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GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
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OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Kuihelani Hwy. Widening

KAZU HAYASHIDA
DIRECTOR

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IN REPLY REFER TO:

HWY-PA
2.8026

TO: GARY GILL, DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

FROM: KAZU HAYASHIDA *K.H.*
DIRECTOR OF TRANSPORTATION

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT (FONSI)
FOR KUIHELANI HIGHWAY WIDENING
TMK: 3-8-05 AND 3-8-06, WAILUKU, MAUI, HAWAII

The State Department of Transportation has reviewed the comments received during the 30-day public comment period which began on October 23, 1997. We have determined that this project will not have a significant environmental effect and have issued a FONSI. Please publish this notice in the February 23, 1998 OEQC Bulletin.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the Final Environmental Assessment.

Please call Frederick Abeshima, our Technical Design Engineer, at 587-2123 or Kenneth Au, our Advance Planning Engineer, at 587-1843 if you have any questions.

Enclosures

15

1998-02-23-MA-*FEA*-*Kuihelani*
Highway Widening

FEB 23 1998

FILE COPY

FINAL
ENVIRONMENTAL ASSESSMENT for

KUIHELANI HIGHWAY WIDENING
Wailuku, Maui, Hawaii

FEBRUARY 1998

DEPARTMENT OF TRANSPORTATION
Highways Division, State of Hawaii

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1. U.S. Army Corps of Engineers
2. U.S. Fish & Wildlife Service
3. Hawaii Office of Environmental Quality Control
4. Hawaii Department of Land and Natural Resources
5. Hawaiian Commercial & Sugar Company

SECTION 1
PROJECT SUMMARY

Proposed Action: Widen the Kuihelani Highway from two lane highway to a four lane divided highway from Honoapiilani Highway to Puunene Avenue

Proposing Agency: State of Hawaii, Department of Transportation, Highways Division

Accepting Agency: State of Hawaii, Department of Transportation, Highways Division
600 Kapiolani Boulevard, Room 304
Honolulu, Hawaii 96813
Contact: Ronald Tsuzuki
Telephone: 587-1830

Location: Wailuku, Maui, Hawaii

EA Preparers: M & E Pacific, Inc.
1001 Bishop Street
Pauahi Tower, Suite 500
Honolulu, Hawaii 96813
Contact: Dail Rhee
Telephone: 521-3051

Existing Land Uses: Existing highway, residential and agricultural lands adjacent to ROW

State Land Use District: Urban and Agriculture

County General Plan: Agricultural and Urban

County Zoning Designation: Agricultural and Residential

Agencies Consulted in
Making this Assessment:

Federal:

U.S. Fish and Wildlife Service
U.S. Army Corps of Engineers
Federal Emergency Management Agency

State:

State Historic Preservation
Department of Land and Natural Resources

County of Maui:

Planning Department
Department of Parks & Recreation

SECTION 2
PROJECT DESCRIPTION

2.1 PROJECT OBJECTIVE:

The objective of widening Kuihelani Highway (SR 380) from 2-lanes to 4-lanes is to meet current and future traffic demand in the Wailuku region of the Island of Maui. The Kuihelani Highway is a main state highway linking the Kahului Airport area to Honoapiilani Highway which leads to the tourist destinations of Lahaina and Kaanapali. The rapid growth of the resort areas near Lahaina District has resulted in a significant increase of vehicular traffic using the existing highway. Planned residential, commercial, and resort developments will further add to the existing highway traffic volume.

2.2 PROJECT LOCATION:

Kuihelani Highway is located within the Wailuku District of the County of Maui (See Figure 1) and extends from Honoapiilani Highway to Puunene Avenue. Figure 2 shows the study area and the existing Kuihelani Highway alignment. The project length is approximately 5.22 miles. Major existing intersections of this highway occur at Puunene Avenue and Honoapiilani Highway. Honoapiilani Highway is the traffic thoroughfare between Wailuku and Maalaea. Kuihelani Highway connects Kahului to the southern end of Honoapiilani Highway.

The northern side of the eastern third of Kuihelani Highway is bordered by residential land. The remainder of the adjacent land is in agricultural use.

2.3 HISTORICAL PERSPECTIVE:

Kuihelani Highway opened in 1970 to connect the rapidly growing Lahaina District's Honoapiilani Highway, bypassing Wailuku Town. Previously, the only route between Lahaina and Wailuku District was the Honoapiilani Highway (SR 30) through Wailuku to access toward Kahului and Kahului Airport. Only 2 out of the planned ultimate 4 lanes and a portion of the right-of-way was used for the first increment of construction.

Historically, agriculture (sugar and pineapple) has been and still is the primary use of the land.

2.4 PROJECT PLANS:

The proposed action will entail widening of Kuihelani Highway from its existing two lanes to a four-lane divided highway from Honoapiilani Highway to Puunene Avenue.

Kuihelani Highway was originally planned and designed in 1969 as four lane highway. The proposed widening is the final phase of this planned improvement. The right-of-way varies throughout the length of the highway, but generally is a minimum of 150 feet wide. The entire width of the right-of-way was graded, but only two lanes of the highway were constructed. Figure 3 displays a typical section view of the existing two lane highway. The existing highway is located on the eastern side of the right-of-way.

Figure 4 displays a typical section of the proposed four lane divided highway. Two new lanes will be constructed within the existing right-of-way to create two southbound lanes. The existing two lanes will become the two northbound lanes of the highway. Existing stream crossings and culverts will be widened or duplicated.

2.4.1 Intersections:

The proposed action will not require major improvements to the existing intersections at Puunene Avenue and Honoapiilani Highway. Both intersections are signalized with dedicated turning lanes at the intersection. The existing signal at Honoapiilani Highway, however, will be relocated to a new position relative to the new road alignment and each new lane will become turning lane to each direction at Honoapiilani Highway (SR 30).

2.4.2 Design/Posted Speed:

The design speed for the new lanes of Kuihelani Highway is 60 miles per hour. The posted speed is a function of sight distances, horizontal and vertical curves, and will be set between 30 and 45 miles per hour, similar to the signs on the existing lanes.

2.4.3 Highway Access:

All landowners who currently have legitimate access to the Highway will continue to have this use.

2.4.4 Bikeway Plan:

The Bike Plan Hawaii, April 1984 has designated a Bike Route for Kuihelani Highway. The right shoulder will be paved for bicycle usage.

2.4.5 Bridges:

The second roadway will have bridge crossings identical to that of the existing roadway.

2.5 PROJECT IMPLEMENTATION:

The tentative schedule for this project are as follows:

- A. Design - September 1997 - 1998
- B. Construction - July 1998 - June 1999

2.6 PROJECT COST:

The estimated cost for the implementation of this project (based on 1997 dollars) is as follows:

Design:	\$3 million
Construction:	<u>\$22 million</u>
TOTAL:	\$25 million

SECTION 3
ALTERNATIVES TO THE PROPOSED ACTION

3.1 NO ACTION:

Kuihelani Highway is a heavily used highway providing primary access to resort, commercial, industrial, and residential communities in Lahaina District and to growing residential area of southern Wailuku. The Lahaina region and Maui Island have experienced in the past two decades (1970 - 1990) the highest growth rate of any county in the state as reflected in the increases in traffic. Numerous planned and proposed developments in the region are expected to cause significant traffic increases. Without appropriately addressing the corresponding demands on the primary arterial highway servicing the region, Kuihelani Highway will ultimately reach unacceptable levels of traffic congestion. Increased traffic congestion will result in greater air pollution, and longer travel times. As a result, the region may suffer economically from loss of tourism and commerce caused by unacceptable means of accessing the region's resort areas and residential communities.

3.2 ALTERNATIVE LOCATION:

An alternate location is to widen Honoapiilani Highway to Wailuku. This alternative could cause severe rights-of-way impacts. Furthermore, Kuihelani is the most direct route from Kahului, and Kuihelani Highway can be widened without acquiring additional land.

SECTION 4
EXISTING ENVIRONMENT AND IMPACTS

4.1 CLIMATE:

The climate in the area is characterized as semi-tropical with two seasons. The summer period from May through September is generally warm and dry, with predominantly northeast trades. In contrast, the winter season from October through April is associated with lower temperatures and greater rainfall. The tradewinds are less prevalent during this period. The average annual temperature is about 75 degrees Fahrenheit (°F), while the average rainfall is about 20 inches per year.

According to wind data collected from the nearest monitoring station at Kahului Airport, on an annual basis, tradewinds from the north and northeast prevail 51% of the time, while low wind speeds, calm, occur about 10% of the time, in January to about 3% in July.

4.1.1 Impacts:

The project will not result in adverse impacts to climate.

4.2 TOPOGRAPHY:

The land along the proposed roadway alignment is generally very flat with average slopes between 0.5 to 1.5 percent. The Honoapiilani Highway end (southern) elevation of Kuihelani Highway is 190 feet above Mean Sea Level (MSL) and the northern end elevation of the highway at the Puunene intersection is 42 feet (MSL).

4.2.1 Impacts:

The existing topography is generally flat. Excavation and fill activities will be required only to the extent that a uniform road surface can be constructed. Such activity will be limited to the existing road right-of-way. All grading work will be conducted in accordance with County of Maui Ordinance No. 816 regarding Grading, Grubbing, Stockpiling, and Soil Erosion and Sedimentation.

4.3 GEOLOGY:

Maui, the second largest island in the State of Hawaii, is 48 miles long 26 miles wide and covers 728 square miles. The Maui island was built by two volcanoes; the East Maui or Haleakala Volcano and the West Maui Volcano. It is divided into three main areas: West Maui, East Maui, and Central Maui or the isthmus.

The project highway lies on the Central Maui. The area consist of mostly consolidated or partly consolidated fine grained cross-bedded dunes composed of calcareous sand blown inland from ancient beaches during the Pleistocene. The lowest sand is the hardest and is cemented to a firm rock or "eolianite". Above the eolianite is a brownish-red residual soil, 2 to 6 feet thick. Above it lie dunes that are weakly cemented. In places these partly cemented dunes are overlain by recent unconsolidated dunes.

The eolianite is believed to have been formed when the sea stood about 60 feet lower than at present. All the sand dunes are permeable.

4.3.1 Impacts:

Impacts to subsurface conditions as a result of the project are anticipated to be negligible. Expected excavation and fill activities will be required only to the extent that a uniform road surface can be constructed, and only within the existing road right-of-way.

4.4 SOILS:

The soils along the road alignment are associated with the silty sand. The soil has grayish brown and is well drained. The soil is used for sugarcane and pineapple.

4.5 HYDROLOGY:

There are two major streams, Paleaahu and Waikapu and several undefined minor drainage basins. The largest stream of Waikapu drains the eastern slope area of the West Maui volcano and the drainage basin area is more than 4.5 square miles, arising from 180 feet to 4,450 feet elevation. The drainage basin area of Paleaahu is approximately 2.8 square miles. The remaining drainage area between the two major stream is approximately 3 square miles. The slopes of West Maui volcanoes are very steep and rock land with very shallow soil cover, if any. Portions of these watersheds are intercepted by irrigation system that feed into numerous Mauka reservoirs.

There are four drainage way crossings along the existing roadway:

- Paleaahu Ditch: This is private irrigation ditch that conveys water from the upper reservoir on the southwest side of the highway to the lower reservoir to the northeast. The lower reservoir drains to Paleaahu Stream via an overflow weir only during periods of high precipitation, thus the ditch is not subject to the ebb and flow of the tides. Paleaahu Stream drains into the Kealia Pond, a National Wildlife Refuge wetland habitat.
- Box Culvert (Unnamed): This box culvert was built in anticipation that future upslope urbanization would generate surface runoff. The upslope areas remain undeveloped and this drainage way remains perennially dry.
- Waikapu Stream: This is an intermittent stream that discharges into the Kealia Pond. Immediately upstream and downstream of the existing bridge crossing has been widened into a trapezoidal channel.
- Waihee Ditch: This is another private irrigation ditch that conveys flow to an irrigation reservoir and is not subject to the ebb and flow of the tide.

4.5.1 Impacts:

Based on the foundation design of the existing ditch and stream crossings, the proposed crossings will be of equal or greater span to comply with National Flood Insurance Program (NFIP) guidelines and will be of similar construction to the existing crossings. Therefore, all work is expected to be above the ordinary high water mark.

4.6 FLOOD HAZARD:

The only portion of the road that within a floodplain area (Zone A) according to the Flood Insurance Rate Maps administered by the Federal Emergency Management Agency is at Waikapu Stream. Zone A indicates special flood hazard areas subject to inundation by the 100-year flood but for which no base flood elevations have been determined.

4.6.1 Impacts:

The project is subject to the appropriate policies and requirements of Executive Order 11988 set forth by FEMA regarding Floodplain Management. The proposed widening will be designed to mitigate the potential for adverse impacts to the floodplain. A floodproofing study must be conducted prior to the design of the existing structure. Both new and existing bridges will be designed to span over the flood elevation, and not affect the base flood plain level.

4.7 WATER QUALITY:

There is a layer of brackish water under the fields of the isthmus. Beginning at an elevation of 1 foot, above mean sea level near the coast, the basal water table raises an average and 1.5 to 2.5 feet per mile for the first 2 to 3 miles inland. The water table ends 4 to 5 miles inland at an elevation of 30 feet above sea level. An existing well of HC & S Co., altitude 120 feet, near the center of the isthmus, started in water quality with 40 grains of salt per gallon (equivalent to $17.12 \times 40 = 685$ ppm) and penetrated progressively saltier water until a depth of 400 feet, where the water contained 1,950 grains salt per gallon (= 33,380 ppm). The water level in the well fluctuates in response to changes in rainfall and tides and under irrigation areas to changes in the amount of surface water applied to the land. annual static water levels in HC&S Co. is 4 to 5 feet above sea level.

Most of rainfall recharges by direct percolation through permeable silty/sand field of the isthmus. The water under the isthmus is too high in salt to be potable.

4.7.1 Impacts:

The runoff from impermeable permanent surfaces will be directed into roadside ditches/swales to facilitate the recharge of the groundwater. No public agencies and private land owners furnishing water or distribution facilities would be unreasonably burdened by the proposed development.

