

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	65AB-01-04M	2012	54	81

Sta. 92+65± to Sta. 94+24±

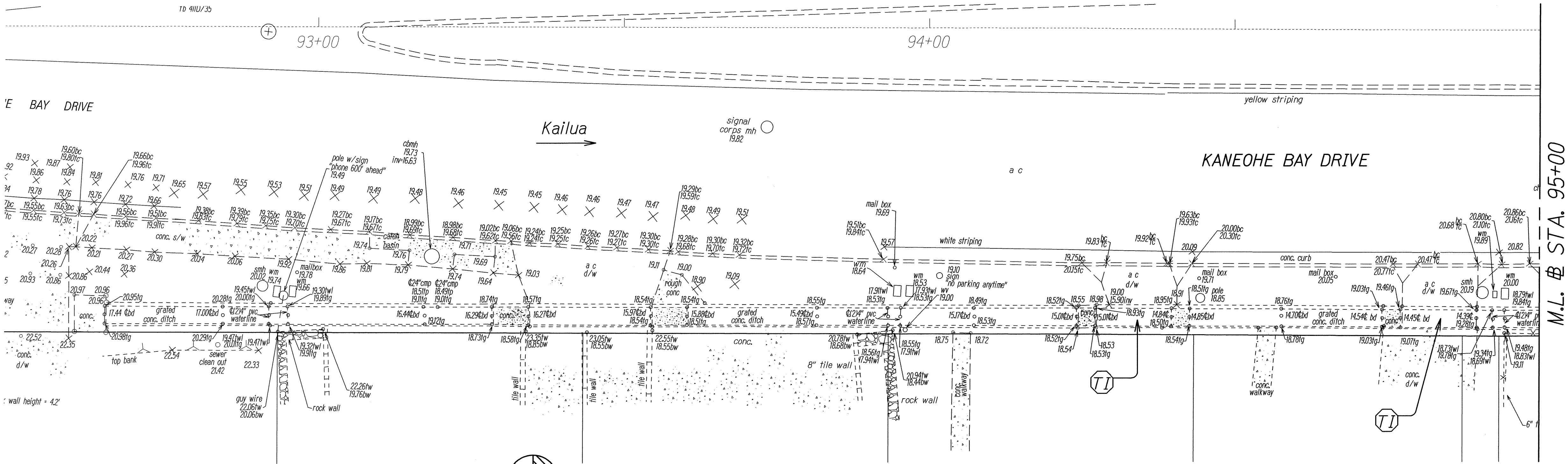
Begin Type "ADA" Grated Drain Inlet.
75 Units - Install Typical Frames, Grates, and Perforated Plates. For Det., See Sheet No. H2.
1 Unit - Install Modified Frame, Grates, and Perforated Plates 1. For Det., See Sheet No. H3.

Sta. 94+27± to Sta. 94+40±

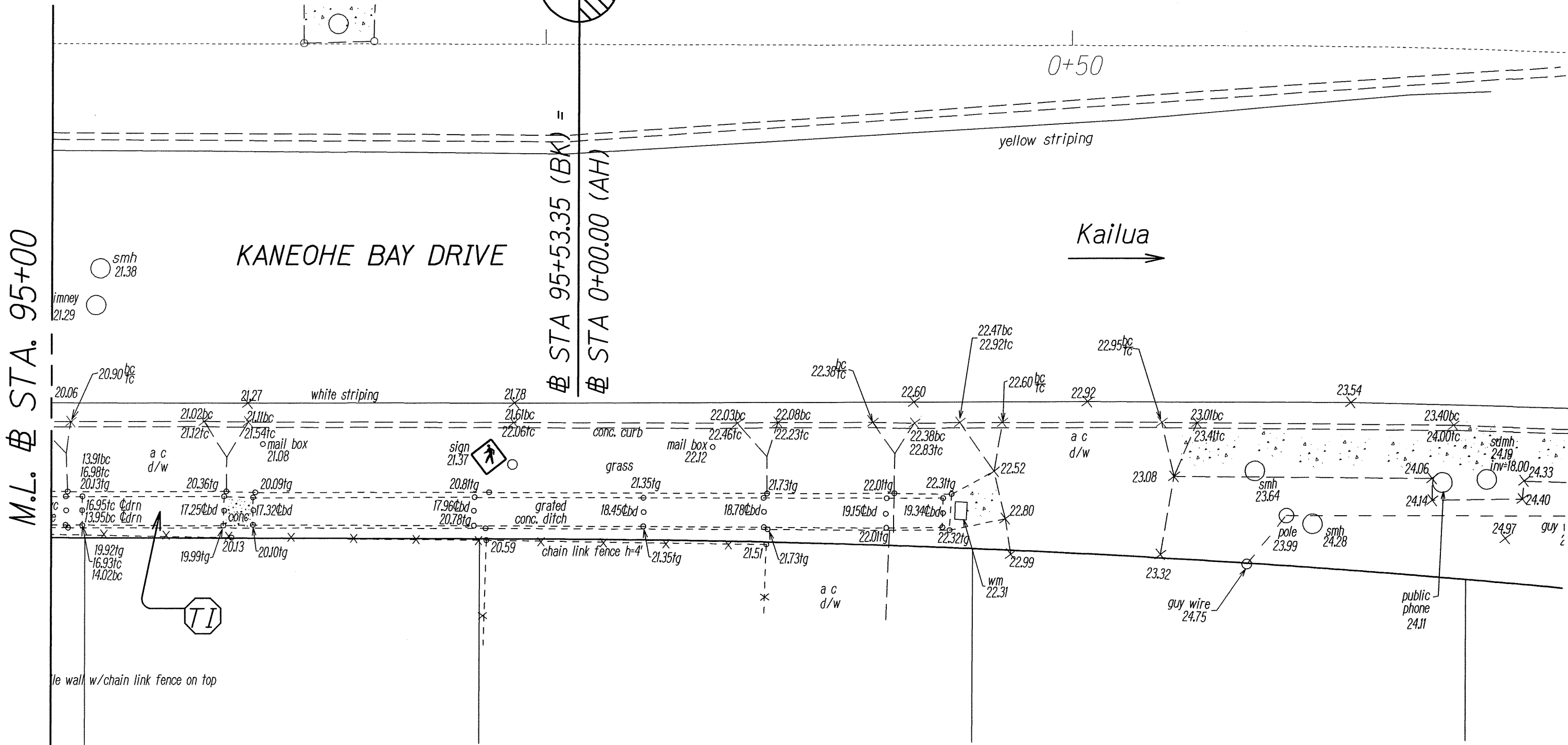
5 Units - Install Typical Frames, Grates, and Perforated Plates. For Det., See Sheet No. H2.
1 Unit - Install Modified Frame, Grates, and Perforated Plates 2. For Det., See Sheet No. H3.

Sta. 94+43± to Sta. 94+74±

15 Units - Install Typical Frames, Grates, and Perforated Plates. For Det., See Sheet No. H2.



TRUE NORTH
SCALE : 1" = 10'



Sta. 94+77± to Sta. 95+18±

18 Units - Install Typical Frames, Grates, and Perforated Plates. For Det., See Sheet No. H2.
1 Unit - Install Modified Frame, Grates, and Perforated Plates 3. For Det., See Sheet No. H4.

Sta. 95+20± to Sta. 0+37±

End Type "ADA" Grated Drain Inlet.
32 Units - Install Typical Frames, Grates, and Perforated Plates. For Det., See Sheet No. H2.
1 Unit - Install Modified Frame, Grates, and Perforated Plates 4. For Det., See Sheet No. H4.

Sta. 94+24± to Sta. 94+27±

Sta. 94+40± to Sta. 94+43±

Sta. 94+74± to Sta. 94+77±

Sta. 95+18± to Sta. 95+20±

Remove exist. 3'-0" concrete slab. Install Type "A"

Concrete Slab. For Det., See Sheet No. H5.

NOTES:

1. The Contractor shall verify the exact dimensions in the field prior to fabricating and galvanizing the drainage ditch frames, grates, and perforated plates.

LIMITS OF TYPE "ADA" GRATED DRAIN INLET

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

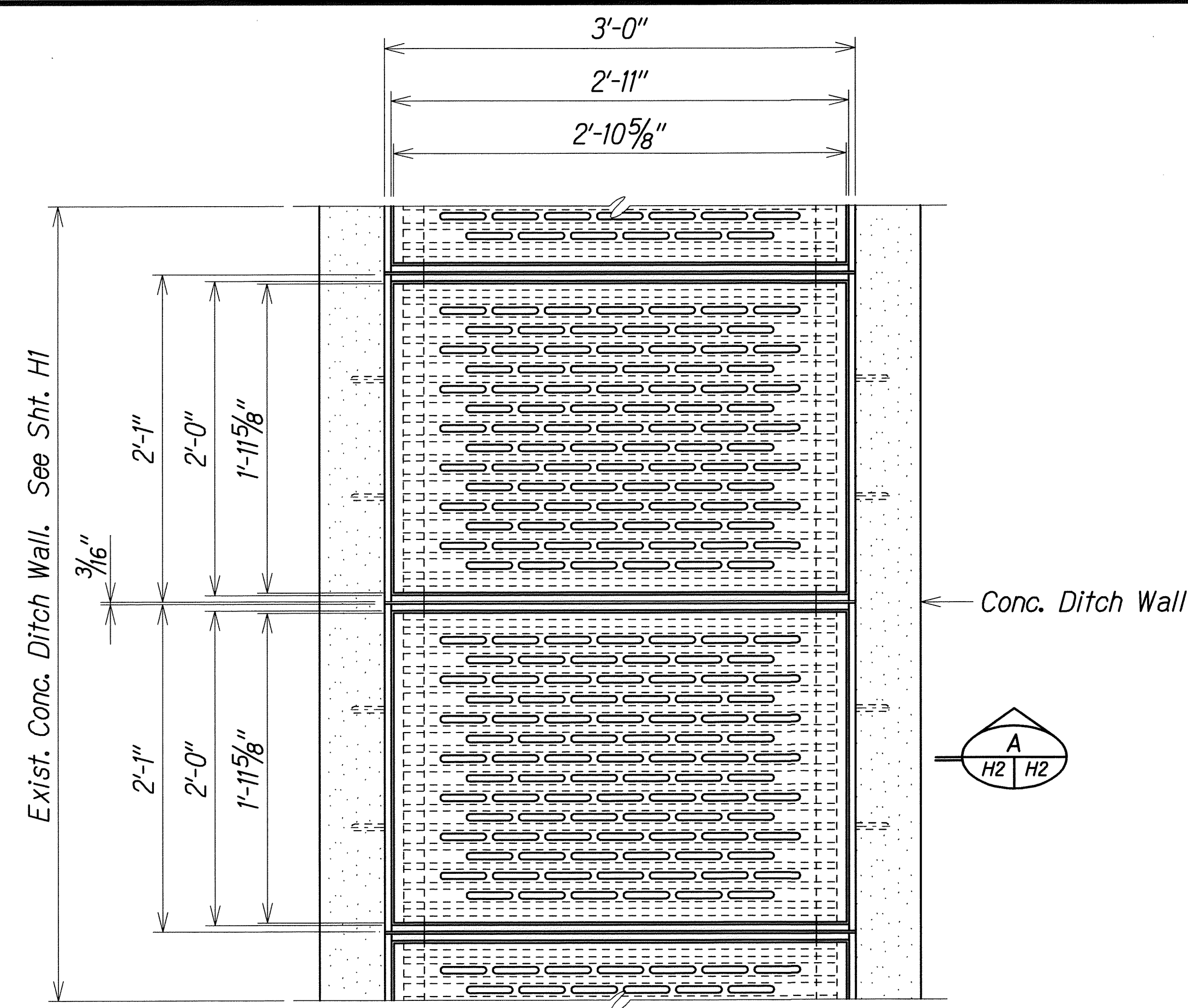
DRAINAGE DETAIL

KANEHOE BAY DRIVE REHABILITATION
Kamehameha Highway to Nanamoana Street
Project No. 65AB-01-04M

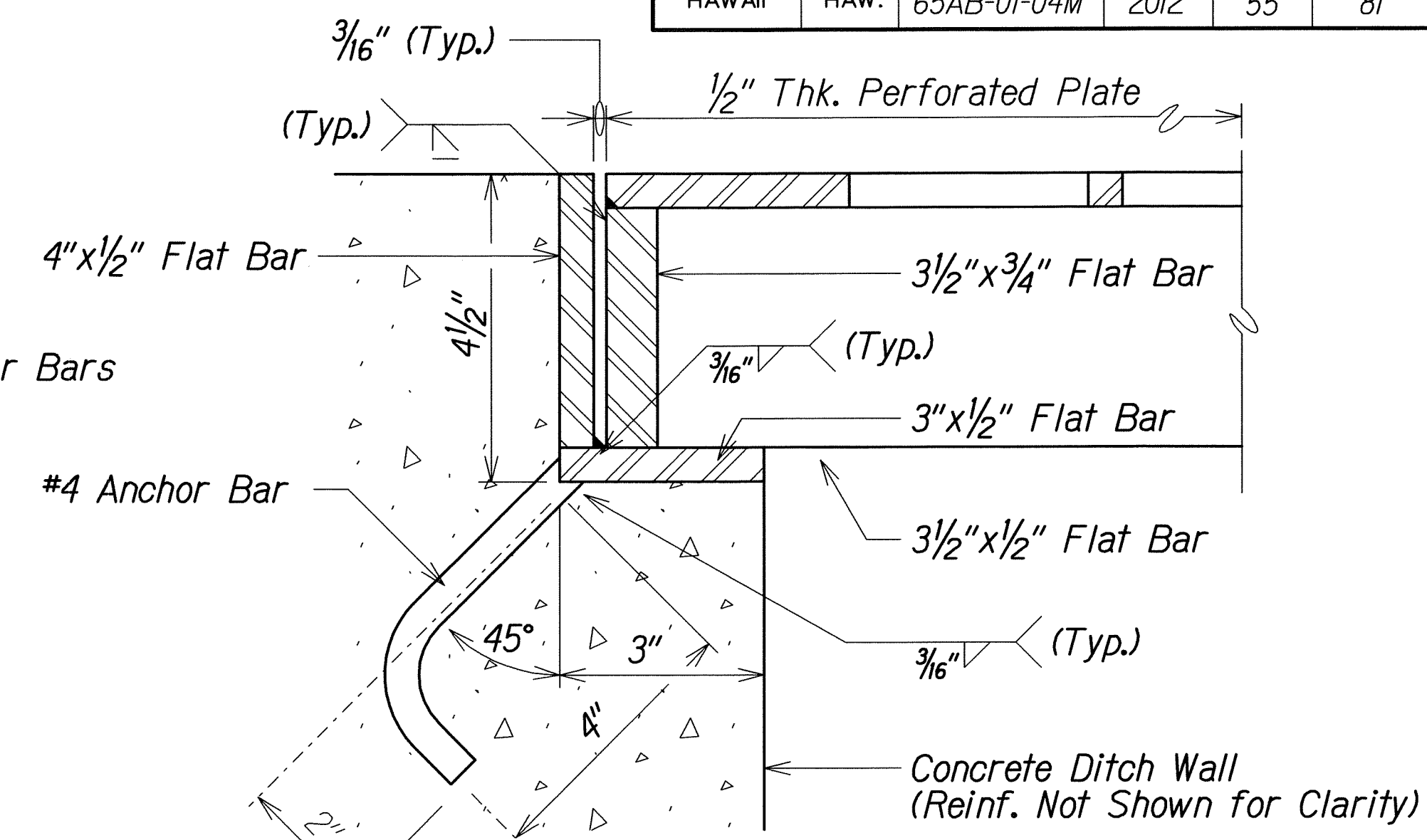
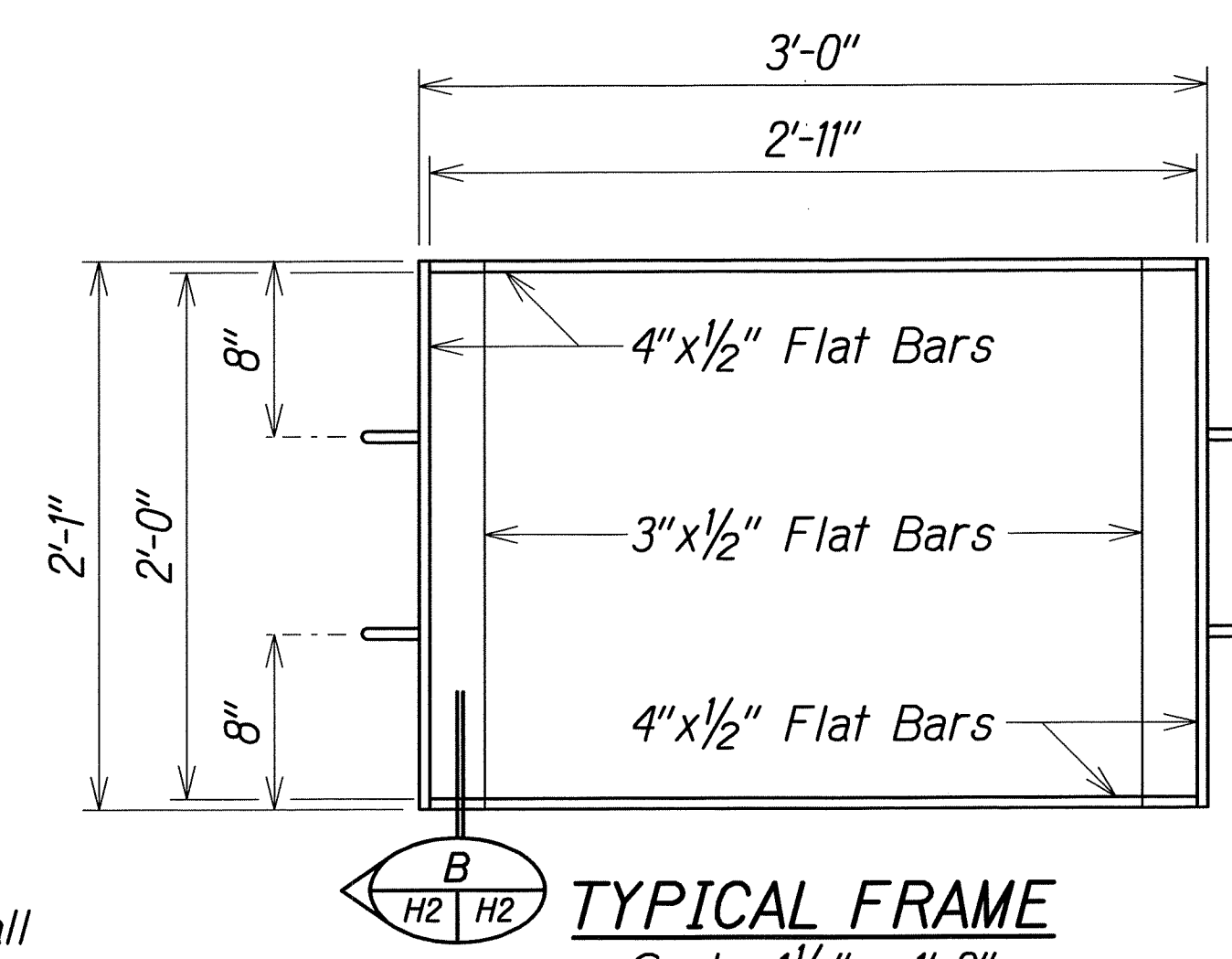
Scale: 1" = 10' Date: March, 2012

