

JOHN WAIHEE  
GOVERNOR OF HAWAII



KEITH W. AHUE, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES  
JOHN P. KEPPELER, II  
DONAL L. HANAIKE

RECEIVED  
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
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HONOLULU, HAWAII 96809

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

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

SEP 22 1993

FILE NO.: OA-2645  
I.D. NO.: 1709

MEMORANDUM

TO: Mr. Brian Choy, Director  
Office of Environmental Quality Control

FROM: Honorable Keith W. Ahue, Chairperson *KAH*  
Department of Land and Natural Resources

Subject: Negative Declaration for Conservation District Use Application  
to Construct a Concrete Driveway and Drainage Improvements at  
Tantalus, Honolulu, Oahu, (TMK: 2-5-15: 5)

The Department of Land and Natural Resources has reviewed the comments received during the 30-day public comment period which began on July 8, 1993. We have determined that this project will not have significant environmental effect and have issued a negative declaration. Please publish this notice in the OEQC Bulletin as soon as possible.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the final EA. Please contact Cathy Tilton of our Office of Conservation and Environmental Affairs at 587-0377, if you have any questions.

Enclosure

5254

154

1993-10-08-OA-*FEA*-*Dillingham Construction of Driveway and*  
*Install Drainage Improvement* OCT - 8 1993

**FINAL ENVIRONMENTAL ASSESSMENT FOR  
DILLINGHAM PROPERTY DRIVEWAY IMPROVEMENTS PROJECT  
TANTALUS, OAHU**

**Submitted by:**

**First Hawaiian Bank  
Trust - Real Estate  
P.O. Box 3200  
Honolulu, HI 96847**

**Prepared by:**

**Belt Collins & Associates  
680 Ala Moana Boulevard, Suite 200  
Honolulu, HI 96813**

**September 1993**

## 1.0 INTRODUCTION

The applicant is Harold Dillingham Jr. and the First Hawaiian Bank Trust-Real Estate. The applicant owns two parcels on Tantalus, in Makiki on Oahu, Hawaii (Figure 1). An existing private driveway straddles the two parcels, TMK 2-5-15:4 and 5. It is routed around the western and southern boundaries of parcel TMK 2-5-15:5 and passes directly in front of the applicant's home, which is located on parcel TMK 2-5-15:4 (Figure 2). The driveway provides access to two adjacent properties owned by Charles and Allison Holland (168 Poloke Place, parcel TMK 2-5-15:22) and Robert and Judy Buntin (169 Poloke Place, parcel TMK 2-5-15:3), as well as to the Dillingham residence. The driveway, and the land beneath it, is owned by the applicant; there are no reported encumbrances on the applicant's title to either of his parcels.

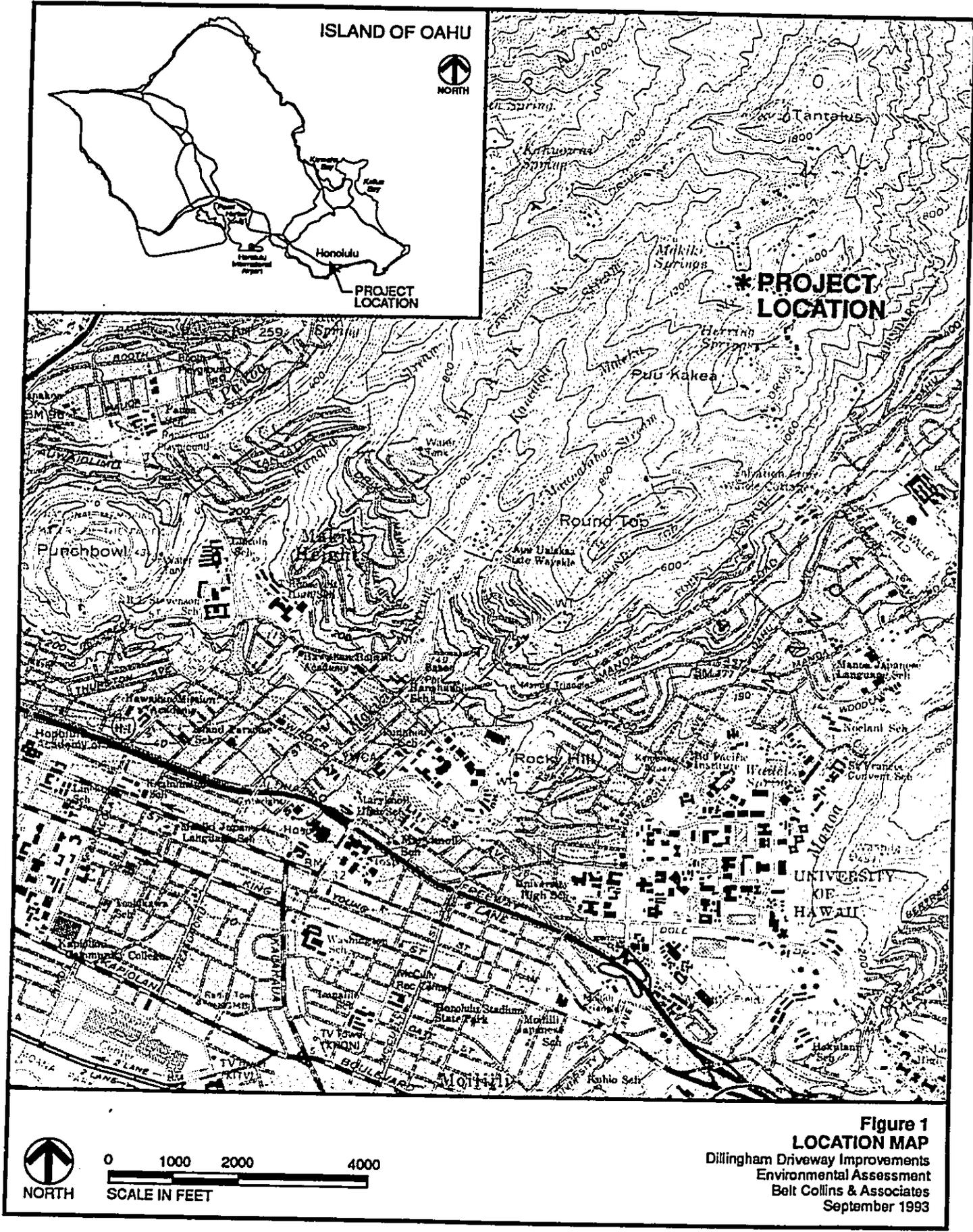
The applicant proposes to re-route the driveway along the northern and eastern boundaries of parcel TMK 2-5-15:5, which, with the exception of the existing driveway and a concrete foundation, is vacant (Figure 3). The proposed routing will improve access to the adjacent parcels and improve surface drainage, while reducing traffic directly in front of the applicant's home.

Because the property where the proposed driveway would be constructed is in a State Conservation District, a Conservation District Use Application (CDUA) must be approved prior to the start of construction. This environmental assessment is in support of the CDUA.

The State Department of Land and Natural Resources (DLNR) is the agency responsible for reviewing this application; the Board of Land and Natural Resources is the approving agency. Other agencies that have been consulted include the City and County Department of Public Works Refuse Collection and Disposal Division, Division of Engineering and the City and County Fire Department. Preliminary plans were submitted to these agencies for their review. Based on recommendations from the Refuse Collection and Disposal Division, the plans were revised. The agencies have approved the design that is presented in this document (Appendix A and Appendix B). Revised plans were submitted to the Department of Health who determined that the proposed seepage wells are not injection wells (see response letter in Appendix C).

Adjacent property owners (Hollands and Buntins) were notified of the proposed actions and were consulted during the planning and design of the proposed relocation and drainage improvements. A copy of the signed "Driveway Relocation Agreement" between the applicant and the adjacent property owners is included in Appendix D. This agreement grants the Hollands and Buntins perpetual easement over the proposed driveway, when constructed, in exchange for their agreement to surrender use of the existing driveway.

133.6001/001/m



ISLAND OF OAHU



PROJECT LOCATION

\* PROJECT LOCATION

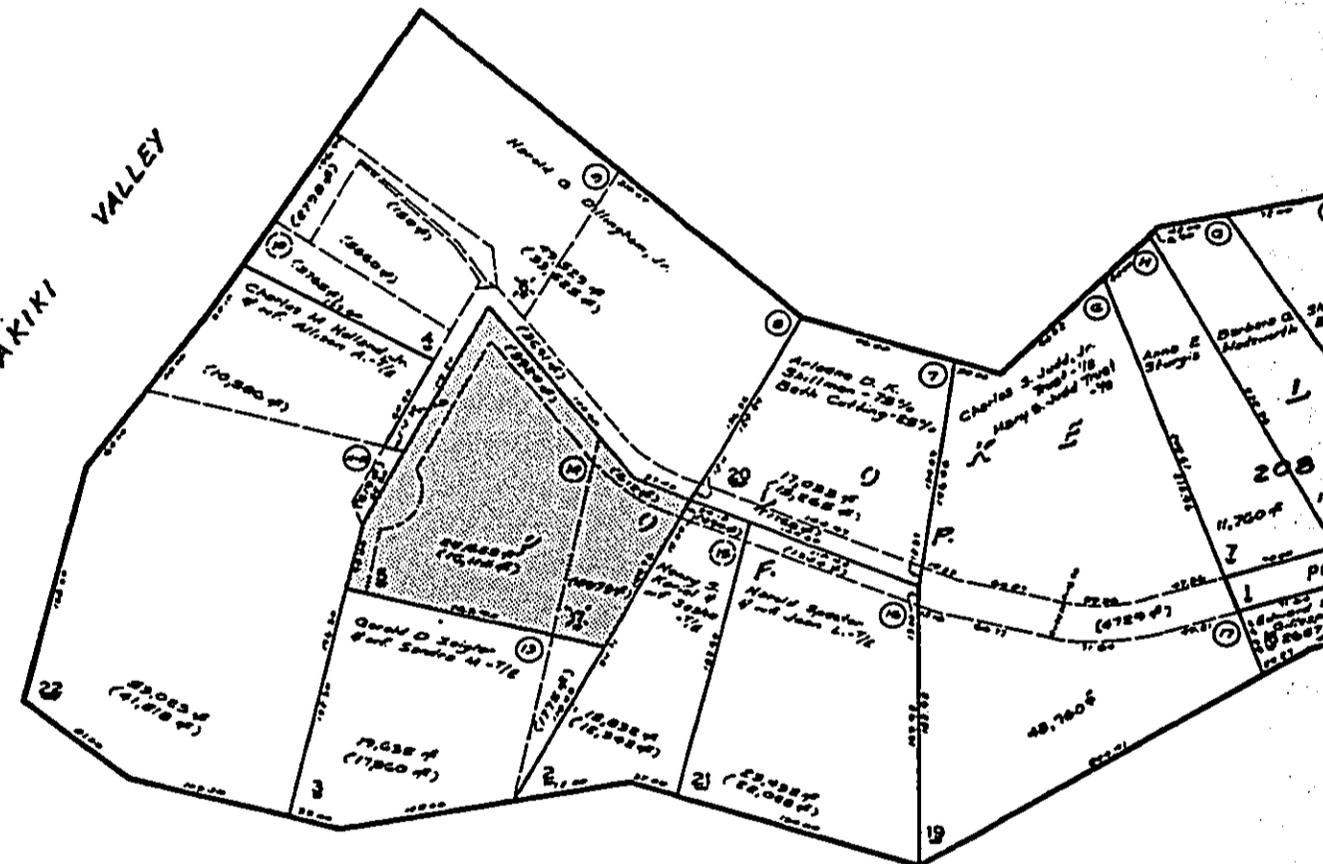


0 1000 2000 4000  
SCALE IN FEET

Figure 1  
LOCATION MAP  
Dillingham Driveway Improvements  
Environmental Assessment  
Belt Collins & Associates  
September 1993

PLAT 19

MAKIKI VALLEY



PLAT 19

PLAT 16  
SCHMIDT EST. SUBDIVISION

1 538

POLOKE LOTS, TANTALUS HEIGHTS, F. P. 208, MAKIKI, HONOLULU, OAHU, HAWAII



NORTH



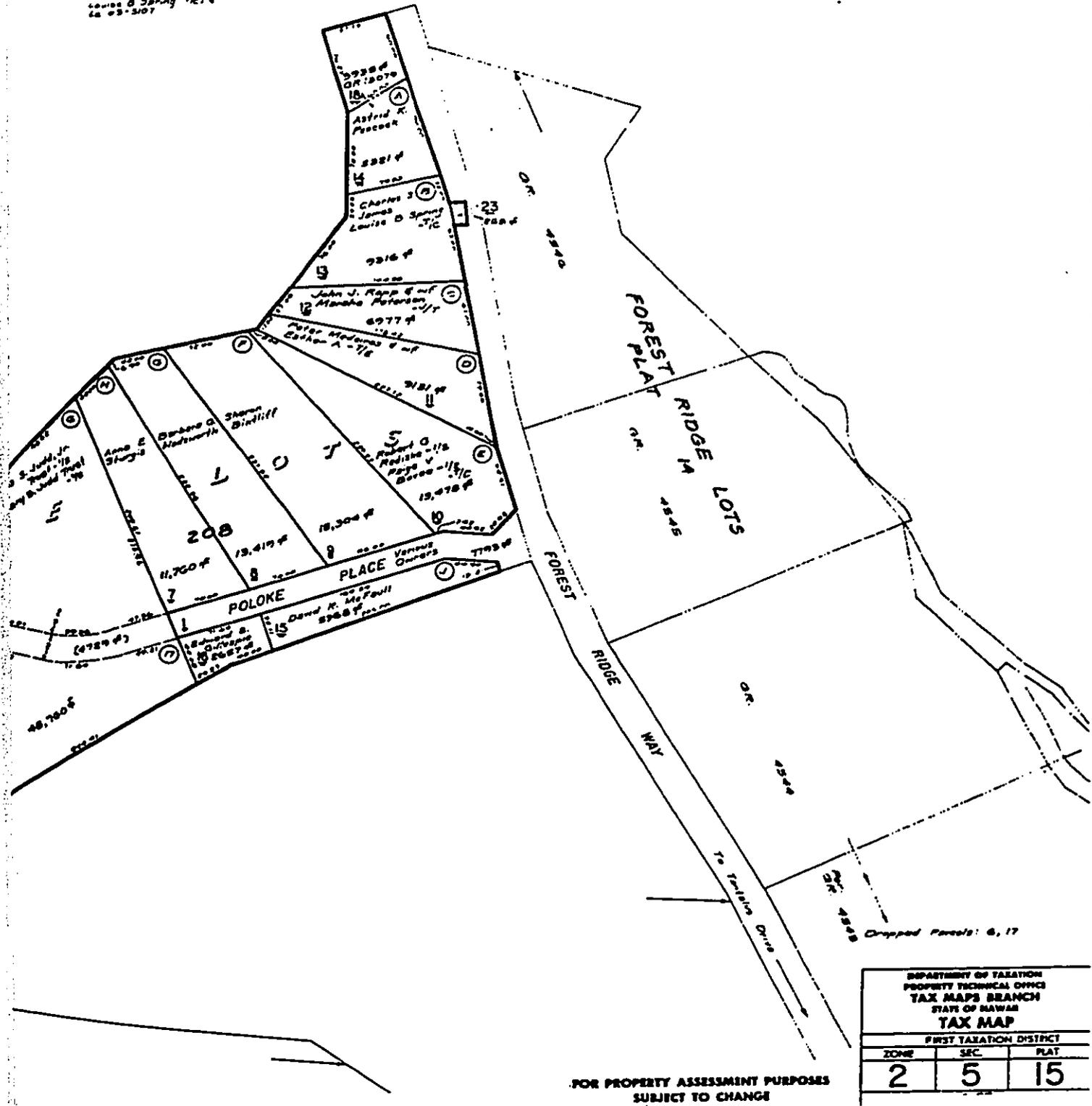
SCALE IN FEET

LEGEND

Site of Proposed Driveway Improvements

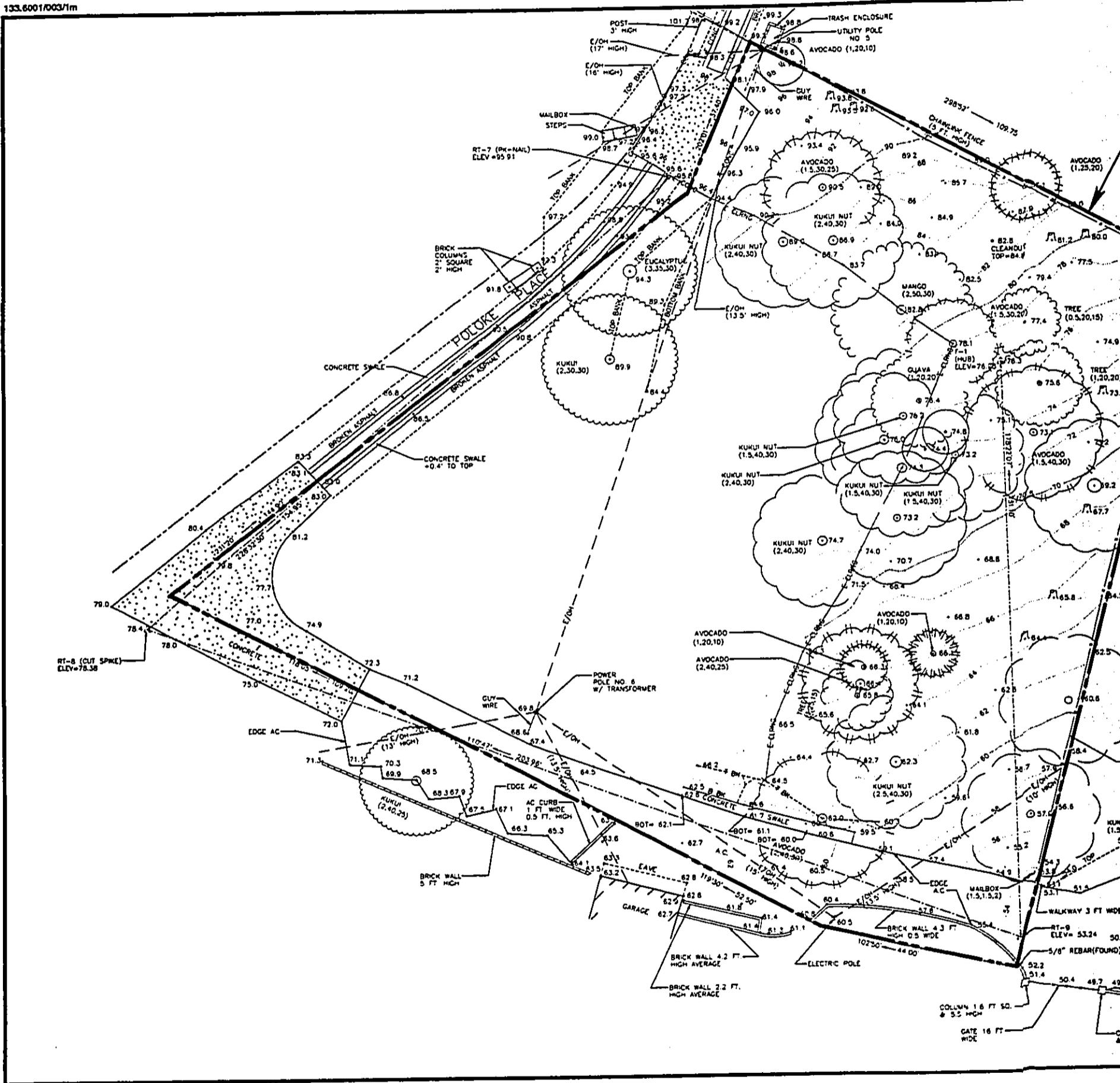
Note: Parcel 2-5-15:3 was acquired by Robert Lenard Buntin and wife Judy Satoko Buntin since this tax map was last updated.

