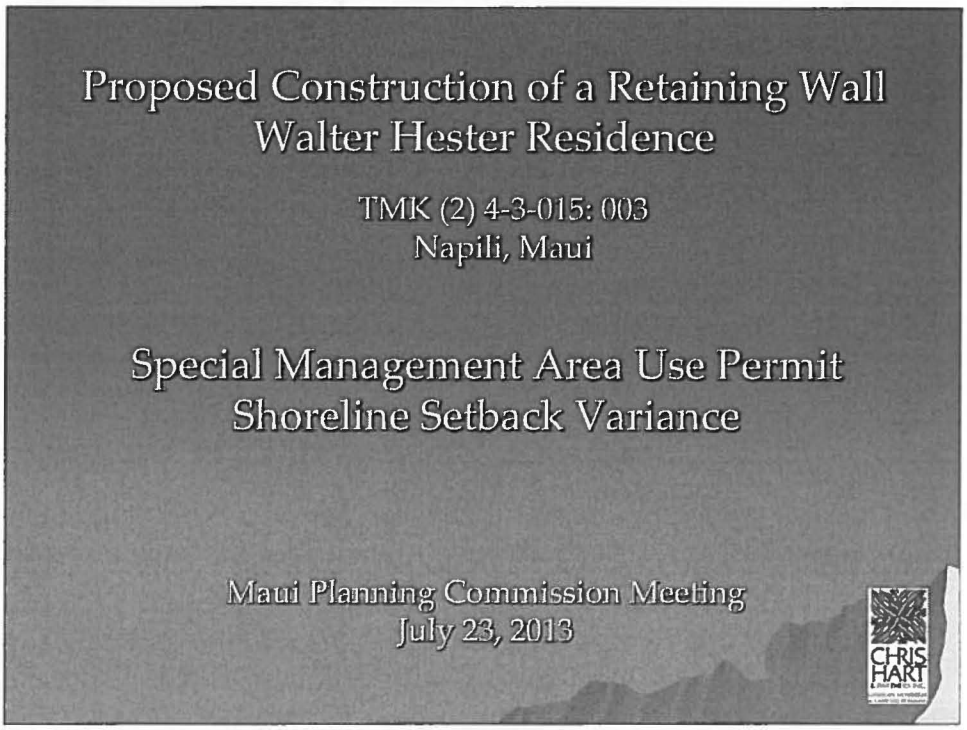
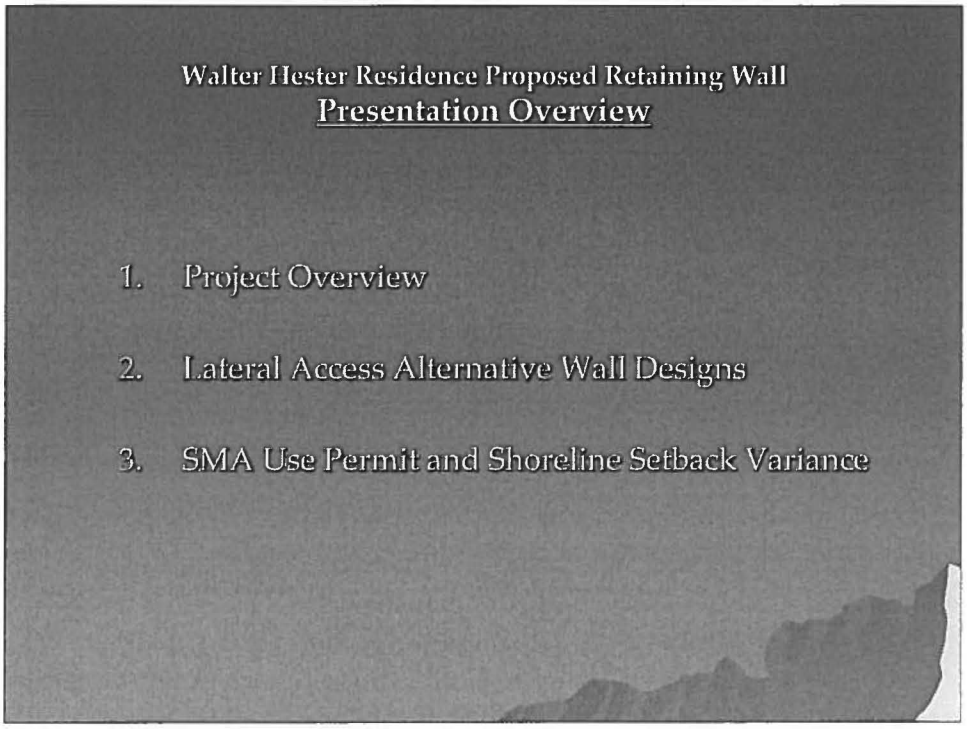


Good afternoon Chair Lay and Commissioners.

I'm Jen Maydan of Chris Hart & Partners.

Also here today is the Applicant, Mr. Walter Hester, and the project engineer, Paul Weber.

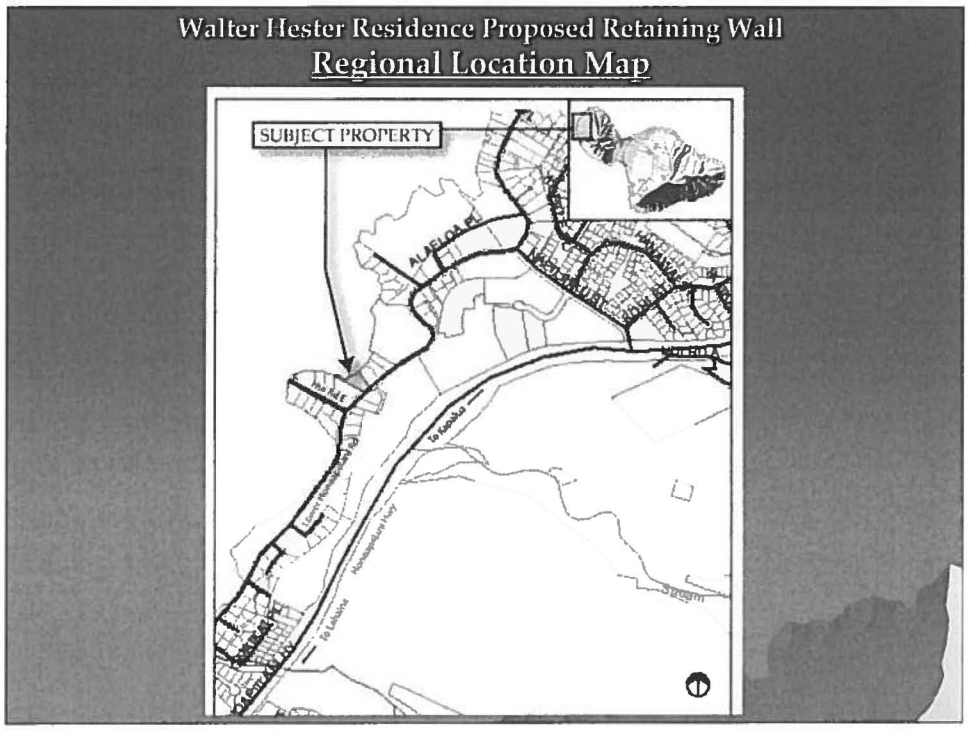


I have about a 20 minute presentation today.

First I will provide an overview of the proposed project.

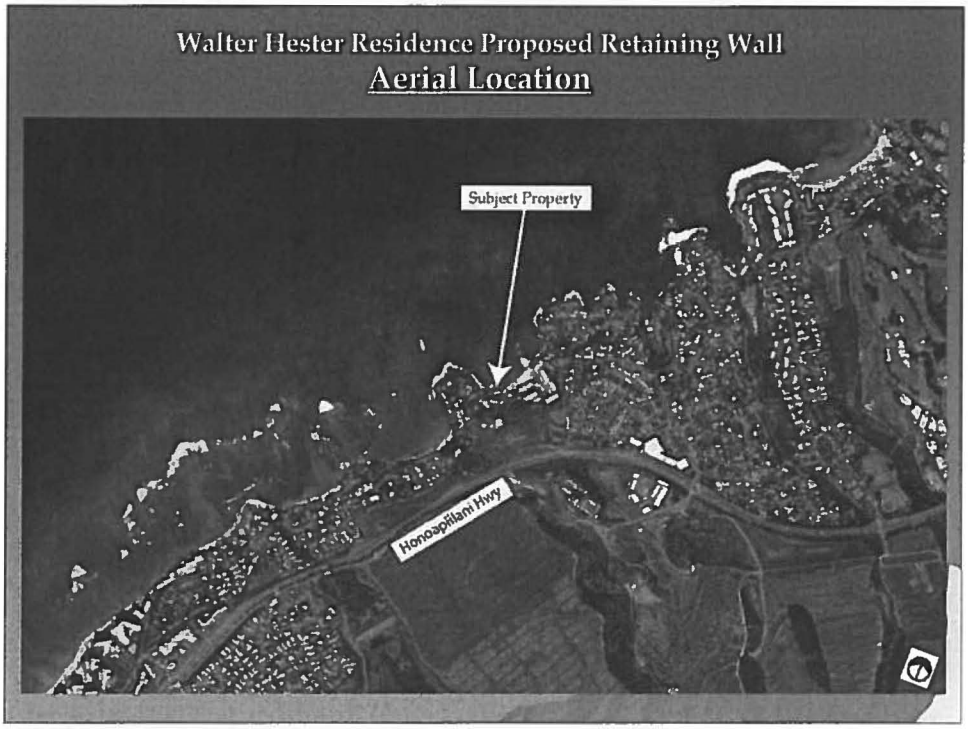
Then I will discuss two alternative wall designs providing lateral access that were analyzed by the project team.

And finally, I will demonstrate how the proposed action adheres to the objectives and policies of the Special Management Area and Shoreline Rules for the Maui Planning Commission and meets the criteria for approval of a variance.



The Subject Parcel is in Napili approx. 7 miles north of Lahaina and 1.5 miles south of Kapalua.

Access to the parcel is via Lower Honoapiilani Road.



The subject parcel is adjacent to the shoreline along Keonenui Bay, between Haukoe (S) and Alaeloa (N) Points.

The subject parcel is 0.44 acres and is located at the far southwest end of Keonenui Bay on a high bluff.

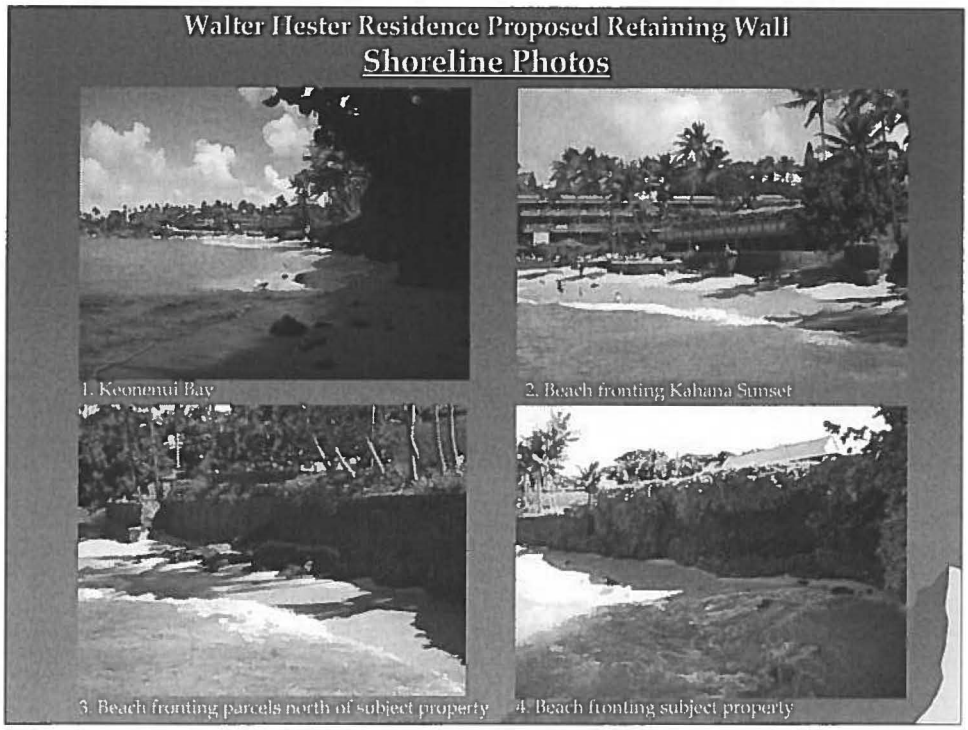
The properties along the northern half of the bay are occupied by the Kahana Sunset resort and condominiums.

