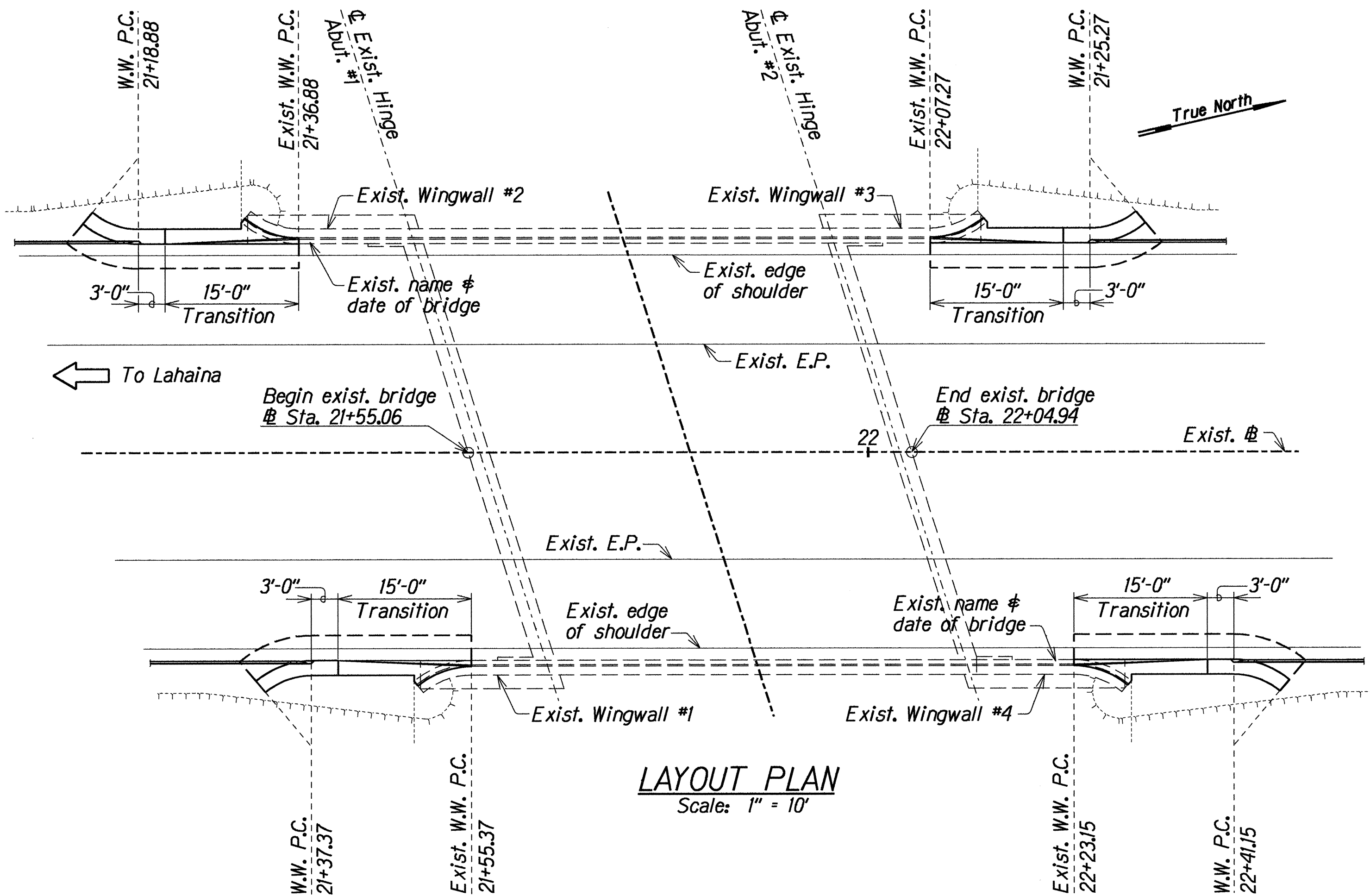


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(23)	1994	7	27



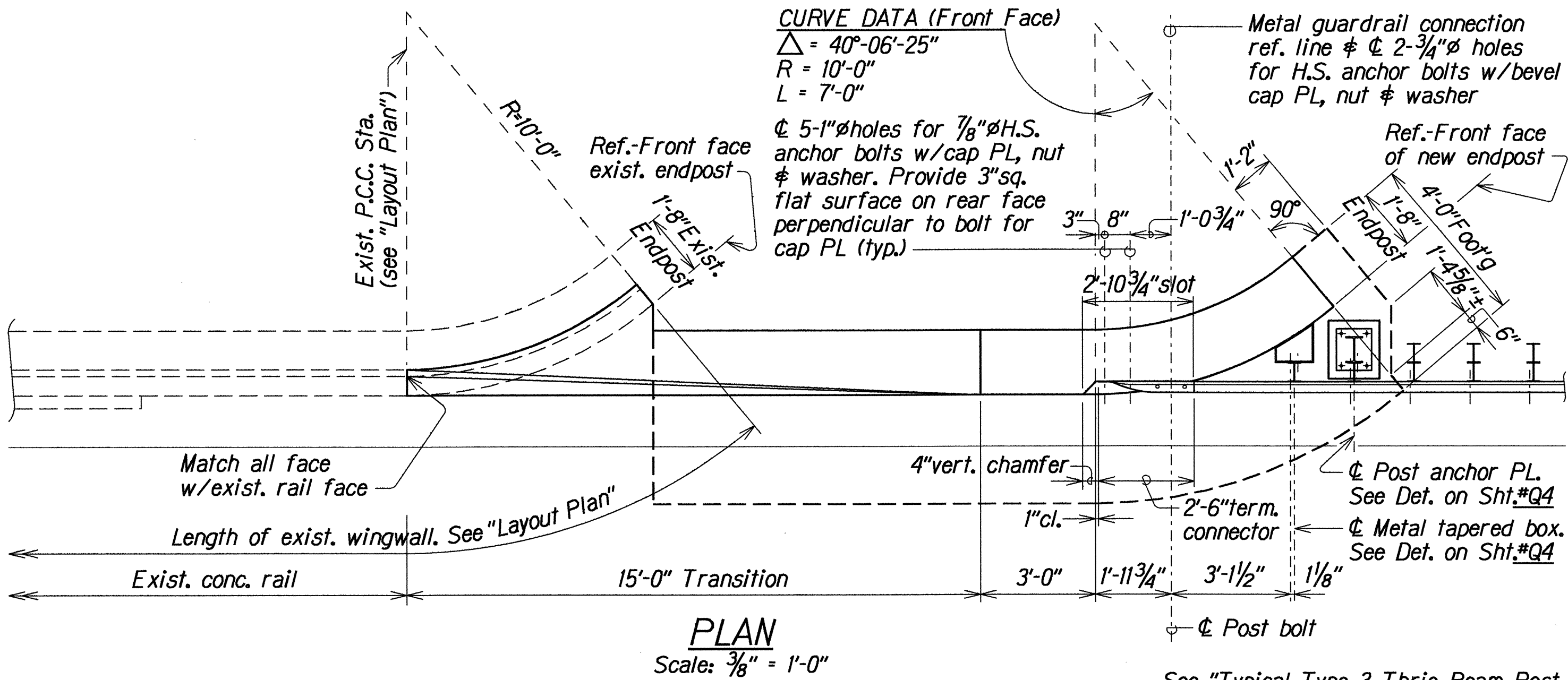
LAYOUT PLAN
Scale: 1" = 10'

