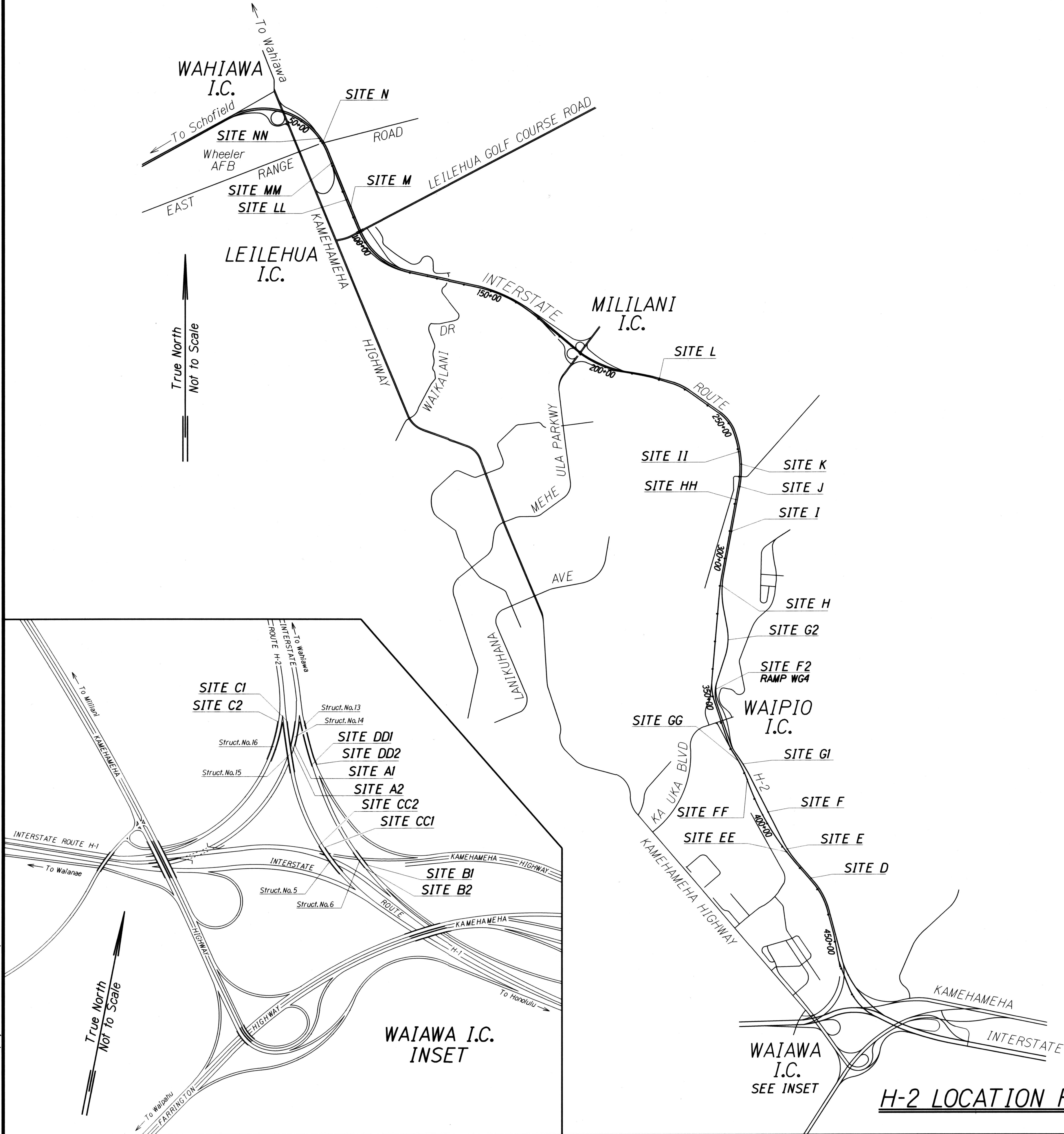




SITE INDEX					
SITE	LOCATION	STATION	LANE*	SHEET NO.	UPGRADE TYPE
RAMP	A1 Ramp Structure #14	501+00±	Right	Q3, Q5, Q7, Q8, Q11	D
	A2 Ramp Structure #14	501+00±	Left	Q3, Q5, Q7, Q8, Q11	D
	B1 Ramp Structure #6	473+00±	Left	Q4, Q6, Q7, Q9, Q11	D
	B2 Ramp Structure #6	473+00±	Right	Q4, Q5, Q7, Q8, Q11	D
	C1 Ramp Structure #15	457+75±	Left	Q3, Q5, Q7, Q8, Q11	D
	C2 Ramp Structure #16	502+70±	Right	Q3, Q6, Q7, Q9, Q11	D
	CC1 Ramp Structure #5	471+00±	Left	Q4, Q6, Q7, Q10, Q11	D
	CC2 Ramp Structure #5	471+00±	Right	Q4, Q5, Q7, Q8, Q11	D
	DD1 Ramp Structure #13	463+10±	Left	Q3, Q5, Q7, Q8, Q11, Q12, Q13	D
	DD2 Ramp Structure #13	463+10±	Right	Q3, Q5, Q7, Q8, Q11	D
OUTBOUND	D H2 Outbound	425+50±	Right	Q14, Q26, Q34	D2A
	E H2 Outbound	411+75±	Right	Q14, Q35, Q39	D2B
	F H2 Outbound	396+50±	Right	Q15, Q42, Q43	SP1
	F2 H2 Outbound	5+50± Ramp WG4	Right	Q19, Q24, Q25	D2 w/Beam
	G1 H2 Outbound	376+75±	Right	Q14, Q36, Q39	D2B
	G2 H2 Outbound	329+50±	Right	Q14, Q37, Q39	D2B
	H H2 Outbound	310+00±	Right	Q14, Q27, Q34	D2A
	I H2 Outbound	290+00±	Right	Q14, Q20, Q23	D2
	J H2 Outbound	273+50±	Right	Q14, Q28, Q34	D2A
	K H2 Outbound	265+50±	Right	Q14, Q29, Q34	D2A
	L H2 Outbound	220+00±	Right	Q14, Q30, Q34	D2A
	M H2 Outbound	86+00±	Right	Q16, Q17, Q38, Q39	D2B
	N H2 Outbound	60+75±	Right	Q16, Q18, Q44, Q45, Q46	SP2
INBOUND	EE H2 Inbound	412+50±	Right	Q14, Q21, Q23	D2
	FF H2 Inbound	382+50±	Right	Q14, Q31, Q34	D2A
	GG H2 Inbound	375+00±	Right	Q14, Q22, Q23	D2
	HH H2 Inbound	278+40±	Right	Q14, Q32, Q34	D2A
	II H2 Inbound	261+00±	Right	Q14, Q33, Q34	D2A
	LL H2 Inbound	83+25±	Right	Q16, Q17, Q38, Q39	D2B
	MM H2 Inbound	69+00±	Right	Q16, Q17, Q40, Q41	D2C
	NN H2 Inbound	59+00±	Right	Q16, Q18, Q44, Q45, Q46	SP2

*Right or Left Lane in Reference to Direction of Traffic.

DATE	XXX 1990
SURVEY PLOTTED BY	XXX
DESIGNED BY	XXX
TRACED BY	XXX
NOTE BOOK	XXX
QUANTITIES BY	XXX
CHECKED BY	XXX

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-2 LOCATION PLAN, SITE INDEX
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

SHEET No. 01 OF 52 SHEETS

SYMBOLS AND ABBREVIATIONS

Detail or Section designation
Sheet No. Section is cut or Detail Location

XXX - Bearing Abutment Seat Line

Boring No. & Designation

A.B. Anchor Bolt
AC Asphaltic Concrete
Adj. Adjacent
Alt. Alternate
Approx. Approximate
B. Baseline
Bal. Balance
Beg. Begin
Bef., Btwn. Between
B.F. Back Face
B.F.E. Bottom Footing Elevation
Bk. Back
Blt. Bolt
Bm. Beam
B, Bot., Bott. Bottom
B.O.F. Bottom Of Footing
Br. Bridge
Brg., Brgs. Bearing, Bearings
B.V.C. Beginning of Vertical Curve

Center Line
Cant. Cantilever
C.F. Cubic Feet
CIP Cast in Place
C.I.P. Cast Iron Pipe
Cl., Cir. Clear
Conc. Concrete
Conn. Connection
Const. Construction
Cont. Continuous
CRM Cement Rubble Masonry
C.Y., Cu. Yd. Cubic Yards

Detail
Dia., Ø Diameter
Dim. Dimension
Dwg., Dwgs. Drawing, Drawings

EA, Ea., ea. Each
E.F. Each Face
Elec. Electrical
El., Elev. Elevation
Emb. Embankment
E.P. Edge of Pavement
Eq. Equal
Est. Estimated
E.W. Each Way
Exc. Excavation
Exist. Existing
Exp., (E) Expansion
Ext. Extend

(F) Fixed
F_c Specified Strength of Concrete
F_{ci} Strength of Concrete at Time of Initial Prestress

F.F. Front Face
Fig. Figure
Fin. Finish
Fin. Gr. Finish Grade
Ftg., Foot'g Footing

Ga. Gauge
Galv. Galvanized
GDI Grated Drop Intake
Gir., G Girder
G.R.P. Grouted Rubble Paving
Gr. Grade
Grd. Ground

Horiz. Horizontal
HS High Strength
Ht. Height
Hwy. Highway

I.B. Inbound
I.C. Interchange
I.F. Inside Face
In. Inch
Int. Interior
Inv. Invert

Jt. Joint

L Length
LBS., lb., lbs. Pound, Pounds
L.F., Lin. Ft. Linear Feet
Lg. Long
Longit. Longitudinal
L.S. Lump Sum
Lt. Left
Ltg. Std. Lighting Standard

Max. Maximum
Min. Minimum
Misc. Miscellaneous

N North
N.B. Northbound
N.F. Near Face
No., # Number
N.T.S. Not To Scale

O.B. Outbound
o.c. On Center
Opn'g Opening
o/s, O/S Offset

P.C. Point of Curvature
P.C.C. Portland Cement Concrete
Perf. Perforated
PL Plate
Pvmt. Pavement

R Radius
Rdwy Roadway
Ref. Reference
Reinf. Reinforcement
Ret., Retain'g Retaining
Req'd Required
R.F. Rear Face
Rt. Right
R/W Right Of Way

S South
S.B. Southbound
Sect. Section
SF Square Feet
Shldr. Shoulder

Sh. Sheet
Sp. Space
Spcd. Spaced
Spog. Spacing
Spcs. Spaces

Spec. Specification
Sprd. Spread
Sta. Station
Std. Standard
Stirr. Stirrup

Stlite Street Light
Str. Straight
Struct. Structural
Symm. Symmetrical

T Top
Temp. Temporary
Term. Terminal
Thk. Thick, Thickness
T.O.D. Top Of Deck
Tot. Total
T.O.W. Top Of Wall
Transv. Transverse
Typ. Typical

Var. Varies
V.C. Vertical Curve
Vert. Vertical

W West
w/ With
W.W. Wingwall

INDEX TO DRAWINGS

INTERSTATE ROUTE H-2

Q1	H-2 Location Plan and Site Index
Q2	Symbols and Abbreviations, Index to Drawings and General Notes
Q3	Sites A1, A2, C1, C2, DD1 and DD2 -- Layout Plan
Q4	Sites B1, B2, CC1 and CC2 -- Layout Plan
Q5	Sites A1, A2, B2, C1, CC2, DD1 and DD2 -- Existing End Post Removal Plan and Elevation
Q6	Sites B1, C2 and CC1 -- Existing End Post Removal Plan, Elevation and Section
Q7	Sites A1, A2, B1, B2, C1, C2, CC1, CC2, DD1 and DD2 -- Existing End Post Sections
Q8	Sites A1, A2, B2, C1, DD1 and DD2 -- Upgrade End Post Plan and Elevation
Q9	Sites B1 and C2 -- Type "D" Upgrade End Post Plan and Elevation
Q10	Site CC1 -- Type "D" Upgrade End Post Plan and Elevation
Q11	Sites A1, A2, B1, B2, C1, C2, CC1, CC2, DD1 and DD2 -- Type "D" Upgrade End Post Sections
Q12	Site DD1 -- Existing End Post Removal Plan
Q13	Site DD1 -- Upgrade End Post Plan
Q14	Sites D, E, G1, G2, H, I, J, K, L, EE, FF, GG, HH and II -- Existing End Post Removal Details
Q15	Site F -- Existing End Post Removal Plan and Elevation
Q16	Sites M, N, LL, MM and NN -- Existing Guardrail Removal Details
Q17	Sites M, LL and MM -- Existing End Post Removal Details
Q18	Sites N and NN -- Existing End Post Removal Details
Q19	Site F2 -- Existing Removal Plan and Elevation
Q20	Site I -- Type "D2" End Post Plan and Elevation
Q21	Site EE -- Type "D2" End Post Plan and Elevation
Q22	Site GG -- Type "D2" End Post Plan and Elevation
Q23	Site I, EE, GG and Type "D2" End Post Sections and Details
Q24	Site F2 -- Type "D2 w/Beam" End Post Plan and Elevation
Q25	Site F2 Type "D2 w/Beam" End Post Sections and Details
Q26	Site D -- Type "D2A" End Post Plan and Elevation
Q27	Site H -- Type "D2A" End Post Plan and Elevation
Q28	Site J -- Type "D2A" End Post Plan and Elevation
Q29	Site K -- Type "D2A" End Post Plan and Elevation
Q30	Site L -- Type "D2A" End Post Plan and Elevation
Q31	Site FF -- Type "D2A" End Post Plan and Elevation
Q32	Site HH -- Type "D2A" End Post Plan and Elevation
Q33	Site II -- Type "D2A" End Post Plan and Elevation
Q34	Sites D, H, J, K, L, FF, HH and II Type "D2A" End Post Sections and Details
Q35	Site E -- Type "D2B" End Post Plan and Elevation
Q36	Site G1 -- Type "D2B" End Post Plan and Elevation
Q37	Site G2 -- Type "D2B" End Post Plan and Elevation
Q38	Sites M and LL -- Type "D2B" End Post Plan and Elevation
Q39	Sites E, G1, G2, M and LL Type "D2B" End Post Sections and Details
Q40	Site MM -- Type "D2C" End Post Plan and Elevation
Q41	Sites MM -- Type "D2C" End Post Sections and Details
Q42	Site F -- Type "SP1" End Post Plan and Elevation
Q43	Site F -- Type "SP1" End Post Sections and Details
Q44	Sites N and NN -- Type "SP2" End Post Plan and Elevation
Q45	Sites N and NN -- Type "SP2" Reinforcement Plan and Elevation
Q46	Sites N and NN -- Type "SP2" End Post Sections and Details
Q47	Metal Guardrail Type 3 Thrie Beam and Appurtenances Details

MOANALUA FREEWAY

Q1A	New Concrete Barrier Plan at Aiea Pedestrian Overpass Moanalua Road @ Sta. 133+82.13
Q2A	Concrete Median Barrier Details at Aiea Pedestrian Overpass Moanalua Road @ Sta. 133+82.13
Q3A	Concrete Barrier Upgrade at Aiea Interchange Structure No. 2
Q4A	Concrete Barrier Details at Aiea Interchange Structure No. 2
Q5A	Concrete Barrier Upgrade Sections and Details at Aiea Interchange Structure No. 2

GENERAL NOTES

DESIGN SPECIFICATIONS:

AASHTO LRFD Bridge Design Specifications, Second Edition, 1998

MATERIALS:

- Reinforced Concrete: Class A ($f'_c = 3,000$ psi min.)
- Reinforced Steel: ASTM A 615, Grade 60
- Admixture in Concrete: See Special Provisions
- All expansion and premolded joint filler shall be incidental to concrete and will not be paid for separately.
- All structural steel shall be ASTM A 36, hot-dip galvanized after fabrication.
- All anchor bolts, nuts and washers shall be ASTM A 325, hot-dip galvanized after fabrication, unless noted otherwise.
- All welding shall be in accordance with the current edition of Reinforcing Steel Welding Code AWS D 1.4.

CONSTRUCTION REQUIREMENTS:

- Refer to Hawaii Standard Specifications for Road, Bridge and Public Works Construction, (Hawaii 1994 edition and Special Provisions).
- Except as noted otherwise, all vertical dimensions are measured plumb.
- For steel reinforcing, stagger all splices where possible.
- Steel reinforcing shall be supported, bent and placed as per the ACI Detailing Manual, 1994.
- For cast-in-place concrete, minimum reinforcement cover: Concrete cast against earth: 3" Walls: 2"
- At time concrete is placed, reinforcing shall be free from mud, oil laitance or other coatings adversely affecting bond capacity.
- Reinforcement, dowels and other embedded items shall be positively secured before pouring.
- Minimum clear spacing between parallel bars shall be one and one-half ($1\frac{1}{2}$) times the diameter of the bars (for non-bundled bars). But in no case shall the clear distance between the bars be less than one and one-half ($1\frac{1}{2}$) times the maximum size of the course aggregate.
- All dimensions relating to reinforcing bars (e.g. spacing of bars, etc.) are to centers of bars unless noted otherwise.
- All footings shall bear on firm undisturbed natural soils or properly compacted structural fill.
- Expansion and contraction joints in bridge rail upgrade to match respective joints in existing bridge rail. Premolded joint filler for joints to be incidental to bridge rail upgrade.
- Rail splices shall be located on any section of rail crossing an existing bridge rail control or expansion joint and shall be considered incidental to bridge rail upgrade. Splices to be located 1'-0" from ϕ of post.
- Saw-cut $\frac{1}{2}$ " deep prior to removal of existing concrete for bridge rail upgrade or endpost transition upgrade.
- Studs used on rail end plate shall be Type B shear connectors made from A 108 material (F_u 60 k.s.i.) as specified in AWS D 1.1 / D 1.1M : 2002, Chapter 7 (Section 7.26 and Table 7.1).

REFERENCE:

- Refer to Standard Plans for additional details and notes not covered by details and typical drawings.

GENERAL:

- The Contractor shall conduct his work in such a manner and provide such temporary shoring or other measures as may be necessary to insure the safety of all concerned and to protect existing structures.
- In the event of over-excavation, the space between the footing or footing key and ground shall be filled with a minimum of Class D concrete at the Contractor's expense at no cost to the State.
- Unless noted otherwise, chamfer all exposed concrete edges three-quarters ($\frac{3}{4}$) of an inch.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	71	193

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

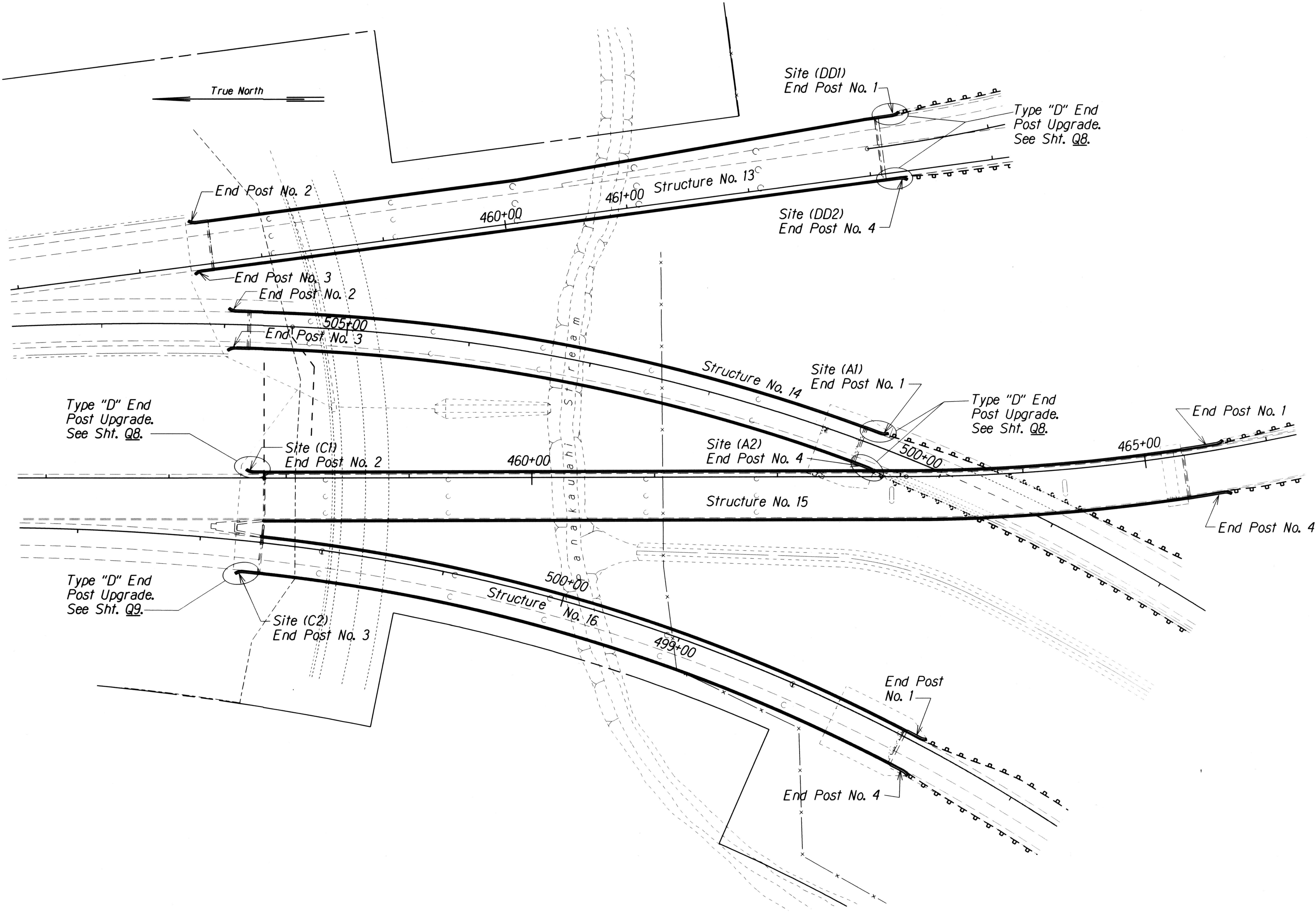
SYMBOLS and ABBREVIATIONS, INDEX to DRAWINGS and GENERAL NOTES

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted Date: Jan., 2017

SHEET No. Q2 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	72	193



WAIAWA I.C. STRUCTURE NOS. 13, 14, 15 AND 16 LAYOUT PLAN
 (SITES A1, A2, C1, C2, DD1 and DD2)
 Not to Scale

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	XXX 1991
	QUANTITIES BY	XXX 1991
	CHECKED BY	XXX 1991

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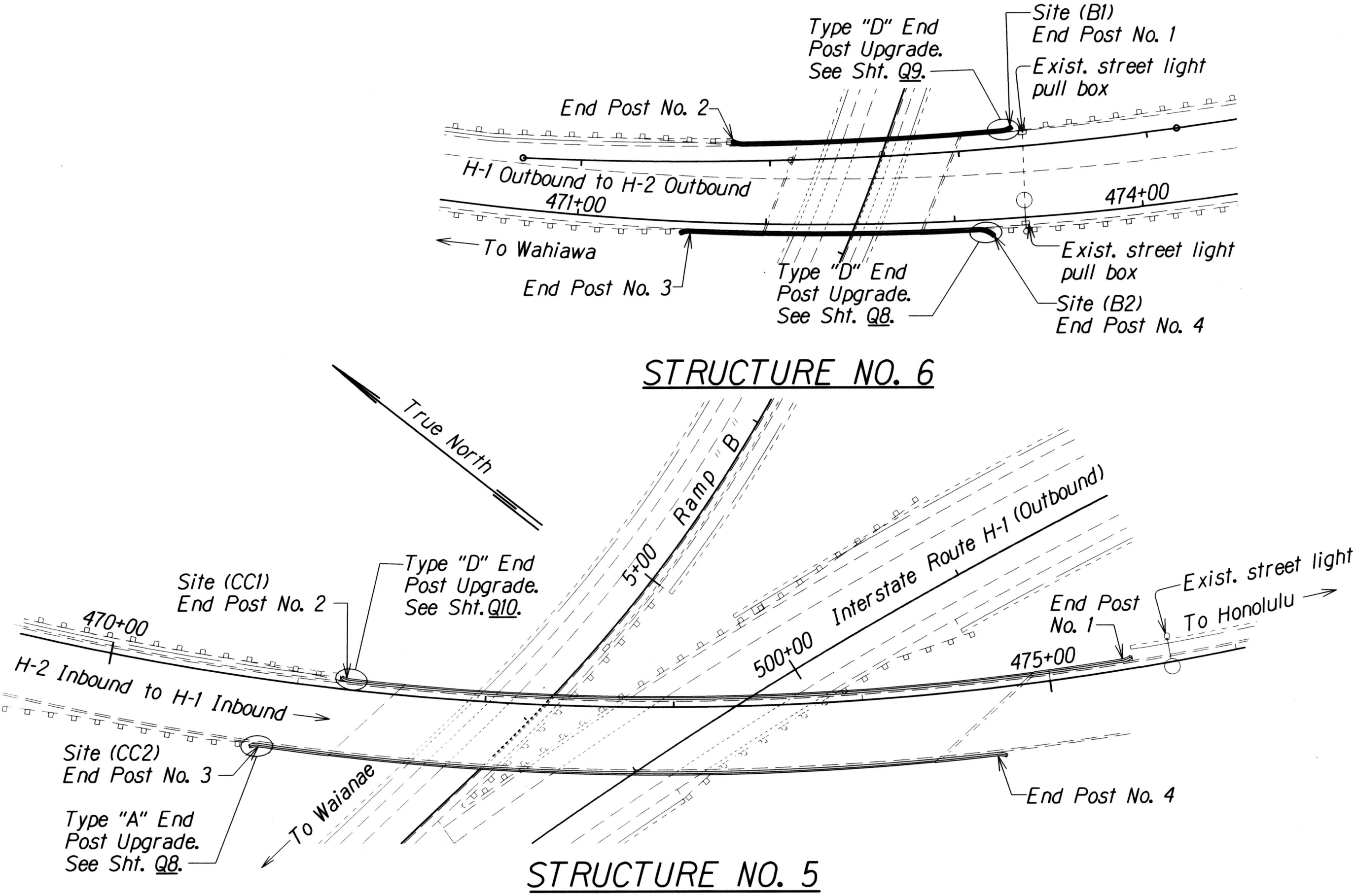
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITES A1, A2, C1, C2, DD1 AND DD2
WAIAWA I.C. STRUCTURE NOS. 13, 14, 15 AND 16
LAYOUT PLAN
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

SHEET No. Q3 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	73	193



WAIAWA I.C. STRUCTURE NOS. 5 AND 6 LAYOUT PLAN
(SITES BI, B2, CC1 and CC2)
 Not to Scale

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	XXX 1997
N=	DESIGNED BY	XXX 1997
	QUANTITIES BY	XXX 1997
	CHECKED BY	XXX 1997

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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

SITES BI, B2, CC1 AND CC2
WAIAWA I.C. STRUCTURE NOS. 5 AND 6
LAYOUT PLAN
 INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
 Guardrail and Shoulder Improvements
 Federal Aid Project No. IM-STP-0300(106)

Scale: As Noted
 Date: Jan., 2017

SHEET No. 04 OF 52 SHEETS

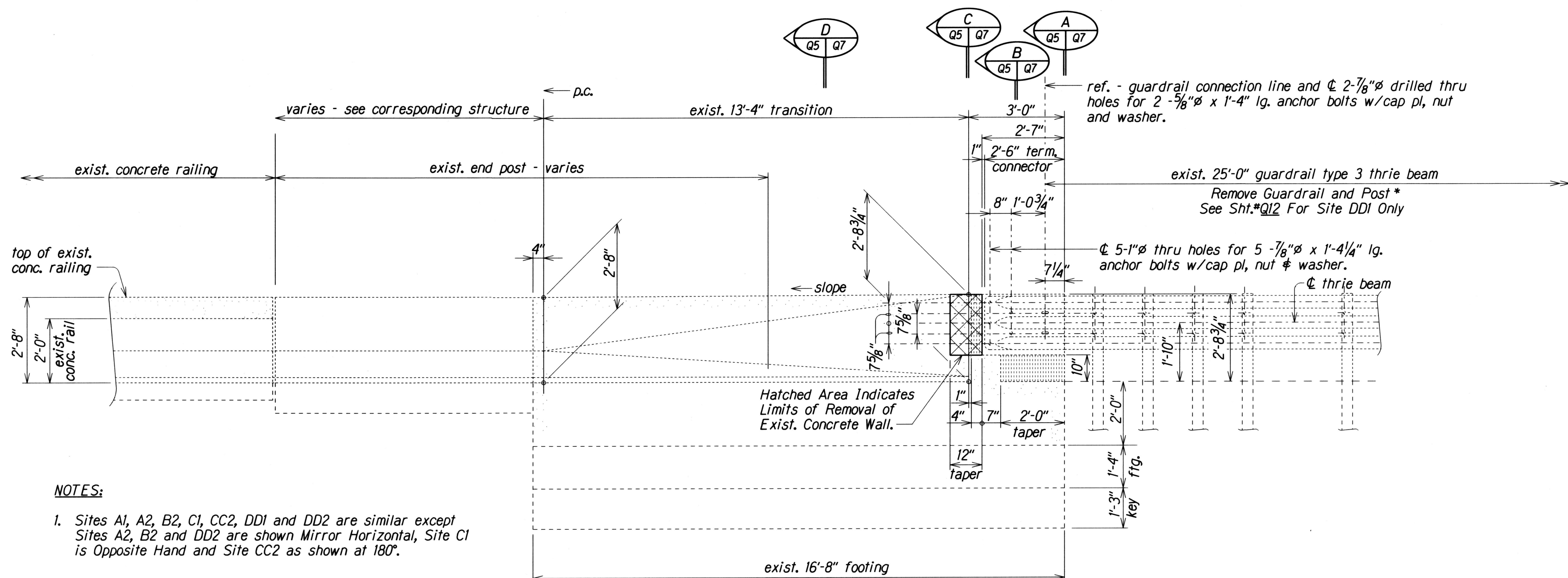
Technical drawing showing the transition of a guardrail from an existing concrete railing to a new 25'-0" guardrail type 3 thrie beam. The drawing includes dimensions for the existing concrete railing, the transition area, and the new guardrail section.

Key dimensions and labels:

- exist. concrete railing
- exist. end post - varies
- P.C. (Point of Curvature)
- front face of exist. conc. rail
- front face of exist. conc. end post
- Hatched Area Indicates Limits of Removal of Exist. Concrete Wall.
- 9'-2 1/4" ±
- exist. 13'-4" transition
- 3'-0"
- Level
- 8" 1'-0 3/4"
- 7 1/4"
- ref. guardrail connection line and $\text{CL } \frac{5}{8}" \text{ } \phi$ anchor bolt
- exist. 25'-0" guardrail type 3 thrie beam
- Remove Guardrail and Post * See Sht. #Q12 For Site DDI Only
- 2'-0"
- 2'-6" term.
- Connector
- 8'-9" Footing
- 1'-6"
- 5'-0"
- 4"
- 4"
- 1"
- Varies
- exist. ftg. outline
- 16'-8"

* Remove guardrail as shown. For Sites A1, A2, B2, back existing guardrail to Site DDI existing guardrail with new. Removal and replacement of guardrail shall be coordinated with the contractor.

PLAN
Scale: $\frac{1}{2}" = 1'-0"$



1. Sites A1, A2, B2, C1, CC2, DD1 and DD2 are similar except Sites A2, B2 and DD2 are shown Mirror Horizontal, Site C1 is Opposite Hand and Site CC2 as shown at 180°.

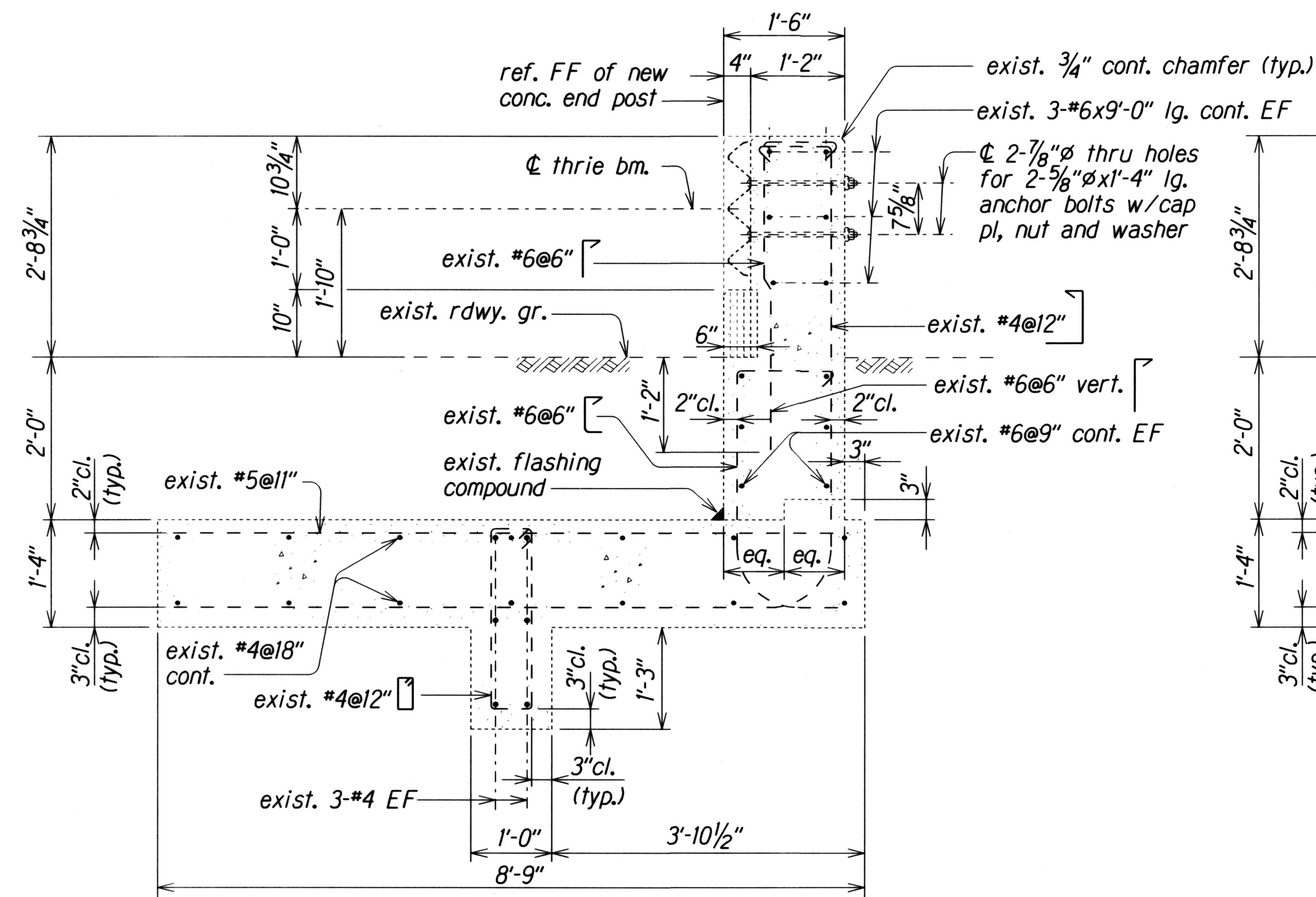
ELEVATION
Scale: $\frac{1}{2}" = 1'-0"$

ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____	
NOTE BOOK	DRAWN BY _____	XXX /99/
	TRACED BY _____	XXX /99/
	DESIGNED BY _____	XXX /99/
	QUANTITIES BY _____	XXX /99/
N _o _____	CHECKED BY _____	XXX /99/

Scale: As Noted Date: Jan., 2017

SHEET No. 05 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	76	193



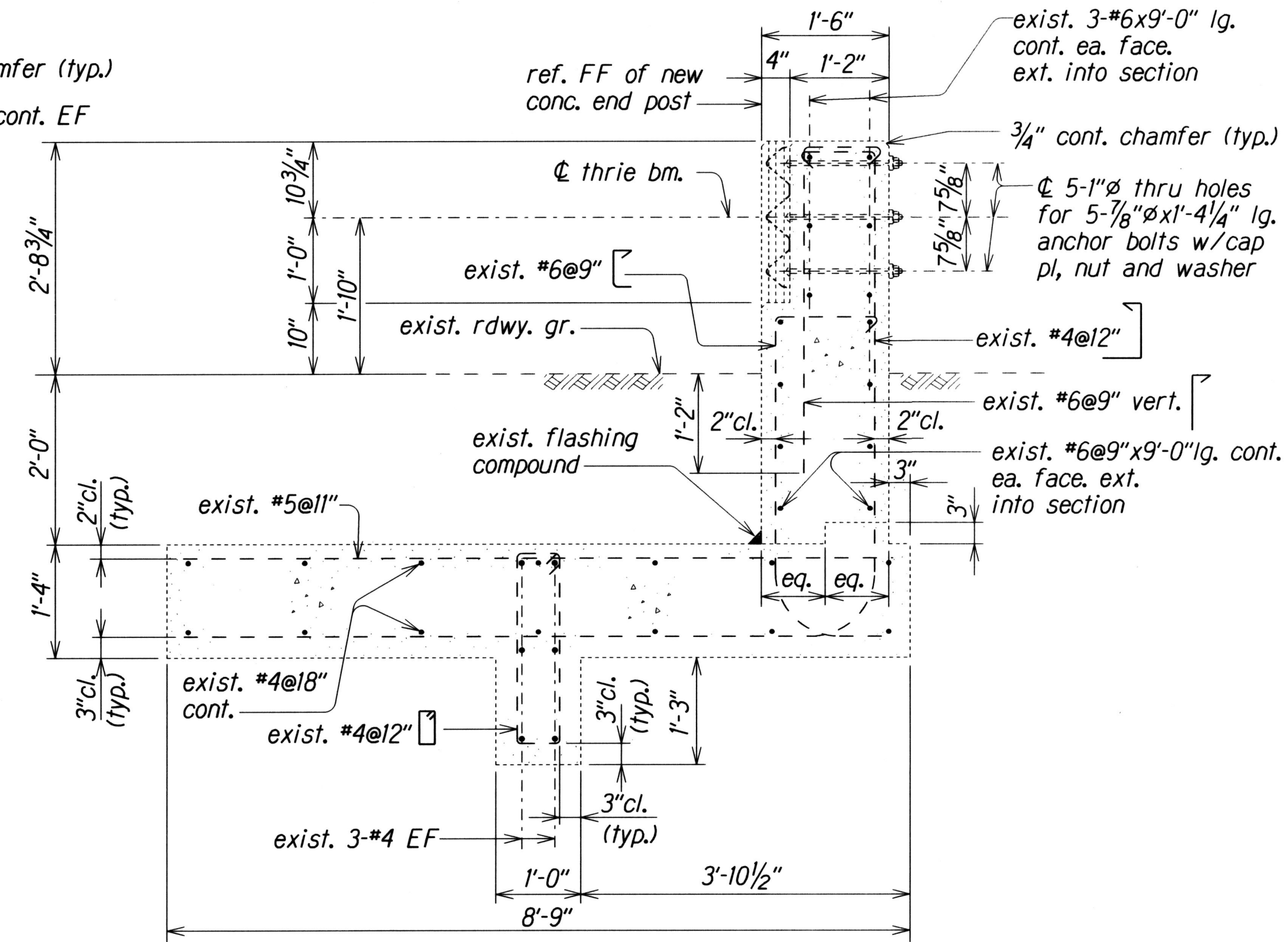
SECTION

Scale: $\frac{3}{4}"=1'-0"$

A

Q5 | Q7

Q6 ↗



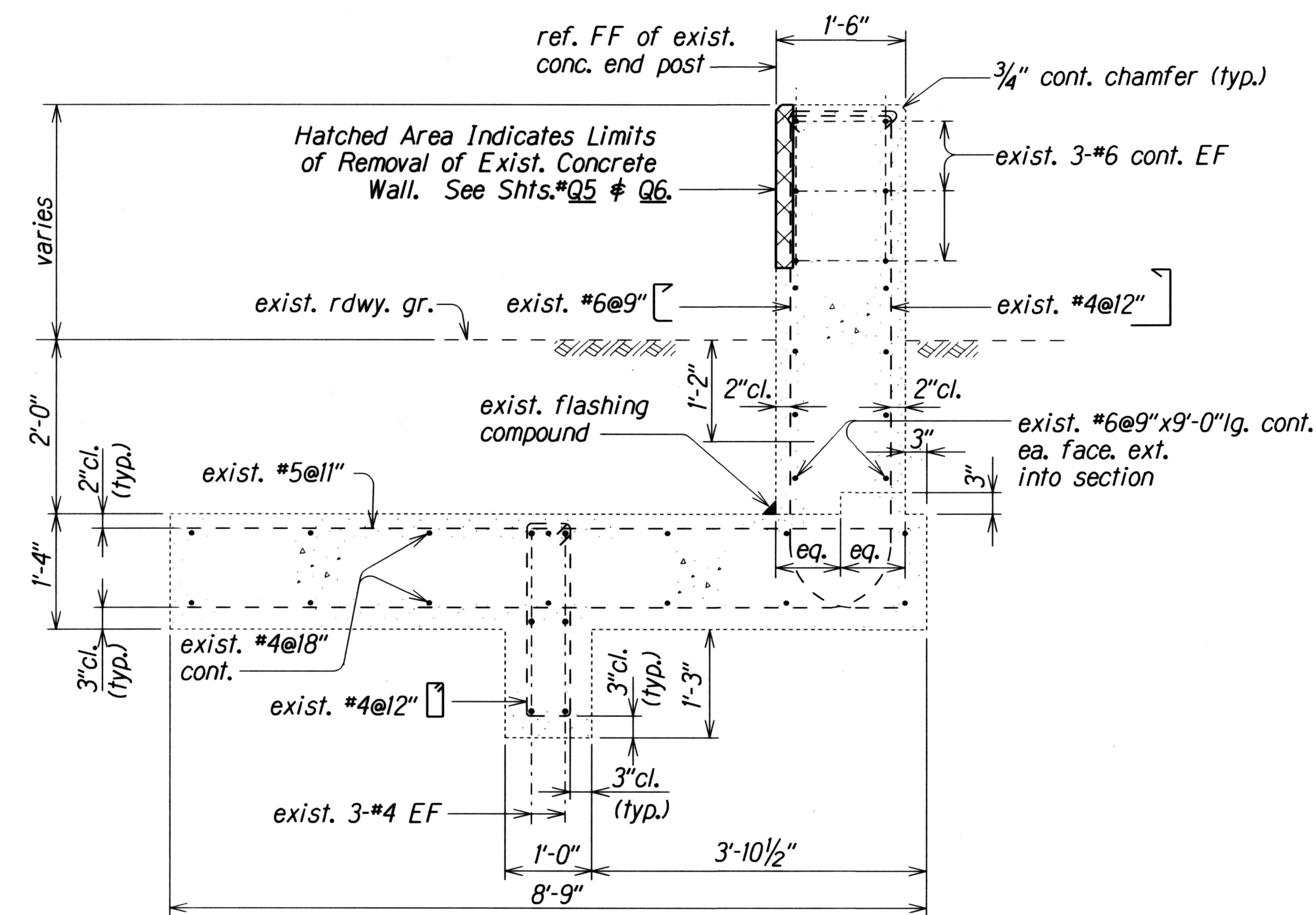
SECTION

Scale: $\frac{3}{4}"=1'-0"$

Q6 ↗

Q5 | Q7

B

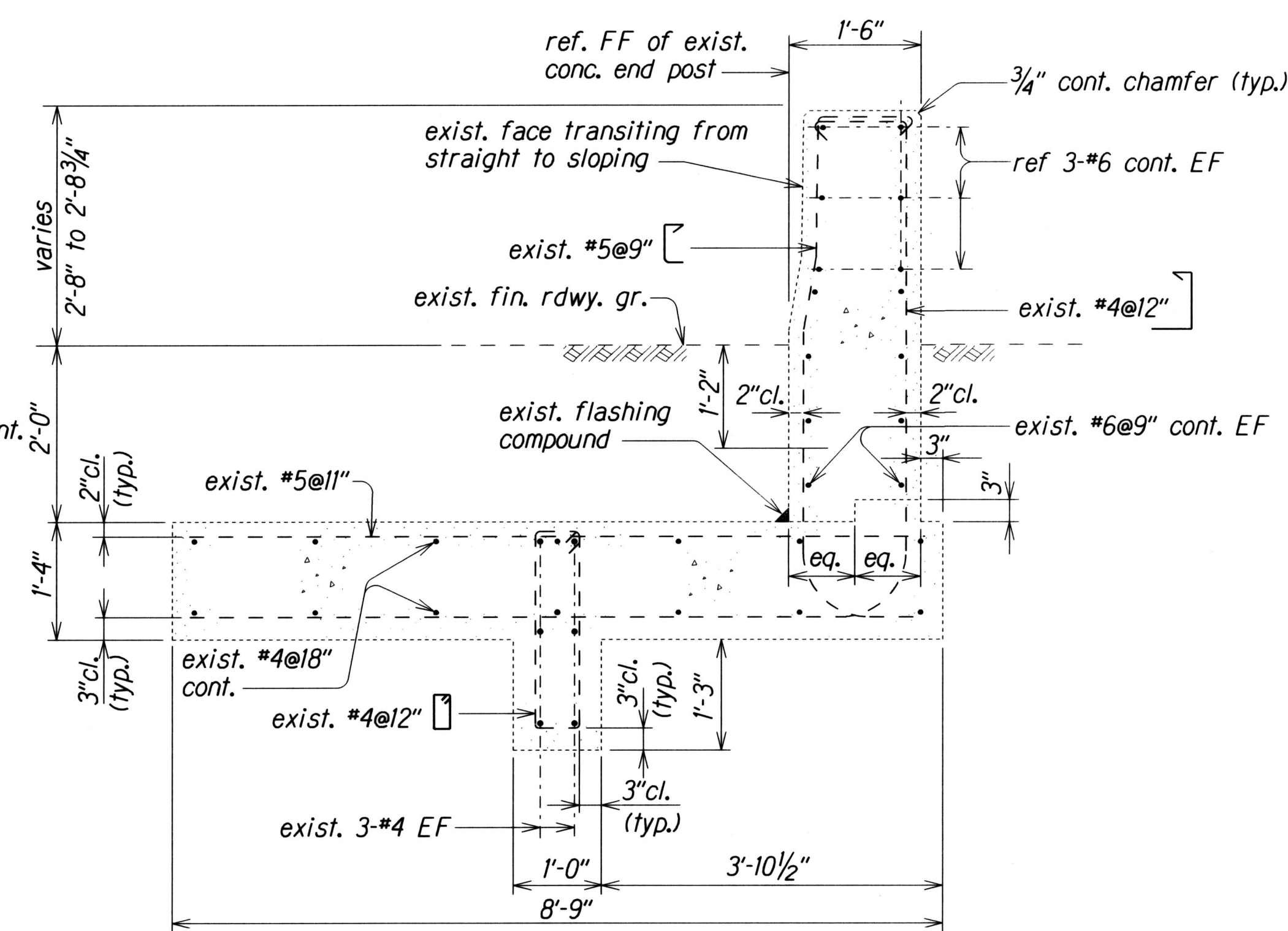


SECTION

Scale: $\frac{3}{4}" = 1'-0"$

Q5 | Q7

Q6



SECTION 
Scale: $\frac{3}{4}''=1'-0''$

EXISTING END POST SECTIONS
(SITES A1, A2, B1, B2, C1, C2, CC1, CC2, DD1 AND DD2)

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

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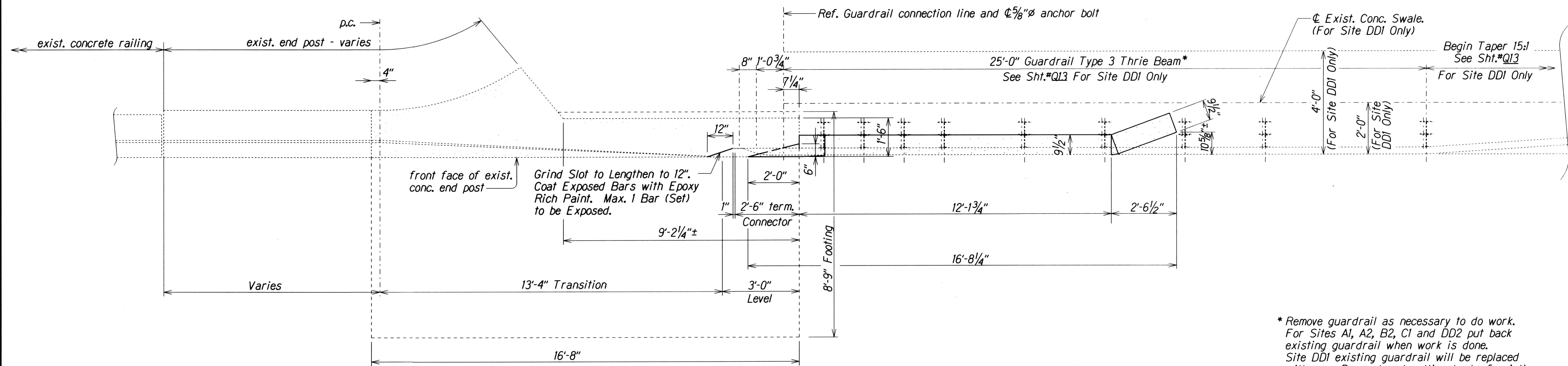
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITES A1, A2, B1, B2, C1, C2, CCL, CC2, DD1 AND DD2
EXISTING END POST SECTIONS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300X(106)

Scale: As Noted Date: Jan., 2017

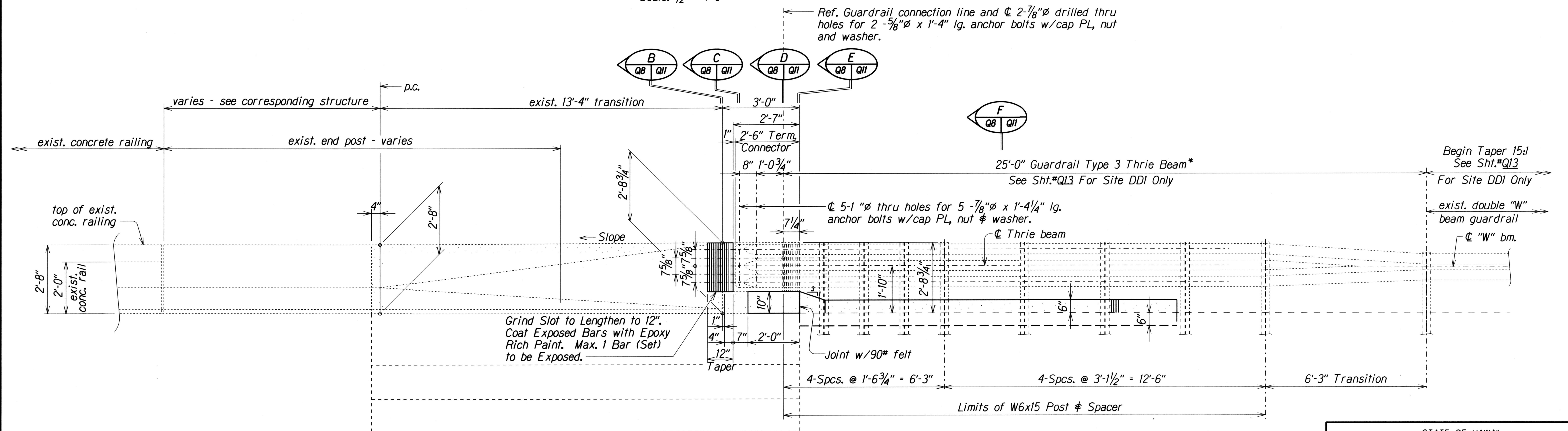
SHEET No. 07 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	77	193



PLAN
Scale: $\frac{1}{2}" = 1'-0"$

* Remove guardrail as necessary to do work. For Sites A1, A2, B2, C1 and DD2 put back existing guardrail when work is done. Site DD1 existing guardrail will be replaced with new. Removal and putting back of existing guardrail shall be considered incidental.



ELEVATION
Scale: $\frac{1}{2}" = 1'-0"$

NOTE:

1. Sites A1, A2, B2, C1, CC2, DD1 and DD2 are similar except Sites A2, B2 and DD2 are shown Mirror Horizontal, Site C1 is Opposite Hand and Site CC2 as shown at 180°.

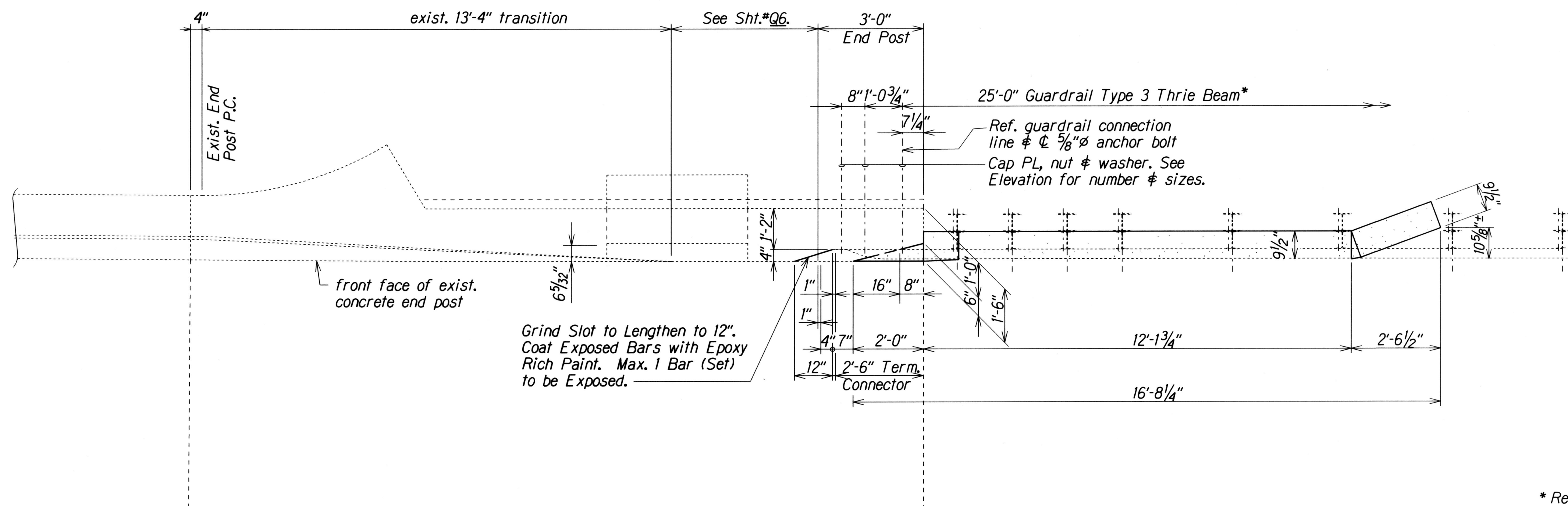
TYPE "D" UPGRADE END POST PLAN AND ELEVATION
(SITES A1, A2, B2, C1, CC2, DD1 AND DD2)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SITES A1, A2, B2, C1, DD1 AND DD2
TYPE "D" UPGRADE END POST
PLAN AND ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
GUARDRAIL and SHOULDER IMPROVEMENTS
Federal Aid Project No. IM-STP-0300(106)

Scale: As Noted Date: Jan., 2017

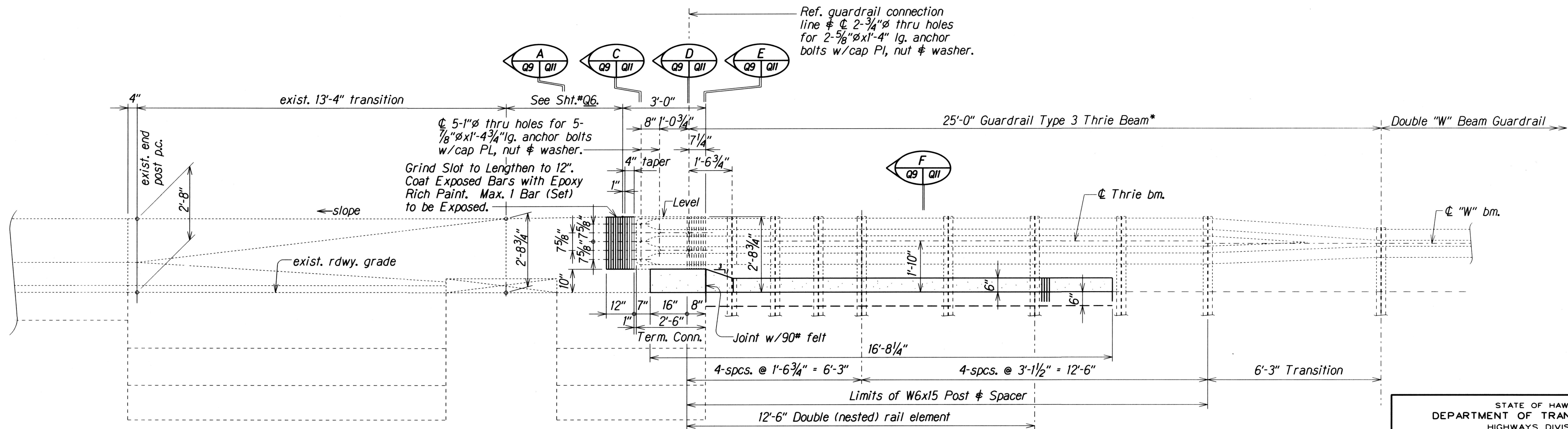
SHEET No. 08 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	78	193



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

* Remove guardrail as necessary to do work. Put back existing guardrail when work is done. Removal and putting back of existing guardrail shall be considered incidental.



