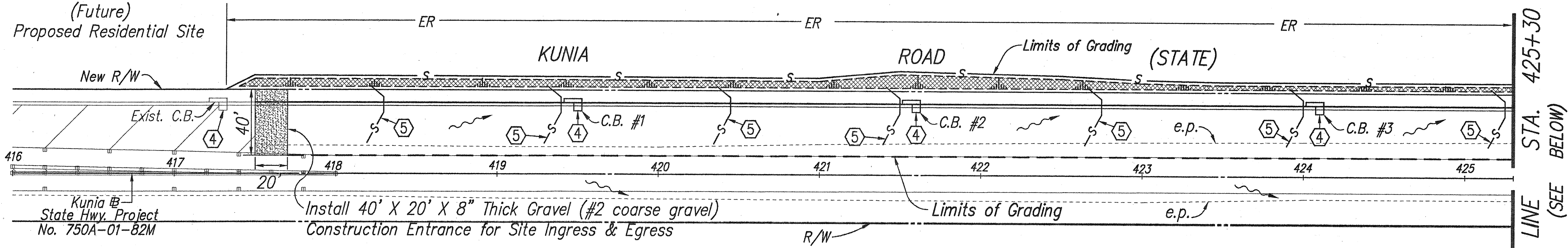
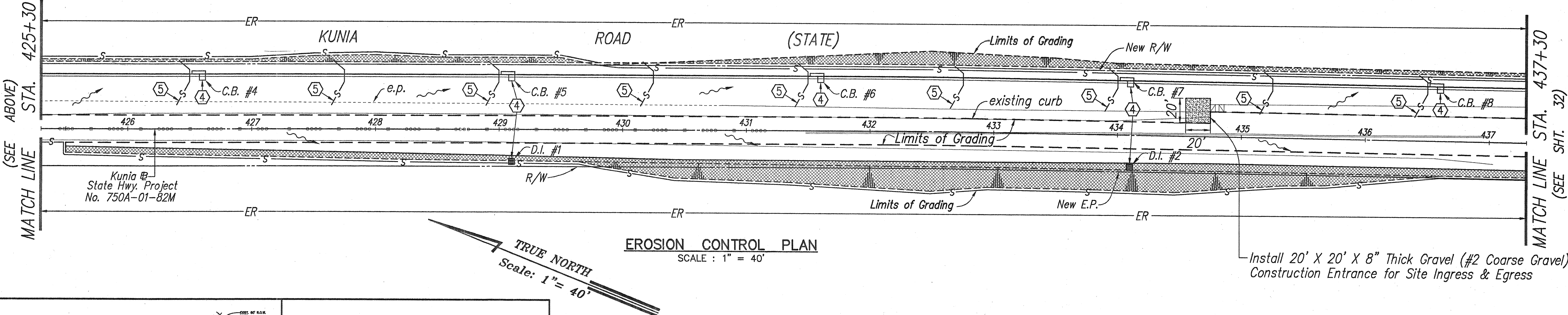
