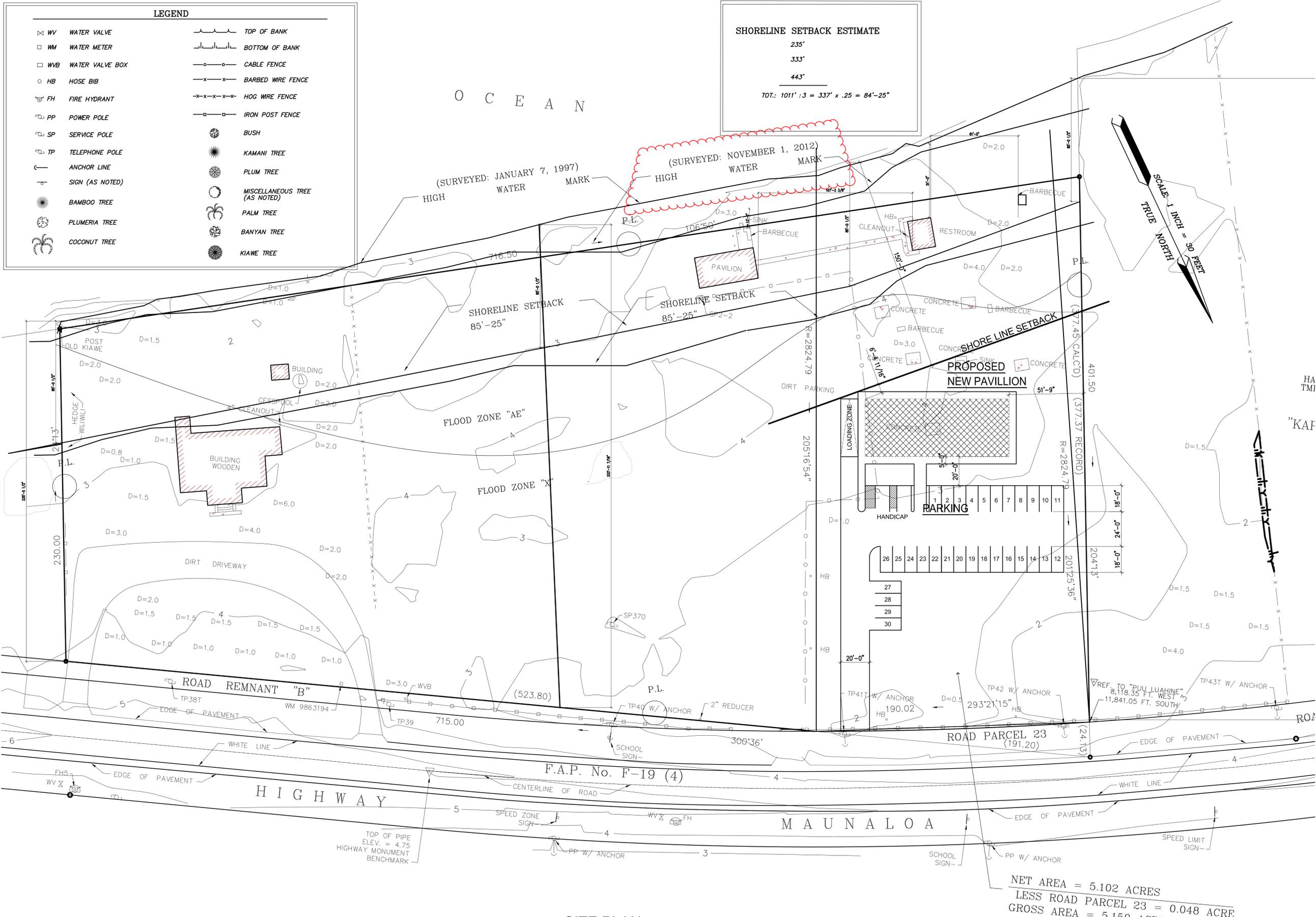
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 Tel. No. (808) 553-9045
 Fax. No. (808) 553-3952

NEW PAVILLION FOR:
KIOWEA PARK
 605 MAUNALOA HIGHWAY
 KAUNAKAKAI HI 96748
 T.M.K. (2)5-2-009:018

Date	FEB. 2012
Scale	AS NOTED
Drawn	DP
Check by	LM
Job	PAVILLION
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	of Sheets

LEGEND			
⊗ WV	WATER VALVE	— — —	TOP OF BANK
□ WM	WATER METER	— — —	BOTTOM OF BANK
□ WVB	WATER VALVE BOX	—○—○—	CABLE FENCE
○ HB	HOSE BIB	—x—x—x—x—	BARBED WIRE FENCE
⊗ FH	FIRE HYDRANT	—x—x—x—x—	HOG WIRE FENCE
⊙ PP	POWER POLE	—□—□—	IRON POST FENCE
⊙ SP	SERVICE POLE	⊙	BUSH
⊙ TP	TELEPHONE POLE	⊙	KAMANI TREE
—	ANCHOR LINE	⊙	PLUM TREE
—	SIGN (AS NOTED)	⊙	MISCELLANEOUS TREE (AS NOTED)
⊙	BAMBOO TREE	⊙	PALM TREE
⊙	PLUMERIA TREE	⊙	BANYAN TREE
⊙	COCONUT TREE	⊙	KIAMI TREE

SHORELINE SETBACK ESTIMATE
 235'
 333'
 443'
 TOT.: 1011' : 3 = 337' x .25 = 84'-25"



SITE PLAN
 SCALE: 1" = 30'-0"

NET AREA = 5.102 ACRES
 LESS ROAD PARCEL 23 = 0.048 ACRE
 GROSS AREA = 5.150 ACRES
 LOT 31

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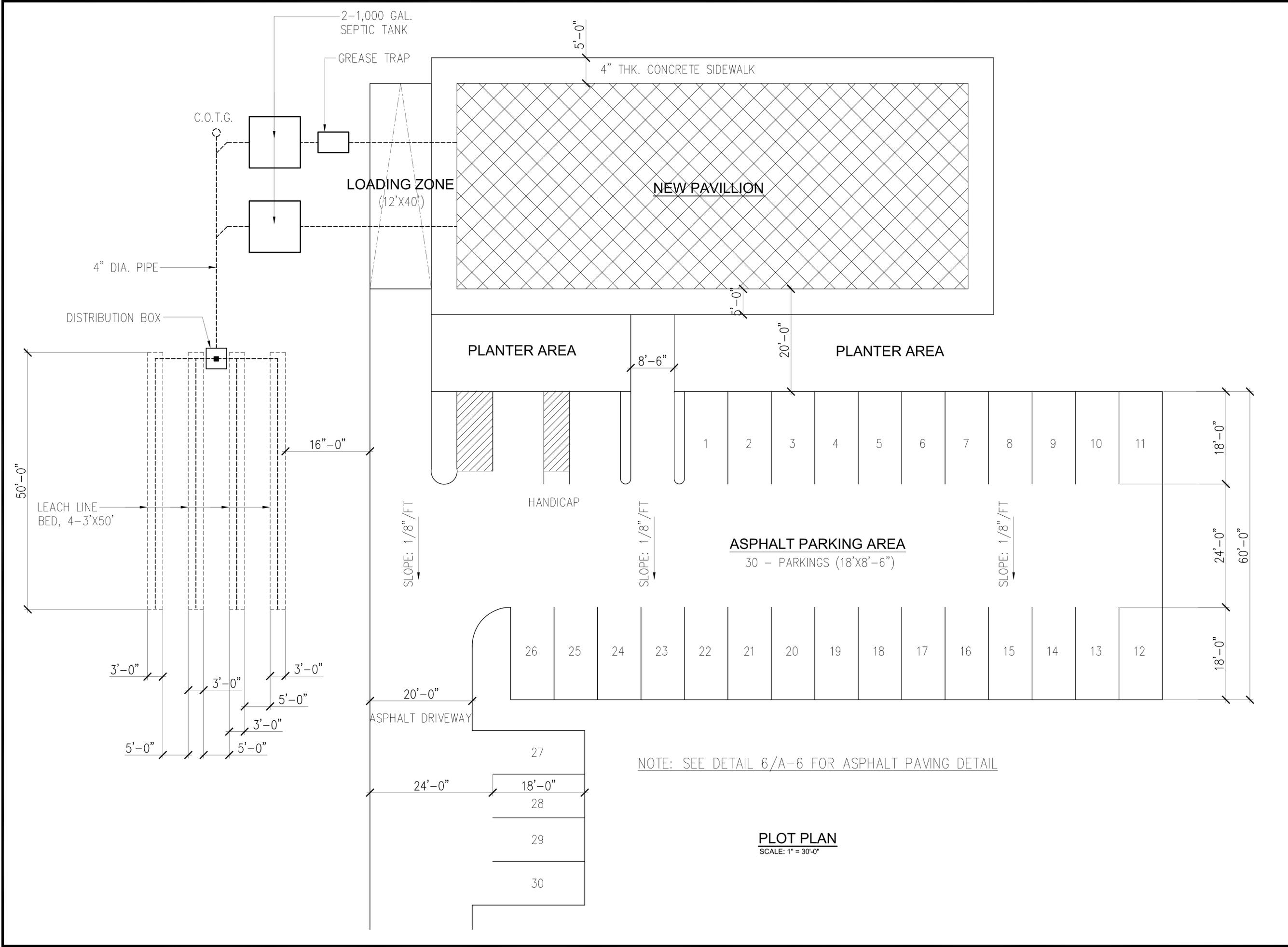
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NOTE: SEE DETAIL 6/A-6 FOR ASPHALT PAVING DETAIL

PLOT PLAN
 SCALE: 1" = 30'-0"

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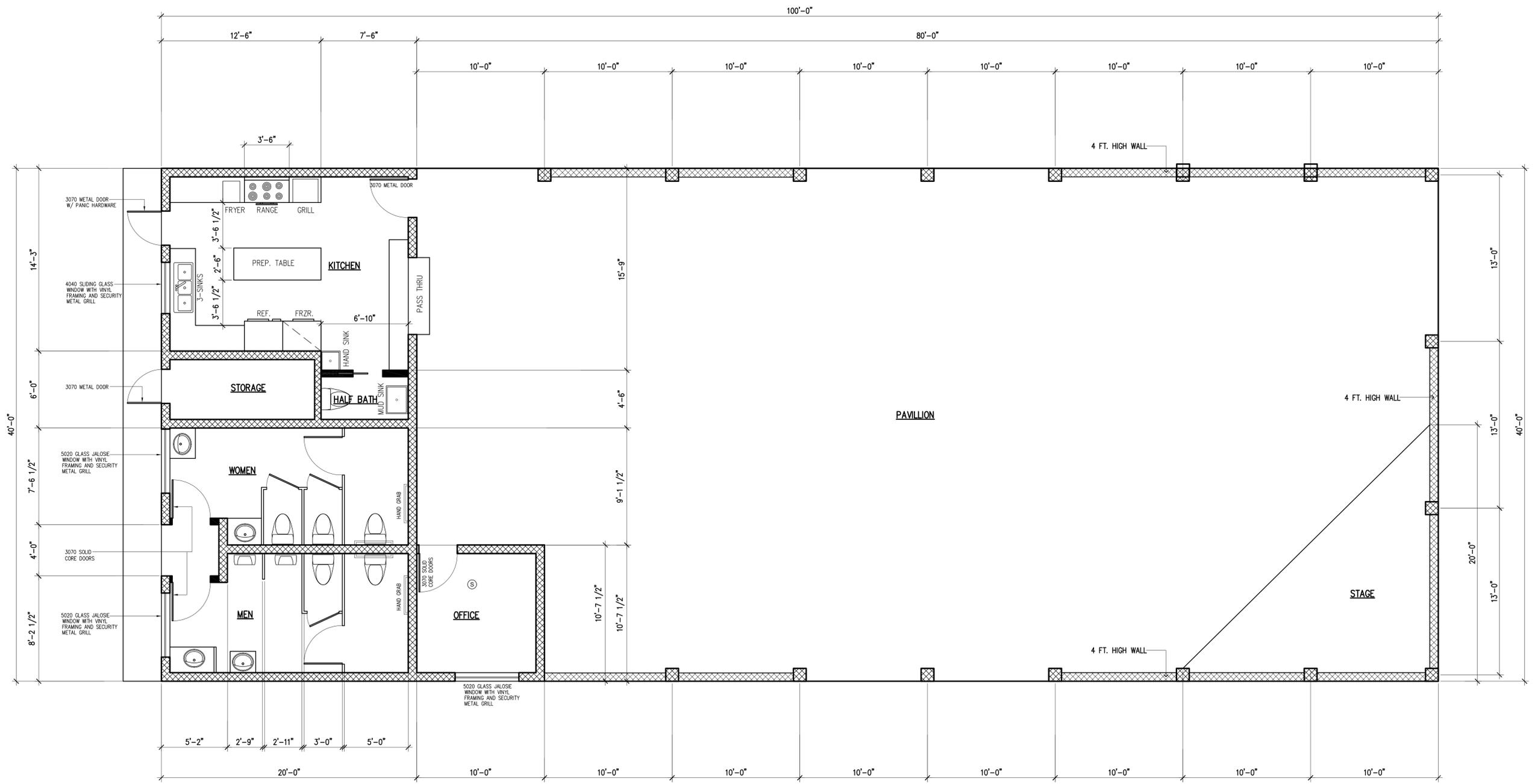
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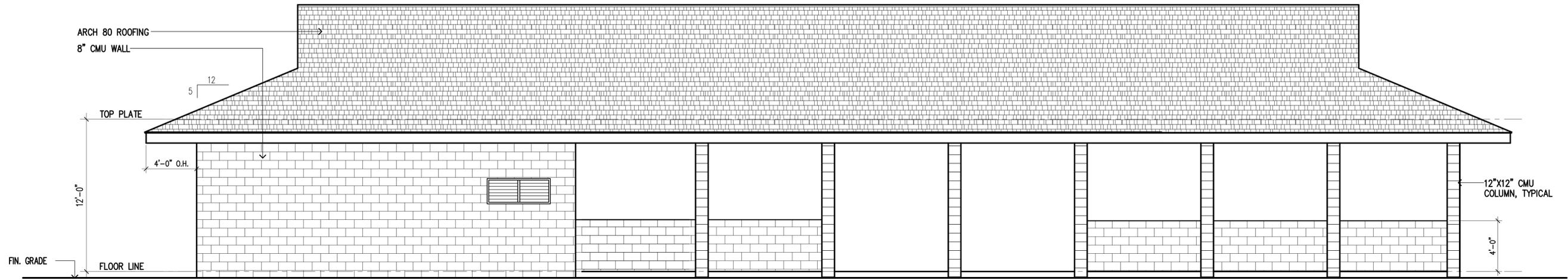
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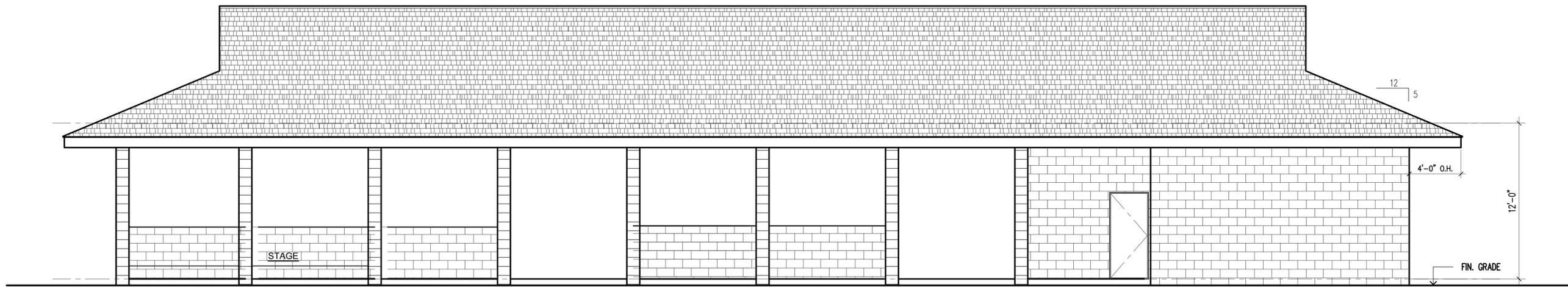


FLOOR PLAN
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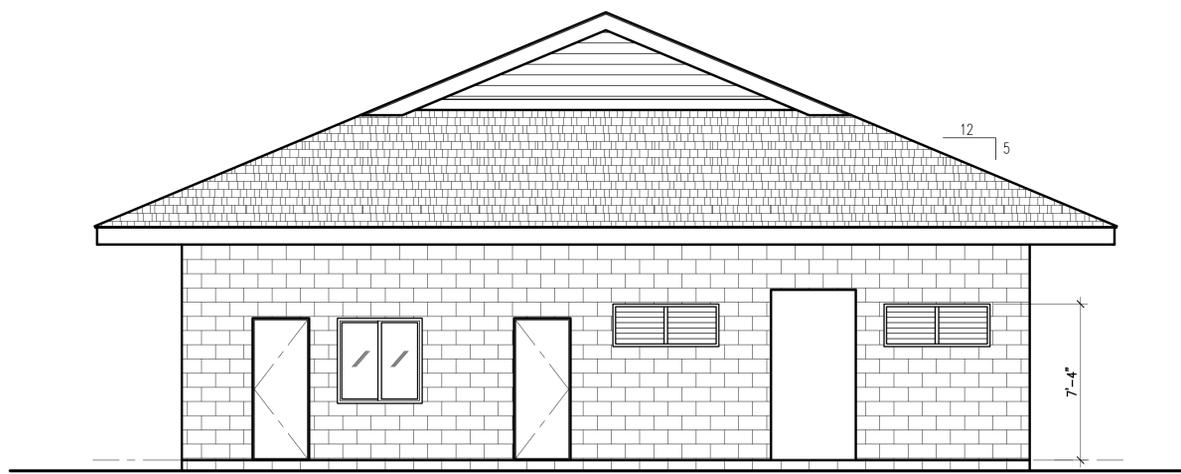
NOTE:
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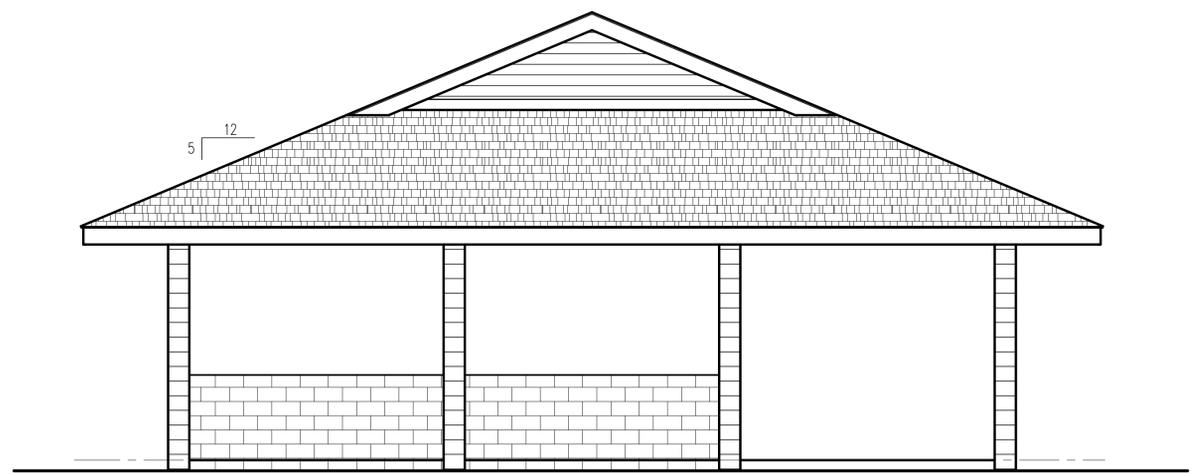
FRONT ELEVATION
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REAR ELEVATION
SCALE: 1/4"=1'-0"



LEFT SIDE ELEVATION
SCALE: 1/4"=1'-0"



RIGHT SIDE ELEVATION
SCALE: 1/4"=1'-0"

REVISION	BY

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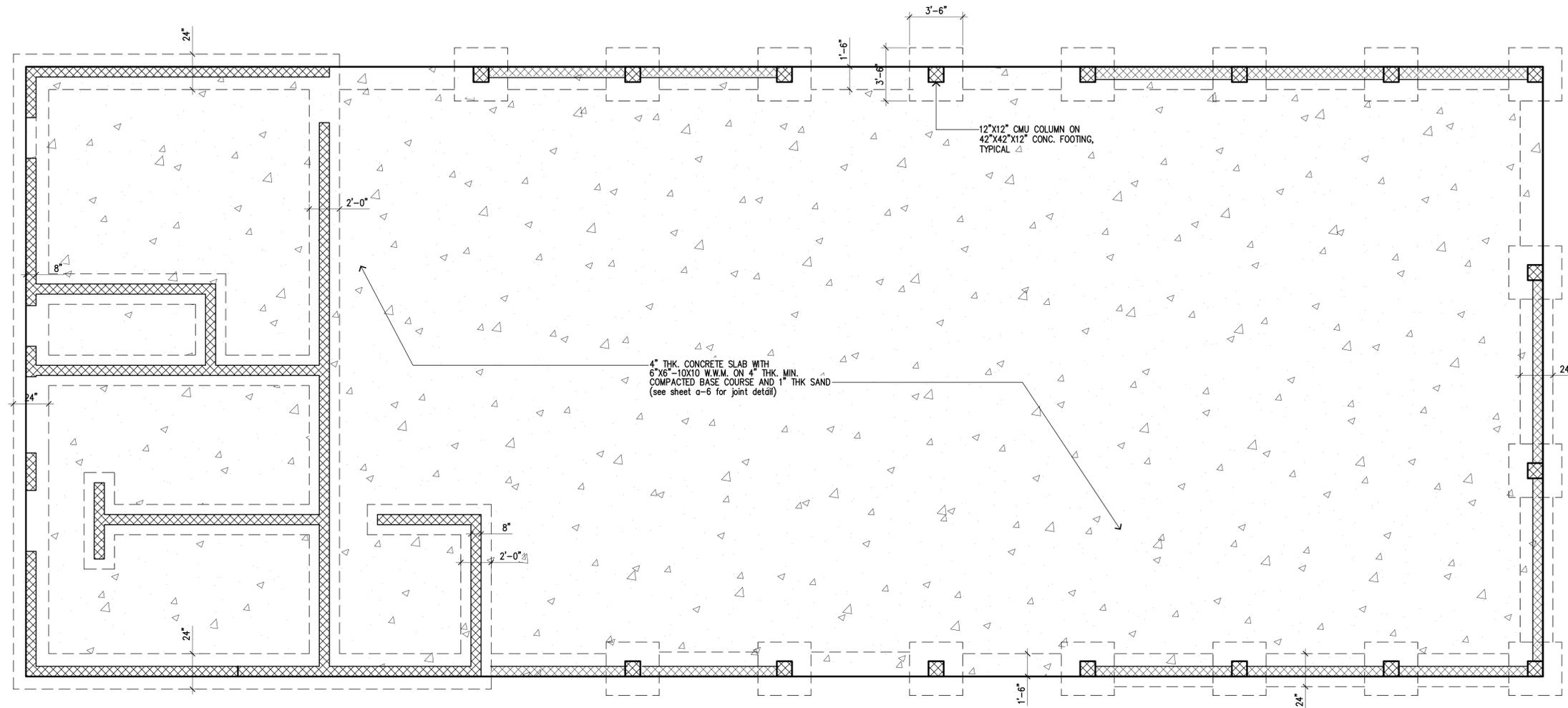
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FOUNDATION PLAN
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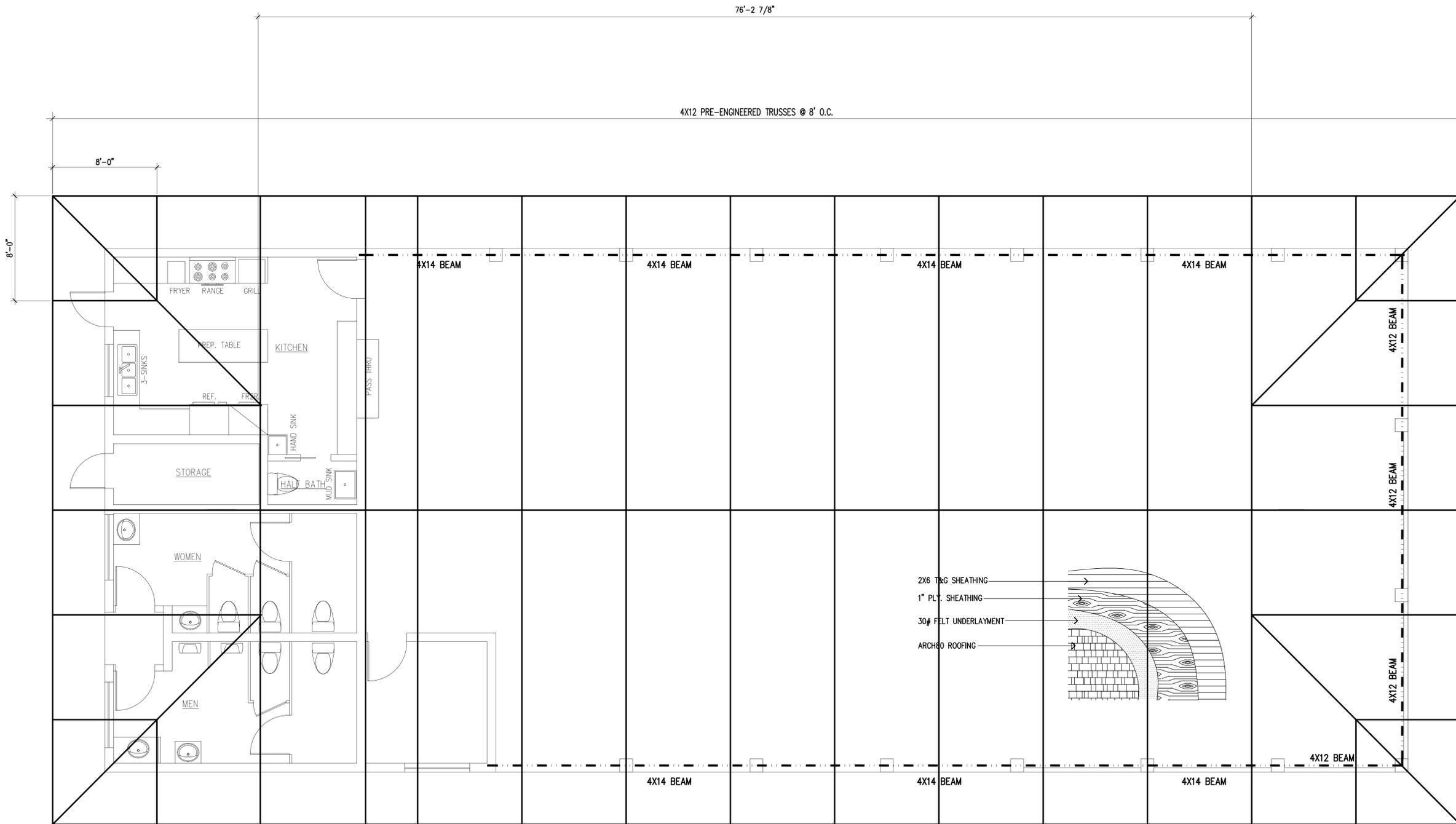
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ROOF FRAMING PLAN
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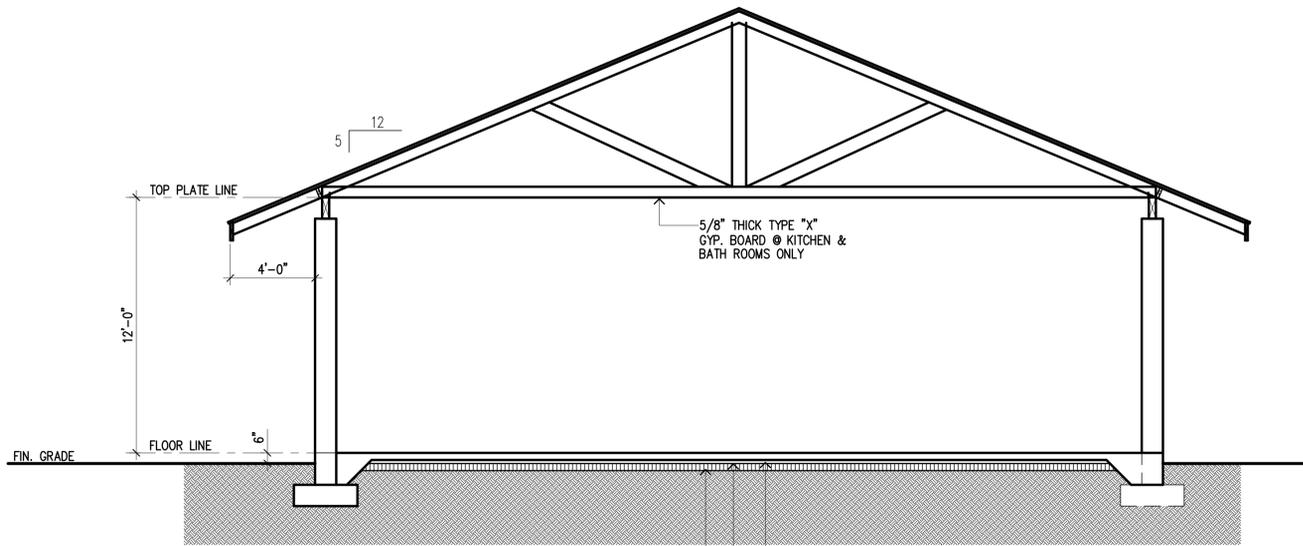
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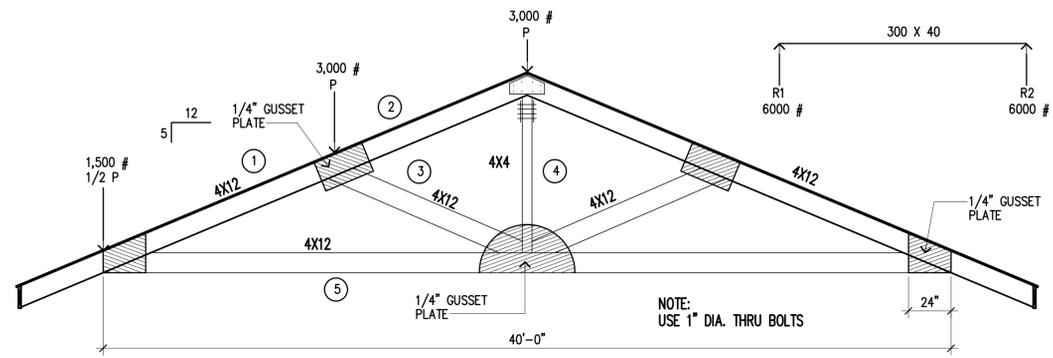
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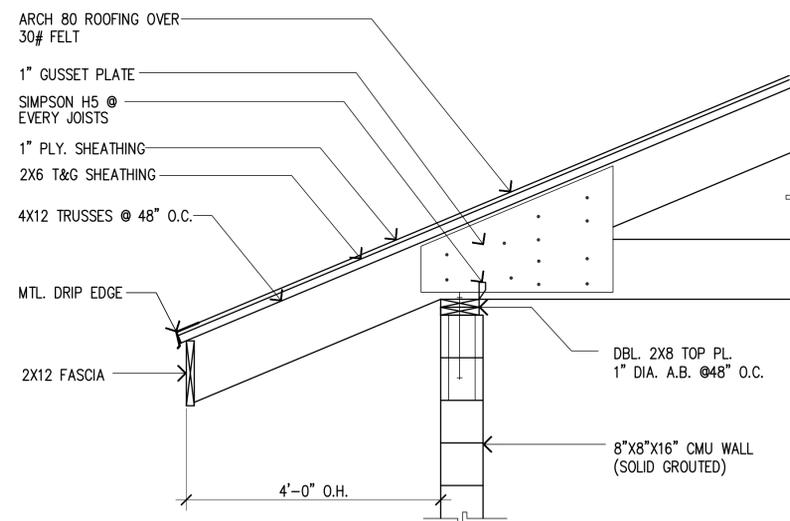