GENERAL NOTES

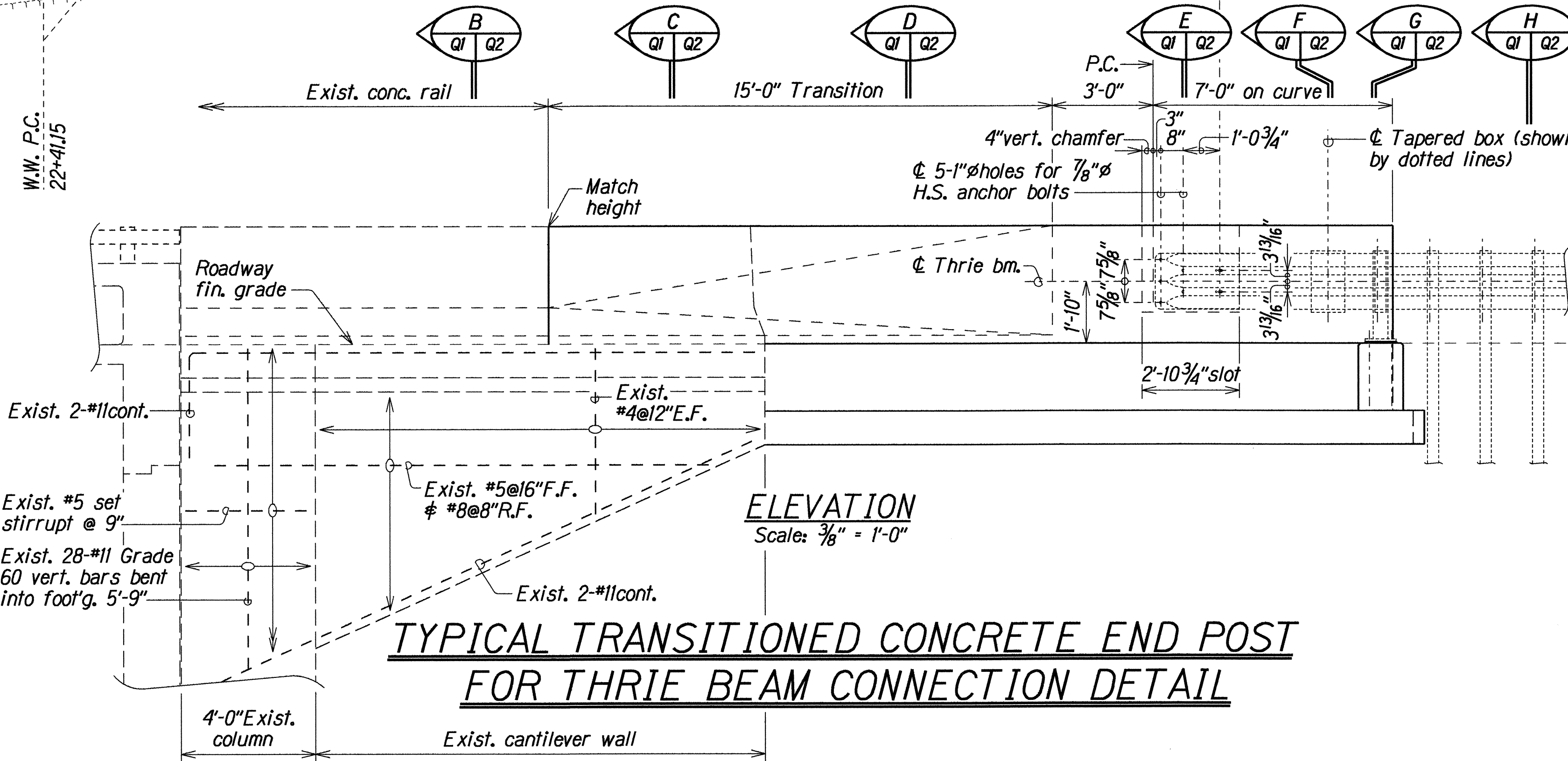
1. See Standard Specification for Road and Bridge Construction (Hawaii 1985) and Special Provisions.
2. Limits of removal of existing concrete structure shown by X-hatched lines. All existing reinforcement which can be incorporated in the new work shall be cleaned, straightened as needed, and utilized as required in the new work as directed by the Engineer.
3. Large impacting or vibratory type of equipment will not be permitted in the removal operation nor in drilling of holes for dowels. Small vibratory tools, approved by the Engineer, will be permitted.
4. Existing retaining wall and concrete rail shown by hatched lines.
5. The Contractor shall verify all dimensions in field before commencing with work.
6. The Contractor shall be responsible for the maintenance of the roadway prism and the protection of the adjacent property, utilities and existing and new structures from damage due to his operation and shall repair any damage at his expense to the satisfaction of the Engineer.
7. Construction of concrete rail shall include all labor, material, tools, equipment and incidentals necessary to complete the work. This work will be paid for in units indicated in the Estimated Quantities.
8. Installation and connection of metal guardrail to Restructured End Post will include terminal connector, concrete pedestal and post anchor plate, metal tapered box and all materials and labor to complete the connection. This work will be considered incidental to Item No. 507.7500 - Restructured End Post.
9. The additional thrie beam element used in two-ply thrie beam will be considered incidental to Item No. 606.3120 - Guardrail, Type 3 -Thrie Beam with Steel Post.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
507.7500	Restructured End Post	4	Ea.



