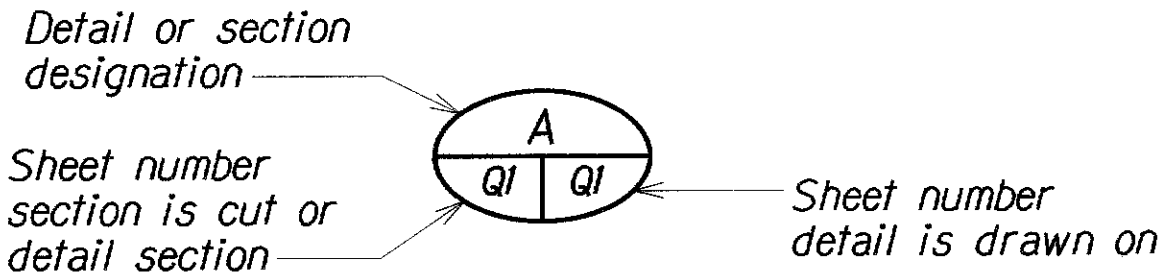


INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
Q1	Index to Drawings and General Notes
Q2	Part Existing Plan
Q3	Part Existing Plan
Q4	Part Existing Typical Bridge and Demolition Section
Q5	Part Existing Typical Bridge and Demolition Section
Q6	Part Layout Plan
Q7	Part Layout Plan
Q8	Typical Bridge Section
Q9	Curb Build-up Details
Q10	Steel Pipe Bridge Railing Elevation - Mauka
Q11	Partial Steel Pipe Bridge Railing Elevation - Makai
Q12	Partial Steel Pipe Bridge Railing Elevation - Makai
Q13	Steel Pipe Bridge Rail Details
Q14	Plan And Elevation - Modified Median Barrier On Ala Wai Canal Bridge With Light Standard And Junction Box
Q15	Light Standard At Jersey Barrier Off Bridge - Plan and Elevation
Q15A	Plan And Elevation At Sta. 65+69.79 Modified Median Barrier With Junction Box
Q15B	Part. Plan And Elevation - Sta. 67+50.94 To Sta. 67+94.25± Modified Median Barrier On/Off Bridge With Junction Box
Q15C	Part. Plan And Elevation - Sta. 67+94.25 To Sta. 68+29.72± Modified Median Barrier Off Bridge With Light Std. & Junction Box
Q16	Typical Sections - Median Barrier
Q16A	Typical Sections - Modified Median Barrier With Junction Box And Junction Box Schedule
Q17	Existing Retaining Walls & Demolition Details
Q18	Railing Sections at Retaining Walls
Q19	Light Pole Concrete Foundation and Wall details
Q20	Light Standard Foundation details at Median Barrier off Bridge - Elevations and Sections
Q21	Typical Concrete Foundation & Transformer Base Details
Q22	Light Standard Special Footing at Sta. 140+98± O/S Rt., Sta. 141+90± O/S Rt. and Sta. 158+97± O/S Rt.
Q23	Retaining Wall Details - Location Plan, Plan, Sections and Details

ABBREVIATIONS AND SYMBOLS

Abut.	Abutment	Max.	Maximum
AB	Anchor Bolt	Min.	Minimum
Ⓔ	Baseline	No., #	Number
Bal.	Balance	N.T.S.	Not To Scale
Beg.	Begin, Beginning	oc	On Center
Ⓒ	Center Line	o/s, O/S	Offset
Cl., Clr.	Clear	PL	Plate
Conc.	Concrete	Ref.	Reference
Cont.	Continuous	Reinf.	Reinforcement
Det.	Detail	R/W	Right of Way
Dia., ⌀	Diameter	Sect.	Section
EA, Ea., ea.	Each	Sht.	Sheet
EF	Each Face	Spcs.	Spaces
Exist.	Existing	Spcg.	Spacing
Exp., (E)	Expansion	Sta.	Station
Fin.	Finish	Std.	Standard
Gr.	Grade	T&B	Top and Bottom
Horiz.	Horizontal	Typ.	Typical
HS	High Strength	Vert.	Vertical
Jt.	Joint	w/	With
Lg.	Long		



SYMBOL

GENERAL NOTES

DESIGN SPECIFICATIONS:

A. AASHTO LRFD Bridge Design Specifications, Fourth Edition, 2007 including all interim revisions

MATERIALS:

- A. Concrete: 4,000 psi, unless otherwise specified
- B. Reinforcement Steel: ASTM A 615, Grade 60
- C. Admixture in concrete: See Special Provisions
- D. All expansion and premolded joint filler shall be incidental to concrete and will not be paid for separately.
- E. All structural steel plates shall be ASTM A 36, hot-dip galvanized after fabrication.
- F. Structural steel pipes shall be ASTM A 53, Grade B, hot-dip galvanized after fabrication.
- G. All anchor bolts, washers and nuts shall be ASTM A 325, hot-dip galvanized after fabrication, unless noted otherwise.
- H. All studs and threaded rods shall be ASTM A 449, galvanized, unless noted otherwise.
- I. All welding shall be in accordance with the current edition of Reinforcing Steel Welding Code AWS D 1.4. Welding electrodes for structural steel shall be E 70.
- J. Steel tubes shall be ASTM A 500 Grade B, hot-dip galvanized after fabrication.
- K. Epoxy shall be ASTM C 881, Type IV, Grade I, Class C.
- L. Structural W Beam shape shall be ASTM A 992, hot-dip galvanized after fabrication.
- J. A shrinkage reducing admixture (Tetraguard AS20 by BASF or equal as approved by the Engineer) shall be added to the concrete mix for concrete used in Item No. 676.1000 Concrete Repair for Sidewalk on Bridge and for Item No. 676.2000 Concrete Repair for Walls. The minimum dosage shall be 128 ounces per cubic yard of concrete (or more as recommended by manufacturer for admixtures require Engineer approval).
- K. A migrating corrosion inhibitor amine carboxylate water-based admixture (Cortec MCI-2005 NS or equal as approved by the Engineer) shall be added to the concrete mix for concrete used in Item No. 676.1000 Concrete for Sidewalk on Bridge and for Item No. 676.2000 Concrete Repair for Walls. The minimum dosage shall be 1½ pints per cubic yard of concrete (or more as recommended by manufacturer for admixtures require Engineer approval).
- L. A minimum of 7.5 lbs/CY of synthetic structural fiber reinforcing shall be added to the concrete mix for concrete used in Item No. 676.1000 Concrete Repair for Sidewalk on Bridge and for Item No. 676.2000 Concrete Repair for Walls. Fiber reinforcing shall be made of 100% virgin copolymer/polypropylene manufactured to reduce shrinkage cracking and increase fatigue resistance of concrete, and shall be approved by the Engineer.

CONSTRUCTION METHODS:

- A. Refer to Hawaii Standard Specifications for Road and Bridge Construction, 2005 Edition and Special Provisions.
- B. Except as noted otherwise, all vertical dimensions are measured plumb.
- C. For steel reinforcing, stagger all splices where possible.
- D. Steel reinforcing shall be supported, bent and placed as per ACI Detailing Manual, 1994.
- E. For cast-in-place concrete, minimum reinforcement cover: Concrete cast against earth: 3" Concrete cast against a smooth surface or finished to a smooth surface: 2"
- F. At time concrete is placed, reinforcing shall be free from mud, oil, laitance or other coatings adversely affecting bond capacity.
- G. Reinforcement, dowels and other embedded items shall be positively secured before pouring.
- H. All dimensions relating to reinforcing bars (e.g. spacing of bars, etc.) are to centers of bars unless noted otherwise.
- I. All footings shall bear on firm undisturbed natural soils or properly compacted structural fill.
- J. All existing reinforcing and anchor bolts that can be incorporated in the new work shall be bent or cut as required and cleaned before being utilized in the new work.
- K. All reinforcement bars shown with bends shall conform to standard ACI hooks unless noted otherwise.
- L. All existing reinforcing and anchor bolts that cannot be incorporated in the new work shall be completely removed or removed to a minimum depth of one and one-half (1½) inches below finish grade and the area patched with mortar.

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- M. Use of epoxy anchor bolts in lieu of cast in place bolts will be allowed at not cost to the State. Contractor is required to provide epoxy bolt details, calculations and material notes.
- N. Contractor is reminded that the Steel Pipe Bridge Rails needs to be constructed on vertical and horizontal curves to match existing conditions. Contractors are reminded that existing as built drawings for vertical and horizontal curve datas are available in State Department of Transportation, 601 Kamokila Boulevard, Room 609, Kapolei. Contractor is required to provide shop drawings for Steel Pipe Bridge Rails and is responsible for the constructability of Steel Pipe Bridge Rails provided in the shop drawings.
- O. Contractor is responsible for verifying field dimensions, curvature and angles prior to construction and prior to ordering of any materials.
- P. Existing structure to be removed shown by hatched lines. Removal shall be done in such a manner as to preclude any damage to the existing structure(s). Large vibratory type of equipment will not be permitted in the removal operation, nor for drilling of holes. Only small vibratory hand tools accepted by the Engineer will be allowed. Any damage to the existing structure(s) due to the Contractor's operation or negligence shall be repaired at his expense with no cost to the State.
- Q. Recompact existing soil under all new slabs and footings.

REFERENCE:

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

GENERAL:

- A. All items noted incidental will not be paid for separately.
- B. The Contractor shall verify the locations of all existing utility lines and notify their respective owners before commencing with any work.
- C. The Contractor shall verify all grades and dimensions before commencing with any work.
- D. The Contractor shall be solely responsible for the protection of adjacent property, utilities and existing and new structures from damage due to construction. Repairing any damage shall be at no cost to the State.
- E. 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.
- F. In the event of over-excavation, the space between the footing and the ground shall be filled with a minimum of Class D concrete at the Contractor's expense at no cost to the State.
- G. Unless noted otherwise, all exposed concrete edges shall be chamfered ¾".

Ala Wai Canal Bridge
Kukui Nut Tree Leaf Sidewalk

The leaves on the bridge sidewalk are from the State Tree of Hawaii, the Kukui tree, which was brought to Hawaii by early Polynesian settlers. The tree has a spiritual significance of hope and renewal and is symbolic of 'lighting the path'. In ancient Hawaii and in today's cultural practices, the Kukui continues to be used for lamp fuel, food preparation, medicinal purposes and lei adornments.

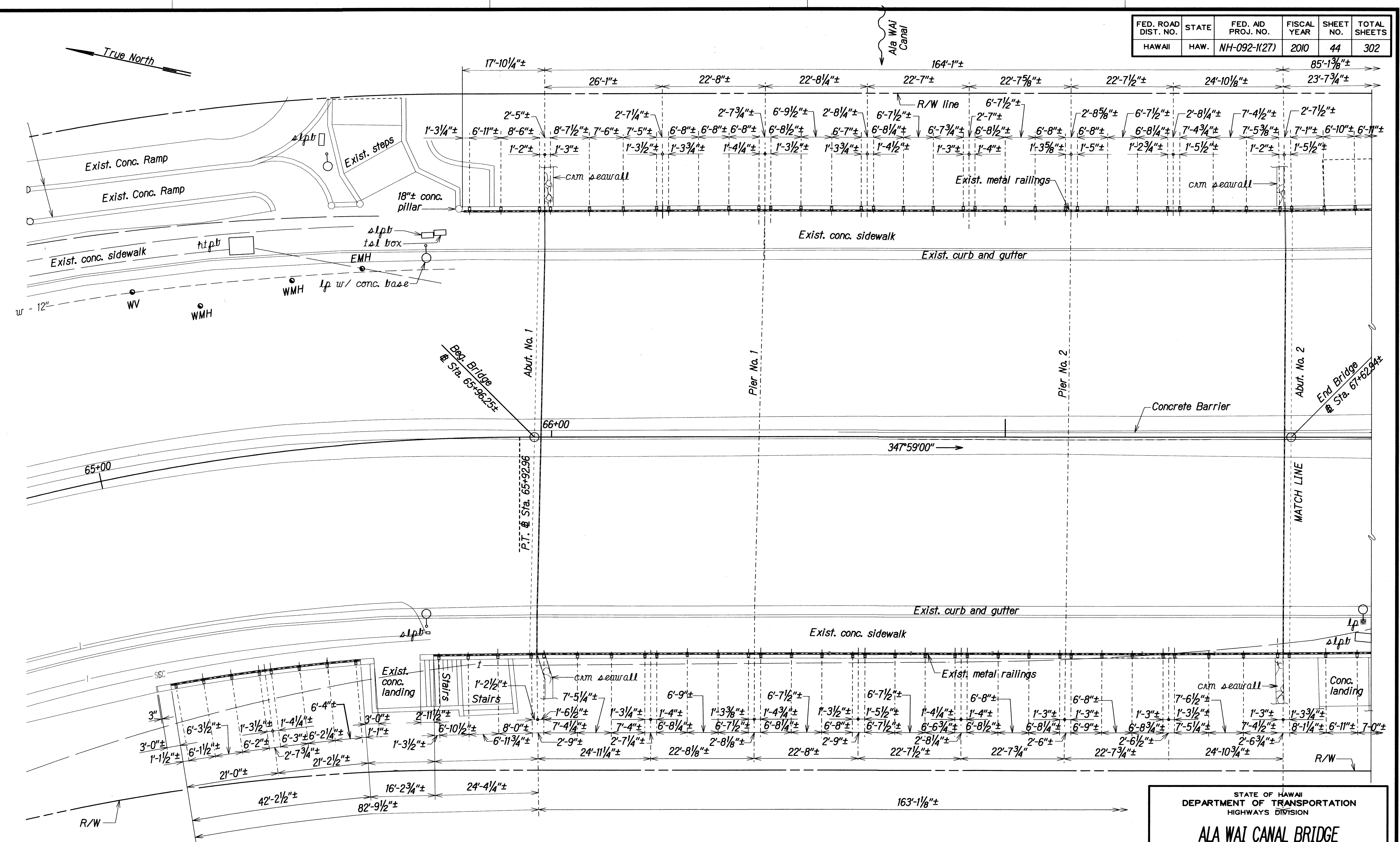
NOTE:

1. See Highway plans and specification for information regarding the 12" x 20" bronze plaque.

2/16/11	Added Change Order supplemental shts. (4) to accomodate junction box drwgs. and information. Moved notes Symbol Diagram to fit additions. Modified tables to accomodate Change Order.
3/15/10	Added Construction Methods Notes M-0 per Addendum No. 6.
3/4/10	Revised Materials Note L per Addendum No. 2.
3/1/10	Added and removed informaton for the synthetic structural fiber reinforcing concrete per Addendum No. 2.
DATE	REVISION

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>ALA WAI CANAL BRIDGE</u> <u>INDEX TO DRAWINGS & GENERAL NOTES</u> <u>NIMITZ HIGHWAY AND</u> <u>ALA MOANA BOULEVARD RESURFACING</u> <u>AND HIGHWAY LIGHTING REPLACEMENT</u> <u>Federal Aid Project No. NH-092-1(27)</u>	
Scale: As Noted	Date: Jun, 2009
SHEET No. Q1 OF 23 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	44	302



PARTIAL EXISTING PLAN
Not to scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

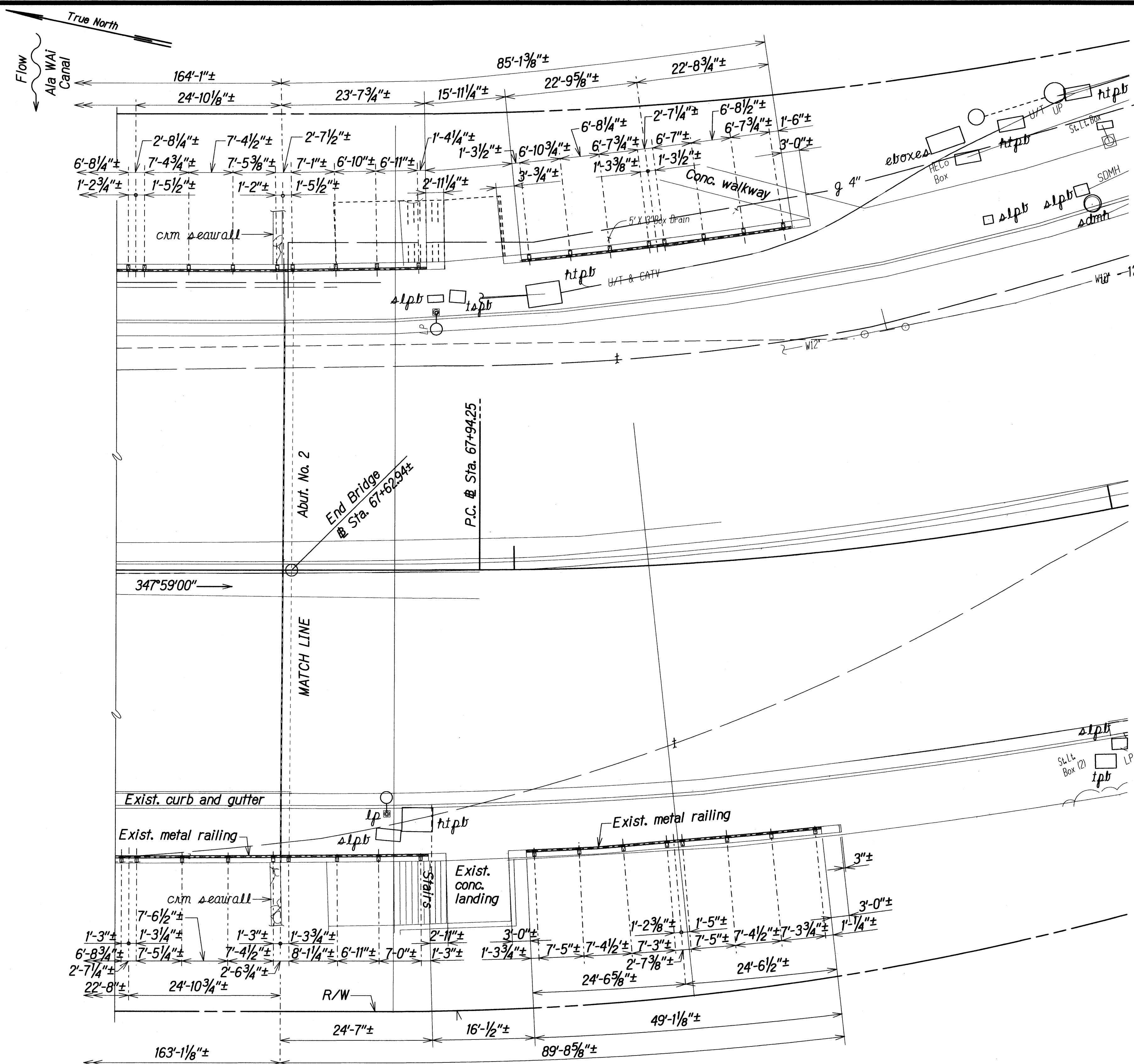
ALA WAI CANAL BRIDGE
PARTIAL EXISTING PLAN
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

Scale: As Noted Date: Jun. 2009

SHEET No. Q2 OF 23 SHEETS

ORIGINAL PLAN	DATE	XXX 1991
DRAWN BY	XXX	
DESIGNED BY	XXX	
QUANTITIES BY	XXX	
CHECKED BY	XXX	
NOTE BOOK	XXX	
Stamp: 6/20/09		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	45	302



PARTIAL EXISTING PLAN

Not to scale

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
	DRAWN BY _____	XXX 1991
	TRACED BY _____	*
NOTE BOOK	DESIGNED BY _____	XXX 1991
6ambba3.dgn	QUANTITIES BY _____	XXX 1991
	CHECKED BY _____	XXX 1991

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE
PARTIAL EXISTING PLAN

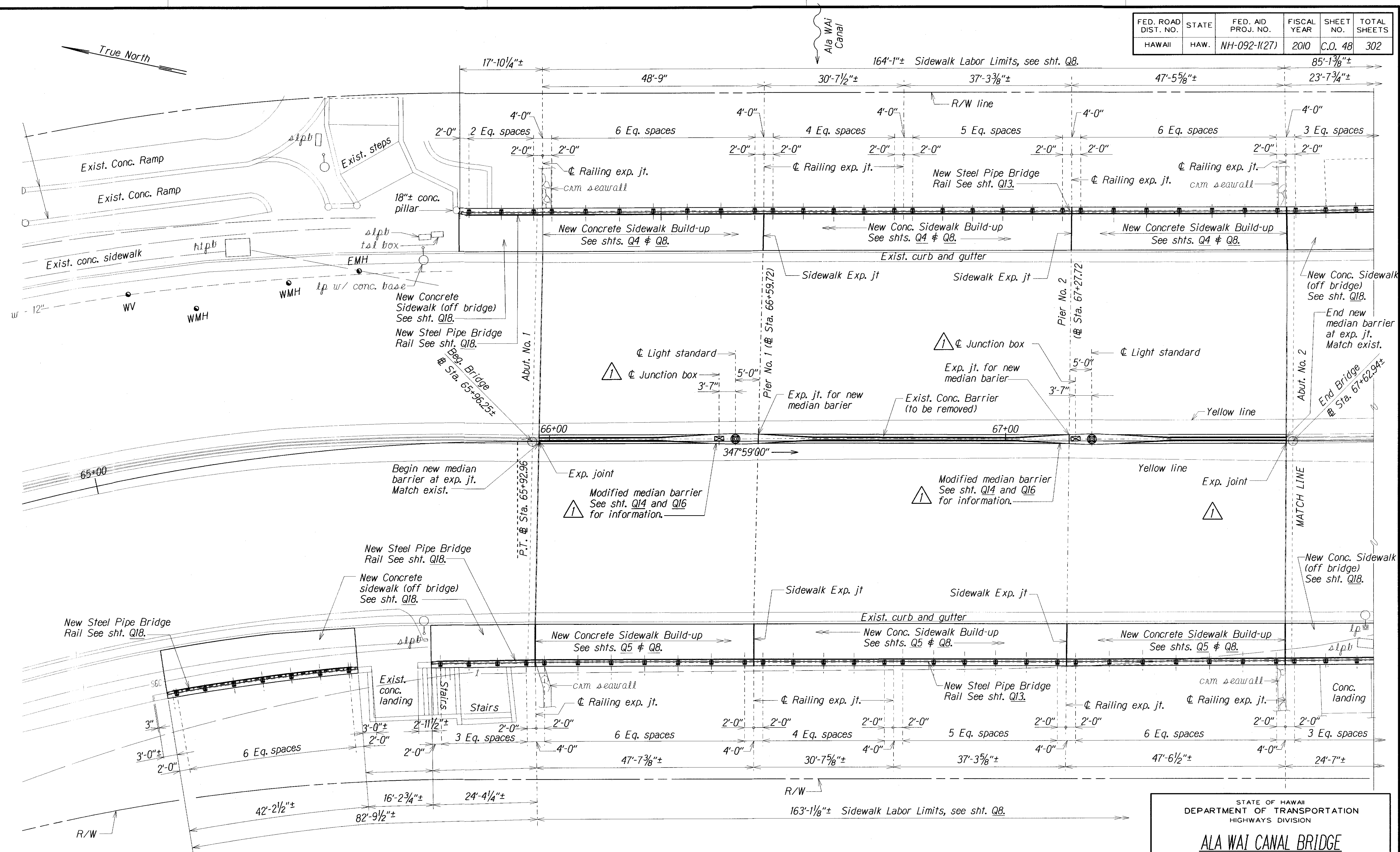
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NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

Scale: As Noted

Date: Jun, 2009

SHEET No. 03 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	C.O. 48	302



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

NOTE:
1. For railing expansion joint, see sht. Nos. Q10, Q11 & Q12.

PARTIAL LAYOUT PLAN

Not to scale

2/16/11	Added and corrected Modified Median Barrier to accommodate the addition of junction boxes per Change Order. Added, corrected and moved labels for clarity.
DATE	REVISION

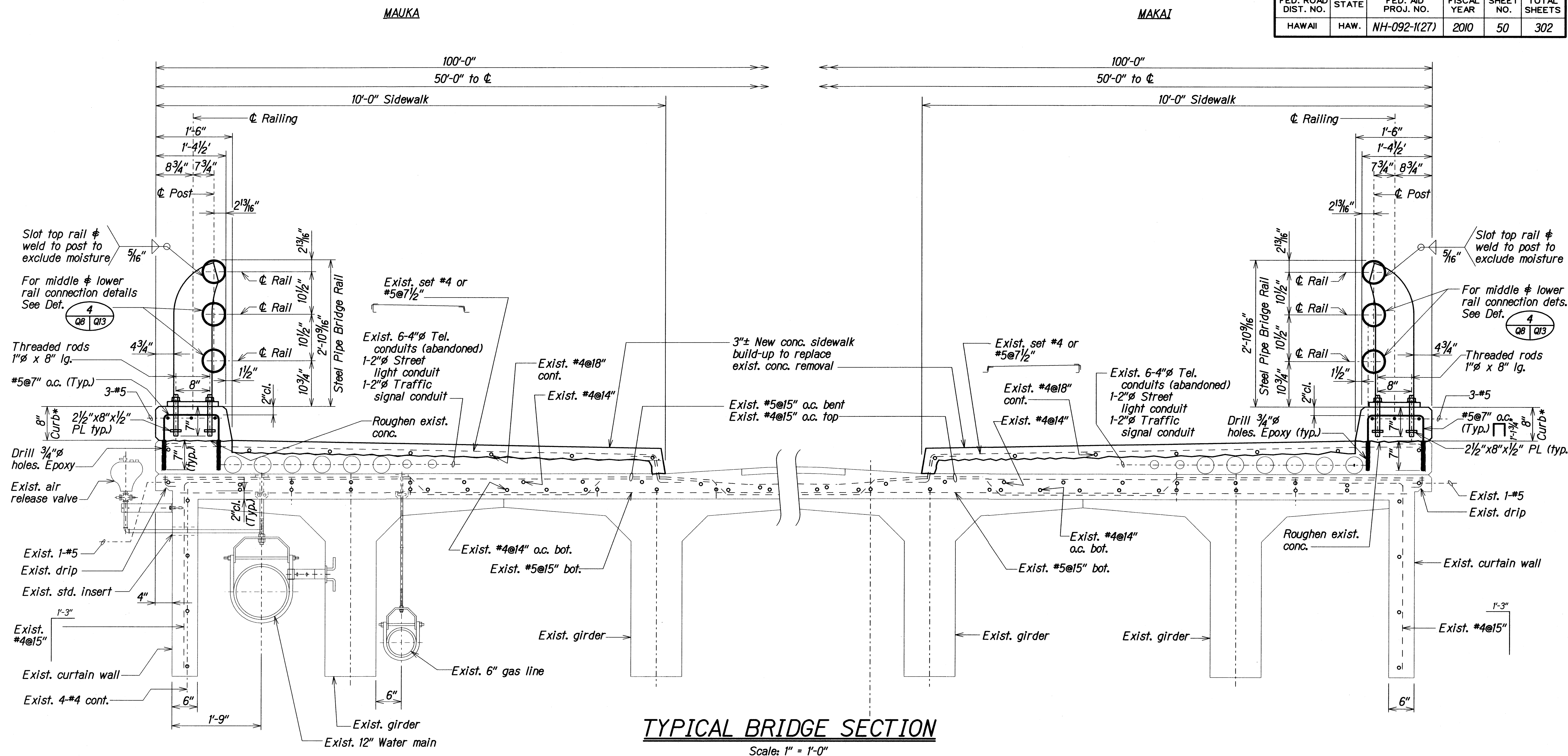
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE
PART LAYOUT PLAN
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

Scale: As Noted
Date: Jun, 2009

SHEET No. Q6 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	50	302



- NOTE:
1. Verify all location of utilities.
 - * 2. Curb to be included under Item No. 676J000 Concrete Repair for Sidewalk on Bridge.
 3. All new reinforcement bars to be hot-dipped galvanized.
 4. For curb build-up between rail posts, see sht. Q9.

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

STATE OF HAWAII
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HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE
TYPICAL BRIDGE SECTION
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

Scale: As Noted
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SHEET No. Q8 OF 23 SHEETS

[illegible]

12" 10 1/2" Conc. Curb Build-up 2 1/2" Build-up 8" 2" cl. (typ.) **3-#6 added at curb build-up **5-#6 cont. #5@6" stirr. SECTION A (ALONG CL RAILING ON RETAINING WALL)

Varies 10 1/2" Conc. Curb Build-up 2 1/2" Build-up 8" Side walk Hick bars as necessary #5@7" oc (typ.) 3-#5 at curb build-up 2" cl. (typ.) Roughen exist. conc. Threaded rods 1" x 8" lg. (typ.) Drill 3/4" holes Epoxy (typ.)

B

Railing →

1'-6"

1'-4½"

Top of curb under post

7¾" 8¾"

1'-4⅛"±

Top of curb build-up

2'13⁄16"

Post

Railing

4¾"

Threaded rods
1"Ø x 8" lg.

3-#5 at curb build-up

3-#5 under post (only)

#5@7" oc (typ.)

1'-4¼"

2-109⁄16"

Steel Pipe Bridge Rail

2'13⁄16"

10½"

10½"

10½"

2" cl.
(typ.)

1½"

8"

Build-up
curb*

10½"

2½"x8"x½" PL (typ.)

Exist. 1-#5

Exist. drip

Outline at regular
curb height

Drill ¾"Ø holes
Epoxy (typ.)

Roughen exist. conc.

Exist. curtain wall

NOTE:

1. For existing reinforcement and railing information , see above sections or sht. no. Q13.
- * 2. Regular curb stirrup and #6 conf. (horiz. bar) arrangement at curb build-up on ref. wall. 
- ** 3. 3-#6 add to regular curb stirrup and #6 conf. (horiz. bar) arrangement at curb build-up on ref. wall. 

