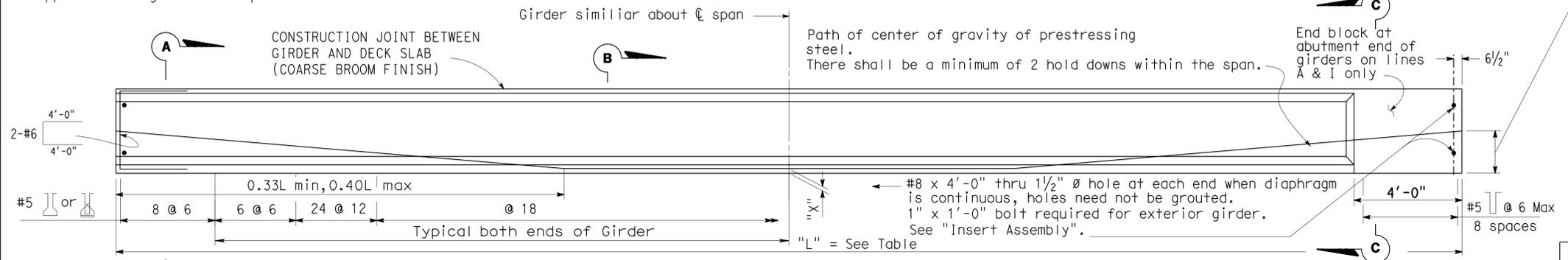
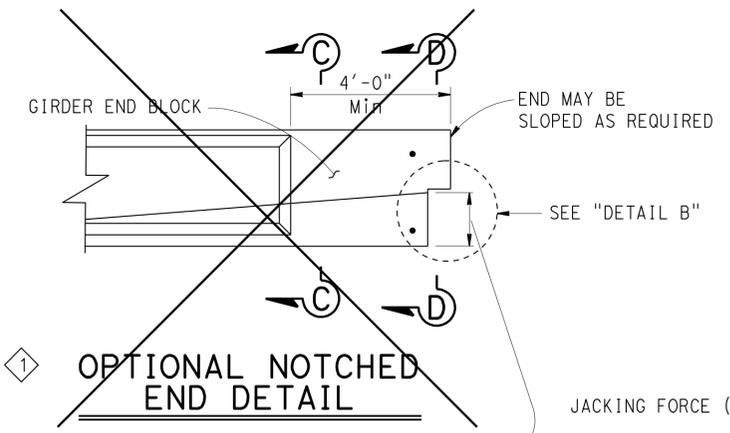
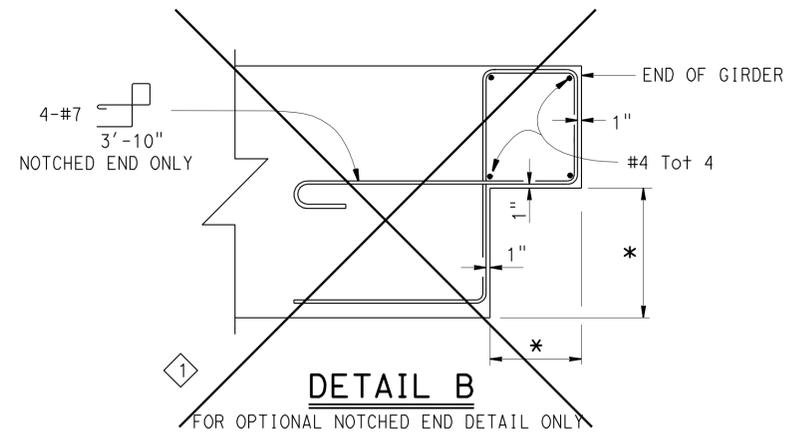


CLEARANCES FOR PRETENSIONED STRANDS

- Strands may be bundled in groups consisting of 3 vertically 2 horizontally, and separated at the ends.
- The min distance "S" between groups or individual strands is 1 1/2" for 3/8" strands, 1 3/4" for 1/2" strands and 2" for 0.6" strands.
- "S" is measured between centers of adjacent strands.
- Approval of Engineer is required for deviation.



PRESTRESSING NOTES

JACKING FORCE (P): The manufacture jacking force required at point of control along the span. The jacking force does not include any fabrication specific losses.

The maximum tensile stress in the prestressing steel upon release shall not exceed 75 percent of the specified minimum ultimate tensile strength of the prestressing steel.

The maximum temporary tensile stress (jacking stress) in the prestressing steel shall not exceed 80 percent of the specified minimum ultimate tensile strength of the prestressing steel.

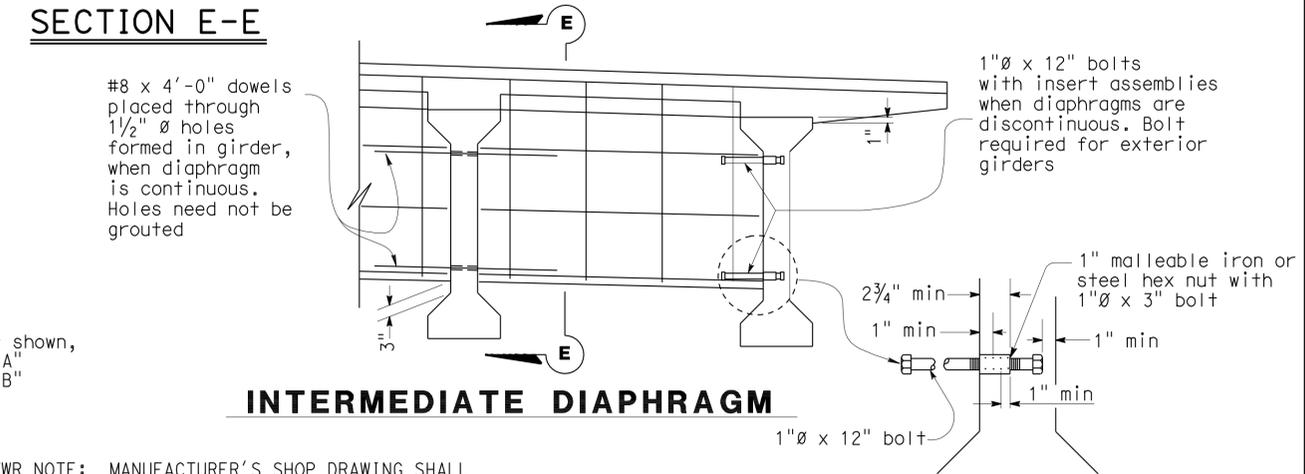
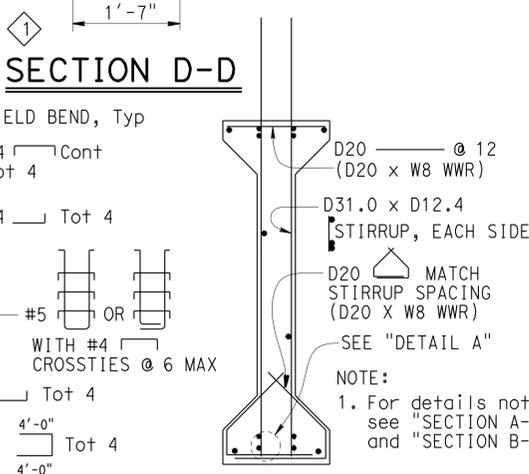
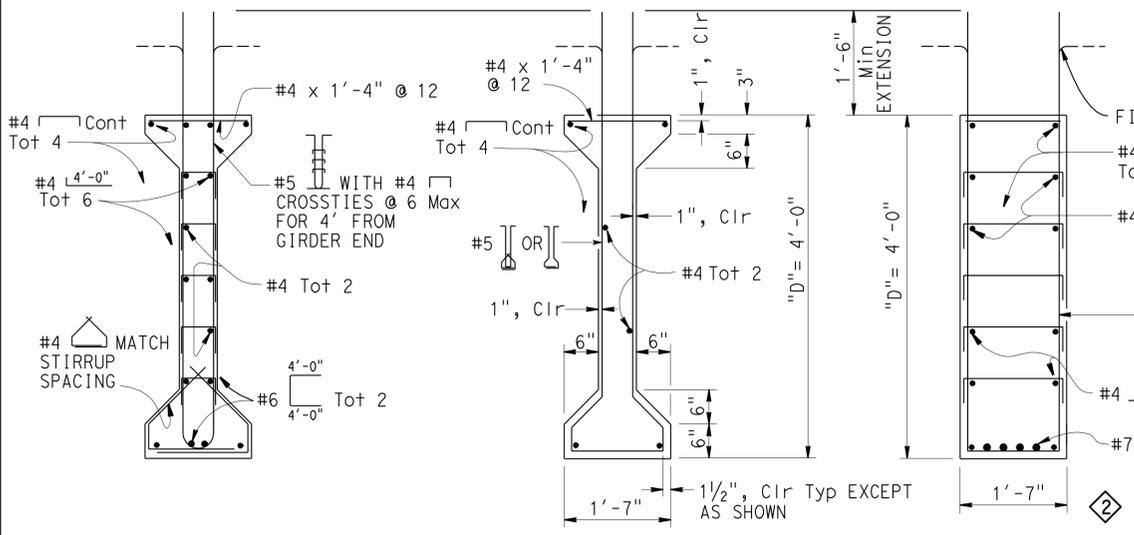
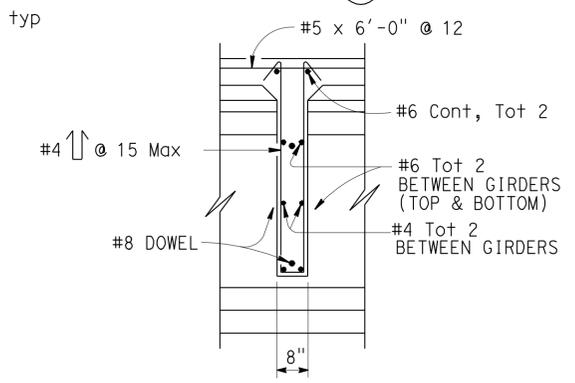
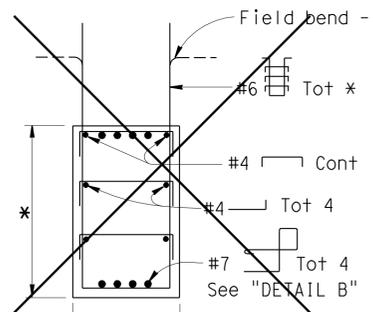
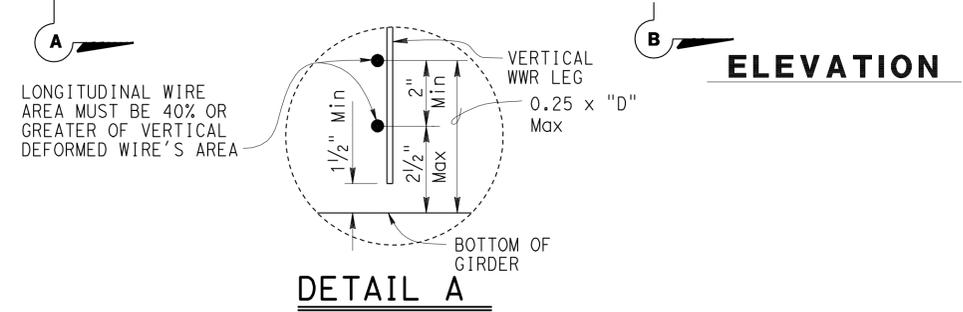
CONCRETE STRENGTH: f'ci (Ksi) is at time of initial stressing. f'c (ksi) is at 28 days

DEFLECTION COMPONENTS: Informational - to be used in setting screed line elevations.

Screed line elevations for deck concrete will be determined by the Engineer.

Contractor may interpolate "P" and "X" values between limits shown, as approved by the Engineer.

Span	Girder Location	Designator	Length (Ft)	Jacking Force (P) (Kips)	"y" (in)	Concrete Strength (Ksi)		Deflection Components in Inches		
						f'ci	f'c	Deck DL	Rail DL	
1	A - D	E	91.58	4 6	830 870	15	5.5	8	1.2	0.1
		F - I	91.58	4 6	810 850	15	5.5	8	1.1	0.1
	A - I	94.75	4 6	790 830 870	15	5.5	8	1.3	0.1	



SECTION A-A
SECTION B-B
SECTION C-C

OPTIONAL WELDED WIRE REINFORCEMENT (WWR) DETAIL

INTERMEDIATE DIAPHRAGM
INSERT ASSEMBLY

STANDARD DRAWING		APPROVED BY: Jim Ma RESPONSIBLE TECHNICAL SPECIALIST APPROVAL DATE: 02-01-2010	RELEASED BY: Susan Hida RESPONSIBLE OFFICE CHIEF RELEASE DATE: 02-01-2010
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1 Detail not used
 2 Revised detail

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 BRIDGE NO. 56-0835
 POST MILE 19.62

CRIDGE STREET OC (REPLACE)
PRECAST PRESTRESSED I GIRDER

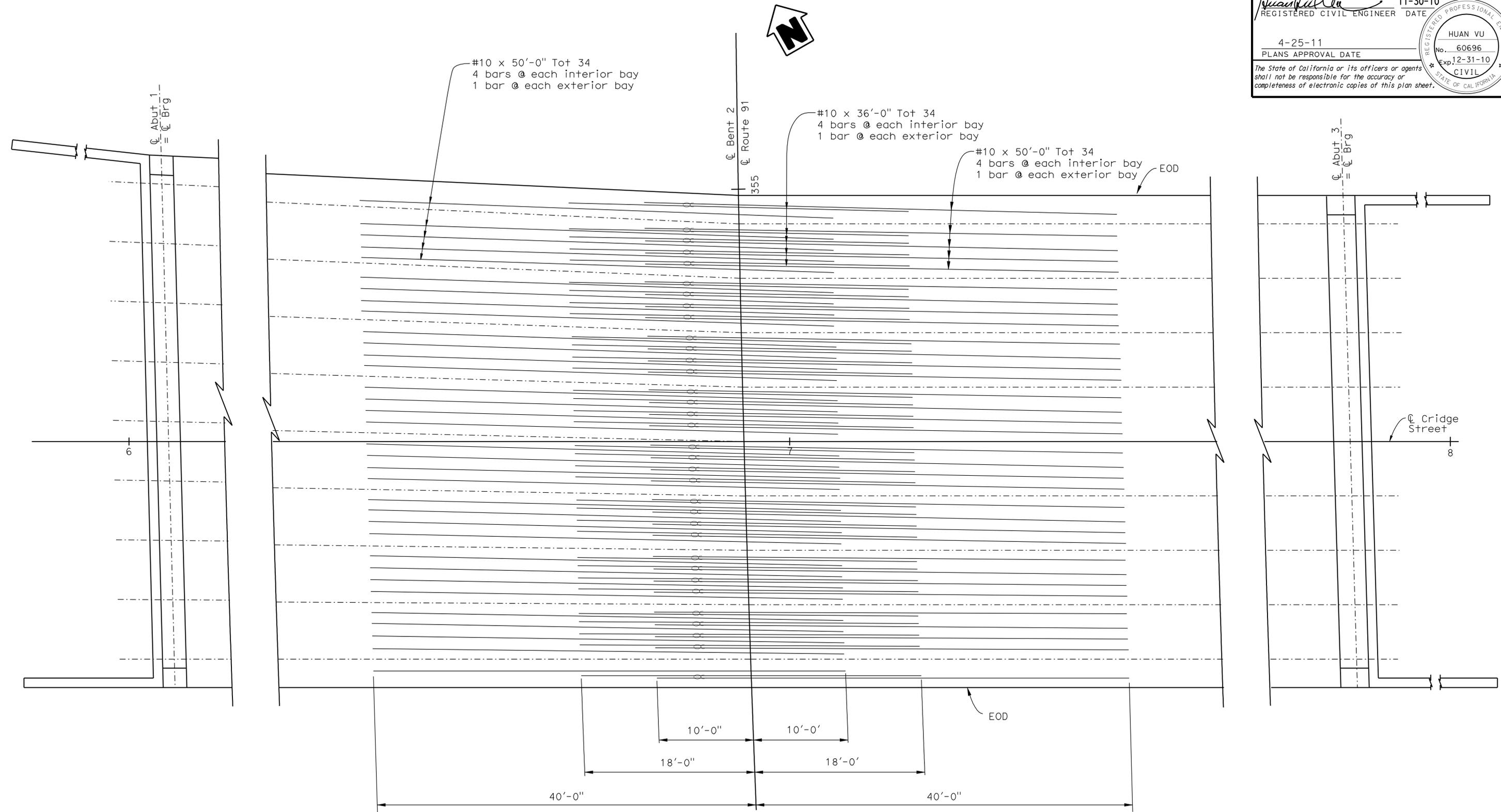
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1802	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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ADDITIONAL TOP GIRDER REINFORCEMENT
1"=5'

DESIGN	BY M. Vo	CHECKED J. Delgado
DETAILS	BY D. Wooten/G.Hallstrom	CHECKED J. Delgado
QUANTITIES	BY A. McPhee	CHECKED J. Szabo

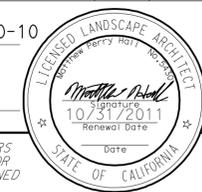
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

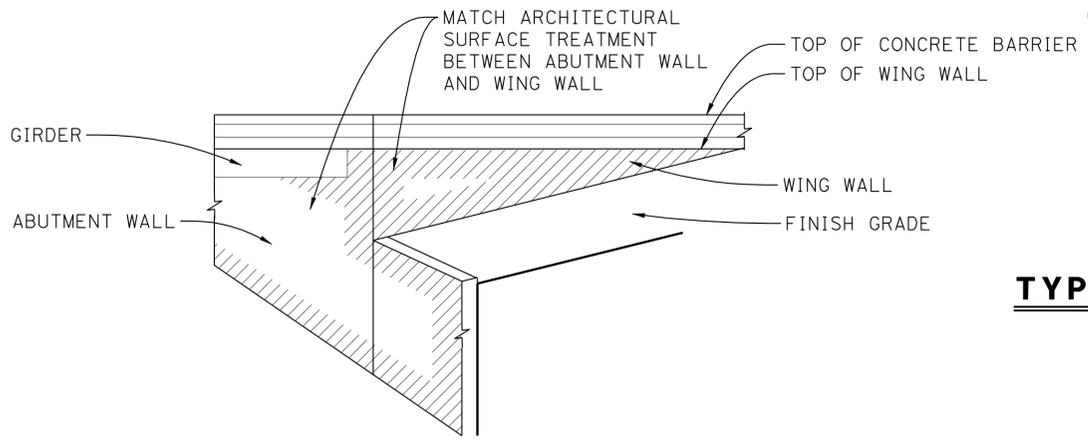
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0835
POST MILE	19.62

CRIDGE STREET OC (REPLACE)
GIRDER REINFORCEMENT

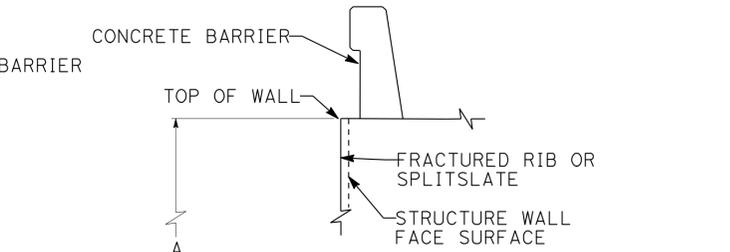
REVISION DATES	SHEET	OF
6-18-09 2-18-10 4-30-10	18	31

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1803	2028
 11-30-10 LICENSED LANDSCAPE ARCHITECT					
4-25-11 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



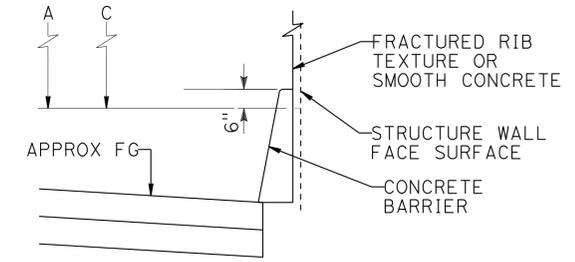
TYPICAL CONTINUATION OF ARCHITECTURAL TREATMENT ONTO ABUTMENT WING WALL

NO SCALE



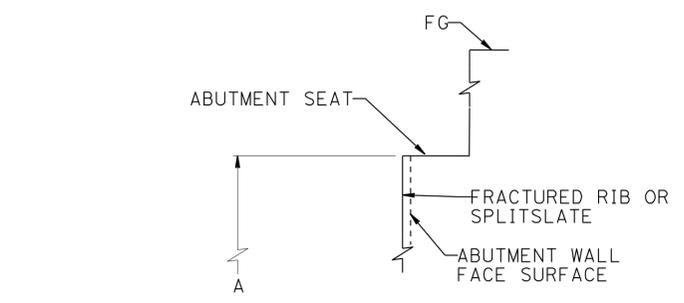
TOP OF WALL DETAIL TYPICAL WITH CONCRETE BARRIER

NO SCALE



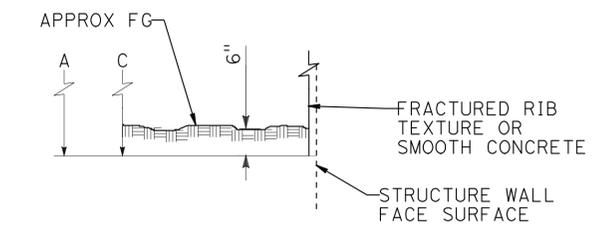
FINISH GROUND DETAIL TYPICAL WITH CONCRETE BARRIER

NO SCALE



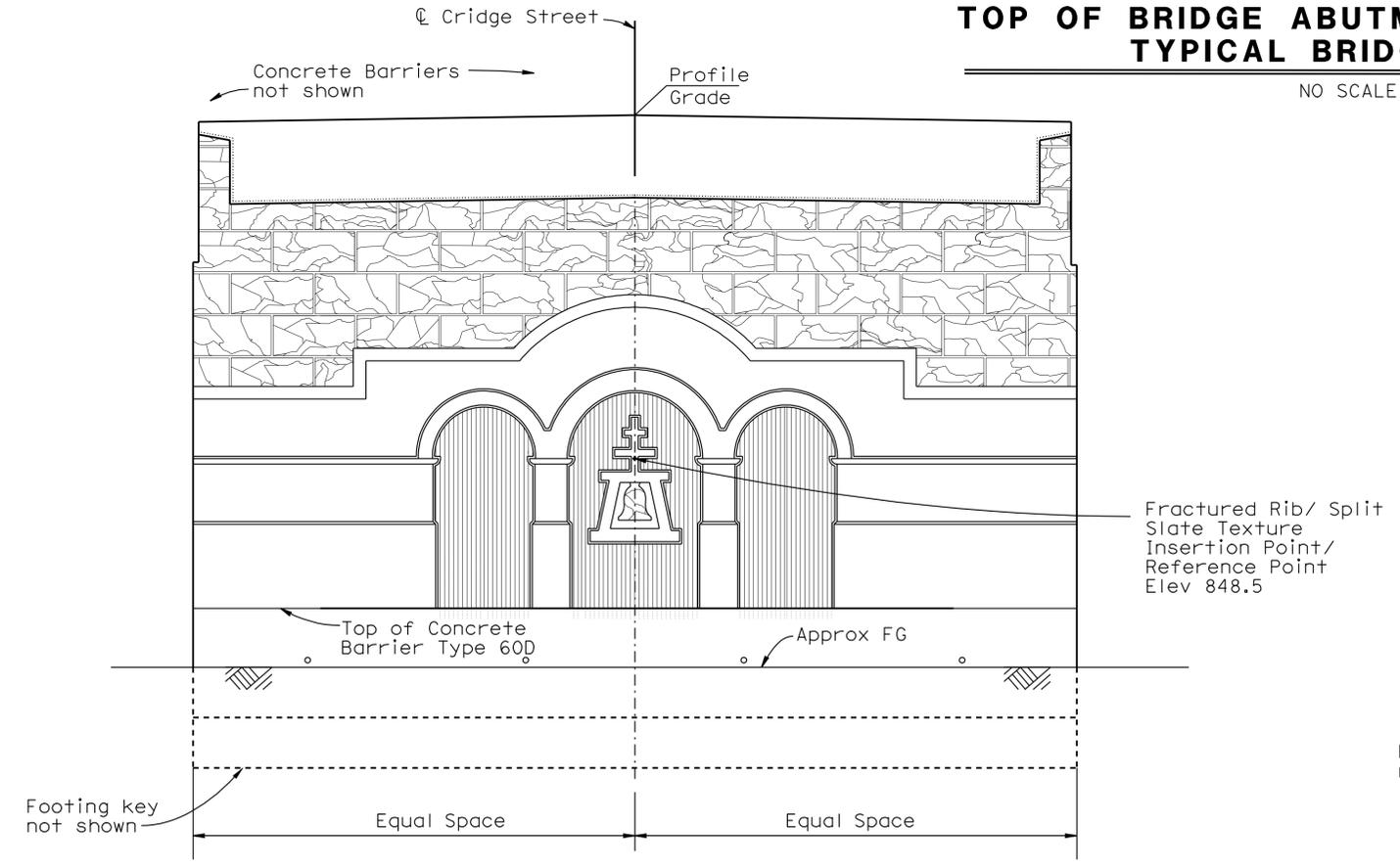
TOP OF BRIDGE ABUTMENT WALL DETAIL TYPICAL BRIDGE SOFFIT

NO SCALE



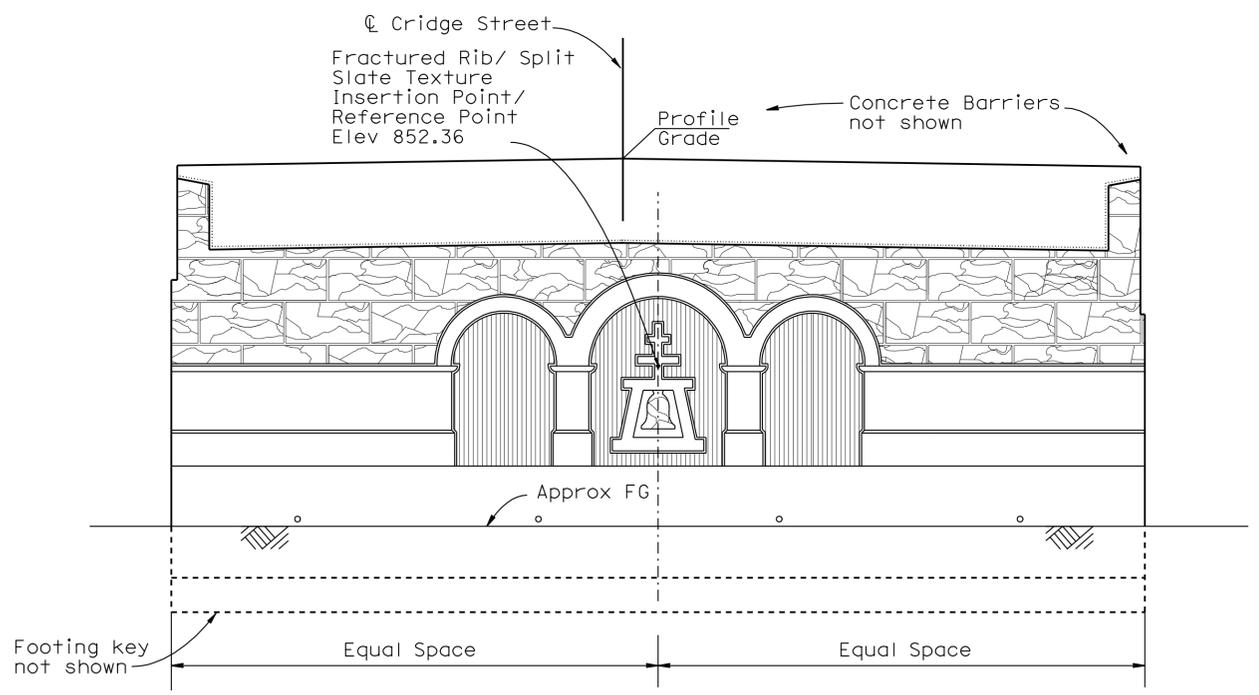
FINISH GROUND DETAIL TYPICAL DETAIL AT FINISH GRADE

NO SCALE



ABUTMENT 3 ARCHITECTURAL TREATMENT LAYOUT

$\frac{3}{16}'' = 1'-0''$



ABUTMENT 1 ARCHITECTURAL TREATMENT LAYOUT

$\frac{3}{16}'' = 1'-0''$

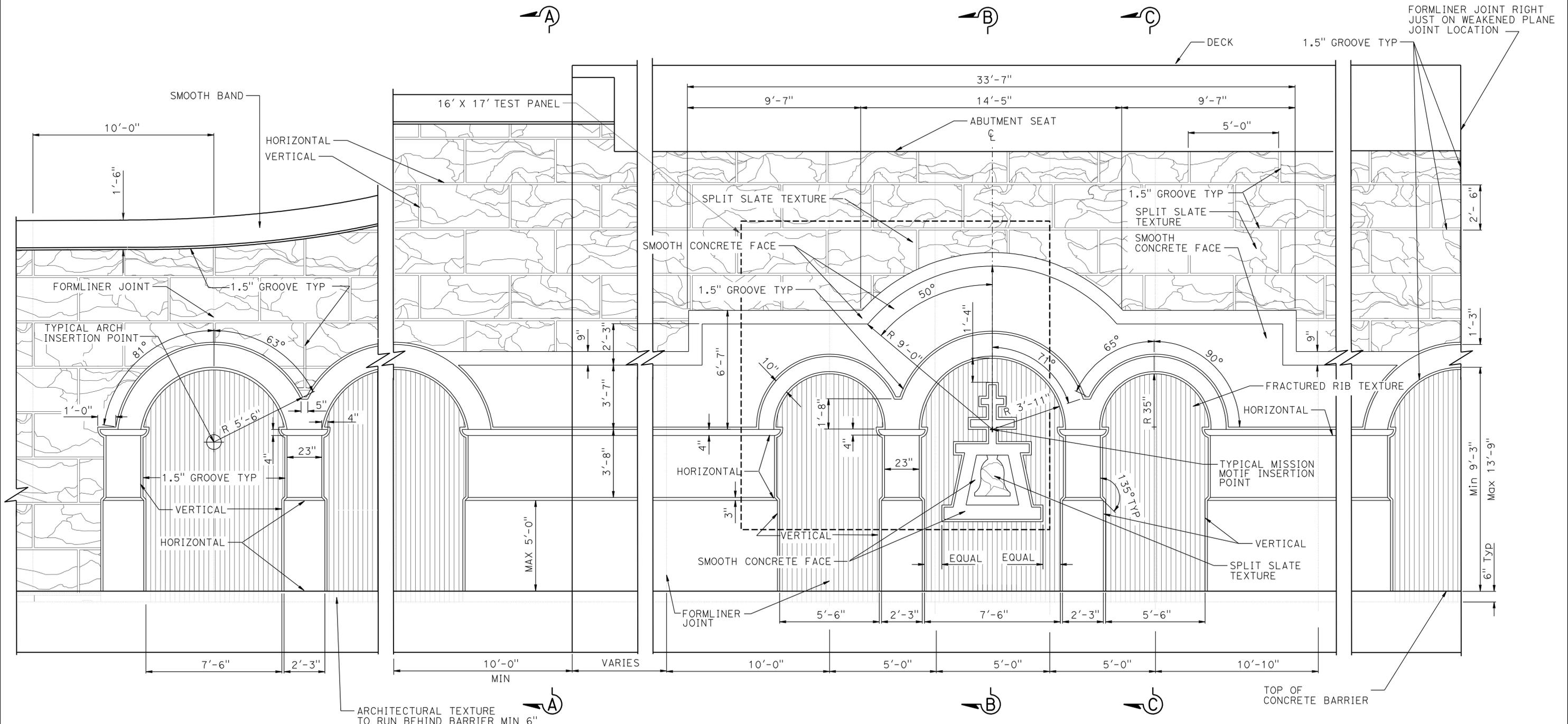
DESIGN	BY M. Hall	CHECKED M. Bishop
DETAILS	BY G.Hallstrom/Y.Tang	CHECKED M. Bishop
QUANTITIES	BY A. McPhee	CHECKED J. Szabo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0835
POST MILE	19.62

CRIDGE STREET OC (REPLACE)
ARCHITECTURAL DETAILS NO. 1



TYPICAL MISSION MOTIF ELEVATION

3/8" = 1'-0"

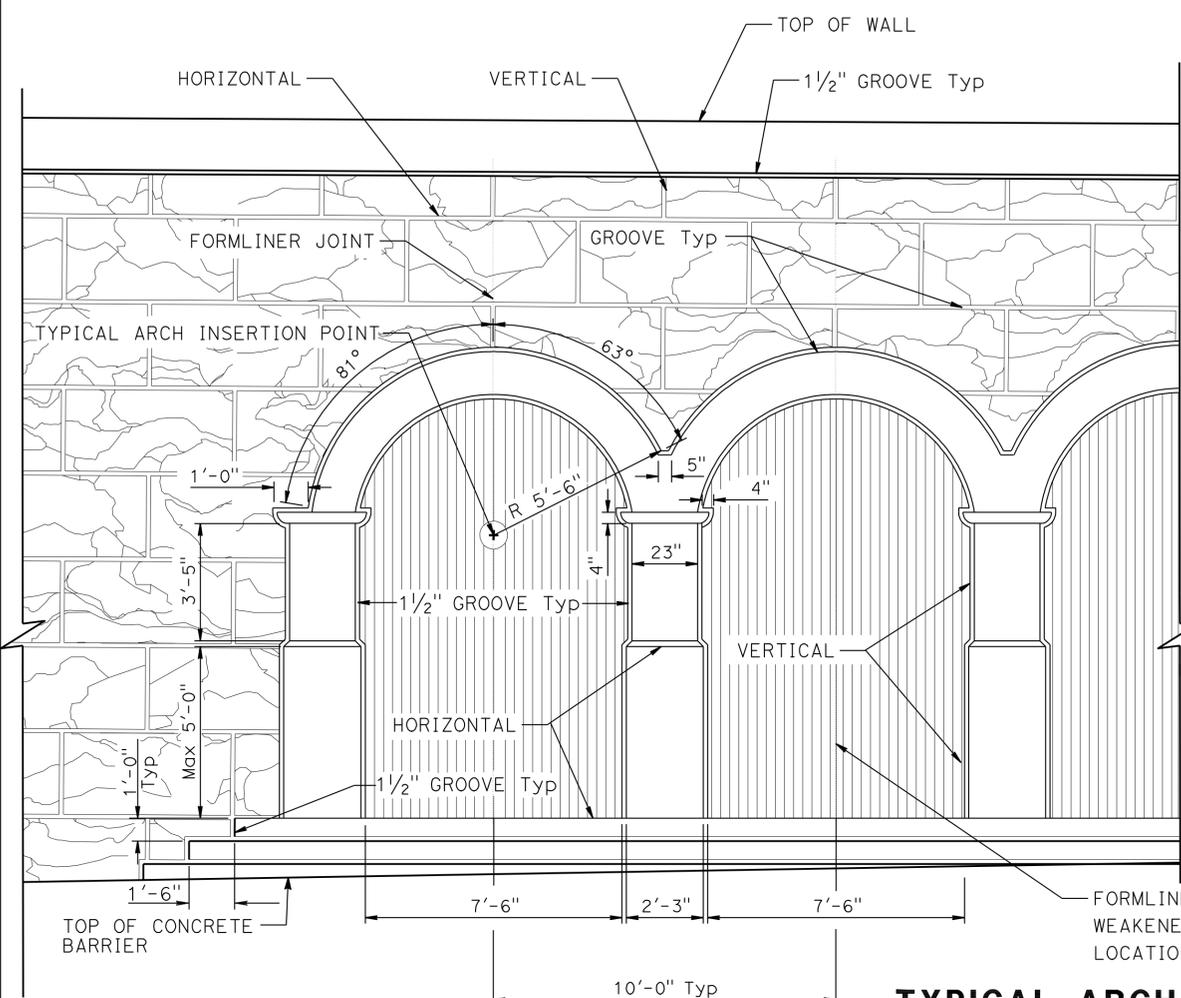
FRACTURED RIB/ SPLIT SLATE TEXTURE
CRIDGE STREET OC (REPLACE)
ARCHITECTURAL DETAILS NO. 2

DESIGN	BY M. Hall	CHECKED M. Bishop
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED M. Bishop
QUANTITIES	BY A. McPhee	CHECKED J. Szabo

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 10
 BRIDGE NO. 56-0835
 POST MILE 19.62

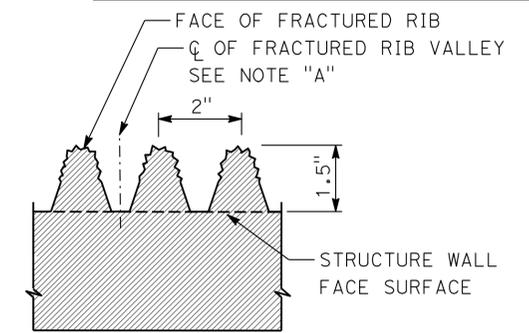
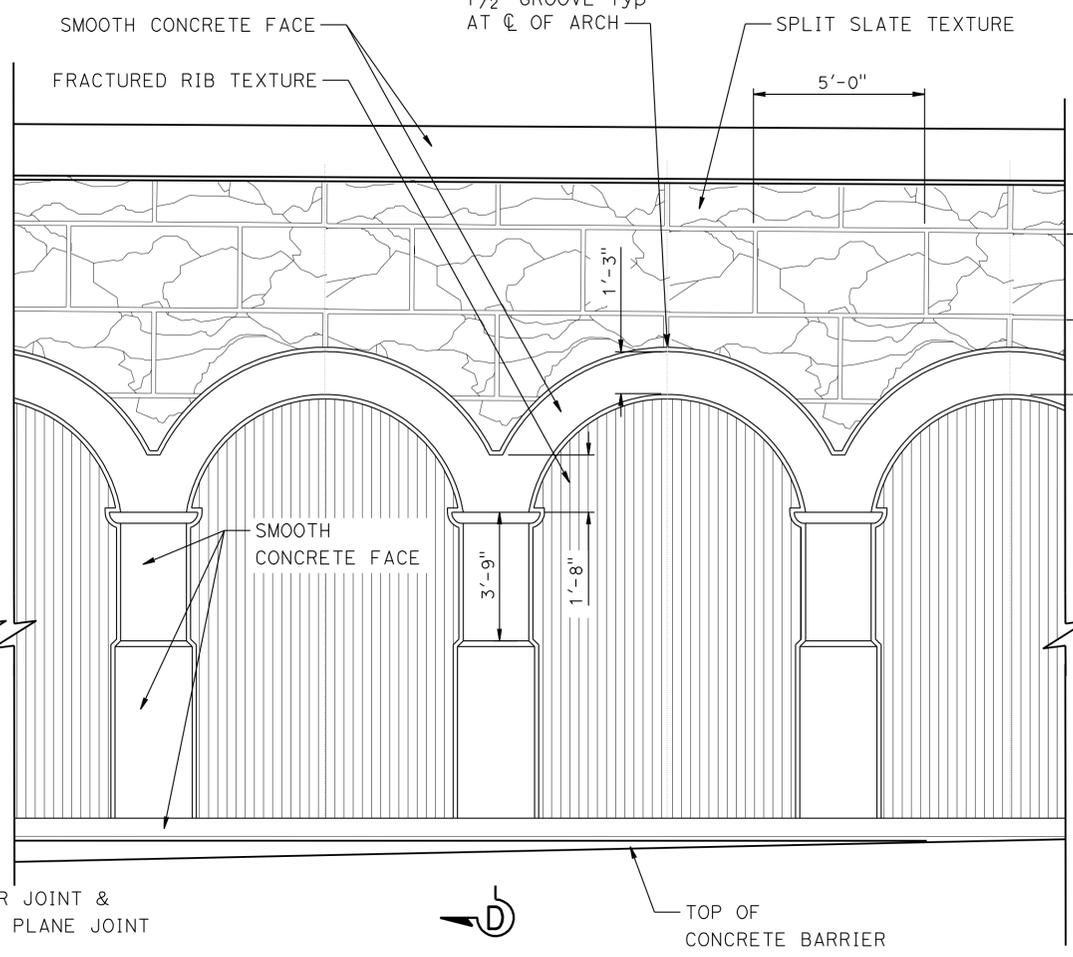
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1805	2028

11-30-10
 LICENSED LANDSCAPE ARCHITECT
 4-25-11
 PLANS APPROVAL DATE
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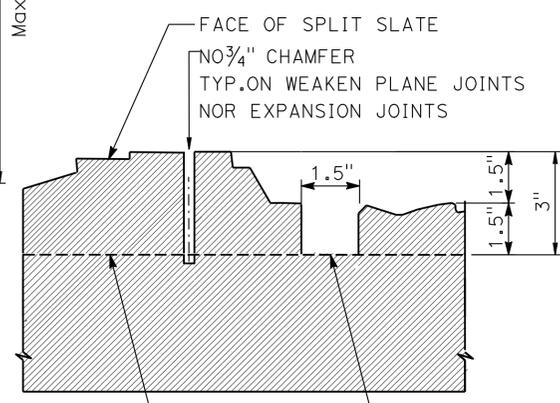
TYPICAL ARCH DETAIL

3/8" = 1' - 0"



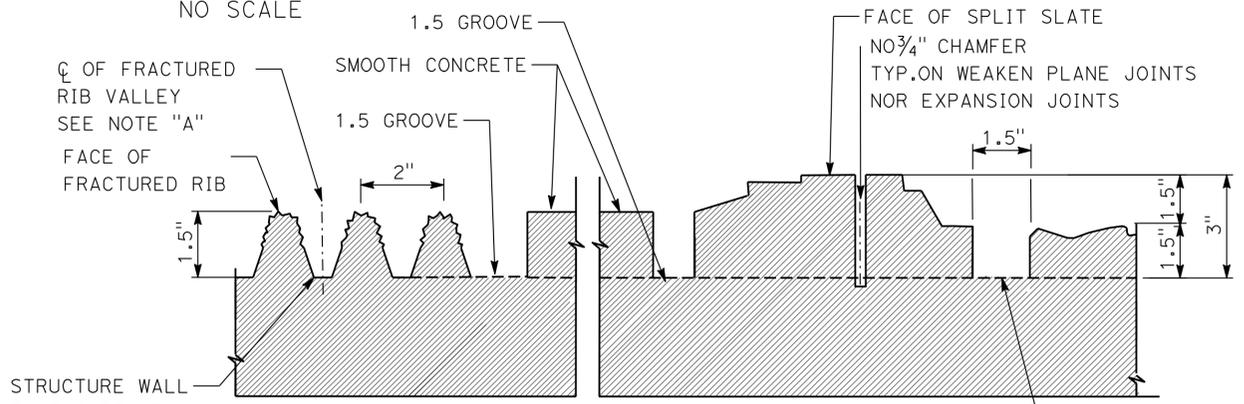
TYPICAL FRACTURED RIB TEXTURE

NO SCALE



TYPICAL SPLIT SLATE TEXTURE

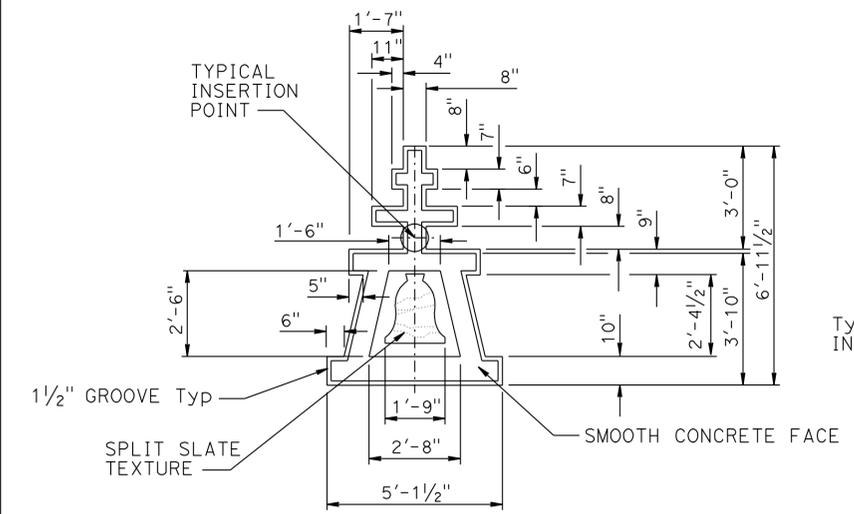
NO SCALE



TYPICAL FRACTURED RIB WITH SPLIT SLATE TEXTURE

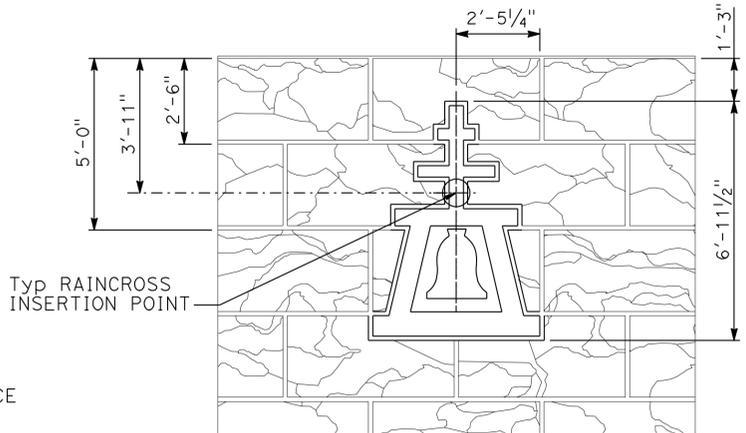
NO SCALE

NOTE "A"
PERMITTED LOCATION OF WEAKEN PLANE AND EXPANSION JOINTS



TYPICAL RAINCROSS DETAIL

3/8" = 1' - 0"



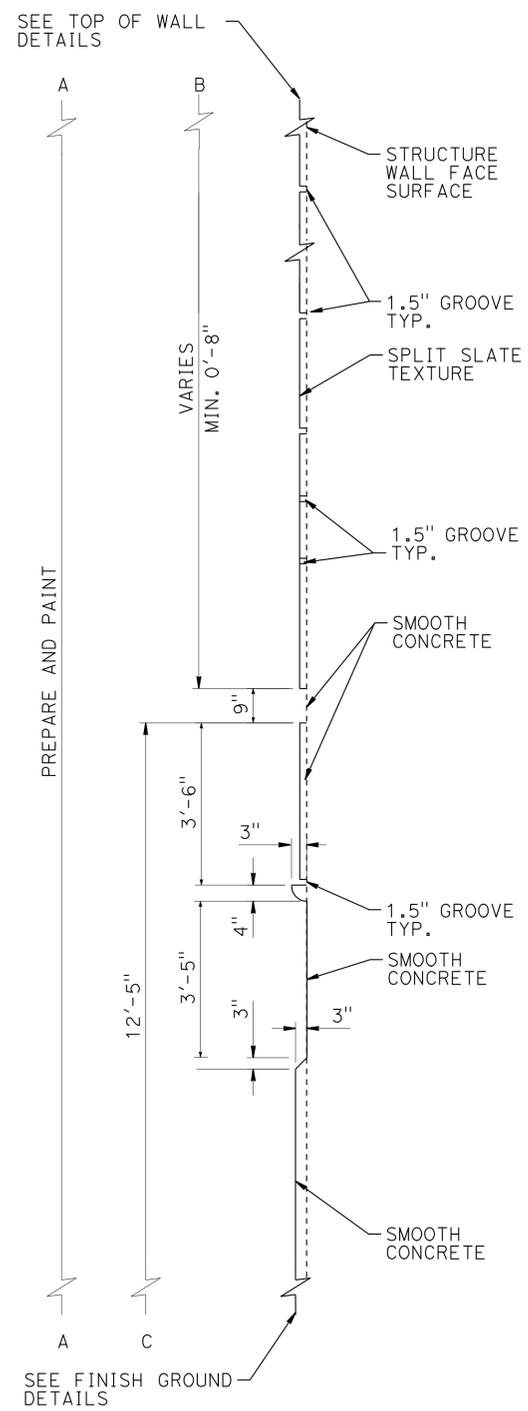
TYPICAL RAINCROSS DETAIL / SPLIT SLATE TEXTURE

3/8" = 1' - 0"

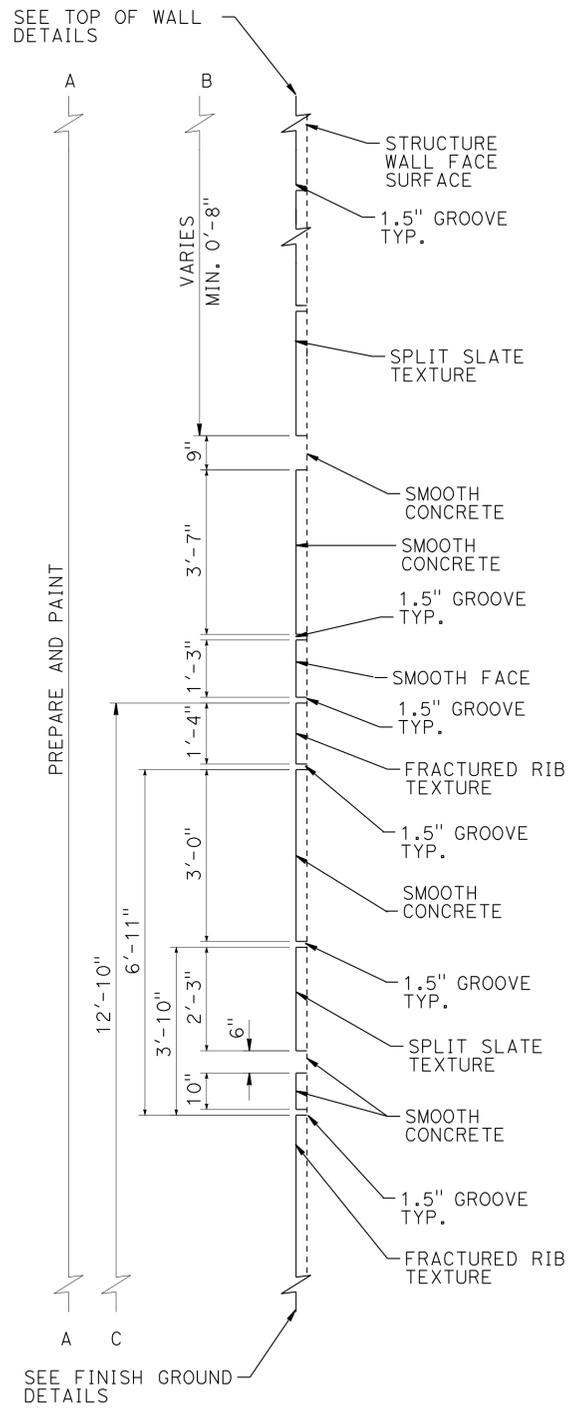
DESIGN	BY M. Hall	CHECKED M. Bishop
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED M. Bishop
QUANTITIES	BY A. McPhee	CHECKED J. Szabo

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.
DEPARTMENT OF TRANSPORTATION	STRUCTURE DESIGN	56-0835
	DESIGN BRANCH 10	POST MILE 19.62

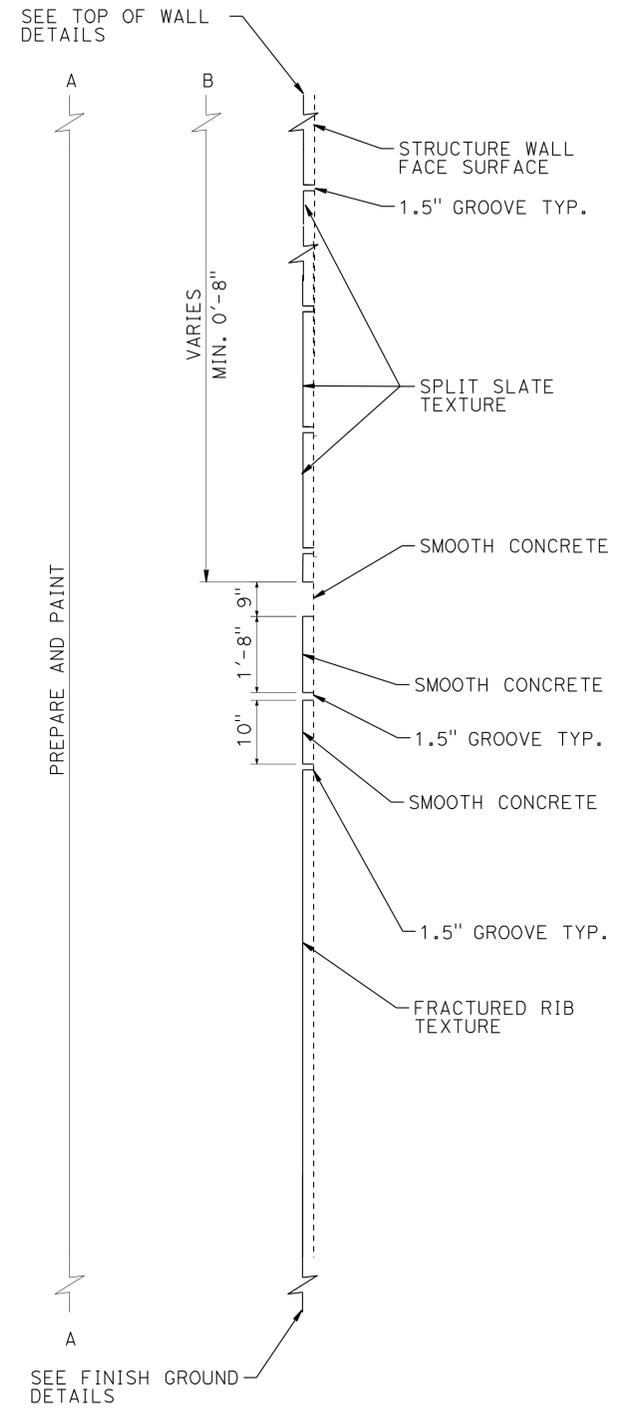
FRACTURED RIB / SPLIT SLATE TEXTURE
CRIDGE STREET OC (REPLACE)
ARCHITECTURAL DETAILS NO. 3



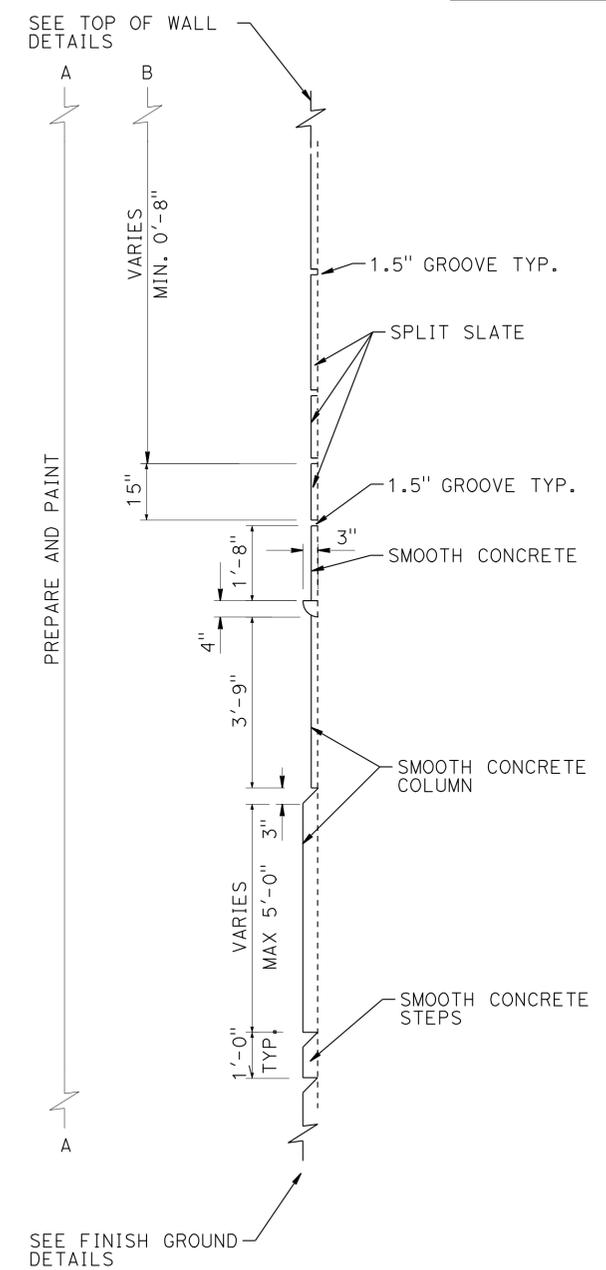
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

FRACTURED RIB/SPLIT SLATE TEXTURE

CRIDGE STREET OC (REPLACE)

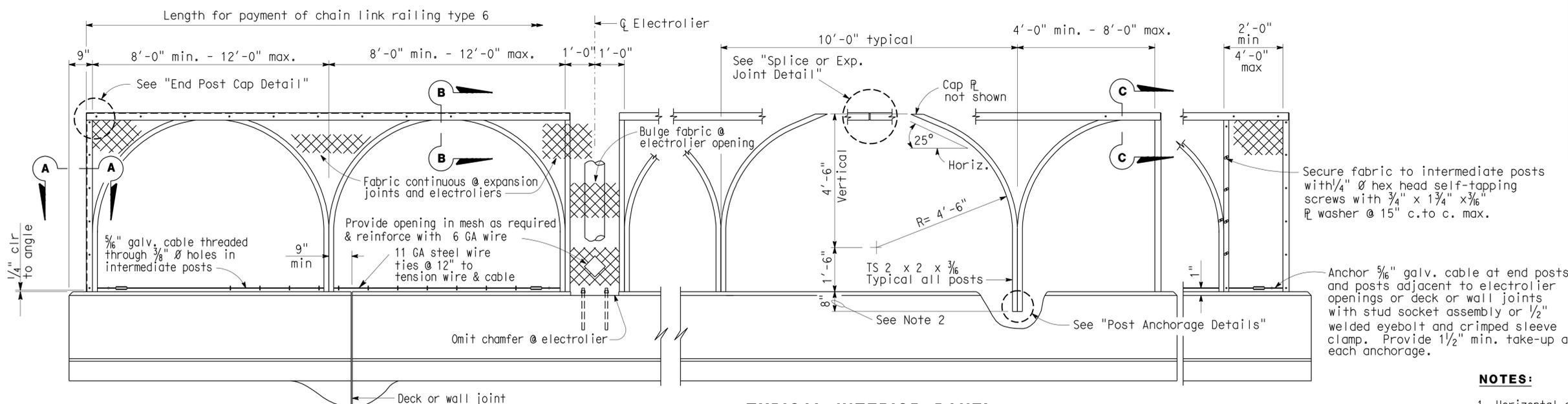
ARCHITECTURAL DETAILS NO. 4

DESIGN	BY M. Hall	CHECKED M. Bishop	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0835
DETAILS	BY G.Hallstrom/Y.Tang	CHECKED M. Bishop			POST MILE	19.62
QUANTITIES	BY A. McPhee	CHECKED J. Szabo				

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1807	2028

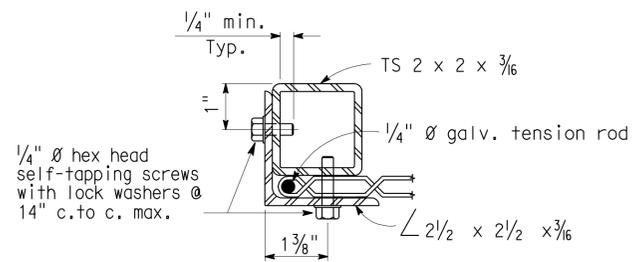
11-30-10
 REGISTERED ENGINEER - CIVIL
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

4-25-11
 PLANS APPROVAL DATE
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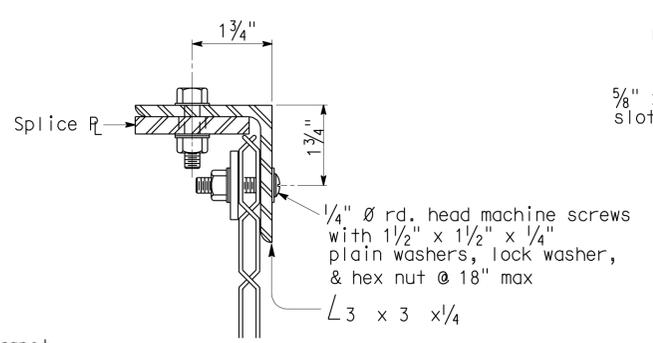


END PANEL 8'-0" - 12'-0" **EXPANSION PANEL AT ELECTROLIER** **TYPICAL INTERIOR PANEL** **END PANEL 4'-0" - 8'-0"** **END PANEL 2'-0" - 4'-0"**

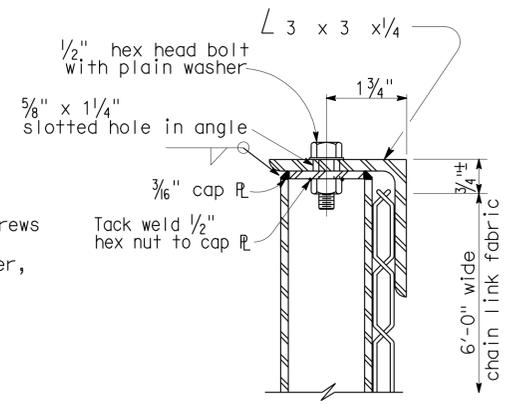
ELEVATION



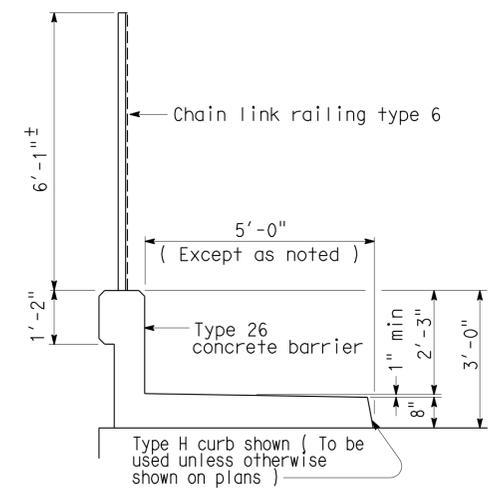
SECTION A-A



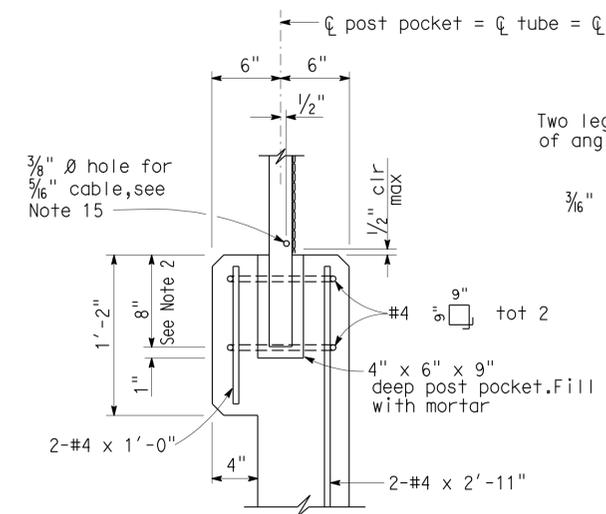
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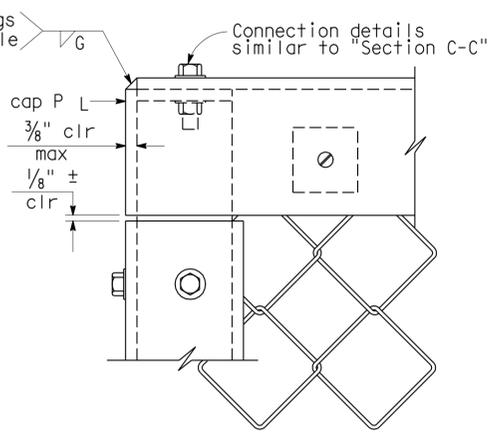
SECTION C-C



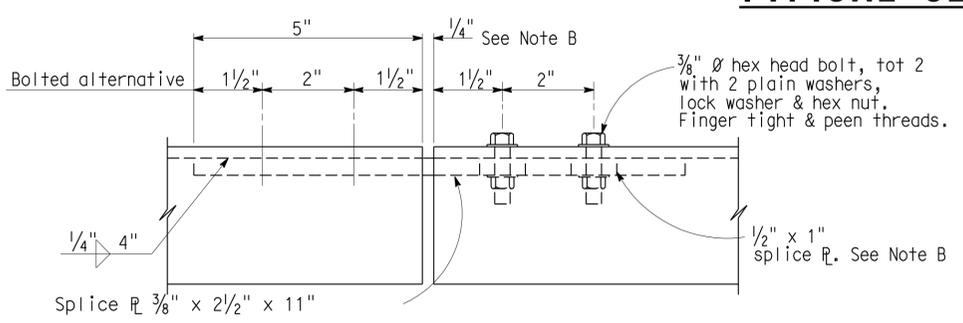
TYPICAL SECTION



POST ANCHORAGE DETAIL



END POST CAP DETAIL



SPLICE OR EXPANSION JOINT DETAIL

Note B: Expansion joint same dimension as expansion joint in deck or wall. Increase slotted hole length and splice R length correspondingly.

NOTES:

- Horizontal angle shall be continuous over not less than two intermediate posts except that a shorter length is permitted at expansion joints, electroliers and other rail discontinuities.
- One post may be embedded 6" minimum to accommodate grade changes, otherwise fabricate post lengths as required.
- Curved posts may be rotated in plan within its post pocket to accommodate curved horizontal alignment.
- Straight posts and straight portions of curved posts shall be installed normal to bridge profile grade.
- Top horizontal angle shall be parallel to bridge profile grade and shall be shop bent to fit horizontal curves.
- When railing is on slope, fabric shall be placed parallel to slope.
- Alternative details may be submitted by Contractor for Engineer's approval.
- Railing assembly except chain link fabric shall be galvanized after fabrication.
- For details and reinforcement not shown, see "Concrete Barrier Type 26" sheet.
- See Bridge Plans for limits of Chain Link Railing Type 6.
- Provide thimbles at all cable loops.
- Chain link fabric to be 6'-0" wide with 1" mesh and with knuckled selvage top and bottom.
- When railing is placed on a horizontal alignment with a radius of 150'-0" or less, thread 5/16" cable through 3/8" Ø welded eye rods embedded 4" into the top of the concrete parapet and equally spaced to limit the middle ordinate distance between the 5/16" cable and the curve to 1" max.
- Splices and expansion joints shall be located at C panel.
- Holes in posts for 5/16" cable and its anchorage may be field drilled and painted with zinc rich paint.

STANDARD DRAWING		
FILE NO. xs16-340e	APPROVED BY T SATTER RESPONSIBLE TECHNICAL SPECIALIST	RELEASED BY ROBERTO LACALLE RESPONSIBLE OFFICE CHIEF
	APPROVAL DATE 4-15-08	RELEASE DATE 4-15-08

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 56-0835 POST MILE 19.62	CRIDGE STREET OC (REPLACE) CHAIN LINK RAILING TYPE 6
---	----------------------------------	---	---

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1808	2028

K. Douglas Cook 9-23-10
 CERTIFIED ENGINEERING GEOLOGIST

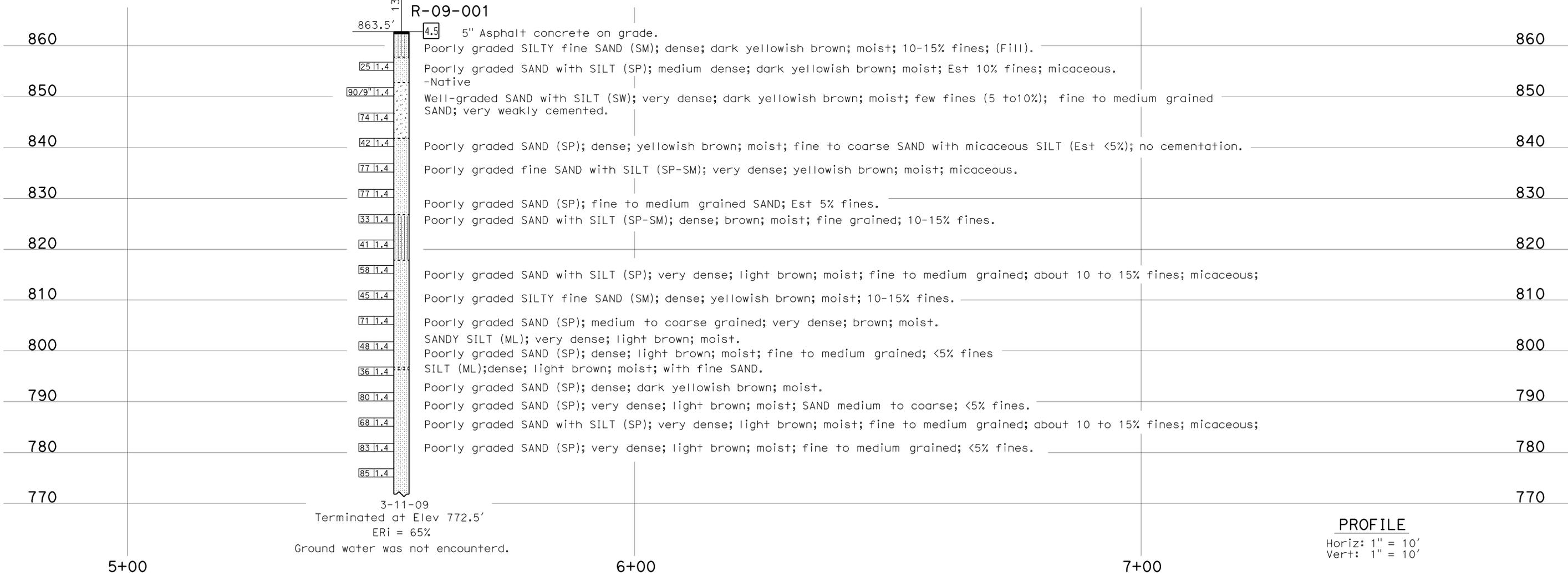
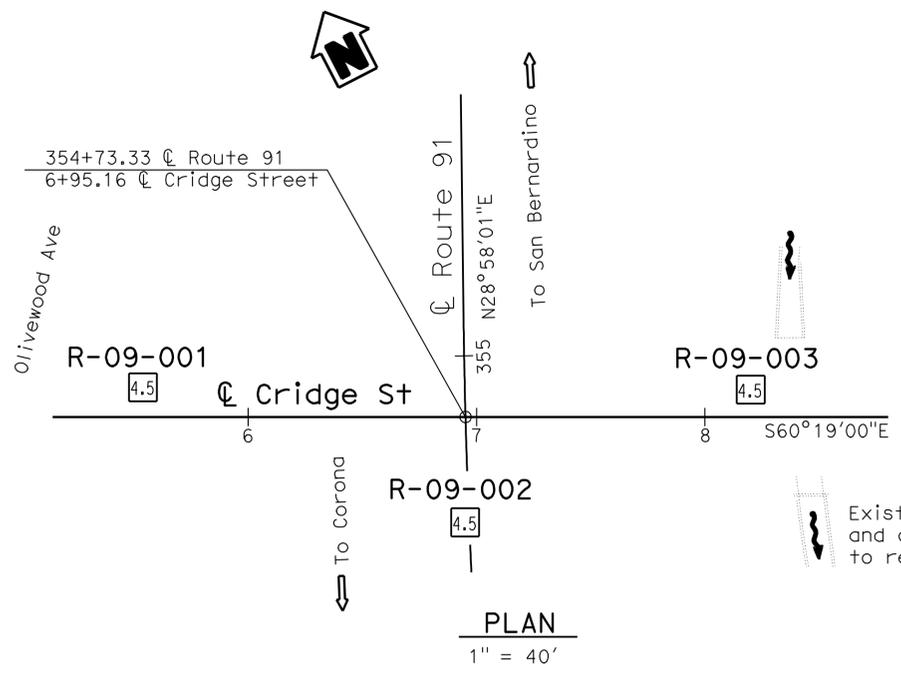
4-25-11
 PLANS APPROVAL DATE

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007).

BENCH MARK

Set 2" brass Disk in Conc Sidewalk stamped "CALIF. DEPT. OF TRANSPORTATION RIV 91-19.63 LS 5679 1990". on N. side of the Cridge St Overpass, 14" ± from NE Corner.
 N: 2298008.127
 E: 6220293.741
 Elev 873.91'



PROFILE
 Horiz: 1" = 10'
 Vert: 1" = 10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		CRIDGE STREET OC (REPLACE)	
FUNCTIONAL SUPERVISOR		DRAWN BY: F. Nguyen 4/10		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		56-0835		LOG OF TEST BORINGS 1 OF 8	
NAME: A. Perez-Cobo		CHECKED BY: W. J. Levine		FIELD INVESTIGATION BY: K. D. Cook		DESIGN BRANCH		POST MILES		REVISION DATES	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		CU 08 EA 448401		19.62		SHEET OF 24 31	

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 09-23-10

FILE => 560835z1+b24.dgn

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS 1 OF 8"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1809	2028

K. Douglas Cook 9-23-10
CERTIFIED ENGINEERING GEOLOGIST

4-25-11
PLANS APPROVAL DATE

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007).



PROFILE
Horiz 1" = 10'
Vert 1" = 10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH		BRIDGE NO. 56-0835 POST MILES 19.62		CRIDGE STREET OC (REPLACE) LOG OF TEST BORINGS 2 OF 8	
FUNCTIONAL SUPERVISOR NAME: A. Perez-Cobo		DRAWN BY: F. Nguyen 4/10 CHECKED BY: W. J. Levine		FIELD INVESTIGATION BY: K. D. Cook		CU 08 EA 448401		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES SHEET 25 OF 31	

TIME PLOTTED => 13:37 USERNAME => hrmnguy DATE PLOTTED => 30-APR-2011

K. Douglas Cook 9-23-10
 CERTIFIED ENGINEERING GEOLOGIST
 No. 1391
 Exp. 12-31-11
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

4-25-11
 PLANS APPROVAL DATE

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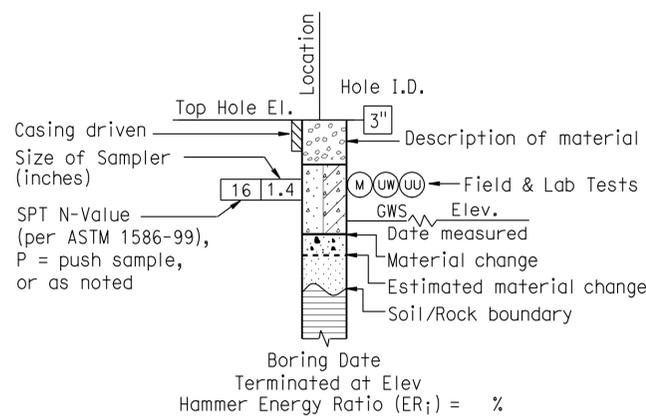
CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

CONSISTENCY OF COHESIVE SOILS				
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

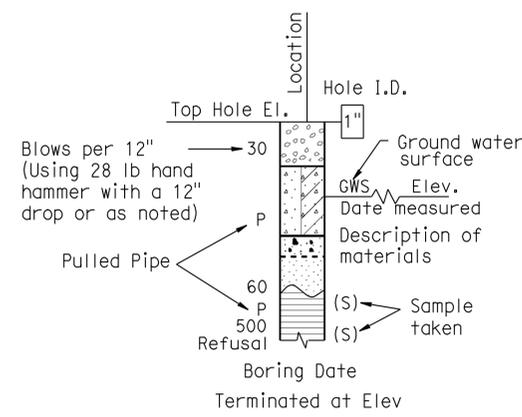
BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring
	R	Rotary drilled boring
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778-95)
	O	Other

Note: Size in inches.

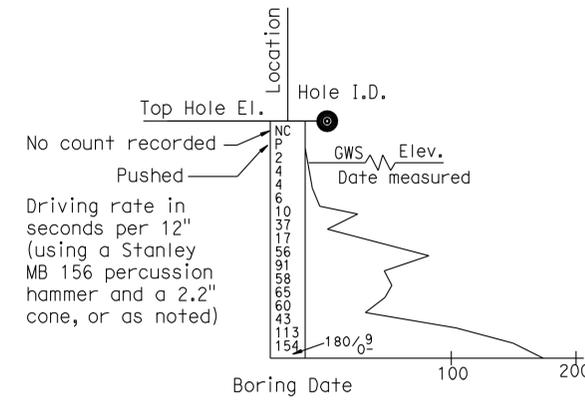
PLASTICITY OF FINE-GRAINED SOILS	
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



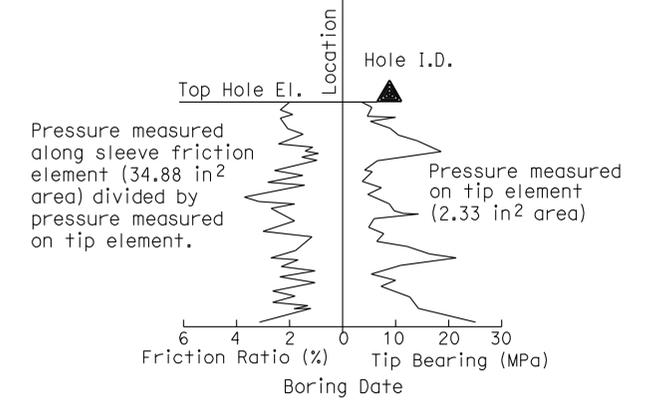
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO. 56-0835	CRIDGE STREET OC (REPLACE) LOG OF TEST BORINGS 3 OF 8
	PREPARED BY: F. Nguyen 04/10			POST MILE 19.62	
GS LOTB SOIL LEGEND	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 26 OF 31

FILE => 560835z1+b26.dgn

USERNAME => frrnnguy DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:38

K. Douglas Cook XX
 CERTIFIED ENGINEERING GEOLOGIST
 4-25-11
 PLANS APPROVAL DATE
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GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	Well-graded GRAVEL		Lean CLAY
	Well-graded GRAVEL with SAND		Lean CLAY with SAND
	Poorly graded GRAVEL		Lean CLAY with GRAVEL
	Poorly graded GRAVEL with SAND		SANDY lean CLAY
	Well-graded GRAVEL with SILT		SANDY lean CLAY with GRAVEL
	Well-graded GRAVEL with SILT and SAND		GRAVELLY lean CLAY
	Well-graded GRAVEL with CLAY		GRAVELLY lean CLAY with SAND
	(or SILTY CLAY)		SILTY CLAY
	Well-graded GRAVEL with CLAY and SAND		SANDY SILTY CLAY
	(or SILTY CLAY and SAND)		SANDY SILTY CLAY with GRAVEL
	Poorly graded GRAVEL with SILT		GRAVELLY SILTY CLAY
	Poorly graded GRAVEL with SILT and SAND		GRAVELLY SILTY CLAY with SAND
	Poorly graded GRAVEL with CLAY		SILT
	(or SILTY CLAY)		SILT with SAND
	Poorly graded GRAVEL with CLAY and SAND		SILT with GRAVEL
	(or SILTY CLAY and SAND)		SANDY SILT
	SILTY GRAVEL		SANDY SILT with GRAVEL
	SILTY GRAVEL with SAND		GRAVELLY SILT
	CLAYEY GRAVEL		GRAVELLY SILT with SAND
	CLAYEY GRAVEL with SAND		ORGANIC lean CLAY
	SILTY, CLAYEY GRAVEL		ORGANIC lean CLAY with SAND
	SILTY, CLAYEY GRAVEL with SAND		ORGANIC lean CLAY with GRAVEL
	Well-graded SAND		SANDY ORGANIC lean CLAY
	Well-graded SAND with GRAVEL		GRAVELLY ORGANIC lean CLAY
	Poorly graded SAND		GRAVELLY ORGANIC lean CLAY with SAND
	Poorly graded SAND with GRAVEL		ORGANIC SILT
	Well-graded SAND with SILT		ORGANIC SILT with SAND
	Well-graded SAND with SILT and GRAVEL		ORGANIC SILT with GRAVEL
	Well-graded SAND with CLAY		SANDY ORGANIC SILT
	(or SILTY CLAY)		SANDY ORGANIC SILT with GRAVEL
	Well-graded SAND with CLAY and GRAVEL		GRAVELLY ORGANIC SILT
	(or SILTY CLAY and GRAVEL)		GRAVELLY ORGANIC SILT with SAND
	Poorly graded SAND with SILT		ORGANIC fat CLAY
	Poorly graded SAND with SILT and GRAVEL		ORGANIC fat CLAY with SAND
	Poorly graded SAND with CLAY		ORGANIC fat CLAY with GRAVEL
	(or SILTY CLAY)		SANDY ORGANIC fat CLAY
	Poorly graded SAND with CLAY and GRAVEL		SANDY ORGANIC fat CLAY with GRAVEL
	(or SILTY CLAY and GRAVEL)		GRAVELLY ORGANIC fat CLAY
	SILTY SAND		GRAVELLY ORGANIC fat CLAY with SAND
	SILTY SAND with GRAVEL		ORGANIC elastic SILT
	CLAYEY SAND		ORGANIC elastic SILT with SAND
	CLAYEY SAND with GRAVEL		ORGANIC elastic SILT with GRAVEL
	SILTY, CLAYEY SAND		SANDY ORGANIC elastic SILT
	SILTY, CLAYEY SAND with GRAVEL		SANDY ORGANIC elastic SILT with GRAVEL
	PEAT		GRAVELLY ORGANIC elastic SILT
	COBBLES		GRAVELLY ORGANIC elastic SILT with SAND
	COBBLES and BOULDERS		ORGANIC SOIL
	BOULDERS		ORGANIC SOIL with SAND
			ORGANIC SOIL with GRAVEL
			SANDY ORGANIC SOIL
			SANDY ORGANIC SOIL with GRAVEL
			GRAVELLY ORGANIC SOIL
			GRAVELLY ORGANIC SOIL with SAND

FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content-% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(PP)	Pocket Penetrometer
(R)	R-Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(TV)	Pocket Torvane
(UC)	Unconfined Compression-Soil (ASTM D 2166)
(UU)	Unconfined Compression-Rock (ASTM D 2938)
(UW)	Unit Weight (ASTM D 4767)
(VS)	Vane Shear (AASHTO T 223)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N ₆₀ (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE	
Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE		
Description	Size	
Boulder	> 12"	
Cobble	3" to 12"	
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	RIV	91	15.6/21.6		

10/2008
 GEOTECHNICAL PROFESSIONAL DATE
 ANDREW C. LEE
 No. 2616
 Exp. 6-30-10
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA
 GEOTECHNICAL

PLANS APPROVAL DATE
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California Department of Transportation
 5900 Folsom Boulevard
 Sacramento, CA 95819

URS Corporation
 2020 East First Street, Suite 400
 Santa Ana, CA 92705

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 10 OF 83

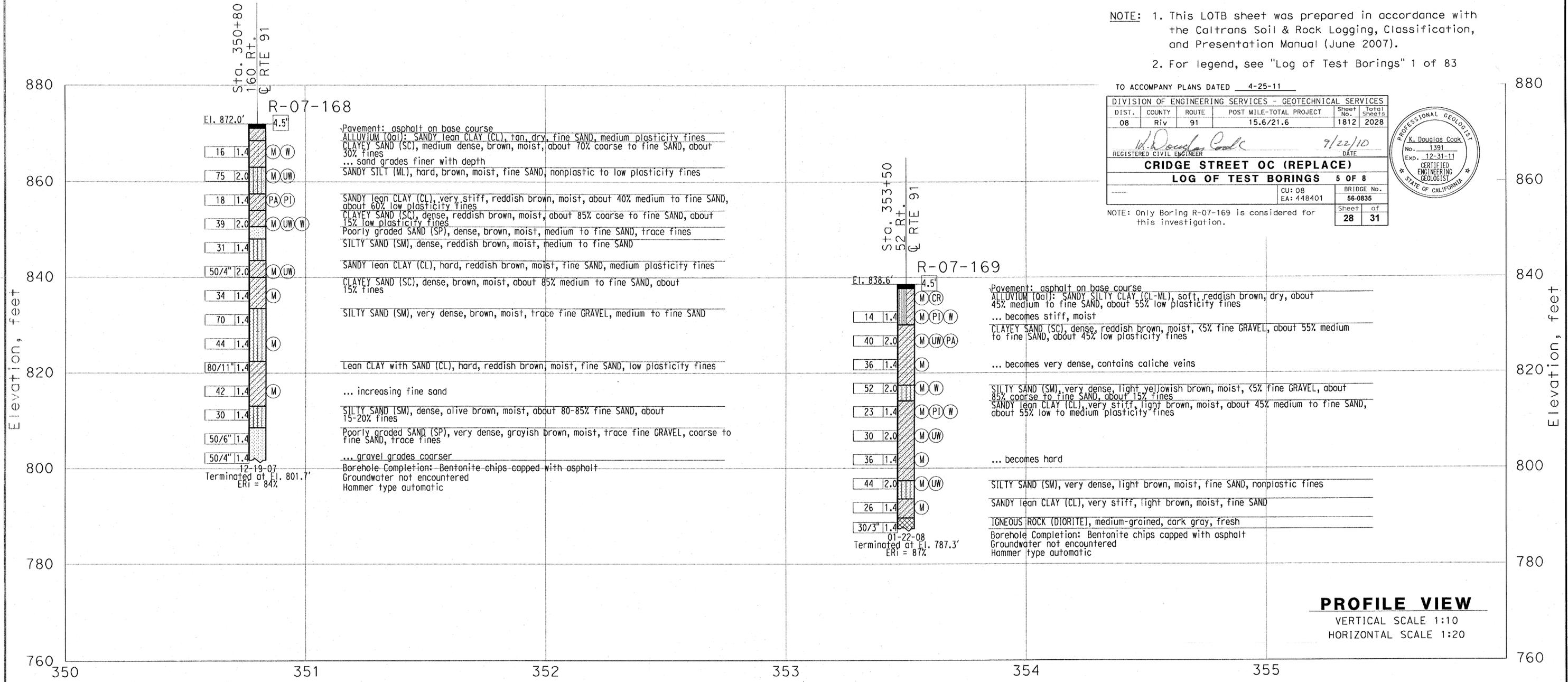
NOTE: 1. This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (June 2007).
2. For legend, see "Log of Test Borings" 1 of 83

TO ACCOMPANY PLANS DATED 4-25-11

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES					
DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
08	Riv	91	15.6/21.6	1812	2028

REGISTERED CIVIL ENGINEER
 CRIDGE STREET OC (REPLACE)
 LOG OF TEST BORINGS 5 OF 8
 DATE 7/22/10
 BRIDGE No. 56-0835
 SHEET 28 OF 31

NOTE: Only Boring R-07-169 is considered for this investigation.