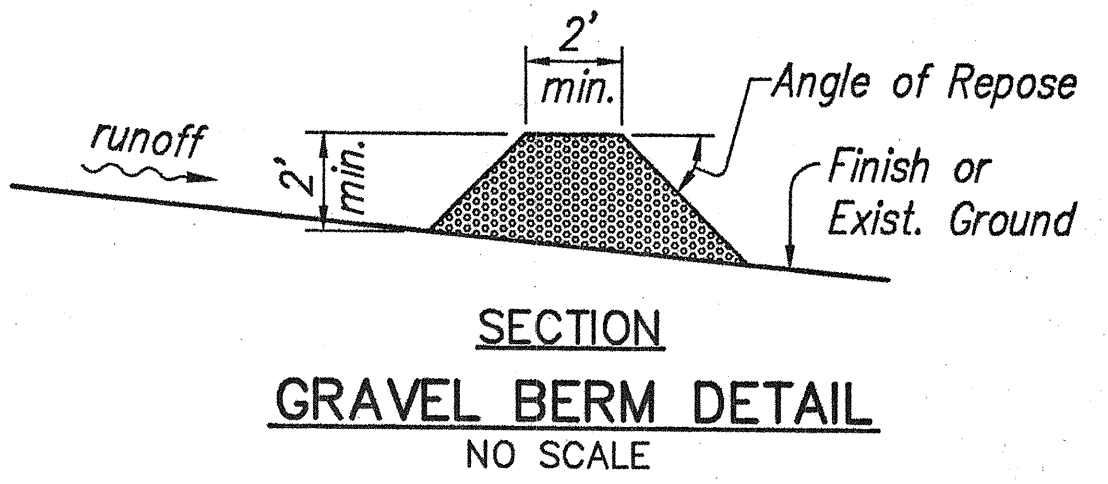
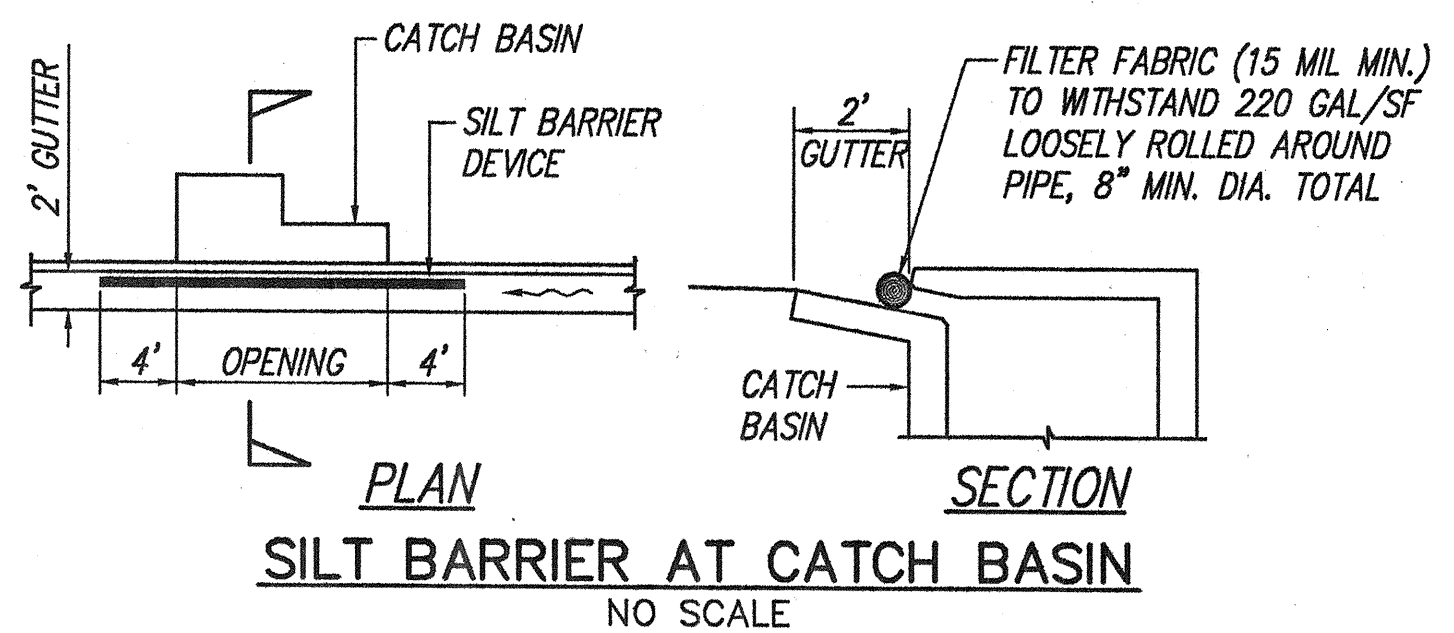


