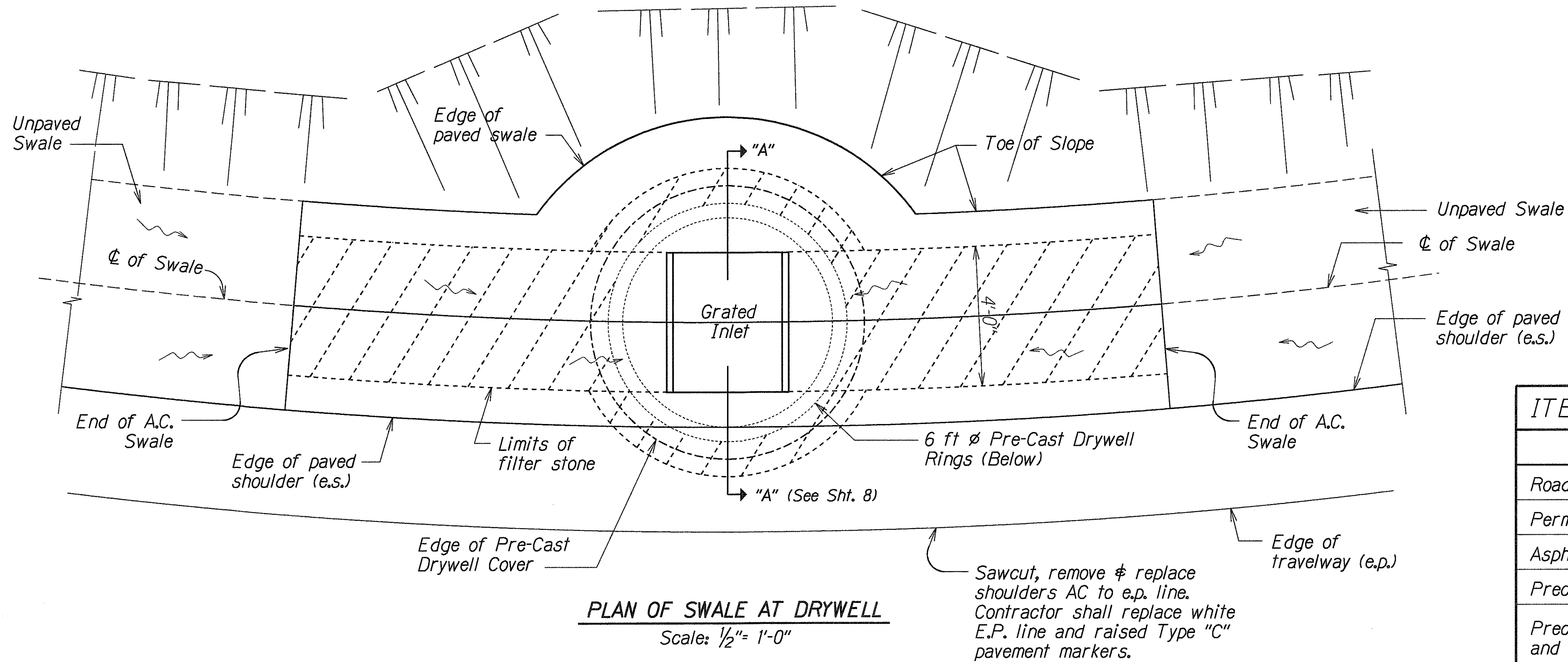


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FLH-011-2(34)	2001	7	13

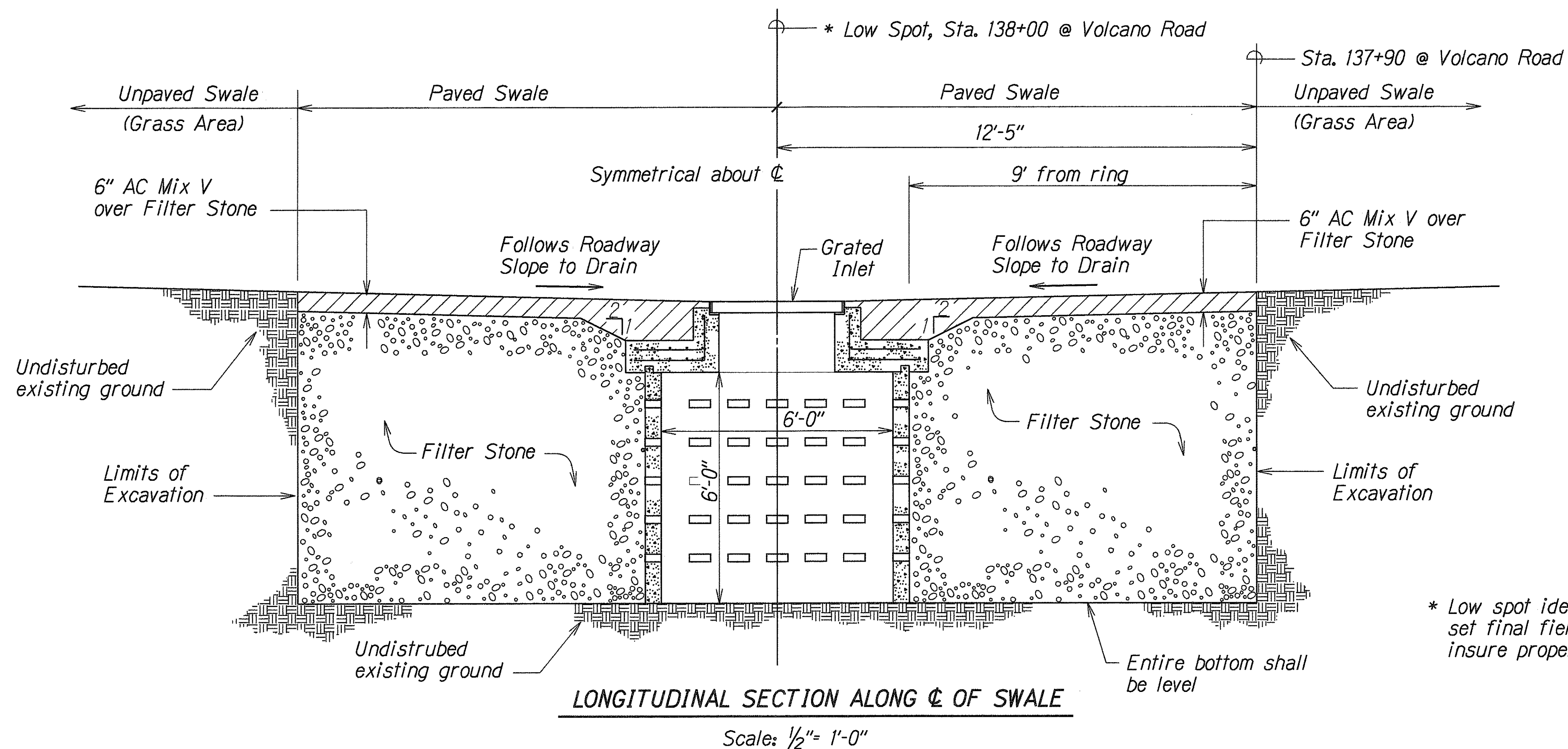


ITEM 604.0100 DRAINAGE FACILITY @ STA. 138+00

ITEM DESCRIPTION	UNIT	QUANTITY
Roadway Excavation	C.Y.	270
Permeable Separator	S.Y.	20
Asphalt Concrete Mix V	TON	11
Precast Drywell Ring	Each	1
Precast Drywell Cover, Inlet, CIP Frame and Grate	Each	1
Filter Stone	C.Y.	30

NOTES:

- The Drainage Facility Item includes construction of AC and grass swales, drop inlet, drywell ring, filter stone, excavation, reset pullbox, and all else necessary to construct entire drainage facility as shown on the Contract Plans and Specifications.
- Payment for Drainage Facility shall be made on a lump sum basis under Item No. 604.0100, Drainage Facility @ Sta. 138+00. Payment shall be considered full compensation for all labor, equipment, materials and incidentals needed to complete the work in accordance with the Contract Plans and Specifications.



* Low spot identified by survey crew. Contractor to set final field location and elevation of grate to insure proper operation of the Drainage System.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRYWELL DETAILS

VOLCANO ROAD

INTERSECTION IMPROVEMENTS FOR THE HVNP MAIN ENTRANCE.