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

NOTE:

1. Site B1 and C2 are similar except Site C2 is as shown at 180°.

TYPE "D" UPGRADE END POST PLAN AND ELEVATION
(SITES B1 AND C2)

SURVEY PLOTTED BY	DATE
DESIGNED BY	XXX 1991
TRACED BY	XXX 1991
NOTE BOOK	XXX 1991
QUANTITIES BY	XXX 1991
CHECKED BY	XXX 1991

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SITES B1 AND C2
TYPE "D" UPGRADE END POST
PLAN AND ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal-Aid Project No. IM-STP-0300(106)
Scale: As Noted Date: Jan., 2017
SHEET No. Q9 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	79	193

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

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

**TYPE "D" UPGRADE END POST PLAN AND ELEVATION
(SITE CCI)**

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
SITE CCI
TYPE "D" UPGRADE END POST
PLAN AND ELEVATION
 INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
 Guardrail and Shoulder Improvements
 Federal-Aid Project No. IM-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

SHEET No. Q10 OF 52 SHEETS

db3/usr2/kate/projects/IM-STP-0300(106)_q10

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE CCI

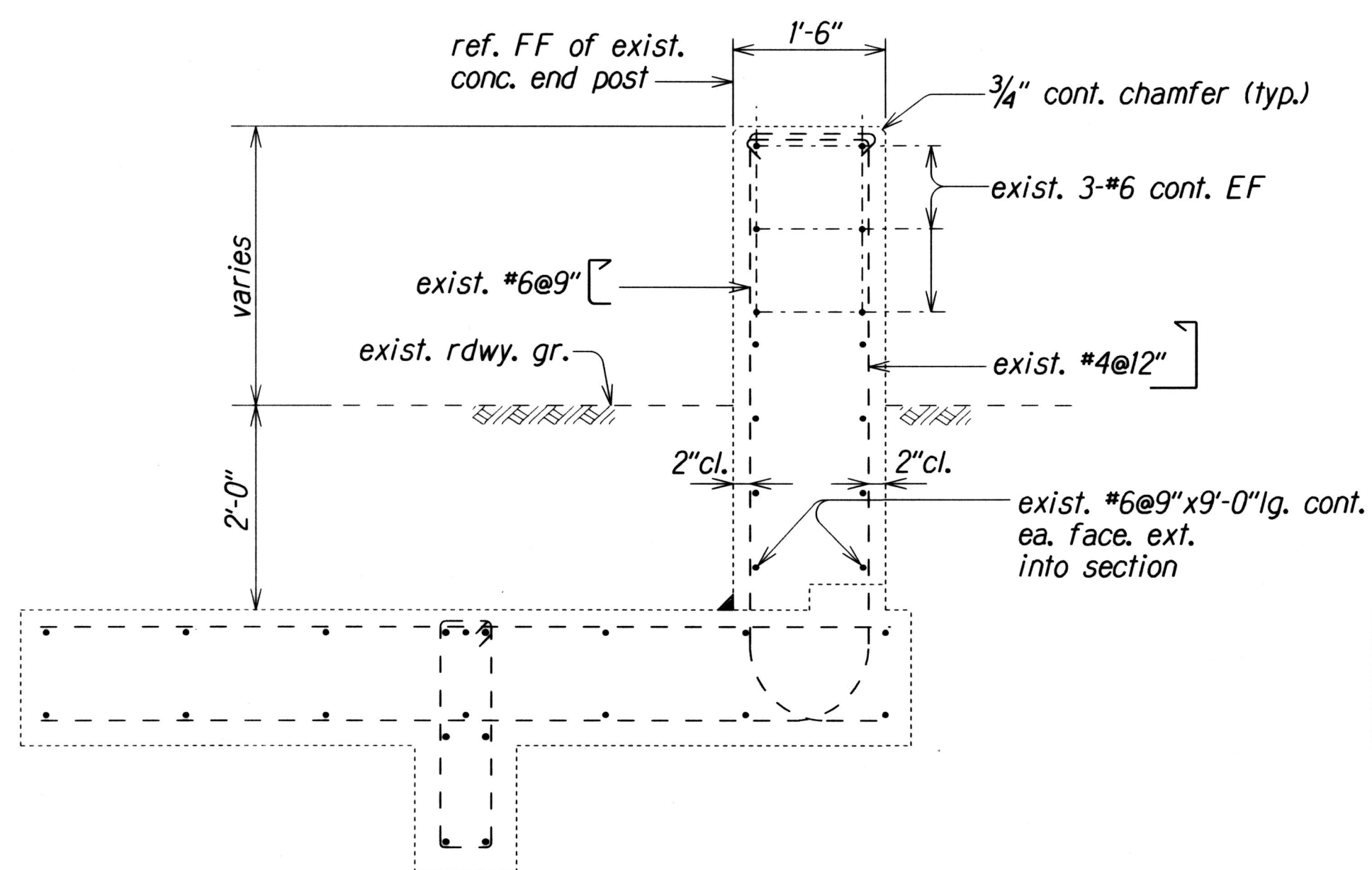
TYPE "D" UPGRADE END POST
PLAN AND ELEVATION

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal-Aid Project No. 1M-STP-0300X106

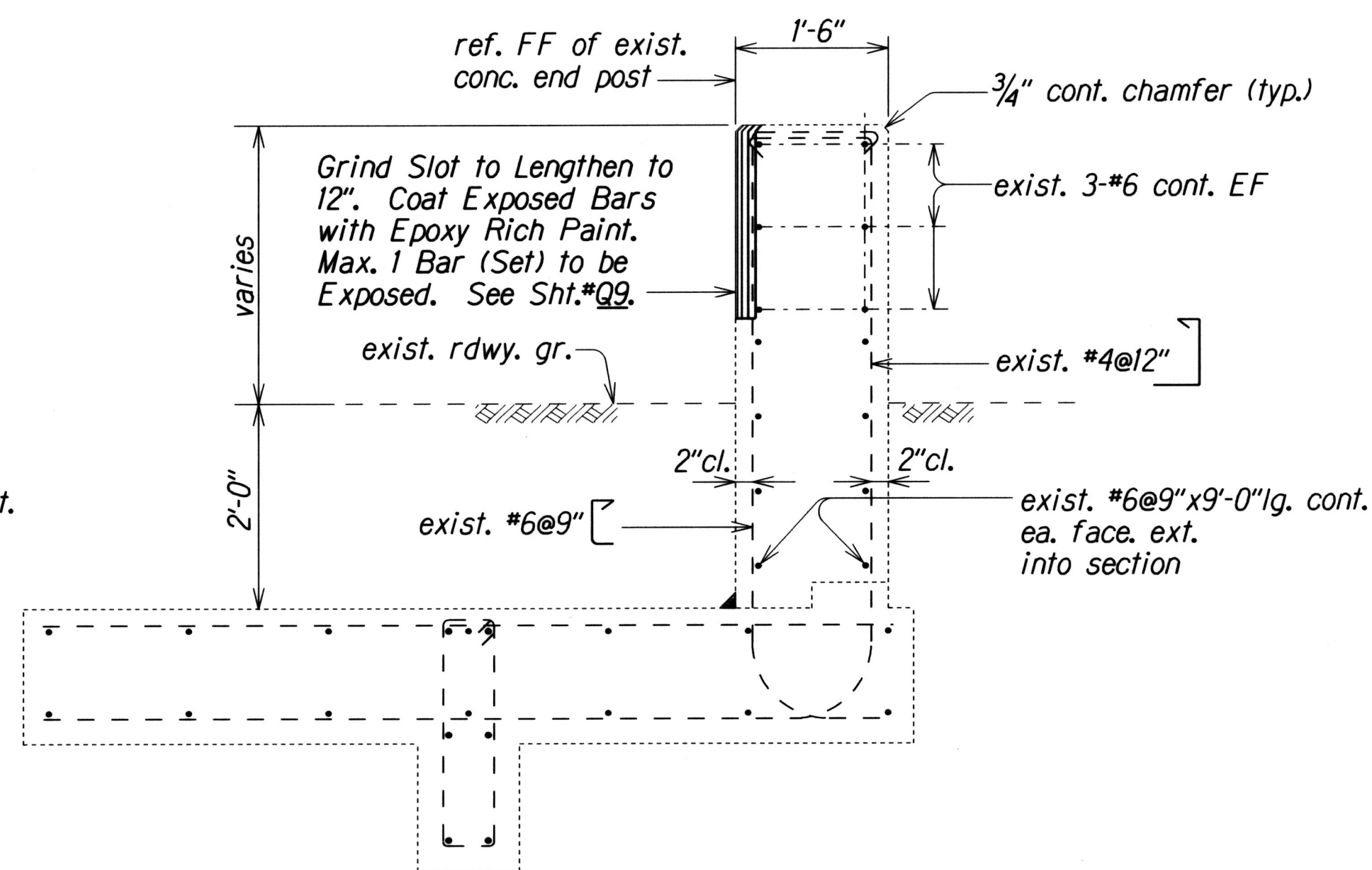
Scale: As Noted Date: Jan, 2017

SHEET No. 010 OF 52 SHEETS

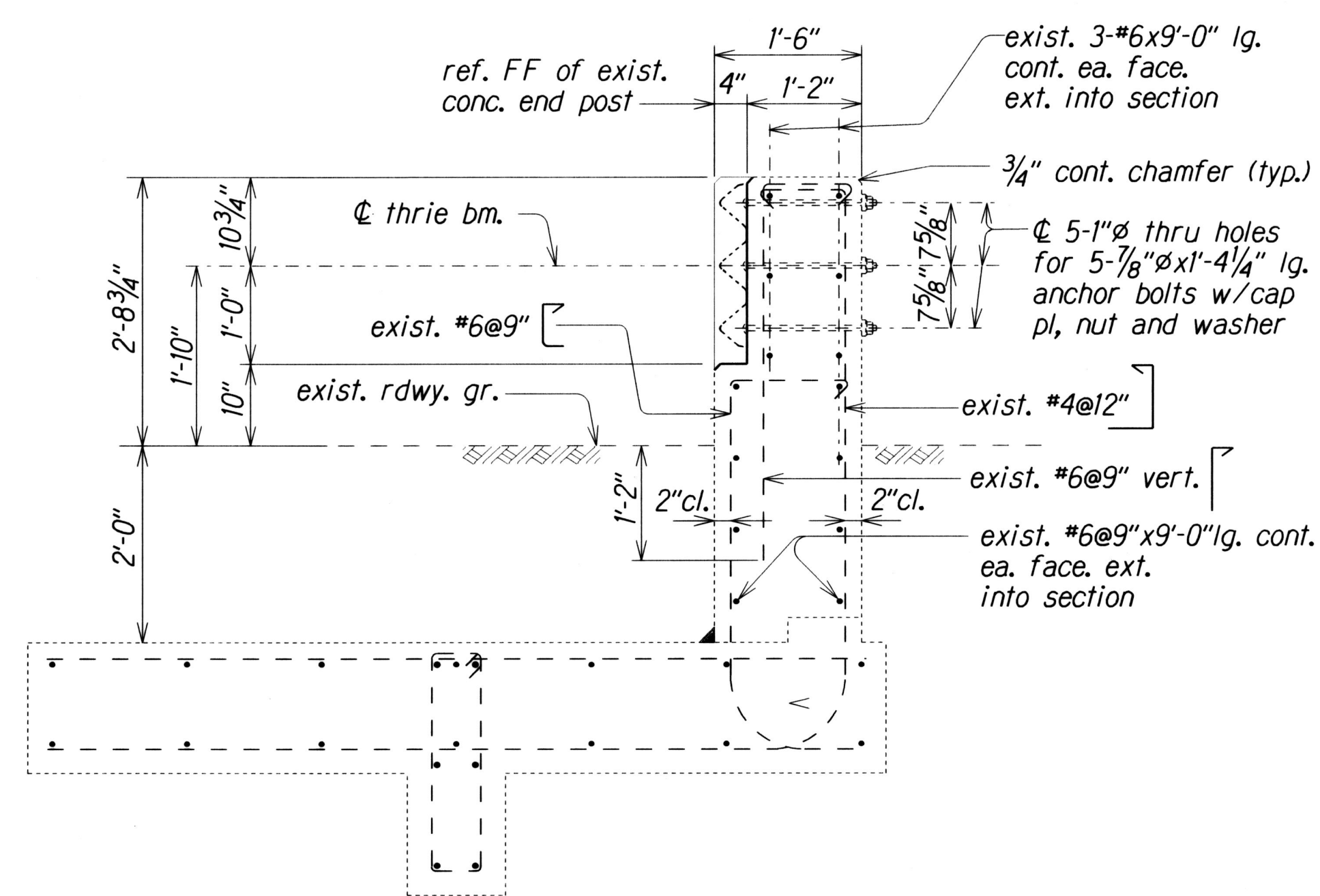
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	80	193



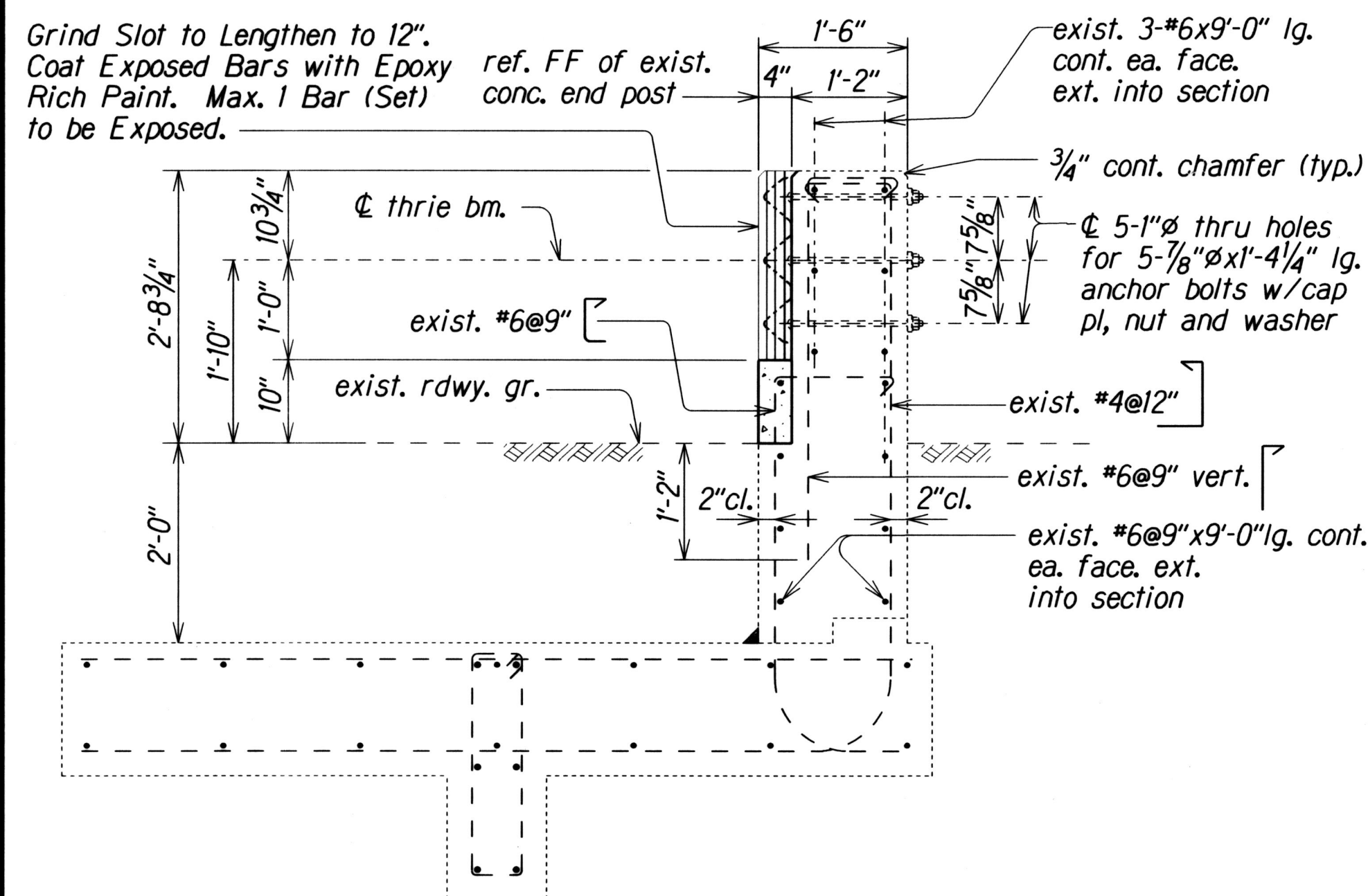
SECTION A
Scale: 3/4"=1'-0"
Q9, Q10, Q11



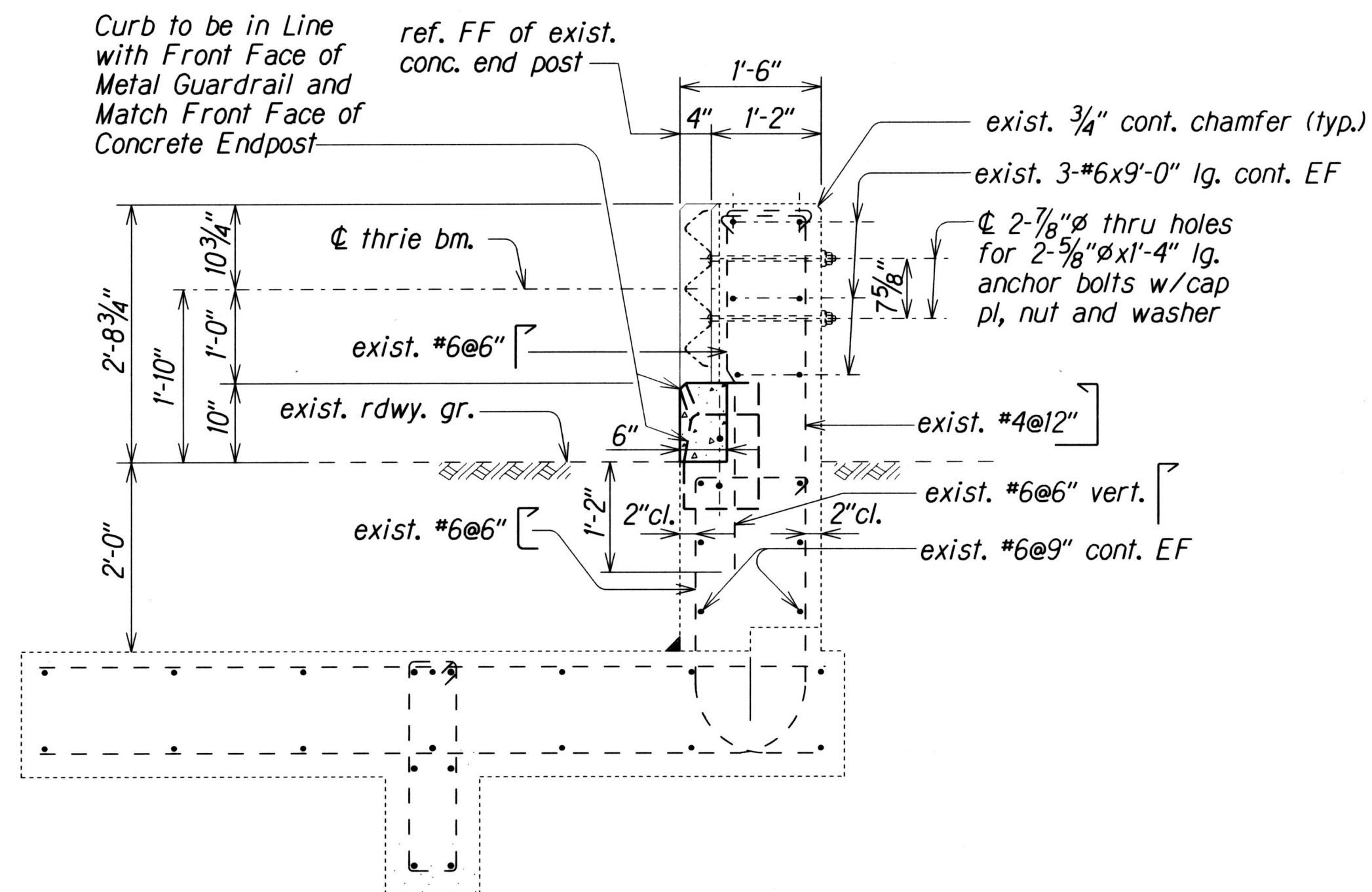
SECTION B
Scale: 3/4"=1'-0"
Q8, Q11



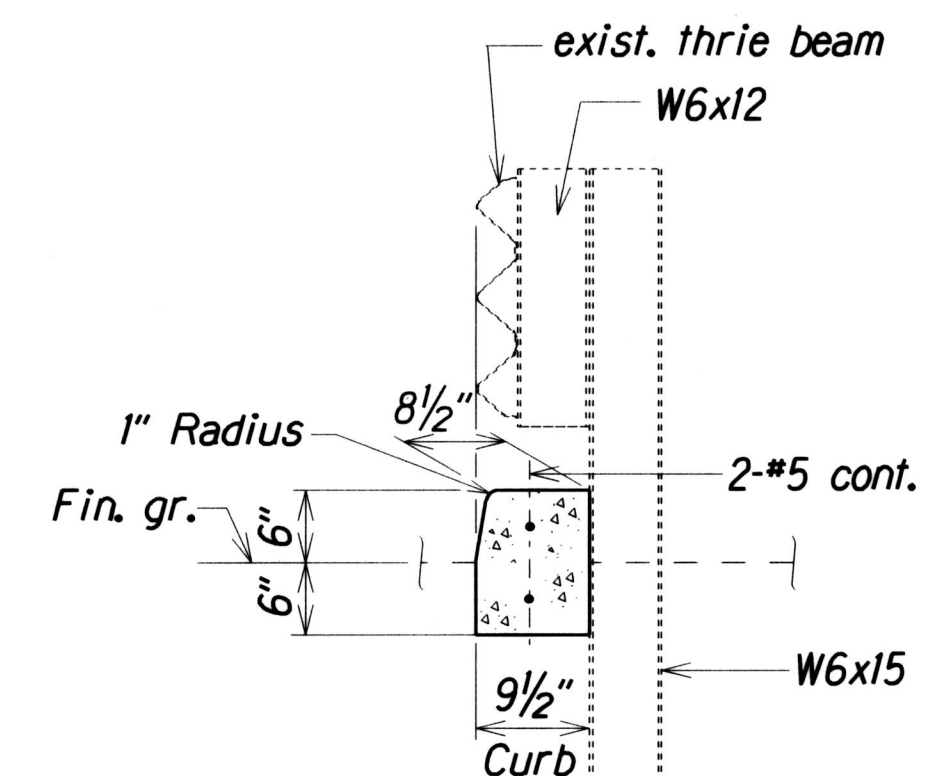
SECTION C
Scale: 3/4"=1'-0"
Q9, Q10



SECTION D
Scale: 3/4"=1'-0"
Q9, Q10



SECTION E
Scale: 3/4"=1'-0"
Q9, Q10



SECTION F
Scale: 3/4"=1'-0"
Q9, Q10

TYPE "D" UPGRADE END POST SECTIONS (SITES A1, A2, B1, B2, C1, C2, CC1, CC2, DD1 AND DD2)

Note:
See Sht. #Q1 for Location
of Sites (Waiawa I.C.).

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITES A1, A2, B1, B2, C1, C2, CC1, CC2, DD1 AND DD2
TYPE "D" UPGRADE END POST SECTIONS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. IM-STP-0300(106)

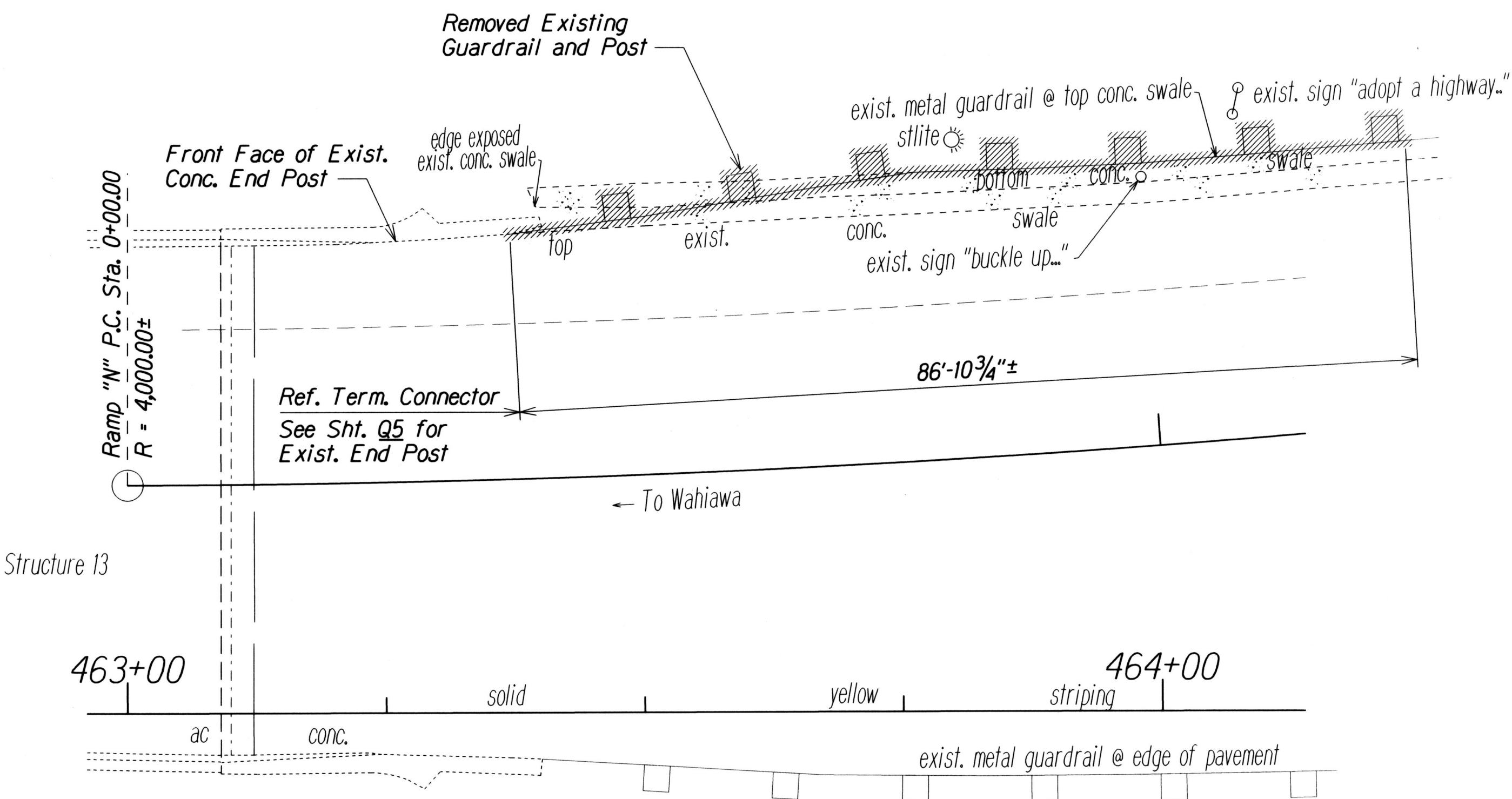
Scale: As Noted Date: Jan., 2017

SURVEY PLOTTED BY	DATE
DESIGNED BY	XXX 1991
CHECKED BY	XXX 1991
QUANTITIES BY	XXX 1991
NOTE BOOK	XXX 1991
ORIGINAL PLAN	XXX 1991

db3.kate.projects\IM-STP-0300(106).q11

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	81	193

True North



PLAN
Scale: 1" = 10'-0"

EXISTING TYPE "D" END POST REMOVAL PLAN
(SITE DDI)

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	XXX 1991
N.	QUANTITIES BY	XXX 1991
	CHECKED BY	XXX 1991

db3 state projects 1M-STP-0300(106)_q12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE DDI

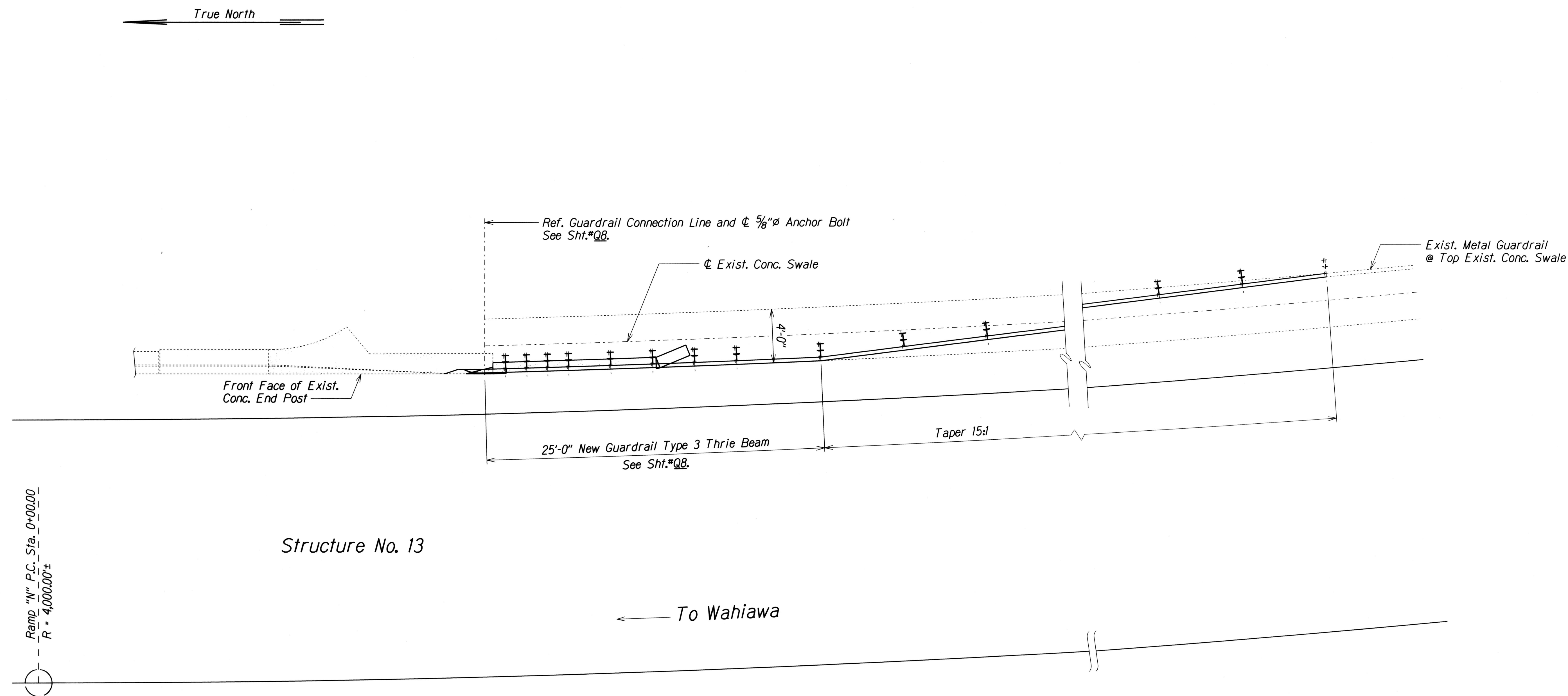
EXISTING TYPE "D" END POST REMOVAL PLAN

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

SHEET No. Q12 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	82	193



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

TYPE "D" UPGRADE END POST PLAN
(SITE DD1)

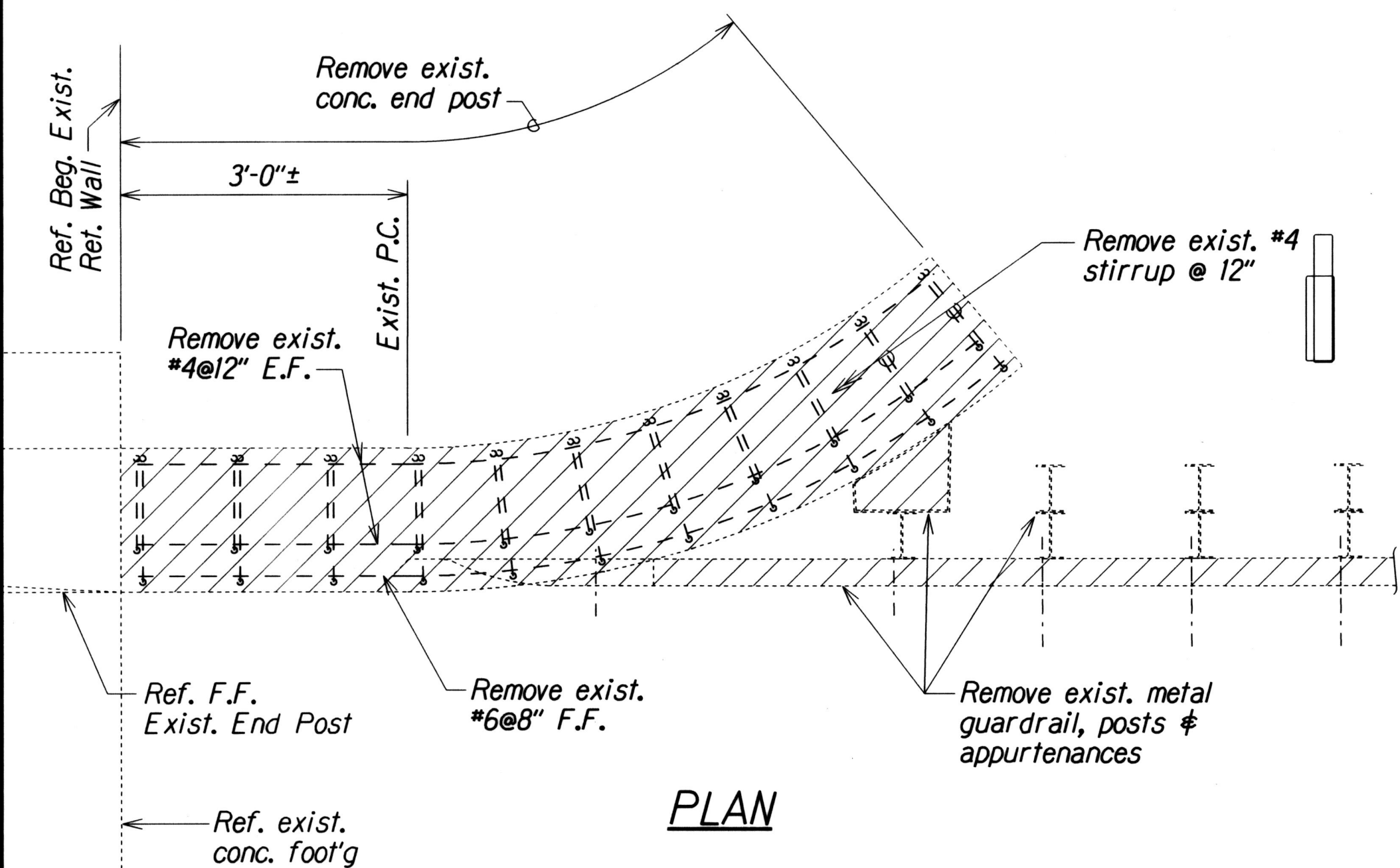
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	XXX 1991
1.	QUANTITIES BY	XXX 1991
	CHECKED BY	XXX 1991

db3.kate.projects.1M-STP-0300(106).q13

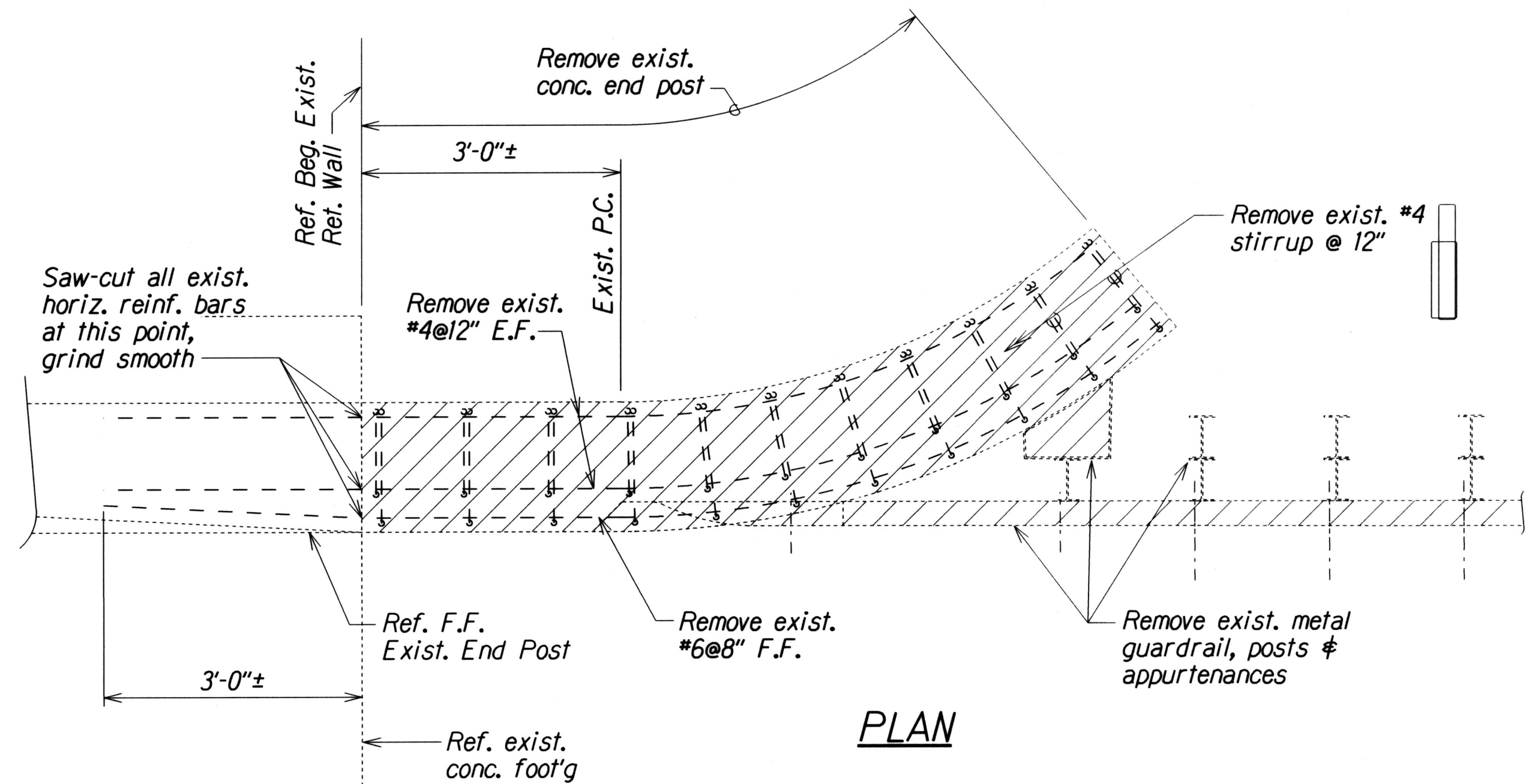
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SITE DD1
UPGRADE END POST
PLAN
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)
Scale: As Noted Date: Jan., 2017

SHEET No. Q13 OF 52 SHEETS

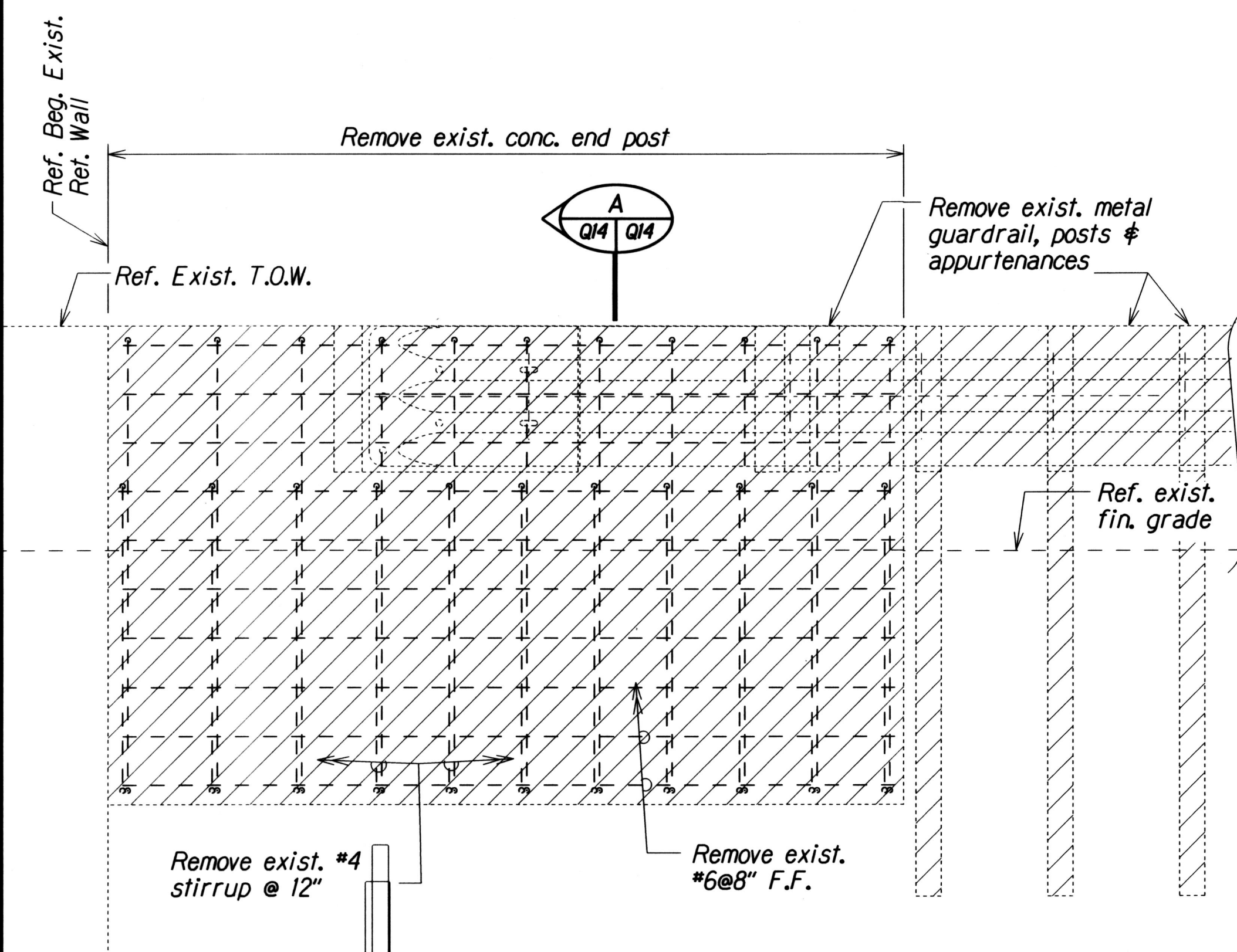
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	83	193



PLAN

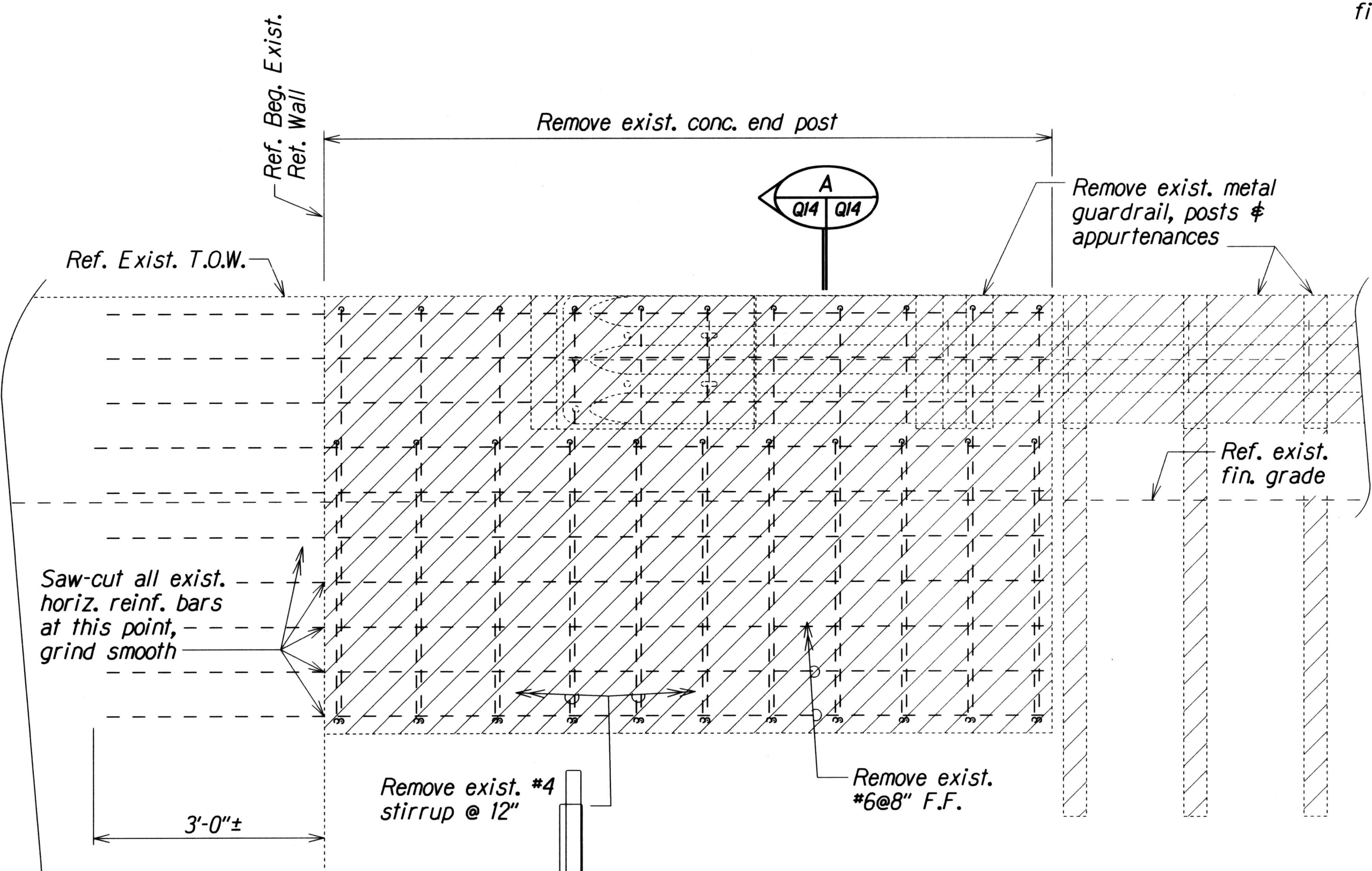


PLAN



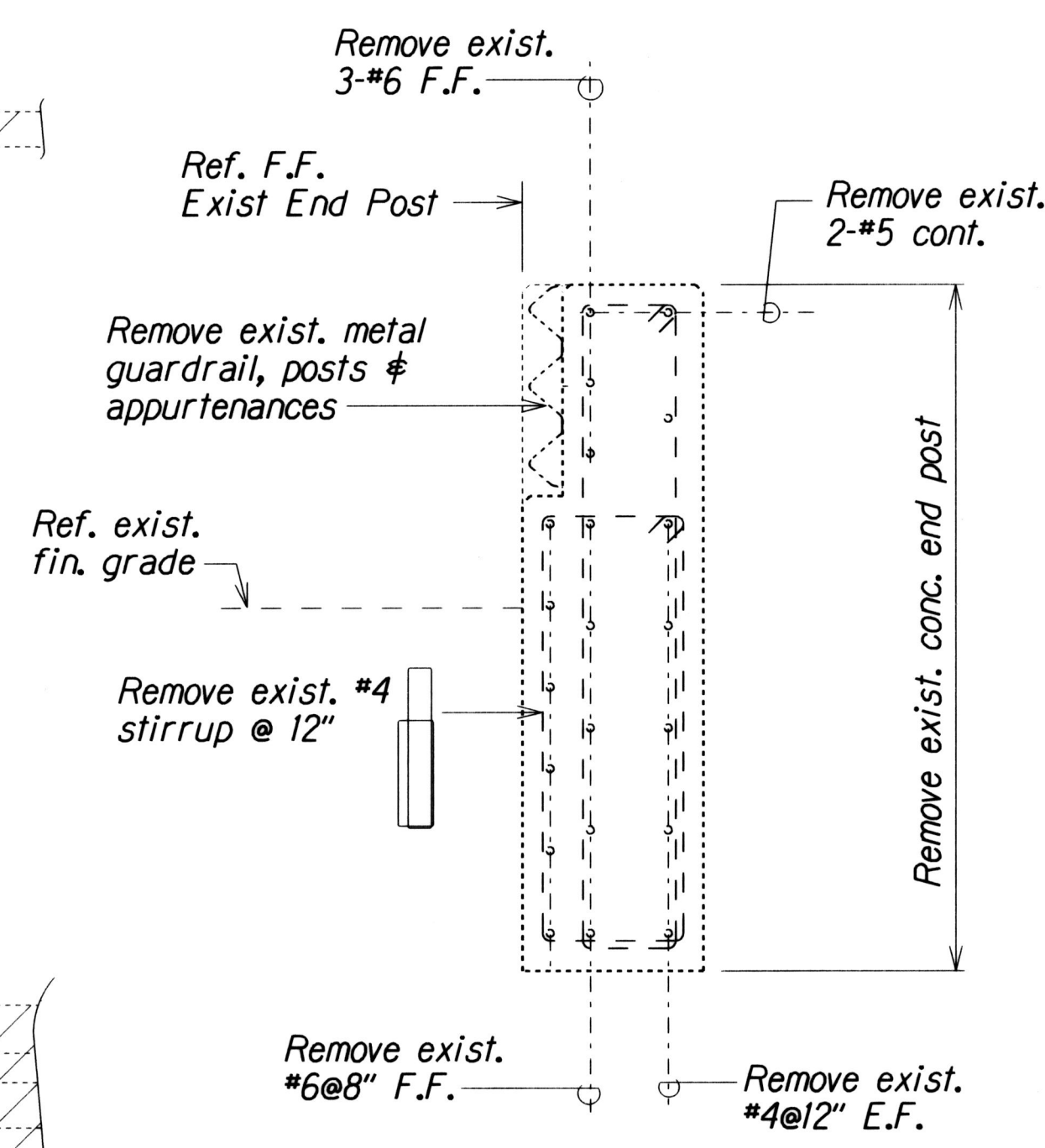
ELEVATION

SITES D, E, GI, EE, FF & GG
Scale: 3/4" = 1'-0"



ELEVATION

SITES G2, H, I, J, K, L, HH & II
Scale: 3/4" = 1'-0"



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

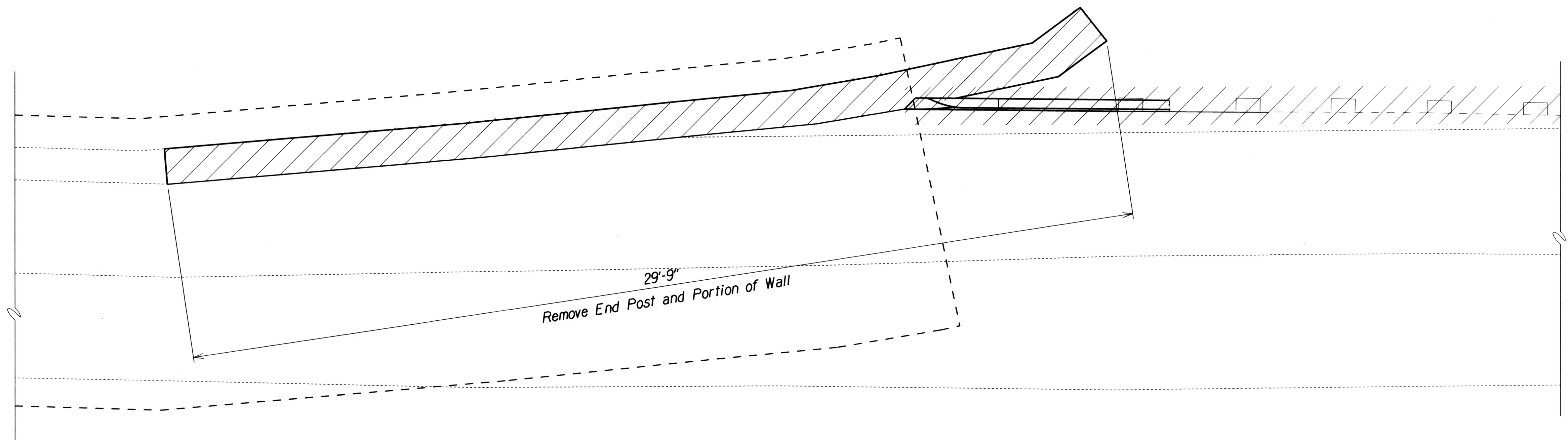
Note:
See Sht. #Q1 for
Location of Sites.

