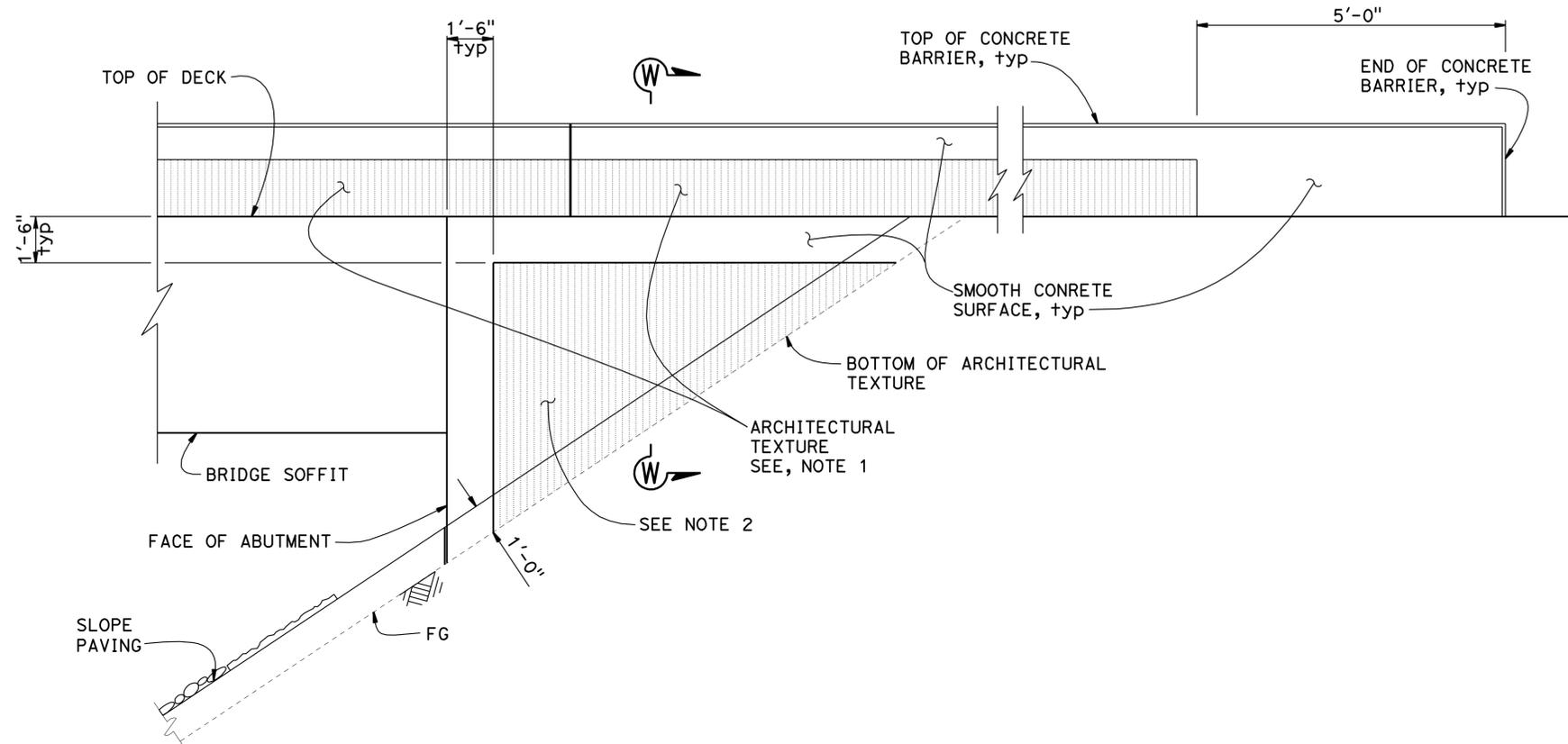
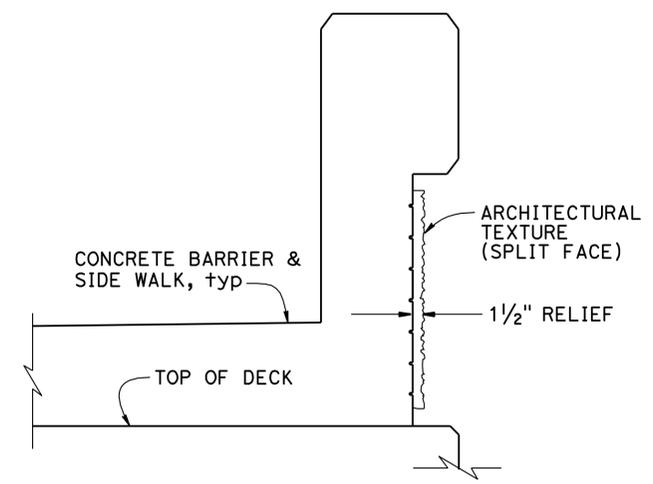


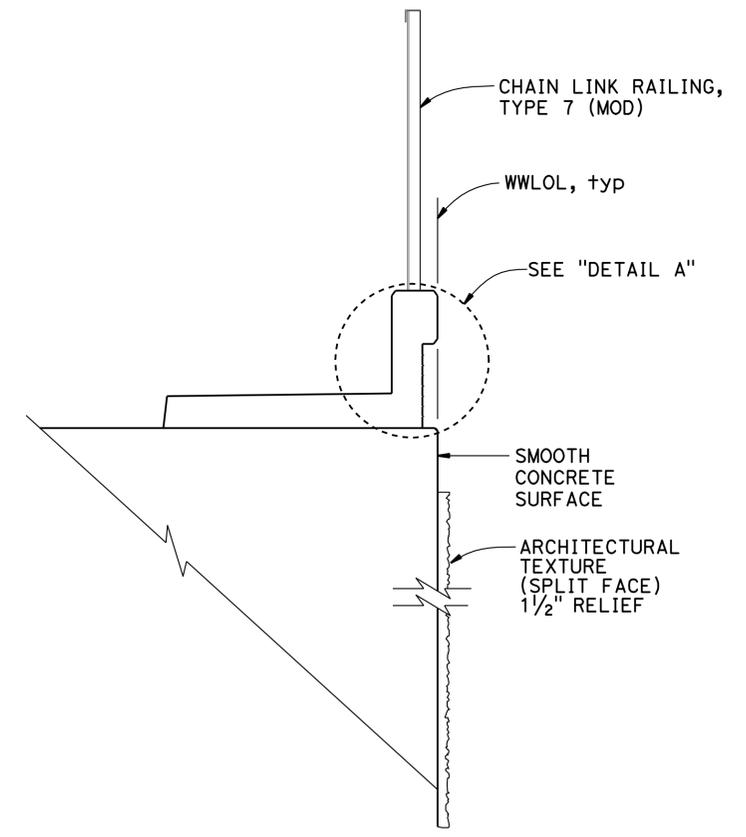
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1101	1414
REGISTERED CIVIL ENGINEER <i>Chris V. Udarbe</i> 11-04-11 DATE			REGISTERED PROFESSIONAL ENGINEER No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA		
PLANS APPROVAL DATE 3-26-12					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



**TYPICAL MOTIF AT ABUTMENTS**  
NO SCALE



**DETAIL "A"**  
NO SCALE

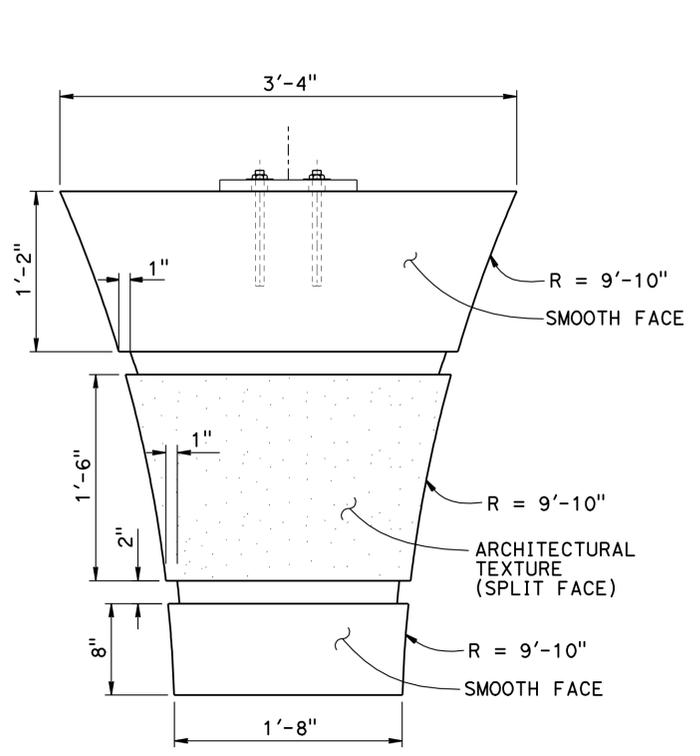


**SECTION W-W**  
NO SCALE

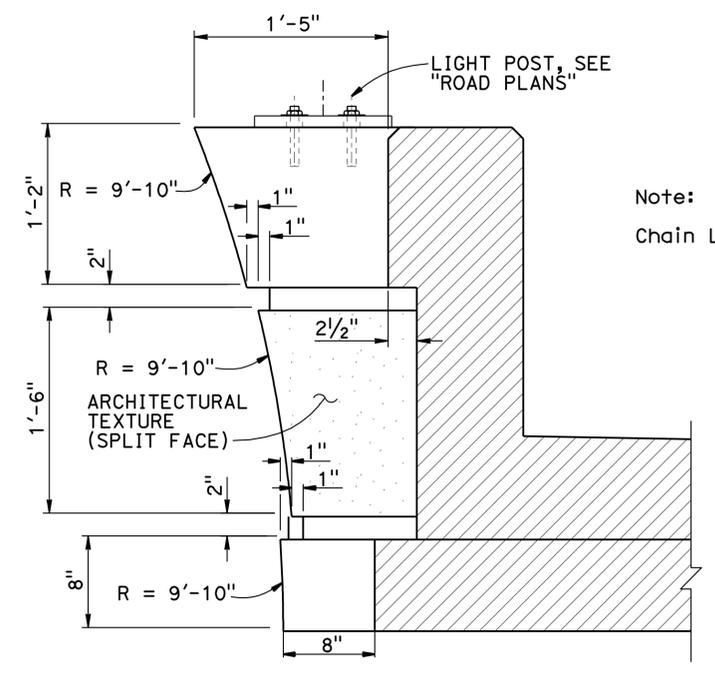
- NOTES:
- Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on barrier.
  - Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on wingwall

DESIGN BY C. Udarbe CHECKED K. Green DETAILS BY L. Wang CHECKED C. Udarbe QUANTITIES BY C. Udarbe CHECKED M. Friedheim				<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 29-0327 POST MILE 10.10 <b>DESIGN BRANCH 17</b>		<b>SOUTH STOCKTON WIDENING</b> <b>MAIN STREET OC (REPLACE)</b> <b>ARCHITECTURAL DETAILS NO. 2</b>	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	
				0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES SHEET OF 01-07-11 08-07-11 10-04-11 10-28-11 16 25	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1102	1414
<i>C. V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					

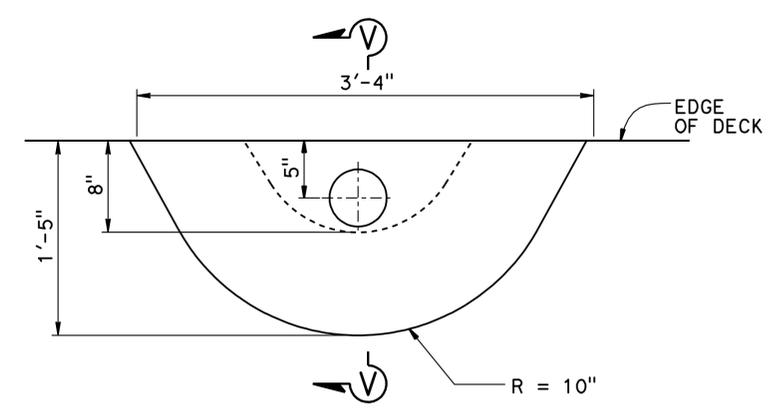


**PEDESTAL ELEVATION (FRONT)**  
1/2" = 1'-0"

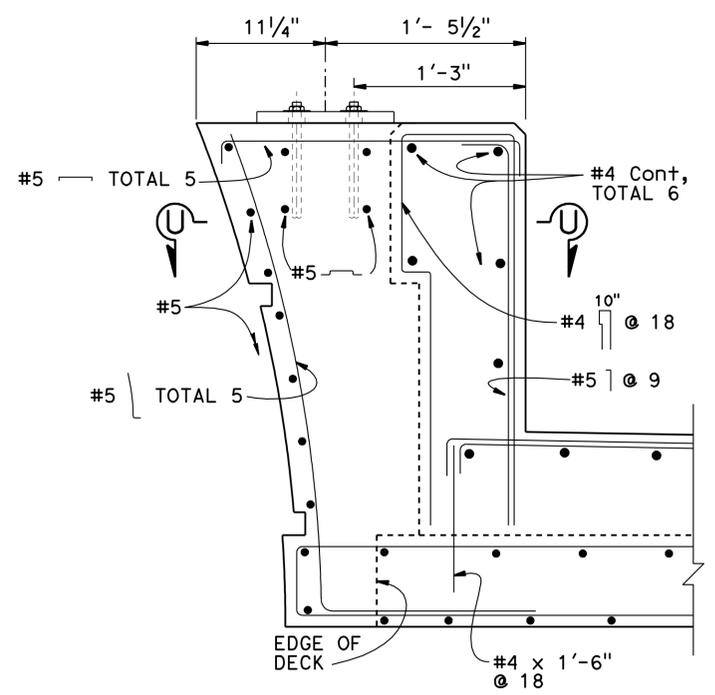


**PEDESTAL ELEVATION (SIDE)**  
1/2" = 1'-0"

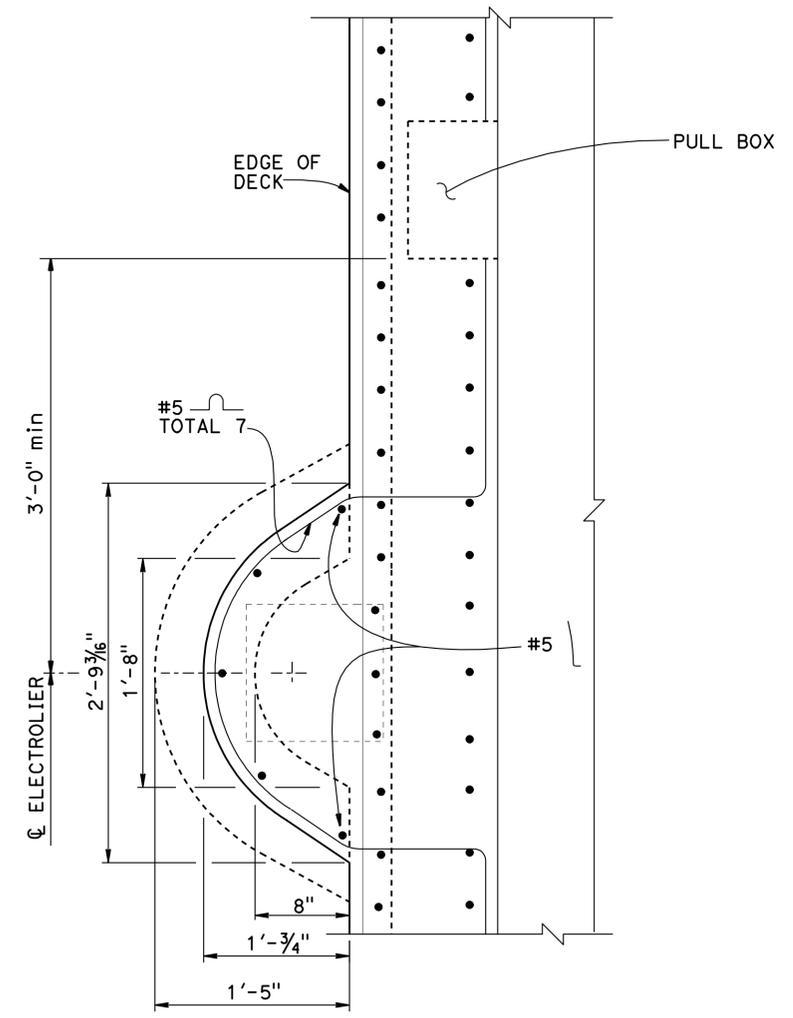
Note:  
Chain Link Railing Type 7 (MOD), not shown.



**PLAN VIEW**  
1/2" = 1'-0"



**SECTION V-V**  
1/2" = 1'-0"



**SECTION U-U**  
1/2" = 1'-0"

DESIGN	BY C. Udarbe	CHECKED K. Green
DETAILS	BY L. Wang	CHECKED C. Udarbe
QUANTITIES	BY C. Udarbe	CHECKED X

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

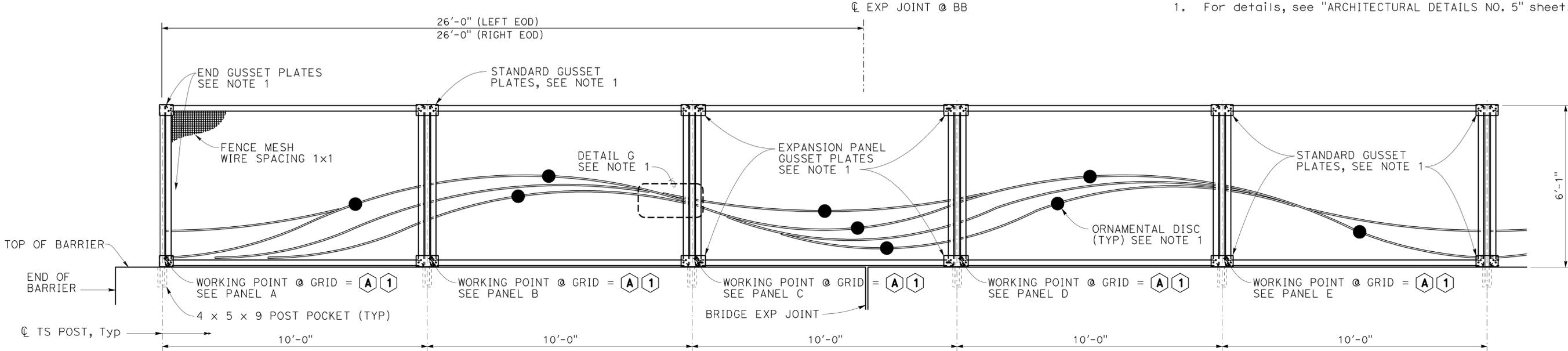
DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0327
POST MILE	10.10

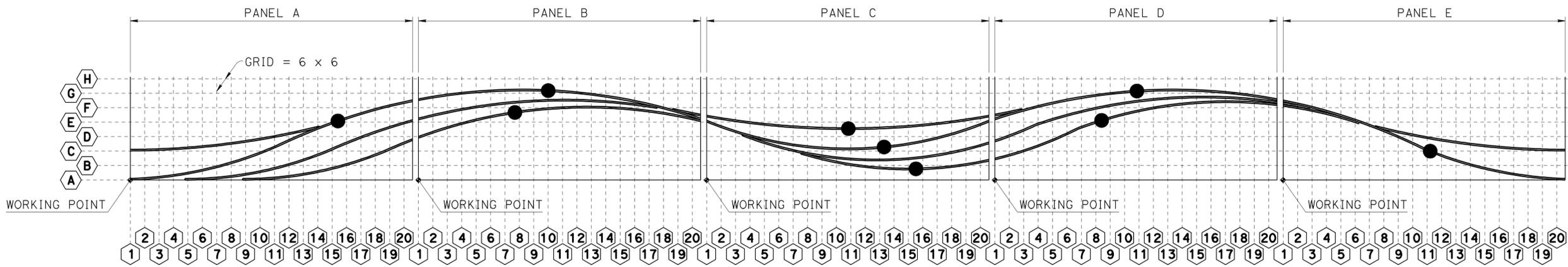
**SOUTH STOCKTON WIDENING**  
**MAIN STREET OC (REPLACE)**  
**ARCHITECTURAL DETAILS NO. 3**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1103	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					

NOTES:  
1. For details, see "ARCHITECTURAL DETAILS NO. 5" sheet.



**ELEVATION**  
1/2" = 1'-0"



**LAYOUT**  
1/2" = 1'-0"

DESIGN	BY C. UDARBE	CHECKED R. SIMMONS
DETAILS	BY C. FIGUERRES	CHECKED R. SIMMONS
QUANTITIES	BY R. SIMMONS	CHECKED C. UDARBE

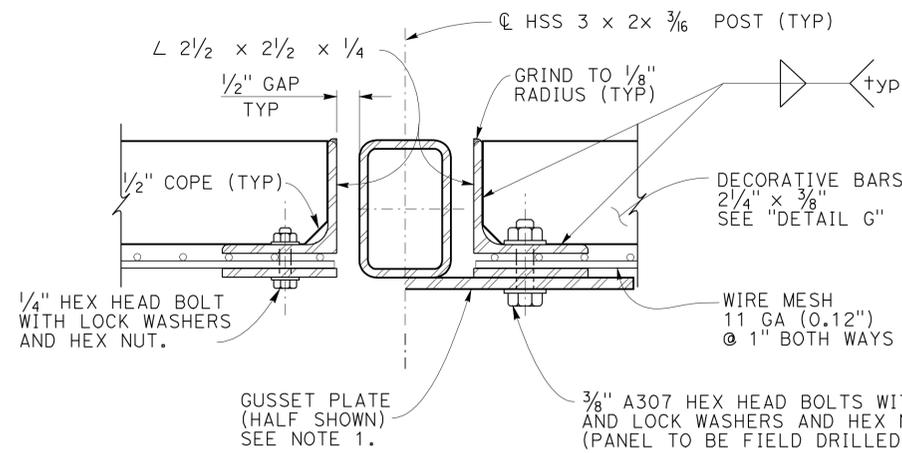
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

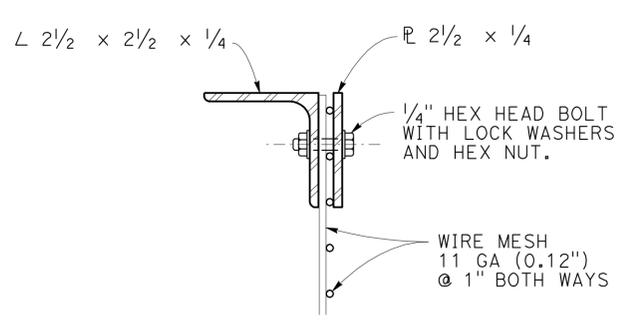
BRIDGE NO.	29-0327
POST MILE	10.10

**SOUTH STOCKTON WIDENING**  
**MAIN STREET OC (REPLACE)**  
**ARCHITECTURAL DETAILS NO. 4**

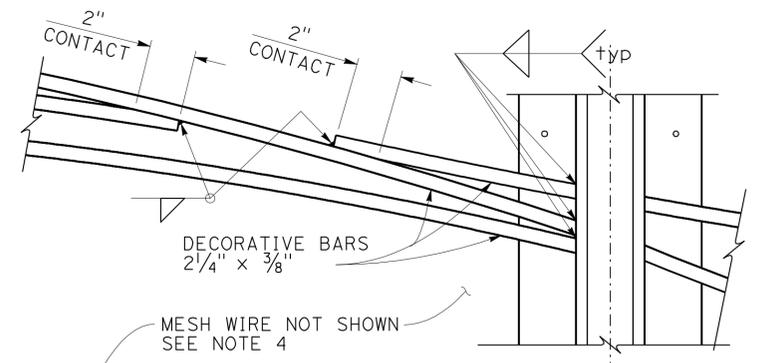
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1104	1414
C. V. Udarbe REGISTERED CIVIL ENGINEER 11-04-11 DATE			Chris Y. Udarbe No. C62985 Exp. 60-30-12 CIVIL STATE OF CALIFORNIA		
3-26-12 PLANS APPROVAL DATE					
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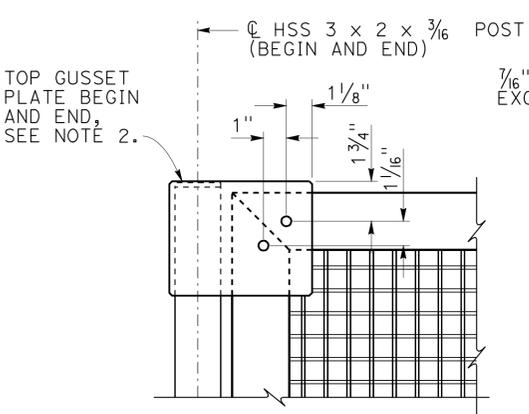
SECTION O-O  
6" = 1'-0"



