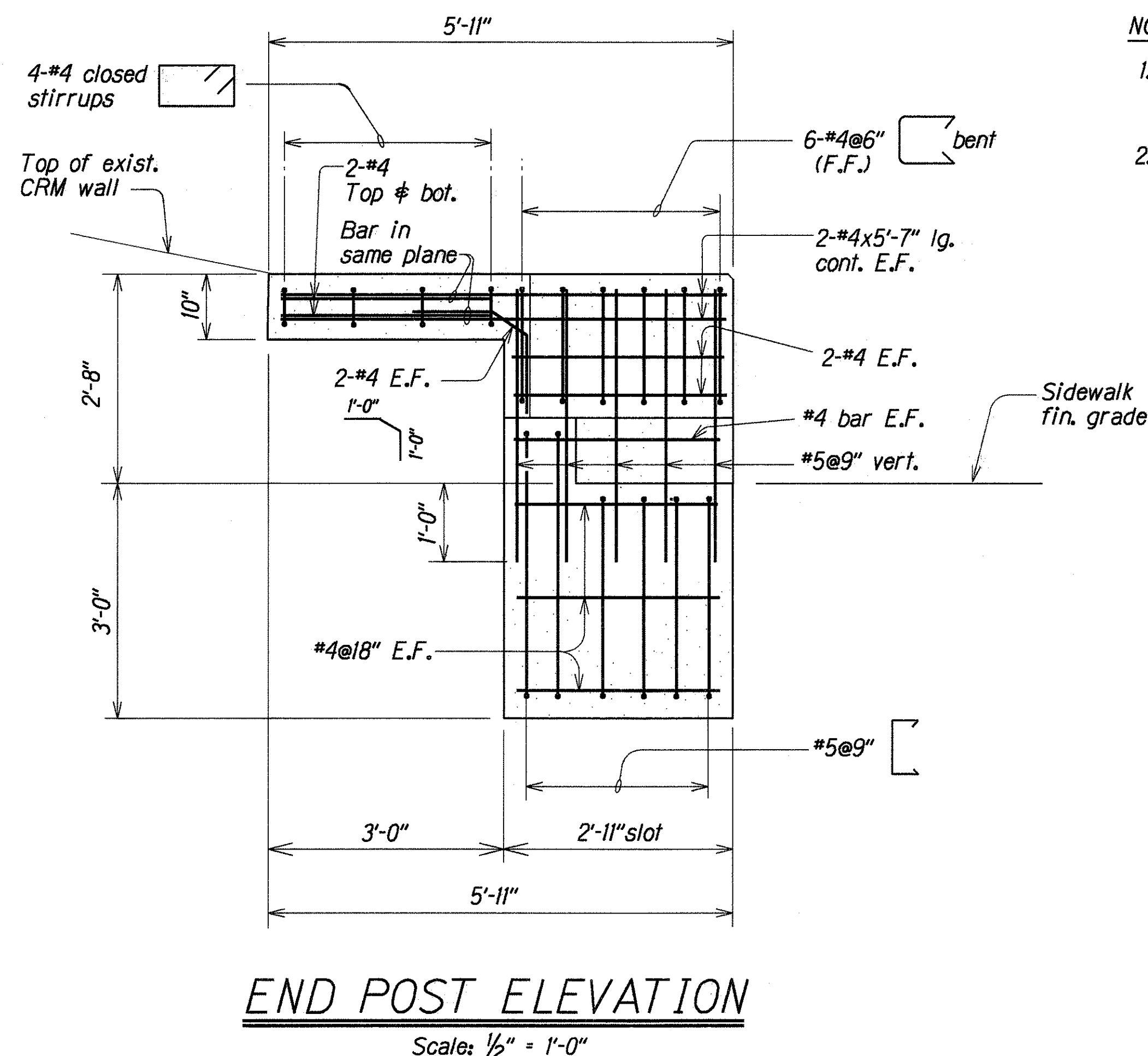
