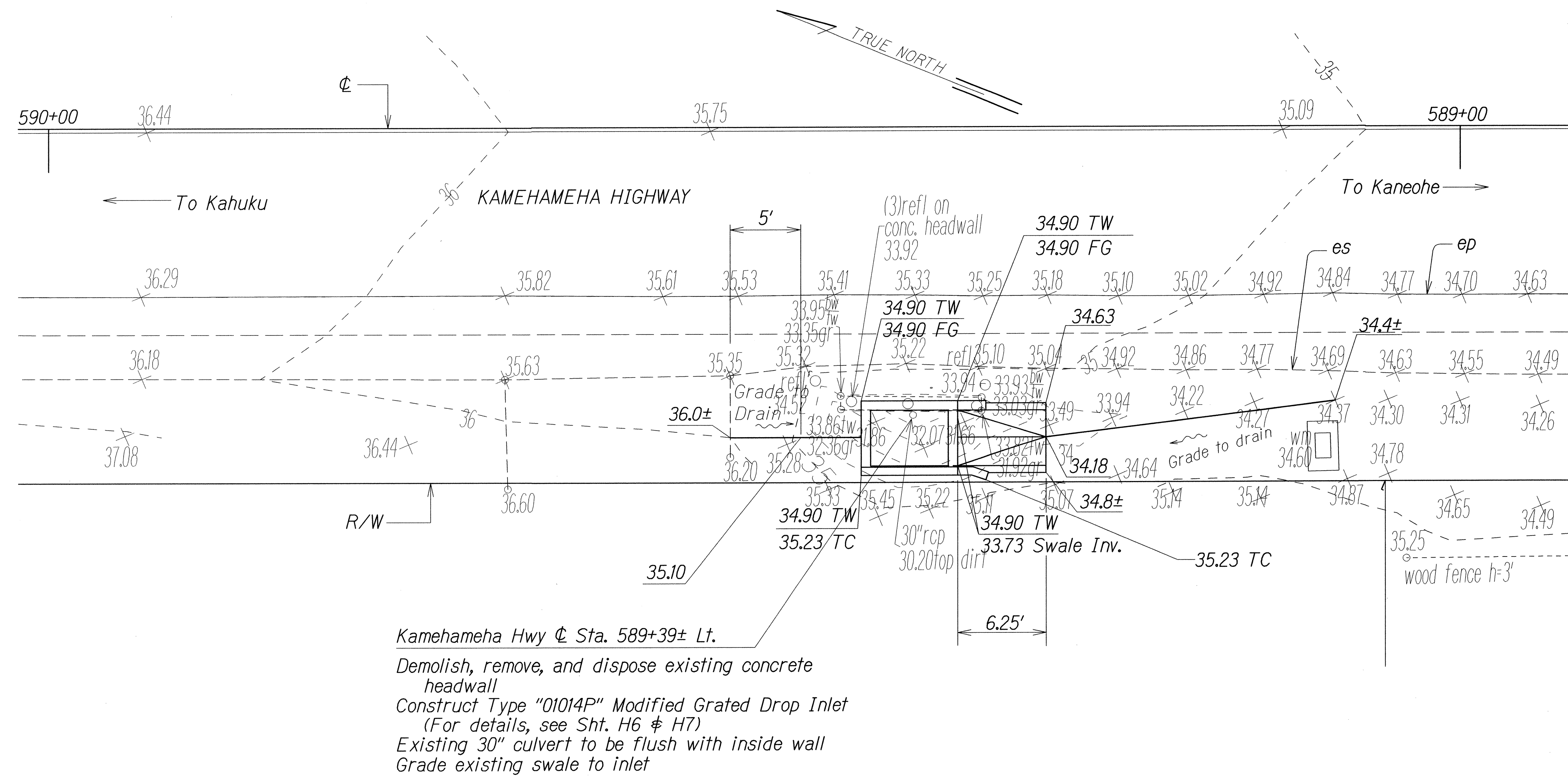


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-083-1(069)	2014	28	50



PLAN @ KAMEHAMEHA HWY @ STA. 589+39±

Note: Demolishing, removing, and disposing of existing headwall and regrading of swale shall not be paid for separately, but shall be considered incidental to Item No. 604.2000-Type "01014P" Modified Grated Drop Inlet.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

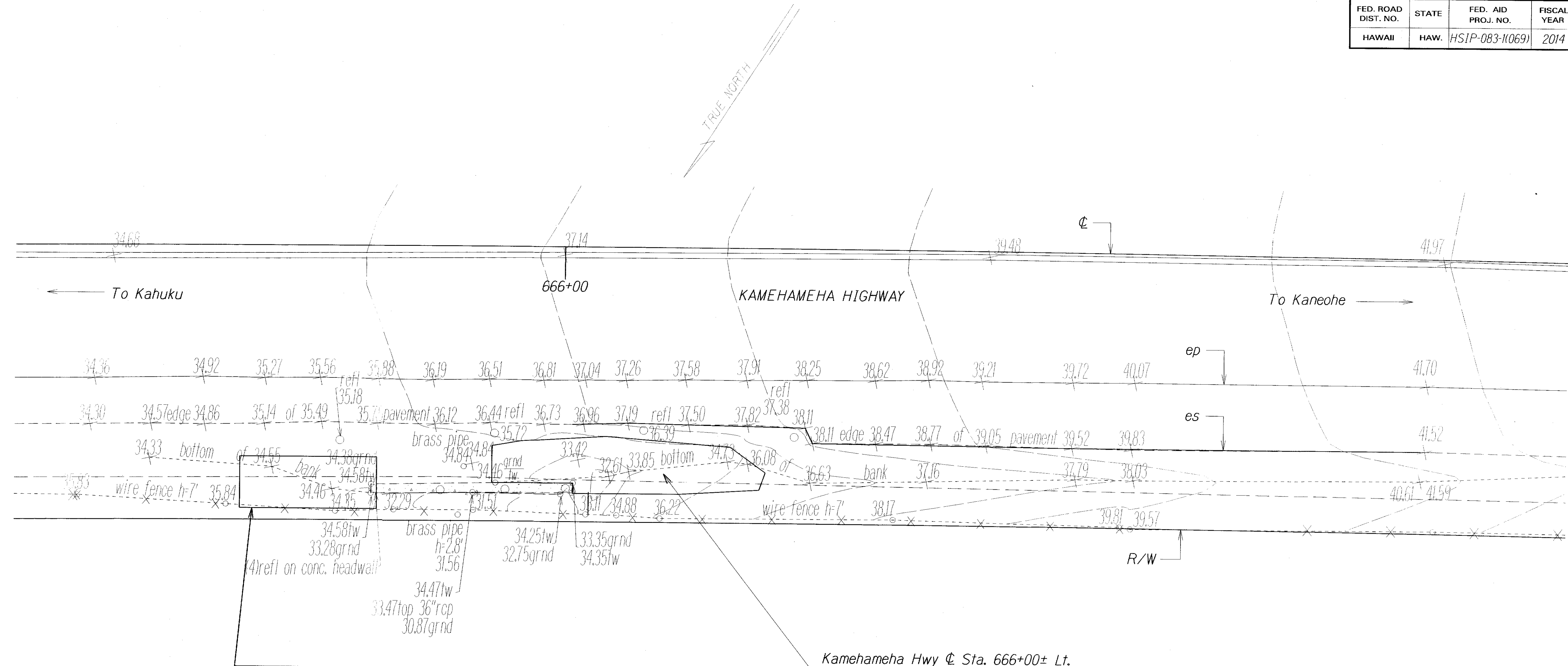
DRAINAGE PLAN

KAMEHAMEHA HIGHWAY SAFETY IMPROVEMENTS
Waikane Valley Road to Kaaawa Bridge
Federal Aid Project No. HSIP-083-1(069)

Scale: 1"=5' Date: August, 2014

SHEET No. **H2** OF **7** SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-083-1(069)	2014	29	50



Kamehameha Hwy CL Sta. 666+00± Lt.

Clear loose material from depression. Fill with filter material. Overlay with degradable double net straw blanket or jute net matting. Secure per Manufacturer's recommendations.

Install 4-inch topsoil and Zoysia El Toro sod. Grade towards existing headwall. Plant according to Section 619 of the Standard Specifications for Road and Bridge Construction and applicable Special Provisions.

Note: Payment of all work shall be included in Item No. 619.1000 - Repair Grass Swale.

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

GRASS SWALE REPAIR @ KAMEHAMEHA HWY CL STA. 666+00±

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAIL

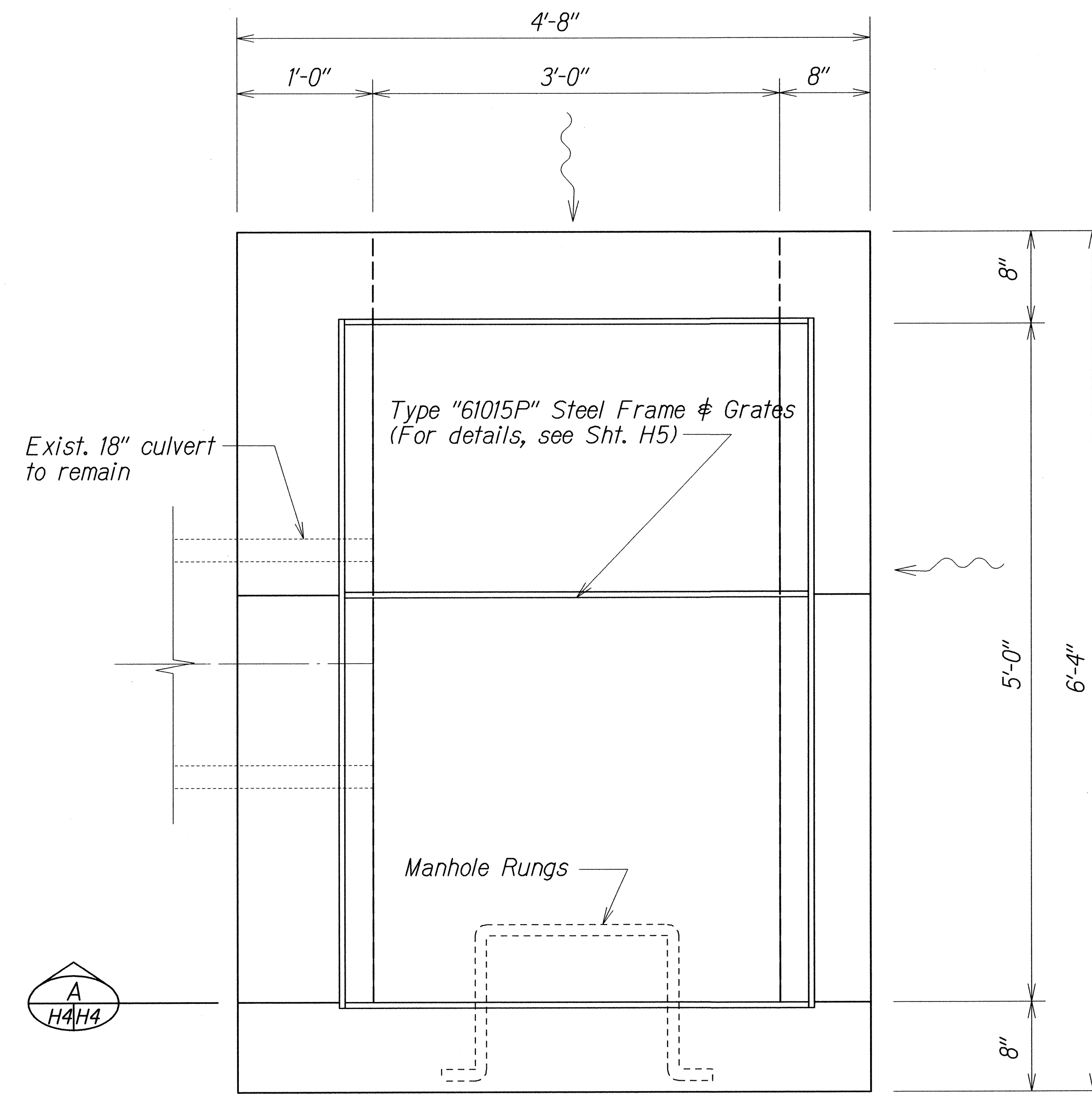
KAMEHAMEHA HIGHWAY SAFETY IMPROVEMENTS
Waikane Valley Road to Kaaawa Bridge
Federal Aid Project No. HSIP-083-1(069)