Shoreline properties along the southern half of the bay are occupied by single-family residences.

The subject property is the last property at the southern end of the bay.

The beach in the project vicinity is a pocket beach nestled between two headlands which protrude 400 to 500 feet seaward.

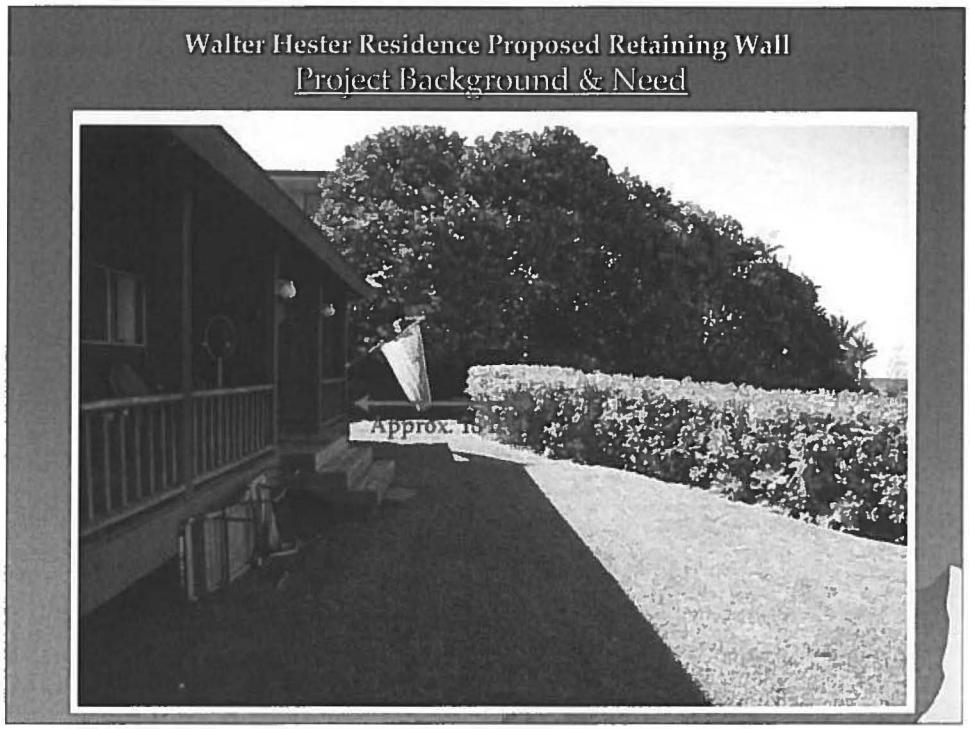
Vertical rock and concrete walls protect the properties along the entire bay, with the exception of the subject property.



1. The picture in the top left shows the length of Keonenui Bay.

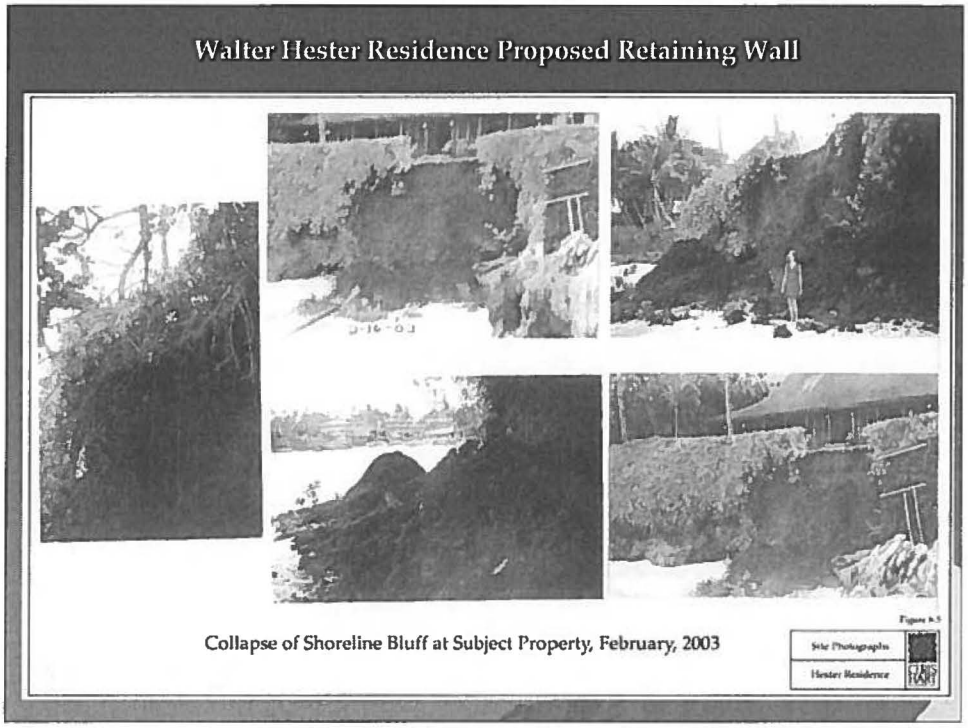
2. North of the subject property, fronting the Kahana Sunset, the shoreline consists of a sandy beach protecting the properties.

3. & 4. Moving south along the bay, the beach narrows dramatically, transitioning to an irregular, rough and rocky shore in front of the subject property.



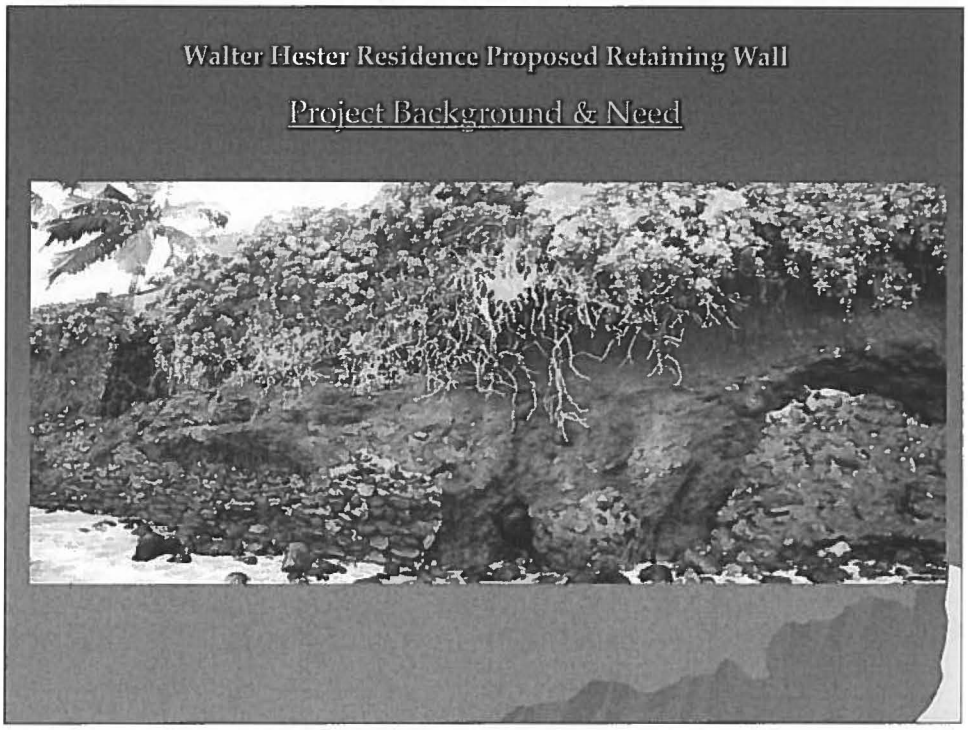
The original single-family residence was constructed on the subject parcel in 1976.

However, due to erosion of the clay and cinder substrate and the creation of undermining caves, by 2003 the residence was situated roughly 18 feet from the edge of the shoreline cliff at its nearest point.



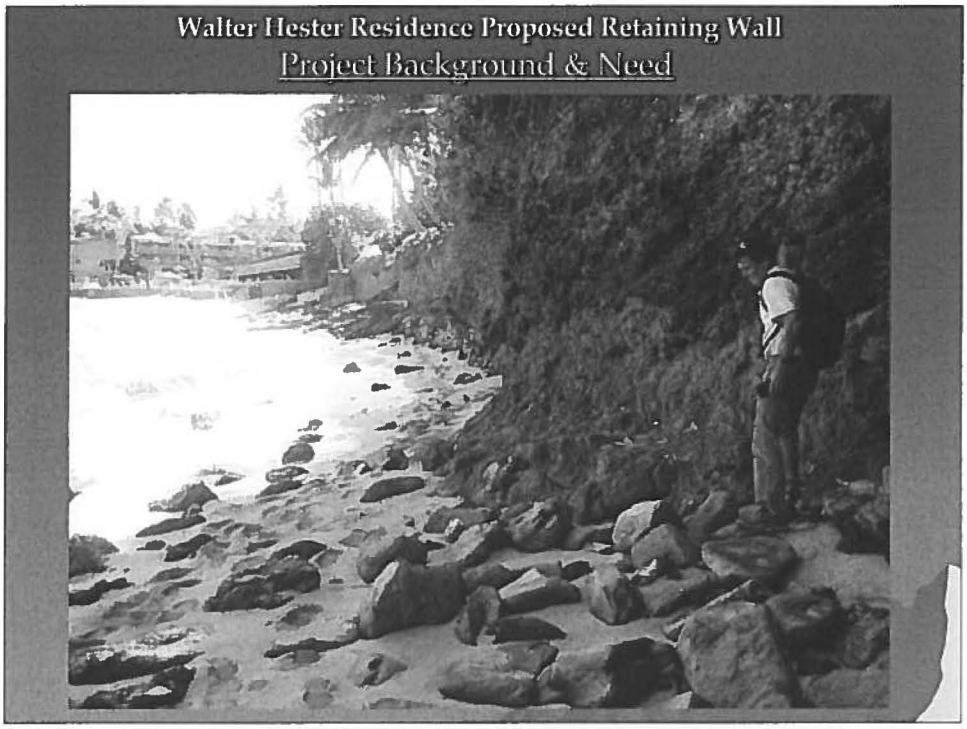
These pictures depict the collapse of the shoreline bluff at the subject property in February 2003.

Over the years, each parcel with a sheer bank fronting Keonenui Bay has been susceptible to seasonal undermining with the creation of dangerous caves which eventually collapse and endanger the health, safety and welfare of beachgoers and property owners.