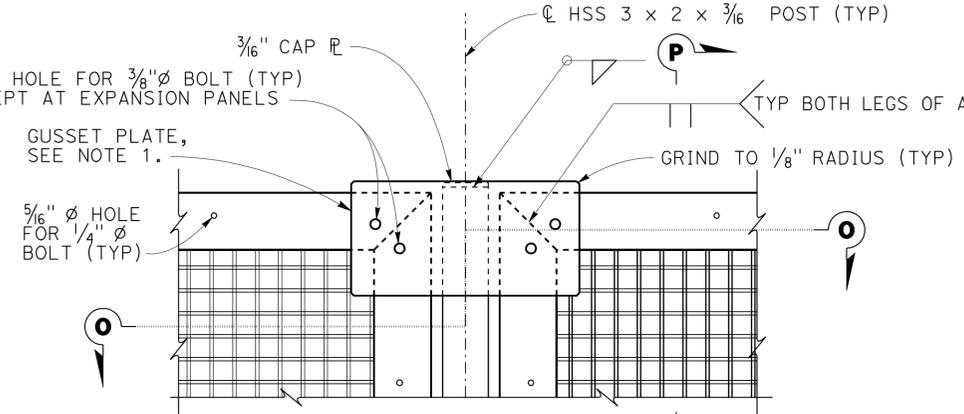
SECTION P-P  
6" = 1'-0"



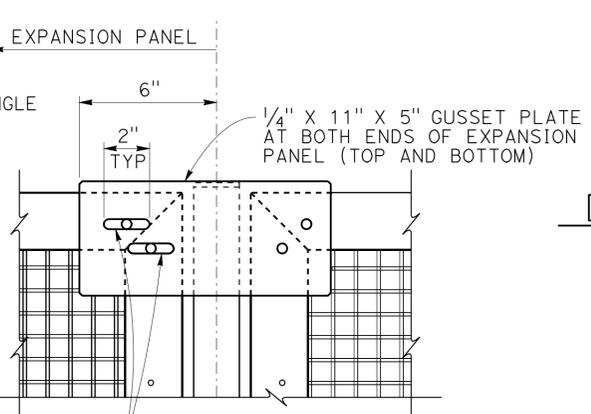
DETAIL G  
3" = 1'-0"



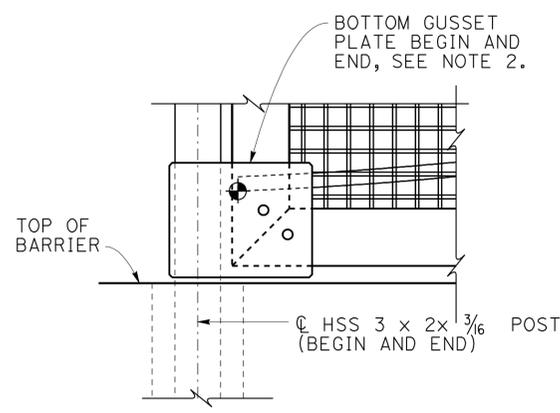
DETAIL A  
3" = 1'-0"



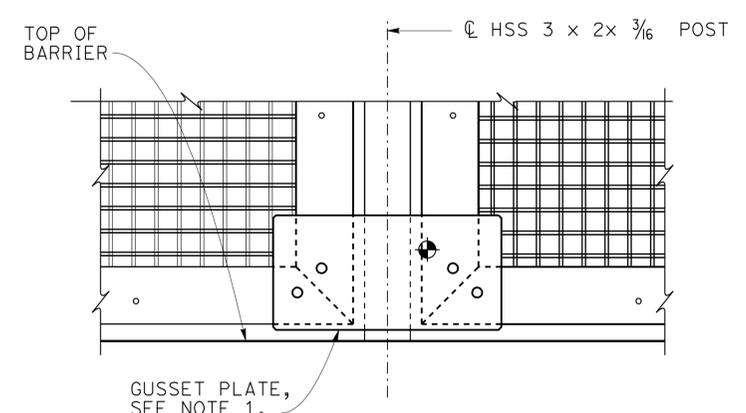
DETAIL B  
3" = 1'-0"



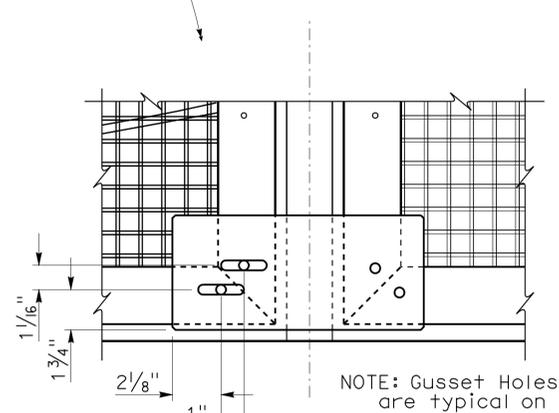
DETAIL C  
3" = 1'-0"



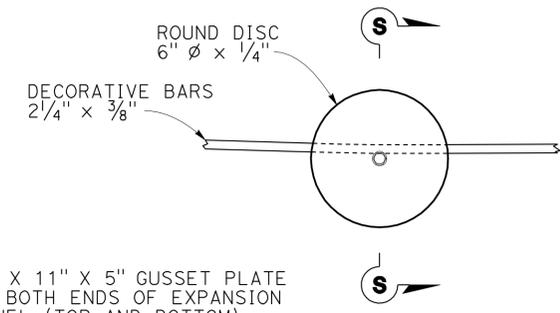
DETAIL D  
3" = 1'-0"



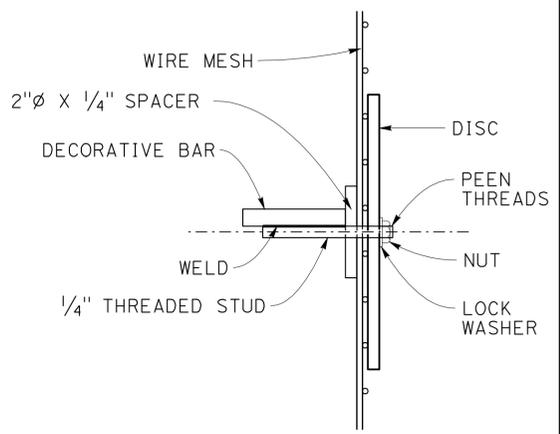
DETAIL E  
3" = 1'-0"



DETAIL F  
3" = 1'-0"



DISC DETAIL  
3" = 1'-0"



SECTION S-S  
6" = 1'-0"

NOTES:

1. 1/4" x 10" x 5" Gusset Plate, groove weld at sides of post. Fillet weld at top and bottom (continuous weld.)
2. 1/4" x 6 1/4" x 5" begin or end Gusset Plate, groove weld at sides of post. Fillet weld at top and bottom (continuous weld.)
3. All materials including fasteners to be galvanized after fabrication and painted black.
4. Shown on traffic side of fence.
5. For details not shown, see 811-52
6. At all slotted holes, use 3/8" hex bolt with 2 plain washers and hex nut, finger tight, peen threads.
7. Holes in gusset plates to be shop drilled. Field drill holes in panels after adjusting panel to line and grade. Field drilled holes to be deburred and painted prior to installing bolts.
8. C.C. spacing of posts shall be within 1/2" tolerance.
9. Posts shall be set plumb to within 1/4" in 6'.

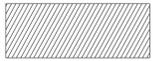
DESIGN	BY R. Simmons	CHECKED C. Udarbe	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0327
DETAILS	BY J. Casarino	CHECKED R. Simmons			POST MILE	10.10
QUANTITIES	BY R. Simmons	CHECKED C. Udarbe				

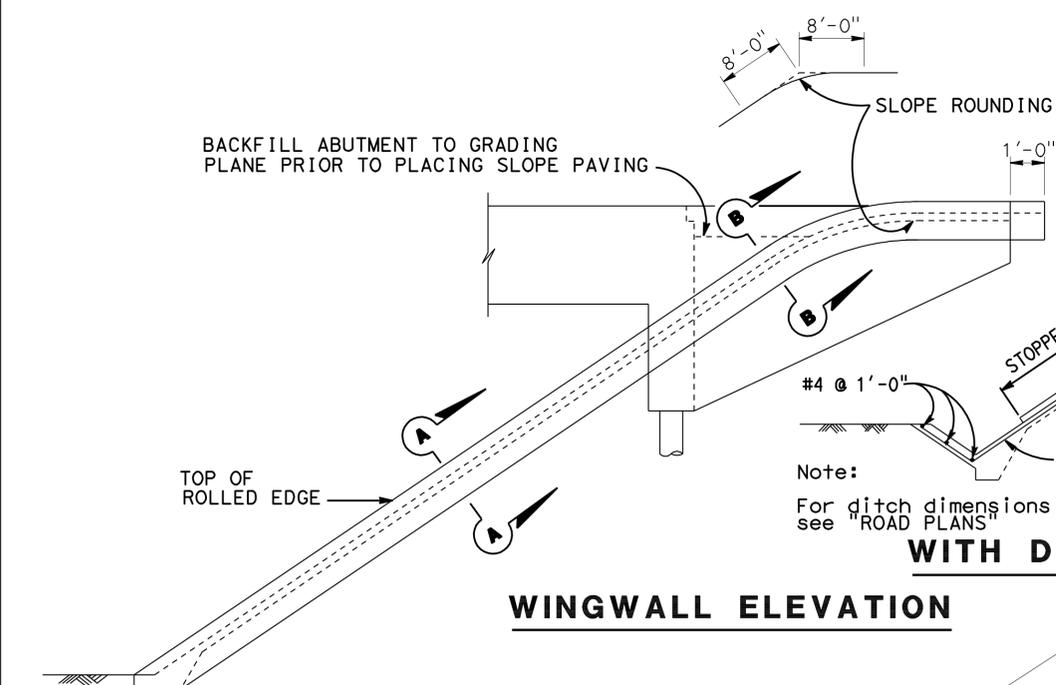
<b>SOUTH STOCKTON WIDENING</b> <b>MAIN STREET OC (REPLACE)</b> <b>ARCHITECTURAL DETAILS NO. 5</b>	
REVISION DATES	SHEET OF
08-23-11 03-02-12	19 25

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1105	1414

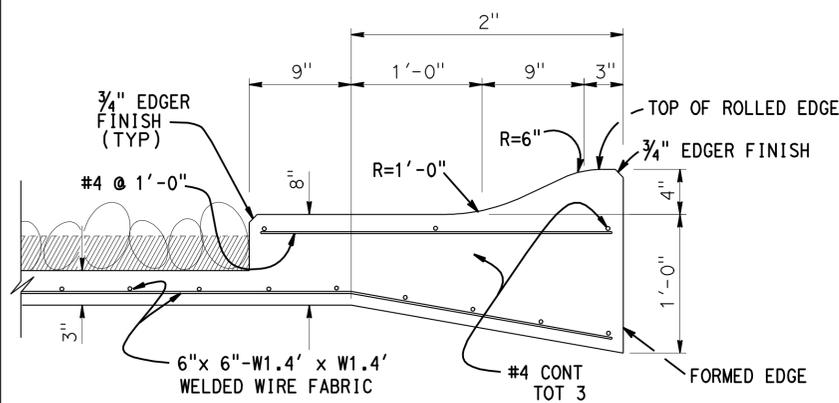
C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris V. Udarbe  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

- Notes:
- Cobbles shall be fully seated in the mortar bed. The mortar surface shall be trimmed to the mid depth of the cobbles.
  - Excess mortar shall be removed and the river rock surfaces shall be cleaned after placement.
  - Bottom of slope paving to match toe of fill. Dimensions to be field verified.

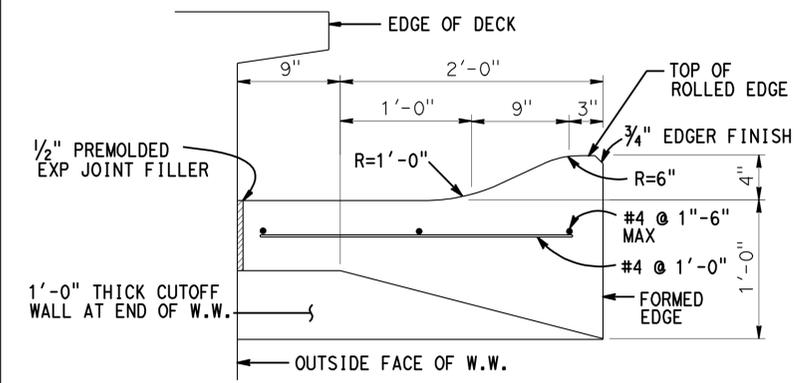
Legend:  
 Indicates mortar bed area



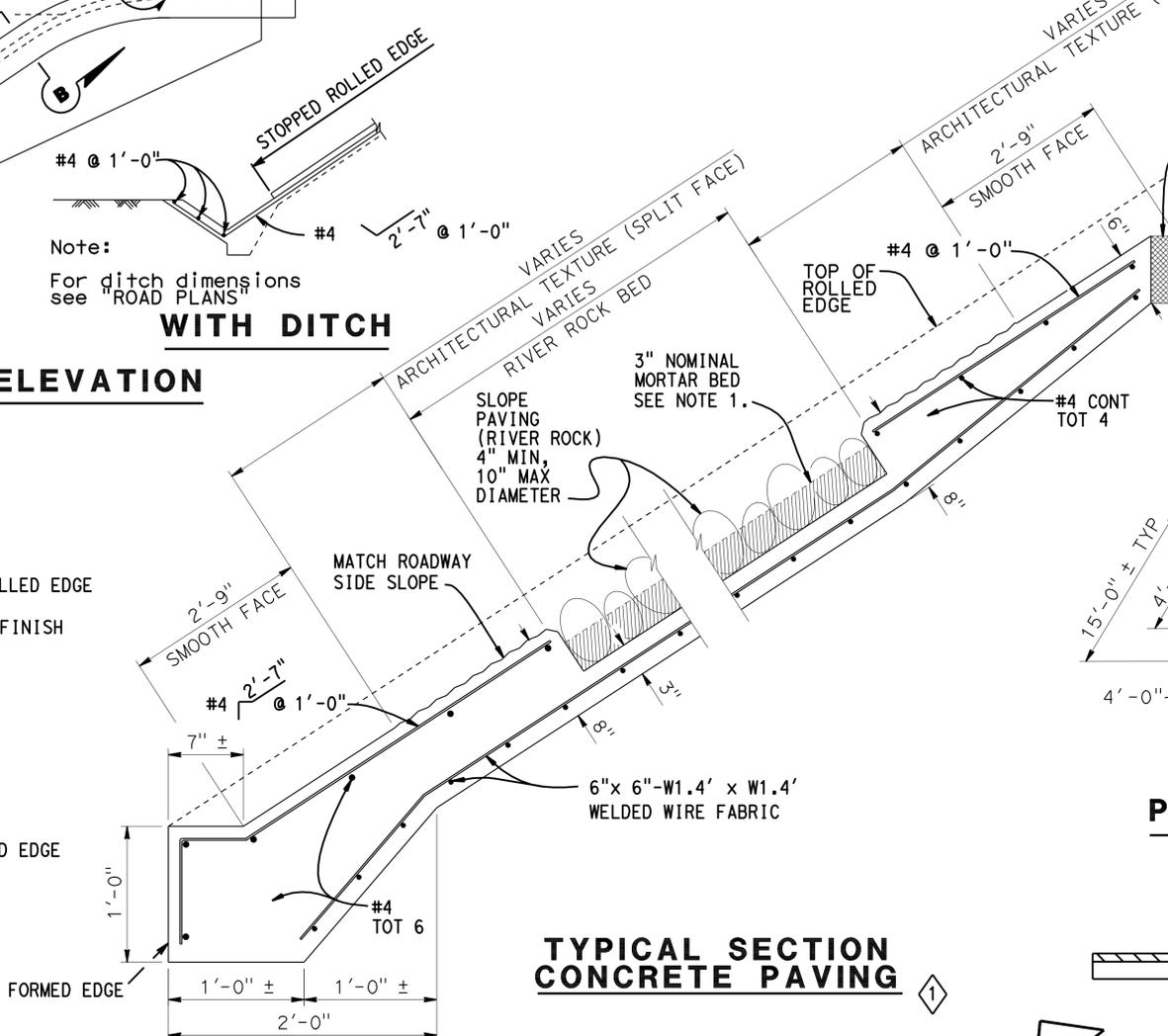
**WINGWALL ELEVATION**



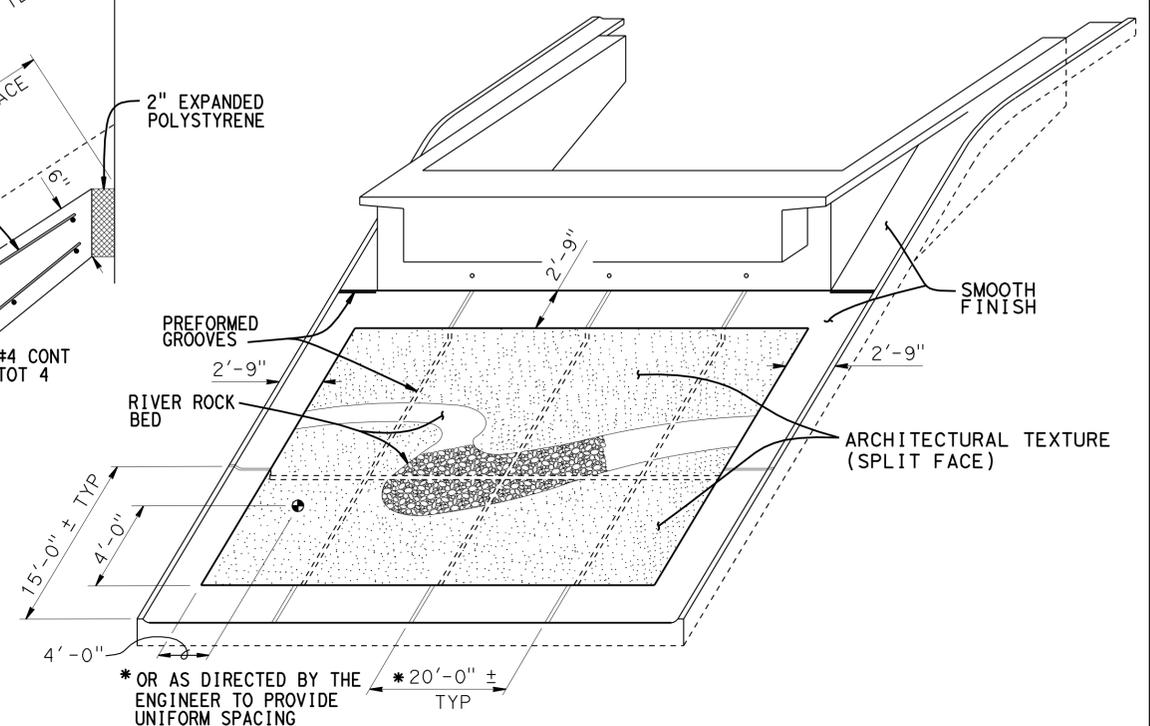
**SECTION A-A**



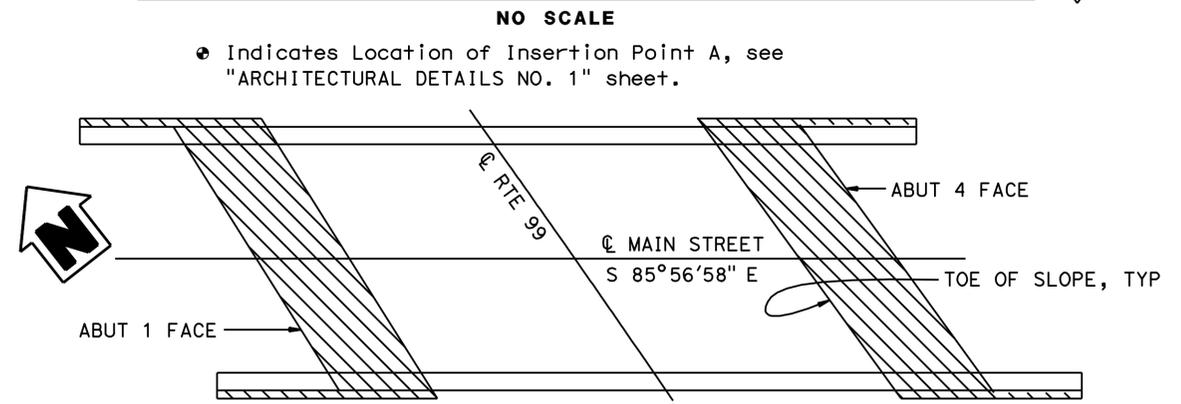
**SECTION B-B**



**TYPICAL SECTION CONCRETE PAVING**



**PICTORIAL VIEW OF TYPICAL INSTALLATION**



**LIMITS OF SLOPE PAVING**

Legend:  
 Indicates limits of slope paving

- 1 Slope paving details.
- 2 Removed Drainage details.
- 3 Removed drainage notes

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF ENGINEERING SERVICES

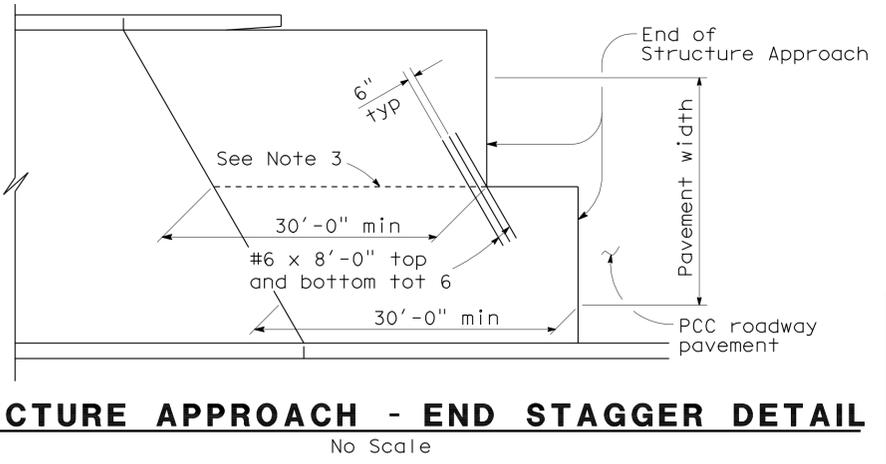
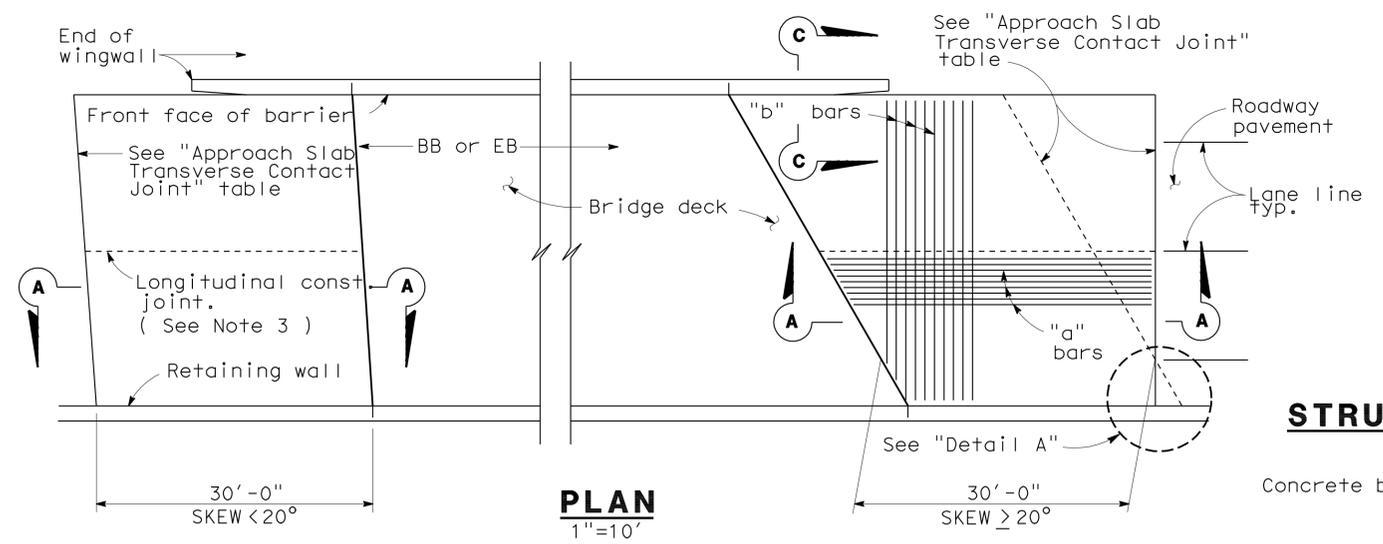
BRIDGE NO.  
29-0327  
POST MILE  
10.10

