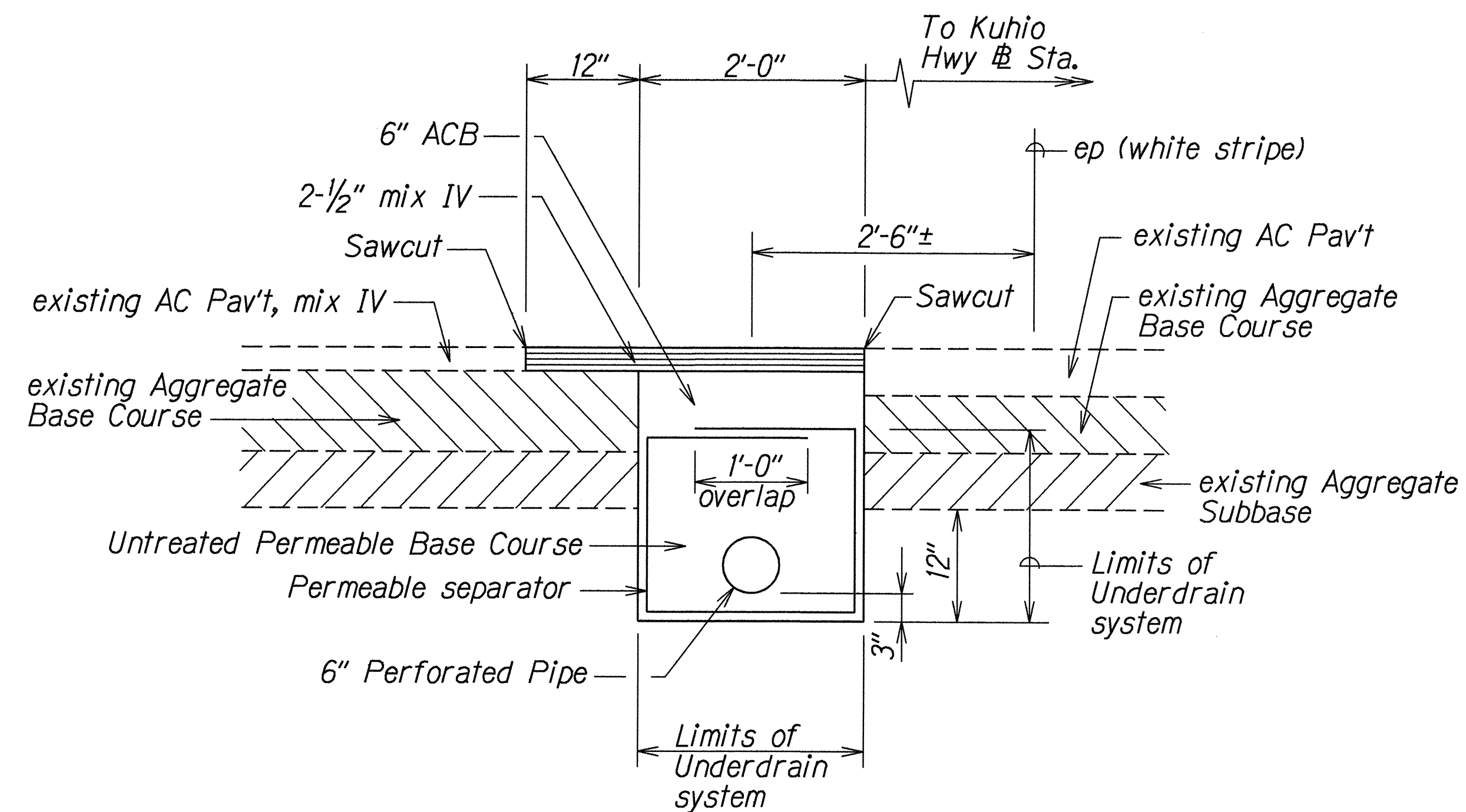
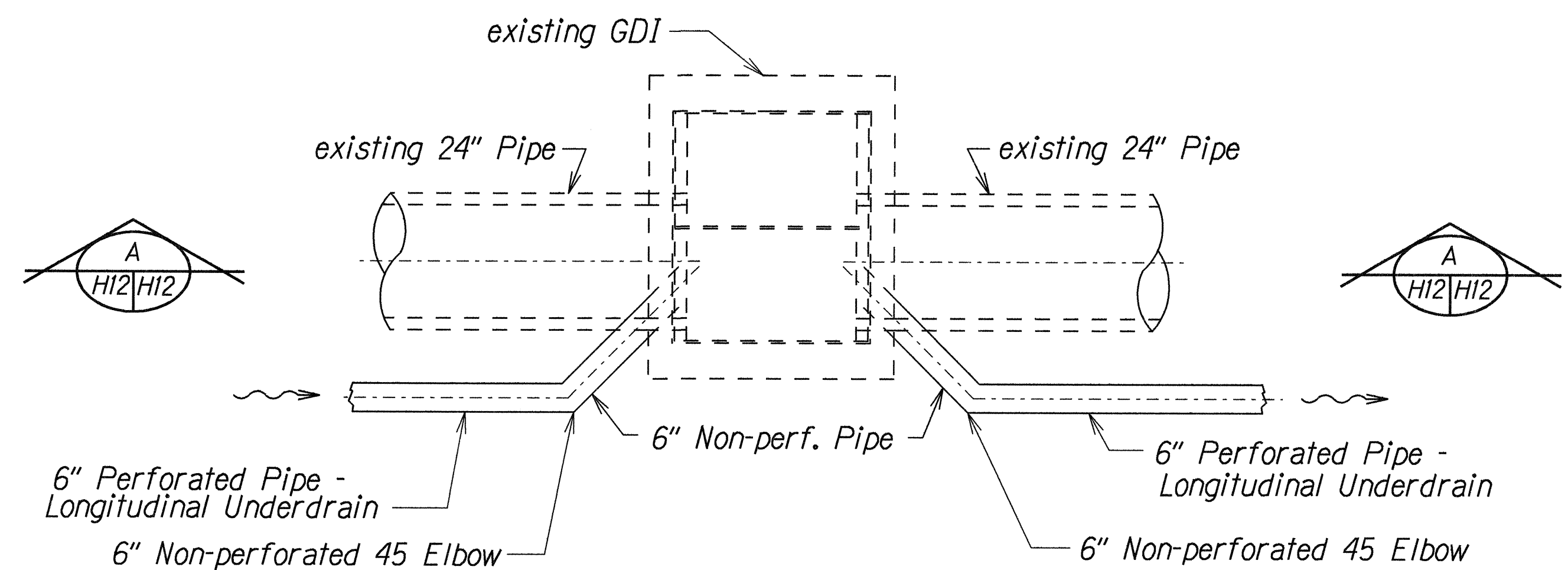


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	550A-01-00	2001	16	22

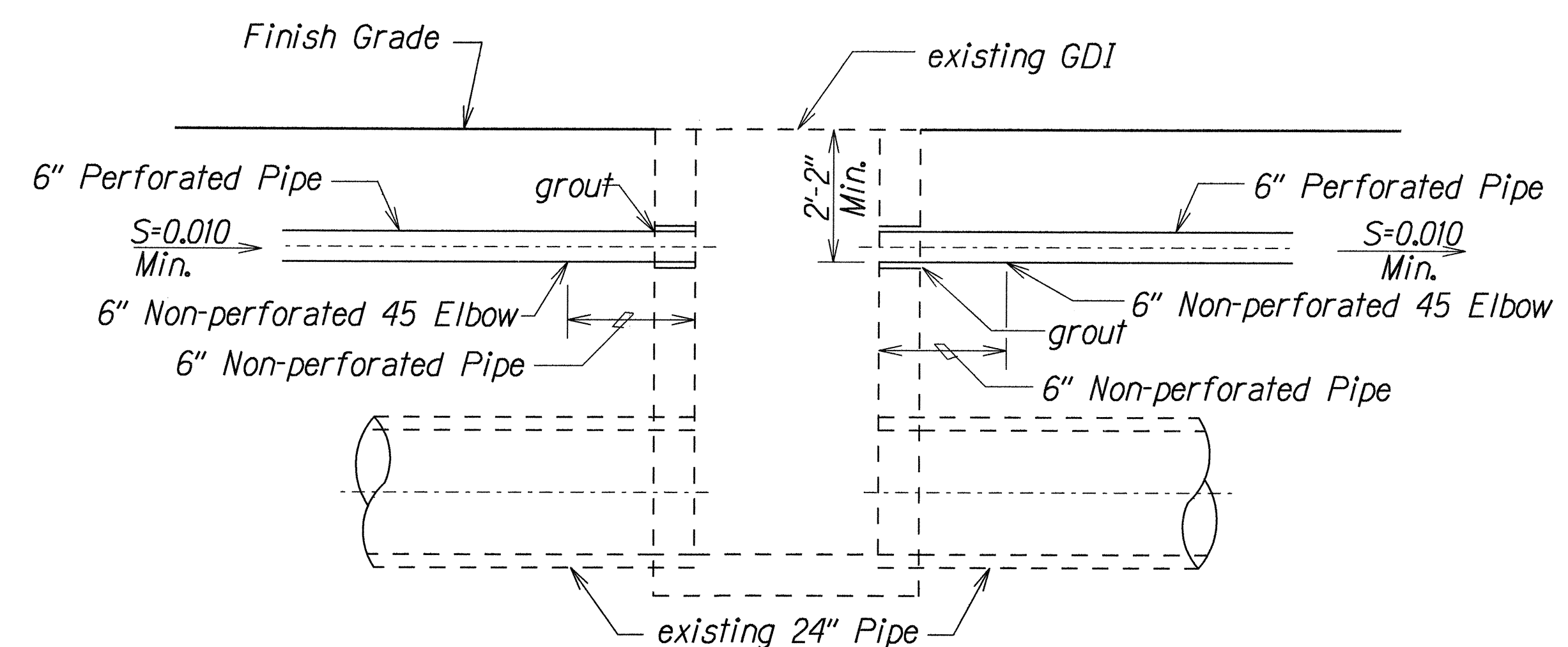


TYPICAL DETAIL OF UNDERDRAIN

Scale: 1"=1'-0"



PLAN



SECTION A
H12 H12

TYPICAL DETAILS OF UNDERDRAIN CONNECTION TO EXISTING GRATED DROP INLET

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

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
	NOTED BY	
	QUANTITIES BY	
	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