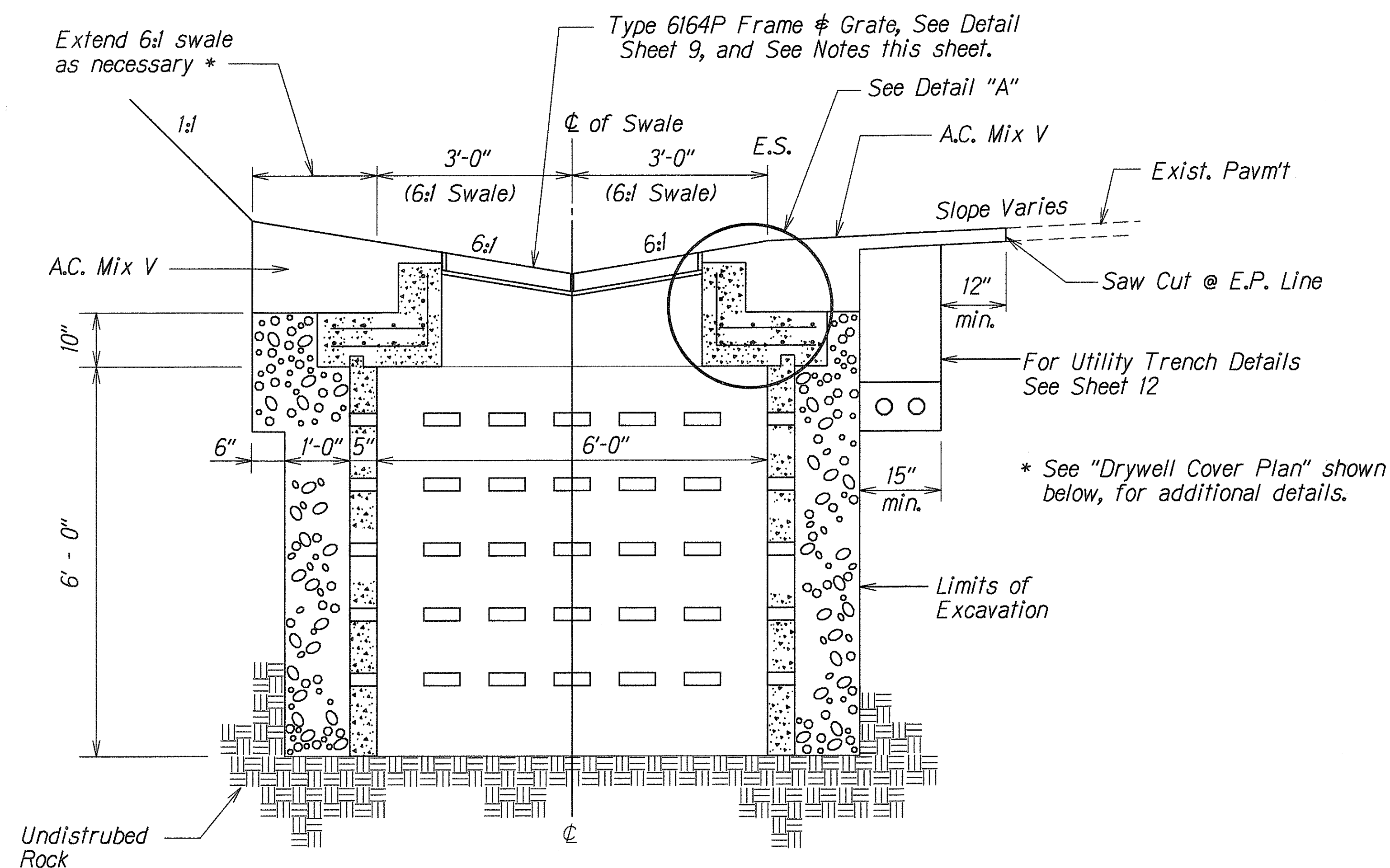
FED. AID PROJECT NO. FLH-011-2(34)