**SOUTH STOCKTON WIDENING**  
**MAIN STREET OC (REPLACE)**  
**SLOPE PAVING - FULL SLOPE**

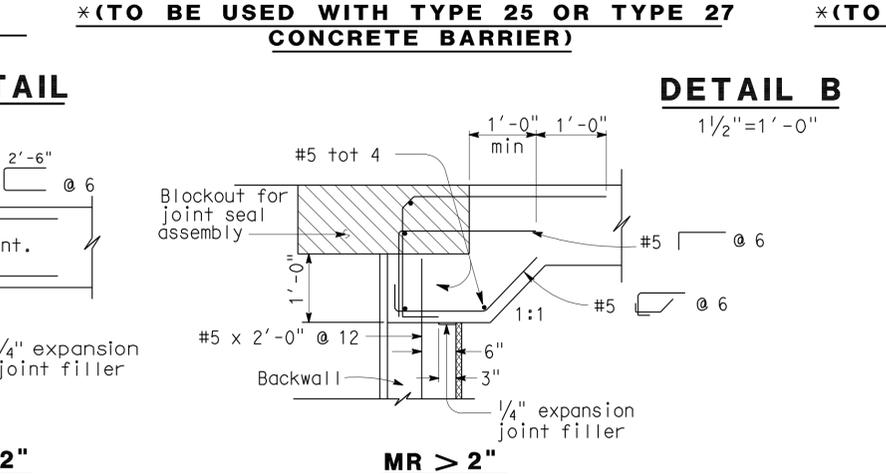
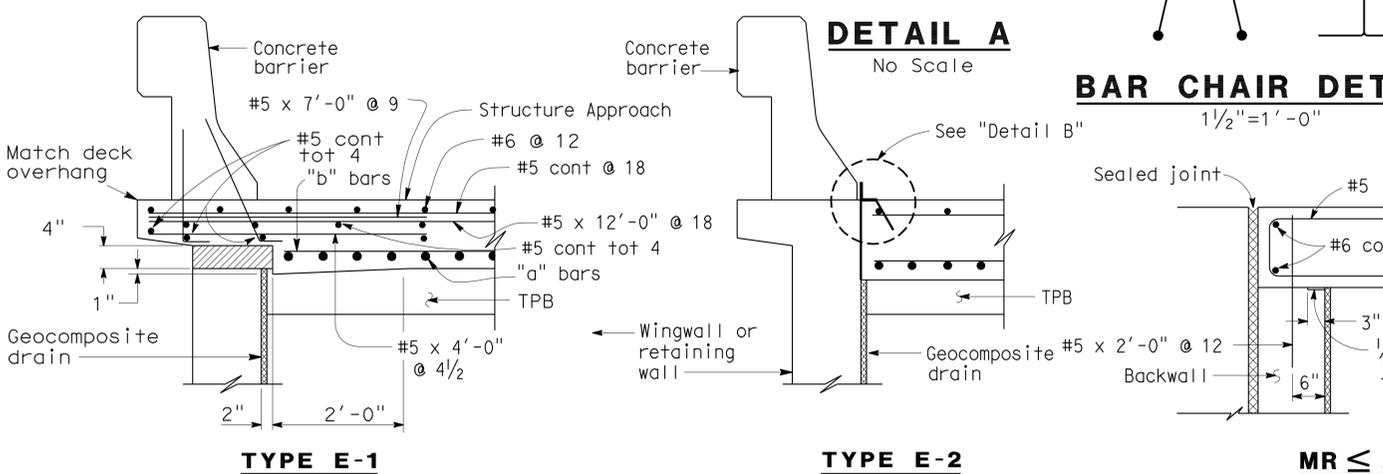
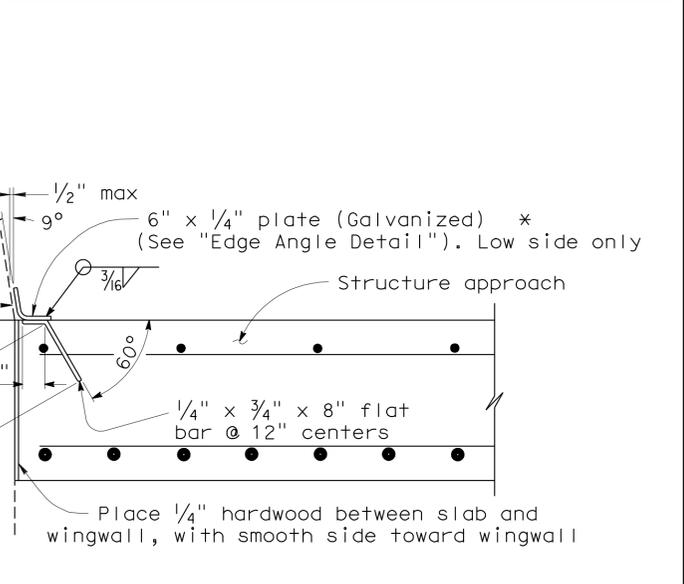
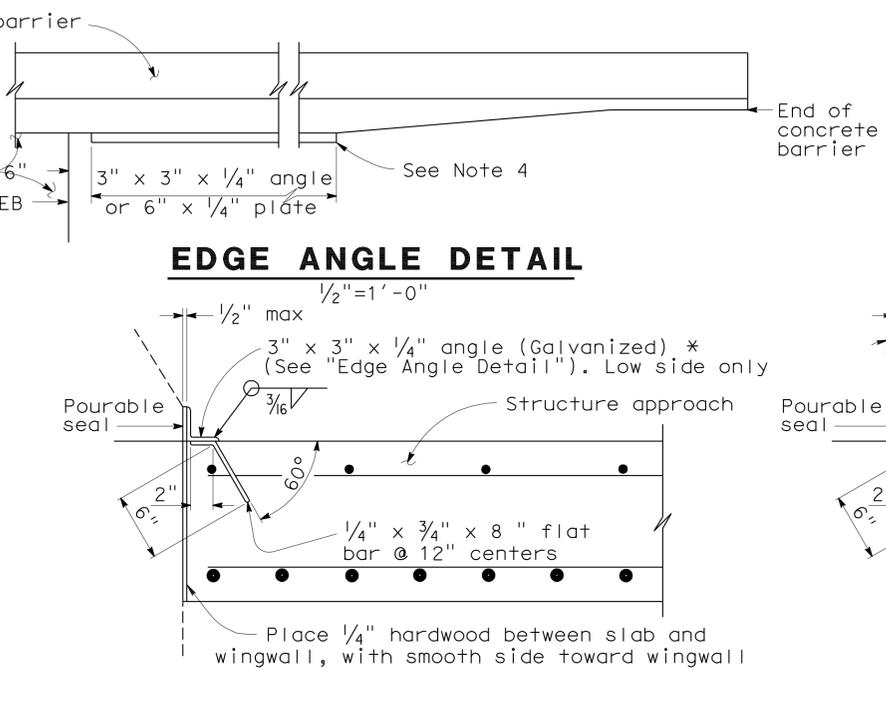
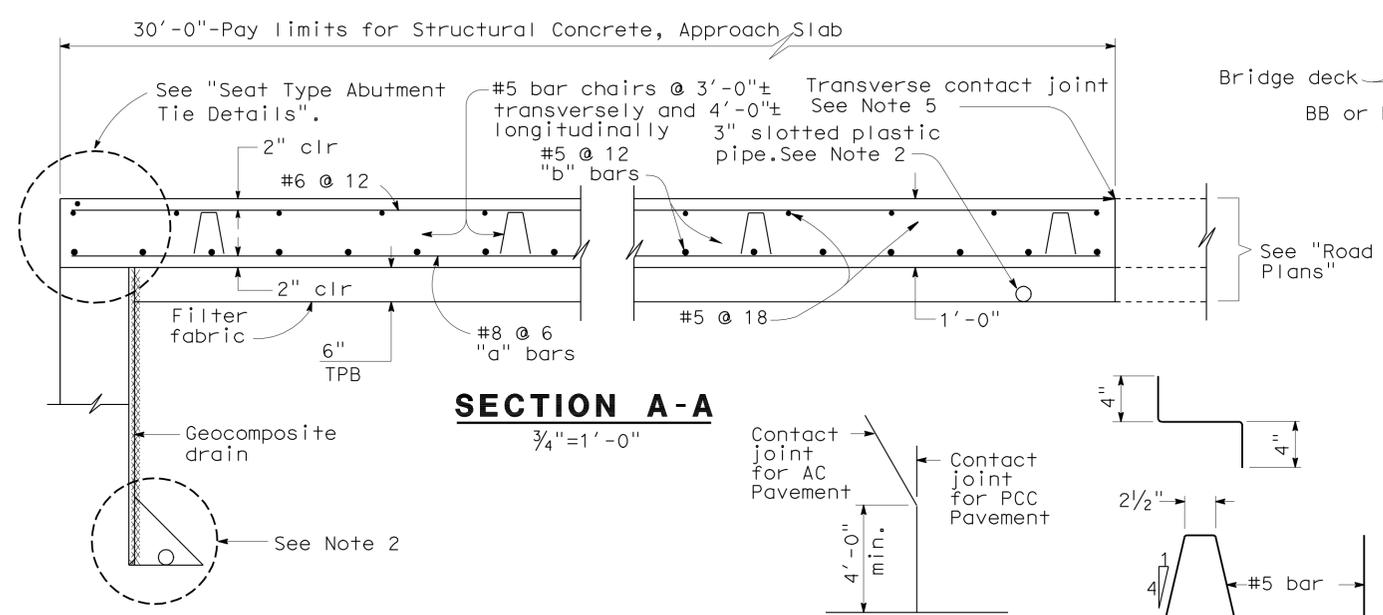
REVISED STANDARD DRAWING  
 FILE NO. **xs4-210**  
 APPROVAL DATE July 2011

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1106	1414

Chris V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 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.

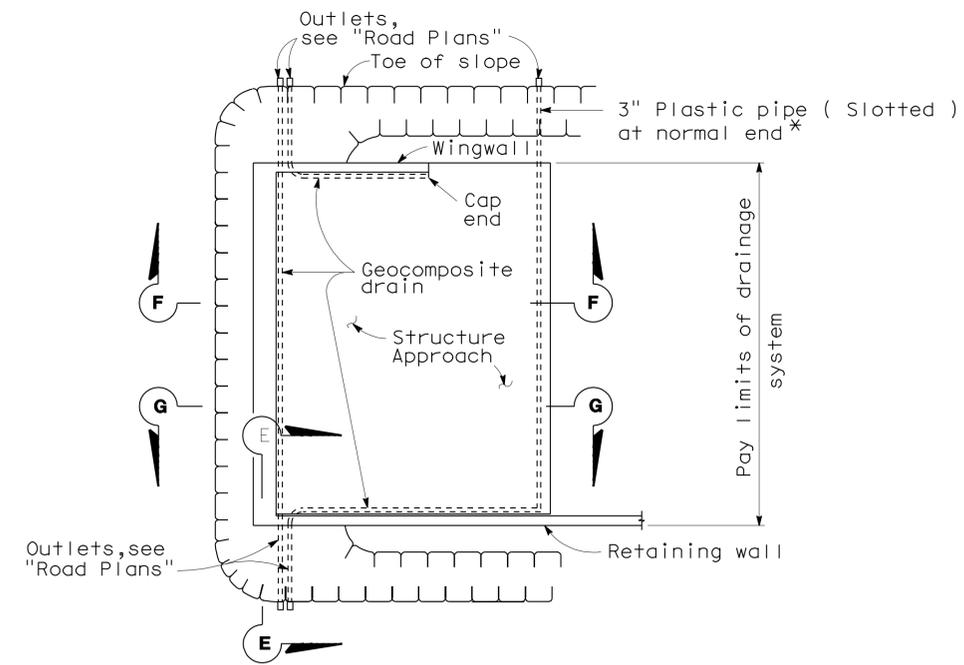


- NOTES:**
- For details not shown, see Structure Plans. For MR ≤ 2", adjust bar reinforcement to clear a sawcut for sealed joint, when required.
  - For drainage details, see "Structure Approach Drainage Details" sheet.
  - Longitudinal construction joints, when permitted by the Engineer, shall be located 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 C roadway.
- Remove all polystyrene.

DESIGN BY R. Coria			CHECKED M. Friedheim			STATE OF CALIFORNIA			DIVISION OF ENGINEERING SERVICES			BRIDGE NO. 29-0327			SOUTH STOCKTON WIDENING		
DETAILS BY L. Wang			CHECKED M. Friedheim			DEPARTMENT OF TRANSPORTATION			STRUCTURE DESIGN			POST MILE 10.10			MAIN STREET OC (REPLACE)		
QUANTITIES BY R. Coria			CHECKED M. Friedheim			DESIGN BRANCH 17									STRUCTURE APPROACH TYPE N (30S)		

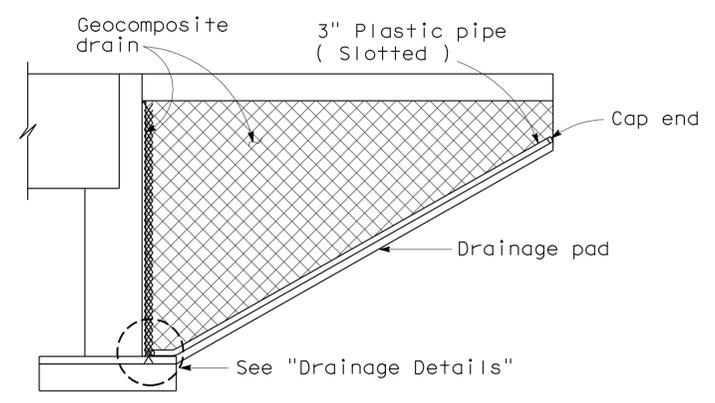
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT: 3586 PROJECT NUMBER & PHASE: 1000000409 CONTRACT NO.: 10-3A1001 DISREGARD PRINTS BEARING EARLIER REVISION DATES 01-10-11 03-02-12 SHEET 21 OF 25

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1107	1414
C.V. Udabe REGISTERED CIVIL ENGINEER			11-04-11	DATE	
3-26-12 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.					

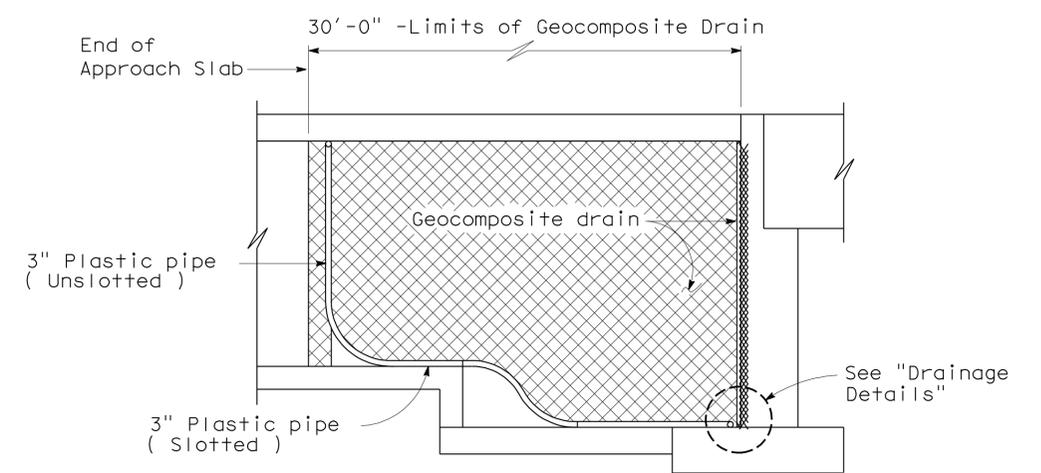


**TYPICAL PLAN**  
1"=10'

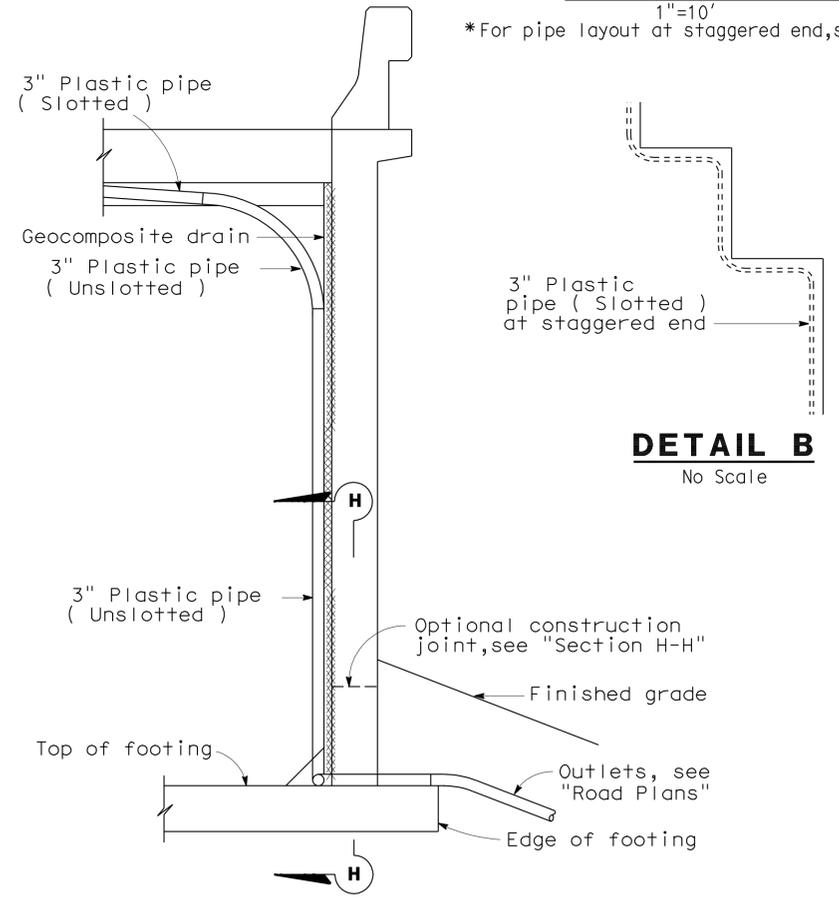
\*For pipe layout at staggered end, see "Detail B".



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



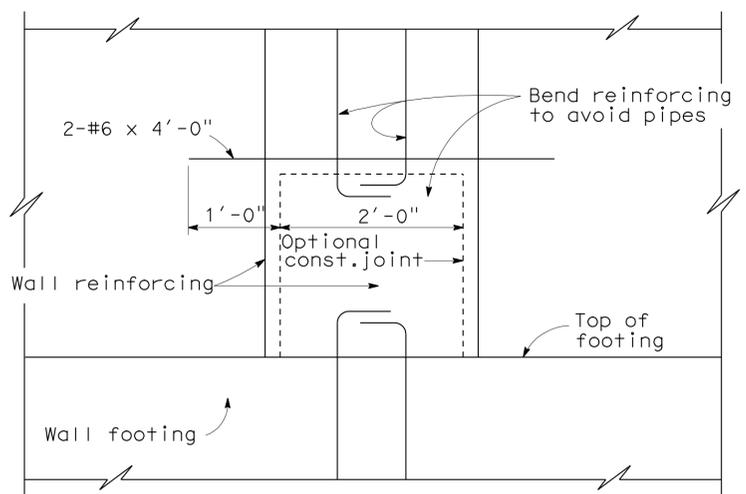
**RETAINING WALL WINGWALL SECTION G-G**  
1/4"=1'-0"



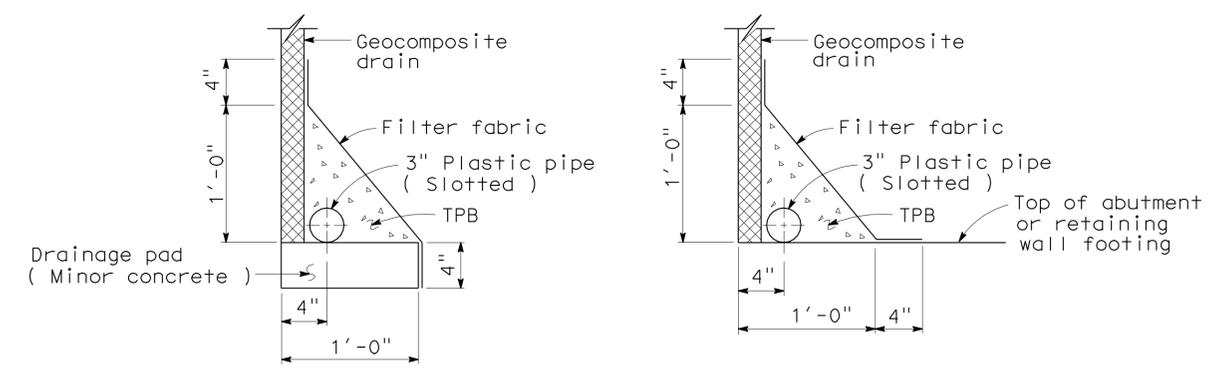
**DETAIL B**  
No Scale

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

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



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



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

<b>SOUTH STOCKTON WIDENING</b>	
<b>MAIN STREET OC (REPLACE)</b>	
<b>STRUCTURE APPROACH DRAINAGE DETAILS</b>	

DESIGN	BY R. Coria	CHECKED M. Friedheim
DETAILS	BY L. Wang	CHECKED M. Friedheim
QUANTITIES	BY R. Coria	CHECKED M. Friedheim

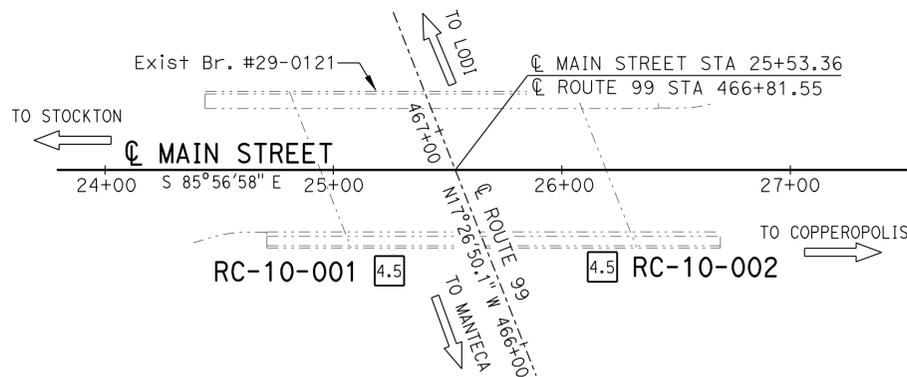
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0327
POST MILE	10.10

**BENCH MARK**

BM Elev 35.08'  
 NW corner of Existing Main St  
 OC (Br. No. 29-0121) 55.72' Lt  
 Q Rte 99, Sta 467+37.67  
 Vert Datum NGVD29



**PLAN**

1" = 40'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1108	1414

Professional Geologist: Joseph M. Kaump, No. 7837, Exp. 01-31-13

PLANS APPROVAL DATE: 3-26-12

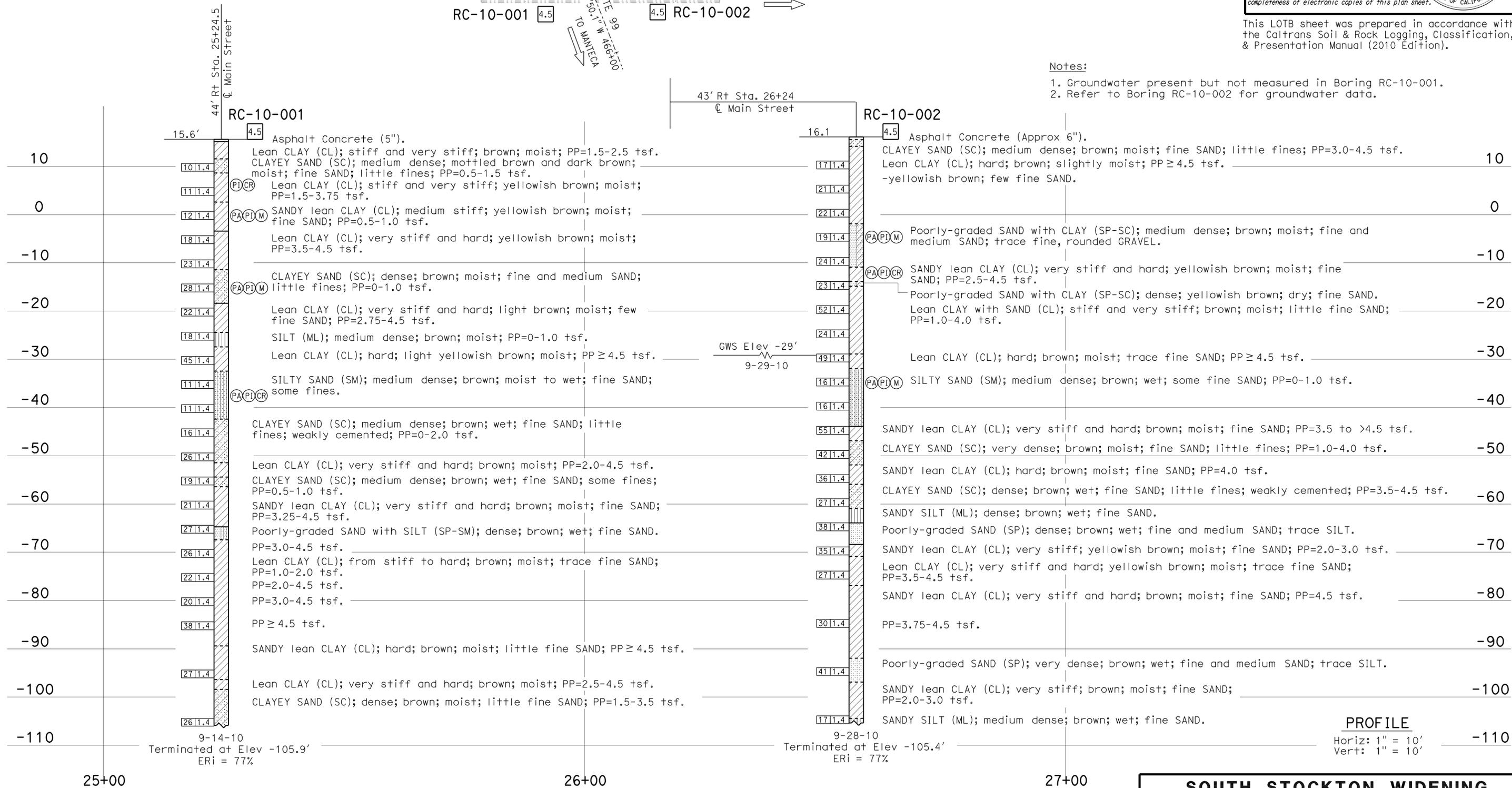
8-26-11

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).