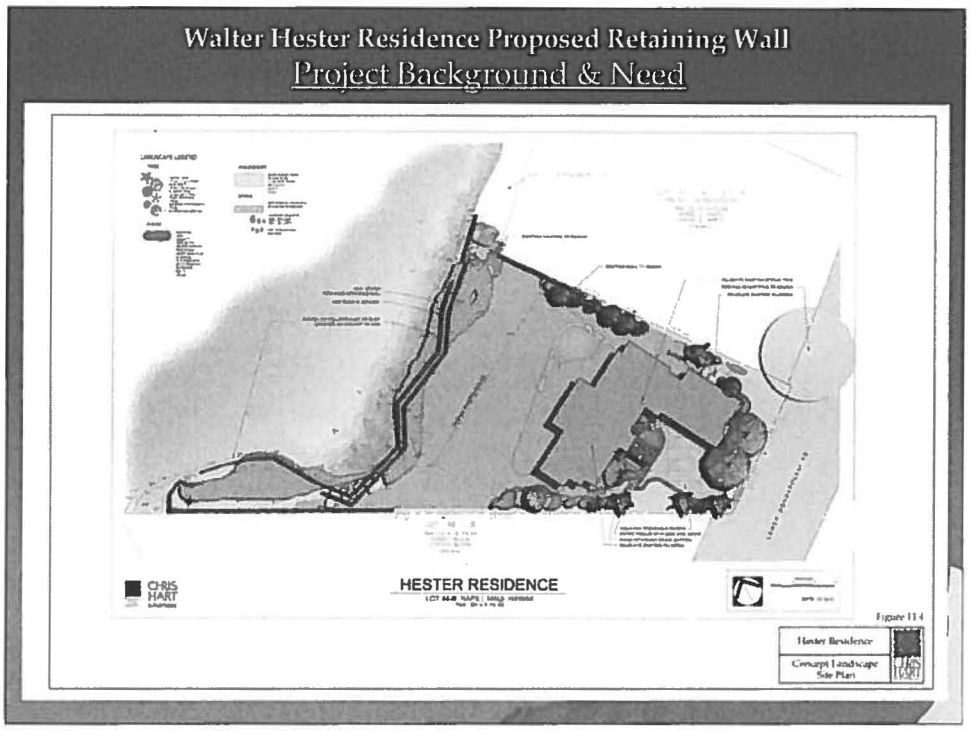


It has been determined by the project's coastal engineer that the seasonal erosion and bank destabilization in the bay is caused by a continuous bedrock layer of volcanic clay and cinder that is susceptible to erosion.

The bank is not made up of a stable solid rock formation resistant to erosion.



The existing condition of the bluff, along with prior documentation of erosion at the subject site, indicates that if left unchecked, erosion will continue, further threatening the subject property and eventually threatening the property to the north.



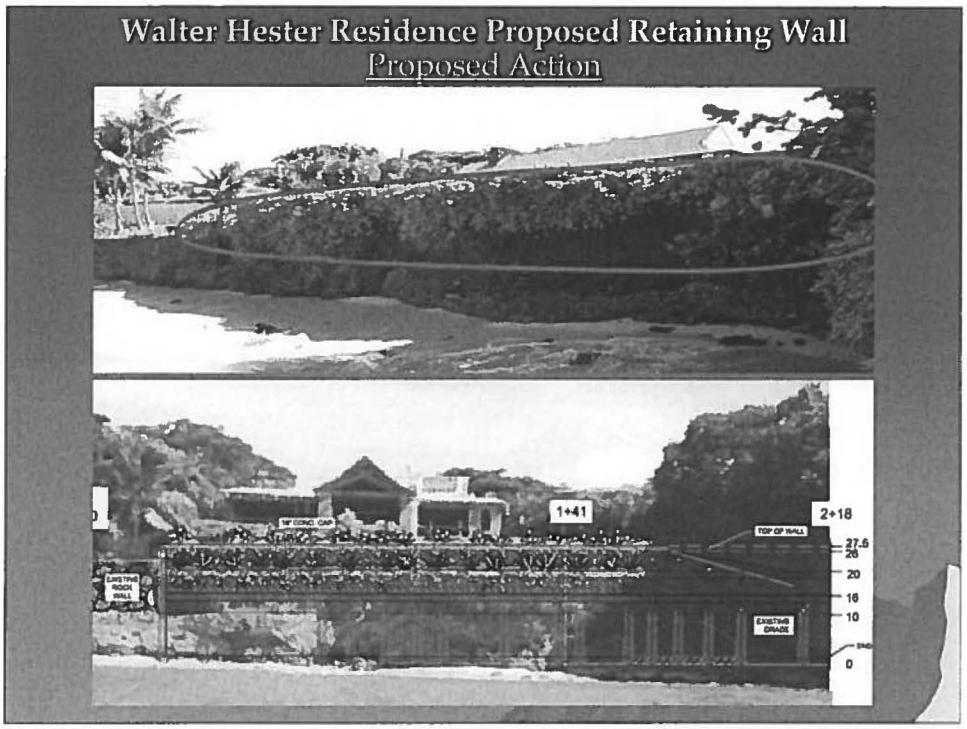
Since the catastrophic collapse of the bank in 2003 the Applicant has taken proactive measures to strategically retreat from the shoreline.

On August 18, 2011 the Planning Department granted a SMA Assessment Exemption, Shoreline Setback Approval, and EA Exemption for the demolition of the original residence from within the shoreline setback area and construction of a new single-family residence outside of the shoreline setback area.

In November 2011 the residence was demolished and the new residence is now under construction.

In this site plan you can see the outline of the original residence, and the site of the new residence, about 50 feet mauka.

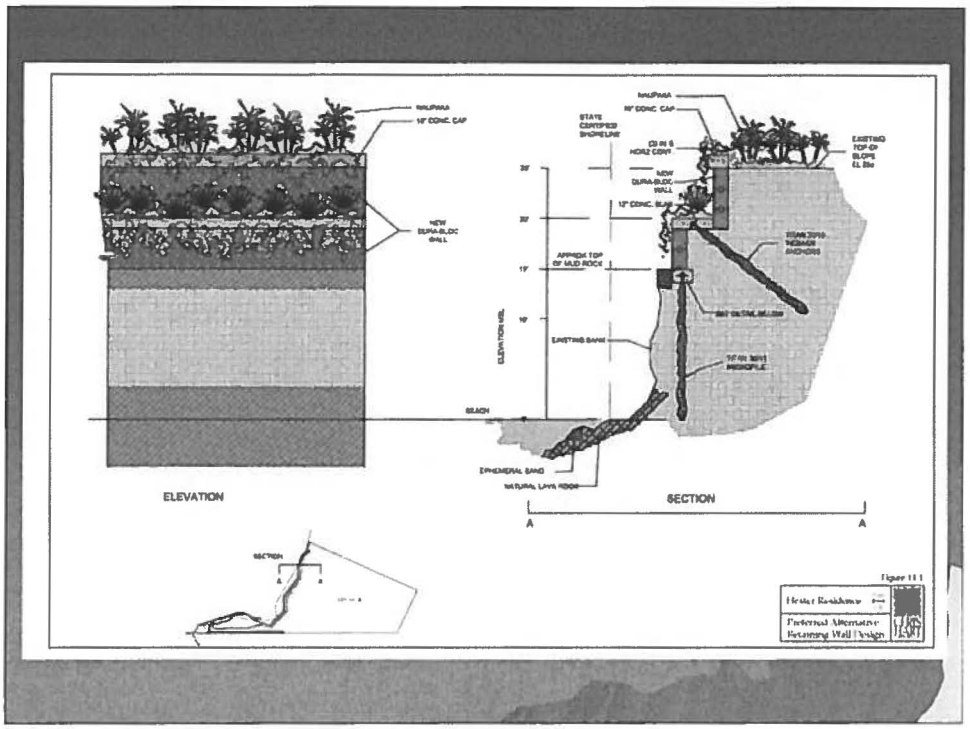
Now this brings us to the current proposed action.



The Applicant proposes to construct a 10 foot high structurally engineered terraced slope retaining wall, sited on the rock within the bluff, at a base elevation of about 15 feet.

The purpose of the project is to enhance public safety and create a long-term solution that will stabilize the bank to prevent future erosion and undermining.

The proposed retaining wall will require a negligible amount of excavation and backfill and will be confined to the area above the beach and *mauka* of the certified shoreline.



The proposed retaining wall will be sited on the existing rock formation within the bluff.

The wall will start at about 15 feet above sea level, and the height of the wall itself will be 10 feet. The length of the wall will be approximately 150 feet.

The retaining wall will have 2 tiers, each 5 feet high, with a 4 foot wide bench at the top of the bottom tier.

The top of the retaining wall and the bench will be planted with overhanging vegetation, which will soften the visual impact of the wall.

Construction of the wall will involve concrete-filled Dura-Bloc supported by micropiles drilled to lava rock for vertical support and with grout injection ground anchors for lateral support.

The mudrock is not being supported by this construction so a program of monitoring is proposed so that any distress or defects in the mudrock can be treated before any collapse can take place.

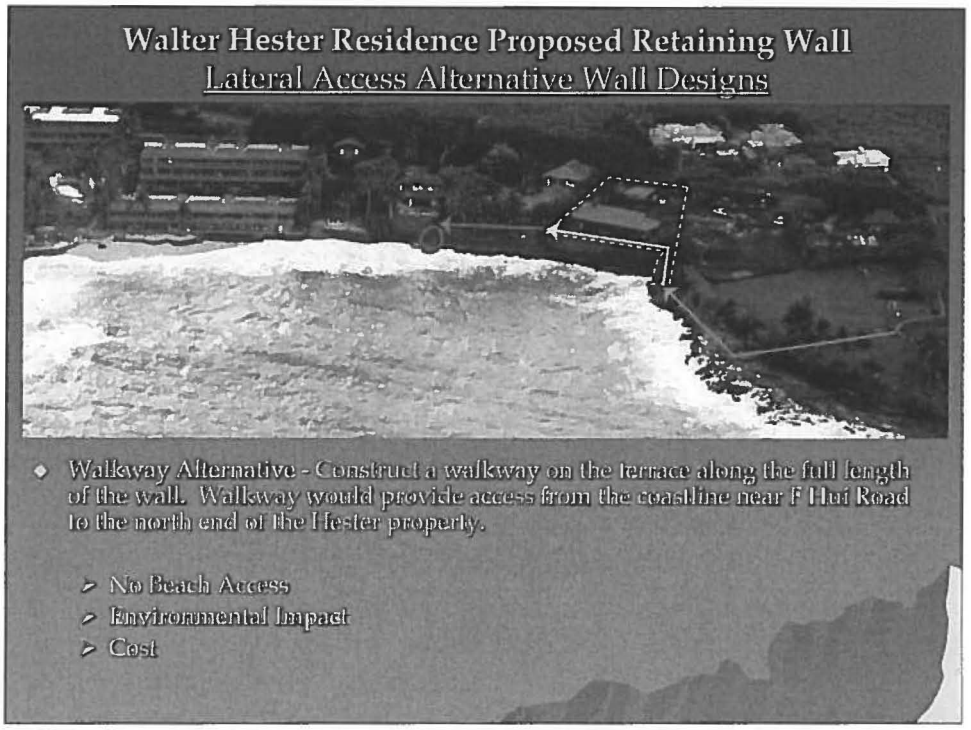
All construction activity will be staged at the top of the bank rather than on the beach, and will be *mauka* of the certified shoreline.

Best Management Practices will be used during construction of the wall to protect the marine environment from impacts, including:

•Continuous silt fence at the beach level;

•Floating silt fence at the toe of the bank that will act as a barrier during higher tide levels; and

•Use of low-impact equipment.



Now I would like to give you an overview of two alternative wall designs providing lateral public access that the Applicant has explored based on comments from a few Commissioners during the DEA and FEA review process.