Scale: As Shown Date: Nov., 1999

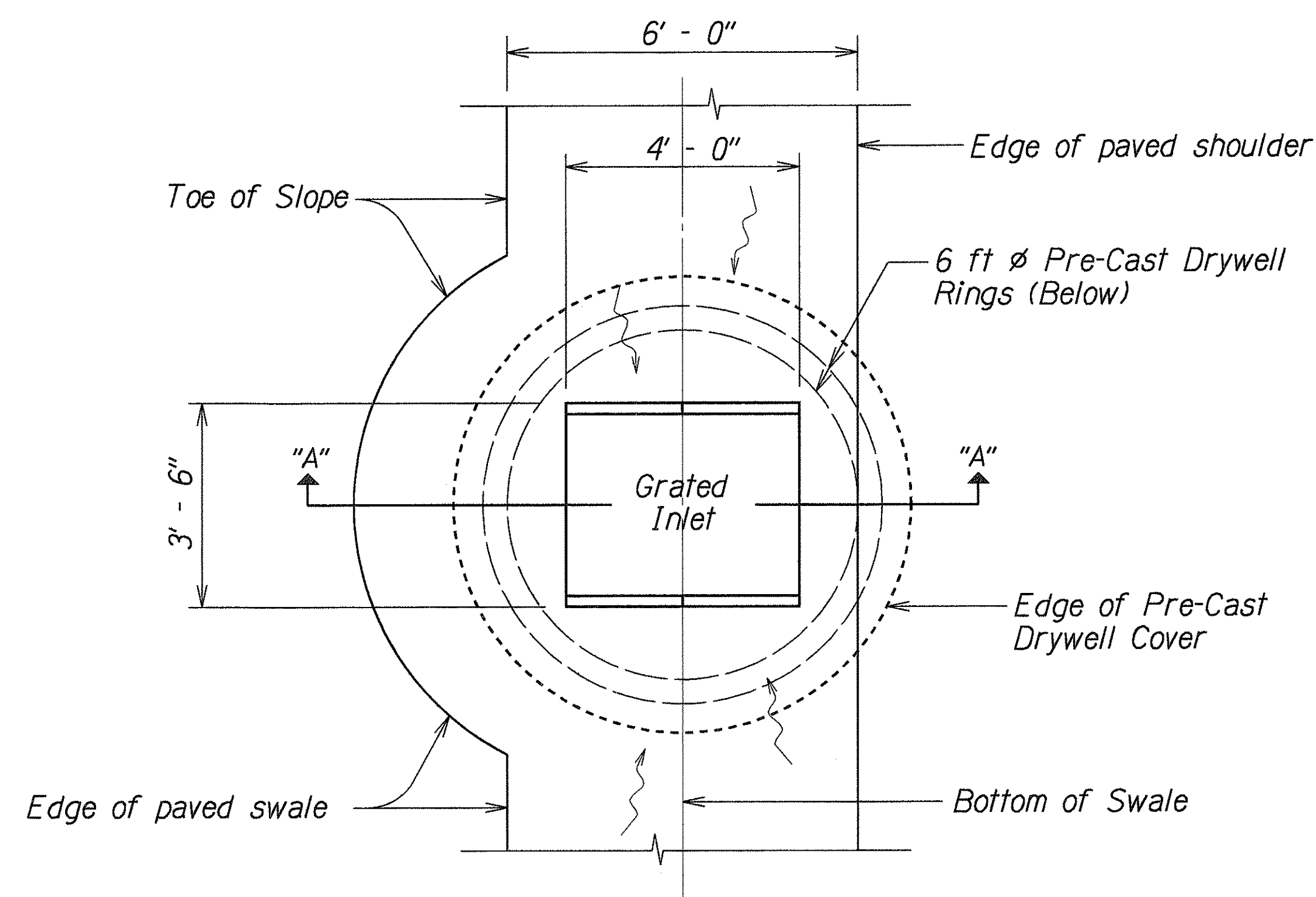
SHEET No. 1 OF 3 SHEETS

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
APPROVED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FLH-011-2(34)	2001	8	13



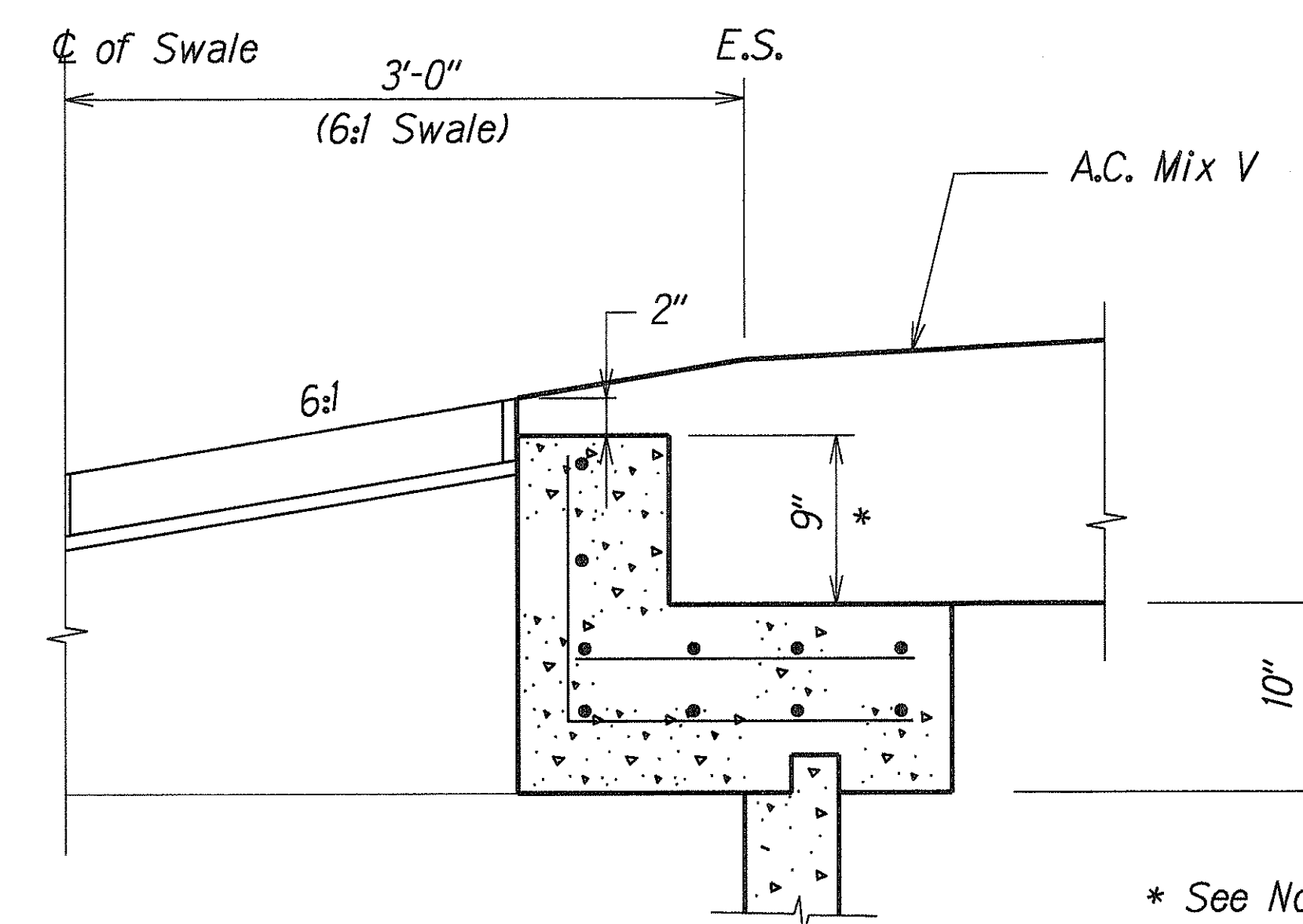
SECTION "A - A"
Scale: $\frac{3}{4}" = 1'-0"$



DRYWELL COVER PLAN
Scale: $\frac{1}{2}" = 1'-0"$

NOTES:

1. Grated inlet and drywell assembly to be capable of supporting AASHTO HL-93 Loads.
2. Reinforced Concrete Design to be submitted to the Engineer for acceptance. The Details and Calculations shall be stamped by a Structural Engineer. The Design shall conform to the Latest Edition of the "AASHTO LRFD Bridge Design Specifications." The Contractor shall be prepared to incorporate any requested changes into the final design.
3. Reinforcing shown on these plans are for illustration only.
4. Concrete shall be Class A.
5. Concrete portion of Frame to be Cast in Place.