The proposed action includes the employment of best practicable management practices such as downslope containment structures below the area of construction the upper bank walls and upslope diversion berms that should minimize the potential for any release of erosion runoff that could increase the existing natural drainage way sediment load. Should

currently unforeseen conditions during final design require some disturbance of the stream bed, mitigative measures such as diverting flow around the area of work during low flow periods could also minimize the potential for adverse water quality impacts.

4.8 FLORA AND FAUNA RESOURCES:

Flora and fauna surveys were conducted in July 1997, respectively. The purpose of the surveys was to characterize the vegetation, and to note the presence of any rare or endangered flora or fauna species.

The majority of the area along both sides of Kuihelani Highway from Puunene Intersection to Honoapiilani Highway is characterized by cultivated sugarcane (*Saccharum officinarum* L.) fields. There are cultivated pineapple fields adjacent the west side of the southern end.

No candidate, proposed, or listed threatened or endangered species as set forth in the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543)(USFWS 1993), were found along the proposed right-of-way. During the pre-assessment consultation for this EA, the U.S. Fish and Wildlife Service also indicated that there are no records of wetlands, threatened, endangered, proposed or candidate species at the project site.

The U.S. Fish and Wildlife Service and the Nature Conservancy has stated that the Hawaiian coot (*Fulica alai*) and Hawaiian stilt (*Himantopus mexicanus knudseni*) inhabit the Kealia Pond National Wildlife Refuge, (NWR), approximately 1 mile from the existing highway at the closest point. Kealia Pond is downstream of the Waikapu Stream Bridge crossing. The same two species were recorded at the Waiale Reservoir adjacent to the Maui Community Correctional Center, approximately 1 mile upland from existing highway.

4.8.1 Impacts:

Waiale Reservoir is 1 mile upstream and will not be affected by the proposed activity. Since the proposed work is expected to be above the ordinary high water mark and best practicable management practices will be utilized to minimize the potential release of erosion runoff into the waterway, there should be minimal potential adverse water quality and biotic impacts.

4.9 AIR QUALITY:

Federal and state standards establish parameters regulating particulate matter, sulphur dioxide, nitrogen dioxide, carbon monoxide, ozone and lead; in addition, Hawaii has a standard for hydrogen sulfide.

Kuihelani Highway runs in a nearly north-south direction and the predominant land uses along the highway are agriculture with a small portion of residential area in the northwestern end of the highway. Winds from the northeast have a high frequency of occurrence and mean wind speeds are relatively high providing good ventilation. Rainfall is relatively low, less than 20 inches per year and occurs mostly during the winter months. The major sources of man-made air pollution on the area are the power plants, motor vehicles and agricultural activities.

Air quality monitoring data for Maui indicate that no background ambient air pollution is very low.

4.9.1 Impacts:

Primary air quality impacts will likely occur during project construction. After construction, emission from vehicular traffic may have some impact due to the increased traffic volumes; however, it is expected that the resulting air quality impacts will remain well within established state and federal standards.

4.10 NOISE:

An Acoustic study was prepared for the proposed road.

4.10.1 Existing Ambient and Traffic Noise Levels:

Existing traffic noise levels along Kuihelani Highway exceed the U.S. Federal Highway Administration (FHWA) and Hawaii State Department of Transportation, Highways Division (HDOT) noise abatement criteria at single family residences located at the north (Puunene Avenue) end of the project corridor. Future (CY 2020) traffic noise levels with or without the proposed roadway improvement project are also expected to exceed FHWA and HDOT noise abatement criteria at these residences. Traffic noise mitigation measures in the form of noise barrier construction may be applied at these residences, but should be examined according to the criteria of reasonable and feasible.

Future traffic noise levels along the remaining (south and middle) sections of the project corridor are not expected to exceed the FHWA 67 Leq or HDOT 66 Leq noise abatement criteria at any public use or private noise sensitive properties and should not require noise mitigation measures.

4.10.2 Impacts:

Potential short term construction noise impacts are possible during the project construction period. However, minimizing these types of noise impacts is possible using standard curfew periods, properly muffled equipment, administrative controls, and construction barriers as required.

Traffic noise mitigation measures in the form of noise barrier construction can be applied along residences adjacent to Kuihelani Highway at the north end (Puunene Avenue) of the project. The 6 to 7 dB of noise attenuation achievable with a 6 feet high wall is normally sufficient for single story structures. However, the sound barriers will block the views and tradewind and therefore some of the residents may object to the wall construction. Plates elevation views of the existing boundary with the top-of-wall line superimposed is shown in the attached figures. A view of an existing 8-foot high wall at the Paia Subdivision is included as one specific example where landscape plantings were used for aesthetic purposes. The state will coordinate the design of the proposed widening with residences adjacent to Kuihelani Highway.

4.11 LAND USE:

4.11.1 State Land Use Districts:

As shown in Figure 8, the Wailuku-Kahului Urban District area are northwestern corner and the project area and most of central Maui are located within the State Land Use Commission's (LUC) Agricultural (A) District. According to Chapter 205, HRS and the Land Use Commission Rules, "Public, Private and Quasi-Public Utility Lines and Roadways..." are permitted within the State Agricultural District and therefore no reclassification of the State's land use designation.

4.11.2 County of Maui Community Plans:

Most of the project area is located within Wailuku-Kahului Community Planning District. All community plans are comprised of three major components: (1) a narrative description of the intent of the plan and overall recommendation, (2) a land use map depicting the existing and proposed land uses established for the planning period, and (3) a map showing proposed transportation/public facility improvements.

Currently, there are no proposed public facilities on the map except a bikeway along the urban/residential land side of Kuihelani. The right shoulder of the proposed highway widening will be paved for bicycle usage.

4.11.3 County Zoning:

According to the County of Maui's official zoning map, the entire land along the proposed highway is zoned as agricultural except the northwestern portion, which is R-3, residential.

The proposed Kuihelani Highway Widening project is consistent with State Land Use Commission and the County of Maui Zoning Ordinance.

4.11.4 Special Management Area:

The proposed project does not lie within the County of Maui Special Management Area and therefore it is not subject to SMA permitting requirement

4.12 ARCHAEOLOGICAL AND HISTORICAL RESOURCES:

The reconnaissance survey was conducted to locate archaeological resources within the project area. The study included a literature search including a review of archaeological reports related to the project area, and a field inspection of the project site to assess current conditions and the likelihood of extant surface and subsurface archaeological sites. The survey was conducted along the length of the proposed road widening within the existing right-of-way.

No surface archaeological resources were located within the proposed road widening during the site survey. No historical sites were found in the project area.

4.12.1 Impact:

The widening, therefore, will have no effect upon any known historic or archaeological site on or likely to be eligible for inclusion in the Hawaii Register and/or National Register of Historic Places. In the event any unanticipated sites or remains are uncovered during construction, construction will be halted and the State Historic Preservation Officer and the Burial Council will be contacted immediately.

4.13 AGRICULTURE:

The highway is largely surrounded by agricultural fields. The existing highway bisects sugarcane fields under cultivation by Hawaiian Commercial & Sugar Company. There is a cane haul road that intersects the existing highway that connects the sugarcane fields on both sides of the highway. There are pineapple fields adjacent to the Mauka side of Kuihelani Highway at the end that intersects Honoapiilani Highway. The easement for the widened highway was obtained at the time the original incremental phase was constructed.

There are drainage swales paralleling the existing roadway. There are existing drainage channels perpendicular to the highway. Irrigation pipelines perpendicular to the highway suspended below one of the bridge crossings.

4.13.1 Impacts:

There will be no loss of agricultural lands because the easement for the proposed widened roadway already was obtained prior to its initial development.

Crossing Kuihelani Highway will become more difficult as traffic increases, which will inevitably occur as a result of regional population growth with or without the proposed widening. The widened thoroughfare will take more time to cross, thus crossing as a result of the proposed action will be more difficult. Warning signs will be added. Sight distance and stopping distance analyses will be conducted during design to determine whether other measures such as speed limit adjustments and speed reduction devices are necessary to assure traffic safety. The Department of Transportation regularly monitors traffic volume on its major roadways. Traffic volume does not currently warrant the addition of traffic signals (Section 4C-2 of the Manual of Uniform Traffic Control Devices). Traffic lights will also be added when warranted by traffic volume.

Existing surface drainage patterns will be maintained so that no erosion resulting in loss of lands or deterioration of irrigation water quality will result. Existing irrigation ditches and pipelines will be protected so the delivery of irrigation will not be interrupted. Since the proposed work is expected to be above the ordinary high water mark and best practicable management practices will be utilized to minimize the potential release of erosion runoff into the waterway, there should be minimal potential adverse impacts to water quality.

TABLE 4-1

SUMMARY OF EXISTING AND PREDICTED TRAFFIC NOISE LEVELS AT NOISE SENSITIVE RECEPTOR LOCATIONS (STATIONS #260 AND #270)
(5 FT RECEPTOR, PM PEAK HOUR)

RECEPTOR LOCATION	SETBACK DIST FROM R/W	EXISTING (CY 1997) Leq	FUTURE (CY 2020) Leq				
			W/O BAR./ (CHANGE)	5 FT WALL (CHANGE)	6 FT WALL (CHANGE)	7 FT WALL (CHANGE)	8 FT WALL (CHANGE)
Dwelling (Sta #260)	5 FT	68.6 *	71.5*/(2.9)	69.6*/(1.0)	65.3/(-3.3)	63.3/(-5.3)	61.5/(-7.1)
Dwelling (Sta #270)	5 FT	68.9 *	71.1*/(2.2)	69.2*/(0.3)	64.9/(-4.0)	62.9/(-6.0)	61.9/(-7.8)

Notes:

1. Noise barrier located on west Right-of-Way with ends shown in Figures 3 and 4.
2. * Denotes exceedance of State DOT 66 Leq and FHWA 67 Leq criteria.
3. Wall heights indicated in this table are heights above final roadway pavement.

SECTION 5
SOCIO-ECONOMIC ENVIRONMENT

5.1 POPULATION TRENDS:

Since 1970, the population in the Island of Maui has more than doubled in 20 years. Maui is the fastest growing island in the State of Hawaii.

As Table 5 shows, Lahaina - Wailuku areas have experienced a population growth since 1970.

Table 5
Population & Trends
1970 - 1990

	1970	1980	1990
Population: Maui	38,691	62,823	91,361
Census Tracts 311, 312, 314, & 315	13,811	23,310	31,246
Average Annual Growth Rate The Above Census Tracts	5.9%		3.4%

The projections of regional population, employment, and land use development are essential in determining future traffic volume. These growth factors were projected for use in the MLRLTP by the State Department of Transportation and the County of Maui Planning Department for population and land use island-wide. Population forecasts provided by the State indicated that by the year 2020, the population of Maui is expected to increase from 91,254 in 1990 to 147,500 in 2020. During this same period, island-wide employment will increase from 51,768 to 83,400, an increase of 31,632 jobs by the year 2020. The Lahaina region is expected become a major employment center while Wailuku-Kahului will continue to be Maui's most populous community. This relationship between the two regions will significantly contribute to his overall growth in traffic. This correlation will become more pronounced as the projected annual visitor arrivals from 2,987,500 in 1995 to 4,000,000 in the year 2020. In order to accommodate this increase in the visitor population, an increase of 8,700 hotel rooms are needed on Maui. Therefore, much of the economic growth is attributed to the visitor industry, which will occur within Maui's major resort areas.

5.2 ECONOMY:

The County of Maui has recently begun to emerge out of recession brought on by the drop in visitor arrivals and reductions in overall construction activity. Recent counts of visitors to the State indicate that the visitors arrivals were at record highs also Maui visitor arrivals were up. The proposed project will promote the safe and efficient movement of people and goods.

5.3 PUBLIC FACILITIES/INFRASTRUCTURE:

Since the land adjacent to the highway corridor will remain as agricultural, no major public facilities such as water, wastewater, other utility transmission lines are planned. Also, no recreational facilities will be impacted by the proposed project.

SECTION 6
PRELIMINARY DETERMINATION

This document constitutes a notice of intent to issue a Finding Of No Significant Impact (FONSI) pursuant to Chapter 343 (HRS). In accordance with Chapter 343, Hawaii Revised Statutes, this Environmental Assessment has characterized the technical and environmental issues of the Kuihelani Highway Widening project, identified potential impacts, and their significance. It is anticipated that the proposed project will not significantly impact the environment. Therefore, an Environmental Impact Statement is not required for this project. This determination is based on the significance criteria listed in §11-200-12 of the Environmental Impact Statement Rules. Specifically, these significance criteria are addressed below:

1. The proposed project will not result in an irrevocable commitment to loss or destruction of any natural or cultural resources. The easement for the proposed widening to the ultimately planned configuration has already been obtained, therefore there will be no loss of agricultural lands.
2. The range of beneficial uses of the environment will not be curtailed.
3. The project 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 orders or executive orders. The project supports the Department of Transportation's long range traffic planning.
4. The proposed project will not adversely affect the economic or social welfare or the community or state. The minimization of transit time will be a benefit to both commerce and the public.
5. The project will not adversely affect public health.
6. The project will not involve substantial adverse secondary impacts, such as population changes or effects on public facilities. The proposed project responds to current population trends.
7. The project will not involve a substantial degradation of environmental quality. The intended method of construction should not result in any significant adverse water quality impacts.

8. The project will not include considerable cumulative effect upon the environment nor involve a commitment for larger actions.
9. The project will not substantially affect a rare, threatened or endangered species, or its habitat. The anticipated lack of significant adverse water quality impacts should result in no impact to the Kealia Pond National Wildlife Refuge (NWR) downstream of the Waikapu Stream Bridge crossing.
10. The project will not detrimentally affect air, water quality, or ambient noise levels. Acoustic attenuation will be provided. Short-term noise impacts will occur during the construction phase. The Contractor will be required to comply with current DOH rules.
11. The project will not affect an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geological hazardous land, estuary, fresh water, or coastal waters. While the Waikapu Stream crossing is sited in a flood zone of unknown elevation, a flood-proofing study will be conducted and the proposed structure will be constructed in accordance with NFIP requirements. The intended method of construction should not result in any significant adverse water quality impacts, thus should not impact the Kealia Pond NWR.
12. The project does not affect identified scenic vistas or view planes. The proposed roadway will be parallel to the existing.
13. The project does not require substantial energy consumption.