23 State of Hawaii  
 Charles B. James  
 Commissioner  
 LA 03-307

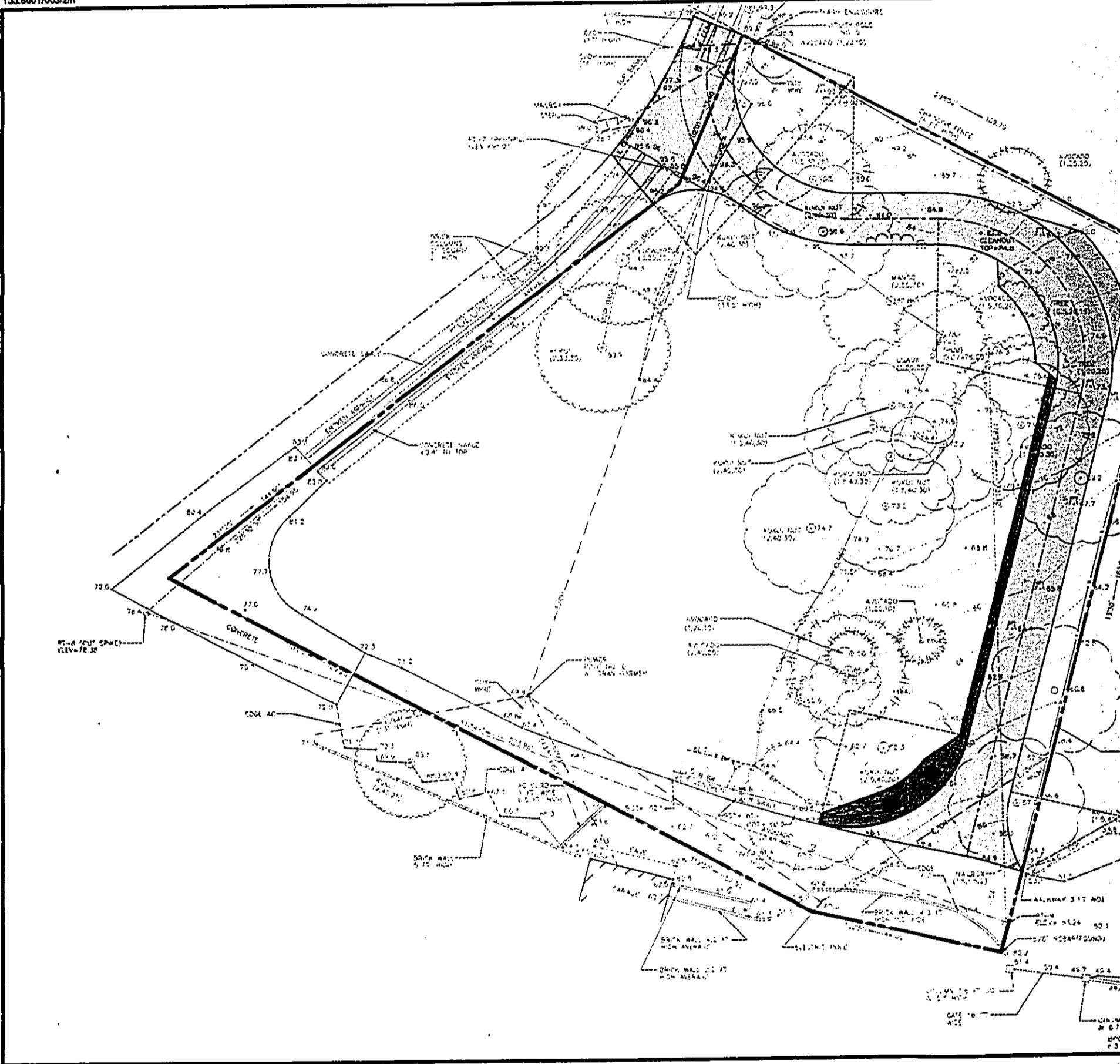


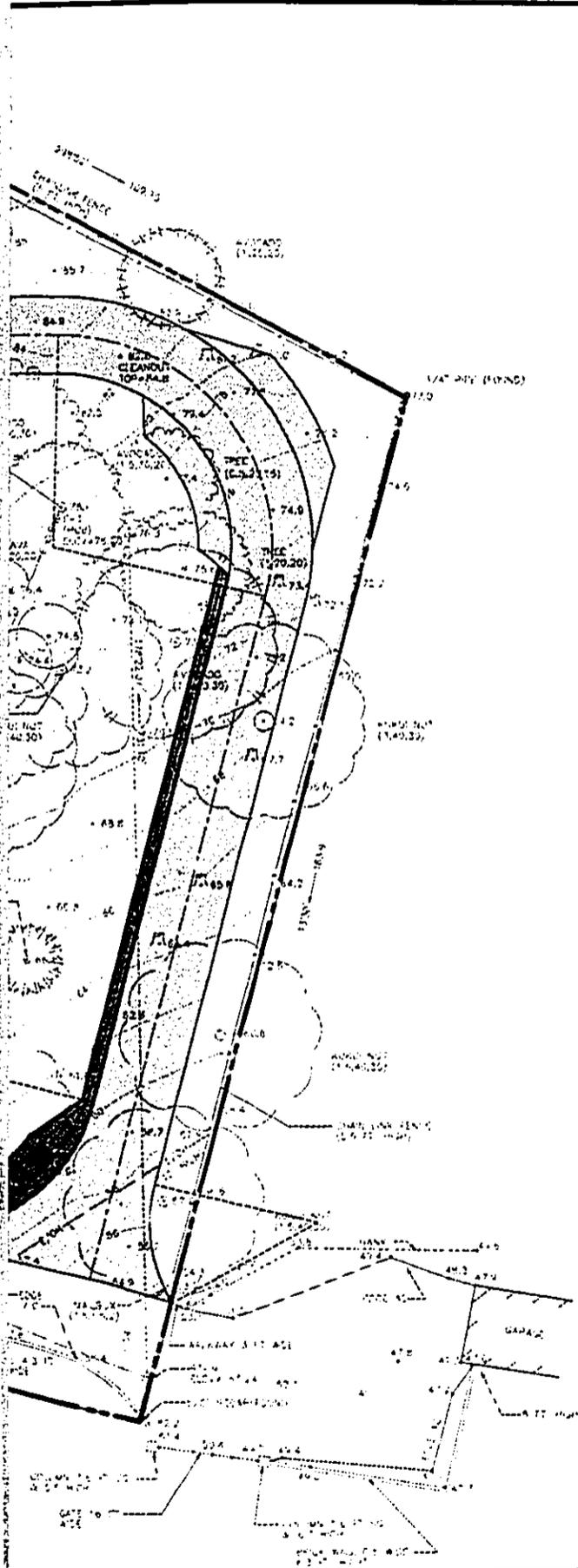
Since this tax map was last updated.

**Figure 2**  
**TAX MAP 2-5-15**  
 Dillingham Driveway Improvements  
 Environmental Assessment  
 Belt Collins & Associates  
 September 1993

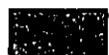






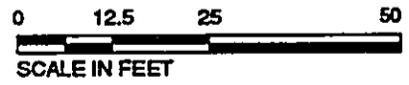


**LEGEND**

-  New Concrete Pavement
-  New Drainage Swale
-  New Dry Wells



NORTH



**Figure 4**  
**SITE PLAN WITH PROPOSED IMPROVEMENTS**

Dillingham Driveway Improvements  
Environmental Assessment  
Belt Collins & Associates  
September 1993

## **2.0 DESCRIPTION OF THE PROPOSED ACTIVITY**

The applicant proposes to install a new driveway on his property. The project will require grading, construction of a concrete driveway and installation of drainage improvements. Access to the existing driveway will be restricted by a gate, but would remain available for emergencies.

### **2.1 Purpose of the Proposed Project**

Currently, the Dillingham residence and those of the adjacent property owners (Holland and Buntin) are accessed via Poloke Place and the present driveway which is routed around the west and south sides of parcel TMK 2-5-15:5 (Figure 2). The existing driveway, much of which consists of two narrow concrete slabs spaced approximately an axle width apart, is less than ten feet from the applicant's home.

The primary purpose of the proposed project is to reduce the noise and annoyance generated by traffic which now passes directly in front of the applicant's home, and to provide a better driveway surface. The proposed driveway would improve access to the adjacent properties, as well as the Dillingham residence. The existing driveway could also be used in emergency situations. Improved access, particularly by emergency and service vehicles, will benefit all of the property owners. Installation of a drainage swale and seepage wells concurrent with the driveway construction will improve drainage conditions in the area, particularly in the vicinity of the Holland property.

### **2.2 Detailed Description**

Nine mature trees in the path of the proposed driveway, including five kukui nut and two avocado, will be removed by professional gardeners prior to the start of construction. A combination bulldozer and backhoe, or similar equipment, will be used to clear, grub, and rough grade the area of the proposed driveway.

The existing grade will be altered through a combination of cut and fill operations. Approximately 100 cubic yards of material will be excavated. It is anticipated that the majority of the excavated material will be used on-site as fill to build up the existing grade. The remainder will be disposed of by the contractor off-site, in conformance with applicable State and City and County regulations.

Following fine grading, the subgrade will be compacted in place. Graded aggregate base course will be laid on the prepared subgrade and compacted. Concrete forms will then be constructed and the reinforcing material (welded wire fabric) will be set to lay in the center of the poured concrete slab. The driveway will be poured in sections.

The driveway will be approximately 12 feet wide and will be about 250 feet long. The finished grade of the new driveway will range from about six percent at its

connection with the existing driveway to nearly 19 percent along most of its length. A passing area approximately 22 feet wide will be provided near the curve in the drive (Figure 4).

A drainage swale will be constructed adjacent to the driveway, extending from the passing area to the driveway end (Figure 4). The swale will intercept runoff from areas upslope of the driveway and most of the driveway itself. Water will be directed downslope along the swale to two seepage wells. The drainage swale will be V-shaped, two feet wide. It will be constructed of concrete on a layer of compacted base course and prepared subgrade. The driveway and the drainage swale will be constructed concurrently.

Following completion of the driveway and swale, the seepage wells will be excavated. Clean aggregate will be placed in the bottom of the excavations and pre-cast concrete rings will be installed to form the sides of the seepage wells. Aggregate will be placed between the CMU or rings and the sides of the excavations to facilitate drainage from the seepage wells.

The seepage wells were designed to accommodate runoff volume generated during a 10-year recurrence interval storm event, approximately 333 cubic feet. This design criterion was based on City and County Department of Public Works Storm Drainage Standards (March 1986; Revised May 1988). According to the Department of Health Safe Drinking Water Branch Environmental Management Division, the seepage wells are not injection wells and do not require an Underground Injection Control permit (see Appendix C).

A total of about 550 cubic yards of concrete will be required for the driveway and swale. All aggregate used in the project will be free of fine-grained material, organics, and other undesirable constituents. Design of all components has been coordinated with geotechnical engineers who performed soil sampling and analyses. An engineer will supervise the construction operations.

It is expected that construction can be completed within four to five weeks. The preliminary cost estimate indicates that the project will be constructed for less than \$65,000.

According to the "Grant of Easement" (included in Appendix D), the adjacent property owners, Holland and Buntin, will have primary responsibility for driveway maintenance and repair and maintenance of the drainage improvements. The document further specifies that the applicant's responsibility for maintenance costs will be in proportion to his use of the "easement area".

### 3.0 DESCRIPTION OF AFFECTED ENVIRONMENT AND INVESTIGATION OF POTENTIAL IMPACTS

#### 3.1 Existing Conditions

##### 3.1.1 Geology, topography, and climate

The applicant's property is located approximately 3,000 feet downslope from Tantalus peak, at an average elevation of about 1,500 feet. The existing land slopes range from approximately 21 percent to 33 percent. Rainfall in the area averages about 120 inches per year; average monthly rainfall is about eight to 12 inches.

The U. S. Department of Agriculture Soil Conservation Service (Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. August, 1972) classifies the soil in the area as Tantalus silt loam. This soil has developed from volcanic ash and weathered cinders and its characteristics may vary significantly within short distances. It is fairly permeable and well-drained; the erosion hazard is classified as moderate.

Runoff from the property is by sheetflow, generally from the northwest toward the southeast. Large storms routinely result in ponding of water at the lower end of the existing driveway near the Holland garage.

##### 3.1.2 Flora and Fauna

The area of the proposed driveway realignment was cleared for maintenance purposes recently. The remainder of the property is covered by a five- to six-foot high stand of scrub vegetation. Common species in the area of the proposed alignment are ginger, bamboo, ti, and banana. About thirty mature trees, reaching heights of 30 feet, are found throughout the parcel, including avocado, kukui nut, and guava.

No mammals were observed during two site visits to the property, but based on general information about the Tantalus area, it is expected that resident mammals are limited to feral dogs and cats, and various rodents. Native birds that might inhabit or traverse the area include the endemic Hawaiian short-eared owl or pueo (*Asio flammeus*) and elepaio (*Chasiempis sandwichensis*) (P. Brunner, M.S., personal communication, 1993). Most of the birds in the area are introduced species, such as doves and thrushes. None of these species are on the Federal list of threatened or endangered species. The endangered Hawaiian Hoary Bat (*Lasiurus*) has been reported in the Tantalus area in recent years (P. Brunner, personal communication, 1993). It is unknown whether the bat is a resident of the area, or whether it flies regularly between the different Hawaiian islands.

### **3.1.3 Historical and Archaeological Resources**

The State DLNR Historic Preservation Division was consulted during the planning stages of the project to investigate the possibility that historical or archaeological resources existed in the vicinity of the proposed driveway relocation. Their response (attached as Appendix E) indicated that the only known historic sites in the area are downslope from the project site. Records do not show any sites that extend into upper elevations.

### **3.1.4 Utilities, Infrastructure and Noise Issues**

Electric power and telephone service to the three properties are supplied via overhead lines. Water is supplied by individual rain catchment systems and domestic wastewater is disposed of in individual septic systems. No storm drainage system exists on the applicant's property, or on adjacent parcels. The existing driveway is an extension of Poloke Place, a private road which accesses State-owned Forest Ridge Way. The driveway, and the land beneath it, is owned by the applicant with no recorded encumbrances. Because the property is in a small residential neighborhood surrounded by open space, existing noise levels are very low.

### **3.1.5 Man-made Environment**

The only improvements on the parcel where the new driveway is proposed are the existing driveway and a concrete foundation, approximately 20 feet square, located near the southwest corner of the parcel. The applicant indicated that the foundation is the only remaining part of a dwelling that had been abandoned for many years and was recently destroyed by fire. Residences and associated structures (e.g., garages) are located on adjacent parcels. Evidence of past habitation, including discarded water piping and a bathtub were found in the area of the proposed driveway during a visit to the property in January 1993. In addition, two empty tanks were found that were subsequently determined to have been used for propane storage. The applicant will dispose of this debris prior to the start of construction.

## **3.2 Potential Construction Impacts and Mitigation Measures**

### **3.2.1 Potential for Increased Soil Erosion and Fugitive Dust Emissions**

Erosion will be minimized through a combination of grading operation specifications (e.g., keying the fill) and temporary and permanent erosion controls. Temporary erosion controls may consist of limiting the areal extent of the excavations and/or installation of siltation curtains. Temporary erosion controls will not be removed until permanent controls are in place and established. Permanent erosion controls will consist of sod or other vegetation. All exposed areas will be planted as soon as final grading has been completed. Grading to final grade will be continuous, and any area in which work has been interrupted or

delayed will be planted. The contractor will minimize fugitive dust from the excavation through standard control methods.

### **3.2.2 Potential Impacts on Flora and Fauna**

None of the trees to be removed are threatened or endangered. The trees will be chipped and used for mulch on the property. In addition, the applicant proposes to plant nine trees on the property after completion of construction to replace those removed.

Wildlife in the area may be adversely affected by increases in the number of people on the property, noise, and other construction-related effects. These impacts, however, will be temporary and short-lived; they are not expected to have any lasting effects on birds or other animals.

The only endangered species that may exist in the general vicinity of the proposed project site is the Hawaiian Hoary Bat. It is unknown, however, if the animal is a resident of the Tantalus area or whether it merely transits the region. In addition, any potential construction-related impacts would be temporary and localized.

### **3.2.3 Potential Impacts on Historical and Archaeological Resources**

Personnel at the DLNR Historic Preservation Division have indicated that no known historic or archaeological resources are expected near the applicant's property and that construction of the proposed driveway should have "no effect" on significant historical or archaeological resources (see Appendix E). However, the contractor will be instructed to cease work if any potentially significant items (e.g., shell or charcoal deposits, burials, pavings, or walls) are excavated and contact the State Historic Preservation Division. The supervising engineer will be informed of this contract provision.

### **3.2.4 Potential Noise Impacts**

Noise levels are expected to increase significantly during the construction period due to use of large earth-moving equipment, cement mixing trucks, and other construction equipment. Adequate provisions for reducing noise levels, day-time, weekday work periods, and obtaining approvals from adjacent land owners should minimize complaints.

### **3.2.5 Other Potential Impacts**

In addition, there is a possibility that an abandoned septic system may be unearthed during the construction process. (One was believed to exist on the property, but its exact location is unknown.) If it is located, the contractor will fill it in with engineer-approved aggregate before proceeding with the grading operations.

### **3.3 Potential Post-Construction Impacts and Mitigation Measures**

The proposed driveway construction is not expected to alter the total volume of traffic or number of individuals on the applicant's property or in the adjacent area. Improved access to the applicant's property and adjacent properties will benefit all three property owners.