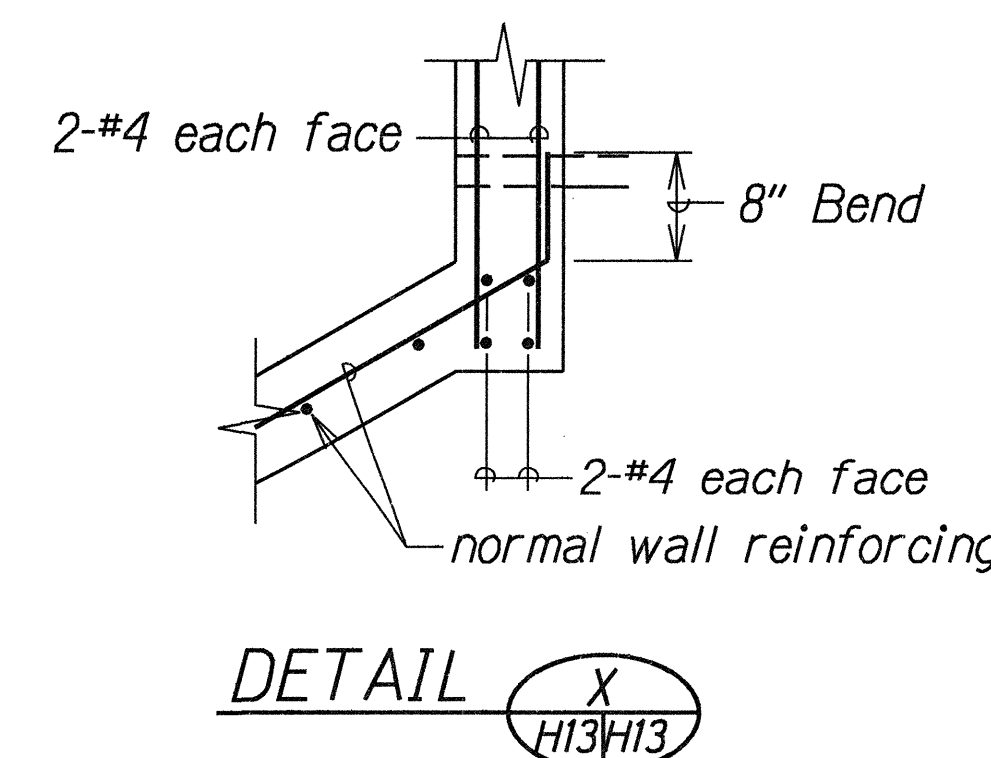
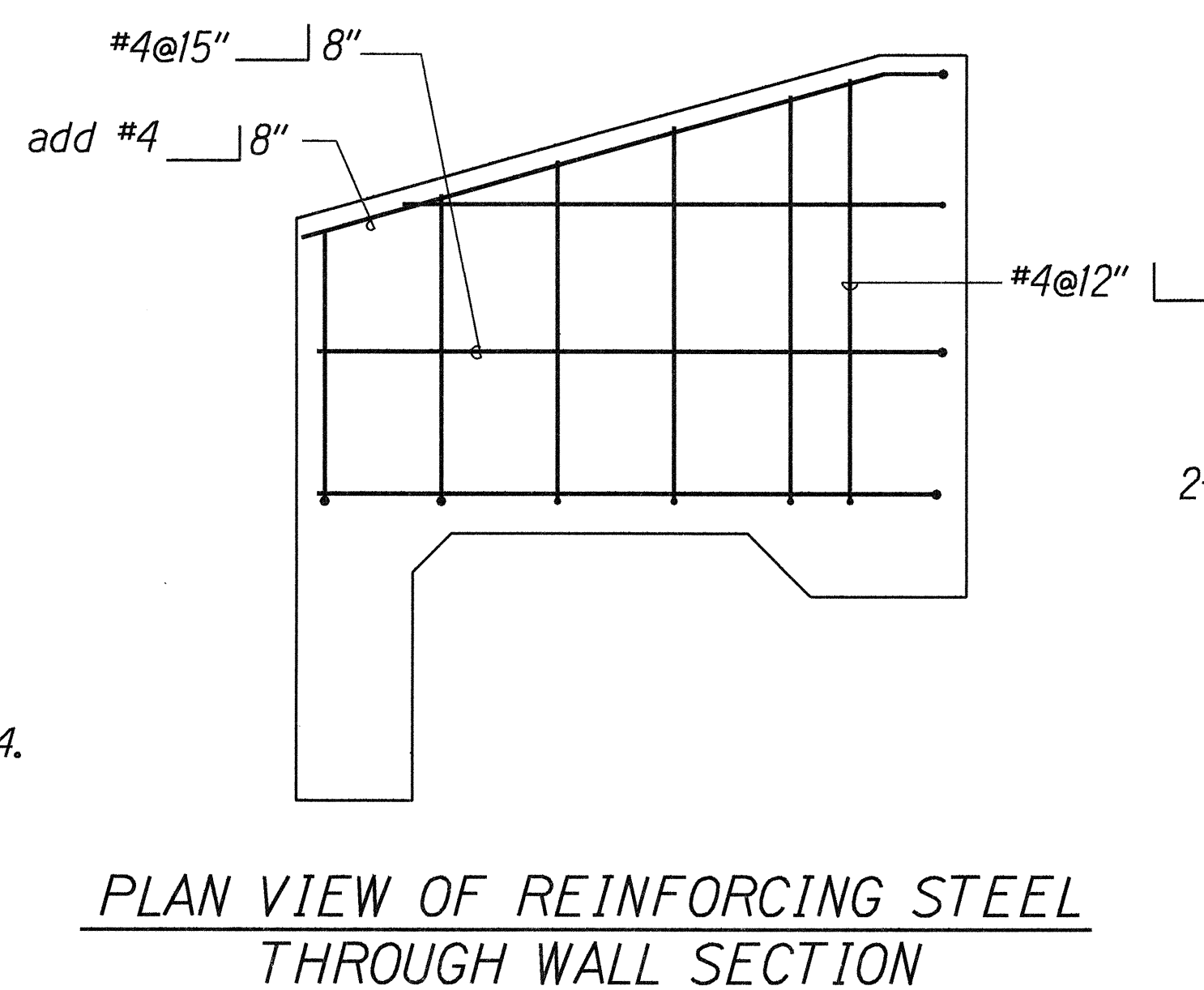
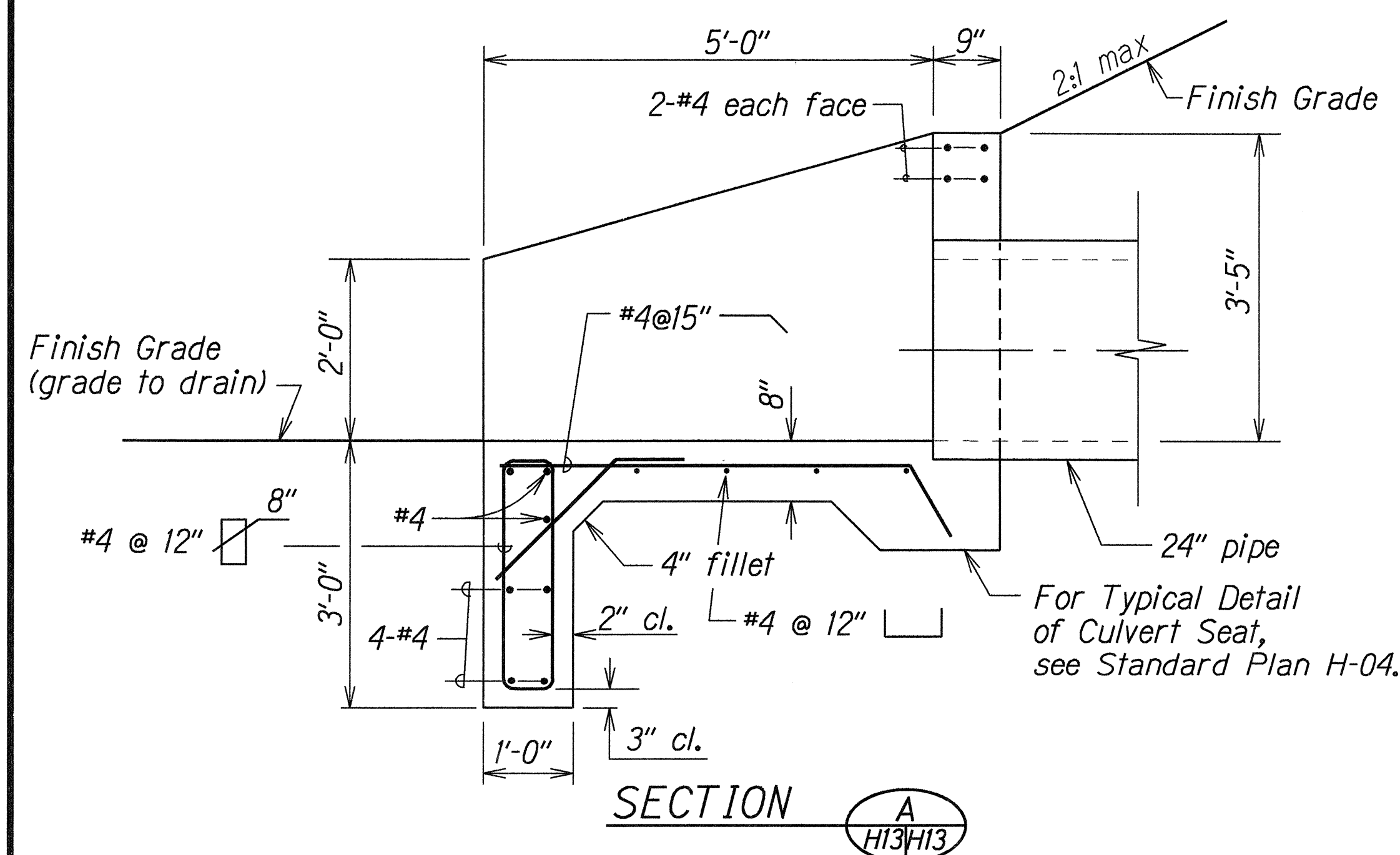
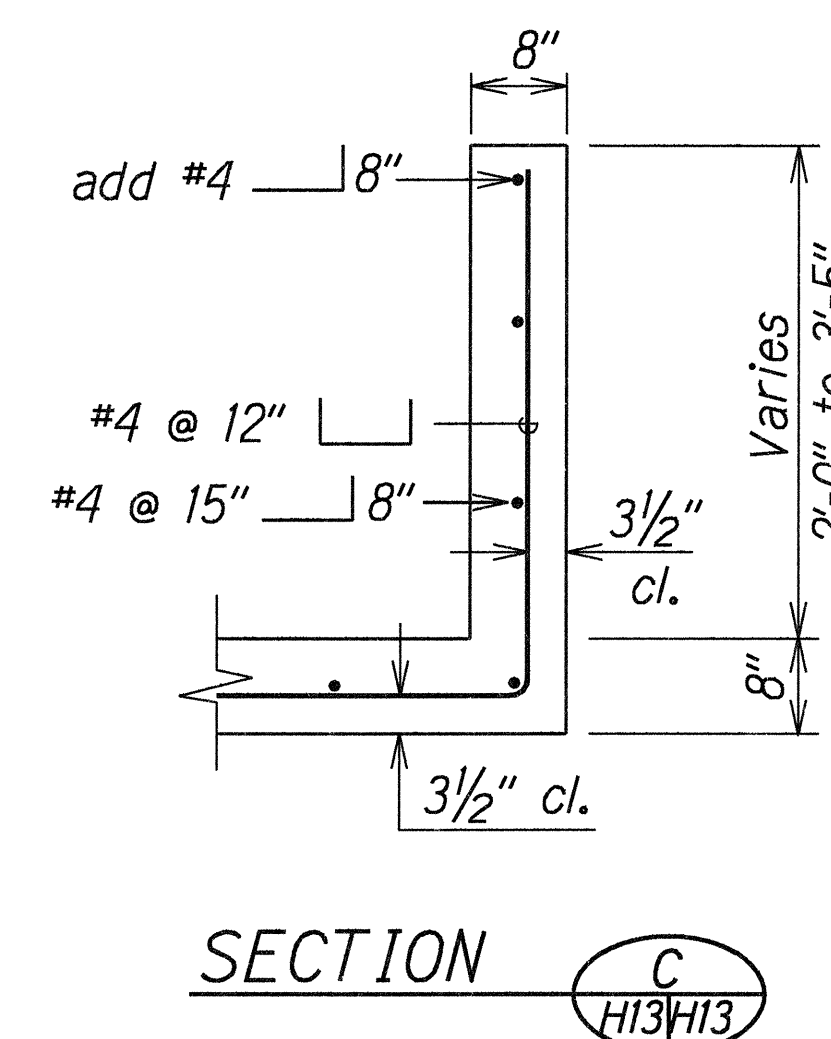