PLAN
Scale: 3/8" = 1'-0"



ELEVATION
Scale: 3/8" = 1'-0"

TYPICAL TRANSITIONED CONCRETE END POST FOR THRIE BEAM CONNECTION DETAIL

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

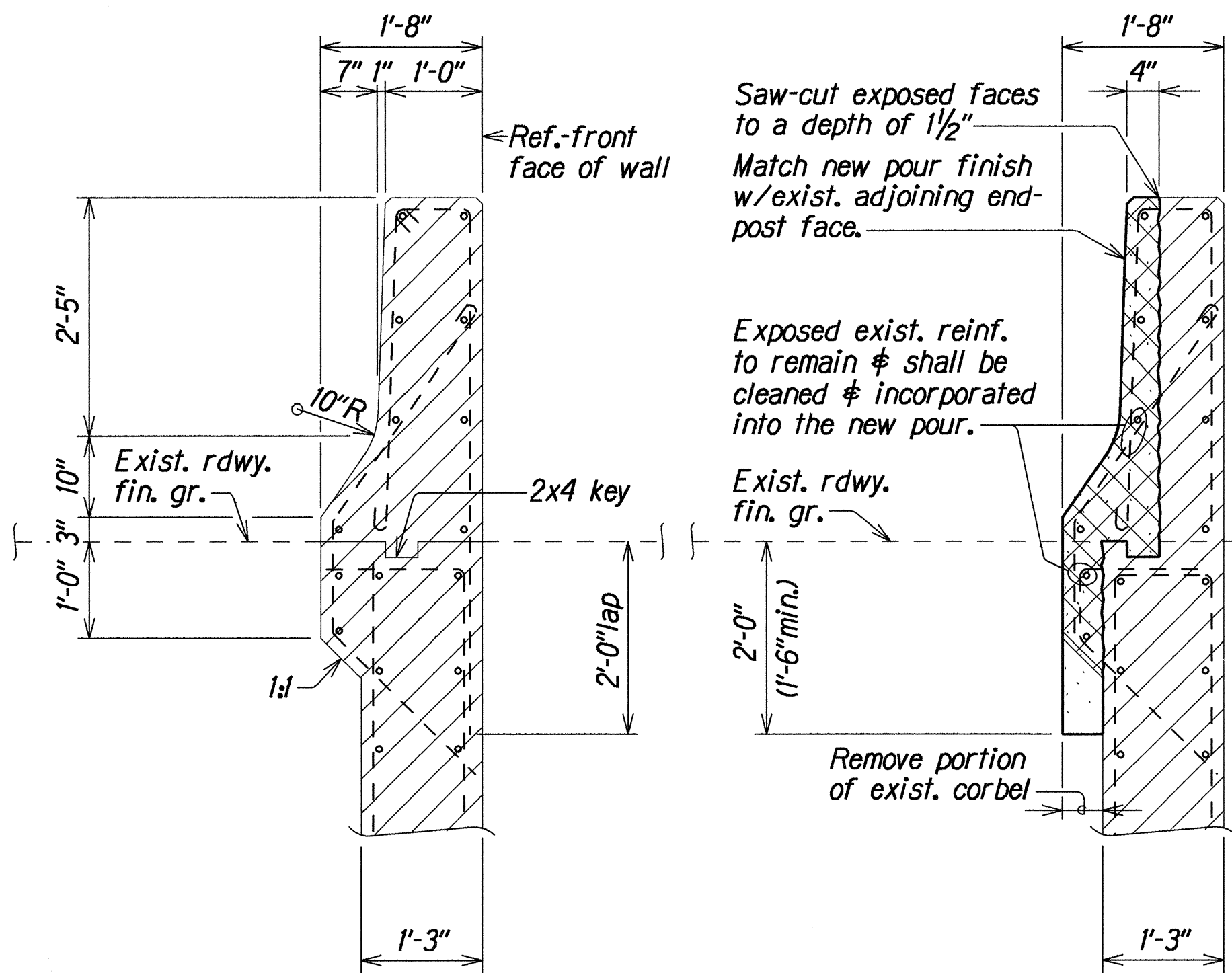
LAYOUT PLAN AND TRANSITIONED END POST
FOR THRIE BEAM CONNECTION
GUARDRAIL CONNECTION AT
HONOKAWAI BRIDGE APPROACH
Honokapiʻilani Highway Resurfacing, Honokawai to Kahana
F.A. Project No. STP-030-1(23)

