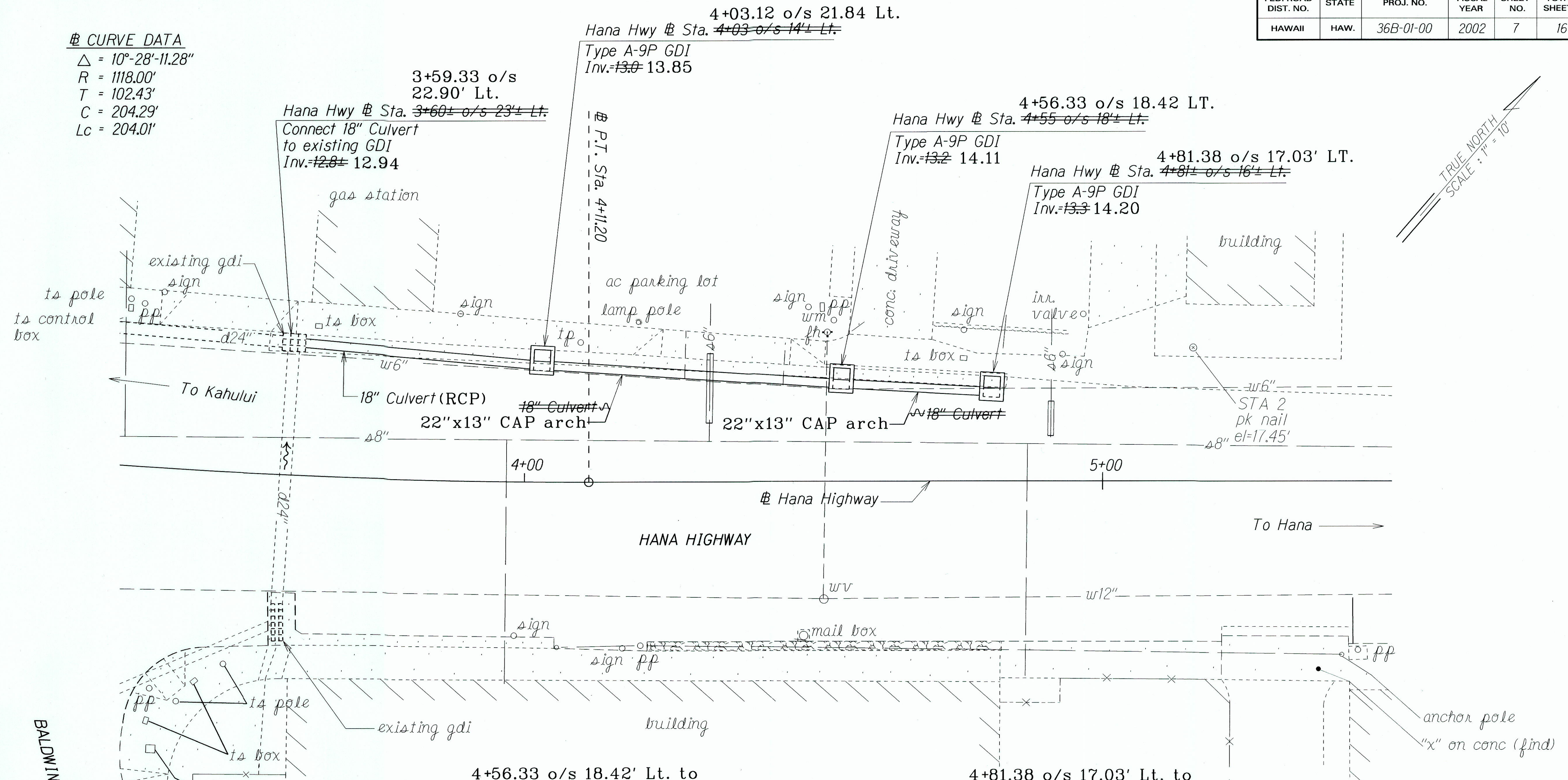


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36B-01-00	2002	7	16

CURVE DATA
 $\Delta = 10^{\circ}-28'-11.28''$
 $R = 1118.00'$
 $T = 102.43'$
 $C = 204.29'$
 $L_c = 204.01'$



TRUE NORTH
SCALE: 1" = 10'

4+03.12 o/s 21.84' Lt. to
3+59.33 o/s 22.90' Lt.
Hana Hwy @ Sta. 4+03 Lt. to @ Sta. 3+60± Lt.

Construct: Type A-9P GDI
(For details, see sht. no. H4)
Install: 18" Culvert (RCP) w/Concrete Jacket
(For details and profile, see sht. no. H3)

Estimated Quantities
Structure Excavation = 29 C.Y.
Plant Mix Glassphalt Conc. Base Course = 7 Tons
A.C. Pav't, Mix IV = 3 Tons
Reinf. Conc. Jacket = 39 L.F.
Bedcourse Material = 7 C.Y.
18 Inch Culvert (RCP) = 39 L.F. 40 L.F.
Type A-9P GDI = 1 Ea.
Modified Type 2DG Curb & Gutter = 39 L.F.
Modified Type 2DCurb = 4 L.F.

4+56.33 o/s 18.42' Lt. to
4+03.12 o/s 21.84' Lt.
Hana Hwy @ Sta. 4+55 Lt. to @ Sta. 4+03 Lt.

Construct: Type A-9P GDI
(For details, see sht. no. H4)
Install: 18" Culvert w/Concrete Jacket w/ Concrete Jacket
(For details and profile, see sht. no. H3)

Estimated Quantities
Structure Excavation = 36 C.Y.
Plant Mix Glassphalt Conc. Base Course = 8 Tons
A.C. Pav't, Mix IV = 4 Tons
Reinf. Conc. Jacket = 48 L.F.
Bedcourse Material = 8 C.Y.
18 Inch Culvert 22"x13" CAP arch = 48 L.F. 49 L.F.
Type A-9P GDI = 1 Ea.
Modified Type 2DG Curb & Gutter = 48 L.F.
Modified Type 2D Curb = 4 L.F.

4+81.38 o/s 17.03' Lt. to
4+56.33 o/s 18.42' Lt.
Hana Hwy @ Sta. 4+81± Lt. to @ Sta. 4+55 Lt.

Construct: Type A-9P GDI
(For details, see sht. no. H4)
Install: 18" Culvert w/Concrete Jacket w/ Concrete Jacket
(For details and profile, see sht. no. H3)

Estimated Quantities
Structure Excavation = 18 C.Y.
Plant Mix Glassphalt Conc. Base Course = 4 Tons
A.C. Pav't, Mix IV = 2 Tons
Reinf. Conc. Jacket = 24 L.F.
Bedcourse Material = 4 C.Y.
18 Inch Culvert 22"x13" CAP arch = 24 L.F. 23 L.F.
Type A-9P GDI = 1 Ea.
Modified Type 2DG Curb & Gutter = 24 L.F.
Modified Type 2D Curb = 4 L.F.

LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

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

PLAN - @ STA. 3+60± TO @ STA. 4+81±

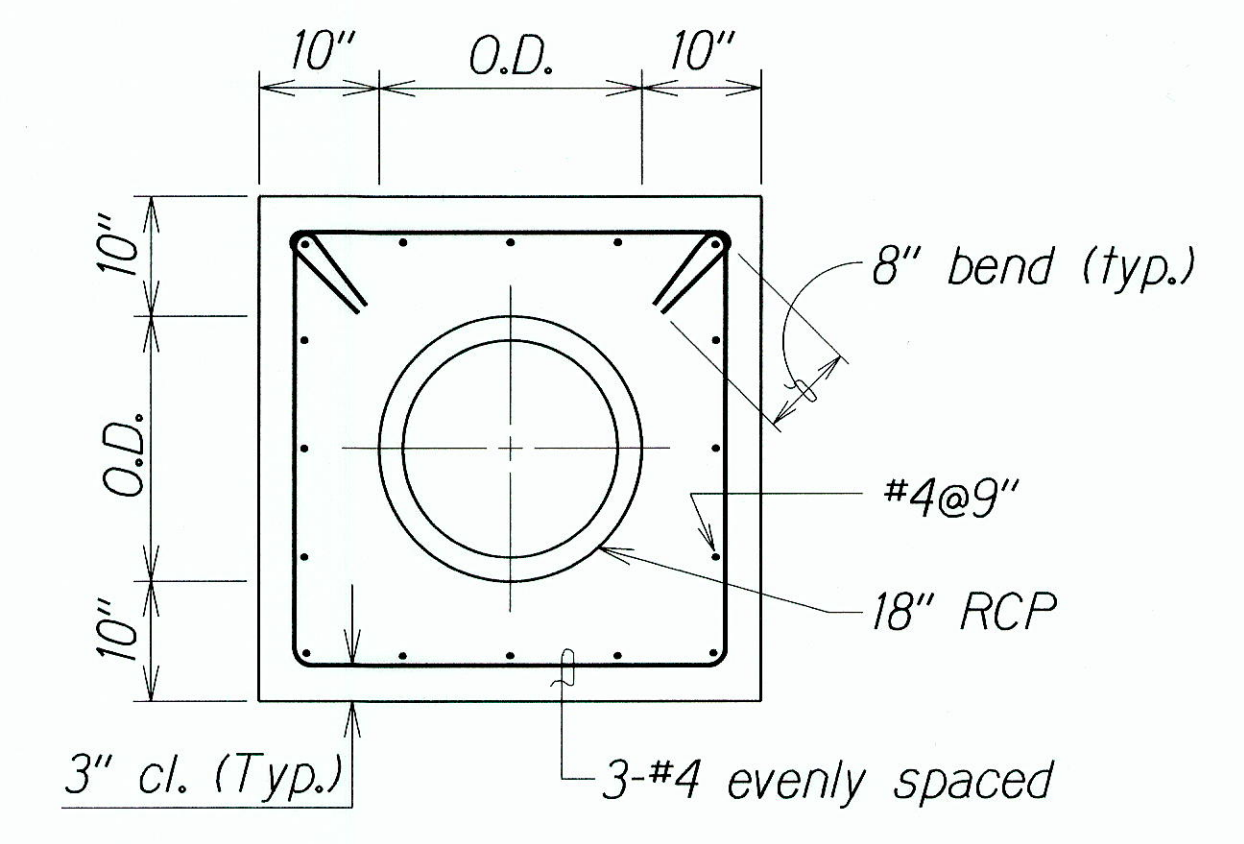
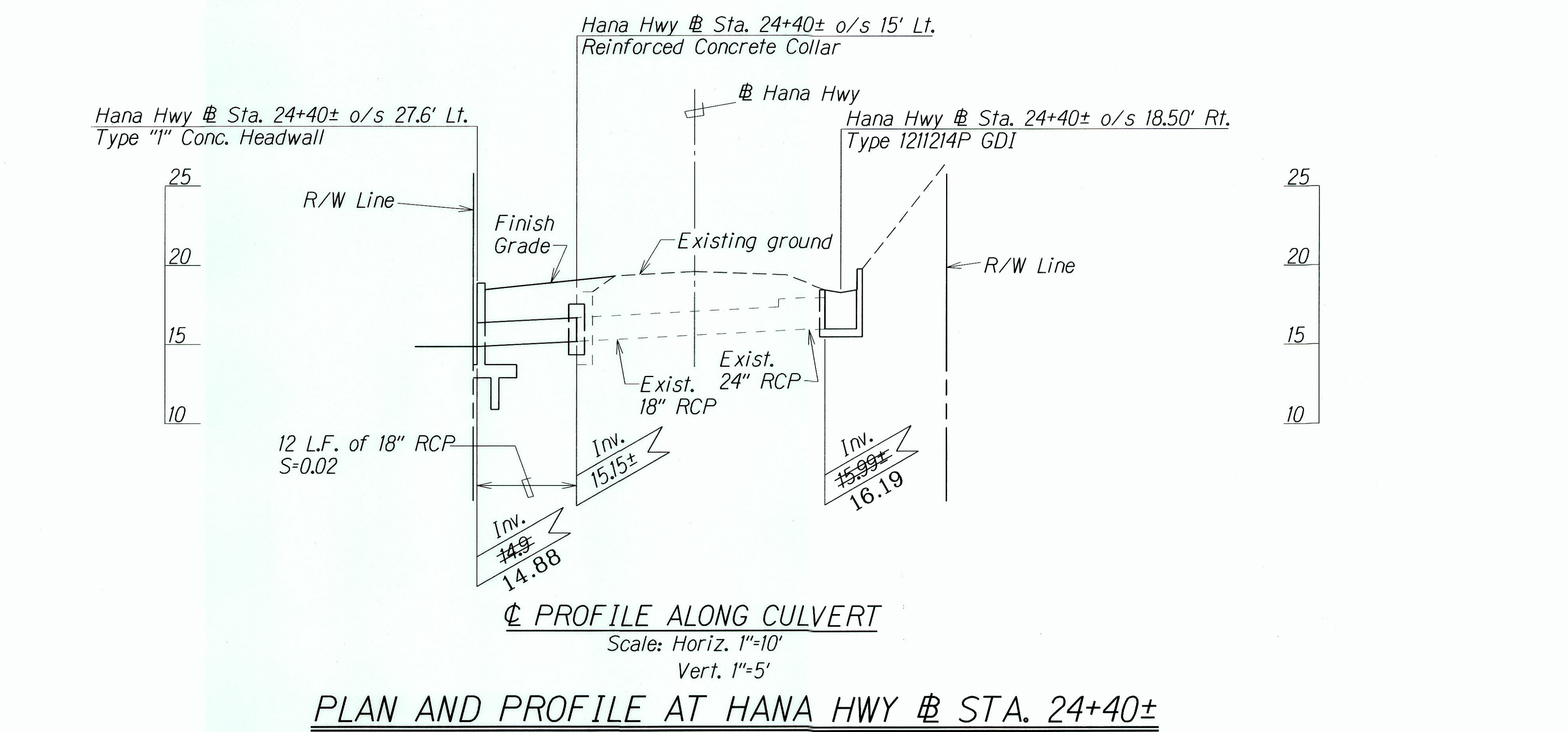
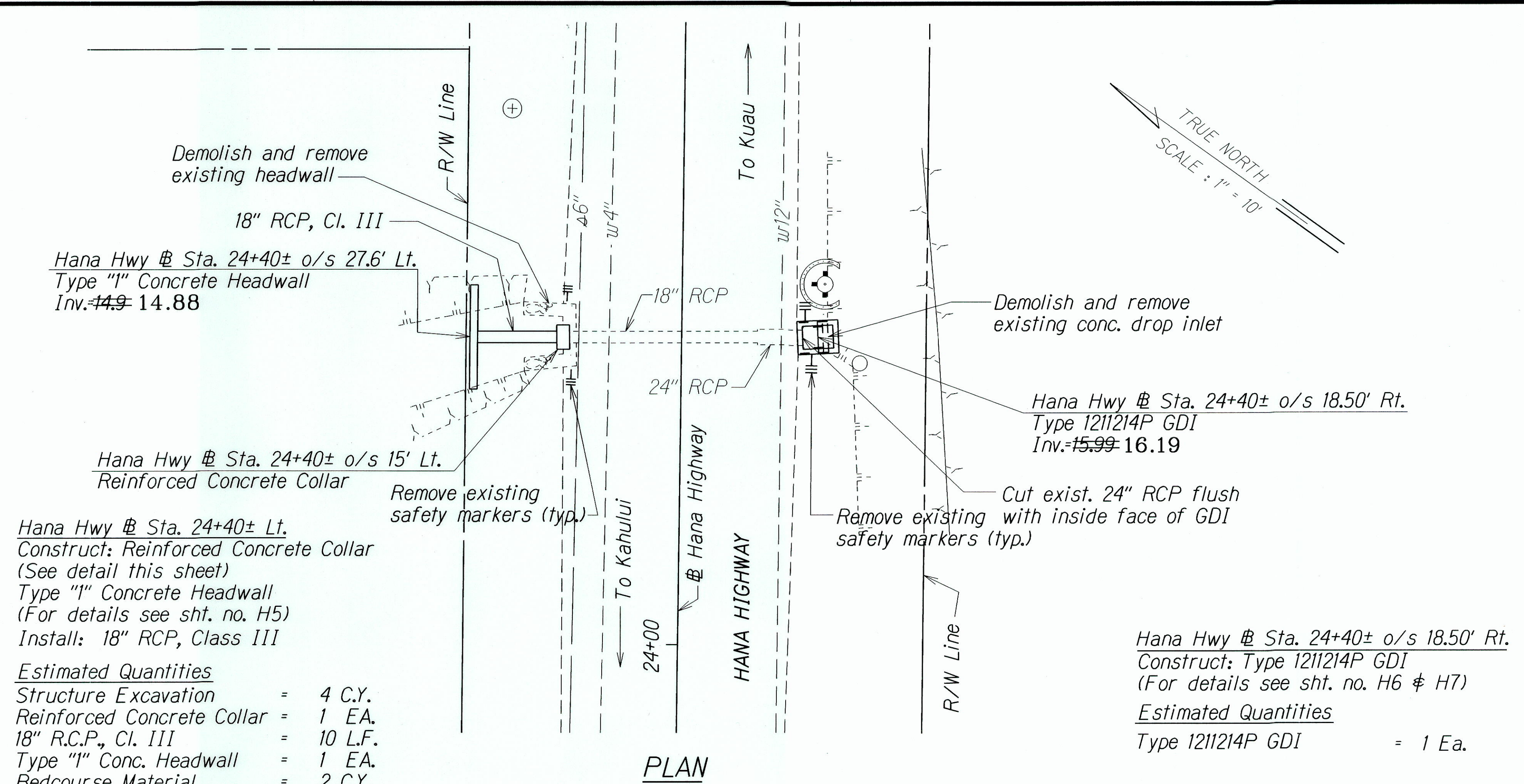
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN
HANA HWY. DRAINAGE IMPROVEMENTS
Vicinity of Paia to Kuau
Proj. No. 36B-01-00