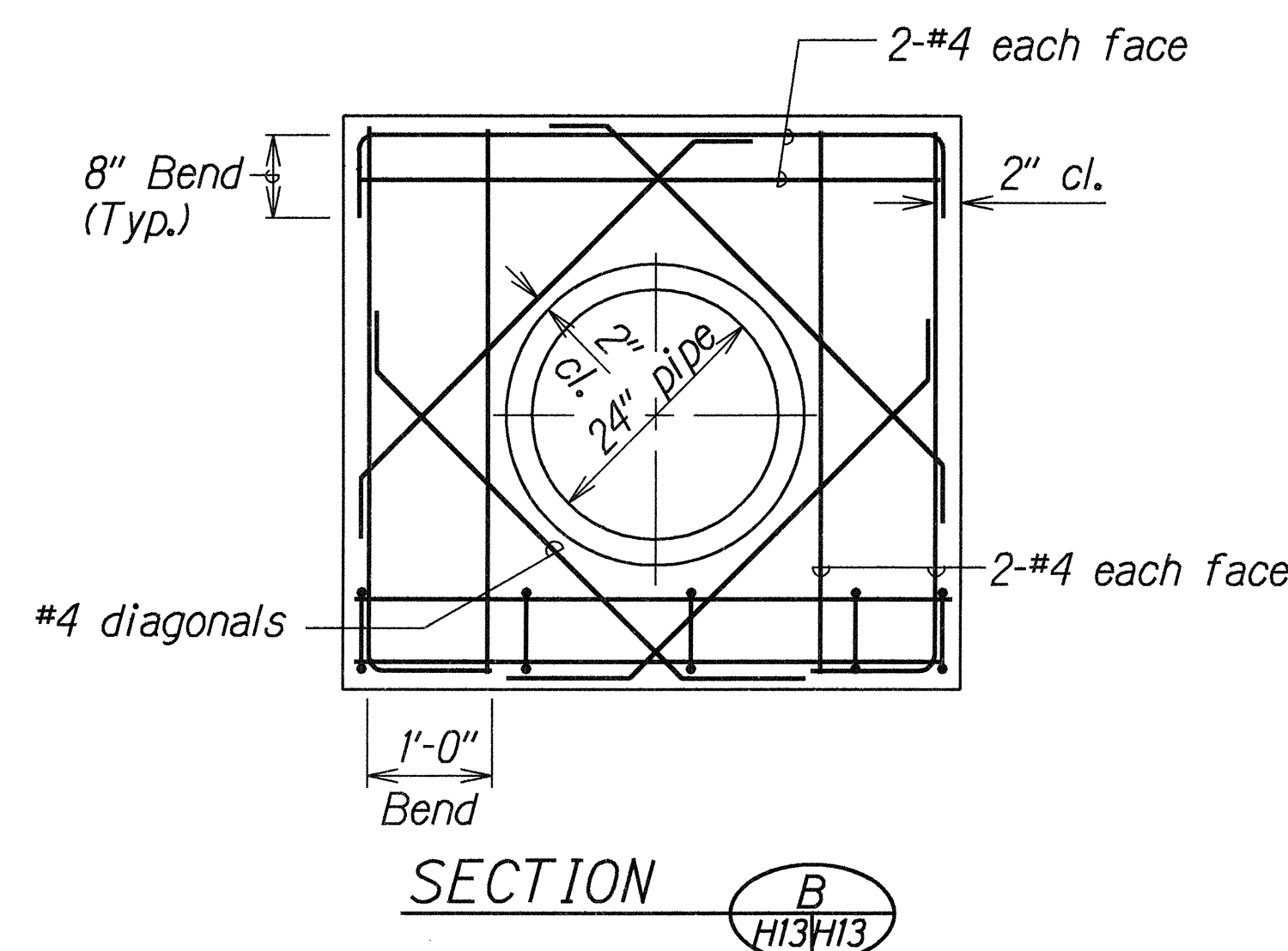
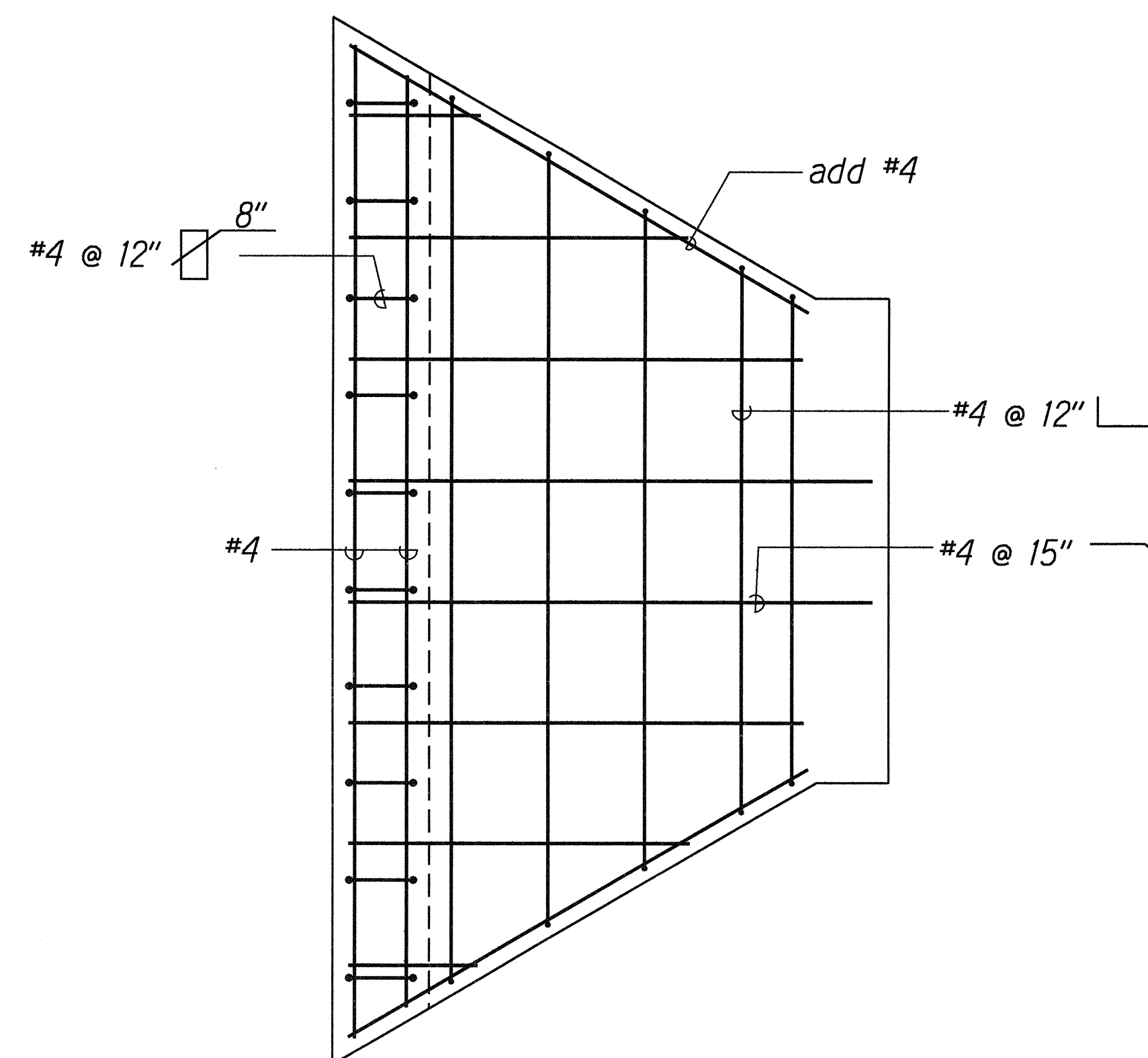
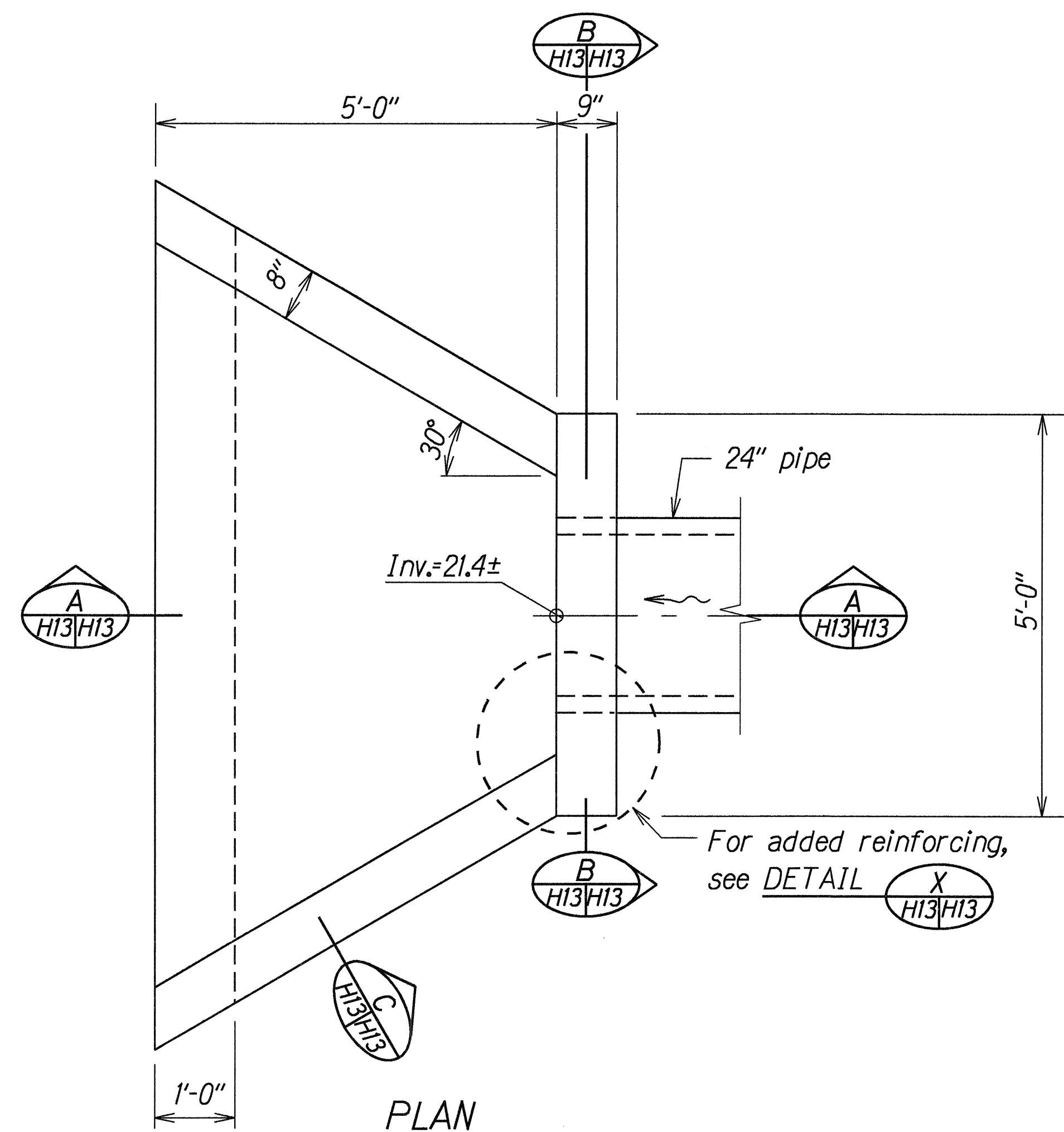
DRAINAGE DETAILS