RIGHT SIDE ELEVATION
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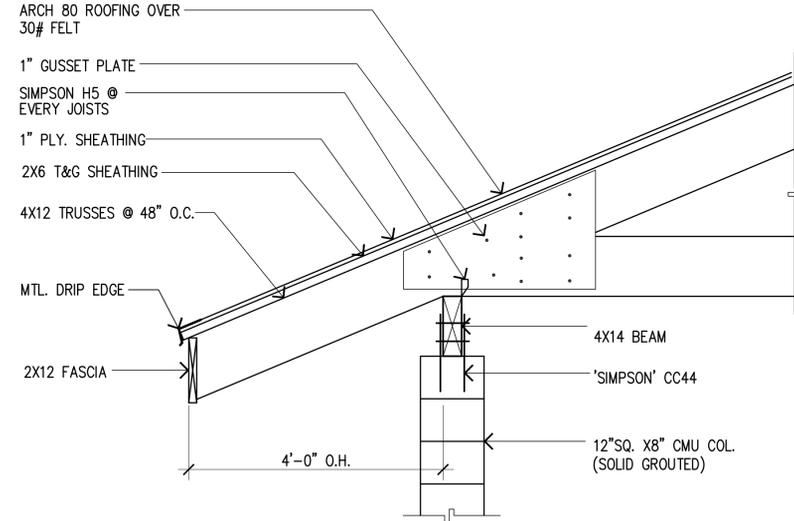


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3	-0.71	0
4	100	100
5	1.50	1.50

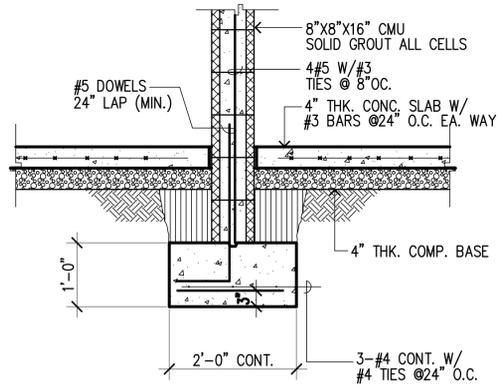
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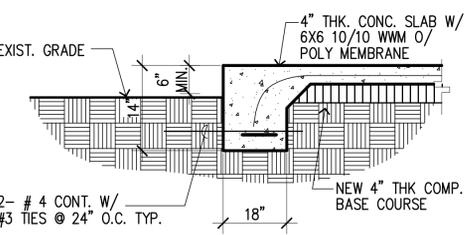
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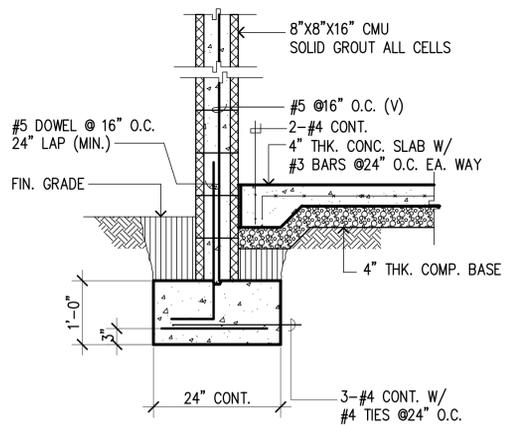
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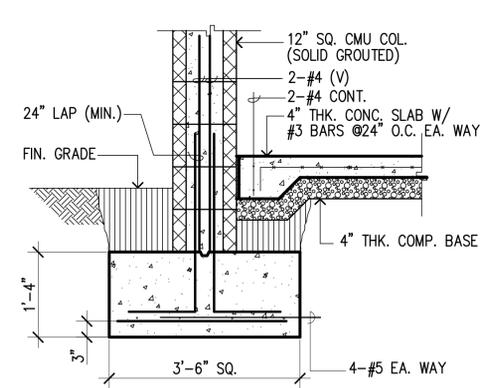
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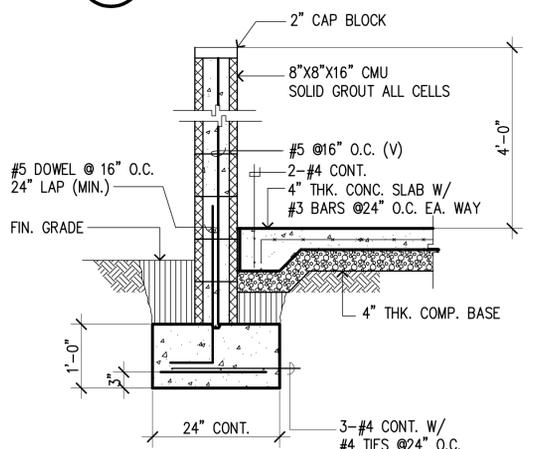
7 FOOTING DETAIL
A-B SCALE: 3/4" = 1'-0"



2 WALL FOOTING DETAIL
A-B SCALE: 3/4" = 1'-0"



4 CMU COLUMN/ FOOTING DETAIL
A-B SCALE: 3/4" = 1'-0"



6 WALL FOOTING DETAIL
A-B SCALE: 3/4" = 1'-0"

REVISION	BY



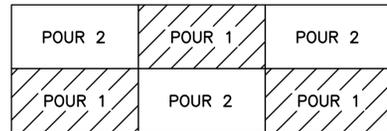
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SIGNATURE: *Edward A. Resh* EXPIRATION DATE: 4-30-12

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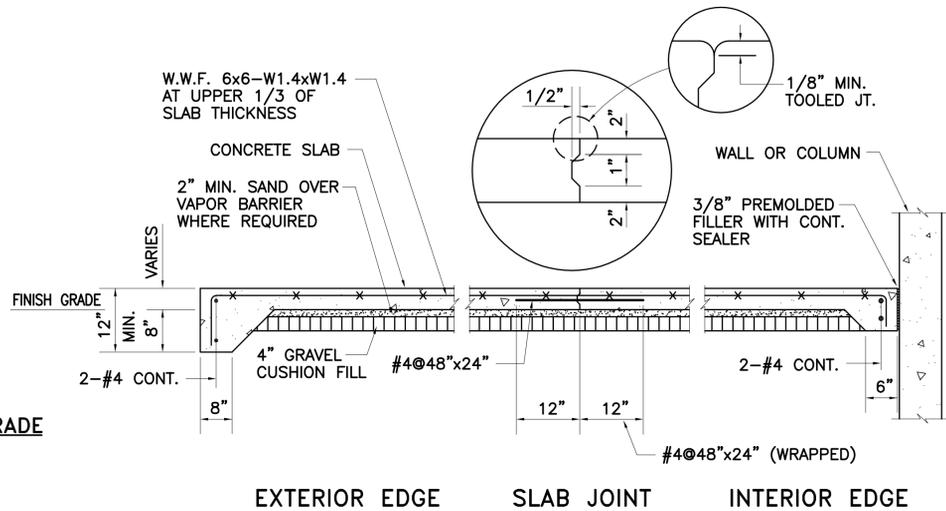
Date FEB. 2012
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A-5
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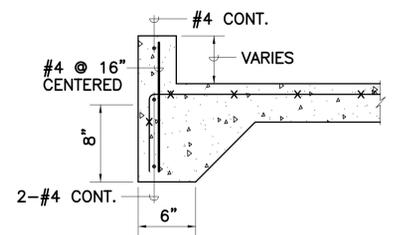


- NOTES:**
- SLABS ON GRADE SHALL BE POURED IN ALTERNATE CHECKERBOARD FASHION.
 - UNLESS NOTED OTHERWISE NO PANEL SHALL BE POURED IN EXCESS OF 400 SQ. FT. IN AREA OR 20 FEET IN LENGTH.

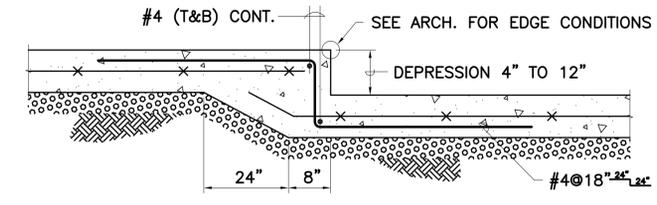
1 POURING SEQUENCE - CONC. SLAB ON GRADE
NOT TO SCALE



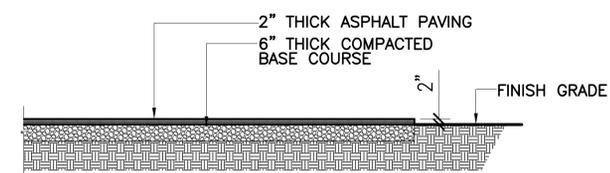
2 TYPICAL SLAB ON GRADE DETAIL
NOT TO SCALE



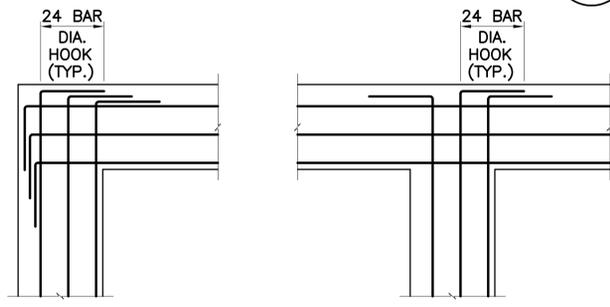
3 CURB DETAIL AT GARAGE
NOT TO SCALE



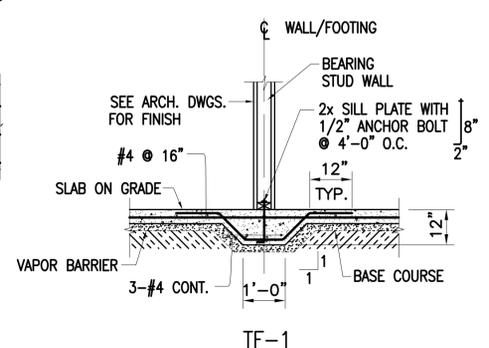
5 DEPRESSED SLAB
NOT TO SCALE



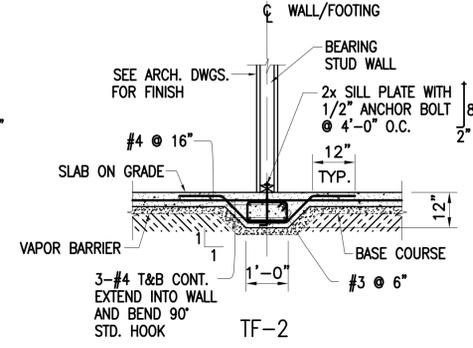
6 ASPHALT PAVING DETAIL
NOT TO SCALE



7 TYPICAL WALL FOOTING DETAILS
NOT TO SCALE

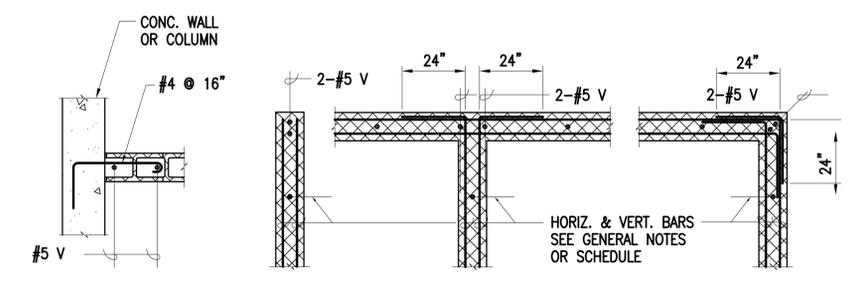


8 TYPICAL STUD WALL /FOOTING SECTION
NOT TO SCALE

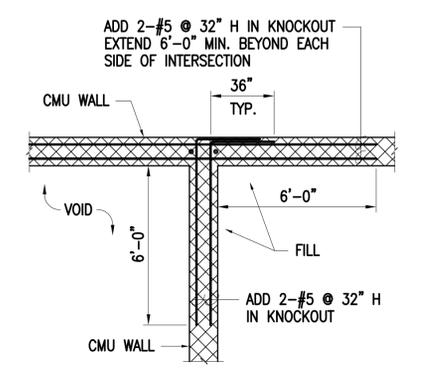


9 TYPICAL STUD WALL /FOOTING SECTION
NOT TO SCALE

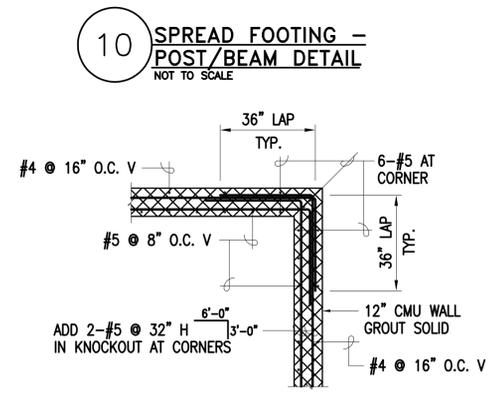
NAILING SCHEDULE	
CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOE NAIL	3-8d
2. BRIDGING TO JOIST, TOE NAIL EACH END	2-8d
3. 1x6 SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d
4. WIDER THAN 1x6 SUBFLOOR TO EACH JOIST, FACE NAIL	3-8d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d @ 16" oc
7. TOP PLATE TO STUD, END NAIL	2-16d
8. STUD TO SOLE PLATE	4-8d, TOE NAIL OR 2-16d, END NAIL
9. DOUBLE STUDS, FACE NAIL	16d @ 24" oc
10. DOUBLED TOP PLATES, FACE NAIL	16 @ 16" oc
11. TOP PLATES, LAPS, AND INTERSECTIONS, FACE NAIL	2-16d
12. CONTINUOUS HEADER, TWO PIECES	16d @ 16" oc ALONG EACH EDGE
13. CEILING JOIST TO PLATE, TOE NAIL	3-8d
14. CONTINUOUS HEADER TO STUD, TOE NAIL	4-8d
15. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
16. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
17. RAFTER TO PLATE, TOE NAIL	3-8d
18. 1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d
19. 1x8 SHEATHING OR LESS TO EACH BEARING, FACE NAIL	2-8d
20. WIDER THAN 1x8 SHEATHING TO EACH BEARING, FACE NAIL	3-8d
21. BUILT-UP CORNER STUDS	16d @ 24" oc
22. BUILT-UP GIRDER AND BEAMS	20d @ 32" oc @ T&B & STAG. 2-20d @ ENDS @ EACH SPICE



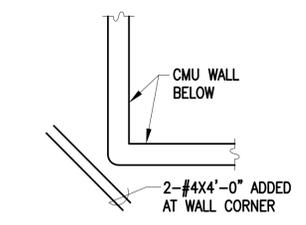
11 TYPICAL C.M.U. WALL DETAILS
NOT TO SCALE



12 C.M.U. WALL INTERSECTION
NOT TO SCALE



13 C.M.U. WALL CORNER
NOT TO SCALE



14 ADDED REINF. IN S.O.G. AT CORNER
NOT TO SCALE

REVISION	BY

EDWARD A. RUSH
LICENSED PROFESSIONAL ARCHITECT
No. 3238
HAWAII, USA

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SIGNATURE: *Edward A. Rush* EXPIRATION DATE: 4-30-12

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NEW PAVILLION FOR:
KIOWEA PARK
605 MAUNALOHA HIGHWAY
KAUNAKAKAI HI 96748
T.M.K. (2)5-2-009:018

Date: FEB. 2012
Scale: AS NOTED
Drawn: DP
Check by: LM
Job: PAVILLION
Sheet No:
A-6
of Sheets

PLUMBING NOTES

1. Work shall conform to the County of Maui plumbing codes, 1997 Uniform Building Code, Chapter 53, Building Energy Efficiency Standard and State of Hawaii Department of Health Regulation.
2. All materials shall be new, free from defects and conform to codes.
3. Drawings are approximate only, indicating the general layout and location. They are not intended to be detailed construction drawings. Reasonable modifications made to suit job condition shall not be constitute basis to request extra payments from owner.
4. Contractor shall verify locations, sizes and invert elevations of all existing water and sewer lines prior to commencement of all new plumbing work under this contract.
5. Provide escutcheons around all exposed pipe passing through a finish floor, walls and ceiling.
6. Copper lines shall be protected against electrolytic action with dielectric unions at connections and dissimilar metals or wrapped with two layers of plastic tape where line contact with ferrous metals.
7. All fixture used for this project shall be of the approved and of water saver types as per UPC Section 402.
8. Piping shall be inspected inside and out for interior obstruction and burn before installation. Pipes shall be sloped as required by code.
9. Cleanouts shall be provided where required by Section 707 of the Uniform Plumbing Code.
10. Exposed pipes shall be run neatly against walls or columns and shall carefully handled to avoid tool marks.
11. Anchor all pipe in accordance with the Uniform Plumbing Code. Provide all structural supports for anchoring vent piping.
12. Water and waste piping shall be tested in accordance with Section 103.5.3, 609, 723 of the Uniform Plumbing Code.
13. Water shall be flushed out and disinfected with 50 PPM available chlorine solution for 6 hours contact time or 100 PPM chlorine solution for two hours.
14. Clean up, adjust and prepare for occupancy.
15. Guarantee all plumbing work against defect for one year after acceptance.

PLUMBING MATERIAL NOTES

1. **SOIL, WASTE AND VENT PIPING**
 - a) Below grade or slab: Cast iron soil pipe, with cast iron MG coupling or PVC ASTM-D 1785, Schedule 40, type 1, and drainage pattern fittings, ASTM-D_2665 solvent cement joints.
 - b) Above grade: Same as below grade except standard stainless steel band type "no hub" clamps may be used. Vent piping smaller than 3" size may be galvanized steel pipe with screwed cast iron drainage pattern fittings, asphalt covered.
2. **WATER PIPING**
 - a) Above grade: Copper tube, type L, hard drawn, with lead free soldered joints (95-5 Solder). Below grade: Copper tube, type K, hard drawn, with lead free soldered joints (95-5 Solder).
 - b) Valve: Bronze, NRS, Solder ends, 150 psig.
 - c) Pipe Insulation: Rubbertex 1-inch thick unicellular elastomeric tubular form.
 - d) Air chamber shall be provided on each branch line extending to a minimum of 12" above fixture outlet. Each air chamber shall be located where it will empty and refill with air when water is drained from branch line. Water hammer arresters shall be in accordance with the drainage institute "Standard P.D.I. W-20".
3. **PLUMBING SYSTEM SPECIALTIES**
 - a) Wall Cleanout: Smith 4532 C.I. cleanout tee and taper threaded bronze plug, complete access cover and with S.S. access cover and screw.
 - b) Cleanout to grade (COTG): Smith Fig. 4280 Duco cast iron cleanout with bronze countersink closure plug, set in a 12"x12"x12" concrete block.
 - c) Dielectric Union: Epco Model Fx.
 - d) Exterior Hose Bibb: (Typical) Arrowhead 351-LK-BFP, 3/4" rough brass finish exterior hose bibb with loose key, Non-Removable Vacuum Breaker Watt Model 8A or approved equal. Provide a service valve on riser before hose bibb.
4. **ELECTRIC WATER HEATER (EWH)**
 - a) 80 gallon capacity solar water heater shall comply with ASHRE Standard 90.1-1989 and meets requirement of NAECA and UL Listed. Provide vacuum and temperature relief valve of County of Maui approved type.

MAUI COUNTY CODE, CHAPTER 16.6, ENERGY CODE

I CERTIFY THAT THE PROJECT COMPLIES TO ARTICLES 9 & 10, HEATING, VENTILATING, AND AIR CONDITIONING (HVAC) SYSTEMS AND EQUIPMENT, OF THE HAWAII MODEL ENERGY CODE AS AMENDED BY MAUI COUNTY CODE, CHAPTER 16.6.

Signature
YOSHIAKI TANABE, P.E.
Name

Date

MECHANICAL ENGINEER
P.E. LICENSE No. 6415

BACKFLOW PREVENTION INSTALLATION NOTES

1. The backflow prevention assembly must be installed after the meter and the property valve prior to any branches or tees.
2. Install the backflow preventer in close proximity of the WM as physically as possible.
3. The backflow preventer shall be FABCO MODEL 825Y reduced pressure type or "BWS APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY" OR "BWS APPROVED DOUBLE CHECK BACKFLOW ASSEMBLY".
4. at no time shall the bottom of the assembly be less than 12" above the ground, floor, or flood level nor more than 48" above aforementioned grades.

REVISION	BY



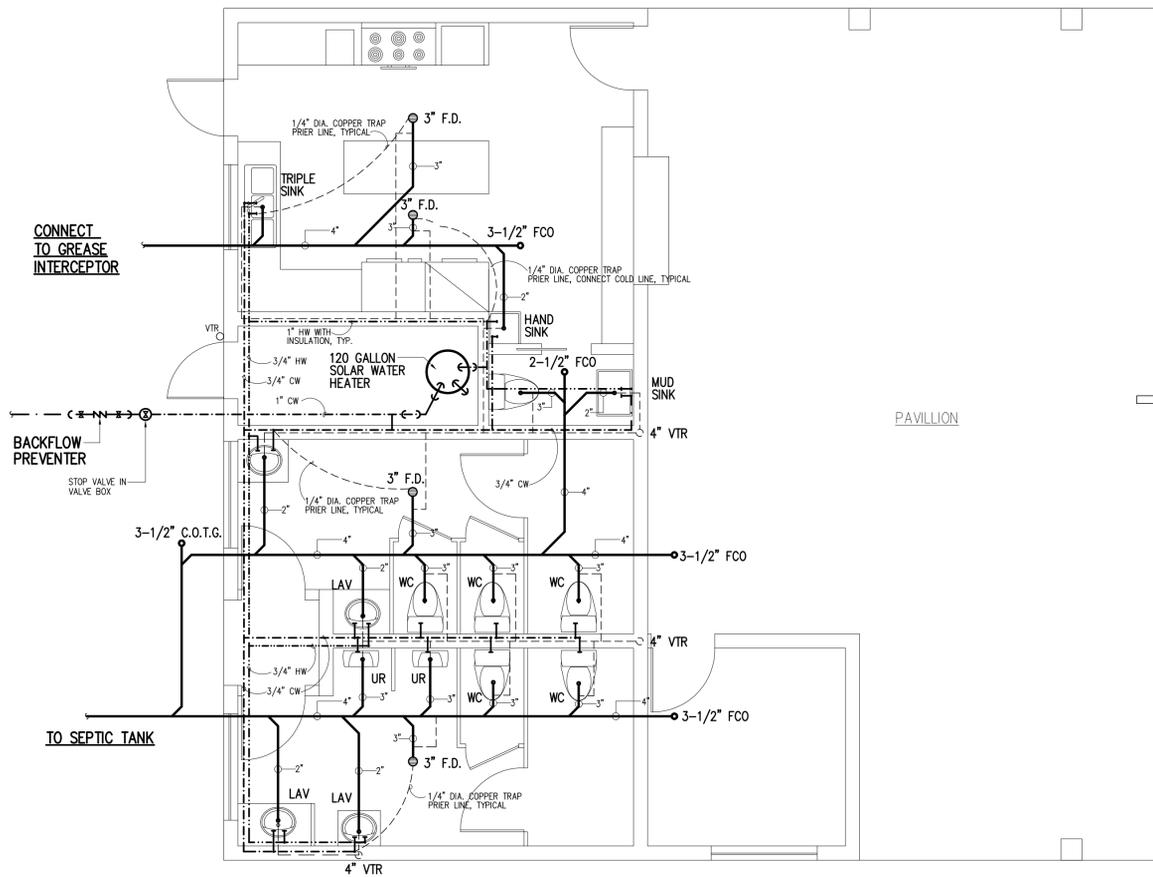
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Yoshiaki Tanabe
LICENSE EXPIRES APRIL 30, 2014

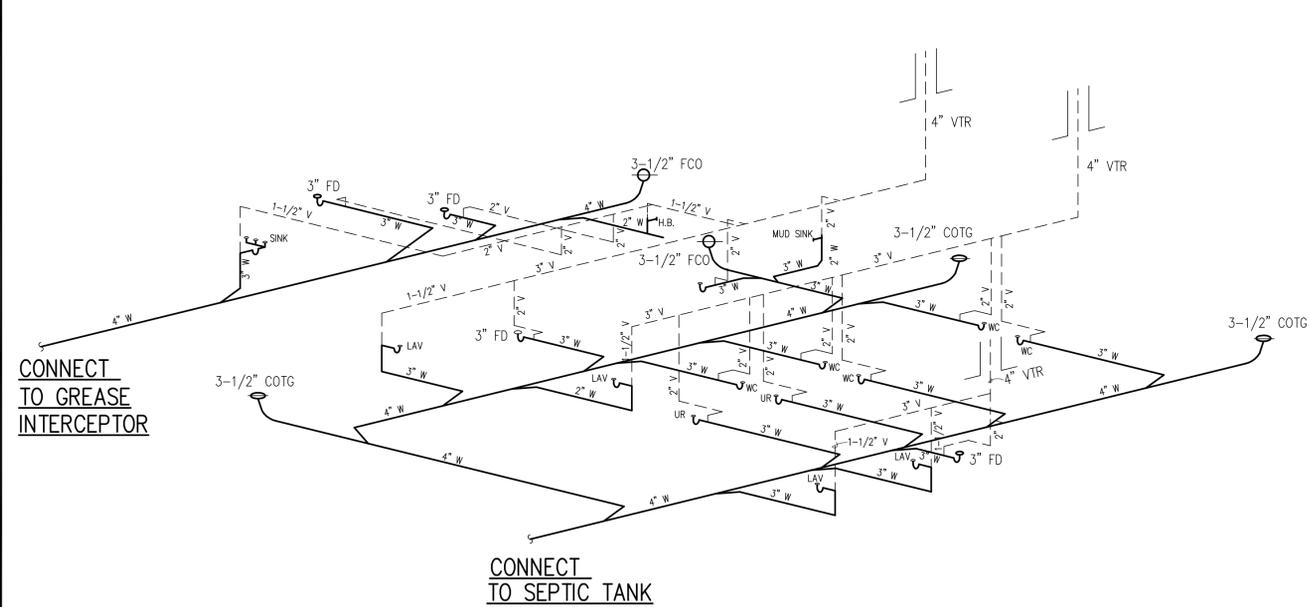
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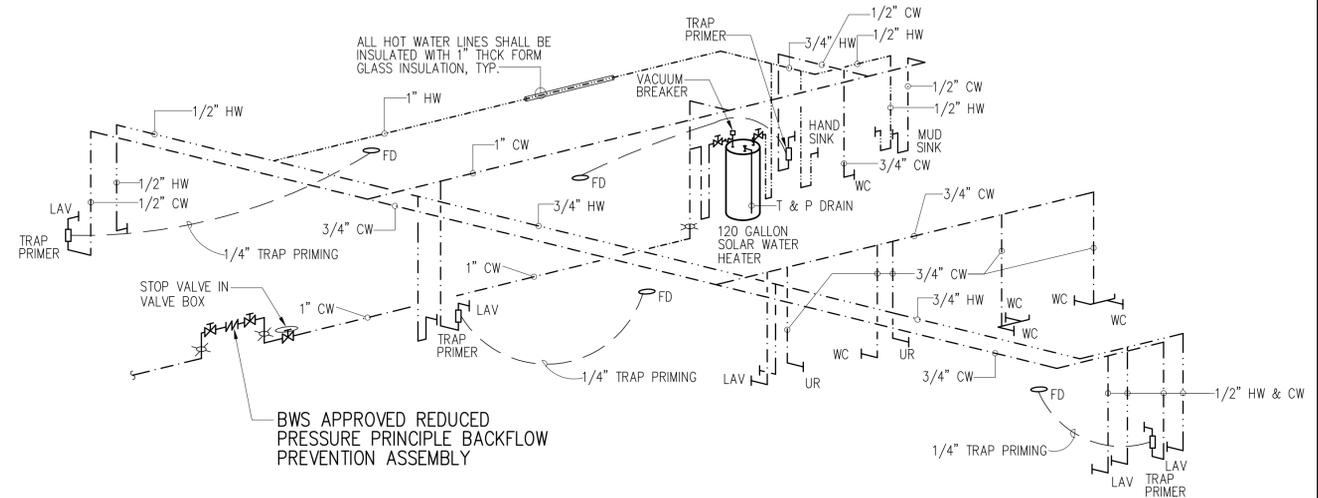
Date	FEB. 2012
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of	Sheets



PARTIAL FLOOR PLAN = PLUMBING
SCALE: 1/4"=1'-0"



SANITARY PIPING DIAGRAM
N.T.S.



- NOTE:** 1). PROVIDE HEAT TRAP AS PER SECTION 11.3(h), CHAPTER 320RH AS AMENDED BY ORDINANCE 01-47
2). ALL HOT WATER LINES SHALL BE INSULATED WITH 1" THICK FORM GLASS INSULATION
3). INSTALL 0.25" OPENING SCREEN ON ALL FLOOR DRAINS, FLOOR SINKS AND ALL OTHER WASTEWATER CONNECTIONS WHICH ACCEPT PROCESS/WASH DOWN WASTEWATER.

HOT & COLD WATER PIPING DIAGRAM
N.T.S.

