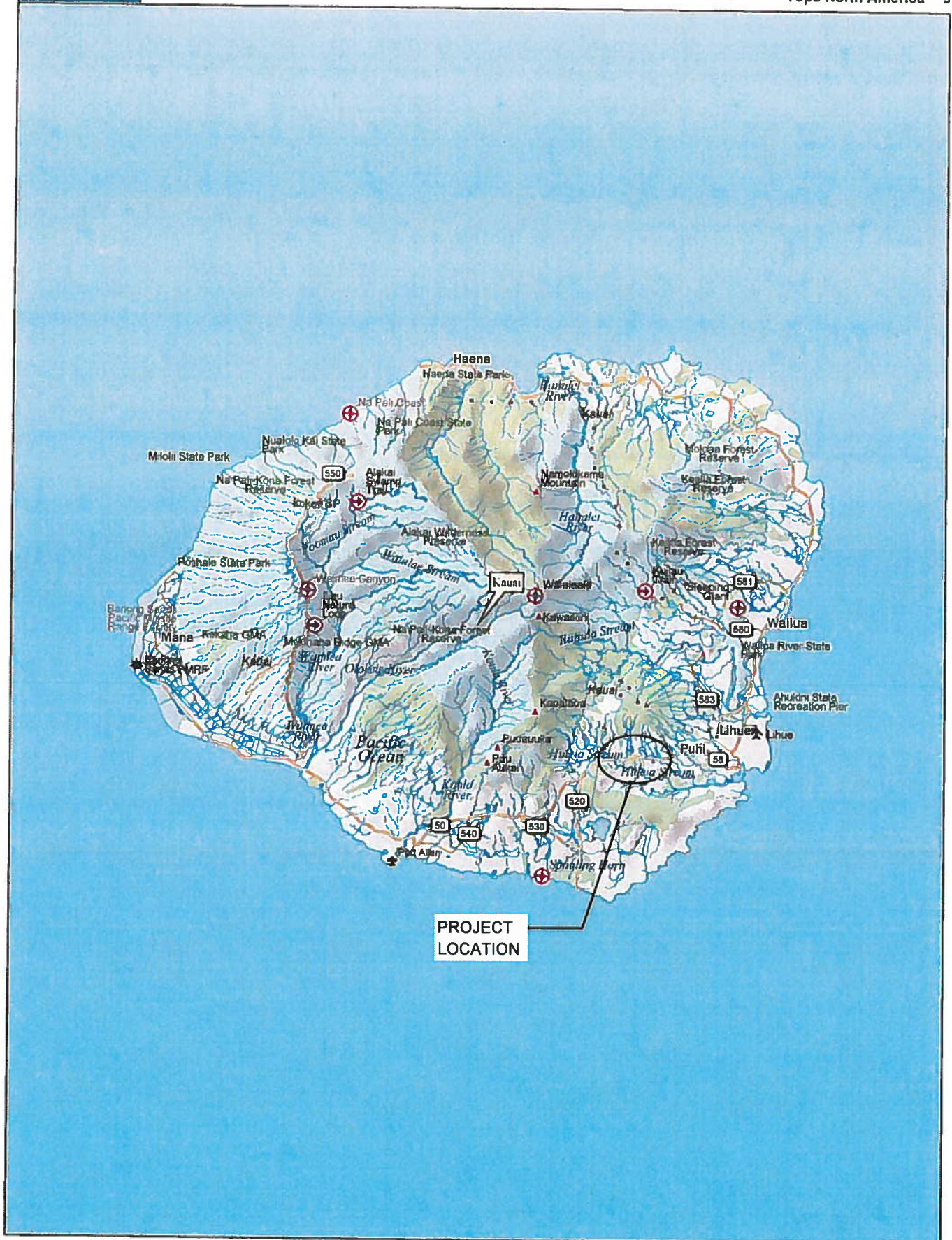


# **FORM C ATTACHMENTS**

**Form C Attachment A-1**  
**Location and Outfall Maps**



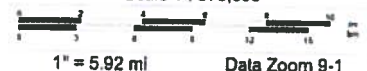
Data use subject to license.

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www.delorme.com

## VICINITY MAP

Scale 1 : 375,000



Data Zoom 9-1

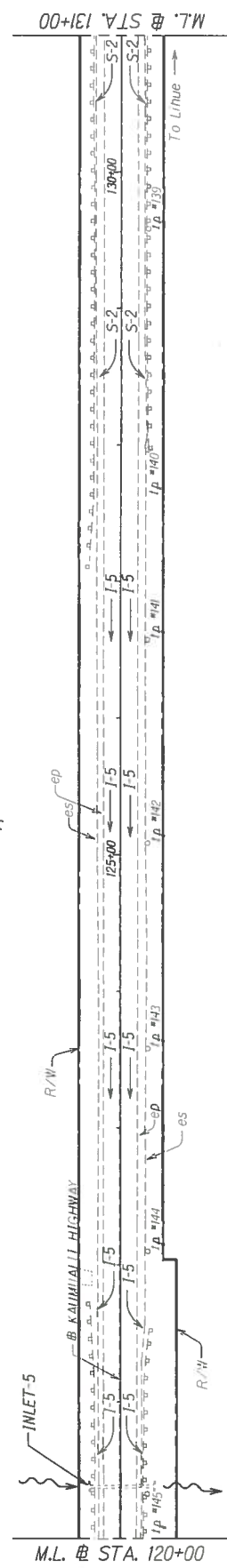
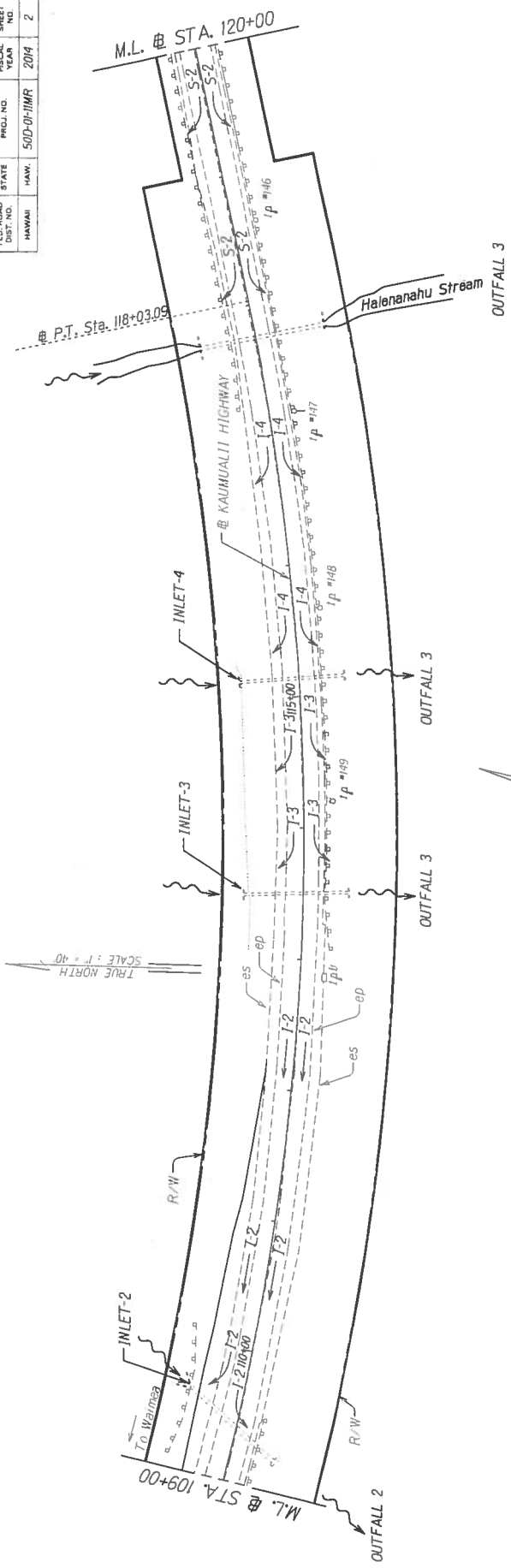








FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	500-01-11MR	2014	2	5



- Notes:
- S-2 — Surface runoff discharge to Outfall 3 (Halenahanu Stream)
  - I-2 — Surface runoff to Inlet-2 to Outfall 2 (Huleia Stream)
  - I-3 — Surface runoff to Inlet-3 to Outfall 3 (Halenahanu Stream)
  - I-4 — Surface runoff to Inlet-4 to Outfall 3 (Halenahanu Stream)
  - I-5 — Surface runoff to Inlet-5 to Outfall 4 (Huleia Stream)

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**

**KAUHAUALLY HIGHWAY RESURFACING**  
Kipu Road to Huleia Bridge

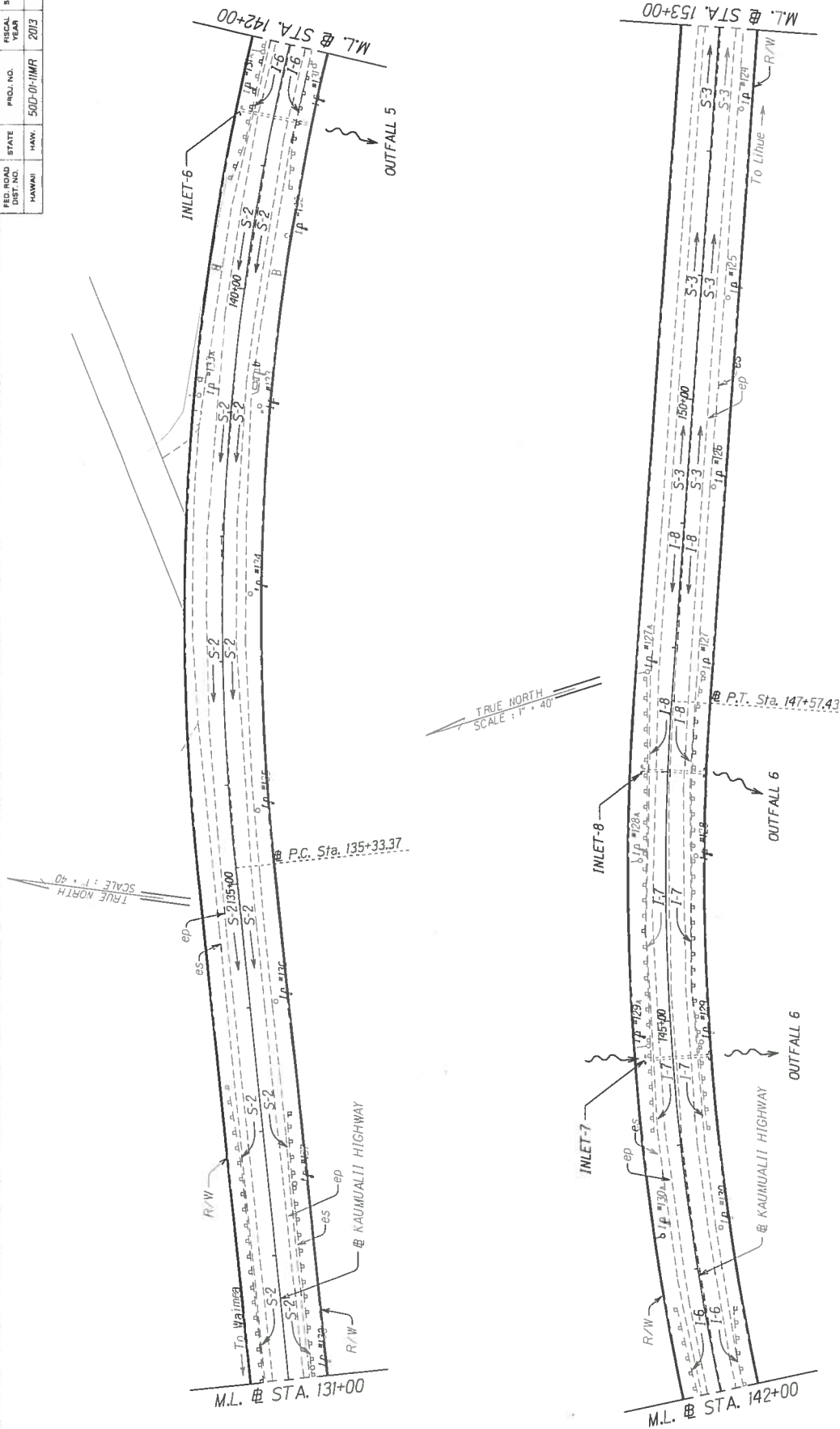
Proj. No. 500-01-11MR

Date: Oct. 2013

Scale: 1" = 40'