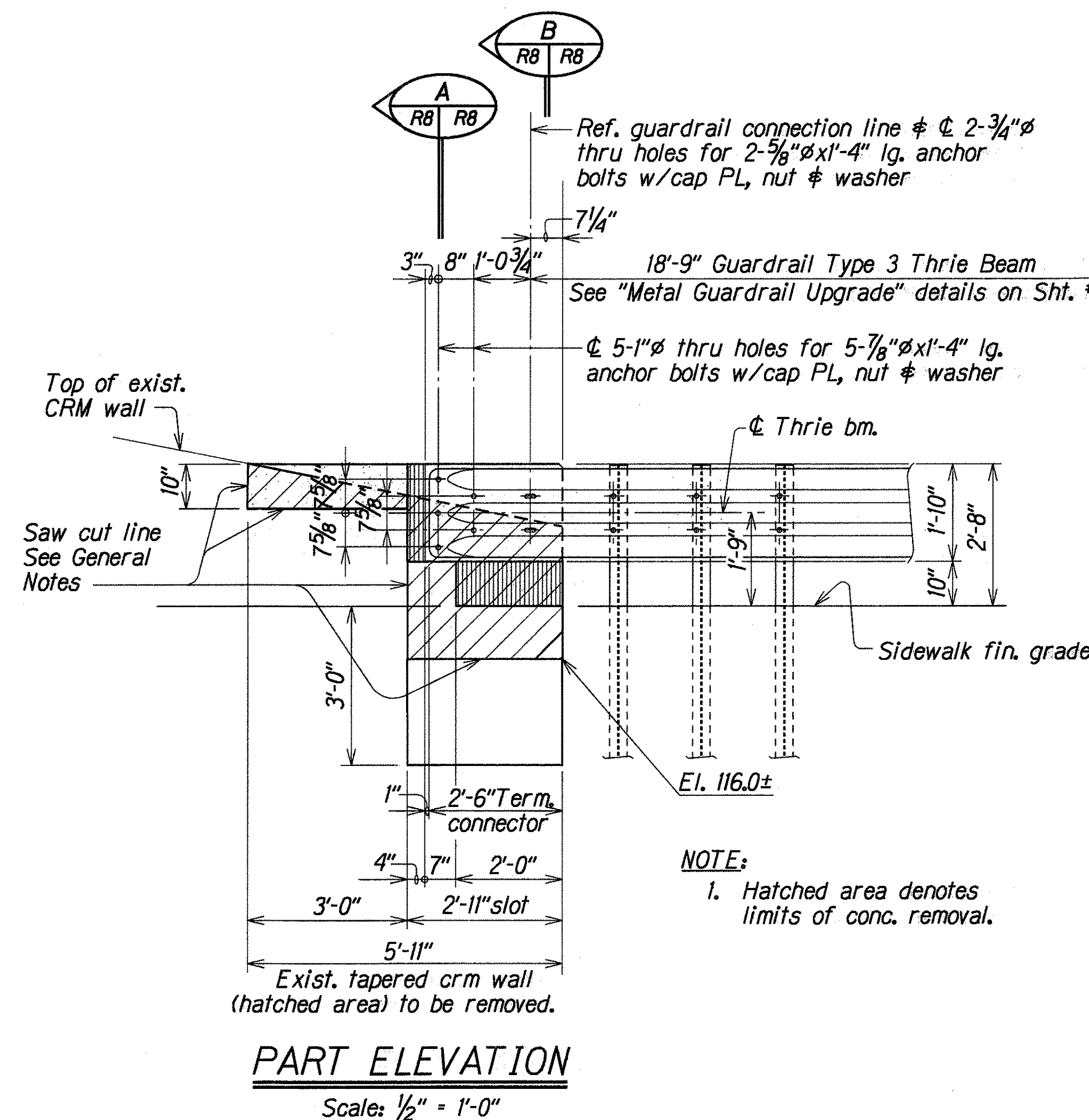
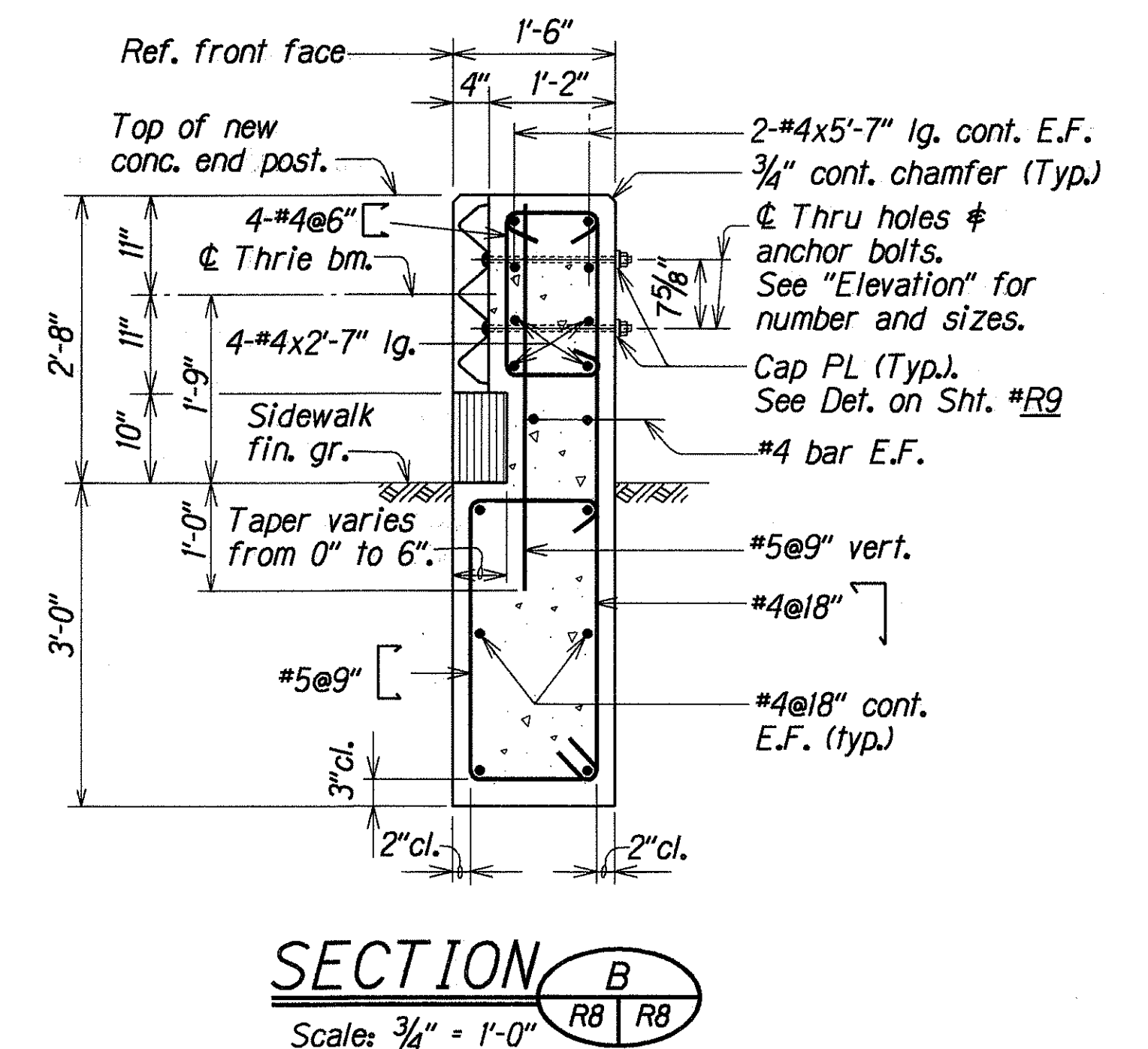