SURVEY PLOTTED BY	DATE
DESIGNED BY	XXX 1991
CHECKED BY	XXX 1991
QUANTITIES BY	XXX 1991
NOTE BOOK	XXX 1991
ORIGINAL PLAN	XXX 1991

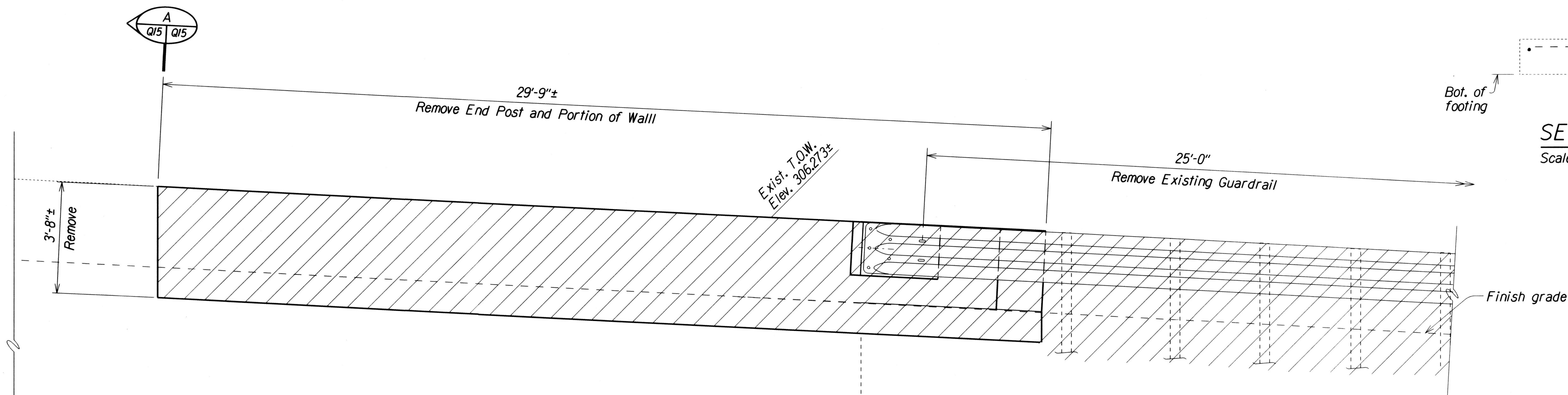
EXISTING END POST REMOVAL DETAILS
SITES D, E, GI, G2, H, I, J, K, L, EE, FF, GG, HH and II

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SITES D, E, GI, G2, H, I, J, K, L, EE, FF, GG, HH and II
EXISTING END POST REMOVAL DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)
Scale: As Noted Date: Jan., 2017
SHEET No. Q14 OF 52 SHEETS

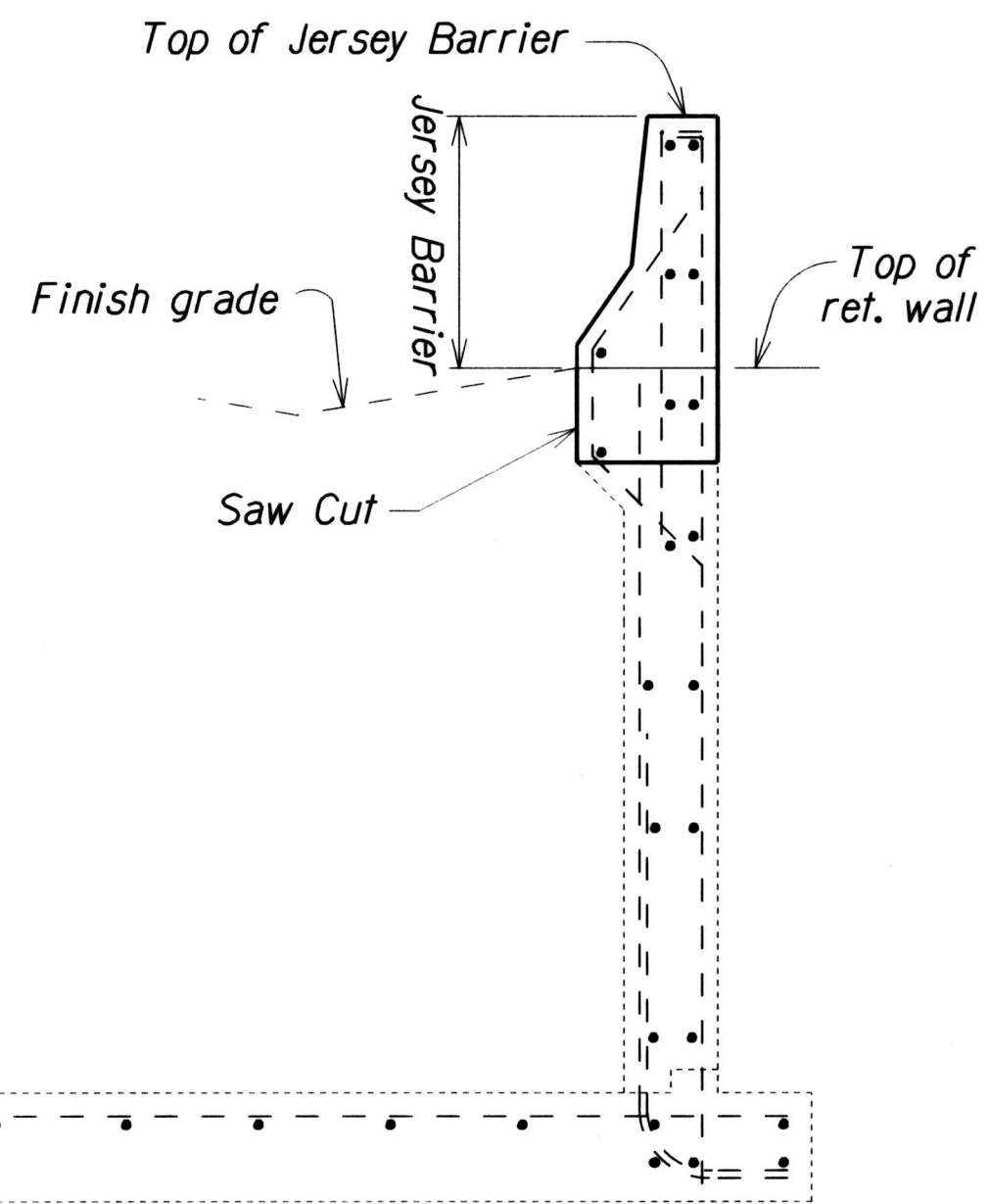
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	84	193



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



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



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

ORIGINAL PLAN	DATE
NOTE BOOK	XXX 1997
DESIGNED BY	XXX 1997
QUANTITIES BY	XXX 1997
CHECKED BY	XXX 1997

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EXISTING END POST REMOVAL PLAN AND ELEVATION
(SITE F)

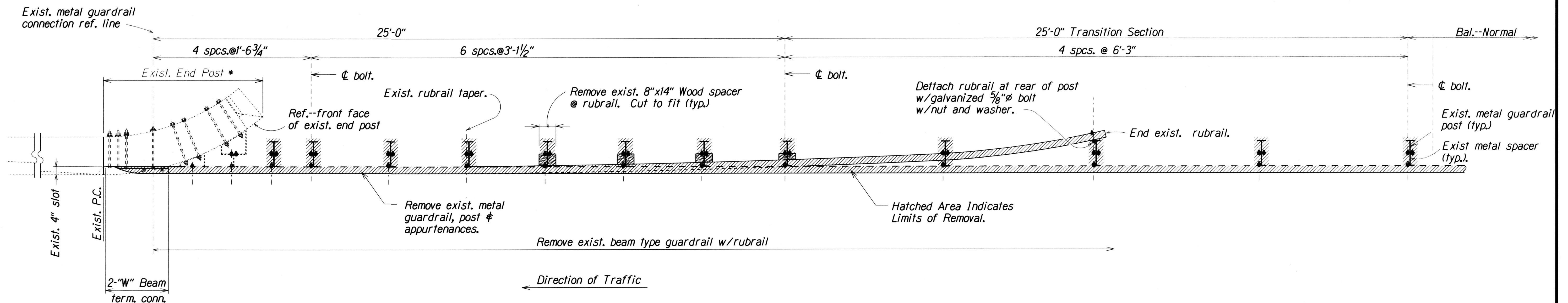
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE F
EXISTING END POST REMOVAL
PLAN AND ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. IM-STP-0300(106)

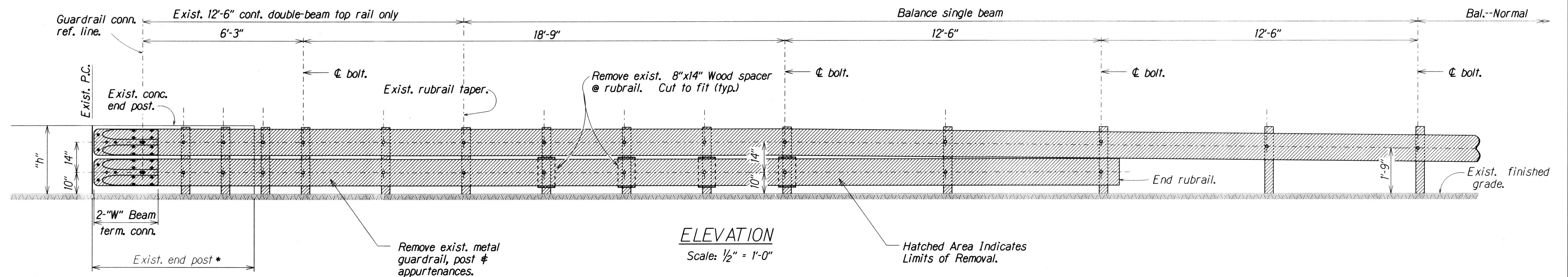
Scale: As Noted Date: Jan., 2017

SHEET No. Q15 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	85	193



PLAN
Scale: $\frac{1}{2}'' = 1'-0''$



* For Sites LL, M and MM, See
Exist. End Post Removal Details
on Sht.#Q17.

For Sites N and NN, See Exist.
End Post Removal Details
on Sht.#Q18.

EXISTING GUARDRAIL REMOVAL DETAILS
(SITES M, N, LL, MM, AND NN)

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

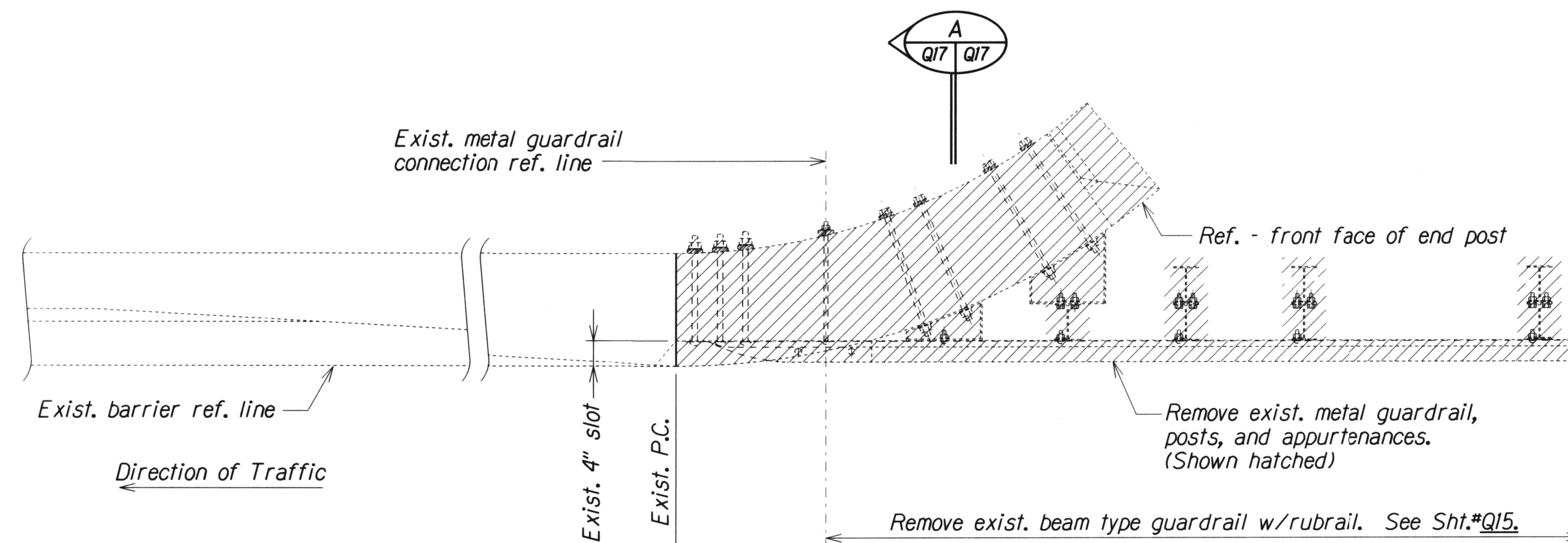
SITES M, N, LL, MM, AND NN
EXISTING GUARDRAIL REMOVAL DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted

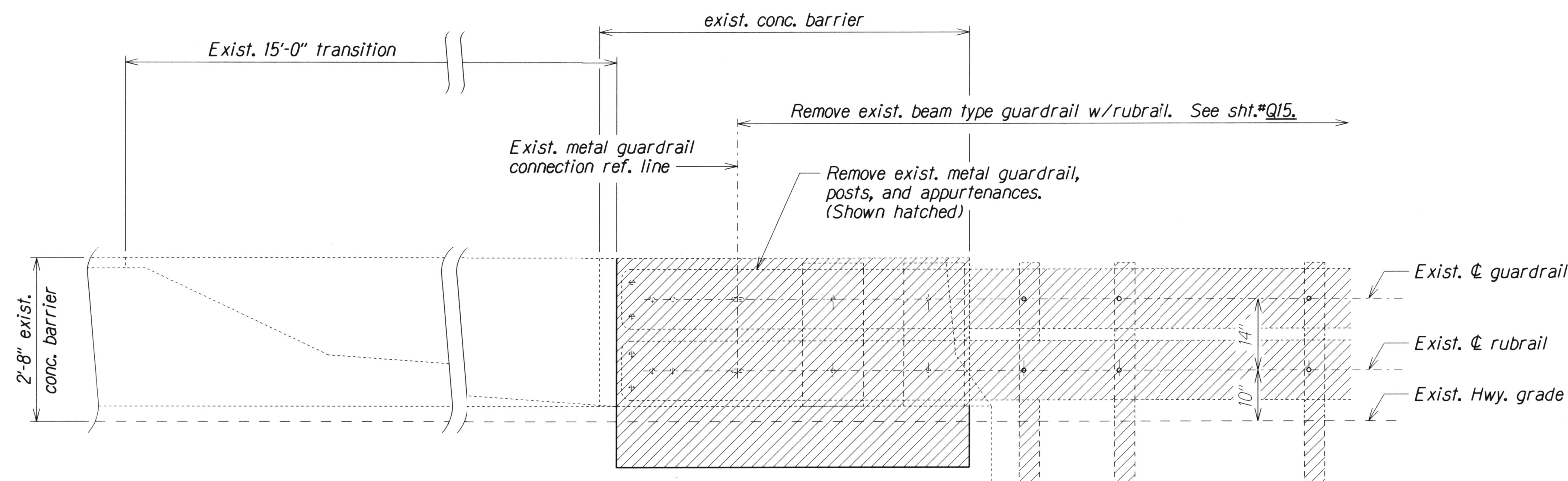
Date: Jan., 2017

SHEET No. *Q16* OF *52* SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	ADD.86	193



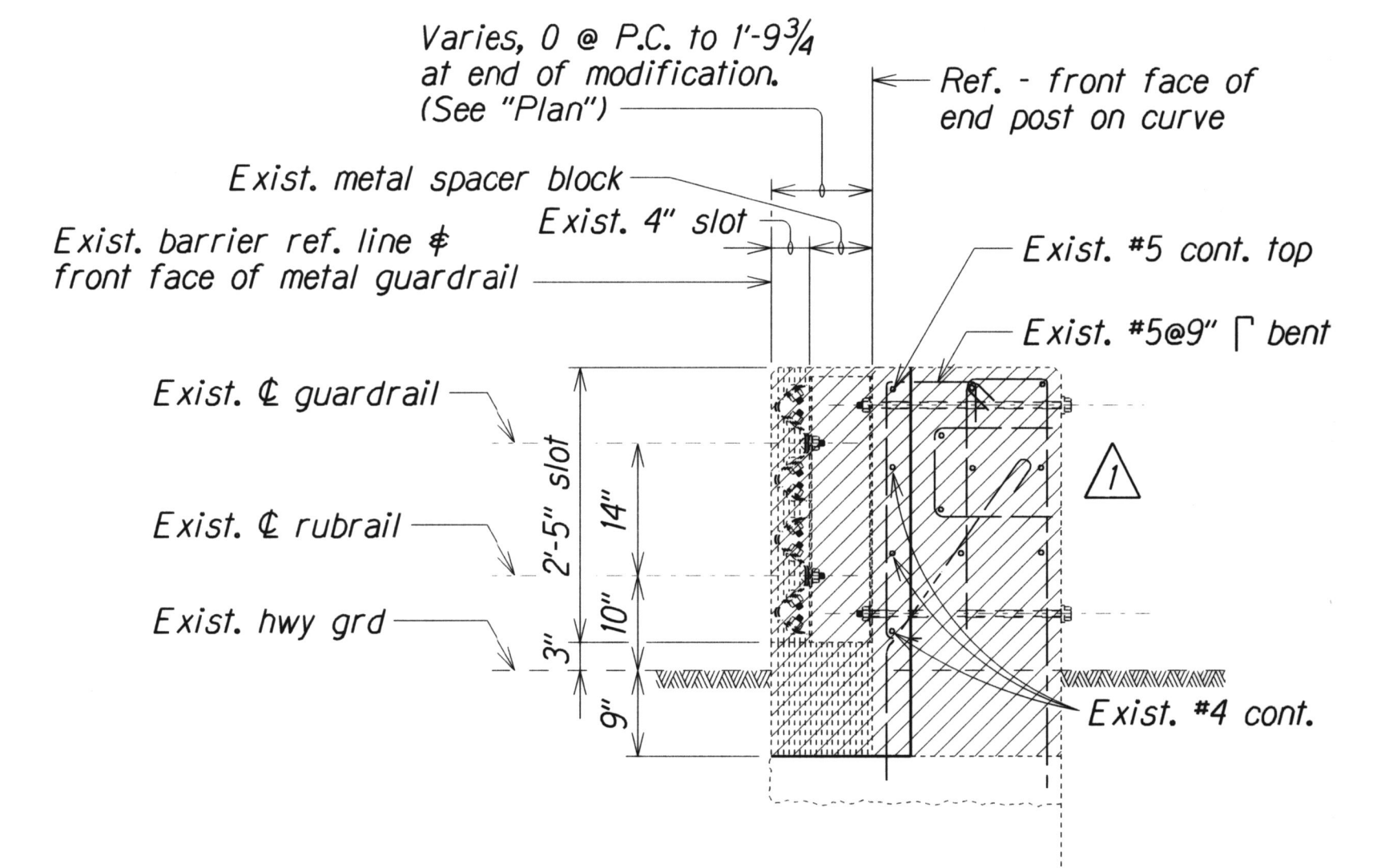
PLAN
Scale: $\frac{3}{4}"=1'-0"$



ELEVATION
Scale: $\frac{3}{4}"=1'-0"$

Note:

Limits of removal and modification of existing concrete barrier shown by hatched lines. Exposed reinf. to remain and cleaned before new pour.



SECTION
Scale: $\frac{3}{4}"=1'-0"$

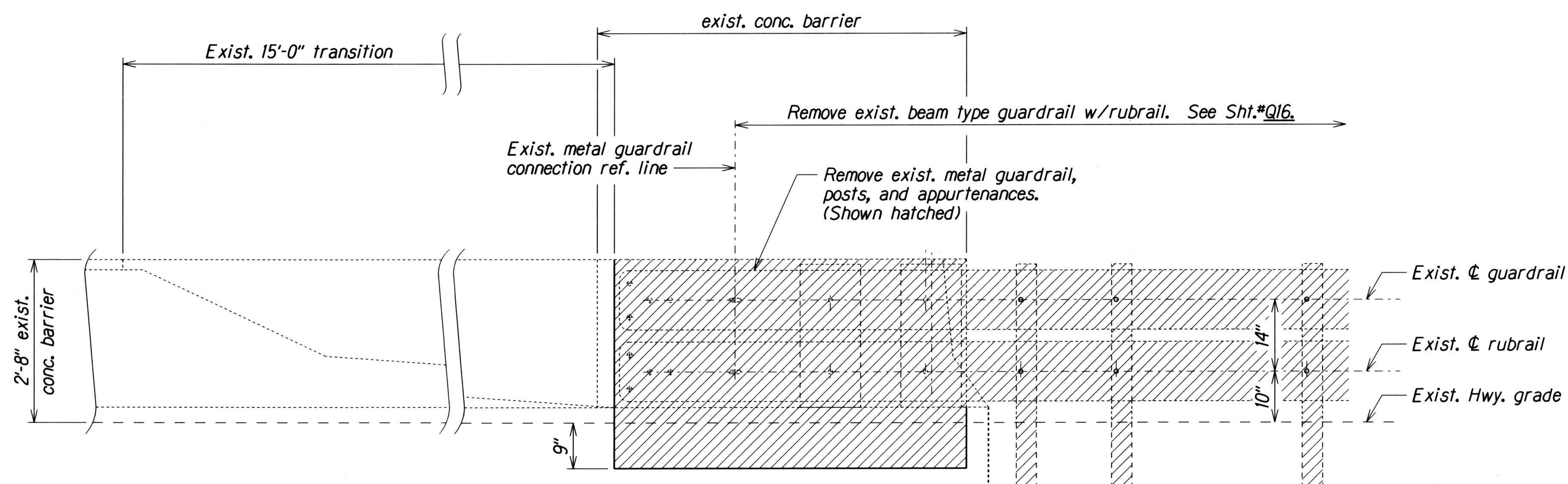
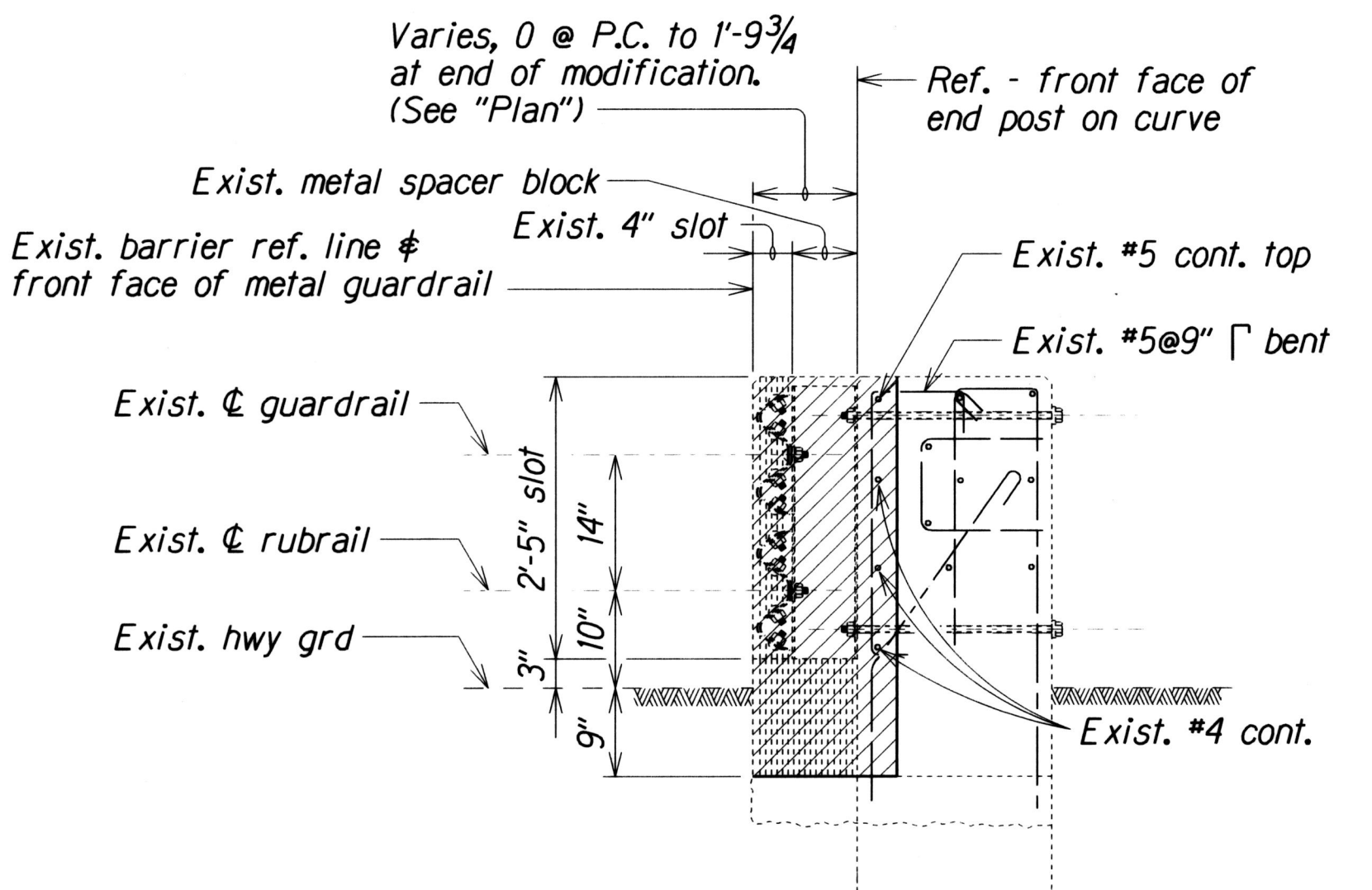
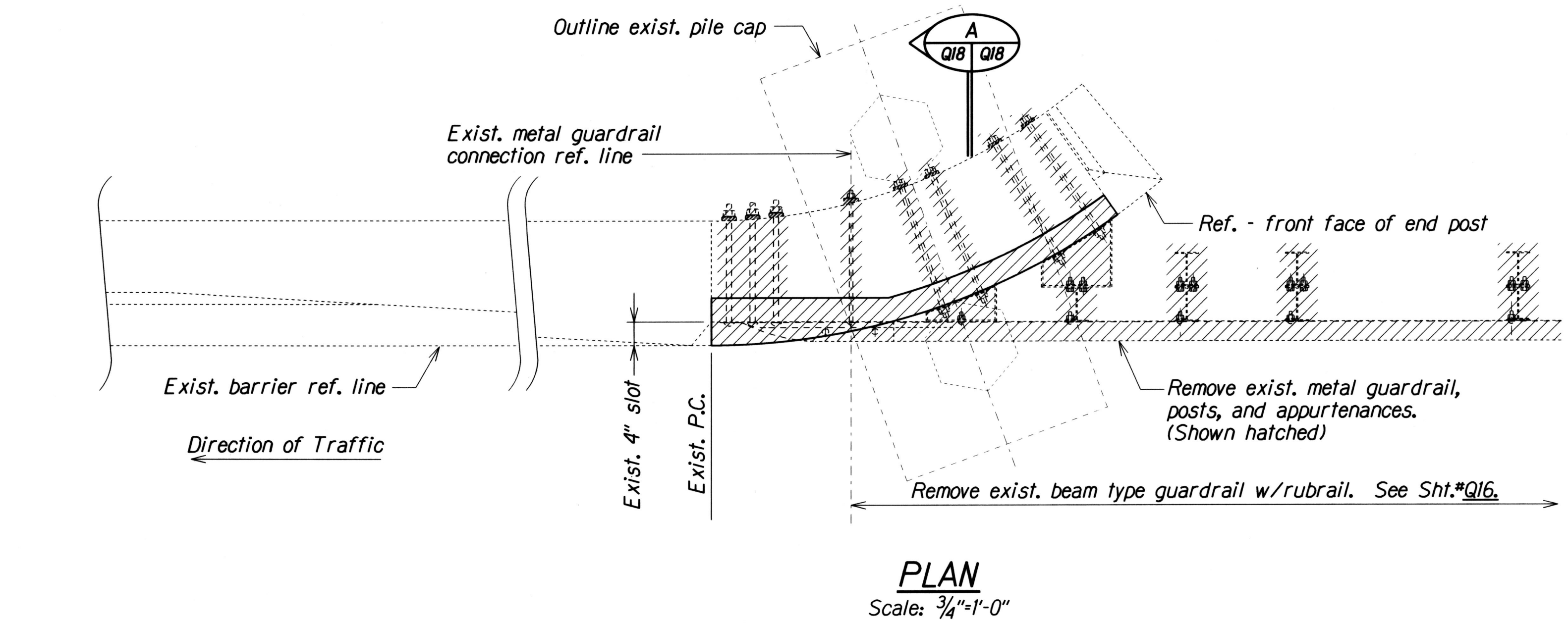
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	XXX 1991
N2	DESIGNED BY	XXX 1991
	CHECKED BY	XXX 1991

db3.kate.projects\IM-STP-0300(106)-q17A00

1	Addendum No. 1
08/17	Show entire end post as removed
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION SITES M, LL, AND MM EXISTING END POST REMOVAL DETAILS INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY Guardrail and Shoulder Improvements Federal Aid Project No. IM-STP-0300(106)	
Scale: As Noted	Date: Jan., 2017
SHEET No. Q17 OF 52 SHEETS	

EXISTING END POST REMOVAL DETAILS
(SITES M, LL, AND MM)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	87	199



Note:
Limits of removal and modification of existing concrete barrier shown by hatched lines. Exposed reinf. to remain and cleaned before new pour.

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

EXISTING END POST REMOVAL DETAILS
(SITES N AND NN)

ORIGINAL PLAN	DESIGNED BY	DATE
NOTED BY	XXX	XXX 1997
QUANTITIES BY	XXX	XXX 1997
CHECKED BY	XXX	XXX 1997

db3.kate.projects\IM-STP-0300(106)_q18

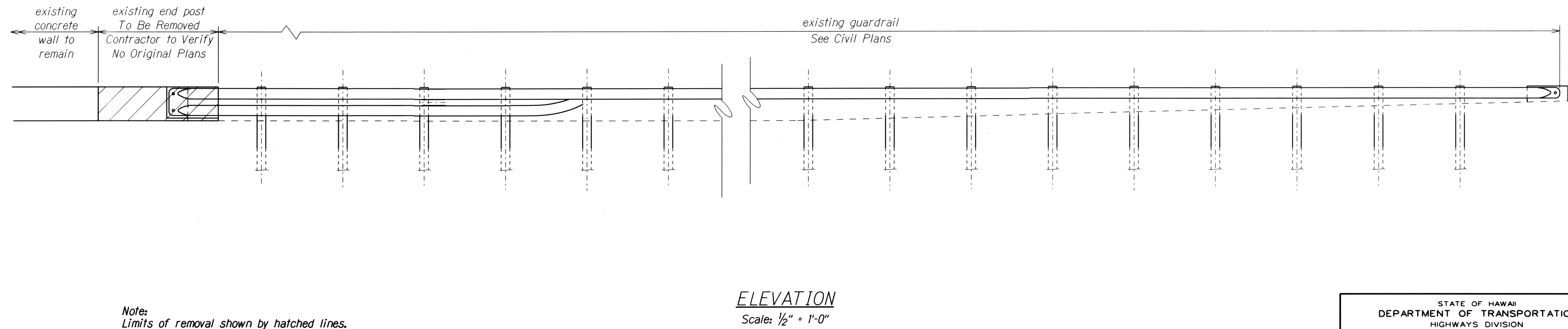
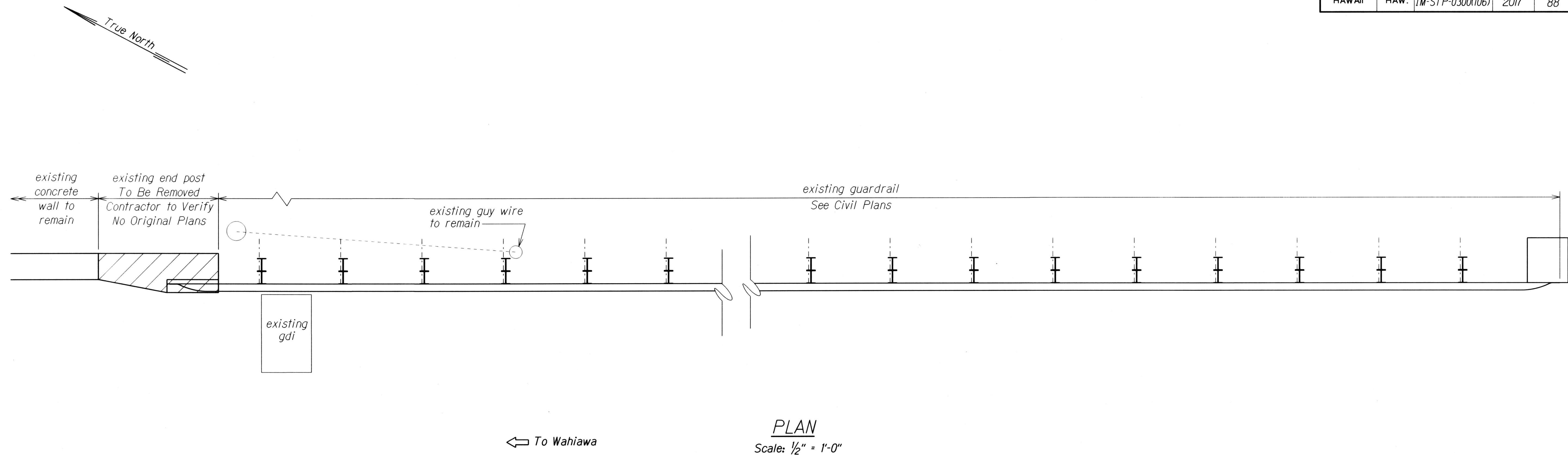
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITES N AND NN
EXISTING END POST REMOVAL DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. IM-STP-0300(106)

Scale: As Noted Date: Jan., 2017

SHEET No. Q18 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	88	193



Note:
Limits of removal shown by hatched lines.

EXISTING END POST REMOVAL PLAN and ELEVATION
(SITE F2)

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

db3.kate.projects\IM-STP-0300(106)_q19

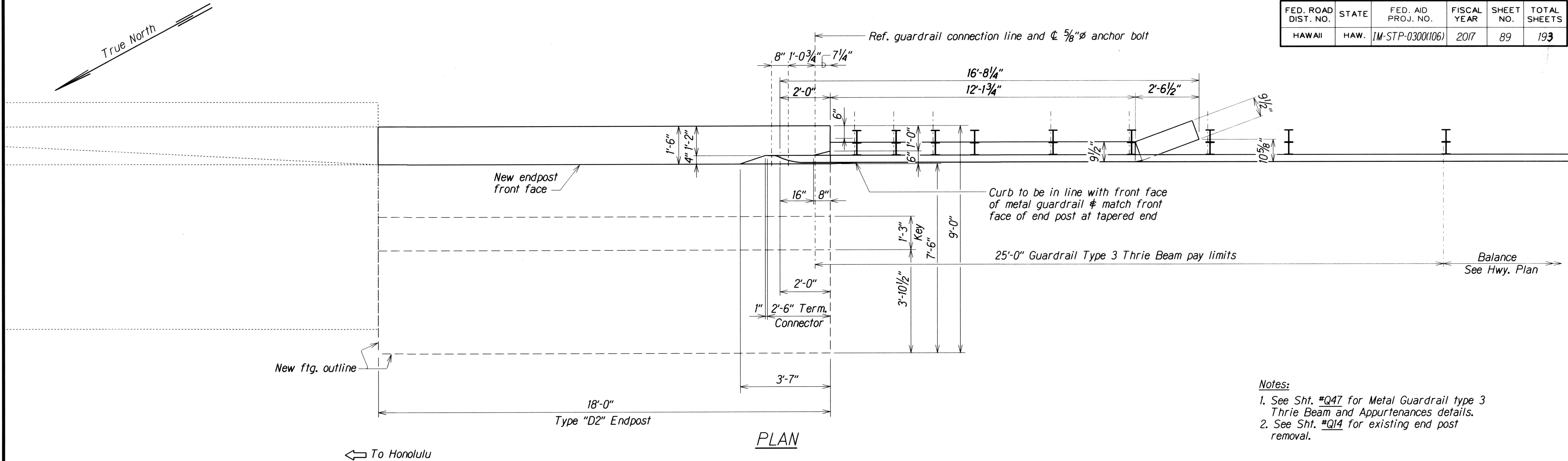
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE F2
EXISTING REMOVAL PLAN AND ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. IM-STP-0300(106)

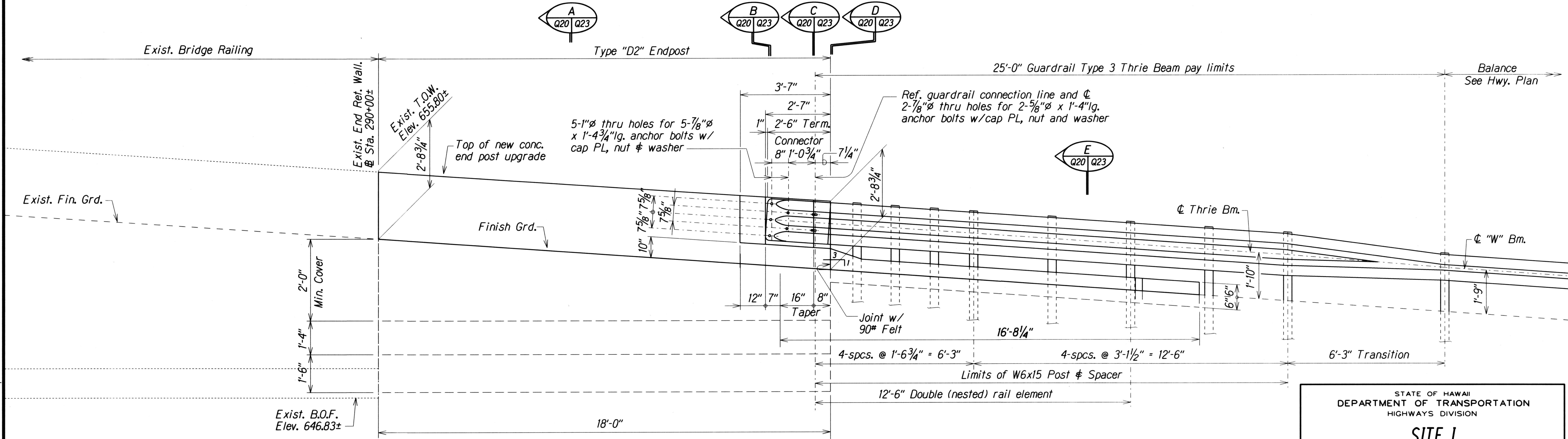
Scale: As Noted Date: Jan., 2017

SHEET No. Q19 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	89	193



- Notes:
1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
 2. See Sht. #Q14 for existing end post removal.



TYPE "D2" END POST PLAN and ELEVATION
 Scale: 1/2" = 1'-0"

ORIGINAL PLAN	DATE	XXX 1997
DESIGNED BY	XXX	XXX 1997
QUANTITIES BY	XXX	XXX 1997
CHECKED BY	XXX	XXX 1997

db3.kate.projects.1M-STP-0300(106).q20

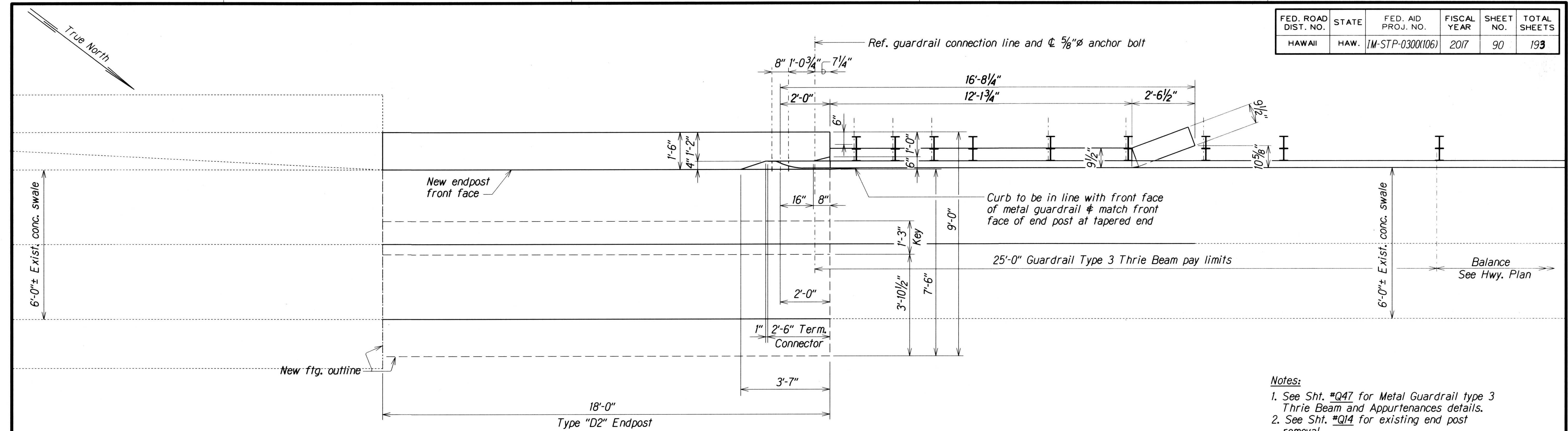
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE 1
TYPE "D2" END POST PLAN and ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

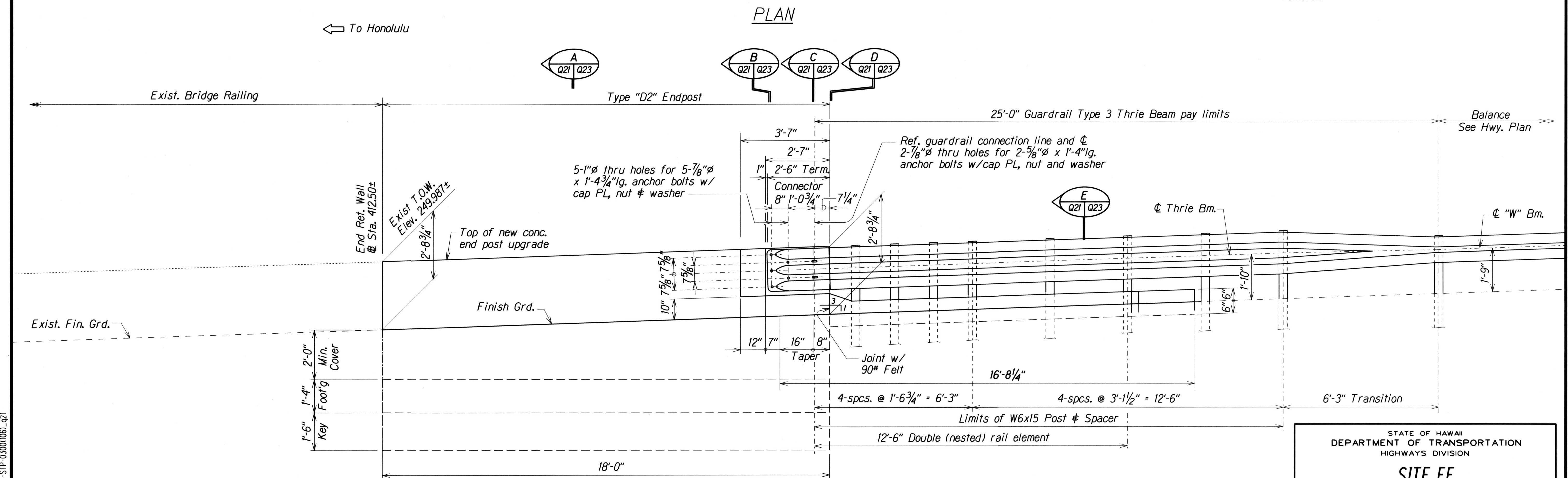
SHEET No. Q20 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	90	193



Notes:

1. See Sht. *Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
2. See Sht. *Q14 for existing end post removal.



ELEVATION

TYPE "D2" END POST PLAN and ELEVATION

Scale: $\frac{1}{2}" = 1'-0"$

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

db3.kate.projects.IM-STP-0300(106)_q21

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE EE

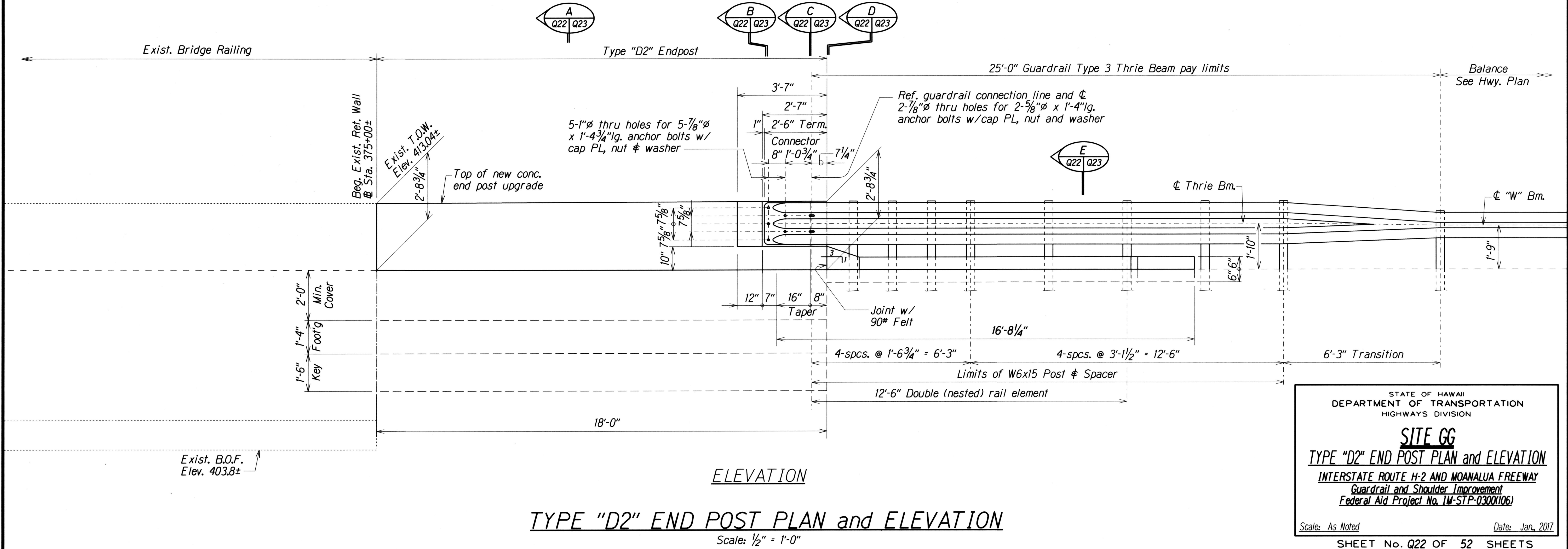
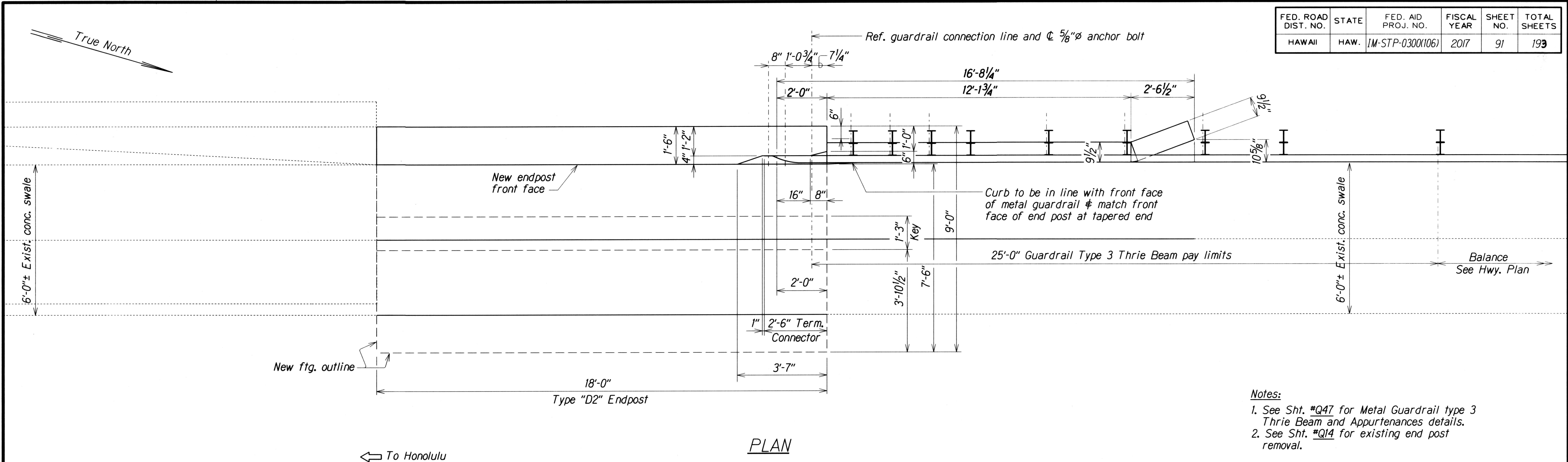
TYPE "D2" END POST PLAN and ELEVATION

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300X(106)

Scale: As Noted Date: Jan., 2017

SHEET No. 021 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	91	193



ORIGINAL PLAN	DATE
NOTED BY	XXX 1997
DESIGNED BY	XXX 1997
QUANTITIES BY	XXX 1997
CHECKED BY	XXX 1997

db3.kole.projects.M-STP-0300(106)-Q22

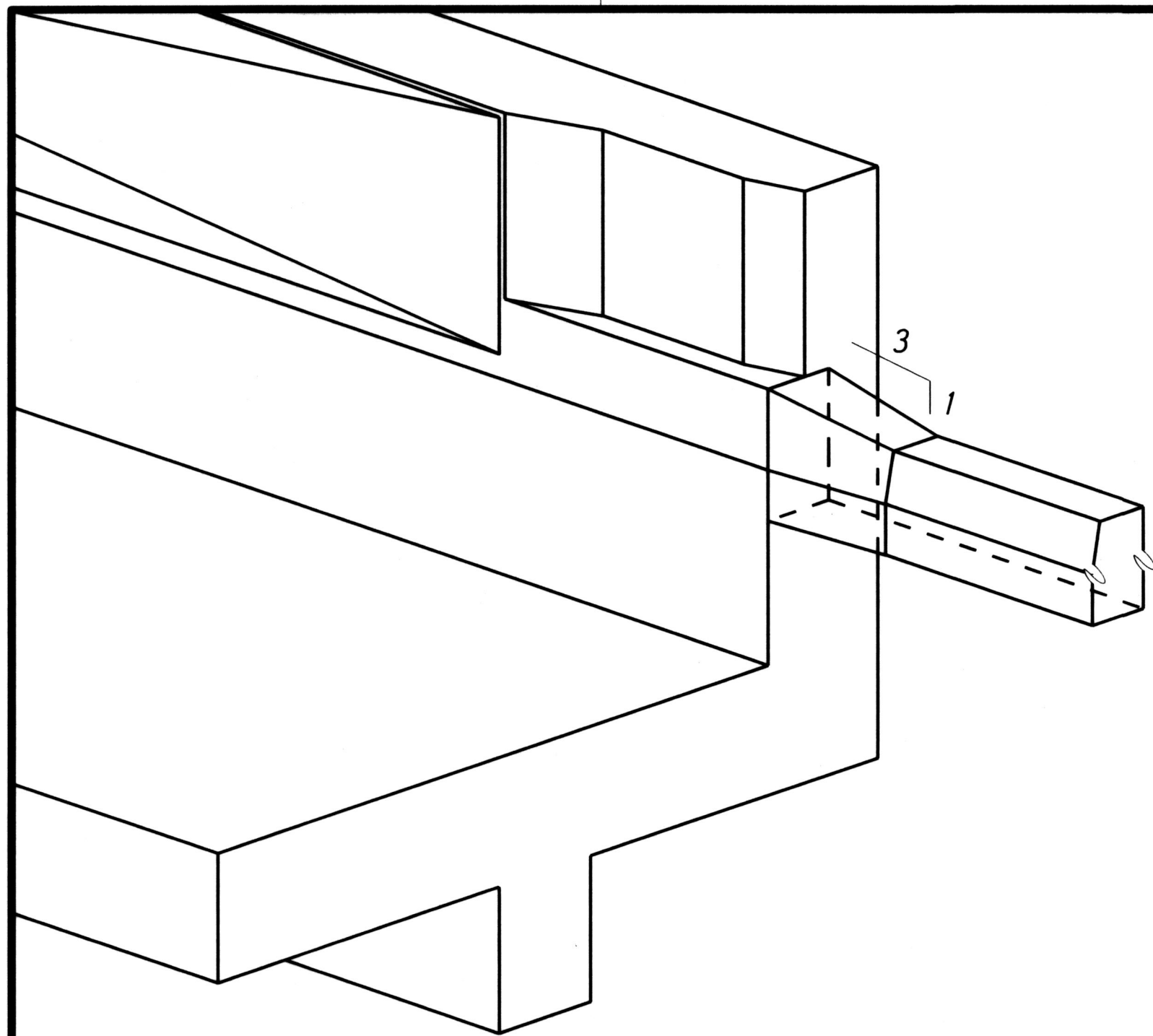
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE GG
TYPE "D2" END POST PLAN and ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

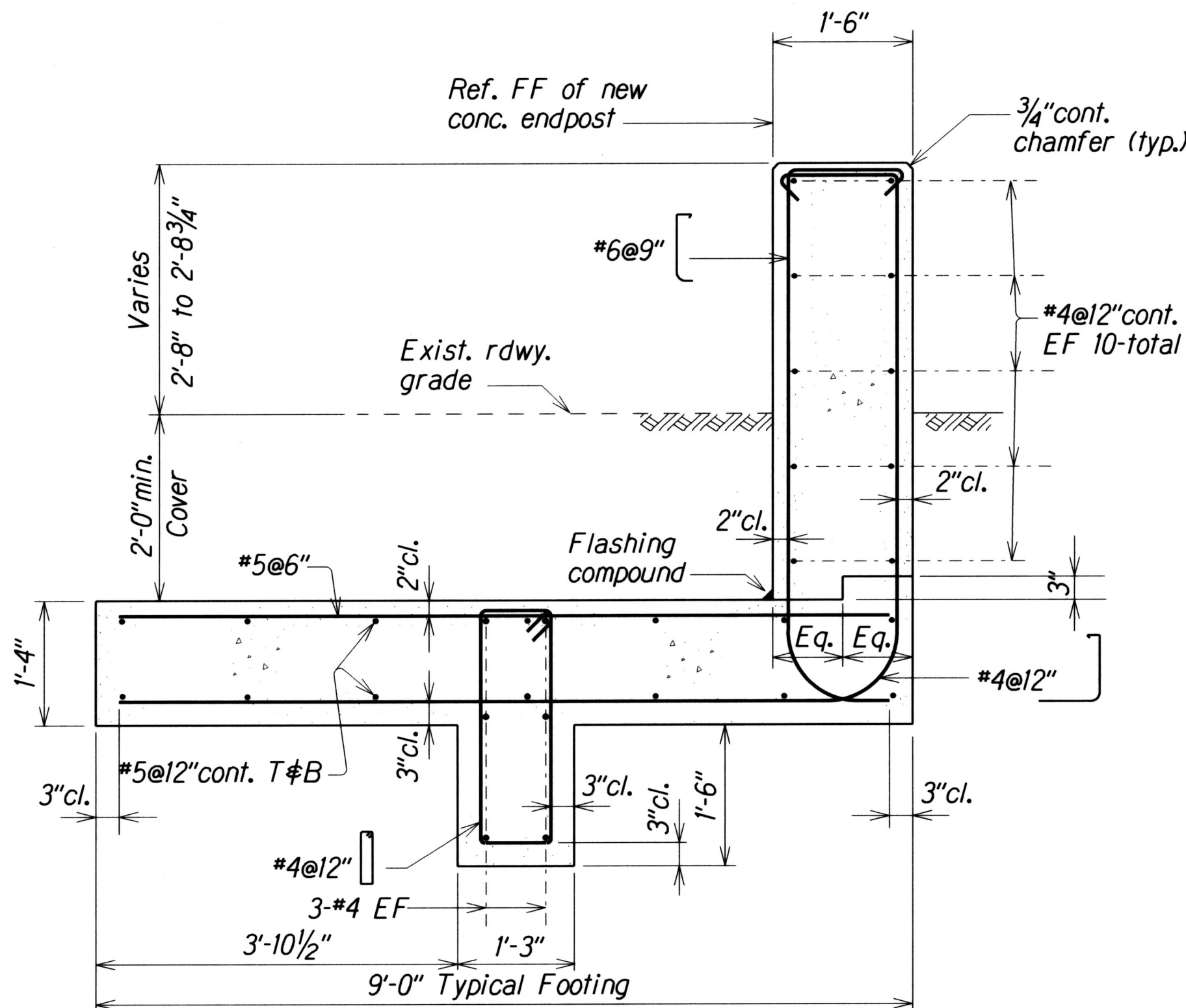
SHEET No. Q22 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	92	193

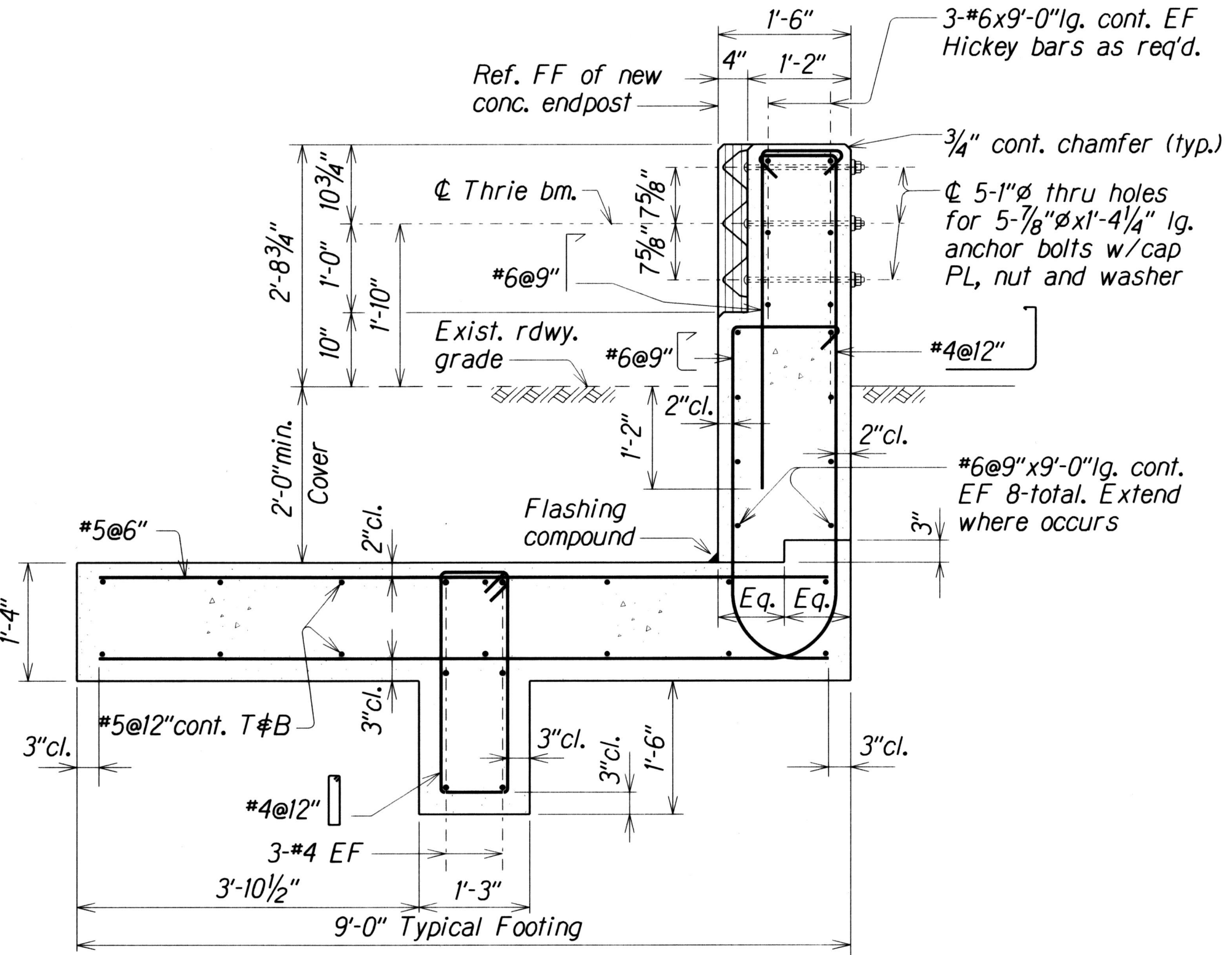


PARTIAL ISOMETRIC VIEW
TYPE "D2" ENDPOST

Not to Scale

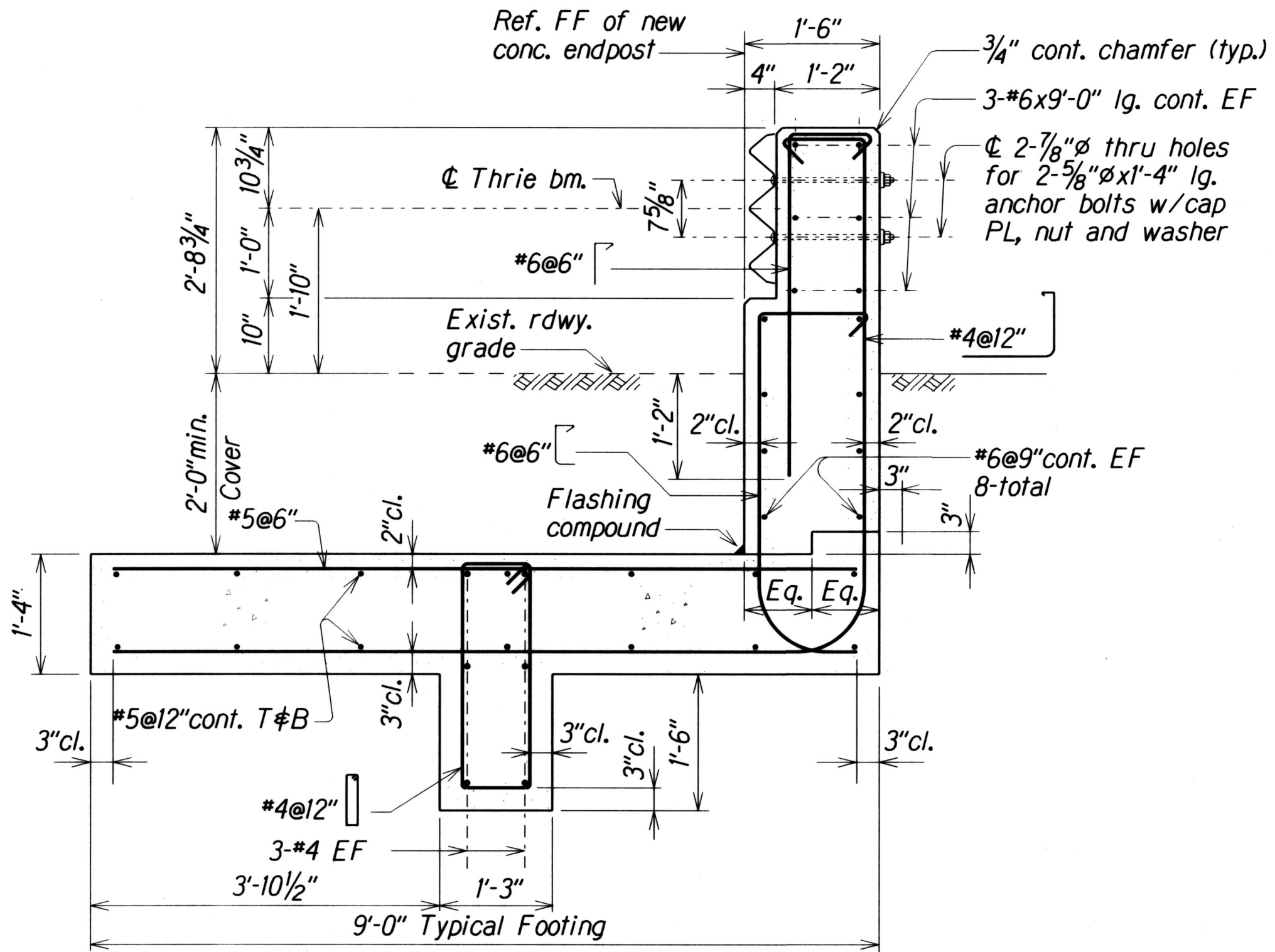


SECTION A
Scale: 3/4" = 1'-0"
Q20, Q21

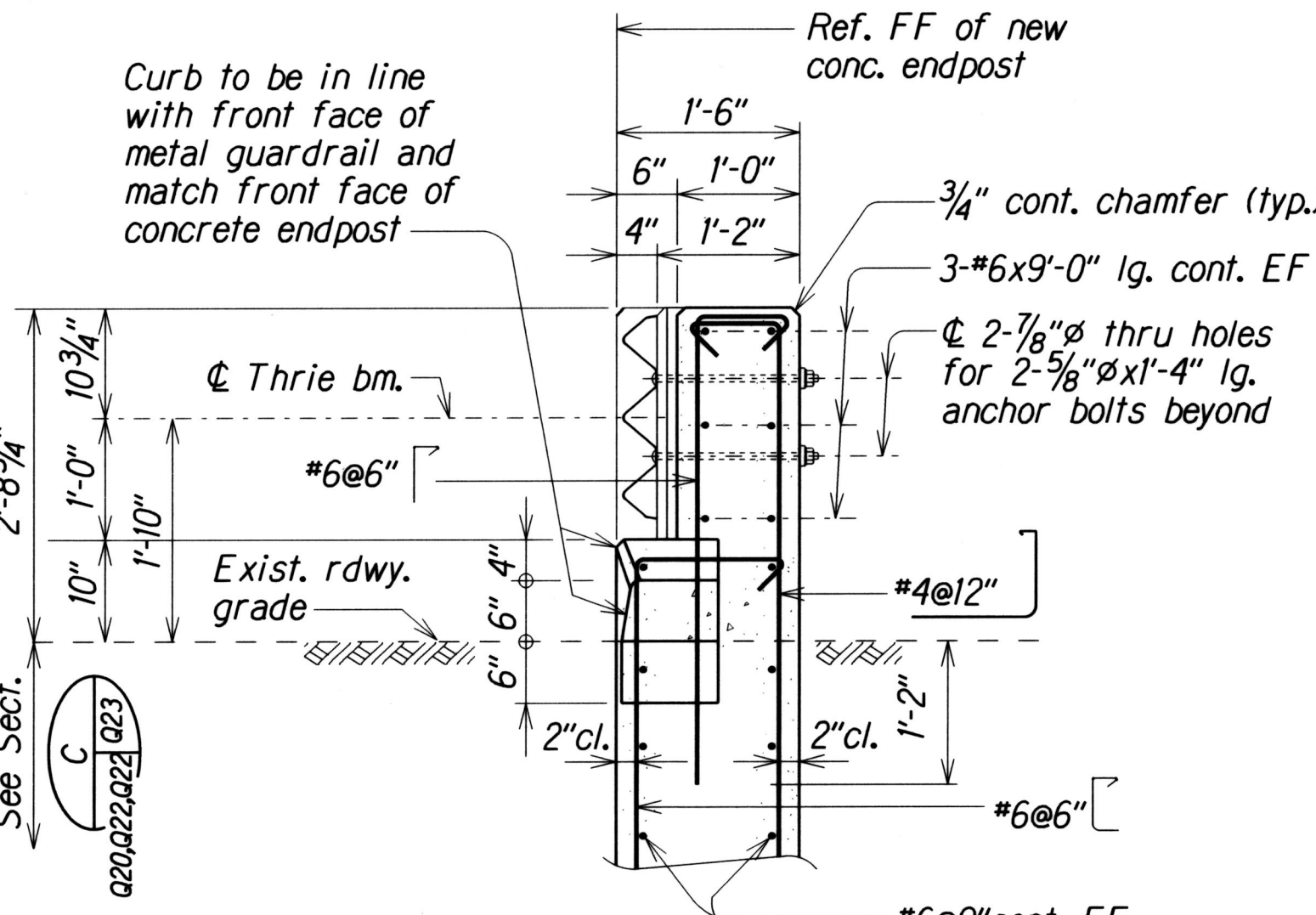


SECTION B
Scale: 3/4" = 1'-0"
Q20, Q21

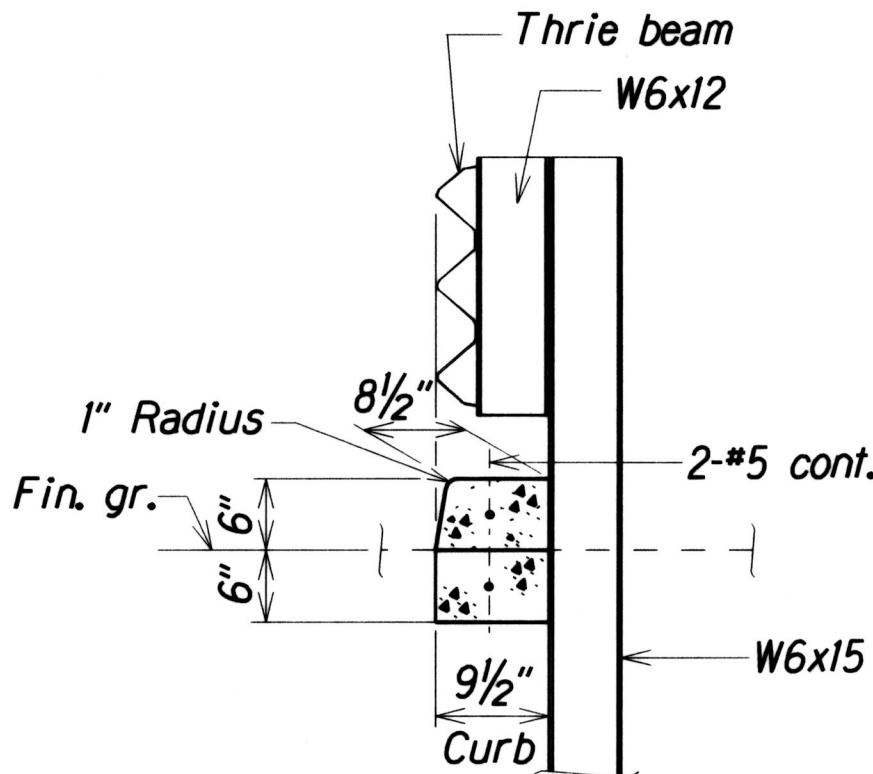
Note:
See Sht. #Q14 for existing
end post removal.