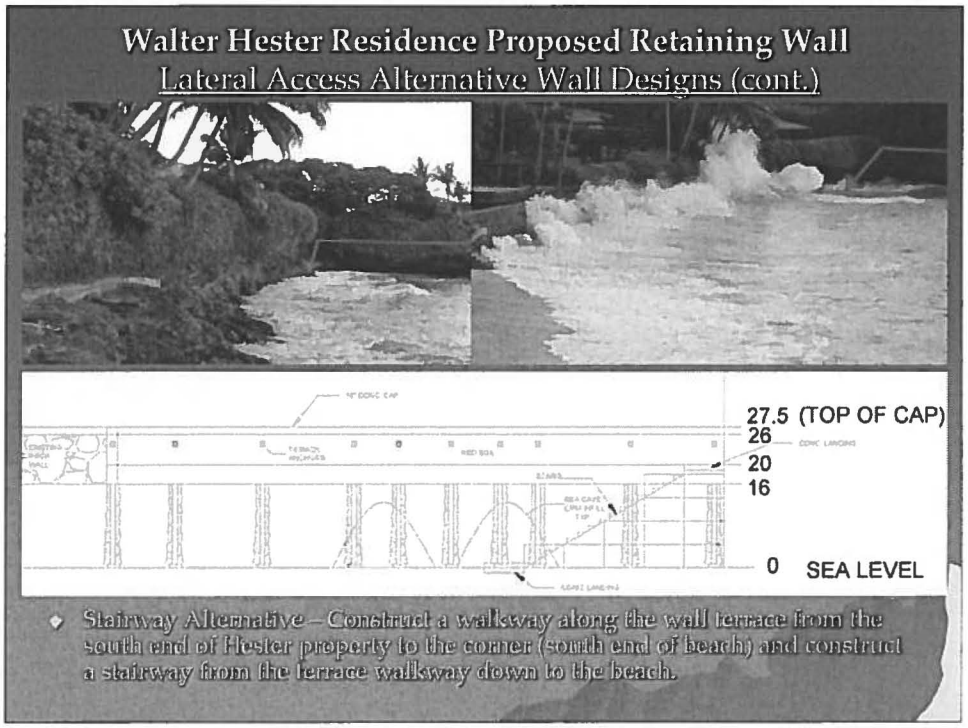
The first is the Walkway Alternative which would involve constructing a walkway on the terrace along the full length of the wall, as shown with the YELLOW arrow. The public would walk from F Hui Road to the coastline, and along the rocky coastline (as show with the GREEN arrow) to the south end of the Hester property where the walkway would start. The Walkway would provide access from the south end of the Hester property to the north end of the Hester property.

Important considerations for this alternative include:

•That this alternative would not provide access to the beach. The walkway would end at the north end of the Hester property where there is no access to the beach. And as a reminder, there is no beach access from anywhere on the Hester property. To provide access to the beach the adjacent property owners to the north would also need to construct a walkway along their existing walls to the existing beach stairway, as shown with the RED arrow.

•The second important consideration is the potential environmental impact caused by construction of the walkway. The sea grape tree at the south corner of the Hester property would need to be removed to accommodate pedestrian movement along the wall terrace which would allow for erosion of the upper cliff and impact near-shore waters. *****NEED TO CONFIRM WITH PAUL WEBER*****

•And finally, construction of the walkway would approximately double the cost of the wall.



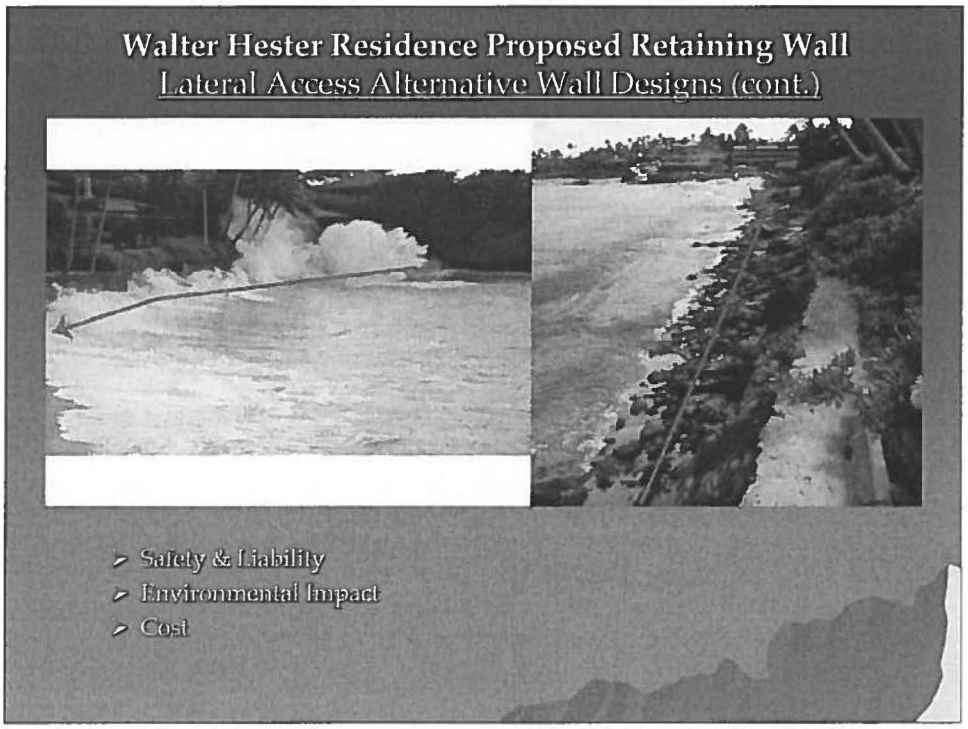
The second access alternative is the stairway alternative which would involve constructing a walkway along the wall terrace from the south end of the Hester property to the corner a the south end of the beach, then constructing a stairway from the terrace walkway down to the beach.

The beach access stairs would begin at a concrete landing on the top at about the position of the sea grape trees, at an elevation of 20 feet.

An angled bench would be carved out of the soil and rock on the standard 7 by 11 slope.

Dura-bloc would form protective retaining on both sides the stairwell.

A concrete landing would be constructed at beach level and the stairs would penetrate the cave nearest the south end of the beach.



As with the walkway alternative, there are number of important issues to consider when analyzing this stairway access alternative.

•First, safety and liability. The bottom portion of the stairway would frequently be under water or subject to dangerous wave action (as depicted in the picture on the left). Encouraging the public to access the shoreline at this location would create a public safety hazard. The stairway would create an attractive nuisance and serious liability issue for the property owner.

•Secondly, environmental impact. During construction of the stairway to the beach, erosion of the cliff and subsequent impacts to near-shore water would be unavoidable.

•And finally, cost. Again, construction of the walkway and stairs would approximately double the cost of the wall.

The Applicant has taken the Commissioners' request to provide lateral public access under serious consideration, but has concluded that there is no feasible or safe scenario to provide this access from the subject property.

The Planning Department concurs with our assessment of the alternatives and conditions in the bay, and agrees that providing lateral public beach access via the Hester property is not realistic.

Walter Hester Residence Proposed Retaining Wall

Special Management Area Significance Criteria

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

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

- The proposed retaining wall will enhance safety in the shoreline area immediately beneath the subject property, and will also aid in protection of nearshore waters from erosion-borne sediment.

C. The proposed action will *not* conflict with State or County long-term environmental policies and goals.

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

E. The proposed action will *not* result in substantial secondary impacts.

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

- The subject property is the last remaining property along the 500 feet of shoreline between two rocky headlands that is not armored. Therefore, construction of the proposed retaining wall will not encourage additional development of seawalls.

As Jim Buika noted earlier, on February 26 the Commission accepted the FEA for the proposed retaining wall and issued a Finding of No Significant Impact. Therefore your task today is to determine if the proposed action adheres to the objectives and policies and significance criteria of the Special Management Area and Shoreline Rules for the Maui Planning Commission and meets the criteria for approval of a variance.

Pursuant to the Rules and Regulations of the Planning Commission of the County of Maui, projects located within the SMA are evaluated with respect to significance of potential environmental and ecological effects.

The SMA permit application supports the following conclusions:

Walter Hester Residence Proposed Retaining Wall

Special Management Area Significance Criteria (cont.)

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

H. The proposed project is *not* contrary to the state plan, county's general pan, the West Maui Community Plan, and zoning an subdivision ordinances.

- Short-term construction-related air, noise and dust impacts will be mitigated through implementation of standard mitigation measures.

I. The proposed action will *not* substantially or adversely affect air and water quality or ambient noise levels.

J. The proposed action will *not* affect an environmentally sensitive area.

- The proposed wall will be constructed inland of the waterline and Best Management Practices (BMPs) will be implemented to mitigate construction-phase impacts on the nearshore marine environment. In the long-term, the wall may improve turbidity conditions in the bay given that hardening of the upper cliff face will mitigate further erosion of the silty clay substrate.

K. The proposed action will *not* substantially alter natural land forms and existing public views to and along the shoreline.

L. The proposed action is *not* contrary to the objectives and policies of Chapter 205A, HRS, as demonstrated in the following analysis:

Pursuant to the Rules and Regulations of the Planning Commission of the County of Maui, projects located within the SMA are evaluated with respect to significance of potential environmental and ecological effects.

The SMA permit application supports the following conclusions:

Walter Hester Residence Proposed Retaining Wall

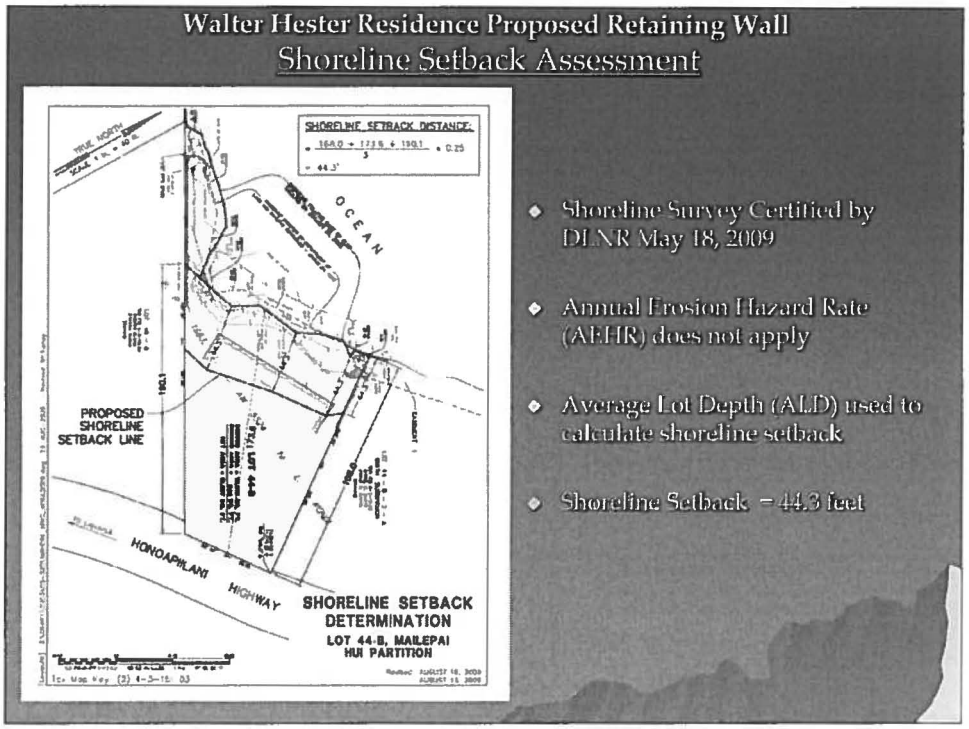
Special Management Area Objectives & Policies

1. Recreational Resources.
   - The proposed retaining wall will enhance public safety in the shoreline area immediately beneath the subject property. It will not narrow the beach and will not inhibit lateral access along the shoreline.
2. Historical/Cultural Resources.
   - The Archaeological Assessment and Cultural Impact Assessment for the proposed project concluded that impacts to historical and cultural resources are not expected.
3. Scenic & Open Space Resources.
   - The proposed project is not anticipated to impact public view corridors or the visual character of the area. The wall will have a total height of only 10 feet; the rock facing used will be consistent with the existing wall to the north; and terracing and overhanging vegetation will provide visual mitigation.
4. Coastal Ecosystems.
   - The proposed retaining wall will help to protect the quality of the nearshore marine environment by preventing siltation from erosion of the upper cliff face.
5. Economic Uses.
   - The existing single-family residential use of the property is consistent with State and County plans and supporting infrastructure and services exists in the area.