SHEET No. H1 OF 9 SHEETS

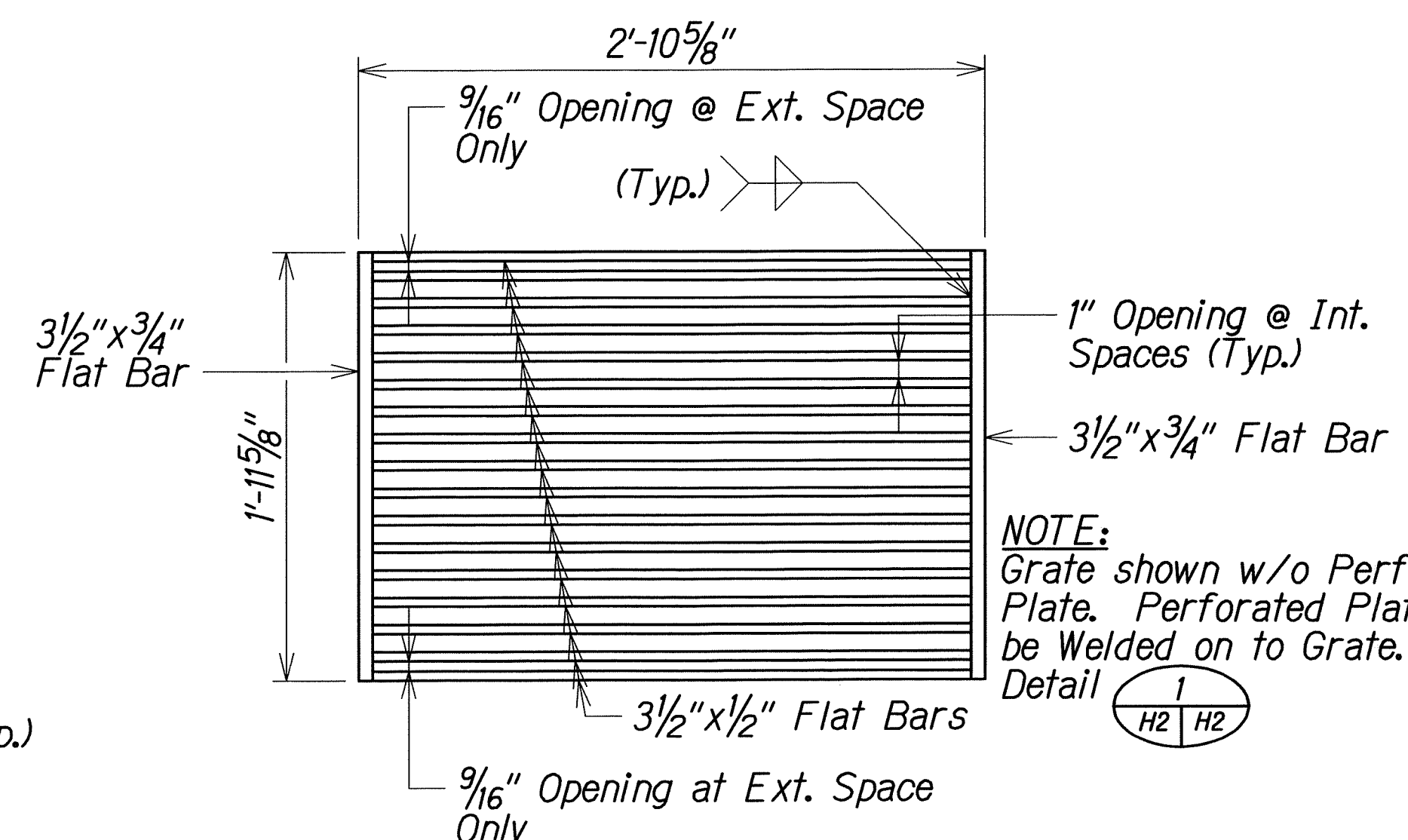
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	65AB-01-04M	2012	55	81



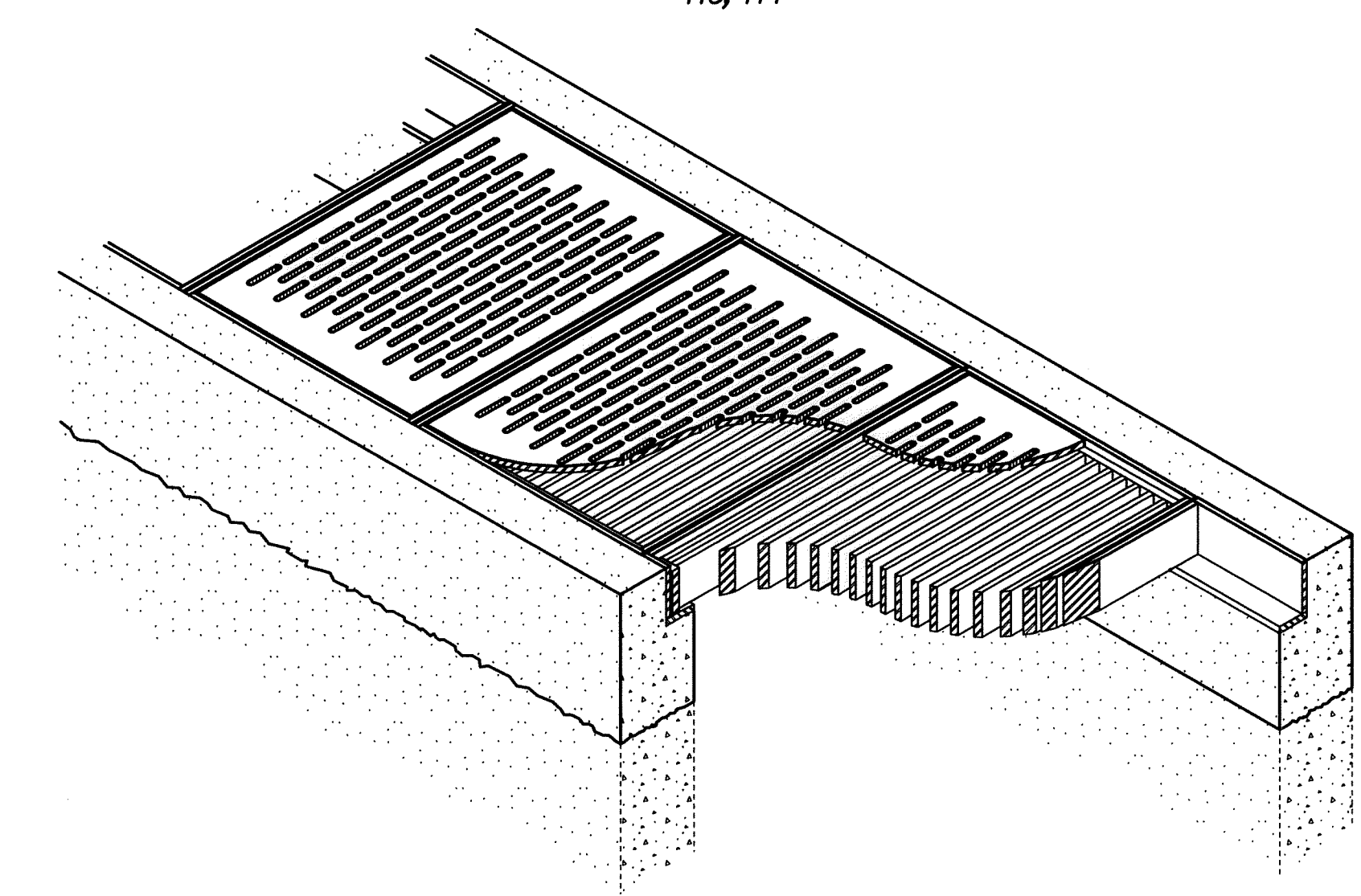
PARTIAL LAYOUT PLAN
Scale: 1¹/₂" = 1'-0"



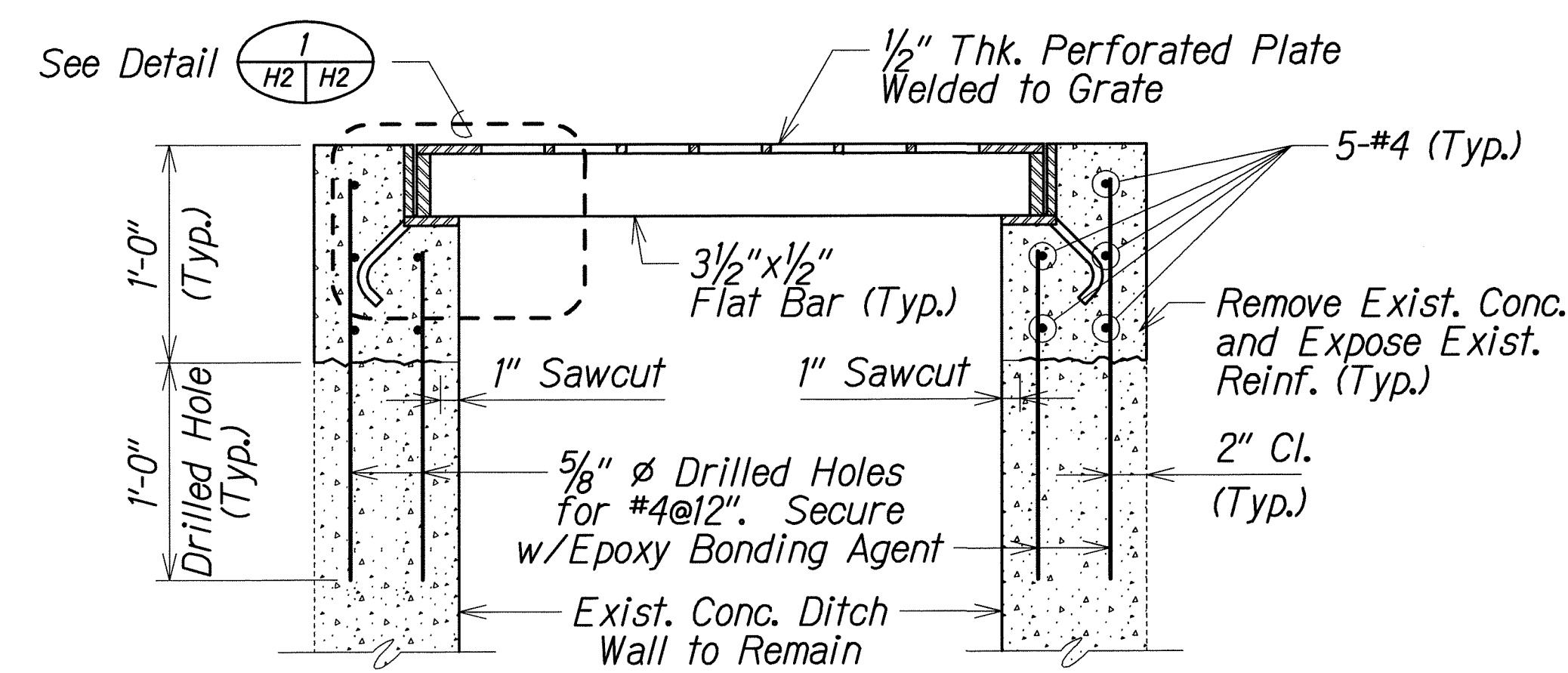
DETAIL 1
Scale: 6" = 1'-0"
H2, H2
H3, H4



NOTE:
Grate shown w/o Perforated Plate. Perforated Plate to be Welded on to Grate. See Detail 1

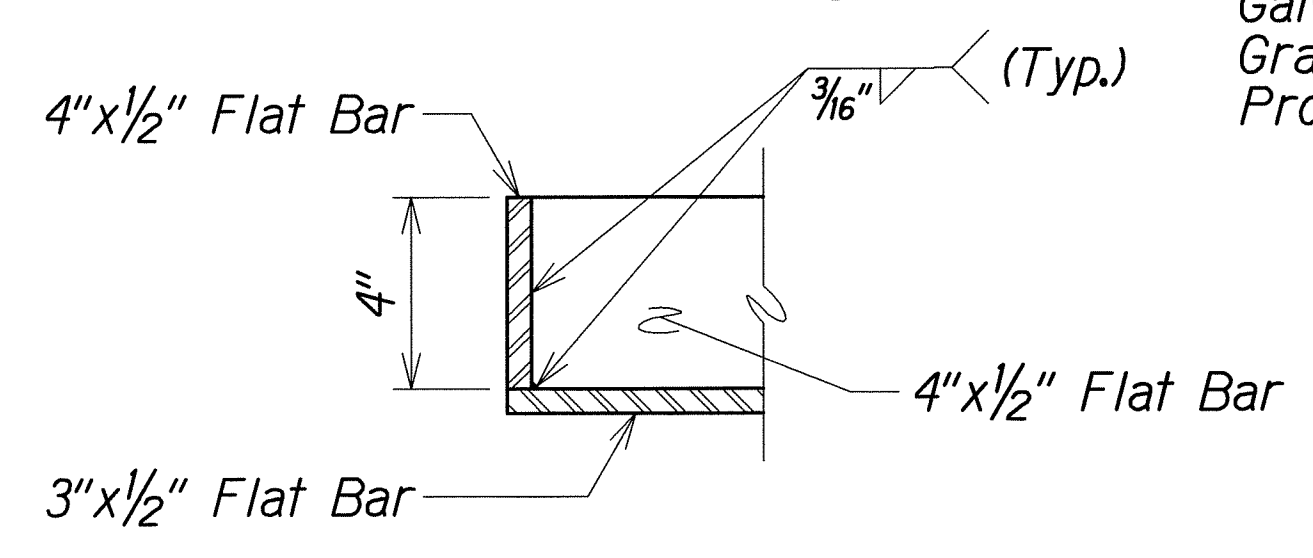


ISOMETRIC VIEW
Scale: N.T.S.