GINA PURSELL DESIGN OVERSIGHT X SIGN OFF DATE	FUNCTIONAL SUPERVISOR	DRAWN BY P. QUACH	P. CHAU/D. WADER/C. CARBINO FIELD INVESTIGATION BY: DATE: Nov 6 2007 to March 7 2008	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	A. LEE PROJECT ENGINEER	BRIDGE NO. X	Retaining Wall 348	
XSF GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 2/25/05)		CHECKED BY S. PIRATHIVIRAJ	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 59A0590 EA 08-448400	DISREGARD PRINTS BEARING EARLIER REVISION DATES	POST MILE X	LOG OF TEST BORINGS SHEET 2 OF 2	
THIS PLAN ACCURATE FOR SOUND WALL AND RETAINING WALL WORK ONLY						REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF 66 83

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	RIV	91	15.6/21.6		

10/2008
 GEOTECHNICAL PROFESSIONAL DATE
 ANDREW C. LEE
 No. 2616
 Exp. 6-30-10
 REGISTERED PROFESSIONAL ENGINEER
 GEOTECHNICAL
 STATE OF CALIFORNIA

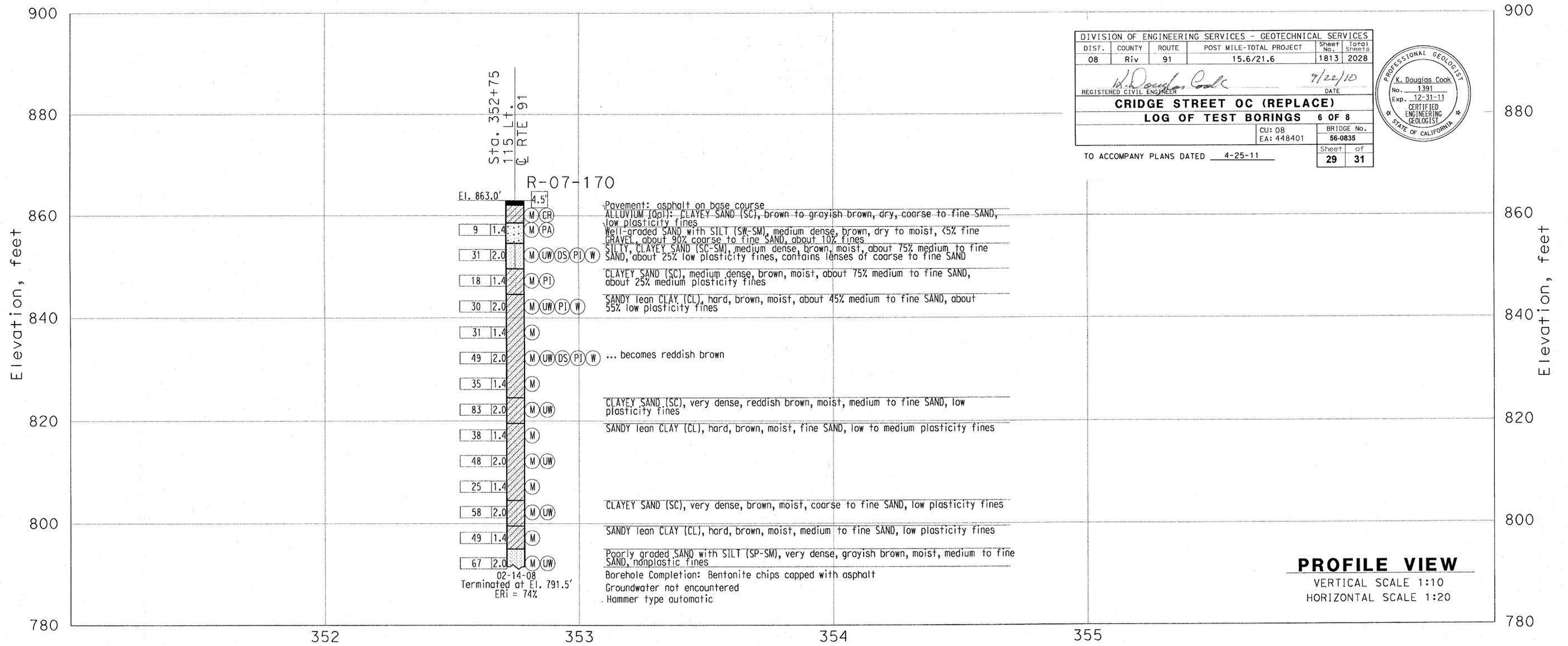
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FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 10 OF 83

NOTE: 1. This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (June 2007).
2. For legend, see "Log of Test Borings" 1 of 83



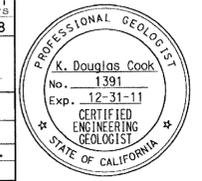
DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES					
DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
08	Riv	91	15.6/21.6	1813	2028

K. Douglas Cook
 REGISTERED CIVIL ENGINEER
 DATE 7/22/10

CRIDGE STREET OC (REPLACE)
LOG OF TEST BORINGS 6 OF 8

CU: 08
 EA: 448401
 BRIDGE No. 56-0835

TO ACCOMPANY PLANS DATED 4-25-11
 Sheet of 29 31



PROFILE VIEW
VERTICAL SCALE 1:10
HORIZONTAL SCALE 1:20

GINA PURSELL DESIGN OVERSIGHT X SIGN OFF DATE	FUNCTIONAL SUPERVISOR	DRAWN BY P. QUACH	P. CHAU/D. WADER/C. CARBINO FIELD INVESTIGATION BY: DATE: Nov 6 2007 to March 7 2008	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	A. LEE PROJECT ENGINEER	BRIDGE NO. X	Retaining Wall 351	
		CHECKED BY S. PIRATHIVIRAJ				POST MILE X		LOG OF TEST BORINGS
USF GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 2/25/05)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 59A0590 EA 08-448400	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF 67 83

THIS PLAN ACCURATE FOR SOUND WALL AND RETAINING WALL WORK ONLY

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	RIV	91	15.6/21.6		

10/2008
 GEOTECHNICAL PROFESSIONAL DATE
 ANDREW C. LEE
 No. 2616
 Exp. 6-30-10
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA

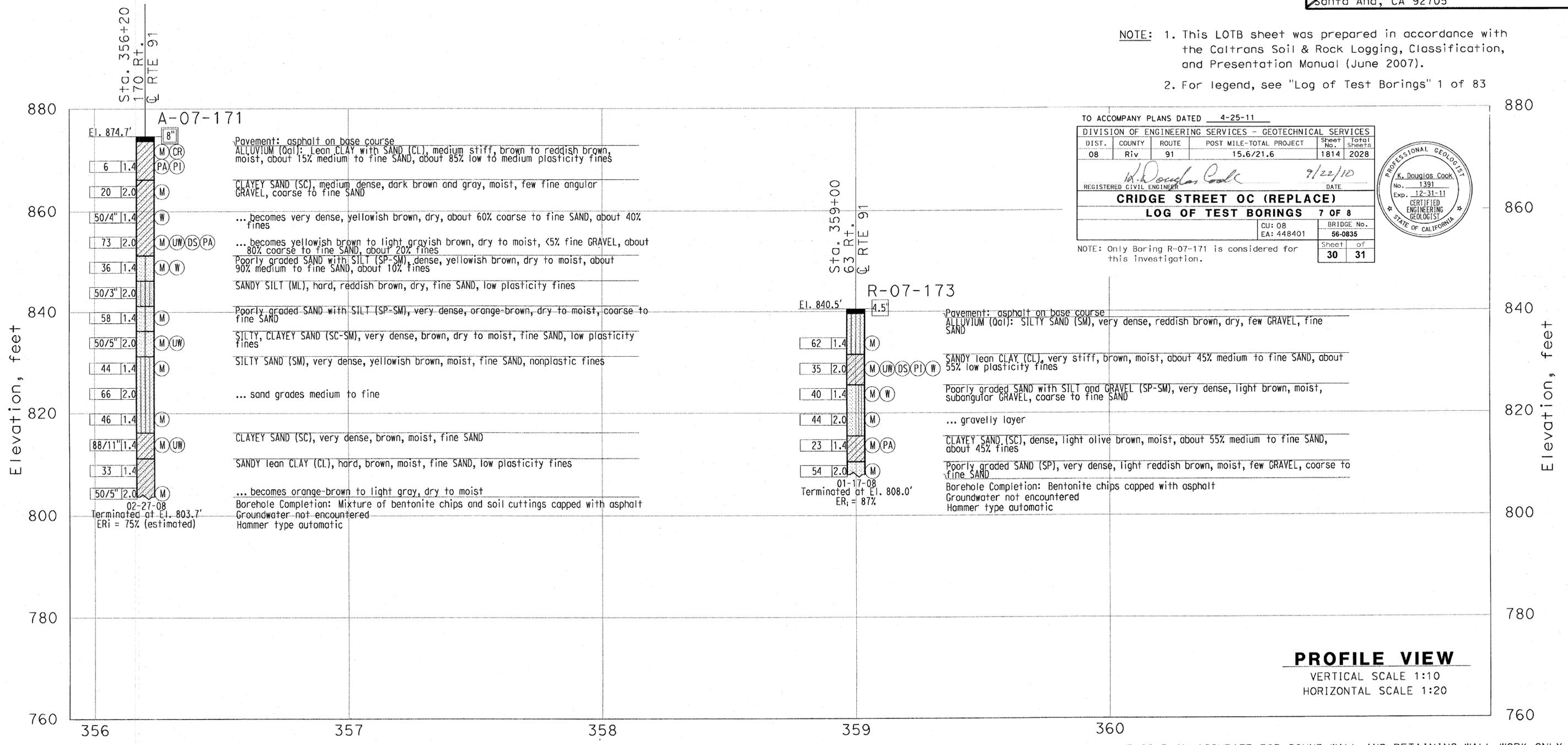
PLANS APPROVAL DATE
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FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 10 OF 83

NOTE: 1. This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (June 2007).
2. For legend, see "Log of Test Borings" 1 of 83



PROFILE VIEW
VERTICAL SCALE 1:10
HORIZONTAL SCALE 1:20

THIS PLAN ACCURATE FOR SOUND WALL AND RETAINING WALL WORK ONLY

GINA PURSELL DESIGN OVERSIGHT X SIGN OFF DATE	FUNCTIONAL SUPERVISOR	DRAWN BY P. QUACH	P. CHAU/D. WADER/C. CARBINO FIELD INVESTIGATION BY: Nov 6 2007 to March 7 2008	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	A. LEE PROJECT ENGINEER	BRIDGE NO. X	Retaining Wall 356	
		CHECKED BY S. PIRATHIVIRAJ				POST MILE X	LOG OF TEST BORINGS	
DISREGARD PRINTS BEARING EARLIER REVISION DATES						REVISION DATES (PRELIMINARY STAGE ONLY)		
CU 59A0590 EA 08-448400						SHEET 69 OF 83		

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	RIV	91	15.6/21.6		

10/2008
 GEOTECHNICAL PROFESSIONAL DATE

ANDREW C. LEE
 No. 2616
 Exp. 6-30-10
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA

PLANS APPROVAL DATE

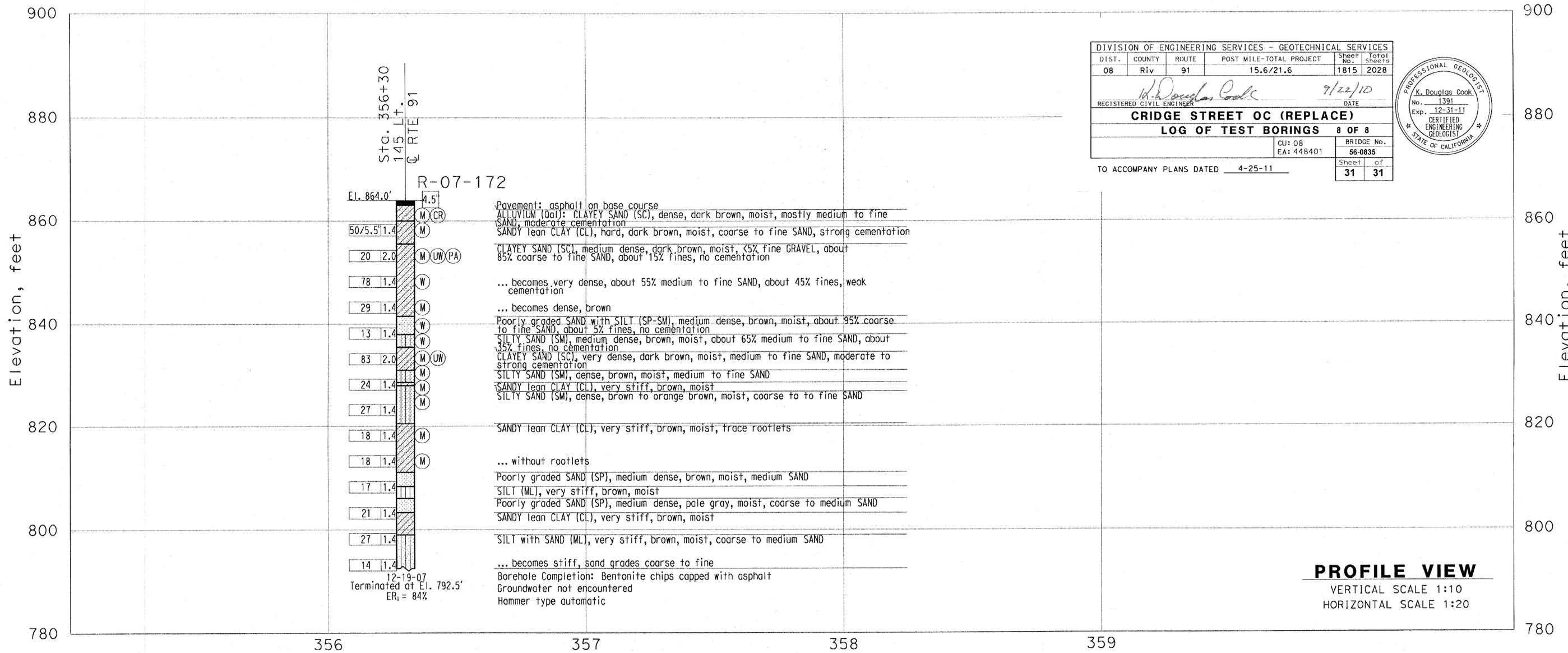
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FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 10 OF 83

NOTE: 1. This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (June 2007).
2. For legend, see "Log of Test Borings" 1 of 83



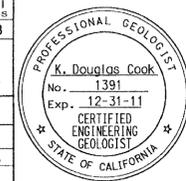
DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES					
DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
08	Riv	91	15.6/21.6	1815	2028

K. Douglas Cook
 REGISTERED CIVIL ENGINEER
 DATE: 9/22/10

CRIDGE STREET OC (REPLACE)
LOG OF TEST BORINGS 8 OF 8

TO ACCOMPANY PLANS DATED 4-25-11

CU: 08	BRIDGE No.
EA: 448401	66-0835
Sheet 31	of 31

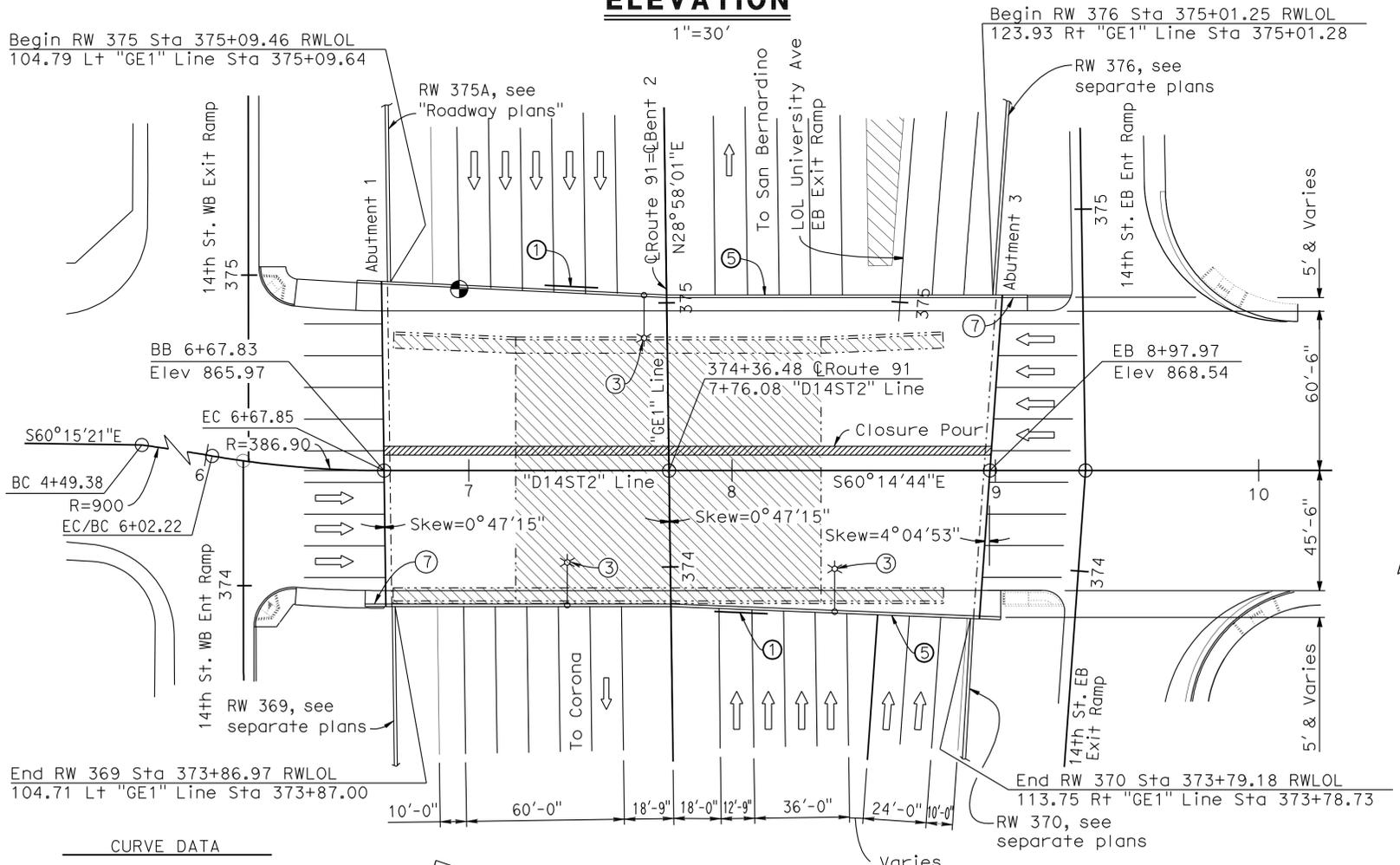
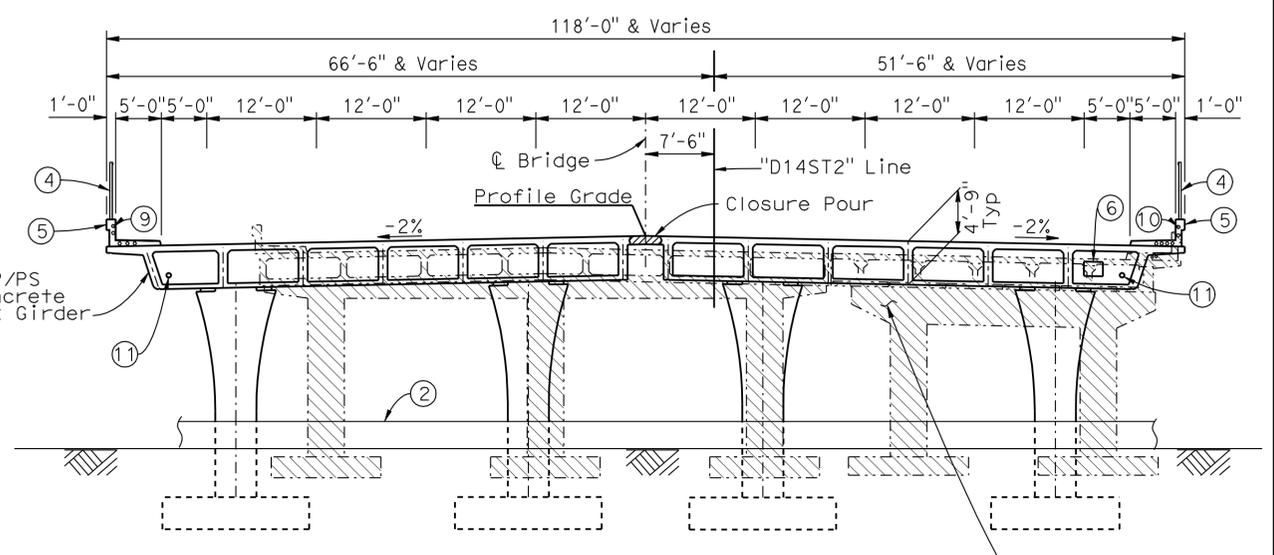
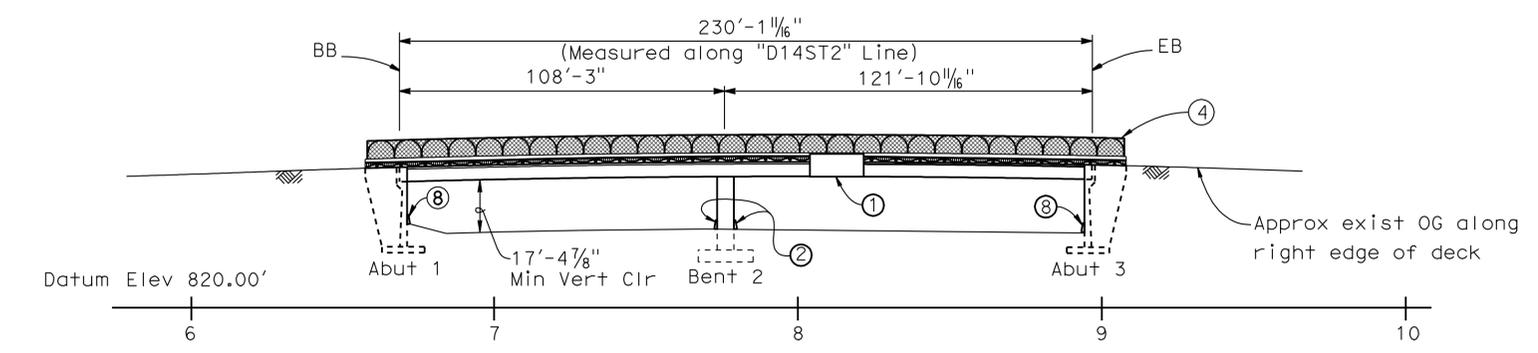
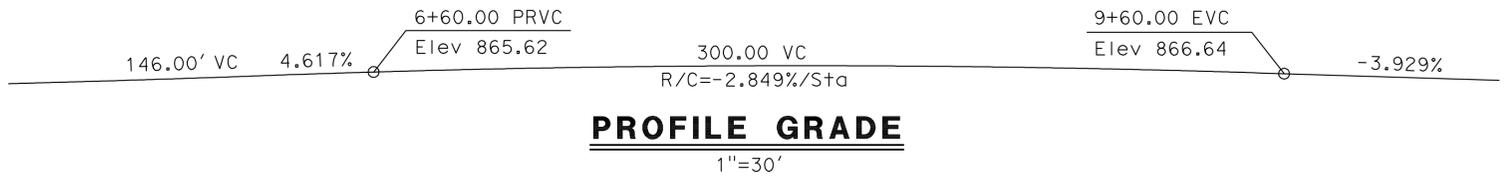


GINA PURSELL DESIGN OVERSIGHT X SIGN OFF DATE	FUNCTIONAL SUPERVISOR	DRAWN BY P. OUACH	P. CHAU/D. WADER/C. CARBINO FIELD INVESTIGATION BY: DATE: Nov 6 2007 to March 7 2008	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	A. LEE PROJECT ENGINEER	BRIDGE NO. X	Retaining Wall 355	
CHECKED BY S. PIRATHIVIRAJ		CU 59A0590 EA 08-448400			POST MILE X	LOG OF TEST BORINGS		
DISREGARD PRINTS BEARING EARLIER REVISION DATES						REVISION DATES (PRELIMINARY STAGE ONLY)		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						SHEET 68 OF 83		

FILE => ... \lotb_rw355.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1816	2028

HUAN VU
 REGISTERED CIVIL ENGINEER DATE 11-30-10
 PLANS APPROVAL DATE 4-25-11
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA



CURVE DATA

R=900	R=386.90
Δ=9°43'48"	Δ=9°43'11"
T=76.6	T=32.90
L=152.84	L=65.63

TYPICAL SECTION
1" = 10'-0"

- NOTES:**
- Bridge mounted traffic sign, see "Roadway Plans".
 - Concrete Barrier, Type 60E, see "Roadway Plans".
 - Electrolier, see "Roadway Plans".
 - Chain link railing Type 6
 - Concrete Barrier, Type 26 (Mod)
 - 19" x 24" Future Utility Opening
 - Paint "BR. NO. 56-0836" and Name "14TH STREET OC".
 - Concrete Barrier Type 60D (Mod).
 - 5 - 2"Ø Electrical Conduits, see "Roadway Plans".
 - 6 - 2"Ø Electrical Conduits, see "Roadway Plans".
 - 3"Ø Irrigation Line, see "Roadway Plans".

- LEGEND:**
- Indicates new construction
 - - - Indicates existing structure
 - Indicates direction of traffic flow
 - Indicates point of minimum Vert Clr
 - ▨ Indicates existing bridge to be removed
 - ▩ Indicates Deck Closure Pour

For "General Notes", "Index to Plans", "Standard Plans", "Quantities", and "Spread Footing Data Table", see "INDEX TO PLANS" Sheet.

DANIEL T. ADAMS DESIGN ENGINEER	DESIGN	BY H. Vu	CHECKED L. Wu	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	14TH STREET OC (REPLACE)	
	DETAILS	BY Tang/Wooten/Hallstrom	CHECKED L. Wu	LAYOUT	BY H. Vu			CHECKED L. Wu	56-0836	GENERAL PLAN NO. 1
	QUANTITIES	BY H. Vu	CHECKED L. Wu	SPECIFICATIONS	BY D. Klein	PLANS AND SPECS COMPARED	D. Klein	POST MILE	20.0	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS							CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET 1 OF 28

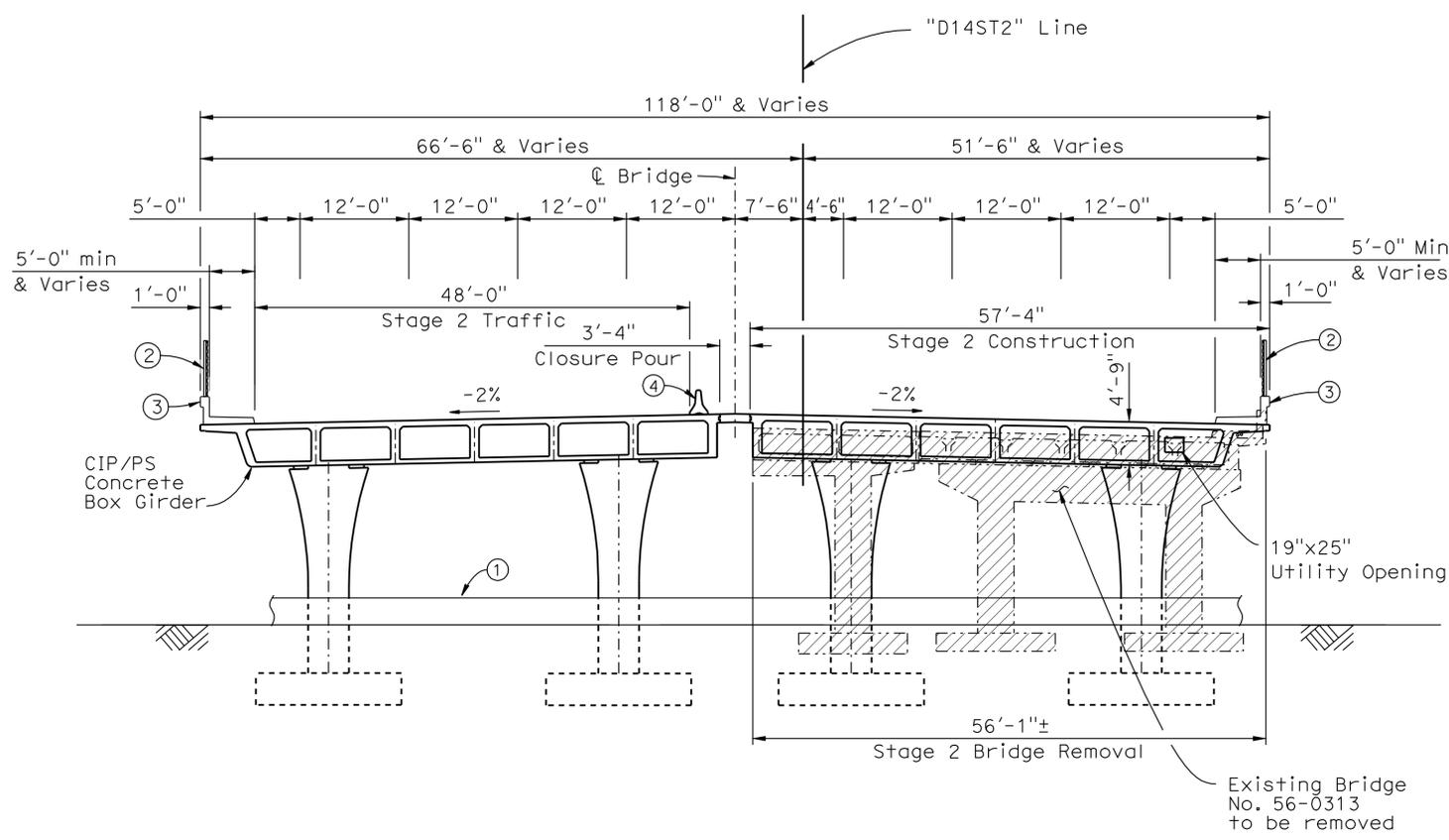
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1817	2028

Huan Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

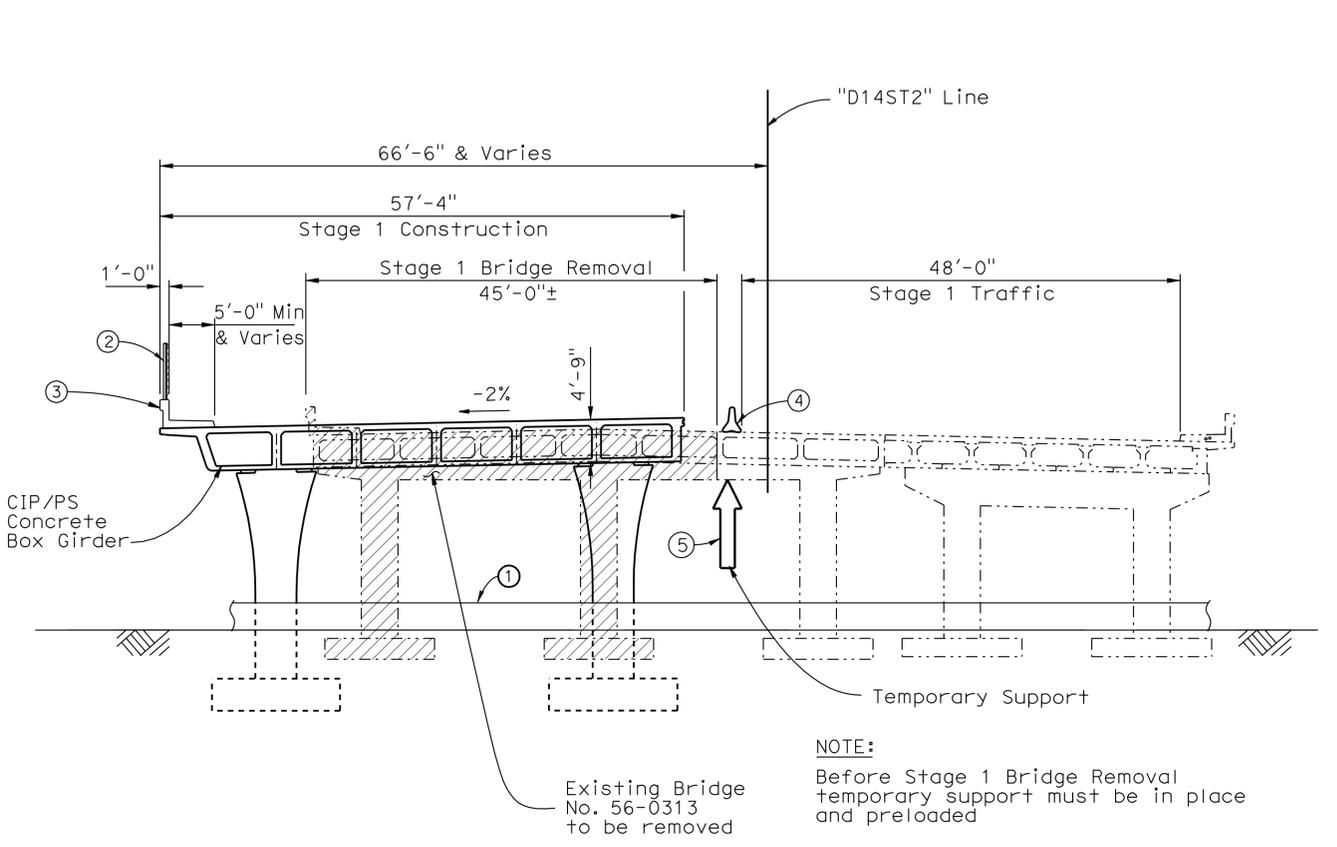
4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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STAGE 2 CONSTRUCTION
TYPICAL SECTION
1"=10'



STAGE 1 CONSTRUCTION
TYPICAL SECTION
1"=10'

NOTE:
Before Stage 1 Bridge Removal temporary support must be in place and preloaded

- NOTES:
- ① - Concrete Barrier, Type 60E, see "Roadway Plans"
 - ② - Chain Link Railing Type 6
 - ③ - Concrete Barrier, Type 26 (Mod)
 - ④ - Temporary Railing (Type K) see "Roadway Plans"
 - ⑤ - Minimum temporary support vertical service load, DL=131 kips and LL=70 kips.

LEGEND:

- Indicates new construction
- Indicates existing structure
- ▨ Indicates concrete removal

DESIGN	BY H.Vu	CHECKED L. WU
DETAILS	BY D.Wooten	CHECKED L. WU
QUANTITIES	BY H.Vu	CHECKED L. WU

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0836
POST MILE 20.0

14TH STREET OC (REPLACE)
GENERAL PLAN NO. 2

CU 08
EA 448401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
8-24-08 10-02-08 3-14-09 7-2-09 8-24-09 8-31-09 8-05-10 11-30-10	2	28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1818	2028

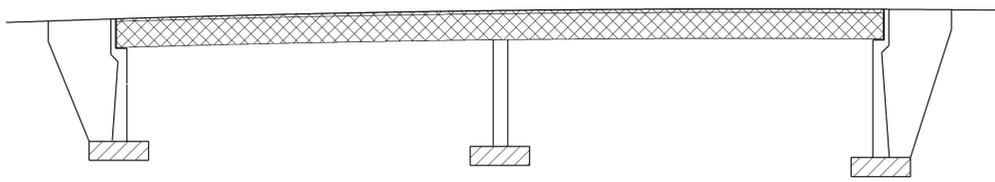
11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA
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INDEX TO PLANS

Sheet No.	Title
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	INDEX TO PLANS
4	DECK CONTOURS
5	FOUNDATION PLAN
6	ABUTMENT NO. 1 LAYOUT
7	ABUTMENT NO. 3 LAYOUT
8	ABUTMENT DETAILS NO. 1
9	ABUTMENT DETAILS NO. 2
10	ABUTMENT DETAILS NO. 3
11	BENT LAYOUT
12	BENT DETAILS NO. 1
13	BENT DETAILS NO. 2
14	TYPICAL SECTION
15	GIRDER LAYOUT
16	GIRDER REINFORCEMENT
17	ARCHITECTURAL DETAILS NO. 1
18	ARCHITECTURAL DETAILS NO. 2
19	ARCHITECTURAL DETAILS NO. 3
20	ARCHITECTURAL DETAILS NO. 4
21	CHAIN LINK RAILING TYPE 6
22	LOG OF TEST BORINGS (1 OF 7)
23	LOG OF TEST BORINGS (2 OF 7)
24	LOG OF TEST BORINGS (3 OF 7)
25	LOG OF TEST BORINGS (4 OF 7)
26	LOG OF TEST BORINGS (5 OF 7)
27	LOG OF TEST BORINGS (6 OF 7)
28	LOG OF TEST BORINGS (7 OF 7)

QUANTITIES

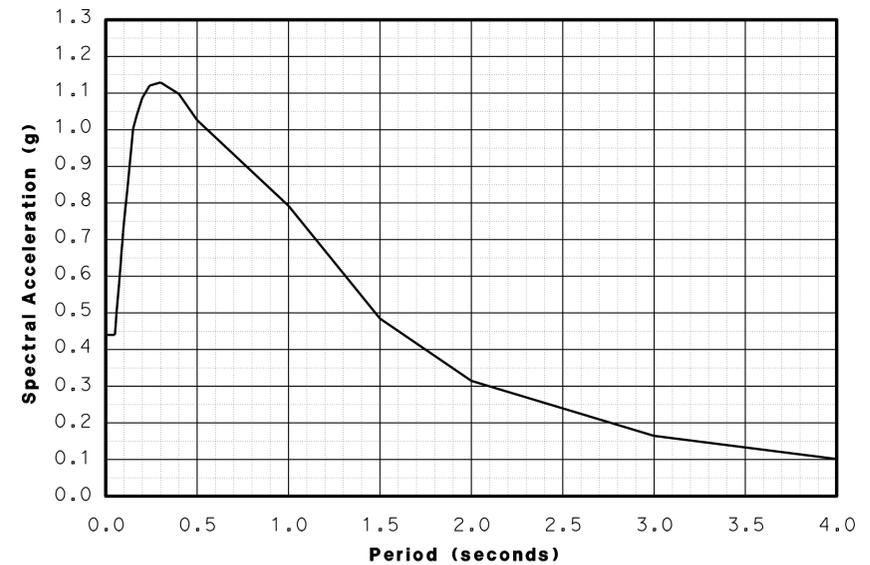
TEMPORARY SUPPORT	LUMP SUM
BRIDGE REMOVAL, LOCATION 1	LUMP SUM
STRUCTURE EXCAVATION (BRIDGE)	3,062 CY
STRUCTURE BACKFILL (BRIDGE)	1,891 CY
PERVIOUS BACKFILL MATERIAL	154 CY
3" SUPPLY LINE (BRIDGE)	460 LF
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	397 CY
STRUCTURAL CONCRETE, BRIDGE	2,388 CY
ARCHITECTURAL SURFACE(TEXTURED CONCRETE)	3,590 SQFT
FRACTURED RIB SPLIT SLATE TEXTURE	
JOINT SEAL (MR 2")	246 LF
BAR REINFORCING STEEL (BRIDGE)	603,990 LB
CHAIN LINK RAILING (TYPE 6)	683 LF
CONCRETE BARRIER (TYPE 26)	683 LF
CONCRETE BARRIER (TYPE 60D MODIFIED)	246 LF



- Structural Concrete, Bridge
- Structural Concrete, Bridge (4000 psi at 28 days)
- Structural Concrete, Bridge Footing

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

- DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th Edition and the CALTRANS Amendments preface dated Dec. 2008.
- SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.4, July, 2006
- DEAD LOAD: Includes 35 Psf for future wearing surface.
- LIVE LOADING: HL93 and permit design load.
- SEISMIC LOADING: Soil Profile Type D, Magnitude Group 7.25±0.25, Peak Rock Acceleration = 0.4 g.



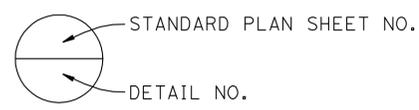
Modified CALTRANS SDC ARS Curve: Type D Soil Profile, Magitude Mw=7.5, 5% Damping

REINFORCED CONCRETE: $f_y = 60$ ksi
 $f'_c = 3600$ psi, unless otherwise noted
 $n = 8$

See "Prestressing Notes" on "GIRDER LAYOUT" sheet.

STANDARD PLANS DATED MAY 2006

- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- A62-C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
- BO-3 BRIDGE DETAILS
- BO-5 BRIDGE DETAILS
- BO-13 BRIDGE DETAILS
- RSP B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- B7-1 BOX GIRDER DETAILS
- B7-10 UTILITY OPENINGS, BOX GIRDER
- B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
- B11-54 CONCRETE BARRIER TYPE 26
- B14-4 WATER SUPPLY LINE (BRIDGE) (PIPE SIZES LESS THAN 4")
- B14-5 WATER SUPPLY LINE (DETAILS) (PIPE SIZES LESS THAN 4")



CONCRETE STRENGTH AND TYPE LIMITS

NO SCALE

SPREAD FOOTING DATA TABLE

SUPPORT LOCATION	WORKING STRESS DESIGN (WSD)		LOAD AND RESISTANCE FACTOR DESIGN (LRFD)		
	Permissible Gross Contact Stress (Settlement) (ksf)	Allowable Gross Bearing Capacity (ksf)	SERVICE Permissible Net Contact Stress (ksf)	STRENGTH Factored Gross Nominal Bearing Resistance $\phi_b=0.45$ (ksf)	EXTREME Factored Gross Nominal Bearing Resistance $\phi_b=1.0$ (ksf)
Abut 1	7.3	11.9	N/A	N/A	N/A
Bent 2	N/A	N/A	7.9	29.0	64.6
Abut 3	13.0	12.8	N/A	N/A	N/A

DESIGN	BY	H.Vu	CHECKED	L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0836	14TH STREET OC (REPLACE) INDEX TO PLANS	
	DETAILS	BY	R. Kirkland	CHECKED			L. WU	POST MILE		20.0
	QUANTITIES	BY	H.Vu	CHECKED			L. WU			

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 CU 08 EA 448401 DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	7-25-09	3-18-09	2-11-10	8-05-10	8-23-10	9-30-10	SHEET 3 OF 28
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FILE => 560836a1+p03.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1819	2028

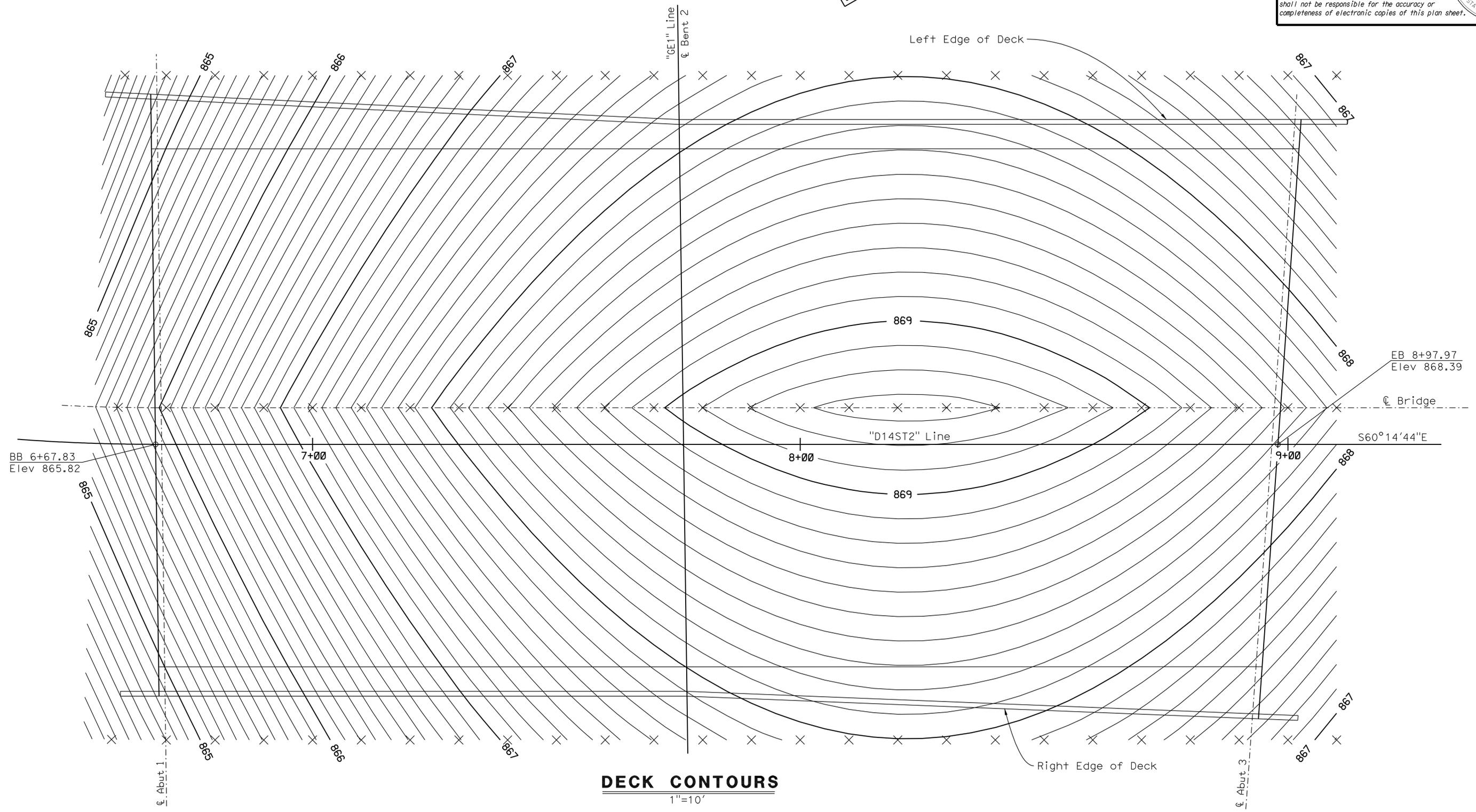
Huan Vu 11-30-10
 REGISTERED CIVIL ENGINEER DATE

4-25-11
 PLANS APPROVAL DATE

HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

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- NOTES:
- x - 10'-0" intervals along station line.
 - Contour intervals = 0.1'.
 - Contours do not include camber.



DECK CONTOURS
 1" = 10'

DESIGN	BY H.Vu	CHECKED L. WU
DETAILS	BY G. Hallstrom	CHECKED L. WU
QUANTITIES	BY H.Vu	CHECKED L. WU

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

BRIDGE NO.	56-0836
POST MILE	20.0

14TH STREET OC (REPLACE)
 DECK CONTOURS

CURVE DATA

No.	R	Δ	T	L
1	900.000	9°43'48"	76.604	152.840
2	386.891	9°43'11"	32.896	65.633
3	300.000	15°16'50"	40.243	80.008
4	3464.970	3°34'54"	108.333	216.595
5	3500.000	5°03'23"	154.540	308.880
6	1000.000	11°30'39"	100.791	200.903

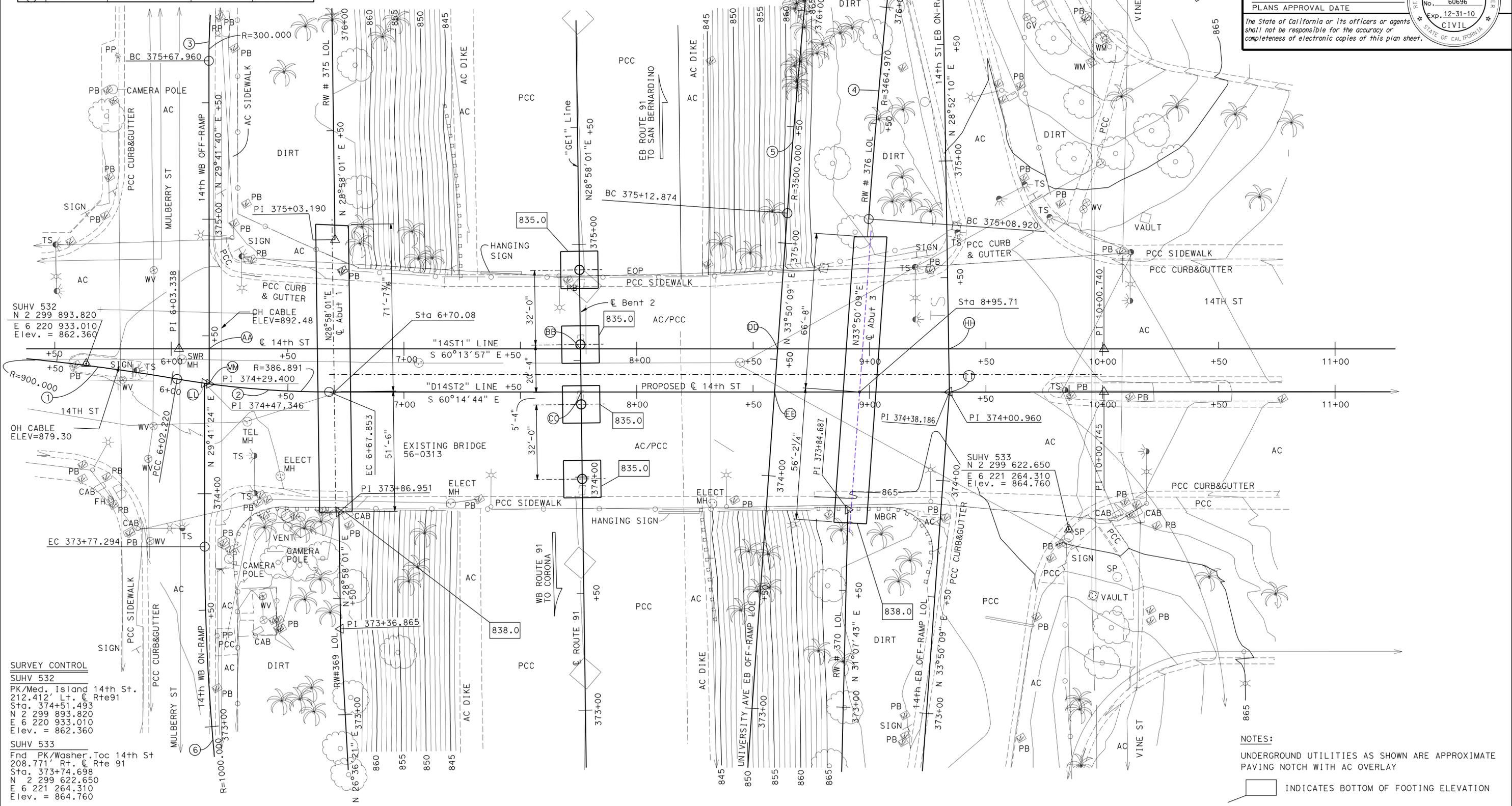
- AA STA. 6+16.337 @ 14th ST=
- BB STA. 7+75.824 @ 14th ST =
- CC STA. 7+76.083 @ PROPOSED 14th ST=
- DD STA. 8+60.546 @ 14th ST=
- EE STA. 8+59.236 @ PROPOSED 14th ST =
- FF STA. 9+33.996 @ 14th ST=
- GG STA. 9+34.286 @ PROPOSED 14th ST=
- HH STA. 9+33.996 @ 14th ST=
- II STA. 374+44.455 14th WB OFF-RAMP
- JJ STA. 374+54.525 UNIV EB OFF-RAMP
- KK STA. 374+00.960 14th EB ON-RAMP=
- LL STA. 374+47.346 14th WB ON-RAMP
- MM STA. 6+16.205 @ PROPOSED 14th ST=
- NN STA. 374+29.400 14th WB OFF-RAMP

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1820	2028

Huan Wu
 REGISTERED CIVIL ENGINEER
 No. 60696
 Exp. 12-31-10
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 STATE OF CALIFORNIA

11-30-10
 DATE
 4-25-11
 PLANS APPROVAL DATE

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SURVEY CONTROL

SUHV 532
 PK/Med. Island 14th St.
 212.412' Lt. @ Rte91
 Sta. 374+51.493
 N 2 299 893.820
 E 6 220 933.010
 Elev. = 862.360

SUHV 533
 Fnd PK/Washer, Toc 14th St
 208.771' Rt. @ Rte 91
 Sta. 373+74.698
 N 2 299 622.650
 E 6 221 264.310
 Elev. = 864.760

NOTES:

UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE
 PAVING NOTCH WITH AC OVERLAY

INDICATES BOTTOM OF FOOTING ELEVATION

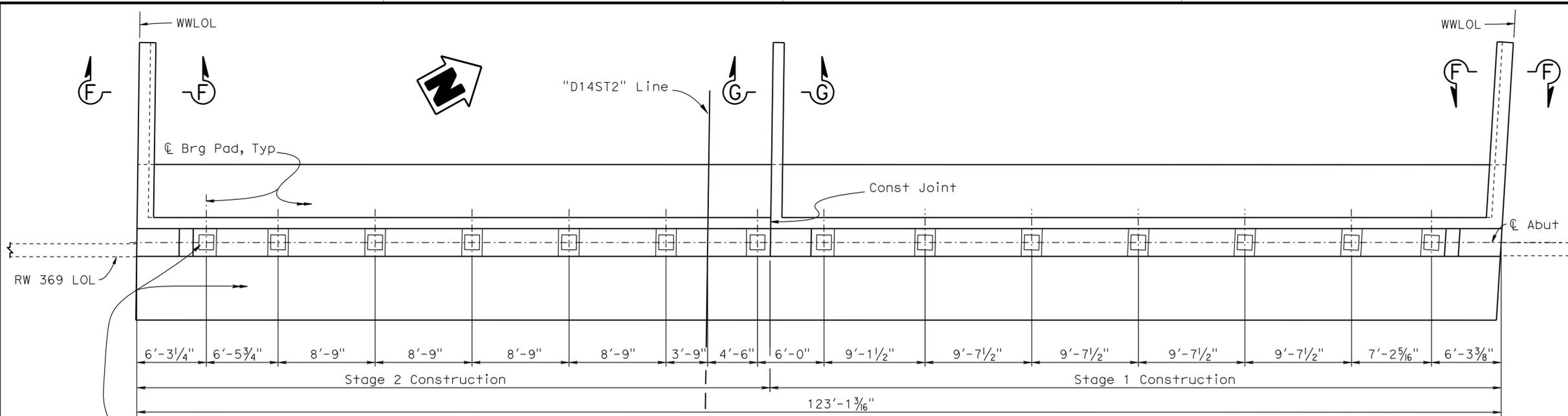
PRELIMINARY INVESTIGATION SECTION				DESIGN	BY H. Vu	CHECKED	L. Wu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0836	14TH STREET OC (REPLACE) FOUNDATION PLAN	
SCALE	VERT. DATUM	NGVD 29	PHOTOGRAMMETRY	AS OF:	X	DETAILS	BY R. Kirkland			POST MILE	20.10		
1"=20'	HORIZ. DATUM	NAD 83	SURVEYED	BY C. Stewart	07/08	CHECKED	BY L. Manabo			07/08			
ALIGNMENT TIES DIST TRAV SHEETS				DRAFTED	BY M. Sadaghiani	10/08	CHECKED	BY L. Manabo	10/08	QUANTITIES	BY H. Vu	CHECKED	L. Wu
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 10/25/05)													
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS													
CU 08 EA 448401													
DISREGARD PRINTS BEARING EARLIER REVISION DATES													
REVISION DATES													
SHEET 5 OF 28													

USERNAME => hmguyne DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 1:31:39

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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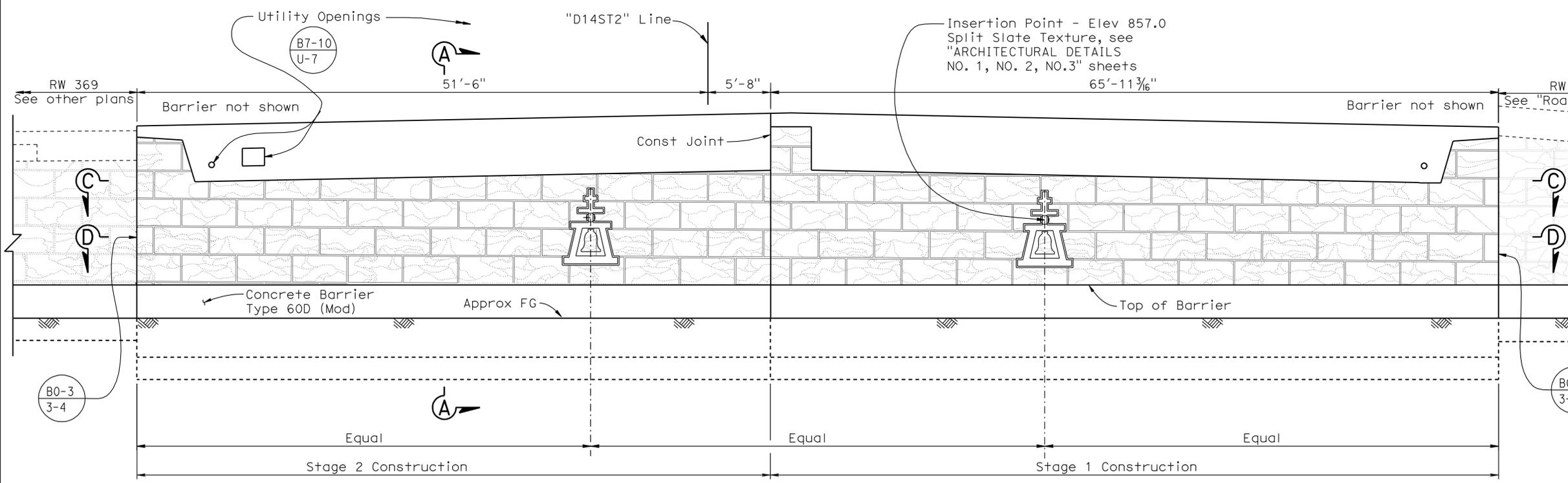
11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

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PLAN
3/16"=1'-0"

- NOTES:
- For Section A-A and Drill & Bond Dowel Arrangement, see "ABUTMENT DETAILS NO. 1" sheet.
 - For Bearing Pad details, see "ABUTMENT DETAILS NO. 1" sheet.
 - For Sections F-F and G-G, see "ABUTMENT DETAILS NO. 1" sheet.
 - For Sections C-C and D-D, see "ABUTMENT DETAILS NO. 3" sheet.



ELEVATION
3/16"=1'-0"

DESIGN BY H.Vu CHECKED L. WU DETAILS BY R. Kirkland/G.Hallstrom CHECKED L. WU QUANTITIES BY H.Vu CHECKED L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0836 POST MILE 20.0	14TH STREET OC (REPLACE) ABUTMENT NO. 1 LAYOUT
	STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 7-02-09, 9-08-09, 9-23-09, 2-10-10, 3-26-10, 8-05-10, 10-06-10, 11-04-10
	SHEET 6 OF 28	USERNAME => hrmnguy DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 1:31:39	FILE => 560836fa11o06.dgn	FILE => 560836fa11o06.dgn

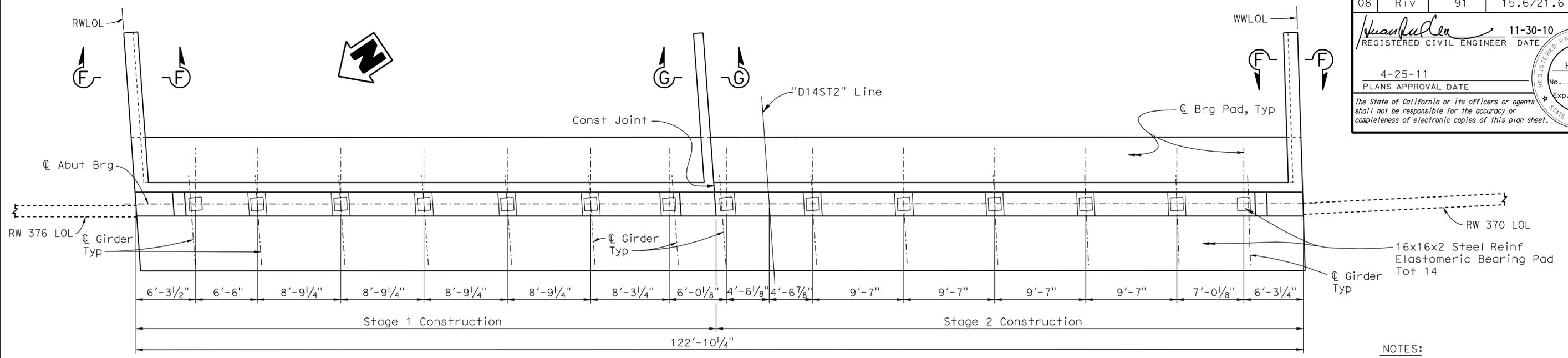
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1822	2028

Huan Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

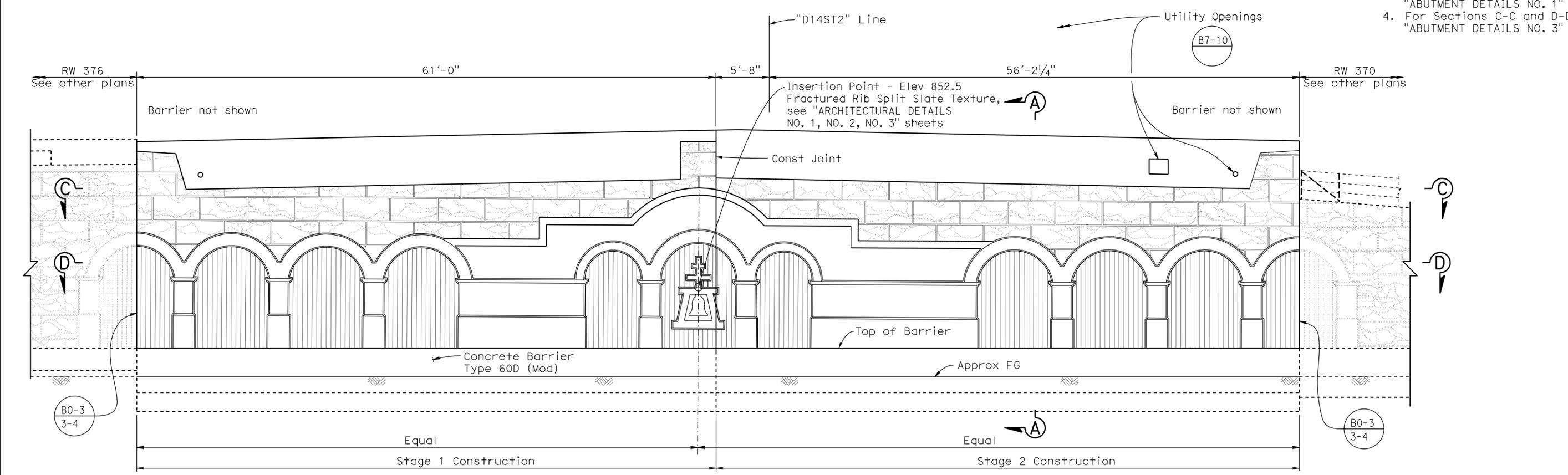
HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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PLAN
3/16"=1'-0"

- NOTES:**
1. For Section A-A and Drill & Bond Dowel Arrangement, see "ABUTMENT DETAILS NO. 1" sheet.
 2. For Bearing Pad details, see "ABUTMENT DETAILS NO. 1" sheet.
 3. For Sections F-F and G-G, see "ABUTMENT DETAILS NO. 1" sheet.
 4. For Sections C-C and D-D, see "ABUTMENT DETAILS NO. 3" sheet.



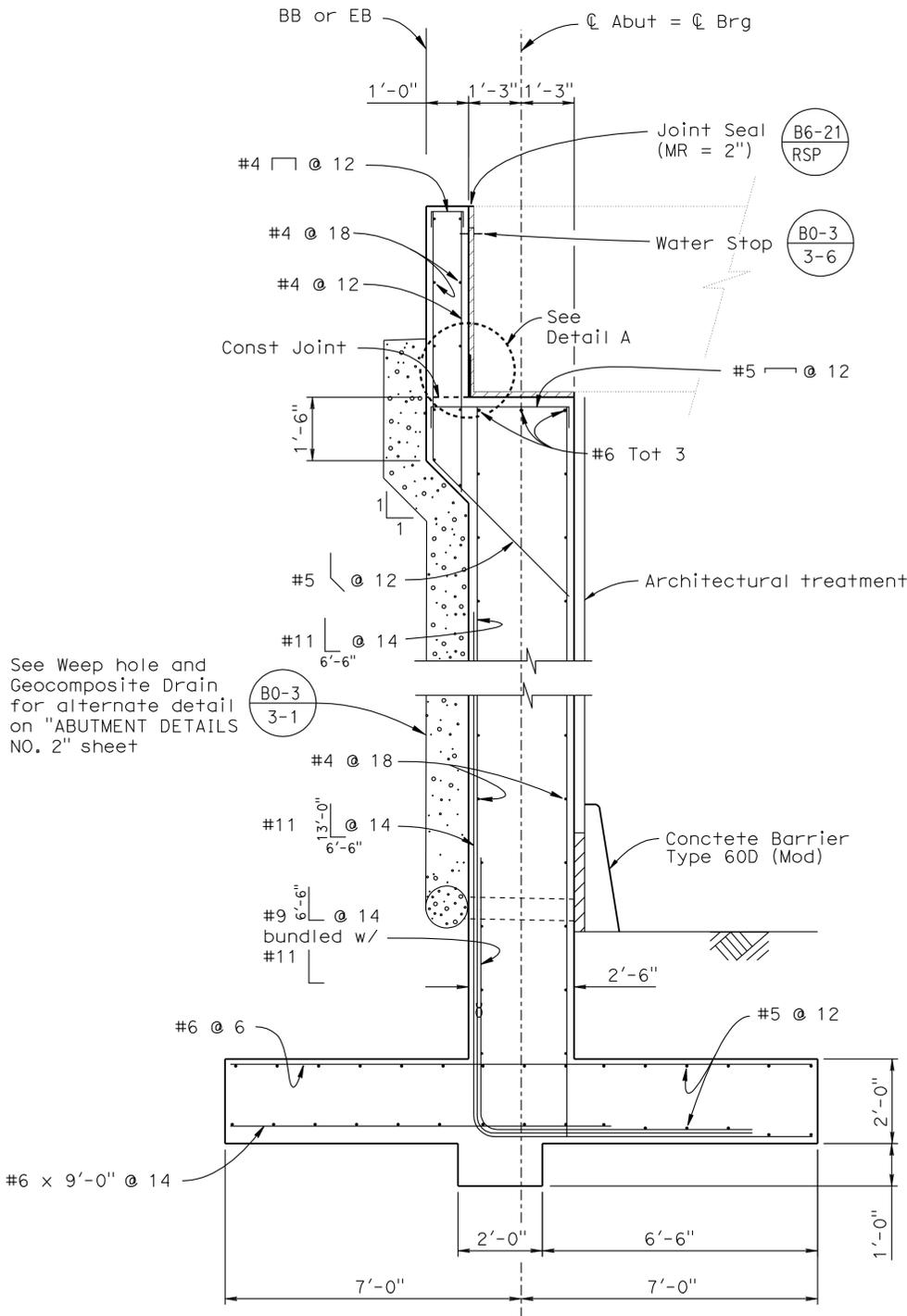
ELEVATION
3/16"=1'-0"

DESIGN BY H.VU CHECKED L. WU DETAILS BY R. Kirkland/G. Hallstrom CHECKED L. WU QUANTITIES BY H.VU CHECKED L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0836 POST MILE 20.0	14TH STREET OC (REPLACE) ABUTMENT NO. 3 LAYOUT
	STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES
	0 1 2 3	7-08-09 9-08-09 9-23-09 2-10-10 3-26-10 8-05-10 9-30-10 11-05-10	SHEET 7 OF 28	USERNAME => hrmnguye DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 1:31:39

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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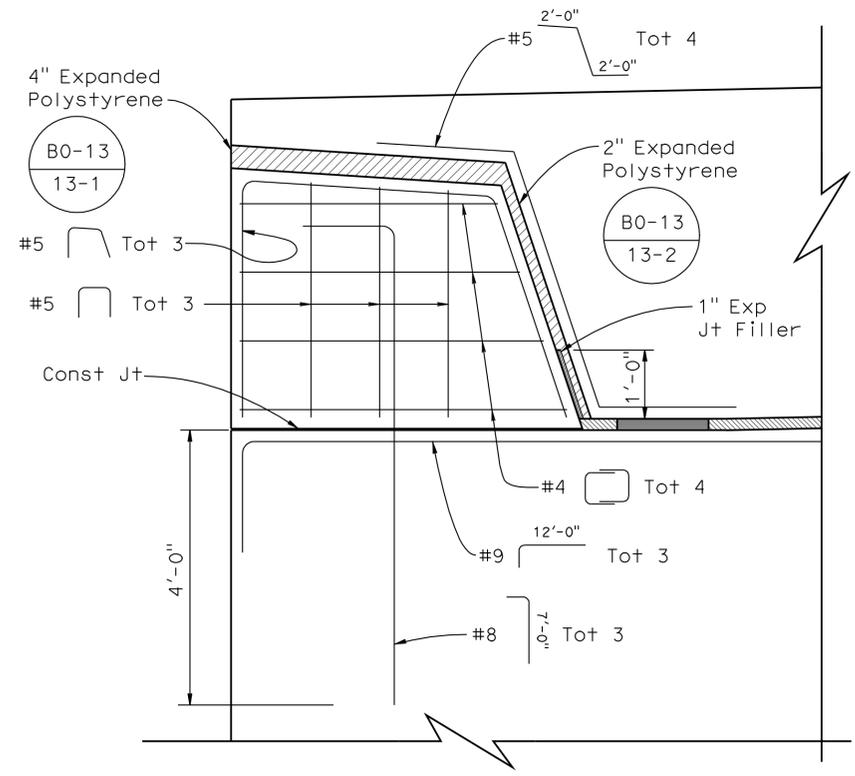
11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

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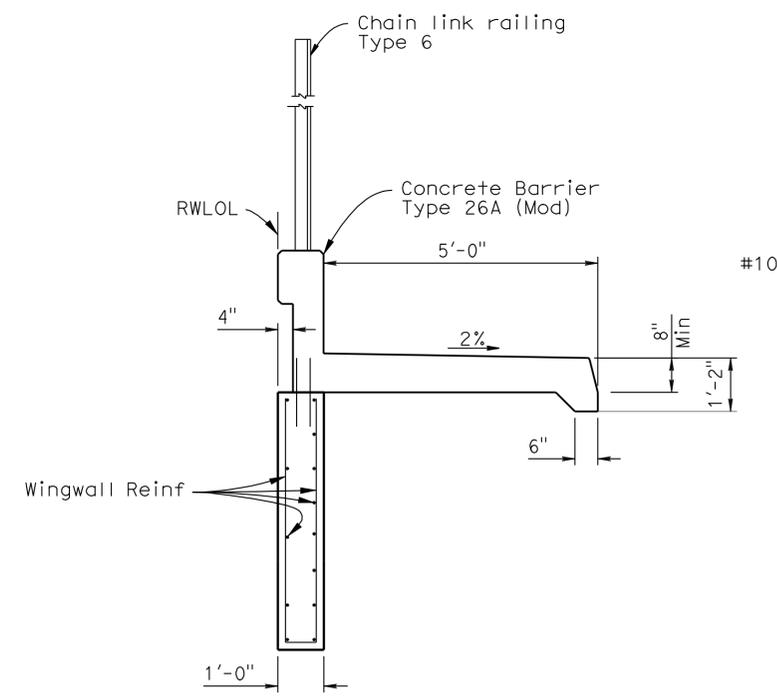


SECTION A-A
1/2" = 1'-0"

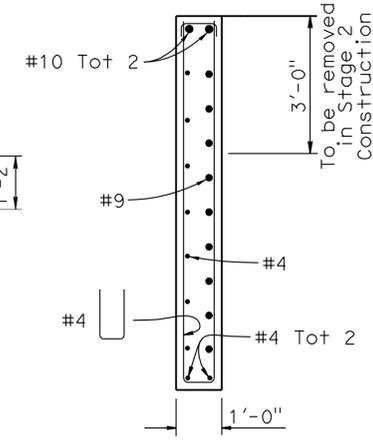
NOTES:
 1. For location of Sections A-A, F-F, and G-G, see "ABUTMENT NO. 1 LAYOUT" and "ABUTMENT NO. 3 LAYOUT" sheets.



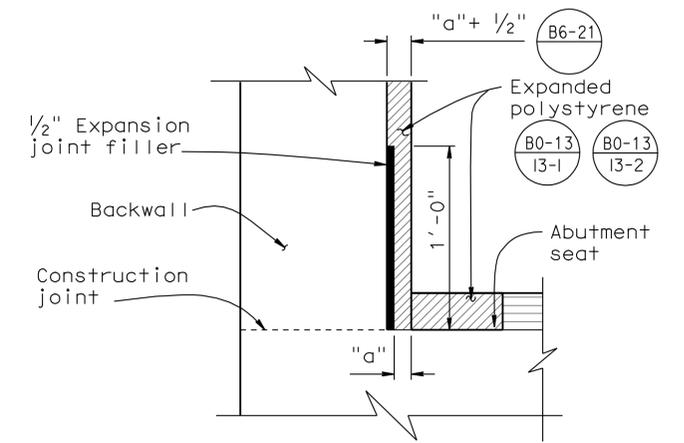
ELEVATION - EXTERNAL KEY
3/4" = 1'-0"



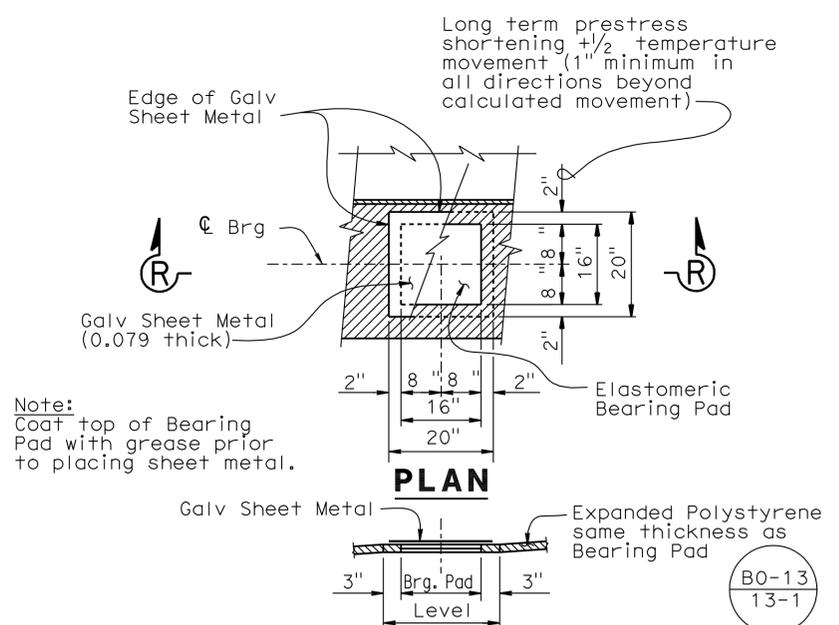
SECTION F-F
1/2" = 1'-0"



SECTION G-G
1/2" = 1'-0"



DETAIL "A"
No Scale



SECTION R-R
BEARING PAD DETAIL
 No Scale
 Details typical at all bearing pads

DESIGN	BY H.VU	CHECKED L. WU
DETAILS	BY D.Wooten/G. Hallstrom	CHECKED L. WU
QUANTITIES	BY H.VU	CHECKED L. WU

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

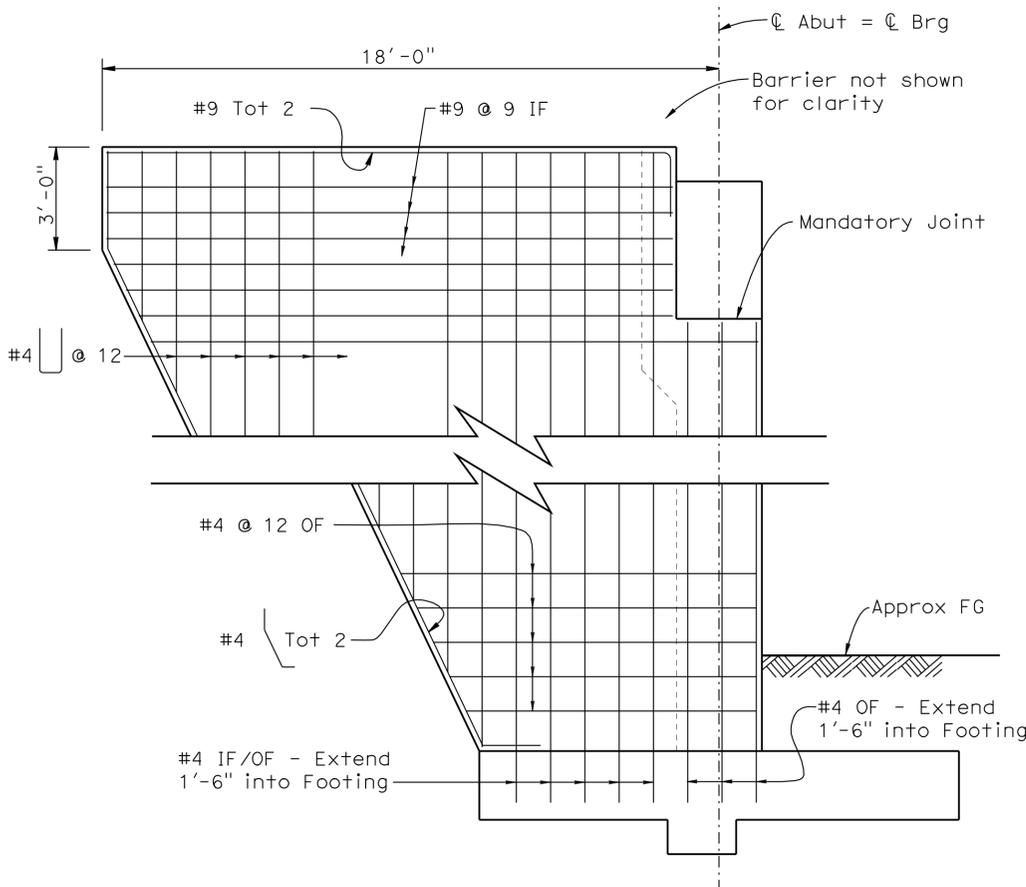
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

BRIDGE NO.	56-0836
POST MILE	20.0

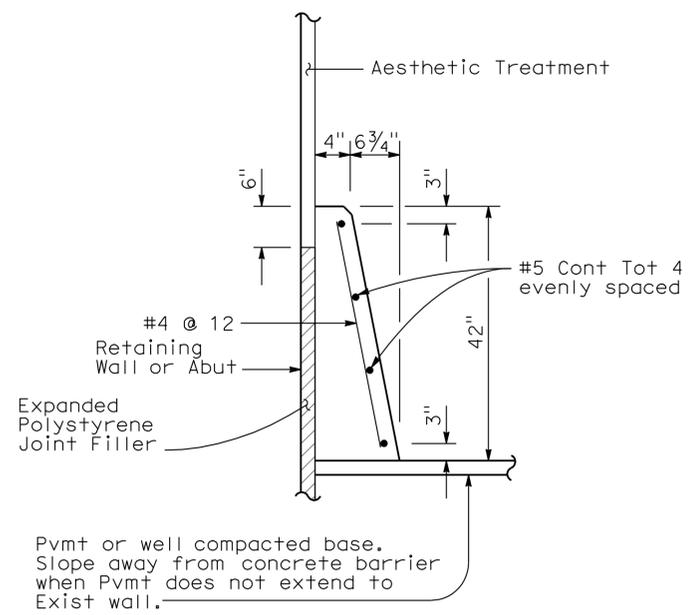
14TH STREET OC (REPLACE)
 ABUTMENT DETAILS NO. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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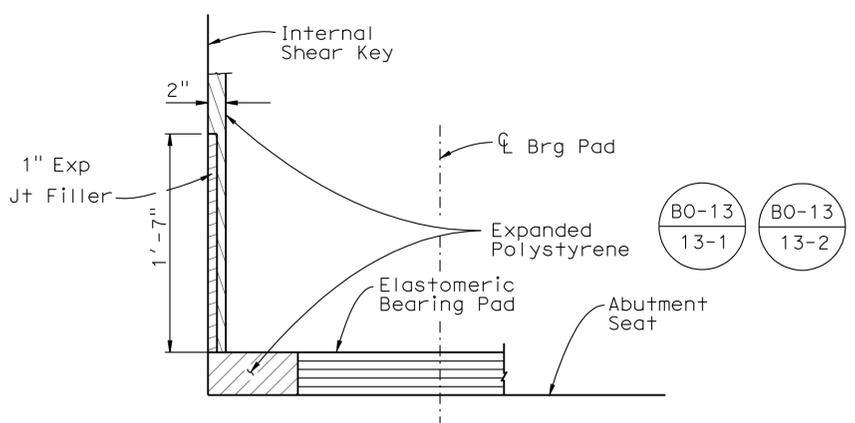
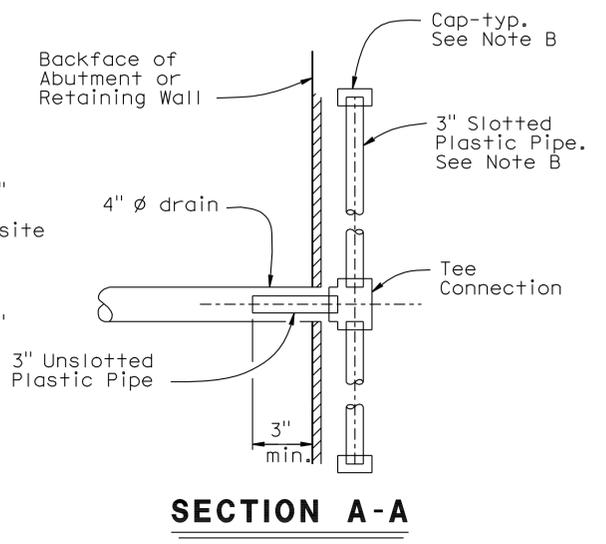
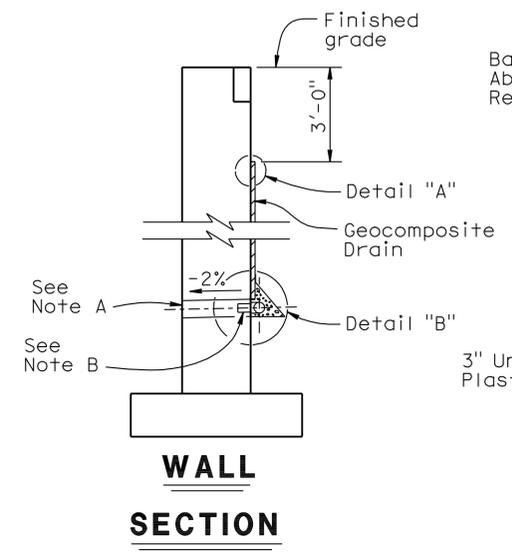
11-30-10
 REGISTERED CIVIL ENGINEER DATE
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA
 PLANS APPROVAL DATE
 4-25-11
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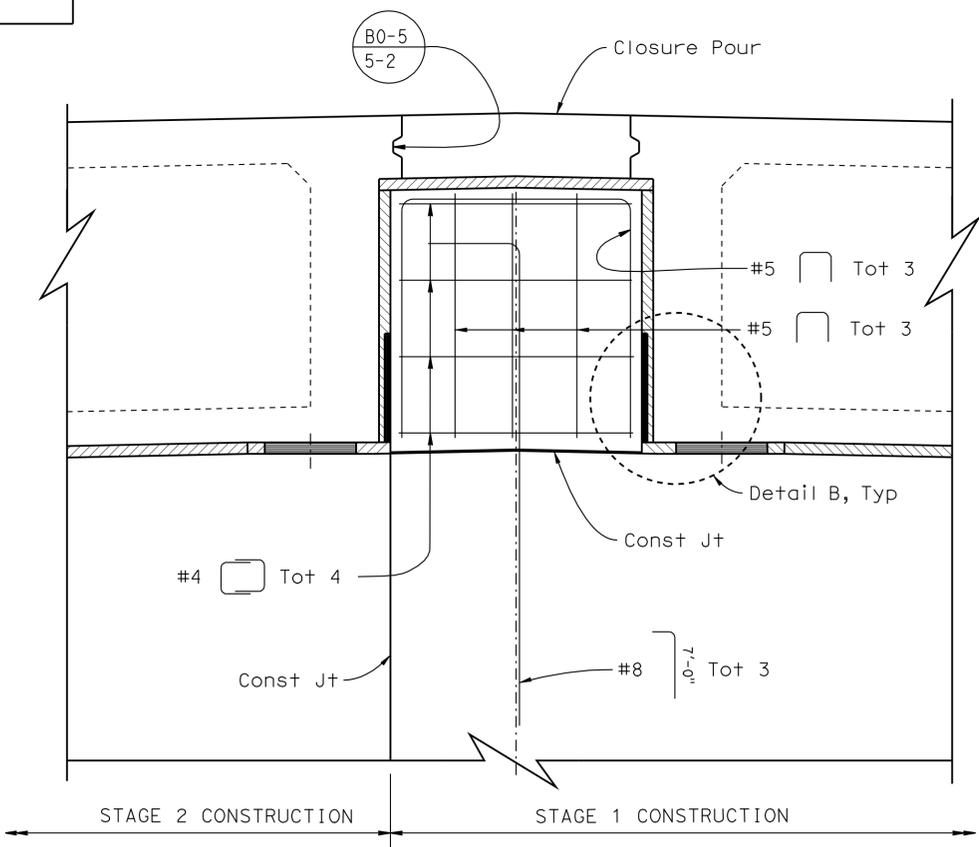
WINGWALL ELEVATION
3/8" = 1'-0"



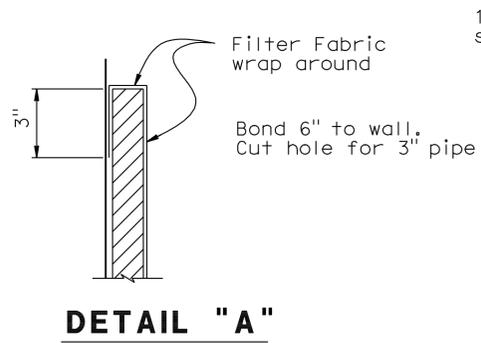
CONCRETE BARRIER TYPE 60D (MOD)



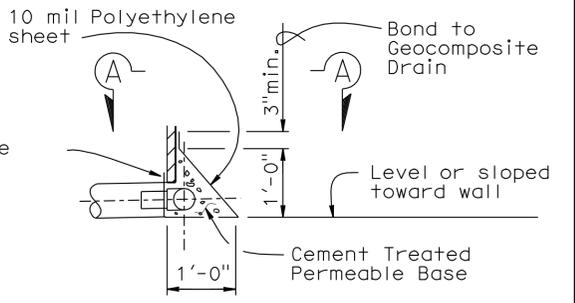
DETAIL B
NO SCALE



ELEVATION - INTERNAL KEY
3/4" = 1'-0"



DETAIL "A"



DETAIL "B"

WEEP HOLE AND GEOCOMPOSITE DRAIN

ALTERNATIVE TO BRIDGE DETAIL BO-3 3-1

- Notes:
- 4" ∅ drains at intermediate sag points and at 25' max center to center (9' c-c for Type 3 and 9'-3" c-c for Type 4 retaining walls). For walls adjacent to sidewalks or curbs, provide 4" cast iron or asbestos cement pipe under the sidewalk to discharge through curb face. Exposed wall drains shall be located 3"± above finished grade.
 - Geocomposite drain, cement treated permeable base, and 3" ∅ slotted plastic pipe continuous behind retaining wall or abutment. Cap ends of pipe. Provide "Tee" connection at each 4" ∅ drain.
 - Connect the low end of plastic pipe to the main outlet pipe as applicable.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DESIGN	BY H.Vu	CHECKED L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10 BRIDGE NO. 56-0836 POST MILE 20.0	14TH STREET OC (REPLACE) ABUTMENT DETAILS NO. 2
	DETAILS	BY D.Wooten/G.Hallstrom	CHECKED L. WU		
	QUANTITIES	BY H.Vu	CHECKED L. WU		
REVISION DATES 7-08-09 9-28-09 2-10-10 8-05-10 8-23-10 9-15-10				SHEET 9	OF 28

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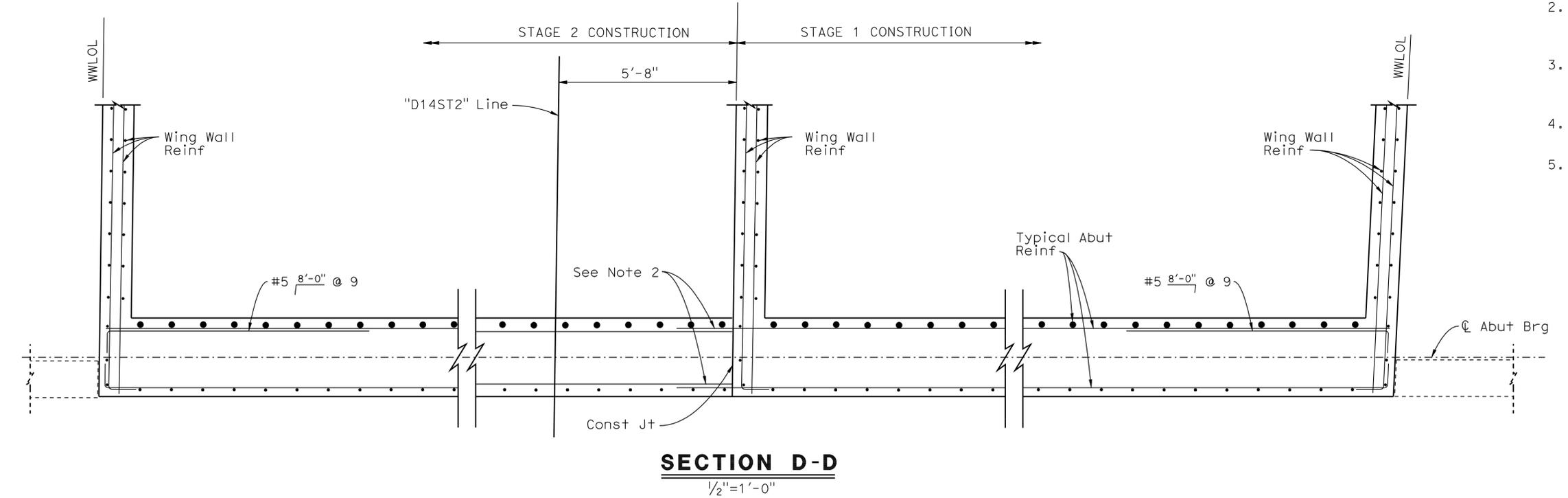
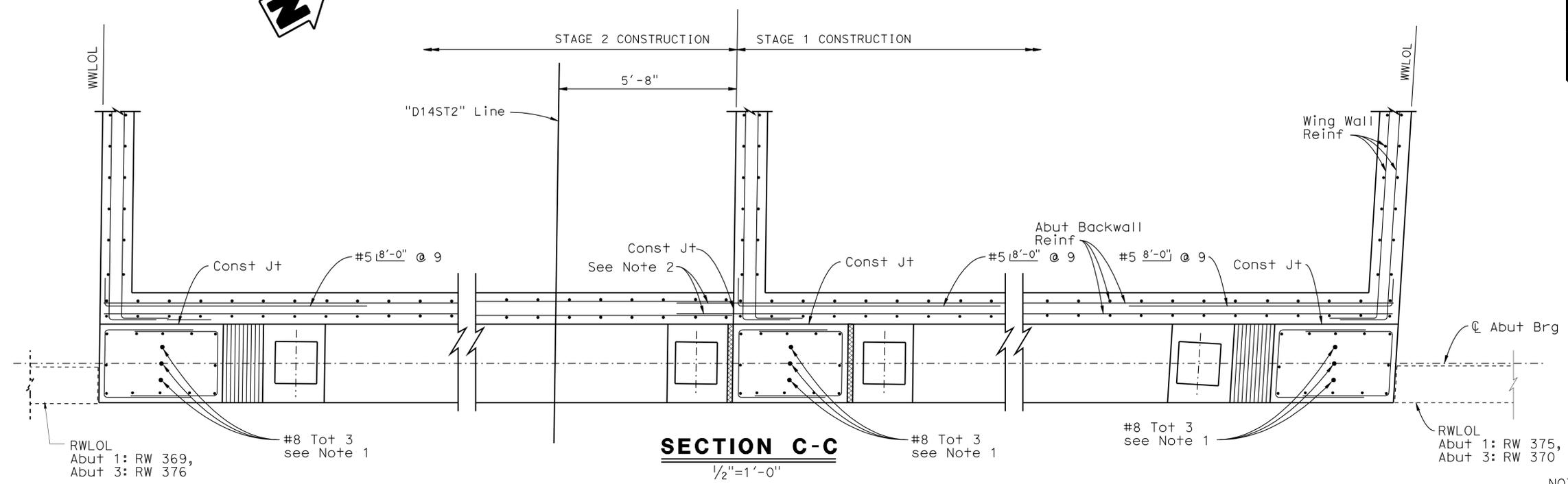
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1825	2028

Huan Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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- NOTES:
- Vertical Shear Key Reinf (#8) to be galvanized
 - Service splice Abutment Backwall, Seat & Footing Reinf between two stages.
 - For locations of Section C-C & Section D-D, see "ABUTMENT NO. 1 LAYOUT" sheet.
 - For Retaining Wall details, see separate plans.
 - Abutment 1 shown, Abutment 3 similar.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY H.Vu	CHECKED L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0836	14TH STREET OC (REPLACE) ABUTMENT DETAILS NO. 3
	DETAILS	BY G. Hallstrom	CHECKED L. WU			POST MILE	20.0	
	QUANTITIES	BY H.Vu	CHECKED L. WU			CU 08 EA 448401	REVISION DATES	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	FILE => 560836fad+10.dgn	DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET 10 OF 28

USERNAME => hrmnguy DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:40

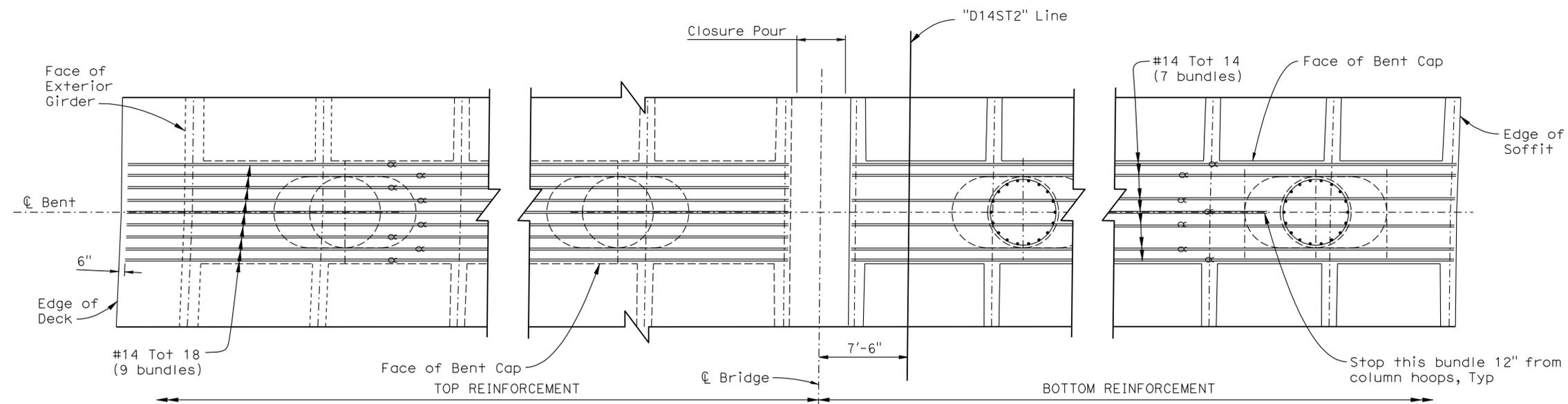
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08	Riv	91	15.6/21.6	1826	2028

Huan Vu 11-30-10
 REGISTERED CIVIL ENGINEER DATE

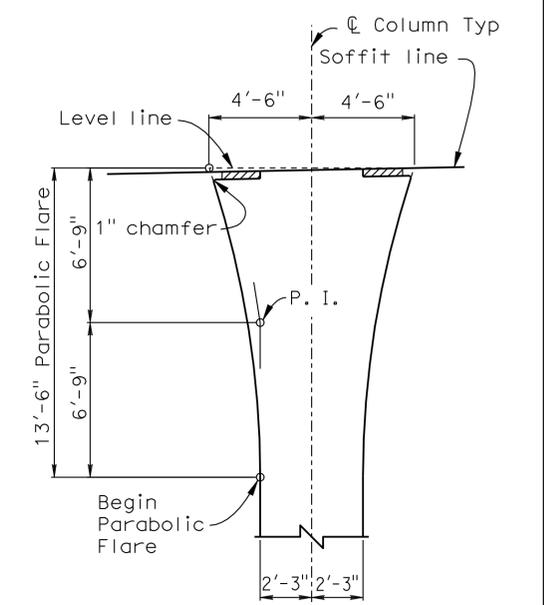
4-25-11
 PLANS APPROVAL DATE

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 CIVIL
 STATE OF CALIFORNIA

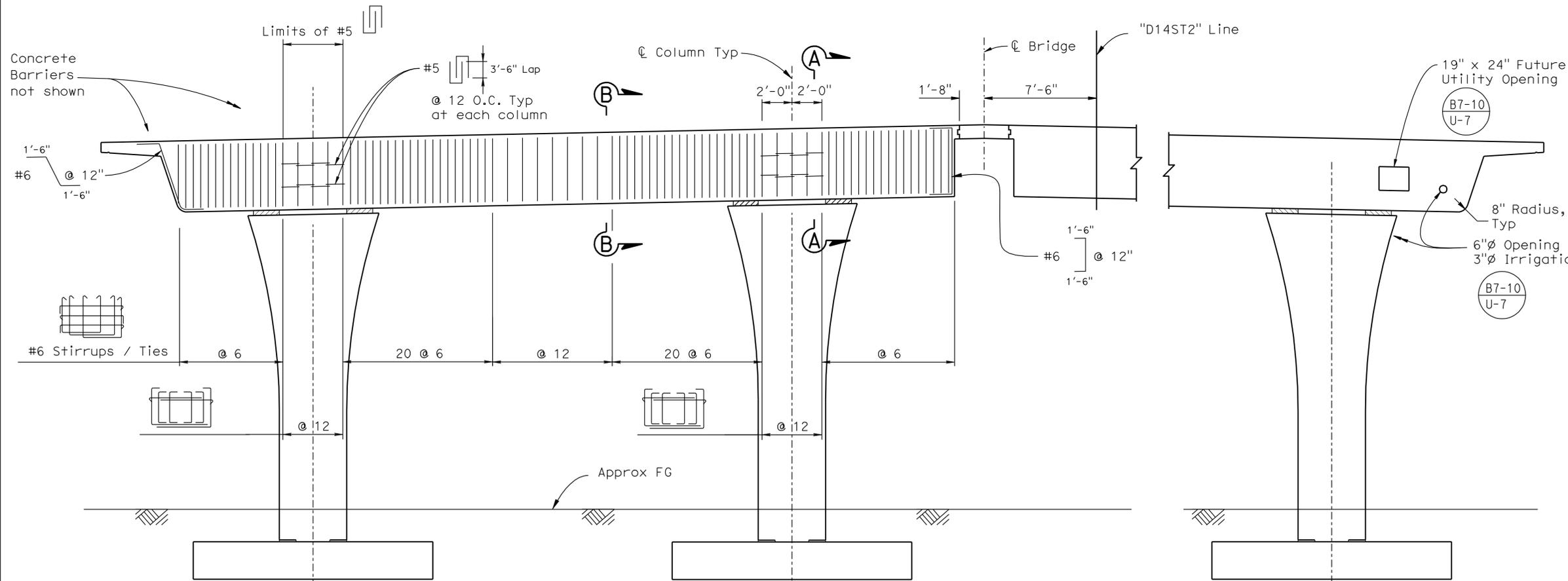
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PLAN
 1/4"=1'-0"



COLUMN GEOMETRICS
 1/4"=1'-0"



ELEVATION
 1/4"=1'-0"

- NOTES:
1. For Section A-A and Section B-B, see "BENT DETAILS NO. 2" sheet.
 2. Place stirrups normal to \O Bent and space along \O Bent.
 3. Use Service Splices for bent cap main bars.
 4. For column and footing details, see "BENT DETAILS NO. 1" sheet.
- ⊗ Indicates bundled rebar

DESIGN	BY	H.Vu	CHECKED	L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0836	14TH STREET OC (REPLACE) BENT LAYOUT	
	DETAILS	BY	D.Wooten/G.Hallstrom	CHECKED			L. WU	POST MILE		20.0
	QUANTITIES	BY	H.Vu	CHECKED			L. WU			

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

CU 08
EA 448401

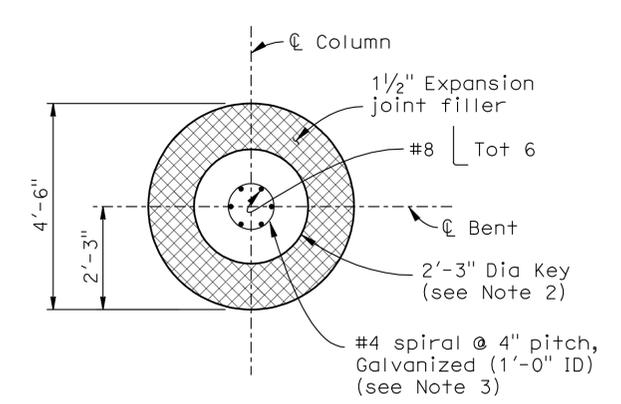
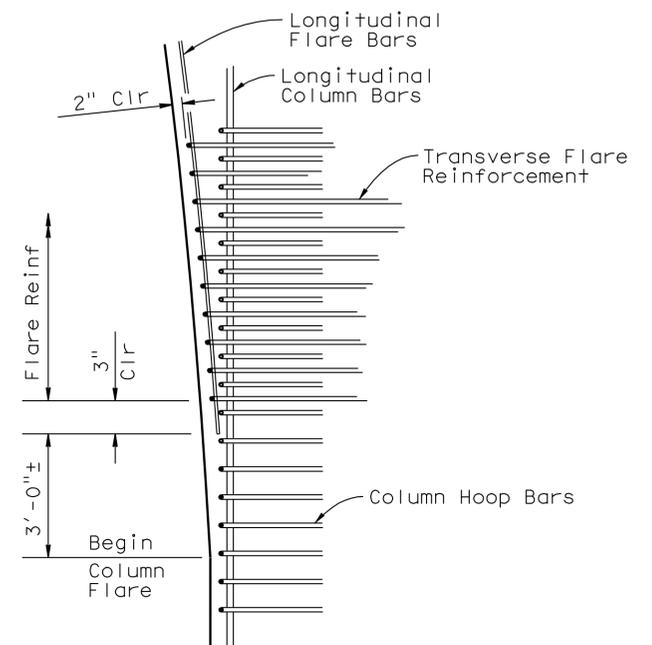
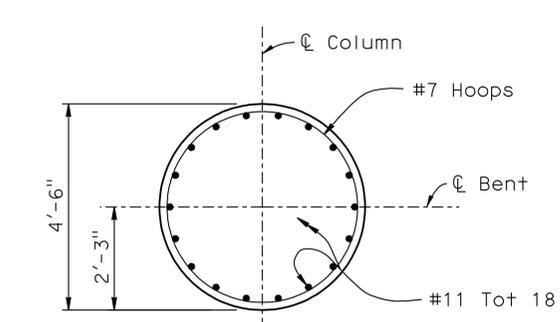
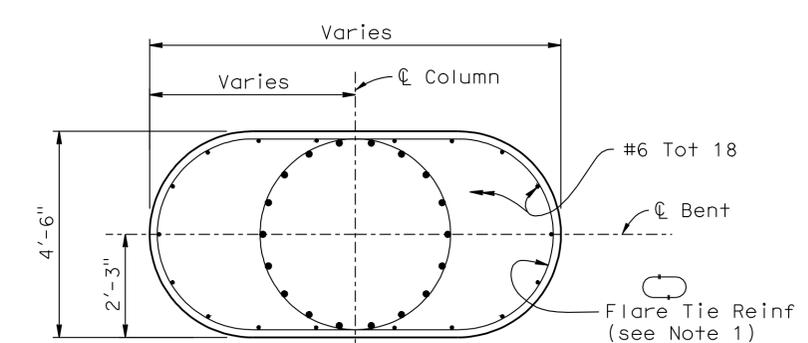
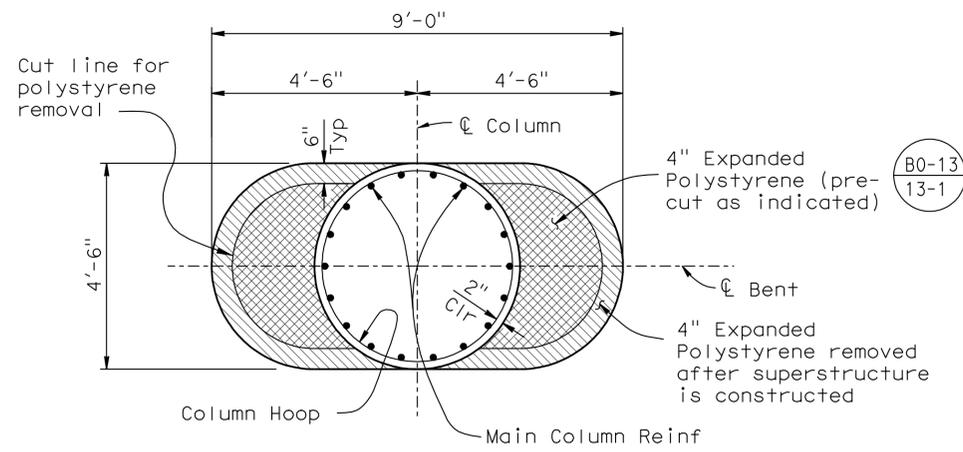
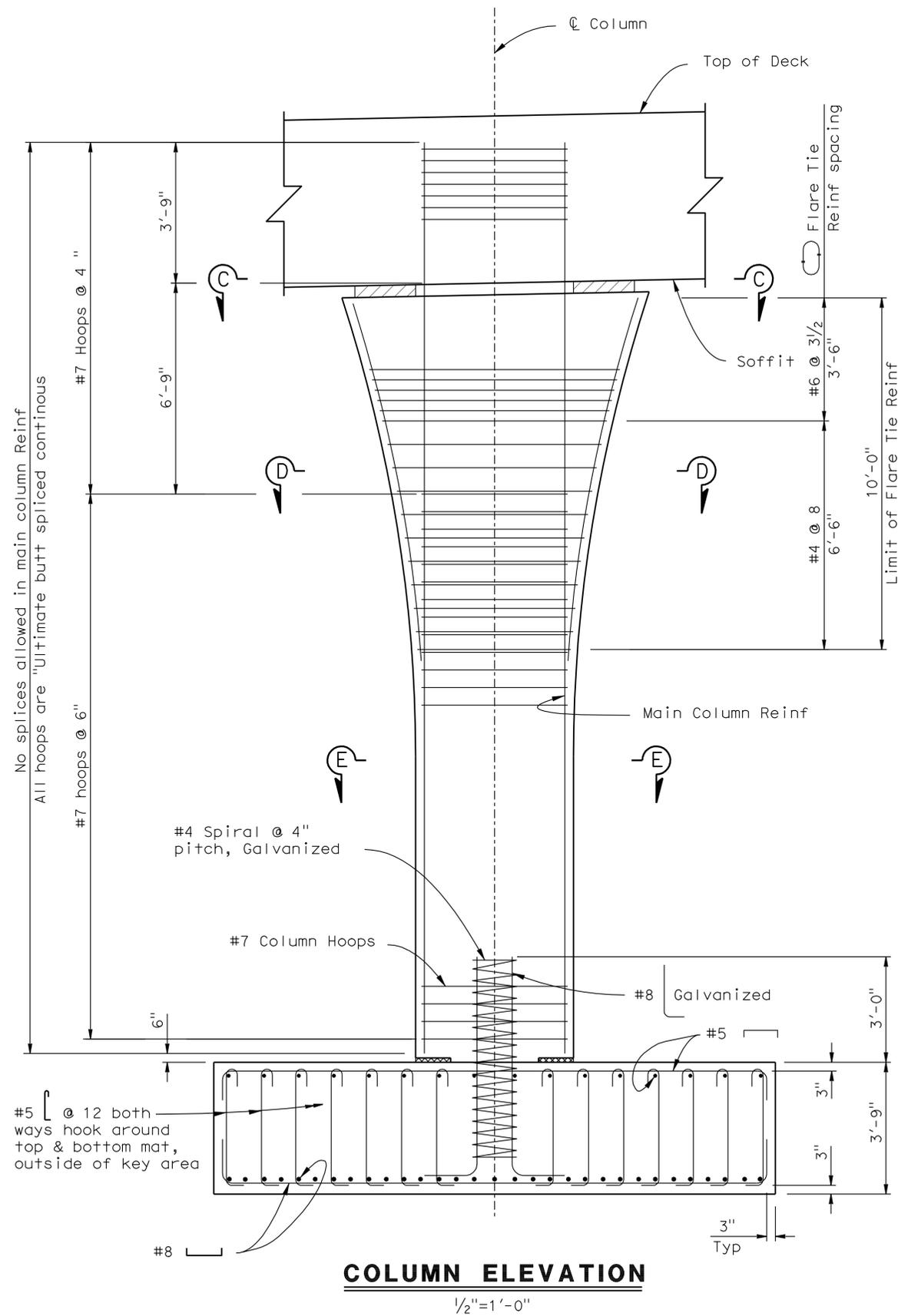
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
7-08-09 9-08-09 2-10-10 3-28-10 10-01-10 11-30-10	11	28

FILE => 560836nb2_1o11.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1827	2028

11-30-10
 REGISTERED CIVIL ENGINEER DATE
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA
 4-25-11
 PLANS APPROVAL DATE
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- NOTES:
1. Service splice Flare Tie Reinforcement, stagger splice location.
 2. Key area shall be roughened to 1/4" amplitude.
 3. Spiral may be discontinuous at top of footing reinforcement.