Scale: 1"=5' Date: August, 2014

SHEET No. H3 OF 7 SHEETS

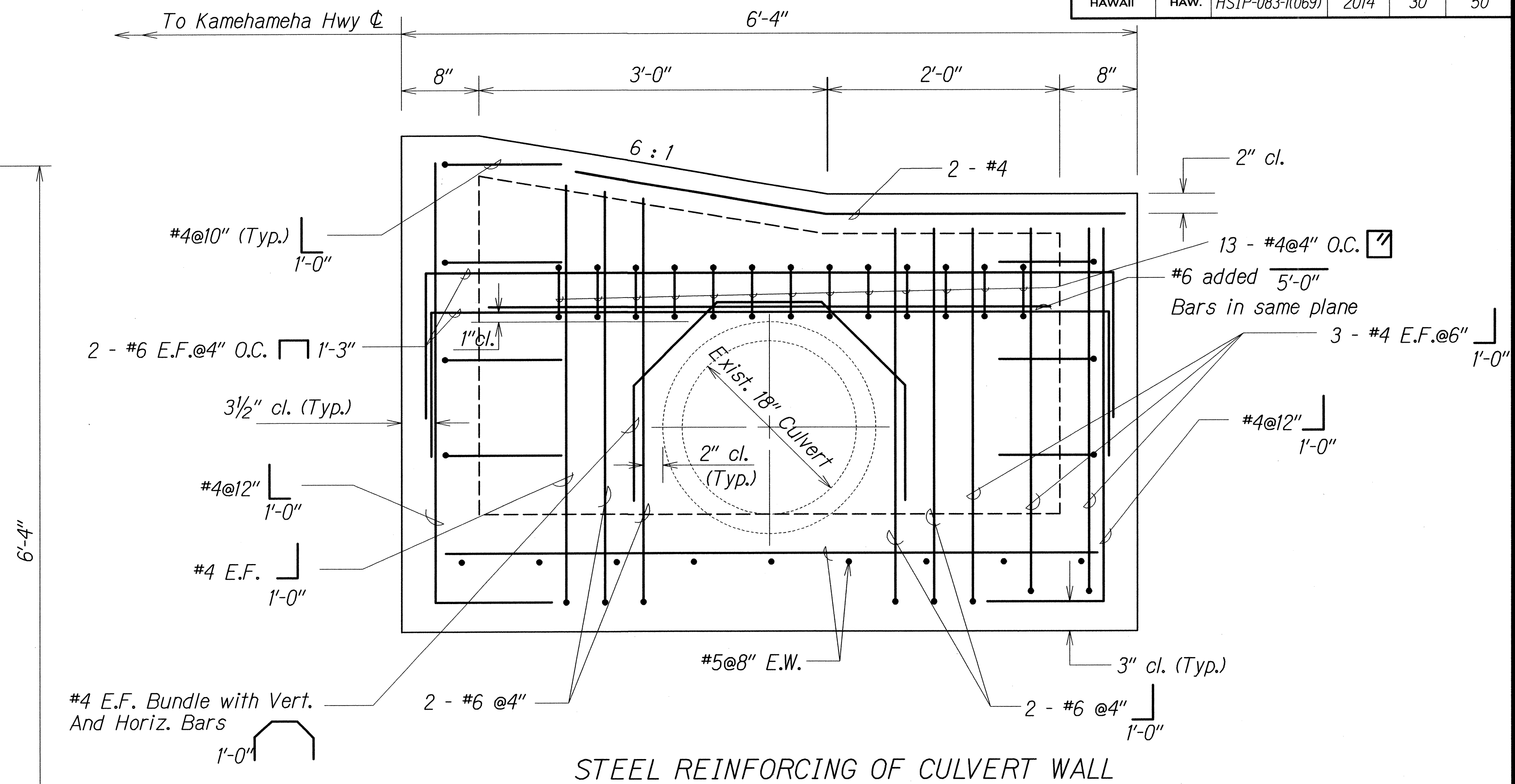
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-083-1(069)	2014	30	50

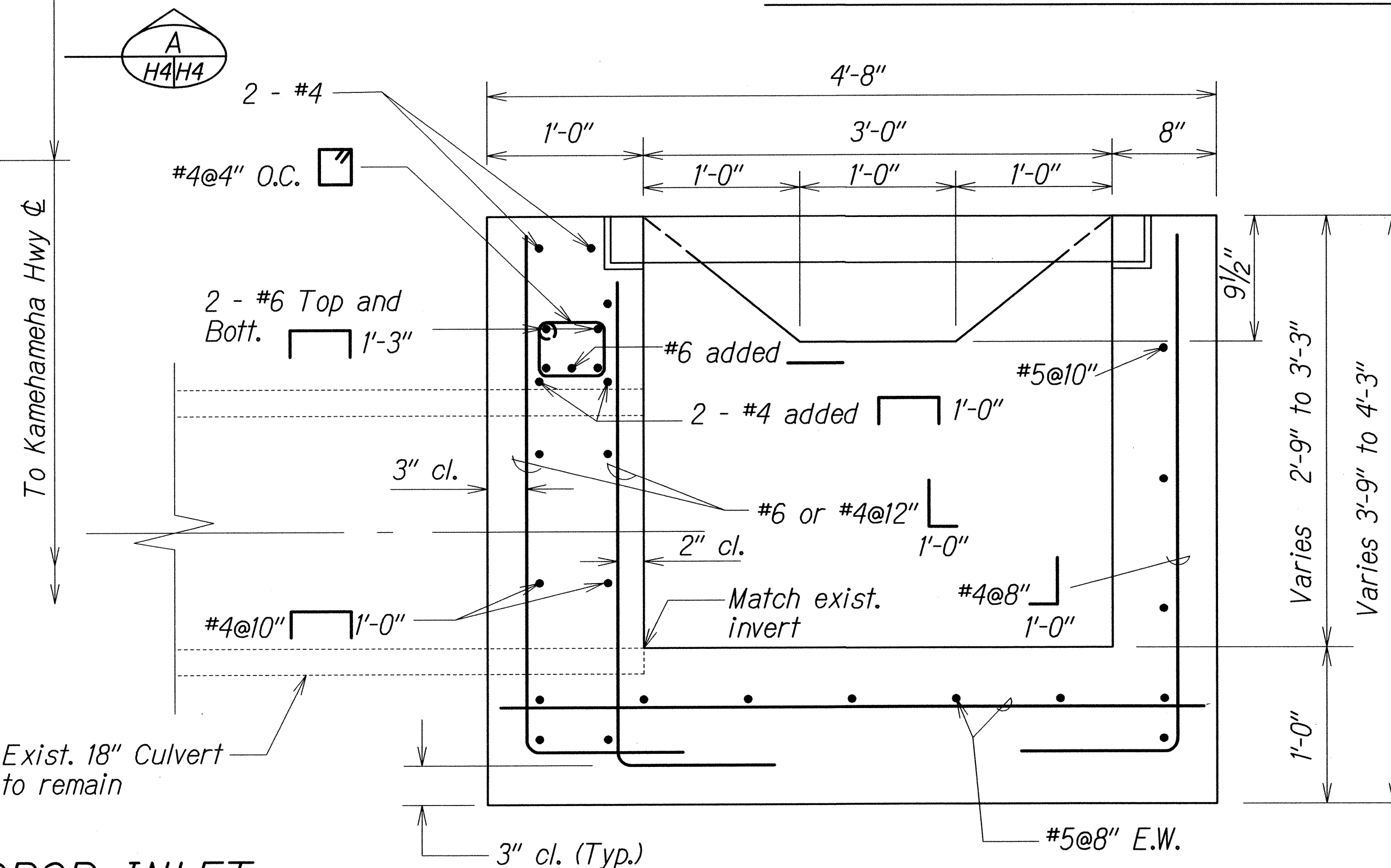


Note: See Std. Details H-07 & H-12 for
manhole rungs & additional wall reinforcing

