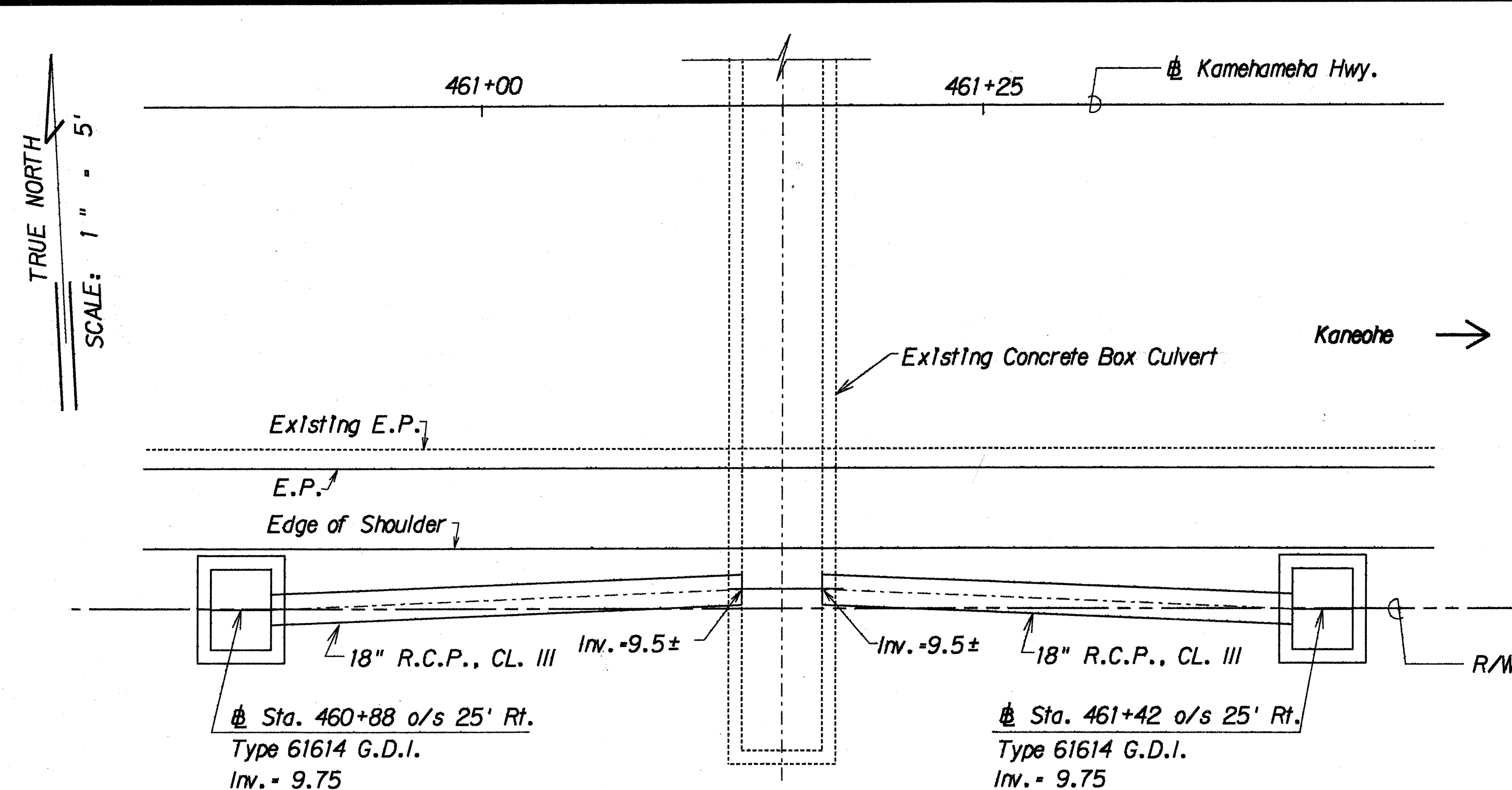
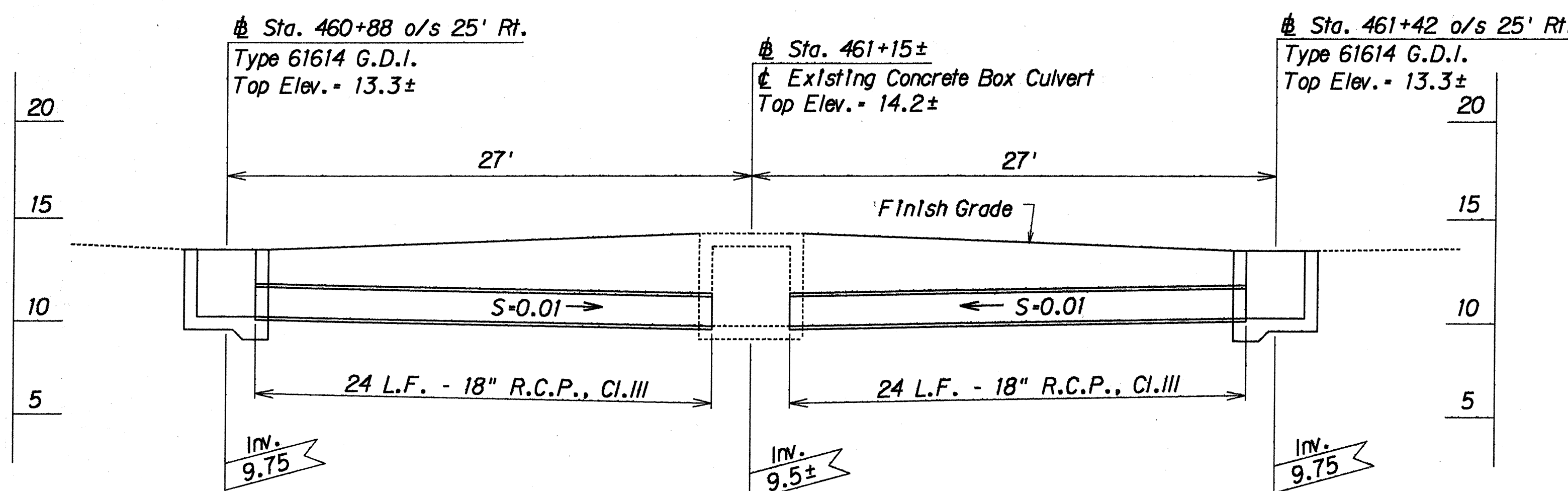