REVISION	DATE	BY	CHKD
1	10/20/13	W. J. HARRIS	W. J. HARRIS
2	10/20/13	W. J. HARRIS	W. J. HARRIS
3	10/20/13	W. J. HARRIS	W. J. HARRIS
4	10/20/13	W. J. HARRIS	W. J. HARRIS
5	10/20/13	W. J. HARRIS	W. J. HARRIS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	500-01-11MR	2013	3	5



- Notes:
- S-2 — Surface runoff discharge to Outfall 3 (Halemanahu Stream)
  - I-6 — Surface runoff to Inlet-6 to Outfall 5 (Huleia Stream)
  - I-7 — Surface runoff to Inlet-7 to Outfall 6 (Tributary to Huleia Stream)
  - I-8 — Surface runoff to Inlet-8 to Outfall 6 (Tributary to Huleia Stream)
  - S-3 — Surface runoff discharge to Outfall 7 (Huleia Stream)

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION

### ROADWAY PLAN

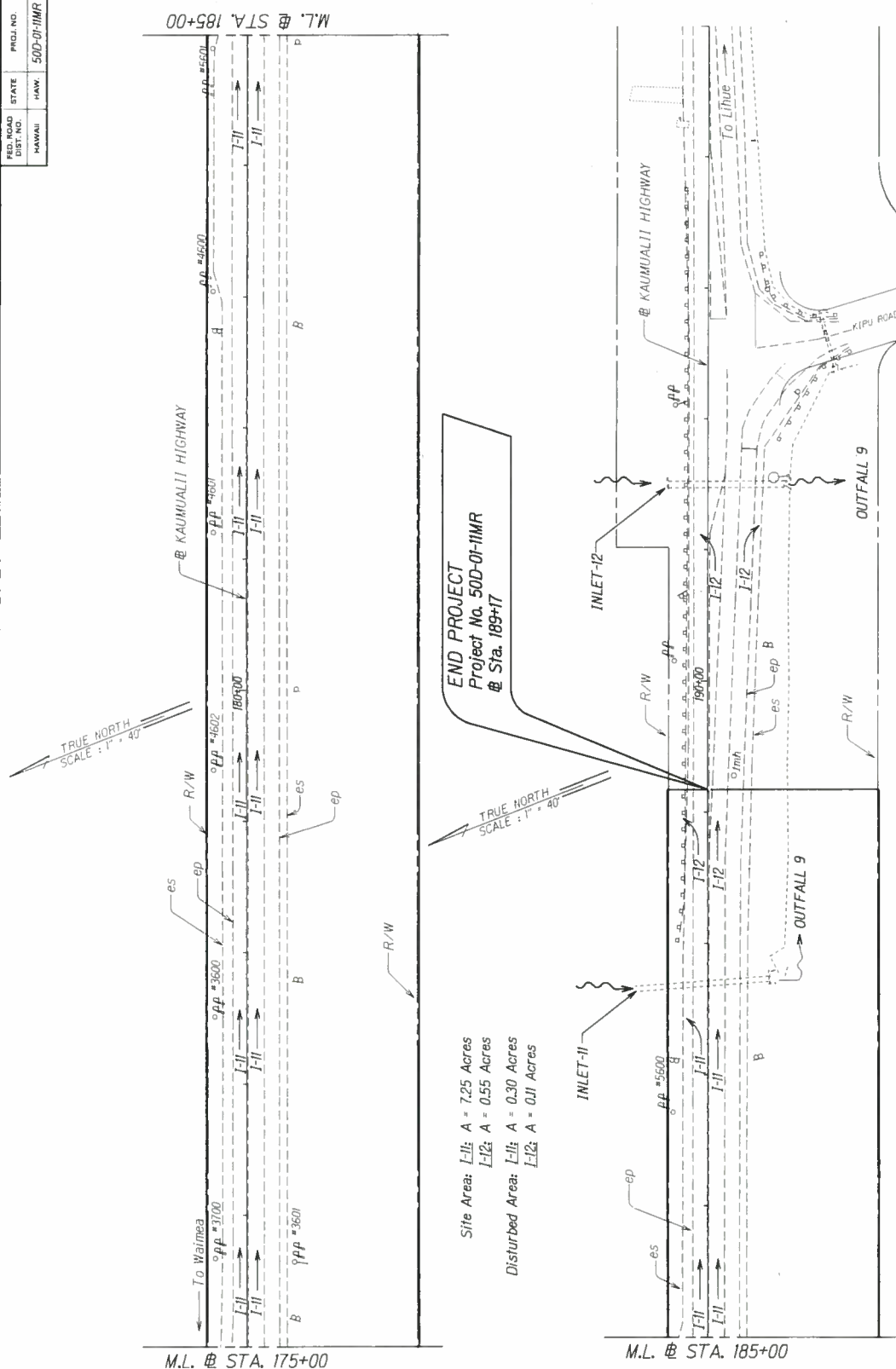
**KAUNUALII HIGHWAY RESURFACING**  
Kila Road to Huleia Bridge  
Proj. No. 500-01-11MR

Scale: 1" = 40'  
Date: Oct. 2013  
SHEET NO. 3 OF 5 SHEETS





FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	500-01-11MR	2013	5	5



**BMP PLAN - ROAD CONSTRUCTION**  
(Reconstruction of weakened pavement areas, Cold-planing, Resurfacing)

**Notes:**  
I-11 - Surface runoff to Inlet-11 to Outfall 9 (Huleia Stream)  
I-12 - Surface runoff to Inlet-12 to Outfall 9 (Huleia Stream)

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLAN**  
**KAUMUALII HIGHWAY RESURFACING**  
Kipu Road to Huleia Bridge  
Proj. No. 500-01-11MR  
Scale: 1"=40' Date: Oct. 2013

DESIGNED BY	DATE
CHECKED BY	DATE
IN CHARGE	DATE
APPROVED BY	DATE
REVIEWED BY	DATE
PLANNED BY	DATE
TRACED BY	DATE
REVIEWED BY	DATE
APPROVED BY	DATE

**Form C Attachment A-2**  
**Tables and Calculations**

**TABLE 1 – DISCHARGE POINT INFORMATION AND DISCHARGE QUANTITY**

Discharge Point	Location	Latitude	Longitude	Class	C	I (in/hr)	A (Acres)	Q (cfs)
Outfall 1	Huleia Stream	N21^57'45"	W159^26'34"	2	0.87	5.52	0.71	3.41
Outfall 2	Huleia Stream	N21^57'32"	W159^26'17"	2	0.87	5.52	0.56	2.69
Outfall 3	Halenanahu Stream	N21^57'43"	W159^26'06"	2	0.87	5.52	0.78	3.75
Outfall 4	Huleia Stream	N21^57'24"	W159^26'02"	2	0.87	5.52	0.62	2.98
Outfall 5	Huleia Stream	N21^57'27"	W159^25'48"	2	0.87	5.52	0.04	0.19
Outfall 6	Tributary to Huleia Stream	N21^57'42"	W159^25'41"	2	0.87	5.52	0.13	0.62
Outfall 7	Huleia Stream	N21^57'23"	W159^25'37"	2	0.87	5.52	0.76	3.65
Outfall 8	Huleia Stream	N21^57'22"	W159^25'18"	2	0.87	5.52	0.25	1.20
Outfall 9	Huleia Stream	N21^57'03"	W159^24'43"	2	0.87	5.52	0.97	4.66

**Total Discharge ( $Q_{total}$ ) = 23.15 cfs**

#### **Runoff Calculations**

$$Q = CIA$$

where: Q = quantity of storm water runoff in cu. ft/sec.

C = runoff coefficient

A = disturbed area in acres

Tc = Rainfall intensity for the duration equal to time of concentration

= 10 min (minimum)



For this project:

$C = 0.87$  for paved areas

$I = 5.52$  (see calculations below)

$A =$  varies (see table below)

$$I = I \times C_f$$

$i = 2.4$  (intensity of a 2-yr 1-hr rainfall)

$C_f = 2.30$  (correction factor)

$$I = 2.40 \times 2.30 = 5.52$$

**Disturbed Area: (Includes Staging/Storage Areas, see note below)**

S-1 = 0.71 Acs (Includes 0.50 Acs of Staging/Storage Areas)

S-2 = 0.72 Acs (Includes 0.50 Acs of Staging/Storage Areas)

S-3 = 0.13 Acs

I-1 = 0.02 Acs

I-2 = 0.54 Acs (Includes 0.50 Acs of Staging/Storage Areas)

I-3 = 0.02 Acs

I-4 = 0.04 Acs

I-5 = 0.62 Acs (Includes 0.50 Acs of Staging/Storage Areas)

I-6 = 0.04 Acs

I-7 = 0.05 Acs

I-8 = 0.08 Acs

I-9 = 0.63 Acs (Includes 0.50 Acs of Staging/Storage Areas)

I-10 = 0.25 Acs

I-11 = 0.86 Acs (Includes 0.50 Acs of Staging/Storage Areas)

I-12 = 0.11 Acs

**NOTE:** Since this is a linear project, there will be several locations of Staging/Storage Areas. Probable Storage/Staging Areas will be located along the unpaved shoulder within the state right of way.