DETAIL "A"
Scale: $1\frac{1}{2}" = 1'-0"$

* See Note 5, this sheet

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

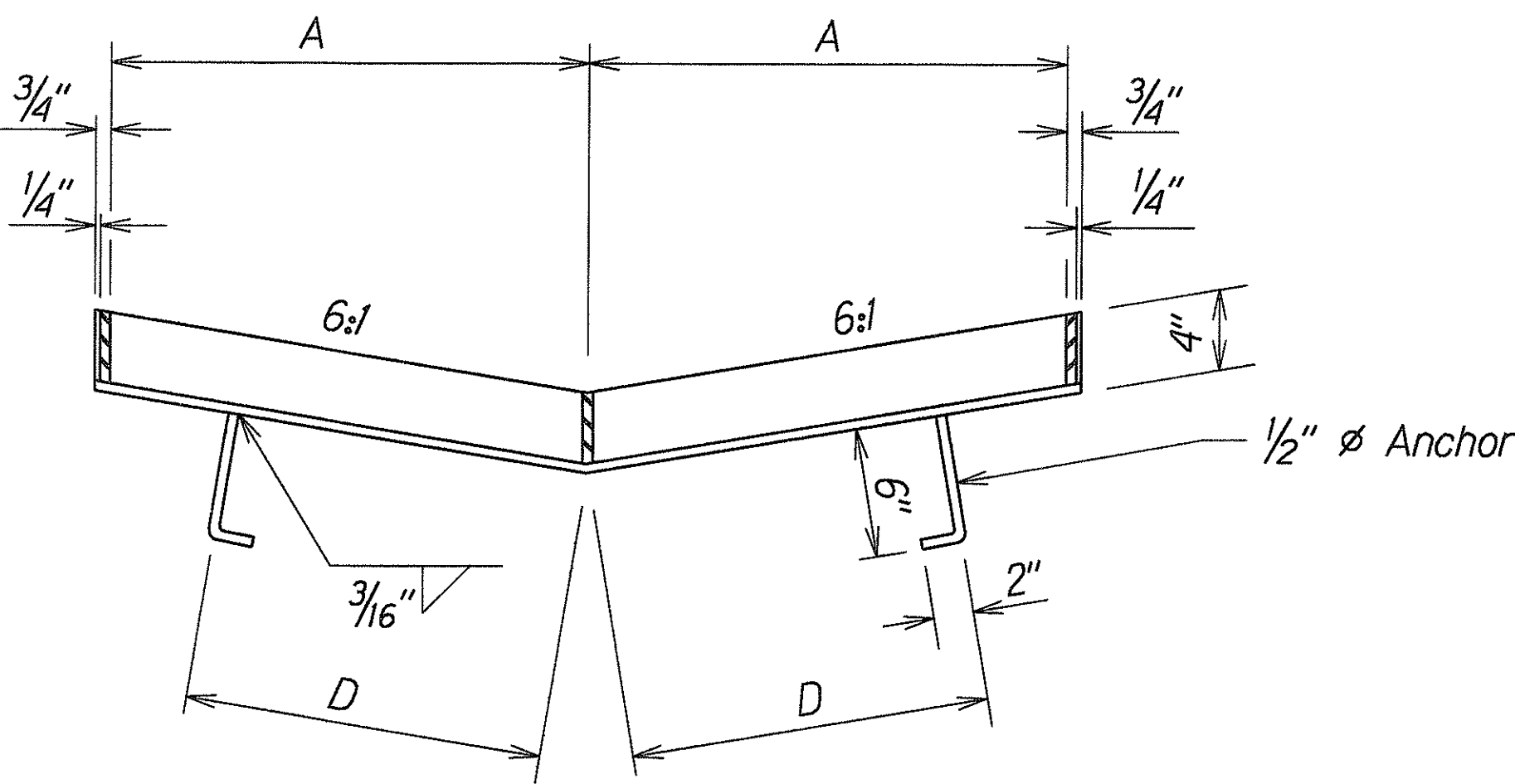
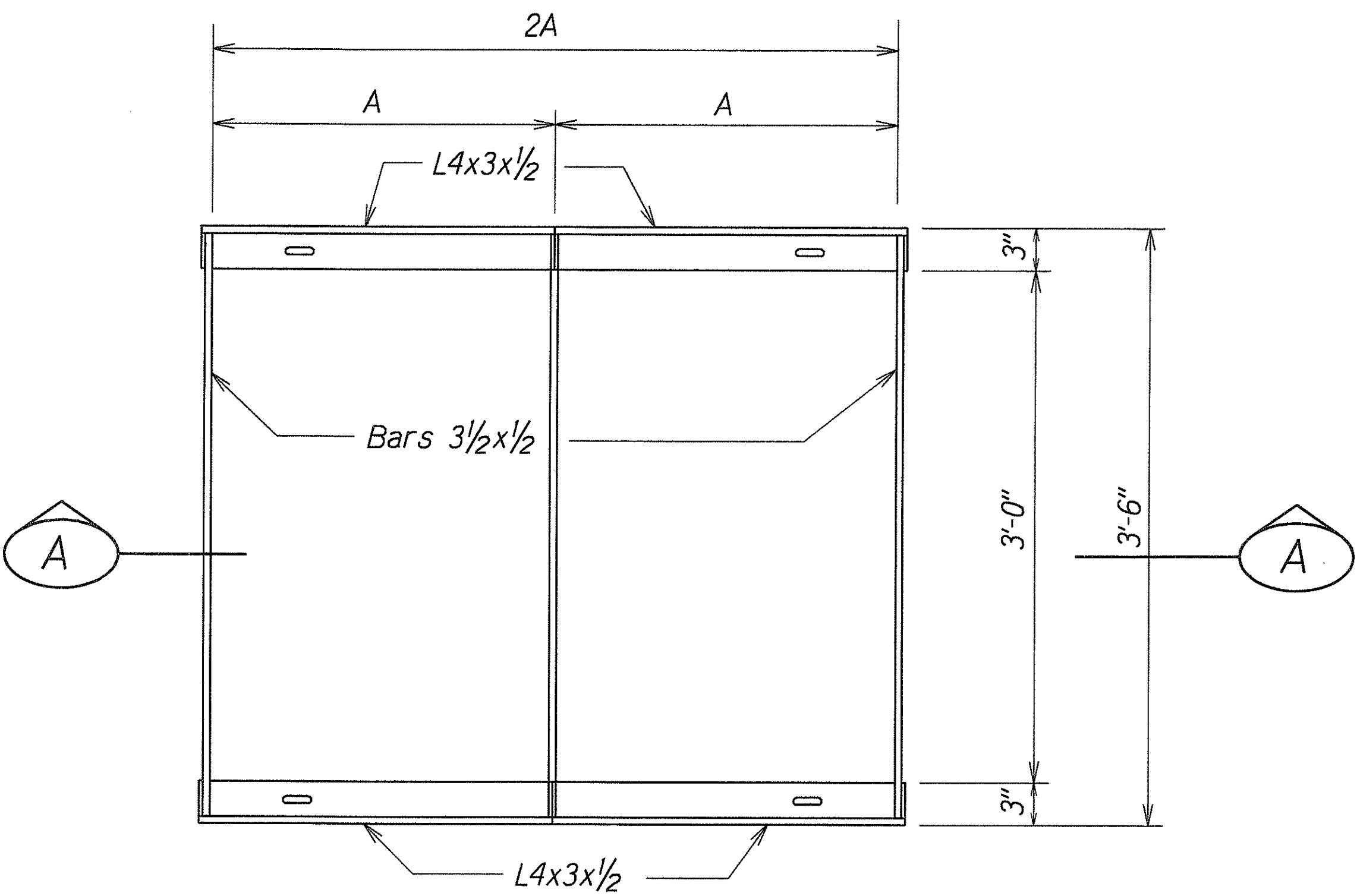
DRYWELL DETAILS