Walter Hester Residence Proposed Retaining Wall

Special Management Area Objectives & Policies (cont.)

6. Coastal Hazards.
   - The proposed action will protect the subject property and structures from erosion due to storm waves. Stabilization of the shoreline will also provide greater safety to the neighboring property and protect the beach and nearshore waters from erosion impacts caused by storm waves and inland runoff.
7. Managing Development.
   - The proposed action is being conducted in accordance with all applicable State and County requirements.
8. Public Participation.
   - Early consultation, application notice, and public hearing notice have been provided to neighbors within 500 feet of the project as part of the Draft EA and SMA application process.
9. Beach Protection.
   - The proposed retaining wall is mauka of the shoreline and will result in an improved aesthetic and engineering solution to the erosion problem at the subject property. The retaining wall will not interfere with existing recreational and waterline activities.
10. Marine Resources.
    - The proposed retaining wall will aid in the protection of nearshore waters and marine resources from erosion-borne sediment.



The shoreline survey was certified by the Department of Land and Natural Resources on May 18, 2009. The map indicates that the shoreline follows the base of a rocky cliff that runs along the *makai* boundary of the subject property.

The subject parcel is fronted by a high cliff, and the shoreline is to be fixed by an *"artificial structure"* therefore the Annual Erosion Hazard Rate (AEHR) method of calculating the Shoreline Setback therefore does not apply to the subject property.

Using the Average Lot Depth (ALD) method, the proposed shoreline setback for the parcel is **44.3 feet**

Walter Hester Residence Proposed Retaining Wall

Shoreline Rules for the Maui Planning Commission

1. That use and enjoyment of the shoreline area be ensured for the public to the fullest extent possible.
   - The proposed project will not prevent the public from full use and enjoyment of the shoreline area to which it is already entitled.
2. That the natural shoreline environment be preserved.
   - No structures are proposed for construction on the shoreline itself, and no dune or beach resource is present on the site, therefore the proposed action does not alter the natural shoreline environment.
3. That man-made features in the shoreline are be limited to features compatible with the shoreline area.
   - The subject property is the last remaining property along the 500 feet of shoreline in the bay that is not armored, therefore the proposed action is compatible with the shoreline as it currently appears.
4. That the natural movement of the shoreline be protected from development.
   - The steep sea cliff acts as a natural wall to reflect wave impact. The proposed retaining wall is therefore not expected to affect coastal processes in a manner different from existing conditions.
5. That the quality of scenic and open space resources be protected, preserved, and where desirable, restored.
   - The proposed retaining wall will not impact scenic resources.
6. That adequate public access to and along the shoreline be provided.
   - The proposed project does not restrict public access to or along the shoreline.

Now we will move on the Shoreline Setback Variance.

The shoreline was certified by the state on May 18, 2009, and the Certified Shoreline Survey Map is still valid. The map indicates that the shoreline follows the base of the rocky cliff that runs along the makai boundary of the subject property.

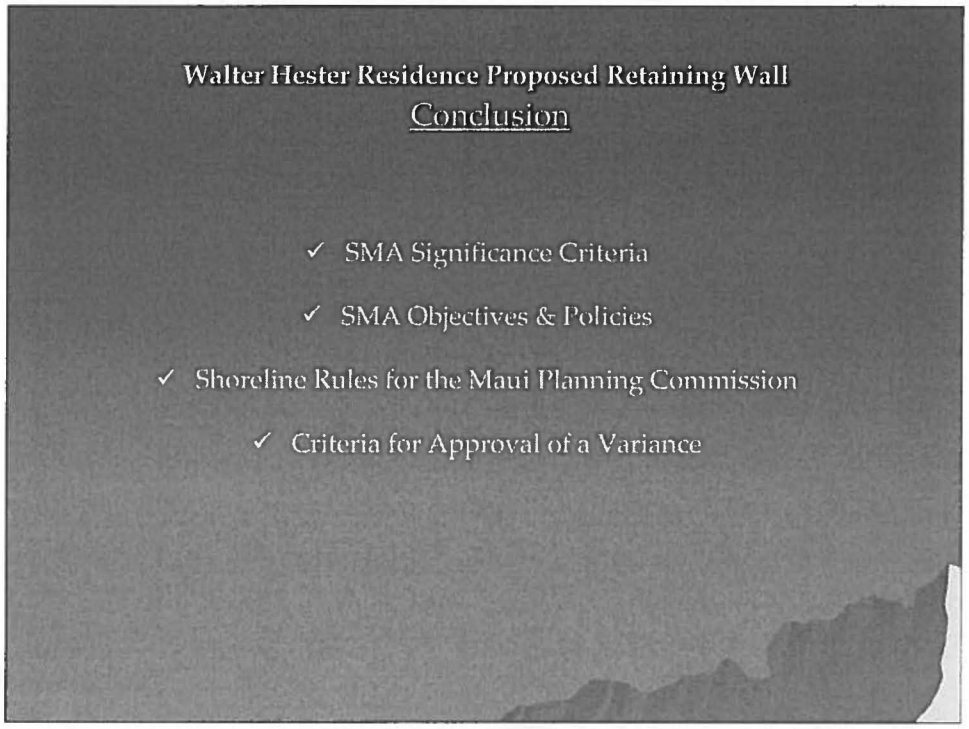
The proposed retaining wall is consistent with the following Shoreline Rules for the Maui Planning Commission:

Walter Hester Residence Proposed Retaining Wall

Criteria for Approval of a Variance

1. The applicant would be deprived of reasonable use of the land if required to fully comply with the shoreline setback rules.
   - The existing condition of the bluff, along with prior documentation of erosion at the site, indicates that if left unchecked, erosion will continue, eventually threatening structures on the property as well as on neighboring properties.
2. The applicant's proposal is due to unique circumstances and does not draw into question the reasonableness of the shoreline setback rules.
   - The proposed project does not draw into question the reasonableness of the shoreline rules. The purpose of the retaining wall is to prevent future erosion of the property and potential undermining of the neighboring wall; to prevent eroded soil from entering coastal waters; and to remove the existing public hazard.
3. The proposal is the practicable alternative which best conforms to the purpose of the shoreline setback rules.
   - The proposed alternative is the practicable option which best conforms to the purpose of the Shoreline Setback Rules.

The proposed retaining wall also meets the following criteria for approval of a variance:



In conclusion, the proposed retaining wall adheres to the objectives and policies and significance criteria of the Special Management Area and Shoreline Rules for the Maui Planning Commission and meets the criteria for approval of a variance. Therefore we respectfully ask for your approval of the SMA Use Permit and Shoreline Setback Variance.

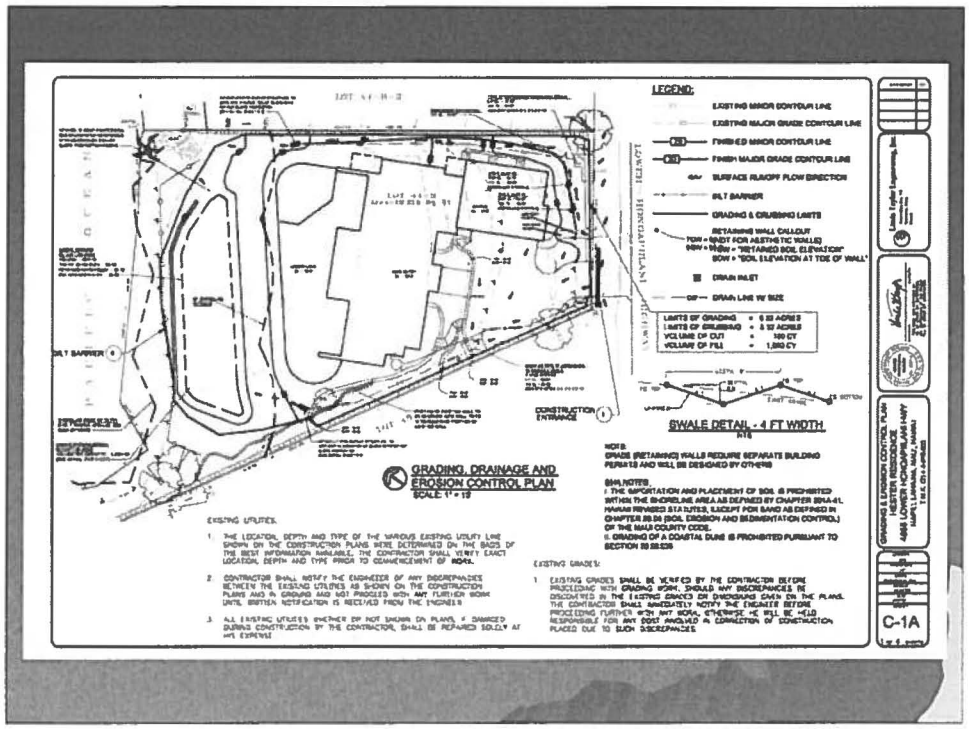
Thank you Chair and Commissioners for hearing our presentation today and we will be happy to answer any questions you may have.

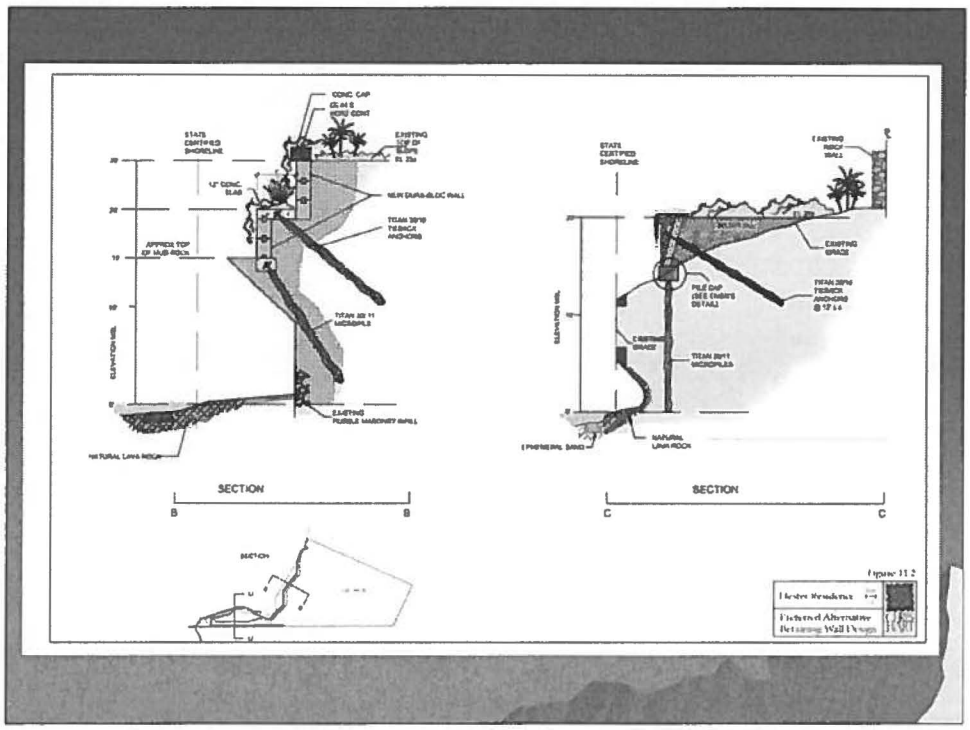
1. Sea Cliff Fronting Subject Property (Looking North East).