**Discharge (Q) to Outfall 1 (Huleia Stream)**

$$Q_{S-1} = (0.87) \times (5.52 \text{ in/hr}) \times (0.71 \text{ Acs})$$

$$Q_{S-1} = 3.41 \text{ cfs}$$

**Discharge (Q) to Outfall 2 (Huleia Stream)**

$$Q_{I-1} = (0.87) \times (5.52 \text{ in/hr}) \times (0.02 \text{ Acs})$$

$$Q_{I-1} = 0.10 \text{ cfs}$$

$$Q_{I-2} = (0.87) \times (5.52 \text{ in/hr}) \times (0.54 \text{ Acs})$$

$$Q_{I-2} = 2.59 \text{ cfs}$$

**Discharge (Q) to Outfall 3 (Halelanahu Stream)**

$$Q_{I-3} = (0.87) \times (5.52 \text{ in/hr}) \times (0.02 \text{ Acs})$$

$$Q_{I-3} = 0.10 \text{ cfs}$$

$$Q_{I-4} = (0.87) \times (5.52 \text{ in/hr}) \times (0.04 \text{ Acs})$$

$$Q_{I-4} = 0.19 \text{ cfs}$$

$$Q_{S-2} = (0.87) \times (5.52 \text{ in/hr}) \times (0.72 \text{ Acs})$$

$$Q_{S-2} = 3.46 \text{ cfs}$$

**Discharge (Q) to Outfall 4 (Huleia Stream)**

$$Q_{I-5} = (0.87) \times (5.52 \text{ in/hr}) \times (0.62 \text{ Acs})$$

$$Q_{I-5} = 2.98 \text{ cfs}$$

**Discharge (Q) to Outfall 5 (Huleia Stream)**

$$Q_{I-6} = (0.87) \times (5.52 \text{ in/hr}) \times (0.04 \text{ Acs})$$

$$Q_{I-6} = 0.19 \text{ cfs}$$

**Discharge (Q) to Outfall 6 (Tributary to Huleia Stream)**

$$Q_{I-7} = (0.87) \times (5.52 \text{ in/hr}) \times (0.05 \text{ Acs})$$

$$Q_{I-7} = 0.24 \text{ cfs}$$

$$Q_{I-8} = (0.87) \times (5.52 \text{ in/hr}) \times (0.08 \text{ Acs})$$

$$Q_{I-8} = 0.38 \text{ cfs}$$

**Discharge (Q) to Outfall 7 (Huleia Stream)**

$$Q_{I-9} = (0.87) \times (5.52 \text{ in/hr}) \times (0.63 \text{ Acs})$$

$$Q_{I-9} = 3.03 \text{ cfs}$$

$$Q_{S-3} = (0.87) \times (5.52 \text{ in/hr}) \times (0.13 \text{ Acs})$$

$$Q_{S-3} = 0.62 \text{ cfs}$$

**Discharge (Q) to Outfall 8 (Huleia Stream)**

$$Q_{I-10} = (0.87) \times (5.52 \text{ in/hr}) \times (0.25 \text{ Acs})$$

$$Q_{I-10} = 1.20 \text{ cfs}$$

**Discharge (Q) to Outfall 9 (Huleia Stream)**

$$Q_{I-11} = (0.87) \times (5.52 \text{ in/hr}) \times (0.86 \text{ Acs})$$

$$Q_{I-11} = 4.13 \text{ cfs}$$

$$Q_{I-12} = (0.87) \times (5.52 \text{ in/hr}) \times (0.11 \text{ Acs})$$

$$Q_{I-12} = 0.53 \text{ cfs}$$



**Discharge (Q) to Outfall 8 (Huleia Stream)**

$$Q_{I-10} = (0.87) \times (5.52 \text{ in/hr}) \times (0.25 \text{ Acs})$$

$$Q_{I-10} = 1.20 \text{ cfs}$$

**Discharge (Q) to Outfall 9 (Huleia Stream)**

$$Q_{I-11} = (0.87) \times (5.52 \text{ in/hr}) \times (0.86 \text{ Acs})$$

$$Q_{I-11} = 4.13 \text{ cfs}$$

$$Q_{I-12} = (0.87) \times (5.52 \text{ in/hr}) \times (0.11 \text{ Acs})$$

$$Q_{I-12} = 0.53 \text{ cfs}$$

**Form C Attachment A-3**  
**Portions of Contract Plans**

INDEX TO DRAWINGS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STANDARD PLANS SUMMARY
3 - 4	GENERAL NOTES & LEGEND
5 - 6	WATER POLLUTION AND EROSION CONTROL NOTES
7 - 10	TYPICAL SECTIONS
11	CULVERT DETAILS
12	GUARDRAIL DETAILS AND NOTES
13	STRONG POST W-BEAM GUARDRAIL
14	FLEAT-360
15 - 19	ROADWAY PLANS
20 - 21	PORTABLE CONCRETE BARRIER
22	PAVEMENT MARKING LEGEND, DETAILS AND NOTES
23	CENTERLINE MILLED RUMBLE STRIP DETAILS
24 - 28	PAVEMENT MARKING AND TRAFFIC SIGNING PLAN
29	SIGN DETAILS
30	HIGH SPEED UNDIVIDED HIGHWAY WORK ZONE SIGNING PLAN, NOTES & DETAILS
31	CROSS SECTIONS

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HONOLULU, HAWAII

PLANS FOR

KAUMUALII HIGHWAY RESURFACING

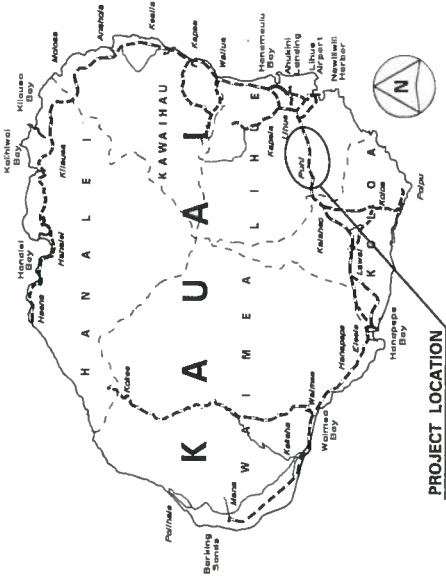
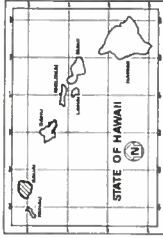
KIPU ROAD TO HULEIA BRIDGE

PROJECT NO. 50D-01-11MR

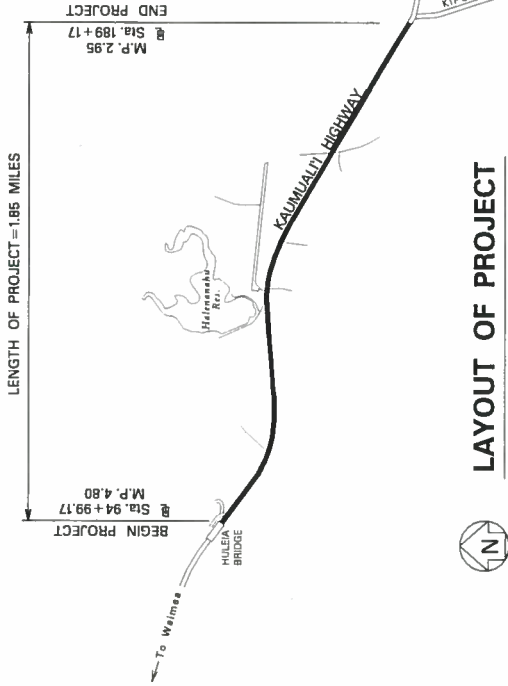
DISTRICT OF LIHUE

ISLAND OF KAUAI

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-11MR	2014	1	31



PROJECT LOCATION



LAYOUT OF PROJECT

GROSS LENGTH OF PROJECT.....1.85 MILES  
NET LENGTH OF PROJECT.....1.85 MILES



FEDERAL AID PROJECTS PREVIOUSLY CONSTRUCTED OR UNDER CONSTRUCTION

MILE POST 2.95 TO MILE POST 4.80

DEPARTMENT OF TRANSPORTATION STATE OF HAWAII	DATE
APPROVED:	
DIRECTOR OF TRANSPORTATION	



FED. ROAD DIST. NO.	STATE	PROJ. NO.	RECAL. YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-1MR	2014	15	31

BEGIN PROJECT  
Project No. 50D-01-1MR  
@ Sta. 94+99.17

TRUE NORTH  
SCALE: 1" = 40'

HULEIA BRIDGE

KAUNUALII HIGHWAY

To Waikea

M.L. @ STA. 99+00

② CURVE DATA  
Δ = 37°40'00"  
R = 2000  
T = 682.15  
C = 1291.27  
Lc = 1314.81

TRUE NORTH  
SCALE: 1" = 40'

M.L. @ STA. 99+00

M.L. @ STA. 109+00

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
PLANNED BY	DATE
REVIEWED BY	DATE
APPROVED BY	DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION

# ROADWAY PLAN

KAUNUALII HIGHWAY RESURFACING  
Kipah Road to Huleia Bridge  
Proj. No. 50D-01-1MR

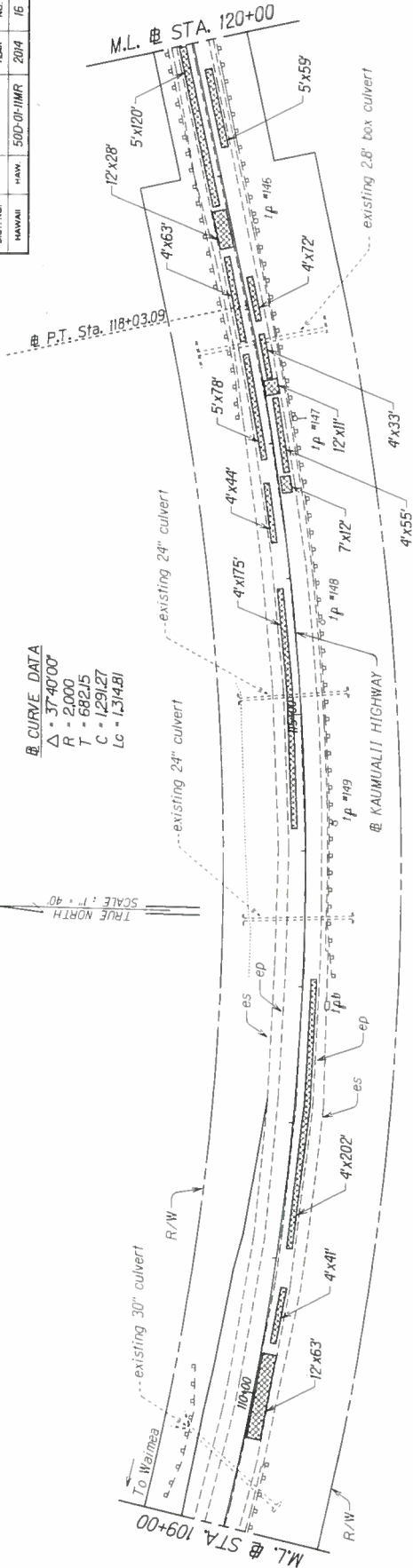
Scale: 1"=40' Date: Oct. 2013

SHEET NO. 1 OF 5 SHEETS

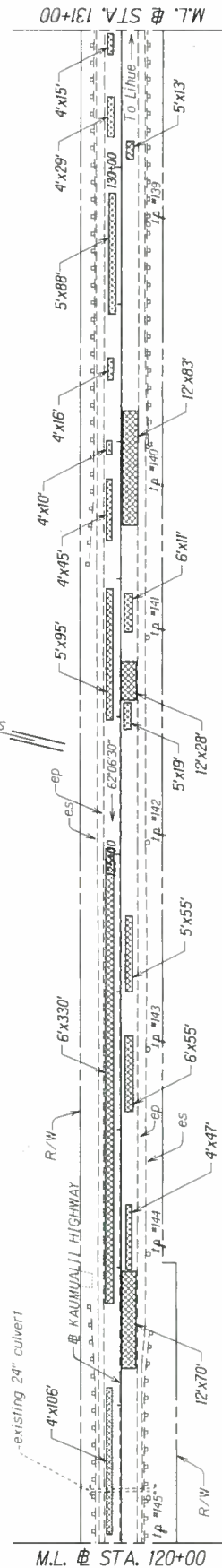
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	500-01-11MR	2014	16	31