Waimea Canyon Drive & Kuhio Highway
Miscellaneous Drainage Improvements
Project No. 550A-01-00

Scale: As Shown Date: Jan., 2001

SHEET No. H12 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	550A-01-00	2001	17	22



DETAIL OF TYPE "1" OUTLET STRUCTURE

SURVEY PLOTTED BY	DATE
DRAWN BY	3/2/99
CHECKED BY	
NOTED BY	
QUANTITIES BY	
REVISIONS	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

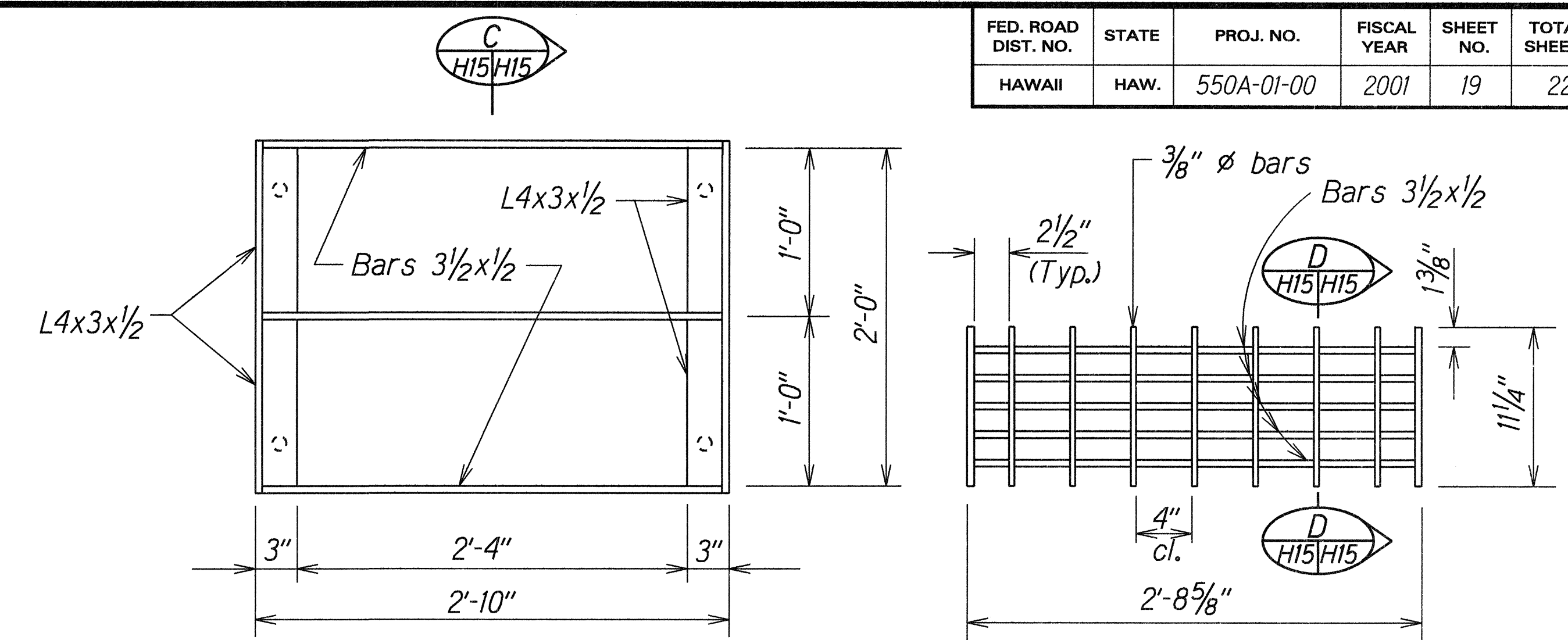
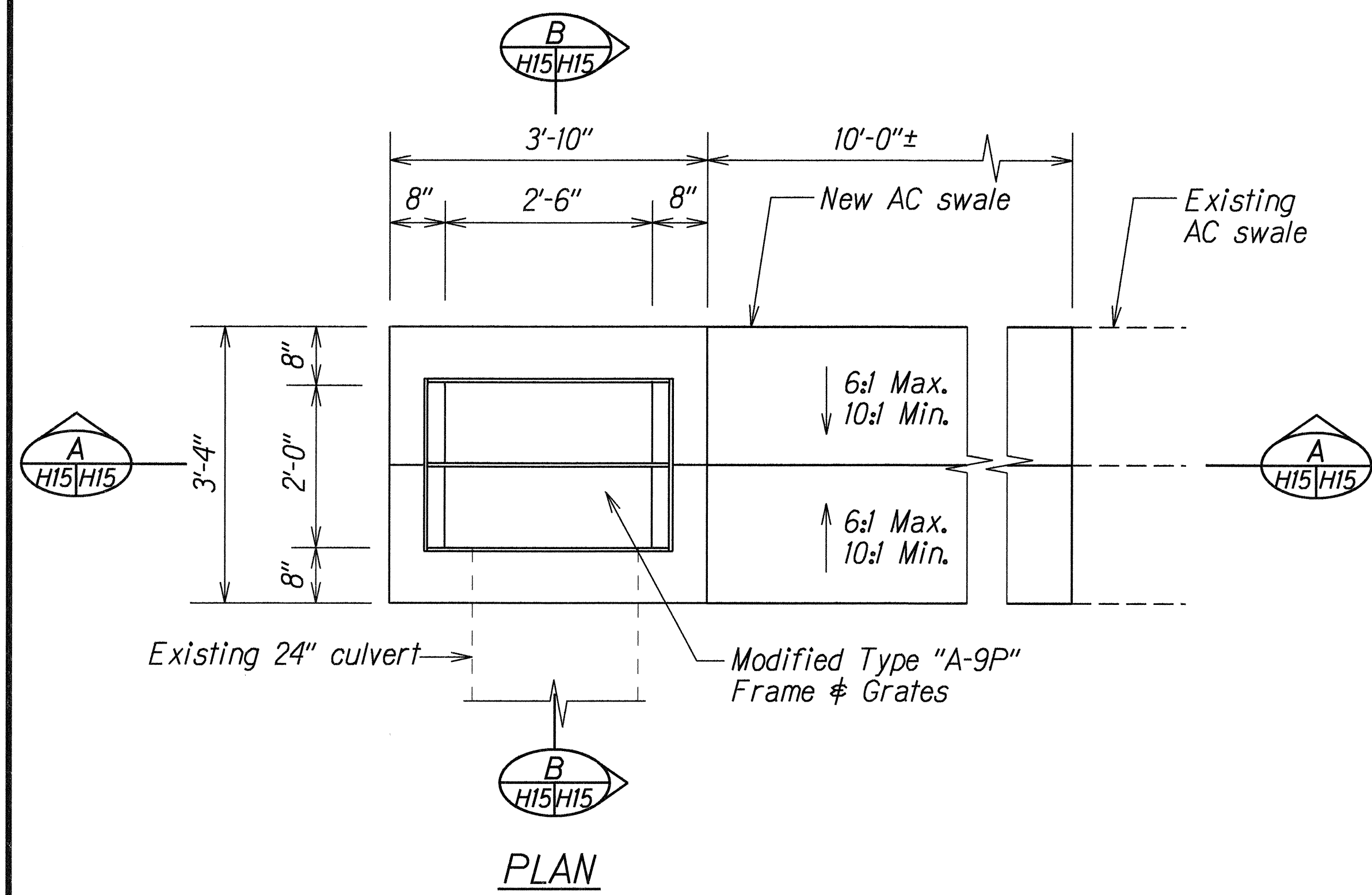
DRAINAGE DETAILS

Waimea Canyon Drive & Kuhio Highway
Miscellaneous Drainage Improvements
Project No. 550A-01-00