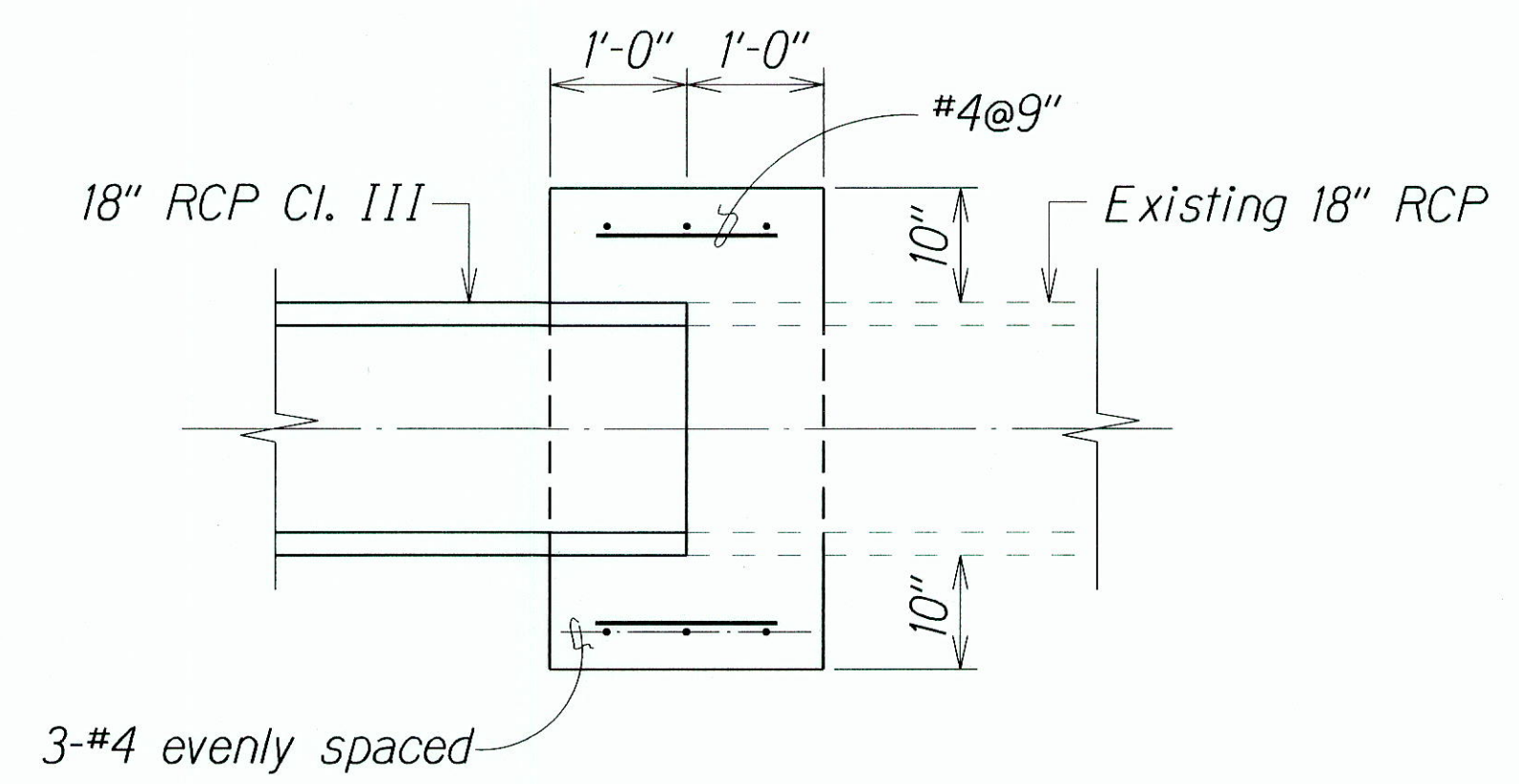
Scale: 1"=10' Date: Sept. 2001

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36B-01-00	2002	8	16



ELEVATION



SECTION

NOTE: Reinforcing Steel for Concrete Collar shall conform to the requirements of ASTM 615-Grade 60.

DETAIL OF REINFORCED CONCRETE COLLAR
Scale: 3/4"=1'-0"

LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

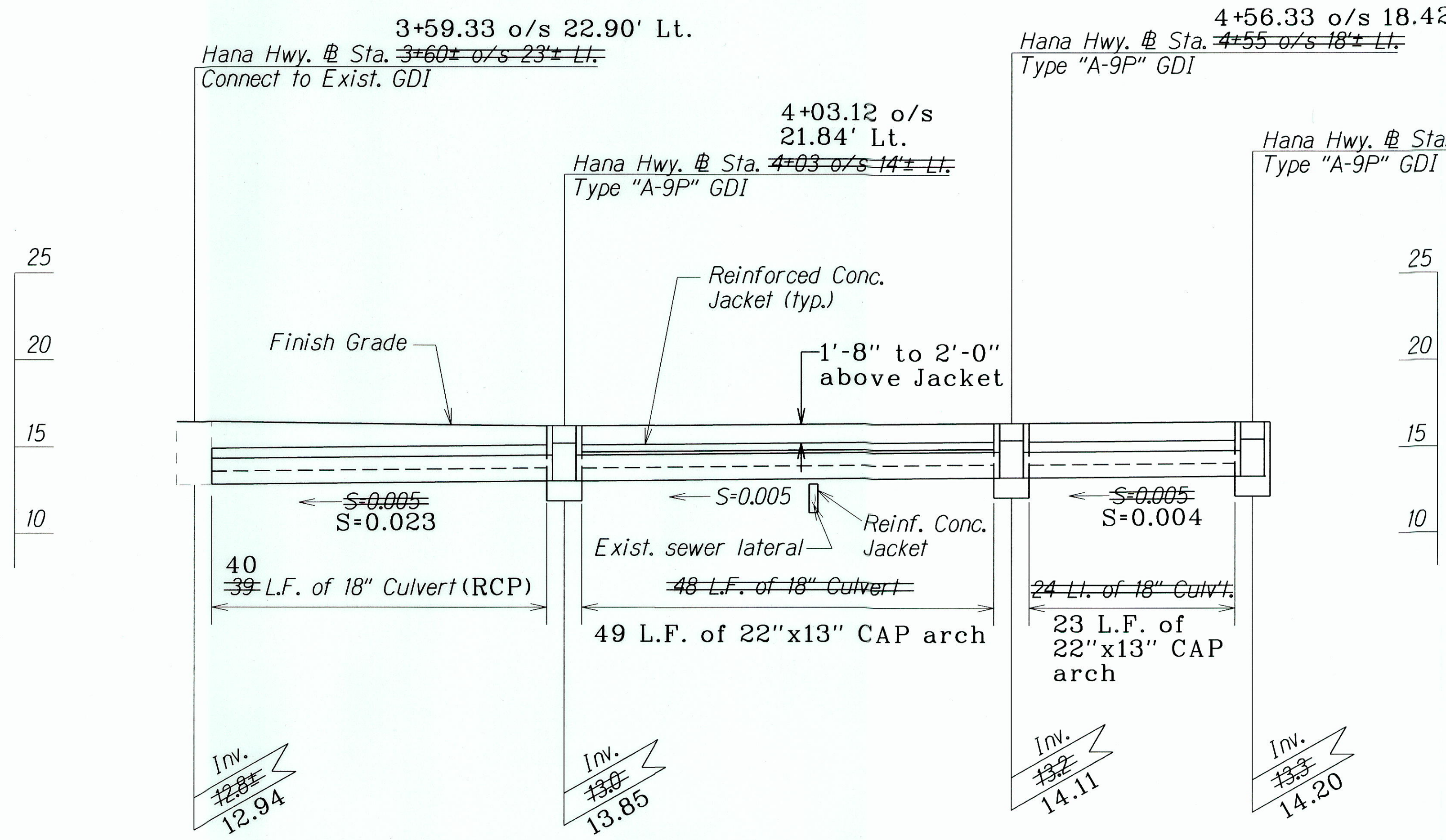
DRAINAGE PLAN & PROFILE
HANA HWY DRAINAGE IMPROVEMENTS
Vicinity of Paia to Kuau
Project No. 36B-01-00

Scale: As Shown Date: Sept. 2001
SHEET No. H2 OF 7 SHEETS

ORIGINAL PLAN
DESIGNED BY
CHECKED BY

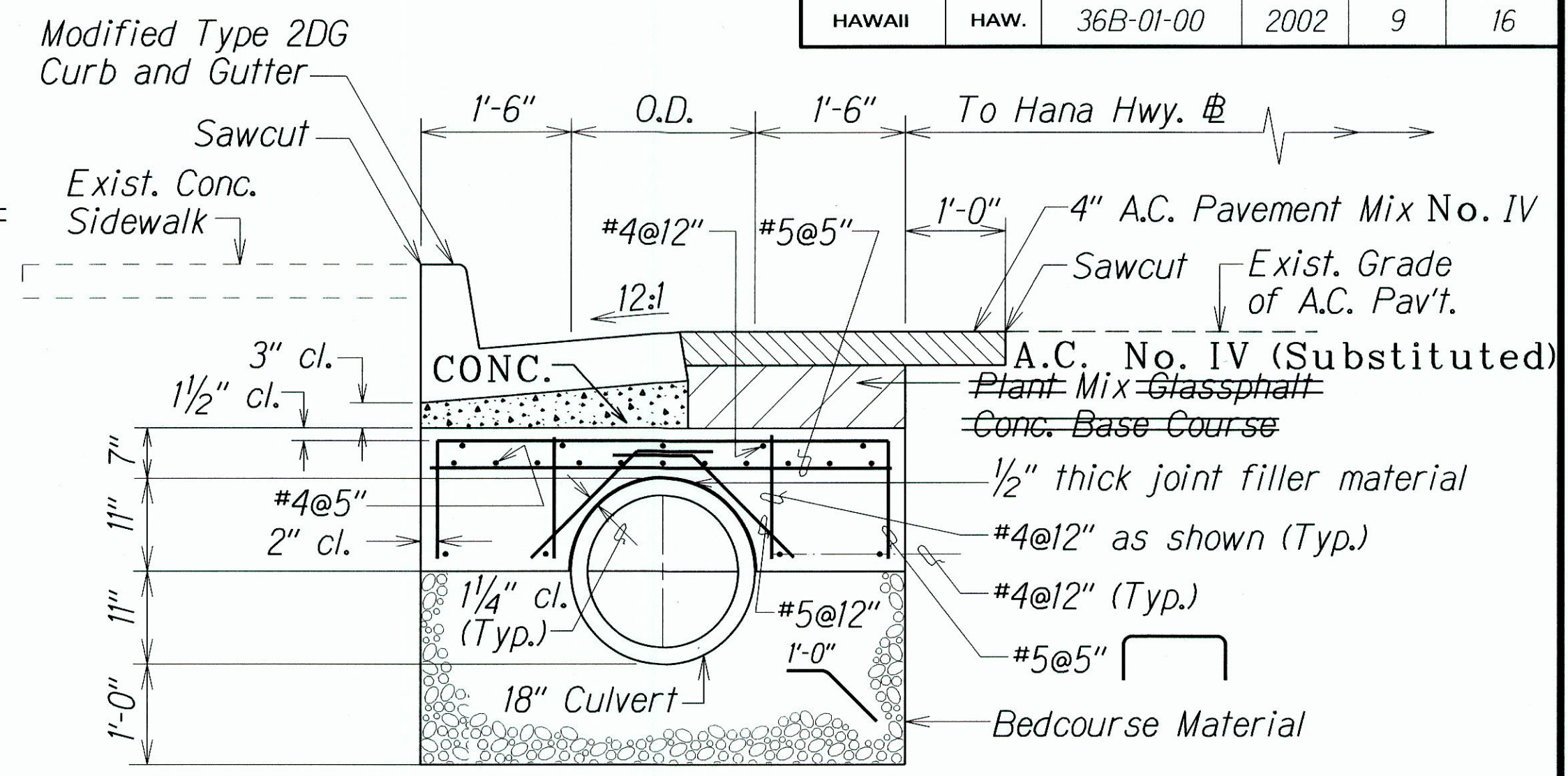
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36B-01-00	2002	9	16