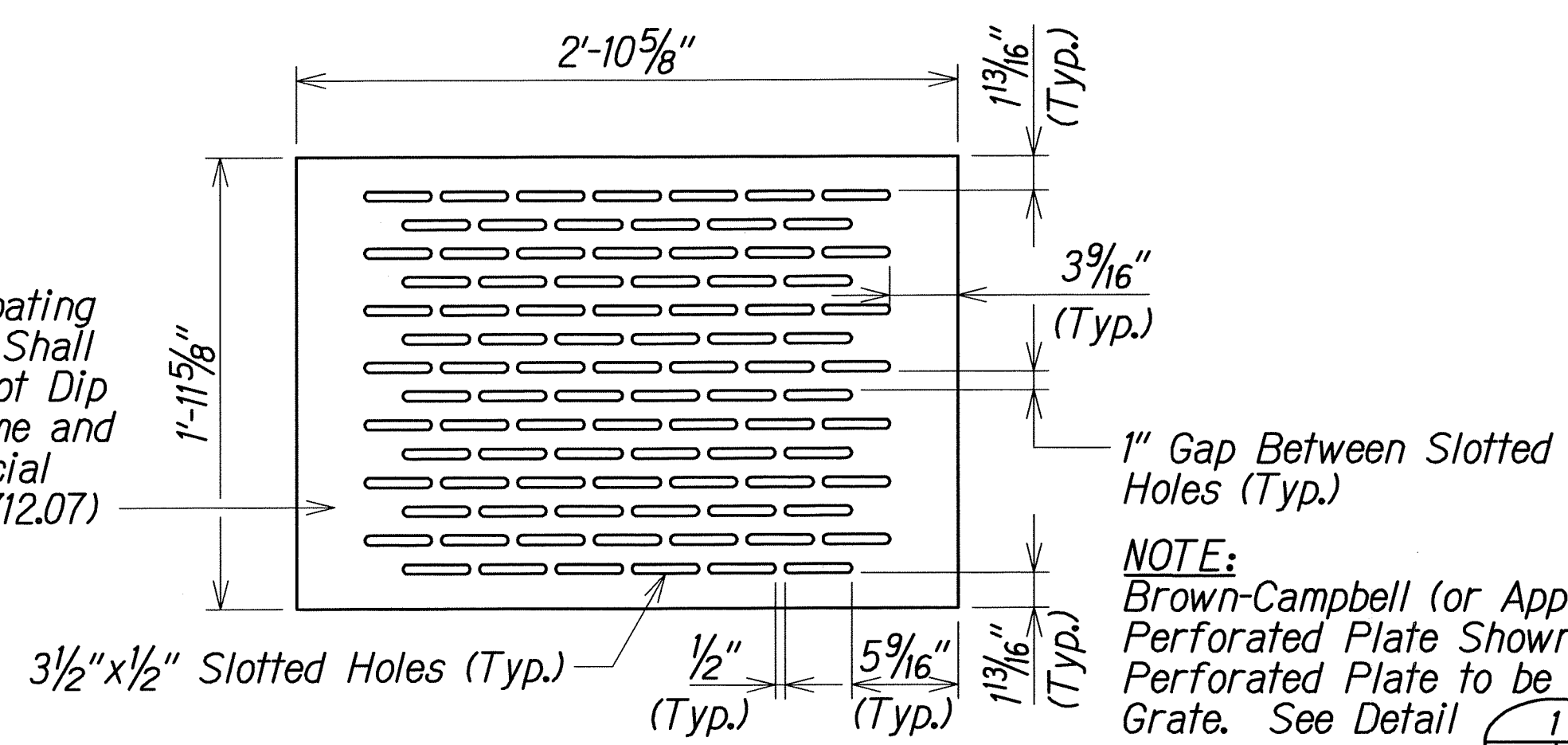


SECTION A
Scale: 1¹/₂" = 1'-0"
H2, H2

SlipNOT Anti-skid Coating (or Approved Equal) Shall be Applied Before Hot Dip Galvanizing the Frame and Grate Unit (See Special Provisions, Section 712.07)



SECTION B
Scale: 3" = 1'-0"
H2, H2
H3, H4



NOTE:
Brown-Campbell (or Approved Equal) Perforated Plate Shown w/o Grate. Perforated Plate to be Welded on to Grate. See Detail 1

NOTE:
1. See Special Provisions, 712.07(E) for additional requirements.

STATE OF HAWAII
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HIGHWAYS DIVISION

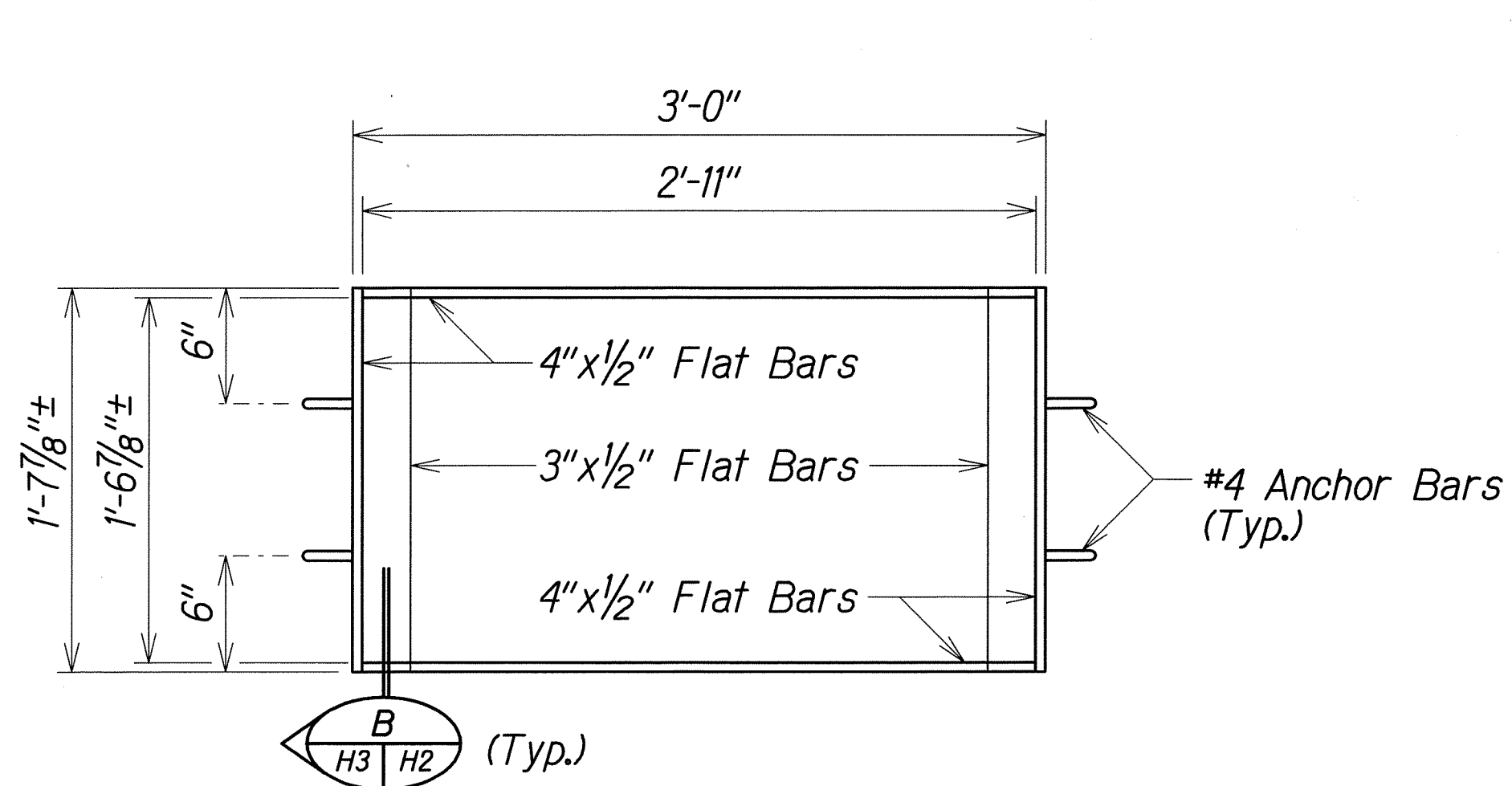
DRAINAGE DETAIL
KANEHOE BAY DRIVE REHABILITATION
Kamehameha Highway to Nanamoa Street
Project No. 65AB-01-04M
Scale: As Noted
Date: May, 2012

SHEET No. H2 OF 9 SHEETS

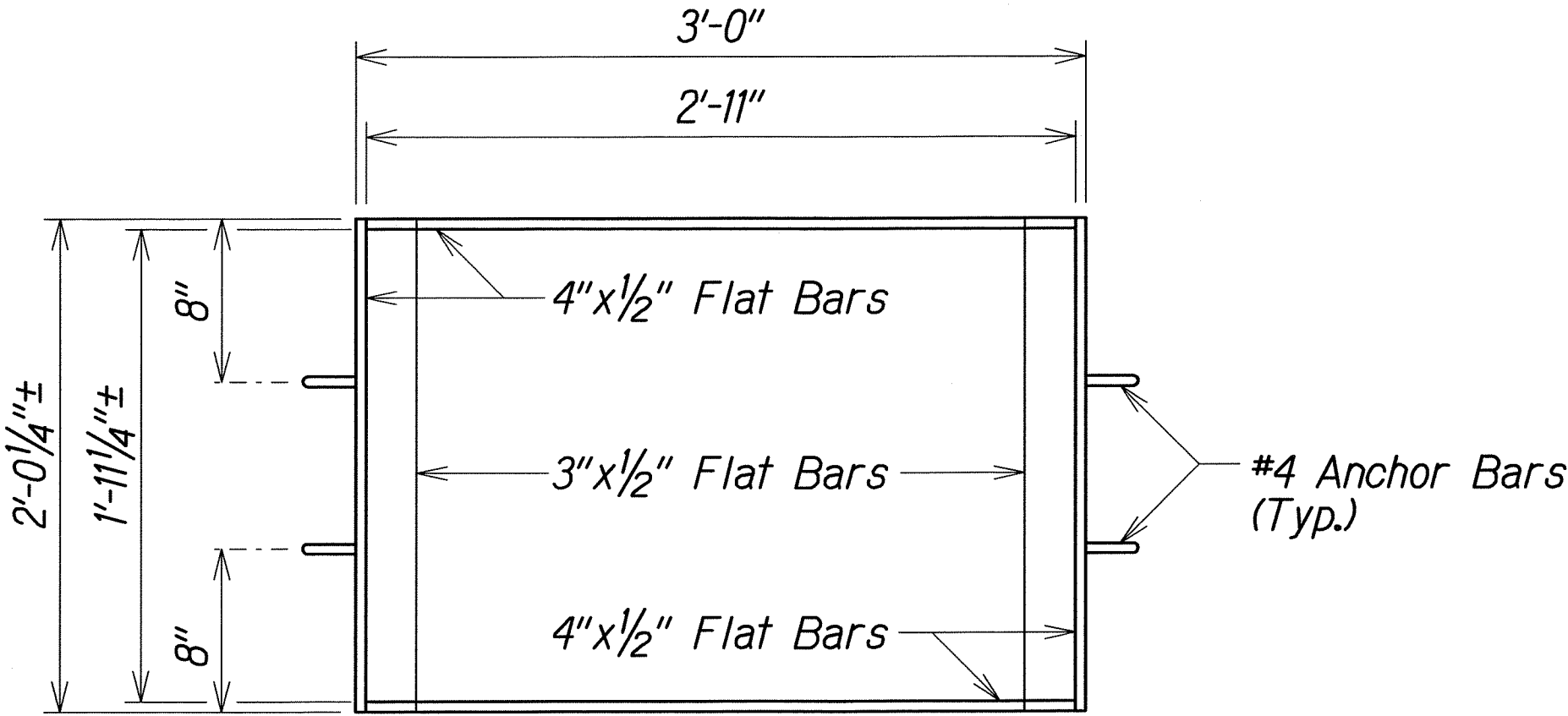
TYPE "ADA" GRATED DRAIN INLET DETAILS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	XXX
	CHECKED BY	XXX
	DESIGNED BY	XXX
	QUANTITIES BY	XXX
	CHECKED BY	XXX