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

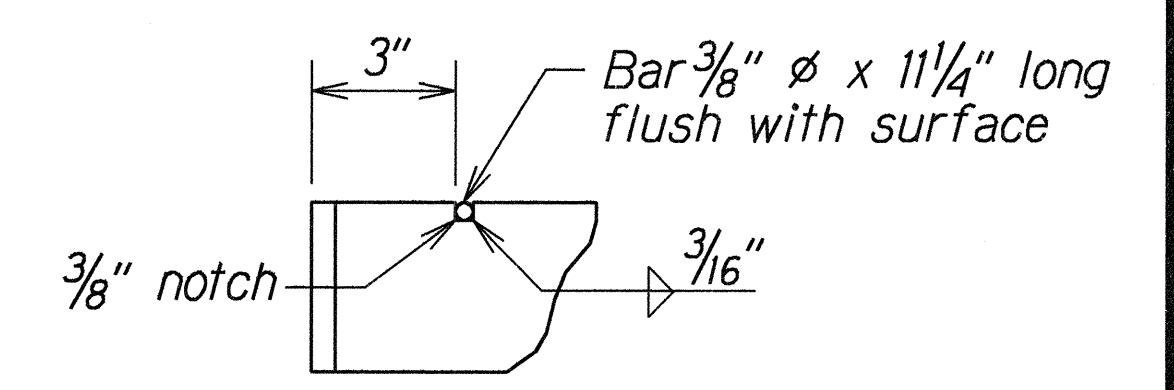
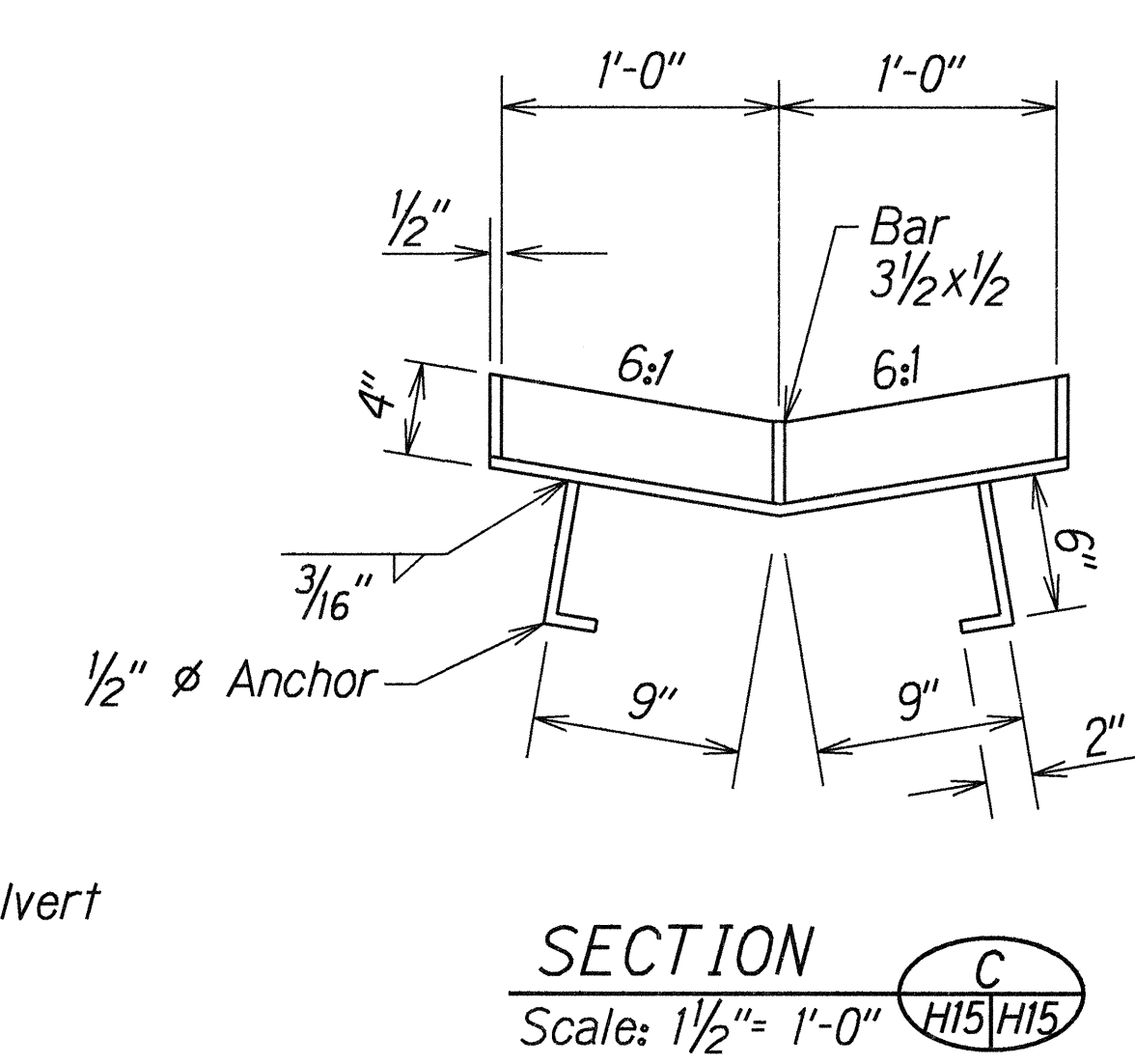
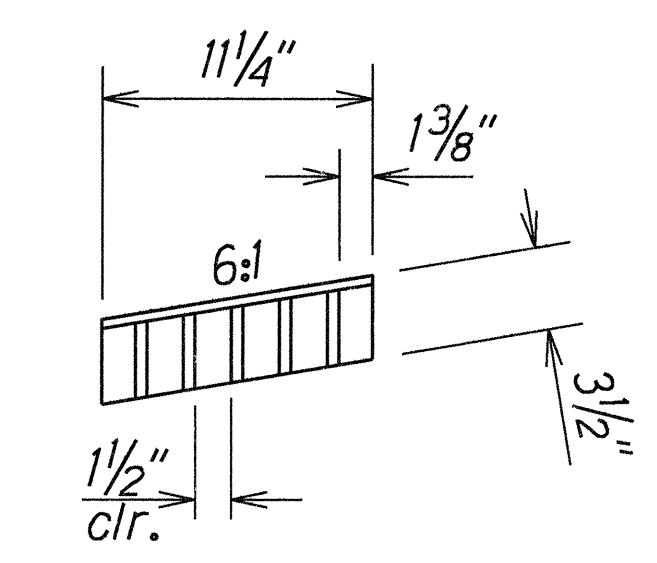
SHEET No. H13 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	550A-01-00	2001	19	22

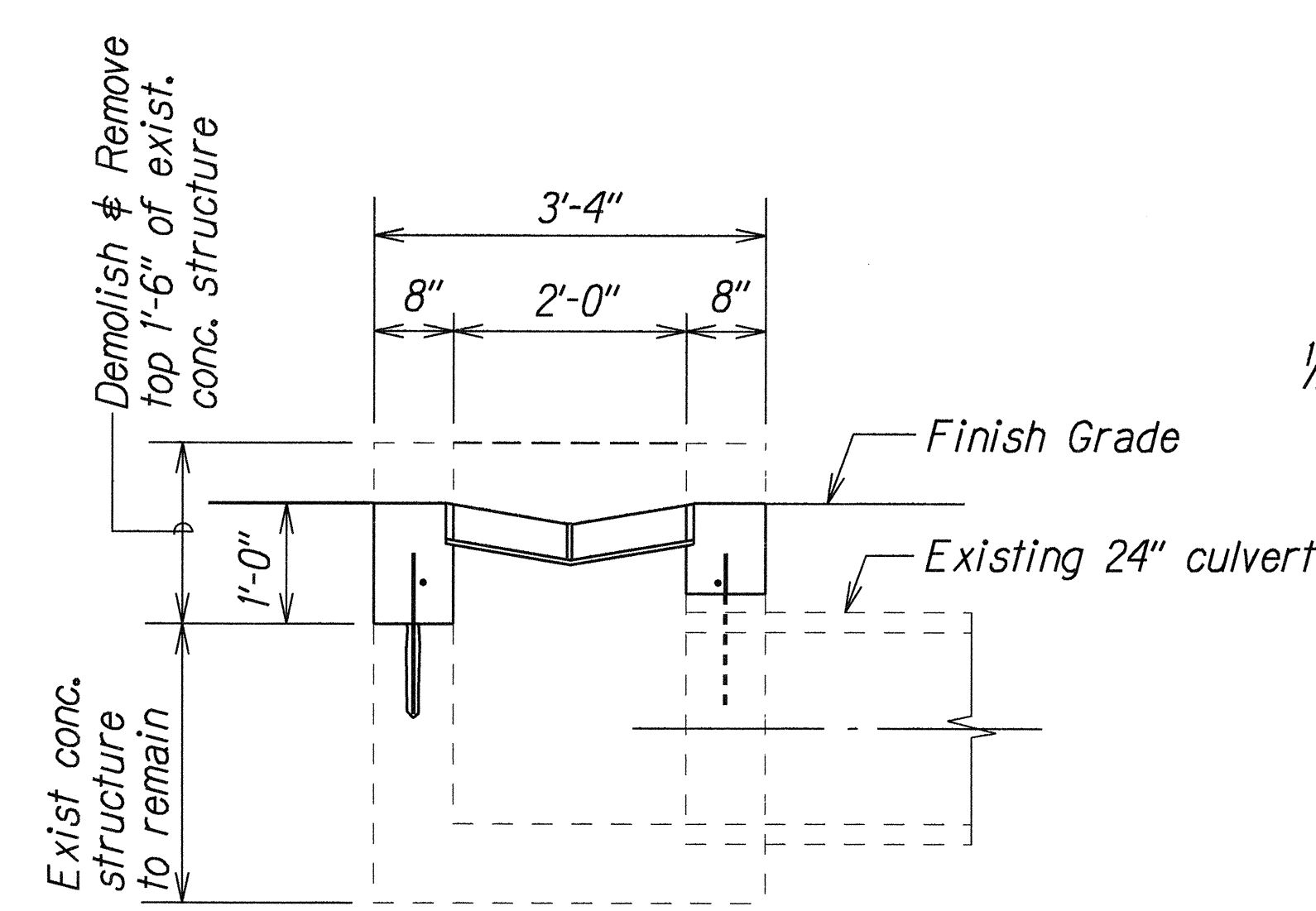
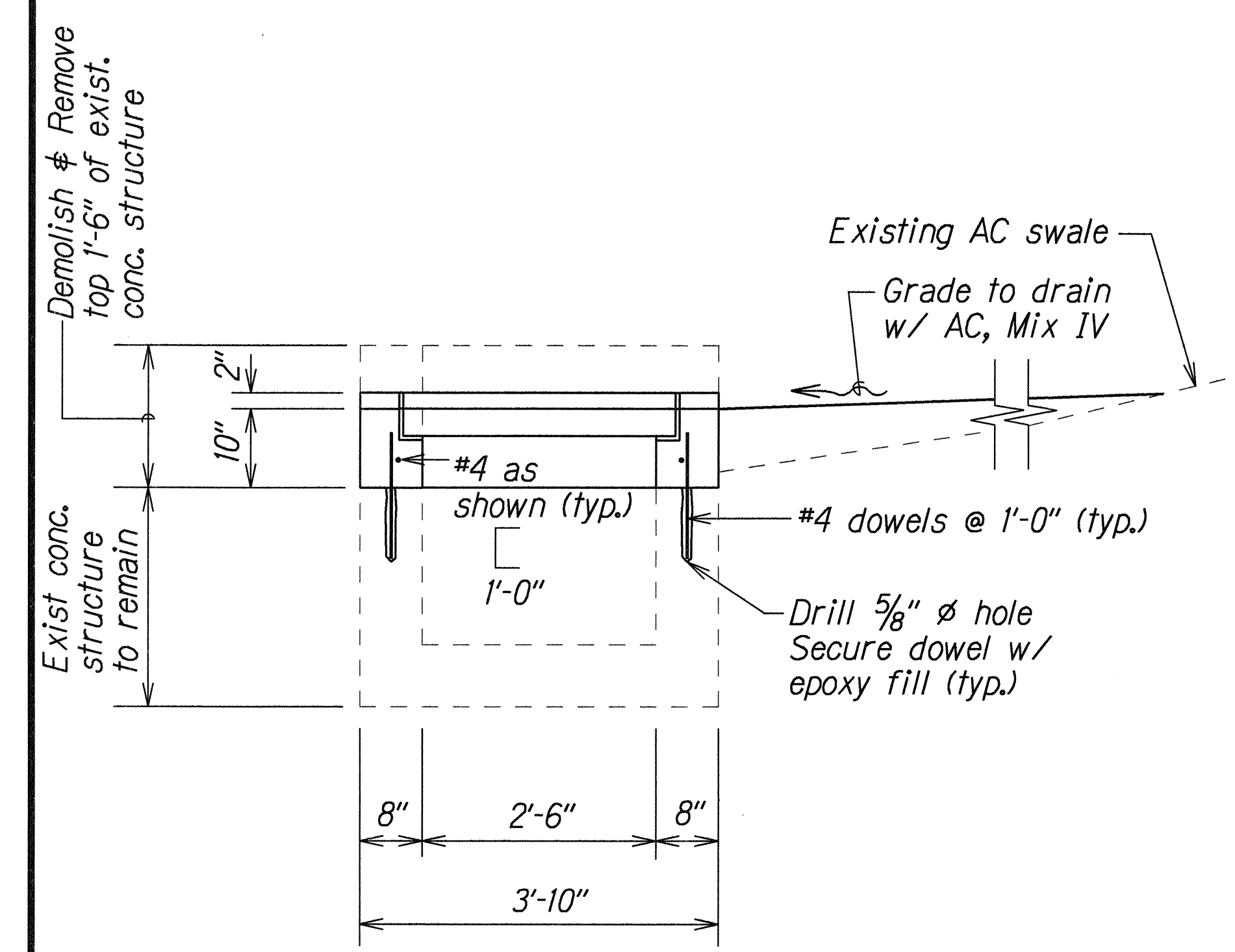