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83BC-03-89M	1990	C.O. 33 S-1	33



PLAN

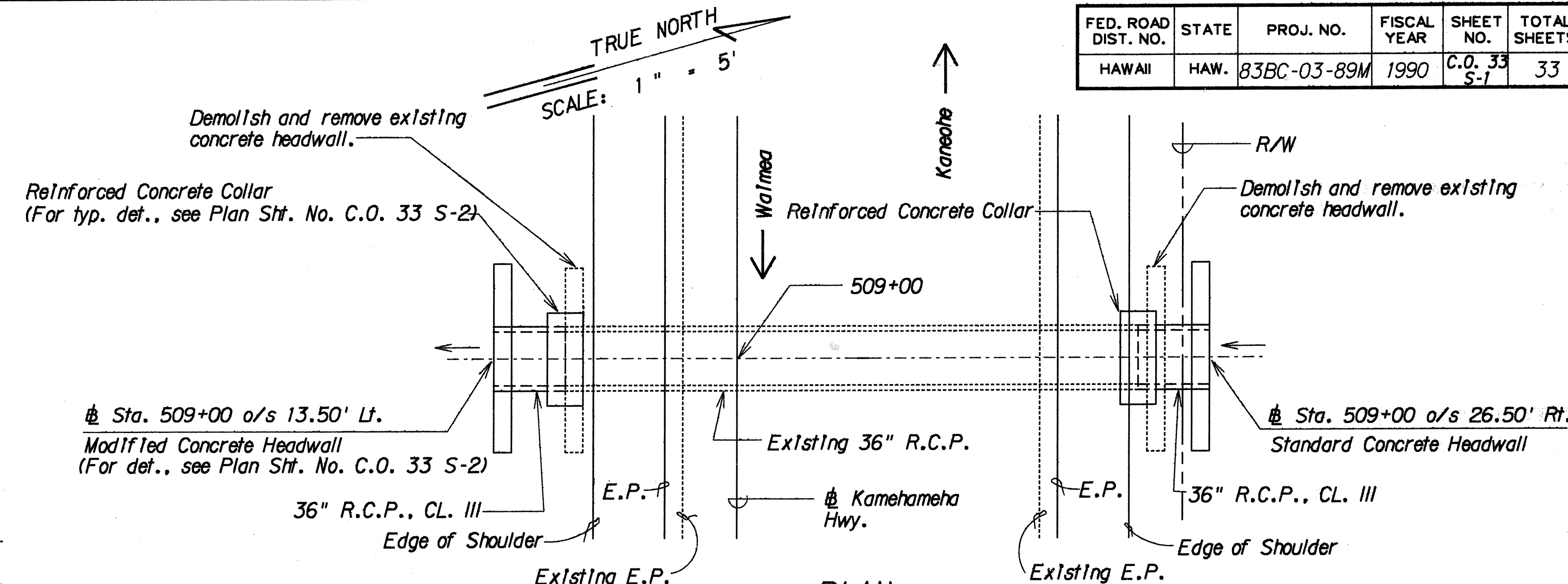


PROFILE

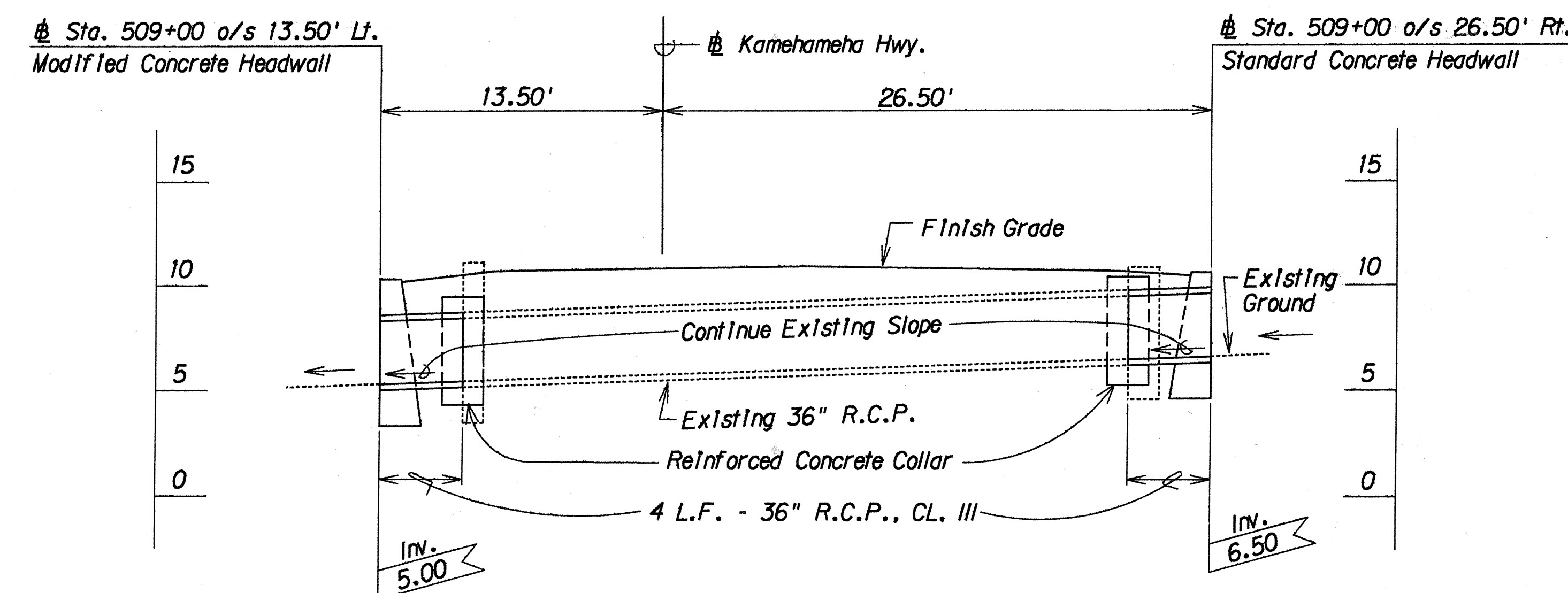
18" CULVERTS AT STA. 460+88± RT. TO STA. 461+42± RT.