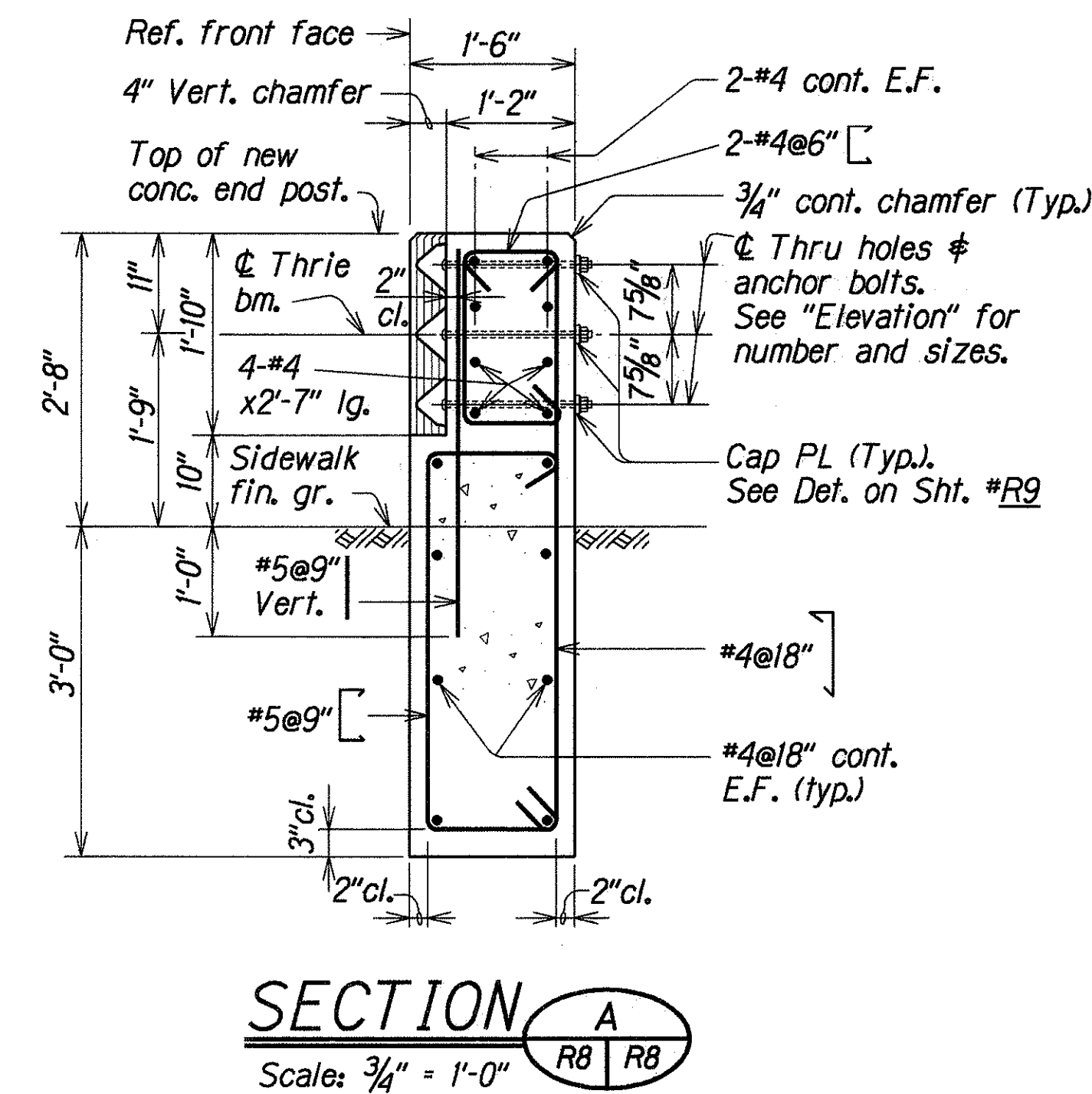