PLAN - GRATE
Scale: 1 1/2" = 1'-0"

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



NOTCH DETAIL
Scale: 3" = 1'-0"



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

DETAILS OF MODIFIED TYPE "A-9P" GRATED DROP INLET
Scale: 3/4" = 1'-0"

DETAILS OF MODIFIED TYPE "A-9P" FRAME AND GRATES

ORIGINAL PLAN	DATE	BY
SURVEY PLOTTED BY		
DRAWN BY		
TRACED BY		
CHECKED BY		
NOTES		
1. All dimensions are in feet and inches.		
2. All materials are to be of standard quality.		
3. All work is to be done in accordance with the specifications.		
4. All work is to be done in accordance with the drawings.		
5. All work is to be done in accordance with the contract.		

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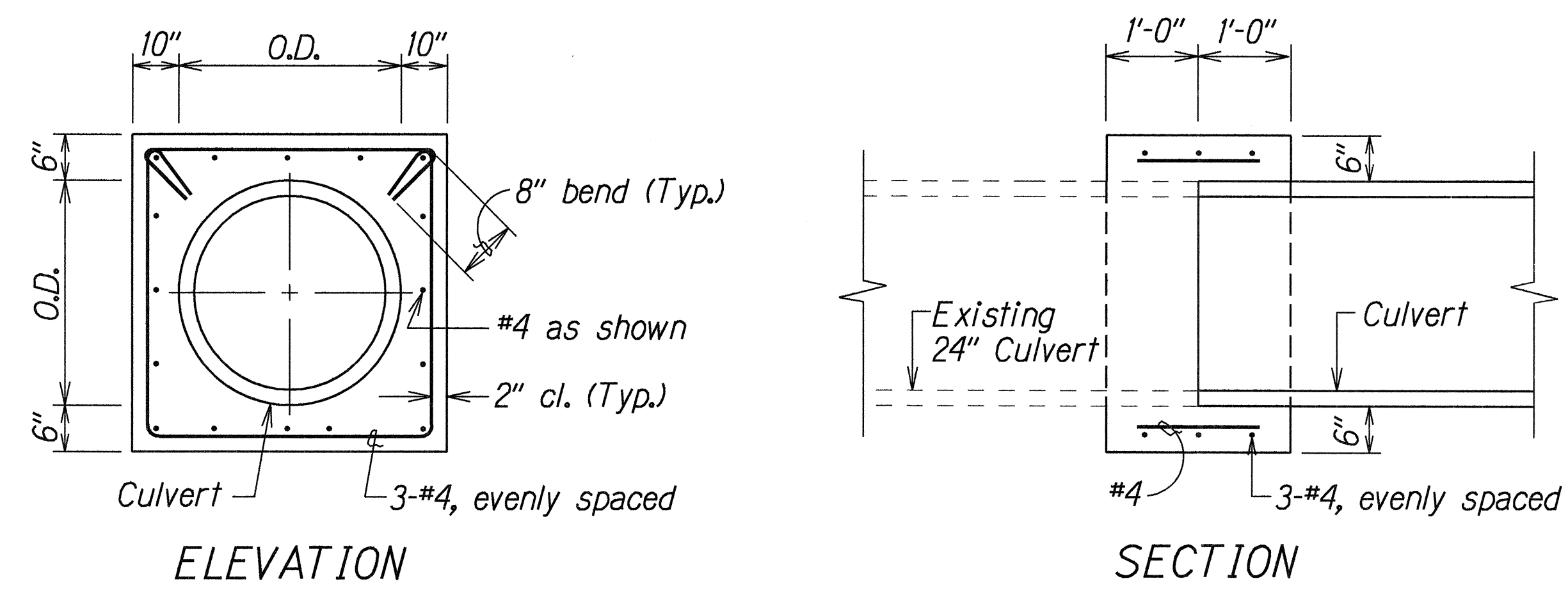
DRAINAGE DETAILS

Waimea Canyon Drive & Kuhio Highway
Miscellaneous Drainage Improvements
Project No. 550A-01-00

