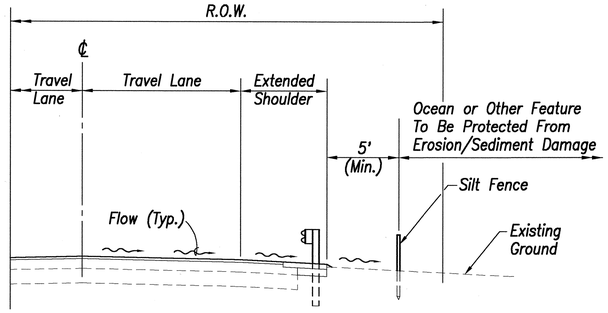
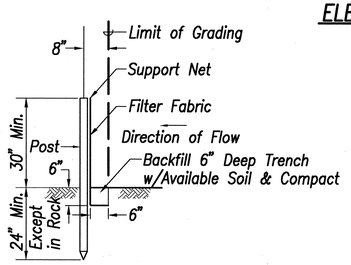
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(43)	2001	28	121



ELEVATION



DETAIL

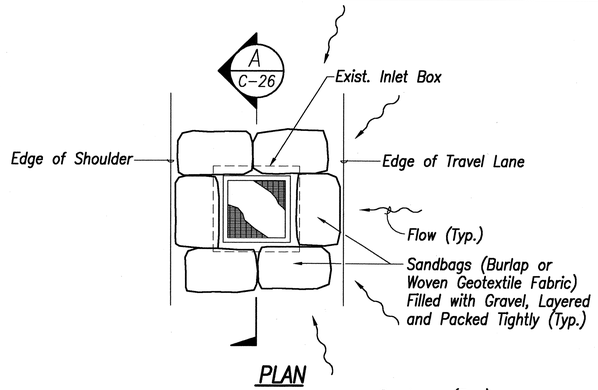
Temporary Silt Fence Notes:

1. Filter fabric shall be approved by the Engineer, and shall be installed with a support net of polyester netting or approved equal. The filter fabric shall be a minimum of 36" wide and the support net a minimum of 30".
2. If silt fence is obtained from a manufacturer as a package (i.e., fabric attached to posts), the manufacturer's installation instructions shall be adhered to.
3. Posts shall be metal whenever possible. Cross section of posts shall be substantial enough to support a loaded silt fence without bending. Post spacing shall be 4' to 8'. depending on post size.
4. Temporary silt fence shall be installed prior to beginning of grading work, and shall not be removed until permanent grassing has been established.
5. Limits shown in silt fence schedule are provided as general guidelines only. Provide breaks in fence as necessary to ensure clear access into and out of existing driveways and roads roads. Adjust limits of fence to conform to existing features as necessary to ensure protection from sediment and erosion damage for ocean, streams, and other features to be protected.

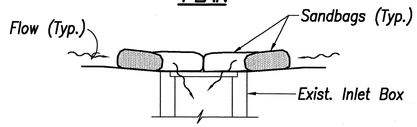
SILT FENCE SCHEDULE	
OCEAN SIDE (RIGHT SIDE OF HWY.)	
BEGIN	END
518+50	549+30
549+85	559+45
559+85	585+00
585+55	623+60
623+95	628+70
629+25	680+95
681+85	691+10
693+10	718+00

1 C-26 TEMPORARY SILT FENCE

Scale: 1" = 2'



PLAN



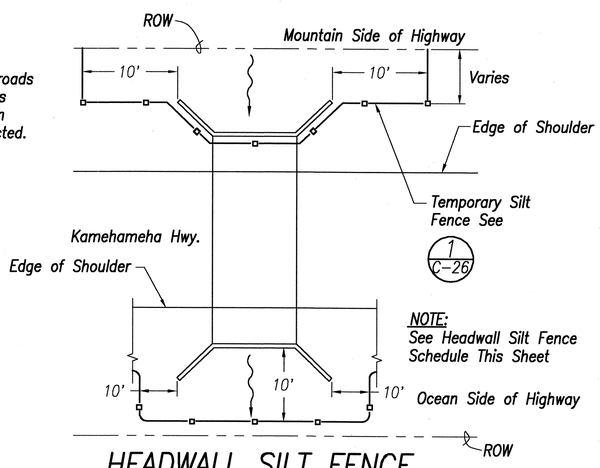
A C-26 SECTION

Note:

Install sediment barrier at all existing/new drain inlets within the project limits.