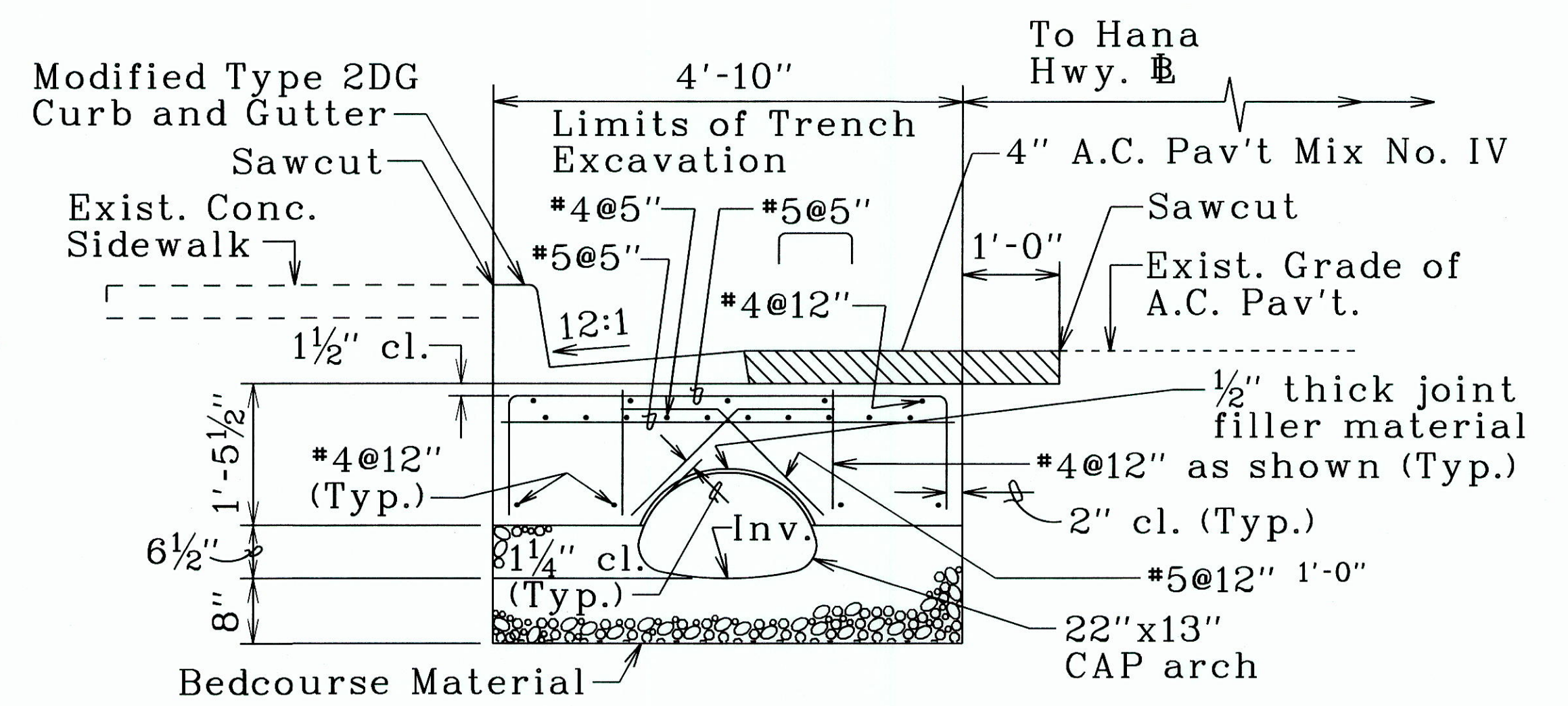
PROFILE ALONG 18" CULVERT - HANA HIGHWAY
Sta. 3+60± Lt. to Sta. 4+81± Lt.

Scale: Horiz. 1"=10'
 Vert. 1"=5'



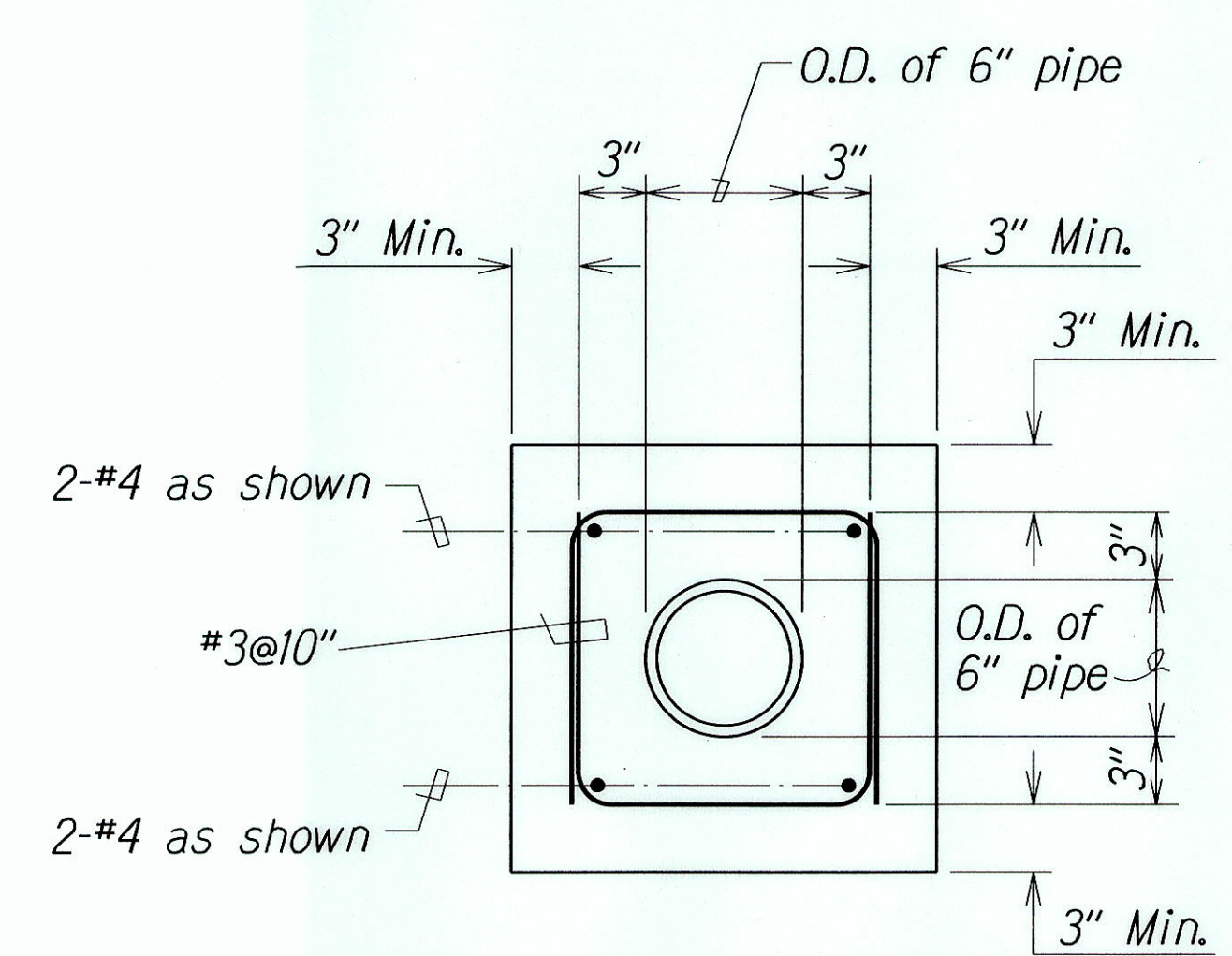
DETAIL OF CULVERT TRENCH AND REINFORCED CONCRETE JACKET