GENERAL DRAINAGE NOTES:

- Existing drainage systems will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and Incidentals necessary to accomplish maintenance of flow. The cost shall be incidental to the various contract items.
- Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.
- Concrete shall be Class A unless otherwise noted.
- Chamfer all exposed concrete edges 1".
- Only non-pneumatic type of drill as approved by the engineer will be permitted for drilling holes in concrete. Where indicated on plans, the approximate diameter of drilled holes for installation of dowels shall be 1/4", voids shall be filled with epoxy grout or as directed by the Engineer.
- For added reinforcing around new culverts, see Standard Plan Sheet H-04.



PLAN



PROFILE

36" CULVERT AT STA. 509+00±

ESTIMATED QUANTITIES

- Drainage Facility at Sta. 460+88± Rt. to Sta. 461+42± Rt. - L.S.
- Drainage Facility at Sta. 509+00± - L.S.
- Drainage Facility at Sta. 513+50± Rt. - L.S.
- Drainage Facility at Sta. 552+95± Rt. - L.S.
- Drainage Facility at Sta. 646+10± Rt. to Sta. 646+53± Rt. - L.S.

8/16/89 Added Drainage Detail Sheet.

DATE REVISIONS

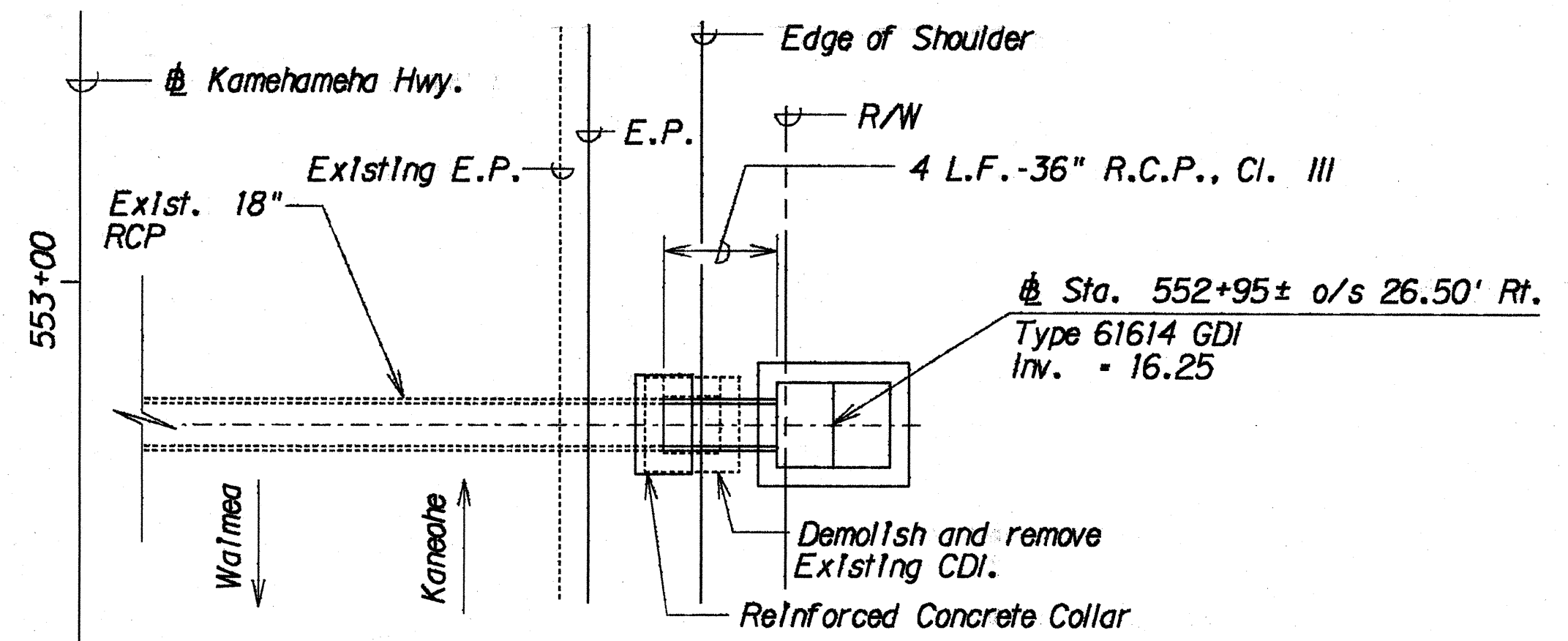
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE DETAILS
KAMEHAMEHA HIGHWAY RESURF.
Vicinity of Waialea Bridge to
Kahuku Elementary & Highschool
Project No. 83BC-03-89M