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	65AB-01-04M	2012	56	81

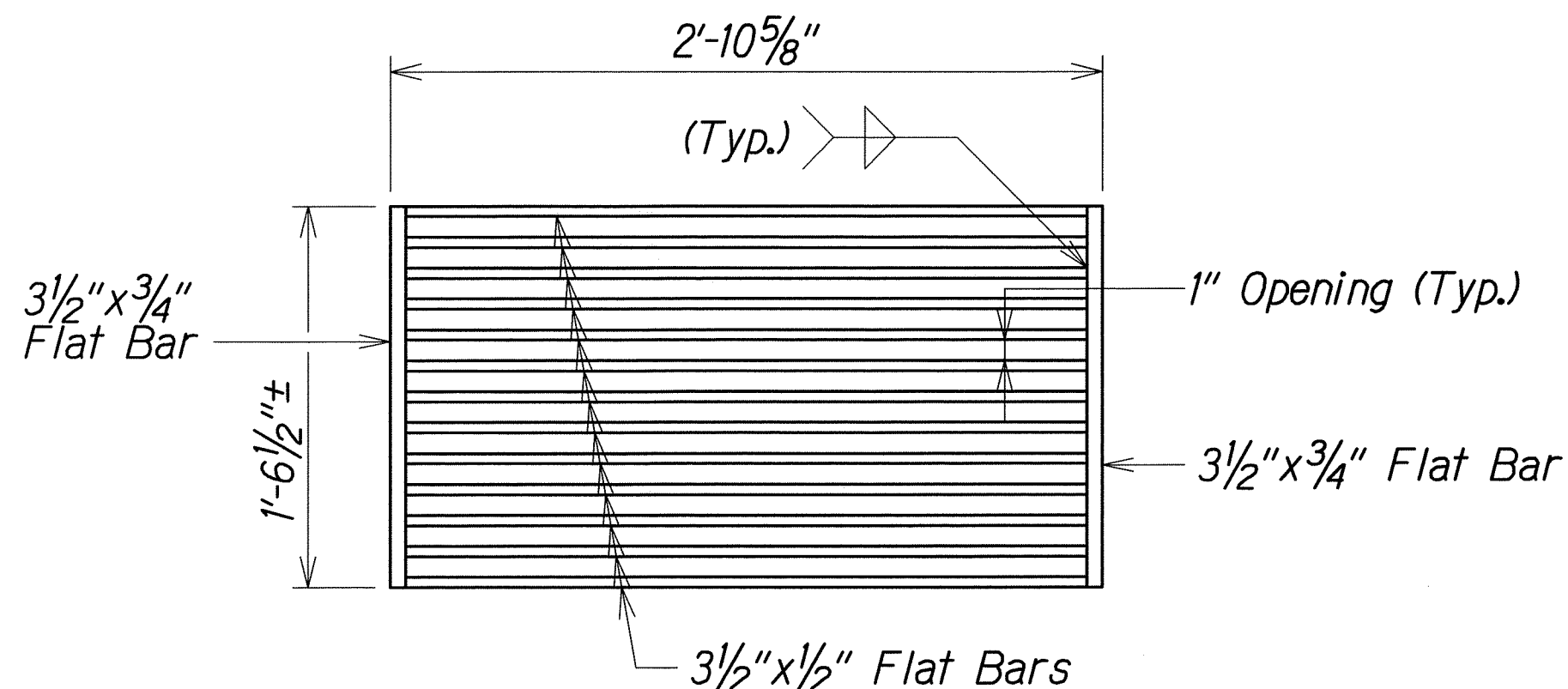


MODIFIED FRAME 1



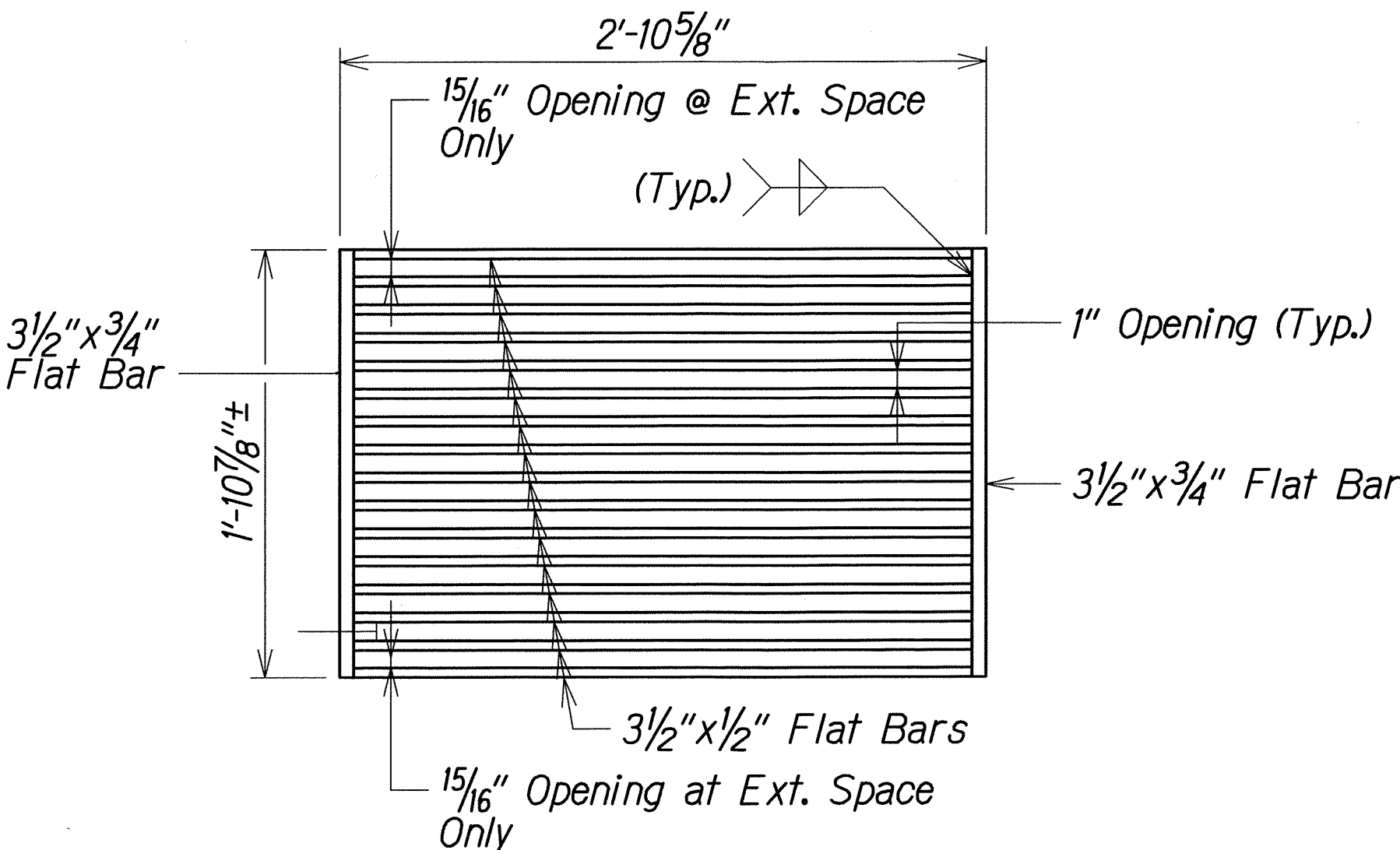
MODIFIED FRAME 2

NOTE:
1. SlipNOT Anti-Skid Coating (or Approved Equal) shall be applied before hot dip galvanizing the Frame and Grate Units. Special Provisions, 712.07(E).

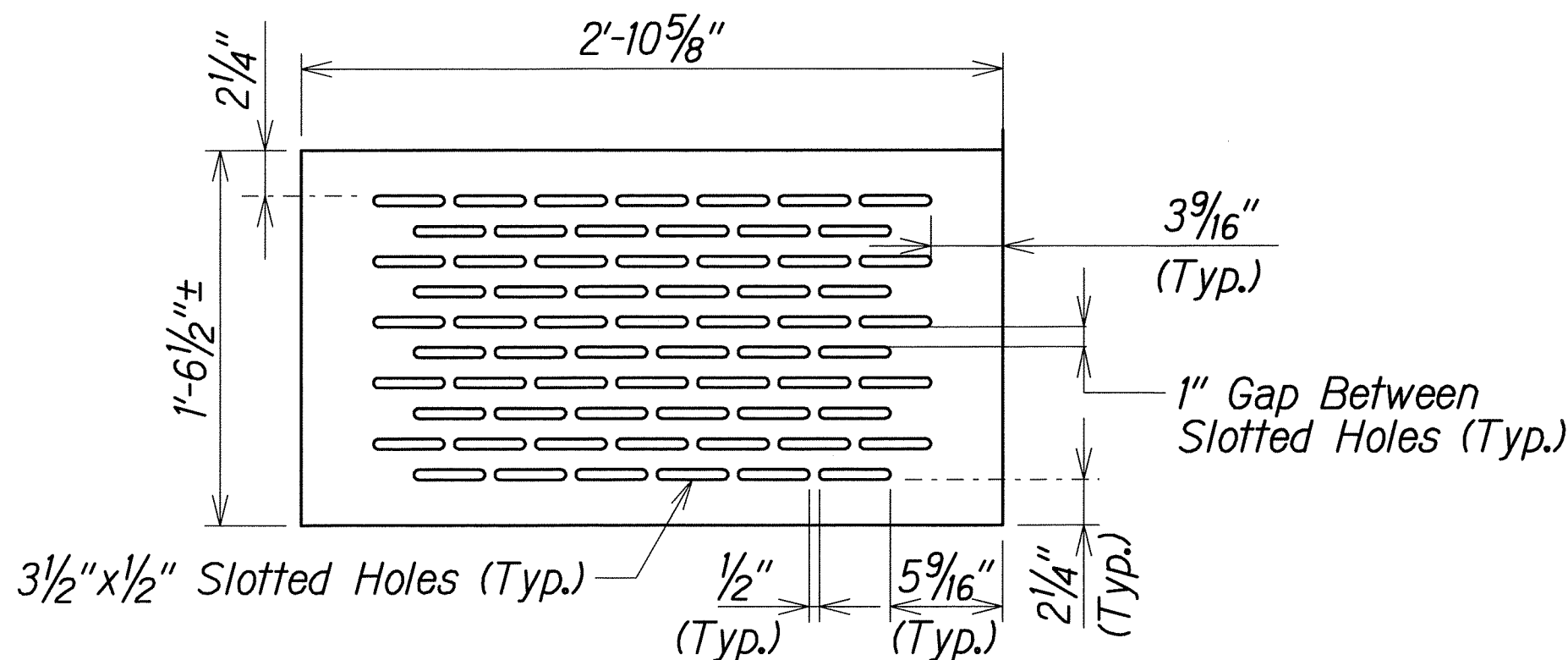


NOTE (Typ.):
Grate shown w/o Perf. Plate. Perforated Plate to be Welded on to Grate. See Detail

MODIFIED GRATE 1

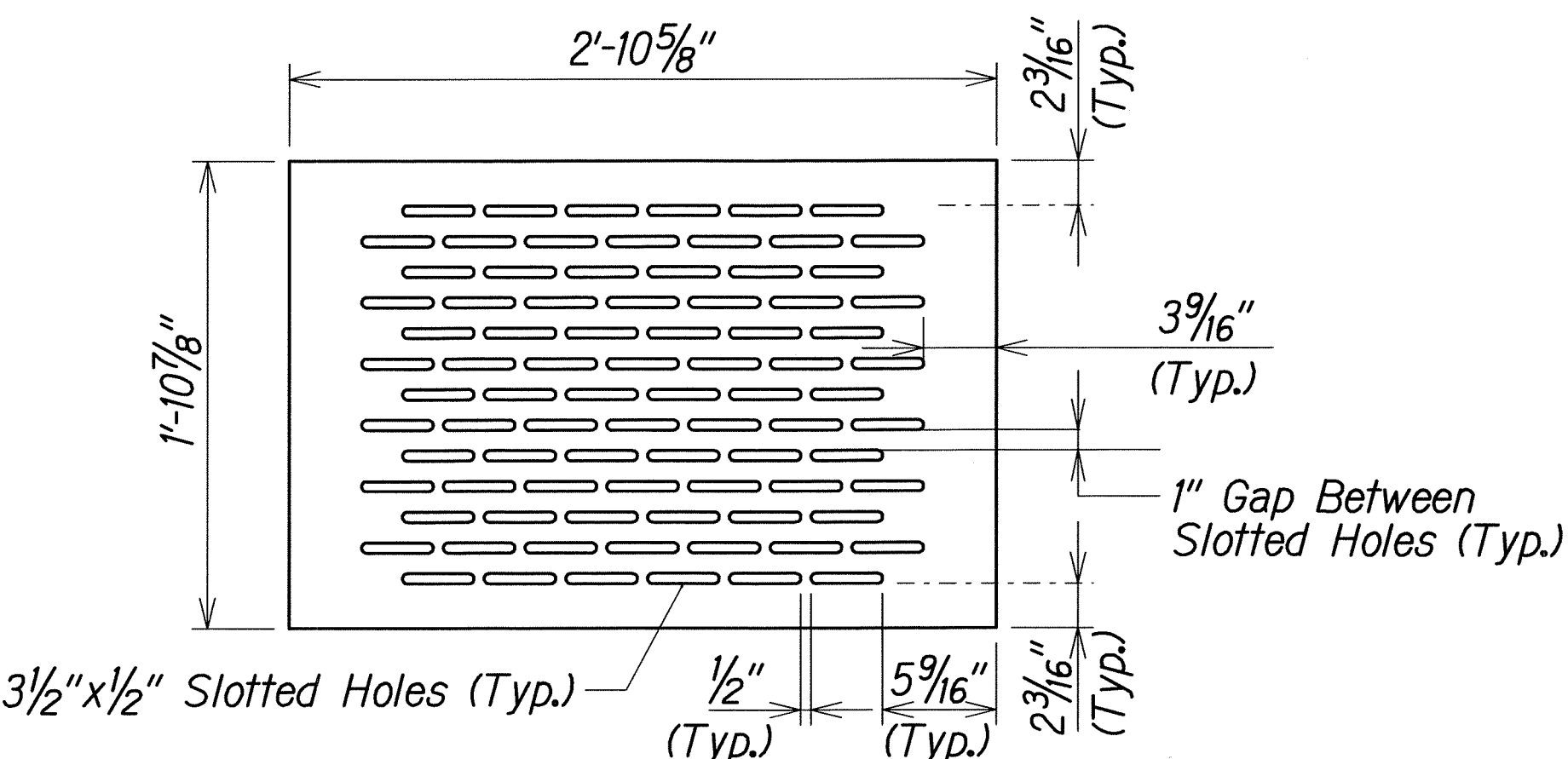


MODIFIED GRATE 2



NOTE (Typ.):
Brown-Campbell (or Approved Equal) Perforated Plate shown w/o Grate. Perforated Plate to be Welded on to Grate. See Detail

