Gentry-Waipio, Ltd.
94-539 Puahi Street
Waipahu, Hawaii 96797

Attention: Mr. James White

Subject: FINAL GRADING REPORT
Parcel "a"
Gentry-Waipio, Oahu, Hawaii

Gentlemen:

At your request, we have provided testing and monitoring services for Parcel "a" of the Gentry-Waipio Development in Waipio, Oahu, Hawaii. This parcel consists of Future Lots 1 through 8 on which model homes will be constructed, and the turn-out for the future roadway off Oli Loop, presently under construction.

Work started with a general clearing and stripping of the entire construction area. Soft spots were removed and compacted prior to the start of fill placement.

Actual grading operations then commenced using Caterpillar 621 Scrapers and D-8 and D-9 bulldozers to cut, haul, and spread the materials. Compaction of the materials was accomplished using a Caterpillar 825B tamping roller.

The fill material was generated from the on-site excavations and imported from Borrow Site "B" of the Gentry-Waipio Development. The material consisted of low to moderately plastic clayey silts (ML-MH), and was placed and compacted in uniform lifts of approximately 8 inches in thickness, generally within 4 percent of the approximate optimum moisture content as determined by Laboratory Compaction Test ASTM D1557.

Field density tests performed by our firm indicated that adequate compaction was being obtained. These tests, upon which acceptance is based, showed values in excess of 90 percent relative compaction as determined by the above-referenced test.

In summary, the earthwork for Parcel "a" has been completed in general accordance with the Grading Ordinances of the City and County of Honolulu and the requirements of our Subsurface Investigation Report dated July 9, 1980 and its subsequent amendments. These areas are ready to receive further building improvements and should be grassed as soon as practicable to minimize erosion.
A Site Plan, Figure 1, is included to indicate the field density test locations. The location of Borrow Site "B" is shown in Figure 2. The results of the laboratory and field testing performed by our firm are summarized in Table I and II and graphically exhibited in Figures 3 through 5.

Should you have any questions regarding this matter, please contact us at your convenience.

Respectfully submitted,

FEWELL GEOTECHNICAL ENGINEERING, LTD.

Alan J. Shimamoto, P.E.
Project Engineer

Enclosures

copy to: Community Planning, Inc, (Att: Mr. Robert Sarae)
Borrow Site Location Plan

Reference:
Location Plan by Community Planning, Inc.

General Area:
Waipio, Oahu, Hawaii
Sample: Bag "A"

Description: Reddish brown Clayey SILT (ML)

Laboratory Test Procedure: ASTM D1557

Maximum Dry Density: 105.2pcf

Optimum Moisture Content: 24.5%
Sample: Bag "A"*

Description: Reddish brown Clayey SILT (MH)

Laboratory Test Procedure: ASTM D1557

Maximum Dry Density: 102.5 pcf

Optimum Moisture Content: 26.5%
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<th>Sample Designation:</th>
<th>A</th>
<th>A*</th>
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<tr>
<td>Source:</td>
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<td>Description:</td>
<td>Reddish brown Clayey Silt (ML)</td>
<td>Reddish brown Clayey Silt (MH)</td>
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<td>Density (pcf)</td>
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* Import Borrow Bag A
**TABLE II**

**SUMMARY OF FIELD DENSITY TEST RESULTS**

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<th>Test No.</th>
<th>Date</th>
<th>Location</th>
<th>Elevation</th>
<th>Dry Density pcf</th>
<th>Moisture Content Percent</th>
<th>Material Type</th>
<th>Percent Compaction</th>
<th>Remarks</th>
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* Import Borrow Bag A

File 365-1
Parcel "a"
Gentry-Waipio Development
TO: Gentry-Waipio J/V  
94-539 Puahi Street  
Waipahu, Hawaii 96797

Date: October 6, 1982

Gentlemen:

Re: GENTRY-WAIPIO PARCEL "A"

TML: 9-4-06: FOR. 13

We are sending you herewith X Under separate cover

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<th>No. of Copies</th>
<th>Description</th>
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For: 

X Your information and use  
--- Review and comment  
--- As requested  

Remarks:

The date of our approval, October 4, 1982, is the closing date of the permit. The bond filed with the City for the grading work shall remain in effect for a period of one year after the closing date; therefore, it will be returned to you on October 4, 1983.

Very truly yours,

Michael J. Chun
Director and Chief Engineer

cc: Community Planning, Inc.
United Pacific Insurance Company  
bcc: Service Engineer w/original

201-22-0586

SR-76
To the Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  

APPLICATION AND PERMIT FOR  

GRADING  

Application is hereby made to do grading work in conformity with Chapter 23, R.O. 1978, as amended, as follows:

<table>
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<tr>
<th>TAX MAP KEY</th>
<th>ENG. SOILS REPORT</th>
<th>EST. QUANTITY</th>
<th>PERMIT FEE</th>
<th>FEE RECEIVED</th>
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Located at GENTRY-WAIPIO "PARCEL 8 & 9" WAIPIO

Lot Area: ________________________ Sq. Ft. 1.2 Acres

Description of Soil

Fill Material: ________________________

Existing Ground: Reddish Brown Soil

Estimated Starting Date: __6-21-82__ Estimated Completion Date: __11-26-1982__

Remarks/Purpose of Work: to grade site for development.

Owner: GENTRY-WAIPIO - 9
Address: 733 Bishop
Phone: 5369631

Engineer: COMMUNITY PLANNING
Address: 700 Bishop
Phone: 5319252

Contractor: RAMCO
Address: 1600 Kapio Lani Suite 122
Phone: 9496633

Date of Application: __5-20-1982__ Permittee: __John Holmberg__

Application Reviewed By: ________________________ Date: __19__

To the Applicant:

Permission is hereby given to do the above work according to the conditions hereon and according to the approved plans and specifications pertaining thereto, subject to compliance with Chapter 23, R.O. 1978, as amended.

Remarks:

Date: __5-20-1982__

Contractor shall notify this office two working days before commencing any work and arrange for necessary inspectional services.

THIS PERMIT WILL EXPIRE UNLESS WORK IS STARTED WITHIN 90 DAYS FROM DATE OF ISSUE; OR IF WORK IS SUSPENDED OR ABANDONED FOR 60 DAYS OR MORE AFTER WORK IS BEGUN; OR ONE YEAR FROM DATE OF ISSUE.

I hereby certify that all work as requested above has been completed in conformity with Chapter 23, R.O. 1978, as amended and in accordance with the approved plans and specifications.

Date: __9-27-82__ Permittee: __John Holmberg__

Date: __October 4, 1982__ Approved By: __William Hooven__

Final Soils Report Date Filed: __1982__
Dr. Michael J. Chun  
Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
Honolulu, Hawaii

Dear Dr. Chun:

Subject: Grading Certification  
Gentry Waipio - Parcel "a"  
(Paani Cluster Model Home Site)  
Tax Map Key: 9-4-06: Por. of 13

Grading for the subject project is completed and in substantial conformance with the approved grading plans of May 14, 1982.

Very truly yours,

COMMUNITY PLANNING, INC.

Bernard P. Kea

BP:RS:cl

cc: James White  
Ramco, Inc.