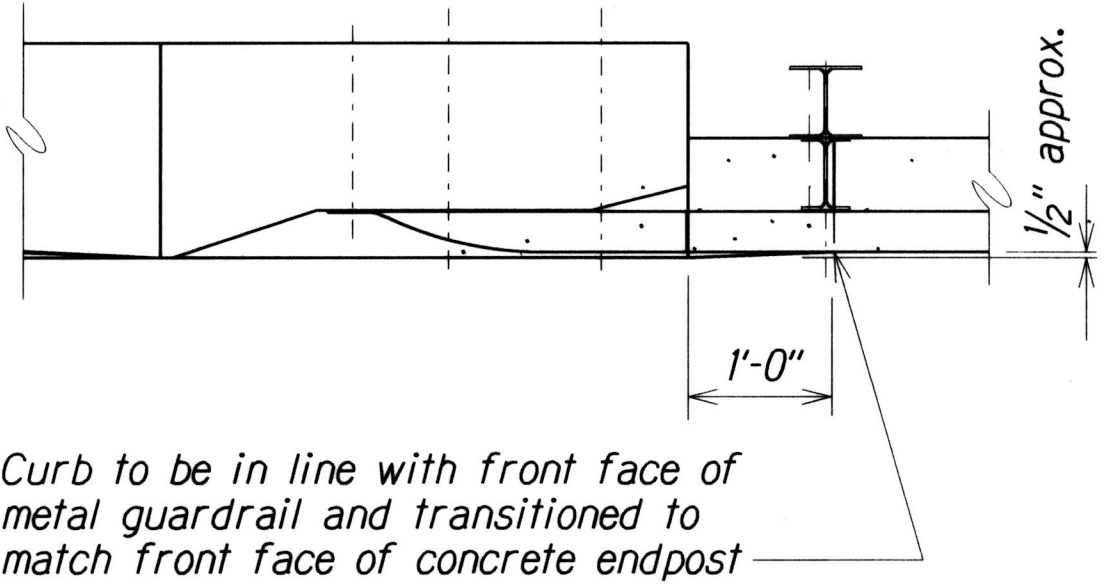
SECTION C
Scale: 3/4" = 1'-0"
Q20, Q21



SECTION D
Scale: 3/4" = 1'-0"
Q20, Q21



SECTION E
Scale: 3/4" = 1'-0"
Q20, Q21



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

TYPE "D2" END POST SECTIONS AND DETAILS

SURVEY PLOTTED BY	DATE	XXX 1997
DESIGNED BY	XXX 1997	
CHECKED BY	XXX 1997	
NOTE BOOK	QUANTITIES BY	XXX 1997
ORIGINAL PLAN	DESIGNED BY	XXX 1997
	CHECKED BY	XXX 1997

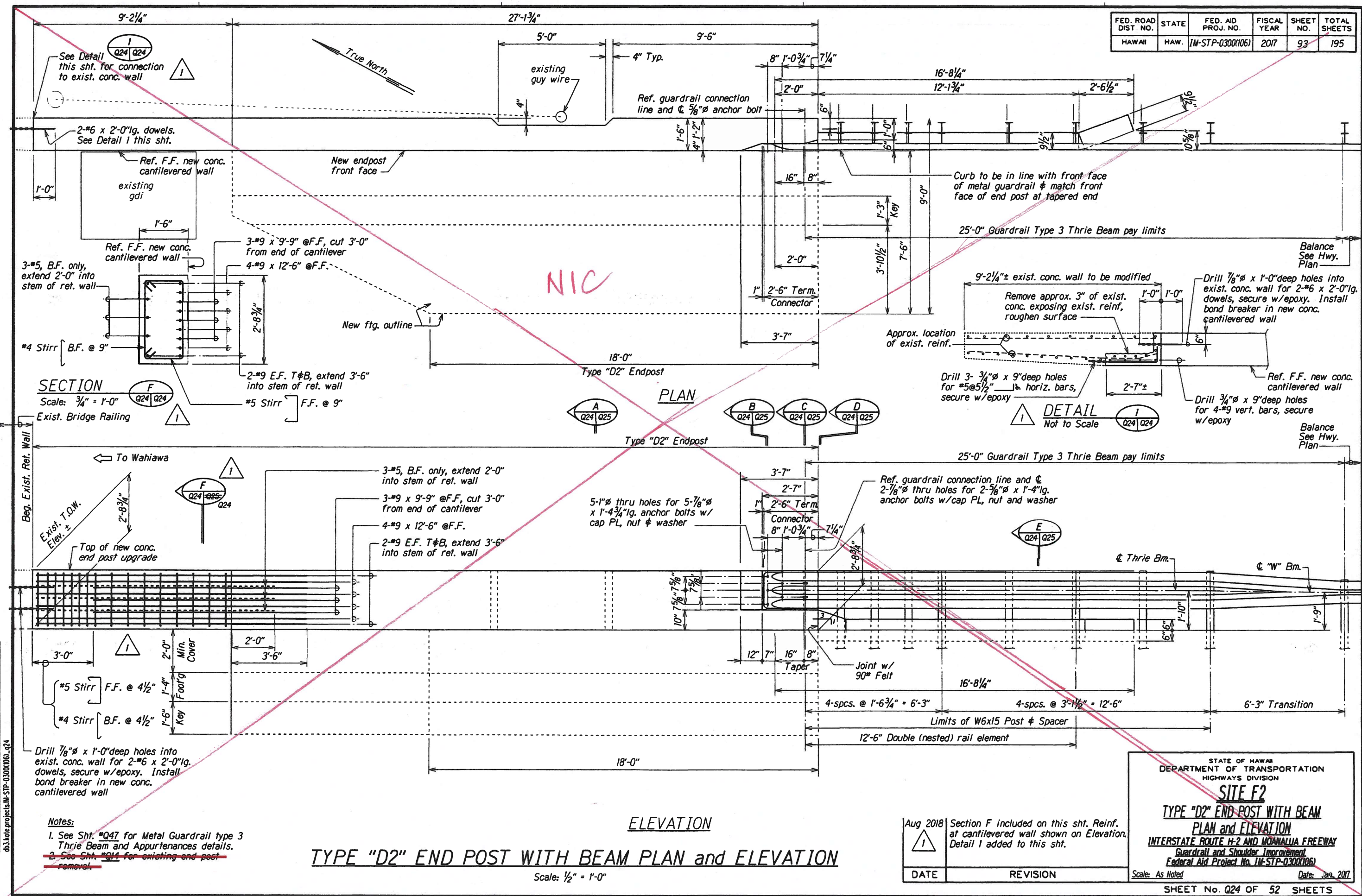
003.kate.projects.1M-STP-0300(106).q23

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITES I, EE, and GG
TYPE "D2" END POST SECTIONS AND DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	93	195



ORIGINAL PLAN	DATE	XXX 1991
DRAWN BY	XXX	1991
CHECKED BY	XXX	1991
NOTED BY	XXX	1991
QUANTITY BY	XXX	1991
IN.	XXX	1991

db3.kote.projects\1M-STP-0300(106)_Q24

- Notes:
1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
 2. See Sht. #Q44 for existing end post removal.

TYPE "D2" END POST WITH BEAM PLAN and ELEVATION

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

Aug 2018	Section F included on this sht. Reinf. at cantilevered wall shown on Elevation. Detail 1 added to this sht.
DATE	REVISION

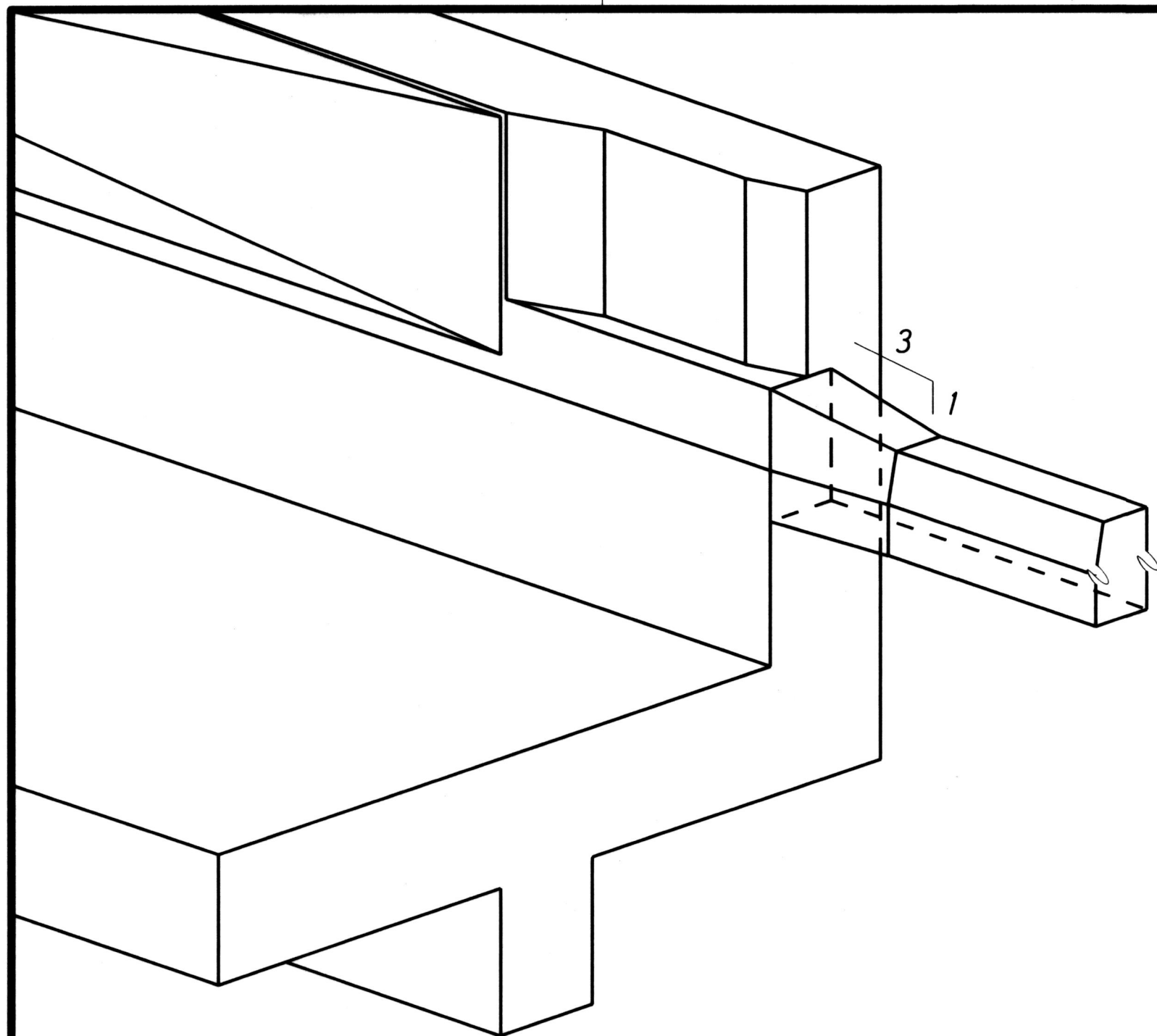
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE F2
TYPE "D2" END POST WITH BEAM
PLAN and ELEVATION
INTERSTATE ROUTE H-2 AND MAHALA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted
Date: Aug 2017

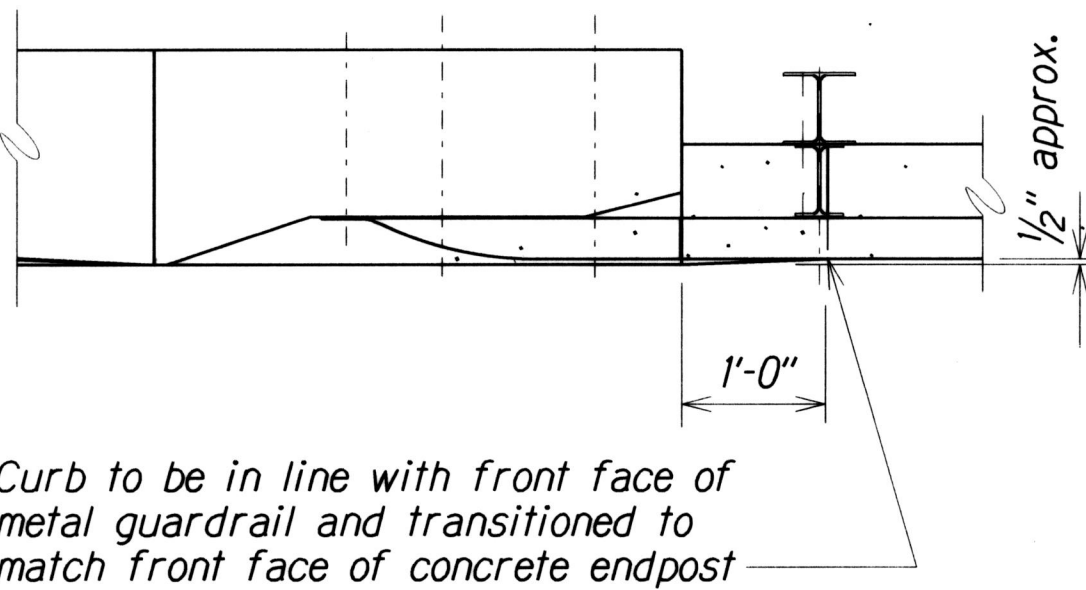
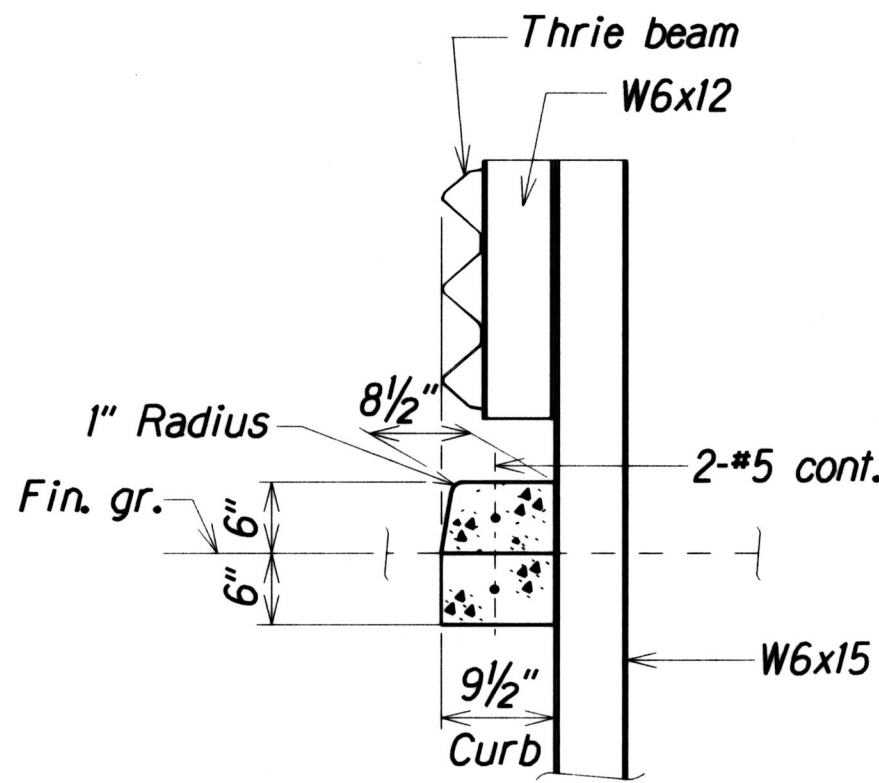
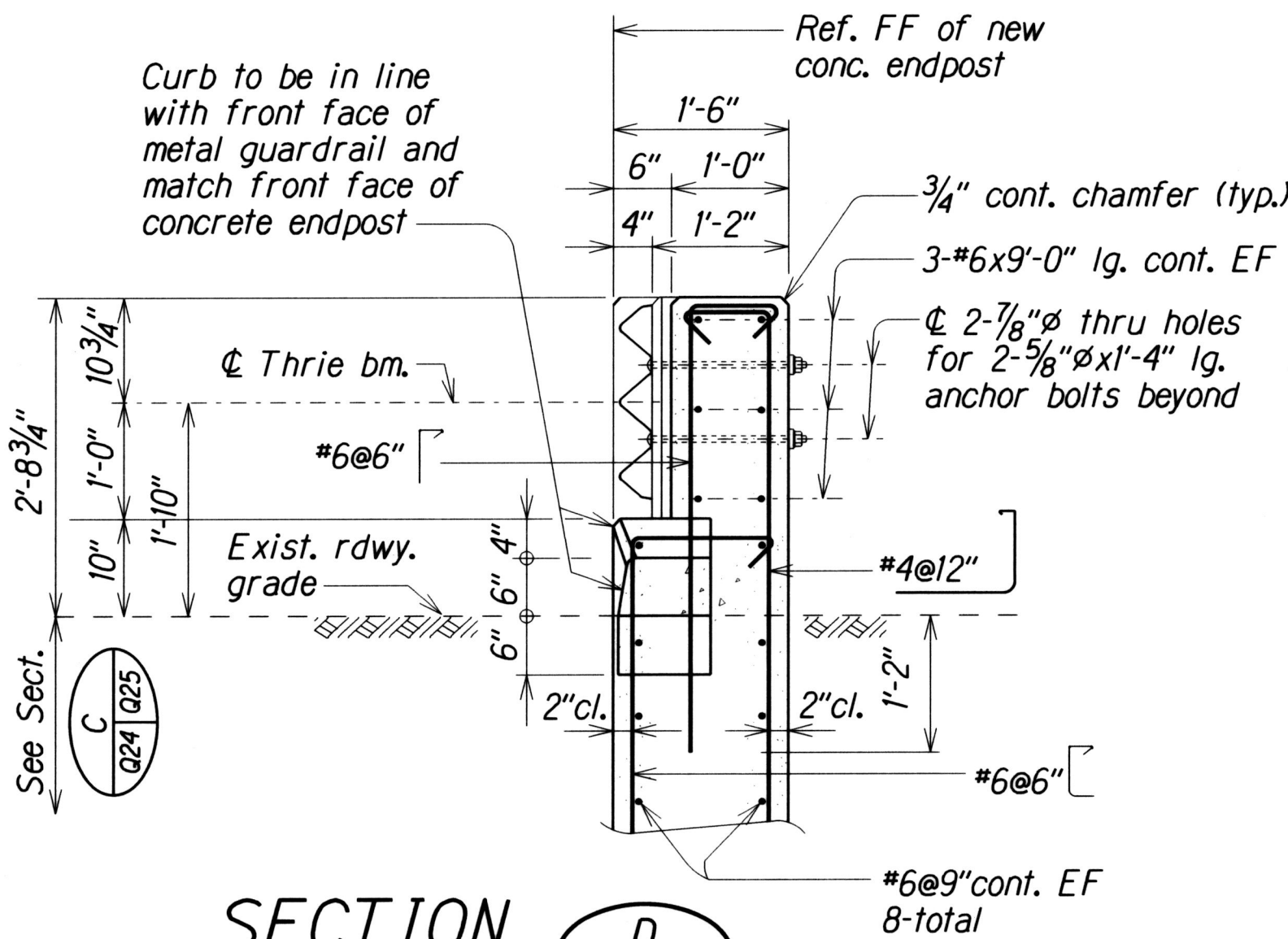
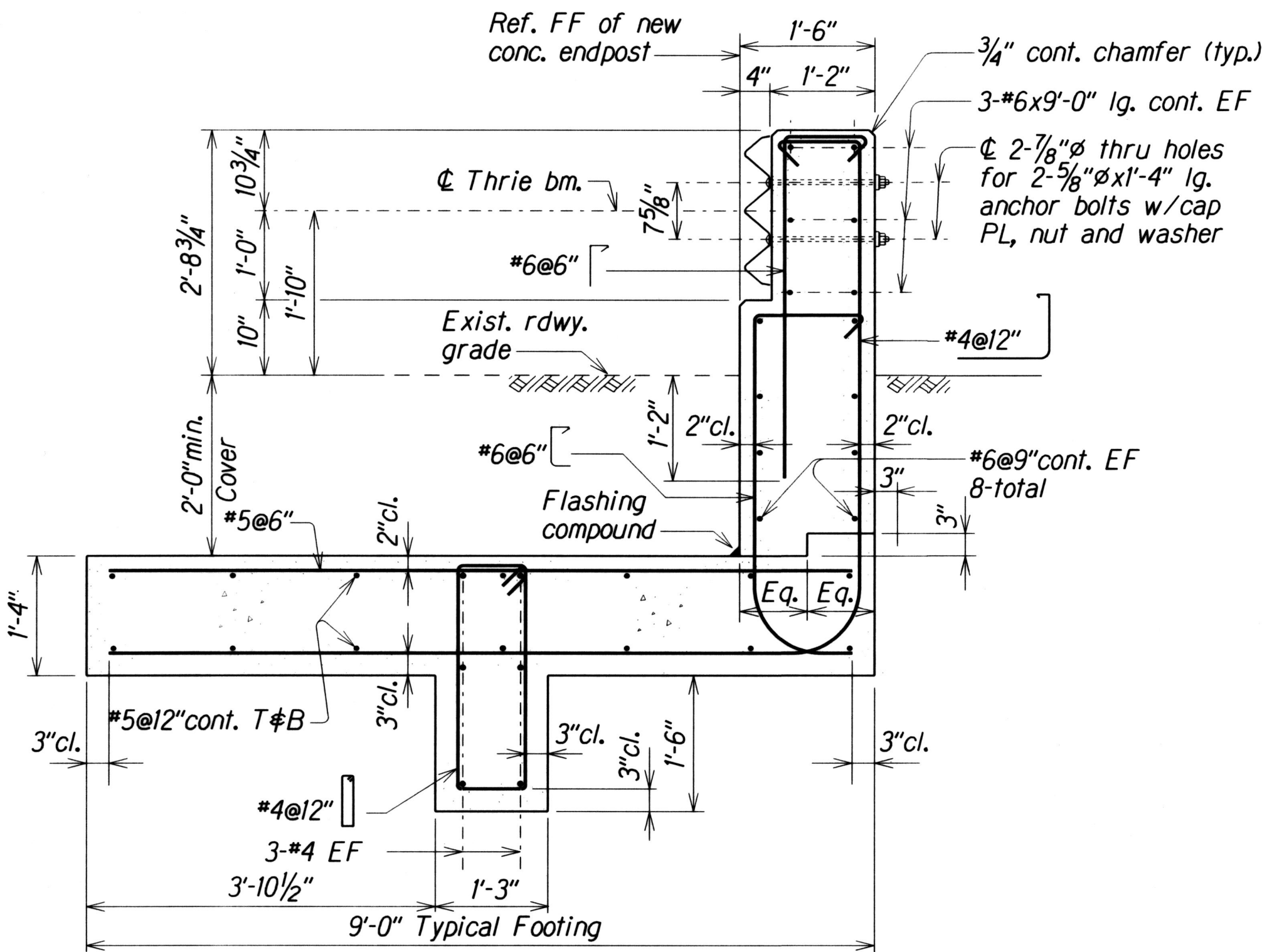
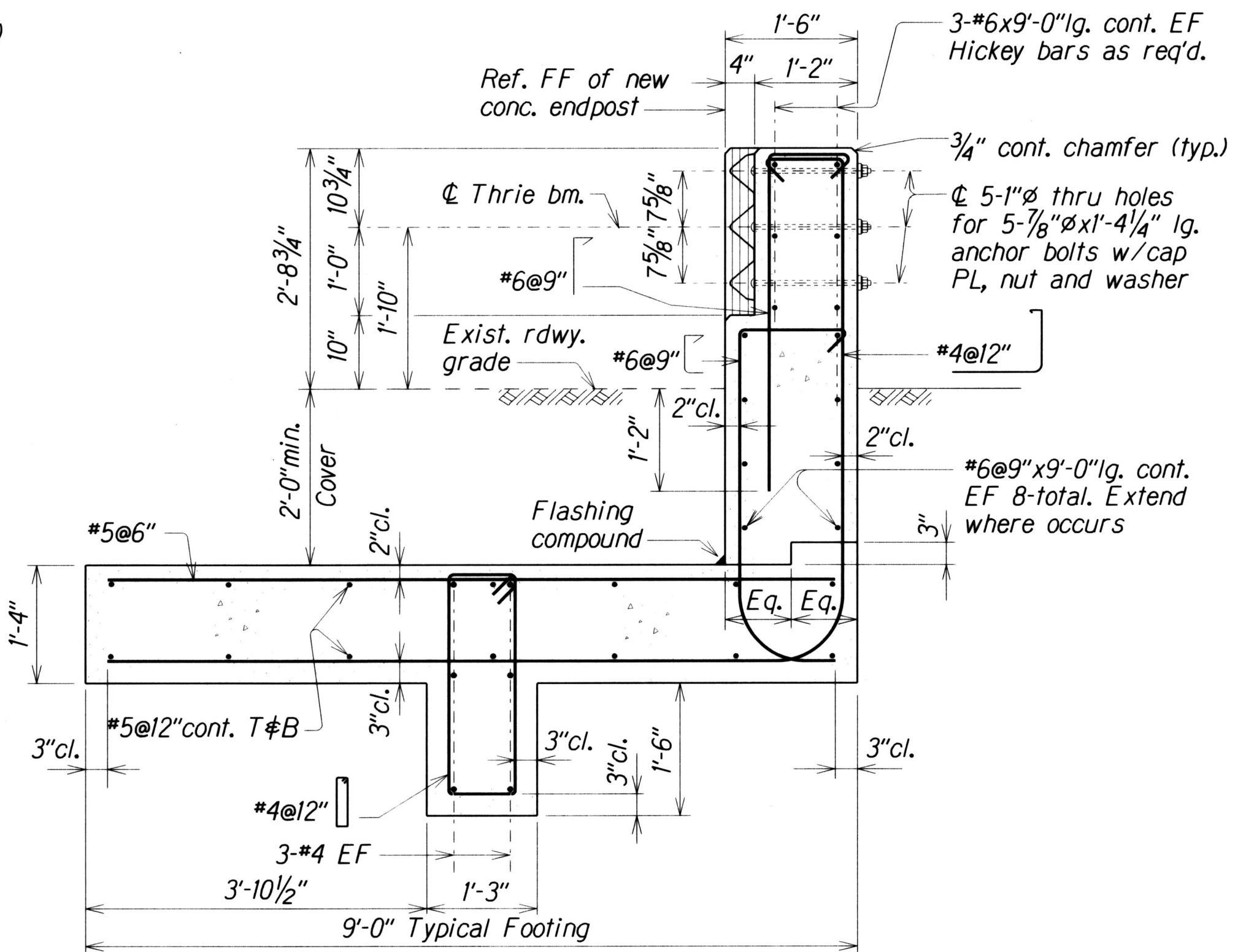
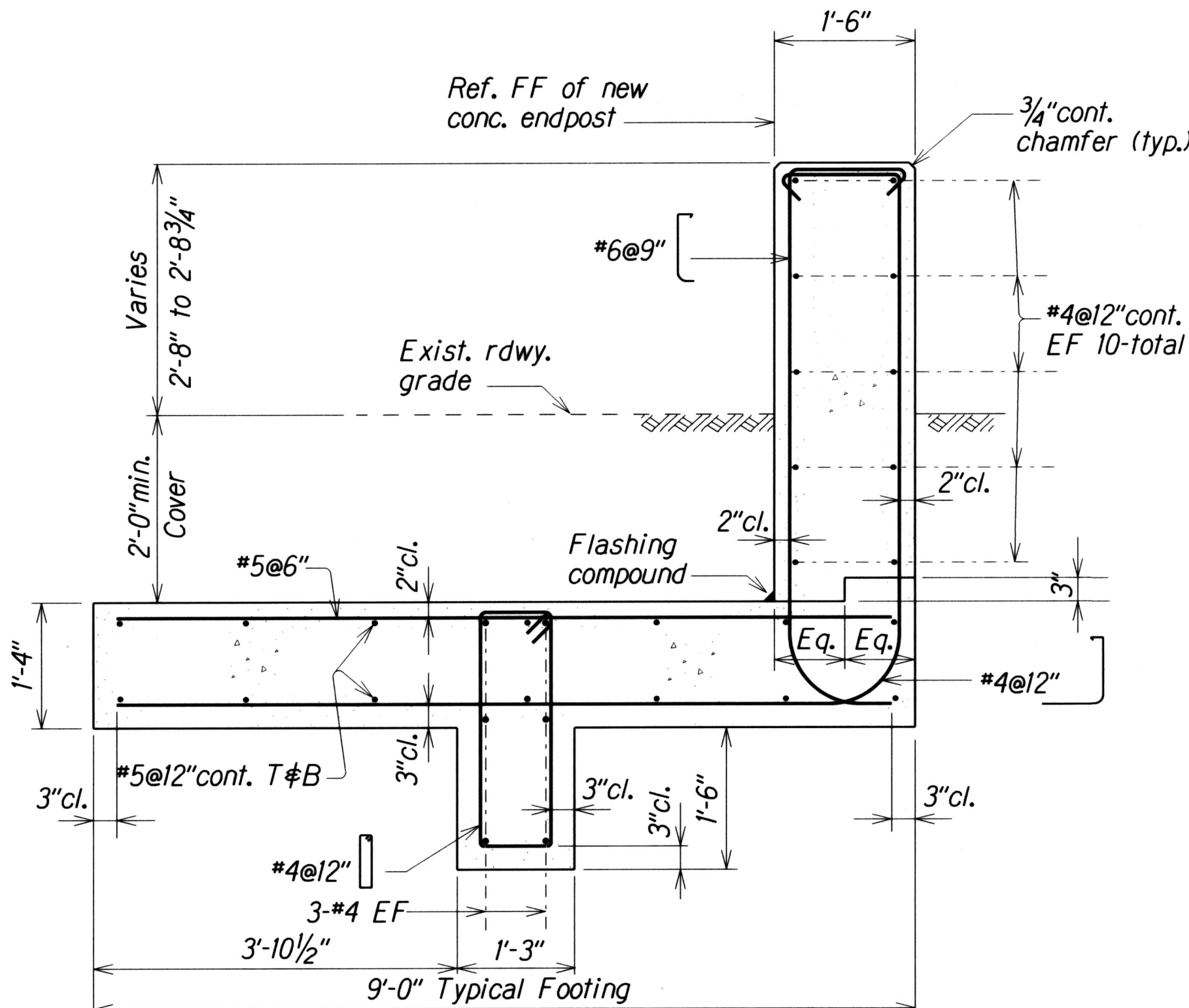
SHEET No. Q24 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	94	193



PARTIAL ISOMETRIC VIEW
TYPE "D2" ENDPOST

Not to Scale



TYPE "D2" END POST SECTIONS AND DETAILS

ORIGINAL PLAN	DATE	XXX 1991
DESIGNED BY	XXX 1991	
CHECKED BY	XXX 1991	
NOTED BY	XXX 1991	
QUANTITIES BY	XXX 1991	
CHECKED BY	XXX 1991	

db3.kate.projects\1M-STP-0300(106)_Q25

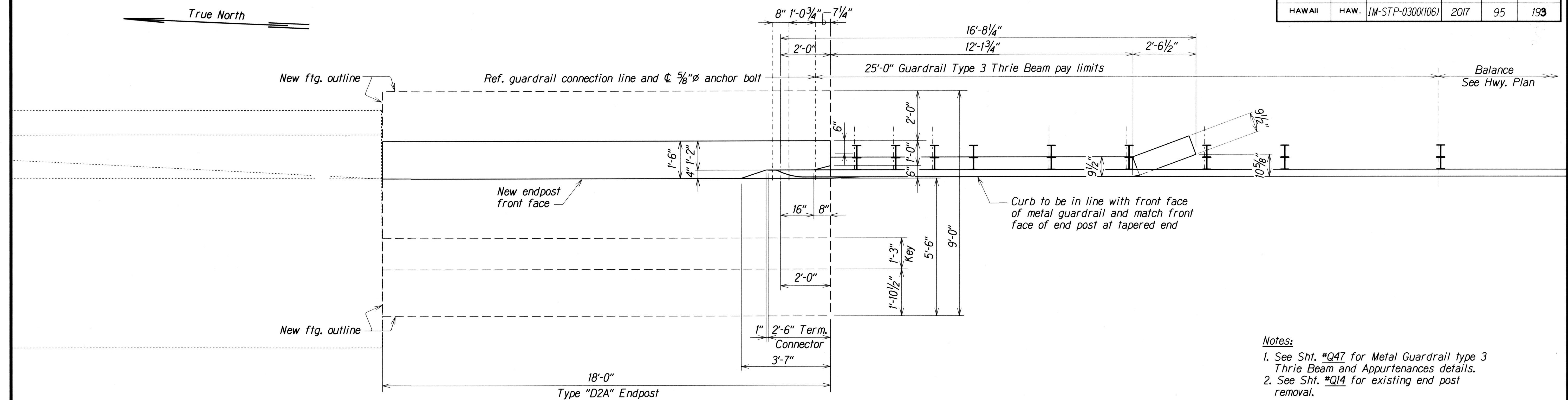
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE F2
TYPE "D2 WITH BEAM" END POST
SECTIONS AND DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

SHEET No. Q25 OF 52 SHEETS

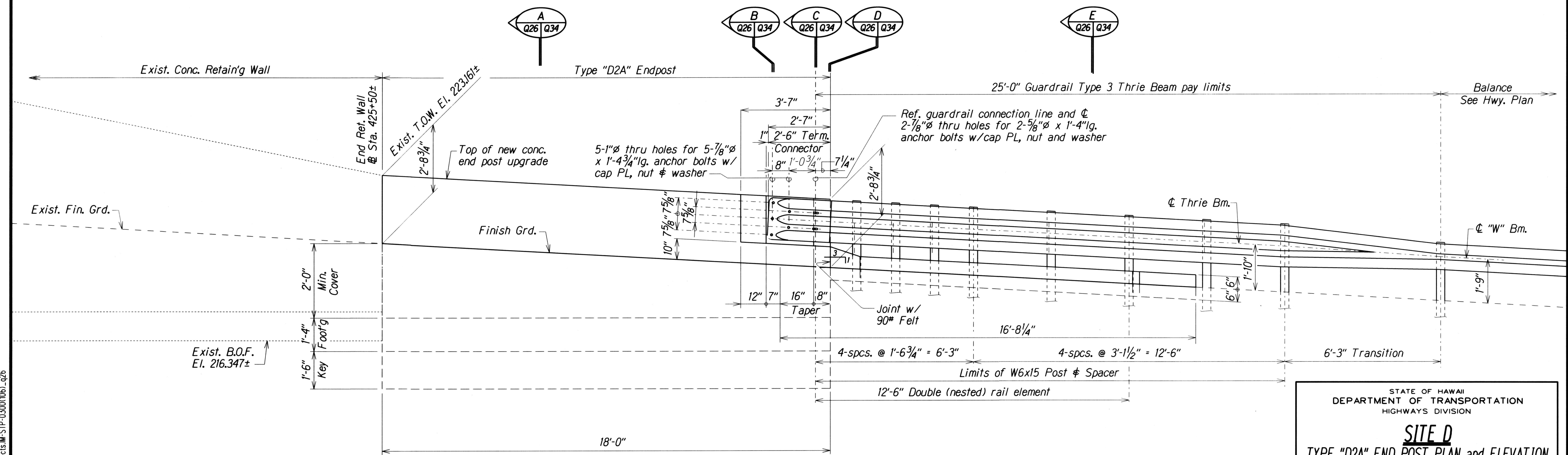
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	95	193



Notes:

1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
2. See Sht. #Q14 for existing end post removal.

PLAN

ELEVATION

TYPE "D2A" END POST PLAN and ELEVATION

Scale: $\frac{1}{2}" = 1'-0"$

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

db3.kate.projects.IM-STP-0300(106)_q26

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE D

TYPED "D2A" END POST PLAN and ELEVATION

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300X(106)

Scale: As Noted Date: Jan., 2017

SHEET No. 026 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	97	193

True North

PLAN

Notes:

1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
2. See Sht. #Q14 for existing end post removal.

1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
2. See Sht. #Q14 for existing end post removal.

db3.kate.projects.IM-STP-0300(106)_q28

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE J

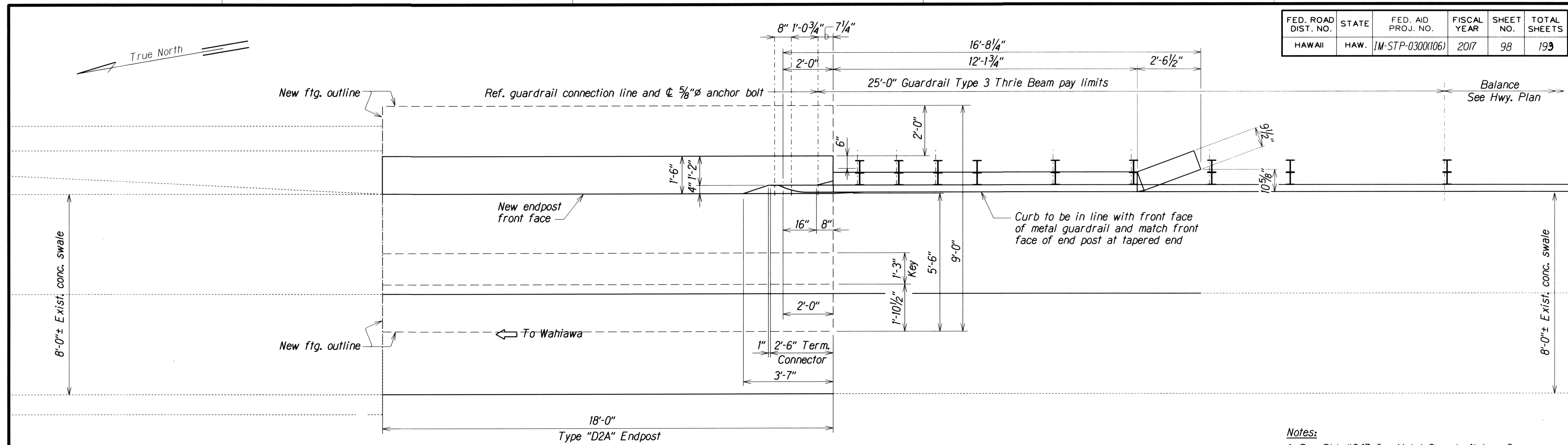
TYPE "D2A" END POST PLAN and ELEVATION

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

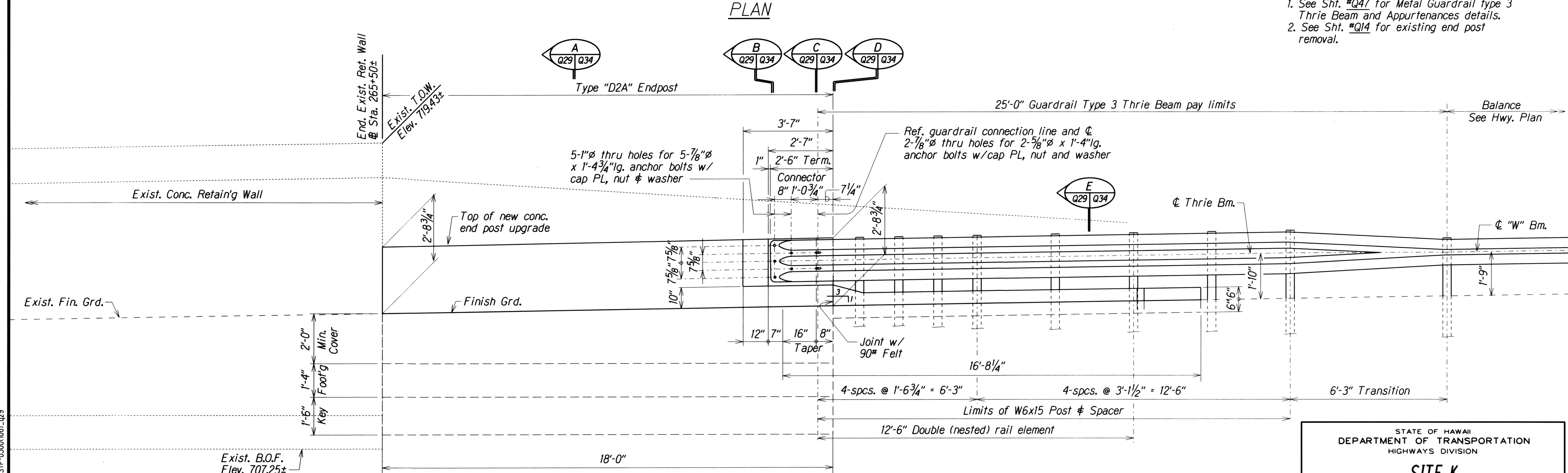
Scale: As Noted *Date: Jan., 2017*

SHEET No. 028 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	98	193



- Notes:
1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
 2. See Sht. #Q14 for existing end post removal.



TYPE "D2A" END POST PLAN and ELEVATION

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

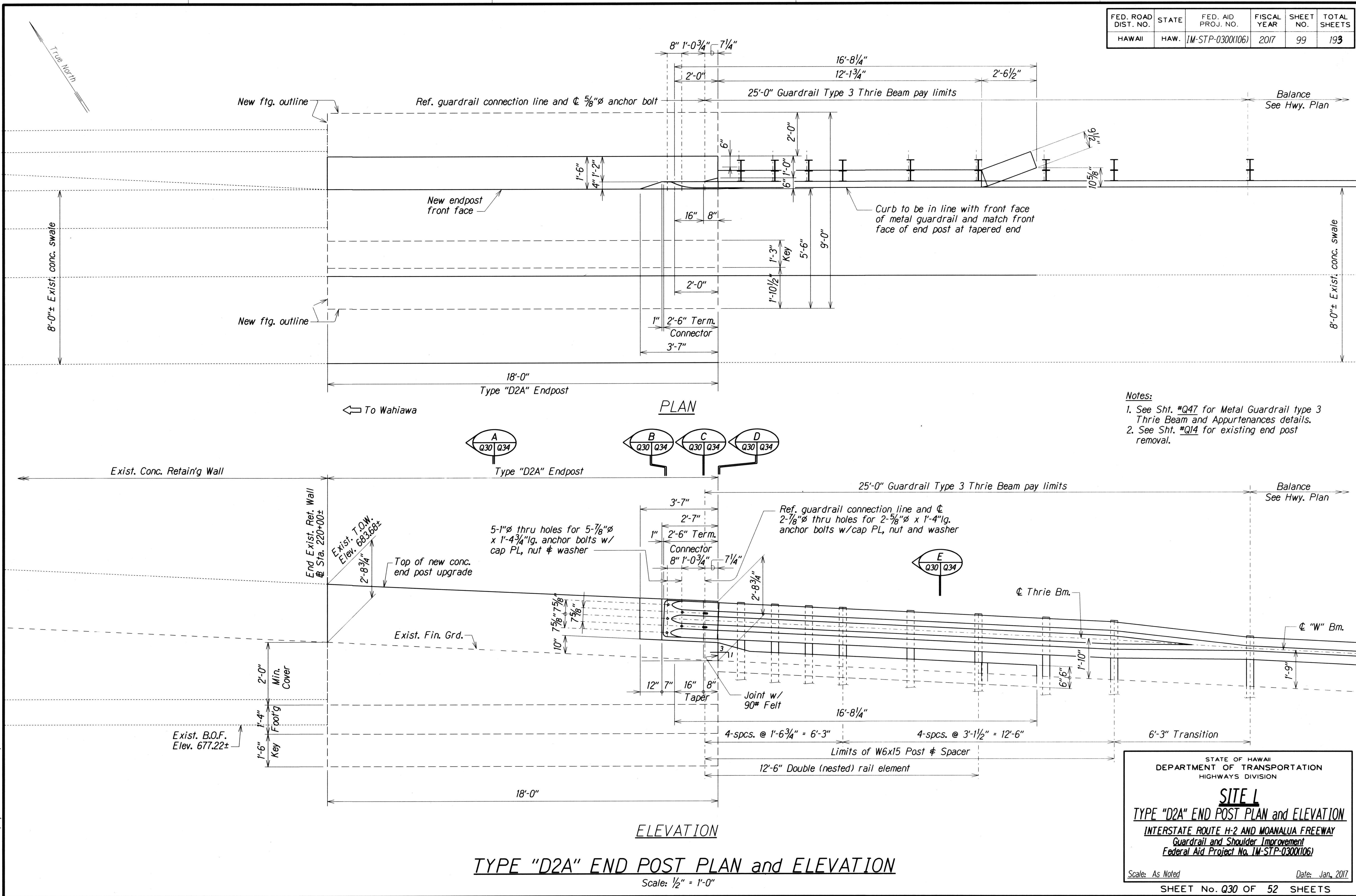
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE K
TYPE "D2A" END POST PLAN and ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

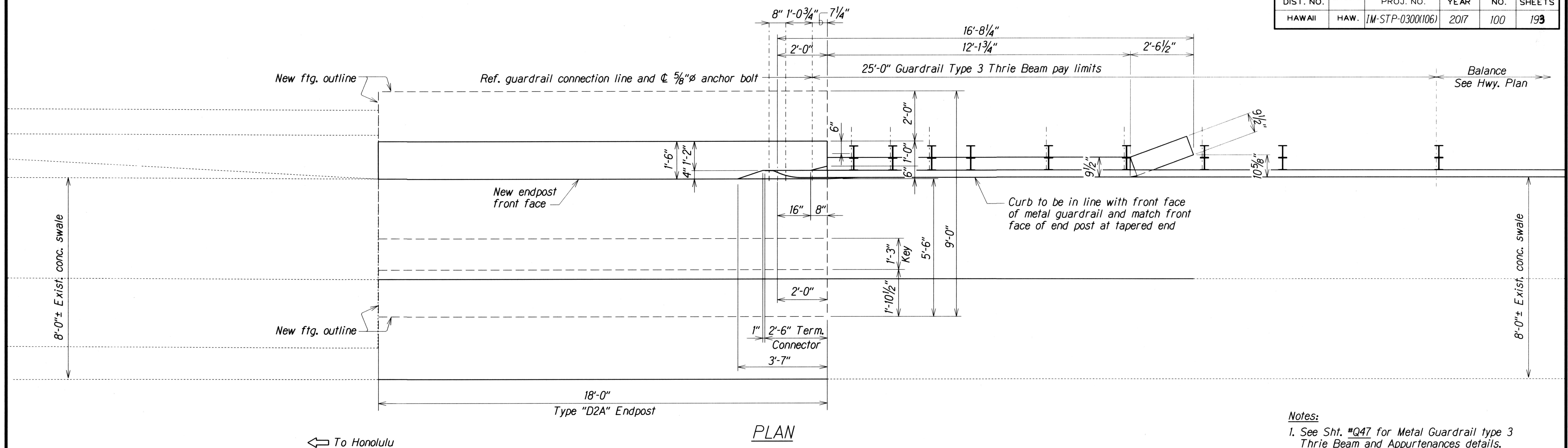
Scale: As Noted Date: Jan., 2017

SHEET No. Q29 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	99	193

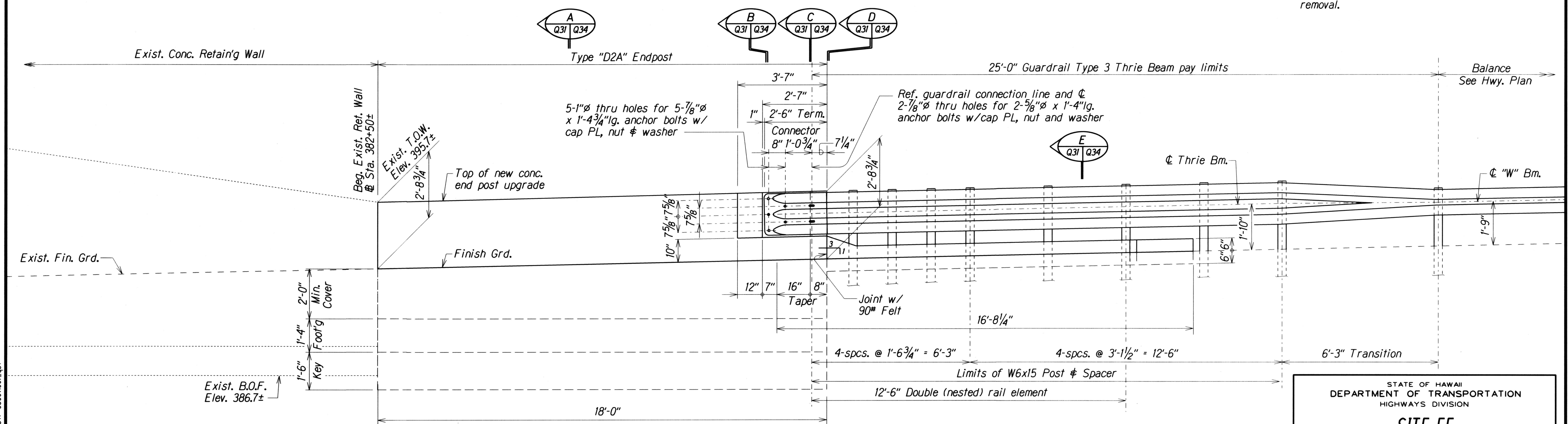


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	100	193



Notes:

1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
2. See Sht. #Q14 for existing end post removal.