Scale: As Noted
Date: Apr, 1994

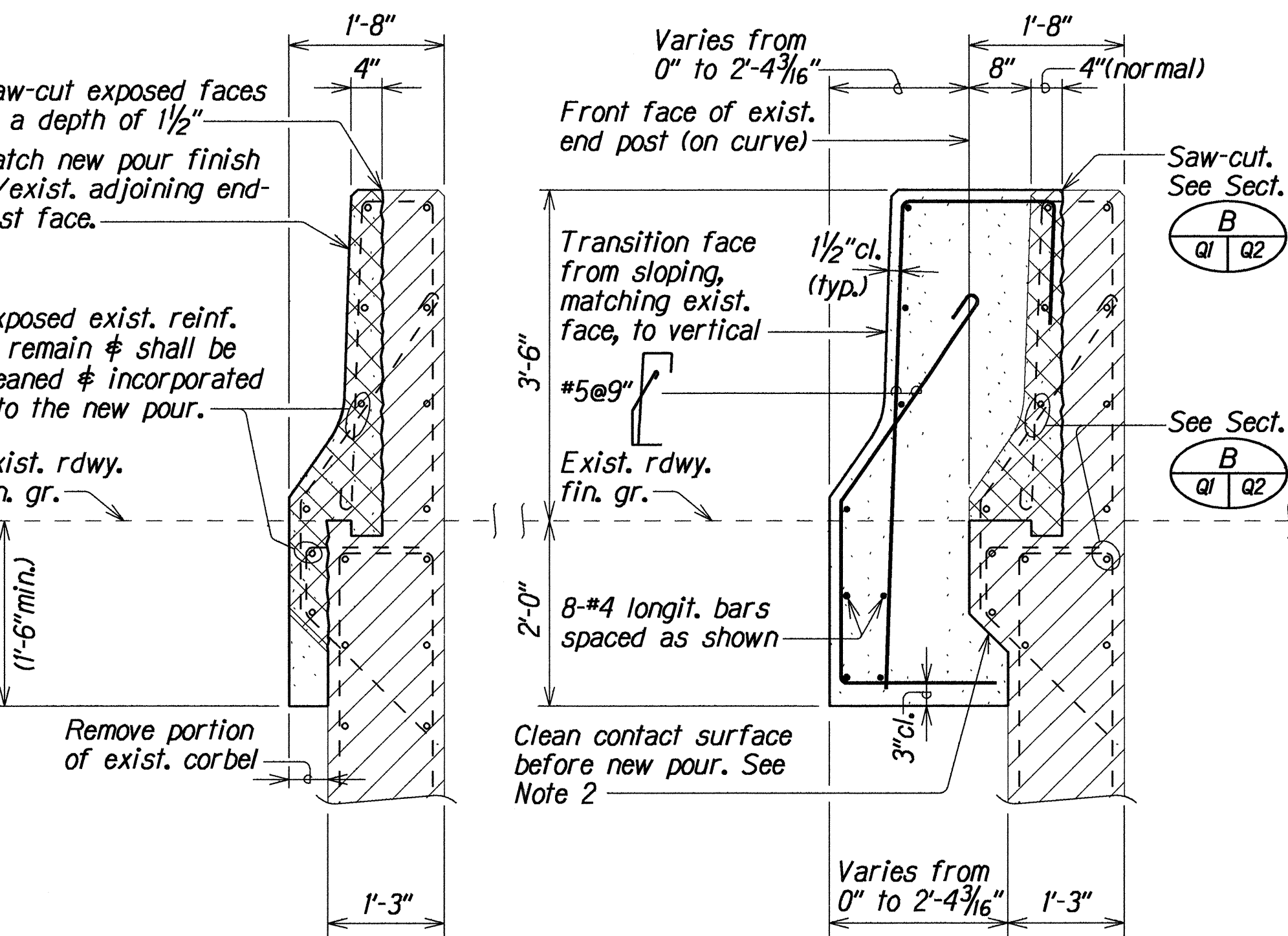
SHEET No. 01 OF 4 SHEETS

ORIGINAL PLAN	DATE	APR 1994
DRAWN BY	KSQ	
CHECKED BY	TS	
QUANTITIES BY	LTA	
NOTED BY	LTA	
NOTED BY	LTA	

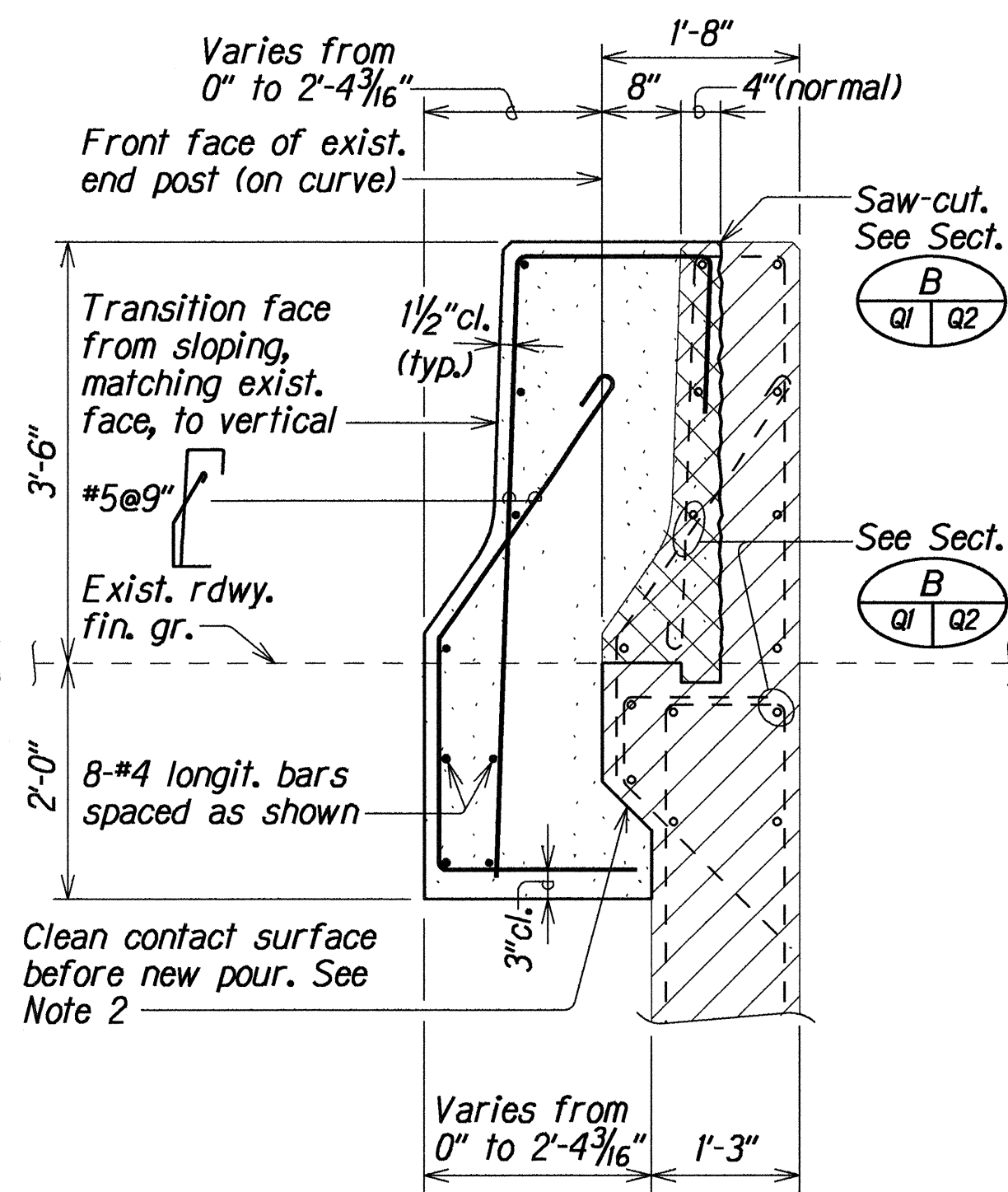
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(23)	1994	8	27



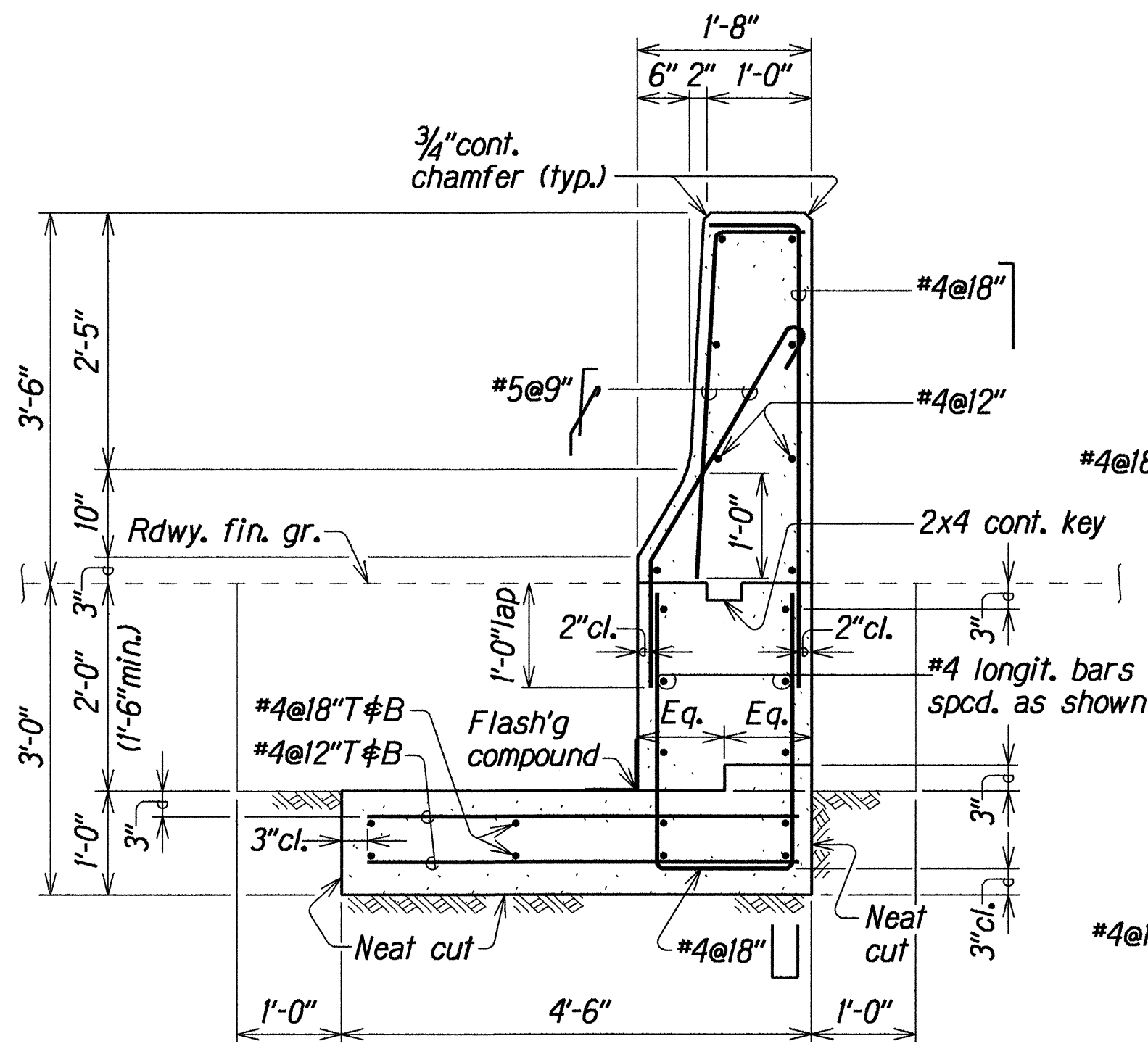
SECTION A
EXISTING THRU
CANTILEVER WALL
Scale: 3/4" = 1'-0"