MODIFIED PERFORATED PLATE 1



MODIFIED PERFORATED PLATE 2

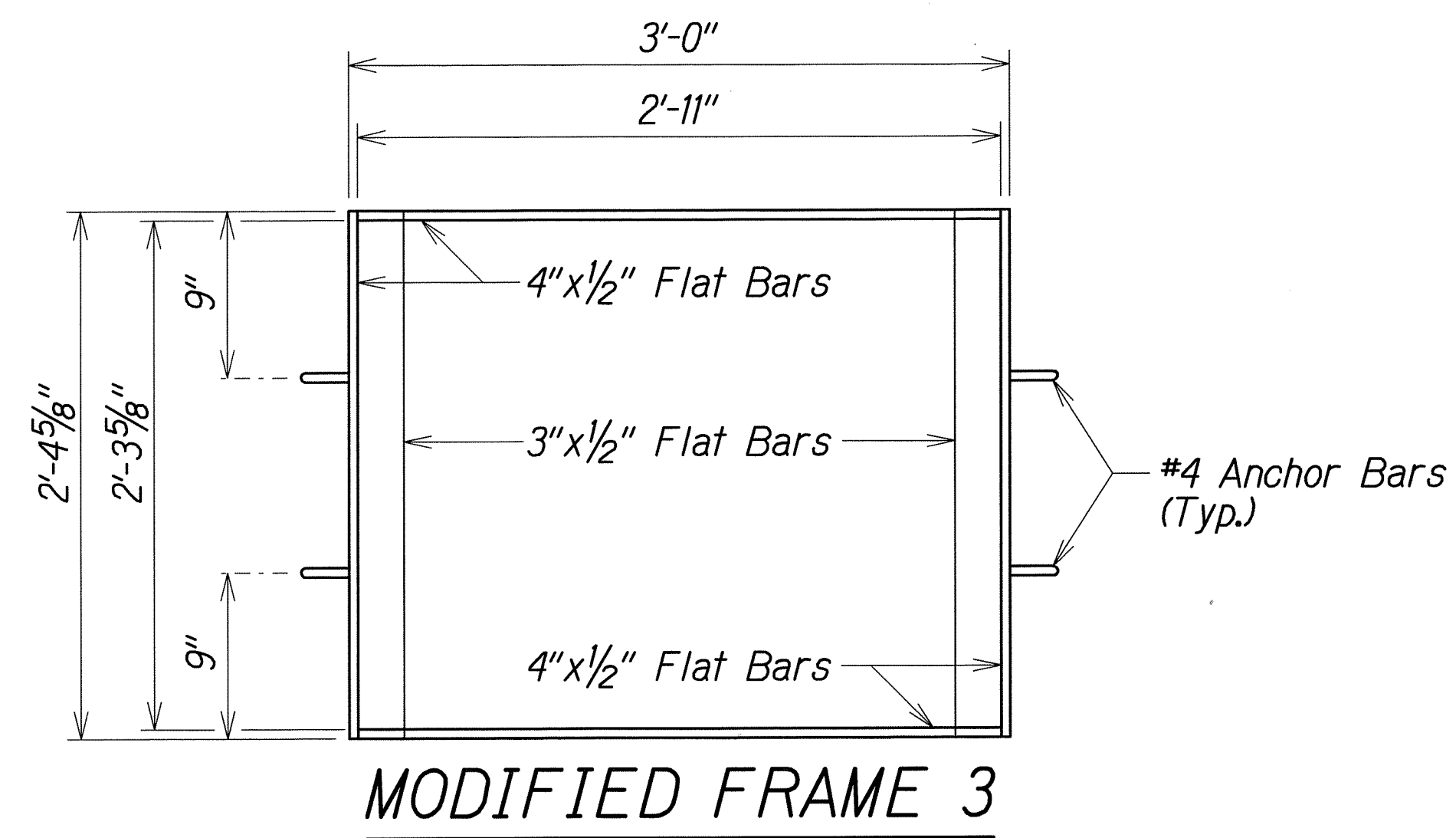
TYPE "ADA" GRATED DRAIN INLET DETAIL

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

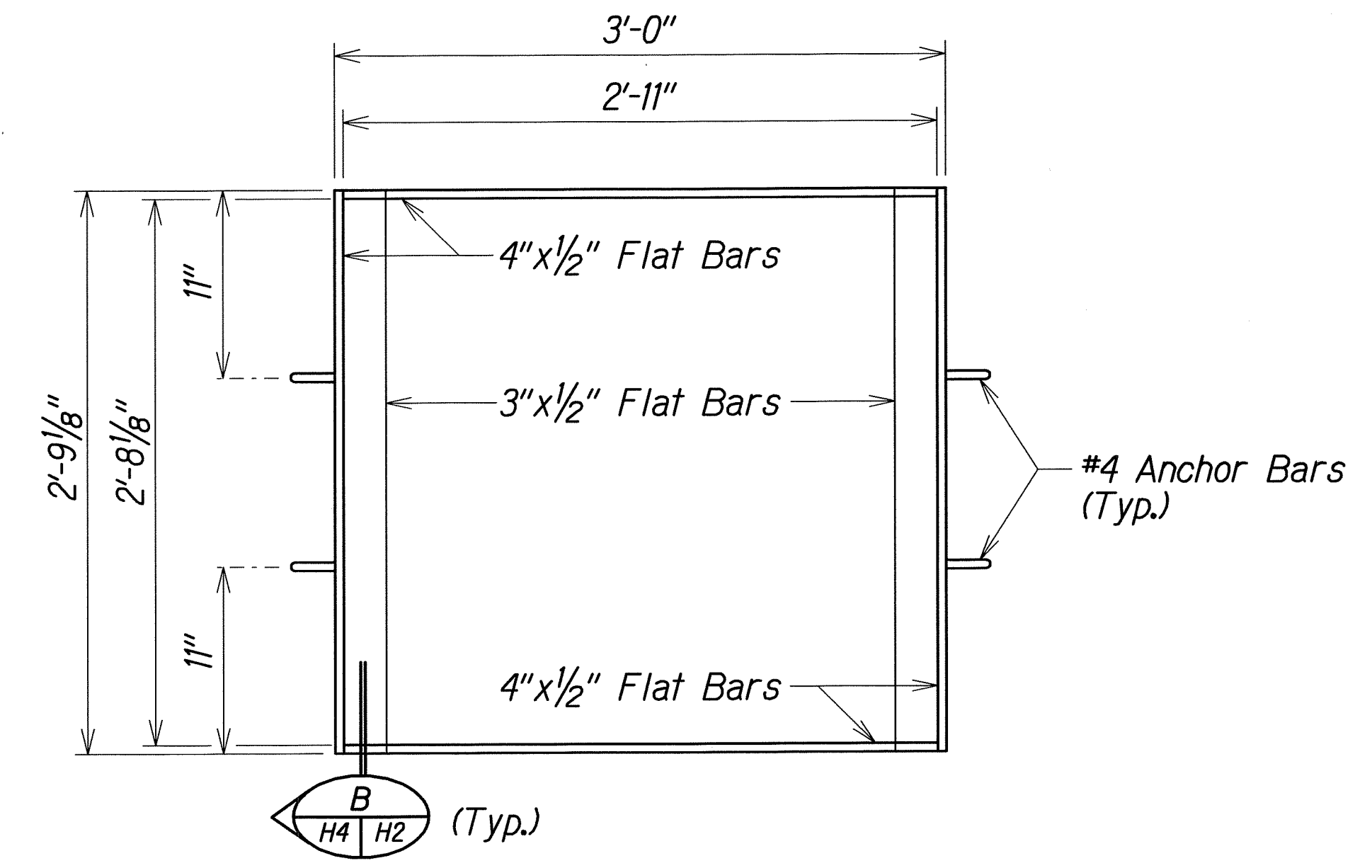
DRAINAGE DETAIL
KANEHOE BAY DRIVE REHABILITATION
Kamehameha Highway to Nanamoana Street
Project No. 65AB-01-04M
Scale: 1 1/2"=1'-0" Date: May, 2012
SHEET No. H3 OF 9 SHEETS

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

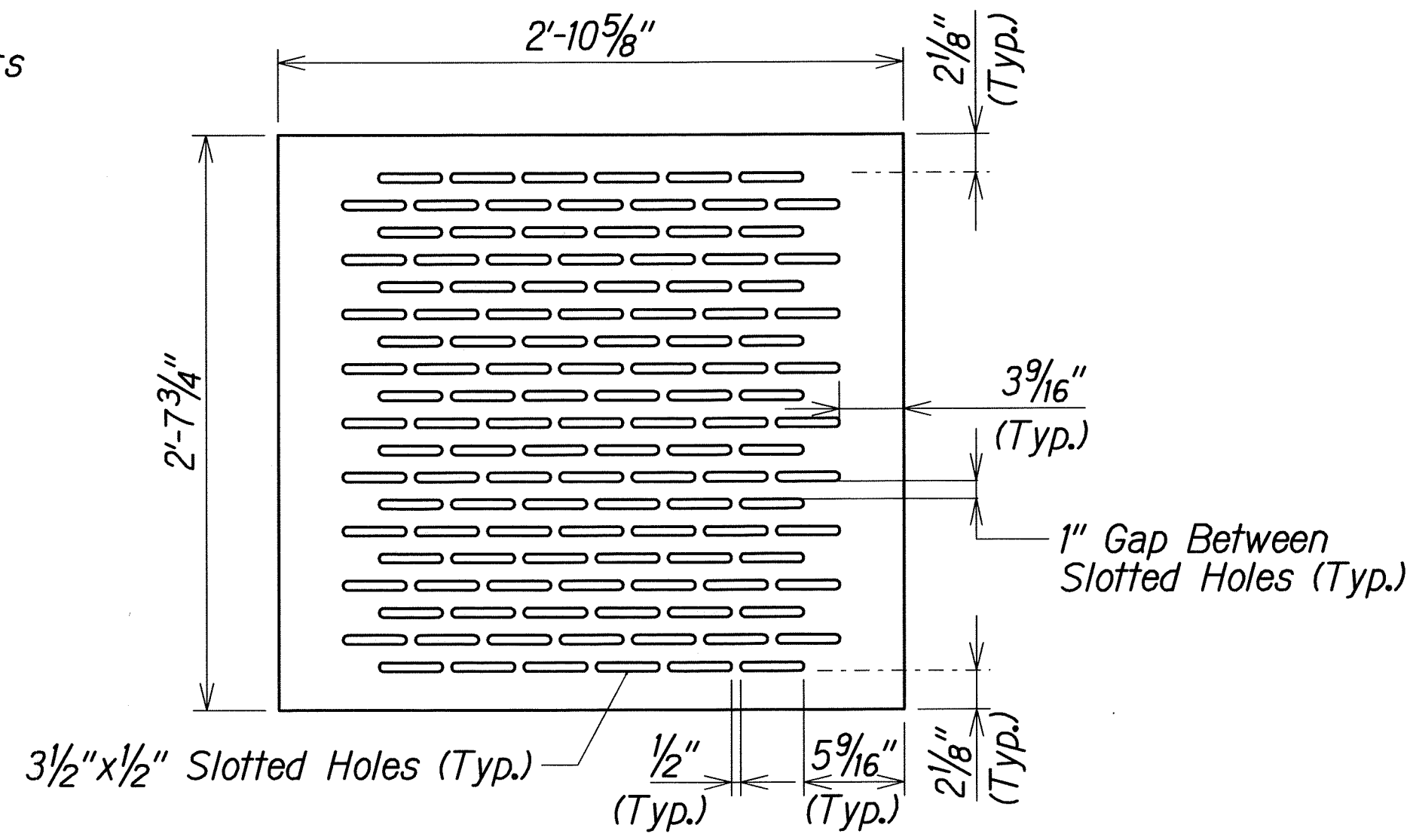
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	65AB-01-04M	2012	57	81



MODIFIED FRAME 3

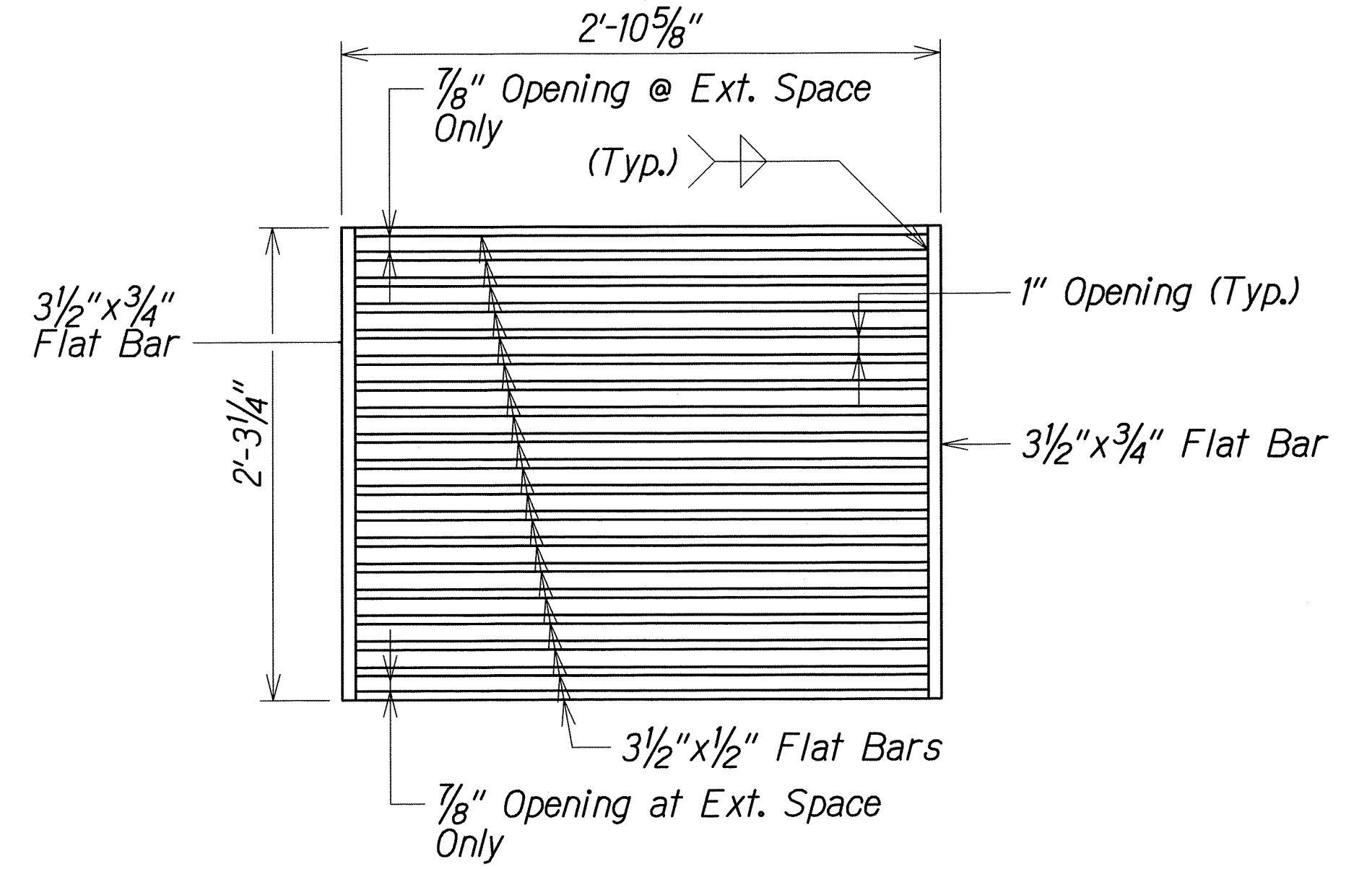


MODIFIED FRAME 4

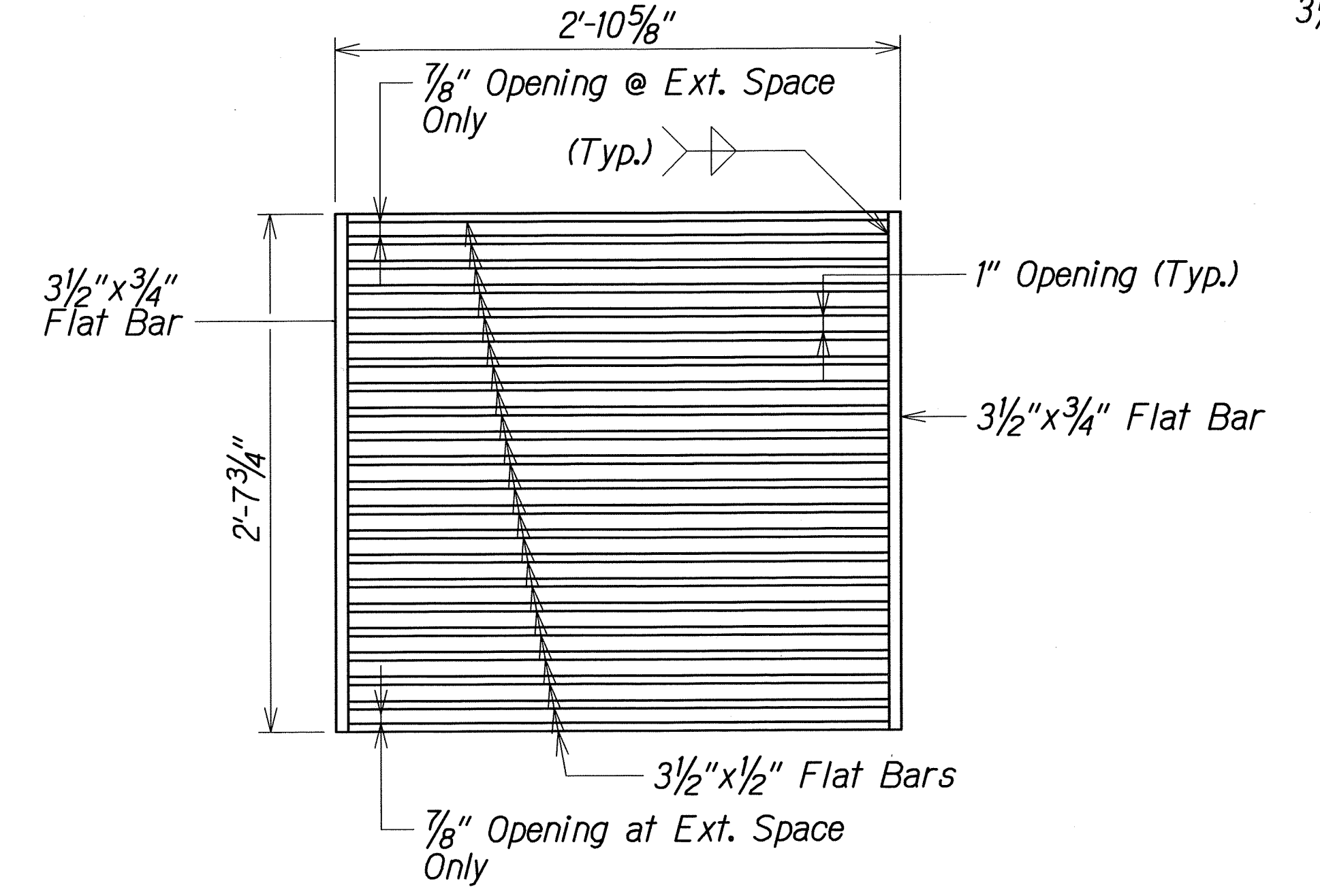


NOTE (Typ.): Brown-Campbell (or Approved Equal) Perforated Plate shown w/o Grate. Perforated Plate to be Welded on to Grate. See Detail