VOLCANO ROAD
INTERSECTION IMPROVEMENTS FOR
THE HVNP MAIN ENTRANCE
FED. AID PROJECT NO. FLH-011-2(34)

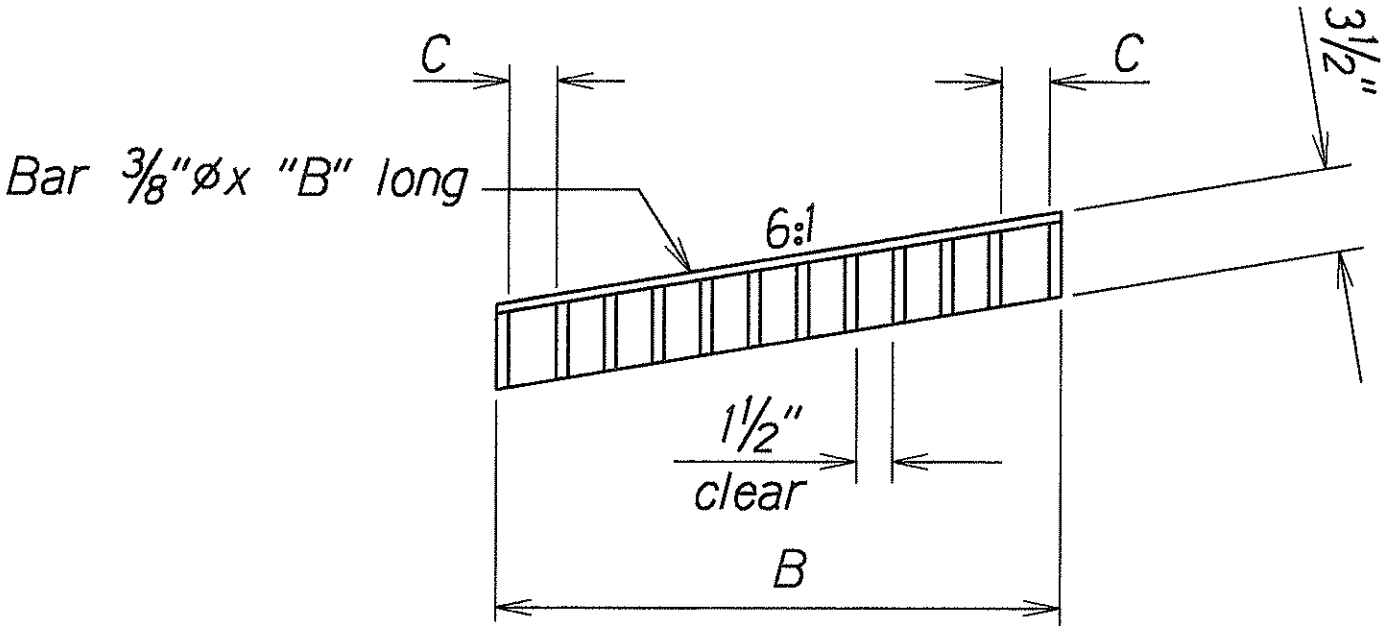
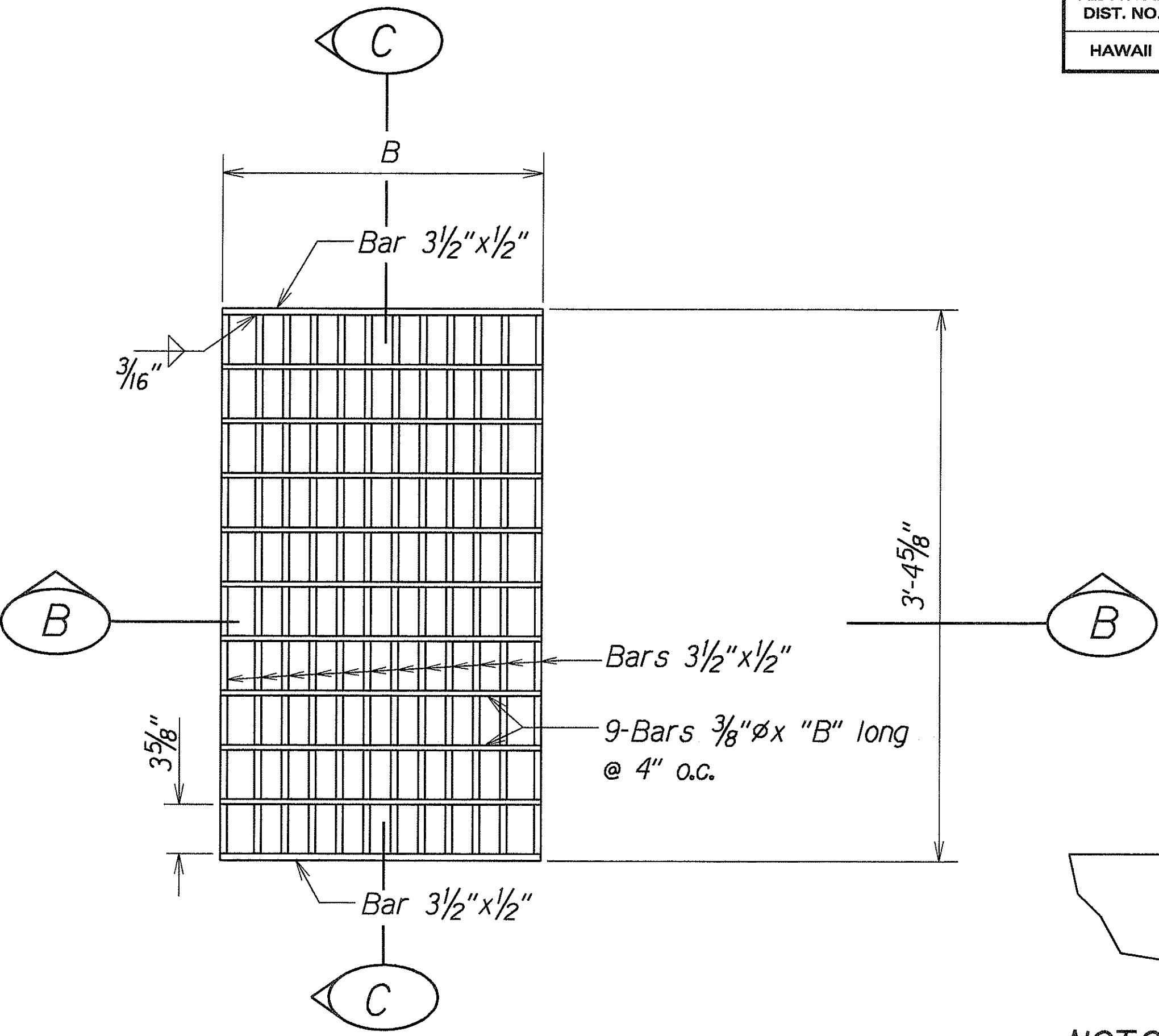
Scale: As Shown Date: Nov., 1999

