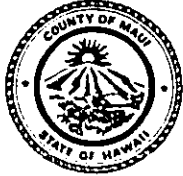


JAMES "KIMO" APANA
Mayor

JOHN E. MIN
Director

CLAYTON I. YOSHIDA
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

March 27, 2001

'01 MAR 30 A8:55

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control (OEQC)
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813-2437

Dear Ms. Salmonson:

RE: Final Environmental Assessment (EA) for the Wailea Beach Villas
Project at 3750 Wailea Alanui Drive, TMK: 2-1-008:091, Wailea,
Maui, Hawaii (EA 2001/0001)

The Maui Planning Department (Department), as the accepting authority, is transmitting for publication in the upcoming OEQC Bulletin the Final Environmental Assessment for the Wailea Beach Villas Project located at 3750 Wailea Alanui Drive in Wailea, Maui. The applicant for the project is Mr. Mark S. Whiting of Lokahi Ventures LLC. The applicant's contact person is Mr. Rory Frampton of Chris Hart & Partners.

A description of the proposed action is attached to the OEQC Bulletin Publication Form and will also be sent by the applicant by electronic mail (e-mail) to OEQC in a WordPerfect format. In addition, four (4) copies of the Draft Environmental Assessment Report has been transmitted by the applicant (prepared by the applicant).

Thank you for your cooperation. If additional clarification is required, please contact Ms. Ann Cua, Staff Planner, of this office at 270-7735.

Very truly yours,

A handwritten signature in black ink, appearing to read "John E. Min".

JOHN E. MIN
Planning Director

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634

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41

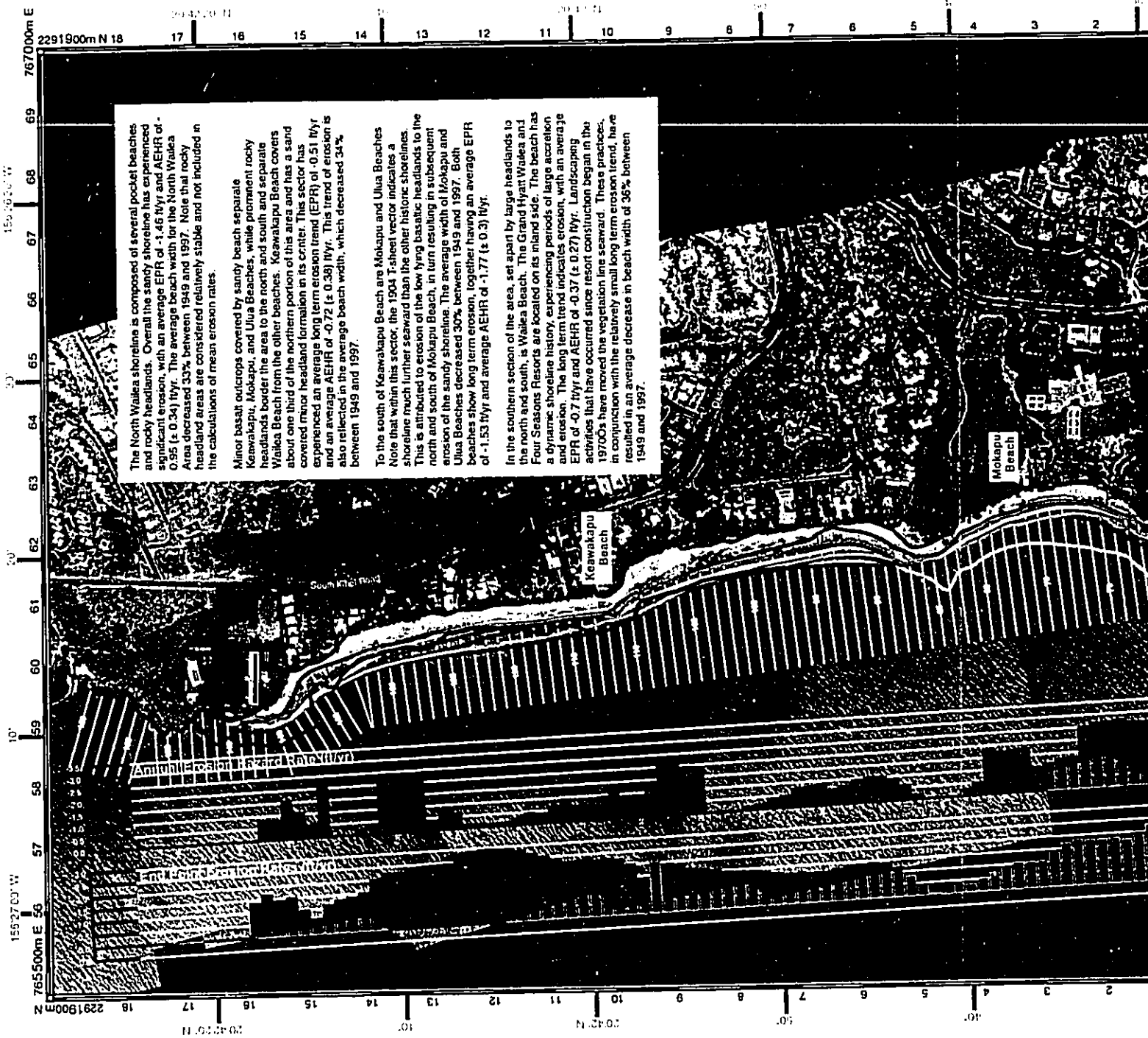
Ms. Genevieve Salmonson, Director
March 27, 2001
Page 2

JEM:ATC:sle
Enclosures

cc: Clayton Yoshida, AICP, Deputy Director of Planning
Rory Frampton, Chris Hart & Partners
Ann Cua, Staff Planner
Project File (w/Enclosures)
General File
(s:\all\ann\waileabeachvillas.fea)

42

North Wailea, Maui, Hawaii



HISTORICAL SHORELINES

- 1904
- 1912
- Nov 1949
- Oct 1960
- Aug 1963
- Mar 1975
- Aug 1987
- Mar 1988
- Nov 1992
- May 1997
- Projected 30-year erosion hazard line
- Erosion rate measurement locations (from normal transects)

Historical beach positions, color coded by year, are determined using rectified and georeferenced aerial photographs and National Oceanic Survey (NOS) topographic survey charts. The crest of the beach line is used as the historical shoreline, or shoreline change reference feature (SCR). The beach line, also called the beach step, is a geomorphic feature typically present on Hawaiian beaches. The crest of the beach line approximately marks the position of mean low water which there is coastal erosion or rocky shoreline seaward of any vegetation, the vegetation line is drawn along the seaward side of the rock or armoring. If there is no sandy beach in these areas, both the vegetation line and the SCR are delineated along the mean high water line.

Movement of the beach line or SCR is used to calculate erosion rates. A 20 m wide normal transect is drawn perpendicular to the historical shoreline. The projected 30-year erosion hazard line is delineated by multiplying the Annual Erosion Hazard Rate by 30 years. It is projected inland from the position of the vegetation line, as seen on the 1997 aerial photograph.

EROSION RATES

- Annual Erosion Hazard Rates
- End point long-term erosion rates

Historical erosion rates are measured every 20 m along the shoreline. These sites are denoted by yellow shore normal transects. Two types of erosion rate calculations: the Annual Erosion Hazard Rate (red), generally based on the most recent trend in shoreline position; and the endpoint erosion rate (1960-1997, purple). These rates are shown in the shore-parallel graphs. Colored bars on the graphs correspond to shore-normal transects; approximately every fifth transect and bar is numbered. Where necessary, some transects have been purposely deleted during data processing; as a result, the transect numbering is not consecutive everywhere. Where complete beach loss has occurred, erosion rate calculations apply only to the time period when the beach existed.

The North Wailea shoreline is composed of several pocket beaches and rocky headlands. Overall the sandy shoreline has experienced significant erosion, with an average EPR of -1.46 ft/yr and AEHR of -0.95 (± 0.34) ft/yr. The average beach width for the North Wailea Area decreased 33% between 1949 and 1997. Note that rocky headland areas are considered relatively stable and not included in the calculations of mean erosion rates.

Minor basalt outcrops covered by sandy beach separate Keawakapu, Mokapu, and Ulua Beaches, while prominent rocky headlands border the area to the north and south and separate Wailea Beach from the other beaches. Keawakapu Beach covers about one third of the northern portion of this area and has a sand covered minor headland formation in its center. This sector has experienced an average long term erosion trend (EPR) of -0.51 ft/yr and an average AEHR of -0.72 (± 0.38) ft/yr. This trend of erosion is also reflected in the average beach width, which decreased 34% between 1949 and 1997.

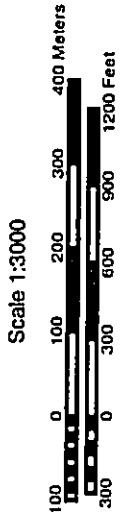
To the south of Keawakapu Beach are Mokapu and Ulua Beaches. Note that within this sector, the 1904 T-sheet vector indicates a shoreline much further seaward than the other historic shorelines. This is attributed to erosion of the low lying basaltic headlands to the north and south of Mokapu Beach, in turn resulting in subsequent erosion of the sandy shoreline. The average width of Mokapu and Ulua Beaches decreased 30% between 1949 and 1997. Both beaches show long term erosion, together having an average EPR of -1.53 ft/yr and average AEHR of -1.77 (± 0.3) ft/yr.

In the southern section of the area, set apart by large headlands to the north and south, is Wailea Beach. The Grand Hyatt Wailea and Four Seasons Resorts are located on its inland side. The beach has a dynamic shoreline history, experiencing periods of large accretion and erosion. The long term trend indicates erosion, with an average EPR of -0.7 ft/yr and AEHR of -0.37 (± 0.27) ft/yr. Landscaping activities that have occurred since resort construction began in the 1970s have moved the vegetation line seaward. These practices, in conjunction with the relatively small long term erosion trend, have resulted in an average decrease in beach width of 36% between 1949 and 1997.

Scale 1:3000

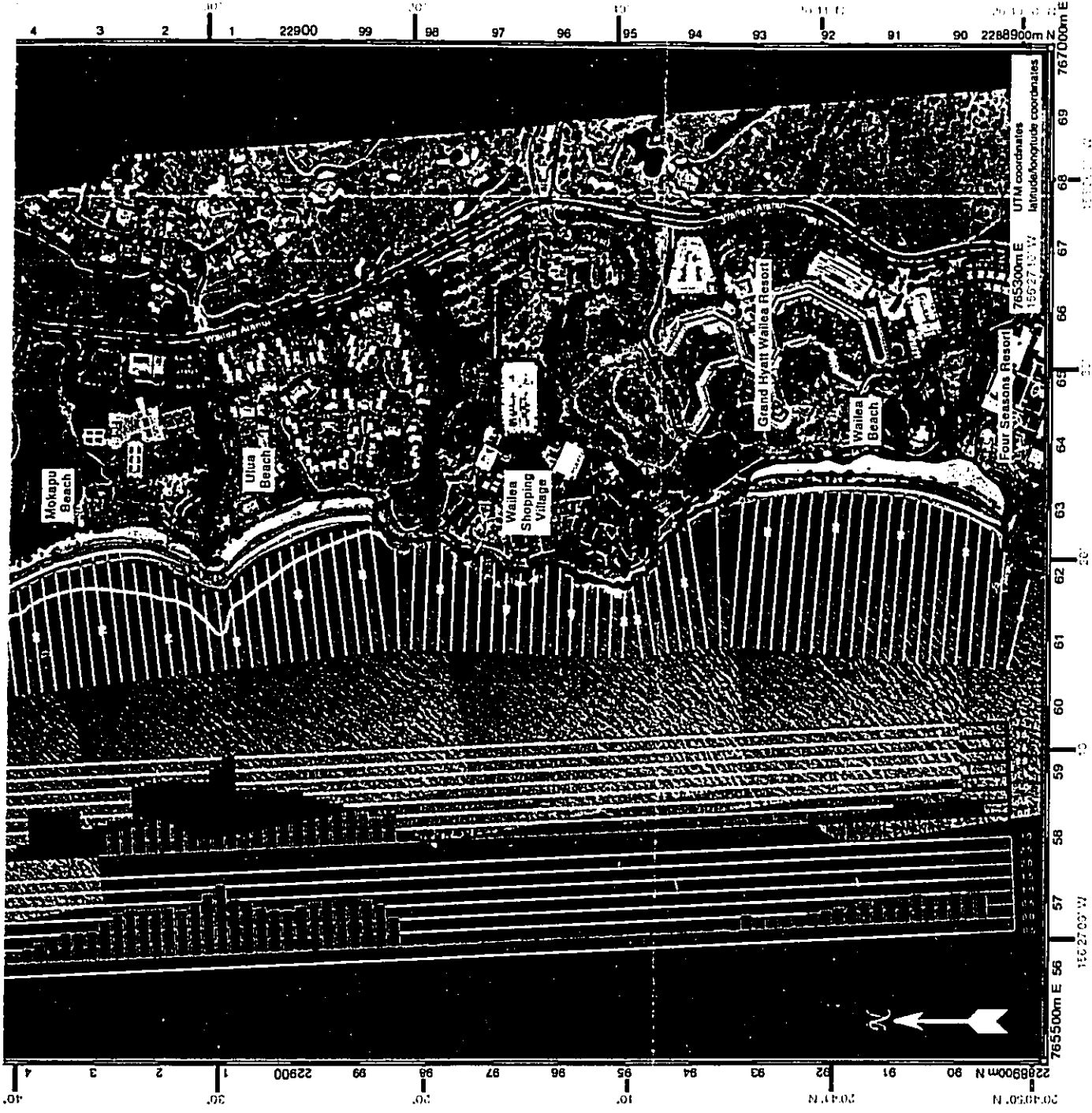
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apply only to the time period when the beach existed.

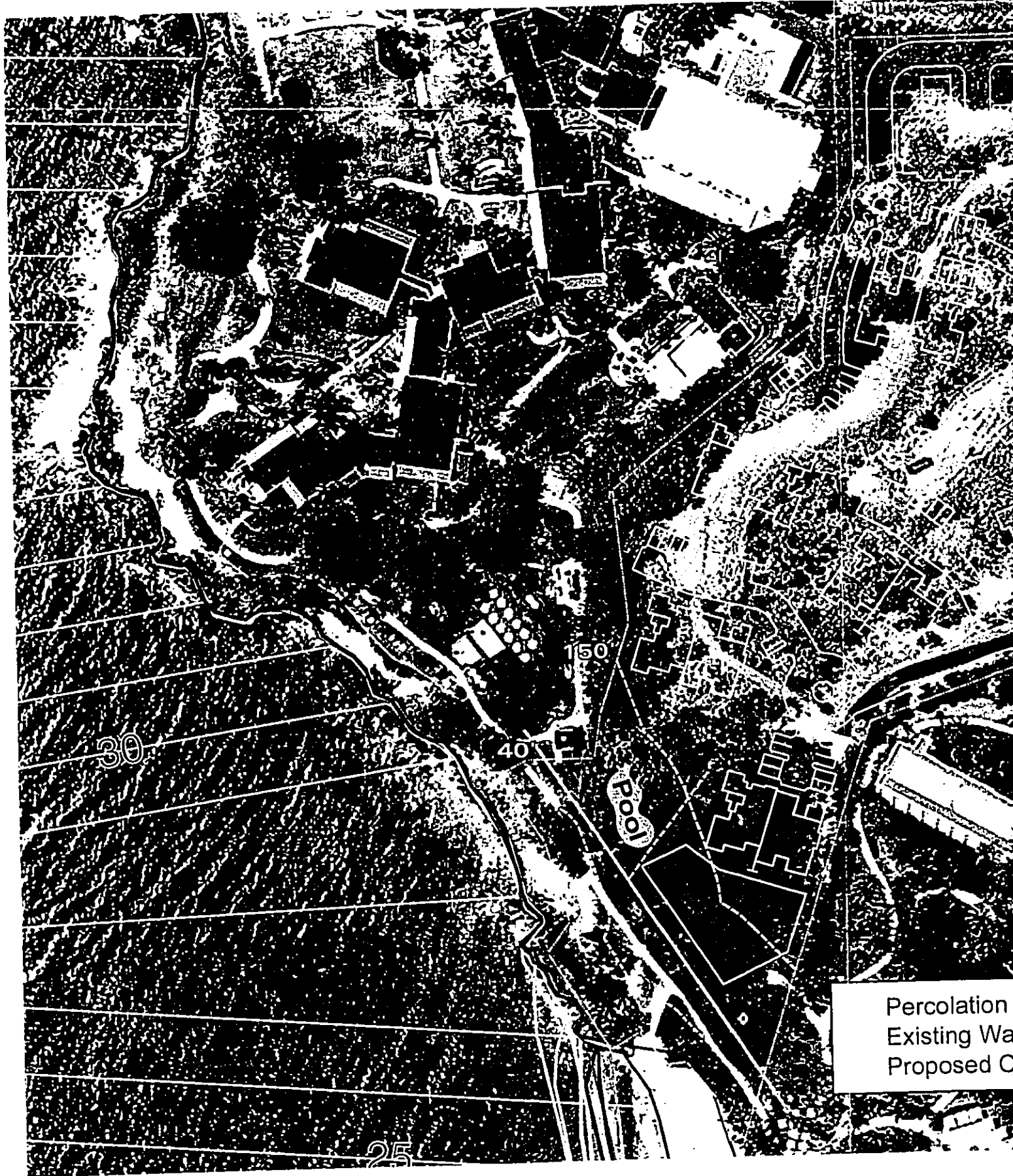


**Charles Fletcher, John Rooney,
Ole Kaven, and Matthew Barbee**
Department of Geology and Geophysics
School of Ocean and Earth Science and Technology
University of Hawaii at Manoa
1680 East - West Road
Honolulu, Hawaii 96822

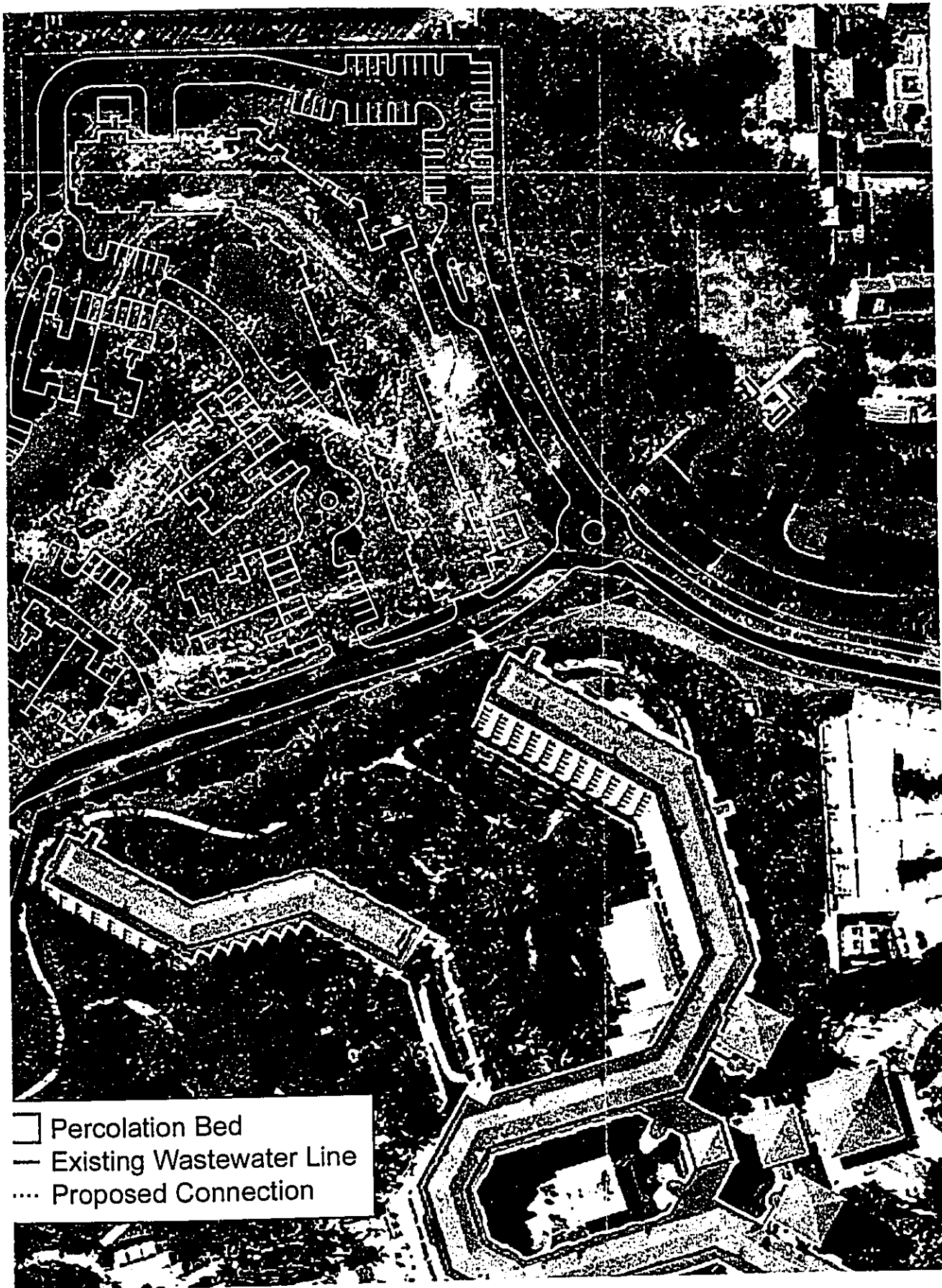
fletcher@soest.hawaii.edu • jrooney@soest.hawaii.edu
www.soest.hawaii.edu/coast/



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Percolation
Existing Wa
Proposed C



- Percolation Bed
- Existing Wastewater Line
- Proposed Connection



Wailea Beach Villas - Environmental Assessment
PROJECT OVERLAY: UH COASTAL EROSION STUDY

Appendix I
Visual Corridor Study

Wailea Beach Villas
Visual Corridor Analysis
3/22/01

A view corridor inventory and analysis was conducted to identify relevant view corridors in the project area and to analyze the impact the project may generate.

The inventory classified following types of views:

- ◆ *Extraordinary Views.* High-quality views that are generally recognized and documented within the Maui Coastal Scenic Resources Study prepared for the Maui Planning Department.
- ◆ *Views from Public Roadways.* Views from Wailea Alanui Drive and Wailea Ike Drive were identified and analyzed. Simulations of the anticipated impacts are provided.
- ◆ *Private Views.* The view from a nearby property was documented (The Shops at Wailea), as it played a role in the design of the subject development.

Extraordinary Views

Quality coastal views generally include unobstructed and panoramic visual access to the area's natural resources. The Maui Coastal Scenic Resources Study identifies such components as open spaces, mauka views, areas of scenic beauty, coastal views, and coastal land forms. Three extraordinary views consistent with those identified in the Study were documented. They include the following:

Wailea Ocean View from the Piilani Highway/Wailea Ike Drive Intersection

The relatively high elevation and open space makai of Piilani Highway give it a panoramic view over Wailea. Visible coastal landforms include Kahoolawe, Molokini, Lanai, and the West Maui Mountains. An almost uninterrupted view of the ocean is present between the West Maui Mountains and Kahoolawe. Photographs were taken from the scenic lookout near the intersection of Piilani Highway and Wailea Ike Drive. The project site is generally makai of the point of view. Neither the project site nor adjacent developments are visible due to the topography and vegetation downslope. No impacts are expected to this view.

Wailea Upcountry View from Wailea Alanui Drive

Upslope views along Wailea Alanui Drive include scenic mauka views of Ulupalakua and open space views along the golf courses abutting the highway. A photograph of an upcountry view along Wailea Alanui Drive just south of its intersection with Wailea Ike Drive is included. Since the project is makai of the Wailea Alanui Drive, no impacts will occur to mauka views from the roadway.

Makena Coastal View from Makena Alanui Drive

Just outside the Wailea Resort, a .4 mile stretch of Makena Alanui Road provides a panoramic view of the Makena Coastline, and an undisturbed view of Pu'u Olai for the duration of the drive. Visible coastal landforms include the Pu'u, shoreline views of Makena, Kahoolawe, Molokini, Lanai, shoreline views of Maalaea, and the West Maui Mountains.

Views from Public Roadways

Public Roadways in the vicinity of the Project include Wailea Alanui Drive, a public roadway that runs parallel to the coast, and Wailea Ike Drive, which intersects Wailea Alanui Drive and runs uphill where it joins with Piilani Highway.

Views from Wailea Ike Drive

Wailea Ike Drive is a half-mile roadway that extends between Piilani Highway and Wailea Alanui Drive. Views along the top third of the roadway are generally unobstructed by vegetation and thus have a panoramic view over the developed sections of the Wailea Resort. From approximately midway down Wailea Ike Drive, mature vegetation, including large-canopy trees such as Monkeypod, along with development, intermittently obscure views towards the coast. The last section of the roadway, from its intersection with Wailea Ike Place is oriented with the main building of the Shops at Wailea, which becomes the primary impact to coastal views as one approaches Wailea Alanui Drive. The proposed project is directly behind the Shops and slightly lower (129 vs. 131 elevation of the roofline), thus the upper section of the proposed Penthouse will be visible between the roof of the Shops and the horizon at elevations greater than 131 feet. The canopies of the Monkeypod trees along both roadways considerably obstruct views along this section of roadway. Views across the golf course to the north will not be obstructed. A view taken from the intersection of Wailea Ike Drive and Wailea Ike Place is included in the photographic section of the Analysis. At elevations below 131 feet, the Shops at Wailea structure will obscure views of the project.

Views from Wailea Alanui

Wailea Alanui Drive runs north-south mauka of the project site, and is the closest public corridor mauka of the project. The recently redeveloped Shops at Wailea is located between the roadway and the project site, and thus has greatly affected the availability of coastal views from the roadway. The Shops includes a two-story building that has a frontage of approximately 340 feet along Wailea Alanui. As depicted in the photographs, the Shops' main building completely blocks all coastal views. Parking lots on either side of the main building currently provide view corridors to the subject property and coast.

The northern corridor has a frontage of approximately 600 feet and is roughly the same distance to the subject property. A small corridor exists between the Shops' main building and the vegetation and structures that are part of the Outrigger Resort to the north. Intermittent views of the ocean, Kahoolawe, and Lanai currently exist, however, they will decrease significantly upon the maturation of

the vegetation within the north parking lot. The lot is currently planted with bare and immature Monekeypod, plumeria, and shower trees. A comparison between the young and mature trees is provided in the photographic analysis. Due to the limited resources visible in the corridor, the perpendicular angle of view, and the brevity of the corridor, and the current and potential obstruction, the current view can be relatively considered low quality. The construction of the projects proposed penthouse building will block some of the coastal views that are not or will not be blocked by vegetation. Simulations of project's penthouse building are shown from two locations in the north parking lot (with existing vegetation maturity).

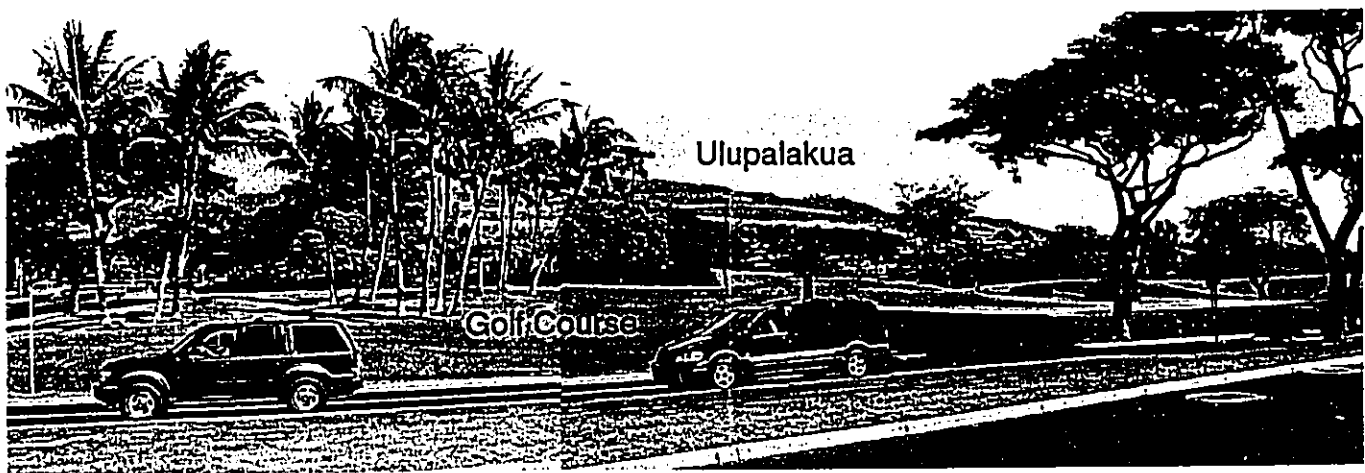
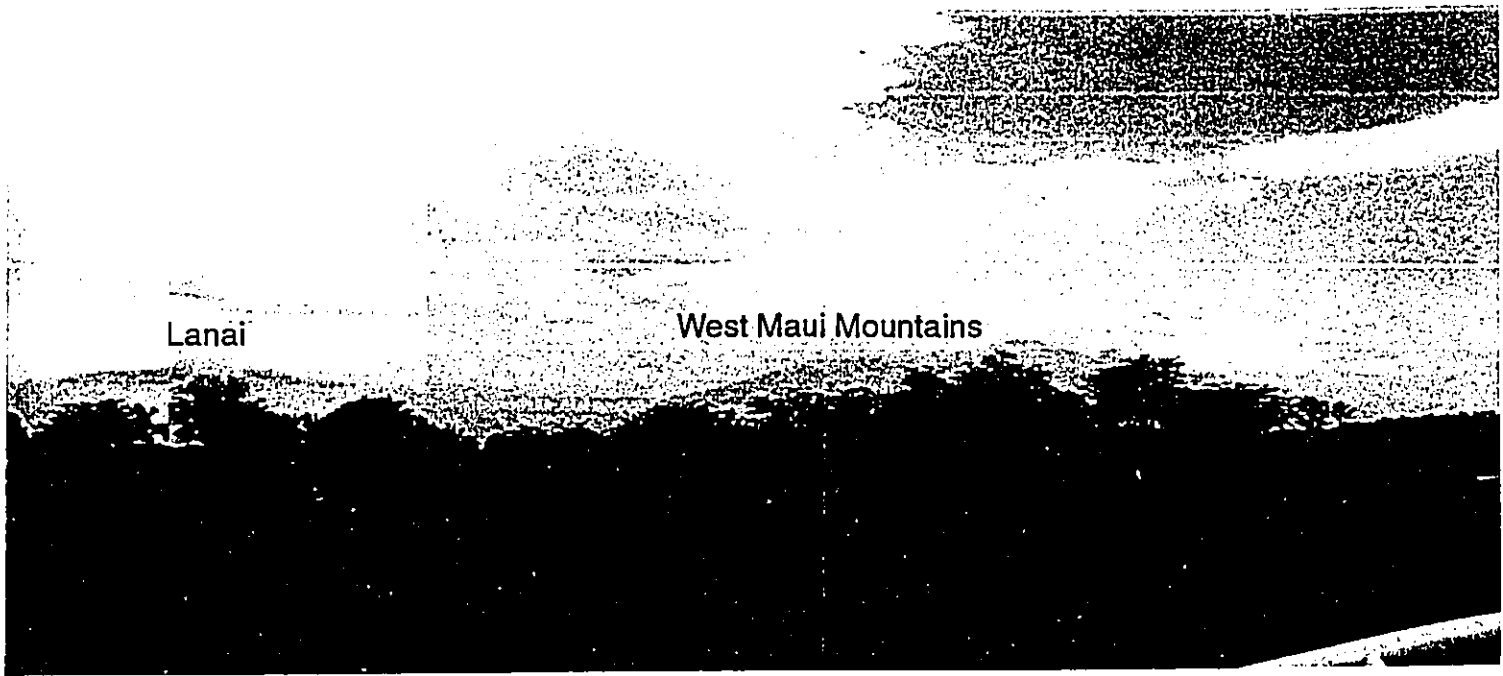
The southern parking lot has approximately 400 feet of frontage and is 400-500 feet to the subject property. The southern view corridor has intermittent views of the ocean and Lanai. It is currently less obstructed than the northern view corridor, but can be considered of a relatively low quality for the same reasons. Views in the corridor will significantly diminish as the shade and canopy trees mature and block coastal views. The corridor is framed by the two-story building (Shops) and a 7-story wing of the Grand Wailea Resort to the South. Simulated impacts to the southern corridor due to the project are depicted in the photographic analysis. As with the north corridor, the proposed development will block a portion of the coastal views that are not blocked or will not be blocked upon the maturation of shade trees in the parking lot.

Private Views.

The subject parcel is located directly seaward of the commercial shopping center known as the Shops at Wailea. Being relatively similar in elevation, development on site will naturally obstruct views from the mauka neighbor. While private views are generally not protected by SMA regulations, the applicants have adjusted the physical design of the project in order to mitigate a complete loss of ocean views from the Shops.

View from The Shops At Wailea

The view from the Shops at Wailea is a mostly unobstructed ocean view with views of Kahoolawe and Molokini. Preliminary site and structure designs incorporated a gap in the penthouse structure coincident with the courtyard of the Shops at Wailea. Over a 5-month design process, the applicants have worked with the Wailea Community Association's Design Review Committee to incorporate additional features that offer the Shops ocean views through the development. Design adjustments aimed at mitigating the loss of view include widening the building gap from 30 to 85 feet, increasing the distance between the nearby elevator towers, and lowering the lobby a whole floor so it is below the horizon line as seen from the second floor of the Shops' courtyard. These design changes will offer a partial view through the building towards the ocean and Kahoolawe. Other visual measures include increasing the architectural detail and articulation to the mauka side of the building, and providing considerable landscaping to de-emphasize the mass of the structure. A simulation of the affected view corridor is provided.



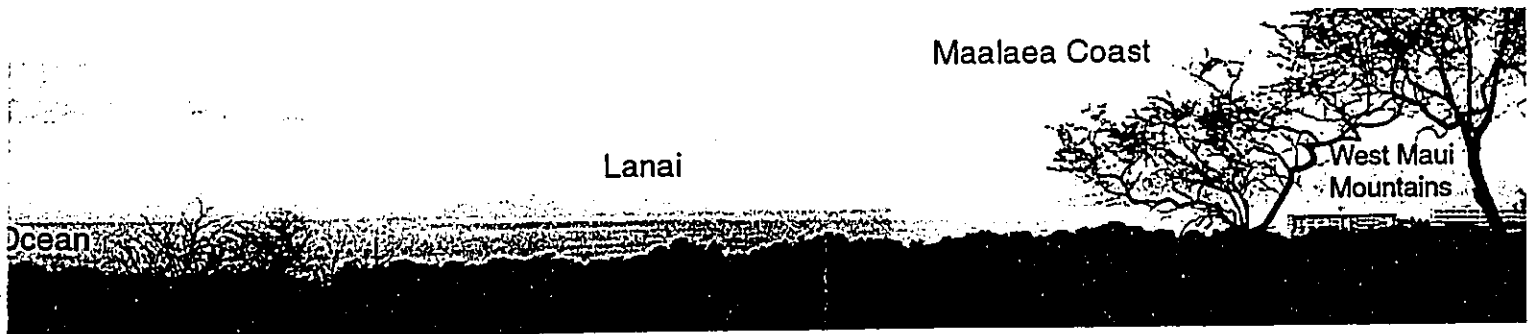
Extraordinary Views

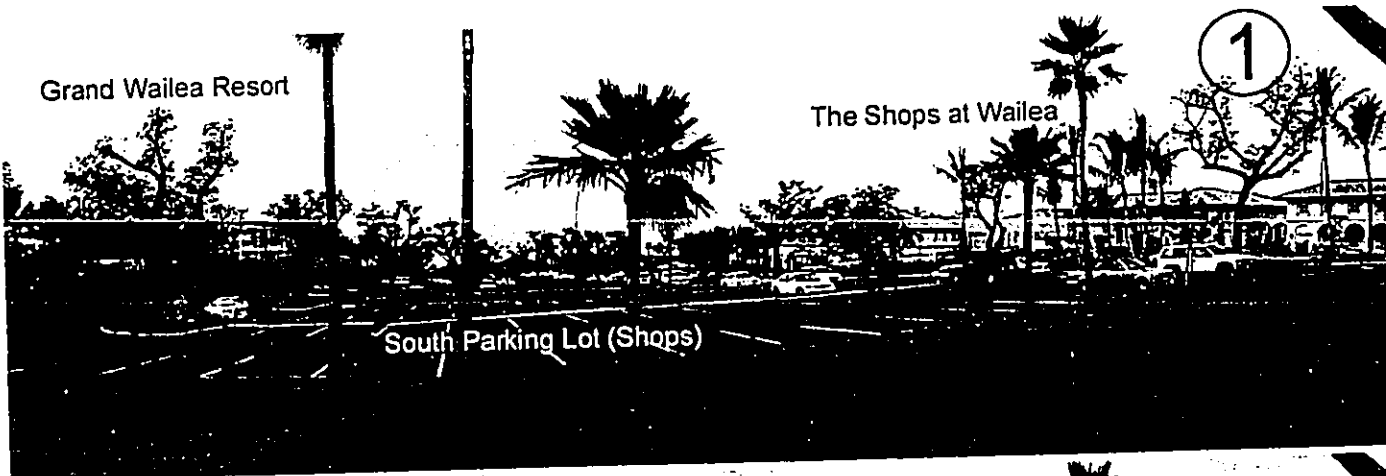
Quality coastal views generally include unobstructed and panoramic visual access to the area's natural resources. The Maui Coastal Scenic Resources Study identifies such components as open spaces, mauka views, areas of scenic beauty, coastal views, and coastal land forms. Three extraordinary views consistent with views identified in the Study (left) are included here.

Above Top: view from the top of Wailea Ike Drive

Above: Mauka view from Wailea Alanui Drive

Below: Ocean View from Makena Alanui Drive





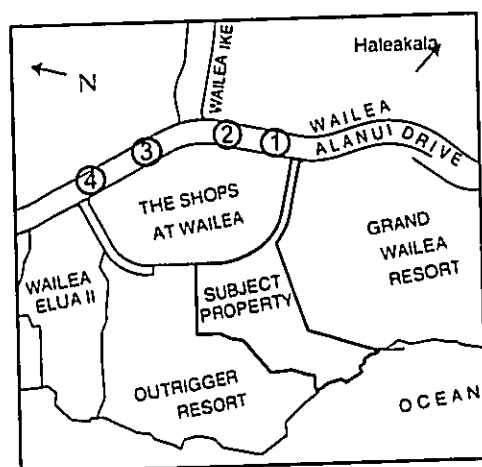
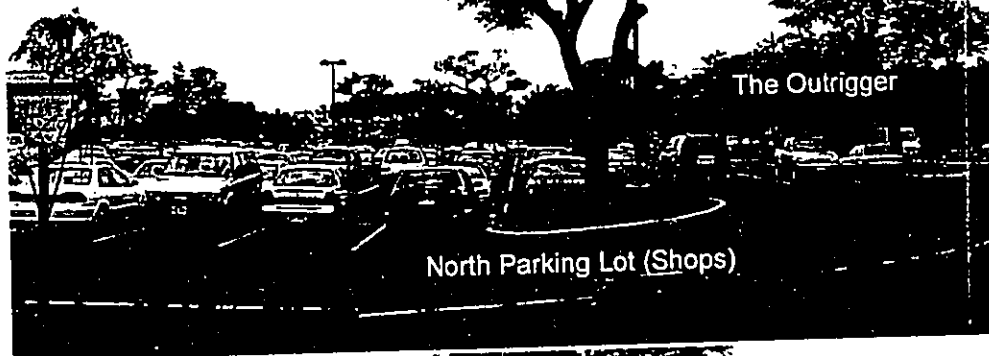
Views from Wailea Alanui

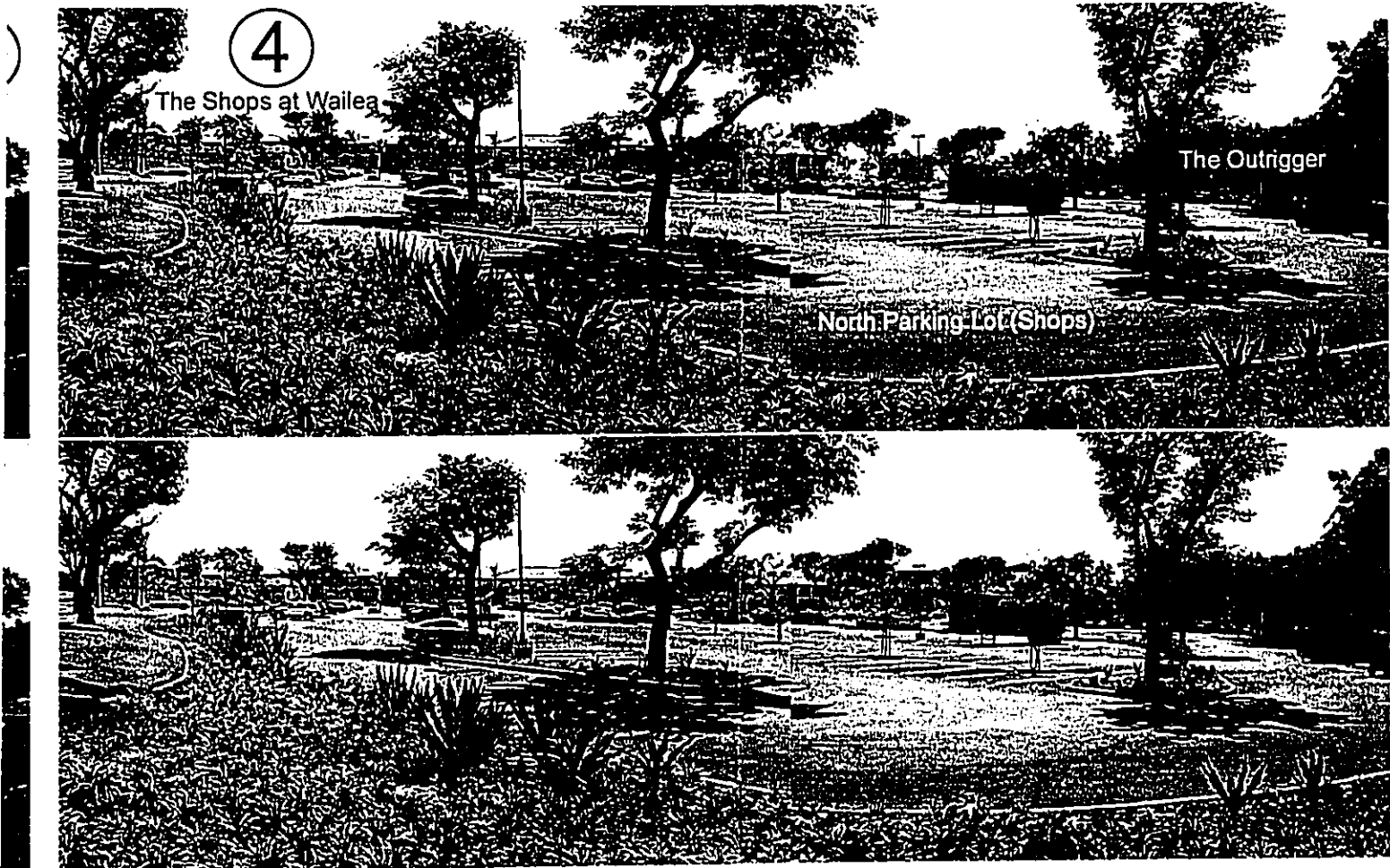
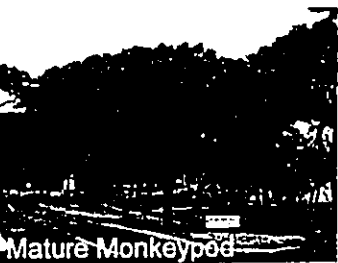
Above are views taken from the south parking lot of the Shops at Wailea.

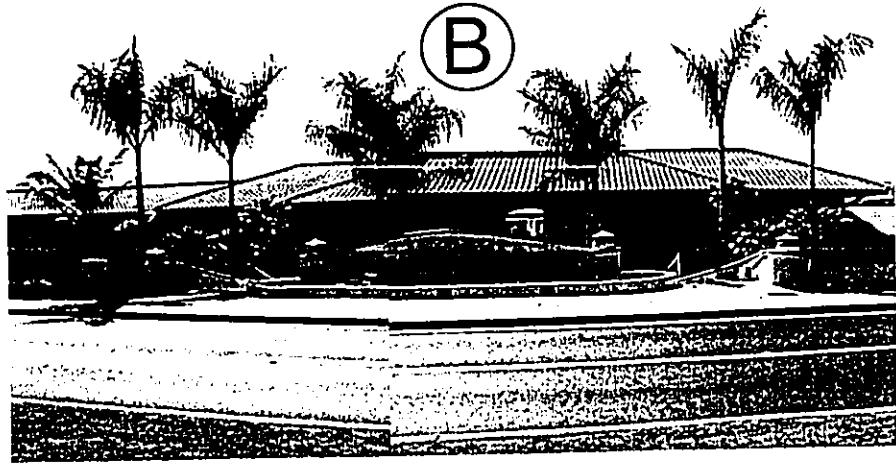
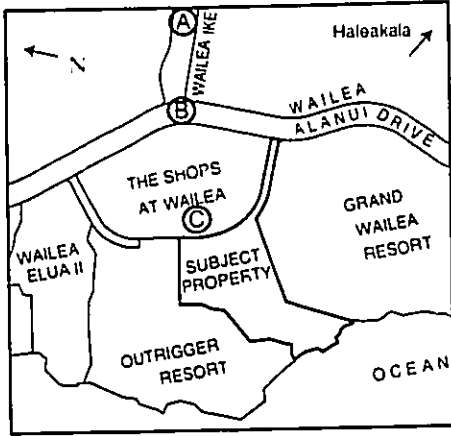
To the right are views taken from the north parking lot.

Intermittent views of the ocean currently exist, however, they will decrease significantly upon the maturation of the vegetation within the parking lots. To the far right is a photo of a recently transplanted monkeypod tree and a mature tree nearby.

The Shops at Wailea





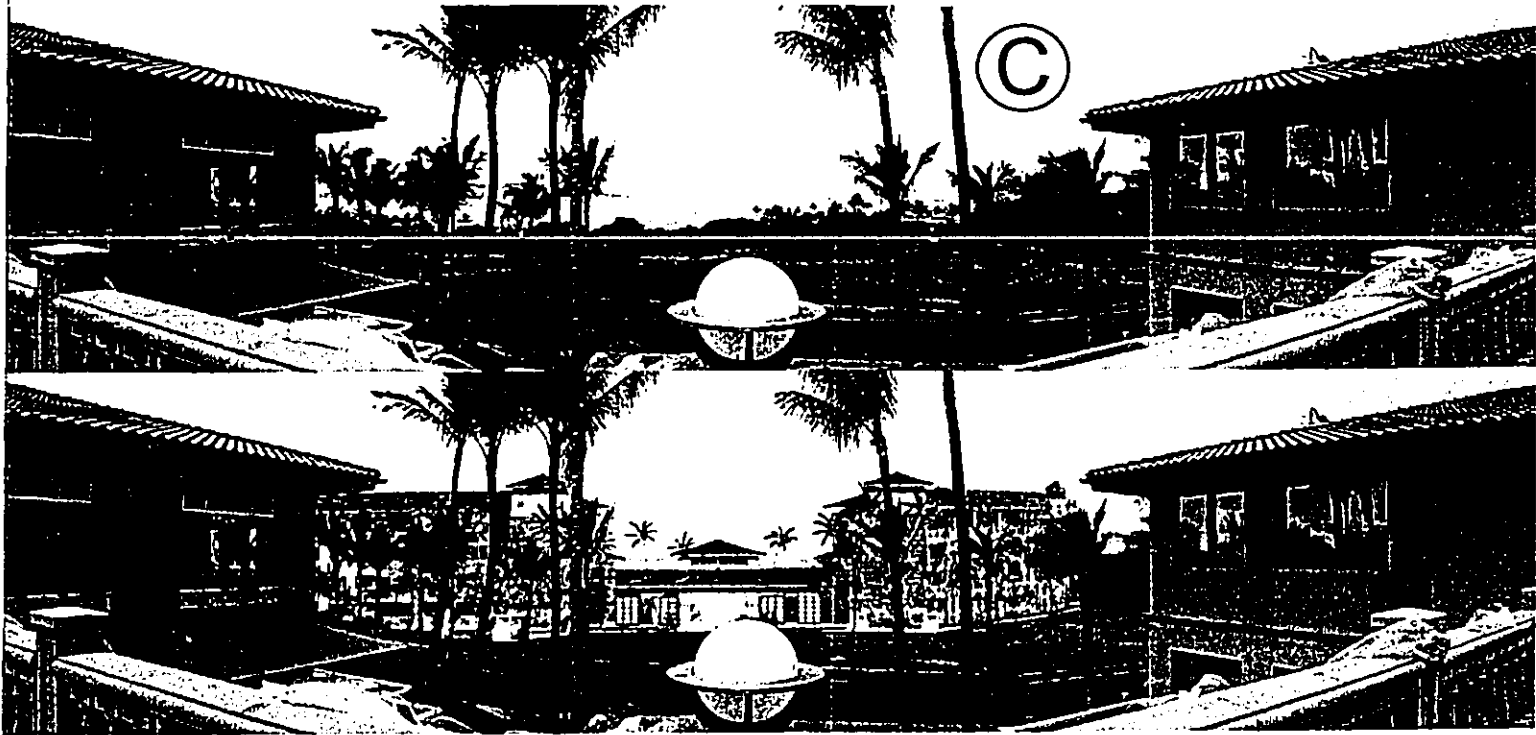


Views from Wailea Ike Drive

Views A and B are taken from Wailea Ike Drive. View A (below) depicts the impact of the proposed project as seen from the intersection of Wailea Ike Drive and Wailea Ike Place.

View B (above) shows the view from Wailea Ike Drive at Wailea Alanui Drive. From this view, the Shops at Wailea structure blocks the view of the ocean and the project area.





View from The Shops at Wailea

View C (above) shows the view from the upper courtyard at Shops at Wailea shopping center . An ocean view will be maintained through the gap in the proposed penthouse building as well as along the north boundary

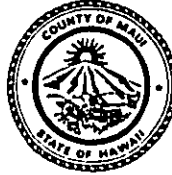


Appendix J
Draft EA Agency Comment and Response Letters

JAMES "KIMO" APANA
Mayor

JOHN E. MIN
Director

CLAYTON I. YOSHIDA
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

RECEIVED
JAN 25 2001
Landscape Architecture & Planning

January 23, 2001

Mr. Rory Frampton
Chris Hart & Partners
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793

Dear Mr. Frampton:

RE: Special Management Area Use Permit and Planned Development Approval for the 100-Unit Wailea Beach Villas, TMK: 2-1-008: 091, Wailea, Maui, Hawaii (SM1 2001/0001) PD1 2001/0001)

The Maui Planning Department (Department) has reviewed the above-mentioned project and has the following comments which must be addressed:

1. The project's colored site plan (figure 5) is confusing. In addition to the project site, it incorporates the adjacent properties and their associated structures to the north and south. The subject property and its property lines shall be clearly depicted on the site plan. It shall also include the distance of each building from the shoreline in order to aid in the analysis of the Kihei-Makena Community Plan policy relating to building heights. The identification of each building on the site plan (i.e., Building 1, etc.) should include the number of stories and building height.
2. All structures/features and utility hookups proposed within the 150 ft. shoreline setback area shall be clearly depicted on the site plan.
3. The Planning Department, in a pre-consultation meeting, informed the project's consulting team that we had concerns with the percolation basin in the shoreline setback area. Please provide information on the construction of the basin, i.e., materials, etc. In addition, please provide additional justification to support the

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634

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Mr. Rory Frampton
January 23, 2001
Page 2

shoreline setback approval request. The Department is concerned with the infiltration of groundwater into the ocean and its impact on the shoreline.

4. The project report states that the project is not anticipated to significantly impact public view corridors and will not produce significant adverse impacts upon the visual character of the site and its immediate environment. The Planning Department does not find adequate information to support this statement. As such, the Department is requiring that a view corridor analysis be conducted to support this statement. The analysis shall show the existing view planes and the impacts on views from Wailea Ike Drive, Wailea Alanui Drive, and the Shops at Wailea. The study shall also include view planes that are protected due to the siting and massing of the buildings.
5. Figure 2 should be modified to include placement of the project's buildings/features and the 150 ft. shoreline setback line on the site plan to better relate the project to its surrounding properties.
6. The Department has concerns that the massing and siting of the penthouse building is similar to the Grand Wailea Resort which has had an impact on the area. While the two and three-story bungalow building designs may be appropriate for the Wailea area, the five-story structure, as designed, may not be appropriate. Although the distance of the central portion of the five-story penthouse building was increased from 30 feet to 84 feet, that may not be adequate to preserve mauka/makai vistas as required by the Community Plan and the SMA rules.
7. The zoned and community planned acreage and boundaries shall be verified by the Zoning Administration and Enforcement Division of the Planning Department. In addition, figures illustrating the community plan and zoning boundaries as it relates to the site plan, especially improvements in the open zone, should be submitted.
8. A Shoreline Erosion Rate Study, prepared by the University of Hawaii, was completed this year and is available in the Planning Department. This study should be referenced in the justification of a shoreline setback approval for improvements within the shoreline setback area.

Mr. Rory Frampton
January 23, 2001
Page 3

9. The table of "Project Design Standards" referenced on Pages 10 and 11 should be expanded to include possible densities based on zoning and Community Plan designations. A final column showing the difference between the potential build out and the proposed project should be included.
10. How does the project propose to provide public access to the shoreline through its property? (i.e., how far is access to the north and south? How many beach parking stalls, facilities - bathrooms, showers? Is it adequate?)
11. Additional analysis should be provided on the Community Plan Policies and Objectives, specifically, Item f, Nos. 1 to 4 under Recreation, "Improve public access to shoreline and nearshore resources through the following measures....."
12. Clarification should be provided on the proposed "business center" located in the penthouse building.
13. During the Planning Commission's review of the Shops at Wailea SMA permit application, concerns were raised regarding continuation of the roadway which forms a loop below the Shops and above the subject property. Also discussed were pedestrian and bicycle access along this roadway, as well as public access from this roadway through the property and down to the shoreline.
14. As a hotel zoned parcel, the potential for transient vacation rentals exist for this project. As such, the County's housing policy for hotels should be addressed.
15. The project is proposing to be fenced and gated. The Department is very concerned with fencing and gates along the shoreline. The fencing details should be further discussed. Please be advised that the Department will not support a fence along the shoreline. Landscape planting, preferably native plants, which serves as a fence shall be used. Limited gates which have been incorporated into the landscape planting may be acceptable.
16. There is an existing kiawe tree along the makai shoreline walkway which has been equipped with lighting and electrical outlets. This tree is an important part of the shoreline walkway experience and

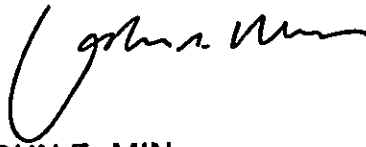
Mr. Rory Frampton
January 23, 2001
Page 4

should be maintained in its present location. Please confirm that this tree will be retained as part of the project's construction.

The above information should be submitted to the Planning Department as soon as possible and shall be included in the final EA document.

Thank you for your cooperation in this matter. If further clarification is required, please contact Ms. Ann Cua, Staff Planner, of this office at 270-7735.

Very truly yours,



JOHN E. MIN
Planning Director

JEM:ATC:cmb

c: Clayton Yoshida, AICP, Deputy Planning Director
Ann Cua, Staff Planner
Project File
General File
s:\all\ann\waileabeachvillas.rev



Mr. John Min, Director
Department of Planning
County of Maui
250 S. High Street
Wailuku, Hawaii 96793
Attn: Ms. Ann Cua, Staff Planner

Dear Mr. Min:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated January 23, 2001. The following are responses to your comments in the order received.

- 1. Project Site/Landscape Plan.** The Project Site/Landscape Plan has been amended by making a clear distinction of the subject property boundary, adding distances from buildings to the shoreline, and identifying the number of stories and building height for each structure.
- 2. Structures within 150 ft. Setback.** Two new exhibits have been prepared to provide a clearer depiction of the proposed activities within the shoreline area. They will be included within the Final Environmental Assessment (EA). In addition, the Project Site/Landscape Plan as well as the Drainage System Plan have been amended to provide a clearer depiction of the proposed structures.
- 3. Percolation basin.** Detailed information regarding the percolation basin has been provided on the revised Drainage System Plan. Briefly, it will consist of 60" diameter perforated pipes within a gravel bed. Two basins are shown on the makai portion of the property, directly makai of buildings 1 and 3.

With regards to groundwater infiltration and possible impacts on the marine environment, we would refer you to documents prepared under the auspices of Hawaii's Nonpoint Pollution Control Program. These documents and materials encourage onsite retention of surface drainage using a series of design practices designed to increase infiltration, reduce peak runoff and limit discharged runoff to pre-development standards.

As discussed in the Draft EA, the subsurface percolation bed is utilized in order to maintain the pre-development flow rates from the property. This facility will also serve as a sedimentation trap which will minimize nonpoint source pollutants from entering nearshore waters. According to the Hawaii's Nonpoint Pollution Control Program, these percolation basins function as infiltration devices which rely on absorption of runoff to treat urban runoff discharges.

The facility is sited within the makai portion of the property in order to maximize the opportunity to capture runoff from parking lots and other impermeable structures. If the structure were located in a more mauka location, runoff from impermeable surfaces downstream of the structure would not pass through the basin, thus raising the likelihood of non-point source pollutants entering nearshore waters.

An added concern with a more mauka location is that the basin would be located up gradient from building structures. This would raise concerns from a structural engineering perspective due to the potential for increased groundwater flow to undermine structure foundations.

As shown on the revised plans, the 60" perforated pipes are not located within the 150' shoreline setback area due to concerns expressed by your Department regarding whether the structures would qualify as minor structures under the Shoreline Area Rules. Removing the 60" pipes from the setback areas involved increasing the amount of gravel filled areas within the setback area as well as locating some of the pipes in mauka locations. An alternative plan would have portions of the 60" pipes located within the setback area, which would decrease the amount of gravel filled percolation basin within the setback area. This alternative is more efficient in terms of costs as well as land area needed for the structure. It also would reduce concerns related to the possible undermining of building foundations if the basins were located in mauka locations. Thus, while the plans as detailed in the Final EA do not locate the 60" pipes within the setback area, the applicant would like to explore the second alternative of locating portions of the basins within the setback area. It is understood that this second alternative would only be pursued if it was determined to have no increase in the potential for negative environmental impacts to the marine environment.

4. Public View Corridors. A detailed view corridor analysis has been prepared and is included in the Final EA.

5. Figure 2. Figure 2 has been amended as requested.

6. Massing and Siting. The height of the Grand Wailea Resort and Spa (GWRS) as viewed from the mauka side is seven stories, whereas the mauka elevation of the penthouse building is four to five stories. The penthouse building is also situated at a greater distance away from Wailea Alanui Drive than the GWRS (see Figure 2 in the Final EA). Figure 2 also illustrates that the GWRS encompasses a significantly larger building footprint. Lastly, and very significantly, located between Wailea Alanui and the penthouse building is the newly constructed Shops at Wailea which visually obstructs portions of the penthouse building from Wailea Alanui Drive. For these reasons, the siting and massing of the penthouse building should have far less impacts in the area than the GWRS.

The central portion of the penthouse building was increased in order to mitigate the impacts from the Shops at Wailea rather than to mitigate impacts from Wailea Alanui, the nearest public road. It is our understanding that the views from the Shops at Wailea are not required to be preserved by language in the Kihei/Makena Community Plan or the SMA rules. Nevertheless, substantial efforts have been

Mr. John Min, Planning Department
Re: Wailea Beach Villas
March 20, 2001
Page 3

made to soften the visual impacts of the penthouse building from the Shops at Wailea. These measures are addressed in the view corridor analysis provided under item number 4 above.

7. Zoning/Community Plan Verification. We submitted the community plan and zoning acreage and boundaries which were prepared by a licensed surveyor to the Zoning and Enforcement Division of the Planning Department on March 5, 2001. As of this date we have not received a reply. We have added the improvements to be included in the shoreline area on Figure 4C and in Appendix G as requested.

8. Shoreline Erosion Rate Study. The University of Hawaii (UH) study was referenced on page 19 of the Draft EA and was used as a basis for concluding that the proposed improvements would not interact with shoreline processes. We have included more information from the UH Study in the Final EA. The study noted "that rocky headland areas are considered relatively stable and (were) not included in the calculations of mean erosion rates". The study also described the rocky headland which comprises the majority of the parcel's frontage as "prominent". Based on their conclusions regarding the prominence of the rocky headland and its stability from an erosion perspective, the preparers of the study did not examine shoreline trends along the majority of the parcel's frontage.

The southern portion of the property consists of a transition area from the rocky headlands to the sandy beach. The UH study did include three transects along the southern portion of the property in their overall erosion rate analysis for Wailea Beach.

The average Annual Erosion Hazard Rate (AEHR) for the entire Wailea Beach was calculated at -0.37 (+/- 0.27) ft./year, this rate was characterized as a "relatively small long term erosion trend" by the preparers of the study. The average rate for Wailea Beach is slightly greater than the AEHR fronting the property, see transects 26 and 27. Multiplying the AEHR by 30 years provides the projected 30-year erosion hazard line. Using the average AEHR for Wailea Beach, the study predicts an inland retreat of the vegetation line of 11.1 feet. The location of the vegetation line fronting the southern portion of the property averages approximately 10 feet seaward of the property line. Thus, the projected 30 year erosion hazard line falls within a foot or two inside or outside of the southern portion of the seaward property line, depending on what section of the shoreline is examined. This predicted erosion hazard line is located approximately 35 to 40 feet seaward of the coastal walkway. As such, there are no improvements planned seaward of the predicted erosion hazard line.

An 11"x17" version of the UH Study North Wailea Poster as well as a detailed blow up of the erosion hazard line as it relates to the proposed structures has been included in the Final EA.

9. Project Design Standards. A simplified table summarizing the property's development potential as it relates to the proposed project is enclosed with this letter.

Mr. John Min, Planning Department
Re: Wailea Beach Villas
March 20, 2001
Page 4

10. Public Access. At present there is a public access walkway which traverses the entire makai section of the property in a north/south direction. There is also an access which leads directly to the northernmost section of Wailea Beach from this walkway. This public walkway is located an average of 40 feet inland from the shoreline. The public generally has unrestricted access to the shoreline from anywhere along this access. Thus, the entire section of property makai of the coastal walkway is available for shoreline access. These public access ways will not be altered except for the proposed widening, leveling and resurfacing of the existing walkway.

The Wailea Resort Master Plan has established a comprehensive system of pedestrian and vehicle access ways as well as shoreline park facilities. The existing shoreline access through the property is part of this comprehensive shoreline access plan. We have included a figure in the Final EA which provides the locations of the mauka/makai access ways, locations of restrooms and shower facilities, and the number of public parking stalls as you requested.

With regards to the adequacy of these shoreline access facilities, we refer you to the Cultural Impact Assessment prepared for this project by Kapiioho Lyons Naone, which reads as follows:

"Access to Shoreline Area: There is no evidence that this La'i Honua proposed project area has been used as a primary access route to the shoreline area for the gathering activities in the past. It is not being used as a major beach access area from Wailea Alanui Drive in the present. Present access areas are conveniently located nearby. Just .4 miles south of the property is Wailea Beach park which has adequate parking and restroom facilities and .5 miles north of the property are Ulua and Makapu Beach with adequate restrooms and parking. All three beaches are open to the public between the hours of 7:00 a.m. and 7:00 p.m. and have easy access to the shoreline area of this parcel via concrete walkways." (pg. 9)

Based on this assessment, the cultural consultant recommended the following:

"Existing cement walkways should be preserved or improved and maintained to ensure easy access for shoreline subsistence gathering and fishing as well as recreation."

As noted above the project is complying with this recommendation.

11. Community Plan Shoreline Access Policies. The community plan policies regarding access to the shoreline and nearshore resources are supportive of the provisions made for shoreline access in the proposed project. We have provided detailed responses to item f, Nos. 1 to 4, within the Final EA.

12. Business Center. The business center will be a amenity provided to residents of the project which will provide services such as facsimile machines, modem hookups, etc., in order to facilitate business activities for those residents who own units as second homes with business activities elsewhere.

Mr. John Min, Planning Department
Re: Wailea Beach Villas
March 20, 2001
Page 5

13. Adjacent Accessways. During the Planning Commission's review of the Shops at Wailea SMA permit application, there was a discussion regarding the possibility of providing pedestrian/bicycle access along the makai portion of the Shop's property. The previous plans for a loop road were also discussed. (For your information an older master plan for Wailea Resort did include a loop road just makai of The Shops at Wailea property, however, the plan has since been abandoned and the road is no longer anticipated.) After discussing the various issues regarding access in the area, the Commission voted to add Condition No. 19, which required that The Shops at Wailea enhance the existing pedestrian access to the West (Outrigger's property) in order to encourage pedestrian access to the Shopping Center. These required improvements have been completed, establishing a pedestrian friendly mauka/makai connection between The Shops at Wailea and the Outrigger Wailea property. No other action was taken by the Commission regarding pedestrian and bicycle access.

For your information, access from the shoreline to The Shops at Wailea property is currently available though the properties to the north and south (Outrigger Wailea and Grand Wailea Resort and Spa.) In discussions with both property owners, it has been indicated that they allow pedestrian traffic through their property in order to increase exposure to their own retail establishments.


14. County Housing Policy. The applicant is currently in discussions with the Department of Housing and Human Concerns regarding how Chapter 2.94, MCC, will affect the subject property, if at all.

15. Landscape details. Landscape improvements along the shoreline walkway have been revised and additional details are proved in the Final EA. Proposed improvements immediately mauka the walkway include a low rock wall with a naupaka hedge immediately mauka. No fencing is proposed along the walkway, however, three gates which are incorporated into the landscape plantings are proposed.

16. Kiawe tree. The applicant is not opposed to preserving the existing kiawe tree which was referenced in your letter. It should be noted however, that the existing lights and electrical outlets were apparently installed by the property to the north. The electrical wiring and outlets will likely be disconnected.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

encls
cc:

Mark Whiting, Lai Honua LLC
Paul Lambert, Lai Honua LLC
Michael Wright, Construction Manager

Development Potential/Proposal for TMK (2) 2-1-008: 091
 (467,834 sf. Approximately 10.74 acres)

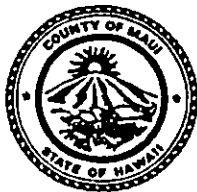
Existing Zoning of the Subject Property			
Zoning Division	SF	% lot	
O Open Space	52,467	11.2%	
BR Resort-Commercial	91,818	19.6%	
H1+H2 Hotel (combined)	323,549	69.2%	
H1 Hotel (2-Story)	48,095	10.3%	
H2 Hotel (12-Story)	275,454	58.9%	

Permitted Lot Coverage			
Zoning Division	Maximum Allowable SF	Proposed Floor Area SF	% of Entire Property
O	n/a	0	0.0%
BR	n/a	0	0.0%
H1+H2 (combined maximum)	108,433	100,500	92.7%
H1 25% of H1 zoned area (max)	12,024		
H2 35% of H2 zoned area (max)	96,409		

Open Space Requirements			
Minimum Required SF	Proposed Open Space SF	% Required	% of Entire Property
Planned Development Requirement	93,567	122,839	131.3%

Permitted Floor Area			
Zoning Division	Maximum Allowable SF	Proposed Floor Area SF	
O	n/a	0	
BR	n/a	0	
H1+H2 (combined maximum)	437,229	295,295	67.5%
H1 50% of H1 zoned area (max)	24,048		
H2 150% of H2 zoned area (max)	413,181		

Maximum Buildout			
Source Estimates	Potential Units	Proposed Number of Units	% Potential
100% FAR, 1 unit per 1000sf	437	101	23.1%
Existing Community Assessment (WCA)	329	101	30.7%



DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
P.O. BOX 1109
WAILUKU, MAUI, HAWAII 96793-7109
Telephone (808) 270-7816 • Fax (808) 270-7833

RECEIVED
FEB 1 2001

CHRIS HART & PARTNERS
Landscape Architecture & Planning

January 29, 2001

Mr. John Min, Director
County of Maui
Planning Department
250 South High Street
Wailuku, Maui, Hawaii 96793

I.D.: SM 1 2001/0001

TMK: 2-1-08:191

Project Name: Wailea Beach Villas (100 Multi-Family Project)

Dear Mr. Min,

Thank you for the opportunity to provide comments on this application. We provide the following information:

The applicant will be required to provide fire and domestic service according to Department standards. All domestic, fire, and irrigation calculations will be reviewed in detail during the development process.

This project area is served by the Central Maui System. The major source of water for this system is the Iao Aquifer. Rolling annual average groundwater withdrawals from the Iao Aquifer as of January 1, 2001 were 17.002 MGD. The regulatory sustainable yield of this aquifer is 20 MGD. If rolling annual average withdrawals exceed 20 MGD, the State Commission on Water Resource Management will designate Iao Aquifer. The Department is implementing a plan to bring new sources on-line and to mitigate withdrawals. Two wells in North Waihee were brought on-line in July 1997 and another two adjacent wells were brought on-line during 2000. The Department is continuing to implement a plan to bring new sources on-line and to mitigate withdrawals. Nevertheless, the applicants should be made aware that the timing of this project may be affected with possible delays until new sources can be brought on-line. No guarantee of water is granted or implied as a result of these comments. Water availability will be reviewed at the time of application for meter or meter reservation. The proposed project is subject to the Central Maui Water Transmission and Source Development Joint Venture (CMJV). Water requirements must be coordinated with DWS pursuant to the CMJV agreement.

The applicant material does not include water use calculations but references system per unit standards. Based on these standards, water consumption for the proposed development would be about 56,000 gallons per day (gpd). However, because the project includes several water intensive features, including 2 swimming pools and an artificial stream with pools and waterfalls, actual consumption may be significantly higher. Brackish and/or reclaimed water sources should be used for all non-potable uses if such alternative sources are or will become available. If potable water will be used for total demand, we recommend that the following water conservation measures be implemented:

Use Climate-adapted Plants: The project site is located in "Maui County Planting Plan" - Plant Zones 3 and 5. We encourage the applicant to review the Planting Plan and attached documents and consider increasing the use of climate-adapted and salt-tolerant native plants for landscaping purposes. Native plants adapted to this naturally dry area, conserve water and further protect the watershed from degradation due to invasive alien species.

Eliminate Single-Pass Cooling: Single-pass, water-cooled systems should be eliminated per Maui County Code Subsection 14.21.20. These units pass water once-through for cooling, and then dispose of the water into the drain. Although prohibited by code, single-pass water cooling is still manufactured into some models of air conditioners, freezers, and commercial refrigerators.

Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20.675 requires the use of low flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice-makers and other units are also available.

Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Refer to the attached handout, "The Costly Drip". The applicant should establish a regular maintenance program.

Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evapotranspiration rates at the site.

Limit Irrigated Turf: Limit irrigated turf to 25% or less of total landscaped area. Select turf species with low water use requirements. Low-water use shrubs and groundcovers can be equally attractive and require substantially less water than turf.

The project overlies the Kamaole aquifer. The Department of Water Supply strives to protect the integrity of surface water and groundwater resources by encouraging applicants to adopt best management practices (BMPs) relevant to potentially polluting activities. We have attached sample BMPs for your reference. Additional information can be obtained from the State Department of Health.

Should you have any questions, please call the Water Resources and Planning Division at: 270-7199.

Sincerely,



David Craddick
Director

emb

C:\WPdocs\fermcomm\Wailea Beach Villas.wpd

cc: engineering division
applicant, with attachments:

- 1) "The Costly Drip"
- 2) Maui County Department of Water Supply, "Saving Water in The Yard - What and How to Plant In Your Area."
- 3) Ordinance 2108 - "An ordinance amending Chapter 16.20 of the Maui County Code, pertaining to the plumbing code"
- 4) A Checklist of Water Conservation Ideas For Cooling
- 5) A Checklist of Conservation Ideas for the Hotels and Motels
- 6) A Checklist of Conservation Ideas for Condominiums
- 7) "The Megamanual - Nonpoint Source Management Manual - A Guidance Document for Municipal Officials." Massachusetts Department of Environmental Protection.
- 8) "Guidance Specifying Management Measures For Sources of Nonpoint Pollution In Coastal Waters." United States Environmental Protection Agency

By Water All Things Find Life



March 20, 2001

Mr. David Craddick, Director
Department of Water Supply
County of Maui
P.O. Box 1109
Wailuku, Hawaii 96793-7109

Dear Mr. Craddick:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated January 29, 2001, to Mr. John Min, Planning Director, County of Maui. The following are responses to your comments in the order received.

1. Fire and Domestic Water Service. The applicant is aware that fire and domestic water service will need to be provided in accordance with Department of Water Supply standards. Preliminary plans for fire and domestic water systems are provided in Appendix G of the Final Environmental Assessment.

2. Water Source. Thank you for the updated information regarding the status of water source development and withdrawal mitigation for the Central Maui System. The applicant is aware that no guarantee of water is granted or implied as a result of your comments and that water availability will be reviewed at the time of application for meter or meter reservation.

Regarding your statement that the project is subject to the Central Maui Water Transmission and Source Development Joint Venture (CMJV) agreement, it is our understanding that the terms of this agreement are still being negotiated.

3. Water Conservation. Presently, there are no brackish and/or reclaimed water sources available for the project. The following water conservation measures which you recommended will be incorporated into the project:


- Use of climate adapted plants
- No use of single pass cooling
- Use of low-flow fixtures and devices
- Maintenance of fixtures to prevent leaks
- Use of automated systems to prevent overwatering

4. Best Management Practices. The applicant will incorporate Best Management Practices relevant to potentially polluting activities during construction activities as identified in Section III.D.2 of the Final EA.

Mr. David Craddick, DWS
Re: Wailea Beach Villas
March 20, 2001
Page 2

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager
Clyde Murashige, Wailea Resort Company

Feb-15-01 03:58pm

From-DEPT OF PLANNING COUNTY OF MAUI

+8082707634

T-218 P.02/03 F-505

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



BRUCE E. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

'01 FEB -8 P1:19
STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to:
EMD / SDWB

January 31, 2001

Mr. John Min
Planning Director
Department of Planning
County of Maui
250 South High Street
Wailuku, HI 96793

Dear Mr. Min:

SUBJECT: SPECIAL MANAGEMENT AREA PERMIT APPLICATION AND
PLANNED DEVELOPMENT APPROVAL
WAILUA BEACH VILLAS
WAILUA, MAUI
TMK: 2-1-008: 91

Thank you for the opportunity to review and comment on the subject document. We have examined the Draft Environmental Assessment (DEA) and have the following comments to offer:

The DEA states that:

Based on the development of the new Waihee wells, water sources for the proposed project appear adequate.

The Safe Drinking Water Branch is concerned about the adequacy and reliability of the water supply serving this area. Recent events give an indication of how serious this situation may be.

In December 2000, the Maui Department of Water Supply reported that the motor on the North Waihee Well No. 2 had burned out and that the North Waihee Well No. 1 could not keep up with the demand. The Department of Water Supply requested an emergency approval to use another source that is currently undergoing review by the Department of Health.

Then on January 23, 2001, the Department of Water Supply informed the Department of Health that the pump on the Waihee Well No. 3 was down and had to be replaced. Finally, two wells that had

Mr. John Min
February 1, 2001
Page 2

been brought online do not have permanent sources of power and have to be run by generators.

If you have any questions, please call me or Stuart Yamada at (808) 586-4258 or Gordon Muraoka at 984-8234.

Sincerely,

Stuart Yamada

rc WILLIAM WONG, P.E., CHIEF
Safe Drinking Water Branch
Environmental Management Division

SY:la

c: Gordon Muraoka, Maui SDWB Sanitarian



March 20, 2001

Mr. William Wong, P.E. Chief
Safe Drinking Water Branch
Environmental Management Division
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Wong:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK 2-1-08:91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated January 31, 2001 to Mr. John Min, Planning Director, County of Maui. The following are our responses to your comments.

Your letter indicates a concern regarding water supply serving the area based on recent events related to pump breakdowns. We have spoken with Mr. David Craddick, Director of the Department of Water Supply, regarding these issues. Mr. Craddick pointed out that it is important to keep in mind the distinction between water source versus operational issues. With regards to water source, the Department of Water Supply has indicated to us in their letter dated January 29, 2001, that the rolling annual average groundwater withdrawals from the Iao aquifer were 17.002 MGD. The regulatory sustainable yield of this aquifer is 20 MGD. The Department is also implementing a plan to develop new sources and to mitigate withdrawals. Since 1997, four new wells have been developed in North Waihee. Although water availability will be reviewed at the time of application for meter or meter reservation, we stand by our conclusion that water sources for the proposed project appear adequate.

With regards to the operational issues which you identified in your letter, Mr. Craddick has assured us that there is adequate system redundancy within the Central Maui Water System to handle temporary pump failures. The Iao Aquifer alone has an installed pump capacity of 36 MGD. It is our understanding that your

Mr. William Wong, P.E.
RE: Wailea Beach Villas
March 20, 2001
Page 2

Department also adheres to the 10 States Water Standards which requires the capacity of meeting peak demand with the largest pump out of service. For your information, according to the Department of Water Supply, the temporary pump problems associated with North Waihee Well Nos. 2 and 3 will be corrected in the near future.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Michael Wright, Construction Manager
Mark Whiting, Managing Partner, Lai Honua LLC

STP 8.9790

January 31, 2001

Mr. John E. Min
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

RECEIVED
MAR 18 2001
COUNTY OF MAUI
DEPARTMENT OF PLANNING

Dear Mr. Min:

**Subject: Wailua Beach Villas
Special Management Area Permit Application (SMA)
Planned Developmental Approval Application (PD) and
Draft Environmental Assessment (DEA)
TMK: 2-1-008: 091**

Thank you for your transmittal requesting our review on the subject application.