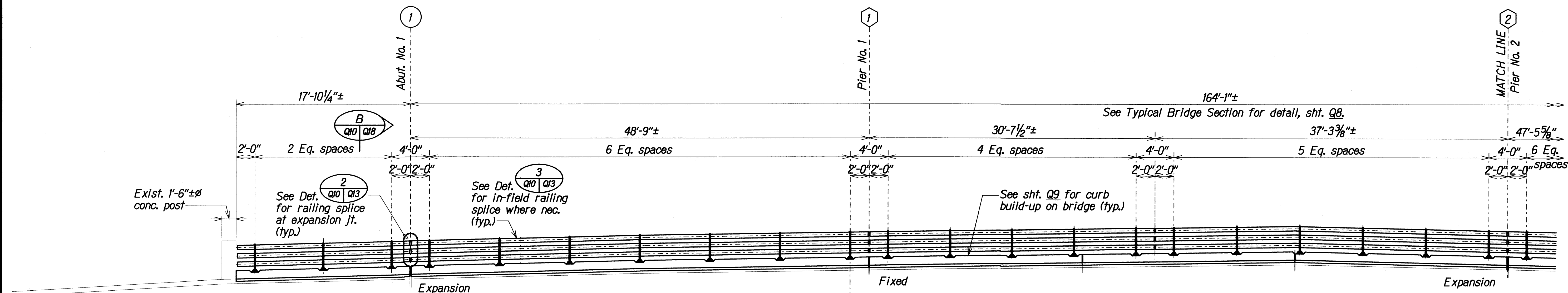
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ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTE BOOK	DRAWN BY <u>XXX</u>
	TRACED BY _____
	DESIGNED BY <u>XXX</u>
	QUANTITIES BY <u>XXX</u>
	CHECKED BY <u>XXX</u>
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	<u>XXX</u>
	<u>XXX</u>

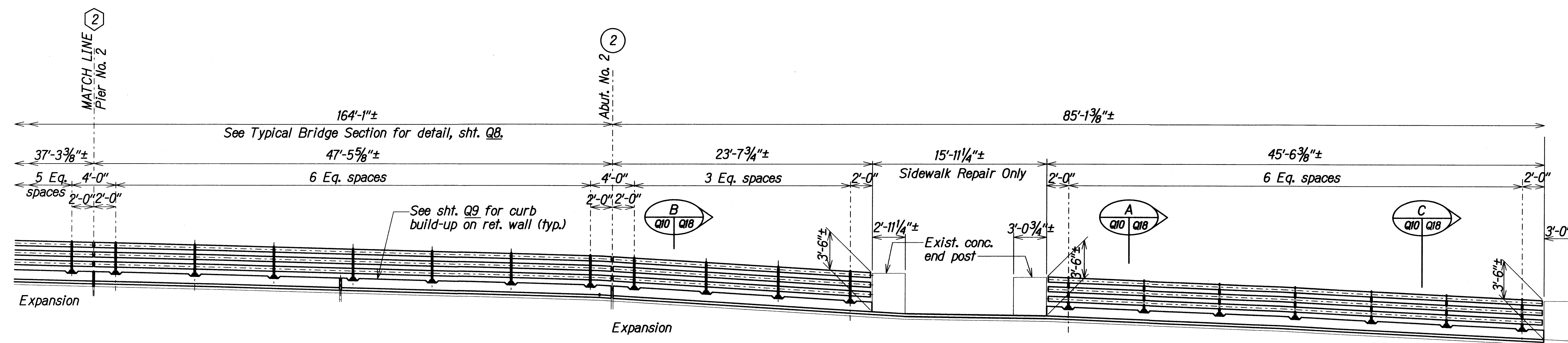
Scale: As Noted Date: Jun, 2009

SHEET No. 09 OF 023 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	52	302



PARTIAL DEVELOPED METAL RAILING ELEVATION



PARTIAL DEVELOPED METAL RAILING ELEVATION

STEEL PIPE BRIDGE RAILING ELEVATION - MAUKA

Not to scale

SURVEY PLOTTED BY	DATE
DESIGNED BY	XXX 09/
QUANTITIES BY	XXX 09/
CHECKED BY	XXX 09/

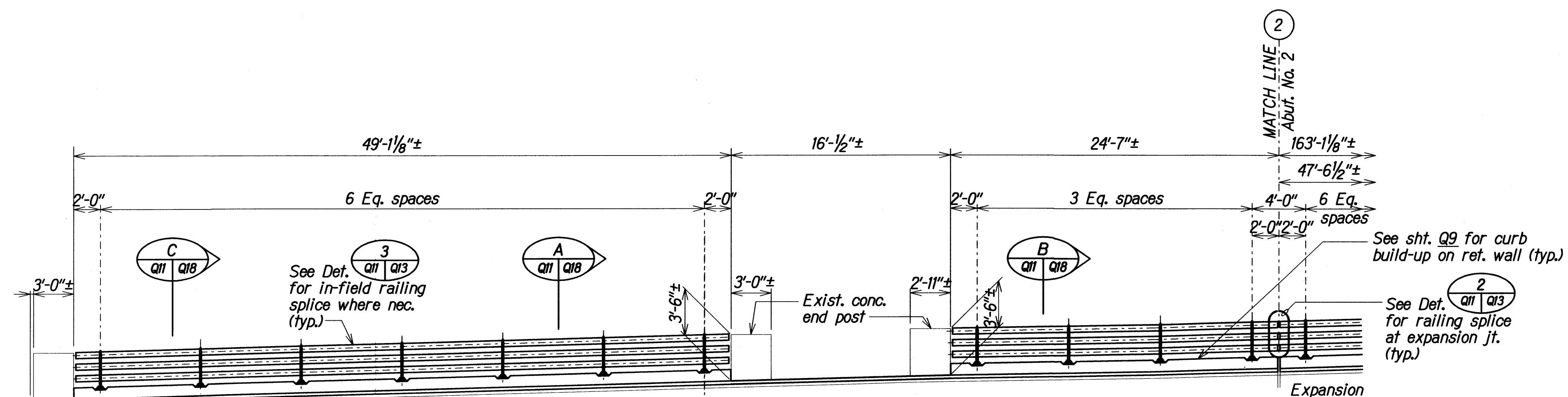
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE
STEEL PIPE BRIDGE RAILING ELEVATION - MAUKA
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

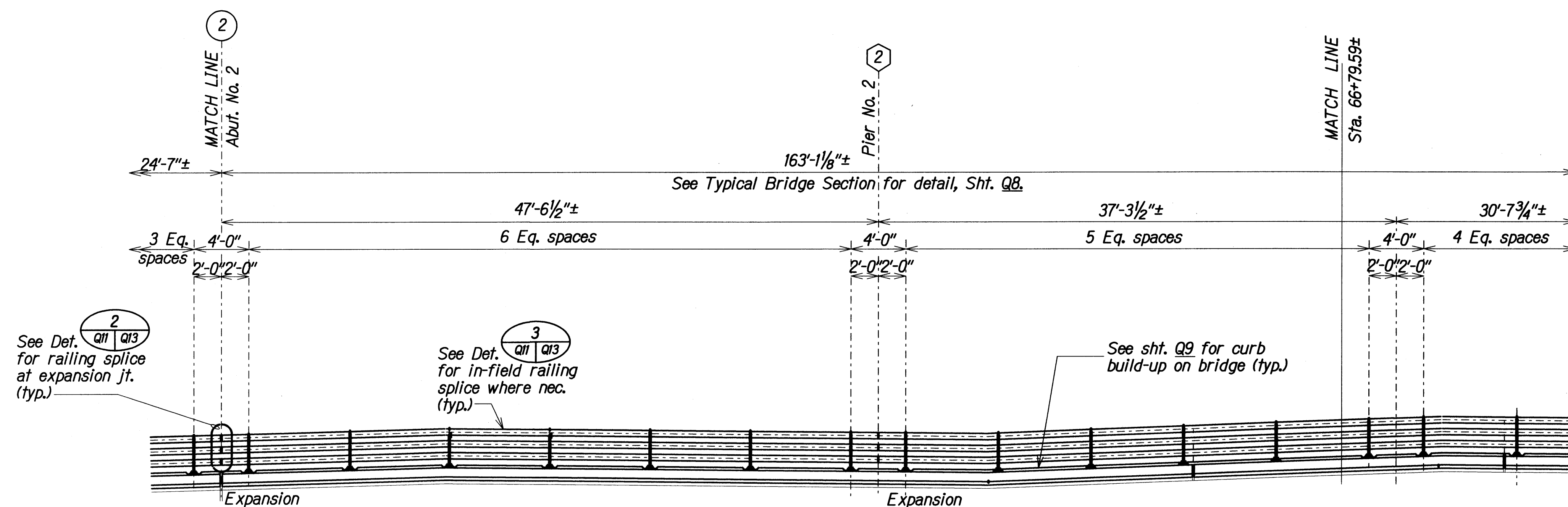
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SHEET No. Q10 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	53	302



PARTIAL DEVELOPED METAL RAILING ELEVATION



PARTIAL DEVELOPED METAL RAILING ELEVATION

PARTIAL STEEL PIPE BRIDGE RAILING ELEVATION - MAKAI

Not to scale

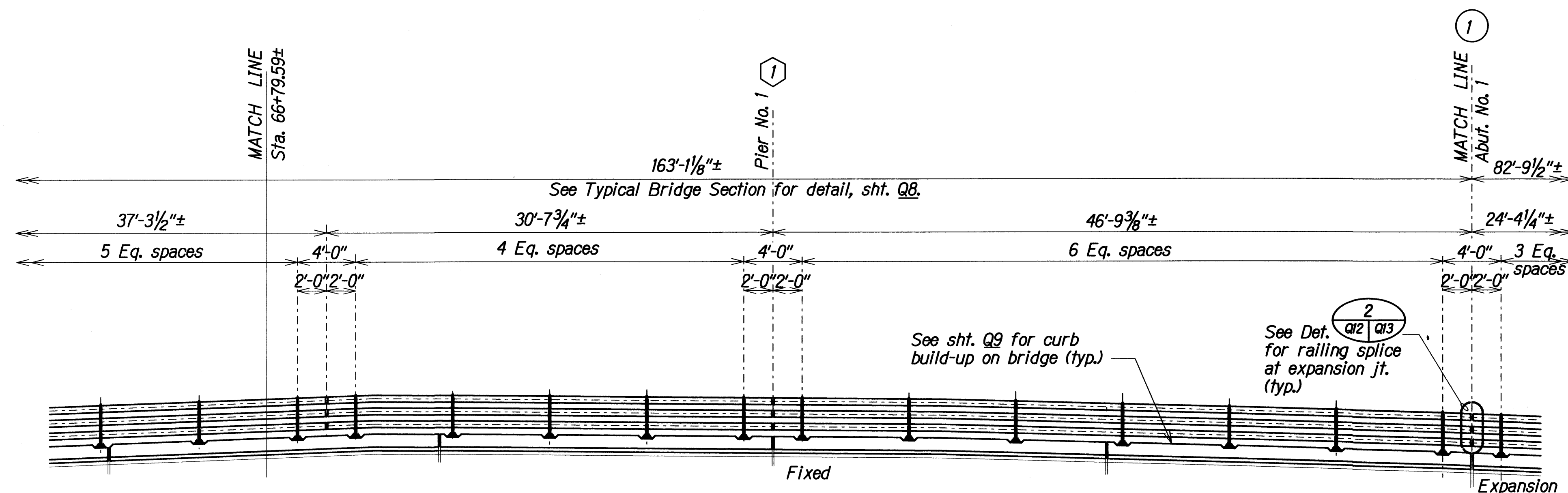
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NOTE BOOK	DRAWN BY	XXX 1991
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QUANTITIES BY	XXX 1991	
CHECKED BY	XXX 1991	

STATE OF HAWAII
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HIGHWAYS DIVISION

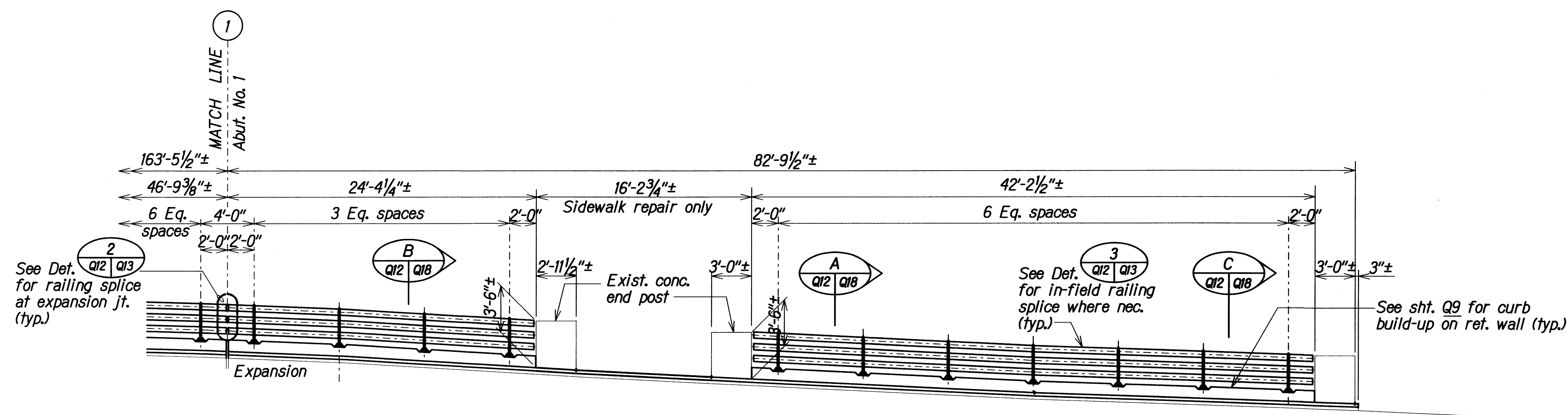
ALA WAI CANAL BRIDGE
PARTIAL STEEL PIPE BRIDGE RAILING ELEVATION - MAKAI
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

Scale: As Noted Date: Jun. 2009

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HAWAII	HAW.	NH-092-1(27)	2010	54	302



PARTIAL DEVELOPED METAL RAILING ELEVATION



PARTIAL DEVELOPED METAL RAILING ELEVATION

PARTIAL STEEL PIPE BRIDGE RAILING ELEVATION- MAKAI

Not to scale

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	XXX/99
Quantities	DESIGNED BY	XXX/99
	CHECKED BY	XXX/99

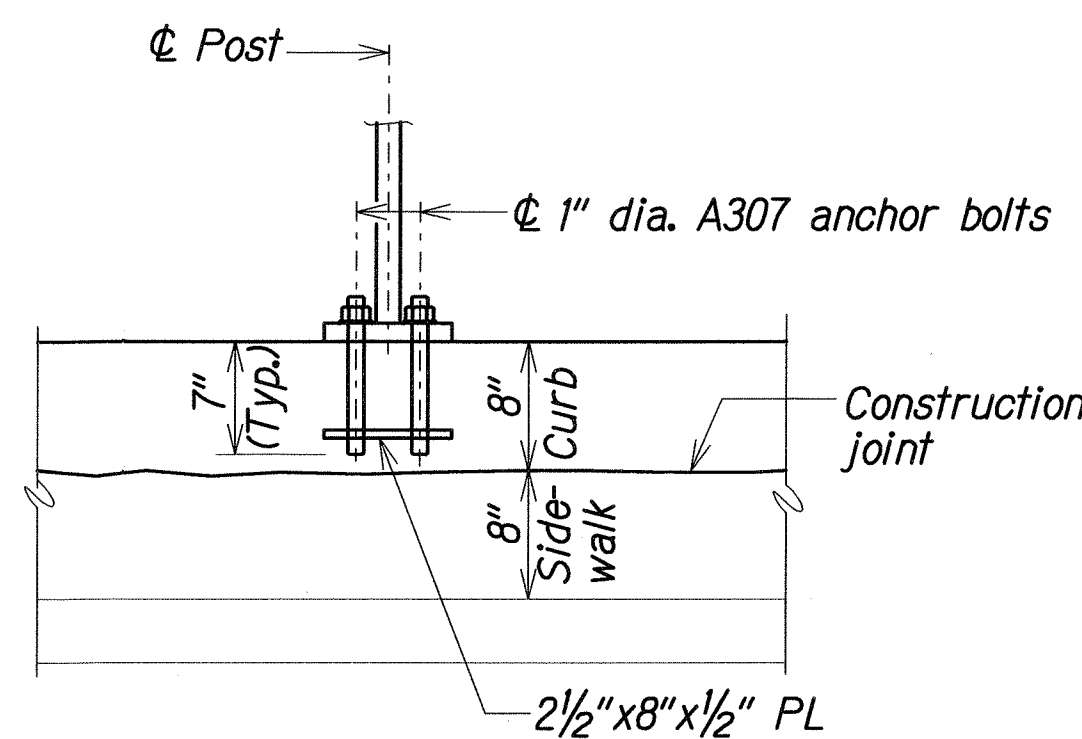
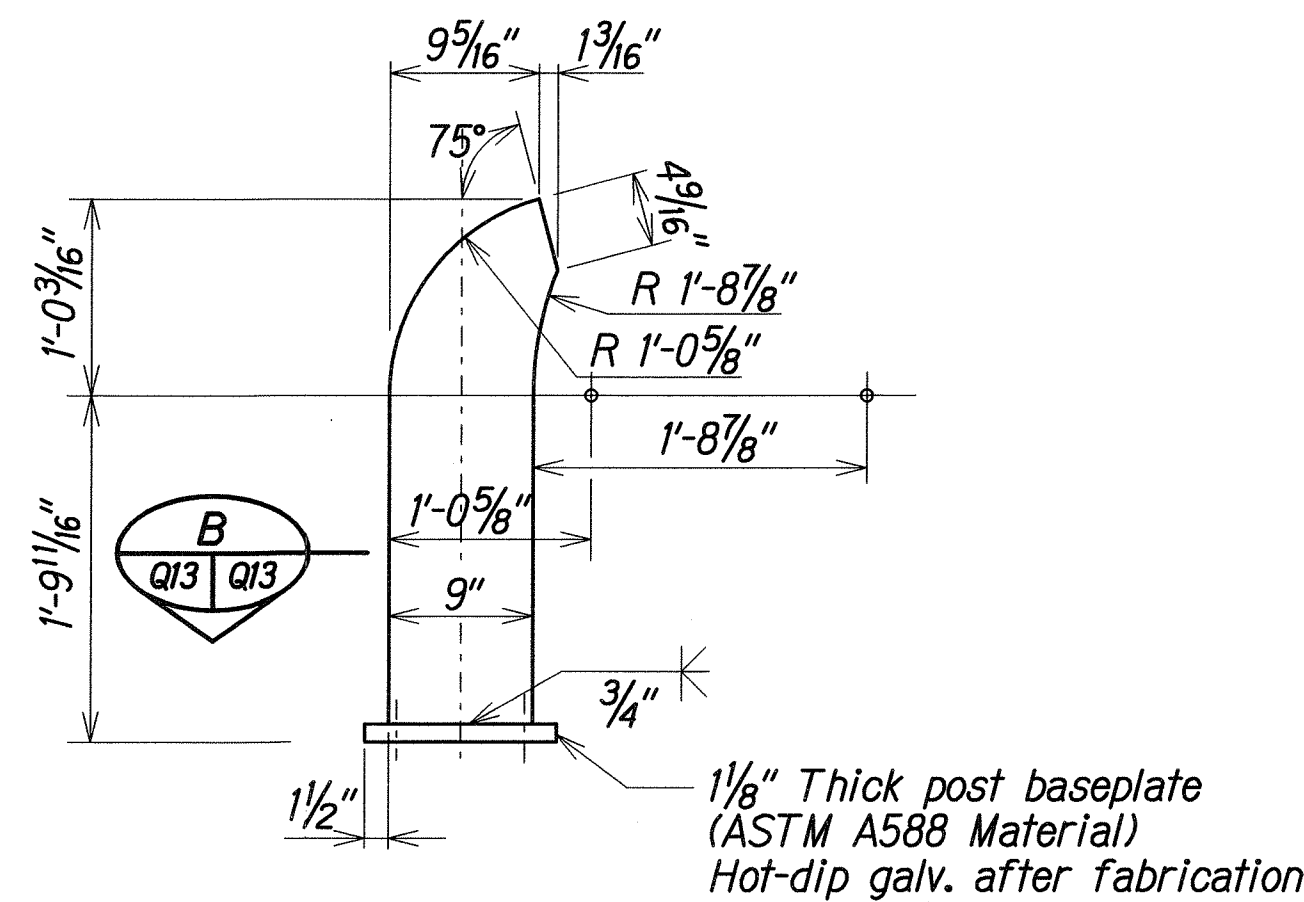
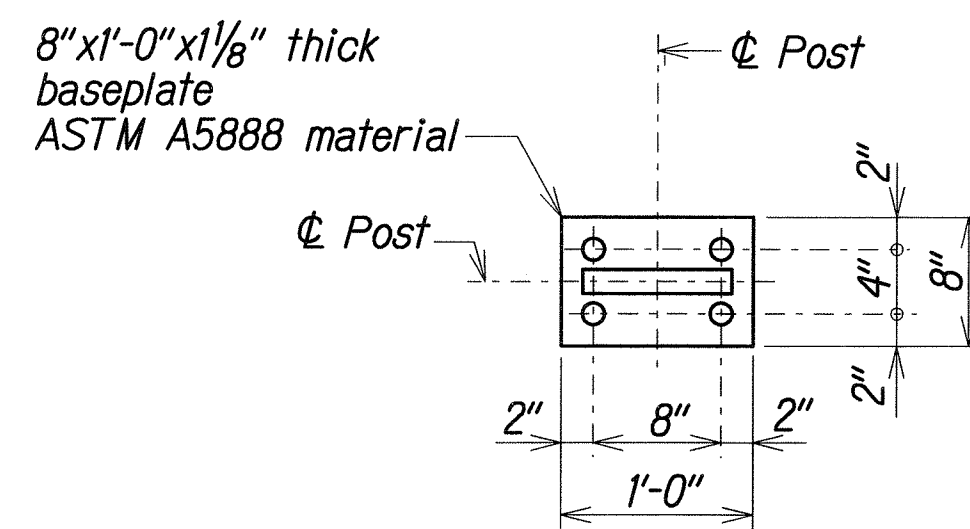
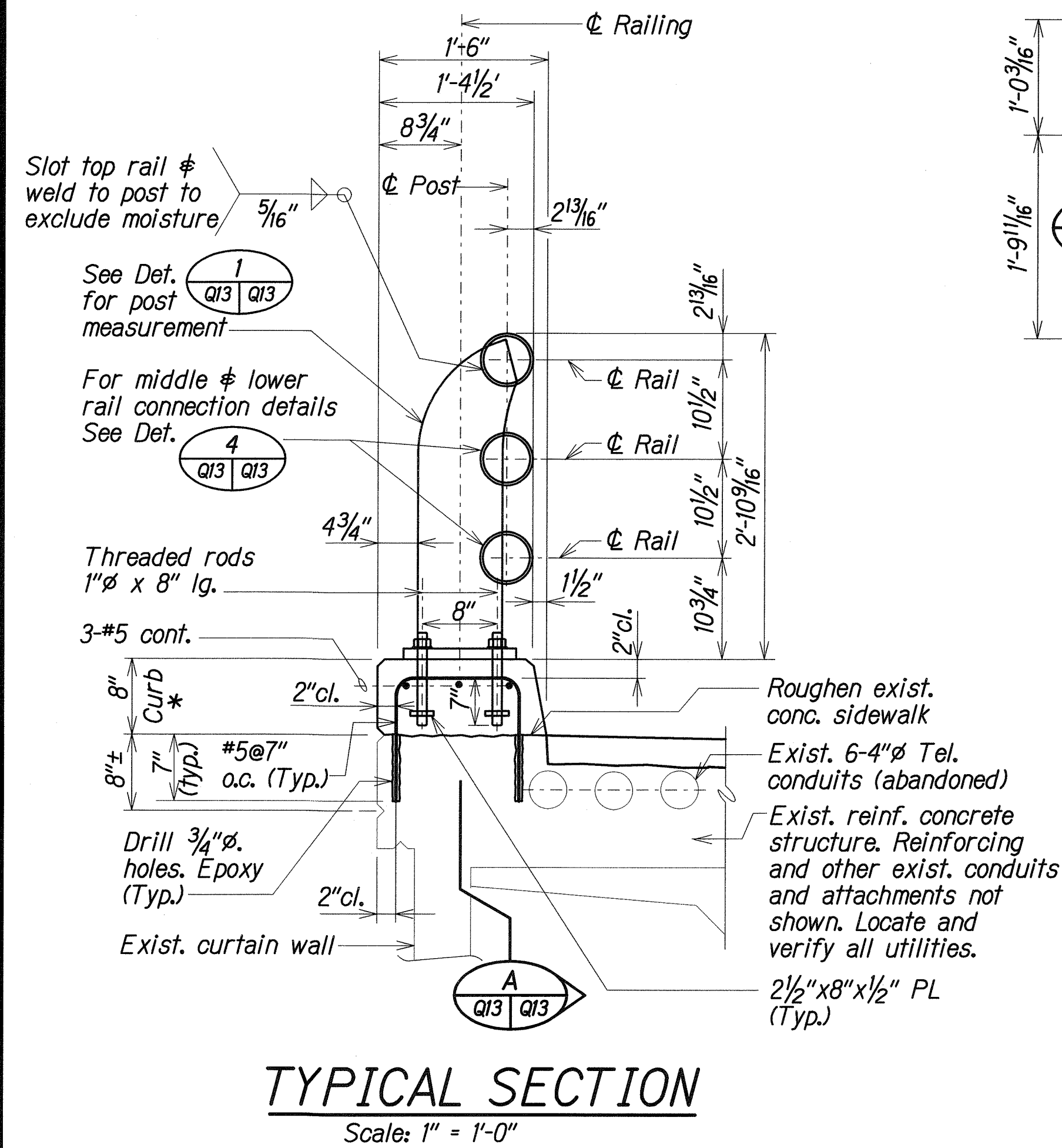
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE
PARTIAL STEEL PIPE RAILING ELEVATION - MAKAI
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

Scale: As Noted
Date: Jun. 2009

SHEET No. Q12 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	ADD 55	302

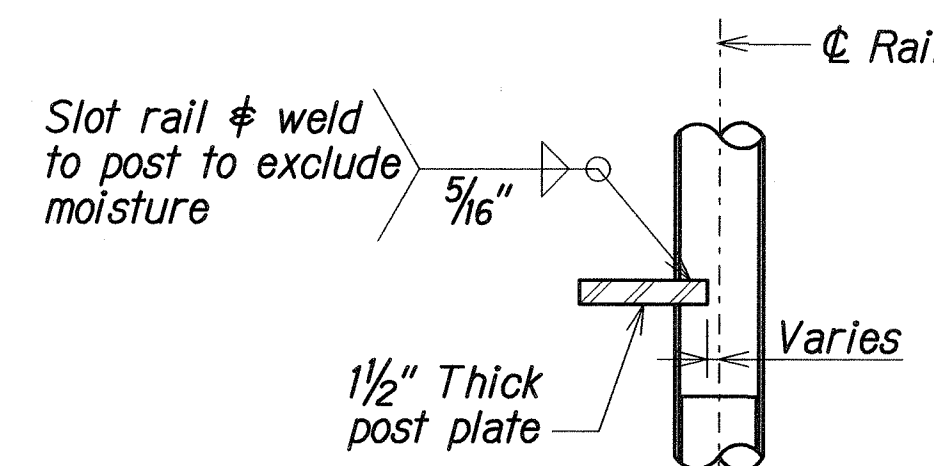
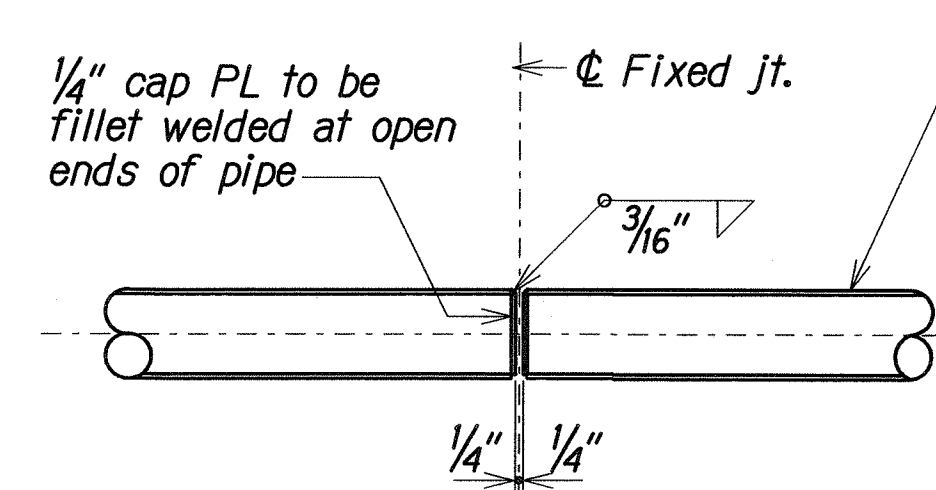


FIELD SIDE VIEW DECK DETAIL

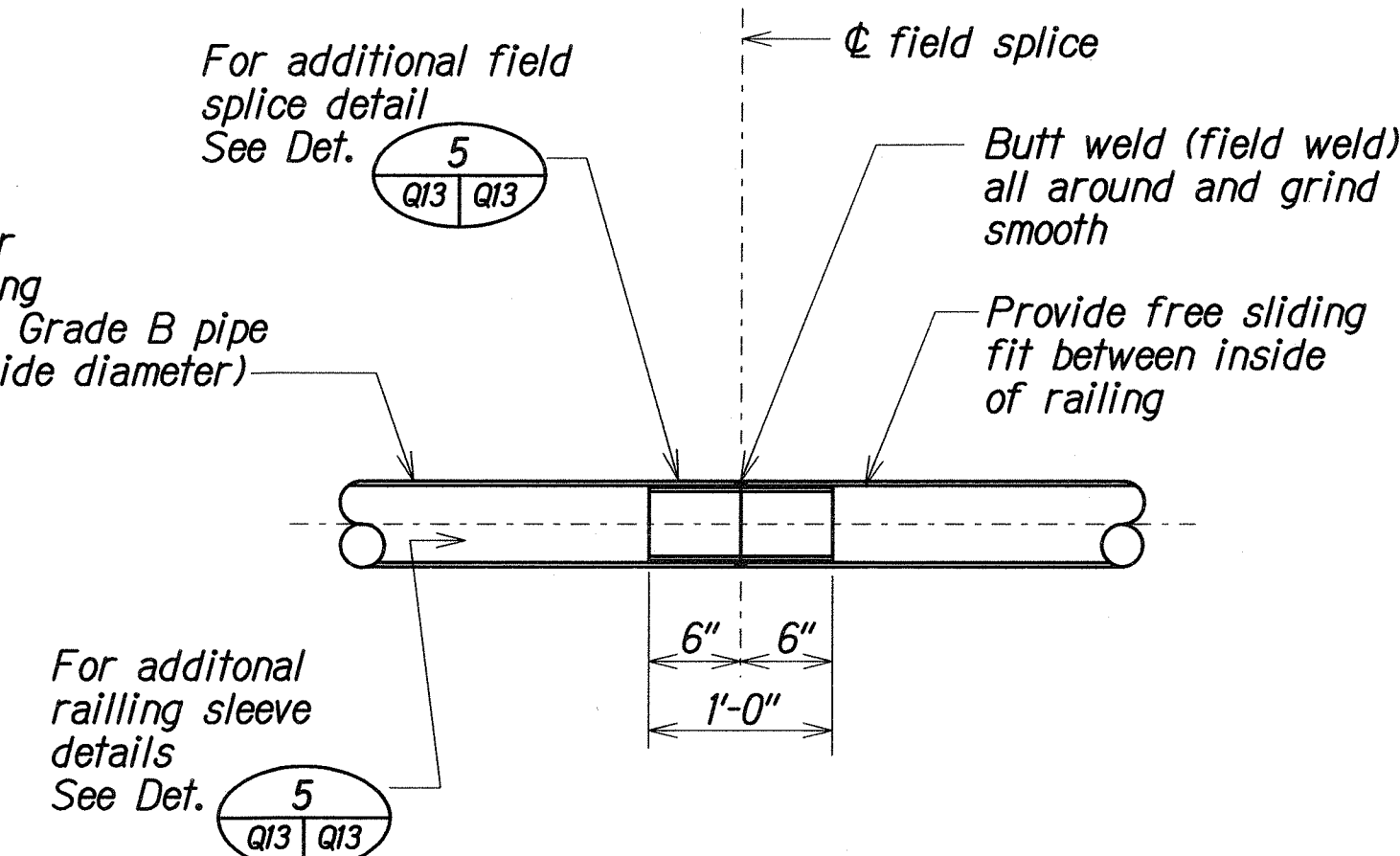
STEEL PIPE BRIDGE RAIL DETAILS

NOTE:

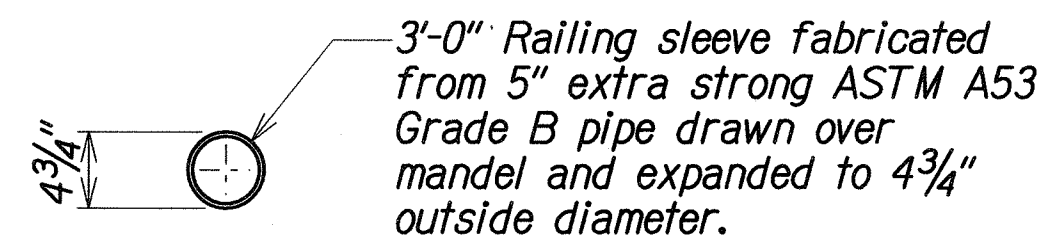
* 1. Curb to be included under Item No. 676.1000 Concrete Repair for Sidewalk on Bridge.