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0750(10)	1999	31	97

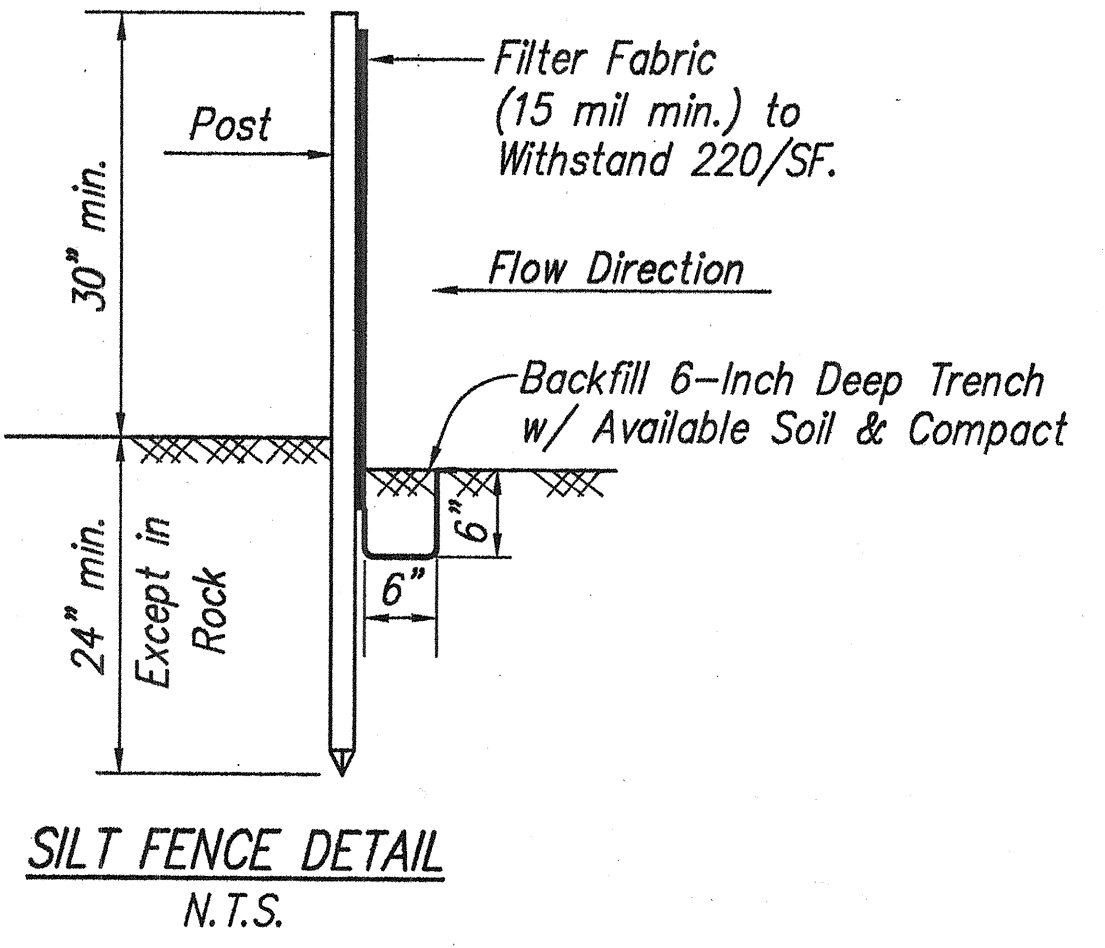


- LEGEND:**
- S Silt Fence
 - ER Erosion Control Area Designation
 - Erosion Control Matting
 - Flow Direction
 - See BMP Note No. 4
 - Drain Structures