DESIGN	BY H.VU	CHECKED L. WU
DETAILS	BY D.Wooten	CHECKED L. WU
QUANTITIES	BY H.VU	CHECKED L. WU

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0836
POST MILE	20.0

14TH STREET OC (REPLACE)
BENT DETAILS NO. 1

7-08-09	9-08-09	3-26-10	8-05-10	9-15-10	10-01-10	11-05-10
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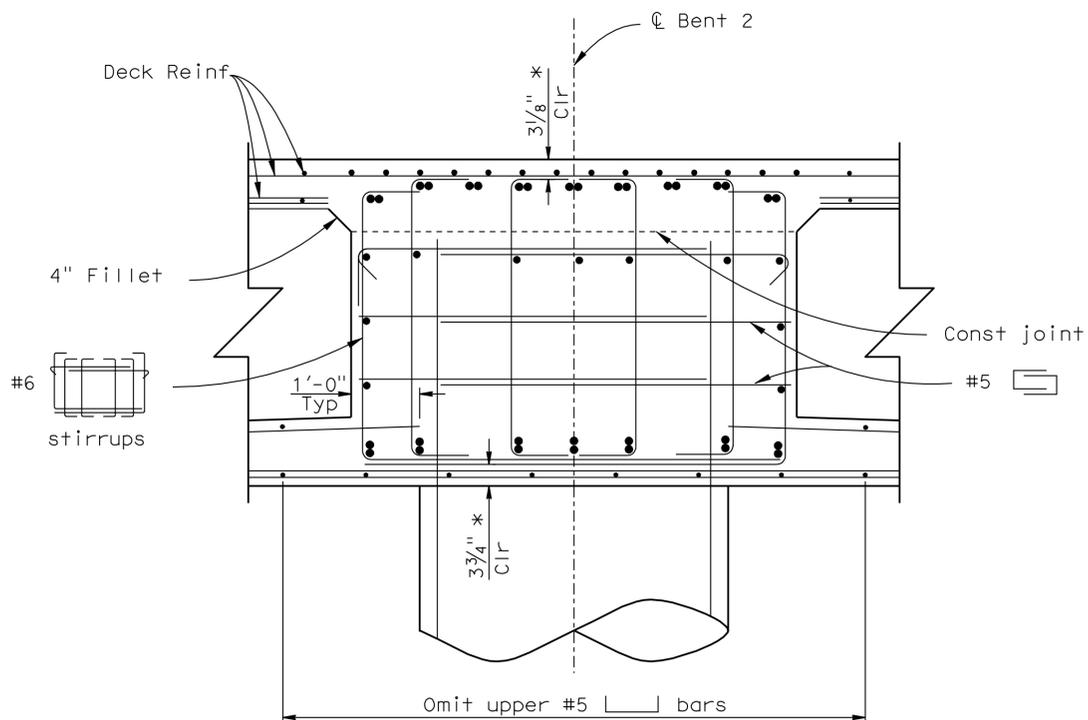
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1828	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

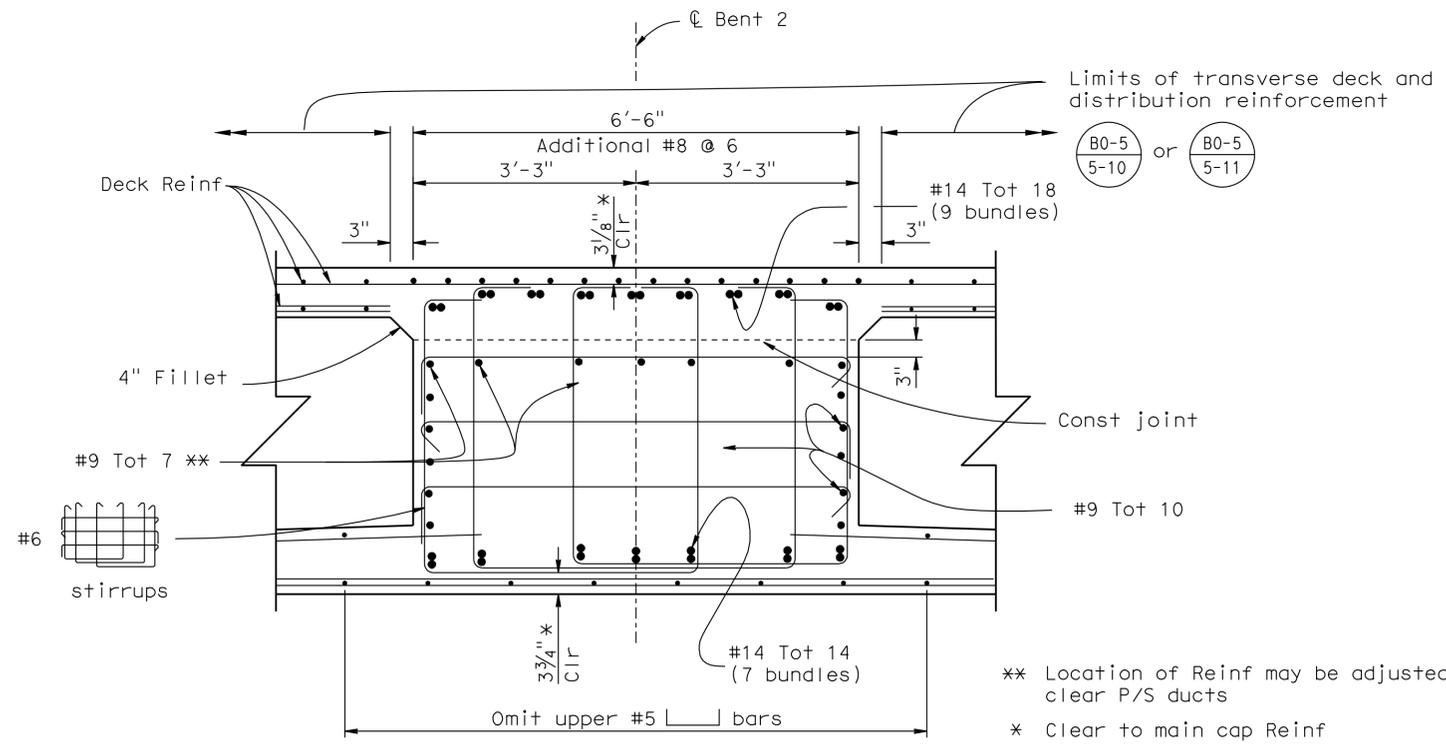
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SECTION A-A

3/4" = 1'-0"

NOTE: For details not shown, see Section B-B



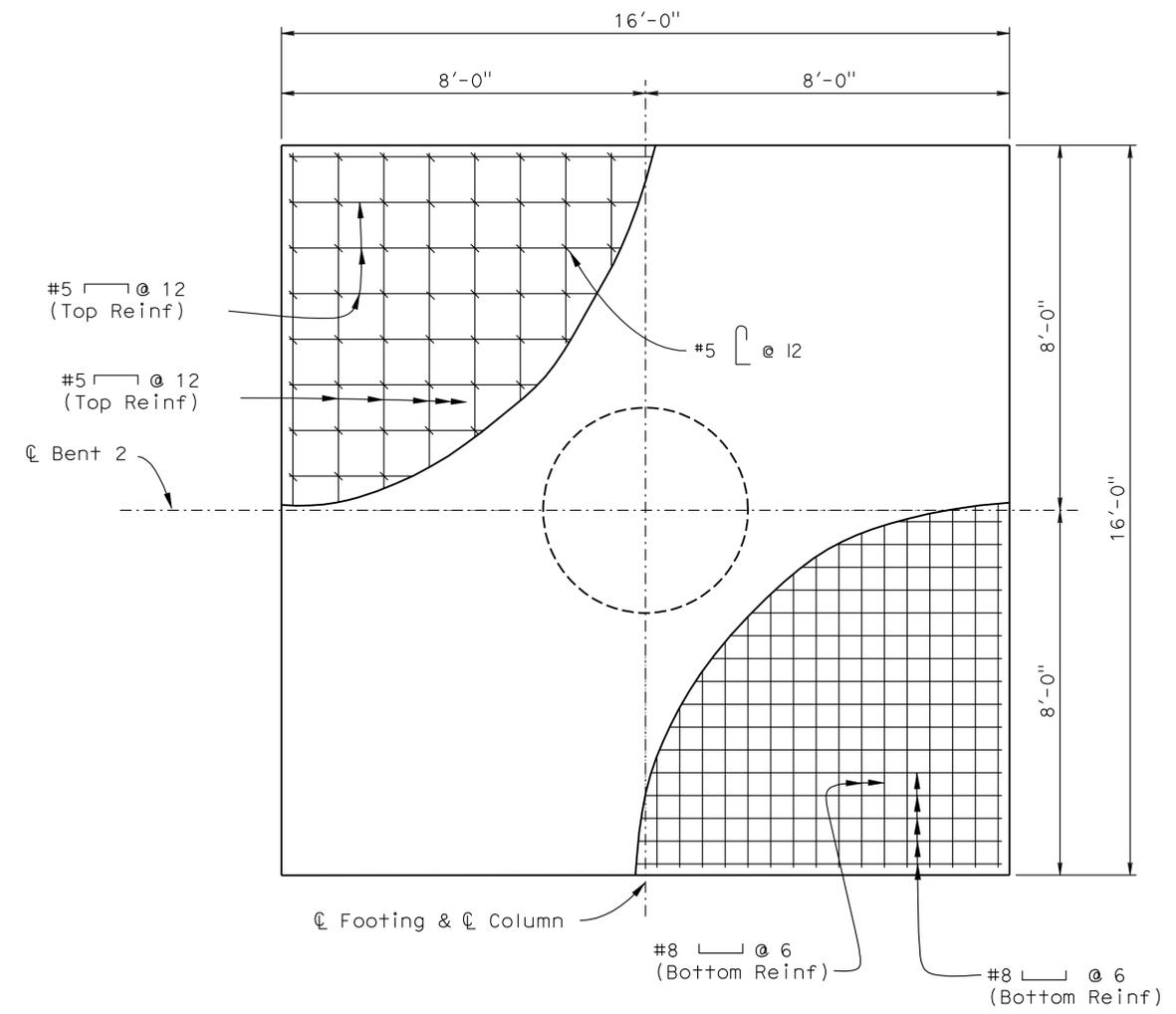
SECTION B-B

3/4" = 1'-0"

** Location of Reinf may be adjusted to clear P/S ducts
* Clear to main cap Reinf

NOTE:

For location of Section A-A and Section B-B, see "BENT LAYOUT" sheet.



FOOTING PLAN

1/2" = 1'-0"

DESIGN	BY H.VU	CHECKED L. WU
DETAILS	BY D.Wooten/G. Hallstrom	CHECKED L. WU
QUANTITIES	BY H.VU	CHECKED L. WU

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0836
POST MILE	20.0

14TH STREET OC (REPLACE)
BENT DETAILS NO. 2

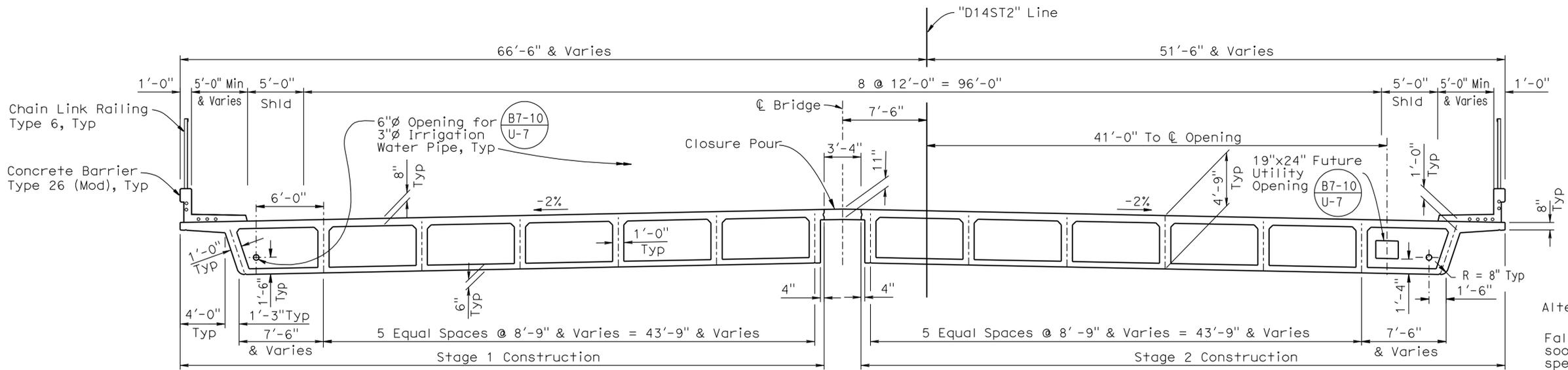
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1829	2028

Huan Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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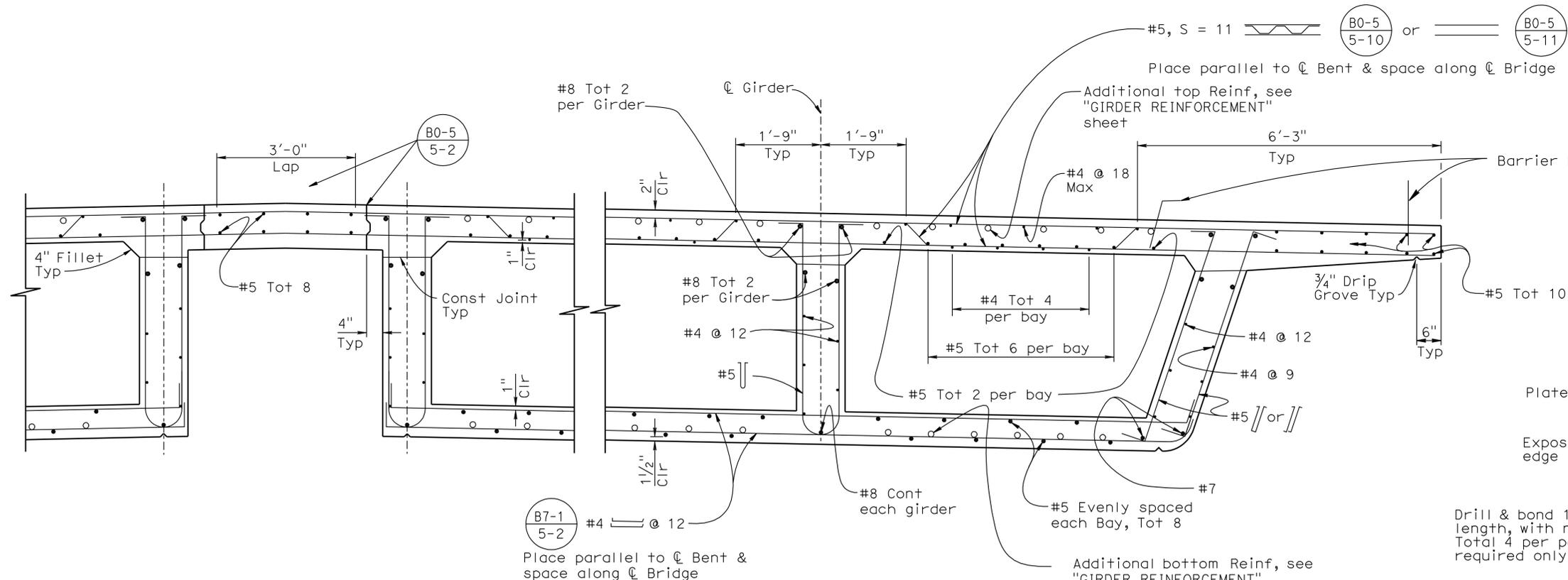


TYPICAL SECTION
3/16" = 1'-0"

FALSEWORK RELEASE (STAGE 2)

Alternative 1:
Falsework shall be released as soon as permitted by the specifications. Closure pour shall not be placed sooner than 60 days after the falsework had been released.

Alternative 2:
Falsework shall not be released less than 28 days after the last concrete has been placed. Closure pour shall not be placed sooner than 14 days after the falsework has been released.
When Falsework Release Alternative 2 is used, camber values are 0.75 times those shown.



PART TYPICAL SECTION
3/4" = 1'-0"

TEMPORARY RAILING TYPE 'K' ATTACHMENT DETAIL

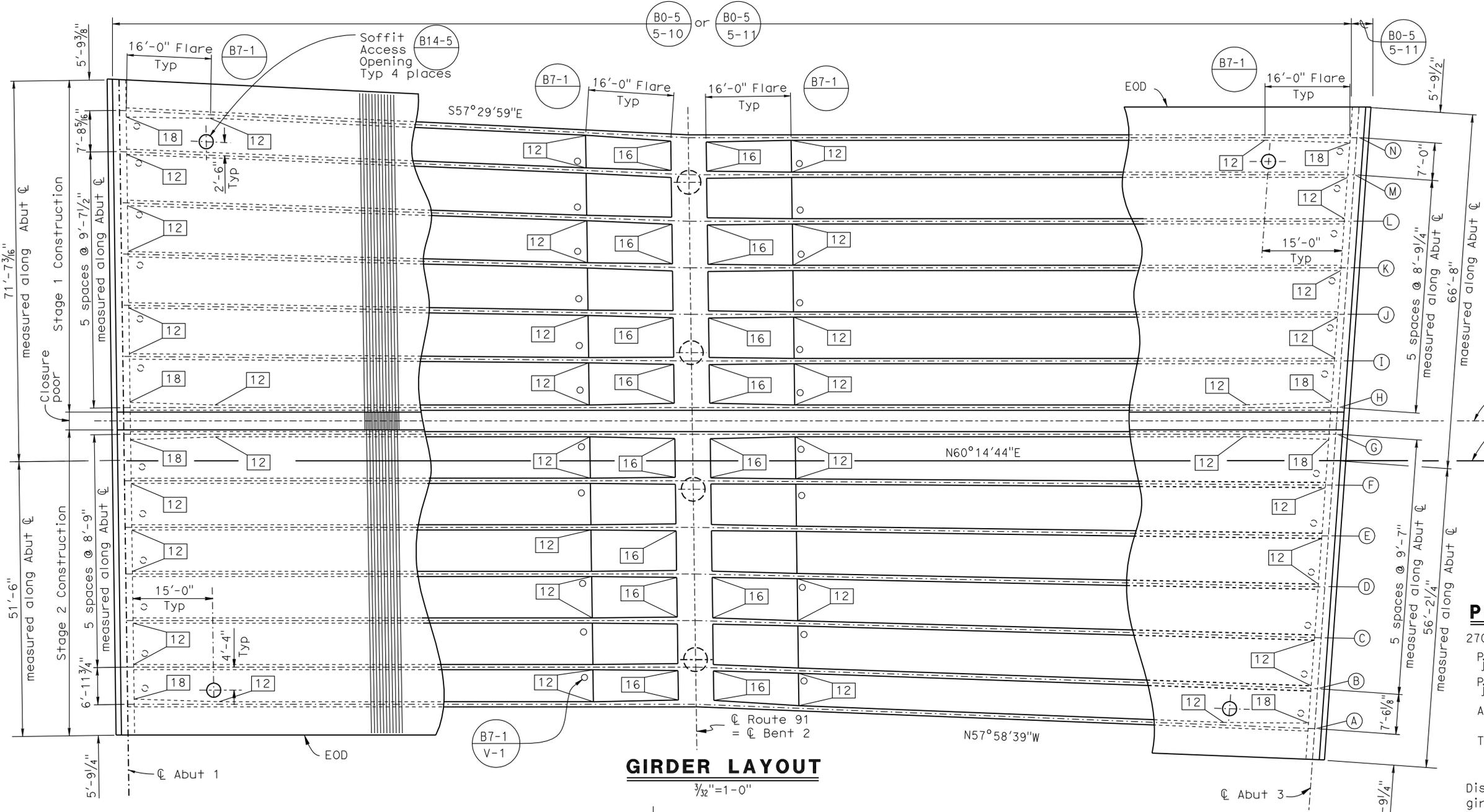
No Scale
See "Temporary Railing (Type K)" for details not shown.

DESIGN	BY	H.Vu	CHECKED	L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0836	14TH STREET OC (REPLACE) TYPICAL SECTION	
	DETAILS	BY	R. Kirkland/G. Hallstrom	CHECKED			L. WU	POST MILE		20.0
	QUANTITIES	BY	H.Vu	CHECKED			L. WU			
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	SHEET 14 OF 28

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1830	2028

11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
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HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA



GIRDER LAYOUT

PRESTRESSING NOTES

270 KSI Low Relaxation Strand:

P_{jack} stage 1 construction = 10,000 kips
 P_{jack} stage 2 construction = 11,000 kips
 Anchor Set = 0.37 in
 Total Number of Girders = 7 Stage 1
 = 7 Stage 2

Distribution of prestress force (P_{jack}) between girders shall not exceed the ratio of 3:2. Maximum final force variation between girders shall not exceed 725 kips.

Concrete: f'_c = 4.0 psi @ 28 days
 f'_{ci} = 3.5 psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at

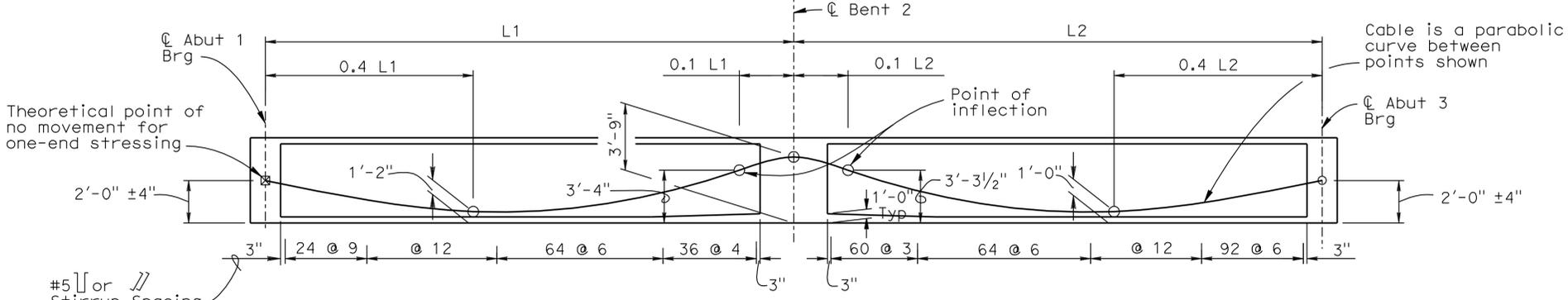
λ = 0.900 times jacking stress.

One end stressing shall be performed from Abutment 3.

Design is based on μ = 0.15
 k = 0.0002 /ft

LEGEND:

Denotes Girder Stem width in inches.

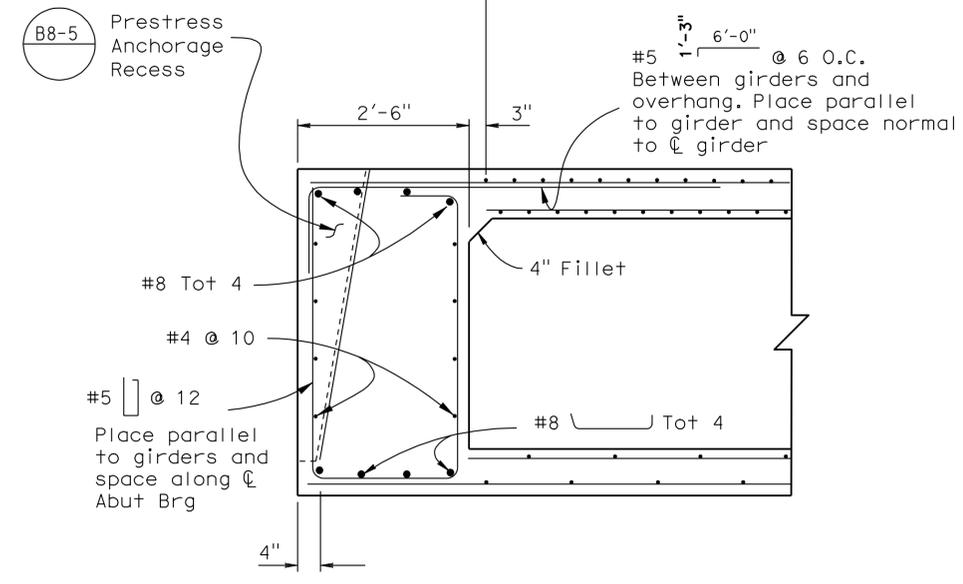
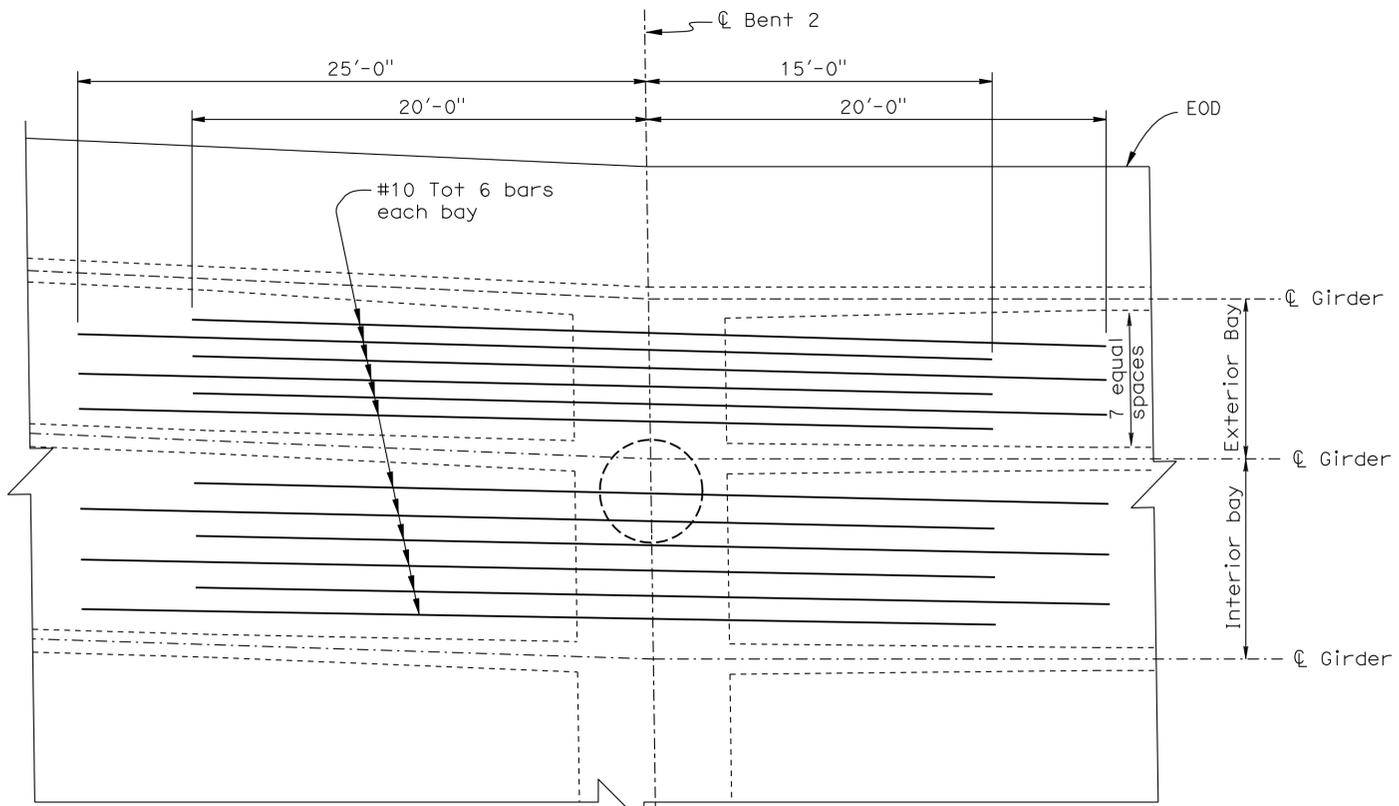


LONGITUDINAL SECTION

DESIGN	BY H.Vu	CHECKED L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0836	14TH STREET OC (REPLACE) GIRDER LAYOUT
DETAILS	BY R. Kirkland/G. Hallstrom	CHECKED L. WU		POST MILE	20.0	
QUANTITIES	BY H.Vu	CHECKED L. WU				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 CU 08 EA 448401
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 7-26-09, 9-28-09, 3-25-10, 10-01-10
 SHEET 15 OF 28

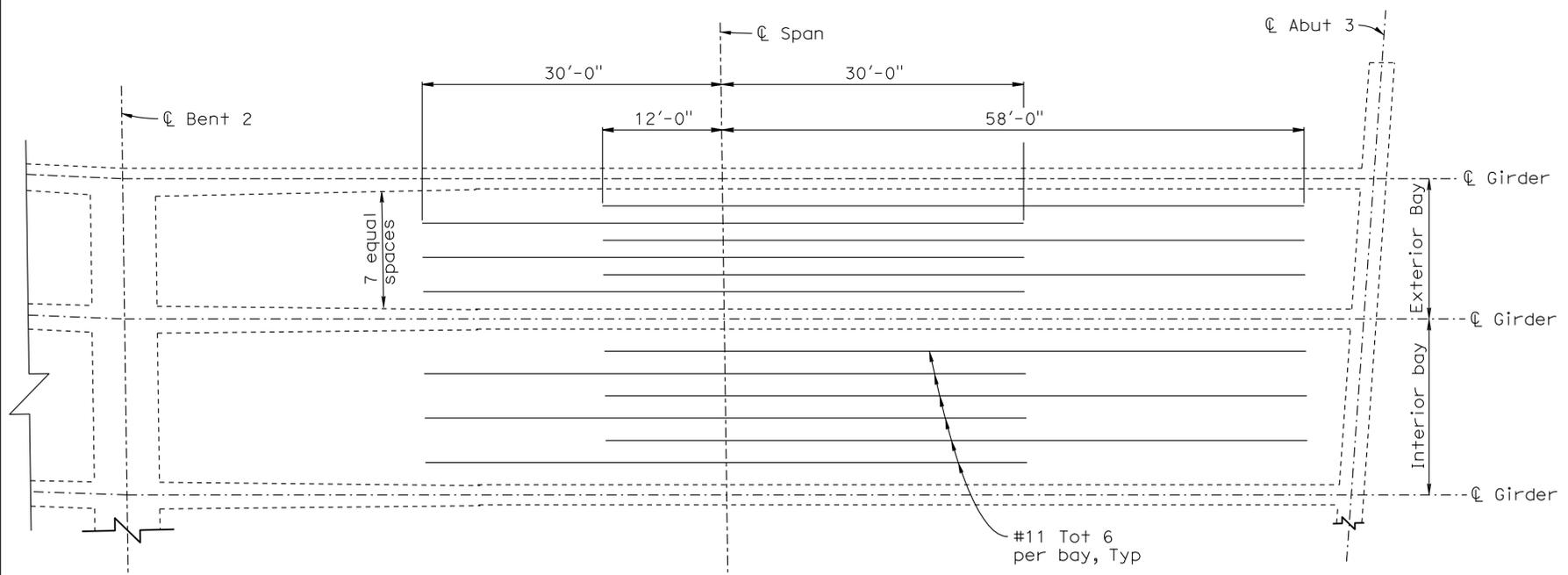
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1831	2028
 REGISTERED CIVIL ENGINEER DATE 11-30-10					
PLANS APPROVAL DATE 4-25-11					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



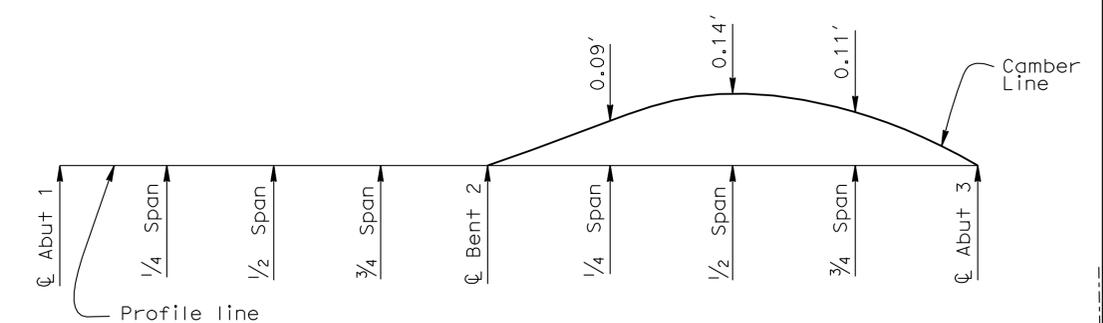
END DIAPHRAGM B8-5
 $\frac{3}{4}'' = 1'-0''$

Note: Stage 1 construction shown. Stage 2 construction similar

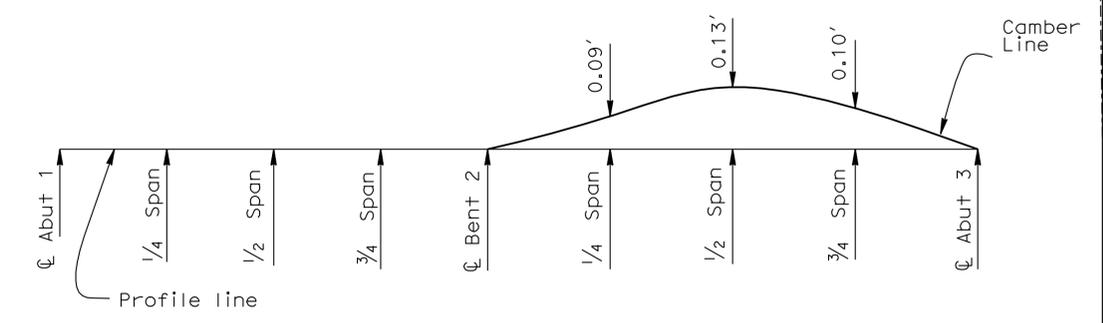
ADDITIONAL TOP GIRDER REINFORCEMENT
 $\frac{1}{4}'' = 1'-0''$



ADDITIONAL BOTTOM GIRDER REINFORCEMENT
 Vertical: $\frac{1}{4}'' = 1'-0''$
 Horizontal: $\frac{1}{8}'' = 1'-0''$



STAGE 2 CONSTRUCTION

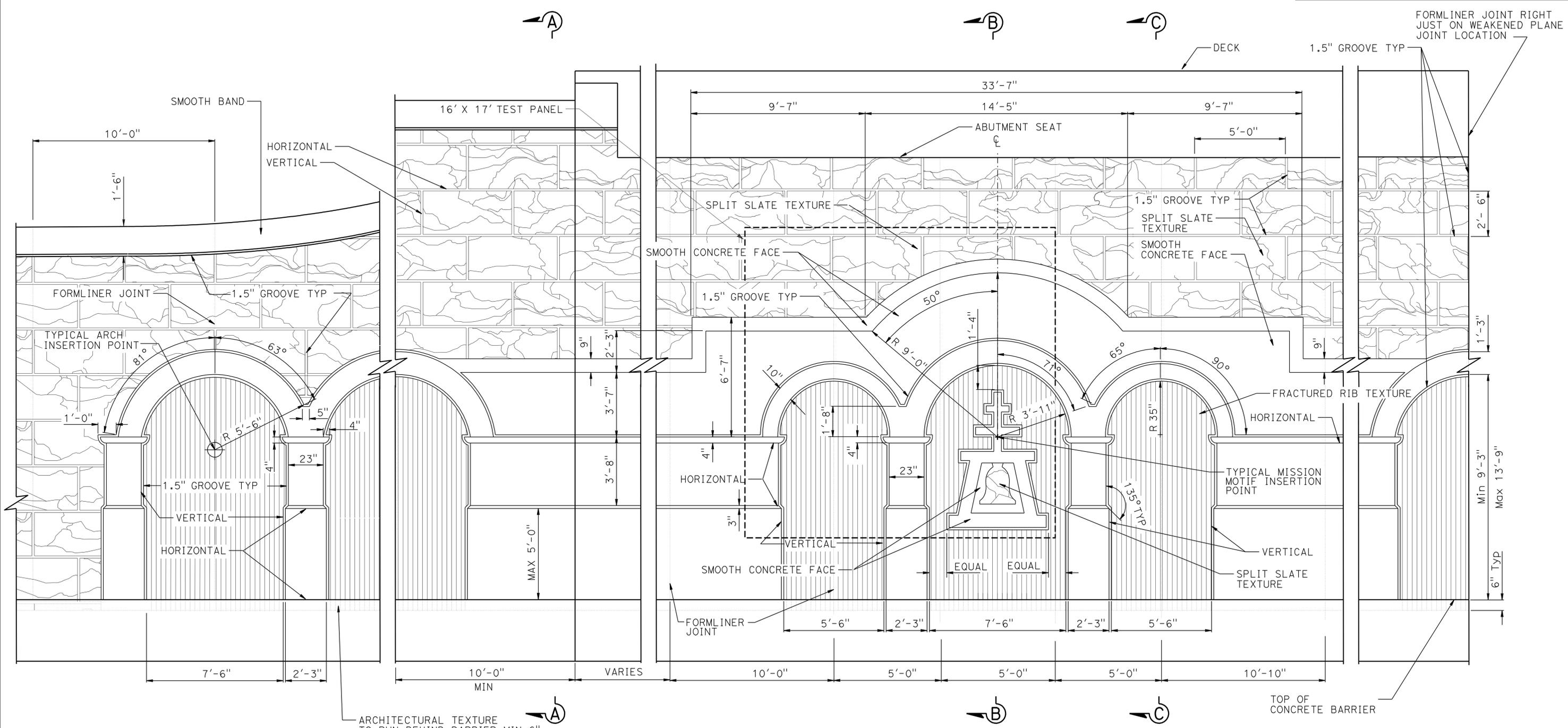


STAGE 1 CONSTRUCTION

Note: Camber does not include allowance for falsework settlement

CAMBER DIAGRAM
 No Scale

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY H.Vu	CHECKED L. WU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0836	14TH STREET OC (REPLACE) GIRDER REINFORCEMENT	
	DETAILS	BY D.Wooten/G.Hallstrom	CHECKED L. WU			POST MILE	20.0		
	QUANTITIES	BY H.Vu	CHECKED L. WU						
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES			REVISION DATES 7-08-09 9-03-09	SHEET 16 OF 28



TYPICAL MISSION MOTIF ELEVATION

$\frac{3}{8}'' = 1'-0''$

FRACTURED RIB/SPLIT SLATE TEXTURE

14TH STREET OC (REPLACE)

ARCHITECTURAL DETAILS NO. 1

DESIGN	BY M. Hall	CHECKED M. Bishop
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED M. Bishop
QUANTITIES	BY H. Vu	CHECKED L. Wu

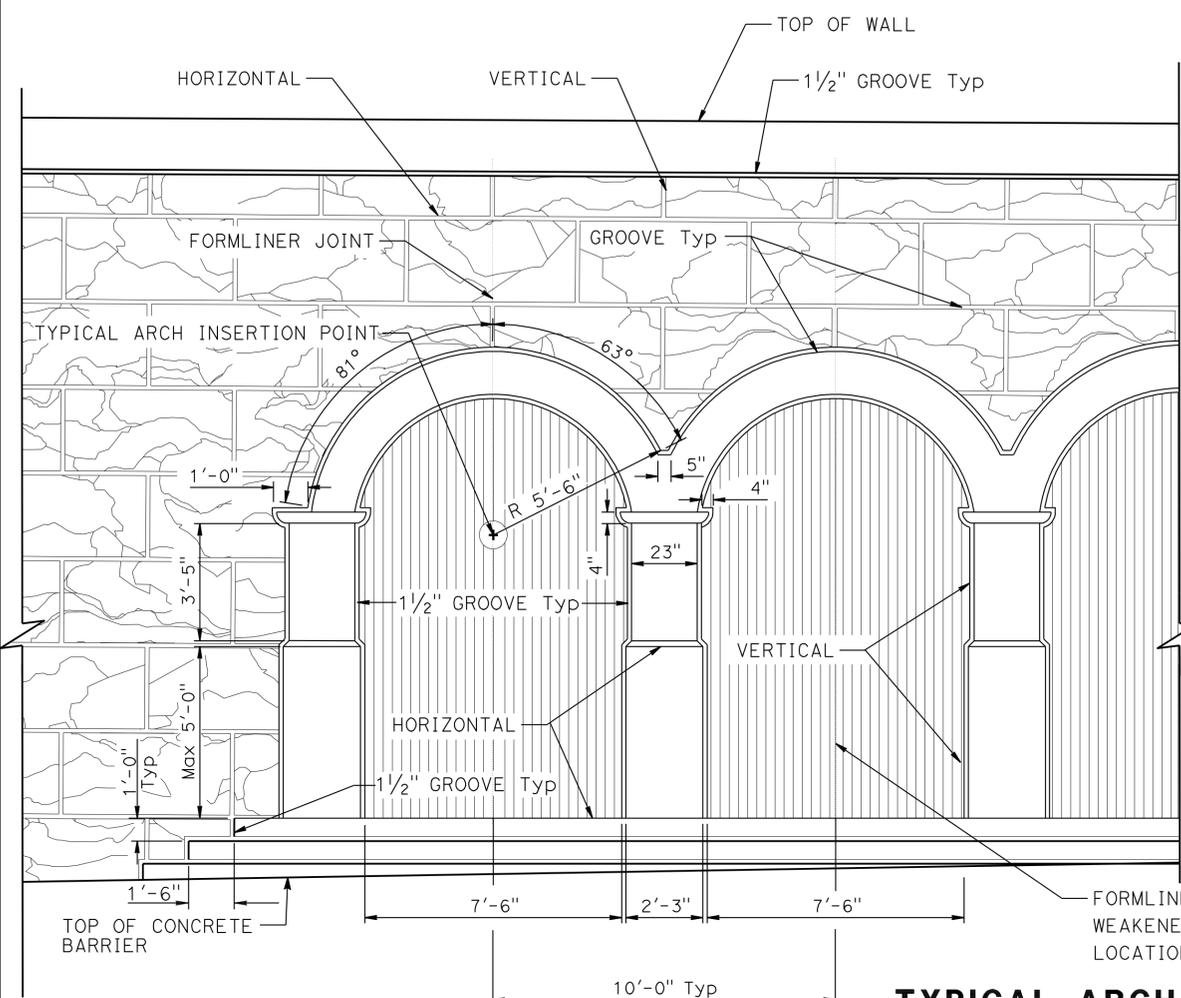
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0836
 POST MILE 20.0

USERNAME => frcgcoi DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 14:02

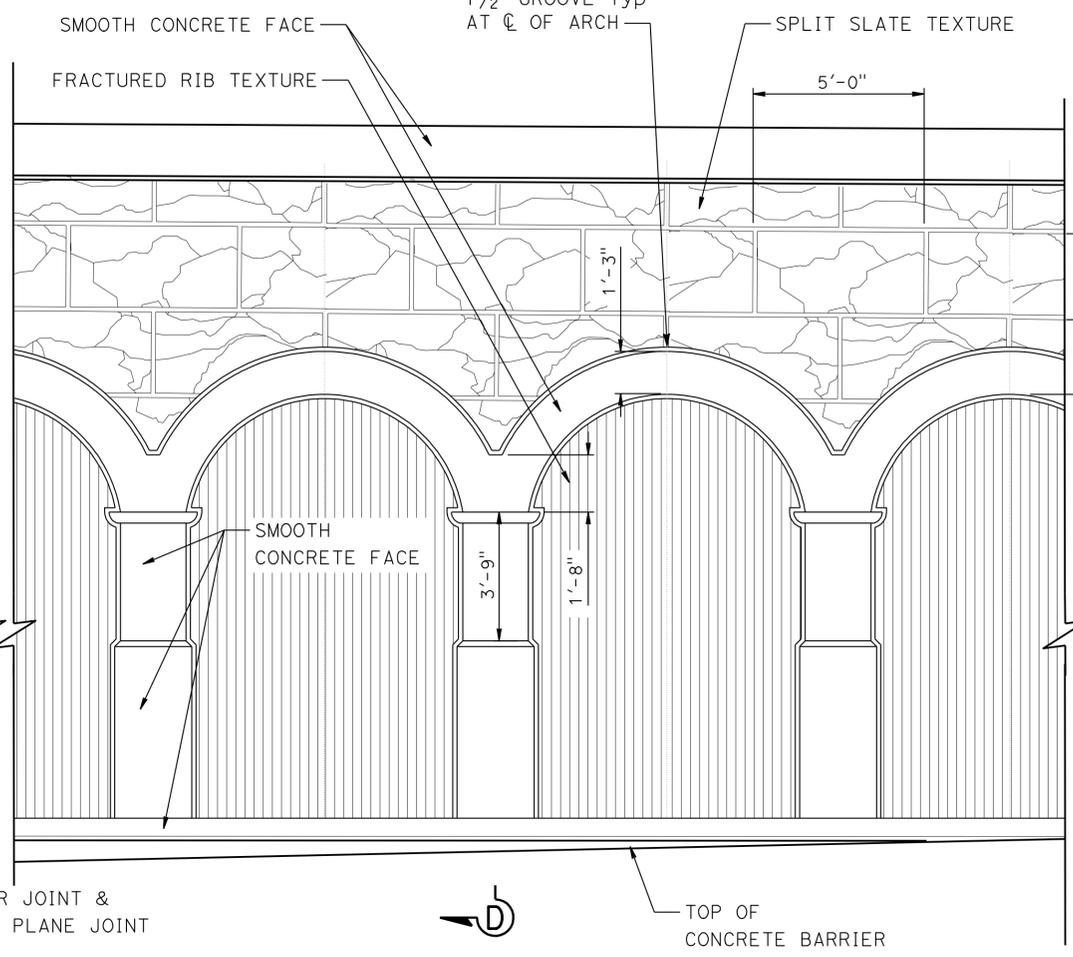
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1833	2028

11-30-10
 LICENSED LANDSCAPE ARCHITECT
 4-25-11
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



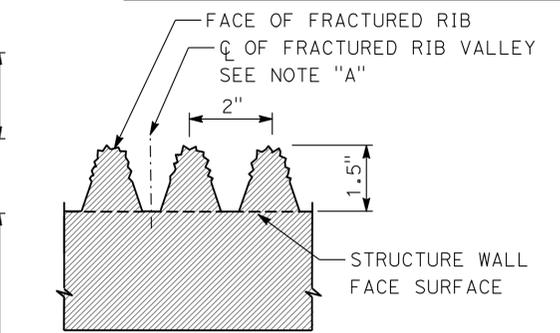
TYPICAL ARCH DETAIL

$\frac{3}{8}'' = 1' - 0''$



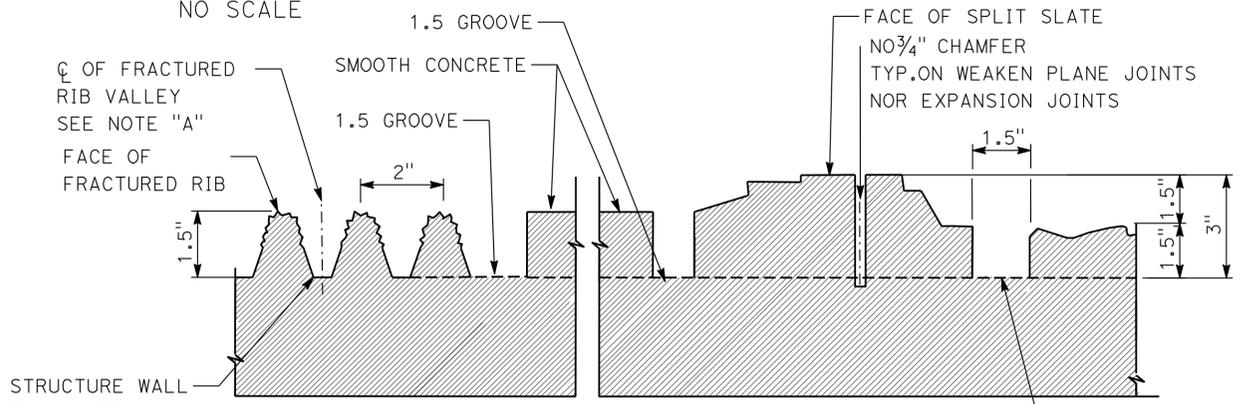
TYPICAL FRACTURED RIB TEXTURE

NO SCALE



TYPICAL SPLIT SLATE TEXTURE

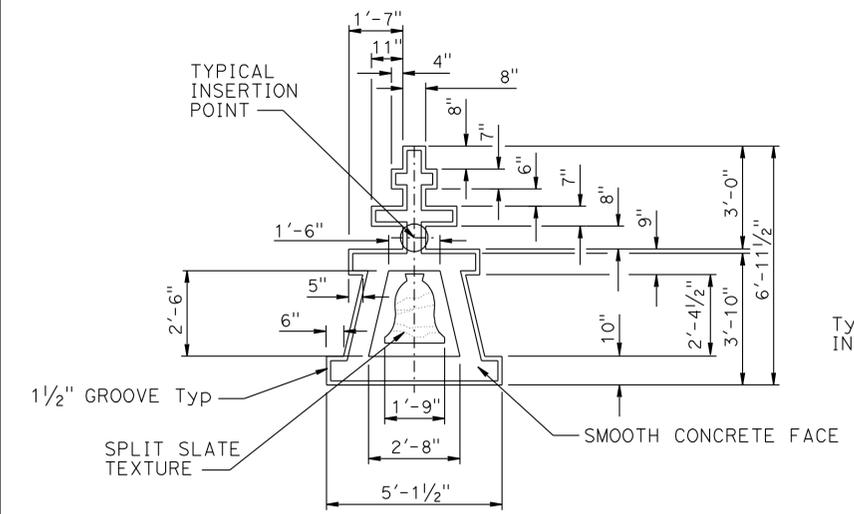
NO SCALE



TYPICAL FRACTURED RIB WITH SPLIT SLATE TEXTURE

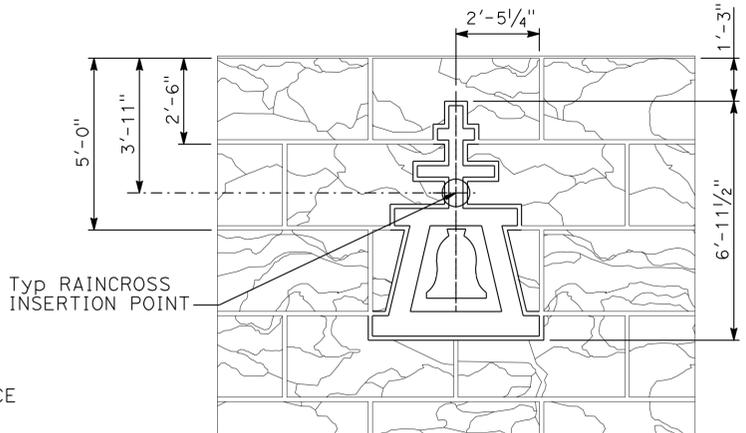
NO SCALE

NOTE "A"
PERMITTED LOCATION OF WEAKEN PLANE AND EXPANSION JOINTS



TYPICAL RAINCROSS DETAIL

$\frac{3}{8}'' = 1' - 0''$



TYPICAL RAINCROSS DETAIL / SPLIT SLATE TEXTURE

$\frac{3}{8}'' = 1' - 0''$

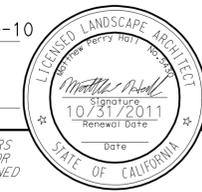
DESIGN	BY M. Hall	CHECKED M. Bishop
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED M. Bishop
QUANTITIES	BY H. Vu	CHECKED L. Wu

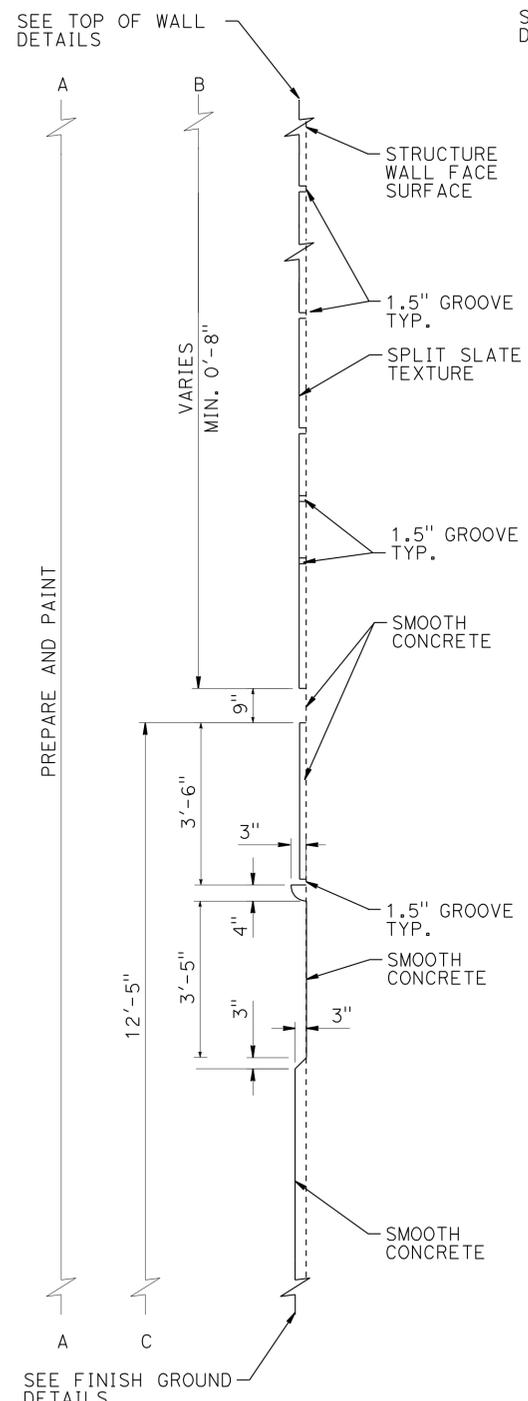
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

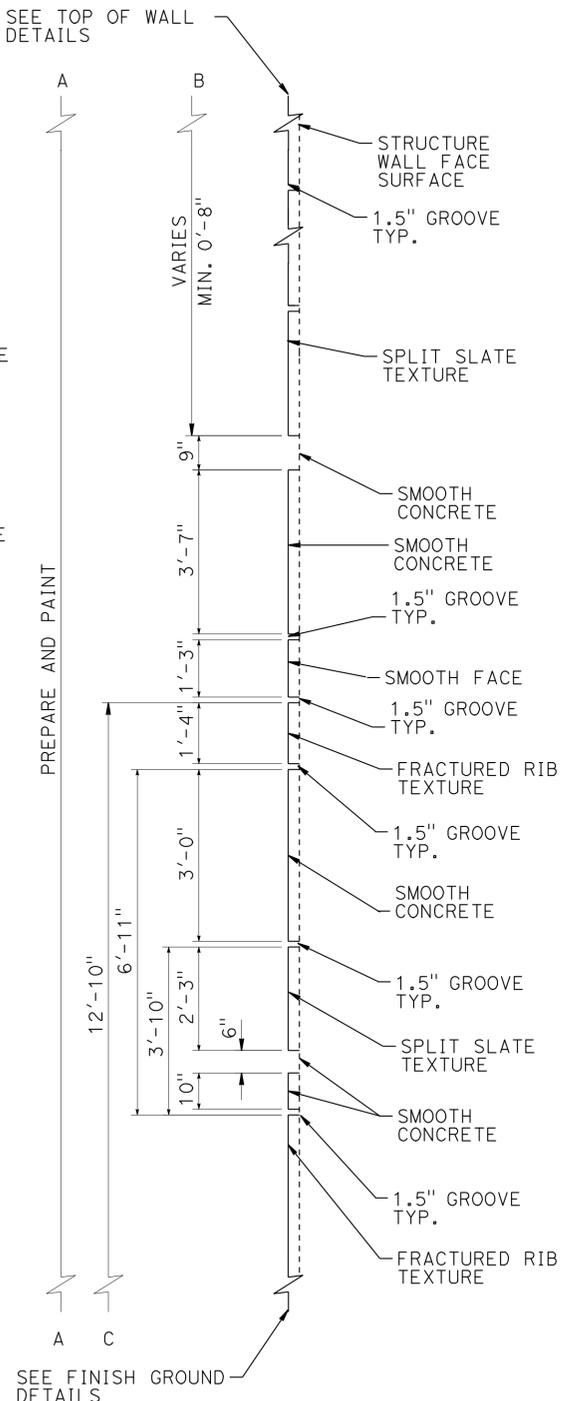
BRIDGE NO. 56-0836
POST MILE 20.0

FRACTURED RIB / SPLIT SLATE TEXTURE
14TH STREET OC (REPLACE)
ARCHITECTURAL DETAILS NO. 2

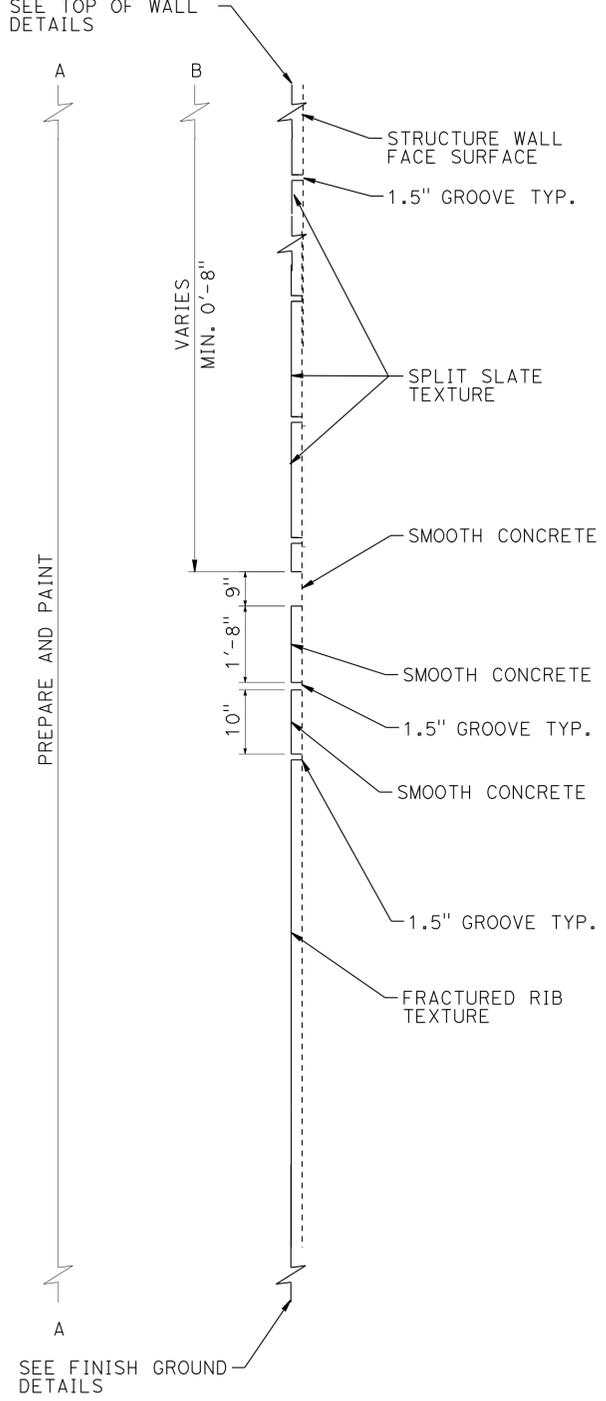
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1834	2028
 11-30-10 LICENSED LANDSCAPE ARCHITECT					
4-25-11 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



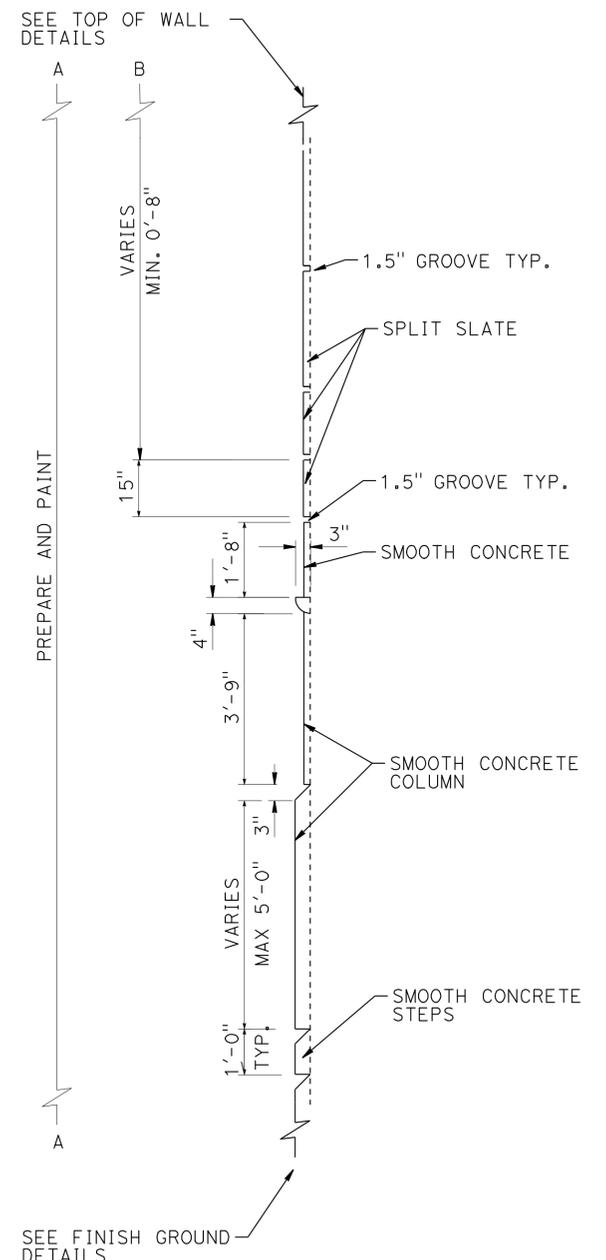
SECTION A-A



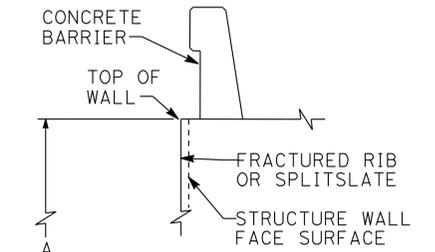
SECTION B-B



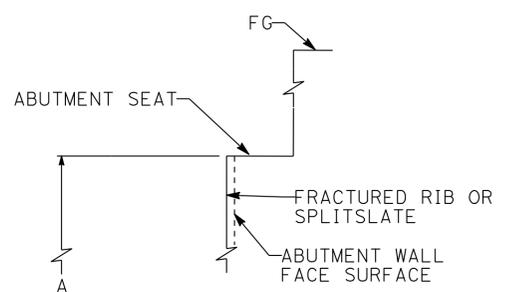
SECTION C-C



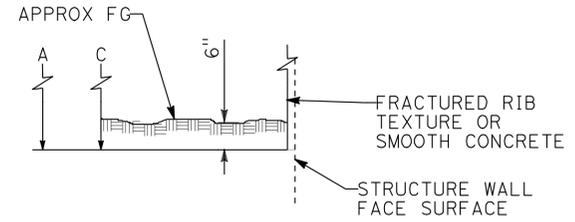
SECTION D-D



TOP OF WALL DETAIL TYPICAL W/ CONC BARRIER
NO SCALE



TOP OF ABUTMENT WALL DETAIL TYPICAL BRIDGE SOFFIT
NO SCALE

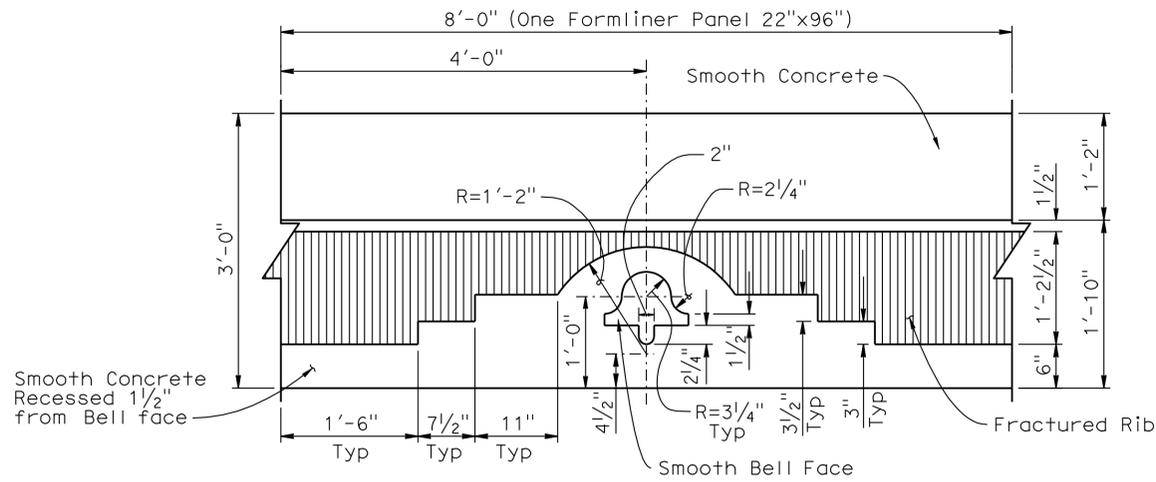


FINISH GROUND DETAIL TYPICAL AT FINISH GRADE
NO SCALE

FRACTURED RIB/ SPLIT SLATE TEXTURE
14TH STREET OC (REPLACE)
ARCHITECTURAL DETAILS NO. 3

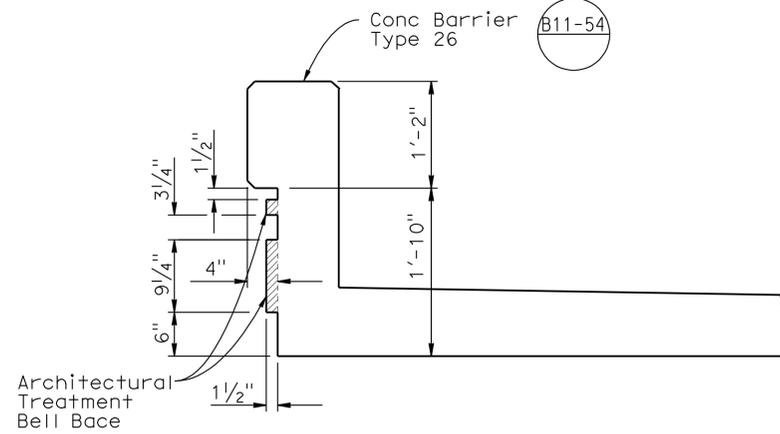
DESIGN	BY M. Hall	CHECKED M. Bishop	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	56-0836
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED M. Bishop			POST MILE	20.0
QUANTITIES	BY H. Vu	CHECKED L. Wu				

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1835	2028
 11-30-10 LICENSED LANDSCAPE ARCHITECT					
4-25-11 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



DETAIL "A"

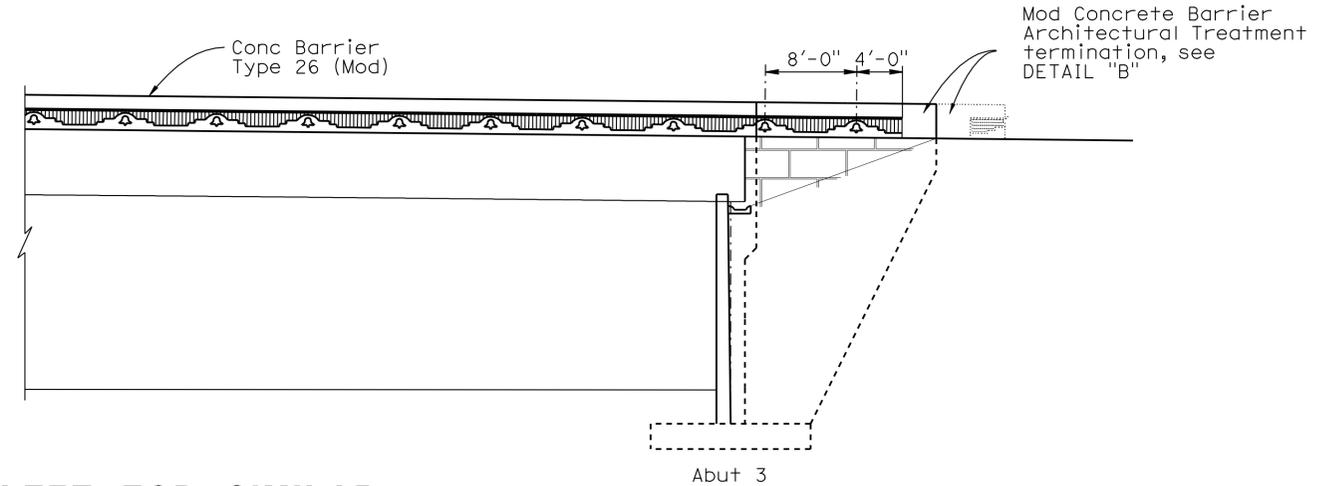
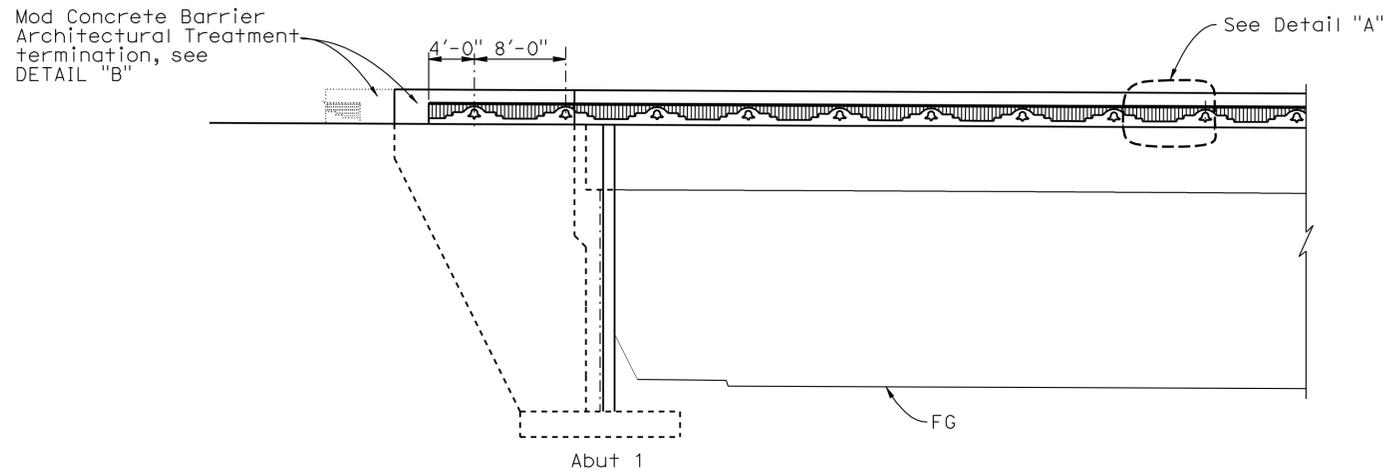
1"=1'-0"



SECTION AT CENTER OF PANEL-BELL

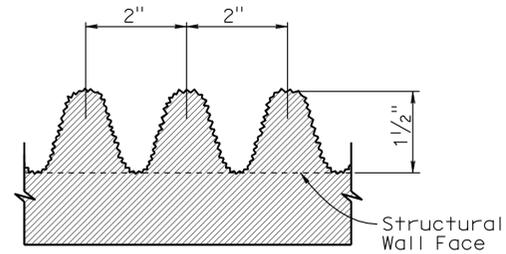
1"=1'-0"

CONCRETE BARRIER TYPE 26 (MOD)



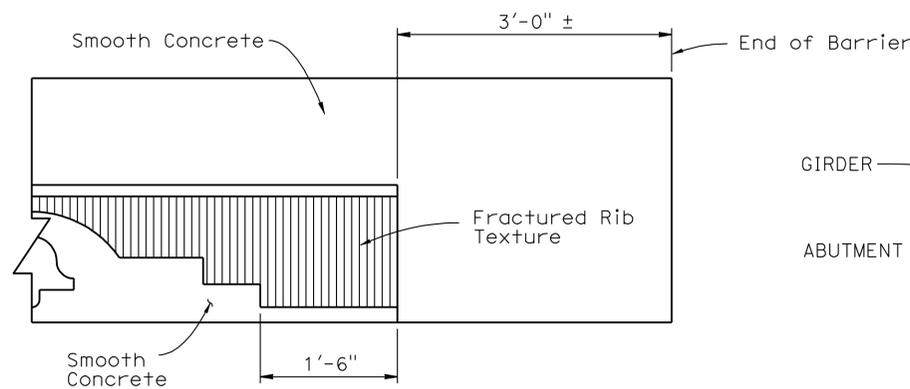
ELEVATION - RIGHT EOD, LEFT EOD SIMILAR

1/8"=1'-0"



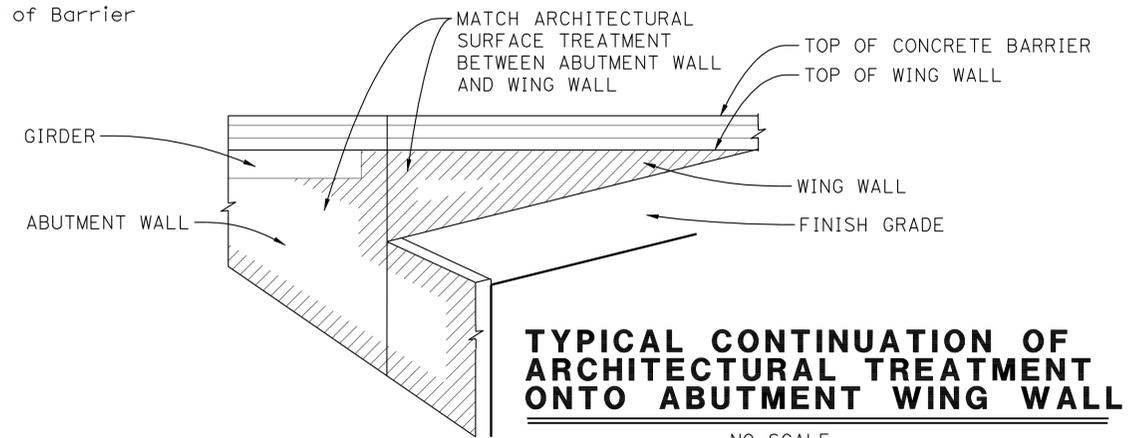
FRACTURED RIB TEXTURE (TYP)

No Scale



DETAIL "B"

1"=1'-0"



TYPICAL CONTINUATION OF ARCHITECTURAL TREATMENT ONTO ABUTMENT WING WALL

NO SCALE

DESIGN	BY M. Hall	CHECKED M. Bishop
DETAILS	BY G. Hallstrom	CHECKED M. Bishop
QUANTITIES	BY H. Vu	CHECKED L. Wu

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH **10**

BRIDGE NO.	56-0836
POST MILE	20.0

14TH STREET OC (REPLACE)
ARCHITECTURAL DETAILS NO. 4

BENCHMARK

2" BR DISK STMPD:
 "CALIF DEPT OF TRANSPORTATION
 RIV91-20.13 1990"
 ELEV. 850.53 ft
 N2300331.765
 E6221340.521
 NAVD 88.

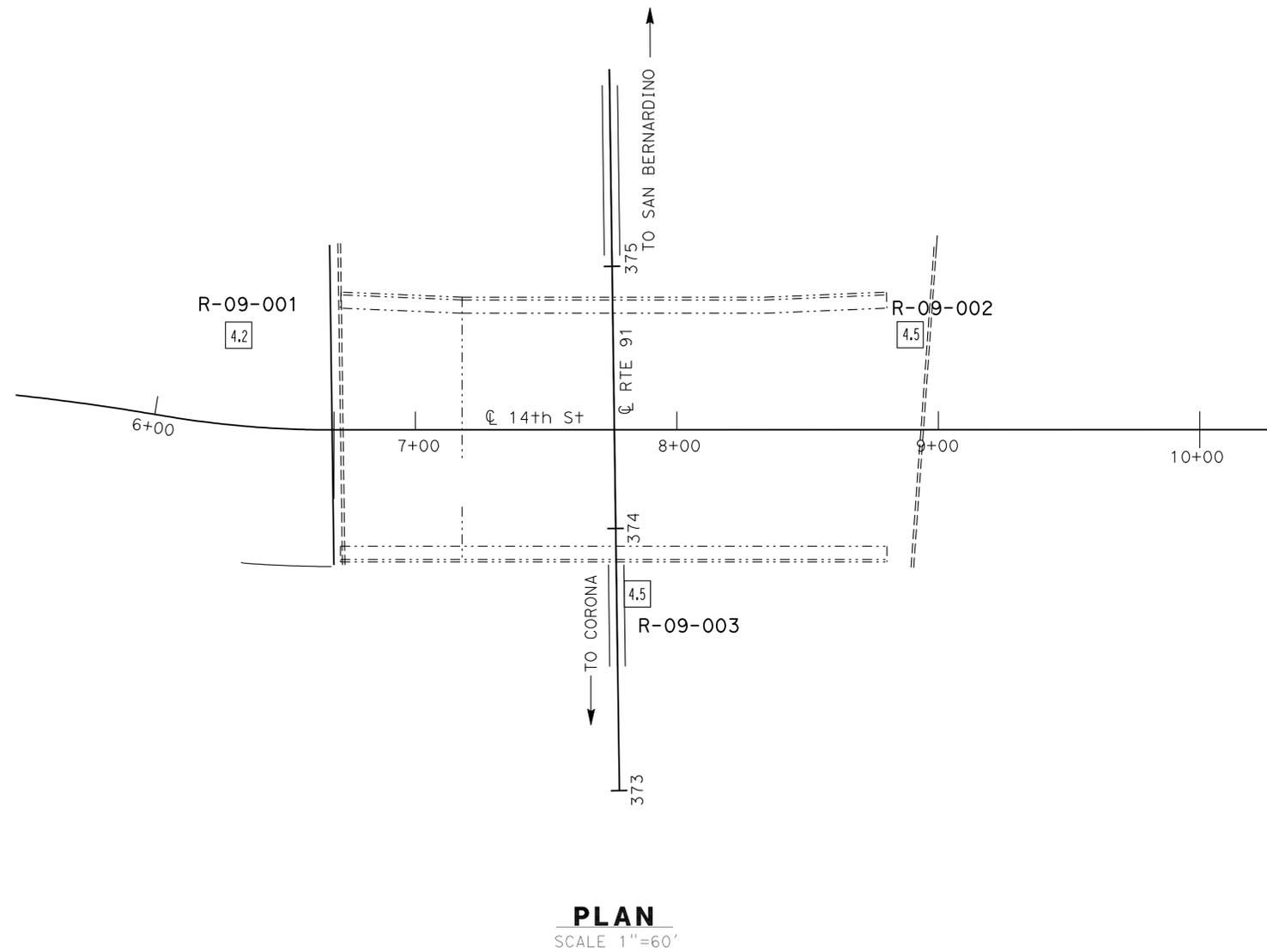
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1837	2028

Farid Motamed 04-26-10
 REGISTERED ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
 No. 2738
 Exp. 6/30/11
 REGISTERED PROFESSIONAL ENGINEER
 FARID MOTAMED
 No. 2738
 Exp. 6/30/11
 GEOTECHNICAL
 STATE OF CALIFORNIA
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CALIFORNIA DEPARTMENT OF TRANSPORTATION
 5900 FOLSOM BOULEVARD
 SACRAMENTO, CA 95819

URS CORPORATION
 2020 EAST FIRST STREET, SUITE 400
 SANTA ANA, CA 92705

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (June 2007).



NOTES:

- BORINGS R-09-001, R-09-002, AND R-09-003 WERE BACKFILLED WITH BENTONITE CHIPS AND CAPPED WITH COLD PATCH ASPHALT OR CEMENT GROUT.
- NO ATTEMPT WAS MADE TO MEASURE THE GROUNDWATER IN BORINGS R-09-001, R-09-002, AND R-09-003.
- PENETRATION INDEX VALUE DESIGNATED AS "REF" MEANS SAMPLER REFUSAL.