SECTION 7
PERMITS REQUIRED

The Army Corps of Engineers considers the Waikapu Stream Bridge and the Paleahu Ditch Bridge crossings as under their jurisdiction. No Department of the Army permit would be required, however, for work that is limited to above the high water mark. Under these circumstances, only the County of Maui building permit and the DLNR Instream Channel Alteration and Diversion permit are required.

7.1 County of Maui
Department of Public Works and Waste Management
Land Use Codes Administration

7.2 State of Hawaii
Department of Land and Natural Resources

Commission on Water Resources Management - Permit for Instream
Channel Alterations and Diversion Work

Should any currently unforeseen circumstances arise during final design that would necessitate work below the ordinary high water mark, a Department of the Army permit would be required. Preliminary consultations with the Department of the Army indicates that the proposed action could be eligible for the Nationwide Permit program, depending on the specific configuration and extent of the proposed action. If a Department of the Army permit is required, a Federal Consistency Determination and A Section 401 water quality certification would consequently be required. Therefore, the additional required permits are listed as follows:

7.3 Federal
Department of Army (DA Permit)

7.4 State of Hawaii
Office of State Planning

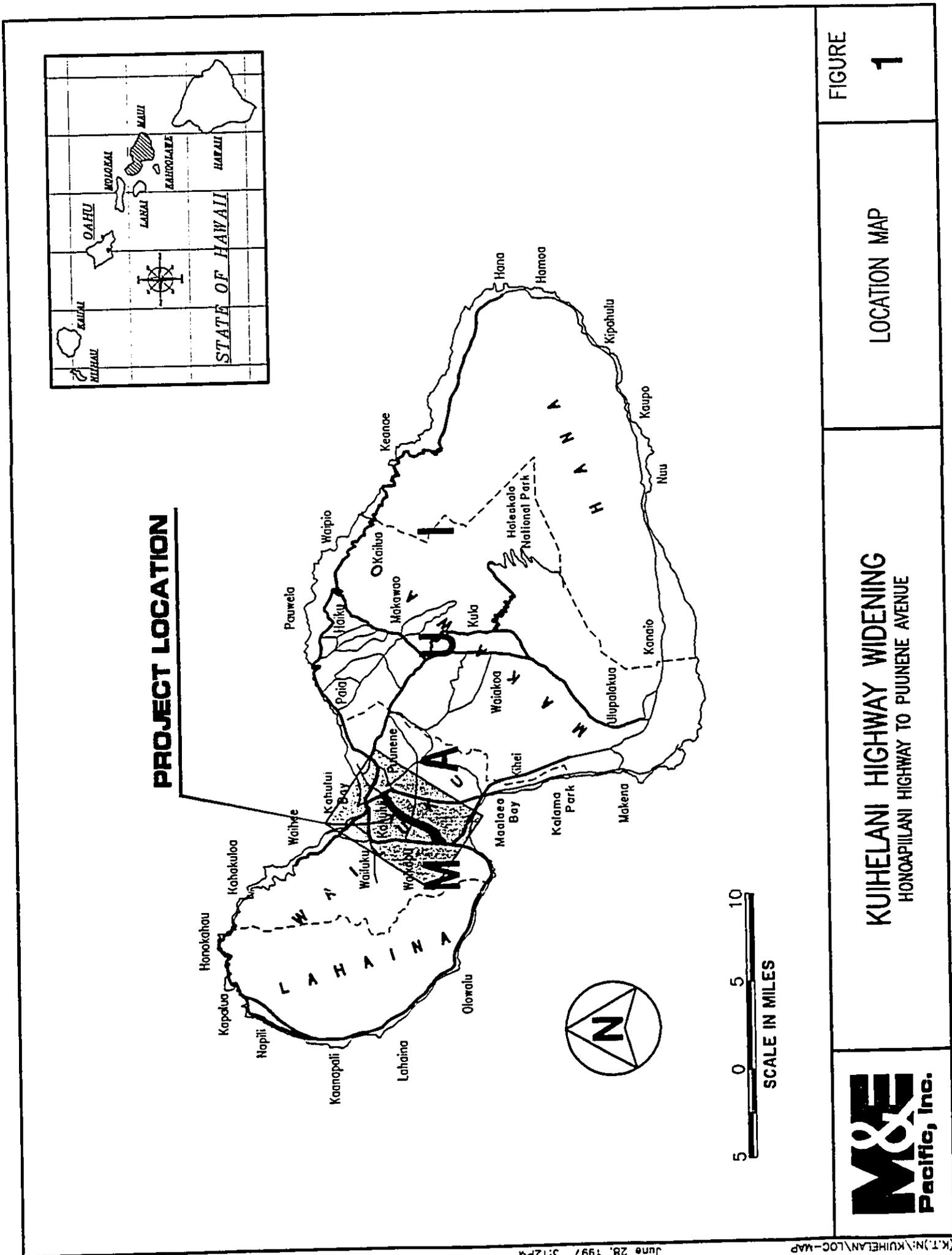
Federal Consistency Determination

7.5 State of Hawaii
Department of Health
Clean Water Branch

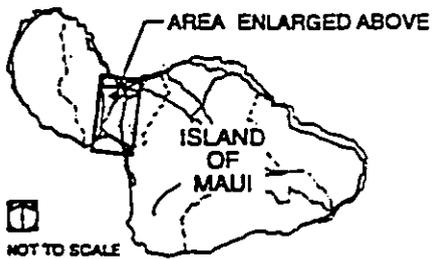
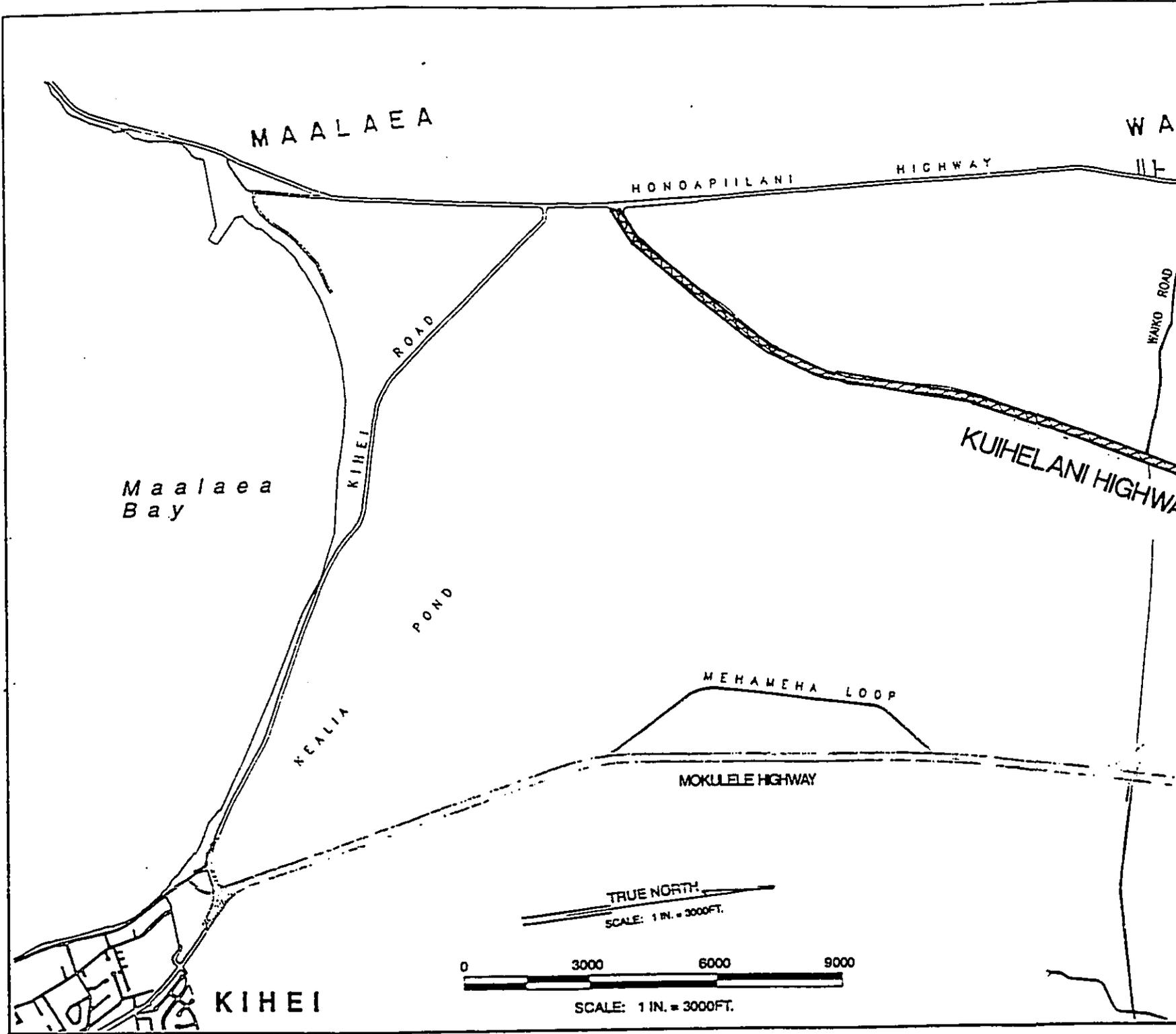
A State Water Quality Certification pursuant to Section 401 of the
Clean Water Act.

APPENDIX A

FIGURES



(K.T.)N:\KUIHELANI\LOC-MAP June 28, 1997 3:12PM



LEGEND

 PROJECT HIGHWAY

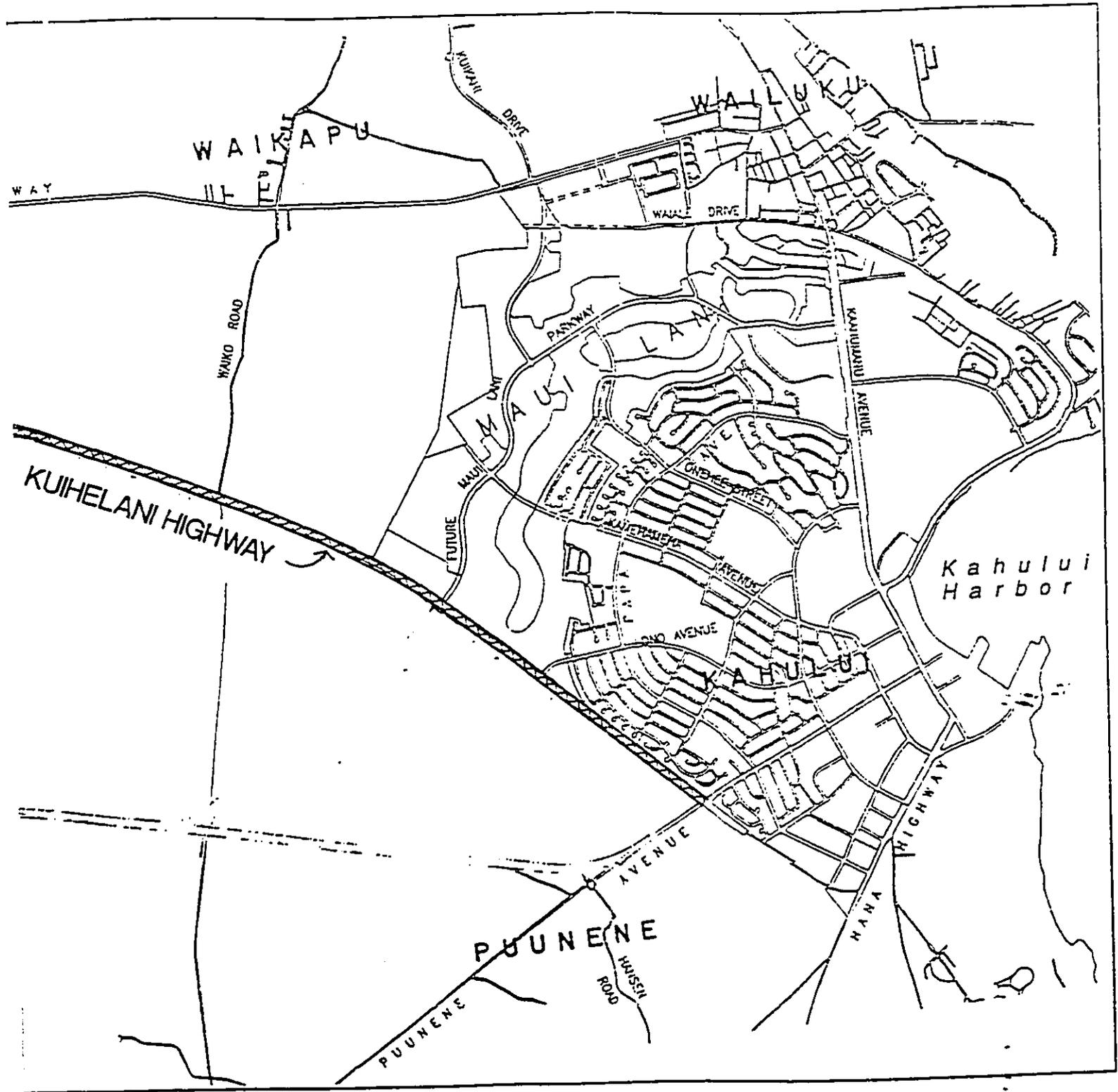
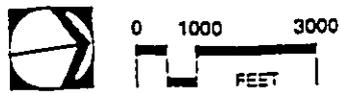
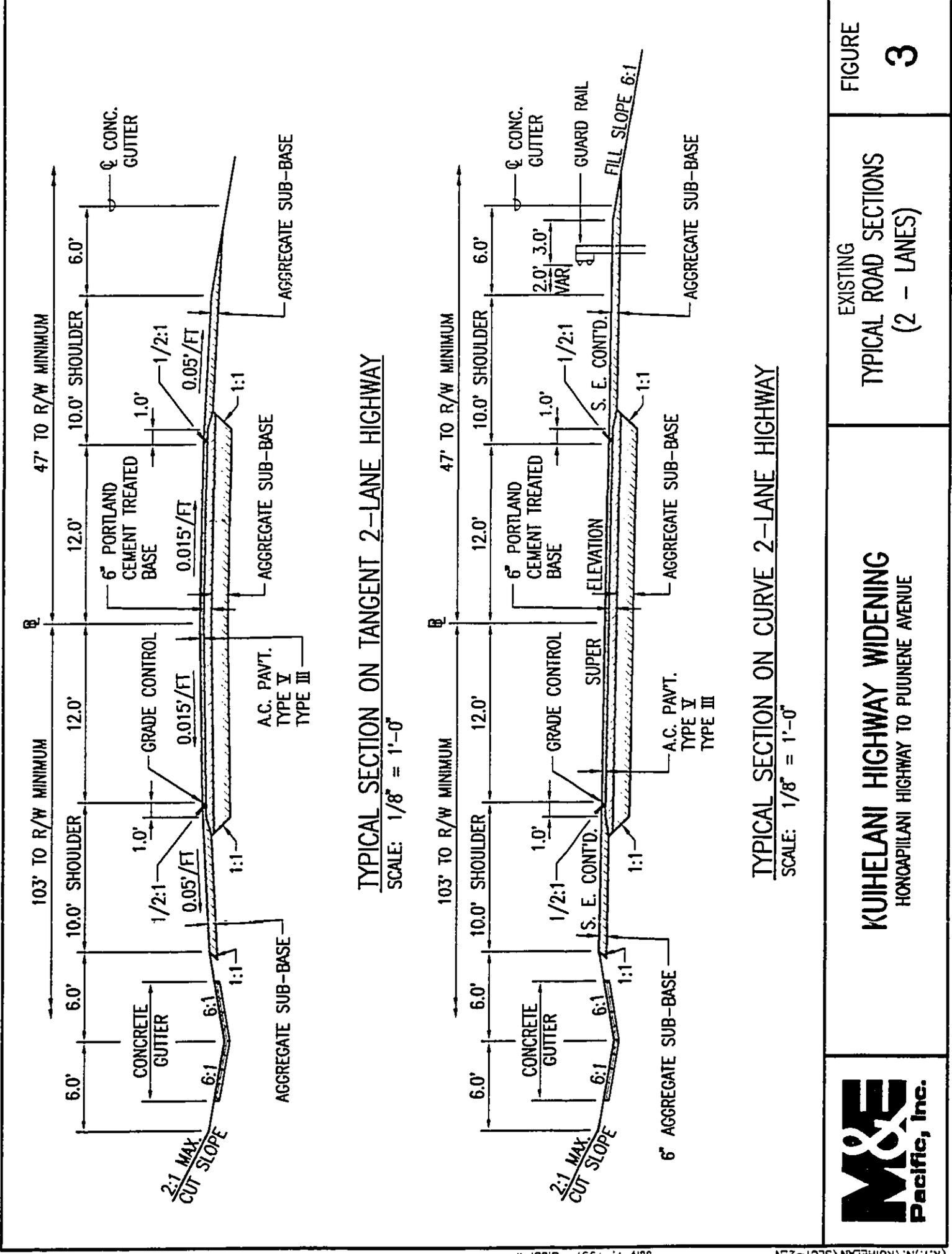