**Notes:**

1. Groundwater present but not measured in Boring RC-10-001.
2. Refer to Boring RC-10-002 for groundwater data.



**PROFILE**

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

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION</b>		<b>DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17</b>		<b>SOUTH STOCKTON WIDENING MAIN STREET OC (REPLACE) LOG OF TEST BORINGS 1 OF 3</b>	
FUNCTIONAL SUPERVISOR NAME: R. Buehl	DRAWN BY: I. G-Remmen CHECKED BY: C. Zhen-Ru	FIELD INVESTIGATION BY: T. Alderman		BRIDGE NO. 29-0327 POST MILE 18.15		UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS								DISREGARD PRINTS BEARING EARLIER REVISION DATES	
065 CIVIL LOG OF TEST BORINGS SHEET								REVISION DATES: 08-19-11, 08-25-11	
								SHEET 23 OF 25	

USERNAME => S114640 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 13:18

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1109	1414

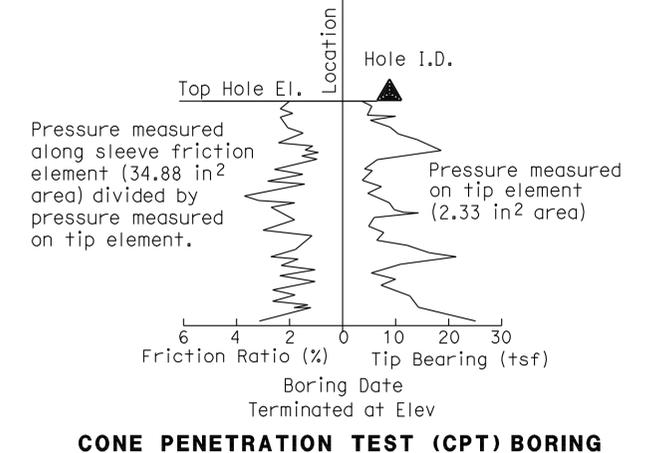
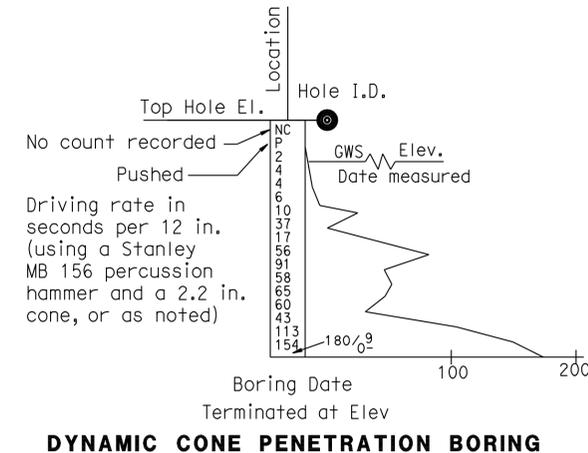
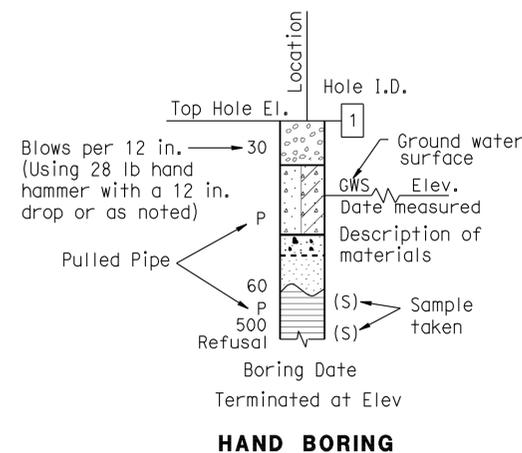
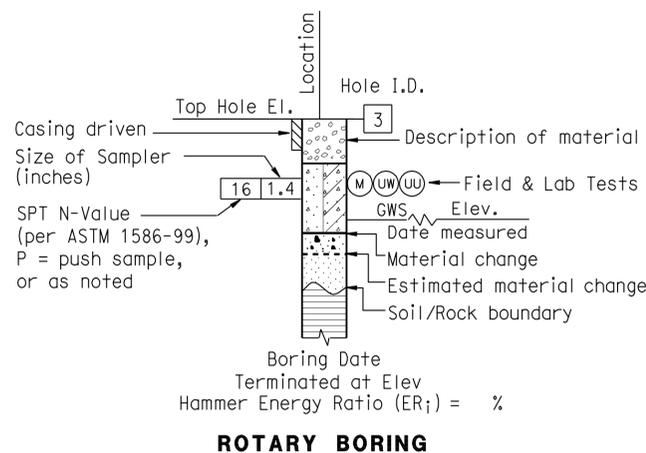
*Joseph M Kaump* 8-26-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
 No. 7837  
 Exp. 01-31-13  
 STATE OF CALIFORNIA  
 PROFESSIONAL GEOLOGIST  
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	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)
	O	Other (note on LOTB)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
		PREPARED BY: I.G-Remmen		<b>DEPARTMENT OF TRANSPORTATION</b>		<b>STRUCTURE DESIGN</b>		<b>MAIN STREET OC (REPLACE)</b>	
						<b>DESIGN BRANCH 17</b>		<b>LOG OF TEST BORINGS 2 OF 3</b>	
GS LOTB SOIL LEGEND		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091		BRIDGE NO. 29-0327 POST MILE 18.15		CONTRACT NO.: 10-3A1001	
						DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
								SHEET 24 OF 25	

USERNAME => s114640 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 13:19

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1110	1414

*Joseph M Kaump* 8-26-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
 No. 7837  
 Exp. 01-31-13  
 STATE OF CALIFORNIA  
 PROFESSIONAL GEOLOGIST  
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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 (or SILTY CLAY)		GRAVELLY lean CLAY with SAND
	Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SILTY CLAY
	Poorly-graded GRAVEL with SILT		SILTY CLAY with SAND
	Poorly-graded GRAVEL with SILT and SAND		SILTY CLAY with GRAVEL
	Poorly-graded GRAVEL with CLAY (or SILTY CLAY)		SANDY SILTY CLAY
	Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SANDY SILTY CLAY with GRAVEL
	SILTY GRAVEL		GRAVELLY SILTY CLAY
	SILTY GRAVEL with SAND		GRAVELLY SILTY CLAY with SAND
	CLAYEY GRAVEL		SILT
	CLAYEY GRAVEL with SAND		SILT with SAND
	SILTY, CLAYEY GRAVEL		SILT with GRAVEL
	SILTY, CLAYEY GRAVEL with SAND		SANDY SILT
	Well-graded SAND		SANDY SILT with GRAVEL
	Well-graded SAND with GRAVEL		GRAVELLY SILT
	Poorly-graded SAND		GRAVELLY SILT with SAND
	Poorly-graded SAND with GRAVEL		ORGANIC lean CLAY
	Well-graded SAND with SILT		ORGANIC lean CLAY with SAND
	Well-graded SAND with SILT and GRAVEL		ORGANIC lean CLAY with GRAVEL
	Well-graded SAND with CLAY (or SILTY CLAY)		SANDY ORGANIC lean CLAY
	Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		SANDY ORGANIC lean CLAY with GRAVEL
	Poorly-graded SAND with SILT		GRAVELLY ORGANIC lean CLAY
	Poorly-graded SAND with SILT and GRAVEL		GRAVELLY ORGANIC lean CLAY with SAND
	Poorly-graded SAND with CLAY (or SILTY CLAY)		ORGANIC SILT
	Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		ORGANIC SILT with SAND
	SILTY SAND		ORGANIC SILT with GRAVEL
	SILTY SAND with GRAVEL		SANDY elastic SILT
	CLAYEY SAND		SANDY elastic SILT with GRAVEL
	CLAYEY SAND with GRAVEL		GRAVELLY elastic SILT
	SILTY, CLAYEY SAND		GRAVELLY elastic SILT with SAND
	SILTY, CLAYEY SAND with GRAVEL		ORGANIC fat CLAY
	PEAT		ORGANIC fat CLAY with SAND
	COBBLES		ORGANIC fat CLAY with GRAVEL
	COBBLES and BOULDERS		SANDY ORGANIC fat CLAY
	BOULDERS		SANDY ORGANIC fat CLAY with GRAVEL
			GRAVELLY ORGANIC fat CLAY
			GRAVELLY ORGANIC fat CLAY with 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
			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

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
(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)
(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)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N <sub>60</sub> (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

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

PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0327	SOUTH STOCKTON WIDENING MAIN STREET OC (REPLACE)	
				POST MILE 18.15	LOG OF TEST BORINGS 3 OF 3	
PREPARED BY: I.G-Remmen	UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	REVISION DATES	SHEET	OF	
GS LOTB SOIL LEGEND	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3		25	25	

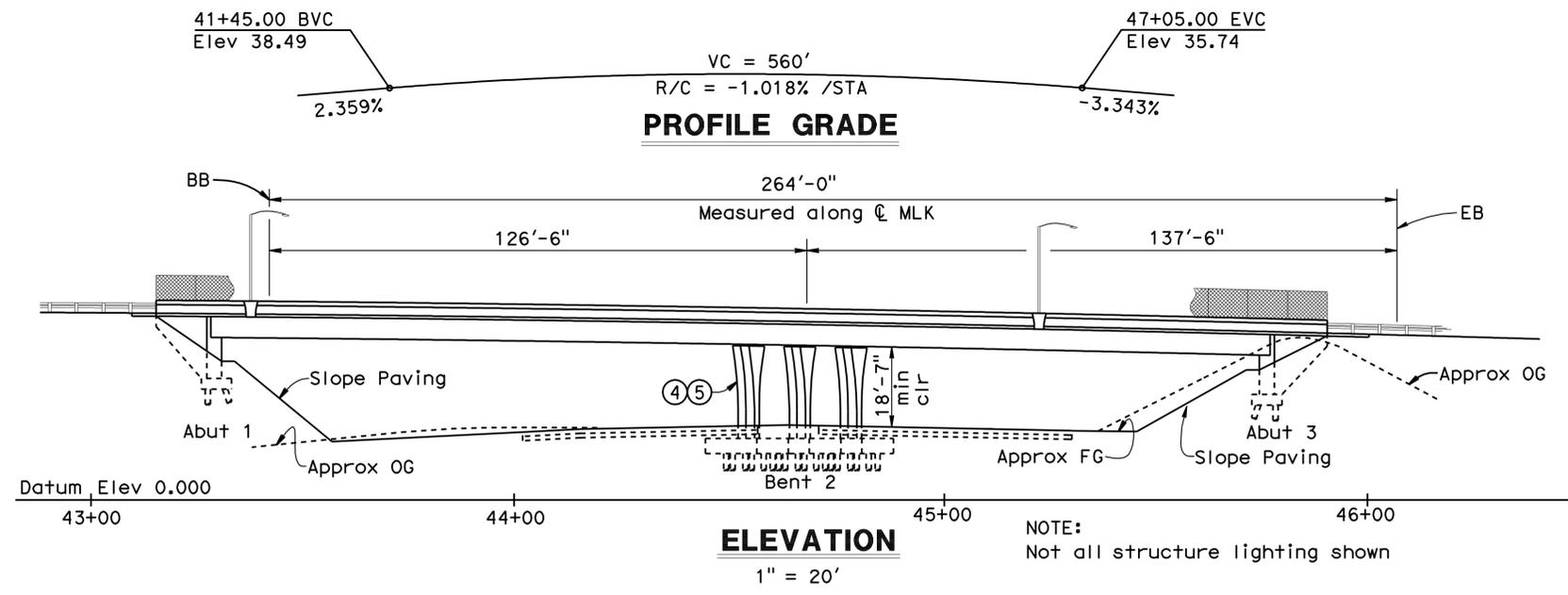
DISREGARD PRINTS BEARING EARLIER REVISION DATES

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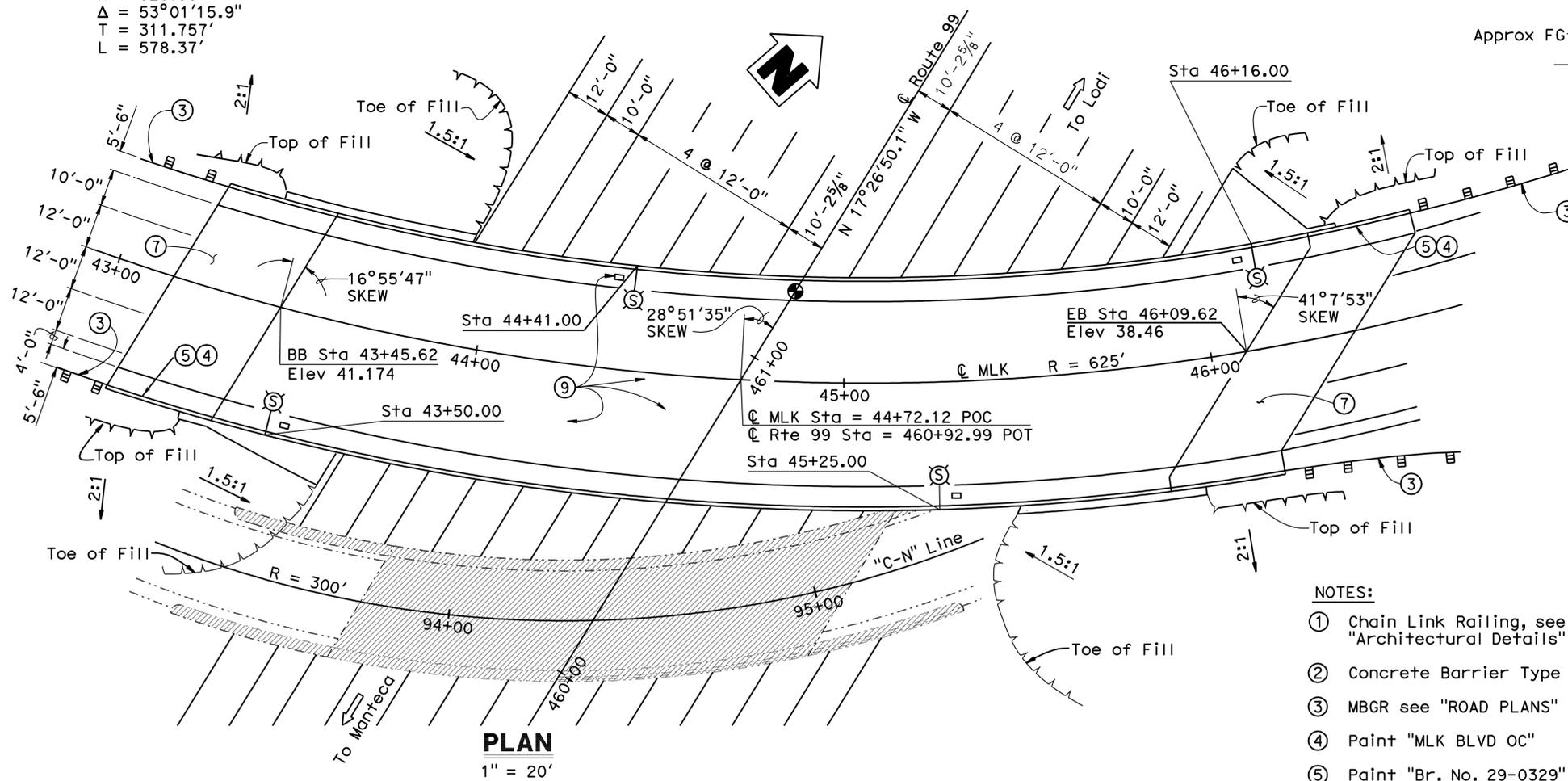
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1111	1414

11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
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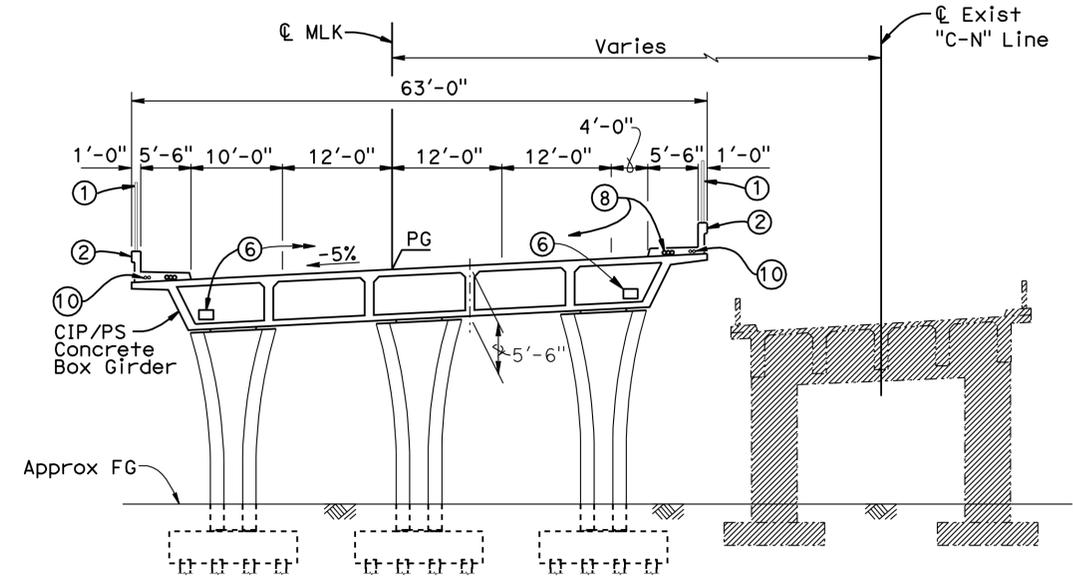
Chris Udarbe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL



**CURVE DATA**  
 R = 625.00'  
 Δ = 53°01'15.9"  
 T = 311.757'  
 L = 578.37'



- LEGEND:**
- Indicates new Structure
  - - - - - Indicates Existing Structure
  - ▨ Structure Removal Bridge # 29-0120G Bridge removal, LOCATION A
  - ⊙ Denotes Point of Minimum Vertical Clearance
  - Ⓢ Indicates Structure Lighting



**QUANTITIES**

DESCRIPTION	LUMP	SUM
BRIDGE REMOVAL, LOCATION A	642	CY
STRUCTURE EXCAVATION (BRIDGE)	329	CY
STRUCTURE BACKFILL (BRIDGE)	4,818	LF
FURNISH STEEL PILING (HP 14 X 89)	87	EA
DRIVE STEEL PILE (HP 14 X 89)	LUMP	SUM
PRESTRESSING CAST-IN-PLACE CONCRETE	170	CY
STRUCTURAL CONCRETE, BRIDGE FOOTING	1,460	CY
STRUCTURAL CONCRETE, BRIDGE	161	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	4,416	SQFT
ARCHITECTURAL TEXTURE (SPLIT FACE)	167	SQFT
ARCHITECTURAL TEXTURE (RIVER ROCK)	149	LF
JOINT SEAL (MR 2")	306,263	LB
BAR REINFORCING STEEL (BRIDGE)	167	SQFT
PREPARE AND STAIN CONCRETE	60	CY
SLOPE PAVING (CONCRETE)	938	SQFT
SLOPE PAVING (RIVER ROCK)	648	LF
CHAIN LINK RAILING (TYPE 7 MODIFIED)	648	LF
CONCRETE BARRIER (TYPE 26 MODIFIED)		

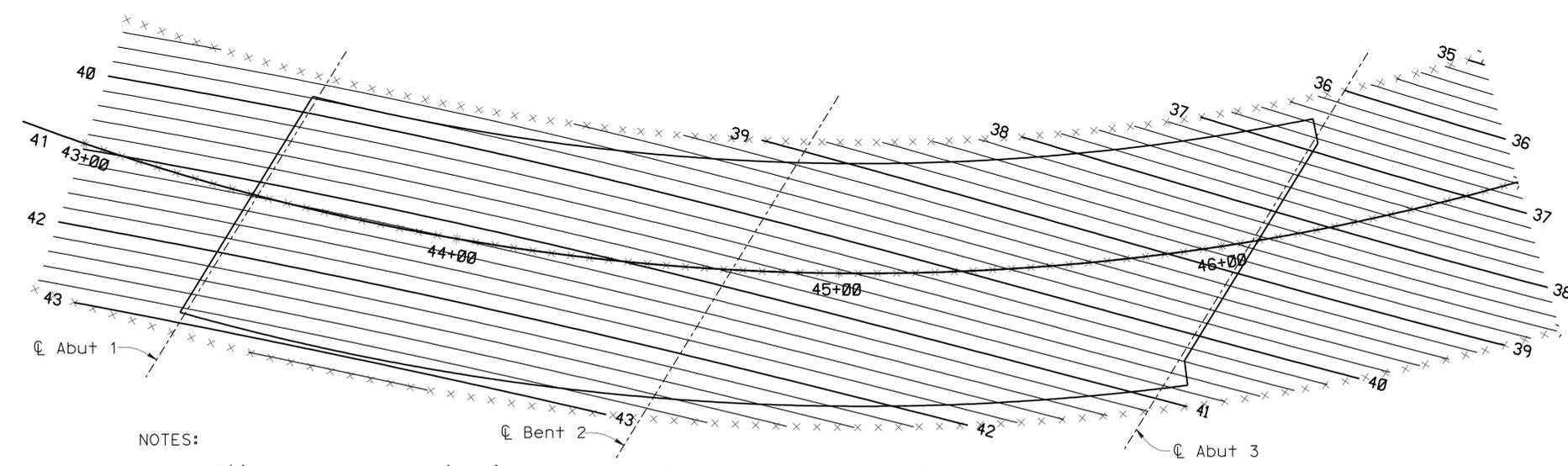
- NOTES:**
- ① Chain Link Railing, see "Architectural Details" sheets
  - ② Concrete Barrier Type 26 (Mod)
  - ③ MBGR see "ROAD PLANS"
  - ④ Paint "MLK BLVD OC"
  - ⑤ Paint "Br. No. 29-0329"
  - ⑥ Future Utility Opening
  - ⑦ Structure Approach Type N(30S)
  - ⑧ City of Stockton communication line (3"Ø conduit in 5" opening), see "ROAD PLANS"
  - ⑨ No. 5 Pullbox on sidewalk, see "ROAD PLANS"
  - ⑩ 2-2" conduit, see "ROAD PLANS"

Gary Joe DESIGN ENGINEER		DESIGN BY T. Bui DETAILS BY M. Tran/L. Wang QUANTITIES BY T. Bui	CHECKED M. Friedheim C. Udarbe G. Joe	LOAD & RESISTANCE FACTOR DESIGN LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE LAYOUT BY T. Bui SPECIFICATIONS BY V. Renganathan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0329 POST MILE 18.02	<b>SOUTH STOCKTON WIDENING</b> <b>DR. MARTIN LUTHER KING JR. BLVD. OC</b> <b>GENERAL PLAN</b>		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 08-27-10 5-1-12 09-07-11	SHEET 1 OF 26
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STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.09-01-10) FILE => 29-0329-a-gp.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1112	1414

C.V. Udabe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udabe  
 No. C62985  
 Exp. 6/30/12  
 CIVIL  
 STATE OF CALIFORNIA  
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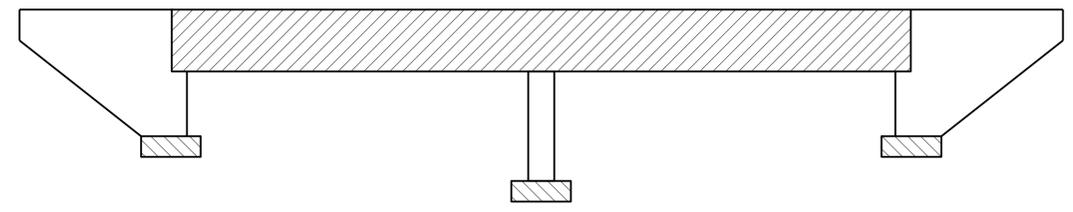


- NOTES:
1. X = 5' intervals along station line
  2. Contours do not include camber
  3. Contour interval = 0.2'

**DECK CONTOURS**  
1" = 20'

**INDEX TO PLANS**

Sheet No.	Title
1	GENERAL PLAN
2	INDEX TO PLANS
3	FOUNDATION PLAN
4	ABUTMENT 1 LAYOUT
5	ABUTMENT 3 LAYOUT
6	ABUTMENT DETAILS NO. 1
7	ABUTMENT DETAILS NO. 2
8	ABUTMENT DETAILS NO. 3
9	BENT LAYOUT
10	BENT DETAILS NO. 1
11	BENT DETAILS NO. 2
12	TYPICAL SECTION
13	GIRDER LAYOUT
14	GIRDER REINFORCEMENT
15	ARCHITECTURAL DETAILS NO. 1
16	ARCHITECTURAL DETAILS NO. 2
17	ARCHITECTURAL DETAILS NO. 3
18	ARCHITECTURAL DETAILS NO. 4
19	ARCHITECTURAL DETAILS NO. 5
20	SLOPE PAVING - FULL SLOPE
21	STRUCTURE APPROACH DRAINAGE DETAILS
22	STRUCTURE APPROACH TYPE N(30S)
23	LOG OF TEST BORINGS 1 OF 4
24	LOG OF TEST BORINGS 2 OF 4
25	LOG OF TEST BORINGS 3 OF 4
26	LOG OF TEST BORINGS 4 OF 4



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

**CONCRETE STRENGTH AND TYPE LIMITS**

No Scale

**GENERAL NOTES (LOAD AND RESISTANCE FACTOR DESIGN)**

DESIGN:  
AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments, preface dated December 2008

SEISMIC DESIGN:  
Caltrans Seismic Design Criteria (SDC), Version 1.5 dated January 2010

DEAD LOAD:  
Includes 35 psf for future wearing surface.