The primary change to the environment following completion of construction activities will be a change in the surface drainage. Runoff associated with the parcel will increase as a result of an increase in the impermeable surface. The proposed seepage wells will collect most of the increased runoff as well as the existing runoff that currently drains in the direction of the wells and disperse it to the subsurface in a controlled manner. The net effect of the seepage wells is expected to be a reduction in the volume of surface runoff from the property and improved drainage conditions, particularly in the vicinity of the Holland property.

No long-term effects to flora or fauna are expected. No impacts to the existing infrastructure, utilities, or general population are expected. Access to the properties will be improved.

### **4.0 RELATIONSHIP TO LAND USE PLANS**

The primary goal of the Conservation District, in which the property is located, is protecting and preserving natural and scenic resources in order to insure "optimum long-term benefits for the inhabitants of the State." The State seeks to accomplish this goal through "judicious development and utilization" of these districts (Hawaii Administrative Rules Title 13 Chapter 2).

The Conservation District is further divided into subzones. The State's objectives vary slightly for the five subzones. The applicant's property is in the Resource subzone, the objective of which is to "develop, with proper management, areas to ensure sustained use of the natural resources of those areas".

The existing driveway, buildings, and other man-made structures were constructed between 1900 and 1928. The applicant purchased the properties in 1945 (Tax Assessors Office). The existing uses are the same as they were prior to October 1, 1964, the date the Conservation district line was established. Consequently, the existing uses of the applicant's properties are considered lawful "non-conforming" uses according to the definitions presented in Hawaii Administrative Rules Title 13 Chapter 2.

Residential dwellings have been permitted in the General and Resource subzones of the Conservation District as conditional uses. Repairs and minor improvements to these properties have generally been allowed by the State. The proposed driveway is an alteration of an existing use of the property, not a new use.

County zoning in the area is P-1, Restricted Preservation. Likewise, the region is designated Preservation on the City and County Development Plan map.

## **5.0 ALTERNATIVES TO PROPOSED PROJECT**

### **5.1 No Driveway Relocation**

The "no project" alternative will result in no impacts to the environment as a result of construction of the proposed driveway. However, it also will provide no benefits to the applicant or the adjacent property owners. Because this option does not attain the objectives of the proposed action, it is not considered a reasonable alternative.

### **5.2 Alternative Location for Proposed Driveway**

The proposed driveway could be constructed elsewhere on the property, such as diagonally across the parcel. Other alignments were investigated during the design process, but were rejected because of lack of feasibility (e.g., a prohibitively steep grade) or because of potentially greater impacts (e.g., removal of more trees or more extensive grading). The proposed realignment was designed to accomplish the intended goals with minimal impacts.

## **6.0 DETERMINATION OF NO SIGNIFICANT IMPACT**

The proposed driveway realignment will not cause any permanent impacts to flora, fauna, or habitat. No historical or archaeological sites are expected to be impacted, nor does the project have any socioeconomic implications. No long term impacts on air or water quality are expected. The proposed project will have no effect on the existing infrastructure and no permanent adverse impacts on residents in the surrounding area.

Increases in noise levels and fugitive dust during construction will be temporary and mitigated to the greatest extent possible. The potential for soil erosion during construction will be reduced significantly by the use of erosion controls. Other temporary impacts, such as wildlife disturbance will be short-lived and reversible.

Several positive benefits are likely to result from the project. Access by service and emergency vehicles to the adjacent properties will be improved. In addition, installation of the seepage wells will reduce surface runoff from the property and facilitate better drainage on the applicant's property and adjacent parcels.

**APPENDIX A**

**Response from the City and County Department of Public Works Refuse  
Collection and Disposal Division**

DEPARTMENT OF PUBLIC WORKS  
**CITY AND COUNTY OF HONOLULU**  
DIVISION OF REFUSE COLLECTION AND DISPOSAL  
650 SOUTH KING STREET, 14TH FLOOR  
HONOLULU, HAWAII 96813



FRANK F. FASI  
MAYOR

C. MICHAEL STREET  
DIRECTOR AND CHIEF ENGINEER

FRANK J. DOYLE  
CHIEF

IN REPLY REFER TO:

RC 93-030

February 2, 1993

Mr. Alan Kato  
Belt Collins & Associates  
680 Aia Moana Boulevard  
First Floor  
Honolulu, Hawaii 96813-5406

Dear Mr. Kato:

Subject: Driveway Relocation for Harold Dillingham  
Off of Poloke Place, Tantalus

We will provide service on the proposed driveway, subject to the following:

- Provide a minimum turnaround as shown on the attached sketch.
- Because we will no longer be able to turn around on Poloke Place, our truck will only travel on the proposed driveway. Any rubbish on the "tail end" of Poloke Place will have to be brought out and placed at the intersection of Poloke Place and the beginning of the new driveway. In addition, we will pick up any rubbish placed at the edge of the proposed driveway.
- The owner of the new driveway or his agent shall be responsible for working out with neighbors any changes in refuse placement caused by this proposal.

Should you have any questions, please call David Shiraishi at 527-5697.

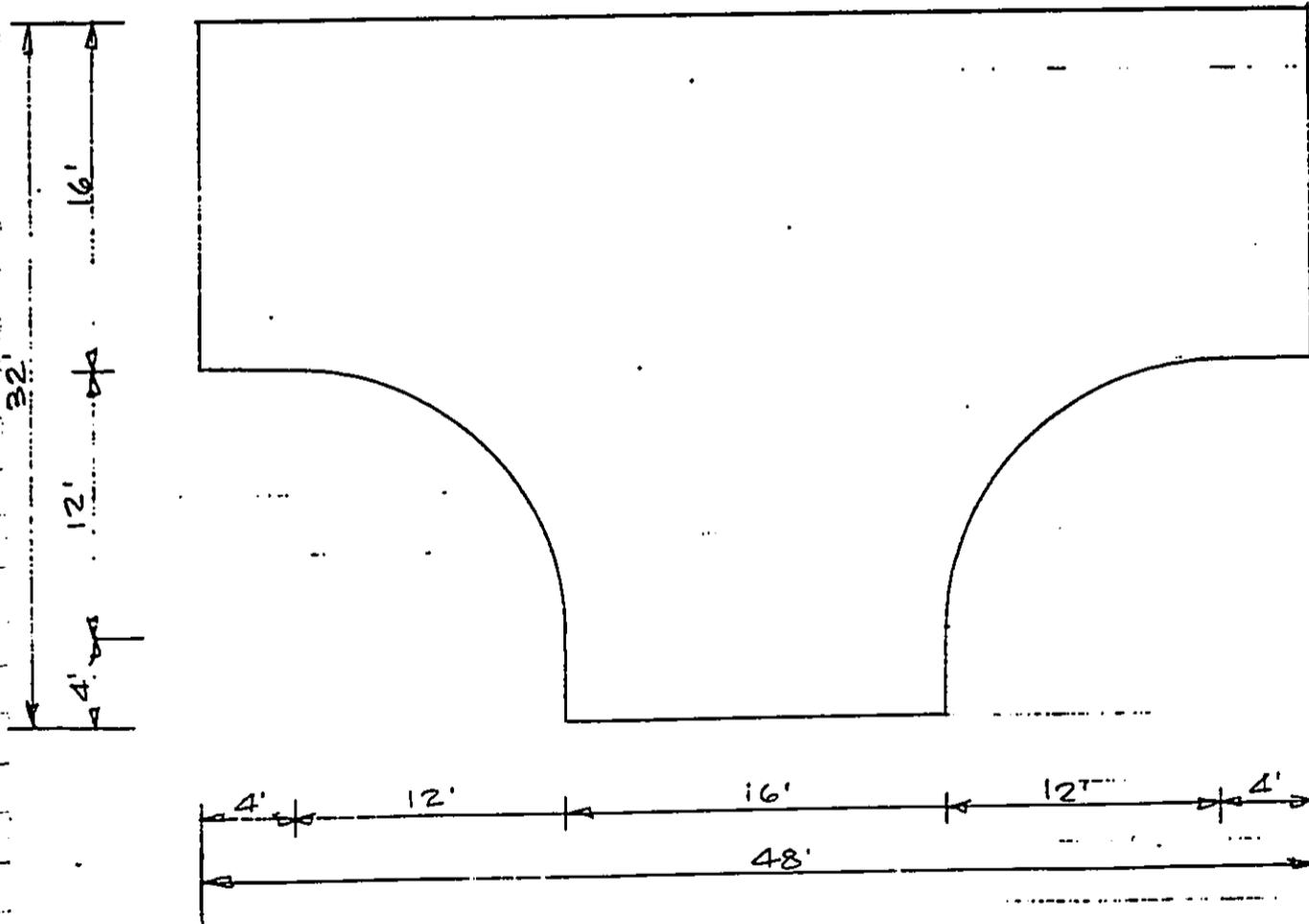
Sincerely,

A handwritten signature in black ink, appearing to read "Robert Young", with a long horizontal flourish extending to the right.

ROBERT YOUNG  
Acting Chief

Attach.

MINIMUM TURNAROUND FOR 13 C.Y. TRUCK



**APPENDIX B**

Response from the City and County Fire Department

January 4, 1993  
133.6000/93E-0002

Captain Michael Chung  
Plans Examination Section  
Fire Department  
Municipal Building - 1st Floor  
650 South King Street  
Honolulu, Hawaii 96813

Dear Captain Chung:

Driveway Relocation for Harold Dillingham

We are providing engineering design services for the relocation of the private driveway at the end of Poloke Place, located at Tantalus, Oahu, Tax Map Keys 2-5-15: 4 and 5, see attached maps. The relocated driveway is to provide privacy for Mr. Harold Dillingham's property, Tax Map Key 2-5-15: 4, while maintaining access to the lots at the end of the existing driveway, Tax Map Keys 2-5-15: 3 and 22. The existing driveway will remain, however access will be limited by a gate or some other means. There is no intention to provide a looped driveway. Mr. Dillingham also has tentative plans to construct a house in the lot, Tax Map Key 2-5-15: 5, where the new driveway traverses through. The new concrete driveway will be 12' wide with turning radii of 27'. The maximum slope along the new driveway is 18.92%.

In comparison to the existing driveway, the proposed driveway will be an improvement. The existing driveway varies in width and composition. Approximately 100 feet is 10 feet wide broken asphaltic concrete with two - 1 foot wide concrete grooves 5 feet on center. Approximately 70 feet is concrete pavement with the driving surface varying in width from 10 to 14 feet. This concrete area, located in the southwest corner of the site, is used as the turn-around for the refuse vehicles. The radius on this turn-around is about 15 feet. The remaining driveway, some 150 feet in length, is asphaltic concrete pavement, which varies in width from 12 to 20 feet. The slope on the existing driveway averages 13%, with a maximum sustained slope of 17%.

*No Objections! 1/6/93*

*B. K. K.*

*IF A KEYED GATE IS INSTALLED ON EXISTING  
DRIVEWAY, PROVIDE KNOX BOX. (FROM FIRE PREVENTION BUREAU)*

**APPENDIX C**

**Response from the State Department of Health**

WAIHEE  
OF HAWAII



JOHN C. LEWIN, M.D.  
DIRECTOR OF HEALTH

NOV 12 A 1993

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

July 8, 1993

Mr. Alan Kato  
Belt Collins & Associates  
680 Ala Moana Boulevard  
Honolulu, Hawaii 96813-5406

Dear Mr. Kato:

SUBJECT: DILLINGHAM - NEW DRIVEWAY (DRYWELLS)  
UNDERGROUND INJECTION CONTROL (UIC)  
TANTALUS, OAHU  
TMK NO.: 2-5-15:4 and 5

The Department of Health acknowledges receipt of your June 29, 1993 transmittal of the construction plans for the subject facility.

The Department has reviewed the construction plans and has determined that the two (2) seepage wells are not injection wells under the purview of Hawaii Administrative Rules, Title 11, Chapter 23, Underground Injection Control. Therefore, a UIC permit will not be required for the seepage wells.

Please be advised that the determination does not absolve the owner of the facility from assuming responsibility for corrective action if the drainage system becomes a source of groundwater contamination.

If you have any questions about this subject, please contact Norris Uehara of the Safe Drinking Water Branch at 586-4258.

Sincerely,

*Ann Tahudie Zane for*

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

NU:kt

In reply, please refer to:  
EMD / SDWB

_____	Bell, J.	_____
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**APPENDIX D**

**"Driveway Relocation Agreement"**

DRIVEWAY RELOCATION AGREEMENT

THIS AGREEMENT is made this 21st day of July, 1993 among HAROLD G. DILLINGHAM, JR. ("Dillingham"), FIRST HAWAIIAN BANK, as Trustee under that certain unrecorded Harold G. Dillingham, Jr. Revocable Living Trust dated December 28, 1976 ("Trustee"), ROBERT LENARD BUNTIN and JUDY SATOKO BUNTIN (the "Buntins"), and CHARLES M. HOLLAND and ALLISON ALLEN HOLLAND (the "Hollands").

BACKGROUND

1. Trustee is the owner of certain real property located at Poloke, Makiki, Honolulu, Hawaii, bearing Tax Key designations 2-5-15-4 and 5 (the "Dillingham Property") and the Buntins and the Hollands use a portion of this property as a roadway giving access to adjacent parcels of real property owned by them (the "Existing Driveway") as depicted in red on Exhibit "A" attached hereto and made a part hereof.

2. Dillingham, for whose benefit Trustee holds title to the Dillingham Property, desires to relocate a portion of the Existing Driveway to another portion of the Dillingham Property as depicted in red on Exhibit "B" attached hereto and made a part hereof.

AGREEMENT

In consideration of the foregoing and the agreements hereinafter set forth, the parties agree as follows:

1. Dillingham agrees to use his best efforts to obtain all necessary permits and approvals and to construct a new 15-foot wide driveway with concrete pavement 12 feet wide in the area depicted in red on Exhibit "B" (the "New Driveway") in accordance with specifications conforming to government regulations or with such variances as shall be allowed by governmental authorities. All turns in the New Driveway shall comply with the turning-radius requirements of the Refuse Division of the City and County of Honolulu. If a necessary permit for installation of the New Driveway is denied, Dillingham or the Trustee may terminate this Agreement by written notice to the other parties.

2. If Dillingham is able to install the New Driveway, the improvement work will incorporate a storm water drainage system designed appropriately so that drainage flows into the Hollands' driveway and diagonally across their property will not exceed the flows that would otherwise occur under existing circumstances.

3. At such time as the construction of the New Driveway has been completed, the Buntins agree to surrender, release and quitclaim to the Trustee the portion of the Existing Driveway shown in red on Exhibit "C" and the Hollands agree to surrender, release and quitclaim to the Trustee the portion of the Existing Driveway shown in red on Exhibit "D" in exchange for a grant of a perpetual easement by the Trustee to the Buntins and the Hollands over the New Driveway as shown in red on Exhibit "B". The grant of easement of the New Driveway shall be free and clear of any financial encumbrance and any other encumbrance interfering with practical use of the New Driveway.

4. The grant of easement of the New Driveway from the Trustee to the Buntins and the Hollands shall be in substantially the form of Exhibit "E" attached hereto and made a part hereof. Concurrently with execution and delivery of such grant of easement, the parties shall also execute, acknowledge and deliver a Partial Surrender and Modification of Easement in substantially the form of Exhibit "F" attached hereto and made a part hereof.

5. This Agreement may be signed in counterparts, all of which together shall constitute a single, binding agreement.

The parties have signed this Agreement on the date set forth above.

Harold G. Dillingham, Jr.  
HAROLD G. DILLINGHAM, JR.

