DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

FINAL
ENVIRONMENTAL ASSESSMENT
FOR
HALENANI PLACE DRAINAGE IMPROVEMENT
KANEHOE, Koolaupoko, OAHU, HAWAII
TAX MAP KEY: 4-5-54

This environmental document was prepared
pursuant to Chapter 343 HRS

Proposing Agency: Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Responsible Official: C. Michael Smith

Prepared by:
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I. GENERAL DESCRIPTION OF THE PROPOSED ACTION

A. Technical

Halenani Place is a City and County of Honolulu road located between Koolau View Tract and Haleakou Road in Kaneohe (see Figure 1 - Location Map). There are presently no drainage facilities within the roadway, resulting in ponding at the end of the road during periods of light rain and flooding of several properties during heavy rainfall.

The drainage system serving the adjacent Koolau View Tract consists of reinforced concrete pipe drain lines within Koolau View Drive connecting a series of grated inlets and manholes. The drain line connects to the storm drain system within Kamehameha Highway, which is owned and maintained by the State Department of Transportation, Highways Division (see Figure 2 - Existing Utilities).

The proposed project will involve construction of drain inlets within Halenani Place with approximately 150 to 190 feet of 18" drain line connecting the structures to the City's 18" drain line within Koolau View Drive. Two routes for the drain line will be considered and evaluated prior to preparation of construction documents. One route will involve construction of approximately 150 feet of drain line along the City's existing 10" sewer force main through parcel 19, TMK: 4-5-54. The alternate route will consist of approximately 190 feet of drain line through parcels 63 and 21, TMK: 4-5-54 (see Figure 3 - Proposed Drainage Improvements).

Construction will involve trench excavation, laying of 18" reinforced concrete pipe, construction of drain inlets and manholes, connection to the City's existing 18" drain line, backfilling and compaction, and restoration of roadway pavement and private property. The project will also include dedication of easements to the City and County through the affected parcels.

B. Socio-Economic

The improvements to the drainage of Halenani Place will offer both social and economic benefits to the homeowners by providing a sense of security during periods of heavy rainfall and eliminate "nuisance" ponding during periods of low rainfall. The two houses at the end of the road have been most affected by the current drainage problems. Implementation of the project will eliminate the need for the "make-shift" drainage systems which were installed by property owners to provide themselves with peace-of-mind during heavy rains. Estimates of damages incurred on their property due to past flooding is not available.
The project is estimated to cost between $100,000 to $200,000 and will be funded by the City and County of Honolulu. Construction will last approximately two months and is scheduled to start in the beginning of calendar year 1992.

C. Environmental Characteristics

The project site is along Halenani Place within a single-family residential area adjacent to Koolau View Tract in Kaneohe, Koolaupoko, Oahu. The project will involve construction of drain lines within Halenani Place and through privately-owned lots.

Since all drain lines will be underground, aesthetics of the area will not be affected. Impacts to the environment will therefore be limited to temporary disturbances during construction. Noise and dust generation during construction will be regulated by State Department of Health regulations and City and County Ordinances. Roadways and private yards will be restored to their existing condition after completion of the drain line installation.

II. SUMMARY DESCRIPTION OF THE ENVIRONMENT

A. Location

The project affects areas at the end of Halenani Place and properties belonging to the Koolau View Tract in Kaneohe, Koolaupoko, Oahu (see Figure 1 - Location Map). Halenani Place is approximately 350 feet mauka of Kamehameha Highway. Hawaiian Memorial Park Cemetery is across the street to the east. Pali Golf Course is to the south and Hoomaluhia Botanic Garden is to the west. Halekou Road runs perpendicular to Halenani Place and parallel to Koolau View Road and connects Halenani Place to Kamehameha Highway to the north.