2. South End of Keawanui Bay Fronting Subject Property (Looking South).

3. South End of Keawanui Bay Fronting Subject Property (Close View) (Looking South).

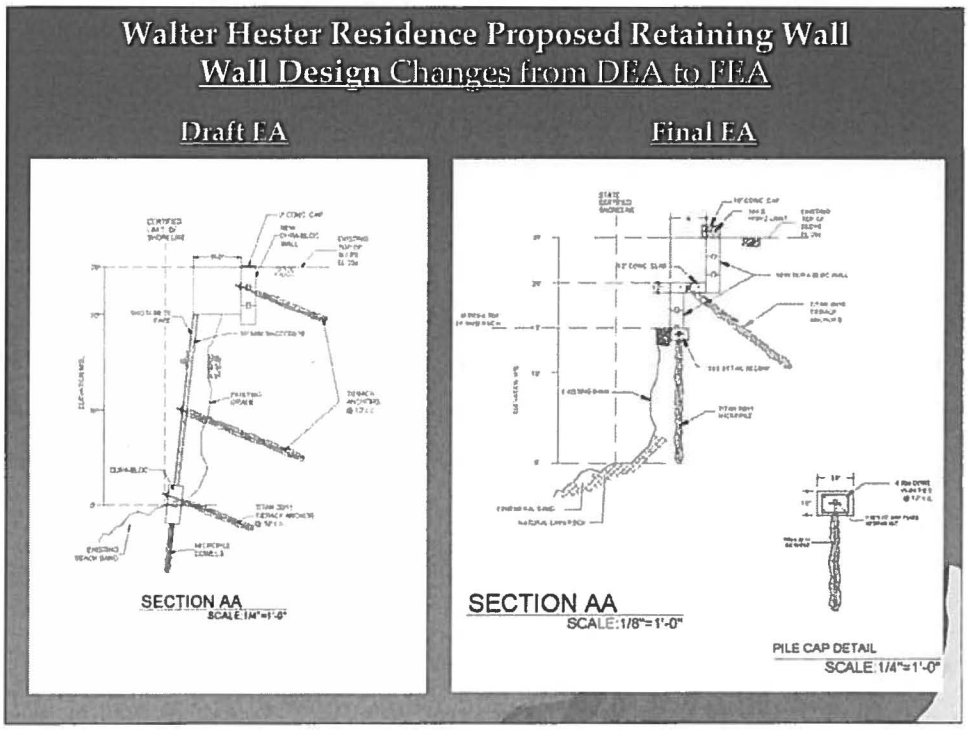
4. Sea Cliff Fronting Southern Most Portion of Subject Property (Looking South West).


LEGEND:
EXISTING MINOR CONTOUR LINE
EXISTING MAJOR GRADE CONTOUR LINE
FINISHED MINOR CONTOUR LINE
FINISH MAJOR GRADE CONTOUR LINE
SURFACE RUNOFF FLOW DIRECTION
SILT BARRIER
GRADING & CRUSHING LIMITS
RETAINING WALL CALLOUT
DRAIN INLET
DRAIN LINE W/ SIZE
LIMITS OF GRADING
LIMITS OF CRUSHING
VOLUME OF CUT
VOLUME OF FILL
1,850 CY
SILT BARRIER
CONSTRUCTION ENTRANCE
GRADING, DRAINAGE AND EROSION CONTROL PLAN
SCALE 1" = 10'
SWALE DETAIL - 4 FT WIDTH
NOTE:
GRADE (RETAINING) WALLS REQUIRE SEPARATE BUILDING PERMITS AND WILL BE DESIGNED BY OTHERS
GRADING & EROSION CONTROL PLAN
HESTER RESIDENCE
C-1A



Section B depicts the proposed retaining wall design at a mid point along the property, where erosional caves have formed.

And Section C depicts the proposed retaining wall design along the southern end of the property, where the cliff face extends toward the point.



Here are the engineering drawings for the previously proposed wall and the revised retaining wall.

Again, the Draft EA wall design was a 25 foot high wall spanning the full height of the bank, while the revised design currently proposed is a 10 foot high retaining wall at the top of the bank.

View of slope failure from above facing south

View from above showing top of failed slope

View from below facing south

Figure 19

Hale Maka Slope Collapse Pictures
Hester Residence

Exhibit C
Historical Shoreline Conditions

11 Hale Malia Place
Shoreline Slope Repair

Historic Shoreline
Mosaic Photos

Courtesy UH-SOEST Coastal Geology Group

CHRIS HART & PARTNERS, INC.

11 Hale Malia Place
Shoreline Slope Repair

Historic Shoreline
Mosaic Photos

Courtesy UH-SOEST Coastal Geology Group

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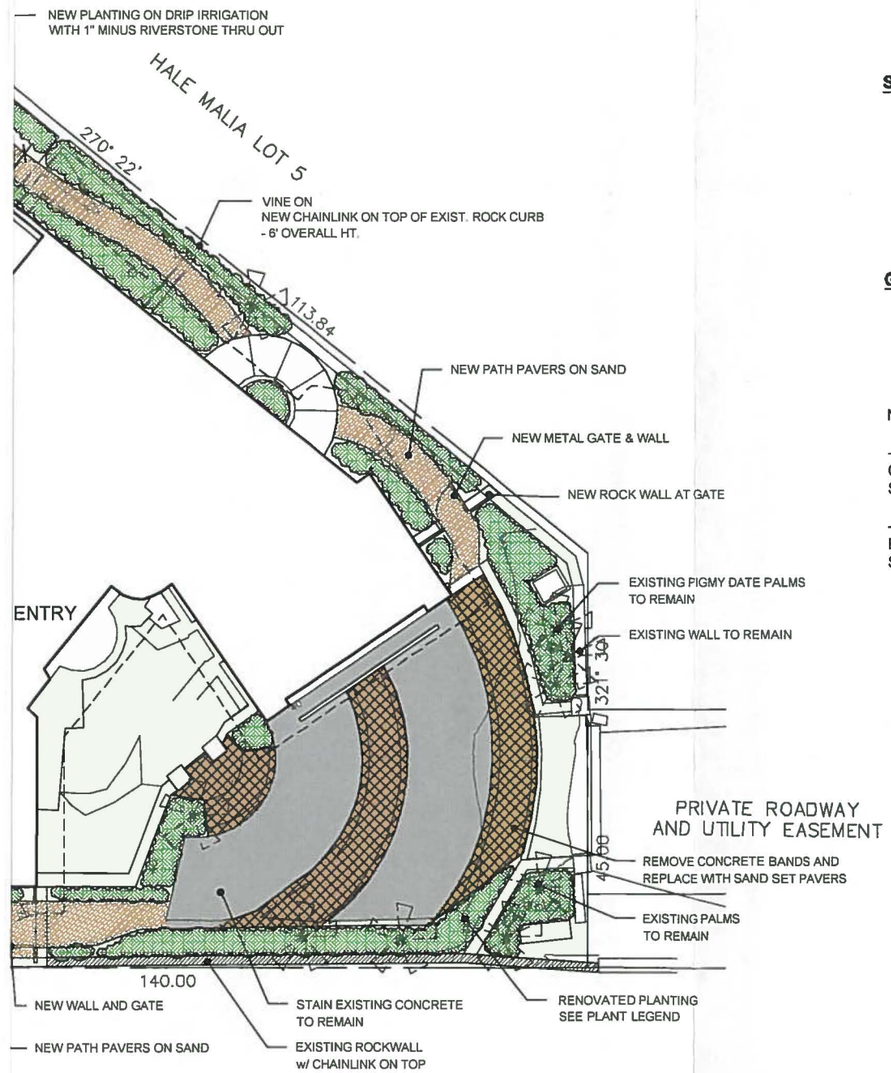


PLANT PALETTE

TREES

- PLUMERIA
- JATROPHA
- ARECA PALM
- PIGMY DATE PALM
- MACARTHUR PALM

SHRUBS

- GOLDEN DURANTA
- ELDORADO 'YELLOW-VEIN'
- RED GINGER
- GREEN TI
- GARDENIA
- BAMBOO
- CROTON

GROUNDCOVER

- LAUAE FERN
- HEMIGRAPHIS
- BACOPA

NOTES:

- ONLY BEACH QUALITY SAND & COMPOST TO BE USED IN SHORELINE SETBACK

- ALL PLANTING WILL BE WATERED BY AN AUTOMATIC IRRIGATION SYSTEM

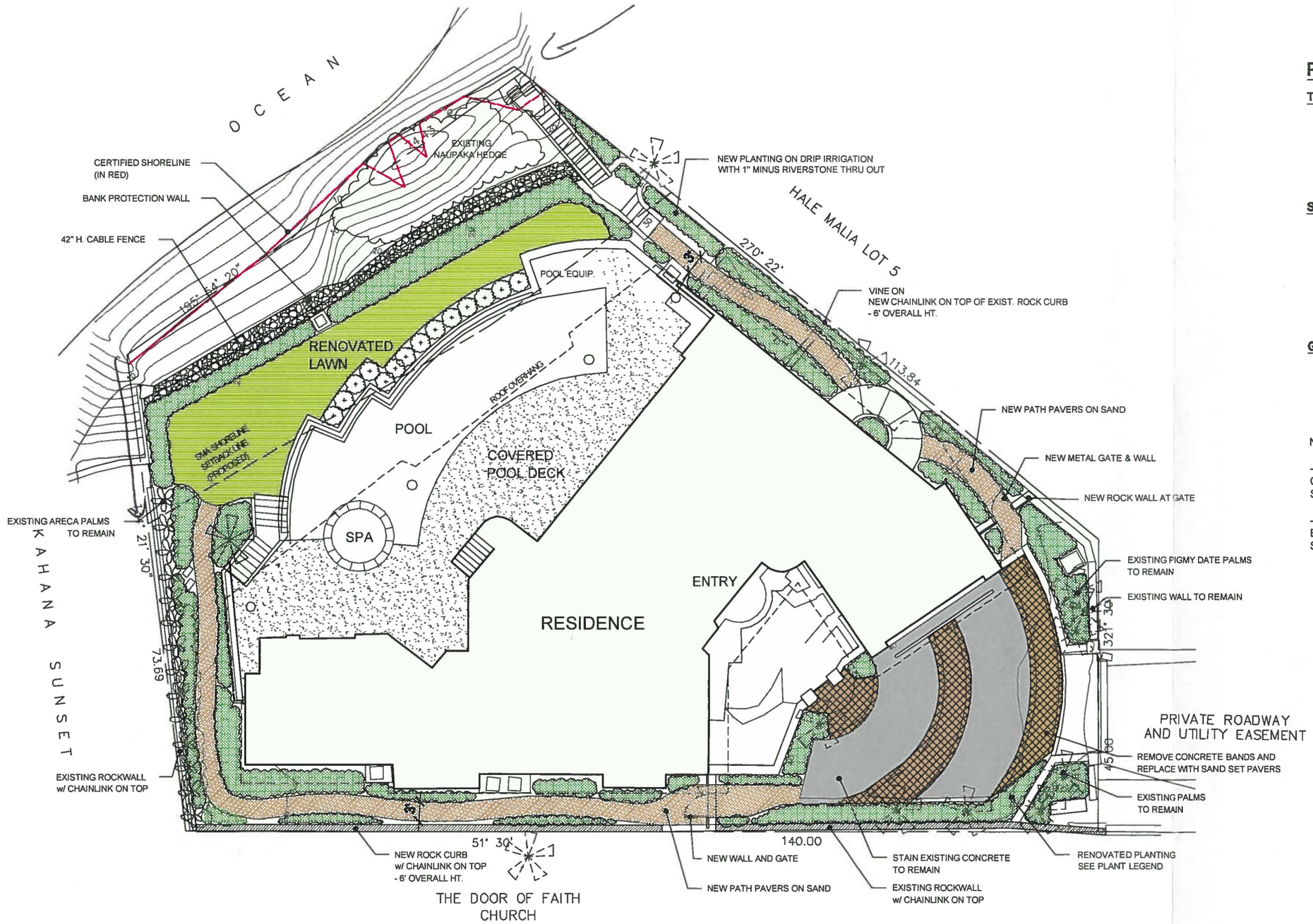
Landscape Plan

RESIDENCE

LIA PLACE, MAUI, HI

BAR SCALE
0 4 8 16 32

SCALE: 1/8"=1'-0"
PROJECT: 09-039
DATE: 10/20/09
REV. DATE: 5/20/09



PLANT PALETTE

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CHRIS HART & PARTNERS

Preliminary Landscape Plan

LUCAS RESIDENCE

11 HALE MALIA PLACE, MAUI, HI

BAR SCALE 0 4 8 16 32

SCALE: 1/8"=1'-0"
PROJECT: 09-039
DATE: 10/20/09
REV. DATE: 5/20/09

Exhibit E
Alaeloa Annual
Erosion Hazard Rate
(AEHR) Map

Alaeloa, Maui, Hawaii

Smoothed Erosion Rates

Scale 1:3000

100 0 100 200 300 400 Meters

300 0 300 600 900 1200 Feet

Alaeloa

Maui

0 10 mi

0 10 km

The Alaeloa study area extends from Hauiole Point in the south to Namalu Bay in the north. This area is a series of bays and coves with small white sand and cobble pocket beaches interspersed. Offshore is basaltic hard bottom and sand.