**Curve Data**  
 $\Delta = 37^{\circ}40'00''$   
 $R = 2000'$   
 $T = 682.15'$   
 $C = 1291.27'$   
 $Lc = 1314.81'$

TRUE NORTH  
 SCALE: 1" = 40'



TRUE NORTH  
 SCALE: 1" = 40'



STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**ROADWAY PLAN**

**KAUNUALII HIGHWAY RESURFACING**  
 Kipu Road to Huleia Bridge  
 Proj. No. 500-01-11MR

Scale: 1" = 40'  
 Date: Oct. 2013

SHEET NO. 2 OF 5 SHEETS



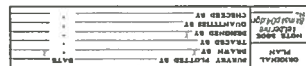


STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

ROADWAY PLAN

KAIUMUALU HIGHWAY RESURFACING  
Kūia Road to Huleia Bridge  
Proj. No. 50D-011MR

Scale: 1"=40'      Date: Oct. 1973





**Form C Attachment A-4**  
**County of Kauai Grading Ordinance**

ORDINANCE NO. 808

BILL NO. 2060, Draft 2

A BILL FOR AN ORDINANCE TO AMEND CHAPTER 22, ARTICLE 7,  
KAUAI COUNTY CODE 1987, RELATING TO  
GRADING, GRUBBING, AND STOCKPILING

BE IT ORDAINED BY THE COUNCIL OF THE COUNTY OF KAUAI, STATE  
OF HAWAII:

SECTION 1. Chapter 22, Article 7, of the Kauai County Code 1987,  
as amended, is hereby amended as follows, and new sections, Sections 22-7.22  
through 22-7.27, are hereby added to read as follows:

**"ARTICLE 7. GRADING, GRUBBING AND STOCKPILING**

**Sec. 22-7.1 Purpose And Scope.**

The purposes of this Article are to provide standards to safeguard the  
public health, safety and welfare; to protect property; to control soil erosion  
and sedimentation by setting standards for grading, grubbing and stockpiling;  
and to protect historic properties and burial sites in the County of Kauai;  
setting forth the requirements governing grading, grubbing and stockpiling and  
establishing the administrative procedures, minimum requirements for  
issuance of permits and the enforcement of such requirements.

**Sec. 22-7.2 Title.**

This Ordinance shall be known as the "[Grading] Sediment and Erosion  
Control Ordinance."

**Sec. 22-7.3 Application.**

The provisions of this Article shall apply to all grading, grubbing and  
stockpiling in the County of Kauai and shall supersede all provisions of existing  
ordinances covering the same subject matter.

**Sec. 22-7.4 Definitions.**

When used in this Article the following words or phrases shall have the  
meaning given in this Section unless it shall be apparent from the context that  
a different meaning is intended:

"Best Management Practices" or "BMPs" means activities, practices,  
facilities, and/or procedures that will to the maximum extent practicable  
prevent the discharge of pollutants, including sediment and other  
contaminants, from a construction site. BMPs may include a schedule of  
activities, the prohibition of practices, maintenance procedures, and other  
management practices to prevent or reduce the pollution of waters of the State.  
BMPs also include treatment requirements, operating procedures, and  
practices to control site runoff, spillage or leaks, waste disposal, or drainage  
from raw material storage.

"Burial site" shall have the same meaning as that term is defined in  
Hawaii Revised Statutes Section 6E-2, as amended from time to time.

"Coastal Dune" means one of possibly several continuous or nearly  
continuous mounds or ridges of unconsolidated sand contiguous and parallel  
to the beach, situated so that it may be accessible to storm waves and seasonal  
high waves for release to the beach or offshore waters.

"County Engineer" means the County Engineer, Department of Public Works, County of Kauai or [his] a duly authorized representative.

"Earth Material" means any rock, gravel, sand, natural soil [or fill] or combination thereof.

"Engineer" means a person duly [registered] licensed as a professional Engineer (Civil Branch) in the State of Hawaii.

"Engineer's Soil Report" means a report on soils conditions prepared by an Engineer or Geologist experienced in the practice of soils mechanics and foundations engineering.

"Excavation" or "Cut" means any act by which earth material is cut into, dug or removed, and shall include the conditions resulting therefrom.

"Fill" means any act by which earth materials are placed or deposited by artificial means, and shall include the resulting deposit of earth material.

"Frontal dune" means the first dune encountered mauka of the beach.

"Geologist" means a person who holds a 4-year degree in Geology from an accredited college or university.

"Grading" means any excavation or fill or any combination thereof.

"Grubbing" means any act by which vegetation or materials, including but not limited to trees, timber, shrubbery, plants, concrete or asphalt concrete, is dislodged or uprooted from the surface exposing bare ground.

"Historic property" shall have the same meaning as that term is defined in Kauai County Code 1987, Section 8-1.5, as amended from time to time, and as that term is defined in Hawaii Revised Statutes Section 6E-2, as amended from time to time.

"Maximum extent practicable" means reasonably economically achievable measures for the control of the addition of pollutants from nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives.

"Permittee" means the person or party to whom the permit is issued and shall be the owner or developer of the property whether a person, firm, corporation, partnership or other legal entity having legal or equitable title to the property and being responsible for the work.

"Person" shall mean an individual, firm, corporation, partnership or other responsible legal entity.

"Planning Director" means the Planning Director of the County of Kauai or [his] a duly authorized representative.

"Sand" means naturally produced particles of predominately (greater than 90%) calcium carbonate mineralogy consisting of skeletal fragments of reef-dwelling organisms, excluding the product of artificial crushing or disaggregation of limestone rock, with a cumulative grain size distribution 20% finer or coarser than the existing beach sediment, but in no event shall the grains be smaller than 0.062 mm or larger than 4 mm. The particles shall be substantially clean of soil, rubble, and debris, and shall contain no more than six (6) percent volume of silt and clay size material, except that where native beach environments display a higher than normal percentage of silt and clay



size material, the percent volume shall not exceed nine (9) percent. Particles are expected to be free of any coating or other content that may discolor the water.

"Shoreline area" shall have the same meaning as that term is defined in Hawaii Revised Statutes Chapter 205A.

"Soil" shall have the same meaning as that term is defined in the soil survey of the islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii, printed by the United States Department of Agriculture, Soil Conservation Service, in cooperation with the University of Hawaii Agricultural Experiment Station issued August, 1972.

"Stockpiling" means the temporary open storage of soil, sand, gravel, rock or other similar material in excess of five hundred (500) cubic yards upon any premises.

"Surveyor" means a person duly [registered] licensed as a professional land surveyor in the State of Hawaii.

**[Sec. 22-7.5 Hazardous Conditions.]**

[Whenever the County Engineer determines that existing grading, grubbing, or stockpiling is or will become a hazard to public health and safety, or endangers property, or adversely affects the safety, use, or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located or other person in control of the property, upon receipt of notice in writing from the County Engineer, shall correct the hazardous condition. The County Engineer is authorized to enter upon the property to investigate and to enforce the provisions stated in this Article at any time without the necessity of a warrant or other legal process. If the owner of occupant to whom the notice is directed fails to comply therewith, then the County Engineer may cause the hazardous condition to be corrected at the expense of the owner or occupant, and if the owner or occupant within thirty (30) days thereafter fails, neglects, or refuses to pay the County the expense incurred thereby, the County shall have a prior lien for the expense on the property on which the hazardous condition was corrected.]

**Sec. 22-7.5 Minimum "Best Management Practices (BMPs)."**

Regardless of whether a permit is required pursuant to this Article, or an exemption from Sec. 22-7.6 is applicable, all grading, grubbing and stockpiling activities shall incorporate BMPs to the maximum extent practicable to prevent damage by sedimentation to streams, watercourses, natural areas and the property of others. It shall be the permittee's and the property owner's responsibility to ensure that the BMPs are satisfactorily implemented. As determined by specific site requirements, the County Engineer may require the following minimum BMPs:

(a) Drainage. On-site drainage shall be handled in such a way as to control erosion, prevent damage to downstream properties and to return waters to the natural drainage course in a manner that minimizes sedimentation or other pollution to the maximum extent practicable.

(b) Dust control. All areas disturbed by construction activities shall control dust emissions to the maximum extent practicable through the application of BMPs, that may include watering with trucks or sprinklers, erection of dust fences, limiting the area of disturbance, and timely grassing of finished areas.

(c) Vegetation. Whenever feasible, natural vegetation, especially grass, should be retained. If it is necessary to be removed, trees, timber,



plants, shrubbery and other woody vegetation, after being uprooted, displaced or dislodged from the ground by excavation, clearing or grubbing, shall not be stored in or deposited along the banks of any stream, river or natural watercourse. The County Engineer may require the removal and disposal of such vegetation from the site within a reasonable time, but not to exceed three months from when it was uprooted, displaced, or dislodged.

(d) Erosion controls. All disturbed areas shall be stabilized with erosion control measures that may include: staging construction; clearing only areas essential for construction; locating potential nonpoint pollutant sources away from steep slopes, water bodies, and critical areas; routing construction traffic to avoid existing or newly planted vegetation; protecting natural vegetation with fencing, tree armoring, and retaining walls or tree wells; stockpiling topsoil, covering the stockpile to prevent dust, and reapplying the topsoil; covering or stabilizing all soil stockpiles; using wind erosion control; intercepting runoff above disturbed slopes and conveying it to a permanent channel or storm drain; constructing benches, terraces, or ditches at regular intervals to intercept runoff on long or steep disturbed or man-made slopes; providing linings or other method to prevent erosion of storm water conveyance channels; using check dams where needed to slow flow velocities; using seeding and fertilizing, mulching, sodding, matting, blankets, bonded fiber matrices, or other effective soil erosion control technique; and providing vehicle wheel wash facilities for vehicles before they leave the site.