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



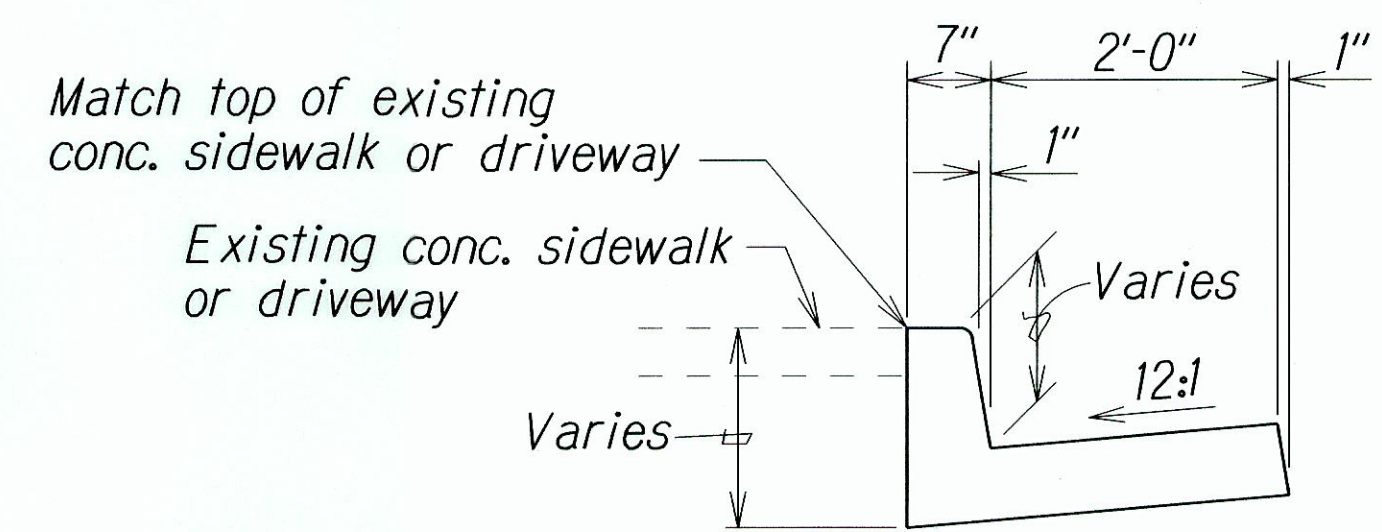
TYPICAL DETAILS OF CULVERT TRENCH RESTORATION AND REINFORCED CONCRETE JACKET

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



DETAIL OF CONCRETE JACKET FOR 6" SEWER LATERAL

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



DETAIL OF MODIFIED TYPE 2DG CURB AND GUTTER

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

LEGEND FOR AS-BUILT POSTINGS

~~~~~	Squiggly line for as-built deletion
==	Double line for as-built deletion
Roadway	Text for as-built posting

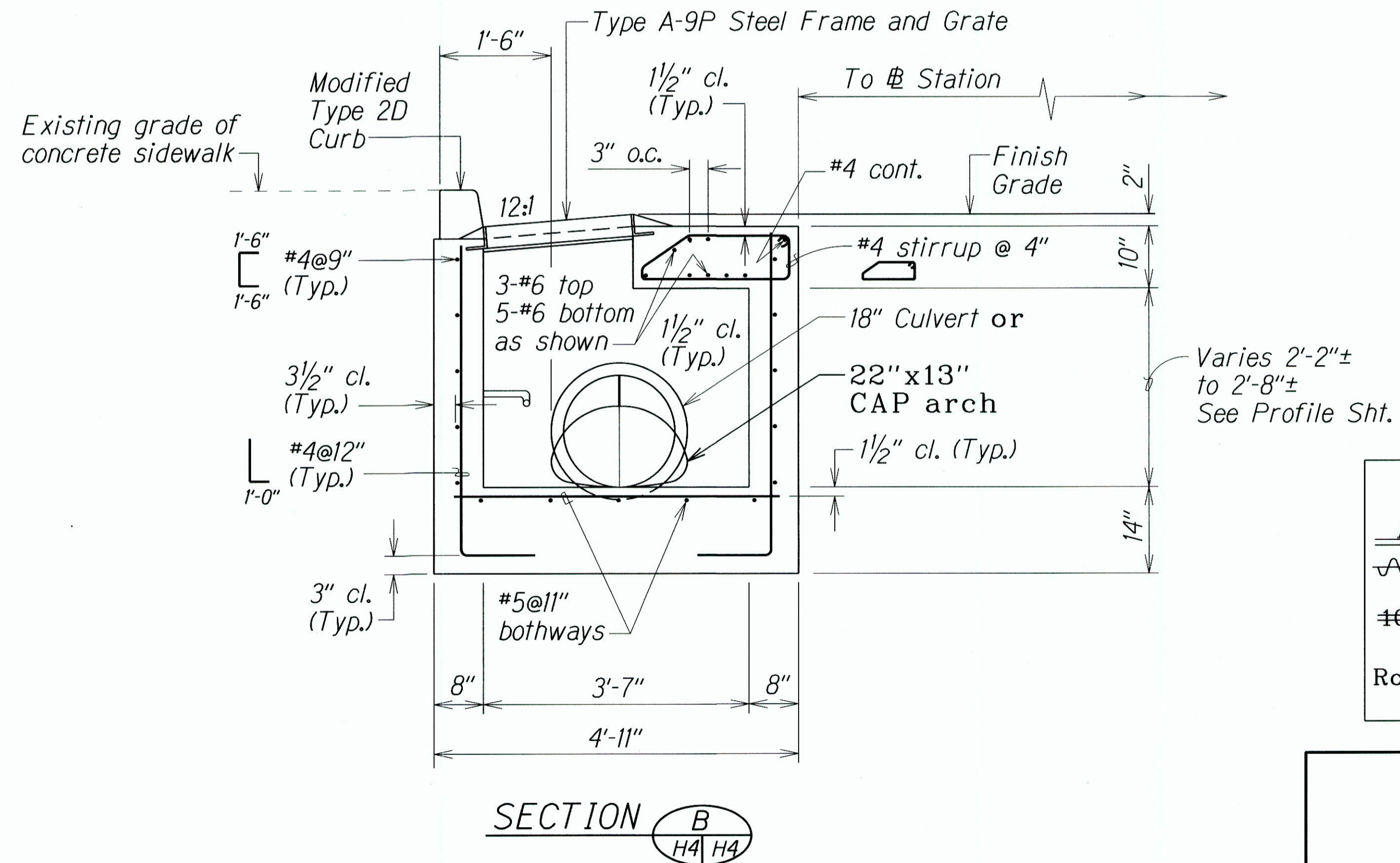
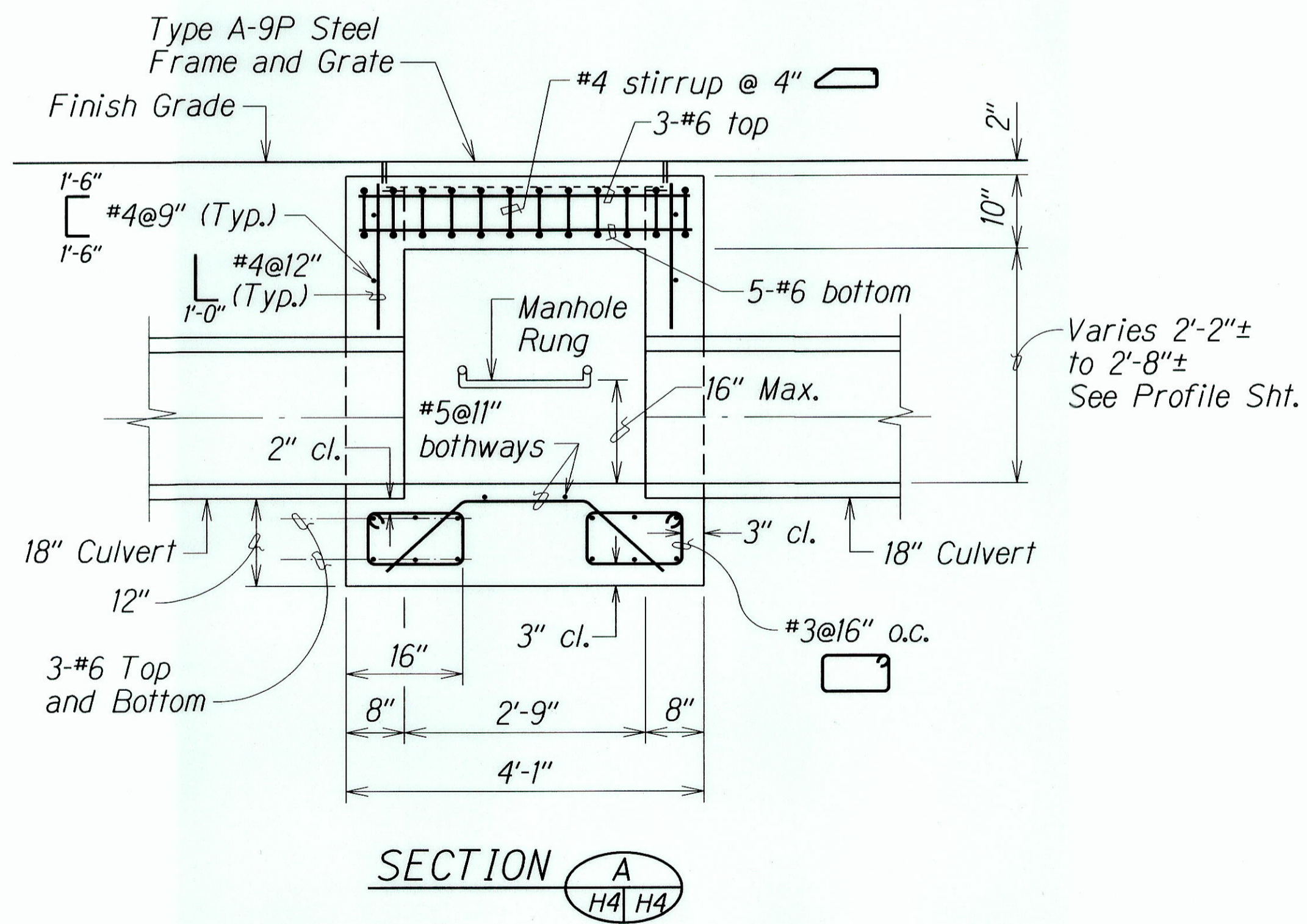
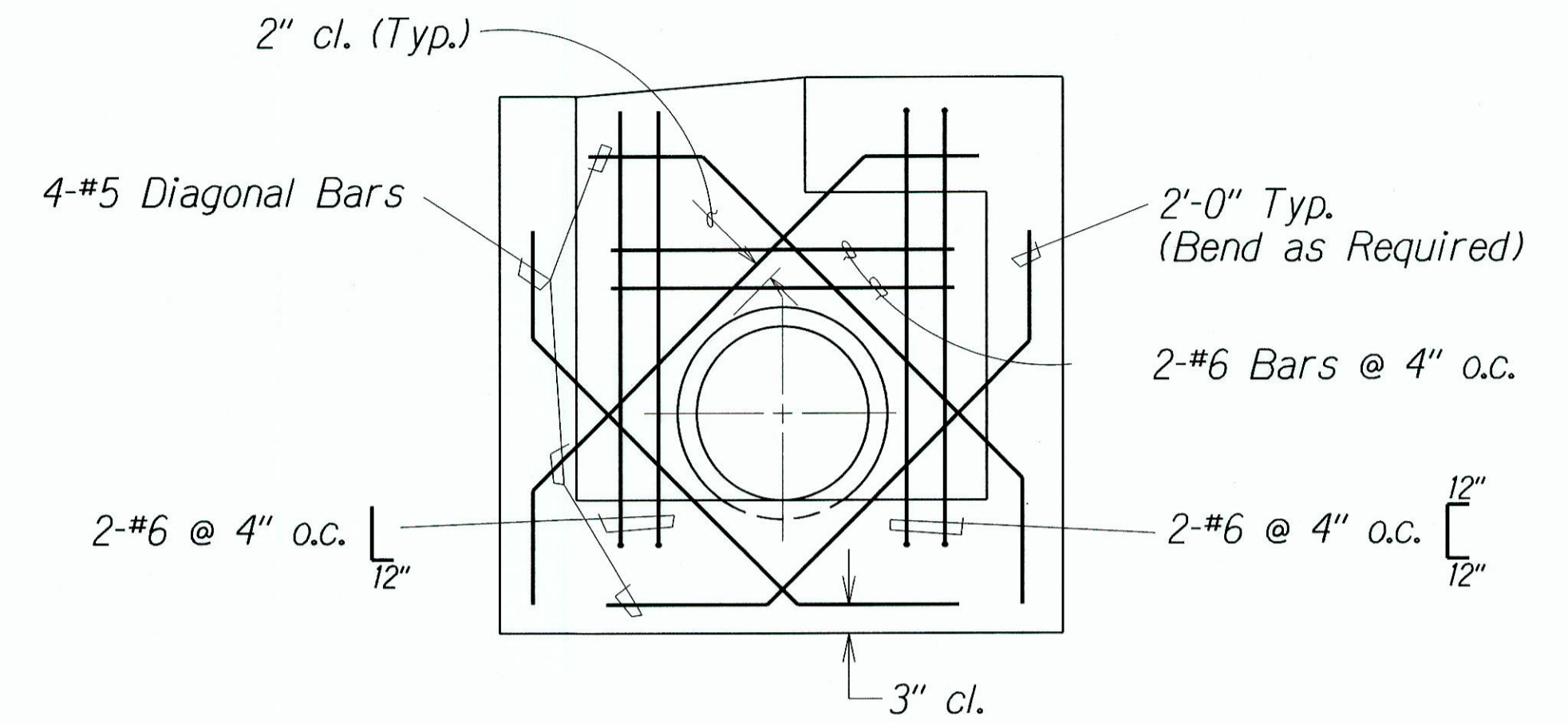
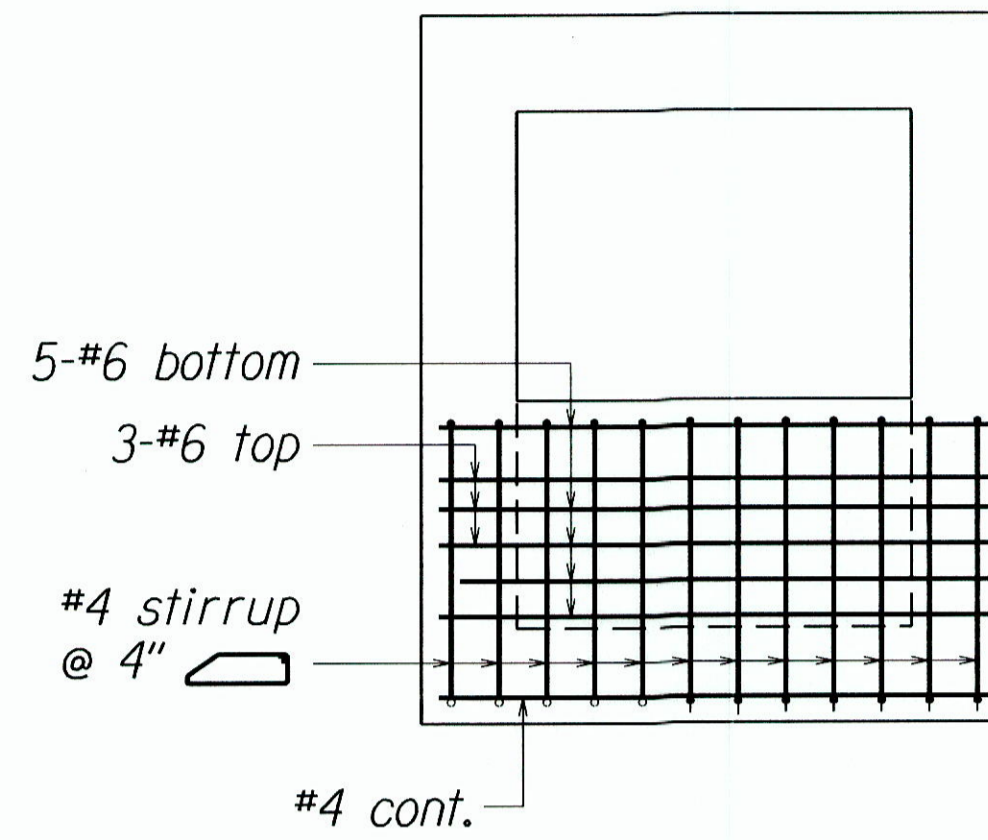
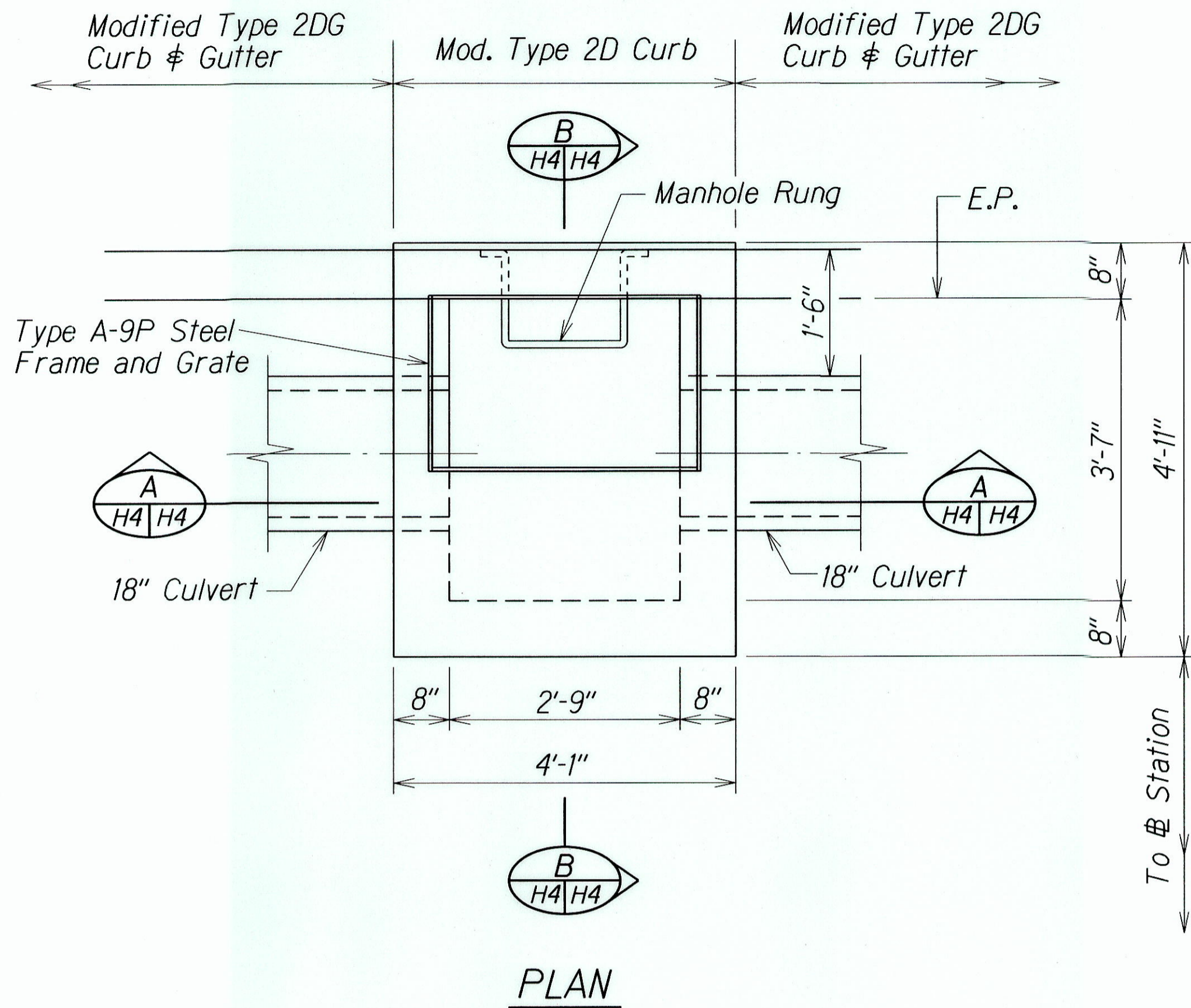