Halenani Place is a 240-foot long City and County of Honolulu road. The existing right-of-way is 30 feet wide, with approximately 18 feet of asphaltic concrete (AC) pavement roadway and unpaved shoulders. Utilities within the roadway consist of an 8" gravity sewer, 10" sewer force main, 6" water line and overhead electrical lines. There are presently no drainage facilities (see Figure 2 - Existing Utilities).

Kaneohe is a major population center in Windward Oahu, approximately 10 miles north of downtown Honolulu. The Koolau Range lies to the west, the Kaneohe (Halekou) volcanic cone to the south, and Kaneohe Bay to the north and east. Much of the developed area is on a flat coastal
plain which extends inland from Kaneohe Bay for approximately 1.7 miles, where it then gently rises up to the foot of the Koolau Range. (FEMA, 1989) Kaneohe is primarily a residential community with commercial and service establishments for residents. No significant agricultural activities exist within the area.

Main streams within Kaneohe include Keahalana, Kaneohe, Kamoalali, Kawa and Tributary to Kawa Stream. Kamoalali Stream meanders through the Hoomaluhia Botanic Garden, mauka of the project site. (FEMA, 1989)

B. Population

The resident population within Kaneohe was estimated to be 41,924 as of July 1, 1988, an increase of 17.9% from the 1980 census population of 35,553. The project area is within Census Tract 106.02, extending from Kaneohe Bay Drive to Kamoalali Stream, with a population of 5,502 as of July 1, 1988. (State of Hawaii, 1990)

C. Climate

Average rainfall is approximately 50 inches near Kaneohe Bay to 75 inches near the Koolau mountains. Temperatures range from an average (mean) minimum of 69 degrees Fahrenheit to an average (mean) maximum of 85 degrees Fahrenheit. The prevailing wind is the northeasterly trade wind. (University of Hawaii, 1983)

D. Land Use

Based on the City and County of Honolulu Development Plan Map, the project is within a residential area and is surrounded by areas designated for residential, public facilities, preservation, and park use (see Figure 4 - Development Plan Map). Public facilities include Pali Golf Course, Hawaii Loa College, and Hoomaluhia Memorial Park. Park areas include Hoomaluhia Park. Preservation areas are mauka of Hoomaluhia Park and the Pali Golf Course.

The project site is classified as within the State’s urban district (see Figure 5 - State Land Use Map). Hoomaluhia Park is located within the conservation district.

Zoning within the area is R-5, Residential. Surrounding areas are within P-1 and P-2, Preservation (see Figure 6 - Zoning Map).

E. Historic or Cultural Sites

Halenani Place and the surrounding residential areas have been altered by grading done as part of the subdivision
construction. The existence of historic or cultural sites is therefore unlikely. The construction contractor will be required to contact the State Historic Sites Section should any artifacts be unearthed during trench excavations.

F. Wildlife and Flora

Due to the urbanization of the area, wildlife and indigenous flora are non-existent. Flora within the area consists of introduced species.

G. Soils

Soils within the project area belong to the Lolekaa-Waikane association. These soils are characterized in the Soil Conservation Service's "Soil Survey, Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii" as "deep, nearly level to very steep, well-drained soils that have a dominantly fine-textured subsoil; on fans, terraces, and uplands". (USDA, 1972)

The soil within the project area is further classified as belonging to the Kaneohe Series -- Kaneohe silty clay loam, 5 to 15 percent slopes (KHMC). This soil has a 14" surface layer of dark reddish brown silty clay loam underlain by 40 to 50 inches of dark red silty clay loam with a subangular, blocky structure. The substratum consists of soft weathered gravel. Volcanic ash and cinders are generally found in the subsoil below a depth of 20 inches. The soil is extremely acid to very strongly acid. (USDA, 1972)

Soil of this type is often used for pasture and homesites. The soil also has characteristics which make it good for use as road fill -- moderate shrink-swell potential, moderate corrosiveness on concrete, and can be sloped as much as 65 percent. (USDA, 1972)

H. Drainage

Storm runoff from the subdivisions mauka of Halenani Place sheet flows towards Halenani Place and ponds at the end of the road. The adjacent Koolau View Tract has drainage improvements consisting of 18 and 24-inch drain lines, grated inlets, and drain manholes. The City's drainage system discharges into the State's 24" drain line at the intersection of Koolau View Drive and Kamehameha Highway.