(e) Sediment control. In addition to the erosion control measures of this section, measures shall be taken to capture sediment that is transported in runoff to prevent the sediment from leaving the site. Sediment control measures include sediment basins; sediment traps; filter fabric silt fences; straw bale, sand bag, or gravel bag barriers; inlet protection; stabilized construction entrances, and other measures to minimize off site tracking of sediment by construction vehicles; and vegetated filter strips.

(f) Material and waste management. Measures to insure the proper storage of toxic material and prevent the discharge of pollutants associated with construction materials and waste shall implemented.

(g) Timing of control measure implementation. Timing of control measure implementation shall be in accordance with the approved erosion control plan if such plan is required. At a minimum, disturbed areas of construction sites that will not be redisturbed for twenty-one days or more shall be stabilized (grassed or graveled) by no later than the fourteenth day after the last disturbance.

(h) The use of soil as fill is prohibited within any shoreline area, as defined by section 205A-41, Hawaii Revised Statutes, except for sand as defined in section 22-7.4 of this Article.

(i) Any grading or mining of a coastal dune is prohibited, unless permitted by the Board of Land and Natural Resources.

(j) For projects having a disturbed ground area of more than one (1) acre, a plan showing the BMPs to be incorporated shall be held on site.

(k) A BMP manual including, but not limited to, the preceding minimum BMPs shall be adopted by the County Engineer within one hundred eighty (180) days from the enactment of this ordinance, pursuant to Chapter 91, Hawai'i Revised Statutes.

#### **Sec. 22-7.6 [Exclusions.] Exemptions.**

The Permit requirements of Section 22-7.8 of this Article shall not apply to the following:

(a) Work in a public street, sidewalk, alley, right-of-way or in an isolated, self-contained Government controlled area.

(b) Mining, quarrying, landfill or sanitary landfill operations subject to and operated in accordance with applicable County, State or Federal government regulations or laws, unless required by such other government regulations or laws or any permits issued thereunder.

(c) Excavation and backfill for the construction of basements and footings of a building, retaining wall, or other structure authorized by a valid building permit within the footprint of the building. This shall not exempt any fill made outside the building lines or the placing of fill material obtained from excavations on other premises.

(d) Grading and grubbing individual cemetery plots.

(e) Agricultural operations, including ranching incidental to or in conjunction with crop or livestock [production that is being] production, managed in accordance with soil conservation practices acceptable to the applicable soil and water conservation district [directors and for which a] directors, and in accordance with an actively pursued comprehensive conservation plan [which does not alter the drainage pattern is being actively pursued.] that has been exempted by the County Engineer. [This exemption shall be granted by the County upon written confirmation from the applicable soil and water conservation district office that the applicant has satisfied the above requirement and after consultation with the State Department of Land & Natural Resources.]

(1) This exemption shall not be granted by the County Engineer unless:

(A) the applicant submits a copy of the conservation plan to the County Engineer, accompanied by written verification that the Soil and Water Conservation District Board approved the plan, and a copy of the State Department of Land and Natural Resources Historic Preservation Division's comments to the plan;

(B) the conservation plan does not alter the drainage pattern;

(C) the land covered by the conservation plan is identified through mapping and numbers by tax map key parcels;

(D) the conservation plan includes best agricultural management practices; and

(E) the applicant gives written authorization for the County Engineer to inspect the applicant's files held by the Soil and Water Conservation Districts and the U.S. Department of Agriculture Natural Resources Conservation Service.

(2) The County Engineer shall:

(A) attend all meetings of the Soil and Water Conservation District Boards at which a soil and water conservation plan may be approved; and

(B) indicate whether the Department of Public Works has record of any prior or pending violations of this Article for the subject property, or any other matter relevant to the Board's decision whether to approve the plan.

(3) Upon a showing of necessity, the County Engineer may require an applicant to produce a topography map showing specific fields or areas on which the agricultural operations will occur, before the exemption is effective, where the plan covers 15 acres or more.

(4) The County Engineer shall issue to the applicant a written decision within thirty (30) days of receiving a copy of the plan with the supporting documentation specified above.

(5) This exemption shall terminate upon cancellation of the plan by the Soil and Water Conservation District Directors or upon cancellation of the exemption by the County Engineer.

(6) Any grading, grubbing, or stockpiling beyond the scope of the plan is subject to the requirements of this Article and may be enforced in accordance with the provisions of this Article.

(7) Any exemption granted under this section shall terminate ten (10) years after the Board's approval, unless the plan, with appropriate modifications, is reviewed and re-approved by the Soil and Water Conservation District Board.

(f) Excavation or fill [which] that does not unreasonably alter the general drainage pattern to the detriment of abutting properties, does not exceed one hundred (100) cubic yards of material on any one (1) site, [or] and does not exceed five (5) feet in vertical height or depth at its deepest point.

[(g) Fill which does not unreasonably alter the general drainage pattern to the detriment of abutting properties, does not exceed one hundred (100) cubic yards of material on any one site, or does not exceed five (5) feet in vertical depth at its deepest point.]

(g) For excavation or fill that does not alter the general drainage pattern to the detriment of abutting properties, is over one hundred (100) but less than one hundred fifty (150) cubic yards of material on any one (1) site, and does not exceed five (5) feet in vertical height or depth at its deepest point from the original grade, in lieu of obtaining a permit, a Notice of Intent shall be filed with, and on a form furnished by, the Engineering Division, Department of Public Works, at least ten (10) business days before the work begins.

(h) Grubbing [which] that does not unreasonably alter the general drainage pattern to the detriment of abutting properties and does not exceed a total area of one (1) acre.

(i) Exploratory excavations not to be incorporated in the anticipated project under the direction of an Engineer for the purpose of subsurface investigation provided that these excavations will be filled in a reasonable period of time and provided that the County Engineer is advised in writing prior to the start of the excavations.

(j) Trenching and backfilling for installation of utility and drainage conduits.

(k) Historic/cultural restoration work for a non-profit organization as described in Internal Revenue Code Section 501(c)(3), where a permit application is approved. Permit fees and bond requirements are waived for work commenced after approval of such application.

Notwithstanding the exemptions contained herein, the activities described in [Sec. 22-7.6 (b) (f) (g) and (h)] Sec. 22-7.6 (b), (f), (g), and (h) shall be subject to the requirements of [Sec. 22-7.18 (a), (c), (d), (e), (f) and (h)] Sec. 22-7.17 (a), (c), (d), (e), (f), (g), and (i) and [Sec. 22-7.19 (a), (b) and (c).] Sec. 22-7.18 (a), (b), and (c). All exemptions are subject to the requirements of Sec. 22-7.5.

**Sec. 22-7.7 Recordation Of Decision Of The County Engineer.**

Decisions of the County Engineer made in accordance with the provisions of this Article, and decisions involving variations from the standards referred to in this Article shall be made a matter of record in the permit file.

**Sec. 22-7.8 Permit required.**

Unless excluded under Section 22-7.6 of this Article, no grading, grubbing, or stockpiling shall be commenced or performed without a [grading] permit as prescribed in this Article. A separate grubbing permit is not required when grubbing activities are performed in conjunction with and as part of activities conducted pursuant to a validly issued grading permit. A permit or exemption pursuant to this Article does not obviate the need to obtain other permits or approvals.

**Sec. 22-7.9 Application For Permit.**

(a) An applicant for a grading, grubbing, or stockpiling permit shall first file an application on a form furnished by the Engineering Division of the Department of Public Works, County of Kauai. [The applicant shall also file five (5) copies of the grading plan.] The application shall be accompanied by two (2) sets of the supporting documents. Each application shall:

(1) Describe by tax key or street address the land on which the proposed work is to be done.

(2) State the estimated dates for the starting and completion of the proposed work.

(3) Show the names and addresses of the owner or owners of the property.

(4) Show the name of the permittee and the person who shall be responsible for the work [to be performed by himself], his or her contractors and employees and for requesting the inspections required in this Article. A person signing the application for the permittee shall present evidence satisfactory to the County Engineer that [he] (s)he is authorized to act for the permittee.

(5) State the purpose of the work.

(6) State the dust control proposals to be utilized.

(b) Each application for a grading permit shall also be accompanied by plans and specifications, including:

(1) For all areas:

(A) A vicinity sketch map or plan adequately indicating the site location[;], property lines, easements and setbacks of the property on which the work is to be performed.



(B) Location of any buildings, structures and improvements on the property where the work is to be performed and location of any building or structure on adjacent land which is within fifteen (15) feet of the property to be graded.

(C) Elevations showing the topography of the existing ground by contours or other means and extending fifteen (15) feet into adjacent property.

(D) Elevation, dimensions, location, extent and the slopes of all proposed grading shown by contours or other means.

(E) The area in square feet of the land to be graded; and the quantities of excavation and fill involved.

(F) [the] The location and description of any known historic properties or burial sites on the subject property.

(G) Any additional plans, drawings or calculations required by the County Engineer.

(2) There shall be the following additional requirements for grading applications for areas of one (1) acre or more, grading in excess of 500 cubic yards, or where the land slope is greater than twenty per cent (20%) [or more].

(A) A contour map prepared by a surveyor or by an Engineer. This map shall include location and type of utility lines, structures, and dimensions and azimuths of property lines, easements and setbacks, name and location of street, roadways, and rights-of-way.

(B) A grading plan and specifications certified by an engineer. This plan shall show the location of all proposed structures, buildings, streets, utilities, permanent erosion control features, easements and other improvements where the grading work is to be performed, the contours of the land before grading and the finished conditions to be achieved by the proposed grading to be shown by contours, cross sections, spot elevations or other means.

(C) Where an area is proposed to be graded in increments, plans for the future development of the area.

(D) If the land is to be subdivided, the applicant shall obtain the tentative approval of the proposed subdivision from the Planning Commission and the tentative approval together with its date of approval shall be shown on the grading plan. The Planning Commission may make recommendations to the County Engineer pertaining to such elements of the grading relating to zoning, use and effect upon the optimum design or development of the area, the surrounding area, and the environment.

(E) A drainage and erosion control plan showing the scheme for controlling erosion and disposal of runoff water including details of temporary drainage control devices such as terraces, berms, ditches, culverts, subsurface drains, sedimentation basins, and erosion control planting, mulching, sprigging, or sodding; and

(F) A schedule of construction [operation] operations to accomplish temporary and permanent erosion control work.

Where any operations are delayed for any reason, a revised schedule shall be submitted to the County Engineer together with a modification of the temporary drainage and erosion control plan as the County Engineer may require.

(3) The permittee shall submit an engineer's soils report under the following circumstances:

(A) For any deviation from height, slope and distance from property line requirement in [Section 22-7.18.] Section 22-7.17.

(B) In an area with highly plastic or expansive soil.

(C) Where fill is to be placed over a wetland, swamp, pond, gully or lake.

(D) Where the fill material is highly plastic.

(E) Where the fill will support buildings unless otherwise waived by the County Engineer.

The Engineer's soils report shall include:

(F) Data regarding the subsurface conditions at the site.