RAILLING CONNECTION DETAIL
(TYPICAL FOR TWO LOWER RAILS)



TYPICAL RAILING SLEEVE SECTION
FOR FIELD SPLICE AND
EXPANSION JOINT DETAILS

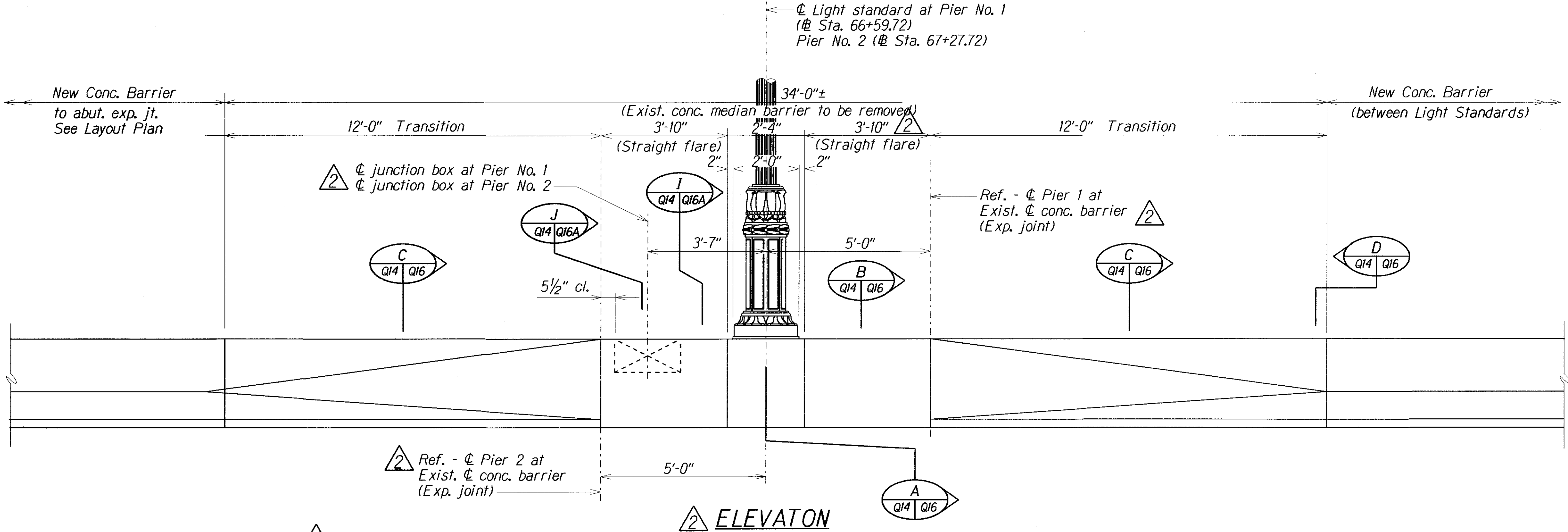
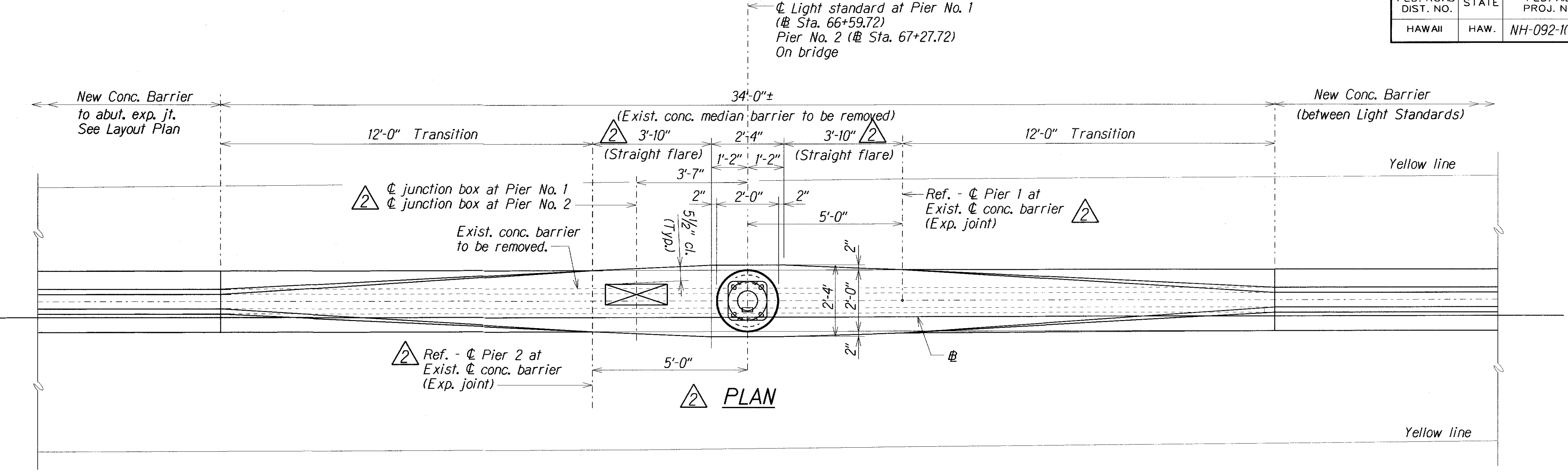


ORIGINAL PLAN	DATE
DESIGNED BY	XXX
CHECKED BY	XXX
NOTED BY	XXX
QUANTITIES BY	XXX
CHECKED BY	XXX

3/10/10	Revised Det. 2 and Det. 3.
DATE	REVISION

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
ALA WAI CANAL BRIDGE STEEL PIPE BRIDGE RAIL DETAILS NIMITZ HIGHWAY AND ALA MOANA BOULEVARD RESURFACING AND HIGHWAY LIGHTING REPLACEMENT Federal Aid Project No. NH-092-1(27)
Scale: As Noted
Date: Jun, 2009
SHEET No. Q13 OF 23 SHEETS

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- NOTE:
1. Modified Median Barrier to be paid under Item No. 606.2000 ^① Modified Median Barrier.
 2. Modified Median Barrier off bridge similar, except barrier extended 9" below finish grade. See sht. *Q16 for details.
 3. For light standards, see Electrical Plans.
 4. Locate junction boxes in top of concrete barrier.
 5. Conduits to be located within rebar cage. Spacing shall be sufficient for concrete aggregate to pass through. 1 1/2" minimum clearance between conduits (horizontal).
 5. See sht. *Q16A for Junction Box Schedule.

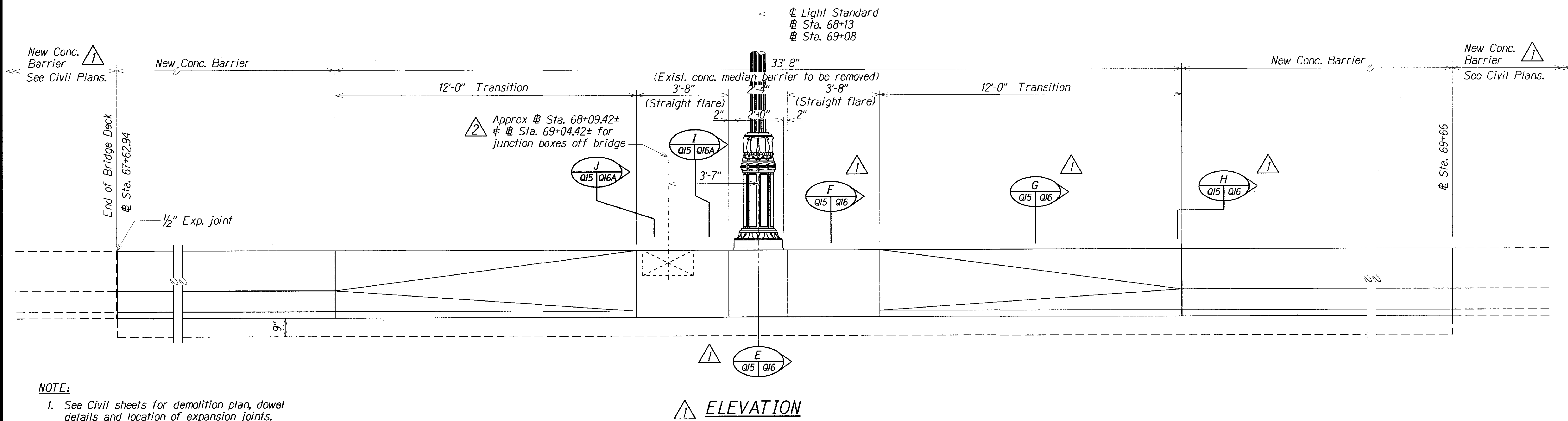
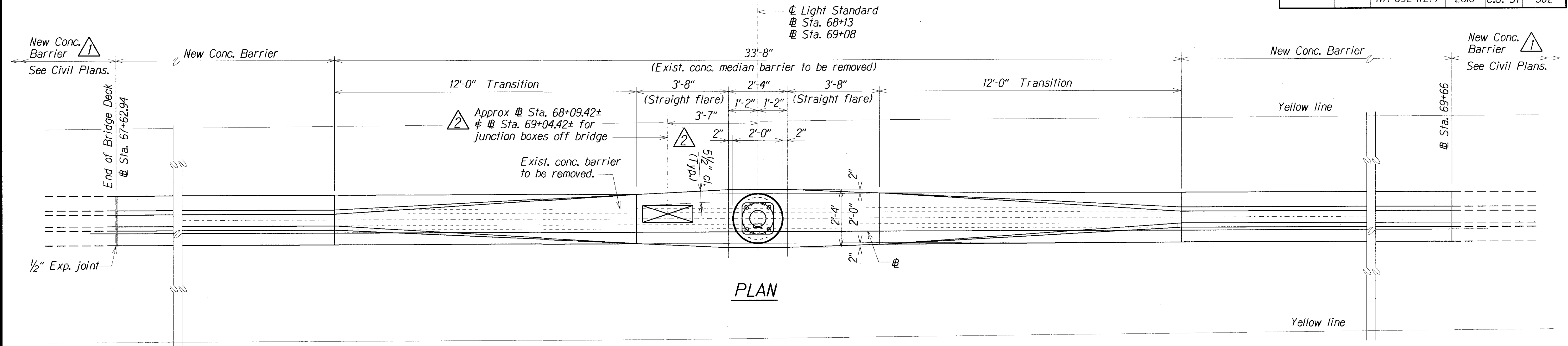
MODIFIED MEDIAN BARRIER ON ALA WAI CANAL BRIDGE ^②
WITH LIGHT STANDARD & JUNCTION BOX

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

1/11/11	Added to Notes, corrected length to 3'-10" on both sides of light standard and added/moved labels for clarity per Change Order to accommodate addition of junction box. Also changed and moved titles for clarity.
2/25/10	Corrected Note 1 per Addendum No. 1. Item No. for Median Barrier is 606.2000, instead of 676.10000.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ALA WAI CANAL BRIDGE
PLAN & ELEVATION - MODIFIED MEDIAN BARRIER ^②
ON ALA WAI CANAL BRIDGE W/LIGHT STANDARD & JUNCTION BOX
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)
Scale: As Noted Date: Jun, 2009
SHEET No. Q14 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	C.O. 57	302



- NOTE:**
1. See Civil sheets for demolition plan, dowel details and location of expansion joints.
 2. For light standards, see Electrical Plans.
 3. Modified Median Barrier off bridge extended 9" below finish grade. See sht *Q16 for details.
 4. Locate junction boxes in top of concrete barrier.
 5. Conduits to be located within rebar cage. Spacing shall be sufficient for concrete aggregate to pass through. (1 1/2" minimum clearance between horizontal conduits.)
 6. See sht. *Q16A for Junction Box Schedule.

MODIFIED MEDIAN BARRIER OFF BRIDGE WITH LIGHT STANDARD & JUNCTION BOX

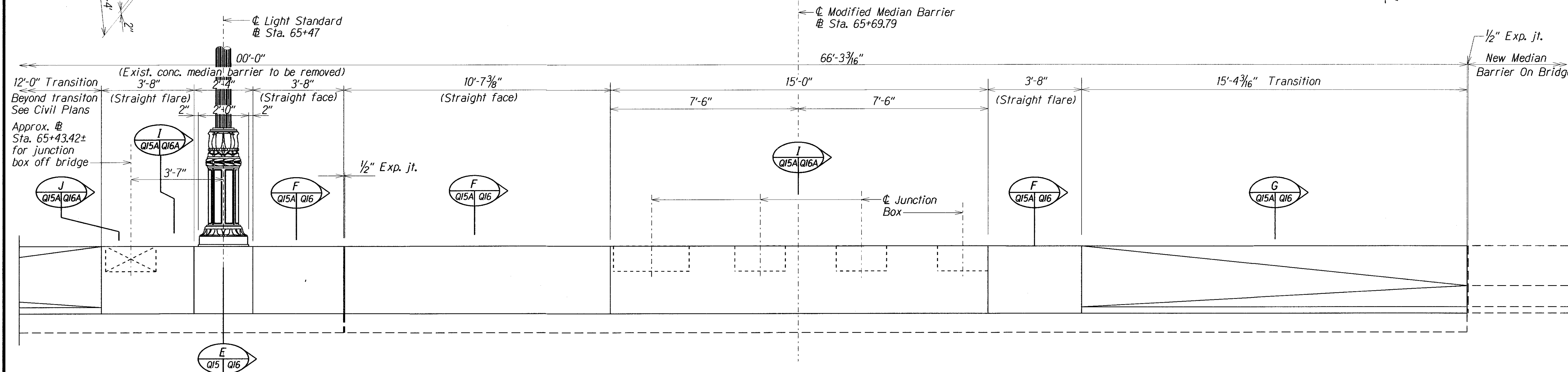
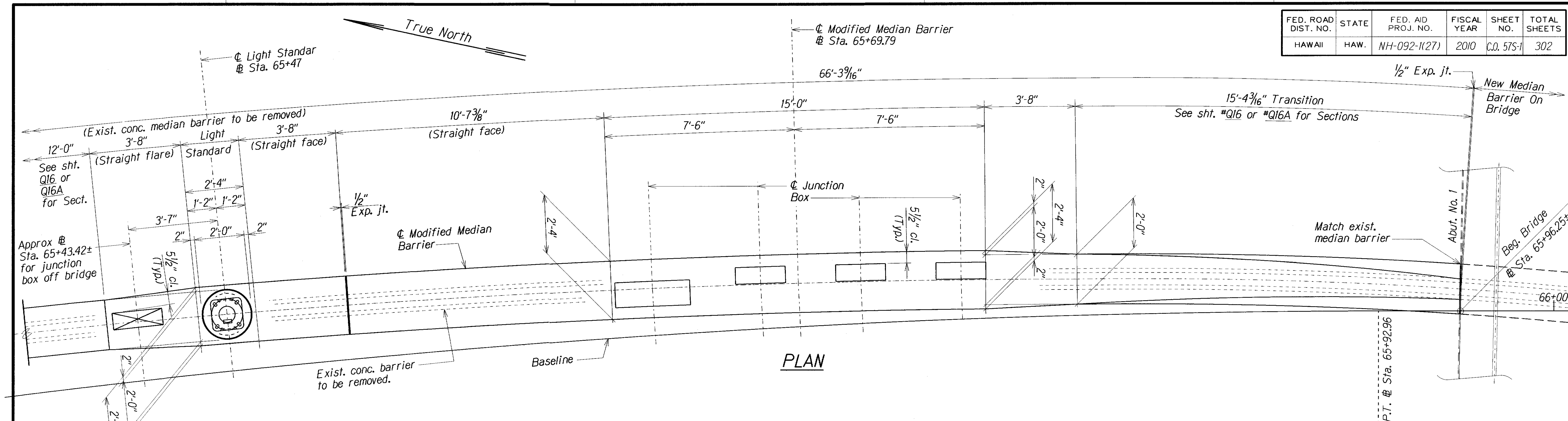
Scale: 1/2" = 1'-0"

1/12/11	Added junction box, notes and added/moved labels for clarity per Change Order. Titles changed and moved for clarity. Section alpha designation changed for clarity
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ALA WAI CANAL BRIDGE
PLAN & ELEVATION - MODIFIED MEDIAN BARRIER
OFF BRIDGE W/LIGHT STANDARD & JUNCTION BOX
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)
Scale: As Noted
Date: Jun, 2009

SHEET No. Q15 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	C.O. 57S-1	302



NOTE:

1. See Civil sheets for demolition plan, dowel details and location of expansion joints.
2. For light standards, see Electrical Plans.
3. Modified Median Barrier off bridge extended 9" below finish grade. See sht. #Q16 for details.
4. Locate junction boxes in top of concrete barrier.
5. Conduits to be located within rebar cage. Spacing shall be sufficient for concrete aggregate to pass through. (1 1/2" minimum clearance between horizontal conduits.)
6. See sht. #Q16A for Junction Box Schedule.
7. Stations measured along Φ . Measurement of median barrier along Φ of median barrier.
8. Measurement of Modified Median Barrier along Φ of existing barrier. Contractor to verify measurements. Approx. start of transition Sta. 65+30.19±.

**△ MODIFIED MEDIAN BARRIER OFF BRIDGE
WITH LIGHT STANDARD & JUNCTION BOX
(AT Φ STA. 65+47 AND Φ STA. 65+69.79)**

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

8/13/11

This sheet, C.O. 57 S-1, supercedes the previous C.O. 57S-1 sheet. The length of the tapered section nearest the bridge was lengthened. A junction box & light standard at Φ Sta. 65+47 were added. Junction box locations reflect station number changes.

DATE

REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE
PLAN & ELEVATION AT Φ STA. 65+47 & Φ STA. 65+69.79
MODIFIED MEDIAN BARRIER WITH JUNCTION BOX ON CURVE
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Project No. NH-092-1(27)

Scale: As Noted Date: Dec. 2010

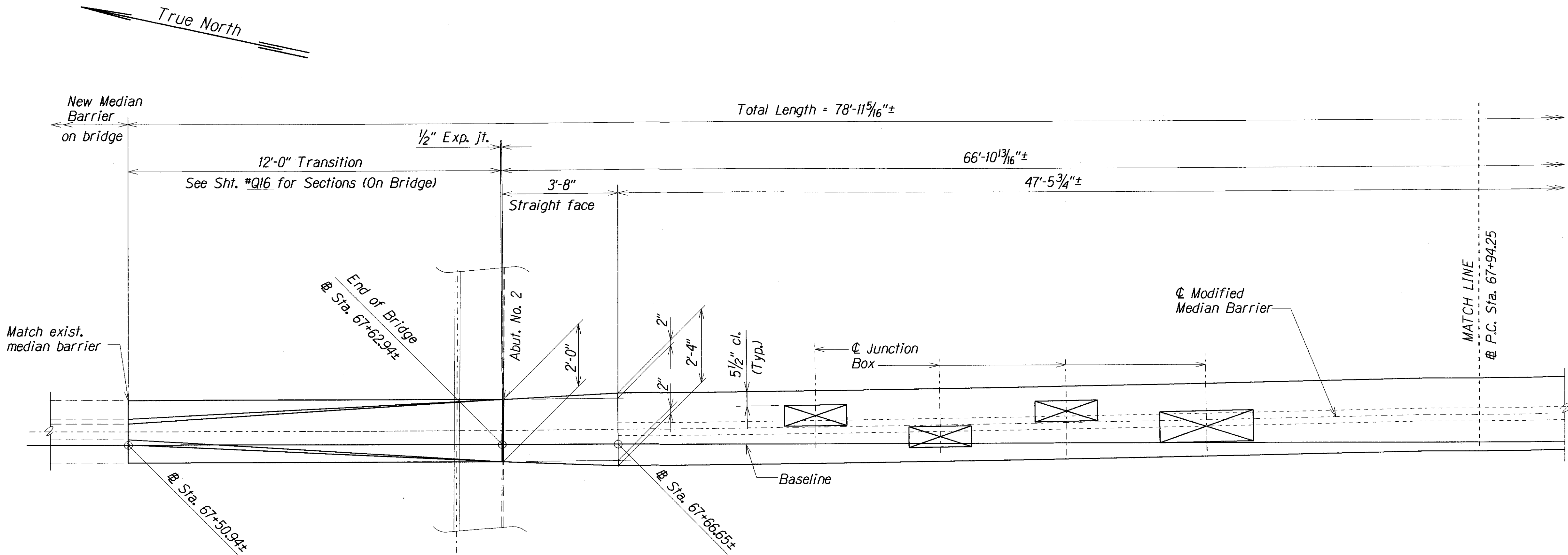
SHEET No. Q15A OF 23 SHEETS

C.O. 57 S-1

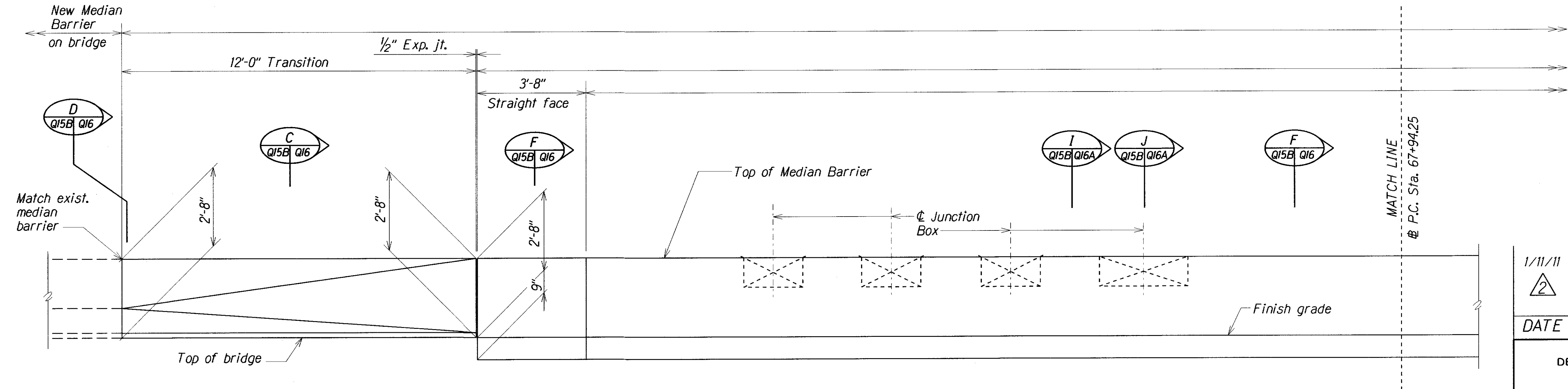
SURVEY PLOTTED BY	DATE
XXX	XXX/XXX/XXX
DESIGNED BY	XXX/XXX/XXX
NOTE BOOK	XXX/XXX/XXX
QUANTITIES BY	XXX/XXX/XXX
CHECKED BY	XXX/XXX/XXX

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	C.O.57S-2	302

- NOTE:
- For junction box, conduit, location and size, see Electrical Plans.
 - See sht. #Q16A for Junction Box Schedule.



PARTIAL PLAN - # STA. 67+50.94± TO # STA. 67+94.25±



PARTIAL PLAN - # STA. 67+50.94± TO # STA. 67+94.25±

MODIFIED MEDIAN BARRIER ON/OFF BRIDGE WITH JUNCTION BOX

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

1/11/11
2 This sheet was added as a supplemental sheet for the addition of junction boxes per Change Order.

DATE REVISION

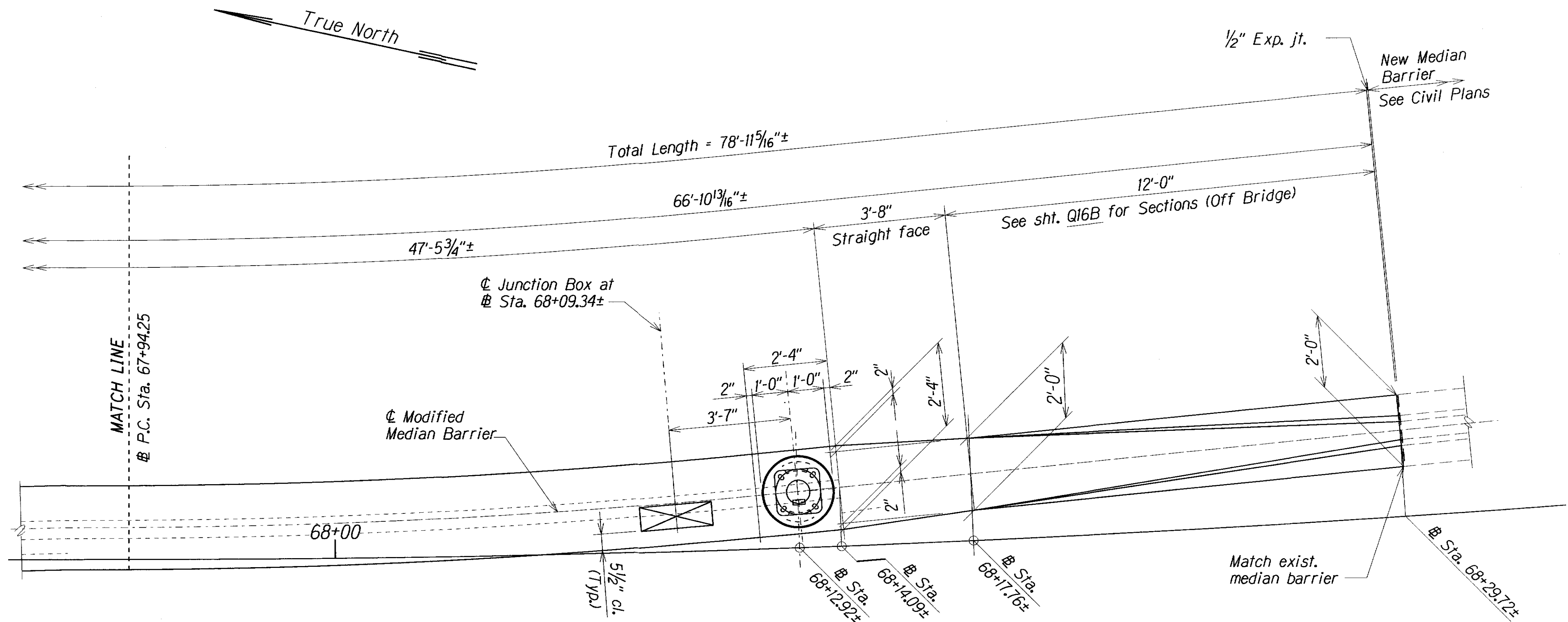
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ALA WAI CANAL BRIDGE
PART. PLAN & ELEVATION - # STA. 67+50.94 TO # STA. 67+94.25±
MODIFIED MEDIAN BARRIER ON/OFF BRIDGE WITH JUNCTION BOX
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING
Project No. NH-092-1(27)
Scale: As Noted Date: Jan, 2011

SHEET No. Q15B OF 23 SHEETS

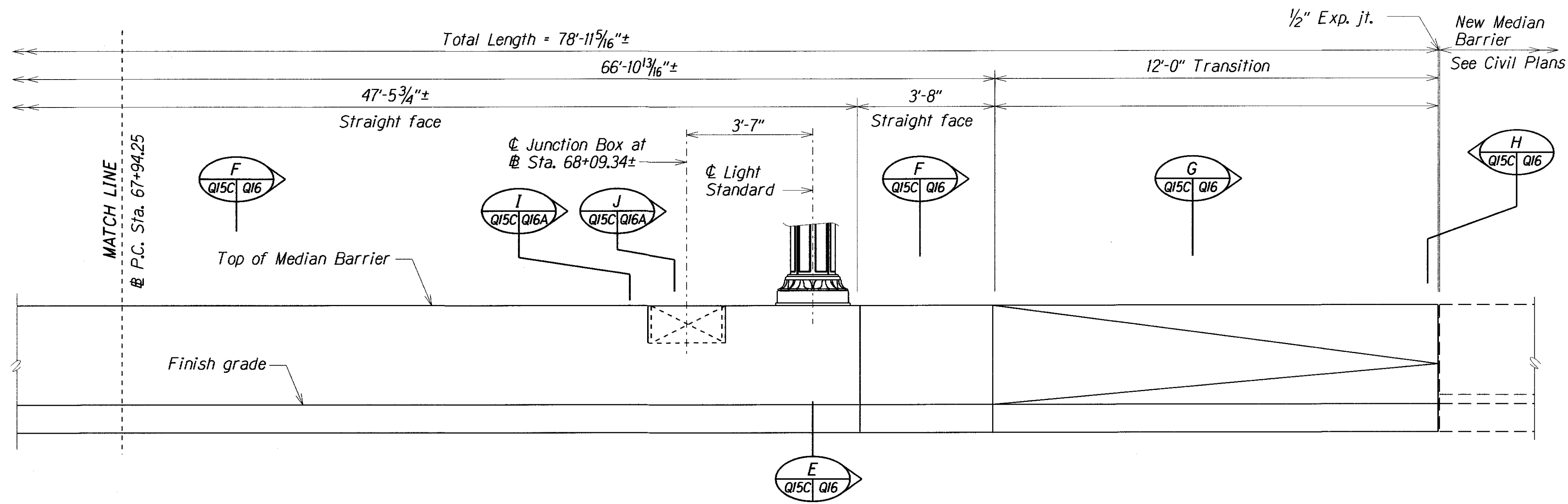
C.O. 57 S-2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-0092-1(27)	2010	C.O. 57S-3	302

- NOTE:
- For junction box, conduit, location and size, see Electrical Plans.
 - For junction box location, size and type, see sht. #16A.