While the proposed parcel by itself will not have a significant impact on the transportation facilities, the cumulative impact of the full build out of the total master plan for the area (i.e., Wailea Resort, Wailea 670 & Makena Resort) will require roadway improvements.

The issue of cost share arrangements for required improvements should be revisited.

We appreciate the opportunity to provide comments.

Very truly yours,

Brian K. Minaai

BRIAN K. MINAAI
Director-Designate of Transportation



March 20, 2001

Mr. Brian K. Minaai, Director Designate
Department of Transportation
869 Punchbowl
Honolulu, Hawaii 96813

Dear Mr. Minaai:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated January 31, 2001 to Mr. John Min, Planning Director, County of Maui. The following are responses to your comments.

Thank you for acknowledging that the proposed parcel will not have a significant impact on transportation facilities. We understand that the issue of cost sharing arrangements regarding the Wailea Resort buildout can be addressed in the context of the pro-rata cost sharing condition that was imposed during the resort's comprehensive re-zoning, which was completed in September, 1998.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager
Clyde Murashige, Wailea Resort Company

9178

BENJAMIN J. CAYETANO
GOVERNOR



BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.

DISTRICT HEALTH OFFICER

'01 FEB -5 10 00 AM

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

January 31, 2001

Mr. John Min
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawai'i 96793

Dear Mr. Min:

Subject: **Wailea Beach Villas**
TMK: (2) 2-1-008:091
SM1 2001/0001; PD1 2001/0001

Thank you for the opportunity to comment on the land use permit applications. We have the following comments to offer:

1. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46 "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.
2. HAR, Chapter 11-46, "Community Noise Control" sets maximum allowable levels for noise from stationary sources such as air conditioning units, compressors, and generators. The attenuation of noise from these potential sources should be considered during the design phase of the project.
3. The property may be harboring rodents that will be dispersed to the surrounding areas when any buildings are demolished or the site is cleared. The applicant is required by HAR, Chapter 11-26, "Vector Control" to eradicate any rodents prior to demolition or site clearing activities and to notify the Department of Health by submitting Form VC-12 to the Maui Vector Control program when such action is taken. Rodent traps and/or rodenticides should be set out on the project site for at least a week or until the rodent activity ceases.

Mr. Min
January 31, 2001
Page 2

4. The following offices of the Department should be consulted regarding matters that are under their jurisdiction:

- The Clean Water Branch regarding National Pollutant Discharge Elimination System (NPDES) permit coverage. Telephone: (808) 586-4309.
- The Safe Drinking Water Branch regarding the availability of water for the project. Telephone: (808) 586-4258.
- Mail for both of these offices can be sent to 919 Ala Moana Blvd., Honolulu, HI 96814.

Should you have any questions, please call me at 984-8230.

Sincerely,



Herbert S. Matsubayashi
District Environmental Health Program Chief

c: Safe Drinking Water Branch
-Clean Water Branch



March 20, 2001

Mr. Herbert S. Matsubayashi,
District Environmental Health Program Chief
Maui District Health Office
State Department of Health
54 High Street
Wailuku, Hawaii 96793

Dear Mr. Matsubayashi.:


Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated January 31, 2001 to Mr. John Min, Planning Director. The following responses are provided to your comments.

1. **Noise Permit.** A noise permit will be obtained before commencement of work if required.
2. **Noise Attenuation.** The attenuation of noise from stationary sources such as air conditioning units, compressors and generators, will be considered during the design of the project.
3. **Vector Control.** The applicant will comply with the Vector Control rules by eradicating any rodents prior to site clearing and by notifying the Department of Health via Form VC-12.
4. **Agency notification.** The Clean Water and Safe Drinking Water Branches have reviewed and commented on the project.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager

COPY



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
54 South High Street, Room 101
Wailuku, Hawaii 96793-2188

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

MEMORANDUM

DATE: February 2, 2001

TO: Ann T. Cua, Staff Planner
County of Maui, Planning Department

FROM: Louis Wada, Land Agent *L. Wada*
Maui District Land Office

SUBJECT: SM1 2001/0001, TMK: 2-1-008: 091
Wailea Beach Villas (100 multi-family project)

The Maui District Office of the DLNR Land Division would like to clarify that there are no "Government Beach Reserve" parcels along the shoreline fronting the subject site. It is our understanding that all references of "Government Beach Reserve" made in various maps used for exhibits were meant to depict accretion.

Thank you for allowing us to comment on the SMA application.

C: Maui Board Member
Central Files

RECEIVED
MAR 16 2001



March 20, 2001

Mr. Louis Wada, Land Agent
Maui District Land Office
Department of Land and Natural Resources
54 South High Street, Room 101
Wailuku, Hawaii 96793-2198

Dear Mr. Wada:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your memorandum dated February 2, 2001 to Ms. Ann Cua, Staff Planner, County of Maui Planning Department.

Thank you for clarifying that the references to "Government Beach Reserve" made in the various project maps were meant to depict accretion.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager
Warren Unemori, Unemori Engineering

9275

BENJAMIN J. CAYETANO
GOVERNOR



PAUL G. LeMAHIEU, Ph.D.
SUPERINTENDENT

'01 FEB -9 11:39

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

OFFICE OF THE SUPERINTENDENT

February 8, 2001

Mr. John E. Min
Planning Director
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Min:

Subject: Wailea Beach Villas - SM1 2001/0001; PD1 2001/0001

The proposed project is covered under a prior school fair-share agreement between the Department of Education and Wailea Resort. Therefore, we are not requesting any further fair-share contribution from this project.

Thank you for the opportunity to respond. If you have any questions, please call Mr. Sanford Beppu at 733-4862.

Very truly yours,

A handwritten signature in cursive script that reads "Paul G. LeMahieu".

Paul G. LeMahieu, Ph.D.
Superintendent of Education

PLeM:hy

cc: P. Yoshioka, DAS
D. Sakai, HIDO



**CHRIS
HART**
8. PARTNERS, INC.

March 20, 2001

Mr. Paul G. LeMahieu, Ph.D.
Superintendent of Education
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

Dear Mr. LeMahieu:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated February 8, 2001 to Mr. John Min, Planning Director, County of Maui. The following are responses to your comments.

1. Fair Share Contribution. Thank you for confirming that you will not be requesting any further fair-share contribution from this project based on the prior school fair-share agreement between the Department of Education and Wailea Resort.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager
Clyde Murashige, Wailea Resort Company

COPY



JAMES "KIMO" APANA
MAYOR

OUR REFERENCE
tv
YOUR REFERENCE

**POLICE DEPARTMENT
COUNTY OF MAUI**

55 MAHALANI STREET
WAILUKU, HAWAII 96783
(808) 244-8400
Fax (808) 244-8411



THOMAS M. PHILLIPS
CHIEF OF POLICE

KEKUHAPIO R. AKANA
DEPUTY CHIEF OF POLICE


February 9, 2001

MEMORANDUM

TO : JOHN E. MIN, PLANNING DIRECTOR
FROM : THOMAS M. PHILLIPS, CHIEF OF POLICE
SUBJECT : I.D. SM1 2001/0001; PD1 2001/0001
TMK: 2-1-008:091
Project
Name: Wailea Beach Villas (100 Multi-Family Project)
Applicant: Mark S. Whiting of Lokahi Ventures LLC.

No further recommendation or comment is necessary or desired.

Refer to enclosed comments and/or recommendations.


Assistant Chief Robert Tam Ho
For: THOMAS M. PHILLIPS
Chief of Police

Enclosure

ORIGINAL

TO : TOM PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI

VIA : CHANNELS

FROM : BRAD HICKLE, POLICE OFFICER III, DISTRICT VI KIHUI

SUBJECT : MULTI-FAMILY RESIDENTIAL DEVELOPMENT
LAI HONUA (WAILEA BEACH VILLAS), WAILEA, MAUI

Ac Dir 2/19/01

Sirs, on 10/25/00 I received a copy of the Pre-Consultation for an Environmental Assessment for the Multi-Family Residential Development in Wailea which is referred to as Lai Honua or the Wailea Beach Villas.

At that time I expressed my concerns about the ever increasing traffic problems created by new housing developments here in the Kihei, Wailea area. I had also mentioned the current traffic infrastructure is inadequate and needs to be addressed before any new housing developments should be allowed to continue development here.

On 01/31/01 I received a copy of the Special Management Area Permit Application, Planned Developmental Approval Application, Draft Environmental Assessment for the Wailea Beach Villas-Lai Honua.

Again, I believe the development of 100 new residences in the Wailea area is not in the best interest of anyone currently living there now or in the future. By continuing with the development you will be contributing to a great injustice to the persons who may unknowingly chose to live there in the future.

The above comments are based upon my knowledge of current traffic conditions. I would also like to be notified prior to the hearing for this SMA Permit so that I might attend the hearing.

Respectfully Submitted,

Officer Brad Hickle
02/05/01

[Signature]

15-9966
1300 hours

CONCERN

[Signature]
2/2/01

*BASED UPON OFFICER HICKLE'S
KNOWLEDGE
SENSITIVE OF THE AREA AND BASED
ON HIS CONCERNS ON TRAFFIC, I
COMMENTED ALSO AT THIS TIME NOT
APPROVE PROJECT UNTIL THIS ISSUE
TRAFFIC CAN BE RESOLVED.
Sgt. M. Kautz
02/07/01*



March 20, 2001

Chief Thomas M. Phillips
Police Department
County of Maui
55 Mahalani Street
Wailuku, Hawaii 96793

Dear Chief:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated February 15, 2001 to Mr. John Min, Planning Director, County of Maui. The following is our responses to comments made by Officer Brad Hickle.

1. Traffic Impacts. In response to concerns raised by the Police Department, we had a traffic consultant analyze the significance of the anticipated traffic impacts from the proposed project at the various intersections along Piilani Highway up to it's intersection with Mokulele Highway. Based on observations by the traffic consultant, inadequate levels of service along Piilani Highway occur at, and north of, Lipoa and on south Kihei road in the vicinity of the Lipoa business district. The analysis concluded that project generated trips along Piilani Highway decreases as the distance from the project increases. Thus, since the number of project trips diminishes, the relative significance of traffic impacts also decreases, especially in light of the higher levels of background traffic. The analysis documents that project generated traffic represents a small percentage of projected traffic flows and, according to traffic engineering standards, the increases are not considered significant. The additional study of impacts on Piilani Highway has been included in the Final Environmental Assessment for the project.

The following points should also be noted:

Low unit density. The proposed number of units (100) is far less than the current entitlements for the property would allow. The Wailea Community Association currently assesses this property based upon an anticipated site build out of 329 units. Furthermore, based on the project's existing size and zoning, the maximum allowable floor area is 437,229 square feet. A project which proposed to utilize the maximum allowable floor area could generate 437 units based on a standard of 1,000 square feet per unit.

Conservative traffic estimates. The traffic consultant's study assumed that the project would be occupied as a luxury condominium/townhouse project, whereas in actuality it is anticipated that the majority of the units would be owned as recreational or second homes. Since the second category

Mr. Thomas M. Phillips, Police Chief
Re: Wailea Beach Villas
March 20, 2001
Page 2

generates approximately half the number of trips, the traffic study should be considered as providing conservative (high) estimates.

Maturation of Wailea. Wailea is evolving into a more self-contained community. With the expansion of the Shops at Wailea as well as a planned business center, more services will be available in close proximity to the proposed project which in turn will lessen the need for project residents to travel outside of the Wailea area.

Trip generation characteristics. The anticipated occupants of the project will have different travel patterns than a more typical residential project. Standard residential projects generate high levels of trips during the peak hours due to demands such as job schedules and school hours. It is anticipated that trip generation from the project will be more evenly spread throughout the day, and much less frequent on a daily basis, rather than having sharp concentrations during the peak hours.

Wailea Resort Company is committed to provision of a quality roadway network within and around the Wailea area. Towards this end, a roadway network has been designed and constructed to accommodate the anticipated buildout of the resort. At the time the roadway network was designed, the anticipated build-out was approximately 10,000 units. However, Wailea Resort has amended their Master Plan, such that full build-out will be approximately 5,000 units. Thus, the local roadway network is designed to handle double the amount of anticipated units to be built within the resort. In addition to construction of the internal roadway network, the Resort has also funded the extension of Piilani Highway from Kilohana Drive to Wailea Iki.

With regards to future regional roadway improvements, Wailea Resort committed to cost sharing of regional roadway improvements during the comprehensive rezoning of the resort which was completed in September 1998.

In summary, Wailea Resort has made substantial investments to establish adequate roadway facilities within and around the Wailea area. Existing traffic congestion in South Maui is concentrated outside of the Wailea community during work related commute times and this project will contribute insignificantly to the congested areas of Kihei proper during these peak times. In light of the above information, we feel that your Department's recommended denial is unwarranted.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager

PHONE (808) 594-1885

FAX (808) 594-1885



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPOLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

February 12, 2001

John E. Min
Department of Planning
250 South High Street
Wailuku, Maui, HI 96793

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED
FEB 22 10 58 AM '01

Subject: Draft Environmental Assessment for Wailea Beach Villas (100 Multi-Family Project)
Wailea, Maui, Hawai'i
TMK: (2) 2-1-08; 091

Dear Mr. Min,

Thank you for the opportunity to comment on the above referenced draft environmental assessment.

The DEA indicates that the project will not have significant impacts on natural and cultural resources. The DEA states that there are no known rare, endangered, or threatened species of plants or animals at the subject property. The DEA includes an archeological monitoring plan as a mitigative measure for any impacts to archeological and historical resources. However, the Office of Hawaiian Affairs has the following concerns on the draft environmental assessment.

- The archeological monitoring plan's section on inadvertent discovery of burials needs to be amended (page 9). Currently, the plan includes notification of the State Historic Preservation Division and Burials Program of the Department of Land and Natural Resources. However, the Office of Hawaiian Affairs must also be contacted if human burials are inadvertently discovered pursuant to Hawaii Revised Statutes, Chapter 6c.
- The DEA does not have a mitigation plan but merely lists recommendations from the cultural impact statement. The cultural impact statement recommends preserving the salt ponds and bowls, ensuring easy access for shoreline subsistence gathering and fishing, prohibiting activities that degrade "the sacredness of the place" and

preserving the area's ancient features. OHA requests an assurance that all of the recommendations will be followed in the form of a detailed mitigation plan for the implementation of these recommendations. Without this plan, we can not accept this environmental assessment as having any mitigation of cultural impacts.

- The DEA states that "should any sub-surface archaeological or cultural materials be found during other construction activities, the DLNR Historic Preservation Division will be notified so that appropriate actions can be determined" (p. 20). OHA asks that this measure be amended in the following manner: If the archeological or cultural materials prove to be Hawaiian, OHA and other appropriate native Hawaiian organizations will be notified and consulted.
- While the DEA includes mitigative measures for onsite subsurface detention facilities for the increased run-off resulting from the project, OHA requests that a monitoring plan for the project's impacts on near-shore waters and coastal ecosystem is developed and implemented prior to groundbreaking.

If you have any questions, please contact Sharla Manley, Assistant Policy Analyst, at 594-1944 or email her at sharlam@oha.org.

Sincerely,



Colin C. Kippen, Jr.
Deputy Administrator

CK:sam

cc: Board of Trustees
Randall K. Ogata, Administrator
Maui, CAC



March 20, 2001

Mr. Collin C. Kippen, Jr., Deputy Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Kippen:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated February 12, 2001 to Mr. John Min, Planning Director, County of Maui. The following are our responses to your comments.

1. Archaeological Monitoring Plan. The archaeological monitoring plan as well as language within the Final Environmental Assessment will be amended to include a statement regarding notification of the Office of Hawaiian Affairs if human burials are inadvertently discovered.

2. Cultural Impact Mitigation Measures. The following consists of the detailed mitigation plan for the implementation of measures to mitigate cultural impacts as recommended by the cultural impact assessment. These measures will be listed in the Final Environmental Assessment.

a. The natural shoreline features for the gathering and production of salt (salt beds or bowls) which are located along the rocky shoreline fronting the parcel will not be impacted by the proposed project. An interpretive signage plan will be developed in consultation with the project's cultural consultant in order to educate the public and ensure preservation of these features.

b. Archaeological monitoring will occur during grading and excavation activities as detailed in the archaeological monitoring plan as approved by the State Historic Preservation Division.

c. The existing walkways which provided for public access along the makai section of the property will be preserved and improved (widened and leveled) to ensure easy access for shoreline subsistence gathering and fishing as well as recreation.

d. An appropriate Hawaiian blessing will be conducted at groundbreaking and at completion of the project, in conformance with ancient practices that bring respect to the land and the ancestor spirits of the land.

e. Activities such as fireworks displays and other activities that may be degrading to the sacredness of the place will be prohibited from occurring

Mr. Kippen, OHA
Re: Wailea Beach Villas
March 20, 2001
Page 2

on the subject property. It is noted that activities which occur outside of the subject property boundaries are beyond the control of the landowner.

f. Preservation of artifacts and features for the purposes of continued learning will be considered in the event that such artifacts or features may be found during construction.

3. OHA notification. The language found on page 20 within the Draft EA will be amended to read as follows: If the archaeological or cultural materials prove to be Hawaiian, OHA and other appropriate native Hawaiian organizations, including the project's cultural consultant, will be notified.

4. Water Quality Mitigation. According to Sharla Manley, Policy Analyst, within your Department, your comments regarding impacts to near-shore waters and coastal ecosystems are related to the potential for impacts during construction activities. Since the project site is greater than five acres and there is a potential for storm water runoff associated with construction activities to discharge into Class A waters, National Pollution Discharge Elimination System (NPDES) general permit coverage is required. The applicant will comply with all applicable requirements as required through this program which is administered by the Clean Water Branch of the State Department of Health. This will include, at a minimum, the detailed list of mitigation measures which are outlined in Section III.D.2, of the Final EA.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Brampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Managing Partner, Lai Honua LLC
Michael Wright, Construction Manager
Lisa Rotunno-Hazuka, Project Archaeologist

faxed 2/12

University of Hawaii Sea Grant Extension Service
Box 331085
Kahului, HI 96733
February 12, 2001

UI FEB 13 P4:07
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

County of Maui
Dept. of Planning
250 S. High Street
Wailuku, HI 96793
via facsimile 270-7634
attn: Anne Cua, Staff Planner

Dear Ms. ~~Sydney~~ Cua:

RE: SMA Permit Application and Draft Environmental Assessment for Wailea Beach Villas (TMK 2-1-008:091)

Thank you for the opportunity to comment on the SMA application and Draft Environmental Assessment for the Wailea Beach Villas. I have read the environmental assessment and am familiar with the subject property. My comments are mostly limited to shoreline processes, erosion control, and coastal hazards mitigation, though I do hope that the traffic impacts are more adequately considered, and I would be happy to discuss these concerns with you or with the applicant at some other time.

The shoreline along the project's seaward boundary varies from mostly rocky with sections of a perched sand and cobble beach on the northern three fourths of the shoreline segment to mostly sandy backed by low dunes and occasional rock outcrops on the southern end. With respect to potential future shoreline erosion, the environmental assessment preparer consulted existing maps of shoreline trends and states that both studies skipped the rocky section of shoreline. Did either study examine the southern third of the shoreline section that is not protected by rocky outcrops? If so, this information should be included in the environmental assessment.

Potential flood and tsunami hazards are discussed in both the Environmental Assessment and in the drainage report (Appendix B). Information on flood hazards in the drainage report, however, is inconsistent with the information in the EA. Furthermore, the flood insurance map (Exhibit 2) in Appendix B is difficult to read and appears to be incorrect. According to the map provided, the majority of the project site is within the A4 Zone, and other portions of the project site are within the V14 zone. The drainage report does not discuss either of these flood zones. The Environmental Assessment acknowledges that a portion of the parcel is in the V14 zone, but does not mention the A4 zone. Finally, the shape of the area designated as the project site in Exhibit 2 does not reflect the shape of the property shown on other figures in this Draft EA. These discrepancies need to be resolved before potential flood hazards can accurately be assessed. A blow up of the site

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DOCUMENT CAPTURED AS RECEIVED

Wailea Beach Villas SMA and DEA
February 12, 2001
Page 2

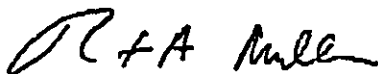
area, with clearly marked boundaries of the parcel and boundaries of the flood zones is probably necessary.

Numerous developments are proposed within the shoreline area on p. 10. The larger of these developments include portions of a swimming pool, an associated restroom/pool equipment storeroom, an underground wastewater connection, and the widening of an existing concrete sidewalk. These developments should be located outside both the erosion hazard area and the flood zones. If such avoidance is impossible, mitigation measures should be placed on these structures. For example, the sidewalk could have a condition that segments undermined by erosion be removed and relocated landward. Similar conditions may be appropriate for the other shoreline developments. Again, a more detailed map showing the boundaries of the flood hazard and erosion hazard areas as well as the locations of all facilities proposed for the shoreline areas would be helpful.

With respect to erosion control during construction, perhaps the most effective management practice would be to avoid grading during the rainy season.

I hope these comments are helpful. If I can be of further assistance, you can leave a message for me at 984-3254, and I will get back to you. Thank you.

Sincerely,



Robert A. Mullan
Coastal Processes Extension Agent

✓ cc. Bruce Miller, Hawaii Sea Grant



March 19, 2001

Mr. Robert A. Mullane
Coastal Processes Extension Agent
University of Hawaii Sea Grant Extension Service
P.O. Box 331085
Kahului, Hawaii 96733

Dear Mr. Mullane:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui; Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated February 15, 2001 to Mr. John Min, Planning Director, County of Maui. The following are our responses to your comments.

1. Shoreline Processes. Your letter inquired as to whether the studies cited in the Draft EA examined the southern third of the property frontage. The Makai Ocean Engineering, Inc./Sea Engineering, Inc. (1991) study did not examine the shoreline along the southern portion of the property, the nearest transect was along the northern section of Wailea Beach, just south of the subject property boundary (see transect 14, Figure MC-3). Examination of vegetation line movement at this sector indicated that there had been a net accretion of 30 feet since 1949.

The recent University of Hawaii study (2001) noted "that rocky headland areas are considered relatively stable and (were) not included in the calculations of mean erosion rates" and described the rocky headland bordering the north end of Wailea Beach as "prominent".

However, the UH study did include three transects which are at or near the southern portion of the property (transects 25, 26 and 27). These transects are spaced approximately 20 meters apart and therefore cover approximately 40 meters or 120 feet of the shoreline frontage. The results of the study for Wailea Beach and transects 25-27 will be included in the Final EA and are summarized as follows.

The average Annual Erosion Hazard Rate (AEHR) for the entire Wailea Beach was calculated at -0.37 (+/- 0.27) ft./year, this rate was characterized as a "relatively small long term erosion trend" by the preparers of the study. The average rate for Wailea Beach is slightly greater than the AEHR fronting the property, see transects 26 and 27. Multiplying the AEHR by 30 years provides the projected 30-year erosion hazard line. Using the average AEHR for Wailea Beach, the study predicts an inland retreat of the vegetation line of 11.1 feet. The location of the vegetation line fronting the southern portion of the property averages approximately 10 feet seaward of the property line. Thus, the projected

LANDSCAPE ARCHITECTURE AND PLANNING

1955 MAIN STREET, SUITE 200 • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE: 808-242-1955 • FAX: 808-242-1956

Mr. Robert A. Mullane, Sea Grant
Re: Wailea Beach Villas
March 19, 2001
Page 2

30 year erosion hazard line falls within a foot or two inside or outside of the southern portion of the seaward property line, depending on what section of the shoreline is examined.

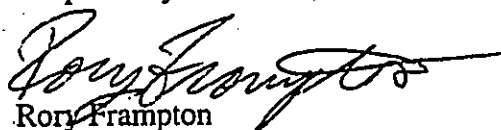
We have included a copy of the North Wailea poster in the Final EA as well as an overlay which depicts the predicted erosion hazard line as it relates to the proposed project.

In summary, the State study did include transects which covered the southern section of the shoreline frontage of the property and the predicted 30 year erosion hazard line is located at or near the subject property boundary. This erosion hazard line is located approximately 35 to 40 feet seaward of the coastal walkway. *There are no improvements planned seaward of the erosion hazard line, as recommended in your letter.*

2. Flood Insurance Rate Map (FIRM) Designations. Exhibit 2 within the Drainage Report (Appendix B) has been corrected to accurately show the location of the subject property. The description in the Draft EA correctly noted that a portion of the property is within the V14 zone. This V zone is located along the shoreline frontage of the property and the base flood elevation is 8 ft above mean sea level. The approximate location of the V14 zone line is depicted on the drainage plan which will be included in the Final EA. The only activities planned within this area will consist of minor landscaping and improvements to the existing coastal walkway. As noted in the Draft EA all of the proposed improvements will be located above the base flood elevation which is established at 8 feet along this section of shoreline. As required by the County, all flood hazard certification forms will be submitted at the time of building permit application.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Managing Partner, Lai Honua LLC
Michael Wright, Construction Manager

16-01 11:45am

From-DEPT OF PLANNING COUNTY OF MAUI

+8082707634

T-223 P.02/02 F-516



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

REPLY TO
ATTENTION OF

February 14, 2001

'01 FEB 15 12:36

DEPT OF THE ARMY
ENGINEER DISTRICT
HONOLULU
RECEIVED

Civil Works Technical Branch

Ms. Ann Cua, Staff Planner
Department of Planning
County of Maui
250 South High Street
Wailuku, Maui 96793

Dear Ms. Cua:

Thank you for the opportunity to review and comment on the Special Management Area Application and Draft Environmental Assessment (DEA) for the Wailea Beach Villas Project, Wailea, Maui (TMK 2-1-8: 91). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. There is not sufficient information in the DEA to enable determination of DA permit requirements for activities planned within the shoreline area (DEA, page 10). For further information, please contact Mr. Peter Galloway of our Regulatory Branch at (808) 438-8416 and refer to file number 200100122.

b. The flood hazard information provided on page 19 of the DEA is correct.

Should you require additional information, please contact Ms. Jessie Dobinchick of my staff at (808) 438-8876.

Sincerely,

James Pennaz
James Pennaz, P.E.
Chief, Civil Works
Technical Branch



March 20, 2001

Mr. James Pennaz, P.E., Chief
Civil Works Technical Branch
Department of the Army
U.S. Army Engineer District
Fort Shafter
Honolulu, Hawaii 96858-5440

Dear Mr. Pennaz:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

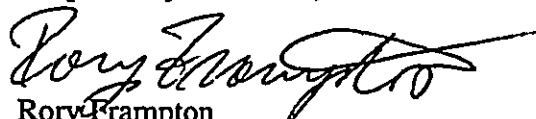
Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated February 14, 2001 to Ms. Ann Cua, Staff Planner, at the Maui County Planning Department. The following are our responses to your comments:

1. Activities within the Shoreline Area. We have included more detailed information regarding proposed activities within the Shoreline Area in the Final Environmental Assessment (EA). As set forth in the proposed plans and technical descriptions contained within the Final EA, the proposed project will not involve any work within waters of the United States and as such will not require a Federal Permit from the Department of the Army.

2. Flood Hazard Information. Thank you for your acknowledgment the flood hazard information provided on page 19 of the Draft EA is correct.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager

Feb-26-01 04:41pm

From-DEPT OF PLANNING COUNTY OF MAUI

+8082707634

T-258 P.02/05 F-618

BENJAMIN J. CAYETANO
GOVERNOR



BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

'01 FEB 23 P2:36
STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378
RECEIVED

In reply, please refer to:
GMD/CWB

02040PJS.01

February 15, 2001

Mr. John E. Min
Planning Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Attention: Ms. Ann Cua
Staff Planner

Dear Mr. Min:

Subject: **Wailea Beach Villas (100 Multi-Family Project)**
3750 Wailea Alanui Drive
Wailea, Maui, Hawaii
TMK: (2) 2-1-008:091
ID No.: SM1 2001/0001; PD1 2001/0001

The Department of Health (Department), Clean Water Branch has reviewed the February 7, 2001 transmittal of the Special Management Area Permit Application, Planned Development Approval Application, and Draft Environmental Assessment for the subject project and has the following comments:

1. The Army Corps of Engineers should be contacted to identify whether a Federal permit (including a Department of Army permit) is required for the construction project. If it is determined that a Federal permit is required for the subject project, then a Section 401 Water Quality Certification would also be required from our office.
2. If the construction project involves any of the following discharges into Class A or Class 2 State waters, a National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for each activity:
 - a. Storm water runoff associated with construction activities, including clearing, grading, and excavation that result in the disturbance of equal to or greater than five (5) acres of total land area. The total land area includes a contiguous area where multiple

Mr. John E. Min
February 15, 2001
Page 2


separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale.

Note: After March 10, 2003, NPDES general permit coverage will be required for discharges of storm water associated with construction activities, including clearing, grading, and excavation that result in the disturbance of one (1) acre or more.

- b. Hydrotesting water; and
 - c. Construction dewatering effluent.
3. If any of the discharges mentioned above enters Class AA or Class 1 State waters, then an NPDES individual permit would be required. A Zone of Mixing would be required for an NPDES individual permit if the discharge has obtained the best degree of treatment and still cannot meet State Water Quality Standards.

Notices of Intent (NOI) for NPDES general permit coverages should be submitted at least 30 days before the discharge is to occur. NPDES individual permit applications should be submitted at least 180 days before the discharge is to occur. NOI and NPDES individual permit application forms can be downloaded from <http://www.state.hi.us/doh/eh/cwb/forms/index.html>. If you have any questions, please contact Ms. Joanna L. Seto, Engineering Section of the Clean Water Branch, at (808) 586-4309.

Sincerely,


DENIS R. LAU, P.E., CHIEF
Clean Water Branch

JLS:cr



March 20, 2001

Mr. Dennis Lau, Chief
Clean Water Branch
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Lau:


Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated February 15, 2001 to Mr. John Min, Planning Director, County of Maui. The following are our responses to your comments.

- 1. Federal Permit Requirements.** The proposed project will not involve any work within waters of the United States and as such will not require a Federal Permit from the Department of the Army.
- 2. NPDES General Permit.** The project abuts Class A State waters according to Water Quality Standards Maps prepared by your Department and as such an NPDES general permit is required based on construction activities occurring on a site greater than 5 acres. No discharges are anticipated from hydrotesting or construction dewatering.
- 3. NPDES Individual Permit.** As noted above, the project abuts Class A waters, therefore none of the anticipated discharges will enter Class AA Waters, and an individual permit will not be required.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Stampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Managing Partner, Lai Honua LLC
Michael Wright, Construction Manager

BENJAMIN J. CAYETANO
GOVERNOR



GENEVIEVE SALMONSON
DIRECTOR

'01 FEB 23 P2:28

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

February 22, 2001

Mr. John Min, Director
Planning Department
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Min:

Subject: Draft EA for Wailea Beach Villas, Maui

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

1. We recommend that the mitigation measures described on page 24 of the draft EA be implemented and included as conditions of any approvals granted for this project.
2. The Maui Police department is concerned about the traffic flow in and out of the project area and the traffic conditions that may be created by this 100-unit development. The department believes that the current traffic infrastructure is inadequate and needs to be addressed before any new development should be allowed. What is your response to this concern?
3. The Maui Department of Parks and Recreation requests that consideration be made for public access to the beach from this project and that a limited number of public parking stalls be made available as close to the beach as practical. What is your response to this request?

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

Sincerely,

Genevieve Salmonson
Genevieve Salmonson
Director

c: Lai Honua LLC
Chris hart & Partners, Inc.



March 20, 2001

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated February 15, 2001 to Mr. John Min, Planning Director, County of Maui. The following are our responses to your comments.

1. Cultural Impact Mitigation Measures. The recommendations of the cultural analyst have been re-worded and identified as mitigation measures in the Final Environmental Assessment (EA). The applicant has no objection to inclusion of the identified mitigation measures as conditions of the Special Management Area Use Permit request.

2. Traffic Impacts. In response to concerns raised by the Police Department, we had a traffic consultant analyze the significance of the anticipated traffic impacts from the proposed project at the various intersections along Piilani Highway up to its intersection with Mokulele Highway. Based on observations by the traffic consultant, inadequate levels of service along Piilani Highway occur at, and north of, Lipoa and on south Kihei road in the vicinity of the Lipoa business district. The analysis concluded that project generated trips along Piilani Highway decreases as the distance from the project increases. Thus, since the number of project trips diminishes, the relative significance of traffic impacts also decreases, especially in light of the higher levels of background traffic. The analysis documents that project generated traffic represents a small percentage of projected traffic flows and, according to traffic engineering standards, the increases are not considered significant. The additional study of impacts on Piilani Highway has been included in the Final Environmental Assessment for the project.

The following points should also be noted:

Low unit density. The proposed number of units (100) is far less than the current entitlements for the property would allow. The Wailea Community Association currently assesses this property based upon an anticipated site build out of 329 units. Furthermore, based on the project's existing size and zoning, the maximum allowable floor area is 437,229 square feet. A project which proposed to utilize the maximum allowable floor area could generate 437 units based on a standard of 1,000 square feet per unit.

Ms. Salmonson, OEQC
Re: Wailea Beach Villas
March 20, 2001
Page 2

Conservative traffic estimates. The traffic consultant's study assumed that the project would be occupied as a luxury condominium/townhouse project, whereas in actuality it is anticipated that the majority of the units would be owned as recreational or second homes. Since the second category generates approximately half the number of trips, the traffic study should be considered as providing conservative (high) estimates.

Maturation of Wailea. Wailea is evolving into a more self-contained community. With the expansion of the Shops at Wailea as well as a planned business center, more services will be available in close proximity to the proposed project which in turn will lessen the need for project residents to travel outside of the Wailea area.

Trip generation characteristics. The anticipated occupants of the project will have different travel patterns than a more typical residential project. Standard residential projects generate high levels of trips during the peak hours due to demands such as job schedules and school hours. It is anticipated that trip generation from the project will be more evenly spread throughout the day, and much less frequent on a daily basis, rather than having sharp concentrations during the peak hours.

Wailea Resort Company is committed to provision of a quality roadway network within and around the Wailea area. Towards this end, a roadway network has been designed and constructed to accommodate the anticipated buildout of the resort. At the time the roadway network was designed, the anticipated build-out was approximately 10,000 units. However, Wailea Resort has amended their Master Plan, such that full build-out will be approximately 5,000 units. Thus, the local roadway network is designed to handle double the amount of anticipated units to be built within the resort. In addition to construction of the internal roadway network, the Resort has also funded the extension of Piilani Highway from Kilohana Drive to Wailea Iki.

With regards to future regional roadway improvements, Wailea Resort committed to cost sharing of regional roadway improvements during the comprehensive rezoning of the resort which was completed in September 1998.

In summary, Wailea Resort has made substantial investments to establish adequate roadway facilities within and around the Wailea area. Existing traffic congestion in South Maui is concentrated outside of the Wailea community during work related commute times and this project will contribute insignificantly to the congested areas of Kihei proper during these peak times. In light of the foregoing information the project is not anticipated to have significant traffic impacts.

3. Beach Access Parking. We have included more detailed response to the issue of beach parking in the context of the overall issue of shoreline access in the Final EA. In brief, Wailea Resort has developed and implemented a comprehensive plan for shoreline access consisting of parking, shower and restroom facilities at the area's beaches as well as a continuous lateral access pathway along the coastline. As such, beach access parking is available at the existing planned facilities.

Ms. Salmonson, OEQC
Re: Wailea Beach Villas
March 20, 2001
Page 3

If you have any further comments or questions regarding the proposed project
please contact me at 242-1955.

Respectfully submitted,



Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager



STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 LAND DIVISION
 P.O. BOX 521
 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

February 27, 2001

LD-NAV

Ref.: SMI200101WBV.RCM

Honorable John E. Min
 Planning Director
 County of Maui
 Planning Department
 250 S. High Street
 Wailuku, Hawaii 96793

RECEIVED
 MAR 13 2001
 2:00 PM
 LAND DIVISION

Dear Mr. Min:

SUBJECT: Project review for Wailea Beach Villa (100 Multi-Family Project) - I.D.: SM1 2001/0002 & PD1 2001/0001
 Wailea, Maui, Hawaii - Tax Map Key: 2-1-08: 91

Thank you for the opportunity to review and comment on the proposed project.

We had transmitted the subject informational material to our appropriate divisions for their review and comment on the subject matter.

Enclosed is a copy of our Land Division Engineering Branch comment. A review of our Shoreline Certification Records (Log File Number MA-230) revealed that the Chairperson certified the shoreline-affecting parcel 91 on August 8, 2000.

The Department has no other comment to offer at this time. Should you have any questions, please feel free to contact Nicholas A.k Vaccaro of the Land Division Support Services Branch at 808-587-0438.

Very truly yours,

Dean Y. Uchida
 DEAN Y. UCHIDA
 Administrator

C: Maui District Land Office

201 JAN 29: 202 WATER & LAND

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii

January 26, 2001

LD/NAV

Ref.: SM1200101WBV.COM

Suspense Date: 02/16/01

MEMORANDUM:

TO: XXX Division of Aquatic Resources
Division of Forestry & Wildlife
Division of State Parks
Division of Boating and Ocean Recreation
OOO Historic Preservation Division (RD)
XXX Commission on Water Resource Management
Land Division Branches of:
Planning and Technical Services
~~XXX Engineering Branch~~
OOO Maui District Land Office (RD)
XXX Shoreline Processing Services

FROM: Dean Y. Uchida, Administrator
Land Division *Andrew Monden*

SUBJECT: Wailea Beach Villas (100 Multi-Family Project)
Draft Environmental Assessment for Special Management
Area Use Permit (ID: SM1 20001/0001, PD 2001/001
Lai Honua, Wailea, Maui, Hawaii - TMK: 2-1-08: 091

Please review the following:

SMA Permit Application (DEA)

and submit your comments (if any) on Division letterhead (signed and dated) within the time requested above. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

() We have no comments.

(X) Comments attached.

Signed: *Andrew M. Monden*

ANDREW M. MONDEN, CHIEF ENGINEER

Date: 2/14/01

DLNR-LAND DIVISION
ENGINEERING BRANCH

COMMENTS

LD/NAV
Ref.: SM1200102.COM

COMMENTS

The proposed development of the Wailea Beach Villas (100 Multi-Family Project) in Wailea, Maui does not affect our current projects and programs.

We confirm that the project site according to FEMA Community Panel Number 150003 0330 B, is located in Zones V14 and C. Zone V14 are areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors are determined and with a BFE equal to eight (8) feet. Zone C are areas of minimal flooding (No Shading). There are no buildings or other structures proposed for construction within the "V" zones.

Please note that the proposed project must comply with rules and regulations of the National flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State Coordinator, Sterling Yong, of the Department of Land and Natural Resources at 587-0248. If there are questions regarding flood ordinances, please contact the applicable County representative.



March 20, 2001

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

Dear Mr. Uchida:


Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated February 27, 2001 to Mr. John Min, Planning Director, County of Maui. The following are responses to your Land Division Engineering Branch's comments.

- 1. FEMA Designations.** Thank you for confirming that the project is located in FEMA zones V14 and C and your determination that no buildings or other structures are proposed for construction within the "V" zones.
- 2. NFIP.** The project has been designed to be in compliance with the rules and regulations of the National Flood Insurance Program and all applicable County Flood Ordinances.

If you have any further comments or questions regarding the proposed project please contact me at 242-1955.

Respectfully submitted,


Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager

JAMES "KIMU" APANA
Mayor

DAVID C. GOODE
Director

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

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



2001 MAR -5 PM 11: 02

COUNTY OF MAUI
**DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT**

200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, P.E.
Land Use and Codes Administration

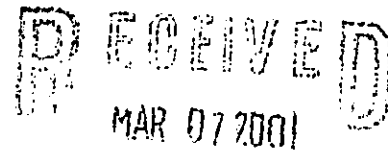
RON R. RISKA, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

ANDREW M. HIROSE
Solid Waste Division

March 2, 2001



MEMO TO: JOHN E. MIN, DIRECTOR OF PLANNING

FROM: *for* DAVID GOODE, DIRECTOR OF PUBLIC WORKS
AND WASTE MANAGEMENT *Milton Arakawa*

SUBJECT: SPECIAL MANAGEMENT AREA/PLANNED DEVELOPMENT PERMIT
APPLICATIONS
WAILEA BEACH VILLAS
TMK: (2) 2-1-008:091
SM1 2001/0001, PD 2001/0001

We reviewed the subject application and have the following comments.

1. The developer should be informed that the WWRD cannot insure that wastewater system capacity will be available for the project.
2. Wastewater contribution calculations are required before a building permit is issued. This shall include recreation areas as well as residential units.
3. The developer shall pay assessment fees for treatment plant expansion costs in accordance with the ordinance setting forth such fees.
4. The developer is required to fund any necessary off-site improvements to the collection system and wastewater pump stations.
5. The wastewater system shall be privately owned and maintained.
6. The owners shall receive written permission from Wailea Golf Resort Inc. to connect to the existing private wastewater system.

Mr. John E. Min
March 2, 2001
Page 2

7. The existing vehicular access onto Wailea Alanui shall be reconstructed and improved to conform to the latest County standards and ADA requirements.
8. A sidewalk is suggested on at least one side of the access driveway to provide a safe accessible route for joggers, wheelchairs, and pedestrians.
9. Off-street parking, loading spaces, and landscaping shall be provided per Maui County Code Chapter 19.36.
10. Accessible design and construction of this project shall comply with Title VIII of the Civil Rights Act of 1968, commonly known as the Fair Housing Act.
11. The project shall comply with the provisions of the County grading ordinance and the drainage rules. As the project is on the shoreline, the project construction and landscaping plans shall address the prohibition of the use of soil as fill except for sand within the shoreline setback area as provided for in the grading ordinance.

MA:da/mt
waileabeach



March 20, 2001

Mr. David Goode, Director
Department of Public Works and Waster Management
County of Maui
250 S. High Street
Wailuku, Hawaii 96793

Dear Mr. Goode:

Subject: Response to comments for Wailea Beach Villas (100 Unit Multi Family Project)
Wailea, Maui, Hawaii TMK: 2-1-08: 91

Thank you for reviewing and commenting on the proposed Wailea Beach Villas via your letter dated March 2, 2001 to Mr. John Min, Planning Director, County of Maui. The following are responses to your comments in the order received.

Nos. 1-3. The applicant acknowledges comments 1-3.

4. Off-site Improvements. Preliminary studies by our project engineer indicate that the existing collection system and pump station are adequate to service the proposed project and no off-site collection system improvements are anticipated as a result of the project.

5. Wastewater System Ownership. The on-site wastewater collection system as shown in bold on the Sewer Plan in Appendix G, will be privately owned and managed by the Wailea Beach Villas.

6. Wastewater Connection Authorization. The right to connect to the existing transmission system was transferred to the applicant at the time of property acquisition.

7. Vehicular access onto Wailea Alanui. The existing vehicular access onto Wailea Alanui will be reconstructed and improved to conform to the applicable County Standards and ADA requirements.

8. Project Access. A safe accessible route for jogger, wheelchairs and pedestrians will be provided from Wailea Alanui into the project site.

9. Off-Street Parking. Off-street parking, loading spaces and landscaping will be provided per Maui County Code Chapter 19.36. The proposed project is currently designed to be in compliance with Chapter 19.36.

10. Fair Housing Act. The project will comply with the Fair Housing Act.

11. Grading and Drainage. The project will comply with the County grading and drainage rules.

Mr. David Goode, DPWWM
Re: Wailea Beach Villas
March 20, 2001
Page 2

If you have any further comments or questions regarding the proposed project
please contact me at 242-1955.

Respectfully submitted,



Rory Frampton
Project Planner

cc: John Min, Planning Director
Mark Whiting, Development Manager, Lai Honua LLC
Michael Wright, Construction Manager

APR 18 2001

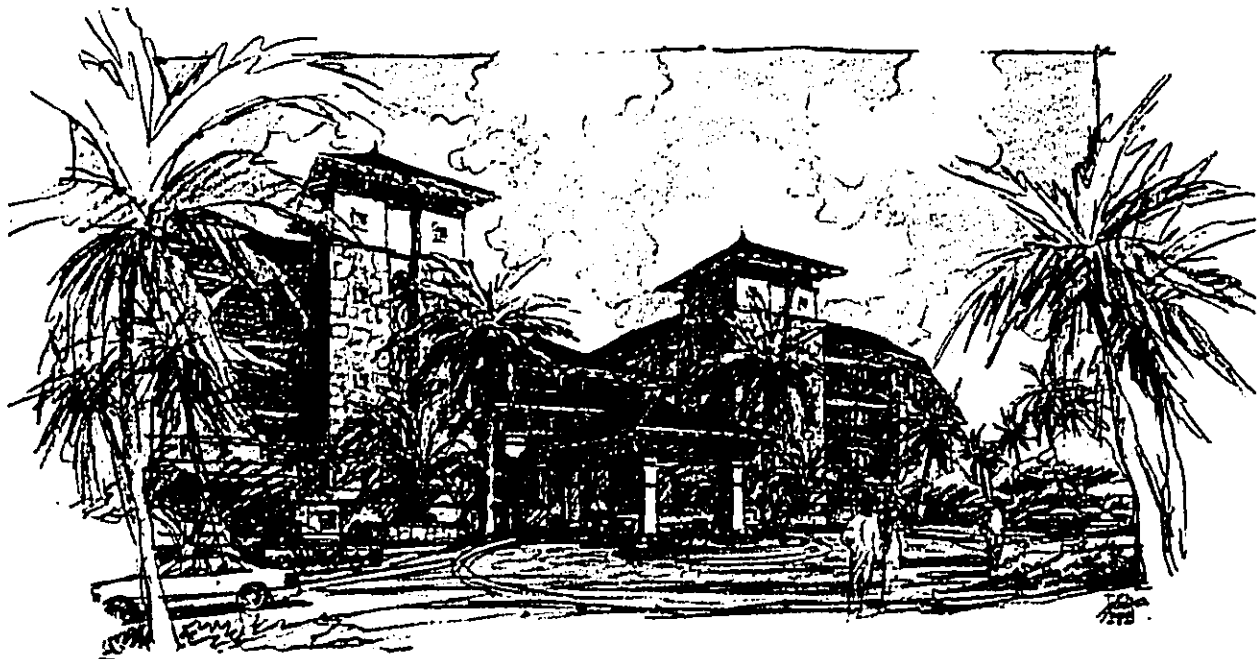
FILE COPY

**Final Environmental Assessment
In support of
Special Management Area Permit Application
Planned Developmental Approval Application**

2001 - 04 - 08 - MA - FEA -

(WAILEA BEACH VILLAS)

LAI HONUA • WAILEA • MAUI • HAWAII



**CHRIS
HART
& PARTNERS**

MARCH 2001

Final Environmental Assessment
In support of
Special Management Area Permit Application
Planned Developmental Approval Application

WAILEA BEACH VILLAS

LAI HONUA • WAI LEA • MAUI • HAWAII

Prepared For:
Lai Honua LLC, C/O
Lokahi Ventures LLC
20 La Ferrera Terrace
San Francisco CA, 94133

Prepared By:
Chris Hart and Partners
Landscape Architecture and Planning
1955 Main Street, Suite 200
Wailuku, Hawaii 96793
Phone:242-1955
Fax:242-1956



MARCH 2001

Final Environmental Assessment

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A *Agency Pre-consultation Response Letters*

B *Drainage Report*

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PROJECT INFORMATION

A. PURPOSE OF THE REQUEST

This environmental assessment has been prepared in support of an application for a Special Management Area (SMA) Permit and a Step 1 Planned Development approval in order to allow for the establishment of a 100-unit multi-family residential condominium project on undeveloped land at Wailea, Maui, Hawaii; TMK: (2) 2-1-08: 091.

B. PROJECT PROFILE

Proposed Project:	Condominium Units (100) 3 Two-story [4-unit] Bungalows 4 Three-story [6-unit] Bungalows 1 Five-story [64-unit] Penthouse Parking Spaces (204) 36 Individual Garages 91 Underground Concealed 77 Outdoor Swimming Pools & Outdoor Recreational Amenities Fitness Center, Lounge and other Ancillary Facilities
Lot Size:	10.74 acres
Existing Condition	Vacant, Partially Landscaped
Access:	Wailea Alanui Drive

C. IDENTIFICATION OF THE APPLICANT

Owner:	Lai Honua LLC
Development Manager:	Mr. Paul T. Lambert Mr. Mark S. Whiting Lokahi Ventures LLC
Address	20 La Ferrera Terrace San Francisco CA, 94133
Phone/Fax:	415-391-4410/415-391-4430

D. CONSULTANTS

Construction Manager: Michael Wright and Associates, Inc.
95 Lono Avenue, Suite 202
Kahului, HI 96722

Contact: Mr. Mike Wright
Phone/Fax: 808-575-2697 / 808-575-2071

Land Use Planner: Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793-1706

Contact: Mr. Rory Frampton
Phone/Fax: 808-242-1955 / 808-242-1956

E. ACCEPTING AGENCY

Agency Department of Planning
County of Maui
250 South High Street
Wailuku, Maui, Hawaii 96793

Phone/Fax: 808-270-7735 / 808-270-7634

F. PRE-CONSULTATION

The applicant has worked extensively with the Wailea Resort Company and the Wailea Community Association (WCA), an organization that includes the owners of individual condominiums, single family homes, hotels, recreational amenities, and undeveloped lots and land parcels. The association provides for the management, maintenance, protection, preservation, aesthetic and architectural control and development of property within the Wailea Resort. WCA has provided considerable input in the design phase of the proposed development.

The applicant has also met with adjacent landowners, including the Outrigger Resort (north), the Shops at Wailea (east) and the Grand Wailea Resort (south) to discuss the proposed development. Salient points of discussion include the proper treatment of property borders with respect to noise and visual buffering, landscape planting, access, and views. The proximity of luxury residences to the upscale commercial facilities available at the Shops and the Grand Wailea Spa was felt to be beneficial to the commercial facilities.

Several State and County Agencies were asked to comment on the project with respect to the preparation of the Draft Environmental Assessment. Agencies that provided pre-consultation comments have their letters included in Appendix A. The following agencies were solicited for comments:

State of Hawaii: Department of Business, Economic Development and Tourism (DBEDT)*
Department of Health
Department of Land and Natural Resources (DLNR)
Department of Transportation*
Office of Hawaiian Affairs (OHA)*

County of Maui: Department of Housing and Human Concerns*
Department of Parks and Recreation*
Department of Planning*
Department of Public Works and Wastewater Management*
Department of Water Supply*
Fire Department
Office of the Mayor*
Police Department*

* response received

I. THE PROPERTY AND THE PROPOSED ACTION

A. LOCATION

The subject property is located within the Wailea Resort, a master-planned resort community consisting of Hotels, Golf Courses, Shopping Centers, and Single and Multi-Family Residential Developments. The resort is located along south coast of Maui's larger volcano (Haleakala), between the towns of Kihei and Makena.

The subject property is an irregularly shaped parcel that is approximately 10.74 acres. The parcel is situated between the Outrigger Resort to the north and the Grand Wailea Resort to the south. The property borders the Pacific Ocean to the west and the recently renovated Shops at Wailea on its east (mauka) border.

(See Figures 1 & 2)

B. BACKGROUND

Zoning for the property was established in 1973 via County Ordinance no 752, which set forth land-zoning allocations for all properties within the Wailea resort. The Resort's master plan was established as a Planned Development, a regulatory regime which allows the developer to adjust the spatial locations of its allotted zoning acreage as long as the overall densities and zoning allocations are in consonance with Ordinance no 752. The subject property, TMK: (2) 2-1-08: 091 was zoned for a combination of commercial and hotel use.

Initial urban activity on the parcel was a result of the construction of the Grand Hyatt Resort (now the Grand Wailea Resort) in the late 1980s. At the time, the subject property was under the same ownership as the Hotel parcel (TMK: (2) 2-1-08: 109). While the Hotel was under construction, the subject parcel was used as a staging and stockpiling site. The makai (seaward) section of the subject parcel was subsequently landscaped along its ocean frontage and has been utilized for special events by the adjoining Hotel. The property has been referred to as "Lai Honua".

In 1989, a SMA permit was issued for a 10-unit single family development with a duplex manager's unit on the subject property. The permit was amended in 1990 to reduce the number of units to six, however development was never initiated.

In 1998, the Grand Wailea Resort Hotel & Spa was purchased by KSL Grand Wailea Resort, Inc. - a subsidiary of KSL Recreation Corporation, which owns and operates other golf and spa resort properties throughout the country. On March 31, 2000, Lai Honua LLC purchased the subject parcel.

C. EXISTING LAND USE

The subject parcel is irregularly shaped and comprises approximately 10.74 acres.

The mauka (landward) section of the property is undeveloped and vacant. It is currently overgrown with Kiawe trees, shrubs, weeds, and grasses. This portion of the site has been used as a dumping area for large amounts of green waste and smaller amounts of concrete and asphalt rubble. A partially paved road exists along the boundary shared with the Grand Wailea Resort. The road extends from Wailea Alanui Road to the lower section of the property.

The makai section of the property has been improved with landscape plantings and has been maintained by the Grand Wailea Resort. This area consists of an open grass lawn bordered by shrubs and trees. The Grand Wailea Resort occasionally utilizes the lawn area for special events. A modern imu has been constructed near the southwest corner of the property.

The coastal portion of the property consists of approximately 440 feet of shoreline frontage. The majority of the exposure is along a rocky point that extends into the ocean. A concrete coastal walkway runs parallel to the coast and provides lateral access along the entire resort. A branch off the coastal walkway in the southwest portion of the property provides direct access to Wailea Beach. A concrete bunker from W.W.II military development is recessed into the rocky shoreline fronting the parcel.

Recent photographs of the property are included in Figures 3.

D. LAND USE DESIGNATIONS

State Land Use Classification:	Urban
Coastal Zone Management:	Special Management Area

	Shoreline Setback Area (portion)
County Zoning:	[H-1] Hotel (6.3 acres) [H-2] Hotel (1.1 acres) [B-R] Resort Commercial (2.1 acres) [O] Open Space (1.2 acres)
County Other:	Planned Development
Kihei-Makena Community Plan:	Hotel

E. DESCRIPTION OF THE PROPOSED ACTION

The Applicant, Lai Honua LLC is proposing to develop 100 luxury condominium units on a 10.74-acres of land.

Residential Structures. The units will be dispersed among (3) two-story "bungalows", (4) three-story "bungalows", and (1) five-story "penthouse" building. The proposed layout of the buildings is illustrated in Figure 5. A variety of unit types are provided, ranging in size from 1600 s.f. to over 3040 s.f. of floor area. The 64 Penthouse units consist of one, two and three bedroom units with an average size of approximately 2040 s.f. The Bungalows consist of 3 bedroom units with an average size of 2730 s.f. The typical floor plans place a special emphasis on "great rooms" and also offer large lanais, kitchens with state of the art appliances, quality finishes and lighting throughout and high-speed data/communication systems.

Common Amenities. A business center will be provided as an amenity for residents of the project and will provide services such as facsimile machines, modem hookups, etc., in order to facilitate business activities for those residents who own units as second homes with business activities elsewhere. A fitness center will provide exercise equipment. Both will be located in the main penthouse building.

Architectural Concepts. Architectural details of the proposed structures are presented in Figures 6A through 6H. The objective of the project is to create a luxury residential community of 100 units that maximizes the positive aspects of the site as well as adding to the existing fabric of Wailea. To best respond to views and site topography, the architecture uses a variety of building types, reducing in scale and massing as one approaches the ocean. The primary building, referred to as the Penthouse, is located at the top of the site to create a buffer between residential and

non-residential uses to the east. This building is set into the landscape with the mauka side showing three stories and the makai side five stories. The building evokes a residential type character with the use of stucco, natural stone, and accented detailing throughout. The main foyer and common indoor use areas are located at the central portion of the building and have been lowered in height to give view opportunities for the retail project located adjacent and above the building.

The remainder of the site is divided into two terraces, which contain the seven "bungalow" structures. The lower terrace, which is closest to the water, contains buildings 1, 2 and 3, which are two stories in height and consist of 4 units each. The middle terrace contains buildings 4, 5, 6, and 7, which are three stories in height and consist of 6 units each. All buildings are placed in a random "village-like" plotting to maximize views and maintain privacy. The exteriors relate to the main building in color and materials with the addition of wood elements and full sloping roofs to read "residential". These smaller buildings have the massing and scale similar to a custom residence feeling, and help the project's view from the ocean feel less imposing.

A design goal was to keep the impact to the oceanfront to a minimum by not having large tall buildings at the water's edge. The project aims to create an elegant, sophisticated residential feel that enhances and expands the Hawaiian experience of Wailea.

Landscape Improvements. Landscape improvements are illustrated in Figure 5. The landscape architecture plan is intended to be consistent with the existing landscape fabric of surrounding properties as well as the Wailea Resort. A major focus of the site planning and landscape plan was to create a garden like setting in the interior of the project, minimizing the presence of automobiles. Perimeter treatment is intended to blend with and provide a buffer from adjoining properties. The upper parking area and access way will be lined with monkey pod trees to match the neighboring properties. Hedges and ground covers also match neighboring properties and include areca palms, ginger and lauae ferns. Water features are provided throughout the center portion of the site, originating as a waterfall near the main entry to the penthouse. A stream runs along the entire central portion of the site, flowing from the upper to the lower recreational pools. Internal mauka/makai walkways follow along the central waterway. A variety of smaller plumeria trees are provided within the center portion of the site. Retaining walls are serpentine and covered with creeping fig in order to soften their appearance. The lower or makai portion of the property is intended to convey a open setting and

feel, consisting primarily of grassed lawns and coconut trees. Other features of the landscape-planting plan include the provision of tropical fruit and flower gardens on the mauka side of the penthouse building as well as grassed lawn areas in front of most of the ground floor units.

Parking. Parking within the project site will be designed and constructed in accordance with the provisions of Section 19.36 of the Maui County Code (Off street Parking and Loading). Approximately 204 parking stalls will be provided for the residents (2 stalls/unit). Consistent with the design goal of minimizing the presence of the automobile, the majority of stalls will be located out of site in private garages or in a concealed garage under the main "Penthouse" building.

Activities within the Shoreline Area. Development within the shoreline area will include aesthetic and functional improvements to the coastal walkway area (re-paving, landscape planting and features, entry gates), an underground wastewater connection to an existing collection line, a subsurface drainage detention/percolation basin, and recreational amenities for the residents including portions of a swimming pool, barbecue areas, a single story restroom/pool equipment building, landscape planting and amenities.

Access. Access to the project is along Wailea Alanui Drive. The project driveway is approximately 270 feet south of the south entrance of the Shops at Wailea. The bulk of the subject parcel is located below the Shops at Wailea, and access is via a 50-foot corridor stemming from the buildable area. The 50-foot corridor will be developed into a two-lane entry. The driveway interface with Wailea Alanui Drive will be widened to accommodate right and left turn outbound lanes.

Infrastructure. Other site improvements include the provision of infrastructure and utility services to the buildings and units including water, electrical/cable/phone, wastewater collection, and drainage. (See section III.D. for detailed discussions of infrastructure, draft civil engineering plans are included in Appendix G)

Construction. Construction is anticipated to begin in mid 2001, once all of the required State and County Permits have been issued. It is anticipated that full build-out of the site will require approximately 12 to 18 months to complete. There will be short-term construction related impacts to the surrounding environment. Standard mitigation measures to control these impacts are described in Section II of this report. Construction costs are estimated at \$60 million dollars.

Summary of Project Design Specifications.

Project Design Specifications		
Lot Area		10.74 Acres (467,834 SF)
No. of Resort Condo. Units		100
Managers Unit		1
Density	101/10.74	9.4 Units per Acre
Resort Unit Type	1,2- or 3-bedroom Penthouse units, at average 2040 SF	64
	2- or 3-bedroom Bungalow units. at average 2730 SF	36
Number of Buildings	2-Story Bungalow 3-Story Bungalow 5-Story Penthouse	3 4 1
No. Resort Units per Building	2-Story Bungalow 3-Story Bungalow 5-Story Penthouse	4 (12 units total) 6 (24 units total) 64 (64 units total)
Building (roof) Height	2-Story Bungalow 3-Story Bungalow 5-Story Penthouse	30 Feet 41 Feet 75 Feet
Parking	Bungalow Garages Concealed under Penthouse Open Total Stalls Provided	36 Stalls 91 Stalls <u>77 Stalls</u> 204 Stalls
	Required @ 2 Stalls/Unit	202 Stalls

F. ALTERNATIVES

1. No Action

Analysis. The subject property is currently undeveloped; a small portion is occasionally used by the Grand Wailea Resort for special functions. In recent history, Wailea area lands were used for low intensity grazing and other agricultural activities. However, due to unfavorable topographical conditions, climate, soils, and increasing urbanization, agricultural land uses in the area have largely been abandoned. Nearly all properties in the area have been developed for

resort type uses or are zoned and community planned for such uses. Thus, active agricultural operations in this area would be largely incompatible.

In summary, the No Action alternative would leave the landowner with little reasonable use of the property, since economically feasible non-urban uses for the property are scarce.

2. Alternative Styles, Size, and Configuration

Analysis. Various alternative configurations were considered in the design phase of the project. A summary of these alternatives is presented below:

More Units. The subject project could be designed to maximize development of the site. As mentioned, the subject property contains County H-1 and H-2 Hotel Districts, which allows for 2 and 12-story building heights (respectively), maximum lot coverages of 25% and 35%, and Floor Area Lot Area Ratios of 0.5:1 and 1.5:1. The proposed lot coverage is approximately 90% of the maximum permitted and the Floor to Lot Area Ratio is approximately 66% of the maximum permitted. Maximizing development of the property might include building more and higher buildings with a greater number of units per building or larger units. However, adding additional units would require more land being allocated towards building and parking thereby significantly reducing the amount of open space within the project area and degrading the quality of the built environment. In addition, more units would also produce greater environmental impacts and place greater burdens upon public infrastructure and service systems.

In conclusion, more units would result in greater negative environmental impacts to the community, increase development costs, and produce a less desirable living environment for the project's residents.

Fewer Units. Reducing the height and number of buildings, and/or increasing the size of the units per building would produce fewer units. However, decreasing the number of units would require that certain fixed development costs, i.e. land acquisition, planning and design studies, and on-site infrastructure improvements, be amortized over fewer units thereby increasing the cost per unit and resulting in a less profitable or an economically unviable project.

Alternative Styles:

Massing. Massing affects the size and separation between buildings and is an important consideration in urban design. Generally speaking, massing of buildings

within a proposed development should be architecturally compatible with adjacent development and future land use patterns. In comparison to what is proposed, the same number of units could be created with higher-story structures placed closer to the shoreline. However, orienting larger buildings toward the shoreline, would create a very visible building and would significantly alter the character of the proposed project and may produce greater impacts to adjacent land uses and the shoreline experience.

Massing also allows for visual corridors throughout the property. As a result of input from the neighboring properties and the Wailea Community Association, the architectural plans for the lobby are were redesigned to provide a greater view corridor between the penthouse wings. Lowering the lobby structure, widening the proposed gap between the buildings from 30 to 84 feet, and re-locating the elevator towers further away from the lobby accomplished this goal. While this change did reduce the value of several potential units, it provided an important visual corridor to a mauka commercial development, and created a greater harmony between the uses.

Alternative Architectural Design. The project architecture, massing and materials evoke an upscale residential character. In contrast, the project could be designed more economically with flat roofs and finished with other materials, however, the project would be out of character with the Wailea region's theme and sense of place.

G. REQUIRED PERMITS

State of Hawaii

- NPDES (Grading)

County of Maui

- Special Management Area Permit
- Shoreline Area Administrative Approval
- Grading, Building, and Driveway Permits
- Permit to Perform Work within the County Right-Of-Way
- Flood Hazard Area Development Permits

II. AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Land Use

Existing Conditions. With the exception of the most seaward section of the property, the majority of the subject property is undeveloped. It is currently overgrown with Kiawe trees, shrubs, weeds, and grasses. Surrounding developments have used the site to dump large amounts of green waste and smaller amounts of concrete and asphalt rubble. A partially paved road runs along the southern boundary, from Wailea Alanui Drive to the landscaped shoreline section.

The makai section of the property is landscaped and well maintained. A concrete coastal walkway that provides lateral shoreline access along the entire resort continues through the frontage of the subject parcel. Upland of the walkway, there is a large open grass lawn that is occasionally used by the nearby Hotels for special events. Above the lawn and separated by vegetation, a concrete pad serves as a staging area for the functions below.

The property is one of Wailea's few remaining undeveloped parcels and is situated among some of most prestigious Hotels and golf courses. A summary of surrounding land uses is below:

Immediate North:	Outrigger Resort (Hotel)
Surrounding North:	Wailea Elua (Multi-Family Residential)
Immediate East:	The Shops at Wailea (Commercial Retail/Restaurant)
	Wailea Alanui Drive (Primary Roadway)
Surrounding East:	Wailea "Blue" (Golf Course)
	Vacant Land
Immediate South:	Grand Wailea Resort (Hotel and Spa)
Surrounding South:	Four Seasons (Hotel)
	Wailea Point (Multi-Family Residential)

West:

Pacific Ocean

Potential Impacts and Mitigation Measures. The proposed use of the subject parcel is residential, and thus is consistent with the surrounding multifamily and hotel residential developments. The adjacent business-resort use is also consistent with the residential-resort community and provides convenience to the residents of adjacent parcels.

2. Topography and Soils

Existing Conditions. The property generally slopes from east to west within a series of natural terraces at an average grade of 7.7 %. The low elevation of 2 ft. is located where the land reaches the ocean. The high elevation of the buildable area is 77 ft. is located at the westerly boundary near the Shops at Wailea. The elevation at the entry along Wailea Alanui Drive is 102 ft.

The two soil types specific to the subject property are Makena loam, stony complex, 3 to 15 percent slopes (MXC) and Dune land (DL). MXC soils consist of a mixture of both Makena loam and Stony land. The Stony land makes up approximately 30 to 60 percent of the MXC. Makena loam's permeability is moderately rapid, runoff is slow to moderate, and the erosion hazard is slight to moderate. The Stony land part has very rapid permeability and no erosion hazard. The Dune land (DL) customarily occurs in the coastal areas of Maui and consists of windblown sand particles accumulating and forming hills and ridges.

Potential Impacts and Mitigation Measures. The proposed grading plan is shown on Figure 9. Erosion control measures will be implemented during the site preparation phase in order to minimize the potential for negative impacts from soil erosion. Specific erosion control measures are listed in the Drainage section of this report (see Section III.D.2). A detailed grading plan will be submitted to the Department of Public Works and Waste Management prior to construction in compliance with the County's Grading Ordinance.

3. 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 background and emissions from many pollution sources. The impact of land development activities on air quality in a proposed development's locale differs by project phase (site preparation, construction, occupancy) and project type. In general, air quality in the

Wailea region is considered relatively good. Non-point source emissions (automobile) are not significant to generate high concentration of pollutants. The relatively high quality of air can also be attributed to the region's exposure to wind, which quickly disperses concentrations of emissions. The Wailea area is currently in attainment of all criteria pollutants established by the Clean Air Act, as well as the State of Hawaii Air Quality Standards.

Potential Impacts and Mitigation Measures. Air quality impacts attributed to the proposed project could include dust generated by the short-term construction related activities. Site work such as grading and building construction, for example, could generate airborne particulate. Standard dust control measures such as regular watering, sprinkling, and the installation of dust screens will be implemented to minimize the potential impact from wind-blown emissions.

The increase in the number of residents 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 the overall number of vehicles in Kihei-Wailea-Makena and in consideration of existing ambient conditions. Thus, the proposed project is not anticipated to be detrimental to local air quality.

4. Noise Characteristics

Existing Conditions. The noise level is an important indicator of environmental quality. In an urban environment, noise is due primarily to vehicular traffic, air traffic, heavy machinery, and heating, ventilation, and air-conditioning equipment. Ramifications of various sound levels and types may impact health conditions and an area's aesthetic appeal. Noise levels in the vicinity of the project area are generally low. Traffic noise from Wailea Alanui Drive and noises from nearby visitor and commercial facilities are the predominant sources of background noise in the vicinity of the subject property. Wind and surf are the primary natural background sources of noise for the region.

Potential Impacts and Mitigation Measures. In the short-term, the proposed project could generate some 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 to the surrounding neighbors, the developer will limit construction activities to normal daylight hours, and adhere to the State Department of Health's noise regulations for construction equipment. These measures would require:

- ◆ Mufflers on on-site vehicles or devices whose operations involve the exhausting of gas or air, excluding pile hammers and pneumatic hand tools weighing less than 15 pounds.
- ◆ Construction vehicles using trafficways must satisfy the DOH's vehicular noise level requirements
- ◆ Permits from the DOH where construction noise exceeds the DOH's "maximum permissible" property line noises. These permits will also limit the hours and days in which construction noises may occur.

In the longer-term, the proposed project should not significantly impact existing noise conditions in the area due to the relatively small increase in traffic generated by the project. The proposed residential apartments are compatible with the surrounding urban development that includes other condominium type apartments, hotel guestrooms, visitor amenities, and commercial shops. Since the project area is surrounded by a compatible urban noise regime, no long-term impacts due to noise are anticipated.

5. Biological Resources

Existing Conditions. Existing vegetation consists of landscaped gardens, lawns and mature trees as part of the existing Wailea Resort landscape theme. Plant materials include but are not limited to Lauhala, palm, plumeria, shower tree, monkey pod, banyan, and wili wili trees. There are stands of Kiawe trees located typically on land that has not been developed. There are no known rare, endangered or threatened species of plants at the subject property.

Animal life in the vicinity similarly reflects the urban character of the region. Avifauna typically found in South Maui includes the common myna, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rodents, and mongoose.

No rare, threatened, or endangered species, or their habitats are known to exist in the project area. No substantial impacts to unique or special biological resources are anticipated.

6. Shoreline Processes

Existing Conditions. The subject parcel has a coastal frontage of approximately 440 feet and is situated on a rocky headlands between Wailea (south) and Ulua (north) Beaches (See Figure 3A). The majority of the parcel's frontage, approximately 300

feet, is situated along rocky outcroppings which extend into the ocean. The developable sections of the property are located directly mauka of the rocky headlands. The southern end of the property extends like a point towards Wailea Beach, where the coastline is a mixture of beach sand and rock. Photographs of the coastline are included in Figure 3A.

Studies of coastal erosion rates in the general area have been produced by Sea Engineering Inc. and the University of Hawaii's School of Ocean & Earth Science and Technology. Rocky headlands are considered to be stable, and accordingly each study omitted these outcroppings from sampled transects used to measure or predict coastal erosion.

The Makai Ocean Engineer, Inc./Sea Engineering, Inc. (1991) study did not examine the shoreline along the southern portion of the property, the nearest transect was along the northern section of Wailea Beach, just south of the subject property boundary (see transect 14, Figure MC-3). Examination of vegetation line movement at this sector indicated that there had been a net accretion of 30 feet since 1949.

The recent University of Hawaii study (2001) noted "that rocky headland areas are considered relatively stable and (were) not included in the calculations of mean erosion rates" and described the rocky headland bordering the north end of Wailea Beach as "prominent".

However, the UH study did include three transects which are at or near the southern portion of the property (transects 25, 26 and 27). These transects are spaced approximately 20 meters apart and therefore cover approximately 40 meters or 120 feet of the shoreline frontage. The results of the study for Wailea Beach and transects 25-27 are summarized as follows.

The average Annual Erosion Hazard Rate (AEHR) for the entire Wailea Beach was calculated at -0.37 (+/- 0.27) ft./year, this rate was characterized as a "relatively small long term erosion trend" by the preparers of the study. The average rate for Wailea Beach is slightly greater than the AEHR fronting the property, see transects 26 and 27. Multiplying the AEHR by 30 years provides the projected 30-year erosion hazard line. Using the average AEHR for Wailea Beach, the study predicts an inland retreat of the vegetation line of 11.1 feet. The location of the vegetation line fronting the southern portion of the property averages approximately 10 feet seaward of the property line. Thus, the projected 30 year erosion hazard line falls within a foot or two inside or outside of the southern portion of the seaward property line, depending on what section of the shoreline is examined.

A copy of the North Wailea poster as well as an overlay, which depicts the predicted erosion hazard line as it relates to the proposed project, is included in Appendix H.

In summary, the State study did include transects which covered the southern section of the shoreline frontage of the property and the predicted 30 year erosion hazard line is located at or near the subject property boundary. This erosion hazard line is located approximately 35 to 40 feet seaward of the coastal walkway. There are no improvements planned seaward of the erosion hazard line.

Potential Impacts and Mitigation Measures. Major developments are proposed 150 feet or greater from the shoreline and are oriented behind the rocky portion of the shoreline. Minor structures planned within the setback are also located behind the rocky point and are significantly upland. There is no development proposed immediately mauka of the southern or sandy portion of the parcel's frontage. Therefore, no interaction with shoreline processes is anticipated.

7. Flood and Tsunami Hazard

Existing Conditions. According to Panel Numbers 150003 0330B revised June 1, 1981, of the Flood Insurance Rate Maps, prepared by the U.S. Federal Emergency Management Agency, Federal Insurance Administration, the project site is situated within Flood Zones V14 and C. Zone V14 is designated as an area of the 100-year coastal flood with velocity (wave actions) where flood elevations and flood hazard factors have been determined. Zone C is designated as an area of minimal flooding. The base flood elevation for the coastal flood zone is 8 feet.

Potential Impacts and Mitigation Measures. The portion of the project site located within areas designated as Zone V14 (a narrow strip along the shoreline) will not be developed except for landscape plantings and improvements to the public access walkway. The majority of these improvements will be located above the base flood elevation of 8 feet. The proposed project should not be affected by or have an adverse impact upon its neighbors or downstream properties with regards to flood hazard potential (See Appendix B, Preliminary Drainage Report).

8. Archaeological and Historical Resources

Existing Conditions. An archaeological assessment survey of the subject property was recently conducted (See Appendix D). The assessment survey methodology

consisted of a review of readily available background information (including reports of prior archaeological investigations of the parcel and its immediate vicinity), a surface survey field inspection of the parcel, and consultations with archaeological staff of the State Historic Preservation Division (SHPD).

Prior surveys of the site and adjacent parcel in 1979, 1980, 1986, and 1987 led to the discovery and study of five sites on the nearby Grand Wailea Resort property. One site near to the subject parcel (Site 2011) was a surface midden with no structural features. After data was collected from the site, the investigating archaeologist and the State Historic Preservation Division concurred that the site was no longer significant. The northwest wing of the Grand Wailea Resort now occupies the site.

A field inspection of the subject parcel was performed on October 13, 1999. No surface cultural deposits were observed during this inspection. It was noted that the northern and eastern portions of the project have been graded, and that the makai section has been landscaped.

While no surface cultural features were found during any field investigations, previous subsurface findings at the nearby parcel warrant that the applicant test for subsurface deposits/burials or develop a construction-monitoring plan.

Potential Impacts and Mitigation Measures. An archaeological monitoring plan has been developed (See Appendix E) and will be reviewed by the State Historic Preservation Division (SHPD). The plan outlines the extent and nature of monitoring procedures for excavation activities involving areas of the project site which have been previously undisturbed. In addition, should any sub-surface archaeological or cultural materials be found during other construction activities, the Department of Land and Natural Resources Historic Preservation Division will be notified so that appropriate actions can be determined.

The Office of Hawaiian Affairs will be notified if human burials are inadvertently discovered during construction. In addition, if the any archaeological or cultural materials are found and prove to be Hawaiian, OHA and other appropriate native Hawaiian organizations, including the project's cultural consultant, will be notified.

9. Visual Resources / Urban Design

Existing Conditions. Wailea's natural scenic resources include intermittent views of the Pacific Ocean, and Mt. Haleakala from public roadways. Wailea itself is also a scenic destination, due to demanding design guidelines that govern both public and private space. In addition, the Wailea Community Association (WCA) maintains a

scenic common space that is characterized by wide parkways that feature monkey pod tree canopies, landscaped medians, and underground utilities, as well as lush grass lawns at public recreational facilities. Wailea's resort character is strictly enforced by the WCA's design committee, which must approve new development before it can be constructed.

Public views across the property are limited. Ocean views from Wailea Alanui Drive are obstructed due to topography, vegetation, and existing structures including Hotels and recent re-development of the Shops at Wailea. While the views from Wailea Alanui Road directly in front of the Shops are completely obstructed, partial ocean views exist while looking over the adjacent parking lots. These views however, are anticipated to decrease as the canopy trees in the parking lot mature. Photographs of such views are included in Figure 3C. An inventory of exceptional views from the area, views from Wailea Alanui Drive and Wailea Ike Drive, and views from the Shops at Wailea courtyard are included with analysis in a view corridor study which is included as Appendix I.

Mauka views from the coastal walkway are partially obstructed by topography, vegetation, and adjacent development including mid-rise wings of the Grand Wailea Resort, the Shops at Wailea building, and associated structures of the Outrigger Resort.

Potential Impacts and Mitigation Measures. Given the topography and location of the subject parcel, development will result in partial impacts to views from Wailea Alanui Drive. However, as discussed above, these views are rather obstructed by existing development, and will be impacted to a greater extent as the trees in the Shops at Wailea parking lot mature.

As discussed in Section II of this report, building massing and placement has been designed to accommodate the unique visual features of this parcel. Pushing structures behind the shoreline setback, and scaling from low building to higher has maximized open space along the shoreline. Also, the applicant has revised the building design to accommodate a larger opening within the main building to support a greater view from the center of the renovated Shops at Wailea.

The development was designed and revised with considerable input by the Wailea Community Association. From an urban design perspective, the proposed project will compliment existing development rather than alter the character of the area.

As such, the proposed project is not anticipated to significantly impact public view corridors and will not produce significant adverse impact upon the visual character of the site and its immediate environs.

10. Hazardous Waste

Existing Conditions. While the project site has been used for a green waste dumpsite, no evidence of hazardous wastes is present. The project site does not support any underground storage tank system, RCRA regulated hazardous waste generators, landfills, or reported hazardous materials spills.