MECHANICAL LEGEND		
SYMBOL	ABBREV.	DESCRIPTION
—	W	WASTE PIPE
—	CW	COLD WATER
—	HW	HOT WATER
—	V	VENT
⊕	HB	HOSE BIBB
⊖	FCO	FLOOR CLEAN OUT
⊖	WCO	WALL CLEAN OUT
⊖	COTG	CLEAN OUT TO GROUND
⊖	GV	GATE VALVE
⊖	LAV	LAVATORY
⊖	WC	WATER CLOSET
⊖	UR	URINAL
⊖	CFM	CUBIC FEET/MINUTE
⊖	SD	DRAIN
⊖	FD	FLOOR DRAIN
⊖	SS	SERVICE SINK
⊖	EW	ELECT. WATER COOLER
⊖	VTR	VENT THROUGH ROOF

REVISION	BY



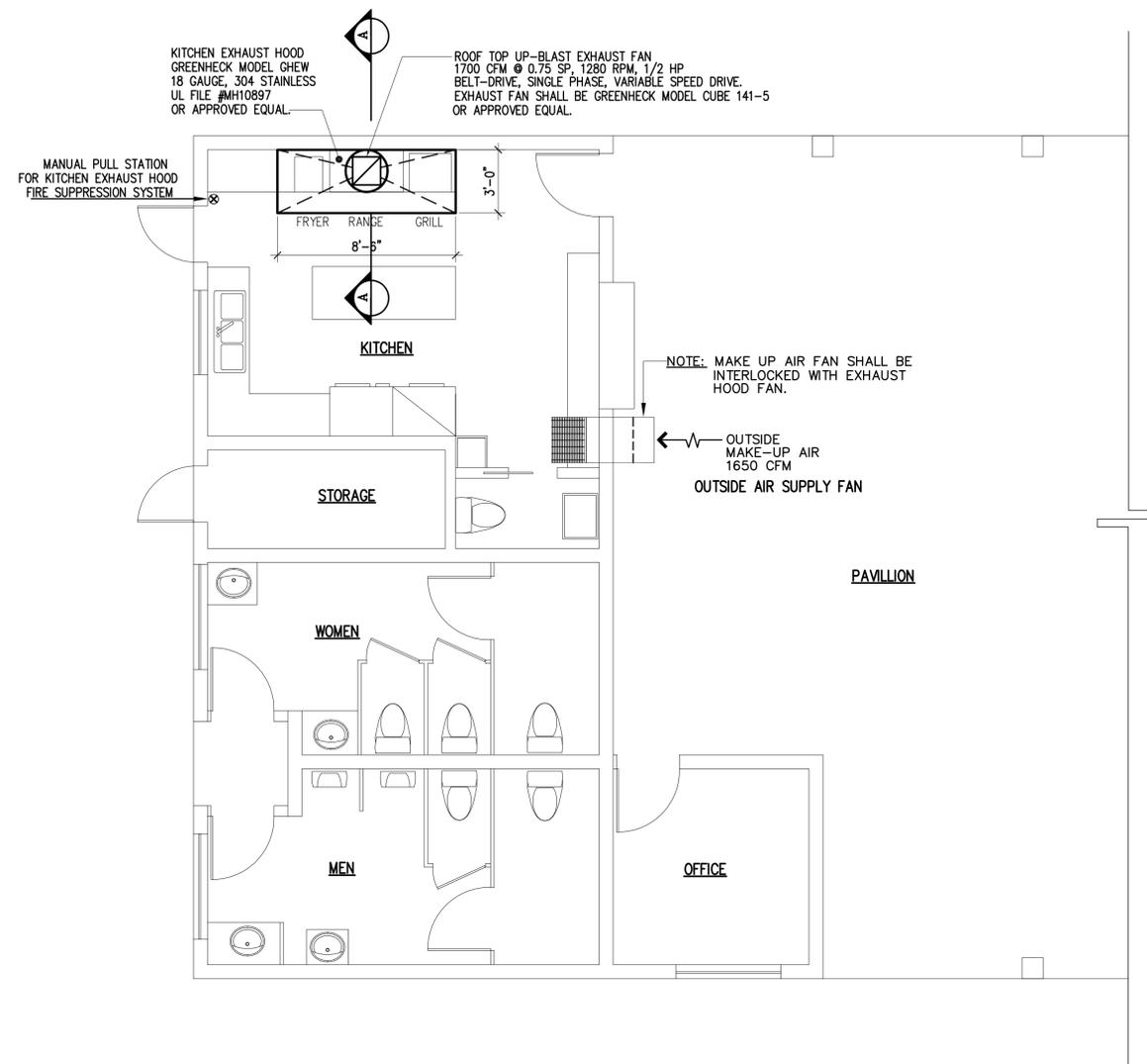
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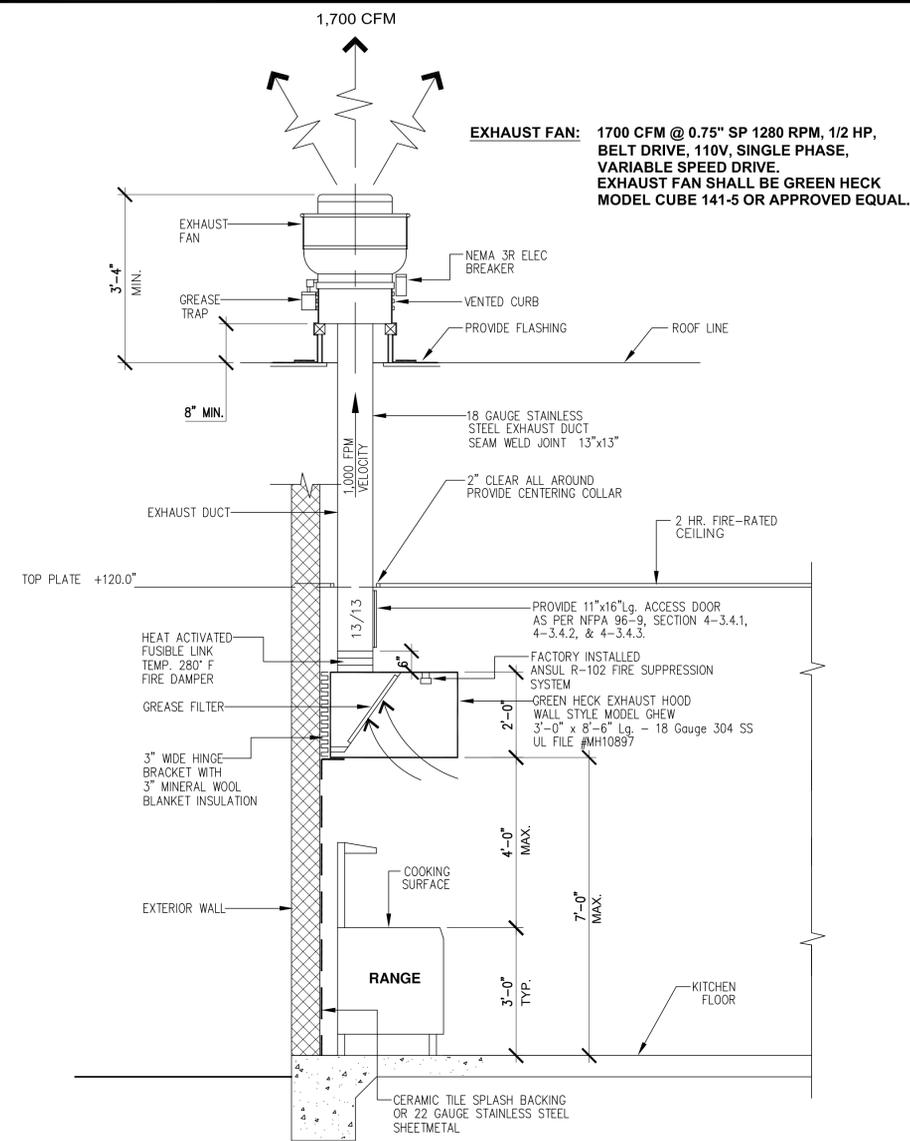
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Check by LM
Job PAVILLION

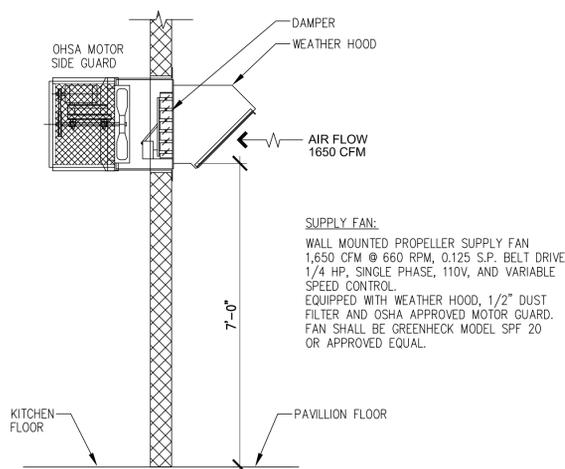
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of Sheets



PARTIAL FLOOR PLAN = KITCHEN EXHAUST HOOD
SCALE: 1/4" = 1'-0"



SECTION "A-A" - COMMERCIAL KITCHEN EXHAUST HOOD
SCALE: 1/2" = 1' - 0"



ELEVATION - OUTSIDE AIR SUPPLY FAN
SCALE: 1/2" = 1' - 0"

SPECIFICATIONS FOR KITCHEN EXHAUST HOOD AND DUCT WORK:

- EXHAUST HOOD: BACK SHELF TYPE, 8'-6" LONG SHALL BE CONSTRUCTED OF 18 GAUGE TYPE 304 STAINLESS STEEL. IT SHALL BE EQUIPPED WITH AUTOMATIC FIRE DAMPERS CONTROLLED BY UL LISTED FUSE LINKS RATED 280° F. ALL JOINTS AND SEAMS ARE TO BE CONTINUOUSLY WELDED LIQUID TIGHT. HOOD SHALL BE EQUIPPED WITH SERIES OF FULL LENGTH GREASE EXTRACTION BAFFLES WITHIN THE EXHAUST PLENUM. HOOD SHALL MEET THE LATEST NFPA 96 AND BE LISTED BY UL, NSF CERTIFIED. HOOD ASSEMBLIES ARE TO BE FABRICATED ACCORDING TO THE REQUIREMENTS OF NSFS NO.2 AND BEAR THE NDS SEAL. EXHAUST HOOD SHALL BE GREEN HECK WALL STYLE MODEL GHW OR APPROVED EQUAL.
FIRE SUPPRESSION SYSTEM: HOOD SHALL CONTAIN A FACTORY ENGINEERED AND PRE-PIPED UL LISTED, WET CHEMICAL ANSUL R-102 FIRE SUPPRESSION SYSTEM, WITH THE NFPA'S STANDARD FOR THE INSTALLATION OF EQUIPMENT FOR THE REMOVAL OF SMOKE AND GREASE LADEN VAPORS FROM COMMERCIAL COOKING EQUIPMENT" NFPA NO. 96. THE SYSTEM SHALL CONSIST OF, BUT NOT LIMITED TO, AS FOLLOWS:
 - FIXED DISCHARGE NOZZLES PROPERLY SIZED AND LOCATED IN THE HOOD AND CONNECTED WITH SCHEDULE 40 BLACK PIPE TO CHEMICAL TANK, SIZED FOR THE PURPOSE INTENDED WITH FIRE DETECTION AND RELEASING MECHANISM AUTOMATIC AND MANUAL. AUTOMATIC OPERATION OF THE SYSTEM SHALL BE BY MEANS OF FUSIBLE LINK WITH TEMPERATURE RANGE OF 280° F. IT SHALL NOT BE ELECTRICALLY OPERATED.
 - REMOTE MANUAL PULL STATION LOCATED AT A POINT OF EXIT OR EGRESS AND SHALL BE CLEARLY IDENTIFIED. SUCH MEANS SHALL BE MECHANICAL AND SHALL NOT RELY ON ELECTRIC POWER.
 - AN AUTOMATIC SHUT-OFF OF ALL SOURCES OF FUEL AND HEAT TO THE EQUIPMENT REQUIRING PROTECTION BY THE SYSTEM UPON ACTIVATION OF THE EXTINGUISHING SYSTEM. ANY GAS APPLIANCES UNDER THE SAME VENTILATION EQUIPMENT SHALL BE SHUT OFF. ALL SHUT DOWN DEVICES SHALL BE CONSIDERED INTEGRATED PARTS OF THE SYSTEM AND SHALL FUNCTION WITH THE SYSTEM OPERATION. THIS EQUIPMENT SHALL BE OF THE TYPE THAT REQUIRES MANUAL RESETTING PRIOR TO FUEL AND POWER RESTORATION. THE WET CHEMICAL FIRE SUPPRESSION SYSTEM SHALL BE GREENHECK MODEL FSSC-P OR APPROVED EQUAL.
 - THE FIRE SUPPRESSION SYSTEM SHALL BE SUBMITTED FOR FIRE MARSHALL REVIEW AND APPROVAL PRIOR TO CONSTRUCTION AND INSTALLATION.
- EXHAUST DUCT WORK: THE EXHAUST DUCT WORK SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS 96 (NFPA 96, VENTILATION OF RESTAURANT COOKING EQUIPMENT) AND THE CITY & COUNTY OF MAUI, BUILDING AND FIRE CODES. THE DUCT SHALL BE CONSTRUCTED OF 18 GAUGE STAINLESS STEEL. ALL SEAMS AND JOINTS SHALL BE CONTINUOUSLY WELDED AND LIQUID TIGHT. PROVIDE ACCESS DOORS ON VERTICAL AND HORIZONTAL RUN DUCT AS PER NFPA 96-9, SECTION 4-3.4.1, 4-3.4.2, AND 4-3.4.3.

VENTILATION NOTES:

- UNLESS OTHERWISE SPECIFIED, FURNISH AND INSTALL ALL EQUIPMENT, ACCESSORIES, CONNECTIONS, MATERIALS AND INCIDENTAL ITEMS NECESSARY TO FULLY COMPLETE THE INSTALLATION OF THE VENTILATION SYSTEM AS SHOWN ON THE PLAN.
- DRAWING INDICATES THE GENERAL ARRANGEMENT AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL FIELD CONDITIONS PERMITS. REASONABLE MODIFICATIONS TO SUIT JOB CONDITIONS SHALL NOT CONSTITUTE A BASIS FOR ADDITIONAL COMPENSATION. ALL INDICATED DUCT DIMENSIONS ARE NET DIMENSIONS.
- ALL MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL COMPLY WITH APPLICABLE CODES, SPECIFICATIONS, STATE REGULATIONS, COUNTY ORDINANCES AND INDUSTRY STANDARDS.
- APPLICABLE CODES:
 - CITY AND COUNTY OF MAUI, BUILDING, FIRE AND PLUMBING CODES, AS AMENDED.
 - NATIONAL ELECTRICAL CODES
 - NFPA 96
 - STATE OF HAWAII - PUBLIC HEALTH REGULATIONS.
- DUCT CONSTRUCTION, BRACING AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT CONSTRUCTION STANDARDS. PROVIDE CEILING DAMPER ON NEW AND EXISTING DUCTS THAT PENETRATE THE ONE-HOUR FIRE RATED CEILING.
- KITCHEN HOOD DUCT CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH NFPA 96.
- THE EXHAUST DUCTWORK FOR THE HOOD SHALL NOT BE INTERCONNECTED WITH ANY OTHER VENTILATION SYSTEM.
- CONTROLS: PROVIDE FIRESTATS AND ALL OTHER CONTROLS NECESSARY FOR A COMPLETE OPERATING SYSTEM.
- LOCATION OF OUTSIDE AIR INTAKE GRILLS SHALL MEET STATE OF HAWAII, HEALTH REGULATIONS.
- ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- WHERE DUCTWORK PASSES THROUGH WALLS, CEILINGS, OR PARTITIONS, ADEQUATE MEASURES AS PER NFPA 96 SHALL BE TAKEN TO PREVENT COMBUSTION OF BUILDING MATERIALS. MATERIALS AND PRODUCTS LISTED FOR THE PURPOSE OF REDUCING CLEARANCE TO COMBUSTIBLE, SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING AND TO THE MANUFACTURER'S INSTRUCTIONS.
- ALL REQUIRED FEES, PERMITS, AND INSPECTIONS SHALL BE OBTAINED AND PAID FOR BY THE OWNER.
- ALL MATERIALS SHALL BE NEW AND CONFORMING TO RECOGNIZED COMMERCIAL STANDARDS.
- WORKMANSHIP SHALL BE COMPETENT AND TO THE SATISFACTION OF THE ENGINEER. ANY UNACCEPTABLE WORK SHALL BE REPLACED OR CORRECTED WITHOUT ADDITIONAL COST TO THE OWNER.
- GUARANTEE COMPLETE INSTALLATION AGAINST MATERIAL OR WORKMANSHIP DEFECTS AND UNDO NOISE AND VIBRATIONS FOR ONE YEAR AFTER THE DATE OF FINAL ACCEPTANCE OF THE JOB.

REVISION	BY

LICENSED PROFESSIONAL ENGINEER
 No. 6415-M
 HAWAII, U.S.A.
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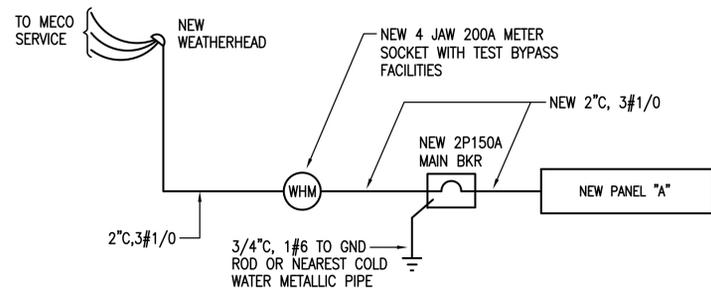
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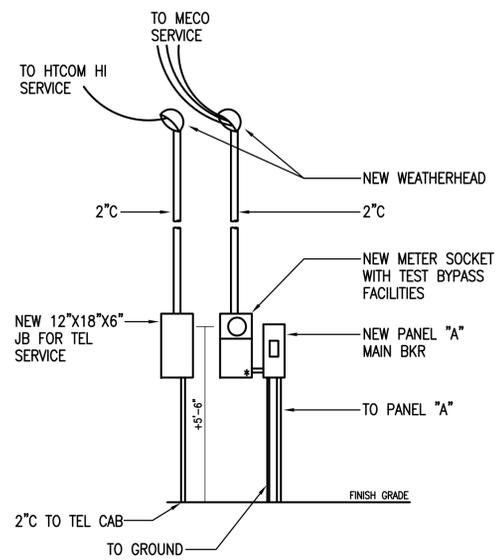
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Sheet No	M-3
of	Sheets

PANEL "A"		240/120 VOLTS	1Ø, 3WSN		
225A MAIN LUGS ONLY		BRANCH BKR I.C.	10,000A		
SURFACE, 20" WIDE CABINET, INDUSTRIAL-BOLTED					
CKT NO.	BKR	L O A D	KVA		WIRE
			L1	L2	
1	1P20A	LIGHTS - KITCHEN, STORAGE, RESTROOM	1.5		12
2		- PAVILLION	1.2		
3		- PAVILLION		1.1	
4		- PAVILLION		1.2	
5		- NIGHT LIGHT	0.8		
6		RECEP - PAVILLION, EXTERIOR	0.5		
7		- PAVILLION, EXTERIOR		0.8	
8		- TEL CAB		0.5	
9		- KITCHEN, RESTROOM	0.5		
10		- KITCHEN	1.0		
11		- KITCHEN		1.0	
12		HOOD FAN		1.0	
13,15	2P30A	WATER HEATER	2.3	2.3	10
14	1P20A*	FRYER CONTROL	1.0		12
16	1P20A*	RANGE CONTROL		0.1	12
17		RECEP - KITCHEN	1.0		12
18	*	GRILLE CONTROL	0.1		12
19		RECEP - PAVILLION		1.0	10
20		SUPPLY FAN		0.7	12
21		RECEP - REFRIG	1.0		12
22		LIGHTS - POST LT.		0.8	8
23		RECEP - FREEZER		1.0	12
24		HOOD FIRE PROTECTION		0.1	12
25		SPARE			
26					
27					
28					
29					
30					
31	1P	P F B			
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T O T A L			12.7	13.5	

* INDICATES SHUNT TRIP BREAKER CONTROLLED BY KITCHEN HOOD FIRE PROTECTION SYSTEM



SINGLE LINE DIAGRAM

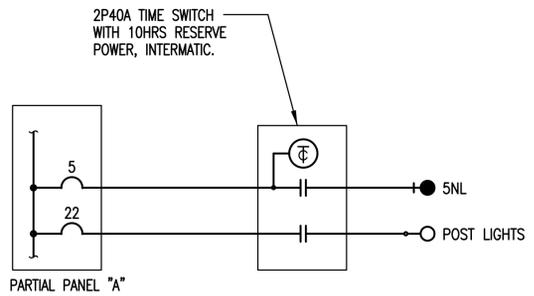


- NOTES:**
- * - INDICATES SEALABLE ENCLOSURE.
 - ALL ENCLOSURES SHALL BE NEMA 3R.

(A) ELECTRICAL EQUIPMENT ELEVATION
SCALE: 3/8" = 1'-0"

LUMINAIRE SCHEDULE		
TYPE	LAMP	DESCRIPTION
A	2-32WT8	LITHONIA DM 2 32 120 GEB SQ (ORDER SWIVEL-STEM HANGER TO ACCOMDATE MOUNTING HEIGHT)
B	4-32WT8	LITHONIA LB 4 32 120 GEB
B1	4-32WT8	LITHONIA LB 4 32 120 GEB EL
C	2-32WT8	LITHONIA LB 2 32 120 GEB
D	2-32WT8	LITHONIA UN 2 32 120 GEB WGCUN
E	70W HPS	LITHONIA TWL 70S 120
F	175W MH	LITHONIA KSFI-175M-R3-120-SPU4

NOTE:
ALL FLUORESCENT LUMINAIRES SHALL BE FURNISHED WITH ELECTRONIC BALLASTS WITH FULL LUMEN OUTPUT.



NIGHT LIGHT CONTROL DIAGRAM

ELECTRICAL SPECIFICATIONS

- ENTIRE INSTALLATION TO CONFORM TO THE PROVISIONS OF THE NATIONAL ELECTRICAL CODE, LOCAL ELECTRIC BUREAU AND LOCAL UTILITY COMPANIES. OBTAIN AND PAY FOR PERMITS AND DELIVER CERTIFICATES OF COMPLETION AND INSPECTION TO ARCHITECT.
- MATERIALS AND WORKMANSHIP TO BE VERY BEST QUALITY OF ITS KIND.
- SUBSTITUTE MATERIALS TO BE EQUAL IN QUALITY TO SPECIFIED ITEM. IF SUBSTITUTE MATERIALS ARE PROPOSED, SUBMIT SIX (6) COPIES OF SHOP DRAWINGS FOR APPROVAL PRIOR TO ORDERING. PROVIDE SAMPLES OF SUBSTITUTE MATERIALS, IF REQUESTED TO EVALUATE EQUALITY OF PROPOSED SUBSTITUTION.
- GUARANTEE - THE ENTIRE INSTALLATION SHALL BE GUARANTEED FOR ONE YEAR AFTER ACCEPTANCE BY THE OWNER AGAINST DEFECTIVE MATERIALS AND WORKMANSHIP. WHEN NOTIFIED BY THE OWNER OF FAILURE OF ANY PART OF THE INSTALLATION DURING THE GUARANTEE PERIOD, CONTRACTOR SHALL REPAIR OR REPLACE THE DEFECTIVE PART AT HIS OWN EXPENSE TO THE SATISFACTION OF THE OWNER.
- TESTING: AN OPERATIONAL TEST SHALL BE PERFORMED AFTER THE COMPLETION OF THE INSTALLATION, TO ASSURE PROPER OPERATION OF ALL ITEMS OF THE WORK.
- INSTALLATION AND WORKMANSHIP:
 - ALL WORK SHALL BE NEATLY EXECUTED, WORKMANLIKE IN APPEARANCE, SYMMETRICAL, PLUMB, UNIFORM, PROPERLY ALIGNED AND SECURED IN PLACE.
 - WIRING METHODS:
 - USE EMT, IMC, OR CONDUIT IN DRY INTERIOR LOCATIONS AND USE CONDUIT IN DAMP LOCATIONS.
 - USE SEALTITE FLEX FOR CONNECTIONS TO EQUIPMENT.
 - ATTACH TO CONCRETE AND MASONRY WITH EXPANSION ANCHORS AND TO WOOD WITH WOOD SCREWS.
 - SUPPORT RACEWAYS PER NEC.
 - DO NOT SUPPORT RACEWAYS AND BOXES FROM AND ON MECHANICAL SYSTEM.
 - CABLES WILL NOT BE PERMITTED.
 - CONDUCTORS:
 - CRIMP CONNECT ALL WIRES.
 - TAPE ALL SPLICES WITH SCOTCH NO. 33 VINYL TAPE OR EQUAL.
 - FORM WIRE NEATLY IN ENCLOSURES.
 - IDENTIFY CONDUCTORS BY COLOR CODE - NEUTRAL WIRE TO BE WHITE AND GROUND WIRE TO BE GREEN.
 - CUT, DRILL AND PATCH AS REQUIRED. REPAIR ANY SURFACES DAMAGED OR MARRED-CUTTING, REPAIRS AND REFINISHING SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT.
 - CLEAN ALL SURFACES TO RECEIVE PAINT. PAINT ANY SURFACE DAMAGED DURING INSTALLATION.
 - REPAIR ALL SURFACES DAMAGED DURING THE INSTALLATION OF THE WORK SUBJECT TO THE APPROVAL OF THE ARCHITECT.
 - COORDINATE WIRING REQUIREMENTS OF EQUIPMENT FURNISHED BY OTHERS PRIOR TO ROUGH-IN WORK. PROVIDE PROPER SIZE WIRING AND CONNECTIONS FOR ALL EQUIPMENT AS REQUIRED. PROVIDE DISCONNECTS FOR ALL MOTORIZED EQUIPMENT. PROVIDE STARTERS WITH OVERLOAD PROTECTION ON EACH LINE FOR ALL MOTORIZED EQUIPMENT FOR WHICH STARTERS ARE NOT PROVIDED BY OTHER TRADES.
 - MATERIALS:
 - CONDUIT - RIGID GALVANIZED STEEL, 3/4" MINIMUM.
 - EMT - GALVANIZED STEEL, 3/4" MINIMUM.
 - INTERMEDIATE METALLIC CONDUIT, 3/4" MINIMUM.
 - PLASTIC CONDUIT - POLYVINYL CHLORIDE SCHEDULE 40, 3/4" MINIMUM, BELOW GRADE ONLY.
 - CONDUCTORS:
 - MINIMUM SIZE - NO. 12 AWG COPPER, 600V.
 - COPPER TYPE XHHW, TW OR THWN - BRANCH CIRCUITS.
 - COPPER TYPE THW, XHHW - FEEDERS, GUTTERS.
 - TYPE XHHW-USE OR RHW-USE IN EXTERIOR UNDERGROUND LOCATIONS.
 - WIRING DEVICES:
 - SWITCHES: 20A - POLES AS INDICATED 120/277V. AC - ARROW NO. 199X SERIES COLOR TO MATCH DEVICE PLATE.
 - RECEPTACLES: DUPLEX - 3W15A, 125V. - ARROW #5262 COLOR TO MATCH DEVICE PLATE.
 - PANELBOARD: CIRCUIT BREAKER TYPE. BREAKER COMPLEMENT AS INDICATED. PROVIDE TYPED CIRCUIT DIRECTORY. HALF WIDTH PLUG-IN BREAKERS NOT PERMITTED. GENERAL ELECTRIC, CUTLER HAMMER, SQUARE D OR WESTINGHOUSE.
 - FIXTURES - INSTALL FIXTURES INDICATED IN LUMINAIRE SCHEDULE COMPLETE WITH LAMPS, HANGERS, SUPPORTS, BALLASTS AND ACCESSORIES. ALL FLUORESCENT BALLASTS-ELECTRONIC TYPE WITH FULL LUMEN OUTPUT.
 - DEVICE PLATES - PLASTIC - COLOR TO MATCH SURROUNDING FINISH.
 - OUTLETS - PROVIDE OUTLET BOXES TO SUIT CONDITIONS ENCOUNTERED. BOXES TO BE AMPLE SIZE TO ACCOMMODATE CONDUCTORS PER NEC. MINIMUM SIZE OF BOX FOR USE WITH RACEWAY SYSTEMS TO BE 4" SQUARE BY 1-1/2" DEEP.
 - CIRCUIT BREAKERS AND SAFETY SWITCHES - GENERAL ELECTRIC, SQUARE D, WESTINGHOUSE OR CUTLER HAMMER, SAFETY SWITCH - HEAVY DUTY TYPE.
 - PULLBOXES, CABINETS AND GUTTER - CODE GAGE GALVANIZED SHEET STEEL.
 - SUBMIT FOLLOWING EQUIPMENT FOR APPROVAL AND RESUBMIT UNTIL APPROVAL IS RECEIVED.

CIRCUIT BREAKERS
PANELBOARDS AND DISCONNECT SWITCHES
LIGHT FIXTURES
ANY BUILT-TO-ORDER EQUIPMENT

ELECTRICAL SYMBOLS

- POST LIGHT
- WALL LUMINAIRE, NIGHT LIGHT
- CEILING FLUORESCENT LUMINAIRE
- ▭ CEILING FLUORESCENT LUMINAIRE WITH EMERGENCY BATTERY PACK
- |— CEILING FLUORESCENT STRIP LUMINAIRE
- ⊕ EXIT LIGHT, CEILING, BLACKENED SEGMENT INDICATES ILLUMINATED SIDES AND ARROWS INDICATES DIRECTION
- S SWITCH, 1P20A, +4'-0"
- S₃ SWITCH, 3W20A, +4'-0"
- △ SWITCH, 3W20A, +4'-0"
- ⊕ DUPLEX CONVENIENCE OUTLET, 3W20A, GROUNDING TYPE, +16" UNLESS OTHERWISE NOTED
- ⊕ DUPLEX CONVENIENCE OUTLET, 3W20A, GROUND FAULT INTERRUPTER TYPE, +16" UNLESS OTHERWISE NOTED
- ⊕ JUNCTION BOX, WALL, 4-11/16" SQUARE MINIMUM
- ▭ PANELBOARD
- ⊕ TELEPHONE OUTLET, +16"
- ▭ TELEPHONE CABINET
- WP WEATHERPROOF
- ⬡ LUMINAIRE DESIGNATION, TYPE "A" INDICATED

- WIRING IN EXPOSED RACEWAY
- WIRING IN RACEWAY CONCEALED IN FLOOR OR BELOW GRADE
- WIRING IN RACEWAY CONCEALED IN WALL OR CEILING
- OH— OVERHEAD WIRING

- NOTES:**
- ANY CIRCUIT WITH NO FURTHER DESIGNATION INDICATES A TWO WIRE CIRCUIT. CIRCUITS WITH ADDITIONAL WIRES ARE INDICATED AS FOLLOWS: ~~---~~, 3 WIRES: ~~---~~, 4 WIRES, ETC.
 - GROUND WIRE PER NATIONAL ELECTRICAL CODE INDICATED AS FOLLOWS: —G—.
 - ALL EXPOSED CONDUIT AND BOXES SHALL BE PAINTED TO MATCH ADJACENT WALL OR CEILING SURROUNDING.

County of Maui, Maui County Code Chapter 16.16A
Energy Code

To the best of my knowledge, this project's design substantially conforms to the Energy Code for:

Building Component systems
 Electrical Component Systems
 Mechanical Component Systems

Signature: Clayton C. Y. Pang Date: 4/9/2012
Name: Clayton C. Y. Pang
Title: Electrical Engineer
License No.: 4145-E

BUILDING ENERGY EFFICIENCY STANDARDS	
EXTERIOR LIGHTING POWER ALLOWANCE	1600 W INSTALLED 1500 W
INTERIOR LIGHTING POWER ALLOWANCE	4000 W INSTALLED 3878 W
METHOD USED: (CHECK ONE)	PREScriptive <input checked="" type="checkbox"/> SYSTEM PERFORMANCE <input type="checkbox"/>
CALCULATIONS: (CHECK ONE)	SEPARATE <input type="checkbox"/> ON DRAWINGS <input checked="" type="checkbox"/>

REVISION	BY

CLAYTON C. Y. PANG
LICENSED PROFESSIONAL ENGINEER
No. 4145-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY OBSERVATION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SIGNATURE: Clayton C. Y. Pang EXPIRATION DATE: 4-30-14

ADS
Architectural Drafting Service
P.O. BOX 1718
Kaunakakai, Hawaii 96748
Tel. No. (808) 553-9045
Fax. No. (808) 553-3952

NEW PAVILLION FOR:
KIOWEA PARK
605 MAUNALOHA HIGHWAY
KAUNAKAKAI HI 96748
T.M.K. (2)5-2-009:018

Date APR. 2012
Scale AS NOTED
Drawn EB
Check by CP
Job PAVILLION
Sheet No
E-1
of Sheets

REVISION	BY



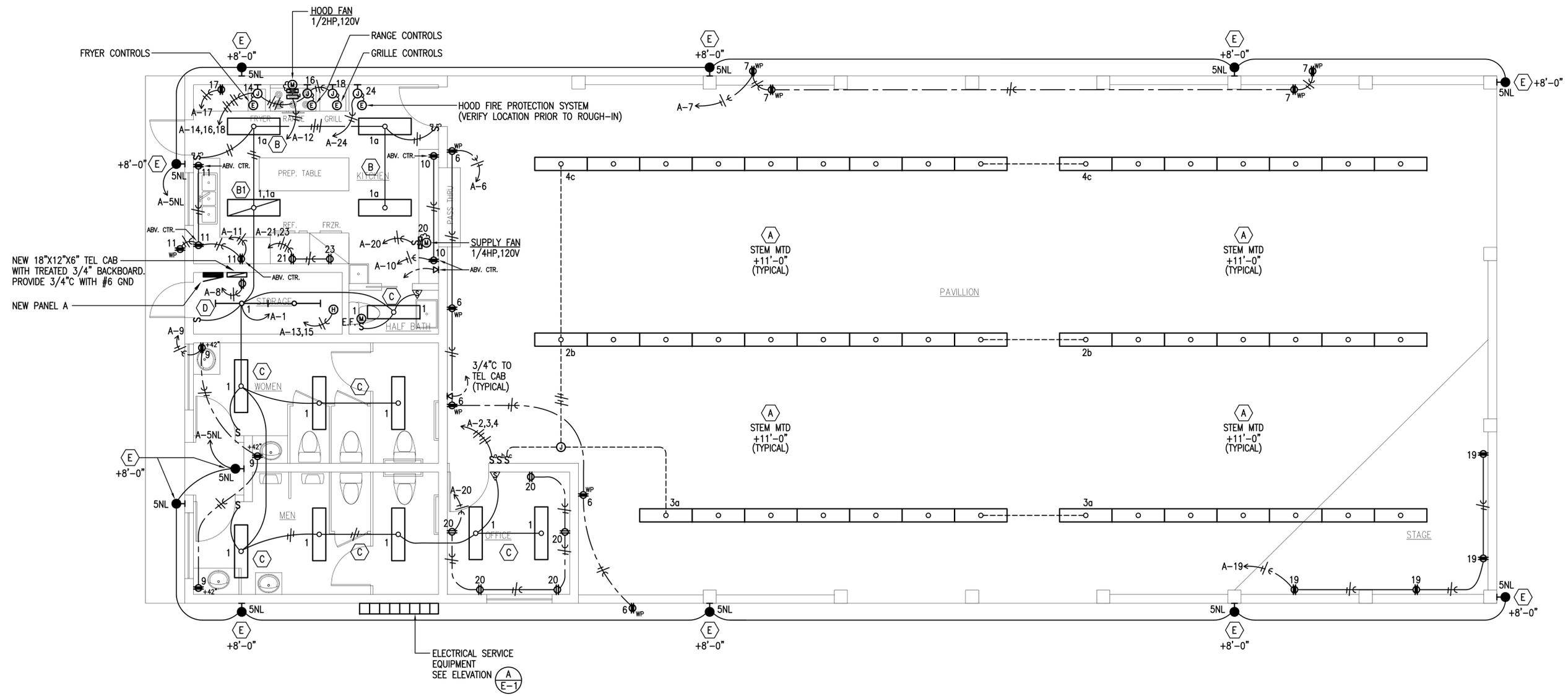
THIS WORK WAS PREPARED BY ME OR UNDER MY OBSERVATION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
 SIGNATURE: *Clayton C. Y. Pang* EXPIRATION DATE: 4-30-14

ADS
 Architectural Drafting Service
 P.O. BOX 1718
 KAUNAKAKAI, HAWAII 96748
 Tel. No. (808) 553-9045
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NEW PAVILLION FOR:
KIOWEA PARK
 605 MAUNALOHA HIGHWAY
 KAUNAKAKAI HI 96748
 T.M.K. (2)5-2-009:018

Date APR. 2012
 Scale AS NOTED
 Drawn EB
 Check by CP
 Job PAVILLION

Sheet No
E-3
 of Sheets



ELECTRICAL PLAN
 SCALE: 1/4" = 1'-0"

Appendix B

Preliminary Consultation Comment Letters



**STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE**

54 HIGH STREET
WAILUKU, HAWAII 96793

April 23, 2012

Mr. Yoshi Tanabe
P. O. Box 446
Waialua, HI 96791

Dear Mr. Tanabe:

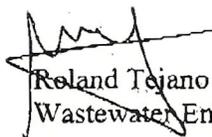
Subject: Individual Wastewater System for
Hawaiian Homeland Kiowea Park Pavillion
T. M. K (2) 5-2-009:018
Project Site: 605 Maunaloa Highway, Molokai, Maui, Hawaii

The Department of Health reviewed your IWS plans and specification and we have the following items that needs be addressed:

1. Section 11-62-31.1(1), requires that non-domestic wastewater entering an IWS be pre-treated and meet pollutant limit and or pretreatment standards set by the County of Maui, Wastewater Reclamation Division.
2. Please submit pre treatment plans and specification to the County of Maui for review and approval.
3. Provide us copy of pre-treatment approval letter from the County of Maui for our record.