MODIFIED PERFORATED PLATE 4

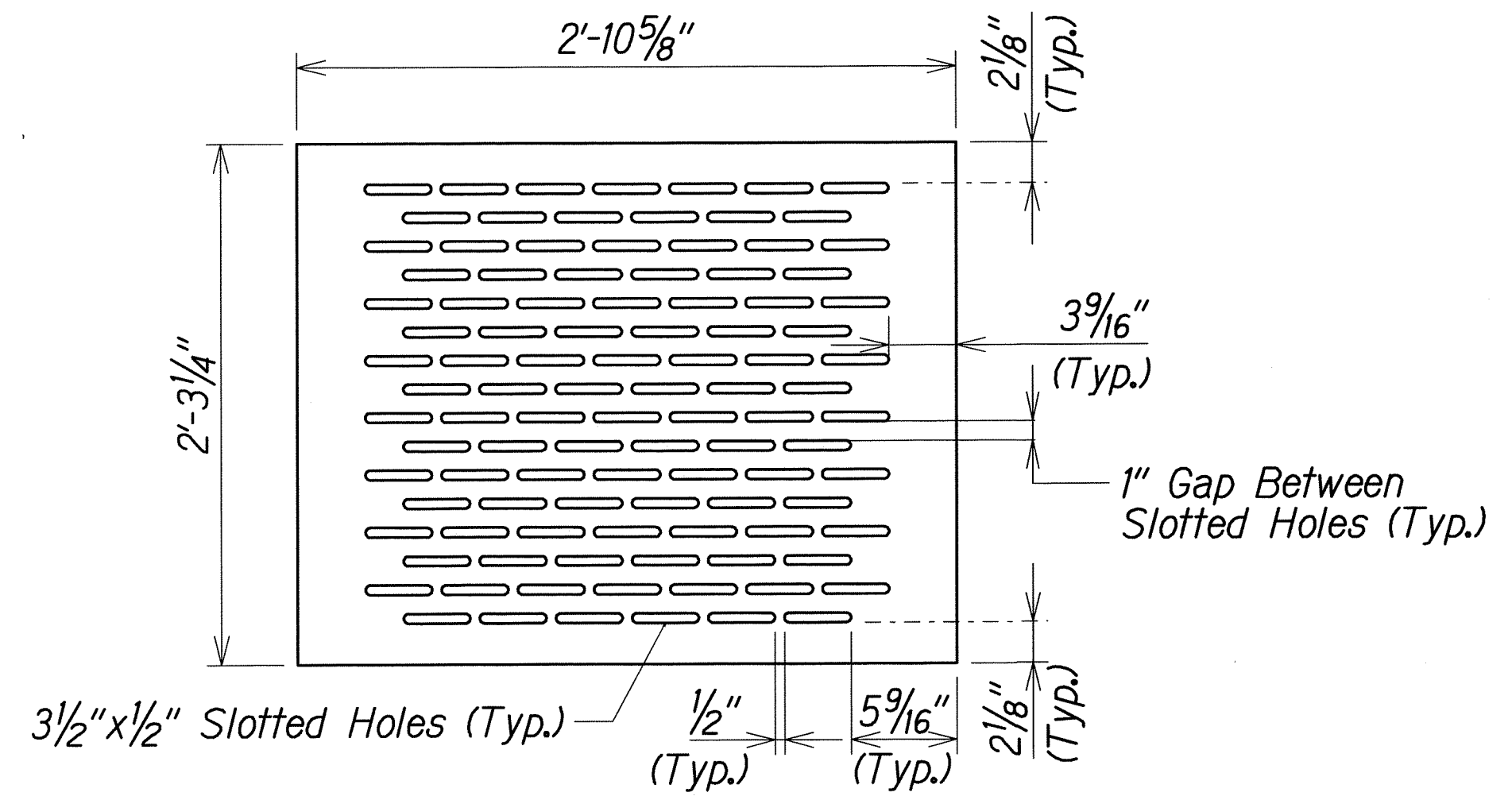


MODIFIED GRATE 3



NOTE (Typ.): Grate shown w/o Perf. Plate. Perforated Plate to be Welded on to Grate. See Detail

MODIFIED GRATE 4



MODIFIED PERFORATED PLATE 3

NOTE: 1. SlipNot Anti-Skid Coating (or Approved Equal) shall be applied before hot dip galvanizing the Frame and Grate Units. Special Provisions, 712.07(E).

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

TYPE "ADA" GRATED DRAIN INLET DETAIL

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

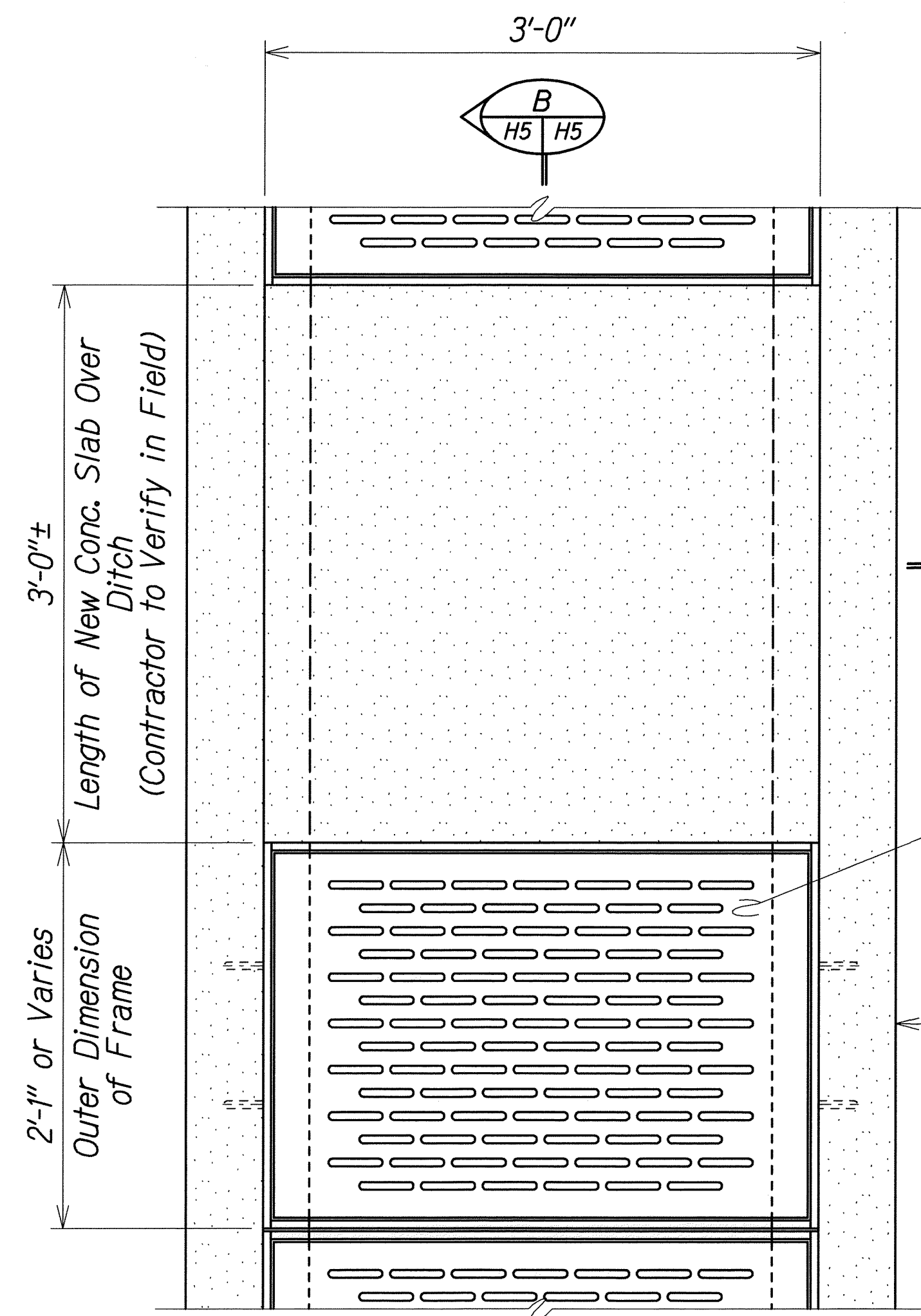
DRAINAGE DETAIL

KANEHOE BAY DRIVE REHABILITATION
Kamehameha Highway to Nanamoana Street
Project No. 65AB-01-04M

Scale: 1 1/2"=1'-0" Date: May, 2012

SHEET No. H4 OF 9 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	65AB-01-04M	2012	58	81



PARTIAL LAYOUT PLAN
Scale: 1 1/2" = 1'-0"

GENERAL NOTES

DESIGN SPECIFICATIONS:

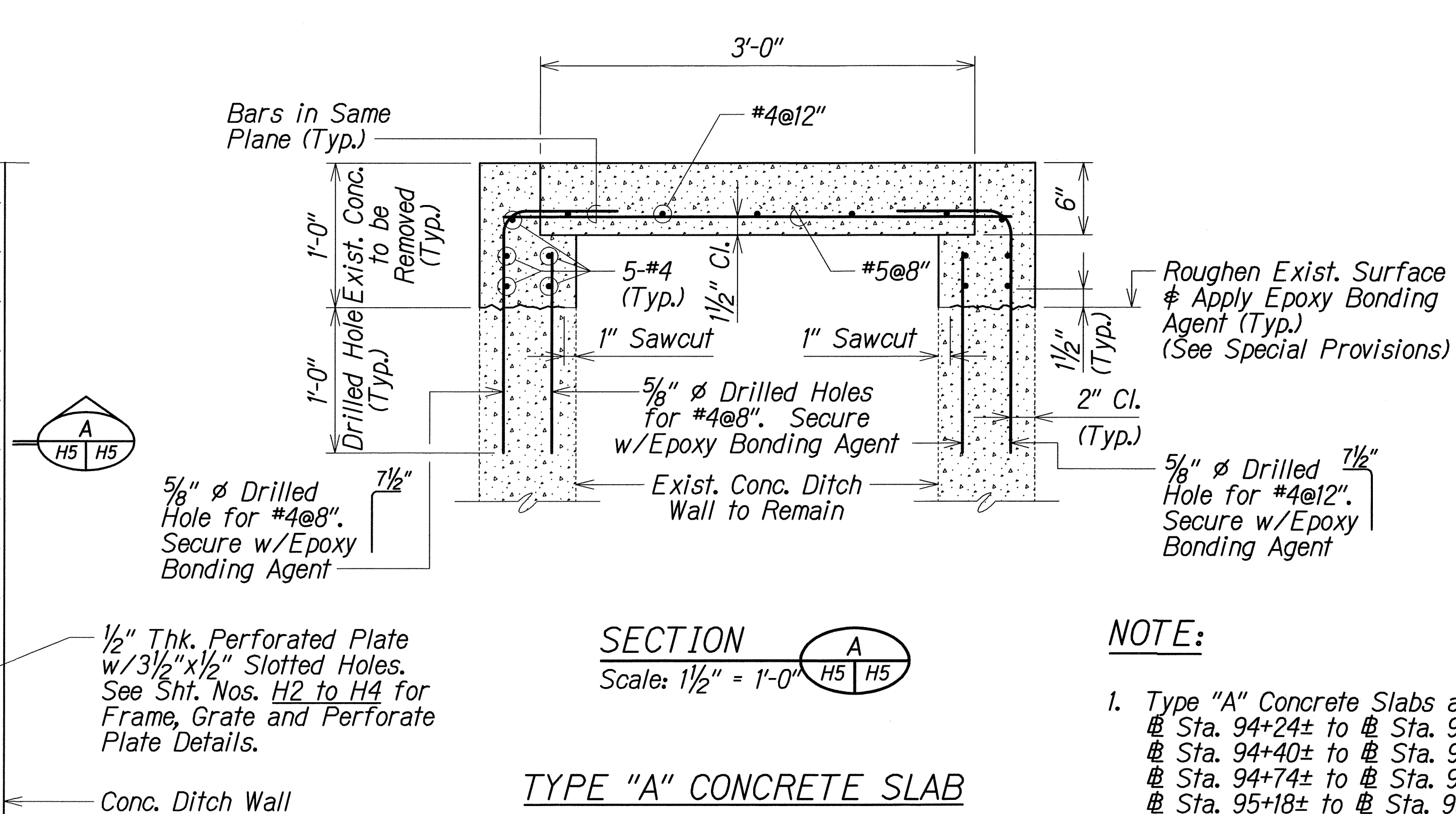
- A. AASHTO 2012 LRFD Bridge Design Specifications, including all interim revisions.

MATERIALS:

- A. Reinforced Concrete: Class A, unless otherwise noted
 B. Reinforcing Steel: ASTM A 615, Grade 60
 C. Admixture in concrete: See Special Provisions
 D. All expansion and premolded joint filler shall be incidental to concrete and will not be paid for separately.
 E. All structural steel shall be ASTM A 36, hot-dip galvanized after fabrication.
 G. All welding shall be in accordance with the current edition of Bridge Welding Code ANSI/AASHTO/AWS D 1.5
 F. All anchor bolts, washers and nuts shall be ASTM A 325, hot-dip galvanized after fabrication, unless noted otherwise.

CONSTRUCTION METHODS:

- A. Refer to Hawaii Standard Specifications for Road, Bridge and Public Works Construction, 2005 Edition and Special Provisions.
 B. Except as noted otherwise, all vertical dimensions are measured plumb.
 C. For steel reinforcing, stagger all splices where possible.

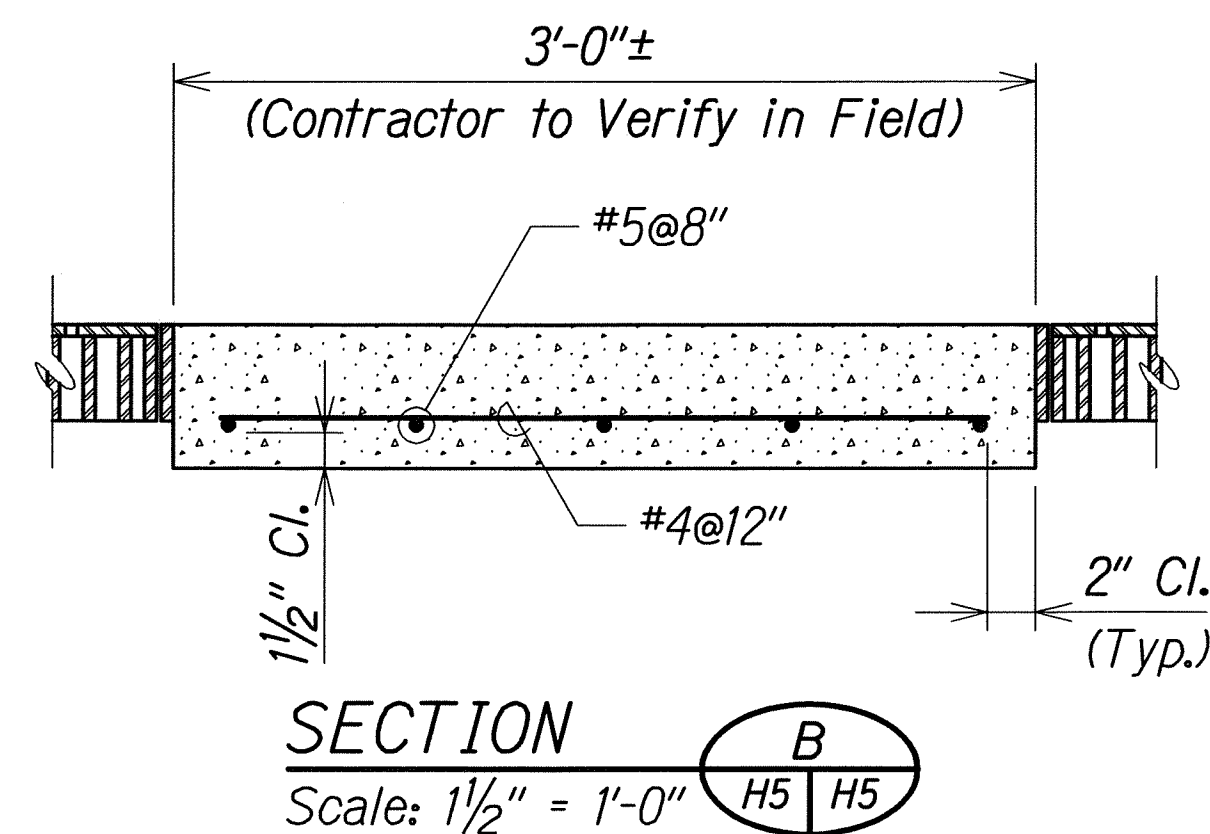


SECTION
Scale: 1 1/2" = 1'-0"