(G) The presence of ground water if detected.

(H) Recommended limits for the proposed grading.

(I) Recommended fill material and manner of placing it.

(J) Recommended heights and slopes of cut and fill sections.

(c) Each application for a grubbing permit shall also contain:

(A) A plot plan showing the location and property boundaries, easements and setbacks.

(B) An erosion and sediment control plan.

(C) A statement indicating the disposition of the grubbed material.

(d) An applicant for a stockpiling permit shall also furnish a plot plan showing the property lines, easements and setbacks and the location of the proposed stockpile, quantities, height of stockpile, life of stockpile, source of the material to be stockpiled and furnish any other information as may be required by the County Engineer, to control the creation of dust, drainage or sedimentation problems. Where stockpiling is for the purpose of surcharging to stabilize or consolidate an area, the County Engineer shall require the permittee to submit an engineer's soil report which shall include data on the effect surcharging will have on adjacent building or structure.

(e) All grading, grubbing or stockpiling permits and operations shall conform to the erosion and sedimentation control standards and guidelines established by the Department of Public Works in conformance with Act 249, SLH 1974.



**Sec. 22-7.10 Compliance and Distribution.**

(a) The Department of Public Works within ten (10) calendar days shall check the application for compliance for form and [contents] content as required under section 22-7.9. If the form and [contents] content of the application are not found to be in compliance, it shall be rejected and returned to the applicant.

(b) After the application has been preliminarily accepted, the Department of Public Works shall forward copies of the application to the Planning Department[,], the Department of Water, the State Department of Health, the State Department of Land and Natural Resources, and any other affected agency or department for comment and approval. Any agency to which the application is referred shall have thirty (30) calendar days from the date of acceptance of the application to submit any comments, conditions, or approvals to the Department of Public Works for its review and consideration.

[The Planning Department shall review said application for compliance with any existing land use permit applicable to the subject property. The Planning Department shall refer the application to the Department of Water, the State Department of Health, the State Department of Land and Natural Resources, and any other affected agency or department for comment and approval. Any agency to which the application is referred shall have thirty (30) calendar days from the date of receipt of the application to submit any comments, conditions, or approvals to the Department of Public Works for its review and consideration.]

(c) The Department of Public Works shall then have 30 calendar days after all agencies have submitted comments to it to impose conditions to the grading, grubbing or stockpiling permit required by law, ordinance, rule, regulation or validly issued governmental permit.

**Sec. 22-7.11 Permit Limitations.**

(a) The issuance of a grading permit shall constitute an authorization to do only that work [which is] described on the permit and on the plans and specifications approved by the County Engineer.

(b) Jurisdiction of other agencies. Permits issued under the requirements of this Article shall not relieve the owner of responsibility for securing required permits or approval for work [to be done which is] regulated by any other code, department or division of any government agency.

(c) Conditions of approval. In granting any permit under this Article, the County Engineer:

(1) shall attach conditions as required by law, ordinance, rule, regulation or validly issued governmental permit or as recommended by the Historic Preservation Division of the Department of Land and Natural Resources to identify, preserve or protect historic properties and burial sites within the County of Kauai; and

(2) may attach such conditions as may be reasonably necessary to prevent nuisances or hazards to public or private property, health or welfare. The conditions may include, but shall not be limited to:

(i) Improvement of any existing grading to bring it up to the standards of this Article.

(ii) Requirements for fencing of excavations or fills which otherwise would be hazardous.

(iii) The route of travel over public streets so as to cause the least interference with general traffic and to eliminate damage to public streets.

(iv) Cleaning up the area.

#### Sec. 22-7.12 Permit Fees.

(a) The applicant shall pay to the Department of Public Works the cost for review and inspection of the work; a sum equal to one-half of one percent (1/2%) of the estimated construction cost as determined by the County Engineer. Full payment of the applicable fee shall be made prior to issuing a permit.

(b) Fees for grading work for which inspectional fees are paid in conformance with the Subdivision Ordinance for the County of Kauai shall be a lump sum amount of Five Dollars (\$5).

(c) All fees are payable to the Director of Finance, County of Kauai and submitted to the Department of Public Works, County of Kauai.

(d) [Where] If work for which a permit is required by this [article] Article has been commenced or performed without a permit, a permit shall be obtained retroactively provided that such work complies with or may be made to comply with [the Grading Ordinance] this Article. The permit fees for work [which] that has been commenced or performed without a permit shall be based on the schedule below. For grading and stockpiling permits:

Volume of Material	Permit fee
[0 - 100 cy	\$ 250]
101 - 500 cy	\$ 500
501 - 1,000 cy	\$ 2,000
1,001 - 5,000 cy	\$10,000
5,001 - 10,000 cy	\$15,000
greater than 10,000 cy	\$25,000

For grubbing permits[.],

[Area	Permit fee
1 - 5 acres	\$1,000
6 - 10 acres	\$5,000
greater than 10 acres	\$10,000]

the fee is \$1,000 per acre; provided that a minimum fee of \$1,000 shall be assessed.

(e) If the grading, grubbing, or stockpiling work accomplished or commenced cannot be made to comply with the provisions of this Article, the [person or persons] person(s) responsible for the initiation or accomplishment of the [grading] work shall restore the land as nearly as possible to its original condition and shall obtain a certificate of completion therefor from the County Engineer. Notwithstanding the above, neither the application for nor the issuance of a retroactive permit shall relieve any person from civil or criminal penalty for violation of this [chapter] Article.

(f) [Where] If the grading, grubbing, or stockpiling work accomplished or commenced without a permit cannot be made to comply with the provisions of this Article, the [person or persons] person(s) responsible shall post a restoration bond executed by an acceptable surety in an amount sufficient, as determined by the County Engineer, to pay all costs of restoring the land as nearly as possible to its original condition in the event that the [person or persons] person(s) responsible do not satisfactorily perform the restoration.

The restoration bond shall be maintained in force for a period of one (1) year after the restoration work has been completed and no certificate of completion for the work shall be issued by the County Engineer until one (1) year has elapsed after the physical work of the restoration has been completed.

**Sec. 22-7.13 Expiration Of Permits.**

(a) Every grading or grubbing permit shall expire and become void one (1) year after the date of issuance. [Permits for projects which cannot be physically accomplished within the one (1) year period may be issued extensions by the County Engineer.]

(b) Every grading or grubbing permit shall expire and become void unless the work permitted therein is started within six (6) months after the date of issuance, or if the work is suspended or abandoned at any time after the work is commenced for a period of ninety (90) days. Before the work can be recommenced, a new permit shall first be obtained to do so and the fee therefor shall be the fee as specified in Section 22-7.12. Permit fees for an expired permit [even if no work had commenced] shall not be refunded[.], even if no work has commenced.

(c) Every stockpiling permit shall expire and become void one (1) year after the date of issuance and all stockpiled material temporarily stored on the premises shall be removed from the premises or used on the premises as fill material under a grading permit. [Upon written application, the County Engineer may grant an extension or renewal for an expired stockpiling permit. In granting an extension or renewal, the County Engineer may attach conditions as appropriate to prevent the creation and maintenance of a nuisance or hazard to individuals and property. The permit fee for extension or renewal shall be the fee as specified in Section 22-7.12.]

(d) Upon written application, the County Engineer may grant an extension or renewal for an expired grading, grubbing, or stockpiling permit. In granting an extension or renewal, the County Engineer may attach conditions as appropriate to prevent the creation and maintenance of a nuisance or hazard to individuals and property. The permit fee for extension or renewal shall be the fee as specified in Section 22-7.12.

**Sec. 22-7.14 Denial Of Permit; County Liability.**

The County Engineer shall deny the grading, grubbing or stockpiling permit if he finds that the work as proposed by the applicant is likely to endanger any property or public way or structure, endanger the public health, safety or welfare or if the grading, grubbing or stockpiling as proposed by the applicant would constitute a violation of a state or county law protecting historic properties or burial sites. Factors to be considered in determining probability of hazardous conditions shall include, but not be limited to, possible saturation of the ground by rains, earth movements, dangerous geological conditions or flood hazards, undesirable surface water run-off, subsurface conditions such as the stratification and faulting of rock, nature and type of soil or rock. Failure of the County Engineer to observe or recognize hazardous conditions or his failure to deny the grading, grubbing or stockpiling permit shall not relieve the permittee or his agent from being responsible, nor cause the County, its officers or agents, to be held responsible for the conditions or damages resulting therefrom.

**Sec. 22-7.15 Suspension Or Revocation Of Permit.**

(a) The County Engineer may, in writing, suspend or revoke a permit issued under the provisions of this Article whenever the permit has been issued on the basis of incorrect information supplied by the permittee; or whenever the grading, grubbing or stockpiling is not being performed in accordance with

the terms and provisions of the permit; or whenever it is determined that the permittee had not complied with this Article or any provision of any other applicable law, ordinance, rule or regulation of the State of Hawaii or the County of Kauai; or whenever the grading, grubbing or stockpiling discloses conditions that are unsafe as determined by the County Engineer. Where a permit is revoked for any reason, there shall be no refund of any permit fee.

(b) When a permit has been suspended or revoked the permittee shall submit detailed plans and proposals for compliance with the provisions of this Article, and any other applicable laws, ordinances, rules or regulations of the State of Hawaii, or the County of Kauai and for correcting the objectionable or unsafe conditions. Upon approval of the plans and proposals, the County Engineer may, in writing, authorize the permittee to proceed with the work.

(c) When a permit has been suspended or revoked and the permittee fails to take corrective action specified above within thirty (30) days following the suspension or revocation, the County Engineer may correct the deficiencies described in sub-section (a) and the permittee or his sureties shall be liable for the cost thereof.

#### **Sec. 22-7.16 Bond.**

(a) **Bond Required.** A grading permit or stockpiling permit shall not be issued unless the permittee shall first post a bond conforming to the requirements of this Section, for the benefit of the County of Kauai, [provided that if] except that a bond is not required for grading fewer than 500 cubic yards that is not for retaining wall construction within the setback distances from the lot line for cut or fill slope. If the proposed grading or stockpiling is to be performed under an approved subdivision final map and a subdivision agreement or bond or other security has been approved and accepted by the County under the Subdivision rules and regulations of the County of Kauai and which covers the grading or stockpiling work, then the County Engineer shall not require a bond for grading or stockpiling. A copy of the approved and accepted subdivision bond or other security shall be presented as evidence by the applicant for a grading or stockpiling permit. At the option of the applicant, he may either file a bond guaranteed by a surety company duly authorized to transact business within the State of Hawaii, or he may deposit cash, certified check, certificate of deposit, stock or other securities, in lieu of a bond. No interest shall be paid by the County on cash deposits. The provisions in this Article relating to a surety bond shall be equally applicable to a cash deposit pledged as a bond.