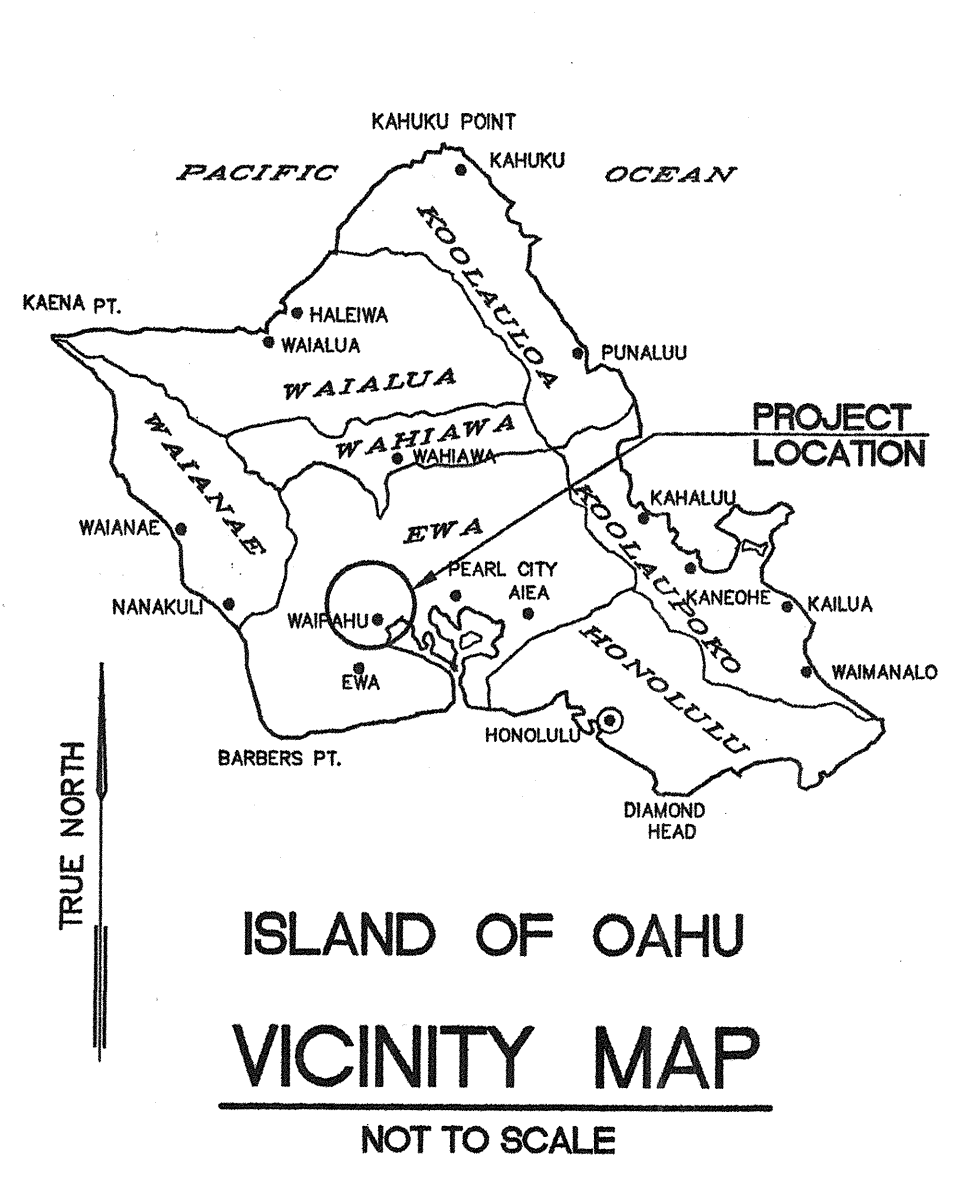