PLAN



STEEL REINFORCING OF CULVERT WALL



SECTION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAIL

KAMEHAMEHA HIGHWAY SAFETY IMPROVEMENTS

Waikane Valley Road to Kaaawa Bridge

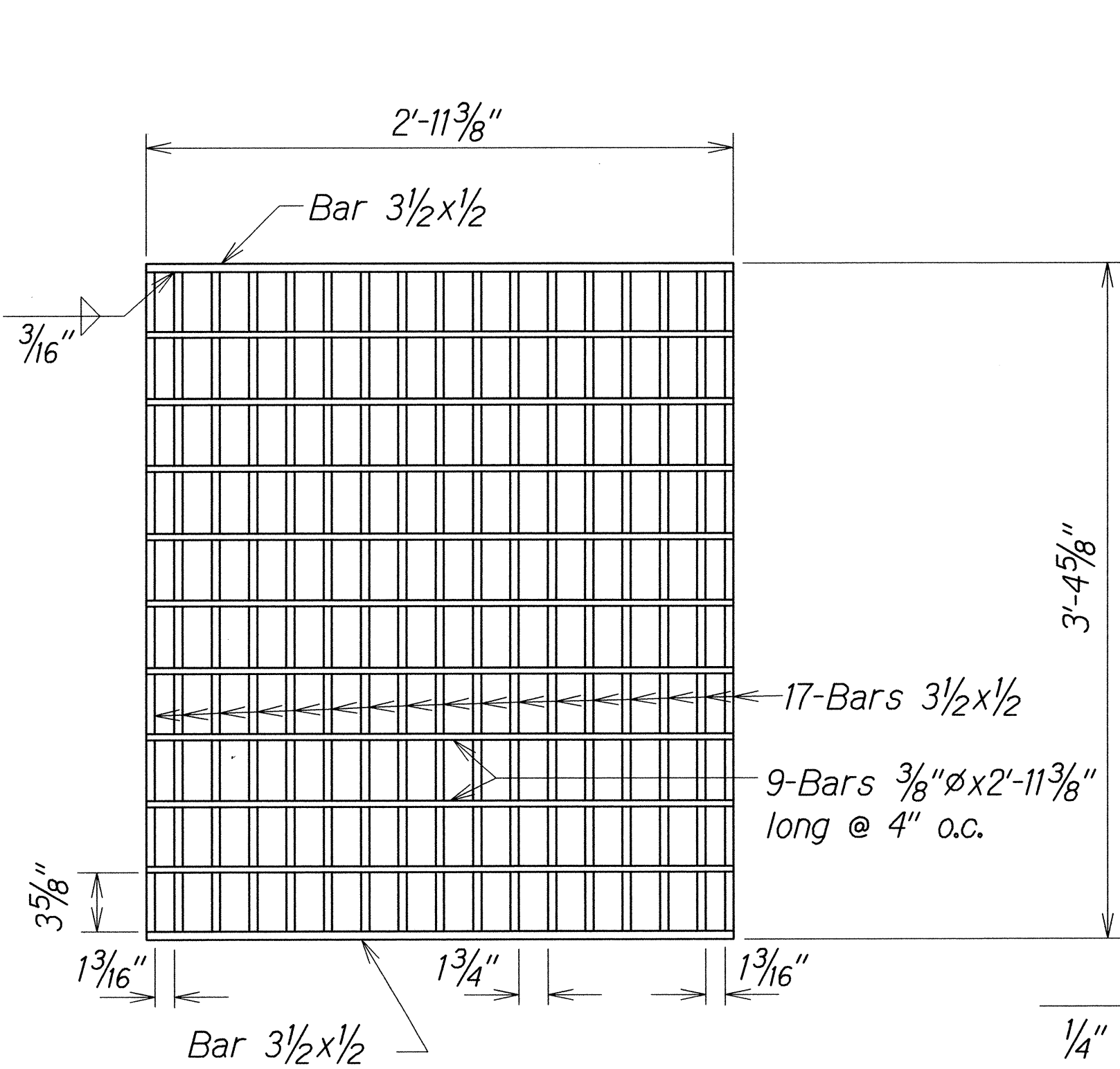
Federal Aid Project No. HSIP-083-1(069)

Scale: $1\frac{1}{2}" = 1'-0"$ Date: August, 2014

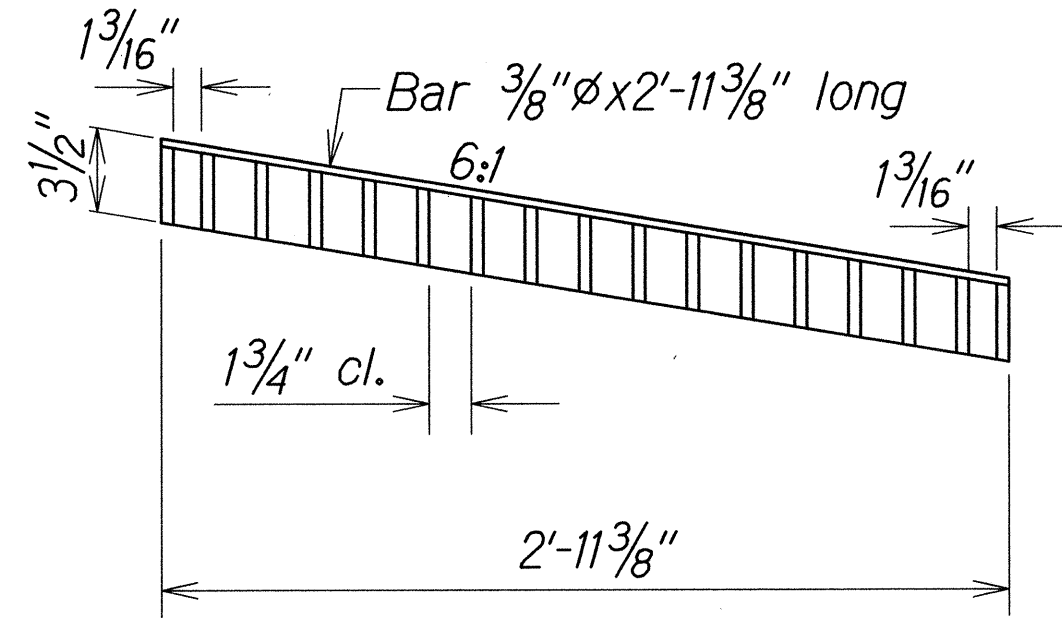
SHEET No. *H4* OF *7* SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
	DRAWN BY _____	• ☒
NOTE BOOK	TRACED BY _____	•
	DESIGNED BY ☒	•
	QUANTITIES BY _____	•
	CHECKED BY _____	•
N89bhd00adg0		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-083-1(069)	2014	31	50



PLAN



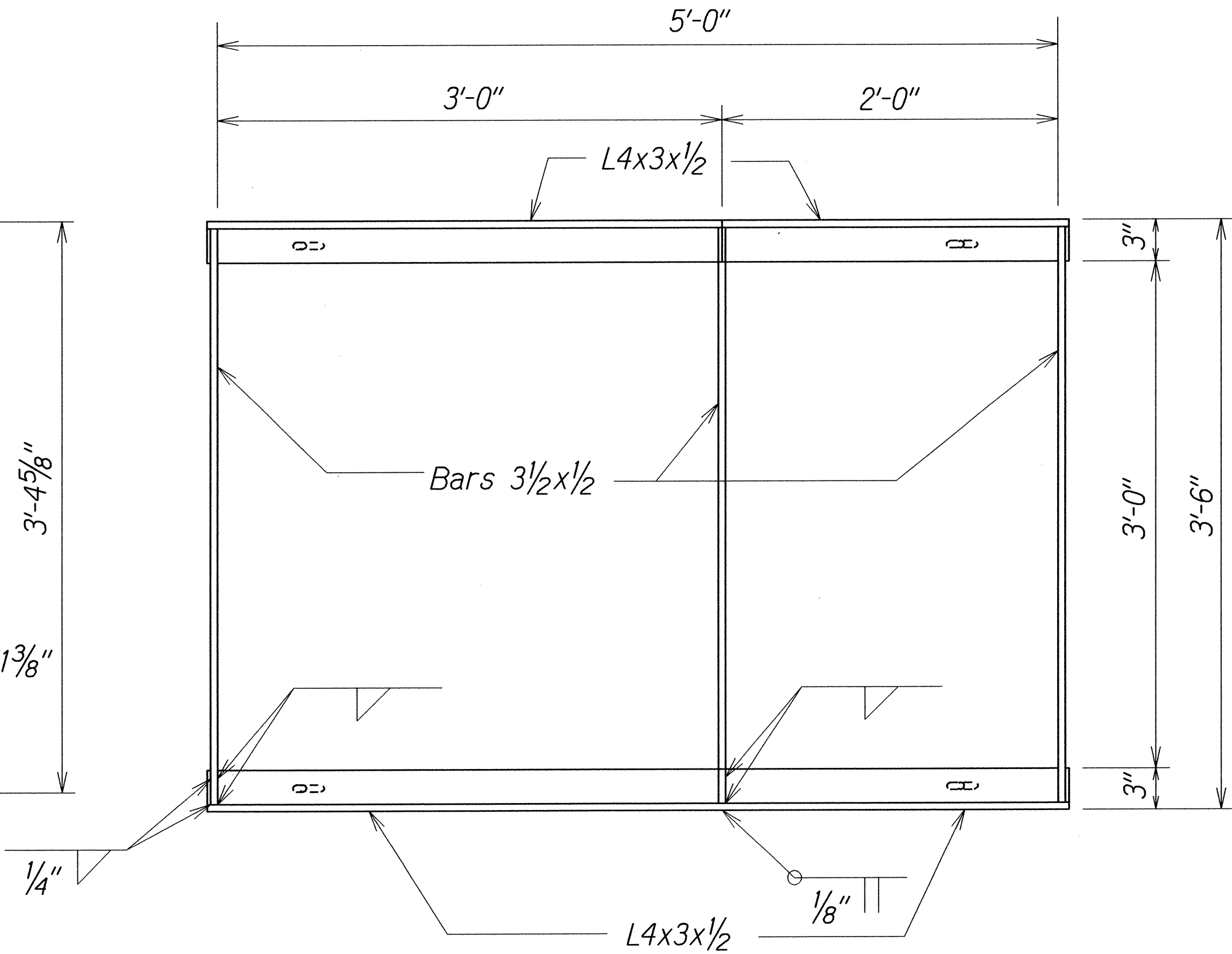
SECTION

GRATE

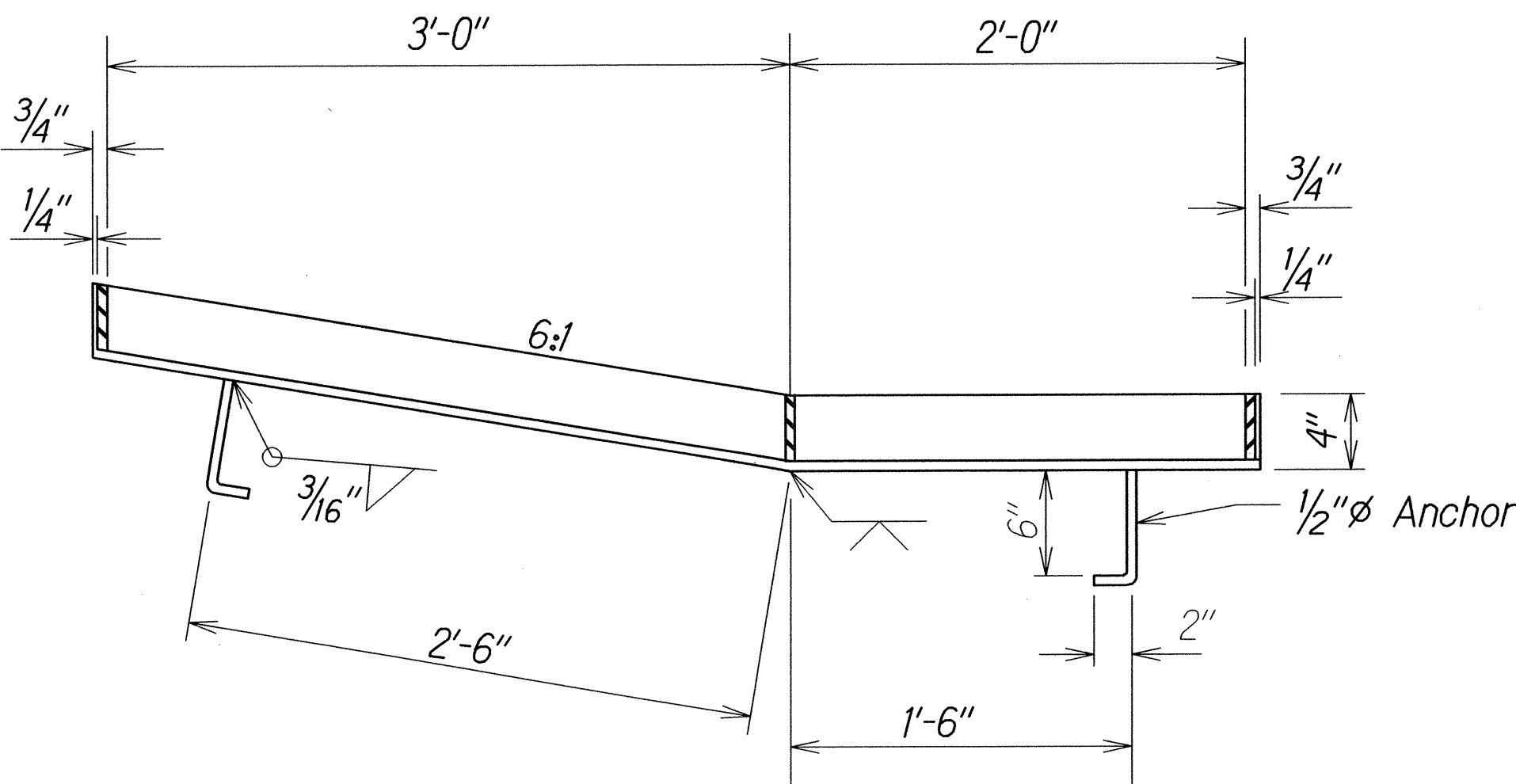
Scale: 1 1/2"=1'-0"