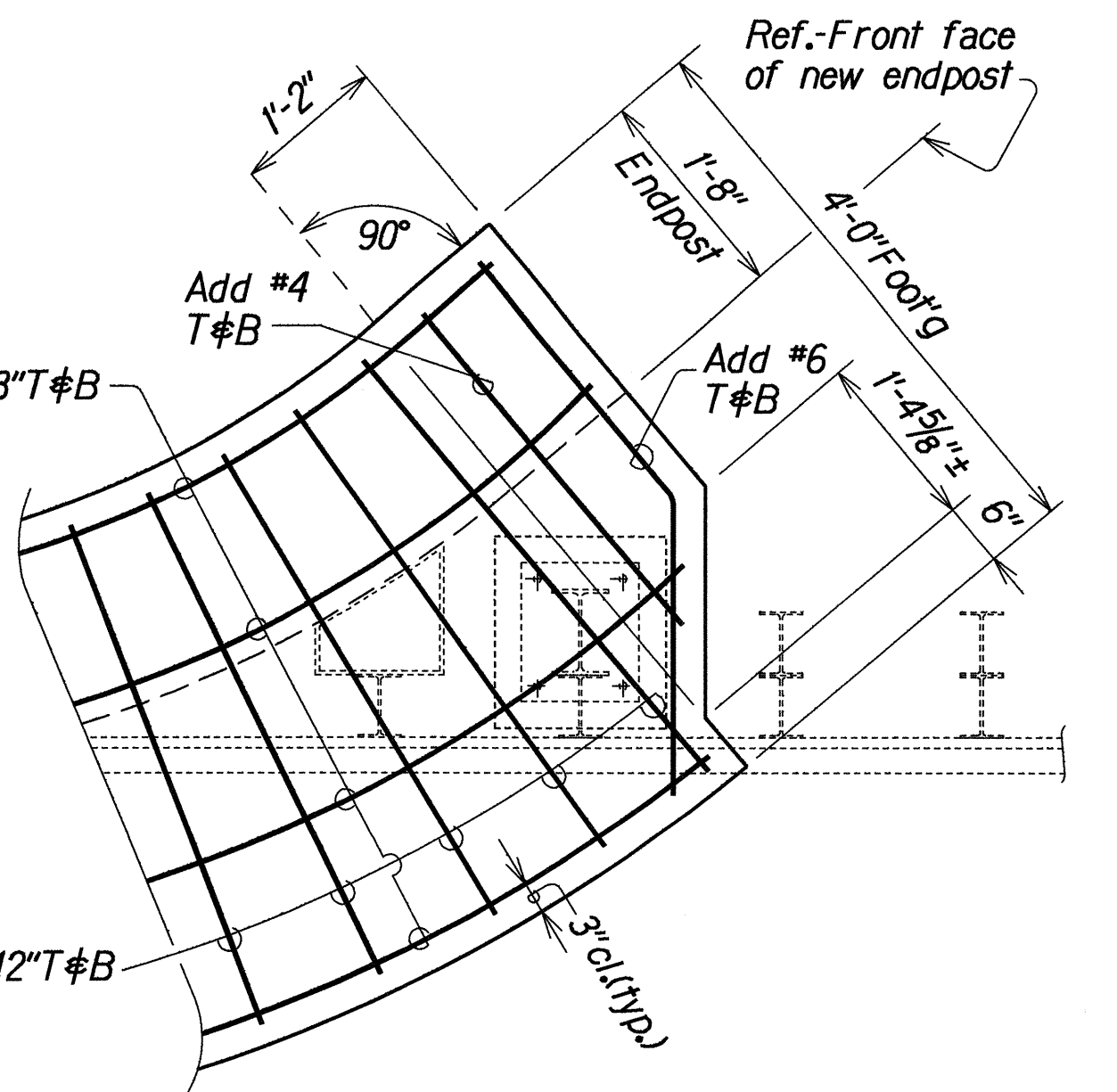
SECTION B
Scale: 3/4" = 1'-0"