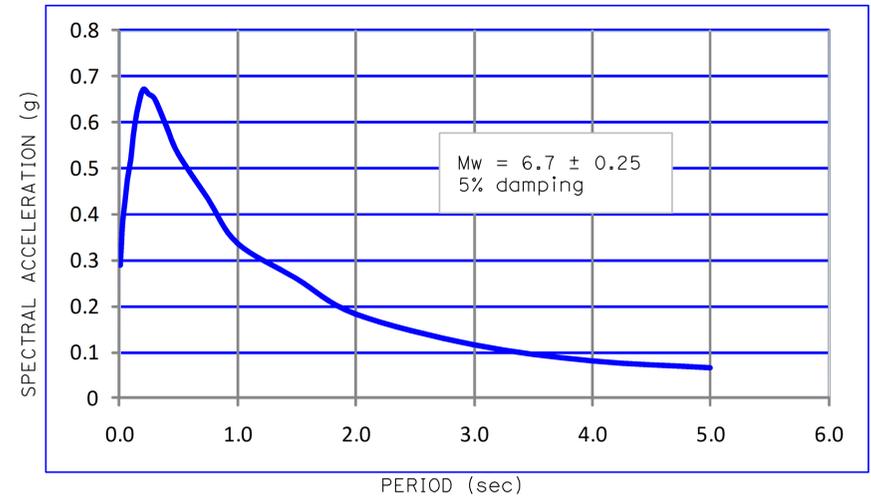
LIVE LOADING:  
HL93 and permit design load.

SEISMIC LOADING:  
Soil profile type D  
Magnitude group 6.7 ± 0.25  
Peak Rock Acceleration 0.29 g  
See ARS curve below  
V<sub>50</sub> = 920 ft/sec

REINFORCED CONCRETE:  
f<sub>y</sub> = 60 ksi  
f'c = 3.6 ksi  
n = 8

**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
- RSP B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- B7-1 BOX GIRDER DETAILS
- B7-10 UTILITY OPENING BOX GIRDER
- B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
- B11-52 CHAIN LINK RAILING TYPE 7
- B11-54 CONCRETE BARRIER TYPE 26
- ES-6B ELECTRICAL SYSTEMS (LIGHTING STANDARD TYPES 15 AND 21 BARRIER RAIL MOUNTED DETAILS)
- ES-9D ELECTRICAL SYSTEMS (ELECTRICAL DETAILS STRUCTURE INSTALLATIONS)

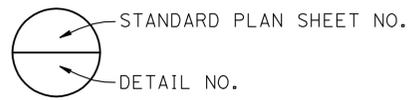


**SITE SPECIFIC ACCELERATION RESPONSE SPECTRA CURVE**

**PILE DATA TABLE**

Location	Pile Type	Nominal Resistance		Design Tip Elevations (ft)	Specified Tip Elevation (ft)	Nominal During Resistance (kips)
		Compression	Tension			
Abut 1	HP14 X 89	270 kips	0	-39.00 (a)	-39.00	270
Bent 2	HP14 X 89	250 kips	0	-40.00 (a)	-40.00	250
Abut 3	HP14 X 89	280 kips	0	-35.00 (a)	-35.00	280

- (a) Design tip elevations are controlled by compression
- (b) Design tip elevations are controlled by tension
- (c) Elevation required for lateral loads



**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD. OC**  
**INDEX TO PLAN**

DESIGN BY T. Bui	CHECKED M. Friedheim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0329
DETAILS BY C. Figuerres	CHECKED M. Friedheim			POST MILE 18.02
QUANTITIES BY T. Bui	CHECKED G. Joe			

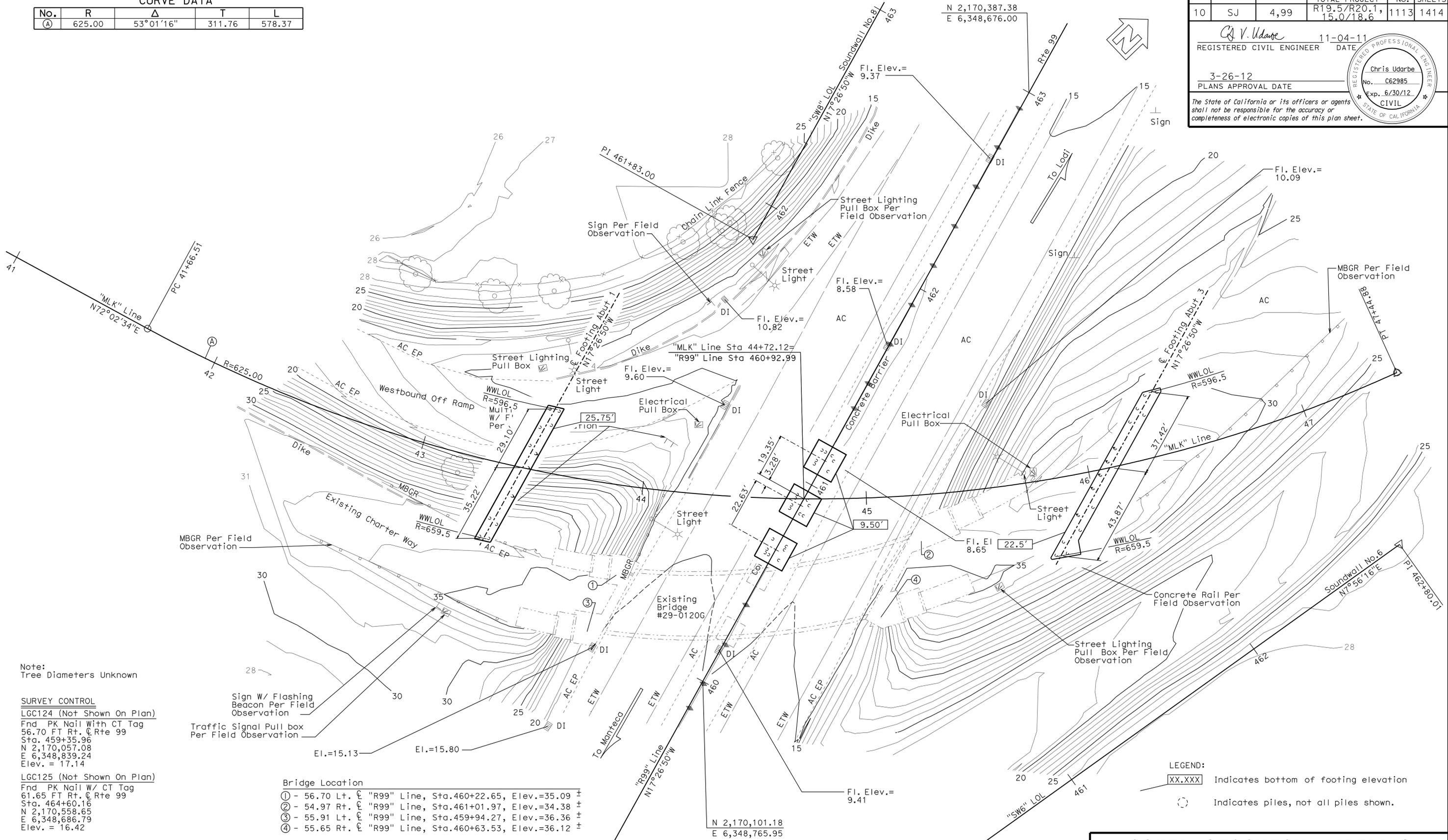
CURVE DATA				
No.	R	Δ	T	L
(A)	625.00	53°01'16"	311.76	578.37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1113	1414

Chris Udarbe  
 REGISTERED CIVIL ENGINEER  
 No. C62985  
 Exp. 6/30/12  
 CIVIL

11-04-11  
 DATE  
 3-26-12  
 PLANS APPROVAL DATE

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Note:  
Tree Diameters Unknown

**SURVEY CONTROL**  
 LGC124 (Not Shown On Plan)  
 Fnd PK Nail With CT Tag  
 56.70 FT Rt. C. Rte 99  
 Sta. 459+35.96  
 N 2,170,057.08  
 E 6,348,839.24  
 Elev. = 17.14  
 LGC125 (Not Shown On Plan)  
 Fnd PK Nail W/ CT Tag  
 61.65 FT Rt. C. Rte 99  
 Sta. 464+60.16  
 N 2,170,558.65  
 E 6,348,686.79  
 Elev. = 16.42

Sign W/ Flashing Beacon Per Field Observation  
 Traffic Signal Pull box Per Field Observation

**Bridge Location**

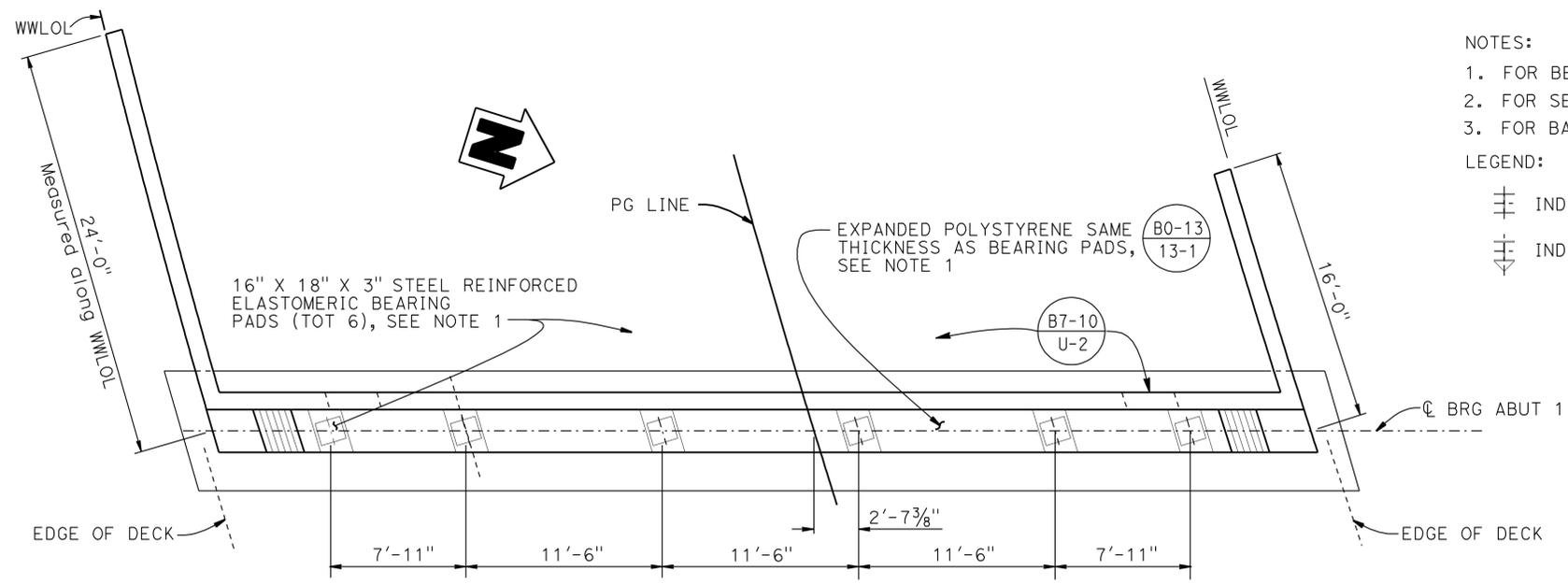
①	- 56.70 Lt. C.	"R99" Line, Sta. 460+22.65, Elev. = 35.09 ±
②	- 54.97 Rt. C.	"R99" Line, Sta. 461+01.97, Elev. = 34.38 ±
③	- 55.91 Lt. C.	"R99" Line, Sta. 459+94.27, Elev. = 36.36 ±
④	- 55.65 Rt. C.	"R99" Line, Sta. 460+63.53, Elev. = 36.12 ±

**LEGEND:**  
 [XX.XXX] Indicates bottom of footing elevation  
 (○) Indicates piles, not all piles shown.

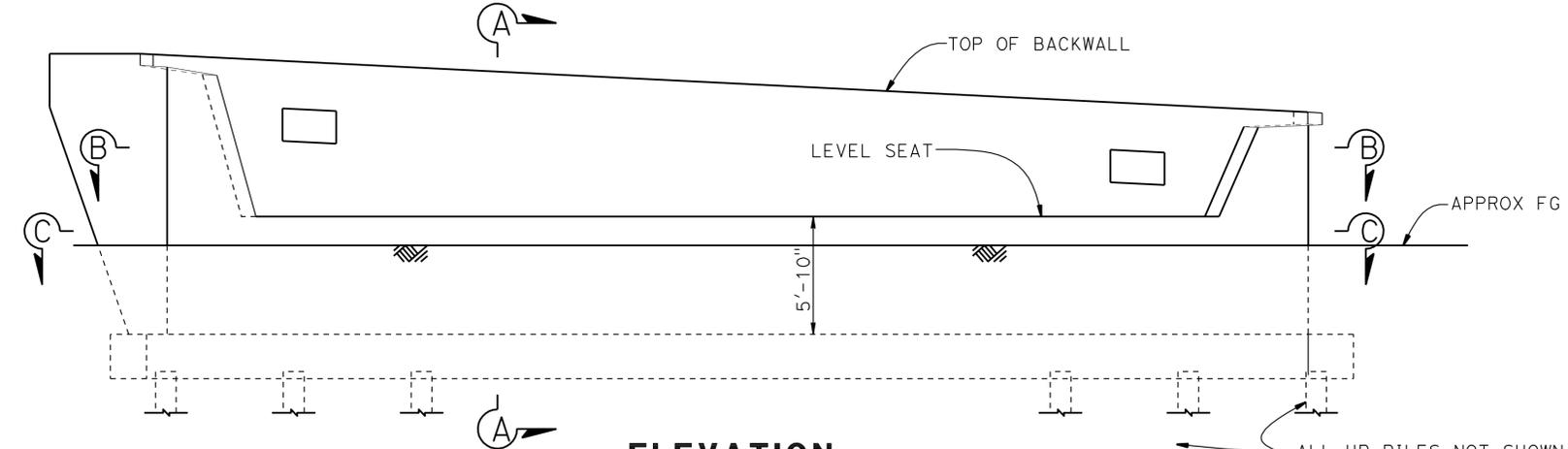
**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD. OC**  
**FOUNDATION PLAN**

<b>PRELIMINARY INVESTIGATION SECTION</b>				DESIGN BY T. Bui	CHECKED M. Friedheim	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DIVISION OF ENGINEERING SERVICES</b> <b>STRUCTURE DESIGN</b> <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0329
SCALE 1"=20'	VERT. DATUM NGVD29	PHOTOGRAMMETRY AS OF: X	DETAILS BY C. Figuerres	CHECKED M. Friedheim	POST MILE 18.02			
ALIGNMENT TIES Dist. Traverse Sheet	DRAFTED BY T. Zolnikov	CHECKED BY L. Lew	QUANTITIES BY T. Bui	CHECKED G. Joe				

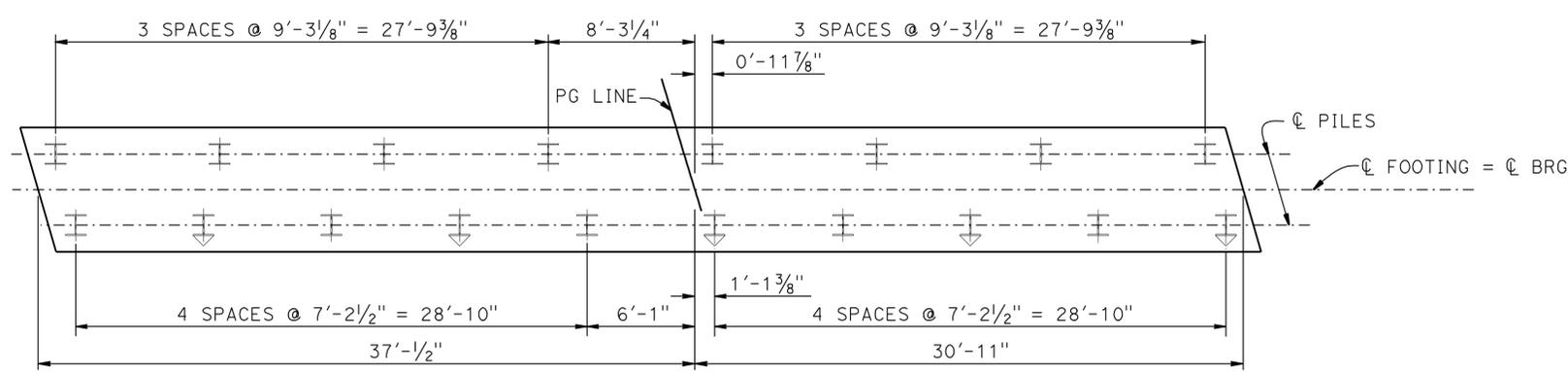
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1114	1414
REGISTERED CIVIL ENGINEER Chris Udarbe No. C62985 Exp. 6/30/12 CIVIL STATE OF CALIFORNIA			11-04-11 DATE 3-26-12 PLANS APPROVAL DATE The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.		



**PLAN**  
1" = 5'



**ELEVATION**  
1" = 5'



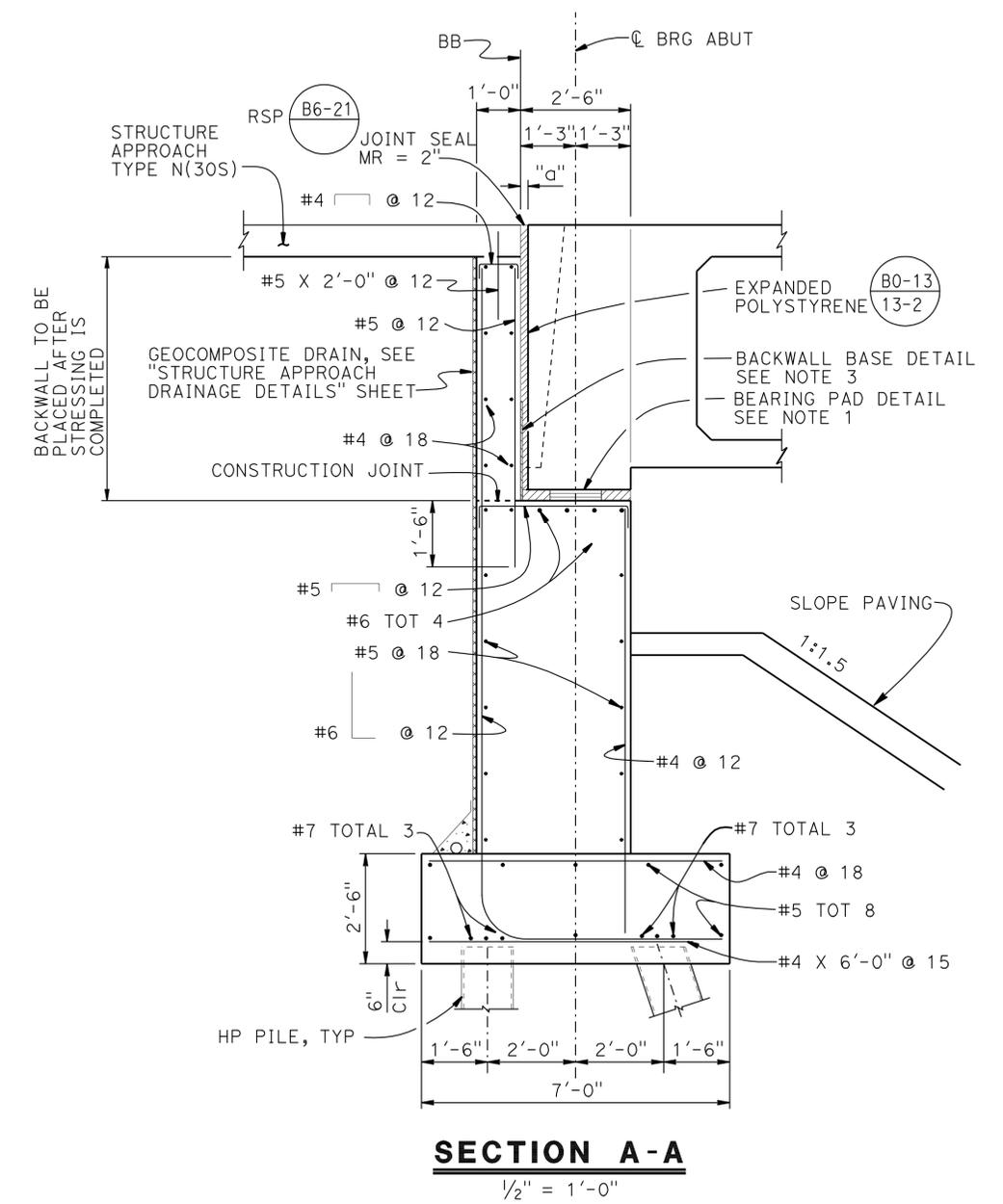
**PILE LAYOUT**  
1" = 5'

NOTES:

- FOR BEARING PAD DETAIL, SEE "ABUTMENT DETAILS NO. 3" SHEET.
- FOR SECTION B-B AND C-C, SEE "ABUTMENT DETAILS NO. 1" SHEET.
- FOR BACKWALL BASE DETAIL, SEE "ABUTMENT DETAILS NO. 2" SHEET.