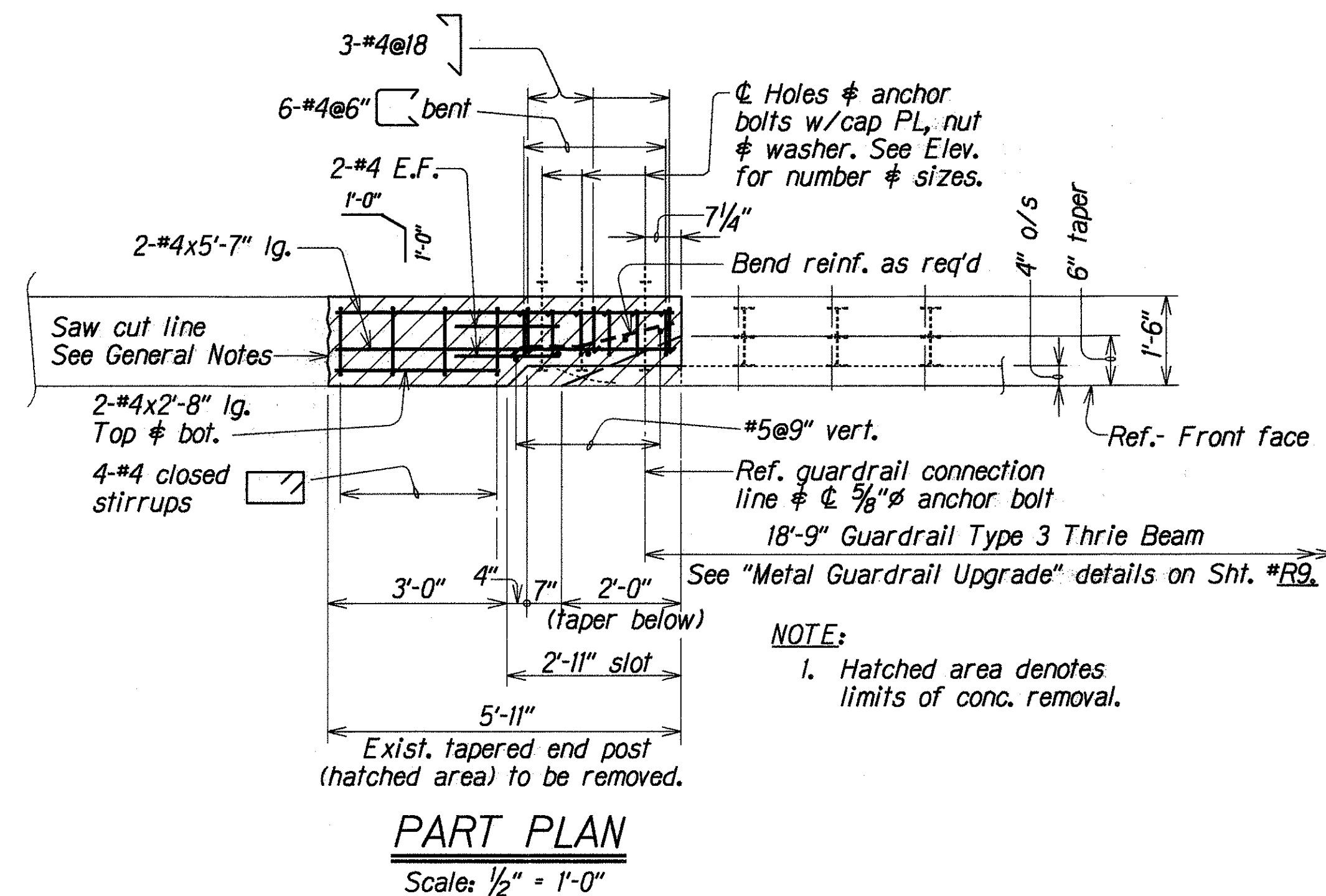