GENERAL NOTES:

1. All welds 3/8" unless otherwise noted.
2. Grates and frames shall be zinc coated after fabrication.
3. Anchors shall be ASTM A 307 and zinc coated.
4. See Std. Det. B-01 for additional notes.



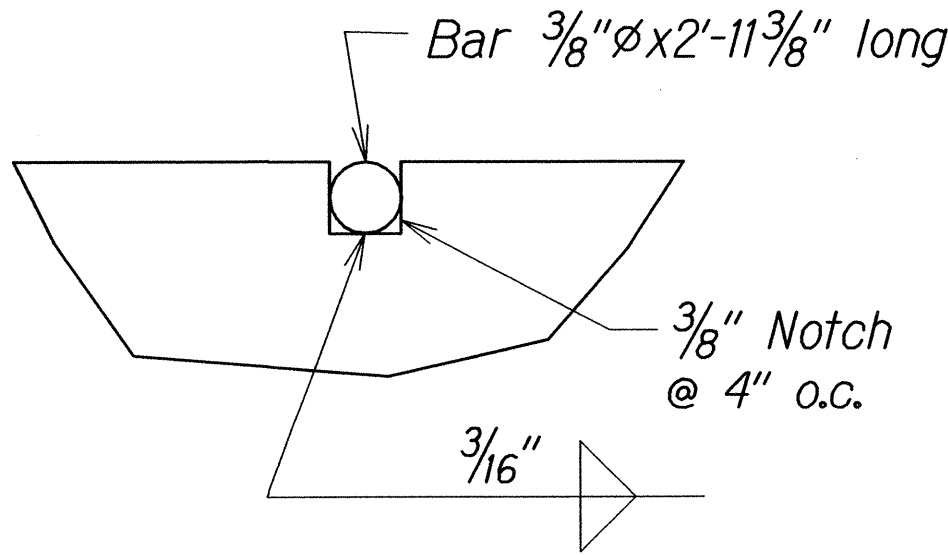
PLAN



SECTION

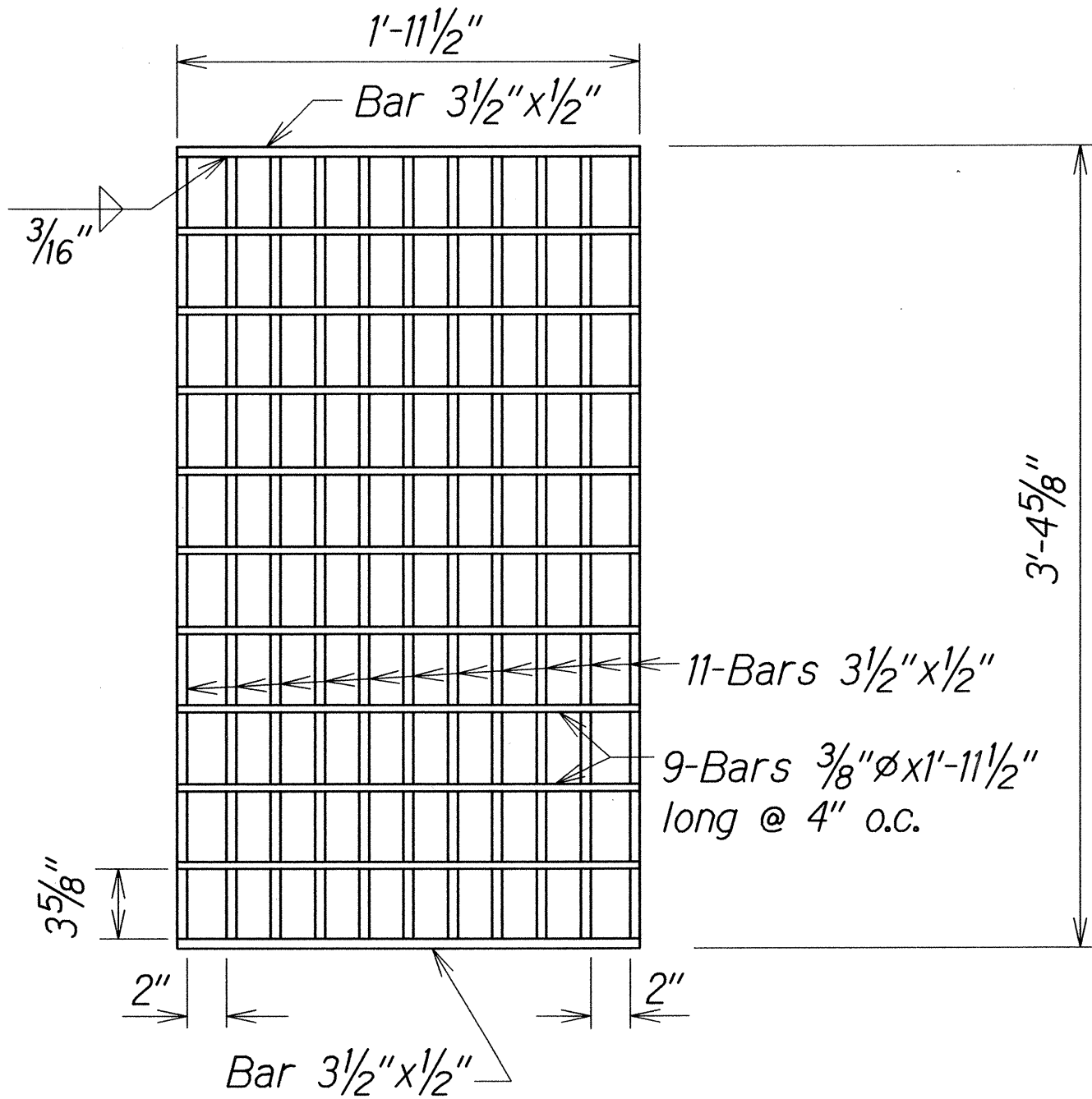
FRAME

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

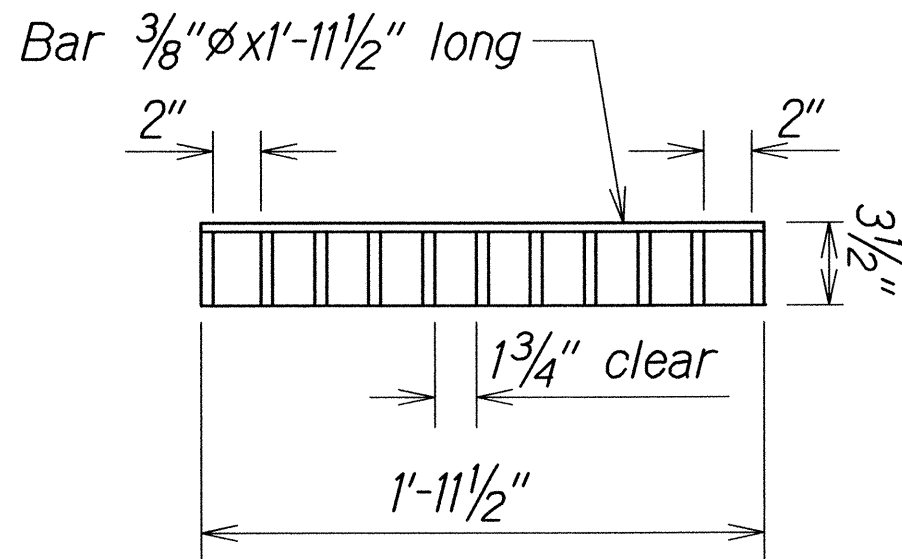


NOTCH DETAIL

Full Size



PLAN



SECTION

GRATE

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAIL