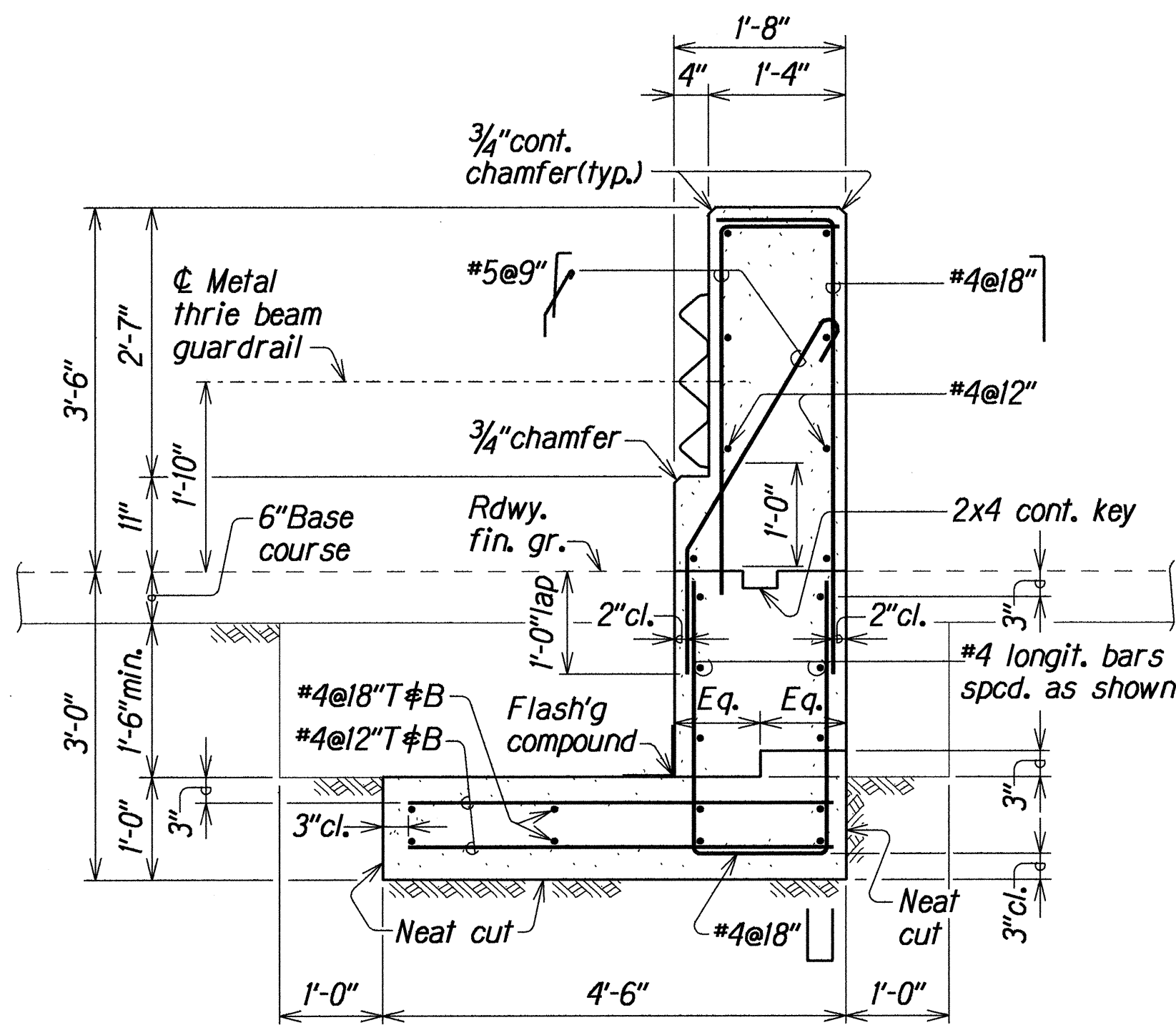
SECTION C
Scale: 3/4" = 1'-0"



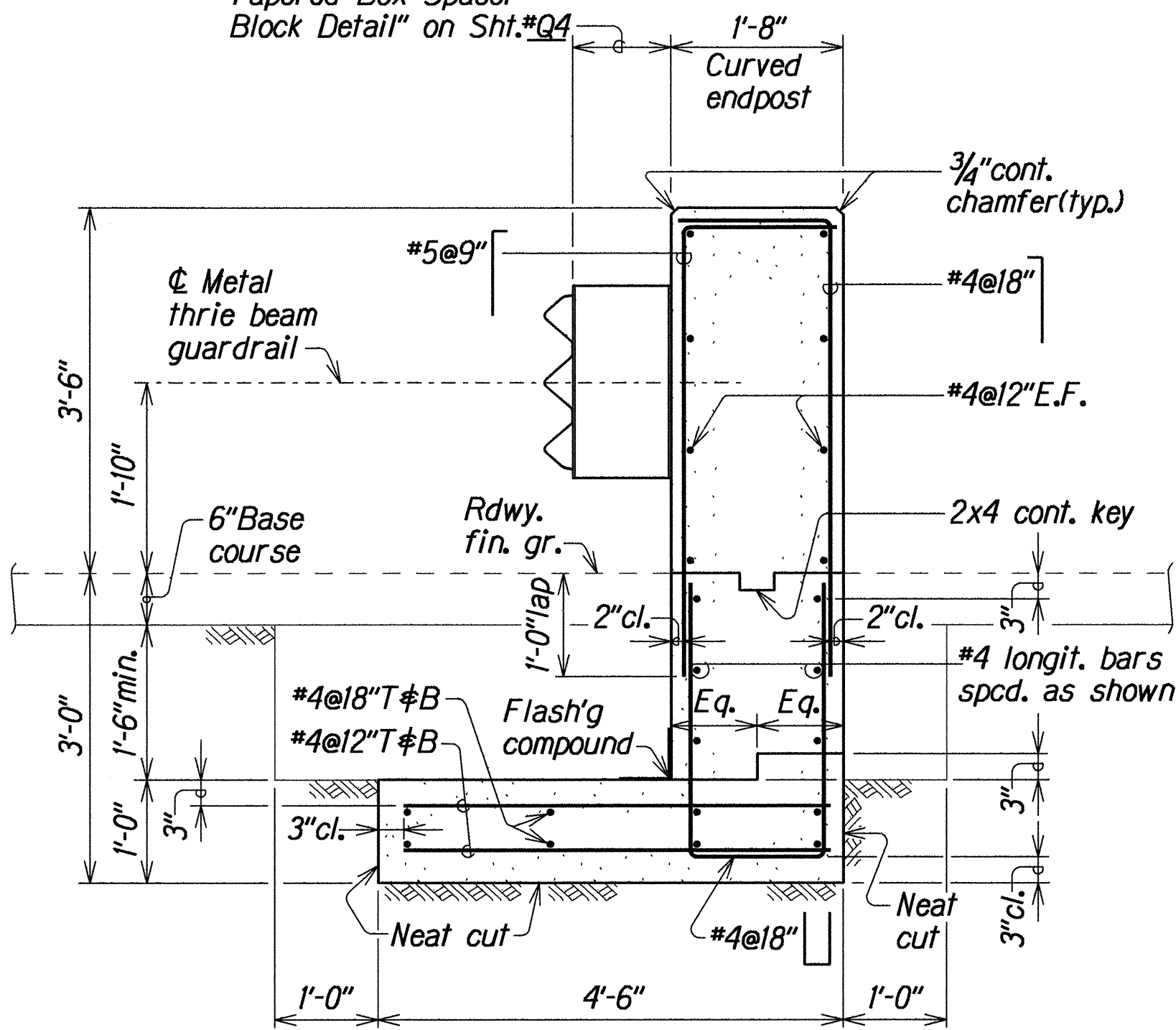
SECTION D
Scale: 3/4" = 1'-0"