SHEET No. 2 OF 3 SHEETS

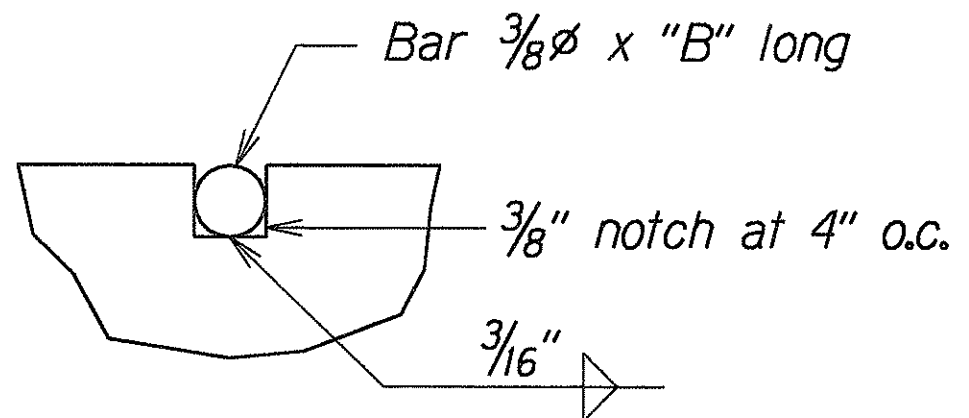
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FLH-011-2(34)	2001	9	13



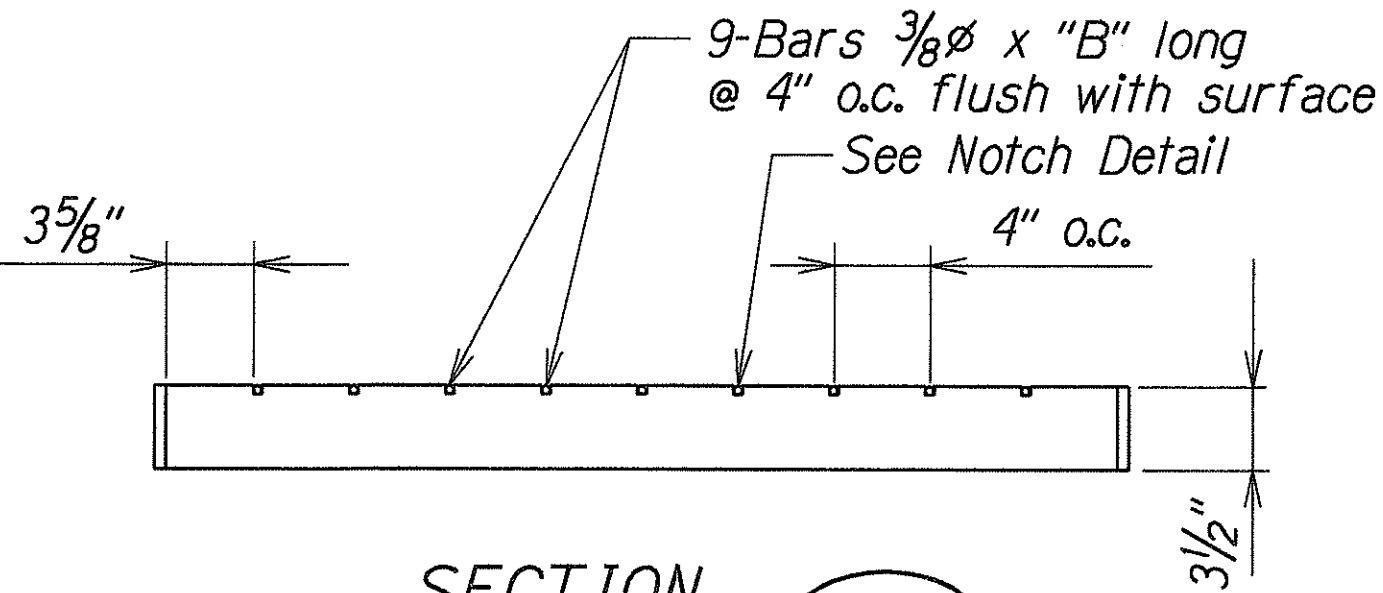
FRAME



GRATE



Full Size



NOTE:
All welds 3/8" unless otherwise noted.

DIMENSIONS					
TYPE	NO. BARS	A	B	C	D
61614P	12	2'-0"	1'-11 1/2"	2"	1'-6"
61616P	18	3'-0"	2'-11 3/8"	1 5/16"	2'-0"

DETAIL OF TYPE 61614P & 61616P STEEL FRAME & GRATES

Scale: 1 1/2"=1'-0"

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRYWELL DETAILS
VOLCANO ROAD
INTERSECTION IMPROVEMENTS FOR
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Scale: As Shown Date: Nov., 1999

SHEET No. 3 OF 3 SHEETS