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**DRAINAGE DETAILS & PROFILE**  
**HANA HWY DRAINAGE IMPROVEMENTS**  
 Vicinity of Paia to Kuau  
 Project No. 36B-01-00

Scale: As Shown Date: Sept. 2001

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36B-01-00	2002	10	16



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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DRAINAGE DETAILS**

HANA HWY. DRAINAGE IMPROVEMENTS  
Vicinity of Paia to Kuau  
Project No. 36B-01-00

Scale: 3/4"=1'-0" Date: Sept. 2001

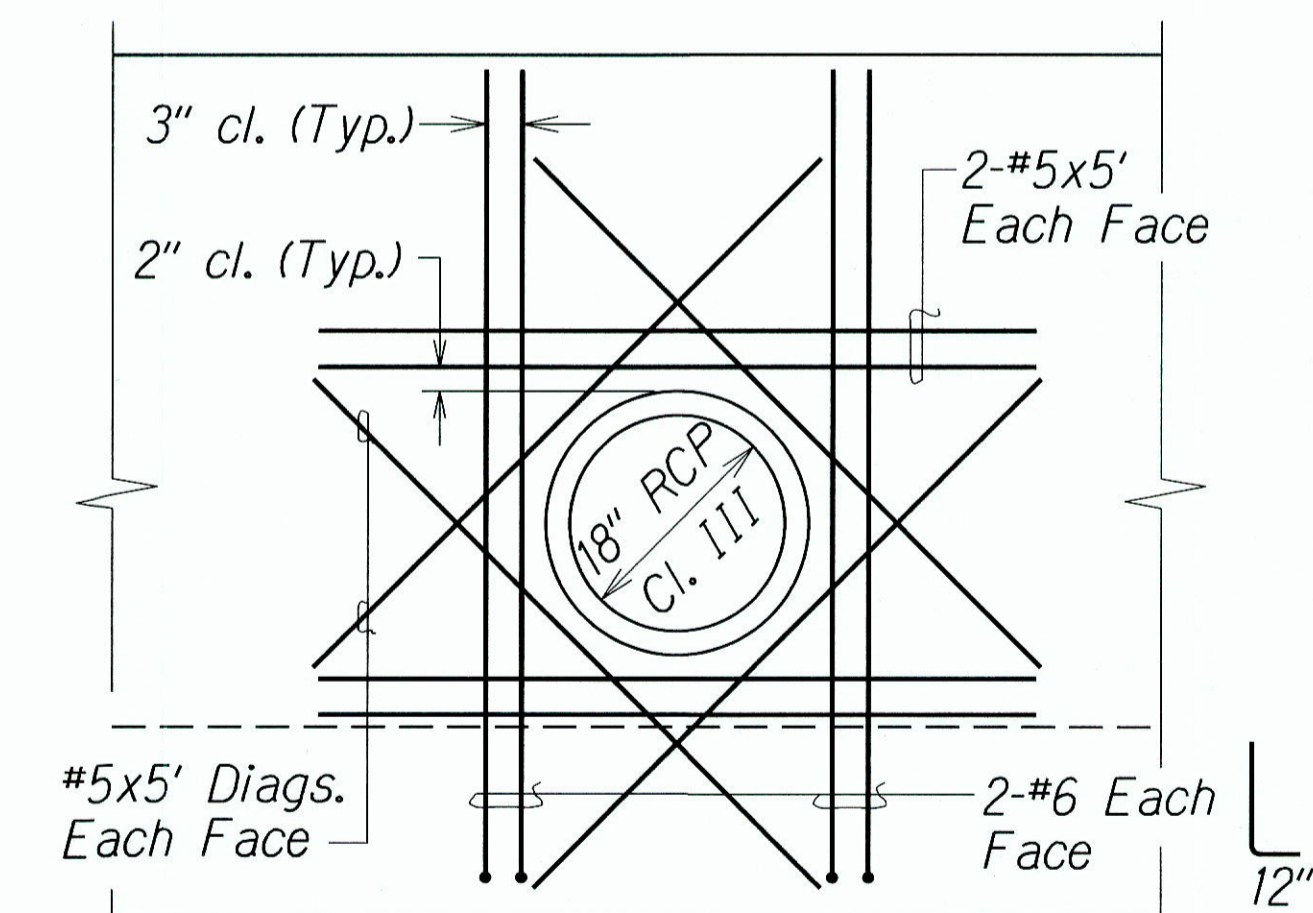
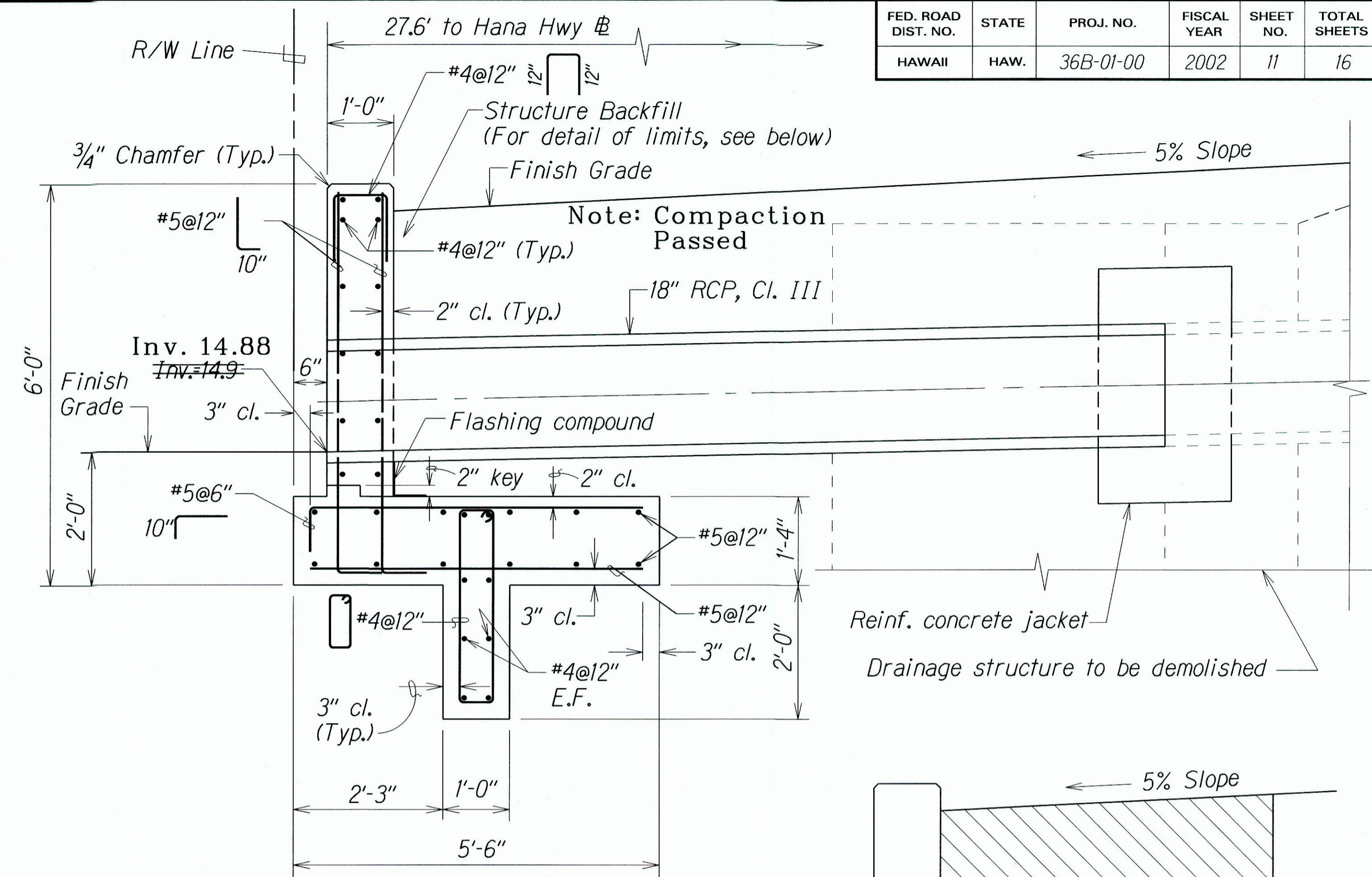
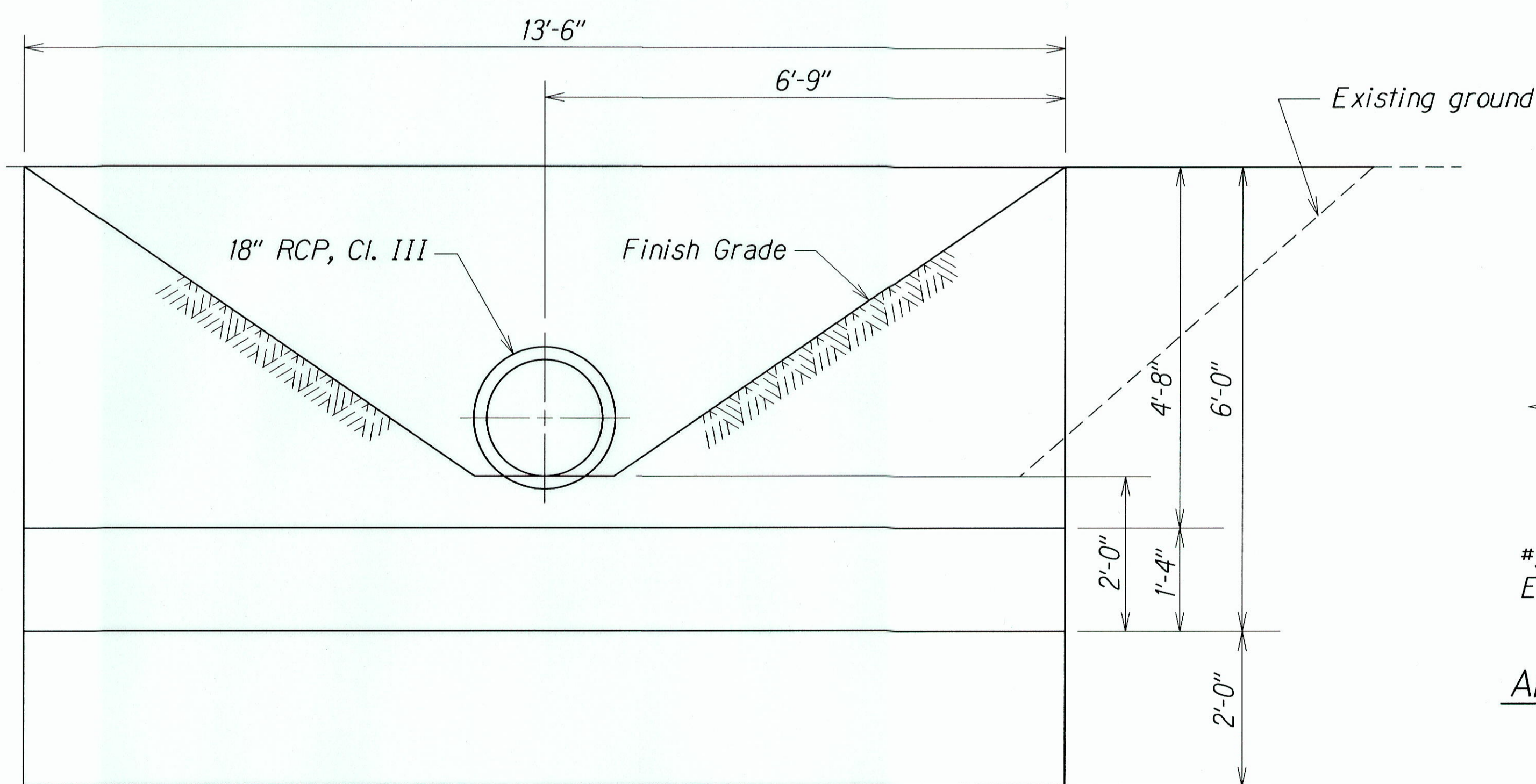
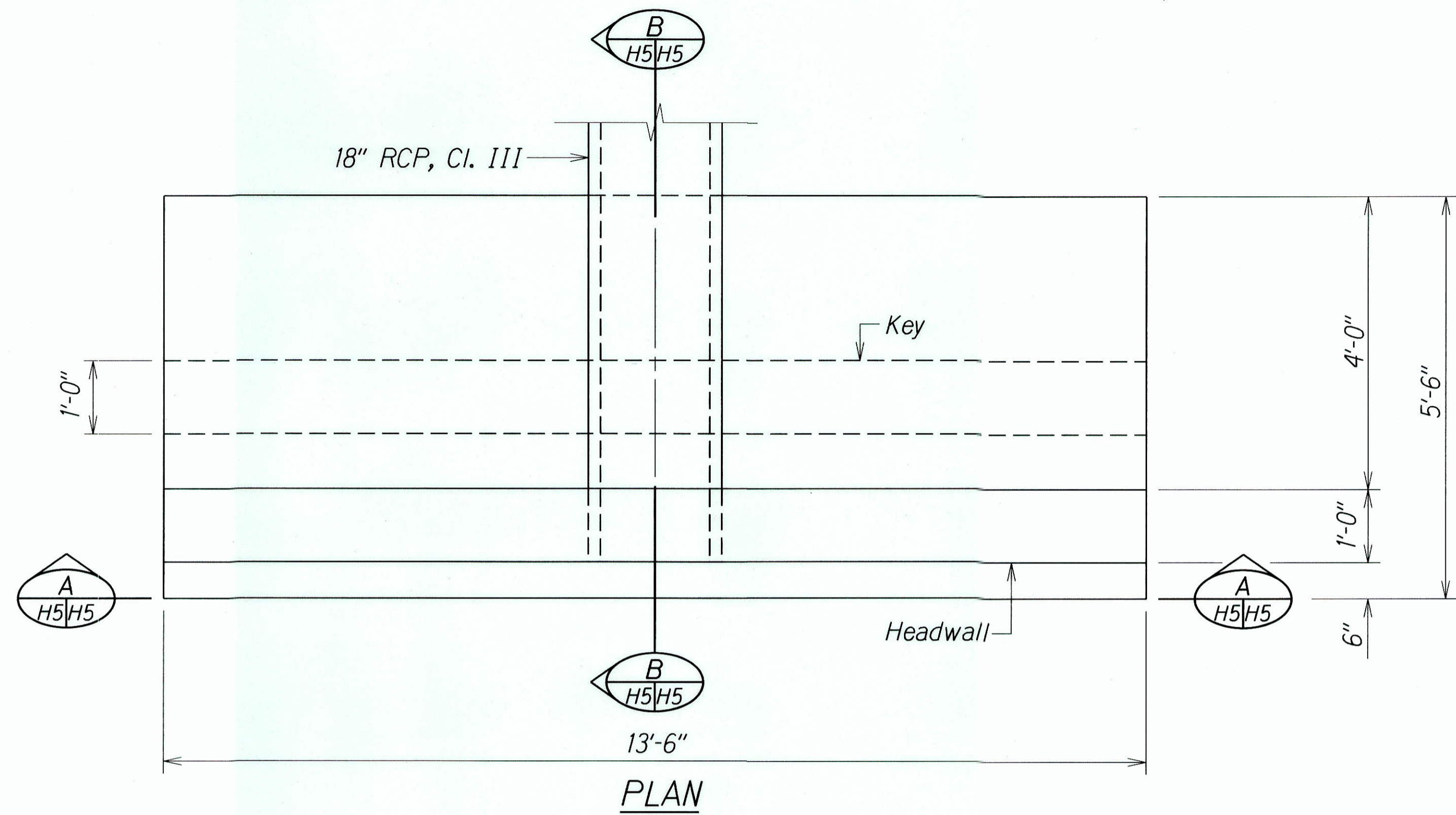
SHEET No. H4 OF 7 SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	
CHECKED BY	
DATE	3/7/00
DESIGNED BY	
CHECKED BY	
DATE	