If you have any questions, please call my office at 984-8232, Wastewater Branch, Maui District Health Office.

Sincerely,


Roland Tejano
Wastewater Engineer

ALAN M. ARAKAWA
Mayor

WILLIAM R. SPENCE
Director

MICHELE CHOUTEAU McLEAN
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

September 10, 2012

Ms. Nancy McPherson, Planner
Department of Hawaiian Home Lands
Planning Office
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707

Dear Ms. McPherson:

SUBJECT: COMMENTS ON PROPOSED PHASE II IMPROVEMENTS TO KIOWEA PARK, KALAMAULA, MOLOKAI, HAWAII; TMK: (2) 5-2-009-018 (RFC 2012/0105)

The Department of Planning (Department) is in receipt of your July 12, 2012 electronic transmission of the above referenced request for comment. From the information presented in the transmittal, we offer the following comments:

- The parcel is 5.102 acres in area;
- State Land Use, Molokai Community Plan, and County Zoning designations should be verified by the Department's Zoning Administration and Enforcement Division (ZAED);
- The project described is being undertaken on a shoreline parcel 150 feet from the shoreline, located in the Special Management Area (SMA); and
- The project is proposed for a four thousand (4,000) square foot (sq. ft.) slab-on-grade pavilion with restrooms, certified kitchen and office, parking, Individual wastewater treatment system (IWS) and drainage improvements;

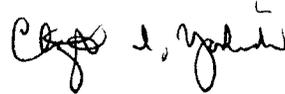
In addition, the Department confirms that while numerous applications have been made for other projects on the subject parcel, we have no record of SMA applications or permits associated with the parcel. Please see attached permit history.

The Department would like to review the Draft Environmental Assessment (EA) should the project go forward. The Molokai Planning Commission should also be consulted on the project.

Ms. Nancy McPherson
September 10, 2012
Page 2

Thank you for the opportunity to comment. Should you require further clarification of the comments in this letter, please contact Interim Molokai Planner Livit Callentine at livit.callentine@mauicounty.gov or at (808) 270-5537.

Sincerely,



CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

for WILLIAM SPENCE
Planning Director

Attachment

xc: Livit U. Callentine, AICP, Interim Molokai Planner (PDF)
Suzette Esmeralda, Secretary to Boards and Commissions (PDF)
Nina-Lehua Kawano, Molokai Clerk (PDF)
RFC File
Project File
General File

WRS:CIY:LUC:nlk

K:\WP_DOCS\PLANNING\RFC\2012\0105_Kiowea Park Phase II\Comments.doc

RFC 2012/0105: Request for Pre-EA Comments on the Proposed Construction of a 4,000 sq. ft. pavilion at Kiowea Park Phase II – Hawaiian Home Lands – Molokai (TMK: 5-2-009:018)

DEVELOPMENT PERMITS

Owners Zoning Struct Establ Flags Geo Area Permits RFS Legal Parcel Attr

APN: 2520090180000 605 MAUNALOA HWY

C	M	Project #	Permit	Number	Appl Date	Issue Date	Status	Decision	Dec. Date	RD
<input type="checkbox"/>	<input type="checkbox"/>	KIOWEA PARK PHASE II	RFC	20120105	16-JUL-2012	16-JUL-2012	OPEN			0
<input type="checkbox"/>	<input type="checkbox"/>	KIOWEA PARK PAVILIO	B	T20120766	31-MAY-2012		OPEN			0
<input type="checkbox"/>	<input type="checkbox"/>	KIOWEA PARK	RFC	20110181	28-OCT-2011	28-OCT-2011	DONE	DONE	06-MAR-2012	0
<input type="checkbox"/>	<input type="checkbox"/>	KALANI'ANAOLE HALL	CO	20100114	14-APR-2009	28-JUL-2010	DONE	DONE	29-JUL-2010	2
<input type="checkbox"/>	<input type="checkbox"/>	KALANI'ANAOLE HALL	E	20082157	07-AUG-2008	07-AUG-2008	DONE	A	26-JAN-2009	0
<input type="checkbox"/>	<input type="checkbox"/>	KALANI'ANAOLE HALL	P	20081456	24-JUL-2008	24-JUL-2008	DONE	A	20-JAN-2009	0
<input type="checkbox"/>	<input type="checkbox"/>	KE 'AUPUNI LOKAHI	RFC	20080052	29-MAY-2008	29-MAY-2008	DONE	DONE	17-AUG-2009	0
<input type="checkbox"/>	<input type="checkbox"/>	KALANI'ANAOLE HALL	B	20080725	07-SEP-2005	17-APR-2008	DONE	A	21-JAN-2009	1
<input type="checkbox"/>	<input type="checkbox"/>	HALE ONA ALII O HAWA	E	20020626	21-MAR-2002	21-MAR-2002	EXPR			0
<input type="checkbox"/>	<input type="checkbox"/>	KIOWEA PARK RENOV.	LTR	20021423	11-MAR-2002	20-MAR-2002	DONE	DONE	20-MAR-2002	1
<input type="checkbox"/>	<input type="checkbox"/>	DHHL	E	990339	19-FEB-1999	19-FEB-1999	EXPR			0
<input type="checkbox"/>	<input type="checkbox"/>	KIOWEO PAR	P	990272	12-FEB-1999	12-FEB-1999	EXPR			0
<input type="checkbox"/>	<input type="checkbox"/>		BPC	931899	09-AUG-1993	15-SEP-1993	DONE	I	15-SEP-1993	0
<input type="checkbox"/>	<input type="checkbox"/>		E	93M017	09-AUG-1993	15-SEP-1993	I	I	15-SEP-1993	0
<input type="checkbox"/>	<input type="checkbox"/>									
<input type="checkbox"/>	<input type="checkbox"/>									
<input type="checkbox"/>	<input type="checkbox"/>									

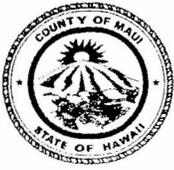
Highlight desired permit and select an option from the menu

Scope: **BCNV**

Scope Description: **BEFORE CONVERSION**

Permit Docs Copy/Move

K:\WP_DOCS\PLANNING\RFC\2012\0105_Kiowea Park Phase II\PermitHistory.doc



ALAN M. ARAKAWA
MAYOR

OUR REFERENCE
YOUR REFERENCE

POLICE DEPARTMENT

COUNTY OF MAUI

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



GARY A. YABUTA
CHIEF OF POLICE

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

July 23, 2012

Ms. Nancy McPherson, Planner
State of Hawaii
Department of Hawaiian Home Lands
Planning Office
91-5420 Kapolei Parkway
Kapolei, HI 96707

Dear Ms. McPherson:

SUBJECT: Kiowea Park Phase II Improvements
TMK (2) 5-2-009:018

Thank you for your email from July 12, 2012, requesting comments on the above subject.

We have reviewed the information submitted for this project and have enclosed a copy of our comments. Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Acting Assistant Chief Tivoli Faaumu
for: Gary A. Yabuta
Chief of Police

c: William Spence, Maui County Planning Department

Enclosure

TO: GARY YABUTA, POLICE CHIEF, MAUI POLICE DEPARTMENT
VIA: CHANNELS *Recommend return to Dept of Hawaiian Home Lands for final approval. Police concerns noted, no impact on Police Services A/AZ YJL 7/23/12*
FROM: LONNIE KA'AI, CPO/DARE, MAUI POLICE DEPARTMENT, D-V
SUBJECT: ASSESSMENT FOR PROPOSED KIOWEA PARK PHASE II IMPROVEMENTS

SYNOPSIS:

On 071812 at about 0630 hours I was assigned by Lieutenant G. OKAMOTO to assess the above mentioned construction project.

LOCATION:

Property location: Kalam'ula, Molokai, Hawaii
TMK (2) 5-2-009:018

Area: Approximately 5.102 acres.

Land owner: Department of Hawaiian Home Lands

Applicant: Ms. Gayla HALINIAK-LLOYD, President of Kalama'ula Homesteader's Association
Ms. Stacey HELM CRIVELLO, Project Manager

TRAFFIC:

The property in question is located on the makai side of Maunaloa Highway in the area of mile post marker 1.2. This highway is heavily used by both motorist and pedestrians alike; therefore, ingress and egress of machinery and supplies for said construction must be done so with caution.

There are also two pre-kindergarten schools directly across the highway from the proposed construction site which may cause traffic to make sudden stops to drop off or pick up children from school, especially during morning and early afternoon hours.

Also located across the highway is the Kulana O'iwi Center which host several public events for the community and also our kupuna. These events may cause an increase in traffic and parking issues in this area.

POLLUTION:

Noise and dust pollution are usually the two main complaints made by the public in construction related situations. This project will especially need to control these two issues as both of the pre-kindergarten schools across the highway have outdoor playground areas for their students and may cause health issues for children attending said schools. It would be in the construction company's best interest to take the appropriate steps to minimize said issues.

CONTACT PERSON:

Luigi MANERA, Principal, Architectural Drafting Service, may be contacted for further information. (808) 553-9045

DISPOSITION:

Should all issues regarding noise and dust pollution be addressed, I do not foresee any reason why the construction cannot proceed as planned.

*ASST. DISTRICT ATTORNEY
Sgt. [Signature]
07/18/12*

*NOTED.
ALCAP: [Signature]
07/18/12*

[Signature]
Submitted by:
Lonnie KA'AI E-13263
Police Officer III, D-V
071812 @ 1200 hrs.



Ahupua'a Natives

Coastal dune and wetland habitat management

20 August 2012

Ms. Nancy McPherson
Planner, Planning Office
Department of Hawaiian Home Lands
91-5420 Kapolei Parkway
Kapolei, Hawai'i 96707

Dear Ms. McPherson,

Thank you for the opportunity to comment on U.S. Fish and Wildlife Service letter 2012-TA-0372 dated July 24, 2012 regarding the proposed construction and development at Kiowea Park, Molokai (TMK 5-2-009: 018) and occurrence of native wildlife in the project area.

The Kalama'ula shoreline area is historically well-known for the presence of the Bristle-thighed Curlew (*Numenius tahitiensis*) or kioea (alternately spelled kiowea), and a nearby area is named Ho'olonokioea - listen to the call of the kioea. Personal observation records confirm the Bristle-thighed Curlew and Whimbrel (*Numenius phaeopus*), both protected by the Migratory Bird Treaty Act, and the federally endangered ae'o or Hawaiian Stilt (*Himantopus mexicanus knudseni*) frequent the mudflats when exposed at low tide seaward from the shoreline of the subject area: None have been observed on the subject property.

Although no seabirds have been observed in the immediate vicinity of the project area other than beyond the fringing reef out at sea, I do have records of wedge-tailed shearwaters (*Puffinus pacificus chlorhynchus*) downed one mile southeast at Kaunakakai Harbor, assumed to have been disoriented by bright lights. Therefore, I concur with USFWS recommendations that all lighting of the proposed development be shielded and positioned so that illumination projects downward below the fixture and does not cast to the shoreline or ocean. These changes should also be made to existing lighting.

As far as the other species mentioned in the USFWS letter, observations have been made of a single endangered Hawaiian monk seal (*Monachus schauinslandi*) at Kaunakakai Harbor - a captive-raised pup that posed a threat to swimmers and was subsequently removed. To the best of my knowledge, no endangered Hawaiian hoary bat (*Lasiurus cinereus*), Hawaiian goose (*Branta sandvicensis*) or Hawaiian petrel (*Pterodroma sandwichensis*), nor threatened green sea turtle (*Chelonia mydas*) or Newell's shearwater (*Puffinus auricularis newelii*) have been documented in the immediate project area.

Mahalo,

Arleone Dibben-Young

cc: Edward Halealoha Ayau, DHHL Moloka'i



RE: Request for Preliminary Consultation on Prep of a Draft EA, Kiowea Park Pavilion,
Kalama'ula, Molokai
Ching, Barry C

to:

Nancy.M.McPherson

07/12/2012 10:32 AM

Cc:

"Balanay, Rana K", "Hirai, Nolan S"

Hide Details

From: "Ching, Barry C" <barry.ching@doh.hawaii.gov>

To: <Nancy.M.McPherson@hawaii.gov>

Cc: "Balanay, Rana K" <rana.balanay@doh.hawaii.gov>, "Hirai, Nolan S"
<nolan.hirai@doh.hawaii.gov>

Hi Nancy

At a minimum, please be sure that your project complies with our fugitive dust rules, Hawaii Administrative Rules §11-60.1-33.

A copy of our rules are online at <http://gen.doh.hawaii.gov/sites/har/AdmRules1/11-60-1.pdf>

If you have any questions, please call me at 586-4200.

Barry Ching
Clean Air Branch

From: [\[mailto:Nancy.M.McPherson@hawaii.gov\]](mailto:Nancy.M.McPherson@hawaii.gov)

Sent: Wed 7/11/2012 4:39 PM

To: Cab General; CleanWaterBranch

Subject: Request for Preliminary Consultation on Prep of a Draft EA, Kiowea Park Pavilion, Kalama'ula, Molokai

Aloha EMD folks - this is a beneficiary project on Hawaiian Home lands, but triggers an EA as it is new construction on state lands. Based on the attached Project Summary, please advise on what information you would like to see included in the Draft EA.

Please forward this request to the Wastewater Branch, as I couldn't find an email address for them on the website. The IWS has been designed by a licensed engineer and will be outside of the shoreline setback area.

We would greatly appreciate a response by July 25, as we would like to submit the Draft EA to OEQC by July 27.

Mahalo nui,
Nancy McPherson, Planner
Planning Office, Hawaiian Home Lands
91-5420 Kapolei Parkway, Kapolei HI 96707
808.620.9519
808.620.9559 fax



2012 AUG 31 AM 7:55

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

In reply, please refer to:
EMD/CWB

08025PKP.12

August 29, 2012

Ms. Nancy McPherson
Planner
Planning Office
Department of Hawaiian Home Lands
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707

Dear Ms. McPherson:

SUBJECT: Comments on the Request for Preliminary Consultation on Preparation of a Draft Environmental Assessment (EA) for Kiowea Park Phase II Improvements Kalamaula, Island of Molokai, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of your submittal, dated July 11, 2012, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: <http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:
 - a. Anti-degradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
 - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
 - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
2. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for an NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

- a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. This includes areas used for a construction base yard and the storage of any construction related equipment, material, and waste products. An NPDES permit is required before the start of the construction activities.
- b. Hydrotesting waters.
- c. Construction dewatering effluent.

You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at:

<http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.

3. For other types of wastewater not listed in Item No. 2 above or wastewater discharging into Class 1 or Class AA waters, an NPDES individual permit will need to be obtained. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at <http://hawaii.gov/health/environmental/water/cleanwater/forms/environmental/water/cleanwater/forms/indiv-index.html>.
4. If your project involves work in, over, or under waters of the United States, it is highly recommend that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 438-9258) regarding their permitting requirements.

Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and HAR, Chapter 11-54.

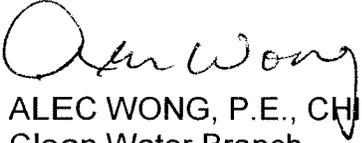
Ms. Nancy McPherson
August 29, 2012
Page 3

08025PKP.12

5. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Non-compliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at:
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at 586-4309.

Sincerely,



ALEC WONG, P.E., CHIEF
Clean Water Branch

KP:np



RE: Request for Preconsultation in Prep of Draft EA, Kiowea Park Pavilion, Kalama'ula, Molokai

Jerome K. Yasuhara

to:

Nancy.M.McPherson@hawaii.gov

07/17/2012 01:11 PM

Hide Details

From: "Jerome K. Yasuhara" <jeromey@oha.org>

To: "Nancy.M.McPherson@hawaii.gov" <Nancy.M.McPherson@hawaii.gov>

Aloha e Nancy,

A'ole pilikia. Nothing wrong with protocol understanding the informal, pre-consultation status here. Just a reminder for upcoming items.

Getting to your email earlier, looks like your DEA is headed in the right direction taking into consideration all the major points raised in your Kiowea Park Phase II Improvements Project Summary. Also appears that you are already looking into aspects that a Cultural Impact Assessment (CIA) would necessitate, as pointed out in passages relating to the history of the uluniu at Kapuwaiwa and so forth. The only other thing, in addition to Halona's mention of the springs, is always the potential for human burial remains and requirements associated therefor, in connection with your wastewater treatment component. Burial council members and staff are always the most resourceful for such matters. Best of luck for the AFONSI.

Mahalo nui loa!

Jerome

Jerome Yasuhara

Compliance Specialist

Office of Hawaiian Affairs

711 Kapi`olani Blvd., Suite 500

Honolulu, HI 96813

Ph: 808-594-0129

Fax: 808-594-1863

email: jeromey@oha.org

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From: Nancy.M.McPherson@hawaii.gov [<mailto:Nancy.M.McPherson@hawaii.gov>]

Sent: Tuesday, July 17, 2012 12:57 PM

To: Jerome K. Yasuhara

Subject: RE: Request for Preconsultation in Prep of Draft EA, Kiowea Park Pavilion, Kalama'ula, Molokai

Maika'i. OEQC advised that this preconsultation could be done "informally," by phone or email, and Blaine Fergerstrom here at DHHL gave me your name, as I am still building up the agency contact list. The Draft EA will be circulated through the proper channels. Mahalo for the info, and apologies for not following the proper protocol..

Aloha, Nancy
Nancy McPherson, Planner
Planning Office, Hawaiian Home Lands
91-5420 Kapolei Parkway, Kapolei HI 96707
808.620.9519
808.620.9559 fax

From: "Jerome K. Yasuhara" <jeromey@oha.org>
To: "Nancy.M.McPherson@hawaii.gov" <Nancy.M.McPherson@hawaii.gov>
Date: 07/17/2012 12:45 PM
Subject: RE: Request for Preconsultation in Prep of Draft EA, Kiowea Park Pavilion, Kalama'ula, Molokai

Aloha e Nancy,

For future reference, OHA requests that all correspondence—including requests for review and comment—be directed to its CEO, addressed as follows:

Kamana 'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, HI 96813

Mahalo!

Jerome

Jerome Yasuhara

Compliance Specialist
Office of Hawaiian Affairs
711 Kapi`olani Blvd., Suite 500
Honolulu, HI 96813
Ph: 808-594-0129
Fax: 808-594-1863
email: jeromey@oha.org

This message is intended solely for the addressee(s) named above. Its contents may be privileged, confidential and protected from disclosure. Any unauthorized use, forwarding, disclosure or copying of this message or its contents is strictly prohibited. If you are not the intended recipient or have otherwise received this message by mistake, please notify the sender immediately by reply e-mail or by telephone call and permanently delete this e-mail.

From: Nancy.M.McPherson@hawaii.gov [<mailto:Nancy.M.McPherson@hawaii.gov>]
Sent: Wednesday, July 11, 2012 5:09 PM
To: Jerome K. Yasuhara
Cc: Halona Kaopuiki
Subject: Request for Preconsultation in Prep of Draft EA, Kiowea Park Pavilion, Kalama'ula, Molokai

Aloha kakou -

Please provide comments, advice and types of information you would like to see included in a draft EA for this project (see attached Project Description). The area has been in use by Native Hawaiians both pre- and post-contact, and has been in the Hawaiian Home Lands trust since 1921. This is a beneficiary project to improve the facilities at Kiowea Park, TMK (2)5-2-009:018, and is across the Kulana Oiwi complex in Kalama'ula.

We would greatly appreciate your preconsultation mana'o by July 25, and will then circulate the Draft EA to you for formal comment in early August. Halona has already told me that the springs in the area should be located on a site plan, which will be done for the Draft EA.

Mahalo nui,
Nancy McPherson, Planner
Planning Office, Hawaiian Home Lands
91-5420 Kapolei Parkway, Kapolei HI 96707
808.620.9519
808.620.9559 fax



Re: Fw: Request for Preconsultation on a Draft EA , Kiowea Park Pavilion on Hawaiian Home Lands , Molokai

Leo Asuncion to: Nancy M McPherson
Cc: Mary Lou Kobayashi

07/23/2012 10:54 AM

From: Leo Asuncion/DBEDT@DBEDT
To: Nancy M McPherson/DHHL/StateHiUS@STATEHIUS
Cc: Mary Lou Kobayashi/DBEDT@DBEDT

Nancy,

The Hawaii CZM Program reviewed the material transmitted via your e-mail for the Kiowea Park Pavilion project in Kalaniana'ole Beach Lots, Kalamaula, Molokai, Hawaii (TMK: (2) 5-2-009:por. 018) Pre-Assessment for the Draft EA.

We confirm that the parcel is within the State Land Use Rural District , and also within the Special Management Area (SMA) delineated by the County of Maui. The parcel is also within the Coastal Zone Management Area, which is defined in HRS Section 205A-1 as "...all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the United States territorial sea."

From the CZM Program's standpoint, because the parcel is within the Coastal Zone Management Area and SMA, we would like to see the following in the Draft EA:

- 1) A section discussing how the proposed project implements the objectives and policies of the CZM Program set forth in HRS Section 205A-2; and
- 2) A section discussing how the proposed project is consistent with the SMA guidelines set forth in HRS Section 205-A-26.

We also encourage you to seek input from the County of Maui Planning Department as to any objectives, policies, and/or guidelines that they may have for the SMA and Shoreline Setback, and include such information, and discussion thereof if applicable, in the Draft EA.

In addition to the CZM-related items above, we suggest that the Draft EA include a section that presents the project's consistency with applicable objectives , policies, and priority guidelines in the Hawaii State Planning Act (HRS Chapter 226), as amended, as well as County of Maui General Plan and the Molokai Community Plan.

We look forward to reviewing the Draft EA when it is published.

If you have any questions, feel free to contact me at (808) 587-2875 or via e-mail below.

thanks,
Leo



Leo R. Asuncion, Jr., AICP
Planning Program Manager
P.O. Box 2359
Honolulu, Hawai'i 96804-2359
P.: (808) 587-2875
leo.asuncion@dbedt.hawaii.gov

Nancy M McPherson

Aloha Leo - copied you with your middle initial...

07/11/2012 03:27:00 PM

From: Nancy M McPherson/DHHL/StateHiUS@STATEHIUS
To: Leo Asuncion/DBEDT@DBEDT,

Date: 07/11/2012 03:27 PM
Subject: Fw: Request for Preconsultation on a Draft EA, Kiowea Park Pavilion on Hawaiian Home Lands, Molokai

Aloha Leo - copied you with your middle initial in the email address , so it didn't make it. We are doing our own coastal zone management review for this beneficiary project in the SMA , and would like your feedback on information you would like to see included in the Draft EA . There are several springs in the area, at least one of which is just off shore, so we are going to have those identified as cultural and natural resources and located on a map that shows the areas adjacent to the project TMK a little more clearly .

Thanks for helping us out.
Mahalo, Nancy
Nancy McPherson, Planner
Planning Office, Hawaiian Home Lands
91-5420 Kapolei Parkway, Kapolei HI 96707
808.620.9519
808.620.9559 fax

----- Forwarded by Nancy M McPherson/DHHL/StateHiUS on 07/11/2012 03:26 PM -----

From: Nancy M McPherson/DHHL/StateHiUS
To: mlkobaya@dbedt.hawaii.gov
Cc: Leo.R.Asuncion@dbedt.hawaii.gov
Date: 07/11/2012 03:14 PM
Subject: Request for Preconsultation on a Draft EA , Kiowea Park Pavilion on Hawaiian Home Lands , Molokai

Aloha Mary Lou -

This is a request for preconsultation re: information State OP would like to see included in a Draft EA for this project (see Project Summary, attached). The site (TMK (2)5-2-009:018) has been in use historically as a gathering place for Hawaiian Homesteaders in Kalama'ula, and has been previously graded and filled. There will be ground disturbance in the form of excavation for Individual Waste Water Treatment System, and minimal grading and fill for slab-on-grade foundation, parking and drainage improvements. The soil is Jaucus Sands, therefore Edward Halealoha Ayau, DHHL District Manager on Molokai, who is knowledgeable regarding the protection and preservation of cultural resources , historic properties and 'iwi kupuna, will be present during all ground disturbing activities to monitor , and will stop work immediately and inform SHPD Maui office, DHHL, and if needed, the Molokai Burial Council, should any historic properties or human remains be encountered.

Best Practices in coastal zone management and erosion control are being employed for project siting , design and construction. A 150 foot setback from the shoreline will be observed for all above ground structures. The evaporation bed for the IWS will be a minimum of 100 feet from the shoreline. Only native fill from the site will be used , and no fill will be placed in , nor soil removed from, the shoreline setback area. Drainage and landscaping will be designed to divert surface runoff away from the shoreline area .

We would appreciate any comments or suggestions via email or phone by Wed . July 25.

[attachment "Kiowea Park Pavilion_Preconsultn_DEA.pdf" deleted by Leo Asuncion/DBEDT]

Mahalo for your assistance, Nancy

Nancy McPherson, Planner
Planning Office, Hawaiian Home Lands
91-5420 Kapolei Parkway, Kapolei HI 96707
808.620.9519
808.620.9559 fax



Hwy PS 2012-176: Preliminary Comments in Prep of a Draft EA , Kiowea Park Pavilion, Kalama'ula, Molokai

Gary E Ashikawa to: Nancy.M.McPherson
Cc: Ferdinand Cajjigal, Ken Tatsuguchi, Russell Iwasa

07/24/2012 01:51 PM

From: Gary E Ashikawa/HWY/HIDOT@HIDOT
To: Nancy.M.McPherson@hawaii.gov
Cc: Ferdinand Cajjigal/HWY/HIDOT@HIDOT, Ken Tatsuguchi/HWY/HIDOT@HIDOT, Russell Iwasa/HWY/HIDOT@HIDOT

Ms. McPherson,

It is our understanding that DHHL proposes to construct a pavilion and parking area improvement at the existing Kiowea Park on Molokai. The pavilion will provide a certified kitchen , restrooms, office space and an open pavilion area. A 30 stall paved parking area will also be constructed . The park has an existing gated access to Maunaloa Highway, (route 460) an existing open pavilion and restrooms constructed in the 1950s, and an existing parking area.

In response to your email below dated July 12, 2012, we have the following pre Draft EA comments:

1. No additional access driveways to the Park shall be permitted . If the existing driveway is relocated that action should be coordinated with the Maui District Engineer and the Highways Right-of-Way Branch.
2. A traffic assessment should be prepared and submitted with the DEA for our review and acceptance. The assessment should include an analysis of the sight distance at the existing park access driveway, or at a relocated driveway access and recommended transportation mitigation improvements .
3. Construction plans and other engineering reports should be submitted to the Maui District Engineer for review and acceptance.

Should you have are any questions, please contact me by email or call me at 808-587-6336.

Thank you,
Gary

Gary Ashikawa, P.E.
Planning Branch
Highways Division
Department of Transportation

Ferdinand Cajjigal Thanks for the opportunity to comment. Our plan... 07/12/2012 06:31:28 PM

From: Ferdinand Cajjigal/HWY/HIDOT
To: Nancy M McPherson/DHHL/StateHiUS,
Cc: Ken Tatsuguchi/HWY/HIDOT, Gary E Ashikawa/HWY/HIDOT
Date: 07/12/2012 06:31 PM
Subject: Re: Preliminary Comments in Prep of a Draft EA, Kiowea Park Pavilion, Kalama'ula, Molokai

Thanks for the opportunity to comment. Our planning branch will be providing official HDoT 's comments .

Sent from my iPhone

On Jul 12, 2012, at 3:34 PM, "Nancy M McPherson" <Nancy.M.McPherson@hawaii.gov> wrote:

> Aloha Ferdinand -
>

> Please provide comments by July 25 on what info you think should be included in a Draft EA for this

project on Hawaiian Home Lands along Maunaloa Highway , across from Kulana O'iwi Center (see attached Project Summary).

>

> Mahalo, Nancy

> Nancy McPherson, Planner

> Planning Office, Hawaiian Home Lands

> 91-5420 Kapolei Parkway, Kapolei HI 96707

> 808.620.9519

> 808.620.9559 fax

>

> - Kiowea Park Pavilion_Preconsultn_DEA.pdf

> <Kiowea Park Pavilion_Preconsultn_DEA.pdf>



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850

In Reply Refer To:
2012-TA-0372

Ms. Nancy McPherson
Planner, Planning Office
Department of Hawaiian Home Lands
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707

JUL 24 2012

Subject: Technical Assistance for Preparation of a Draft Environmental Assessment for Pavilion Construction Project on Hawaiian Home Lands, Molokai

Dear Ms. McPherson:

The U.S. Fish and Wildlife Service (Service) received your facsimile transmission on July 12, 2012, requesting our comments to assist you with the development of a Draft Environmental Assessment (DEA) for the proposed construction and improvements of Kiowea Park (Park), Molokai [TMK: (2) 5-2-009:018]. The proposed project will include the construction of a 4,000 sq. ft. pavilion, located 150 feet from the shoreline with restrooms, a certified kitchen, and an office; new individual Wastewater Treatment System (IWS); and parking and drainage improvements to an existing community park on Hawaiian Home Lands. The improvements are proposed to better serve the recreational needs of the Homesteaders Association (members and guests) and the larger Molokai community.

We have reviewed the information you provided and pertinent information in our files, including data compiled by the Hawaii Biodiversity and Mapping Program and the Hawaii GAP Program. Our information indicates that the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), endangered Hawaiian goose (*Branta sandvicensis*), and threatened green sea turtle (*Chelonia mydas*) may be present in the vicinity of the proposed Park. The federally threatened Newell's shearwater (*Puffinus auricularis newelii*) and endangered Hawaiian petrel (*Pterodroma sandwichensis*) (collectively referred to as Hawaiian seabirds) may fly over the project area when traversing between the ocean and mountainous breeding colonies. Additionally, the wedge-tailed shearwater (*Puffinus pacificus chlorhynchus*) may nest in vegetation along the project area. While this species is not listed under the Endangered Species Act, it is federally protected under the Migratory Bird Treaty Act [16 U.S.C. 703-712].

In addition, the endangered Hawaiian monk seal (*Monachus schauinslandi*) may use beach habitat in the vicinity of the proposed Park. However, the National Marine Fisheries Service (NMFS) is the Federal agency that consults on potential impacts to monk seals, both in their on-shore and ocean habitats. Therefore, we did not review the proposed project for potential project

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impacts to Hawaiian monk seals. We recommend that you contact NMFS regarding their presence in the area and how to address potential impacts to them from the proposed project.

Hawaiian hoary bat

Hawaiian hoary bats roost in both exotic and native woody vegetation and leave their young unattended in “nursery” trees and shrubs when they forage. If trees or shrubs suitable for bat roosting are cleared during the bat breeding season, there is a risk that young bats could inadvertently be harmed or killed. To minimize impacts to the endangered Hawaiian hoary bat, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed during the bat-birthing and pup-rearing season (June 1 through September 15). Site clearing should be timed to avoid disturbance to possible nesting Hawaiian hoary bats in the project area.

Hawaiian goose

Hawaiian geese may breed or forage within the existing area. We recommend a qualified biologist survey for this species in preparation of the DEA. If present, the DEA should identify means to avoid and minimize impacts of Park construction and operation to Hawaiian geese.