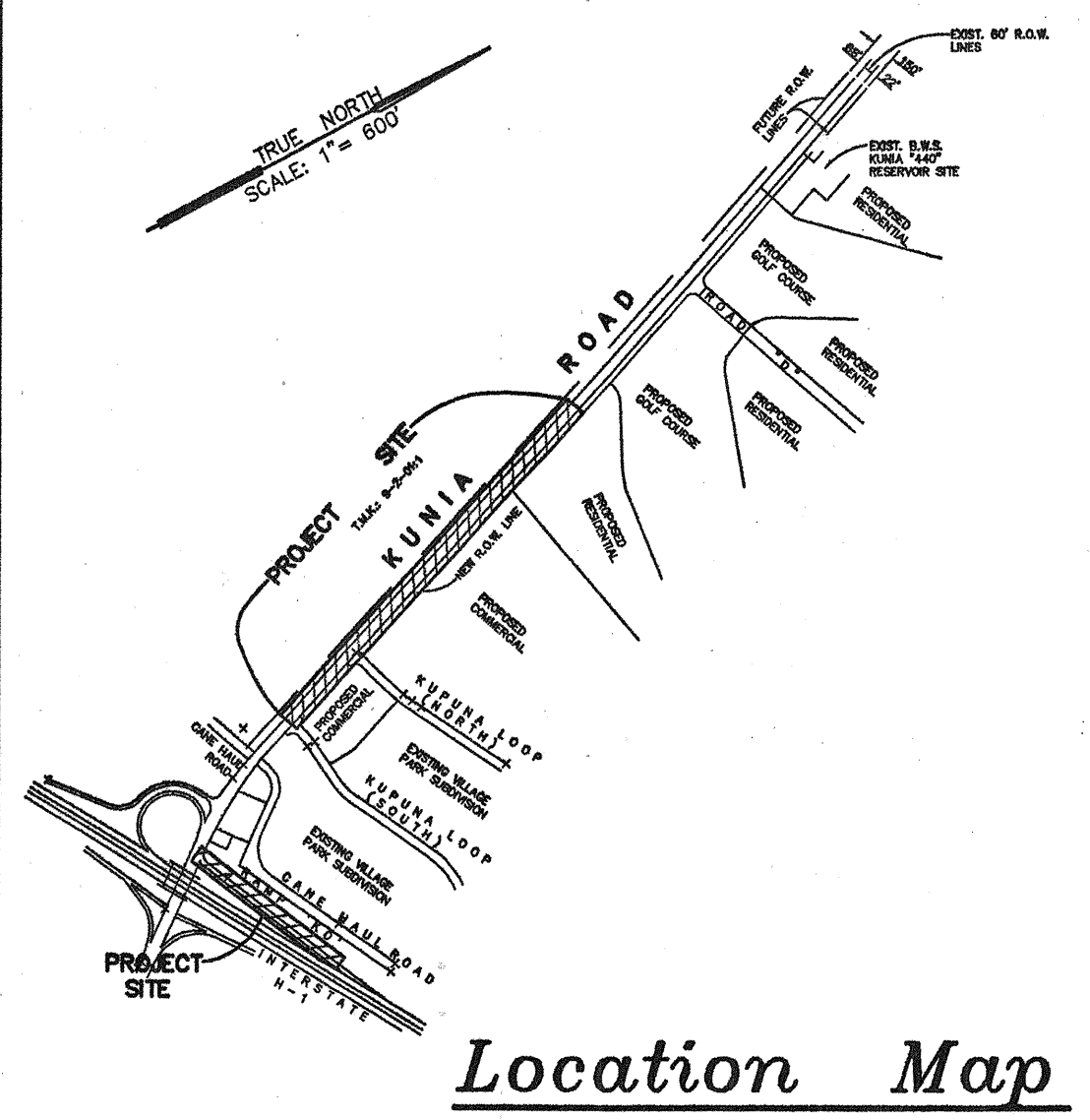