FIGURE 2
PROJECT LOCATION MAP
KUIHELANI HIGHWAY



M&E
Pacific, Inc.



TYPICAL SECTION ON TANGENT 2-LANE HIGHWAY
SCALE: 1/8" = 1'-0"

TYPICAL SECTION ON CURVE 2-LANE HIGHWAY
SCALE: 1/8" = 1'-0"

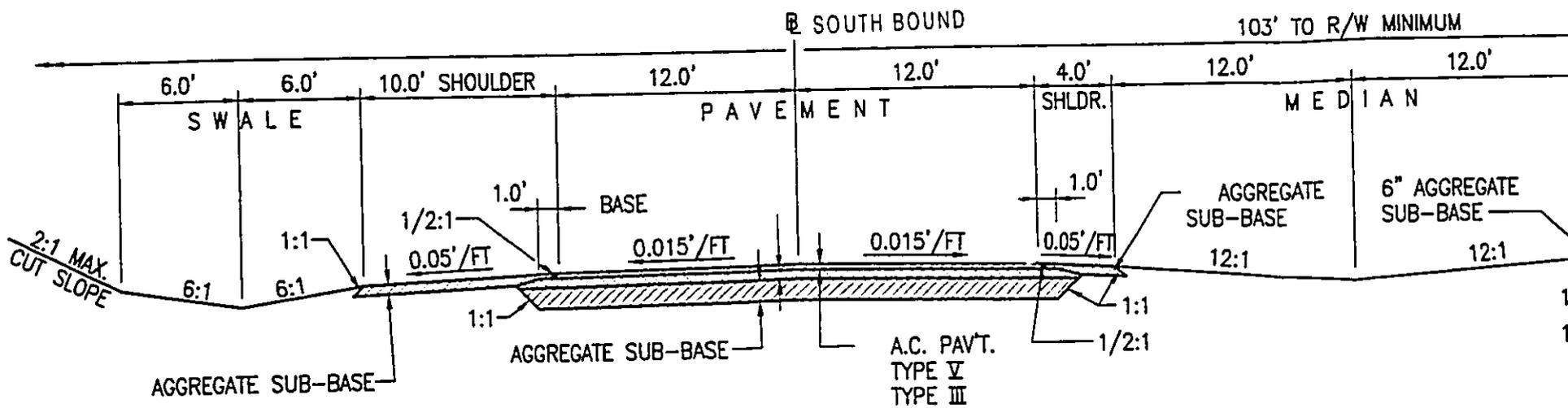


KUIHELANI HIGHWAY WIDENING
HONOAPIILANI HIGHWAY TO PUUNENE AVENUE

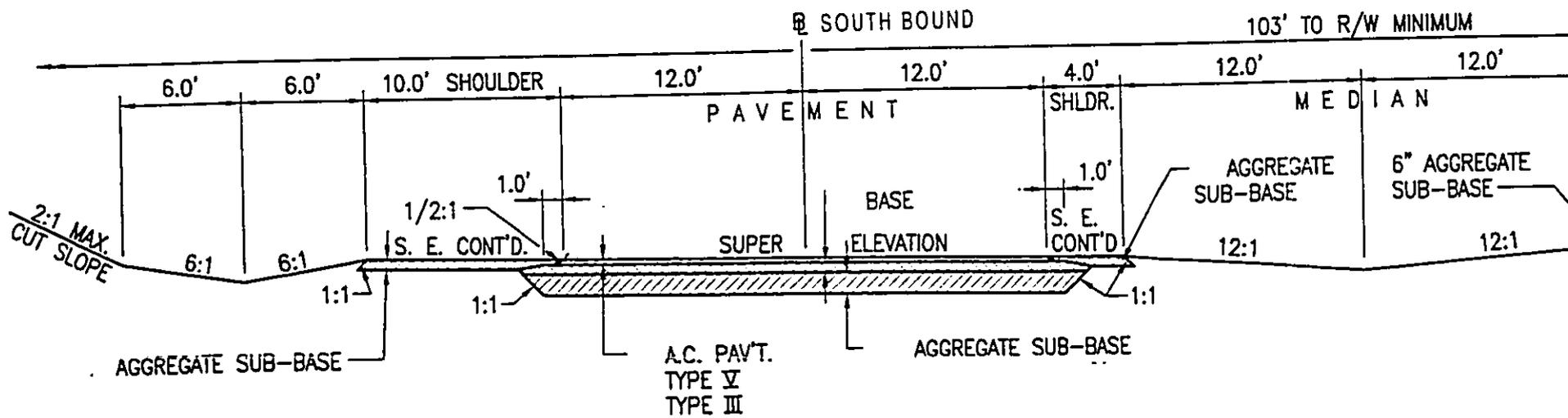
EXISTING
TYPICAL ROAD SECTIONS
(2 - LANES)

FIGURE
3

NEW LANES



TYPICAL SECTION ON TANGENT WITHOUT CURB DIVIDER
SCALE: 1/8" = 1'-0"

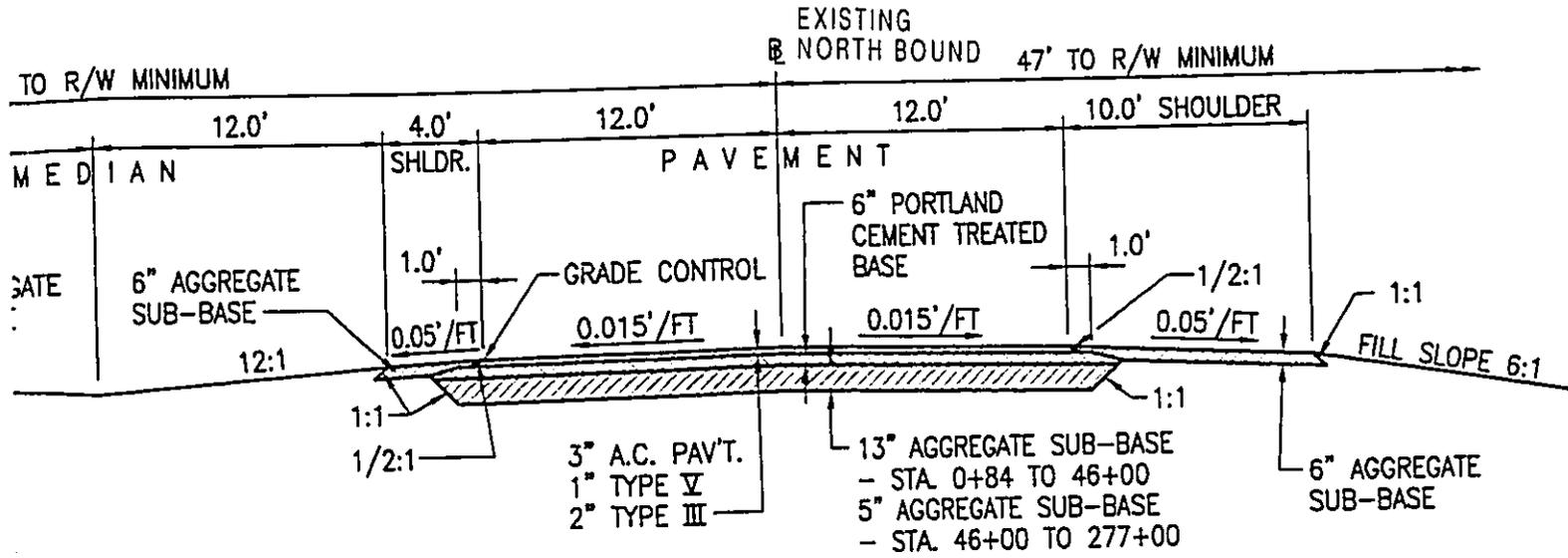


TYPICAL SECTION ON CURVE WITHOUT CURB DIVIDER
SCALE: 1/8" = 1'-0"