LEGEND:

- ⊕ INDICATES VERTICAL PILE
- ⊕ INDICATES 1:3 BATTERED PILE



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

**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD. OC**  
**ABUTMENT 1 LAYOUT**

DESIGN	BY T. Bui	CHECKED M. Friedheim
DETAILS	BY C. Figuerres	CHECKED M. Friedheim
QUANTITIES	BY T. Bui	CHECKED G. Joe

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0329
POST MILE	18.02

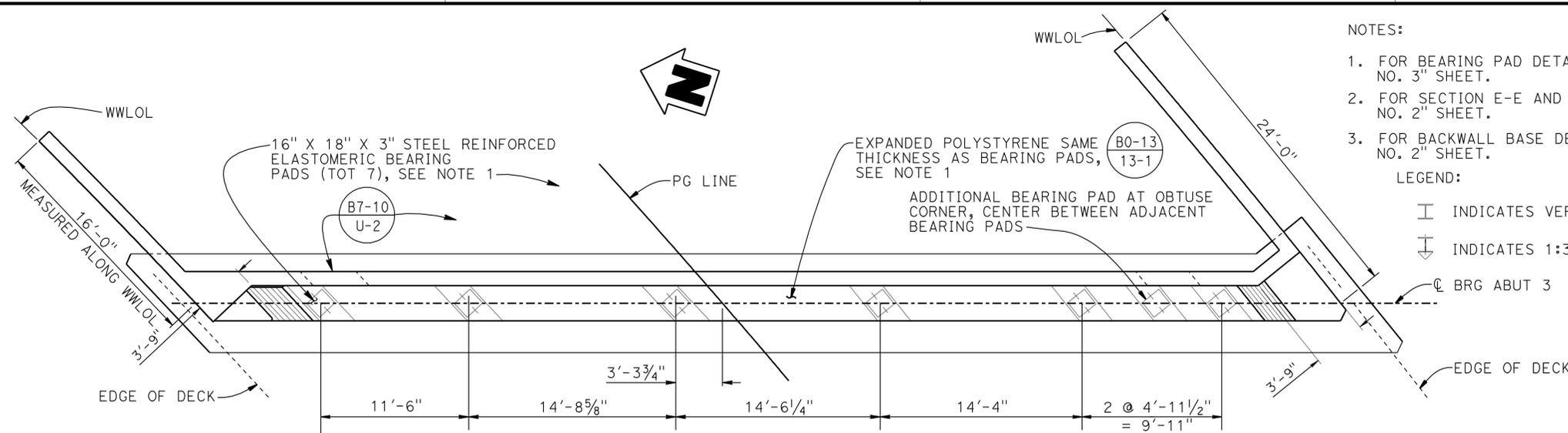
UNIT: 3586  
PROJECT NUMBER & PHASE: 10000004091

CONTRACT NO.: 10-3A1001

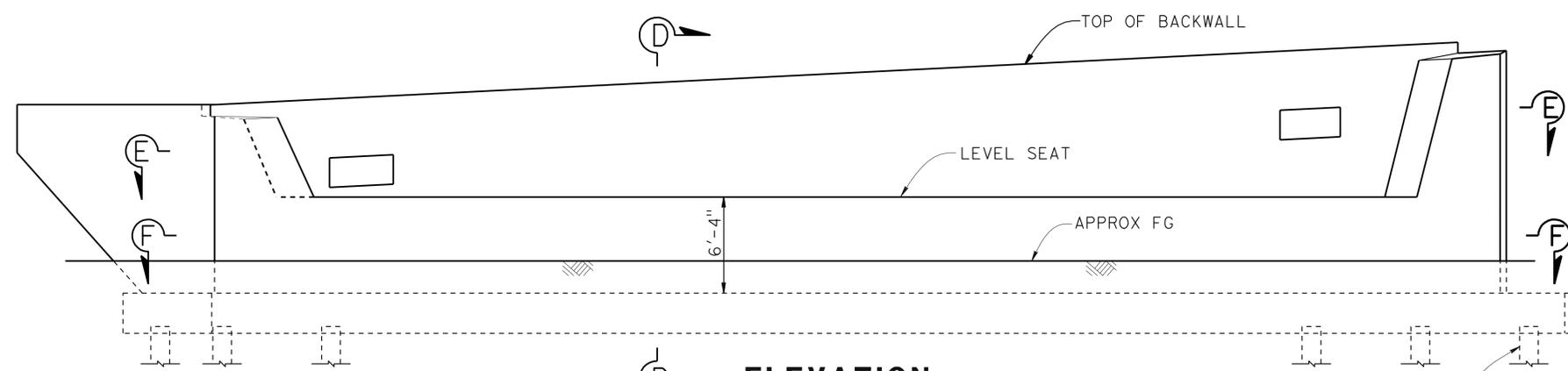
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
08-24-10	4	26

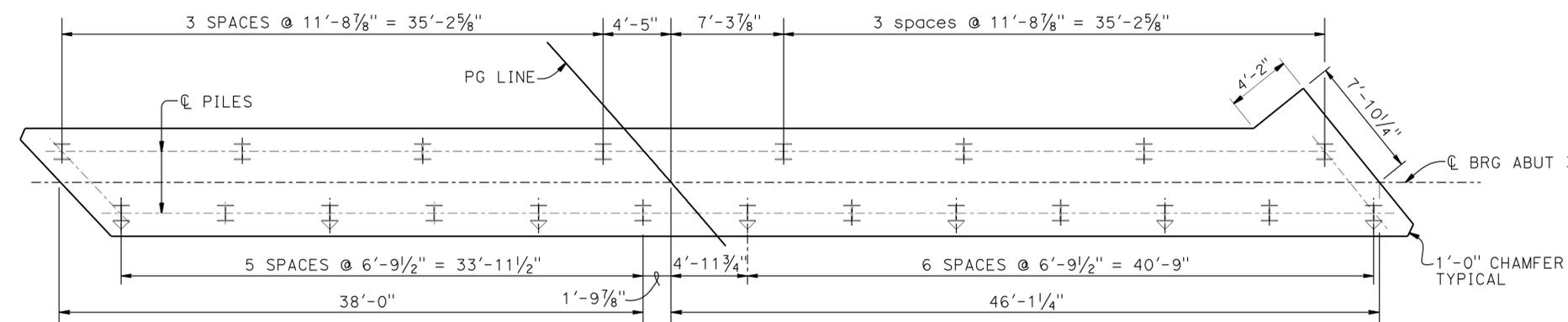
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1115	1414
11-04-11 REGISTERED CIVIL ENGINEER DATE			Chris Udarbe No. C62985 Exp. 6/30/12 CIVIL STATE OF CALIFORNIA		
3-26-12 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



**PLAN**  
1" = 5'



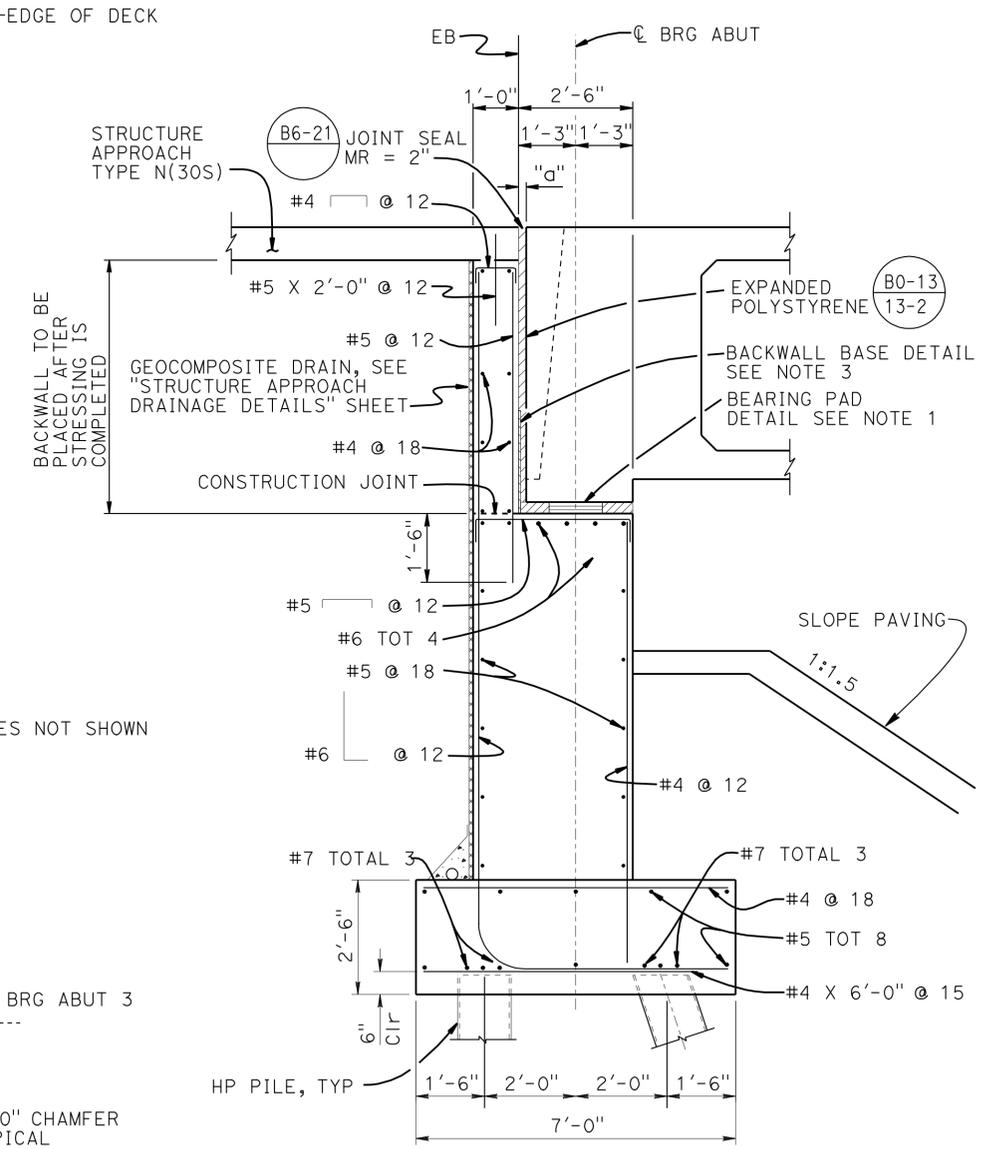
**ELEVATION**  
1" = 5'



**PILE LAYOUT**  
1" = 5'

- NOTES:
- FOR BEARING PAD DETAIL, SEE "ABUTMENT DETAILS NO. 3" SHEET.
  - FOR SECTION E-E AND F-F, SEE "ABUTMENT DETAILS NO. 2" SHEET.
  - FOR BACKWALL BASE DETAIL, SEE "ABUTMENT DETAILS NO. 2" SHEET.

- LEGEND:
- INDICATES VERTICAL PILE
  - INDICATES 1:3 BATTERED PILE



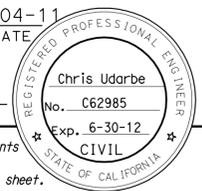
**SECTION D-D**  
1/2" = 1'-0"

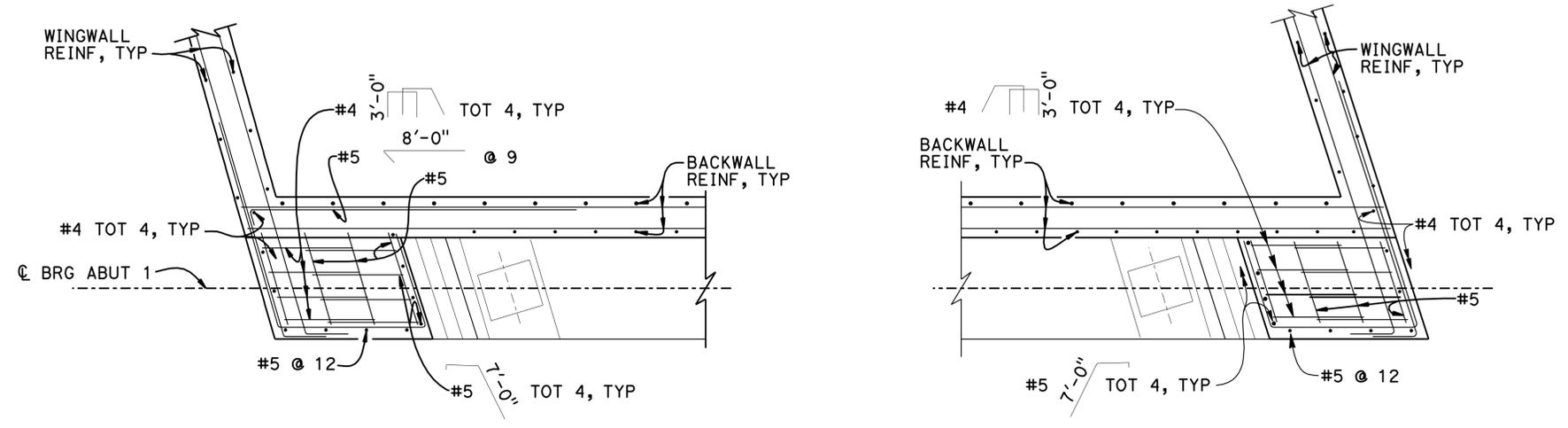
**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD. OC**  
**ABUTMENT 3 LAYOUT**

DESIGN	BY T. Bui	CHECKED M. Friedheim
DETAILS	BY C. Figuerres	CHECKED M. Friedheim
QUANTITIES	BY T. Bui	CHECKED G. Joe

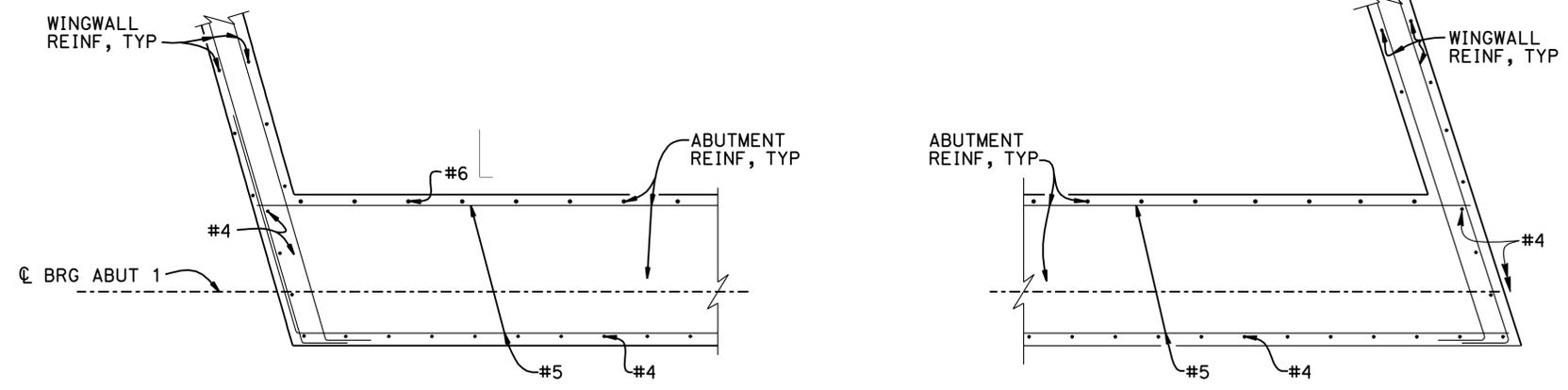
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0329
POST MILE	18.02

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1116	1414
<i>C. V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					



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



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

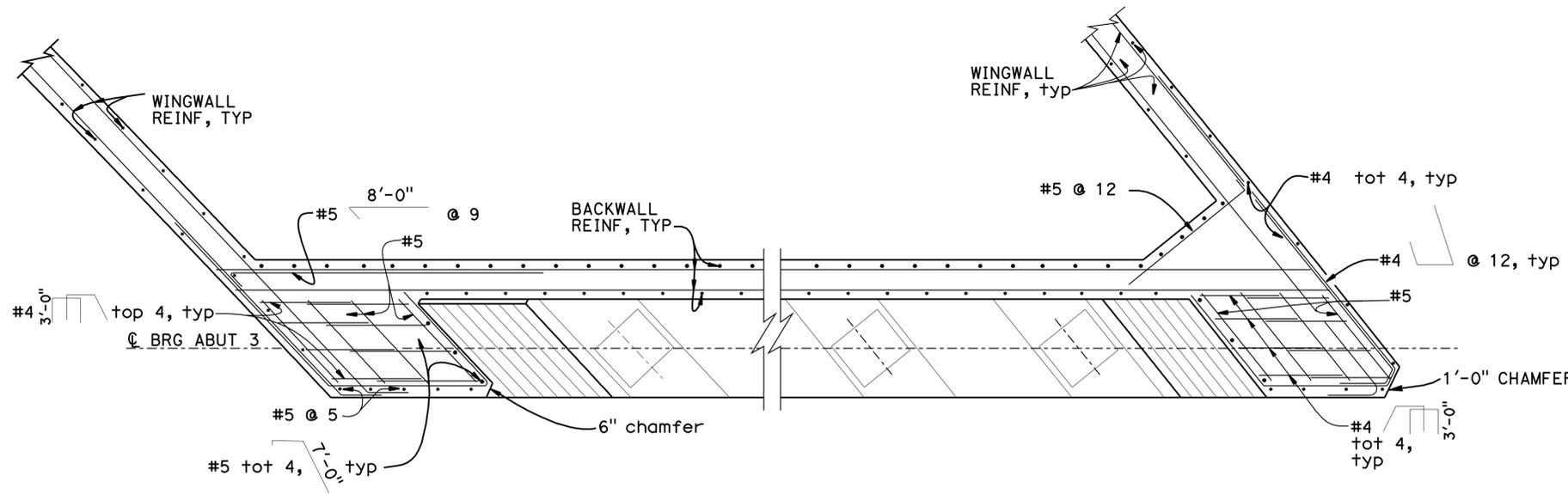
- Notes:
1. For locations of SECTIONS B-B AND C-C, see "ABUTMENT 1 LAYOUT" sheet
  2. For SHEAR KEY DETAIL, see "ABUTMENT DETAILS NO. 2" sheet

NOTE:  
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

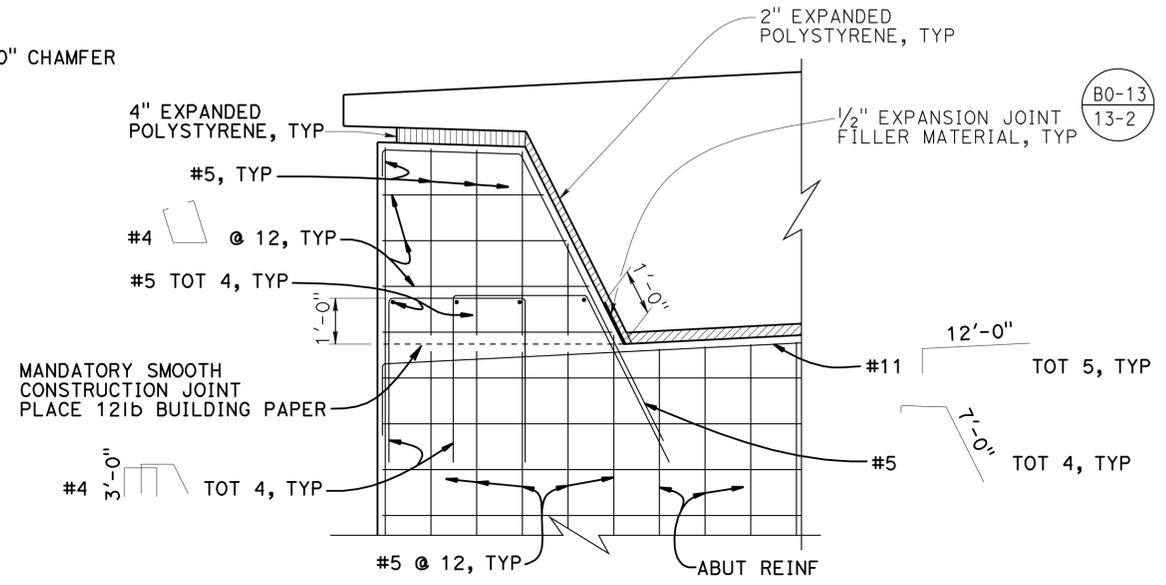
DESIGN BY T. Bui CHECKED M. Friedheim			<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0329	<b>SOUTH STOCKTON WIDENING</b> <b>DR. MARTIN LUTHER KING JR. BLVD. OC</b> <b>ABUTMENT DETAILS NO. 1</b>				
DETAILS BY C. Figuerres CHECKED C. Udarbe					POST MILE 18.02					
QUANTITIES BY T. Bui CHECKED G. Joe										
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 4-28-10, 9-28-11, 10-12-11	SHEET 6	OF 26

USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:31:12

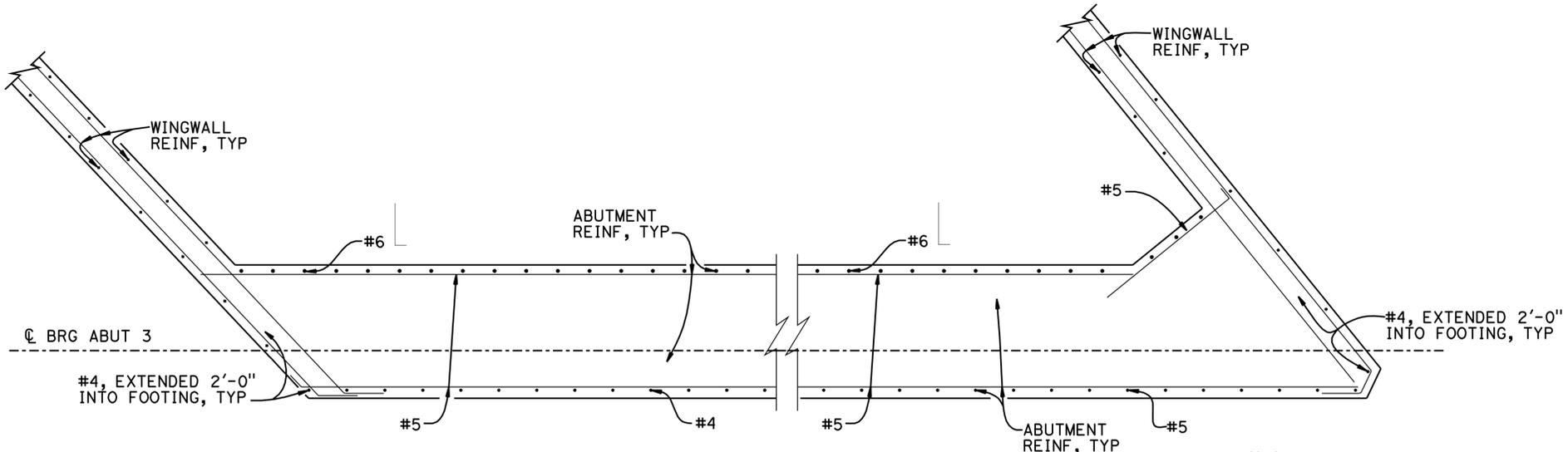
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1117	1414
C.V. Udape REGISTERED CIVIL ENGINEER DATE 11-04-11			Chris Udape No. C62985 Exp. 6/30/12 CIVIL STATE OF CALIFORNIA		
3-26-12 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