(b) **Amount of Bond.** The amount of the bond shall be in an amount equal to fifty percent of the total cost of all work and services required to complete all of the work under the grading, grubbing or stockpiling permit as approved by the County Engineer. Cost estimates prepared by the Permittee shall be subject to approval by the County Engineer to determine the exact amount of the bond. The amount of the bond for a permit which is retroactively applied for pursuant to Section 22-7.12 shall be one hundred percent of the total cost of all work and services required to complete all of the work under the grading or stockpiling permit as approved by the County Engineer.

(c) **Purposes and Conditions.** The purpose of the bond shall be to insure that the work under the permit:

(1) Is completed in a manner which fulfills the requirements of this Article and any conditions imposed under the permit; or

(2) Should the work be abandoned prior to completion, is restored to a condition [which] that is consistent with the standards contained in this Article; minimizes any damages to any other properties,



public ways or structures; protects the public health, safety or welfare; and satisfies any other applicable laws, ordinances, rules, regulations or validly issued governmental permit.

Each bond shall provide that the surety shall be held and firmly bound unto the County of Kauai to accomplish the purposes of the bond and to pay for any work necessary to accomplish such purposes and the Surety Company shall not terminate or cancel the bond until notified in writing by the County Engineer.

Nothing herein shall require the County of Kauai to do any work or expend any funds to accomplish the purposes of the bond other than that which can be paid for out of the proceeds of the bond.

(d) **Period and Termination of Bond.** The term of each bond shall begin upon the date of issuance of the permit and shall remain in effect for a period of thirty (30) days after [the date of completion of the work] certification by the County Engineer that the work has been completed. Stockpiling shall be removed and properly disposed of and the bared area shall be immediately grassed. [The completion shall be evidenced by a certificate signed by the County Engineer.] Upon issuance of the certificate the County Engineer may authorize the reduction of the penal sum of the bond to an amount deemed by the County Engineer to insure the acceptability of the work. In the event of failure to complete the work or failure to comply with all of the conditions and terms of the permit, the County Engineer may enter in an agreement for the completion of any and all work to meet the requirements of the permit or to comply with this Article without termination of the bond. The surety and permittee shall be liable and shall pay for all necessary costs and expenses that may be incurred or expended by the County of Kauai in causing any and all of the required work to be done.

**[Sec. 22-7.17 Inspection.**

(a) Each permit issued under this Article shall be deemed to include the right to the County Engineer to enter upon and to inspect the grading, grubbing or stockpiling operations.

(b) The permittee shall notify the County Engineer at least five (5) days before the permittee or his agent begins any grading, grubbing or stockpiling. A copy of the permit, approved plans and specification for grading, grubbing or stockpiling shall be made available at the request of the inspector.

(c) If the County Engineer finds that the work is not being done in conformance with this Article or the approved plans and in accordance with the accepted practices, he shall immediately notify the person in charge of the grading work of the non-conformity and of the corrective measures to be taken. Grading operations shall cease until corrective measures have been taken.

**Sec. 22-7.18 Specifications For Grading, Grubbing And Stockpiling.]**

**Sec. 22-7.17 Specifications for Grading, Grubbing And Stockpiling.**

(a) **Slope Control:**

(1) **Height.** Where a cut or fill is greater than fifteen (15) feet in height, terraces or benches shall be constructed at vertical intervals of fifteen (15) feet except that where only one (1) bench is required, it shall be at the midpoint. The minimum width of the terraces or benches shall be at least eight (8) feet and provided with drainage provisions to control erosion on the slope face and bench surface.

(2) **Cut Slopes.** Under the following soil conditions, no cut may be steeper in slope than the ratio of its horizontal to its vertical distance

as shown below. One-half (1/2) horizontal to one (1) vertical in unweathered rock or mudrock.

One (1) horizontal to one (1) vertical in decomposed rock.

One and one-half (1-1/2) to one (1) vertical in soils of low plasticity, cuts of any height in highly plastic soils shall be as recommended in the Engineer's soil report.

(3) Fill Slopes. Fill using non-expansive material shall not be steeper in slope than the ratio of two (2) horizontal to one (1) vertical, or one and one-half (1-1/2) horizontal to one (1) vertical in areas recommended in the Engineer's soil report.

(4) Distance from adjoining property line. The horizontal distance from the top of a cut slope or the bottom of a fill slope to an existing adjoining property line shall not be less than as follows:

Height of cut or fill	Distance from adjoining property line (in feet)
Zero feet to four (4) feet	2
More than four (4) feet to eight (8) feet	4
More than eight (8) feet to fifteen (15) feet	6
More than fifteen (15) feet	8

(5) Modifications. These requirements may be modified by the County Engineer when cuts or fills are supported by retaining walls approved by the [Building Department] Engineering Division or when the permittee submits an Engineer's soils report stating that the soil conditions will permit modifications, or when warranted by additional engineering data.

(b) Area opened. The maximum area of land that may be opened for grading or grubbing at any one time is ten (10) acres. The area of land that may be opened shall not exceed ten (10) acres unless detailed plans and schedules are approved by the County Engineer that document or demonstrate the ability to control dust, erosion and pollution and to minimize storm damage[.], and authorization is issued by the State of Hawaii Department of Health under the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit program. The permittee's drainage and erosion control plan shall be designed to ensure that the grading or grubbing activities will not cause or contribute to a violation of the State's basic water quality criteria (Hawaii Administrative Rules, Section 11-54-04). There shall also be procedures established for the maintenance of, inspections, and modifications to the system of erosion and sediment controls for the site as prescribed and approved by the County Engineer to prevent water quality violations. To control fugitive dust, measures such as the use of water wagons, sprinkler systems and dust fences shall be used to minimize any visible dust emissions from the construction site. If these measures do not prove to be effective, or if significant dust, erosion, pollution or storm damage problems occur, the County Engineer shall reduce the permissible open area to [reasonable] reasonably control and minimize such dust, erosion, pollution or storm damage problems.

(c) Fills. The requirements of paragraphs (1), (2), and (3) below may be modified if the permittee submits an Engineer's soils report recommending criteria for the proposed fill for its intended use, and the modifications are approved by the County Engineer.

(1) Fill material shall be selected to meet the requirements and conditions of the particular fill for which it is to be used. The fill material



shall not contain trees, timber, plants, shrubbery, grass, and woody vegetation matter. Fill within the shoreline setback area as established by the Planning Department shall be of material compatible with the marine environment. [Soil is not considered an acceptable material compatible with the marine environment.] The use of soil as fill is prohibited within any shoreline area, as defined by Sec. 205A-1, Haw. Rev. Stat., except for sand, as defined herein.

(2) Preparation of ground surface. Before placing fill or stockpiling, the natural ground surface shall be prepared by removing the vegetation and, if required by the County Engineer, shall be notched by a series of benches or have subsurface drains installed, or both. No fill shall be placed over any water spring, marsh, refuse dump, nor upon a soft, soggy or springy foundation.

(3) Placement and compaction. Fill materials shall be spread and compacted in a series of eight (8) inch layers (maximum) when compacted. Except for slopes, the fill shall be compacted to ninety percent (90%) of maximum density as determined by the most recent ASTM Soil Compaction Test D1557 or AASHTO T180.

(d) Vegetation. Whenever feasible, natural vegetation and top soil shall be retained. Trees, timber, plants, shrubbery and other woody vegetation, when displaced shall not be stored or deposited along the banks of any stream, river or natural water course. After being displaced, the vegetation shall be disposed of or removed from the site at the earliest reasonable time, conforming to State Health Department Rules and availability of County or private solid waste facilities as they exist at that [time.] time, except where the County Engineer allows for the mulching of the greenwaste and its re-deposit onto the site.

(e) Drainage provisions. Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Proper drainage shall be provided to prevent the unwanted accumulation or retention of surface water. The County Engineer may require the drainage structures and pipes to be constructed or installed, which will reasonably minimize erosion damage and satisfactorily carry off surface waters. The flow of any existing and known natural underground or surface drainage shall not be impeded or changed so as to cause damage to surrounding properties.

(f) Debris prohibited. No person shall perform any grading operations so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties.

(g) No grubbing or grading shall take place within the Special Management Area (SMA) or the Shoreline Setback area, without first obtaining approval of an SMA and/or Shoreline Setback Variance permit, as required by the County Planning Department. Any grading of a coastal dune within the shoreline area or a frontal dune is prohibited, except that where a permit is issued under this Article, sand may be imported and placed on the area of the coastal dune mauka of the shoreline to rebuild or enhance the protective capacity and environmental quality of the coastal dune.

[(g)] (h) Hours of operation. No work shall be done between the hours of [6:00] 7:00 P.M. and [6:00] 7:00 A.M. [on any day] Monday through Friday, and no work shall be done on Saturdays, Sundays and holidays without the prior written permission of the County Engineer.

[(h)] (i) Water and air pollution control. All operations shall be performed in conformance with the applicable provisions of the Water and Air Pollution Control and Water [and Air] Quality Standards contained in the Administrative

Rules, Department of Health, State of Hawaii, on Air and Water Pollution Control and Water Quality Standards.

[(i)] (j) Report after grading. When grading involves cuts or fills for which an Engineer's soils report is required, the permittee shall submit a certification from the soil's engineer that the work was done in conformity to this Article and the Engineer's soils report. The report after grading shall contain information including but not limited to the following: engineering data of the fill material used; how it was placed and compacted; moisture during compaction; compacted density; preparation of the ground to be filled on; subdrains and other pertinent features of the cut or fill necessary for its stability.

[(j)] (k) Notification of completion. The permittee or his agent shall notify the County Engineer or his representative when the grading operation is ready for final inspection. Certificate of completion shall be given upon completion and inspection of all work including installation of all drainage structures and their protective devices, completion of all planting in conformance with the approved plans and specifications, and the submission of the required reports and as-built grading plans whenever the completed work contains approved deviations from the original plans. Certificate of completion shall not be construed as relieving permittee from any of the requirements set out in Section 22-7.16.

**[Sec. 22-7.19 Special Requirements.]**

**Sec. 22-7.18 Special Requirements.**

(a) Any person performing or causing to be performed any excavation or fill shall, at his own expense, provide the necessary means to prevent the movement of earth of the adjoining properties, to protect the improvements thereon, and to maintain the existing natural grade of adjoining properties. All grading and excavation work for which a permit is required shall be performed by a licensed contractor holding a Type A or C-17 Contractor's license.

(b) Any person performing or causing to be performed any excavation or fill shall be responsible for the maintenance or restoration of street pavements, sidewalks and curbs, and public utility facilities [which] that may be affected by grading operations. The maintenance or restoration of street pavements, sidewalks and curbs shall be performed in accordance with the requirements of the County of Kauai and the maintenance and restoration of public utility facilities shall be in conformity with the standards of the public utility companies affected.

(c) Any person depositing or causing to be deposited, any silt or other debris in ditches, water courses, drainage facilities, and public roadways, shall remove the silt or other debris. In case the person shall fail, neglect or refuse to comply with the provisions of this Section within twenty-four (24) hours after written notice, served upon him, either by mail or by personal service, the County Engineer may proceed to remove the silt and other debris or to take any other action [he] (s)he deems appropriate. The costs incurred for any action taken by the County Engineer shall be payable by the person or his sureties.