KAMEHAMEHA HIGHWAY SAFETY IMPROVEMENTS

Waikane Valley Road to Kaaawa Bridge

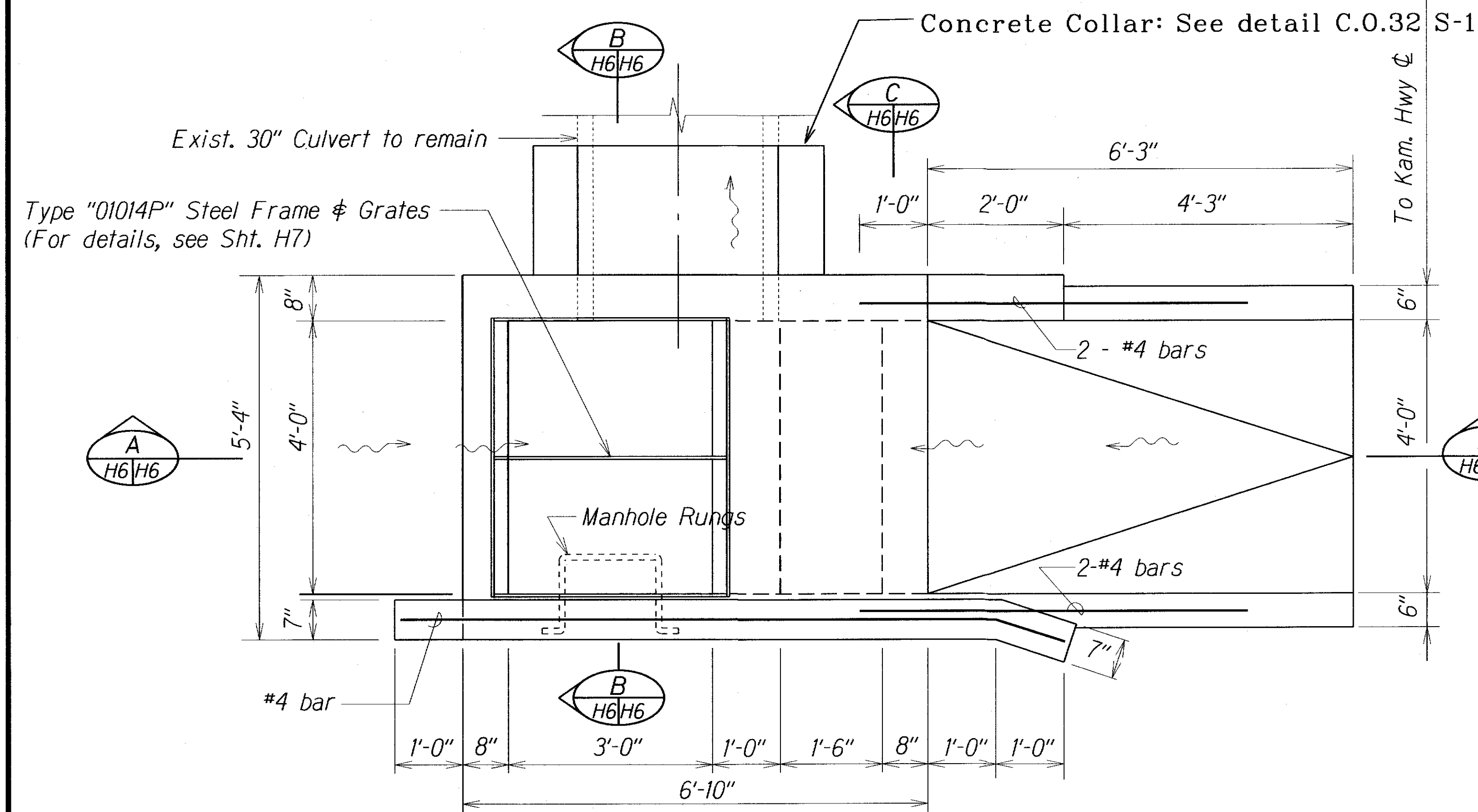
Federal Aid Project No. HSIP-083-1(069)

Scale: As Shown Date: August, 2014

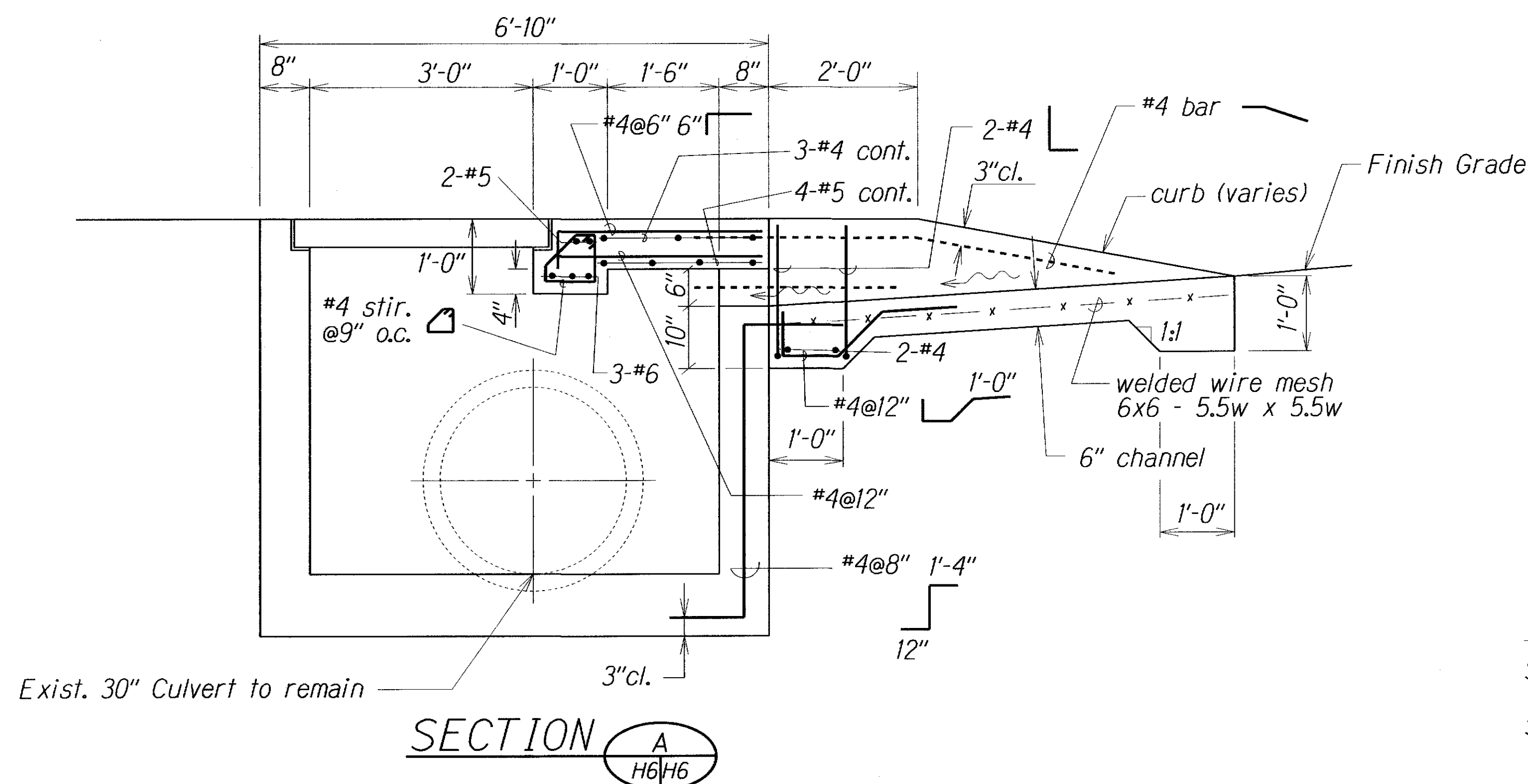
DESIGNED BY	DATE
TRACED BY	8/2014
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
4/02/14/000	
skmh/dhr	

DETAILS OF TYPE "61015P" STEEL FRAME AND GRATES

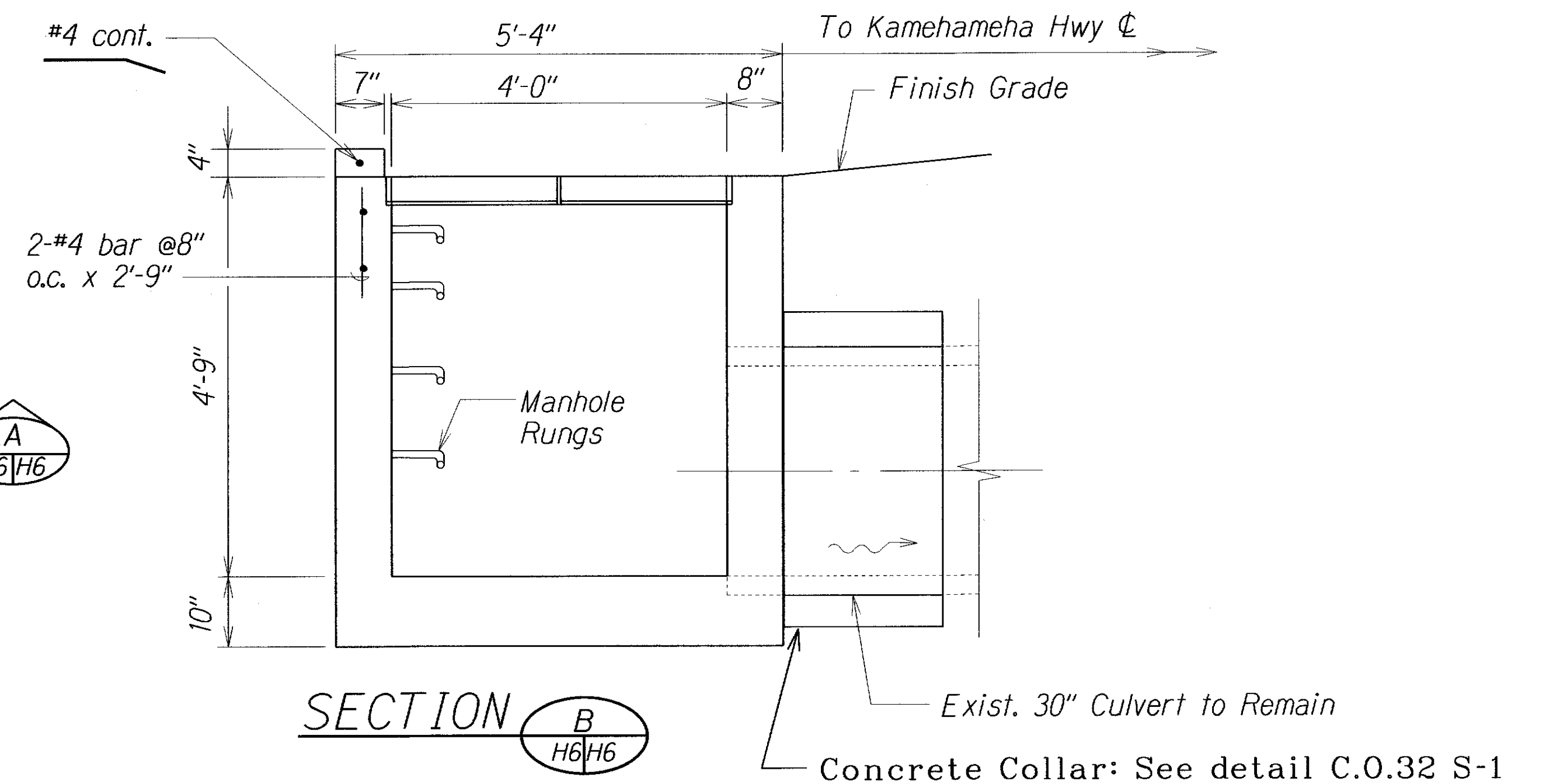
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-083-1(69)	2014	32	50