ELEVATION

TYPE "D2A" END POST PLAN and ELEVATION

Scale: $\frac{1}{2}" = 1'-0"$

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE - <u>XXX</u> <u>XXX</u> <u>1991</u>
NOTE BOOK	DRAWN BY _____	
	TRACED BY _____	- <u>XXX</u> <u>1991</u>
	DESIGNED BY _____	- <u>XXX</u> <u>1991</u>
	QUANTITIES BY _____	- <u>XXX</u> <u>1991</u>
	CHECKED BY _____	- <u>XXX</u> <u>1991</u>
N _o .		

db3.kate.projects.IM-STP-0300(106) 0.31

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE FF

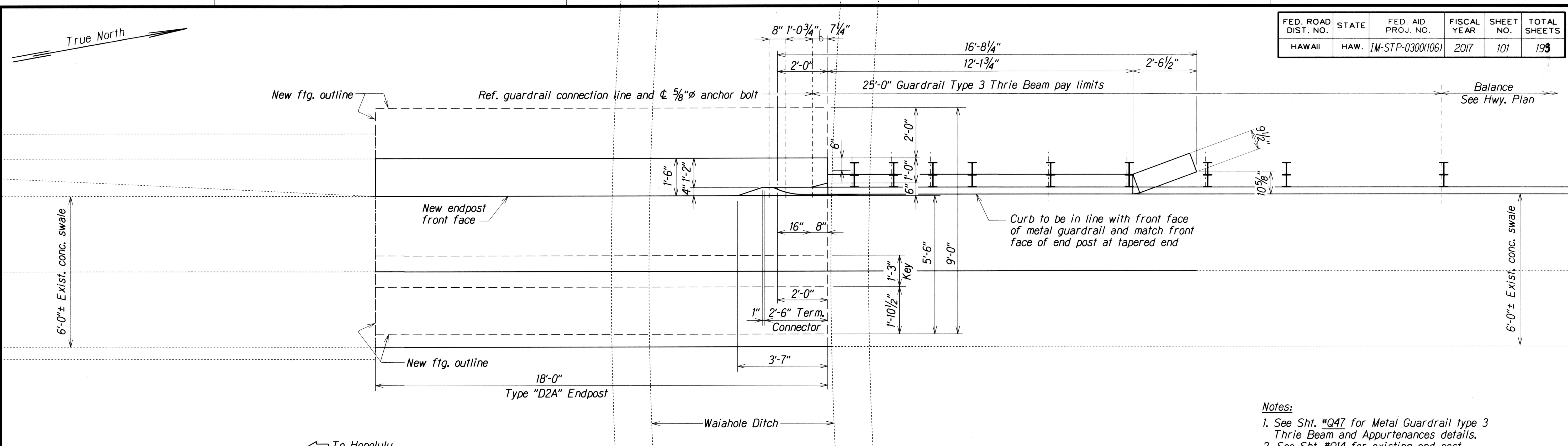
TYPE "D2A" END POST PLAN and ELEVATION

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300X106

Scale: As Noted Date: Jan., 2017

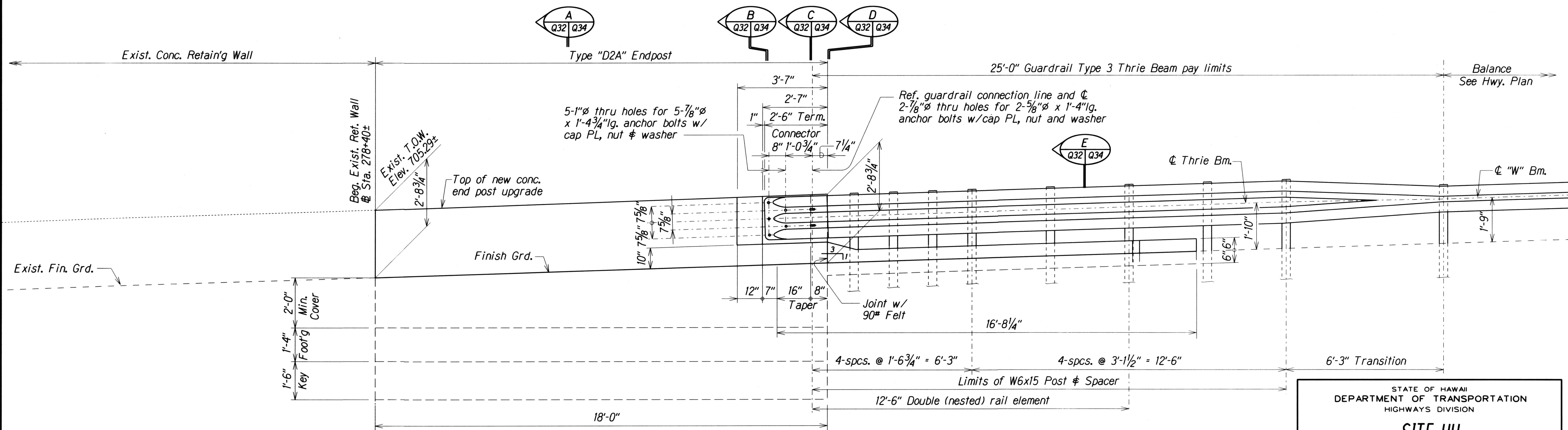
SHEET No. 031 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	101	193



PLAN

- Notes:
1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
 2. See Sht. #Q14 for existing end post removal.



ELEVATION

TYPE "D2A" END POST PLAN and ELEVATION

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

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	XXX 1997
	DESIGNED BY	XXX 1997
	QUANTITIES BY	XXX 1997
	CHECKED BY	XXX 1997

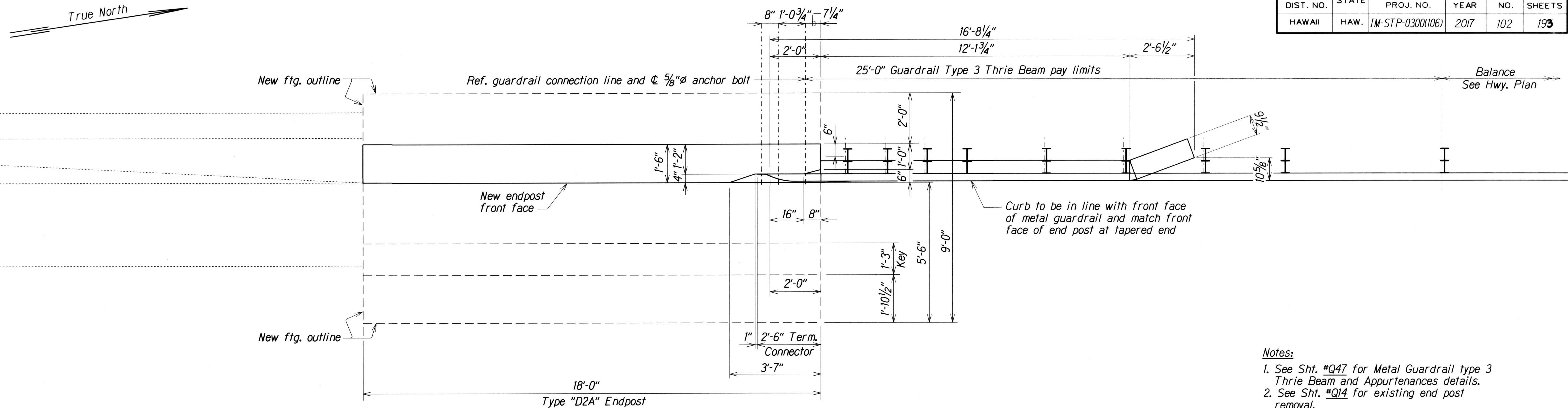
db3 note projects IM-STP-0300(106)-q32

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

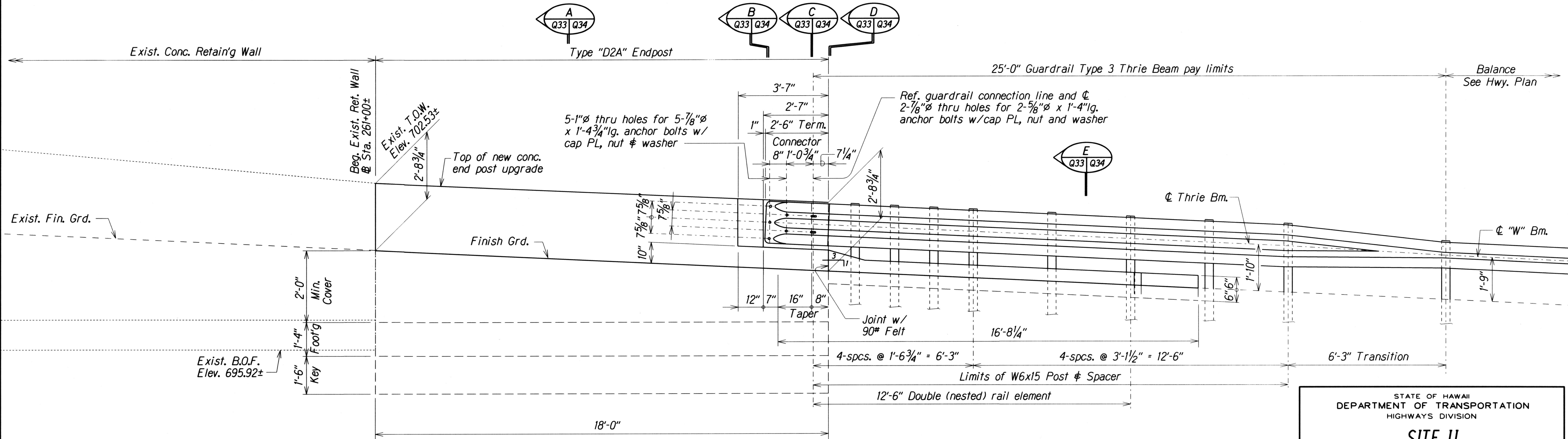
SITE HH
TYPE "D2A" END POST PLAN and ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. IM-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	102	193



- Notes:
1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
 2. See Sht. #Q14 for existing end post removal.



ELEVATION

TYPE "D2A" END POST PLAN and ELEVATION

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

ORIGINAL PLAN	DATE	XXX 1997
DESIGNED BY	XXX	XXX 1997
CHECKED BY	XXX	XXX 1997
NOTED BY	XXX	XXX 1997
QUANTITIES BY	XXX	XXX 1997
DATE	XXX	XXX 1997

db3.kate.projects.1M-STP-0300(106)-Q33

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE II

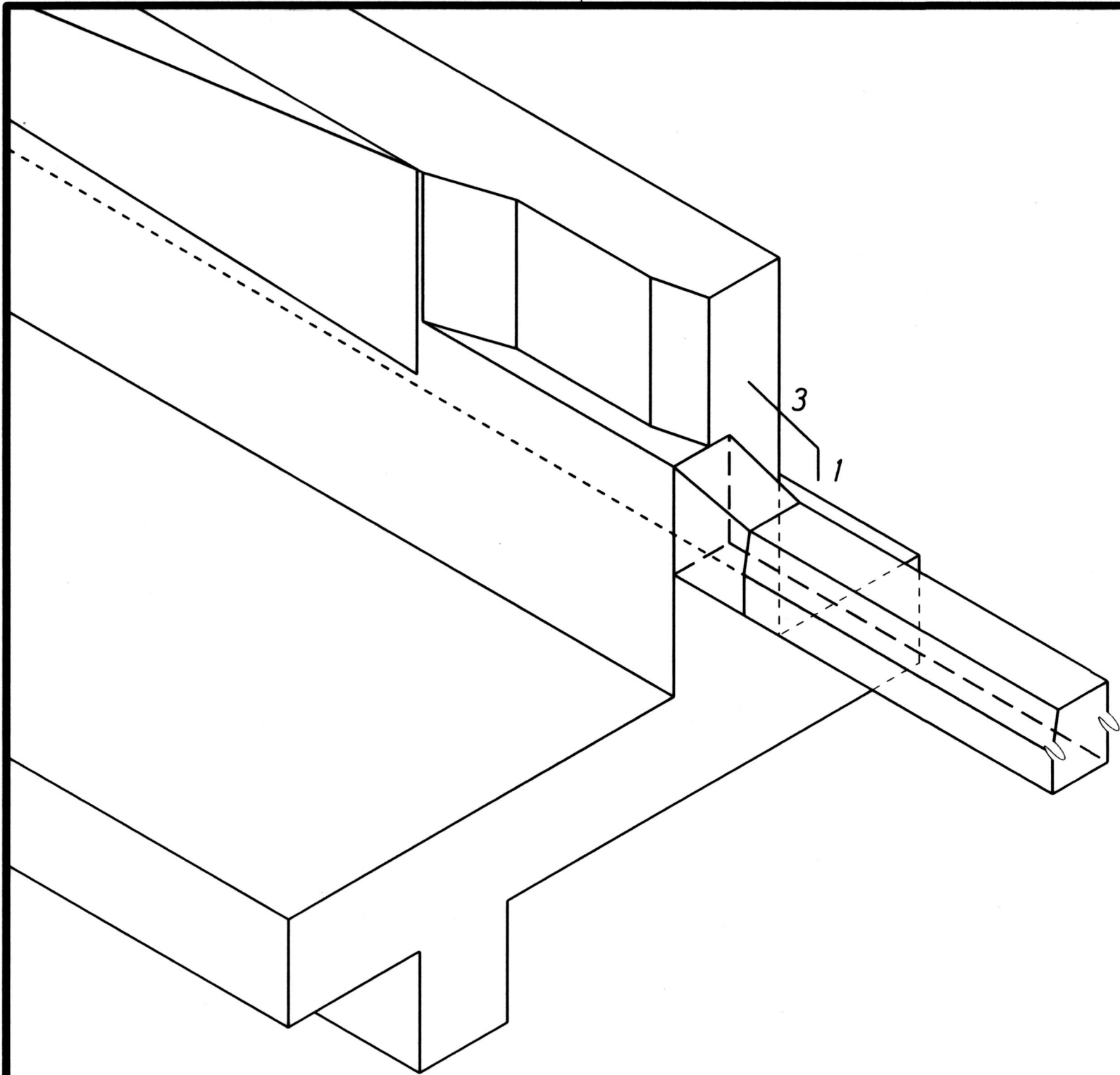
TYPE "D2A" END POST PLAN and ELEVATION

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted Date: Jan., 2017

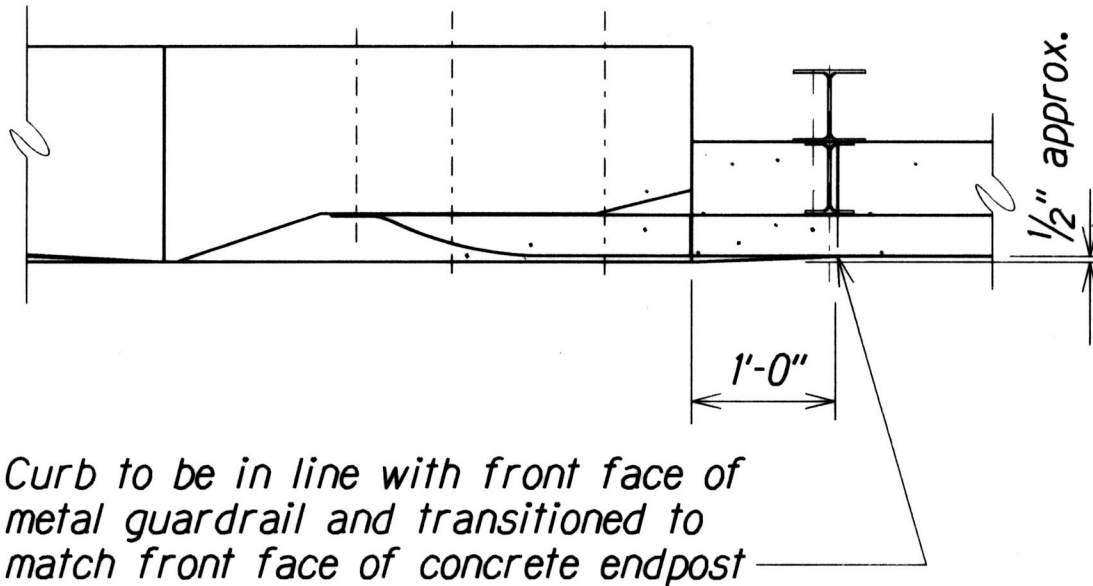
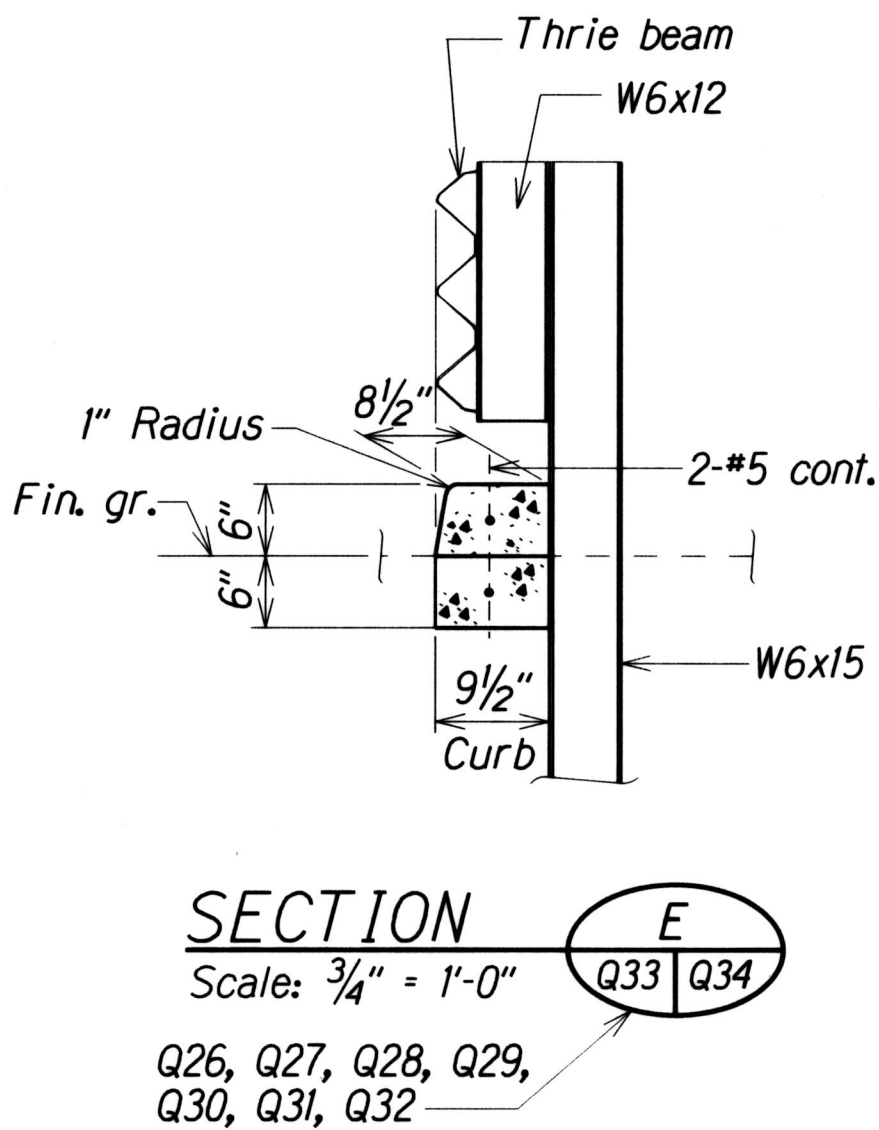
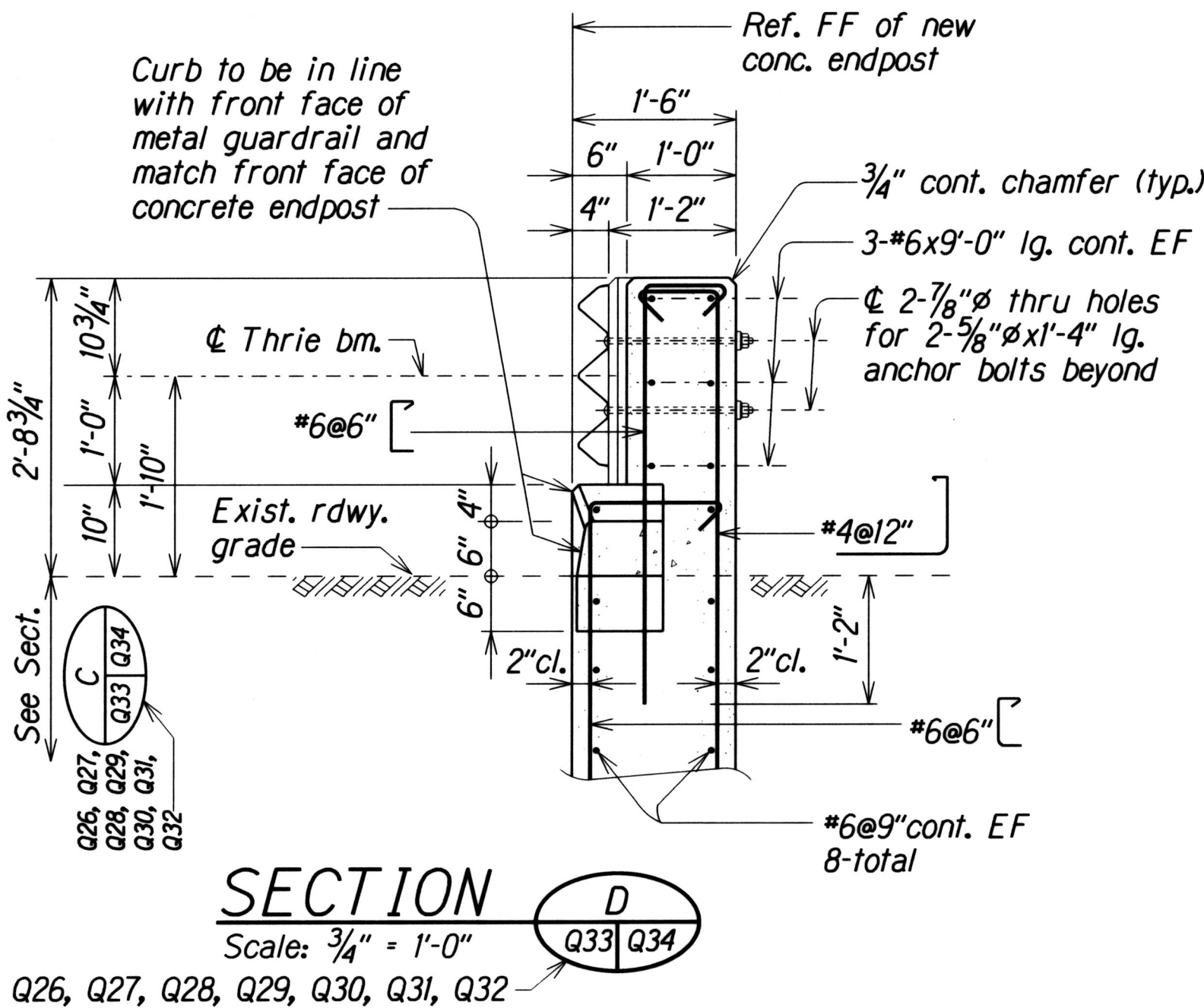
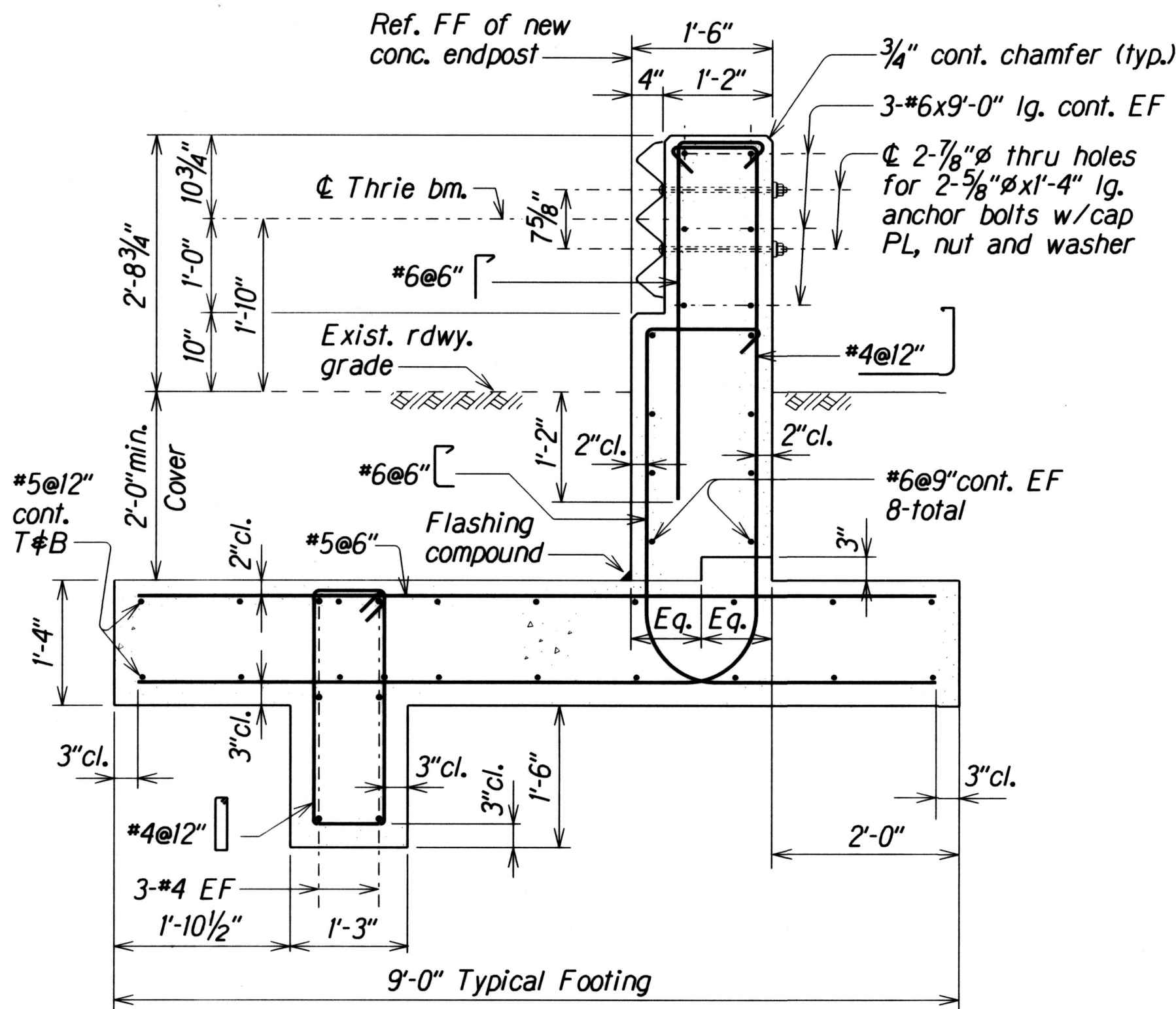
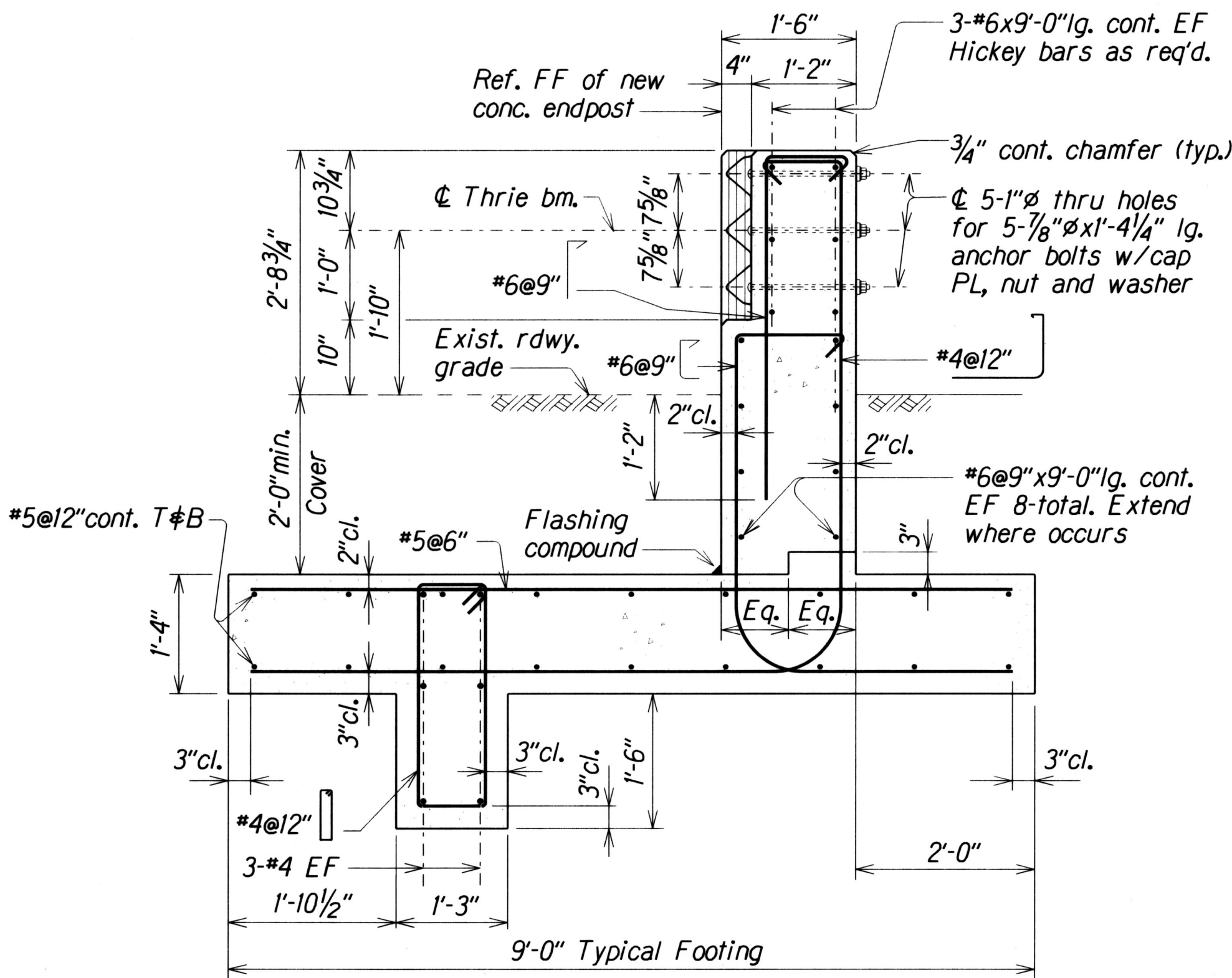
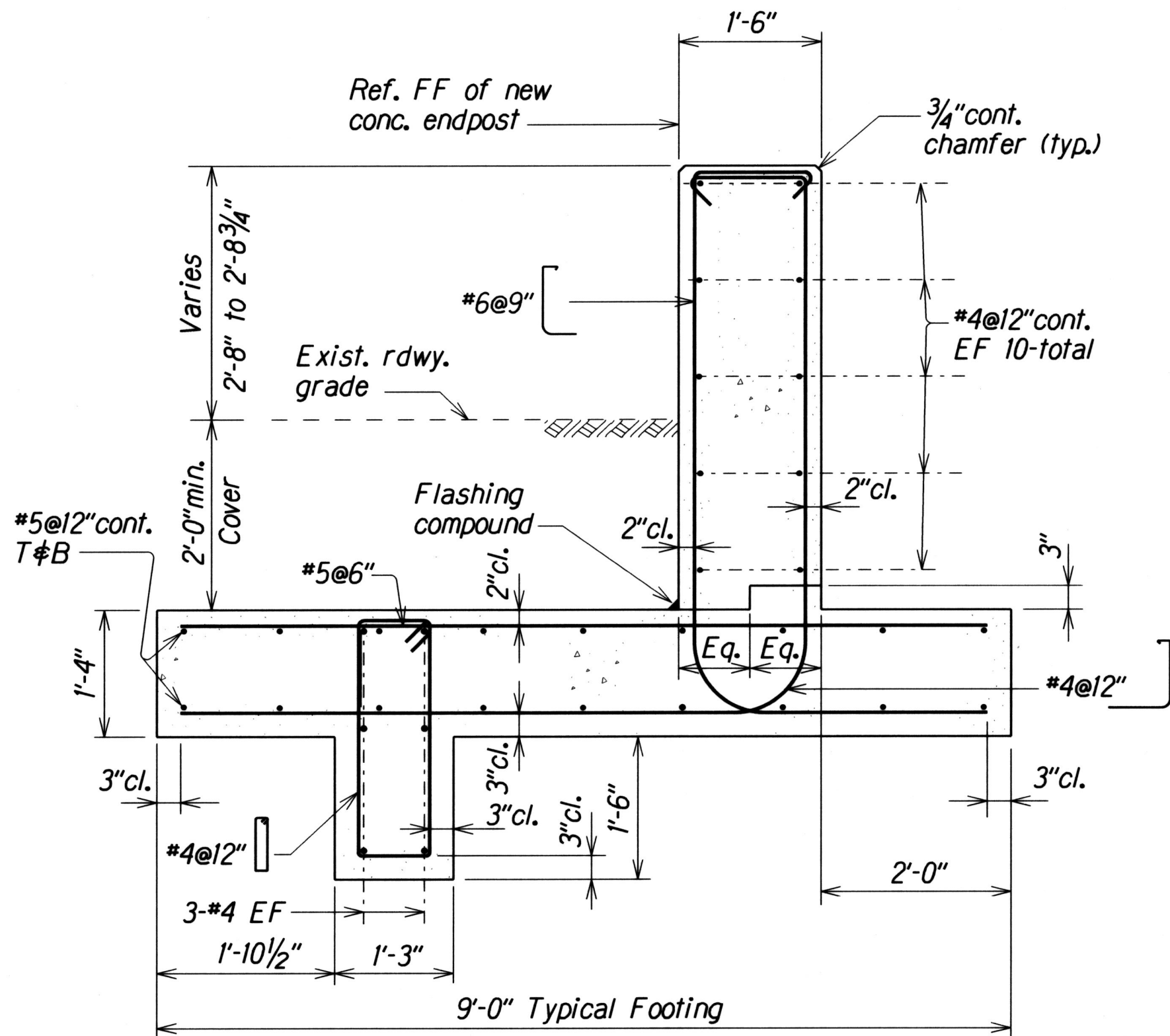
SHEET No. Q33 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	103	193



PARTIAL ISOMETRIC VIEW
TYPE "D2A" ENDPOST

Not to Scale



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

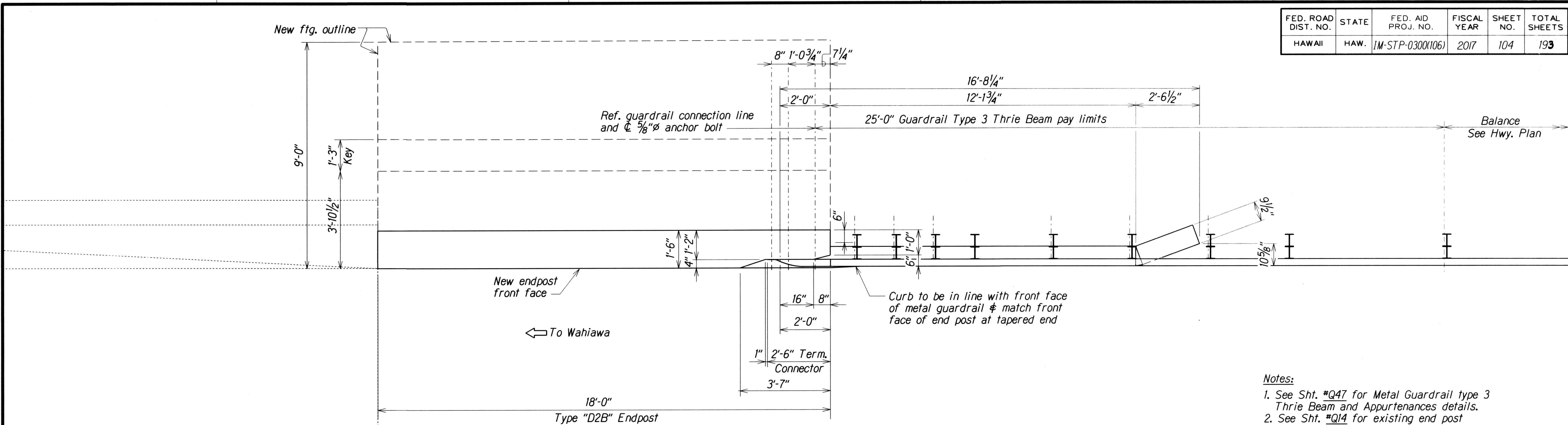
TYPE "D2A" END POST SECTIONS AND DETAILS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SITES D, H, J, K, L, FF, HH AND II
TYPE "D2A" END POST SECTIONS AND DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted Date: Jan, 2017

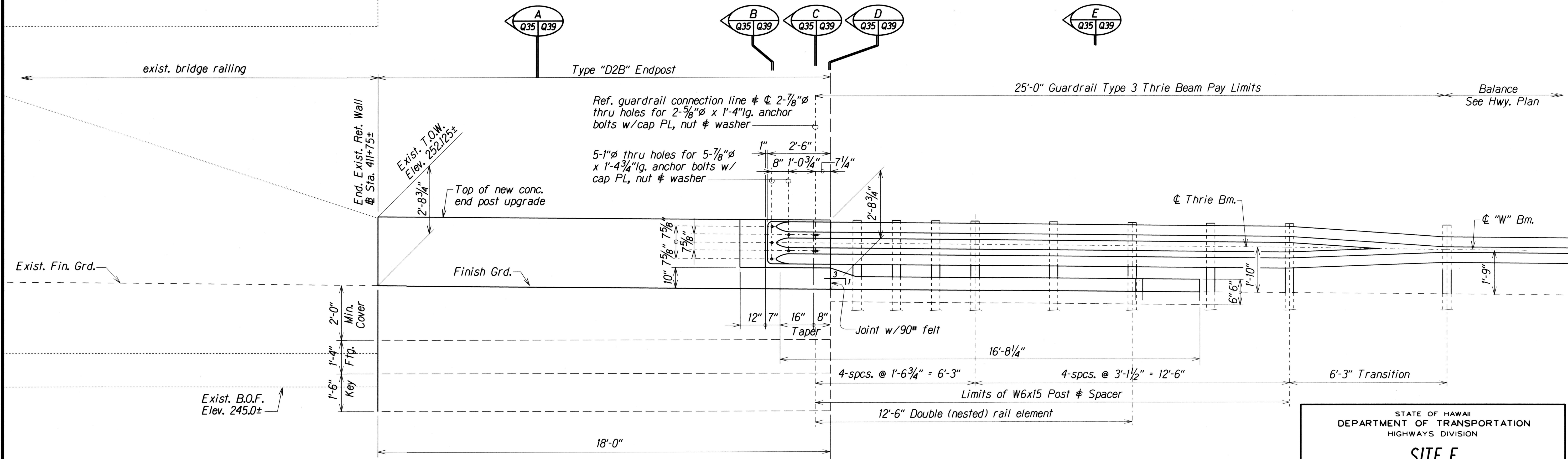
SHEET No. Q34 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	104	193



- Notes:
1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
 2. See Sht. #Q14 for existing end post removal.

PLAN



ELEVATION

TYPE "D2B" END POST PLAN and ELEVATION

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

ORIGINAL PLAN	DATE	XXX 1997
DESIGNED BY	XXX	XXX 1997
NOTED BY	XXX	XXX 1997
CHECKED BY	XXX	XXX 1997

db3.kale.projects.M-STP-0300(106)_q35

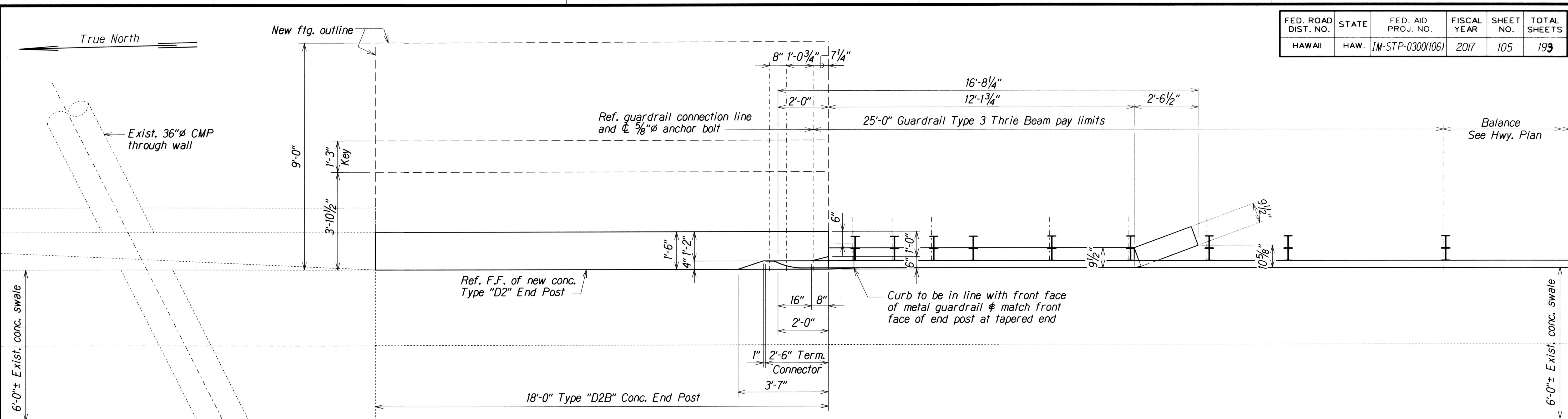
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE E
TYPE "D2B" END POST PLAN and ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

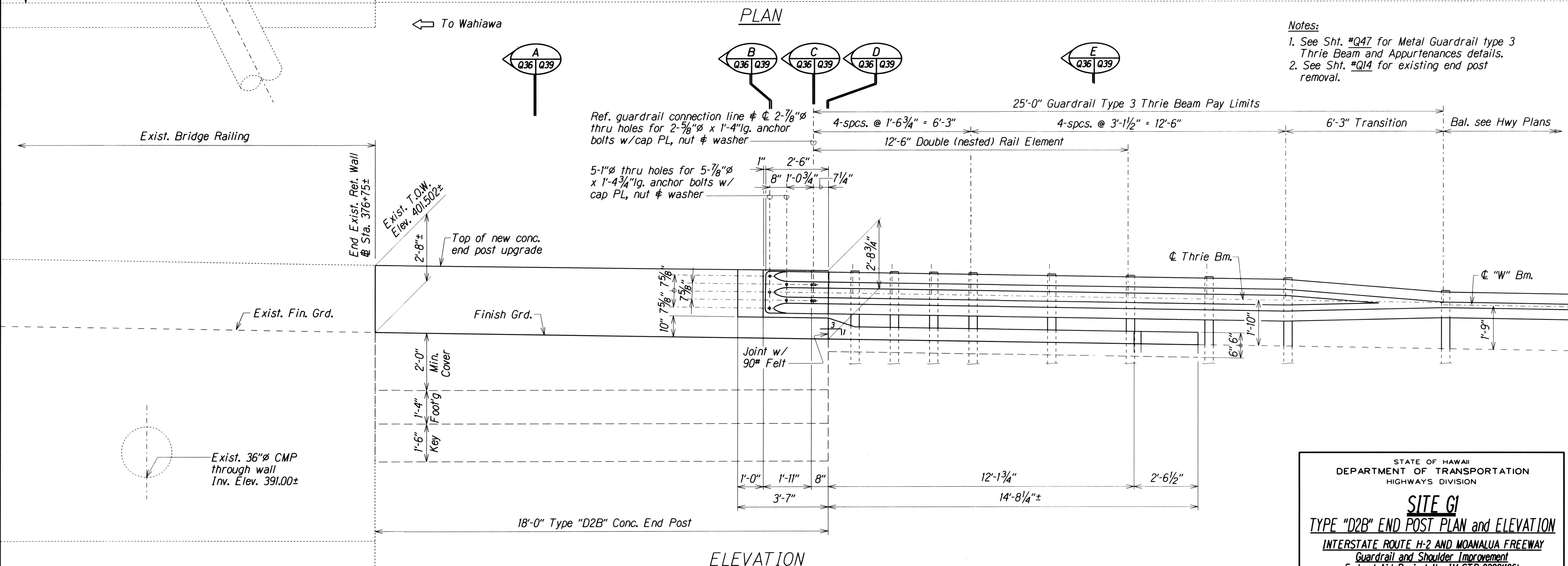
Scale: As Noted Date: Jan., 2017

SHEET No. Q35 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	105	199



PLAN



ELEVATION

TYPE "D2B" END POST PLAN and ELEVATION

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

- Notes:
1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
 2. See Sht. #Q14 for existing end post removal.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE G1

TYPE "D2B" END POST PLAN and ELEVATION

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

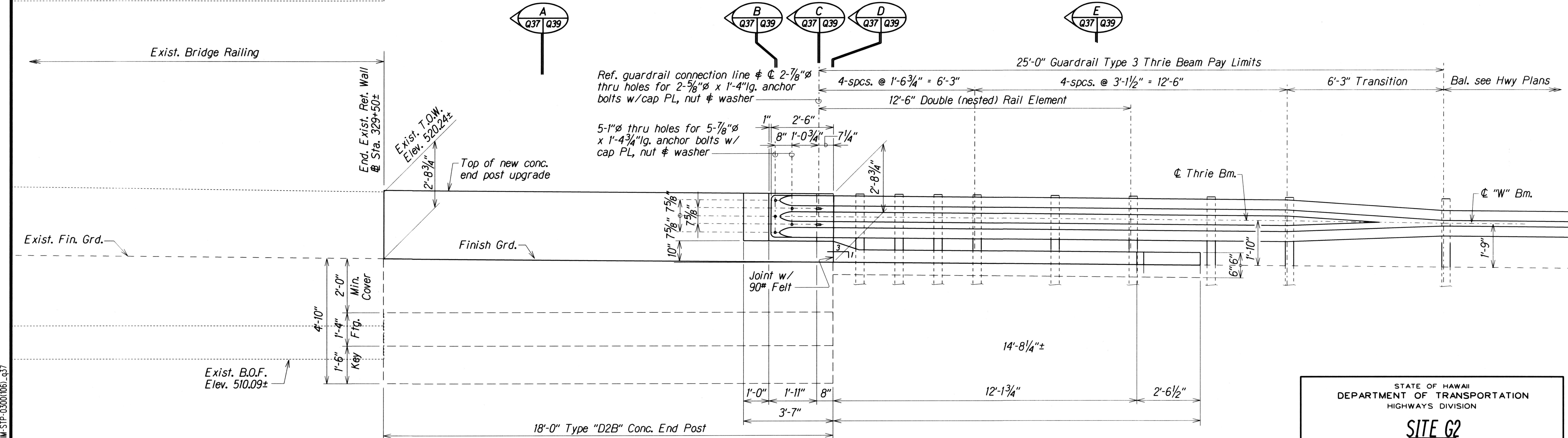
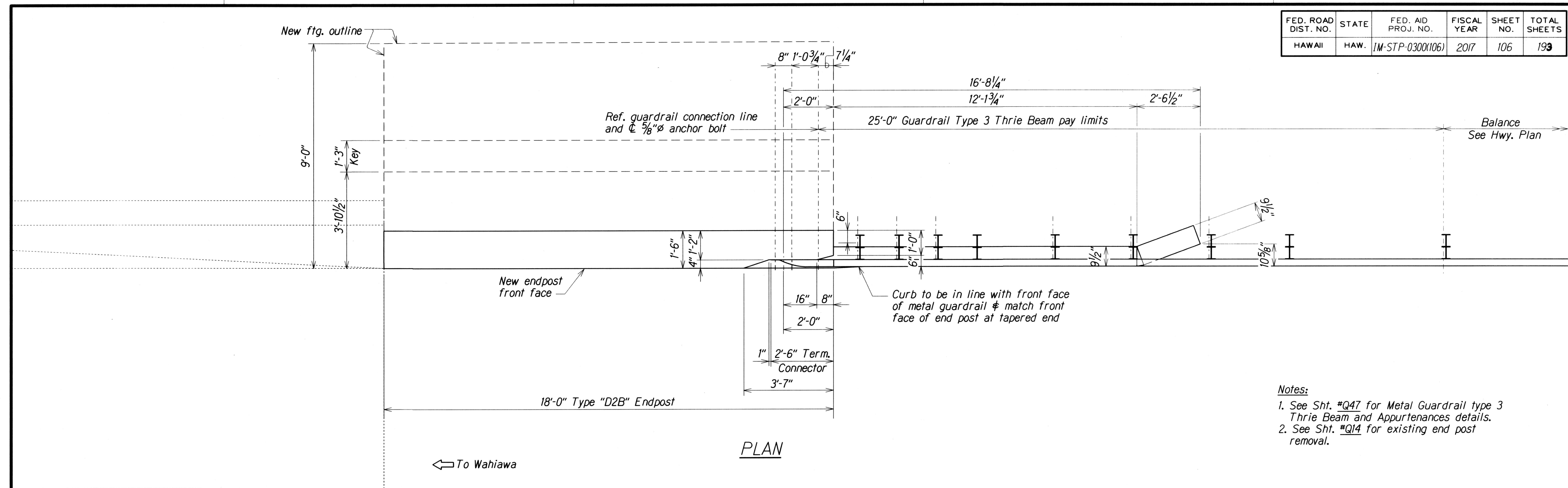
Scale: As Noted Date: Jan., 2017

SHEET No. Q36 OF 52 SHEETS

ORIGINAL PLAN	DATE	XXX 1997
DESIGNED BY	XXX	XXX 1997
CHECKED BY	XXX	XXX 1997
IN	XXX	XXX 1997

db3.kate.projects.1M-STP-0300(106)-Q36

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	106	193



TYPE "D2B" END POST PLAN and ELEVATION

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

ORIGINAL PLAN	DATE	XXX 1997
DESIGNED BY	XXX	XXX 1997
NOTED BY	XXX	XXX 1997
CHECKED BY	XXX	XXX 1997

db3.kate.projects.M-STP-0300(106).q37

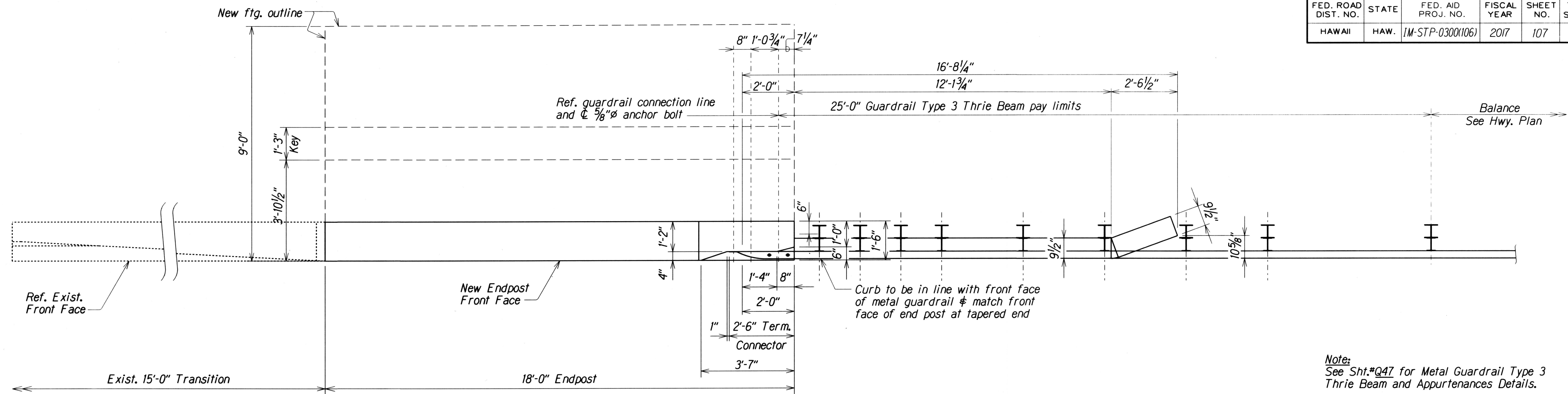
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE G2
TYPE "D2B" END POST PLAN and ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. IM-STP-0300(106)

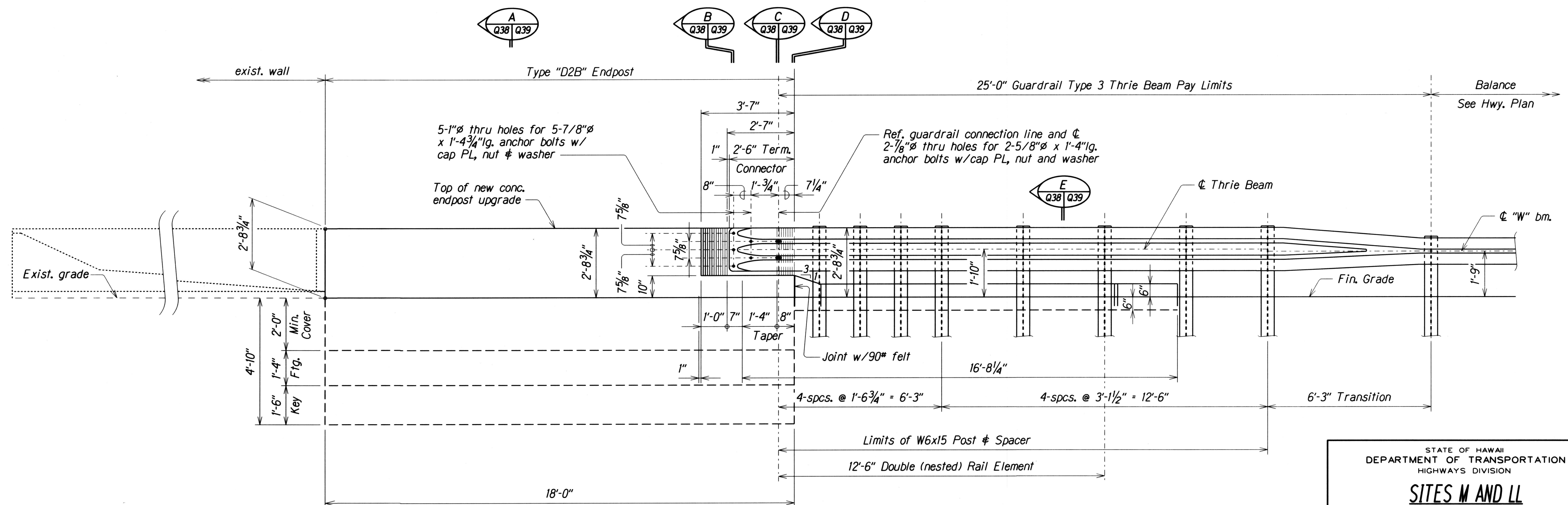
Scale: As Noted
Date: Jan., 2017

SHEET No. Q37 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	107	193



Note:
See Sht. #Q47 for Metal Guardrail Type 3 Thrie Beam and Appurtenances Details.