FIRST HAWAIIAN BANK, Trustee  
as aforesaid

By Genell R. Sumner  
Its

Robert Lenard Buntin  
ROBERT LENARD BUNTIN

Judy Satoko Buntin  
JUDY SATOKO BUNTIN

Charles M. Holland  
CHARLES M. HOLLAND

Allison Allen Holland  
ALLISON ALLEN HOLLAND

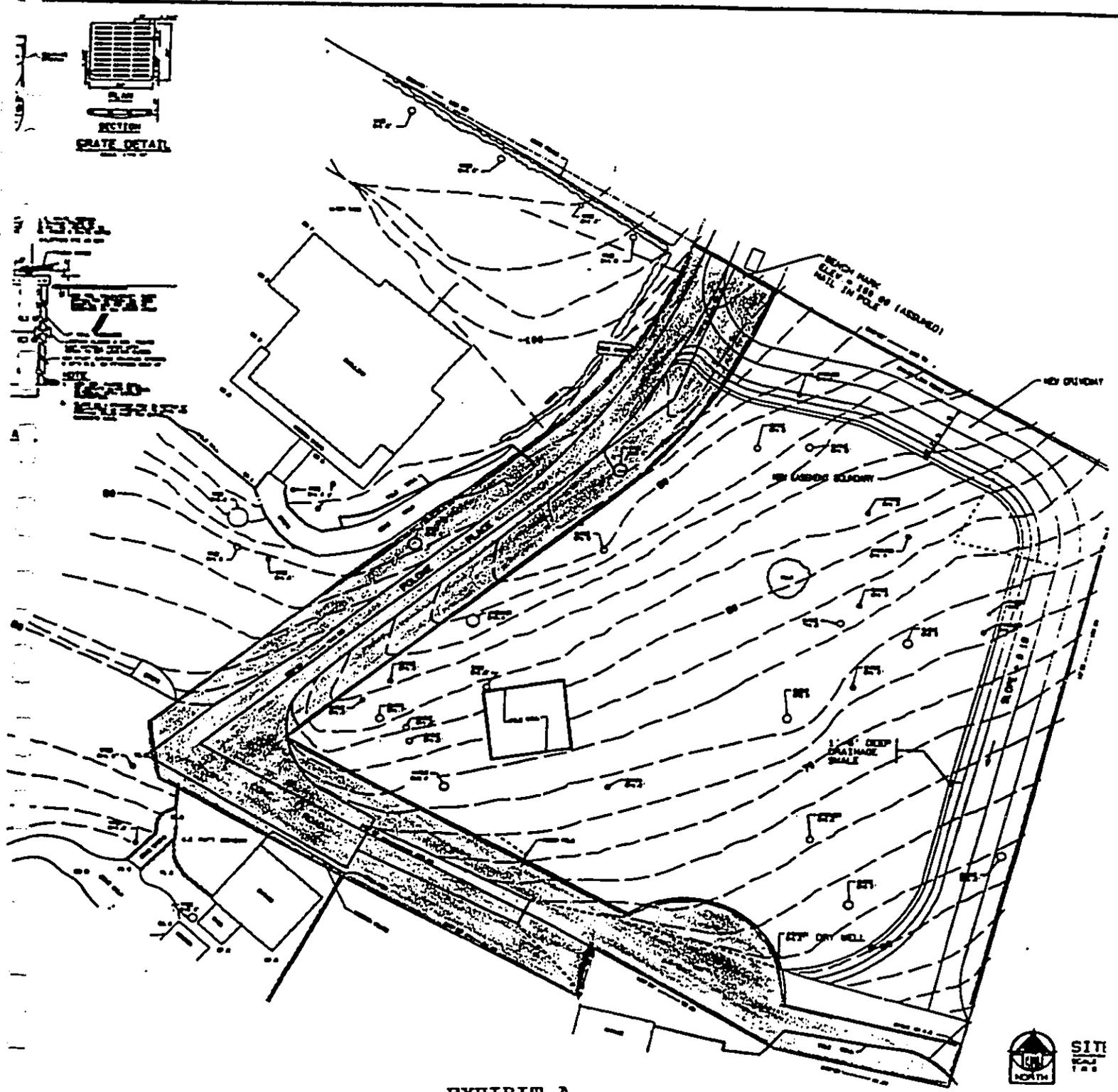


EXHIBIT A



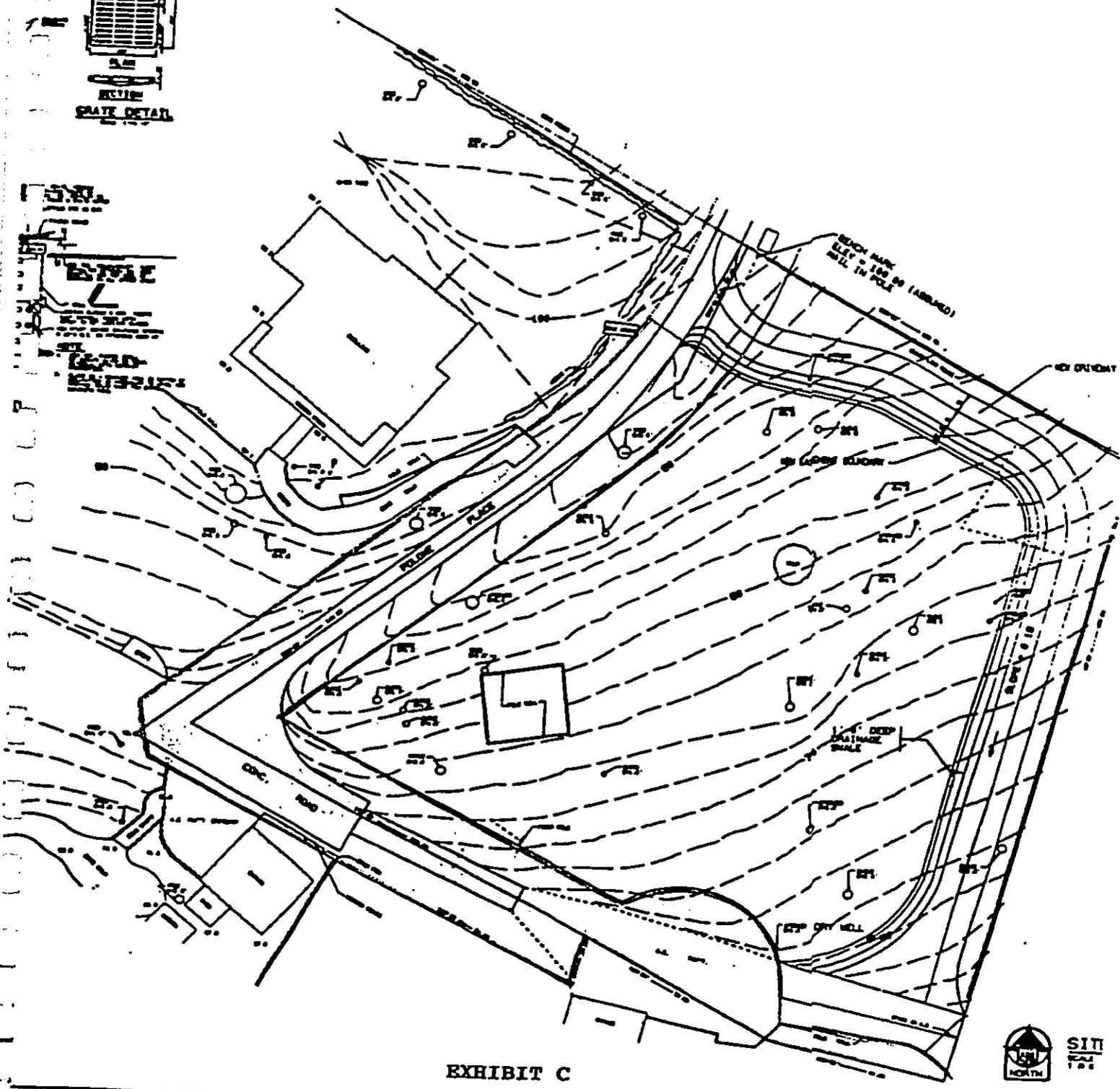


EXHIBIT C



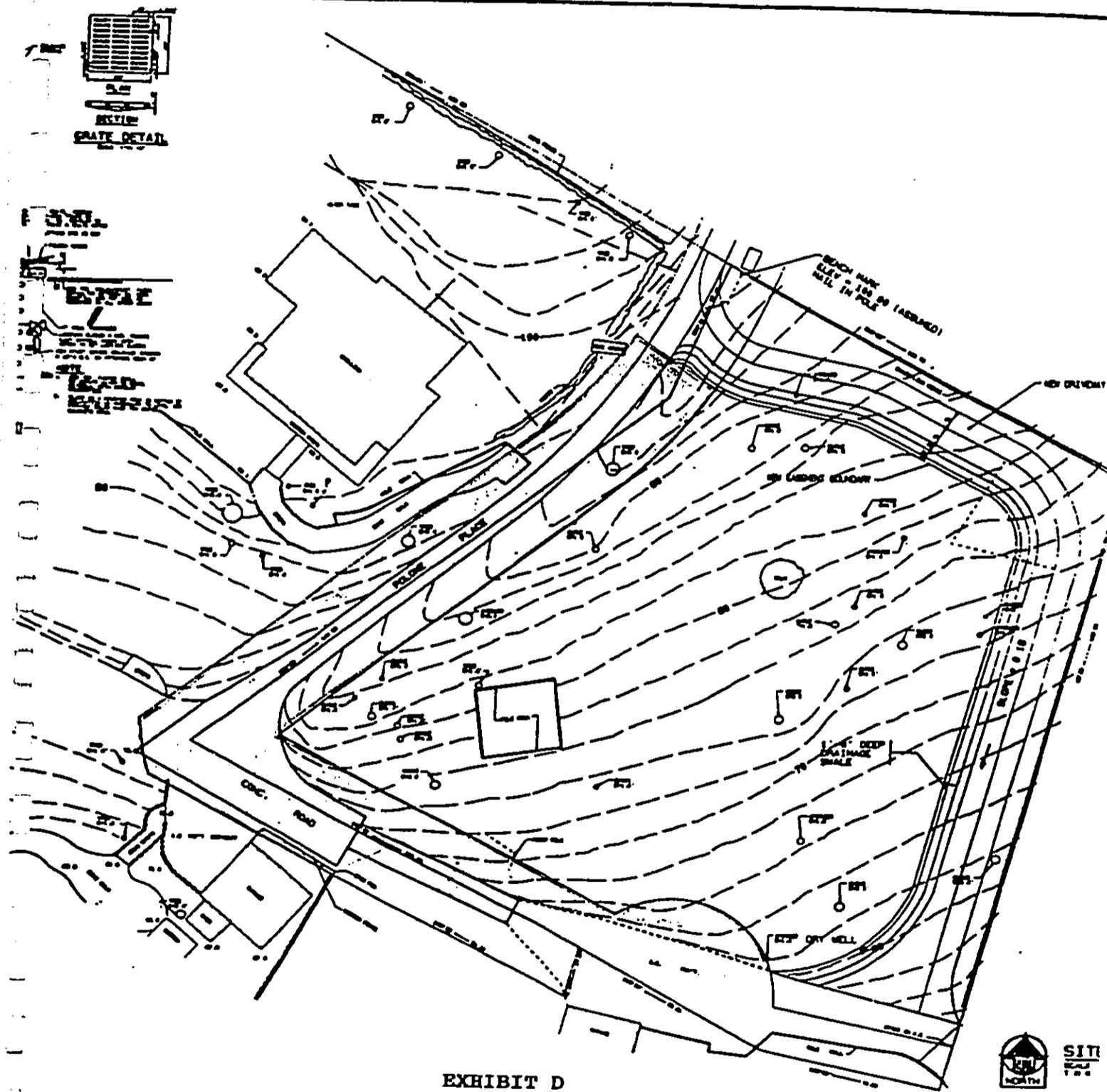


EXHIBIT D

SIT  
PLAN  
NORTH



Hawaii 96822, hereinafter collectively called the "Grantees", does hereby grant and convey unto the Grantees:

A perpetual nonexclusive easement appurtenant to the Grantees' lands designated in the First Taxation Division of the State of Hawaii by Tax Map Key Nos. 2-5-15:3 and 22, for pedestrian and vehicular ingress and egress and utility service and repair purposes over, across, along and upon that certain parcel of land (the "Easement Area") at Poloke, Makiki, Honolulu, Hawaii, as more particularly described in Exhibit A attached hereto and made a part hereof.

TO HAVE AND TO HOLD the same unto the Grantees and their respective successor owners of said Tax Map Key Nos. 2-5-15:3 and 22, forever, subject to the following terms:

1. The Grantees shall exercise due care in using the Easement Area and shall be responsible for maintaining the Easement Area and all improvements thereon, except that the Grantor shall be responsible for a share of maintenance costs in proportion to the actual use, if any, of the Easement Area for access and utility purposes serving Lot 14 of the Poloke Lots, as shown on File Plan 208 filed in the Bureau of Conveyances.

2. The Grantees shall not cause or permit the parking or storage of any vehicles or other equipment or materials on the Easement Area at any time.

3. The Grantees shall cooperate with the Grantor in taking such action as may be reasonably necessary or appropriate in the judgment of the Grantor from time to time to assure that the Easement Area does not become a public road. Any and all rights to dedicate any portion of the Easement Area to any

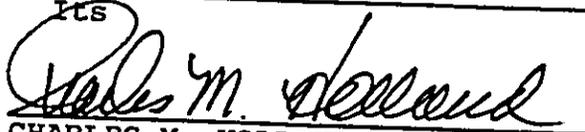
public authority shall be reserved to the Grantor. In case of any condemnation or other taking of all or any portion of the Easement Area for public use, this grant shall automatically terminate as to the portion or portions of the Easement Area so condemned or taken, and the Grantor shall be entitled to receive and recover all compensation awarded for the condemnation or taking.

4. This grant shall be binding upon the Grantor and any successor owner of the Easement Area; however, nothing in this grant shall be construed to give rise to any claim against the private property of First Hawaiian Bank or any successor trustee, but only the trust estate shall be bound.

IN WITNESS WHEREOF the Grantor and the Grantees have executed this agreement as of \_\_\_\_\_, 199\_.

FIRST HAWAIIAN BANK, Trustee as  
aforesaid

By \_\_\_\_\_  
ITS

  
CHARLES M. HOLLAND

  
ALLISON ALLEN HOLLAND

\_\_\_\_\_  
ROBERT LENARD BUNTIN

\_\_\_\_\_  
JUDY SATOKO BUNTIN

STATE OF HAWAII )  
CITY AND COUNTY OF HONOLULU ) SS:

On this \_\_\_\_\_ day of \_\_\_\_\_, 199\_\_, before me appeared \_\_\_\_\_, to me personally known, who being by me duly sworn, did say that he is \_\_\_\_\_ of FIRST HAWAIIAN BANK, a Hawaii corporation, Trustee under that certain unrecorded Harold G. Dillingham, Jr. Revocable Living Trust Agreement dated December 28, 1976, as amended; that the seal affixed to the foregoing instrument is the corporate seal of such corporation, and that such instrument was signed and sealed on behalf of such corporation by authority of its Board of Directors; and said \_\_\_\_\_ acknowledged that he executed such instrument as the free act and deed of such corporation, as such trustee.

\_\_\_\_\_  
Notary Public, State of Hawaii

My commission expires: \_\_\_\_\_



Survey description  
conforming to Exhibit B  
of the Driveway Relocation Agreement

EXHIBIT A



WITNESSETH THAT

WHEREAS the Hollands and the Buntins use a portion of certain property owned by the Trustee at Poloke, Makiki, Honolulu, Hawaii, for access to the Hollands' and the Buntins' properties at 168 Poloke Place and 169 Poloke Place, respectively; and

WHEREAS the Trustee is concurrently herewith granting to the Hollands and the Buntins a substitute, relocated easement over a different portion of the Trustee's property; and

WHEREAS the parties mutually desire to cancel any easement rights in portions of the existing access route and desire to create and modify easement rights in other portions of the existing access route,

NOW, THEREFORE, the parties, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, hereby agree as follows:

1. The Buntins hereby cancel, surrender, quitclaim, remise and release unto the Trustee all right, title and interest that the Buntins may have, whether in the nature of an easement or otherwise, in and to the property more particularly described in Exhibit A attached hereto and made a part hereof.

2. The Hollands hereby cancel, surrender, quitclaim, remise and release unto the Trustee all right, title and interest that the Hollands may have, whether in the nature of an easement or otherwise, in and to the property more particularly described in Exhibit B attached hereto and made a part hereof.

3. The Trustee hereby grants to the Hollands during their lifetimes and the lifetime of the survivor of them, and only as long as either of them shall continue to reside at 168 Poloke Place, a nonexclusive easement five (5) feet wide, as shown in red on Exhibit C attached hereto and made a part hereof, for landscaping and planting purposes for shrubs and plants not to exceed six (6) feet in height; provided that the Trustee and any authorized occupant of Lot 14 of the Poloke Lots, as shown on File Plan 208 filed in the Bureau of Conveyances, shall have the continuing right to install and maintain driveway and utility facilities through such easement area to serve Lot 14.

4. The Trustee hereby grants to the Hollands an easement for the continued existence and maintenance (including repair or restoration of any casualty damage) of that certain block wall at the southeastern corner of said Lot 14, as shown in red on Exhibit D attached hereto and made a part hereof, including an easement to use the portion of Lot 14 makai of said wall for landscaping and yard purposes. This easement shall continue so long as said wall shall remain in existence. The Hollands accept such easement and assume full responsibility for the safety and maintenance of said wall and for the compliance of said wall with any applicable governmental requirements.

5. Nothing in this agreement shall be construed to give rise to any claim against the private property of First Hawaiian Bank or any successor trustee, but only the trust estate shall be bound.

IN WITNESS WHEREOF the parties have executed this  
agreement as of \_\_\_\_\_, 199\_.

*Charles M. Holland*

CHARLES M. HOLLAND

*Allison Allen Holland*

ALLISON ALLEN HOLLAND

\_\_\_\_\_  
ROBERT LENARD BUNTIN

\_\_\_\_\_  
JUDY SATOKO BUNTIN

FIRST HAWAIIAN BANK, Trustee as  
aforesaid

By \_\_\_\_\_  
Its

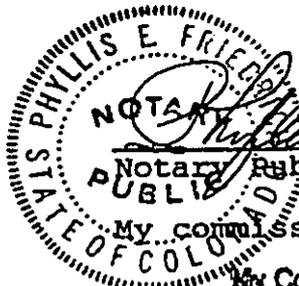
STATE OF HAWAII )  
 ) SS:  
CITY AND COUNTY OF HONOLULU )

On this \_\_\_\_\_ day of \_\_\_\_\_, 199\_\_, before me appeared \_\_\_\_\_, to me personally known, who being by me duly sworn, did say that he is \_\_\_\_\_ of FIRST HAWAIIAN BANK, a Hawaii corporation, Trustee under that certain unrecorded Harold G. Dillingham, Jr. Revocable Living Trust Agreement dated December 28, 1976, as amended; that the seal affixed to the foregoing instrument is the corporate seal of such corporation, and that such instrument was signed and sealed on behalf of such corporation by authority of its Board of Directors; and said \_\_\_\_\_ acknowledged that he executed such instrument as the free act and deed of such corporation, as such trustee.

\_\_\_\_\_  
Notary Public, State of Hawaii  
My commission expires: \_\_\_\_\_

STATE OF ~~HAWAII~~ *Colorado* )  
 )  
CITY AND COUNTY OF ~~HONOLULU~~ ) SS:  
*Lawrence* )

On this 21st day of July, 1993, before me personally appeared CHARLES V. HOLLAND and ALLISON ALLEN HOLLAND, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

  
*Phyllis E. Friedrich*  
Notary Public, State of ~~Hawaii~~ COLORADO  
My commission expires: 10-1-93  
My Commission Expires 10-1-93  
255 Park Lane Estes Park, CO 80517

STATE OF HAWAII )  
 )  
CITY AND COUNTY OF HONOLULU ) SS:

On this \_\_\_\_\_ day of \_\_\_\_\_, 199\_\_, before me personally appeared ROBERT LENARD BUNTIN and JUDY SATOKO BUNTIN, to me known to be the persons described in and who executed the foregoing instrument, and acknowledged that they executed the same as their free act and deed.