**DETAILS OF TYPE A-9P GRATED DROP INLET**

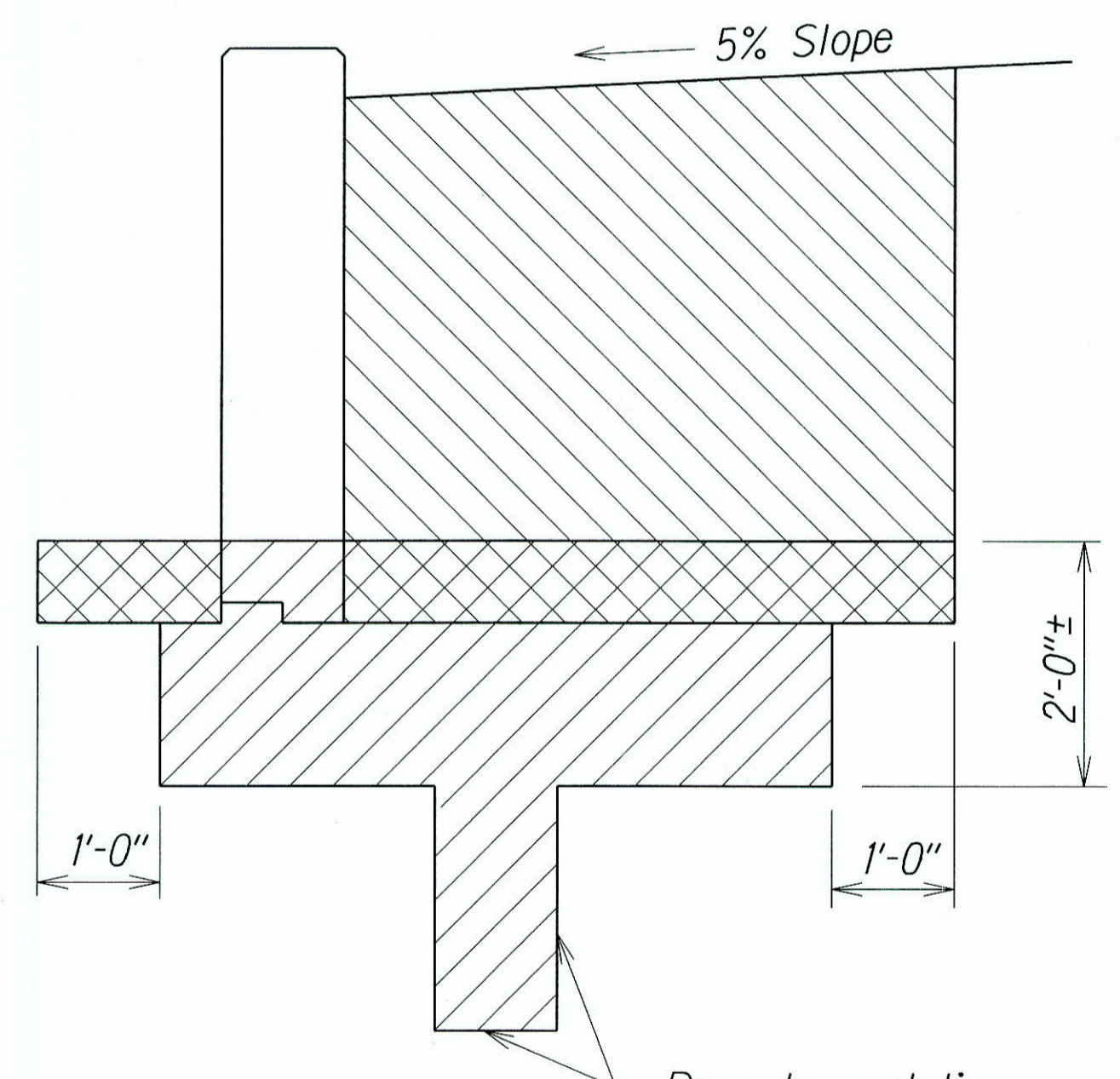
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36B-01-00	2002	11	16



**LEGEND FOR AS-BUILT POSTINGS**

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



ORIGINAL PLAN

SURVEY PLOTTED BY

DATE

DRAWN BY

TRACED BY

NOTE WORK

DESIGNED BY

CHECKED BY

**DETAILS OF TYPE "1" CONC. HEADWALL AT # STA. 24+40± 0/S 27.6' LT.**

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DRAINAGE DETAILS**

HANA HWY DRAINAGE IMPROVEMENTS

Vicinity of Paia to Kuuu

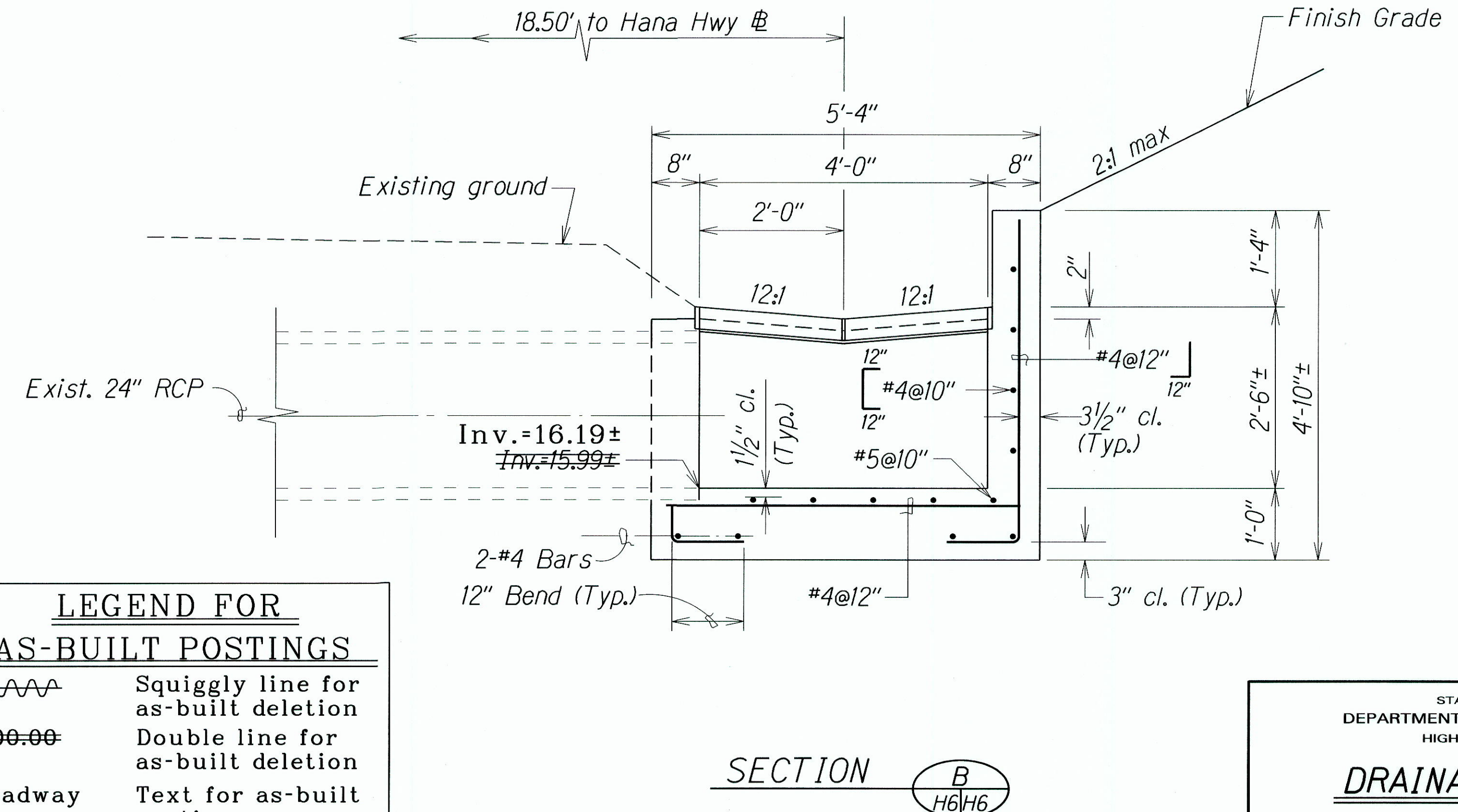
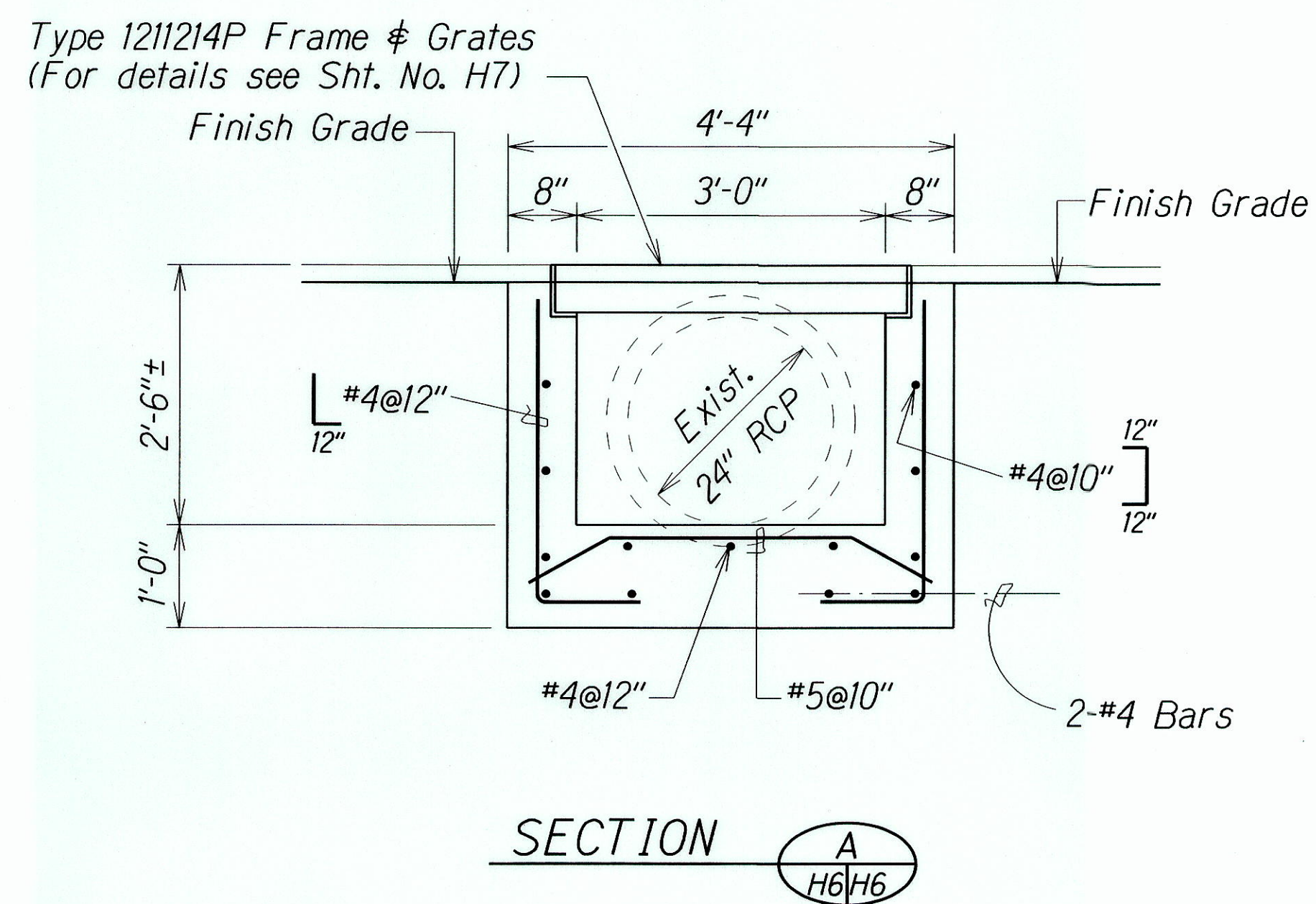
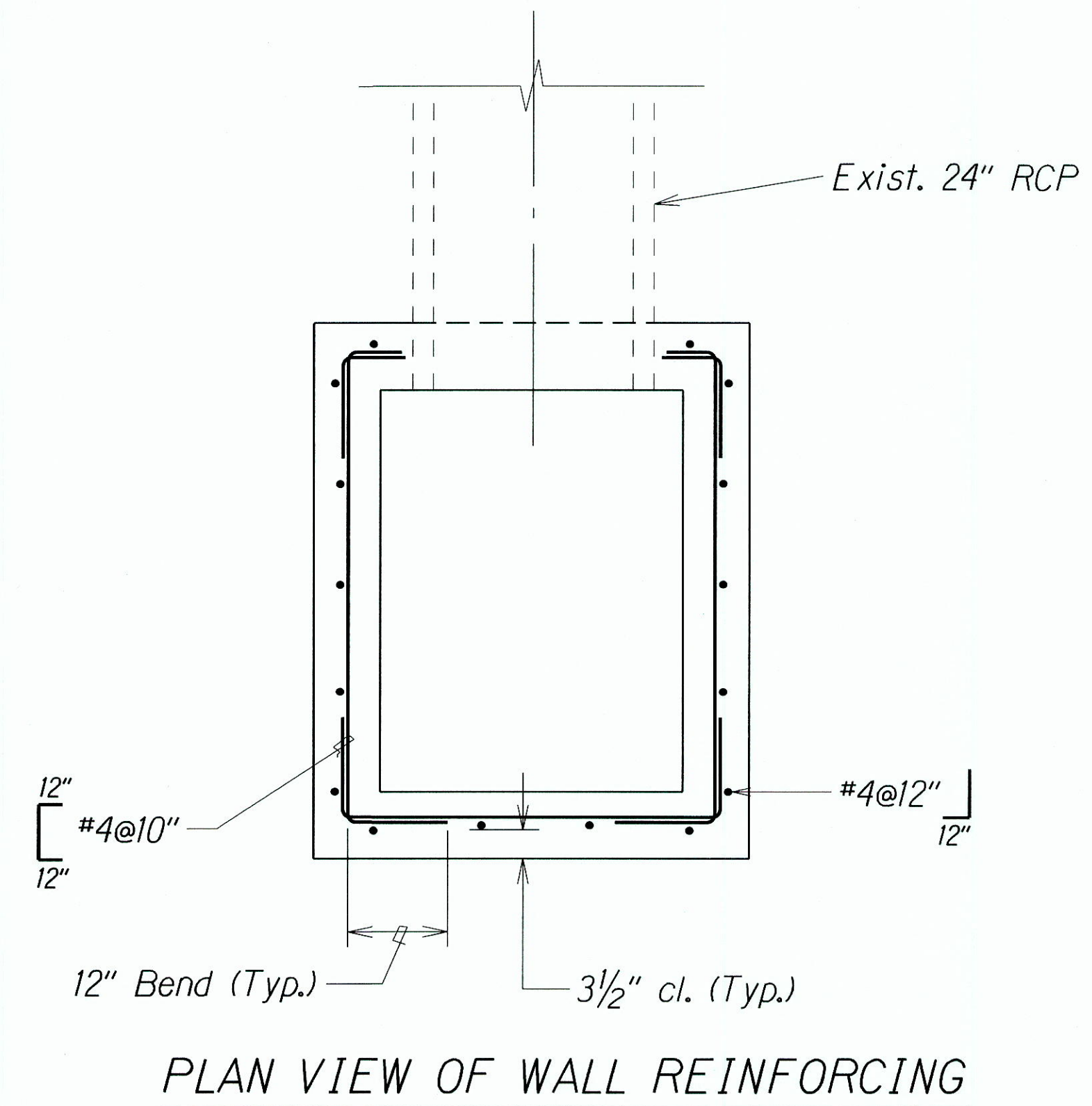
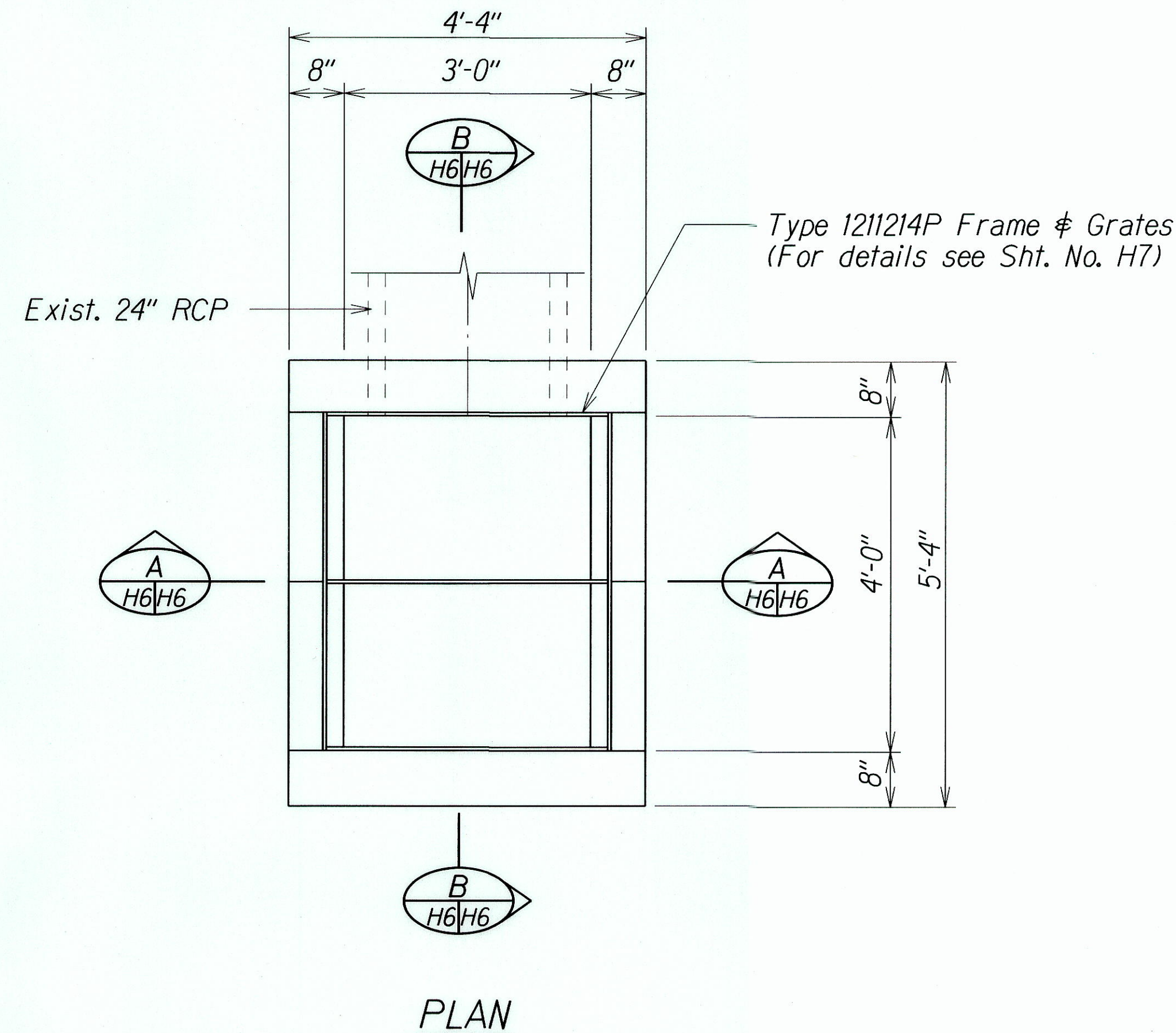
Project No. 36B-01-00

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

Date: Sept. 2001