PARTIAL PLAN - STA. 67+94.25± TO STA. 68+29.72±



ELEVATION - STA. 67+94.25± TO STA. 68+29.72±

MODIFIED MEDIAN BARRIER OFF BRIDGE WITH LIGHT STANDARD AND JUNCTION BOX

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

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	XXX 12/27
	QUANTITIES BY	XXX 12/27
	CHECKED BY	XXX 12/27

1/11/11
 This sheet was added as a supplemental sheet for the addition of junction boxes per Change Order.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE

PART. PLAN & ELEVATION - STA. 67+94.25 TO STA. 68+29.72±

MODIFIED MEDIAN BARRIER OFF BRIDGE WITH LTD STD. & JUNCTION BOX

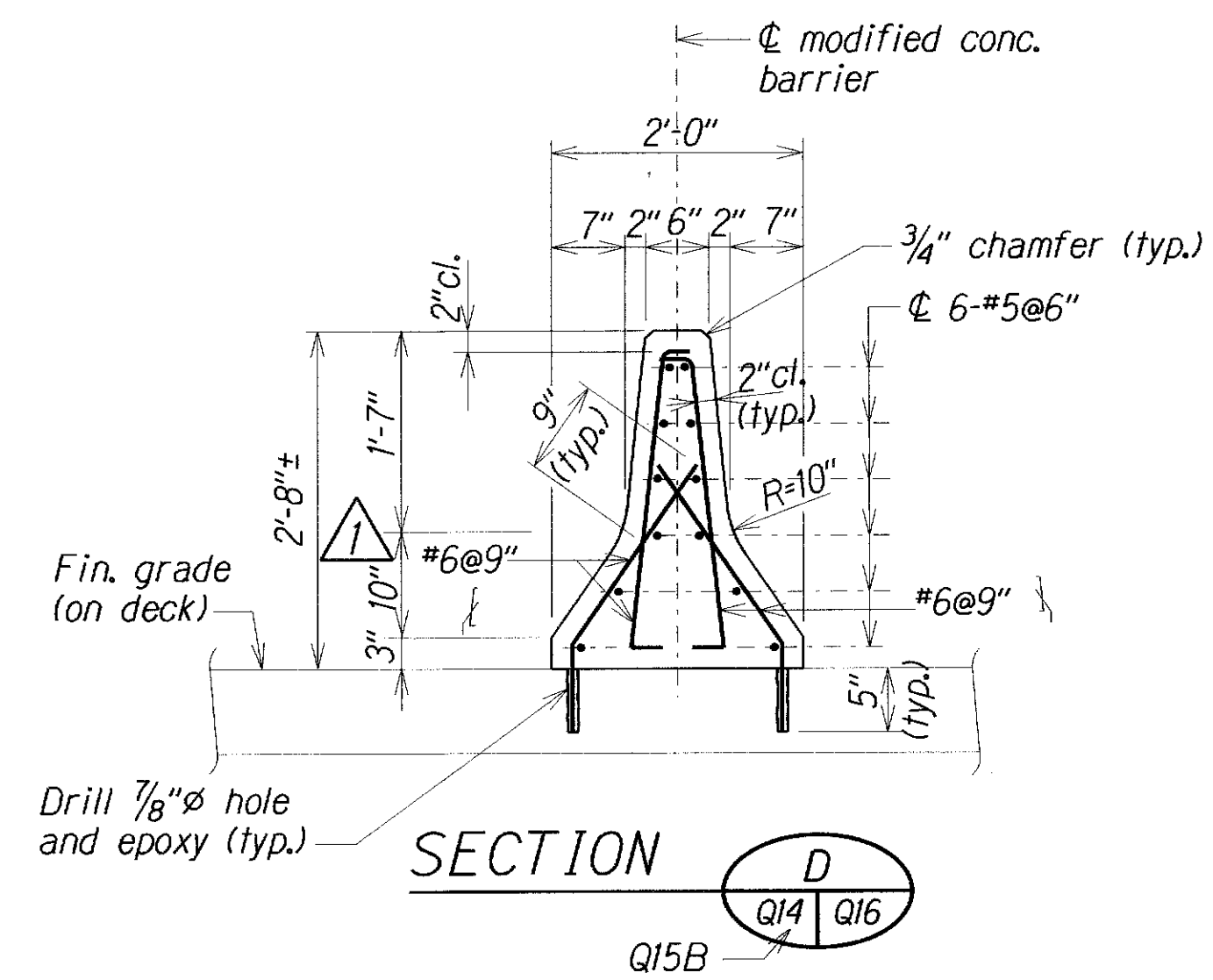
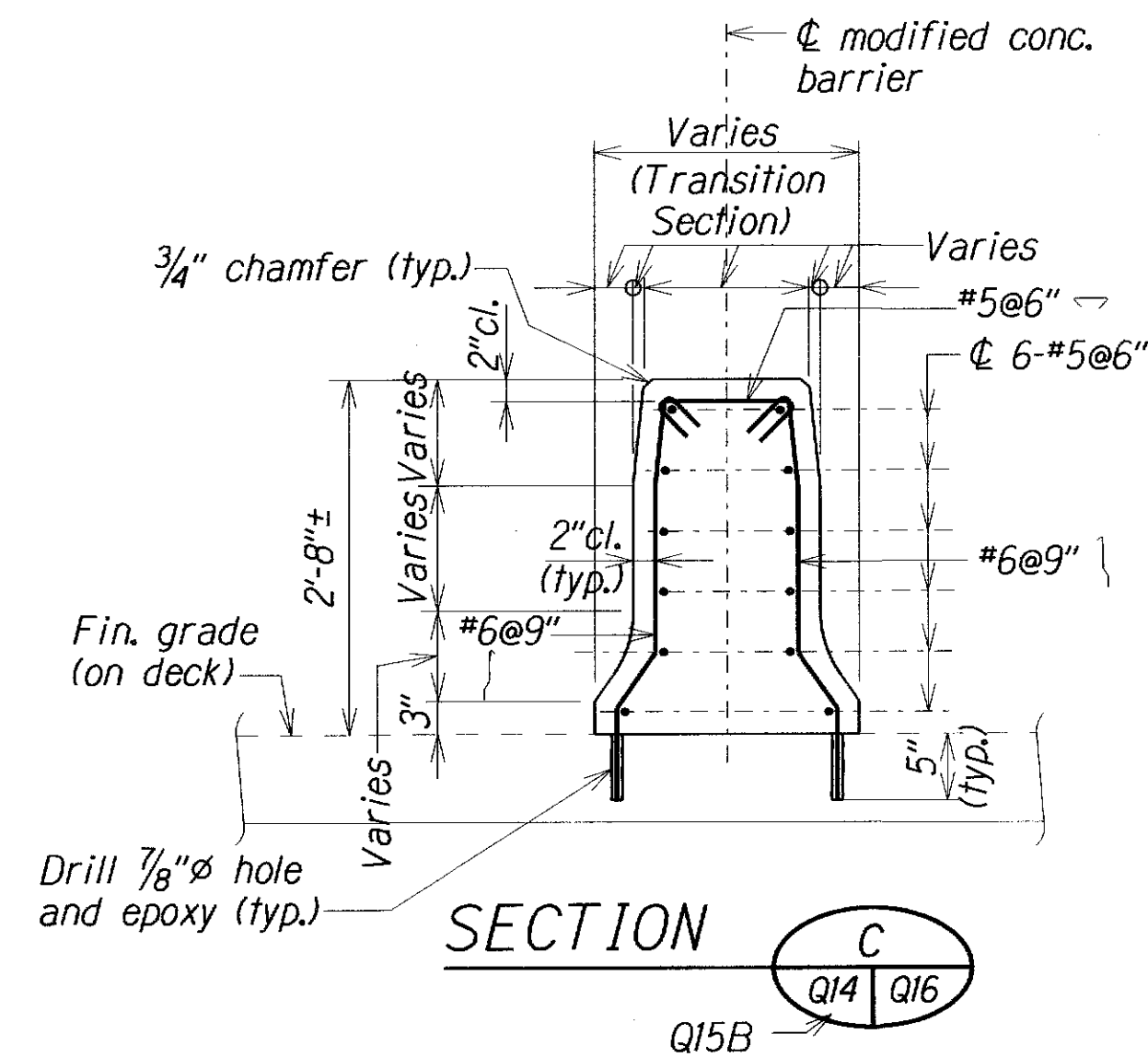
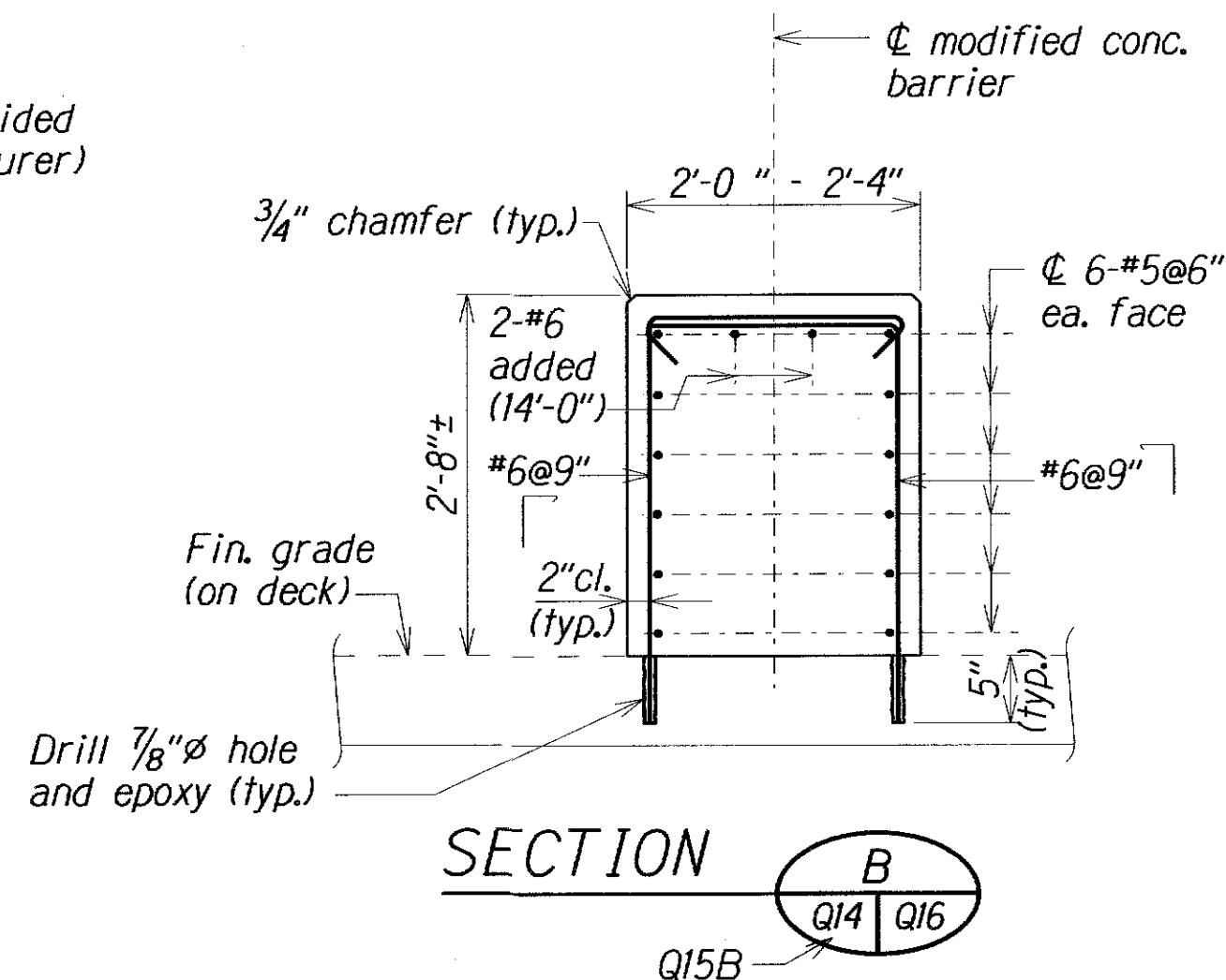
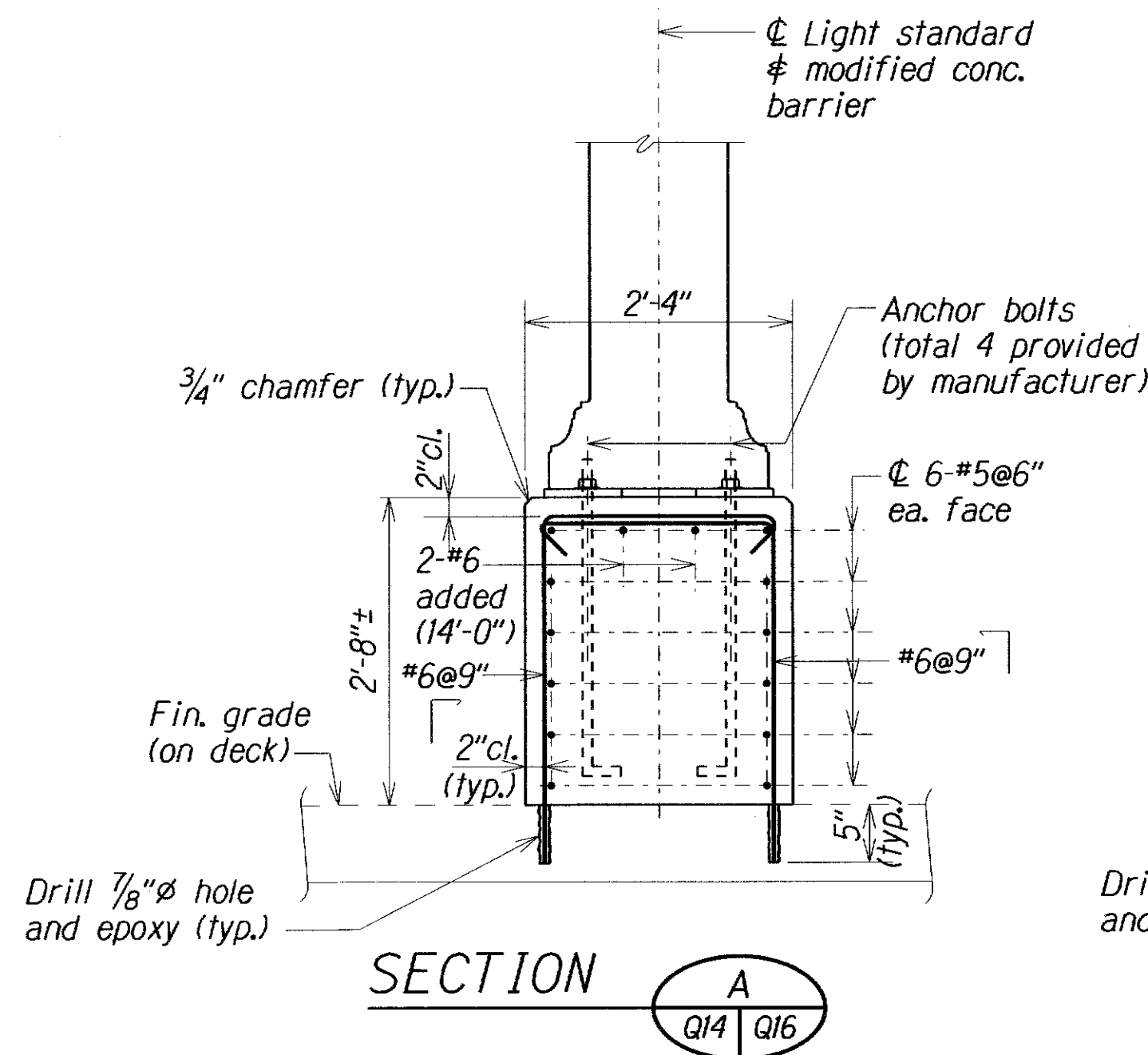
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING
Project No. NH-092-1(27)

Scale: As Noted Date: Jan, 2011

SHEET No. Q15C OF 23 SHEETS

C.O. 57S-3

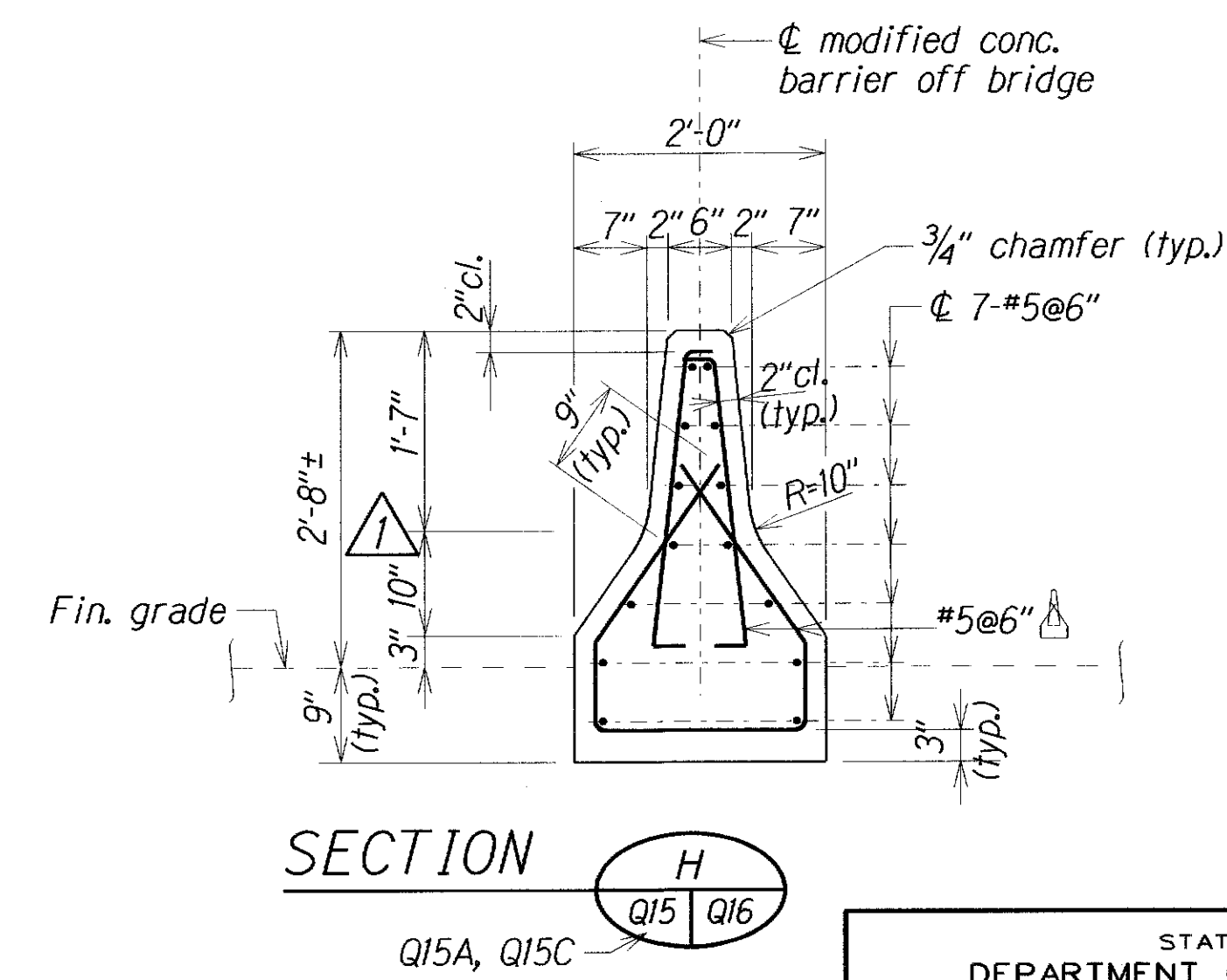
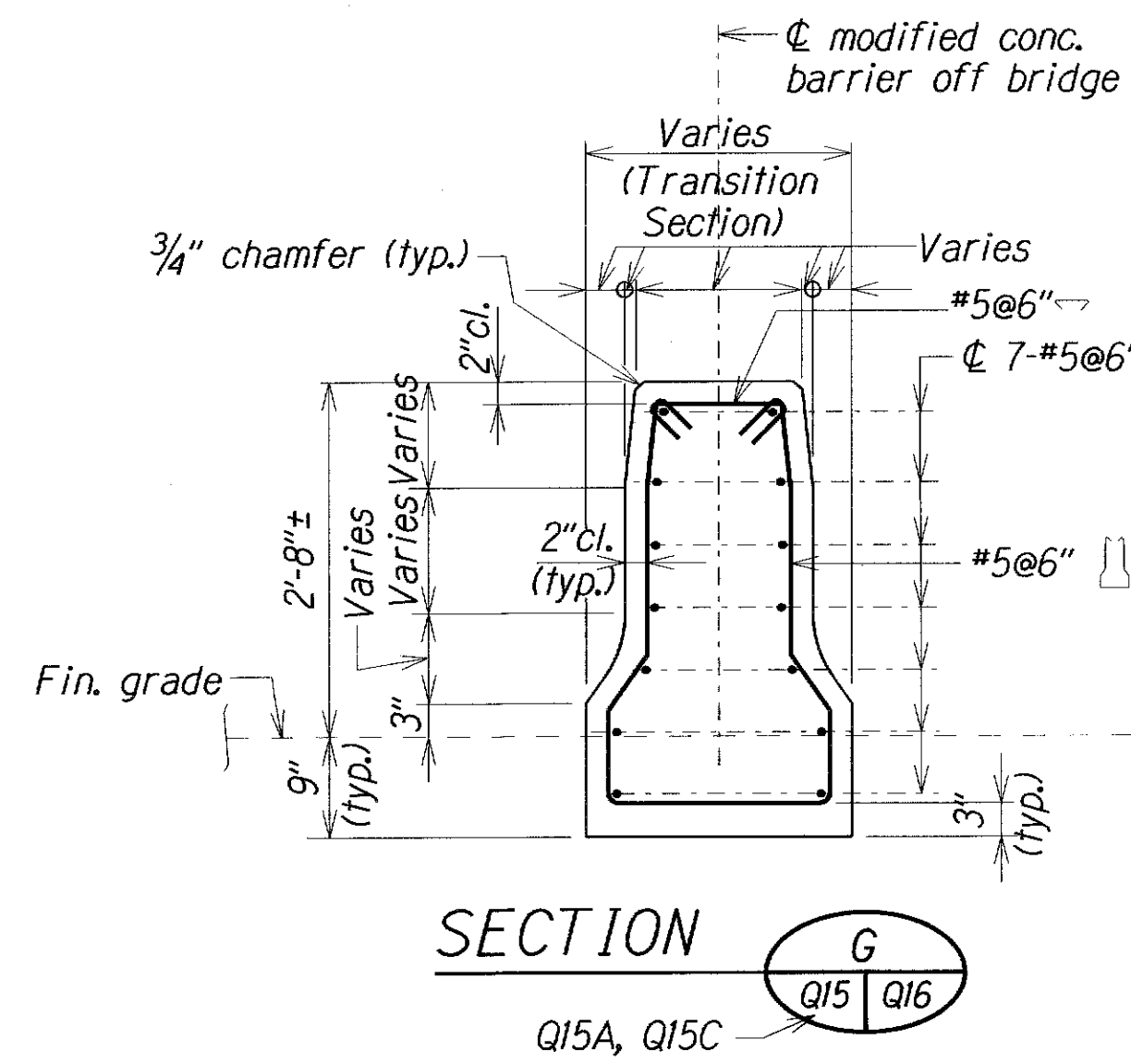
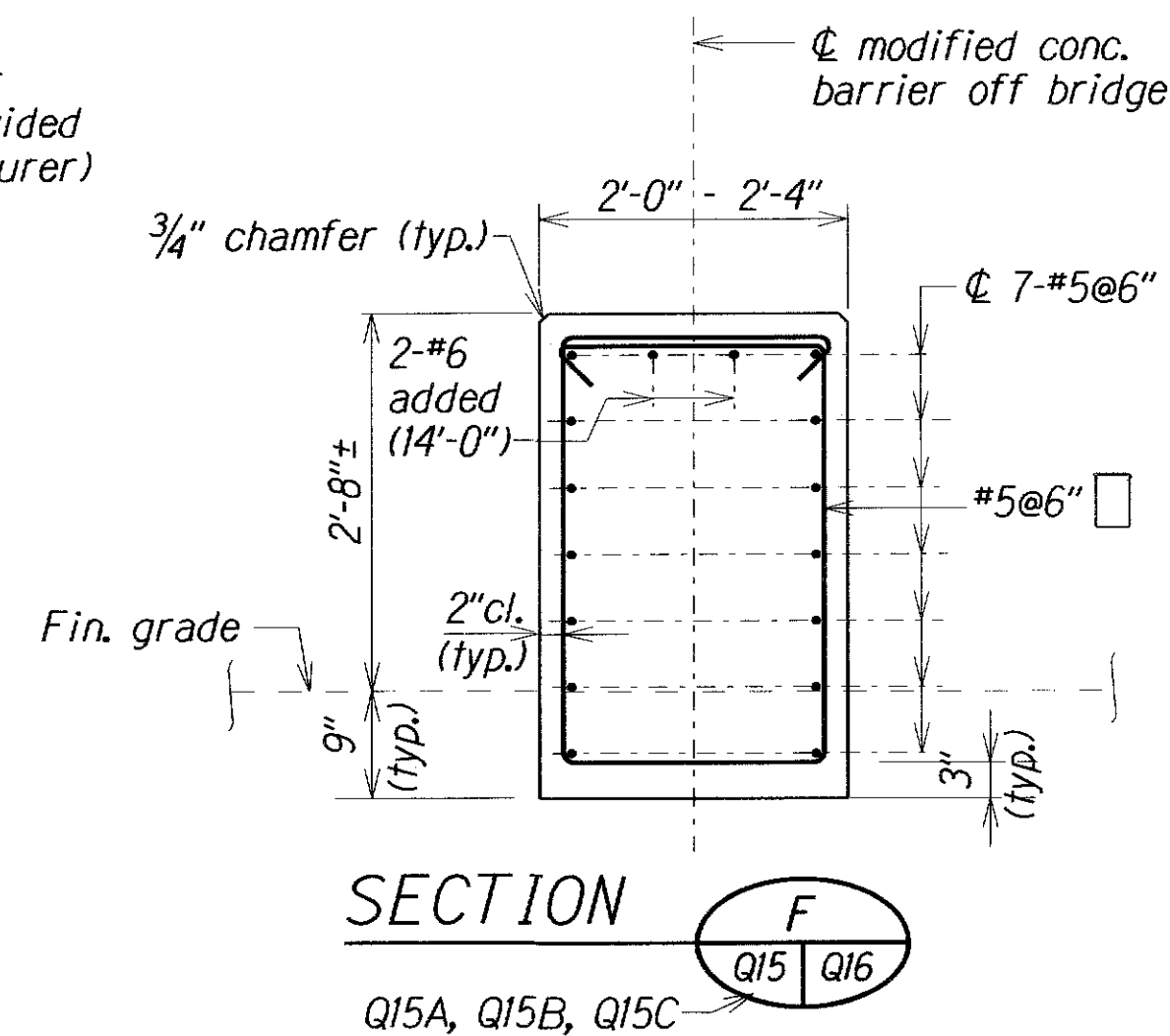
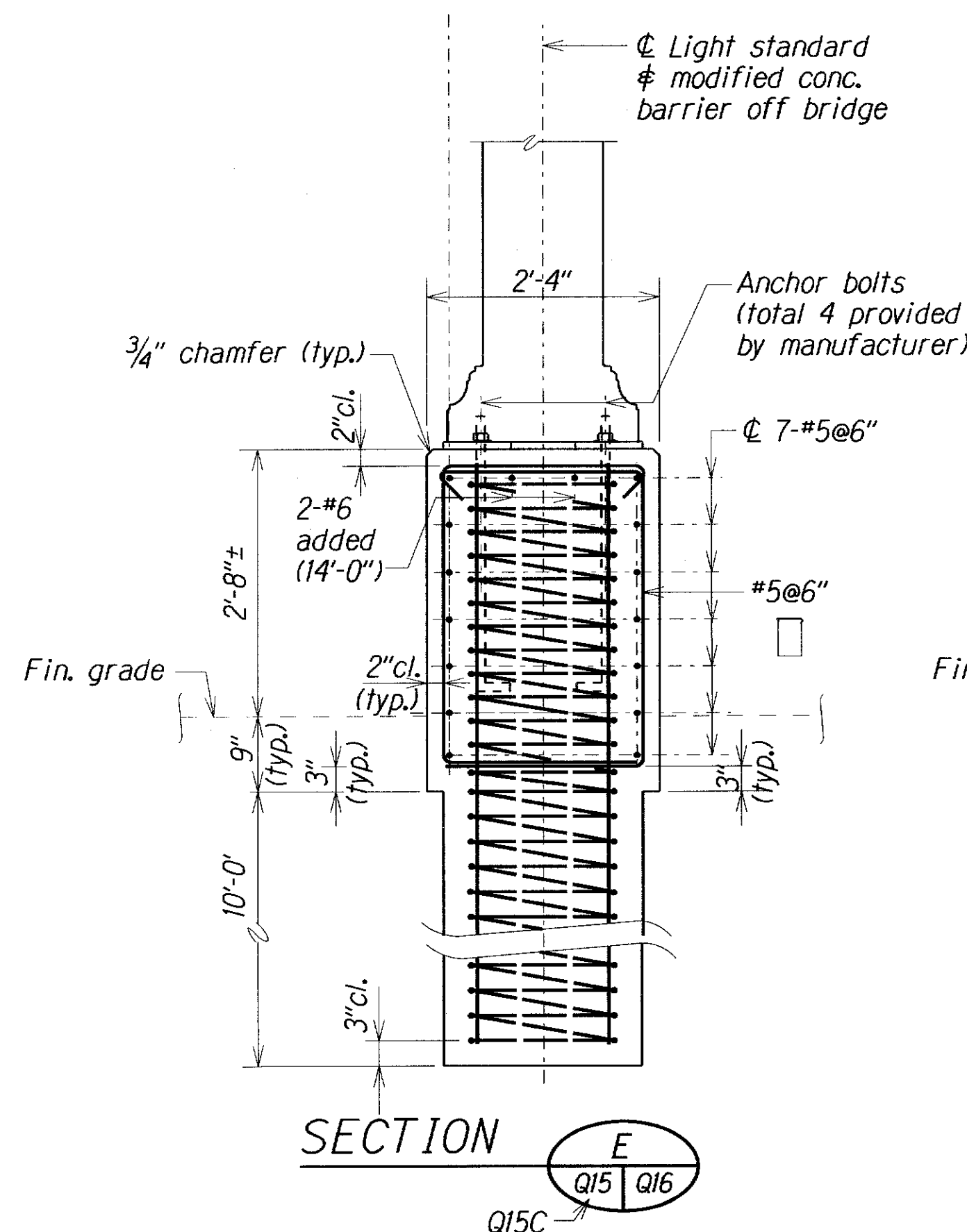
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	C.O. 58	302



△ TYPICAL SECTIONS - MEDIAN BARRIER ON BRIDGE

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

- NOTE:
- Deck reinforcement not shown. See Typical Bridge Section #/or Contractor to verify in field.
 - For light standards, see Electrical Plans.
 - For Section Showing Conduits In Concrete Barrier, see sht. #Q16A.



- NOTE:
- Follow Manufacturer's instructions for light standards.
 - For light standard concrete foundation, see sht. #Q20.
 - For Light standards, see Electrical Plans.