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

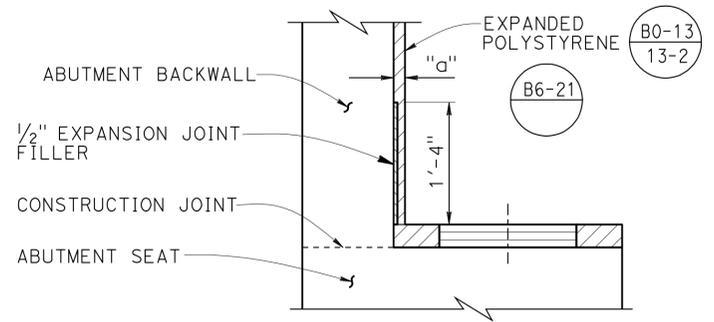


**SHEAR KEY DETAIL**  
1/2" = 1'-0"



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

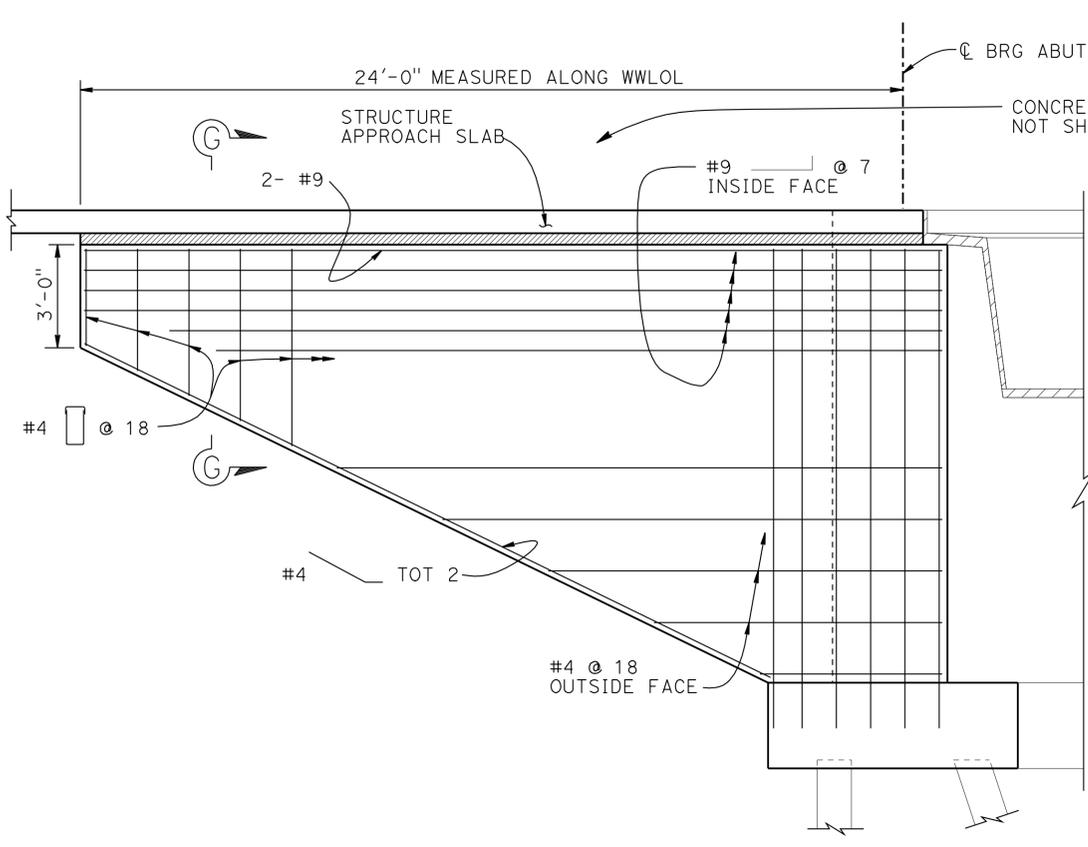
Note:  
For locations of "SECTION E-E" and "SECTION F-F", see "ABUTMENT 3 LAYOUT" sheet



**BACKWALL BASE DETAIL**  
No Scale

DESIGN BY T. Bui CHECKED M. Friedheim DETAILS BY C. Figuerres/L. Wang CHECKED M. Friedheim QUANTITIES BY T. Bui CHECKED G. Joe				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0329 POST MILE 18.02	<b>SOUTH STOCKTON WIDENING</b> <b>DR. MARTIN LUTHER KING JR. BLVD. OC</b> <b>ABUTMENT DETAILS NO. 2</b>	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 4-22-10 9-21-11 10-12-11 SHEET 7 OF 26

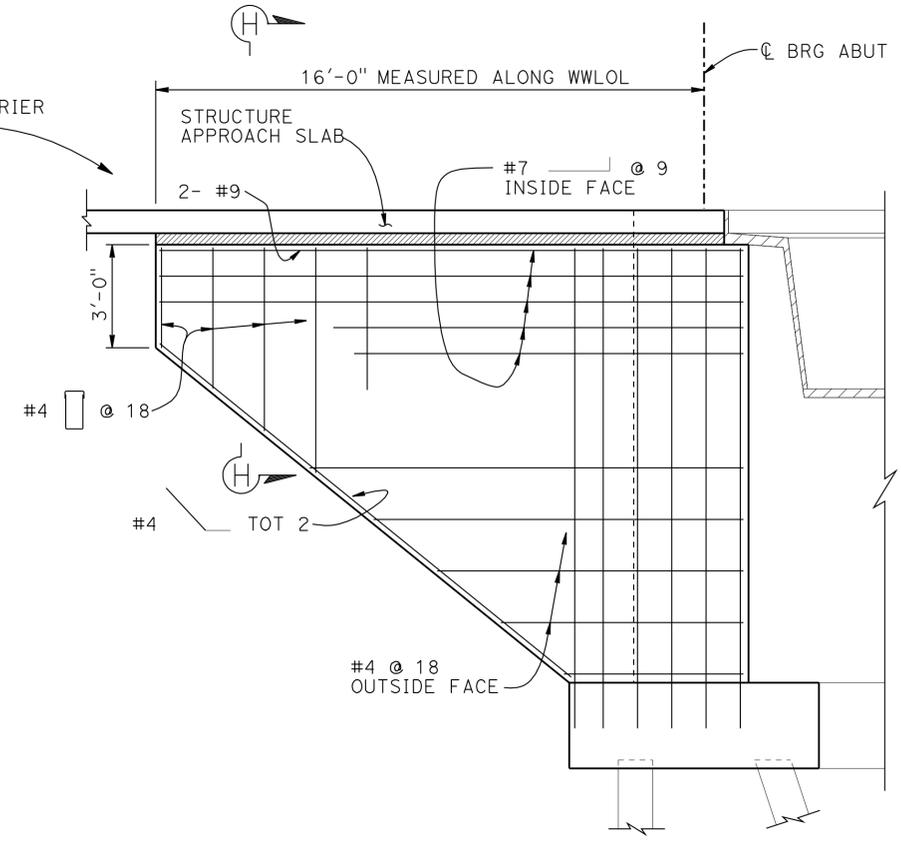
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1118	1414
C.V. Udabe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



**RIGHT WINGWALL ELEVATION**

3/8" = 1'-0"

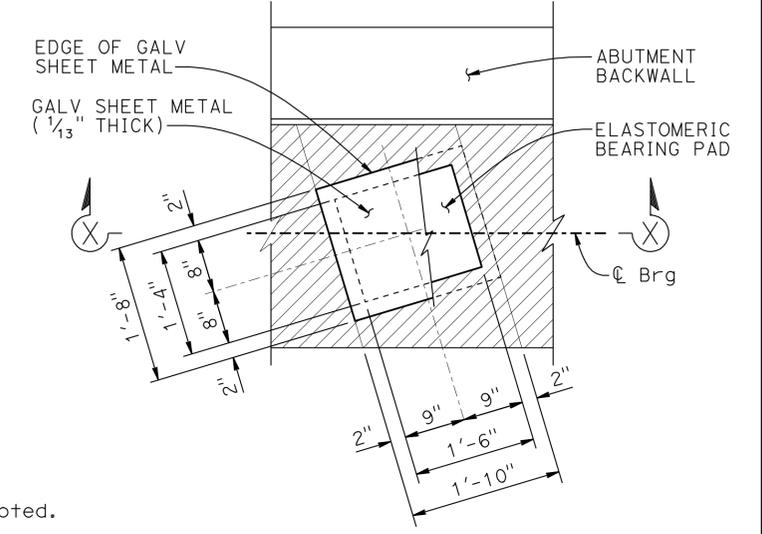
Abut 1 right wingwall shown, Abut 3 right wingwall similar except as noted.



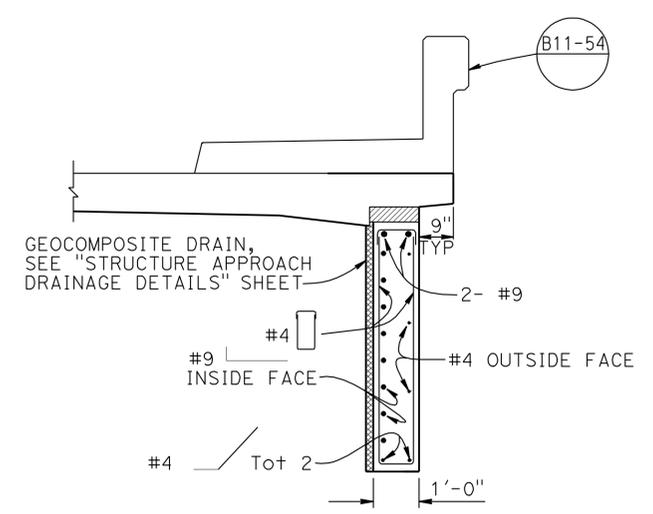
**LEFT WINGWALL ELEVATION**

3/8" = 1'-0"

Abut 1 left wingwall shown, Abut 3 left wingwall similar except as noted.

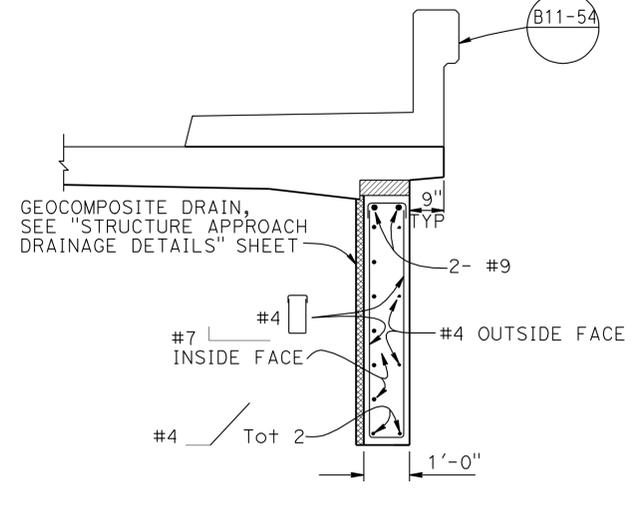


**PLAN**



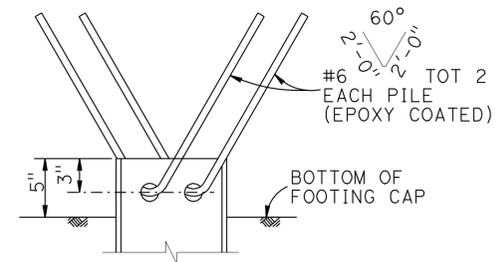
**SECTION G-G**

1/2" = 1'-0"

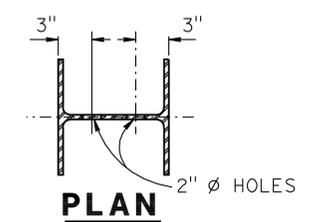


**SECTION H-H**

1/2" = 1'-0"



**ELEVATION**

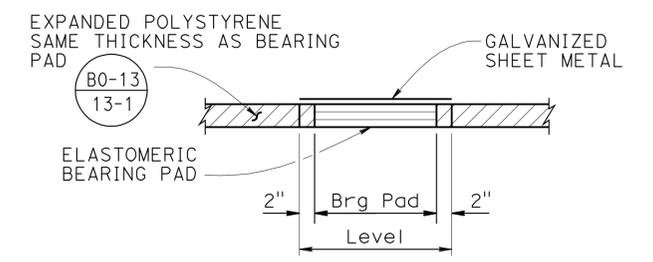


**PLAN**

**STEEL PILE ANCHOR DETAIL**

No Scale

NOTE: This detail applies to all piles for this bridge.



**SECTION X-X**

**BEARING PAD DETAIL**

No Scale

Details typical at all bearing pads

**SOUTH STOCKTON WIDENING**

**DR. MARTIN LUTHER KING JR. BLVD. OC**

**ABUTMENT DETAILS NO. 3**

DESIGN	BY T. Bui	CHECKED M. Friedheim
DETAILS	BY C. Figuerres	CHECKED M. Friedheim
QUANTITIES	BY T. Bui	CHECKED G. Joe

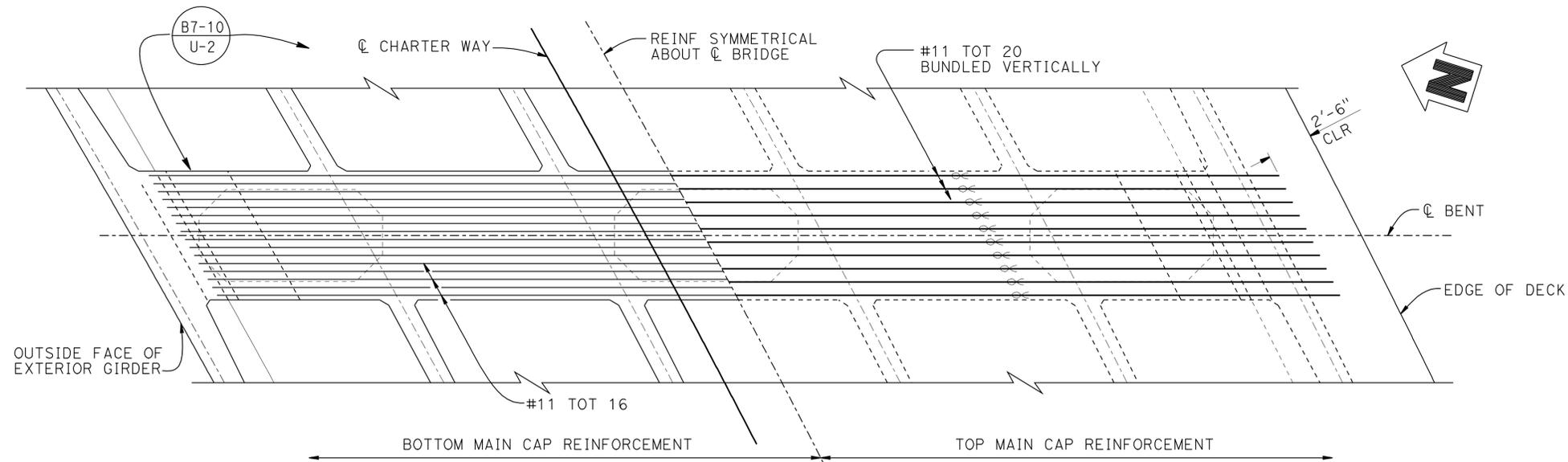
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

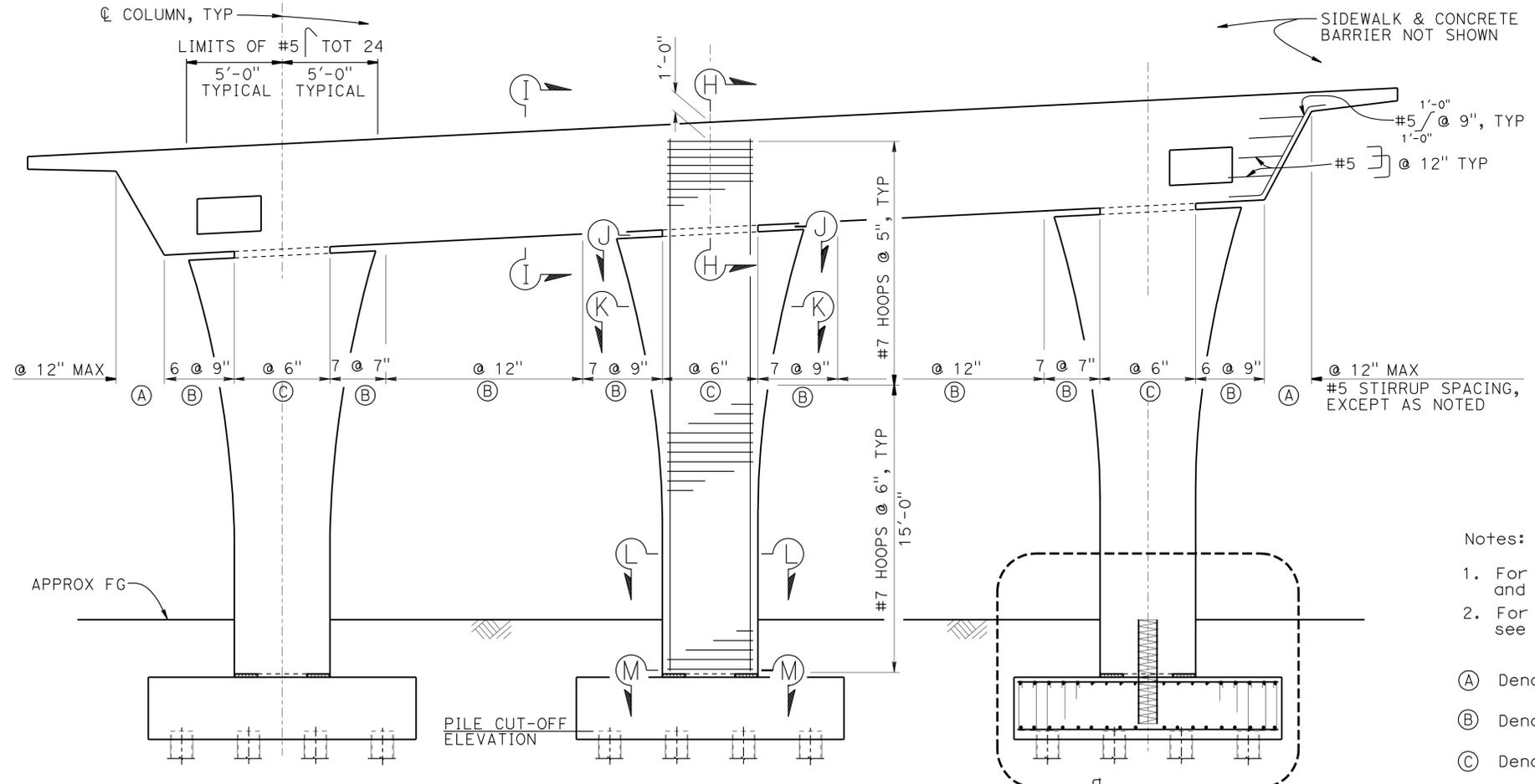
BRIDGE NO.	29-0329
POST MILE	18.02

REVISION DATES	SHEET	OF
12-98-10	8	26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1119	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					



**PLAN**  
1/4" = 1'-0"

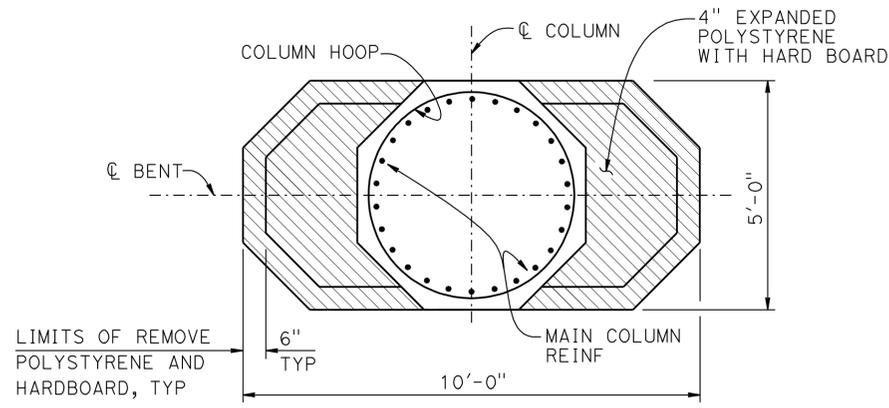


**ELEVATION**  
1/4" = 1'-0"

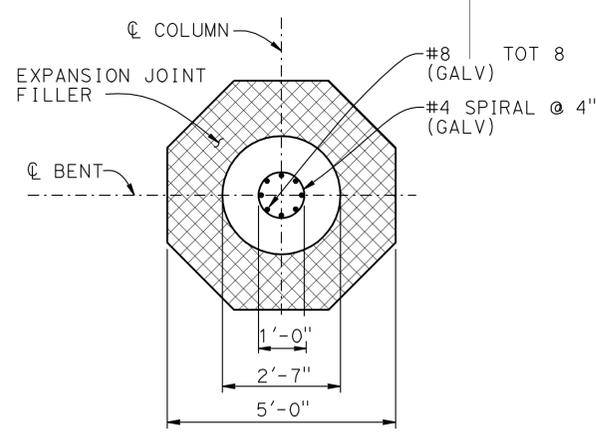
- Notes:
- For Section J-J, Section K-K, Section M-M and Section L-L, see "Bent Details No. 1" sheet.
  - For Section H-H, Section I-I, and footing details, see "Bent Details No. 2" sheet.
- (A) Denotes stirrup type varies
- (B) Denotes stirrup type varies
- (C) Denotes stirrup type varies

DESIGN BY T. Bui CHECKED M. Friedheim				<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	<b>SOUTH STOCKTON WIDENING</b> <b>DR. MARTIN LUTHER KING JR. BLVD. OC</b> <b>BENT LAYOUT</b>	
DETAILS BY C. Figuerres CHECKED M. Friedheim						29-0329		
QUANTITIES BY T. Bui CHECKED G. Joe						POST MILE 18.02		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 4-30-10 10-12-11 3-27-11	SHEET 9 OF 26

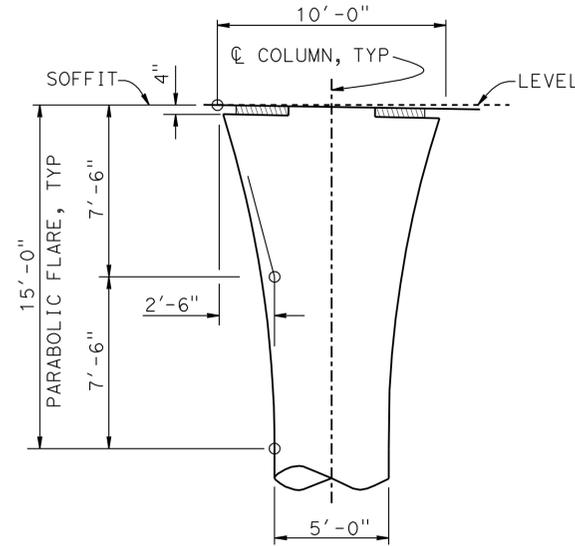
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1120	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
			REGISTERED PROFESSIONAL ENGINEER No. C62985 Exp. 6/30/12 CIVIL STATE OF CALIFORNIA		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



**SECTION J-J**  
1/2" = 1'-0"

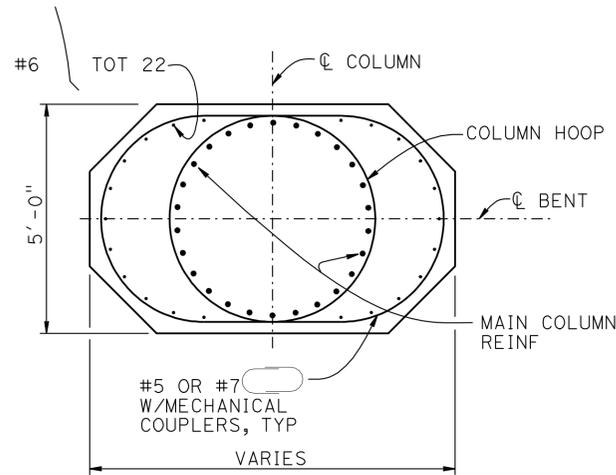


**SECTION M-M**  
1/2" = 1'-0"

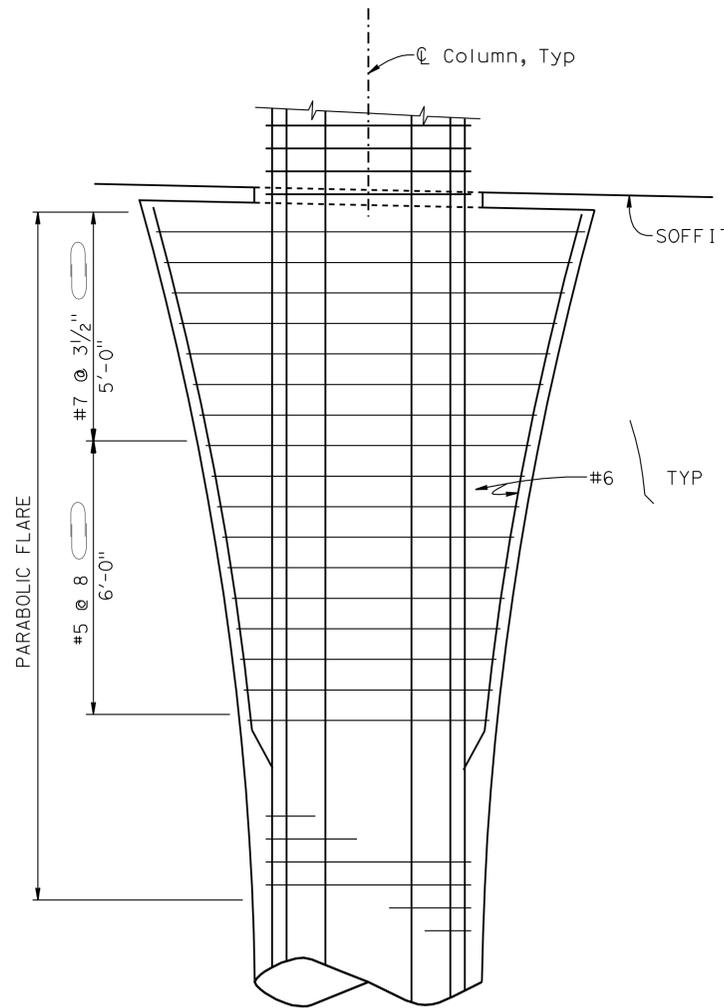


**FLARE GEOMETRY**  
1/4" = 1'-0"

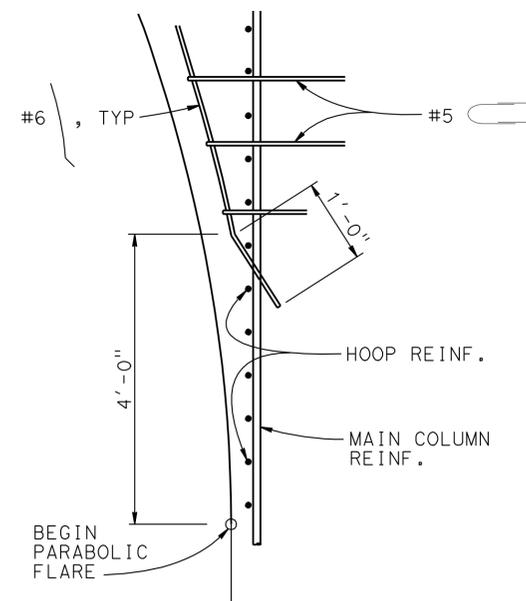
Notes:  
For locations of Sections J-J, K-K, L-L and M-M, see "Bent Layout" sheet