On the Flood Insurance Rate Map dated September 4, 1987, the Federal Emergency Management Agency (FEMA) designated the project area as within Zone D, an area in which flood hazards are undetermined (see Figure 7 - Flood Insurance Rate Map).
III. SUMMARY OF THE MAJOR IMPACTS

The proposed project will involve crossing private lots within the Halesani Place subdivision and Koolau View Tract. Both alternatives will involve construction of grated drain inlets at the end of Halesani Place with a connecting 18" drain line. Drainage from the inlets will be routed through private properties, within new easements to be dedicated to the City, for connection to the City's line within Koolau View Tract.

Alternative A involves construction of approximately 50 feet of 18" drain line and a drain manhole within parcel 63 (TMK: 4-5-54). The 18" drain line will continue within parcel 21, along its common boundary with parcel 20. An additional drain manhole will be constructed within Koolau View Drive to connect to the City's existing 18" drain line.

Alternative B involves construction of an 18" drain line from the proposed grated inlets to Koolau View Drive by going through parcel 19 (TMK: 4-5-54). The City and County currently have a 6'-wide easement with a 10" sewer force main through this privately-owned lot. This alternative would require approval from the Division of Wastewater Management for sharing a portion of this sewer easement for drainage purposes.

The construction will temporarily inconvenience residents along Koolau View Drive and Halesani Place with equipment noise, dust, and interference with vehicular and pedestrian traffic. Lots along the drain line alignment will be inconvenienced by the disturbance of their yards and the presence of construction activity within their property.

IV. ALTERNATIVES CONSIDERED

There were two alternatives that were considered for the proposed action: 1) No action; 2) The proposed action (consisting of Alternatives A or B).

Under the "no action" alternative, flooding would continue to occur at the end of Halesani Place. Parcels 63 and 58 (TMK: 4-5-54) would continue to have standing water on their property and on the road fronting their property during periods of heavy rain.

The "no action" alternative is not acceptable since the City and County of Honolulu is responsible for the maintenance of the road and for infrastructure. Condemnation and relocation of the affected residences were not considered and, therefore, this alternative is not recommended.
The proposed action would provide Halenani Place with the necessary infrastructure to collect and divert storm runoff from the road and adjacent property. The City has already unsuccessfully attempted to mitigate flooding problems in the past by constructing a small A.C. berm across Halenani Place at Hakekou Road to cutoff flow generated along Hakekou. Further diversion of flow is not possible and, therefore, collection of the runoff is the only alternative.

V. MITIGATION MEASURES PROPOSED

The contractor shall provide adequate grading, stockpiling and erosion control measures as required by Chapter 23 of the Revised Ordinances of Honolulu, 1978, as amended. The contractor will be required to equip all construction equipment and on-site vehicles with proper mufflers and comply with any conditional use requirements specified by the community noise permit. Traffic noise from heavy vehicles travelling to and from the site through the subdivision shall be minimized in accordance with Chapter 11-42, Vehicle Noise Control for Oahu.

Both Koolau View Drive and Halenani Place are two-lane roads. The contractor will be required to minimize disruption of vehicular and pedestrian traffic within the area. Access to residents' garages will be provided during non-working hours. Traffic safety signs and barriers will be erected by the contractor in accordance with requirements of the City Department of Transportation Services.

Due to the close proximity of the proposed work to residential homes, the contractor shall be required to minimize disturbance to surrounding areas and will be required to restore all areas back to their original condition or better after completion of the drainage work. In planting areas, this shall be limited to providing an area suitable for replanting, including importation of topsoil as required.