PLAN
 SCALE 1"=60'

M. DESALVATORE DESIGN OVERSIGHT	DRAWN BY	P. QUACH	L. ROEBUCK/P. NARANJO FIELD INVESTIGATION BY: DATE: FEB 09 2009 to FEB 19 2009	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	F. MOTAMED PROJECT ENGINEER	BRIDGE NO.	56-0836	14TH STREET OC (REPLACE)		
	SIGN OFF DATE	CHECKED BY				S. PIRATHIVIRAJ/P.YERRA	POST MILES		20.0	LOG OF TEST BORINGS SHEET 1 OF 7
06S GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 06-01-09)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	CU EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	04-26-10	REVISION DATES	SHEET 22 OF 28

USERNAME => frcgr01 DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:55

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1838	2028

REGISTERED ENGINEER Farid Motamed DATE 04-26-10
 PLANS APPROVAL DATE 4-25-11
 No. 2738
 Exp. 6/30/11
 STATE OF CALIFORNIA
 GEOTECHNICAL

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 7

CALIFORNIA DEPARTMENT OF TRANSPORTATION
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 SACRAMENTO, CA 95819
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 SANTA ANA, CA 92705

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M. DESALVATORE DESIGN OVERSIGHT	DRAWN BY P. QUACH	L. ROEBUCK/P. NARANJO FIELD INVESTIGATION BY:	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	F. MOTAMED PROJECT ENGINEER	BRIDGE NO. 56-0836	14TH STREET OC (REPLACE) LOG OF TEST BORINGS SHEET 2 OF 7
SIGN OFF DATE	CHECKED BY S. PIRATHIVIRAJ/P.YERRA	DATE: FEB 09 2009 to FEB 19 2009	CU EA 448401	POST MILES 20.0	REVISION DATES	
06S GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 06-01-09)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 23 OF 28

USERNAME => frcgr01 DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:55

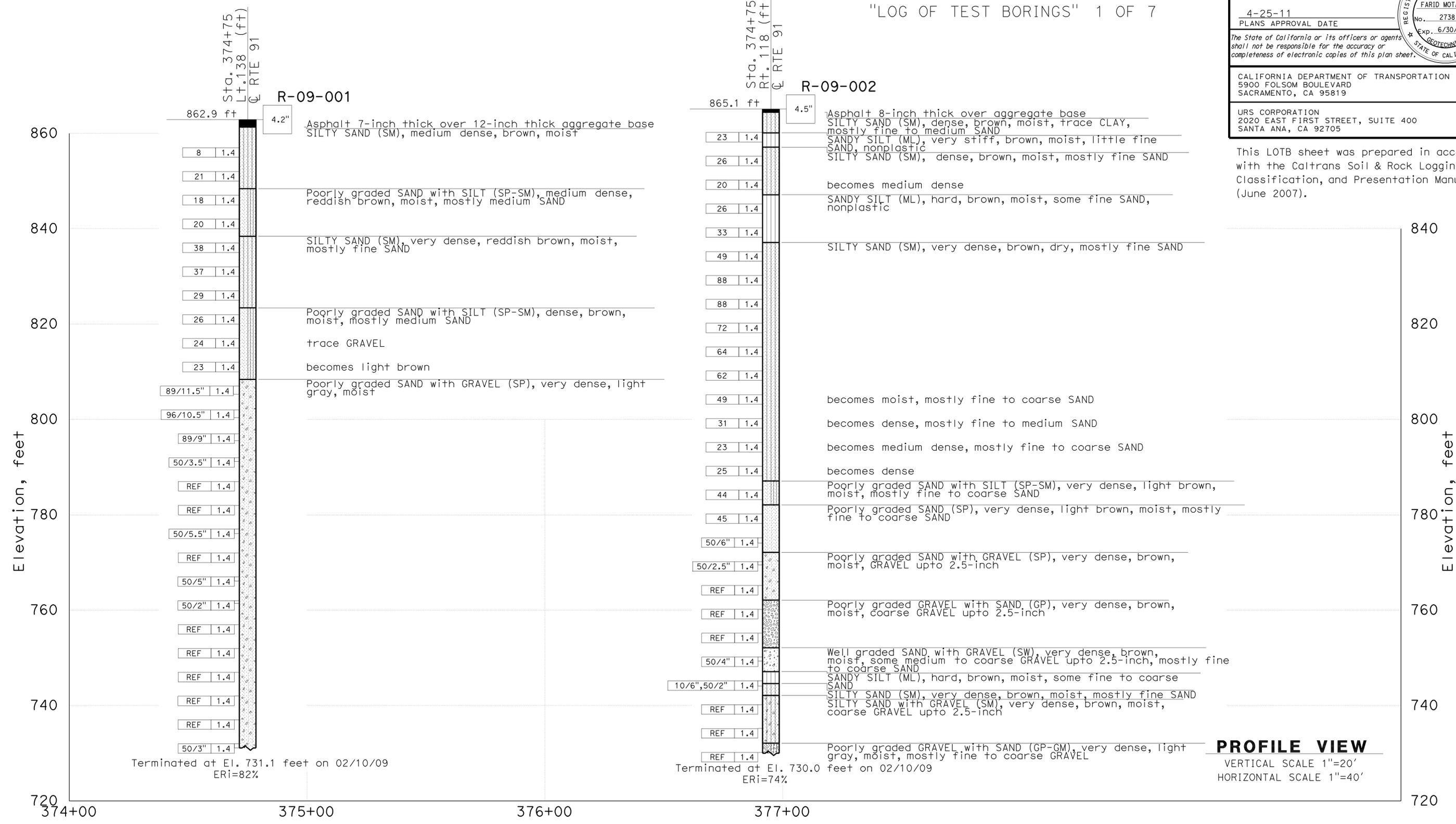
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1839	2028

REGISTERED ENGINEER: *Farid Motamed*
 DATE: 04-26-10
 PLANS APPROVAL DATE: 4-25-11
 No. 2738
 Exp. 6/30/11
 STATE OF CALIFORNIA
 GEOTECHNICAL

CALIFORNIA DEPARTMENT OF TRANSPORTATION
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 SACRAMENTO, CA 95819
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FOR PLAN VIEW, SEE "LOG OF TEST BORINGS" 1 OF 7



PROFILE VIEW
 VERTICAL SCALE 1"=20'
 HORIZONTAL SCALE 1"=40'

M. DESALVATORE DESIGN OVERSIGHT	DRAWN BY P. QUACH	L. ROEBUCK/P. NARANJO FIELD INVESTIGATION BY:	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	F. MOTAMED PROJECT ENGINEER	BRIDGE NO. 56-0836	14TH STREET OC (REPLACE) LOG OF TEST BORINGS SHEET 3 OF 7
SIGN OFF DATE	CHECKED BY S. PIRATHIVIRAJ/P.YERRA	DATE: FEB 09 2009 to FEB 19 2009	CU EA 448401	POST MILES 20.0	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
065 GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 06-01-09)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	REVISION DATES	SHEET 24 OF 28

USERNAME => frcg001 DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 14:20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1840	2028

Farid Motamed
 REGISTERED ENGINEER
 DATE: 04-26-10
 PLANS APPROVAL DATE: 4-25-11
 No. 2738
 Exp. 6/30/11
 GEOTECHNICAL
 STATE OF CALIFORNIA
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 2020 EAST FIRST STREET, SUITE 400
 SANTA ANA, CA 92705

This LOTB sheet was prepared in accordance

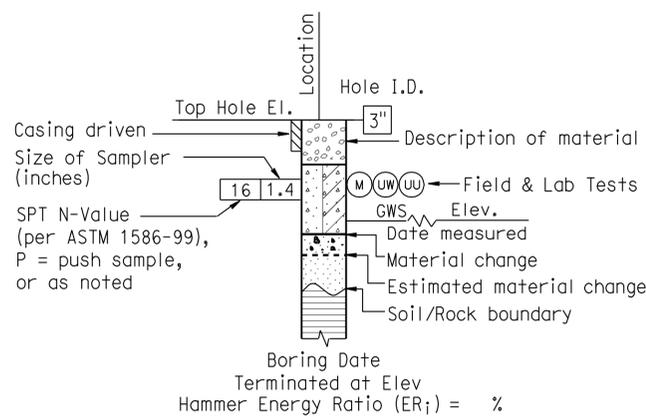
CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

CONSISTENCY OF COHESIVE SOILS				
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

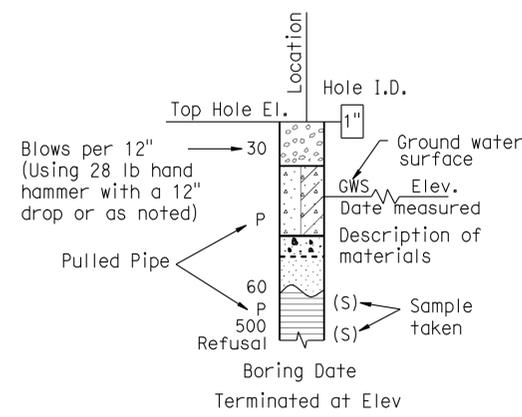
BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring
	R	Rotary drilled boring
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778-95)
	O	Other

Note: Size in inches.

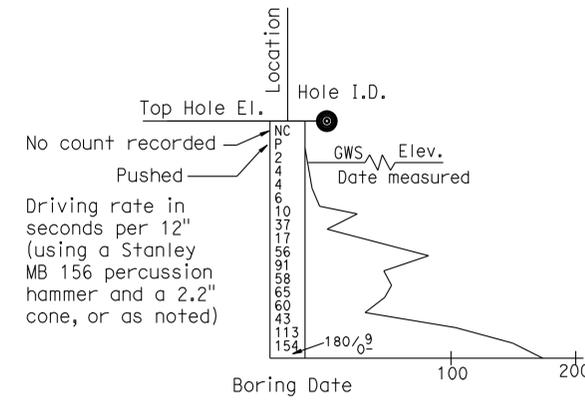
PLASTICITY OF FINE-GRAINED SOILS	
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



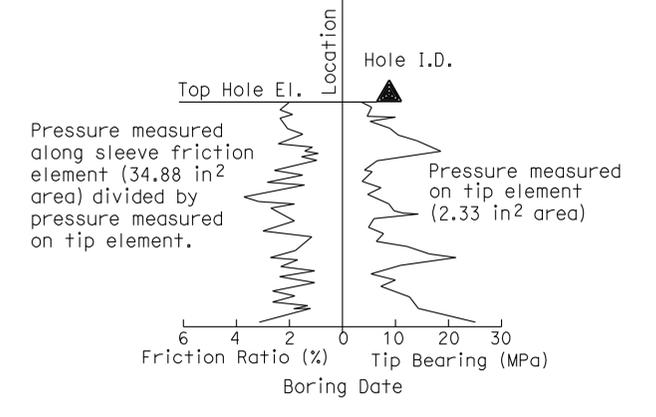
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

M. DESALVATORE DESIGN OVERSIGHT	DRAWN BY P. QUACH	L. ROEBUCK/P. NARANJO FIELD INVESTIGATION BY:	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	F. MOTAMED PROJECT ENGINEER	BRIDGE NO. 56-0836	14TH STREET OC (REPLACE) LOG OF TEST BORINGS SHEET 4 OF 7
SIGN OFF DATE	CHECKED BY S. PIRATHIVIRAJ/P.YERRA	DATE: FEB 09 2009 to FEB 19 2009	CU EA 448401	POST MILES 20.0	20.0	
065 GEOTECHNICAL LOG OF TEST BORINGS SHEET (ENGLISH) (REV. 06-01-09)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES
					04-26-10	SHEET 25 OF 28

USERNAME => frcg001 DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 14:20

04-26-10
DATE

REGISTERED ENGINEER

4-25-11
PLANS APPROVAL DATE

No. 2738
Exp. 6/30/11

FARID MOTAMED
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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5900 FOLSOM BOULEVARD
SACRAMENTO, CA 95819

URS CORPORATION
2020 EAST FIRST STREET, SUITE 400
SANTA ANA, CA 92705

This LOTB sheet was prepared in accordance

GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	Well-graded GRAVEL		Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
	Well-graded GRAVEL with SAND		
	Poorly graded GRAVEL		SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
	Poorly graded GRAVEL with SAND		
	Well-graded GRAVEL with SILT		SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
	Well-graded GRAVEL with SILT and SAND		
	Well-graded GRAVEL with CLAY (or SILTY CLAY)		ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
	Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
	Poorly graded GRAVEL with SILT		ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
	Poorly graded GRAVEL with SILT and SAND		
	Poorly graded GRAVEL with CLAY (or SILTY CLAY)		Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
	Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
	SILTY GRAVEL		ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
	SILTY GRAVEL with SAND		
	CLAYEY GRAVEL		ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	CLAYEY GRAVEL with SAND		
	SILTY, CLAYEY GRAVEL		ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	SILTY, CLAYEY GRAVEL with SAND		
	Well-graded SAND		Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
	Well-graded SAND with GRAVEL		
	Poorly graded SAND		Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
	Poorly graded SAND with GRAVEL		
	Well-graded SAND with SILT		ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
	Well-graded SAND with SILT and GRAVEL		
	Well-graded SAND with CLAY (or SILTY CLAY)		ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		
	Poorly graded SAND with SILT		ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
	Poorly graded SAND with SILT and GRAVEL		
	Poorly graded SAND with CLAY (or SILTY CLAY)		ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		
	SILTY SAND		ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	SILTY SAND with GRAVEL		
	CLAYEY SAND		ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	CLAYEY SAND with GRAVEL		
	SILTY, CLAYEY SAND		ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	SILTY, CLAYEY SAND with GRAVEL		
	PEAT		ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	PEAT		
	COBBLES		ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content-% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(PP)	Pocket Penetrometer
(R)	R-Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(TV)	Pocket Torvane
(UC)	Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
(UU)	Unconsolidated Undrained Triaxial (ASTM D 2850)
(UW)	Unit Weight (ASTM D 4767)
(VS)	Vane Shear (AASHTO T 223)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N ₆₀ (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE	
Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE		
Description	Size	
Boulder	> 12"	
Cobble	3" to 12"	
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

DIST	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	91	Riv 15.6/21.6	65	83

DESIGN SUPERVISOR: *[Signature]*
 DATE APPROVED: April 9, 1973

BENCH MARK

BM 36-A Elev. 845.91
 Ft. lead 5' sp. hd. nail in D.I. Rt. of Sta. 372+20
 ± Rte. 91.

14TH STREET

RTE. 91
 374

PLAN

Scale: 1" = 40'

PROFILE

Scale: Vert 1" = 10'
 Horiz. 1" = 20'

LEGEND OF BORING OPERATIONS

SOIL TUBE
 Top hole El. []
 Bottom hole El. []
 Date measured []
 Description of material []
 Unit weight (lb/cu ft) []
 % moisture []
 Consolidation test []
 GMS & Etc. []
 Estimated material change []
 Unclassified material change []
 Remarks []

ROTARY BORING
 Top hole El. []
 Bottom hole El. []
 Date measured []
 Description of material []
 Unit weight (lb/cu ft) []
 % moisture []
 Consolidation test []
 GMS & Etc. []
 Estimated material change []
 Unclassified material change []
 Remarks []

NET BORING
 Top hole El. []
 Bottom hole El. []
 Date measured []
 Description of material []
 Unit weight (lb/cu ft) []
 % moisture []
 Consolidation test []
 GMS & Etc. []
 Estimated material change []
 Unclassified material change []
 Remarks []

TEST PIT
 Top hole El. []
 Bottom hole El. []
 Date measured []
 Description of material []
 Unit weight (lb/cu ft) []
 % moisture []
 Consolidation test []
 GMS & Etc. []
 Estimated material change []
 Unclassified material change []
 Remarks []

LEGEND OF EARTH MATERIALS

GRAVEL [] SAND [] SILT [] CLAY [] SILTY CLAY or CLAYEY SILT [] PEAT and/or ORGANIC MATTER [] FILL MATERIAL [] IGNEOUS ROCK [] SEDIMENTARY ROCK [] METAMORPHIC ROCK []

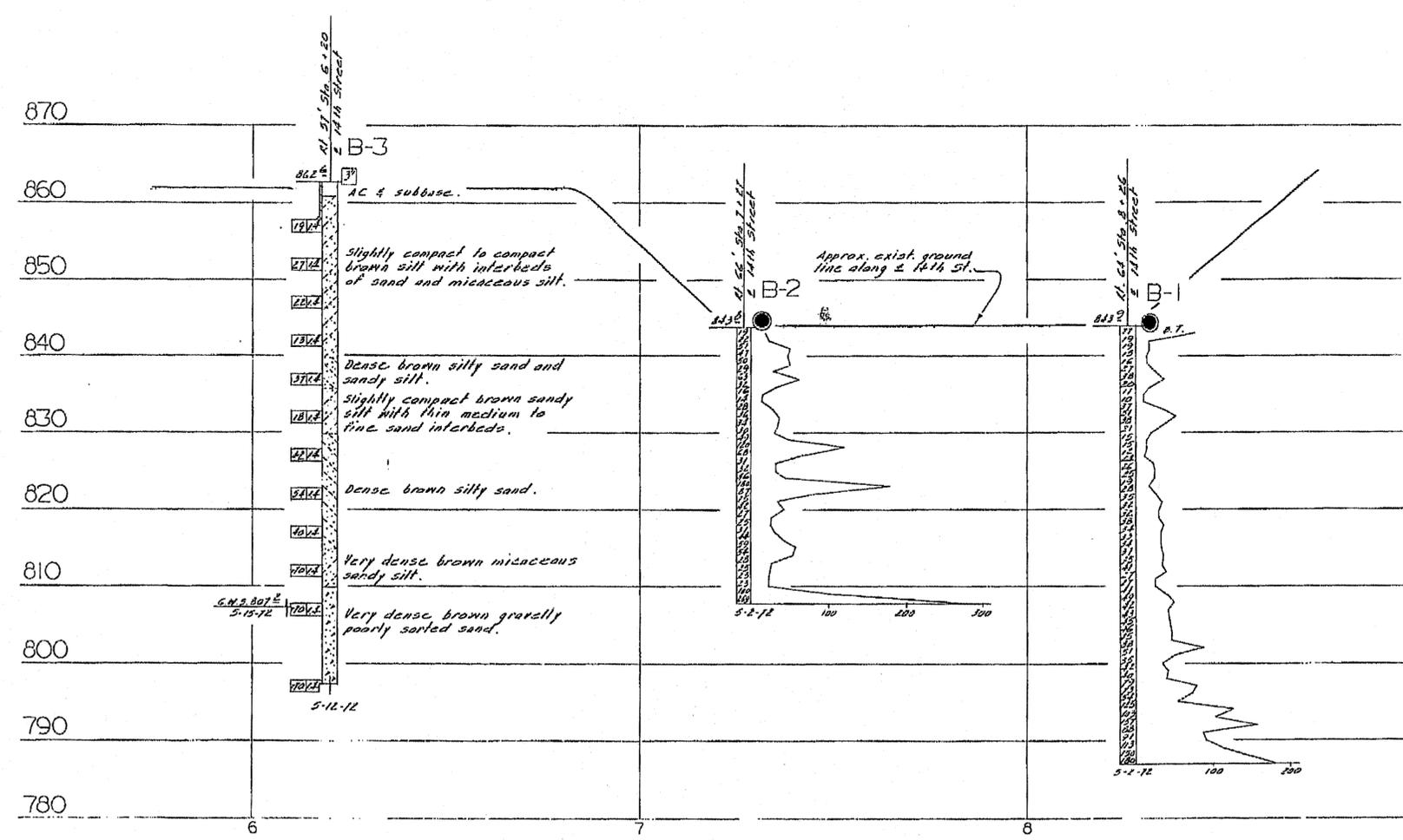
CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test No. of blows []
 0-5 [] 5-10 [] 10-20 [] 20-35 [] 35-70 [] >70 []

Granular: Very loose [] Loose [] Slightly compact [] Compact [] Very dense []
 Cohesive: Very soft [] Soft [] Stiff [] Very stiff [] Hard [] Very hard []

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

Diagram showing the limits for estimates of grade size distribution based on determination of sizes greater than 75 microns. The diagram is a ternary plot with vertices labeled 100% SAND, 100% SILT, and 100% CLAY. The plot is divided into regions for different soil types based on percentages of sand, silt, and clay.



DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

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DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
08	Riv	91	15.6/21.6	1842	2028

REGISTERED ENGINEER - CIVIL
 DATE: 06/30/10
 Yeo Yoon
 No. 73532
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

14TH STREET OC (REPLACE)
LOG OF TEST BORINGS 6 OF 7

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA
 CU: 08
 EA: 448401
 BRIDGE No. 56-0836
 SHEET OF 27 28

TO ACCOMPANY PLANS DATED 4-25-11

AS BUILT PLANS
 Contract No. 08-155604
 Date Completed 10-10-75
 Document No. 8000 3411

AS BUILT
NO AS-BUILT CORRECTIONS

BRIDGE DEPARTMENT
 ENGINEERING GEOLOGY SECTION

FIELD STUDY by J. Smiley & C. Lindsey 3-15-72
 DRAWN by J. Lim 5-12-72
 CHECKED by C. Aimes 6-7-72

Approved Recommended by [Signature]
 Engineering Geologist
 Certified Engineering Geologist No. 40

STATE OF CALIFORNIA
 TRANSPORTATION AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

14TH STREET OVERCROSSING
 (W.I.P.N.)

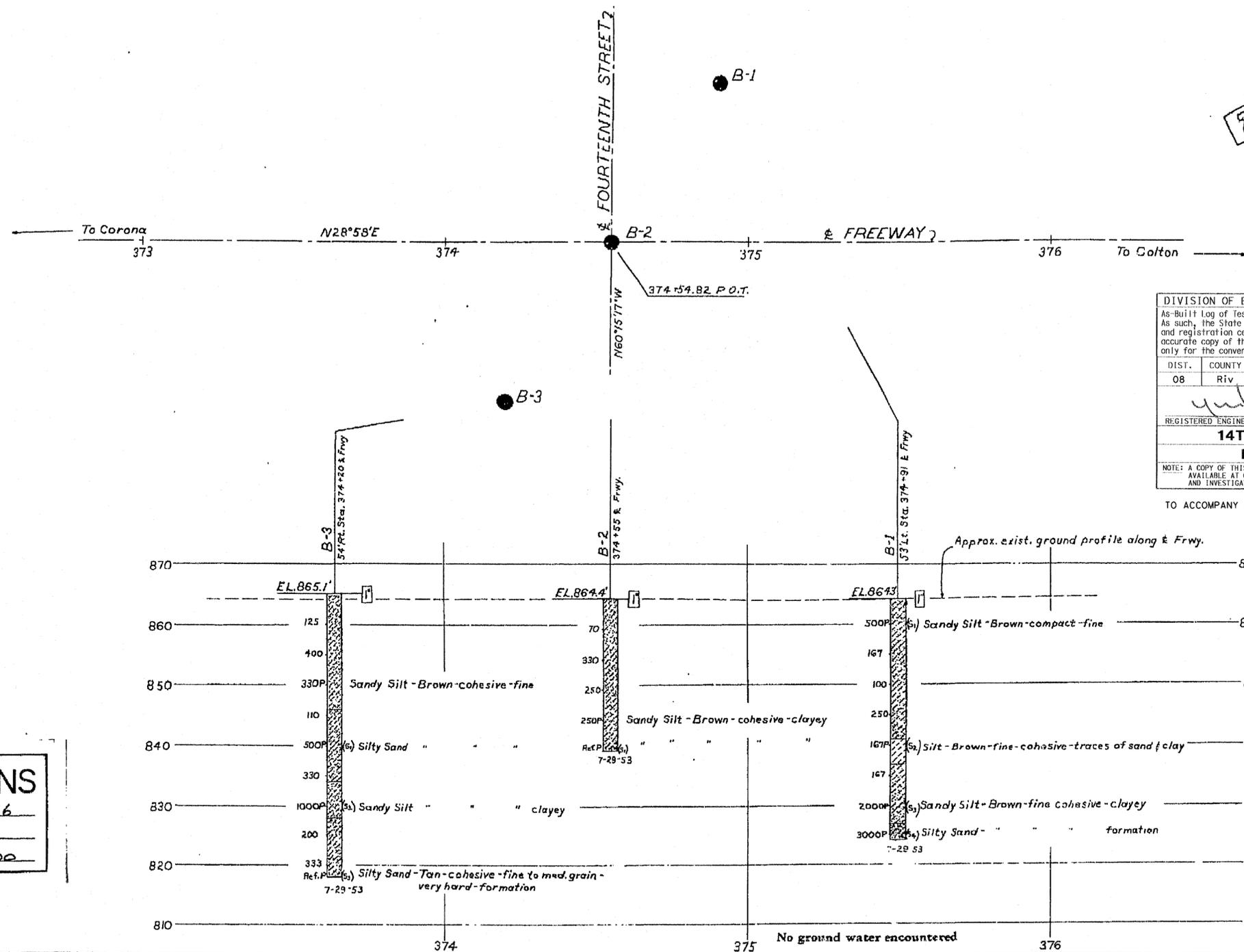
LOG OF TEST BORINGS

BRIDGE NO.	POST MILE	DRAWING NO.	SHEET OF
56-313	15.6	10	10

REVISION DATES (PRELIMINARY STAGE ONLY)

WO 15E4C1
 CU 18204

Discard print bearing earlier revision dates



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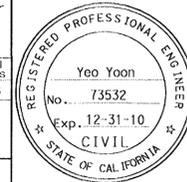
DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1843	2028

REGISTERED ENGINEER - CIVIL: *[Signature]* DATE: 06/30/10

14TH STREET OC (REPLACE)
LOG OF TEST BORINGS 7 OF 7

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

CU: 08	EA: 448401	BRIDGE No.	56-0836
TO ACCOMPANY PLANS DATED 4-25-11		Sheet of	28 28



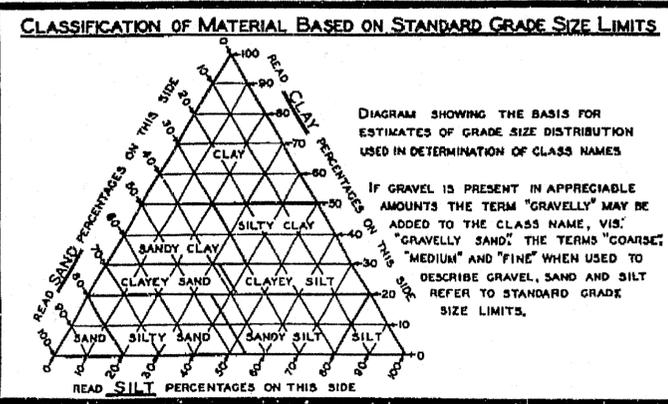
B.M. 14th - Vine - 52
 Steel pin in South curb 14th St.
 375' Rt. Sta. 374 + 20
 EL. 868.90'

B.M. 14th - Mulberry - 52
 Steel pin in North curb 14th St.
 225' Lt. 374 + 82
 EL. 861.47'

Test Borings by Bridge Dept.

AS BUILT
 No CORRECTIONS BY *[Signature]*
 DATE April 23, 1957

AS BUILT PLANS
 Contract No. 56-8vc16
 Date Completed _____
 Document No. 80000800



LEGEND OF EARTH MATERIALS

	GRAVEL		SILTY CLAY OR CLAYEY SILT
	SAND		PEAT AND/OR ORGANIC CLAY
	SILT		FILLED MATERIAL
	CLAY		IGNEOUS ROCK
	SANDY CLAY OR CLAYEY SAND		SEDIMENTARY ROCK
	SANDY SILT OR SILTY SAND		METAMORPHIC ROCK

LEGEND OF BORING OPERATIONS

- PLAN OF ANY BORING
- PENETROMETER
- 2 1/2" CONE PENETROMETER
- SAMPLER BORING (DRY)
- ROTARY BORING (WET)
- AUGER BORING (DRY)
- JET BORING
- CORE BORING
- TEST PIT

1" SOIL TUBE

NOTES

THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 2, ARTICLE (C) OF THE STANDARD SPECIFICATIONS AND TO THE SPECIAL PROVISIONS ACCOMPANYING THIS SET OF PLANS. CLASSIFICATION OF EARTH MATERIAL AS SHOWN ON THIS SHEET IS BASED UPON FIELD INSPECTION AND IS NOT TO BE CONSTRUED TO IMPLY MECHANICAL ANALYSIS. PENETROMETER BORINGS HAVING A RATE OF PENETRATION MEASURED IN SECONDS PER FOOT ARE DRIVEN WITH A No 2 WIKERMAN-TERRY AIR HAMMER AT 115 PSI.

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

FOURTEENTH STREET O.C.
LOG OF TEST BORINGS

SCALE: HORIZ. 1" = 20'
 VERT. 1" = 10'

BRIDGE 56-313 FILE 56 DRAWING 3248-14

BRIDGE DEPARTMENT

FIELD STUDY
 DRAWN BY: W.S. GRAYSON, B-1353
 CHECKED BY: W.L.M., B-10-53
 Approval: *[Signature]*
 Date: _____

83

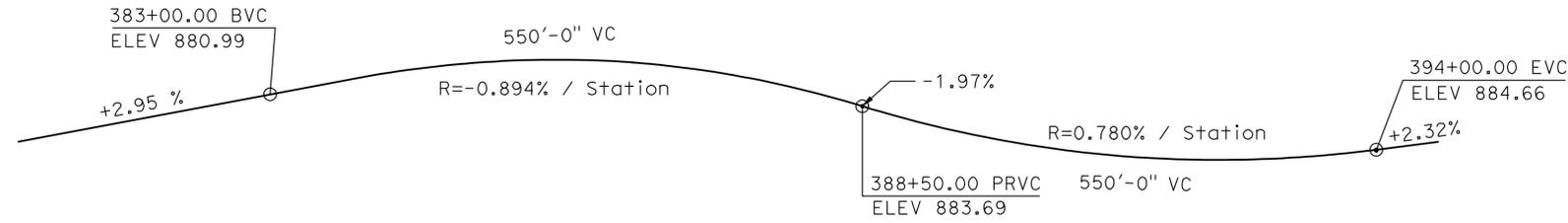
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1844	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

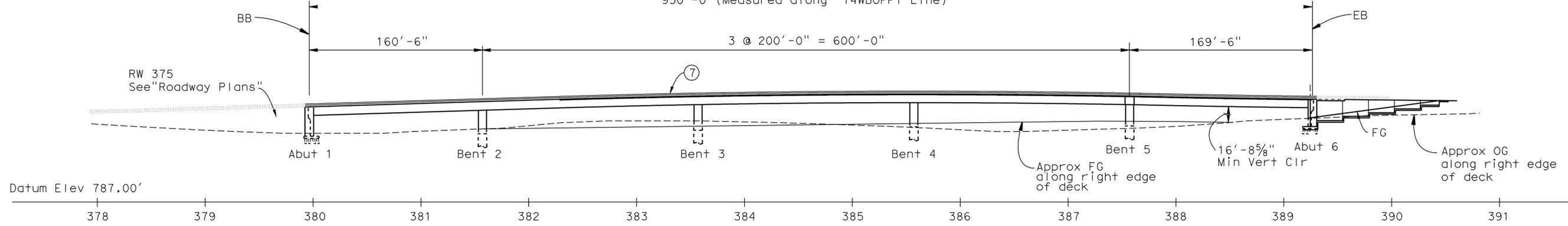
HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA



PROFILE GRADE

No Scale

930'-0" (Measured along "14WBOFF1" Line)



DEVELOPED ELEVATION

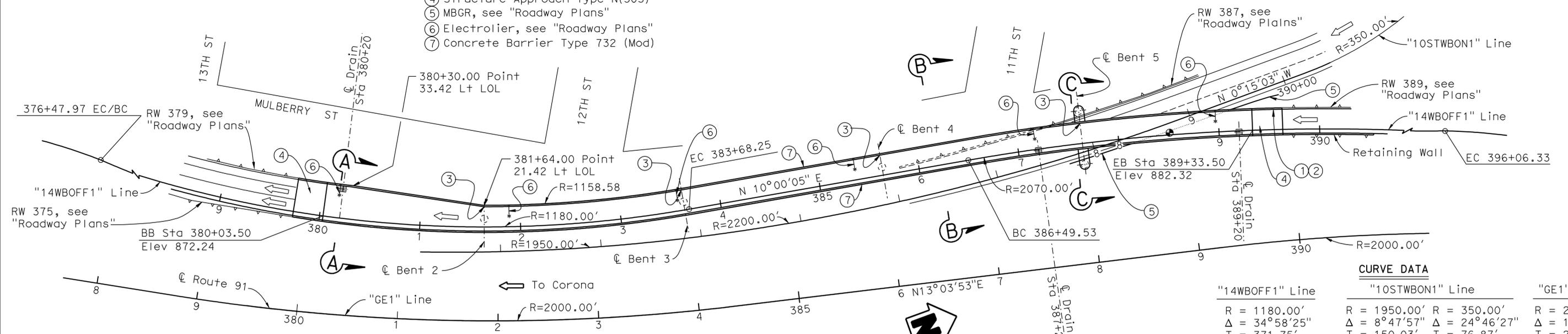
1"=50'

LEGEND:

- ➔ Indicates Direction of Traffic Flow
- ⊙ Indicates Point of Minimum Vertical Clearance
- ⊞ Indicates Deck Drain Type D-3

NOTES:

- ① Paint "14TH STREET WB OFFRAMP"
- ② Paint "BR. NO. 56-0837K"
- ③ Paint Bent Number
- ④ Structure Approach Type N(30S)
- ⑤ MBGR, see "Roadway Plans"
- ⑥ Electrolier, see "Roadway Plans"
- ⑦ Concrete Barrier Type 732 (Mod)



PLAN

1"=50'

NOTES:

- 1. For Section A-A, B-B, and C-C, see "GENERAL PLAN NO. 2" sheet.
- 2. For "General Notes", "Index to Plans" and "Pie Data Table", see "INDEX TO PLANS" sheet.
- 3. For "Quantities" see "GENERAL PLAN NO. 2"

"14WBOFF1" Line		"10STWBON1" Line		"GE1" Line	
R = 1180.00'	Δ = 34°58'25"	R = 1950.00'	Δ = 8°47'57"	R = 2000.00'	Δ = 15°54'09"
T = 371.75'	L = 720.28'	R = 350.00'	Δ = 24°46'27"	R = 2000.00'	Δ = 32°08'13"
R = 2070.00'	Δ = 26°29'00"	R = 2200.00'	Δ = 12°18'53"	R = 2000.00'	Δ = 576.08'
T = 487.10'	L = 956.80'	R = 2200.00'	Δ = 12°18'53"	R = 2000.00'	Δ = 576.08'
L = 956.80'		R = 350.00'	Δ = 24°46'27"	R = 2000.00'	Δ = 15°54'09"
		T = 76.87'	L = 151.34'	R = 2000.00'	Δ = 32°08'13"
		L = 299.47'	L = 151.34'	R = 2000.00'	Δ = 576.08'
		L = 299.47'	L = 151.34'	R = 2000.00'	Δ = 15°54'09"
		L = 151.34'	L = 151.34'	R = 2000.00'	Δ = 32°08'13"
		L = 151.34'	L = 151.34'	R = 2000.00'	Δ = 576.08'
		L = 151.34'	L = 151.34'	R = 2000.00'	Δ = 15°54'09"

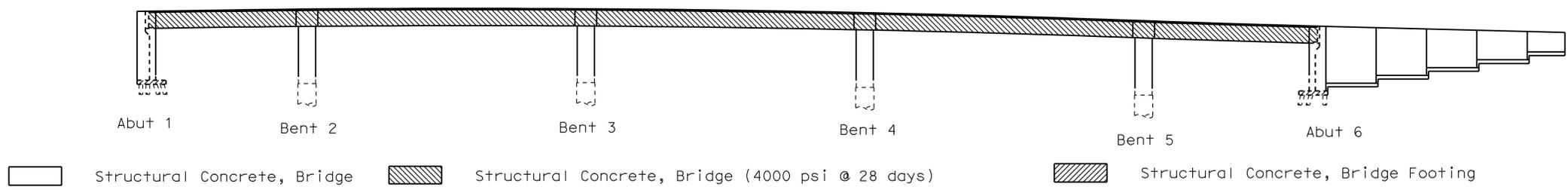
DANIEL T. ADAMS DESIGN ENGINEER	DESIGN	BY L. Wu	CHECKED D. Alvarez	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	14TH STREET WB OFFRAMP		
	DETAILS	BY Y. Tang	CHECKED D. Alvarez	LAYOUT	BY L. Wu			CHECKED H. Vu	56-0837K	GENERAL PLAN NO. 1	
	QUANTITIES	BY M. Crete	CHECKED R. Melko	SPECIFICATIONS	BY D. Klein			PLANS AND SPECS COMPARED D. Klein	POST MILE	20.25	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	SHEET 1 OF 35	

USERNAME => HPC001 DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 1:31:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1845	2028

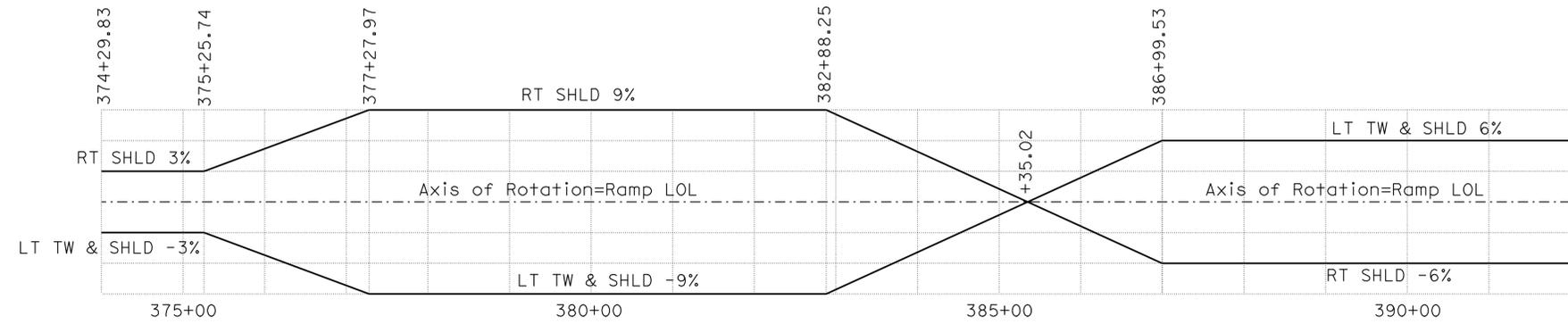
HUAN VU
 REGISTERED CIVIL ENGINEER DATE 11-30-10
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

4-25-11
 PLANS APPROVAL DATE
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CONCRETE STRENGTH AND TYPE LIMITS

No Scale



SUPERELEVATION DIAGRAM

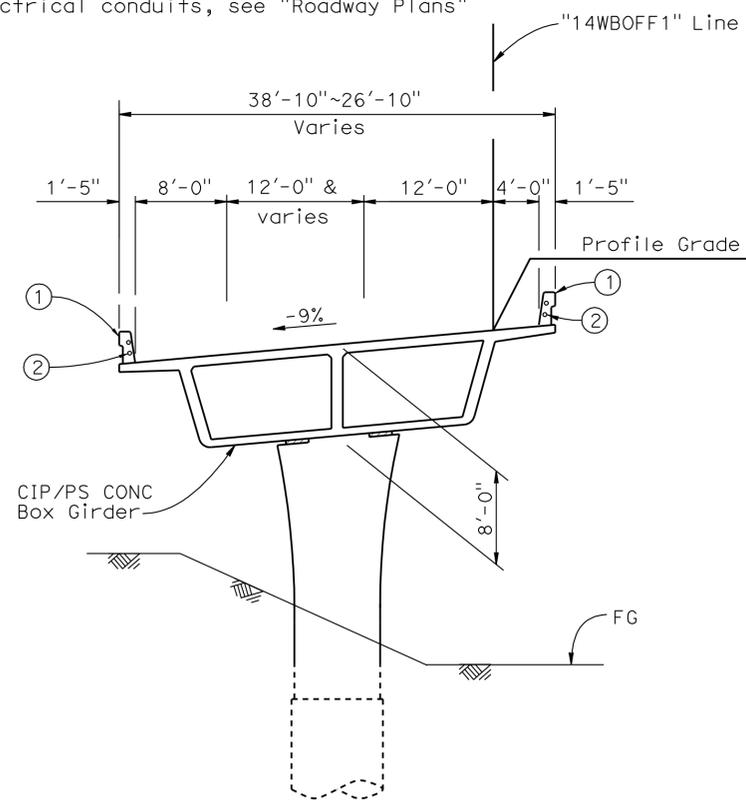
No Scale

QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	390	CY
STRUCTURE BACKFILL (BRIDGE)	777	CY
FURNISH STEEL PILING (HP 10 X 57)	2,288	LF
DRIVE STEEL PILE (HP 10 X 57)	45	EA
96" CAST-IN-DRILLED-HOLE CONCRETE PILING	550	LF
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	114	CY
STRUCTURAL CONCRETE, BRIDGE	2,631	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	73	CY
ARCHITECTURAL SURFACE (TEXTURED CONCRETE)	54	SQFT
FRACTURED RIB TEXTURE		
ARCHITECTURAL SURFACE (TEXTURED CONCRETE)	2,362	SQFT
SPLIT SLATE TEXTURE		
PTFE BEARING	6	EA
JOINT SEAL ASSEMBLY (MR 5")	36	LF
JOINT SEAL ASSEMBLY (MR 8")	24	LF
BAR REINFORCING STEEL (BRIDGE)	957,276	LB
WELDED STEEL PIPE CASING (BRIDGE)	41	LF
BRIDGE DECK DRAINAGE SYSTEM	3,171	LB
CONCRETE BARRIER (TYPE 732 MODIFIED)	1,993	LF

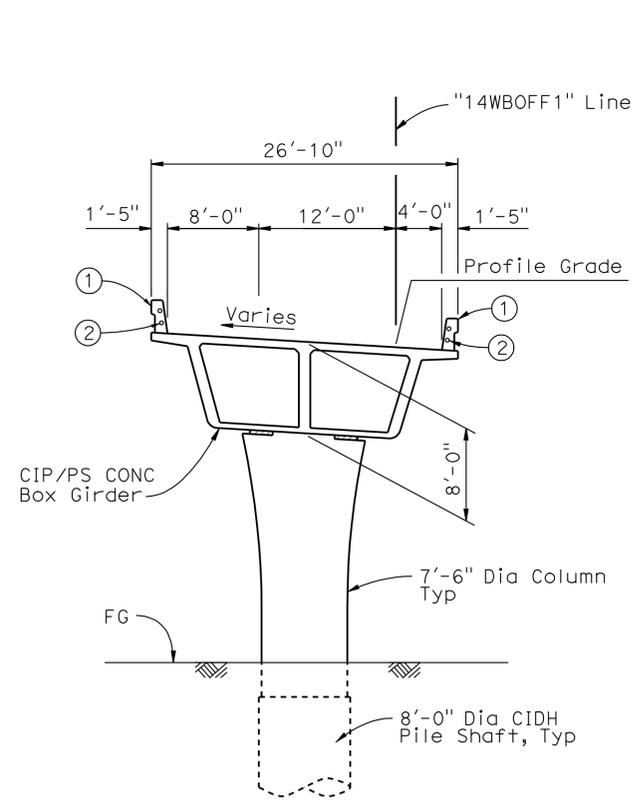
NOTES:

- ① Concrete Barrier Type 732 (Mod)
- ② 2 - 2"Ø electrical conduits, see "Roadway Plans"



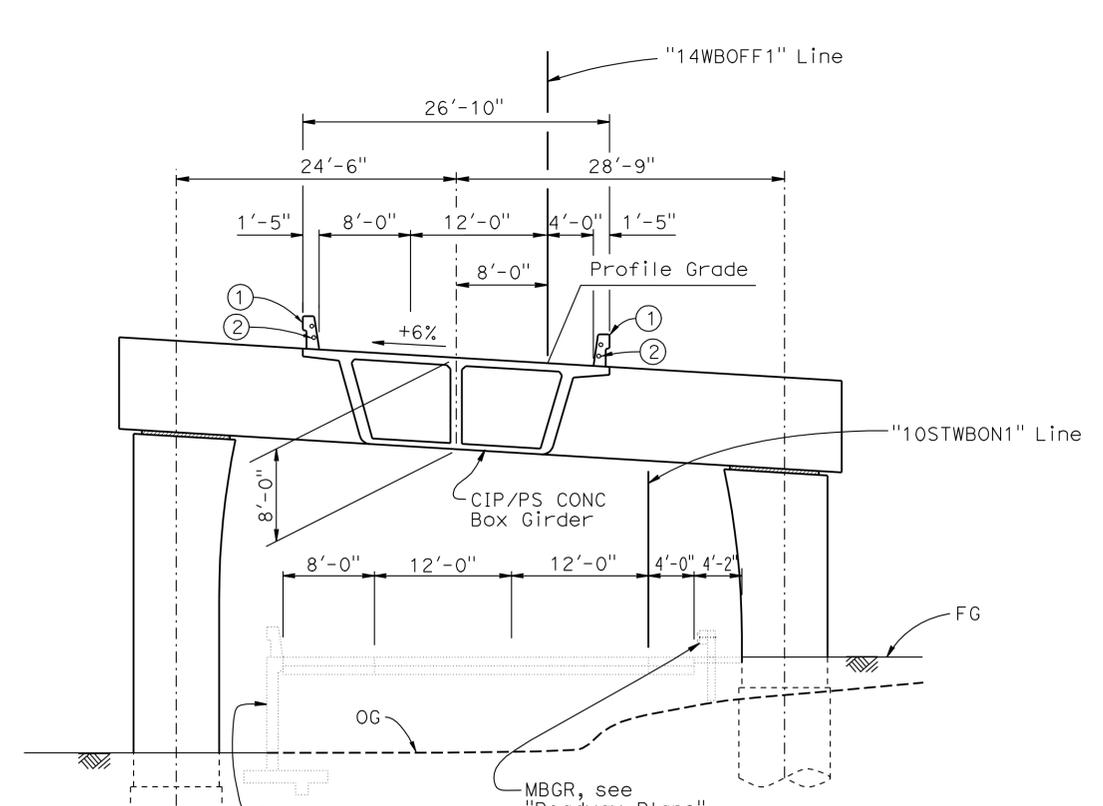
SECTION A-A

1/8"=1'-0"



SECTION B-B

1/8"=1'-0"



SECTION C-C

1/8"=1'-0"

DANIEL T. ADAMS DESIGN ENGINEER	DESIGN	BY L. Wu	CHECKED D. Alvarez	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	14TH STREET WB OFFRAMP GENERAL PLAN NO. 2	
	DETAILS	BY G. Hallstrom	CHECKED D. Alvarez	LAYOUT	BY L. Wu			CHECKED H. Vu		56-0837K
	QUANTITIES	BY M. Crete	CHECKED R. Melko	SPECIFICATIONS	BY D. Klein			PLANS AND SPECS COMPARED D. Klein		POST MILE

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

CU 08 EA 448401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

5-7-08	10-29-10	3-23-08	5-11-08	6-10-09	8-17-09	2-03-10	3-29-10	10-01-10
								SHEET 2 OF 35

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06)

FILE => 560837kagp02.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1846	2028

Huan Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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PILE DATA TABLE

Location	Pile Type	Nominal Resistance (kips)		Design Tip Elevations(ft)	Specified Tip Elevations(ft)	Nominal Driving Resistance (kips)
		Compression	Tension			
Abut 1	HP10X57	280	N/A	798.0 (1)	798.0	280
Bent 2	96" CIDH	6070	0	769.0(1),786.0(2)	769.0	N/A
Bent 3	96" CIDH	5900	0	774.0(1),799.0(2)	774.0	N/A
Bent 4	96" CIDH	6090	0	762.0(1),770.0(2)	762.0	N/A
Bent 5	96" CIDH	3590	0	787.0(1),794.0(2)	787.0	N/A
Abut 6	HP10X57	280	N/A	800.0 (1)	800.0	280

NOTE: Design tip elevations are controlled by the following demands: (1) Compression, (2) Lateral Load.

INDEX TO PLANS

SHEET NO.	TITLE
1.	GENERAL PLAN NO. 1
2.	GENERAL PLAN NO. 2
3.	INDEX TO PLANS
4.	DECK CONTOURS NO. 1
5.	DECK CONTOURS NO. 2
6.	FOUNDATION PLAN NO. 1
7.	FOUNDATION PLAN NO. 2
8.	FOUNDATION PLAN NO. 3
9.	ABUTMENT 1 LAYOUT
10.	ABUTMENT 6 LAYOUT
11.	ABUTMENT DETAILS No. 1
12.	ABUTMENT DETAILS No. 2
13.	ABUTMENT DETAILS No. 3
14.	ARCHITECTURAL DETAILS
15.	BENT 2,3,4 LAYOUT
16.	BENT 2,3,4 DETAILS
17.	BENT 5 LAYOUT
18.	BENT 5 DETAILS NO. 1
19.	BENT 5 DETAILS NO. 2
20.	TYPICAL SECTION NO. 1
21.	TYPICAL SECTION NO. 2
22.	GIRDER LAYOUT NO. 1
23.	GIRDER LAYOUT NO. 2
24.	GIRDER LAYOUT NO. 3
25.	GIRDER REINFORCEMENT
26.	ELASTOMERIC/PTFE BEARING
27.	STRUCTURE APPROACH TYPE N(30S)
28.	STRUCTURE APPROACH DRAINAGE DETAILS
29.	ABUTMENT JOINT SEAL DETAILS (Movement Rating Greater Than 4")
30.	LOG OF TEST BORINGS 1 OF 6
31.	LOG OF TEST BORINGS 2 OF 6
32.	LOG OF TEST BORINGS 3 OF 6
33.	LOG OF TEST BORINGS 4 OF 6
34.	LOG OF TEST BORINGS 5 OF 6
35.	LOG OF TEST BORINGS 6 OF 6

**GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN**

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th Edition and the CALTRANS Amendments preface dated Dec. 2008.

SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.4, July, 2006

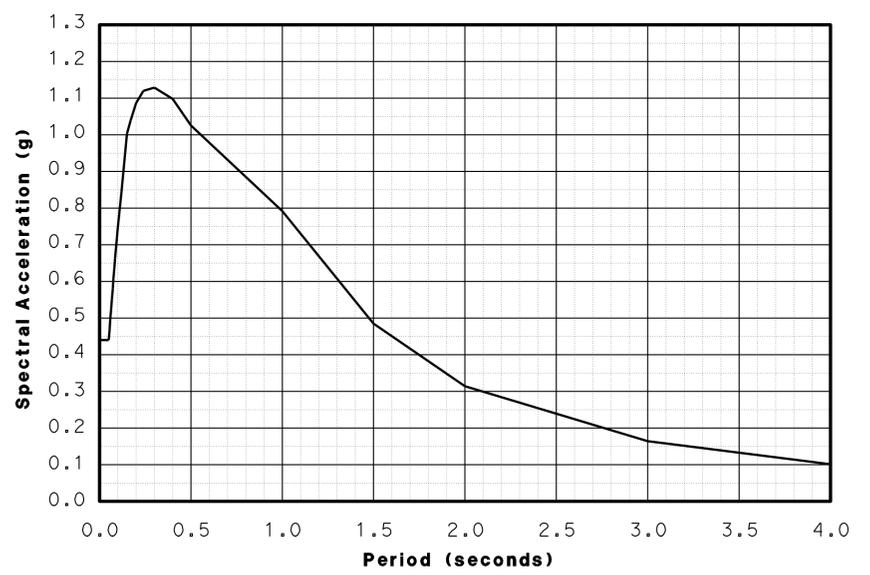
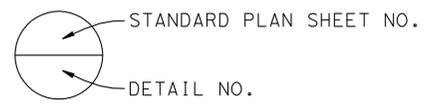
DEAD LOAD: Includes 35 Psf for future wearing surface.

LIVE LOADING: HL93 and permit design load.

SEISMIC LOADING: Soil Profile Type D, Magnitude Group 7.25±0.25, Peak Rock Acceleration = 0.4 g.

STANDARD PLANS DATED MAY 2006

- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
- B0-1 BRIDGE DETAILS
- B0-3 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B0-13 BRIDGE DETAILS
- B3-1 RETAINING WALL TYPE 1 H=4' THROUGH 30'
- B3-8 RETAINING WALL DETAILS No. 1
- B7-1 BOX GIRDER DETAILS
- B7-6 DECK DRAINS TYPES D-1 AND D-2
- B7-7 DECK DRAIN TYPE D-3
- B7-8 DECK DRAINAGE DETAILS
- B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
- B11-55 CONCRETE BARRIER TYPE 732



Modified CALTRANS SDC ARS Curve: Type D Soil Profile, Magnitude Mw=7.5, 5% Damping

REINFORCED CONCRETE: f_y = 60 ksi
f'_c = 3600 psi, unless otherwise noted
n = 8

See "Prestressing Notes" on "GIRDER LAYOUT No. 1" sheet, and "BENT 5 LAYOUT" sheet.

DESIGN	BY	L. Wu	CHECKED	D. Alvarez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0837K	14TH STREET WB OFFRAMP INDEX TO PLANS	
	DETAILS	BY	G. Hallstrom/Y. Tang	CHECKED			D. Alvarez	POST MILE		20.25
	QUANTITIES	BY	M. Crete	CHECKED			R. Melko			
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	REVISION DATES		SHEET 3 OF 35	

USERNAME => hrcg001 DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1847	2028

NOTES:

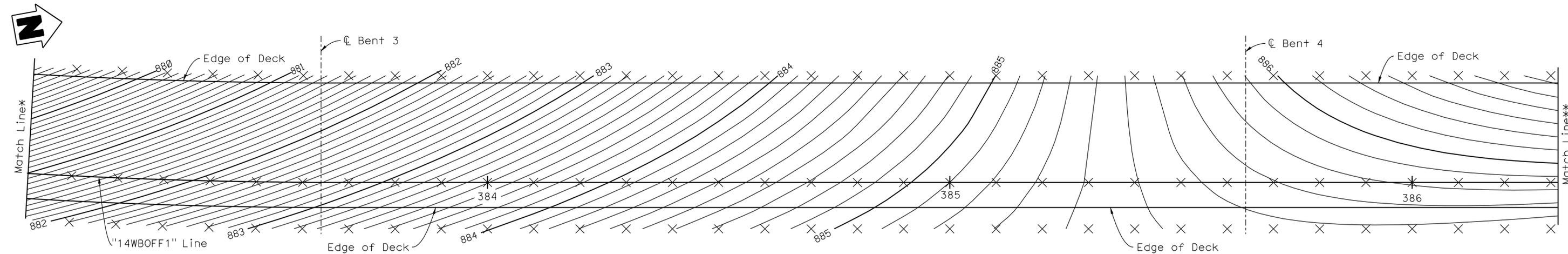
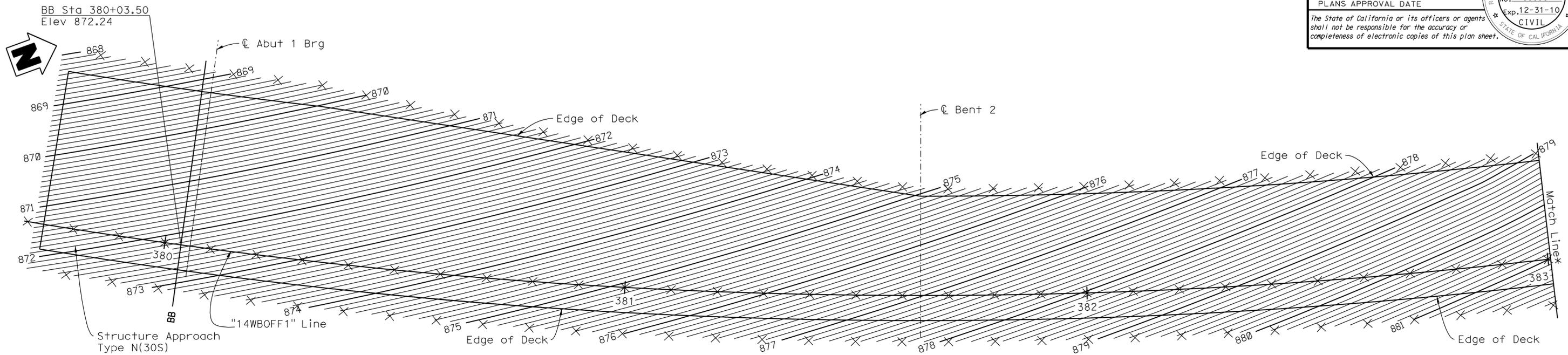
1. x - 10 Ft intervals along station line.
2. Contour intervals = 0.1 Ft.
3. Contours do not include camber.

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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DECK CONTOURS

3/32" = 1' - 0"

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

14TH STREET WB OFFRAMP
DECK CONTOURS NO. 1

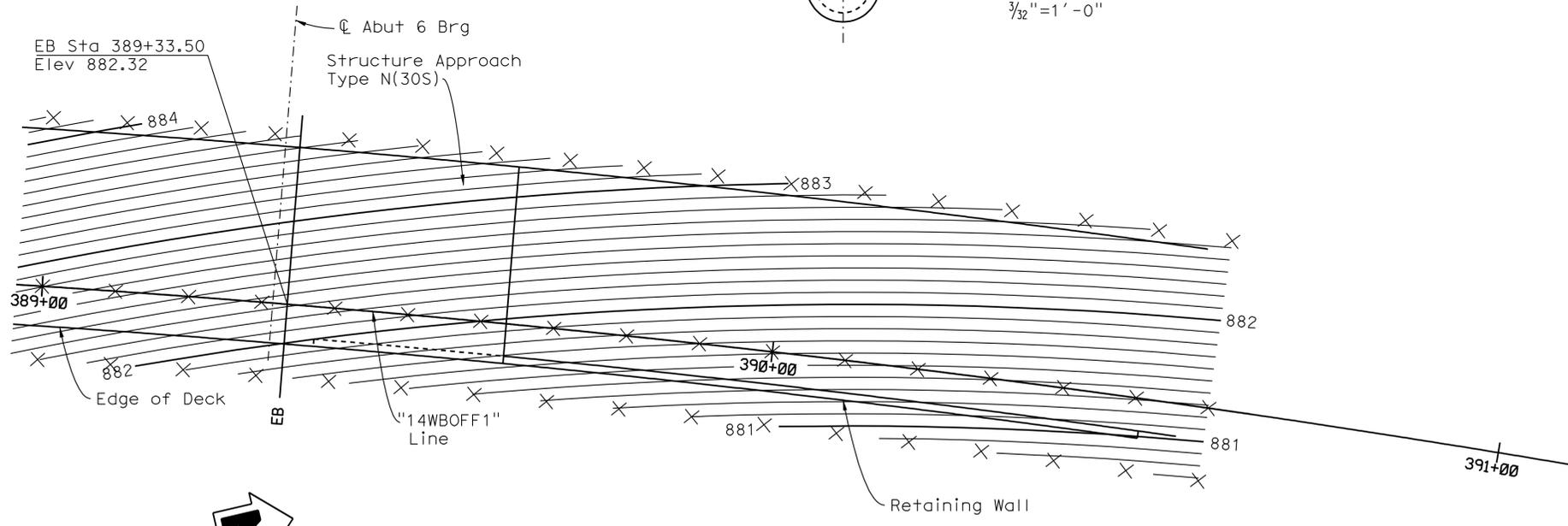
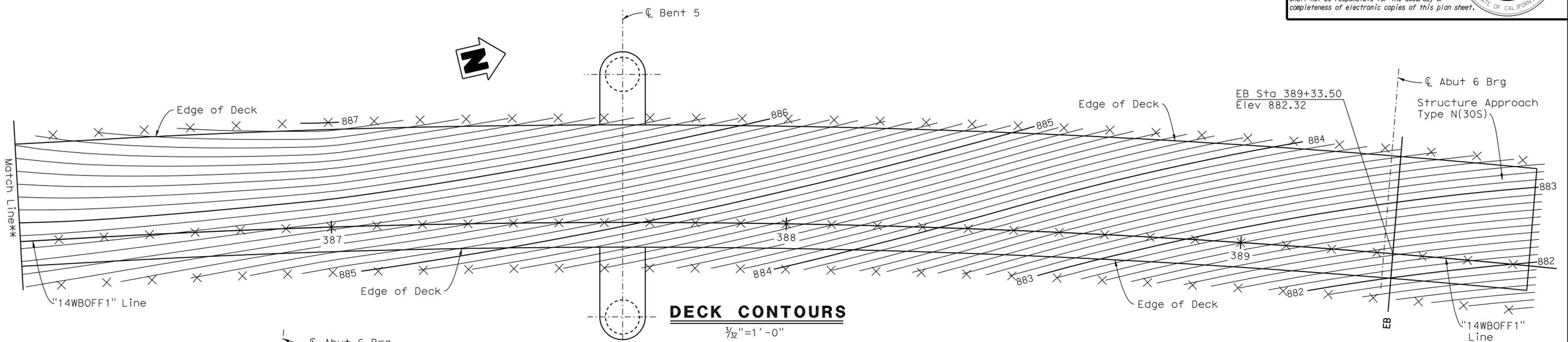
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1848	2028

Huan VU 11-30-10
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REGISTERED PROFESSIONAL ENGINEER
HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA



- NOTES:**
- x - 10 Ft intervals along station line.
 - Contour intervals = 0.1 Ft.
 - Contours do not include camber.

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

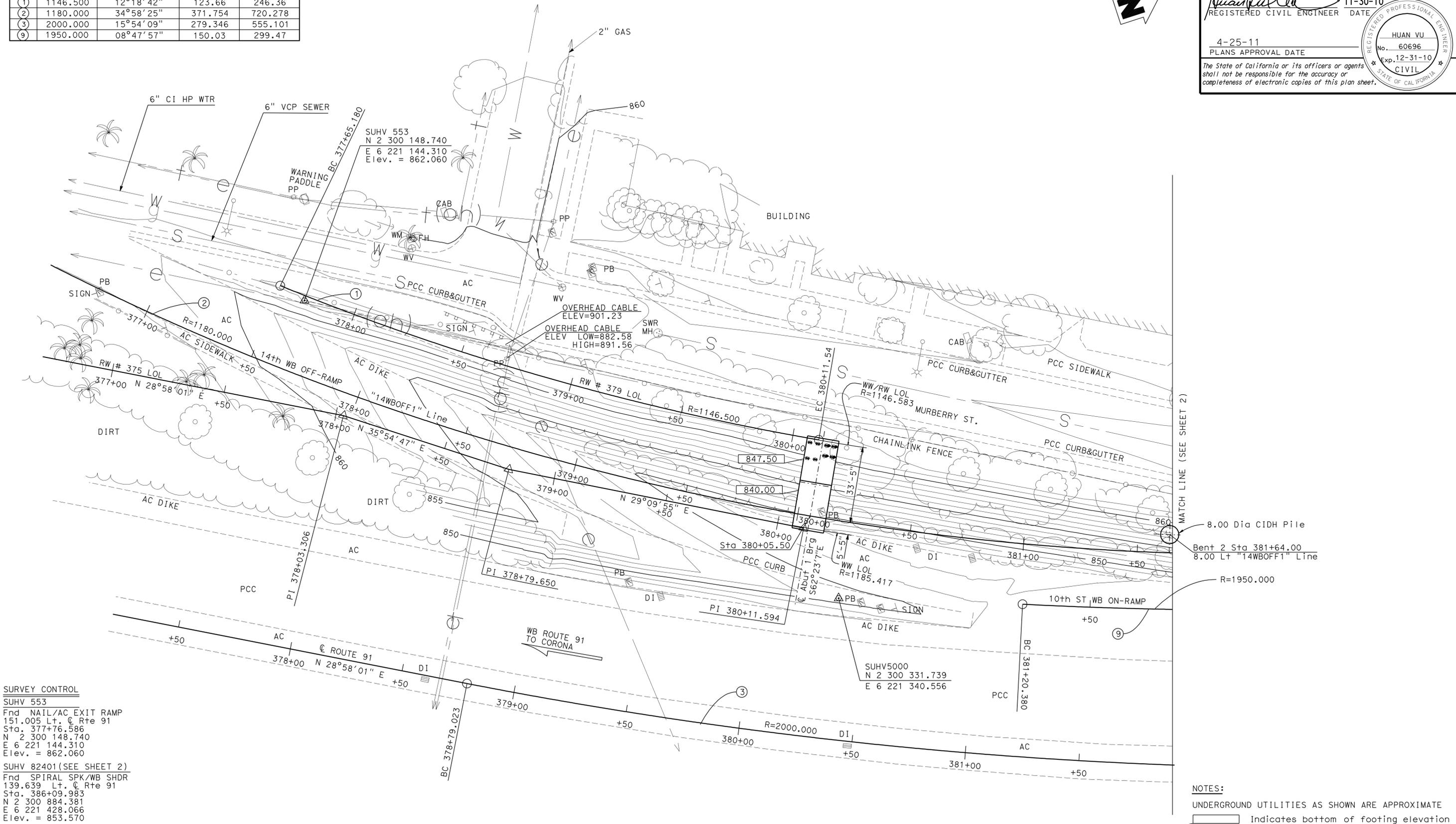
14TH STREET WB OFFRAMP
DECK CONTOURS NO. 2

CURVE DATA

No.	R	Δ	T	L
①	1146.500	12°18'42"	123.66	246.36
②	1180.000	34°58'25"	371.754	720.278
③	2000.000	15°54'09"	279.346	555.101
④	1950.000	08°47'57"	150.03	299.47

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1849	2028


 11-30-10
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SURVEY CONTROL
 SUHV 553
 Fnd NAIL/AC EXIT RAMP
 151.005 Lt. C Rte 91
 Sta. 377+76.586
 N 2 300 148.740
 E 6 221 144.310
 Elev. = 862.060
 SUHV 82401(SEE SHEET 2)
 Fnd SPIRAL SPK/WB SHDR
 139.639 Lt. C Rte 91
 Sta. 386+09.983
 N 2 300 884.381
 E 6 221 428.066
 Elev. = 853.570

8.00 Dia CIDH Pile
 Bent 2 Sta 381+64.00
 8.00 Lt "14WBOFF1" Line
 R=1950.000

NOTES:
 UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE
 Indicates bottom of footing elevation

PRELIMINARY INVESTIGATION SECTION				DESIGN BY L. Wu CHECKED D. Alvarez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0837K	14TH STREET WB OFFRAMP FOUNDATION PLAN NO. 1
SCALE VERT. DATUM NGVD 29 1"=20'	PHOTOGRAMMETRY AS OF: X SURVEYED BY C. Stewart 11/08 CHECKED BY L. Manabo 11/08	DETAILS BY G. Hallstrom CHECKED D. Alvarez	POST MILE 20.25					
ALIGNMENT TIES DIST TRAV SHEETS DRAFTED BY M. Sadaghiani 12/08 CHECKED BY L. Manabo 12/08	QUANTITIES BY M. Crete CHECKED R. Melko	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 6 OF 35					

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS CU 08 EA 448401 FILE => 560837kfdp106.dgn

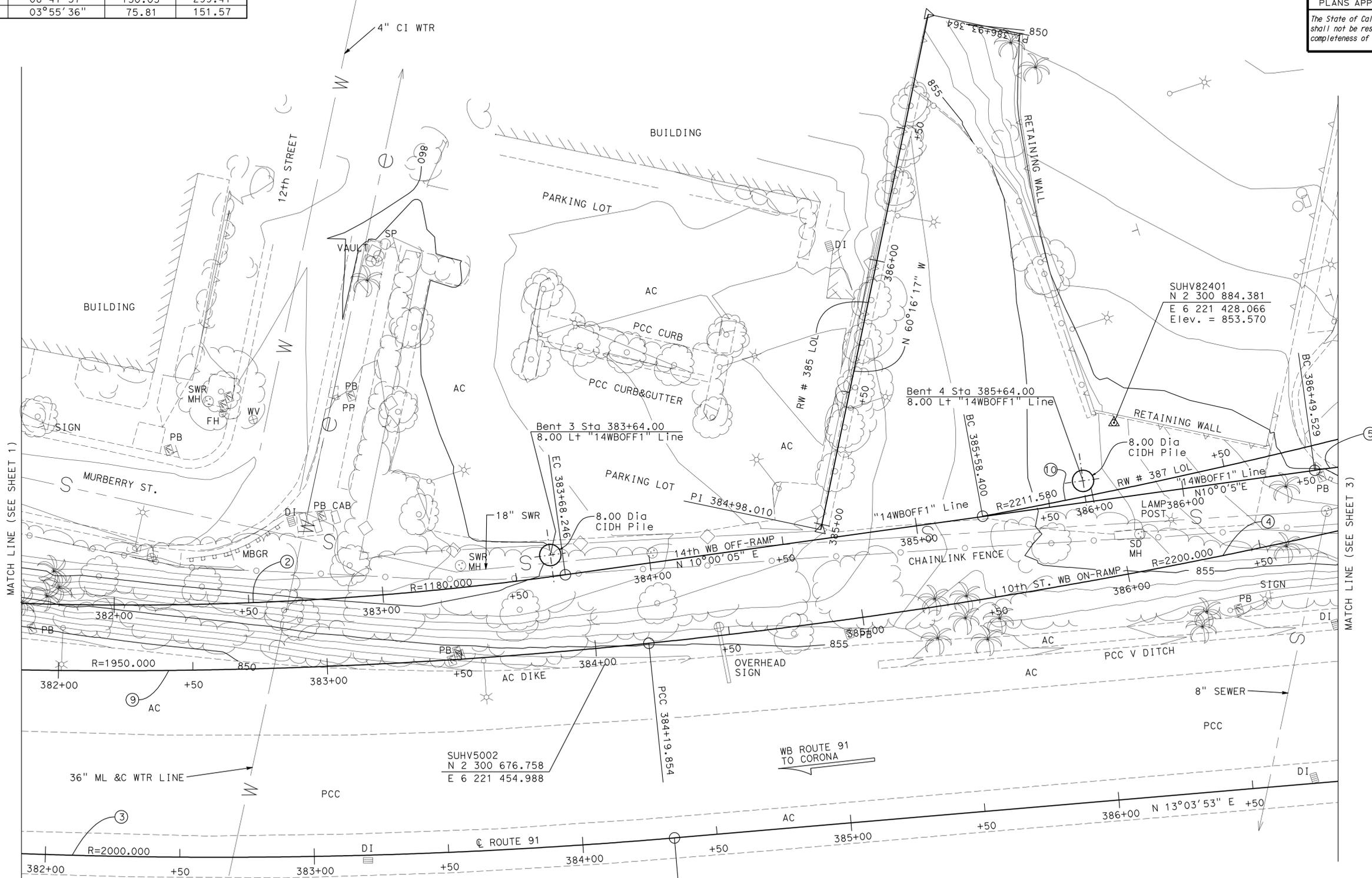
CURVE DATA

No.	R	Δ	T	L
②	1180.000	34°58'25"	371.754	720.278
③	2000.000	15°54'9"	279.346	555.101
④	2200.000	12°18'53"	237.340	472.852
⑤	2070.000	26°29'00"	487.103	956.799
⑨	1950.000	08°47'57"	150.03	299.47
⑩	2211.58	03°55'36"	75.81	151.57

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1850	2028

Huan Vu
 REGISTERED CIVIL ENGINEER DATE 11-30-10
 4-25-11
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REGISTERED PROFESSIONAL ENGINEER
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA



MATCH LINE (SEE SHEET 1)

MATCH LINE (SEE SHEET 3)

SURVEY CONTROL
 SEE SHEET 1

NOTES:
 UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE

PRELIMINARY INVESTIGATION SECTION				DESIGN BY L. Wu	CHECKED D. Alvarez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0837K	14TH STREET WB OFFRAMP FOUNDATION PLAN NO. 2
SCALE 1"=20'	VERT. DATUM NGVD 29	PHOTOGRAMMETRY AS OF: X	DETAILS BY G. Hallstrom	CHECKED D. Alvarez	POST MILE 20.25				
ALIGNMENT TIES DIST TRAY SHEETS	SURVEYED BY C. Stewart 11/08	CHECKED BY L. Manabo 11/08	QUANTITIES BY M. Crete	CHECKED R. Melko	REVISION DATES				
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 10/25/05)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 7 OF 35

USERNAME => hrcp001 DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:57

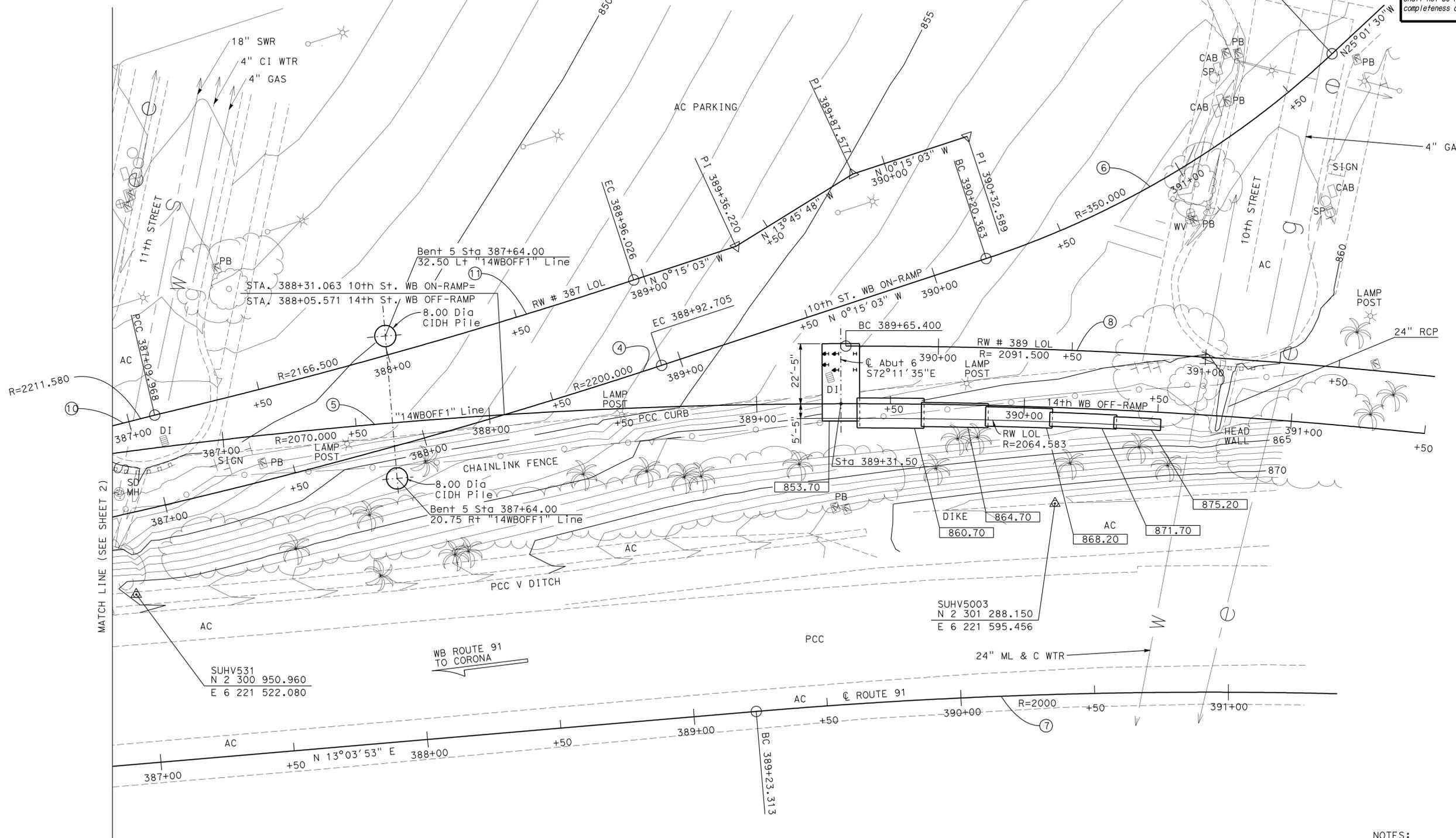
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1851	2028

Huan Vu
 REGISTERED CIVIL ENGINEER DATE 11-30-10
 4-25-11
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

CURVE DATA

No.	R	Δ	T	L
(4)	2200.000	12°18'53"	237.340	472.852
(5)	2070.000	26°29'00"	487.103	956.799
(6)	350.000	24°46'27"	76.870	151.338
(7)	2000.000	32°08'13"	576.080	1121.790
(8)	2091.500	22°51'22"	422.785	834.327
(9)	2211.58	03°55'36"	75.81	151.57
(10)	2166.50	04°55'14"	93.09	186.06



SURVEY CONTROL
 SEE SHEET 1

NOTES:
 UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE
 [Symbol] Indicates bottom of footing elevation

PRELIMINARY INVESTIGATION SECTION				DESIGN BY L. Wu	CHECKED D. Alvarez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0837K	14TH STREET WB OFFRAMP FOUNDATION PLAN NO. 3
SCALE 1"=20'	VERT. DATUM NGVD 29	PHOTOGRAMMETRY AS OF: X	DETAILS BY G. Hallstrom	CHECKED D. Alvarez	POST MILE 20.25				
ALIGNMENT TIES DIST TRAY SHEETS	DRAFTED BY M. Sadaghiani 12/08	CHECKED BY L. Manabo 12/08	QUANTITIES BY M. Crete	CHECKED R. Melko	REVISION DATES				
STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 10/25/05)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 8 OF 35

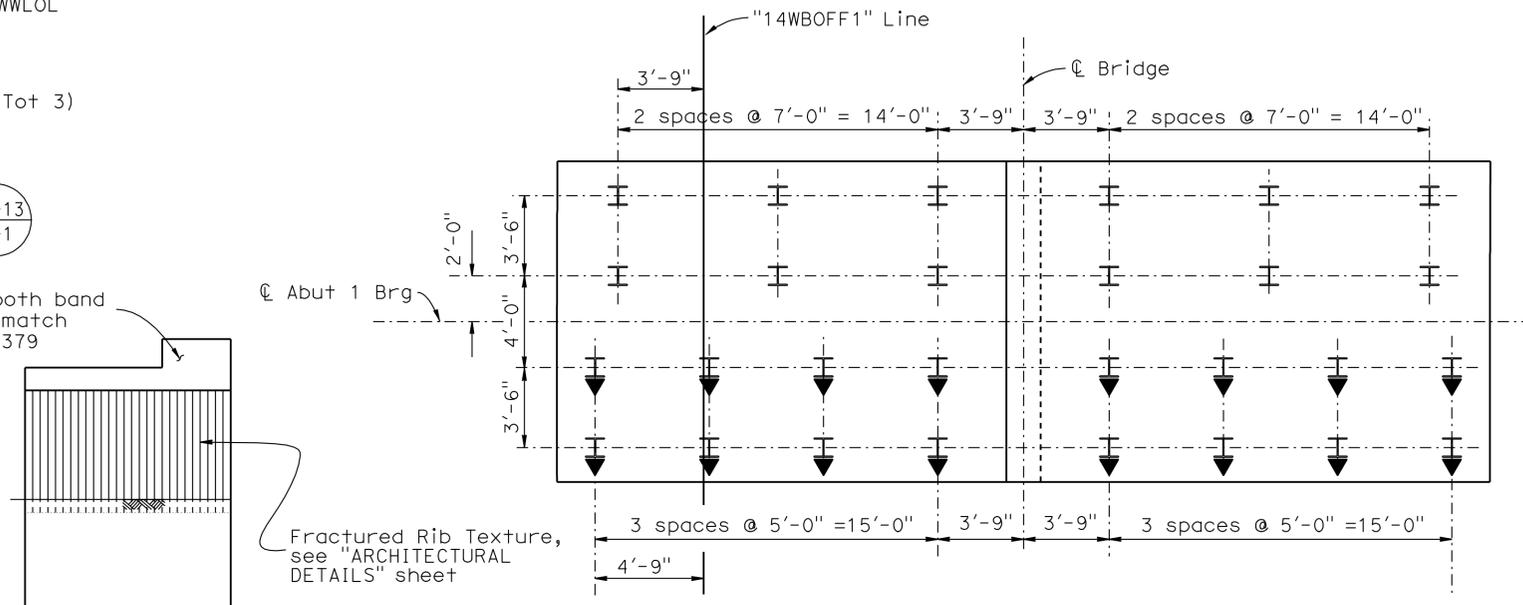
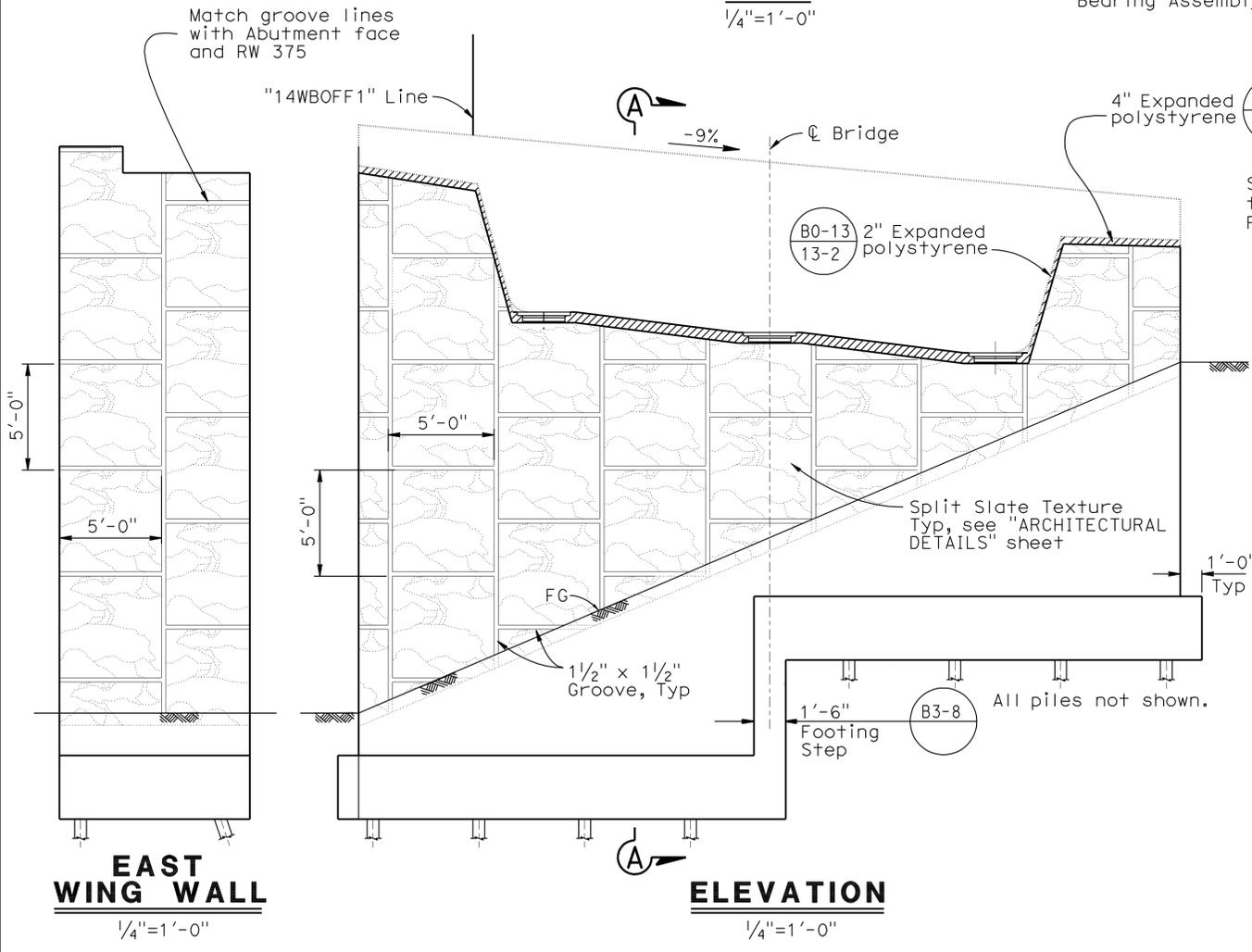
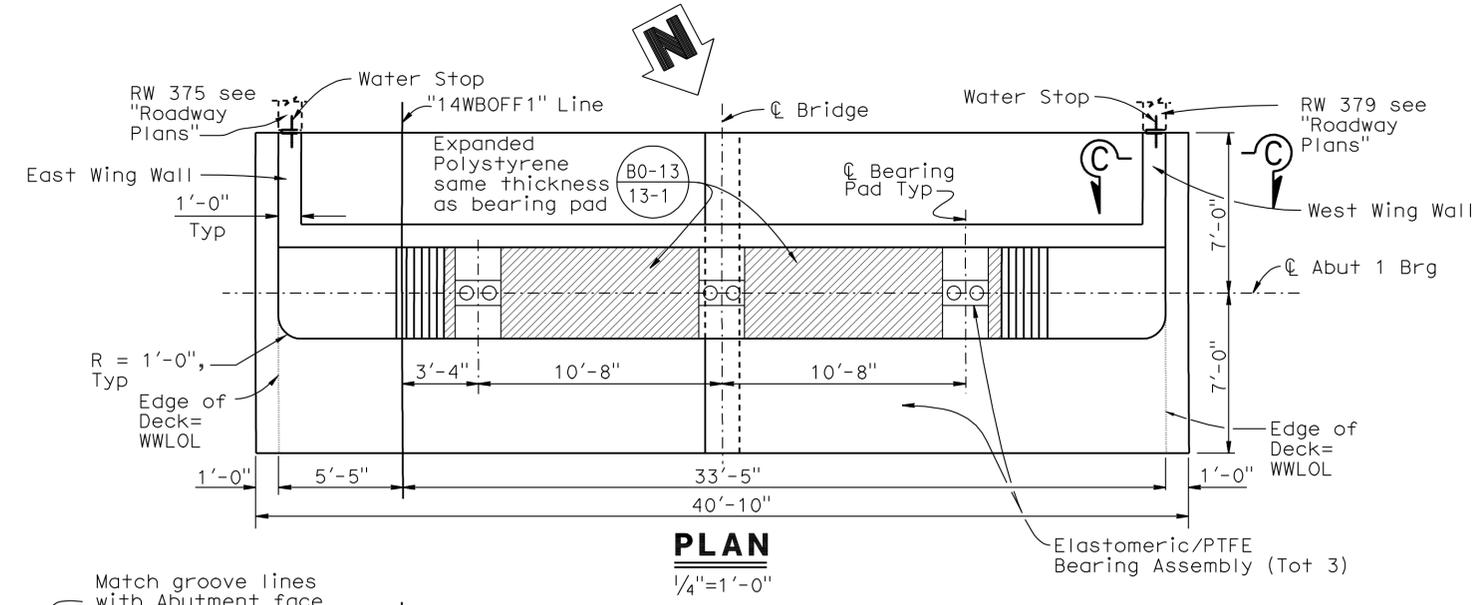
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1852	2028

Huan Vu 11-30-10
 REGISTERED CIVIL ENGINEER DATE

4-25-11
 PLANS APPROVAL DATE

HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

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LEGEND:

- ⊞ Indicates vertical pile
- ⊞ Indicates 1:3 battered pile

NOTES:

1. For Section A-A, see "ABUTMENT DETAILS NO. 1" sheet.
2. For Section C-C, see "ABUTMENT DETAILS NO. 3" sheet.
3. For Elastomeric/PTFE Bearing Pad Assembly, see "ELASTOMERIC/PTFE BEARING" sheet.