(d) At any stage of the grading, grubbing or stockpiling work, if the County Engineer finds that further work as authorized by an existing permit is likely to create soil erosion problems or to endanger health, safety or property, he may require safety precautions, which may include but shall not be limited to the construction of flatter exposed slopes; the construction of additional silting or sediment basins, drainage facilities or benches; removal of rocks, boulders, debris and other dangerous objects, if dislodged, are likely to cause injury or damage; and the construction of fences or other suitable protective barriers.

(e) At any stage of the grading, grubbing or stockpiling operations, if further work as authorized by an existing permit is likely to create dust problems which may jeopardize health, property or the public welfare as determined by the State Department of Health in consideration of the air pollution control standards and regulations, the County Engineer may require additional dust control precautions and, if these additional precautions are not effective in controlling dust, may stop all operations. These additional dust control measures may include, but [is] are not limited to, [items like] sprinkling water, applying mulch treated with bituminous material, and applying hydro mulch.

**Sec. 22-7.19 Inspection and Commencement Of Work.**

(a) Each permit issued under this Article shall be deemed to authorize the County Engineer to enter upon and to inspect the grading, grubbing or stockpiling operations, after at least 24 hours advance notice of the inspection is provided to the permittee. If the permittee expressly refuses permission for the inspection, the County Engineer shall obtain a warrant before proceeding with such inspection. This section shall not be construed to invalidate unannounced inspections authorized by a warrant or to invalidate unannounced and warrantless inspections where exigent circumstances exist.

(b) The permittee shall notify the County Engineer at least five (5) business days before the permittee or his or her agent begins any grading, grubbing or stockpiling. A copy of the permit, approved plans and specifications for grading, grubbing or stockpiling shall be made available at the request of the inspector.

(c) If the County Engineer finds that the work is not being done in conformance with this Article, the approved plans, or in accordance with accepted practices, the person in charge of the work shall be notified immediately of the non-conformity and of the corrective measures to be taken. Grading, grubbing, and stockpiling operations shall cease until corrective measures have been taken. If grading, grubbing, and stockpiling operations commence before corrective measures have been approved, the County Engineer shall report the violation to the Prosecuting Attorney for appropriate criminal action.

**[Sec. 22-7.20 Penalties.**

(a) It shall be unlawful for any person to do any act forbidden, or to fail to perform any act required, by the provisions of this Article. Any person convicted of violating any provision of this Article shall be punished by a fine not exceeding One thousand dollars (\$1,000) or by imprisonment not exceeding thirty (30) days, or by both for each offense. A separate offense is committed upon each day during or on which a violation occurs or continues.

(b) Continuing violation. The failure to comply with the requirements set forth under the provisions of this article shall be deemed a new offense for each day of such non-compliance.

(c) Repeat offenders. Any person who is convicted for a violation which occurs within five years of a prior conviction under this Grading Ordinance shall be punished by a fine not less than \$500 but not exceeding \$1,000 or by a term of imprisonment not exceeding 30 days, or by both, for each offense.

**Sec. 22-7.21 Liability.**

The provisions of this Article shall not be construed to relieve or alleviate the liability of any person for damages resulting from performing, or causing to

be performed, any grading, grubbing or stockpiling operation. The County and its officers and employees shall be free from any liability, cost or damage which may accrue from any grading, grubbing or stockpiling or any work connected therewith, authorized by this Article.]

**Sec. 22-7.20 Administrative Actions and Civil Penalties.**

In addition to any criminal penalties, any person violating this Article shall be subject to civil penalties as set forth herein. Within five (5) working days of the notification issued pursuant to Sec. 22-7.19(c), the County Engineer shall have the person served, by mail or personal delivery, with a notice of violation and order, pursuant to this Article and such administrative rules as the County Engineer may adopt.

(a) Contents of the notice of violation. The notice shall include at least the following information:

- (1) date of the notice;
- (2) the name and address of the person noticed;
- (3) the section number of the provision or rule, or the number of the permit that has been violated;
- (4) the nature of the violation;
- (5) the location and date(s) of the violation, to the extent possible; and

(b) Contents of the order. The order may require the person to do any or all of the following:

- (1) cease and desist from the violation;
- (2) correct the violation at the person's own expense, before a date specified in the order;
- (3) pay a civil fine not to exceed \$10,000 per day for each day in which the violation persists; or
- (4) pay a monitoring fee not to exceed one percent (1%) of the project cost as provided in section 22-7.12(a) of this Article.

(c) Any person who has previously violated this Article shall be fined not less than \$1,000.

(d) The order shall state that:

- (1) it may be appealed within thirty (30) days to an administrative hearing and if not so appealed, it shall become final thirty (30) days after the date of its mailing or delivery; and
- (2) that the State of Hawaii Department of Commerce and Consumer Affairs (Contractors License Board) may be notified of the existence of the violation, upon finality of the order.

(e) Effect of order; right to appeal. The provisions of the order issued by the County Engineer under this section shall become final thirty (30) days after the mailing or delivery of the order. The person may appeal the order pursuant to Section 22-7.23 of this Article. However, such appeal shall not stay any provision of the order.



**Sec. 22-7.21 Criminal Penalties.**

(a) It shall be unlawful for any person to do any act forbidden, or to fail to perform any act required, by the provisions of this Article. Any person convicted of violating any provision of this Article shall be guilty of a misdemeanor. A separate offense is committed upon each day during or on which a violation occurs or continues.

(b) Continuing violation. The failure to comply with the requirements set forth under the provisions of this Article shall be deemed a new offense for each day of such non-compliance.

(c) If the person fails to comply with the contents of the order issued pursuant to Sec. 22-7.20(b) within the specified time, the County Engineer shall refer the case to the Prosecuting Attorney for appropriate criminal action, except if the case is pending appeal pursuant to Sec. 22-7.23. In the case of an appeal, all affirmed violations shall be immediately forwarded to the Prosecuting Attorney.

**Sec. 22-7.22 Correction of Hazardous Conditions.**

(a) Whenever the County Engineer determines that existing grading, grubbing, or stockpiling is or may become a hazard to public health and safety, endangers property or natural resources, or adversely affects the safety, use, or stability of a public way or drainage channel, the owner or other person in control of the property upon which the hazardous condition arose, upon receipt of notice in writing from the County Engineer, shall commence correction of the hazardous condition within 24 hours.

(b) If the owner or other person in control of the property upon which the hazardous condition arose fails to comply therewith, or if through reasonable efforts the County Engineer is unable to contact either one of them, then the County Engineer may cause the hazardous condition to be corrected at their expense - jointly and severally. If the owner or other person in control of the property within thirty (30) days thereafter fails, neglects, or refuses to pay the County the expense incurred thereby, the County Engineer may add the cost to any County taxes, fees, or charges, as provided in section 22-7.24 of this Article.

(c) If grading, grubbing, or stockpiling work is necessary to avoid imminent substantial harm to public health and safety, property or natural resources, the County Engineer may waive the requirements of this Article.

**Sec. 22-7.23 Administrative Appeals.**

(a) Administrative appeals. Any person aggrieved by a decision of the County Engineer in the administration of this Article may, within thirty (30) days, appeal the decision to a hearings officer appointed by the County Engineer or the Building Board of Appeals if the Building Code so authorizes. The hearings officer or Building Board of Appeals may affirm the decision of the County Engineer or may reverse or modify the decision if the decision is:

- (1) in violation of this Article or other applicable law;
- (2) clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record; or
- (3) arbitrary, or capricious, or characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

(b) Hearings Officer. The County Engineer shall have the discretion to appoint a hearings officer, who shall not be an employee of the Department of Public Works.

(c) The hearings officer or the Building Board of Appeals may not waive the requirements of this Article.

(d) The County Engineer shall adopt rules of procedure for the administration of this section, pursuant to Hawaii Revised Statutes Chapter 91.

**Sec. 22-7.24 Collection of Fines.**

(a) Collection of unpaid civil fines. In addition to any other procedures for the collection of unpaid civil fines available to the County by law, the County may add unpaid civil fines as herein defined to any County taxes, fees or charges, except for residential water or sewer charges, if the person(s) or entity fined have exhausted all appeal rights, including judicial appeal rights pursuant to Hawaii Revised Statutes 91-14.

(b) Judicial enforcement of order. The County Engineer may institute a civil action in any court of competent jurisdiction for the enforcement of any order issued pursuant to this section. Where the civil action has been instituted to enforce the civil fine imposed by said order, the County Engineer need only show that the notice of violation and order were served, that a civil fine was imposed, the amount of the civil fine imposed, and that the fine imposed has not been appealed in a timely manner and has not been paid.

**Sec. 22-7.25 Issuance of permit.**

All County departments, officials, and public employees vested with the duty or authority to issue permits, licenses, or certificates of occupancy shall conform to the provisions of this Article, and shall not issue permits, licenses, or certificates of occupancy for construction, development, uses, or other purposes if there is a conflict with the provisions of this Article. No such permits, licenses, or certificates of occupancy shall be issued for any property that has outstanding violations of this Article. Any permits, licenses, or certificates of occupancy, if issued in conflict with the provisions of this Article, shall be void.

**Sec. 22-7.26 Liability.**

The provisions of this Article shall not be construed to relieve or alleviate the liability of any person for damages resulting from performing, or causing to be performed, any grading, grubbing or stockpiling operation. The County and its officers and employees shall be free from any liability, cost or damage that may accrue from any grading, grubbing or stockpiling or any work connected therewith, authorized by this Article.

**Sec. 22-7.27 Rule-making powers.**

The County Engineer shall be empowered to promulgate rules and regulations pursuant to Hawaii Revised Statutes Chapter 91, for the implementation of the provisions of this Article."

SECTION 2. If any provision of this Ordinance, or the application thereof to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of the Ordinance that can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are severable.



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CERTIFICATE OF THE COUNTY CLERK

I hereby certify that heretofore attached is a true and correct copy of Bill No. 2080, Draft 2, which was adopted on second and final reading by the Council of the County of Kauai at its meeting held on October 8, 2003, by the following vote:

FOR ADOPTION: Furfaro, Kaneshiro, Munechika, Rapozo,  
Tokioaka, Yukimura, Asing

TOTAL - 7;

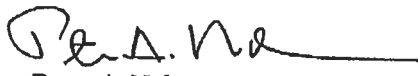
AGAINST ADOPTION: None

TOTAL - 0,

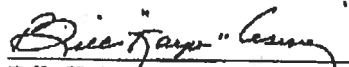
EXCUSED & NOT VOTING: None

TOTAL - 0.

Lihue, Hawaii  
October 8, 2003

  
Peter A. Nakamura  
County Clerk, County of Kauai

ATTEST:

  
Bill "Kaipo" Asing  
Chairman & Presiding Officer

DATE OF TRANSMITTAL TO MAYOR:

October 9, 2003

Approved this 10th day of

October, 2003.

  
Bryan J. Baptiste  
Mayor  
County of Kauai