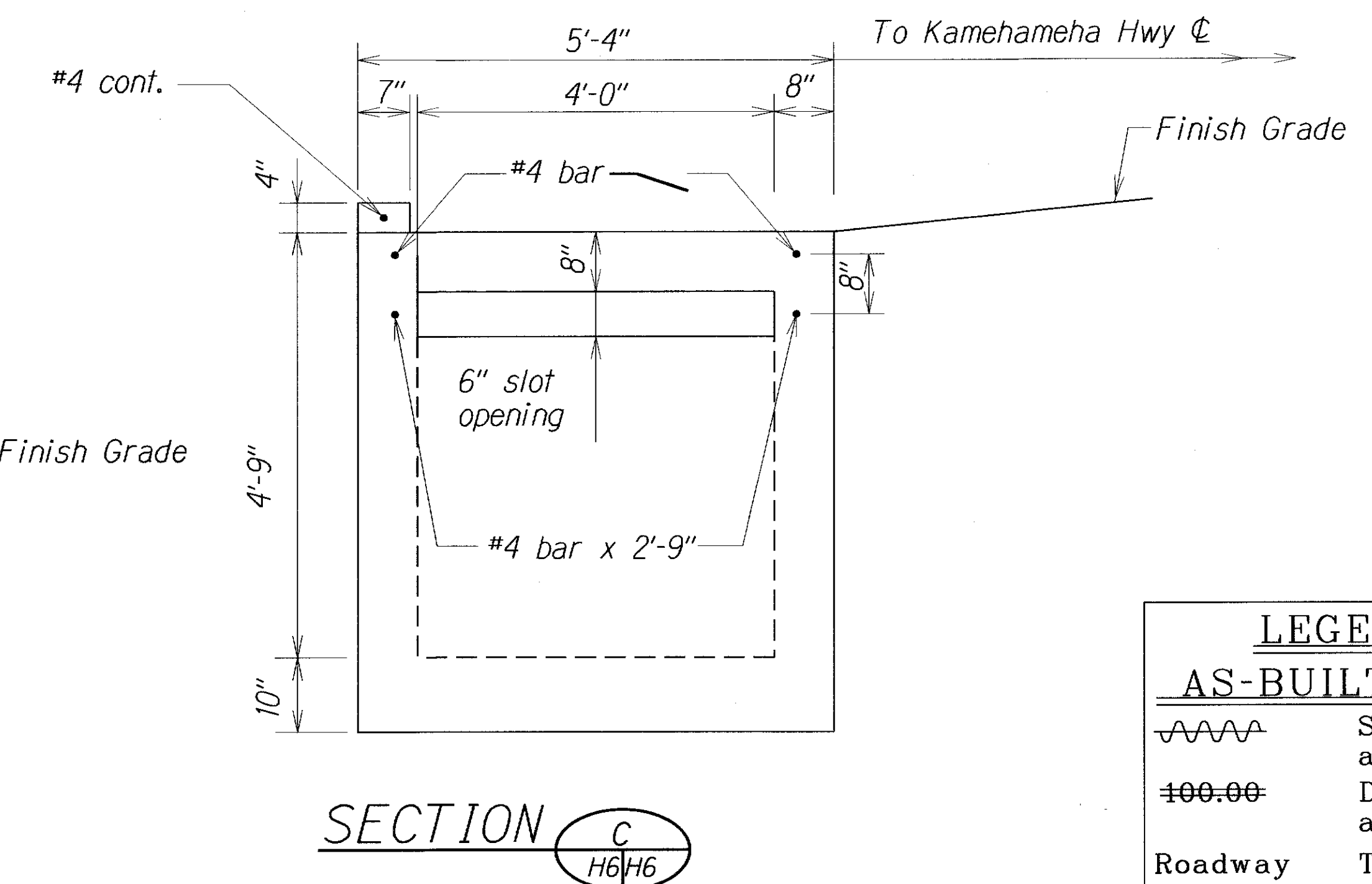
PLAN



SECTION A



SECTION B



SECTION C

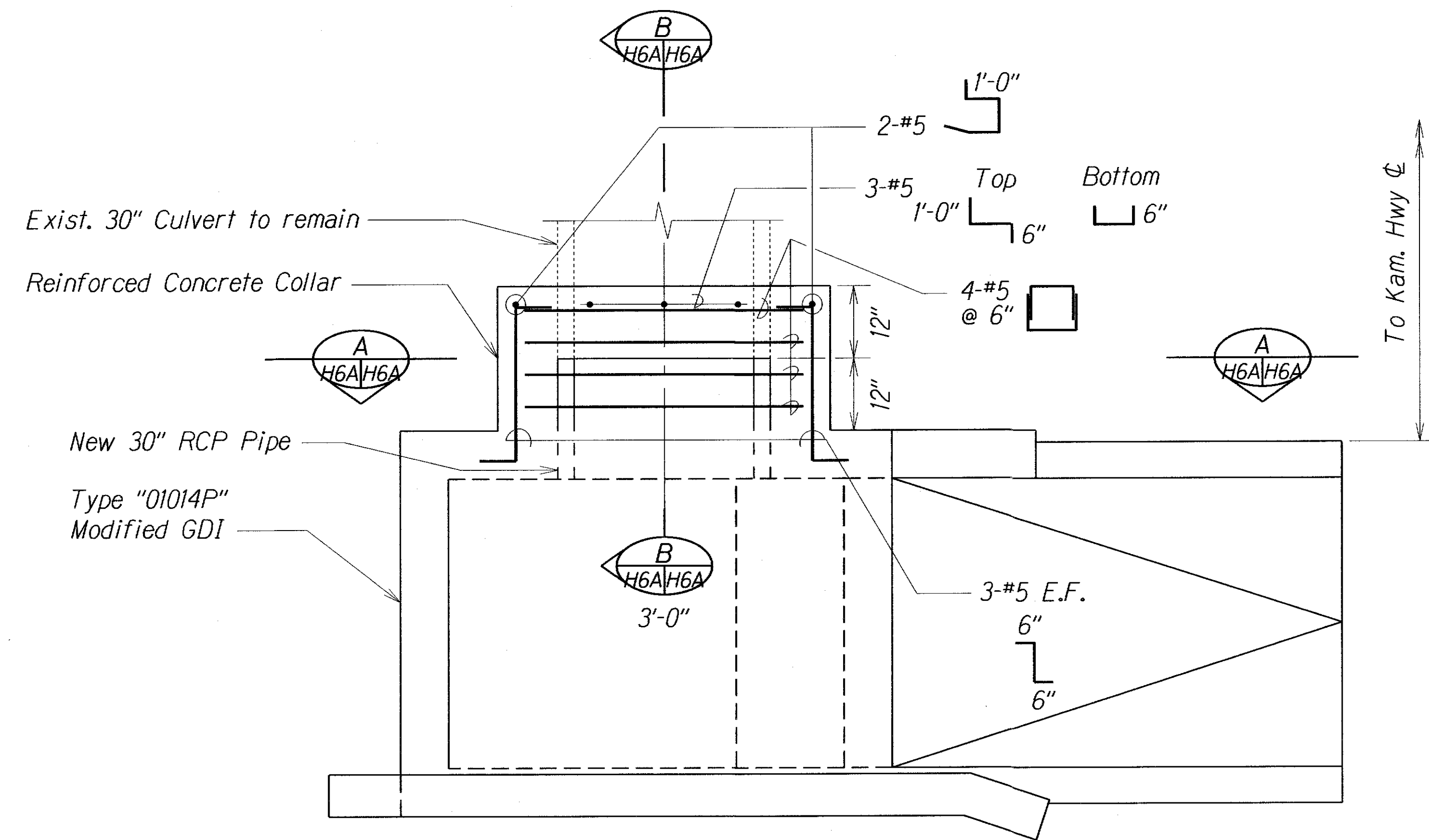
LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

Notes:
See Std. Det. H-12 for add'l. reinforcing steel in top, bottom, & walls.
See Std. Det. H-06 for reinforcing around pipe.

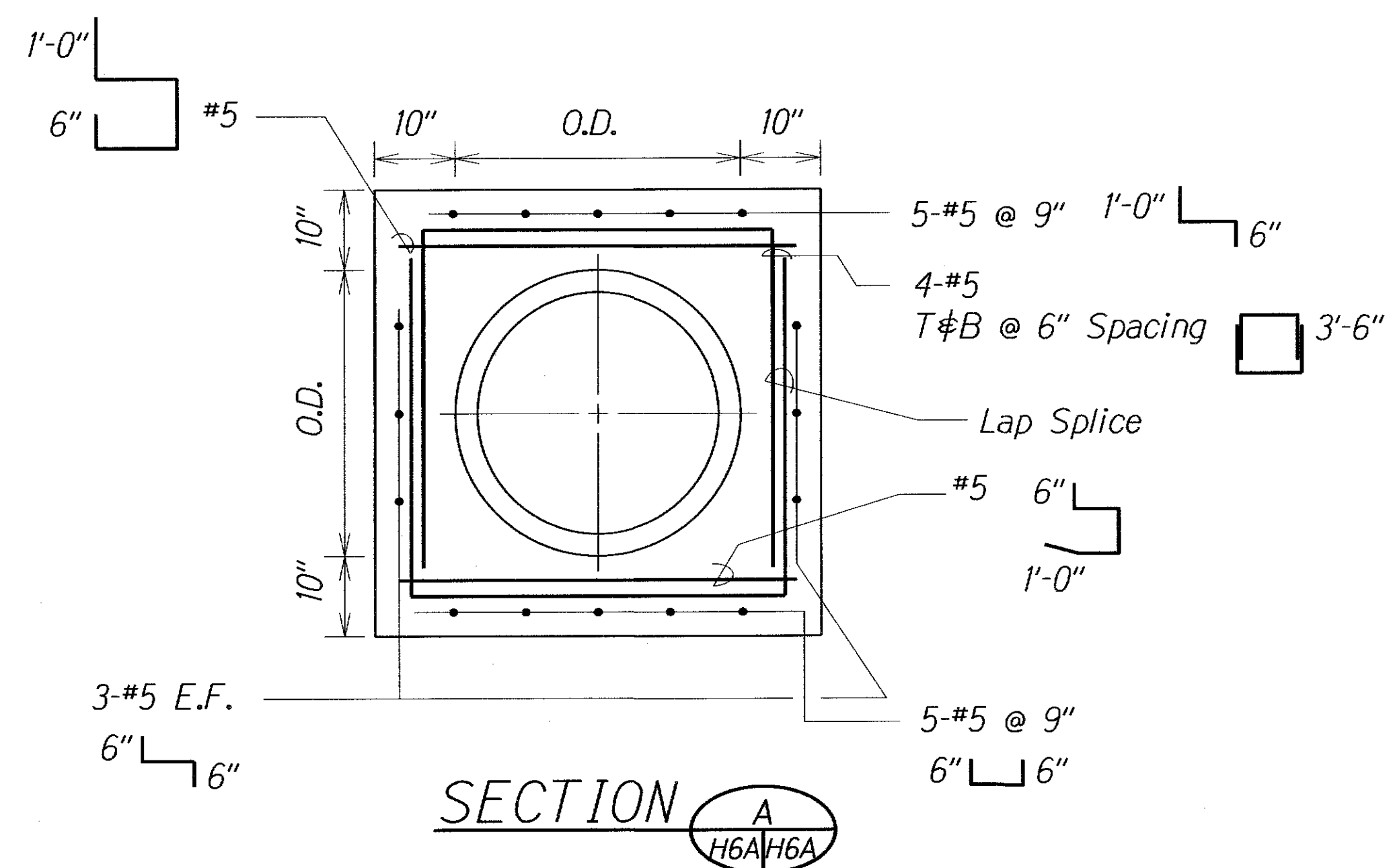
DETAILS OF TYPE "01014P" MODIFIED GRATED DROP INLET

"AS-BUILT"