DESIGN	BY	L. Wu	CHECKED	D. Alvarez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0837K	14TH STREET WB OFFRAMP ABUTMENT 1 LAYOUT	
	DETAILS	BY	G. Hallstrom	CHECKED			D. Alvarez	POST MILE		20.25
	QUANTITIES	BY	M. Crete	CHECKED			R. Melko	CU 08 EA 448401		REVISION DATES

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

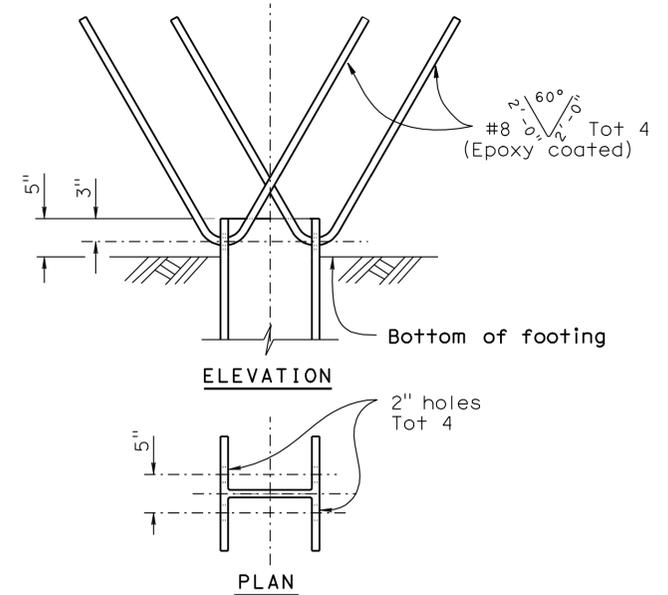
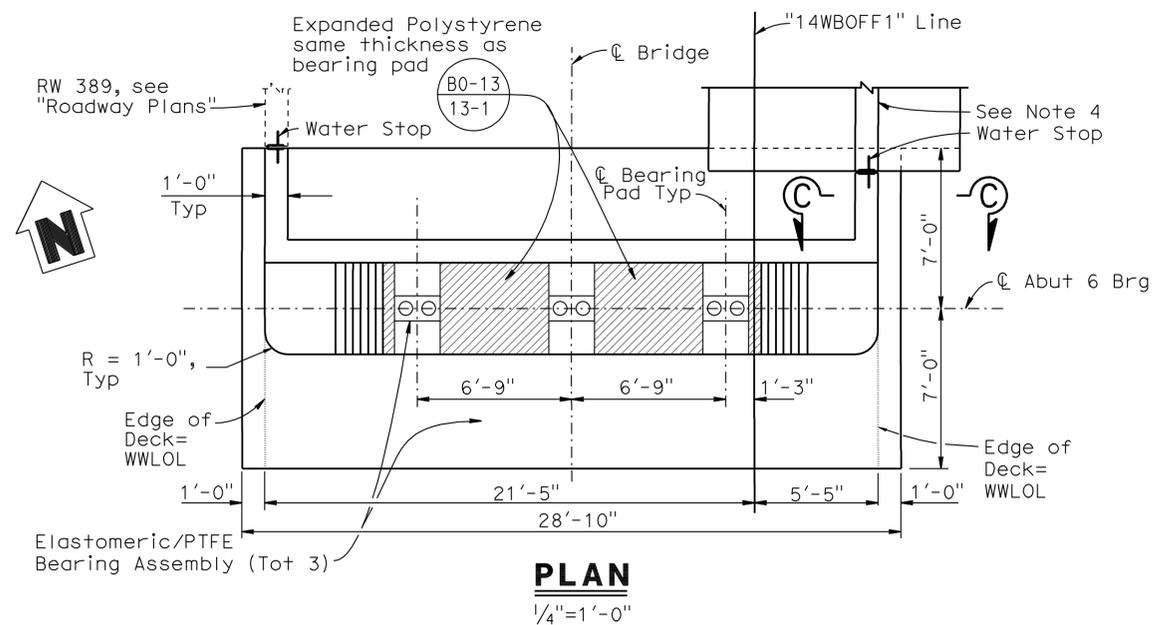
FILE => 560837kfa011o09.dgn

SHEET 9 OF 35

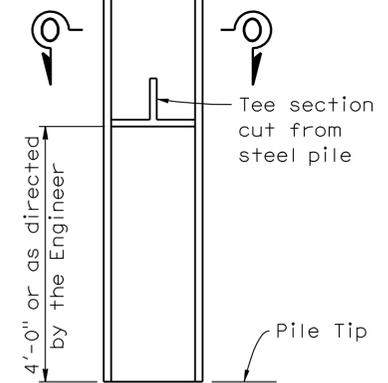
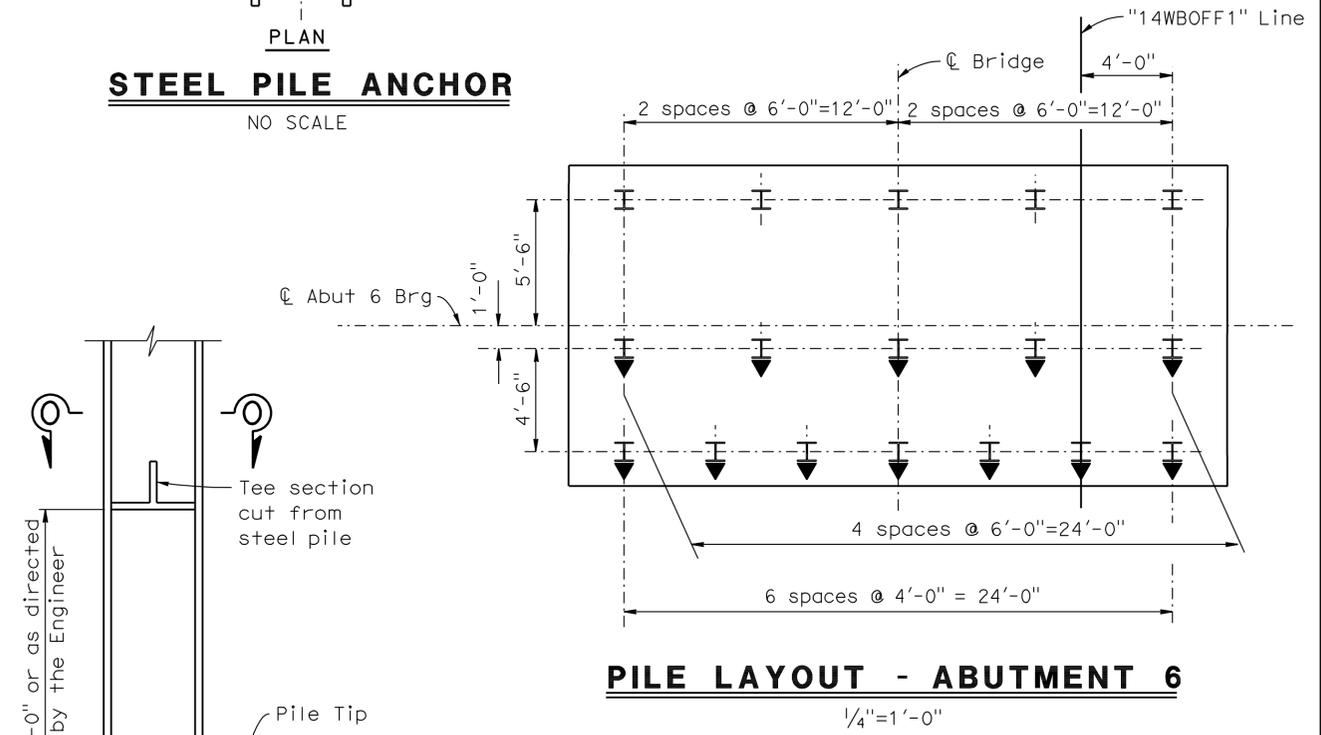
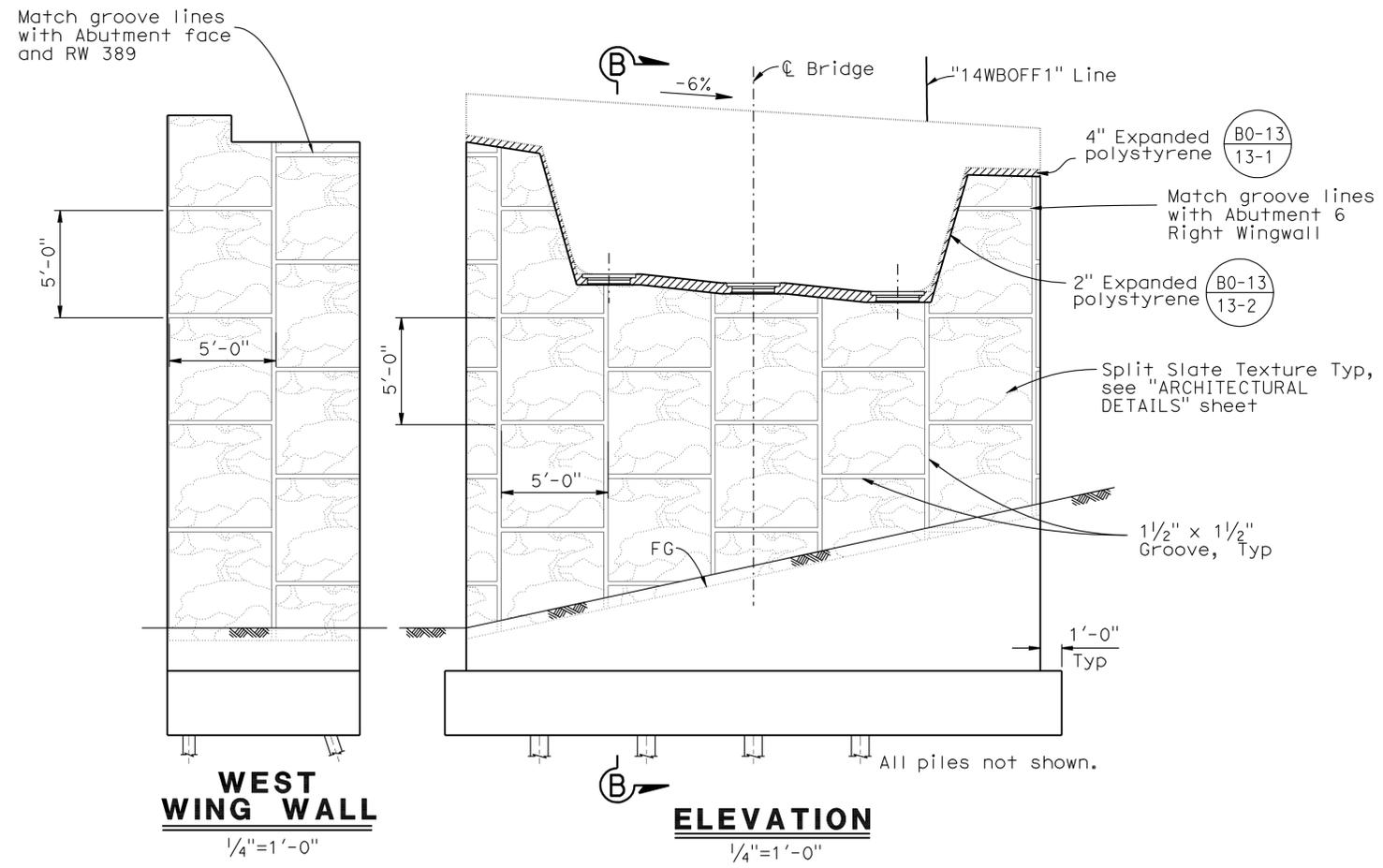
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1853	2028

HUAN VU 11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

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STEEL PILE ANCHOR
NO SCALE



LEGEND:

- ⊕ Indicates vertical pile
- ⊕ Indicates 1:3 battered pile

NOTES:

- For Section B-B, see "ABUTMENT DETAILS NO. 1" sheet.
- For Section C-C, see "ABUTMENT DETAILS NO. 3" sheet.
- For Elastomeric/PTFE Bearing Pad Assembly, see "ELASTOMERIC/PTFE BEARING" sheet.
- For Retaining Wall details, see "ABUTMENT DETAILS NO. 3" sheet.

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0837K
POST MILE 20.25

14TH STREET WB OFFRAMP
ABUTMENT 6 LAYOUT

CU 08
EA 448401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

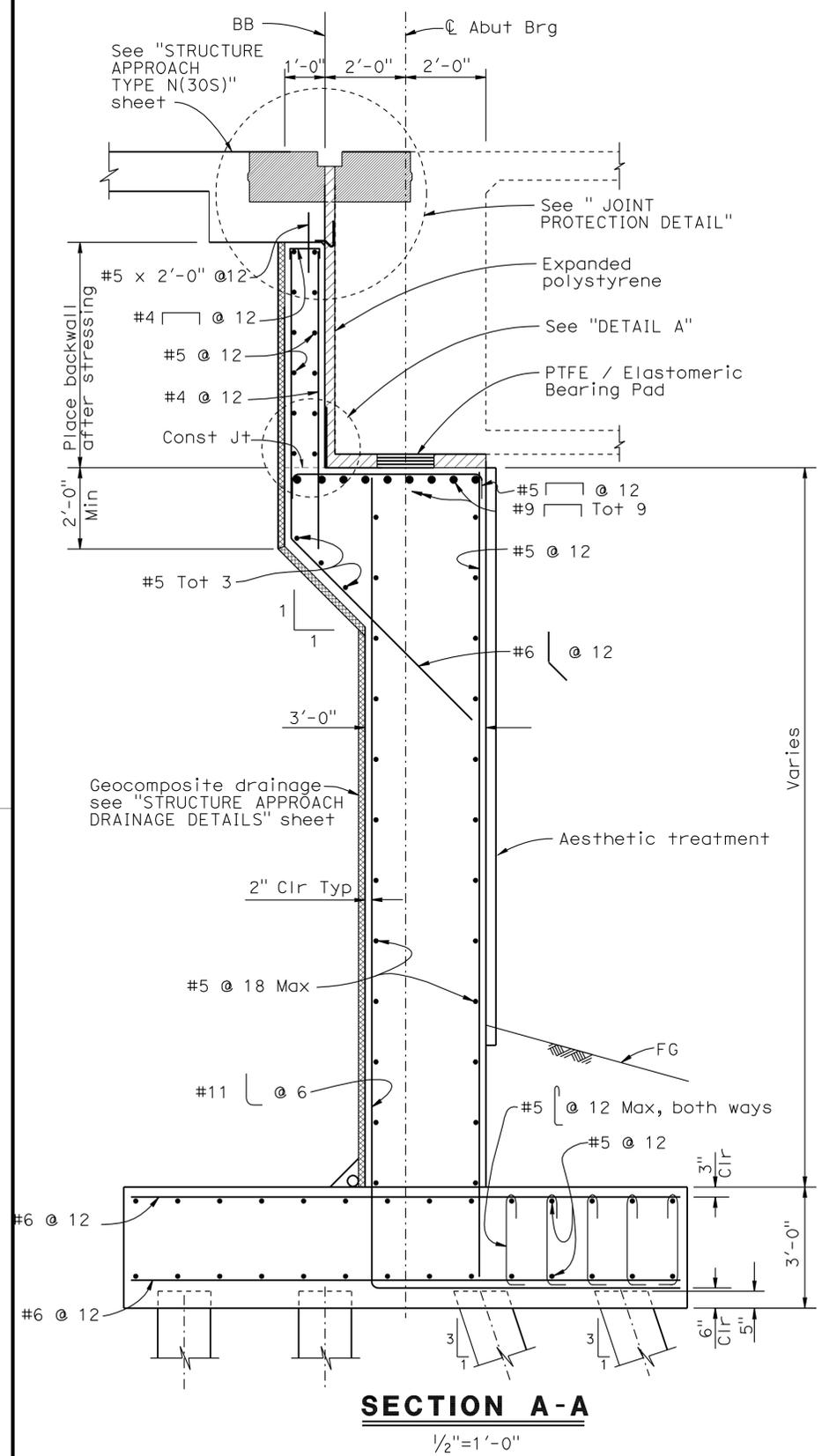
3-18-09	9-09-09	1-19-10	3-08-10	9-28-10	11-30-10
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SHEET 10 OF 35

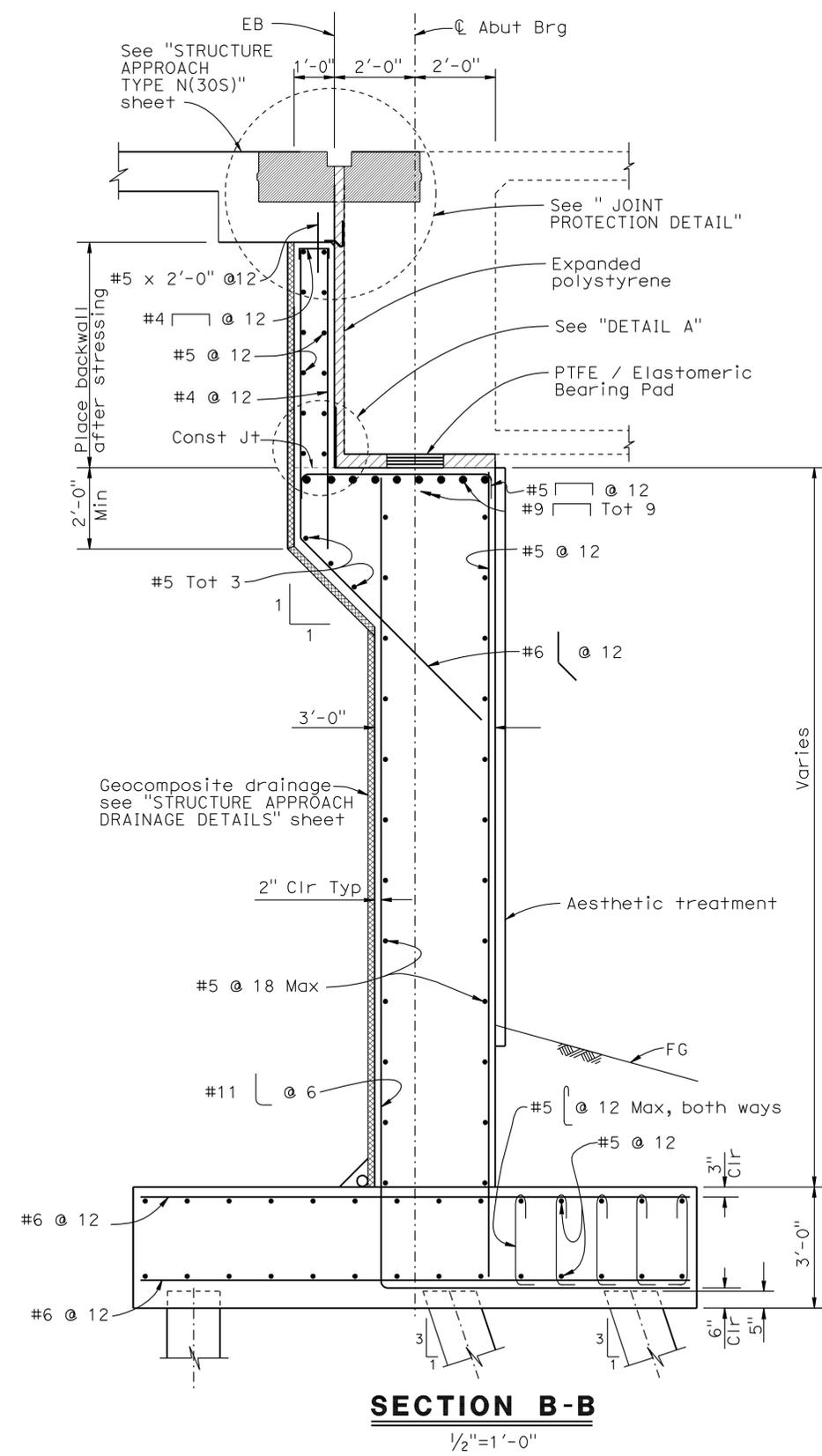
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1854	2028

HUAN VU 11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
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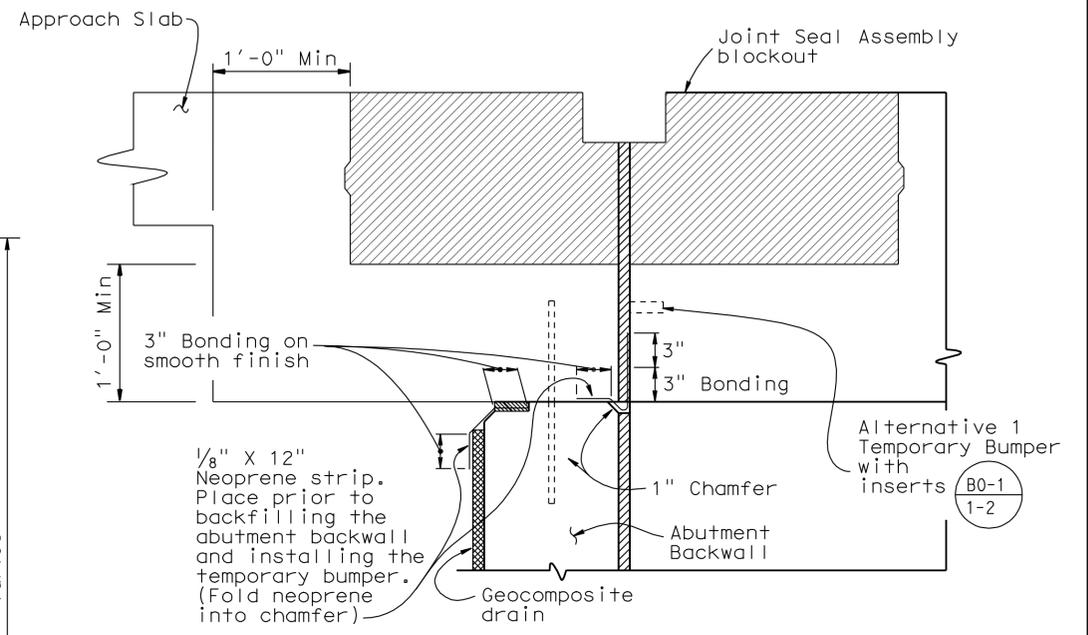
REGISTERED PROFESSIONAL ENGINEER
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA



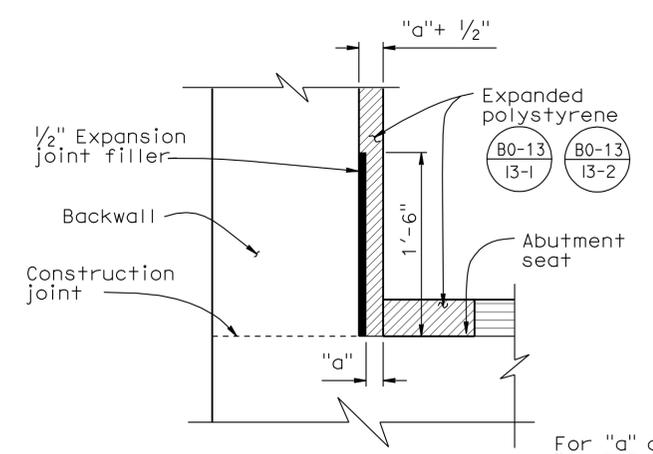
SECTION A-A
1/2"=1'-0"



SECTION B-B
1/2"=1'-0"



JOINT PROTECTION DETAIL
No Scale



DETAIL "A"
No Scale

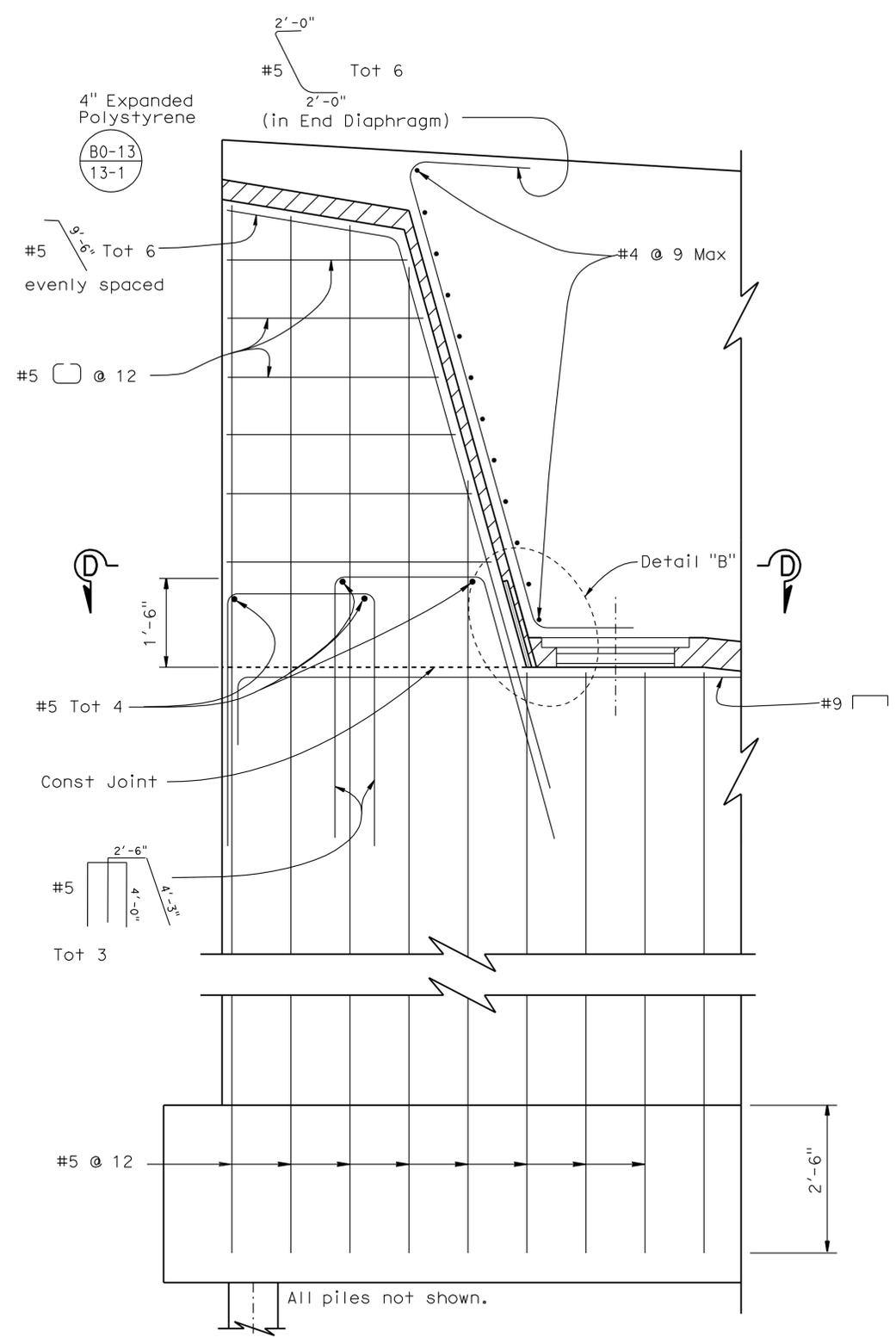
For "a" dimension, see "ABUTMENT JOINT SEAL DETAILS MOVEMENT RATING GREATER THAN 4" sheet.

- NOTES:
1. For location of Section A-A, see "ABUTMENT 1 LAYOUT" sheet.
 2. For location of Section B-B see "ABUTMENT 6 LAYOUT" sheet.

DESIGN	BY L. Wu	CHECKED D. Alvarez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO.	14TH STREET WB OFFRAMP ABUTMENT DETAILS NO. 1
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED D. Alvarez			56-0837K	
QUANTITIES	BY M. Crete	CHECKED R. Melko			POST MILE 20.25	

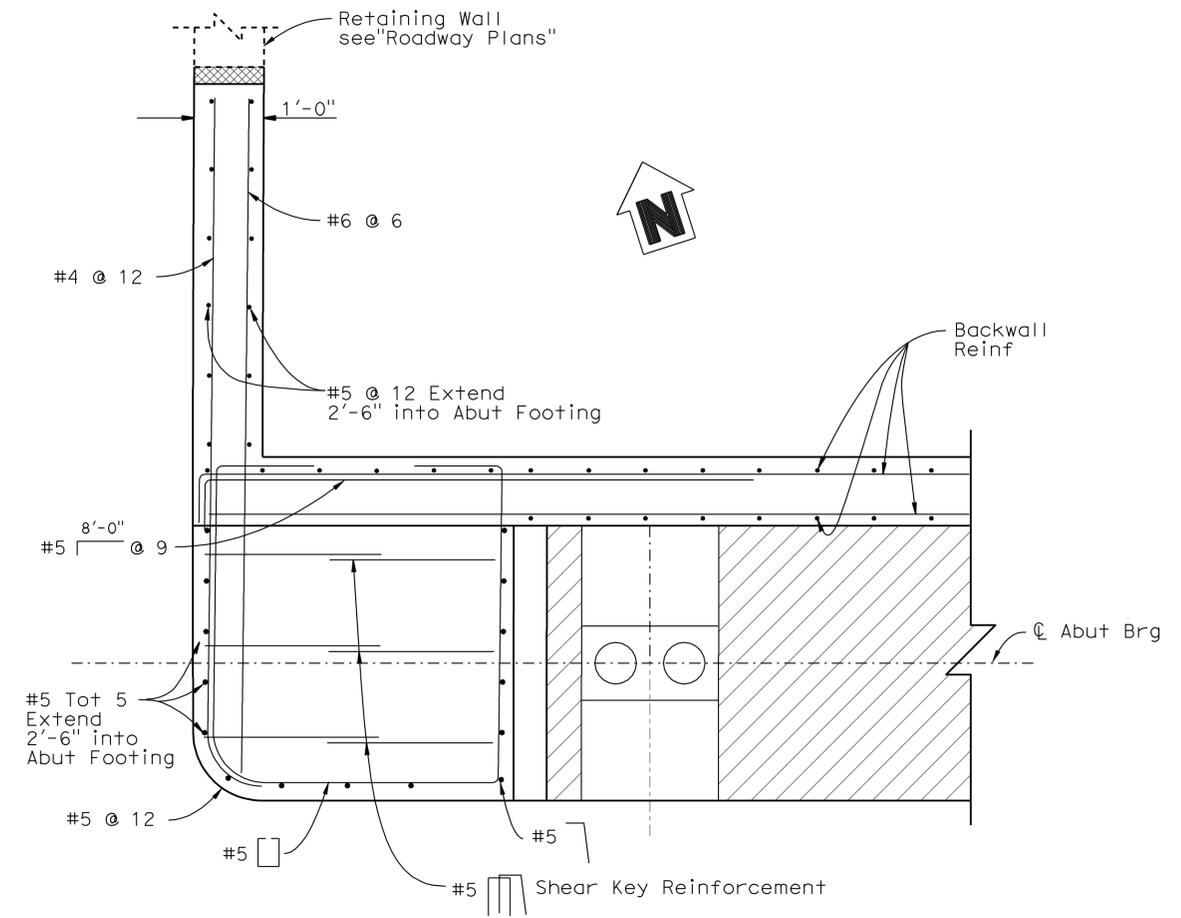
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 CU 08 EA 448401 DISREGARD PRINTS BEARING EARLIER REVISION DATES 3-18-09 6-11-09 2-02-10 SHEET 11 OF 35

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1855	2028
 REGISTERED CIVIL ENGINEER DATE 11-30-10					
PLANS APPROVAL DATE 4-25-11					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



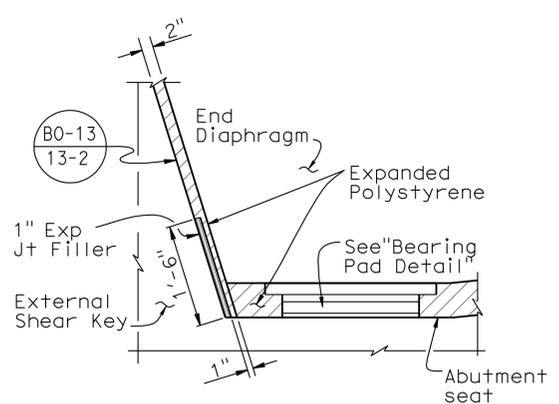
PART ELEVATION

$\frac{3}{4}''=1'-0''$
Abutment 6 shown, Abutment 1 similar.



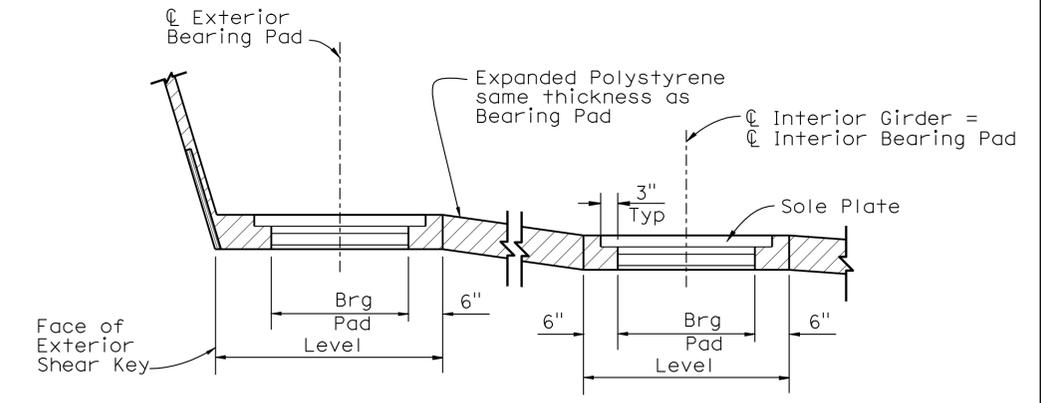
SECTION D-D

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



DETAIL "B"

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



BEARING PAD DETAIL

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

NOTE:
For other Bearing Pad details, see "ELASTOMERIC/PFTE BEARING" sheet.

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

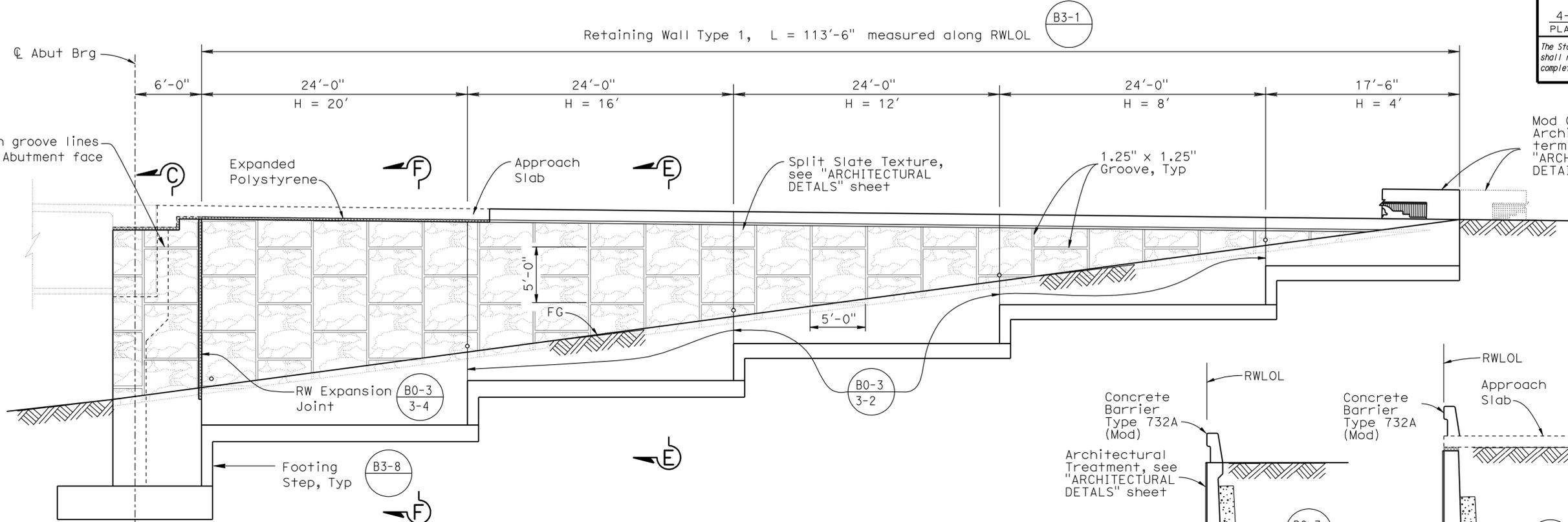
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

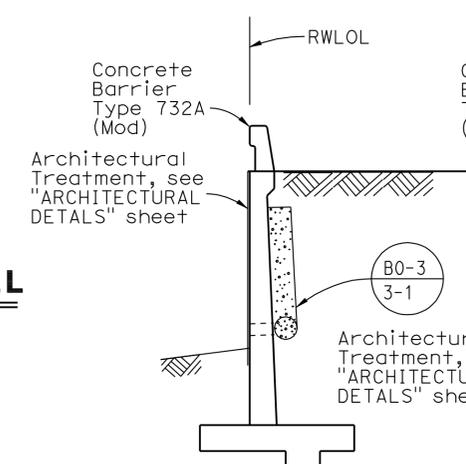
14TH STREET WB OFFRAMP
ABUTMENT DETAILS NO. 2

3-18-09	6-12-09	9-09-09	1-19-10	9-08-10	11-30-10
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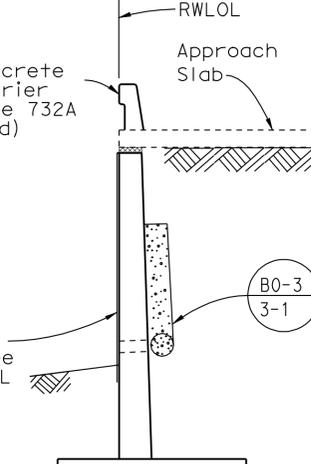
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1856	2028
 REGISTERED CIVIL ENGINEER			11-30-10 DATE		
4-25-11 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



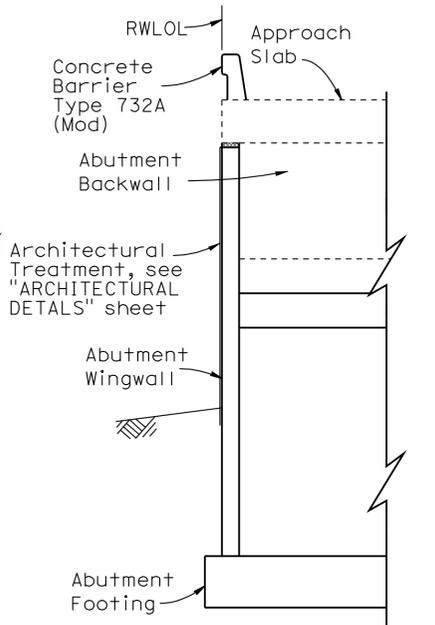
ELEVATION - ABUTMENT 6 RIGHT WING WALL
 $\frac{3}{16}'' = 1' - 0''$



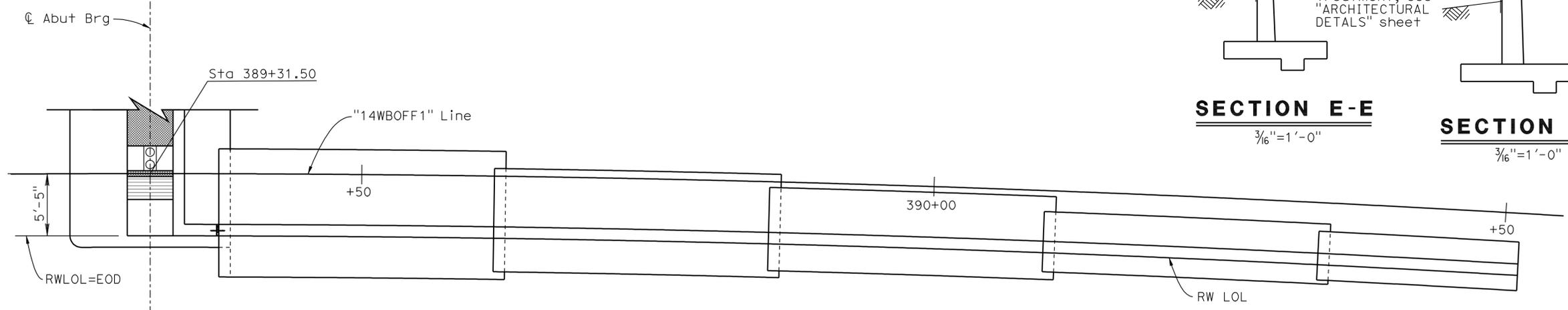
SECTION E-E
 $\frac{3}{16}'' = 1' - 0''$



SECTION F-F
 $\frac{3}{16}'' = 1' - 0''$



SECTION C-C
 $\frac{3}{16}'' = 1' - 0''$



PARTIAL PLAN - ABUTMENT 6 RIGHT WING WALL
 $\frac{3}{16}'' = 1' - 0''$

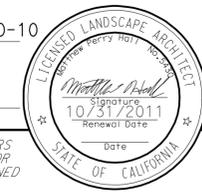
DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

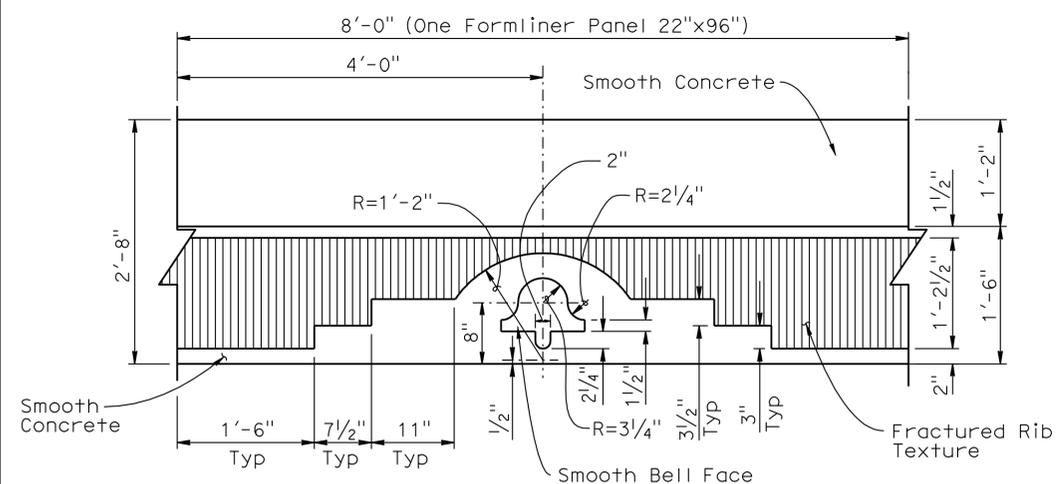
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

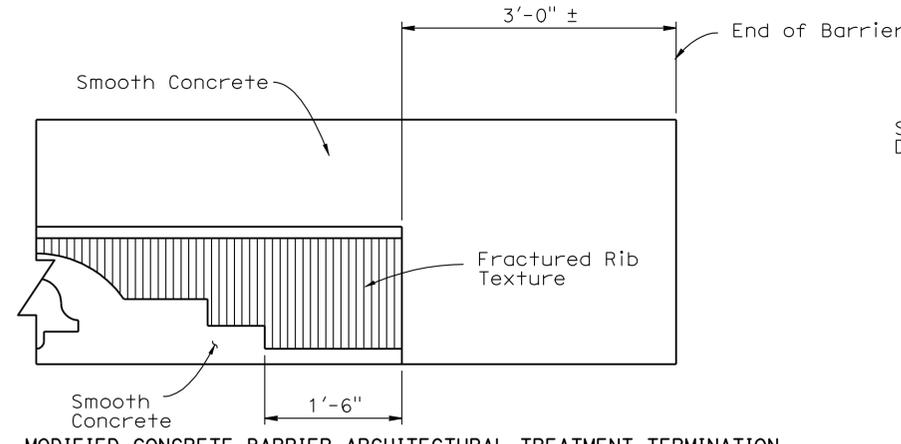
BRIDGE NO.
 56-0837K
 POST MILE
 20.25

14TH STREET WB OFFRAMP
 ABUTMENT DETAILS NO. 3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1857	2028
 11-30-10 LICENSED LANDSCAPE ARCHITECT					
4-25-11 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

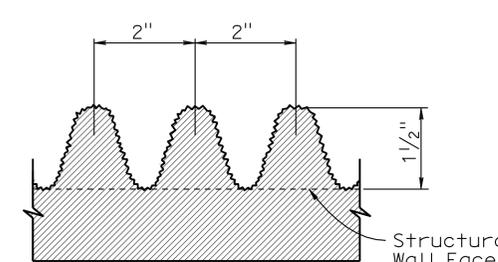


DETAIL "A"
1"=1'-0"

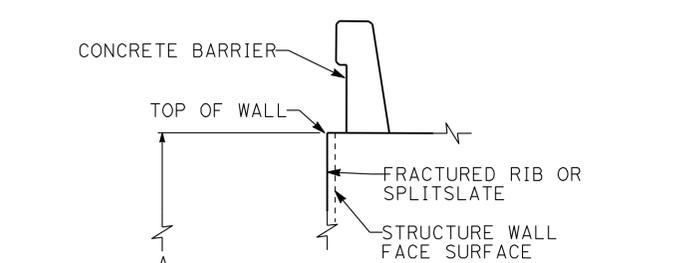


DETAIL "B"
1"=1'-0"

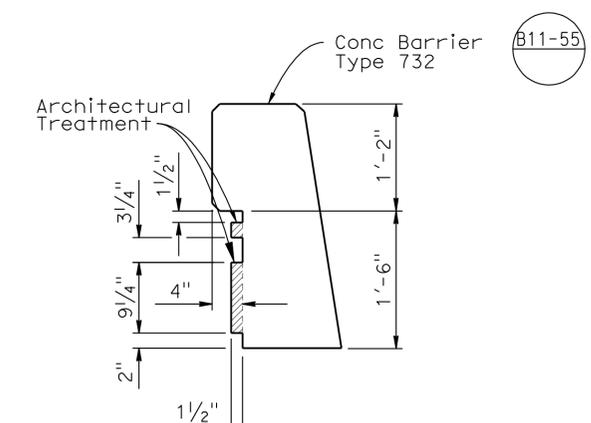
MODIFIED CONCRETE BARRIER ARCHITECTURAL TREATMENT TERMINATION



FRAGMENTED RIB TEXTURE (TYP)
No Scale

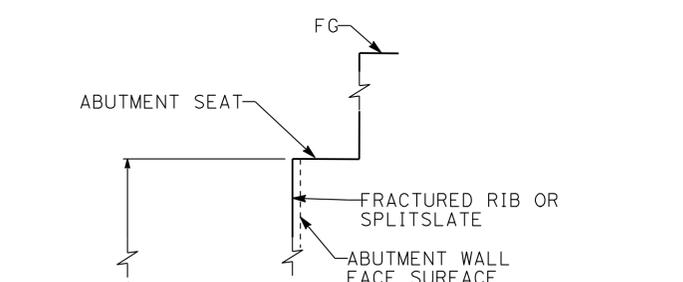


TOP OF WALL DETAIL TYPICAL WITH CONCRETE BARRIER
NO SCALE

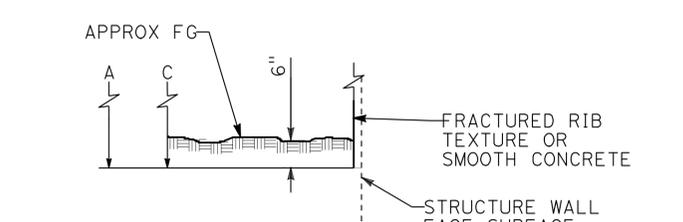


SECTION AT CENTER OF PANEL-BELL
1"=1'-0"

CONCRETE BARRIER TYPE 732 (MOD)

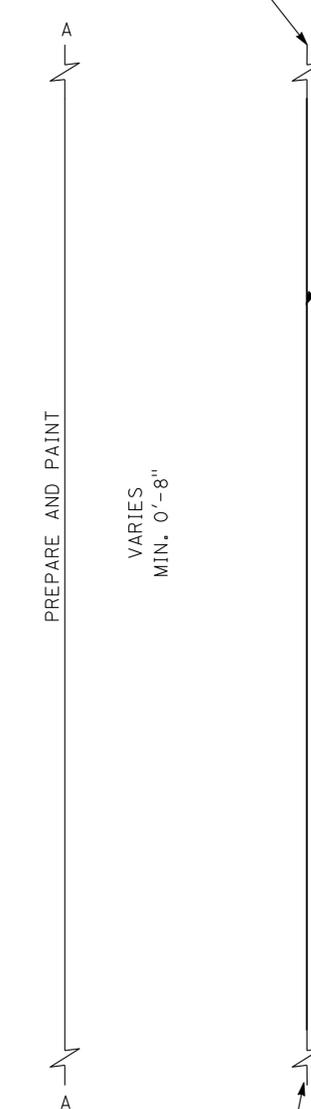


TOP OF ABUTMENT WALL DETAIL TYPICAL BRIDGE SOFFIT
NO SCALE



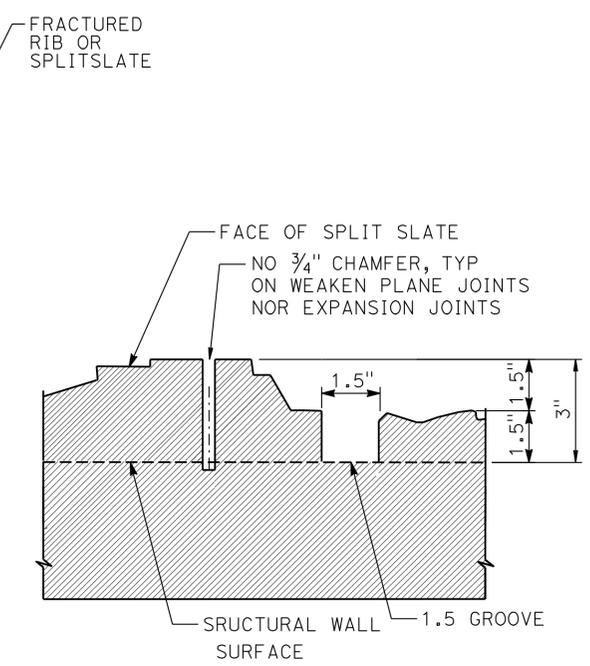
FINISH GROUND DETAIL TYPICAL DETAIL AT FINISH GRADE
NO SCALE

SEE TOP OF WALL DETAILS



SECTION E-E
1/2"=1'-0"

SPLITS LATE TEXTURE



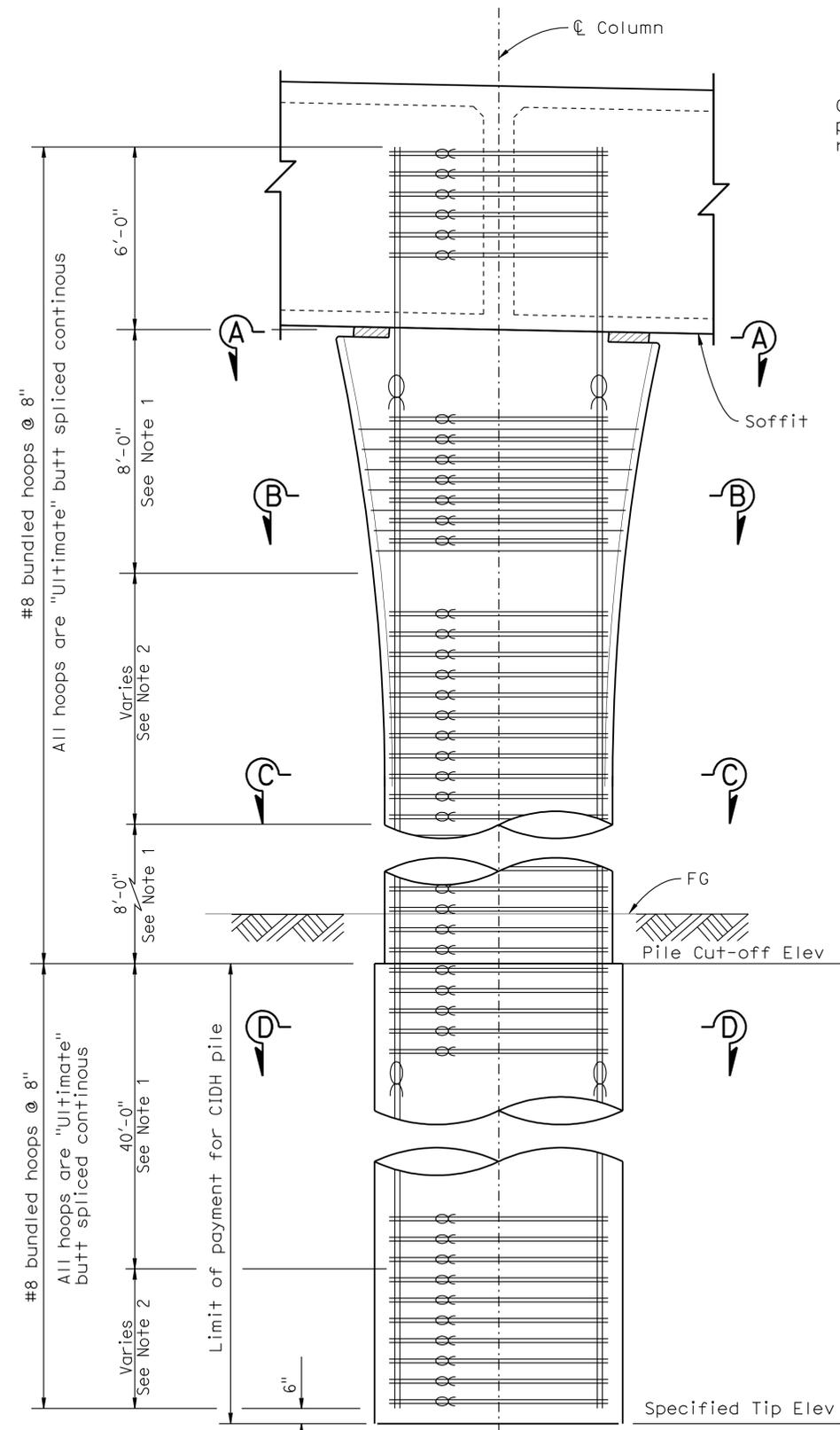
TYPICAL SPLITS LATE TEXTURE
NO SCALE

DESIGN	BY M. Hall	CHECKED M. Bishop
DETAILS	BY G. Hallstrom	CHECKED M. Bishop
QUANTITIES	BY M. Crete	CHECKED R. Melko

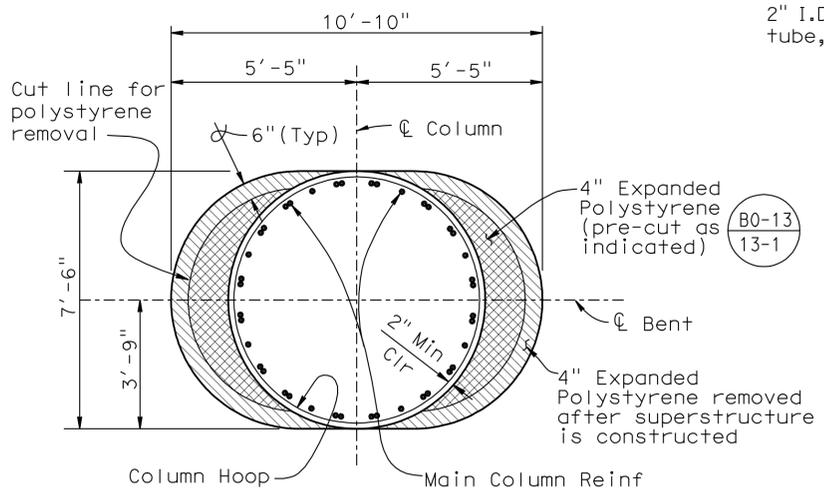
STATE OF CALIFORNIA	
DEPARTMENT OF TRANSPORTATION	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. 56-0837K
DESIGN BRANCH 10	POST MILE 20.25

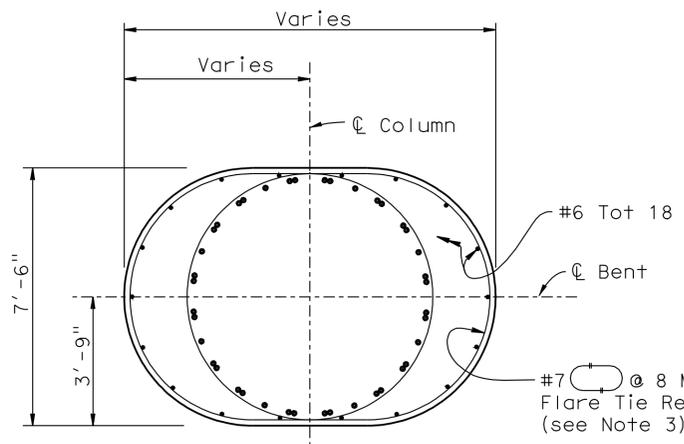
14TH STREET WB OFFRAMP	
ARCHITECTURAL DETAILS	



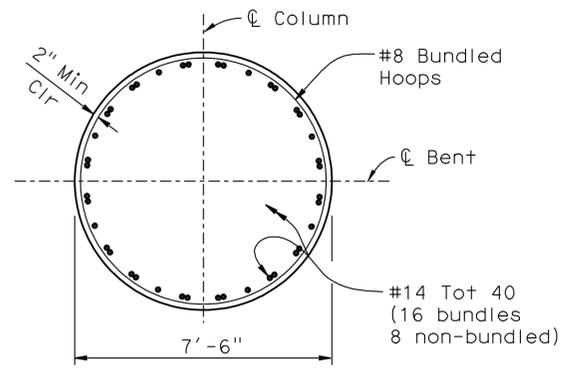
TYPICAL SECTION
3/8"=1'-0"



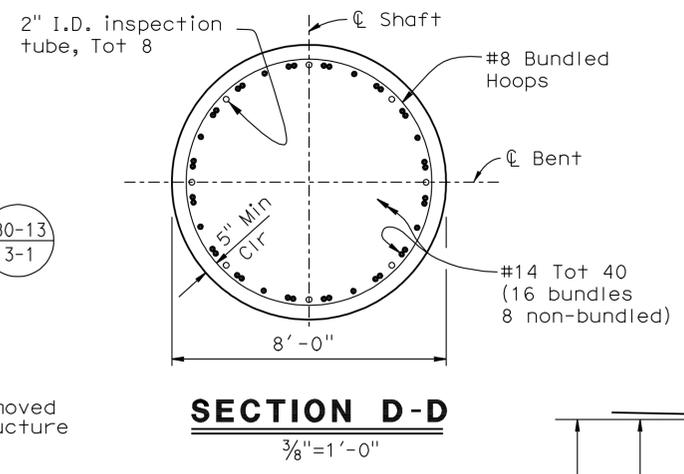
SECTION A-A
3/8"=1'-0"



SECTION B-B
3/8"=1'-0"



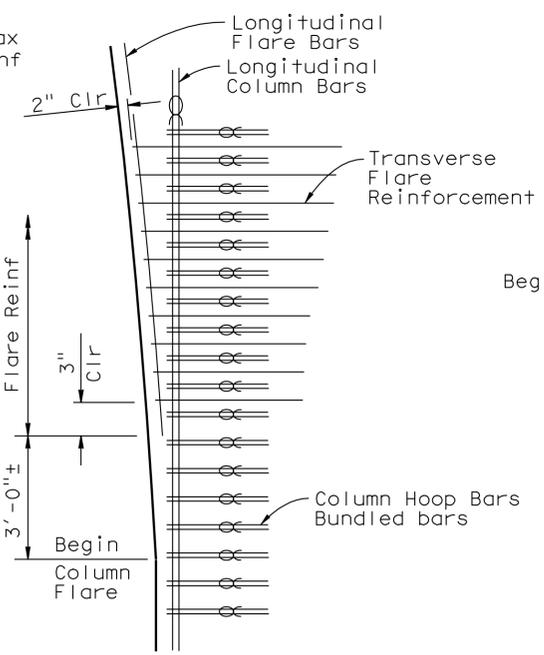
SECTION C-C
3/8"=1'-0"



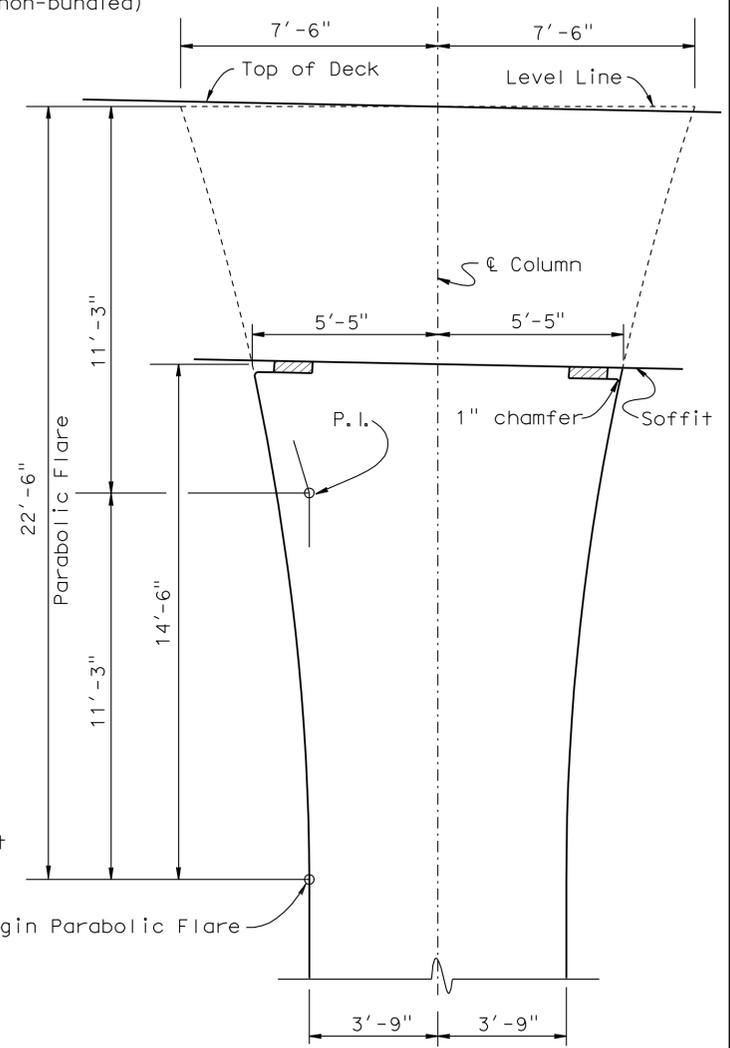
SECTION D-D
3/8"=1'-0"

CIDH CUT-OFF ELEVATIONS

BENT NO.	CUT-OFF ELEV (ft)
2	848.00
3	852.00
4	852.00
5 Left	848.00
5 Right	857.00



COLUMN FLARE HOOP AND TIE DETAIL
NO SCALE



COLUMN GEOMETRICS
NO SCALE

- NOTES:**
1. No splices allowed in column/shaft reinforcing.
 2. Only staggered "Ultimate" Butt splices allowed in column/shaft main reinforcing.
 3. Service Splice Flare Tie Reinforcement. Stagger location of splice.
 4. Bent 3 shown, Bent 2 & Bent 4 similar.

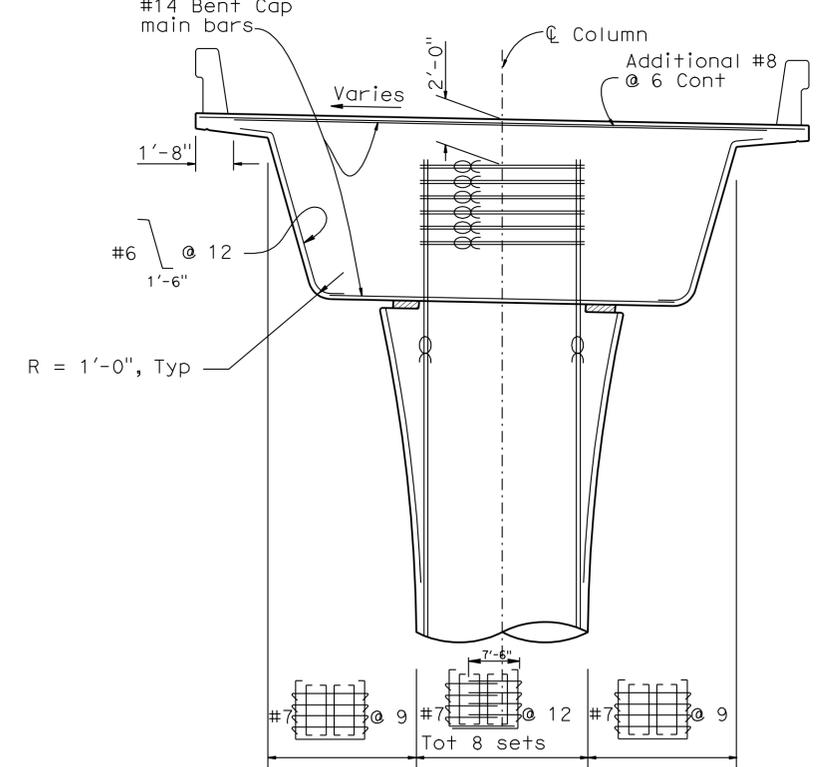
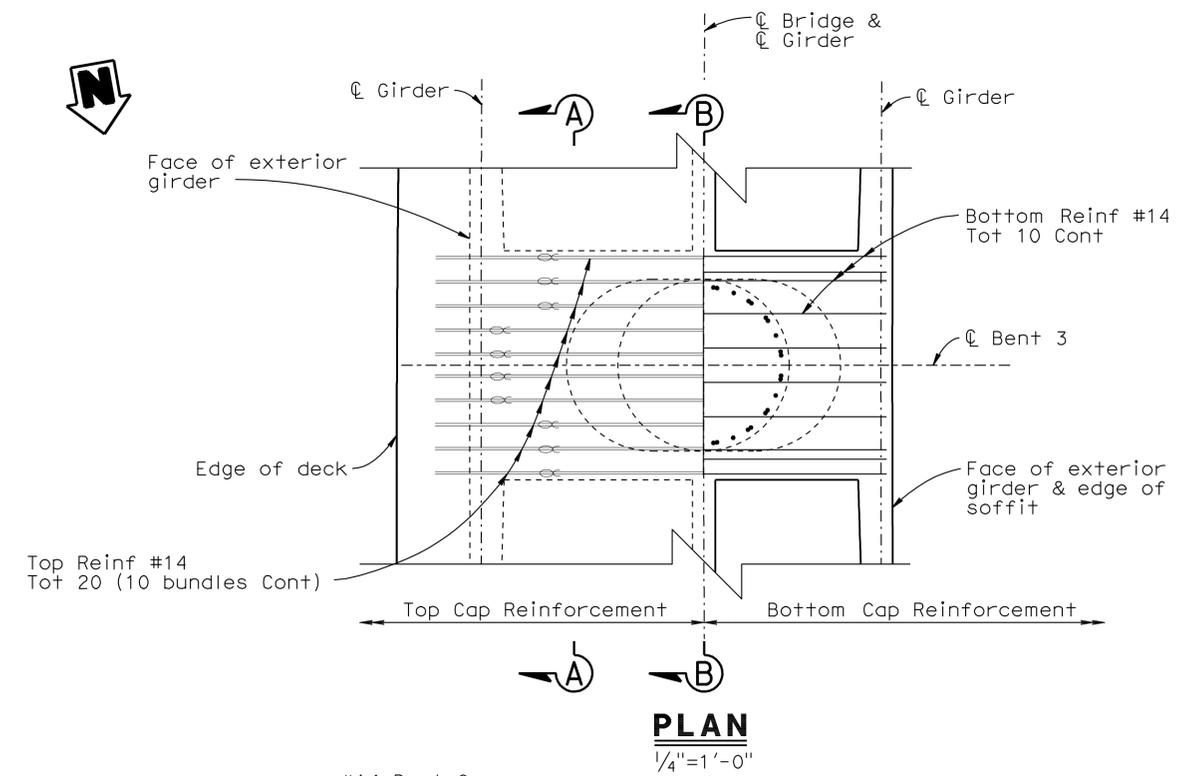
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1859	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

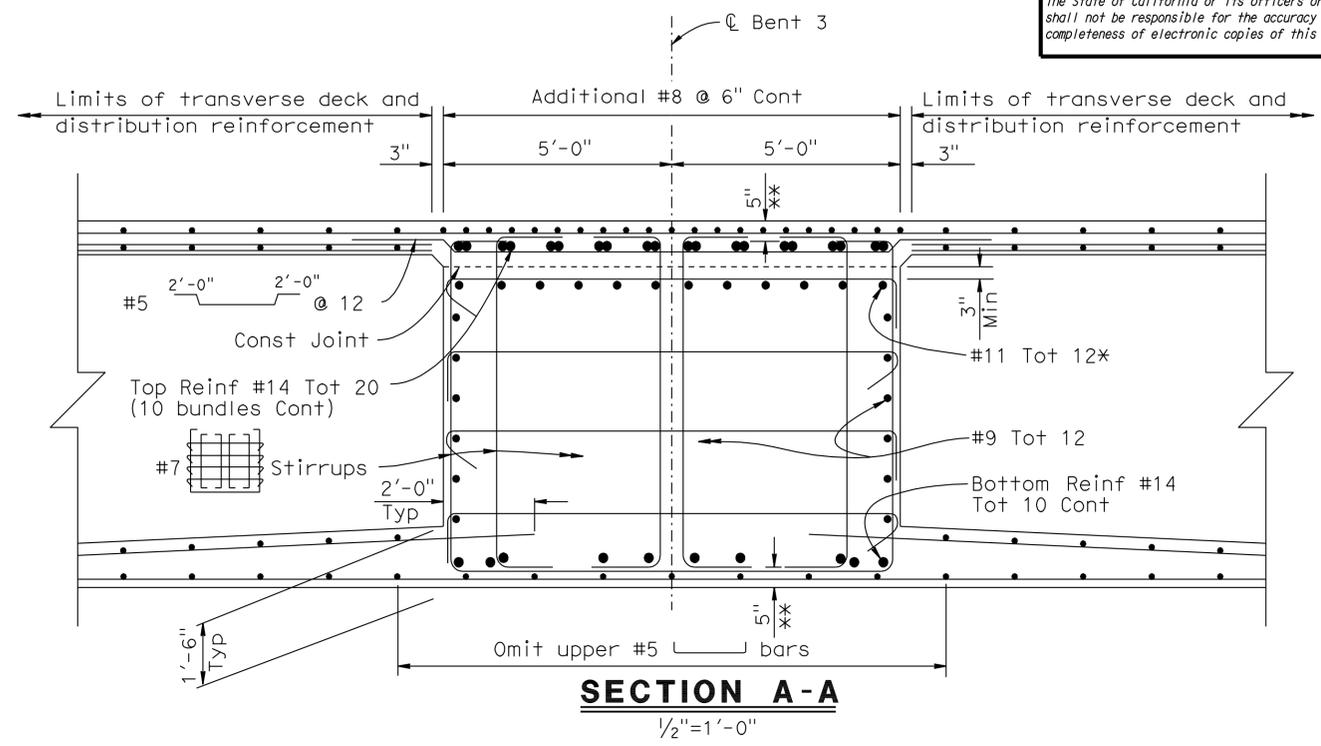
HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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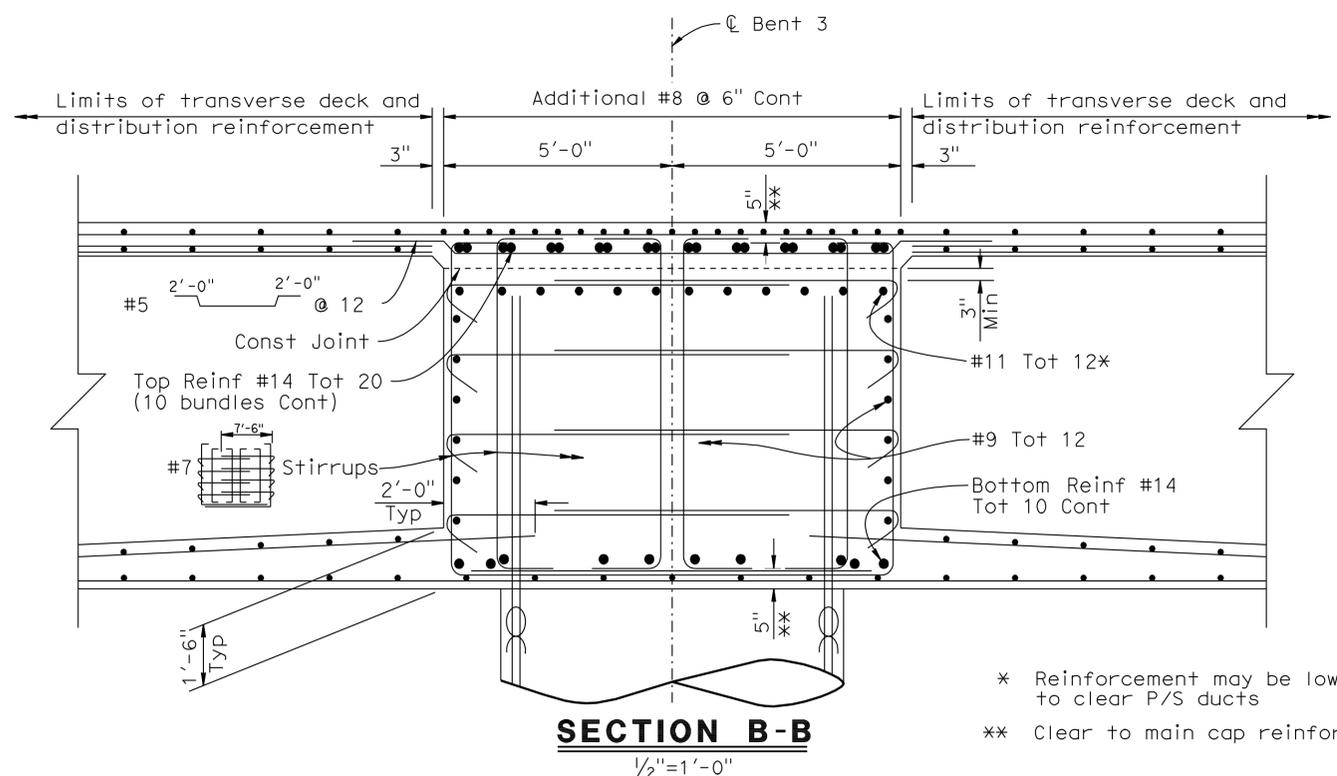


NOTE:
Bent 3 shown, Bent 2 & Bent 4 similar

ELEVATION
1/4"=1'-0"



SECTION A-A
1/2"=1'-0"



SECTION B-B
1/2"=1'-0"

* Reinforcement may be lowered to clear P/S ducts
** Clear to main cap reinforcement

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY Y. Tang	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

14TH STREET WB OFFRAMP
BENT 2, 3, 4 DETAILS

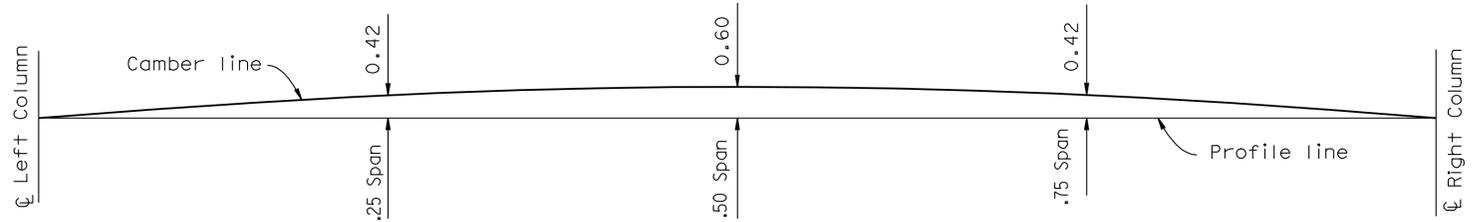
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1860	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

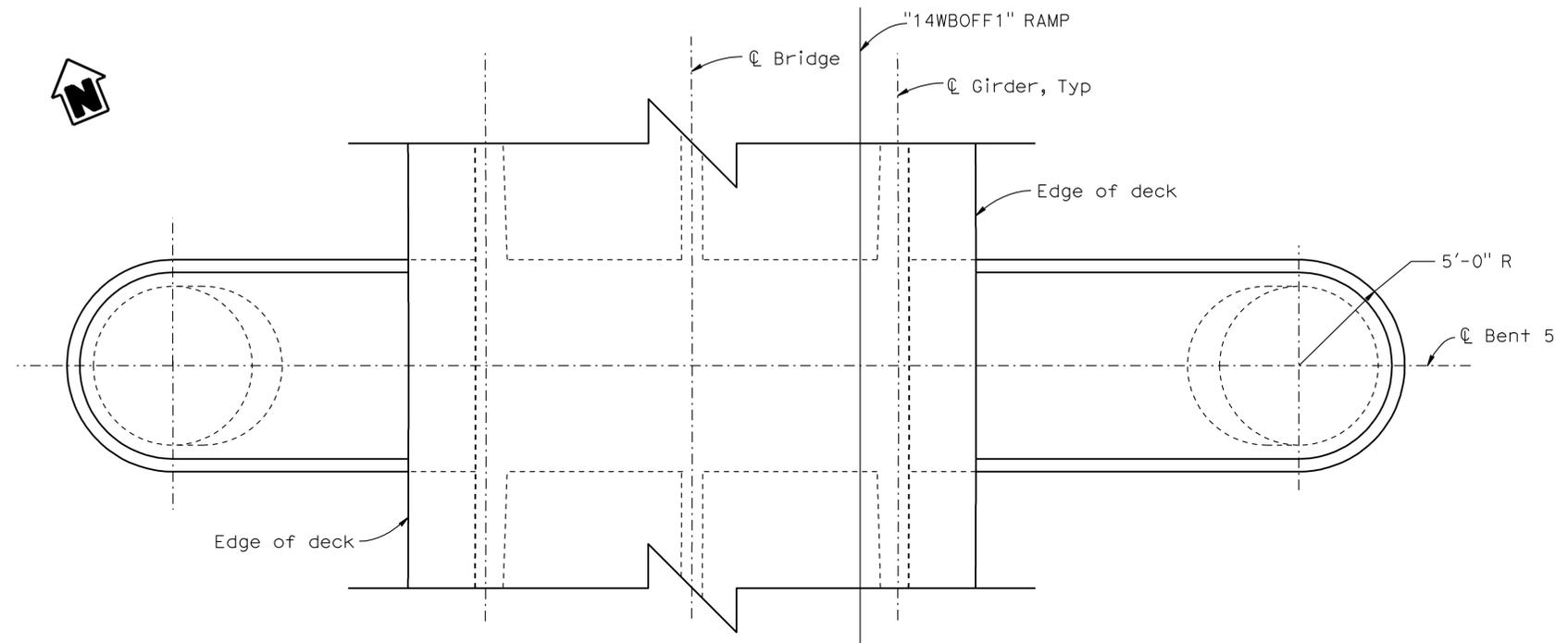


CAMBER DIAGRAM
NO SCALE

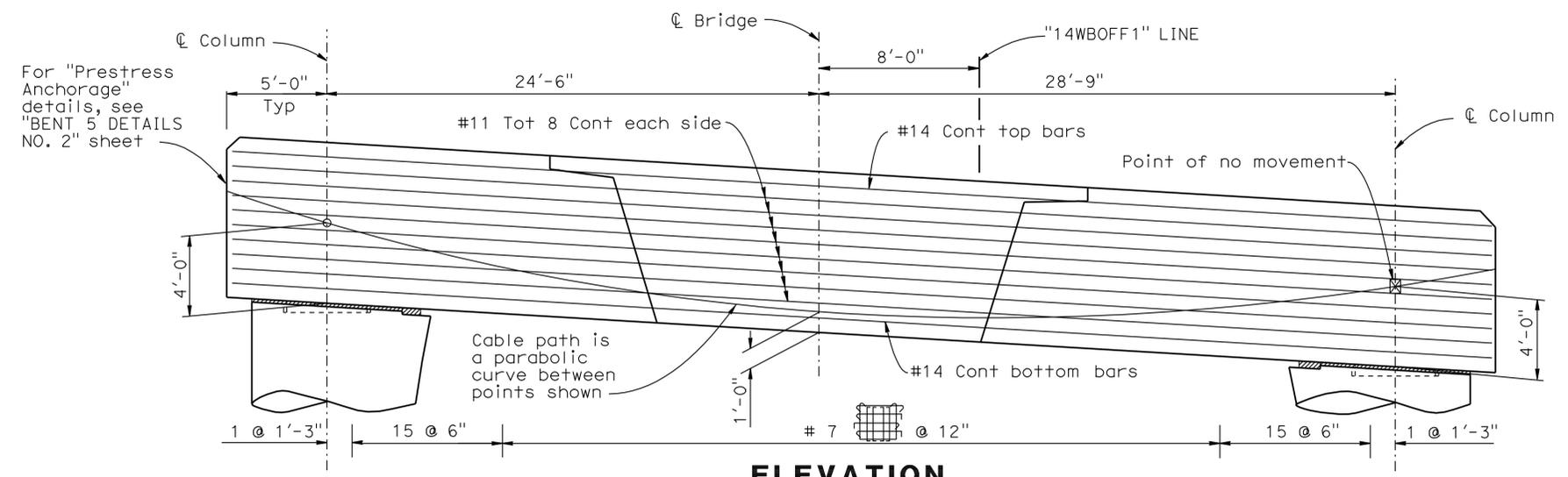
NOTE:
Camber diagram does not include falsework settlement. Camber values are shown in inches.

PRESTRESSING NOTES FOR OUTRIGGER BENT

- 270 MPa Low Relaxation Strand:
 $P_{Jack} = 7500$ kips
 P_{Jack} = Jacking force per bent.
Friction curvature coefficient $\mu = 0.15$
Friction wobble coefficient $k = 0.0002/ft$
Anchor Set = $\frac{3}{8}$ in
- Concrete: $f'_c = 4000$ psi @ 28 days
 $f'_{ci} = 3500$ psi @ time of stressing
- Stressing:
Bent cap shall be partially prestressed to $P_{Jack} = 2500$ kips before placing superstructure top deck.
Jacking force shall be distributed uniformly to all tendons.
Remainder of prestressing force shall not be applied to bent cap until superstructure has been stressed.
- Prestressing force shall be distributed uniformly across the entire width of the bent cap.
- Stressing sequence shall proceed symmetrically about $\text{\textcircled{C}}$ of the bent.
- Contractor shall submit elongation calculations based on initial stress at $\lambda = 0.920$ times jacking stress.
- One end stressing shall be performed from the Left end.
- Falsework under bent cap shall be designed to support an additional dead load of 2640 kips to be uniformly distributed over length of bent cap.
- λ indicates theoretical point of no movement for one-end stressing.
- Bar reinforcement interfering with prestress tendon alignment shall be adjusted as approved by the Engineer.
- Minimum horizontal clearance between prestress ducts shall be $2\frac{1}{2}$ ".
- Minimum edge distance for bearing plates = 3.0 in.
- For vertical clearance between ducts see $\text{\textcircled{B8-5}}$



PLAN
1/4"=1'-0"

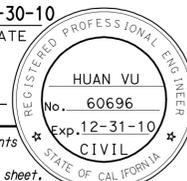


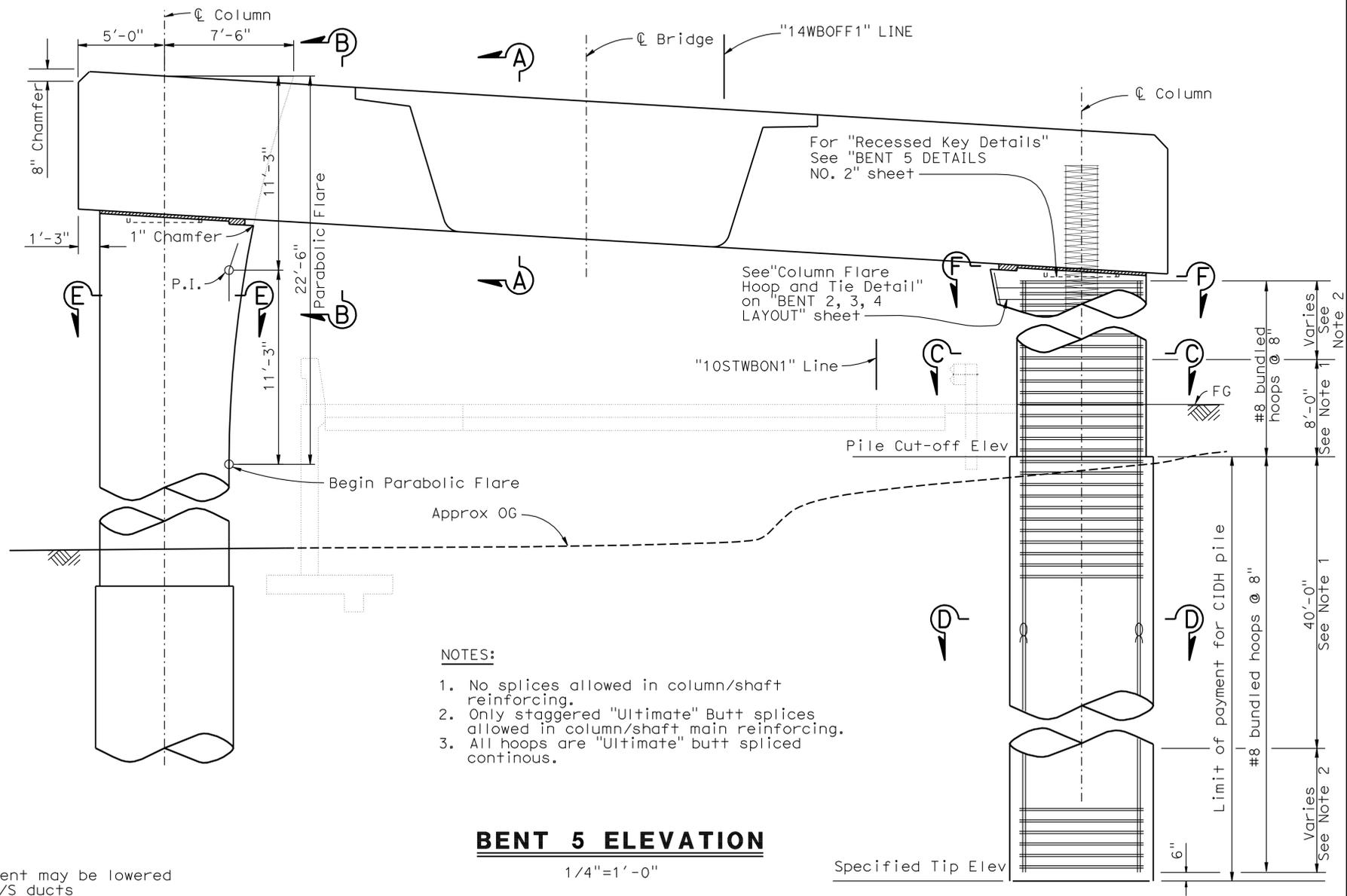
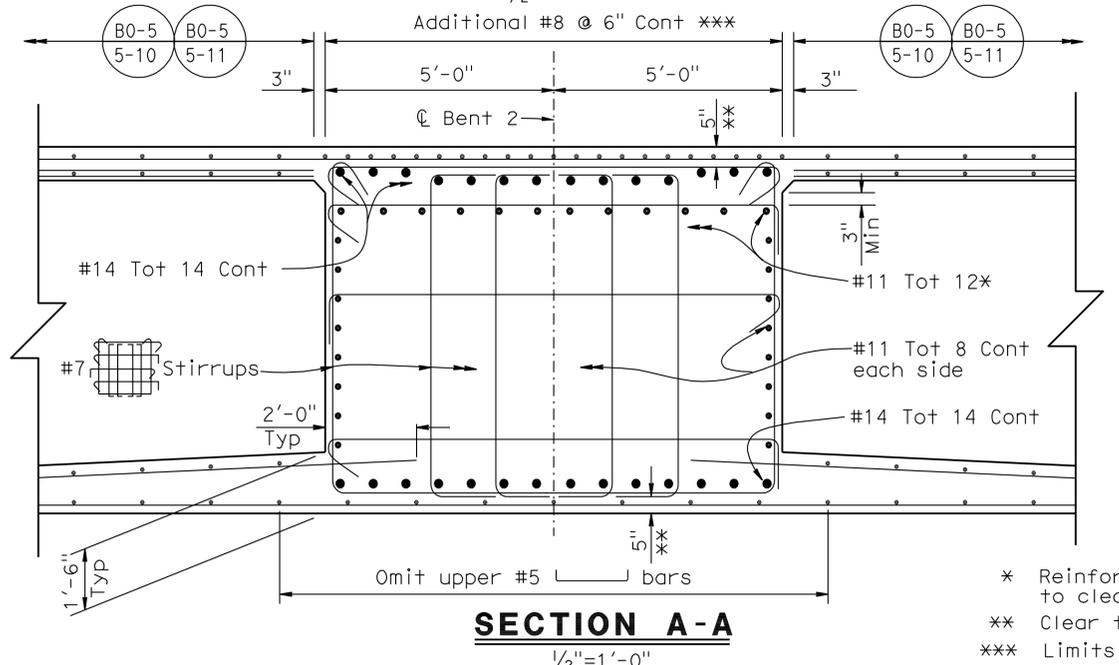
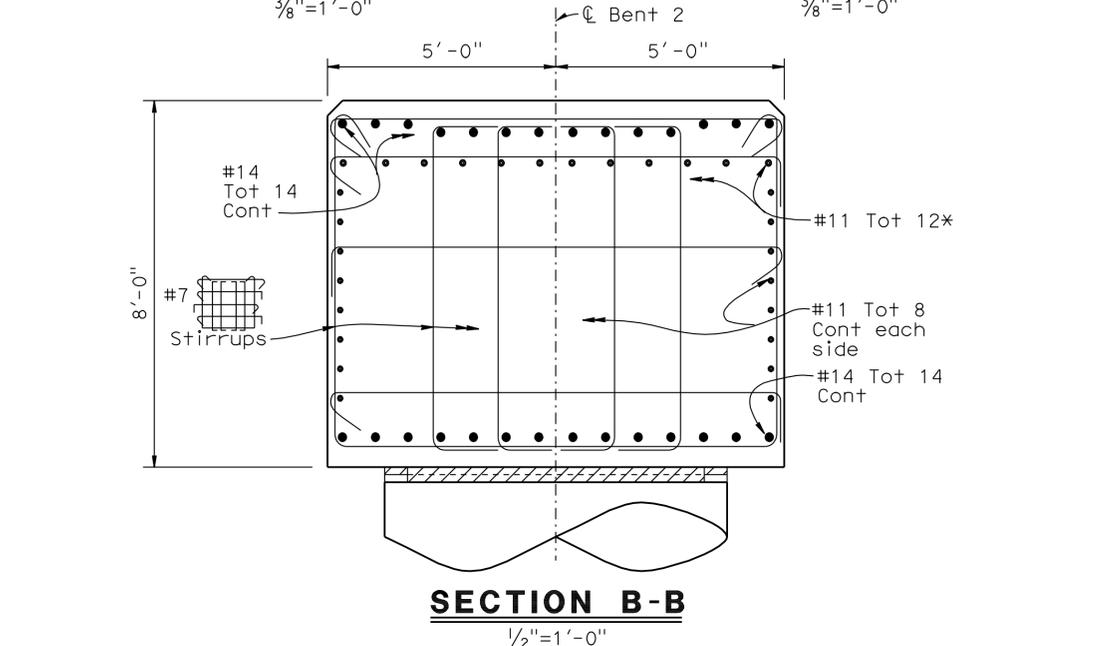
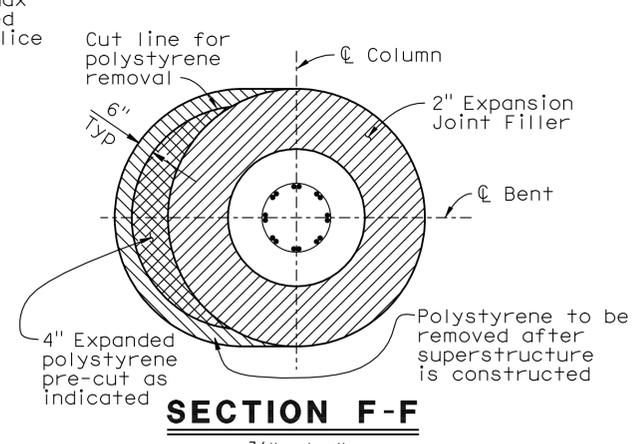
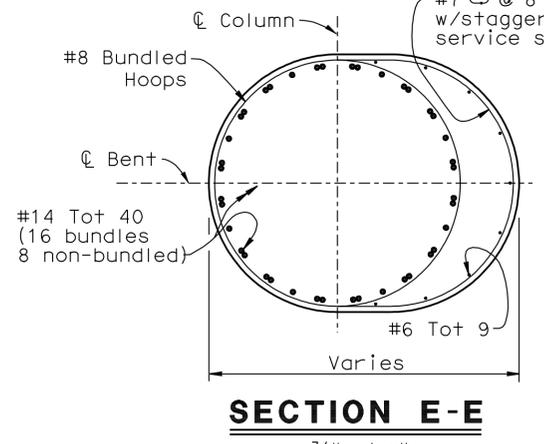
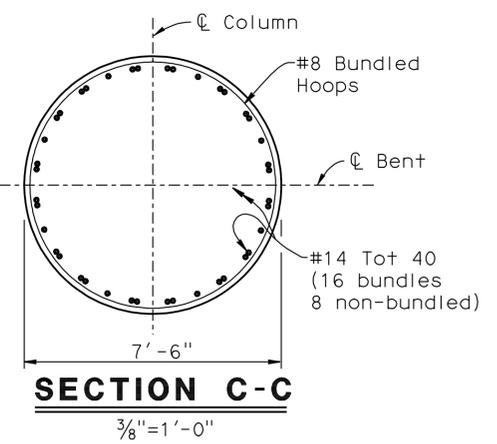
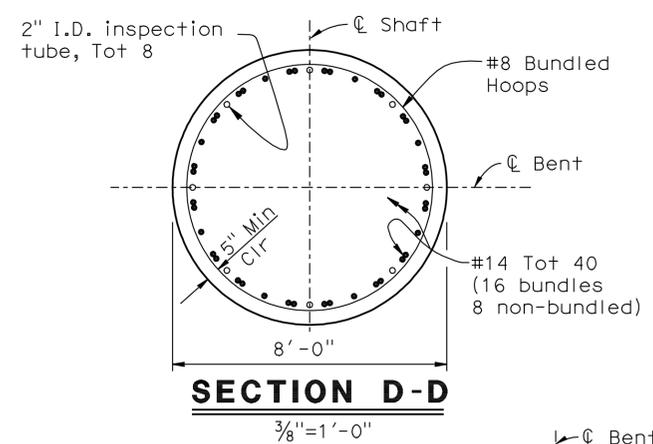
ELEVATION
1/4"=1'-0"

For "Prestress Anchorage" details, see "BENT 5 DETAILS NO. 2" sheet

DESIGN	BY	L. Wu	CHECKED	D. Alvarez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO.	56-0837K	14TH STREET WB OFFRAMP BENT 5 LAYOUT		
	DETAILS	BY	G. Hallstrom	CHECKED			D. Alvarez	POST MILE		20.25	
	QUANTITIES	BY	M. Crete	CHECKED			R. Melko				
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)											
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES			REVISION DATES	SHEET 17 OF 35

USERNAME => hprjprc DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1861	2028
			11-30-10 REGISTERED CIVIL ENGINEER DATE 4-25-11 PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.		



- NOTES:**
1. No splices allowed in column/shaft reinforcing.
 2. Only staggered "Ultimate" Butt splices allowed in column/shaft main reinforcing.
 3. All hoops are "Ultimate" butt spliced continuous.