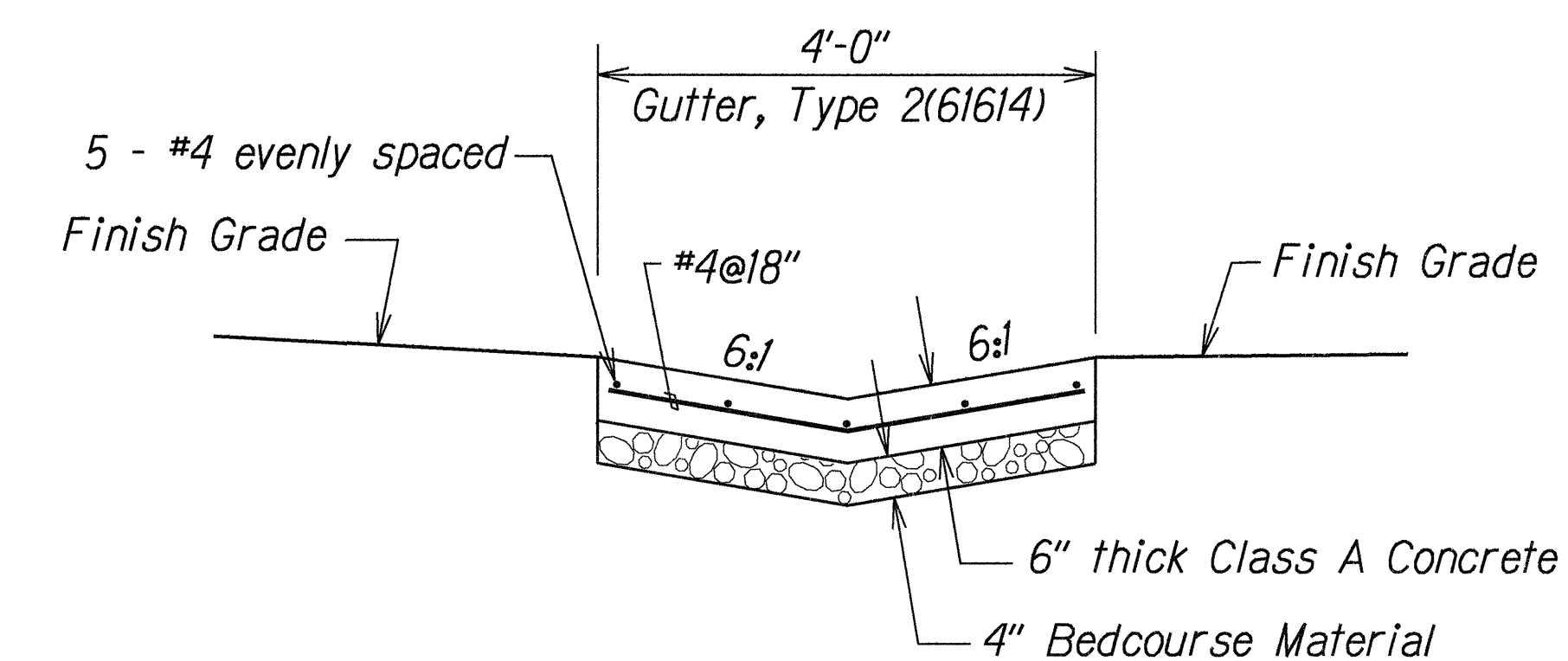
Scale: As Shown Date: Jan., 2001

SHEET No. H15 OF 17 SHEETS

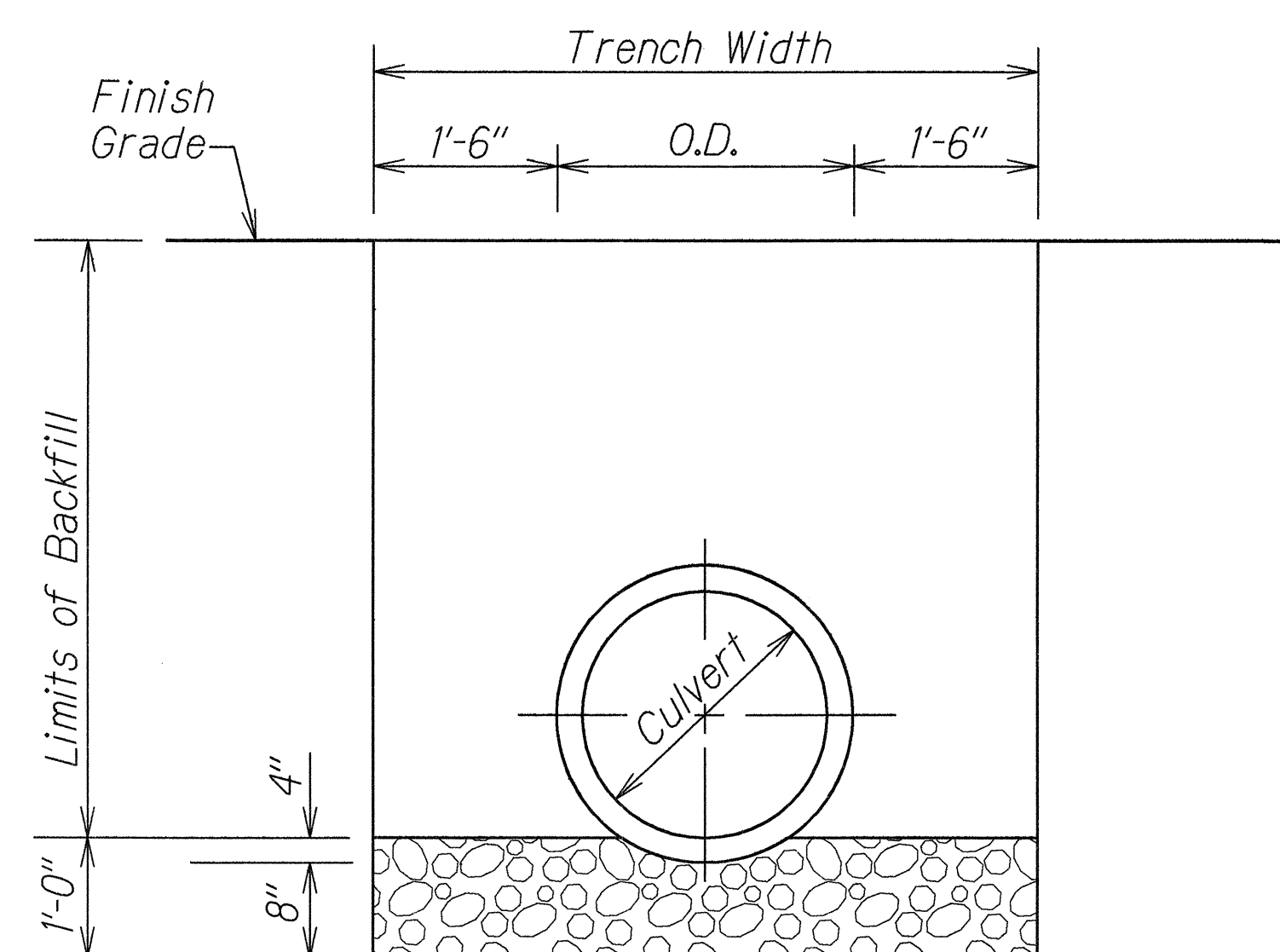
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	550A-01-00	2001	20	22



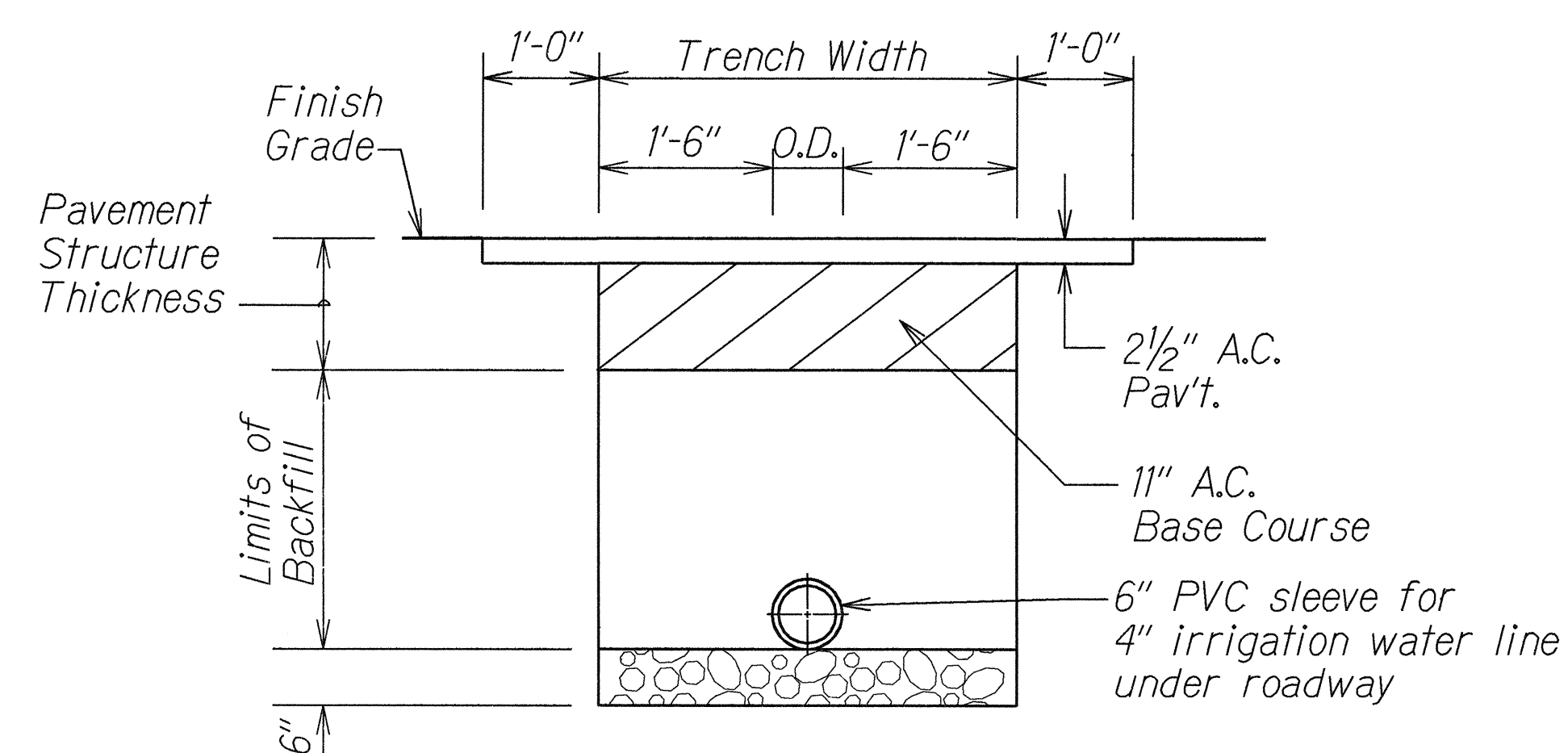
TYPICAL DETAILS OF REINFORCED CONCRETE COLLAR



DETAIL OF GUTTER, TYPE 2(61614)



TYPICAL DETAIL OF CULVERT TRENCH AND BACKFILL RESTORATION



TYPICAL DETAIL OF 4" IRRIGATION WATER LINE TRENCH AND BACKFILL RESTORATION IN ROADWAY

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DRAWN BY	TRACED BY	DATE
NOTED BY	QUANTITIES BY	DATE
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

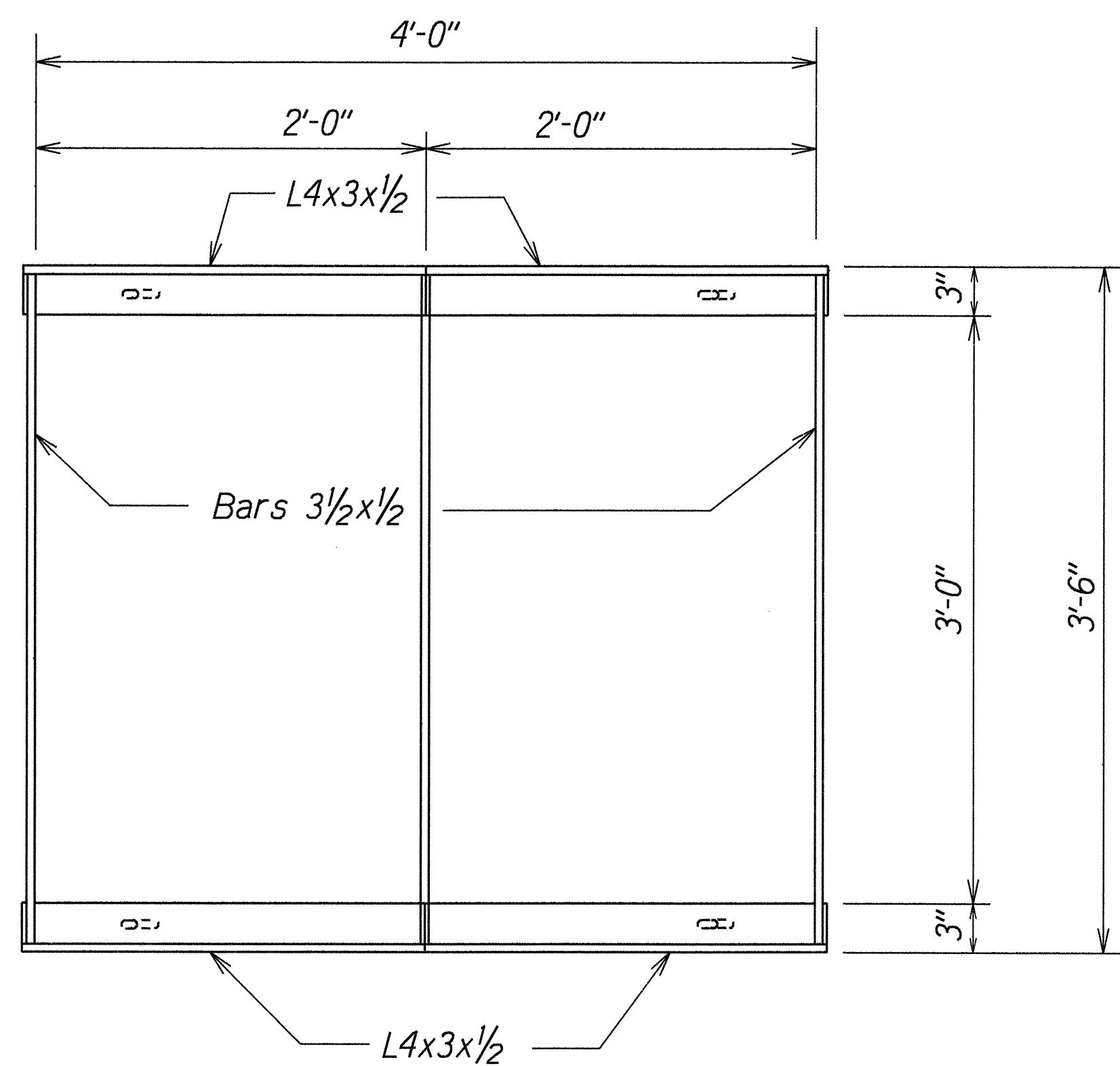
DRAINAGE DETAILS

Waimea Canyon Drive & Kuhio Highway
Miscellaneous Drainage Improvements
Project No. 550A-01-00