Potential Impacts and Mitigation Measures. No impacts due to hazardous waste are anticipated.

B. SOCIAL AND ECONOMIC ENVIRONMENT

1. Population

Existing Conditions. Maui County experienced relatively strong population growth during the past decade with the 1990 population expanding to 100,504, a 41.6% increase over the 1980 population of 70,991. Population growth is projected to continue with the year 2010's population projected to reach 140,060. Similarly, visitor growth has increased significantly in the County over the last decade with the average daily visitor count increasing from 15,363 in 1980 to 43,270 in 1997, a 280% increase in visitors per day. Likewise, Kihei-Makena experienced high growth rates as the population grew to 15,365 in 1990, up from 7,263 in 1980 and 1,636 in 1970. The average daily visitor population of the region in 1990 was 16,079 (Kihei-Makena Community Plan, March 1998). The resident population of Wailea-Makena in 1990 was 3,799 (County of Maui, Department of Economic Development, 1999).

Potential Impacts and Mitigation Measures. Using a conservative population multiplier for 1-3 bedroom units in the Wailea area, the proposed project may increase the population of the immediate Wailea area by approximately 200 persons (2.0 persons/unit). However, it is expected that many of the units will be sold as vacation homes to buyers from outside of Maui County, who wish to regularly return to this vacation area, thereby reducing the number of people at the project at any given time.

2. Economy

Existing Conditions. The South Maui economy is based primarily upon the visitor industry. Visitor accommodations are located along the shoreline along with various support facilities, multi-family, and single-family residential developments. Wailea has developed into an important visitor destination anchor. Makena is significantly less developed.

Potential Impacts and Mitigation Measures. The project will generate construction-phase economic impacts that are generally short-term effects. They include employment, income, and expenditure impacts that are created by on-site and off-site construction employment, on-site and off-site trade/ transportation/ service employment, and manufacturing employment in support of construction. The post-construction, operational economic impacts are long-term consequences generated by the project. They encompass employment, income, and expenditure impacts created by the project's employees including management, maintenance, and landscape workers. The proposed project will produce a limited number of full and part-time jobs in support of the development.

3. Cultural Resources

Existing Conditions. A Cultural Impact Assessment Report was prepared by Kapiioho Lyons Naone Cultural Consulting, Inc., which describes the potential impact on cultural practices and beliefs resulting from the proposed action (See Appendix F). The assessment covered the entire project site. The methods used to conduct the assessment included:

- Walking and feeling the entire property;
- Interviewing fishermen and area residents;
- Researching previous reports of archaeological findings on the subject property and neighboring properties; and
- Consulting with those familiar with modern construction and dumping in the area

From a cultural practices and beliefs perspective, the analyst reports that the general area of the project was an ancient fishing village and light farming area with significant subsistence gathering and fishing for food such as seaweed (limu), sea urchins (opihī, pipihī, and ahukihuki), and black crab (a`ama). The existence of a fishing shrine (ku`ula) on the adjacent Outrigger Hotel property and the existence of salt beds/bowls on the shoreline fronting the property are evidence that supports the cited shoreline uses.

Shoreline access is provided via the coastal walkway. Wailea Beach Park (.4 miles south) and Ulua/Makapu Beaches (.5 miles north) have parking and restroom facilities.

Based on extensive field visits and reviews of archaeological reports, the analyst concluded:

- There are no current, existing visible cultural sites or practices on the property inland of the coastal walkway
- Plants located on the property are not native or medicinal
- An imu pit located in the landscaped section is of modern design
- Current access to the shoreline area is adequate; nearby parking and restroom facilities are convenient and adequate.

Potential Impacts and Mitigation Measures. The following consists of the detailed mitigation plan for the implementation of measures to mitigate cultural impacts as recommended by the cultural impact assessment.

- a. The natural shoreline features for the gathering and production of salt (salt beds or bowls) which are located along the rocky shoreline fronting the parcel will not be impacted by the proposed project. An interpretive signage plan will be developed in consultation with the project's cultural consultant in order to educate the public and ensure preservation of these features.
- b. Archaeological monitoring will occur during grading and excavation activities as detailed in the archaeological monitoring plan as approved by the State Historic Preservation Division.
- c. The existing walkways which provided for public access along the makai section of the property will be preserved and improved (widened and leveled) to ensure easy access for shoreline subsistence gathering and fishing as well as recreation.
- d. An appropriate Hawaiian blessing will be conducted at groundbreaking and at completion of the project, in conformance with ancient practices that bring respect to the land and the ancestor spirits of the land.
- e. Activities such as fireworks displays and other activities that may be degrading to the sacredness of the place will be prohibited from occurring on the subject property. It is noted that activities which occur outside of the subject property boundaries are beyond the control of the landowner.

- f. Preservation of artifacts and features for the purposes of continued learning will be considered in the event that such artifacts or features may be found during construction.

Based upon the presented analysis, no impacts to cultural resources are anticipated due to the proposed action.

C. PUBLIC SERVICES

1. Recreational Facilities

Existing Conditions. South Maui has a wide reputation as a recreational destination, particularly for ocean related activities. Ocean sports and recreation available in the region include golfing, swimming, fishing, surfing, scuba diving, snorkeling, sailing, and kayaking. State and County beach parks within close proximity to the project area include Polo Beach, Big Beach, Makena Landing, Poolenalena Beach Park, Wailea Beach, Ulua Beach, and Kamaole Beach Parks, and numerous other beach parks along the Kihei coastline. The Wailea Blue Golf Course is located mauka of the project site.

Shoreline access is provided to Wailea and Ulua Beaches via County beach parks. Wailea Beach Park (.4 miles south) and Ulua/Mokapu Beach Park (.5 miles north) have parking and restroom facilities, and are accessed from Wailea Alanui Drive. Lateral shoreline access is provided via the coastal walkway that traverses through the makai section of the subject property and follows the entire coastline of the Wailea Resort.

Potential Impacts and Mitigation Measures. The proposed project will offer two outdoor recreational areas with swimming pools for its occupants. A fitness facility with aerobic and weight machines will be available in the Penthouse building. In addition, the applicant will comply with the requirements of Maui County Code Section 18.16.320, in order to satisfy park assessment requirements.

Public recreational use of the shoreline will not be impacted. The coastal walkway fronting the property will be widened and improved to facilitate lateral access. No impacts to surrounding public parking or restroom facilities are anticipated.

Thus, the proposed project is not anticipated to impact public recreational facilities in the region.

2. Police and Fire Protection

Existing Conditions. There is one fire station serving this community. The fire station is located at 11 Wamahaihai Street at Kalama Park, which is north of the subject site. The Kihei Fire Station is equipped with a 1,500-gallon pumper, and is staffed by one captain and five firefighters per twenty-four hour shift.

Patrol officers on assignment provide police services for the Kihei-Wailea-Makena sub district from a new police sub-station at Kihei Town Center

Potential Impacts and Mitigation Measures. Since no significant increase in population levels are anticipated due to the project and the project is located in an area currently serviced, no adverse impacts upon existing police and fire protection services are expected.

3. Schools

Existing Conditions. There are two elementary schools and one intermediate school in the area. Kihei and Kamalii Elementary and Lokelani Intermediate Schools serve the Wailea region. Until recently, Kihei students attended H.P. Baldwin High School in Wailuku but are now required to attend Maui High School in Kahului. The newly constructed Kamalii Elementary School is the closest elementary school to the project site, and is located about 5 miles from the project. The Department of Education provided enrollment figures but did not provide capacity information.

The enrollment figures are:

	<u>1996</u>	<u>1997-98</u>
Kihei Elementary School	911	903
Kamalii Elementary School	583	677
Lokelani Intermediate	660	691

Figures for 1997 and 1998 for the two high schools serving the area are as follows:

Maui High	1,708 (475 Kihei students)
Baldwin High	1,832 (250 Kihei students)

Potential Impacts and Mitigation Measures. Using national demographic multipliers for standard housing types of school aged children (American Housing Survey, 1987- Blended multiplier for Garden Apartments, national average), the

proposed project could increase the student population of the affected schools by approximately:

Grade	Students	Multiplier
K-6	7.8	[.078]
JHS	4.4	[.044]
HS	3.4	[.034]

However, since retirees and vacation-home buyers are anticipated to purchase many of the proposed units the total number of school aged children residing within the project may be significantly less. It is not anticipated that the proposed project will significantly impact public education facilities, given the projected demographic profile of prospective purchasers and given the minimal population increase generated by the project.

4. Medical Facilities

Existing Conditions. The Wailuku based Maui Memorial Medical Center provides centralized medical services for the Island. Medical and dental offices are located in Kihei and Wailea to serve the region's residents.

Potential Impacts and Mitigation Measures. As noted, since it is anticipated that the proposed project will not result in an overall significant increase in population levels, the proposed project is not anticipated to have an adverse impact upon existing medical facilities.

5. Solid Waste

Existing Conditions. Only two landfills are currently operating on Maui, the Central Maui Landfill in Puunene, and the Hana landfill. Residential solid waste collection is provided by the County and taken to the Central Maui Landfill, which also accepts waste from private refuse collection companies.

Potential Impacts and Mitigation Measures. Based upon national standards for solid waste production the subject project will generate approximately 0.00175 tons/day per resident (A Primer on Industrial Environmental Impact, 1979). Thus, the project will generate approximately 0.35 tons or 700 pounds/day of solid waste. However, since it is anticipated that a considerable number of the proposed units will be purchased as vacation homes, and therefore only occupied for part of the year, the amount of solid waste generated per day may be significantly less. Solid waste collection for the proposed project will be contracted to a private collection

company. Green waste from the site will be either mulched on site or deposited at the Central Maui landfill's green waste recycling facility. It is envisioned that some of the green waste may also be used as mulch for other projects in South Maui. During construction the applicant will incorporate a job site recycling plan in order to reduce the amount of construction related waste generated by the project.

D. INFRASTRUCTURE

1. Water

Existing Conditions. The water system in Wailea Resort consists of three service levels. The subject property is within the low level service (LLS) area. The source of water for the LLS area is wells located in Mokuahau in Iao Valley. This source is supplemented by deep wells located in Upper Waiehu as well as recently developed wells in Waihee. The Mokuahau and Waiehu sources draw water from the basal lens referred to as the Iao Aquifer. The Waihee wells draw water from the Waihee Aquifer.

A 16-inch line that runs along Wailea Alanui Drive supplies water transmission to the subject property.

Potential Impacts and Mitigation Measures. According to the "Domestic Consumption Guideline" in the Water System Standards for Department of Water Supply (DWS), the average daily demand for multi-family projects is 560 gallons per unit. Therefore, the total average daily domestic demand is estimated at 56,560 gpd. Based on the development of the new Waihee wells, water sources for the proposed project appear adequate. A new waterline will be extended into the project site from the 16-inch line on Wailea Alanui Drive for domestic use. A separate line will be extended for fire protection purposes. Fire hydrants will be installed within a radius of 150 feet of all buildings to ensure coverage as required by the Fire Department and Fire Marshall. Low flow fixtures and efficient irrigation systems will be installed in order to conserve water.

2. Drainage

Existing Conditions. A preliminary Drainage Report was prepared for the project by Wilson Okamoto & Associates and is included in this report as Appendix B. The pre-development onsite surface runoff generated by the vacant parcel is calculated to be approximately 33 cubic feet per second (cfs). A portion of the surface runoff

generated by the existing lot on the north and west side of the project site (13-cfs) is intercepted by a gully located along the north and west boundaries of the project. This portion of the surface runoff is discharged by the existing 3-18 inch concrete pipe culvert pass the existing shoreline walkway then over the rocky shoreline to the ocean.

The surface runoff generated by the south and east portion of the project site (20-cfs) sheets flows offsite to Grand Wailea and across the shoreline walkway.

Potential Impacts and Mitigation Measures. Post development surface generated by the project is calculated to be approximately 35 cfs.

Onsite surface runoff from the parking and landscaped areas will be intercepted by grated-inlet type catch basins and conveyed by a new underground drainage system. All post development runoff in the underground drainage system will be conveyed into detention/percolation beds located under lawn, parking and road areas near the southwest portion of the project site (see Exhibit 6). In the Pre & Post Development Runoff Areas, flows are 33 cfs and 35 cfs, respectively. This is a net increase of approximately 2 cfs. In order to maintain the pre-development flow, detention/percolation beds will be designed to temporarily store and slowly release the onsite runoff at a rate that does not exceed the pre-development flow.

In order to maintain the existing drainage patterns, runoff will be released from the same two discharge points where the pre-development runoff is currently being released. Existing drainage systems located northeast and southwest of the project site will continue to convey the onsite surface runoff away from the project site as they currently do.

The additional runoff generated by the proposed development will be detained onsite within the detention/percolation beds. These facilities will not only keep the post development peak flow volumes at predevelopment rates, but will also serve as sedimentation traps and filters to minimize sediments or pollutants from migrating into the nearby coastal waters. Locating the detention/percolation beds at the makai portion of the property will allow for runoff from parking and developed areas to flow through these structures. There will be no increases in runoff to the adjoining and downstream properties.

Detailed information regarding the percolation basin is provided on the revised Drainage System Plan. Briefly, it will consist of 60"-diameter perforated pipes within a gravel bed. As discussed in the Draft EA, the subsurface percolation bed is utilized in order to maintain the pre-development flow rates from the property.

This facility will also serve as a sedimentation trap that will minimize non-point source pollutants from entering nearshore waters.

The facility is sited within the shoreline area in order to maximize the opportunity to capture runoff from parking lots and other impermeable structures. If the structure were located in a more mauka location, runoff from impermeable surfaces downstream of the structure would not pass through the basin, thus raising the likelihood of non-point source pollutants entering nearshore waters.

The following measures will be implemented during construction to control erosion during the site development phase:

- A temporary desilting basin will be constructed on the makai portion of the property. This facility will be constructed early in the site preparation phase.
- Temporary area sprinklers will be utilized to control dust in non-active construction areas when ground cover is removed.
- A water truck will be stationed on-site during the construction period to provide immediate sprinkling, as needed, in active construction zones (weekends and holidays included).
- Silt screens and fences will be installed as appropriate.
- All cut and fill slopes will be sodded or planted immediately after grading work has been completed. Temporary berms and cut-off ditches will be installed as needed in order direct flows to the siltation basin and to control erosion.

In summary, the amount of surface runoff discharge from the project site will not be increased and the existing drainage pattern will be maintained, therefore, construction of the proposed project will not adversely affect the drainage conditions in the adjoining and downstream properties. With the incorporation of the proposed mitigation measures, the proposed development will not have a significant impact on ocean water quality or beaches.

3. Wastewater

Existing Conditions. Pump stations, force mains, and those portions of the existing gravity collection system located within Wailea Alanui are maintained by the County of Maui. Wailea Resort Co. maintains all other segments of the wastewater collection system in Wailea Resort.

Wastewater from the surrounding developments is currently being conveyed to Sewer Pump Station (SPS) No. 10, southwest of the Grand Wailea Resort, by a series of 6, 8, 12, 15, 18, and 24-inch gravity lines. A segment of the gravity transmission system runs through the makai section of the property. A 12-inch force main then

conveys wastewater pumped by SPS 10 into an 18-inch gravity line on Wailea Alanui south of its intersection with Wailea Ike Drive. This gravity collector follows Wailea Alanui for approximately one-half mile then runs through Wailea Ekahi connecting to the 30-inch gravity line on South Kihei Road. A series of gravity interceptors, pump stations, and force mains then convey the wastewater to the Kihei Reclamation Facility located above Piilani Highway.

Potential Impacts and Mitigation Measures. The proposed project is projected to generate 35,350 gallons of wastewater per day. A gravity system will be installed onsite to collect wastewater from each building and direct it to the gravity transmission line running along the makai section of the property. This transmission line will convey the flow to SPS No. 10, which will then convey the flows through the County system to the Kihei Wastewater Reclamation Facility. According to the Division of Wastewater Management, the existing collection and transmission system as well as the Kihei Wastewater Reclamation Facility have adequate capacity to service the proposed project. In addition, the developer will be contributing a prorata share of cost for the upgrade of the transmission system and reclamation facility by paying a one-time assessment as required by County Ordinance.

4. Electrical and Telephone

Existing Conditions. Power and telephone distribution systems in Wailea are all underground. In the vicinity of the subject property these distribution systems are located within the shoulders of Wailea Alanui.

Potential Impacts and Mitigation Measures. No significant changes in electrical or telephone service are anticipated as part of the Project. As currently planned, the project does not call for the relocation of telephone or electrical utility poles.

5. Roadways and Traffic

Existing Conditions. The proposed project is located along the makai side of Wailea Alanui Drive, a four-lane, divided roadway running north-south in Wailea, Maui. The posted speed limit of Wailea Alanui Drive is 30 miles per hour (mph). Intersecting Wailea Alanui Drive is Wailea Iki Drive, which generally runs east to west, becoming Piilani Highway at its east extent. Wailea Iki Drive is also a four-lane, divided highway. The posted speed limit is also 30 mph. The intersection of the two roadways is now signalized with a two-phase traffic signal.

The Shops at Wailea border the project site on the north and the Grand Wailea Resort is to the south of the Project. These developments have two entrances each along Wailea Alanui Drive. Access to the proposed project site will be via the existing property access located between the Shops and the Hotel, approximately 270 feet south of the south driveway to the Shops at Wailea.

Piilani Highway and South Kihei Road are the primary transportation conduits through the region. Both run parallel to the coast and terminate at the intersection with North Kihei Road and Mokulele Highway, which provide the region's outlets to Lahaina/Waikapu and Kahului respectively.

Potential Impacts and Mitigation Measures. Onsite traffic improvements include the creation of a two-way undivided driveway that will connect the project to Wailea Alanui Drive. The driveway will interface the makai edge of Wailea Alanui Drive with two outbound and one inbound lane. The median of Wailea Alanui Drive was designed with an inbound left turn pocket and adequate room for outbound left turns to use the median area as a refuge.

A traffic impact analysis was prepared to assess the local impact of the development, with calculations made for the year 2005 (*See Appendix C*). The findings of the report are:

1. Overall, all intersections will operate at Level-of-Service B or better during peak hours.
2. Left turns from the Lai Honua driveway will operate at Level-of-Service C during the morning and afternoon peak hours because the median is wide enough for left turning vehicles to use as a refuge and therefore can make two-stage left turns.
3. The level-of-service analysis for the project driveway was performed for both one and two-lane outbound configurations. There was no improvement of the level-of-service with two-lanes versus one-lane. However, a two-lane exit configuration is recommended to enhance traffic flow if it can be provided within the 50-foot wide right-of-way.

In response to concerns raised by the Police Department, an additional analysis of the anticipated traffic impacts from the proposed project at the various intersections along Piilani Highway up to its intersection with Mokulele Highway was conducted. Based on observations by the traffic consultant, inadequate levels of service along Piilani Highway occur at, and north of, Lipoa and on south Kihei road in the vicinity of the Lipoa business district. The analysis concluded that project generated trips along Piilani Highway decreases as the distance from the project

increases. Thus, since the number of project trips diminishes, the relative significance of traffic impacts also decreases, especially in light of the higher levels of background traffic. The analysis documents that project generated traffic represents a small percentage of projected traffic flows and, according to traffic engineering standards, the increases are not considered significant. The additional study of impacts on Piilani Highway has been included as an addendum to Appendix C.

The following points should also be noted:

Low unit density. The proposed number of units (100) is far less than the current entitlements for the property would allow. The Wailea Community Association currently assesses this property based upon an anticipated site build out of 329 units. Furthermore, based on the project's existing size and zoning, the maximum allowable floor area is 437,229 square feet. A project which proposed to utilize the maximum allowable floor area could generate 437 units based on a standard of 1,000 square feet per unit.

Conservative traffic estimates. The traffic consultant's study assumed that the project would be occupied as a luxury condominium/townhouse project, whereas in actuality it is anticipated that the majority of the units would be owned as recreational or second homes. Since the second category generates approximately half the number of trips, the traffic study should be considered as providing conservative (high) estimates.

Maturation of Wailea. Wailea is evolving into a more self-contained community. With the expansion of the Shops at Wailea as well as a planned business center, more services will be available in close proximity to the proposed project which in turn will lesson the need for project residents to travel outside of the Wailea area.

Trip generation characteristics. The anticipated occupants of the project will have different travel patterns that the a more typical residential project. Standard residential projects generate high levels of trips during the peak hours due to demands such job schedules and school hours. It is anticipated that trip generation from the project will be more evenly spread throughout the day rather than having sharp concentrations during the peak hours, and will occur less frequently on a daily basis.

Wailea Resort Company is committed to provision of a quality roadway network within and around the Wailea area. Towards this end, a roadway network has been

designed and constructed to accommodate the anticipated buildout of the resort. At the time the roadway network was designed, the anticipated build-out was approximately 10,000 units. However, Wailea Resort has amended their Master Plan, such that full build-out will be approximately 5,000 units. Thus, the local roadway network is designed to handle double the amount of anticipated units to be built within the resort. In addition to construction of the internal roadway network, the Resort has also funded the extension of Piilani Highway from Kilohana Drive to Wailea Iki.

With regards to future regional roadway improvements, Wailea Resort has committed to cost sharing of regional roadway improvements as part of a condition of the comprehensive rezoning of the resort that was completed in September 1998.

In summary, Wailea Resort has made substantial investments to establish adequate roadway facilities within and around the Wailea area. Existing traffic congestion in South Maui is concentrated outside of the Wailea community during work related commuter trips and this project will contribute insignificantly to the congested areas of Kihei proper during peak periods. In light of the foregoing information the project is not anticipated to have significant traffic impacts.

III. RELATIONSHIP TO POLICIES AND REGULATION

A. STATE LAND USE LAW

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes four major land use districts into which all lands of the State are placed. These districts are designated Urban, Rural, Agricultural, and Conservation. The subject property is within the Urban District. The proposed improvements are permitted within the Urban District.

B. MAUI COUNTY ZONING

Chapter 19 of the Maui County Code establishes the framework for land-use zoning. The purpose and intent of the zoning code is to:

- A. Regulate the utilization of land in a manner encouraging orderly development in accordance with the land use directives of the Hawaii Revised Statutes, the revised charter of the county, and the general plan and the community plans of the county;
- B. Promote and protect the health, safety and welfare of the people; and,
- C. Provide reasonable development standards which implement the community plans of the county

1. Use Designations

The subject property contains four use zones. They are described as follows:

H-1 & H-2 Hotel. Approximately 1.1 acres of the parcel are zoned H-1 and approximately 6.3 acres are zoned H-2 Hotel. The Maui County Code defines the Hotel District as: a high-density multiple-family area bordering business districts and ocean fronts. This district includes public and semi-public institutional and accessory uses. This district is basically residential in character and, as such, should not be spotted with commercial enterprises. Within hotel districts, the following uses shall be permitted:

- A. Any use permitted in residential and apartment districts;
- E. Automobile parking lots and buildings;

B-R Resort Commercial. Approximately 2.1 acres of the parcel are zoned B-R Resort Commercial. The Maui County Code defines the purpose of the district as: the B-R resort commercial district is intended to provide for commercial activities and services oriented towards the needs of the transient visitor. This district is distinguished from hotel districts in that independent commercial uses are permitted, whereas commercial activities in hotel districts must be accessory to the hotel use.

Open Space. Approximately 1.2 acres of the parcel are zoned for Open Space. The Maui County Code defines open space as: a zoning lot or portion thereof essentially free of structures or impervious surfaces that serve the purpose of visual relief and buffering from building and structural mass.

Analysis. The proposed multi-family residential use is permitted within the Hotel district. The proposed development has designed for open spaces that meet the definition provided by the county. Therefore, the proposed development is consistent with the uses allowed via county land-use zoning controls. Spatial allocations of the zoning districts are discussed in the next section.

2. Planned Development

Standards of development. Standards for reviewing a Planned Development are found in Chapter 19.32.030 of the Maui County Code. They are:

- a. The development shall meet all the construction standards and requirements of the various governmental agencies.
- b. Not less than twenty percent of the total area of the tract shall be common protected open space, integrated with the lot layout and street system in order to maximize its park-like effect. Common protected open space shall mean open space to be owned in common by the individual owners within the development and maintained in open space for their common use and enjoyment.
- c. Each building and structure shall be individually designed by a registered architect to conform with the intent of the planned development.
- d. Landscaping of the entire development, including along streets, within lots and in the open spaces shall be provided.
- e. Adequate recreational and community facilities shall be provided.
- f. Provision shall be made for adequate and continuing management of all open spaces and community facilities to insure proper

maintenance and policing. Documents to said effect shall be required.

Analysis. The project has been designed with the intent of meeting the strict design standards unique to Wailea. Incorporated in the design are adequate provisions for common open space, recreational facilities, and scenic amenities. The project has been designed with respect to the urban design regime of the Wailea Community and has incorporated input from neighboring property owners. The project has undergone extensive review and received unanimous approval of the Wailea Community Association's Design Committee. The project exceeds the minimum open space requirement; an open space plan is included as Figure 7.

Mixed Land Uses. Planned development allows for the adjustment of the spatial locations of its allotted zoning acreage for parcels that have multiple land-use zones. Requirements for such reallocations are specified in Chapter 19.32.040 of the Maui County Code. They are:

- g. Planned developments proposed on lands including more than one zoning district may permit a mixture of uses, densities and/or dwelling units; provided, that the total density and/or dwelling units of the planned development shall not exceed the combined allowable densities of each of the zones

Analysis. The proposed reallocation of land use zones does not increase the total density of dwelling units or exceed the combined allowable density of each zone. The original allocation and proposed allocation of county land-use zones are illustrated in Figures 4B&C.

C. COASTAL ZONE MANAGEMENT

Hawaii's implementation of the Federal Coastal Zone Management (CZM) Program is formally contained in Chapter 205A of the Hawaii Revised Statutes (HRS) and generally includes the objectives, policies, standards, and procedures to guide and regulate public and private uses in the coastal area. Chapter 205A establishes two regulatory zones, the special management area, or commonly known as the SMA, and the shoreline area. With a few exceptions, the SMA includes all land between the ocean and the most seaward coastal highway. Within the SMA, CZM establishes the secondary and more restrictive area of development known as the

shoreline area. The shoreline area is located between the shoreline and a mauka "setback line" whose size is established by the respective county government.

The subject parcel is located within the SMA, and therefore is under jurisdiction of the Coastal Zone Management Program. Additionally, the property borders the shoreline, and thus has a shoreline area. The shoreline setback for the property is 150 feet.

Section §205A-21 (HRS) defines the purpose of the CZM Act; it states: "The legislature finds that, special controls on developments within an area along the shoreline are necessary to avoid permanent losses of valuable resources and the foreclosure of management options, and to ensure that adequate access, by dedication or other means, to public owned or used beaches, recreation areas, and natural reserves is provided. The legislature finds and declares that it is the state policy to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawaii."

Administration of the Coastal Zone Management Program is delegated to the counties, and on Maui is handled by the Maui Planning Commission.

1. CZM Objectives and Policies

The following section evaluates the project with respect to the objectives and policies contained in §205A-2 (HRS) pertaining to the Coastal Zone Management Program:

1) Recreational Resources

Objective: Provide coastal recreational resources accessible to the public.

Policies:

- (A) Improve coordination and funding of coastal recreation planning and management; and
- (B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:
 - (i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
 - (ii) Requiring placement of coastal resources having significant recreational value, including but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or require reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;

- (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
- (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
- (v) Ensuring public recreational use of county, state, and federally owned or controlled shoreline lands and waters having standards and conservation of natural resources;
- (vi) Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;
- (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing;
- (viii) Encourage reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, county planning commissions; and crediting such dedication against the requirements of Section 46-6, HRS.

Analysis. The subject property is adjacent to the shoreline and contains a section of the Wailea coastal walkway. Development is sighted mauka of the shoreline setback, preserving open space along the shoreline. The coastal walkway will be widened from 4 to 6 feet, which will improve lateral access along the shoreline at the subject property.

In order to protect the recreational value of nearshore resources, Best Management Practices, will be employed during construction activities to minimize the potential of erosion and silt movement. Moreover, due to the presence of the proposed on-site drainage and retention system, which will keep the post development peak flow volumes at predevelopment levels and will serve as sedimentation traps and filters to prevent sediments or pollutants from migrating into the coastal waters, there will be minimal impacts to nearshore waters due to runoff or other potential sources of non-point sources of pollution.

2) Historical/Cultural Resources

Objective: 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.

Policies:

- (a) Identify and analyze significant archeological resources;

- (b) Maximize information retention through preservation of remains and artifacts or salvage operations; and
- (c) Support state goals for protection, restoration, interpretation, and display of historic structures.

Analysis. As discussed in Section III.A.8 of this report, no archaeological or historic sites are known to exist on the subject property. Construction monitoring will be conducted in accordance with an archaeological monitoring plan in order to minimize and mitigate impacts to any cultural artifacts or burials that may be encountered during earthmoving activities.

Thus, potential impacts have been addressed through the prescribed mitigation measures thereby minimizing any potential for impact to archeological sites on the property.

3) Scenic and Open Space Resources

Objective: Protect, preserve and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

- (a) Identify valued scenic resources in the coastal zone management area;
- (b) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
- (c) Preserve, maintain, and where desirable, improve and restore shoreline open space and scenic resources; and
- (c) Encourage those developments that are not coastal dependent to locate in inland areas.

Analysis. As described in section III.A.9 of this report, the subject parcel is located between other developed lands, where primary mauka/makai views are significantly obstructed. Building scale, location, and mass has been planned to maximize open space in the shoreline area and to provide view corridors for adjacent mauka developments.

The development was designed and revised with considerable input by the Wailea Community Association. From an urban design perspective, the proposed project will compliment existing development rather than alter the character of the area.

As such, the proposed project is not anticipated to significantly impact public view corridors and will not produce significant adverse impact upon the visual character of the site and its immediate environs.

4) Coastal Ecosystems

Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

- (a) Improve the technical basis for natural resource management;
- (b) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;
- (c) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and
- (d) Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards.

Analysis. As described in Section III.D.2 of this report, the increase in impervious surfaces created by the project will result in increased runoff, which will be directed into onsite subsurface detention facilities. These facilities will not only keep the post development peak flow volumes at predevelopment levels, but will also serve as sedimentation traps and filters to minimize the potential for sediments or pollutants from migrating into the coastal waters. Thus, the project will not have a significant direct impact on the region's coastal ecosystem, and with the incorporation of appropriate measures during construction, there should be no significant adverse impacts to nearshore waters from point and non-point sources of pollution.

5) Economic Uses

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

- (a) Concentrate coastal dependent development in appropriate areas;
- (b) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area;

- (c) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such development and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
- (i) Use of presently designated locations is not feasible;
 - (ii) Adverse environmental impacts are minimized; and
 - (iii) The development is important to the State's economy.

Analysis. The subject project is consistent with the State land use designation, zoning and community plan designations for the property and is within an area that supports other similar types uses, including multi-family residences, resorts, and resort residential type developments. As such, the proposed project is within an area that is presently used and designated for coastal resort development.

6) Coastal Hazards

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence and pollution.

Policies:

- (a) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and non-point source pollution hazards;
- (b) Control development in areas subject to storm wave, tsunami, flood, erosion, subsidence, and point and non-point pollution hazards;
- (c) Ensure that developments comply with requirements of the Federal Flood Insurance Program;
- (d) Prevent coastal flooding from inland projects; and
- (e) Develop a coastal point and nonpoint source pollution control program.

Analysis. According to Panel Numbers 150003 0330B revised June 1, 1981, of the Flood Insurance Rate Maps, prepared by the U.S. Federal Emergency Management Agency, Federal Insurance Administration, the project site is situated within Flood Zones V14 and C. Zone V14 is designated as an area of the 100-year coastal flood with velocity (wave actions) where flood elevations and flood hazard factors have been determined. Zone C is designated as an area of minimal flooding.

The portion of the project site located within areas designated as Zone V14 (a narrow strip along the shoreline), will not be developed except for landscape planting and a public access walkway. The proposed project should not be affected by or have an adverse impact upon its neighbors or downstream properties with regards to flood hazard potential (See Appendix B, Preliminary Drainage Report).

As described in Section III.D.2 of this report, the proposed project will incorporate drainage control mitigation measures in order to minimize the impact of non-point source pollution to adjacent properties and coastal waters.

7) Managing Development

Objective: Improve the development review process, communication, and public participation in the management of coastal resources hazards.

Policies:

- (a) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;
- (b) Facilitate timely processing of applications for development permits and resolve overlapping of conflicting permit requirements; and
- (c) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the public to facilitate public participation in the planning process and review process.

Analysis. The development of the subject property is being conducted in accordance with applicable State and County requirements. Opportunity for review of the proposed action is provided through the County's Special Management Area (SMA) permitting processes as well as through the environmental review process established by Chapter 343, HRS.

8) Public Participation

Objective: Stimulate public awareness, education, and participation in coastal management.

Policies:

- (a) Maintain a public advisory body to identify coastal management problems and to provide policy advise and assistance to the coastal zone management program.
- (b) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal-related issues, developments, and government activities; and
- (c) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Analysis. As documented in section I.F of this report, prior to submittal of the application, pre-consultations were conducted with adjacent property owners, the Wailea Community Association, and governmental agencies.

During the scheduled public hearings, the public will have opportunity to review and comment on the proposed project. Surrounding landowners will be notified of the scheduled public hearing dates. Public hearing dates and location maps will also be published in the Maui News. The public will be allowed to participate in the public hearing portion of the Maui Planning Commission's review process and during the 30-day public comment period for the Draft Environmental Assessment.

9) Beach Protection

Objective: Protect beaches for public use and recreation.

Policies:

- (a) Locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion;
- (b) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and
- (c) Minimize the construction of public erosion-protection structures seaward of the shoreline.

Analysis. The subject property is adjacent to the shoreline and contains a section of the Wailea coastal walkway. Development is sighted mauka of the shoreline setback, preserving open space along the shoreline. The coastal walkway will be widened from 4 to 6 feet, which will improve lateral access along the shoreline at the subject property. The reconstructed walkway will utilize a coastal-sensitive design that allows for its deconstruction without heavy machinery in the case of an extreme coastal event. No erosion protection structures are required or proposed as part of the project. As documented in section III.A.6, the majority of the project is located behind a rocky headlands and no interaction with shoreline processes is anticipated.

10) Marine Resources

Objective: Implement the State's ocean resources management plan.

Policies:

- (a) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

- (b) Assure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;
- (c) Coordinate the management of marine and coastal resources and activities management to improve effectiveness and efficiency;
- (d) Assert and articulate the interest of the state as a partner with federal agencies in the sound management of the ocean resources within the United States exclusive economic zone;
- (e) Promote research, study, and understanding of ocean processes, marine life, and other ocean development activities relate to and impact upon the ocean and coastal resources; and
- (f) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Analysis. The proposed project does not involve the direct use or development of marine resources. The project will produce no direct impact on the region's coastal or marine resources, and with the incorporation of erosion and drainage control measures during construction and after construction as identified in this report, there should not be significant adverse impacts to nearshore waters from point and non-point sources of pollution. Therefore, the subject project will not have any significant impacts upon any coastal or marine resources.

2. Special Management Area Guidelines

Section §205A-26 (HRS) establishes guidelines for the authority to use in consideration of a special management area permit. An analysis of the project's compliance with these guidelines follows:

- 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;
 - (B) Adequate and properly located public recreation areas and wildlife preserves are reserved;
 - (C) Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon special management area resources; and
 - (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.

Analysis. Access to the public shoreline area is provided via a coastal walkway along the makai section of the project. The walkway location has been coordinated in the development of the resort to provide continuous lateral access across the various shoreline properties in the resort. The public parking and restroom facilities located north and south of the project will not be affected by the proposed action.

As documented in Section III, potential impacts on infrastructure, scenic resources, and natural hazards have been addressed, and where appropriate, measures were identified to minimize any potential for impact.

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.

Analysis. As documented in Section III, potential impacts on the environment have been addressed, and where appropriate, measures were identified to minimize any potential for impact. No substantial adverse environmental or ecological effects are anticipated.

As documented in the previous section, the project is consistent with the objectives, policies set forth in section §205A-2 of the Coastal Zone Management Act.

The project is consistent with the county general plan and zoning as documented in the following sections.

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;

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

(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

(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.

Analysis. No actions are planned makai of the shoreline, and no impacts to adjacent beaches, shoreline processes, or water quality are anticipated. As documented in section III potential impacts to scenic resources and water quality have been addressed, and where appropriate, mitigative measures were identified to minimize any potential for impact.

3. Shoreline Area

The provision for a tightly-controlled regulatory zone known as the "shoreline area" is established under in the third section of the Coastal Zone Management Act (HRS §205A-41 through 49). Generally, the shoreline area is comprised of the vegetated area landward of the beach and seaward of a determined "setback" line.

Regulation of the shoreline area has been delegated to the county and is administered locally by the Maui Planning Commission. Implementation rules and guidelines are contained in the Rules of the Planning Commission Relating to the Shoreline Area of the Islands of Kahoolawe, Lanai, and Maui, or commonly referred to as the "Shoreline Area Rules".

According to the shoreline area rules, development in the shoreline is prohibited. However, structures in the shoreline area may be allowed if they are determined to "minor structures" by the Director of the Maui Planning Department. Structures may be allowed if they:

- a) Do not to fix the shoreline or interfere with beach processes, and
- b) Do not to interfere with public access or views to and along the shoreline.

The shoreline area rules state that minor structures shall include, but are not limited to:

- (1) Landscape features or irrigation designed to stabilize and enhance the shoreline area;
- (2) Minor, single-storied service and recreational buildings, paved lanais, swimming pools, and beach use facilities; and
- (3) Paved walkways for public access;

Analysis. As described in section III.A.6, the project is located on a rocky point bordering Wailea Beach. All planned development is inland of the rocky shoreline and is considered beyond the range of normal shoreline movement. Renovation to the beach walkway and minor landscape planting are the only activities planned within 40 feet of the shoreline. Minor structures planned within the setback area include a swimming pool with related amenities, entry gates and privacy landscape plantings, subsurface drainage basins and a wastewater connection. These developments are mauka of the beach walkway, and will not interfere with public access or views to and along the shoreline.

Because the structures planned within the shoreline area will not affect beach process or obstruct public views to and along the shoreline, these developments may be considered minor structures, and thus may be permitted within the shoreline area.

D. ENVIRONMENTAL ASSESSMENT

Hawaii Environmental Protection Act. Adopted in 1974 and patterned after the National Environmental Policy Act (NEPA) requirements, the Hawaii Environmental Protection Act (HEPA) (HRS 343) requires that government give systematic consideration to the environmental, social and economic consequences of the proposed development projects before granting permits that allow construction to begin. The law also assures the public the right to participate in the planning

projects that may affect the community. The State Office of Environmental Quality Control (OEQC) administers this law in Hawaii.

HEPA requires disclosure of the potential environmental consequences of certain classes of actions. The classes of actions that trigger HEPA are found in section 343-5, HRS, and include use of State or County lands, and development within the shoreline area. The proposed project will likely include minor work in the County owned right-of-way and the shoreline area and therefore an environmental assessment is triggered.

The intent of HEPA is to allow for full disclosure of the potential environmental consequences of a proposed action. It is not a form of discretionary approval. Acceptance of a HEPA document would not grant a property owner any form of entitlement to proceed with the proposed action. Acceptance of an adequate HEPA document only means that potential environmental consequences have been adequately discussed and the agency(ies) can proceed with the processing of the requested governmental approval(s).

1. Environmental Assessment Significance Criteria

A finding of no significant impact (FONSI) has been made for the proposed project upon review of all agency and public comments on the Draft EA and therefore an environmental impact statement will not be required. This determination is made based on the detailed analyses contained within this document and in accordance with the following significance criteria, which are outlined in section 11-200-12 of the Department of Health's rules relating to environmental impact statements:

- 1) The proposed action will not result in an irrevocable commitment to loss or destruction of natural or cultural resources.**

Analysis. As documented in section III of this report, the proposed project will not involve the loss or destruction of any natural or cultural resource.

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

Analysis. The subject property is within the State's Urban District and is zoned and community planned for intensive residential development. The State's and County's land use policies support urbanization of the parcel.

No cultural or recreational, or public use is occurring on the portions of the parcel to be developed with residential apartment buildings. Recreational uses and lateral access along the shoreline will be maintained and improved.

Thus, the proposed action will not curtail the range of beneficial uses of the environment.

- 3) **The proposed action will not conflict with State or County long-term environmental policies and goals as expressed in Chapter 344, HRS, and those which are more specifically outlined in the Conservation District Rules.**

Analysis. The project is being developed in compliance with the State's long-term environmental goals. As documented in this report, adequate mitigation measures will be implemented to minimize the potential for negative impact to the environment.

- 4) **The proposed action will not substantially affect the economic or social welfare and activities of the community, county or state.**

Analysis. Short-term economic impacts will result from the increase in activity associated with the construction of the project. A small number of full and part-time jobs will be created in order to support the operation phase of the development. As documented in sections III.B & C, no significant impacts to socio-economic environment or public services are anticipated.

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

Analysis. There are no special or unique aspects of the project that will have a direct impact on public health. It is anticipated that occupants of the project will utilize existing medical facilities located in Kihei, Kahului, and Wailuku and these facilities will not be significantly impacted by the project.

As documented in section III of this report, no significant long-term impacts to noise, or air/water quality are anticipated. Short-term construction related impacts can and will be mitigated.

- 6) **The proposed action will not result in substantial secondary impacts.**

Analysis. There will be a slight affect on local population levels upon buildout of the project with the addition of 100 resort condominium units. As documented in section III of the is report, proposed project may increase the population of the

immediate Wailea area by approximately 200 persons. However, it is anticipated that many of the units will be sold as vacation homes to buyers from outside of Maui County thereby reducing the number of people at the project at any given time. The projected increase in population is not significant in relation to existing population levels in Wailea and will not result in substantial secondary impacts.

- 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, especially with regards to construction runoff. Also, the design of the project has incorporated mitigation measures to minimize impacts to nearshore waters that could arise from an increase in runoff generated on the site as a result of the project (See Section III.D.2 for a discussion of drainage). Other environmental resources such as flora and fauna, air and water quality, and topography and soils will not be impacted by the subject project.

- 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 State and County zoned and community planned for urban development. As described in this report, the project will not significantly impact public infrastructure and services including roadways, drainage facilities, water systems, sewers, educational facilities, and parks. In addition, the project is not anticipated to have a considerable effect on the environment nor will it involve a commitment for larger actions.

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

Analysis. As described in Section III.A.5 of this report, there are no rare, threatened, or endangered species or habitat at the project site.

- 10) The proposed action will not substantially or adversely affect air and water quality or ambient noise levels.

Analysis. As described in Section III.A of this report, there is a potential for negative impacts to air or water 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 report. It is not anticipated that there will be significant long-term impacts to air or water quality and ambient noise levels due to the operation phase of the development.

- 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 documented in section III of this report, the proposed action is not anticipated to affect or be subject to damage by shoreline or drainage processes or natural hazards. The proposed project should not be affected by or have an adverse impact upon its neighbors or downstream properties with regards to flood hazard potential (See Appendix B, Preliminary Drainage Report).

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

Analysis. As discussed in section III.A.9 of the report, the proposed project is not anticipated to significantly impact public view corridors and will not produce significant adverse impact upon the visual character of the site and its immediate environs.

- 13) The proposed action will not require substantial energy consumption

Analysis. Upon buildout of the project, energy consumption will be increased, however, given existing levels of usage in the area the increase is considered insignificant. The project will incorporate use of energy efficient fixtures and lighting as appropriate. It is anticipated that a significant number of project occupants will either be second home buyers or retirees and will therefore not be required to travel to and from work by automobile. The majority of automobile usage is envisioned to occur between the project and recreational facilities, shopping and entertainment areas within South Maui. Thus, it is not anticipated

that the resultant increase in energy consumption will be significant in the context of existing levels of vehicular energy usage in South Maui, or island-wide.

E. GENERAL PLAN OF THE COUNTY OF MAUI

The Maui County General Plan (1990 Update) sets forth broad objectives and policies to help guide the long-range development of the County. As stated in the Maui County Charter, "The purpose of the General Plan is to recognize and state the major problems and opportunities concerning the needs and the development of the County and the social, economic and environmental effects of such development and set forth the desired sequence, patterns and characteristics of future development."

The General Plan of the County of Maui (1990 update) provides long-term goals, objectives, and policies directed toward improving living conditions in the County. The following General Plan Objectives and Policies are applicable to the proposed project:

I.A. Population

Objective No. 2: To use the land within the County for the social and economic benefit of all the County's residents.

Policies:

- (c). *Encourage land use methods that will provide a continuous balanced inventory of housing types in all price ranges.*

Goal: Urban Design

Objective No. 1: To see that all developments are well designed and are in harmony with their surroundings.

Policies:

- (a). *Require that appropriate principles of urban design be observed in the planning of all new developments.*

F. KIHEI-MAKENA COMMUNITY PLAN

Nine community plan regions have been established in Maui County. Each region's growth and development is guided by a community plan, which contains objectives and policies in accordance with the Maui County General Plan. The purpose of the

community plan is to outline a relatively detailed agenda for carrying out these objectives.

The subject property is located within the Kihei-Makena Community Plan region. The Community Plan was recently adopted by ordinance No. 2641 on March 6, 1998.

The following Kihei-Makena Community Plan goals, objectives, and policies are applicable to the proposed action:

Goal: **Land Use.** A well-planned community with land use and development patterns designed to achieve the efficient and timely provision of infrastructure and community needs while preserving and enhancing the unique character of Ma`alaea, Kihei, Wailea and Makena as well as the region's natural environment, marine resources and traditional shoreline uses.

Analysis. Section III of this report addressed the impact that the proposed project would have upon existing public infrastructure, facilities, and service systems. Based upon the analysis, public infrastructure and services will not be significantly impacted by the project. Thus, the necessary infrastructure, public facilities, and services will be available prior to and/or concurrent with development of the site.

Goal: **Environment.** Preservation, protection, and enhancement of Kihei-Makena's unique and fragile environmental resources.

Objectives and Policies:

- c. *Require that new shoreline development respect shoreline resources and maintain public access:*
 - a. *Storm water run-off from proposed developments shall not adversely affect the marine environment and nearshore and offshore water quality.*

Analysis: As described in Section III of this report, the increase in impervious surfaces created by the project will result in increased runoff estimated at 2 cfs, which will be directed into onsite subsurface detention facilities. These facilities will not only keep the post development peak flow volumes at predevelopment levels, but will also serve as sedimentation traps and filters to minimize the potential for sediments or pollutants to migrate into the coastal waters.

Thus, it is not anticipated that the proposed project will adversely affect the marine environment and/or nearshore and offshore water quality. Public access to the shoreline will not be impacted by the proposed development.

Goal: Liquid and Solid Waste

Drainage

Objectives and Policies

- a. Design drainage systems that protect coastal water quality by incorporating best management practices to remove pollutants from runoff. Construct and maintain, as needed, sediment retention basins and other best management practices to remove sediments and other pollutants from runoff.
- b. Construct necessary drainage improvements in flood prone areas. Where replacement drainage are required for flood protection, these systems shall be designed, constructed, and maintained using structural controls and best management practices to preserve the functions of the natural system that are beneficial to water quality. These functions include infiltration, moderation of flow velocity, reduced erosion, uptake of nutrients and pollutants by plants, filtering, and settlement of sediment particles. The use of landscaped swales and unlined channels shall be urged.
- c. Minimize the increase in discharge of storm water runoff to coastal waters by preserving flood storage capacity in low-lying areas, and encouraging infiltration of runoff.

Analysis. As discussed in the Drainage Report (*See Appendix B*), alteration to the natural drainage pattern of the surface runoff volumes will be kept to a minimum. Additional onsite runoff generated by the project will be directed into onsite subsurface detention facilities. These facilities will not only keep the post development peak flow volumes at predevelopment rates, but will also serve as sedimentation traps and filters to minimize the potential for sediments to migrate into the coastal waters.

Goal: Recreation

Objectives and Policies

- b. Provide for a range of park sizes and types at neighborhood, community and regional scales. New residential developments shall provide recreational facilities on-site to meet the immediate needs of project residents.

Analysis: The proposed development will offer an on-site recreation facilities for its residents. Moreover, the owners will comply with the requirements for Parks and Playground, pursuant to Maui County Code Section 18.16.320, in order to satisfy park assessment requirements. Thus, the proposed project is not anticipated to impact public recreational facilities in the region.

C. **Planning Standards**

3. **Urban Design Standards**

a. **Building Form**

- 1. Limit resort development throughout the region to thirty-five (35) feet in building height for sights near the shoreline. Building height limits may gradually be increased up to seventy-five (75) feet for inland resort development provided that important mauka/makai vistas are maintained, and impacts to coastal resources are minimized. Resort community planning and design shall integrate recreational amenities with adequate shoreline setback and public shoreline access provisions.

Analysis: The Kihei-Makena Community Plan recommends a gradual increase of building heights to a maximum building height of 75-feet for inland resort development. The proposed project conforms to this provision the proposed siting of structures places the lowest buildings towards the shoreline and the highest buildings towards the mauka section of the property. In combination with a building setback 150 feet from the shoreline, open space is maximized in the coastal area.

As discussed in section III of the report, although mauka/makai vistas are generally poor from the adjacent beach walkway and nearest coastal highway, the applicant has made design changes to increase views from quasi-public uses at neighboring

properties. The project also contains a significant amount of additional open space that is planned in lieu of hotel and commercial allocations permitted through zoning.

Shoreline access is provided throughout the resort via a coordinated coastal walkway corridor and proximal County public parking / restroom facilities.

Goal: Housing and Urban Design

Objectives and Policies

- c. Implement landscaped setbacks for future multi-family and commercial areas. Development shall provide space for landscaped pedestrian ways and bikeway systems.

Analysis: The proposed development will improve the lateral pedestrian access along the shoreline. As part of the Wailea Resort, the project contributes to the maintenance of the lushly landscaped parkway systems that do include inland pedestrian walkways. The project has been designed with a 150-foot shoreline setback for residential buildings.

Goal: Physical and Social Infrastructure: Recreation

Objectives and Policies

- f. Improve Public Access to shoreline and nearshore resources through the following measures.

1) Develop and implement a plan for public access to the shoreline, which includes both existing and future accesses, based on the location of significant shoreline resources. Accesses shall be consistent with the characteristics of resources to be reached

Analysis: As previously noted, a plan for public access to and along the shoreline has been developed and implemented for the Wailea Resort area. This plan was based on the characteristics of the resources to be reached in that parking, shower and restroom facilities are located at each of the major beaches and lateral access is provided along the various rocky headlands.

1) Develop and implement a plan for public access to the shoreline, which includes both existing and future accesses, based on the location of significant shoreline resources. Accesses shall be consistent with the characteristics of resources to be reached

Analysis: As previously noted, a plan for public access to and along the shoreline has been developed and implemented for the Wailea Resort area. This plan was based on the characteristics of the resources to be reached in that parking, shower and restroom facilities are located at each of the major beaches and lateral access is provided along the various rocky headlands.

2) Provide adequate landscaped public access to shoreline areas with significant recreational and scenic value. Provide adequate lateral public access along the shoreline to connect significant shoreline areas and to establish continuity of the public shoreline areas. Particular attention shall be directed toward southern shoreline resources from Polo Beach southwards, and between Kama`ole Parks II and III.

Analysis: The existing accesses to the shoreline are landscaped and the lateral coastal walkway provides continuity between the various shoreline areas in the project vicinity.

3) Require setbacks to include recreational space on lands behind the legally defined public shoreline zone wherever possible. This allows for adequate recreational activities and proper management of the shoreline.

Analysis: The coastal walkway within the subject property is setback an average of 40 feet from the shoreline and the privately owned area between the walkway and the shoreline is generally available for shoreline recreation.

4) Provide setback areas with landscaping to enhance recreational use and scenic quality. Recreational amenities should be commensurate with the scale of the setback area, intended use, and resource characteristics.

Analysis: The property is required to observe a 150-ft. shoreline setback. The setback area will be landscaped to enhance the scenic quality of the area. Public amenities are provided via the coastal walkway. The private recreational amenities are designed to be have relatively low scale in terms of size as well as intensity of use.

The area will be used for passive recreation as opposed to the much more intensive and large recreation areas within the neighboring properties.

FINDINGS

This environmental assessment has examined the environmental and socio-economic impacts associated with the applicant's proposal to develop a 100-unit residential condominium project on an approximate 10.74-acre parcel located in Wailea, Maui, Hawaii.

The analysis reports that the project should not result in significant environmental impacts to surrounding properties, nearshore waters, natural resources, or archaeological and historic resources on the site or in the immediate area. Public infrastructure and services including roadways, sewer and water systems, medical facilities, police and fire protection, parks, and schools, are, or will be adequate to serve the project and will not be significantly impacted by the project. The proposed project will not substantially impact public view corridors and will not produce significant adverse impact upon the visual character of the site and its immediate environs.

The subject property is situated within the State's Urban District and is County zoned and community planned for intensive development. Therefore, the proposed project is in conformance with State and County land use plans and policies including Chapter 205A, HRS, as well as the Kihei-Makena Community Plan Land Use Map.

In light of the foregoing, it is hereby determined that the proposed project will not result in significant impacts to the environment, and therefore a Finding of No Significant Impact (FONSI) is warranted.

REFERENCES

FIRM Flood Insurance Rate Maps (Maui County, Hawaii). Federal Emergency Management Agency. June 1, 1981.

The General Plan of the County of Maui. County of Maui, Planning Department, 1990.

Kihei- Makena Community Plan. County of Maui, Planning Department, 1998.

Hawaii Revised Statutes, Section 205A (Coastal Zone Management)

Rules of the Planning commission Relating to the Shoreline Area of the Islands of Kahoolawe, Lanai, and Maui. County of Maui, Department of Planning. September 8, 1990.

Demographic Multipliers provided by the American Housing Survey, 1987, were published in Development Impact Assessment Handbook. The Urban Land Institute, 1994.

Preliminary Engineering Report. The Shops at Wailea. Warren S. Unemori Engineering, Inc. February 1998.

Preliminary Engineering Report. Makena Estates. Warren S. Unemori Engineering, Inc. May 10, 2000.

Maui Coastal Scenic Resources Study. Prepared for the County of Maui Planning Department. Environmental Planning Associates, Inc. August 31, 1990.

University of Hawaii Shoreline Change Study, Maui County Planning Department's North Wailea Poster, 2001

Aerial Photograph Analysis of Coastal Erosion on the Islands of Kauai, Molokai, Lanai, Maui and Hawaii. Prepared for State of Hawaii, Office of State Planning, Coastal Zone Management Program. Makai Ocean Engineering, Inc. and Sea Engineering, Inc. June 1991

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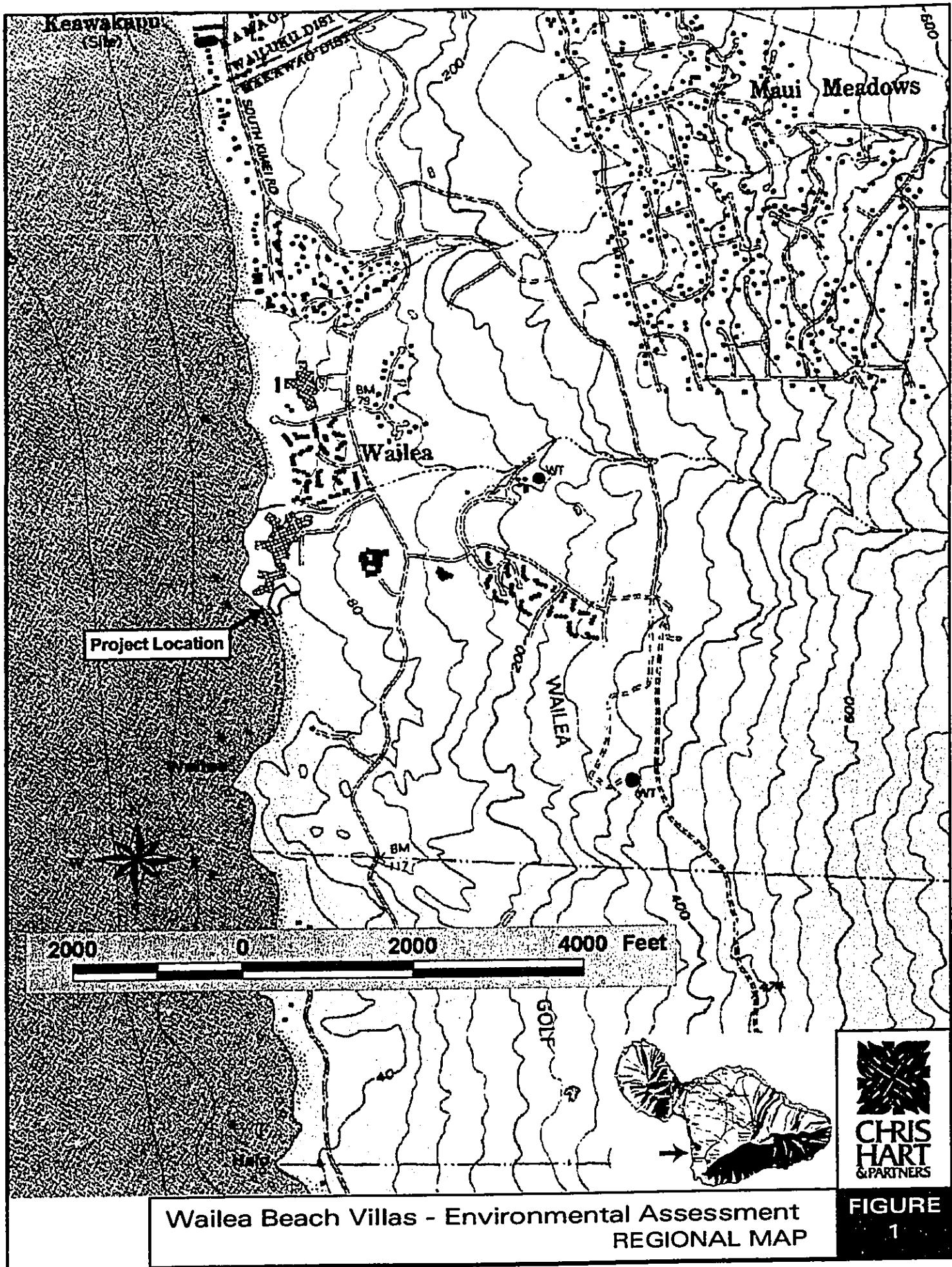
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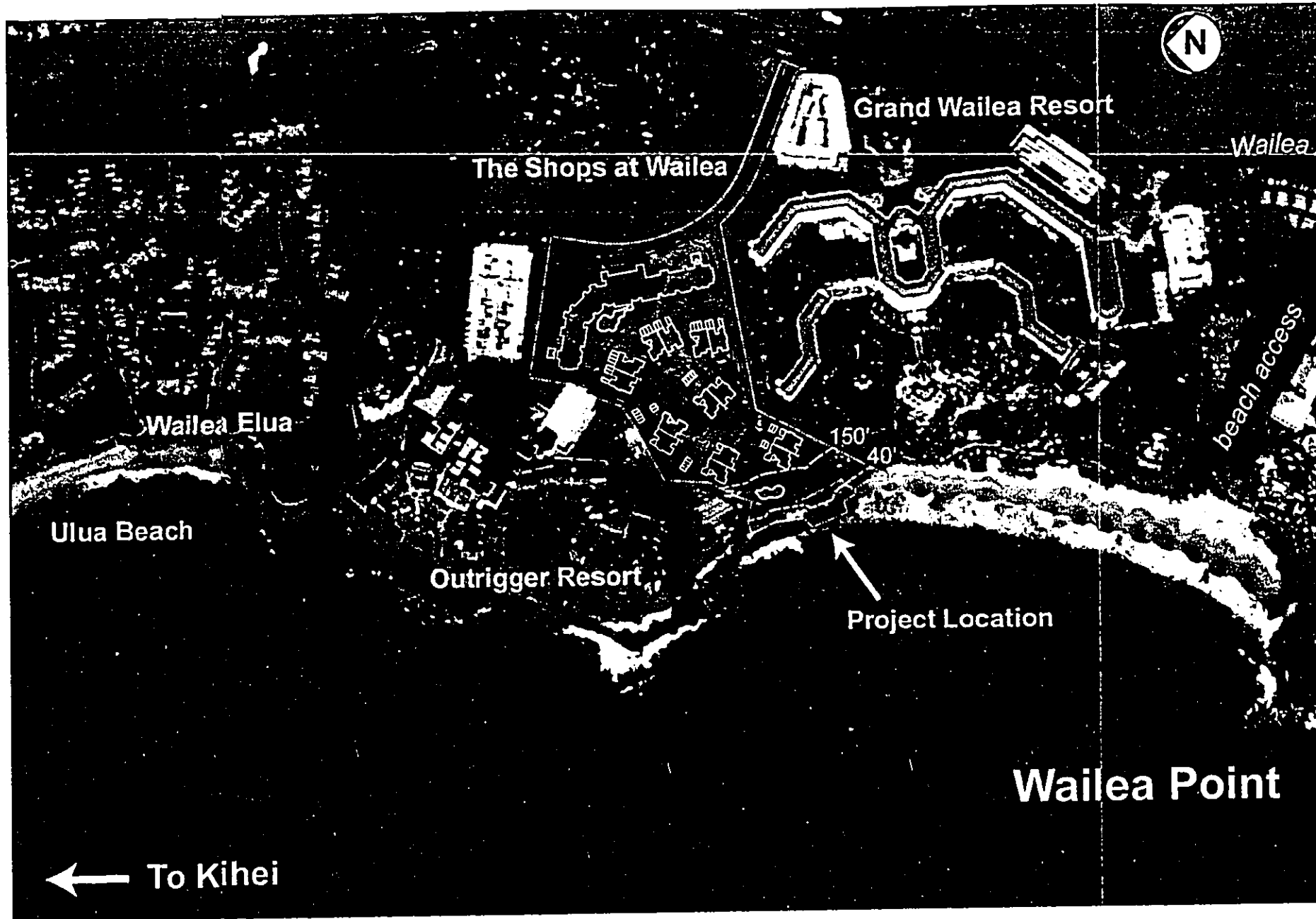
Chris Hart & Partners
Planning Consultants

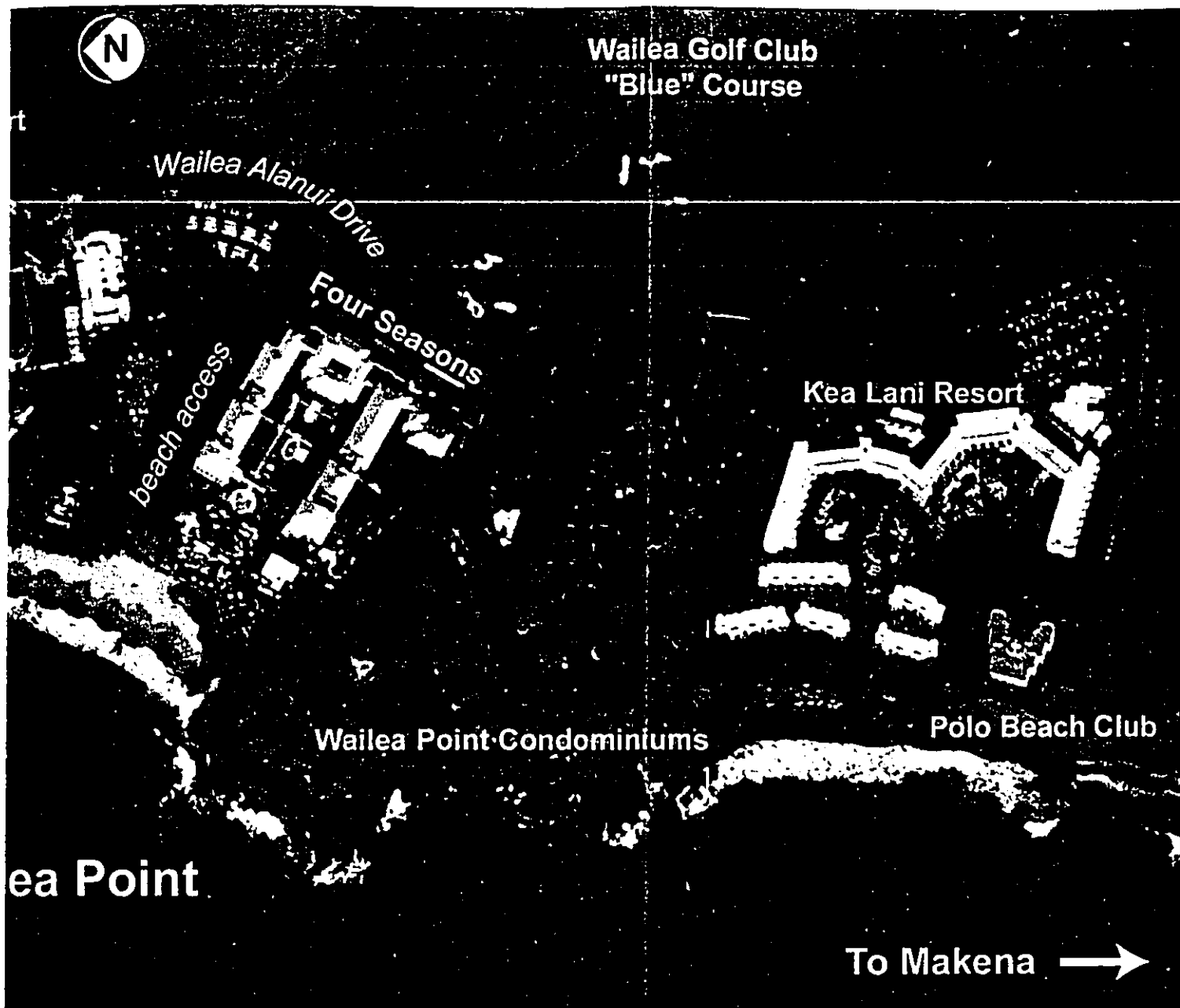
Rory Frampton
Lead Planner

Robb Cole
Associate Planner

Figures







Wailea Beach Villas - Environmental Assessment
AREA MAP



FIGURE
2



Coastline

Above & Right: Recent photos of the rocky point fronting the subject parcel.

Below: The aproximate boundaries of the parcel are outlined in this photo taken during the construction of the nearby Grand (Hyatt) Wailea, and the Four Seasons. The majority of the parcel lies above the rocky shoreline; the southwest corner makes contact with Wailea Beach.

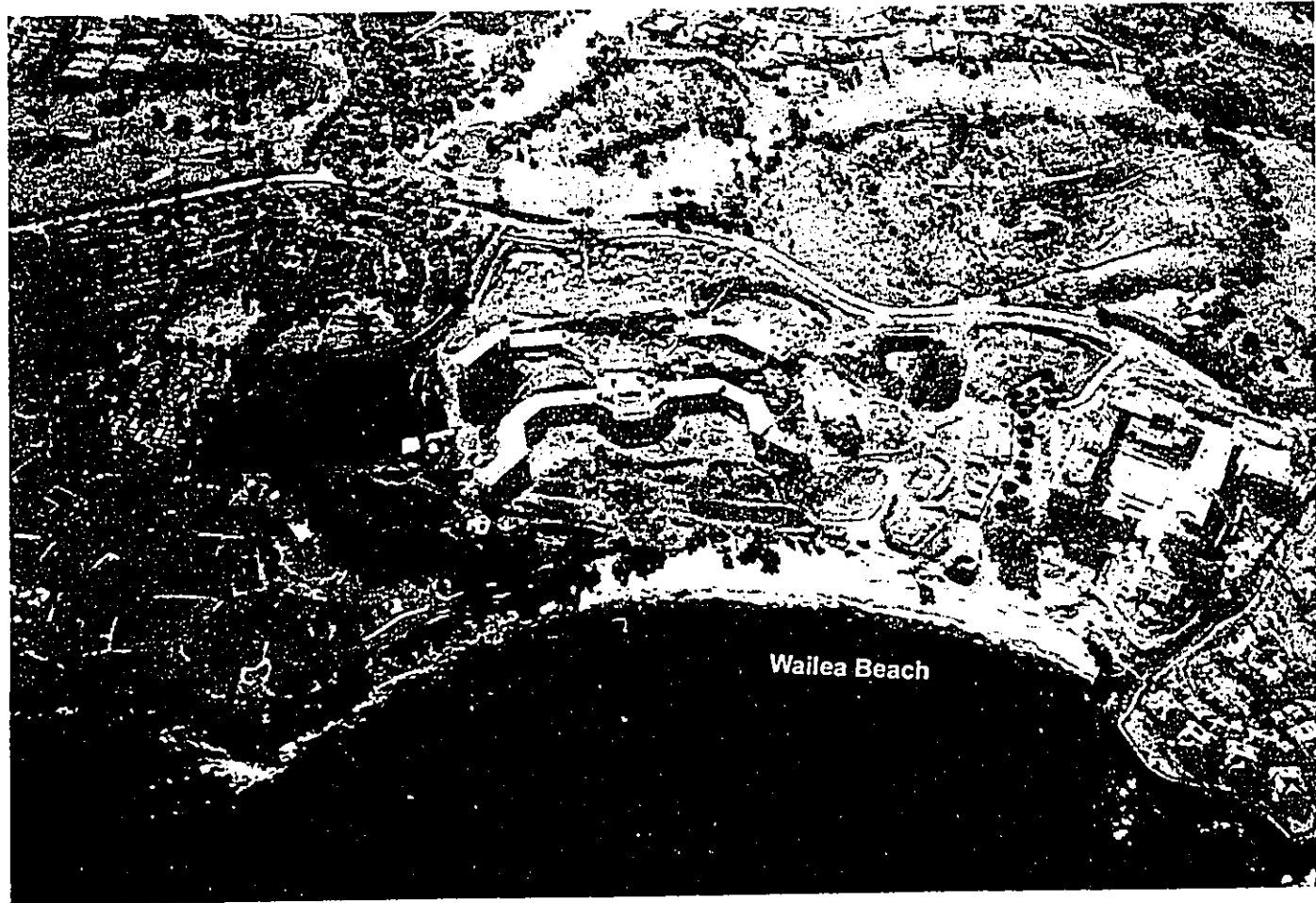


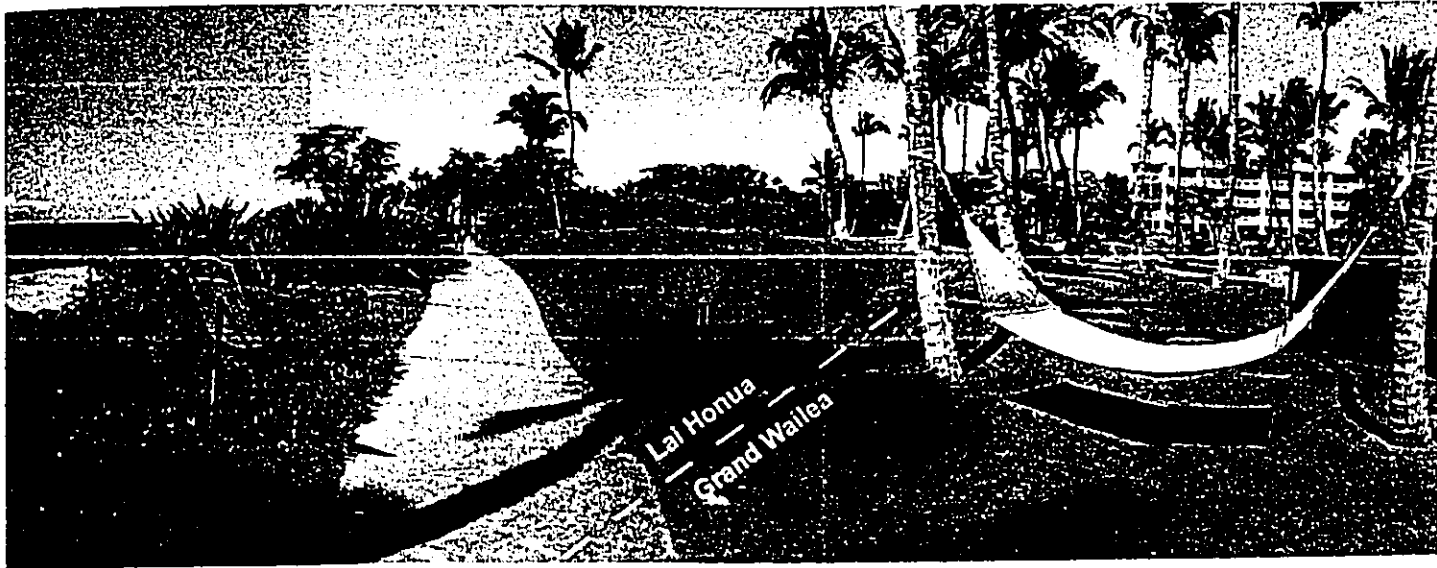
Coastal Area

Above: A recent photo from the Grand Wailea.

Right: WWII remnant.

Below: A view of the property taken near the resort.





Coastal Area

Above: A recent photo of the coastal walkway taken from the Grand Wailea Resort.

Right: WWII remnant structures along the shoreline.

Below: A view of the coastal walkway on the subject property taken near its border with the Outrigger Resort.



Wailea Beach Villas - Environmental Assessment
PHOTOGRAPHS OF EXISTING CONDITIONS

FIGURE
3A



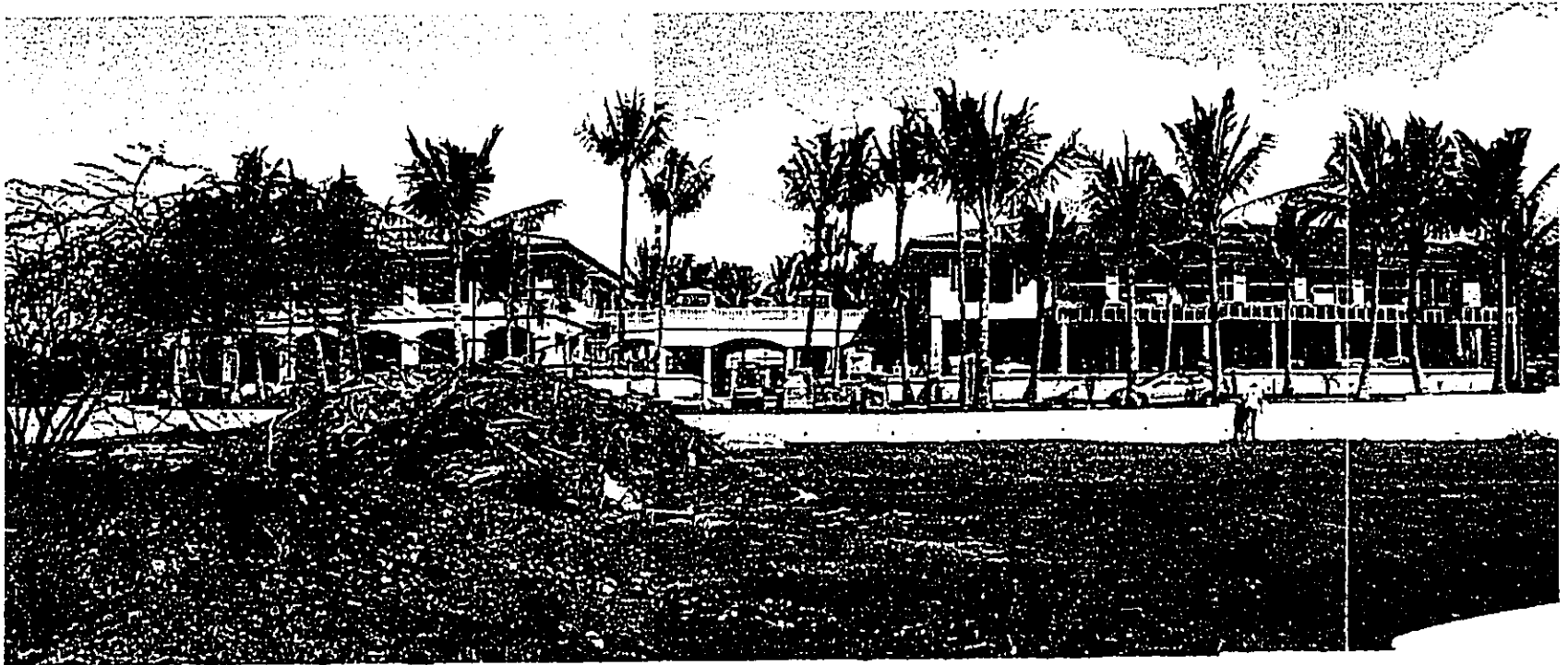
Mauka Area

Left: A concrete pad serves as a staging area for events taking place on the parcel's landscaped makai section.