* Reinforcement may be lowered to clear P/S ducts
 ** Clear to main cap reinforcement
 *** Limits from left edge of deck to right edge of deck

DESIGN BY L. Wu CHECKED D. Alvarez		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	14TH STREET WB OFFRAMP BENT 5 DETAILS NO. 1	
DETAILS BY G. Hallstrom CHECKED D. Alvarez				56-0837K		
QUANTITIES BY M. Crete CHECKED R. Melko				POST MILE 20.25		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 5-24-09 02-09-10 3-08-10 10-05-10 11-03-10	SHEET 18 OF 35

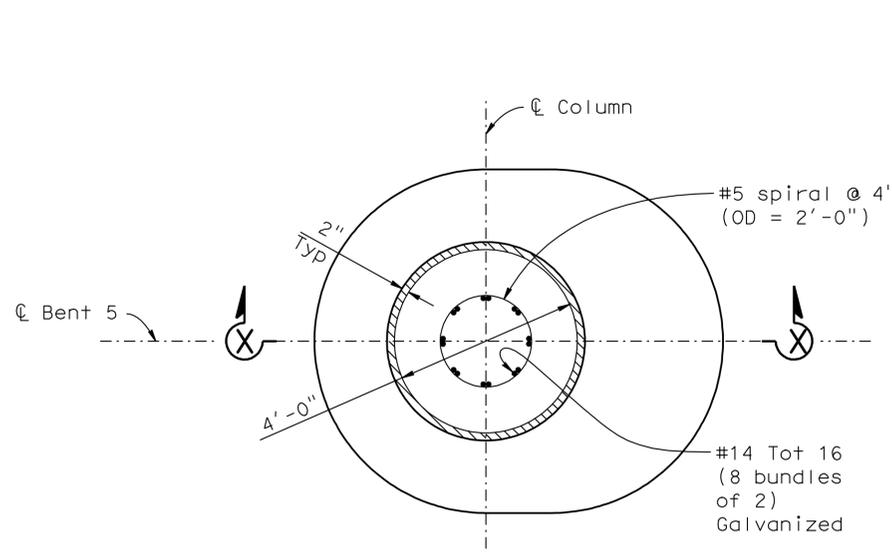
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1862	2028

Huan Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

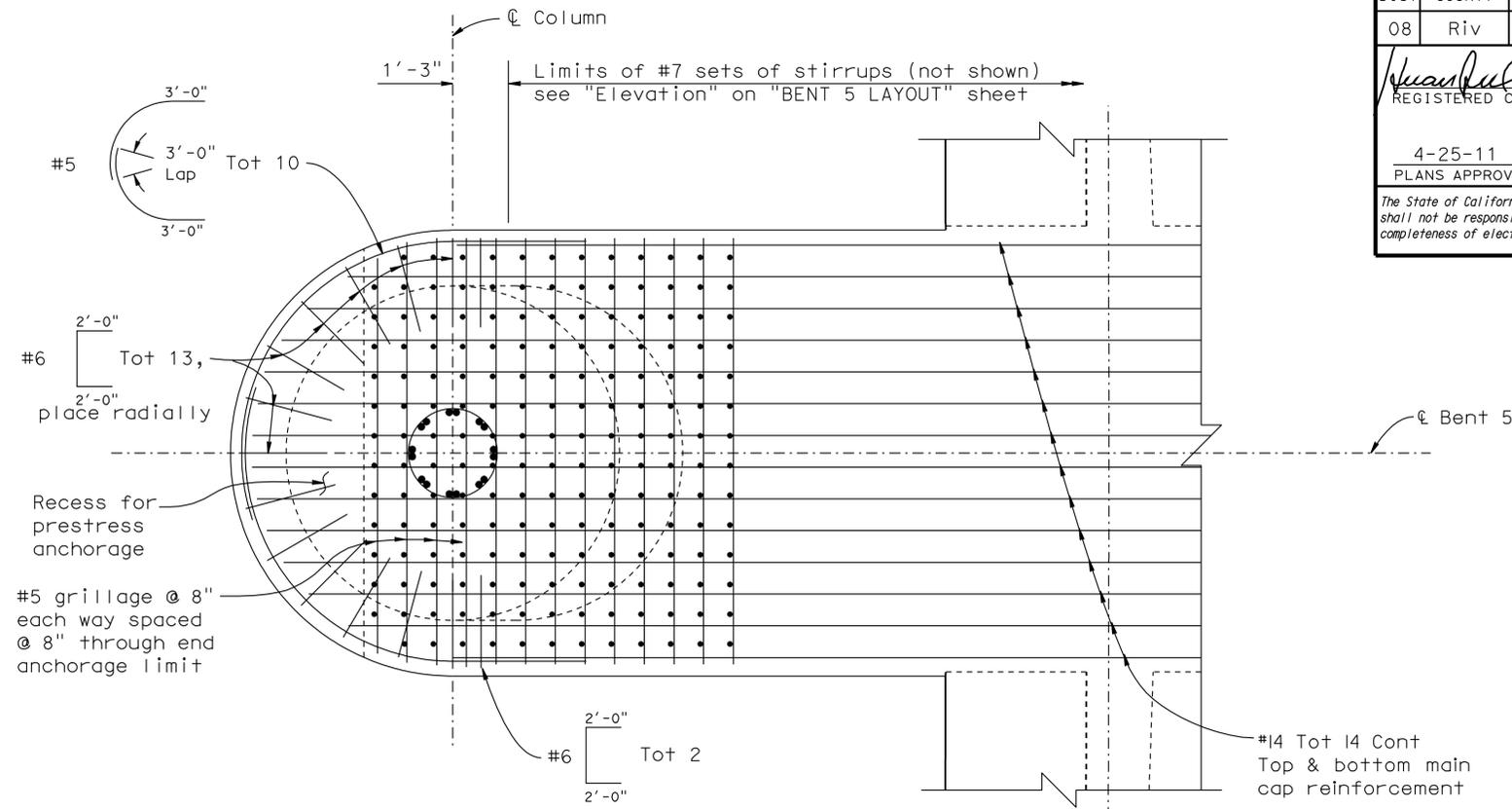
HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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RECESSED KEY DETAILS

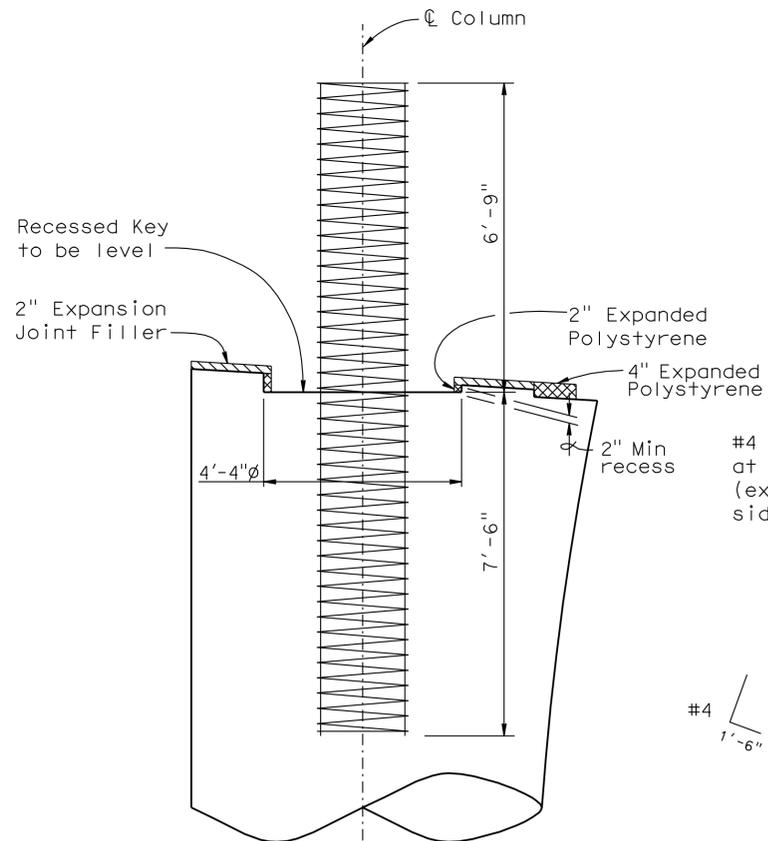
1/2"=1'-0"



PRESTRESS ANCHORAGE

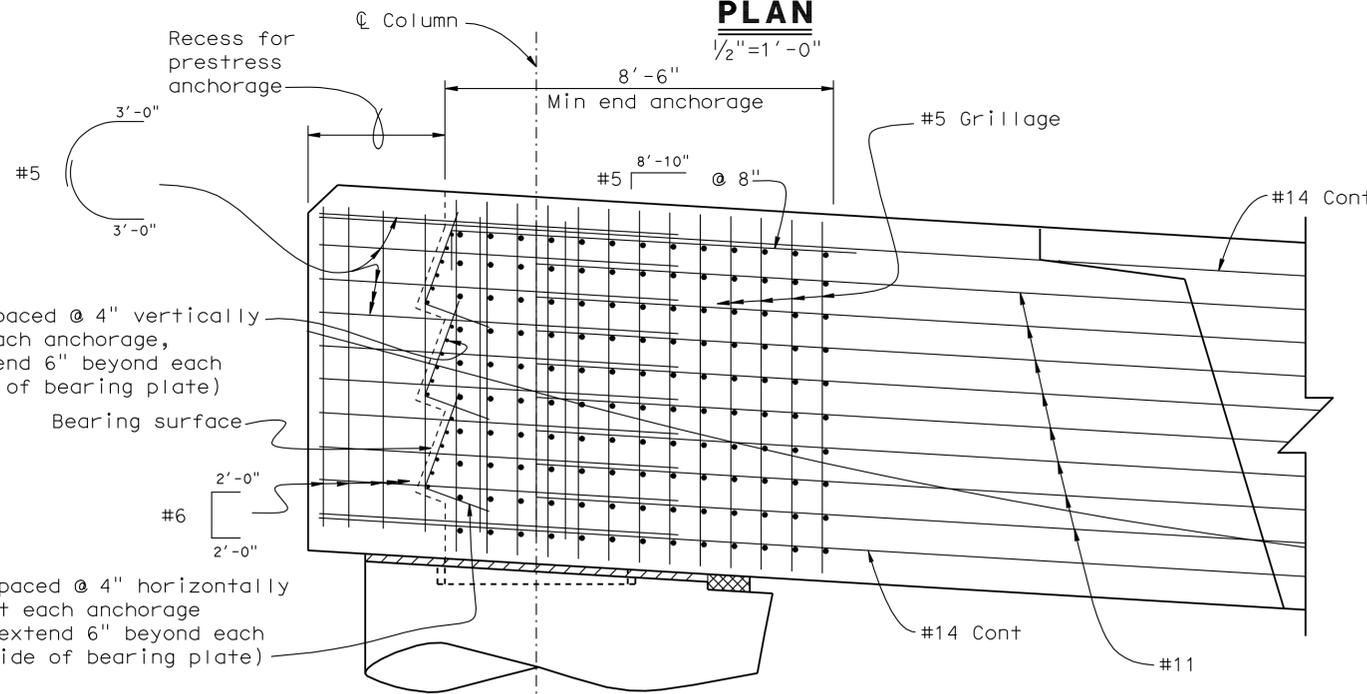
PLAN

1/2"=1'-0"



SECTION X-X

1/2"=1'-0"



PRESTRESS ANCHORAGE

ELEVATION

1/2"=1'-0"

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

14TH STREET WB OFFRAMP
BENT 5 DETAILS NO. 2

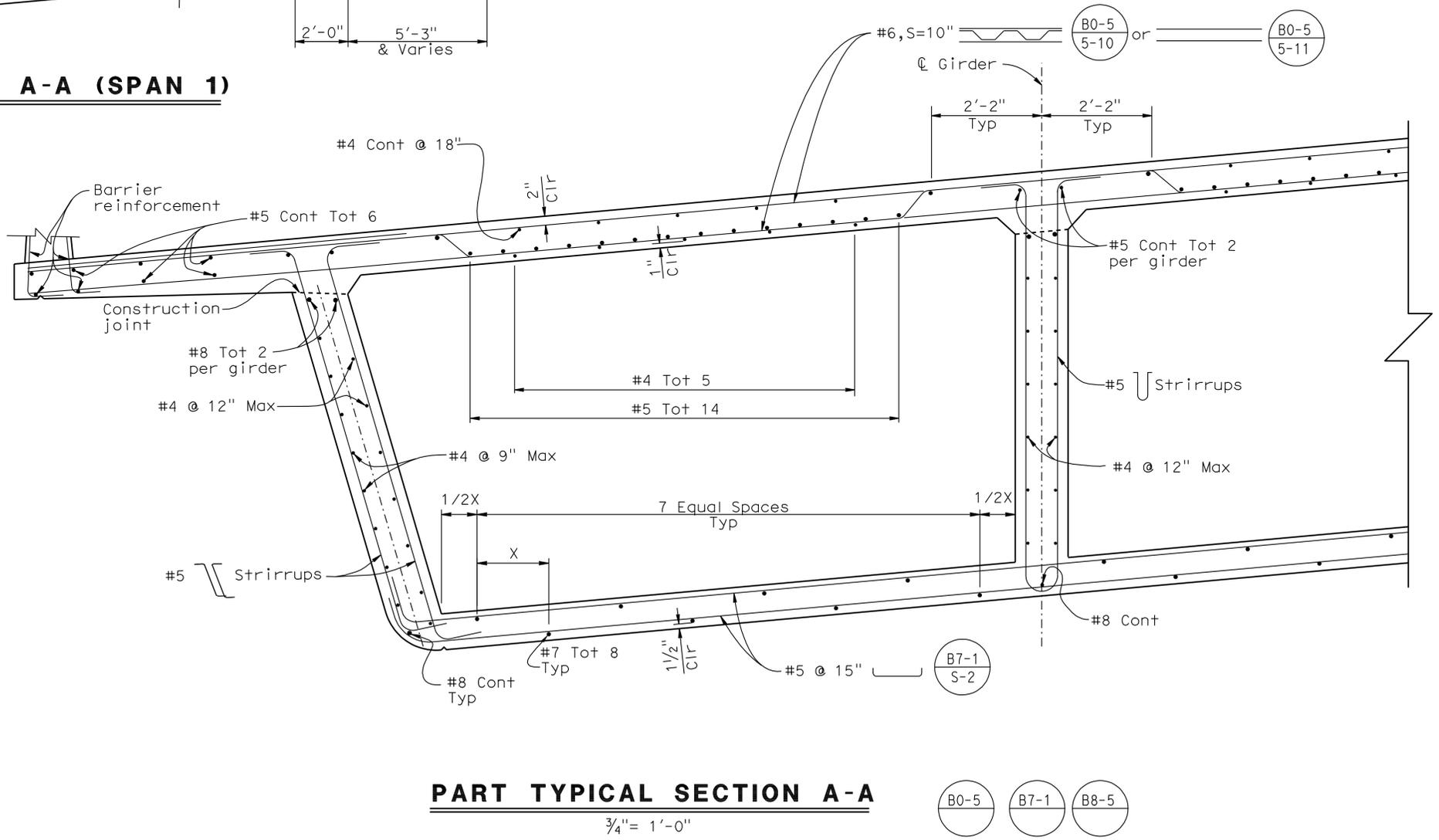
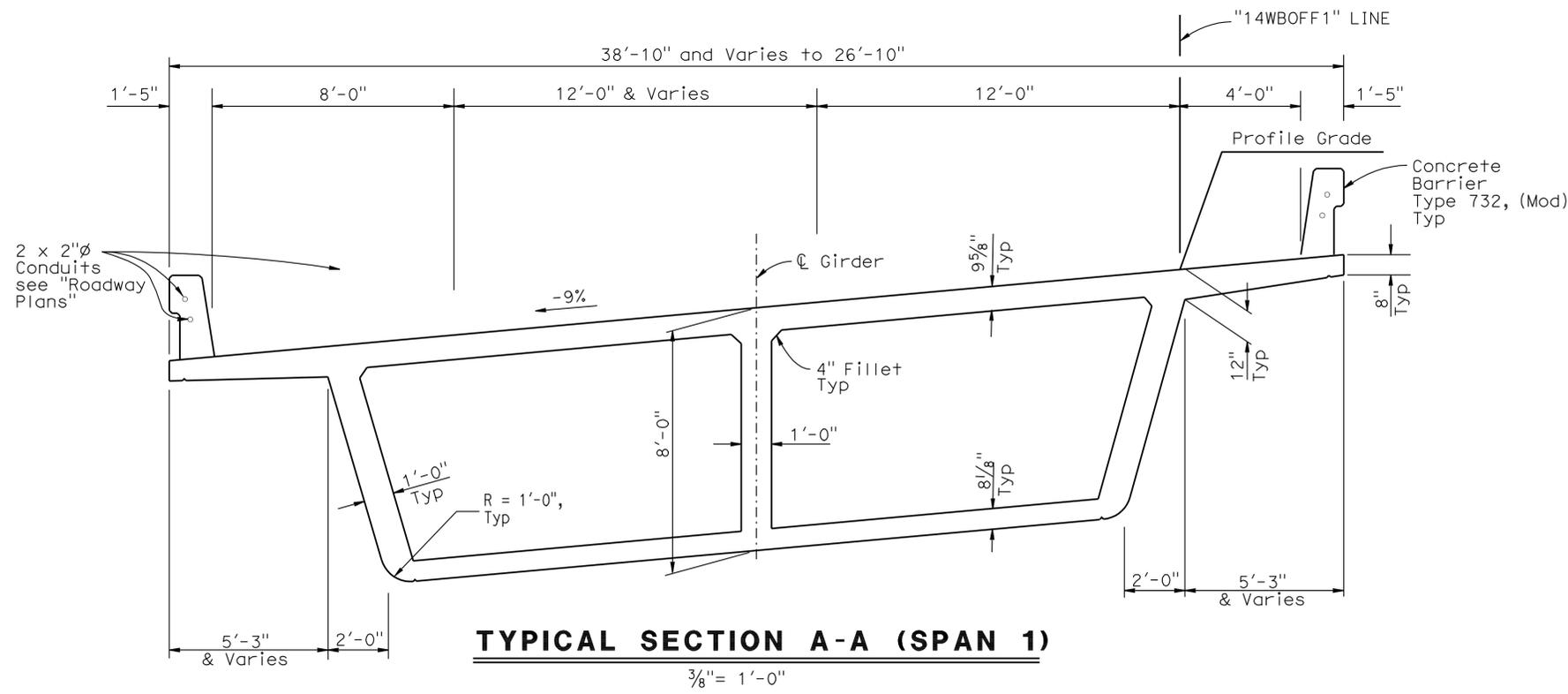
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08	Riv	91	15.6/21.6	1863	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

14TH STREET WB OFFRAMP
TYPICAL SECTION NO. 1

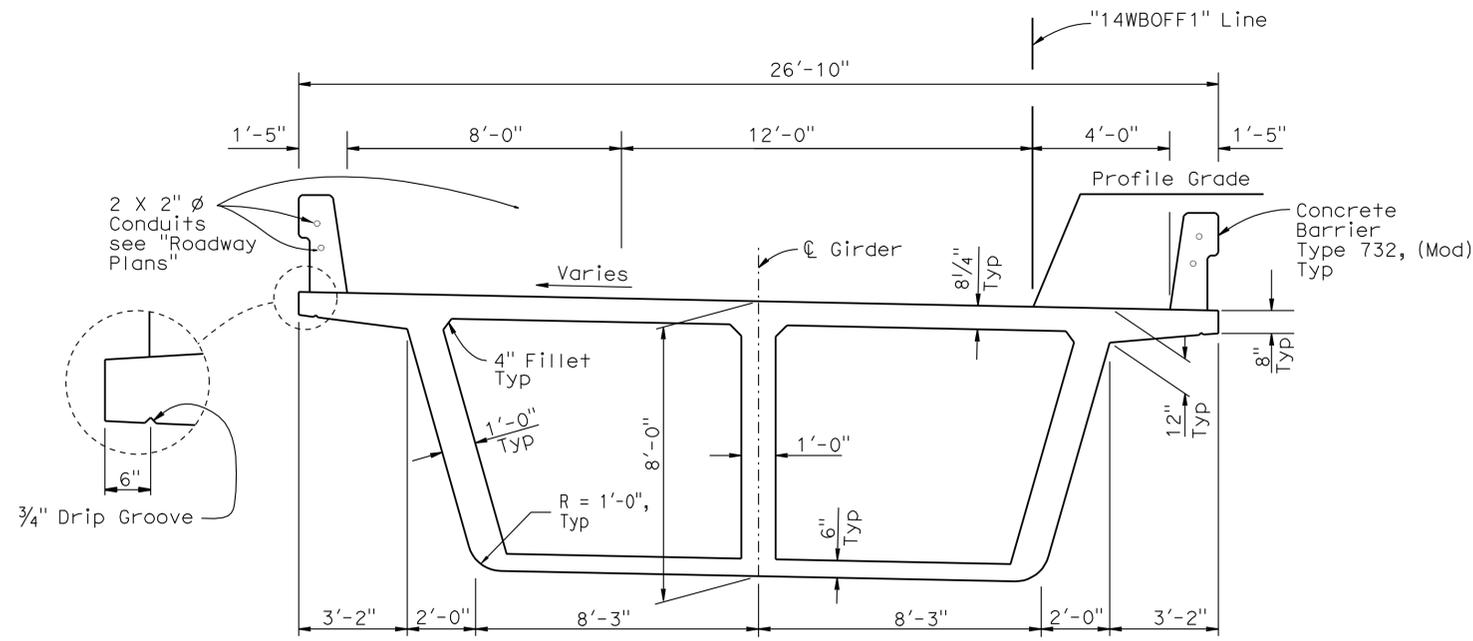
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08	Riv	91	15.6/21.6	1864	2028

Huan Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

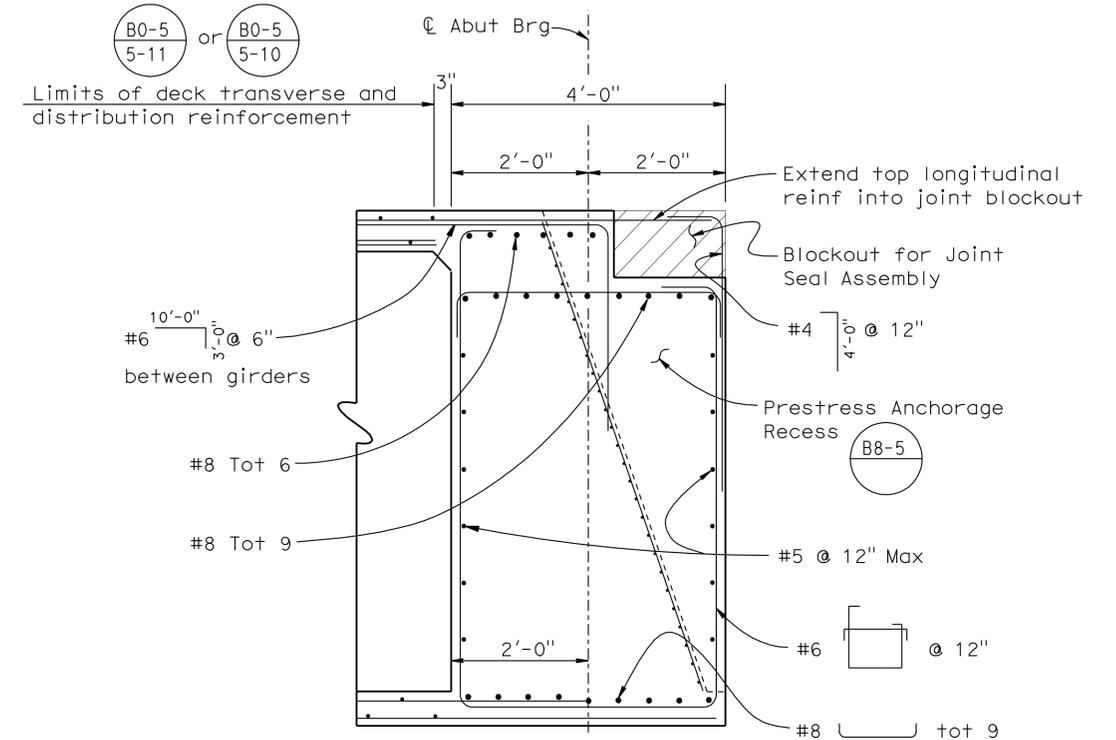
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TYPICAL SECTION B-B (SPANS 2, 3, 4, 5)

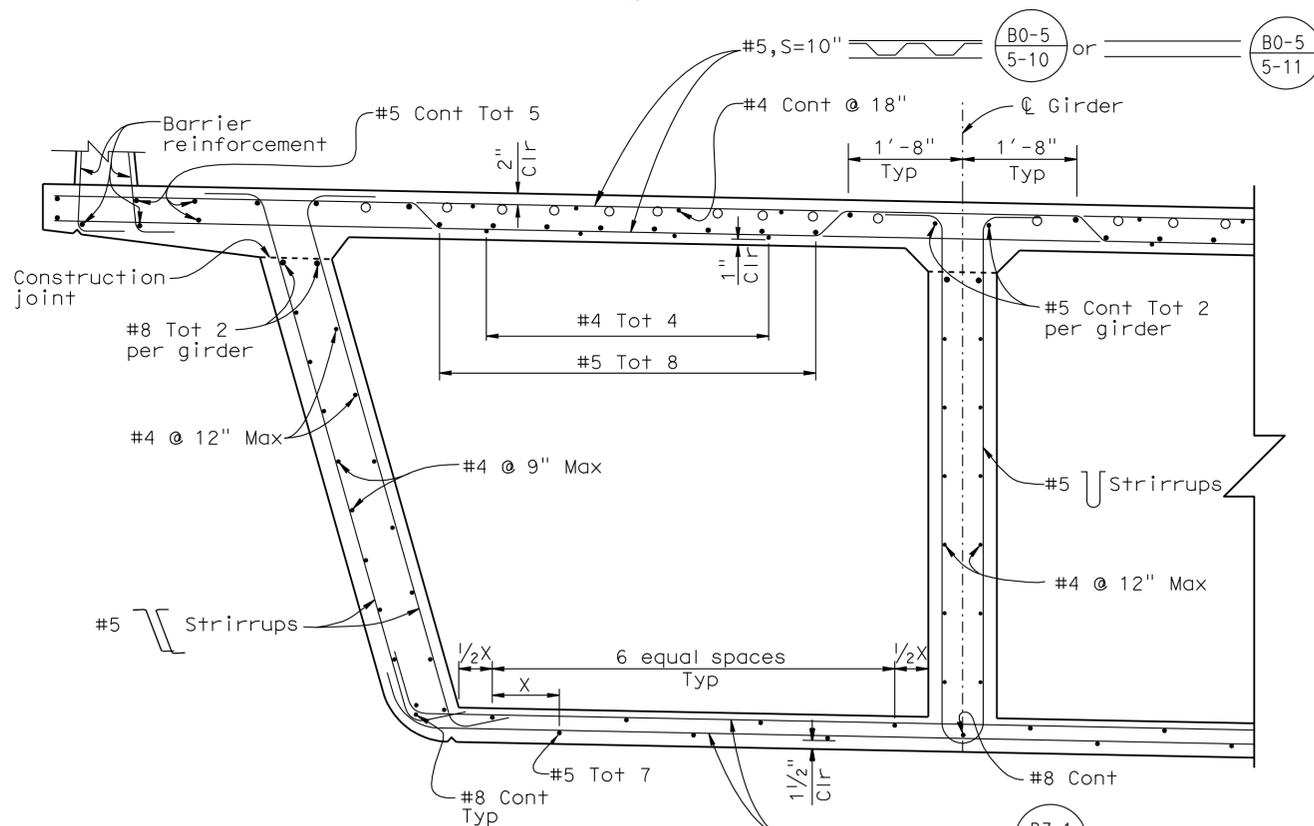
R = 1'-0",
Typ

3/8" = 1'-0"



END DIAPHRAGM

3/4" = 1'-0"



PART TYPICAL SECTION B-B

3/4" = 1'-0"

○ Indicates top slab additional Reinf, see "GIRDER REINFORCEMENT" sheet.

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

14TH STREET WB OFFRAMP
TYPICAL SECTION NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1865	2028

HUAN VU
 REGISTERED CIVIL ENGINEER DATE 11-30-10
 4-25-11
 PLANS APPROVAL DATE
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PRESTRESSING NOTES

270 KSI Low Relaxation Strand:

$P_{jack} = 9620$ kips

Anchor Set = $\frac{3}{8}$ in

Total Number of Girders = 3

Center of gravity of path may be adjusted ± 3 " at anchorage.

Distribution of prestress force (P_{jack}) between girders shall not exceed the ratio of 3:2.

Maximum final force variation between girders shall not exceed 725 kips.

Concrete: $f'_c = 4000$ psi @ 28 days

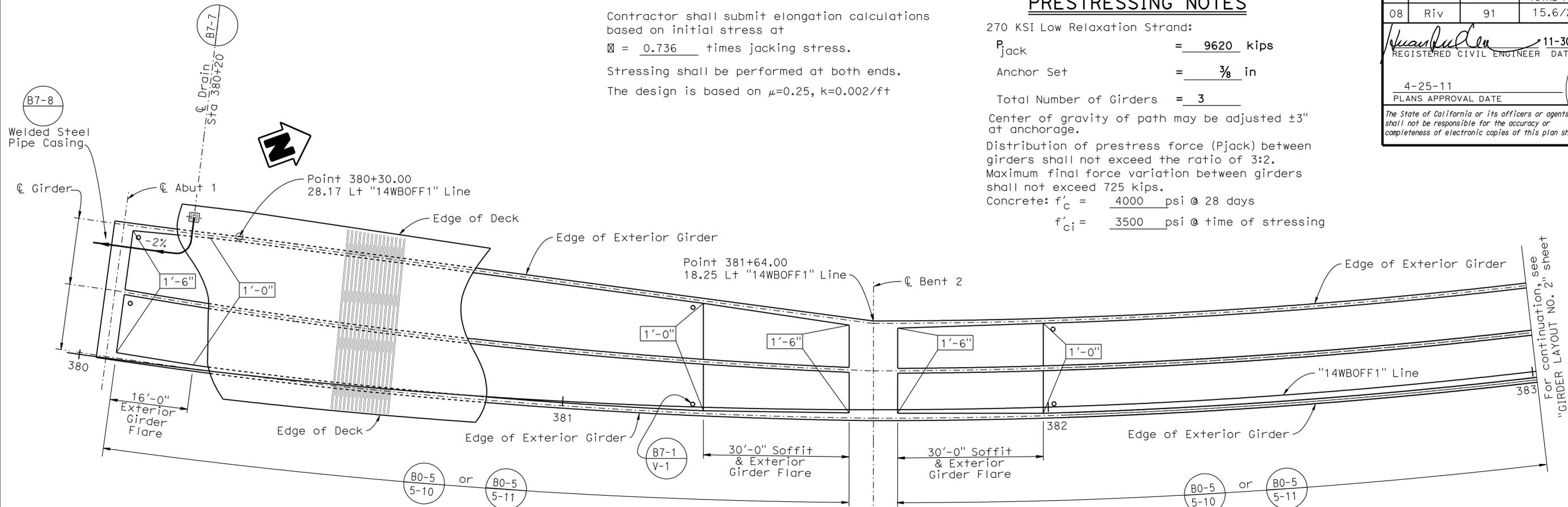
$f'_{ci} = 3500$ psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at

$\epsilon = 0.736$ times jacking stress.

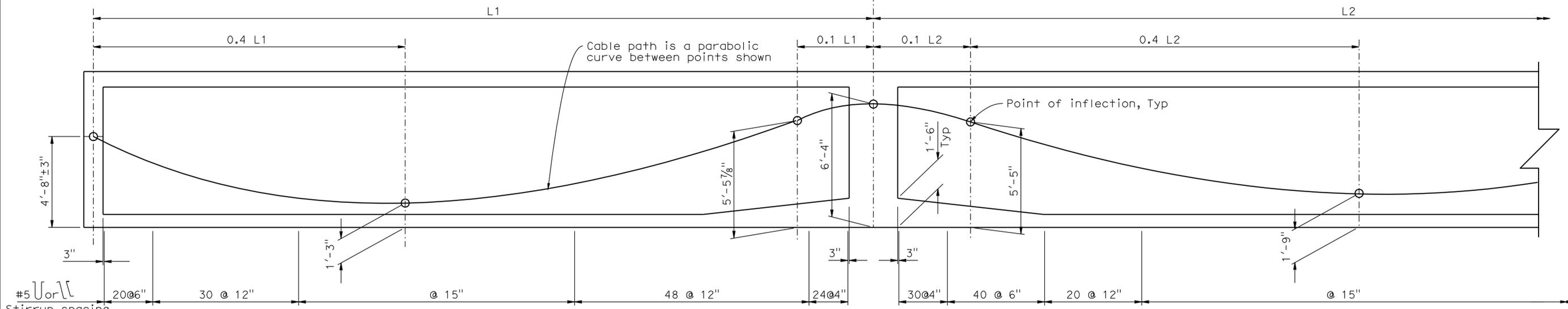
Stressing shall be performed at both ends.

The design is based on $\mu=0.25, k=0.002/f_t$



PLAN

$\frac{3}{32}'' = 1' - 0''$



LONGITUDINAL SECTION

Horizontal $\frac{3}{32}'' = 1' - 0''$

Vertical $\frac{3}{8}'' = 1' - 0''$

LEGEND:

- Indicates girder stem width (B7-7)
- NPS 6 Drain pipe Indicates Deck Drain Type D-3
- NPS 8 Drain pipe Indicates direction of flow @ slope indicated

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom/Y. Tang	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

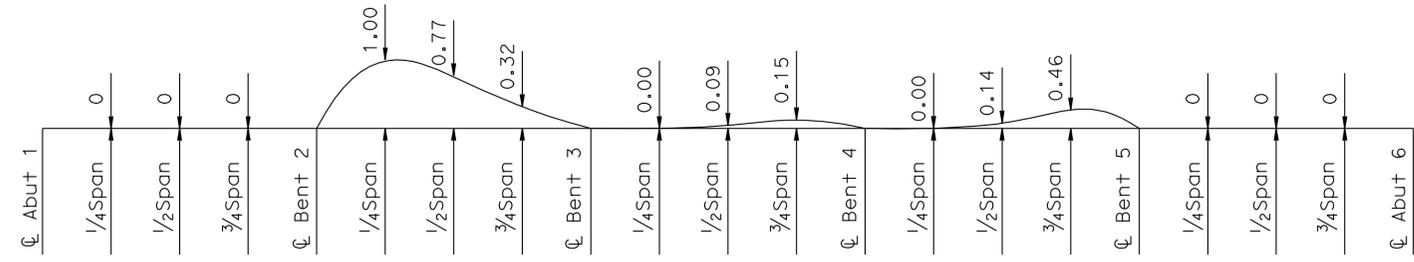
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

14TH STREET WB OFFRAMP
GIRDER LAYOUT NO. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1866	2028

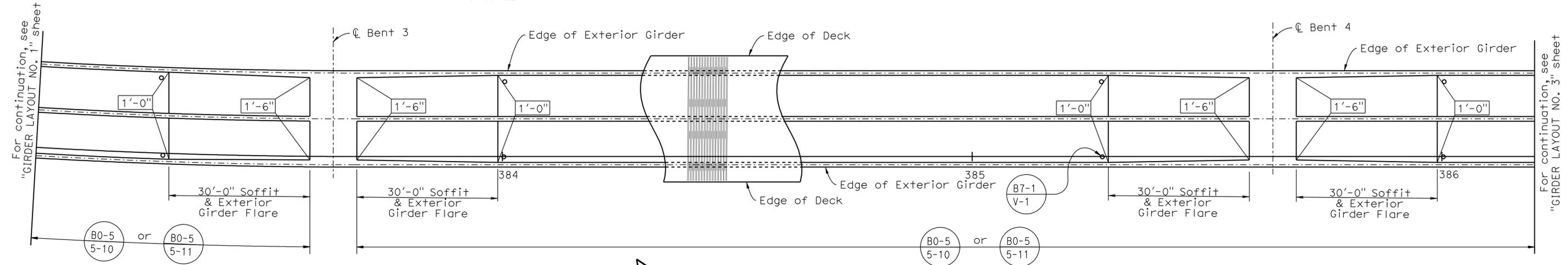
Huan VU 11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
 PLANS APPROVAL DATE
 HUAN VU
 No. 60696
 Exp. 12-31-10
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CAMBER DIAGRAM

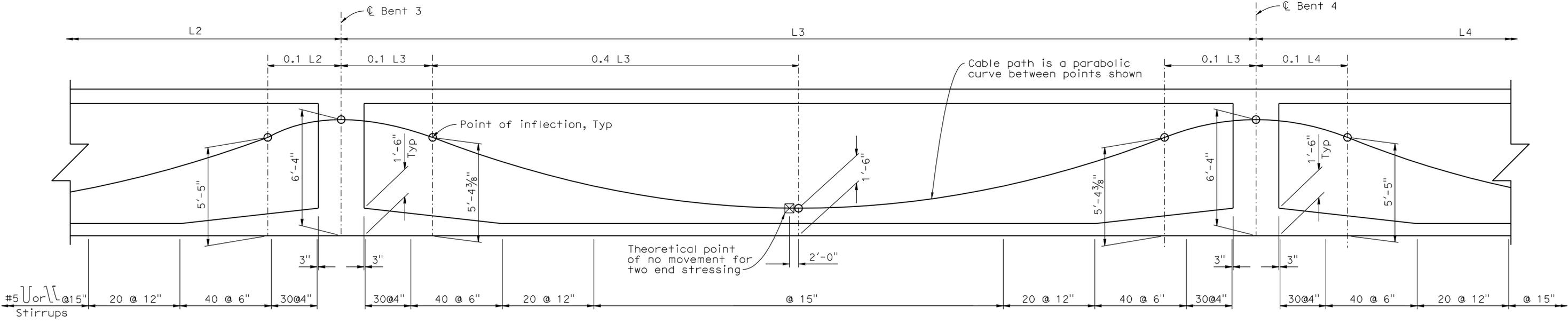
NO SCALE

NOTE: Camber shown does not include allowance for falsework settlement. Camber values are shown in inches.



PLAN

$\frac{3}{32}'' = 1' - 0''$



LONGITUDINAL SECTION

Horizontal $\frac{3}{32}'' = 1' - 0''$

Vertical $\frac{3}{8}'' = 1' - 0''$

LEGEND:

- Indicates girder stem width
- ⊗ Indicates point of no movement

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

14TH STREET WB OFFRAMP
 GIRDER LAYOUT NO. 2

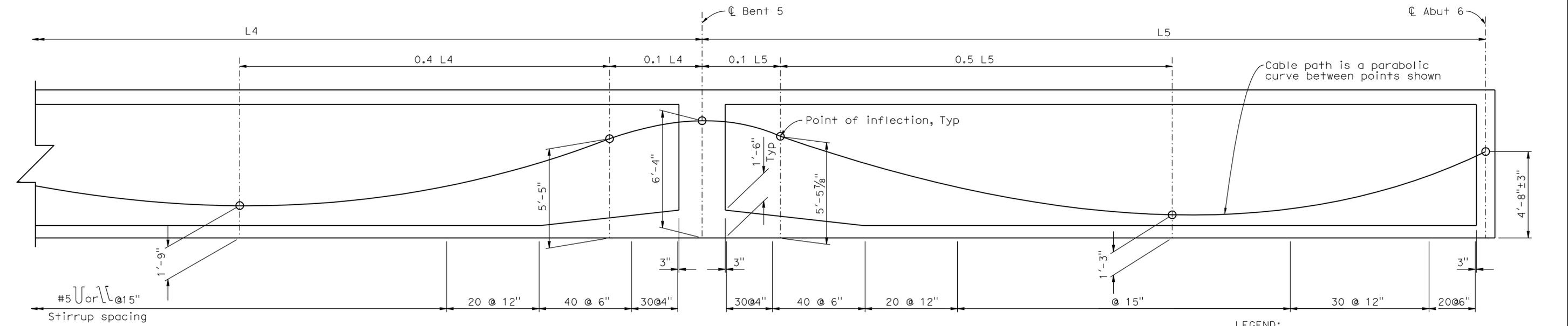
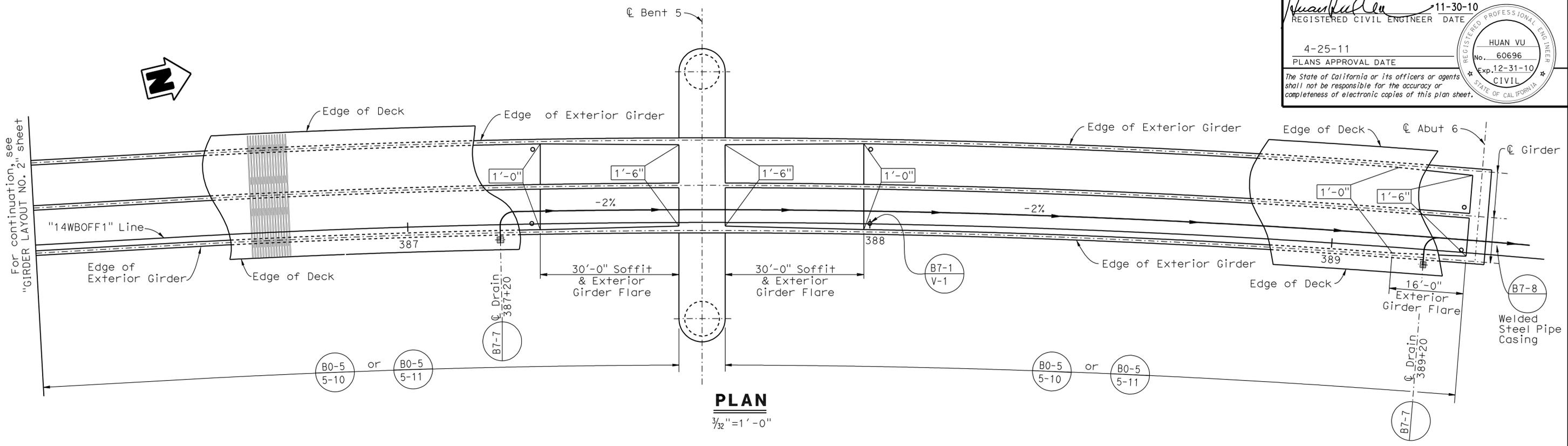
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08	Riv	91	15.6/21.6	1867	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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- LEGEND:
- Indicates girder stem width
 - Indicates Deck Drain Type D-3
 - Indicates direction of flow @ slope indicated

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0837K
POST MILE 20.25

14TH STREET WB OFFRAMP
GIRDER LAYOUT NO. 3

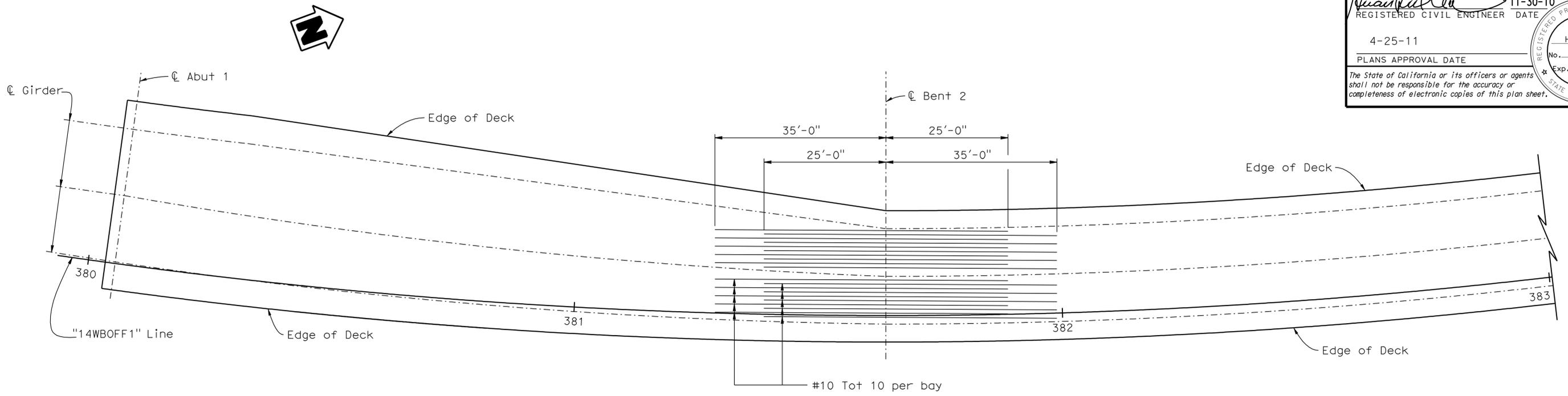
REVISION DATES

5-5-09	1-14-10	2-02-10					
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SHEET 24 OF 35

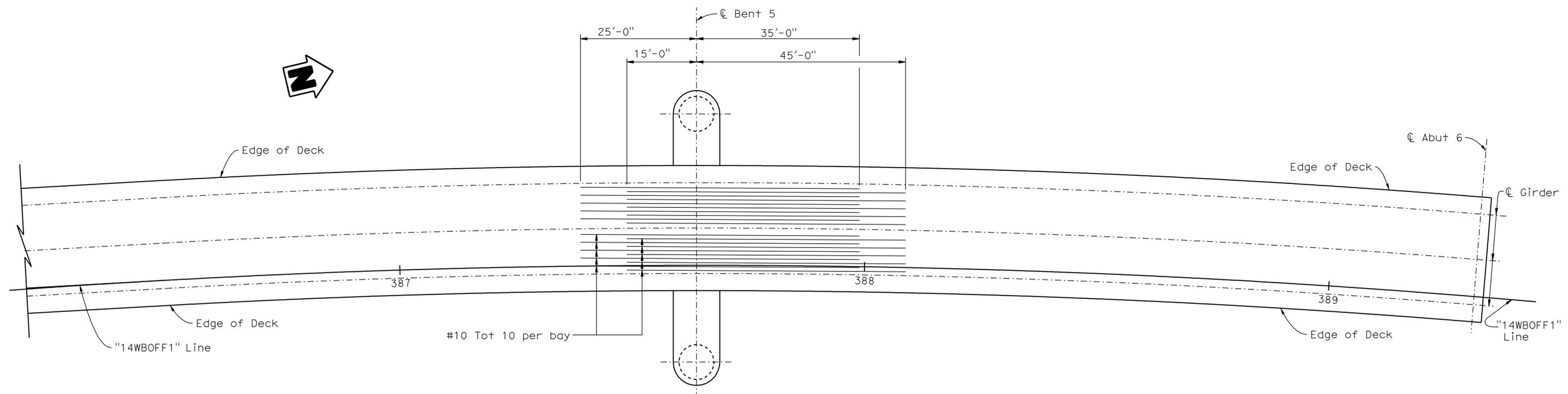
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1868	2028

Huan VU 11-30-10
 REGISTERED CIVIL ENGINEER DATE
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 PLANS APPROVAL DATE
 HUAN VU
 No. 60696
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ADDITIONAL TOP LOGITUDINAL REINFORCEMENT

$\frac{3}{32}'' = 1' - 0''$

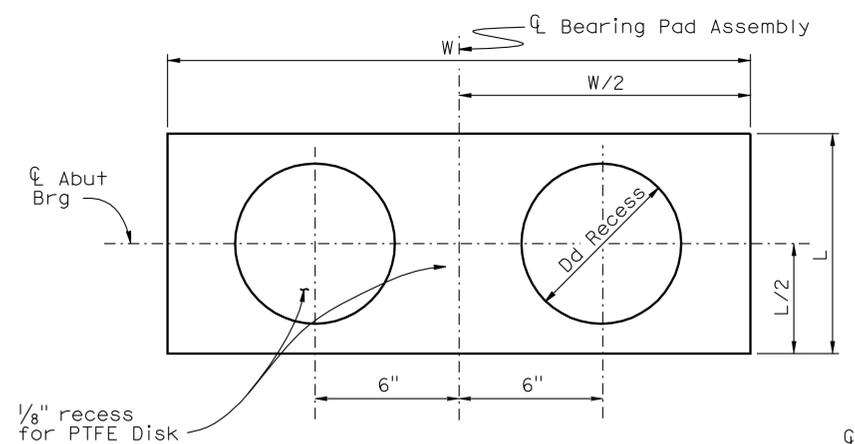


ADDITIONAL TOP LOGITUDINAL REINFORCEMENT

$\frac{3}{32}'' = 1' - 0''$

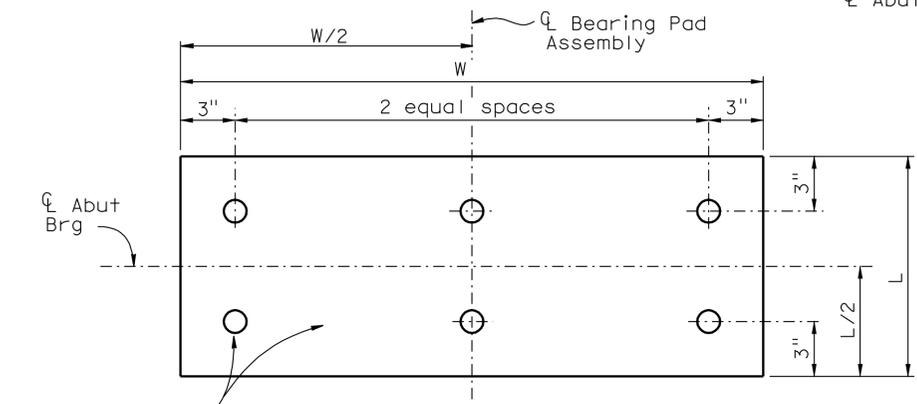
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY L. Wu	CHECKED D. Alvarez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0837K	14TH STREET WB OFFRAMP GIRDER REINFORCEMENT						
	DETAILS	BY G. Hallstrom	CHECKED D. Alvarez			POST MILE	20.25							
	QUANTITIES	BY M. Crete	CHECKED R. Melko			REVISION DATES	<table border="1"> <tr> <td>5/14/09</td> <td>2-03-10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		5/14/09	2-03-10				
5/14/09	2-03-10													
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES			SHEET 25 OF 35					

FILE => 560837kog1r_rf25.dgn



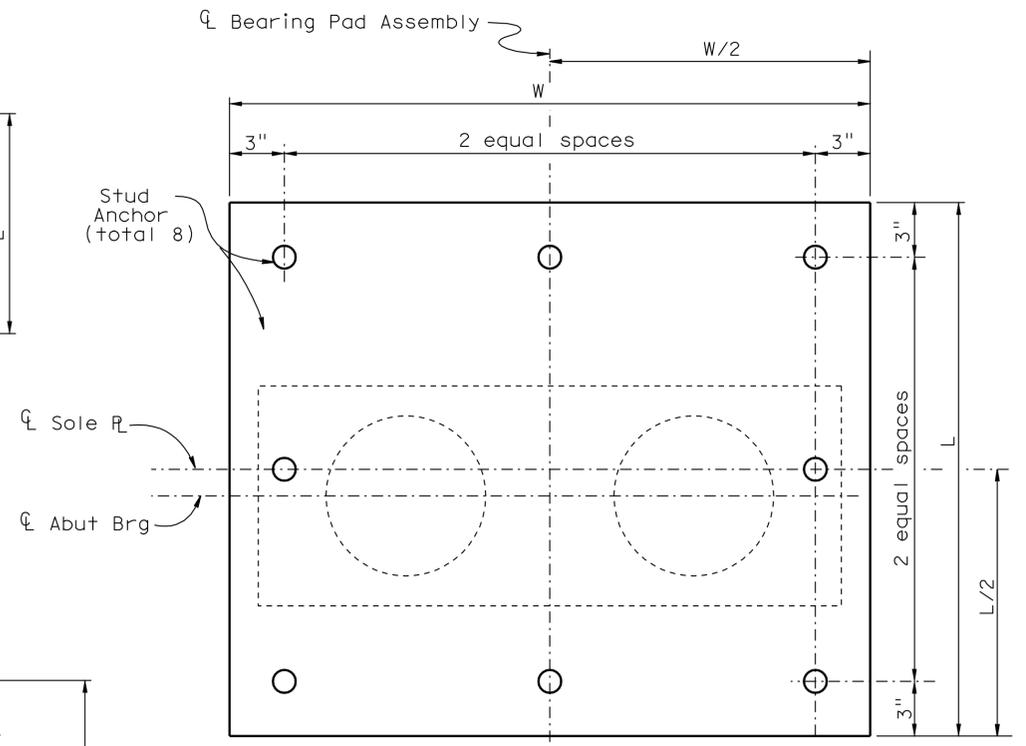
INTERMEDIATE PLATE

No Scale



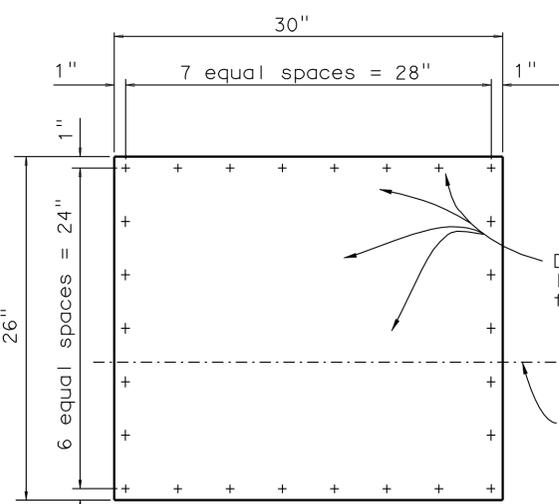
MASONRY PLATE

No Scale



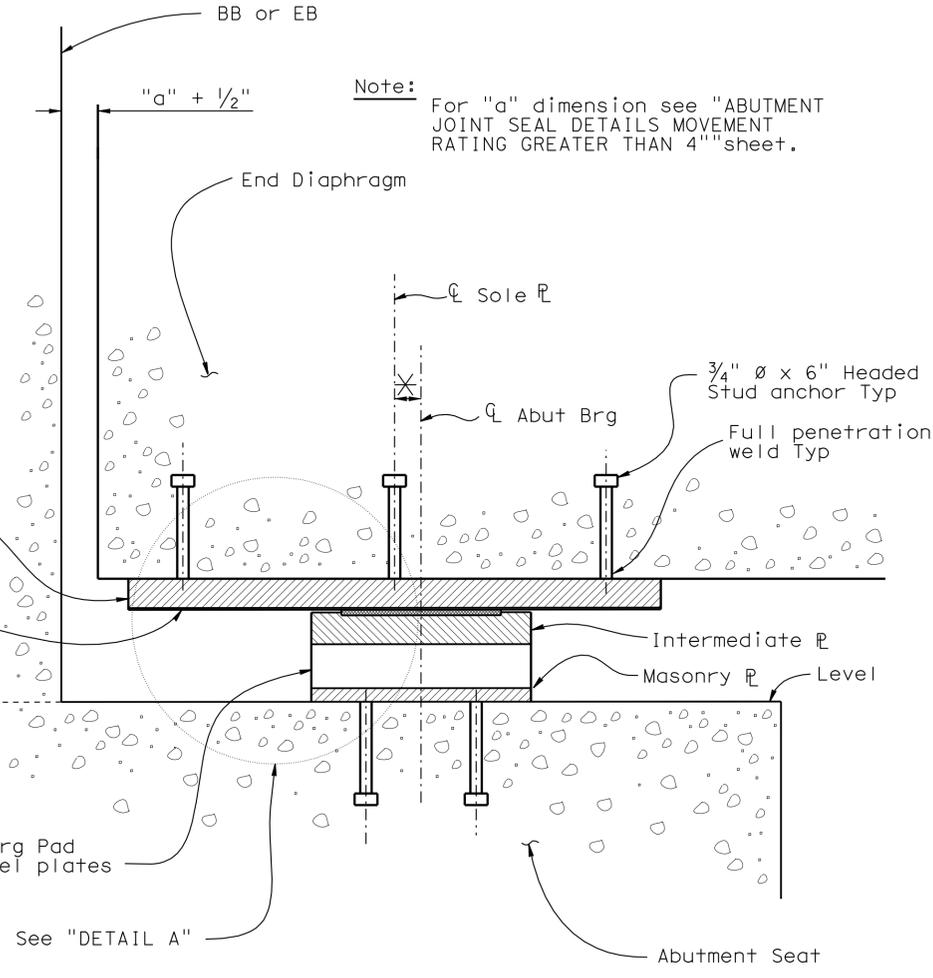
SOLE PLATE

No Scale



STAINLESS STEEL SHEET

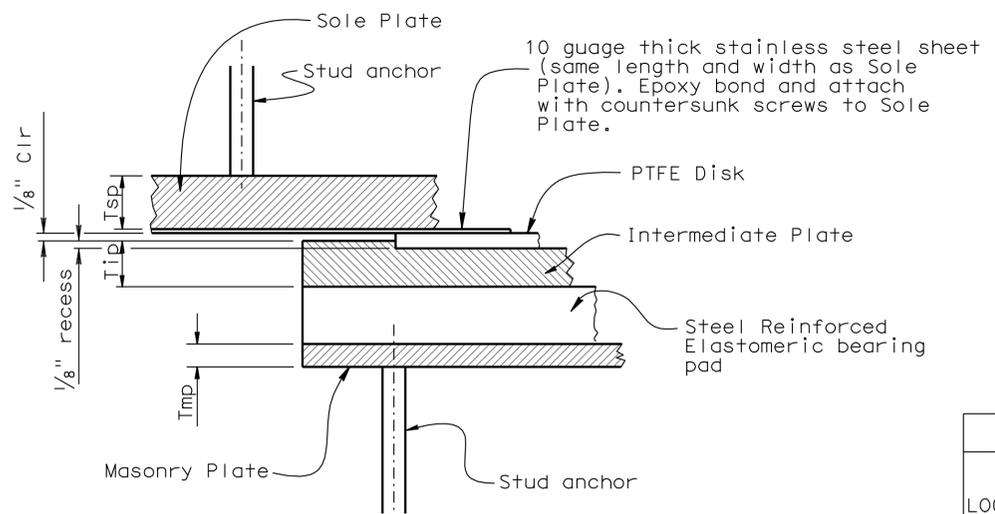
No Scale



TYPICAL SECTION

No Scale

* Offset Sole Plate to allow for P/S shortening.
 (1" at Abutment 1)
 (1" at Abutment 6)



DETAIL A

No scale

PTFE/ELASTOMERIC BEARING PAD TABLE																		
LOCATION	MAXIMUM VERTICAL LOAD (kips)	MINIMUM DEAD LOAD (kips)	PTFE COEF. OF FRICTION	SOLE PLATE			PTFE DISK		INTERMEDIATE PLATE			STEEL-REINFORCED ELASTOMERIC PAD			MASONRY PLATE			
				L	W	T _{sp}	DIAMETER D _d	THICKNESS	L	W	Tip	L	W	THICKNESS ELASTOMER ONLY	L	W	T _{mp}	
ABUT 1	308	205	0.06	26"	30"	2"	7 1/2"	1/4"	13"	26"	1 1/4"	13"	26"	2 1/2"	13"	26"	3/4"	
ABUT 6	278	206	0.06	26"	30"	2"	7 1/2"	1/4"	13"	26"	1 1/4"	13"	26"	2 1/2"	13"	26"	3/4"	

DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

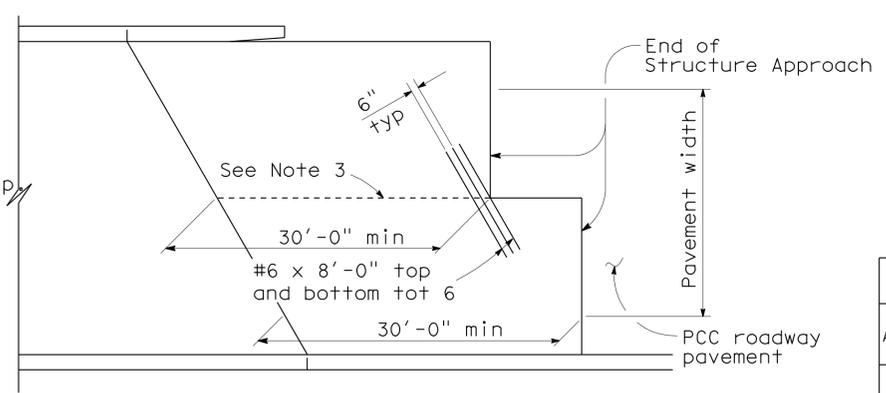
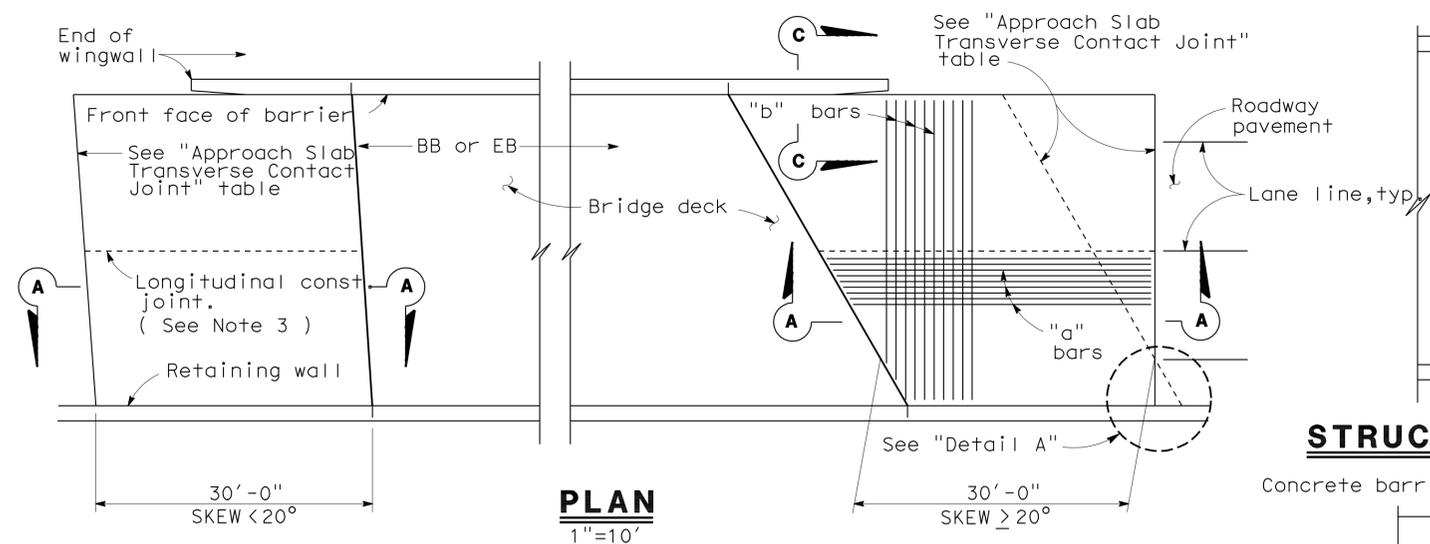
BRIDGE NO. 56-0837K
 POST MILE 20.25

14TH STREET WB OFFRAMP
 ELASTOMERIC/PTFE BEARING

DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1870	2028

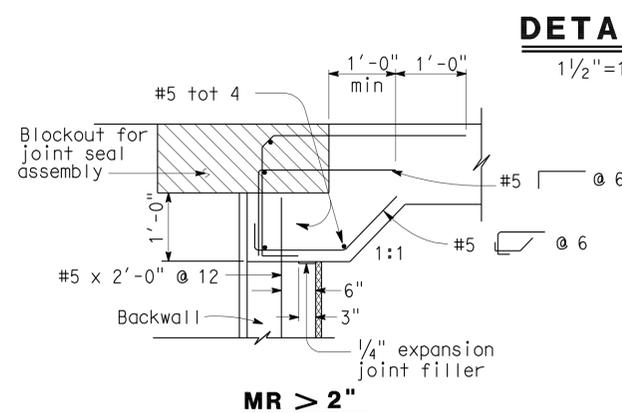
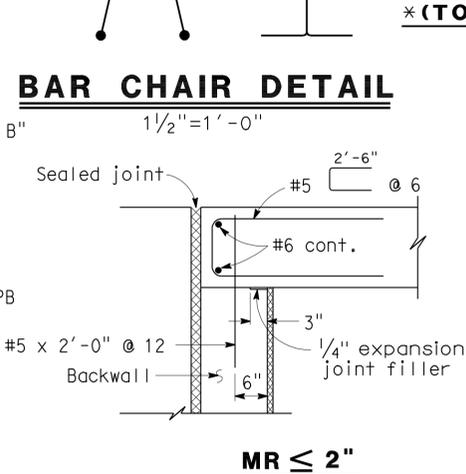
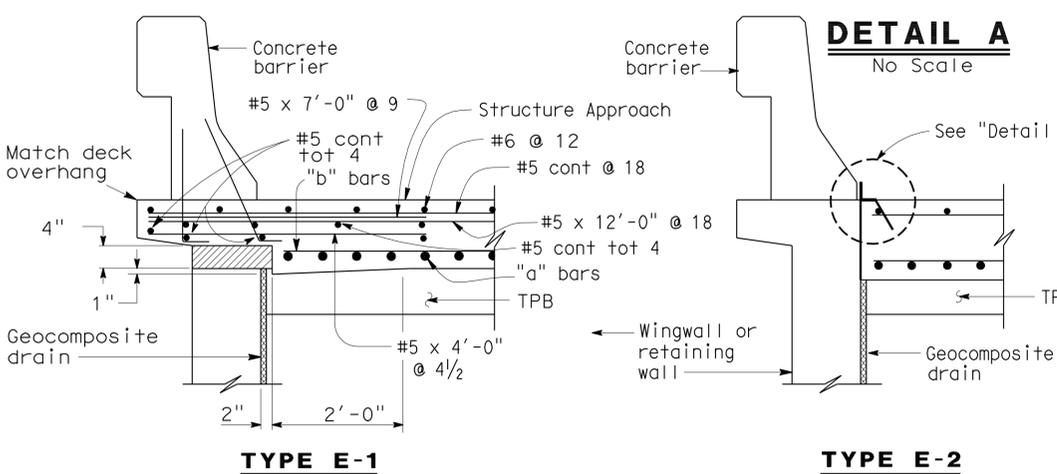
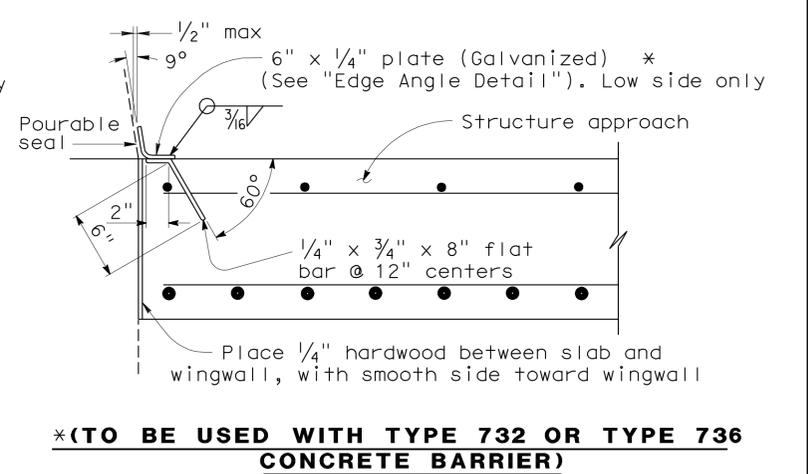
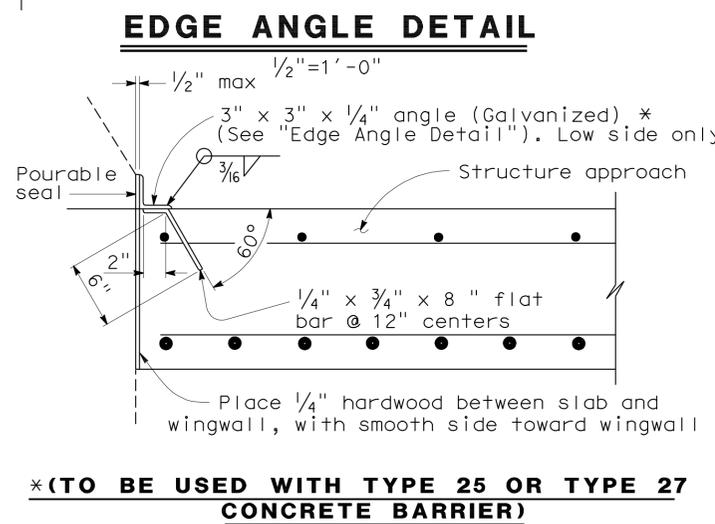
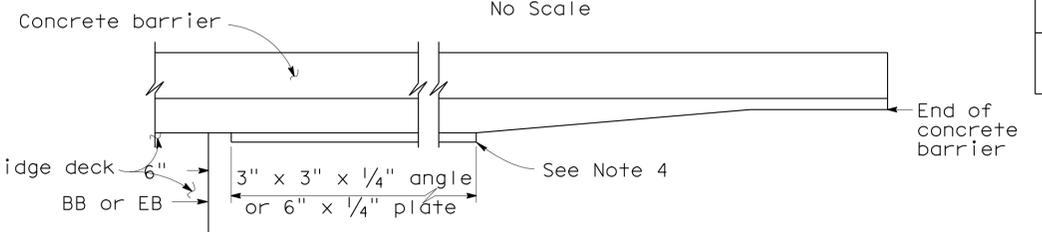
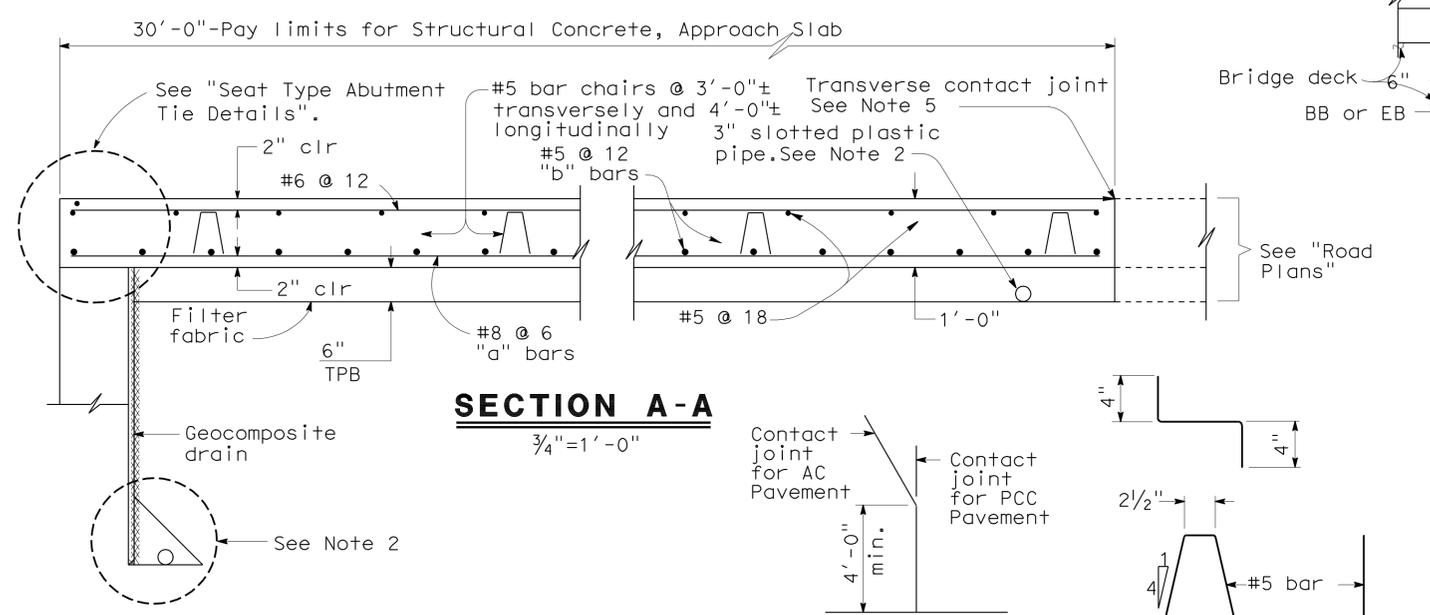
11-30-10
 REGISTERED ENGINEER - CIVIL
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

4-25-11
 PLANS APPROVAL DATE
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APPROACH SLAB TRANSVERSE CONTACT JOINT

APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	Parallel to face of paving notch	Parallel to face of paving notch
20° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart.
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line.



- NOTES:**
- For details not shown, see Structure Plans. For MR ≤ 2, adjust bar reinforcement to clear a sawcut for sealed joint, when required.
 - For drainage details, see "Structure Approach Drainage Details" sheet.
 - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
 - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.
 - For transverse contact joint with new PCC paving, refer to Standard Plan P10.
 - At the contractor's option, approach slab transverse reinforcement may be placed parallel to paving notch. Spacing of transverse reinforcement is measured along roadway.
- Remove all polystyrene.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 56-0837K

MILE POST 20.25

14TH STREET WB OFFRAMP
STRUCTURE APPROACH TYPE N(30S)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

CU 08 EA 448401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

5-26-09

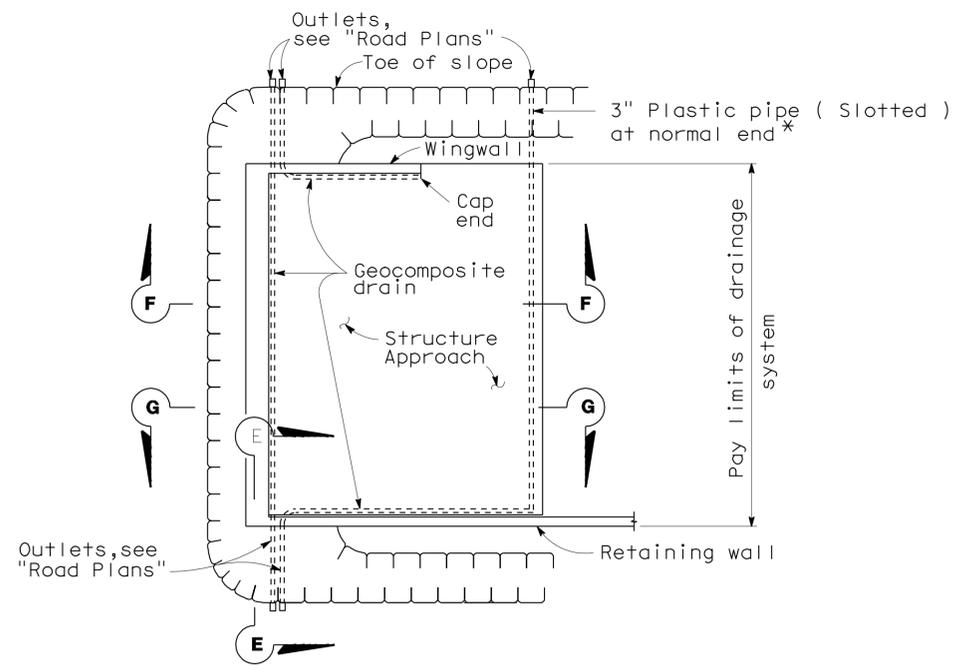
SHEET 27 OF 35

DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:41

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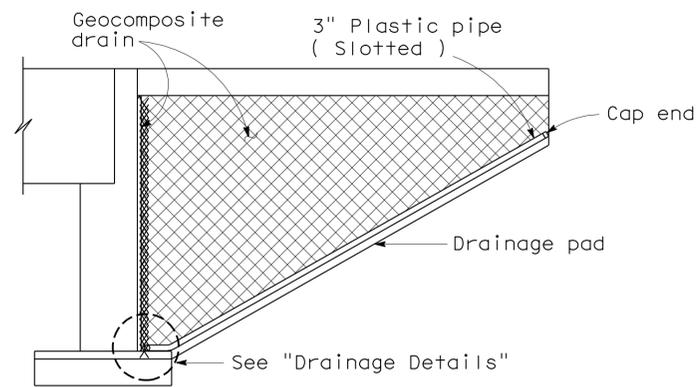
560837kso27.dgn

DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	91	15.6/21.6	1871	2028
				11-30-10 REGISTERED ENGINEER - CIVIL 4-25-11 PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.	

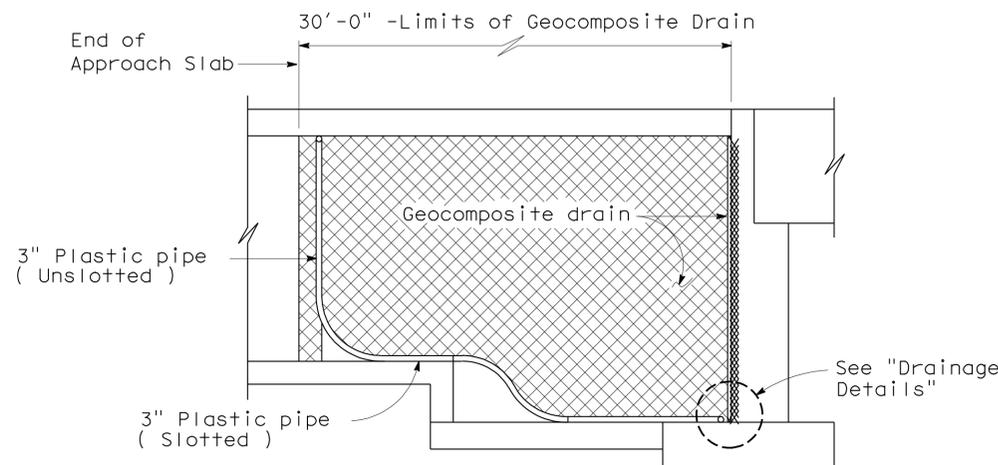


TYPICAL PLAN
1"=10'

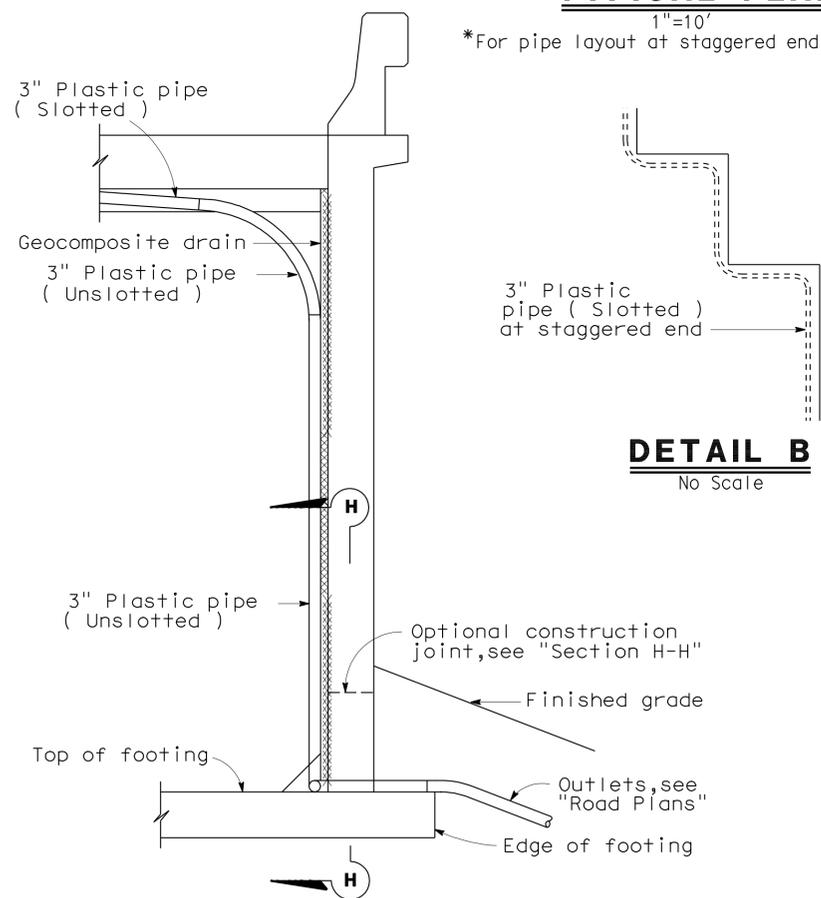
*For pipe layout at staggered end, see "Detail B".



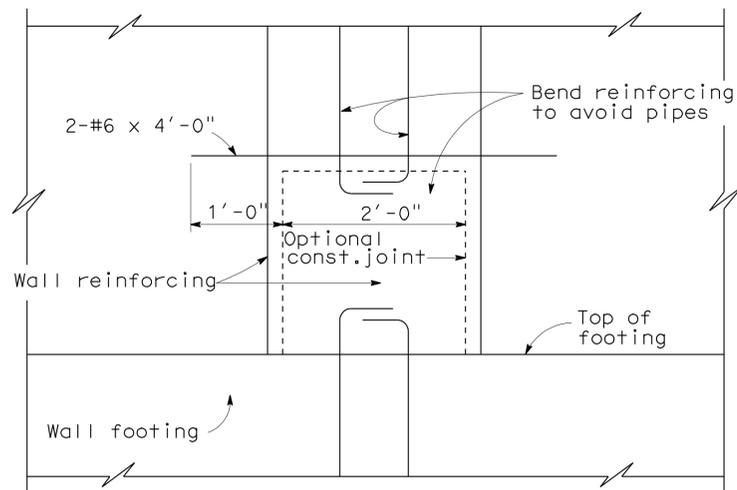
CANTILEVER WINGWALL SECTION F-F
1/4"=1'-0"



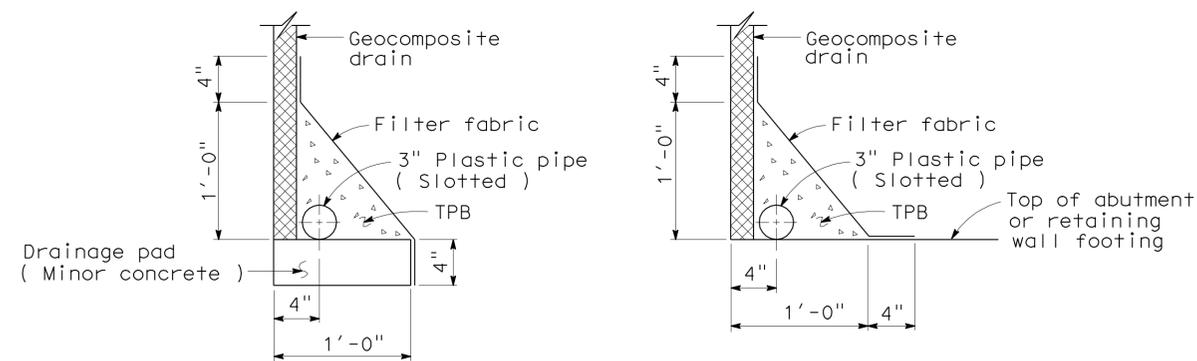
RETAINING WALL WINGWALL SECTION G-G
1/4"=1'-0"



DETAIL B
No Scale



SECTION H-H
1"=1'-0"



WITHOUT FOOTING WITH FOOTING DRAINAGE DETAILS
1/2"=1'-0"

SECTION E-E
1/2"=1'-0"

NOTE: Bends and junctions in 3" plastic pipe are 30" radius min.

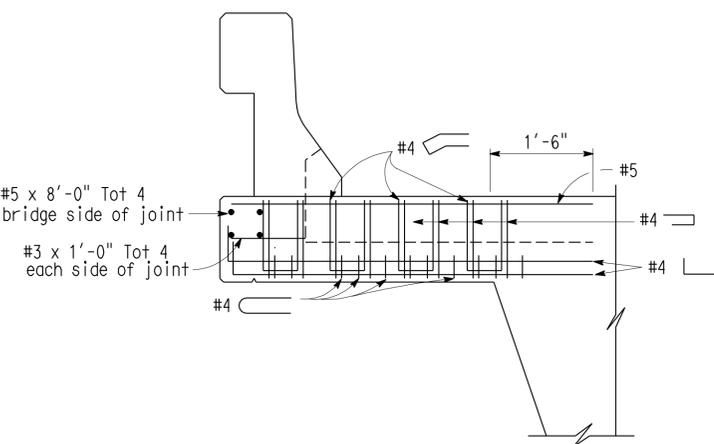
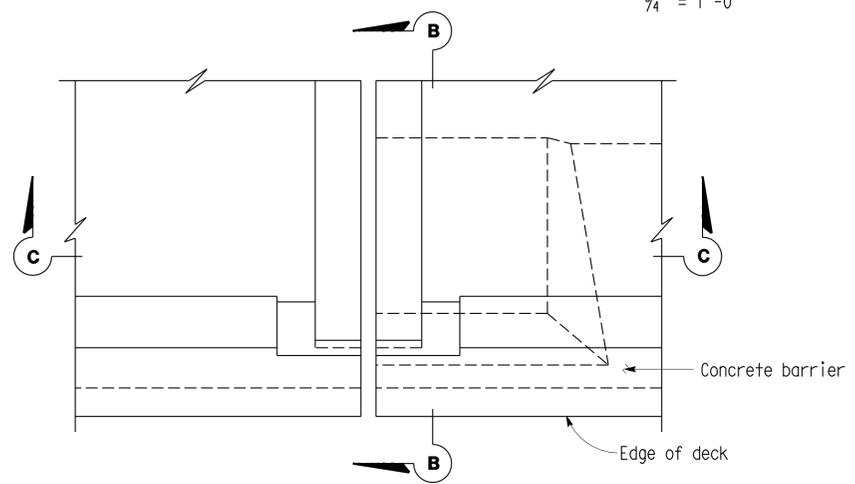
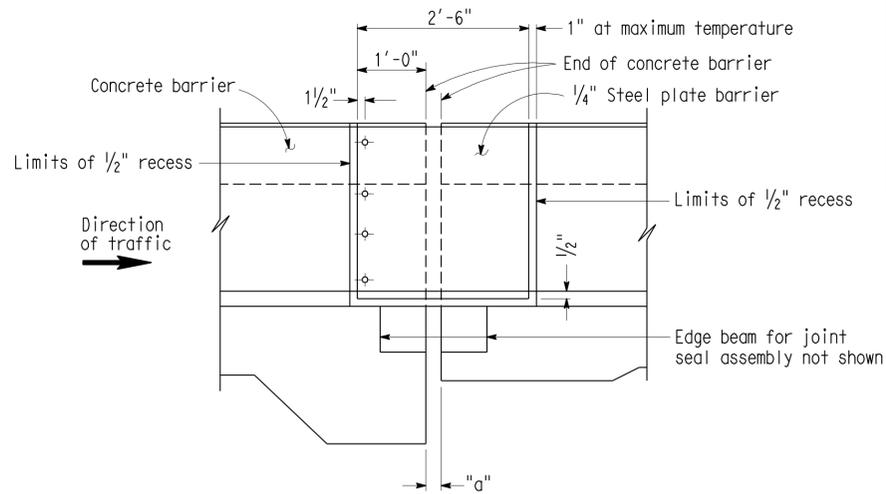
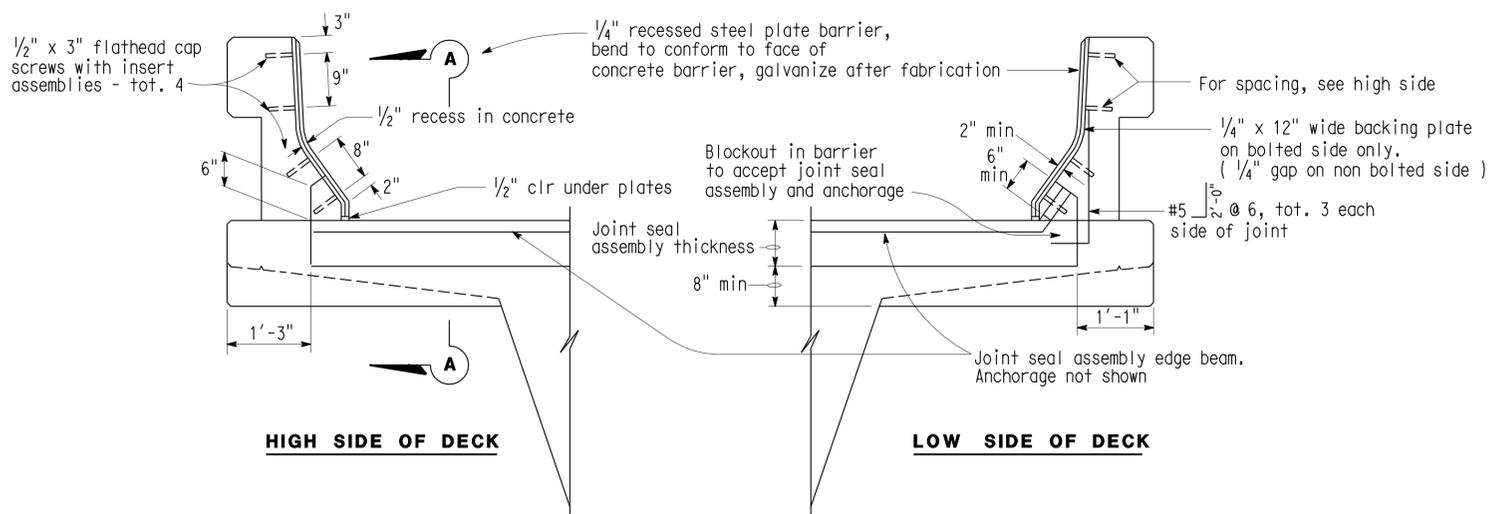
STANDARD DRAWING			
RELEASE DATE 4/23/98	DESIGN BY M. TRAFFALIS	CHECKED E. THORKILDSEN	RELEASED BY
FILE NO. xs3-110e	DETAILS BY R. YEE	CHECKED E. THORKILDSEN	
	SUBMITTED BY M. HA	DRAWING DATE 4/98	OFFICE CHIEF

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

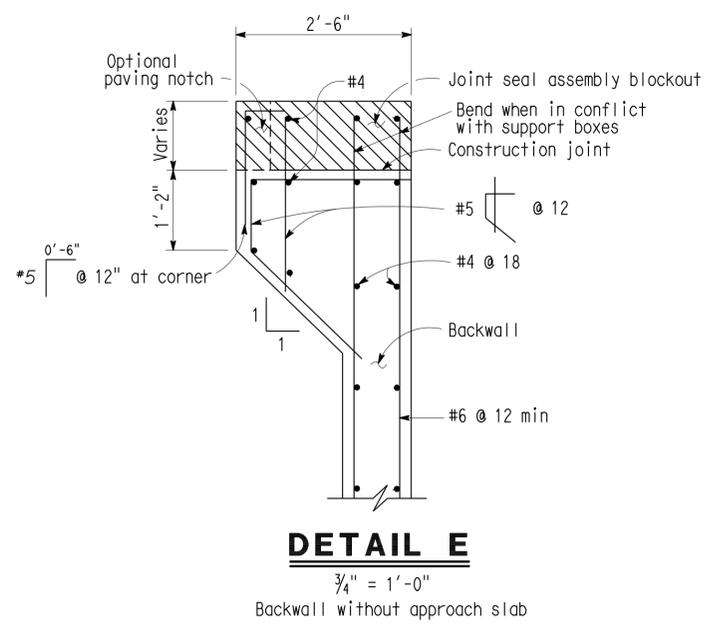
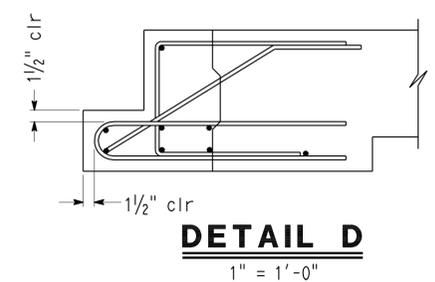
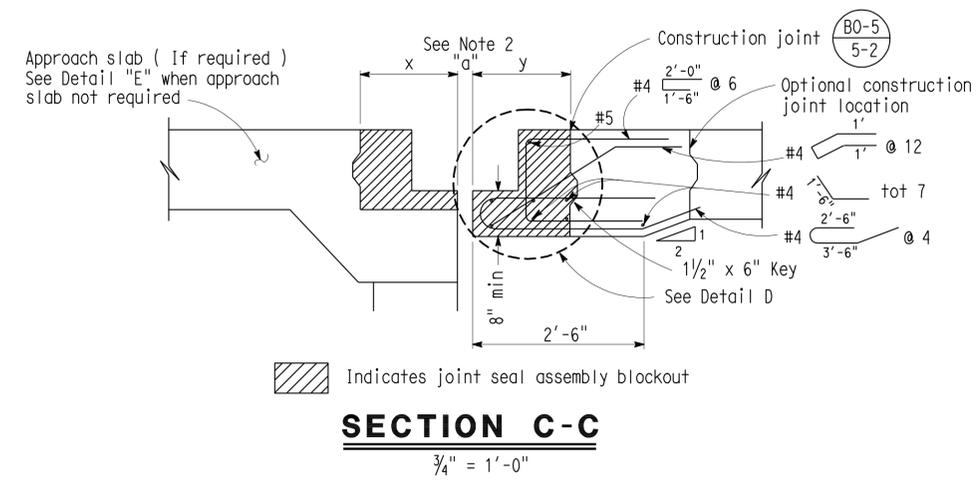
BRIDGE NO.
56-0837K
MILE POST
20.25

14TH STREET WB OFFRAMP
STRUCTURE APPROACH DRAINAGE DETAILS



JOINT INFORMATION		"a" DIMENSIONS			
LOCATION	MOVEMENT RATING (M.R.)	SKEW	WINTER	SPRING & FALL	SUMMER
Abut 1	5.0"	0	2.25"	1.75"	1.25"
Abut 6	8.0"	0	3.5"	2.50"	1.75"

Notes:
 1) For details not shown, see Bridge Plans
 2) x is greater than or equal to y



DESIGN	BY L. Wu	CHECKED D. Alvarez
DETAILS	BY G. Hallstrom	CHECKED D. Alvarez
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

BRIDGE NO.	56-0837K
POST MILE	20.25

14TH STREET WB OFFRAMP
ABUTMENT JOINT SEAL DETAILS
MOVEMENT RATING GREATER THAN 4"

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



CU 08
EA 448401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
6-12-09 1-28-10 9-14-10	29	35

USERNAME => trpierce

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DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:42

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1874	2028

7-14-10
REGISTERED CIVIL ENGINEER

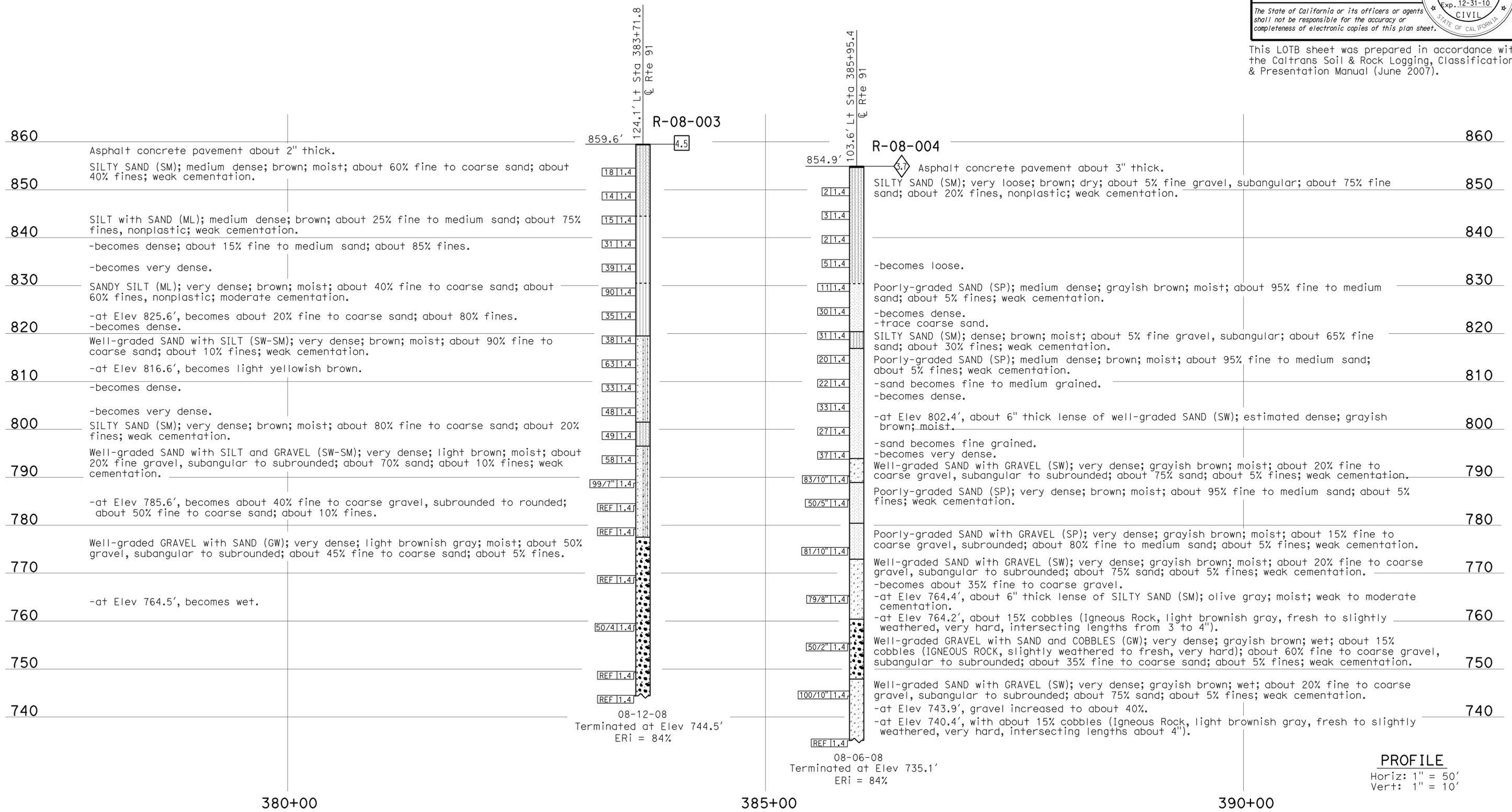
4-25-11
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
Yeo Yoon
No. 73532
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS 1 OF 6"

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007).



ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		14TH STREET WB OFFRAMP	
FUNCTIONAL SUPERVISOR		DRAWN BY: I.G-Remmen, 12/08		FIELD INVESTIGATION BY:		STRUCTURE DESIGN		56-0837K		LOG OF TEST BORINGS 2 OF 6	
NAME: M. DeSalvatore		CHECKED BY: J. Klamecki		Y. Yoon, TM. Liao		DESIGN BRANCH 10		POST MILES			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 08 EA 448401		20.25		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
								03-18-10 04-12-10 05-04-10		SHEET 31 OF 35	

FILE => 560837kz1fb31.dgn

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS 1 OF 6"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1875	2028

7-14-10
REGISTERED CIVIL ENGINEER
Yeo Yoon
No. 73532
PLANS APPROVAL DATE
Exp. 12-31-10
CIVIL
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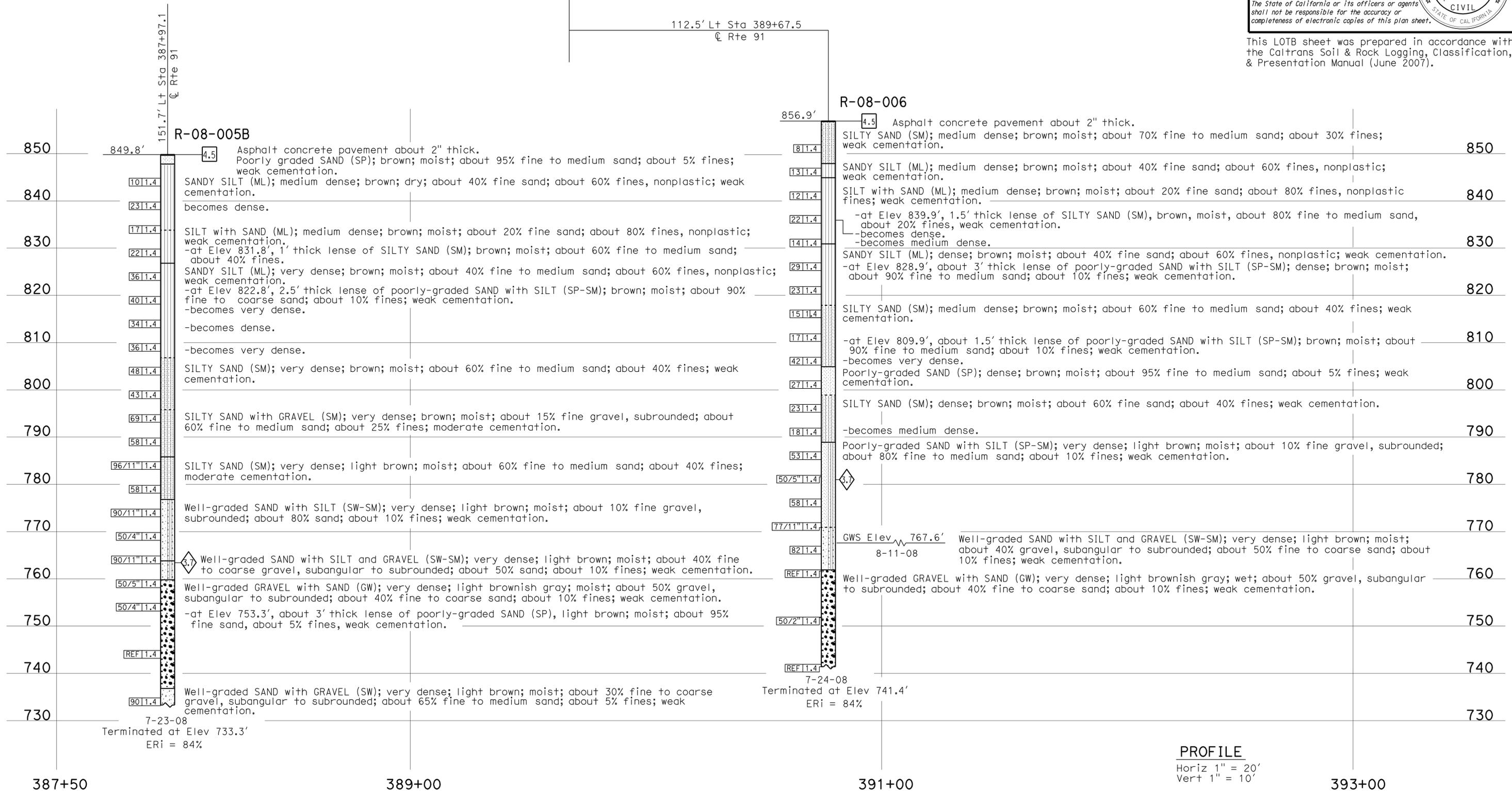
PROFILE
Horiz 1" = 5'
Vert 1" = 10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10		BRIDGE NO. 56-0837K POST MILES 20.25		14TH STREET WB OFFRAMP LOG OF TEST BORINGS 3 OF 6	
FUNCTIONAL SUPERVISOR NAME: M. DeSalvatore		DRAWN BY: I.G-Remmen, 12/08 CHECKED BY: J. Klamecki		FIELD INVESTIGATION BY: TM. Liao, Y. Yoon		CU 08 EA 448401		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 03-18-10 04-12-10 05-04-10 06-23-10	
06S CIVIL LOG OF TEST BORINGS SHEET										ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	
										0 1 2 3	
										SHEET 32 OF 35	

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS 1 OF 6"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1876	2028
REGISTERED CIVIL ENGINEER Yeo Yoon No. 73532 Exp. 12-31-10 CIVIL			7-14-10 PLANS APPROVAL DATE 4-25-11 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.		

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PROFILE
 Horiz 1" = 20'
 Vert 1" = 10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA		DIVISION OF ENGINEERING SERVICES		BRIDGE NO.		14TH STREET WB OFFRAMP	
FUNCTIONAL SUPERVISOR		DRAWN BY: I.G-Remmen, 12/08		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		56-0837K		LOG OF TEST BORINGS 4 OF 6	
NAME: M. DeSalvatore		CHECKED BY: J. Klamecki		Y. Yoon		DESIGN BRANCH 10		POST MILES			
								20.25			
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 08		EA 448401		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
								03-18-10 04-12-10 05-04-10 06-23-10		SHEET 33 OF 35	

USERNAME => hpjprice DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 1:32:43

7-14-10
 REGISTERED CIVIL ENGINEER
 Yeo Yoon
 No. 73532
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA
 PLANS APPROVAL DATE
 4-25-11
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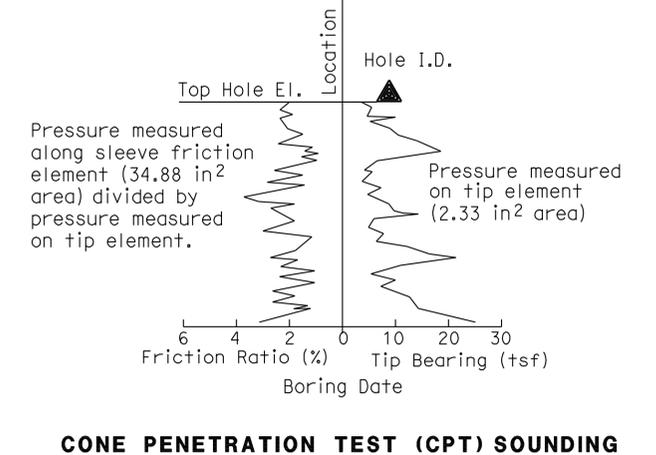
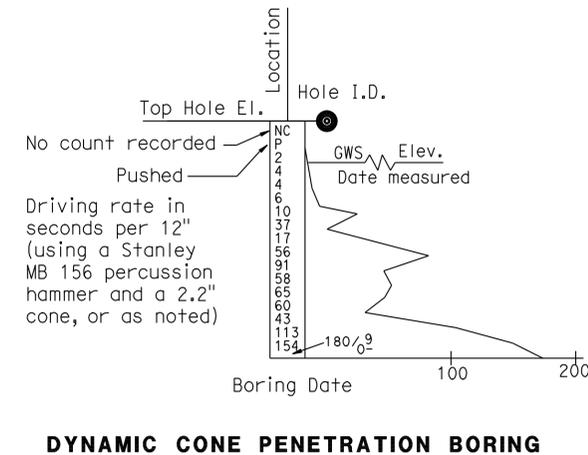
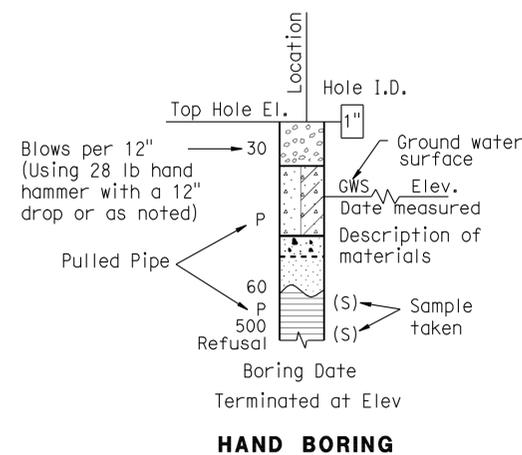
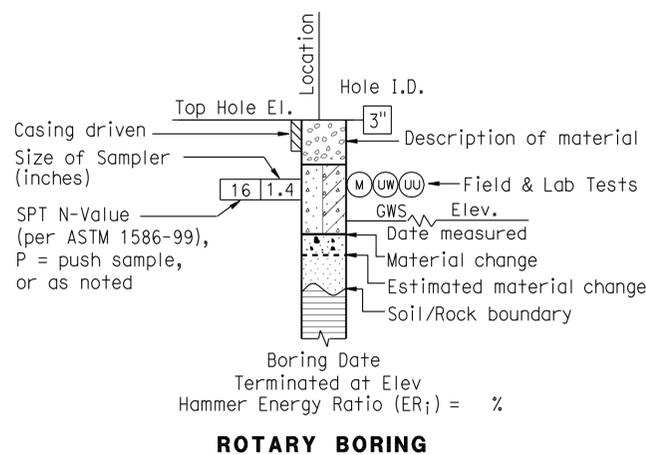
CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

CONSISTENCY OF COHESIVE SOILS				
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring
	R	Rotary drilled boring
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778-95)
	O	Other

Note: Size in inches.

PLASTICITY OF FINE-GRAINED SOILS	
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



GROUP SYMBOLS AND NAMES					
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	GW	Well-graded GRAVEL		CL	Lean CLAY
		Well-graded GRAVEL with SAND			Lean CLAY with SAND
	GP	Poorly graded GRAVEL		CL-ML	Lean CLAY with GRAVEL
		Poorly graded GRAVEL with SAND			SANDY lean CLAY
	GW-GM	Well-graded GRAVEL with SILT		ML	SANDY lean CLAY with GRAVEL
		Well-graded GRAVEL with SILT and SAND			GRAVELLY lean CLAY
	GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY)		OL	GRAVELLY lean CLAY with SAND
		Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)			SILTY CLAY
	GP-GM	Poorly graded GRAVEL with SILT		OH	SILTY CLAY with SAND
		Poorly graded GRAVEL with SILT and SAND			SILTY CLAY with GRAVEL
	GP-GC	Poorly graded GRAVEL with CLAY (or SILTY CLAY)		MH	SANDY SILTY CLAY with GRAVEL
		Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)			GRAVELLY SILTY CLAY
	GM	SILTY GRAVEL		OH	GRAVELLY SILTY CLAY with SAND
		SILTY GRAVEL with SAND			ORGANIC lean CLAY
	GC	CLAYEY GRAVEL		OH	ORGANIC lean CLAY with SAND
		CLAYEY GRAVEL with SAND			ORGANIC lean CLAY with GRAVEL
	GC-GM	SILTY, CLAYEY GRAVEL		OH	SANDY ORGANIC lean CLAY
		SILTY, CLAYEY GRAVEL with SAND			SANDY ORGANIC lean CLAY with GRAVEL
	SW	Well-graded SAND		OH	GRAVELLY ORGANIC lean CLAY
		Well-graded SAND with GRAVEL			GRAVELLY ORGANIC lean CLAY with SAND
	SP	Poorly graded SAND		OH	ORGANIC fat CLAY
		Poorly graded SAND with GRAVEL			ORGANIC fat CLAY with SAND
	SW-SM	Well-graded SAND with SILT		OH	ORGANIC fat CLAY with GRAVEL
		Well-graded SAND with SILT and GRAVEL			SANDY ORGANIC fat CLAY
	SW-SC	Well-graded SAND with CLAY (or SILTY CLAY)		OH	SANDY ORGANIC fat CLAY with GRAVEL
		Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)			GRAVELLY ORGANIC fat CLAY
	SP-SM	Poorly graded SAND with SILT		OH	GRAVELLY ORGANIC fat CLAY with SAND
		Poorly graded SAND with SILT and GRAVEL			ORGANIC elastic SILT
	SP-SC	Poorly graded SAND with CLAY (or SILTY CLAY)		OH	ORGANIC elastic SILT with SAND
		Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)			ORGANIC elastic SILT with GRAVEL
	SM	SILTY SAND		OH	SANDY ORGANIC elastic SILT
		SILTY SAND with GRAVEL			SANDY ORGANIC elastic SILT with GRAVEL
	SC	CLAYEY SAND		OH	GRAVELLY ORGANIC elastic SILT
		CLAYEY SAND with GRAVEL			GRAVELLY ORGANIC elastic SILT with SAND
	SC-SM	SILTY, CLAYEY SAND		OH	ORGANIC SOIL
		SILTY, CLAYEY SAND with GRAVEL			ORGANIC SOIL with SAND
	PT	PEAT		OH/OH	ORGANIC SOIL with GRAVEL
		COBBLES			SANDY ORGANIC SOIL
		COBBLES and BOULDERS		OH/OH	GRAVELLY ORGANIC SOIL
		BOULDERS			GRAVELLY ORGANIC SOIL with SAND

FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content-% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(PP)	Pocket Penetrometer
(R)	R-Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(TV)	Pocket Torvane
(UC)	Unconfined Compression-Soil (ASTM D 2166)
	Unconfined Compression-Rock (ASTM D 2938)
(UU)	Unconsolidated Undrained Triaxial (ASTM D 2850)
(UW)	Unit Weight (ASTM D 4767)
(VS)	Vane Shear (AASHTO T 223)

7-14-10
 REGISTERED CIVIL ENGINEER
 Yeo Yoon
 No. 73532
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA
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APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N ₆₀ (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE	
Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS	
Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE		
Description	Size	
Boulder	> 12"	
Cobble	3" to 12"	
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

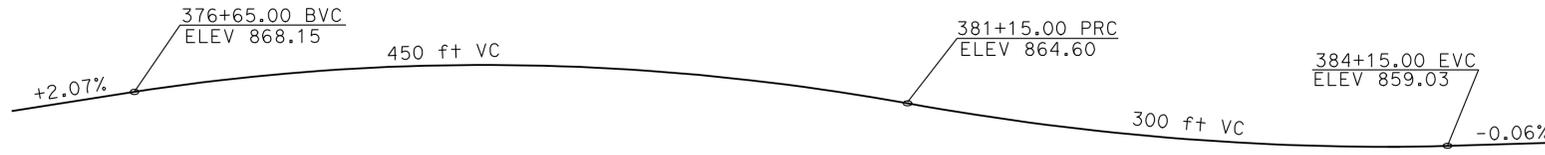
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1879	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

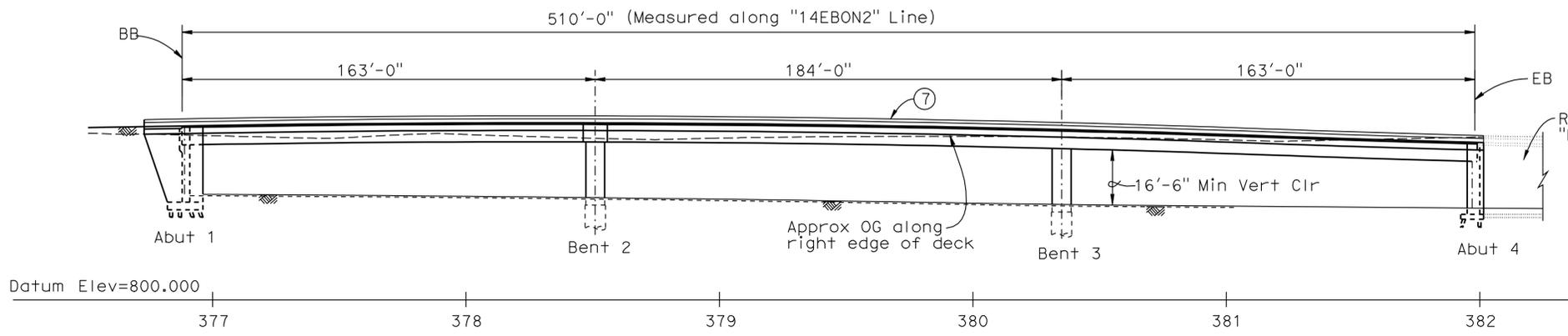
4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
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STATE OF CALIFORNIA

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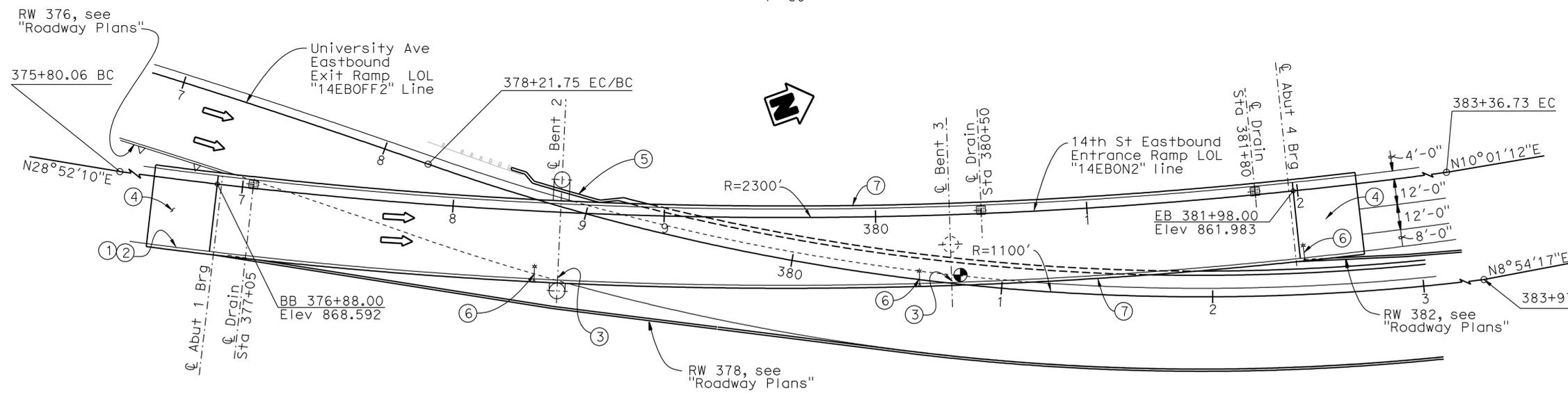
PROFILE GRADE
No Scale



DEVELOPED ELEVATION
1"=30'

QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	758	CY
STRUCTURE BACKFILL (BRIDGE)	396	CY
FURNISH STEEL PILING (HP 10 X 57)	1,955	LF
DRIVE STEEL PILE (HP 10 X 57)	44	EA
96" CAST-IN-DRILLED-HOLE CONCRETE PILING	221	LF
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	96	CY
STRUCTURAL CONCRETE, BRIDGE	1,931	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	86	CY
ARCHITECTURAL SURFACE (TEXTURED CONCRETE)	1,440	SQFT
SPLIT SLATE TEXTURE		
JOINT SEAL ASSEMBLY (MR 3")	37	LF
JOINT SEAL ASSEMBLY (MR 4")	37	LF
BAR REINFORCING STEEL (BRIDGE)	547,170	LB
WELDED STEEL PIPE CASING (BRIDGE)	41	LF
BRIDGE DECK DRAINAGE SYSTEM	2,510	LB
CONCRETE BARRIER (TYPE 732 MODIFIED)	1,055	LF



PLAN
1"=30'

- LEGEND:**
- ➔ Indicates Direction of Traffic Flow
 - Indicates Point of Minimum Vertical Clearance
 - ⊠ Indicates Deck Drain Type D-3

- NOTES:**
- Paint: "14TH STREET EASTBOUND ENTRANCE RAMP"
 - Paint: "BR. NO. 56-0838S"
 - Paint Bent Number
 - Structure Approach Type N(30S)
 - Concrete Barrier Type 60E, see "Roadway Plans"
 - Electrolier, see "Roadway Plans"
 - Concrete Barrier Type 732 (Mod)

- NOTES:**
- For TYPICAL SECTION and PILE DATA TABLE See "GENERAL PLAN NO. 2" sheet.
 - For GENERAL NOTES and INDEX TO PLANS See "INDEX TO PLANS" sheet.

CURVE DATA

"14EBON2" Line	"14EBOFF2" Line
R = 2300.00	R = 1100.00
Δ = 18°50'58"	Δ = 29°59'16"
T = 381.78	T = 294.62
L = 756.67	L = 575.73

DANIEL T. ADAMS DESIGN ENGINEER	DESIGN	BY L. Wu	CHECKED R. Melko	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP GENERAL PLAN NO. 1
	DETAILS	BY Y. Tang	CHECKED R. Melko	LAYOUT	BY L. Wu			CHECKED H. Vu	POST MILE	
	QUANTITIES	BY M. Crete	CHECKED R. Melko	SPECIFICATIONS	BY D. Klein	PLANS AND SPECS COMPARED	D. Klein			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

CU 08
EA 448401

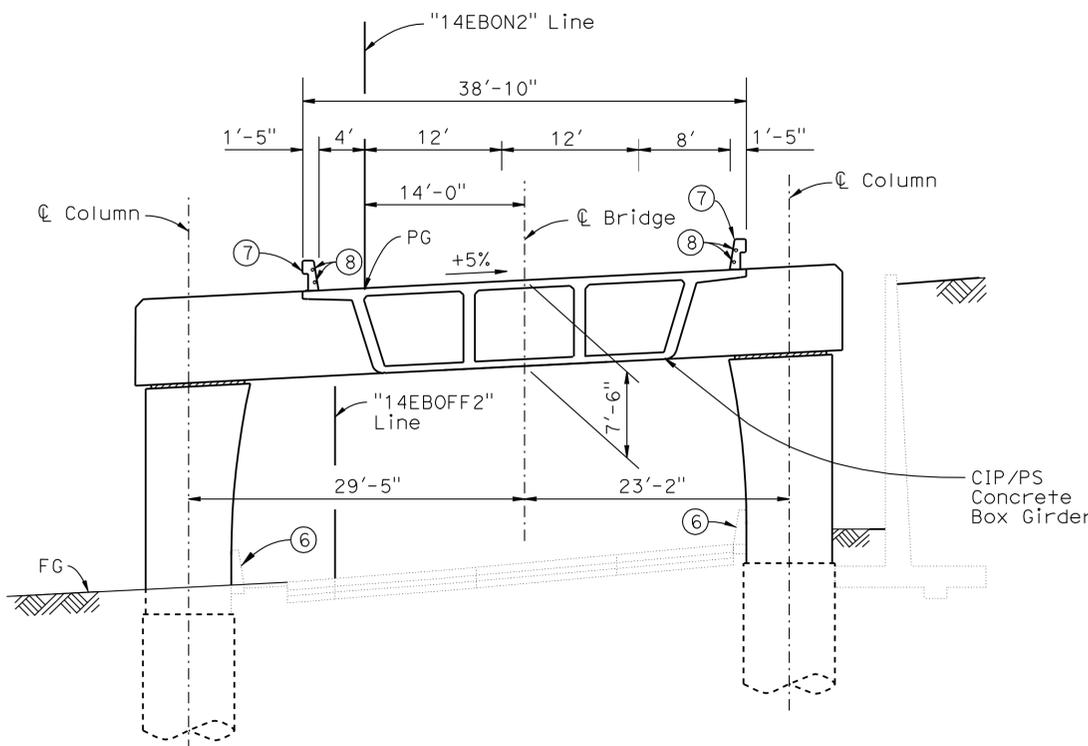
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REVISION DATES	SHEET	OF
7-28-08 6-04-08 8-21-08 10-1-08 6-17-09 2-05-10 9-20-10	1	32

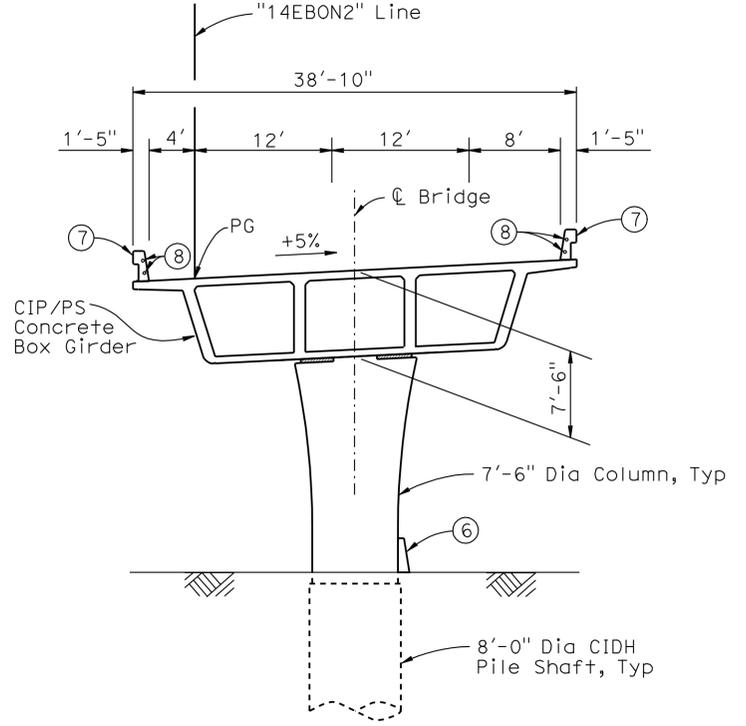
STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06) FILE => 560838sagp01.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1880	2028

HUAN VU
 REGISTERED CIVIL ENGINEER DATE 11-30-10
 4-25-11
 PLANS APPROVAL DATE
 No. 60696
 Exp. 12-31-10
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(For Bent 2)
TYPICAL SECTION
 1/8"=1'-0"

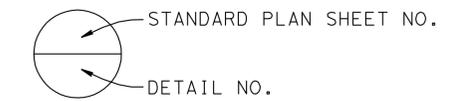


(For Bent 3)
TYPICAL SECTION
 1/8"=1'-0"

- NOTES:
- ⑥ Concrete Barrier Type 60E, see "Roadway Plans".
 - ⑦ Concrete Barrier Type 732 (Mod).
 - ⑧ 2 - 2"Ø Electrical Conduits, see "Roadway Plans".

STANDARD PLANS DATED MAY 2006

- A10A ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
- A10B ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
- A10C SYMBOLS (SHEET 1 OF 2)
- A10D SYMBOLS (SHEET 2 OF 2)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
- B0-1 BRIDGE DETAILS
- B0-3 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B0-13 BRIDGE DETAILS
- B2-5 PILE DETAILS CLASS 90 AND CLASS 140
- B3-8 RETAINING WALL DETAILS No. 1
- B7-1 BOX GIRDER DETAILS
- B7-6 DECK DRAINS TYPES D-1 AND D-2
- B7-7 DECK DRAIN TYPE D-3
- B7-8 DECK DRAINAGE DETAILS
- B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
- B11-55 CONCRETE BARRIER TYPE 732



PILE DATA TABLE

Location	Pile Type	Nominal Resistance (kips)		Design Tip Elevations(ft)	Specified Tip Elevations(ft)	Nominal Driving Resistance (kips)
		Compression	Tension			
Abut 1	HP 10X57	280	0	802.0 (1)	802.0	280
Bent 2	96" CIDH	4200	0	777.0 (1) 782.0 (2)	777.0	N/A
Bent 3	96" CIDH	6960	0	756.0 (1) 780.2 (2)	756.0	N/A
Abut 4	HP 10X57	280	0	794.0 (1)	794.0	280

NOTES: Design tip elevations are controlled by the following demands: (1) Compression, (2) Lateral Load

DANIEL T. ADAMS DESIGN ENGINEER	DESIGN	BY L. Wu	CHECKED R. Melko	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 AND PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	14TH STREET EASTBOUND ENTRANCE RAMP GENERAL PLAN NO. 2	
	DETAILS	BY Y. Tang	CHECKED R. Melko	LAYOUT	BY L. Wu			CHECKED H. Vu		56-0838S
	QUANTITIES	BY M. Crete	CHECKED R. Melko	SPECIFICATIONS	BY D. Klein			PLANS AND SPECS COMPARED D. Klein		POST MILE

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3
 CU 08 EA 448401
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 7-24-08, 7-13-09, 8-14-09, 7-04-10, 11-30-10
 SHEET 2 OF 32
 FILE => 560838sogp02.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1881	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
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INDEX TO PLANS

SHEET NO.	TITLE
1.	GENERAL PLAN NO. 1
2.	GENERAL PLAN NO. 2
3.	INDEX TO PLANS
4.	DECK CONTOURS
5.	FOUNDATION PLAN NO. 1
6.	FOUNDATION PLAN NO. 2
7.	ABUTMENT 1 LAYOUT
8.	ABUTMENT 4 LAYOUT
9.	ABUTMENT DETAILS NO. 1
10.	ABUTMENT DETAILS NO. 2
11.	ABUTMENT DETAILS NO. 3
12.	ABUTMENT DETAILS NO. 4
13.	BENT 2 LAYOUT
14.	BENT 2 DETAILS NO. 1
15.	BENT 2 DETAILS NO. 2
16.	BENT 3 LAYOUT
17.	BENT 3 DETAILS
18.	TYPICAL SECTION
19.	GIRDER LAYOUT NO. 1
20.	GIRDER LAYOUT NO. 2
21.	GIRDER REINFORCEMENT NO. 1
22.	GIRDER REINFORCEMENT NO. 2
23.	STRUCTURE APPROACH TYPE N(30S)
24.	STRUCTURE APPROACH DRAINAGE DETAILS
25.	JOINT SEAL ASSEMBLY (MAXIMUM MOVEMENT RATING = 4")
26.	ARCHITECTURAL DETAILS NO. 1
27.	ARCHITECTURAL DETAILS NO. 2
28.	LOG OF TEST BORINGS (1 OF 5)
29.	LOG OF TEST BORINGS (2 OF 5)
30.	LOG OF TEST BORINGS (3 OF 5)
31.	LOG OF TEST BORINGS (4 OF 5)
32.	LOG OF TEST BORINGS (5 OF 5)

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

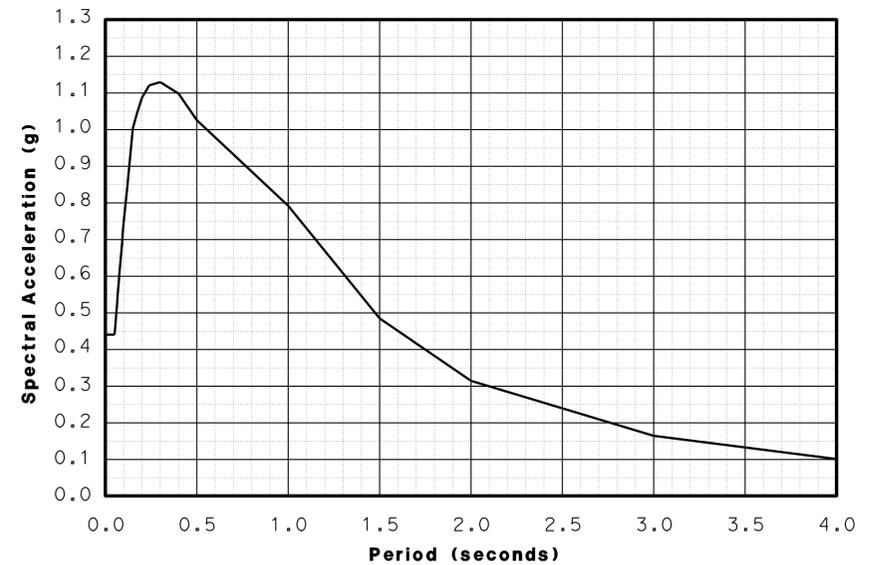
DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th Edition and the CALTRANS Amendments preface dated Dec. 2008.

SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.4, July, 2006

DEAD LOAD: Includes 35 Psf for future wearing surface.

LIVE LOADING: HL93 and permit design load.

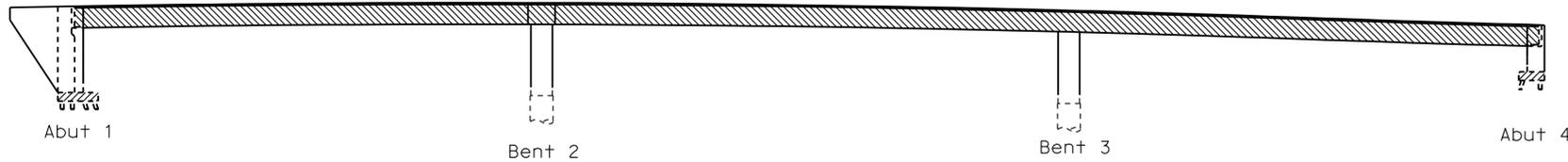
SEISMIC LOADING: Soil Profile Type D, Magnitude Group 7.25±0.25, Peak Rock Acceleration = 0.4 g.



Modified CALTRANS SDC ARS Curve: 20% increase due to fault proximity.

REINFORCED CONCRETE: $f_y = 60$ ksi
 $f'_c = 3600$ psi, unless otherwise noted
 $n = 8$

See "Prestressing Notes" on "GIRDER LAYOUT NO. 1" sheet and "BENT 2 LAYOUT" sheet.



- Structural Concrete, Bridge
- Structural Concrete, Bridge (4000 psi @ 28 days)
- Structural Concrete, Bridge Footing

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

DESIGN	BY L. Wu	CHECKED R. Meiko
DETAILS	BY Y. Tang	CHECKED R. Meiko
QUANTITIES	BY M. Crete	CHECKED R. Meiko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP
POST MILE	20.10	
INDEX TO PLANS		

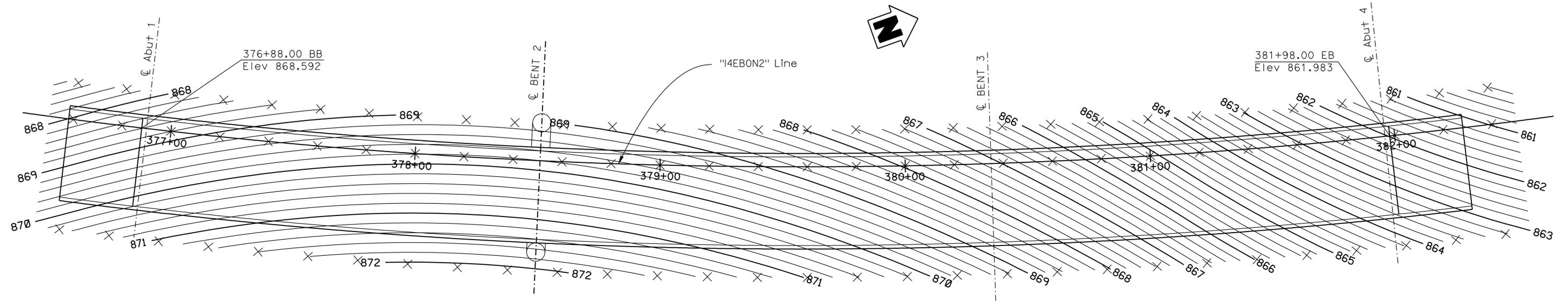
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1882	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

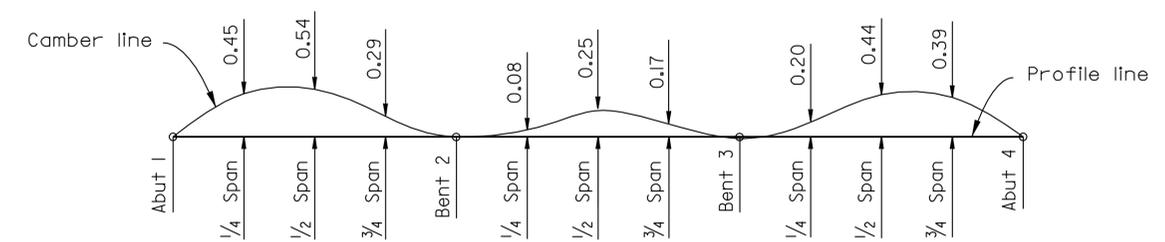
HUAN VU
No. 60696
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- NOTES:
1. X - 20' intervals along station line.
 2. Contour interval = 0.2'.
 3. Contours do not include camber.

PLAN
1"=20'



Note: Camber shown does not include allowance for falsework settlement. Camber values are shown in inches

CAMBER DIAGRAM
NO SCALE

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY L. WU	CHECKED R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP DECK CONTOURS		
	DETAILS	BY Y. Tang	CHECKED R. Melko			POST MILE	20.10			
	QUANTITIES	BY M. Crete	CHECKED R. Melko			CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES		05-15-09 1-28-10 3-30-10	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS								0 1 2 3	REVISION DATES	SHEET 4 OF 32

USERNAME => HSTFK DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:44

CURVE DATA

No.	R	Δ	T	L
①	2300.000	18°50'58"	381.78	756.66
②	3500.000	5°03'23"	154.54	308.88
③	1100.000	29°59'16"	294.62	575.73
④	2000.000	15°54'09"	279.35	555.10
⑤	3464.970	3°34'54"	108.333	216.595

AA STA. 378+62.405 14th ST EB ON-RAMP LOL=
 AA STA. 371+72.856 UNIVRSITY AVE EB OFF-RAMP LOL

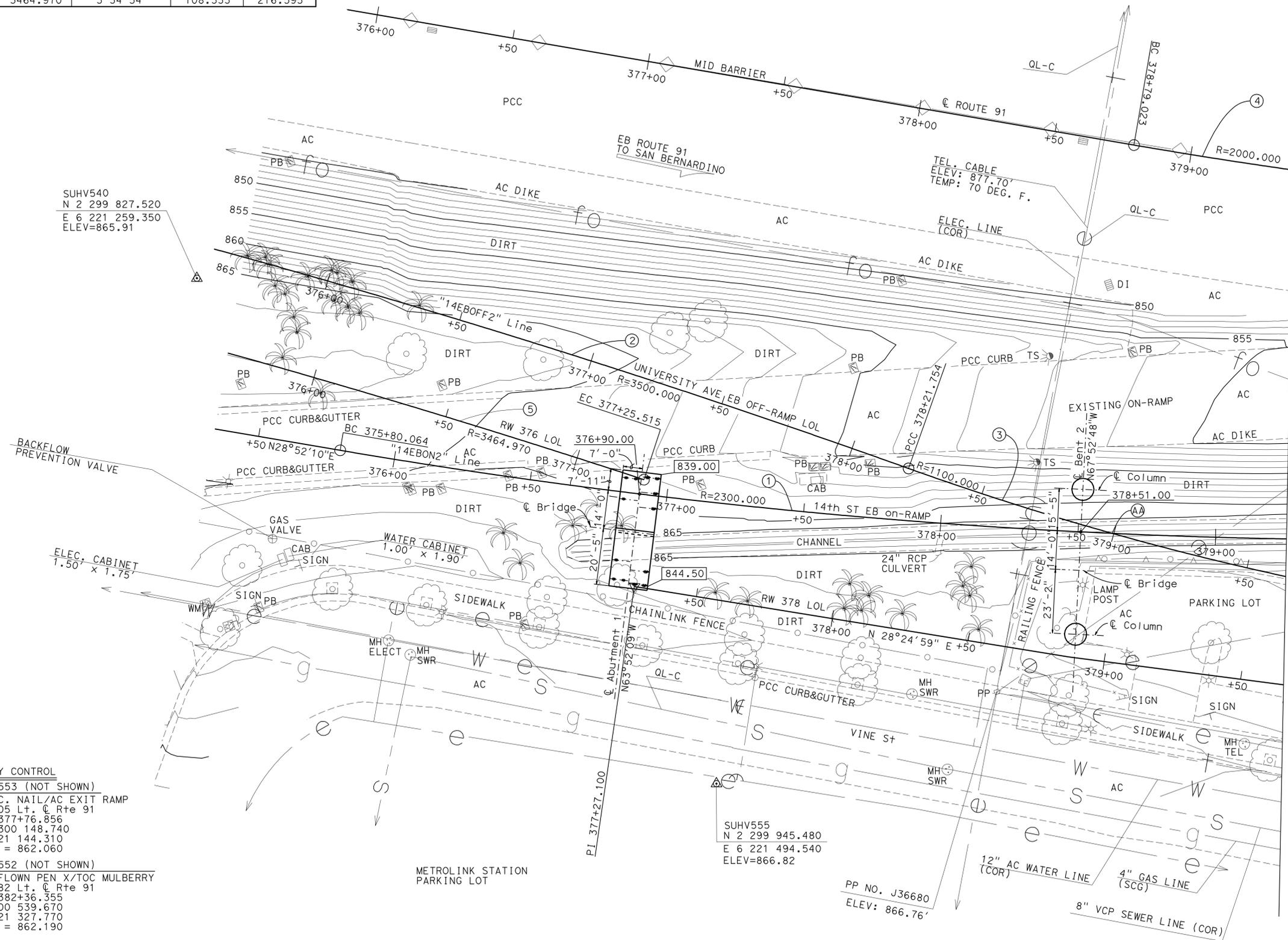
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1883	2028

Huan Vu 11-30-10
 REGISTERED CIVIL ENGINEER DATE

4-25-11
 PLANS APPROVAL DATE

HUAN VU
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 Exp. 12-31-10
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MATCH LINE (SEE SHEET 2)

SURVEY CONTROL
 SUHV 553 (NOT SHOWN)
 Fnd C. NAIL/AC EXIT RAMP
 151.005 Lt. @ Rte 91
 Sta. 377+76.856
 N 2 300 148.740
 E 6 221 144.310
 Elev. = 862.060

SUHV 552 (NOT SHOWN)
 Fnd FLOWN PEN X/TOC MULBERRY
 150.382 Lt. @ Rte 91
 Sta. 382+36.355
 N 2 300 539.670
 E 6 221 327.770
 Elev. = 862.190

SUHV555
 N 2 299 945.480
 E 6 221 494.540
 ELEV=866.82

NOTES:
 UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE
 [Symbol] Indicates bottom of footing elevation

PRELIMINARY INVESTIGATION SECTION				DESIGN BY L. Wu	CHECKED R. Meiko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0838S	14th STREET EASTBOUND ENTRANCE RAMP FOUNDATION PLAN NO. 1
SCALE VERT. DATUM NGVD 29	PHOTOGRAMMETRY AS OF: X	DETAILS BY Y. Tang	CHECKED R. Meiko	POST MILE 20.10					
1"=20' HORZ. DATUM NAD 83	SURVEYED BY C. Stewart 07/08	CHECKED BY L. Manabo 06/08	CHECKED R. Meiko						
ALIGNMENT TIES DIST TRAV SHEETS	DRAFTED BY M. Sadaghiani 09/08	CHECKED BY L. Manabo 09/08	QUANTITIES BY M. Crete	CHECKED R. Meiko	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	SHEET 5 OF 32

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 FILE => 560838sefp105.dgn

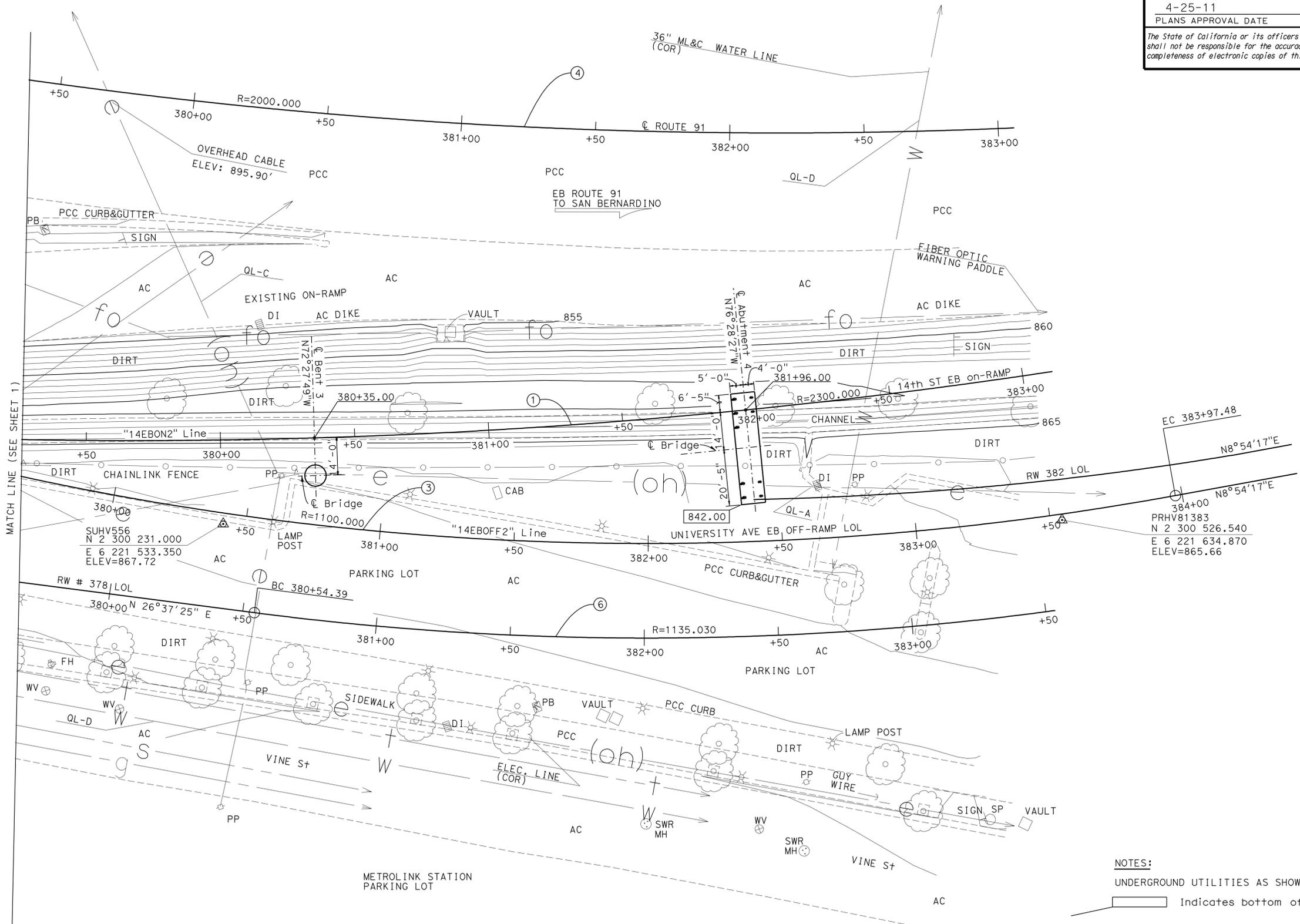
CURVE DATA

No.	R	Δ	T	L
1	2300.000	18°50'58"	381.78	756.66
3	1100.000	29°59'16"	294.62	575.73
4	2000.000	15°54'09"	279.35	555.10
6	1135.030	18°20'01"	183.16	363.19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1884	2028

HUAN VU
 REGISTERED CIVIL ENGINEER
 DATE 11-30-10
 PLANS APPROVAL DATE 4-25-11
 No. 60696
 Exp. 12-31-10
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 STATE OF CALIFORNIA

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NOTES:
 UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE
 [Symbol] Indicates bottom of footing elevation

PRELIMINARY INVESTIGATION SECTION

SCALE	VERT. DATUM	NGVD 29	PHOTOGRAMMETRY	AS OF: X
1"=20'	HORZ. DATUM	NAD 83	SURVEYED	BY C. Stewart 07/08
ALIGNMENT TIES	DIST TRAV SHEETS		DRAFTED	BY M. Sadaghiani 09/08

DESIGN	BY L. Wu	CHECKED	R. Melko
DETAILS	BY Y. Tang	CHECKED	R. Melko
QUANTITIES	BY M. Crete	CHECKED	R. Melko

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

BRIDGE NO.	56-0838S
POST MILE	20.10

14th STREET EASTBOUND ENTRANCE RAMP
FOUNDATION PLAN NO. 2

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



CU 08
EA 448401

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	09/05/08	06/16/09	08/11/09	02/03/10	05/09/10				
SHEET	6								
OF	32								

USERNAME => HSTPTK DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:44

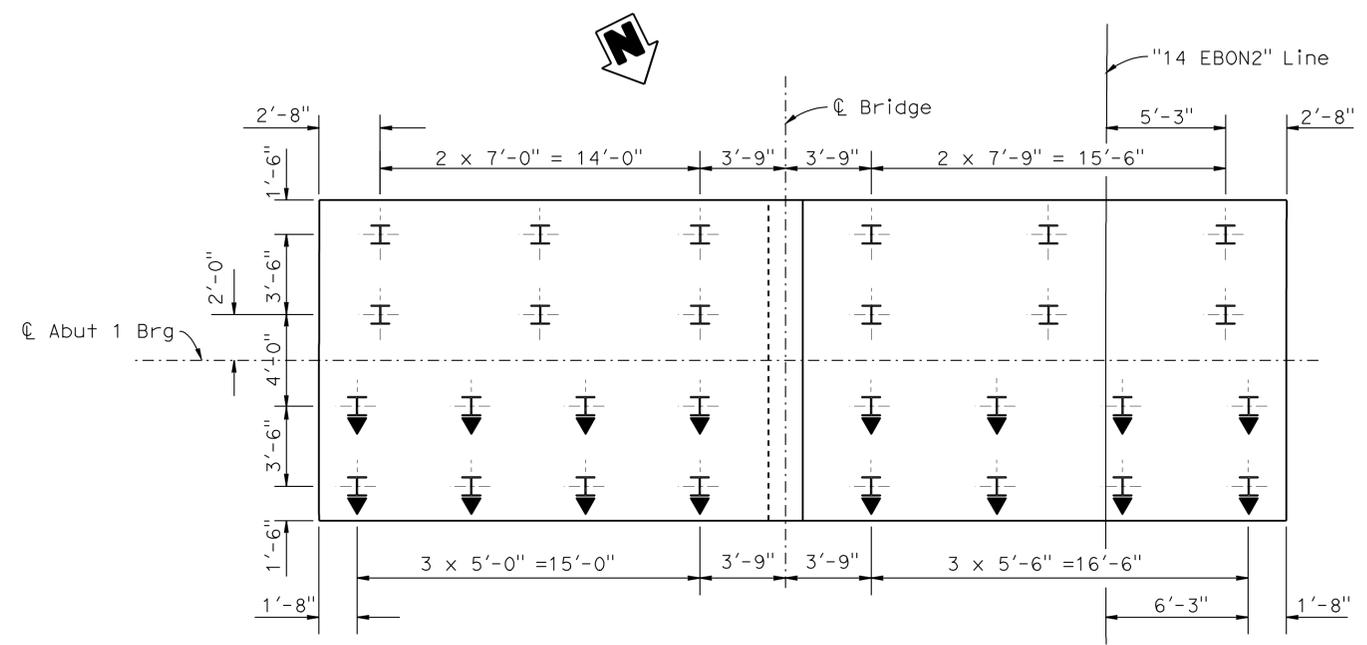
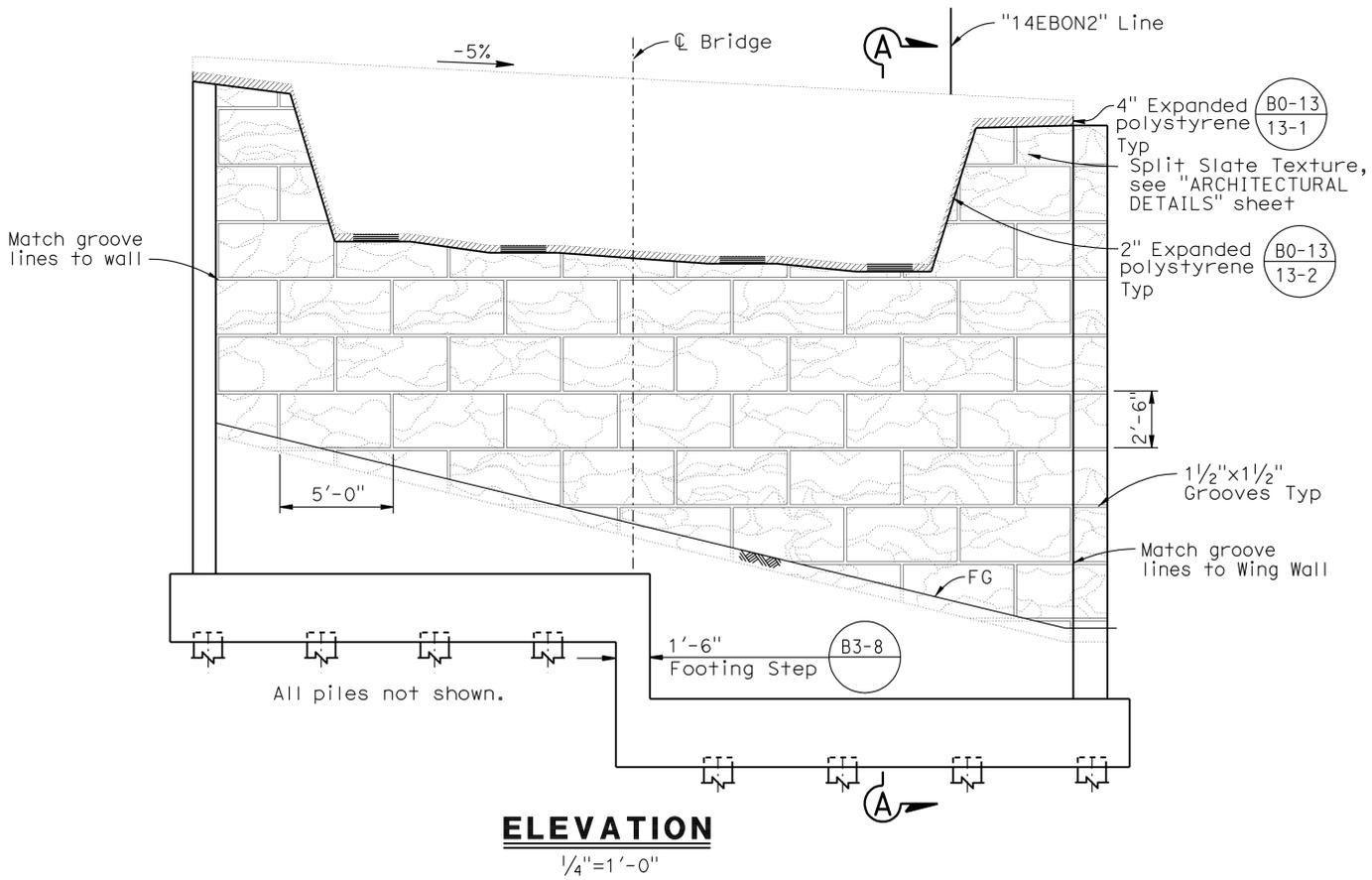
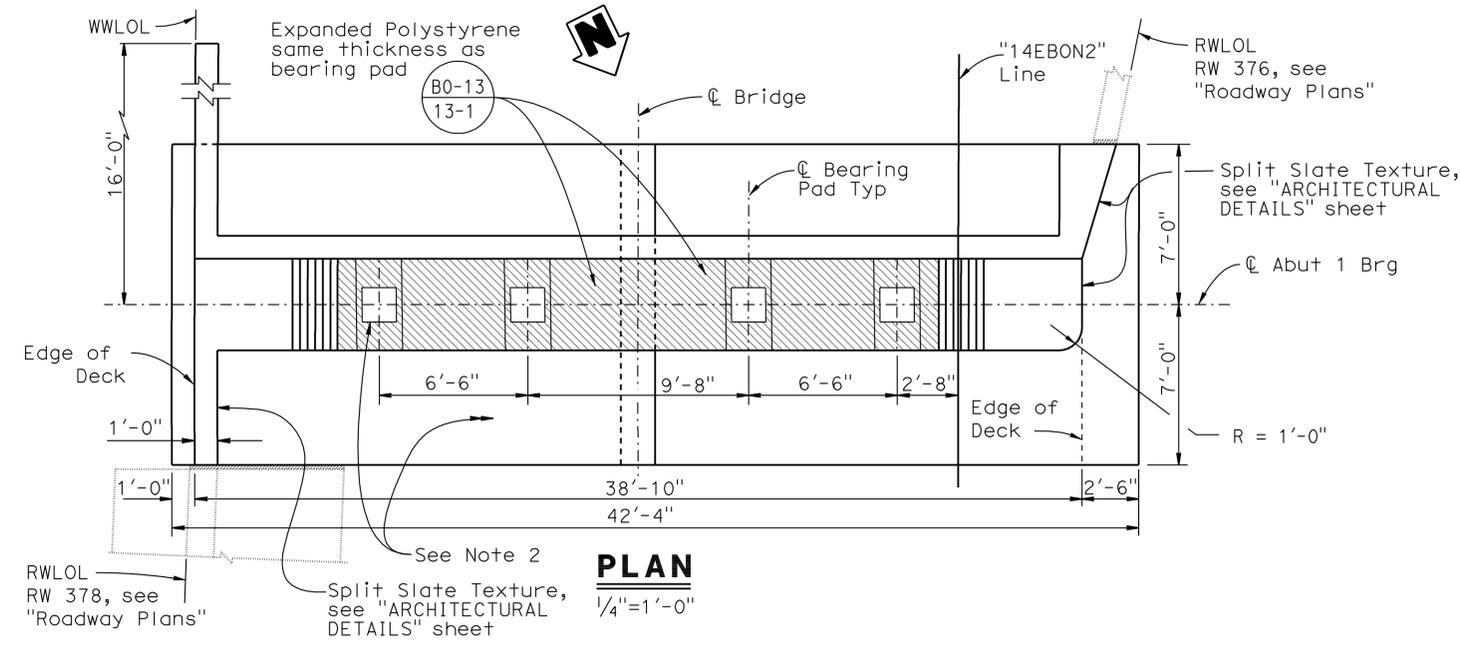
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08	Riv	91	15.6/21.6	1885	2028

Huan VU 11-30-10
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LEGEND:

- ⊥ Indicates vertical steel pile
- ⊥ Indicates battered steel pile at 1:3

NOTES:

1. For Section A-A, see "ABUTMENT DETAILS NO. 1" sheet.
2. 18" x 18" x 4 1/2" steel reinforced elastomeric bearing pads Tot 4, for details see "ABUTMENT DETAILS NO. 2" sheet.

DESIGN	BY L. Wu	CHECKED R. Melko
DETAILS	BY Y. Tang	CHECKED R. Melko
QUANTITIES	BY M. Crete	CHECKED R. Melko

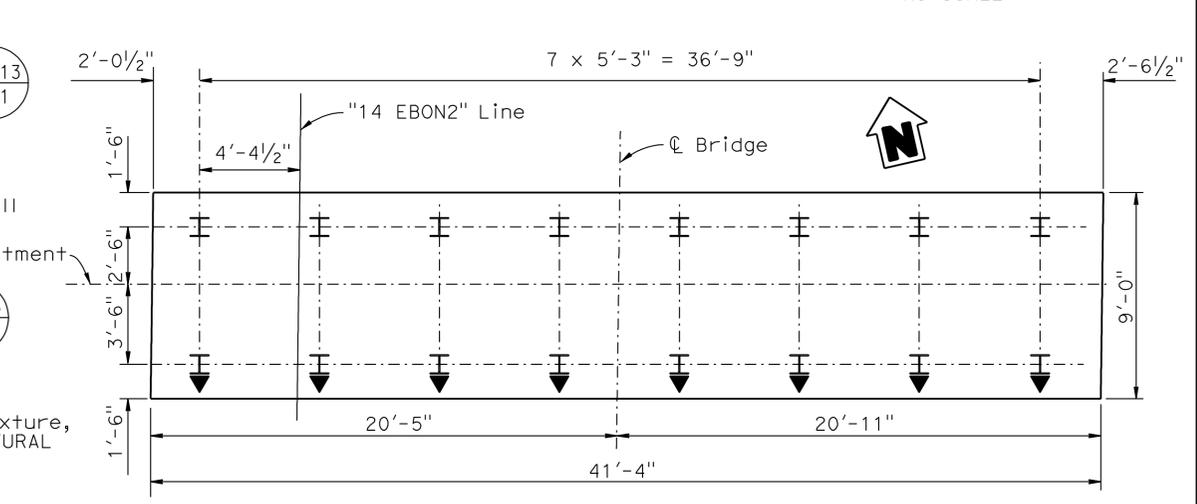
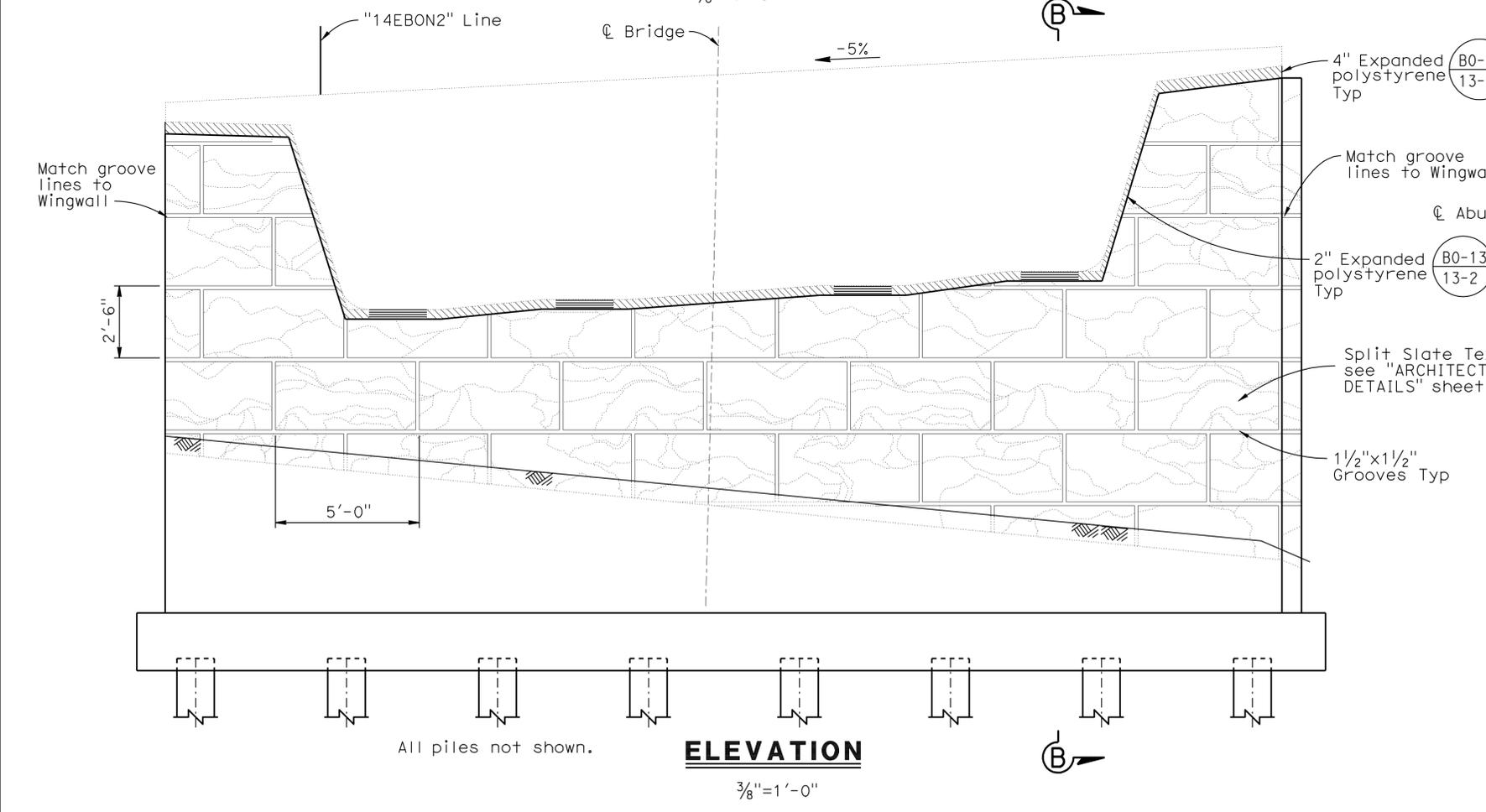
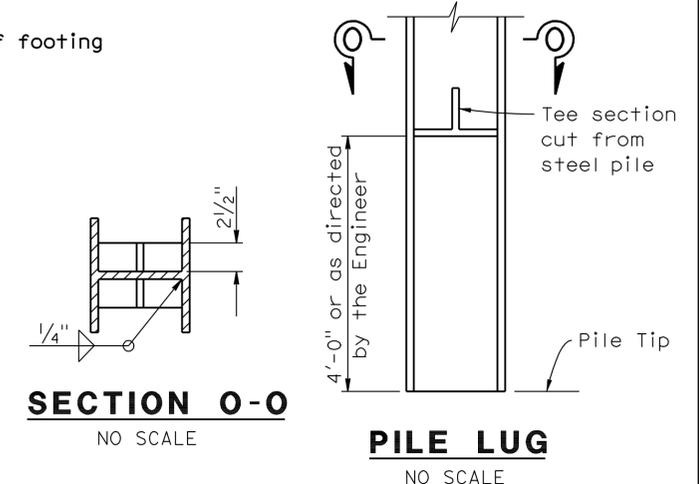
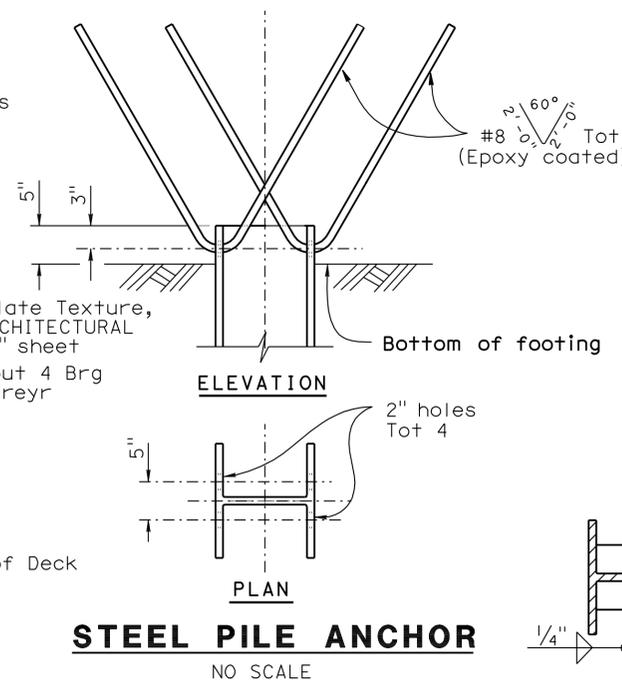
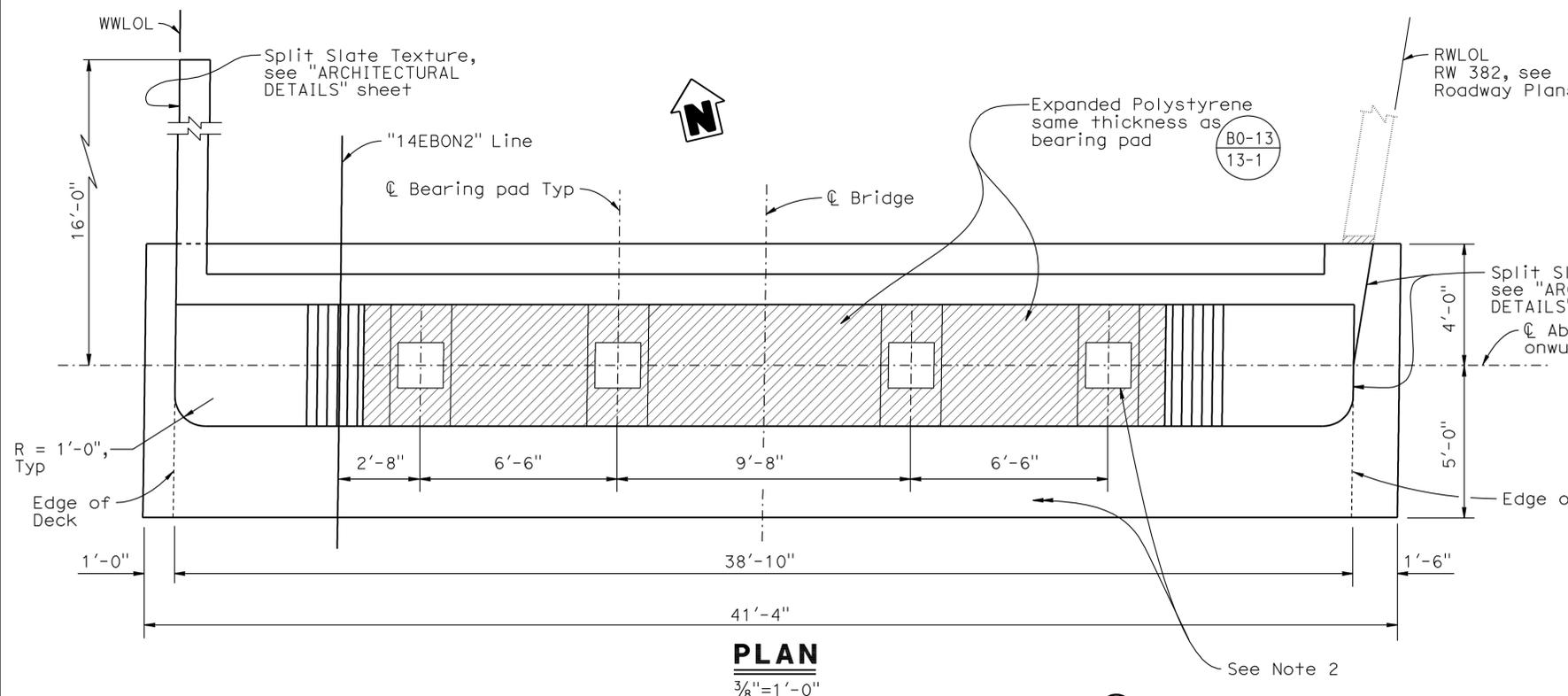
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0838S
POST MILE 20.10
14TH STREET EASTBOUND ENTRANCE RAMP
ABUTMENT 1 LAYOUT

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1886	2028

HUAN VU 11-30-10
 REGISTERED CIVIL ENGINEER DATE
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 HUAN VU No. 60696 Exp. 12-31-10 CIVIL
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PILE LAYOUT - ABUTMENT 4
1/4" = 1'-0"

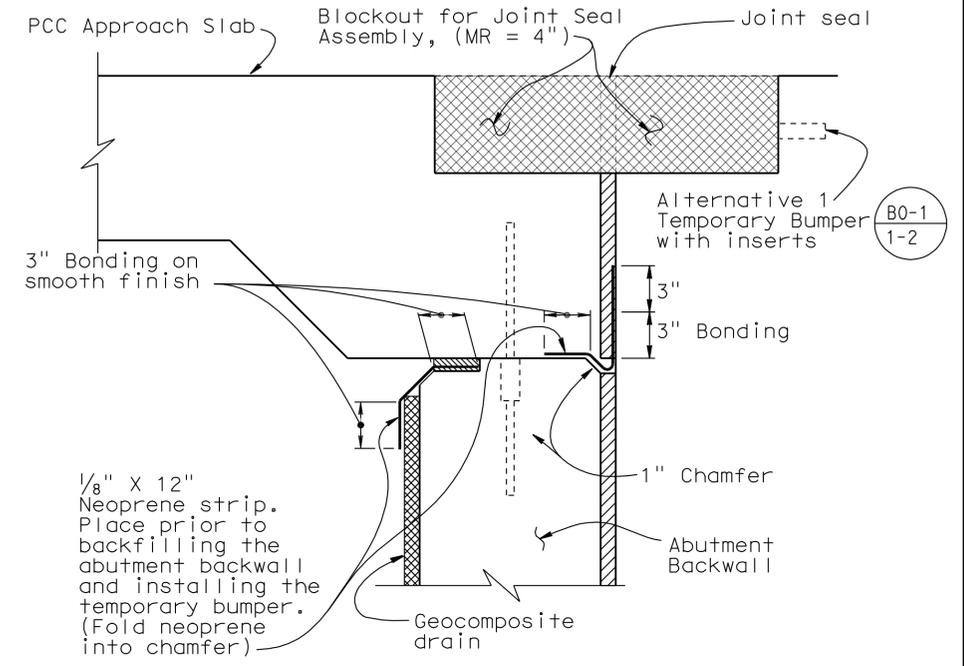
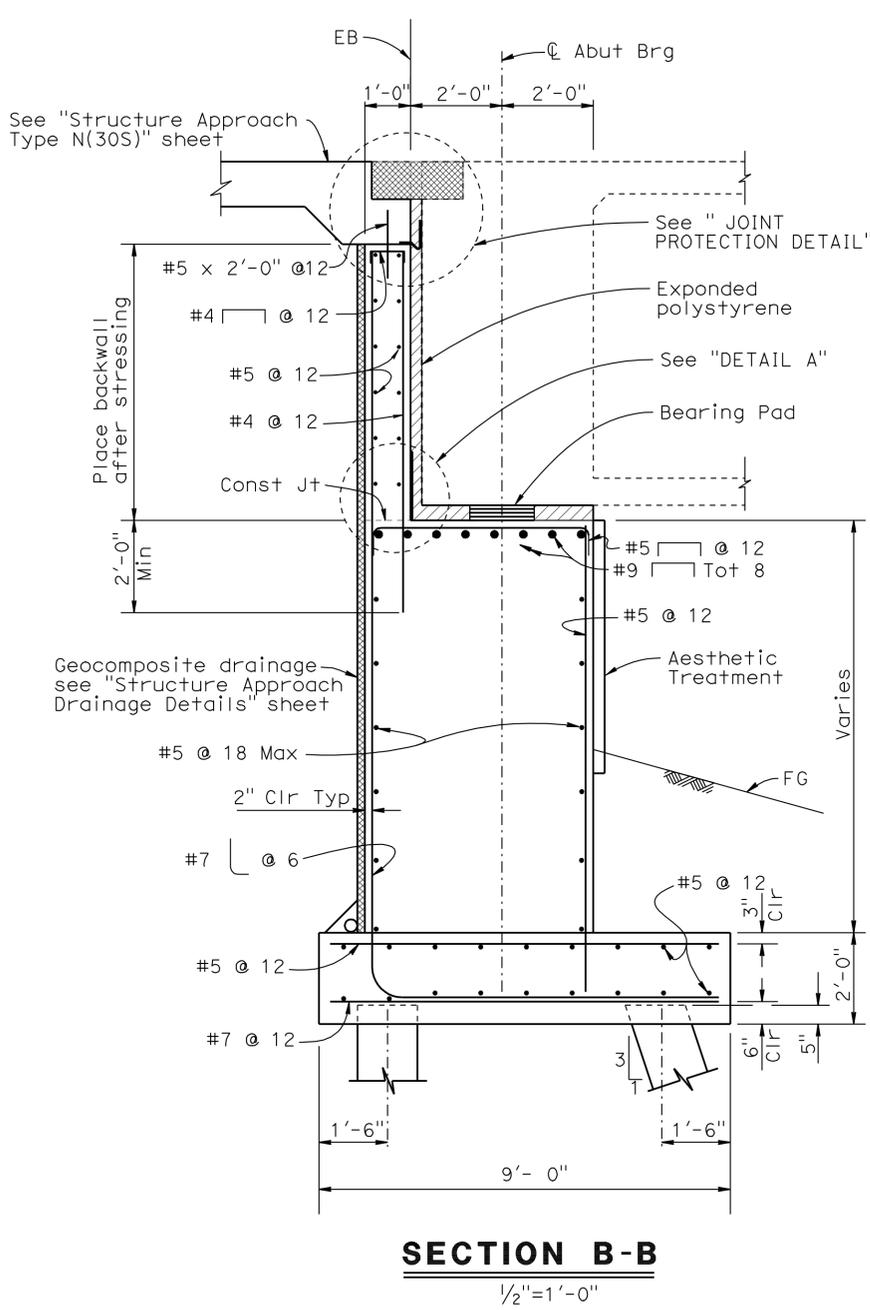
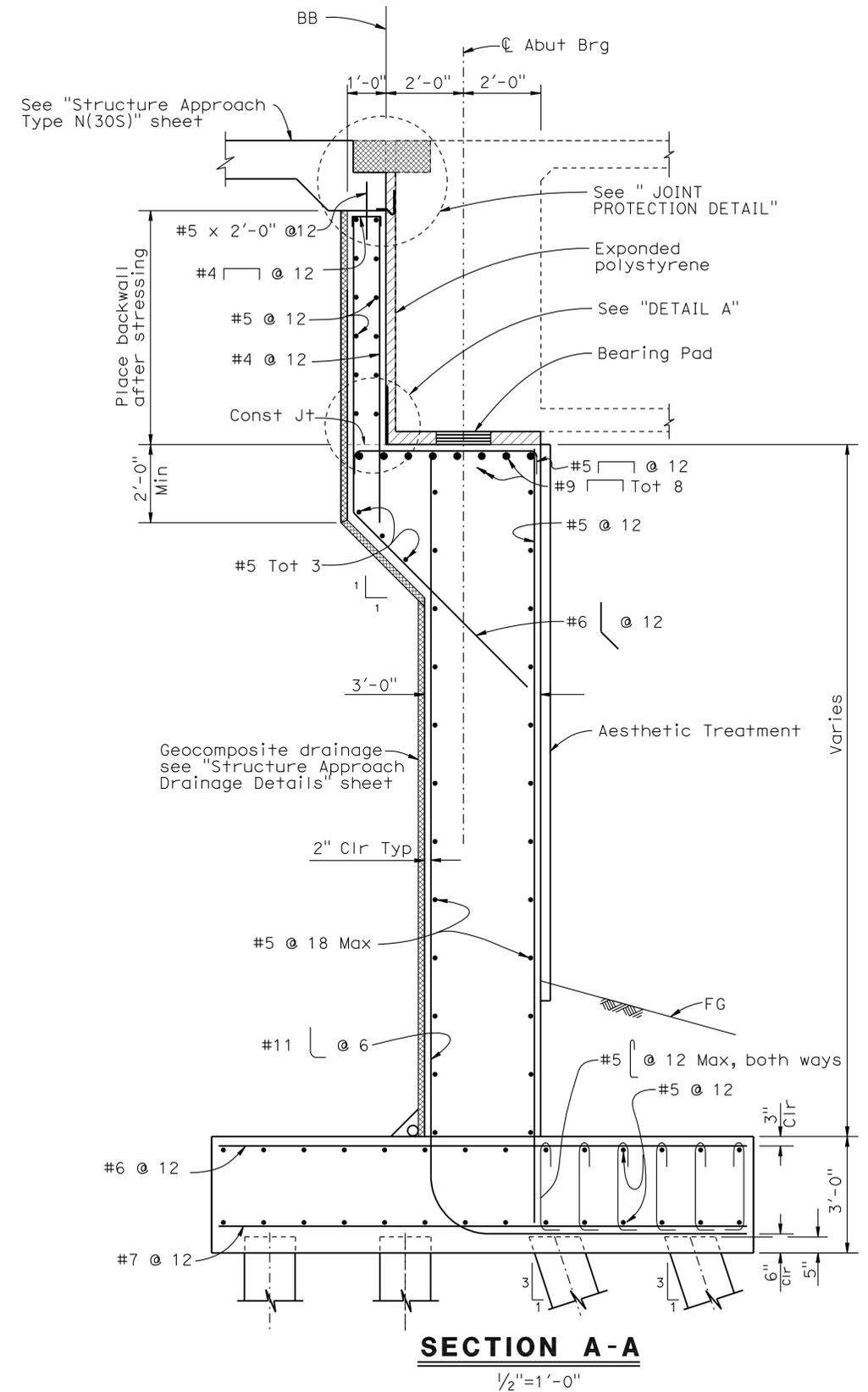
- LEGEND:**
- ⊕ Indicates vertical steel pile
 - ⊕ Indicates battered steel pile at 1:3
- NOTES:**
- For "Section B-B", see "ABUTMENT DETAILS NO. 1" sheet.
 - 18" x 18" x 4 1/2" steel reinforced elastomeric bearing pads Tot 4, for details see "ABUTMENT DETAILS NO. 2" sheet.

DESIGN	BY L. Wu	CHECKED R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	14TH STREET EASTBOUND ENTRANCE RAMP ABUTMENT 4 LAYOUT
DETAILS	BY Y. Tang	CHECKED R. Melko			56-0838S	
QUANTITIES	BY M. Crete	CHECKED R. Melko			POST MILE 20.10	

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 CU 08 EA 448401
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 02-24-09, 2-16-10, 3-09-10, 9-28-10, 11-30-10
 SHEET 8 OF 32

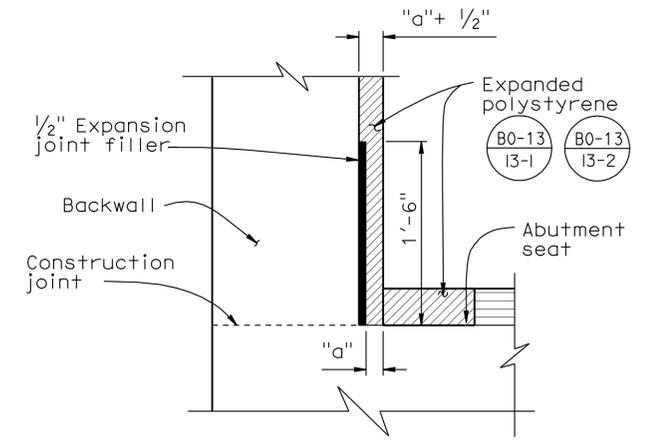
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08	Riv	91	15.6/21.6	1887	2028

HUAN VU
 REGISTERED CIVIL ENGINEER DATE 11-30-10
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 CIVIL
 STATE OF CALIFORNIA



JOINT PROTECTION DETAIL

No Scale



DETAIL "A"

No Scale

For "a" dimension, see "Joint Seal Assembly (Maximum Movement Rating = 4")" sheet.

- NOTES:
1. For location of Section A-A, see "ABUTMENT 1 LAYOUT" sheet.
 2. For location of Section B-B see "ABUTMENT 4 LAYOUT" sheet.