Scale: 1"=5' Date: August, 1989

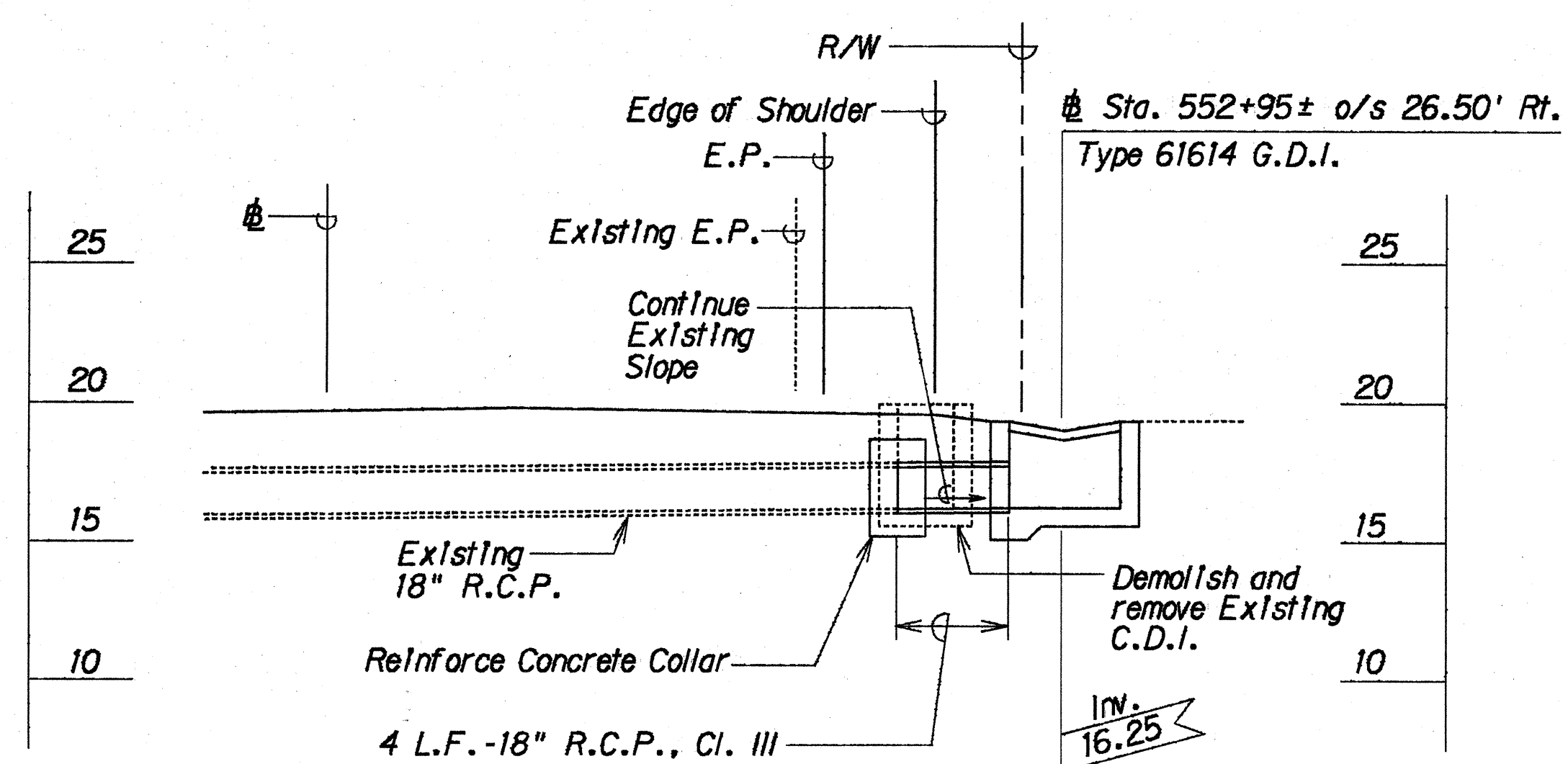
SHEET No. 715A OF 15 SHEETS

C.O. 33 S-1

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83BC-03-89M	1990	C.O. 33 S-2	33