Green sea turtle

Sea turtles are susceptible to artificial lighting that can disorient turtles away from the ocean. Sea turtles come ashore to nest on beaches from May through September, peaking in June and July. Optimal nesting habitat is a dark beach free of barriers that restrict turtle movement. Nesting turtles may be deterred from approaching or laying successful nests on lighted or disturbed beaches. If they do come ashore, they may become disoriented by artificial lighting, leading to exhaustion and placement of a nest in an inappropriate location (such as at or below the high tide line where nests are unlikely to be successful). Hatchlings that emerge from unprotected nests may be disoriented by artificial lighting. In addition, turtle nests and hatchlings are susceptible to human disturbance and predation by feral mammals, such as small Indian mongoose (*Herpestes auropunctatus*), cats (*Felis catus*), or feral dogs (*Canis familiaris*). Adult sea turtles may also come ashore to bask during the day and may be disturbed by pedestrian use. Although we are not aware of any documented green sea turtle nests in the vicinity of the project site, all beach-front property has the potential to provide nesting and basking habitat for the species. Lighting recommendations are listed after the Hawaiian seabird section because they may be impacted by artificial lighting as well.

Hawaiian seabirds

Seabirds, including the Newell’s shearwater and Hawaiian petrel, fly at night and are attracted to artificially-lighted areas that can result in disorientation and subsequent fallout due to exhaustion or collision. Seabirds are susceptible to collision with objects, such as utility lines, guy-wires, and communication towers that protrude above the vegetation when traversing between the ocean and their mountainous breeding areas. Additionally, once grounded, they are vulnerable to predators and are often struck by vehicles along roadways. Any increase in the use of nighttime lighting, particularly during peak fallout period (September 15 through December 15), could result in additional seabird injury or mortality.

Unlike other Hawaiian seabird species, wedge-tailed shearwaters nest in littoral vegetation along coastlines. Nesting adults, eggs, and chicks are particularly susceptible to impacts from human disturbance and predators. Surveys should be conducted in the vicinity of the Park during the species' peak breeding season (August through October) to determine the location of nesting areas. If wedge-tailed shearwaters nest within the property, the DEA should identify means to avoid those areas and minimize impacts.

Lighting recommendations

To minimize and avoid artificial lighting impacts to sea turtles and seabirds, a comprehensive lighting plan should be developed and incorporated into the DEA. If lights cannot be eliminated due to safety or security concerns, then they should be positioned low to the ground, be motion-triggered, and be shielded and/or full cut-off. Effective light shields should be completely opaque, sufficiently large, and positioned so that the bulb is only visible from below and light from the shielded source cannot be seen from the beach. Furthermore, construction activities should only occur during daylight hours.

Additional recommendations

To minimize potential adverse impacts to protected wildlife, we suggest that free movements of pets (*i.e.* dogs off leash) be prohibited on the Park. Furthermore, educational signs should be used to inform Park users of leash laws and the presence of sensitive species. We also recommend the use of sturdy animal-proof garbage containers that reduce the attraction of the area to non-native and feral species, such as house mice (*Mus musculus*), rats (*Rattus spp.*), and feral cats. As exotic invasive species currently dominate Hawaiian native ecosystems and coastal areas, if landscaping is proposed, we suggest using native plants.

We hope this information assists you in developing a comprehensive and thorough DEA and we appreciate your efforts to conserve listed species. If you have questions regarding this letter, please contact Jiny Kim, Consultation and Habitat Conversation Planning Program (phone: 808-792-9400; fax: 808-792-9581).

Sincerely,


Loyal Mehrhoff
Field Supervisor

Appendix C

Replies to Preliminary Comment Letters

ARCHITECTURAL DRAFTING SERVICE

P.O. BOX 1718

KAUNAKAKAI, HI 96748

Phone: (808) 553-9045 - Fax: (808) 553-3952 - Mobile: (808) 870-3499

Email: luigis@hawaiiantel.biz

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793

May 21, 2012

MEMO TO: ROLAND TEJANO, WASTEWATER ENGINEER

FROM: ARCHITECTURAL DRAFTING SERVICE

SUBJECT: KIOWEA PARK PROPOSED NEW PAVILION, RESTROOM FACILITIES
AND PARKING LOT;
TMK: (2) 5-2-009:018;

We are in receipt of your comments dated April 23, 2012 and our reply is listed below:

1. Section 11-62-31.1(1), requires that non-domestic wastewater entering and IWS be pre-treated and meet pollutant limit and or pretreatment standards set by the County of Maui, Wastewater Reclamation Division.

Reply: All non-domestic wastewater will be diverted through a grease trap as indicated on the plans and will be pre-treated and meet pollutant limit and or pretreatment standards set by the County of Maui, Wastewater Reclamation Division.

2. Please submit pre-treatment plans and specifications to the County of Maui for review and approval.

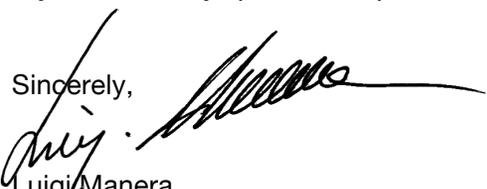
Reply: Plans and specifications will be submitted with the building permit application.

3 Please submit pre-treatment approval letter from the County of Maui for review and approval.

Reply: Pre-treatment approval letter will be submitted once received from the County of Maui.

If you have any questions, please call me at my office 808 553 9045.

Sincerely,


Luigi Manera

Appendix D

Exemption From County Grading Drainage & Parking

BENJAMIN J. CAYETANO
GOVERNOR
STATE OF HAWAII



RAYNARD C. SOON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOBIE M. K. M. YAMAGUCHI
DEPUTY TO THE CHAIRMAN

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

April 30, 2002

Mr. David Goode, Director
Department of Public Works
County of Maui
200 South High Street
Wailuku, Hawaii 96793

Dear Mr. Goode:

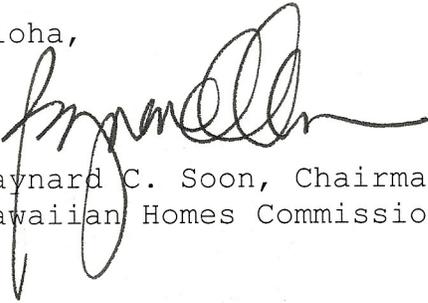
Subject: Kiowea Park Renovation Project, Tax Map Key (2) 5-2-
09:018, Kalamaula, Molokai

The Department of Hawaiian Home Lands exempts itself from the County grading, drainage and parking requirements for the purpose of obtaining the necessary county permits for this community-based renovation project now in Phase 2 at Kiowea Park in Kalamaula.

This renovation project is a joint effort between the Department of Hawaiian Home Lands, the County of Maui, the Molokai Hawaiian Homestead Community Associations, the Army National Guard and other community and governmental agencies. The Kiowea Park Renovation Project is one of several community-based projects being funded by the County of Maui as settlement for the Kalamaula Landfill encroachments.

We appreciate your continued assistance with this project. Should you have any questions, please call Carolyn Darr, Land Agent of our Land Management Division on Oahu, at 587-6430.

Aloha,


Raynard C. Soon, Chairman
Hawaiian Homes Commission

Appendix E

ESTIMATED PRELIMINARY DRAINAGE REPORT ASSUMPTIONS

**ESTIMATED PRELIMINARY DRAINAGE REPORT
ASSUMPTIONS**

FOR

KIOWEA PARK

Kalamaula, Molokai, Hawaii

T.M.K.: (2) 5-2-009:018

PREPARED FOR:

**KALAMA'ULA HOMESTEADERS ASSOCIATION
MS. GAYLA HALINIAK-LLOYD, PRESIDENT
PO BOX 1025
KAUNAKAKAI, HI 96748**

Prepared by:

**Architectural Drafting Service
P.O. Box 1718
Kaunakakai, HI 96748**

November 2012

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- I. INTRODUCTION
- II. SITE LOCATION AND PROJECT DESCRIPTION
- III. EXISTING TOPOGRAPHY AND SOIL CONDITIONS
- IV. EXISTING DRAINAGE CONDITIONS
- V. FLOOD AND TSUNAMI ZONE
- VI. PROPOSED DRAINAGE PLAN
- VII. HYDROLOGIC CALCULATIONS
- VIII. CONCLUSION
- IX. REFERENCES

EXHIBITS

- 1 Location Map
- 2 Vicinity Map
- 3 Soil Survey Map
- 4 Flood Insurance Rate Map

APPENDICIES

- A Hydrologic Calculations

ESTIMATED PRELIMINARY DRAINAGE REPORT
ASSUMPTIONS

**FOR
KIOWEA PARK
T.M.K.: (2) 5-2-009:018**

I. INTRODUCTION

The purpose of this report is to examine both the existing and proposed assumed drainage conditions for the proposed project.

II. SITE LOCATION AND PROJECT DESCRIPTION

The subject parcel is identified as T.M.K.: (2) 5-2-009:018, which encompasses an area of approximately 222,243 square feet or 5.102 acres. It is also Lot 31 of Land Court Application 632. The subject parcel is the site of Kiowea Park.

The project site is bordered by Maunaloa Highway to the north, residential properties to the east, the ocean to the south and coconut grove to the west.

The proposed project proposes to build a new pavilion to include disability access and parking. The paved parking area will be revised to provide better circulation and provide a total of 32 parking spaces and a loading zone. Ten of the parking spaces will be grassed.

III. EXISTING TOPOGRAPHY AND SOIL CONDITIONS

The project site currently contains two buildings, one men's and women's bathroom and a 20' x 60' pavilion. Other improvements include paved parking, concrete walkways and landscaping.

According to the "Custom Soil Resource Report for Island of Molokai, Hawaii" prepared by the United States Department of Agriculture, Natural Resources Conservation Service May 2012 (See Attached), and the "Soil Survey of the Islands of Kauai, Oahu, Maui, Moloka'i, and Lana'i, State of Hawaii" prepared by the U.S. Department of Agriculture, Soil Conservation Service (August 1972), the soil associated with the subject property is Jaucas sand, 0 to 15 percent slopes (JaC). JaC soils consist of excessively drained, calcareous soils that occur as narrow strips on coastal plains, adjacent to the ocean. The soil has developed in wind and water deposited sand from coral and seashells. Permeability is rapid, runoff is very slow to slow and the hazard of water erosion is no more than

slight, however, wind erosion is a severe hazard where vegetation has been removed.

IV. EXISTING DRAINAGE CONDITIONS

It is estimated that the assumed existing 50-year, 1-hour storm runoff from the project site is 5.03 cfs. The corresponding runoff volume generated is 4,225 cubic feet. The pads of the existing buildings are situated between elevation 3 and 4 feet. Presently, onsite runoff sheet flows across the project site in all directions from the existing building.

V. FLOOD AND TSUNAMI ZONE

According to Panel Number 150003 0190E of the Flood Insurance Rate Map, revised September 25, 2009, prepared by the United States Federal Emergency Management Agency, the majority of the subject parcel is situated in Flood Zone X. Flood Zone X represents areas determined to be outside the 0.2% annual chance flood plain. The southern third of the parcel is situated in Zone AE with a base flood elevation of 2 feet.

VI. PROPOSED DRAINAGE PLAN

The proposed drainage plan is to maintain the existing drainage pattern of the onsite runoff. Runoff sheet flowing across the project site will be collected by grated catch basins within the new paved parking area and conveyed to an onsite detention basin located to the north of the parking lot.

It is estimated that the assumed post development runoff from the project site will be 9.18 cfs, an increase of 4.15 cfs from existing conditions. The assumed associated runoff volume generated from the developed condition is 7,711 cubic feet. Based on the County drainage standards, the project's drainage system must mitigate the increase in runoff from the site for a 50-year 1-hour storm, which is 3486 cubic feet (7,711 cubic feet - 4225 cubic feet). The proposed onsite detention basin will be sized (90'x20'x2' 3600 cu ft capacity) to accommodate, at a minimum, the increase runoff volume generated from the 50-year, 1-hour storm.

The drainage design criteria will be to minimize any alterations to the natural pattern of the existing onsite surface runoff. The proposed drainage plan meets the requirements of Chapter 4, "Rules for the Design of Storm Drainage Facilities in the County of Maui.

VII. HYDROLOGIC CALCULATIONS

The hydrologic calculations are based on the "Drainage Master Plan for

the County of Maui,” and the “Rainfall Frequency Atlas of the Hawaiian Islands,” Technical Paper No. 43, U.S. Department of Commerce, Weather Bureau.

Rational Formula Used: $Q = CIA$

Where $Q =$ rate of flow (cfs)

$C =$ rainfall coefficient

$I =$ rainfall intensity for a duration of equal to the time of concentration (inches/hour)

$A =$ drainage area (Acres)

See Appendix A for Hydrologic Calculations.

VIII. CONCLUSION

The proposed development will generate an assumed additional runoff from the 50-year, 1-hour storm of 4.05 cfs and an assumed additional runoff volume of 3,486 cubic feet. The onsite runoff will be collected by grated catch basins within the new paved parking area and conveyed to an onsite detention basin. The detention basin will be sized to accommodate, at a minimum, the increase in runoff and runoff volume from the 50-year, 1-hour storm.

In view of the foregoing, it is our assumption that the proposed development will not have an adverse effect on the adjoining or downstream properties.

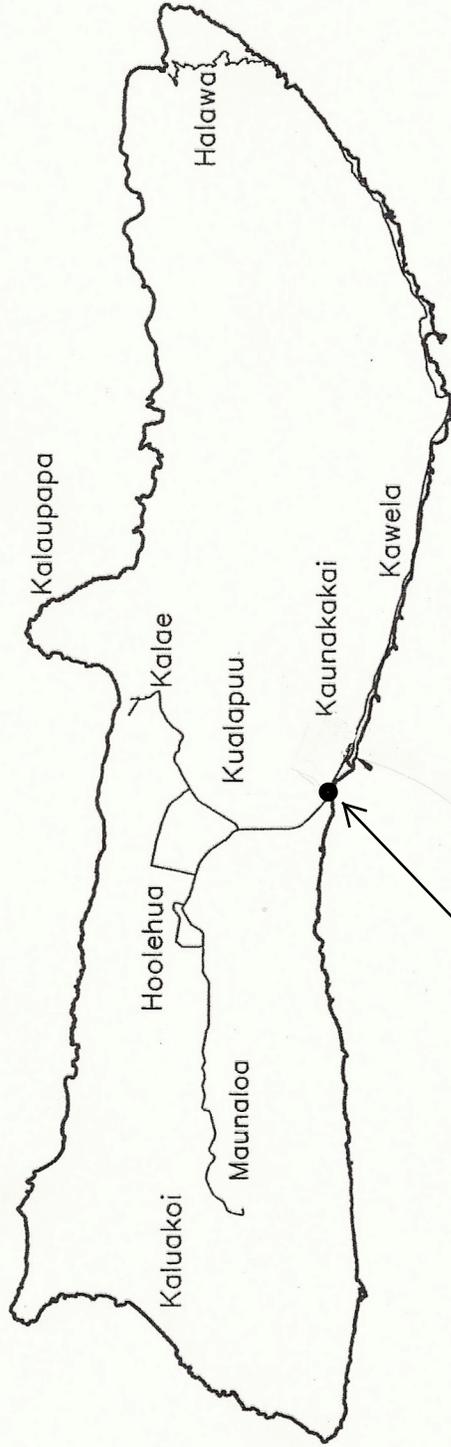
IX. REFERENCES

- A. Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii, prepared by U.S. Department of Agriculture, Soil Conservation Service, August, 1972.
- B. Erosion and Sediment Control Guide for Hawaii, prepared by U.S. Department of Agriculture, Soil Conservation Service, March 1981.
- C. Rainfall-Frequency Atlas of the Hawaiian Islands, Technical Paper No. 43, U.S. Department of Commerce, Weather Bureau, 1962.

- D. Flood Insurance Rate Maps of the County of Maui, September, 2009.
- E. Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui, prepared by the Department of Public Works and Waste Management, County of Maui, 1995

EXHIBITS

- 1. LOCATION MAP**
- 2. VICINITY MAP**
- 3. SOIL SURVEY MAP**
- 4. FLOOD INSURANCE RATE MAP**

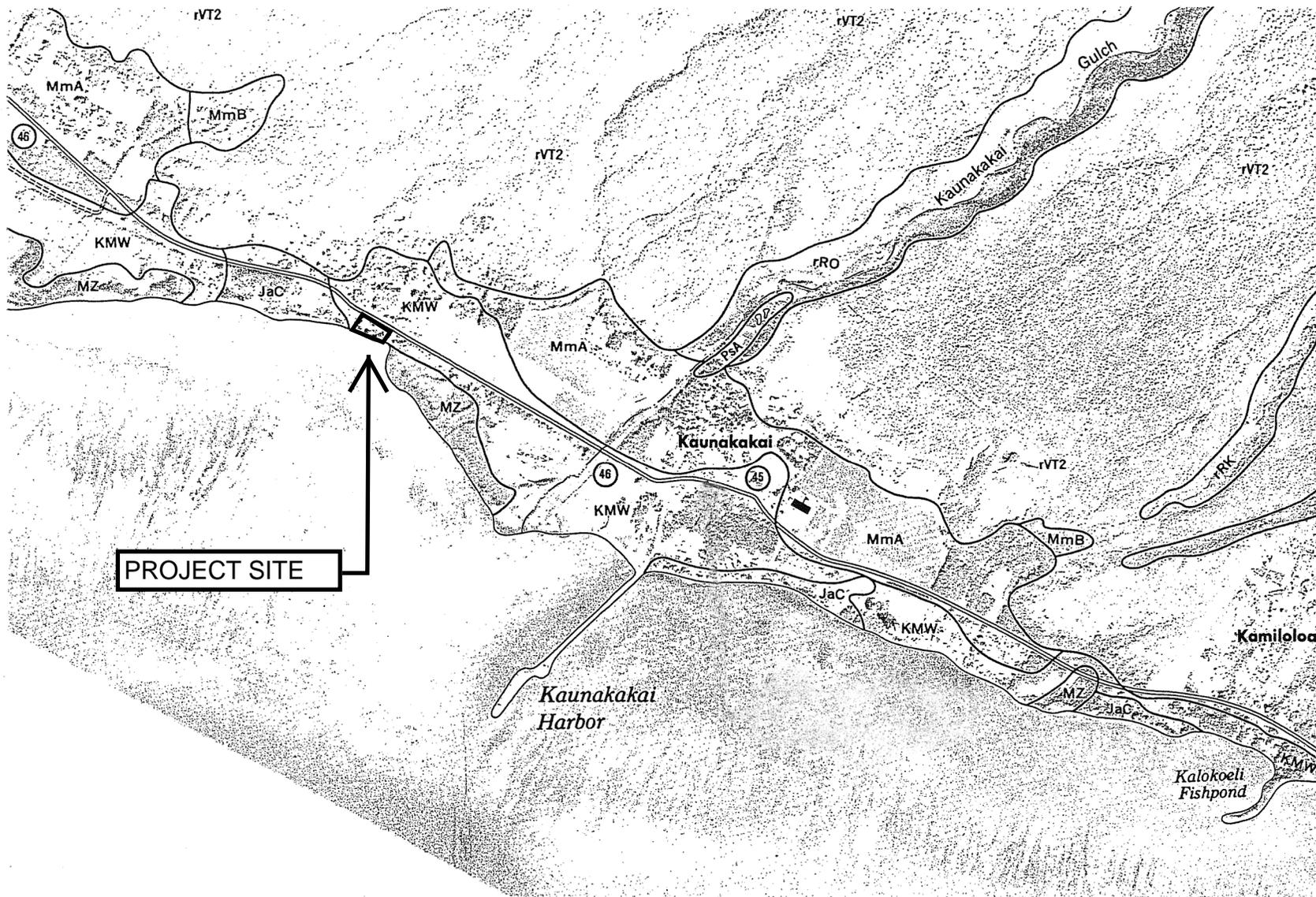


**PROJECT
SITE**



ISLAND OF MOLOKAI
NOT TO SCALE

LOCATION MAP
EXHIBIT 1



SOIL SURVEY MAP
EXHIBIT 3



FLOOD HAZARD ASSESSMENT REPORT



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

- Zone A:** No BFE determined.
- Zone AE:** BFE determined.
- Zone AH:** Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- Zone AO:** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- Zone V:** Coastal flood zone with velocity hazard (wave action); no BFE determined.
- Zone VE:** Coastal flood zone with velocity hazard (wave action); BFE determined.
- Zone AEF:** Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- Zone XS (X shaded):** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY: MAUI
TMK NO: (2) 5-2-009-018
PARCEL ADDRESS: 605 MAUNALO A HWY
 KAUNAKAKAI, HI 96748
FIRM INDEX DATE: SEPTEMBER 19, 2012
LETTER OF MAP CHANGE(S): NONE
FEMA FIRM PANEL(S): 1500030190E
PANEL EFFECTIVE DATE: SEPTEMBER 25, 2009

PARCEL DATA FROM: MAY 2012
IMAGERY DATA FROM: MAY 2005

IMPORTANT PHONE NUMBERS

County NFIP Coordinator
 County of Maui
 Francis Cerizo, CFM (808) 270-7771
State NFIP Coordinator
 Carol Tyau-Beam, P.E., CFM (808) 587-0267

Disclaimer: The Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use of the information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR from any liability, which may arise from its use.

If this map has been identified as 'PRELIMINARY' or 'UNOFFICIAL', please note that it is being provided for informational purposes and is not to be used for official/legal decisions, regulatory compliance, or flood insurance rating. Contact your county NFIP coordinator for flood zone determinations to be used for compliance with local floodplain management regulations.

APPENDIX A
HYDROLOGIC CALCULATIONS

Estimated Hydrologic Calculations (Based on Assumptions)

Purpose: Determine the increase in onsite surface runoff due to the development of the project site based on a 50-year, 1-hour storm.

A. Determine the Runoff Coefficient (C):

DRAINAGE AREA CHARACTERISTICS:

ROOF AREAS:

Infiltration (Negligible)	= 0.20
Relief (Hilly)	= 0.06
Vegetal Cover (None)	= 0.07
Development Type (Roof)	= <u>0.55</u>
C	= 0.88

PAVEMENT AREAS:

Infiltration (Negligible)	= 0.20
Relief (Flat)	= 0.00
Vegetal Cover (None)	= 0.07
Development Type (Pavement)	= <u>0.55</u>
C	= 0.82

LANDSCAPE AREAS:

Infiltration (Medium)	= 0.07
Relief (Flat)	= 0.00
Vegetal Cover (Good)	= 0.03
Development Type (Landscape)	= 0.15
C	= 0.25

EXISTING CONDITION:

Roof Area = 0.04 Acres
Paved Area = 0.14 Acres
Landscaped Area = 4.92 Acres
WEIGHTED C = 0.27

DEVELOPED CONDITION:

Roof Area = 0.16 Acres
Paved Area = 0.31 Acres
Landscaped Area = 4.63 Acres
WEIGHTED C = 0.30

- B. Determine the 50-year 1-hour rainfall:

$$i_{50} = 2.5 \text{ inches}$$

Adjust for time of concentration to compute Rainfall intensity (I):

Existing Condition:

$$\begin{aligned} T_c &= 27 \text{ minutes} \\ I &= 3.65 \text{ inches/hour} \end{aligned}$$

Developed Condition:

$$\begin{aligned} T_c &= 6.5 \text{ minutes} \\ I &= 6.0 \text{ inches/hour} \end{aligned}$$

- C. Drainage Area (A) = 5.1 Acre
- D. Compute the 50-year storm runoff volume (Q):

$$Q = CIA$$

Existing Conditions:

$$\begin{aligned} Q &= (0.27)(3.65)(5.1) \\ &= 5.03 \text{ cfs} \end{aligned}$$

Developed Conditions:

$$\begin{aligned} Q &= (0.30)(6.0)(5.1) \\ &= 9.18 \text{ cfs} \end{aligned}$$

The assumed increase in runoff from a 50-year, 1-hour storm is expected to be $9.18 \text{ cfs} - 5.03 \text{ cfs} = 4.15 \text{ cfs}$ due to the development of the proposed project. The corresponding storage volume is 3,486 cubic feet.

Appendix F

IWS

APPROVAL

NEIL ABERCROMBIE
GOVERNOR OF HAWAII



LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH

P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply please refer to:
File

July 16, 2012

Yoshiaki Tanabe
P.O. Box 446
Waiialua, HI 96791

Dear Sir/Madam:

Subject: Individual Wastewater System (IWS) for
Owner/Lessee: - Kiowea Park Pavilion-DHHL
Project Site: 605 Maunaloa Highway, Molokai, HI
TMK: 252009018
IWS File No.: 48005 (Septic Tank)
Old File No.: N/A

The subject wastewater plans have been reviewed by the Wastewater Branch for conformance to applicable provisions of Hawaii Administrative Rules, Title 11, Chapter 62, entitled Wastewater Systems. The IWS plan conforms to applicable provisions of Chapter 11-62.

The Department of Health will sign an applicable county building permit application provided that all information submitted as part of the IWS plan and county building permit application are consistent with each other and meet applicable provisions of Chapter 11-62 at the time of permit signature.

As the professional engineer responsible for the design of the above wastewater plan, it is your responsibility to inform the owner/lessee of the property that:

- A) The IWS plans must be attached to each set of permit construction plans, or provided to the contractors.
- B) The IWS can only be installed by a licensed contractor holding an A, C9, C-37, C-37a or C-43 license, and
- C) The IWS must be inspected by the engineer, and authorized in writing by the Department before use.

Should you have any questions, please feel free to contact Roland Tejano at 984-8232

Sincerely,

A handwritten signature in black ink, appearing to read "Sina Pruder".

SINA PRUDER, P.E.
Acting Chief, Wastewater Branch

YOSHI TANABE, PE. , LLC
P.O. BOX 446
Waialua, HAWAII 96791

TELEPHONE (808) 637-5537 Fax (808) 637-5537 cell (808) 351-8034
E-MAIL: tanabey001@hawaii.rr.com

F A C S I M I L E

PAGE 1 OF ___

DATE: 14 July 2012, 2012

TO : Luigi _____ 553-3952

SUBJECT: KIOWEA PARK Pavillion NWS Approval

For your inf

Luisi

Luisi Manera
DBA Architectural Drafting Service
Ph: 553-9045
P.O. Box 1718
Kaunakakai, HI 96748

9648
59-102/1213

04-04 2012

PAY TO THE
ORDER OF

STATE of Hawaii
December fee

\$ 100.00

DOLLARS

Security Features
are applied.
Details on back.

BANK OF HAWAII
KAUNAKAKAI BRANCH
KAUNAKAKAI, HI 96748

FOR

Hawaii Park/Parlour

Luisi Manera

MP

⑆ 121301028⑆ 00410020830⑆ 9648

YOSHIAKI TANABE P.E., LLC

Licensed Professional Engineer

COPY
Luigi

P.O. Box 446 ■ WAIALUA, HI 96791 ■ PHONE (808) 637-5537 ■ E-Mail: TANABEY001@hawaii.rr.com

April 7, 2012

Job 12-025-03

Mr. Roland Tejano
Environmental Engineer
Maui District Health Office, Suite 301
Department of Health, State of Hawaii
54 High Street,
Wailuku, Maui 96793

Subject : INDIVIDUAL WASTEWATER SYSTEM PLAN for
Hawaiian Homelands Kiowea Park Pavillion
Project Site: 605 Maunaloa Highway, Kaunakakai, Molokai
TMK: (2) 5-2-009: 018

Dear Ms. Pruder:

Attached is a proposed IWS plan for the subject property for your review and approval.

The proposed system consists of a 3,000 gallon septic tank , 350 gallon Grease interceptor for the kitchen and 30' by 50' leach bed.

The design is based on 2,000 gallons /day waste flow, highly variable flow, equivalent to church with kitchen 10 gpd/ person. This facility will be used for approximately 200 people gathering twice a month at the most. The percolation rate used for the project is 4 min/inch.

Should you require any additional information about this project, please contact me at the above address or by my cell phone 351-8034.

Yours truly,



Yoshi Tanabe, P.E.

Attachment: IWS Plans, Perco Test Sheet, IWS application , Owner Certification Form,
\$100.00 Application Fee., New Kiowea Park Pavilion Plan.

CC: Luigi Manera, Architectural Design Service

INDIVIDUAL WASTEWATER SYSTEM
APPLICATION INFORMATION SHEET

Please Print or Type, Incomplete form will result in delayed reviews.

Engineer: Yoshi Tanabe

Owner: Hawaiian Homelands

Owner's Mailing Address: Department of Hawaiian Homelands, Land Management Division, 91-5420 Kapolei Parkway, Kapolei, Hawaii 96707

Contact Person (If different from owner) address, and phone number:

Luigi Manera, Architectural Drafting Services, P.O. Box 1718, Kaunakakai, HI 96748, 808-553-9045

Project Location (Street address, Subdivision name and General Area):

605 Maunaloa Highway, Kalamaula, Kaunakakai, Molokai, Hawaii

Project Tax Map Key (TMK): (2) 5-2-009:018

Lot Size: 5.102 Acres

Projected Flow or Number of Bedrooms: -----²⁰⁰⁰~~3000~~ GPD - Highly variable flow
Equivalent to church

Proposed Treatment Unit (Manufacturer, Model, Design Capacity):

Orenco Systems Inc. IAPMO 1500 Gallon Septic Tank (x 2)

Proposed Disposal System: 30' x 50' absorption bed

Percolation Rate: 4 min/inch

Existing IWS on lot: NO YES Type: Septic System/ Leach Line

Existing Potable drinking water well within 1,000 ft of the proposed disposal system? NO YES

Existing structure on lot: NO YES Type: Pavilion

LCC upgrade? NO YES

FOR DEPARTMENT USE ONLY

Date Received: _____ Project Engineer: _____ File No. _____

Filing Fee (\$100 _____ \$25 _____) Check Date: _____ Check No. _____

Notes: _____

COPY

INDIVIDUAL WASTEWATER SYSTEM

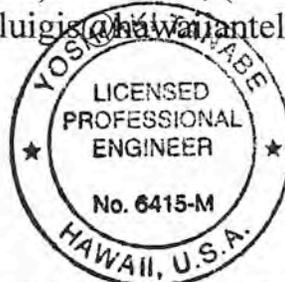
FOR

Hawaiian Homelands
Kiowea Park

PROJECT SITE: 605 Maunaloa Highway, Kaunakakai, Molokai, Hawaii

T.M.K. (2) 5-2-009:018

Prepared By: Architectural Drafting Service
P.O. Box 1718
Kaunakakai, HI 96748
Phone & Fax (808) 553-9045, (808) 553-3952
E-mail: luigis@hawaiiartel.biz



THIS WORK HAS BEEN PREPARED
BY ME OR UNDER MY SUPERVISION
AND CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY SUPERVISION.

04/06/2012

Signature

Date

PROJECT LOCATION



KALAMAULA



HAWAIIAN HOMELANDS
KIOWEA PARK
TMK- (2) 5-2-009:018



DEPARTMENT OF HEALTH - WASTEWATER BRANCH
INDIVIDUAL WASTEWATER SYSTEM (IWS)
OWNER'S CERTIFICATION FORM

Kalamauka Homesteaders Association

Subject: Individual Wastewater System for HAWAIIAN HOMELANDS - KIOWEA PARK

Tax Map Key (TMK) Number: (2) 5 - 2 - 009: 018

Mailing Address: P.O. Box 1025

Kaunakakai, HI 96748

*Stacy Crivello on behalf of KHA**
(please print name)

, hereby certify that I am the owner (s) of the

subject property and that I have read the following and shall comply with all provisions. Failure to comply with any or all of the provisions can lead to imposition of the penalties and remedies as provided for in Administrative Rule, Title 11, Chapter 62, Section 11-62-72, Penalties and remedies.

1. I certify that as the owner of the Individual Wastewater System (IWS) serving the subject property, the IWS will be inspected, operated and maintained in accordance with the operation and maintenance manual developed by my IWS design engineer section (section 11-62-31.1(e)(2)).

Furthermore, if an aerobic unit is utilized for wastewater treatment, an active service contract for the proper operation and maintenance shall be maintained at all times (section 11-62-33.1.(b)(3)).

2. I understand and shall comply with the provision of section 11-62-08 (g) which requires that the IWS be constructed by a licensed contractor with a license type of: A, C-9, C-37, C-37a or C-43.
3. I understand and shall comply with the provisions of section 11-62-31.(f) which states that the IWS must be inspected and approved of by the Department prior to use.

OPERATING INSTRUCTIONS
TO OWNERS/USERS OF SEPTIC TANK SYSTEMS

ALL WASTEWATER FROM YOUR HOME AND, WITH FEW EXCEPTIONS, ANYTHING NORMALLY DISPOSED BY THE HOME PLUMBING SYSTEM CAN BE HANDLED BY YOUR SEPTIC SYSTEM.