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(39)	1996	26	70



NOTES:

- The work necessary to connect guardrail to concrete end post shall include all labor, materials, tools, equipment and incidentals necessary to complete the work and shall be incidental to the metal guardrail and will not be paid for separately.
- See "DOT Standard Plan" Sht. #TE-57 for guardrail Type 3 thrie beam details and Sht. #TE-50 & #TE-51 for W beam metal guardrail details. Lap terminal connector and rail element in direction of traffic to prevent snagging.

ORIGINAL PLAN	DATE
DESIGNED BY	MA. T.M. KSG
CHECKED BY	MA. T.M. KSG
NOTED BY	MA. T.M. KSG
QUANTITIES BY	MA. T.M. KSG
CHECKED BY	MA. T.M. KSG

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RETAINING WALL

METAL GUARDRAIL CONNECTION AT EXIST. CRM WALL

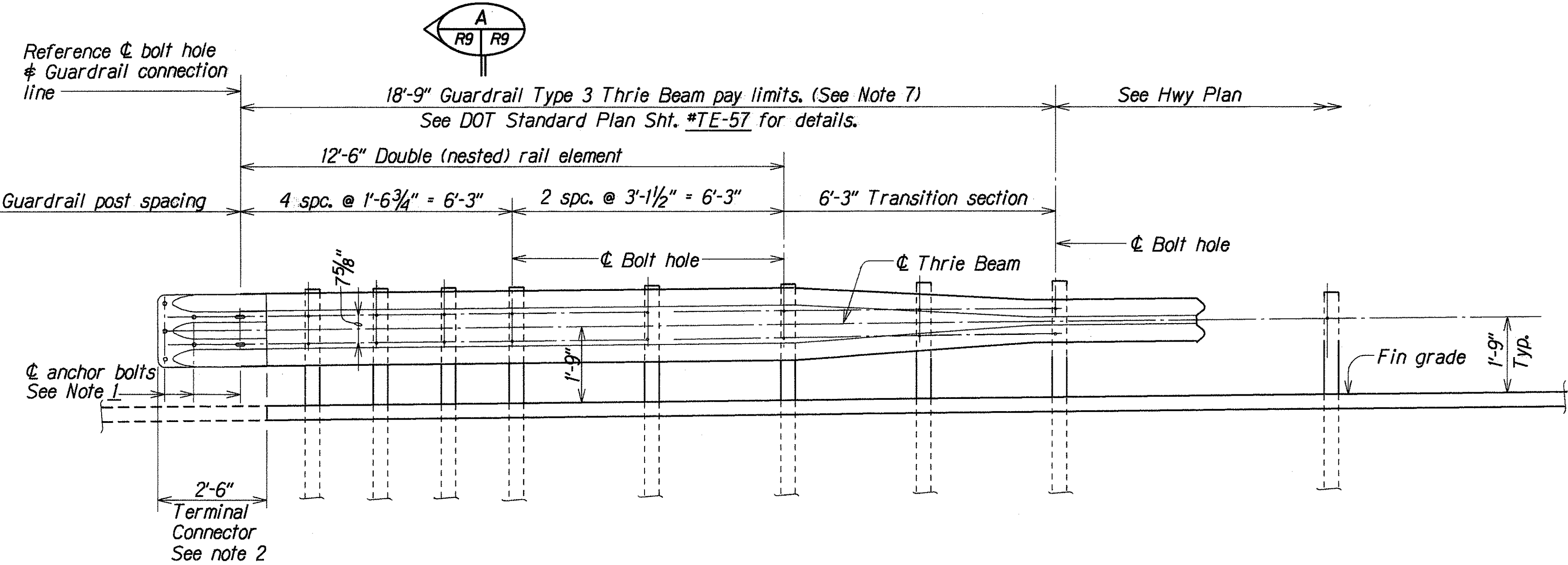
ULUNE STREET @ STA. 43+94.86

Ulune Street And Halawa Valley Road Improvements
Halawa Heights Road To Halawa Valley Road
Ulune Street To Iwailua Street
Project No. STP-0300(39)

Scale: As Noted Date: Mar. 1996

SHEET No. R8 OF 9 SHEETS

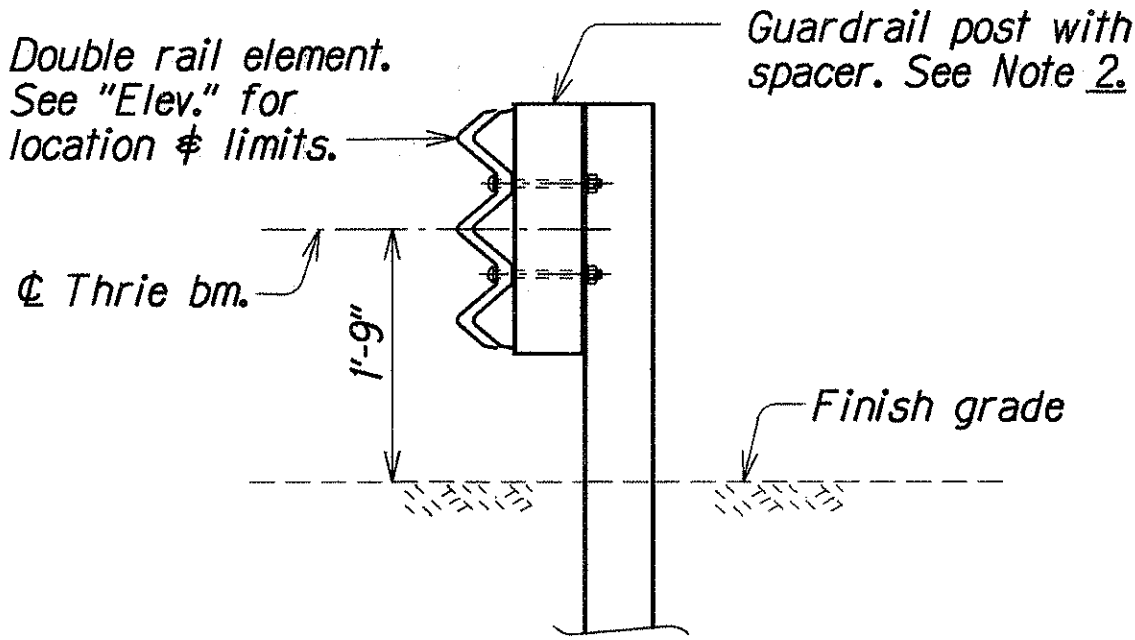
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(39)	1996	27	70