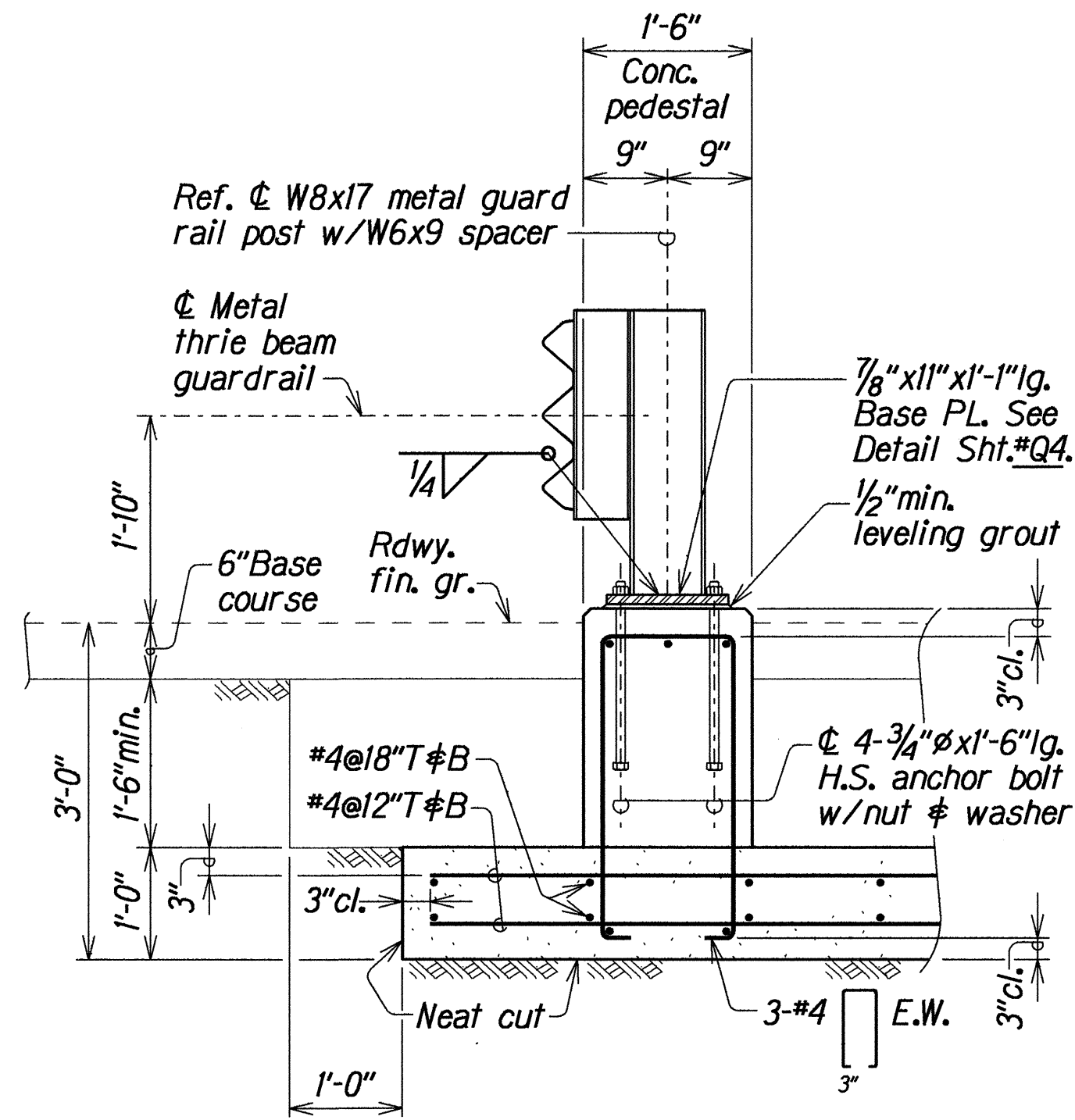
PARTIAL FOOTING PLAN
AT NEW CURVED ENDPOST
Scale: 3/4" = 1'-0"



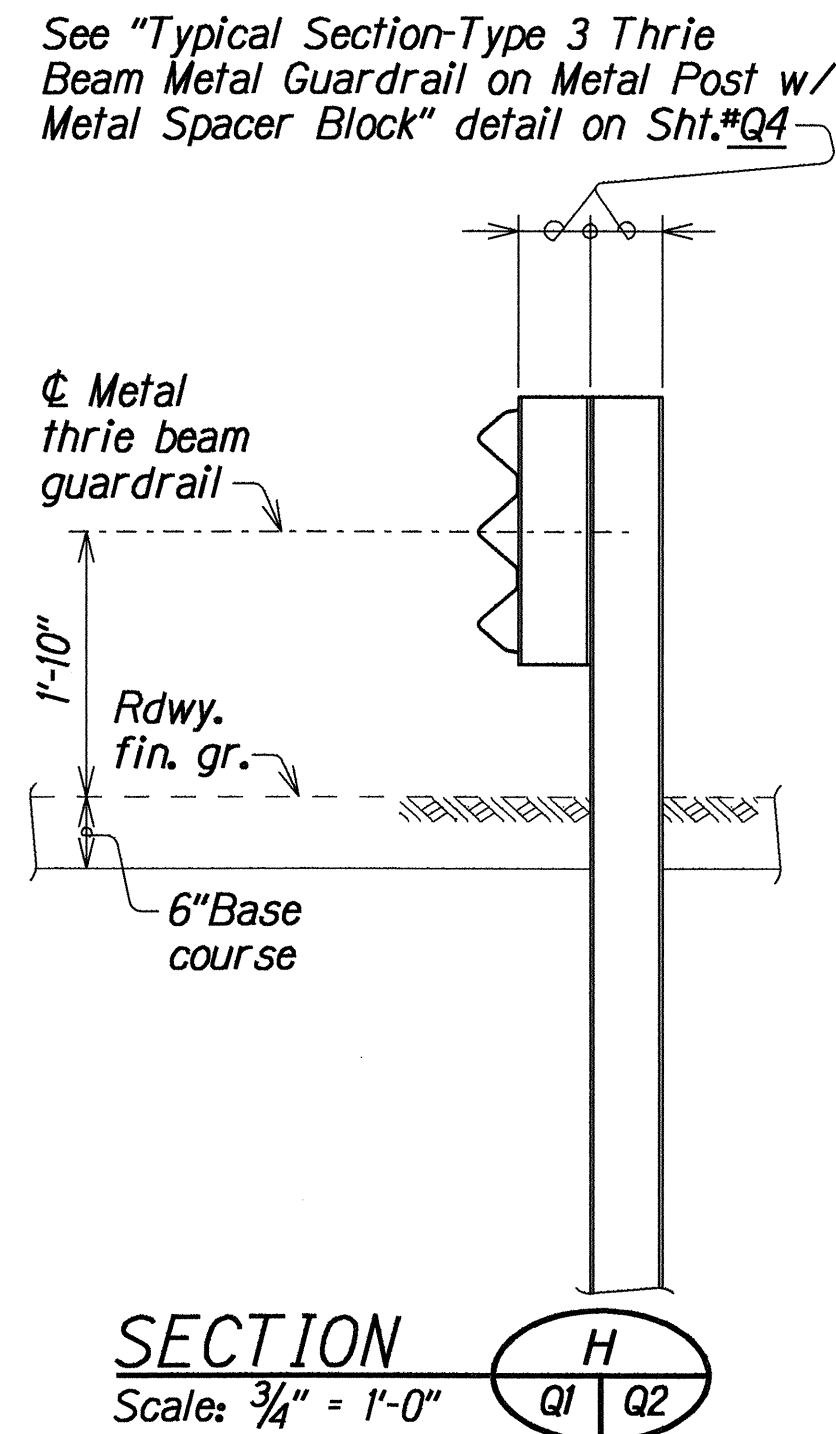
SECTION E
Scale: 3/4" = 1'-0"