TYPICAL SECTIONS - MEDIAN BARRIER OFF BRIDGE △

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

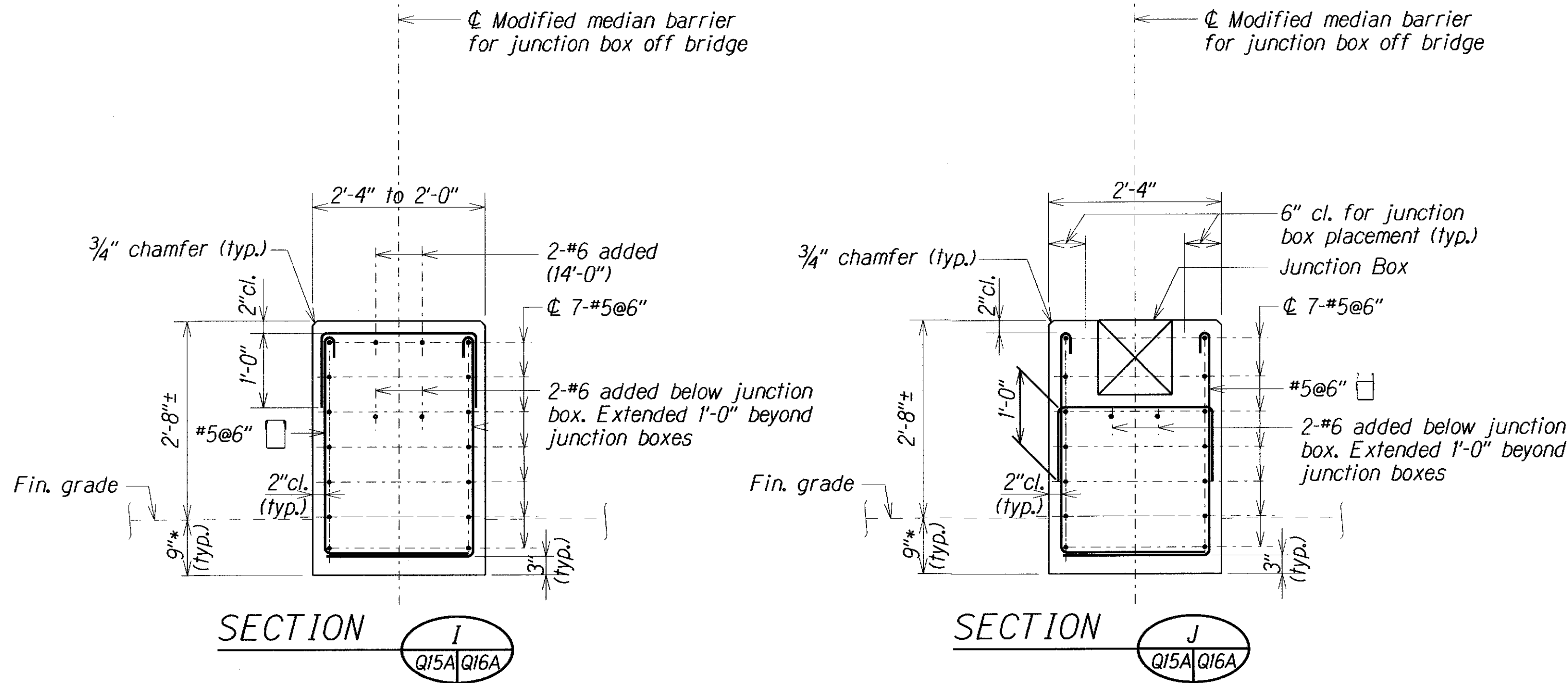
1/11/11	Added sheet number for referencing to accommodate sheets added per Change Order. Moved notes and title to allow more spacing and changed alpha designation for clarity. Added missing label for clarity.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ALA WAI CANAL BRIDGE
TYPICAL SECTIONS
MEDIAN BARRIER
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)
Scale: As Noted Date: Jun. 2009

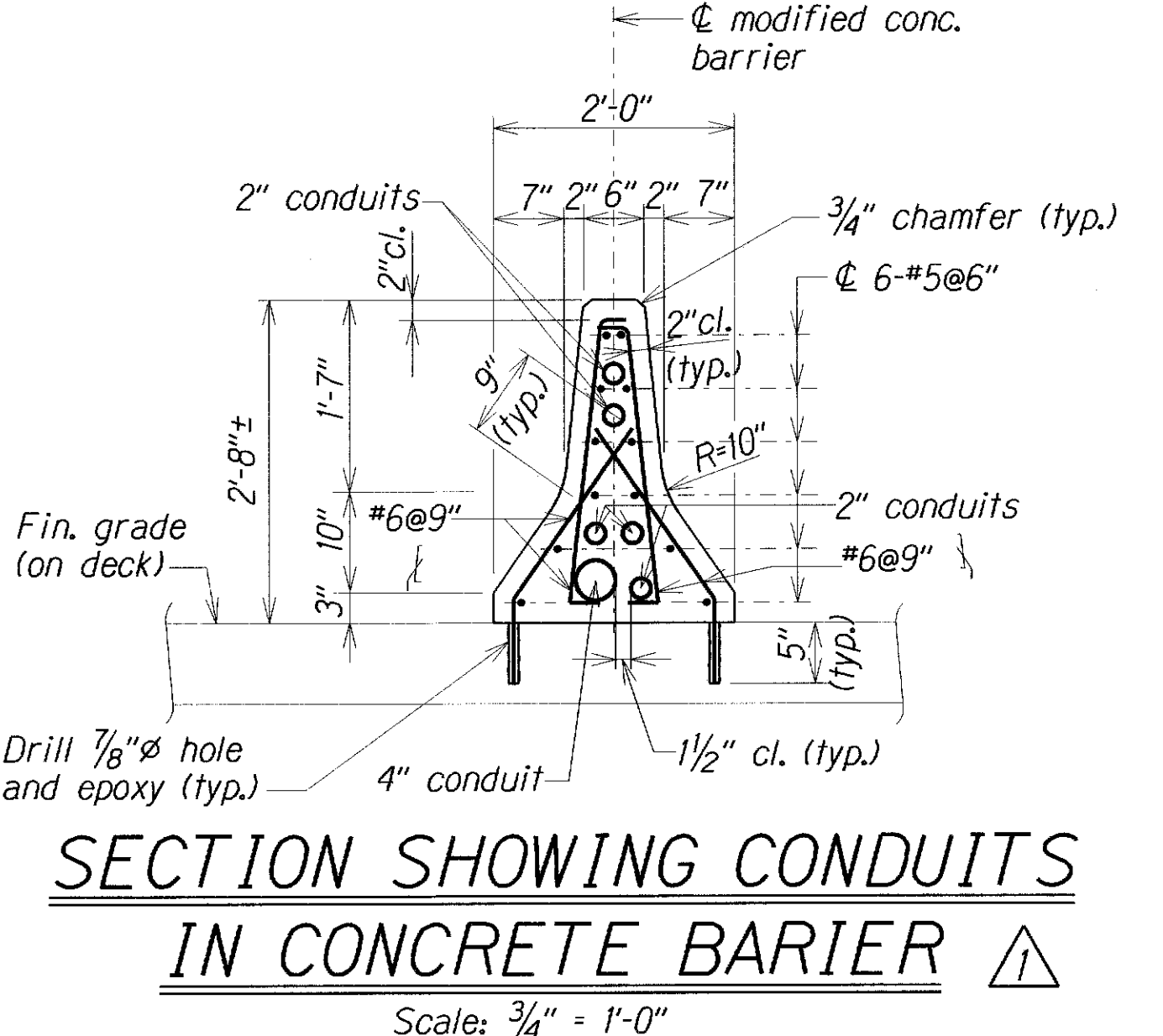
SHEET No. Q16 OF 23 SHEETS
C.O. 58

ORIGINAL PLAN	DATE	XXX 09/07
DRAWN BY	XXX	XXX 09/07
DESIGNED BY	XXX	XXX 09/07
QUANTITIES BY	XXX	XXX 09/07
CHECKED BY	XXX	XXX 09/07
NOTED BY	XXX	XXX 09/07
REVISIONS		
1	1/11/11	Added sheet number for referencing to accommodate sheets added per Change Order. Moved notes and title to allow more spacing and changed alpha designation for clarity. Added missing label for clarity.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	C.O. 58 S-1	302



TYPICAL SECTIONS - MODIFIED MEDIAN BARRIER WITH JUNCTION BOX



NOTE:
1. Conduits to be located within rebar cage. Spacing shall be sufficient for aggregate to pass through. 1 1/2 inch minimum clearance between conduits (horizontally).

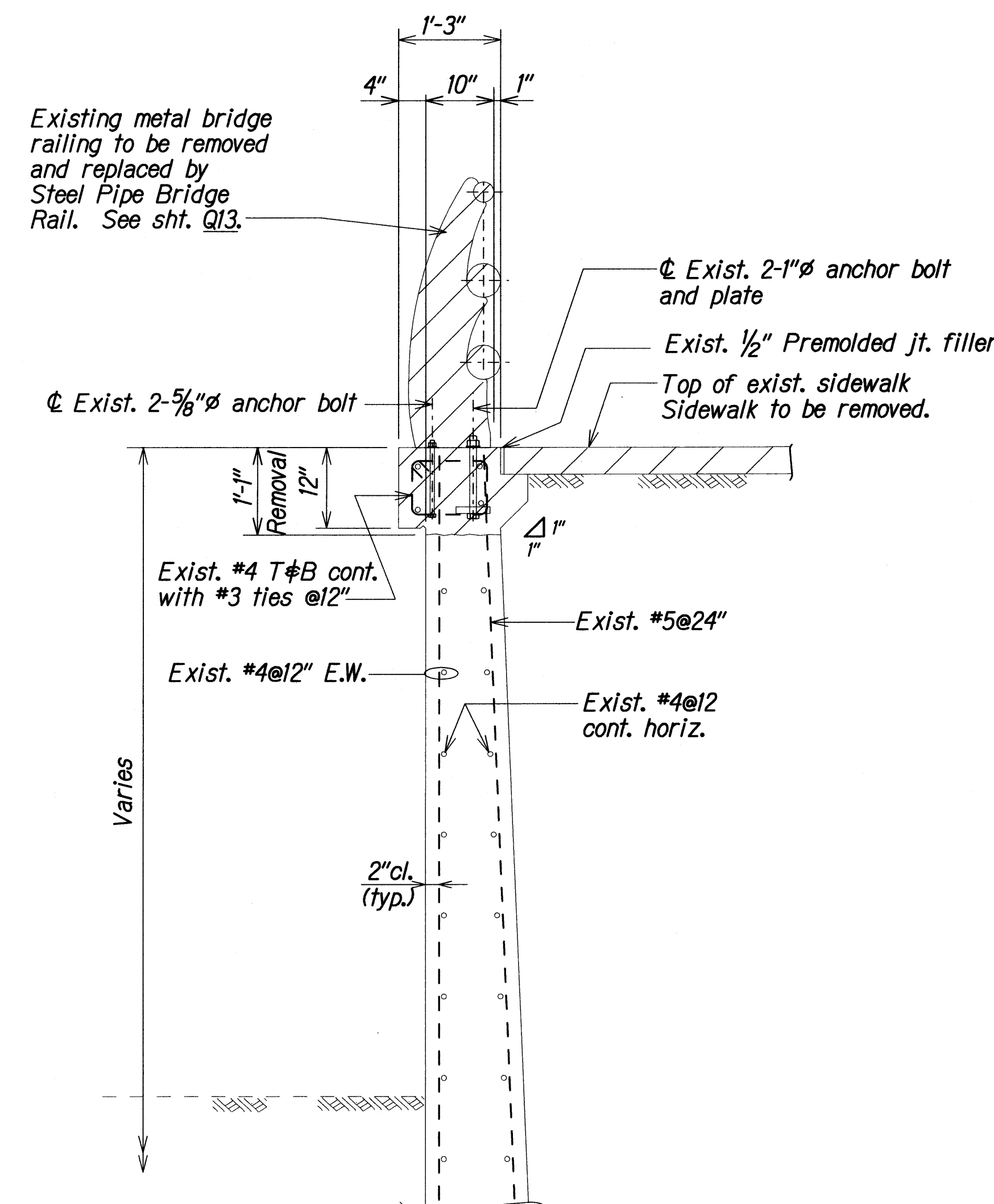
JUNCTION BOX SCHEDULE			
NUMBER	LOCATION*	TYPE	SIZE**
1	Sta. 65+63.97±	Communication	12" x 36" x 12"
2	Sta. 65+68.29±	Traffic Signal	12" x 24" x 8"
3	Sta. 65+72.29±	Communication	12" x 24" x 8"
4	Sta. 65+76.29±	Hwy. Light	12" x 24" x 8"
5	3'-7" left from C of hwy. light standard on bridge. (Next to Pier No. 1) See sht. *Q6.	Hwy. Light	12" x 24" x 8"
6	3'-7" left from C of hwy. light standard on bridge. (Next to Pier No. 2) See sht. *Q6.	Hwy. Light	12" x 24" x 8"
7	Sta. 67+73	Hwy. Light	12" x 24" x 8"
8	Sta. 67+77	Communication	12" x 24" x 8"
9	Sta. 67+81	Traffic Signal	12" x 24" x 8"
10	Sta. 67+85.5	Communication	12" x 36" x 12"
11	3'-7" left from C of hwy. light standard off bridge. Approx. Sta. 68+13	Hwy. Light	12" x 24" x 8"
12	3'-7" left from C of hwy. light standard off bridge. Approx. Sta. 69+08	Hwy. Light	12" x 24" x 8"
13	Sta. 65+47±	Hwy. Light	12" x 24" x 8"

- NOTES:
1. Follow Manufacturer's instructions for junction box.
 2. For junction box standards, see Electrical Plans.
 3. For junction box, conduit, location and size, see Electrical Plans.
 4. Match median barriers to existing median barriers.
 5. See Section A where there is no junction box and 2-#6 below junction box is extended 1'-0".
 6. Junction boxes to be located only in Section "J".
 5. * 9" below grade only off of bridge.

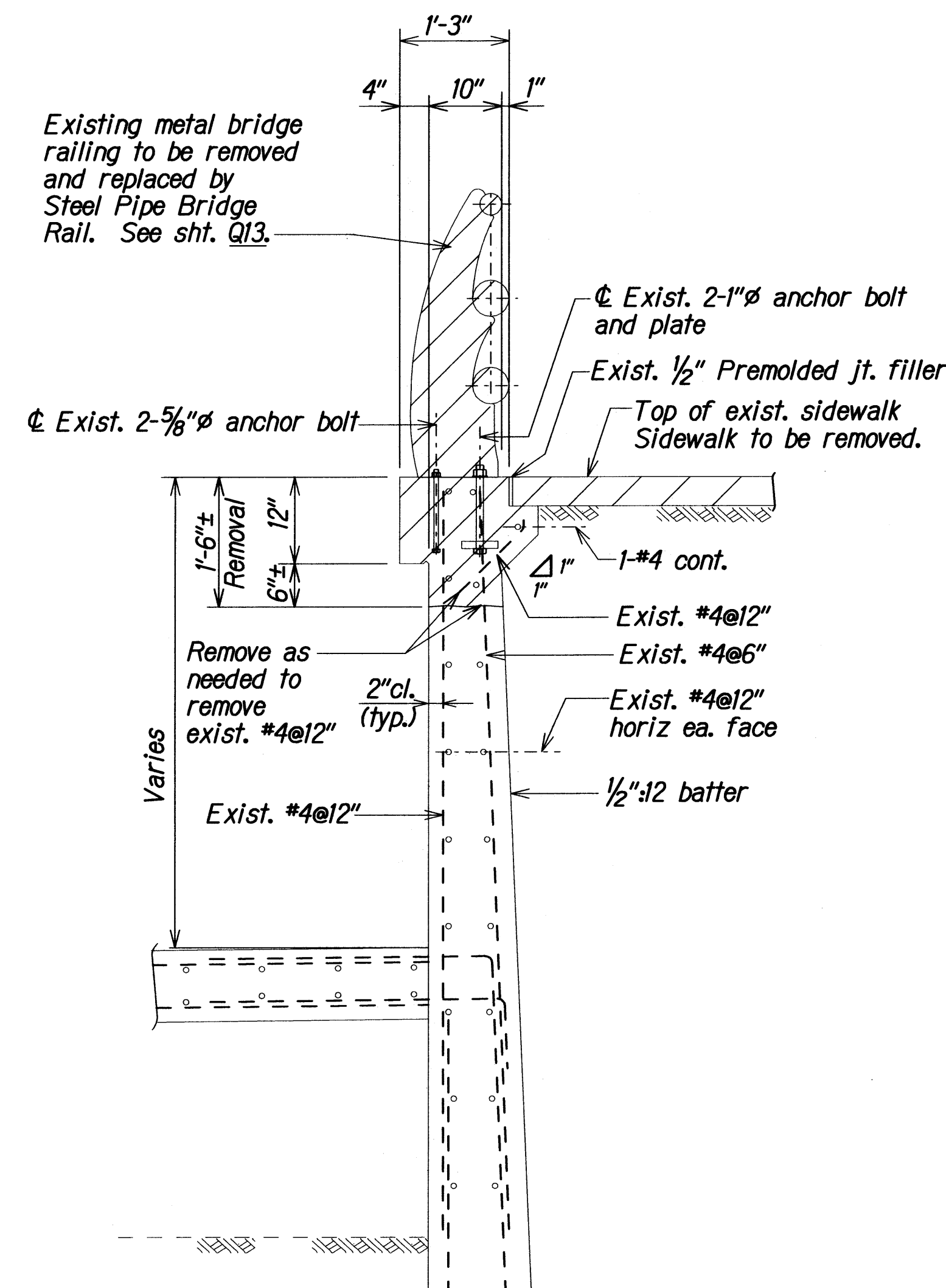
- NOTES FOR JUNCTION BOX SCHEDULE:
1. * Measurement along Sta to C of junction box.
 2. ** Height x Width x Depth

8/13/11	Added Junction Box (No. 13) at Sta. 65+43.42 to Junction Box Schedule. Corrected Sta. for Junction Box Nos. 1-4.
1/11/11	This sheet was prepared as a Change Order supplemental sheet for the addition of junction boxes & conduits. A junction box schedule was also added.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ALA WAI CANAL BRIDGE TYPICAL SECTIONS - MODIFIED MEDIAN BARRIER WITH JUNCTION BOX & SCHEDULE NIMITZ HIGHWAY AND ALA MOANA BOULEVARD RESURFACING AND HIGHWAY LIGHTING REPLACEMENT Federal Aid Project No. NH-092-1(27) Scale: As Noted Date: XXX, 2010	
SHEET No. 16A OF 23 SHEETS	

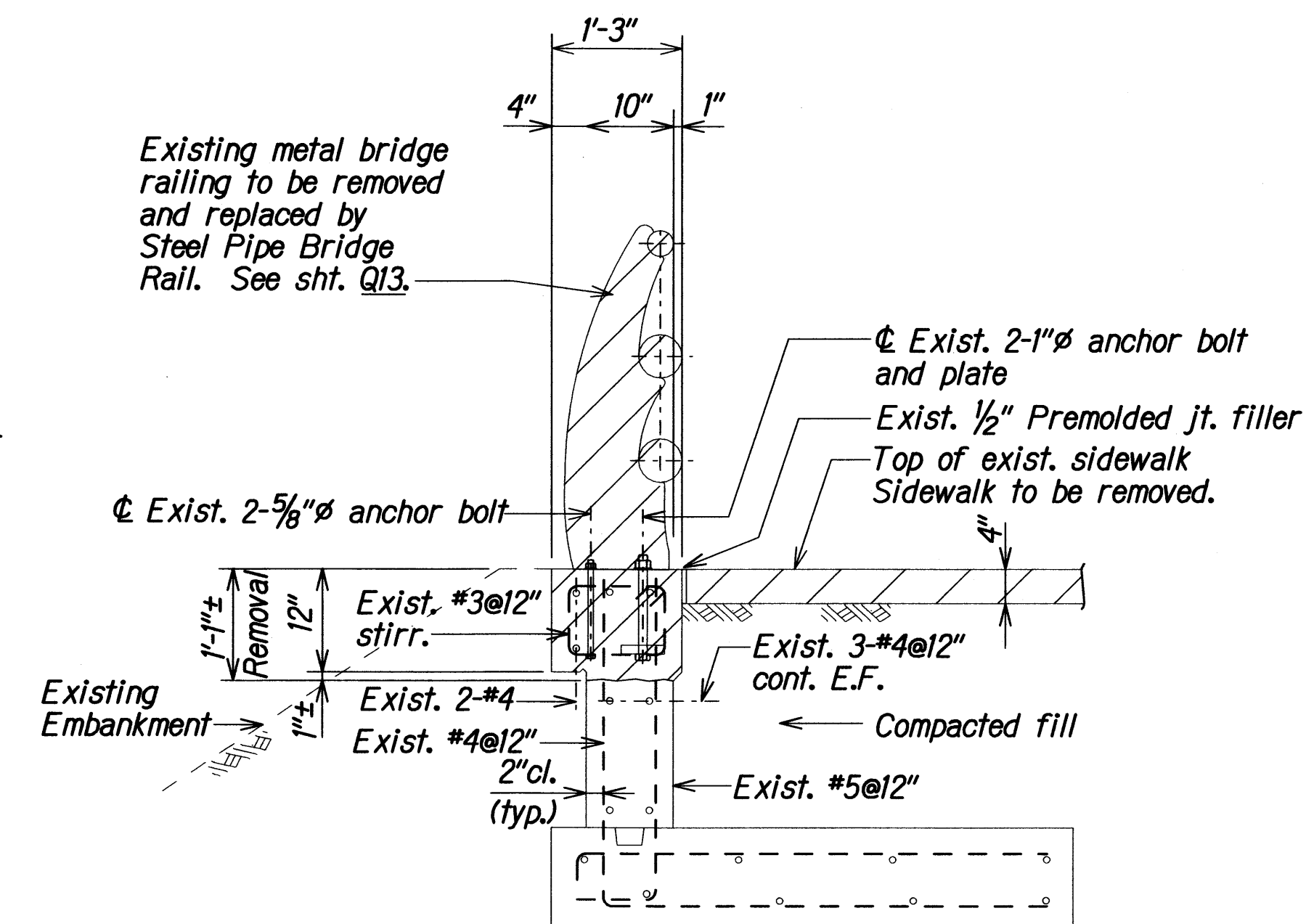
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	59	302



TYPICAL EXISTING
RETAINING WALL SECTION



EXISTING RETAINING WALL
SECTION AT STAIRWAY



EXISTING RETAINING WALL
SECTION OFF BRIDGE

NOTE:
1. The existing curbs are not to be demolished.

EXISTING RETAINING WALL & DEMOLITION DETAILS

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

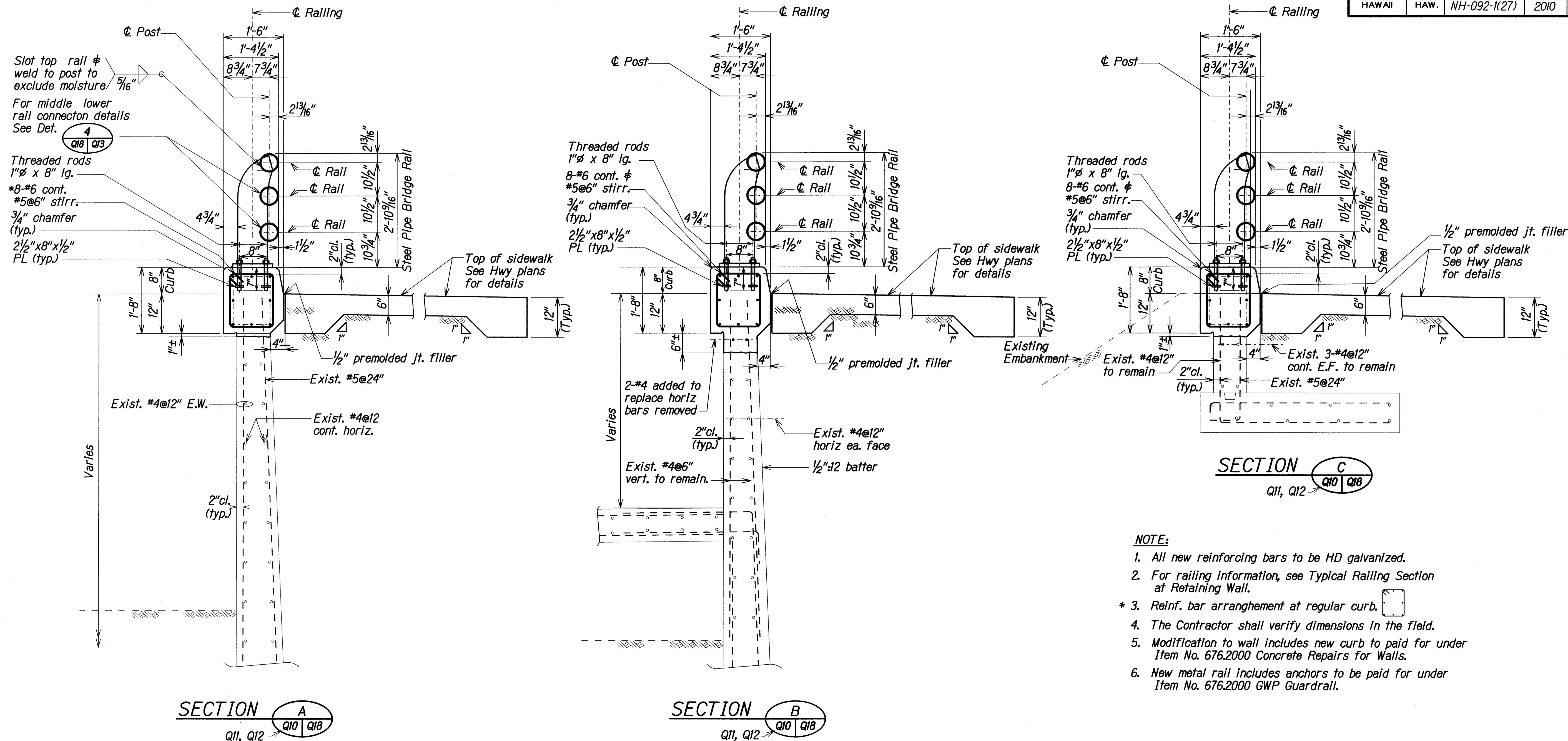
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	XXX 1991
6amibq17.dgn	DESIGNED BY	XXX 1991
	QUANTITIES BY	XXX 1991
	CHECKED BY	XXX 1991

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE
EXISTING RETAINING WALLS & DEMOLITION DETAILS
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

Scale: As Noted Date: Jun. 2009

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	60	302



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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ALA WAI CANAL BRIDGE
RAILING SECTIONS AT RETAINING WALLS
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

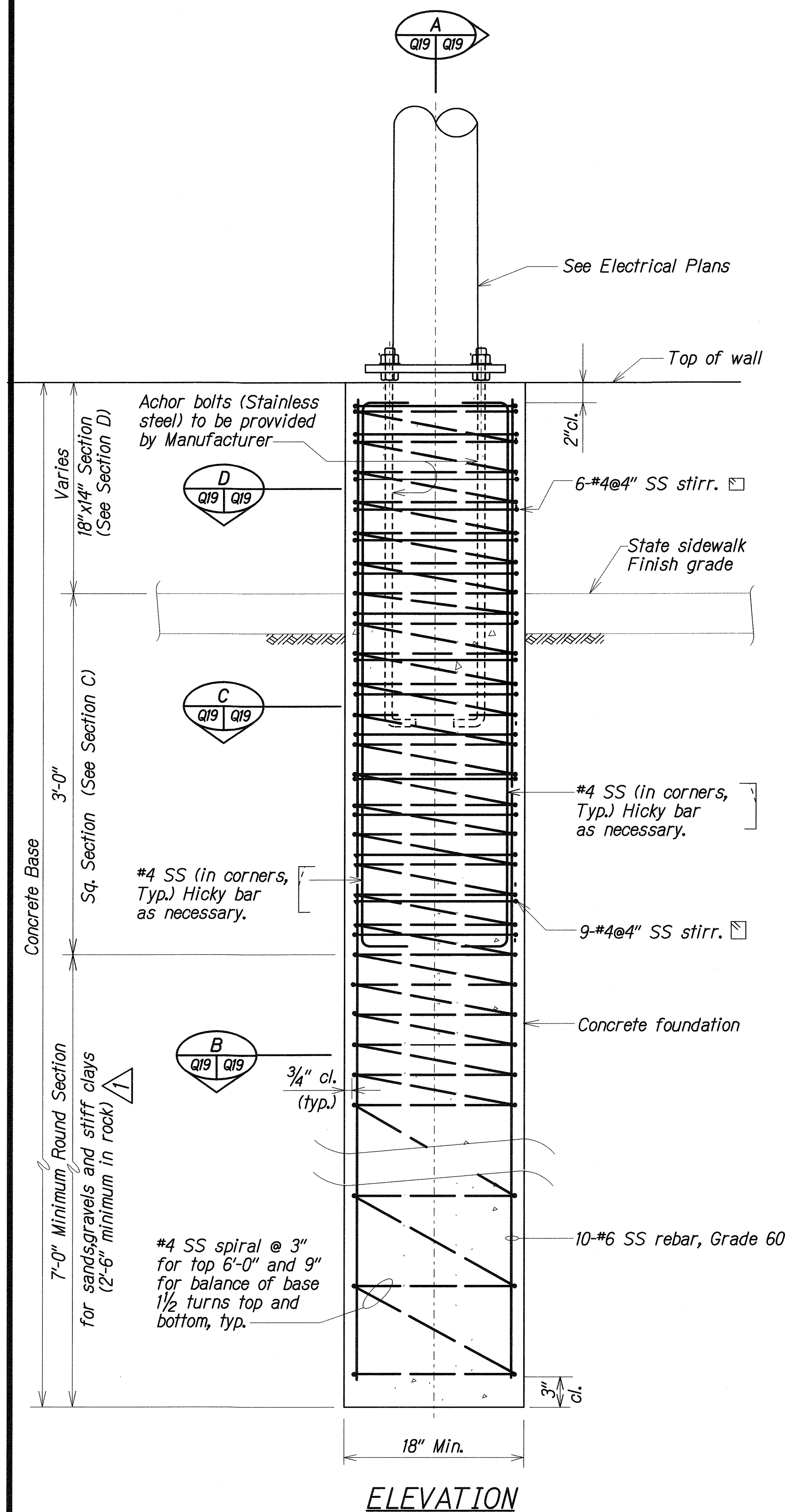
Scale: As Noted
Date: Jun, 2009

SHEET No. Q18 OF 23 SHEETS

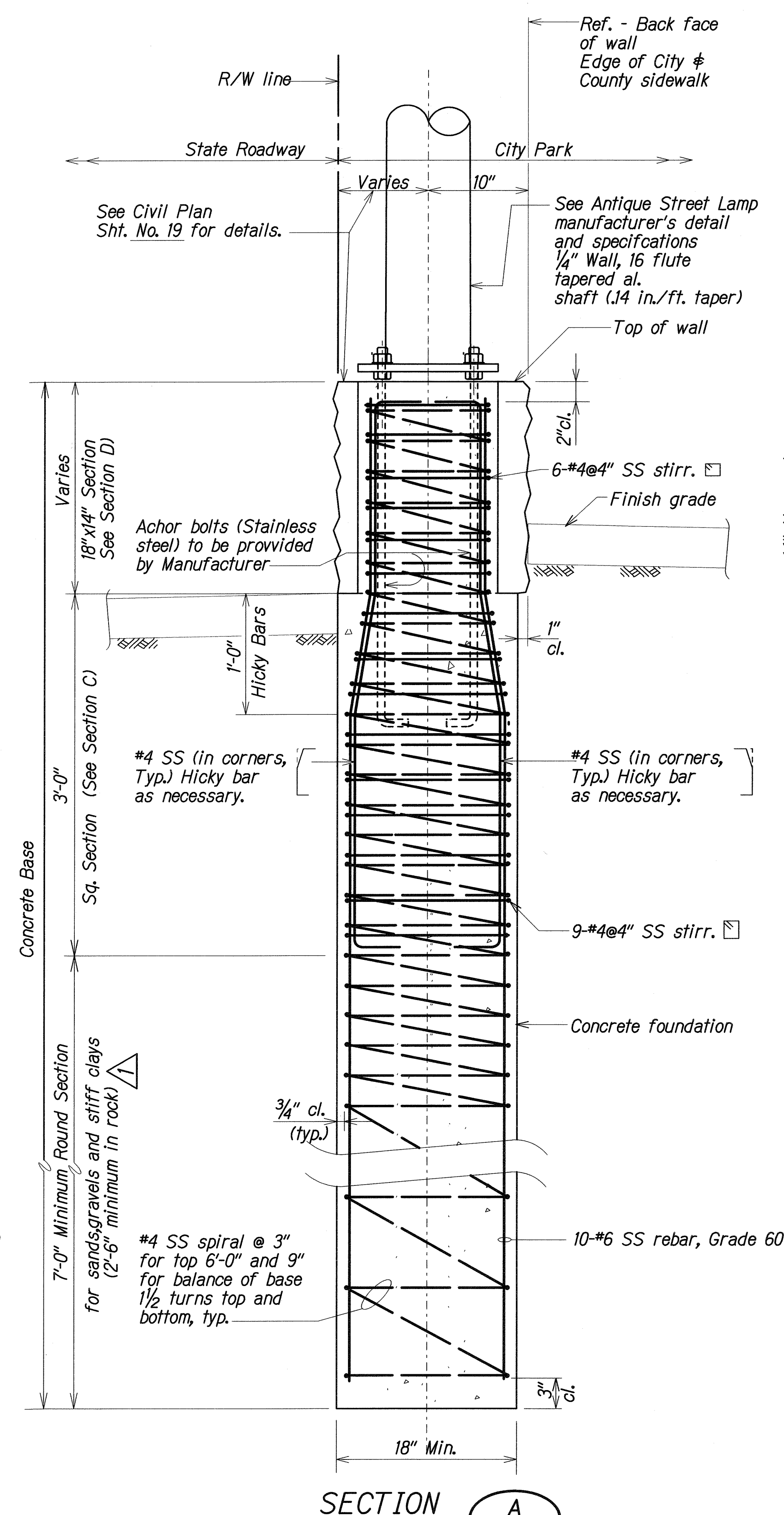
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	ADD 61	302

NOTE:

1. Design of Light Standard and Foundation shall conform to latest AASHTO "Standard Specifications for Structural Luminaire and Traffic Signals" and as amended by HDOT Hwy-DB Section.
2. Refer to State Standard Specifications Section 511 for drilled shaft concrete properties
3. See Standard Plan Sht B-01 for additional notes.
4. Refer to Sht. E-70 and E-71 for electrical information.
5. Refer to electrical plan for decorative pole and accessory information.