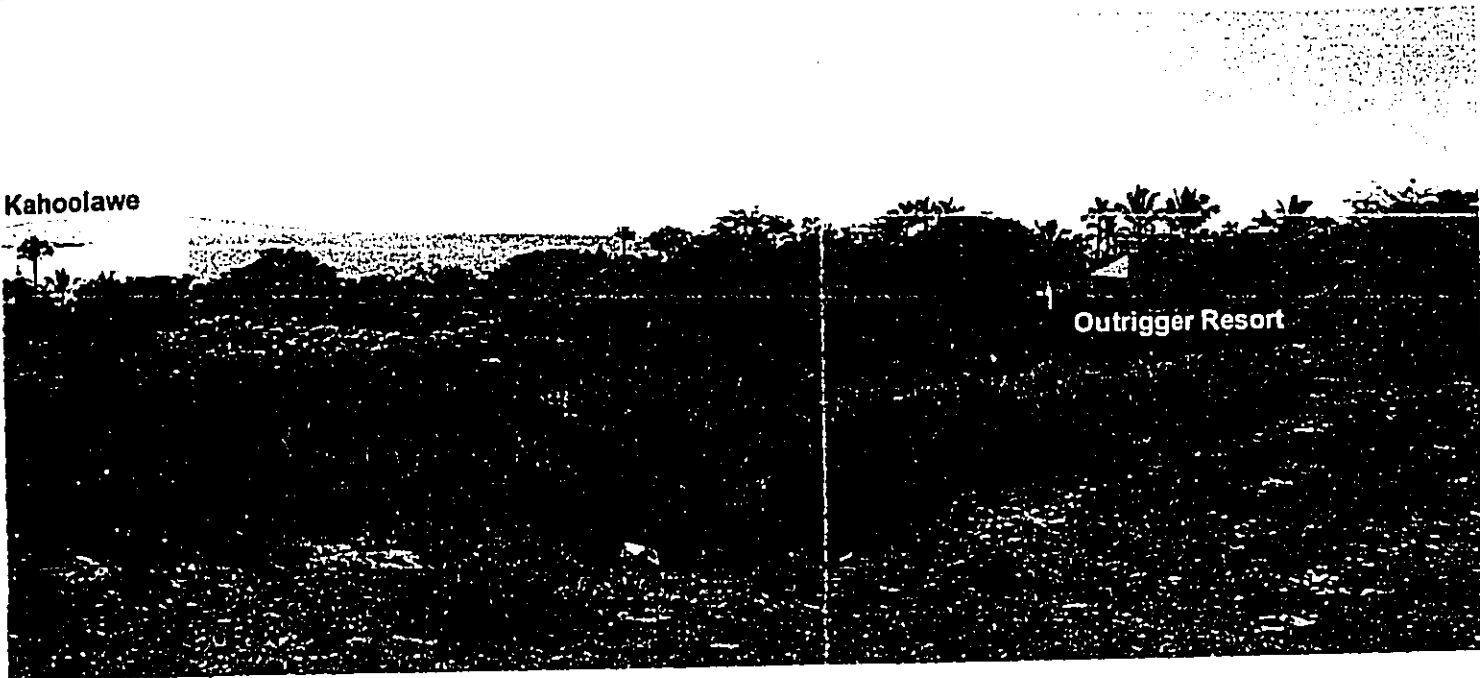
Below: A view facing mauka. The structure in the background is a recently re-constructed commercial center (the Shops at Wailea).

Above: A panoramic view of the Grand Wailea Resort and Kahoolawe (center).

Right: Asphalt rubble on the undeveloped area.



Kahoolawe



Outrigger Resort

Above: A panoramic makai view. In the photo are the Grand Wailea Resort (left), the Pacific Ocean & Kahoolawe (center), and the Outrigger Resort (right).

Right: Asphalt rubble and greenwaste debris found on the undeveloped section of the property.



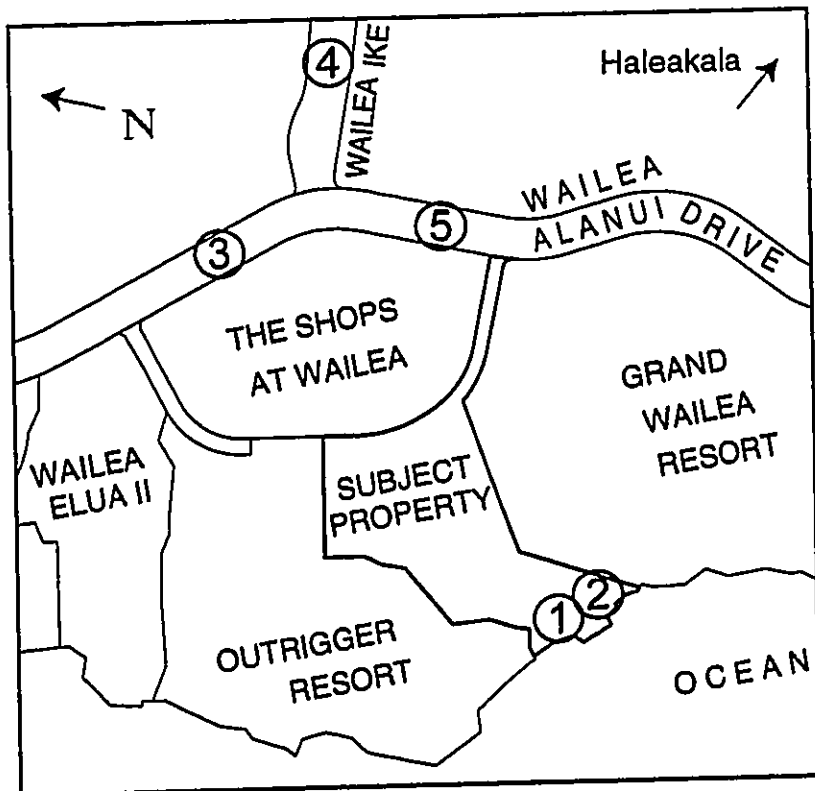
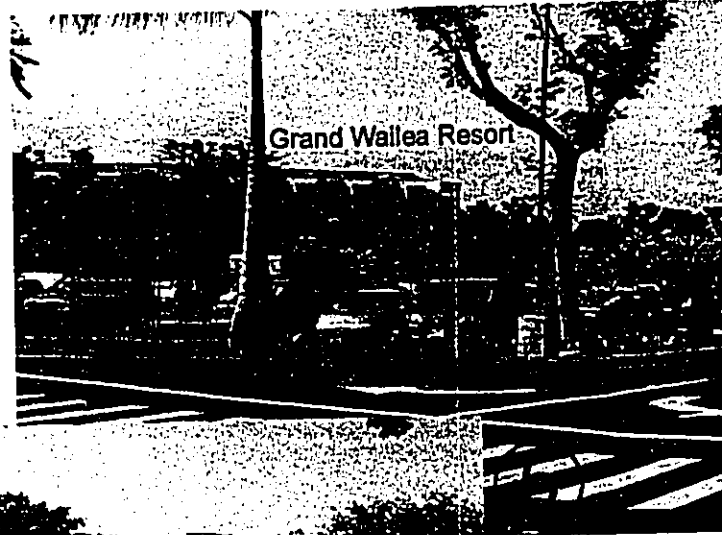
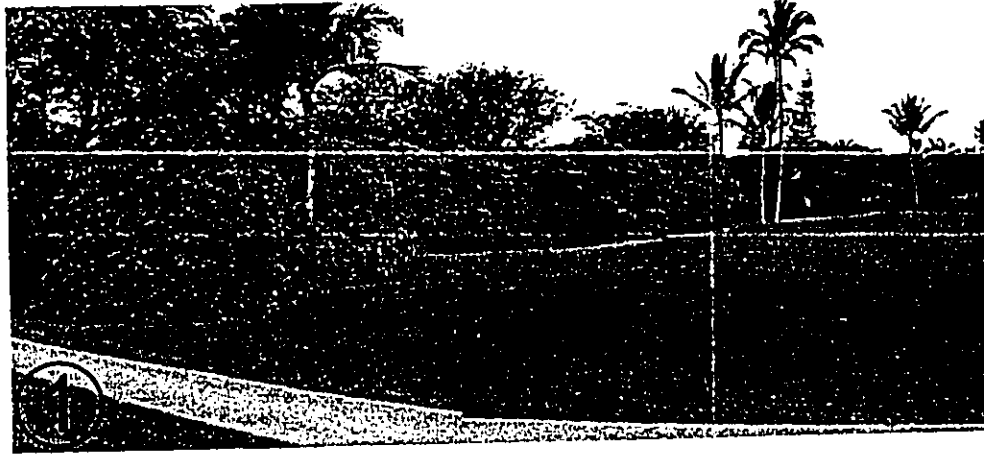
Wailea Beach Villas - Environmental Assessment
PHOTOGRAPHS OF EXISTING CONDITIONS

FIGURE
3B

Views from the Shore

1: A view facing mauka from the beach walkway. Haleakala is situated to the right, almost completely concealed by the structures and landscaping at the Grand Wailea Resort.

2: A view along the beach walkway towards Wailea Beach.

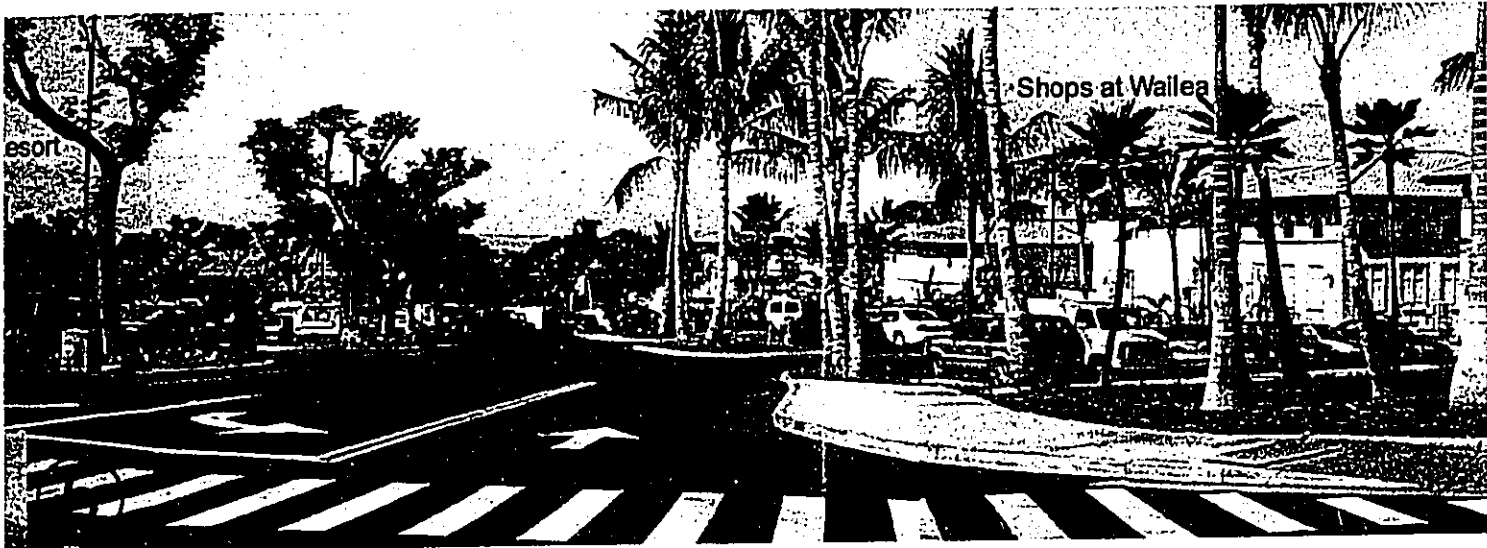
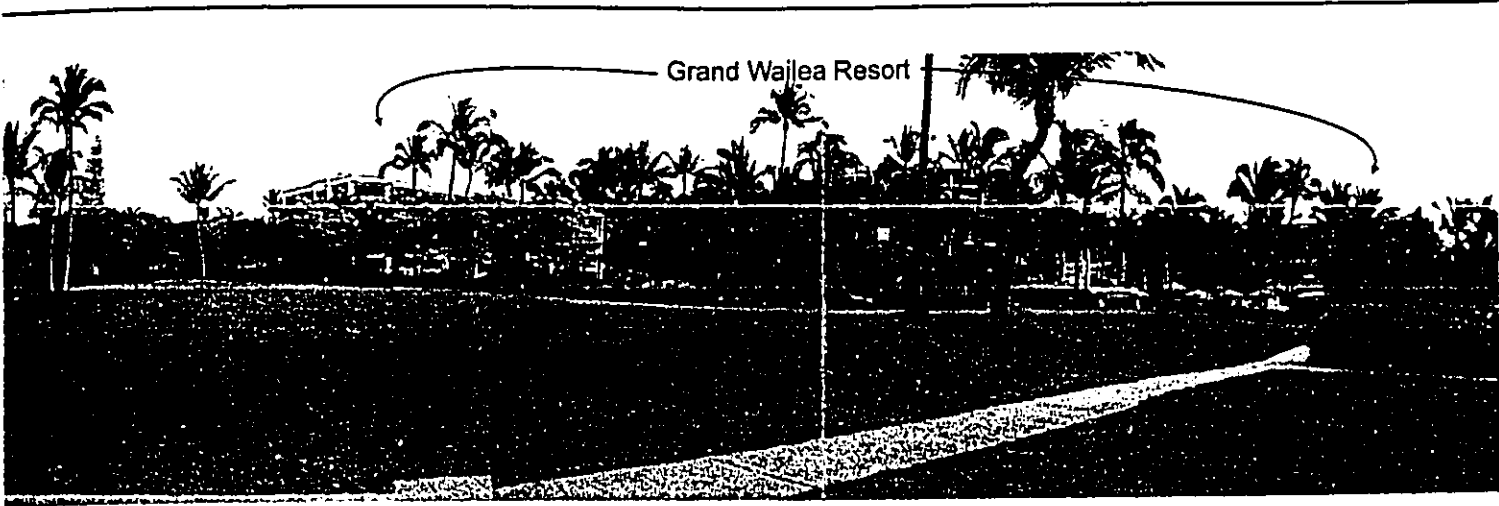


Views from Upland

3: A view from Wailea Alanui Drive over the north parking lot at the Shops at Wailea. Heavy vegetation to the north and structures (Shops) to the south limit the makai corridor. Ocean views within the corridor are generally obstructed by trees planted in the lot.

4: View from Wailea Iki Drive, above the Shops at Wailea.

5: View from Wailea Alanui Drive over the south parking lot at the Shops at Wailea. Structures to the south (Grand Wailea) and north (Shops) limit the corridor of ocean views. Views within the corridor are partially obstructed by trees planted in the lot.



North
 station to
 limit the
 for are
 t.

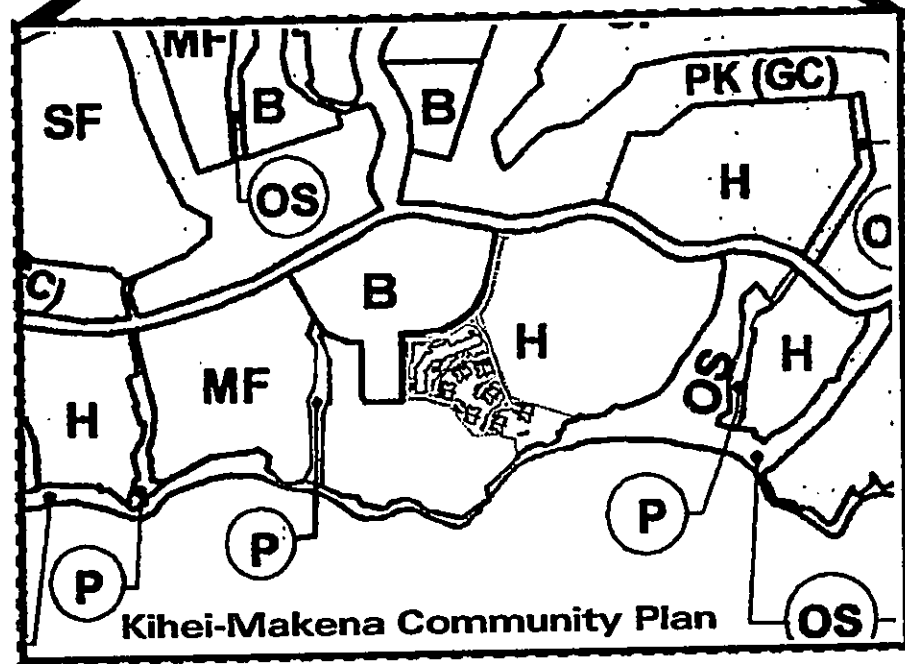
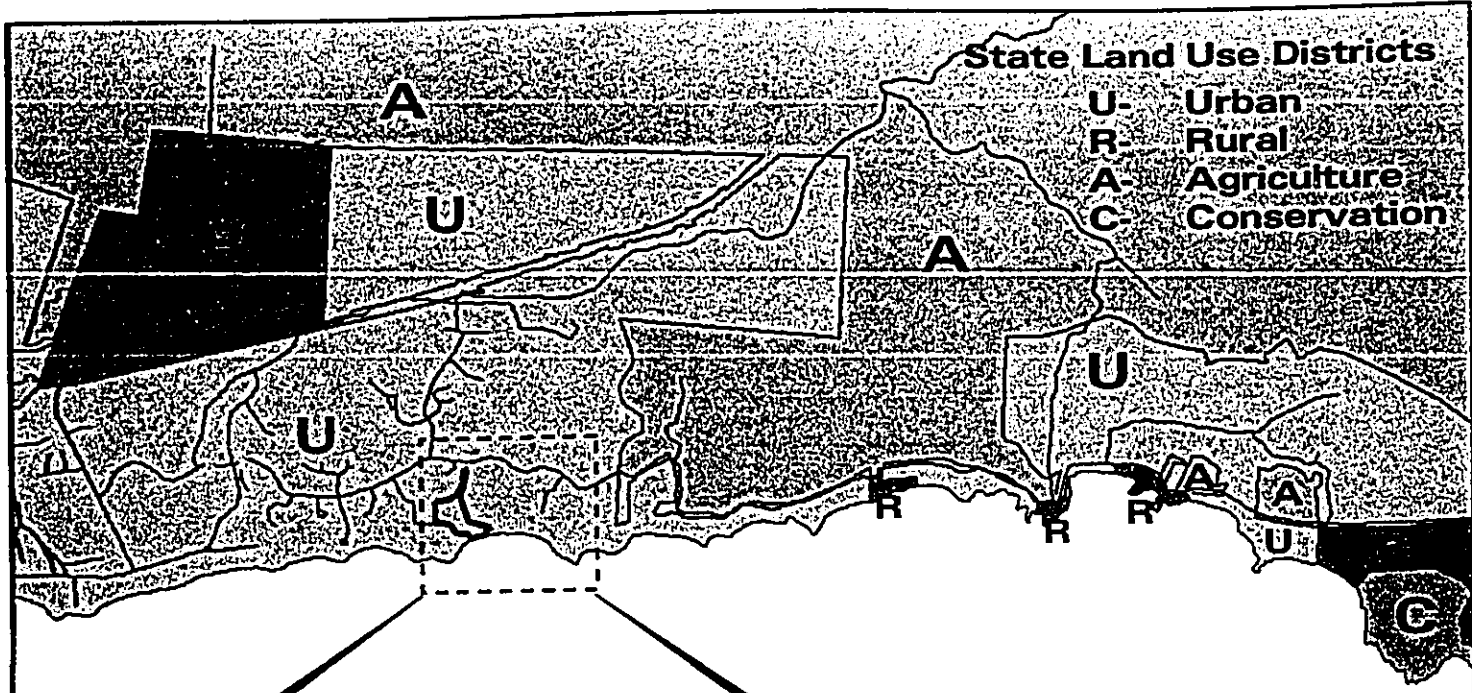
s at Wailea.

with parking
 north (Grand
 ocean
 obstructed

Wailea Beach Villas - Environmental Assessment
 PHOTOGRAPHS OF EXISTING CONDITIONS

**CHRIS
 HART
 & PARTNERS**

**FIGURE
 3C**



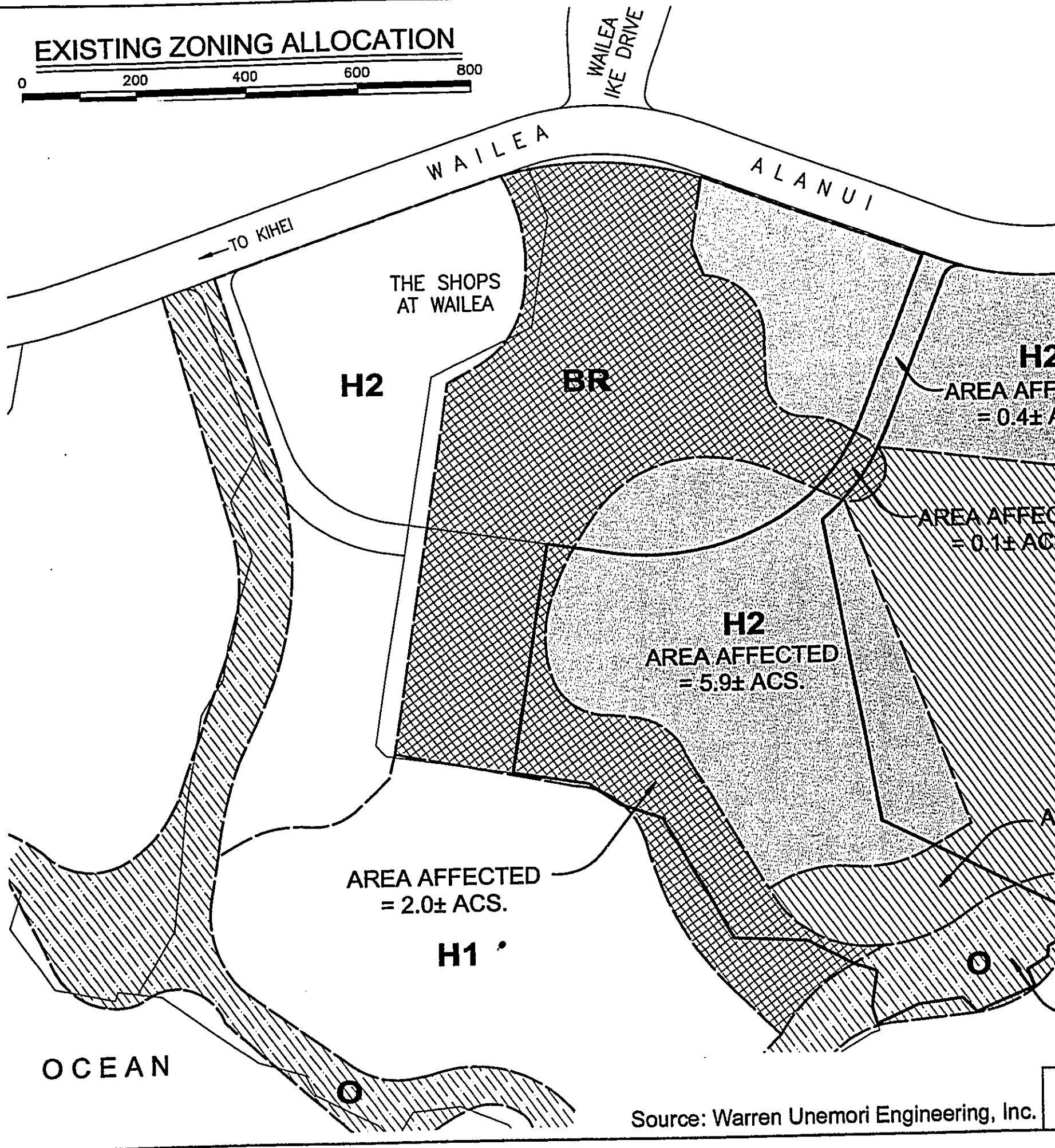
- B- Commercial
- H- Hotel
- P- Public/Quasi-Public
- OS- Open Space
- PK- Park
- SF- Single Family
- MF- Multi-family



Wailea Beach Villas - Environmental Assessment
 LAND USE MAPS

FIGURE 4A

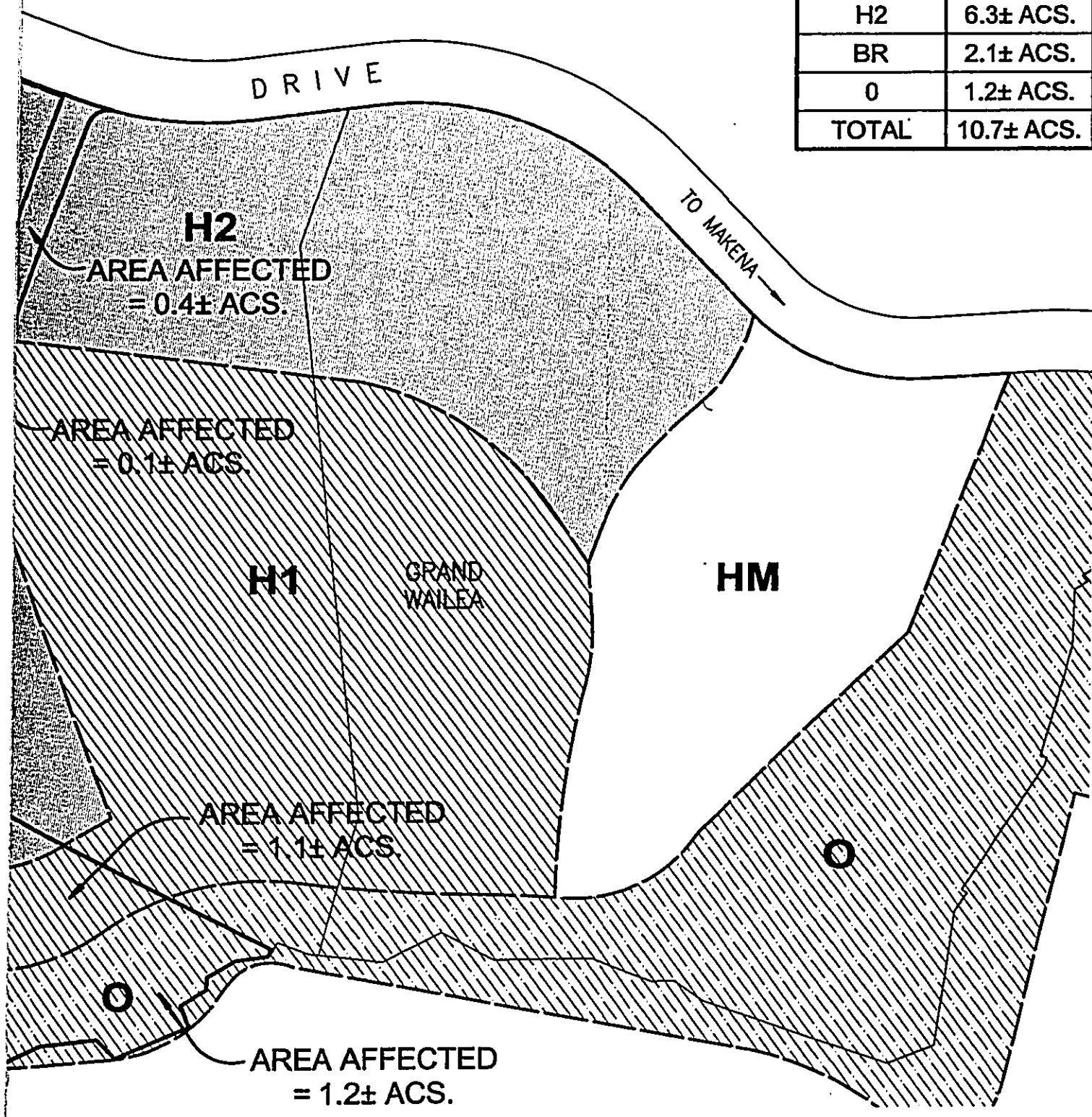
EXISTING ZONING ALLOCATION



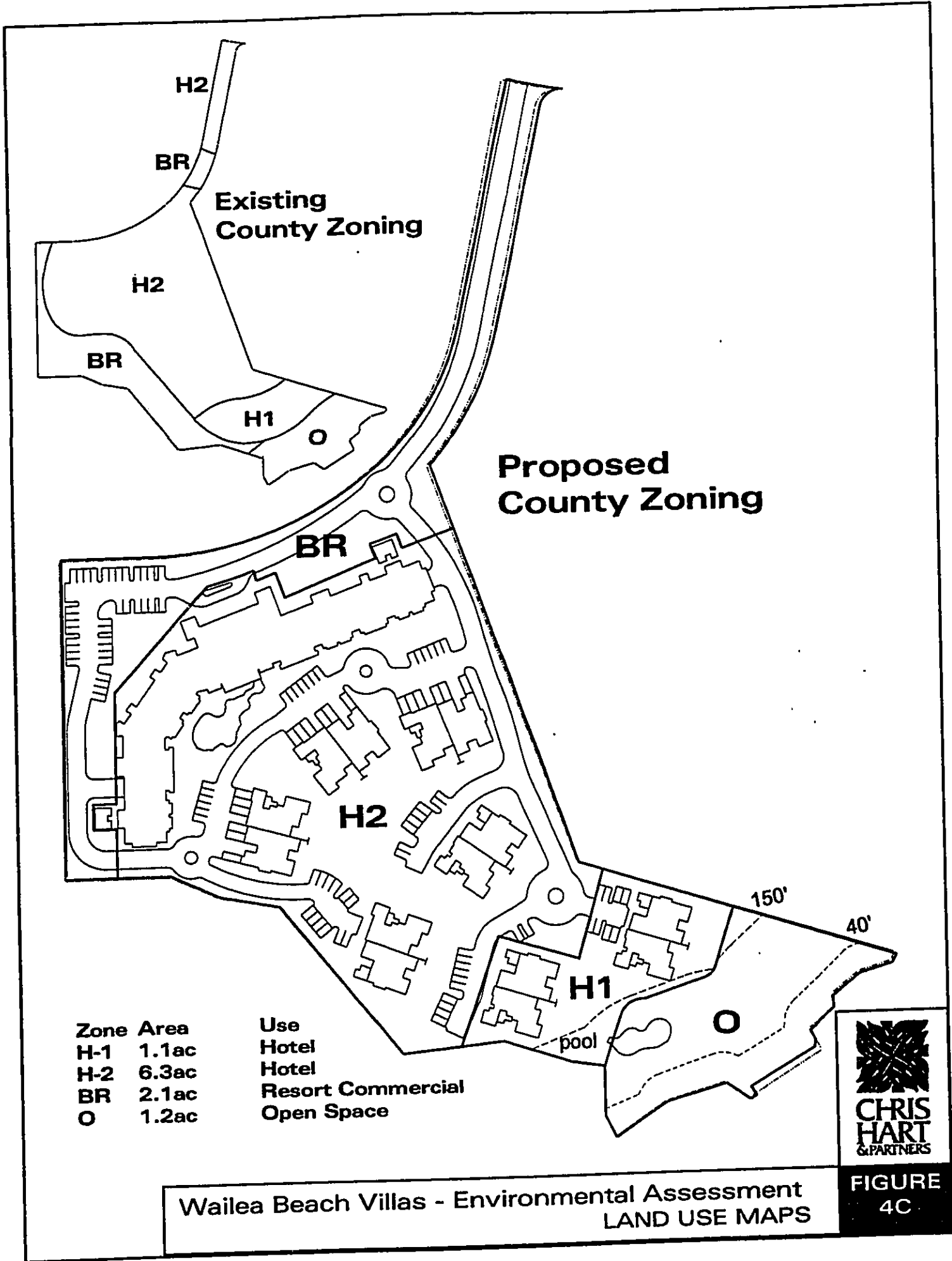
Source: Warren Unemori Engineering, Inc.

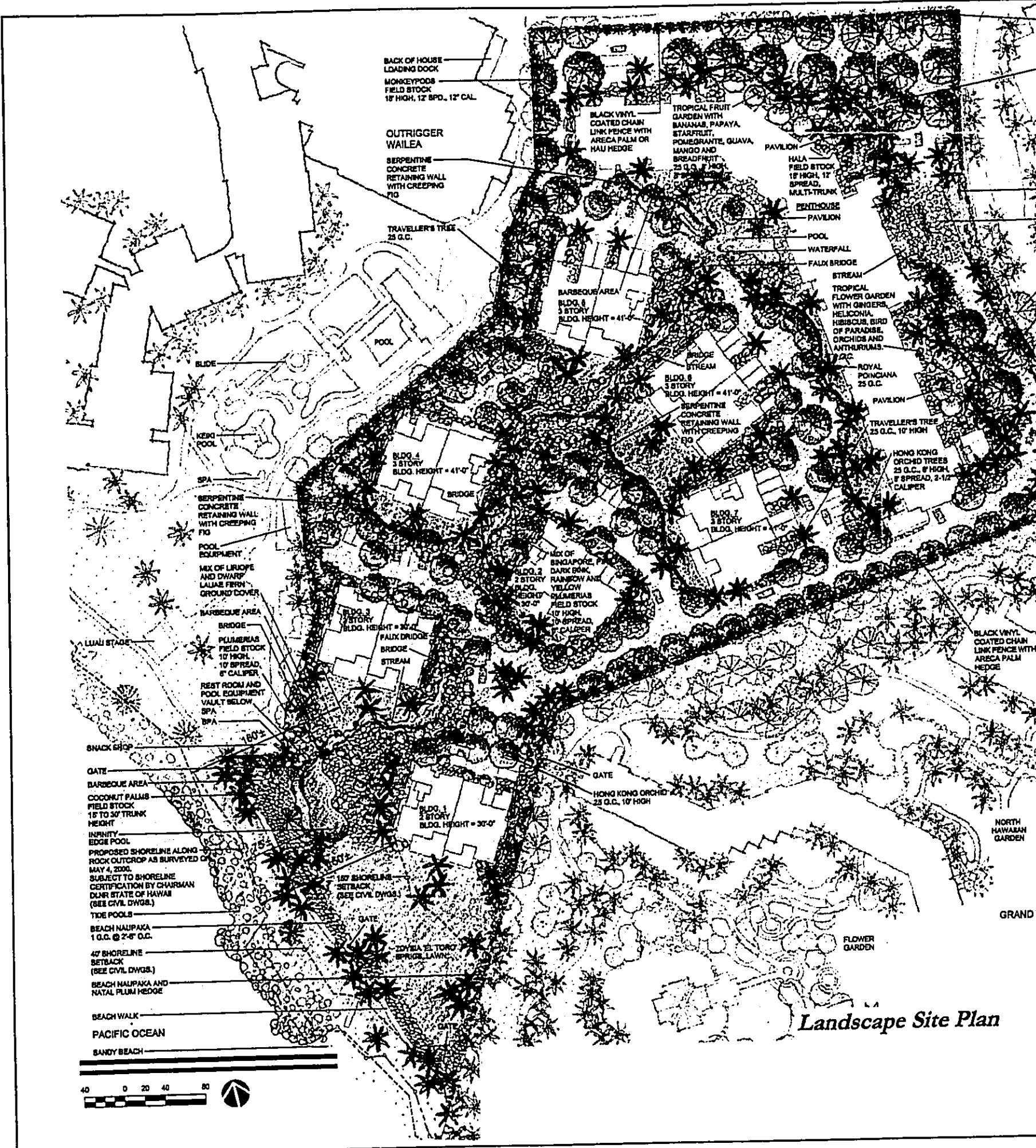
TRUE NORTH
 SCALE: 1 INCH = 200 FEET

ZONE	AREA
H1	1.1± ACS.
H2	6.3± ACS.
BR	2.1± ACS.
O	1.2± ACS.
TOTAL	10.7± ACS.



Engineering, Inc. Wailea Beach Villas - Environmental Assessment LAND USE MAPS **FIGURE 4B**





BACK OF HOUSE
LOADING DOCK
MONKEYPODS
FIELD STOCK
18' HIGH, 12' SPD., 12' CAL.

OUTRIGGER
WAILEA
SERPENTINE
CONCRETE
RETAINING WALL
WITH CREEPING
FIG

TRAVELLER'S TREE
25 O.C.

BLACK VINYL
COATED CHAIN
LINK FENCE WITH
ARECA PALM OR
HAU HEDGE

TROPICAL FRUIT
GARDEN WITH
BANANAS, PAPAYA,
STARFRUIT,
POMEGRANATE, GUAVA,
MANGO AND
BREADFRUIT
25 O.C. 12' HIGH

PAVILION
HALA
FIELD STOCK
18' HIGH, 12'
SPREAD,
MULTI-TRUNK

PAVILION
POOL
WATERFALL
FALUX BRIDGE

STREAM
TROPICAL
FLOWER GARDEN
WITH GINGERS,
HELICONIA,
HIBISCUS, BIRD
OF PARADISE,
ORCHIDS AND
ANTHURIUMS.
25 O.C.

ROYAL
POINCIANA
25 O.C.

PAVILION
TRAVELLER'S TREE
25 O.C. 10' HIGH

HONG KONG
ORCHID TREES
25 O.C. 8' HIGH,
8' SPREAD, 2-12'
CALIPER

BARBEQUE AREA
BLDG. 8
3 STORY
BLDG. HEIGHT = 41'-0"

BLDG. 6
3 STORY
BLDG. HEIGHT = 41'-0"

BLDG. 5
3 STORY
BLDG. HEIGHT = 41'-0"

BLDG. 4
3 STORY
BLDG. HEIGHT = 41'-0"

BLDG. 3
3 STORY
BLDG. HEIGHT = 41'-0"

BLDG. 2
2 STORY
BLDG. HEIGHT = 30'-0"

BLDG. 1
3 STORY
BLDG. HEIGHT = 41'-0"

SERPENTINE
CONCRETE
RETAINING WALL
WITH CREEPING
FIG

POOL
EQUIPMENT
MIX OF LIROPE
AND DWARF
LALIAE FERN
GROUND COVER

BARBEQUE AREA
BRIDGE
PLUMERIAS
FIELD STOCK
10' HIGH,
10' SPREAD,
6" CALIPER

REST ROOM AND
POOL EQUIPMENT
VAULT BELOW
SPA

LUAU STAGE
BRIDGE
SNACK SHOP

BARBEQUE AREA
COCONUT PALMS
FIELD STOCK
15 TO 30' TRUNK
HEIGHT

INFINITY
EDGE POOL
PROPOSED SHORELINE ALONG
ROCK OUTCROP AS SURVEYED ON
MAY 4, 2000.
SUBJECT TO SHORELINE
CERTIFICATION BY CHAIRMAN
DNR STATE OF HAWAII
(SEE CIVIL DWGS.)

TIDE POOLS
BEACH NAUPAKA
1 O.C. @ 2'-0" O.C.

40' SHORELINE
SETBACK
(SEE CIVIL DWGS.)
BEACH NAUPAKA AND
NATAL PLUM HEDGE

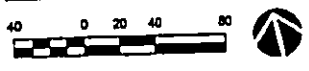
BEACH WALK
PACIFIC OCEAN
SANDY BEACH

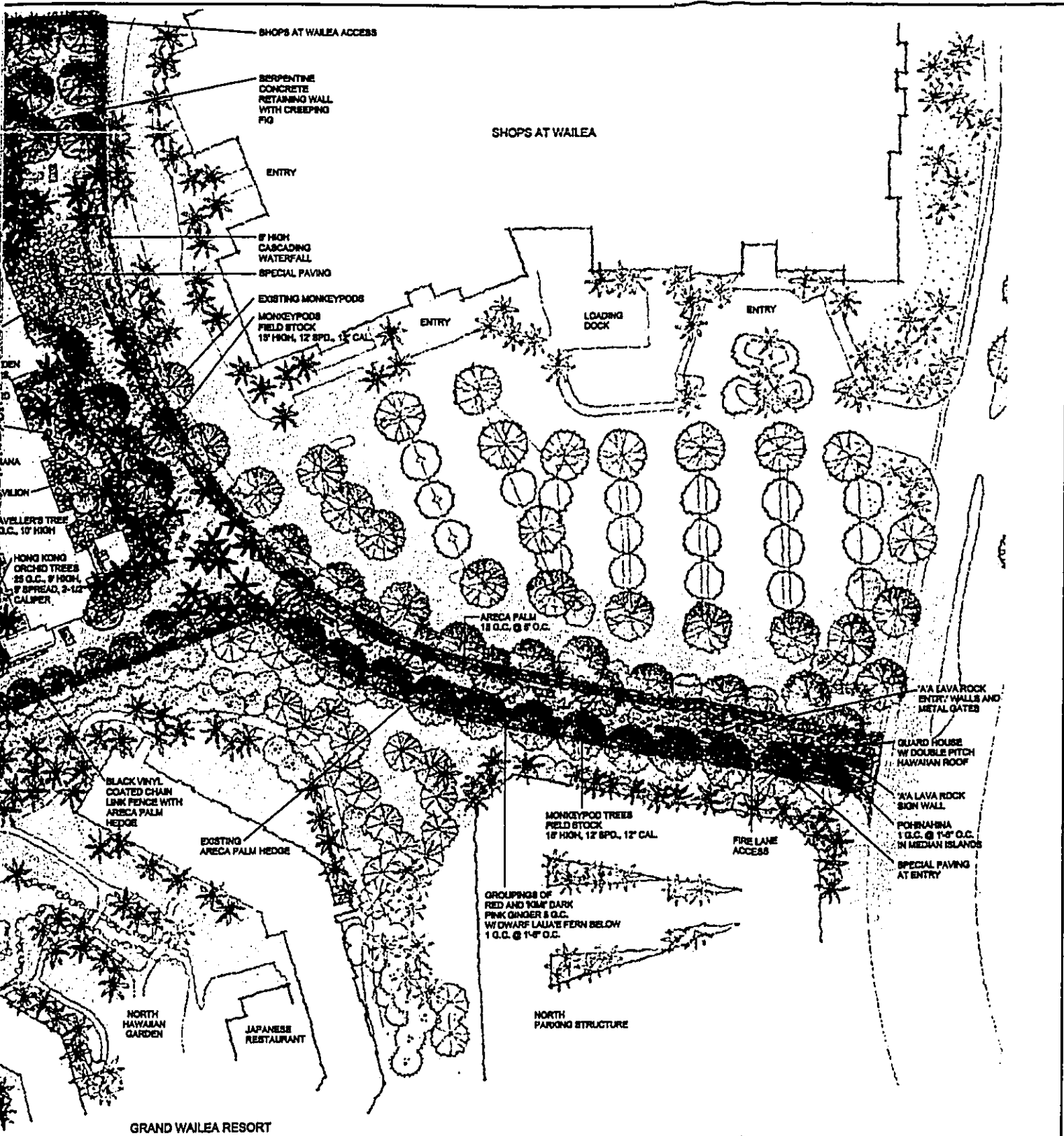
BLACK VINYL
COATED CHAIN
LINK FENCE WITH
ARECA PALM
HEDGE

NORTH
HAWAIIAN
GARDEN

GRAND W

Landscape Site Plan





Site Plan

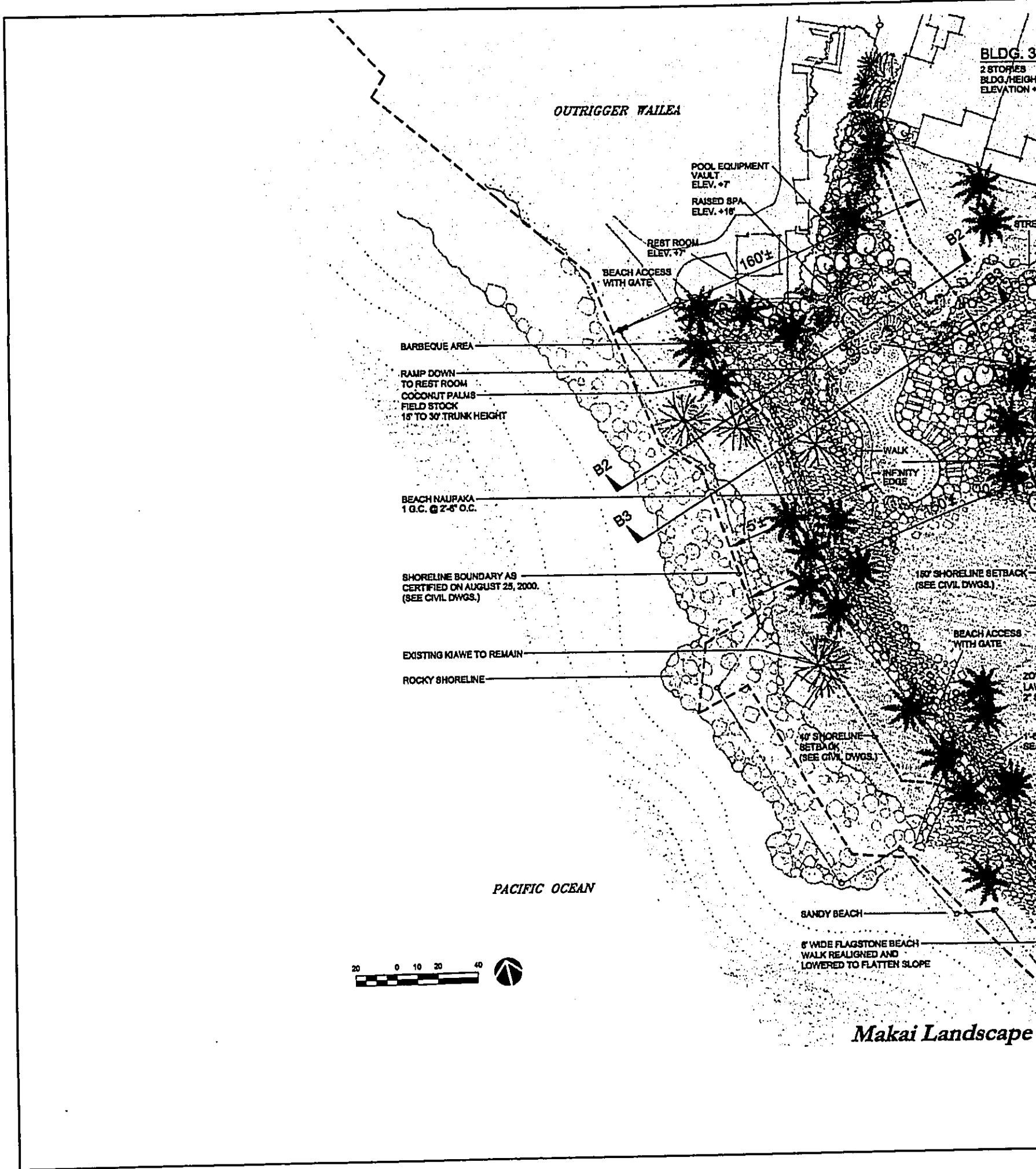
NOTE:
WAILEA BEACH VILLAS
PARKING LOT TREE COUNT: 57

0019

MAR 21, 2001



Wailea Beach Villas - Environmental Assessment
LANDSCAPE-SITE PLAN & DETAILS
FIGURE 5A



BLDG. 3
 2 STORIES
 BLDG. HEIGHT
 ELEVATION +

OUTRIGGER WAILEA

POOL EQUIPMENT
 VAULT
 ELEV. +7
 RAISED SPA
 ELEV. +16

REST ROOM
 ELEV. +7

BEACH ACCESS
 WITH GATE

160'

BARBEQUE AREA
 RAMP DOWN
 TO REST ROOM
 COCONUT PALMS
 FIELD STOCK
 18' TO 30' TRUNK HEIGHT

BEACH NAUPAKA
 1 G.C. @ 2'-6" O.C.

SHORELINE BOUNDARY AS
 CERTIFIED ON AUGUST 25, 2000.
 (SEE CIVIL DWGS.)

EXISTING KIAWE TO REMAIN
 ROCKY SHORELINE

WALK
 INFINITY
 EDGE

15' SHORELINE SETBACK
 (SEE CIVIL DWGS.)

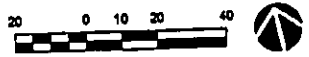
BEACH ACCESS
 WITH GATE

40' SHORELINE
 SETBACK
 (SEE CIVIL DWGS.)

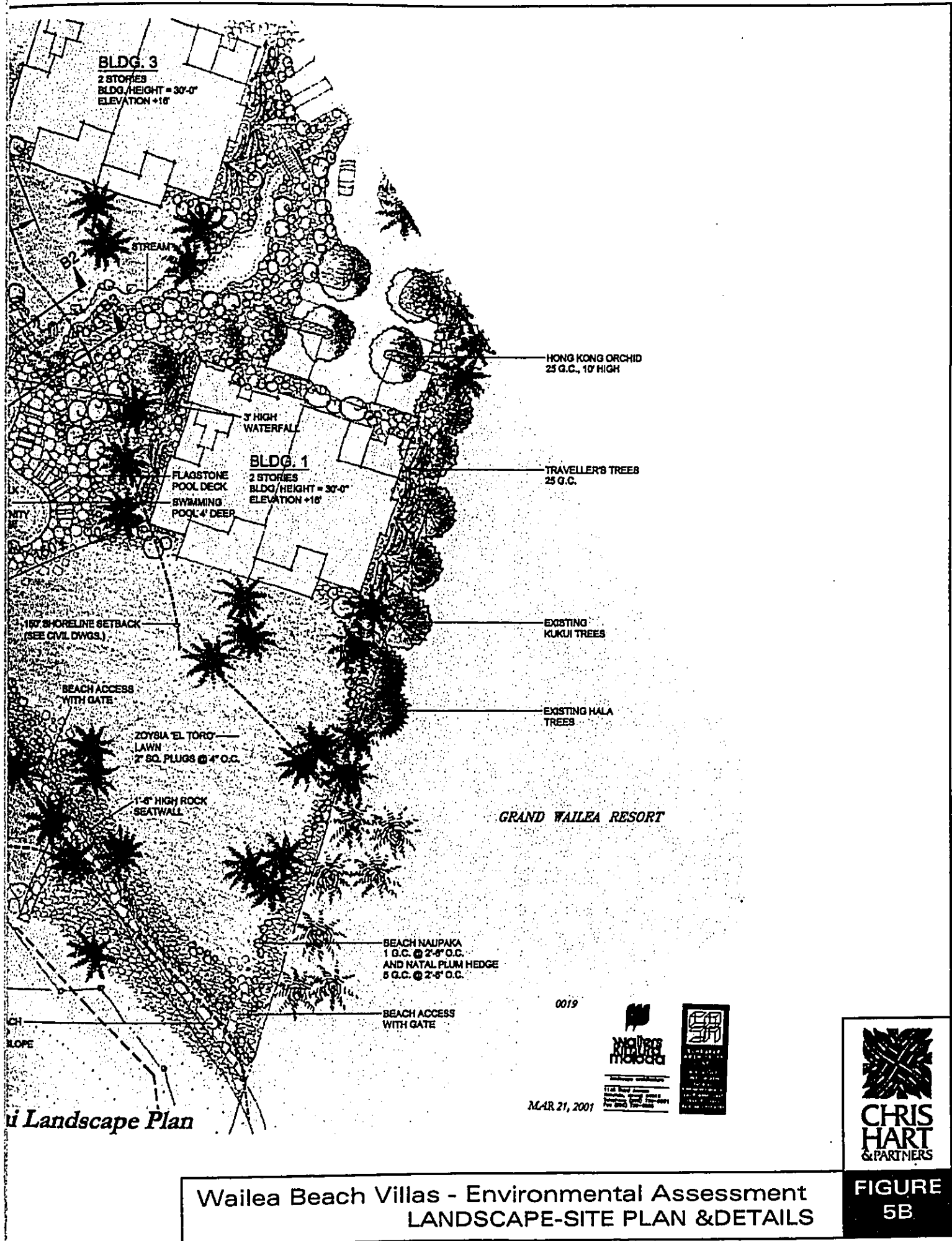
PACIFIC OCEAN

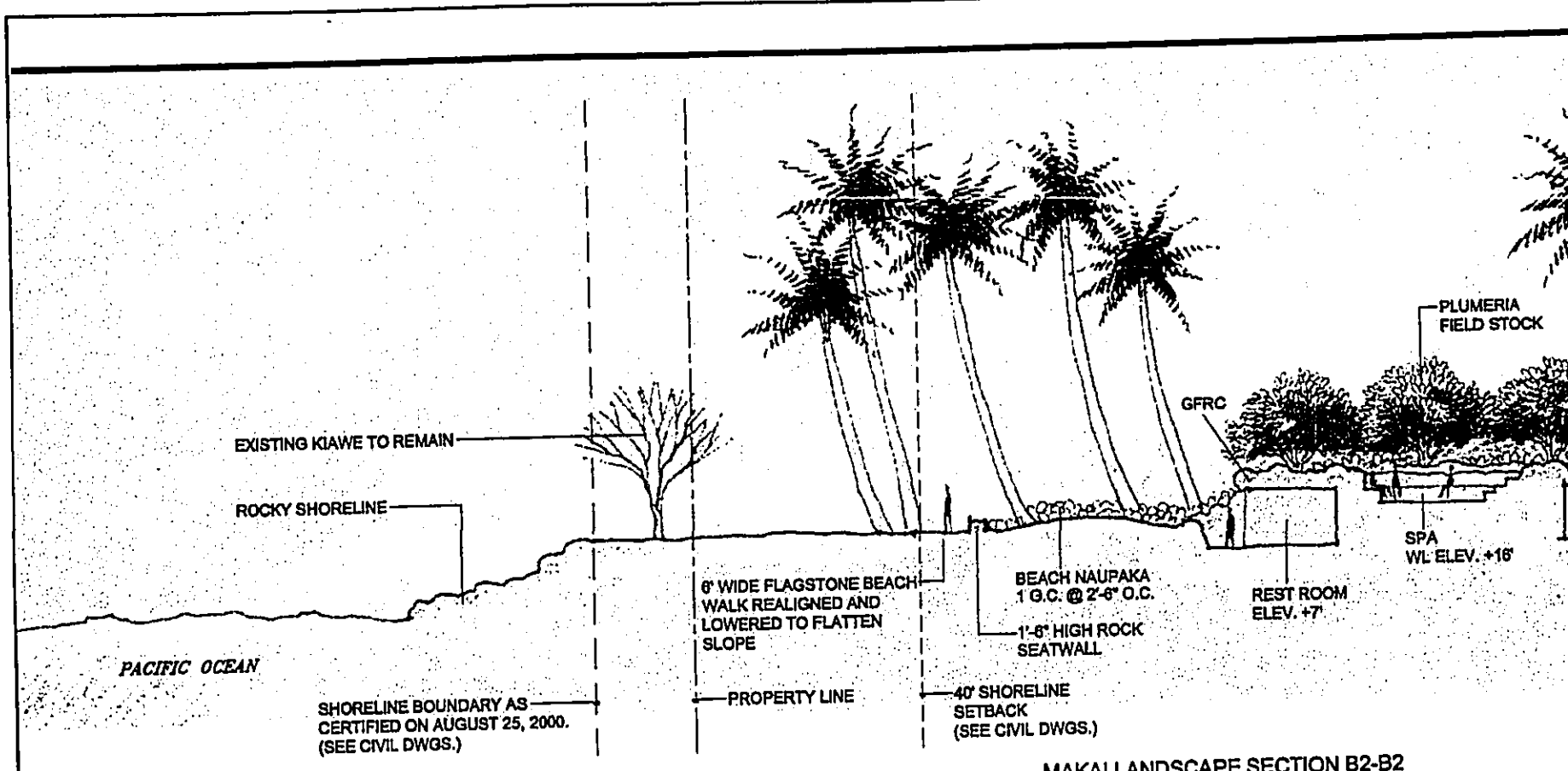
SANDY BEACH

6' WIDE FLAGSTONE BEACH
 WALK REALIGNED AND
 LOWERED TO FLATTEN SLOPE

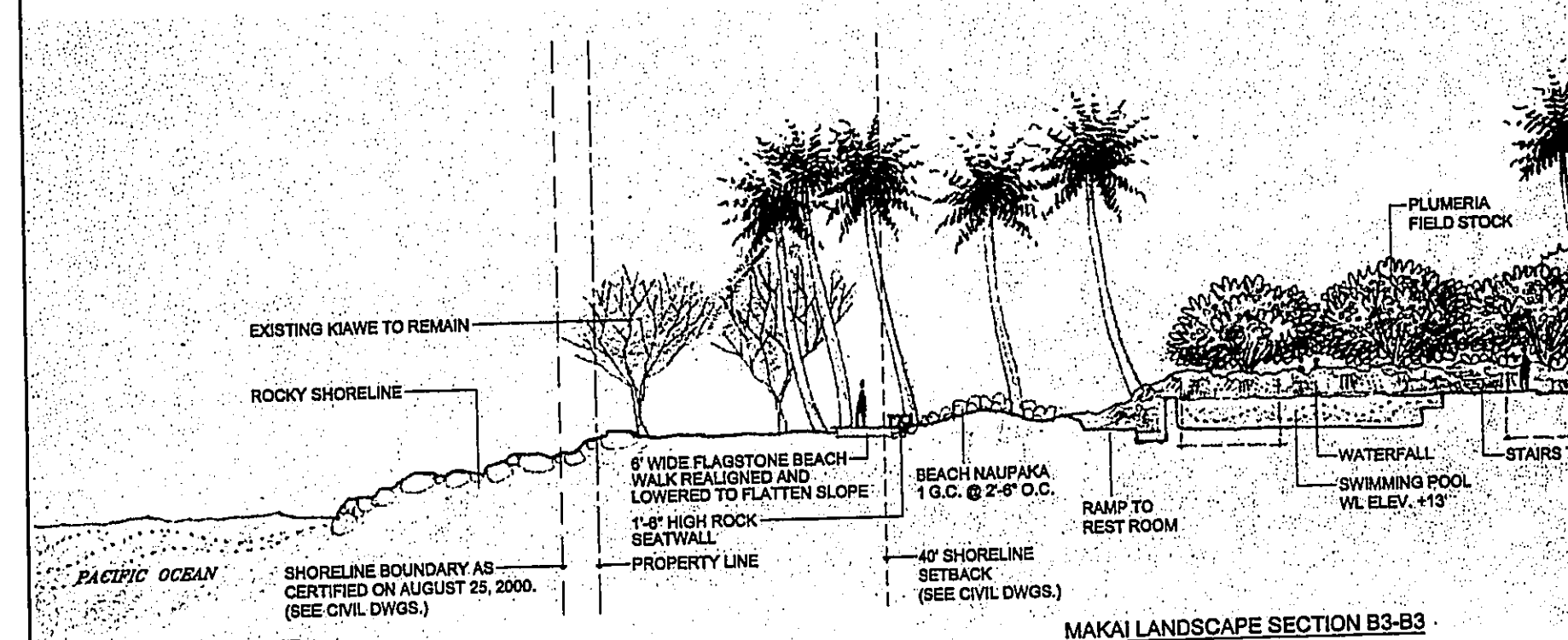


Makai Landscape





MAKAI LANDSCAPE SECTION B2-B2



MAKAI LANDSCAPE SECTION B3-B3

Makai Landscape Sections Plan

0019

MAKAI LANDSCAPE

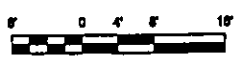
SA

1111 Kalia Road, Suite 100, Honolulu, HI 96813

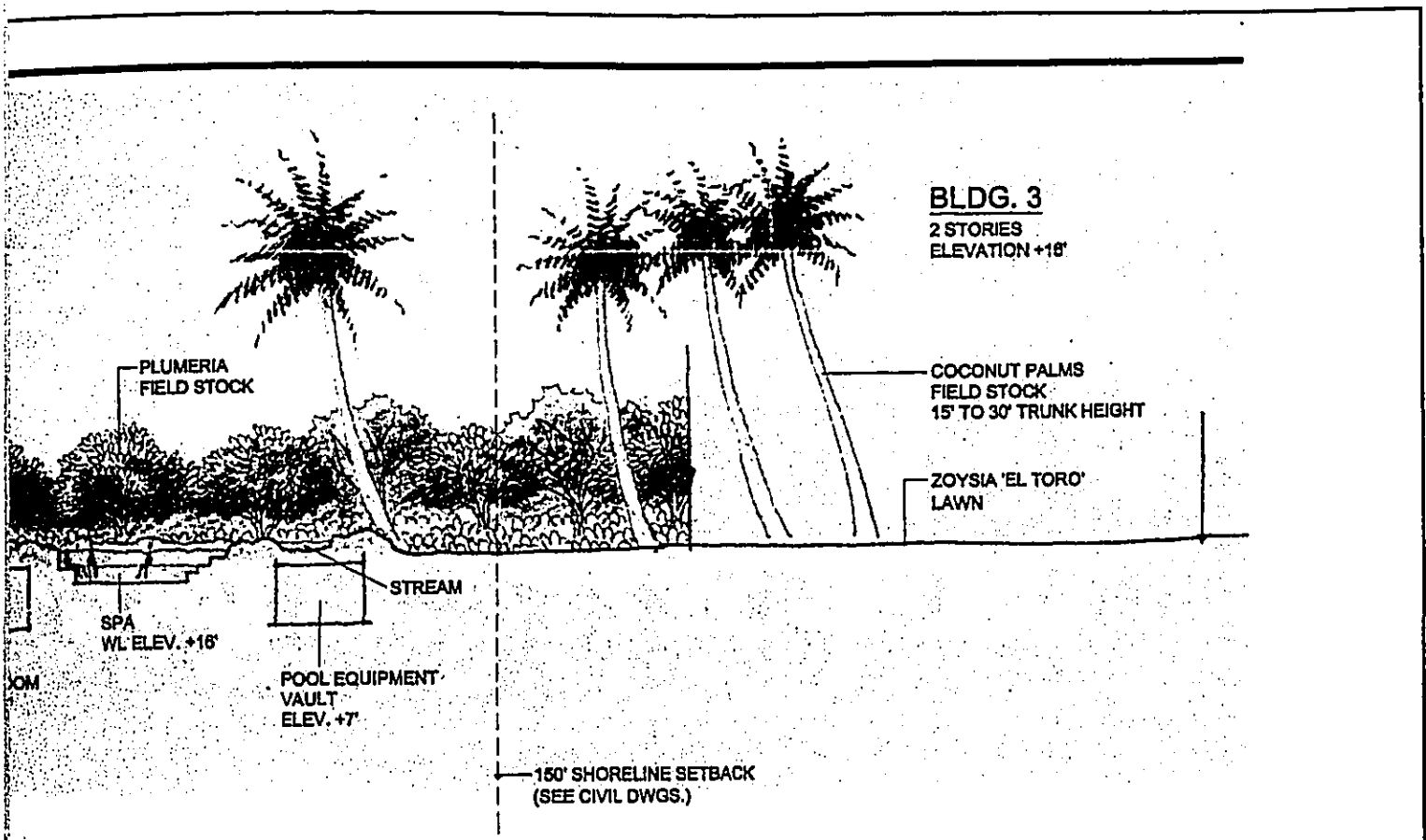
Phone: (808) 943-1111

Fax: (808) 943-1112

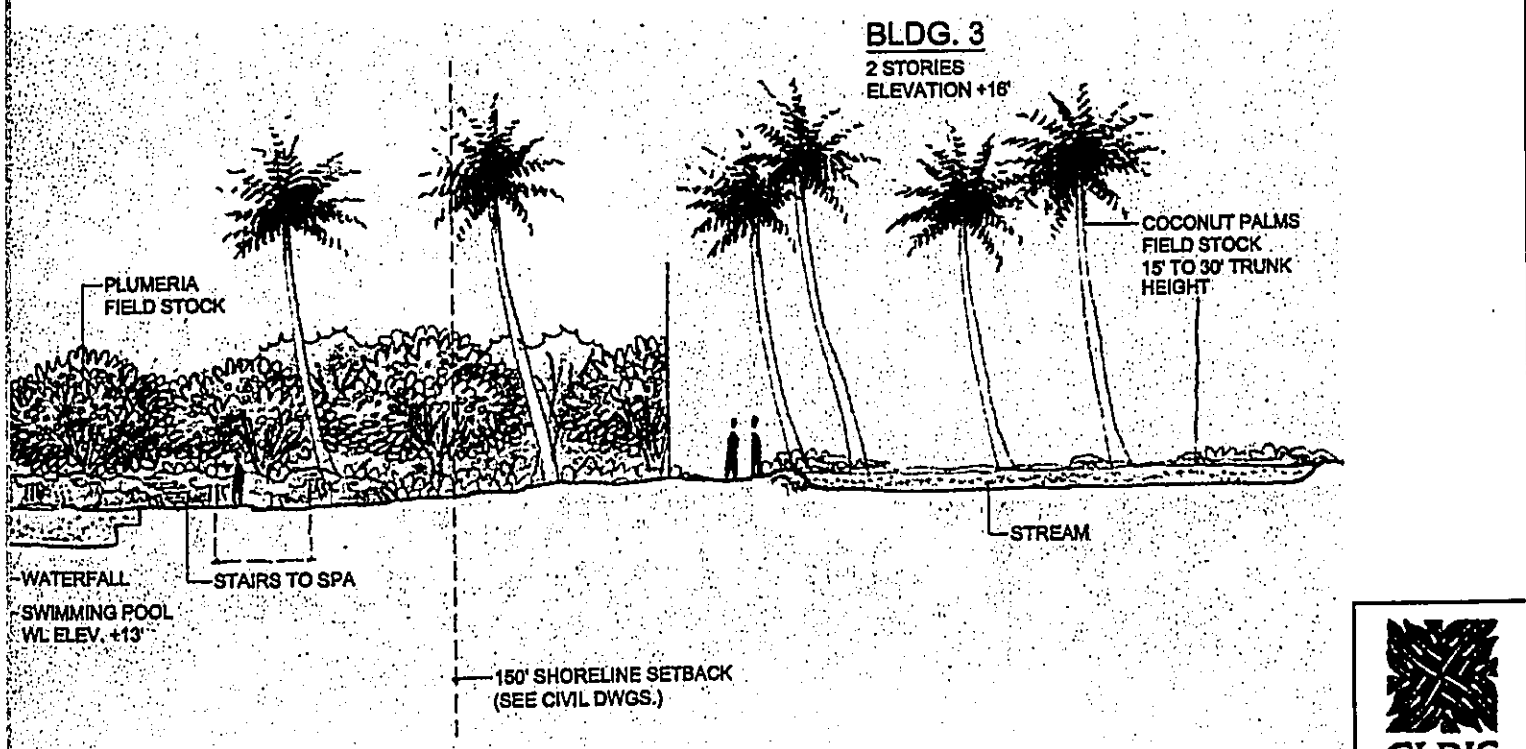
www.makailandscape.com



MAR 21, 2001



SECTION B2-B2



SECTION B3-B3

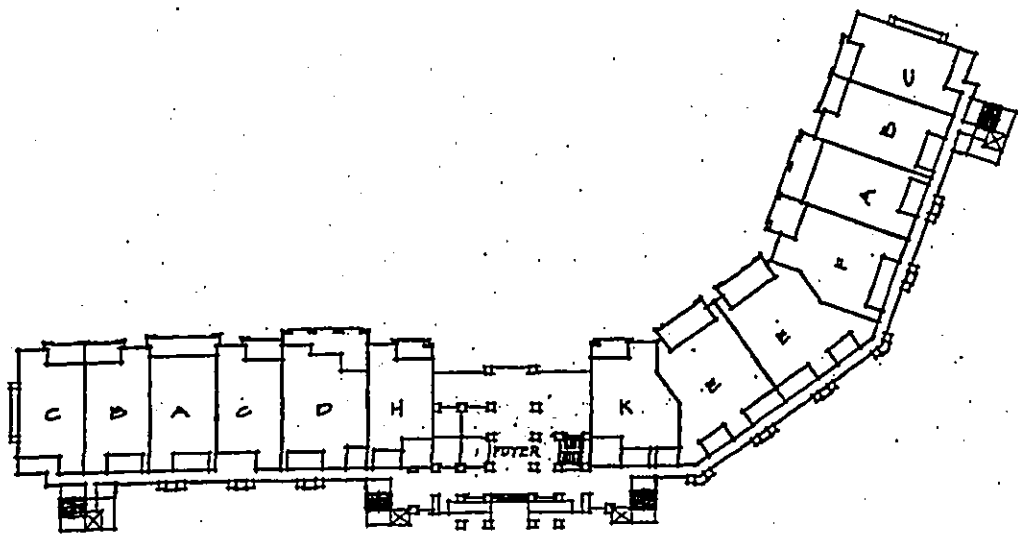
Actions Plan

L-4

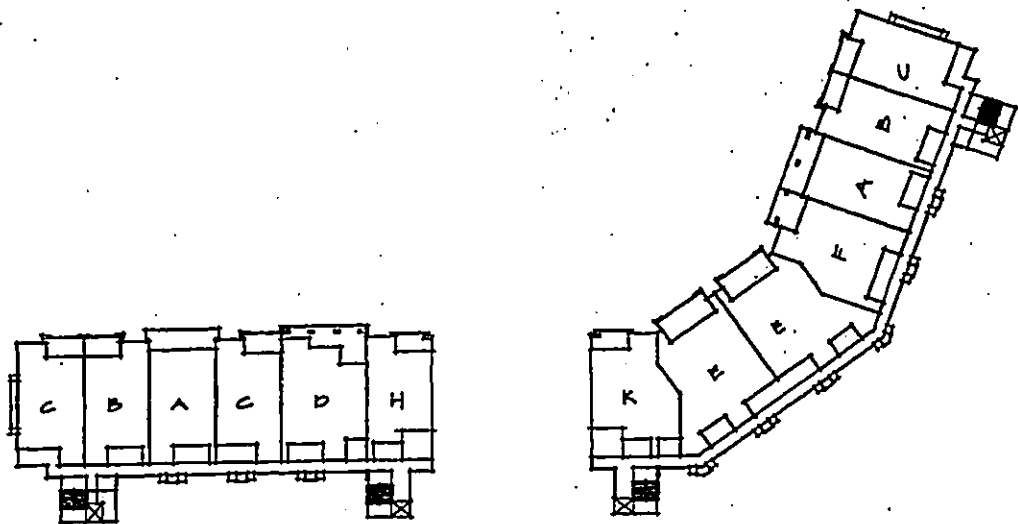


Wailea Beach Villas - Environmental Assessment
LANDSCAPE-SITE PLAN & DETAILS

FIGURE
5C



2NDND LEVEL

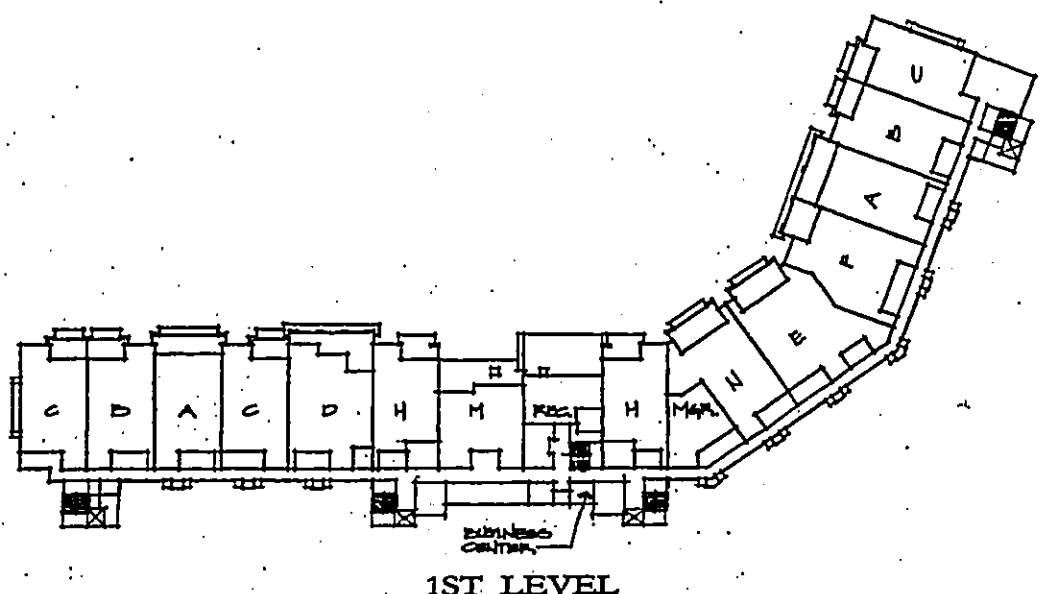


3RD LEVEL

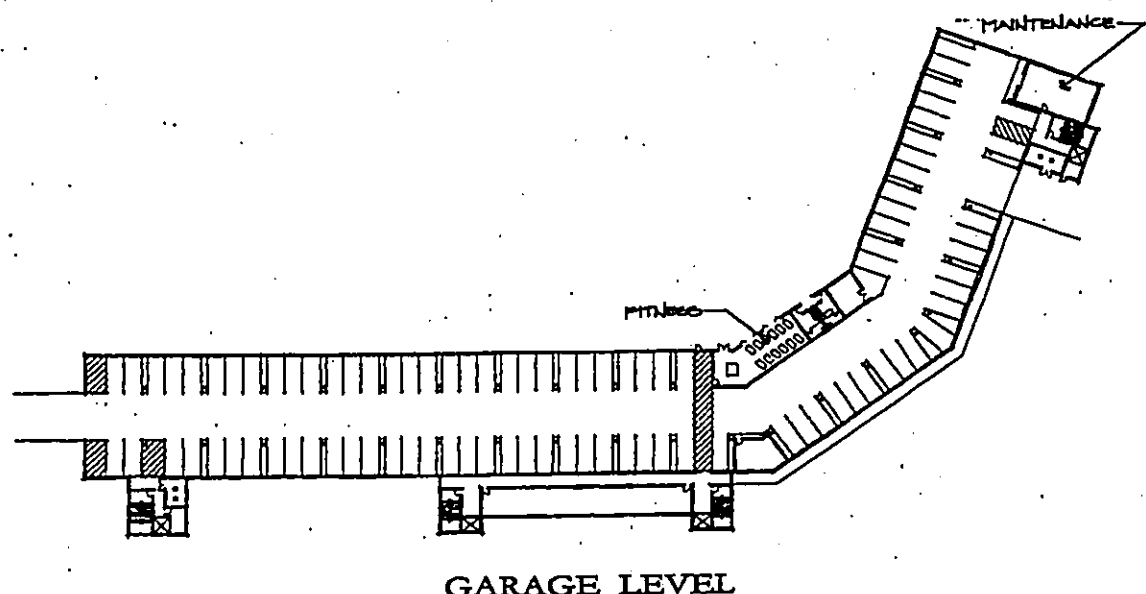
PENTHOUSE BUILDING

W A I L E A B E A C H
 AT
 LAI HONUA

LAI HONUA LLC

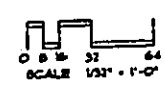


1ST LEVEL



GARAGE LEVEL

SE BUILDING



A-1

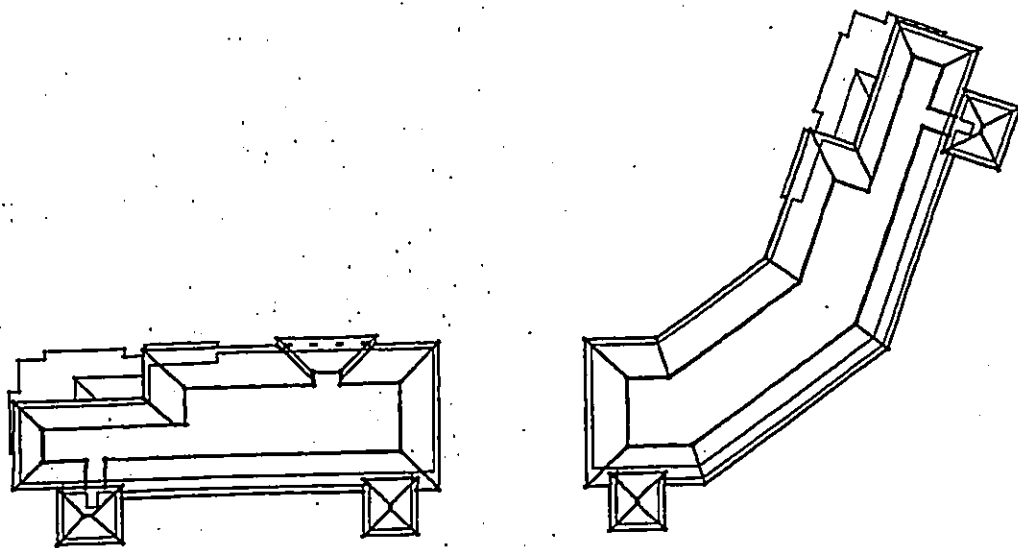
WAILEA BEACH VILLAS
AT
HONUA

0019
DEC. 6 2000



Wailea Beach Villas - Environmental Assessment
ARCHITECTURAL DETAILS

**FIGURE
6A**

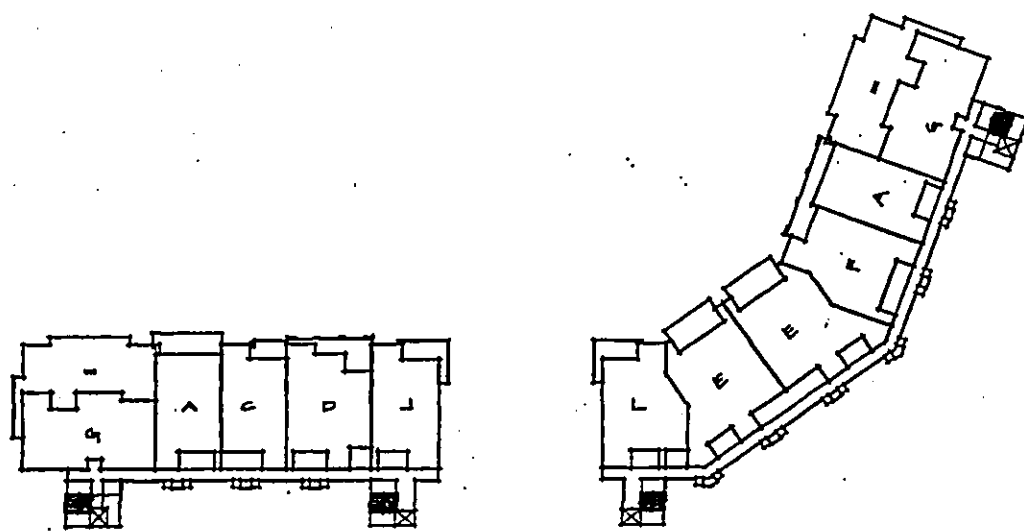


ROOF

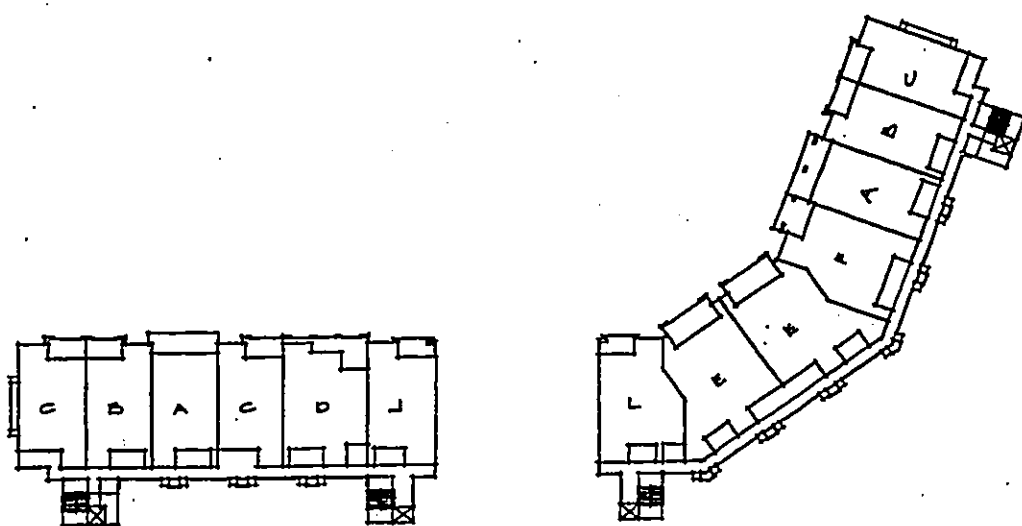
PENTHOUSE BUILDING

LAI HONUA LLC

W A I L E A B E A C H
AT
LAI HONUA

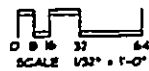


5TH LEVEL



4TH LEVEL

USE BUILDING



A-2

W A I L E A B E A C H V I L L A S
 AT
 H O N U A

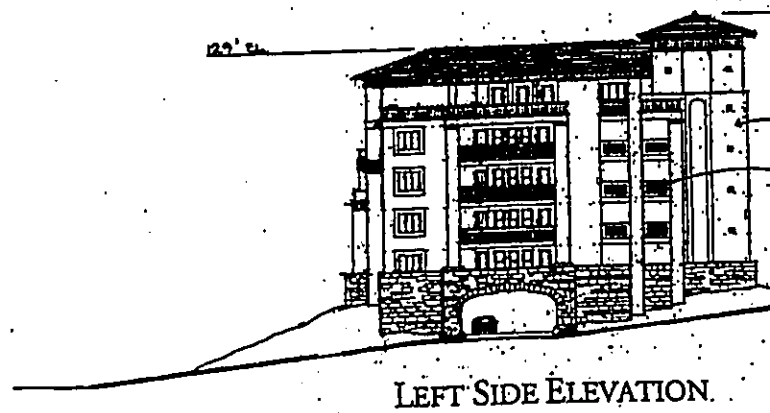
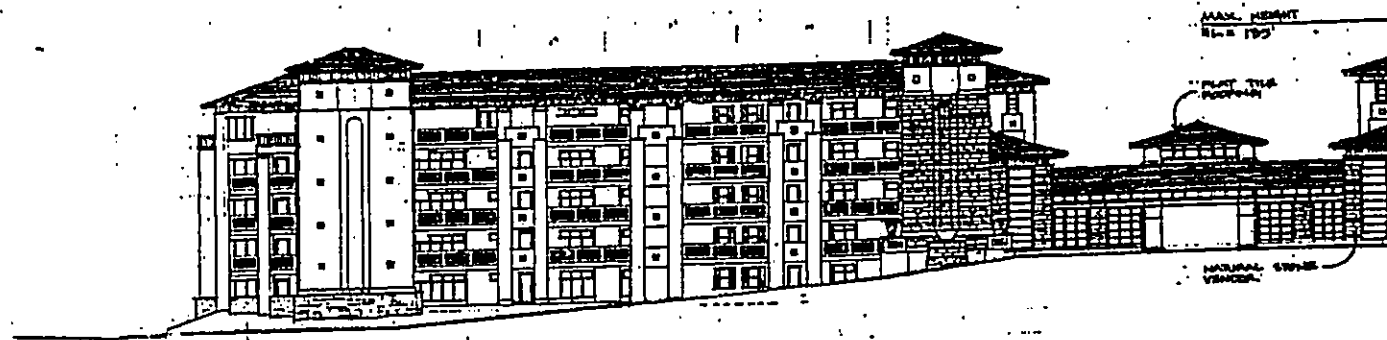
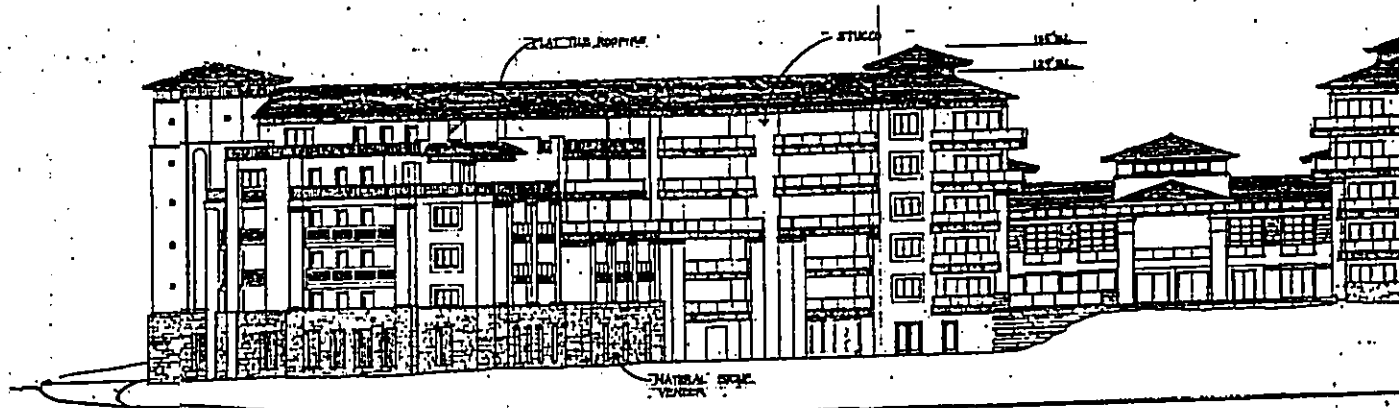
0019



DEC 6 2000

Wailea Beach Villas - Environmental Assessment
 ARCHITECTURAL DETAILS

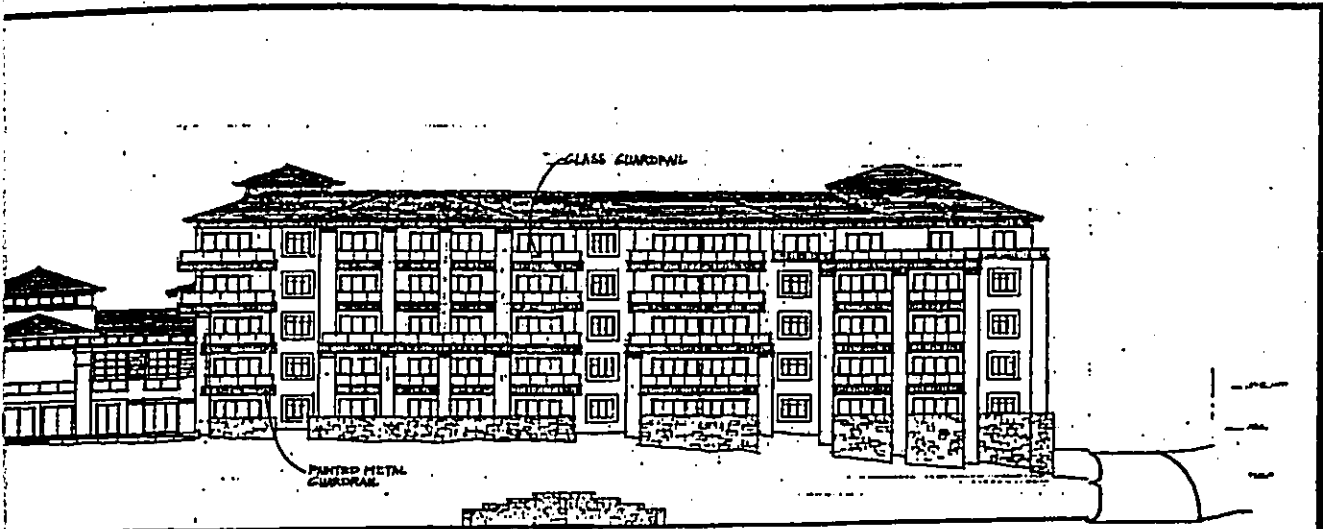
**FIGURE
 6B**



PENTHOUSE BUILDING

W A I L E A B E A C H
AT
LAI HONUA

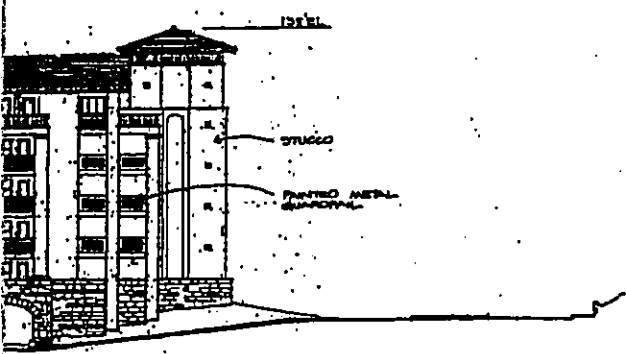
LAI HONUA LLC



REAR ELEVATION

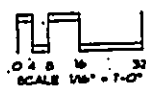


FRONT ELEVATION



ELEVATION.