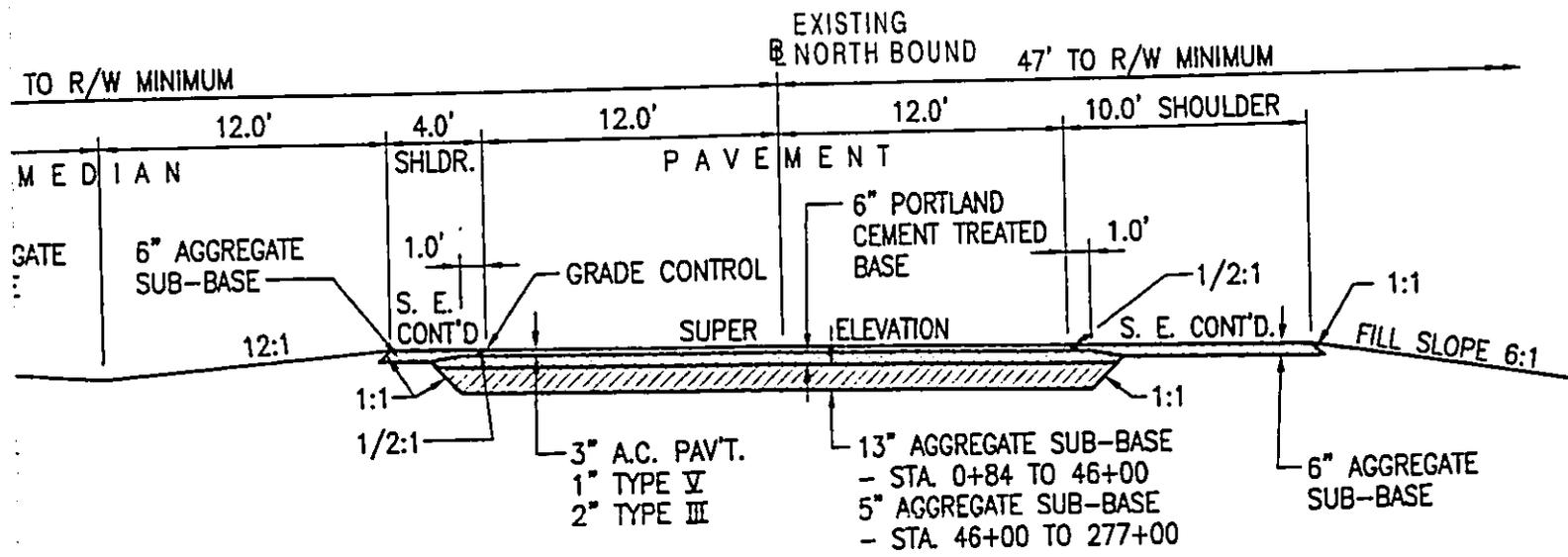


KUIHELANI HIGHWAY WIDENING
HONOAPIILANI HIGHWAY TO PUUNENE AVENUE

EXISTING LANES



WITHOUT CURB DIVIDED HIGHWAY



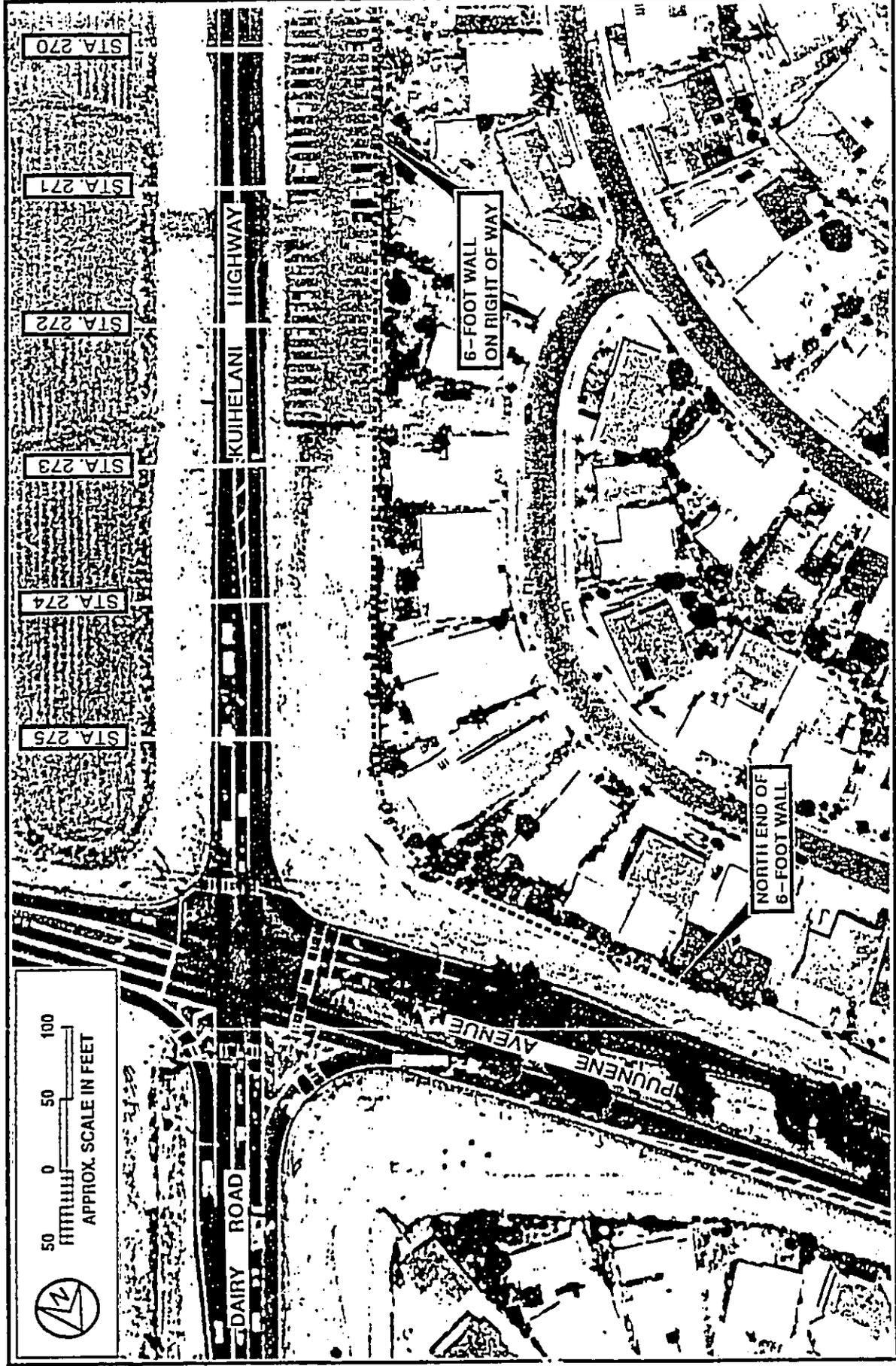
WITHOUT CURB DIVIDED HIGHWAY

ENING
VENUE

TYPICAL ROAD SECTIONS
(4 - LANES)