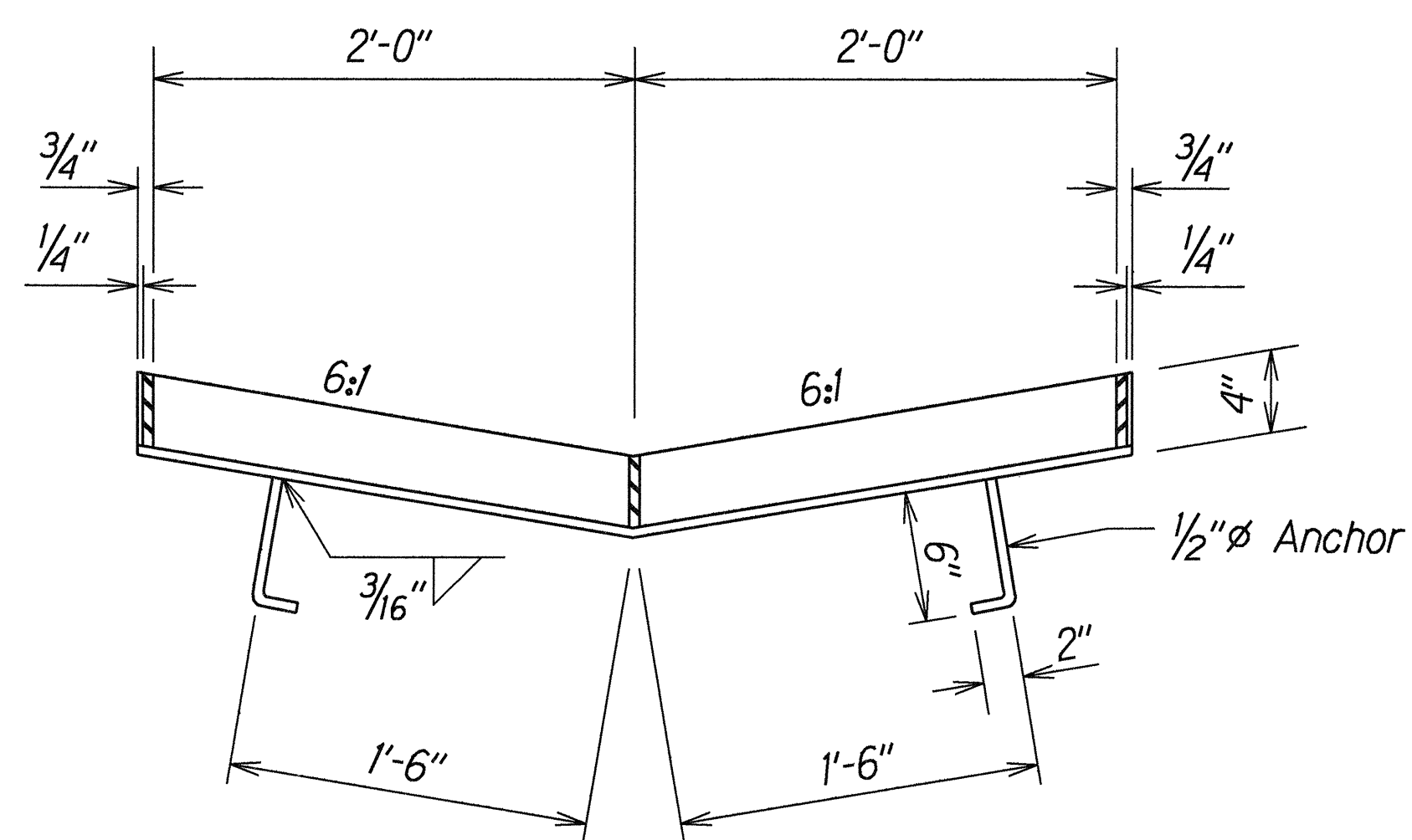
Scale: 3/4"=1'-0" Date: Jan., 2001

SHEET No. H16 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	550A-01-00	2001	21	22



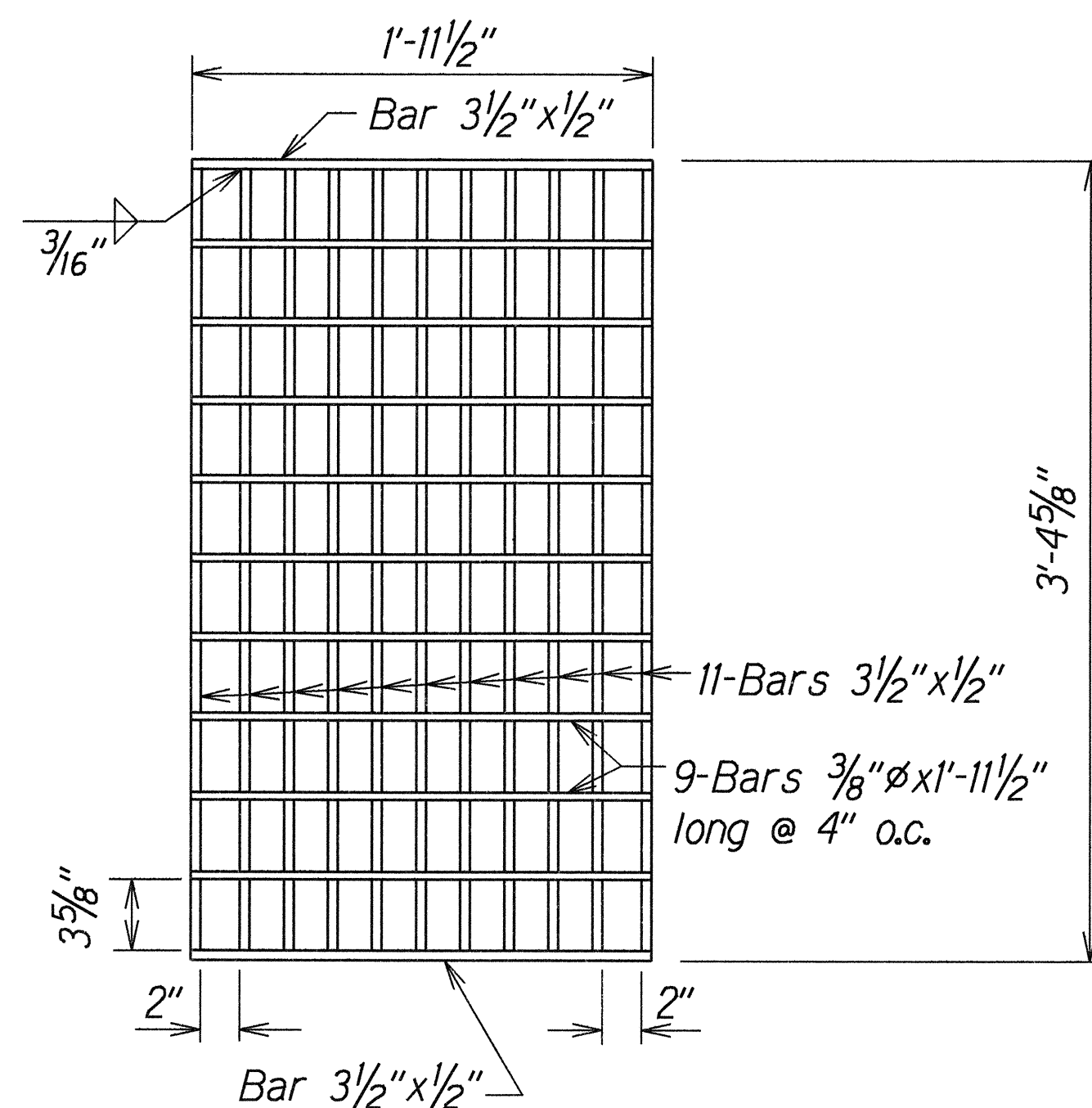
PLAN



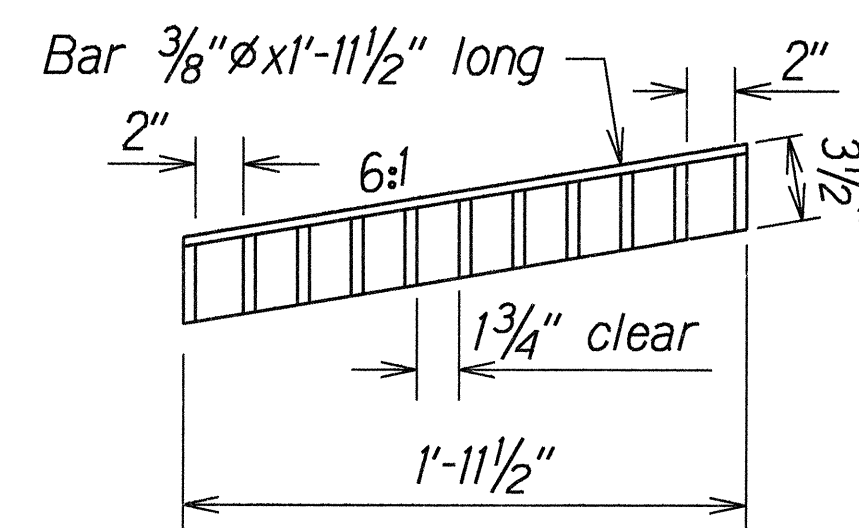
SECTION
FRAME

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

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



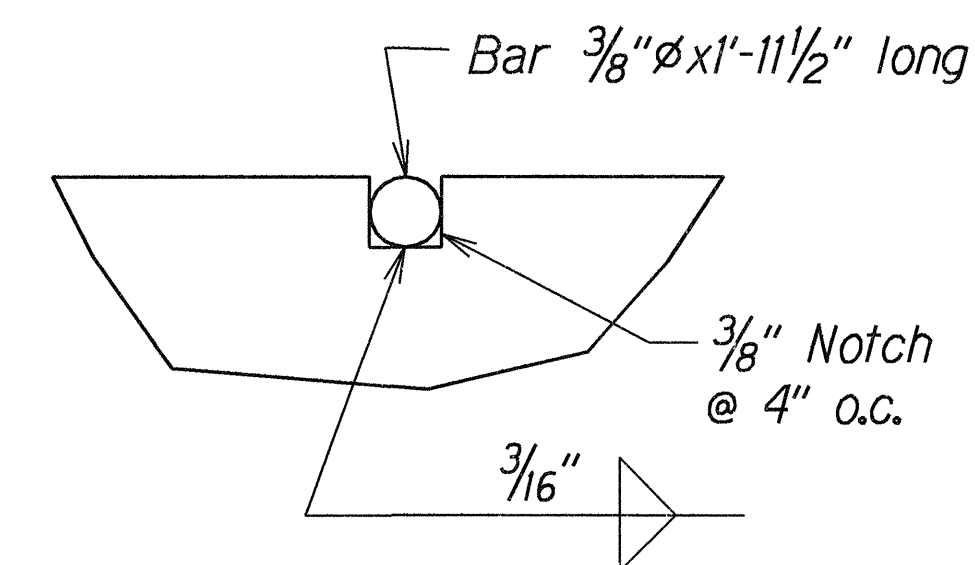
PLAN



SECTION

GRATE

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



NOTCH DETAIL
Full Size

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED	DRAWN BY	5/22/99
DESIGNED BY	TRACED BY	
CHECKED BY	DESIGNED BY	
	CHECKED BY	

TYPICAL DETAILS OF TYPE 61614P STEEL FRAME AND GRATES

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

Waimea Canyon Drive & Kuhio Highway
Miscellaneous Drainage Improvements
Project No. 550A-01-00

Scale: As Shown Date: Jan., 2001

SHEET No. *H17* OF 17 SHEETS