TYPE "A" CONCRETE SLAB

NOTE:

1. Type "A" Concrete Slabs at:
 # Sta. 94+24± to # Sta. 94+27±
 # Sta. 94+40± to # Sta. 94+43±
 # Sta. 94+74± to # Sta. 94+77±
 # Sta. 95+18± to # Sta. 95+20±



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

TYPE "ADA" GRATED DRAIN INLET DETAILS

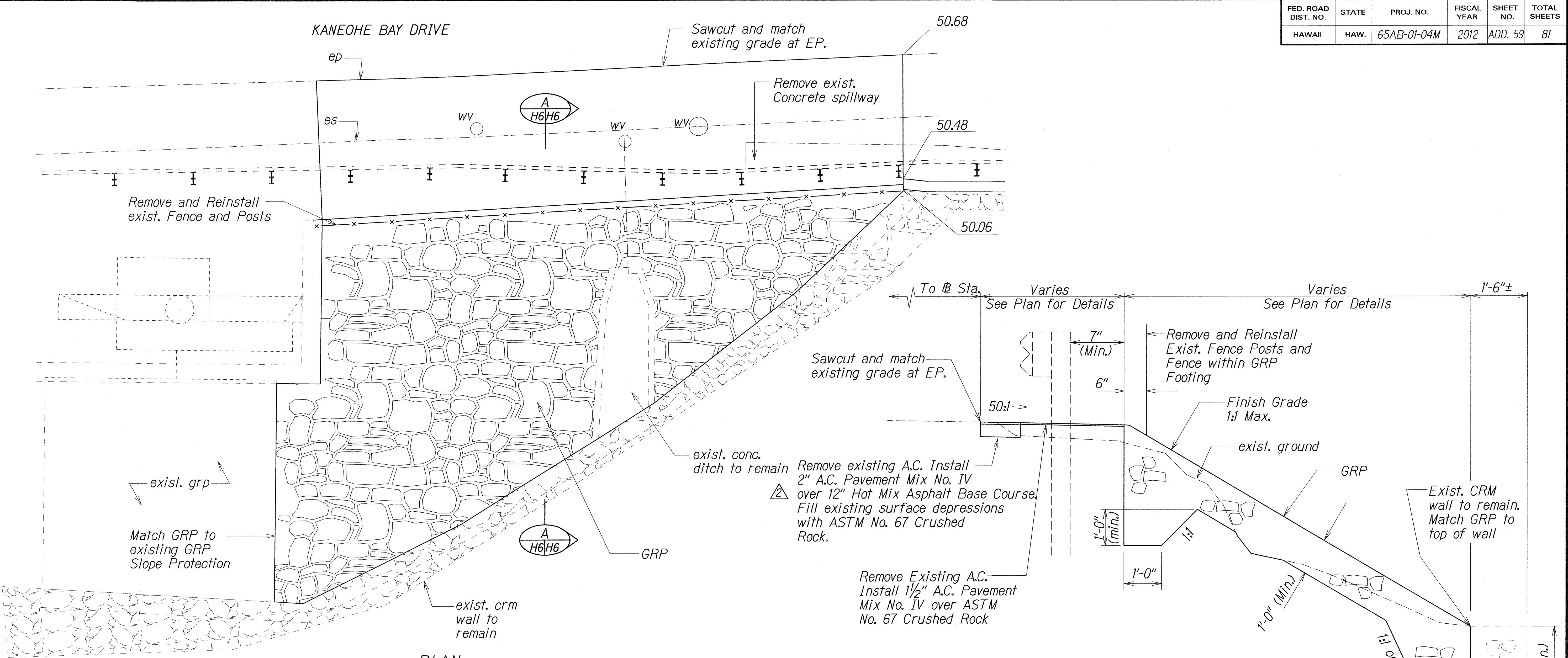
GENERAL:

- A. All items noted incidental will not be paid for separately.
 B. The Contractor shall verify the locations of all existing utility lines and notify their respective owners before commencing with any work.
 C. The Contractor shall verify all grades and dimensions before commencing with any work.
 D. The Contractor shall be solely responsible for the protection of adjacent property, utilities and existing and new structures from damage due to construction. Repairing any damage shall be at no cost to the State.
 E. The Contractor shall provide temporary shoring or other measures as may be necessary to insure the safety of all concerned and to protect existing structures.
 F. Unless noted otherwise, all exposed concrete edges shall be chamfered 3/4".

Detail or Section designation — XXX
 Sheet No. Section is cut or Detail Location — XXX
 Sheet No. Detail is drawn

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DRAINAGE DETAIL	
KANEHOE BAY DRIVE REHABILITATION Kamehameha Highway to Nanamoana Street Project No. 65AB-01-04M	
Scale: As Noted	Date: May, 2012
SHEET No. H5 OF 9 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	65AB-01-04M	2012	ADD. 59	81



PLAN
Scale: 1/4"=1'-0"

SECTION
Scale: 3/4"=1'-0"

LEAVE OUT DETAIL
Scale: 3/4"=1'-0"

Notes:

1. Fill slope surface depressions with Grouted Rubble Paving. Fill material shall not be used.
2. Removing and reinstalling existing fence and posts and placing foundation within the GRP shall not be paid for separately, but shall be considered incidental to Grouted Rubble Paving. Space fence posts such that post is not directly behind guardrail post.
3. The location of the guardrail posts and fence line are approximate. The Contractor is responsible for verifying the locations. In locations where the back of the guardrail post is less than 7 inches to the Grouted Rubble Paving install Leave Out Detail.
4. Removing existing concrete spillway shall not be paid for separately, but shall be considered incidental to Grouted Rubble Paving.
5. ASTM No. 67 Crushed Rock shall not be paid for separately, but shall be considered incidental to Grouted Rubble Paving.
6. Removing and reinstalling existing metal guardrail and posts shall not be paid for separately, but shall be considered incidental to Strong Post W Beam Guardrail.

6/8/12 Revised Pavement Structure

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAIL

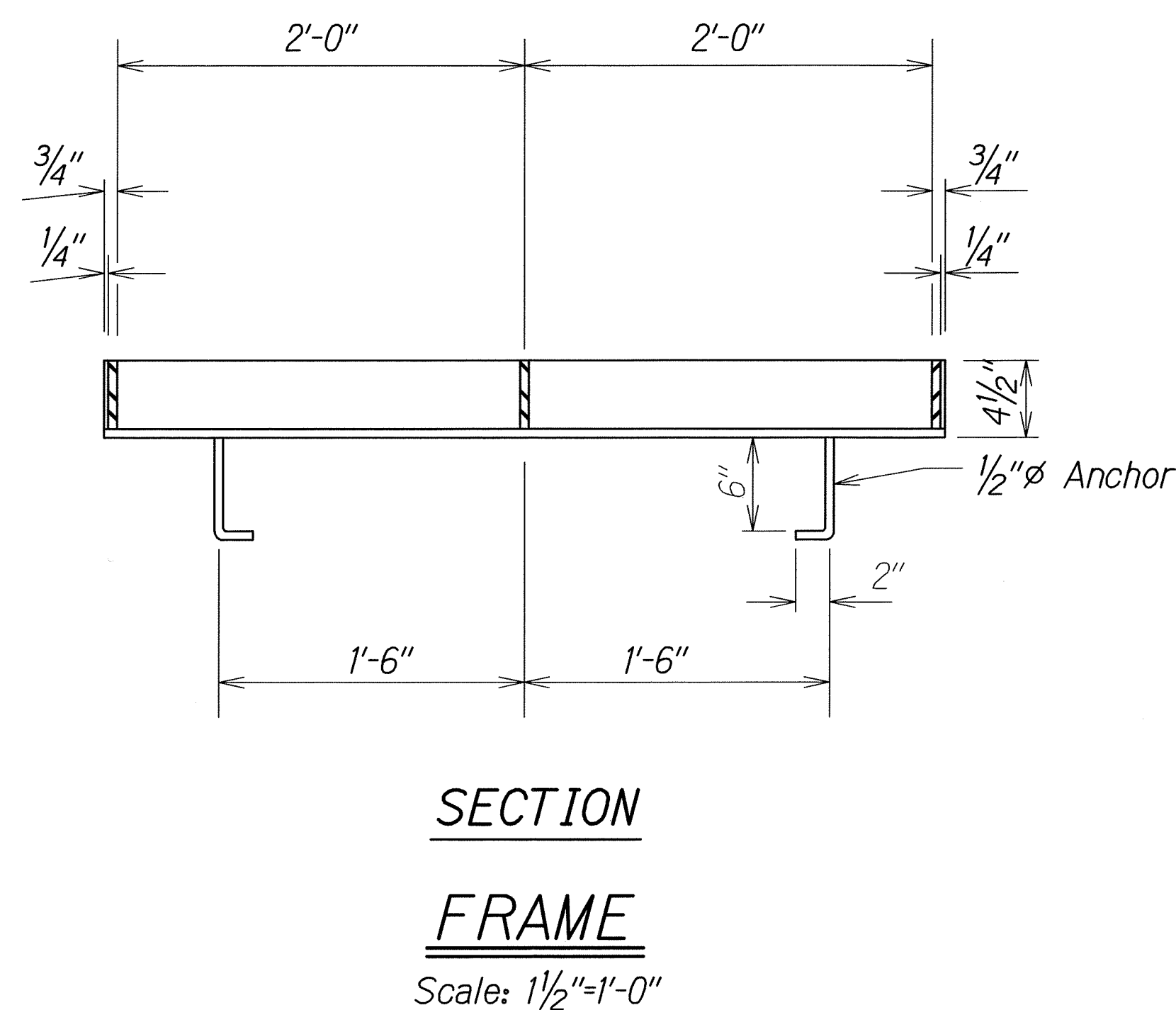
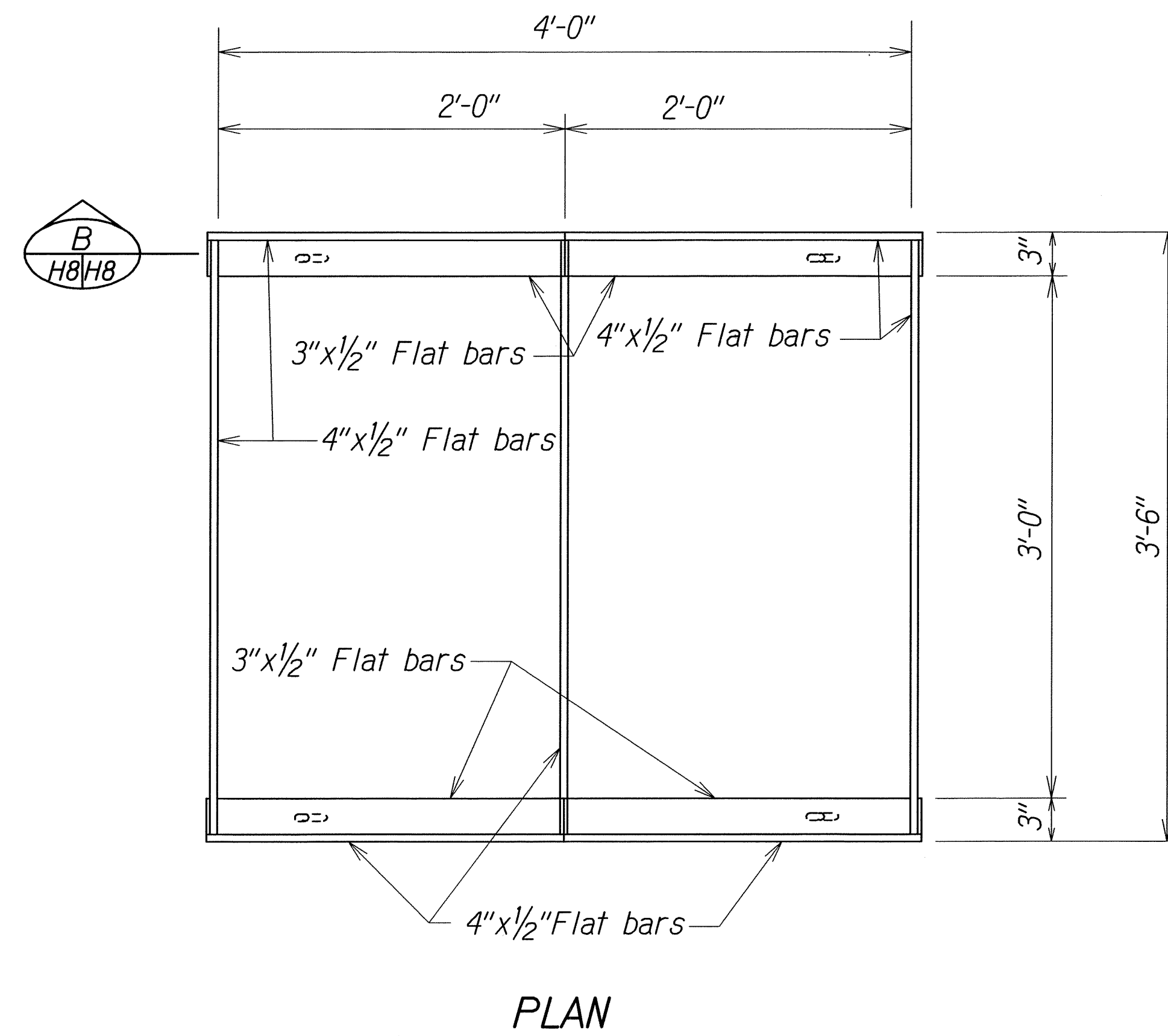
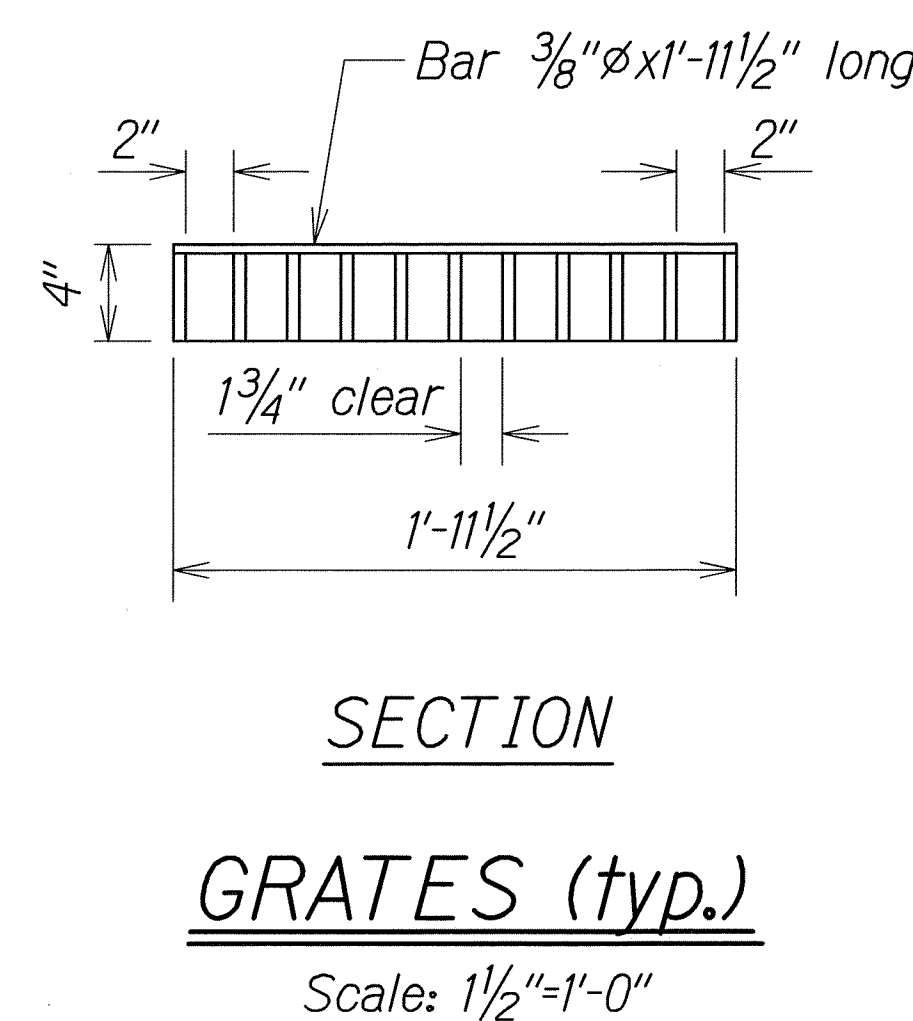
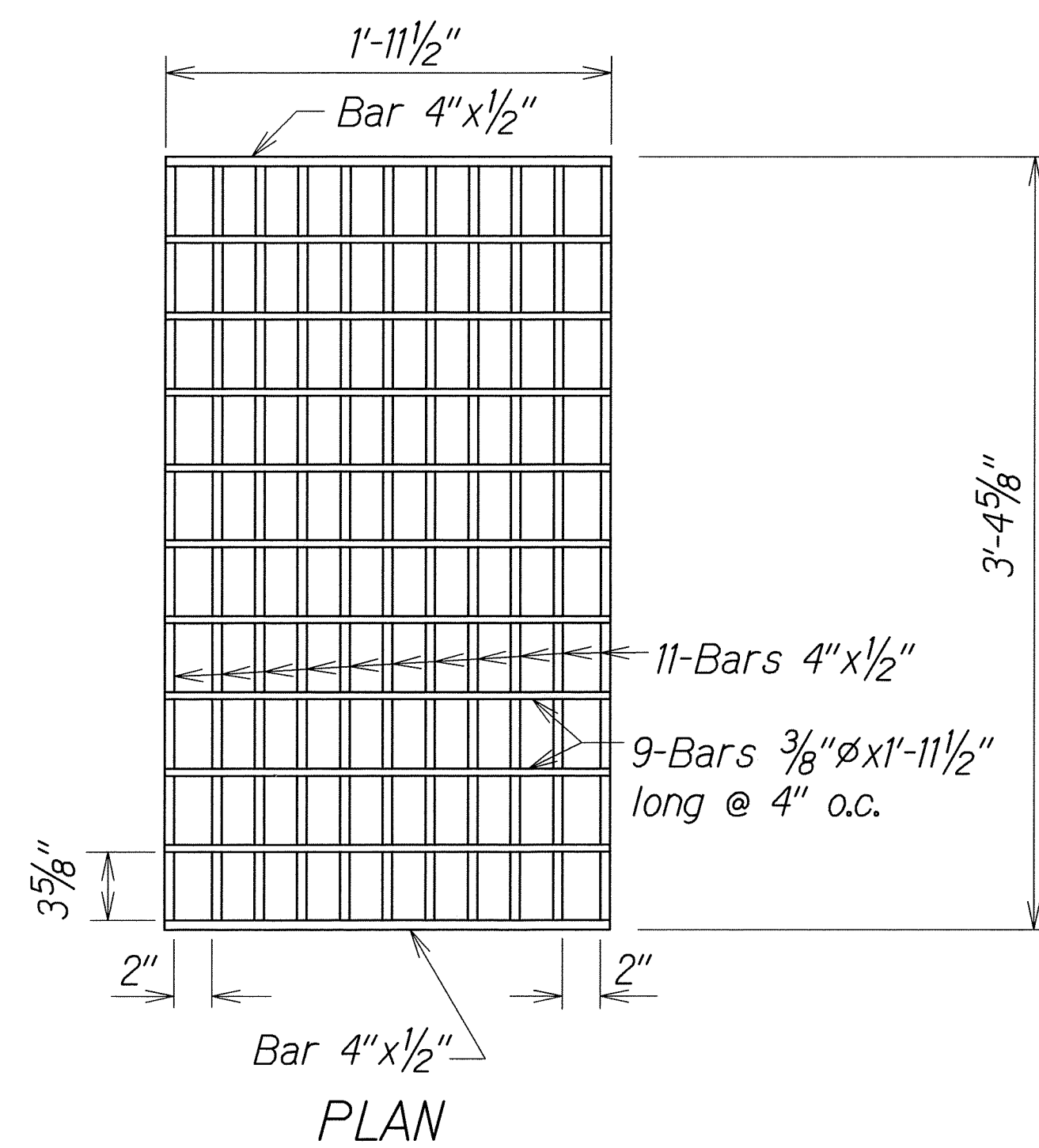
KANEOHE BAY DRIVE REHABILITATION
Kamehameha Highway to Nanamoana Street
Project No. 65AB-01-04M