TYPE "D2B" END POST PLAN AND ELEVATION

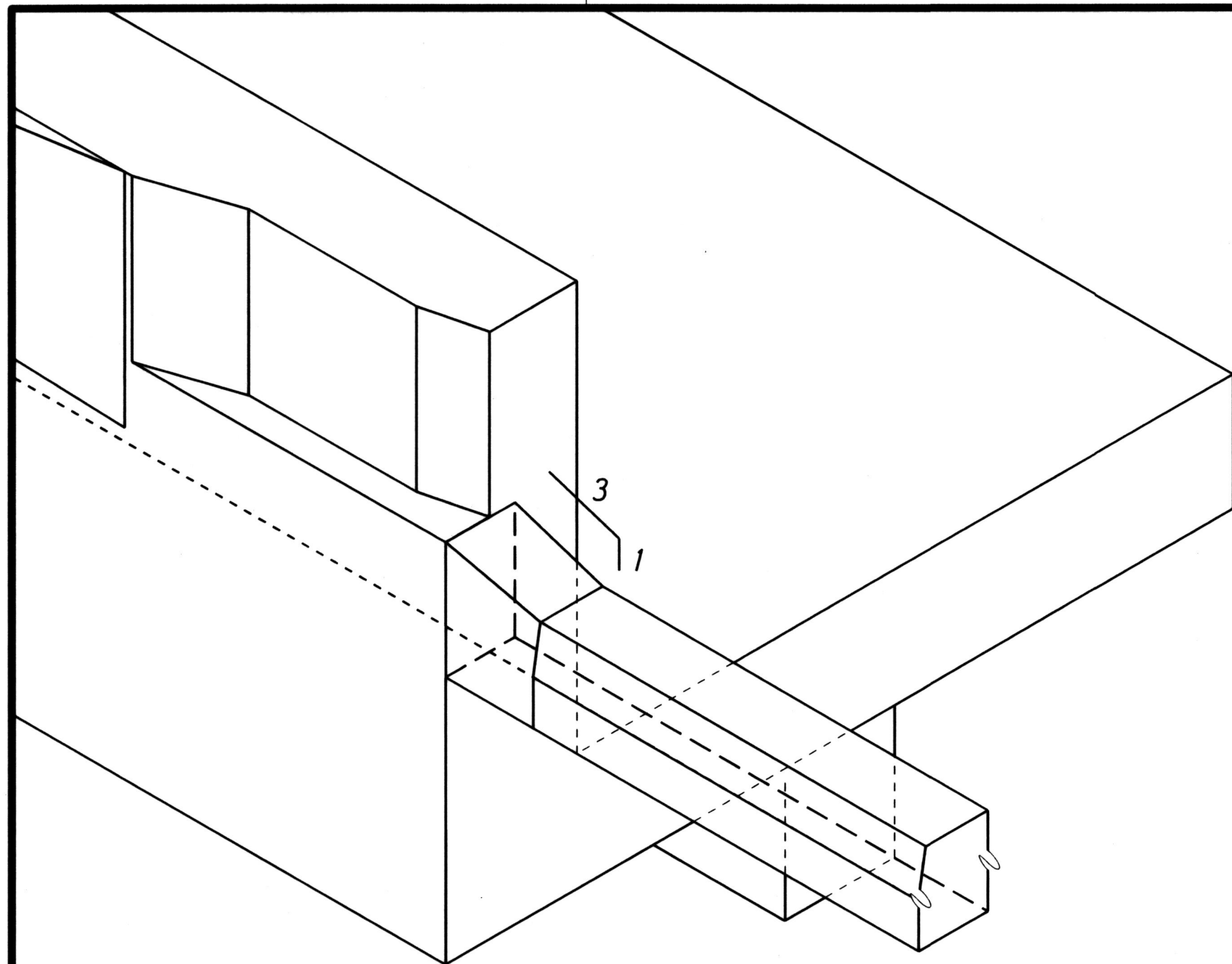
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITES M AND LL
TYPE "D2B" END POST PLAN AND ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. IM-STP-0300(106)

Scale: As Noted
Date: Jan., 2017

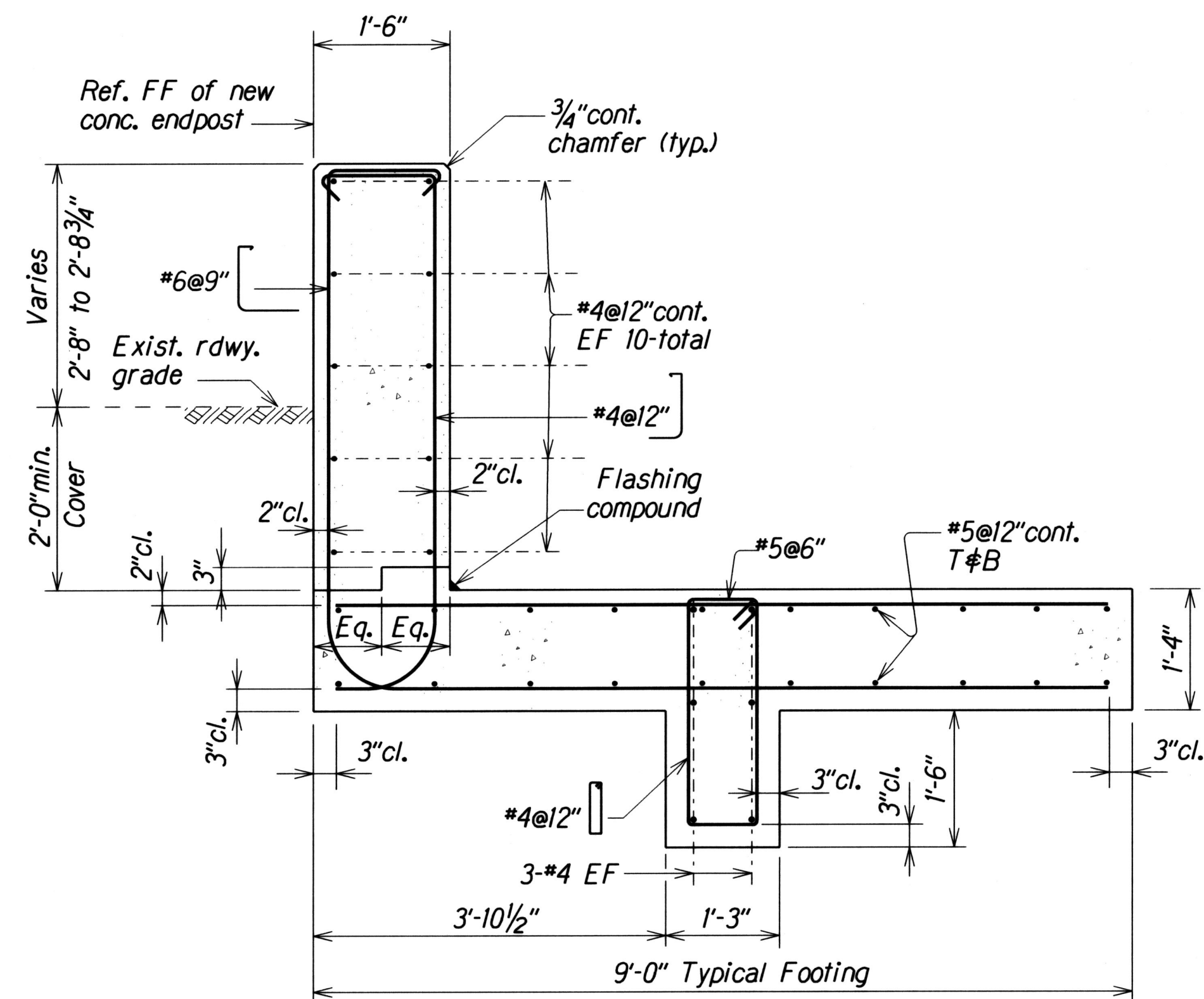
SURVEY PLOTTED BY: _____ DATE: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 ORIGINAL PLAN: _____
 NOTE BOOK: _____
 NO. _____
 do3.kole.projects.M-STP-0300(106)-Q38

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(106)	2017	108	193

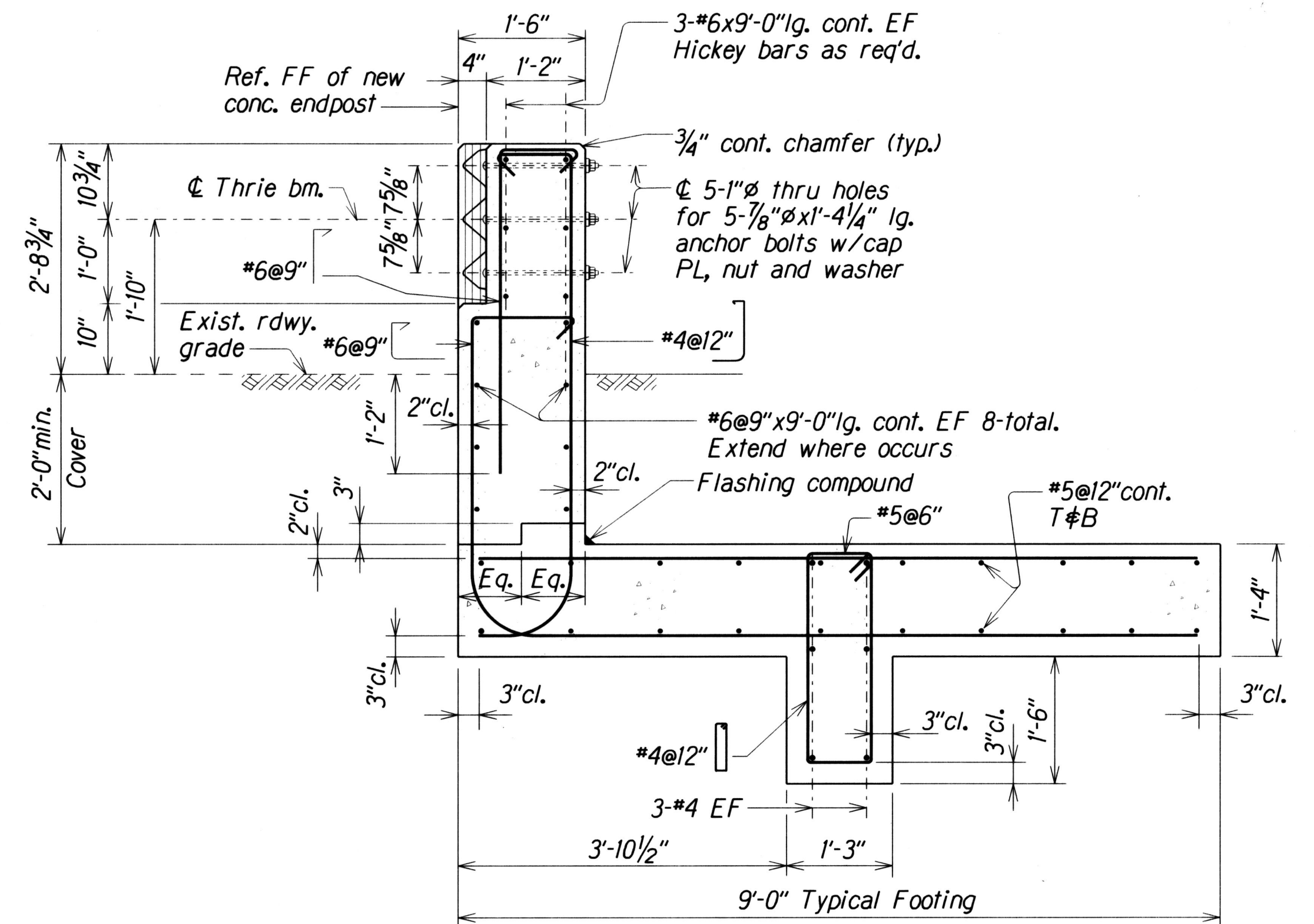


PARTIAL ISOMETRIC VIEW
TYPE "D2B" ENDPOST

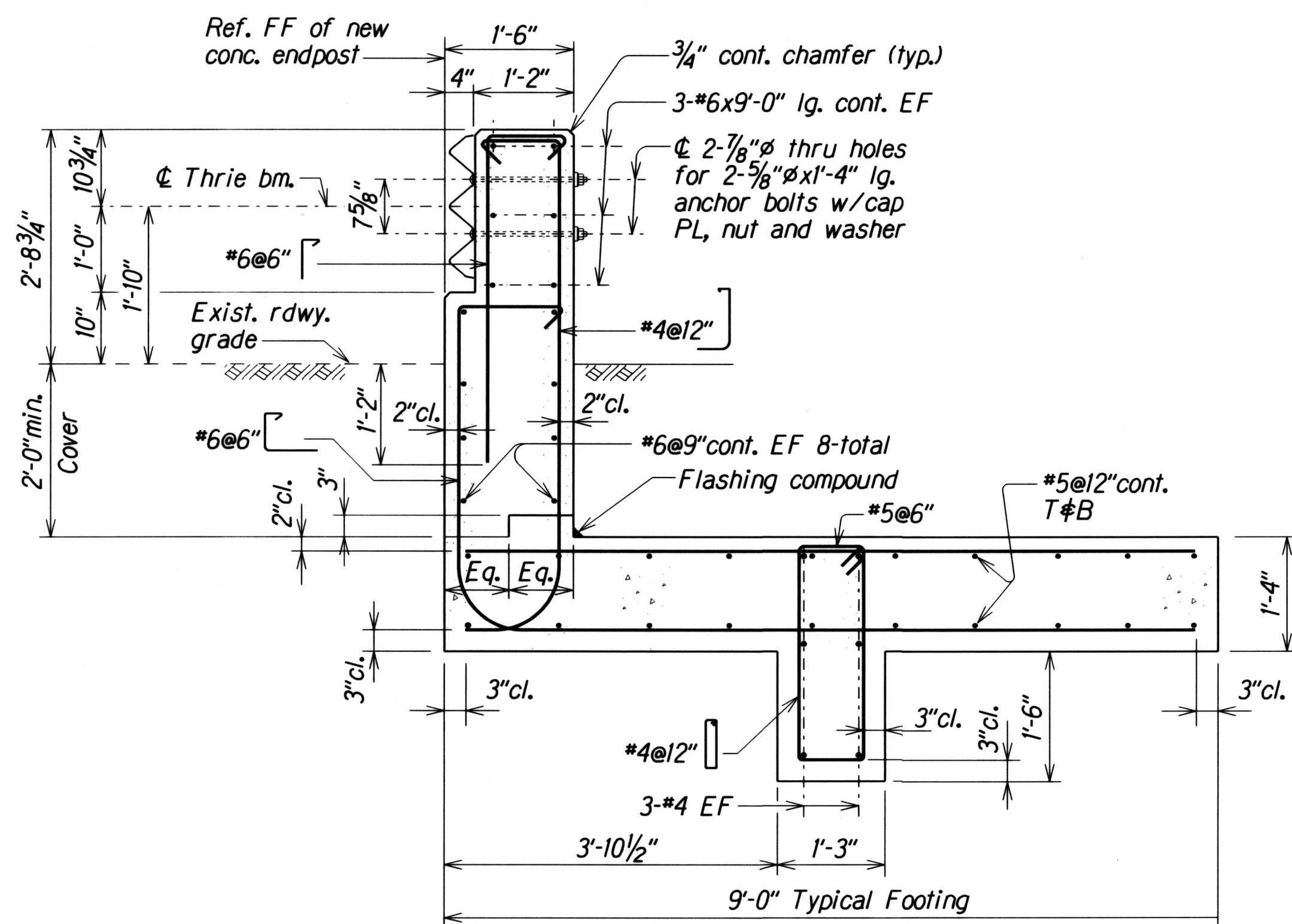
Not to Scale



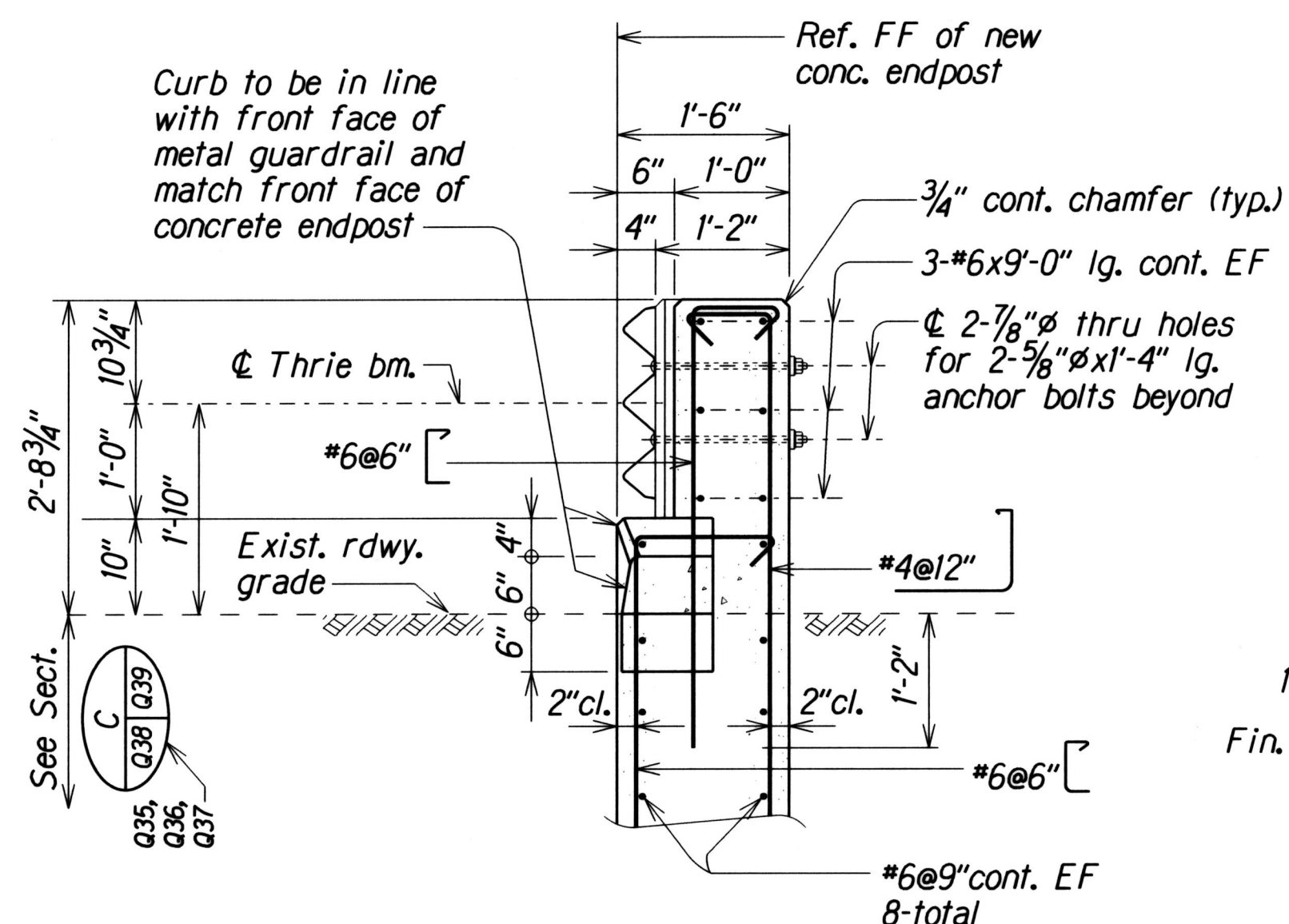
SECTION A
Scale: 3/4" = 1'-0"
Q35, Q36, Q37



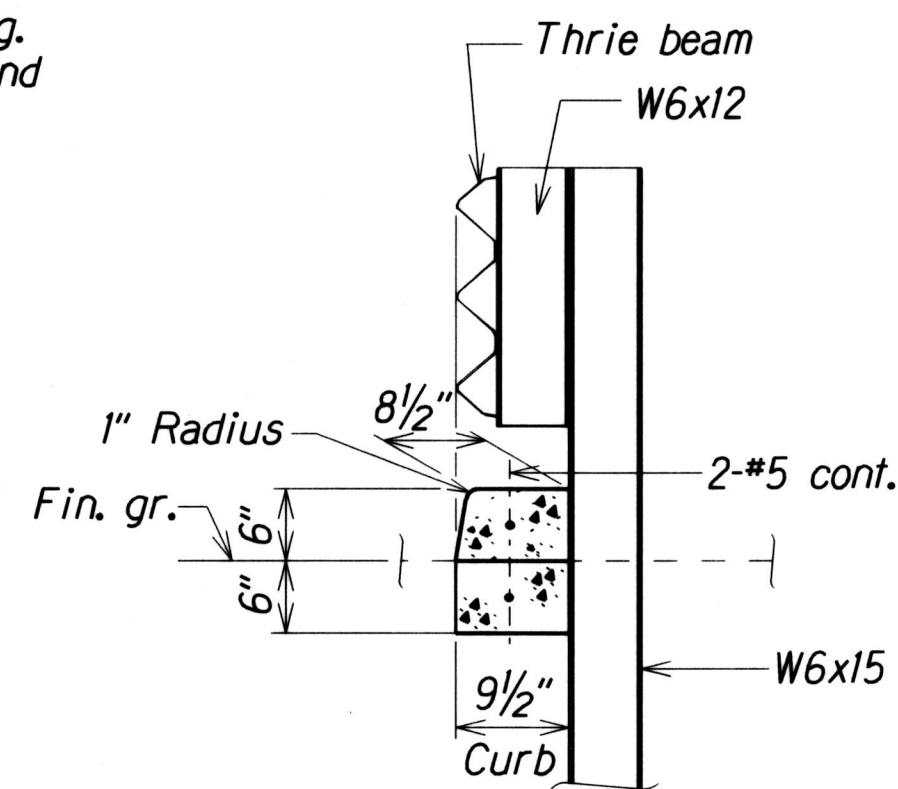
SECTION B
Scale: 3/4" = 1'-0"
Q35, Q36, Q37



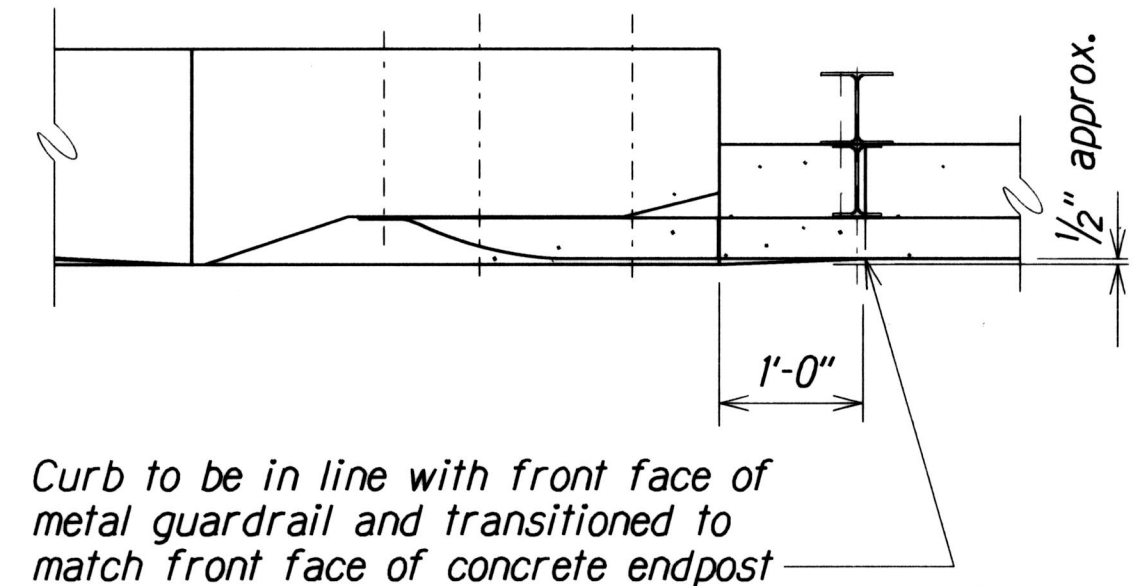
SECTION C
Scale: 3/4" = 1'-0"
Q35, Q36, Q37



SECTION D
Scale: 3/4" = 1'-0"
Q35, Q36, Q37



SECTION E
Scale: 3/4" = 1'-0"
Q35, Q36, Q37



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

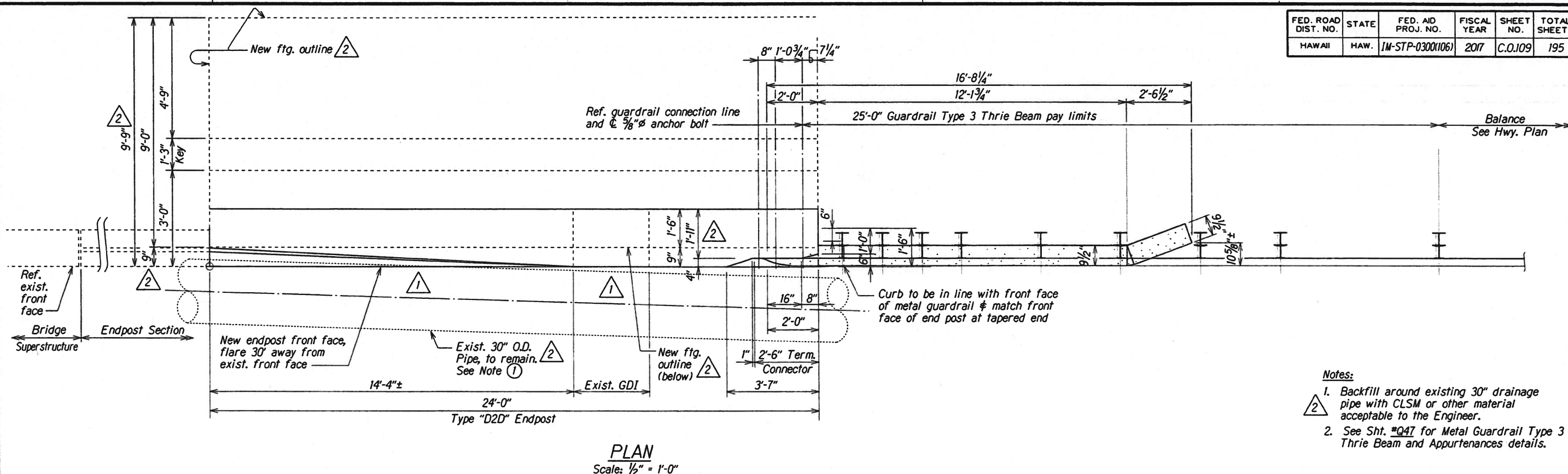
TYPE "D2B" UPGRADE END POST SECTIONS AND DETAILS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SITES E, G1, G2, M AND LL
TYPE "D2B" END POST SECTIONS AND DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
GUARDRAIL AND SHOULDER IMPROVEMENTS
Federal Aid Project No. IM-STP-0300(106)

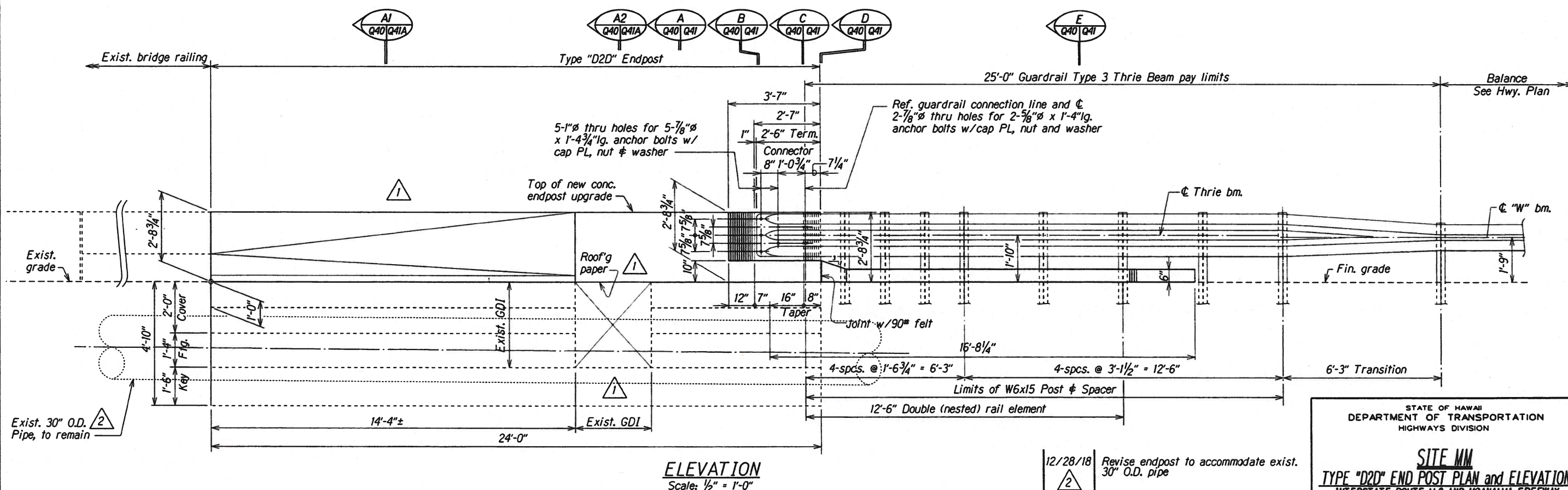
Scale: As Noted Date: Jan., 2017

SHEET No. Q39 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	C.O.109	195



- Notes:**
- Backfill around existing 30" drainage pipe with CLSM or other material acceptable to the Engineer.
 - See Sht. #Q47 for Metal Guardrail Type 3 Thrie Beam and Appurtenances details.



TYPE "D2D" END POST PLAN AND ELEVATION

12/28/18	Revise endpost to accommodate exist. 30" O.D. pipe
10/17/18	Revised to Type "D2D" endpost at Site MM, locate existing GDI
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE MM
TYPE "D2D" END POST PLAN and ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

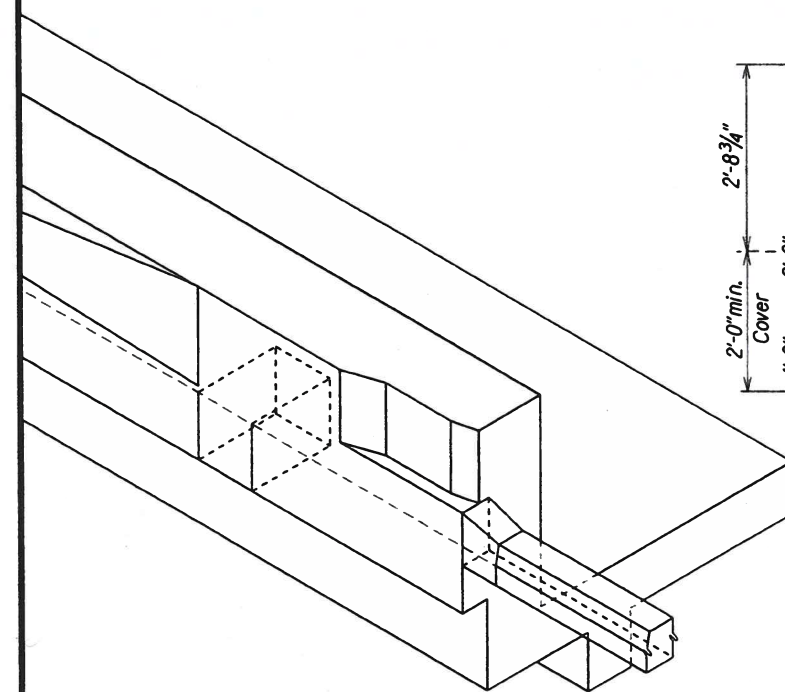
Scale: As Noted Date: Oct. 2018

SHEET No. OF SHEETS

DESIGNED BY	XXX
CHECKED BY	XXX
DATE	XXX/XXX/XXX
ORIGINAL PLAN	XXX
NOTE BOOK	XXX
DATE	XXX/XXX/XXX

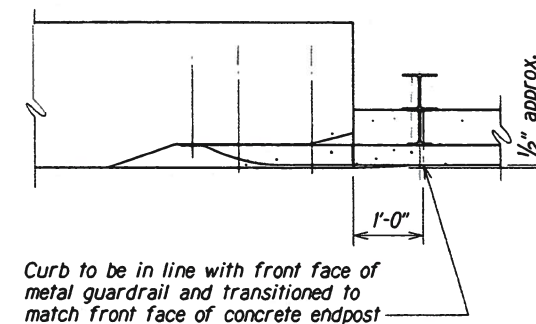
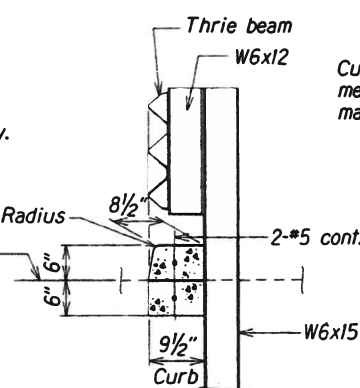
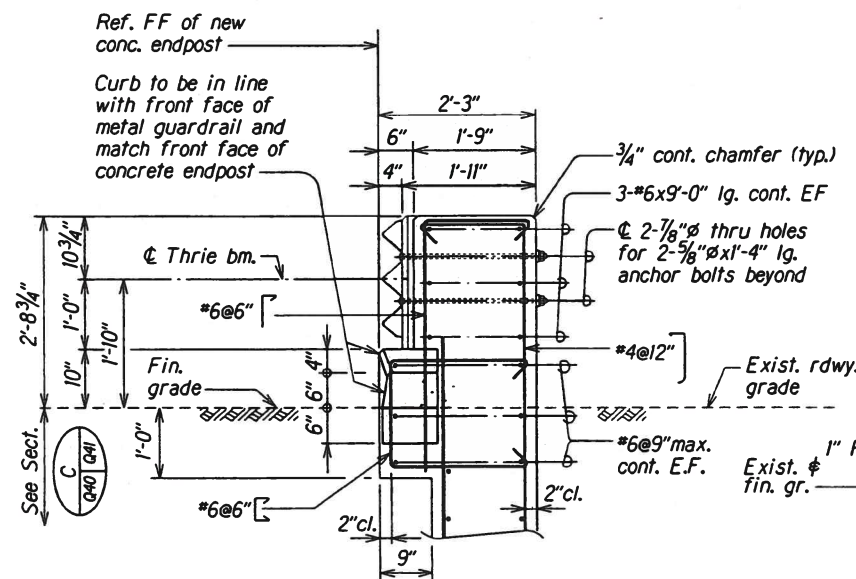
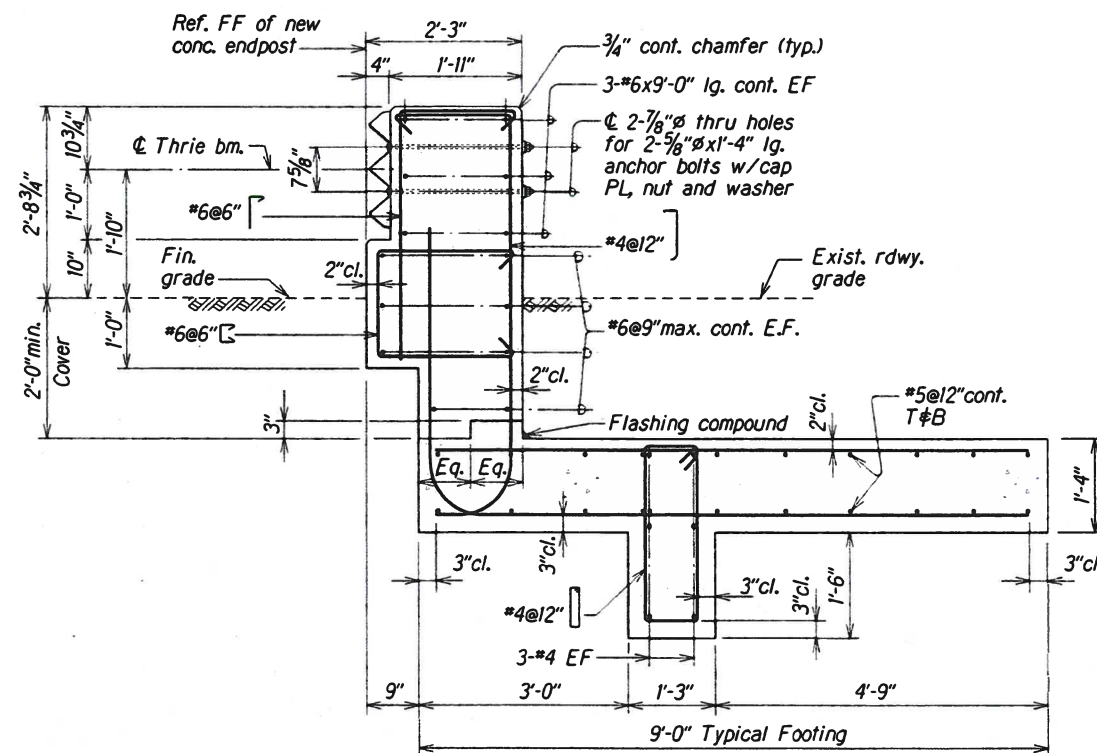
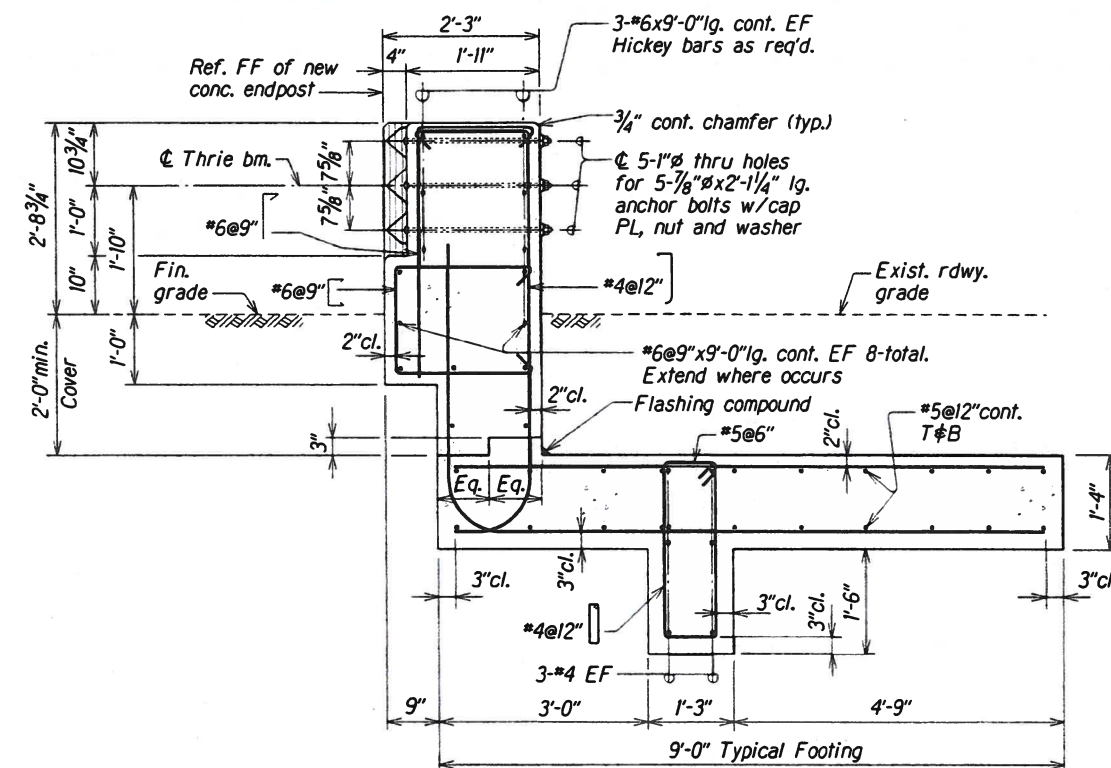
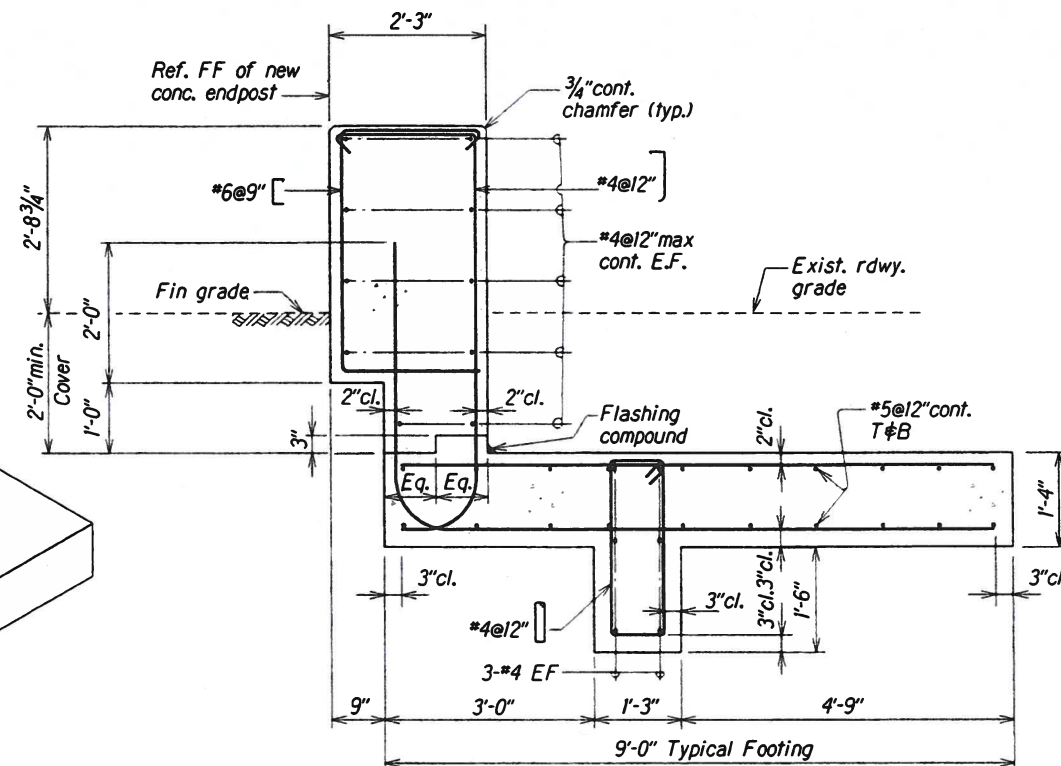
db3.kate.projects.1M-STP-0300(106).c40

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	110	195



PARTIAL ISOMETRIC VIEW
SITE "MM" TYPE "D2D" ENDPOST

Not to Scale



SITE "MM" TYPE "D2D" END POST SECTIONS AND DETAILS

SURVEY PLOTTED BY	DATE
DRAWN BY	XXX 199
TRACED BY	XXX 199
NOTES REVISION	XXX 199
CHECKED BY	XXX 199
DATE	XXX 199

003 late projects 1M-STP-0300(106)-q41

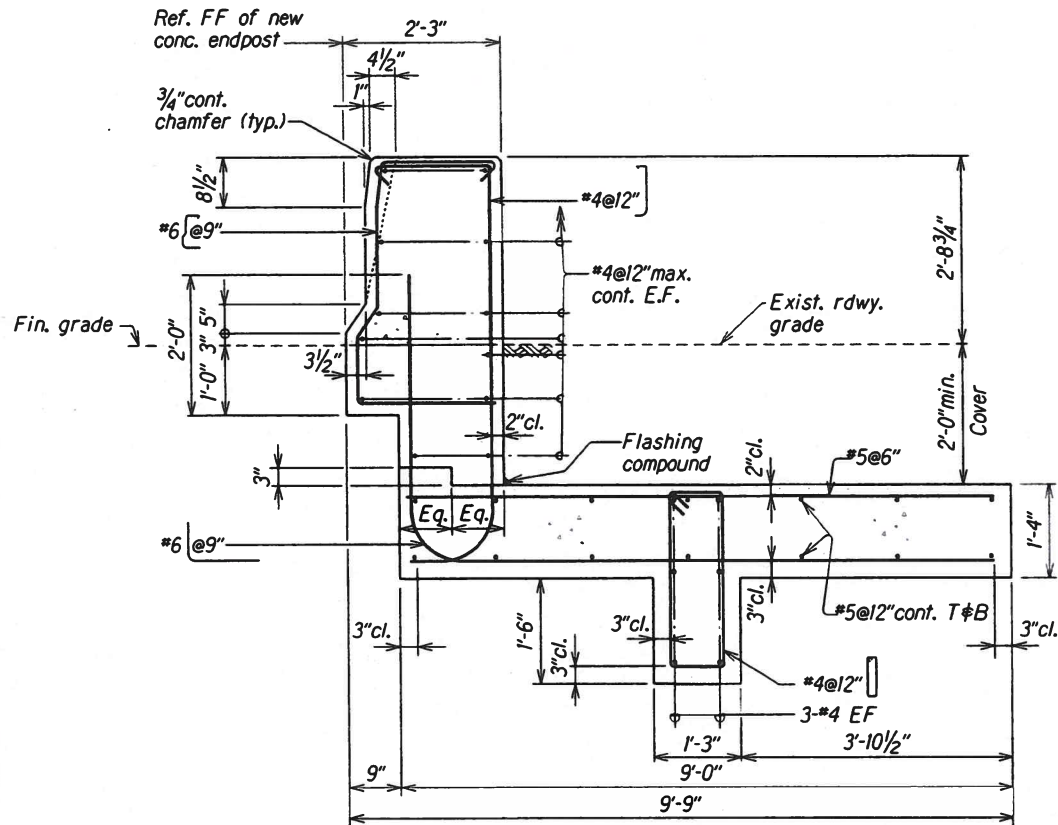
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE MM
TYPE "D2D" END POST SECTIONS AND DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
GUARDRAIL AND SHOULDER IMPROVEMENTS
Federal Aid Project No. 1M-STP-0300(106)

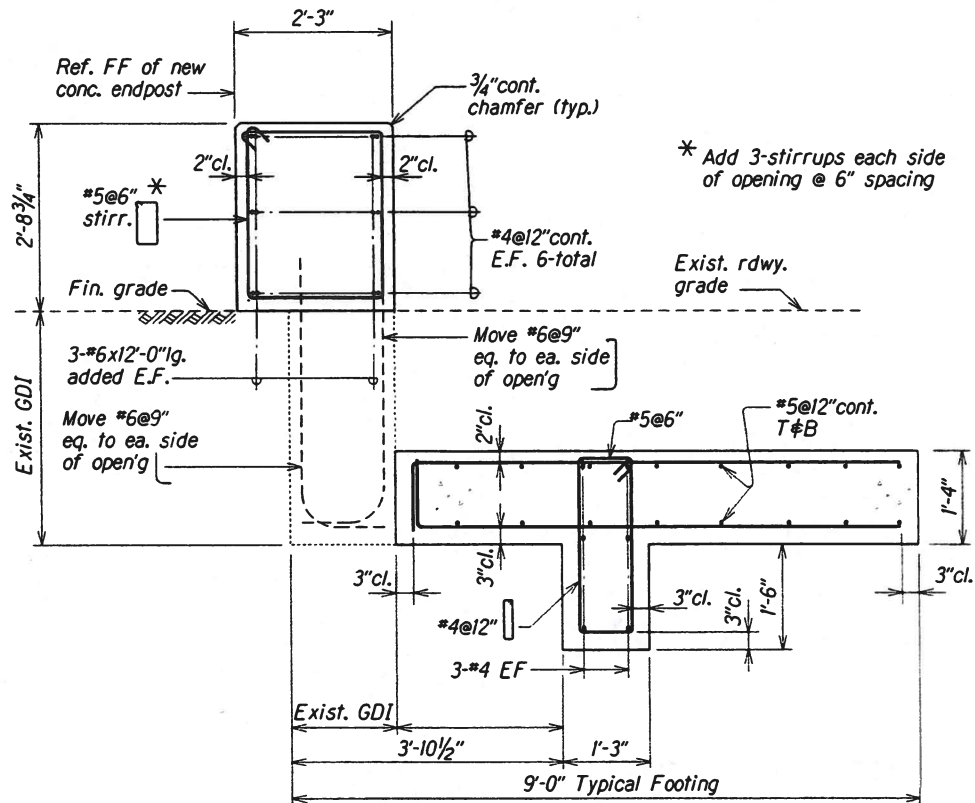
Scale: As Noted Date: Dec. 2018

SHEET No. Q41 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	C.O.110S-1	195



SECTION A1
Scale: 3/4" = 1'-0"



SECTION A2
Scale: 3/4" = 1'-0"

TYPE "D2D" UPGRADE END POST SECTIONS AND DETAILS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	XXX 1991
	DESIGNED BY	XXX 1991
	QUANTITIES BY	XXX 1991
	CHECKED BY	XXX 1991

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JAN 4 - 2019

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

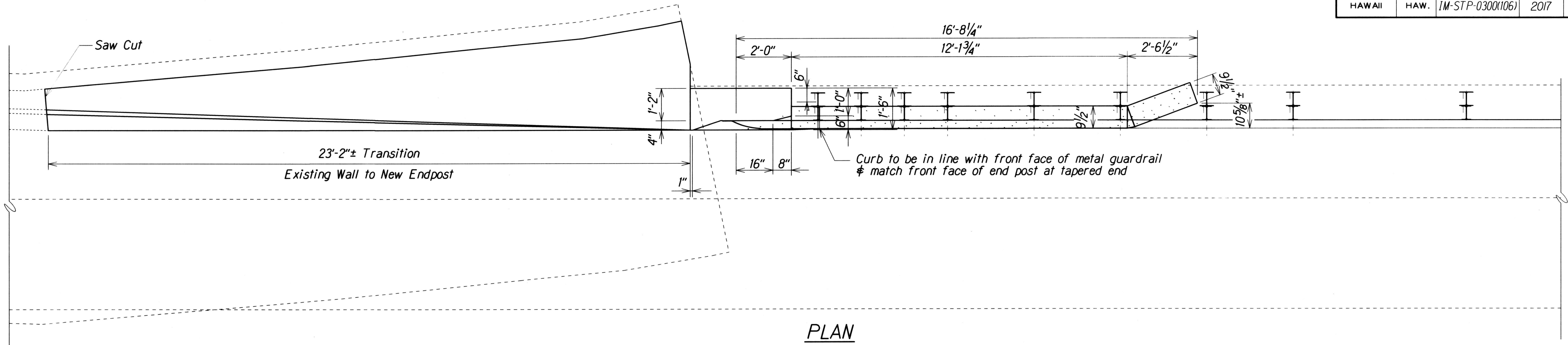
SITE MM
TYPE "D2D" END POST SECTIONS and DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
GUARDRAIL AND SHOULDER IMPROVEMENTS
Federal Aid Project No. 1M-STP-0300(106)

10/17/18
New sheet, revised to Type "D2D" endpost at Site MM, locate existing GDI

DATE
REVISION

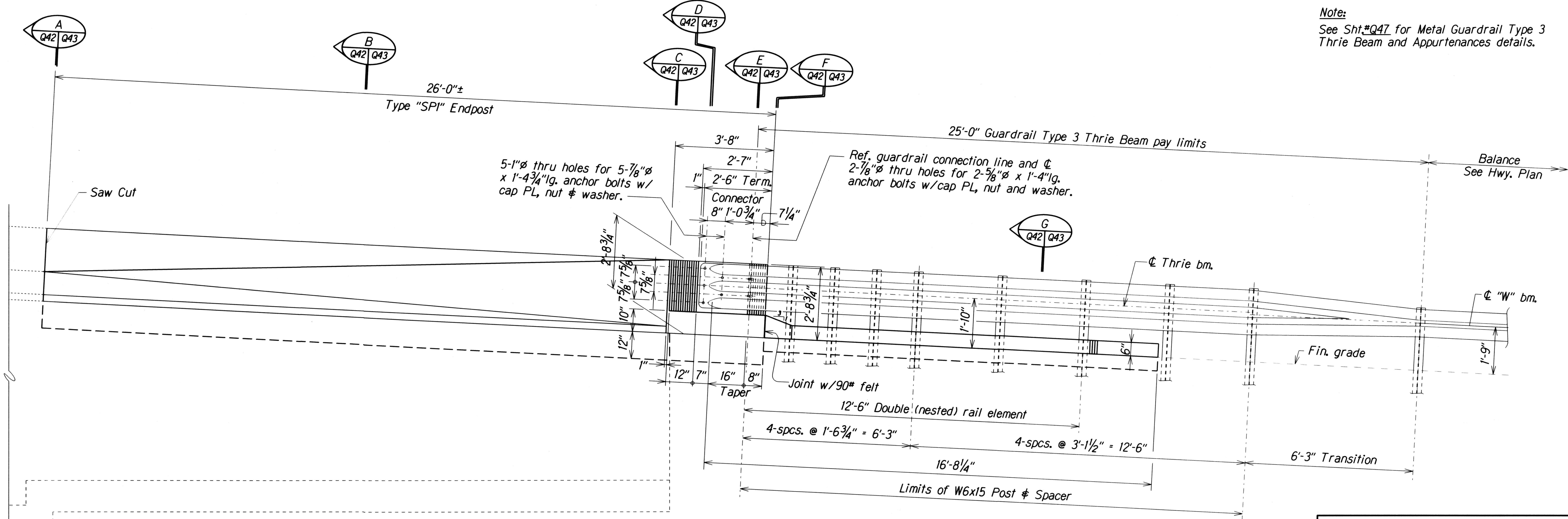
Scale: As Noted
Date: Oct. 2018

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	111	193



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

Note:
See Sht.#Q47 for Metal Guardrail Type 3 Thrie Beam and Appurtenances details.



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

TYPE "SPI" UPGRADE END POST PLAN AND ELEVATION
(SITE F)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE F
TYPE "SPI" UPGRADE
END POST PLAN AND ELEVATION
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted Date: Jan., 2017

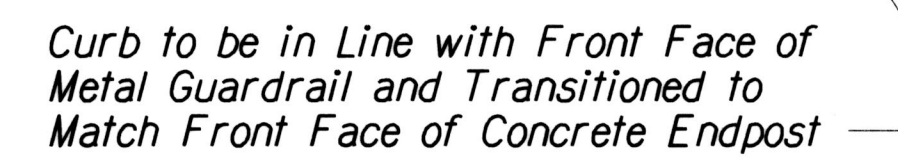
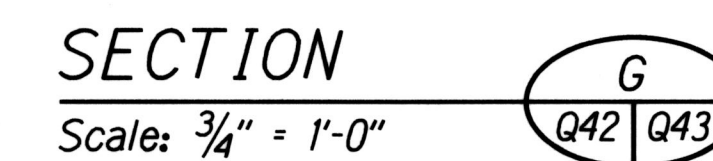
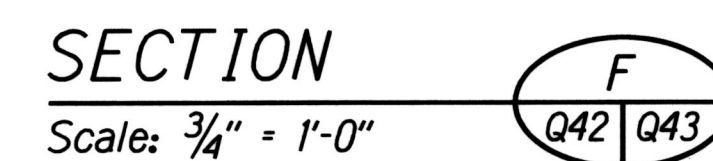
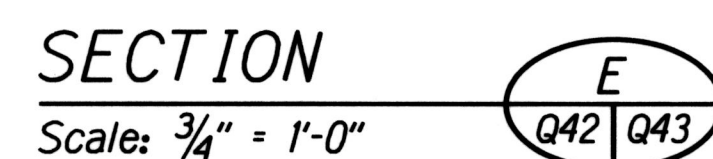
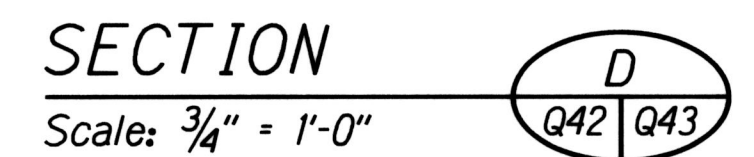
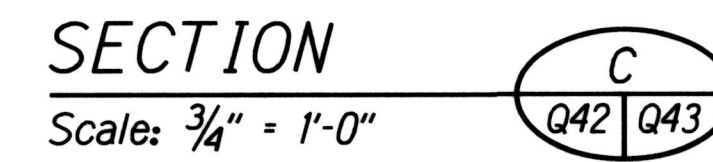
SHEET No. Q42 OF 52 SHEETS

DESIGNED BY	DATE
DRAWN BY	XXX 1997
CHECKED BY	XXX 1997
NOTED BY	XXX 1997
QUANTITIES BY	XXX 1997
DATE	XXX 1997

db3.kate.projects\1M-STP-0300(106).q42

A 3D perspective diagram of a road cross-section. It shows a ditch on the left, a curb in the middle, and a road surface on the right. A dashed line labeled "Finish Grade" indicates the ground level. Dimensions 1, 2, and 3 are shown for the curb and ditch.