FIGURE

4



LOCATION OF NORTH END OF 6 FT. BARRIER WALL

FIGURE
6

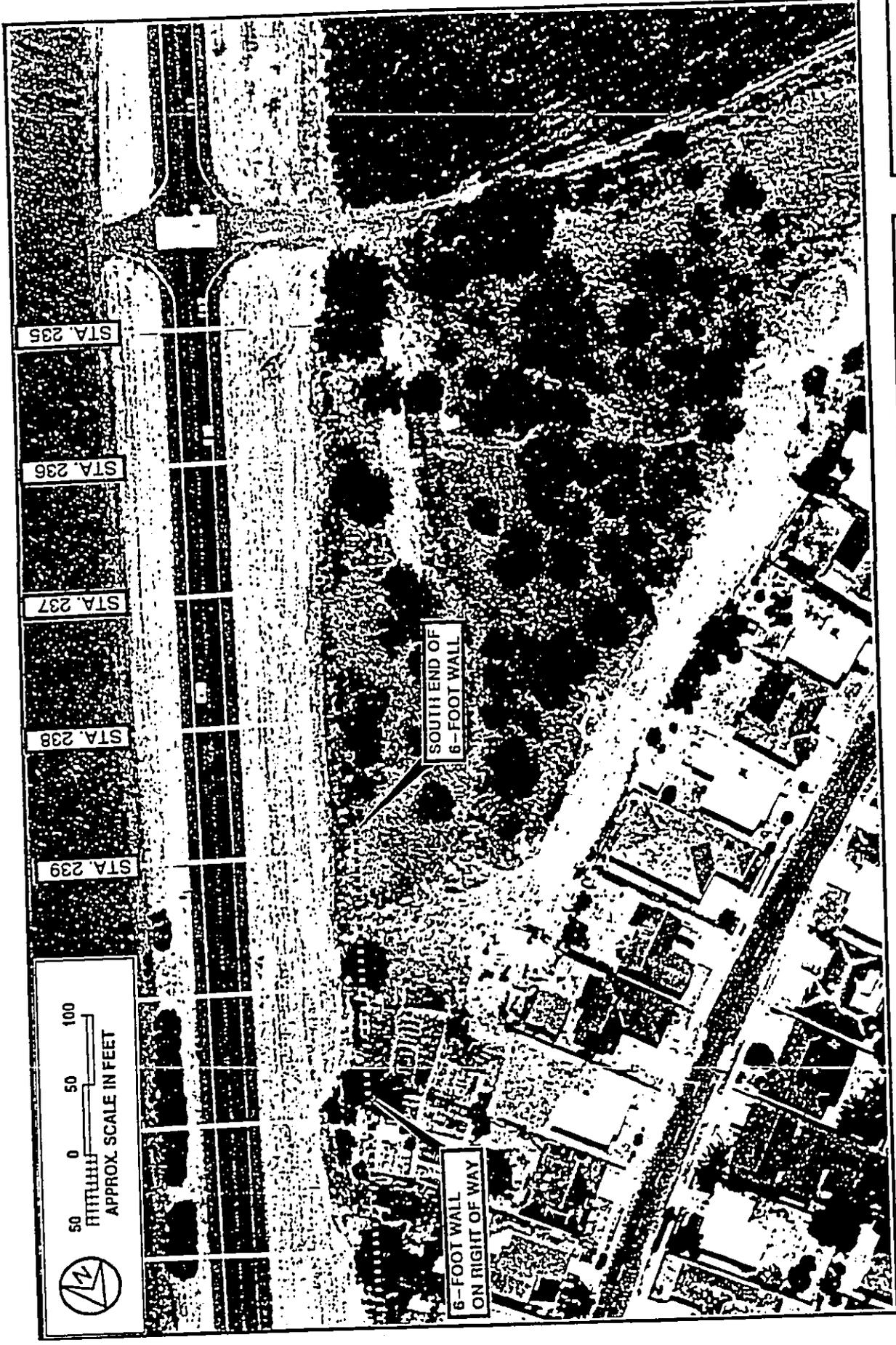


FIGURE
6A

LOCATION OF SOUTH END OF 6 FT. BARRIER WALL



Figure 6B: Elevation View of Puunene Avenue Frontage, Beginning of Wall

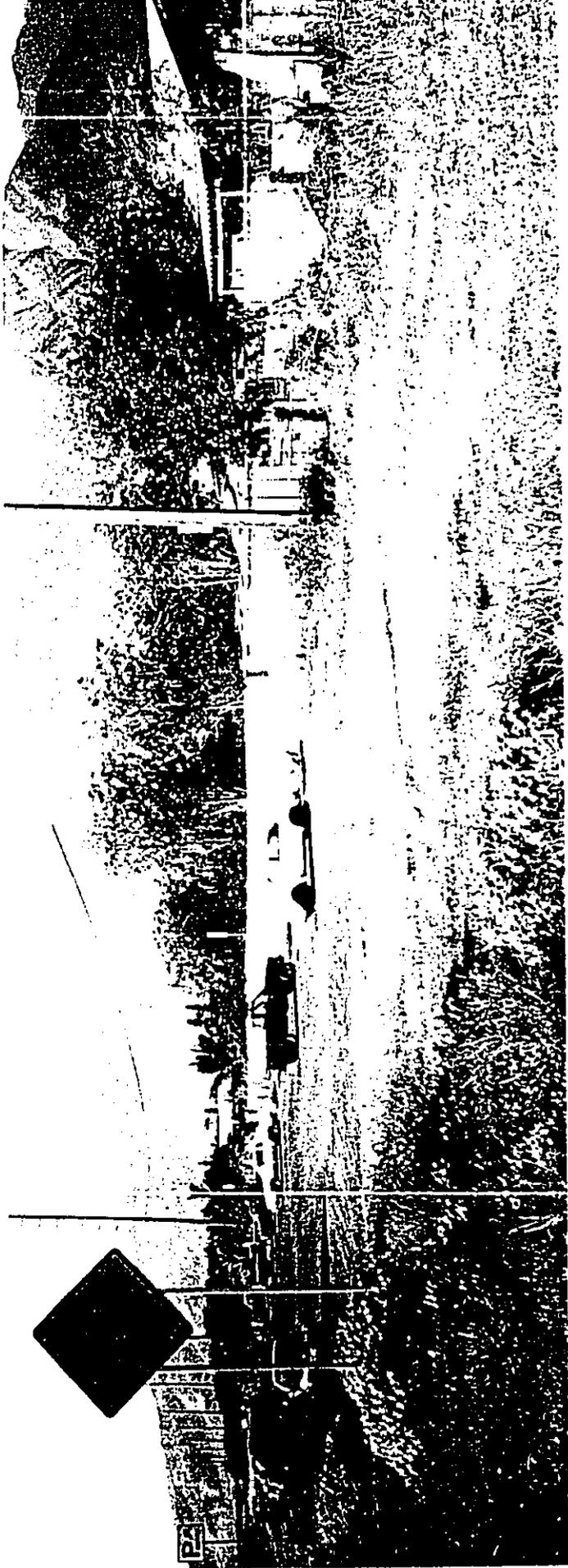


Figure 6C: Southwest Perspective View of Kuihelani Highway Frontage

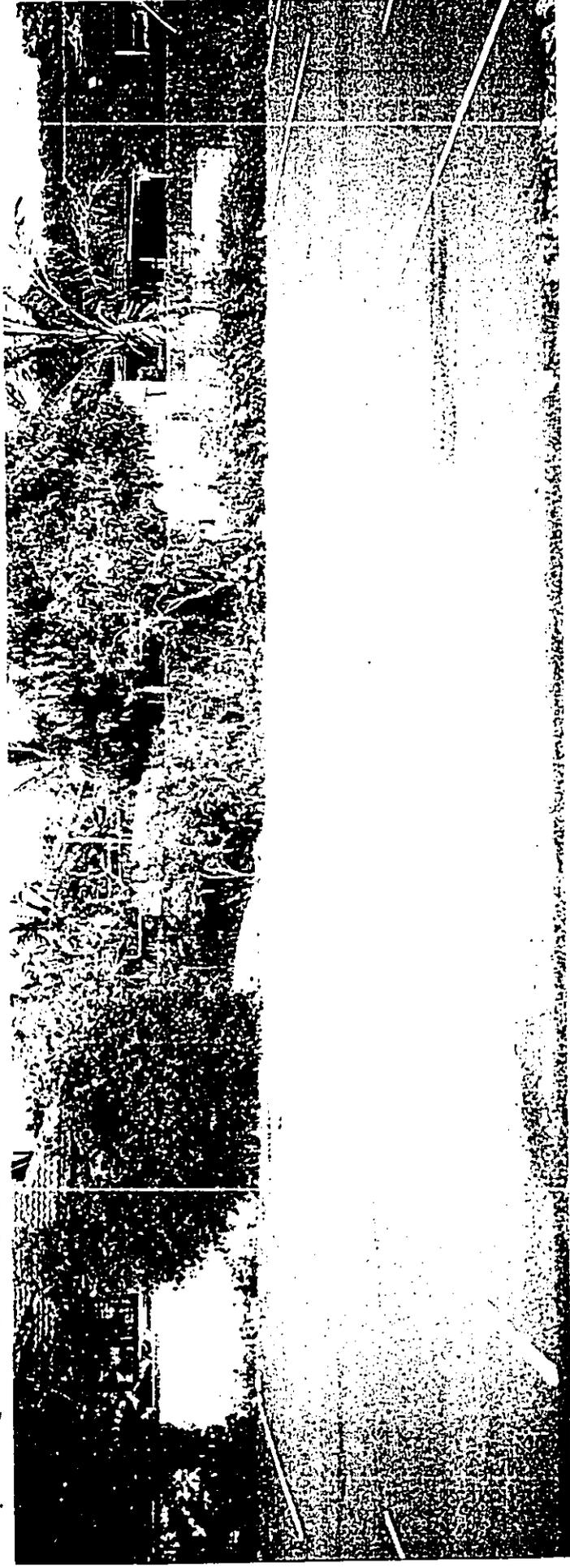


Figure 6D: Elevation View of Kuihelani Highway Frontage

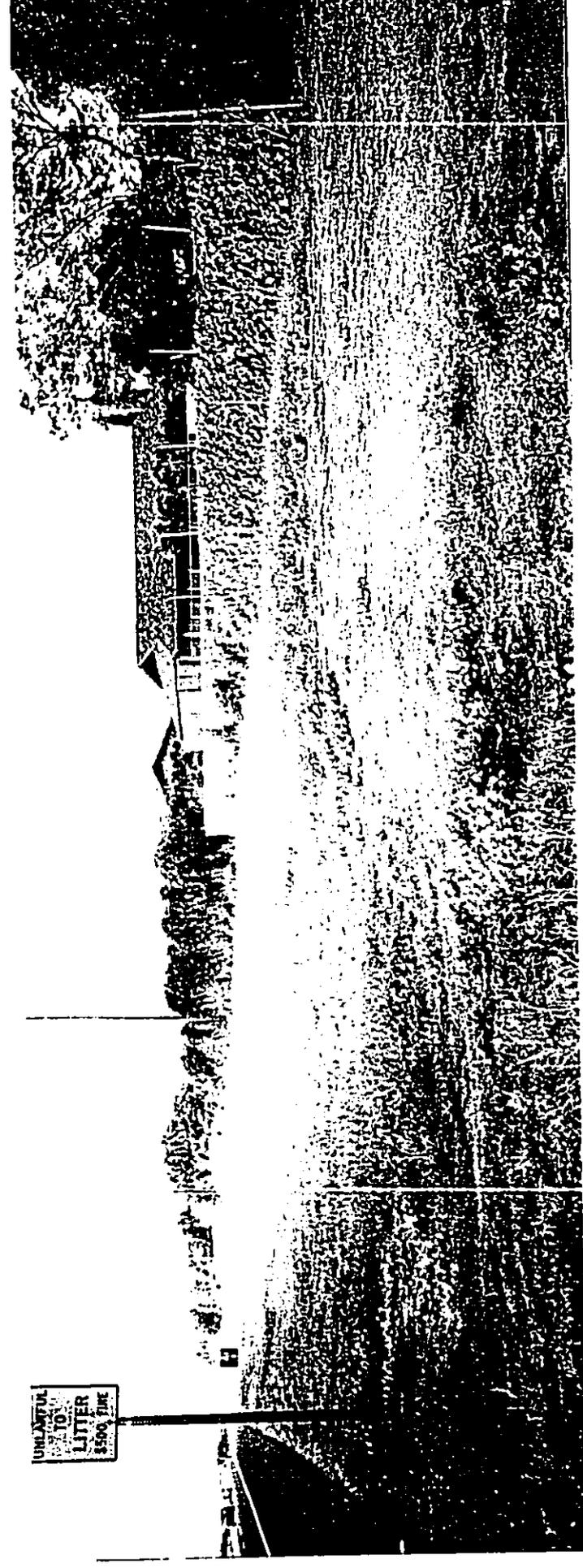


Figure 6E: Southwest Perspective View of Kuihelani Highway Frontage, End of Wall

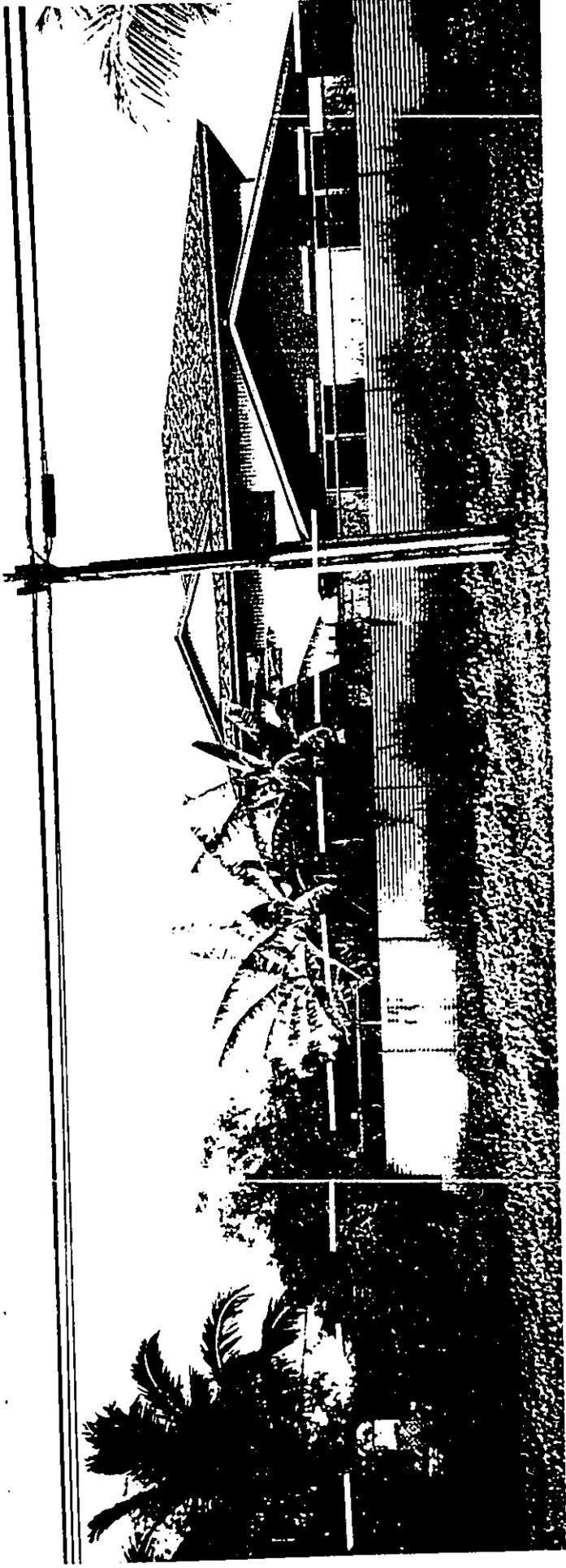


Figure 7: Superimposed Proposed Top of Wall Line, Puunene Avenue Frontage

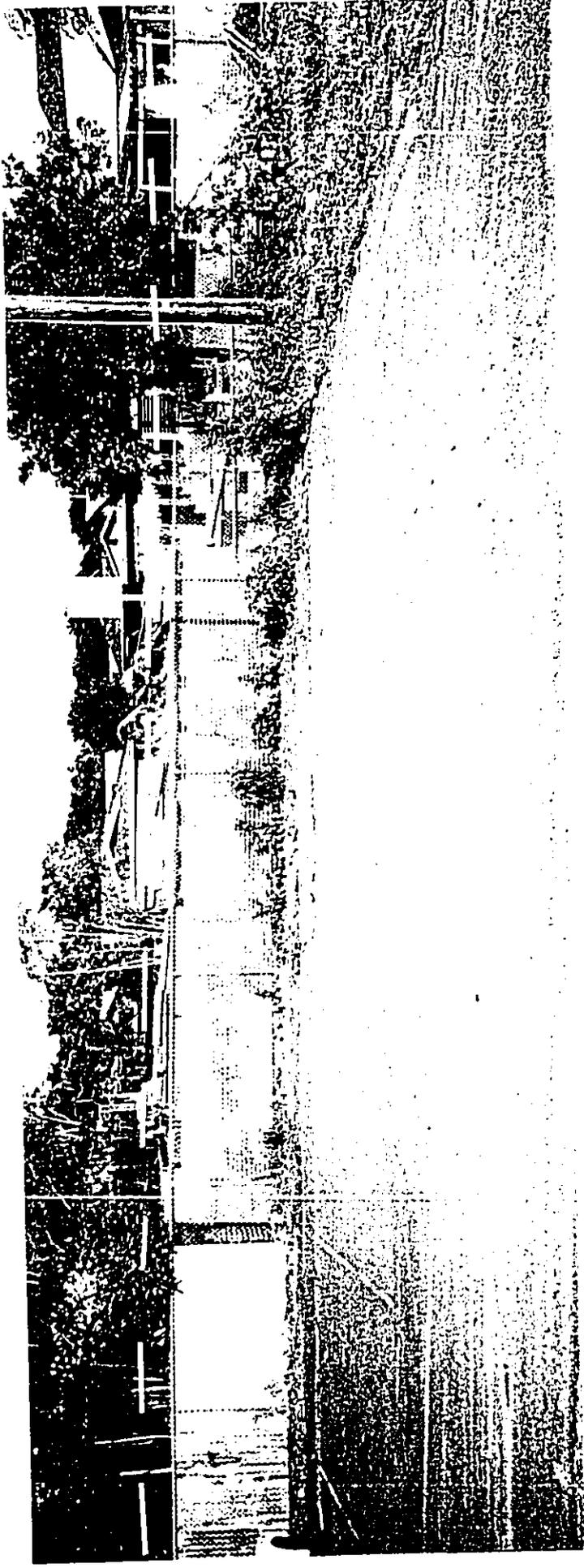
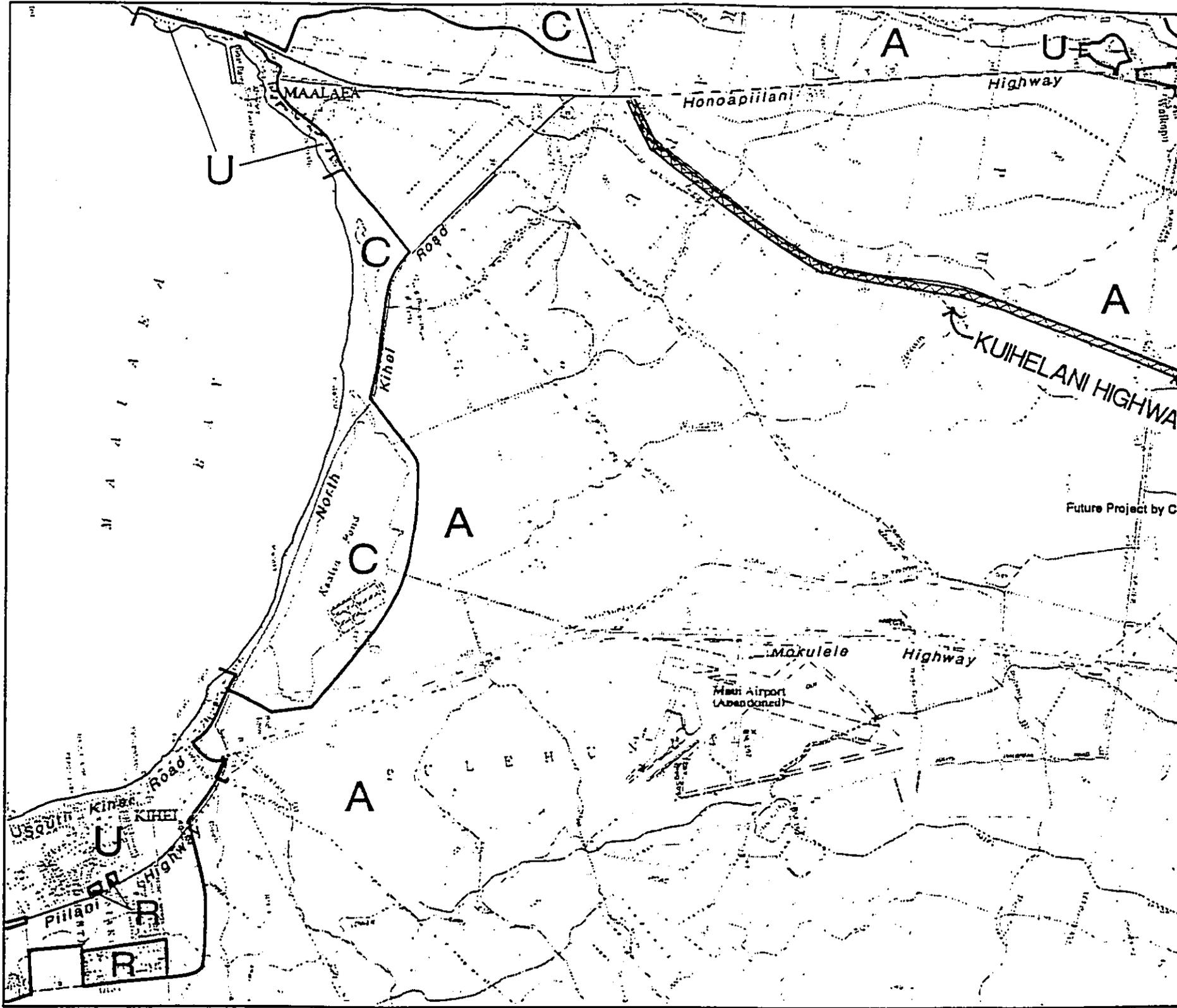


Figure 7A: Superimposed Proposed Top of Wall Line, Kuihelani Highway

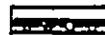
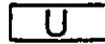


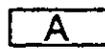
Figure 7B: North Perspective View of 8 Ft High South Barrier Wall, Paia, Maui