1. As much as possible use biodegradable detergents to insure efficiency and maximum time between tank pumping.
2. For proper operation keep the following items out of your septic system:
 - a. Plastic products- rubber products, towels-washcloths, sanitary napkins-mop strings.
 - b. Grease-pour into a container and dispose elsewhere.
 - c. Lint-Dispose of elsewhere-not down the drain.
 - d. Rags and scouring pads
 - e. Disposable diapers
 - f. Water softener backwash.
3. Your septic tank will need pumping from time to time. The frequency will depend on usage. Have a licensed pumping contractor look at your tank after six months. It will probably go a year or more with normal use.
4. A septic tank shall not be entered by anyone unless proper safety procedures are followed. There is a potential hazard of explosion or gasses and/or asphyxiation of personnel if precautions are not taken.
5. Chemicals or disinfectants do not improve the operation of septic tanks and are not recommended. Ordinary chemicals used in the household in small quantities will not adversely affect the operation of the septic tank.
6. Wastewater sludge must be disposed of only at a solid waste disposal facility which has a permit to accept such material.

GENERAL CONSTRUCTION NOTES

1. Construction of this Individual Wastewater System (IWS) shall not be started until proper construction permit is issued by Department of Health. All the work covered under this plan shall conform to all applicable local plumbing codes, UPC, and requirements of the Health Regulations, State of Hawaii.
2. As per Chapter 11-62-08(g) Hawaii Administrative Rules, installation of the IWS shall be accomplished by a licensed contractor who is thoroughly familiar with and experienced in the field.
3. All the bends in the waste line shall be provided with proper clean out to grade (COTG). Provide 3 1/2 inch clean out on 4 inch drain pipe. COTG shall be Smith figure 4280 Deco Cast Iron clean out with bronze counter sink closure plug or approved equal. COTG shall be set in 12x12x12 inch concrete block level with the grade.
4. Horizontal Drainage pipe to the treatment tank shall be sloped 1/4 inch per foot and shall not exceed 40 feet.
5. When the ground water is encountered in excavating tank for aerobic or other treatment tank, consult engineer for the proper anchoring of the tank.
6. All plumbing fixtures used for in the house or establishment with this project shall be new or retrofitted with water saver type and shall not exceed the following water usage criteria.

Kitchen Faucet	—————	2.5GPM
Lavatory	—————	1.5GPM
Showerhead	—————	2.5GPM
WC	—————	1.6GPM
7. All prefabricated septic tank used for this project shall be certified by the International Association of Plumbing and Mechanical Officials (IAPMO).
8. The IWS must be inspected by the design engineer as the system being installed. The contractor or home owner shall make arrangement with engineer for an inspection after system components are placed in place and before the system is back filled. Allow 2 to 3 days advance notice for an inspection. This inspection is required by the Health Department for the final approval for use permit. Engineer shall not be responsible for a system not having been inspected or a completely back filled system before an inspection.
9. The plan specifying materials and other requirements are prepared in strict accordance with the provisions of Title 11 Chapter 62, Hawaii Administrative Rules, Wastewater System, Health Regulations. Therefore, any changes to the approved plans shall be approved by the design engineer before the system installation.
10. The contractor shall provide, install and maintain all barricades and safety devices and take all necessary precautions for the protection of the work, convenience and safety of the public.

CHAPTER 11-62 APPENDIX F

TABLE 2
April 15, 1997

Minimum Horizontal Distance From	Cesspool (ft)	Treatment Unit (ft)	Seepage Pit (ft)	Soil Absorption System (ft)
Wall line of any structure or building	5	5	5	5
Property line	9	5	9	5
Stream, the ocean at the vegetation line, pond, lake, or other surface water body	50	50	50	50
Large trees	10	5	10	10
Treatment unit	5	5	5	5
Seepage pit	18	5	12	5
Cesspool	18	5	18	5
Soil absorption system	5	5	5	5
Potable water sources serving public water systems	1000	500	1000	1000

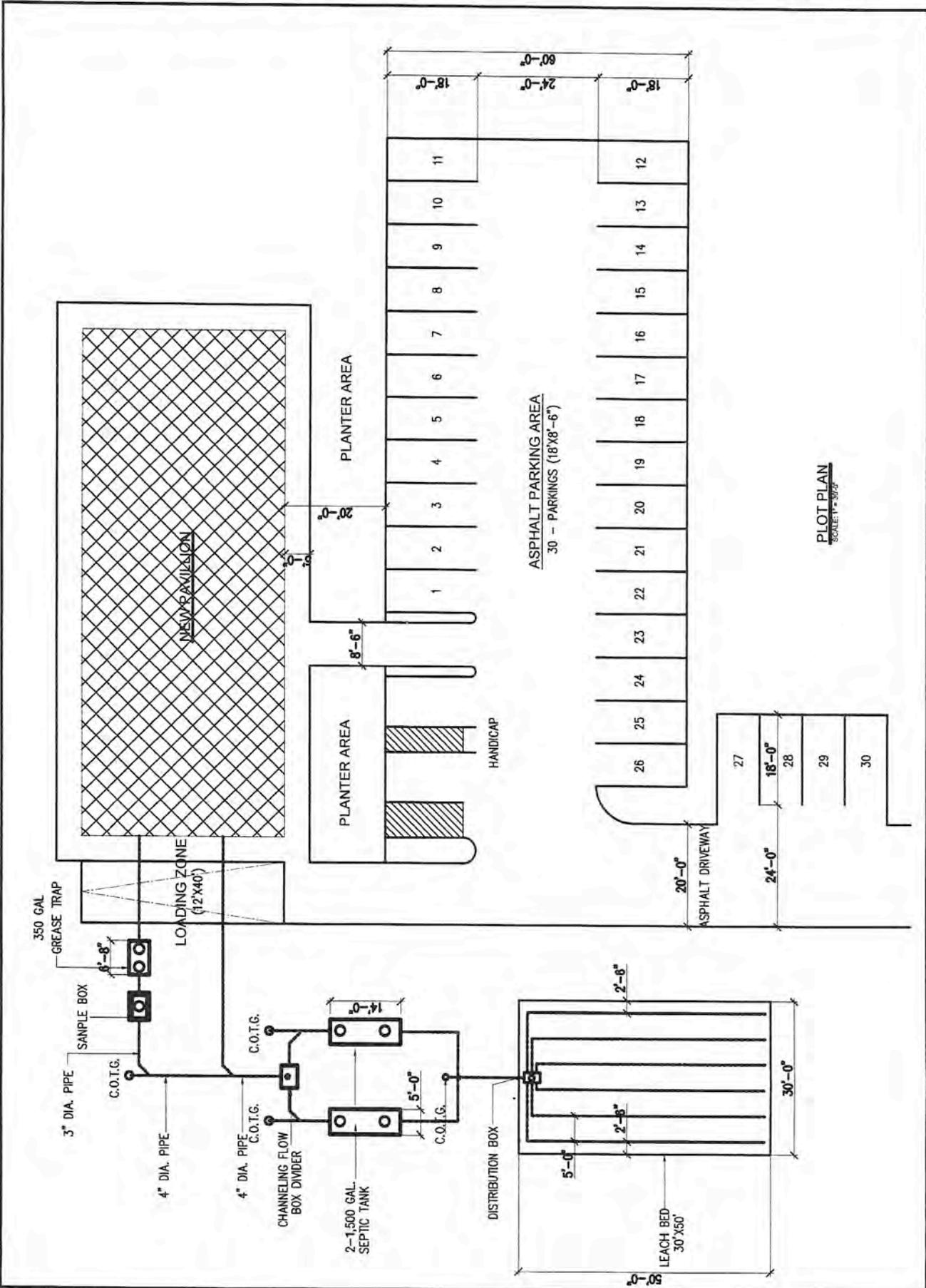
REVISION	BY



ADS
Architectural Drafting Service
Kauaia, Hawaii 96748
P.O. BOX 1718
Tel. No. (808) 553-9045
Fax. No. (808) 553-9925

NEW PAVILION FOR:
KIOWEA PARK
605 MAUNALOHA HIGHWAY
KAUNAKAKAI HI 96748
T.M.K. (2)5-2-009-018

Date	FEB. 2012
Scale	AS NOTED
Drawn	BP
Checked by	UM
Job	PAVILION
Sheet No	T-3
of	Sheets



PLOT PLAN
SCALE: 1" = 30'-0"

IWS DESIGN REQUIREMENTS

1. AREA CLASSIFICATION - PARK/RURAL
 LOT SIZE - 5.102 AC
 IWS PERMITTED - YES

2. FLOW REQUIREMENTS

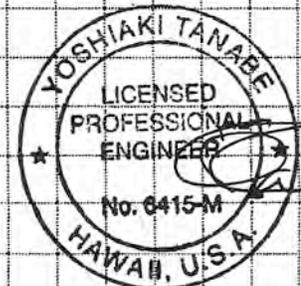
10 GPD/PERSON x 200 PERSON = 2000 GPD - Highly VARIABLE FLOW
 ↙ ONCE OR TWICE / MONTH
 ↖ EQUIPMENT CHURCH WITH KITCHEN
 CHAPTER 11-62 APPENDIX F

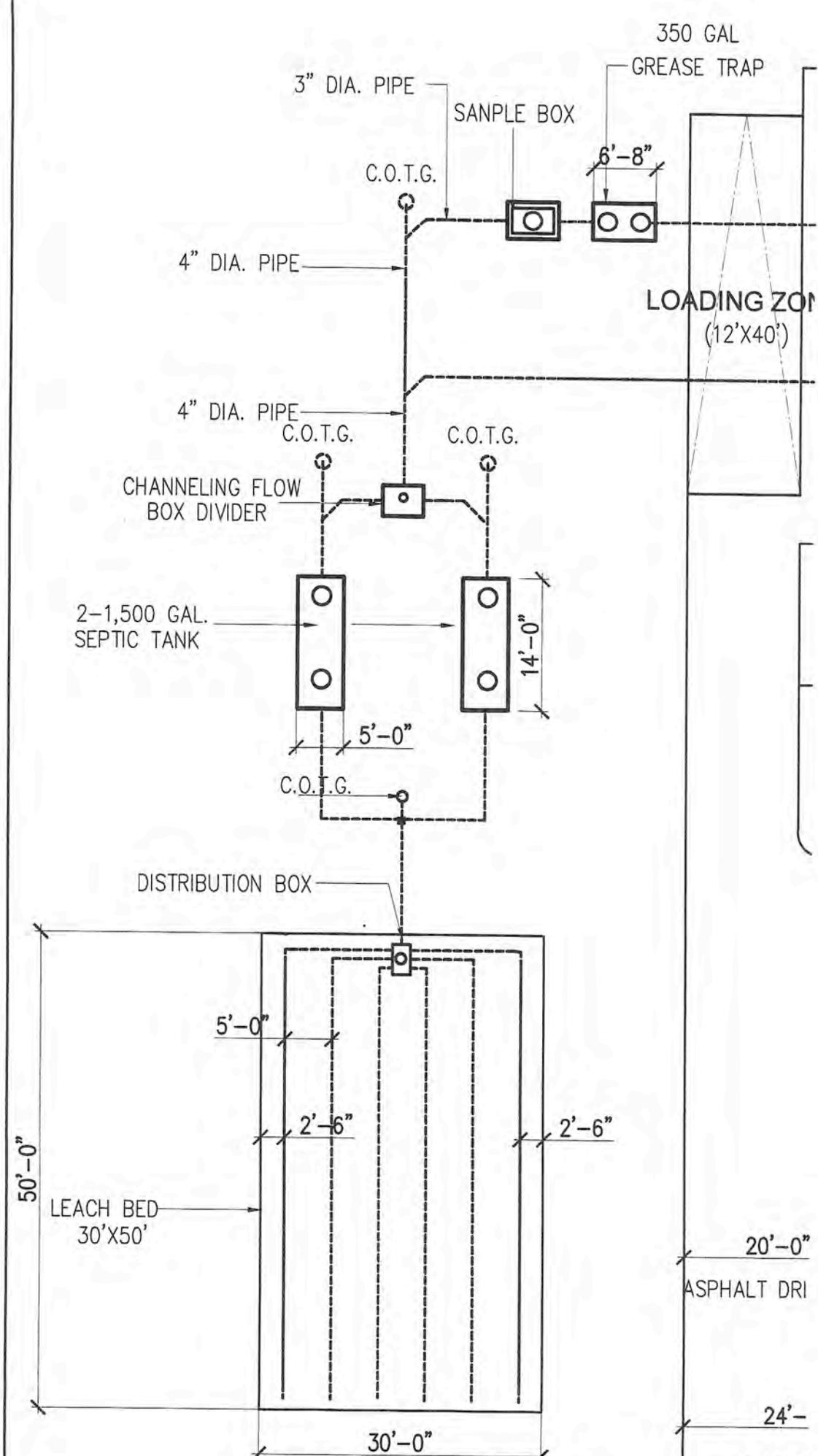
3. SEPTIC TANK CAPACITY REQD = $1000 + (Q - 800) \times 1.25$
 $= 1000 + (1200) \times 1.25$
 $= \underline{\underline{2,500 \text{ GAL}}}$ USE 3,000 GAL SEPTIC TANK

4. DISPOSAL SYSTEM:

FLOW = 2000 GPD
 PERCO RATE = 4 MIN/IN OR 2.5 GAL/FT²

$\frac{2000}{2.5} \times 1.5 = 1,200 \text{ FT}^2$ USE 30' WIDE x 50' LONG LEACHAGE
 ↖ SAFETY FACTOR



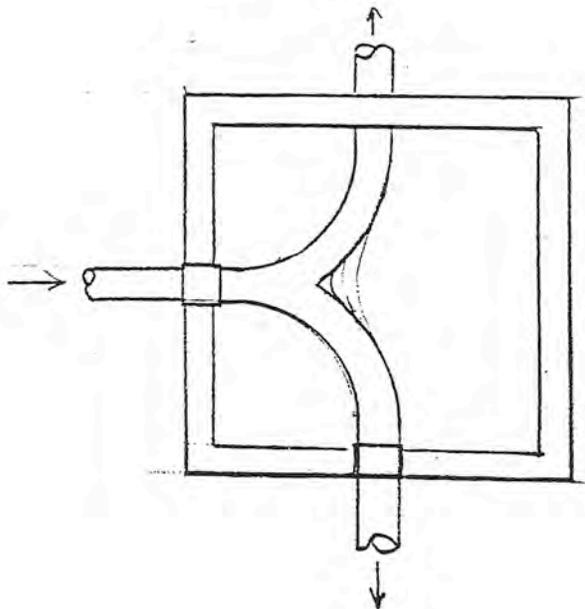
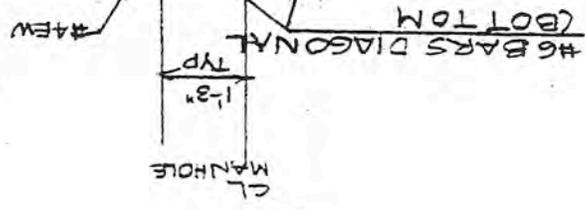
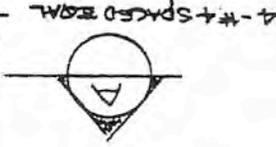
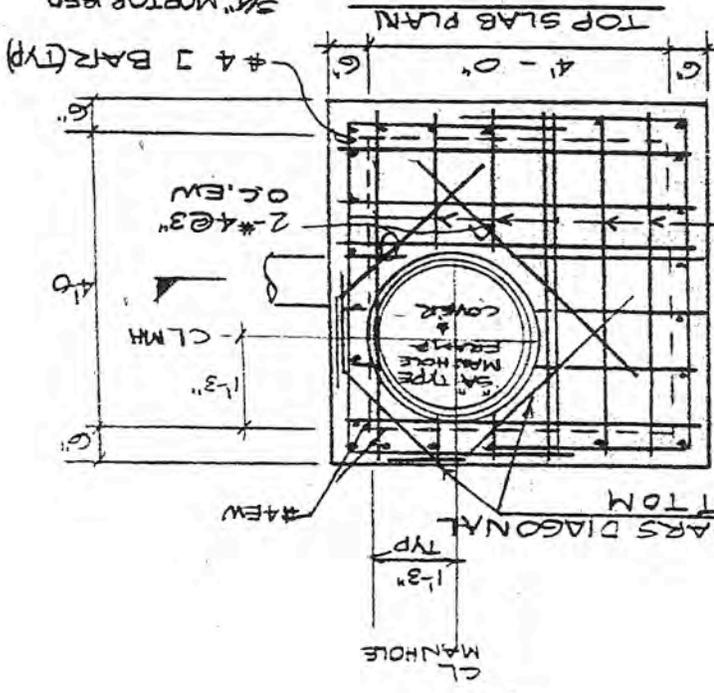
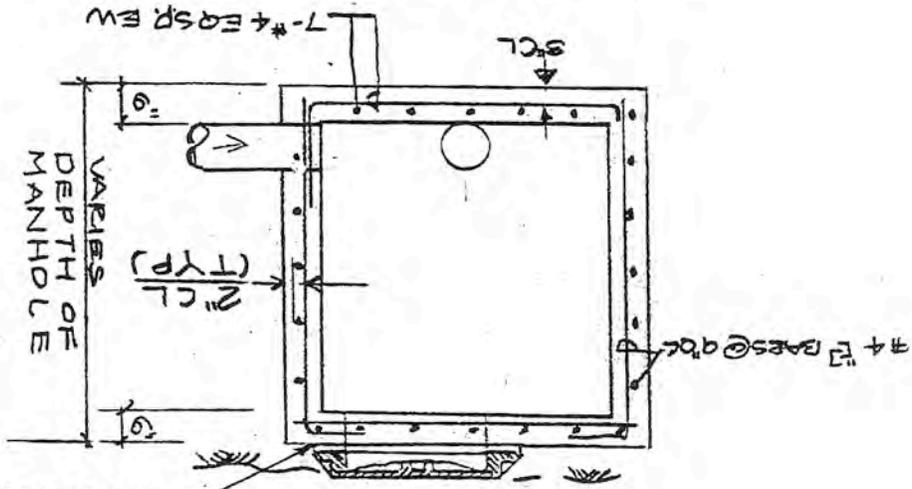


IWS PARTIAL PLAN

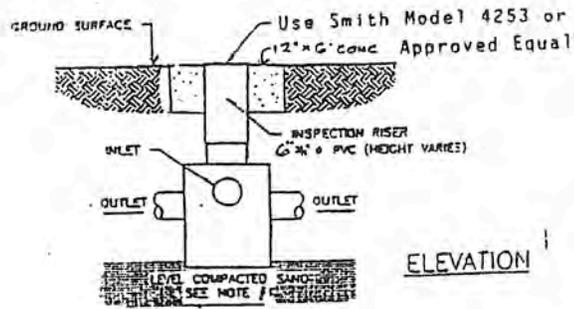
KIOWEA PARK
 TMK: (2) S-2-009:012

CHANNELIZING MANHOLE DETAIL
NTS

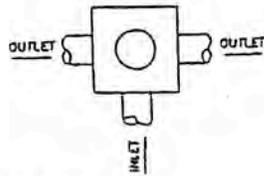
- SECTION -



CHANNELIZING
MANHOLE BOTTOM PLAN
NTS



ELEVATION



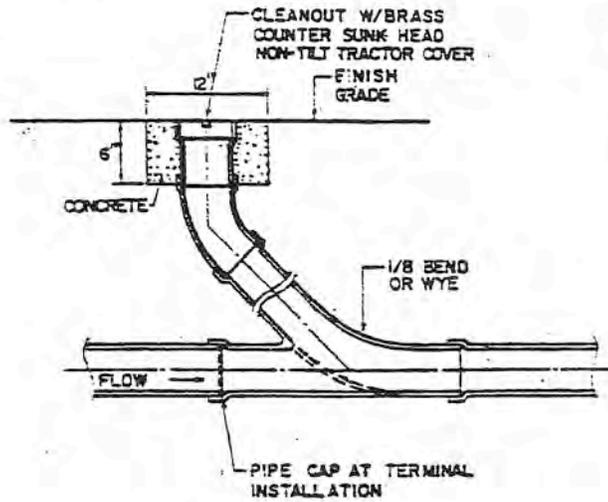
PLAN

CONSTRUCTION NOTE

1. The distribution box shall be set level and arranged so that effluent is evenly distributed to each distribution line.

DISTRIBUTION BOX

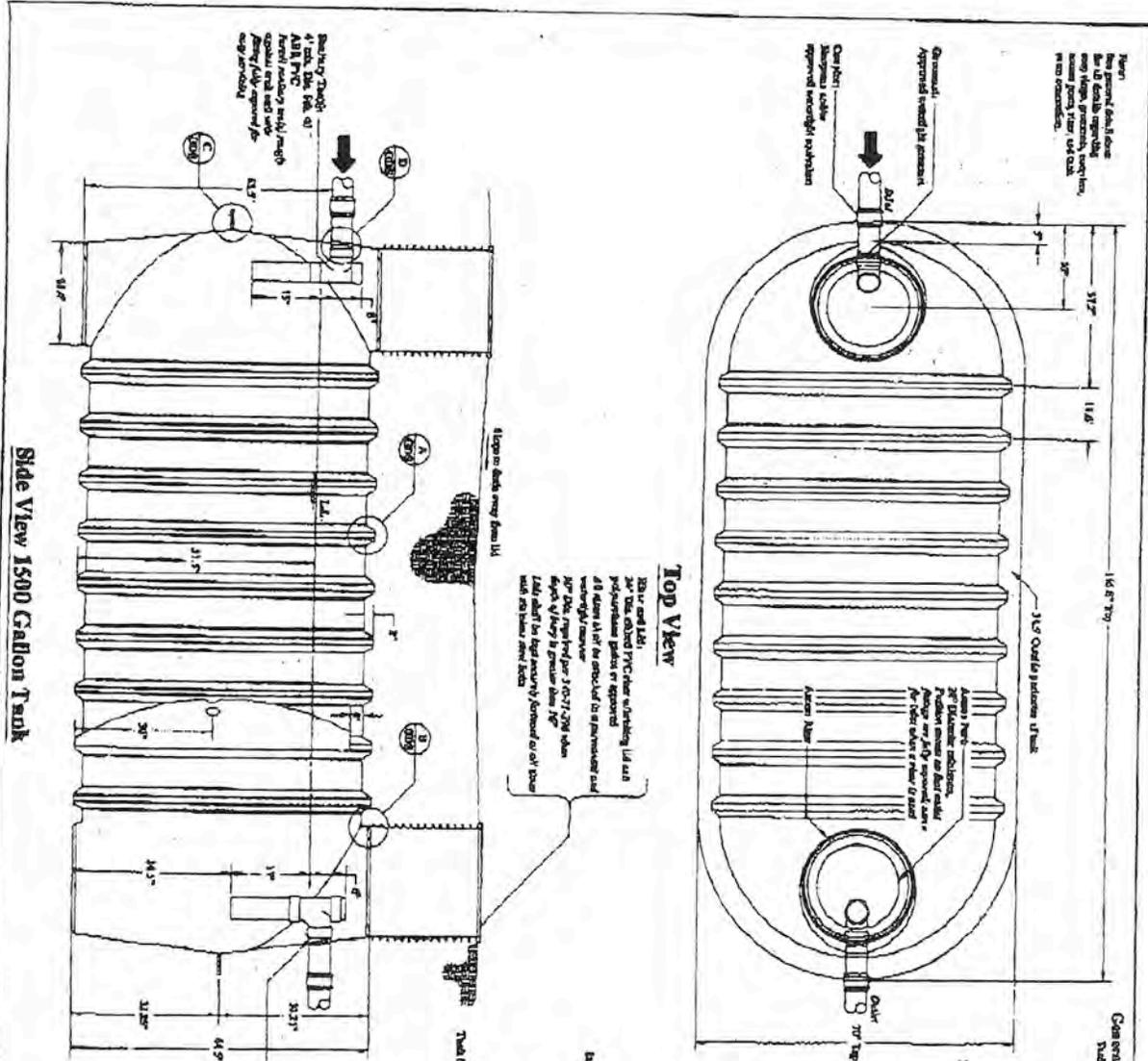
N.T.S.



NOTE:
28 DAY COMPRESSIVE
CONCRETE STRENGTH
3000 PSI

TYPICAL CLEANOUT

NOT TO SCALE



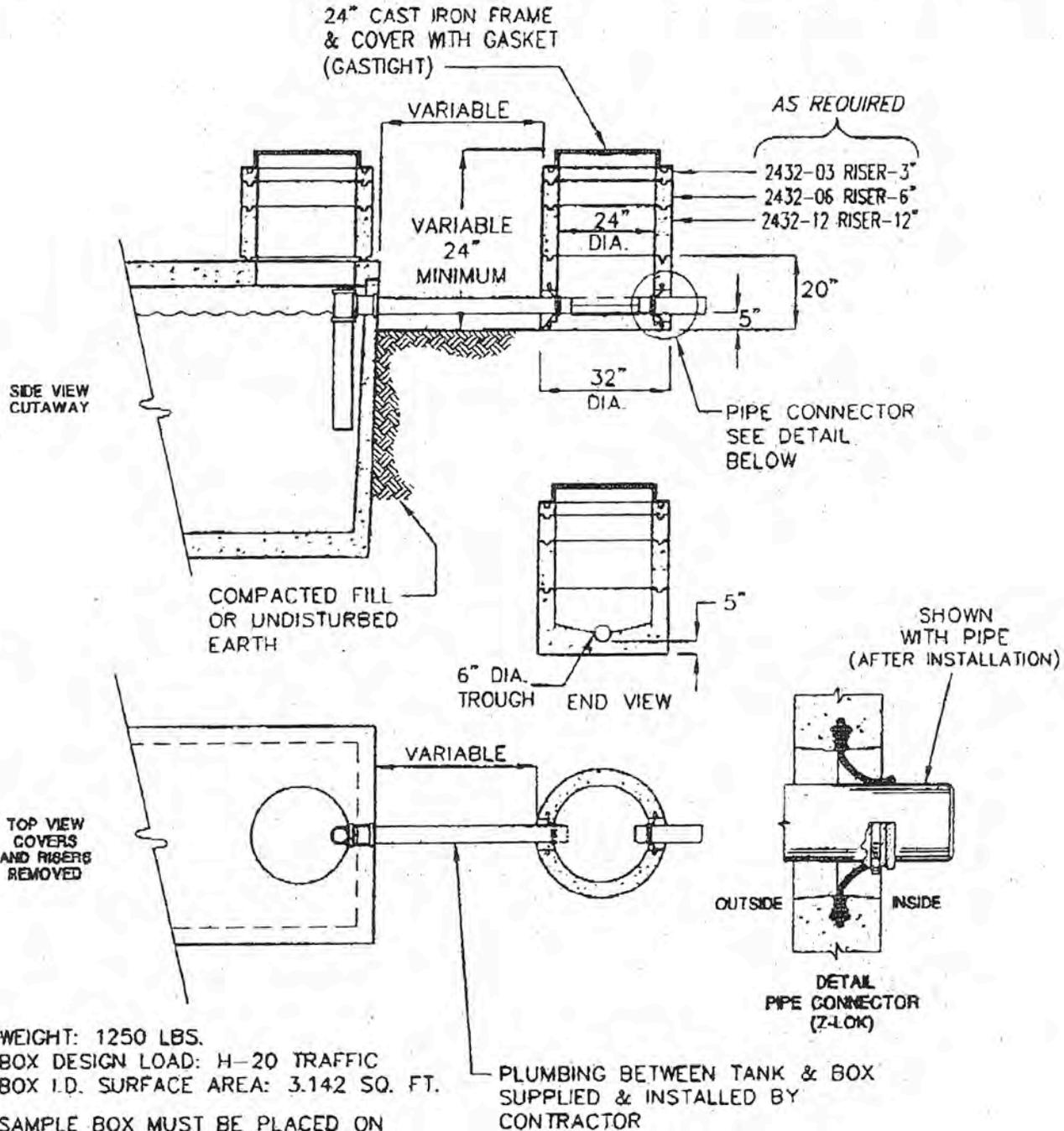
General Notes:
 1. This drawing is for informational purposes only. It is not intended to be used as a construction drawing.
 2. All dimensions are in inches unless otherwise specified.
 3. The tank shall be constructed of 16 gauge galvanized steel.
 4. The tank shall be painted with a minimum of two coats of epoxy paint.
 5. The tank shall be tested to a minimum of 100 PSI before use.
 6. The tank shall be installed in a concrete pad.
 7. The tank shall be installed in a concrete pad.
 8. The tank shall be installed in a concrete pad.
 9. The tank shall be installed in a concrete pad.
 10. The tank shall be installed in a concrete pad.

U.S. Patents 3,400,581 4,439,325 and 5,482,635 Other Patents Pending © 2001 Chemco Systems, Inc.	Designed By: ENGINEERING	Drawn By: Chris Jordan	Title: IAPMO 1500 Gal Septic Tank	
	Approved By:	Drawing: Z 0P 3	Drawing No.	
	Date Approved:	Revision: 1.0	Date: 12/19/2006	Scale: NONE



SAMPLE BOX WITH PIPE CONNECTORS

MODEL EV200

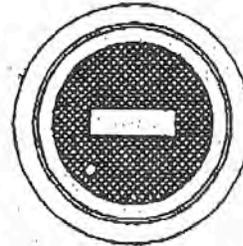
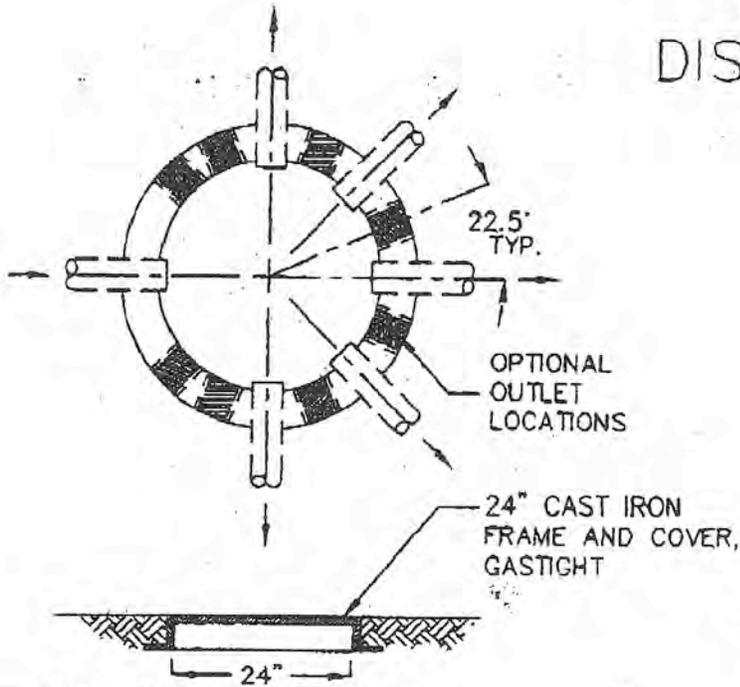


WEIGHT: 1250 LBS.
 BOX DESIGN LOAD: H-20 TRAFFIC
 BOX I.D. SURFACE AREA: 3.142 SQ. FT.

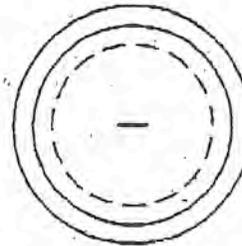
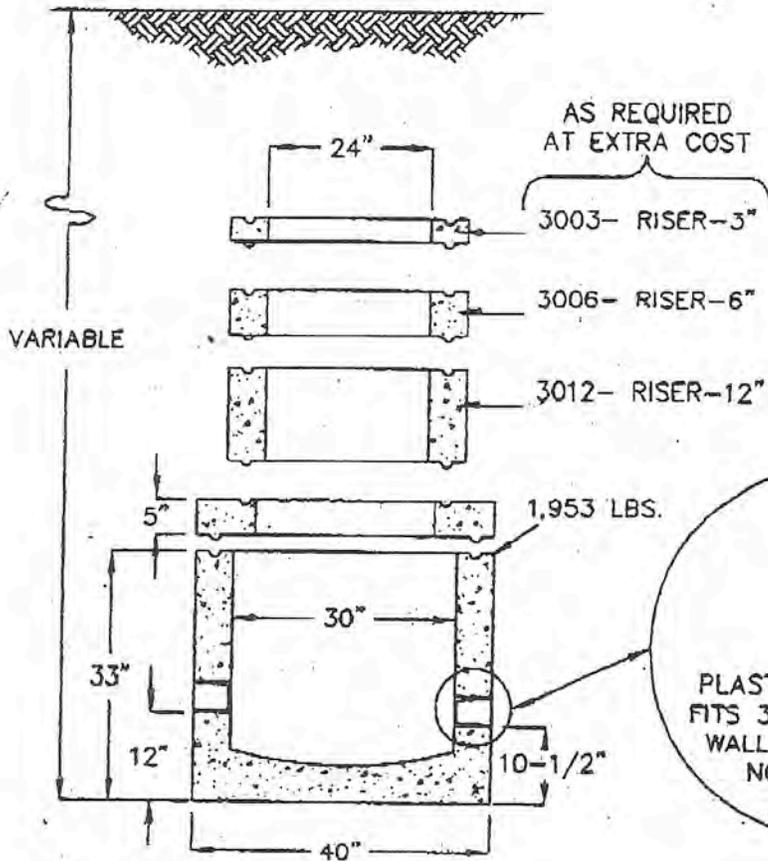
SAMPLE BOX MUST BE PLACED ON SUITABLE BASE OF COMPACTED SOIL OR UNDISTURBED EARTH IN TRAFFIC CONDITION. FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.