SHEET No. H5 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36B-01-00	2002	12	16



**LEGEND FOR AS-BUILT POSTINGS**

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

DETAILS OF TYPE 1211214P GRATED DROP INLET @ STA. 24+40± O/S 18.50' RT.

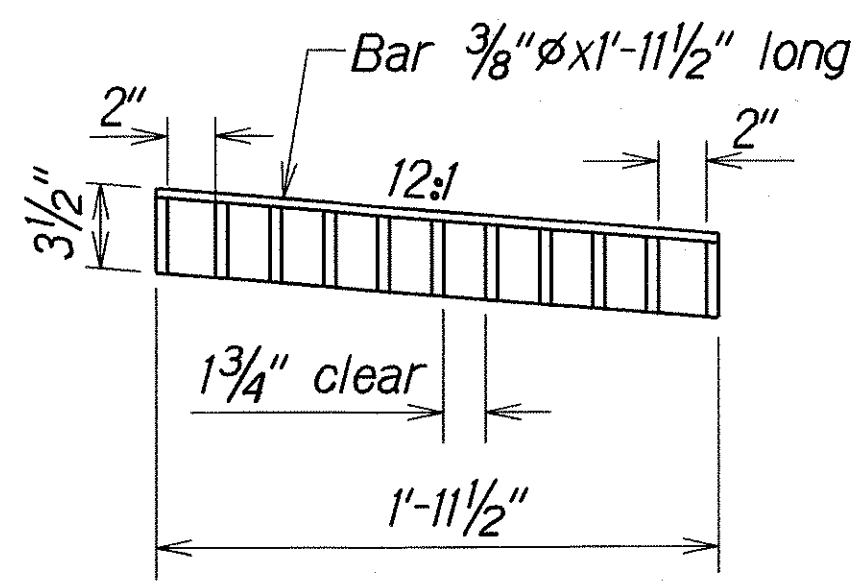
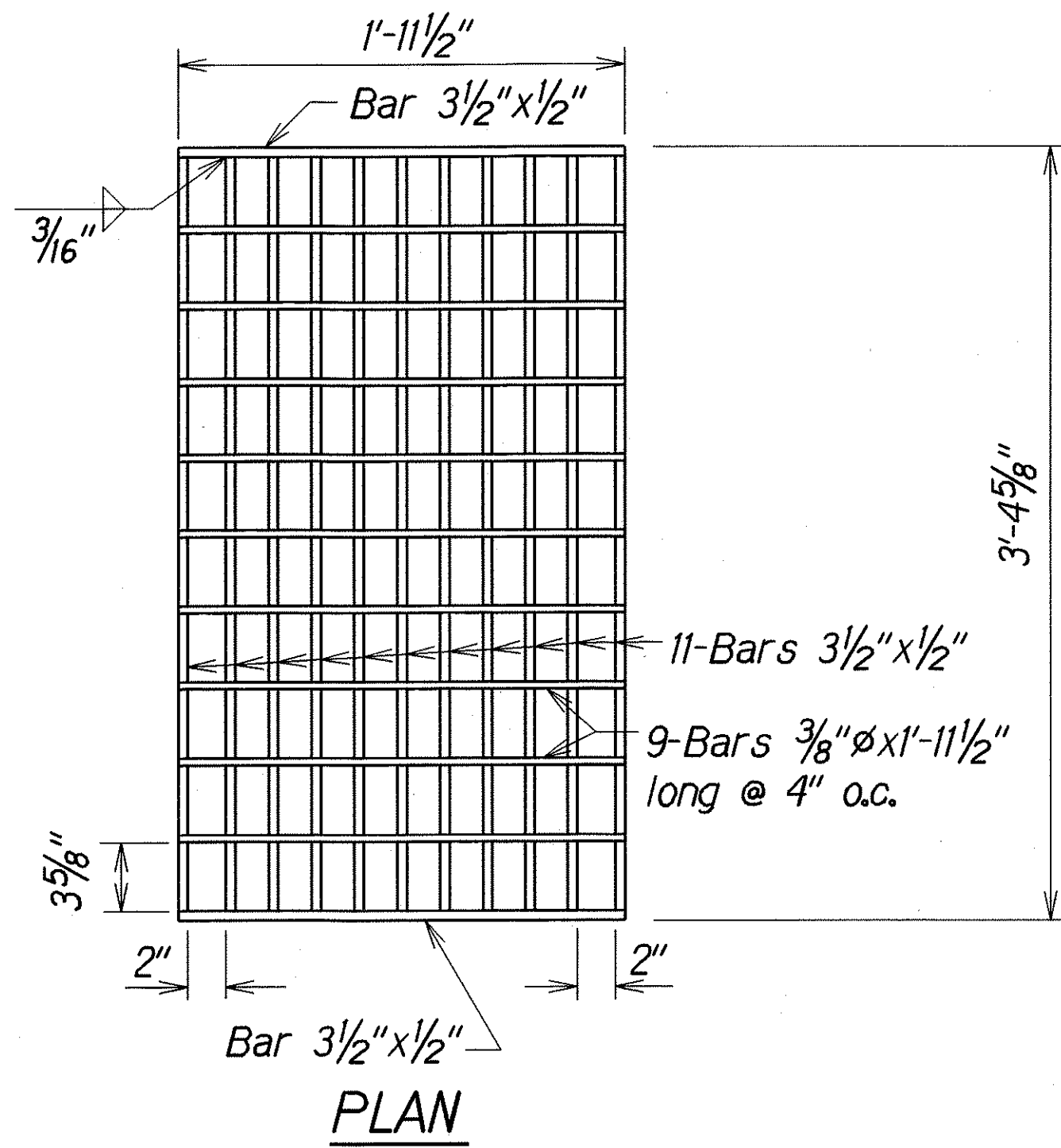
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DRAINAGE DETAILS**  
HANA HIGHWAY DRAINAGE IMP.  
Vicinity of Paia to Kuau  
Project No. 36B-01-00

Scale: 3/4" = 1'-0" Date: Sept. 2001  
SHEET No. H6 OF 7 SHEETS

ORIGINAL PLAN  
DATE: 9/27/00  
SURVEY PLOTTED BY: [ ]  
DRAWN BY: L.C.# B.S.  
NOTE BOOK: [ ]  
DESIGNED BY: E.T.# E.M.  
CHECKED BY: [ ]

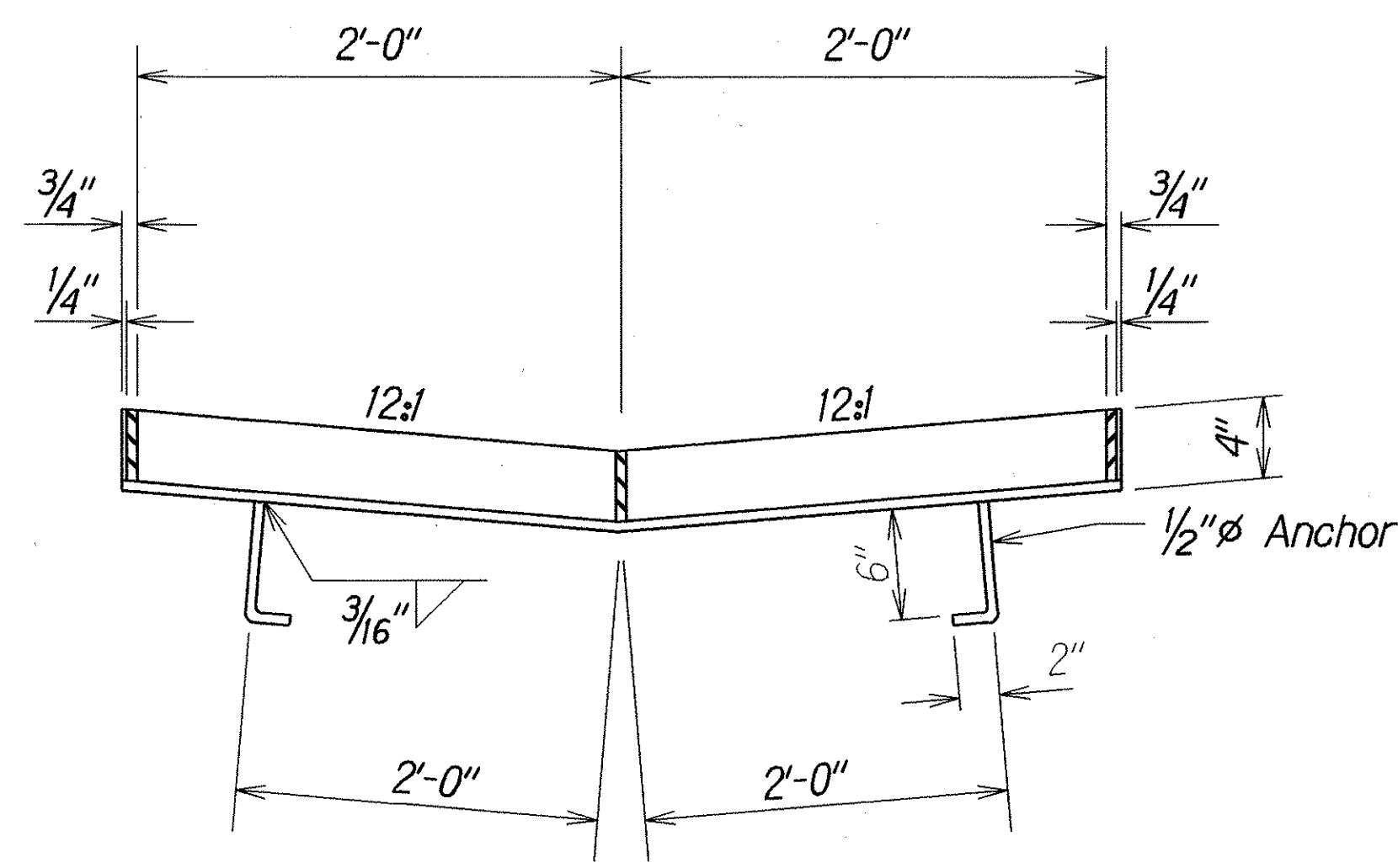
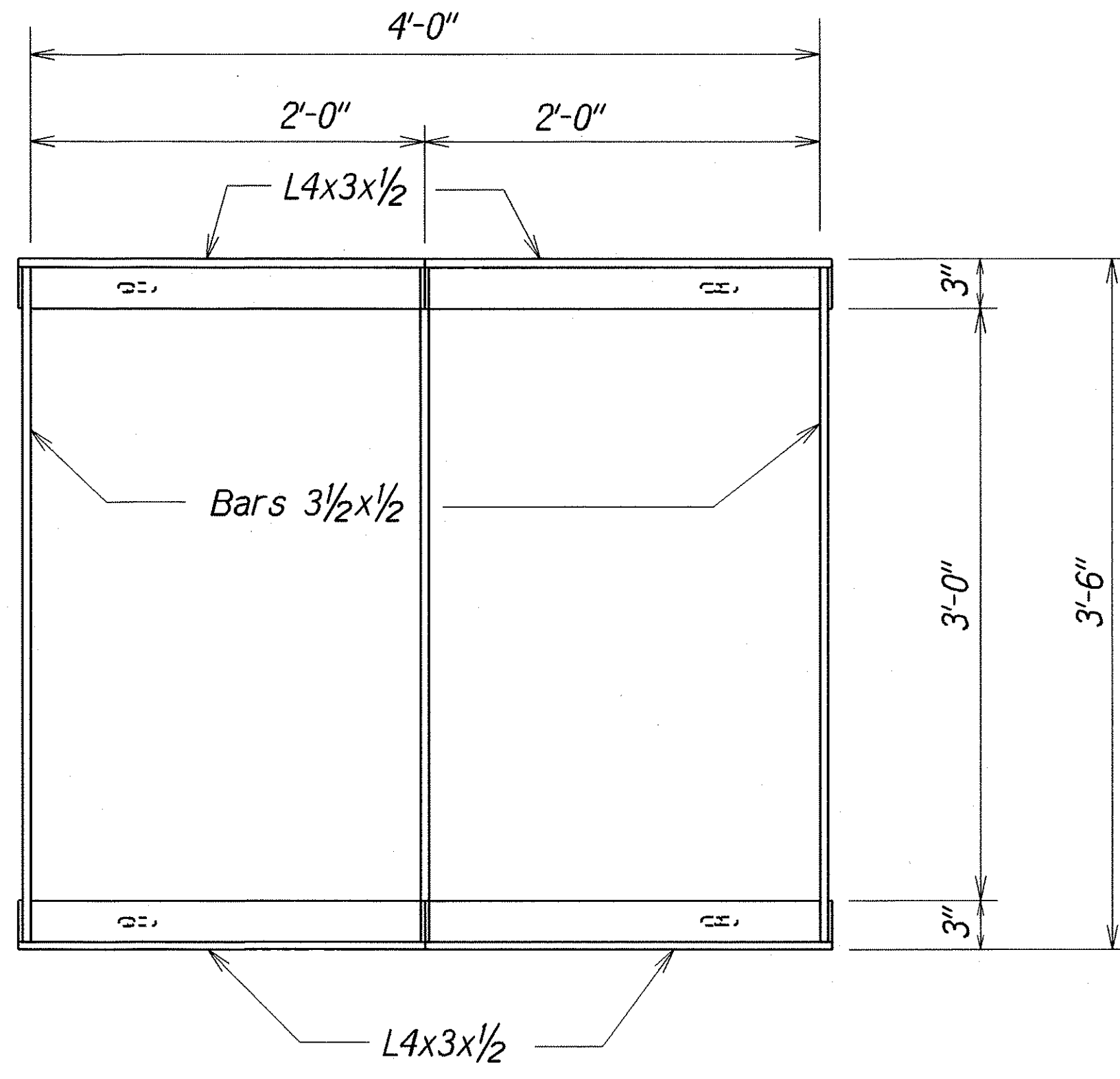
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	36B-01-00	2002	13	16