Silt Fence Notes:

- Fabric shall be of the type specified and installed in combination with support a net of polyester netting or approved equal. The fabric shall be a minimum of 36" wide and the support net a minimum of 30 inches.
 - If silt fence is obtained from manufacturer as a package (i.e. fabric attached to posts) the manufacturer's installation instructions shall be adhered to.
 - Posts shall be metal (*) wherever possible. Cross section of post shall be substantial enough to support a loaded silt fence without bending. Post spacing shall be 4' to 8' depending on post size.
- (*) Some manufacturers only supply silt fence with wooden posts. Precautions shall be taken to avoid damages from driving the posts into hard ground or from termites.



SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	



APPROVED: *M. J. [Signature]* 5/17/99
CHIEF, CIVIL ENGINEERING BRANCH, DPP
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Cory O. Okada
Cory O. Okada
P.E., Inc.
600 PARK ENGINEERING

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN

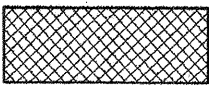



KUNIA ROAD WIDENING; AND
H-1, KUNIA I.C. RAMP KO WIDENING
F.A.I. PROJECT NO. IM-STP-0750(10)

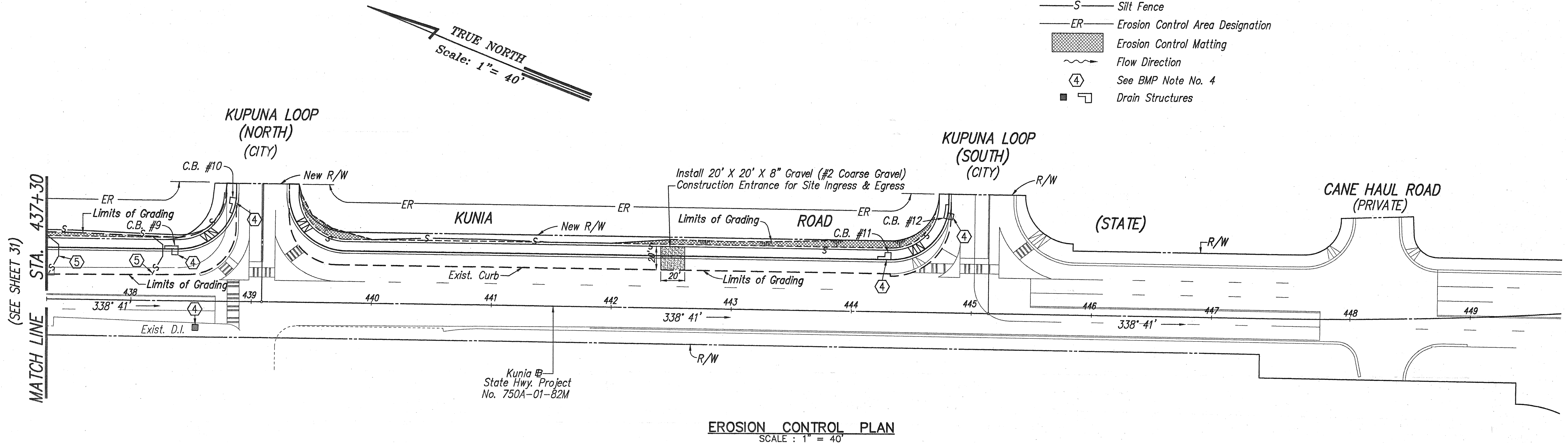
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SHEET No. 1 OF 3 SHEETS

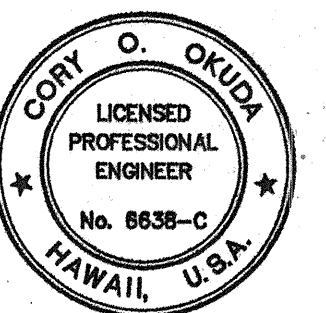
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0750(10)	1999	32	97

LEGEND:

—S—	Silt Fence
—ER—	Erosion Control Area Designation
	Erosion Control Matting
	Flow Direction
	See BMP Note No. 4
	Drain Structures