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



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



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

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TYPICAL SECTIONS THRU REPLACEMENT

CONCRETE END POST

GUARDRAIL CONNECTION AT

HONOKAWAI BRIDGE APPROACH

Honokawai Highway Resurfacing, Honokawai to Kahana

F.A. Project No. STP-030-1(23)

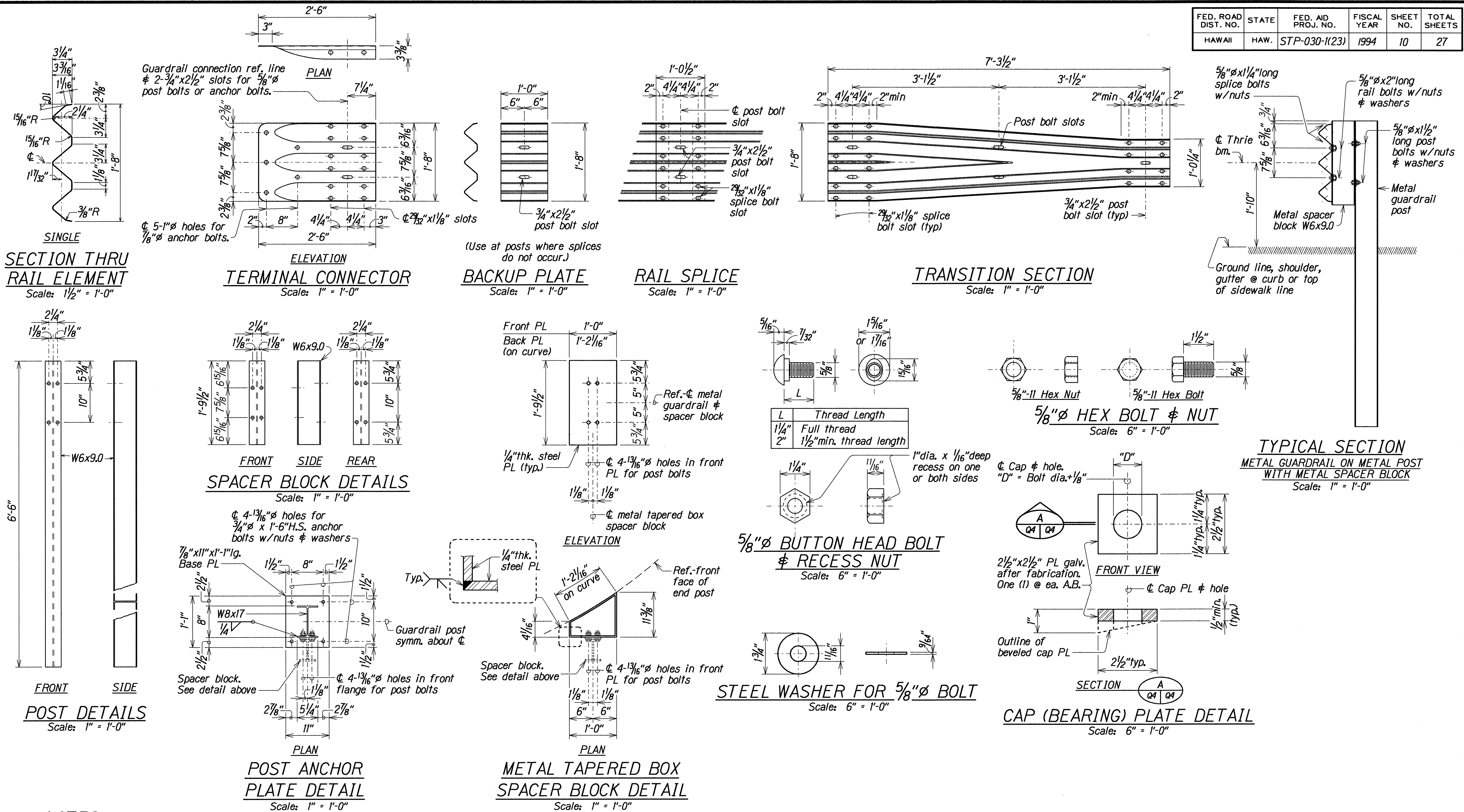
Scale: As Noted

Date: Apr, 1994

SHEET No. Q2 OF 4 SHEETS

8

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(23)	1994	10	27



NOTES:

- "Terminal Connector" shall be fabricated from 10 gauge steel conforming to the requirements of AASHTO M 180.
- All anchor bolts shall be high strength bolts conforming to the requirements of ASTM 325.
- Anchor bolt length shall be such that a snug fit of the elements and full thread engagement plus 1/4" (max) is attained.
- "Terminal Connector", tapered box and standard spacer; including all anchor bolts, cap PL, nuts and washers; shall be hot-dip galvanized after fabrication.
- First 25'-0" of guardrail adjoining "Terminal Connector" shall be galvanized steel and supports spaced as shown on the detail drawings. This section of rail shall be placed on tangent to end post or parallel to roadway, unless conditions at site renders it impossible to do so. Flare point to be determined in field.

- Anchor bolts, nuts, cap PL and metal tapered box spacer block shall be incidental to metal guardrail, unless noted otherwise.
- Cap PL and tapered box spacer block shall be fabricated from steel conforming to the requirements of ASTM A 36.

TYPE 3 THRIE BEAM GUARDRAIL AND APPURTENANCES DETAILS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TYPE 3 THRIE BEAM GUARDRAIL
AND APPURTENANCES DETAILS**

GUARDRAIL CONNECTION AT
HONOKAWAI BRIDGE APPROACH
Honokapiilani Highway Resurfacing, Honokawai to Kahana
F.A. Project No. STP-030-1(23)

Scale: As Noted Date: Apr, 1994