**SECTION**

**GRATE**

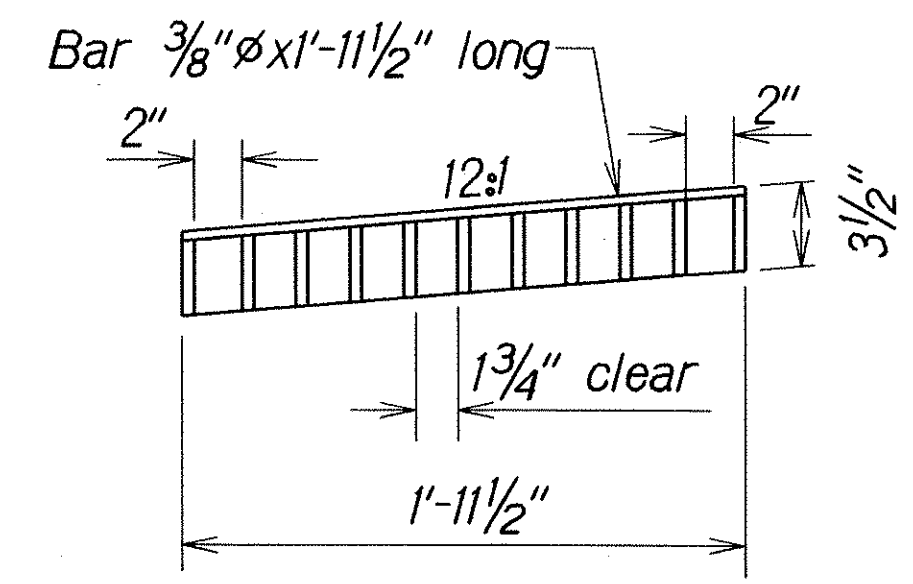
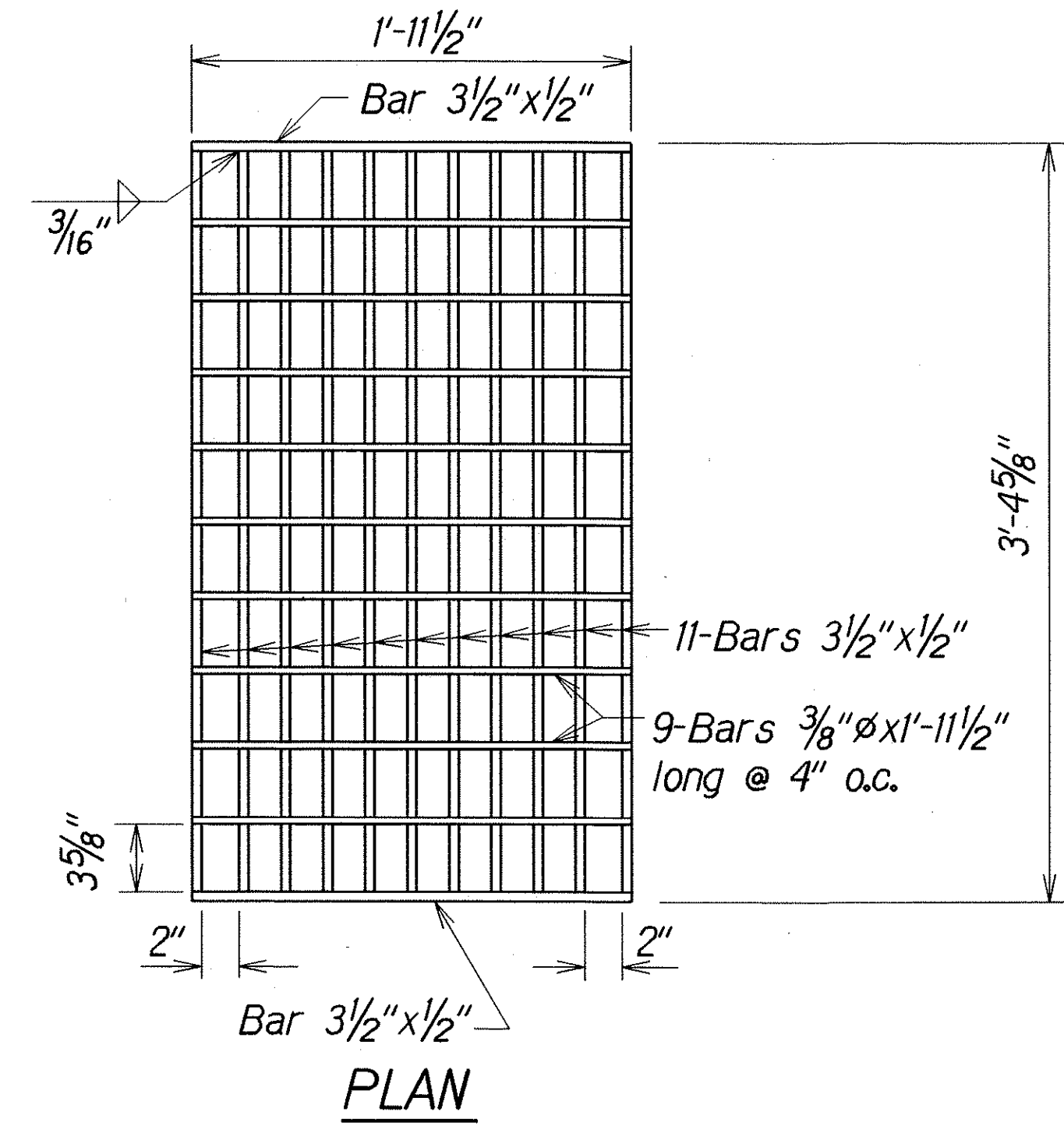
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**SECTION**

**FRAME**

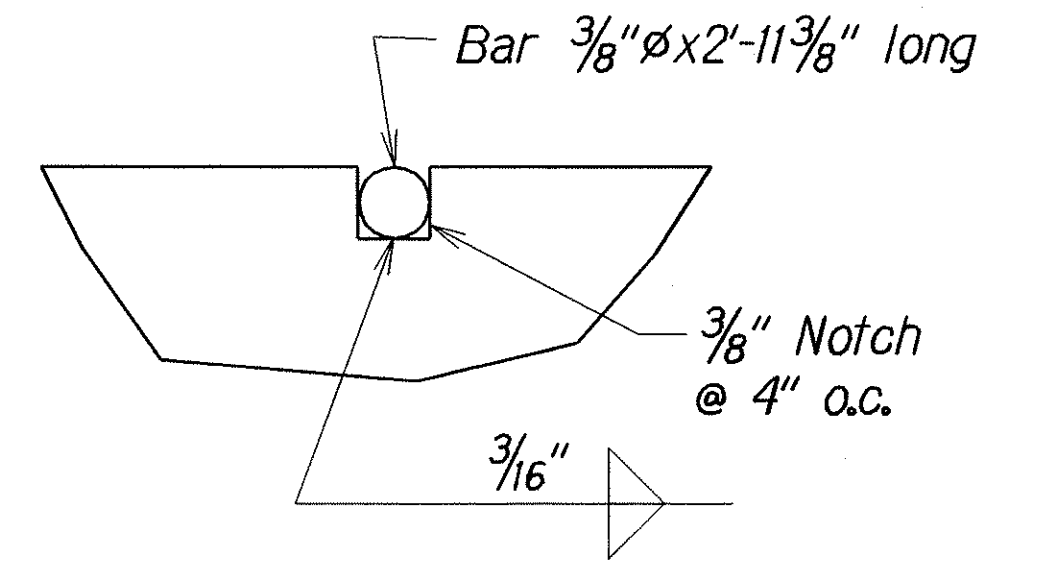
Scale: 1/2"=1'-0"



**SECTION**

**GRATE**

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



**NOTCH DETAIL**  
Full Size

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

**DETAILS OF TYPE "1211214P" STEEL FRAME AND GRATES**

ORIGINAL PLAN	DATE: 8/29/00
SURVEY PLOTTED BY	
DRAWN BY J.C.	
TRACED BY	
DESIGNED BY B.T.	
CHECKED BY	
DATE	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DRAINAGE DETAILS**

HANA HWY DRAINAGE IMPROVEMENTS

Vicinity of Paia to Kuau

Project No. 36B-01-00

Scale: As Shown Date: Sept. 2001

SHEET No. H7 OF 7 SHEETS