DOCUMENT CAPTURED AS RECEIVED



LEGEND

-  Approximate Project Area Boundary
-  Urban
-  Rural

-  Agricultural
-  Conservation

Source: State Land use Commission; Maui County office of Economic Development

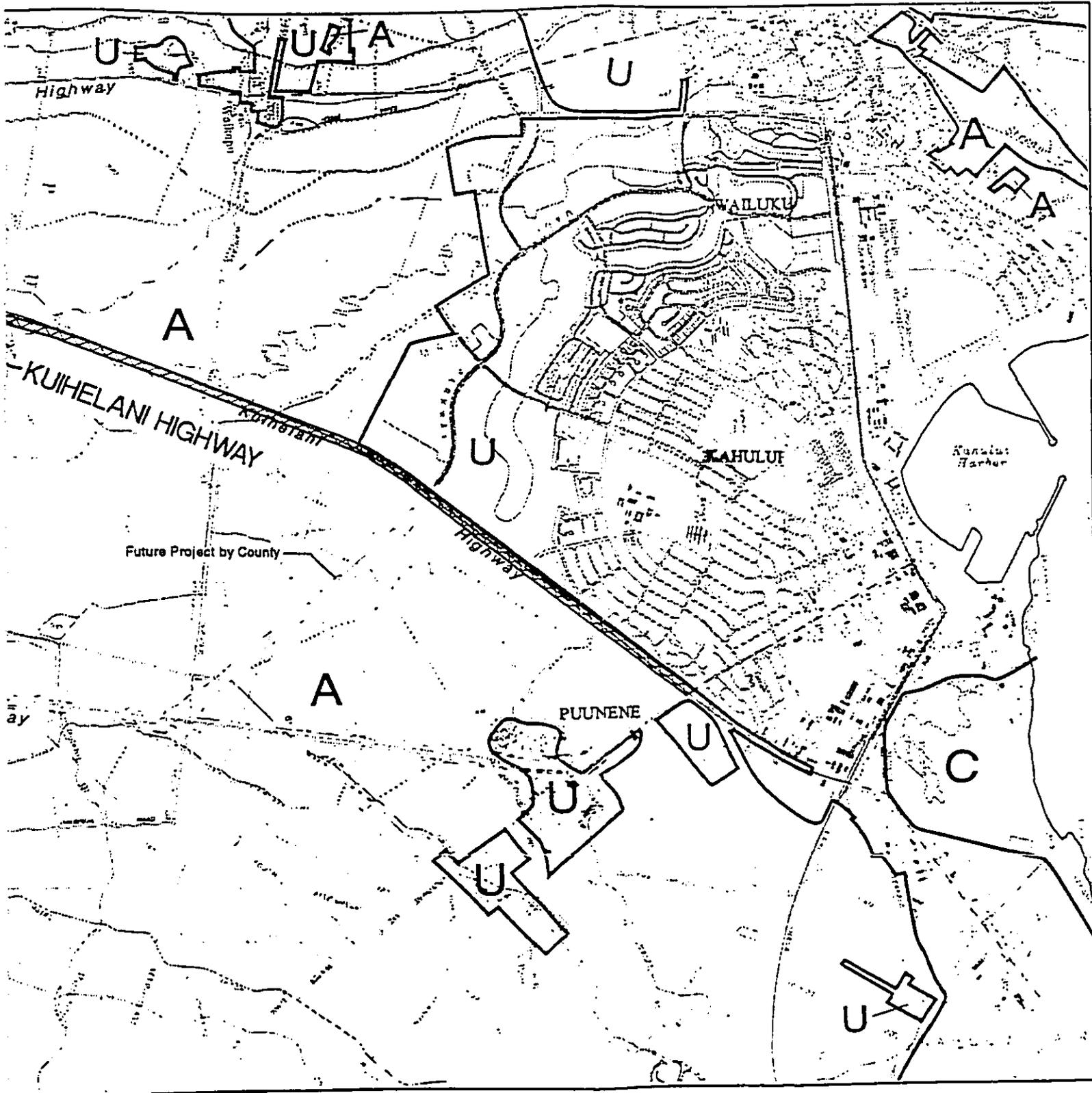
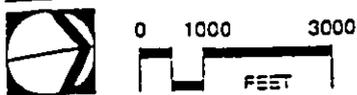
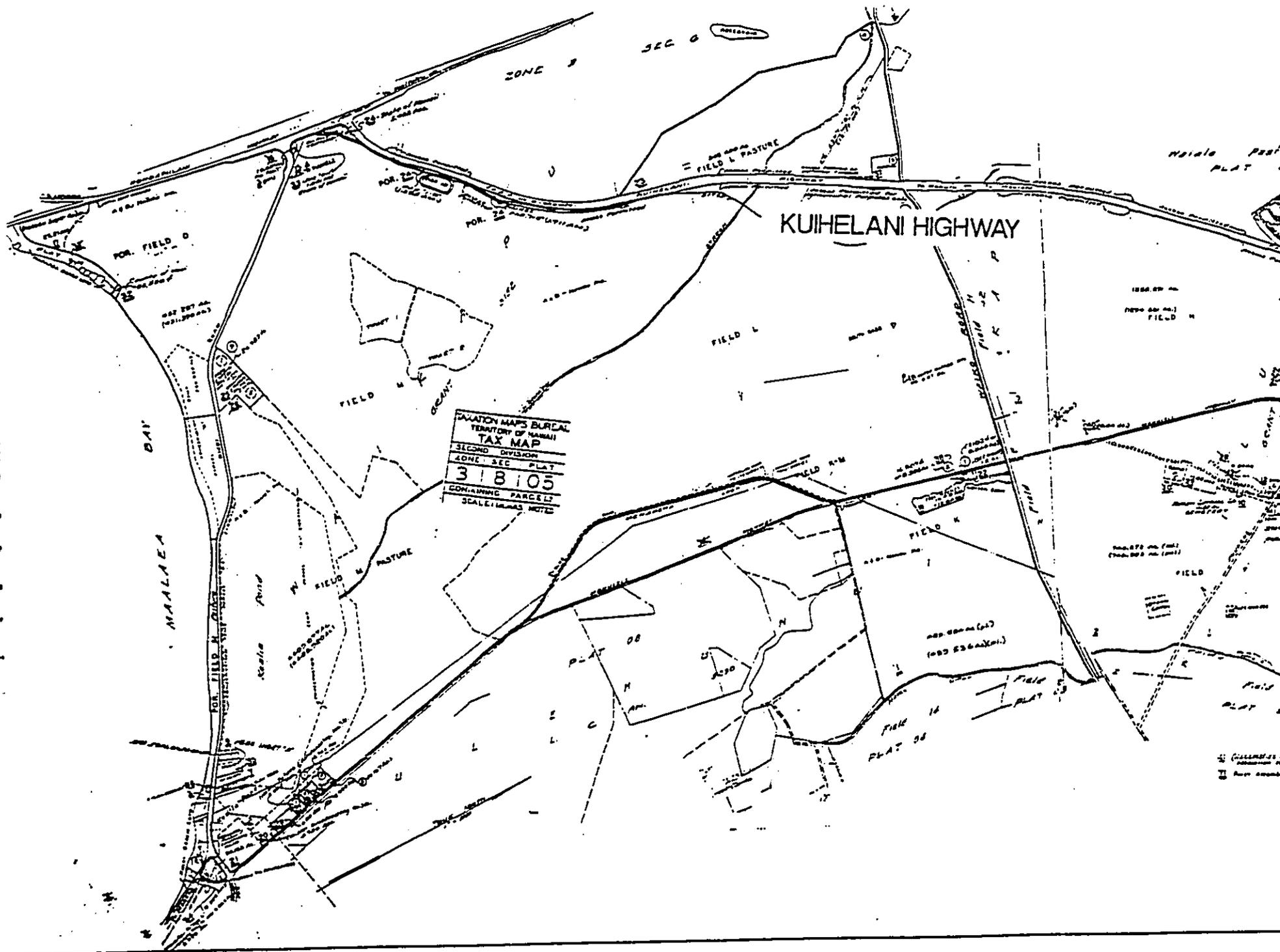


FIGURE 8
STATE LAND USE BOUNDARIES
KUIHELANI HIGHWAY



M&E
Pacific, Inc.

DOCUMENT CAPTURED AS RECEIVED



APPENDIX B
REVIEW COMMENTS & RESPONSES



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

REPLY TO
ATTENTION OF

June 25, 1997

Operations Branch

Mr. Wes Geertsema
M & E Pacific, Inc.
Suite 500, Pauahi Tower
1001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Geertsema:

This is in regards to your June 19, 1997 request for a Department of the Army (DA) jurisdictional determination for the proposed Kuihelani Highway widening project on Maui. The proposed project involves widening approximately 5.5 miles of existing two-lane highway to a four-lane highway from Puunene Avenue to Honoapiilani Highway. The proposed project will be located entirely within an existing right-of-way and will cross various drainage culverts located along the roadway. Additional stream crossings will also be necessary.

Based on the information that you provided, the existing culverts and the proposed stream crossings are located at waters of the U.S. Under Section 404 of the Clean Water Act, the Army Corps of Engineers has regulatory jurisdiction over waters of the U.S., including wetlands. Construction or modification of the stream crossings that results in a discharge of dredged or fill materials to waters of the U.S. will require a DA permit. Since the proposed project will be located within an existing right-of-way, preliminary indications are that there will be no impacts to wetlands. However, this will have to be verified in the field via a site investigation.

Please forward additional information (i.e. complete project description, engineering plans) as soon as it becomes available.

To schedule a site visit and to answer any further questions, contact Mr. Alan Everson of my staff at 438-9258, extension 11. Please refer to File No. 970000226.

Sincerely,

Linda M. Hihara-Endo, Ph.D., P.E.
Acting Chief, Operations Branch

RECEIVED JUN 27 1997



Pacific, Inc.

A Metcalf & Eddy Company

Suite 500, Pauahi Tower
1001 Bishop Street
Honolulu, Hawaii 96813 U.S.A.
1 808 521-3051 FAX 1 808 524-0246
e-mail: robin_matsunaga@air-water.com

February 4, 1998

Dr. Linda M. Hihara-Endo, Acting Chief
Department of the Army
U.S. Army Engineering District, Honolulu
Fort Shafter, Hawaii 96858-5440

ATTENTION: Mr. Alan Everson

SUBJECT: File No. 970000226, Kuihelani Highway Widening, Wailuku, Maui, Hawaii

Dear Dr. Hihara-Endo:

Thank you for your comments of June 25, 1997. The requested additional descriptive information on stream crossings were forwarded to you on January 5, 1998.

In accordance with our meeting of January 8, 1998, we understand that you consider the Waikapu Stream Bridge and the Paleahu Ditch Bridge crossings as under the jurisdiction of the Army Corps of Engineers. We anticipate that the proposed crossings will be of equal or greater span to comply with National Flood Insurance Program guidelines and will be of similar construction to the existing crossings. Therefore, all work would be above the ordinary high water mark and we understand that no Department of the Army permit would be required under these circumstances. Should any unforeseen circumstances arise during final design that would require work below the ordinary high water, we understand that the work could qualify for authorization under your NWP program. However, a final determination would be made upon review of the project plans that reflect work below the ordinary high water mark. If a permit is required, best management practices such as downslope containment shoring and upslope runoff diversion berms will be utilized to control erosion runoff.

The environmental assessment will be revised to incorporate the additional descriptive information on the stream crossings and the preceding conditions regarding the applicability of a Department of Army permit.

Sincerely yours,

Robin M. Matsunaga

xc: Douglas Orimoto DOT-HD-Adv PIn
 Brooks Harper — USFWS-ES



United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS ECOREGION
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: GDH

NOV 26 1997

Frederick Abeshima
Director of Transportation
State of Hawaii, Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

Re: Review of Draft Environmental Assessment for the Kuihelani Highway Widening, Maui, Hawaii

Dear Mr. Abeshima,

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Assessment (EA) for the Kuihelani Highway Widening, Maui, Hawaii. The project sponsor is the Federal Highways Administration and its applicant, the Hawaii State Department of Transportation. This letter has been prepared under the authority and in accordance with provisions of the Fish and Wildlife Coordination Act of 1934 [16 USC 661 *et seq.*; 48 Stat. 401], as amended, the Endangered Species Act of 1973 [16 USC 1531 *et seq.*; 87 Stat. 884], as amended, and other authorities mandating Department of the Interior concern for environmental values. These comments are also consistent with the National Environmental Policy Act of 1969 [42 USC 4321 *et seq.*; 83 Stat. 852], as amended. Given these authorities, the Service offers the following comments for your consideration.

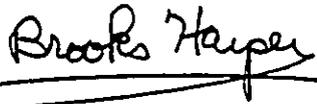
Based on the information provided in the EA Service comments have been addressed as per our letter dated 7/15/97. However, we provide the reminder that there are potential indirect effects to wetland habitat below the construction site, and the Hawaiian coot (*Fulica alai*) and Hawaiian stilt (*Himantopus mexicanus knudseni*) occupy this habitat in nearby Kealia Pond NWR. Therefore, the Service agrees with the Army Corps of Engineers that construction or modification of any stream crossings that result in a discharge of dredged or fill materials to waters of the U.S. will require a DA permit, and the probability of impacts to wetlands will have to be verified by a site investigation by the Army Corps. Section 4.8.1 of the EA could be changed to more accurately reflect this and the mitigation steps that will be taken to ensure that there is no discharge of sediment into U.S. waters that will indirectly effects to wetland habitat and the native endangered fauna.

The Service appreciates the opportunity to provide comments on the proposed project. Please provide us with a copy of the Final Environmental Assessment when completed. If you have any

Review of Draft Environmental Assessment for the Kuihelani Highway Widening, Maui, Hawaii

questions regarding these comments, please contact Fish and Wildlife Biologist Guy Hughes at 808/541-3441.

Sincerely,



Brooks Harper
Field Supervisor
Ecological Services

cc: DOT, Highways Division, Honolulu
M&E Pacific, Inc., Honolulu



Pacific, Inc.

A Metcalf & Eddy Company

Suite 500, Pauahi Tower
1001 Bishop Street
Honolulu, Hawaii 96813 U.S.A.
1 808 521-3051 FAX 1 808 524-0246
e-mail: robin_matsunaga@air-water.com

February 4, 1998

Mr. Brooks Harper
U.S. Fish and Wildlife Service
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3108
P.O. Box 50088
Honolulu, HI 96850

ATTENTION: Mr. Guy-D. Hughes

SUBJECT: Review of Draft Environmental Assessment, Kuihelani Highway Widening, Maui, Hawaii

Dear Mr. Harper,

Thank you for your letter of November 26, 1997. Upon further research on the foundation design of the existing ditch and stream crossings, we believe that new bridge crossings can be constructed above the ordinary high water mark. The Army Corps of Engineers has indicated during preliminary consultations that no Department of the Army permit would be required under the preceding circumstances. Should currently unforeseen circumstances require construction below the ordinary high water mark, such an action may be eligible for the Nationwide Permit program and best practicable management practices will be employed to minimize the potential indirect effects to the downstream Kealia Pond NWR (see attached letter). Section 4.8.1 of the environmental assessment will be modified to incorporate the preceding.

Should you have any questions or further comment, please feel free to contact me at the number listed above.

Sincerely yours,

Robin M. Matsunaga

Attachment: Letter of 4.Feb.98 to Corps of Engrs

xc: Douglas Orimoto DOT-HD-Adv Pin

RECEIVED NOV 23 1997

BENJAMIN J. CAYETANO
GOVERNOR



GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

236 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 588-4186
FACSIMILE (808) 588-4186

November 23, 1997

Mr. Kazu Hayashida, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: Draft Environmental Assessment for Kuihelani Highway
Widening, Maui

Thank you for the opportunity review the subject document. We have the following questions and comments.