Scale: Not to Scale



Scale: $\frac{3}{4}" = 1'-0"$

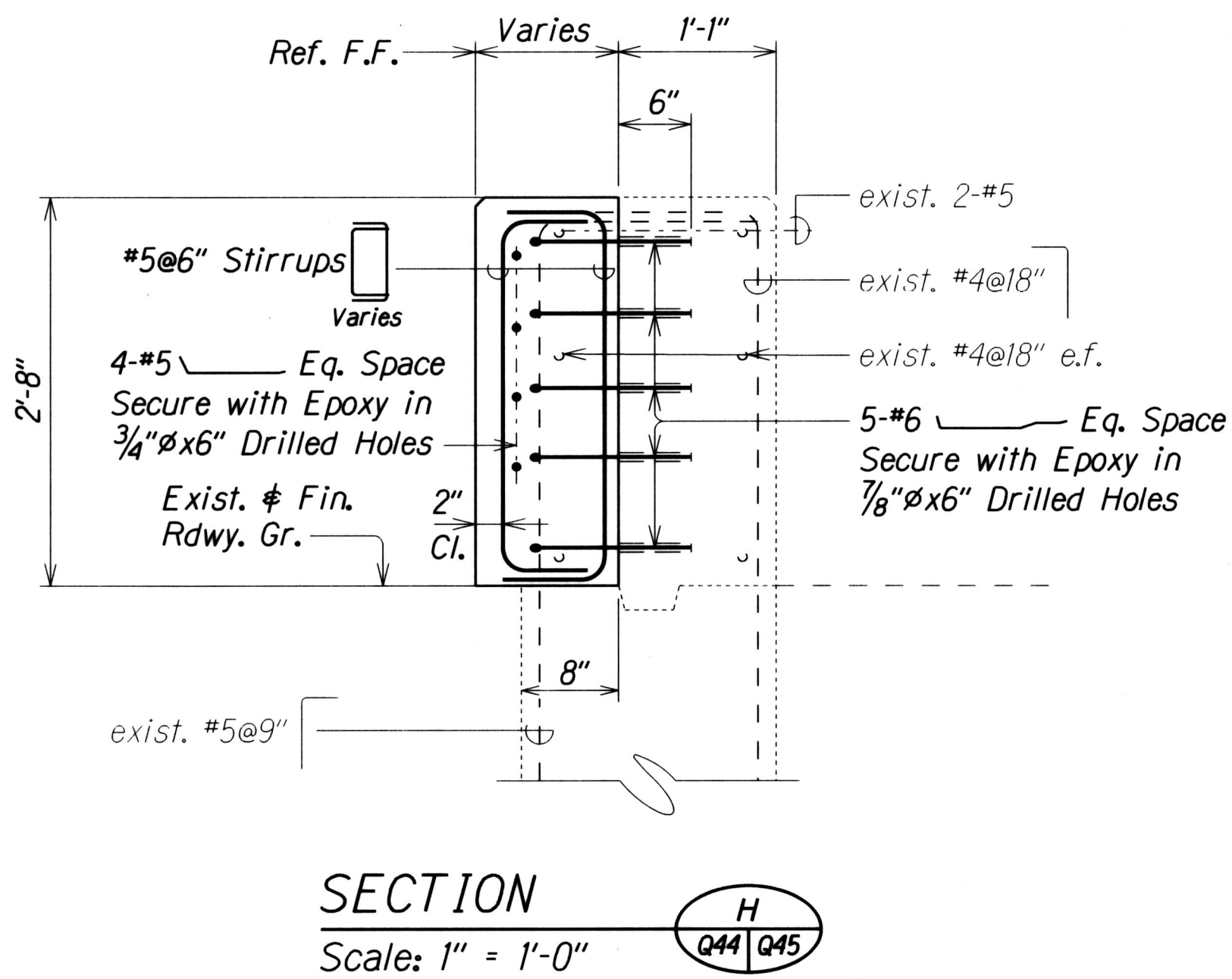
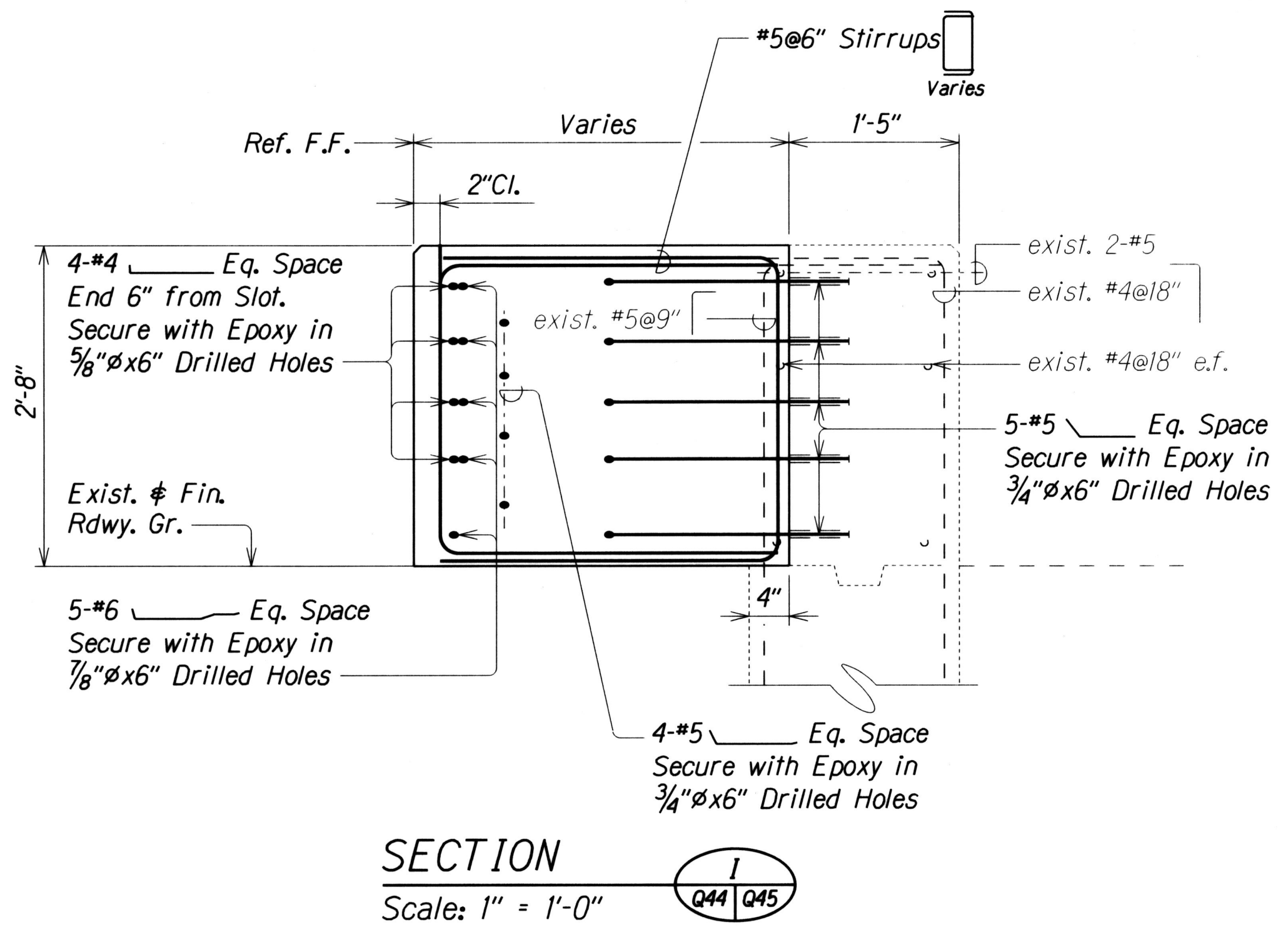
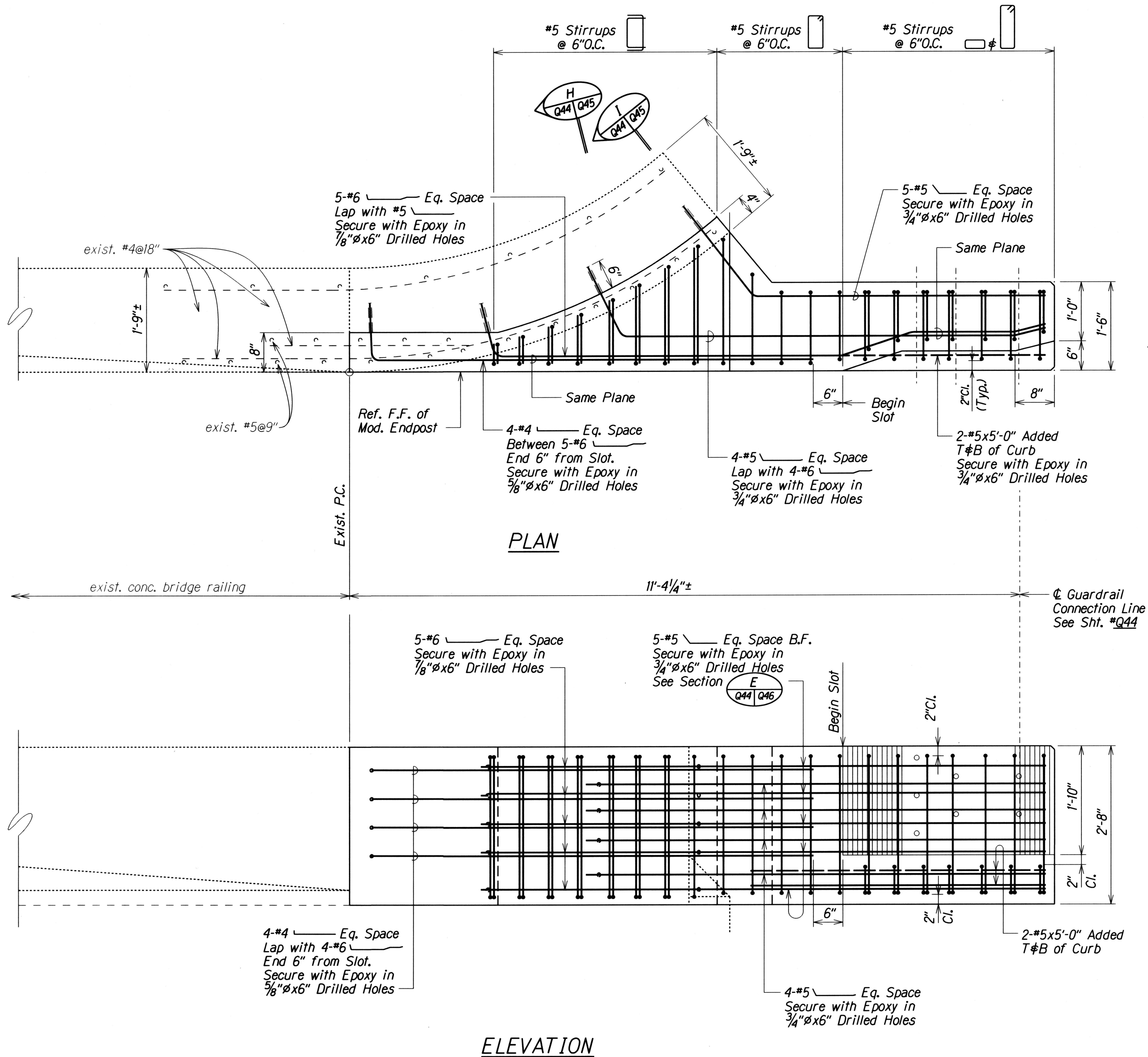
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE F
TYPE "SP" UPGRADE
ENDPOST SECTIONS AND DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300X106)

Scale: As Noted Date: Jan., 2017

SHEET No. 043 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	114	193



NOTE:

- Existing vertical rebars not show in Elevation for Clarity
- See Sht. #Q47 for Metal Guardrail Type 3 Thrie Beam and Appurtenances Details.

TYPE "SP2" END POST REINFORCING
Scale: 1"=1'-0"

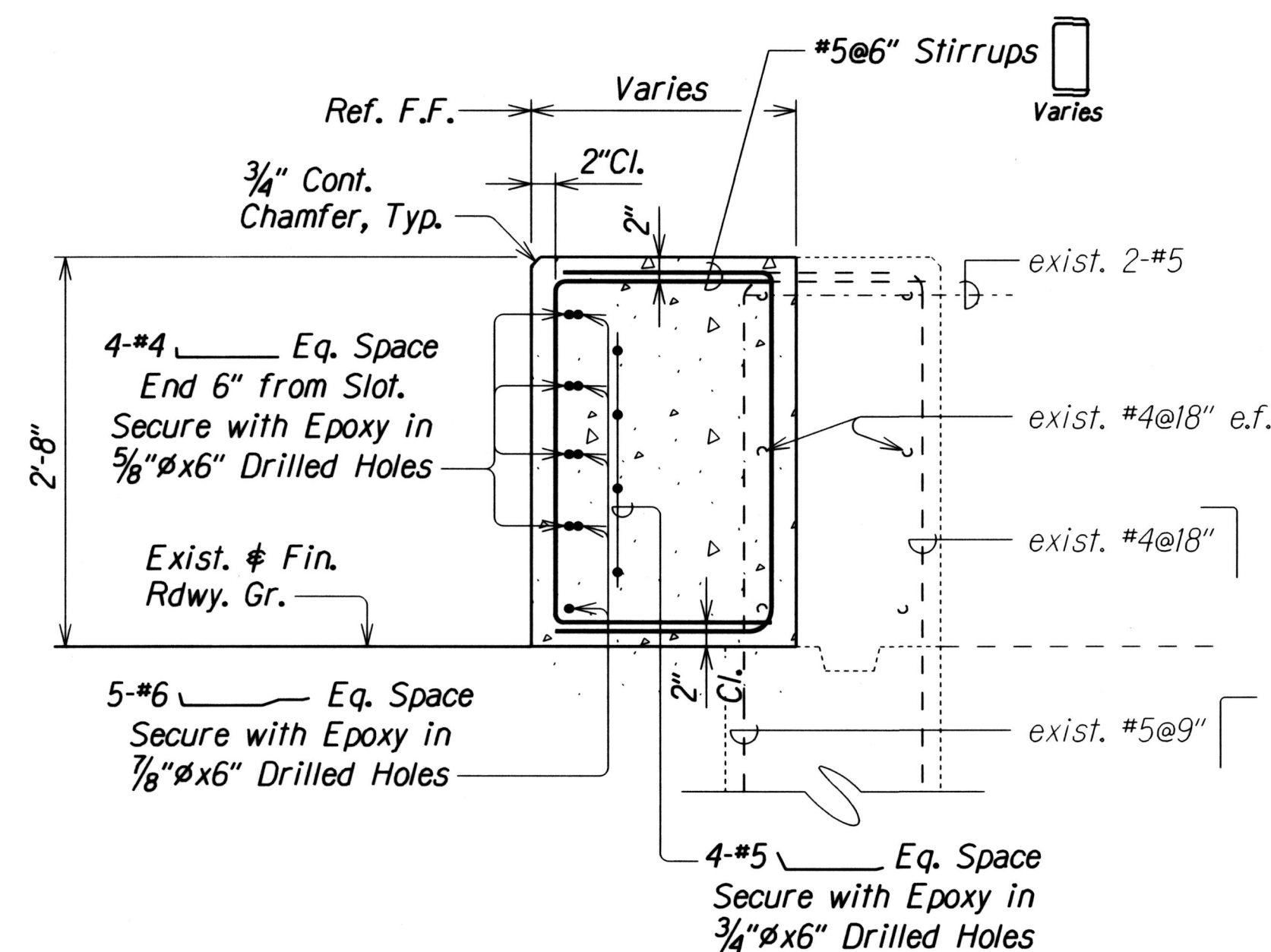
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITES N AND NN
TYPE "SP2" END POST
REINFORCEMENT PLAN AND ELEVATION
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

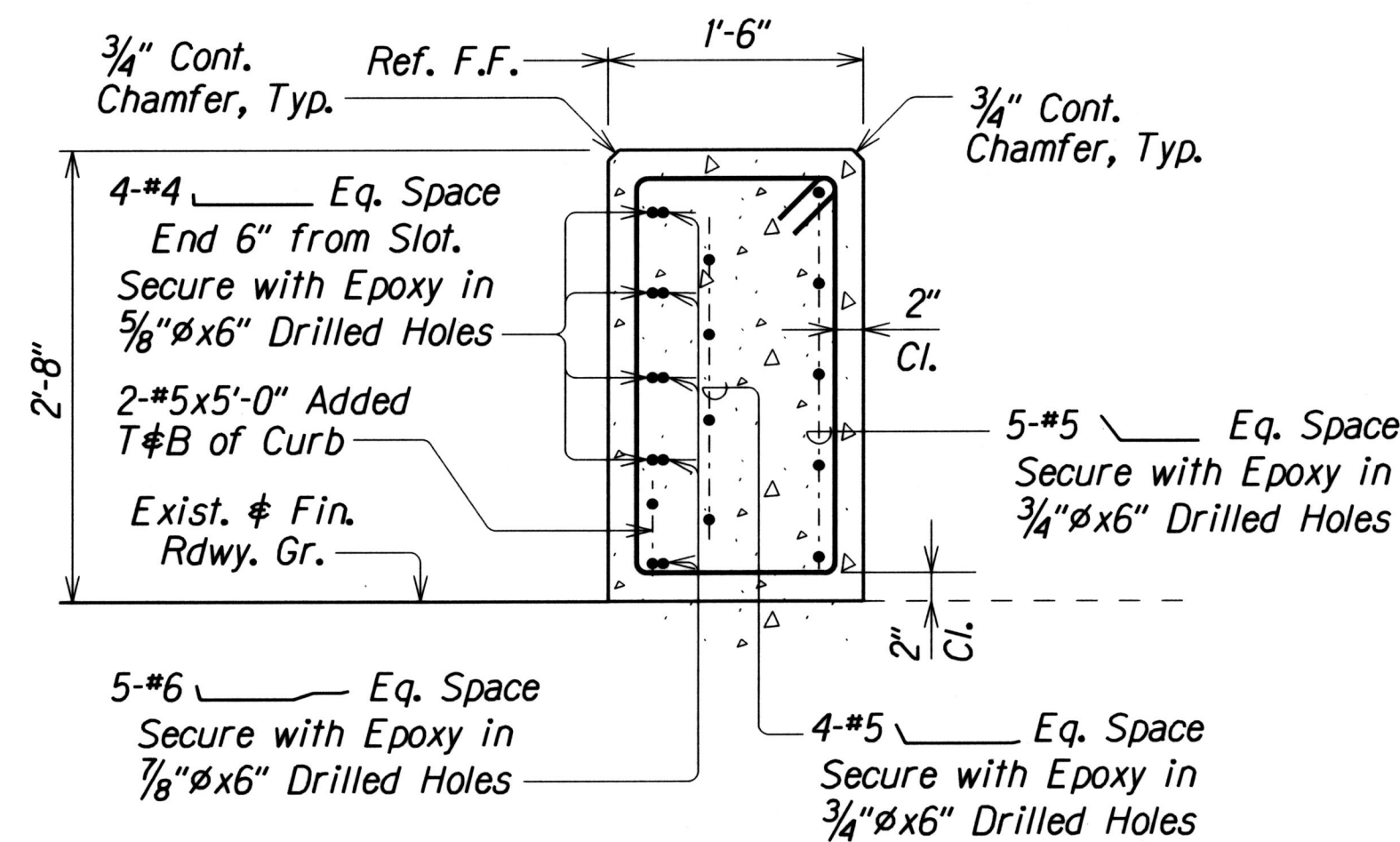
Scale: As Noted Date: Jan., 2017

SHEET No. Q45 OF 52 SHEETS

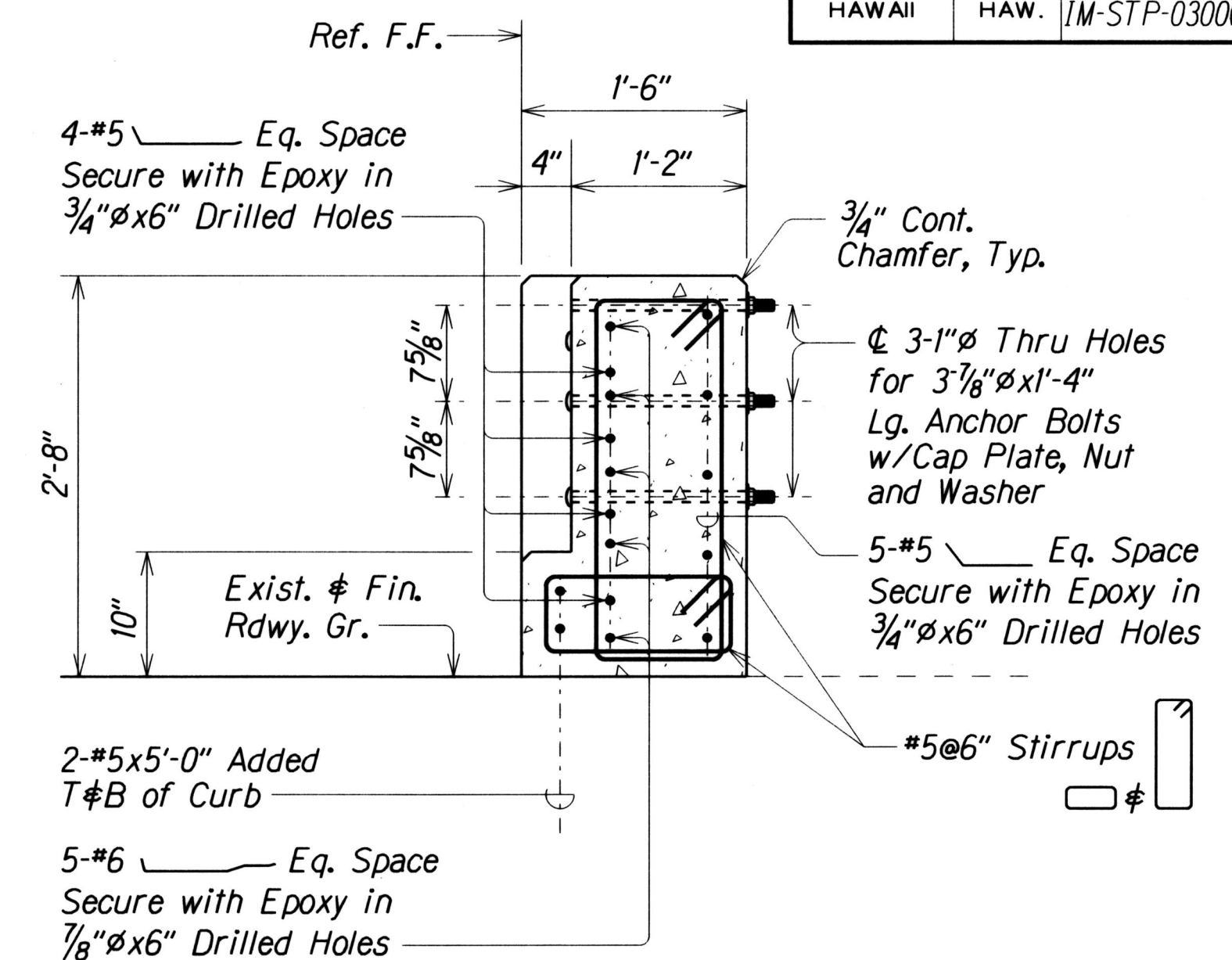
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	115	193



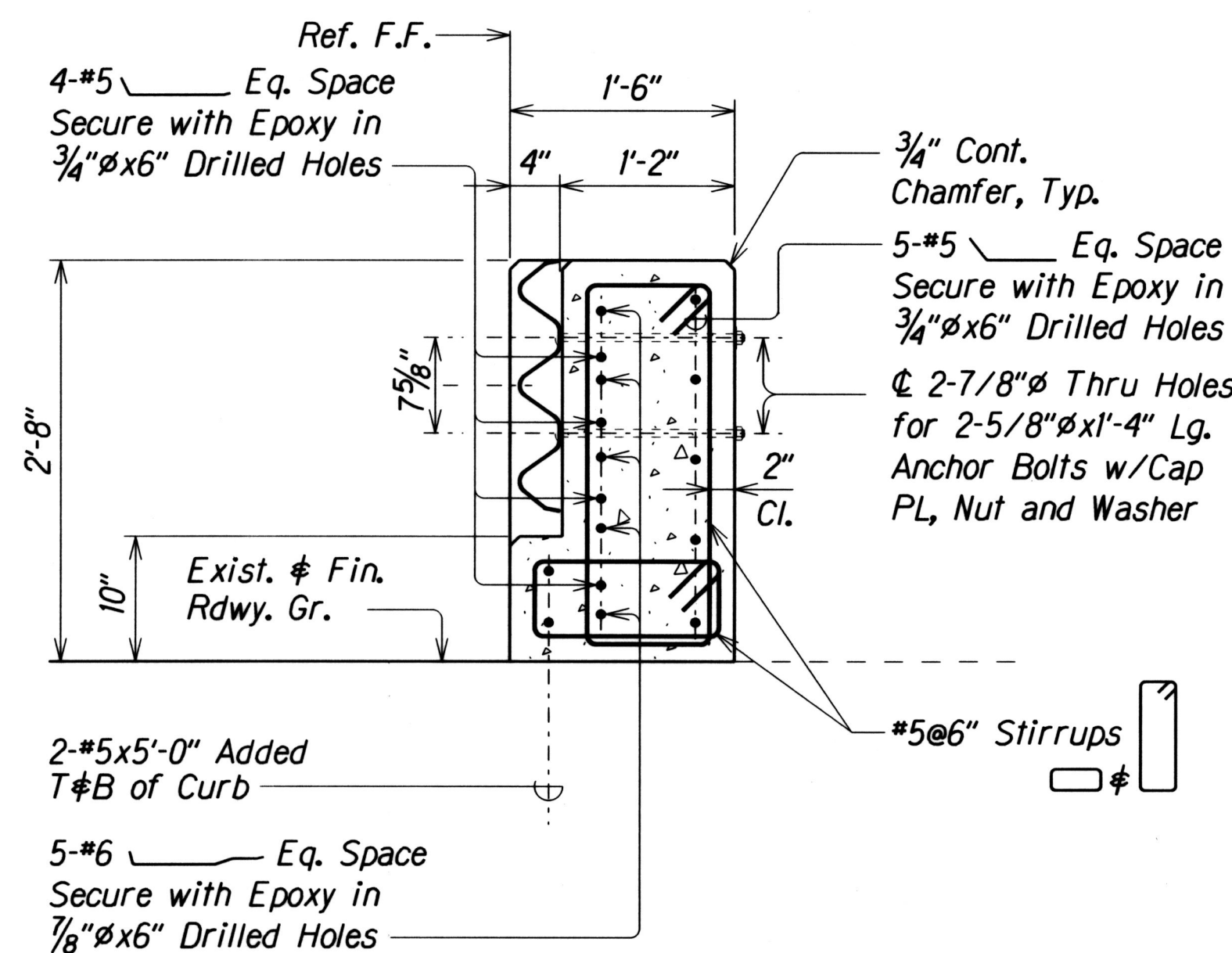
SECTION A
Scale: 1" = 1'-0" Q44 Q46



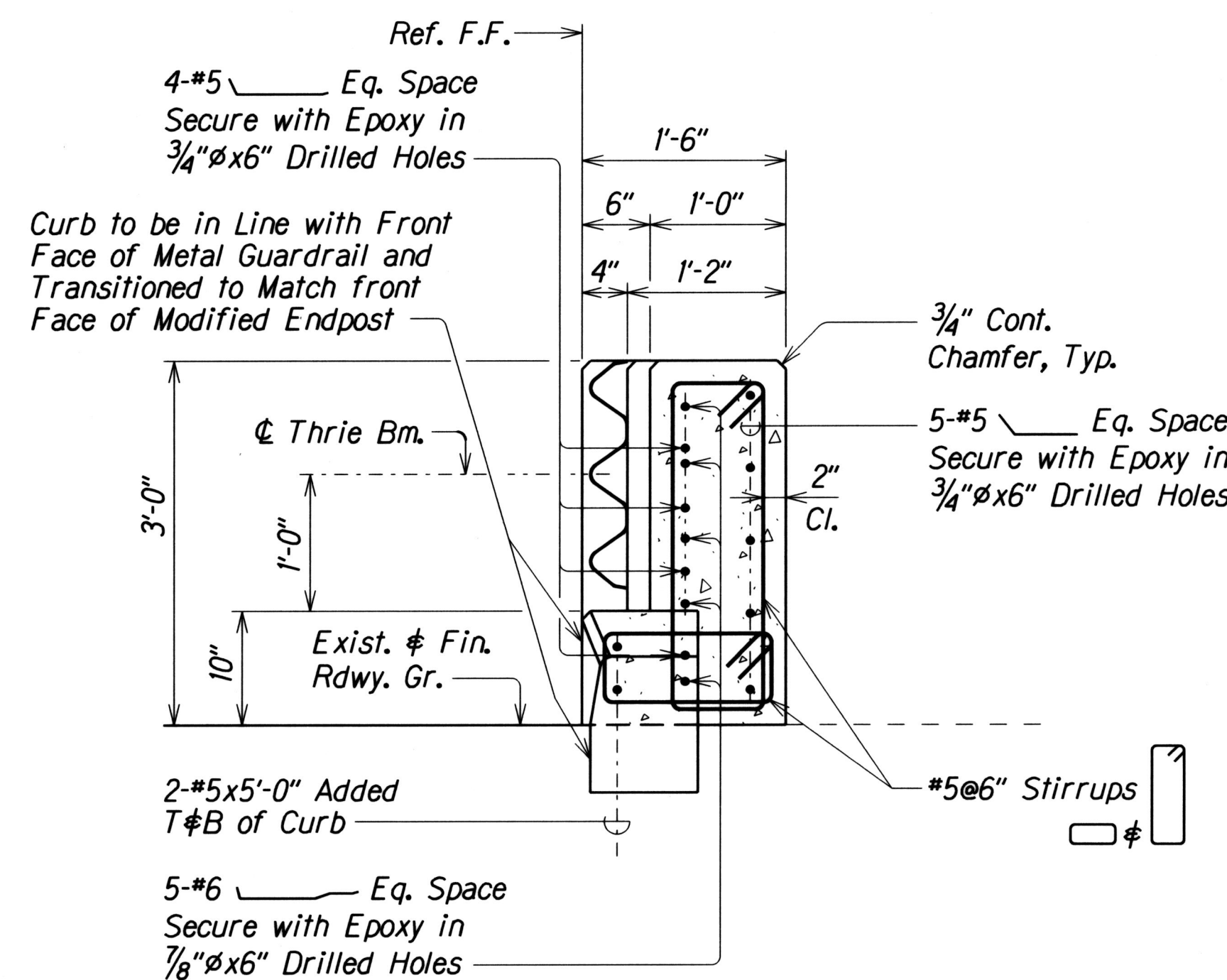
SECTION B
Scale: 1" = 1'-0" Q44 Q46



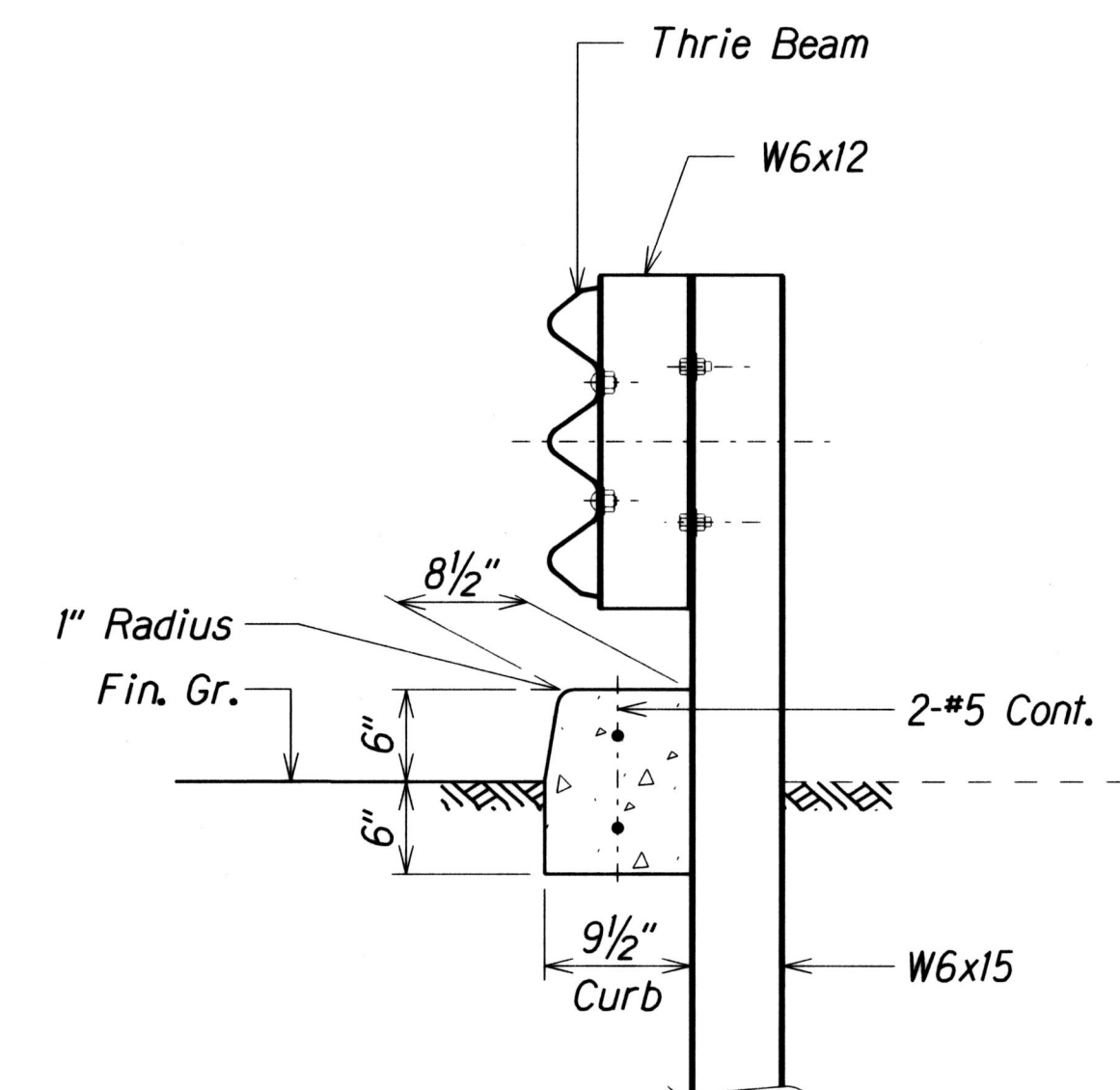
SECTION C
Scale: 1" = 1'-0" Q44 Q46



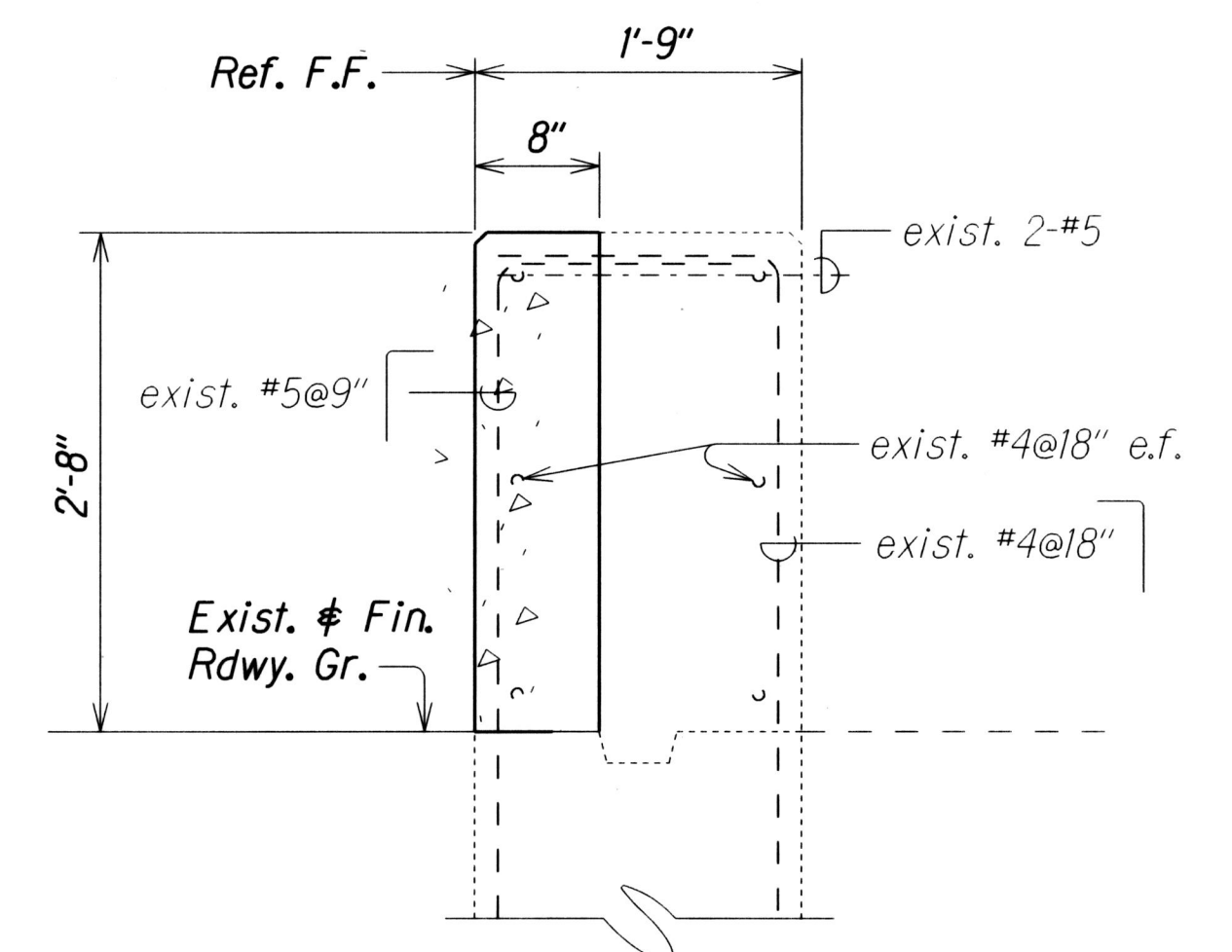
SECTION D
Scale: 1" = 1'-0" Q44 Q46



SECTION E
Scale: 1" = 1'-0" Q44 Q46



SECTION F
Scale: 1" = 1'-0" Q44 Q46



SECTION G
Scale: 1" = 1'-0" Q44 Q46

TYPE "SP2" END POST SECTIONS AND DETAILS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITES N AND NN
TYPE "SP2" END POST
SECTIONS AND DETAILS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

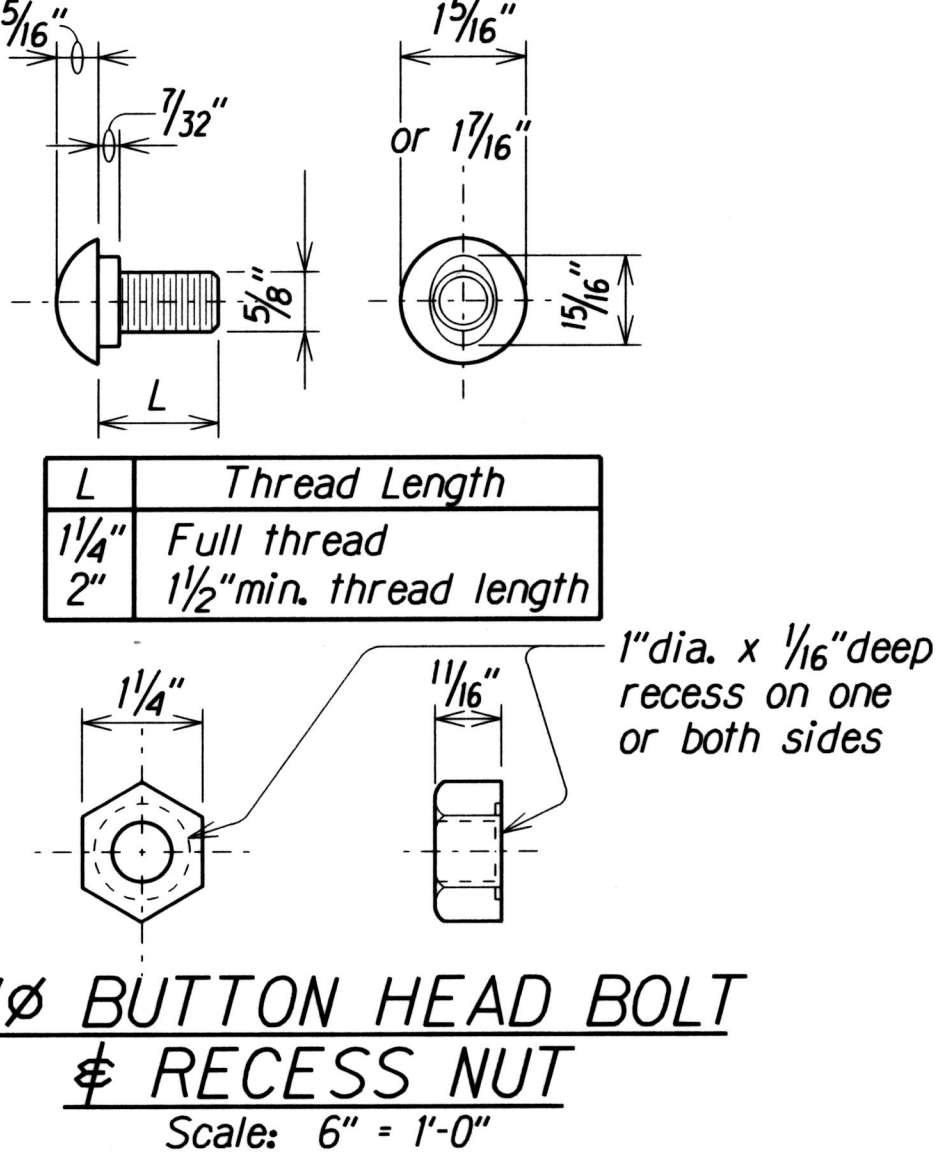
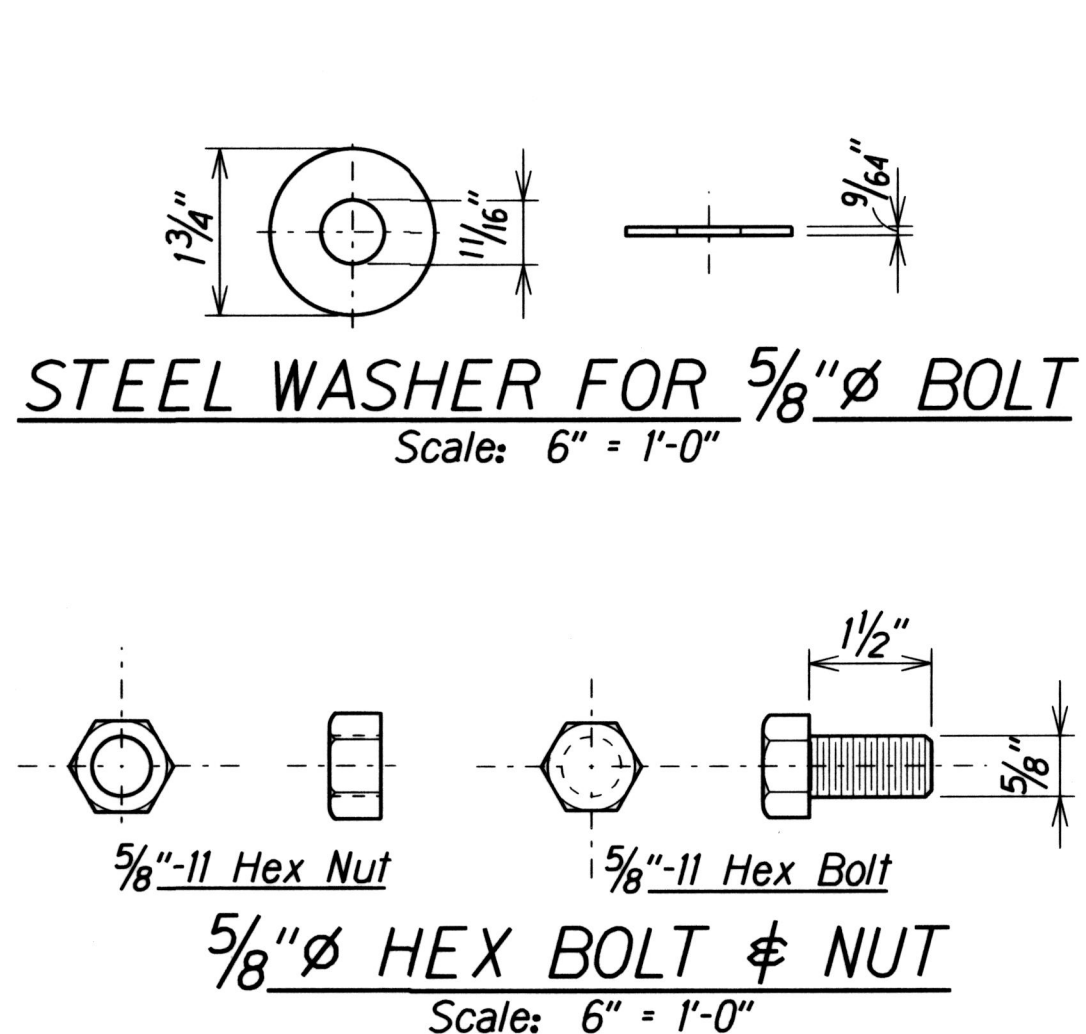
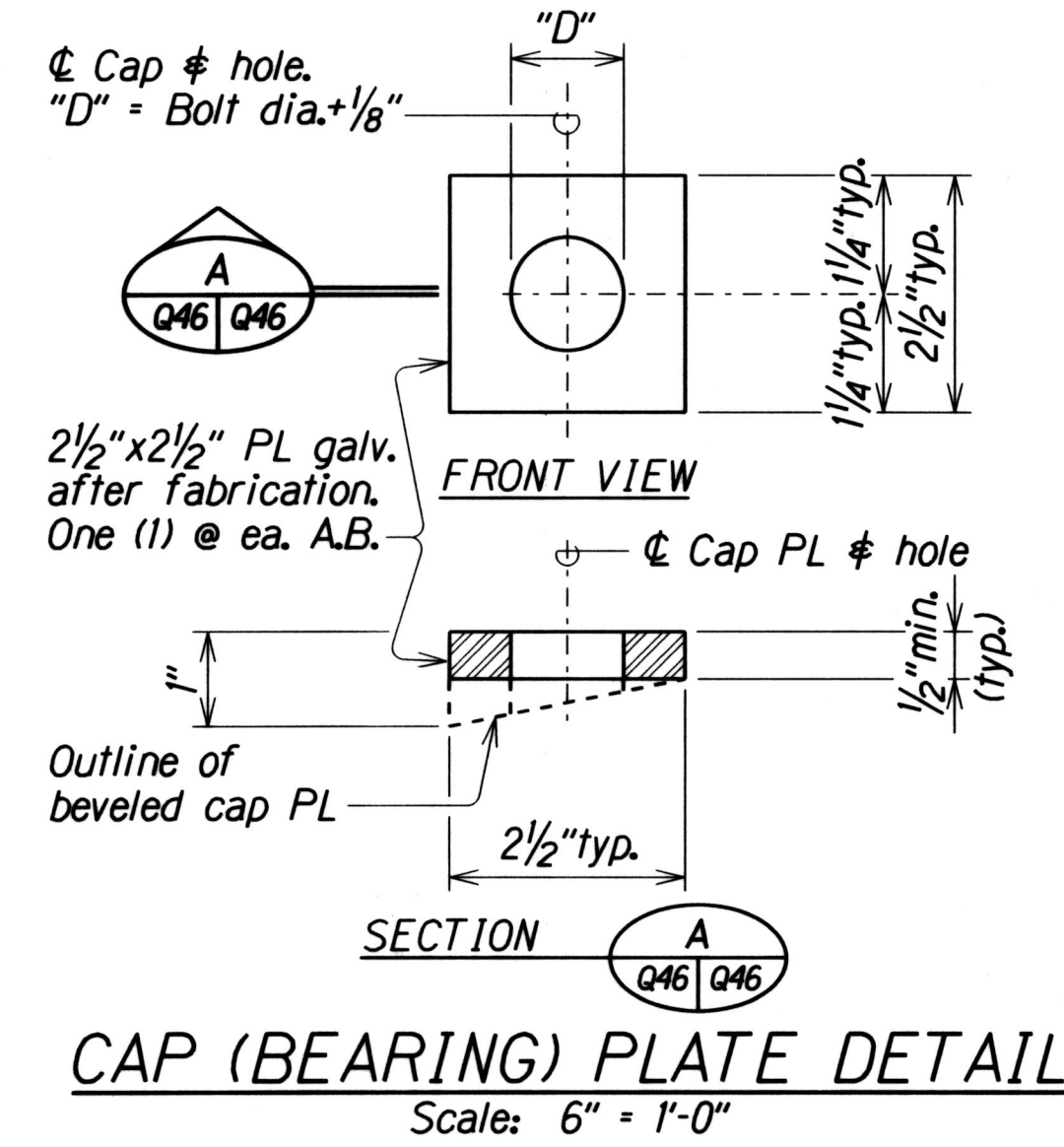
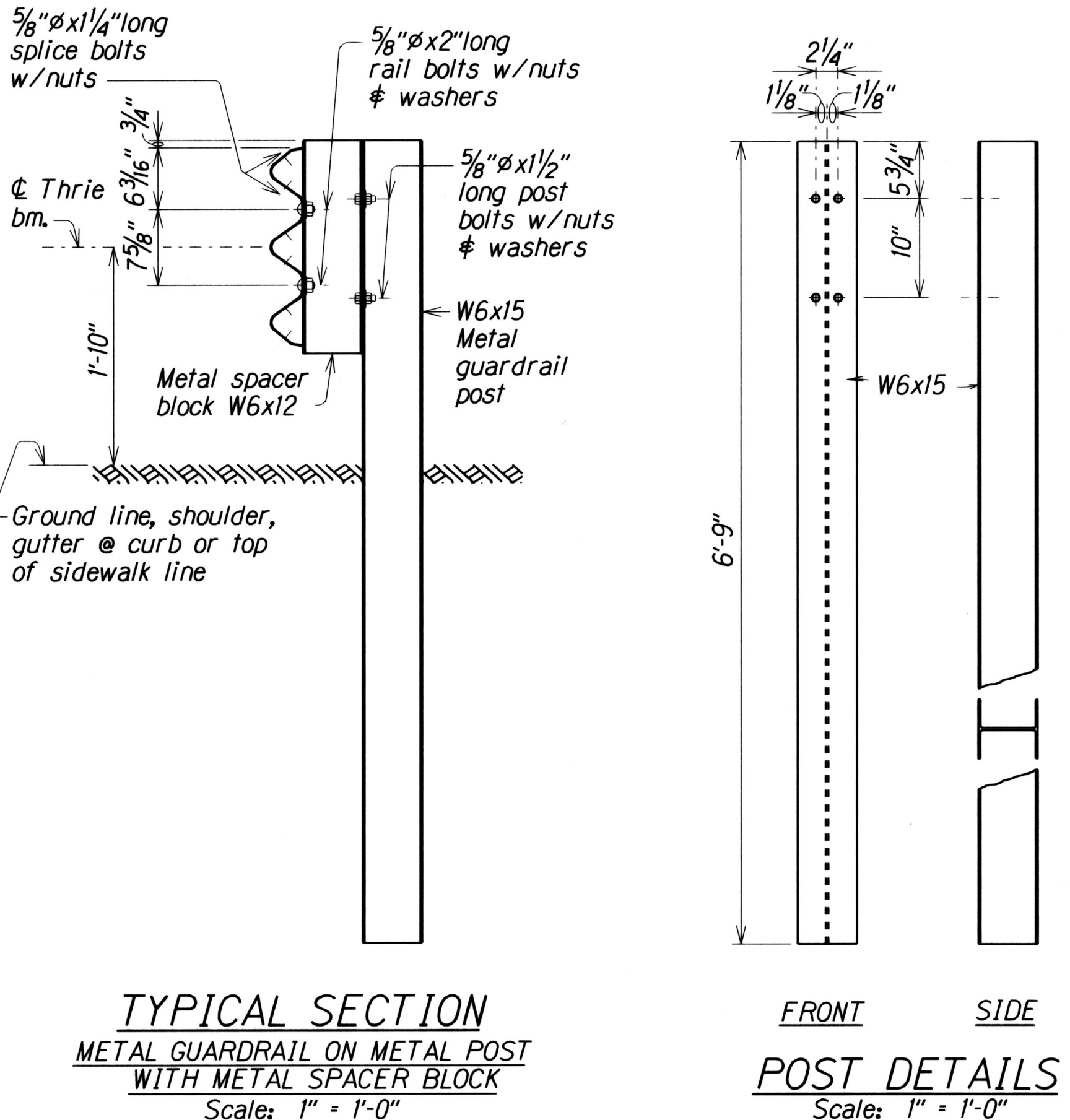
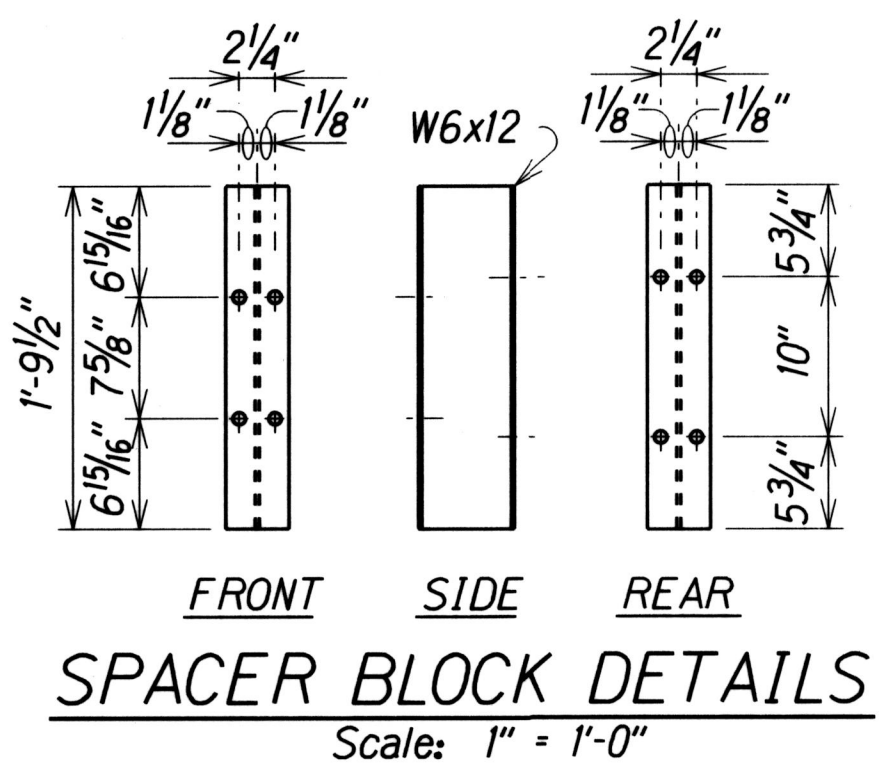
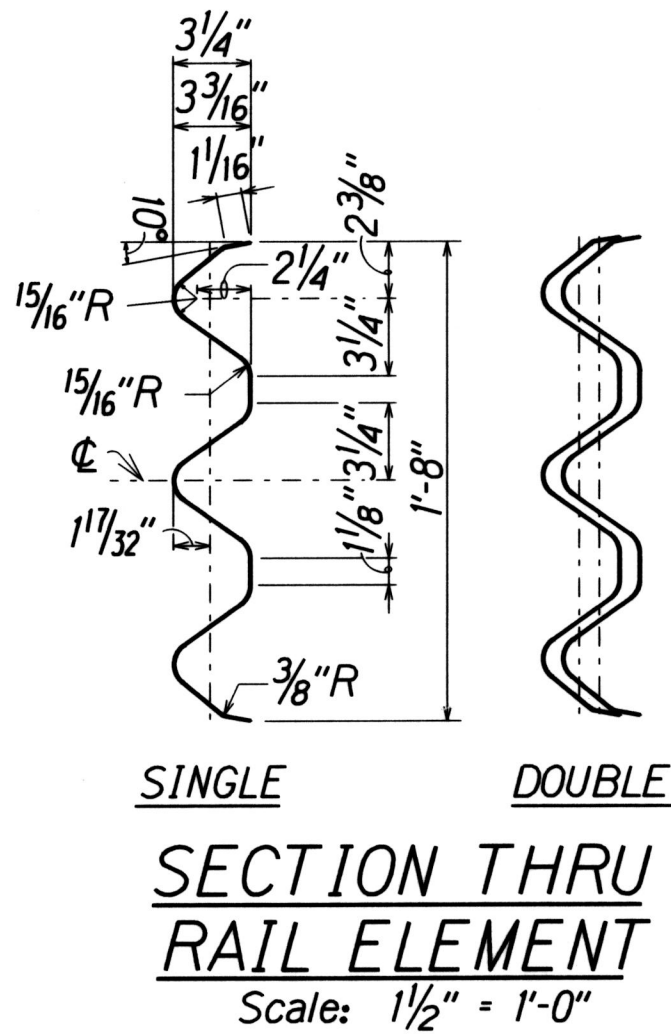
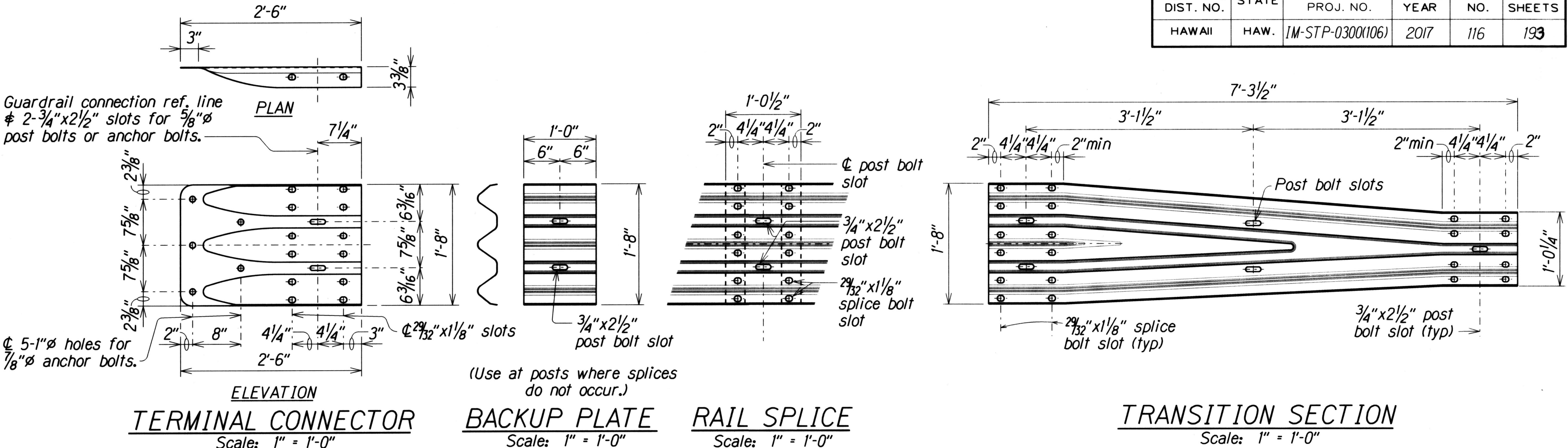
Scale: As Noted Date: Jan., 2017

SHEET No. Q46 OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	116	193

NOTES:

- A. 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 will not be paid for separately.
- B. Lap terminal connector and rail element in direction of traffic to prevent snagging.
- C. All anchor bolts shall be high strength bolts conforming to the requirements of ASTM 325 and Standard Specification, Section 713.04.
- D. Anchor bolt length shall be such that a snug fit of the elements and full thread engagement plus 1/4" (max) is attained.
- E. "Terminal Connector", "Transition Section" and thrie beam shall be fabricated from 10gauge steel conforming to the requirements of AASHTO M 180, Type II, Class B.
- F. "Terminal Connector" and standard spacer, including all anchor bolts, cap PL, nuts and washers, shall be hot-dip galvanized after fabrication.
- G. Cap PL shall be fabricated from ASTM A 36.
- H. 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.
- I. Double (nest 1st panel) thrie beam elements at all end post connections, except on highways with one-way traffic pattern, use single thrie beam elements at end post on trailing end only.
- J. Where double (nested) beam occur, 12" "Back-up Plate" not required.
- K. Heads of through anchor bolts shall be placed on the traffic side of the rail.
- L. All steel shapes, rails and plates shall conform to ASTM A 36 specifications.