SE BUILDING



A-5

BEACH VILLAS
AT
HONUA

0019



DEC. 6 2000

Wailea Beach Villas - Environmental Assessment
ARCHITECTURAL DETAILS

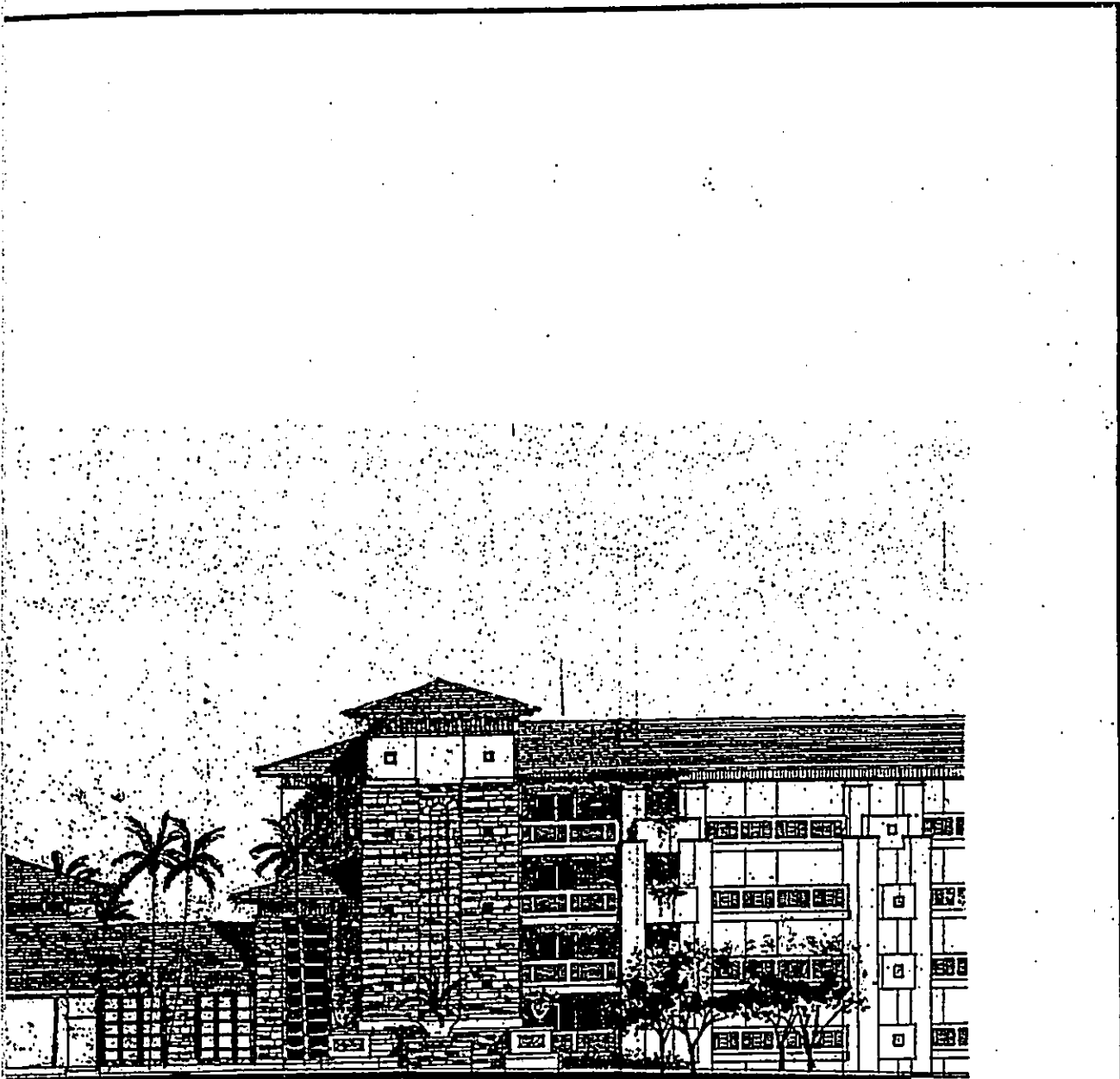
FIGURE
6C



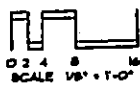
PENTHOUSE ELEVATION AT FOY

LAI HONUA LLC

W A I L E A B E A C H
AT
L A I H O N U A



VATION AT FOYER.



A-6

WALLEA BEACH VILLAS
AT
HONUA

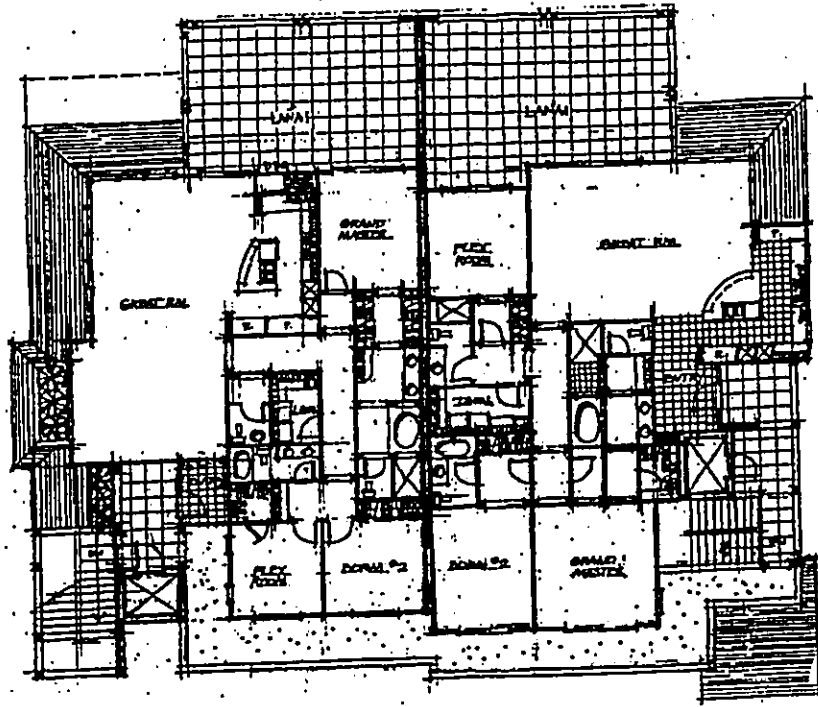
0019



DEC 6, 2000

Wailea Beach Villas - Environmental Assessment
ARCHITECTURAL DETAILS

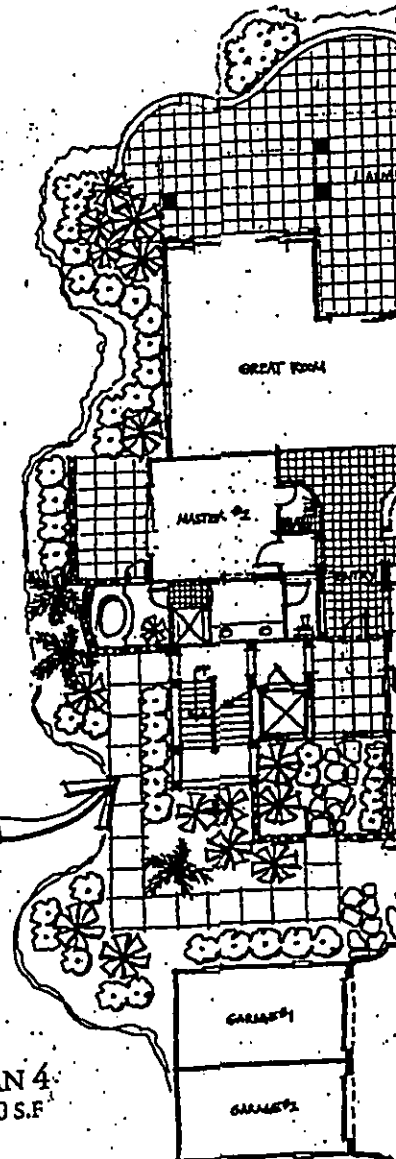
**FIGURE
6D**



PLAN 1
2285 S.F.

PLAN 2
2305 S.F.

SECOND FLOOR



PLAN 4
3040 S.F.

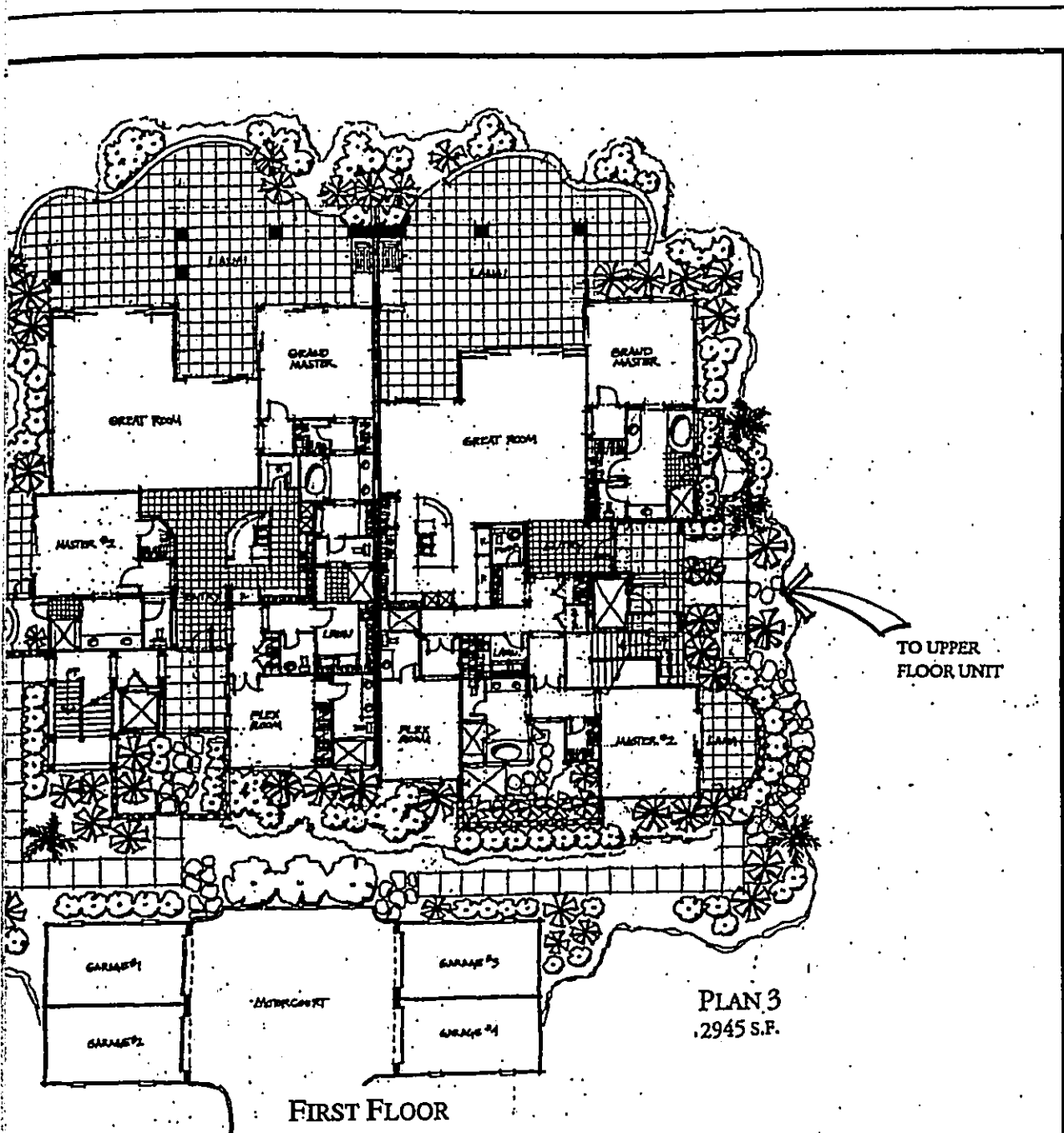
TO UPPER
FLOOR UNIT

LOWER TERRACE BUNGALOW
(TWO STORY BUILDING)

(BUILDINGS 1, 2 AND 3)

LAI HONUA LLC

W A I L E A B E A C H
AT
L A I H O N U A



ICE BUNGALOW
(BY BUILDING)

(1, 2 AND 3)



AA-7

WAILA BEACH VILLAS
AT
KONA

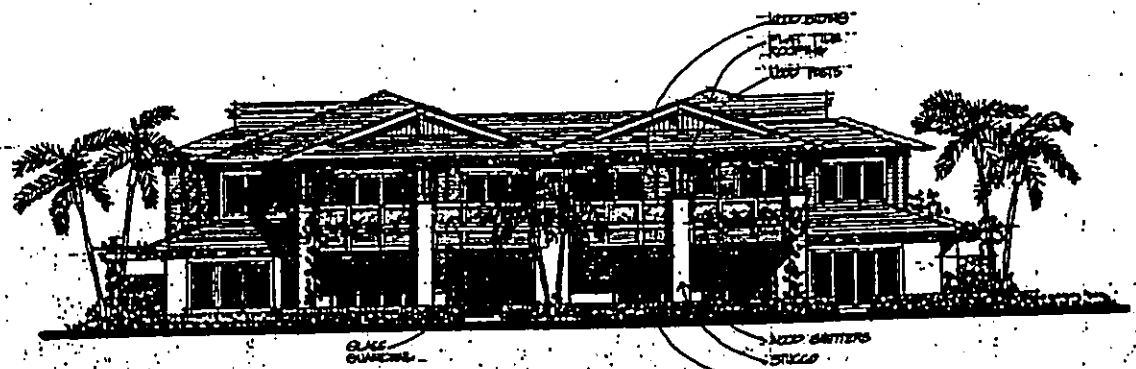
0019



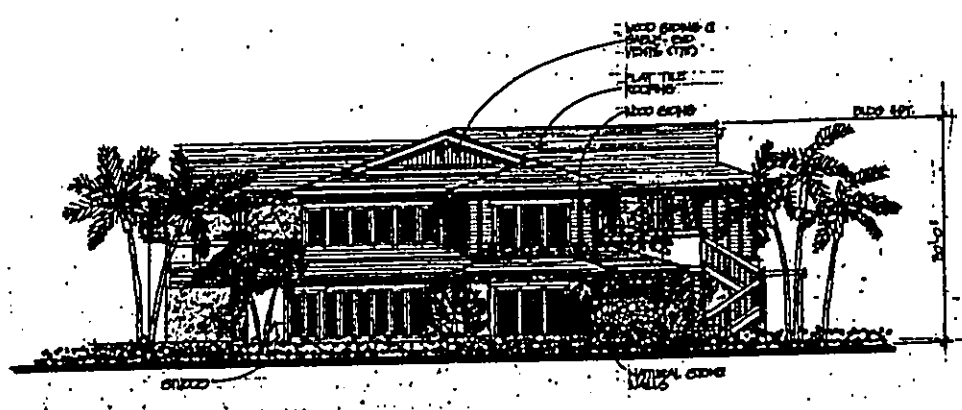
DEC 6, 2000

Wailea Beach Villas - Environmental Assessment
ARCHITECTURAL DETAILS

FIGURE
6E



REAR ELEVATION

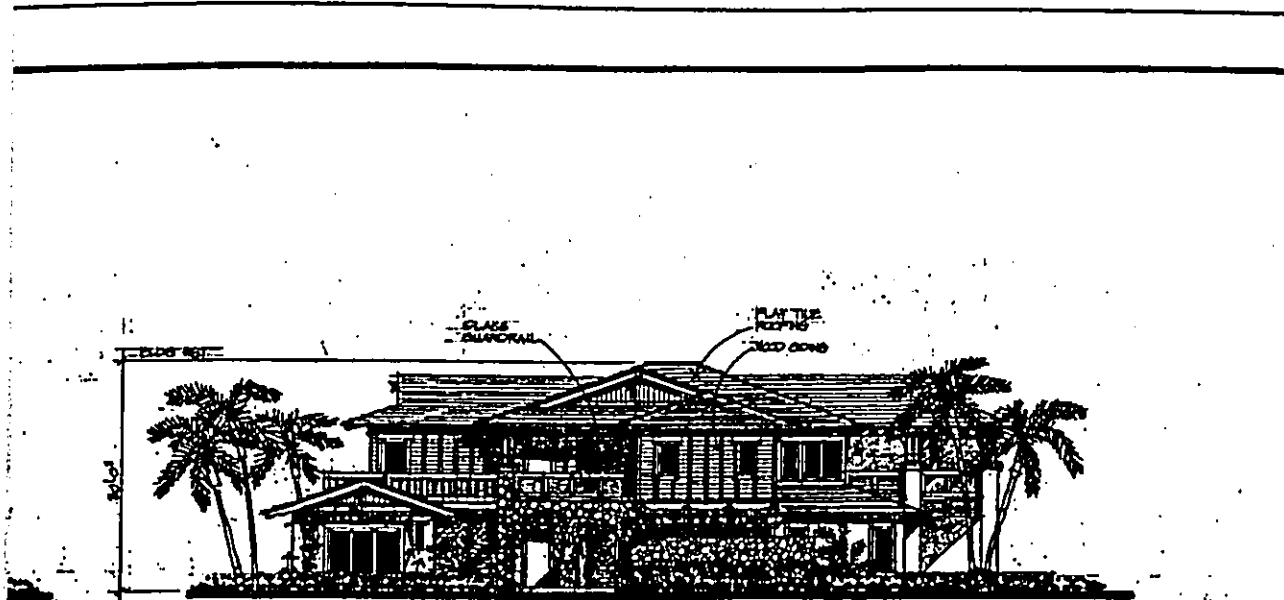


LEFT SIDE ELEVATION

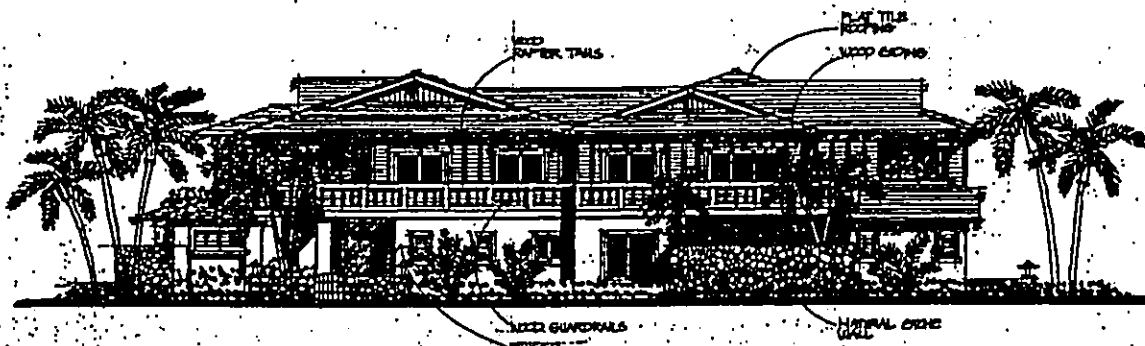
LOWER TERRACE BUNGALOW
 (TWO STORY BUILDING)
 (BUILDINGS 1, 2 AND 3)

W A I L E A B E A C H
 AT
L A I H O N U A

LAI HONU A LLC



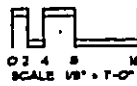
RIGHT SIDE ELEVATION



FRONT ELEVATION

FACE BUNGALOW
(BY BUILDING)

(S 1, 2 AND 3)



A-8

W A I L E A B E A C H V I L L A S

AT
HONUA

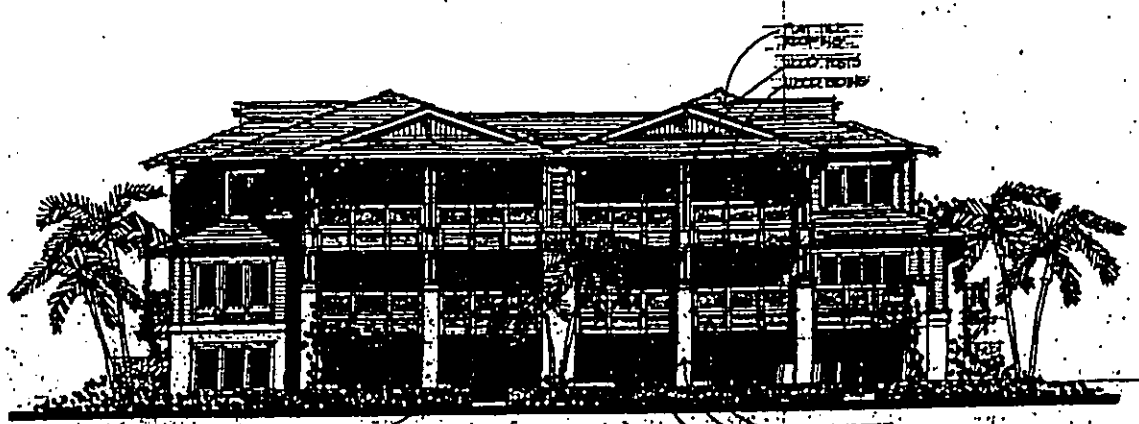
0019



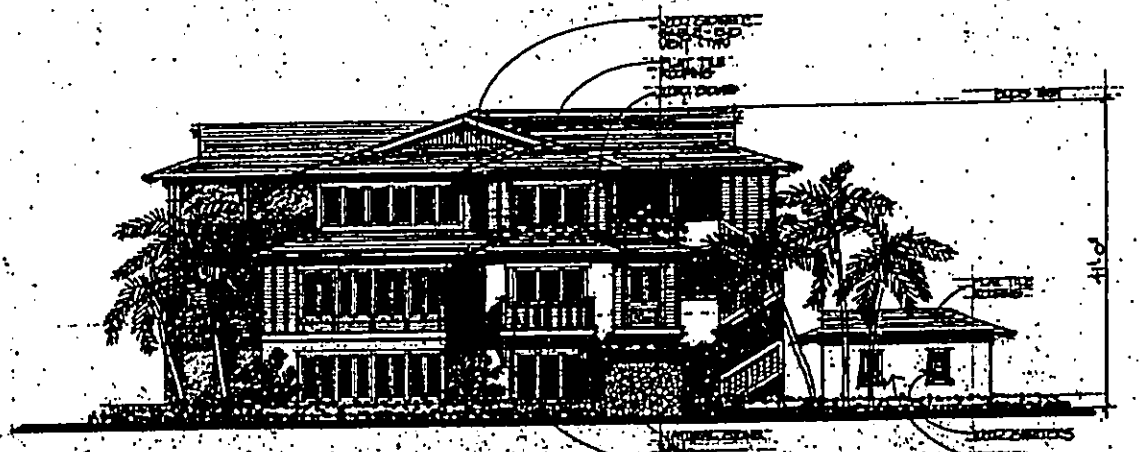
DEC 6, 2000

Wailea Beach Villas - Environmental Assessment
ARCHITECTURAL DETAILS

FIGURE
6F



REAR ELEVATION



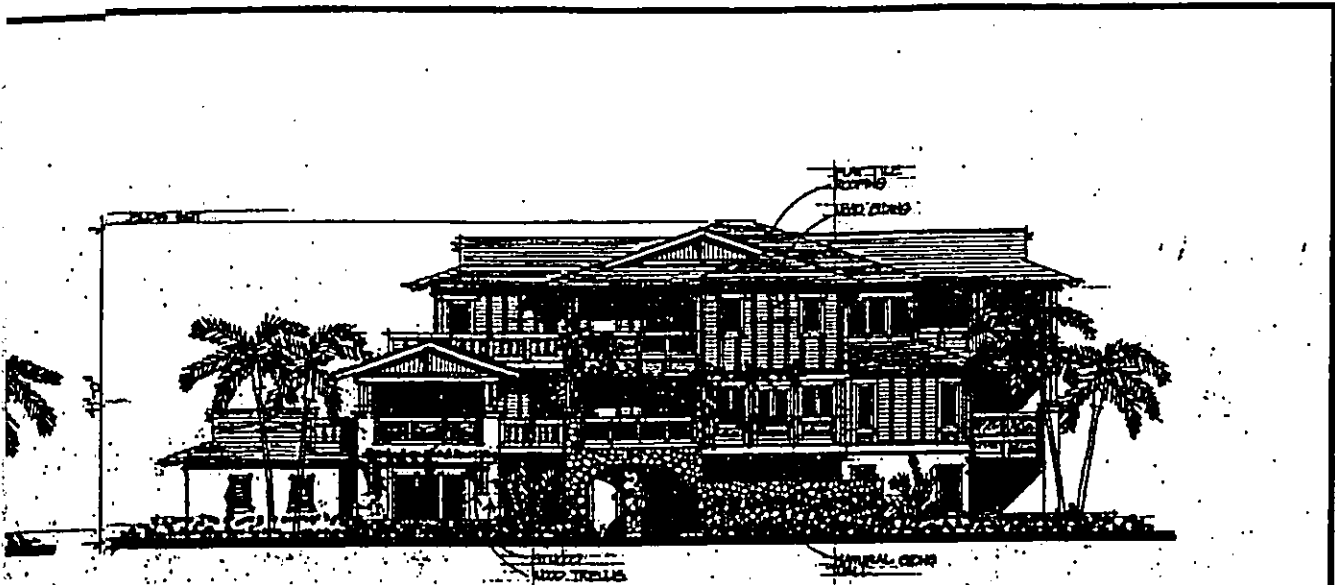
LEFT SIDE ELEVATION

MIDDLE TERRACE BUNGALOWS
(THREE STORY BUILDINGS)

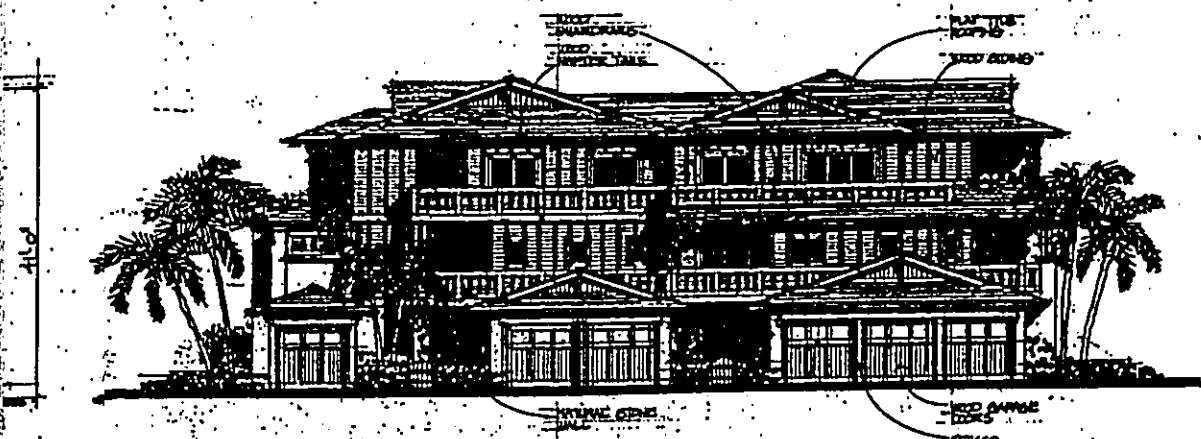
(BUILDINGS 4, 5, 6 AND 7)

LAI HONU A LLC

W A I L E A B E A C H
AT
L A I H O N U A



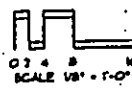
RIGHT SIDE ELEVATION



FRONT ELEVATION

RACE BUNGALOW
(TORY BUILDING)

(SHEETS 4, 5, 6 AND 7)



A-11

BEACH VILLAS
AT
HONUA

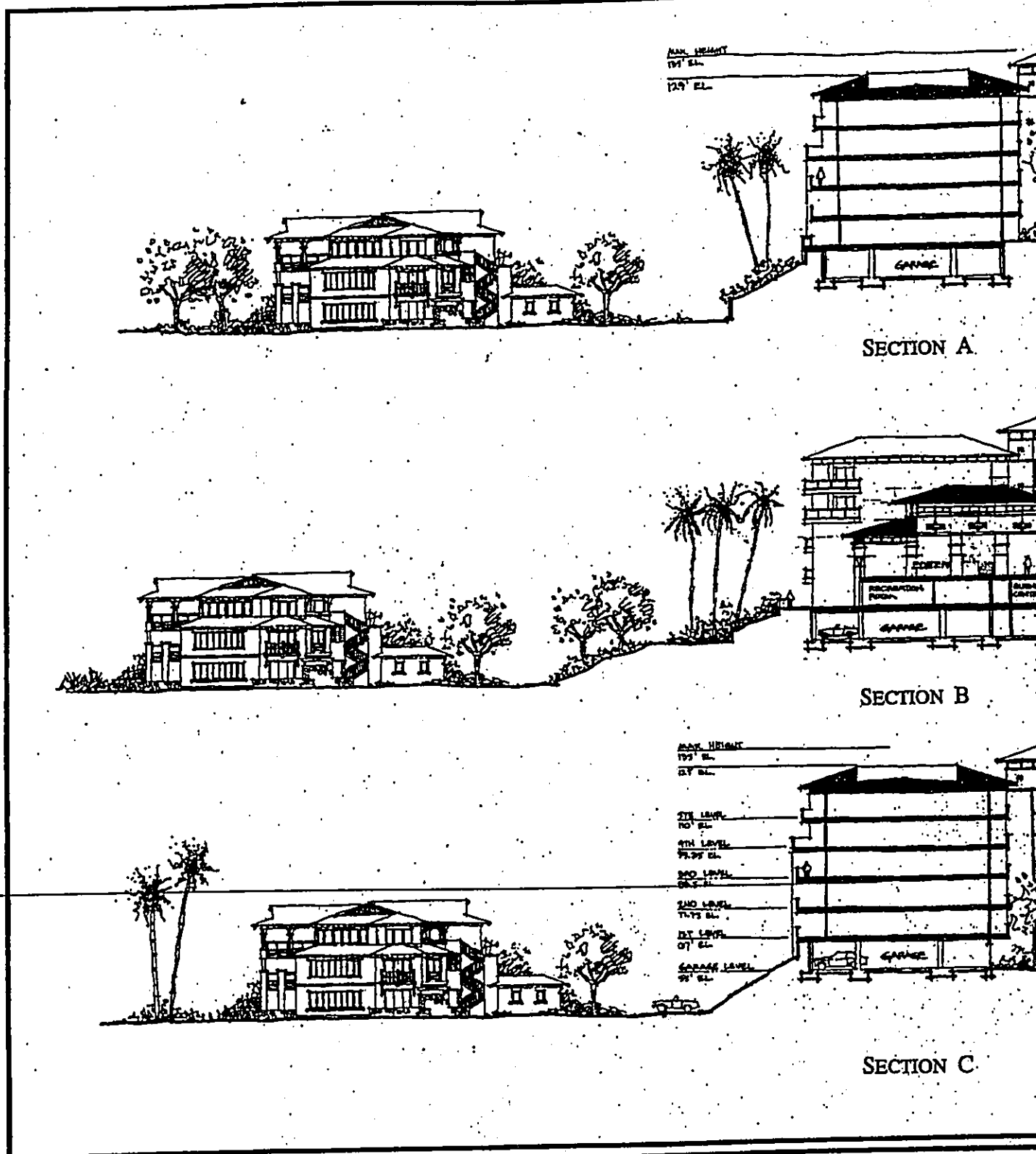
0019



DEC 6, 2000

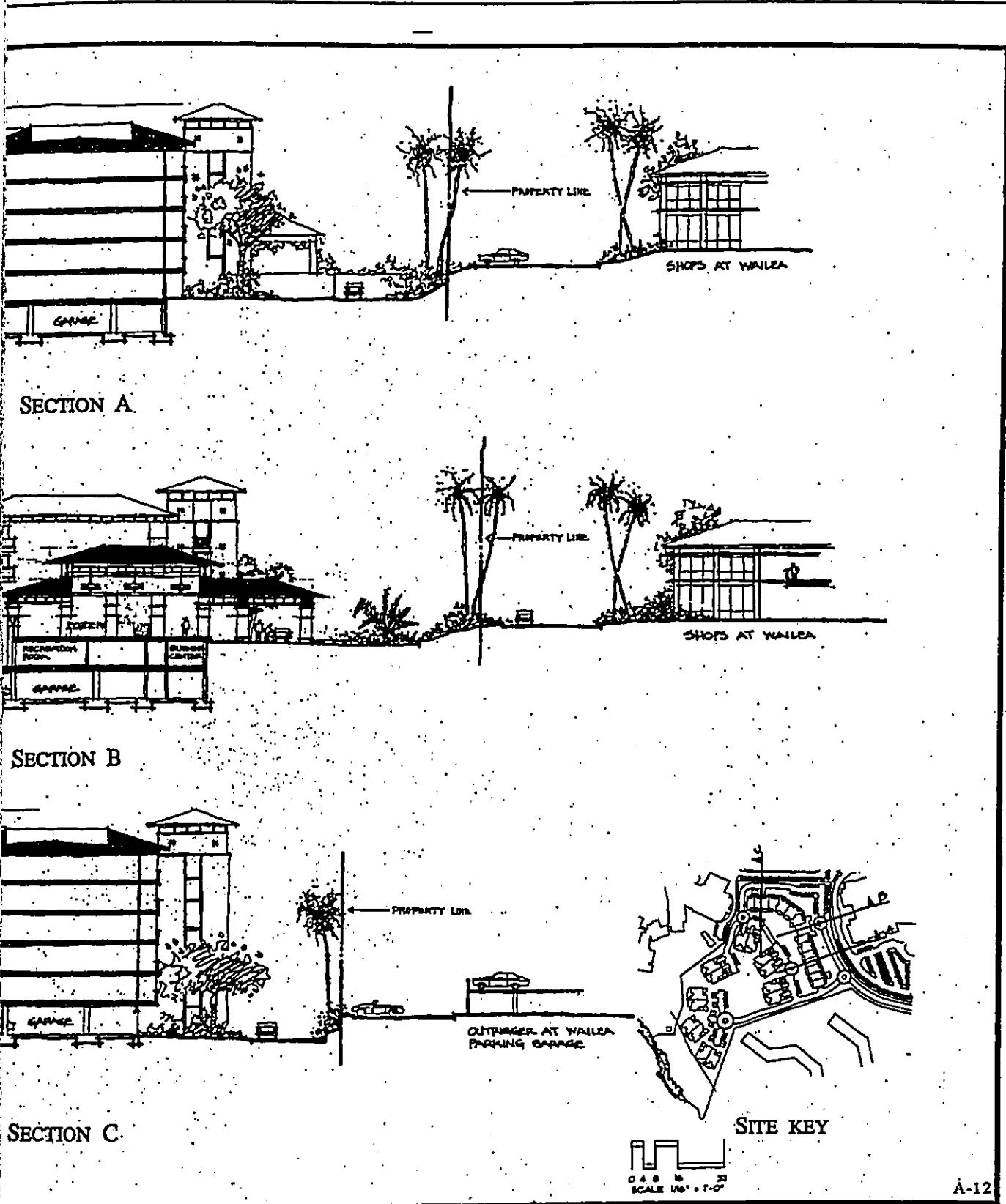
Wailea Beach Villas - Environmental Assessment
ARCHITECTURAL DETAILS

FIGURE
6G



W A I L E A B E A C H
 AT
 L A I H O N U A

LAI HONUA LLC



EA CH VILLAS
 AT
 I HONUA

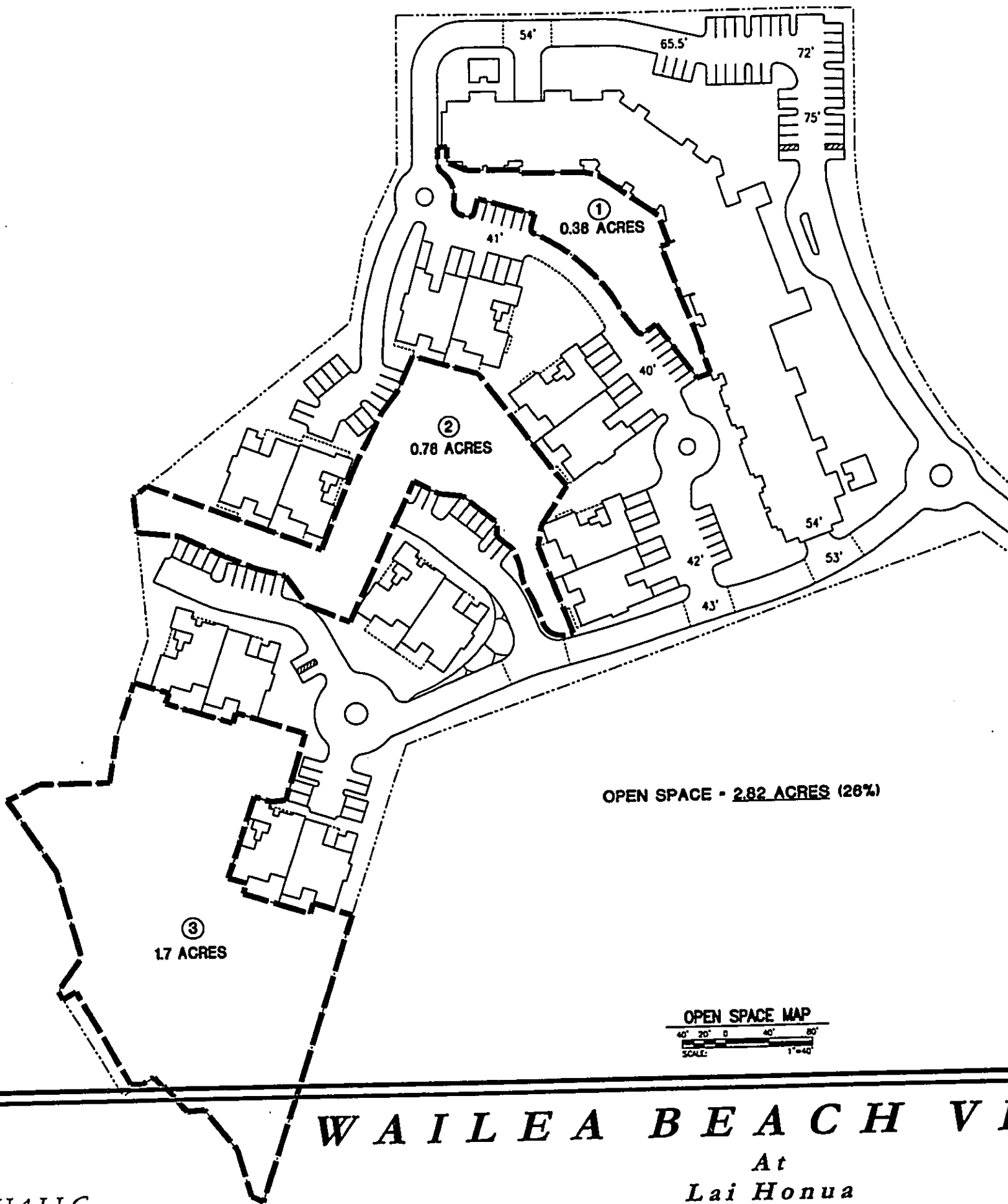
0019



DEC. 6 2000

Wailea Beach Villas - Environmental Assessment
 ARCHITECTURAL DETAILS

FIGURE
 6H

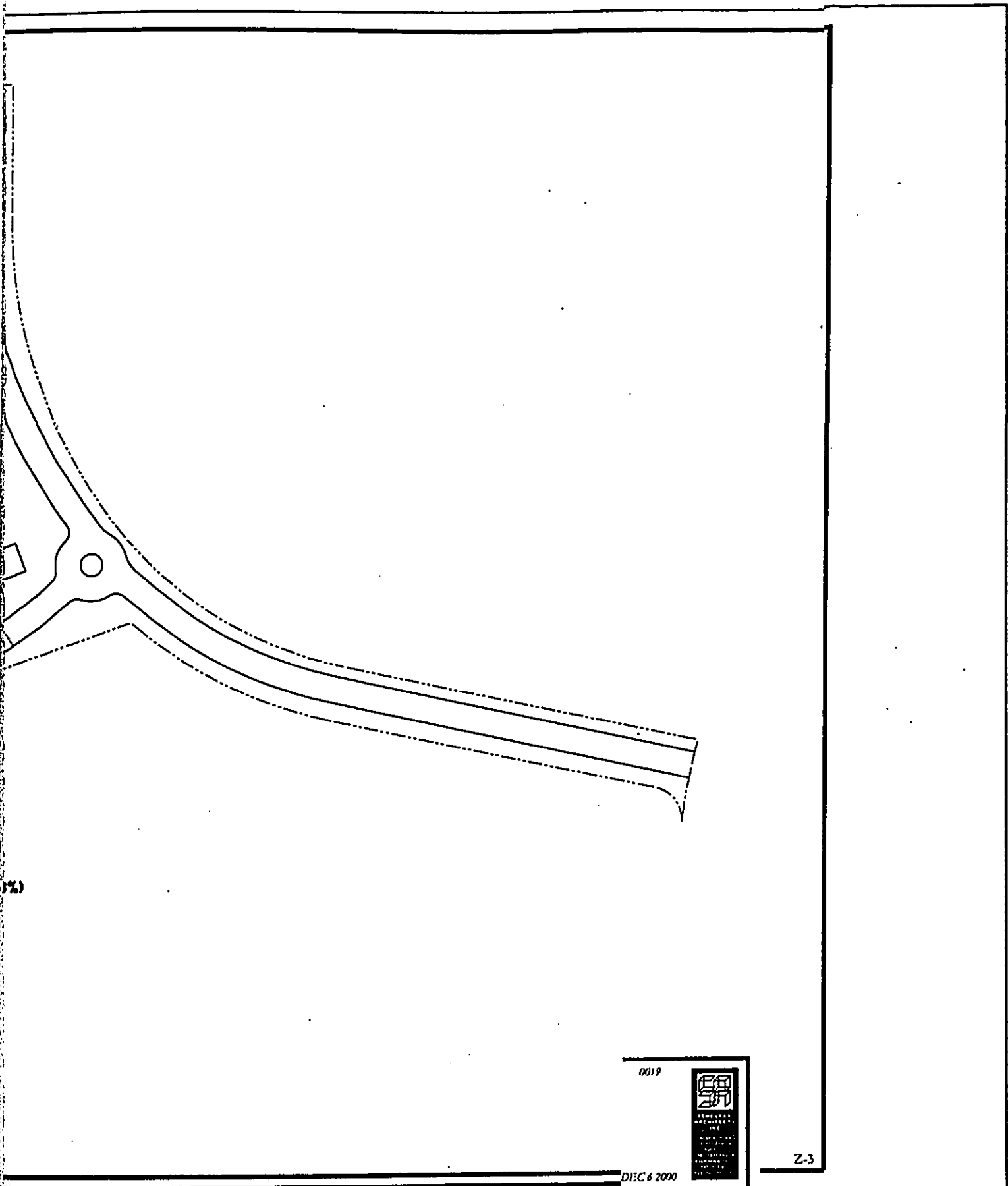


OPEN SPACE MAP
40' 20' 0 40' 80'
SCALE: 1"=40'

W A I L E A B E A C H V I

At
Lai Honua

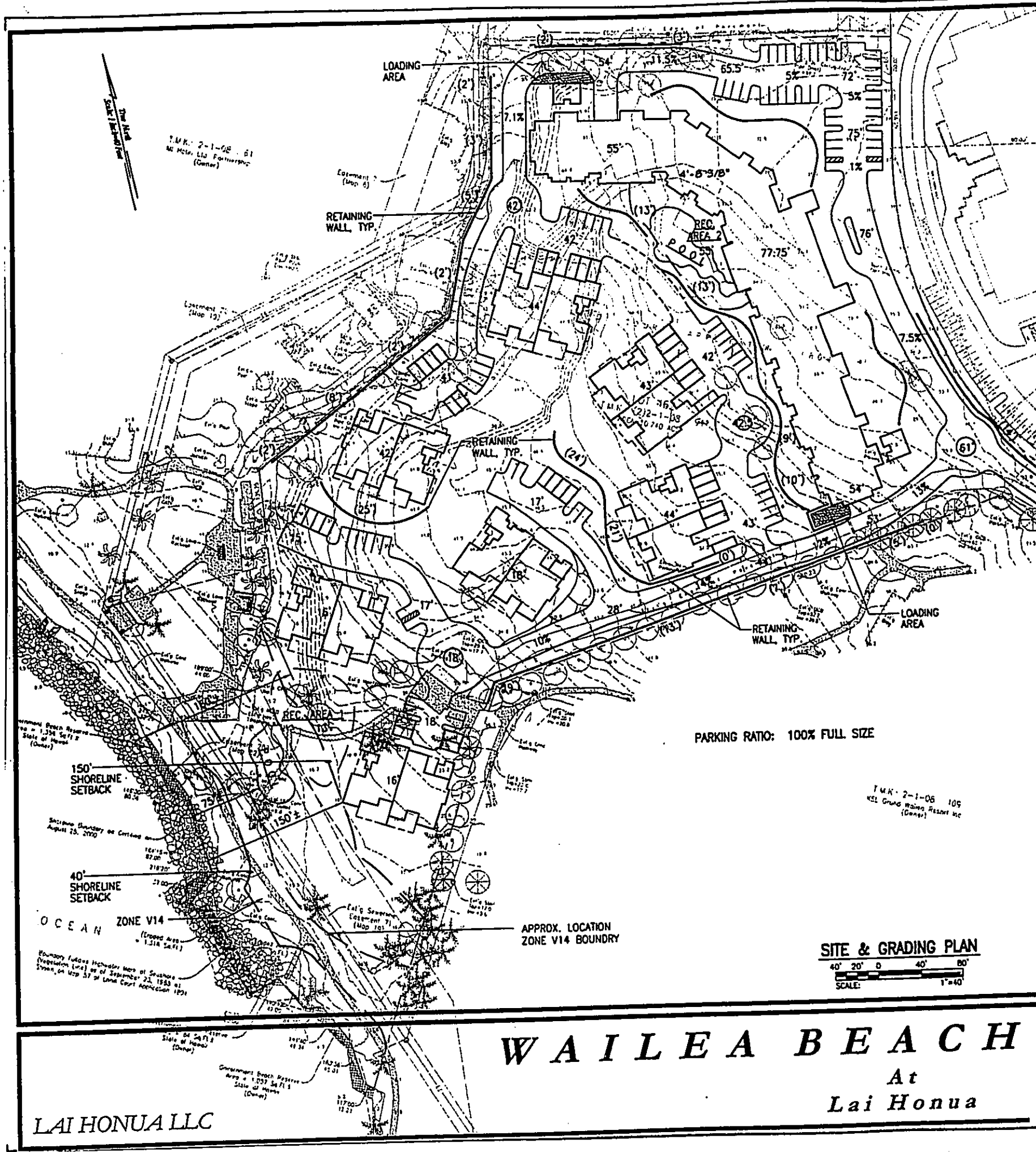
LAI HONUA LLC



W A I L E A B E A C H V I L L A S

Wailea Beach Villas - Environmental Assessment
OPEN SPACE PLAN

FIGURE
7



T.M.K. 2-1-06-61
 M. H. H. Partnership
 (Owner)

PARKING RATIO: 100% FULL SIZE

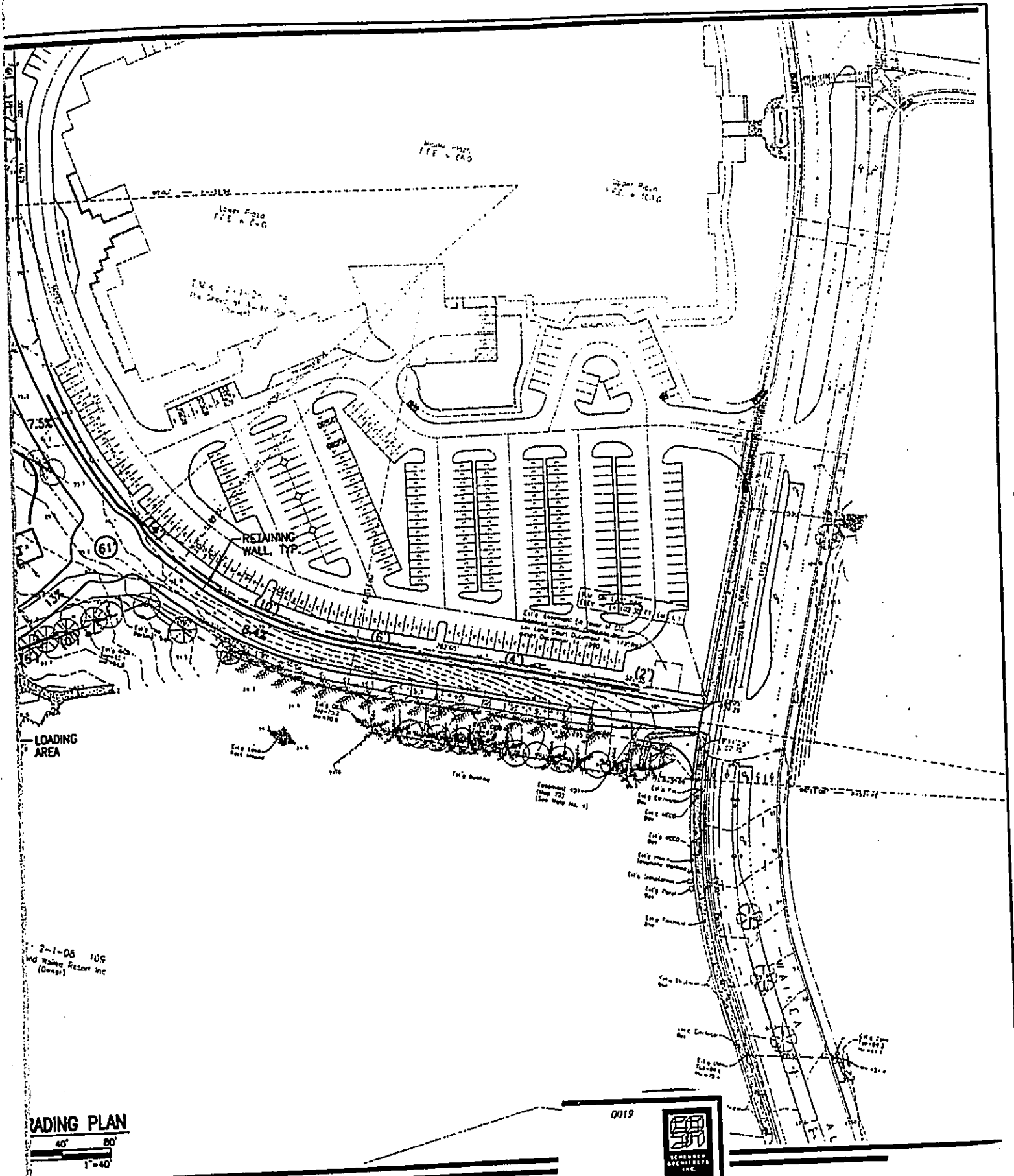
T.M.K. 2-1-06 109
 K&L Grand Wailea Resort Inc
 (Owner)

SITE & GRADING PLAN
 40' 20' 0 40' 80'
 SCALE: 1"=40'

W A I L E A B E A C H

At
 L a i H o n u a

LAI HONUA LLC



GRADING PLAN
 40' 80'
 1"=40'

W A I L E A B E A C H V I L L A S

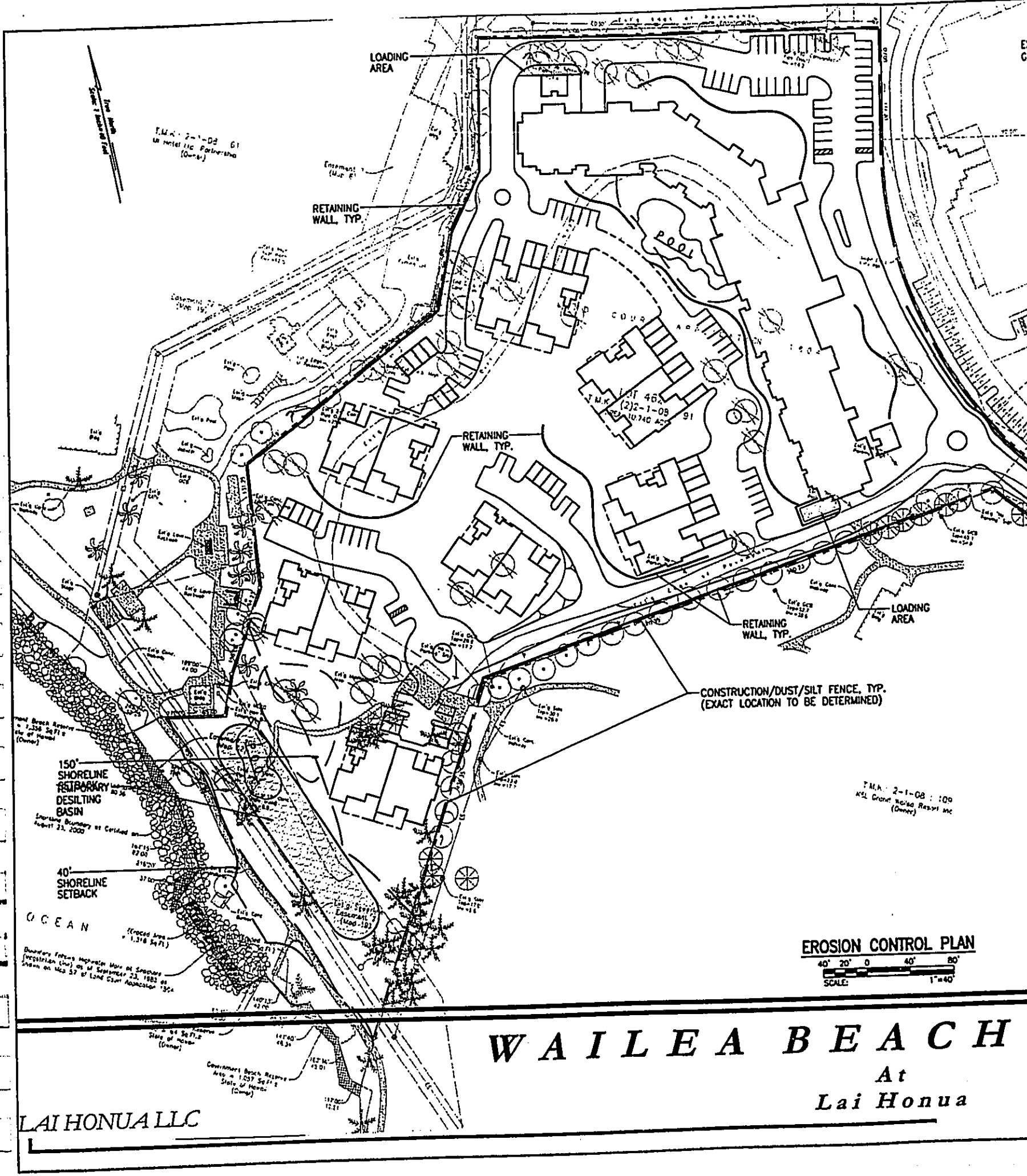
at
 Honua

0119

MAR 14 2001

Wailea Beach Villas - Environmental Assessment
 GRADING PLAN

FIGURE
 8



T.M.N. 2-1-08 61
 M. Patel LLC Partnership
 (Owner)

Enticement
 (L.A.P. 6)

RETAINING WALL, TYP.

RETAINING WALL, TYP.

RETAINING WALL, TYP.

CONSTRUCTION/DUST/SILT FENCE, TYP.
 (EXACT LOCATION TO BE DETERMINED)

T.M.N. 2-1-08 109
 MSL Grand Hotels Resort Inc
 (Owner)

150' SHORELINE
 RETROBARY
 DESILTING
 BASIN
 Existing Boundary as Certified
 August 23, 2000

40' SHORELINE
 SETBACK

OCEAN

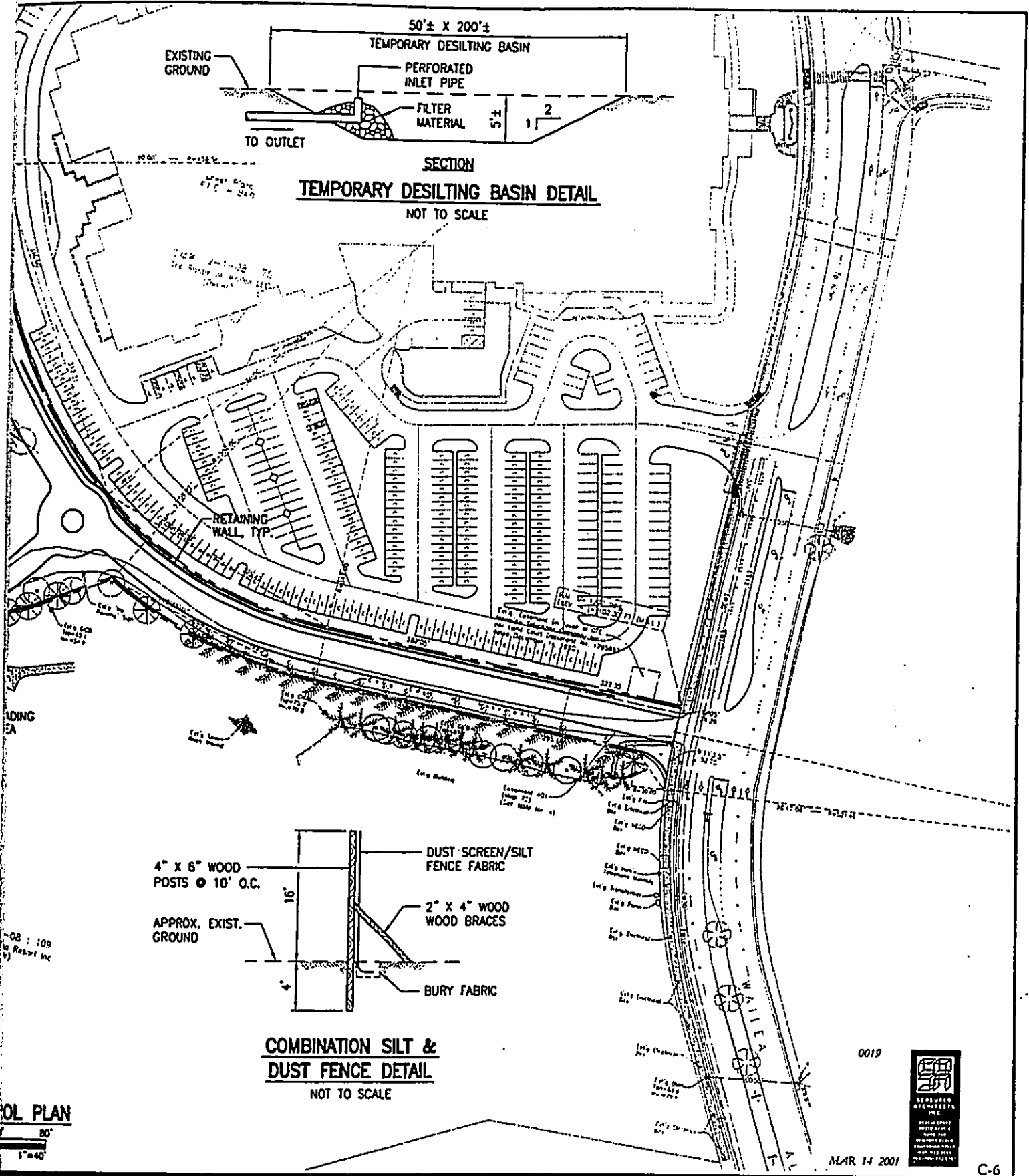
EROSION CONTROL PLAN
 40' 20' 0 40' 80'
 SCALE: 1"=40'

WAILEA BEACH

At

Lai Honua

LAI HONUA LLC



CH VILLAS

Wailea Beach Villas - Environmental Assessment
EROSION CONTROL PLAN

FIGURE
9

nu a

Wailea - Public Shoreline Access



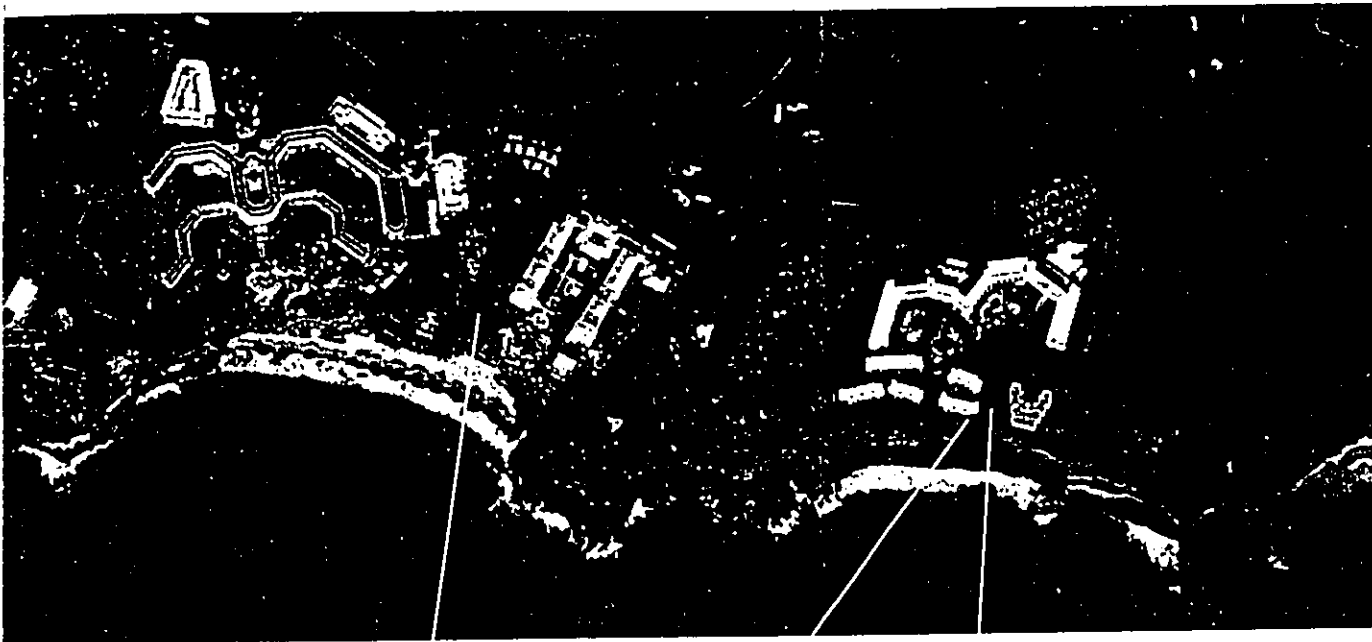
Keawakapu 1
Improved Access
63 Paved Parking Stalls

Keawakapu 2
Improved Access
23 Paved Parking Stalls
Overload Grass Parking
Showers

Coastal Walkway
Lateral Access
North Terminus

Mokapu/Ulua Beach
Improved Access
38 Paved Parking Stalls
Showers
Restrooms

Shoreline Access



Wailea Beach
 Access
 Parking Stalls

Wallea Beach
 Improved Access
 87 Paved Parking Stalls
 Showers
 Restrooms

Coastal Walkway
 Lateral Access
 South Terminus

Polo Beach
 Improved Access
 90 Paved Parking Stalls
 Overflow Parking
 Showers
 Restrooms

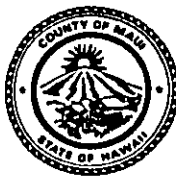


Wailea Beach Villas - Environmental Assessment
 SHORELINE ACCESS MAP

FIGURE
10

Appendix A
Agency and Pre-consultation Letters

JAMES "KIMO" APANA
MAYOR



OFFICE OF THE MAYOR
Ke'ena O Ka Meia
COUNTY OF MAUI
Kalana O Maui

200 South High Street
Wailuku, Maui, Hawaii USA
96793-2155
Telephone (808) 270-7855
Fax (808) 270-7870
e-mail: mayors.office@co.maui.hi.us

October 23, 2000

RECEIVED
OCT 30 2000

CHRIS HART & PARTNERS
(Landscape Architects & Planners)

Mr. Rory Frampton, Senior Planner
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Hawaii 96793-1706

Dear Mr. Frampton:

Thank you for your letter of October 17, 2000 requesting comments concerning a proposed Environmental Assessment for a multi-family residential development Lai Honua in Wailea.

By a copy of this letter I am referring your request to Mr. John E. Min, Director of Planning, for response directly to you. I am certain the County of Maui wishes to be a party in this process.

Should you require anything further, please do not hesitate to contact either myself or Brian Miskae of my office.

Sincerely,

A handwritten signature in black ink, appearing to read "James Apana".

JAMES "KIMO" APANA
Mayor, County of Maui

cc: John E. Min, Director of Planning w/encl.
Brian Miskae, Executive Assistant
#7642

Quality Seamless Service – Now and for the Future

BENJAMIN J. CAYETANO
GOVERNOR



ESTHER UEDA
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

October 24, 2000

RECEIVED
OCT 26 2000

CHRIS HART & PARTNERS
Landscape Architecture & Planning

Mr. Rory Frampton
Chris Hart & Partners
1955 Main Street, Suite 200
Wailuku, Hawaii 96793-1706

Dear Mr. Frampton:

Subject: Pre-Consultation for an Environmental Assessment:
Multi-Family Residential Development Lai Honua,
Wailea, Maui

We are in receipt of your letter dated October 17, 2000, requesting our comments as part of the pre-consultation process for the subject environmental assessment (EA).

We have reviewed the project introduction and find that the project location, as represented on the aerial photo, is designated within the State Land Use Urban District. For your information, the location of the Urban/Conservation District boundary along the parcel's shoreline is subject to a valid certified shoreline survey. We suggest that the EA include a map showing the project location in relation to the State land use districts.

We have no further comments to offer at this time. We appreciate the opportunity to provide comments during the pre-consultation process for the subject EA.

Should you have any questions, please feel free to call me or Bert Saruwatari of our office at 587-3822.

Sincerely,

A handwritten signature in black ink, appearing to read "Esther Ueda".

ESTHER UEDA
Executive Officer

EU:aa



DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

JAMES "KIMO" APANA
Mayor

ALICE L. LEE
Director

PRISCILLA P. MIKELL
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165

October 25, 2000

RECEIVED
NOV 02 2000

CHRIS HART & PARTNERS
Landscape Architecture & Planning

Mr. Rory Frampton
Senior Planner
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Hawaii 96793-1706

Dear Mr. Frampton:

**Subject: Pre-Consultation for EA, Multi-Family
Residential Development Lai Honua,
Wailea, Maui**

Please specify which housing objectives and policies of the
Kihei-Makena Community Plan the proposed project will be
addressing.

Thank you for the opportunity to comment.

Very truly yours,

ALICE L. LEE
Director

ETO:hs

c: Housing Administrator

TO SUPPORT AND ENHANCE THE SOCIAL WELL-BEING OF THE CITIZENS OF MAUI COUNTY

PRINTED ON RECYCLED PAPER ♻️

PHONE (808) 594-1888

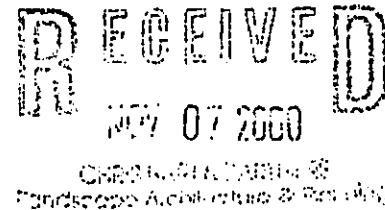
FAX (808) 594-1865



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

October 25, 2000

Mr. Rory Frampton
Senior Planner
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Maui, HI 96793-1706



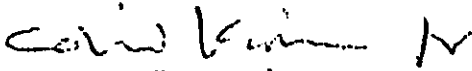
(PC # 150)

Subject: Pre-Consultation for an Environmental Assessment:
Multi-Family Residential Development
Lai Honua, Wailea, Maui

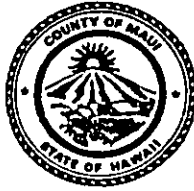
Dear Mr. Frampton:

Thank you for the opportunity to comment on the above referenced project. At this time, the Office of Hawaiian Affairs has no comments to the proposed project. We anticipate the Draft Environmental Assessment and will comment following our thorough review. If you have any questions, please contact Mark A. Mararagan, Policy Analyst at 594-1945.

Sincerely,


Colin C. Kippen, Jr.
Deputy Administrator

cc: OHA Board of Trustees
Maui CAC



**DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
P.O. BOX 1109
WAILUKU, MAUI, HAWAII 96793-7109
Telephone (808) 270-7816 • Fax (808) 270-7833**

October 31, 2000

Mr. Rory Frampton
Chris Hart & Partners, Inc
1955 Main Street, Suite 200
Wailuku, Hawaii 96793-1706

RECEIVED
NOV 02 2000
CHRIS HART & PARTNERS
Landscape Architecture & Planning

**SUBJECT: Pre-Consultation for an Environmental Assessment:
Multi-Family Residential Development Lai Honua, Wailea, Maui**

Dear Mr. Frampton,

Thank you for the opportunity to provide comments in preparation of the draft Environmental Assessment (EA).

We understand the applicant proposes to develop a 100-unit multi-family resort-type complex. Water consumption for the proposed development would be about 56,000 gallons per day (gpd), based on system per unit standards. Actual consumption will depend on fixture unit count and intensity of use.