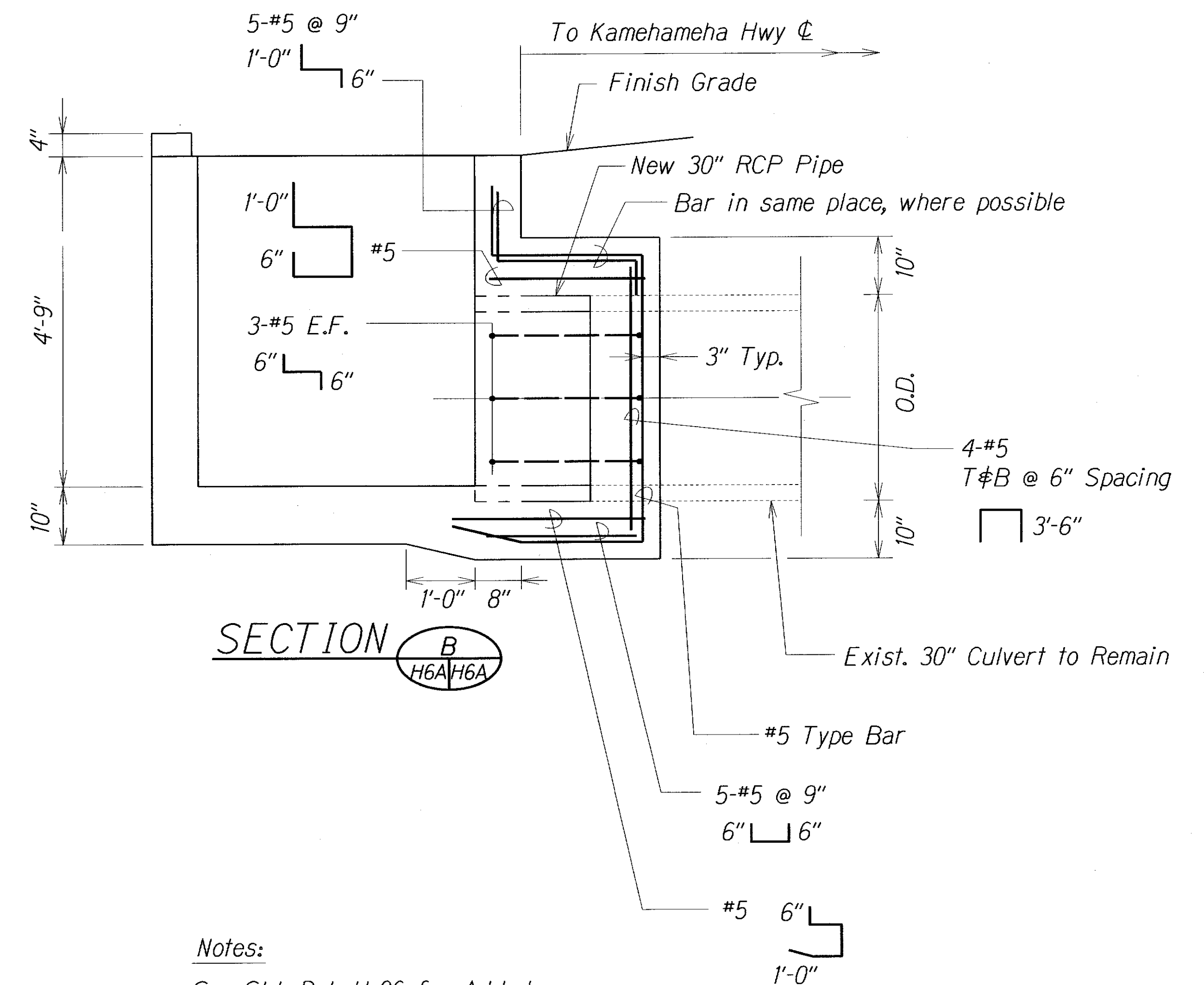
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-083-1(69)	2014	C.O. 32 S-1	50



PLAN



SECTION A-A



Notes:

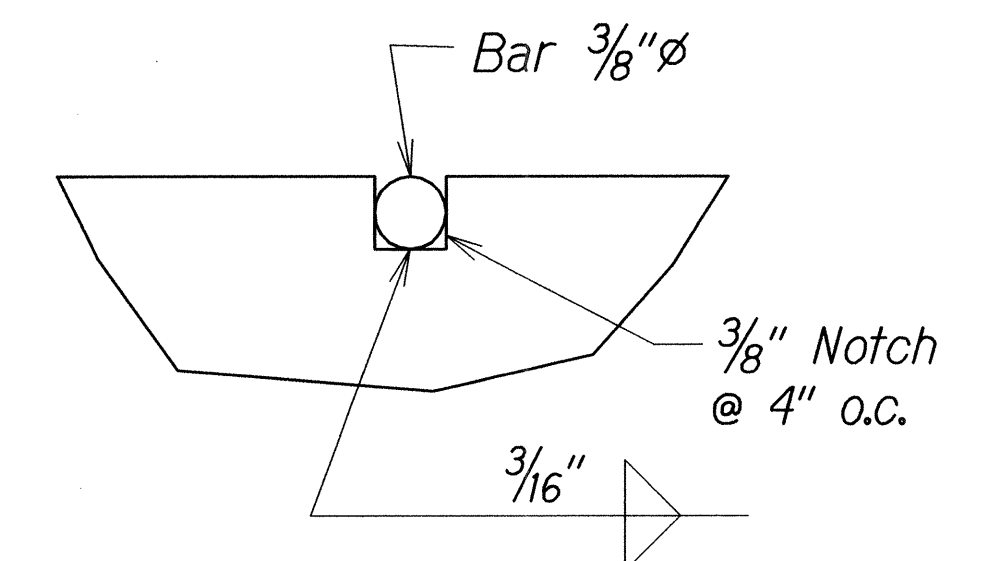
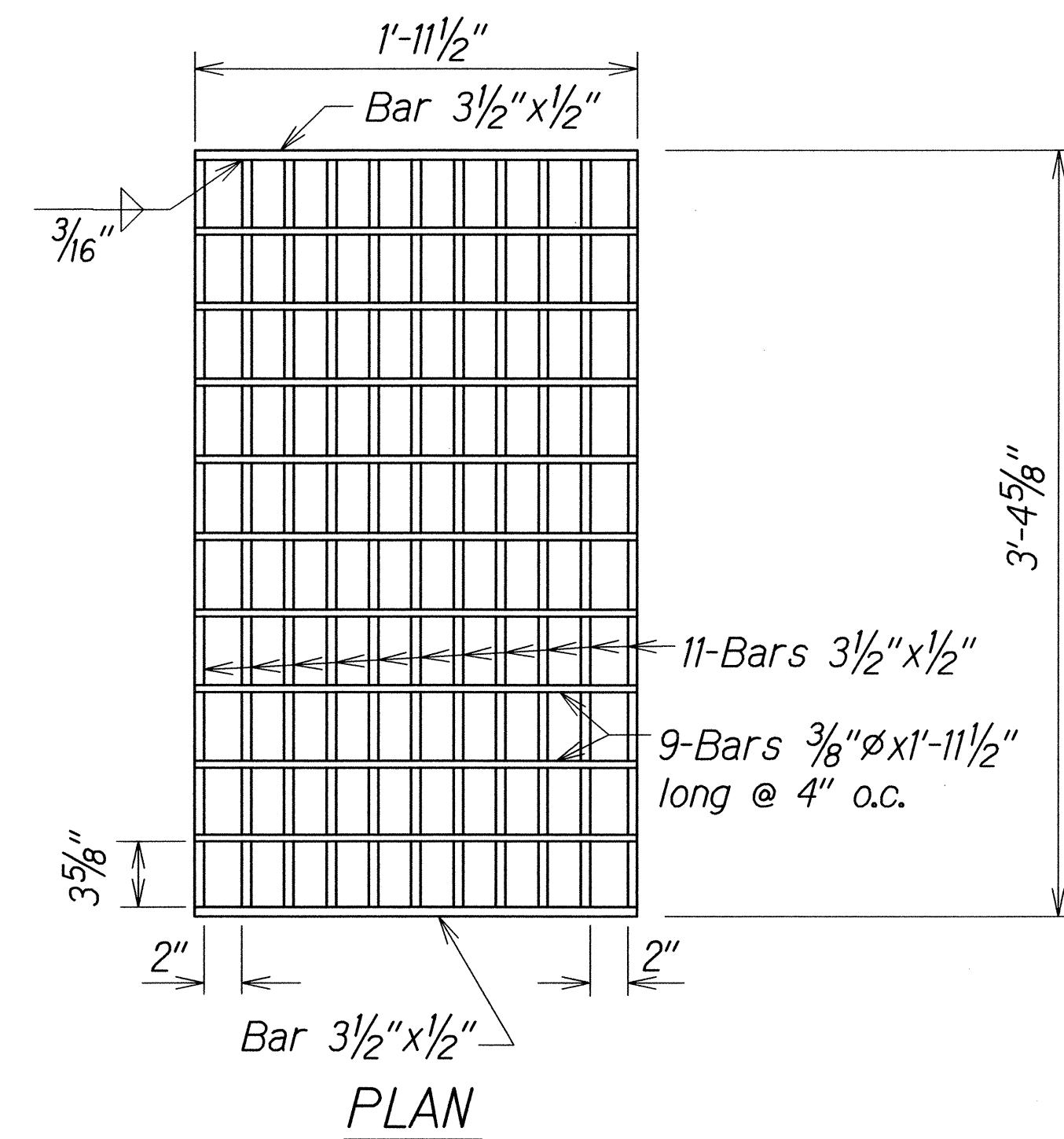
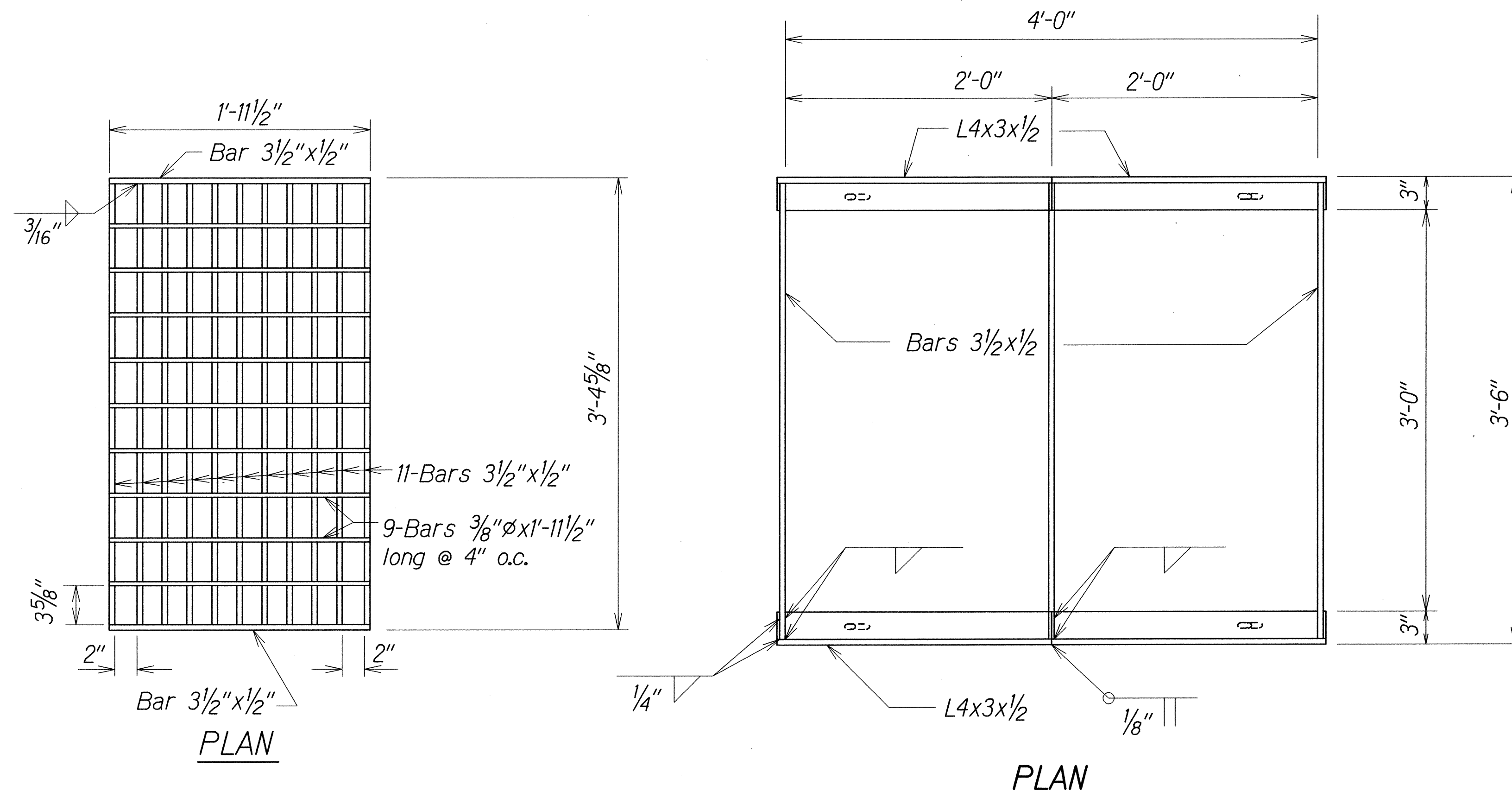
- See Std. Det. H-06 for Added Reinforcing @ Bottom Slab. Total 2.
- Place in the middle of the wall of GDI.
- Place 6" in from end of collar.