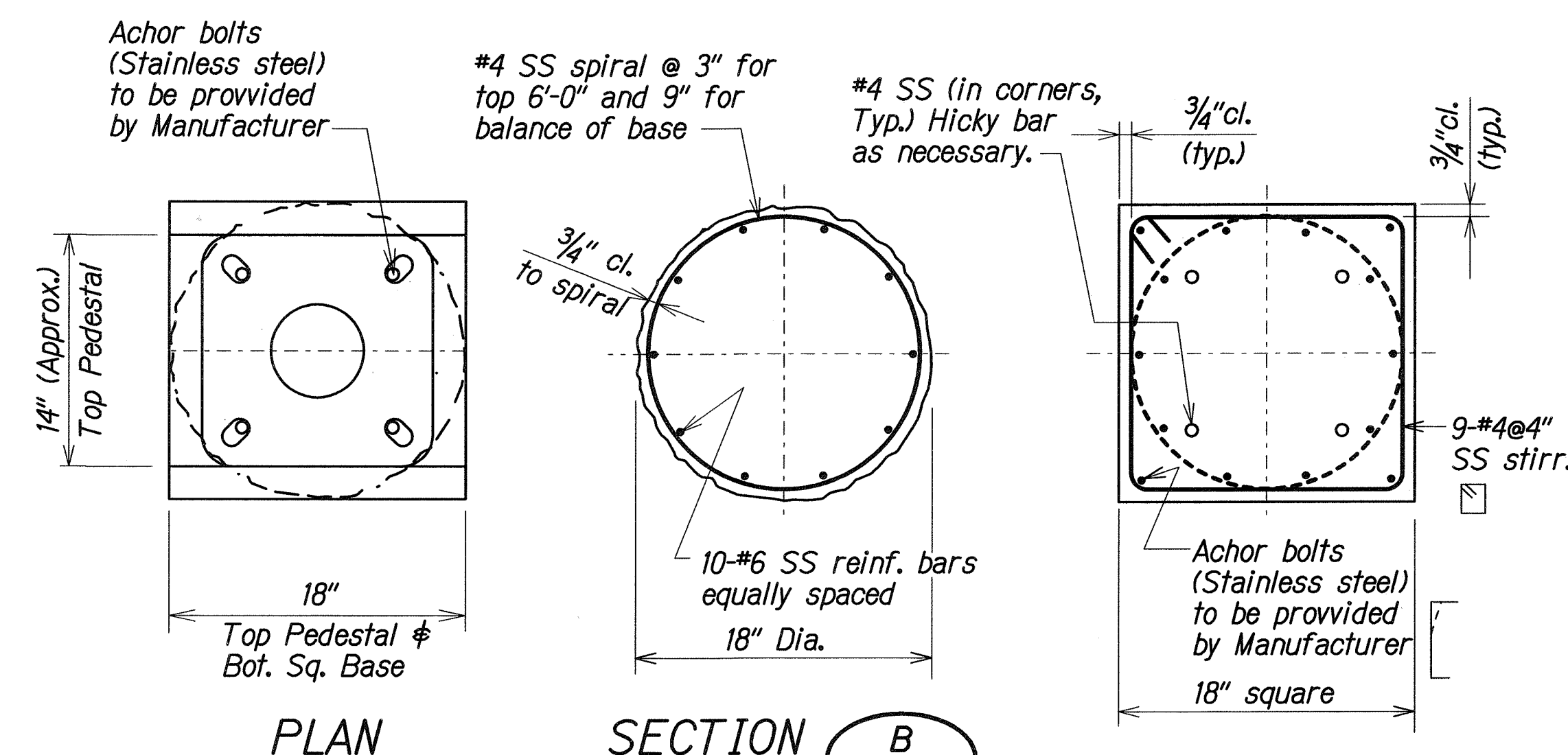
ELEVATION



SECTION A
Q19 Q19

LIGHT POLE CONCRETE FOUNDATION AT WALL DETAILS

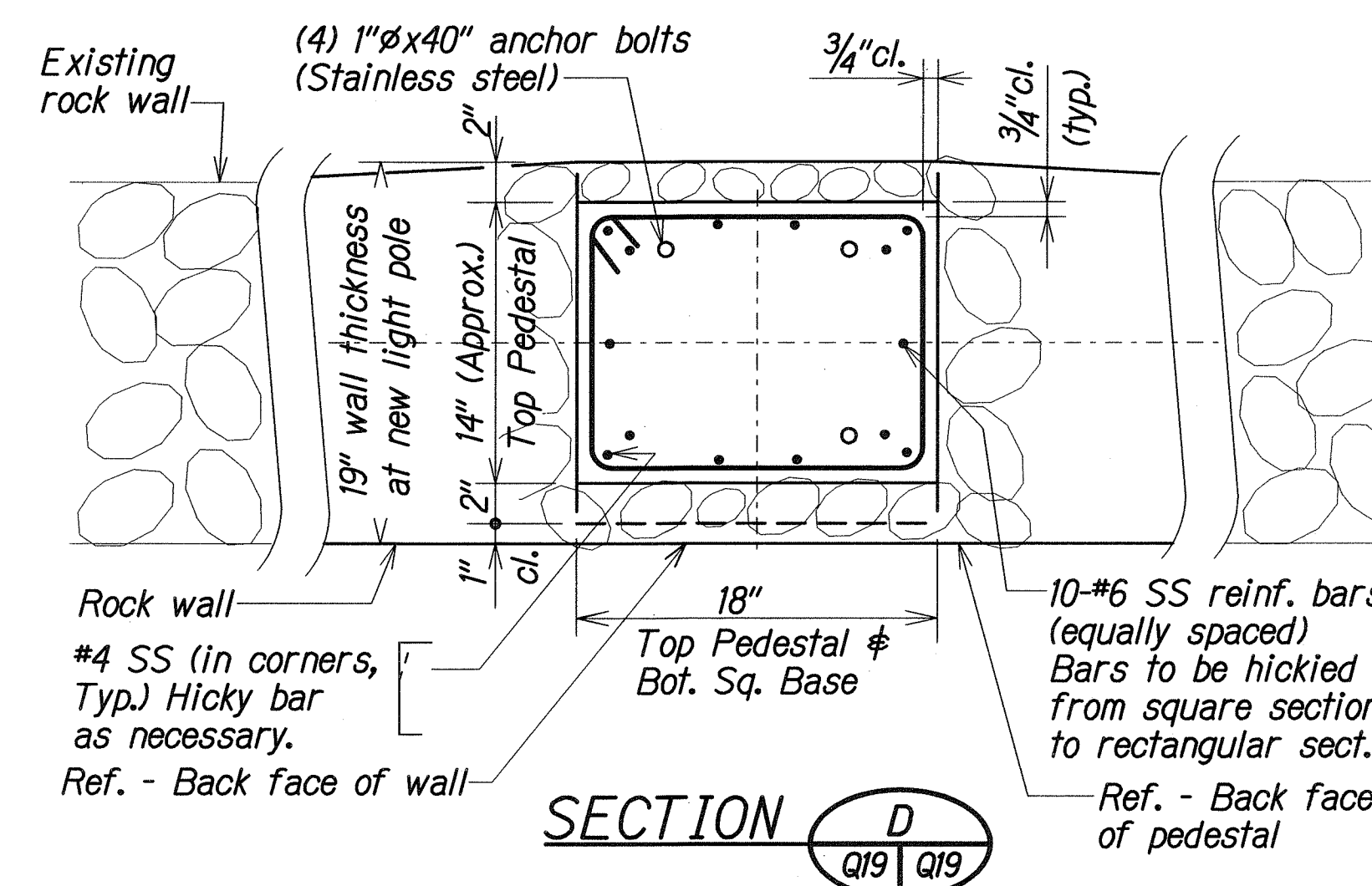
Scale: 1 1/2" = 1'-0"



PLAN

SECTION B
Q19 Q19

SECTION C
Q19 Q19



SECTION D
Q19 Q19

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

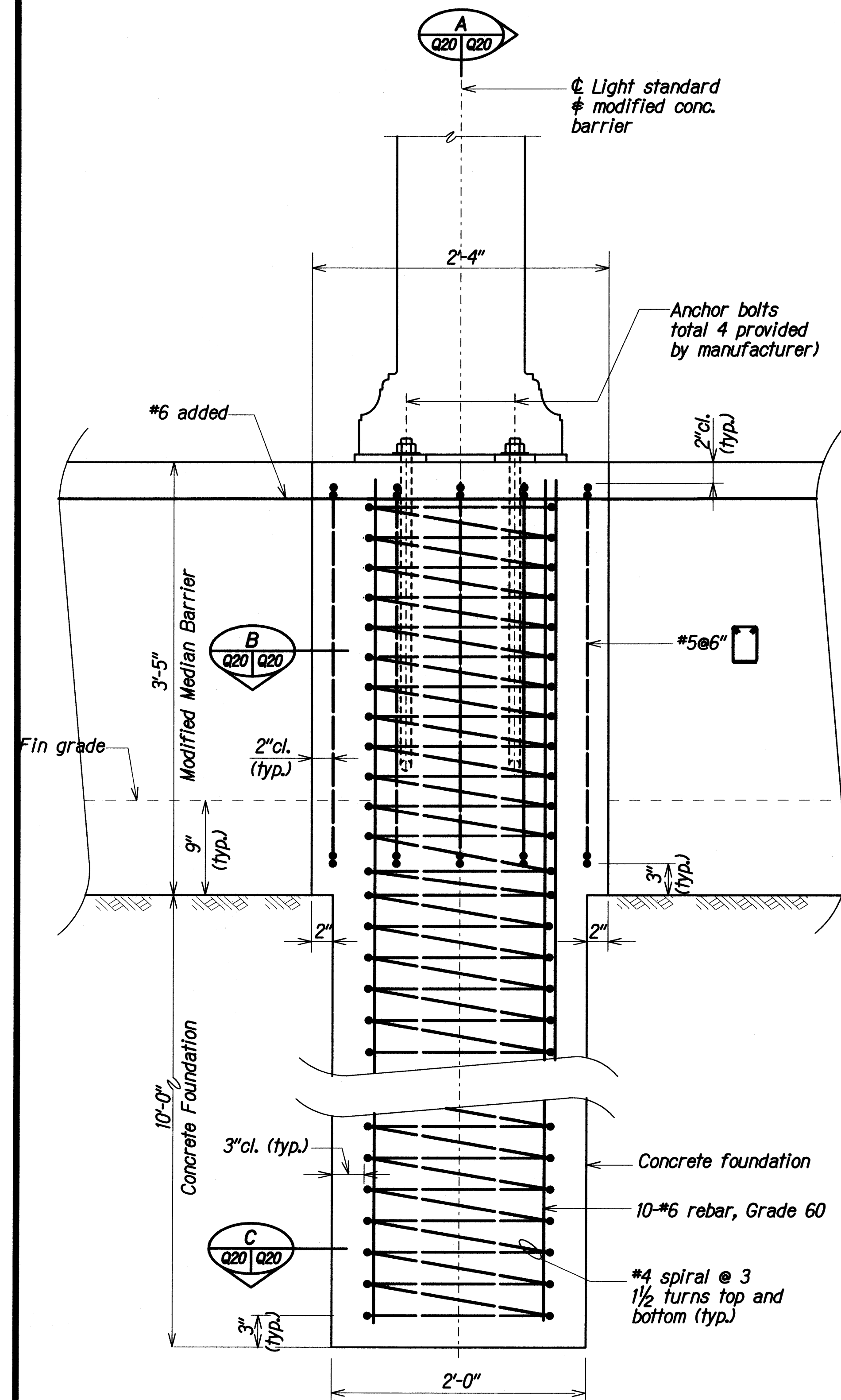
2/19/10	Corrected misspelled word "rick" to rock.
DATE	REVISION

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
ALA MOANA BEACH PARK WALL LIGHT POLE CONCRETE FOUNDATION AT WALL DETAILS
NIMITZ HIGHWAY AND ALA MOANA BOULEVARD FORT STREET TO HOLOMOANA STREET Project No. NH-092-1(27)
Scale: As Noted Date: Jun, 2009
SHEET No. Q19 OF 23 SHEETS

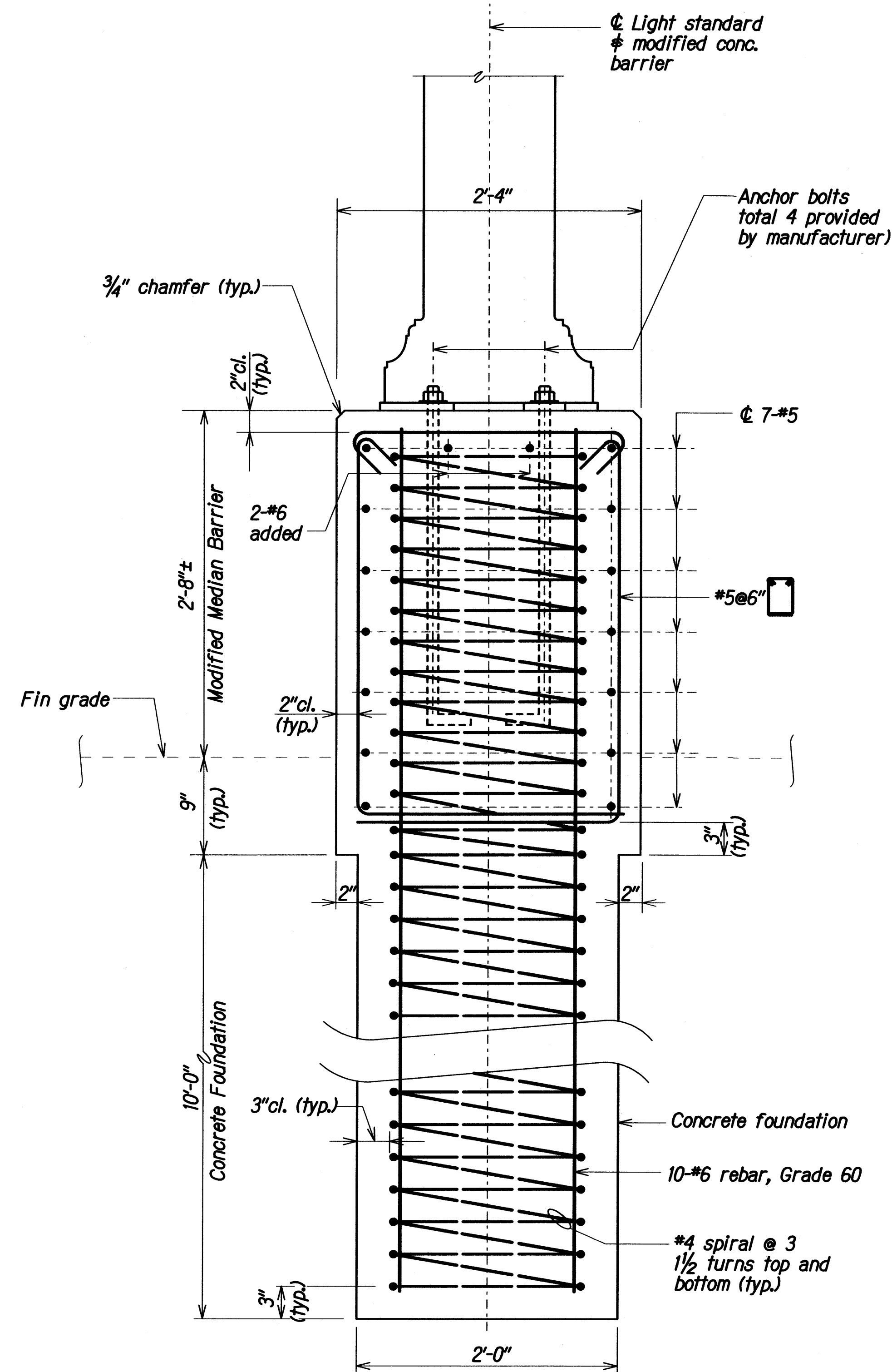
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-K(27)	2010	62	302

NOTE:

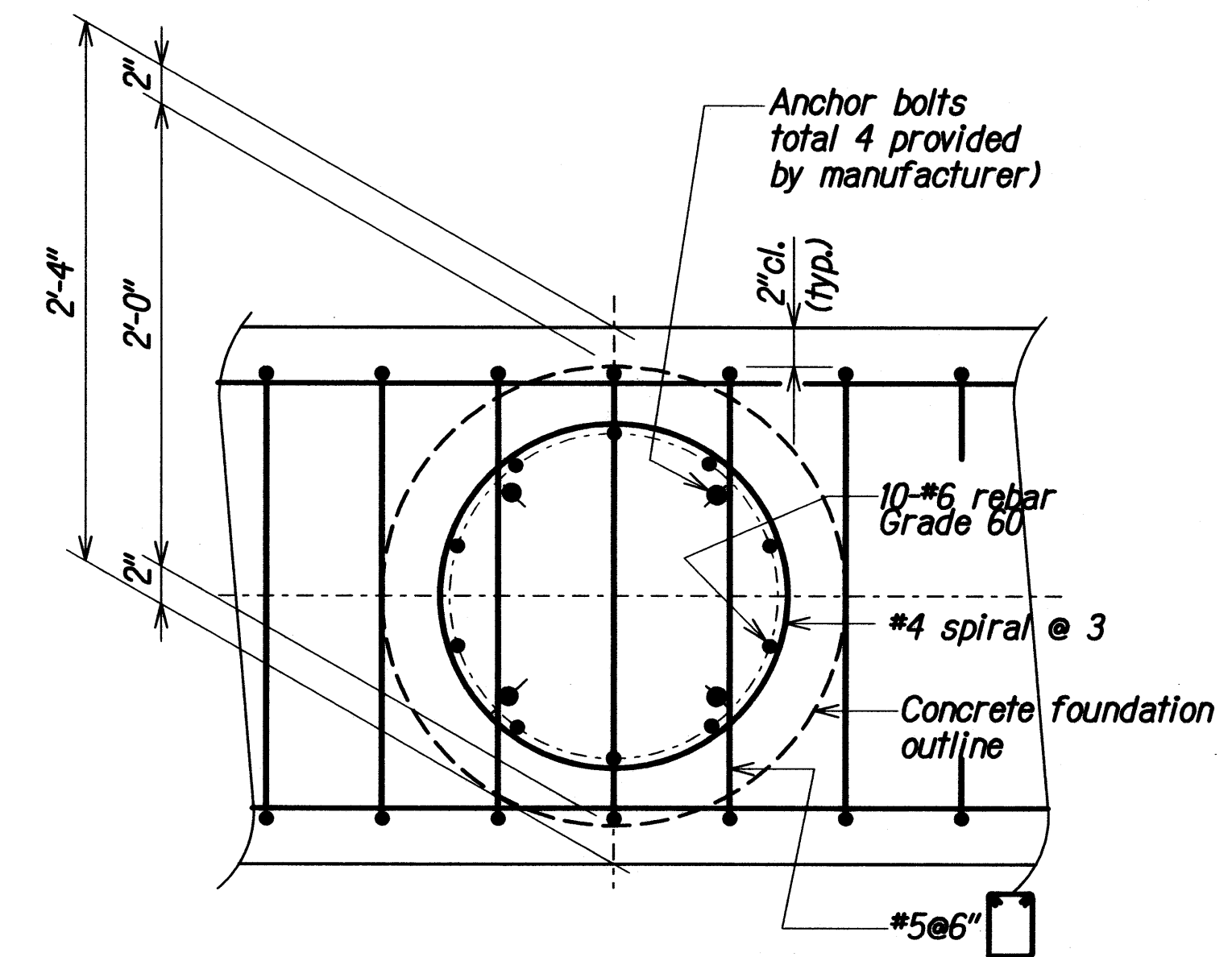
- Design of Light Standard and Foundation shall conform to latest AASHTO "Standard Specifications for Structural Luminaires and Traffic Signals" and as amended by HDOT Hwy-DB Section.
- Refer to State Standard Specifications Section 511 for drilled shaft concrete properties
- See Standard Plan Sht B-01 for additional notes.
- See Modified Median Barrier details on sht. Q16 for more information.
- Refer to Sht. E-70 and E-71 for electrical information.
- Refer to electrical plan for decorative pole and accessory information.



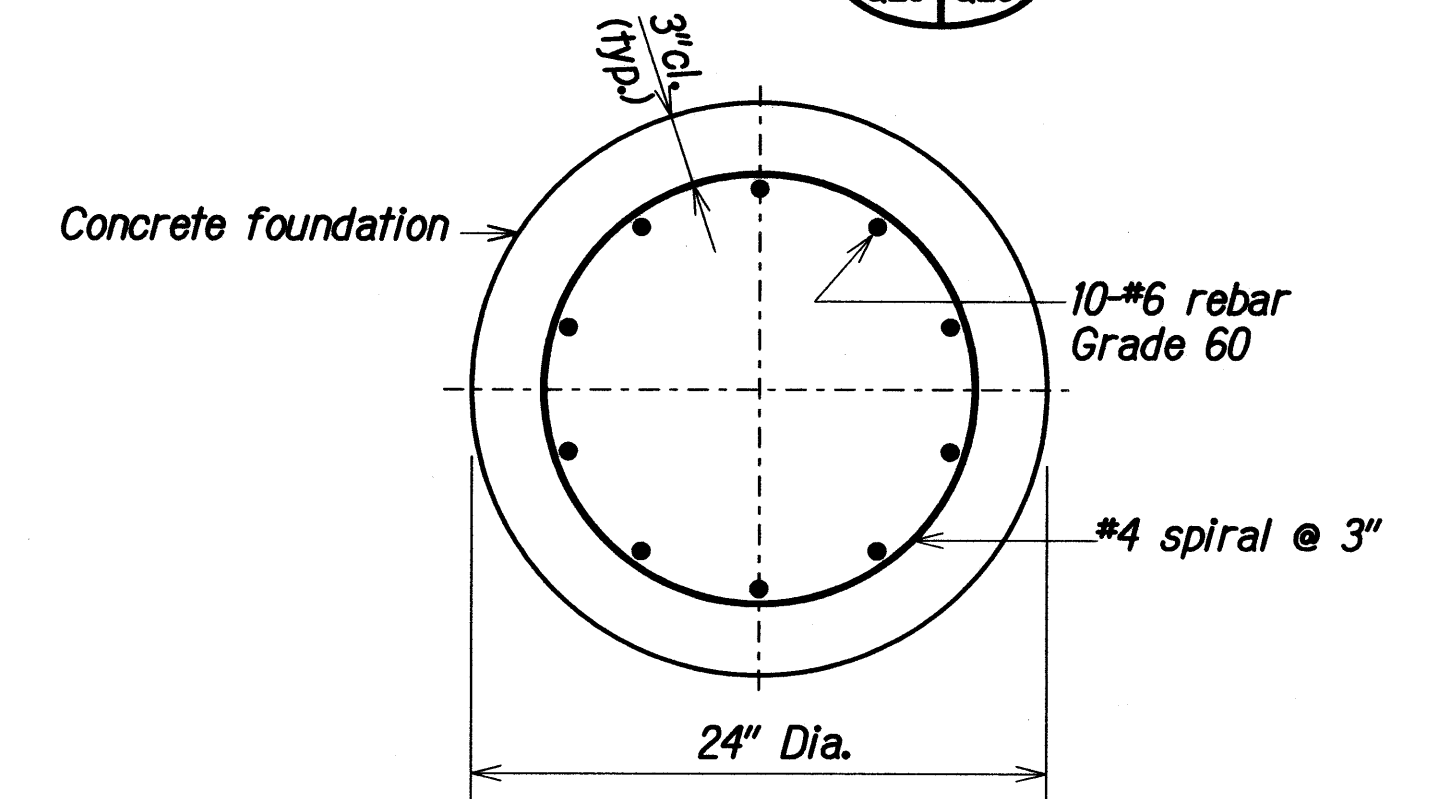
ELEVATION



SECTION A
Q20 Q20



SECTION B
Q20 Q20



SECTION C
Q20 Q20

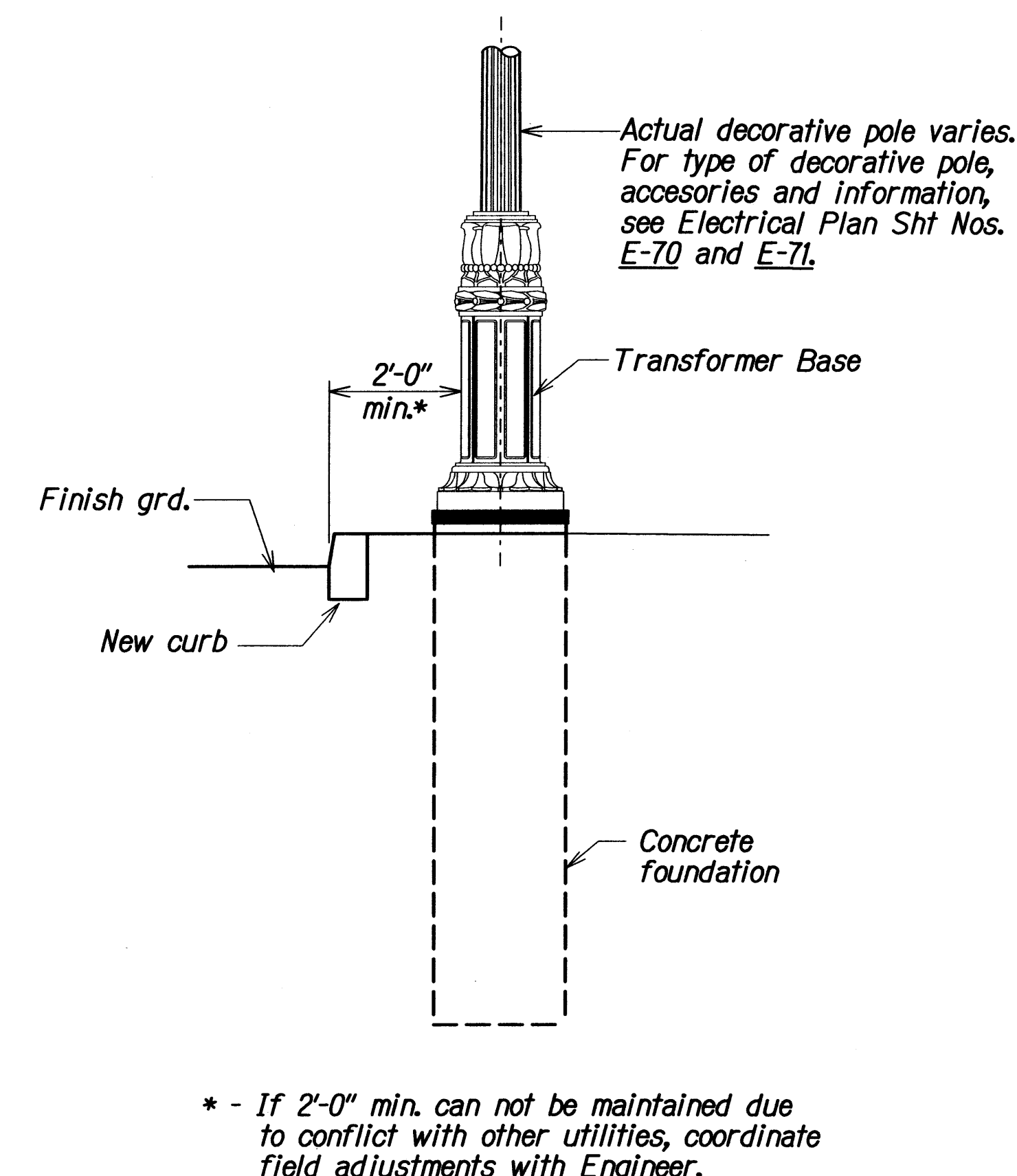
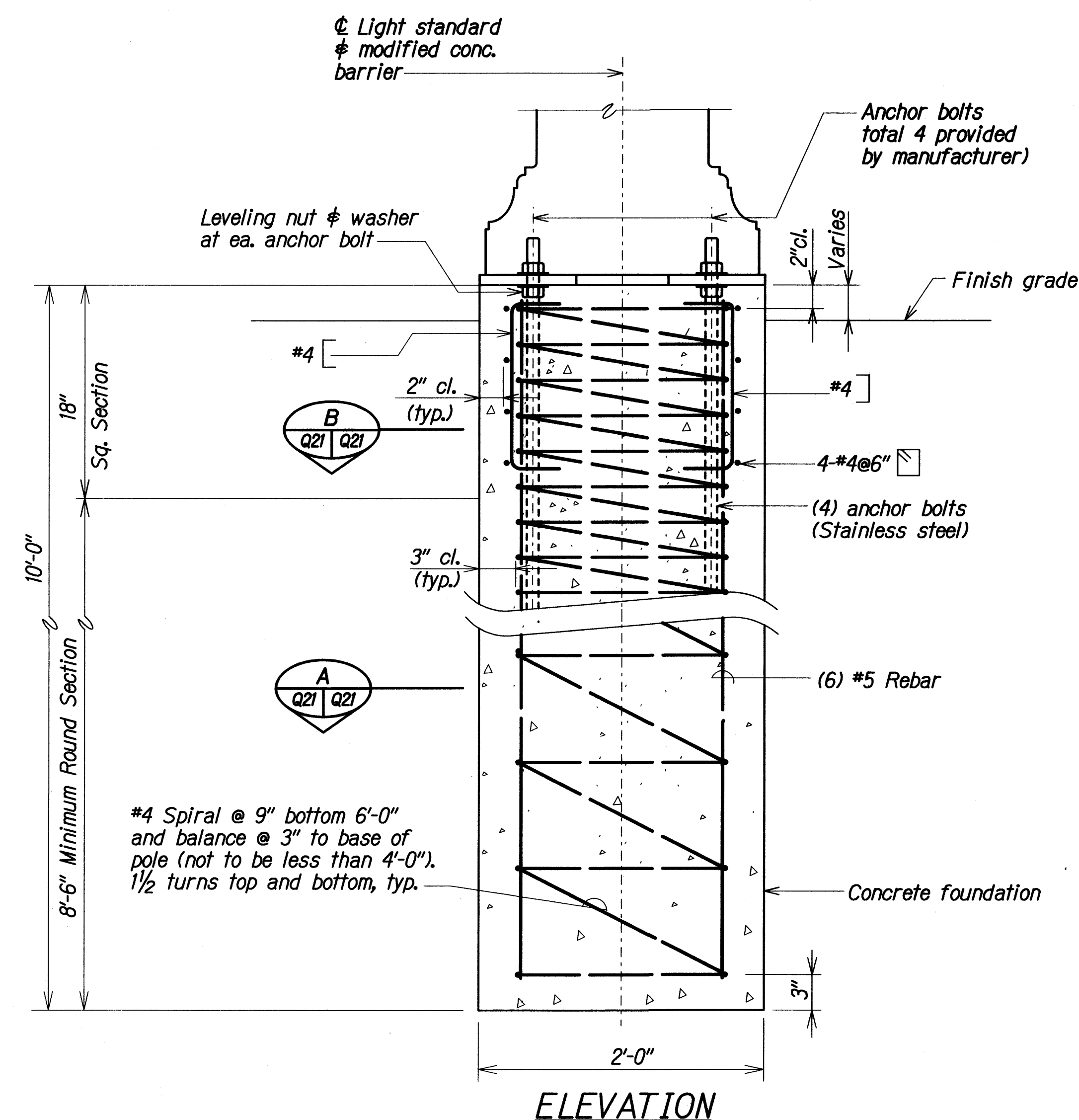
LIGHT STANDARD FOUNDATION DETAIL AT MEDIAN BARRIER OFF BRIDGE

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

SURVEY PLOTTED BY	DATE
DESIGNED BY	XXX/XXX/XXX
DESIGNED BY	XXX/XXX/XXX
QUANTITIES BY	XXX/XXX/XXX
CHECKED BY	XXX/XXX/XXX
ORIGINAL PLAN	
NOTE BOOK	
60mbq20.dgn	
N.	