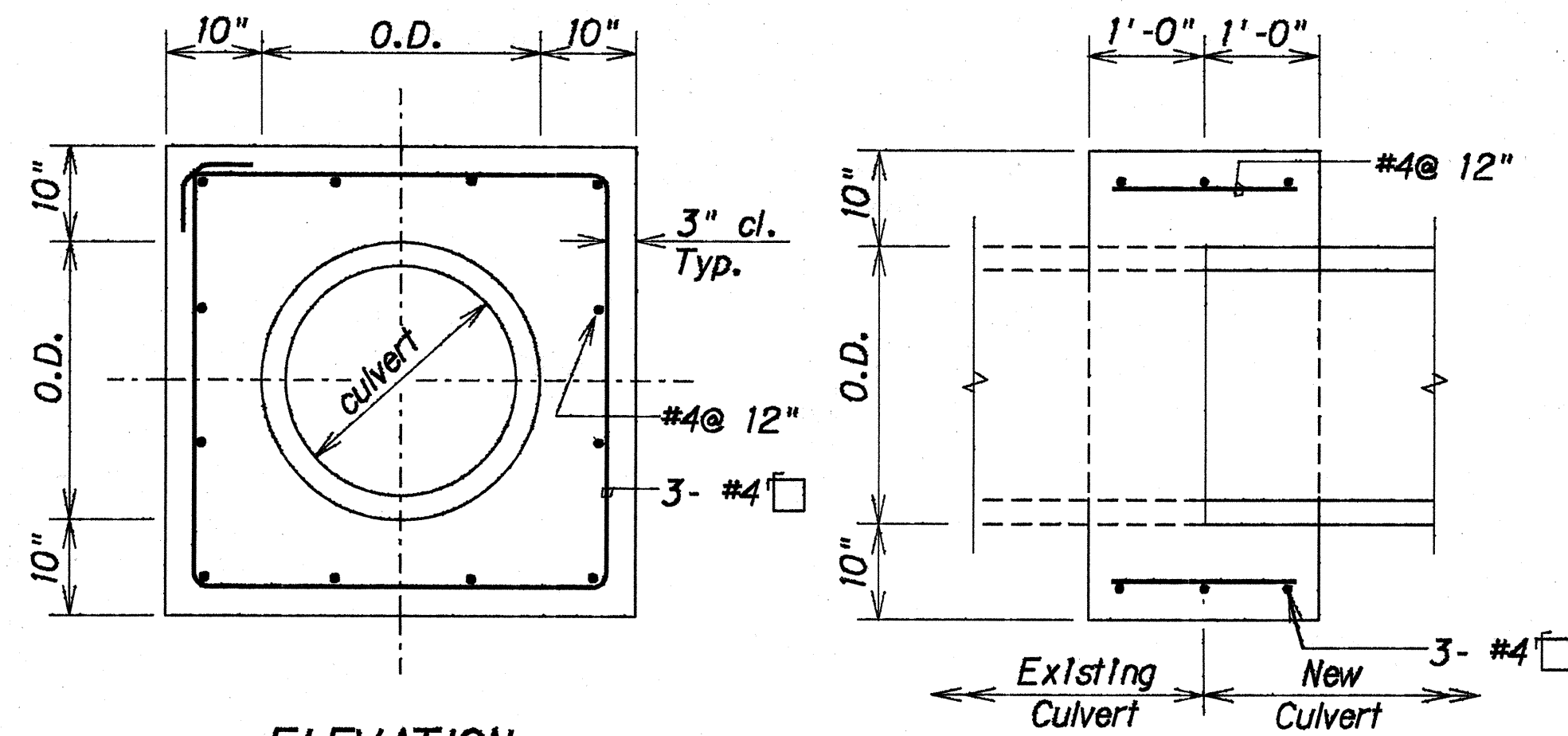
PLAN



PROFILE

18" CULVERT AT STA. 552+95±

Scale: 1"=5'