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

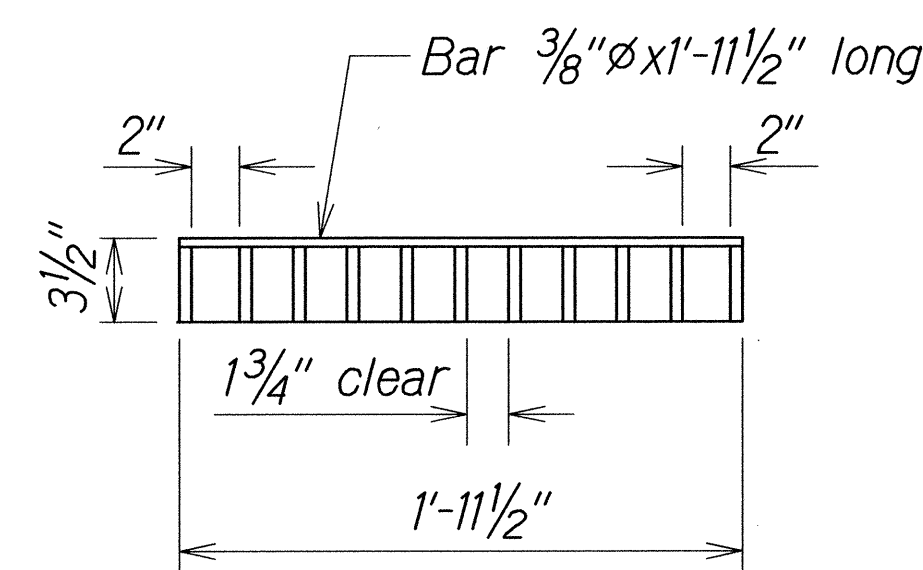
DETAILS OF MODIFIED REINFORCED CONCRETE COLLAR

9/28/15	Added Detail Sheet
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION DRAINAGE DETAIL KAMEHAMEHA HIGHWAY SAFETY IMPROVEMENTS Waikane Valley Road to Kaaawa Bridge Federal Aid Project No. HSIP-083-1(069) Scale: 3/4"=1'-0" Date: September, 2015 SHEET No. H6A OF 7 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HSIP-083-1(069)	2014	33	50



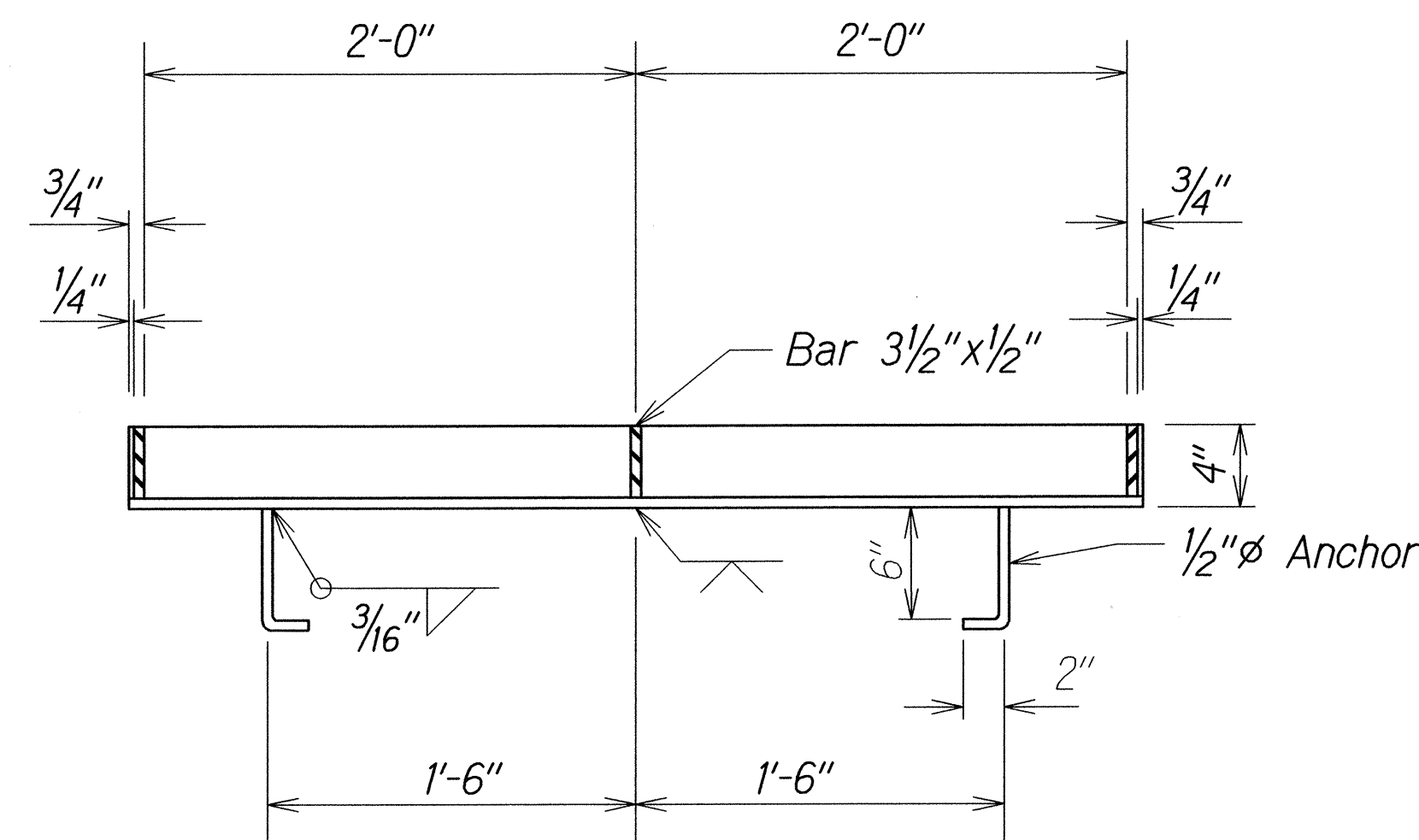
NOTCH DETAIL
Full Size



SECTION

GRATE

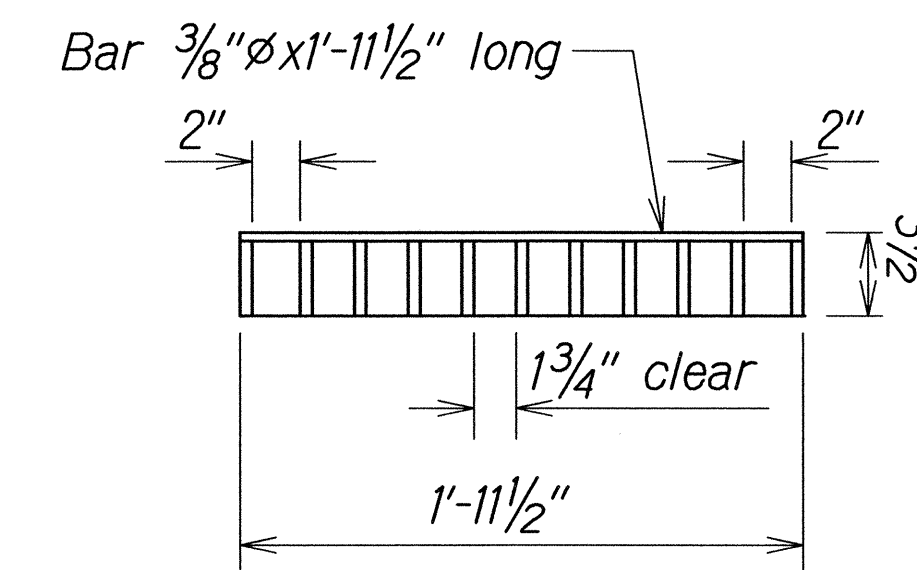
Scale: $1\frac{1}{2}''=1'-0''$



SECTION

FRAME

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



SECTION

GRATE

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

- GENERAL NOTES:

1. All welds $\frac{3}{8}$ " unless otherwise noted.
2. Grates and frames shall be zinc coated after fabrication.
3. Anchors shall be ASTM A 307 and zinc coated.
4. See Std. Det. B-01 for additional notes.

DETAILS OF TYPE "01014P" STEEL FRAME AND GRATES

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY <u>X</u>	_____
	TRACED BY _____	_____
	DESIGNED BY <u>X</u>	_____
	QUANTITIES BY _____	_____
	CHECKED BY _____	_____

 $dh3/kh$

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAIL

KAMEHAMEHA HIGHWAY SAFETY IMPROVEMENTS
Waikane Valley Road to Kaaawa Bridge
Federal Aid Project No. HSIP-083-1(069)

Scale: As Shown *Date: August, 2014*

SHEET No. 47 OF 7 SHEETS