As a whole, the area has experienced moderate to high erosion since 1912 with an average AEHR of -0.9 ft/yr. Keonenui Beach (transects 1 - 14) is partially backed by a revetment constructed prior to 1960 to protect private property. The beach has experienced moderate erosion over time with an average AEHR of -1.0 ft/yr. To the north, Alaeloa Beach (transects 17 and 18) occupies a small cove and has experienced moderate erosion with an average AEHR of -1.0 ft/yr. Honokeana Bay (transects 25 - 29) is comprised primarily of cobble beach. It has experienced moderate erosion with an average AEHR of -0.8 ft/yr. Napili Bay (transects 32 - 47) has experienced moderate erosion over time with an average AEHR of -0.8 ft/yr. Kapalua Bay (transects 53 - 62) has experienced moderate erosion since 1912 with an average AEHR of -1.2 ft/yr.

Trends identified in this study generally agree with those found by Sea Engineering, 1991*. At Kapalua Bay, Sea Engineering found this beach to be relatively stable. Face differences may be attributed to methodology, specifically this study's inclusion of the 1912 and 1960 T-sheet shorelines.

Average beach width, the average horizontal distance from the vegetation line to the low water mark, within the Alaeloa area has decreased 38% between 1949 and 1997. At Keonenui Beach, average beach width has decreased 43% between 1949 and 1997, while average beach width at Alaeloa Beach has decreased 42% for the same time period. Average beach width at both Honokeana and Napili Bays has decreased 33% between 1949 and 1997. Average beach width at Kapalua Bay has decreased 44% between 1949 and 1997.

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

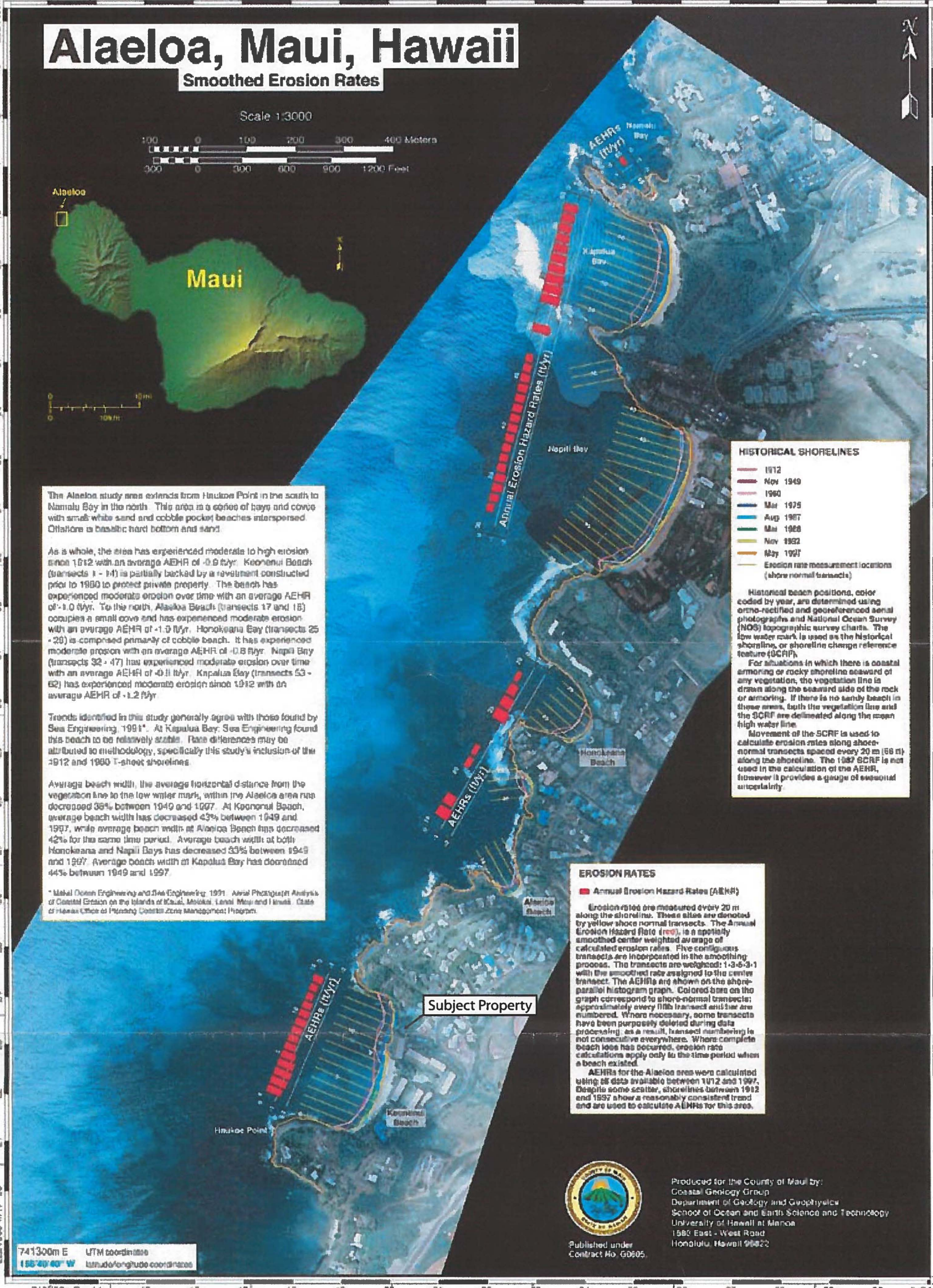
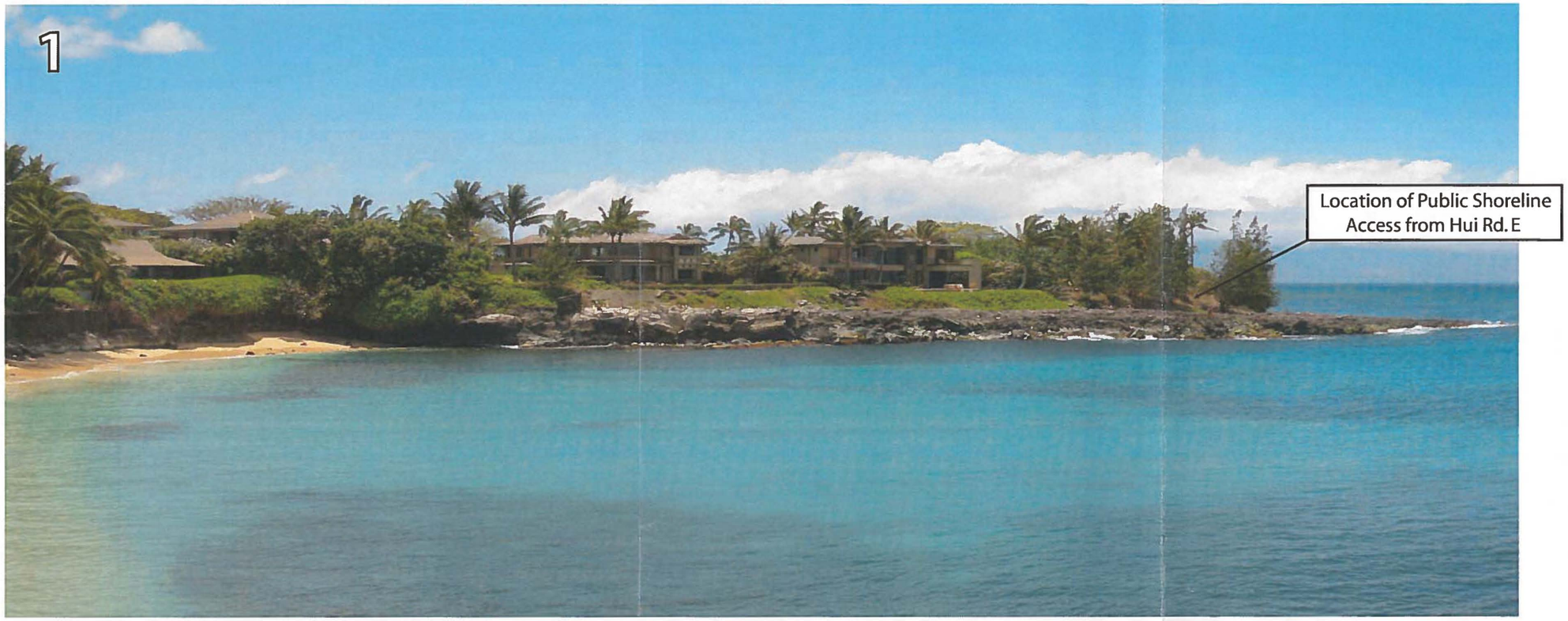


Exhibit F
Photographic Documentation of Lateral Shoreline Access

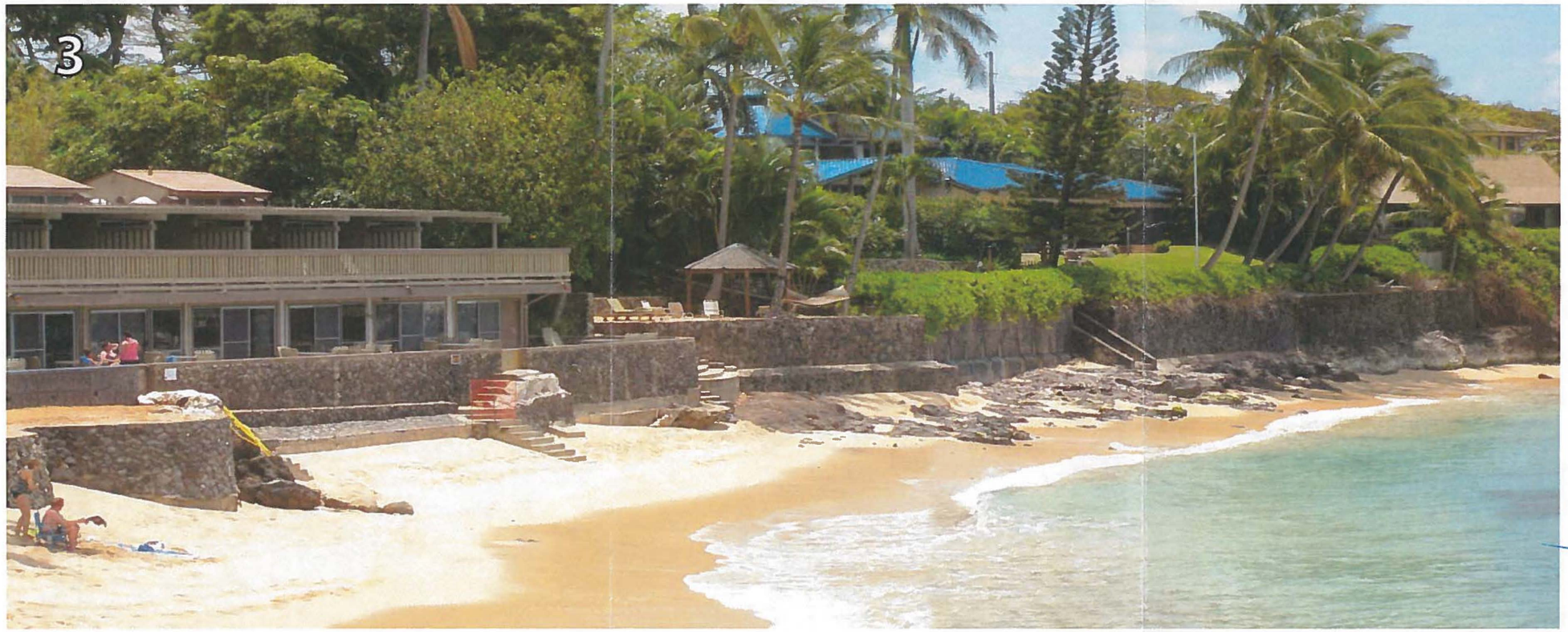
1-2. Lateral Shoreline Access along Keonenui Bay, facing south from rocky outcrop at Kahana Sunset Condominium