METAL GUARDRAIL TYPE 3 THRIE BEAM AND APPURTENANCES DETAILS

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

METAL GUARDRAIL TYPE 3 THRIE BEAM AND APPURTENANCES

DETAILS

INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY

Guardrail and Shoulder Improvements

Federal Aid Project No. 1M-STP-0300(106)

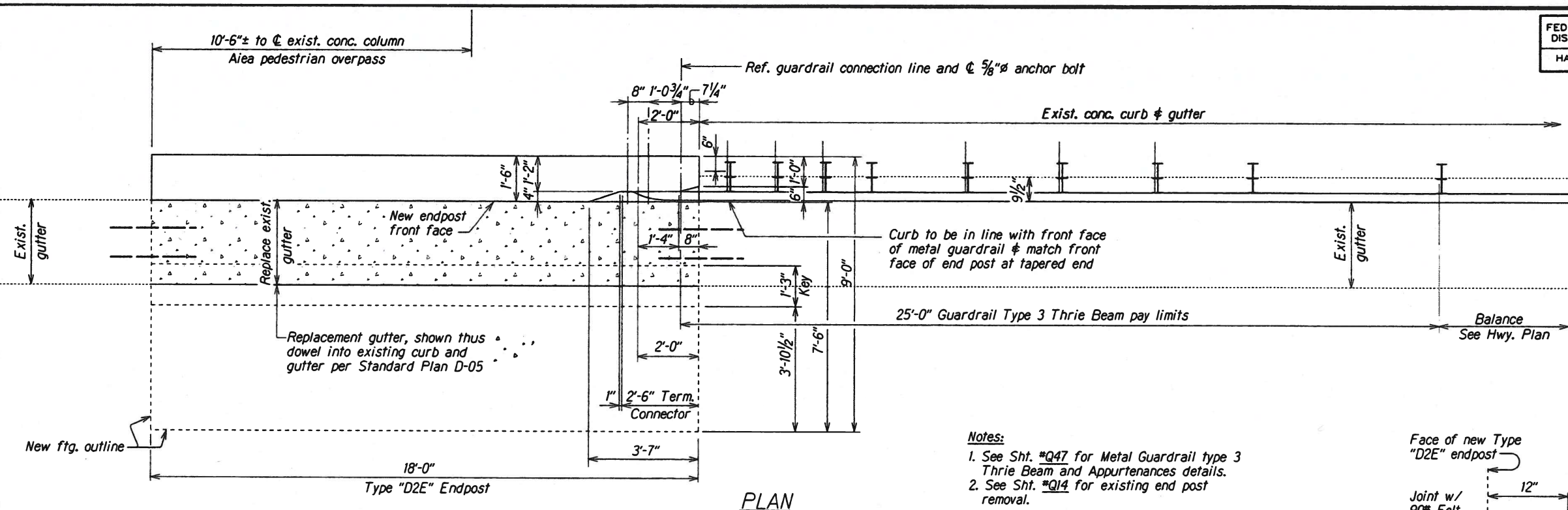
Scale: As Noted

Date: Jan., 2017

SHEET No. Q47 OF 52 SHEETS

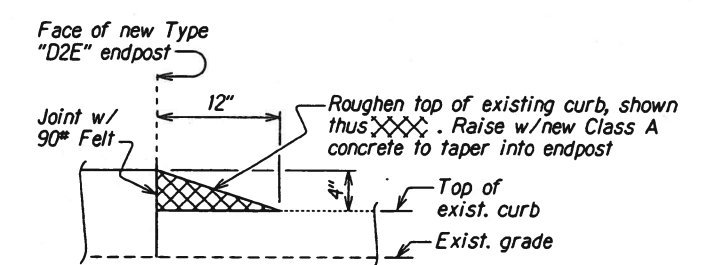
116

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	C.O.118S-2	195



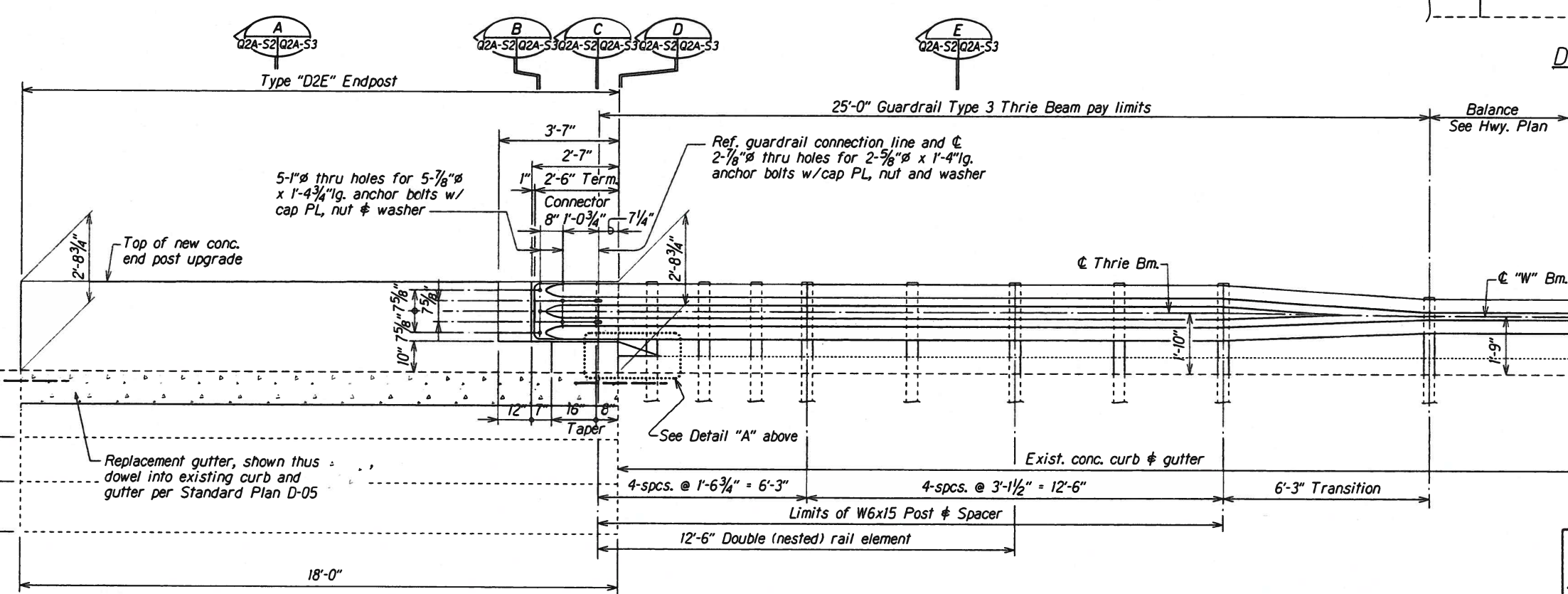
PLAN

- Notes:
1. See Sht. #Q47 for Metal Guardrail type 3 Thrie Beam and Appurtenances details.
 2. See Sht. #Q14 for existing end post removal.



DETAIL "A"
Not to Scale

← To Honolulu



ELEVATION

TYPE "D2E" END POST PLAN and ELEVATION
Scale: 1/2" = 1'-0"

DESIGNED BY	DATE
TRACED BY	XXX 09/1
NOTED BY	XXX 09/1
CHECKED BY	XXX 09/1
IN CHARGE	XXX 09/1

OCT 22 2018

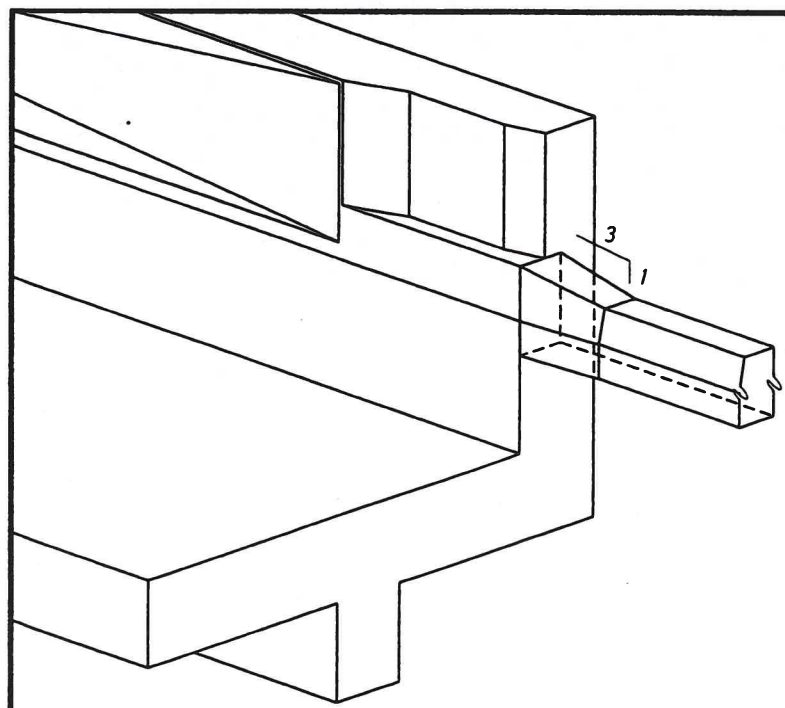
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPE "D2E" ENDOPOST PLAN and ELEVATION
at AIEA PEDESTRIAN OVERPASS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvement
Federal Aid Project No. 1M-STP-0300(106)

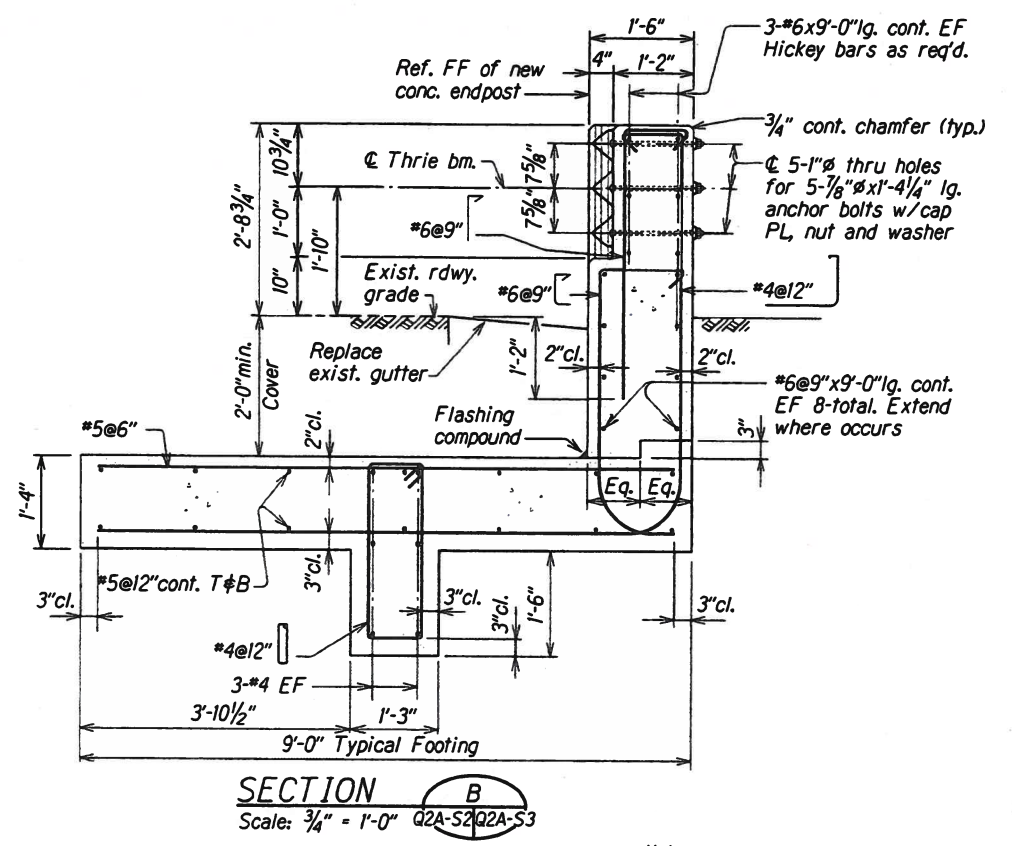
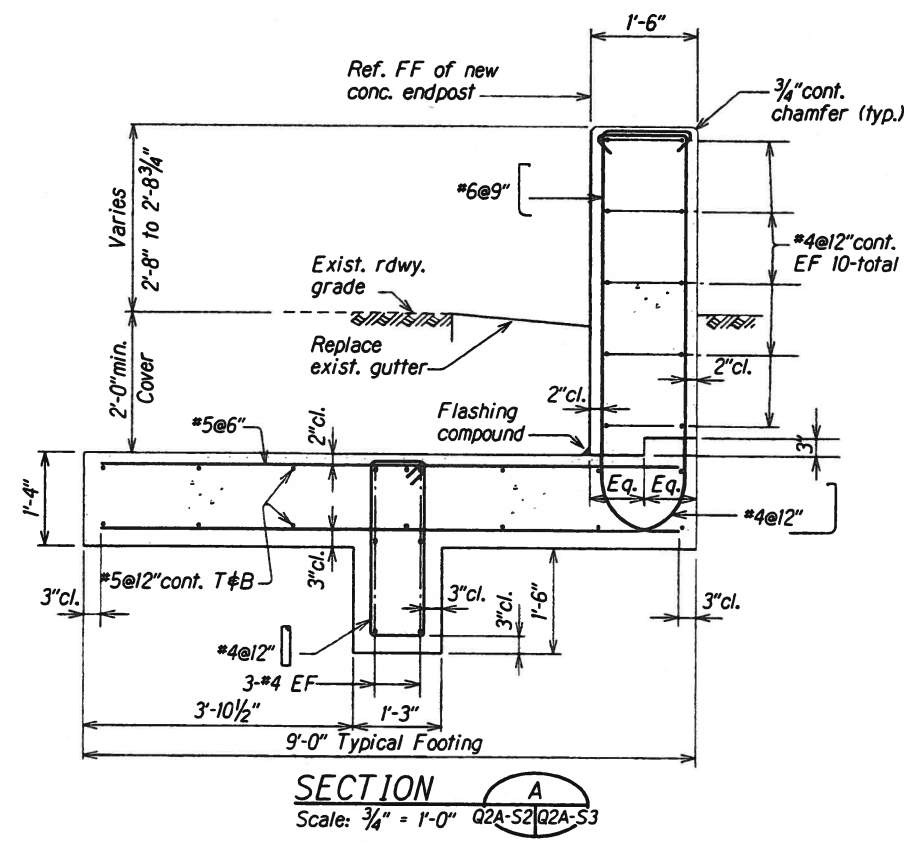
Scale: As Noted Date: Oct. 2018

SHEET No Q2A-S2DF 52 SHEETS

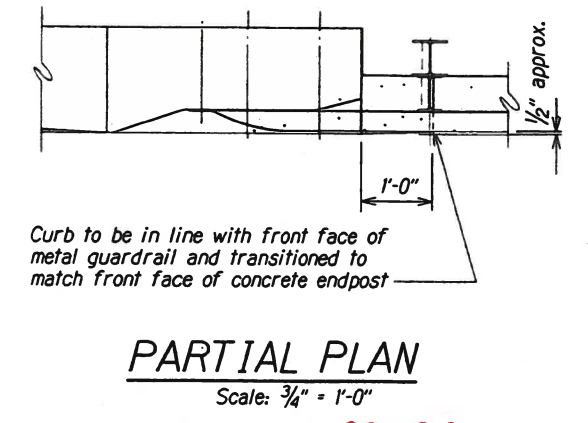
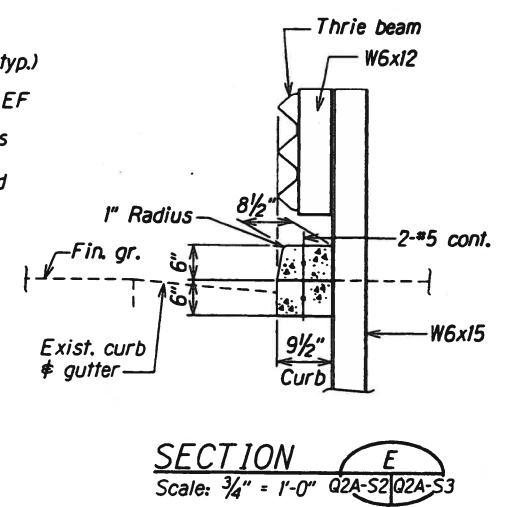
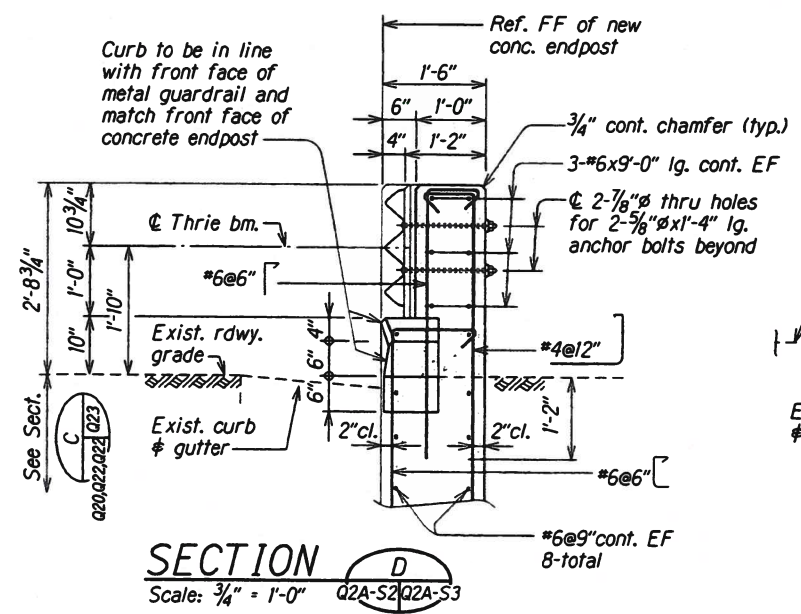
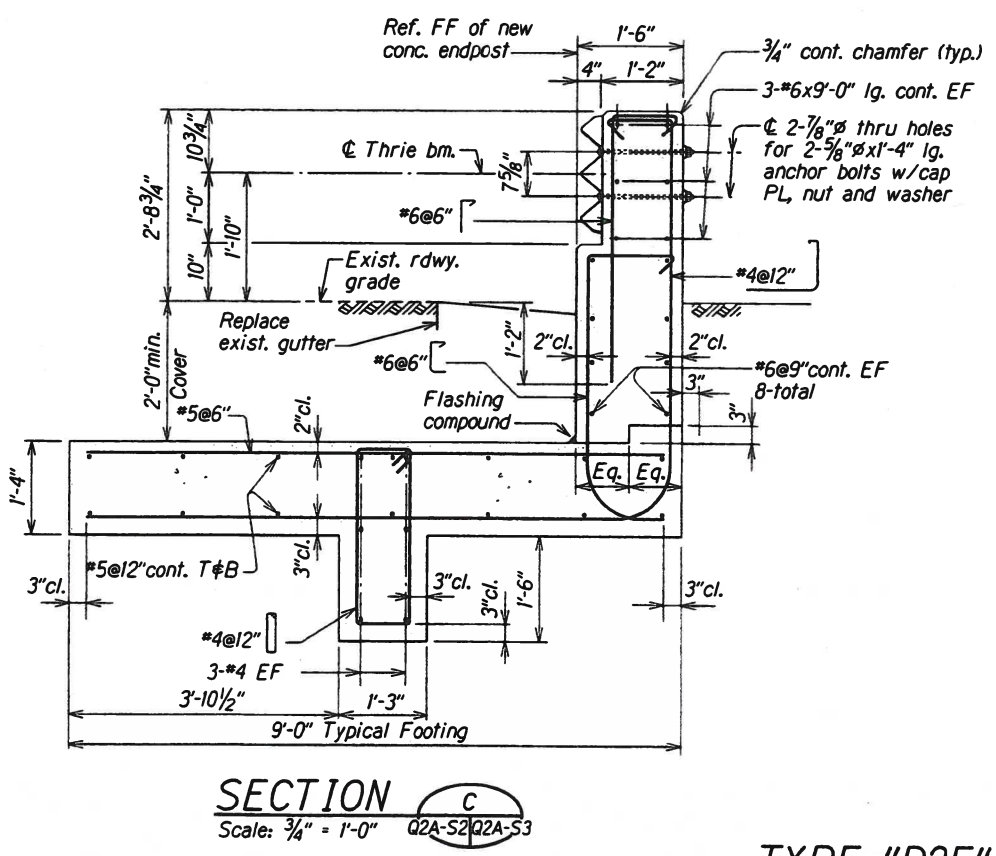
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-03001061	2017	92	195



PARTIAL ISOMETRIC VIEW
TYPE "D2E" ENDPOST
Not to Scale



Note:
See Sht. #Q14 for existing end post removal.



TYPE "D2E" END POST SECTIONS AND DETAILS

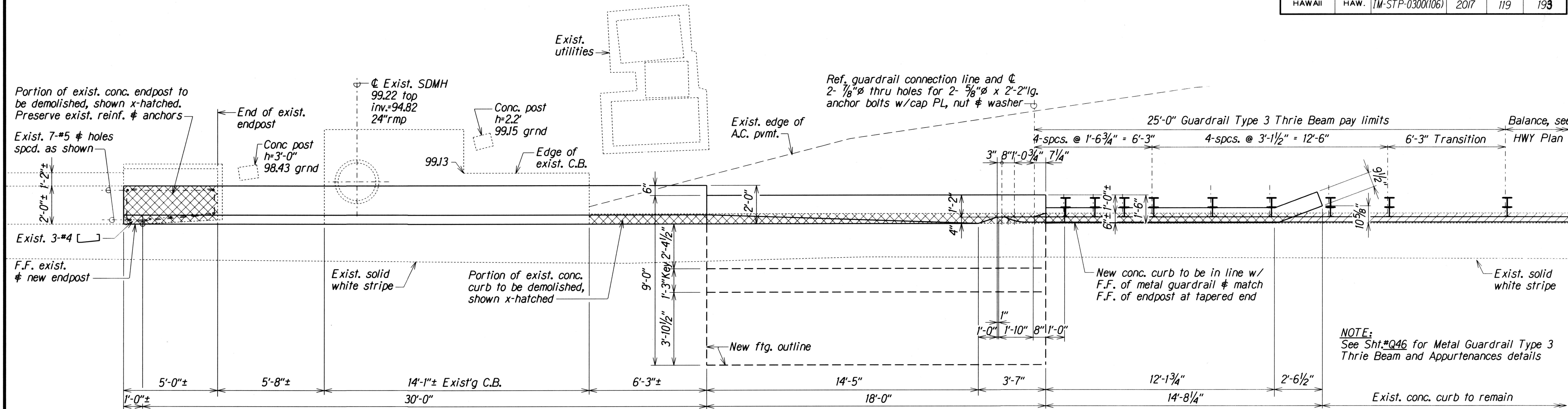
DESIGNED BY	DATE	XXX 09
CHECKED BY	DATE	XXX 09
QUANTITIES BY	DATE	XXX 09
NOTED BY	DATE	XXX 09
ORIGINAL PLAN	DATE	XXX 09

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

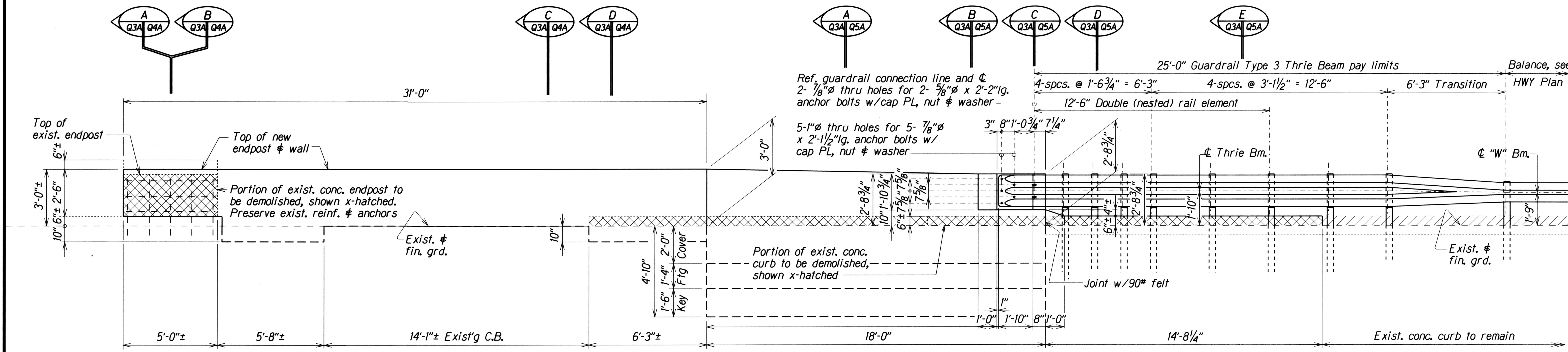
TYPE "D2E" ENDPOST SECTIONS and DETAILS
at AIEA PEDESTRIAN OVERPASS
INTERSTATE ROUTE H-2 AND MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-03001061

Scale: As Noted
Date: Oct. 2018

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	119	193



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



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

CONCRETE BARRIER UPGRADE at AIEA INTERCHANGE STRUCTURE NO. 2

ORIGINAL PLAN	DATE	XXX 1997
DESIGNED BY	XXX 1997	
QUANTITIES BY	XXX 1997	
CHECKED BY	XXX 1997	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

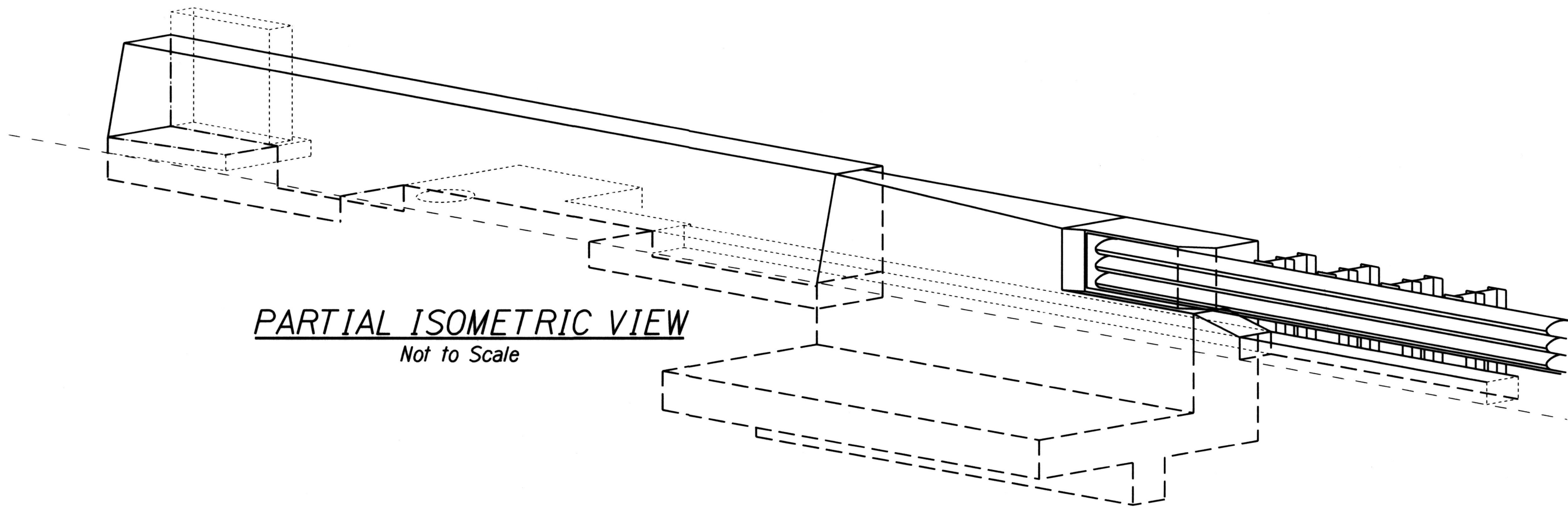
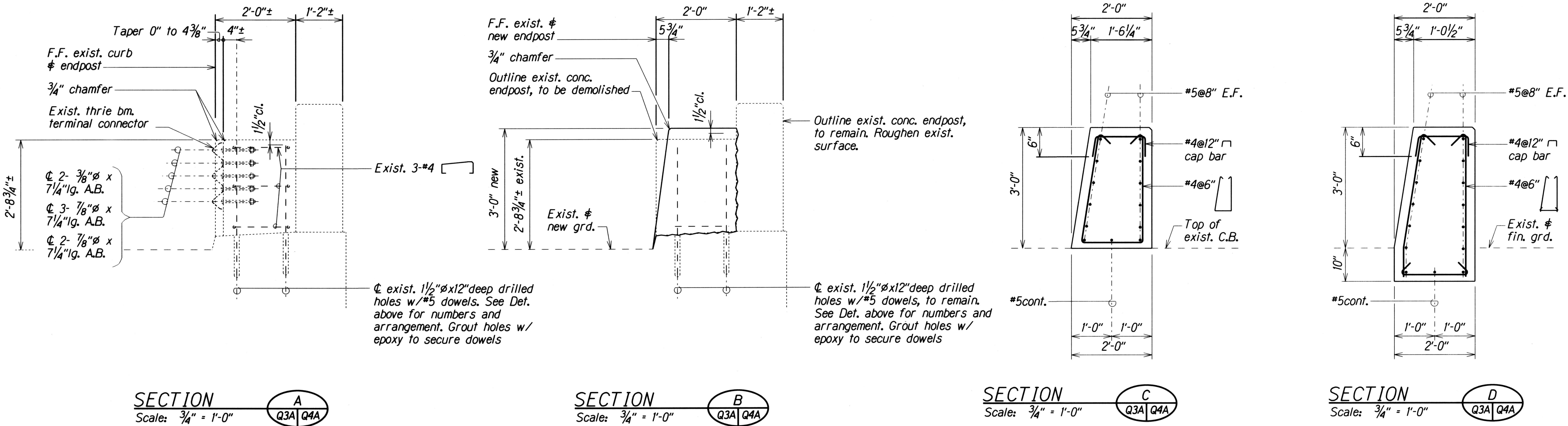
**CONCRETE BARRIER UPGRADE at
AIEA INTERCHANGE STRUCTURE NO. 2**

INTERSTATE ROUTE H-2 and MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

Scale: As Noted Date: Jan, 2017

SHEET No. Q3A OF 52 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	120	193



CONCRETE BARRIER UPGRADE DETAILS
at AIEA INTERCHANGE STRUCTURE NO. 2

ORIGINAL PLAN	DATE	XXX 1997
DESIGNED BY	XXX	XXX 1997
DESIGNED BY	XXX	XXX 1997
QUANTITIES BY	XXX	XXX 1997
CHECKED BY	XXX	XXX 1997

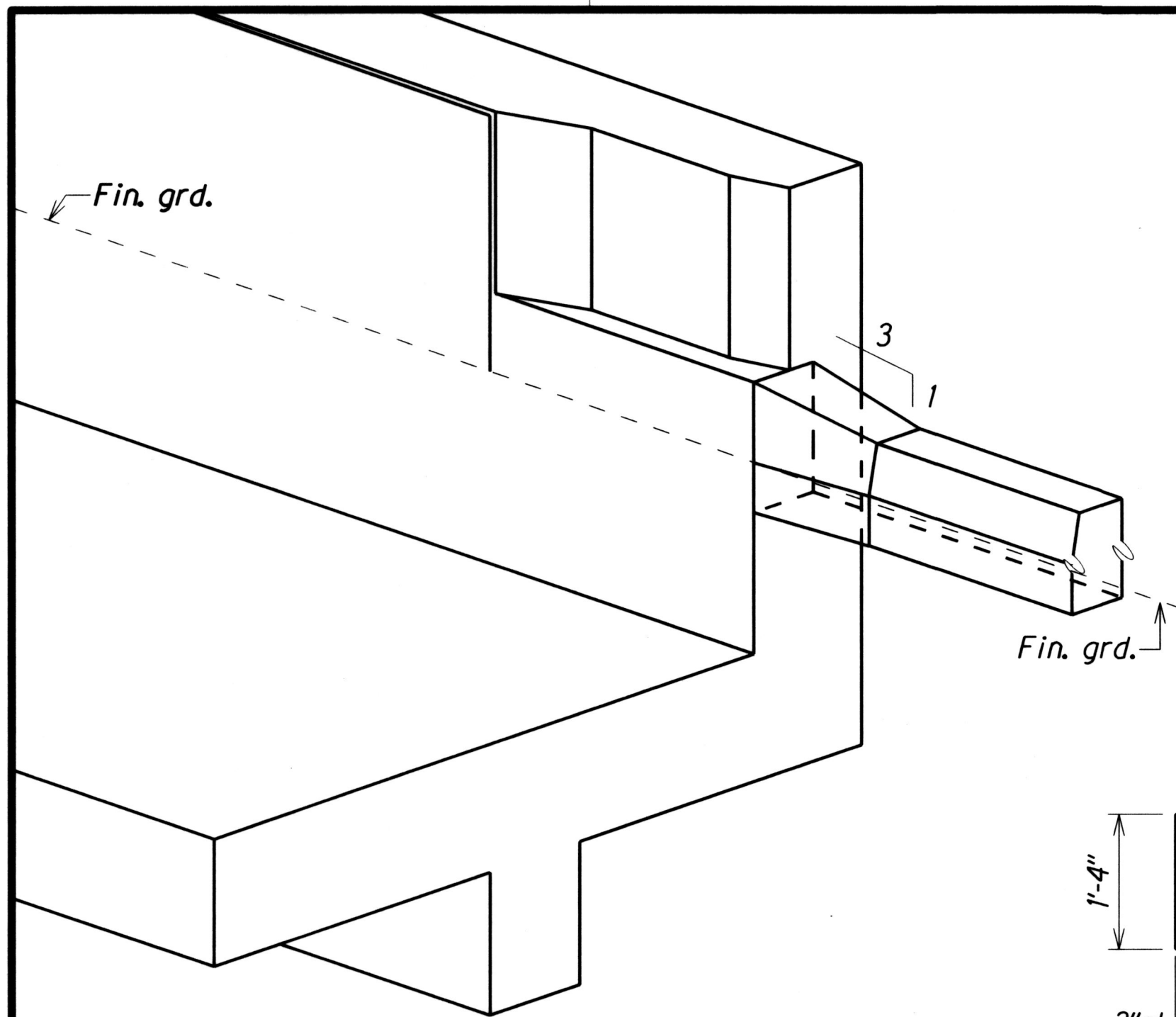
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONCRETE BARRIER UPGRADE DETAILS
at AIEA INTERCHANGE STRUCTURE NO. 2
INTERSTATE ROUTE H-2 and MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)

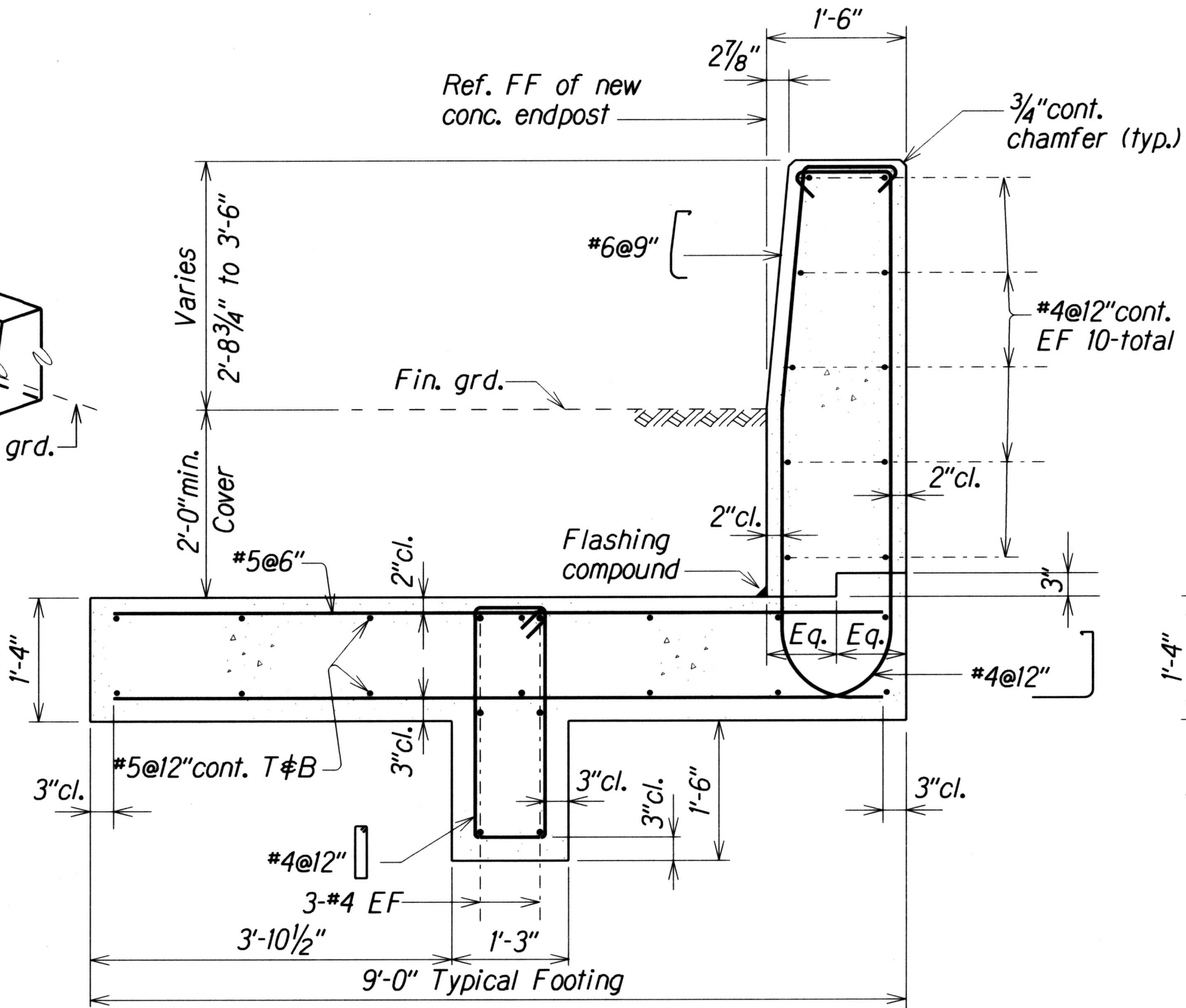
Scale: As Noted
Date: Jan, 2017

SHEET No. Q4A OF 52 SHEETS

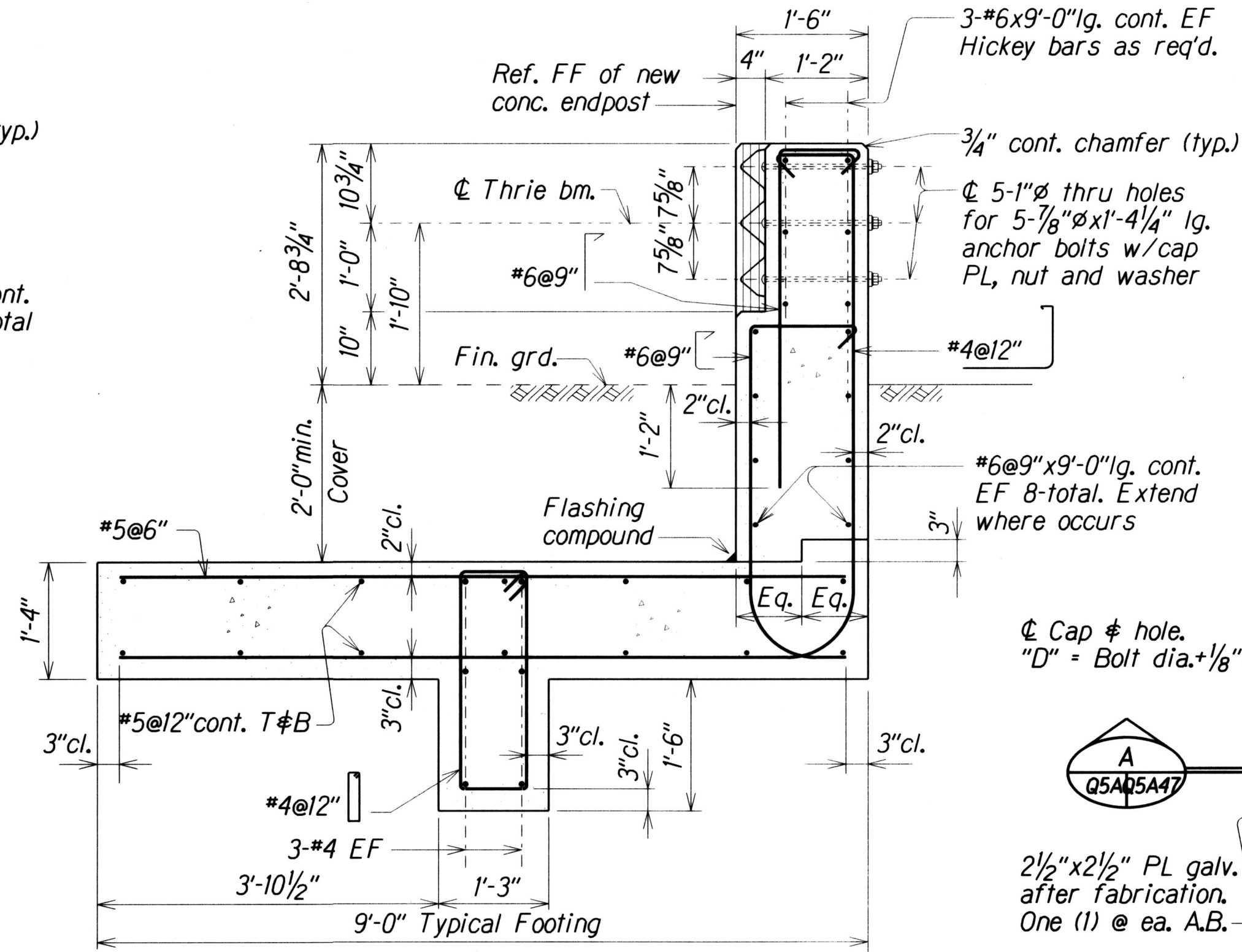
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-STP-0300(106)	2017	121	193



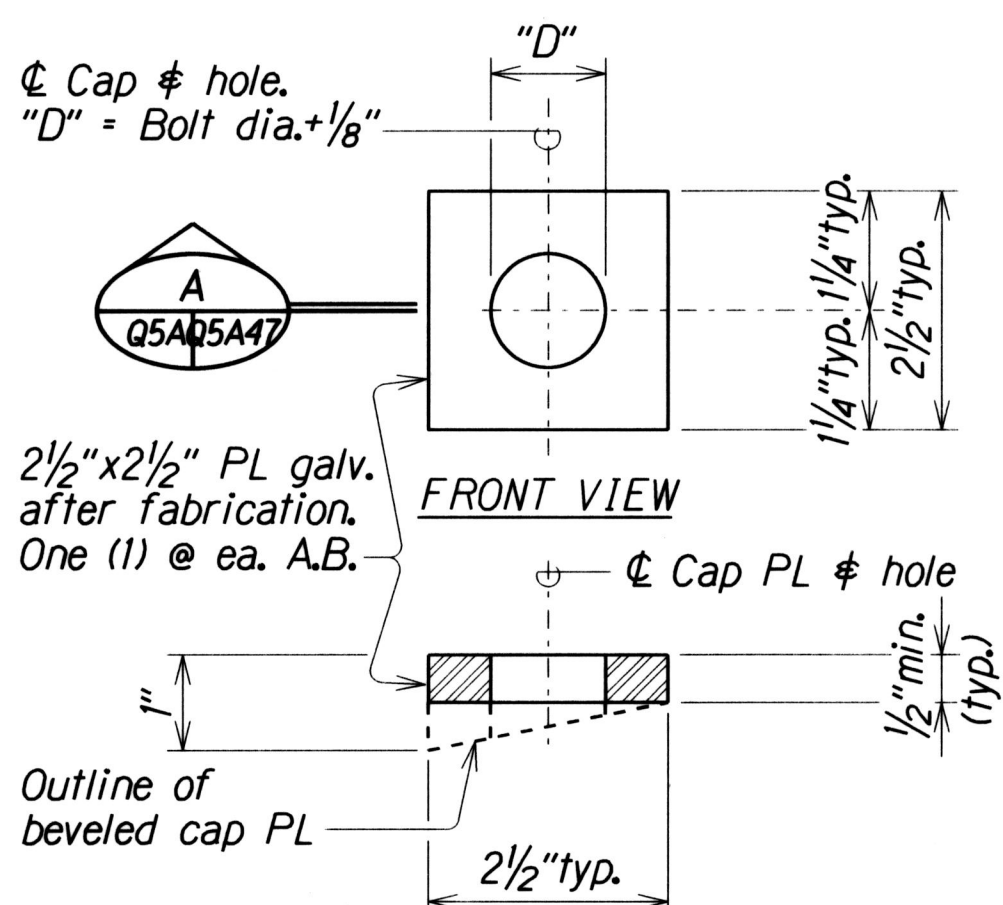
PARTIAL ISOMETRIC VIEW
TYPE "D2" ENDPOST
Not to Scale



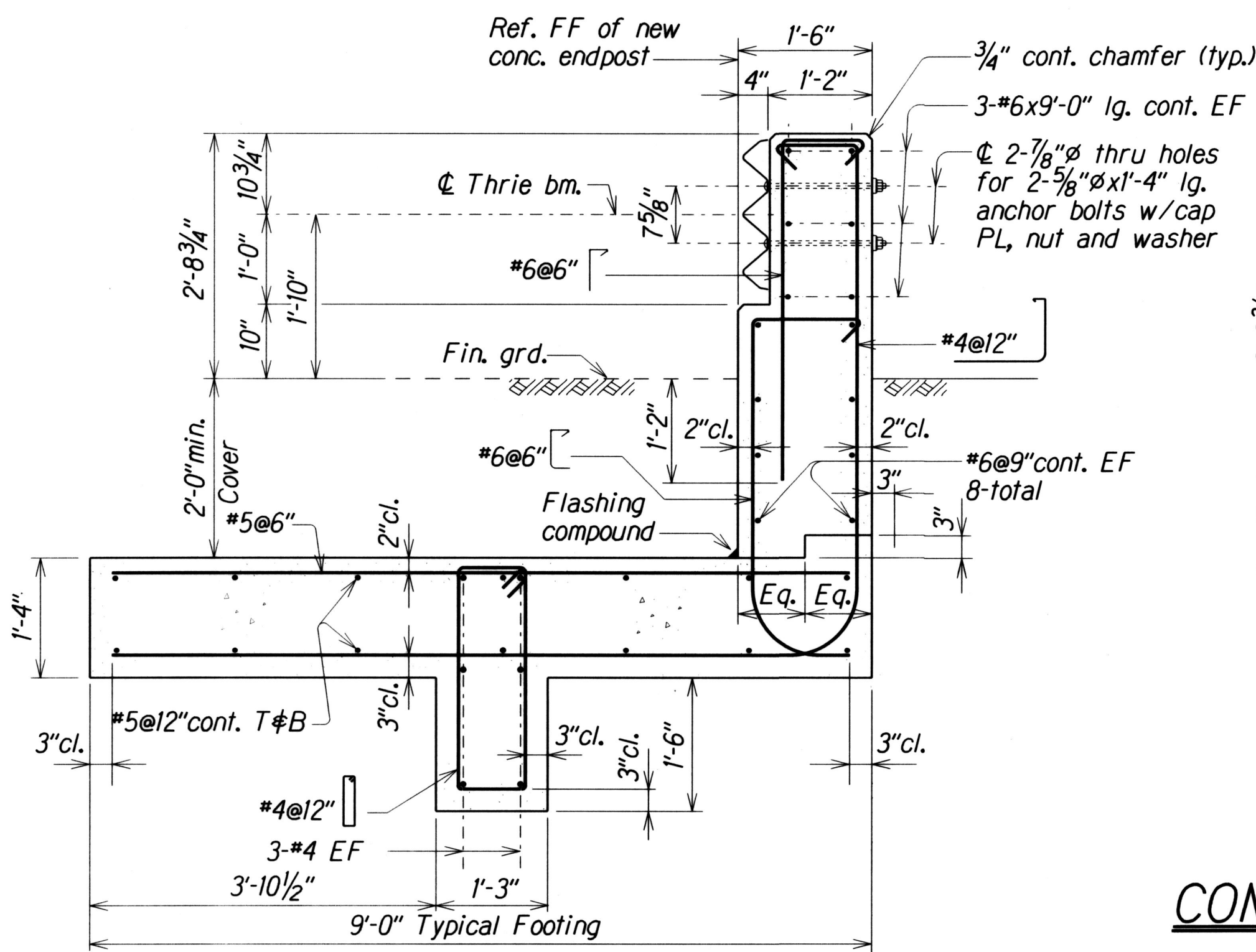
SECTION A
Scale: 3/4" = 1'-0"
Q3A Q5A



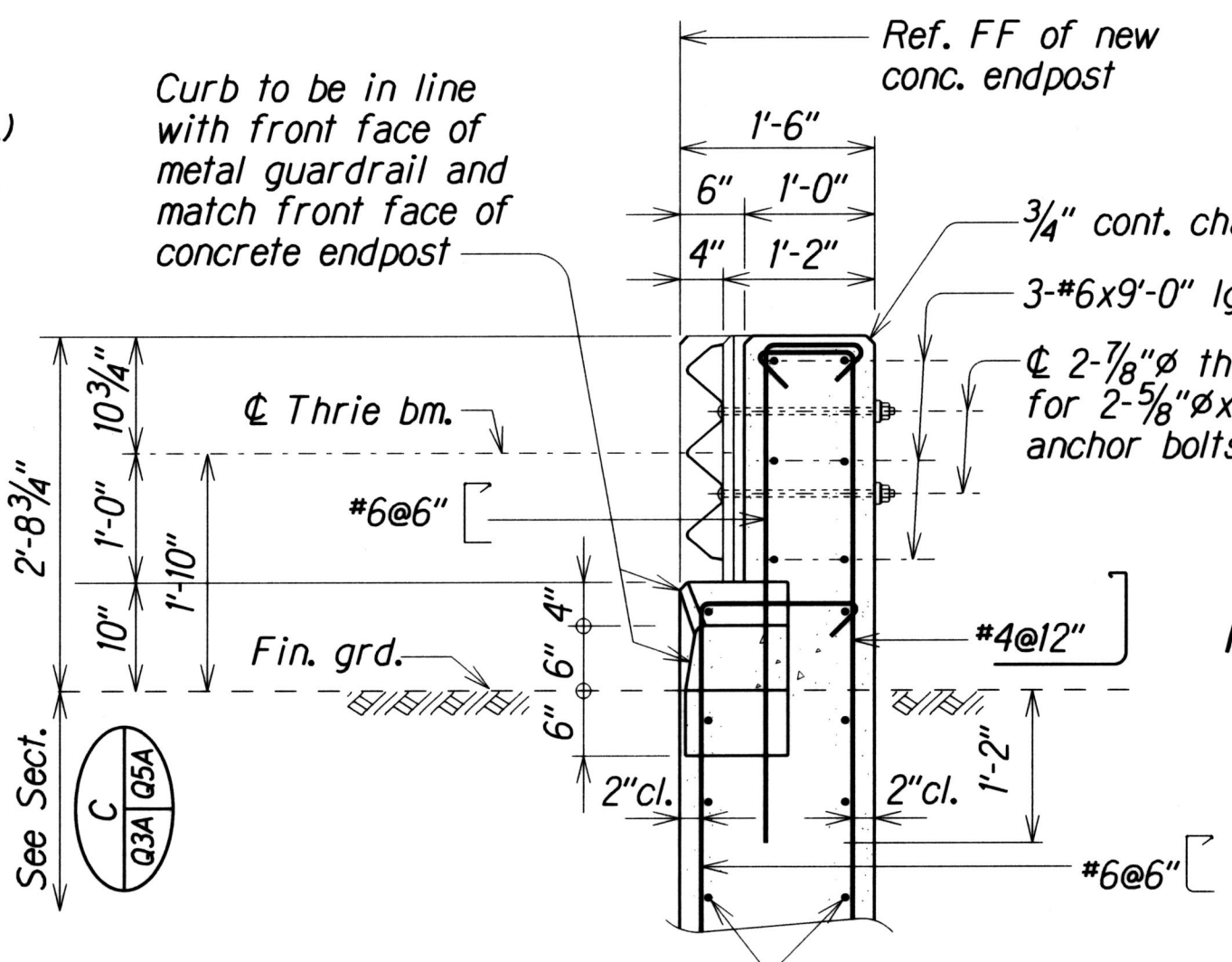
SECTION B
Scale: 3/4" = 1'-0"
Q3A Q5A



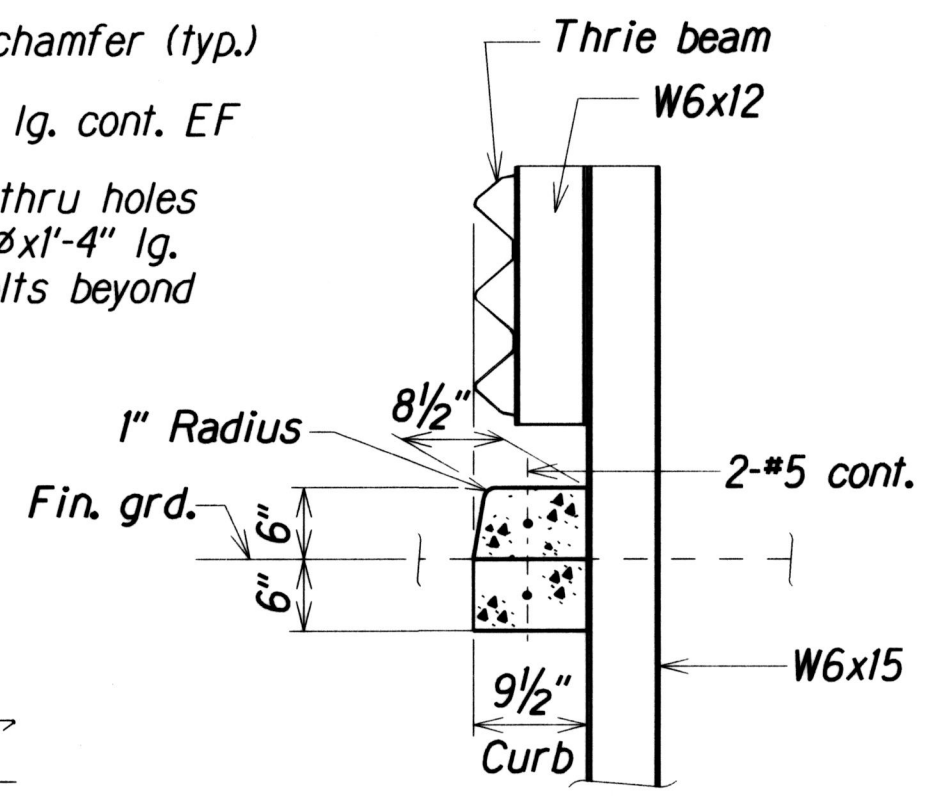
CAP (BEARING) PLATE DETAIL
Not to Scale



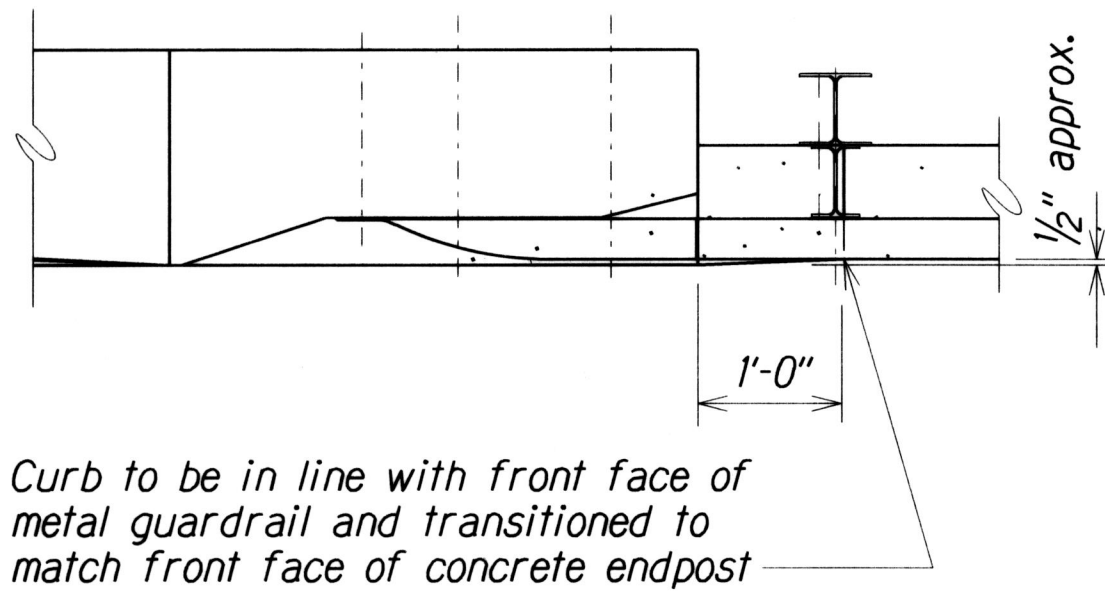
SECTION C
Scale: 3/4" = 1'-0"
Q3A Q5A



SECTION D
Scale: 3/4" = 1'-0"
Q3A Q5A



SECTION E
Scale: 3/4" = 1'-0"
Q3A Q5A



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

CONCRETE BARRIER UPGRADE SECTIONS and DETAILS
at AIEA INTERCHANGE STRUCTURE NO. 2

ORIGINAL PLAN	DATE	XXX 1997
DESIGNED BY	XXX 1997	
QUANTITIES BY	XXX 1997	
CHECKED BY	XXX 1997	
NOTED	XXX 1997	
IN CHARGE	XXX 1997	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONCRETE BARRIER UPGRADE
SECTIONS and DETAILS
at AIEA INTERCHANGE STRUCTURE NO. 2
INTERSTATE ROUTE H-2 and MOANALUA FREEWAY
Guardrail and Shoulder Improvements
Federal Aid Project No. 1M-STP-0300(106)
Scale: As Noted Date: Jan, 2017