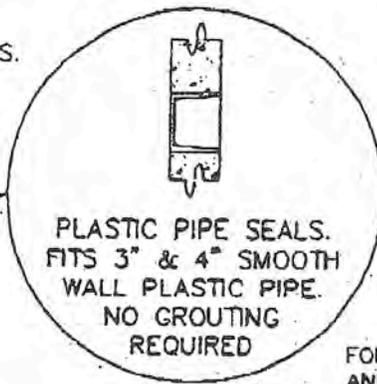
COMMERCIAL DISTRIBUTION BOX MODEL D-30



24" GASTIGHT MANHOLES, CAST IRON FRAME AND COVER. USE REDUCER D30-24C



D30-24ST STANDARD COVER AND LID SOLID CONCRETE



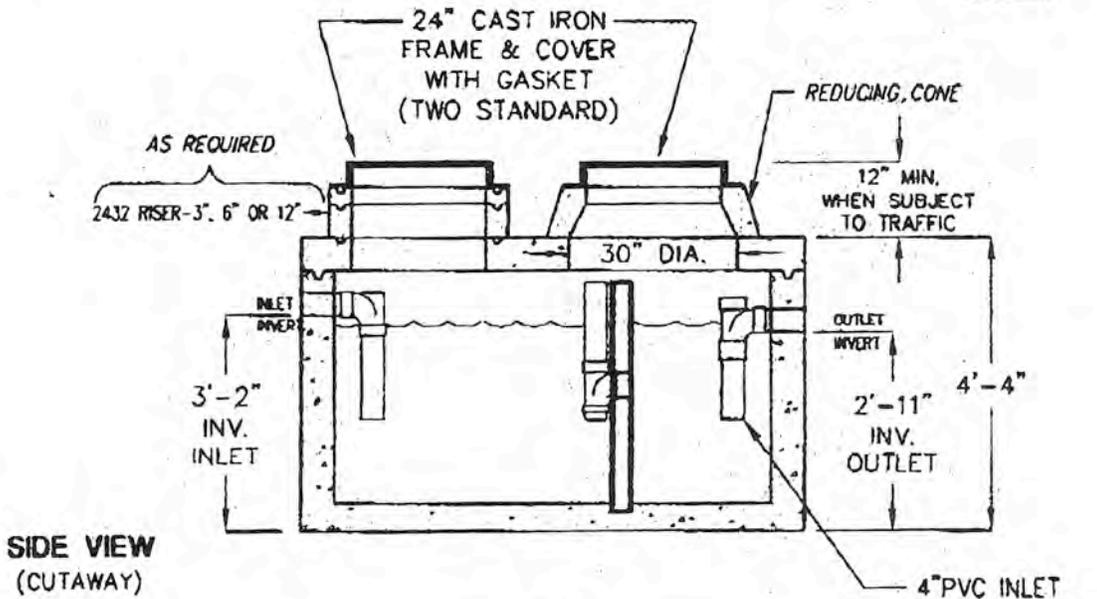
DESIGN LOAD: H-20 CONFORMS TO: ASTM C-478

FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST.

320 GALLON GREASE INTERCEPTOR HAWAII

MODEL HJ320G

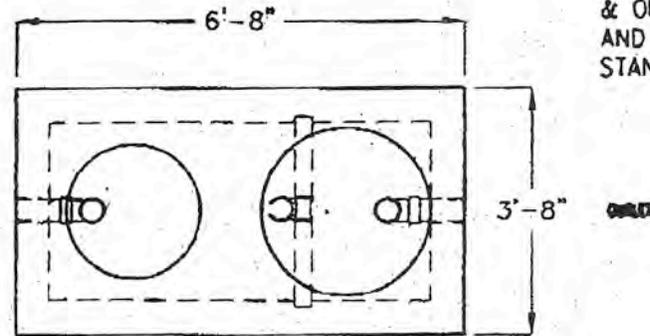
TRAFFIC RATED ACCEPTED BY UPC®



**SIDE VIEW
(CUTAWAY)**

WEIGHTS IN LBS.

TOP SLAB	2,450
BODY	5,650
TOTAL TANK	8,100



**TOP VIEW
(COVERS & RISERS REMOVED)**

- LIQUID CAPACITY: 320 GALLONS.
- TANK DESIGNED FOR H-20 TRAFFIC WHEEL LOAD WITH 1' TO 6' MAX. EARTH COVER AND WATER TABLE AT ONE FOOT BELOW GRADE.
- SUITABLE NATIVE SOIL OR GRANULAR SUB-BASE SHALL BE COMPACTED AND LEVELED TO HANDLE ANTICIPATED LOADS. SEE INSTALLATION PROCEDURES SHEET FOR ADDITIONAL INFO.
- EXTERIOR AND INTERIOR CONCRETE SURFACES TO BE COATED WITH AN APPROVED BITUMINOUS MATERIAL.
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

THE DESIGN AND DETAIL OF THIS DRAWING ARE THE PROPERTY OF JENSEN PRECAST AND ARE NOT TO BE USED EXCEPT IN CONNECTION WITH OUR WORK. DESIGN AND DIMENSION FIGURES ARE RESERVED.

MINIMUM EXCAVATION SIZE:
4'-8" X 7'-8" X DEPTH REQ'D.



OPERATION AND MAINTENANCE INSTRUCTIONS FOR SEPTIC TANKS

1. Septic tanks shall be inspected on a yearly basis by opening the access cover and checking if either the sludge or scum are near the outlet pipe.
2. The septic tank shall be cleaned out if either:
 - a) the bottom of the floating scum mat is within three inches of the bottom of the outlet pipe
 - or b) sludge comes within six inches of the bottom of the outlet pipe.
3. Cleaning the septic tank shall consist of pumping of the contents into a tank truck and hauling it to a State Health Department approved point of disposal. The septic tank shall not be washed or disinfected after pumping. A three inch depth of residual sludge shall be left in the tank for seeding purposes.
4. A septic tank shall not be entered by anyone unless proper safety procedures are followed. There is a potential hazard of explosion of gases and/or asphyxiation of personnel if precautions are not taken.

5. Chemicals or disinfectants do not improve the operation of septic tanks and are not recommended. Ordinary chemicals used in the household in small quantities will not adversely affect the operation of the septic tank.
6. Paper towels, newspaper, wrapping paper, rags and sticks should not be flushed into the septic tank. They will not decompose and will lead to clogging of the piping.
7. Improper operation and maintenance of the septic tank will lead to early failure of the disposal system (seepage pits and/or leach lines) by clogging the piping and adjacent soil. This will result in septic tank overflows and disposal system flooding. Complete replacement of the disposal system is then required.

Appendix G

TRAFFIC DATA

Run Date: 2012/07/09

Hawaii Department of Transportation
Highways Division **Highways Planning Survey Section**

2011 Program Count - Summary

Site ID: B75046000025
 Functional Class: RURAL:MAJOR COLLECTOR
 Location: Maunaloa Hwy. b/t Manila Rd. Maunaloa

Town: Molokai
 Count Type: CLASS

DIR 1: +MP DIR 2: -MP
 Counter Type: Tube

Final AADT: 6300
 Route No: 460

TIME-AM	DIR 1	DIR 2	TOTAL	TIME-AM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL
DATE : 11/17/2011															
12:00-12:15	2	2	4	06:00-06:15	37	21	58	12:00-12:15	66	46	112	06:00-06:15	63	47	110
12:15-12:30	1	0	1	06:15-06:30	41	25	66	12:15-12:30	52	48	100	06:15-06:30	37	40	77
12:30-12:45	1	1	2	06:30-06:45	45	31	76	12:30-12:45	57	53	110	06:30-06:45	44	63	107
12:45-01:00	2	1	3	06:45-07:00	62	47	109	12:45-01:00	53	56	109	06:45-07:00	54	53	107
01:00-01:15	1	2	3	07:00-07:15	76	56	132	01:00-01:15	57	38	95	07:00-07:15	40	46	86
01:15-01:30	1	2	3	07:15-07:30	85	54	139	01:15-01:30	68	53	121	07:15-07:30	34	35	69
01:30-01:45	1	0	1	07:30-07:45	55	77	132	01:30-01:45	58	57	115	07:30-07:45	33	19	52
01:45-02:00	2	1	3	07:45-08:00	79	91	170	01:45-02:00	64	56	120	07:45-08:00	22	20	42
02:00-02:15	0	0	0	08:00-08:15	59	64	123	02:00-02:15	51	58	109	08:00-08:15	27	37	64
02:15-02:30	1	0	1	08:15-08:30	56	80	136	02:15-02:30	47	54	101	08:15-08:30	20	13	33
02:30-02:45	1	0	1	08:30-08:45	54	55	109	02:30-02:45	57	60	117	08:30-08:45	37	20	57
02:45-03:00	1	0	1	08:45-09:00	41	68	109	02:45-03:00	36	65	101	08:45-09:00	22	25	47
03:00-03:15	0	1	1	09:00-09:15	48	58	106	03:00-03:15	46	85	131	09:00-09:15	29	28	57
03:15-03:30	0	0	0	09:15-09:30	38	50	88	03:15-03:30	65	71	136	09:15-09:30	27	9	36
03:30-03:45	1	2	3	09:30-09:45	43	66	109	03:30-03:45	58	113	171	09:30-09:45	17	11	28
03:45-04:00	1	1	2	09:45-10:00	59	44	103	03:45-04:00	67	61	128	09:45-10:00	13	4	17
04:00-04:15	1	0	1	10:00-10:15	33	53	86	04:00-04:15	72	66	138	10:00-10:15	11	12	23
04:15-04:30	2	3	5	10:15-10:30	51	59	110	04:15-04:30	55	47	102	10:15-10:30	11	5	16
04:30-04:45	1	5	6	10:30-10:45	56	62	118	04:30-04:45	73	51	124	10:30-10:45	12	6	18
04:45-05:00	5	3	8	10:45-11:00	57	51	108	04:45-05:00	50	43	93	10:45-11:00	9	5	14
05:00-05:15	4	9	13	11:00-11:15	47	53	100	05:00-05:15	50	44	94	11:00-11:15	9	7	16
05:15-05:30	7	3	10	11:15-11:30	50	39	89	05:15-05:30	59	51	110	11:15-11:30	2	5	7
05:30-05:45	19	12	31	11:30-11:45	68	63	131	05:30-05:45	63	71	134	11:30-11:45	3	4	7
05:45-06:00	26	19	45	11:45-12:00	48	65	113	05:45-06:00	45	62	107	11:45-12:00	2	2	4

AM COMMUTER PERIOD (05:00-09:00)	DIR 1	DIR 2	PM COMMUTER PERIOD (15:00-19:00)	DIR 1	DIR 2
TWO DIRECTIONAL PEAK		TWO DIRECTIONAL PEAK		TWO DIRECTIONAL PEAK	
AM - PEAK HR TIME	07:00 AM to 08:00 AM		PM - PEAK HR TIME	03:15 PM to 04:15 PM	
AM - PEAK HR VOLUME	295	278	PM - PEAK HR VOLUME	262	311
AM - K FACTOR (%)	8.63		PM - K FACTOR (%)	8.63	
AM - D (%)	51.48	48.52	PM - D (%)	45.72	54.28
DIRECTIONAL PEAK		DIRECTIONAL PEAK		DIRECTIONAL PEAK	
AM - PEAK HR TIME	07:00 AM to 08:00 AM	07:30 AM to 08:30 AM	PM - PEAK HR TIME	03:45 PM to 04:45 PM	03:00 PM to 04:00 PM
AM - PEAK HR VOLUME	295	312	PM - PEAK HR VOLUME	267	330

AM PERIOD (00:00-12:00)	DIR 1	DIR 2	PM PERIOD (12:00-24:00)	DIR 1	DIR 2
TWO DIRECTIONAL PEAK		TWO DIRECTIONAL PEAK		TWO DIRECTIONAL PEAK	
AM - PEAK HR TIME	07:00 AM to 08:00 AM		PM - PEAK HR TIME	03:15 PM to 04:15 PM	
AM - PEAK HR VOLUME	295	278	PM - PEAK HR VOLUME	262	311
AM - K FACTOR (%)	8.63		PM - K FACTOR (%)	8.63	
AM - D (%)	51.48	48.52	PM - D (%)	45.72	54.28

NON-COMMUTER PERIOD (09:00-15:00)	DIR 1	DIR 2	Total
TWO DIRECTIONAL PEAK		6-HR, 12-HR, 24-HR PERIODS	
PEAK HR TIME	01:15 PM to 02:15 PM		AM 6-HR PERIOD (06:00-12:00)
PEAK HR VOLUME	241	224	465
DIRECTIONAL PEAK		AM 12-HR PERIOD (00:00-12:00)	
PEAK HR TIME	01:00 PM to 02:00 PM	02:00 PM to 03:00 PM	2,768
PEAK HR VOLUME	247	237	2,778
		PM 6-HR PERIOD (12:00-18:00)	
		PM 12-HR PERIOD (12:00-24:00)	
		24 HOUR PERIOD	
		D (%)	

Run Date: 2012/07/09

Hawaii Department of Transportation
Highways Division **Highways Planning Survey Section**

2011 Program Count - Summary

Site ID: B75046000025
 Functional Class: RURAL:MAJOR COLLECTOR
 Location: Maunaloa Hwy. b/t Manila Rd. Maunaloa

Town: Molokai
 Count Type: CLASS

DIR 1: +MP DIR 2: -MP
 Counter Type: Tube

Final AADT: 6300
 Route No: 460

TIME-AM	DIR 1	DIR 2	TOTAL	TIME-AM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL	TIME-PM	DIR 1	DIR 2	TOTAL
DATE : 11/18/2011															
12:00-12:15	1	0	1	06:00-06:15	43	14	57	12:00-12:15	49	43	92	06:00-06:15	51	48	99
12:15-12:30	2	1	3	06:15-06:30	34	20	54	12:15-12:30	68	46	114	06:15-06:30	56	51	107
12:30-12:45	2	3	5	06:30-06:45	48	26	74	12:30-12:45	57	74	131	06:30-06:45	65	44	109
12:45-01:00	1	1	2	06:45-07:00	51	38	89	12:45-01:00	59	50	109	06:45-07:00	42	38	80
01:00-01:15	4	1	5	07:00-07:15	59	43	102	01:00-01:15	58	55	113	07:00-07:15	48	24	72
01:15-01:30	1	4	5	07:15-07:30	77	59	136	01:15-01:30	68	34	102	07:15-07:30	35	25	60
01:30-01:45	1	1	2	07:30-07:45	58	92	150	01:30-01:45	60	56	116	07:30-07:45	28	27	55
01:45-02:00	2	0	2	07:45-08:00	48	76	124	01:45-02:00	81	60	141	07:45-08:00	24	26	50
02:00-02:15	1	4	5	08:00-08:15	55	56	111	02:00-02:15	54	65	119	08:00-08:15	18	34	52
02:15-02:30	1	0	1	08:15-08:30	28	69	97	02:15-02:30	61	52	113	08:15-08:30	19	20	39
02:30-02:45	1	0	1	08:30-08:45	50	65	115	02:30-02:45	48	57	105	08:30-08:45	18	33	51
02:45-03:00	1	1	2	08:45-09:00	46	83	129	02:45-03:00	45	72	117	08:45-09:00	20	46	66
03:00-03:15	0	0	0	09:00-09:15	47	84	131	03:00-03:15	52	94	146	09:00-09:15	18	40	58
03:15-03:30	1	5	6	09:15-09:30	43	64	107	03:15-03:30	46	57	103	09:15-09:30	14	46	60
03:30-03:45	0	0	0	09:30-09:45	47	46	93	03:30-03:45	50	78	128	09:30-09:45	18	32	50
03:45-04:00	2	0	2	09:45-10:00	59	58	117	03:45-04:00	46	61	107	09:45-10:00	21	28	49
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04:30-04:45	2	7	9	10:30-10:45	70	48	118	04:30-04:45	75	55	130	10:30-10:45	13	19	32
04:45-05:00	11	7	18	10:45-11:00	50	51	101	04:45-05:00	59	43	102	10:45-11:00	2	15	17
05:00-05:15	12	6	18	11:00-11:15	59	49	108	05:00-05:15	63	43	106	11:00-11:15	24	5	29
05:15-05:30	13	4	17	11:15-11:30	46	52	98	05:15-05:30	50	39	89	11:15-11:30	15	9	24
05:30-05:45	17	16	33	11:30-11:45	58	44	102	05:30-05:45	77	43	120	11:30-11:45	8	6	14
05:45-06:00	17	20	37	11:45-12:00	54	51	105	05:45-06:00	56	37	93	11:45-12:00	7	7	14

AM COMMUTER PERIOD (05:00-09:00)	DIR 1	DIR 2		PM COMMUTER PERIOD (15:00-19:00)	DIR 1	DIR 2	
TWO DIRECTIONAL PEAK				TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	07:15 AM to 08:15 AM			PM - PEAK HR TIME	03:00 PM to 04:00 PM		
AM - PEAK HR VOLUME	238	283	521	PM - PEAK HR VOLUME	194	290	484
AM - K FACTOR (%)			7.80	PM - K FACTOR (%)			7.24
AM - D (%)	45.68	54.32	100.00	PM - D (%)	40.08	59.92	100.00
DIRECTIONAL PEAK				DIRECTIONAL PEAK			
AM - PEAK HR TIME	06:45 AM to 07:45 AM	07:30 AM to 08:30 AM		PM - PEAK HR TIME	04:15 PM to 05:15 PM	03:00 PM to 04:00 PM	
AM - PEAK HR VOLUME	245	293		PM - PEAK HR VOLUME	254	290	

AM PERIOD (00:00-12:00)	DIR 1	DIR 2		PM PERIOD (12:00-24:00)	DIR 1	DIR 2	
TWO DIRECTIONAL PEAK				TWO DIRECTIONAL PEAK			
AM - PEAK HR TIME	07:15 AM to 08:15 AM			PM - PEAK HR TIME	02:45 PM to 03:45 PM		
AM - PEAK HR VOLUME	238	283	521	PM - PEAK HR VOLUME	193	301	494
AM - K FACTOR (%)			7.80	PM - K FACTOR (%)			7.39
AM - D (%)	45.68	54.32	100.00	PM - D (%)	39.07	60.93	100.00

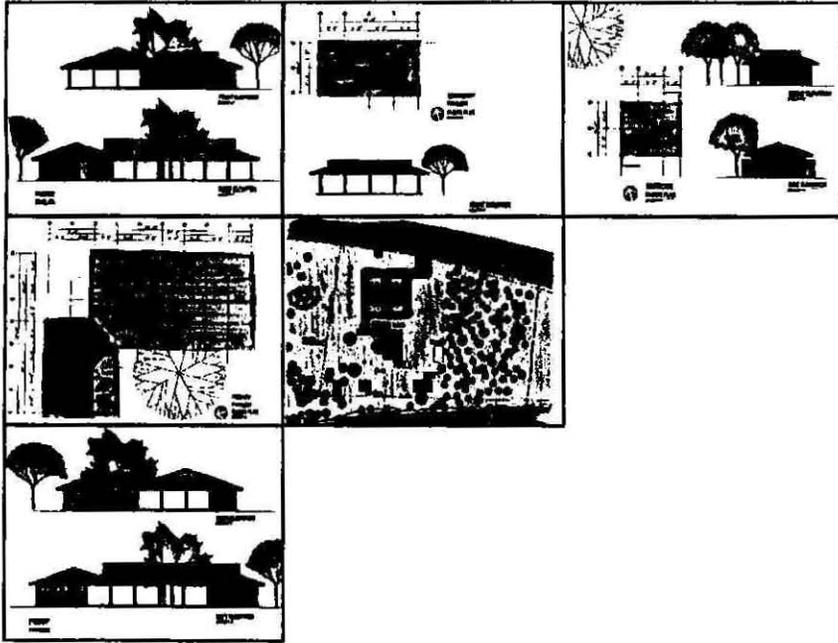
NON-COMMUTER PERIOD (09:00-15:00)	DIR 1	DIR 2	Total
TWO DIRECTIONAL PEAK			
PEAK HR TIME	01:30 PM to 02:30 PM		
PEAK HR VOLUME	256	233	489
DIRECTIONAL PEAK			
PEAK HR TIME	01:00 PM to 02:00 PM	09:00 AM to 10:00 AM	
PEAK HR VOLUME	267	252	
6-HR, 12-HR, 24-HR PERIODS			
AM 6-HR PERIOD (06:00-12:00)	1,230	1,273	2,503
AM 12-HR PERIOD (00:00-12:00)	1,327	1,359	2,686
PM 6-HR PERIOD (12:00-18:00)	1,397	1,324	2,721
PM 12-HR PERIOD (12:00-24:00)	2,010	1,985	3,995
24 HOUR PERIOD	3,337	3,344	6,681
D (%)	49.95	50.05	100.00

Appendix H

ESTIMATED SHORELINE

Appendix I

UNIVERSITY OF HAWAII MANOA KIOWEA PARK RENOVATION PROJECT



Integrated Sustainable Architecture

KIOWEA PARK RENOVATION PROJECT

Darren Iida

626-1489

Linda Uehara

622-2742

Linh Le

841-6225

SPRING 1998

Instructor: Dr. Bruce Etherington

SCHOOL OF ARCHITECTURE

UNIVERSITY OF HAWAII AT MANOA

Background

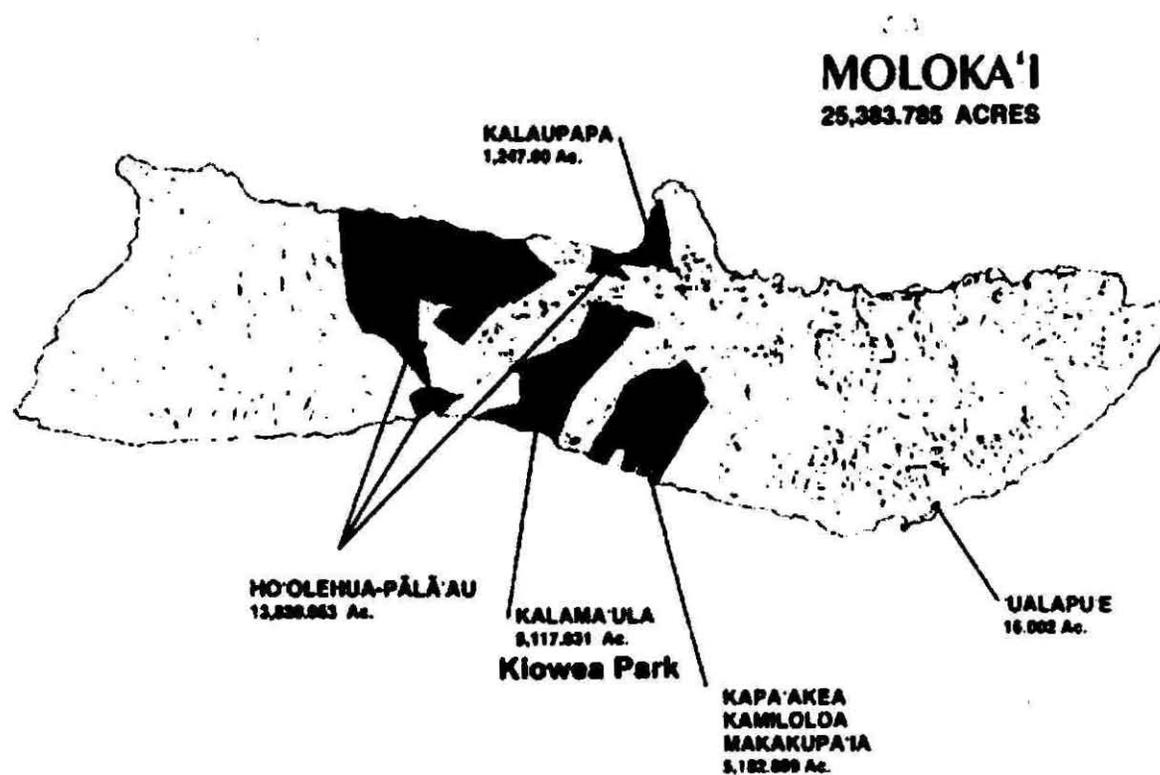
Kiowea Park is a five-acre park located on Hawaiian Home Lands in the Kalamaula homestead area on the island of Molokai. Currently existing on the park site are a 32' x 22' pavilion, a 20' x 16' restroom and shower facility, and several outdoor picnic and camping areas beneath large Banyan and Kamani trees. Other notable features of the park include a coconut grove on the east perimeter of the park and a cluster of coconut trees west of the pavilion. The southern end of the park faces the ocean.

Kiowea Park, with its existing facilities, is popular with the community. A variety of activities are conducted here: luaus, family reunions, concerts, craft fairs, sports activities, camping excursions, meetings, seminars, fundraising activities, and the annual island-wide festivities of Kuhio Day. Because of the deterioration of the current structures, however, the current use of the park by the community has been severely limited.

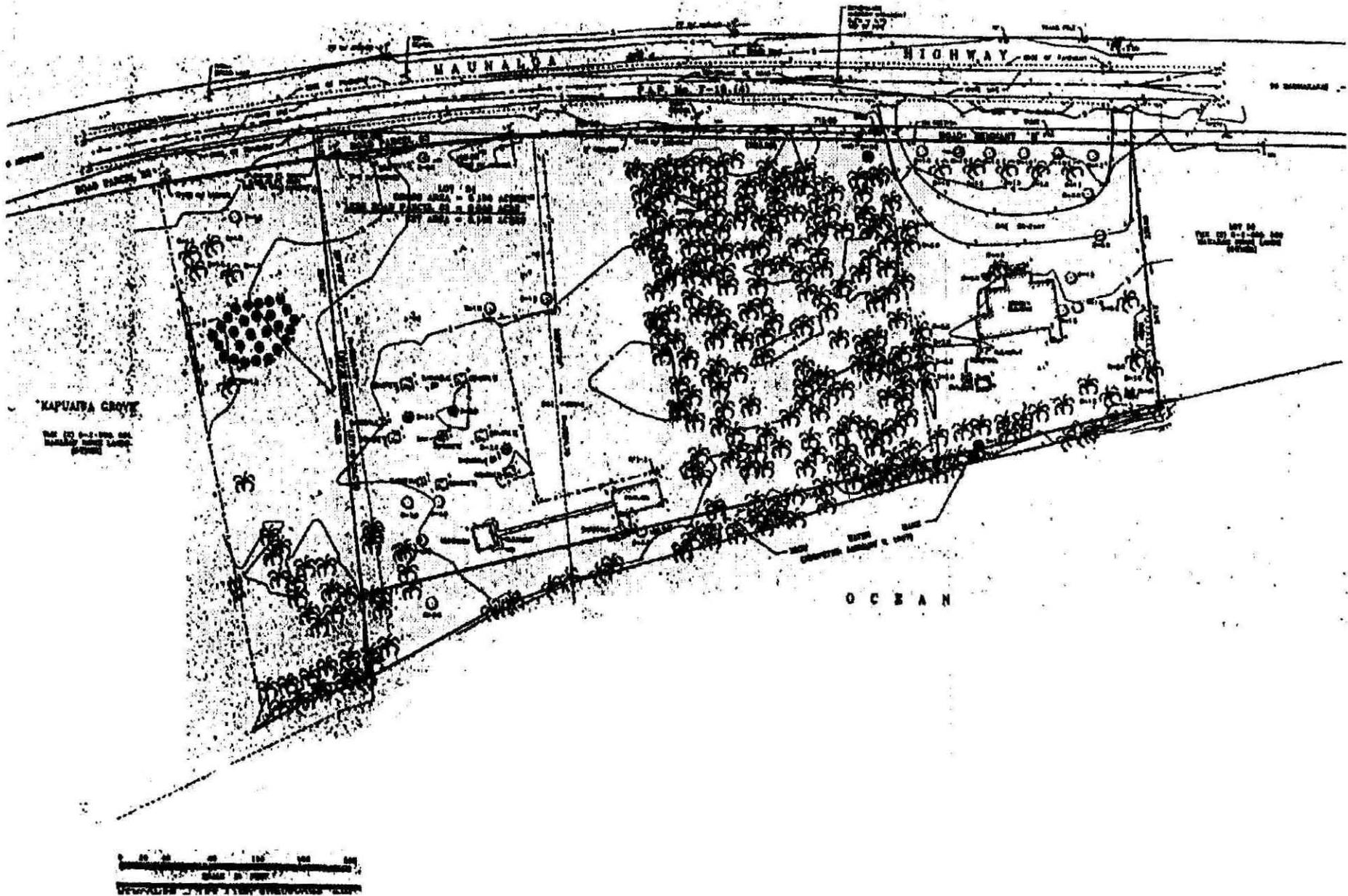
A community-based committee of Hawaiian homesteaders was formed for the purpose of identifying the problems that exist within the park and to discuss future plans to renovate the site and its facilities.

The State Department of Hawaiian Home Lands is supporting the development of the Kiowea Park Renovation Project. Representing the Department of Hawaiian Home Lands in the development of this project is Gregory Helm, the District Supervisor of the Molokai District Office, Homestead Services Division.