The EA should include the sources and expected potable and non-potable water usage. This project is served by the Central Maui System. The major source of water for this system is the Iao Aquifer. Rolling annual average groundwater withdrawals from the Iao Aquifer as of October 1, 2000 were 17.355 MGD. The regulatory sustainable yield of this aquifer is 20 MGD. If rolling annual average withdrawals exceed 20 MGD, the State Commission on Water Resource Management will designate Iao Aquifer. The Department is implementing a plan to bring new sources on-line and to mitigate withdrawals. Two wells in North Waihee were brought on-line in July 1997. Another well producing about 1 MGD was brought on-line during the first quarter of 2000. The Department is continuing to implement a plan to bring new sources on-line and to mitigate withdrawals. Nevertheless, the applicants should be made aware that the timing of this project may be affected with possible delays until new sources can be brought on-line. No guarantee of water is granted or implied as a result of these comments. Water availability will be reviewed at the time of application for meter or meter reservation.

We have included a portion of our water system map pertaining to the project area. Domestic, fire, and irrigation calculations will be required when building permits are sought.

Where possible, non-potable sources should be used for irrigation and dust control during construction. Where appropriate, the applicants should consider these measures:

Eliminate Single-Pass Cooling: Single-pass, water-cooled systems should be eliminated per Maui County Code

Subsection 14.21.20. Although prohibited by code, single-pass water cooling is still manufactured into some models of air conditioners, freezers, and commercial refrigerators.

Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20A.680 requires the use of low flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice-makers and other units are also available.

Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Refer to the attached handout, "The Costly Drip". The applicant should establish a regular maintenance program.

Use Climate-adapted Plants: We encourage the applicant to review the Planting Plan and attached documents and consider using climate-adapted and salt-tolerant native plants for landscaping purposes. Native plants adapted to the area, conserve water and further protect the watershed from degradation due to invasive alien species. The project site is located in "Maui County Planting Plan" - Plant Zone 3 and 5. Please refer to the attached document, "Saving Water in the Yard: What & How to Plant in Your Area"

Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evapotranspiration rates at the site.

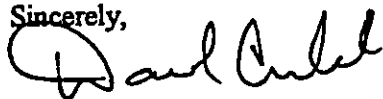
The project overlies the Kamaole aquifer. The Department of Water Supply strives to protect the integrity of surface water and groundwater resources by encouraging applicants to adopt best management practices (BMPs) relevant to potentially polluting activities. We list a few BMP references here. Additional information can be obtained from the State Department of Health.

"The Megamanual - Nonpoint Source Management Manual - A Guidance Document for Municipal Officials." Massachusetts Department of Environmental Protection.

"Guidance Specifying Management Measures For Sources of Nonpoint Pollution In Coastal Waters." United States Environmental Protection Agency, Office of Water.

If you need additional information, please call our Water Resources and Planning Division at 270-7199.

Sincerely,



David Craddick
Director
emb

cc: engineering division

attachments:

- 1) "The Costly Drip"
- 2) "Saving Water in the Yard: What & How to Plant in Your Area"
- 3) Ordinance 2108 - "An ordinance amending Chapter 16.20 of the Maui County Code, pertaining to the plumbing code"
- 4) A Checklist of Water Conservation Ideas for the Condominiums
- 5) Portion of water system map

C:\WPdocs\EAs EIS\Lai Honua.wpd

By Water All Things Find Life

JAMES "KIMO" APANA
Mayor

CHARLES JENCKS
Director

DAVID C. GOODE
Deputy Director

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



COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT
200 SOUTH HIGH STREET
WAILUKU, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.
Land Use and Codes Administration

RON R. RISKA, P.E.
Wastewater Reclamation Division

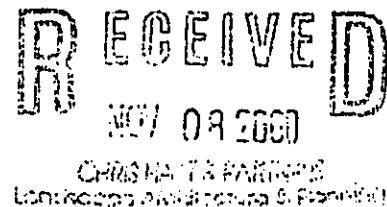
LLOYD P.C.W. LEE, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

ANDREW M. HIROSE
Solid Waste Division

November 3, 2000

Mr. Rory Frampton
Chris Hart & Associates
1955 Main Street, Suite 200
Wailuku, Hawaii 96793



Dear Mr. Frampton:

SUBJECT: EARLY CONSULTATION
LAI HONUA RESIDENTIAL DEVELOPMENT
TMK: (2) 2-1-008:091

We reviewed the subject application and have the following comments.

1. The Wastewater Reclamation Division cannot insure that wastewater capacity will be available for this project.
2. The developer shall pay assessment fees for treatment plant expansion costs and is required to fund any necessary off-site improvements to the collection system and wastewater pump stations.
3. A preliminary drainage and a traffic assessment are important aspects of the Environmental Assessment.
4. Off-street parking, loading spaces, and landscaping shall be provided per Maui County Code Chapter 19.36.

If you have any questions, please call me at 270-7845.

Sincerely,


DAVID GOODE
Director of Public Works
and Waste Management

DG:msc/mt
S:\LUCA\CZM\laihonua.wpd



JAMES "KIMO" APANA
MAYOR

OUR REFERENCE
ty
YOUR REFERENCE

POLICE DEPARTMENT
COUNTY OF MAUI

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



THOMAS M. PHILLIPS
CHIEF OF POLICE

KEKUAUPIO R. AKANA
DEPUTY CHIEF OF POLICE

November 3, 2000

Mr. Rory Frampton
Chris Hart & Partners
1955 Main Street, Suite 200
Wailuku, HI 96793

RECEIVED
NOV 08 2000
CHRIS HART & PARTNERS
Landscape Architecture & Planning

Dear Mr. Frampton:

**Project: Pre-Consultation for an Environmental Assessment
Multi-Family Residential Development Lai Honua, Wailea, Maui**

Thank you for your letter of October 17, 2000 requesting comments on the above project.

We have reviewed the project summary and have enclosed our comments and recommendations. Thank you for the opportunity to comment on this project.

Very truly yours,

Ac [Signature]
Assistant Chief Robert Tam Ho
for: Thomas M. Phillips
Chief of Police

Enclosure

c: Mr. John E. Min, Planning Department

TO : TOM PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI
VIA : CHANNELS
FROM : BRAD HICKLE, POLICE OFFICER III, DISTRICT VI KIHEI
SUBJECT : MULTI-FAMILY RESIDENTIAL DEVELOPMENT
LAI HONUA in WAILEA, MAUI

AK JV
11/4/00

Sirs. on 10/25/00 I received a copy of the Pre-Consultation for an Environmental Assessment for the Multi-Family Residential Development of Lai Honua.

After reviewing the information provided by Chris Hart & Partners, I discovered the firm proposes the development of a multi-family residential property which will include 100 units.

My primary concerns at this time are the traffic flow in and out of the area and the traffic conditions that may be created by the development of 100 new units in South Maui. I am familiar with the project site. I am very concerned about the serious traffic conditions we are currently experiencing in South Maui over the past year due to new developments. I do not believe adding 100 units for a multi-family residential apartment complex is in the best interest of the current or future residents of South Maui. The current traffic infrastructure is inadequate and needs to be addressed before any new development should be allowed to occur anywhere in South Maui.

The above recommendation and comments are based on my knowledge of the current traffic conditions.

Respectfully Submitted

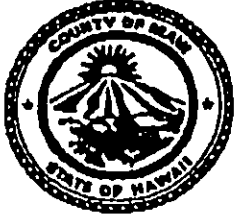
Officer Brad Hickle
10/30/00

BH

E-9966
0925 hours

*I concur with
Officer Hickle's
assessment of this project
at this time. Traffic infra-
structure should be addressed
first. Sgt. Kane
11/31/00*

*concur,
11/31/00*



DEPARTMENT OF
PARKS AND RECREATION
COUNTY OF MAUI

1580-C KAAHUMANU AVENUE
WAILUKU, HAWAII 96793

JAMES "KIMO" APANA
Mayor

FLOYD S. MIYAZONO
Director

ELIZABETH D. MENOR
Deputy Director

Office 808-270-7230
Fax 808-270-7934

November 14, 2000

RECEIVED
NOV 15 2000

CHRIS HART & PARTNERS
Landscape Architecture & Planning

Rory Frampton, Senior Planner
Chris Hart & Partners
1955 Main Street, Suite 200
Wailuku, Hawaii 96793

RE: Lai Honua Proposed Residential Development
3750 Wailea Alamui Drive, Wailea, Maui
TMK: 2-1-08:91

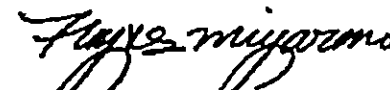
Dear Mr. Frampton:

Thank you for the early opportunity to review and comment on the proposed residential development for the Lai Honua property in Wailea.

We would request that consideration be made for public access to the beach from this project. We would also request that a limited number of public parking stalls be made available as close to the beach as practical.

Thank you for your attention to this matter. Should you have any questions, please call me or Patrick Matsui, Chief of Parks Planning and Development at 808-270-7387.

Sincerely,


Floyd S. Miyazono
Director

FSM:PTM:rh

c: Patrick Matsui, Chief of Parks Planning & Development

JAMES "KIMO" APANA
Mayor

JOHN E. MIN
Director

CLAYTON I. YOSHIDA
Deputy Director



COUNTY OF MAUI
DEPARTMENT OF PLANNING

November 16, 2000

RECEIVED
NOV 20 2000

CHRIS HART & PARTNERS
Landmarks, Real Estate & Planning

Mr. Rory Frampton
Chris Hart & Partners
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793

Dear Mr. Frampton:

RE: Pre-Consultation for an Environmental Assessment, Multi-Family Residential Development Lai Honua, TMK: 2-1-008:091, Wailea Maui, Hawaii

The Maui Planning Department (Department) has reviewed the information submitted relative to the above project.

The subject property is in the State Urban District and is designated Hotel and Open Space in the Kihei-Makena Community Plan. The property is zoned B-R Resort Commercial, H-1 and H-2 Hotel, and Open Space. A Zoning and Flood Confirmation Request Form is enclosed for your use.

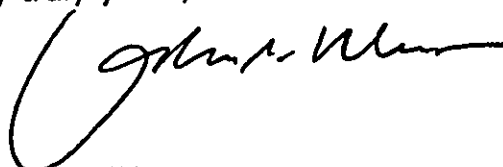
In addition to the information contained in the letter of October 17, 2000, the Environmental Assessment should include:

1. Background information relative to a Special Management Area (SMA) Use Permit granted on November 21, 1989 for ten single-family dwelling units and a duplex manager's unit. An amendment to the SMA Permit was approved by the Maui Planning Commission on December 18, 1990 to reduce the number of residential units to six.
2. Community or Interest Group consultation.

Mr. Rory Frampton
November 16, 2000
Page 2

Thank you for your cooperation in this matter. If further clarification is required, please contact Ms. Ann Cua, Staff Planner, of this office at 270-7735.

Very truly yours,



JOHN E. MIN
Planning Director

JEM:ATC:cmb

c: Clayton Yoshida, AICP, Deputy Planning Director
Ann Cua, Staff Planner
Project File
General File
S:\ALL\Ann\aihonuapreea.wpd

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

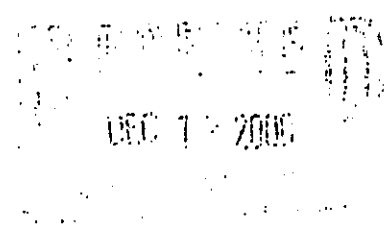


KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

IN REPLY REFER TO:

HWY-PS
2.0960



Mr. Rory Frampton
Senior Partner
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, Hawaii 96793-1706

Dear Mr. Frampton:

Subject: Pre-Consultation for an Environmental Assessment:
Multi-Family Residential Development Lai Honua, Wailea, Maui

Thank you for informing us about the subject proposed residential development, Lai Honua at Wailea, Maui.

A traffic impact analysis report must be prepared and included in the Environmental Assessment for our review and comments.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA
Director of Transportation

 **Wailea Community
Association**

555 Kaulahi Street, Suite 214
Wailea, Hawaii 96753-8333
(808) 874-6866 • FAX (808) 874-4027
wca@maui.net

December 20, 2000

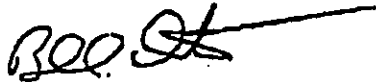
Mr. Mark S. Whiting, Managing Partner
Mr. Paul T. Lambert, Managing Partner
Lokahi Ventures
20 La Ferrera Terrace
San Francisco, CA 94133

Subject: December 7th Revised Preliminary Submittal - Wailea Beach Villas @ Lal
Honua

At its December 13th meeting, the WCA Design Review Committee reviewed your
above referenced revised preliminary submittal at length and voted to approve it as
submitted.

The Design Committee looks forward to your final submittal for this excellent addition
to Wailea. Please note that the final submittal fee for this project is \$3,000.

For the Association,



Bill Overton, PCAM
WCA Manager

xc: Fax# (303) 265-9900



**Wailea Community
Association**

555 Kaunahā Street, Suite 214
Wailea, Hawaii 96753-8333
(808) 874-6866 • FAX (808) 874-4027
wca@maui.net

December 20, 2000

Mr. Mark S. Whiting, Managing Partner
Mr. Paul T. Lambert, Managing Partner
Lokahi Ventures
20 La Ferrera Terrace
San Francisco, CA 94133

Subject: December 7th Revised Preliminary Submittal - Wailea Beach Villas @ La
Honua

At its December 13th meeting, the WCA Design Review Committee reviewed your
above referenced revised preliminary submittal at length and voted to approve it as
submitted.

The Design Committee looks forward to your final submittal for this excellent addition
to Wailea. Please note that the final submittal fee for this project is \$3,000.

For the Association,

Bill Overton, PCAM
WCA Manager

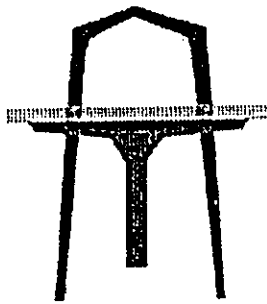
xc: Fax# (303) 265-9900

DOCUMENT CAPTURED AS RECEIVED

**Appendix B
Drainage Report**

DRAINAGE REPORT

THE WAILEA BEACH VILLAS AT LAI HONUA



**WILSON OKAMOTO & ASSOC., INC.
ENGINEERS - PLANNERS
1907 S. BERETENIA ST.
SUITE 400
HONOLULU, HI. 96826**

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APPENDIX A – Hydrologic Calculations

THE WAILEA BEACH VILLAS AT LAI HONUA
DRAINAGE REPORT

1. **PURPOSE**

This report has been prepared to evaluate both the existing site drainage conditions and the proposed drainage plan for the subject development.

2. **PROPOSED PROJECT**

A. **Site Location**

The project site is located in Wailea, on the Island of Maui and in the State of Hawaii. The proposed project site is situated on the western (makai) side of the shops at Wailea and between the Outrigger Wailea Hotel and the Grand Wailea Resort and Spa (See Exhibit 1).

B. **Project Description**

The existing parcel is currently vacant. The proposed project will consist of 100 residential units in 8 buildings scattered throughout the site. These buildings are envisioned to be varying in height from 2 to 6 stories. The site improvements include grading, roadways, parking areas, walkways, recreational areas, retaining walls, water features, landscape areas, and lawn space. Support infrastructure such as water, sewer, drains, electricity, telephone, cable television and data lines are anticipated.

Kula area, Hawaii, United States

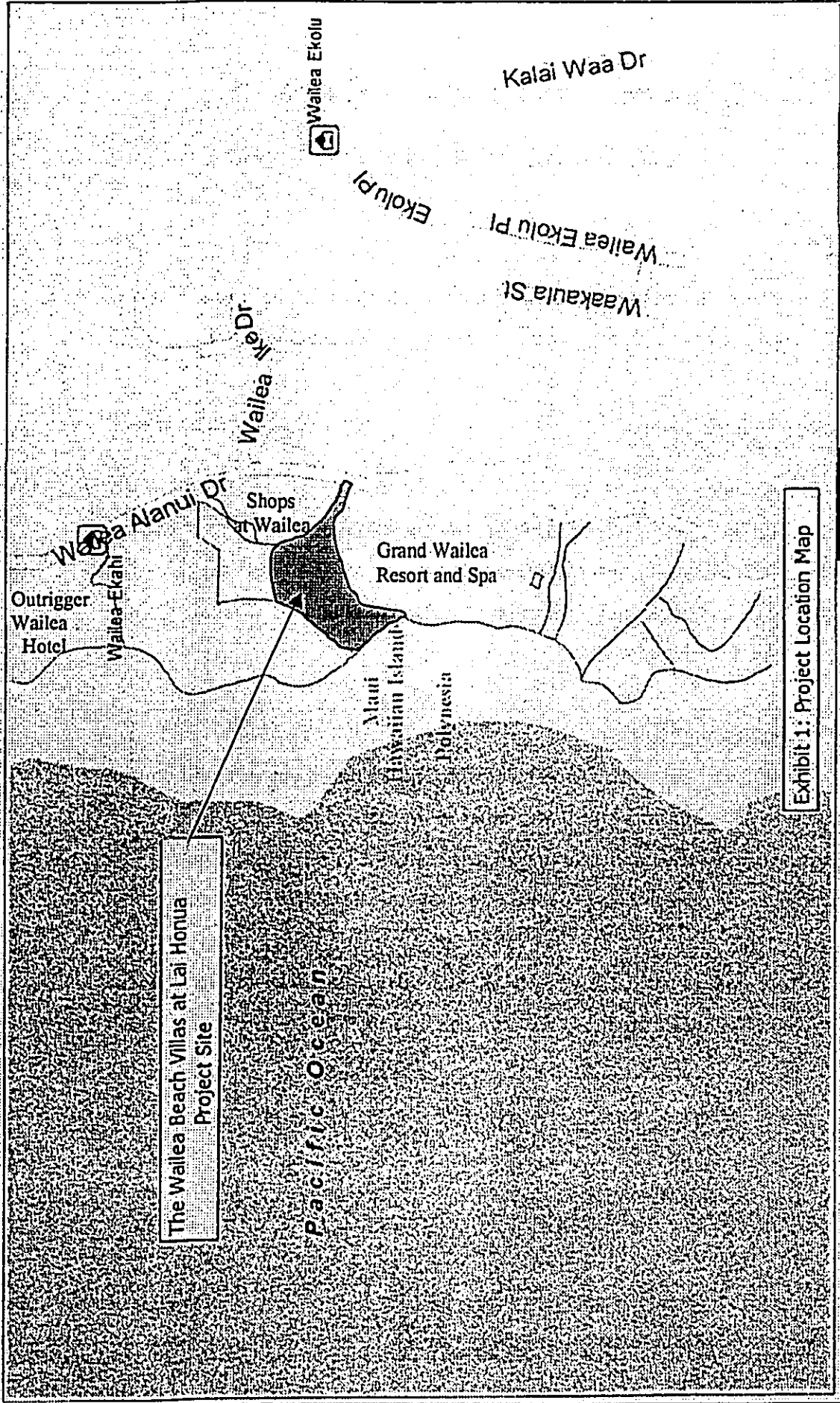


Exhibit 1: Project Location Map

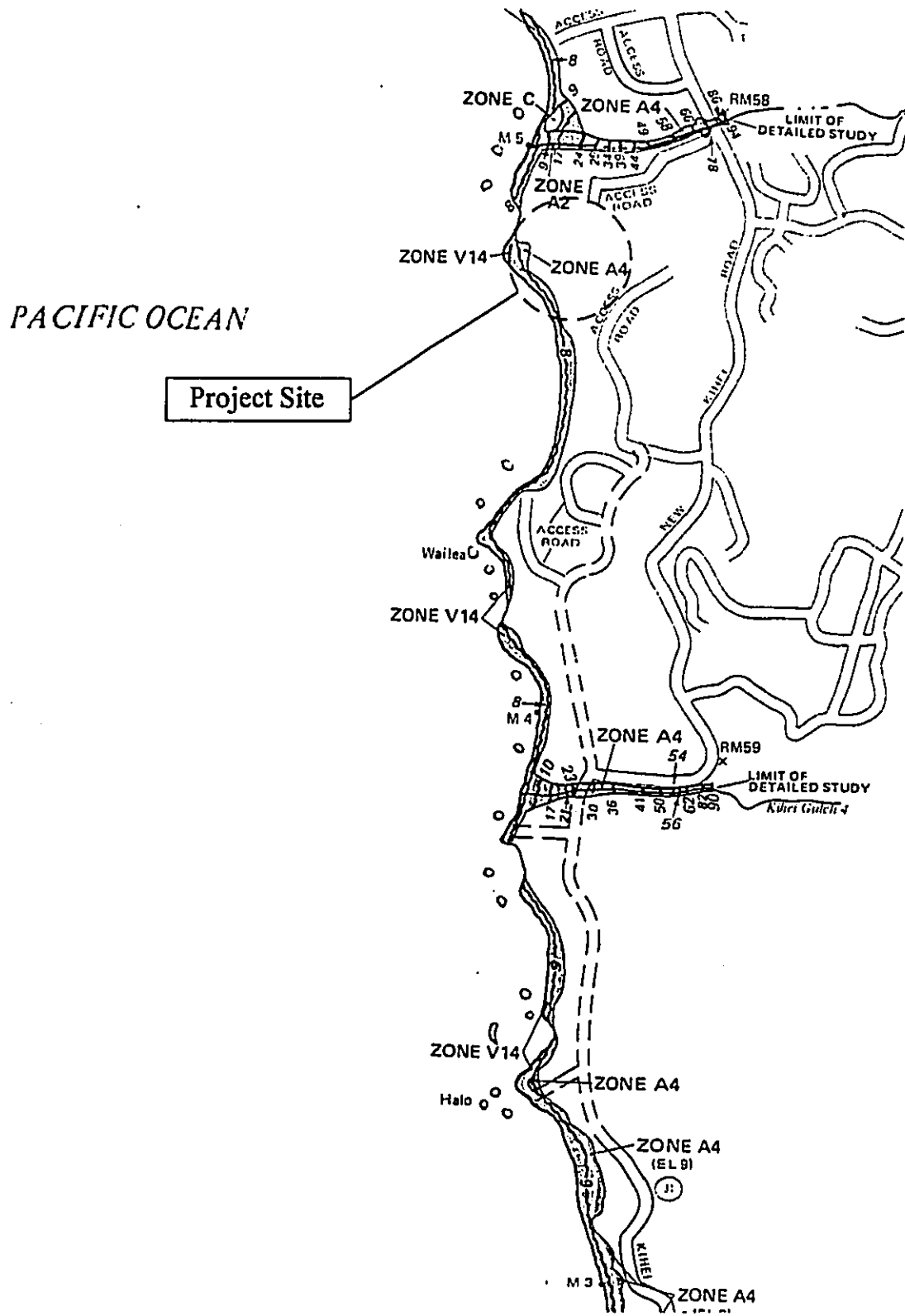


Exhibit 2: Flood Insurance Map

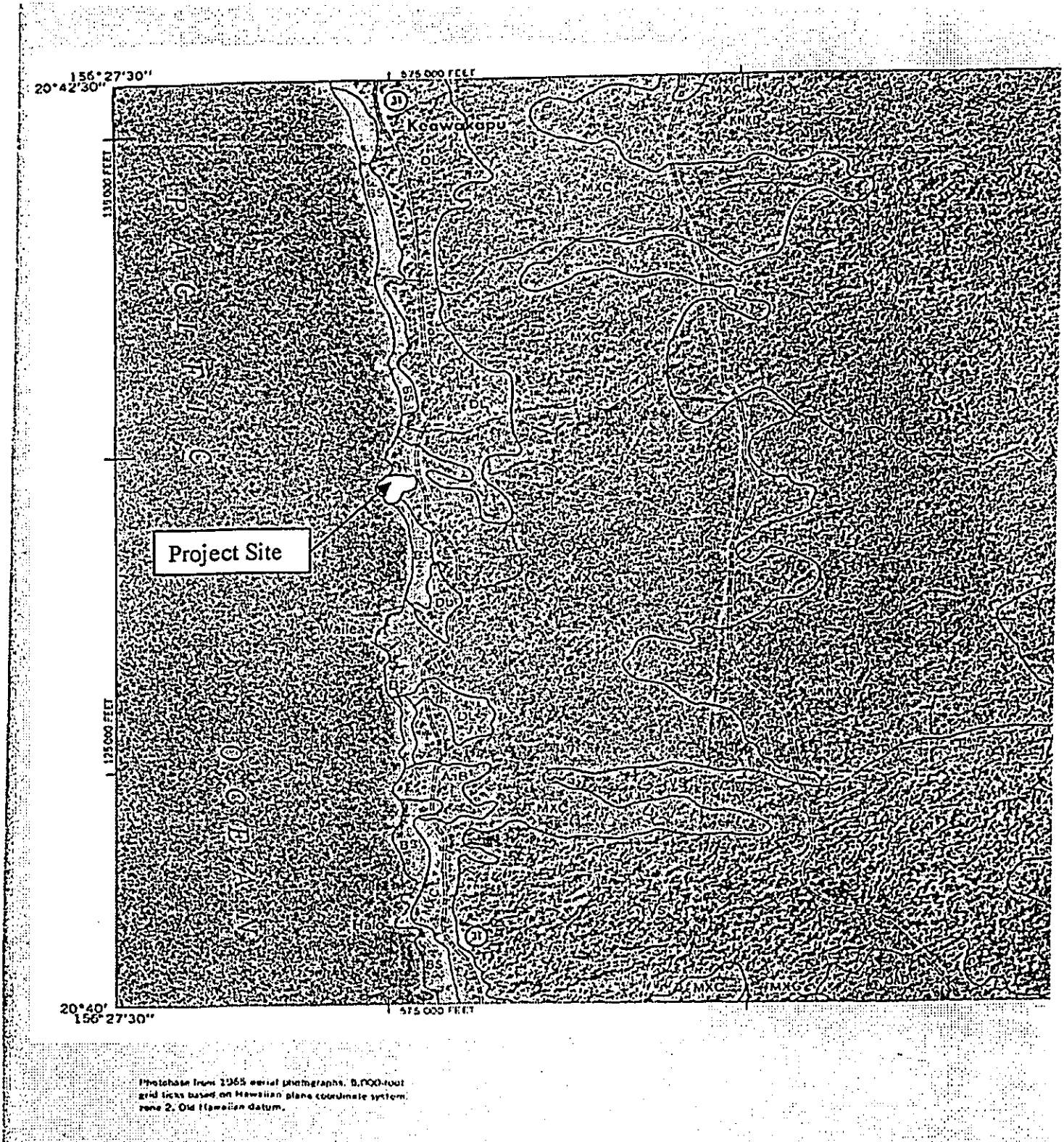


Exhibit 3: Soil Survey Map

3. **EXISTING CONDITIONS**

A. **Flood Hazard**

According to the Flood Insurance Rate Map, effective June 1, 1981, prepared by the U.S. Federal Emergency Management Agency, Federal Insurance Administration, the majority of the project site is situated in an area designated as Zone C (See Exhibit 2), which is prone to minimal flooding.¹

B. **Topography and Soil Conditions**

The existing ground slopes from an elevation of approximately 102 feet ± along the mauka boundary to approximately 12 feet ± at the makai boundary. The general direction of the slope follows an easterly to westerly direction, with an average slope of approximately 13.0%.

According to the "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii, (August 1972)", the dominant soil type found on the project site is Makena Loam stony complex (3-15% slopes, MXC) (See Exhibit 3). This soil type is characterized as having moderately rapid permeability, slow to medium runoff and a slight to moderate erosion hazard.² The second soil type present on the project site is Beaches (BS). This soil type consists mainly of light-colored sands derived from coral and seashells.³ Beaches are highly suitable for recreational uses and resort development.

C. **Existing Drainage Conditions**

The pre-development onsite surface runoff generated by the vacant parcel is calculated to be approximately 33 cfs. A portion of the surface runoff generated by the existing lot on the north and west side of the project site (13-cfs) is intercepted by a gully located along the north and west boundaries of the project. This portion of the surface runoff is discharged by the existing 3-18 inch concrete pipe culverts pass the existing shoreline walkway then over the rocky shoreline to the ocean.

¹ Federal Emergency Management Agency, "National Flood Insurance Program; Flood Insurance Rate Map; Maui County, Hawaii, " June 1, 1981, Community Panel Number 150003 0025B, Panel 25 of 395.

² United States Department of Agriculture, Soil Conservation Service, Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii (Washington D.C.: U.S. Government printing Office, August 1972), pg. 78-80, Map Sheet 70.

³ United States Department of Agriculture, Soil Conservation Service, Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii (Washington D.C.: U.S. Government printing Office, August 1972), pg. 78-80, Map Sheet 70.

The surface runoff generated by the south and east portion of the project site (20-cfs) sheet flows offsite to Grand Wailea and across the shoreline walkway.

4. DRAINAGE PLAN

A. Description

Post development surface runoff generated by the project is calculated to be approximately 35 cfs (see Appendix "A").

Onsite surface runoff from the parking and landscaped areas will be intercepted by grated-inlet type catch basins and conveyed by a new underground drainage system. All post development runoff in the underground drainage system will be conveyed into detention/percolation beds located under lawn parking and road area near the southwest portion of the project site (see exhibit 6). In the Pre & Post Development Runoff Areas, flows are 33 cfs and 35 cfs, respectively (see Table 1). This is a net increase of approximately 2 cfs. In order to maintain the pre-development flow, detention/percolation beds will be designed to temporarily store and slowly release the onsite runoff at a rate that does not exceed the pre-development flow.

In order to maintain the existing drainage patterns, runoff will be released from the same two discharge points where the pre-development runoff is currently being released (see exhibit 4&5). Existing drainage systems located northeast and southwest of the project site will continue to convey the onsite surface runoff away from the project site as they are currently doing (See Exhibit 6).

B. Impact

The additional runoff generated by the proposed development will be detained onsite within the detention/percolation beds. There will be no increase in runoff to the adjoining and downstream properties.

C. Conclusion

The amount of surface runoff discharged from the project site will not be increased and the existing drainage pattern will be maintained, therefore, construction of the proposed project will not adversely affect the drainage conditions in the adjoining and downstream properties.

Table 1: PRE & POST DEVELOPMENT RUNOFF SUMMARY

Pre-Development Runoff Summary:

Area #1:

Total Area (acre)	C	I (in/hr)	Q (cfs)
4.42	0.65	4.5	12.93

Area #2:

Total Area (acre)	C	I (in/hr)	Q (cfs)
6.26	0.65	4.9	19.93

Net Flow = 32.9 cfs

Post Development Runoff Summary:

Area #1:

Total Area (acre)	C	I (in/hr)	Q (cfs)
3.14	0.62	5	9.73

Area #2:

Total Area (acre)	C	I (in/hr)	Q (cfs)
2.44	0.62	6	9.09

Area #3:

Total Area (acre)	C	I (in/hr)	Q (cfs)
2.97	0.62	4	7.36

Area #4:

Total Area (acre)	C	I (in/hr)	Q (cfs)
2.13	0.62	6.8	8.98

Net Flow = 35.16 cfs

Note: Rainfall frequency based from "Chapter 4 Rules for the Design of Storm Drainage Facilities in the County of Maui", for Wailea, Maui, R (50 Yr. - 1Hr.) = 2.50 inches.

APPENDIX A

HYDROLOGIC CALCULATIONS

Background

The storm runoff values contained in this report were determined using the hydrologic analysis methods described in Chapter 4 Rules For the Design of Storm Drainage Facilities in the County of Maui⁴ and the Honolulu Rules Relating to Storm Drainage Standards⁵.

Appendix A contains calculations used to determine the impact of the proposed project in terms of drainage conditions by comparing peak flows from before and after development.

Onsite runoff values were computed using the Rational Method Formula:

$$Q = C * I * A$$

where

Q = flow rate in cubic feet per second (cfs);

C = runoff coefficient;

I = rainfall intensity in inches per hour for a duration equal to the time of concentration.

A = drainage area in acres.

Runoff Coefficient (C):

For On-site Areas – Composite areas were designated and a weighted runoff coefficient value was determined using the runoff coefficient values specified in Table 2, “Chapter 4 Rules for the Design of Storm Drainage Facilities in the County of Maui. “

Rainfall Intensity (I):

The design rainfall intensity of a drainage area was determined by using rainfall data in Plate 7, “Chapter 4 Rules for the Design of Storm Drainage Facilities in the County of Maui. “

⁴ Department of Public Works and Waste Management, City and County of Maui, November 1998, pp. 1-29.

⁵ Department of Planning and Permitting, City and County of Honolulu, January 2000, pp. 6-12, 21-28.

Pre Development Runoff Calculations:

(See Exhibit 4 for Basin Areas)

Note: Rainfall frequency based from "Chapter 4 Rules for the Design of Storm Drainage Facilities in the County of Maui", for Wailea, Maui, R (50 Yr. - 1Hr.) = 2.50 inches.

Area 1:

Total Approximate Area = 4.421 acres

Rainfall Intensity (I) in inches per hour = 4.5 in/hr.

Runoff Coefficient = 0.65

$$Q = C \cdot I \cdot A = 0.65 * 4.5 \text{ in/hr} * 4.421 \text{ acres} = \underline{12.93 \text{ cfs.}}$$

Area 2:

Total Approximate Area = 6.26 acres

Rainfall Intensity (I) in inches per hour = 4.9 in/hr.

Runoff Coefficient = 0.65

$$Q = C \cdot I \cdot A = 0.65 * 4.9 \text{ in/hr} * 6.26 \text{ acres} = \underline{19.93 \text{ cfs}}$$

Post Development Runoff Calculations:

(See Exhibit 5 for Basin Areas)

Note: Rainfall frequency based from "Chapter 4 Rules for the Design of Storm Drainage Facilities in the County of Maui", for Wailea, Maui, R (50 Yr. – 1Hr.) = 2.50 inches.

Area 1:

Total Approximate Area = 3.14 acres

Rainfall Intensity (I) in inches per hour = 5 in/hr.

Runoff Coefficient = 0.62

$$Q = C * I * A = 0.62 * 5.0 \text{ in/hr} * 3.14 \text{ acres} = \underline{9.73 \text{ cfs}}$$

Area 2:

Total Approximate Area = 2.44 acres

Rainfall Intensity (I) in inches per hour = 6 in/hr.

Runoff Coefficient = 0.62

$$Q = C * I * A = 0.62 * 6.0 \text{ in/hr} * 2.44 \text{ acres} = \underline{9.09 \text{ cfs}}$$

Area 3:

Total Approximate Area = 2.97 acres

Rainfall Intensity (I) in inches per hour = 4.0 in/hr.

Runoff Coefficient = 0.62

$$Q = C * I * A = 0.62 * 4.0 \text{ in/hr} * 2.97 \text{ acres} = \underline{7.36 \text{ cfs}}$$

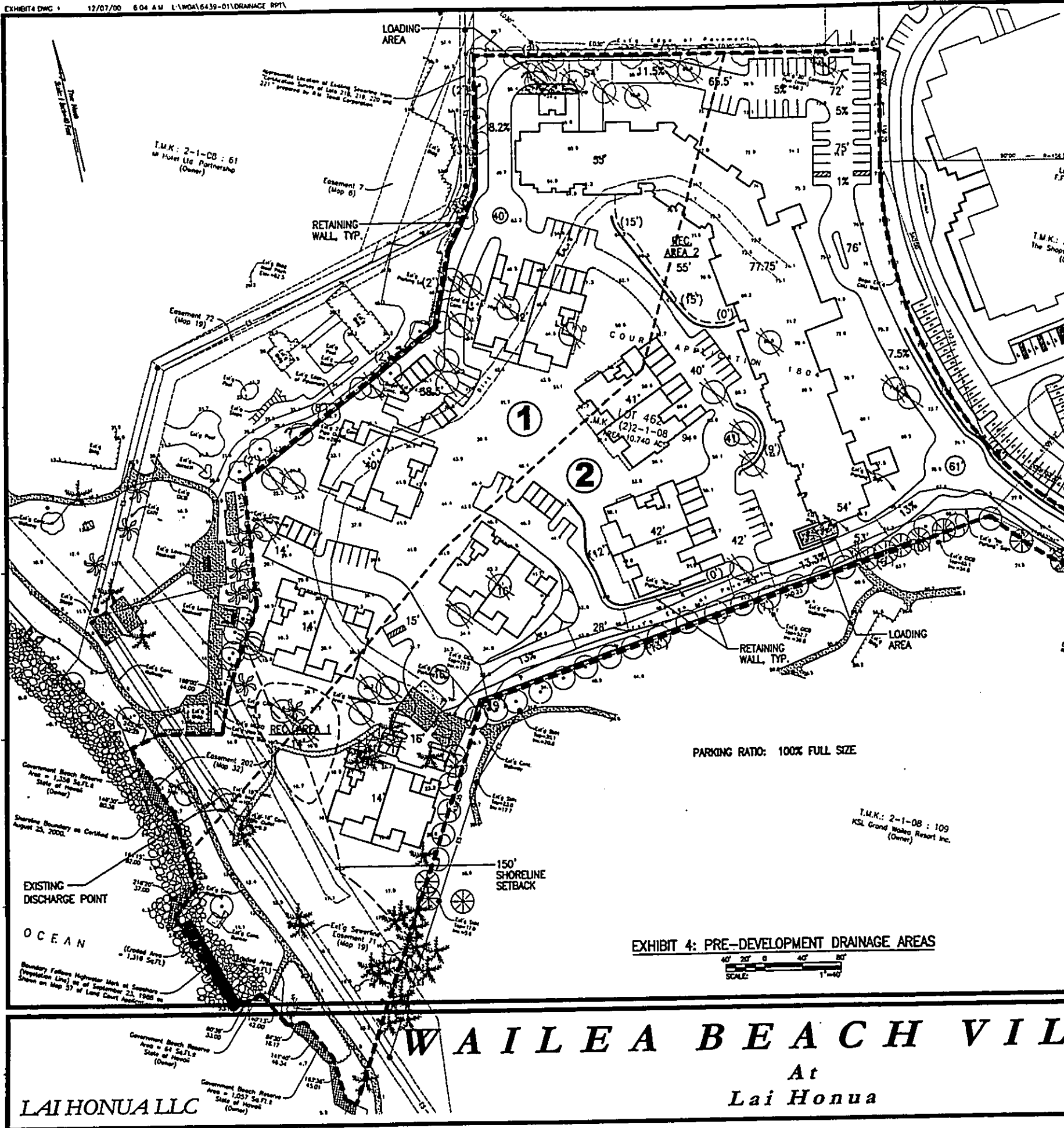
Area 4:

Total Approximate Area = 2.13 acres

Rainfall Intensity (I) in inches per hour = 6.8 in/hr.

Runoff Coefficient = 0.62

$$Q = C \cdot I \cdot A = 0.62 \cdot 6.2 \text{ in/hr} \cdot 2.13 \text{ acres} = \underline{8.98 \text{ cfs}}$$



PARKING RATIO: 100% FULL SIZE

EXHIBIT 4: PRE-DEVELOPMENT DRAINAGE AREAS



WAILEA BEACH VILLAGES
 At
Lai Honua

LAI HONUA LLC

T.M.K.: 2-1-08 : 61
M Hotel Ltd Partnership
(Owner)

Easement 7
(Map 6)

Easement 72
(Map 19)

Government Beach Reserve
Area = 1,234 Sq.Ft.
State of Hawaii
(Owner)

Shoreline Boundary as Certified on
August 23, 2000.

EXISTING
DISCHARGE POINT

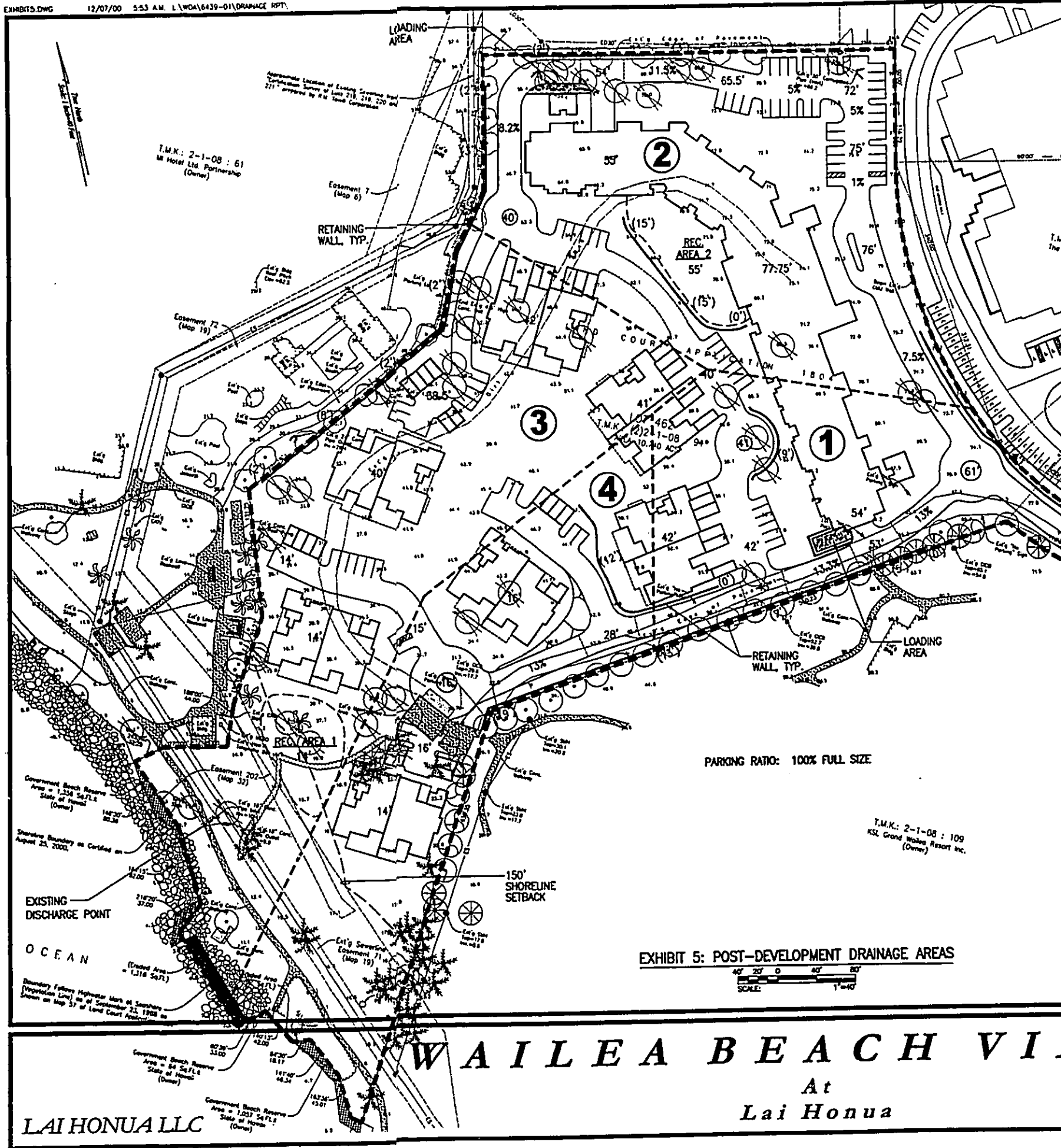
OCEAN

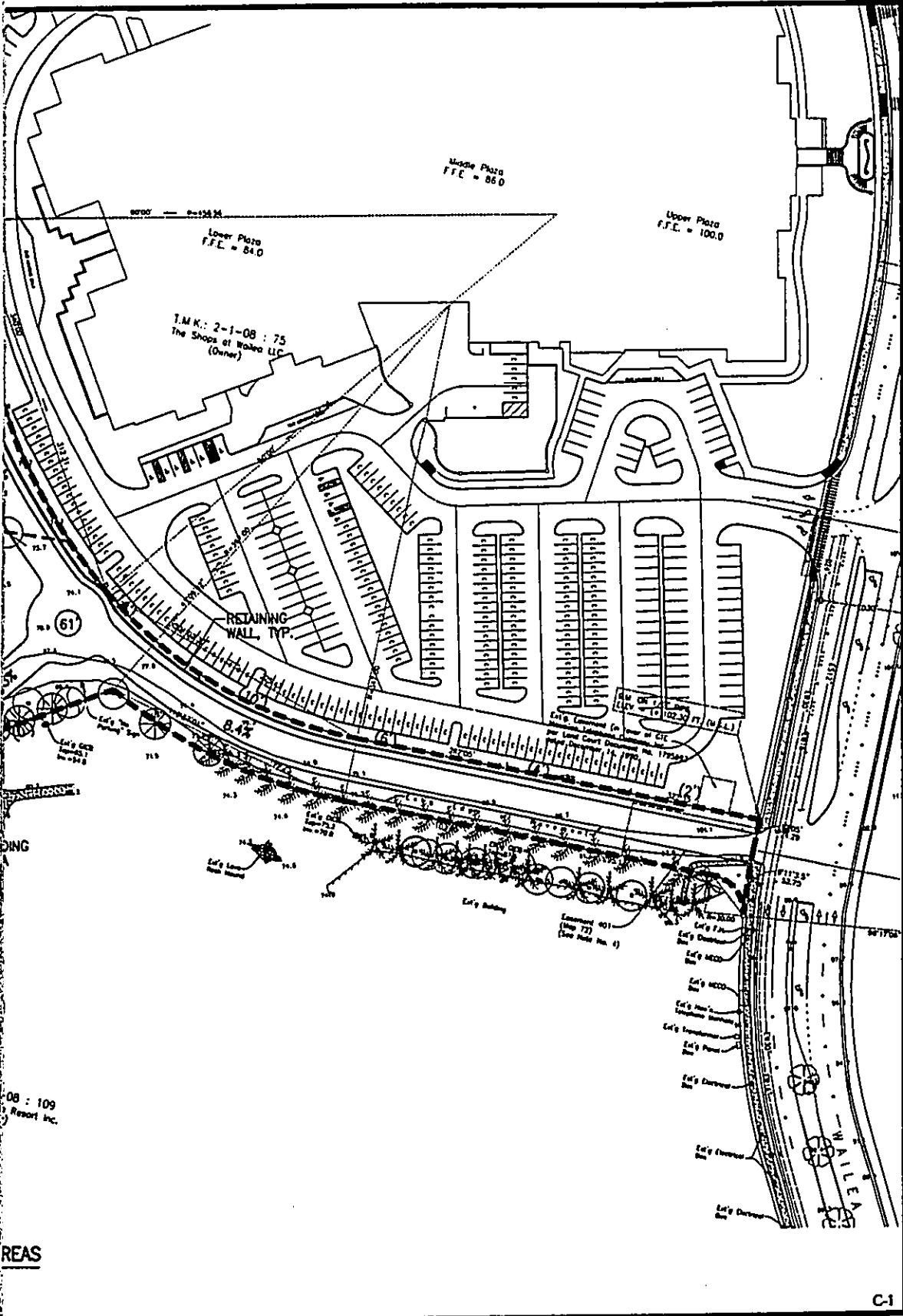
Boundary Follows Highest Mark of Seawater
(Topographic Line) as of September 23, 1989 as
Shown on Map 57 of Land Court Records.

Government Beach Reserve
Area = 64 Sq.Ft.
State of Hawaii
(Owner)

Government Beach Reserve
Area = 1,037 Sq.Ft.
State of Hawaii
(Owner)

T.M.K.: 2-1-08 : 109
KSL Grand Wailea Resort Inc.
(Owner)



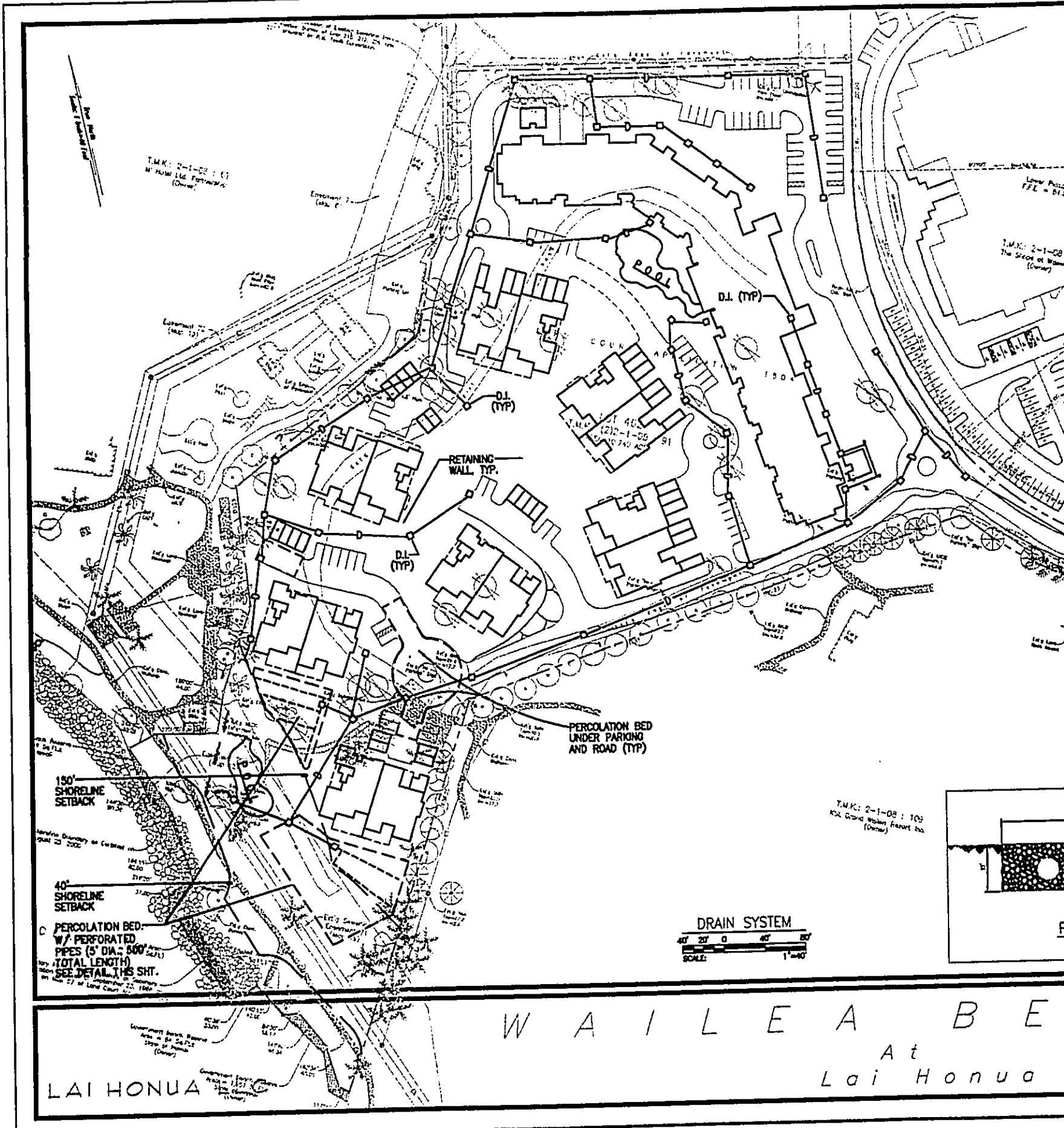


VILLAS

0019



DEC 6 2000



T.M.K. 2-1-02 : 01
M. HANAU L.L.C. FORTY-ONE
(Owner)

Environment 2
(Cap. 6)

Environment 2
(Cap. 12)

Lower Part
F.F.E. = 81'

T.M.K. 2-1-08
The Street of Water
(Owner)

POOL

D.I. (TYP.)

RETAINING
WALL TYP.

D.I. (TYP.)

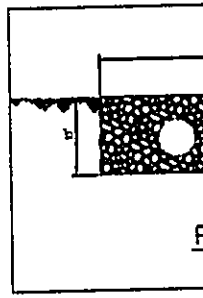
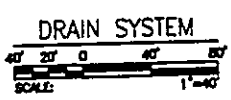
PERCOLATION BED
UNDER PARKING
AND ROAD (TYP.)

150'
SHORELINE
SETBACK

40'
SHORELINE
SETBACK

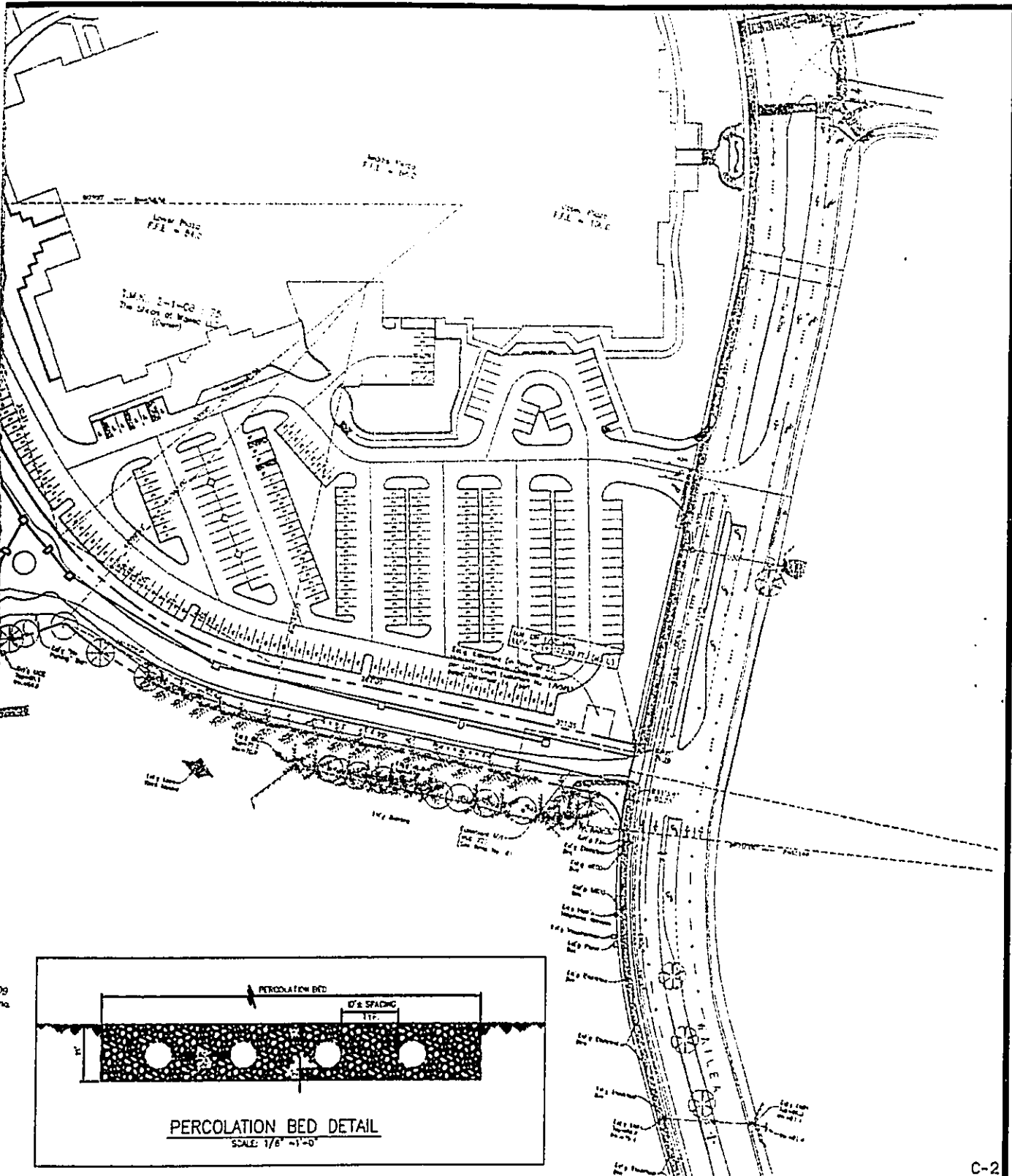
PERCOLATION BED
W/ PERFORATED
PIPES (5" DIA. 500' L)
TOTAL LENGTH
SEE DETAIL THIS SHT.

T.M.K. 2-1-08 : 109
KOL Ground Water Permit No.
(Owner)



LAI HONUA

W A I L E A B E
At
Lai Honua



C-2

B E A C H V I L L A S

0019

H o n u a

MAR 14 2001

Appendix C
Traffic Analysis Report

TRAFFIC IMPACT ANALYSIS REPORT

LAI HONUA CONDOMINIUM PROJECT

IN WAILEA, MAUI, HAWAII

FINAL REPORT

Prepared For

LAI HONUA, LLC

Wailea, Maui, Hawai'i

Phillip Rowell and Associates
47-273 'D' Hui Iwa Street
Kaneohe, Hawai'i 96744
Tel: 808-239-8206 Fax: 808-239-4175
Email: prowell@gte.net

September 25, 2000

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Study Methodology	3
2. ANALYSIS OF EXISTING CONDITIONS	4
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Level-of-Service Concept	6
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Trip Distribution and Assignments	13
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Appendix B	Traffic Assignment Worksheets
Appendix C	Level-of-Service Calculations
Appendix D	Detailed Level-of-Service Analysis of Project Driveway with Mitigations

1. INTRODUCTION

Phillip Rowell and Associates has been retained by Lai Honua, LLP to perform a traffic impact analysis for the proposed Lai Honua Condominium Project in Wailea, Maui, Hawaii. The purpose of this study is to analyze the traffic impacts of the proposed project.

The following report has been prepared to describe the traffic characteristics of the proposed project and likely impacts to the adjacent roadway network. This introductory chapter discusses the location of the project, the proposed development, and the study methodology.

Project Location and Description

The proposed project is located along the makai side of Wailea Alanui Drive in Wailea, Maui. The site is bordered by the Shops at Wailea on the north and the Grand Wailea Resort and Spa on the south. See Figure 1 for the general location on the Island of Maui.

Access to the site will be via a driveway along the makai side of Wailea Alanui Drive approximately 270 feet south of the south driveway to the Shops at Wailea

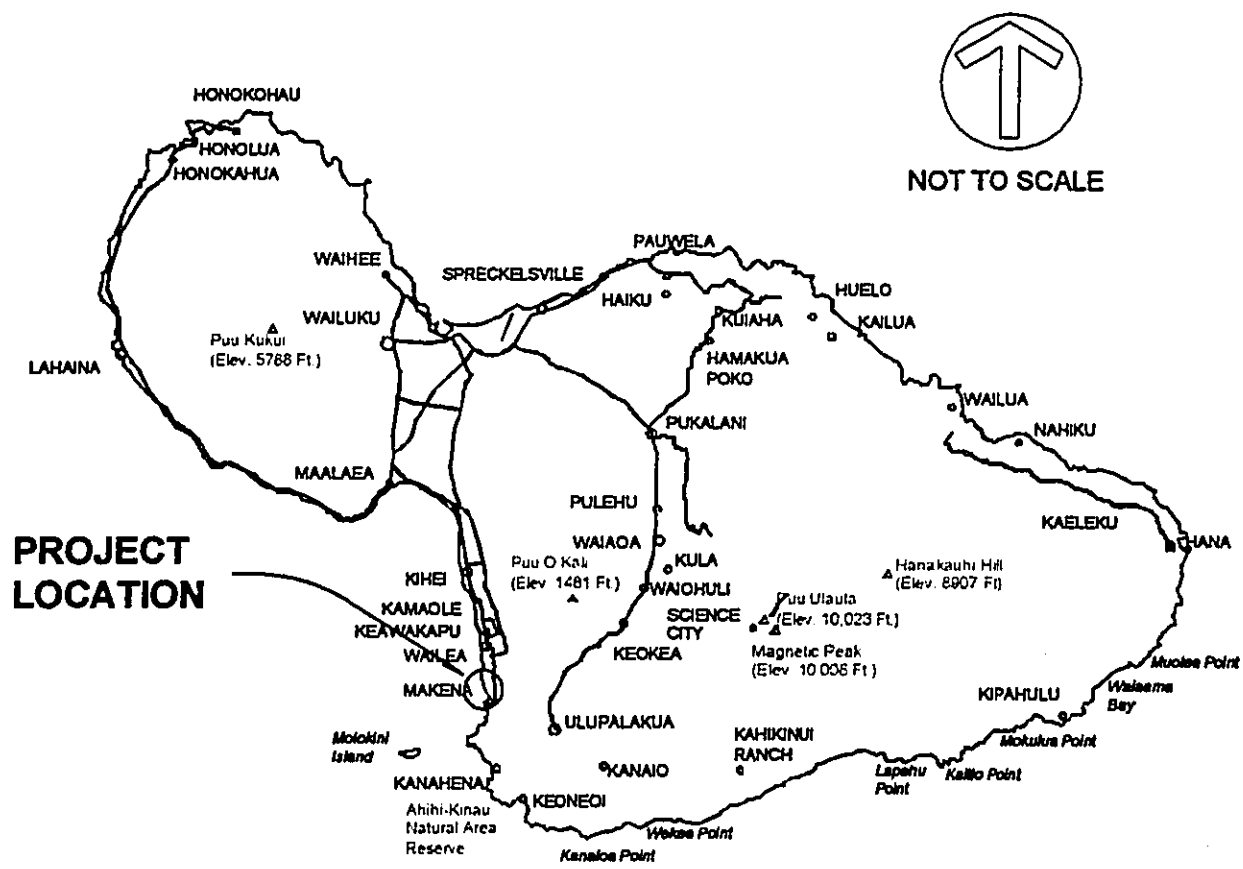


Figure 1

PROJECT LOCATION MAP

Study Methodology

The tasks to perform the traffic impact study are outlined as follows:

1. Collect Roadway and Traffic Related Data
2. Evaluate Existing Traffic Operating Conditions
3. Identify Future Roadway and Traffic Conditions
4. Evaluate Future Traffic Operating Conditions Without Proposed Project
5. Estimate Project Generated Traffic
6. Distribute and Assign Project Related Traffic
7. Evaluate Future Traffic Operating Conditions with Project
8. Quantify Traffic Impacts of the Project.
9. If Required, Identify and Assess Mitigation Measures
10. Prepare and Submit Report

2. ANALYSIS OF EXISTING CONDITIONS

This chapter presents the existing traffic conditions on the roadways adjacent to the proposed project. The level-of-service (LOS) concept and the results of the LOS analysis for existing conditions are also presented. The purpose of this analysis is to establish the base conditions for the determination of the impacts of the project which are described in a subsequent chapter.

Description of Existing Streets and Intersection Controls

The following is a summary of the major roadways in the study area:

Wailea Alanui Drive

Wailea Alanui Drive in the vicinity of the proposed project is a four-lane, divided roadway. The highway runs north-south. Access to the proposed project is via a driveway along the makai side of Wailea Alanui Drive. There are two additional driveways along Wailea Alanui Drive serving the Shops at Wailea, one south of and one north of Wailea Iki Drive. The area between these driveways is currently under construction. The posted speed limit is 30 miles per hour (mph).

Wailea Iki Drive

Wailea Iki Drive is also a four-lane, divided highway. The posted speed limit is also 30 mph.

A schematic of Wailea Alanui Drive between the proposed project entrance and the north entrance to the Shops at Wailea is shown as Figure 2. The lane use configuration shown is the planned configuration upon completion of the Shops at Wailea.

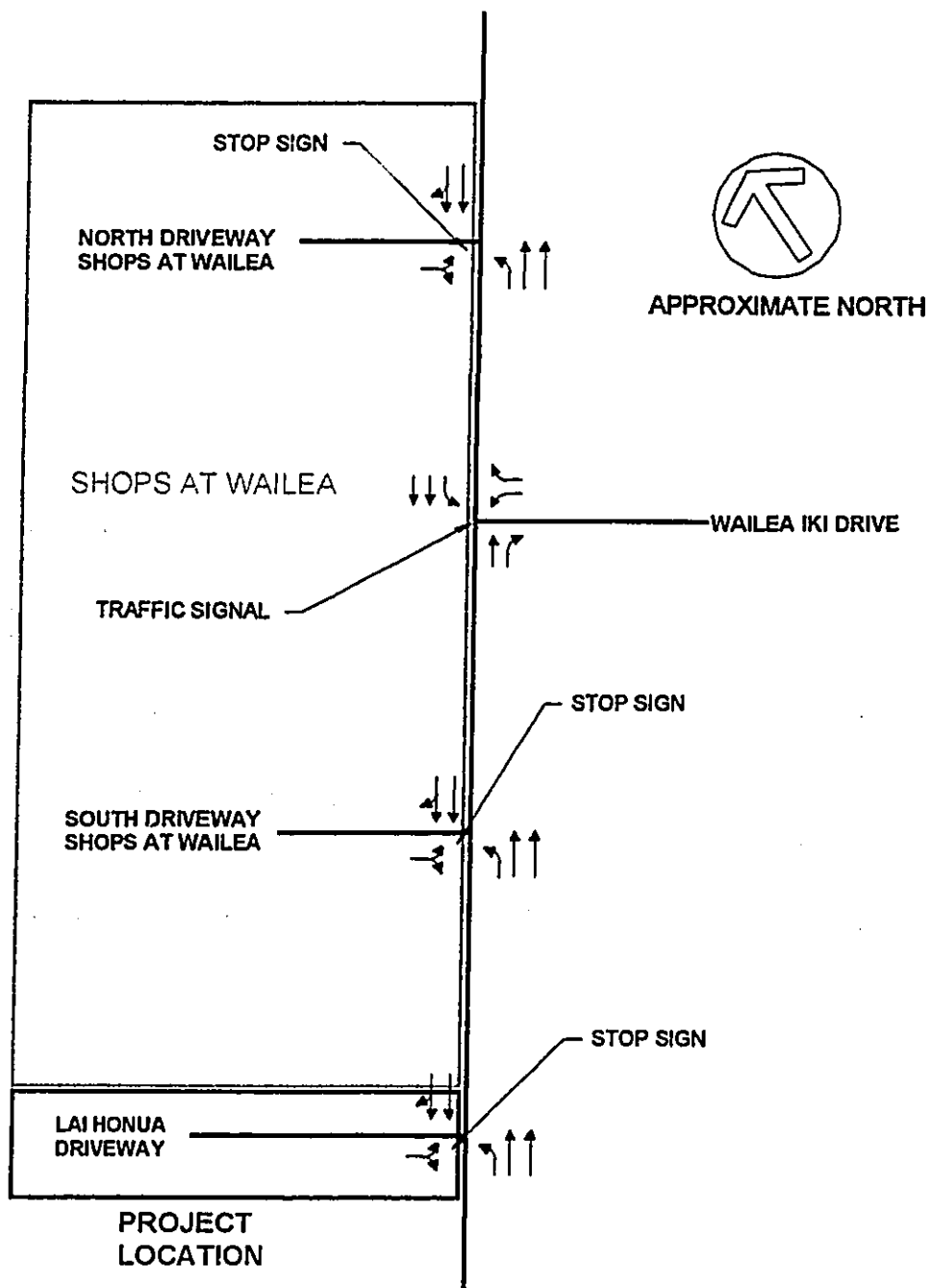


Figure 2

SCHEMATIC OF LANE CONFIGURATIONS

Existing Peak Hour Traffic Volumes

Wailea Alanui Drive in the vicinity of the proposed project is under construction as part of the expansion of the Shops at Wailea. Since traffic counts and a level-of-service analysis of current conditions would be misleading, traffic data collected prior to initiation of construction was obtained from the traffic impact study for the Shops at Wailea and is presented as Appendix A.

Level-of-Service Concept

Signalized Intersections

The operations method described in the *1997 Highway Capacity Manual (HCM)* was used to analyze the operating efficiency of the signalized intersections adjacent to the study site. This method involves the calculation of a volume-to-capacity (V/C) ratio and a stopped vehicle delay which is related to a level-of-service.

"Level-of-Service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-service (LOS) is a qualitative measure of the effect of a number of factors which include space, speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. The characteristics of traffic operations for each level-of-service are summarized in Table 1. In general, LOS A represents free-flow conditions with no congestion. LOS F, on the other hand, represents severe congestion with stop-and-go conditions. Level-of-service D is typically considered acceptable for peak hour conditions in urban areas.

Corresponding to each level-of-service shown in the table is a volume/capacity ratio. This is the ratio of either existing or projected traffic volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be accommodated by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), the type of traffic using the roadway (trucks, buses, etc.) and turning movements.

Table 1 Level-of-Service Definitions for Signalized Intersections⁽¹⁾

Level of Service	Interpretation	Volume-to-Capacity Ratio ⁽²⁾	Stopped Delay (Seconds)
A, B	Uncongested operations; all vehicles clear in a single cycle.	0.000-0.700	<15.0
C	Light congestion; occasional backups on critical approaches	0.701-0.800	15.1-25.0
D	Congestion on critical approaches but intersection functional. Vehicles must wait through more than one cycle during short periods. No long standing lines formed.	0.801-0.900	25.1-40.0
E	Severe congestion with some standing lines on critical approaches. Blockage of intersection may occur if signal does not provide protected turning movements.	0.901-1.000	40.1-60.0
F	Total breakdown with stop-and-go operation	>1.001	>60.0

Notes:

(1) Source: *Highway Capacity Manual, 1997.*

(2) This is the ratio of the calculated critical volume to Level-of-Service E Capacity.

Unsignalized Intersections

Like signalized intersections, the operating conditions of intersections controlled by stop signs can be classified by a level-of-service from A to F. However, the method for determining level-of-service for unsignalized intersections is based on the use of gaps in traffic on the major street by vehicles crossing or turning through that stream. Specifically, the capacity of the controlled legs of an intersection is based on two factors: 1) the distribution of gaps in the major street traffic stream, and 2) driver judgement in selecting gaps through which to execute a desired maneuver. The criteria for level-of-service at an unsignalized intersection is therefore based on delay of each turning movement. Table 2 summarizes the definitions for level-of-service and the corresponding delay.

Table 2 Level-of-Service Definitions for Unsignalized Intersections⁽¹⁾

Level-of-Service	Expected Delay to Minor Street Traffic	Average Vehicle Delay (Seconds)
A	Little or no delay	>10
B	Short traffic delays	10 to 15
C	Average traffic delays	15 to 25
D	Long traffic delays	25 to 35
E	Very long traffic delays	35 to 50
F	See note (2) below	>45.1

Notes:

- (1) Source: *Highway Capacity Manual, 1998.*
 (2) When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improvement of the intersection.

Level-of-Service Analysis of Existing Conditions

The level-of-service analysis performed for conditions prior to start of construction on Wailea Alanui Drive are included in the data presented in Attachment A.

3. PROJECTED CUMULATIVE TRAFFIC CONDITIONS

The purpose of this chapter is to discuss the assumptions and data used to estimate 2005 cumulative traffic conditions. Cumulative traffic conditions are defined as the traffic conditions resulting from background growth and related projects.

Future traffic growth consists of two components. The first is ambient background growth that is a result of regional growth and cannot be attributed to a specific project. The second component is estimated traffic that will be generated by other development projects in the vicinity of the proposed project.

Background Traffic Growth

The traffic impact study for the Shops at Wailea was the basis for estimating cumulative traffic conditions so that the results of the traffic impact analysis for Lai Honua Condominiums would be consistent with the traffic plan for the Shops at Wailea. The traffic study for the Shops at Wailea estimated future traffic conditions using the assumption that traffic along Wailea Alanui Drive and Wailea Iki Drive would grow at an annual rate 4.0 percent per year between 1997 and 2005.

The *Maui Long Range Land Transportation Study* estimated that peak hour traffic volumes would increase an average of 1.6 % per year between 1990 and 2020. Therefore, the cumulative peak hour traffic volumes estimated in the traffic study for the Shops at Wailea are larger than those estimated used in more recent studies, resulting in more conservative conclusions.

Related Projects

The second component in estimating background traffic volumes is traffic resulting from other proposed projects in the vicinity. Related projects are defined as those projects that are under construction or have been approved for construction and would significantly impact traffic in the study area. Related projects may be development projects or roadway improvements.

Traffic assignments provided in the traffic study for the Shops at Wailea were used to estimate traffic generated and to identify roadway improvements associated with that project.

2005 Cumulative Traffic Projections

The year 2005 was used as the design year for the proposed project. This is consistent with other traffic studies in the area.

2005 cumulative traffic projections are calculated by expanding existing traffic volumes by the appropriate growth rates and then superimposing traffic generated by related projects. The assumptions used to estimate the cumulative traffic volumes are:

1. Existing traffic was increased by 4.0% per year as background growth based on data provided in the traffic study for the Shops at Wailea.
2. The traffic generated by the Shops at Wailea was added to account for future traffic associated with that project.

The resulting 2005 cumulative peak hour traffic volumes are shown in Figure 3.

Proposed Roadway Improvements

The following are future roadway and street improvements either under construction or planned for the area within the design period (2000 through 2005).

1. The intersection of Wailea Alanui Drive at Wailea Iki Drive will be signalized. The signal will be a two-phase operation.
2. Separate left turn lanes will be provided at both driveways into the Shops at Wailea.

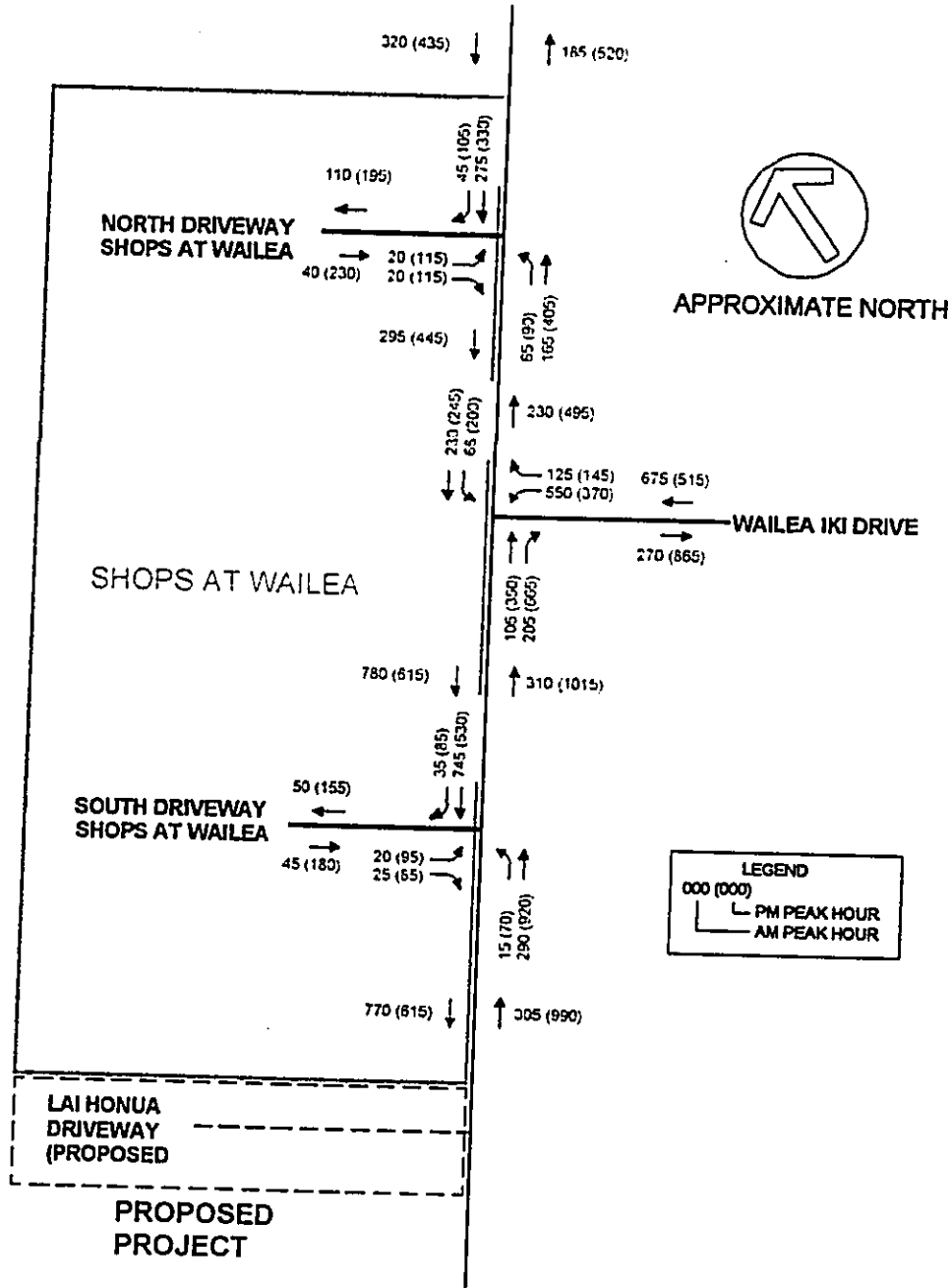


Figure 3
2005 Cumulative Peak Hour Traffic Volumes

4. PROJECT-RELATED TRAFFIC CONDITIONS

This chapter discusses the methodology used to identify the traffic-related impacts of the proposed project. Generally, the process involves the determination of weekday peak-hour trips that would be generated by the proposed project, distribution and assignment of these trips on the approach and departure routes, and finally, determination of the levels-of-service at affected intersections and driveways subsequent to implementation of the project.

Project Trip Generation

Future traffic volumes generated by a project were estimated using the procedures described in *Trip Generation* published by the Institute of Transportation Engineers. Trip rates for luxury residential condominiums were used to estimate the trips generated by this project. Of the trip generation rates for condominiums, the luxury category generates the largest number of trips per unit as shown in Table 3. Therefore, use of trip rates for the luxury condominium land use category will result in a conservative estimate of the peak hour trips generated.

Table 3 Summary of Trip Generation Rates for Condominiums ⁽¹⁾

Land Use Category and Code	Trips per Unit			
	Residential Condo/Townhouse (LU Code 230)	Low-Rise Condo/Townhouse (LU Code 231)	High-Rise Condo/Townhouse (LU Code 232)	Luxury Condo/Townhouse (LU Code 233)
Weekday Total	5.86		4.18	
AM Peak Hour of Generator	0.44	0.51	0.34	0.65
PM Peak Hour of Generator	0.54	0.54	0.38	0.65

Notes:
(1) Institute of Transportation Engineers, Trip Generation, 1997, Washington, D.C., pp 361 - 407.

The estimated number of AM and PM peak hour trips is shown in Table 4. The trips shown are the peak hourly trips generated by the project during the morning and afternoon peak hours. For this project, the peak hour of the project coincides with the peak hour of the adjacent street. Therefore, a worse-case scenario is analyzed because the peak hourly volumes of the project are superimposed on peak hourly background traffic volumes.