\_\_\_\_\_  
Notary Public, State of Hawaii  
My commission expires: \_\_\_\_\_

Survey description of  
surrendered easement area  
conforming to Exhibit C  
of the Driveway Relocation Agreement

EXHIBIT A

Survey description of  
surrendered easement area  
conforming to Exhibit D  
of the Driveway Relocation Agreement

EXHIBIT B

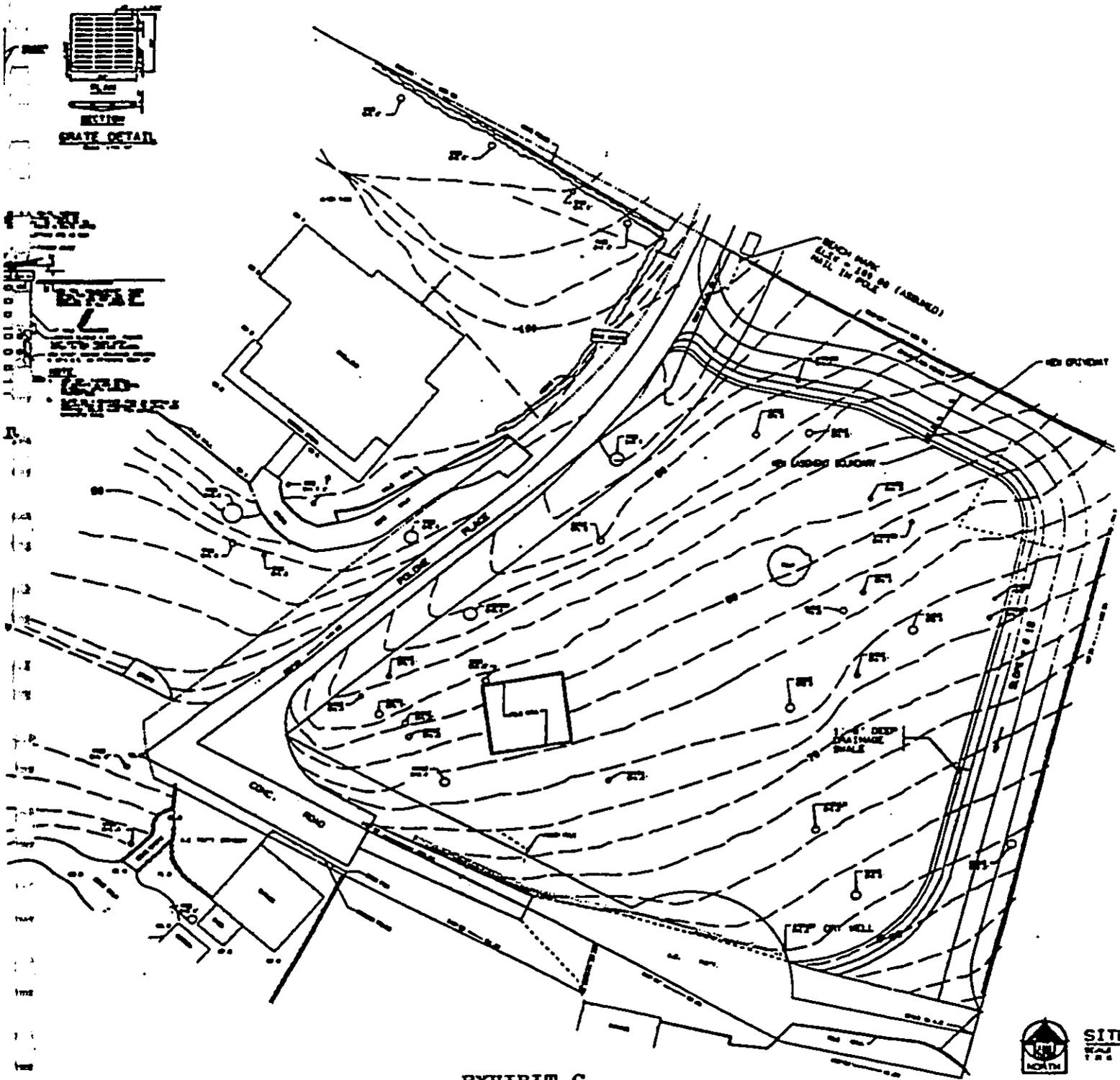


EXHIBIT C



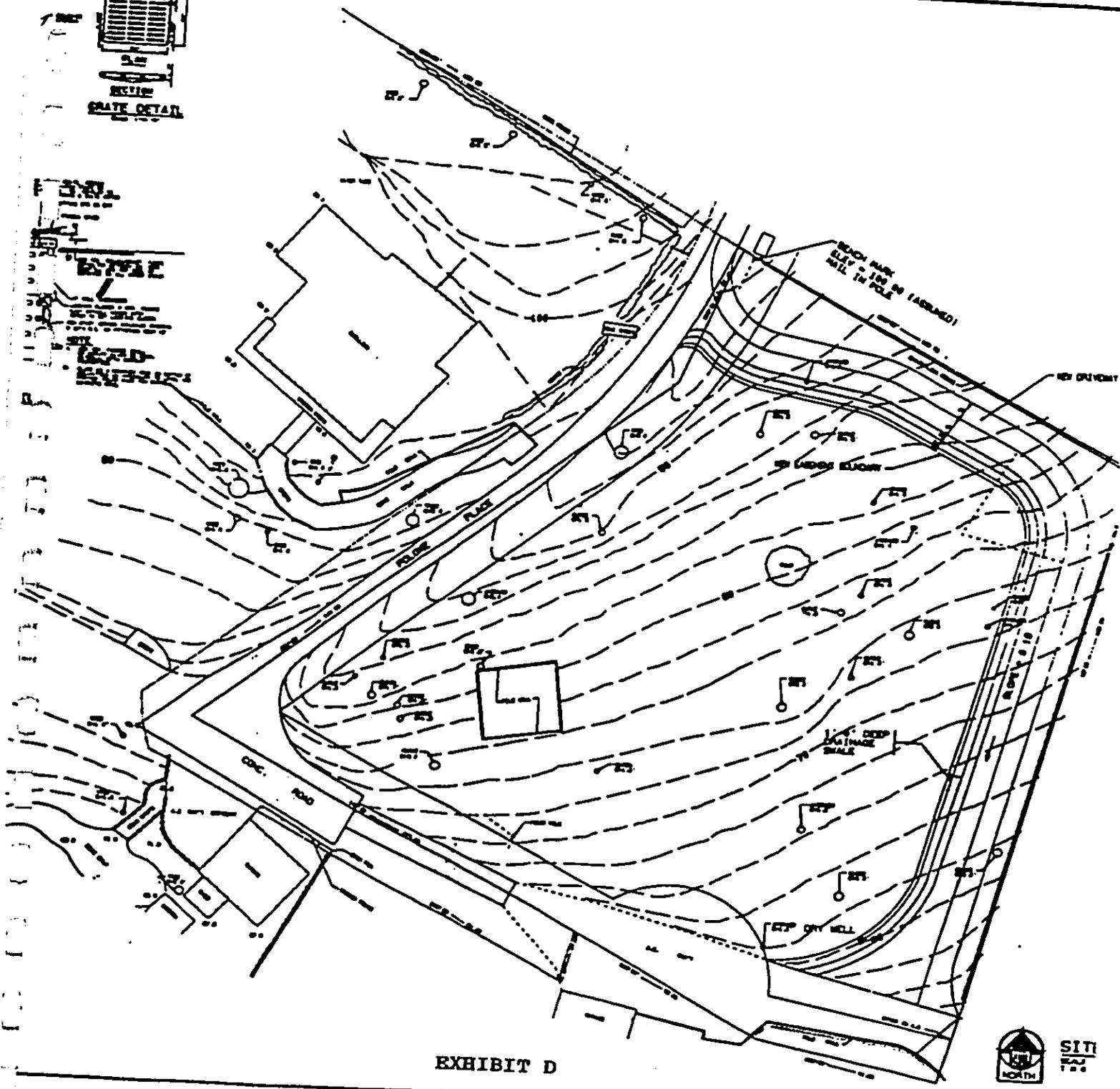
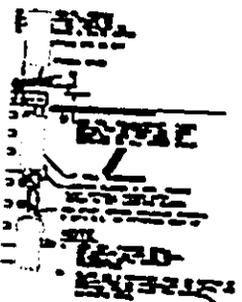
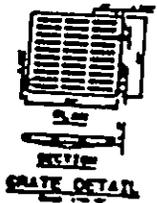


EXHIBIT D







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## **APPENDIX F**

**Comment Letters on Draft Environmental Assessment and Responses**



Ms. Dadey

-- 2 --

DOC. ID.: 3327

Please be advised that non-compliance with Chapter 343, Hawaii Revised Statutes, will result in negative action on your application.

**SITE VISIT**

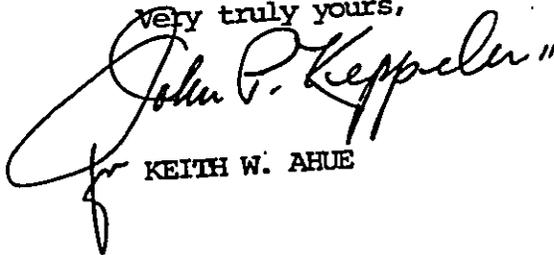
As you are aware, staff from the Department conducted a site visit to the subject property on July 25, 1993. During the site visit, we noticed that the project area had been recently cleared of vegetation. We have reviewed our files and show no permit or authorization issued by the Department to clear the property. We, therefore, request that you provide us with the following information: Who cleared the area? When, why and how was it cleared? Was a permit or authorization obtained from a government agency prior to clearing?

**SMA**

Also, for your information, we have yet to receive notification from the City and County of Honolulu regarding the County's Special Management Area requirements (please refer to page 2 of our "Notice of Acceptance" letter dated June 22, 1993).

Thank you for your cooperation in this matter. Please feel free to contact Cathy Tilton of our Office of Conservation and Environmental Affairs at 587-0377, should you have any questions.

Very truly yours,

  
for KEITH W. AHUE

Attachments

JOHN WAIHEE  
GOVERNOR OF HAWAII



JOHN C. LEWIN, M.D.  
DIRECTOR OF HEALTH

30 JUL 29 A 8: 06

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

STATE OF HAWAII  
DEPARTMENT OF HEALTH

In reply, please refer to:

July 28, 1993

93-192/epo

To: The Honorable Keith W. Ahue, Chairperson  
Department of Land & Natural Resources

From: John C. Lewin, M.D. *Thomas J. Reizerni*  
Director of Health

Subject: Conservation District Use Application

Application: Harold Dillingham and First Hawaiian Bank Trust  
File No.: OA-5/18/93-2645  
Request: Construction of Driveway & Drainage Improvements  
Location: Tantalus, Oahu  
TMK: 2-5-15: 5

Thank you for allowing us to review and comment on the subject request.  
We have the following comments to offer:

Underground Injection Control (UIC)

1. The site is located above the UIC line.
2. The UIC program has reviewed the construction plans dated April 1993 which accompanied the transmittal. The drywell design depicted on the April 1993 plan would be considered an injection well and would require a UIC permit from the Department of Health.
3. The UIC program generally does not support any form of upgrade construction in Conservation Districts. Conditions on which the approval for specific land uses were based upon should remain in perpetuity. Regrading this lot, constructing new pavement and altering the surface water drainage should not be an allowable practice in the Conservation District. We would only support an improvement to the existing pavement area if regrading and new pavement square footage is offset on a one-for-one basis against the old pavement square footage. In other words, for every one square foot of new pavement or roadway, one square foot of old pavement must be demolished and the ground returned to its natural state.

The Honorable Keith W. Ahue  
July 28, 1993  
Page 2

4. The proposed construction shows no benefit to the State's resource subzone objective; to develop, with proper management, areas to ensure sustained use of the natural resources of those areas. Instead, the improvements are basically for personal use and preference. Furthermore, nine mature trees (a natural resource) in the proposed alignment will be cleared and grubbed with no indication of replanting of the trees. Unless the one-for-one square footage replacement condition is implemented, we do not support the approval for this project.

If you have any questions on this matter, please contact Mr. Bill Wong, Chief of the Safe Drinking Water Branch at 586-4258.

Nonpoint Source Concerns

Should the Department of Land and Natural Resources grant this application, the Department of Health offers the following recommendations:

Proper planning, design and use of erosion control measures substantially reduces the total volume of runoff generated, thereby decreasing sediment load. Steps should be taken to minimize onsite erosion which may become a source for additional nonpoint source pollution from construction activities. Suggested measures to be considered are:

- a. Conduct grubbing and grading activities during the low rainfall months (April - October).
- b. Replant or cover bare areas as soon as grading or construction is completed. New plantings will require soil amendments, and fertilizers to become established.

If you should have any questions on this matter, please contact Ms. Shirley Nakamura of the Environmental Planning Office at 586-4337.

# BCA

BELT COLLINS  
& ASSOCIATES

Engineering • Planning  
Landscape Architecture

680 Ala Moana Boulevard, First Floor, Honolulu, Hawaii 96813-5406

Phone: (808) 521-5361, Fax: (808) 538-7819  
Hawaii • Singapore • Australia • Hong Kong • Thailand • Saipan

September 14, 1993  
93P-596 /133-6001

Dr. John C. Lewin, M.D.  
Director of Health  
State of Hawaii  
Department of Health  
P.O. Box 3378  
Honolulu, HI 96801

Subject: Conservation District Use Application: Construction of Driveway &  
Drainage Improvements, Tantalus, Oahu, TMK: 2-9-15:5

Dear Dr. Lewin:

Thank you for your letter dated July 28, 1993 to Keith W. Ahue, Chairperson, Department of Land & Natural Resources, regarding the subject CDUA. We offer the following responses to your comments:

Underground Injection Control (UIC)

2. The comment indicated that the proposed dry well would require a UIC permit.

The April 1993 construction plans submitted with the CDUA for the project were preliminary and subject to revision. Subsequent modifications have been made to the dry well design. The revised plans (dated June 1993) have been reviewed by the Department of Health. In their letter of July 8, 1993, the Safe Drinking Water Branch, Environmental Management Division determined that the proposed dry wells are not injection wells and thus, are not under the purview of the Underground Injection program (please see Attachment 1). The Department's decision was not available for inclusion in the Draft Environmental Assessment, but will be included in the Final Environmental Assessment.

3. The comment suggested that new pavement construction be offset by a one-to-one removal of the existing paved surface to ensure that surface drainage would not be affected adversely by the proposed project.

Surface drainage would not be adversely affected by the proposed project. In fact, analyses completed for the project drainage report indicate that the proposed improvements would *improve* surface drainage in the vicinity of the subject

Dr. John C. Lewin  
September 14, 1993  
Page 2

property and adjacent properties. A discussion of the drainage improvements can be found on page 13 of the Environmental Assessment for the project; the revised drainage report, including calculations of runoff volumes with and without the proposed project, is included as Attachment 2.

Further, the Fire Department has recommended that the existing driveway remain in place for emergencies (see Attachment 3, memo to file based on telephone conversation with Fire Department personnel). Another safety issue not addressed by the one-to-one replacement recommendation is that removal of the existing driveway would cut off direct access to the applicant's home, which is located over 100 feet from the end of the proposed driveway. One of the purposes of the proposed driveway is to improve access for rescue and other emergency vehicles; removal of the existing pavement would negate this advantage.

4. The comment stated that the proposed project shows no benefit to the State's Conservation District Resource subzone, but is "basically for personal use and preference."

The proposed project would benefit adjacent property owners, as well as the applicant, by improving drainage and reducing the incidence of ponding and flooding; by improving access to all three properties; and by providing a smoother, safer driving surface. There are no plans to develop the parcel, which will remain as open space. Because the subject property is in a residential area, we believe this constitutes "proper management".

By improving access to fire fighting vehicles, potential adverse impacts to the natural resources of the area are reduced. Furthermore, the proposed project has been undertaken to prevent further damage to the applicant's property (the fence at the bend in the existing driveway has sustained damage from vehicles backing into it) and reduce hazards associated with the proximity of the applicant's home to this sharp bend.

This comment also stated that the nine trees which would be cleared in the proposed driveway alignment would not be replanted.

The Environmental Assessment indicates on page 12 that the nine trees would be replaced by nine others. As mentioned in the Environmental Assessment, none of the nine that would be removed are endangered or threatened, and none are habitat for endangered animals. Moreover, the nine replanted trees would be maintained by the applicant.

Dr. John C. Lewin  
September 14, 1993  
Page 3

Nonpoint Source Concerns

The comment stated that erosion controls should be implemented.

This concern is addressed fully in the Environmental Assessment. Erosion control measures that would be used, both during and after construction of the proposed project are described on pages 11 and 12 of the document. Furthermore, details of these measures would be included in the construction plans and specifications for the project.

Thank you for your comments and participation in the Environmental Assessment review process. Your letter and this response will be appended to the Final Environmental Assessment.

Sincerely,



Kathleen A. Dadey  
Environmental Planner

**Attachments**

cc: Ms. Cathy Tilton, DLNR, Office of Conservation and Environmental Affairs  
Office of Environmental Quality Control  
Ms. Sharman Noguchi, First Hawaiian Trust- Real Estate

UNITED STATES OF AMERICA  
WAIHEE  
OF HAWAII



JOHN C. LEWIN, M.D.  
DIRECTOR OF HEALTH

NO 0112 A 031

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

July 8, 1993

Mr. Alan Kato  
Belt Collins & Associates  
680 Ala Moana Boulevard  
Honolulu, Hawaii 96813-5406

Dear Mr. Kato:

SUBJECT: DILLINGHAM - NEW DRIVEWAY (DRYWELLS)  
UNDERGROUND INJECTION CONTROL (UIC)  
TANTALUS, OAHU  
TMK NO.: 2-5-15:4 and 5

The Department of Health acknowledges receipt of your June 29, 1993 transmittal of the construction plans for the subject facility.

The Department has reviewed the construction plans and has determined that the two (2) seepage wells are not injection wells under the purview of Hawaii Administrative Rules, Title 11, Chapter 23, Underground Injection Control. Therefore, a UIC permit will not be required for the seepage wells.

Please be advised that the determination does not absolve the owner of the facility from assuming responsibility for corrective action if the drainage system becomes a source of groundwater contamination.

If you have any questions about this subject, please contact Norris Uehara of the Safe Drinking Water Branch at 586-4258.

Sincerely,

*Ann Takushi Zane for*

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

NU:kt

In reply, please refer to:  
EMD / SDWB

_____	Bel, J.	_____
_____	Hirota, P.	_____
_____	Viana, J.	_____
_____	Agana, L.	_____
_____	Wakabayashi, P.	_____
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_____	Kondo, C.	_____
_____	Kato, A.	_____
_____	Lee, L.	_____
_____	Li, R.	_____
_____	Matthews, C.	_____
_____	Miller, D.	_____
_____	Miyashiro, E.	_____
_____	Nagasawa, T.	_____
_____	Paresh, C.	_____
_____	Takayasu, G.	_____
_____	Yokota, A.	_____
_____	Zukowski, M.	_____
_____	Job No.	_____

DRAINAGE REPORT

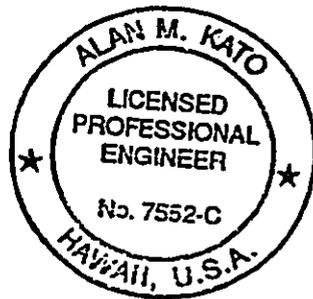
FOR

NEW DRIVEWAY AT TMK: 2-5-15: 4 AND 5

PREPARED BY:

Belt Collins & Associates  
680 Ala Moana Boulevard Suite 200  
Honolulu, Hawaii 96813

January 5, 1993  
Revised: June 29, 1993  
Revised: July 16, 1993



*Alan M. Kato*

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DRAINAGE REPORT  
FOR

NEW DRIVEWAY AT TMK: 2-5-15: 4 AND 5

GENERAL PROJECT DESCRIPTION:

The proposed relocated driveway is located on Tantalus, Oahu, Hawaii, at Tax Map Key: 2-5-15: 4 and 5. The driveway is a private 12' wide concrete driveway, which traverses on the northern and eastern property lines of TMK: 2-5-15: 5. The purpose of the driveway is to provide privacy for the residence located at TMK: 2-5-15: 4, while maintaining access to the lots at the end of the existing driveway. A new drainage swale along the driveway and two seepage wells are to be installed to capture the additional runoff volume associated with the improvements.

EXISTING DRAINAGE:

The existing site is a vacant forested lot, with the existing driveway traversing around the western and southern boundaries of the property. Runoff from the site sheet flows in a south-easterly direction.