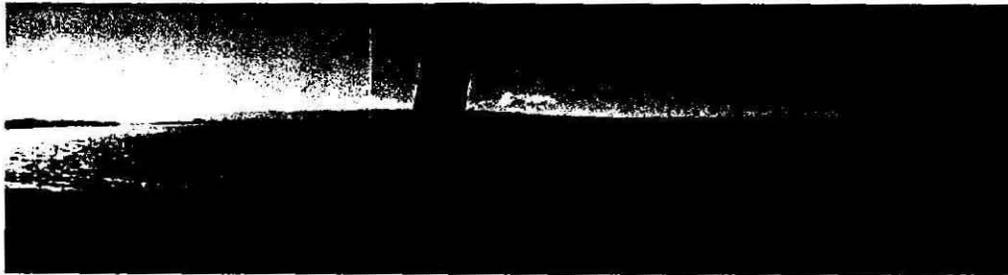
Kiowea Park



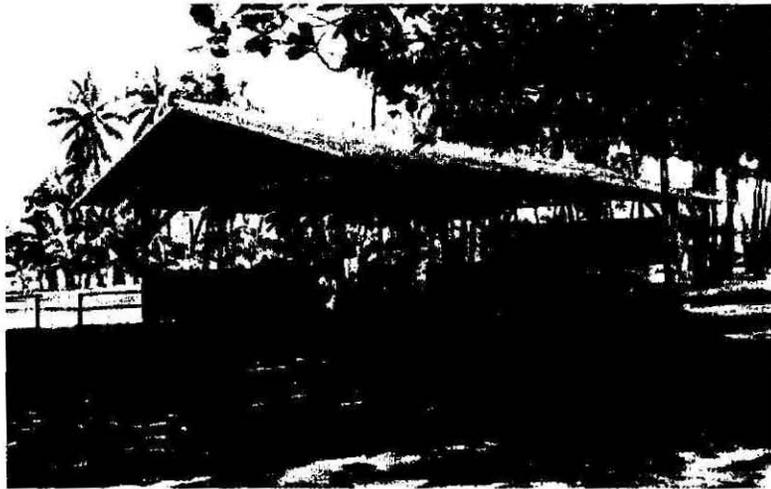
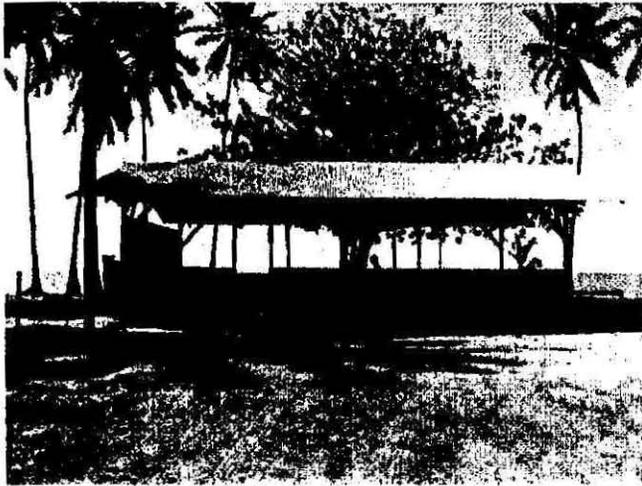
Kiowa Park



Kiowea Park

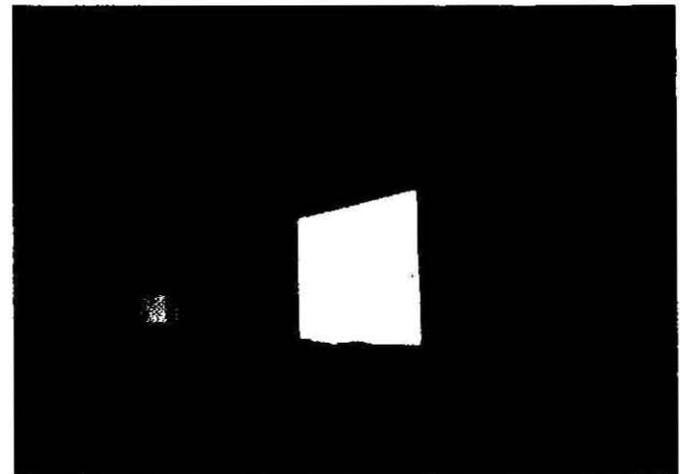
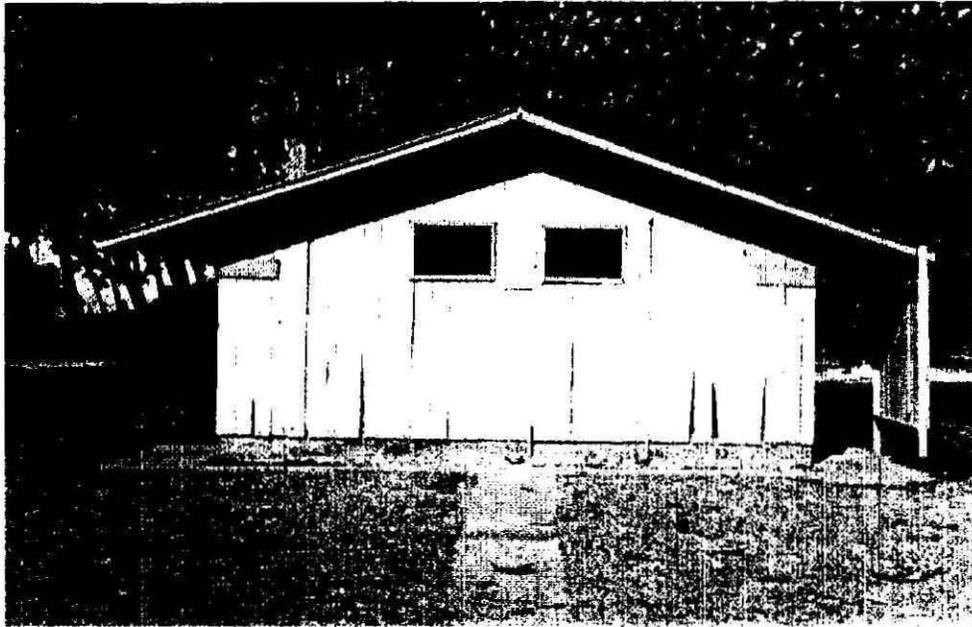


Kiowea Park



Existing Pavilion

Kiowea Park (existing restroom)



Research

Meeting with the Hawaiian Homestead committee

On February 15, 1998, we traveled to Molokai to meet with Gregory Helm and the Hawaiian Homestead committee delegated to address needs and make decisions concerning the Kiowea Park project.

We presented our preliminary design to the committee. It consisted of several small-scale pavilions (roughly 20' x 30'), kitchen, and restroom facilities.

There were several reasons behind designing small-scale facilities. One was to save on material costs: smaller sized buildings require smaller structural members. Also, since the local community, not professionals, was to provide for the construction labor, smaller buildings would be structurally simpler to build, with much less manpower. With several pavilions, the complex could be built in phases, so that completed portions of the park could be utilized relatively quickly after the commencement of construction. Finally, we felt that small structures interconnected with narrow pathways would be less aesthetically imposing on the site than a single large mass.

Although the committee was receptive to these ideas, they had another image for the pavilion. Preferring the pavilion to encompass one large space, the committee required the dimensions of the floor plan to be roughly 40' x 70'. They also voted on requirements for the restroom and kitchen facilities. The restroom was to contain facilities for men and women, both to have two lavatory stalls, one handicapped lavatory stall, two sinks, and one shower. The kitchen required a pantry, a central "island" counter, and a service counter.

Program

Site requirements

fill in low grade areas or excavate a trench
parking lot (30-40 stalls)
landscaping
security (fencing, gates)
camping and picnic areas

Design considerations

native plants
existing and additional trees
cost restrictions

Required structures

primary pavilion
 for large gatherings
kitchen, storage
 adjacent to pavilion
 protected and secured from the outside environment
 includes storage for tables, chairs, kitchen supplies, other
restroom
 women's and men's facilities
 includes outdoor shower
cabana
 separate building from pavilion
 near campground site

Kiowea Park

Boundaries

At perimeter of site, to prevent people from entering the coconut grove and spring holes, a ranch-style wooden fence may be used instead of hedges. Hedges would be detrimental since they attract rats and other pests. The wooden fence may be constructed of materials native to the area.

Parking

The parking lot will be situated to create the least physical impact on the site, allowing for maximum open space. The proposed location is the northern end of the park.

Landscaping

Native plants will be used for landscaping. Dense growths of trees may be used to demarcate spaces, such as the campgrounds and pavilion area. Sparse growths of trees may be used for shading smaller areas about the site.

Final design

Facilities

The final proposed design for the Kiowea Park Renovation Project consists of a large pavilion with an adjoining kitchen located adjacent to the existing Banyan and Kamani trees. Location of a large structure was critical on this site. The pavilion was situated to mingle with the existing trees since people currently tend to gravitate toward and socialize under these trees. Another reason for the pavilion and kitchen to be located near the trees and not in the open area was to keep the line of sight from the road to the ocean clear. The open area could be also used as overflow space when entertainers perform under the trees and the number of spectators exceeds the capacity of the pavilion.

To give park-goers a sense of closeness with their natural surroundings, the majority of the pavilion's walls were left open. The walls on the southeast end of the pavilion were partially enclosed to protect guests and their food from prevailing winds. A truss system and perimeter columns are utilized to keep the main space of the pavilion open without any imposition of structural elements.

In the kitchen are a pantry room and a storage room. The storage room, designed to hold tables, chairs, and other necessities for large gatherings, faces the pavilion for the ease of preparing for such festivities. Where the kitchen and pavilion intersect is a service counter with an operable metal sliding door. The kitchen is capable of being fully locked for security purposes.

Besides the main pavilion and kitchen structures, restroom facilities and a proposed secondary cabana are to be constructed. To save on construction costs, they will be built on the concrete slabs currently being utilized for the existing restroom and pavilion structures.

Materials

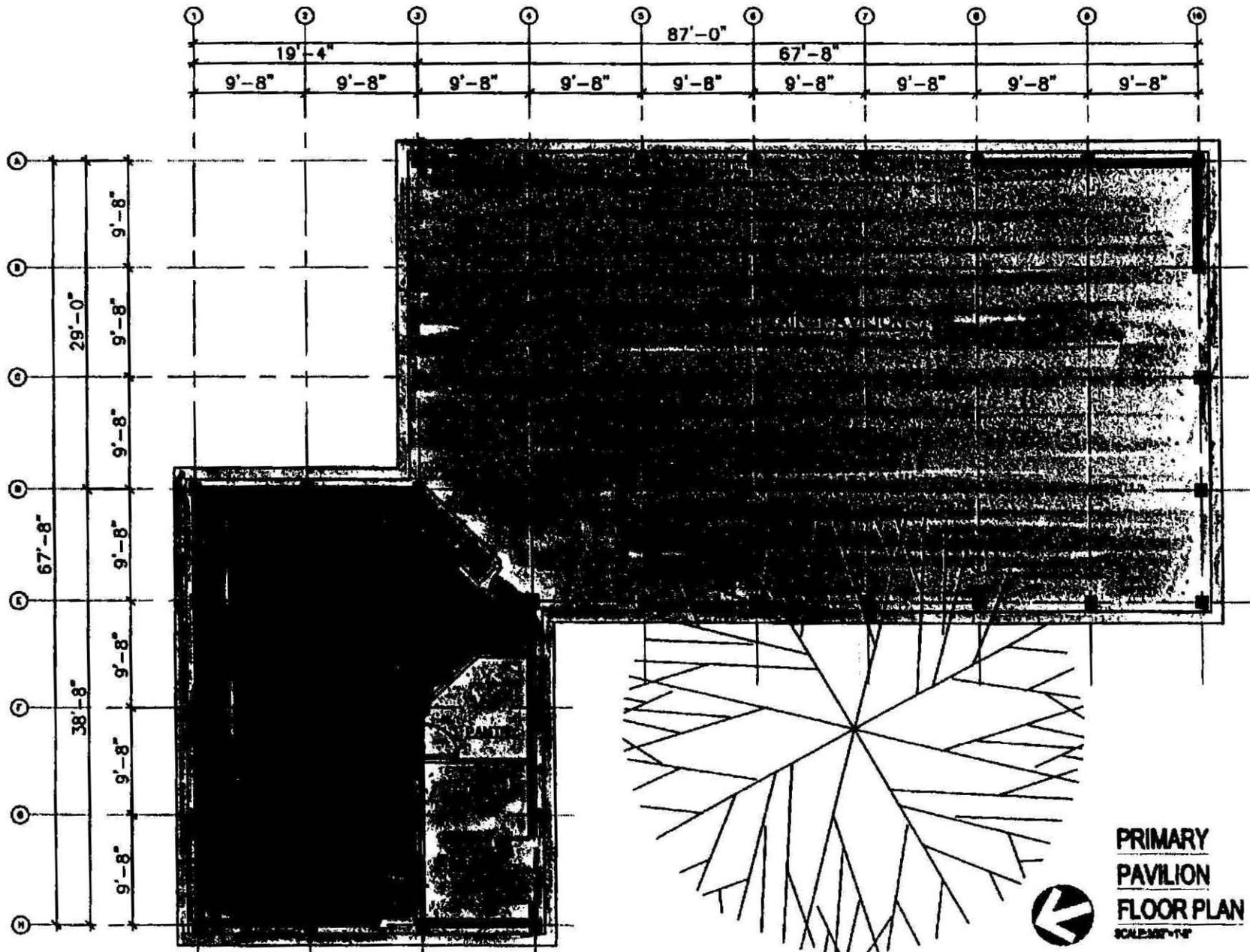
In conformance with the wants of the Hawaiian Homestead Committee, the majority of the construction of the facilities will be of CMU. In addition, a wood truss system will support the roof, to be topped with asphalt shingles. Fixed wooden louvers about the perimeter will help facilitate ventilation

Kiowea Park

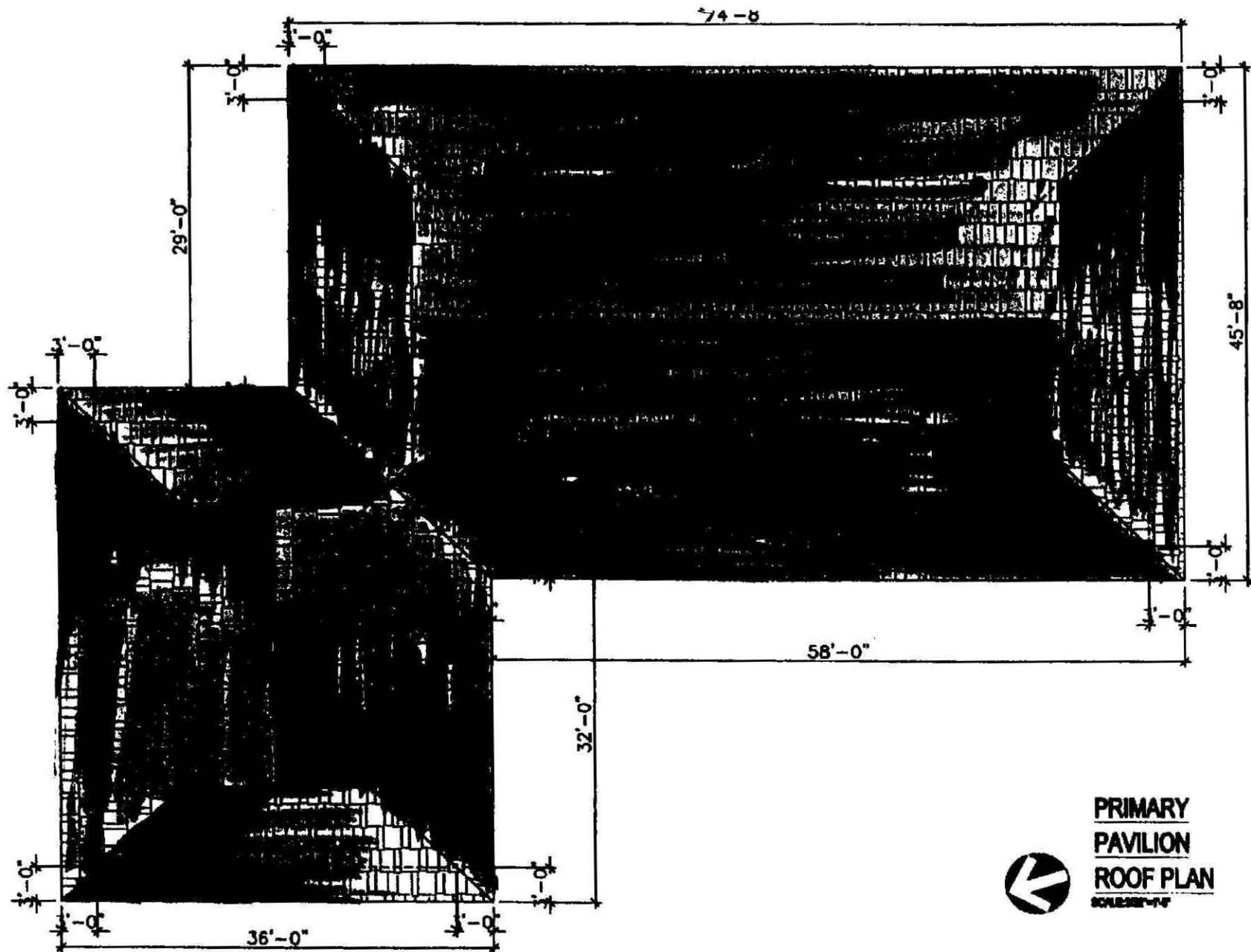


MASTER PLAN

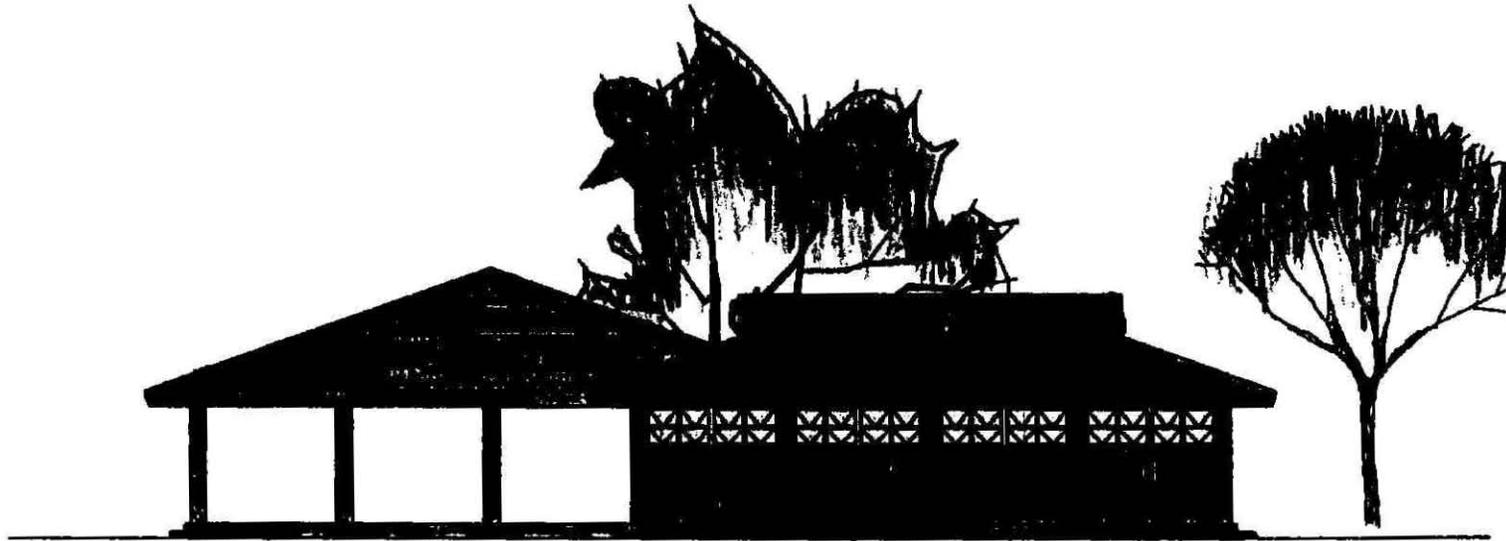
Kiowea Park



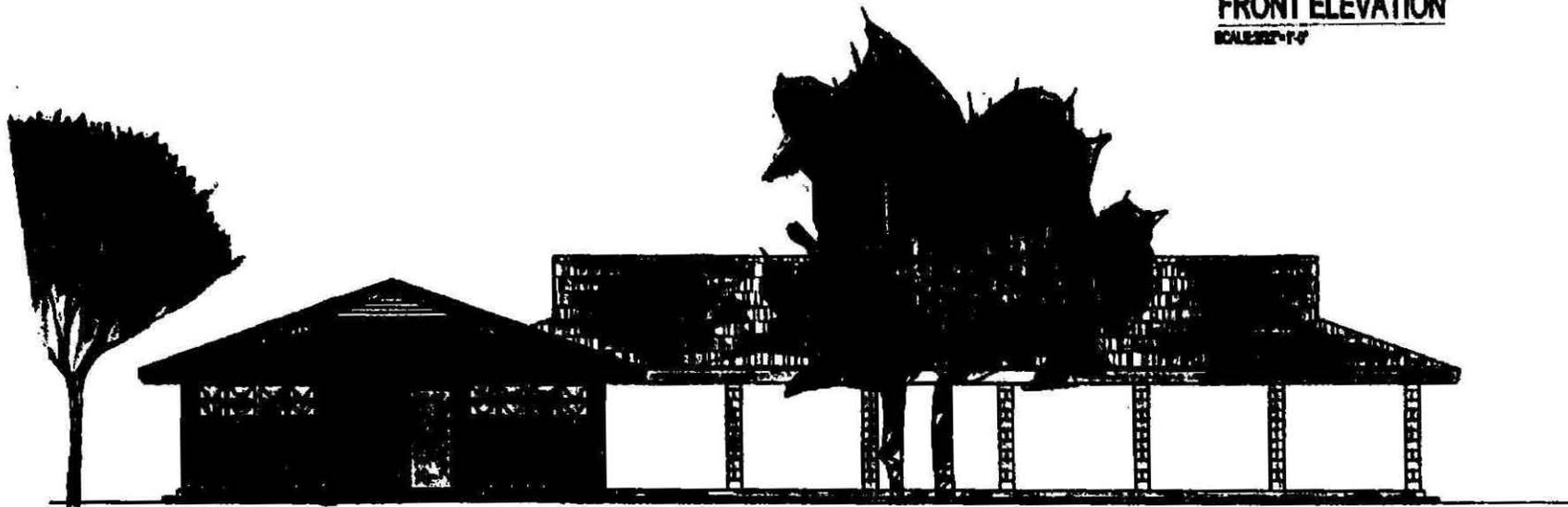
Kiowea Park



Kiowea Park



FRONT ELEVATION
SCALE 1/2" = 1'-0"



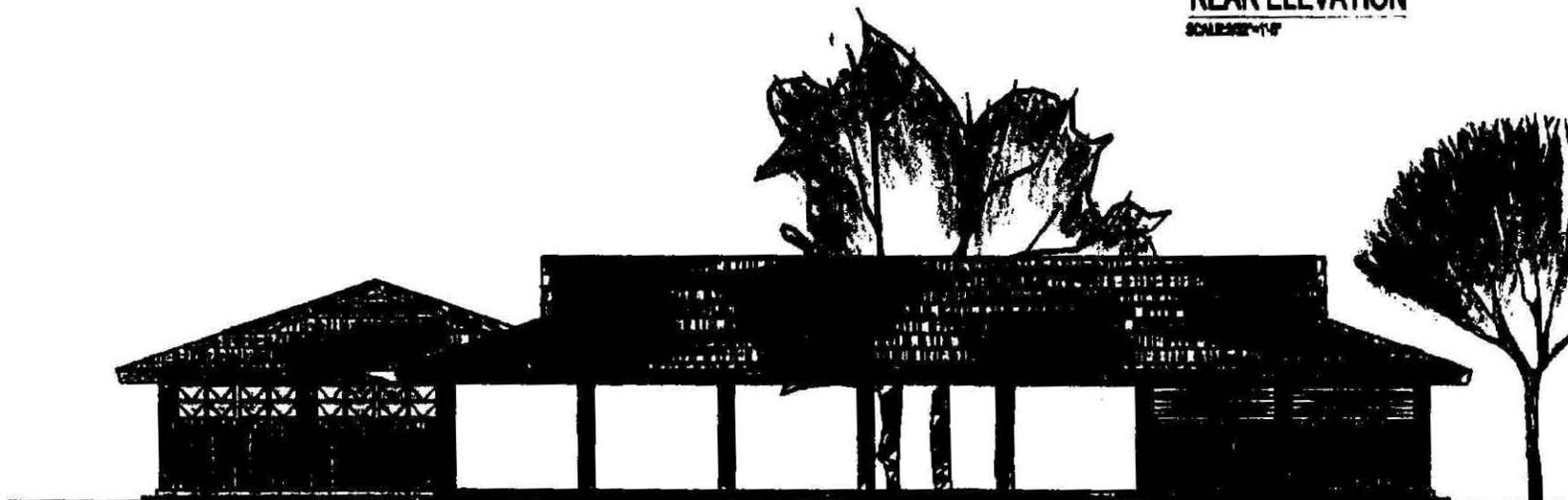
RIGHT ELEVATION
SCALE 1/2" = 1'-0"

**PRIMARY
PAVILION**

Kiowea Park



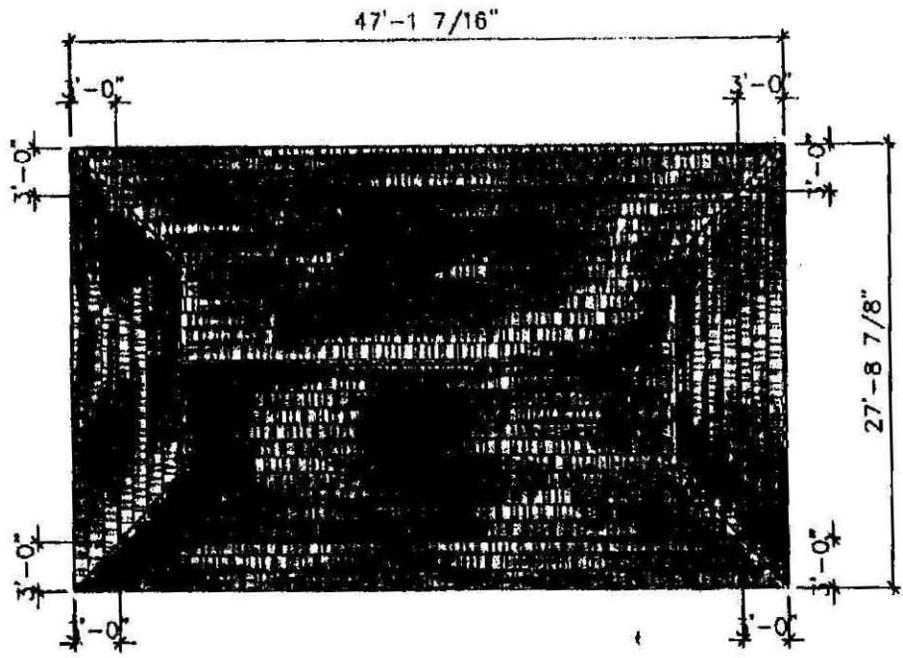
REAR ELEVATION
SCALE 1/4" = 1'-0"



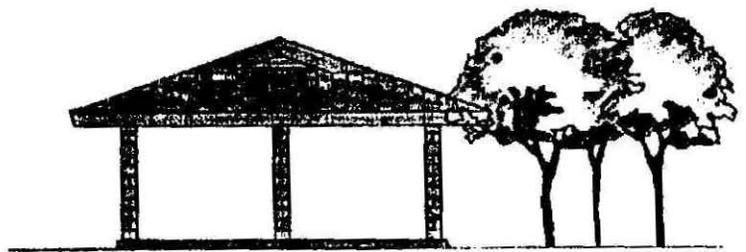
**PRIMARY
PAVILION**

LEFT ELEVATION
SCALE 1/4" = 1'-0"

Kiowea Park

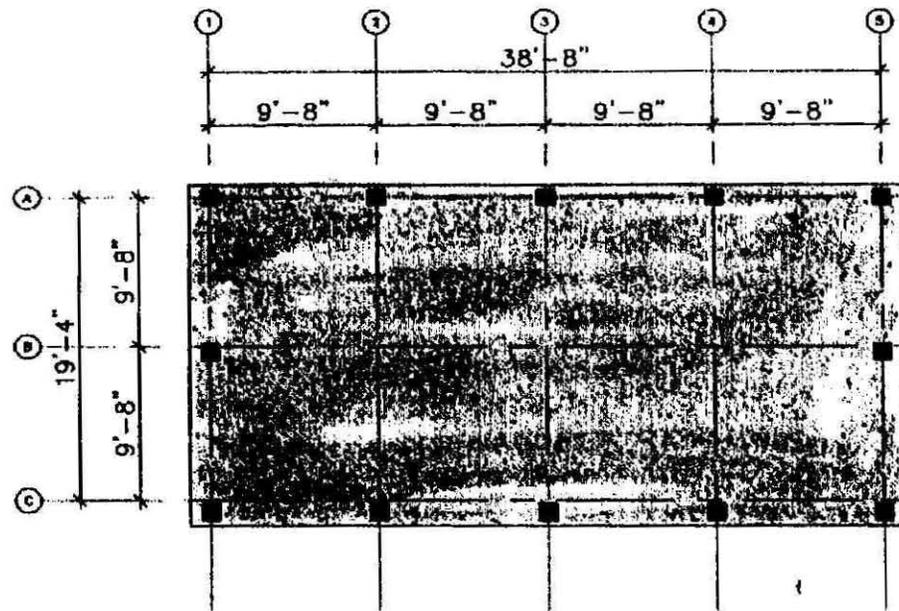


**SECONDARY
PAVILION
ROOF PLAN**
SCALE: 1/8"=1'-0"



SIDE ELEVATION
SCALE: 3/32"=1'-0"

Kiowea Park

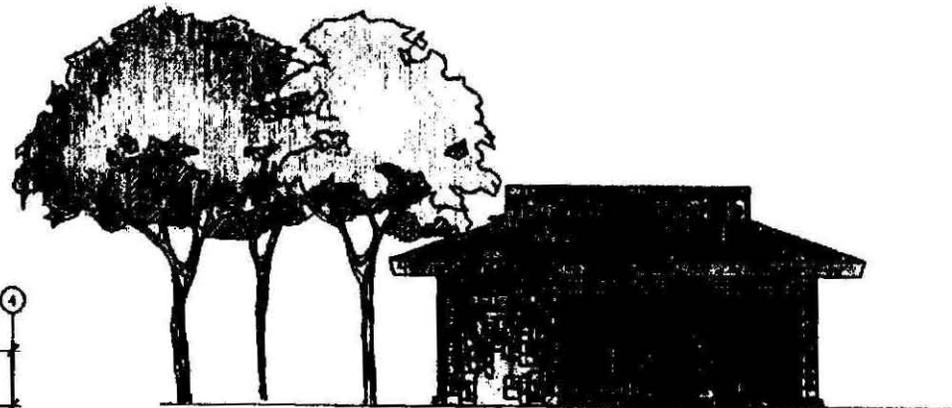
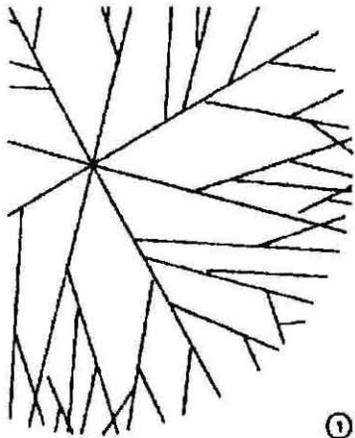


**SECONDARY
PAVILION
FLOOR PLAN**
SCALE: 1/8"=1'-0"



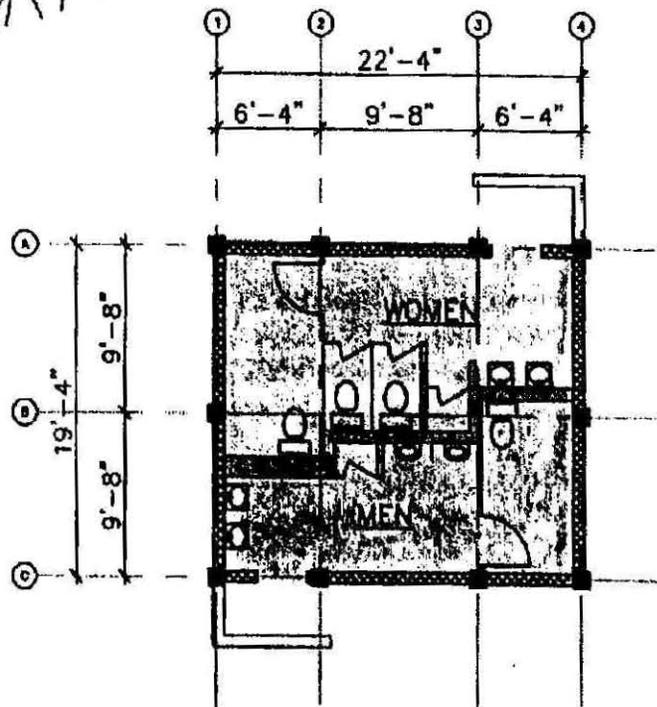
FRONT ELEVATION
SCALE: 1/32"=1'-0"

Kiowea Park



FRONT ELEVATION

SCALE: 3/32"=1'-0"



**RESTROOM
FLOOR PLAN**

SCALE: 3/32"=1'-0"



SIDE ELEVATION

SCALE: 3/32"=1'-0"

Kiowea Park



“I DON’T BRING MY OWN STYLE TO THE BUILDINGS I CREATE. I LOOK TO THE MAGIC OF PLACE-TO THE LIGHT, MATERIALITY, FORMS REALIZED IN THE LANDSCAPE. IT’S IMPORTANT THAT PEOPLE SEE THEIR SELF AND THEIR SURROUNDINGS. WHEN YOU REFLECT THESE ELEMENTS, YOU BUILD BUILDINGS THAT ARE ANCHORED IN THE LOGIC OF A COMMUNITY. AND LOVED BY THE PEOPLE WHO LIVE THERE.”

WILL BRUDER

Appendix J

NRCS CUSTOM SOIL RESOURCE REPORT



A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Island of Molokai, Hawaii

KIOWEA PARK



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://soils.usda.gov/sqi/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nracs>) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



157° 2' 15"



Map Scale: 1:1,440 if printed on A size (8.5" x 11") sheet.



157° 2' 5"

Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Units

Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other

Special Line Features

-  Gully
-  Short Steep Slope
-  Other

Political Features

 Cities

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

MAP INFORMATION

Map Scale: 1:1,440 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 4N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Island of Molokai, Hawaii
 Survey Area Data: Version 6, Dec 31, 2006

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Island of Molokai, Hawaii (HI950)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
JaC	Jaucas sand, 0 to 15 percent slopes	4.7	100.0%
Totals for Area of Interest		4.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Island of Molokai, Hawaii

JaC—Jaucas sand, 0 to 15 percent slopes

Map Unit Setting

Elevation: 0 to 100 feet

Mean annual precipitation: 10 to 50 inches

Mean annual air temperature: 73 to 77 degrees F

Frost-free period: 365 days

Map Unit Composition

Jaucas and similar soils: 100 percent

Description of Jaucas

Setting

Landform: Beaches

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Sand

Properties and qualities

Slope: 0 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Rare

Frequency of ponding: None

Calcium carbonate, maximum content: 99 percent

Available water capacity: Low (about 3.5 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 13 inches: Sand

13 to 60 inches: Sand

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