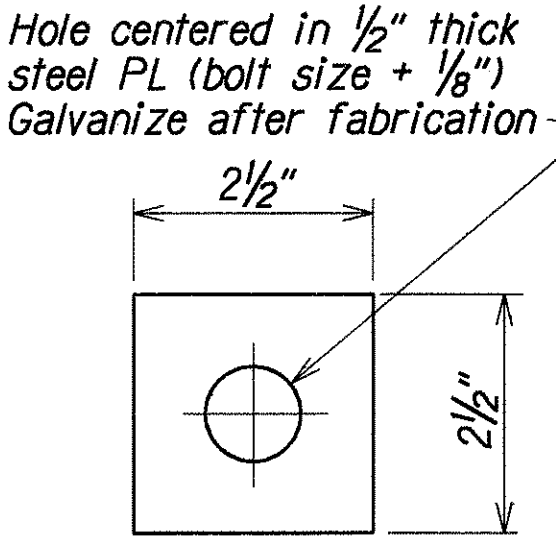
- NOTES:**
1. The work necessary to connect guardrail to concrete end post shall include all labor, materials, tools, equipment and incidentals necessary to complete the work and shall be incidental to the metal guardrail and will not be paid for separately.
 2. See "DOT Standard Plan" Sht. #TE-57 for guardrail Type 3 thrie beam details and Sht. #TE-50 & #TE-51 for W beam metal guardrail details. Lap terminal connector and rail element in direction of traffic to prevent snagging.
 3. Where double (nested) beam occur, 12" "Back-up Plate" not required.
 4. Terminal connector and accessories will be considered incidental to item No. 606.3500-Guardrail, Type 3 Thrie Beam with Steel Post.
 5. Terminal connector, standard spacer and all anchor bolts, caps plates, nuts and washers shall be hot-dip galvanized after fabrication (clip washers shall be used as required).
 6. Heads of through anchor bolts shall be placed on the traffic side.
 7. Guardrail Type 3 thrie beam will be paid for under Item No. 606.3500- Guardrail Type 3 Double nested Thrie Beam with Steel Post.

TYPICAL TYPE 3 THRIE BEAM METAL GUARDRAIL UPGRADE

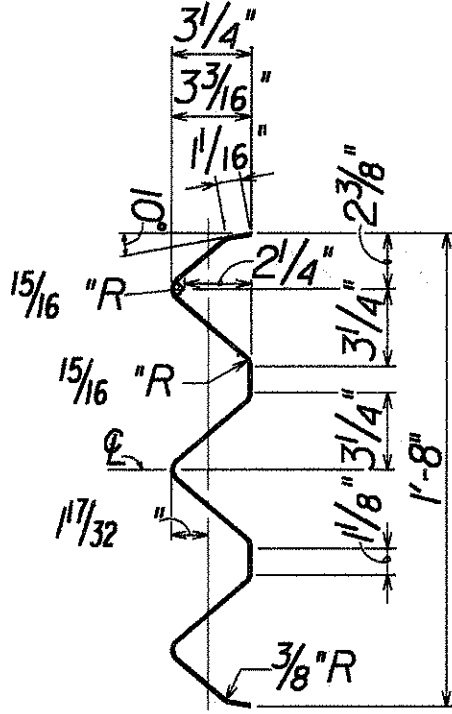
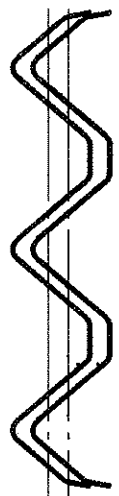
Scale: 1/2" = 1'-0"



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



CAP PLATE DETAIL
Scale: 6" = 1'-0"



DOUBLE SECTION THRU RAIL ELEMENT
Scale: 1 1/2" = 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED	DRAWN BY	FEB 1996
DESIGNED BY	TRACED BY	FEB 1996
CHECKED BY	DESIGNED BY	FEB 1996
IN. Thompson	DESIGNED BY	FEB 1996

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RETAINING WALL
METAL GUARDRAIL UPGRADE DETAILS
Ulune Street And Halawa Valley Road Improvements
Halawa Heights Road To Halawa Valley Road
Ulune Street To Iwaiwa Street
Project No. STP-0300(39)

Scale: As Noted
Date: Mar. 1996