BEST MANAGEMENT PRACTICES (BMPS) NOTES:

1. Silt fence shall be installed at the locations shown and/or as directed by the Engineer.
2. Gravel entrance for construction ingress and egress shall be constructed at the locations shown. The dimensional information are minimum requirements and may be increased by the Engineer.
3. The Contractor shall grade the project site according to the Phasing plans. Prior to the start of any clearing/grubbing and grading operation, the Contractor shall complete the following:
 - a. install silt fences.
 - b. install gravel for ingress and egress.
4. The Contractor shall cover the openings to all existing and proposed catch basins and intakes with a filter fabric until permanent ground cover is established.
5. The Contractor shall install cross flow (perpendicular to flow direction) silt fences at the locations shown. The Contractor may substitute gravel berms in place of cross silt fences. These fences (or berms) shall remain in place until permanent erosion ground cover is established. If removal of these erosion controls are necessary for construction purposes, they shall be replaced as soon as practicable.
6. All Best Management Practices (BMPs) facilities shall not be removed until all permanent erosion controls are in place and established.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Cory O. Okuda
P.E., Inc.
dba PARK ENGINEERINGSTATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN

KUNIA ROAD WIDENING; AND
H-1, KUNIA I.C. RAMP KO WIDENING
F.A.I. PROJECT NO. IM-STP-0750(10)