Scale: As Shown Date: Feb, 2006

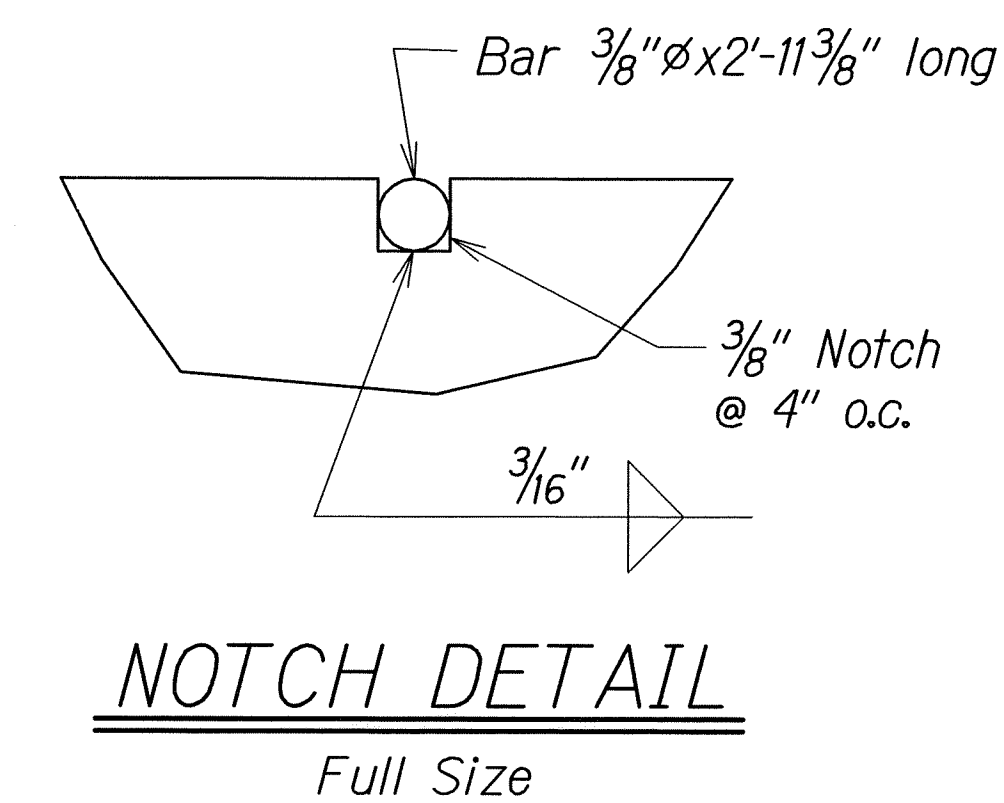
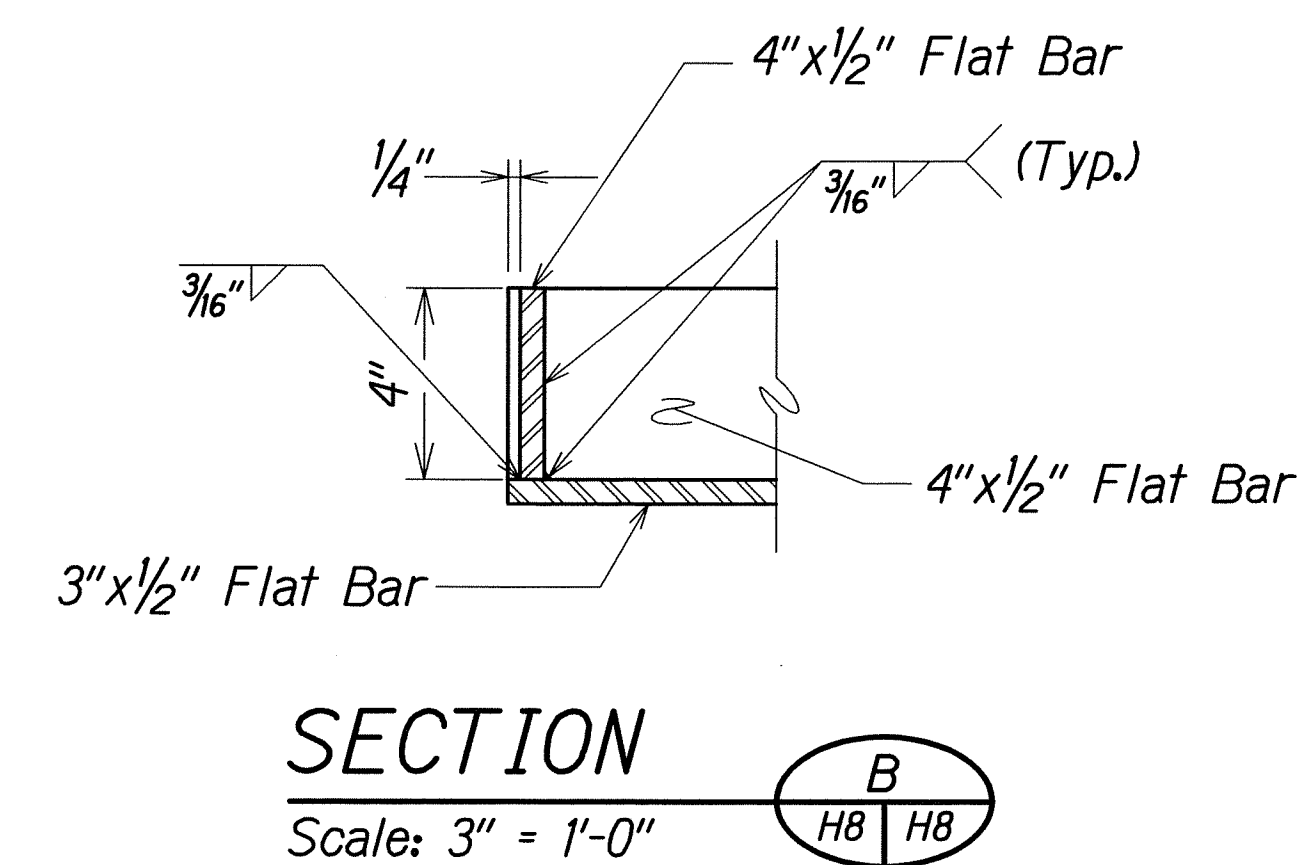
SHEET No. H6 OF 9 SHEETS

DETAILS OF GRP SLOPE PROTECTION @ STA. 34+80± RT. TO @ STA. 35+27.7± RT.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	65AB-01-04M	2012	61	81



NOTE:
All welds 3/16" unless otherwise noted.

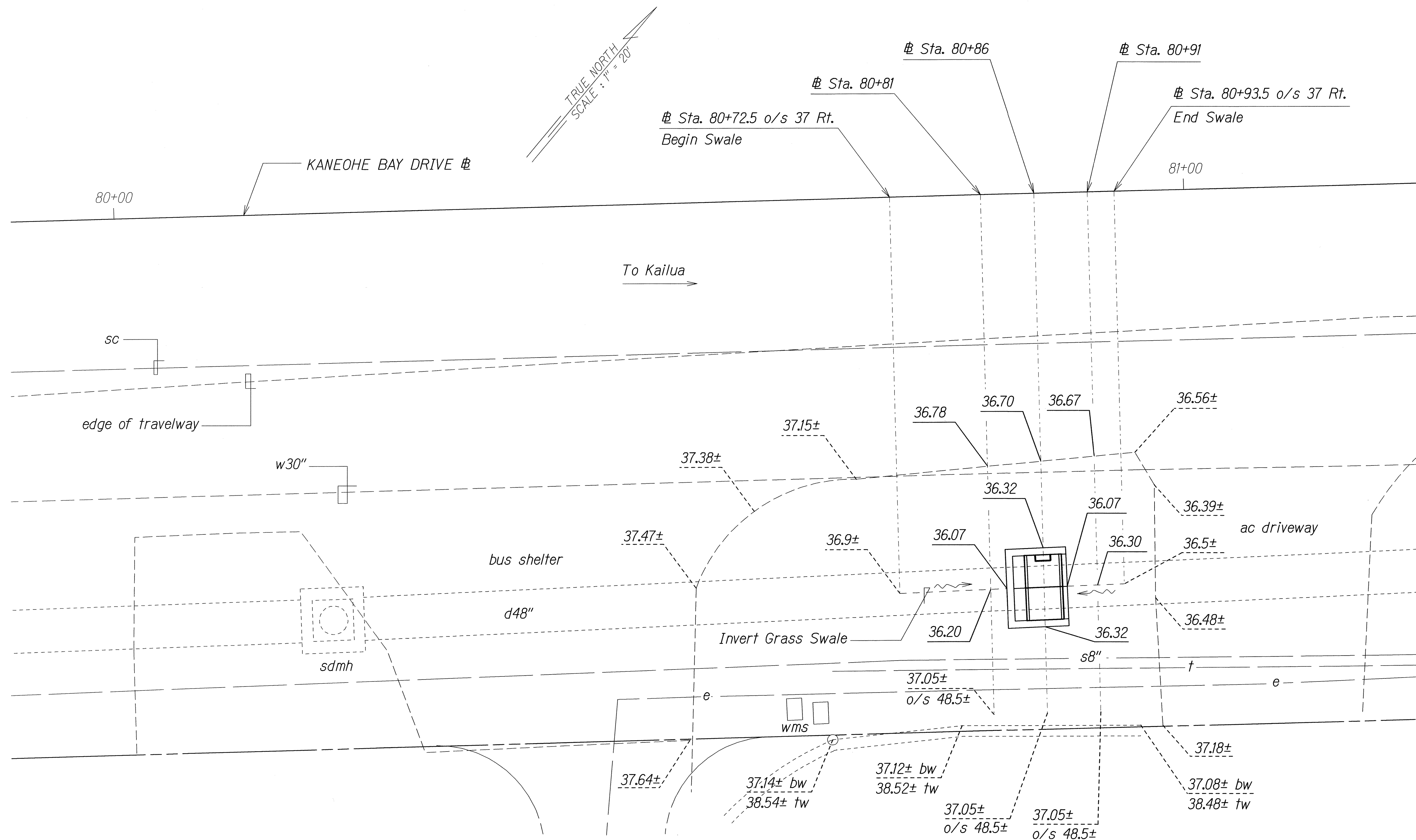


ORIGINAL PLAN	DATE
DESIGNED BY	1/10/12
CHECKED BY	1/10/12
NOTED BY	1/10/12
QUANTITIES BY	1/10/12
REVISIONS	

DETAILS OF TYPE MODIFIED "01014P" STEEL FRAME AND GRATES

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>DRAINAGE DETAIL</u>	
KANEHOE BAY DRIVE REHABILITATION Kamehameha Highway to Nanamoana Street Project No. 65AB-01-04M	
Scale: As Shown	Date: Jan, 2012
SHEET No. H8 OF 9 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	65AB-01-04M	2012	62	81



- Note:**
1. Regrading around the GDI shall not be paid separately but shall be considered incidental to Item No. 604.2000 Type "1211216P" Grated Drop Inlet.
 2. Regrassing around GDI shall be paid under Item No. 641.1000 Hydro-mulch Seeding.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAIL

Kaneohe Bay Drive Rehabilitation
Kamehameha Highway to Nanamoana Street
Project No. 65AB-01-04M

Scale: 1" = 5' Date: May, 2012

SHEET No. H9 OF 9 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
01/10/2012	DESIGNED BY	
12/28/10	QUANTITIES BY	
12/28/10	CHECKED BY	