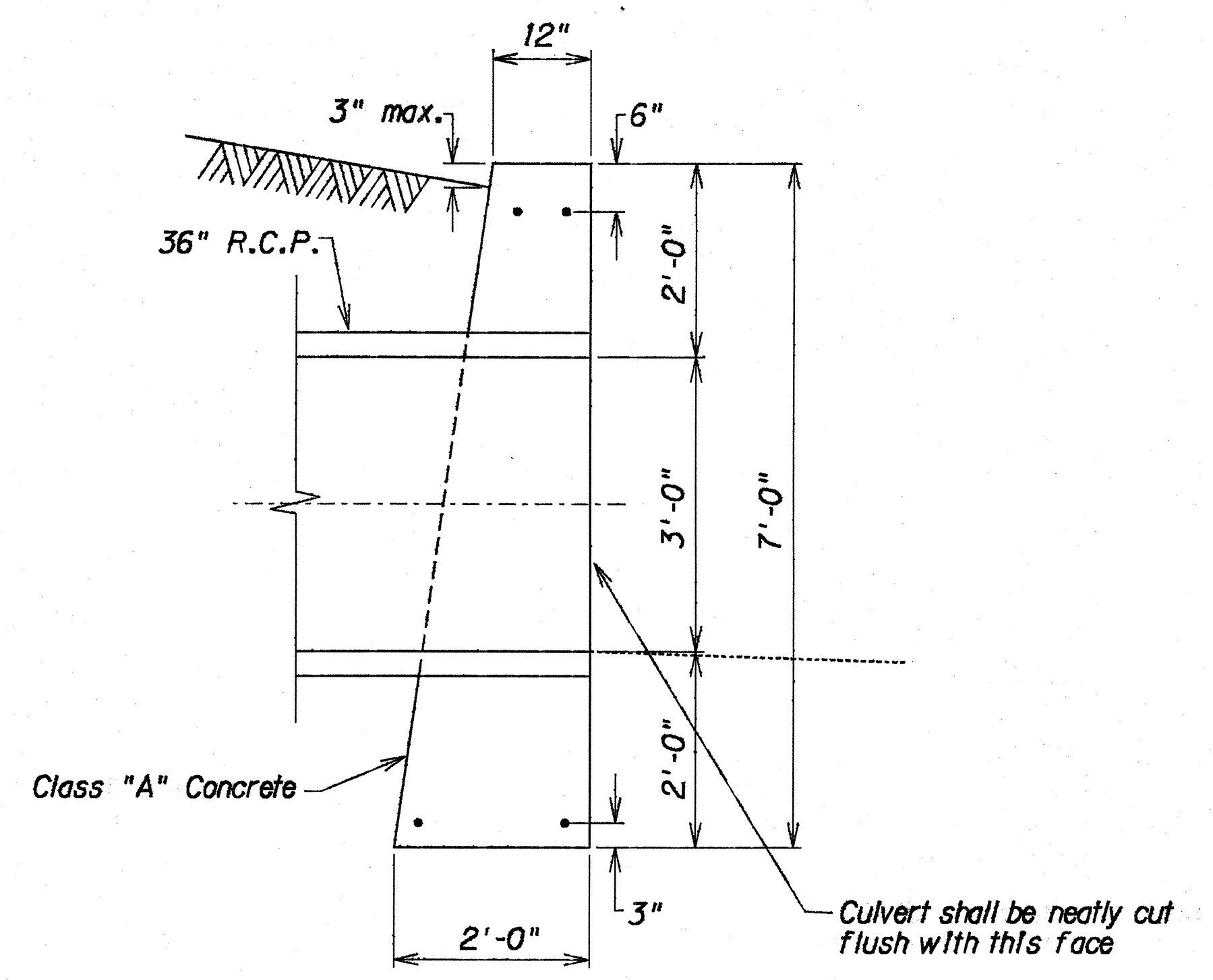


ELEVATION

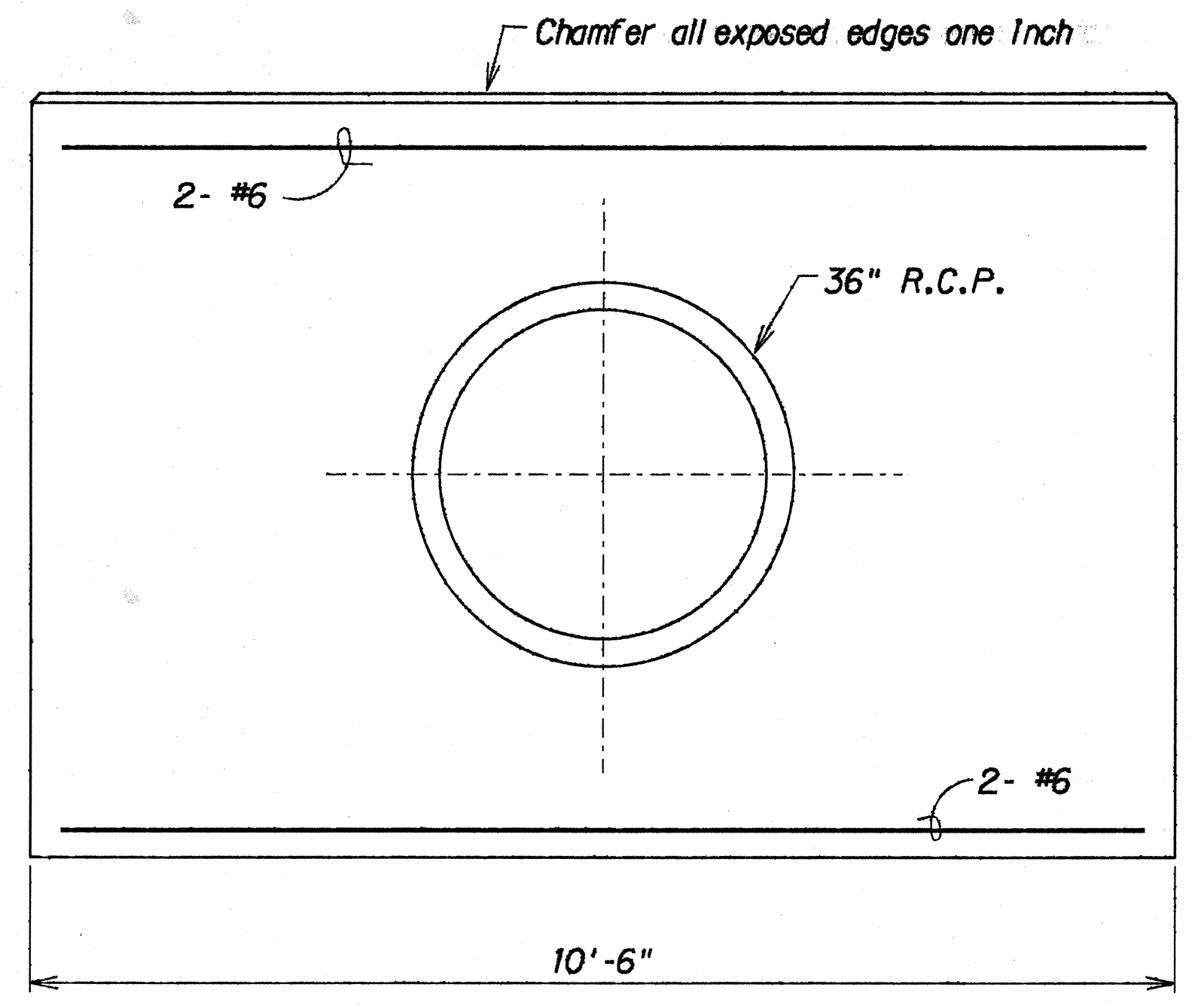
SECTION

TYPICAL DETAILS OF REINFORCED CONCRETE COLLAR

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



SECTION



ELEVATION

DETAILS OF MODIFIED CONCRETE HEADWALL AT STA. 509+00 O/S 13.5' LT.