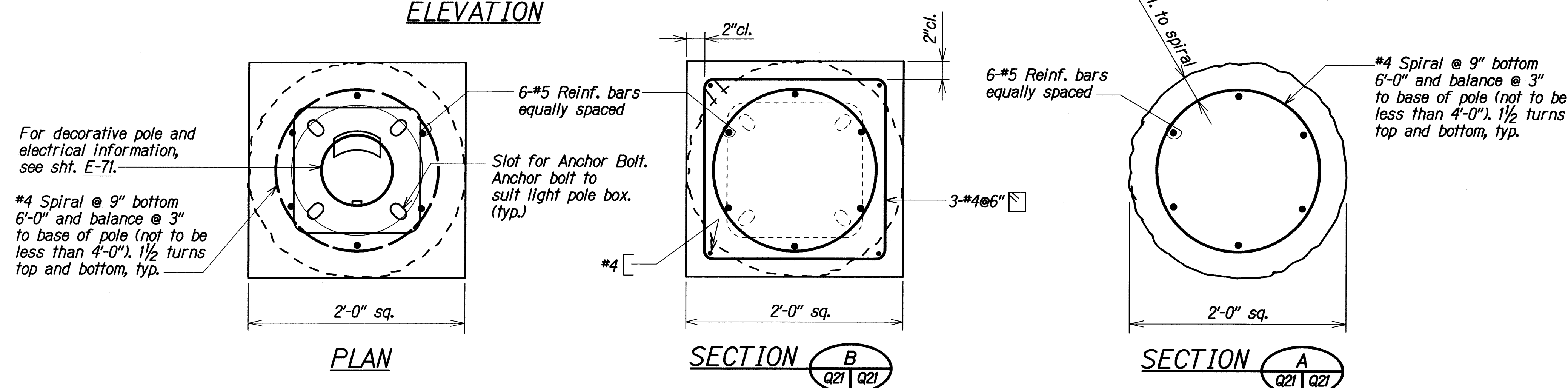
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ALA WAI CANAL BRIDGE
LIGHT STANDARD FOUNDATION DETAILS
AT MEDIAN BARRIER OFF BRIDGE - ELEVATIONS AND SECTIONS
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Project No. NH-092-K(27)
Scale: As Noted Date: Jun, 2009
SHEET No. Q20 OF 23 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	63	302



HIGHWAY LIGHTING DETAIL

Not to Scale



TYPICAL CONCRETE FOUNDATION AND TRANSFORMER BASE DETAIL

Not to Scale

NOTE:

- Design of Light Standard and Foundation shall conform to latest AASHTO "Standard Specifications for Structural Luminaires and Traffic Signals" and as amended by HDOT Hwy-DB Section.
- Refer to State Standard Specifications Section 511 for drilled shaft concrete properties
- See Standard Plan Sht B-01 for additional notes.
- Refer to Sht. E-70 and E-71 for electrical information.
- Refer to electrical plan for decorative pole and accessory information.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

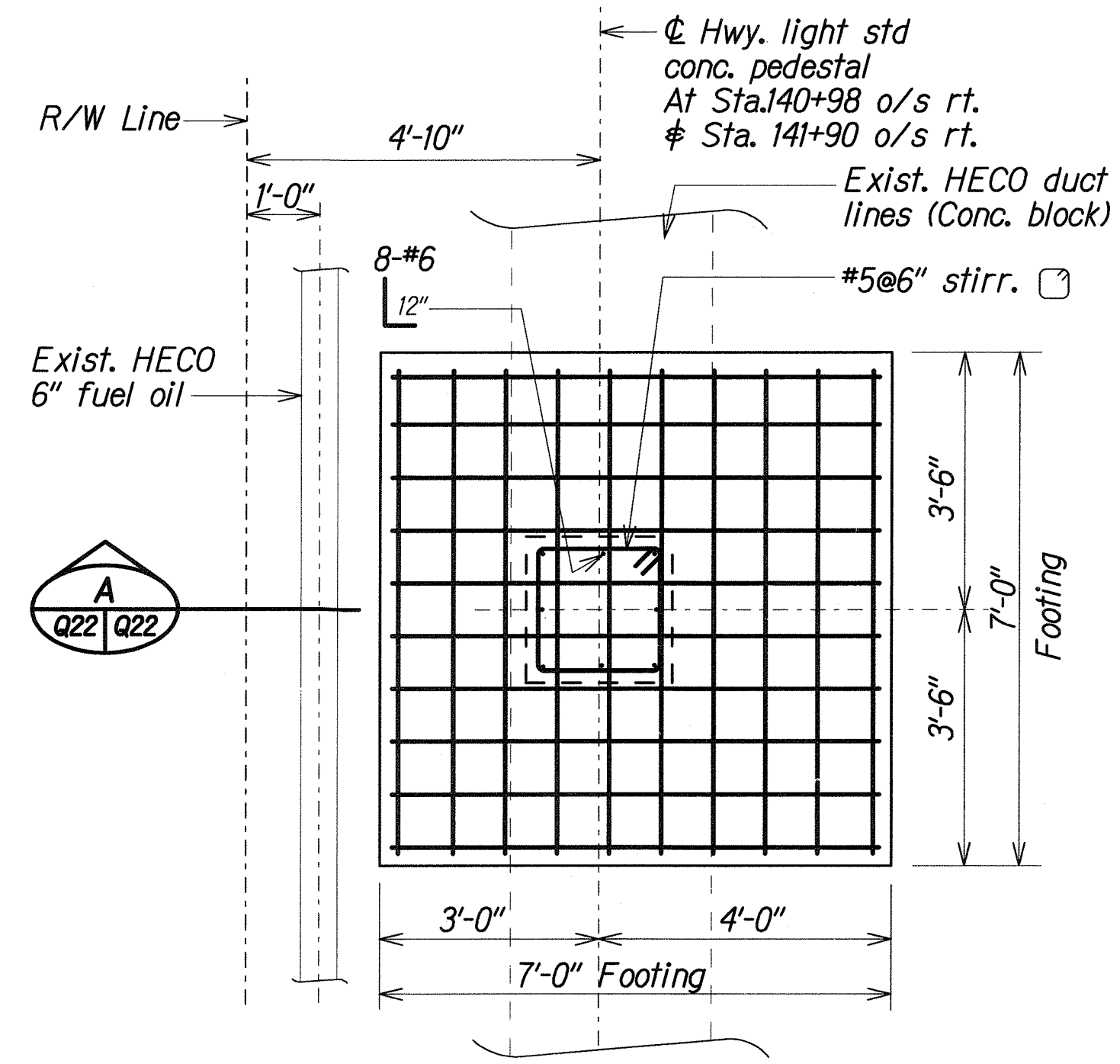
ALA WAI CANAL BRIDGE
TYPICAL CONCRETE FOUNDATION & TRANSFORMER BASE DETAILS
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)

Scale: As Noted Date: Jun, 2009

SHEET No. Q21 OF 23 SHEETS

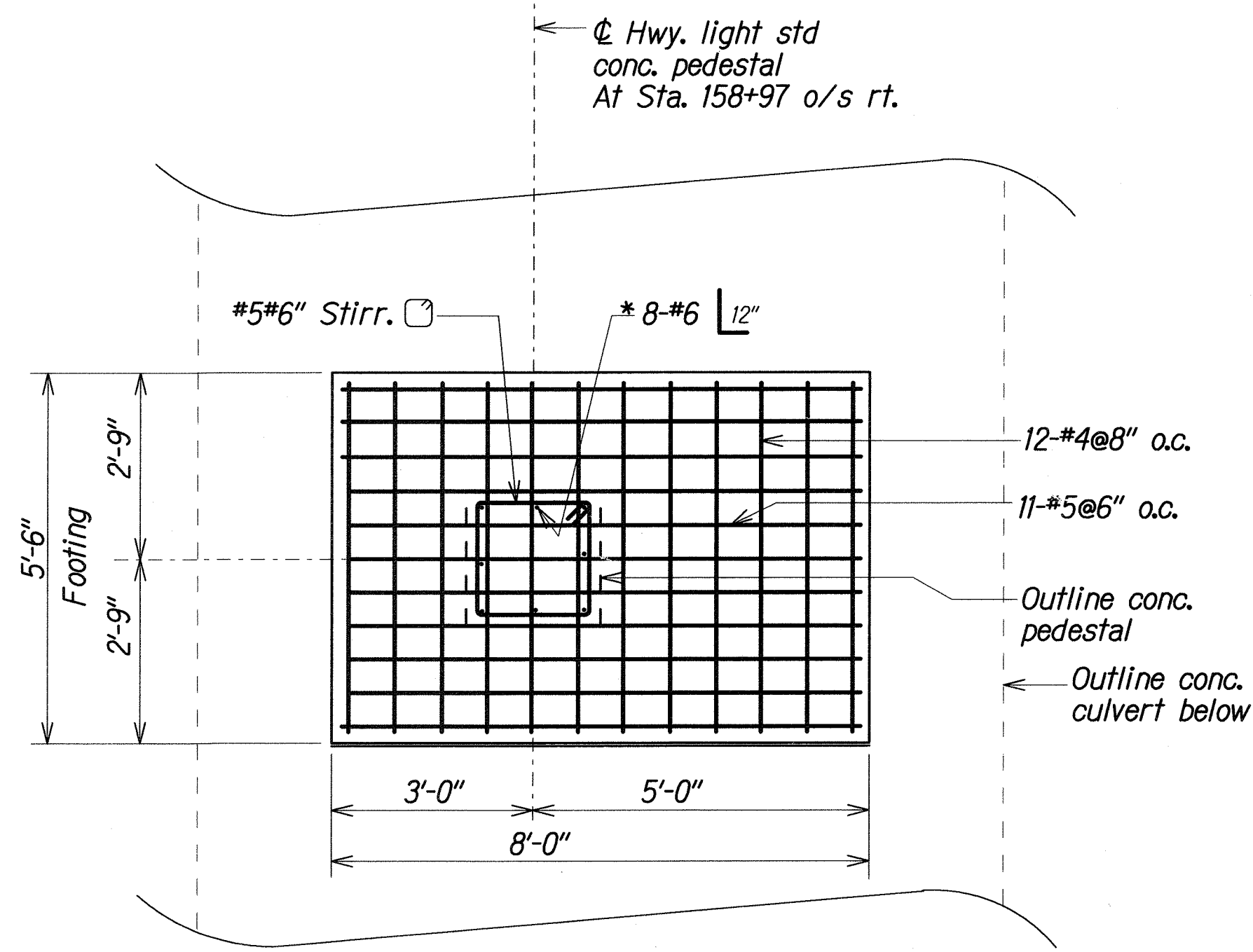
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	64	302

SEWER NOTE:
 The contractor shall take special precaution not to disturb the existing 36-inch diameter concrete sewer line, which was installed in 1900 and is in poor structural condition, during installation of the foundations for the new street light poles. Disturbance such as creating ground vibration or adding excessive surcharge loads from construction vehicles or equipment should be avoided during construction. Any damage to the sewer line shall be repaired by the contractor at his expense, using a repair method approved by the City.



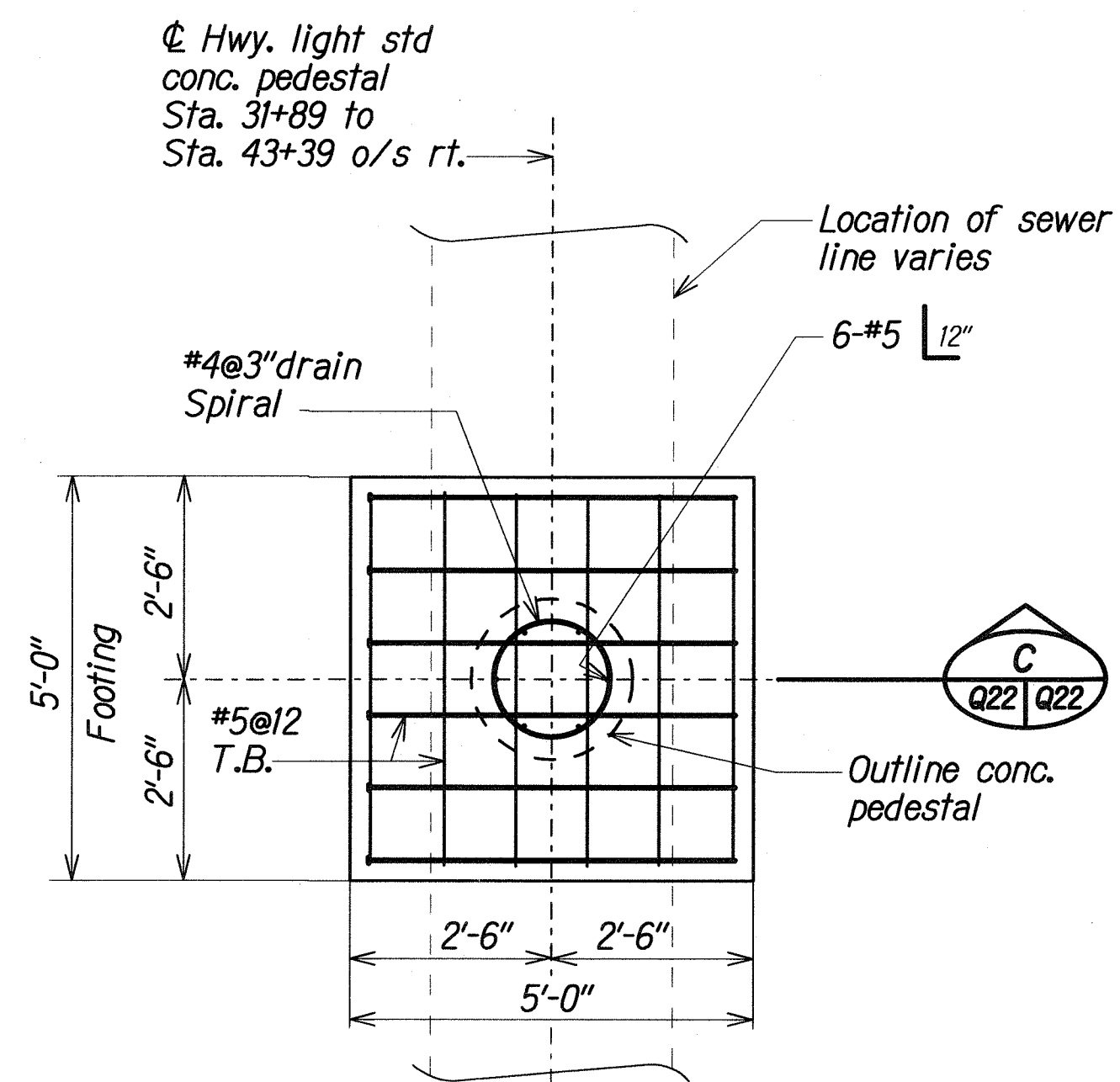
PLAN A

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



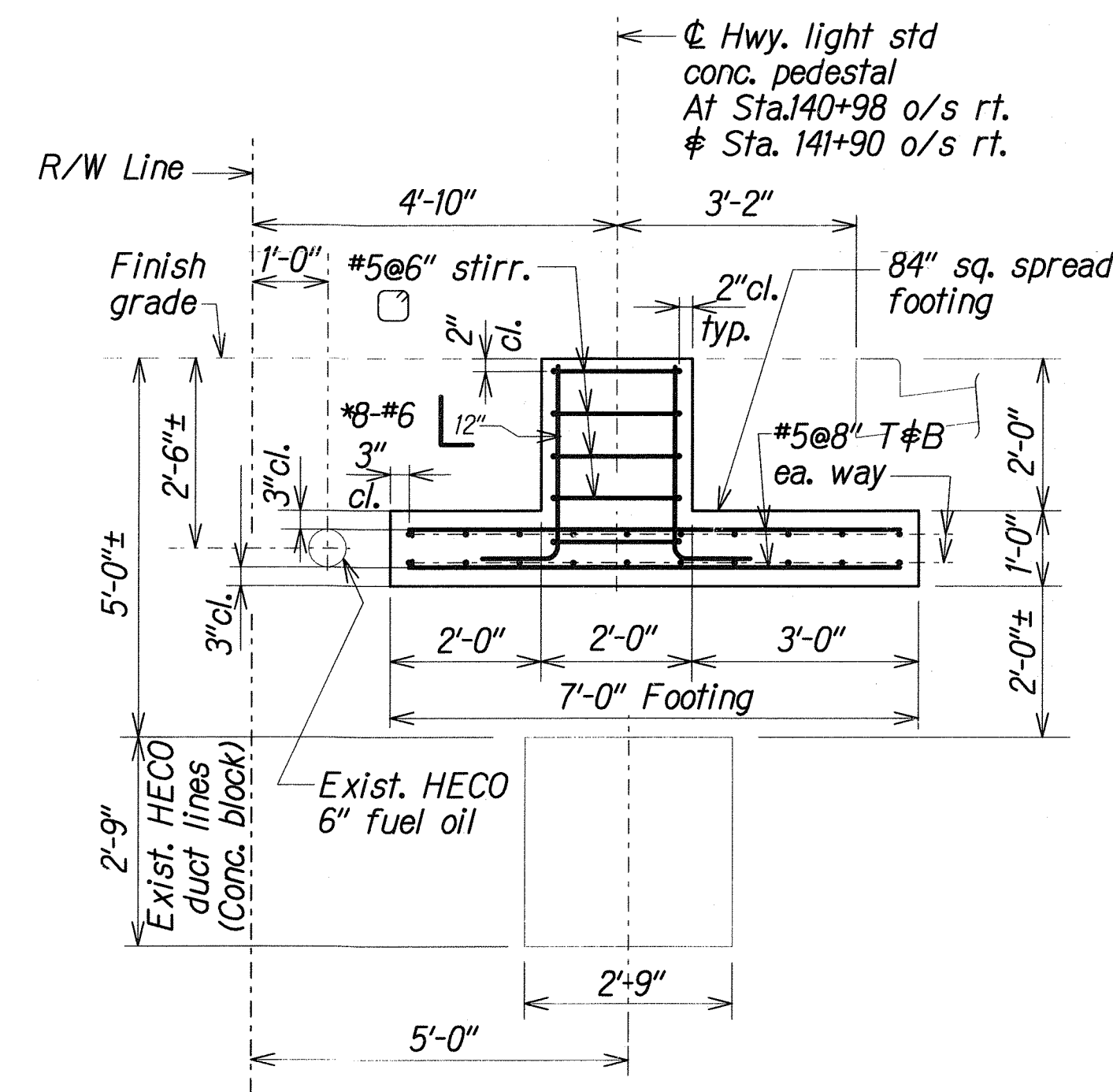
PLAN B

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



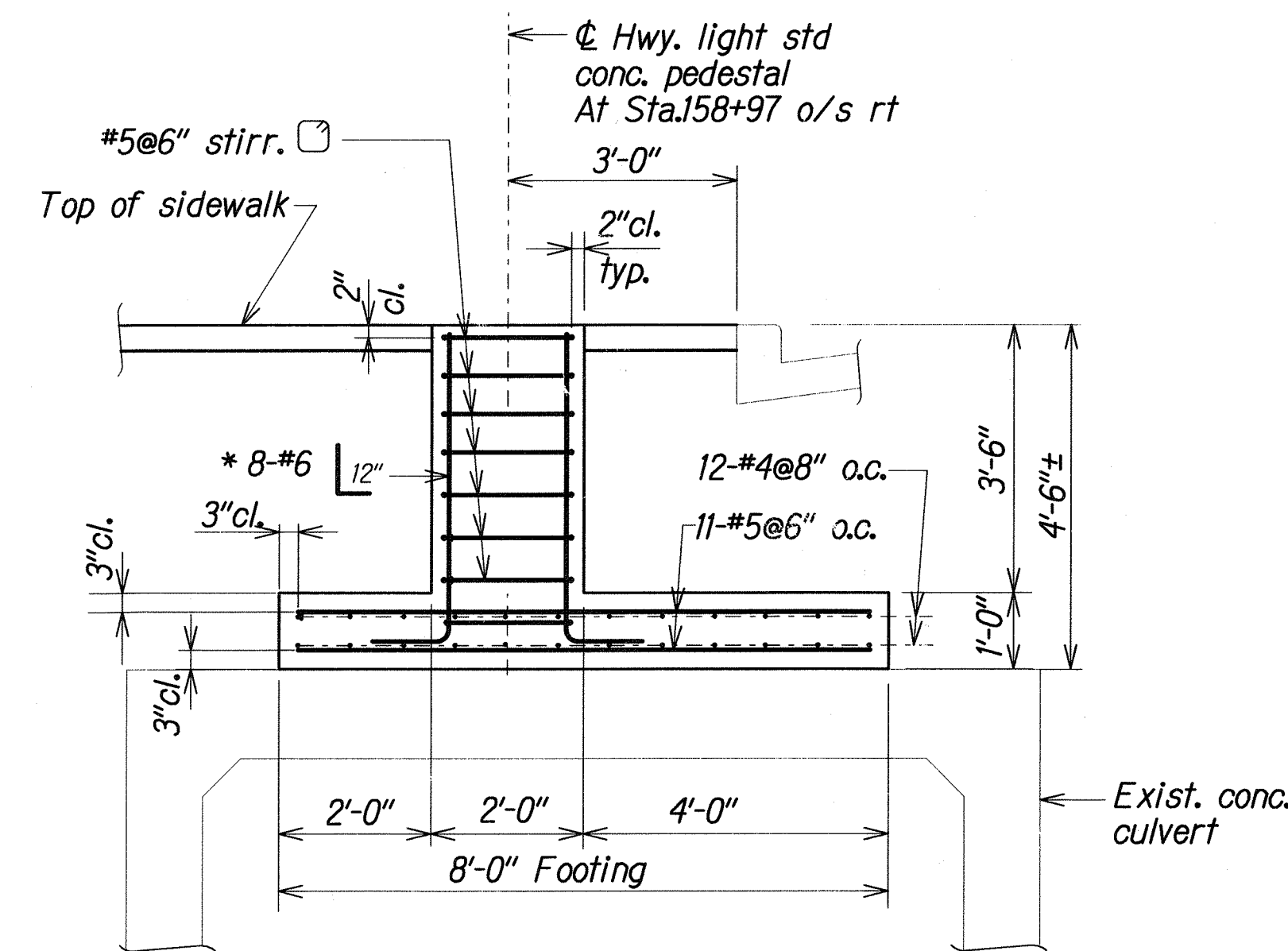
PLAN C

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



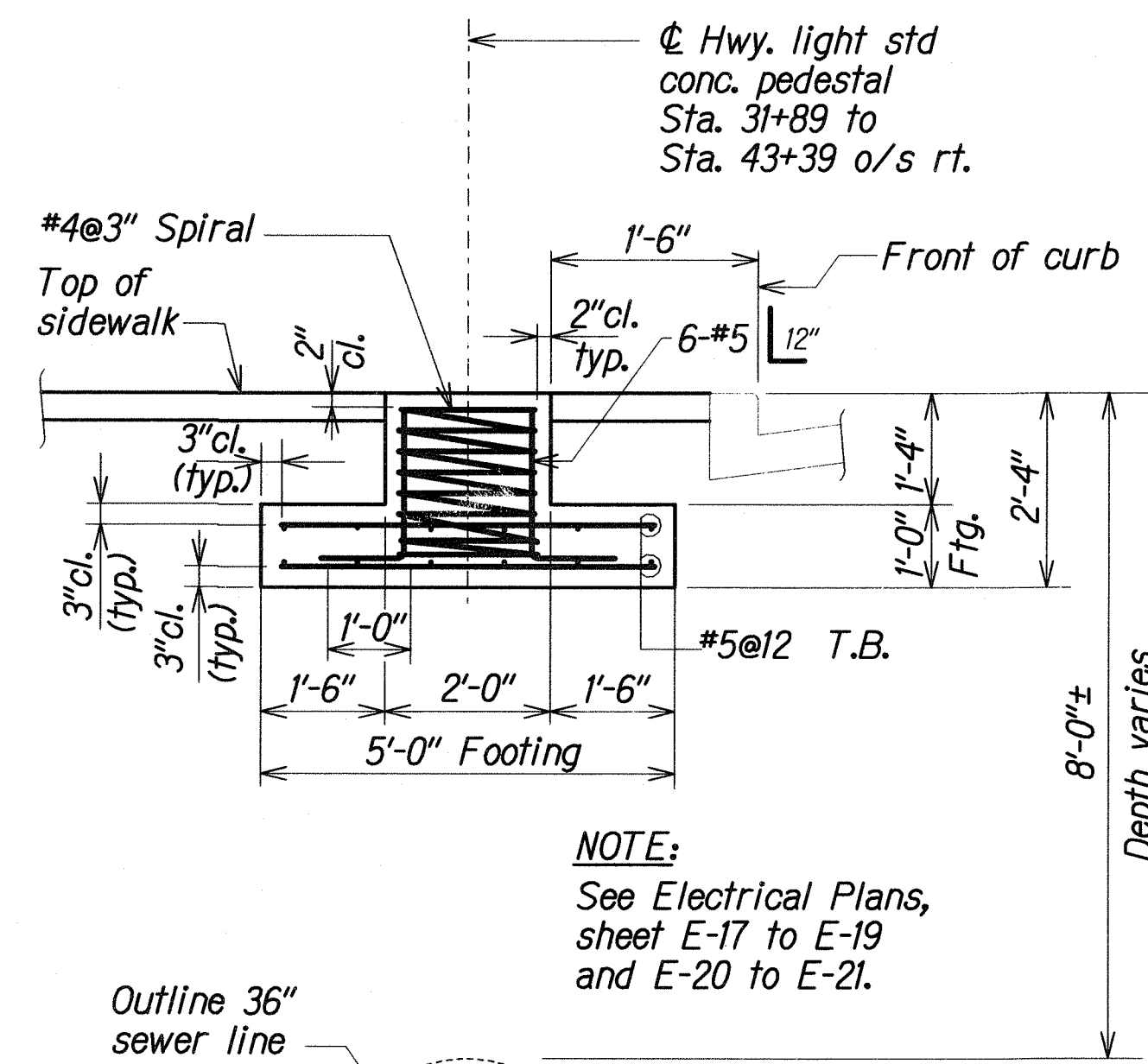
SECTION A

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



SECTION B

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



SECTION C

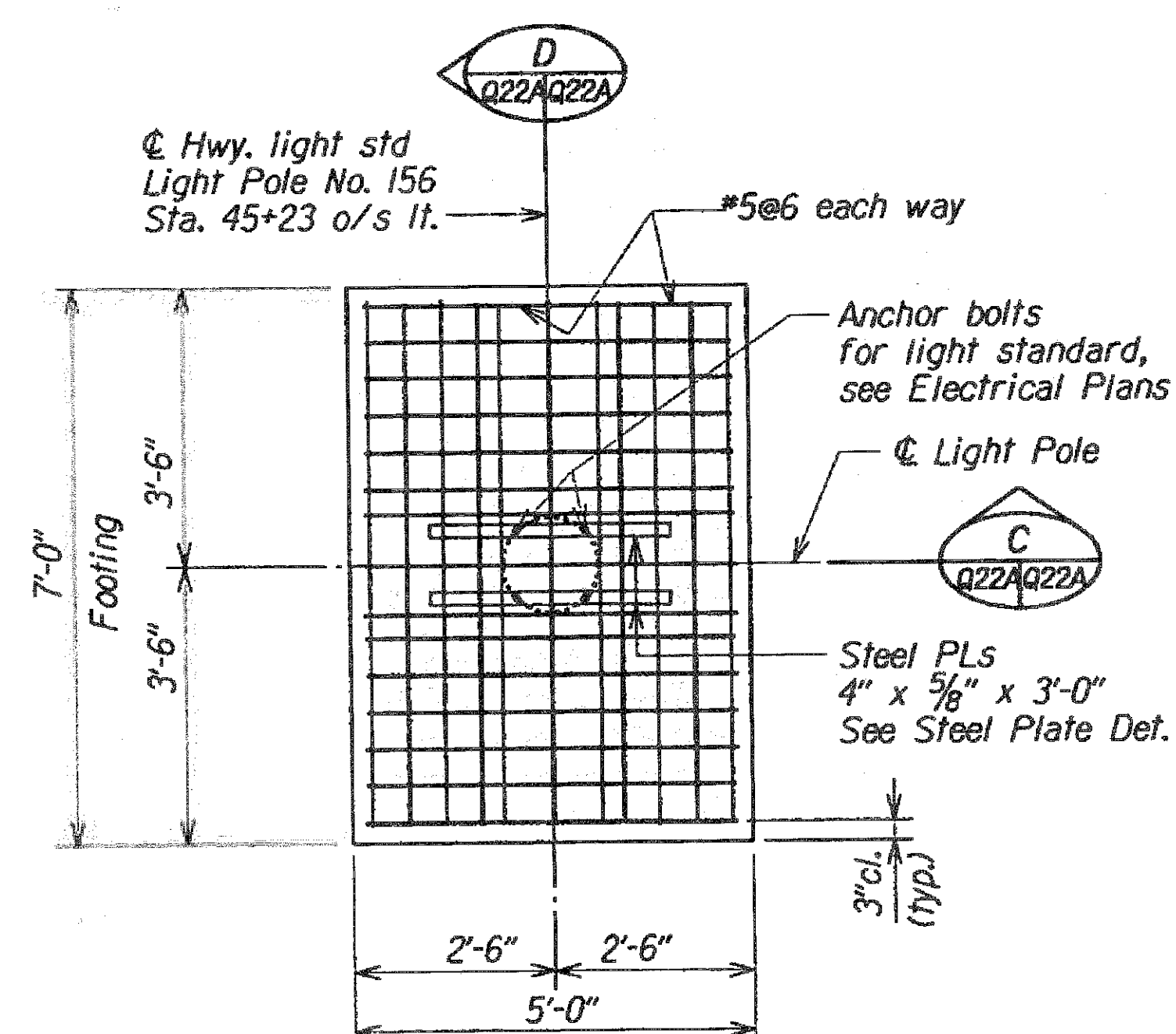
Scale: 1/2" = 1'-0"

- NOTE:**
1. Reinf. bar arrangement at conc. pedestal.
 2. Location and depth of fuel lines and HECO duct lines to be verified by the Contractor.
 3. See Highway Plans for Light Standard requirements and details.
 4. The Contractor shall verify dimensions in the field.
 5. See Electrical Plans, sheet E-77, Section B for Concrete Base Plan.