Since the project area is less than 100 acres, the 10-year recurrence interval flows were calculated by the Rational Method outlined in the City's Storm Drainage Standards. A rainfall intensity of 2.7 inches per hour was selected for the 10-year design storm from Plate 1 of the Standards. A runoff coefficient of 0.9 was selected for concrete and asphaltic pavement areas, and a runoff coefficient of 0.3 was selected for the forested areas.

Based on the Rational Method, the existing site runoff volumes were calculated. A runoff of 0.88 cubic feet per second (cfs) flows through the area served by the proposed seepage wells. The computed volume of runoff is 264 cubic feet. A runoff of 0.09 cfs drains past this area, with a volume of 27 cubic feet. A runoff of 0.07 cfs drains along the existing driveway, with a volume of 21 cubic feet. The total runoff from the site was calculated to be 1.04 cfs, with a total volume of 312 cubic feet. The computations are attached.

DEVELOPED DRAINAGE:

The developed site runoff will continue to flow in a south-easterly direction. A drainage swale is proposed along the lower half of the new driveway to intercept and direct runoff to the two new seepage wells.

Based on the Rational Method the developed site runoff volumes were calculated. A runoff of 1.11 cfs with a volume of 333 cubic feet flows to the proposed seepage wells. A runoff of 0.27 cfs with a volume of 81 cubic feet drains past the new seepage wells. A runoff of 0.07 cfs drains along the existing driveway, with a volume of 21 cubic feet. The total runoff generated from the improved site was computed to be 1.45 cfs, for a total volume of 435 cubic feet. An additional 123 cubic feet of runoff volume will be generated by the improvements.

The seepage wells are circular wells with a 6 foot diameter and an inside depth of approximately 4 feet. The storage volume within each seepage well is approximately 113 cubic feet, for a total storage volume of 226 cubic feet. Therefore the available storage within the seepage wells can store all the additional runoff volume generated by the improvements. The net volume of runoff from the improved site will be approximately 209 cubic feet, which is less than the volume experienced under existing conditions.

Additional storage volume for runoff is available in the drainage swale, however this volume was not added in the computations. Percolation of runoff in the seepage wells will also increase the capacity of the wells.

#### SUMMARY:

The proposed relocated driveway will increase the runoff volume generated on the site, due to an increase in impermeable area. The two new seepage wells will retain all of the additional runoff volume generated by the driveway improvements. The net effect of the development is a decrease in runoff volume from 312 cubic feet to 209 cubic feet. This decrease in runoff should improve drainage in the area. Maintenance of the seepage wells will be provided by the owner of TMK: 2-5-15: 4 to maintain drainage.

#### ATTACHMENTS:

- Site Plan
- Existing Drainage Map
- Developed Drainage Map
- Calculations
- Excerpts from Department of Public Works, City and County of Honolulu, "Storm Drainage Standards," March 1986.
- Drainage Swale Calculations

**REFERENCES:**

Chow, V.T., Maidment, D.R., and Mays, L.W., Applied Hydrology, pp. 522-527, McGraw-Hill Book Company, U.S., 1988.

Department of Public Works, City and County of Honolulu, "Storm Drainage Standards," March 1986.

Glazner, M.K., "Quick TR-55 Hydrology for Small Watersheds," Chapter 2 Rational Method, Haestad Methods, Inc., CT, 1989.

"Topographic Map for Dillingham Driveway for TMK: 2-5-15: Portion 4 at Makiki, Honolulu, Oahu, Hawaii," prepared by a Surveyor, dated Dec. 1, 1992, revised Dec. 18, 1992.

Topographic Map - no title, prepared by Akira Ishida, not dated.

Project DILLINGHAM DRIVEWAY	Sheet No. 1 of 3	BELT COLLINS & ASSOCIATES Engineering • Planning Landscape Architecture
Job No. 133.6000	Date 1-4-93/7-14-93	
Client HAROLD DILLINGHAM	By A. KATO	
Subject HYDROLOGIC ANALYSE		

PURPOSE: TO DETERMINE THE IMPACT OF THE NEW DRIVEWAY UPON THE HYDROLOGY OF THE SITE.

DRAINAGE AREA IS LESS THAN 100 ACRES, USE RATIONAL METHOD.

$$Q = CIA$$

Q = FLOW RATE IN CUBIC FEET PER SECOND

C = RUNOFF COEFFICIENT

I = RAINFALL INTENSITY IN INCHES PER HOUR

FOR A DURATION EQUAL TO THE TIME OF CONCENTRATION

A = DRAINAGE AREA IN ACRES

C = 0.9 FOR CONCRETE OR AC PAVEMENT

C = 0.3 FOR FORESTED AREA

I - USE RECURRENCE INTERVAL = 10 YEARS

FOR AREA LESS THAN 100 ACRES

i = 2.7 INCHES

CF = 2.8 (CORRECTION FACTOR)

$$I = (2.7) \times (2.8)$$

$$= 7.56$$

DRAINAGE AREAS DRAINING TO NEW SEEPAGE WELLS

EXISTING

CONC/AC = 0.01 ACRES

FOREST = 0.36 ACRES

DEVELOPED

CONC/AC = 0.00 ACRES

FOREST = 0.21 ACRES

DRAINAGE AREAS BY-PASSING NEW SEEPAGE WELLS

EXISTING

FOREST = 0.04 ACRES

DEVELOPED

CONC/AC = 0.04 ACRES

DRAINAGE AREAS DRAINING ALONG EXISTING DRIVEWAY

EXISTING

CONC/AC = 0.01 ACRES

DEVELOPED

CONC = 0.01 ACRES

Project DILLINGHAM DRIVEWAY	Sheet No. 2 of 3	BELT COLLINS & ASSOCIATES Engineering • Planning Landscape Architecture
Job No. 133.6000	Date 7-16-93	
Client HAROLD DILLINGHAM	By A. KATO	
Subject HYDROLOGIC ANALYSIS		

### RUNOFF QUANTITIES

AREAS DRAINING TO NEW SEEPAGE WELLS

$$Q_{EXIST} = (0.9)(7.56)(0.01) + (0.3)(7.56)(0.36)$$

$$= 0.88 \text{ CFS}$$

$$Q_{DEVEL} = (0.9)(7.56)(0.06) + (0.3)(7.56)(0.31)$$

$$= 1.11 \text{ CFS}$$

### AREAS BY-PASSING NEW SEEPAGE WELLS

$$Q_{EXIST} = (0.3)(7.56)(0.04)$$

$$= 0.09 \text{ CFS}$$

$$Q_{DEVEL} = (0.9)(7.56)(0.04)$$

$$= 0.27 \text{ CFS}$$

### AREAS DRAINING ALONG EXISTING DRIVEWAY

$$Q_{EXIST} = (0.9)(7.56)(0.01)$$

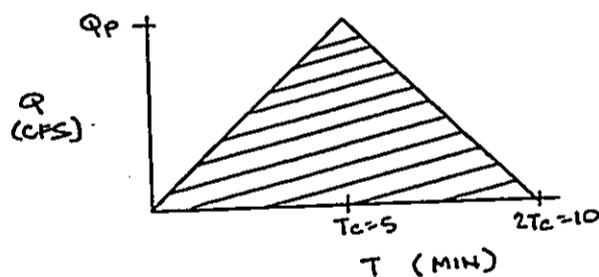
$$= 0.07 \text{ CFS}$$

$$Q_{DEVEL} = (0.9)(7.56)(0.01)$$

$$= 0.07 \text{ CFS}$$

∴ NO CHANGE IN RUNOFF DRAINING ALONG EXISTING DRIVEWAY

### RUNOFF VOLUMES - USE RATIONAL METHOD



$$\text{VOLUME} = \frac{1}{2} (Q_p) (2T_c)$$

$$V = Q_p T_c$$

AREAS DRAINING TO NEW SEEPAGE WELLS

$$V_{EXIST} = (0.88 \text{ FT}^3/\text{SEC})(5 \text{ MIN})(60 \text{ SEC}/\text{MIN})$$

$$= 264 \text{ FT}^3$$

$$V_{DEVEL} = (1.11 \text{ FT}^3/\text{SEC})(5 \text{ MIN})(60 \text{ SEC}/\text{MIN})$$

$$= 333 \text{ FT}^3$$

AREAS BY-PASSING NEW SEEPAGE WELLS

$$V_{EXIST} = (0.09 \text{ FT}^3/\text{SEC})(5 \text{ MIN})(60 \text{ SEC}/\text{MIN})$$

$$= 27 \text{ FT}^3$$

$$V_{DEVEL} = (0.27 \text{ FT}^3/\text{SEC})(5 \text{ MIN})(60 \text{ SEC}/\text{MIN})$$

$$= 81 \text{ FT}^3$$

Project DILLINGHAM DRIVEWAY	Sheet No. 3 of 3	BELT COLLINS & ASSOCIATES Engineering • Planning Landscape Architecture
Job No. 133.6000	Date 6-18-93 / 7-16-93	
Client HAROLD DILLINGHAM	By A. KATO	
Subject HYDROLOGIC ANALYSIS		

RUNOFF VOLUMES

1 AREAS DRAINING ALONG EXISTING DRIVEWAY

$$V_{EXIST} = (0.07 \text{ FT}^3/\text{SEC})(5 \text{ MIN})(60 \text{ SEC}/\text{MIN})$$

$$= 21 \text{ FT}^3$$

$$V_{DRAIN} = (0.07 \text{ FT}^3/\text{SEC})(5 \text{ MIN})(60 \text{ SEC}/\text{MIN})$$

$$= 21 \text{ FT}^3$$

COMPUTE: ADDITIONAL VOLUMES GENERATED

DRAINING TO NEW SEEPAGE WELLS

$$\Delta V = 333 \text{ FT}^3 - 264 \text{ FT}^3$$

$$= 69 \text{ FT}^3$$

BY-PASSING NEW SEEPAGE WELLS

$$\Delta V = 81 \text{ FT}^3 - 27 \text{ FT}^3$$

$$= 54 \text{ FT}^3$$

DRAINING ALONG EXISTING DRIVEWAY

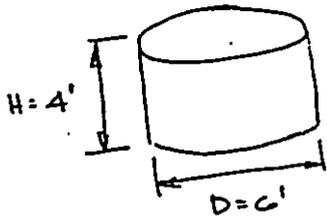
$$\Delta V = 21 \text{ FT}^3 - 21 \text{ FT}^3$$

$$= 0 \text{ FT}^3$$

$$\text{TOTAL } \Delta V = 69 \text{ FT}^3 + 54 \text{ FT}^3 + 0 \text{ FT}^3$$

$$= 123 \text{ FT}^3$$

DETERMINE AVAILABLE STORAGE VOLUME IN A 6' DIAMETER, 4' DEEP SEEPAGE WELL (INSTALLING TWO)



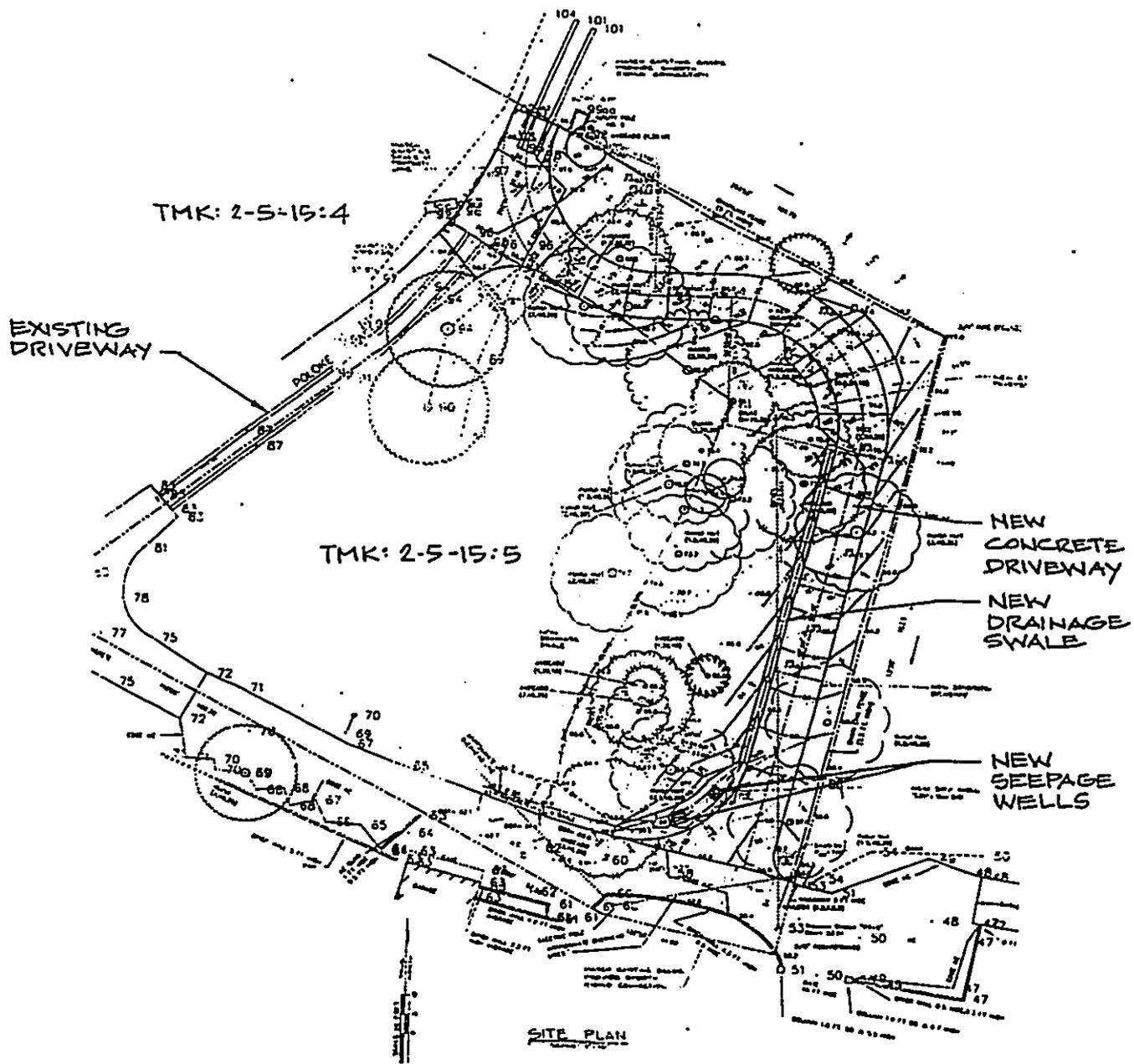
$$V = \frac{\pi}{4} D^2 H \times (2 \text{ WELLS})$$

$$= \frac{\pi}{4} (6)^2 (4) \text{ FT}^3 \times 2$$

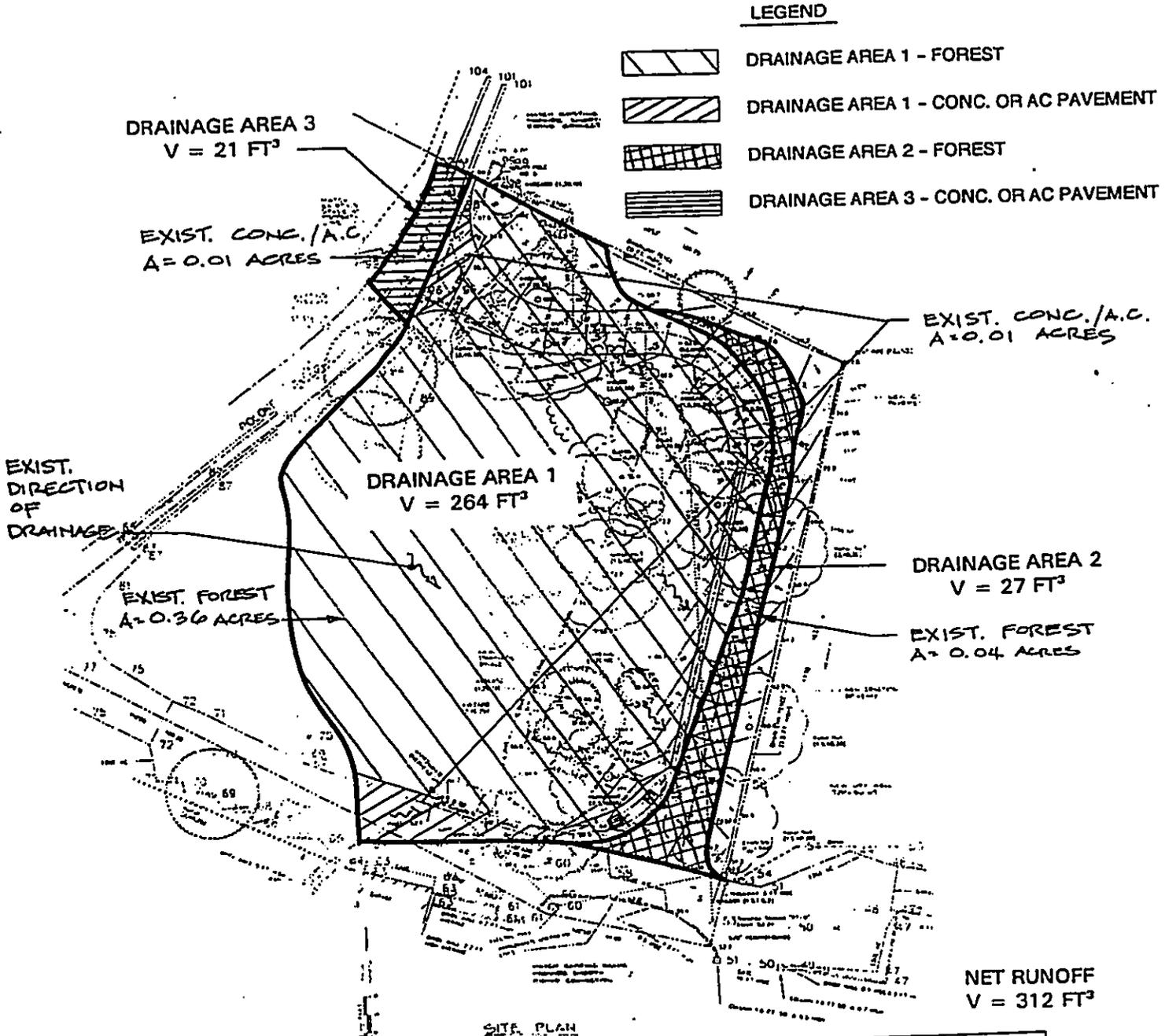
$$V = 226 \text{ FT}^3 > \Delta V = 123 \text{ FT}^3$$

∴ AVAILABLE STORAGE IN THE SEEPAGE WELLS EXCEEDS ADDITIONAL VOLUME GENERATED BY THE DRIVEWAY IMPROVEMENTS.