VI. AGENCIES CONSULTED

A. Federal Agencies

1. U.S. Army Engineer, Honolulu District
2. U.S. Department of the Interior, Fish & Wildlife Service

B. State Agencies

1. Department of Health
2. Department of Land and Natural Resources

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C. City Agencies
   1. Department of General Planning
   2. Department of Land Utilization
   3. Department of Transportation Services
   4. Kaneohe Neighborhood Board No. 30

Responses from agencies are attached in Appendix A.

VII. DETERMINATION

After completing an assessment of the potential environmental
effects of the proposed project and consulting formally with
other governmental agencies, it has been determined that an
Environmental Impact Statement is not required. Therefore,
this document constitutes a notice of Negative Declaration.

VIII. FINDINGS AND REASONS SUPPORTING THE DETERMINATION

Findings and reasons supporting the Negative Declaration
determination are as follows, using the criteria, policies,
guidelines and provisions of Title 11, Chapter 200,
Environmental Impact Statement Rules and Chapter 343, HRS.
The proposed project will not:

A. Involve an irrevocable commitment to loss or destruction
   of any natural or cultural resource;

B. Curtail the range of beneficial uses of the environment;

C. Conflict with the State's long-term environmental policies
   or goals and guidelines as expressed in Chapter 344,
   Hawaii Revised Statutes, and any revisions thereof and
   amendments thereto, court decisions or executive orders;

D. Substantially affect the economic or social welfare of the
   community or State;

E. Substantially affect public health;

F. Involve substantial secondary impacts, such as population
   changes or effects on public facilities;

G. Involve a substantial degradation of environmental
   quality;

H. Substantially affect a rare, threatened or endangered
   species, or its habitat;
I. Detrimentally affect air or water quality or ambient noise levels; or

J. Affect an environmentally sensitive area, such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters. [Eff. Dec. 06, 1985] (Auth: HRS Sec. 343-6) (Imp. HRS Secs. 343-2, 343-6)

IX. LIST OF REFERENCES


APPENDIX A

RESPONSES AND REPLIES FROM AGENCIES CONSULTED DURING THE ASSESSMENT PROCESS
MEMORANDUM

TO: SAM CASALEJO, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: BENJAMIN B. LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR THE HALENANI PLACE
DRAINAGE IMPROVEMENT PROJECT, TAX MAP KEY: 4-5-54,
KANEOHE, OAHU

August 20, 1991

In response to your memorandum of August 1, 1991, we have reviewed the subject environmental assessment and have no objections to the proposed project.

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

Benjamin B. Lee
Chief Planning Officer
Mr. Sam Callejo  
Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Callejo:

Thank you for the opportunity to review and comment on the environmental assessment (EA) for the proposed Halenani Place Drainage Improvement Project, Kaneohe, Oahu, Hawaii (THK 4-5-54). The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act, the Rivers and Harbors Act of 1899, and the Marine Protection, Research and Sanctuaries Act.

a. The proposed project will not require a Department of the Army Permit from the Corps.

b. The flood zone designation (Zone D) cited on page 4 of the EA is correct; however, the current Flood Insurance Rate Map (FIRM) dated September 28, 1990 should be used and referenced instead of the September 4, 1987 FIRM.

Sincerely,

[Signature]
Kiuk Cheung  
Director of Engineering
August 27, 1991

MEMORANDUM

TO: CECELIA CALLEJO, DIRECTOR AND CHIEF ENGINEER
   DEPARTMENT OF PUBLIC WORKS

FROM: JOSEPH M. MAGALDI, JR., DIRECTOR

SUBJECT: HALEMANI PLACE DRAINAGE IMPROVEMENTS
         ENVIRONMENTAL ASSESSMENT (EA)
         TNK: 4-5-84

This is in response to your memorandum dated August 1, 1991 requesting our comments on the subject project.