APPROVED:
J. Waggelmann
 CHIEF, WASTEWATER BRANCH, DPP
 1/5/10

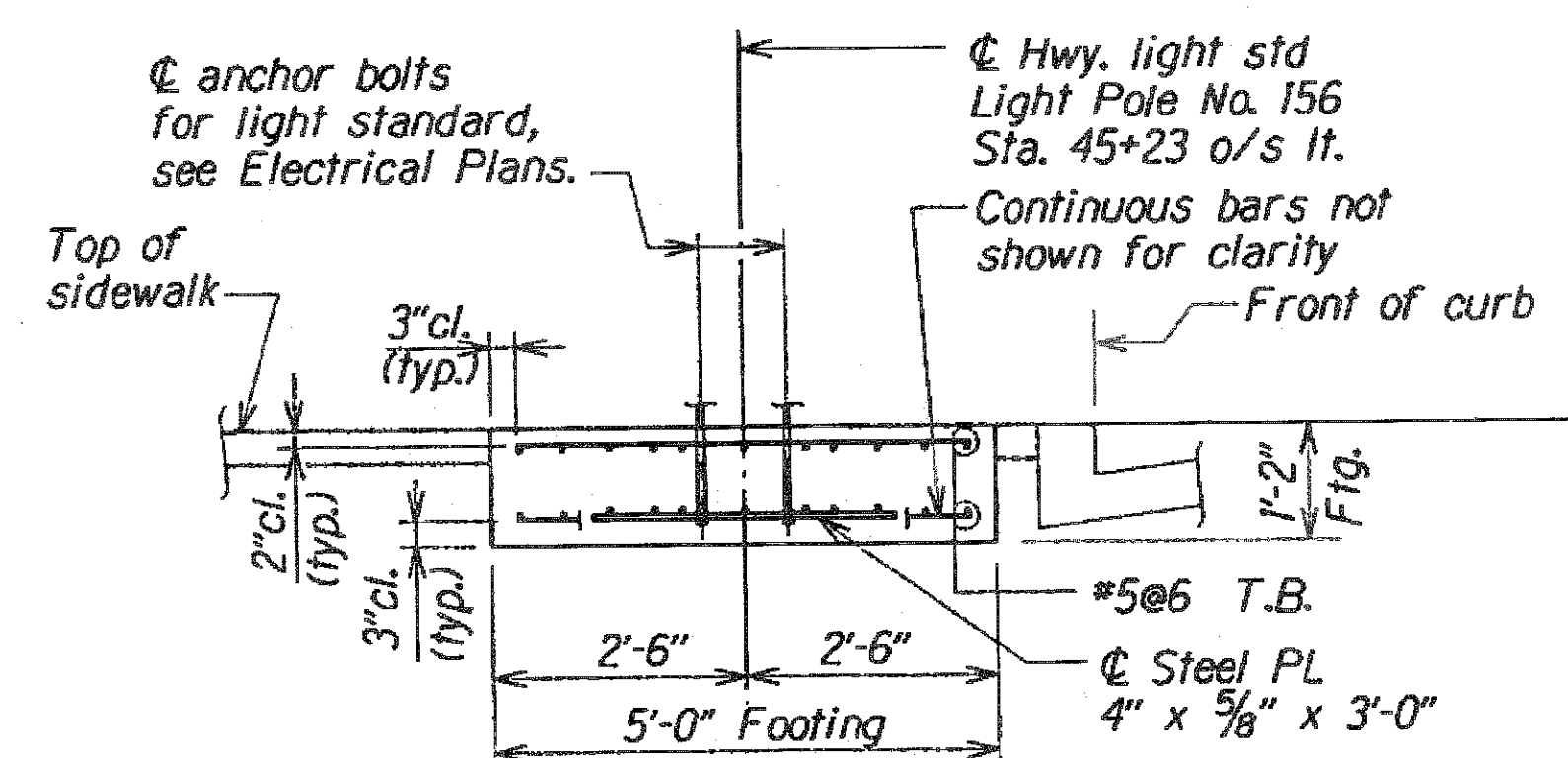
DATE	REVISION
1/4/10	Add 5'x5' footing with cylindrical pedestal and Waste Water Branch Chief's approval block.
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION LIGHT STANDARD SPECIAL FOOTING AT STA. 140+98 O/S RT., STA. 141+90 O/S RT. & STA. 158+97 O/S RT. NIMITZ HIGHWAY AND ALA MOANA BOULEVARD RESURFACING AND HIGHWAY LIGHTING REPLACEMENT Federal Aid Project No. NH-092-1(27) Scale: As Noted Date: Jun, 2009	
SHEET No. Q22 OF 23 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(27)	2010	C.O. ADD. 64 S-1	302



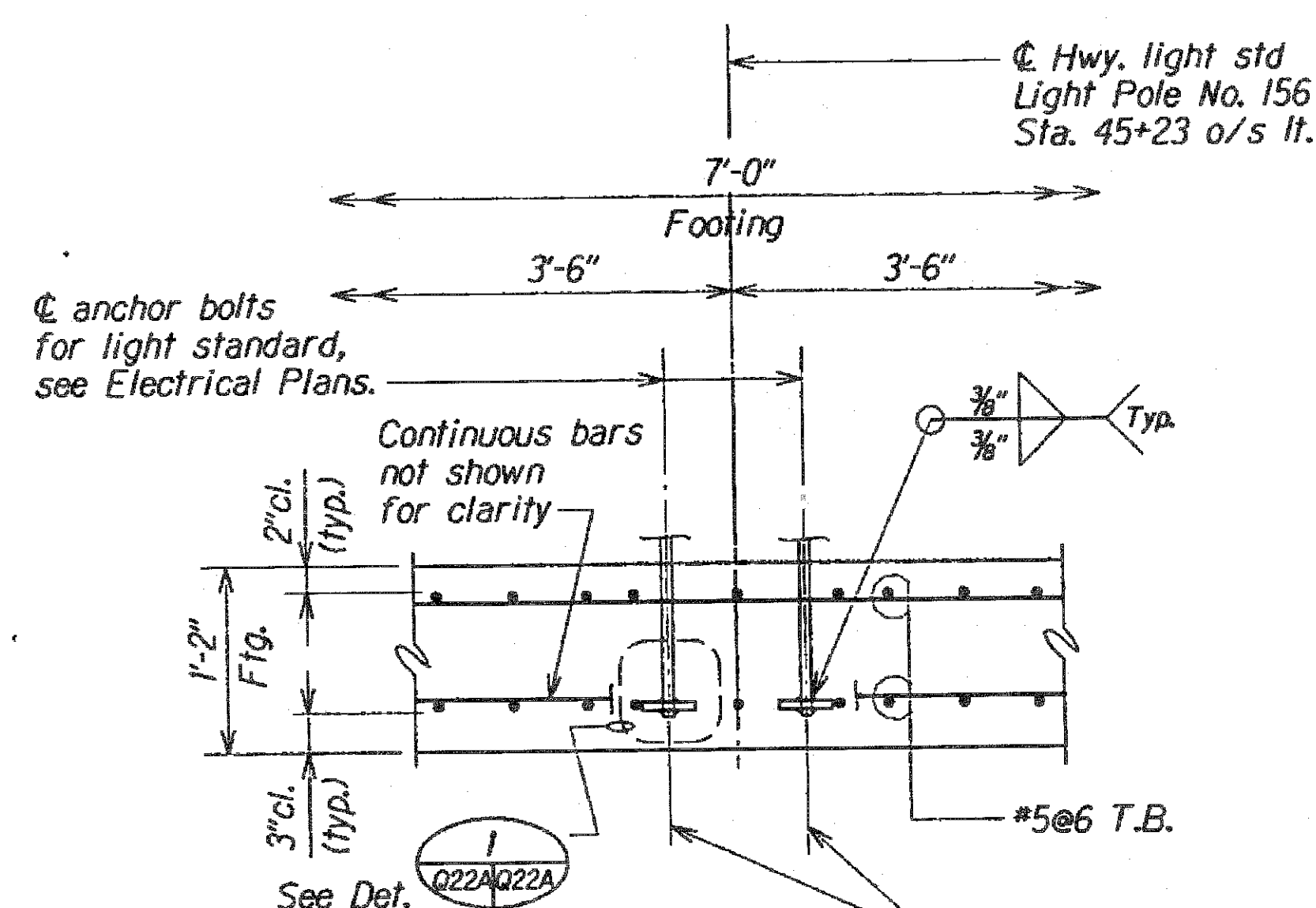
PLAN

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



SECTION C

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

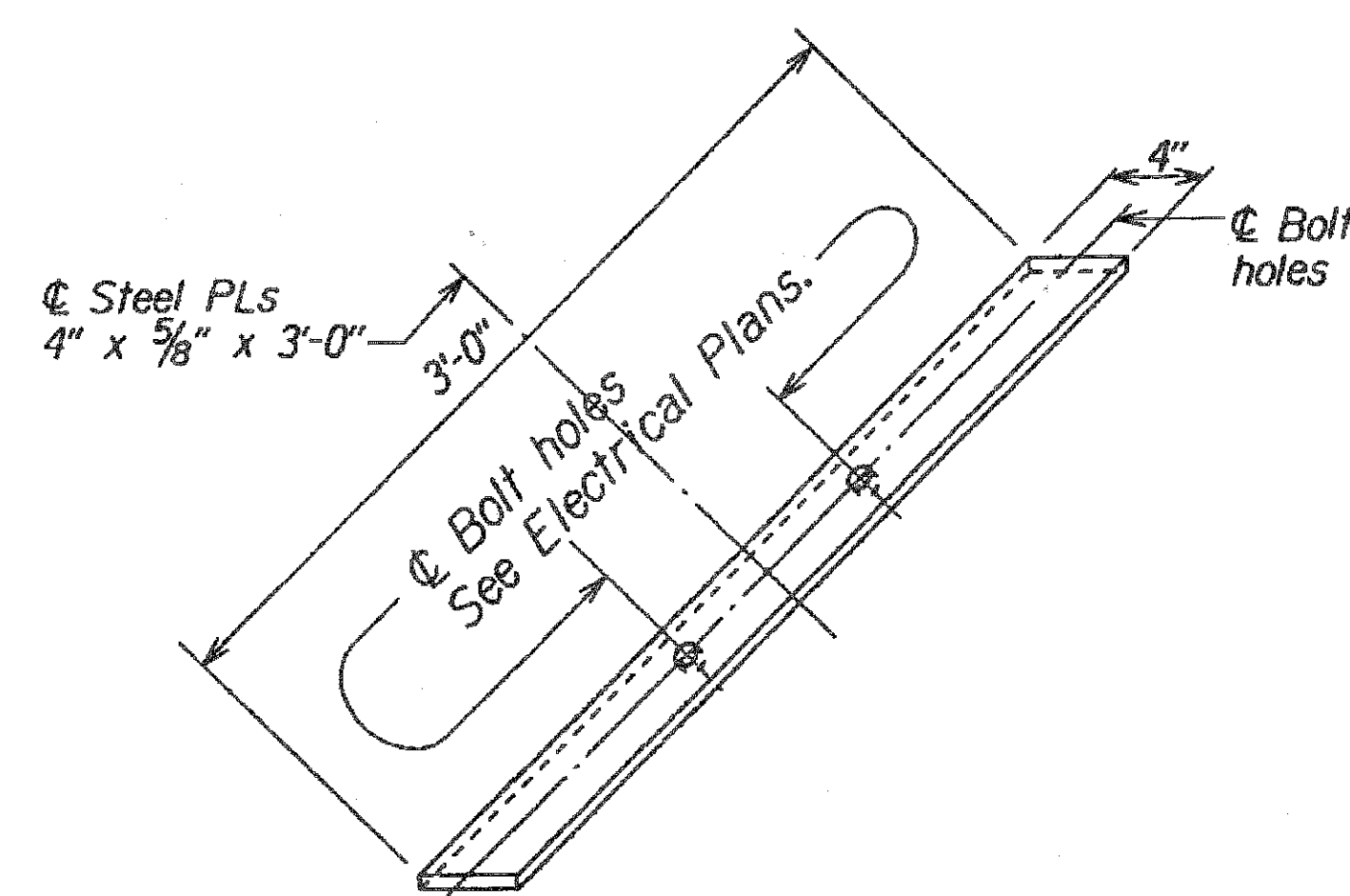


SECTION D

Scale: 1" = 1'-0"

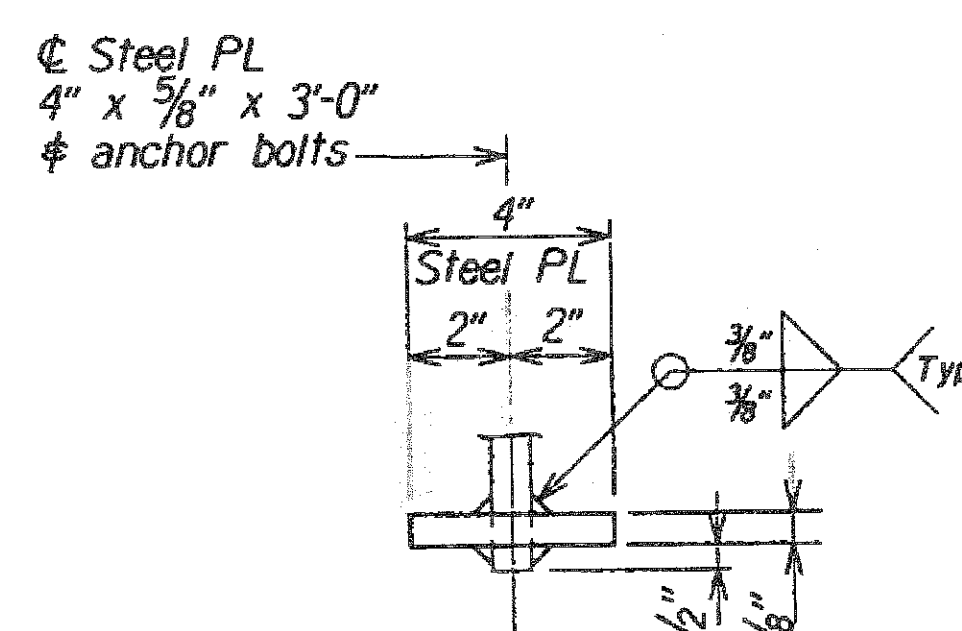
NOTE:

1. See Electrical Plan sheet E-35.
2. Adjust bars as necessary to avoid anchor bolts and anchor plates.



STEEL PLATE DETAIL

Scale: 3" = 1'-0"



DETAIL

Scale: 3" = 1'-0"

SEP 29 2011

This sheet was added as a supplemental sheet to C.O. Add. 64. Footing for Light Pole No. 156 at Sta. 45+23 o/s lt. was added.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
LIGHT STANDARD SPECIAL FOOTING
LIGHT POLE NO. 156
STA. 45+23 O/S LT.
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Federal Aid Project No. NH-092-1(27)
Scale: As Noted Date: SEP. 2011

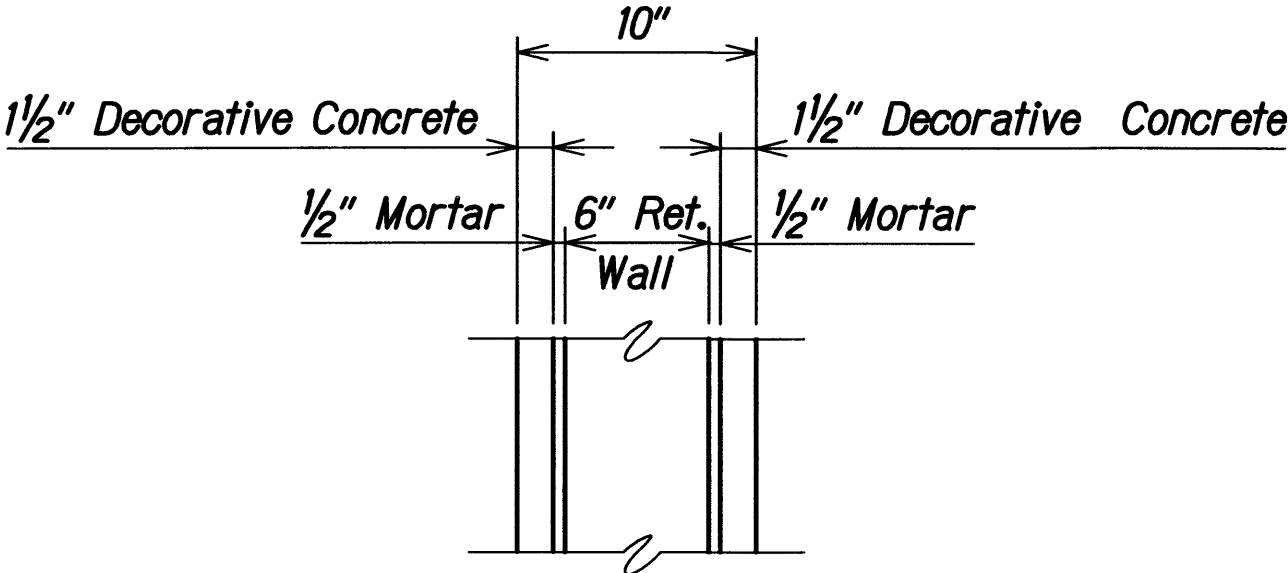
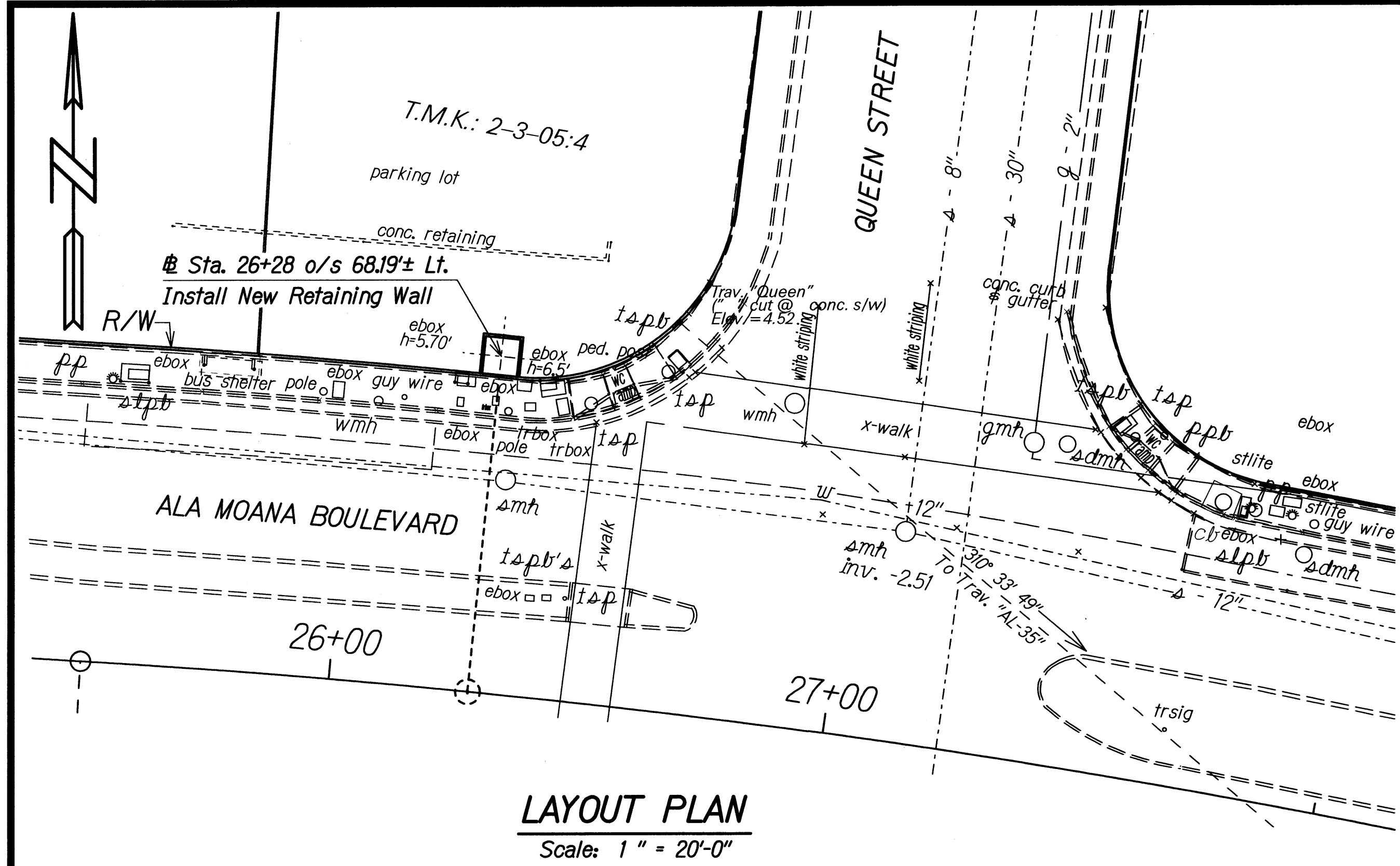
SHEET No. Q22A OF 22 SHEETS

C.O. ADD. 64 S-1

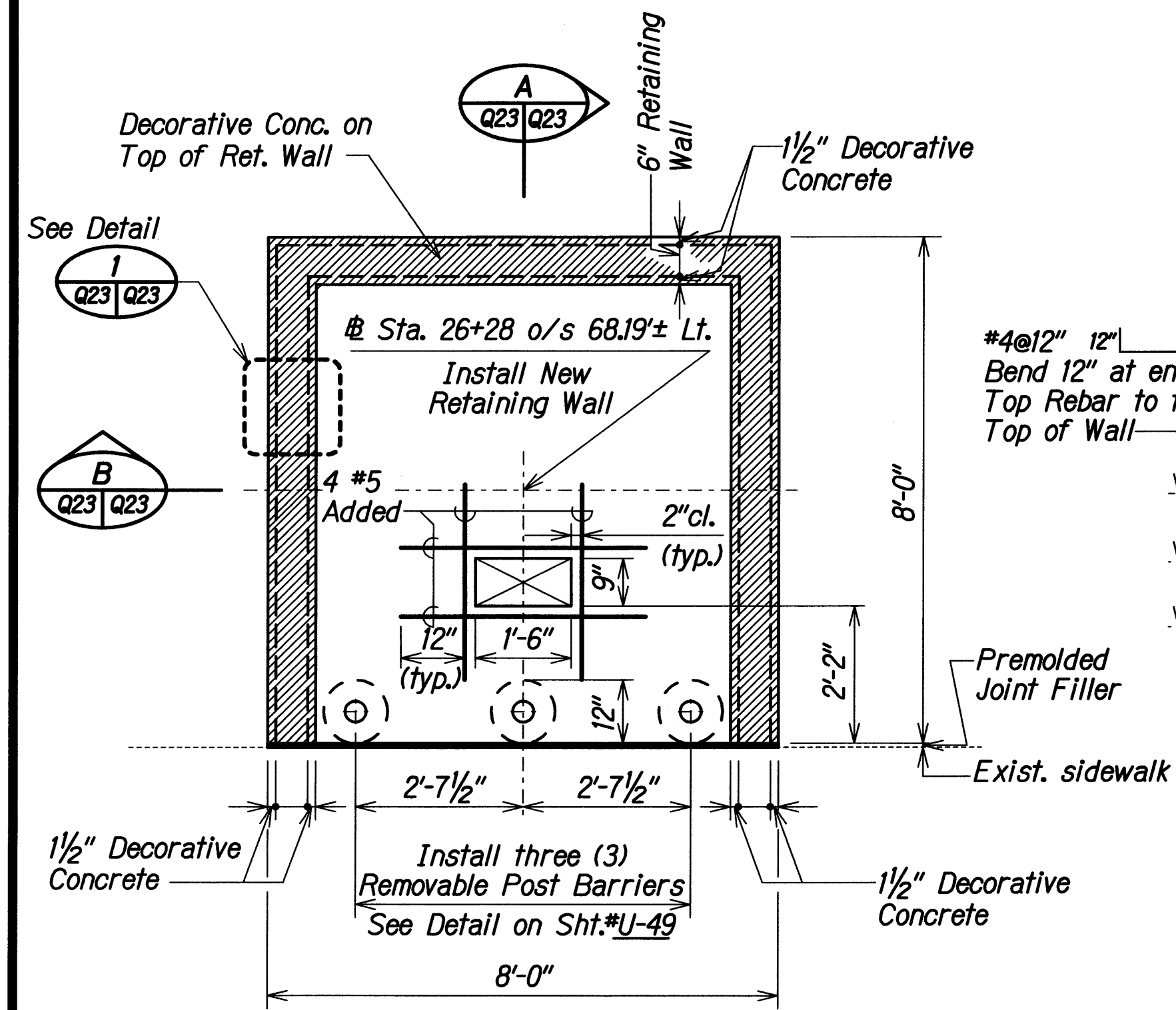
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-K(27)	2010	65	302

GENERAL NOTES:

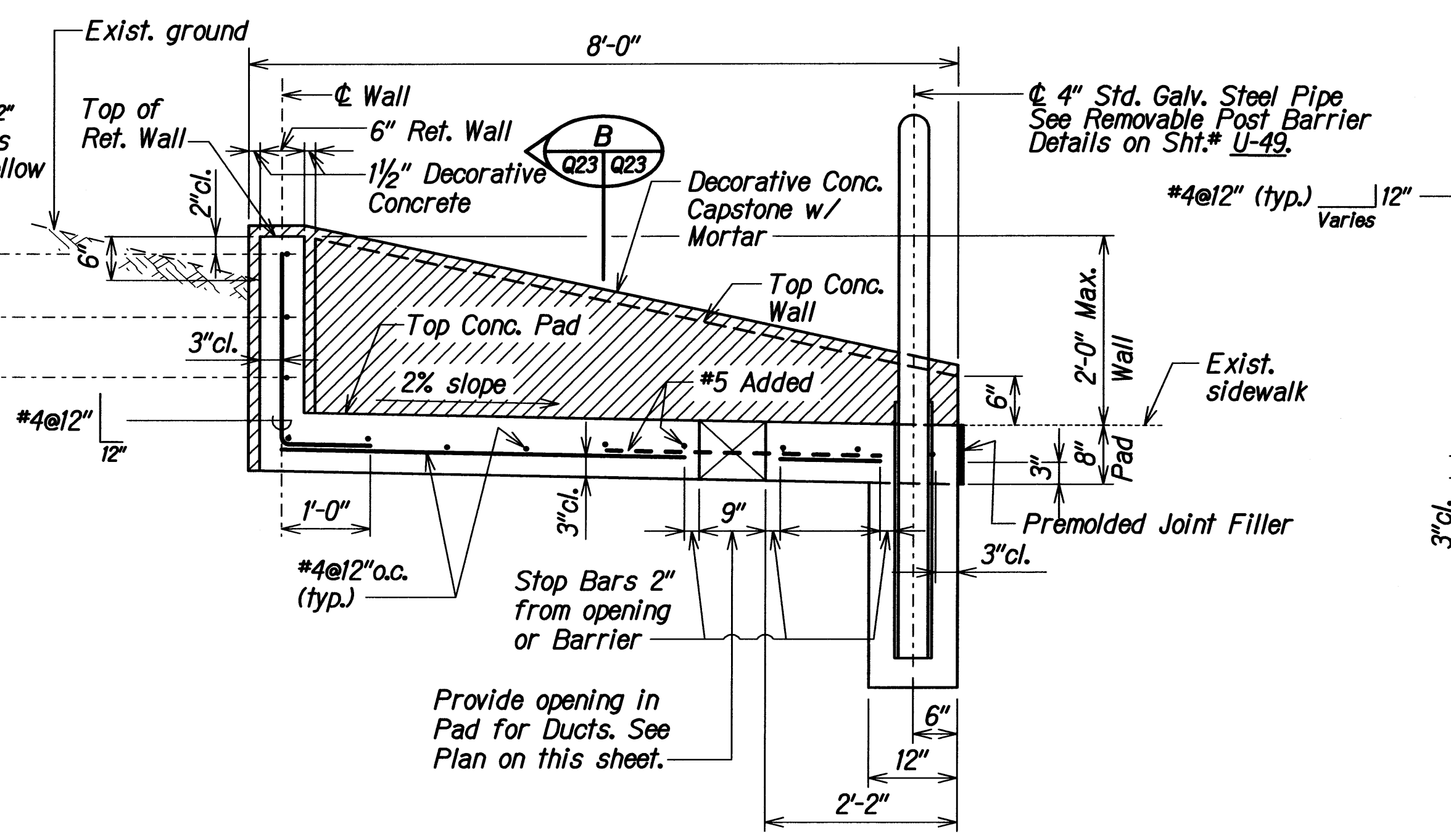
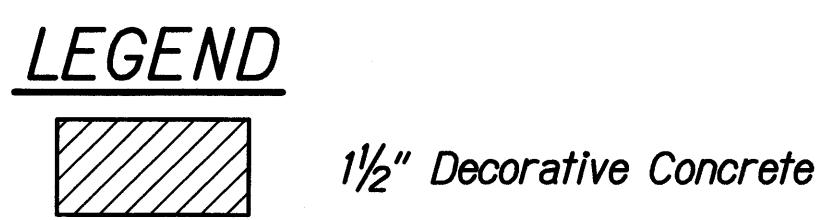
- (1) All concrete shall be Class A ($f'c = 3000$ PSI).
- (2) All reinforcing steel shall be ASTM A615, Grade 60.
- (3) Refer to Hawaii Department of Transportation, Hawaii Standard Specification for Road, Bridge, & Public Works Construction, 2005, together with Special Provisions prepared for this contract.
- (4) Corners to be beveled.
- (5) Top cap to cover wall decorative concrete.
- (6) Base course incidental to utility pad.
- (7) Bollard footings to be poured monolithically with utility pad.



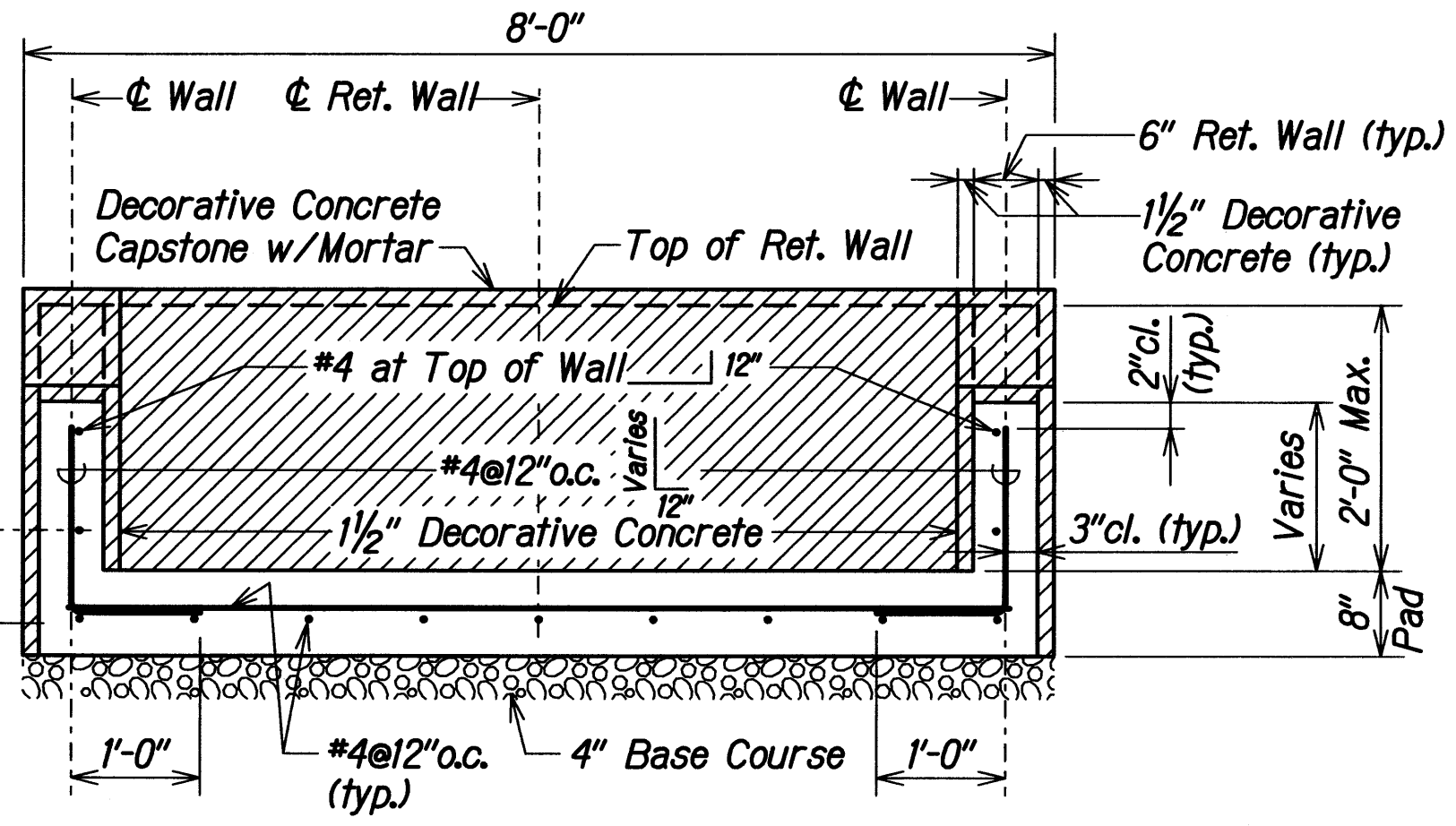
DETAIL 1
Scale: 1 1/2" = 1'-0"



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



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



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

UTILITY PAD DETAILS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITY PAD DETAILS
LOCATION PLAN, PLAN & SECTIONS
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
AND HIGHWAY LIGHTING REPLACEMENT
Project No. NH-092-K(27)