NOTE: THE SEEPAGE WELL IS A MODIFIED DRY WELL WITH THE DIAMETER GREATER THAN THE DEPTH. NO INFILTRATION RATE WAS CONSIDERED IN THE ANALYSIS. ANY INFILTRATION INTO THE GROUND WILL INCREASE THE CAPACITY OF THE SEEPAGE WELL.



**SITE PLAN**  
 SCALE: 1" = 40'

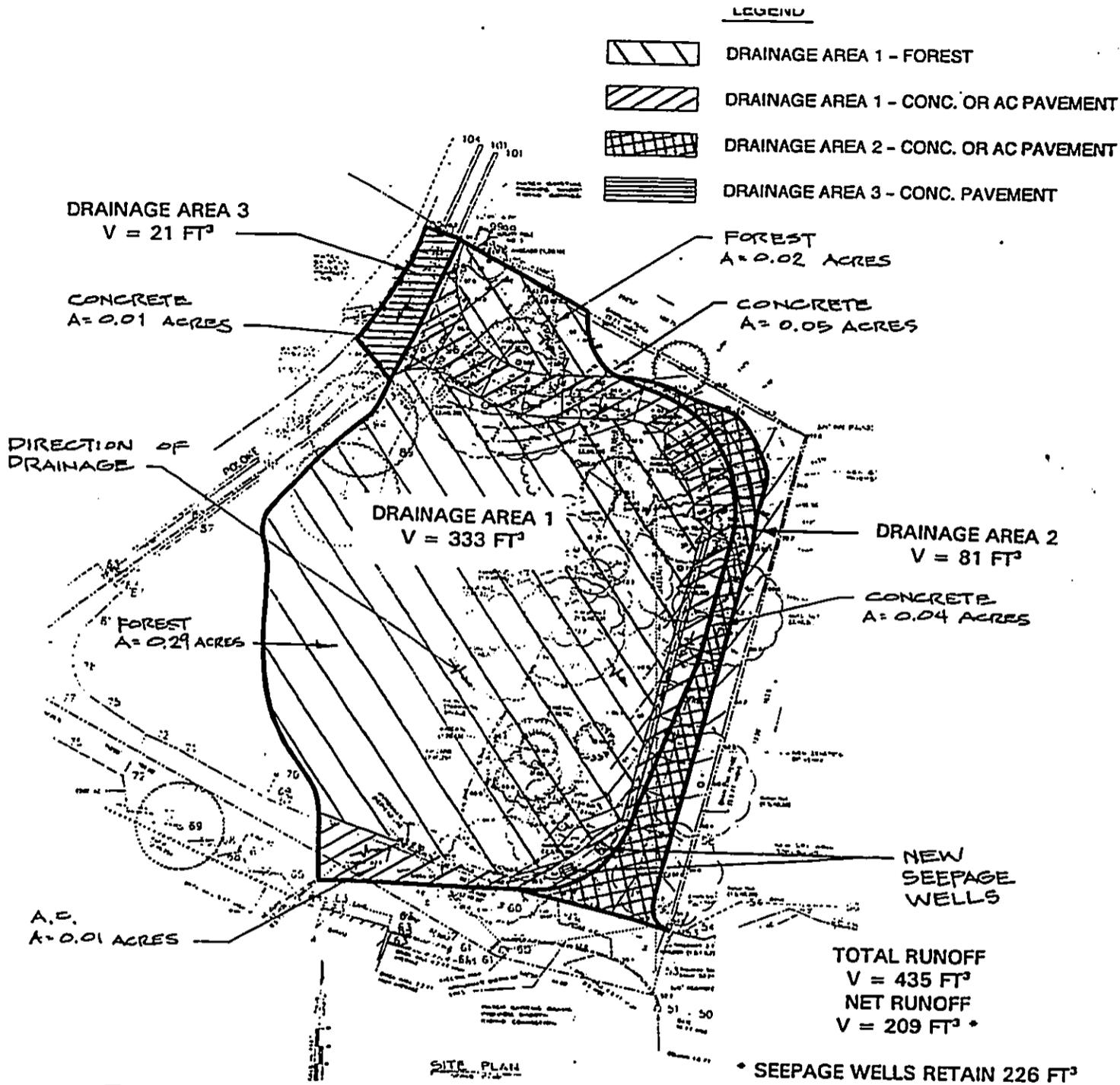


DRAINAGE AREA	CONDITION	AREA	"C"	Q	V
1	CONC/AC	0.01 ACRES	0.9	0.88 CFS	264 CF
	FOREST	0.36 ACRES	0.3		
2	FOREST	0.04 ACRES	0.3	0.09 CFS	27 CF
3	CONC/AC	0.01 ACRES	0.9	0.07 CFS	21 CF

DRAINAGE AREA 1 = EXISTING AREA DRAINING TOWARD NEW DRY WELLS  
 DRAINAGE AREA 2 = EXISTING AREA BY-PASSING NEW DRY WELLS  
 DRAINAGE AREA 3 = EXISTING AREA DRAINING ALONG EXISTING DRIVEWAY

**DILLINGHAM DRIVEWAY**  
**TAX MAP KEY: 2-5-15: 4 AND 5**

**EXISTING DRAINAGE**  
 SCALE: 1" = 40'



DRAINAGE AREA	CONDITION	AREA	"C"	Q	V
1	CONC/AC	0.06 ACRES	0.9	1.11 CFS	333 CF
	FOREST	0.31 ACRES	0.3		
2	CONC/AC	0.04 ACRES	0.9	0.27 CFS	81 CF
3	CONC	0.01 ACRES	0.9	0.07 CFS	21 CF

DRAINAGE AREA 1 = AREA DRAINING TOWARD NEW DRY WELLS  
 DRAINAGE AREA 2 = AREA BY-PASSING NEW DRY WELLS  
 DRAINAGE AREA 3 = AREA DRAINING ALONG EXISTING DRIVEWAY

DILLINGHAM DRIVEWAY  
 TAX MAP KEY: 2-5-15: 4 AND 5

**DEVELOPED DRAINAGE**

SCALE: 1" = 40'

DOCUMENT CAPTURED AS RECEIVED

DEPARTMENT OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU  
DIVISION OF ENGINEERING

# Storm Drainage Standards

REVISED PRINTING MAY 1988

\* \* \*

APPROVED:

Maui T. Fukagawa  
CHIEF, DIVISION OF ENGINEERING

Alfred J. Heath  
DIRECTOR AND CHIEF ENGINEER  
DEPARTMENT OF PUBLIC WORKS

100

# Hydrologic Criteria

## A. RECURRENCE INTERVAL

- ① For drainage areas of 100 acres or less,  $T_m$  (recurrence interval) = 10 years, unless otherwise specified.  $T_m = 10$  YEARS
- ② For drainage areas of 100 acres or less with sump, or tailwater effect and for the design of roadway culverts and bridges,  $T_m$  (recurrence interval) = 50 years.
- ③ For drainage areas greater than 100 acres and all streams, design curves based upon the U.S. Geological Survey data on flood magnitude and frequency,  $T_m$  (recurrence interval) = 100 years.

## B. RUNOFF QUANTITY

USE RATIONAL METHOD  
 $Q = CIA$

- ① For drainage areas of 100 acres or less, the rational method shall be used.
- ② For drainage areas greater than 100 acres and all streams, refer to Plate 20 on page 20 titled "Design Curves for Peak Discharge vs. Drainage Area".

### C. RATIONAL METHOD

The formula  $Q = CIA$  shall be used to determine quantities of flow rate, in which

- Q = flow rate in cubic feet per second;
- C = runoff coefficient;
- I = rainfall intensity in inches per hour for a duration equal to the time of concentration; and
- A = drainage area in acres.

#### ① RUNOFF COEFFICIENT

The runoff coefficient shall be determined from Table 1 (page 14) for agricultural and open areas and from Table 2 (page 15) for built-up areas. It shall be based on the ultimate use of the drainage area. For distinctive composite drainage areas, a weighted value of runoff coefficient shall be used.

#### ② TIME OF CONCENTRATION

- a. Determine overland flow time from Plate 3 (page 18) generally for paved, bare soil and grassed areas.
- b. Determine flow time over small agricultural areas with well-defined divides and drainage channels from Plate 5 (page 19).
  1. Use upper curve for well-forested areas, representing
$$T_c = 0.0136 K^{0.77}$$
  2. Use lower curve for areas with little or no cover, representing
$$T_c = 0.0078 K^{0.77}$$
- c. In case of uncertainty, check the time of concentration by dividing the estimated longest route of runoff by the appropriate runoff velocity from Table 3 (page 15).

#### ③ RAINFALL INTENSITY

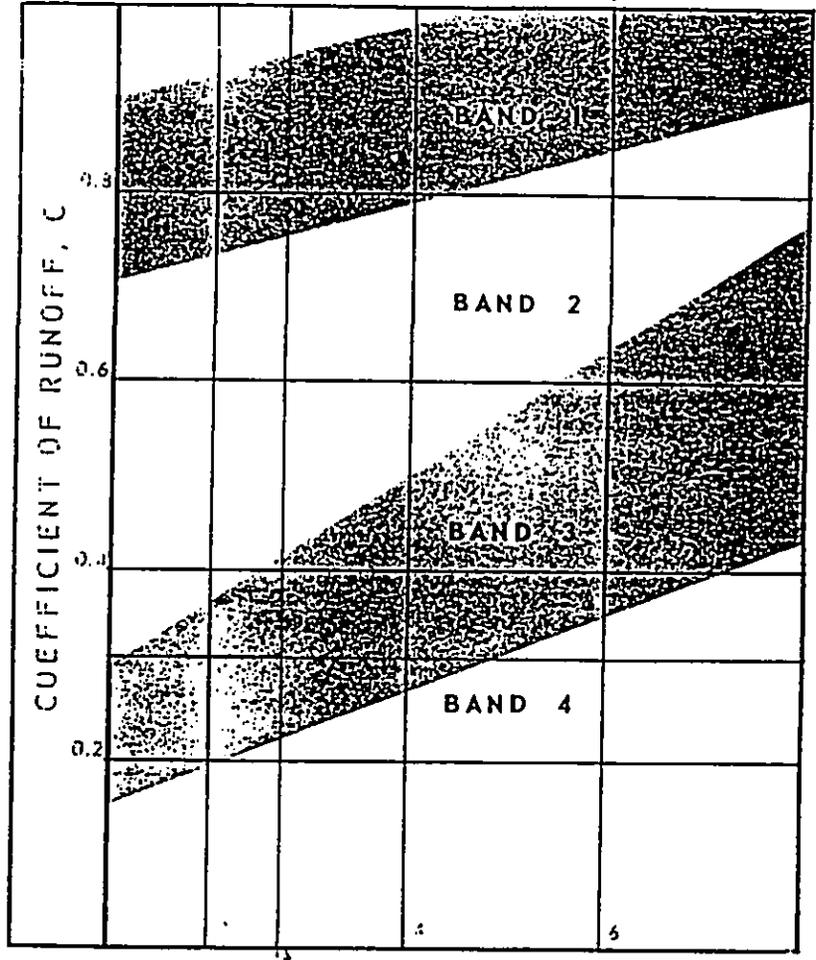
The design rainfall intensity of a drainage area shall be determined by the following procedure:

- a. Select the appropriate 1-hour rainfall value from Plate 1 or Plate 2 (page 16 or page 17) for the design recurrence interval.
- b. Enter Plate 4 (page 18) with the rainfall intensity duration equal to the required time of concentration, select the corresponding correction factor, and multiply the 1-hour rainfall value by the factor to obtain the design rainfall intensity.

DOCUMENT CAPTURED AS RECEIVED

THE RAINFALL ... BY ... Hr.

**Table 1**  
**RUNOFF COEFFICIENT**  
**FOR AGRICULTURAL**  
**AND OPEN AREAS**



- BAND 1 Steep, barren, impervious surfaces
- BAND 2 Rolling barren in upper band values, flat barren in lower part of band, steep forested and steep grass meadows
- BAND 3 Timber lands of moderate to steep slopes, mountainous, farming
- BAND 4 Flat pervious surface, flat farmlands, wooded areas and meadows

CHOOSE BAND 3



- EXISTING CONDITION

**Table 2**

**MINIMUM RUNOFF COEFFICIENTS FOR BUILT-UP AREAS**

RESIDENTIAL AREAS:	C = 0.55 to 0.70	DEVELOPED CONDITION USE C = 0.90 FOR DRIVEWAY
HOTEL-APARTMENT AREAS:	C = 0.70 to 0.90	
BUSINESS AREAS:	C = 0.80 to 0.90	
INDUSTRIAL AREAS:	C = 0.80 to 0.90	

*The type of soil, the type of open space and ground cover and the slope of the ground shall be considered in arriving at reasonable and acceptable runoff coefficients.*

**Table 3**

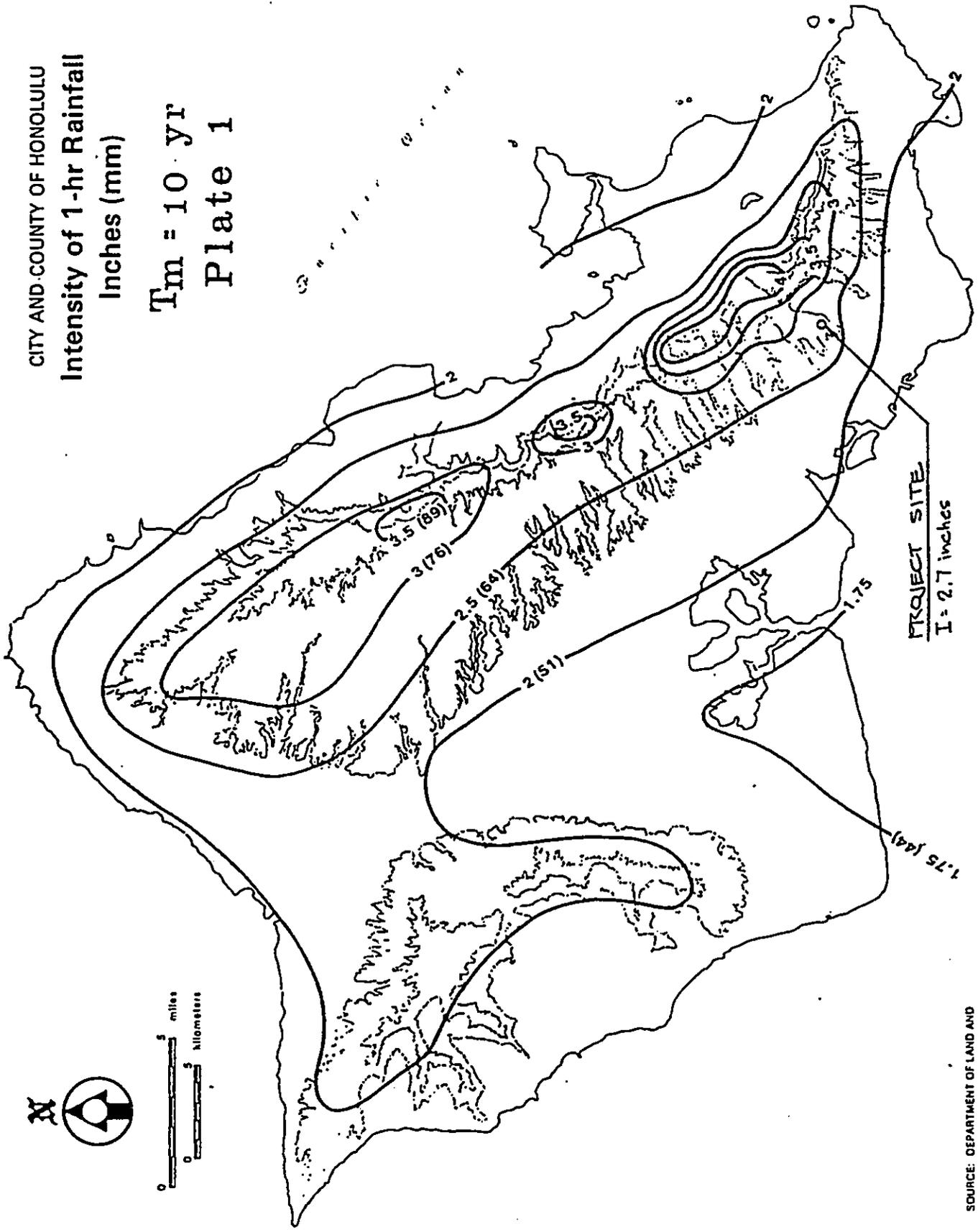
**APPROXIMATE AVERAGE VELOCITIES OF RUNOFF FOR CALCULATING TIME OF CONCENTRATION**

TYPE OF FLOW	VELOCITY IN FPS FOR SLOPES (in percent) INDICATED				EXISTING CONDITIONS L = 200' Slope = 20% V = 3.5 ft/sec t = 200 / 3.5 ft/sec = 57 sec t < 1 min
	0-3%	4-7%	8-11%	12-15%	
<b>OVERLAND FLOW:</b>					
Woodlands	1.0	2.0	3.0	3.5	
Pastures	1.5	3.0	4.0	4.5	
Cultivated	2.0	4.0	5.0	6.0	
Pavements	5.0	12.0	15.0	18.0	
<b>OPEN CHANNEL FLOW:</b>	Determine Velocity by Manning Formula				DEVELOPED CONDITIONS t < t <sub>EXIST.</sub> t < 1 min
Improved Channels					
Natural Channel* (not well defined)	1.0	3.0	5.0	8.0	

*\*These values vary with the channel size and other conditions so that the ones given are the averages of a wide range. Wherever possible, more accurate determinations should be made for particular conditions by Manning Formula or from Plate 5.*

DOCUMENT CAPTURED AS RECEIVED

CITY AND COUNTY OF HONOLULU  
Intensity of 1-hr Rainfall  
Inches (mm)  
 $T_m = 10 \text{ yr}$   
Plate 1