DESIGN	BY L. Wu	CHECKED R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP ABUTMENT DETAILS NO. 1
DETAILS	BY Y. Tang	CHECKED R. Melko			POST MILE	20.10	
QUANTITIES	BY M. Crete	CHECKED R. Melko			CU 08 EA 448401	REVISION DATES	

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 FILE => 560838sfad+09.dgn

DISREGARD PRINTS BEARING EARLIER REVISION DATES

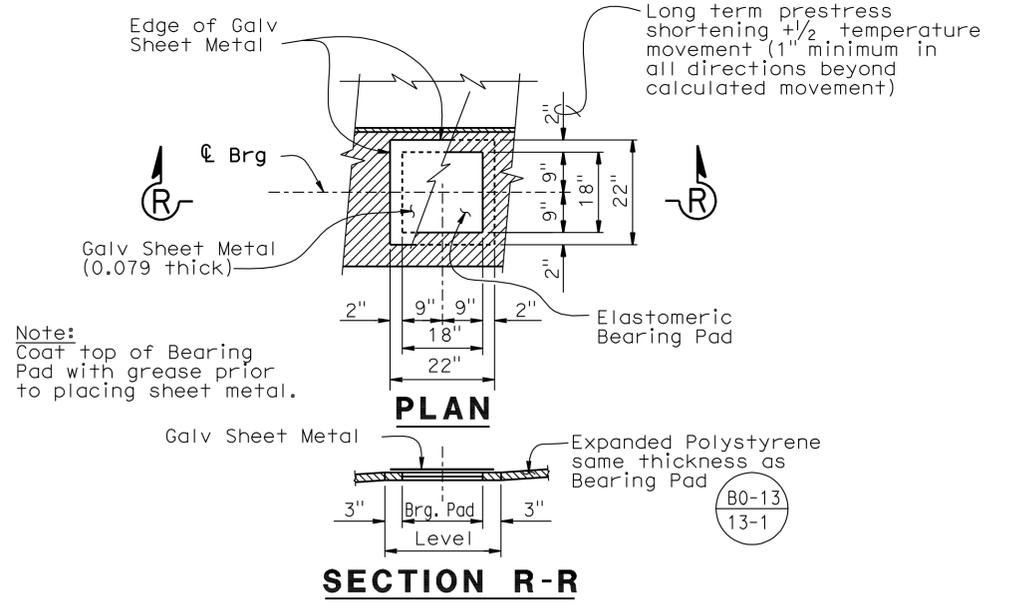
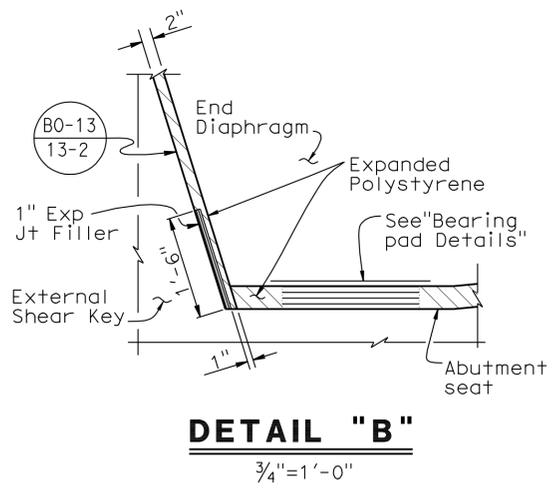
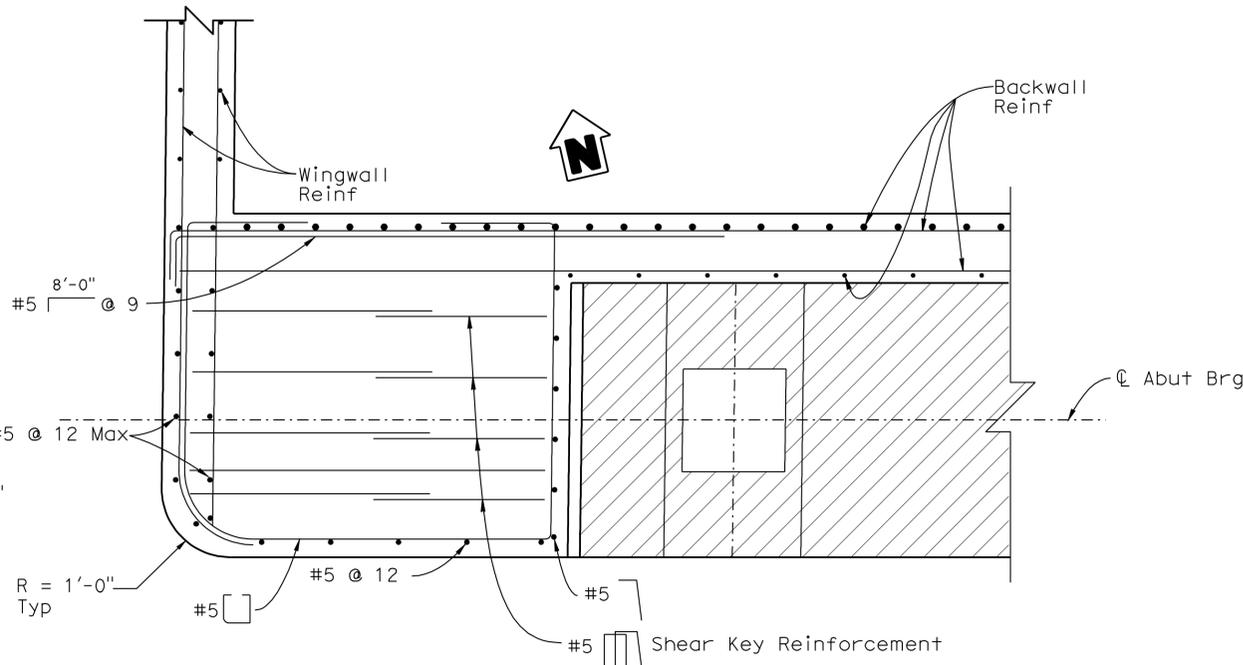
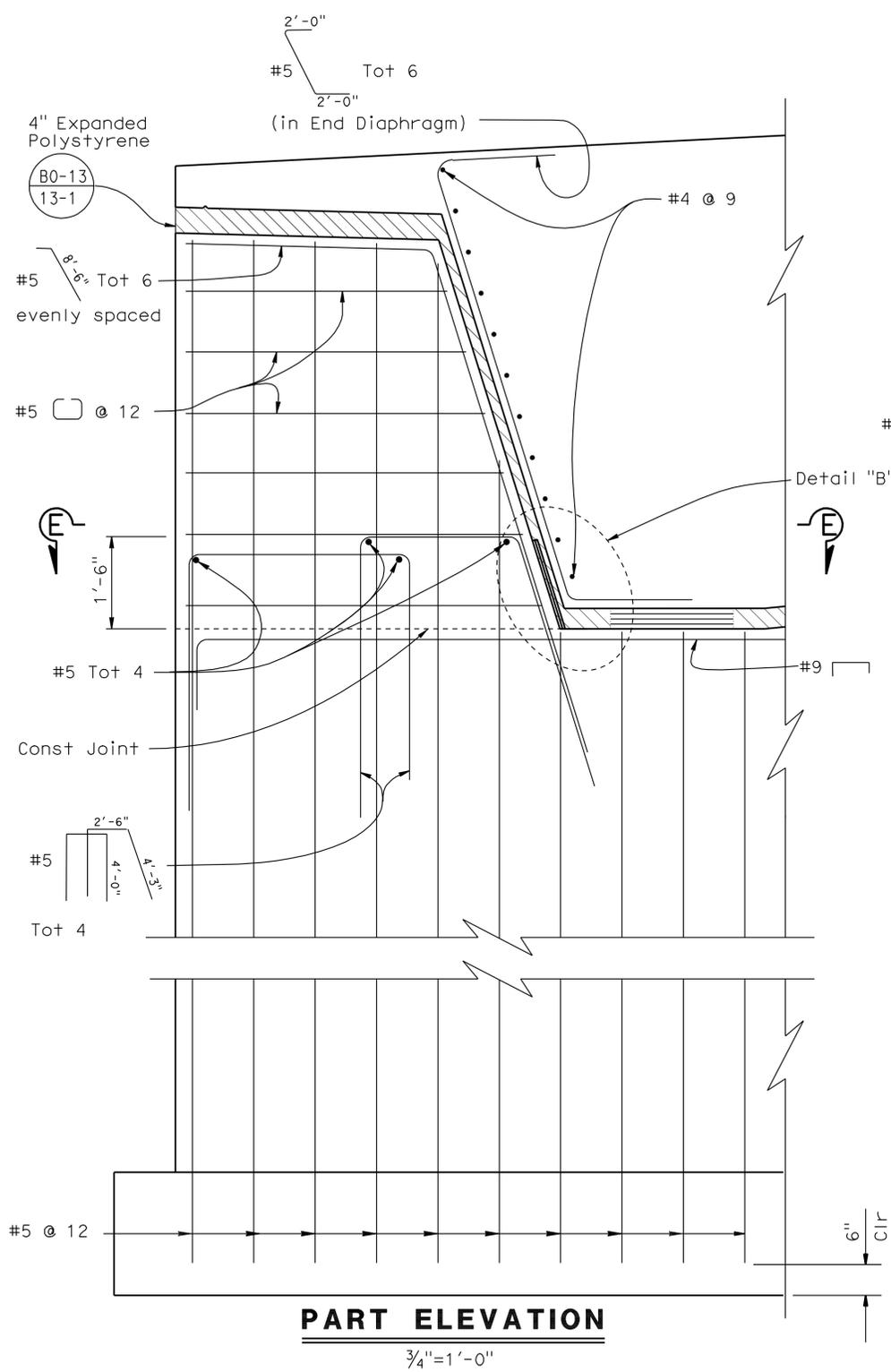
SHEET 9 OF 32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1888	2028

HUAN VU
 REGISTERED CIVIL ENGINEER DATE 11-30-10
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

4-25-11
 PLANS APPROVAL DATE

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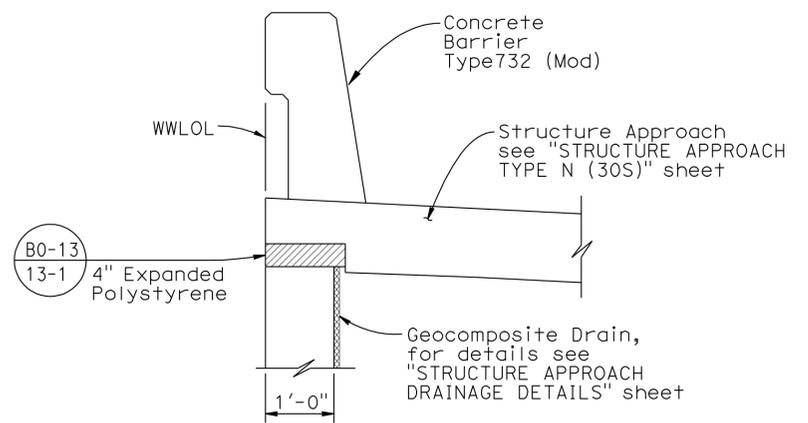
DESIGN	BY L. Wu	CHECKED R. Melko
DETAILS	BY Y. Tang	CHECKED R. Melko
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

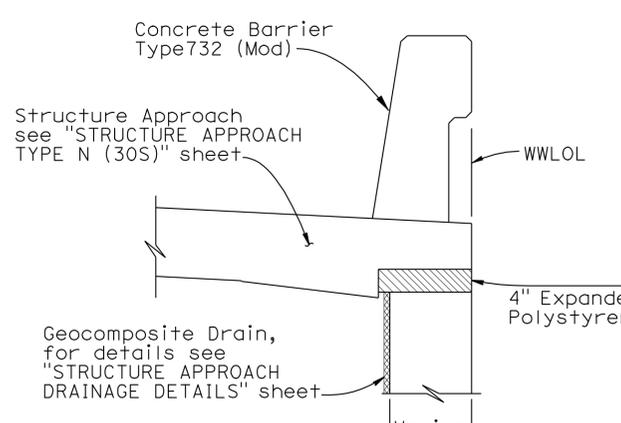
BRIDGE NO.	56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP
POST MILE	20.10	
		ABUTMENT DETAILS NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1889	2028
 REGISTERED CIVIL ENGINEER DATE 11-30-10					
PLANS APPROVAL DATE 4-25-11					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



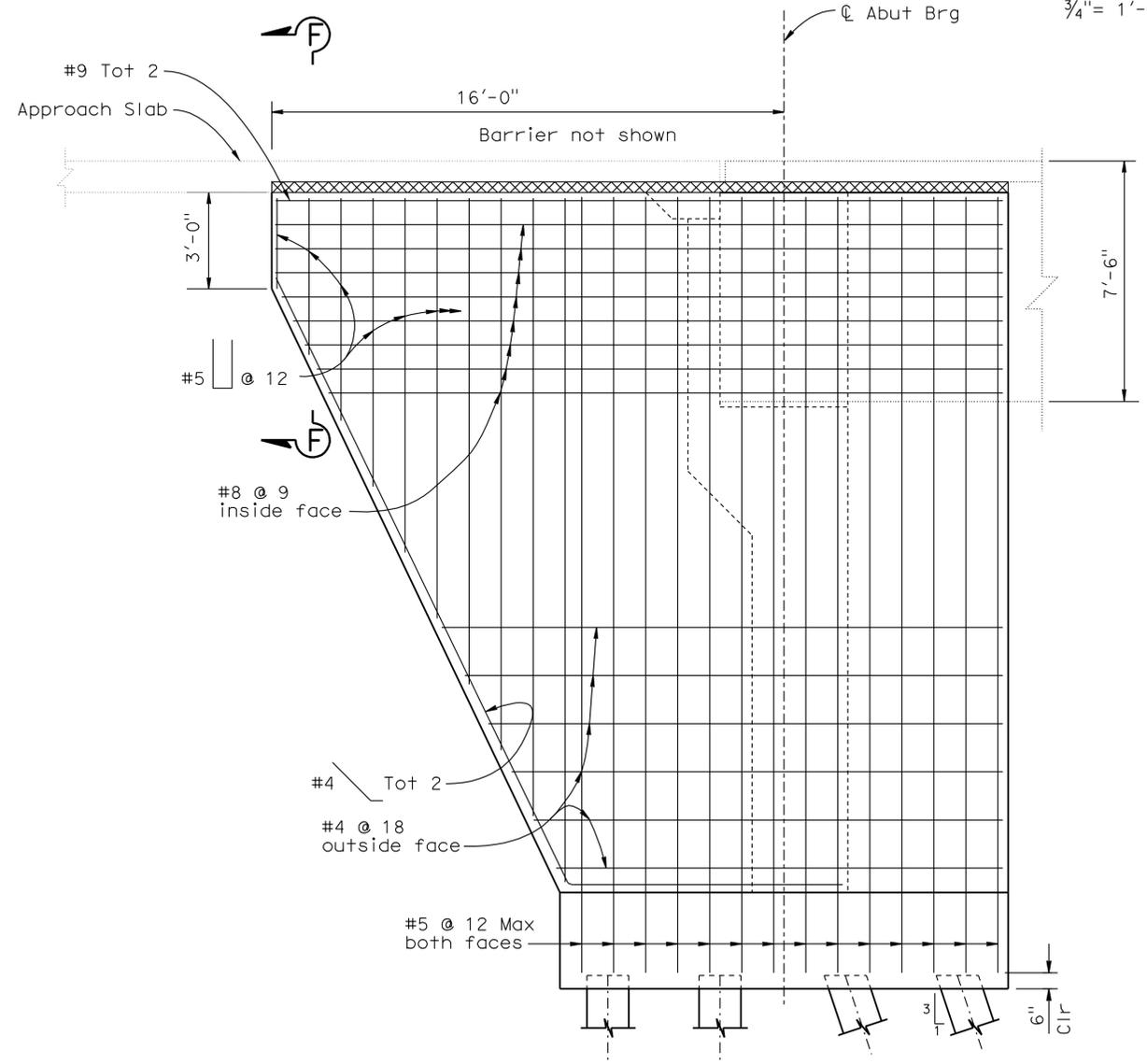
SECTION F-F

3/4" = 1'-0"



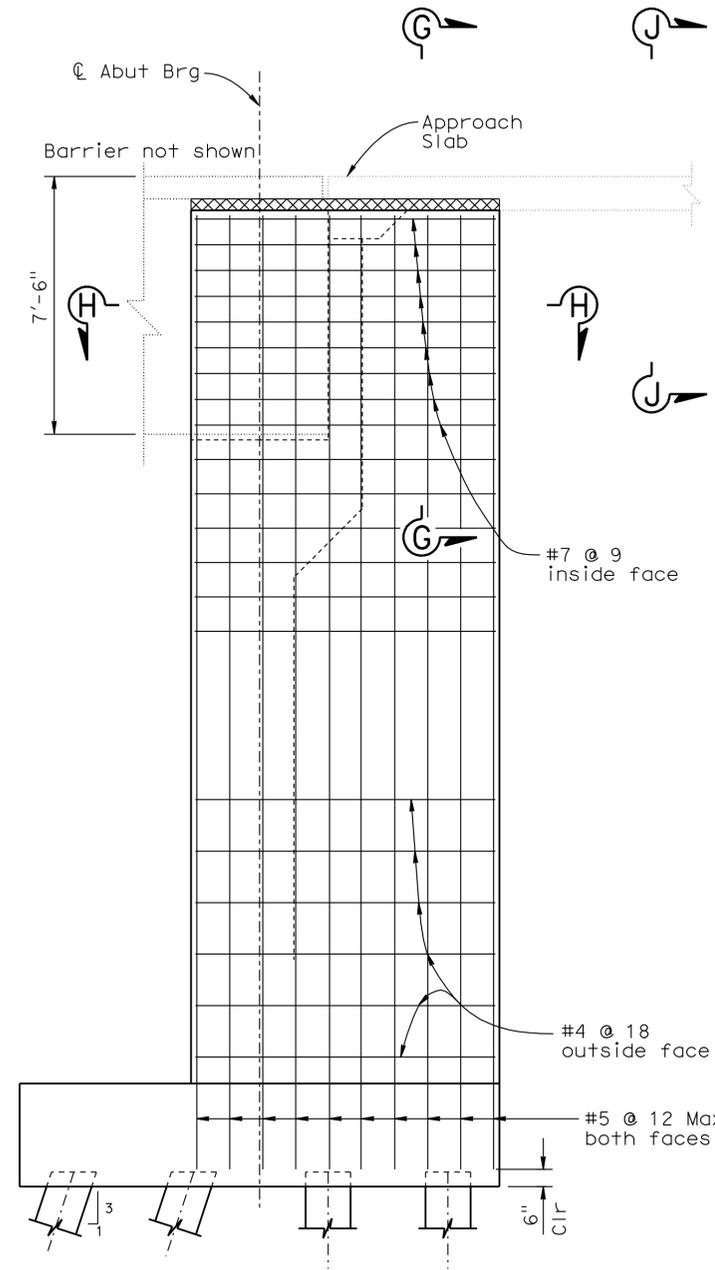
SECTION G-G

3/4" = 1'-0"



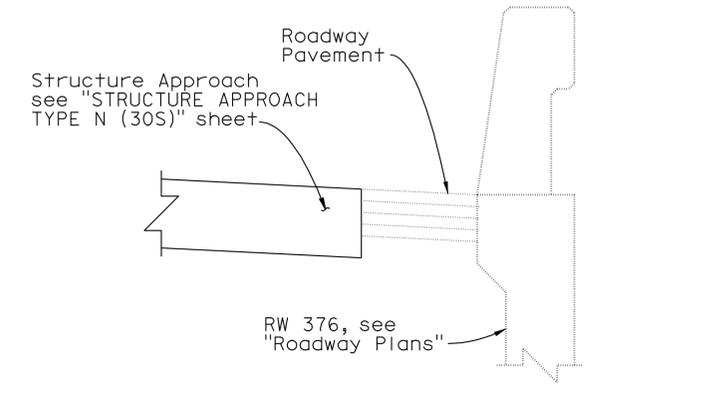
ABUTMENT 1 RIGHT WINGWALL ELEVATION

3/8" = 1'-0"



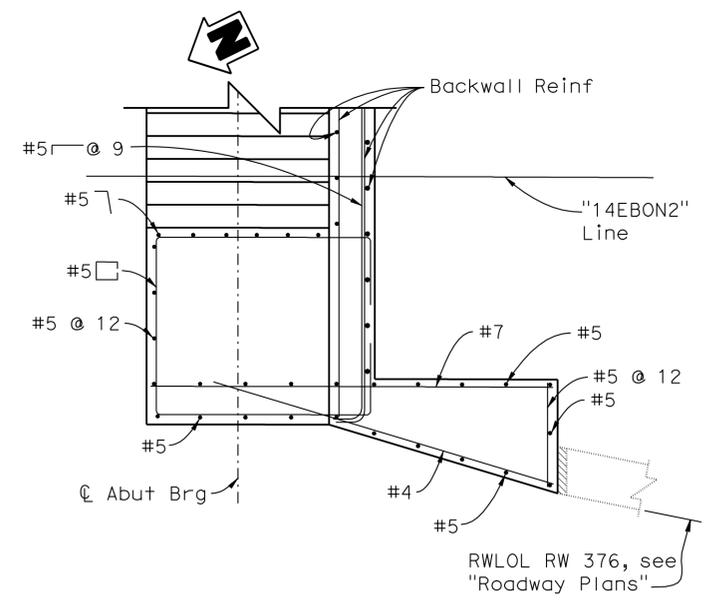
ABUTMENT 1 LEFT WINGWALL ELEVATION

3/8" = 1'-0"



SECTION J-J

3/4" = 1'-0"



SECTION H-H

1/2" = 1'-0"

DESIGN	BY L. Wu	CHECKED R. Melko
DETAILS	BY Y. Tang	CHECKED R. Melko
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0838S
POST MILE 20.10

14TH STREET EASTBOUND ENTRANCE RAMP
ABUTMENT DETAILS NO. 3

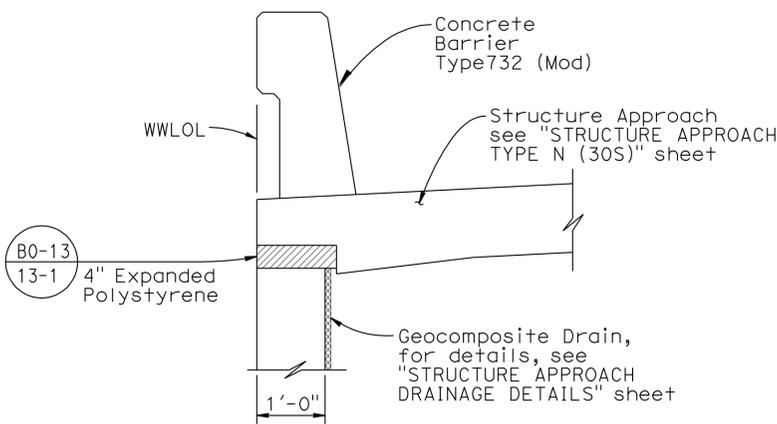
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1890	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

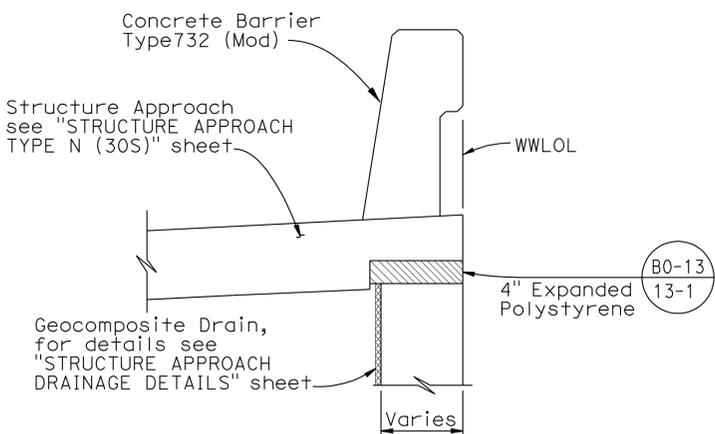
4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

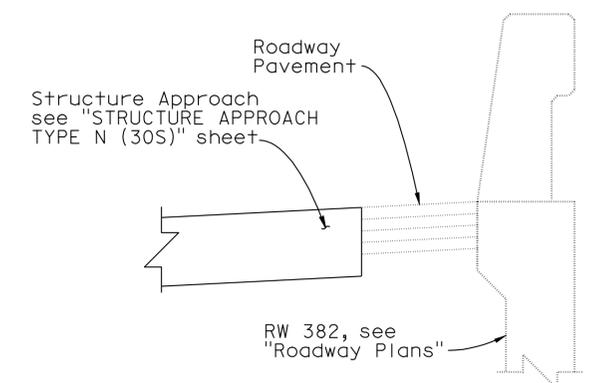
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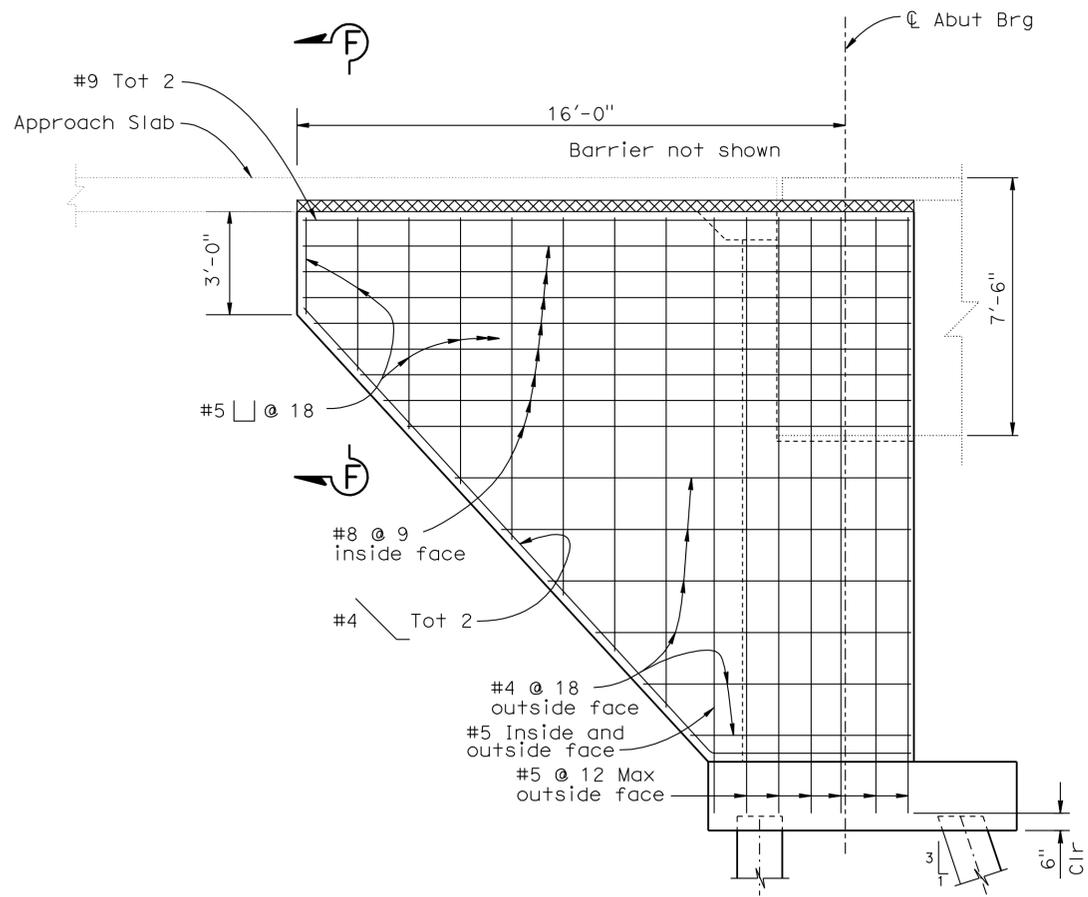
SECTION F-F
 $\frac{3}{4}'' = 1'-0''$



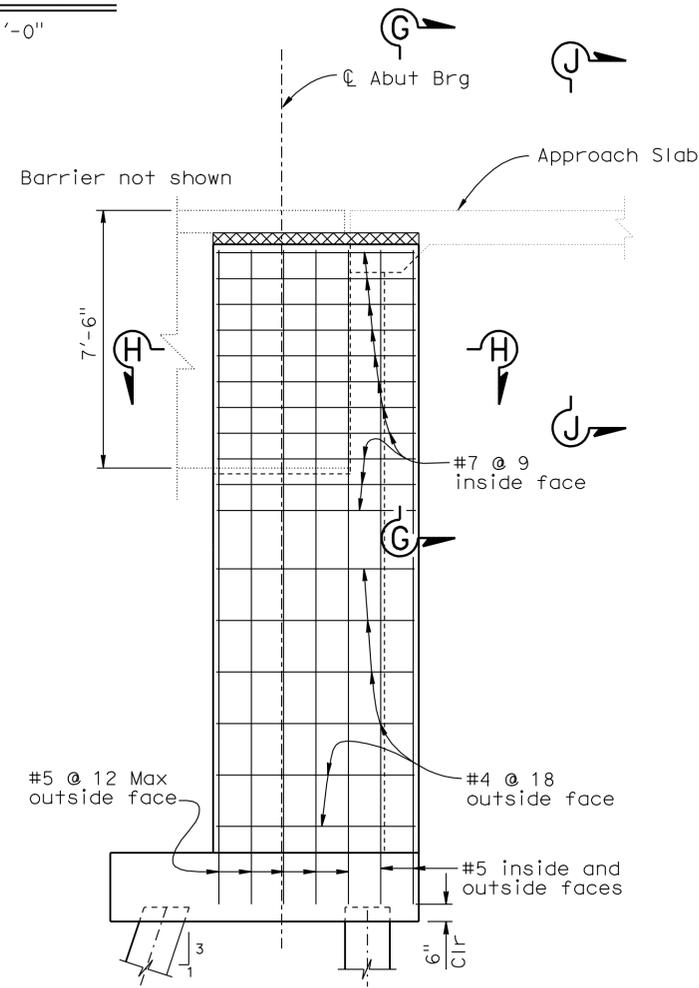
SECTION G-G
 $\frac{3}{4}'' = 1'-0''$



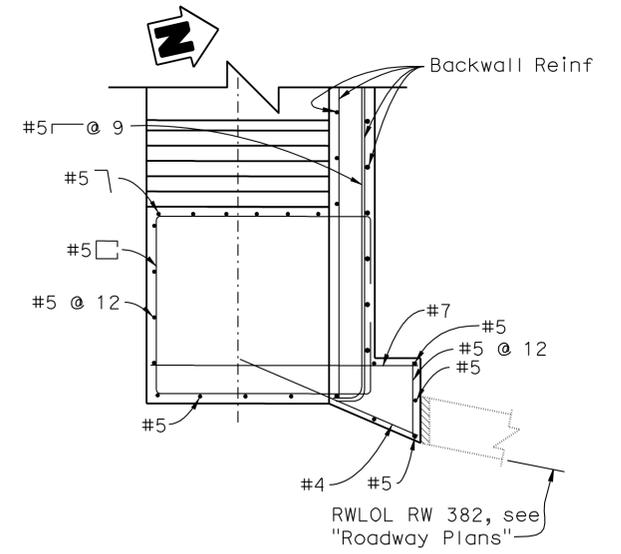
SECTION J-J
 $\frac{3}{4}'' = 1'-0''$



ABUTMENT 4 LEFT WINGWALL ELEVATION
 $\frac{3}{8}'' = 1'-0''$



ABUTMENT 4 RIGHT WINGWALL ELEVATION
 $\frac{3}{8}'' = 1'-0''$



SECTION H-H
 $\frac{1}{2}'' = 1'-0''$

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY L. Wu	CHECKED R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP ABUTMENT DETAILS NO. 4
	DETAILS	BY G. Hallstrom	CHECKED R. Melko			POST MILE	20.10	
	QUANTITIES	BY M. Crete	CHECKED R. Melko			CU 08 EA 448401	REVISION DATES	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 12 OF 32		

USERNAME => HSTFK DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:45

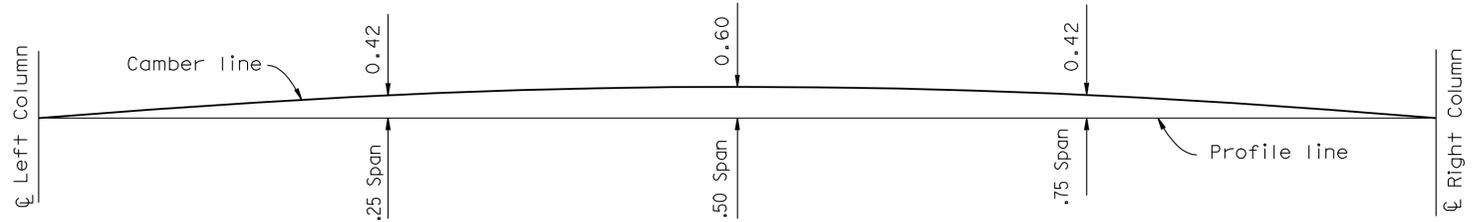
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1891	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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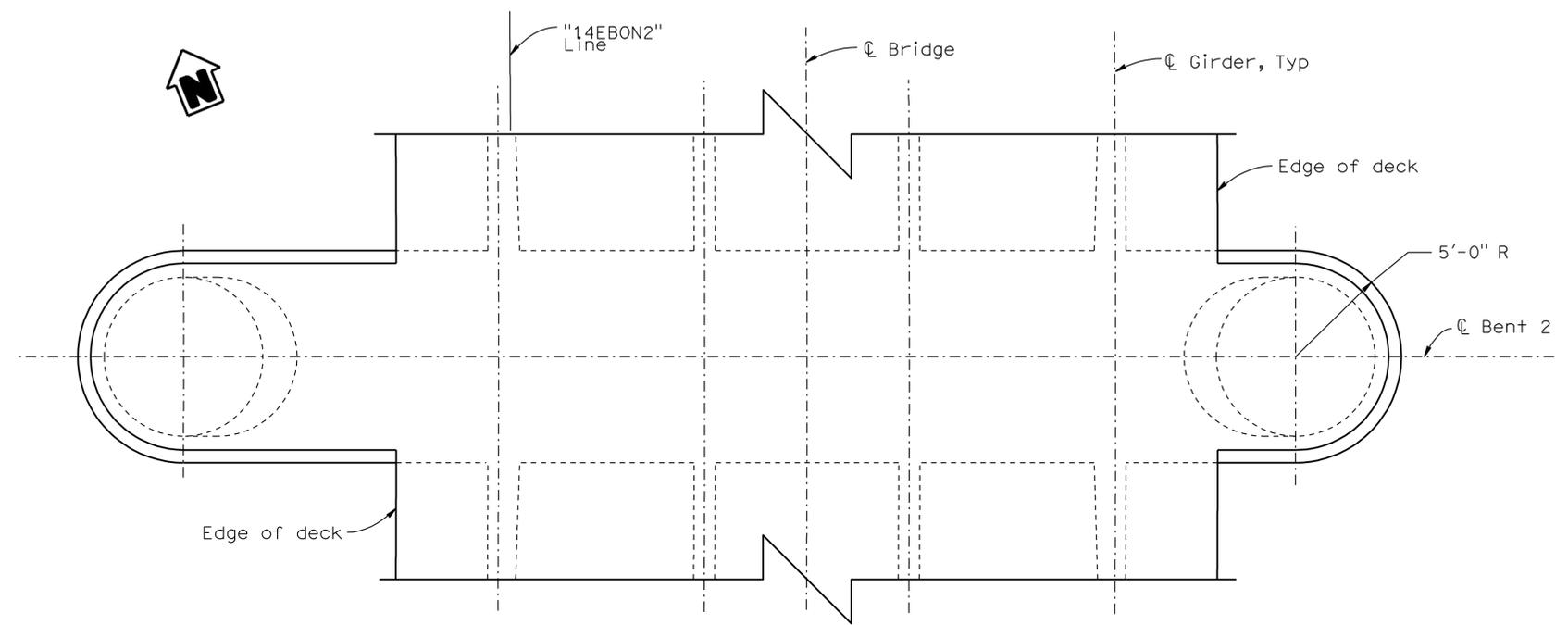


CAMBER DIAGRAM
NO SCALE

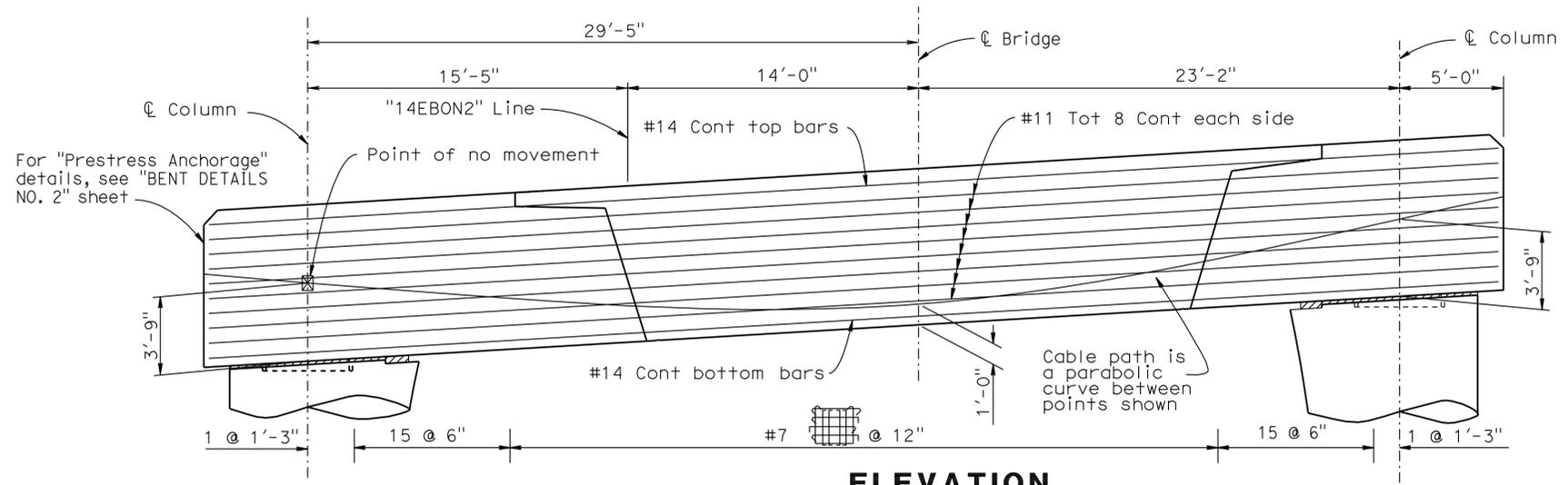
NOTE:
Camber diagram does not include falsework settlement. Camber values are shown in inches.

PRESTRESSING NOTES FOR OUTRIGGER BENT

- 270 ksi Low Relaxation Strand:
 $P_{Jack} = 8300$ kips
 P_{jack} = Jacking force per bent.
Friction curvature coefficient $\mu = 0.15$
Friction wobble coefficient $k = 0.0002/ft$
Anchor Set = $3/8$ in
- Concrete: $f'_c = 4000$ psi @ 28 days
 $f'_{ci} = 3500$ psi @ time of stressing
- Stressing:
Bent cap shall be partially prestressed to $P_{Jack} = 2800$ kips before placing superstructure top deck.
Jacking force shall be distributed uniformly to all tendons.
Remainder of prestressing force shall not be applied to bent cap until superstructure has been stressed.
- Prestressing force shall be distributed uniformly across the entire width of the bent cap.
- Stressing sequence shall start at the CL of bent and proceed symmetrically about CL of the bent.
- Contractor shall submit elongation calculations based on initial stress at
 $\lambda = 0.923$ times jacking stress.
- One end stressing shall be performed from the Right end.
- Falsework under bent cap shall be designed to support an additional dead load of 2700 kips to be uniformly distributed over length of bent cap.
- λ indicates theoretical point of no movement for one-end stressing.
- Bar reinforcement interfering with prestress tendon alignment shall be adjusted as approved by the Engineer.
- Minimum horizontal clearance between prestress ducts shall be $2\frac{1}{2}$ ".
- Minimum edge distance for bearing plates = 3.0 in.
- For vertical clearance between ducts see (B8-5)



PLAN
1/4"=1'-0"



ELEVATION
1/4"=1'-0"

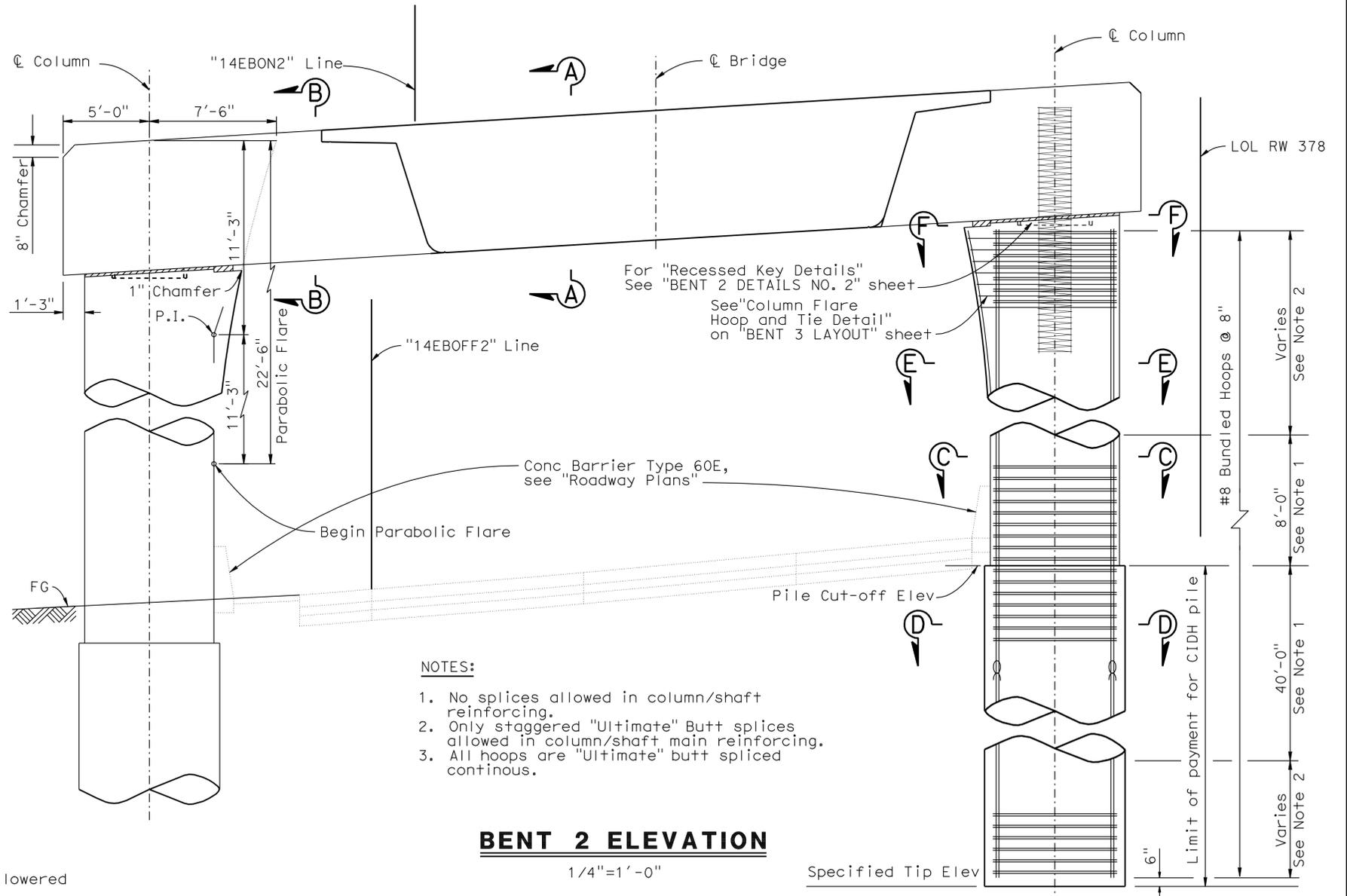
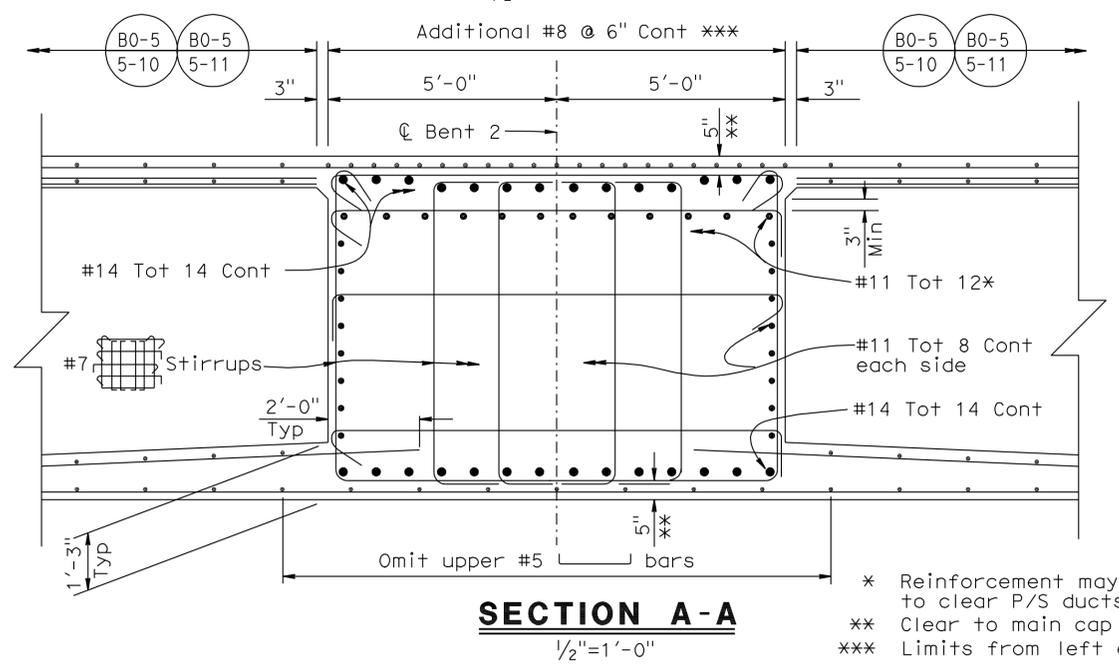
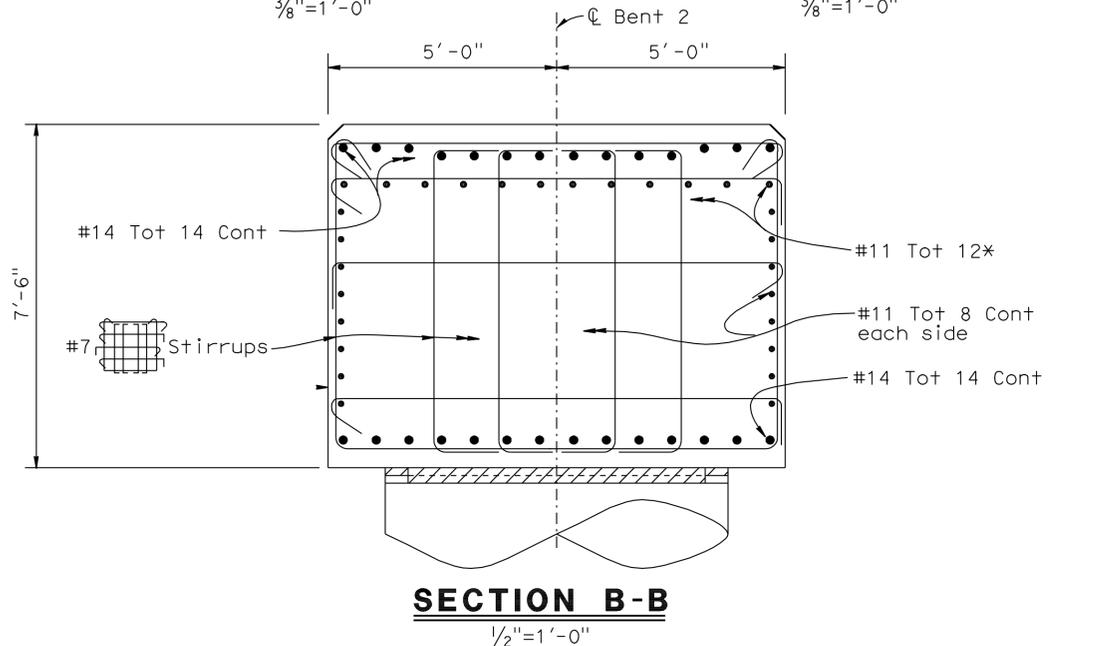
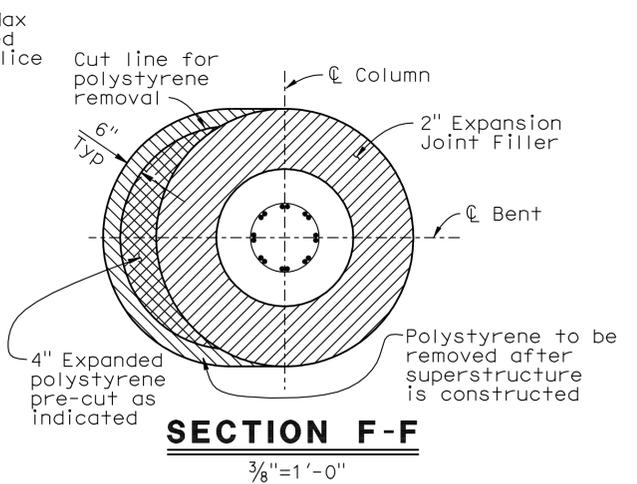
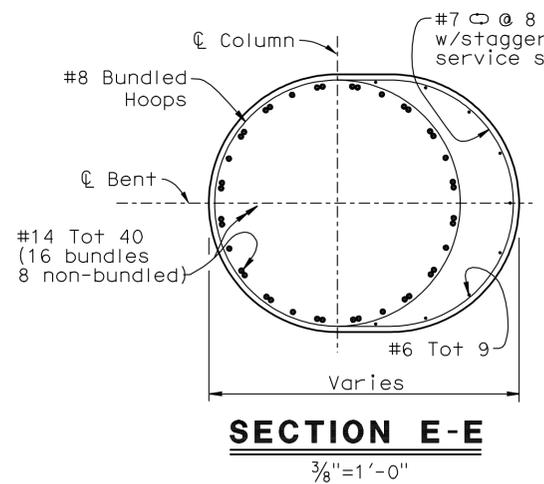
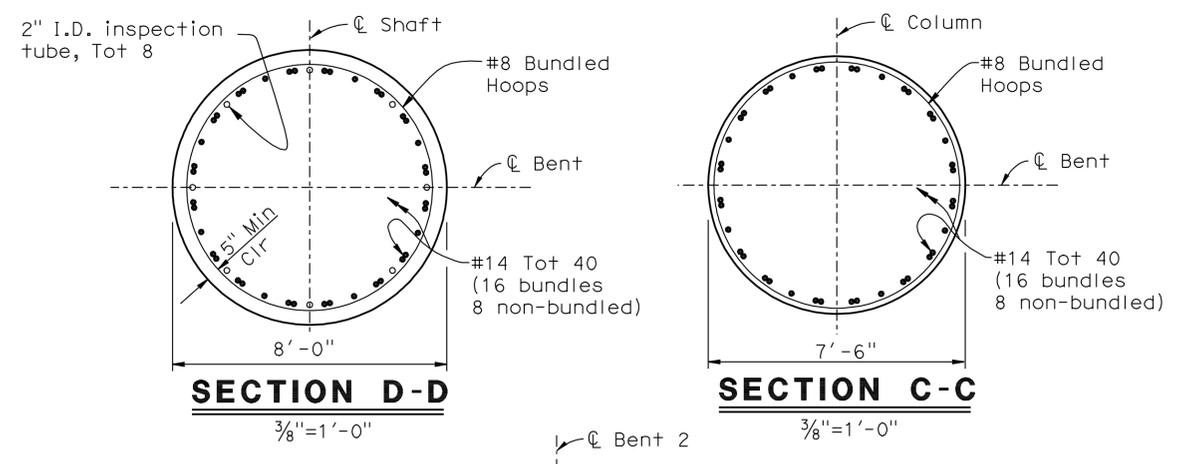
For "Prestress Anchorage" details, see "BENT DETAILS NO. 2" sheet

DESIGN BY L. Wu	CHECKED R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP BENT 2 LAYOUT
DETAILS BY Y. Tang	CHECKED R. Melko		POST MILE 20.10	
QUANTITIES BY M. Crete	CHECKED R. Melko		DESIGN BRANCH 10	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1892	2028

11-30-10
 REGISTERED CIVIL ENGINEER DATE
 HUAN VU
 No. 60696
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

4-25-11
 PLANS APPROVAL DATE
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- NOTES:**
- No splices allowed in column/shaft reinforcing.
 - Only staggered "Ultimate" Butt splices allowed in column/shaft main reinforcing.
 - All hoops are "Ultimate" butt spliced continuous.

* Reinforcement may be lowered to clear P/S ducts
 ** Clear to main cap reinforcement
 *** Limits from left edge of deck to right edge of deck

DESIGN BY L. Wu DETAILS BY Y. Tang QUANTITIES BY M. Crete	CHECKED R. Melko CHECKED R. Melko CHECKED R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP BENT 2 DETAILS NO. 1
				POST MILE 20.10	
				CU 08 EA 448401	

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES	72-18-08	07-04-10	3-09-10	10-05-10	11-03-10	11-30-10
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SHEET 14 OF 32
 USERNAME => HSTFK DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:45
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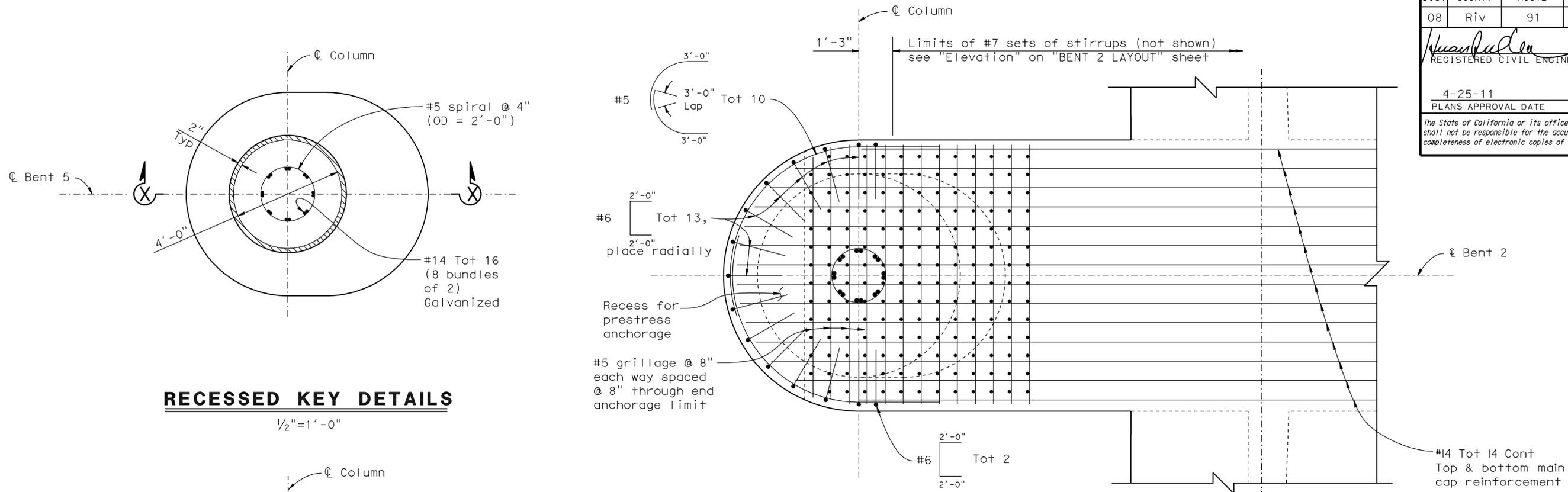
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1893	2028

Huan Vu 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

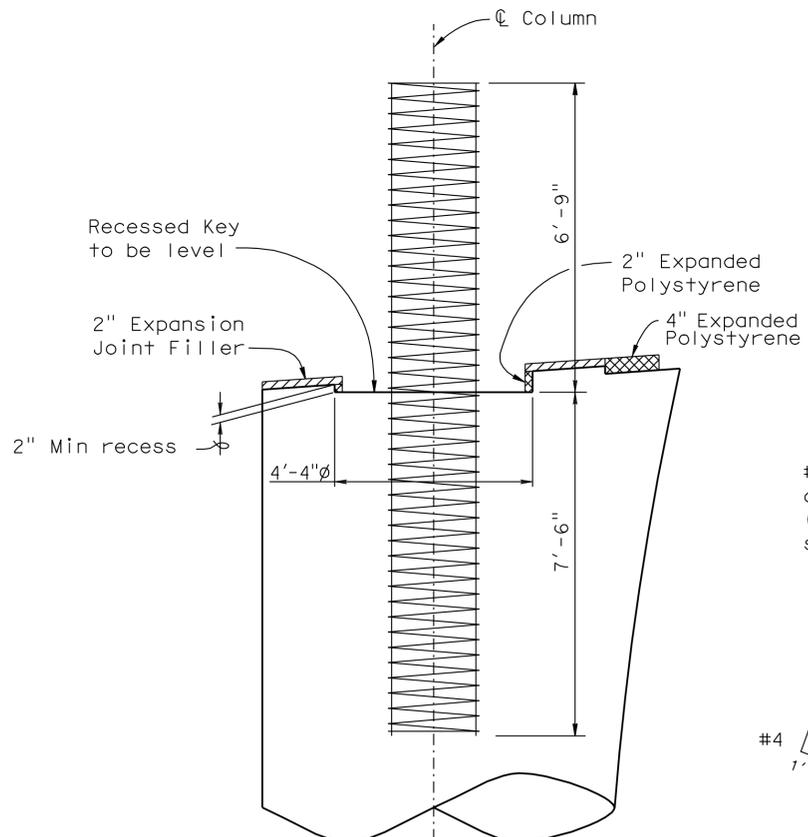


RECESSED KEY DETAILS

1/2"=1'-0"

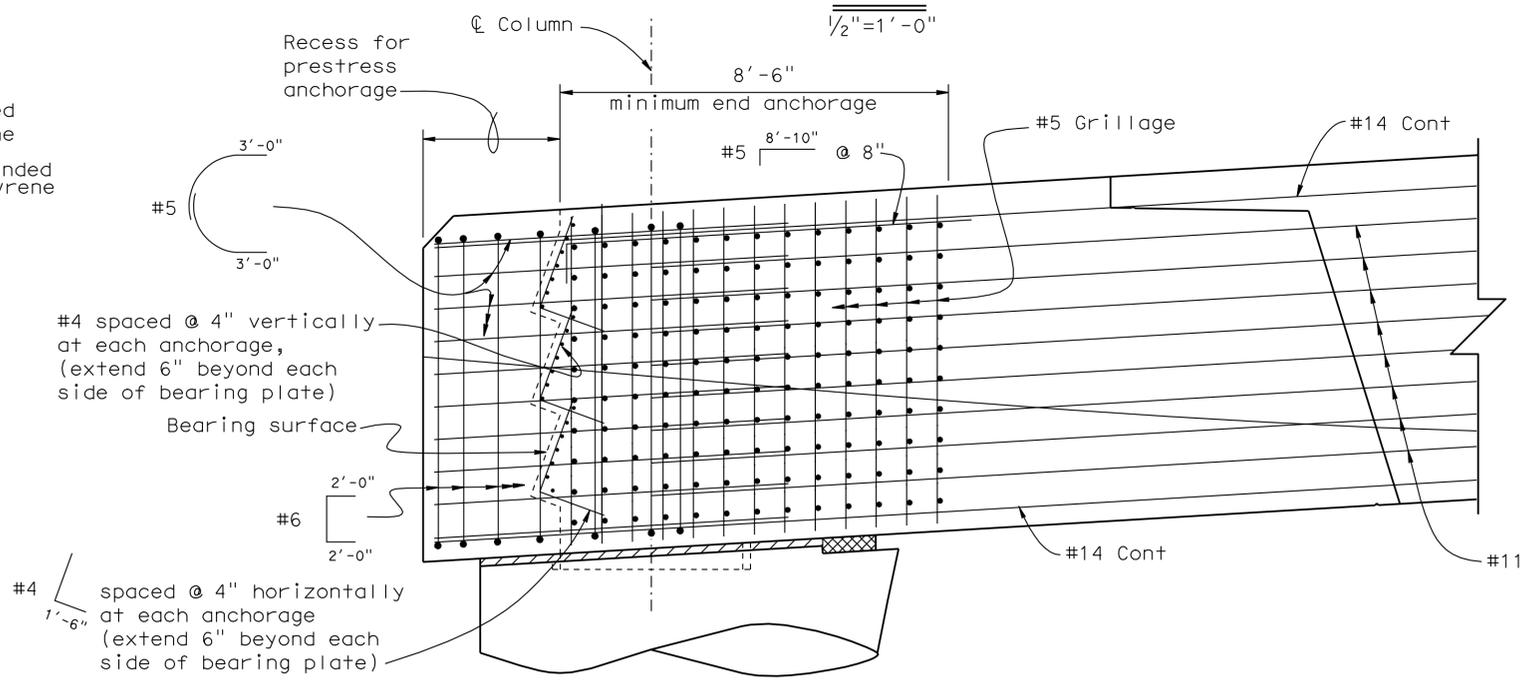
PRESTRESS ANCHORAGE PLAN

1/2"=1'-0"



SECTION X-X

1/2"=1'-0"



PRESTRESS ANCHORAGE ELEVATION

1/2"=1'-0"

DESIGN	BY L. Wu	R. Melko
DETAILS	BY Y. Tang	CHECKED R. Melko
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	56-0838S
POST MILE	20.10

14TH STREET EASTBOUND ENTRANCE RAMP
BENT 2 DETAILS NO. 2

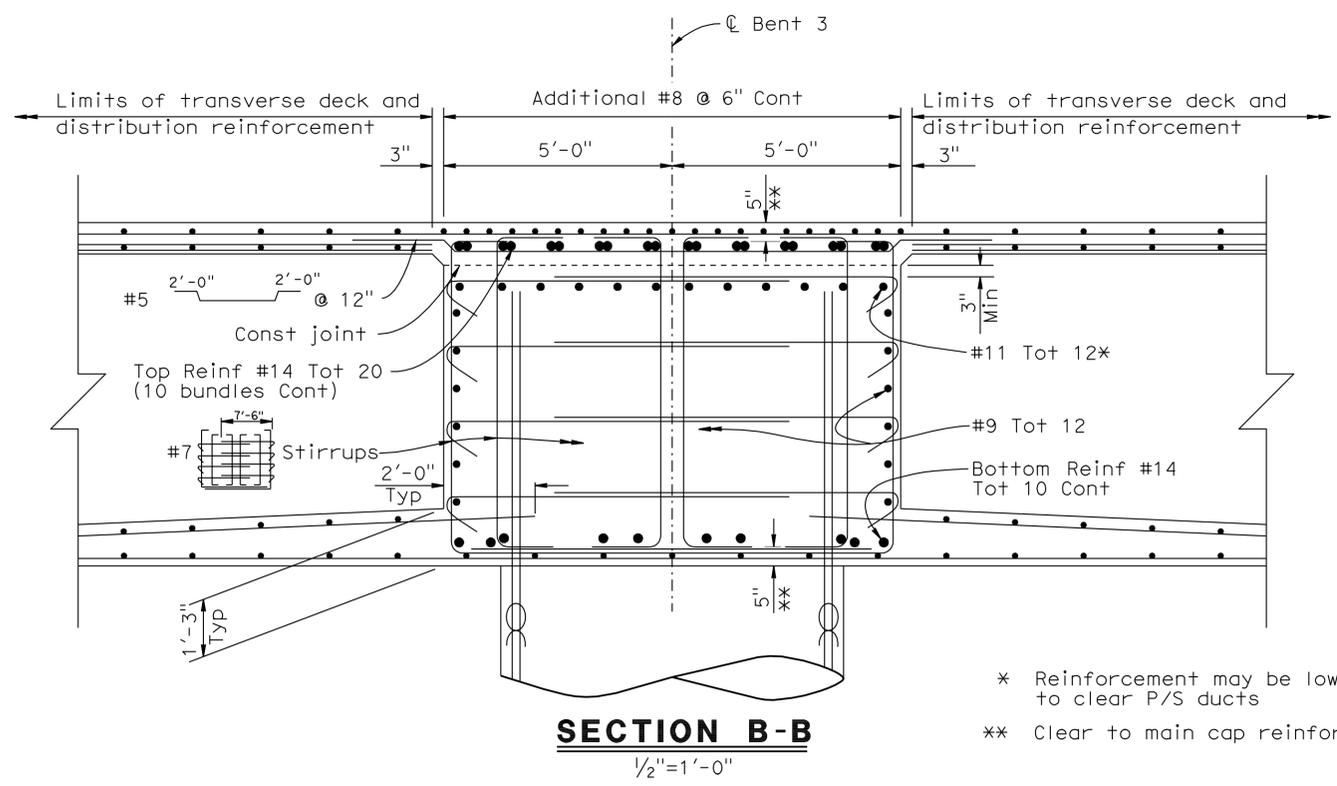
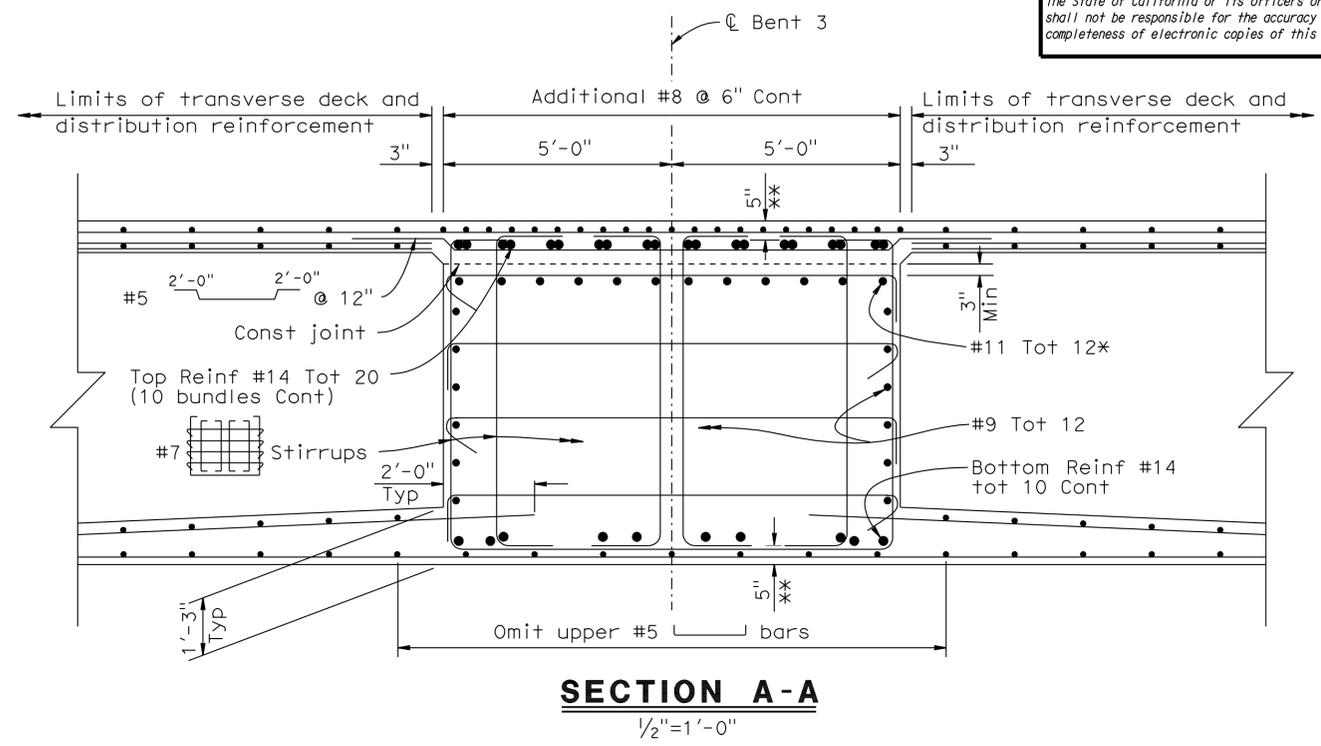
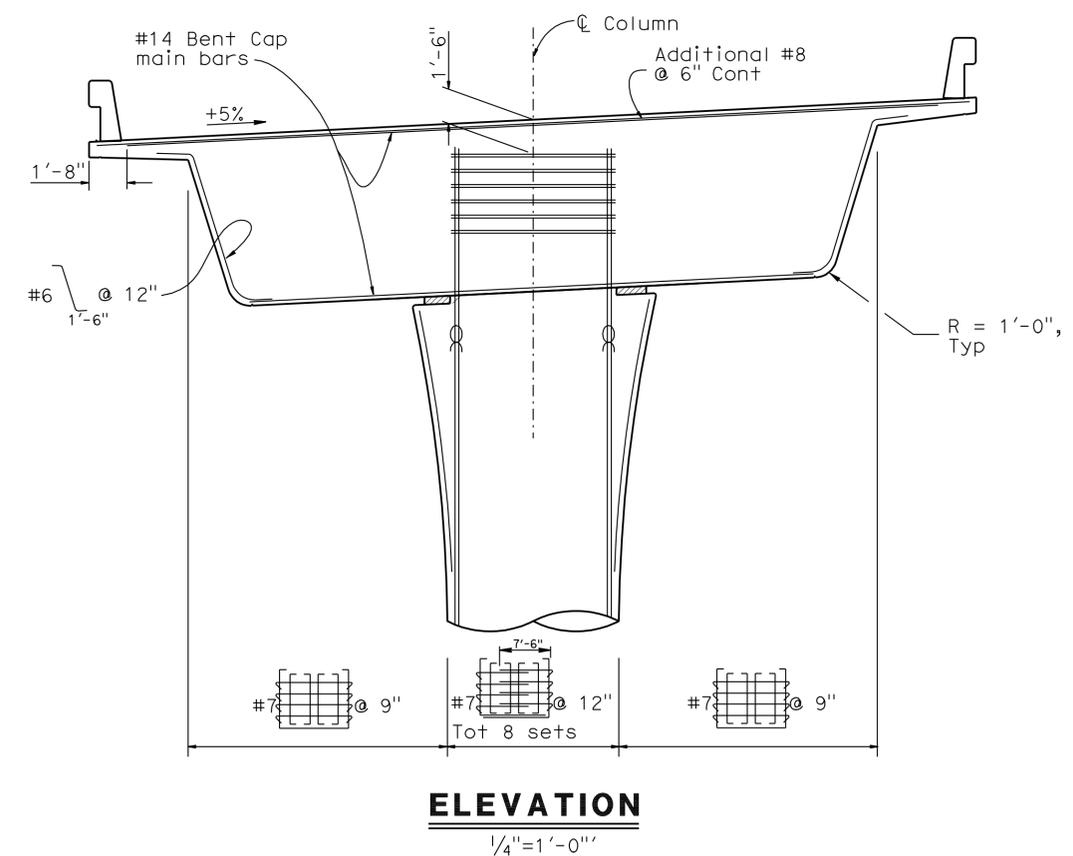
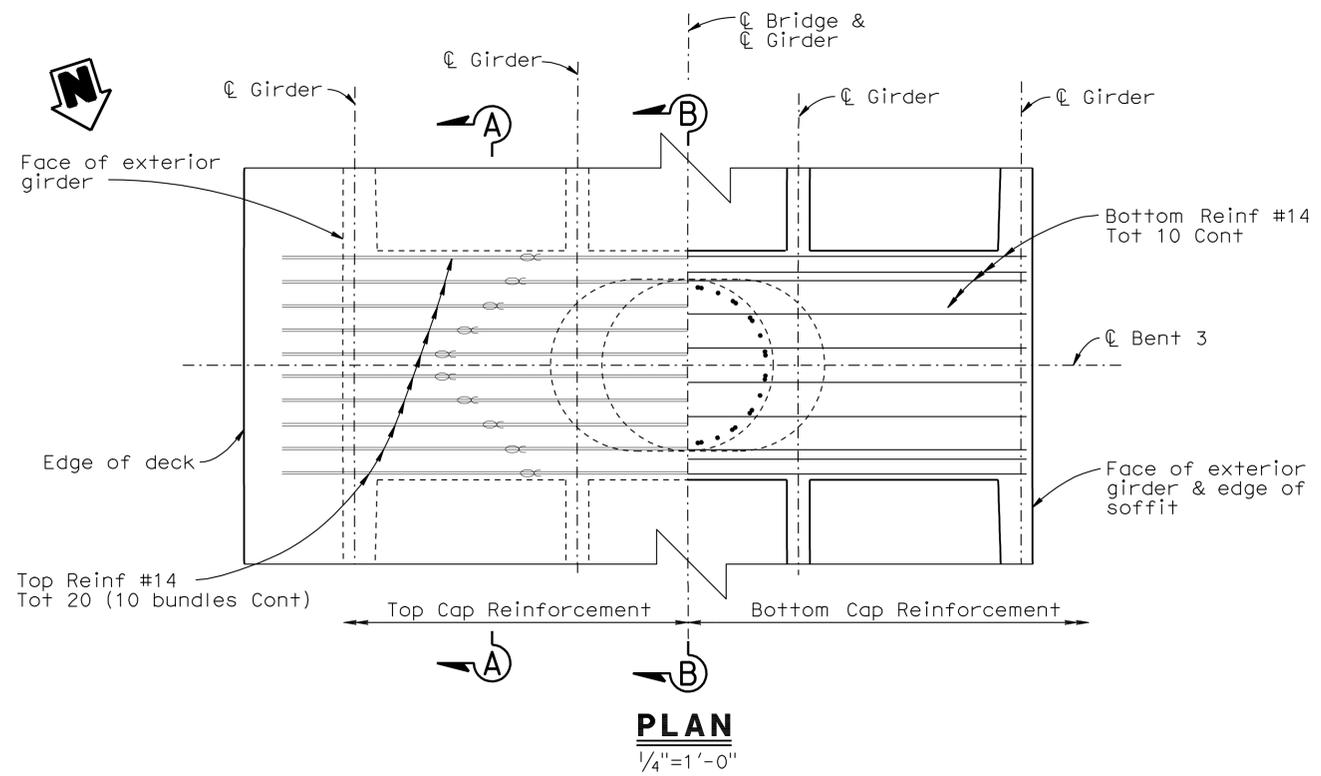
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1895	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

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HUAN VU
No. 60696
Exp. 12-31-10
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* Reinforcement may be lowered to clear P/S ducts
** Clear to main cap reinforcement

DESIGN	BY L. Wu	CHECKED R. Melko
DETAILS	BY Y. Tang	CHECKED R. Melko
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

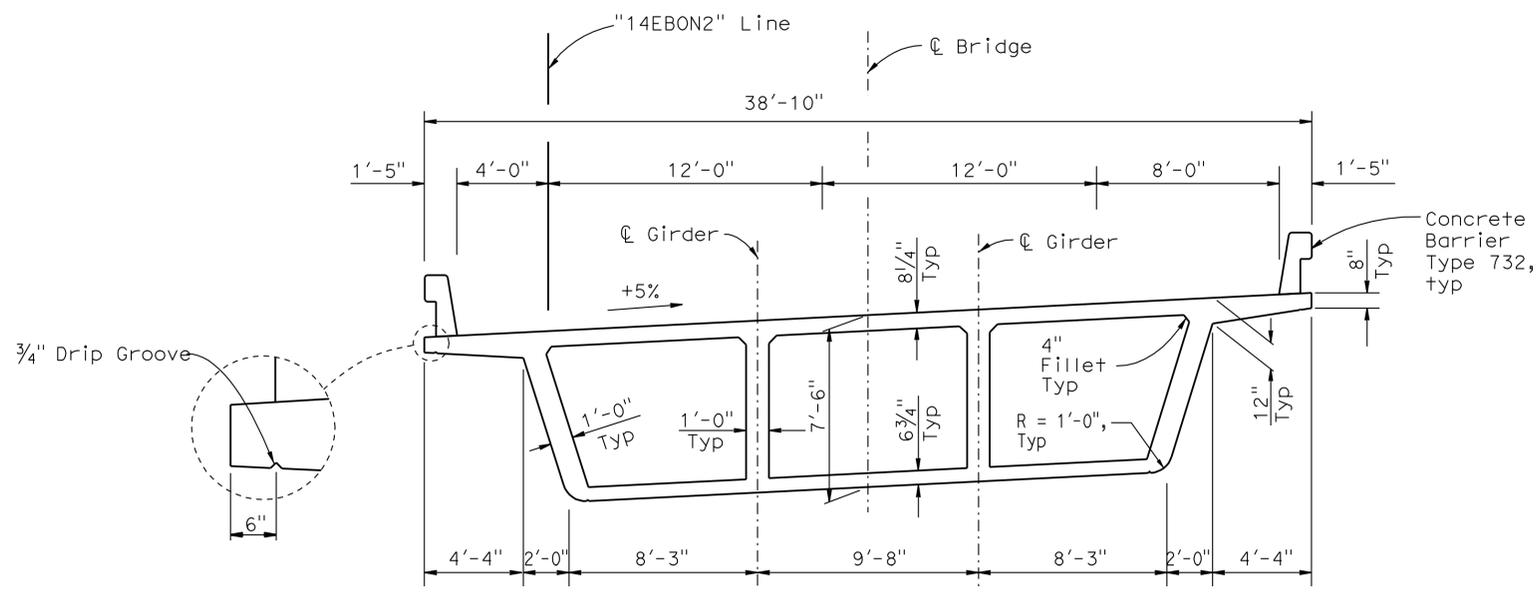
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0838S
POST MILE 20.10

14TH STREET EASTBOUND ENTRANCE RAMP
BENT 3 DETAILS

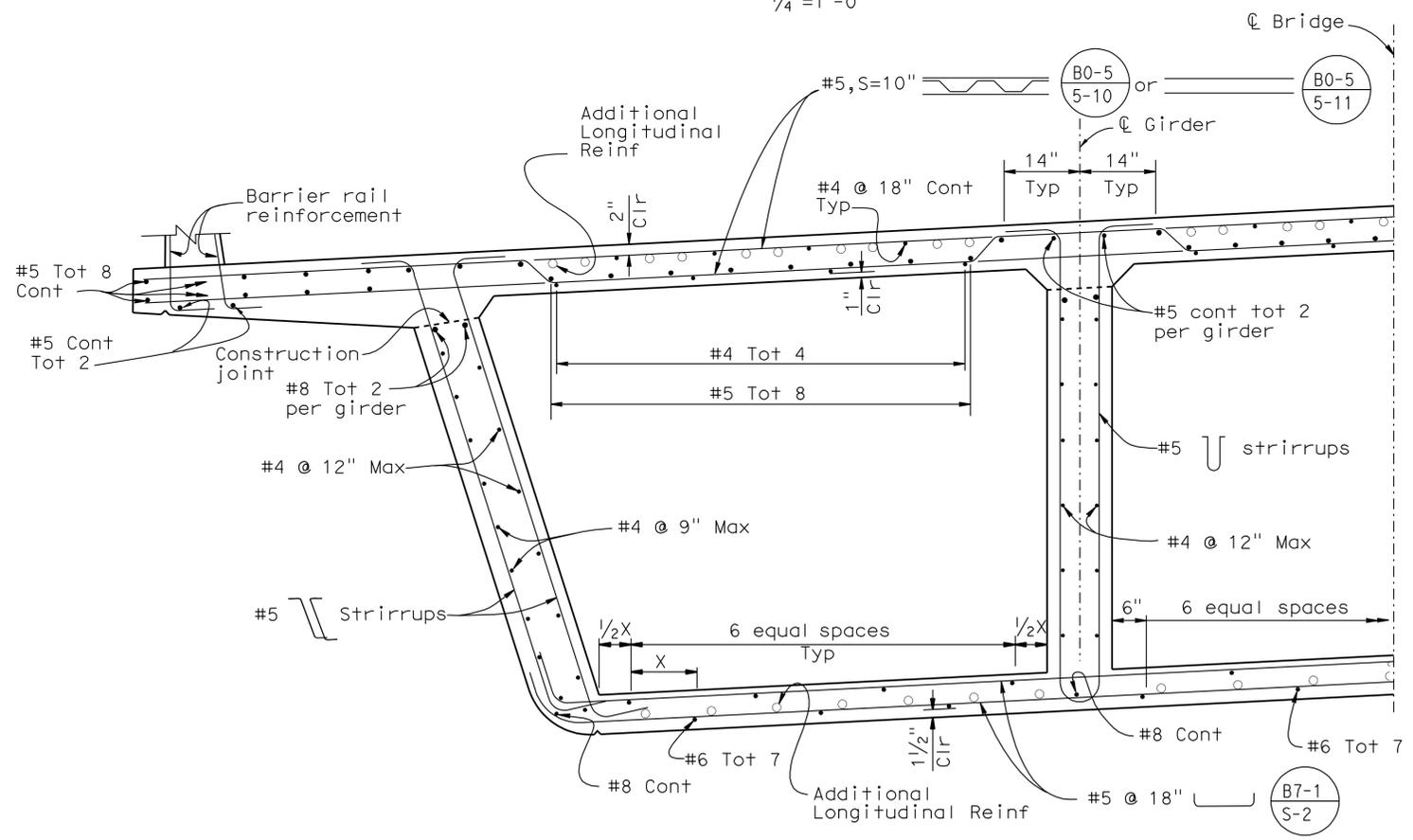
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08	Riv	91	15.6/21.6	1896	2028

HUAN VU 11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
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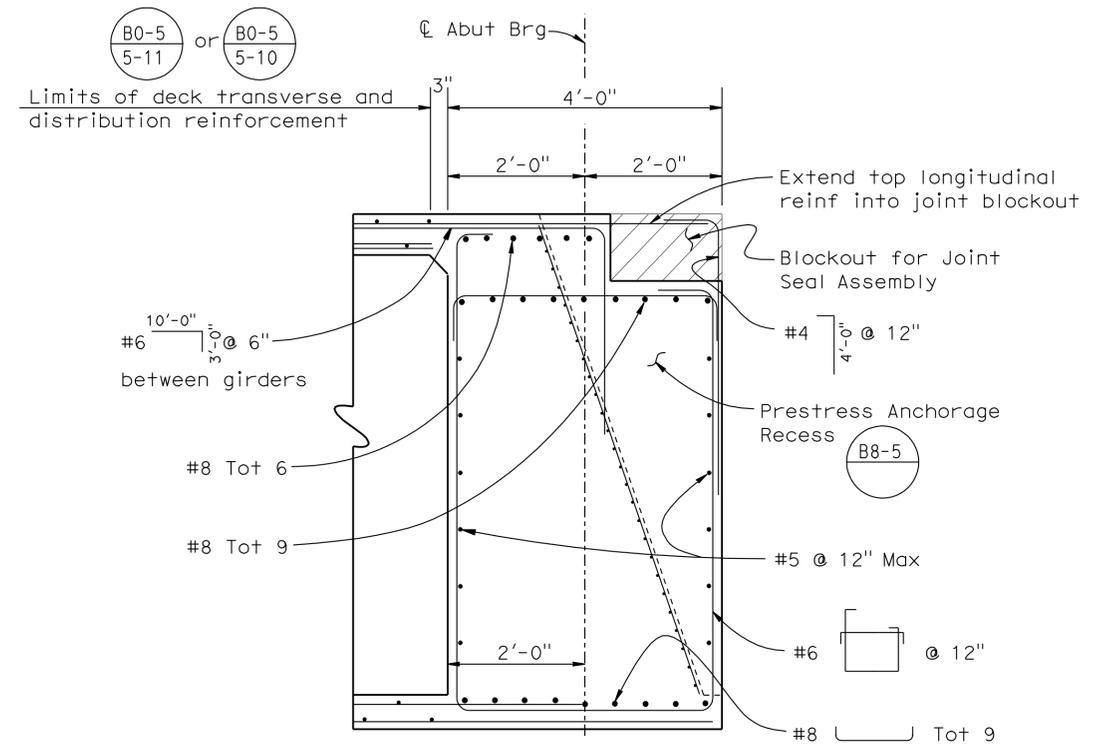
TYPICAL SECTION

1/4"=1'-0"



PART TYPICAL SECTION

3/4"=1'-0"



END DIAPHRAGM

3/4"=1'-0"

NOTE:
For Additional Longitudinal Reinf see " GIRDER REINFORCEMENT NO. 1 & NO. 2" sheets.

DESIGN	BY	L. Wu	CHECKED	R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0838S	14TH STREET EASTBOUND ENTRANCE RAMP	
	DETAILS	BY	Y. Tang	CHECKED			R. Melko	POST MILE		20.10
	QUANTITIES	BY	M. Crete	CHECKED			R. Melko	TYPICAL SECTION		

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 CU 08 EA 448401 DISREGARD PRINTS BEARING EARLIER REVISION DATES 11-05-08 12-24-08 3-09-10 11-30-10 SHEET 18 OF 32

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1897	2028

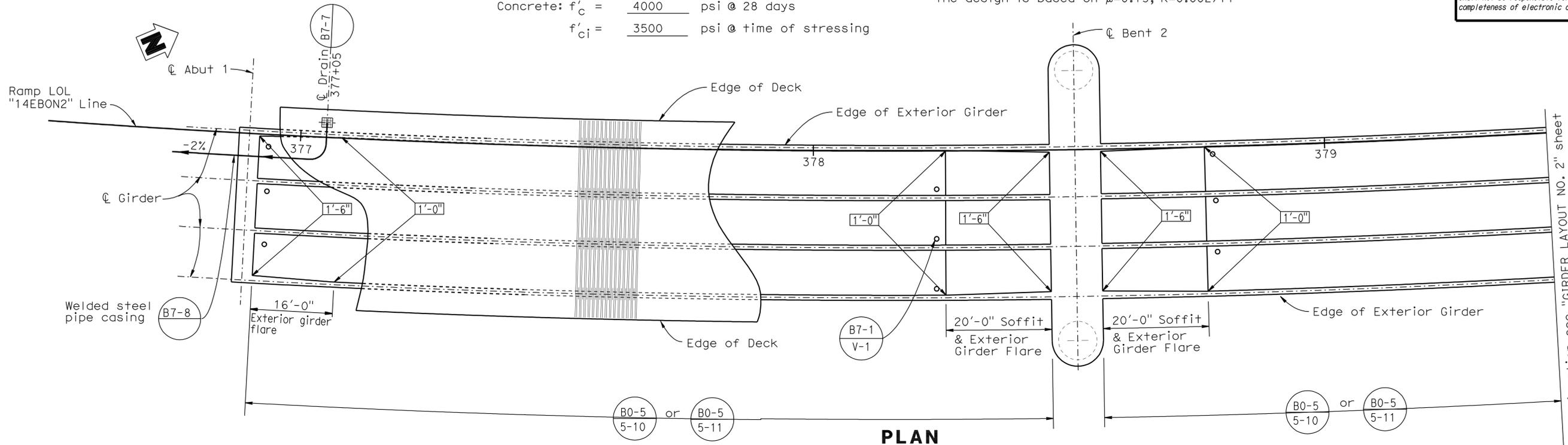
PRESTRESSING NOTES

270 KSI Low Relaxation Strand:
 $P_{jack} = 8080$ kips
 Anchor Set = $\frac{3}{8}$ in
 Total Number of Girders = 4

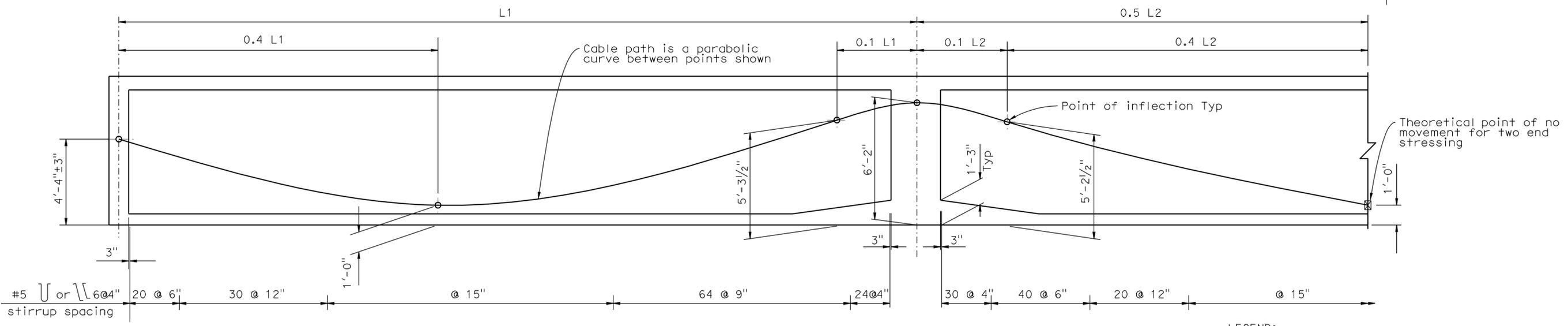
Center of gravity of path may be adjusted ± 3 " at anchorage.
 Distribution of prestress force (P_{jack}) between girders shall not exceed the ratio of 3:2.
 Maximum final force variation between girders shall not exceed 725 kips.
 Concrete: $f'_c = 4000$ psi @ 28 days
 $f'_{ci} = 3500$ psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at
 $\alpha = 0.88$ times jacking stress.
 Stressing shall be performed at both ends.
 The design is based on $\mu=0.15, k=0.002/ft$

Huan VU 11-30-10
 REGISTERED CIVIL ENGINEER DATE
 4-25-11
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PLAN
 $\frac{3}{32}'' = 1'-0''$



LONGITUDINAL SECTION

Horizontal $\frac{3}{32}'' = 1'-0''$
 Vertical $\frac{3}{8}'' = 1'-0''$

- LEGEND:**
- Indicates girder stem width
 - NPS 6 Drain pipe Indicates Deck Drain Type D-3
 - NPS 8 Drain pipe Indicates direction of flow @ slope indicated

DESIGN BY L. Wu	CHECKED R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO. 56-0838S	14TH STEET EASTBOUND ENTRANCE RAMP GIRDER LAYOUT NO. 1
DETAILS BY Y. Tang	CHECKED R. Melko			POST MILE 20.10	
QUANTITIES BY M. Crete	CHECKED R. Melko				

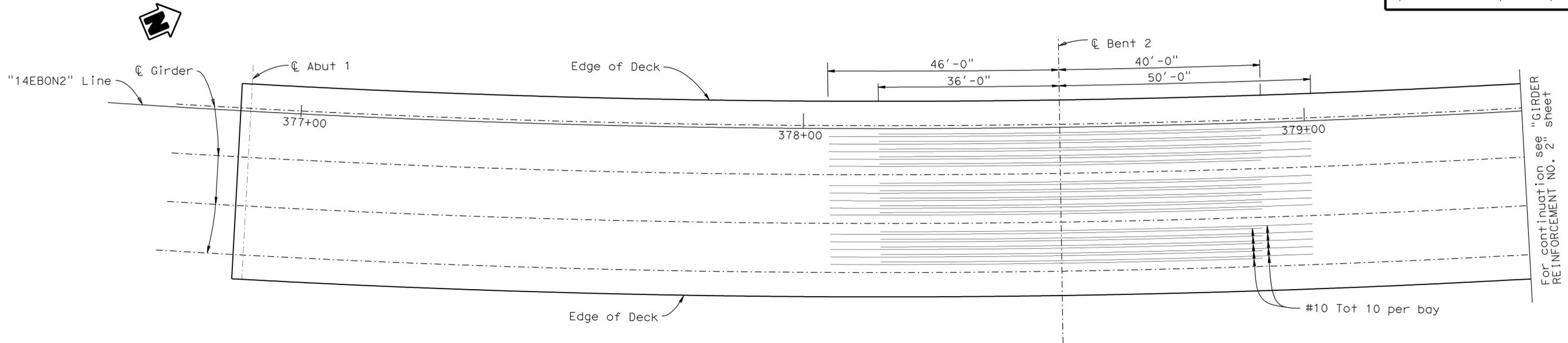
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1899	2028

Huan VU 11-30-10
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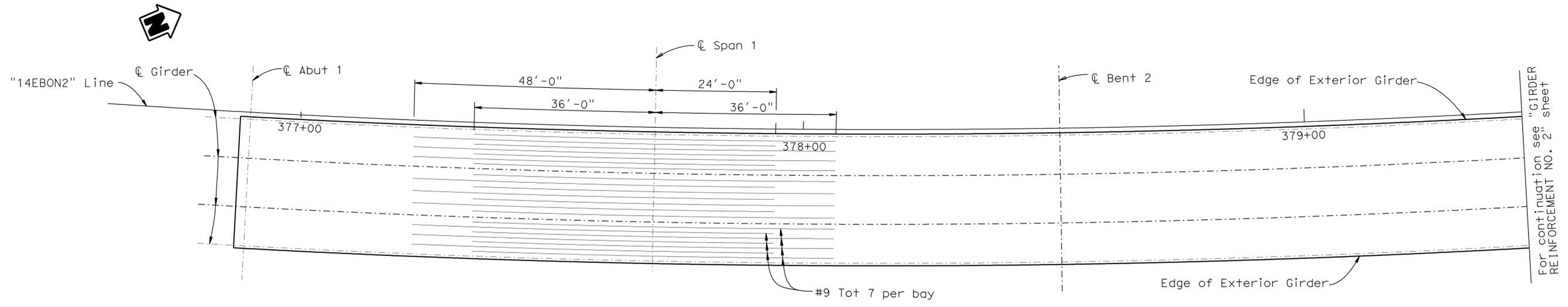
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ADDITIONAL TOP LOGITUDINAL REINFORCEMENT

$\frac{3}{32}'' = 1'-0''$



ADDITIONAL BOTTOM LOGITUDINAL REINFORCEMENT

$\frac{3}{32}'' = 1'-0''$

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY L. Wu	CHECKED R. Melko	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 10	BRIDGE NO.	56-0838S	14TH STEET EASTBOUND ENTRANCE RAMP GIRDER REINFORCEMENT NO. 1
	DETAILS	BY Y. Tang	CHECKED R. Melko			POST MILE	20.10	
	QUANTITIES	BY M. Crete	CHECKED R. Melko			REVISION DATES		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	CU 08 EA 448401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	7-9-09 3-09-10	SHEET 21 OF 32

FILE => 560838sogir_rf21.dgn

USERNAME => HSTFK DATE PLOTTED => 30-APR-2011 TIME PLOTTED => 13:59

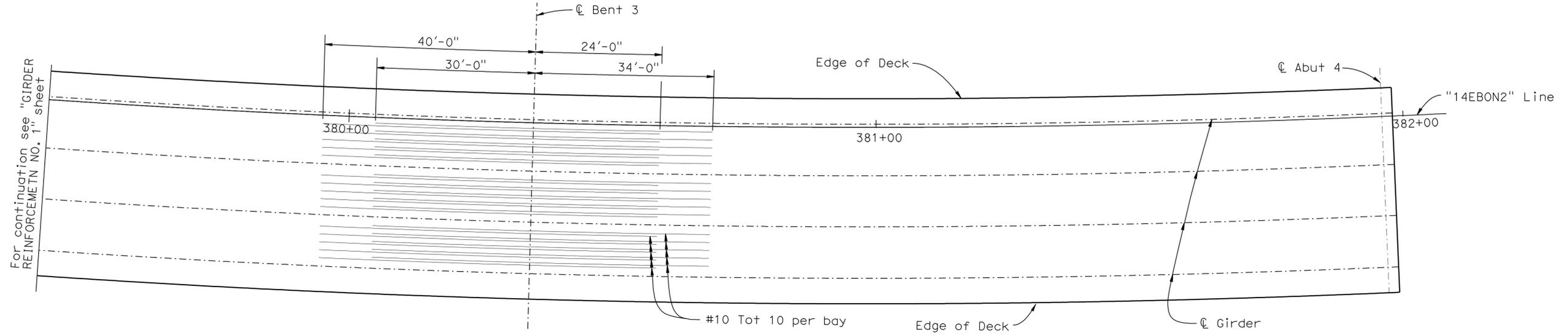
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	Riv	91	15.6/21.6	1900	2028

Huan VU 11-30-10
REGISTERED CIVIL ENGINEER DATE

4-25-11
PLANS APPROVAL DATE

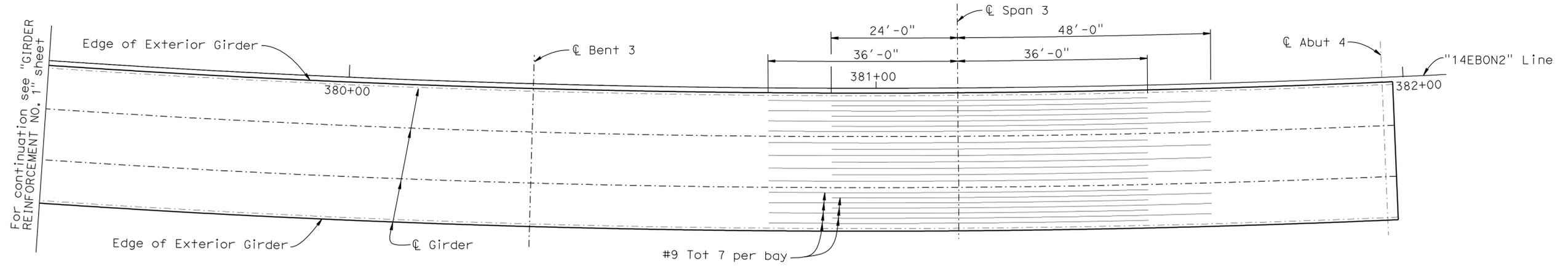
HUAN VU
No. 60696
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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ADDITIONAL TOP LOGITUDINAL REINFORCEMENT

$\frac{3}{32}'' = 1' - 0''$



ADDITIONAL BOTTOM LOGITUDINAL REINFORCEMENT

$\frac{3}{32}'' = 1' - 0''$

DESIGN	BY L. Wu	CHECKED R. Melko
DETAILS	BY Y. Tang	CHECKED R. Melko
QUANTITIES	BY M. Crete	CHECKED R. Melko

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO. 56-0838S
POST MILE 20.10
14TH STEET EASTBOUND ENTRANCE RAMP
GIRDER REINFORCEMENT NO. 2