Table 4 Trip Generation Summary ⁽¹⁾

Time Period	Direction	Calculation	Peak Hour Trips
	Total	100 x 0.65 =	65
AM Peak Hour	Inbound	65 x 0.32 =	21
	Outbound	65 - 21 =	44
	Total	100 x 0.65 =	65
PM Peak Hour	Inbound	65 x 0.60 =	39
	Outbound	65 - 39 =	26

Trip Distribution and Assignments

The project-related trips were distributed along the anticipated approach routes to the project site. This information was obtained from previously performed traffic studies in the area, which have been generally accepted by the reviewing agencies.

The approach and departure distributions are:

<u>Percent</u>	<u>Direction of Approach</u>
10	From the south via Wailea Alanui Drive
35	From the north via Wailea Alanui Drive
55	From the east via Wailea Iki Drive
100	Total

Using the trip generation and trip distribution previously discussed, project-related traffic was assigned to the various traffic movements at the intersections studied.

2005 Cumulative Plus Project Projections

"Cumulative plus project traffic" conditions are defined as 2005 background traffic conditions plus project related traffic. The incremental difference between cumulative and cumulative plus project is the traffic impact of the project under study.

2005 cumulative plus project traffic volumes with the project were estimated by superimposing the peak hourly traffic generated by the proposed project on the 2005 cumulative peak hour traffic volumes presented in Chapter 3. The traffic projections for 2005 cumulative plus project conditions are shown on Figure 4.

The traffic projection worksheets are presented as Appendix B.

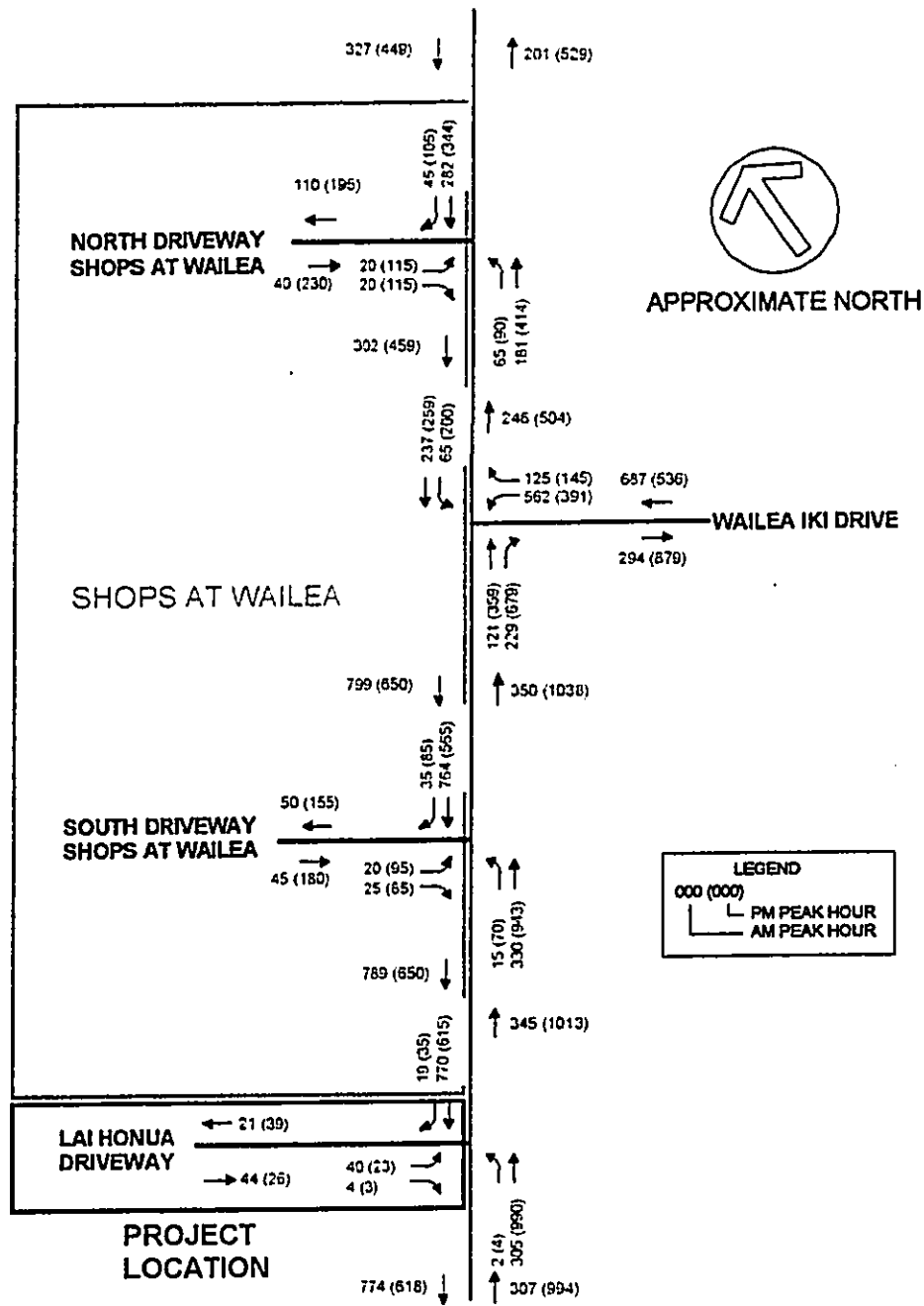


Figure 4
2005 CUMULATIVE PLUS PROJECT PEAK HOUR
TRAFFIC VOLUMES

5. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to summarize the results of the level-of-service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and feasible are identified and other access, egress and circulation issues are discussed.

Definition of Significant Impacts

Criteria for determining if a project has a significant traffic impact for which mitigation measures must be investigated have been established based on traffic impact study guidelines used in other traffic studies. Generally, the criteria are as follows: if the level-of-service (LOS) without the project is E or F and the volume/capacity (V/C) ratio changes less than 0.020, the project's traffic impacts are considered insignificant. However, if the V/C ratio change is greater than 0.020, then mitigation measures which will reduce the V/C ratio change to less than 0.020 must be identified.

Project Related Traffic Impacts and Mitigation Measures

The assumptions used for the Level-of-Service are:

1. The intersection of Wailea Alanui Drive at Wailea Iki Drive is signalized with a two-phase traffic signal.
2. The driveways serving the Shops at Wailea are STOP sign controlled. These driveways are one lane outbound for both left and right turns and there are separate left turn lanes for inbound traffic.

3. The driveway serving Lai Honua is a full service driveway with one lane in each direction. A separate left turn lane is provided for left turns into the project and the median is wide enough (18-feet) for use as a refuge lane for left turning vehicles.

The results of the LOS analysis for the intersections studied are shown in Table 5.

Conclusions and Recommendations

The conclusions of the LOS analysis for 2005 conditions are:

1. Overall, all intersections will operate at Level-of-Service B or better during peak hours.
2. Left turns from the Lai Honua driveway will operate at Level-of-Service C during the morning and afternoon peak hours because the median is wide enough for left turning vehicles to use as a refuge and therefore can made two-stage left turns¹.
3. The level-of-service analysis for the project driveway was performed for both one and two-lane outbound configurations. There was no improvement of the level-of-service with two-lanes versus one-lane. However, a two lane exit configuration is recommended to enhance traffic flow if it can be provided within the 50-foot wide right-of-way.

¹ Institute of Transportation Engineers, Highway Capacity Manual, Washington, D.C., 1998, pp. 10-20 thru 21

Table 5 Level-of-Service Analysis for 2005 Peak Hour Conditions⁽¹⁾

Intersection and Movement	Cumulative			Cumulative Plus Project			Changes	
	V/C ⁽²⁾	Delay ⁽³⁾	LOS ⁽⁴⁾	V/C	Delay	LOS	V/C	Delay
AM Peak Hour								
<i>Wailea Alanui Drive at Lai Honua Driveway</i>	DOES NOT EXIST			NOT CALCULATED				
Eastbound Left & Right	DOES NOT EXIST			17.9	17.9	C		
Northbound Left	DOES NOT EXIST			9.8	9.8	A		
<i>Wailea Alanui Drive at South Driveway</i>	NOT CALCULATED			NOT CALCULATED				
Eastbound Left & Right		14.8	B		15.0	C		0.2
Northbound Left		9.9	A		10.0	A		0.1
<i>Wailea Alanui Drive at Wailea Iki Drive</i>	0.59	14.9	B	0.62	15.3	B	0.03	0.4
Westbound Left	0.75	18.4	B	0.77	19.1	B	0.02	0.7
Westbound Right	0.19	8.9	A	0.19	8.9	A	0.00	0.0
Northbound Thru	0.17	12.1	B	0.20	12.4	B	0.03	0.3
Northbound Right	0.39	14.8	B	0.44	15.5	A	0.05	0.7
Southbound Left	0.15	12.2	B	0.16	12.3	B	0.01	0.1
Southbound Thru	0.20	12.1	B	0.20	12.1	B	0.00	0.0
<i>Wailea Alanui Drive at North Driveway</i>	NOT CALCULATED			NOT CALCULATED				
Southbound Thru & Left		11.7	B		11.9	B		0.2
Eastbound Left		8.3	A		8.3	A		0.0
PM Peak Hour								
<i>Wailea Alanui Drive at Lai Honua Driveway</i>	DOES NOT EXIST			NOT CALCULATED				
Eastbound Left & Right	DOES NOT EXIST			16.2		C		
Northbound Left	DOES NOT EXIST			9.2		A		
<i>Wailea Alanui Drive at South Driveway</i>	NOT CALCULATED			NOT CALCULATED				
Eastbound Left & Right		21.8	C		23.1	C		1.3
Northbound Left		9.5	C		9.6	A		0.1
<i>Wailea Alanui Drive at Wailea Iki Drive</i>	0.60	13.6	B	0.62	14.1	B	0.02	0.5
Westbound Left	0.69	22.6	C	0.73	24.1	C	0.04	1.5
Westbound Right	0.30	15.0	B	0.30	15.0	B	0.00	0.0
Northbound Thru	0.43	9.9	A	0.44	10.0	B	0.01	0.1
Northbound Right	0.52	11.6	B	0.54	11.9	B	0.02	0.3
Southbound Left	0.54	14.1	B	0.55	14.4	B	0.01	0.3
Southbound Thru	0.16	7.3	A	0.17	7.4	A	0.01	0.1
<i>Wailea Alanui Drive at North Driveway</i>	NOT CALCULATED			NOT CALCULATED				
Southbound Thru & Left		24.6	C		25.7	D		1.1
Eastbound Left		8.8	A		8.8	A		0.0

NOTES:

1. Peak hour conditions analyzed are "worst-case" conditions, which is the sum of the peak hour of the adjacent street plus the peak hour of the generator.
2. V/C denotes ratio of volume to capacity.
3. Delay is in seconds per vehicle.
4. LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. LOS is based on delay. See Tables 1 and 2 for definitions.
5. Volume to capacity ratios are not calculated for unsignalized intersections.

**APPENDIX A
BACKGROUND TRAFFIC DATA FROM TRAFFIC
IMPACT STUDY FOR SHOPS AT WAILEA**

Traffic Impact Assessment Study

**SHOPS AT WAILEA
SHOPPING CENTER REDEVELOPMENT
WAILEA, MAUI HAWAII**

February 1998

Prepared for:

Shops at Wailea, L.P.

Prepared by:

Parsons Brinckerhoff Quade & Douglas, Inc.
Pacific Tower, Suite 3000
1001 Bishop Street
Honolulu, Hawaii 96813
Ph. (808) 531-7094

PB Ref.: 16270A.01

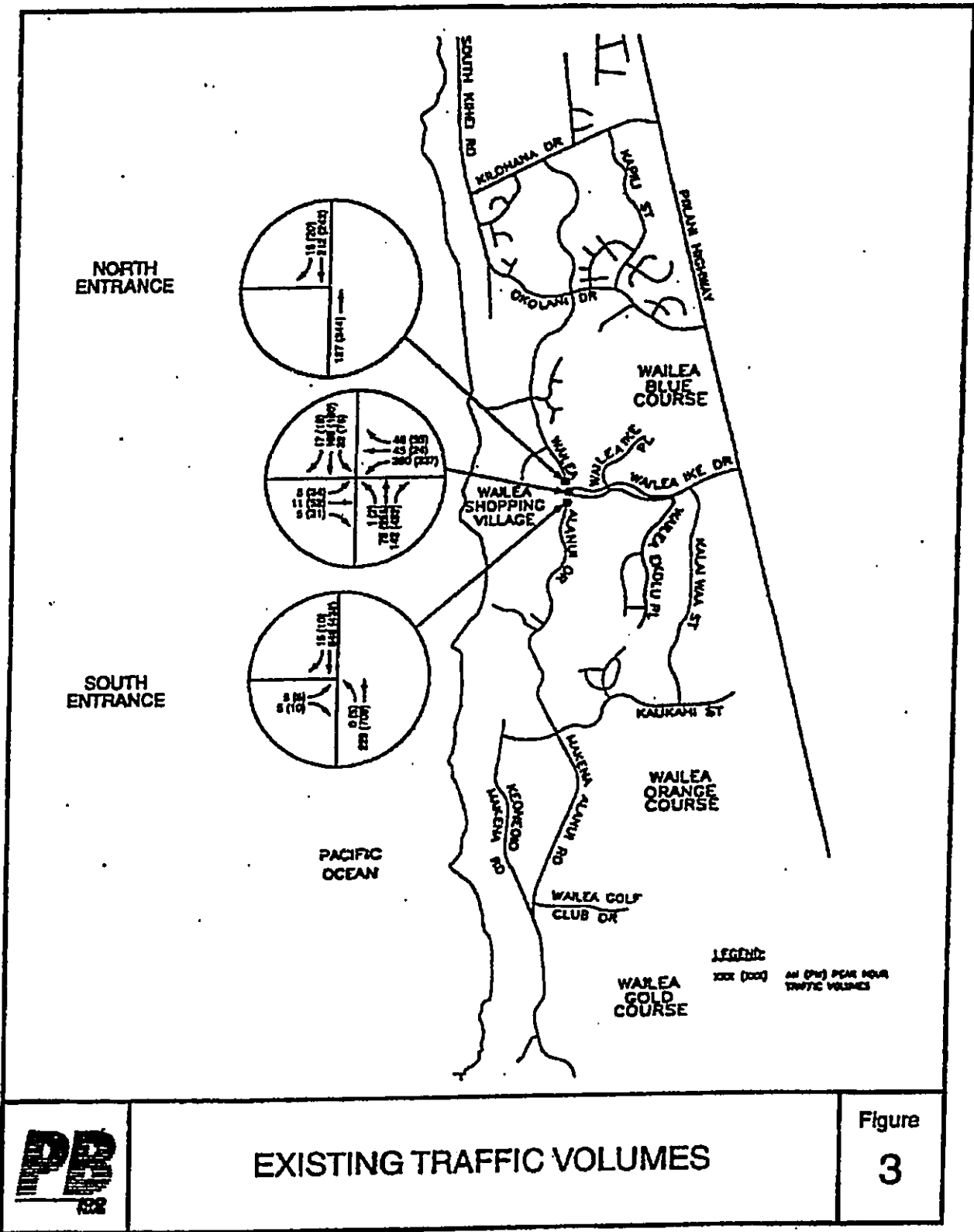


Table 1
Existing Conditions
Level of Service Summary

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	LOS	DELAY (sec/veh)	LOS	DELAY (sec/veh)
Wailea Alanui Drive/Wailea Ike Drive (Unsignalized)				
Overall Intersection Performance	C	11.1	B	5.2
NB Approach	D	28.8	F	148.6
SB Approach	A	3.4	A	3.0
EB Approach	A	1.3	B	5.2
WB Approach	B	6.9	A	4.8

Wailea Alanui Drive/North Entrance (Unsignalized)

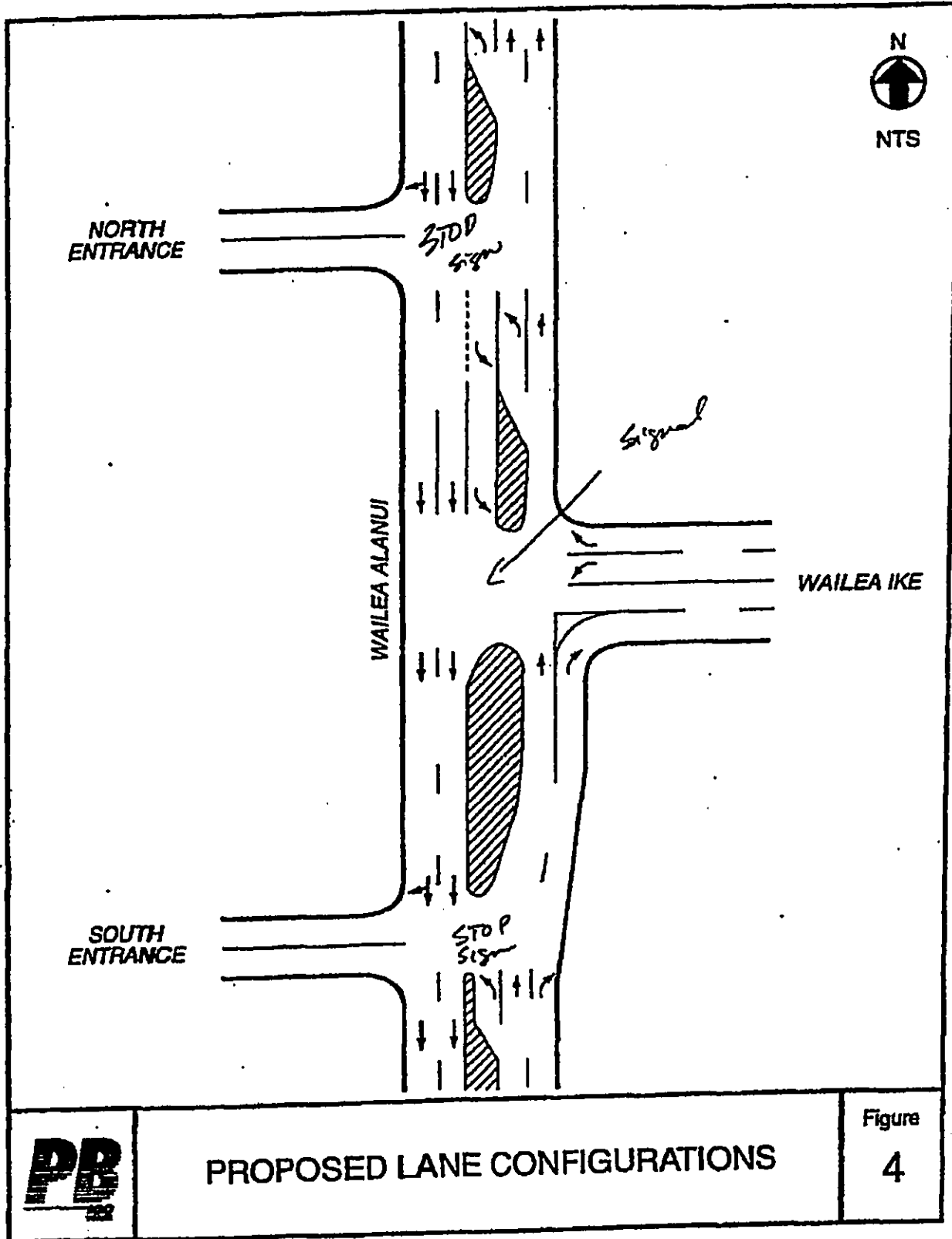
Access is currently limited to right in only from southbound Wailea Alanui Drive

Wailea Alanui Drive/South Entrance (Unsignalized)

Overall Intersection Performance	A	0.1	A	0.1
Minor Left & Right (EB) Movement	B	7.8	B	9.6
Major Left (NB) Movement	A	4.4	A	3.8

Notes: Overall intersection and shared lane LOS is a weighted average of specific movement LOS.
 * - Approach either does not exist or eliminated

Copies of the analysis worksheets are included in Appendix B of this report.



PROPOSED LANE CONFIGURATIONS

Figure
4

Table 2

**Year 2005 Without Shops at Wailea Conditions
Level of Service Summary**

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	LOS	DELAY (sec/veh)	LOS	DELAY (sec/veh)
Wailea Alanui Drive/Wailea Ike Drive (Signalized)				
Overall Intersection Performance	B	6.9	B	5.7
NB Approach	B	7.6	A	3.7
SB Approach	B	8.3	B	7.9
EB Approach	B	6.1	B	7.3
WB Approach	*	*	*	*
Wailea Alanui Drive/North Entrance (Unsignalized)				
Overall Intersection Performance	A	0.4	A	0.8
Minor Left & Right (EB) Movement	A	4.6	B	7.8
Major Left (NB) Movement	A	3.1	A	3.3
Wailea Alanui Drive/South Entrance (Unsignalized)				
Overall Intersection Performance	A	0.2	A	0.3
Minor Left & Right (EB) Movement	B	9.1	B	8.5
Major Left (NB) Movement	B	5.7	A	4.5

Notes: Overall Intersection and shared lane LOS is a weighted average of specific movement LOS.

* - Approach either does not exist or eliminated,

Copies of the analysis worksheets are included in Appendix B of this report.

IV. YEAR 2005 TRAFFIC CONDITIONS - WITH SHOPS AT WAILEA

The Shops at Wailea redevelopment is projected to be completed in the year 2000. The proposed redevelopment consists of 119,000 square feet of additional leasable area. Access to the site will be from Wailea Alanui Drive. The location of the two access points to Wailea Alanui Drive from the site are in the area of the existing access locations. Figure 4 shows the proposed intersection configurations.

The additional number of trips to be generated by the redevelopment will be added to the Year 2005 Traffic Volumes without Shops at Wailea and analyzed to determine the traffic impacts.

A. Trips Generated by Shops at Wailea

The determination of the volume of trips to be generated will utilize the ITE Trip Generation Manual, 5th Edition, the number of trips to be generated by the additional 119,000 square feet of leasable area were calculated. The ITE code for a shopping center is ITE Code 820. Table 3 summarizes the number of trips to be generated.

**Table 3
Shops at Wailea
Trip Generation Summary**

Peak Period	In	Out	Total
Morning Peak Hour	81	48	129
Evening Peak Hour	278	278	556

ITE studies have also shown that the trips generated by retail developments such as the Shops at Wailea consist of two types of trips, new trips and pass-by trips. New trips are trips that are new to the area which are specifically attracted to the retail development. Pass-by trips are trips that normally pass by the retail development and now divert to the retail development. The ITE studies indicate a 40 percent pass-by trip rate for a shopping center of the proposed size. This is consistent with the Traffic Impact Analysis Report for Wailea Resort, Revised Master Plan, Volume 1.

The distribution of new trips generated by Shops at Wailea assume the same pattern as the master plan study. The trip distribution pattern assumes the following:

- Towards Piilani Highway 55%
- Towards South Kihei Road 35%
- Towards Makena 10%

Figure 6 assigns the trips generated by the Shops at Wailea traffic onto the study area roadway network.

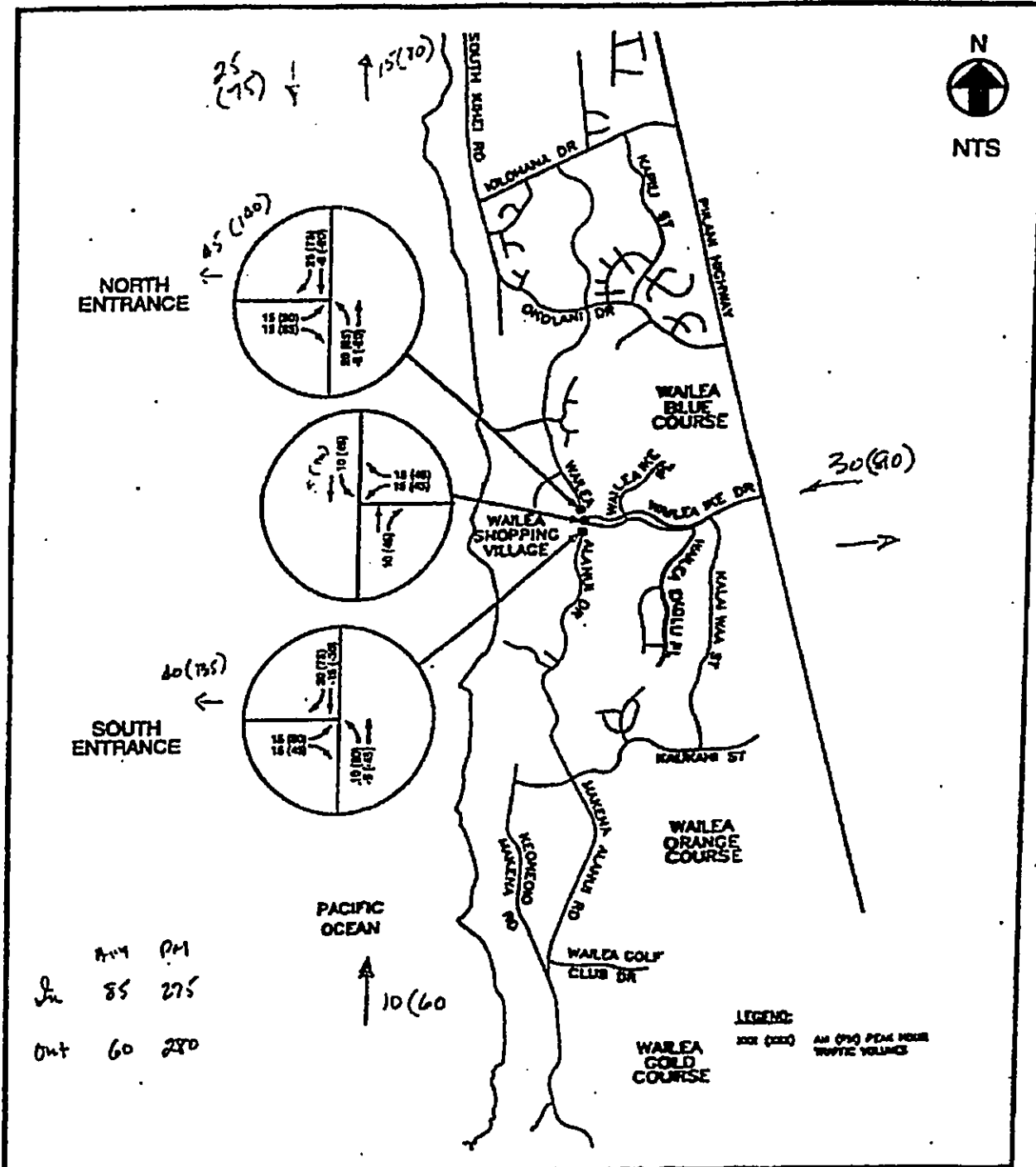
B. Year 2005 Traffic Volumes - With Shops at Wailea

Adding the trips generated by the Shops at Wailea development and the Year 2005 Traffic Volumes Without Shops at Wailea will result in the Year 2005 Traffic Volumes With Shops at Wailea. The traffic volumes are show in Figure 7.

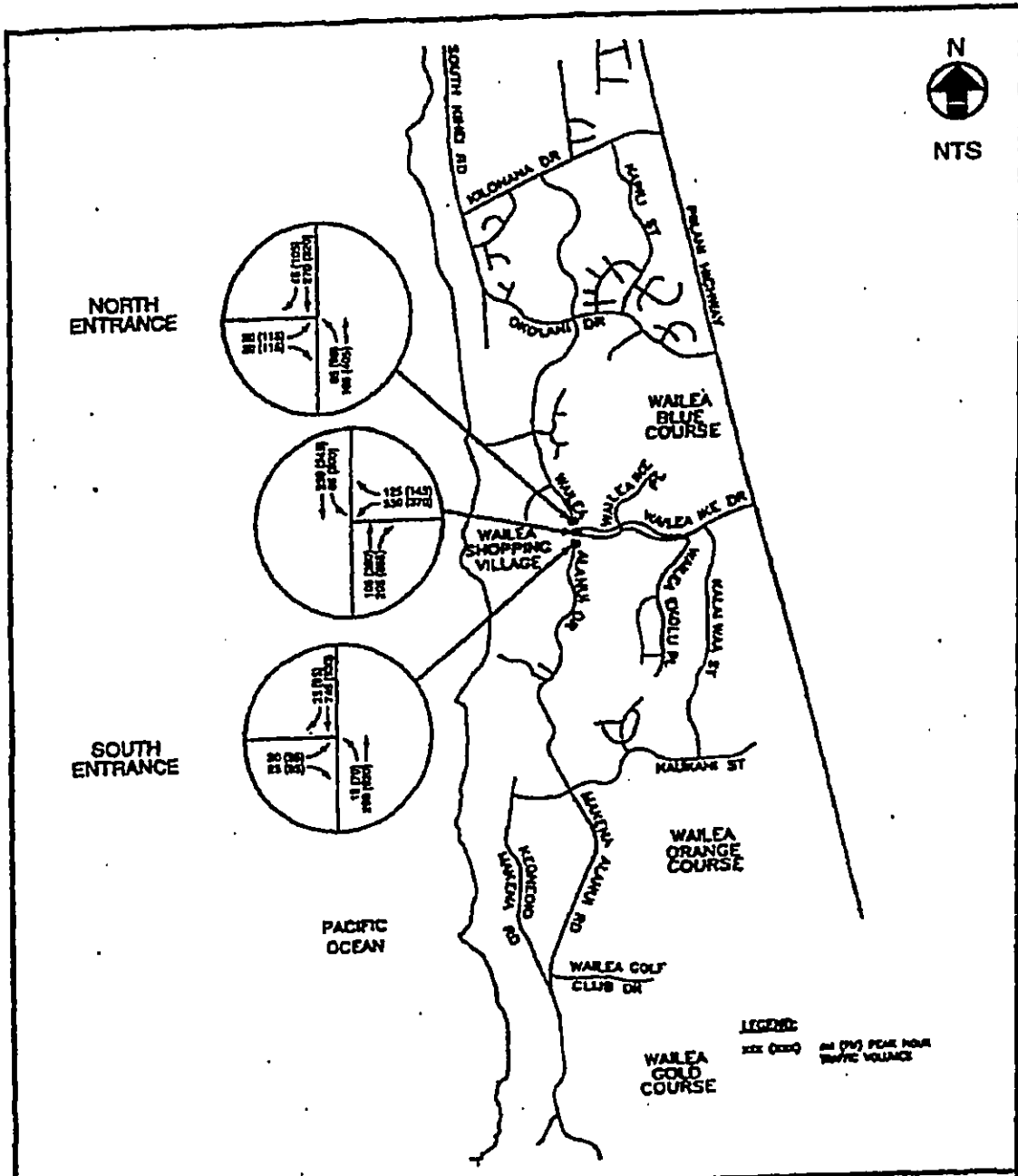
C. Year 2005 Intersection Operations With Shops at Wailea

The peak hour volumes in Figure 7 were then analyzed using the lane configurations in Figure 4. The 1994 Highway Capacity Manual methodologies for unsignalized and signalized intersections were applied, and Table 4 summarizes the results of the analyses. The overall intersection LOS is a result of a weighted average of the individual movement LOS's, also shown in Table 4.

Two of the three study area intersections in the Year 2005 with Shops at Wailea condition are projected to operate at similar LOS's as the Year 2005 without Shops at Wailea condition. The intersection of Wailea Alanui Drive and the South Entrance decreases in performance in the evening peak hour to LOS D for the left turns exiting the shopping center. This is due to the combination of heavy traffic volumes on Wailea Alanui Drive and the moderate volume of left turns from the shopping center.



PR SITE GENERATED TRAFFIC VOLUMES Figure 6



YEAR 2005 WITHOUT IMPROVEMENTS,
WITH SHOPS AT WAILEA

Figure

7

Table 4
Year 2005 With Project Conditions
Level of Service Summary

INTERSECTION	A.M. Peak Hour		P.M. Peak Hour	
	LOS	DELAY (sec/veh)	LOS	DELAY (sec/veh)
Wailea Alanui Drive/Wailea Ike Drive (Signalized)				
Overall Intersection Performance	B	7.0	B	7.2
NB Approach	B	7.5	A	4.0
SB Approach	B	8.3	B	11.4
EB Approach	B	6.2	B	7.7
WB Approach	*	*	*	*
Wailea Alanui Drive/North Entrance (Unsignalized)				
Overall Intersection Performance	A	0.8	A	4.2
Minor Left & Right (EB) Movement	B	5.5	C	19.3
Major Left (NB) Movement	A	3.2	A	3.8
Wailea Alanui Drive/South Entrance (Unsignalized)				
Overall Intersection Performance	A	0.6	A	3.0
Minor Left & Right (EB) Movement	C	12.3	D	24.4
Major Left (NB) Movement	B	6.0	B	5.2

Notes: Overall Intersection and shared lane LOS is a weighted average of specific movement LOS.
 * - Approach either does not exist or eliminated

Copies of the analysis worksheets are included in Appendix B of this report.

APPENDIX B
TRAFFIC ASSIGNMENT WORKSHEETS

Table B-1
Trip Assignment Worksheet
 Lai Honua Traffic Impact Study
 September 2000

Intersection No. 1
 Intersection of Wailea Alanui Road at Lai Honua Driveway

Movement Number	Approach	Movement	2005 Cumulative Trips		Project Generated Trips		2005 Cumulative Plus Project Trips	
			AM	PM	AM	PM	AM	PM
1	North	Right	0	0	19	35	19	35
2		Thru	770	615	0	0	770	615
3		Left	0	0	0	0	0	0
4	East	Right	0	0	0	0	0	0
5		Thru	0	0	0	0	0	0
6		Left	0	0	0	0	0	0
7	South	Right	0	0	0	0	0	0
8		Thru	305	990	0	0	305	990
9		Left	0	0	2	4	2	4
10	West	Right	0	0	4	3	4	3
11		Thru	0	0	0	0	0	0
12		Left	0	0	40	23	40	23
TOTAL			1,075	1,605	46	65	1,121	1,670
<u>Approach Totals</u>								
From North			770	615	19	35	789	650
From East			0	0	0	0	0	0
From South			305	990	2	4	307	994
From West			0	0	44	26	44	26
Total			1,075	1,605	65	65	1,140	1,670
<u>Departure Totals</u>								
To North			305	990	40	23	345	1,013
To East			0	0	0	0	0	0
To South			770	615	4	3	774	618
To West			0	0	21	39	21	39
Total			1,075	1,605	65	65	1,140	1,670
<u>Leg Totals</u>								
North			1,075	1,605	59	58	1,134	1,663
East			0	0	0	0	0	0
South			1,075	1,605	6	7	1,081	1,612
West			0	0	65	65	65	65
Total			2,150	3,210	130	130	2,280	3,340

Part B-2
Trip Assignment Worksheet
 Lai Honua Traffic Impact Study
 September 2000

Intersection No. 2
 Intersection of Wailea Alanui Road at South Driveway to Shops at Wailea

Movement Number	Approach	Movement	2005 Cumulative Trips		Project Generated Trips		2005 Cumulative Plus Project Trips	
			AM	PM	AM	PM	AM	PM
1	North	Right	35	85	0	0	35	85
2		Thru	745	530	19	35	764	565
3		Left	0	0	0	0	0	0
4	East	Right	0	0	0	0	0	0
5		Thru	0	0	0	0	0	0
6		Left	0	0	0	0	0	0
7	South	Right	0	0	0	0	0	0
8		Thru	290	920	40	23	330	943
9		Left	15	70	0	0	15	70
10	West	Right	25	85	0	0	25	85
11		Thru	0	0	0	0	0	0
12		Left	20	95	0	0	20	95
TOTAL			1,130	1,785	59	58	1,189	1,843
<u>Approach Totals</u>								
From North			780	615	19	35	799	650
From East			0	0	0	0	0	0
From South			305	990	40	23	345	1,013
From West			45	180	0	0	45	180
Total			1,130	1,785	59	58	1,189	1,843
<u>Departure Totals</u>								
To North			310	1,015	40	23	350	1,038
To East			0	0	0	0	0	0
To South			770	615	19	35	789	650
To West			50	155	0	0	50	155
Total			1,130	1,785	59	58	1,189	1,843
<u>Leg Totals</u>								
North			1,090	1,630	59	58	1,149	1,688
East			0	0	0	0	0	0
South			1,075	1,605	59	58	1,134	1,663
West			95	335	0	0	95	335
Total			2,260	3,570	118	116	2,378	3,686

Part B-3
Trip Assignment Worksheet
 Lai Honua Traffic Impact Study
 September 2000

Intersection No. 3
 Intersection of Wailea Alanui Road at Wailea Iki Drive

Movement Number	Approach	Movement	2005 Cumulative Trips		Project Generated Trips		2005 Cumulative Plus Project Trips	
			AM	PM	AM	PM	AM	PM
1		Right	0	0	0	0	0	0
2	North	Thru	230	245	7	14	237	259
3		Left	65	200	0	0	65	200
4		Right	125	145	0	0	125	145
5	East	Thru	0	0	0	0	0	0
6		Left	550	370	12	21	562	391
7		Right	205	665	24	14	229	679
8	South	Thru	105	350	16	9	121	359
9		Left	0	0	0	0	0	0
10		Right	0	0	0	0	0	0
11	West	Thru	0	0	0	0	0	0
12		Left	0	0	0	0	0	0
TOTAL			1,280	1,975	59	58	1,339	2,033

Approach Totals

From North	295	445	7	14	302	459
From East	675	515	12	21	687	536
From South	310	1,015	40	23	350	1,038
From West	0	0	0	0	0	0
Total	1,280	1,975	59	58	1,339	2,033

Departure Totals

To North	230	495	16	9	246	504
To East	270	665	24	14	294	879
To South	780	615	19	35	799	650
To West	0	0	0	0	0	0
Total	1,280	1,975	59	58	1,339	2,033

Leg Totals

North	525	940	23	23	548	963
East	945	1,380	36	35	981	1,415
South	1,090	1,630	59	58	1,149	1,688
West	0	0	0	0	0	0
Total	2,560	3,950	118	116	2,678	4,066

Part B-4
Trip Assignment Worksheet
 Lai Honua Traffic Impact Study
 September 2000

Intersection No. 4
 Intersection of Wailea Alanui Road at North Driveway to Shops at Wailea

Movement Number	Approach	Movement	2005 Cumulative Trips		Project Generated Trips		2005 Cumulative Plus Project Trips	
			AM	PM	AM	PM	AM	PM
1	North	Right	45	105	0	0	45	105
2		Thru	275	330	7	14	282	344
3		Left	0	0	0	0	0	0
4	East	Right	0	0	0	0	0	0
5		Thru	0	0	0	0	0	0
6		Left	0	0	0	0	0	0
7	South	Right	0	0	0	0	0	0
8		Thru	165	405	16	9	181	414
9		Left	65	90	0	0	65	90
10	West	Right	20	115	0	0	20	115
11		Thru	0	0	0	0	0	0
12		Left	20	115	0	0	20	115
TOTAL			590	1,160	23	23	613	1,183

Approach Totals

From North	320	435	7	14	327	449
From East	0	0	0	0	0	0
From South	230	495	16	9	246	504
From West	40	230	0	0	40	230
Total	590	1,160	23	23	613	1,183

Departure Totals

To North	185	520	16	9	201	529
To East	0	0	0	0	0	0
To South	295	445	7	14	302	459
To West	110	195	0	0	110	195
Total	590	1,160	23	23	613	1,183

Leg Totals

North	505	955	23	23	528	978
East	0	0	0	0	0	0
South	525	940	23	23	548	963
West	150	425	0	0	150	425
Total	1,180	2,320	46	46	1,226	2,366

Phillip Rowell and Associates

47-273 'D' Hul Iwa Street Kaneohe, Hawaii 96744 Phone: (808) 239-8206 FAX: (808) 239-4175 Email: prowell@gte.net

March 22, 2001

Mr. Michael Wright
Michael Wright & Associates, Inc.
95 Lono Avenue, Suite 202
Kahului, Maui, HI 96732

Re: **Traffic Projections Along Piilani Highway from Lai Honua in Wailea, Maui, Hawaii**

Dear Mr. Wright:

The following report summarizes the results of our analysis to estimate the amount of project related traffic that will use Piilani Highway. This study was performed in response to concerns raised regarding traffic impacts along this corridor.

Purpose and Objectives of Study

Estimate the amount of and the impacts of project generated traffic along Piilani Highway between Wailea Iki Drive and Mokulele Highway.

Methodology

1. Obtain background traffic volumes for Piilani Highway between Wailea Iki Drive and Mokulele Highway from Hawaii Department of Transportation.
2. Estimate the amount of project generated traffic along Piilani Highway between Wailea Iki Drive and Mokulele Highway.
3. Estimate the change in traffic volumes along Piilani Highway as a result of the proposed project.

Background Traffic Volumes

The traffic along Piilani Highway between Wailea Iki Drive and Mokulele Highway was estimated using traffic projections in the *Kihei Traffic Master Plan*¹. This study provided 2005 traffic projections for the major intersections along the study corridor. These volumes were adjusted to reflect the construction of Piikea Drive (Road 'C') and Ke Alii Alanui.

The adjusted 2005 traffic volumes were summarized and the distribution of traffic approaching the intersections calculated. This resulted in an estimate of the percentage of traffic making each of the available turning movements. Based on this pattern of turning movements along the highway, the number of project generated trips using each of the links was estimated.

The results of this analysis is shown in Attachment A. As shown, project traffic dissipates as it travels north. Conversely, a smaller percentage of project traffic travels along the northern links and increases as it approaches the project.

¹ Kaku Associates, *Kihei Master Traffic Plan*, October, 1996

Mr. Michael Wright
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Page 2

Project Generated Traffic

The amount of project generated traffic using Piilani Highway was estimated from the traffic study for the Lai Honua Condominium project. That study estimated that 55% of the project's peak hour traffic would use Piilani Highway. The number of vehicles was estimated as follows:

<u>Time Period</u>	<u>Direction</u>	<u>Total Trips</u>	<u>Traffic Using Piilani Highway</u>	
			<u>Percent</u>	<u>Number</u>
AM Peak Hour	Inbound (Southbound)	21	55%	12
	Outbound (Northbound)	44	55%	24
PM Peak Hour	Inbound (Southbound)	39	55%	21
	Outbound (Northbound)	26	55%	14

Project Generated Traffic Projections

The number of project related trips along each roadway link was estimated by multiplying the percentages estimated in Attachment A by the number of project generated trips to use Piilani Highway. This analysis was performed for the southbound and northbound directions of each roadway link for morning and afternoon peak hours. The calculations are shown in Attachment B. As shown, the number of northbound trips during the morning peak hour dissipates from 24 vehicles per hour at Wailea Iki Drive to 10 vehicles per hour at Mokulele Highway. The number of southbound trips decreases from 12 vehicles per hour to 3 vehicles per hour. During the afternoon peak hour, the number of northbound trips decreases from 14 vehicles per hour to 9 vehicles per hour and the number of southbound trips decreases from 21 vehicles per hour to 1 vehicles per hour.

The percentage of project generated traffic of the total traffic stream also decreases from south to north because of the fewer number of project trips and the increasing number of background trips. These calculations are also shown in Attachment B

Analysis

A project would have a significant traffic impact if the level-of-service is E or F and the volume-to-capacity (v/c) increased 0.020 or greater. This would mean that if the v/c ratio is approximately 1.0, then a 2% increase would represent a significant impact. As shown, the only locations where there is a 2% or greater increase in traffic is the northbound direction between Wailea Iki Drive and Ke Alii Alanui. Based on my observations of Piilani Highway, the intersections along this section of Piilani Highway operate at Level-of-Service D or better. The areas of congestion are north of Lipoa Street for both southbound and northbound directions.

The estimates of traffic along Piilani Highway were based on the trip generation calculation in the traffic impact analysis report (TIAR) for the project.² These calculations used trip generation rates for "luxury condominium/townhouses." It is likely that the condominiums will be used as recreational housing, which would generate approximately half the number of peak hour trips are the category analyzed, reducing the traffic impact of the proposed project along Piilani Highway less.

² Phillip Rowell and Associates, *Traffic Impact Assessment Report for Lai Honua Condominium Project*, September 25, 2000

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Conclusions

Conclusions of the this traffic analysis are:

1. As traffic travels north from Wailea Iki Drive toward Mokulele Highway, the number of project generated trips decreases, with a corresponding decrease in the projects traffic impacts because of the lower number of project trips and the increasing background traffic.
2. The results are probably conservative (high) estimates of project traffic, since no consideration was made for pass-by or diverted trips.
3. Based on this preliminary analysis, the proposed project will most likely have an insignificant impact on the intersections along Piilani Highway.
4. It is likely that the project units will be recreational housing units. If so, the number of project related traffic will be approximately one-fourth of that analyzed in the TIAR and this analysis.

Very truly yours,
PHILLIP ROWELL AND ASSOCIATES



Phillip J. Rowell, P.E.
Principal

Attachment A
PILANI HIGHWAY TRAFFIC ANALYSIS
FOR LAI HONUA CONDOMINIUMS
 February 2001

AM Peak Hour

No	Crossroad	2005 AM Peak Hour Volumes								2005 AM Peak Hour Distribution (%)							
		Southbound Approach				Northbound Approach				Southbound Approach			Northbound Approach				
		Right	Thru	Left	Total	Left	Thru	Right	Total	Right	Thru	Left	Left	Thru	Right		
1	Mokulele Highway	5	320	45	370	10	890	1225	2125	1%	86%	12%	24%	0%	42%	58%	44%
2	Uwepo Road	15	930	30	975	30	1595	35	1660	2%	95%	3%	25%	1%	85%	13%	45%
3	Ohukai Road	25	1000	110	1195	20	1270	195	1485	2%	89%	9%	28%	1%	85%	13%	53%
4	Kaonoulu Street	80	1185	0	1245	40	1290	0	1330	6%	84%	0%	30%	3%	97%	0%	55%
5	Kulanihakai Street	50	1185	0	1235	30	1120	0	1150	4%	96%	0%	31%	3%	97%	0%	58%
6	Pikea (Road C)	90	1380	0	1470	150	1160	0	1310	6%	94%	0%	33%	13%	80%	8%	63%
7	Lipoa	325	950	85	1360	170	1020	80	1270	24%	70%	6%	47%	2%	98%	0%	78%
8	Wetakahao Road	125	810	0	1035	20	1165	0	1205	12%	88%	0%	54%	2%	98%	0%	81%
9	Kanani Road	140	745	0	885	30	925	0	955	16%	84%	0%	64%	3%	97%	0%	83%
10	Ke Ali Alanui	65	720	0	785	65	750	0	815	8%	92%	0%	70%	8%	92%	0%	90%
11	Keonekai Road	135	660	0	795	30	490	0	520	17%	83%	0%	84%	2%	96%	2%	96%
12	Kiohana	65	695	80	830	5	260	5	270	7%	84%	10%	100%	0%	100%	0%	100%
13	Wailea Rd	0	705	0	705	0	270	0	270	0%	100%	0%	0%	0%	100%	0%	100%

PM Peak Hour

No	Crossroad	2005 PM Peak Hour Volumes								2005 PM Peak Hour Distribution (%)							
		Southbound Approach				Northbound Approach				Southbound Approach			Northbound Approach				
		Right	Thru	Left	Total	Left	Thru	Right	Total	Right	Thru	Left	Left	Thru	Right		
1	Mokulele Highway	15	630	30	675	5	460	860	1425	2%	93%	4%	10%	0%	32%	67%	38%
2	Uwepo Road	65	1665	190	1920	55	1300	95	1450	3%	87%	10%	12%	4%	90%	7%	43%
3	Ohukai Road	90	1435	175	1700	55	1255	245	1555	5%	84%	10%	14%	4%	81%	16%	53%
4	Kaonoulu Street	155	1590	0	1745	75	1310	0	1385	9%	91%	0%	16%	5%	95%	0%	56%
5	Kulanihakai Street	125	1400	0	1525	55	1300	0	1355	8%	92%	0%	17%	4%	96%	0%	58%
6	Pikea (Road C)	240	1335	0	1575	110	1375	0	1485	15%	85%	0%	20%	7%	83%	0%	63%
7	Lipoa	390	1045	25	1460	195	1070	25	1290	27%	72%	2%	28%	15%	83%	2%	76%
8	Wetakahao Road	105	1335	0	1440	30	1055	0	1085	7%	83%	0%	30%	3%	97%	0%	78%
9	Kanani Road	315	985	0	1300	55	925	0	980	24%	76%	0%	40%	8%	94%	0%	83%
10	Ke Ali Alanui	135	900	0	1035	90	900	0	990	13%	87%	0%	45%	9%	91%	0%	91%
11	Keonekai Road	320	750	0	1070	55	875	0	930	30%	70%	0%	65%	6%	94%	0%	97%
12	Kiohana	140	535	145	820	10	710	10	730	17%	65%	18%	100%	1%	97%	1%	100%
13	Wailea Rd	0	550	0	550	0	730	0	730	0%	100%	0%	0%	0%	100%	0%	100%

Land Use Definitions¹

Residential Uses

Land Use 210 Single Family Detached Housing

Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision.

Land Use 220 Apartment

Apartments are rental dwelling units that are located within the same building with at least three other dwelling units, for example quadrplexes and all types of apartment buildings. The apartments in this land use include both low-rise and "walk-up" dwellings and high-rise, multifamily dwellings. Studies that did not identify whether the apartment was low-rise or a high-rise were included in this category.

Land Use 221 Low-Rise Apartment

Low-rise apartments (rental dwelling units) are units located in rental buildings that have one or two levels (floors), such as garden apartments.

Land Use 222 High-Rise Apartment

High-rise apartments (rental dwelling units) are units located in rental buildings that have more than ten levels (floors) and most likely have one or more elevators.

Land Use 223 Mid-Rise Apartments

Mid-rise apartments are apartments (rental dwelling units) in rental buildings that have between three and ten levels (floors).

Land Use 230 Residential Condominium/Townhouse

Residential condominiums/townhouses are defined as single-family ownership units that have a least one other single-family owned unit within the same building structure. Both condominiums and townhouses are included in this land use. Studies that did not identify whether the condominium/townhouse was a low-rise or a high-rise were included in this category.

Land Use 231 Low-Rise Residential Condominium/Townhouse

Low-rise residential condominiums/townhouses are units located in buildings that have one or two levels (floors). Both condominiums and townhouses are included in this land use.

¹ Institute of Transportation Engineers, *Trip Generation*, 1997

**Land Use 232
High-Rise Residential Condominium/Townhouse**

High-rise residential condominiums/townhouses are units located in buildings that have three or more levels (floors). Both condominiums and townhouses are included in this land use.

**Land Use 233
Luxury Condominium/Townhouse**

Luxury condominiums/townhouses are units in buildings with luxury facilities and services. Both condominiums and townhouses are included in this land use.

**Land Use 260
Recreational Homes**

Recreational homes are usually located in a resort containing local services and complete recreational facilities. These dwellings are often second homes used by the owner periodically or rented on a seasonal basis.

**Land Use 270
Residential Planned Unit Development (PUD)**

Residential planned unit developments, for the purposes of trip generation, are defined as containing and combination of residential land uses, and they might also contain supporting services such as limited retail and recreational services.

Caution – The description of a PUD is general in nature since these developments vary by density and type of dwelling. It is therefore recommended that when information on the number and type of dwellings is known, the trip generation should be calculated on the basis of the known type of dwellings rather than on the basis of land use 270. These data for land use 270 are provided as general information and would be applicable only when the number of dwellings are known.

Attachment B
PILANI HIGHWAY TRAFFIC ANALYSIS
FOR LAI HONUA CONDOMINIUMS
 February 2001

AM Peak Hour

No	Crossroad	2005 Background		Percent Project Trips		Project Trips		Background Plus Project Trips		Percent Change	
		SB	NB	SB	NR	SB	NR	SB	NR	SB	NR
1	Mokulele Highway	975	1825	24%	44%	3	10	978	1835	0.31%	0.55%
2	Uwepo Road	1195	1660	25%	45%	3	11	1198	1671	0.25%	0.66%
3	Ohukai Road	1195	1660	28%	53%	3	13	1198	1673	0.25%	0.78%
4	Kaonolu Street	1145	1485	30%	55%	4	13	1149	1498	0.35%	0.88%
5	Kulanihakoi Street	1215	1330	31%	56%	4	13	1219	1343	0.33%	0.98%
6	Piikea (Road C)	1360	1150	33%	63%	4	15	1364	1165	0.29%	1.30%
7	Lipoa	1360	1150	47%	79%	6	19	1366	1169	0.44%	1.65%
8	Waialeale Road	1035	1270	64%	81%	6	19	1041	1289	0.58%	1.50%
9	Kanani Road	885	1185	64%	83%	8	20	893	1205	0.90%	1.69%
10	Ke Alii Alanui	655	955	70%	90%	8	22	663	977	1.22%	2.30%
11	Keonekai Road	795	735	84%	96%	10	23	805	758	1.26%	3.13%
12	Kiohana	830	520	100%	100%	12	24	842	544	1.45%	4.62%
13	Waiea Rd					12	24				

PM Peak Hour

No	Crossroad	2005		Percent		Project Trips		Total Trips		Percent Change	
		SB	NR	SB	NR	SB	NR	SB	NR	SB	NR
1	Mokulele Highway	975	1825	10%	38%	1	9	976	1834	0.10%	0.49%
2	Uwepo Road	1195	1660	12%	43%	1	10	1196	1670	0.08%	0.60%
3	Ohukai Road	1195	1660	14%	53%	2	13	1197	1673	0.17%	0.78%
4	Kaonolu Street	1145	1485	16%	56%	2	13	1147	1498	0.17%	0.88%
5	Kulanihakoi Street	1215	1330	17%	58%	2	14	1217	1344	0.16%	1.05%
6	Piikea (Road C)	1360	1150	20%	63%	2	15	1362	1165	0.15%	1.30%
7	Lipoa	1360	1150	28%	76%	3	18	1363	1168	0.22%	1.57%
8	Waialeale Road	1035	1270	30%	78%	4	19	1039	1289	0.39%	1.50%
9	Kanani Road	885	1185	40%	83%	5	20	890	1205	0.56%	1.69%
10	Ke Alii Alanui	655	955	45%	91%	5	22	660	977	0.76%	2.30%
11	Keonekai Road	795	735	65%	97%	8	23	803	758	1.01%	3.13%
12	Kiohana	830	520	100%	100%	12	24	842	544	1.45%	4.62%
13	Waiea Rd					21	14				

Appendix D
Archaeological Inventory Letter

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PHRI

Paul H. Rosendahl, Ph.D., Inc.

Archaeological • Historical • Cultural Resource Management Studies & Services
204 Waiawa Avenue - Hilo, Hawaii 96720 • (808) 969-1763 • FAX (808) 961-4998
P.O. Box 23305 - G.M.P., Guam 96921 • (671) 472-3117 • FAX (671) 472-3131

PHRI Letter Report 99-2004

October 25, 1999

FJ Finance, Inc.
c/o Mr. Andres Albano, Jr.
CB Richard Ellis, Inc.
1001 Bishop Street
Bishop Square, Pacific Tower
Honolulu, HI 96813-3429
Fax (808) 541-5155

Via fax (Original mailed)

Dear Mr. Albano:

At the request of Mr. Andres Albano, Jr. of CB Richard Ellis, Inc., on behalf of his client FJ Finance, Inc., Paul H. Rosendahl, Ph.D., Inc. (PHRI) performed an archaeological assessment survey of a 10.74-acre parcel in Paeahu Ahupua'a, Makawao District, Island of Maui (TMK:[2]2-1-8:091; *Figure 1*). The objectives of the survey were to: (a) determine whether any potentially significant historic properties are present within the property; and (b) address the implications that any such properties might generate regarding potential constraints, restrictions, or limitations upon any proposed development of the parcel. The assessment survey methodology consisted of a review of readily available background information (including reports of prior archaeological investigations of the parcel and its immediate vicinity), a surface survey field inspection of the parcel, and consultations with archaeological staff of the State Historic Preservation Division (SHPD).

The property is situated between the Grand Wailea Resort and the Wailea Outrigger Hotel, and is directly *makai* of the Shops at Wailea construction project. The project area is presently undeveloped land that is being utilized in a variety of ways (*Figure 2*). The *makai* portion adjacent to the shore has been landscaped and is planted in grass. A modern *imu* is present and actively used in this portion of the property. The central portion of the project area is being used as a dump for tree cuttings and building materials. Pile after pile of palm fronds and cement and asphalt have been deposited on the parcel. The northern portion of the study area appears to have been graded in the past, perhaps associated with the construction of the adjacent Outrigger Hotel parking lot. The eastern portion of the project area, adjacent to the Shops development, has also been graded and is being used as a staging area for construction equipment and materials.

The study parcel was first subject to archaeological survey in 1979 by the B.P. Bishop Museum as part of a larger project area (Rogers-Jourdane 1979). During that reconnaissance survey one site was recorded on the adjacent Grand Wailea Resort

property, Site B12-9. This site was described as a circular enclosure near Wailea Alanui roadway. In a subsequent survey and testing project, also conducted by the B.P. Bishop Museum in 1979, the site was recorded in greater detail and test excavated (Schilt and Dobyms 1980). A second circular structure was noted, but no subsurface material was encountered.

In 1986, PHRI conducted an archaeological field inspection (Rosendahl 1986) as well as an intensive survey and testing program on the subject property (Spear 1987). In addition to re-recording site B12-9, four other sites were discovered, SIHP Sites 2011, 2012, 2013, 2014 (Figure 3). These five sites were recorded in detail and assessed for significance through subsurface excavations. Sites B12-9 and 2014 were determined to be of modern origin, perhaps associated with military training activities. Site 2011 was a surface midden with no structural features, and had been extensively disturbed by prior grubbing activities. These three sites were considered to have received sufficient data collection to mitigate any future impacts that would be caused by development. Sites 2012 and 2013 were determined to be multi-component pre-Contact through Historic Period habitation and burial sites. Further investigation was recommended for both of these resources. This further investigation was undertaken in 1987 when PHRI carried out data recovery excavations at the two sites (Rosendahl and Haun 1987). As a result of the data recovery project three occupation/use periods were defined at each site, several surface and subsurface features were recorded, over one thousand artifacts were collected, and two burials were excavated. Rosendahl and Haun (1987) concluded that sufficient data had been collected from the two sites such that no further investigation was warranted; they did however, recommend that an archaeological monitor be present on Wailea Development Parcel A/B during grubbing, grading, and other ground-disturbing construction activities.

PHRI was contracted and began monitoring the earth-disturbing and earth-moving work associated with the development of the Grand Wailea Resort in October 1987. Native Hawaiian human remains were first encountered in January 1988, and continued to be discovered until July 1991; the remains of over a hundred individuals were removed. Three new SIHP site numbers were assigned: 2802, 2803, and 2804; and data was collected from cultural deposits and surface and subsurface features. Monitoring fieldwork and primary osteological analysis was concluded by August 1991 when the re-interment of the recovered human remains and associated material was performed. Analysis and write-up of the project was ultimately completed by PHRI and approved by DLNR-SHPD (Rechtman 1999).

On October 13, 1999, Robert B. Rechtman, Ph.D. performed a field inspection of the current 10.74-acre study parcel. No surface cultural deposits were observed. The deep open excavations *mauka* of the project area were also examined to get an idea of the subsurface conditions within the study area. These pits revealed an oxidized silt loam soil extending to several meters below the ground surface. No sand was seen in the profiles of the open excavations. The coastline directly in front of the project area is rocky; however, it is likely that some beach and former dune sand is located below the surface on about the *makai* third of the parcel. Based on the findings at the adjacent

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Grand Wailea, it is possible that deep sand and alluvial silt layers contain buried Native Hawaiian human remains. Such remains were found in a similar setting at depths of greater than 4 meters (13 feet) near the southern boundary of the Grand Wailea property, 400 meters south of the current study parcel (Rechtman 1999). Although no surface archaeological resources were observed during the current field inspection and none were identified during the previous investigations (Rogers-Jourdane 1979, Rosendahl 1986, Rosendahl and Haun 1987, Spear 1987), it is our recommendation that limited subsurface testing be performed on the parcel to assess the probability that buried human remains are present. If development of the property were not going to impact subsurface deposits then such testing would likely not be necessary. If subsurface work is planned then a series of well-placed backhoe trenches should be sufficient for making a determination as to the presence or absence of buried remains. In the event that such remains are not identified during subsurface testing, it may still be possible (depending on the nature of the soil observed during testing) that buried remains exist deeper than is feasible to excavate with a backhoe. If such were the case, an archaeological monitoring program would be recommended during subsurface construction activities.

If you have any questions or concerns please feel free to contact me at our Hilo Office (808) 969-1763, or by e-mail at phrirbr@interpac.net.

Sincerely



Robert B. Rechtman, Ph.D.
Senior Archaeologist

cc: Christopher Fujiyama

Attachments: 3 Figures
Enclosure: Invoice

References Cited

Rechtman, R.B.
1999 Archaeological Monitoring at Development Parcel A/B, Wailea Resort Property, Land of Pacahu, Makawao District, Island of Maui. PHRI Report 1302-041599. Prepared for TSA International, Ltd. c/o Wilson Okamoto and Associates, Inc.

Rogers-Jourdane, E.
1979 Archaeological Reconnaissance Survey of Wailea Property in the Ahupua'a of Pacahu, Makawao District, Maui Island. Ms. 080279. Department of Anthropology, B.P. Bishop Museum.

PHRI Letter Report 99-2004

Rosendahl, M.L.K., and A.E. Haun

1987

Archaeological Data Recovery Excavations, Development Parcels A, B and C, Wailea Resort, Land of Pacahu, Makawao District, Island of Maui. PHRI Report 299-181787. Prepared for TSA International, Ltd.

Rosendahl, P.H.

1986

Archaeological Field Inspection, Development Parcels A/B and C, Wailea Resort, Land of Pacahu, Makawao District, Island of Maui. PHRI Report 232-042186. Prepared for TSA International, Ltd.

Schilt, R., and S. Dobyns

1980

Archaeological Reconnaissance and Testing on Wailea Properties in the Ahupuaa of Pacahu, Makawao District, Maui Island, Hawaii. Manuscript 030480. B.P. Bishop Museum, Honolulu.

Spear, R.L.

1987

Intensive Archaeological Survey and Testing, Development Parcels A/B and C, Wailea Resort, Land of Pacahu, Makawao District, Island of Maui. PHRI Report 247-092286. Prepared for TSA International, Ltd.

PHRI Letter Report 99-2004

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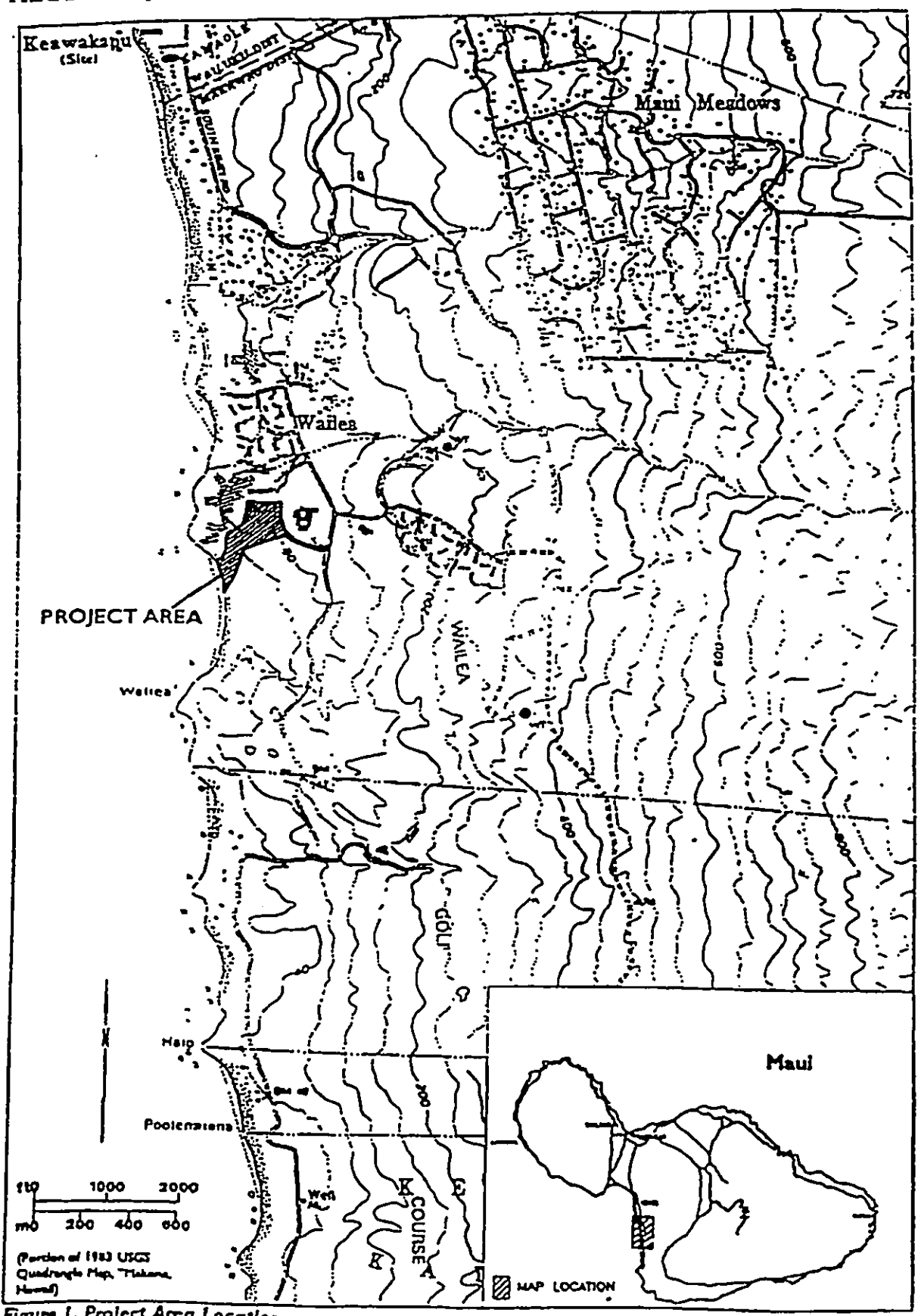


Figure 1. Project Area Location

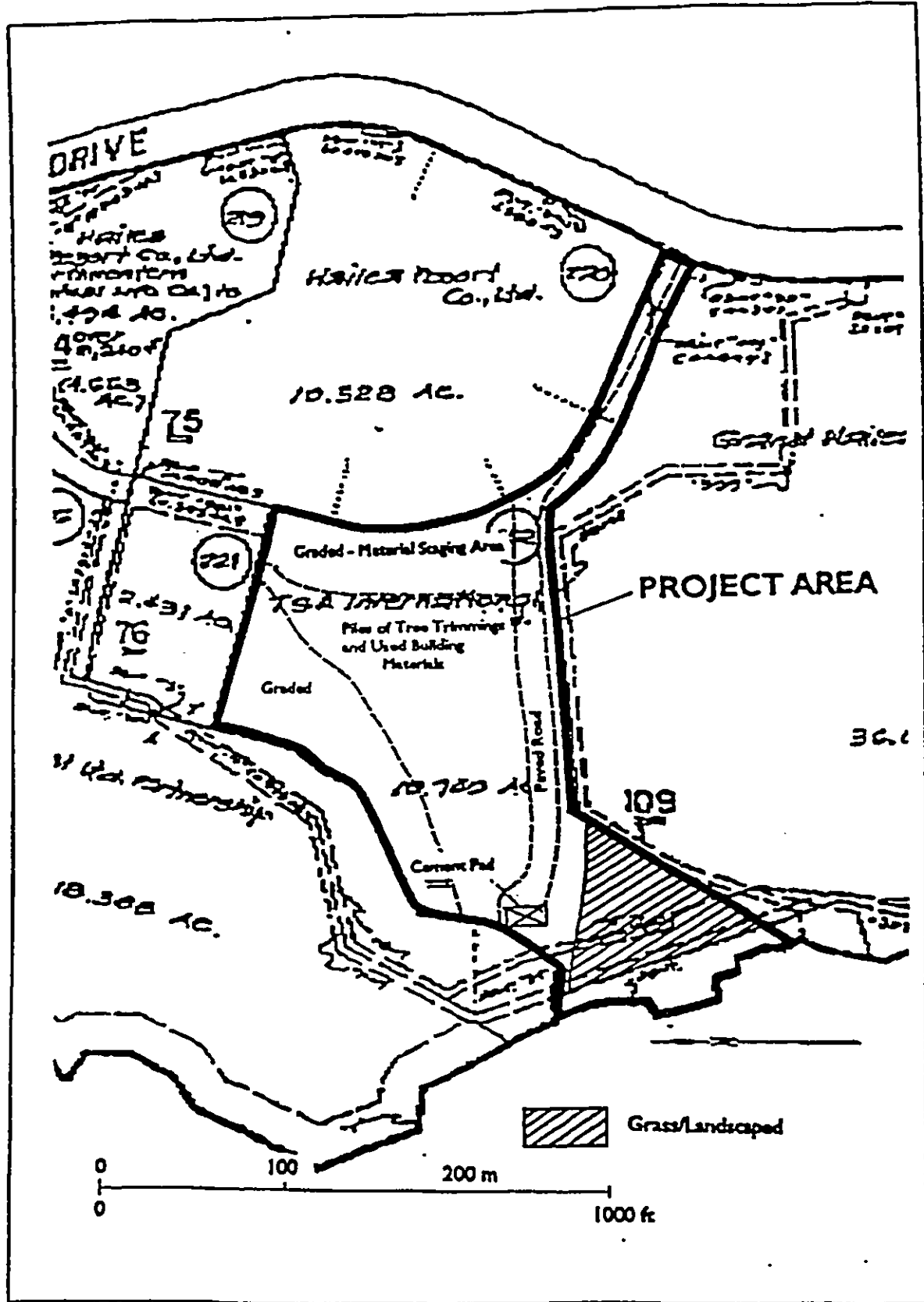


Figure 2. Project Area

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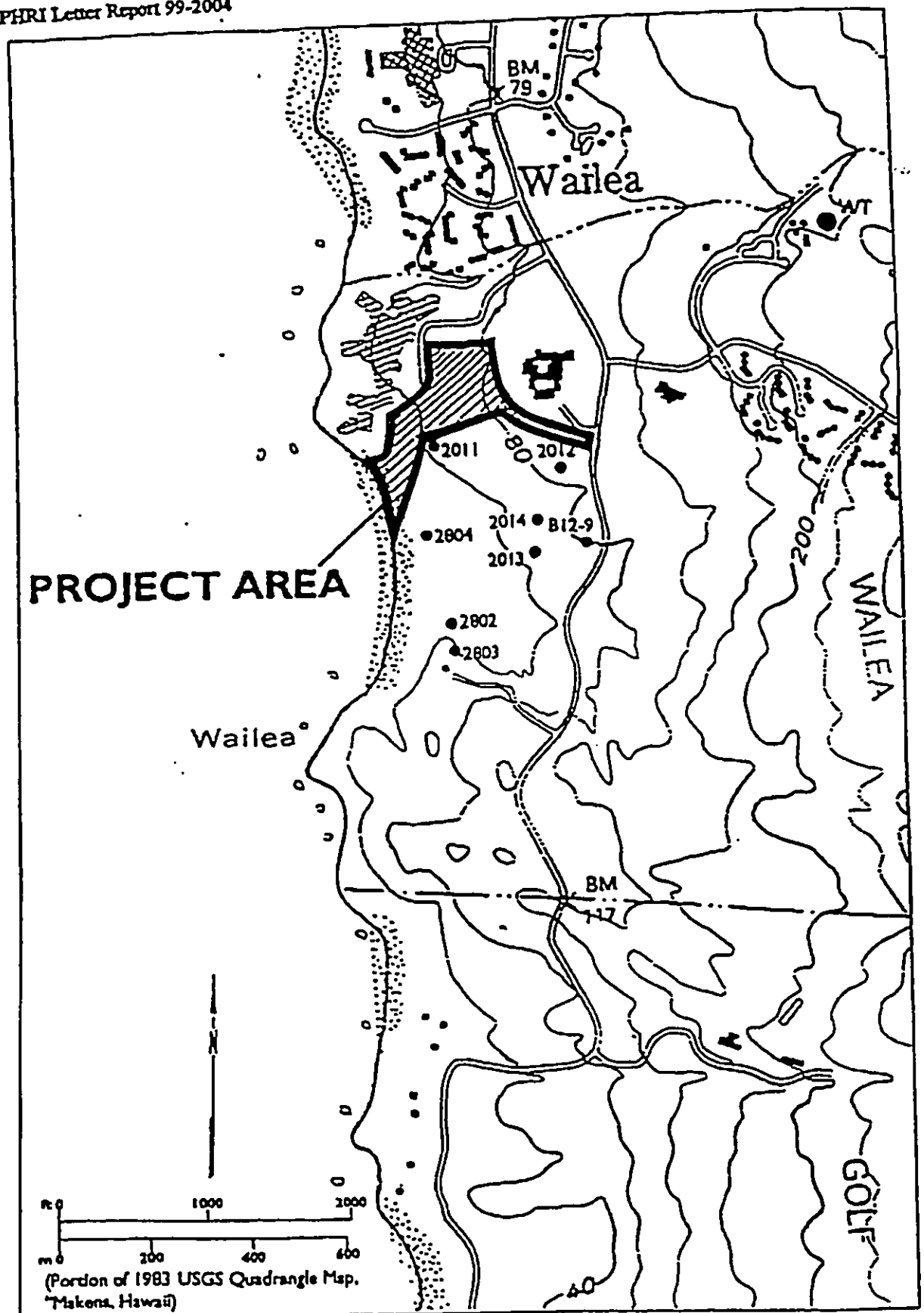


Figure 3. Previously Recorded Site Locations

Appendix E
Archaeological Monitoring Plan

ASC200010-1

**ARCHAEOLOGICAL MONITORING PLAN
FOR THE PROPOSED LA'I HONUA DEVELOPMENT**

**PAEAHU, MAKAWAO, MAUI
(TMK 2-1-008:59 & 91)**

Prepared For:

**Lai Honua LLC
c/o Lokahi Ventures LLC
20 La Ferrera Terrace
San Francisco, CA 94133**

October 2000

**Aki Sinoto Consulting
2333 Kapiolani Blvd., No. 2704
Honolulu, Hawai'i 96826**

INTRODUCTION

At the request of Lai Honua LLC of Kahului; Aki Sinoto Consulting of Honolulu, in association with Archaeological Services Hawaii of Wailuku, proposes to conduct archaeological monitoring during construction of the planned development of a luxury condominium complex located in Wailea, Paehua *ahupua'a*, Makawao District, Maui Island (Fig. 1). The La'i Honua project (TMK 2-1-08:59&91) is located *makai* of the Shops at Wailea complex currently under construction and occupies 10.74 acres situated between the Outrigger and Grand Wailea properties (Fig.2)). Currently the project area is open land vegetated with secondary scrub vegetation growth and exhibits sizeable stockpiles of *imported soil and boulders along with a large accumulation of green waste from landscape maintenance of adjoining properties.*

PREVIOUS ARCHAEOLOGY

During the early 1970s, when regulatory requirements regarding historic preservation were not being actively enforced, no archaeological procedures were conducted during the initial development of the original Wailea Shopping Village complex or the neighboring Outrigger, then Intercontinental, property. Thus, the nature and extent of any primary context findings in these adjoining areas are unknown as are the extent and scope of associated disturbances that may have impacted the current project area.

An archaeological inventory survey was completed in 1987, by Paul H. Rosendahl, Inc. of Hilo, during the planning stages for the existing Grand Wailea, formerly The Grand Hyatt Resort and Spa. This survey, which also included the adjoining current Lai Honua project area, then known as TSA Condominiums, encountered no remains within the TSA parcel. One site, a surface midden scatter (50-80-04-2011) that occurred within the northwestern portion of the Grand Wailea parcel, close to its boundary with the TSA parcel (Fig.3), has mistakenly been identified as being on the subject Lai Honua parcel in some regulatory correspondence. Following the results of subsurface testing, this site was deemed, "no longer significant," and archaeological monitoring was recommended in the event of future development in the vicinity (Spear 1987).

During the ensuing development of the adjacent Grand Wailea property, the subject area was extensively disturbed by clearing, grading, and access roads; following which soil and boulders removed during grading activities at the Grand Wailea were stockpiled in the subject area (Figs. 4 & 5). Currently, a significant quantity of excavated material from the Grand Wailea construction still remains stockpiled within the subject property.