SOURCE: DEPARTMENT OF LAND AND  
NATURAL RESOURCES  
STATE OF HAWAII

# Plate 3

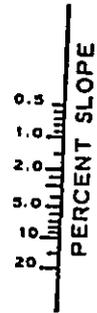
## Overland Flow Chart



CHARACTER OF GROUND

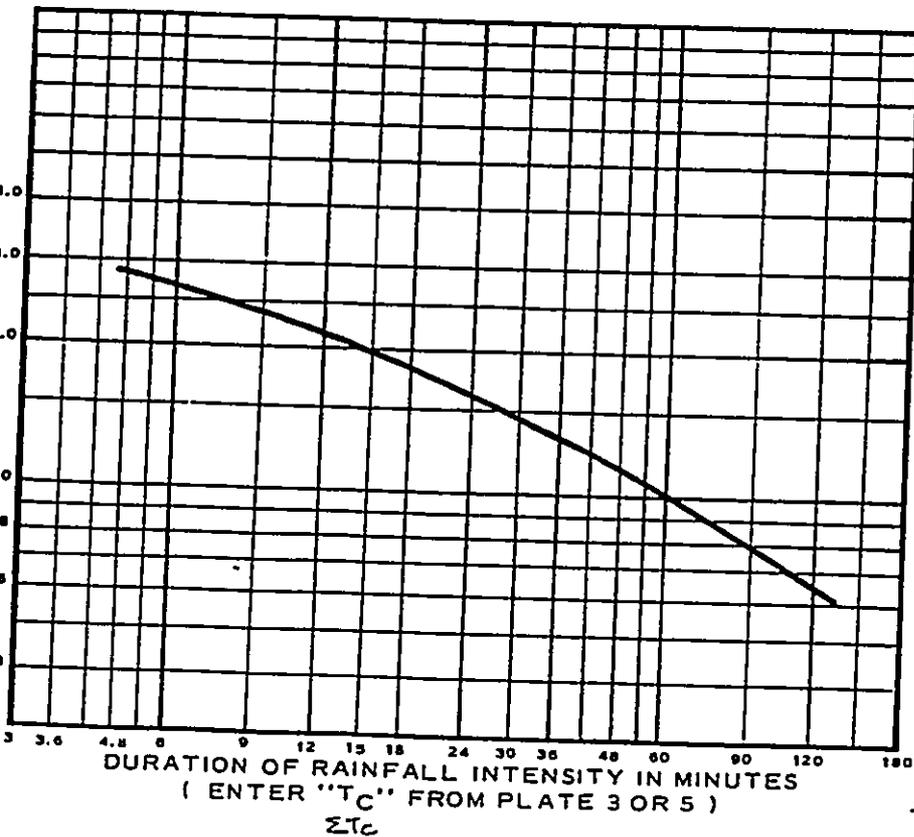
- PAVED
- BARE SOIL
- POOR GRASS SURFACE
- AVE. GRASS SURFACE
- DENSE GRASS

PIVOT LINE



7.7c

CORRECTION FACTOR APPLIED TO ONE HOUR RAINFALL IN INCHES TO OBTAIN RAINFALL INTENSITY OF GIVEN DURATION



# Plate 4

**CORRECTION FACTOR**  
FOR CONVERTING 1 HR. RAINFALL  
TO RAINFALL INTENSITY  
OF VARIOUS DURATIONS

TO BE USED FOR AREA  
LESS THAN 100 ACRES  
(See Plate 6 on page 20 for  
area more than 100 acres)

USE  $T_c = 5$  MIN IF  
 $\Sigma T_c > 5$  MIN & LESS  
USE  $CF = 2.0$  FOR  
BOTH  
EXISTING  
AND  
DEVELOPED  
CONDITIONS

Triangular Channel Analysis & Design  
Open Channel - Uniform flow

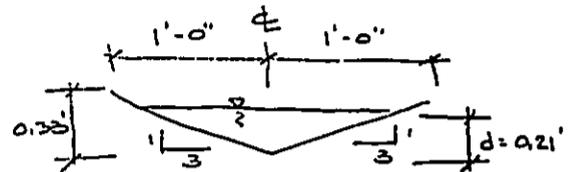
Worksheet Name: Dillingham

Comment: Concrete Drainage Swale along New Driveway

Solve For Depth

Given Input Data:

Left Side Slope..	3.00:1 (H:V)
Right Side Slope.	3.00:1 (H:V)
Manning's n.....	0.013
Channel Slope....	0.1892 ft/ft
Discharge.....	1.18 cfs



Computed Results:

Depth.....	0.20 ft
Velocity.....	10.21 fps
Flow Area.....	0.12 sf
Flow Top Width...	1.18 ft
Wetted Perimeter.	1.24 ft
Critical Depth...	0.39 ft
Critical Slope...	0.0045 ft/ft
Froude Number....	5.75 (flow is Supercritical)

## Memorandum

**TO:** File

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**FROM:** Alan Kato

---

**DATE:** January 6, 1993

---

**SUBJECT:** Dillingham Driveway

---

**JOB NO:** 133.6000

---

Mr. Stephen Kishida (phone 523-4187) of the Fire Department Plan Review Section called to discuss the proposed driveway relocation. Mr. Kishida noted that the standard turning radius for a fire truck is 35'. No special (compact) fire trucks service the area. He was informed of the current conditions, however, to provide fire and other emergency vehicle service he recommended using a 35' radius. The second curve of the driveway, with a widened pavement area for vehicles to pass each other, was acceptable.

Mr. Kishida recommended that the existing driveway should remain accessible for fire trucks, by leaving a loop with the new driveway. A gate, either chained or keyed with a knox box, can be installed after the new driveway. In case of emergency, the fire department can cut the chain, while a knox box can be obtained from the fire department. If there is no access allowed through the existing driveway, Mr. Kishida felt the fire trucks could utilize the driveway in lots 3 or 22 to turn around.

The plans will be returned with his comments.

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Office of Conservation and Environmental Affairs  
Honolulu, Hawaii

'93 JUN 22 P1:23

JUN 22 1993

FILE NO.: OA-2645  
180-Day Exp. Date: 11/14/93  
SUSPENSE DATE: 21 Days  
DOC. NO.: 2978

FOR: .  
BY: .  
MEMORANDUM

TO: Aquatic Resources; Conservation & Resources  
Enforcement; Forestry & Wildlife; Historic  
Preservation; Land Management; State Parks; Water  
and Land Development

FROM: ~~Roger C. Evans~~, Administrator  
Office of Conservation and Environmental Affairs

SUBJECT: REQUEST FOR COMMENTS  
Conservation District Use Application

APPLICANT: Harold Dillingham and First Hawaiian Bank Trust -  
Real Estate

FILE NO.: OA-5/18/93-2645

REQUEST: Construction of Concrete Driveway and Drainage  
Improvements

LOCATION: Tantalus, Honolulu, Oahu

TMK(s): 2-5-15: 5

PUBLIC HEARING: YES \_\_\_\_\_ NO X

DOCARE: Please conduct a field inspection on this project.  
Should you require additional information, please call Cathy  
Tilton at 7-0377.

If no response is received by the suspense date, we will assume  
there are no comments.

Attachment(s)  
June 24, 1993

A fire contingency plan is required prior to construction. Other  
than this requirement, we have no objections to the proposed request.

  
Michael G. Buck, Administrator

**BCA**  
BELT COLLINS  
& ASSOCIATES

Engineering • Planning  
Landscape Architecture

680 Ala Moana Boulevard, First Floor, Honolulu, Hawaii 96813-5406

Phone: (808) 521-5361, Fax: (808) 538-7819  
Hawaii • Singapore • Australia • Hong Kong • Thailand • Saipan

September 14, 1993  
93P- 597/133-6001

Mr. Michael G. Buck  
Administrator  
Division of Forestry and Wildlife  
Department of Land and Natural Resources  
P.O. Box 3378  
Honolulu, HI 96801

Subject: Conservation District Use Application: Construction of Driveway &  
Drainage Improvements, Tantalus, Oahu

Dear Mr. Buck:

Thank you for your response dated June 24, 1993 to Roger Evans, Administrator, Office of Conservation and Environmental Affairs, regarding the subject CDUA. A fire contingency plan has been drafted and is attached to this letter for your review. A copy of the plan will be attached to the Environmental Assessment for the project. Please feel free to contact me if you have any further questions on this matter.

Sincerely,



Kathleen A. Dadey  
Environmental Planner

Attachment

cc: Ms. Cathy Tilton, DLNR, Office of Conservation and Environmental Affairs  
Office of Environmental Quality Control  
Ms. Sharman Noguchi, First Hawaiian Bank Trust - Real Estate

## **FIRE CONTINGENCY PLAN - DILLINGHAM DRIVEWAY AND DRAINAGE IMPROVEMENTS PROJECT**

The fire contingency plan consists of two main components: prevention and response.

### **Prevention**

1. No fires or burning will be permitted on-site.
2. Fueling of all vehicles and equipment will occur off-site or within the gravel construction area.
3. No flammable liquids will be stored on-site.

### **Response**

1. The contractor shall establish and maintain a communication system for fire control with the Honolulu Fire Department and with other emergency service agencies. The communication system will be established prior to start of construction and maintained until completion of the project.
2. The contractor shall establish an on-site fire fighting program. The program will identify trained personnel, materials, and equipment available during construction hours to control fires.
3. The contractor will brief all personnel in emergency response procedures. These include: calling "911" and identifying the situation immediately after discovering a fire, containing the fire by creating fire breaks, and smothering the fire with soil. Hand-held fire extinguishers will be available on all construction equipment; workers will be trained in their use.

EA

JOHN WAIHEE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

July 8, 1993

REX D. JOHNSON  
DIRECTOR

DEPUTY DIRECTORS  
JOYCE T. OMINI  
AL PANG  
JEANNE K. SCHULTZ  
CALVIN M. TSUDA

IN REPLY REFER TO:

HWY-PS  
2.7507

TO: The Honorable Keith W. Ahue, Chairperson  
Board of Land and Natural Resources  
Department of Land and Natural Resources

FROM: Rex D. Johnson, Director  
Department of Transportation *R. Johnson*

SUBJECT: CONSERVATION DISTRICT USE APPLICATION OA-2645,  
CONSTRUCTION OF A DRIVEWAY AND DRAINAGE IMPROVEMENTS,  
TANTALUS, HONOLULU, TMK: 2-5-15: 5

Thank you for your memorandum of June 22, 1993, requesting our review of the subject application.

The proposed driveway and improvements will not impact our State highway facilities.

RECEIVED  
JUL 12 1993  
STATE OF HAWAII



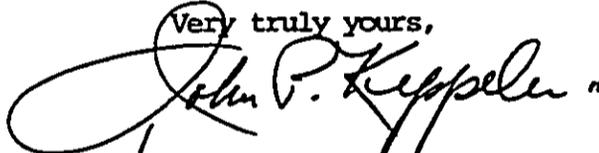
As the applicant, please be advised that it will be your responsibility to comply with the provisions of Section 205A-29(b), Hawaii Revised Statutes, relating to Interim Coastal Zone Management (Special Management Area) requirements.

Negative action as required by law, on your application by the Board of Land and Natural Resources can be expected should you fail to obtain from the County thirty (30) days prior to the 180-day expiration date, as noted on the first page of this notice, one of the following:

1. A determination that the proposed development is outside the Special Management Area (SMA);
2. A determination that the proposed development is exempt from the provisions of the county ordinance and/or regulation specific to Section 205A-29(b), HRS; or
3. A Special Management Area (SMA) permit for the proposed development.

Pending action on your application by the Land Board in the near future, your cooperation and early response to the matters presented herein will be appreciated. Should you have any questions, please contact Cathy Tilton of our Office of Conservation and Environmental Affairs staff at 587-0377.

Very truly yours,

  
for KEITH W. AHUE

cc: Oahu Board Member  
C&C Planning Dept.  
C&C Dept. of Land Utilization  
C&C Dept. of Public Works  
DOH/OHA/OSP/DOT

JOHN WAIHEE  
GOVERNOR OF HAWAII



1993 JUL 21 11:59  
STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 8TH FLOOR  
HONOLULU, HAWAII 96813

July 19, 1993

0A-2645  
KEITH AJIUE, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCE

DEPUTIES

JOHN P. KEPPELER II  
DONA L. HANAKE

AQUACULTURE DEVELOPMENT  
PROGRAM

AQUATIC RESOURCES  
CONSERVATION AND

ENVIRONMENTAL AFFAIRS  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES

FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
DIVISION

LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

LOG NO: 8733  
DOC NO: 9307td26

MEMORANDUM

TO: Edward E. Henry, Acting Administrator  
Office of Conservation and Environmental Affairs

FROM: *Don Hibbard*  
Don Hibbard, Administrator  
for Historic Preservation Division

SUBJECT: Conservation District Use Application, Construction of Concrete  
Driveway and Drainage Improvements (Harold Dillingham and First  
Hawaiian Bank Trust) (File No. OA-2645)  
Waikiki, Kona, O'ahu  
TMK: 2-5-15: 5

Our "no effect" determination for this project is reproduced as Appendix D in the  
Environmental Assessment attached to this application. We have no further comments.

TD:jt

1875

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Office of Conservation and Environmental Affairs  
Honolulu, Hawaii

STATE PARKS

JUN 19 1993

FILE NO.: OA-2645  
180-Day Exp. Date: 11/14/93  
SUSPENSE DATE: 21 Days  
DOC. NO.: 2978

JUN 22 1993

MEMORANDUM

TO: *FLM* Aquatic Resources; Conservation & Resources Enforcement; Forestry & Wildlife; Historic Preservation; Land Management; State Parks; Water and Land Development

FROM: *TD* Roger Evans, Administrator  
Office of Conservation and Environmental Affairs

SUBJECT: REQUEST FOR COMMENTS  
Conservation District Use Application

APPLICANT: Harold Dillingham and First Hawaiian Bank Trust - Real Estate

FILE NO.: OA-5/18/93-2645

REQUEST: Construction of Concrete Driveway and Drainage Improvements

LOCATION: Tantalus, Honolulu, Oahu

TMK(s): 2-5-15: 5

PUBLIC HEARING: YES \_\_\_\_\_ NO X

DOCARE: Please conduct a field inspection on this project. Should you require additional information, please call Cathy Tilton at 7-0377.

If no response is received by the suspense date, we will assume there are no comments.

Attachment(s)

June 23, 1993

No comments.

*[Signature]*  
RALSTON NAGATA, State Parks Administrator

RN:js

- \_\_\_\_ ADMINISTRATOR
  - \_\_\_\_ ASST. ADMIN.
  - \_\_\_\_ DEV. BR.
  - \_\_\_\_ PLAN. BR.
  - \_\_\_\_ RES. MGT. BR.
  - \_\_\_\_ PROJ. CONTROL
  - \_\_\_\_ SV. REC. PLAN.
  - \_\_\_\_ CLERICAL STAFF
  - \_\_\_\_ ADMIN. ASST.
  - \_\_\_\_ ARCHAEOLOGISTS
- FOR:
- \_\_\_\_ CIRCULATE/POST
  - \_\_\_\_ COMMENTS & REC.
  - \_\_\_\_ DRAFT REPLY
  - \_\_\_\_ FILE
  - \_\_\_\_ FOLLOW UP
  - \_\_\_\_ INFO.
  - \_\_\_\_ RUSH (DUE \_\_\_\_\_)
  - \_\_\_\_ SEE ME
  - \_\_\_\_ SEND COPY TO: \_\_\_\_\_

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Office of Conservation and Environmental Affairs  
Honolulu, Hawaii

1211110  
23 JUN 22 3:49

FILE NO.: OA-2645  
180-Day Exp. Date: 11/14/93  
SUSPENSE DATE: 21 Days  
DOC. NO.: 2978

JUN 22 1993

MEMORANDUM

FR TO: Aquatic Resources; Conservation & Resources  
Enforcement; Forestry & Wildlife; Historic  
Preservation; Land Management; State Parks; Water  
and Land Development

TO FROM: Roger C. Evans, Administrator  
Office of Conservation and Environmental Affairs

SUBJECT: REQUEST FOR COMMENTS  
Conservation District Use Application

APPLICANT: Harold Dillingham and First Hawaiian Bank Trust -  
Real Estate

FILE NO.: OA-5/18/93-2645

REQUEST: Construction of Concrete Driveway and Drainage  
Improvements

LOCATION: Tantalus, Honolulu, Oahu

TMK(s): 2-5-15: 5

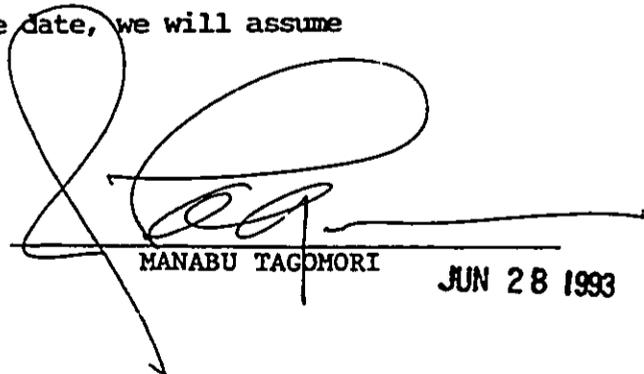
PUBLIC HEARING: YES \_\_\_\_\_ NO X

DOCARE: Please conduct a field inspection on this project.  
Should you require additional information, please call Cathy  
Tilton at 7-0377.

If no response is received by the suspense date, we will assume  
there are no comments.

Attachment(s)

We have no objections to this project  
pertinent to DOWALD programs.

  
MANABU TAGOMORI  
JUN 28 1993

93 JUN 22 3:49  
OCEA  
RECEIVED

OA-2645

PLANNING DEPARTMENT  
CITY AND COUNTY OF HONOLULU  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813

FRANK F. FASI  
MAYOR



ROBIN FOSTER  
CHIEF PLANNING OFFICER  
ROLAND D. LIBBY, JR.  
DEPUTY CHIEF PLANNING OFFICER  
MM 6/93-1492

July 8, 1993

Honorable Keith W. Ahue, Chairperson  
Board of Land and Natural Resources  
Department of Land and Natural Resources  
State of Hawaii  
P.O. Box 621  
Honolulu, Hawaii 96809

*SC*

Attention: Mr. Sam Lemmo

Dear Mr. Ahue:

Conservation District Use Application  
File No. OA-2645 to Construct a Driveway  
and Drainage Improvements at Tantalus,  
Honolulu, Oahu, Hawaii Tax Map Key: 2-5-15: 5

In response to your letter of June 22, we have reviewed the proposal and supporting documents and have no comments to offer at this time.

Thank you for the opportunity to comment on this matter. Should you have any questions, please contact Mel Murakami of our staff at 527-6020.

Sincerely,

ROBIN FOSTER  
Chief Planning Officer

By

GARY B. OKINO  
Community Planning Division

GHO:lh

*1993-01-08-0A-~~FEA~~-Duncan Drive Sale of Remnant*

JAN 8 1993

FINAL ENVIRONMENTAL ASSESSMENT  
NEGATIVE DECLARATION

FOR

PURCHASE OF REMNANT STATE LAND  
AT DUNCAN DRIVE, KANEHOE, OAHU, HAWAII  
TAX MAP KEY: 4-5-043:03

FOR:

MR. KOON YAU LEE  
45-529 DUNCAN DRIVE  
KANEHOE, HAWAII 96744

PREPARED BY:

MR. DARRELL LUM  
1515 WARD AVENUE, #603  
HONOLULU, HAWAII 96822

JULY 1992

# CORRECTION

THE PRECEDING DOCUMENT(S) HAS  
BEEN REPHOTOGRAPHED TO ASSURE  
LEGIBILITY  
SEE FRAME(S)  
IMMEDIATELY FOLLOWING