Our concerns are as follows:

1. Construction equipment should not be parked on the roadway pavement during non-working hours.

2. Construction plans for all work within the City’s right-of-way should be submitted to our department for review. A traffic control plan showing temporary detours should be included in this plan.

Should you have any questions, please contact Lance Watanabe of my staff at local 4199.

JOSEPH M. MAGALDI, JR.
August 14, 1991

Mr. Sam Callejo
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Callejo:

Subject: ENVIRONMENTAL ASSESSMENT FOR THE HALEKANI PLACE DRAINAGE IMPROVEMENT PROJECT KANEHOE, KOOLAUPOKO, OAHU, HAWAII
TMK: 4-5-54

The Department of Health has reviewed the subject Environmental Assessment for the HALEKANI PLACE DRAINAGE IMPROVEMENT PROJECT dated July 30, 1991. We have no objections to the proposed project.

If you should have any questions on this matter, please contact Mr. Walter West, Engineering Section of the Clean Water Branch, at 543-8309.

Sincerely,

BRUCE S. ANDERSON, Ph.D.
Deputy Director for Environmental Health

WW:rm
MEMORANDUM

TO:    SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER
       DEPARTMENT OF PUBLIC WORKS

FROM:  DONALD A. CLEGG, DIRECTOR

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR HALENANI PLACE DRAINAGE
         IMPROVEMENTS. TAX MAP KEY: 4-5-54: POR. 19, 21, 63

September 6, 1991

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

Our review of the proposed project finds that it is not within the Special Management Area. We have no further comments to offer at this time.

Should you have any questions, please contact the Environmental Affairs Branch at 523-4077.

[Signature]

DONALD A. CLEGG
Director of Land Utilization

DAC: lg
The Honorable Sam Callejo  
Director and Chief Engineer  
Department of Public Works  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Callejo:

SUBJECT: Environmental Assessment for the  
Halenani Place Drainage Improvement Project  
Location: Kaneohe, Oahu, Hawaii  
TMK: 4-5-59

Thank you for giving our Department the opportunity to comment on this matter. We have reviewed the materials you submitted and have the following comments.

**HISTORIC PRESERVATION DIVISION CONCERNS:**

A review of our records shows that there are no known historic sites at the project plat which was extensively graded during construction of the housing subdivision there. Therefore, we believe this project will have "no effect" on historic sites. There remains the possibility that subsurface historic sites, including human burials, may be uncovered during routine construction activities. Should this be the case, work in the vicinity of the site should stop and the State Historic Preservation Division must be contacted at 587-0047.
Please feel free to call me or Sam Lemmo at our Office of Conservation and Environmental Affairs, at 548-7837, should you have any questions.

Very truly yours,

WILLIAM W. PATY
MEMORANDUM

TO: MR. MARVIN T. FUKAGAWA, CHIEF
   DIVISION OF ENGINEERING

FROM: GEORGE M. UYEMA, CHIEF
      DIVISION OF WASTEWATER MANAGEMENT

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
         HALENANI PLACE DRAINAGE IMPROVEMENT PROJECT
         TMK: 4-5-54

September 9, 1991

We have the following comments regarding Item III: "Summary of
the Major Impacts" on page 5 of the subject draft environmental
assessment (EA):

1) We have no objections to Alternative A.

2) The City and County currently has a 6-foot wide sewer
easement through parcel TMK: 4-5-54: 19 instead of a
10-foot wide easement as stated in the draft EA. The
Division of Wastewater Management (DWM) will agree to
Alternative B, which proposes to construct an 18-inch
drain line alongside the existing sewer force main,
provided that sufficient distance is maintained between
the two and that the current easement is widened.
However, DWM will not allow the proposed drain line to
be constructed over or under this force main.

Also, be aware that there are municipal sewer lines in both
Koolau View Drive and Halenani Place. All construction plans for
the proposed drainage improvements must be submitted to DWM for
review.

If there are any comments, please call Lynn Kurashima at
extension 4671.

GEORGE M. UYEMA
Chief