2 C-26 DRAIN INLET SEDIMENT BARRIER

Scale: 1" = 5'



HEADWALL SILT FENCE

Not To Scale

HEADWALL SILT FENCE SCHEDULE					
STATION	MOUNTAIN SIDE OF HIGHWAY	OCEAN SIDE OF HIGHWAY	STATION	MOUNTAIN SIDE OF HIGHWAY	OCEAN SIDE OF HIGHWAY
519+50±	X	X	694+00±		X
522+45±	X	X	717+75±	X	X
567+00±	X		721+00±	X	X
585+65±	X	X	732+00	X	
589+50±	X		744+40±	X	X
595+70	X	X	753+00±	X	
600+53±	X		756+20±	X	
637+60±	X	X	763+00	X	
645+00±		X	800+50	X	
656+55±	X	X	826+80±	X	
664+55±	X	X	832+00	X	
684+50±	X	X	832+75	X	

STATION	MOUNTAIN SIDE OF HIGHWAY	OCEAN SIDE OF HIGHWAY
843+00±	X	
853+00±	X	
865+60±	X	
893+00	X	
902+00	X	

Erosion Control Notes:

1. All grading work shall be done in accordance with Chapter 14, Articles 13, 14, 15 and 16, as related to grading, soil erosion and sediment control, of the Revised Ordinances of Honolulu, 1990, as amended, and soils report entitled, "Soils Investigation, Kamehameha Highway Rehabilitation, Waiahole Valley Road to Crouching Lion Inn," by Ernest K. Hirata & Assoc., Inc., dated February 4, 2000.
2. The Contractor shall not perform any grading operation which would cause falling rocks, soil or debris, in any form, to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and shall immediately make all remedial actions necessary.
3. The Contractor shall remove all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The costs incurred for any necessary remedial action by the Engineer shall be payable by the Contractor.
4. The Contractor, at his own expense, shall keep the project area and surrounding area free from dust and other nuisance. The work shall be in conformance with the air pollution control standards contained in the Hawaii Administrative Rules, Chapter 11-60, "Air Pollution Control."
5. Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, adequate provisions shall be made to prevent sediment-laden runoff from leaving the site.
6. All slopes and exposed areas shall be sodded or planted as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed shall be planted.
7. Fills on slopes steeper than 5:1 shall be keyed and benched.
8. No grading work shall be done on Saturdays, Sundays and holidays at any time without prior written notice to the Engineer.
9. The limits of the area to be graded shall be flagged by the Contractor before the commencement of the grading work.
10. The grading operations shall be performed in conformance with the applicable provisions of the water quality and water pollution control standards contained in Hawaii Administrative Rules, Chapter 11-54, "Water Quality Standards," and Chapter 11-55, "Water Pollution Control," and if applicable, the NPDES permit for the project.
11. Where applicable and feasible, the measures to control erosion and other pollutants shall be in place before any earth moving phase of the grading is initiated.
12. Temporary erosion control procedures shall be submitted by the Contractor for approval by the Engineer prior to the start of actual grading operations.
13. Excavated material on site which will be exposed for more than 7 days shall be covered with plastic sheets within 2 days of placement or as directed by the Engineer.
14. During construction, silt fences shall be installed along the edges of open channels, swales and ditches in order to filter sediment from runoff before it enters the channel, swale or ditch.
15. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.
16. Erosion Control measures shall be considered incidental to the various items of work.

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

GRAPHIC SCALE

1" = 10' 10' 5' 0 10' 20'

1" = 5' 5' 0 5' 10'

CRAIG W. L. LUIE LICENSED PROFESSIONAL ENGINEER No. 6935-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SIGNATURE 8/1/00 DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL MEASURES

KAMEHAMEHA HIGHWAY RESURFACING
Waiahole Valley Road to Crouching Lion Inn
Federal Aid Project No. NH-083-1(43)

Scale: 1" = 10' Date: August 1, 2000

SHEET No. C-26 OF 74 SHEETS