1. New and replacement bridge and culvert crossings will be constructed across various streams. Please describe in detail the impacts of the project on the affected streams. The discussion should include impacts to drainage, stream flow, water quality, and aquatic biology.
2. The Nature Conservancy's Hawaii Natural Heritage program shows two records of threatened and endangered fauna species near the proposed highway. Please list the species and indicate how the project would impact the species.
3. The project plans to build a 6-foot high concrete noise barrier wall at the north end of the alignment. Concrete walls along this section of the roadway will degrade the visual quality of the area. Please illustrate the visual impacts of the proposed walls from the roadway and other public places. Photos of existing conditions taken from the public viewpoints are helpful in evaluating visual impacts. Renderings of future structures superimposed on photos of existing views should be provided.
4. Please discuss the findings and reasons for supporting the FONSI determination based on all 13 significant criteria listed in §11-200-12 of the EIS rules.

Mr. Hayashida
Page 2

Should you have any questions, please call Jeyan Thirugnanam at
586-4185. Mahalo.

Sincerely,



Gary Gill
Director

c: ✓ M & E Pacific



Pacific, Inc.

A Metcalf & Eddy Company

Suite 500, Pauahi Tower
1001 Bishop Street
Honolulu, Hawaii 96813 U.S.A.
1 808 521-3051 FAX 1 808 524-0246
e-mail: robin_matsunaga@air-water.com

February 4, 1998

Mr. Gary Gill, Director
State of Hawaii
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

SUBJECT: Draft Environmental Assessment for Kuihelani Highway Widening, Wailuku, Maui

Dear Mr. Gill:

Thank you for your comments of November 23, 1997. Our responses to your questions are presented as follows:

1. There are four drainage way crossings within the extent of the project:
 - **Paleaahu Ditch:** This is a private irrigation ditch that conveys water from the upper reservoir on the southwest side of the highway to the lower reservoir to the northeast. The lower reservoir drains to Paleaahu Stream via an overflow weir only during periods of high precipitation, thus the ditch is not subject to the ebb and flow of the tides. Paleaahu Stream drains into the Kealia Pond, a National Wildlife Refuge wetland habitat.
 - **Box culvert (unnamed):** This box culvert was built in anticipation that future upslope urbanization would generate surface runoff. The upslope areas remain undeveloped and this drainage way remains perennially dry.
 - **Waikapu Stream.** This is an intermittent stream that discharges into the Kealia Pond. Immediately upstream and downstream of the existing bridge crossing has been widened into a trapezoidal channel.
 - **Waihee Ditch.** This is another private irrigation ditch that conveys flow to an irrigation reservoir and is not subject to the ebb and flow of the tide.

Based on the foundation design of the existing ditch and stream crossings, the proposed crossings will be of equal or greater span to comply with National Flood Insurance Program guidelines and will be of similar construction to the existing crossings. Therefore, all work is expected to be above the ordinary high water mark. The employment of best practicable management practices such as downslope containment structures below the area of construction the upper bank walls and upslope diversion berms should minimize the potential for any release of erosion runoff that could increase of the existing natural drainage way sediment load. Should currently unforeseen conditions during final design require some disturbance of the stream bed, mitigative measures such as diverting flow around the area of work during low flow periods could also minimize the potential for adverse water quality impacts. The mitigation measures employed in either scenario should not result in any direct impacts to water quality or aquatic biota in the waterways. The Army Corps of Engineers considers the Waikapu Stream Bridge and the Paleaahu Ditch Bridge crossings as under their jurisdiction. No Department of the Army permit would be required, however, for work that is limited to above the high water mark. Sections 4.7 and 4.7.1 of the environmental assessment will be modified to incorporate the preceding.

2. The U.S. Fish and Wildlife Service and the Nature Conservancy has stated that the Hawaiian coot (*Fulica alai*) and Hawaiian stilt (*Himantopus mexicanus knudseni*) inhabit the Kealia Pond National Wildlife Refuge, approximately 1 mile from the existing highway at the closest point. The same two species were recorded at the Waiale Reservoir adjacent to the Maui Community Correctional Center, approximately 1 mile upland from existing highway. As stated in the prior response, the proposed work is expected to be above the ordinary high water mark and will utilize best practicable management practices to minimize the potential release of erosion

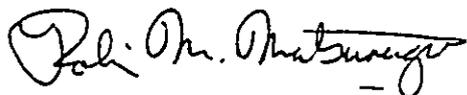
Letter of February 4 1998 to
Mr. Gary Gill 2

runoff into the waterway. Therefore, potential adverse water quality and biotic impacts should be correspondingly minimized. Section 4.8.1 of the environmental assessment will be modified to incorporate the preceding.

3. The assumption that the proposed noise barrier will degrade the visual quality of the area is presumptive. The existing appearance of perimeter to be protected consists a 5-foot high chain link fence that has been supplemented by almost every individual property occupant along the roadway with additional screening. The screening material consists of partially rusted corrugated sheet metal, vertically and horizontally-oriented, and concrete masonry unit walls of different patterns and different heights. The existing appearance is inconsistent and unaesthetic. The final design of the wall, including design relief, texture, color, and landscape planting, will be developed in consultation with residents of the neighborhood. Photos of the existing condition will be included. Since the final design will not yet be developed, a rendering of the three dimensional form would be only conjecture. Elevation view photos with a superimposed line indicating the height of the wall will be included instead. A perspective photo of a slightly higher vine covered sound barrier wall for a subdivision approximately 5 miles away in Paia, Maui has also been added as an example of one type of wall that could be implemented.

4. Section 6 will be revised to discuss the findings and reasons for a FONSI determination in accordance with all 13 significance criteria listed in §11-200-12 of State Administrative Rules.

Sincerely yours,



Robin M. Matsunaga

xc: Douglas Orimoto DOT-HD-Adv Pln



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P O BOX 621
HONOLULU, HAWAII 96809

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

November 21, 1997

Ref.: ADOTMAUI.RCM

LD-NAV

Mr. Kenneth Au
M & E Pacific, Inc.
1001 Bishop Street
Pauahi Tower, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Au:

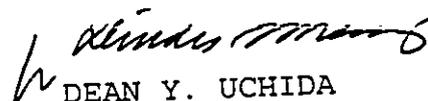
SUBJECT: Review : Draft Environmental Assessment
Applicant: State of Hawaii, Department of Transportation
Project : Kuiuani Highway Widening
Location : Wailuku, Island of Maui, Hawaii

Thank you for the opportunity to review and comment on the subject Draft Environmental Assessment.

Our Land Division Engineering Branch confirms that the proposed project site by Waikapu Stream is located in Zone A. This is in an area located within the 100-year flood plain, with base flood elevations and flood hazard factors not determined. The remainder of the project site is located in Zone C, an area of minimal flooding. Non-compliance with Federal Executive Order 11988 will jeopardize the County's participation in the National Flood Insurance Program.

The Department of Land and Natural Resources has no other comments to offer on the subject matter at this time. Should you have any questions, please feel free to contact Nicholas Vaccaro of the Land Division's Support Services Branch at 587-0438.

Very truly yours,


DEAN Y. UCHIDA
Administrator

c: Maui Land Board Member
At Large Land Board Member
Maui District Land Office
Department of Transportation
Highways Division



Pacific, Inc.
A Metcalf & Eddy Company

Suite 500, Pauahi Tower
1001 Bishop Street
Honolulu, Hawaii 96813 U.S.A.
1 808 521-3051 FAX 1 808 524-0246
e-mail: robin_matsunaga@air-water.com

February 4, 1998

Mr. Dean Y. Uchida, Administrator
State of Hawaii
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, HI 96809

ATTENTION: Mr. Nicholas Vaccaro
REFERENCE: ADOTMAUI.RCM
SUBJECT: Draft Environmental Assessment, Kuihelani Highway Widening, Wailuku, Maui, Hawaii

Dear Mr. Uchida:

Thank you for your letter of November 21, 1997. The environmental assessment will be modified to clarify the ramifications and means of compliance with Executive Order 11988.

The NFIP requires that all horizontal load carrying members be above the 100 year flood level. The Waikapu Stream area is classified as Zone A, within the flood plain but of unknown flood elevation. Therefore, a flood proofing study must be conducted prior to the design of the new structure. Both the new and existing structure must be designed for compliance with NFIP requirements.

Sincerely yours,

Robin M. Matsunaga

xc: Douglas Orimoto DOT-HD-Adv Pln

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A&B-HAWAII, INC
HONOLULU, HI
G. STEPHEN HOLADAY
SR. VICE PRESIDENT

HAWAIIAN COMMERCIAL & SUGAR CO
G. STEPHEN HOLADAY
PLANTATION GENERAL MANAGER
TELEPHONE: (808) 877-0081

HAWAIIAN COMMERCIAL & SUGAR COMPANY

P.O. BOX 266, PUUNENE, MAUI, HAWAII 96784

November 24, 1997

Mr. Kenneth Au
State of Hawaii, Department of Transportation,
Highways Division
600 Kapiolani Boulevard, Room 304
Honolulu, Hawaii 96813

RE: Draft Environmental Assessment for Kuihelani Highway Widening Project

Dear Mr. Au:

Thank you for providing the Draft Environmental Assessment (DEA) on the proposed widening of Kuihelani highway from two lanes to a four lane divided highway from Honoapiilani Highway to Puunene Avenue for our review and comment.

HC&S is concerned that there is little mention of the agricultural resources that border Kuihelani Highway. We believe that the DEA should include a section that highlights and addresses the impacts to these resources, such as sugar cane, pineapple, nursery, sod farm and pasture lands. Mitigation of these impacts should be identified and provided for in the DEA.

HC&S is extremely concerned that the DEA fails to identify the impacts the proposed highway project will have on its operations—negative impacts that will increase HC&S' operating costs and decrease its efficiencies. HC&S has approximately 1,600 acres of cane land under cultivation across Kuihelani Highway and the widening will impede our trucks and equipment's ability to cross the highway. The highway design should include traffic lights at the main HC&S cane hauler road intersection. In addition to the cane hauler road crossing, the other existing access points and highway crossing areas need to be included in the new design.

We are also concerned over the following specific sections:

Section 4.5 HYDROLOGY: This section fails to identify that the highway also intersects with the Waihee Ditch and existing irrigation pipelines that presently cross the existing highway. The Waihee Ditch is a necessary irrigation source

for the plantation and therefore, it is necessary for the ditch flow to remain uninterrupted. We would recommend that a bridge be constructed over the ditch to ensure the flow in the ditch and that close coordination between DOT and HC&S be maintained while work is being performed.

Section 4.7.1 WATER QUALITY: Impacts and Mitigation: Drainage plans which direct runoff into roadside ditches/swales should be reviewed with HC&S to ensure that the design minimizes runoff into HC&S irrigation ditches.

Section 4.8.1 FLORA AND FAUNA RESOURCES: Abandoned Cane Fields: This section inaccurately states: "The entire area from Puunene Intersection to Honoapiilani Highway is characterized by abandoned sugarcane (*Saccharum officinarum* L.) fields," It should correctly read: Only one field near Puunene Avenue is abandoned, other fields along the highway are currently in sugarcane production.

Section 4.9 AIR QUALITY: It should be noted that Air Quality monitoring data for Maui shows no significant impact from agricultural activities. Therefore, please revise the last sentence in this section to read: "Air Quality monitoring data for Maui indicates that background ambient air pollution is very low."

We must emphasize that the widening of Kuihelani Highway will cause significant impacts to HC&S and, this will require adequate mitigative measures to ensure minimal disruption to HC&S' operations. HC&S' ability to move equipment and irrigate their crop must be preserved. We trust that these impacts and mitigation measures will be addressed in the Environmental Assessment. If you need further clarification of our concerns or recommendations, please feel free to call Randall Moore at HC&S, phone. 808-877-6968.

We continue to welcome discussion with you and/or with your consultants on this highway project.

Sincerely,

ORIGINAL SIGNED BY G.S. HOLADAY

G. Stephen Holaday

Cc: M.J. Ching
OEQC
M&E Pacific, Inc.



Pacific, Inc.
A Metcalf & Eddy Company

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February 4, 1998

Mr. G. Stephen Holaday
Hawaiian Commercial & Sugar Company
P.O. Box 266
Puunene, HI 96784

SUBJECT: Draft Environmental Assessment for Kuihelani Highway Widening, Wailuku, Maui

Dear Mr. Holaday,

Thank you for your review of the draft EA. Our responses are as follows:

1. A general description of adjacent land areas will be added to Section 2.2. An additional section in Chapter 4 describing agricultural uses will be added.

2. We understand your concern regarding additional traffic impacts on your operations. The widened throughfare will take more time to cross, thus will be more difficult. Warning signs will be added. Sight distance and stopping distance analyses will be conducted during design to determine whether other measures such as speed limit adjustments and speed reduction devices are necessary to assure traffic safety. The Department of Transportation regularly monitors traffic volume on its major roadways. Traffic volume does not currently warrant the addition of traffic signals (Section 4C-2 of the Manual of Uniform Traffic Control Devices) operations. Traffic lights will also be added when warranted by traffic volume. These mitigation measures will be added in the additional section in Chapter 4 on agriculture.

3 & 4. Sections 4.7 will be revised to describe all waterway crossings. The crossings will be similar to the existing and all work is expected to be done above the ordinary water level. Best practicable management practices will be utilized to prevent any erosion runoff from entering any waterway. Therefore, the proposed project is not expected to have any major impact to flow or water quality. Existing drainage patterns will be maintained. Existing irrigation pipes will be protected. Section 4.7.1 will be revised to reflect the preceding.

5. The erroneous statement in Section 4.8.1 will be corrected to reflect that the sugarcane fields are in active production, as correctly stated in Section 2.3.

6. Section 4.9 will be corrected to reflect that ambient air quality is not influenced by agricultural activities.

We thank you for your input. We expect that the addition of this additional information will improve the environmental assessment and improve mitigation of any potential adverse impacts.

Sincerely yours,

Robin M. Matsunaga

xc: Douglas Orimoto DOT-HD-Adv Pln

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