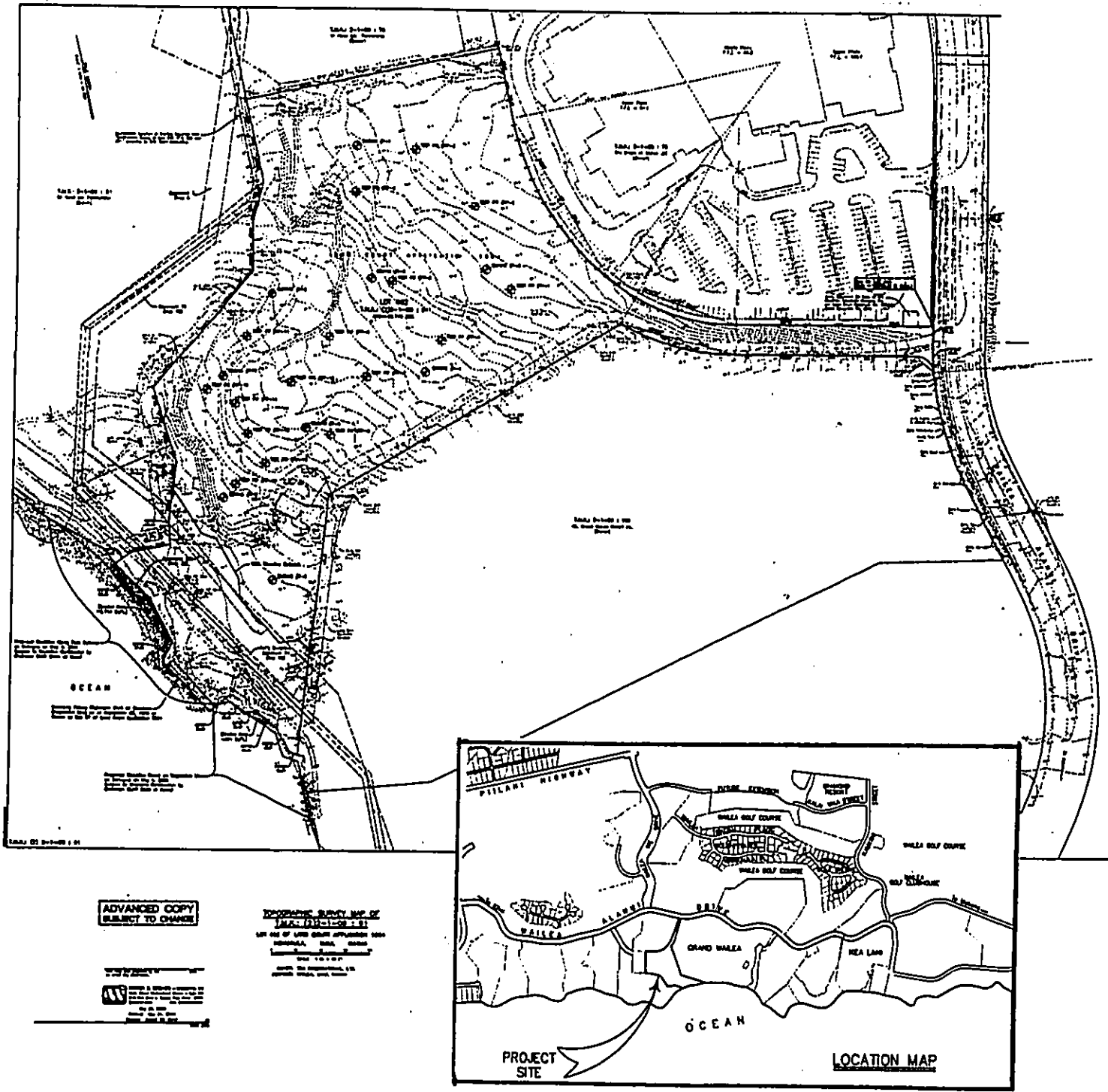


Fig. 2 Topographic Map of The La'i Honua Project Area.

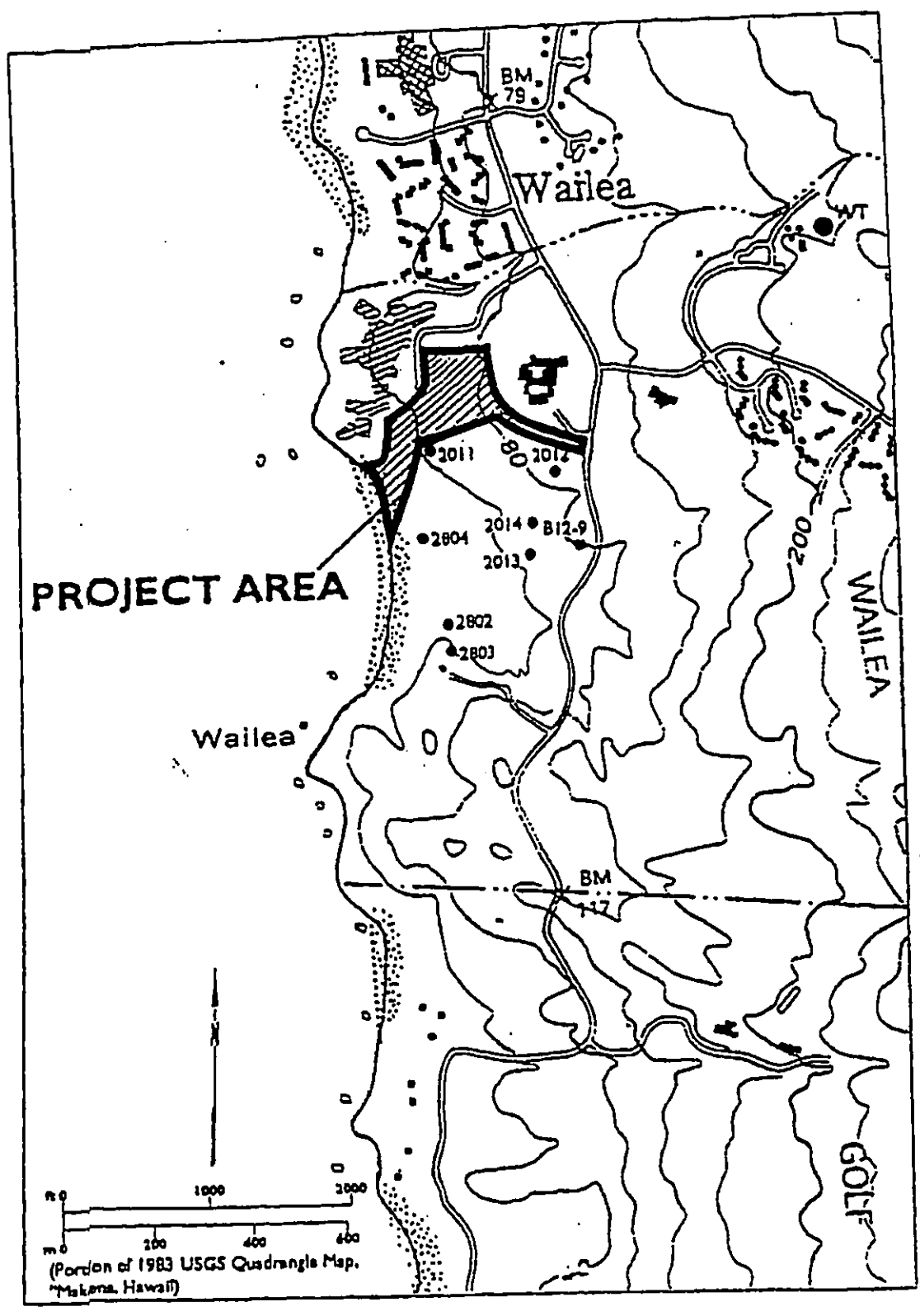


Figure 3. Location of Sites in Adjoining Parcel (after PHRI).

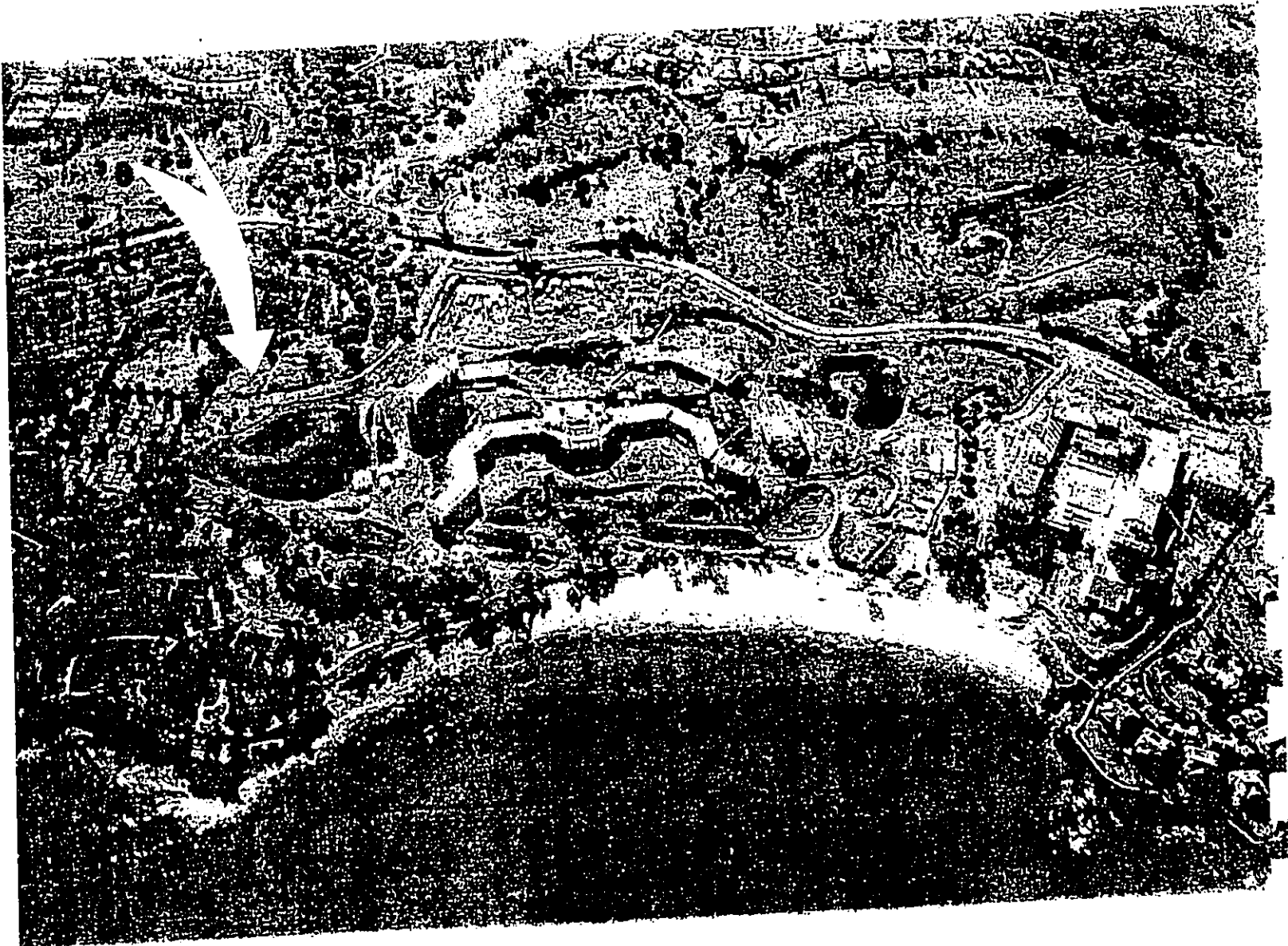


Figure 4. Aerial Photo During Construction of Grand Wailea Showing Subject Area.

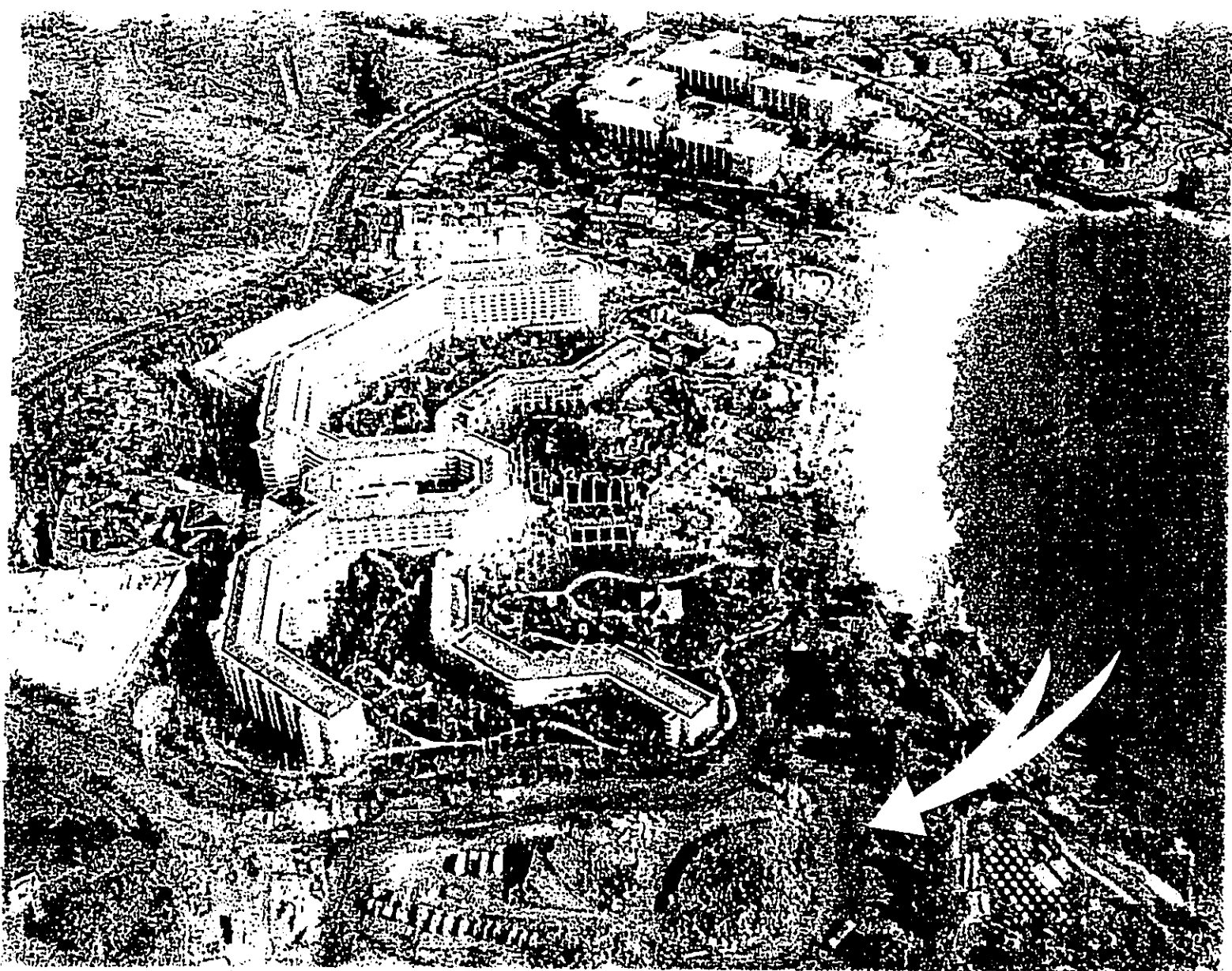


Figure 5. Aerial Photo at Completion of Grand Wailea Showing Subject Area.

During archaeological monitoring of the construction of the Grand Wailea, numerous human burials were encountered in the Grand Wailea property. Along with the *in situ* remains, however, previously disinterred and reinterred comingled remains, estimated to represent more than a hundred individuals, were recovered from several wooden boxes in the Grand Wailea property (Rechtman 1999). The original provenience of the boxed remains are unknown, other than the fact that they were probably associated with one of the adjoining properties that were developed earlier. Some of the remains apparently originated from the County sewage pump station during its construction.

In 1994, during preliminary planning for the renovation and expansion of the existing Wailea Shopping Village commercial complex, an inventory survey was completed by Aki Sinoto Consulting (Pantaleo, Rotunno-Hazuka, and Sinoto; 1994). This study determined that no surface cultural remains were present and subsurface testing was deemed unwarranted due to evidence of compounded, extensive, previous disturbances in the area. Thus, archaeological monitoring during construction-related, ground disturbing activities was recommended. This report was reviewed and approved by the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources.

Archaeological monitoring of the redevelopment of the Shopping Village, now called The Shops at Wailea, took place during 1999 through 2000. No significant archaeological remains were encountered. The monitoring report was recently finalized and will shortly undergo review by the State Historic Preservation Division.

In view of the information summarized above, along with additional data from archaeological investigations that were undertaken in conjunction with the development of other properties in the region; which have only recently become available in report form, such as the Four Seasons, Kea Lani, and Wailea Golf Course; the need for archaeological monitoring during construction becomes quite apparent. A number of traditional Hawaiian burials and other significant remains of past human occupation have been encountered in these areas, not only in the sand dune deposits, but also from pits in the clay-loam substratum.

EXPECTABILITY OF SUBSURFACE REMAINS

A brief surface assessment and the results of previous surveys have indicated extensive previous ground disturbances in the project area with no previously recorded significant archaeological remains in the Lai Honua parcel. However, significant prehistoric Hawaiian remains have been recorded from neighboring properties, consisting of buried

cultural deposits of habitation activities as well as human burials in sand and in pits excavated into the clay-loam substrate. Comparable topographic conditions in a portion of the subject area suggest the potential for similar remains being encountered during grading, excavations, and other construction-related, ground-disturbing activities.

MONITORING PLAN

Prior to commencement of construction and monitoring activities, a coordination meeting shall be held with representatives of all pertinent parties. The procedures to be followed for monitoring, authority of the monitor to halt work in the immediate vicinity of a discovery, and what kinds of features the archaeologist is interested in will be discussed and explained.

The construction plans indicate several phases of work;

- 1) vegetation clearing, grubbing, and removal of existing stockpiles of previously excavated materials and the large quantities of green waste located primarily in the *makai* half of the project area;
- 2) mass grading and excavations; and
- 3) any post-grading excavation work that will extend below the fill, including foundation related work and various infrastructural elements such as electrical, drain/sewer lines, and waterlines.

With the exception of the initial removal of existing stockpiles and green waste which will be monitored on a part-time basis, all ground-disturbing activities will be initially monitored on a full-time basis to establish the extent and nature of previous subsurface disturbance. The resultant data will permit determination of the most appropriate scope of monitoring for specific construction activities or localities; whether full-time, part-time, or on-call during the period slated for grading and excavation work. A Maui resident archaeologist will be assigned, as circumstances allow, to permit flexibility and expedient response time for on-call situations.

Should any significant remains be exposed, construction-related activities in the immediate area shall be temporarily halted until the monitor can record and mitigate the remains or determine if additional procedures are needed. All standard archaeological methods and

practices for recording and collection of data will be followed. A detailed scope of work is attached to this plan. Representative stratigraphic profiles will be regularly recorded and any depositional anomalies will also be noted.

Should any human remains be inadvertently exposed during the course of this undertaking, all construction activities will be halted in the immediate vicinity. If possible without further disturbance to the remains, the determination of the temporal and ethnic origins of the burial will be attempted. Following those procedures, if the remains are determined to be or suspected to be Native Hawaiian, measures will be taken to ensure temporary *in situ* protection of the remains. The SHPD and Burials Program of the Department of Land and Natural Resources will be consulted and a decision will be made in coordination with the Maui and Lana'i Islands Burial Council (MLIBC) regarding *in situ* preservation or removal and reinterment at a selected location. A burial treatment plan will be prepared for approval by SHPD and the MLIBC.

Following the field phase, all necessary laboratory procedures will be undertaken. This may include; the processing, cataloging, and analysis of artifacts; analyses of any collected samples as warranted; and outside consultant analysis of radiocarbon samples. The collected data will be synthesized and compiled into a final report. All records, notes, photographs, and maps will be archived at Aki Sinoto Consulting. The final disposition of artifactual and sample materials will be determined in coordination with SHPD and the landowner.

References

- Geolabs
2000 Boring Logs from Fieldwork Done on August 10-11, 2000.
- Pantaleo, Jeffrey, Lisa Rotunno-Hazuka, and Aki Sinoto
1994 *Archaeological Inventory Survey of the Wailea Shopping Village Expansion Area, Paeahu, Makawao, Maui Island*. Manuscript Report Prepared for the Wailea Resort Company. Aki Sinoto Consulting, Honolulu.
- Rechtman, Robert
1999 *Archaeological Monitoring at Development Parcel A/B, Wailea Resort Property, Land of Paeahu, Makawao District, Island of Maui*. Prepared for TSA International, Ltd. Report 1302-041599. PHRI. Hilo.
- Spear, Robert L.
1987 *Intensive Archaeological Survey and Testing, Development Parcels A/B and C, Wailea Resort, Land of Paeahu, Makawao District, Island of Maui*. Prepared

**SCOPE OF WORK
FOR
ARCHAEOLOGICAL MONITORING SERVICES**

The archaeological procedures will involve full or part-time monitoring, as the situation dictates, during any construction related excavation activities. If any archaeological remains are encountered, one of two alternative mitigation procedures will be implemented contingent on our monitor's evaluation of the find as defined below:

A) "Minor" find - small in extent or marginal significance, the monitoring archaeologist can perform the mitigation procedures within the normal 8-hour day without additional assistance and without detracting from the monitoring responsibilities.

B) "Major" find - large in extent or evaluated as significant, including burials, requiring additional personnel to be brought in for data recovery while the monitor continues observing further excavation.

The fieldwork will entail:

1) Basic Services

- a) monitoring of excavation or ground altering activities
 - i) in situ observation of activities in previously undisturbed areas
 - ii) on-call or part-time status during activities in known previously disturbed or filled areas
- b) mitigation procedures for minor finds
 - i) recordation: subsurface profile, locational mapping, verbal description, in situ photography
 - ii) preservation: avoidance
 - iii) data recovery: manual excavation and collection
- c) maintaining appropriate coordination with State Historic Preservation Division, Department of Land and Natural Resources

2) Optional Services

- a) intensive data recovery procedures by additional personnel
 - i) recordation/recovery
 - ii) possible expansion of excavation beyond construction-related excavation boundaries
 - iii) burial recovery

3) Field Check

- a) Supervisory Archaeologist will perform field checks during the course of monitoring or data recovery procedures
- b) on-site briefings should be planned to include all of the involved parties

The post-field laboratory work and report preparation will entail:

1) Basic Services/Optional Services

- a) preparation/submission of preliminary letter report briefly discussing the field procedures and results
- b) preparation of a lump-sum budget based on the results of fieldwork, number and volume of recovered materials

2) Post-field Negotiated Lump Sum Portion

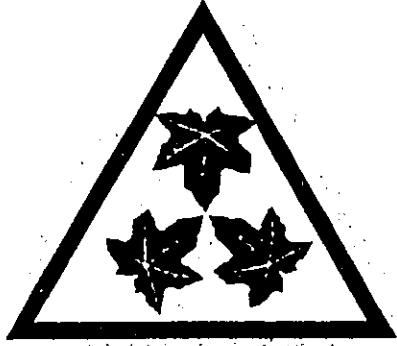
- a) processing, sorting, cataloguing, and analyzing of all recovered materials
- b) radiocarbon and other outside consultant analyses
- c) osteological analyses as required
- d) synthesis of data and preparation of report
- e) peer review and revisions
- f) final editing and report production
- g) client/agency review
- h) submission of final report

Client will be responsible for:

- 1) providing maps, plans, and other relevant available documentation,
- 2) coordinating scheduling and operational procedures between archaeologist and construction contractor, and
- 3) obtaining all necessary permits, and implementing proper procedures if any human burials are encountered.

Appendix F
Cultural Impact Assessment

Kapiioho Lyons Naone Cultural Consulting



October 30, 2000

Mr. Michael W. Wright
On behalf of Owner, La`i Honua LLC
Michael Wright & Associates, Inc.
P. O. Box 330784
Kahului, HI 96733

Re: La`i Honua Cultural Impact Assessment (Job No. 2000/028)

Dear Mr. Wright and Owner, La`i Honua LLC:

Thank you for the opportunity to perform a cultural impact assessment on the proposed La`i Honua project. Kapiioho Lyons Naone Cultural Consulting is pleased that you chose our organization for your project. Enclosed you will find an original and one copy of our La`i Honua Cultural Impact Assessment Report.

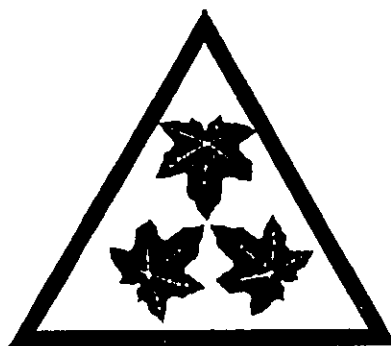
Respectfully yours,

A handwritten signature in black ink, appearing to be 'K. Lyons', written over a horizontal line.

Kapiioho Lyons Naone III
Cultural Consultant

cc: Chris Hart & Partners

Kapiioho Lyons Naone Cultural Consulting



**La`i Honua, Wailea Project
Cultural Impact Assessment**

*Completed October 30, 2000
Wailuku, Hawaii*

Lead Assessment Cultural Consultant: Kapi` ioho Lyons Naone III

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Cultural Impact Assessment Methodology

Methods

The methods used to conduct the assessment of the proposed La`i Honua project included: walking and feeling the entire property for the proposed La`i Honua project; conducting research of reports formerly completed about the La`i Honua area; reviewing archaeological reports; interviewing former residents of the greater Paeahu Auhpua`a area as well as cultural fishermen; and consulting with others familiar with modern construction and dumping in the area. Our in-house lead cultural consultant is a cultural practitioner and former fisherman of this very area.

Our cultural consultant conducted a house to house survey of individuals around the area, talked to long-time residents within the Makena area, and informally interviewed fishermen of nearby undeveloped areas. None wanted to give testimony or be quoted in this report. The land has long been "out of bounds" because of constant scrutiny by Wailea security, the long use as a luau grounds for the Grand Wailea Resort (formerly Grand Hyatt) and/or staging area for various construction projects. All felt that the shoreline salt bowls and subsistence gathering and fishing were likely to continue to be available and those things were their only concern about the property. No one contacted could provide further information than is included in this report and all wished to remain anonymous.

Research

Among other reports, Kapiioho consulted "PHRI Letter Report 99-2004." That report was authored by Paul H. Rosendahl, Ph.D. We believe ethnographic issues were adequately addressed in previous archaeological reports. Mr. Naone also consulted records of the La`i Honua area provided by Chris Hart & Partners and Rob Hoonan of the Grand Wailea Resort. A complete bibliography is included in this report.

Cultural Sites, Practices & Beliefs

Based on extensive field visits and reviews of archaeological reports, there are no current, existing visible cultural sites or practices on this La`i Honua project property inland of the concrete walkway near the ocean that stretches through this property and throughout Wailea. Makai of the walkway, there is evidence of ancient salt ponds/salt bowls; recreational use; and subsistence gathering and fishing for food such as limu, sea urchins (opihi, pipipi, and ahukihuki) and black crab (a`ama). The indications are that this entire area was once an ancient fishing village and an area of light farming.



Photo 1: Concrete walkway, military bunker, and modern plantings in the La`i Honua area

The existence of a ku`ula (fishing shrine) on the adjacent Outrigger Hotel property and the salt ponds are currently existing evidence that supports the shoreline uses already cited.

Cultural Expertise

Based on our expert's cultural expertise, beliefs, field survey, personal observations and experience, and his own cultural practices in this area over the past several years, it is difficult to tell what practices were conducted inland because of the present day (past 20 years) use of the land (covered or damaged). It is possible to tell that shoreline areas were used for the salt ponds/bowls; recreational use; and subsistence gathering and fishing for food such as limu, sea urchins, and black crab. Our lead cultural assessment expert is Kapiioho Lyons Naone III, a native Hawaiian who was born and raised in Kipahulu and other areas of Maui. Kapi`ioho has been teaching cultural traditions and language in Maui and internationally for several years. This author is familiar with cultural practices and features throughout the Hawaiian Islands and was a cultural fisherman of this general area for many years.

Confidential Information & Conflicts

No documentation is being presented separately from this report. All information is publicly available and/or was shared freely and willingly provided it was anonymous.

P.O. Box 814, Wailuku (Maui), HI 96793 Phone: 808-871-7555; Fax: 808-893-0521

There are no known conflicts or unresolved issues regarding this assessment.

Isolation

As long as the existing concrete walkways near the ocean are preserved and maintained, the steps down to the ocean are preserved and maintained, salt bowls are preserved and existing public accesses remain open, there will be no isolation regarding cultural resources, practices and beliefs. Effective archaeological monitoring of excavation and grading will prevent any cultural belief problems regarding any possible bones or cultural features that may be discovered during excavation and grading.

Constraints

There were really no constraints.

While modern use that has occurred on the land for the past 20 or more years which is described in more detail later in this report could be construed as a constraint, the reports that exist clearly show the grading, dumping, luau use, etc. and all of that documentation supports interviews saying no cultural practices have been taking place on the La`i Honua site for at least 20 years.

Effective archaeological monitoring during excavation and grading will mitigate any human remains or cultural features issues for this property.

Location of Proposed La`i Honua Project

The 10.74 acre La`i Honua project area lies between the Grand Wailea Resort and the Wailea Outrigger Hotel. It is directly makai of the Shops at Wailea construction project which is reaching completion. This property is located in the larger Paeehu Ahupua`a, Makawao District, Island of Maui (TMK:[2]2-1-8:091) according to the Letter Report of Paul H. Rosendahl, Ph.D. and other related maps.



Photo 2: Outrigger Hotel adjoining north property



Photo 3: Grand Wailea Resort adjoining south property

Site Review Results

Description of Modern/Current Activity: The inland surface area of the proposed La`i Honua project area has been used and abused as a dumping ground for waste such as tree cuttings and building materials. Piles of palm fronds, cement, and asphalt have been deposited on the parcel. The area was once landscaped for use as luau grounds by the former owners of Grand Wailea Resort and there is much firecracker residue still in evidence. PHRI reported that the northern portion of the study area appeared to have been graded in the past and that the eastern portion of the area has also been graded and used as a staging area for construction equipment and materials for the Wailea Shops project. Some of that ground disturbance is apparent.



Photo 4: Firecracker residue on inland La`i Honua property

Description of Ancient Shoreline Practices: From a cultural practices and beliefs perspective, it appears that the proposed La`i Honua project general area was an ancient fishing village and light farming area with significant subsistence gathering and fishing area for food such as seaweed (limu), sea urchins (opihi, pipipi, and ahukihuki), and black crab (a`ama). There is also evidence that that area has natural features for the gathering and production of Hawaiian salt (salt beds or salt bowls).



Photo 5: Salt bed/bowl

The sandy area also appears to have been a launching area for fishing canoes and recreational activities. The property was used extensively in ancient times (until the modern development of the Wailea area). The fish, sea urchins, and seaweed are no longer abundant in the area due to military activity, changing life styles, and tourist activity. As a result of these changes, the cultural practices have diminished greatly, but have not been completely abandoned. The area is no longer used extensively for subsistence gathering. It is used more as a tourist recreation area now. There are at least two modern features within the shoreline rock formations. Those features consist of plastic pipes cemented into the rocks indicating the use of modern ulua pole fishing. However, these features are partially destroyed indicating little or no use for several years. Cultural practices today are mainly makai of the concrete walkway that is already present throughout Wailea and within the shoreline setback area. This area will not be impacted by the proposed La`i Honua development. There are no apparent signs of cultural practices or gatherings currently taking place on the proposed project property that is mauka of the concrete walkway. The plants growing on the property are not native nor are they medicinal and therefore need not be preserved.



Photo 6: Plastic pipe to hold fishing pole embedded in cement

A ku`ula (sacred fishing shrine) rock exists on the adjacent Outrigger Resort property which indicates abundant fishing.

Recommendation and Observations: The salt beds should be preserved. Though the area is not as abundant as in the past, the La`i Honua project should expect subsistence gathering and fishing in the area. This should not impact the project negatively.

There is evidence that human remains were found on the adjacent property during construction of the Grand Wailea Resort between October 1987 and August 1991. For this reason and because there is archaeological evidence that there was residential native Hawaiian activity on this site, on-site monitoring of the project during construction is strongly recommended.

Access to Shoreline Areas: There is no evidence that this La`i Honua proposed project area has been used as a primary access route to the shoreline area for the gathering activities in the past. It is not being used as a major beach access area from Wailea Alanui Drive in the present. Present access areas are conveniently located nearby. Just .4 miles south of the property is Wailea Beach park which has adequate parking and restroom facilities and .5 miles north of the property are Ulua Beach and Makapu Beach with adequate restrooms and parking. All three beaches are open to the public between the hours of 7:00 a.m. and 7:00 p.m. daily and have easy access to the

shoreline area of this parcel via concrete walkways. The concrete walkways extend along the shoreline throughout the entire Wailea area.

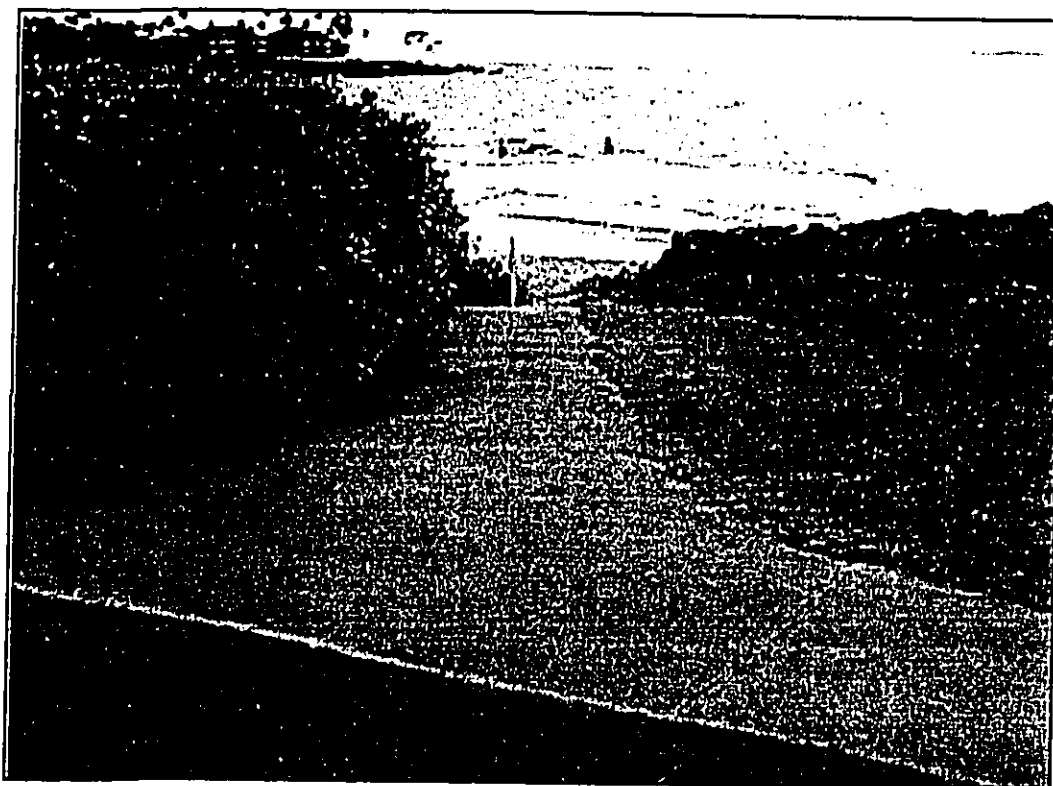


Photo 7: Public walkway and steps to beach

In the shoreline area of this La`i Honua property on the makai side of the concrete walkway is a military bunker which has been long abandoned and filled with rocks.



Photo 8: Makai view of military bunker

Luau Grounds Area: Just inland of the shoreline area and concrete walkway is a landscaped area of grass formerly used as luau party grounds. A pit used as a modern imu was not a part of any ancient feature and need not be preserved. The trees and foliage in the area are not natural to the area and were brought in to beautify and landscape the luau grounds. They are not the original la`au (medicinal plants) or food used in traditional practices of this area. Mauka of the landscaped area extending to the easternmost border is unimproved and undeveloped land. This land is being used primarily as a "holding" or "staging" area and as a dump for tree cuttings and building materials. Previous records indicate that it was a major holding area for excess construction materials (e.g., dirt and rock fill) during the construction of the Grand Wailea Resort. Because it was so used during the building of the Grand Wailea Resort, some of the material may yet be covering the natural ground and/or any possible features that naturally existed may have been destroyed or covered. Archaeological monitoring will be required.

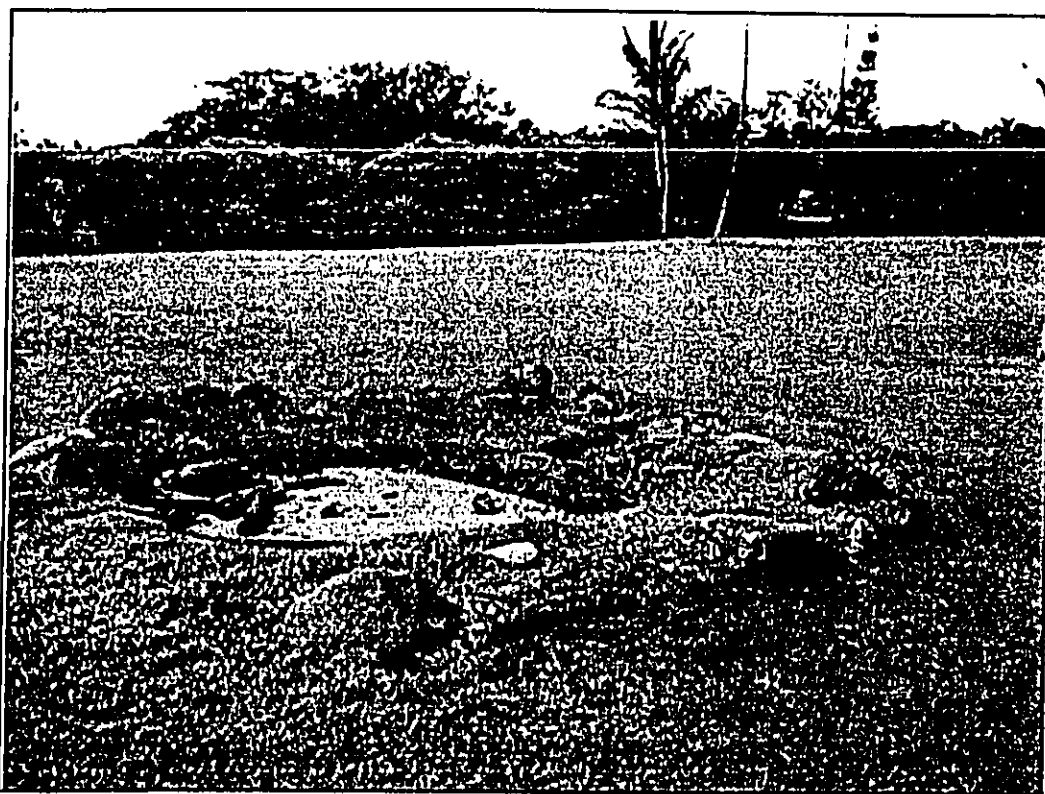


Photo 9: Modern imu and plantings from luau landscaping

Extensive archaeological survey and test excavations between September 15-20, 1986 by Paul H. Rosendahl, Ph.D. was done on site number 2011. This site is located on the Grand Wailea property and appears to be the closest archaeological feature to the proposed La`i Honua project. This site was considered to have received sufficient data collection to mitigate any future impacts that would be caused by this development. No other findings have been discovered or recorded on this parcel. However, we believe that during grading and excavation, archaeological monitoring is necessary.

Analysis/Recommendations

1. The salt ponds and bowls should be preserved and some type of interpretive marking should be considered to maintain the respect and sensitivity of the practices, to help educate, and to ensure preservation.
2. We agree that an archaeologist should be on site to monitor all grading and excavation activities during construction and an archaeological monitoring plan should be prepared as recommended by Don Hibbard of the State Historical Preservation Division. This plan should include appropriate reinterment plans should any human remains be discovered.

3. Existing cement walkways should be preserved or improved and maintained to ensure easy access for shoreline subsistence gathering and fishing as well as recreation.
4. The current plantings around the former luau ground need not be preserved (discretion of the developer).
5. The existing imu is not an ancient Hawaiian feature and is a modern creation. It, therefore, needs not be preserved (discretion of the developer).
6. An appropriate Hawaiian blessing should be conducted at groundbreaking and at completion of the project, in conformance with ancient practices that bring respect to the land and the ancestor spirits of the land.
7. Activities such as fireworks displays and any other activities that may be degrading to the sacredness of the place should be prohibited. There is existing evidence (see photo of fireworks debris in this report) that the places has been used for fireworks displays, probably during luau activities. At this writer's suggestion, the Grand Wailea Resort has volunteered to clean up existing fireworks debris.
8. Hawaiian attitudes have strongly shifted from just the preservation of artifacts to preserving all known ancient features for the purpose of continued learning. Previous developments have recently experienced delays based on these attitudes. This should be a consideration in the finding and care of any artifacts or features that may be found.

Bibliography

La`i Honua Monitoring Report

Curriculum Vitae of Kapi`ioho Lyons Naone III, Lead Cultural Assessment Consultant for Kapi`ioho Lyons Naone Cultural Consulting

PHRI Letter (Archaeological) Report 99-2004, dated October 25, 1999, Paul H. Rosendahl, Ph.D., Inc.

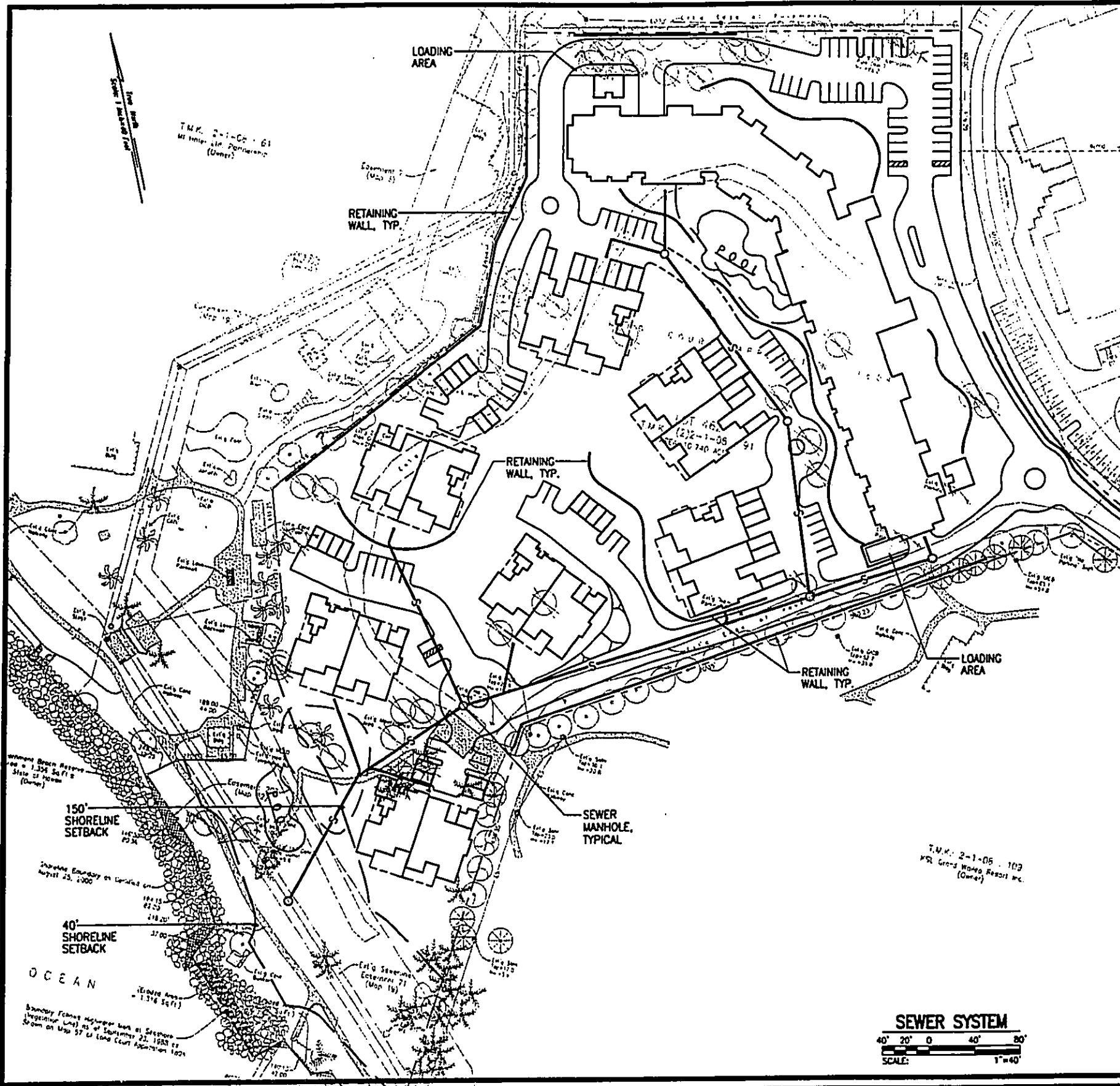
Memorandum from Don Hibbard, Director, Historic Preservation Program, to Roger C. Evans, OCEA, dated March 6, 1990

Maui Planning Director's Report, Docket No. 89/SM1-037 and 89/PD-005 dated November 21, 1989

Summary and Excerpts from Grand Hyatt Archaeological Report 8187

Project Area Location Maps from 1983 USGS Quadrangle Map, "Makena, Hawaii"

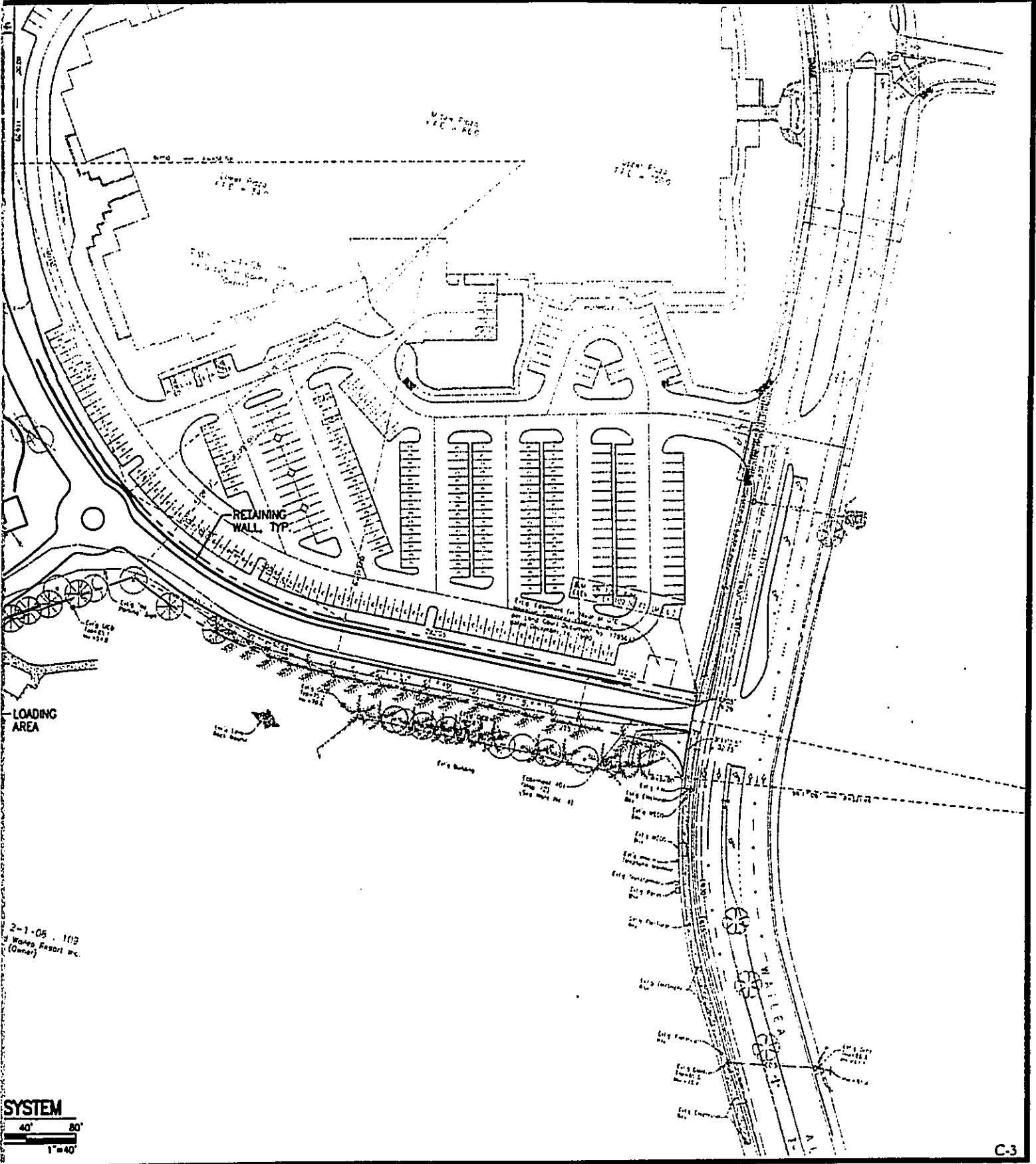
Appendix G
Draft Civil Engineering Plans



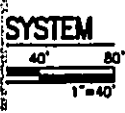
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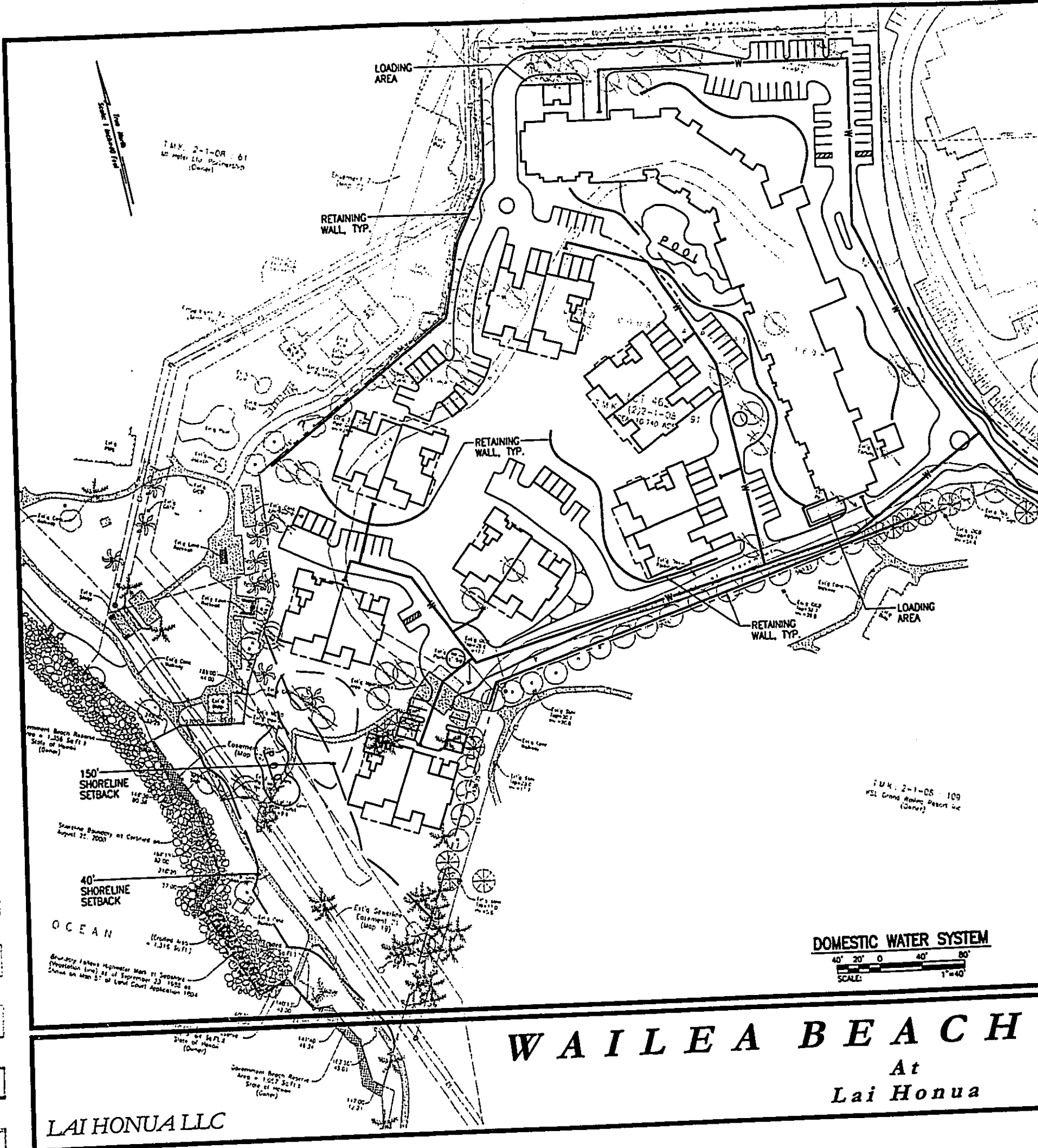
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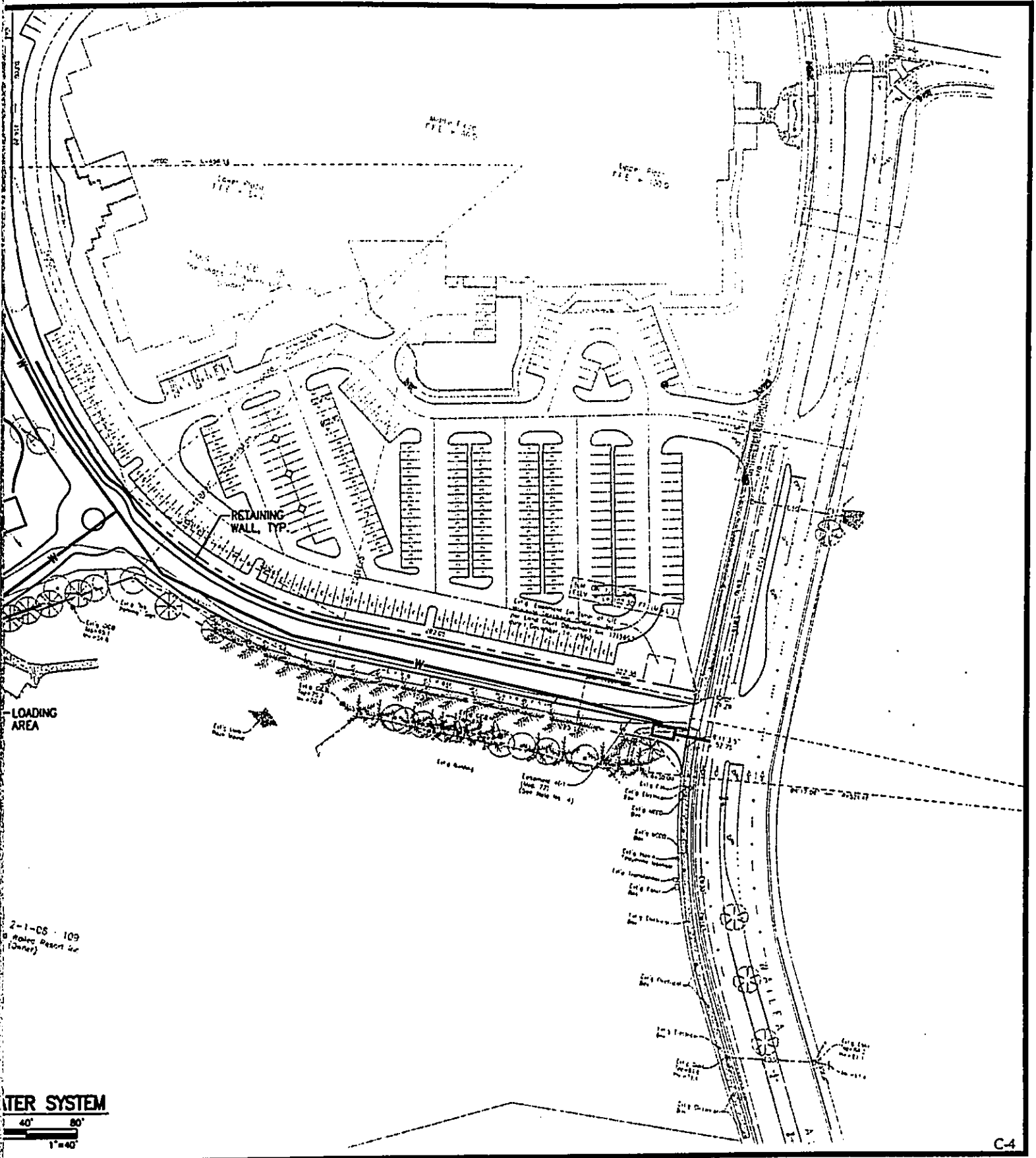
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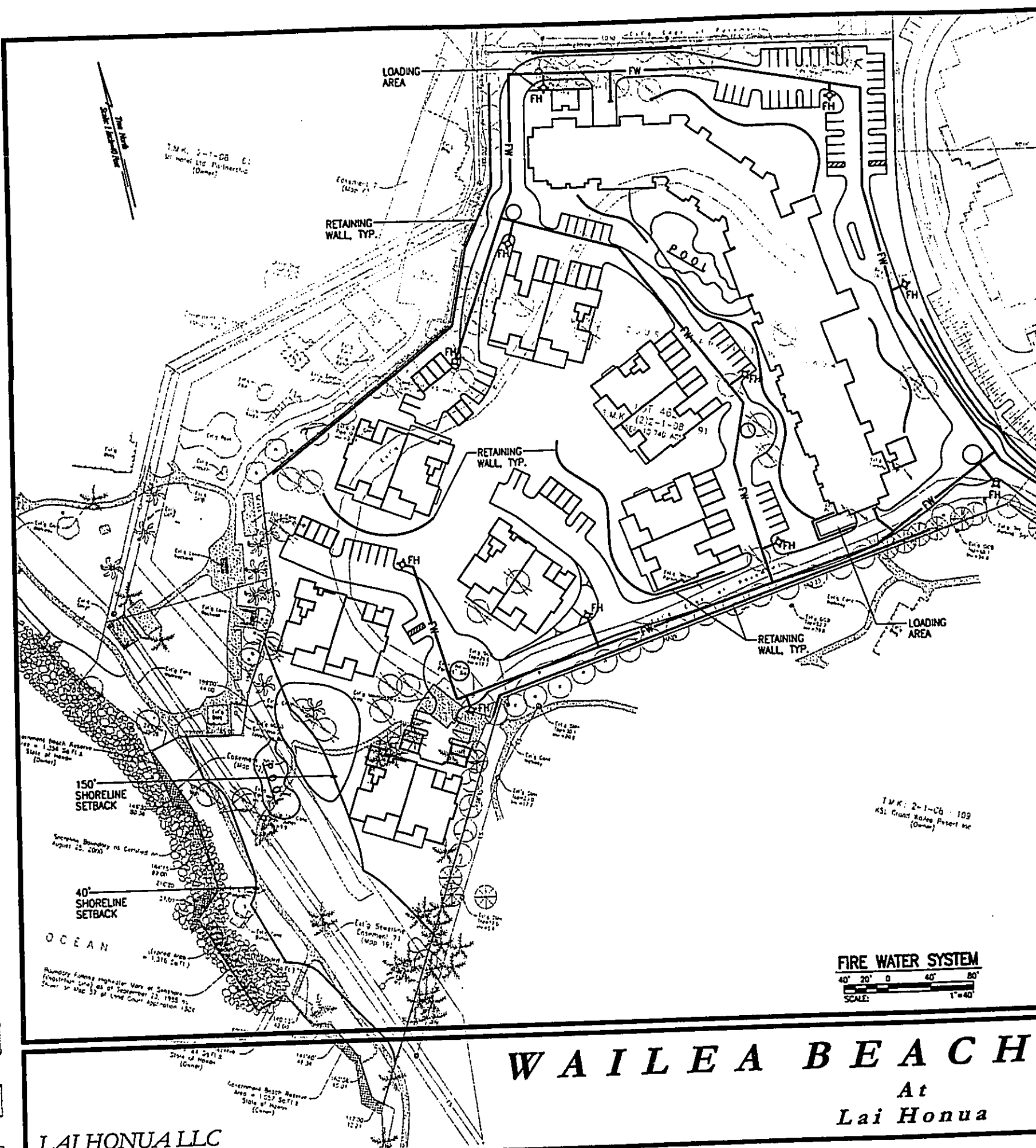
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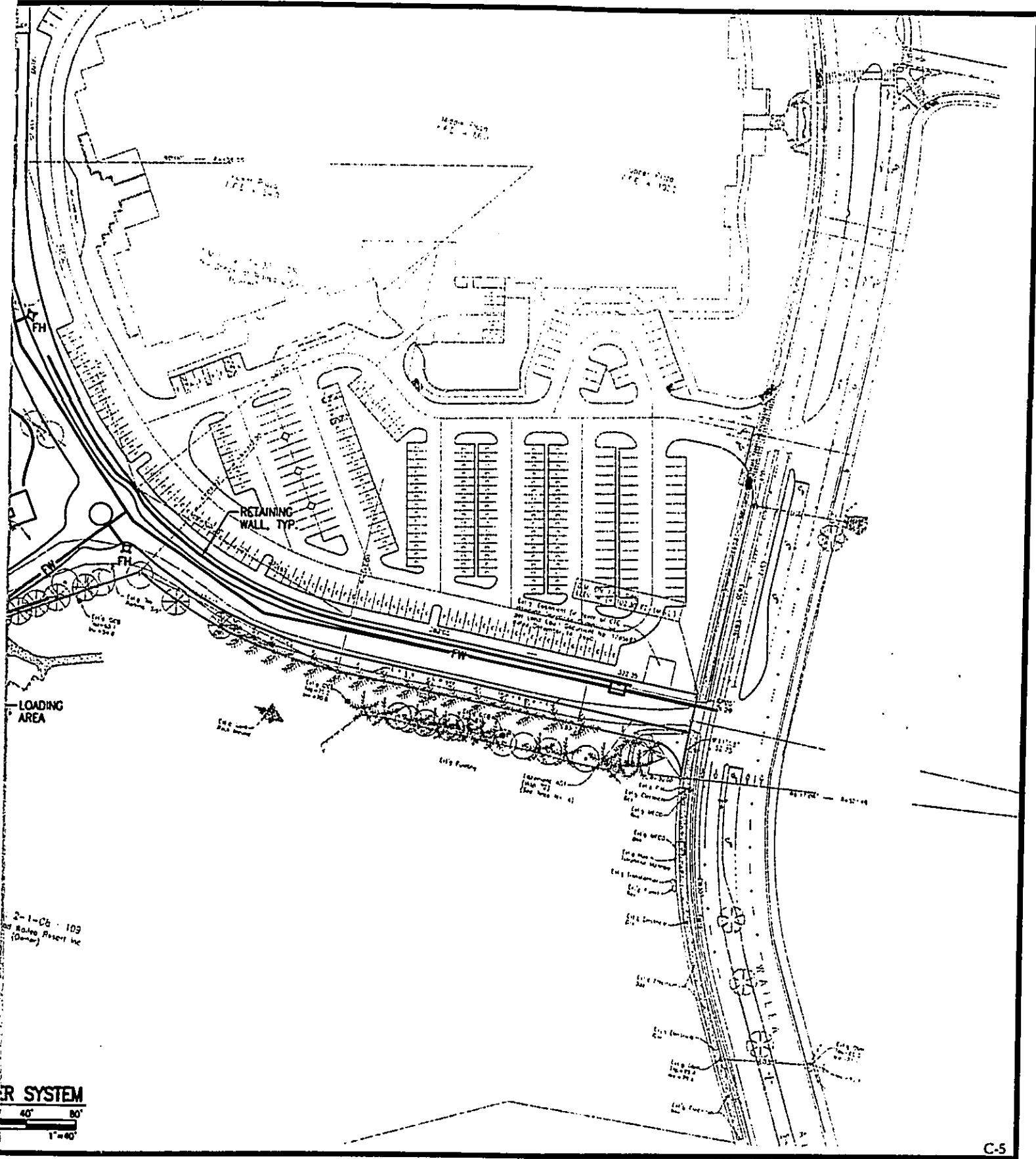
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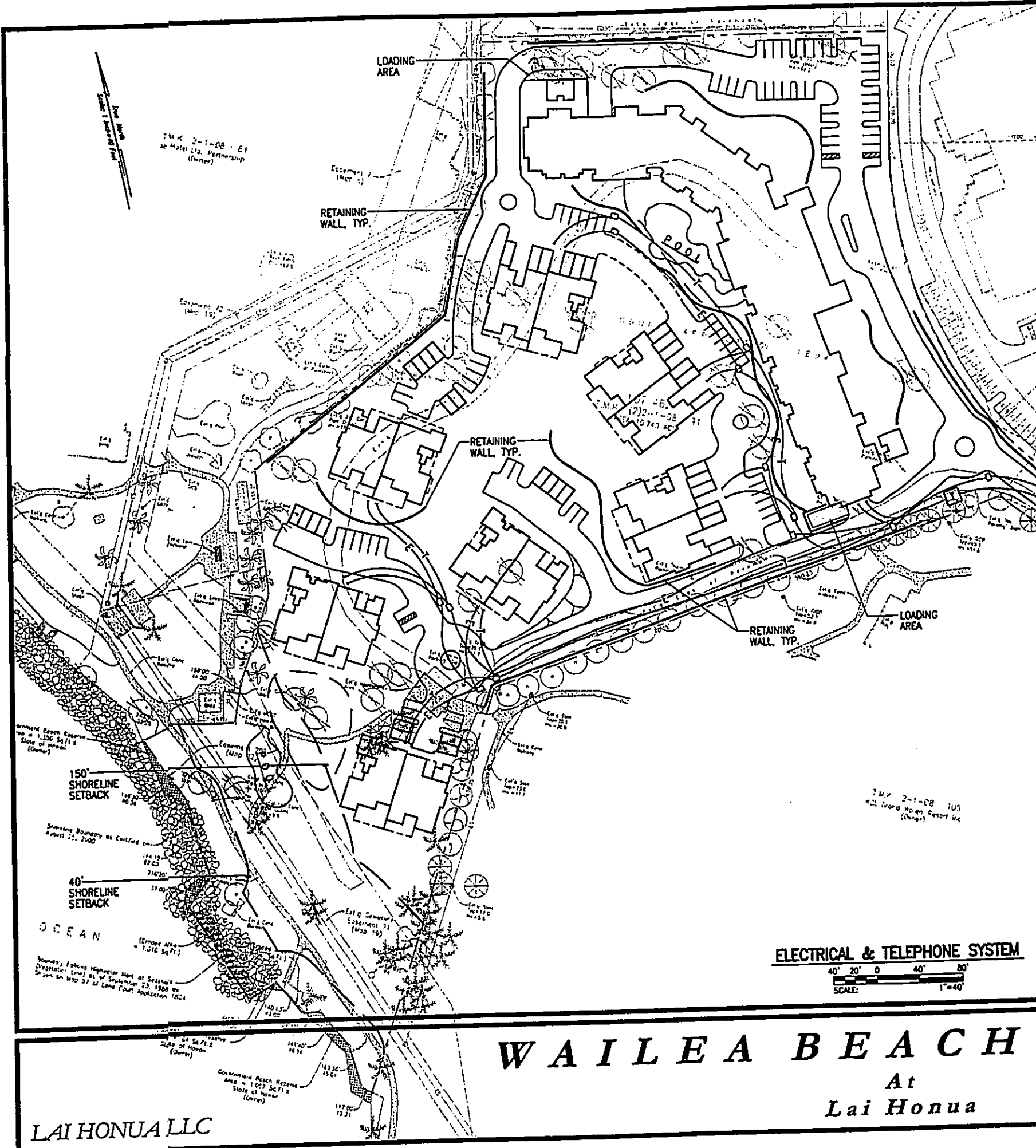
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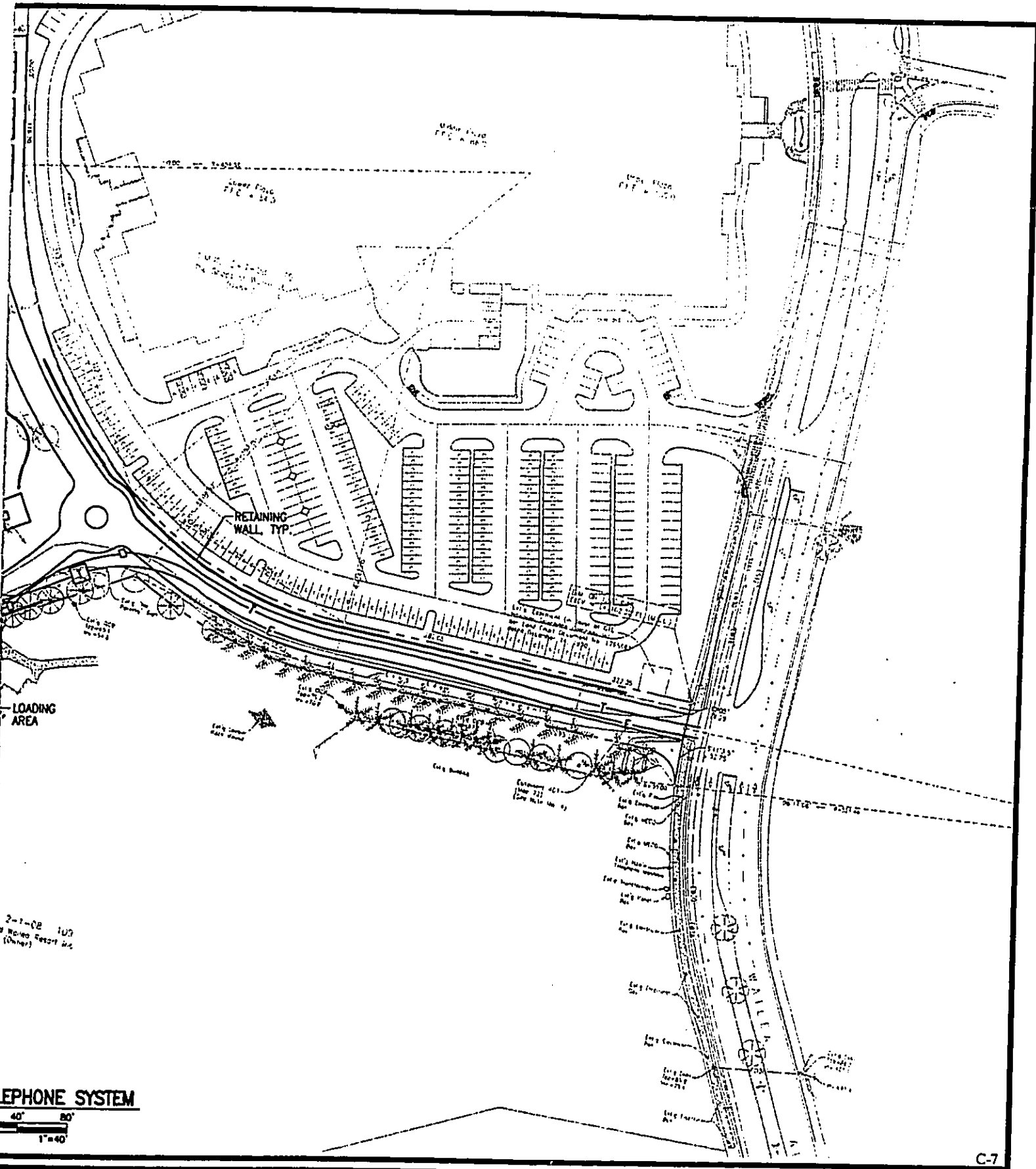
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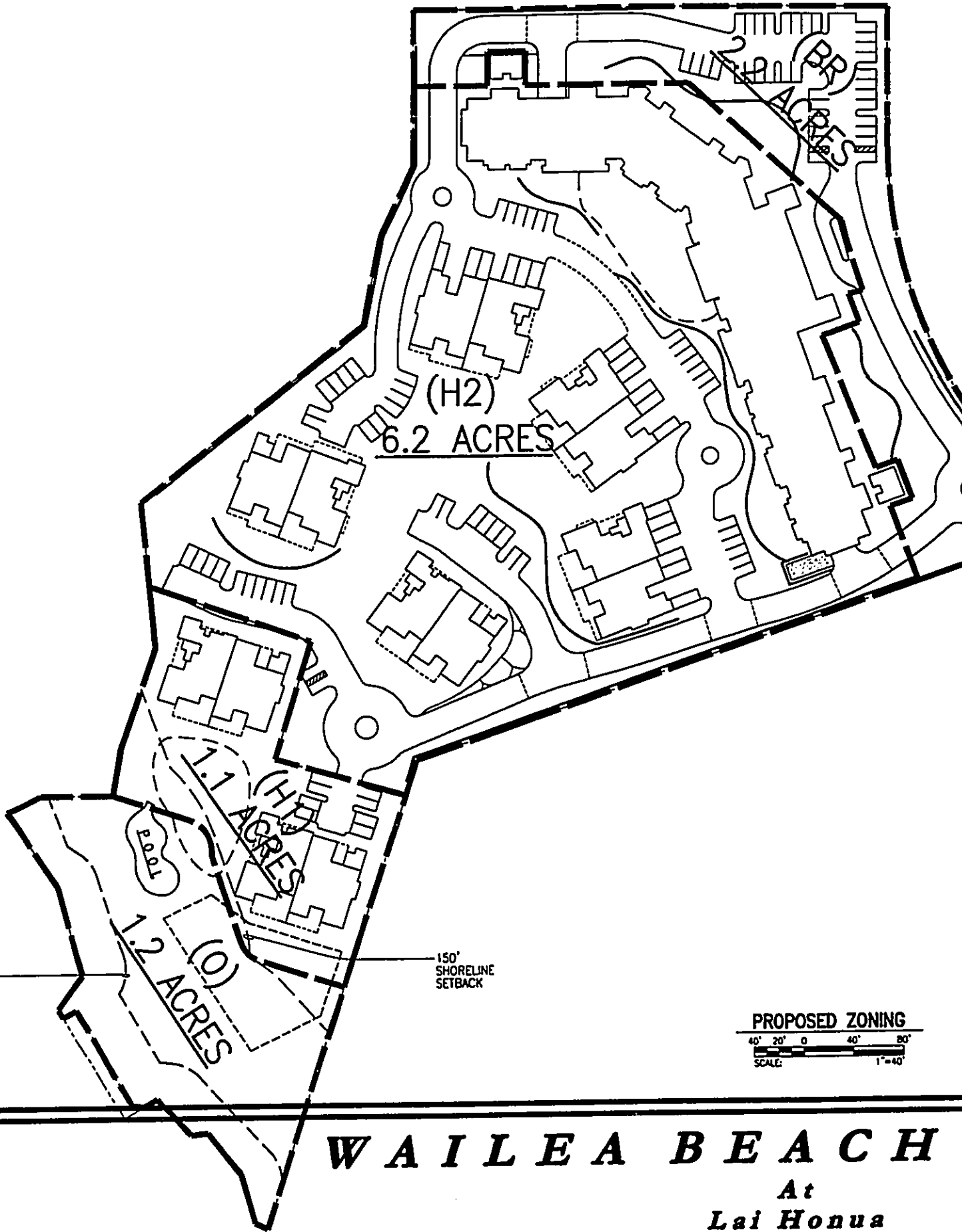
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Proposed Zoning

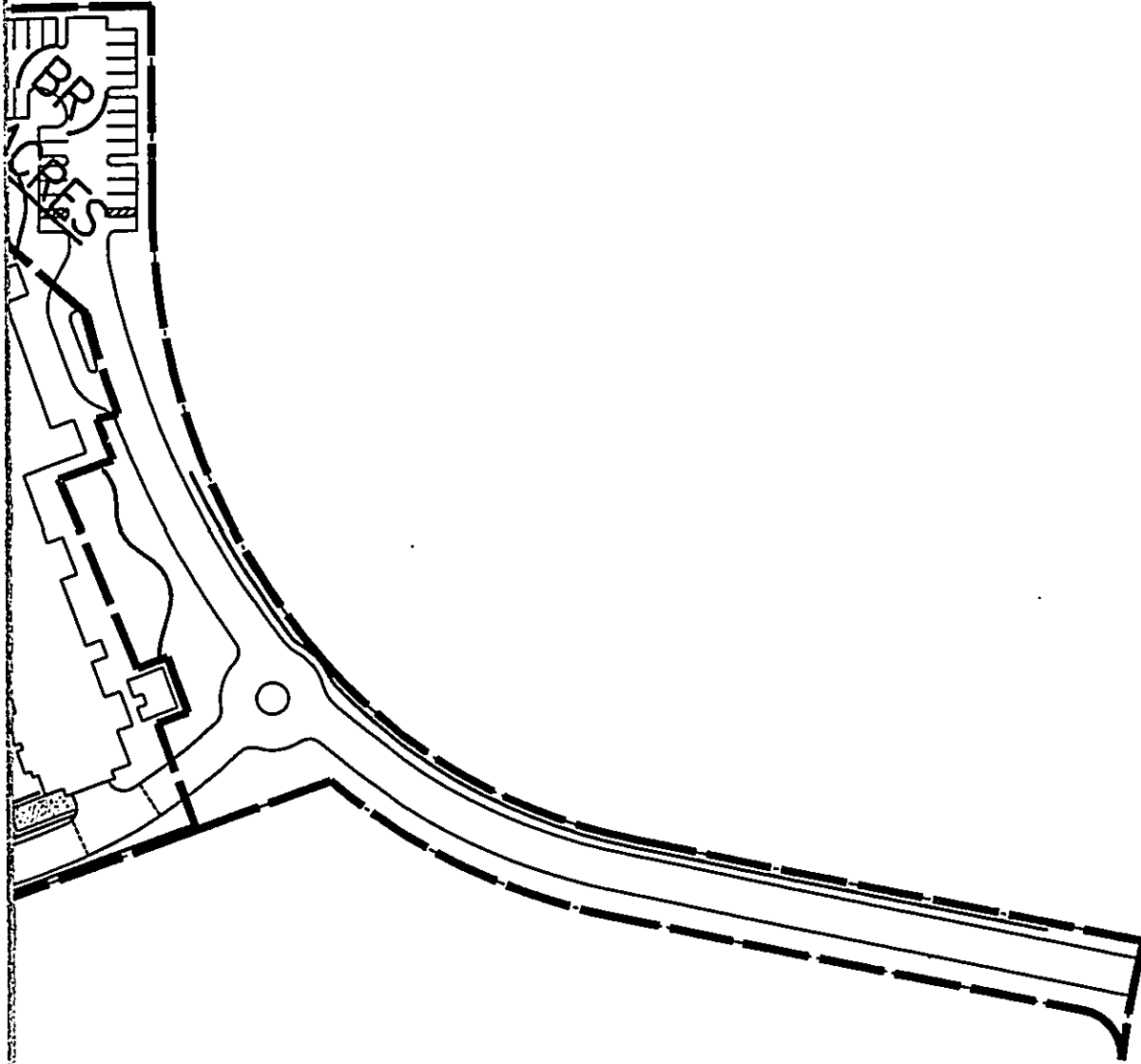


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SCALE: 1"=40'

LAI HONU A LLC

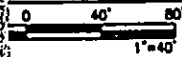
W A I L E A B E A C H

At
Lai Honua



ZONE	AREA
BR	2.2 ACRES
H1	11 ACRES
H2	6.2 ACRES
O	12 ACRES
TOTAL	10.7 ACRES

PROPOSED ZONING



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Appendix H
UH Coastal Erosion Study, North Wailea Exhibits