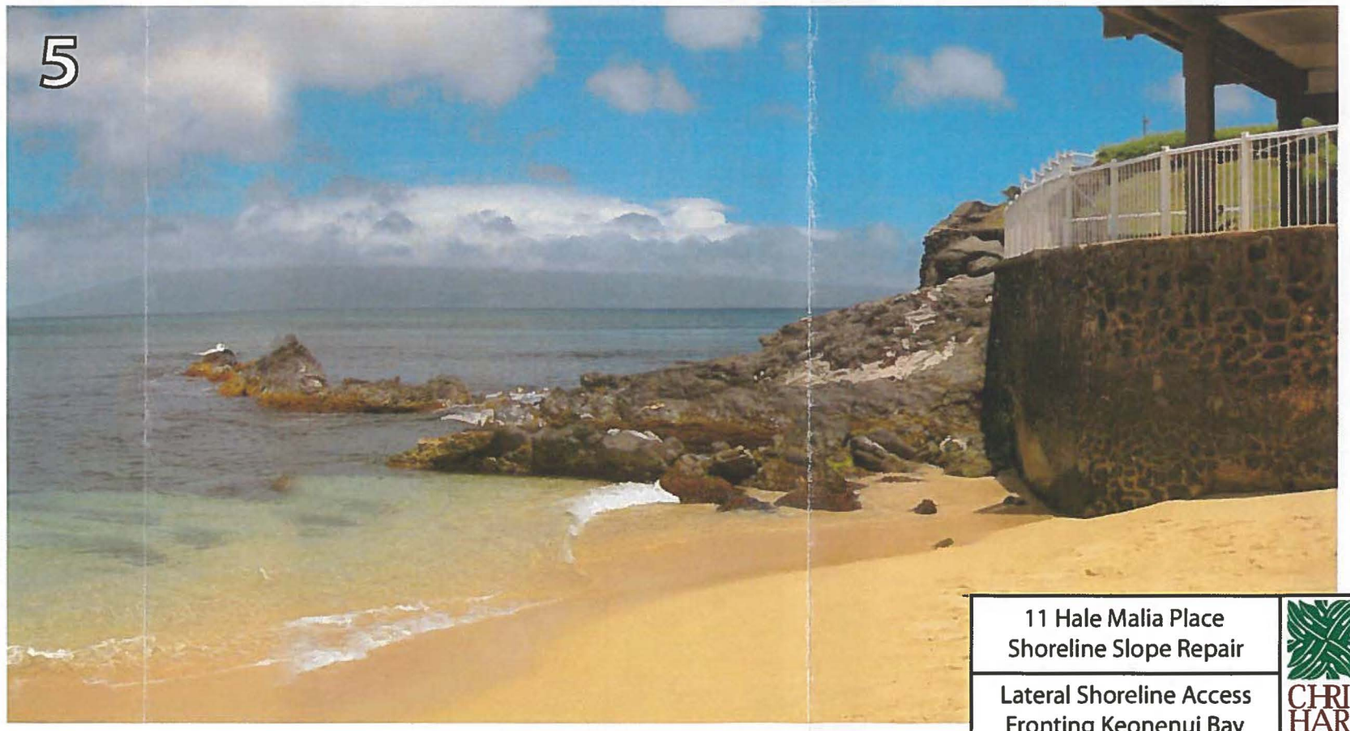


11 Hale Malia Place Shoreline Slope Repair	CHRIS HART & PARTNERS, INC.
Lateral Shoreline Access Fronting Keonenui Bay	

3. Facing south along Keonenui Bay from rocky outcrop at Kahana Sunset Condominium

4-5. Facing north toward rocky outcrop separating Kahana Sunset from subject property





11 Hale Malia Place
Shoreline Slope Repair

Lateral Shoreline Access
Fronting Keonenui Bay

CHRIS HART & PARTNERS, INC.

Exhibit G
Signed Contractor Release Forms

TRANSMITTAL COVERSHEET

EDWARDS DESIGN GROUP, INC.
Architecture & Interior Design
1357 Kapiolani Blvd. Suite 1120 Honolulu, Hawaii 96814 (808) 951-5926 / FAX (808) 951-6519

PROJECT: 11 HALE MALIA PLACE
DATE: 4.16.10
TO: CHRIS HART & PARTNERS, INC.
ADDRESS: 115 N. MARKET STREET
WAILUKU, MAUI, HI 96793-1706
PHONE NO: 808-242-1955
ATTENTION: JASON MEDEMA
FROM: JOHN EDWARDS

We are sending you the following documents:

X attached under separate cover by hand

Copies	Description
1	L.O.TRANSMITTAL, PACIFIC GROUND SYSTEMS: RELEASE FORMS (ORIGINALS)

X as requested for your records **X** for your use for review and comment

Remarks:

To Whom It May Concern:

I was directly involved on-site with excavation and construction activities related to the placement of a structurally engineered shoreline retaining system at the site of a collapsed bluff and seawall located at 11 Hale Malia Place, Lahaina, Maui, HI, TMK (2) 4-3-003:096, which took place between March, 2009 and November, 2009. At no time during the excavation and construction operations did I encounter any human remains or Native Hawaiian cultural artifacts, nor any sub-surface features which would suggest the presence of human remains or Native Hawaiian cultural artifacts.

DANIEL E ORTIZ

Name (Please Print)

4/13/10

Signature Date

To Whom It May Concern:

I was directly involved on-site with excavation and construction activities related to the placement of a structurally engineered shoreline retaining system at the site of a collapsed bluff and seawall located at 11 Hale Malia Place, Lahaina, Maui, HI, TMK (2) 4-3-003:096, which took place between March, 2009 and November, 2009. At no time during the excavation and construction operations did I encounter any human remains or Native Hawaiian cultural artifacts, nor any sub-surface features which would suggest the presence of human remains or Native Hawaiian cultural artifacts.

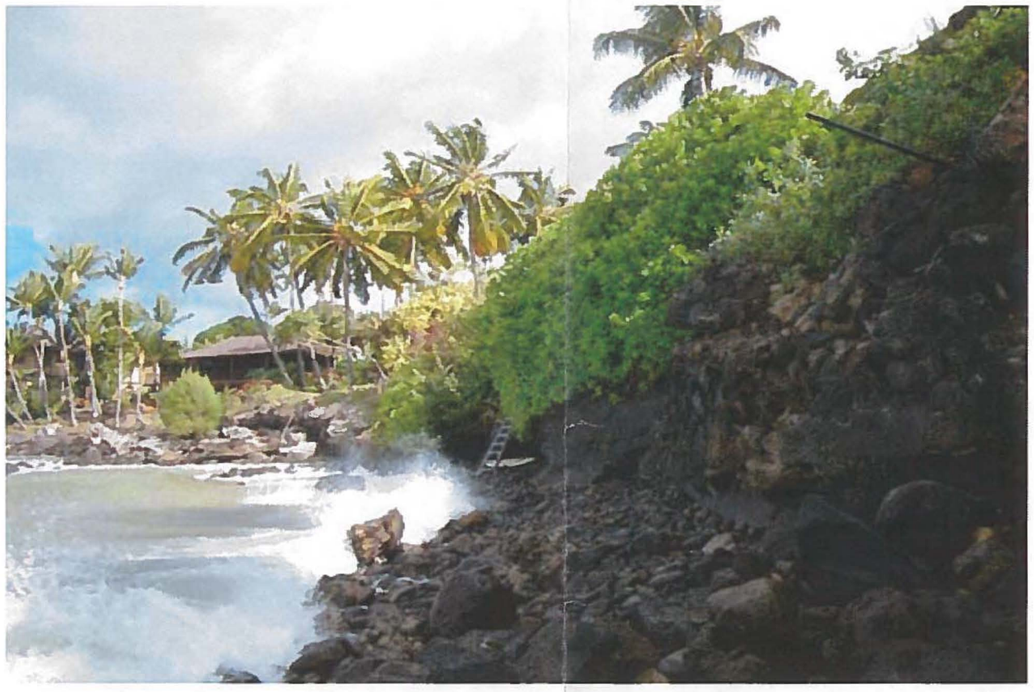
David P. Weber
Name (Please Print)

Signature

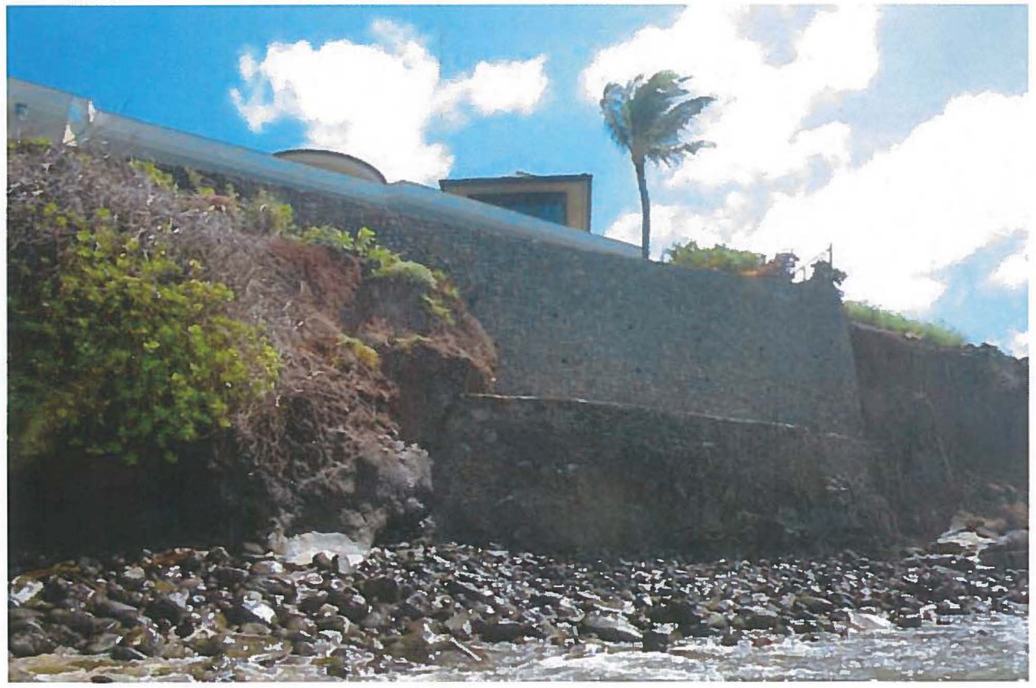
4/13/10
Date

Exhibit H
Pre- and Post-Construction Shoreline Conditions

1. View along shoreline facing south, March 20, 2008



2. View along shoreline facing north from southern property boundary, January 15, 2009



2. Completed wall and adjacent shoreline area, October 18, 2009

4. View of shoreline area and wall, facing north from Kahana Sunset property, April 29, 2010

11 Hale Malia Place
Shoreline Slope Repair

Shoreline Conditions
Pre- and Post-Construction

CHRIS HART & PARTNERS, INC.