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

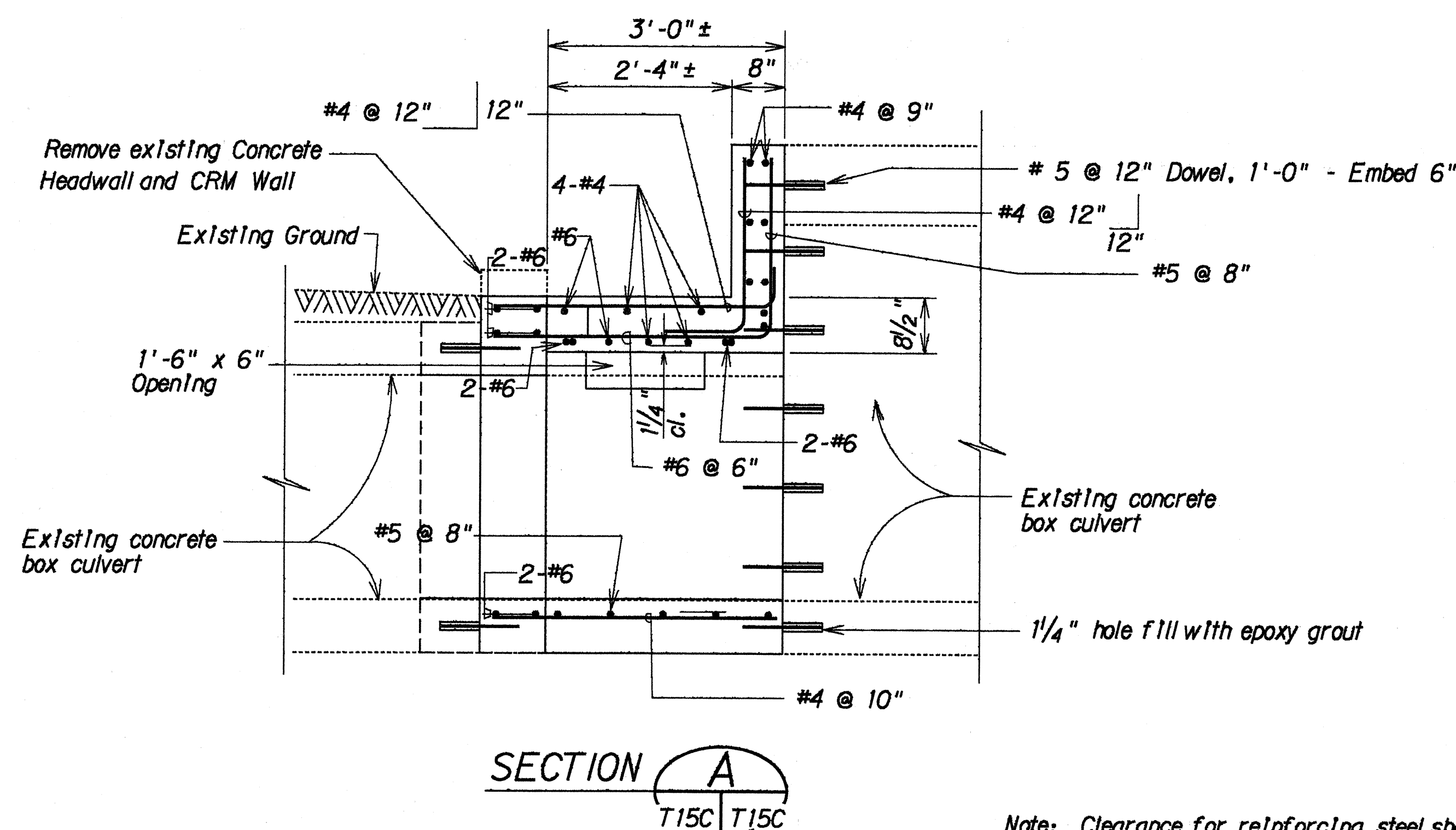
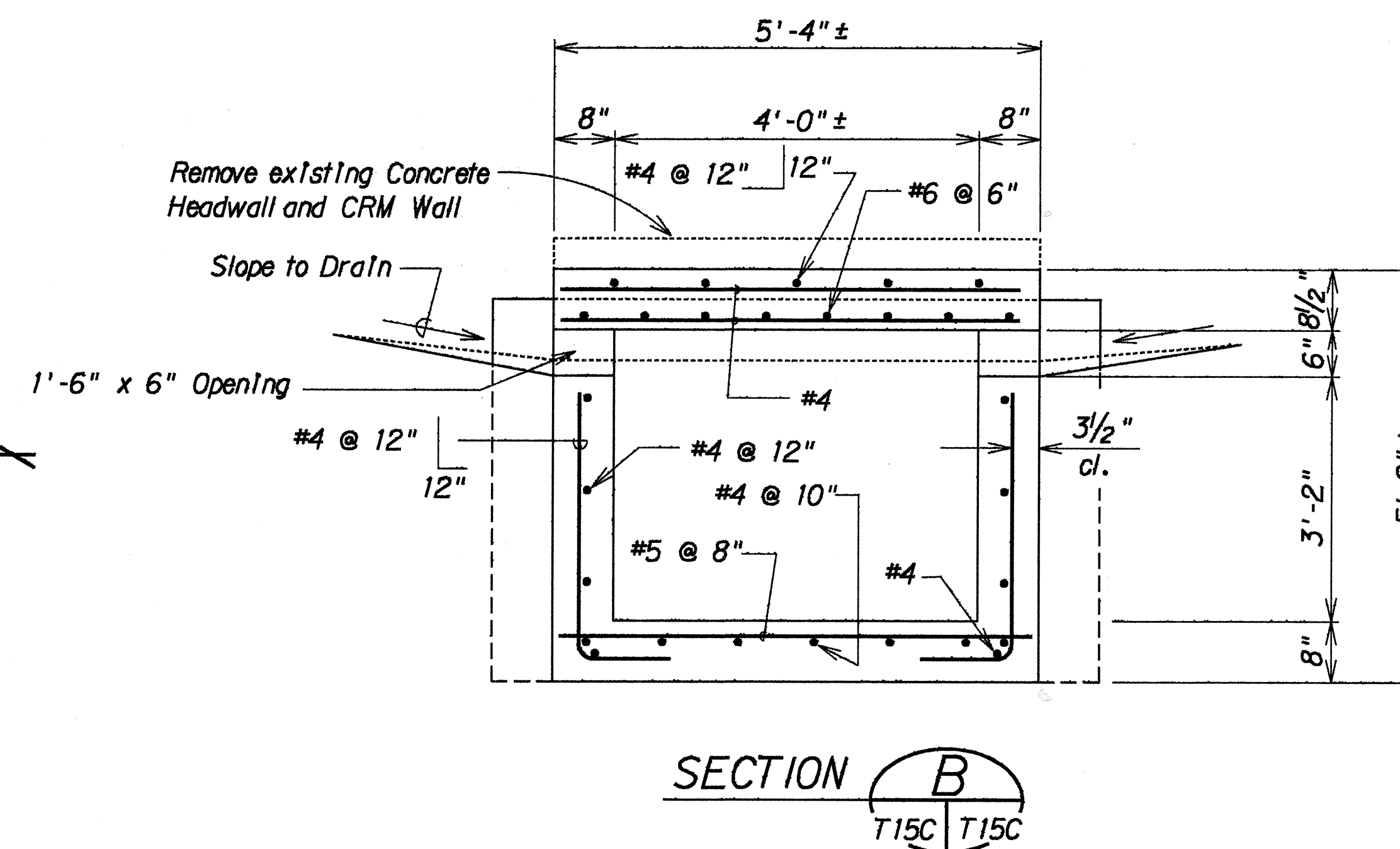
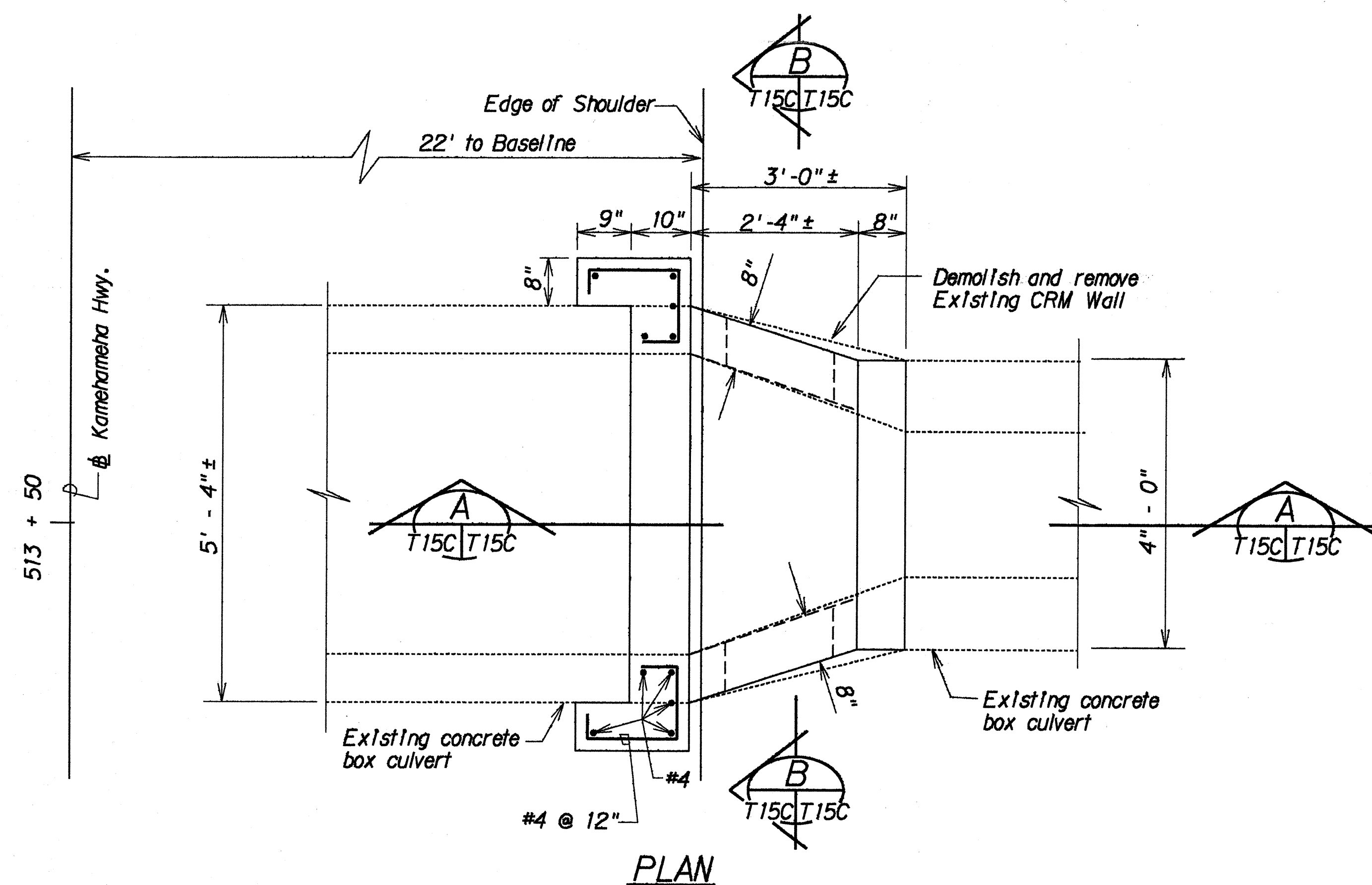
SURVEY PLATTED BY	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	

8/16/89	Added Drainage Detail Sheet.
DATE	REVISIONS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE DETAILS
KAMEHAMEHA HIGHWAY RESURF.
Vicinity of Waialea Bridge to
Kahuku Elementary & Highschool
Project No. 83BC-03-89M

Scale: As Shown
Date: August, 1989
SHEET No. T15B OF 15 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83BC-03-89M	1990	C.O. 33 S-3	33



TOP SLAB REINFORCING DETAIL (TOP LAYER)

DETAILS AT STA. 513+50± RT.

Note: Clearance for reinforcing steel shall be 2" unless otherwise noted.

8/18/89 Added Drainage Detail Sheet.

DATE REVISIONS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

KAMEHAMEHA HIGHWAY RESURF.
Vicinity of Waialeale Bridge to
Kahuku Elementary & Highschool
Project No. 83BC-03-89M

Scale: 3/4" = 1'-0" Date: August, 1989

SHEET No. T15C OF 15 SHEETS

C.O. 33 S-3

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

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

AS-BUILT C.O. 33 S-4