SCALE: AS NOTED DATE: APRIL 1999

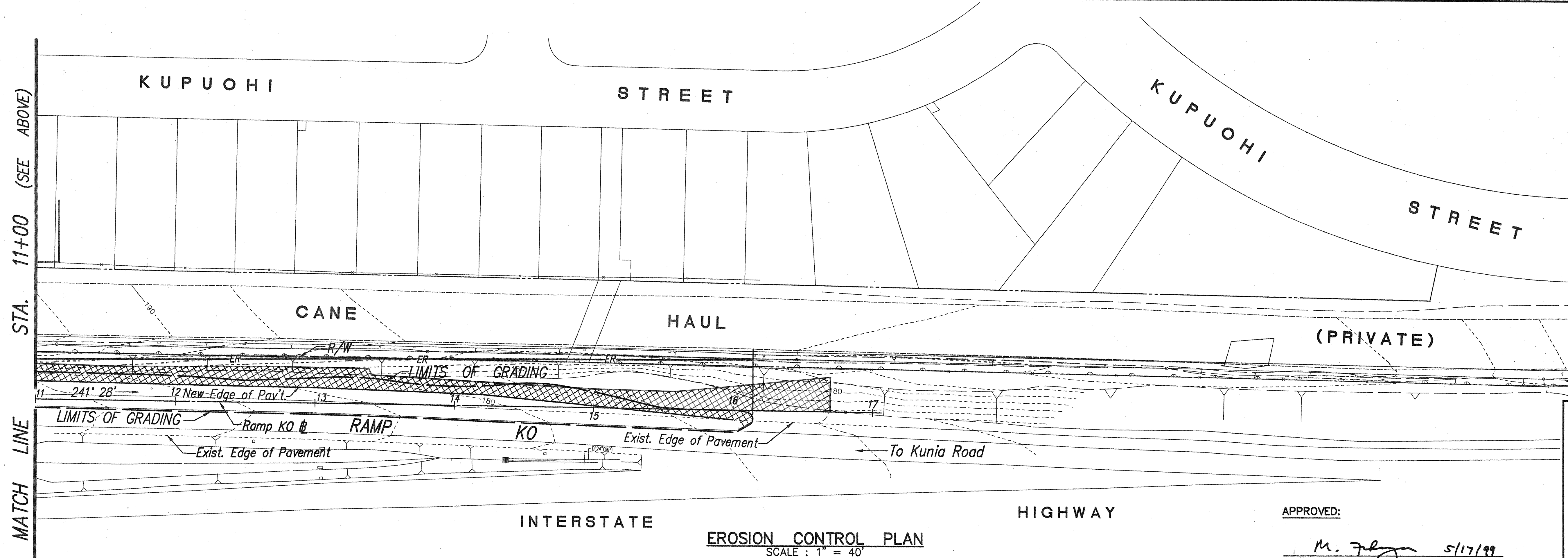
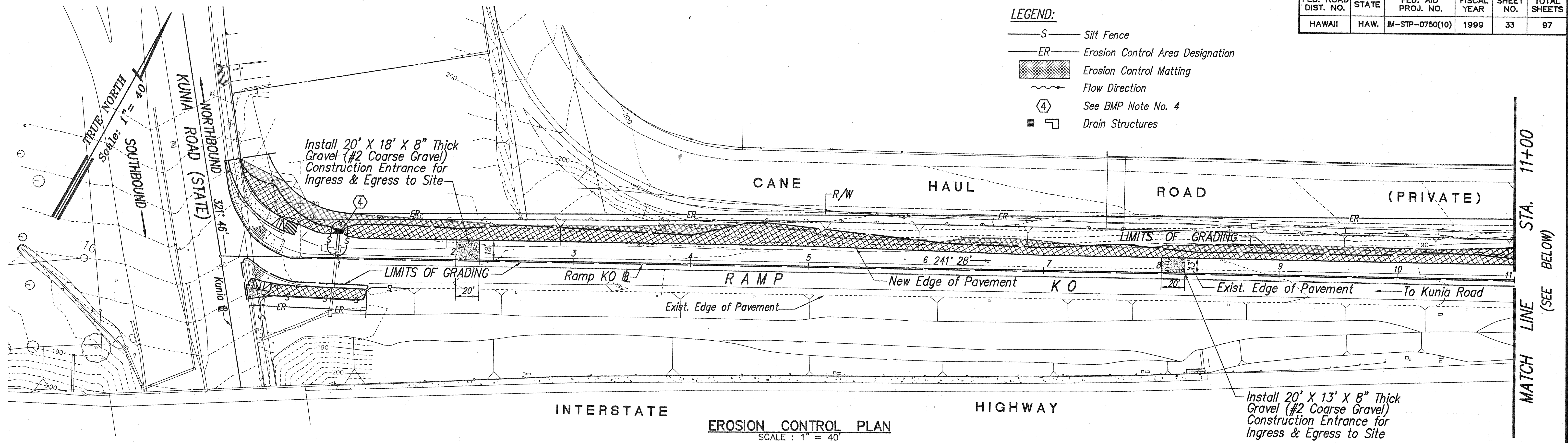
SHEET No. 2 OF 3 SHEETS

APPROVED:

M. J. [Signature]
CHIEF, CIVIL ENGINEERING BRANCH, DPP
(FOR EROSION CONTROL ONLY) DATE: 5/17/99

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	CHECKED BY	
	QUANTITIES BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0750(10)	1999	33	97



ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY _____	" _____
	DESIGNED BY _____	" _____
	QUANTITIES BY _____	" _____
	CHECKED BY _____	" _____
No. _____		

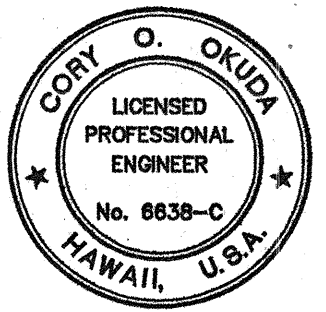
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN
RAMP KO

KUNIA ROAD WIDENING: AND
H-1, KUNIA I.C. RAMP KO WIDENING
F.A.I. PROJECT NO. IM-STP-0750(10)

SCALE: AS NOTED DATE: APRIL 1999

SHEET No. 3 OF 3 SHEETS



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OR UNDER MY SUPERVISION

Cory O. Shuler

ParEn, Inc.
dba PARK ENGINEERING