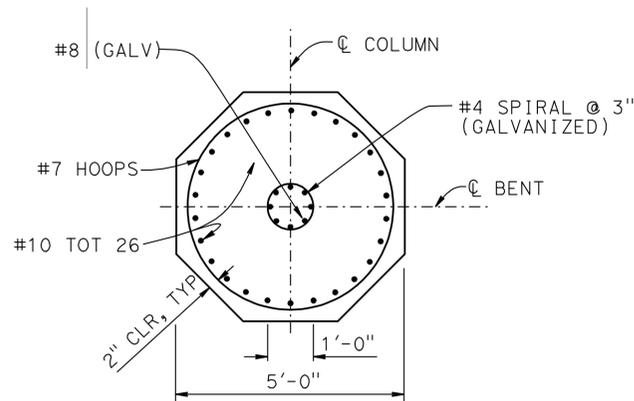
**SECTION K-K**  
1/2" = 1'-0"



**FLARE ELEVATION**  
1/2" = 1'-0"



**TIE DETAIL**  
NO SCALE



**SECTION L-L**  
1/2" = 1'-0"

DESIGN	BY T. Bui	CHECKED M. Friedheim
DETAILS	BY C. Figuerres	CHECKED M. Friedheim
QUANTITIES	BY T. Bui	CHECKED G. Joe

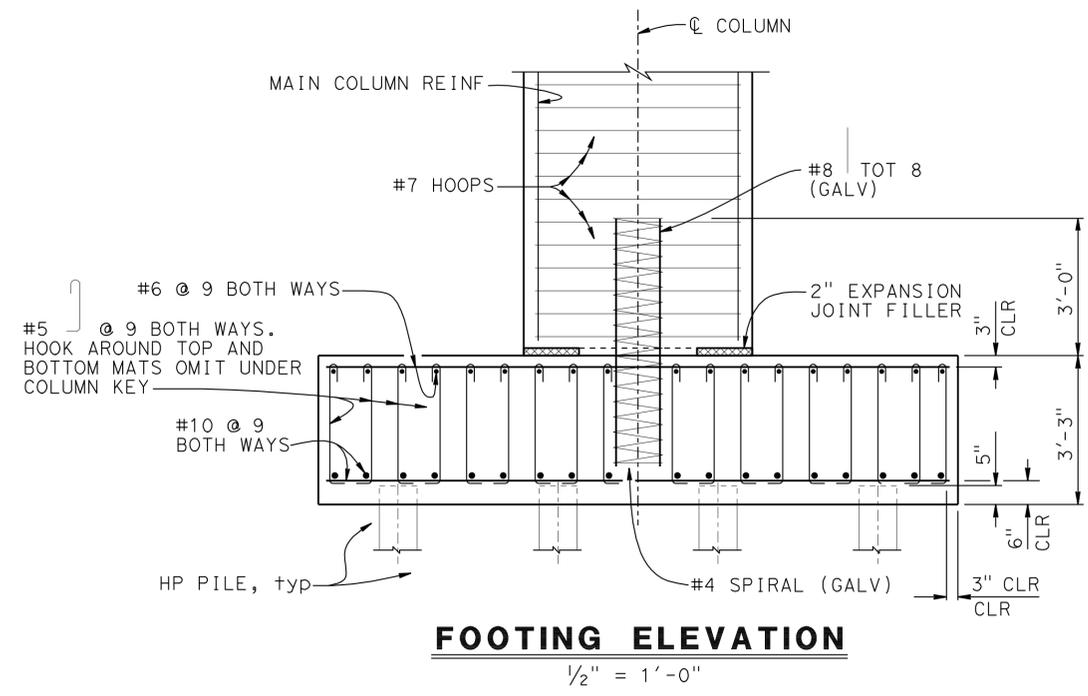
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

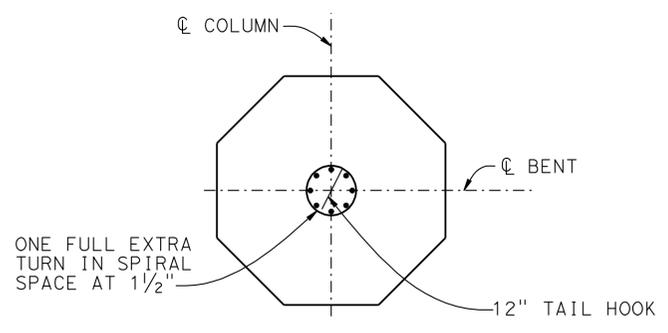
BRIDGE NO.	29-0329
POST MILE	18.02

**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD. OC**  
**BENT DETAILS NO. 1**

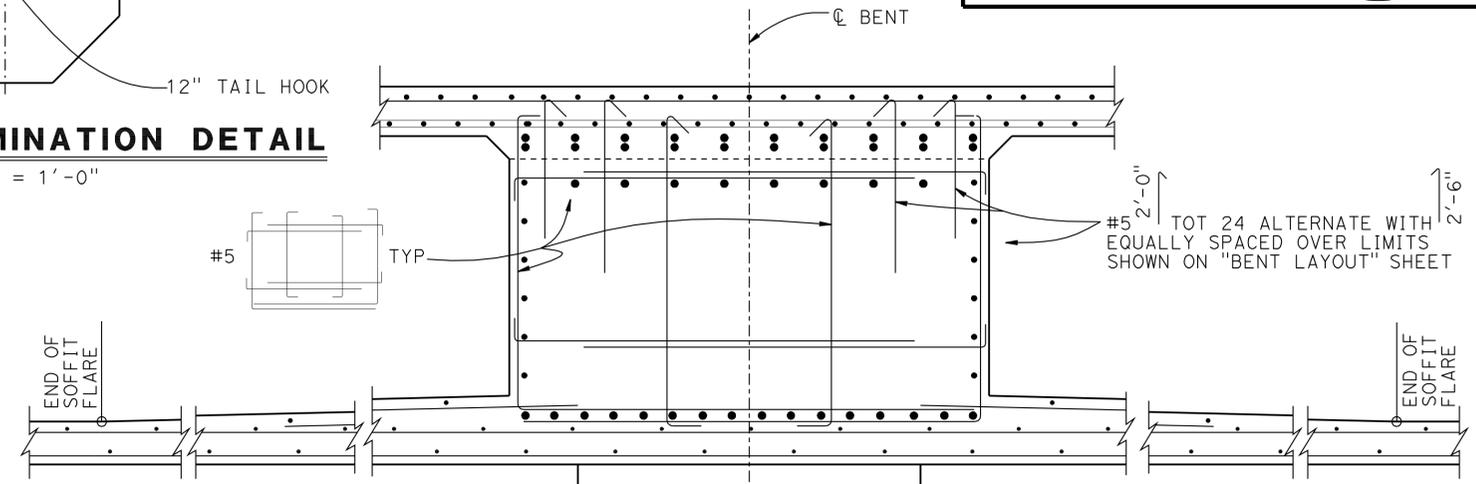
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1121	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
Chris Udarbe			REGISTERED PROFESSIONAL ENGINEER		
No. C62985			Exp. 6/30/12		
CIVIL			STATE OF CALIFORNIA		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



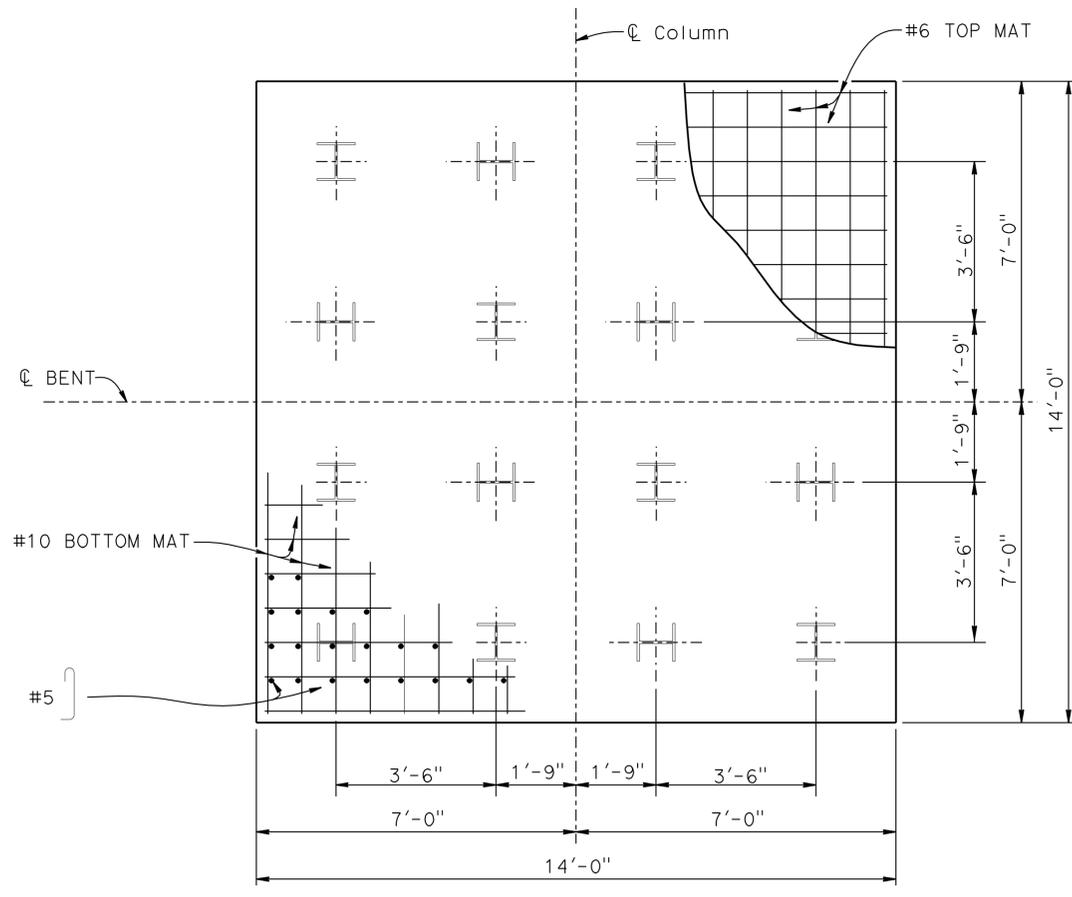
**FOOTING ELEVATION**  
1/2" = 1'-0"



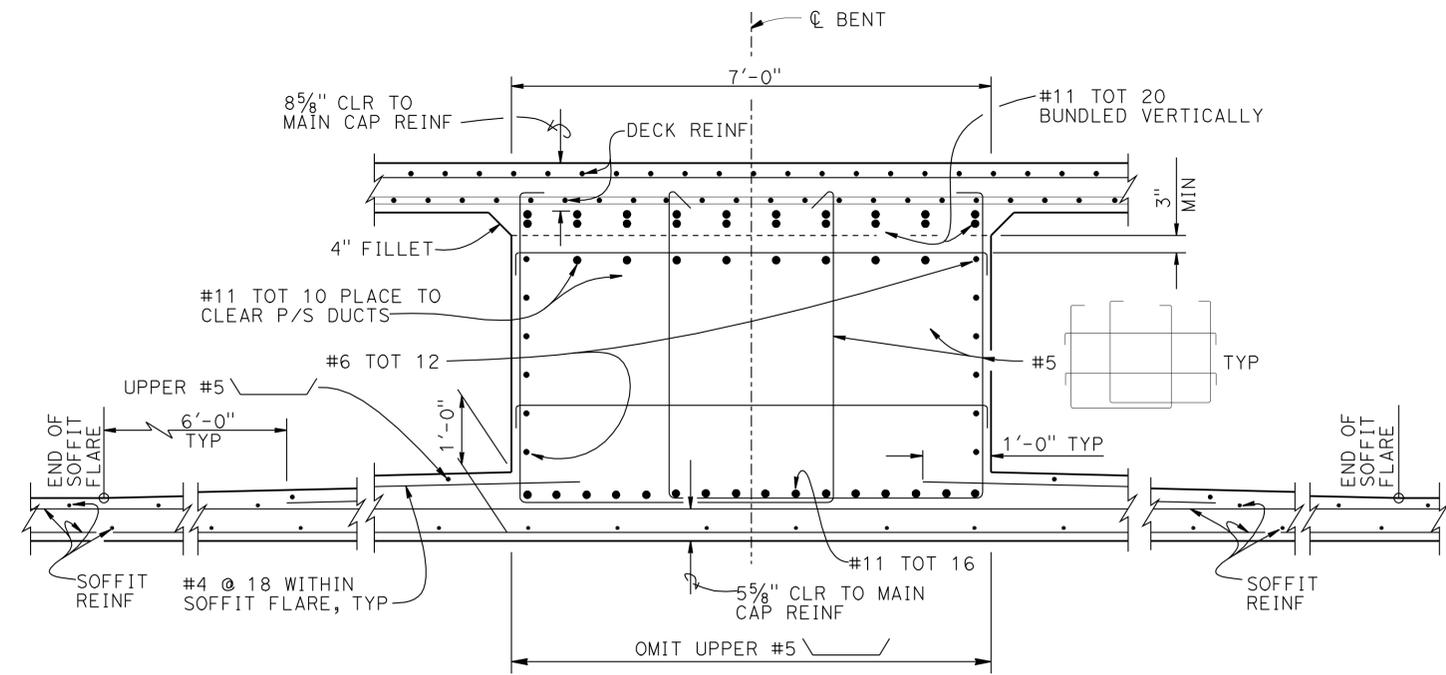
**SPIRAL TERMINATION DETAIL**  
1/2" = 1'-0"



**SECTION H-H**  
3/4" = 1'-0"



**FOOTING PLAN**  
1/2" = 1'-0"

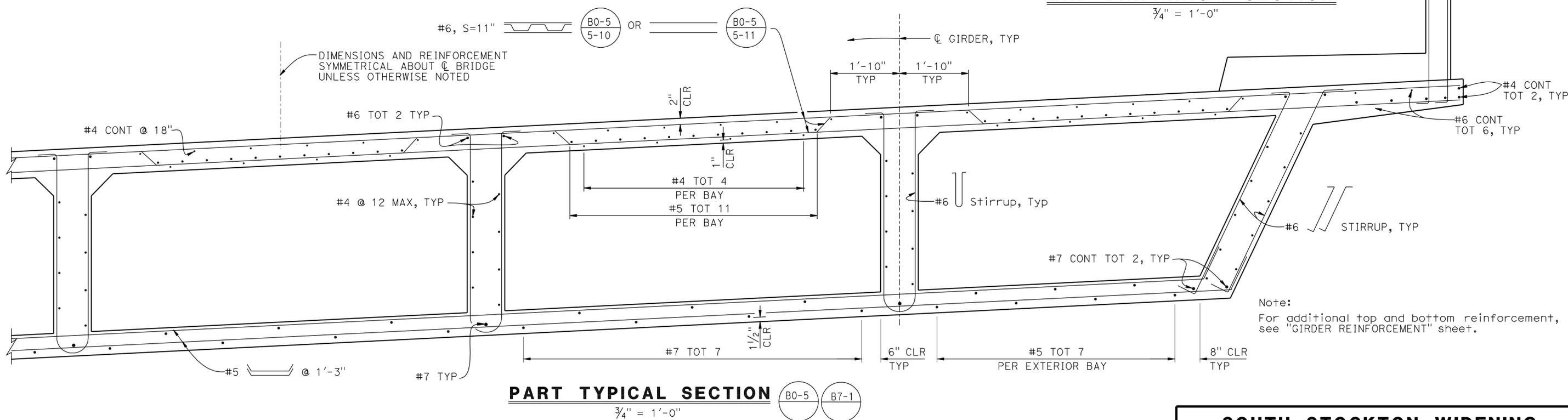
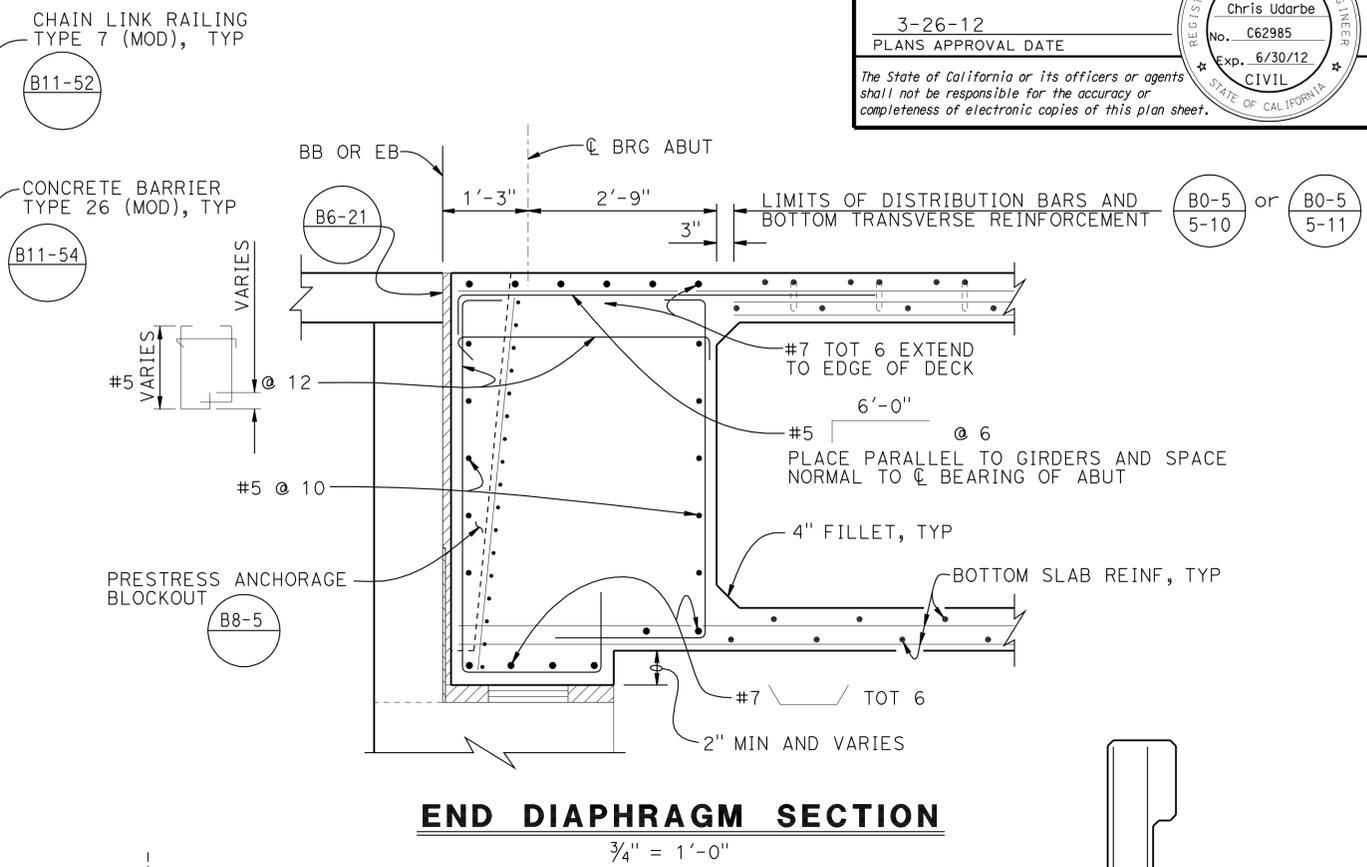
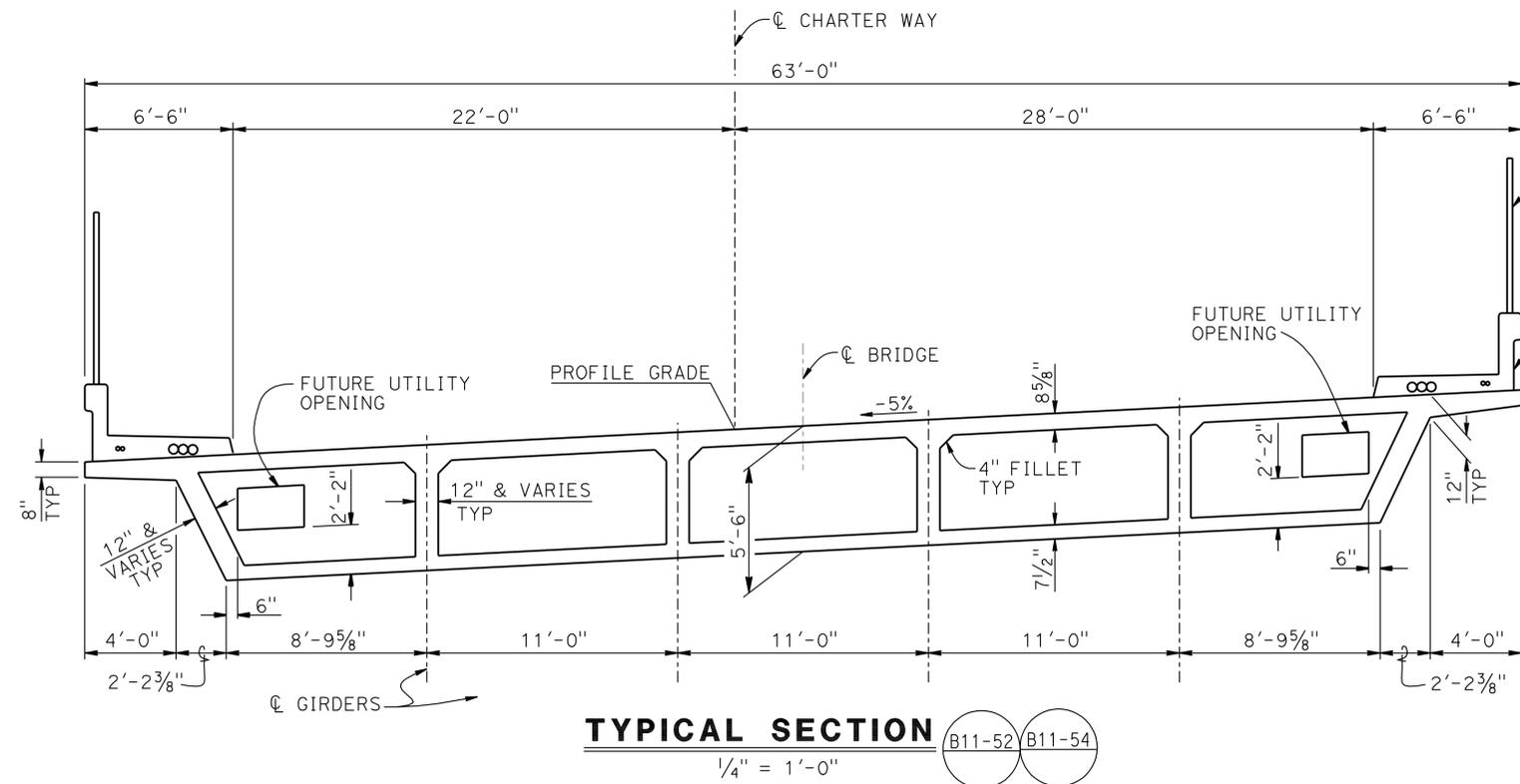


**SECTION I-I**  
3/4" = 1'-0"

<b>SOUTH STOCKTON WIDENING</b>	
<b>DR. MARTIN LUTHER KING JR. BLVD. OC</b>	
<b>BENT DETAILS NO. 2</b>	

DESIGN	BY T. Bui	CHECKED M. Friedheim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0329
DETAILS	BY C. Figuerres	CHECKED M. Friedheim			POST MILE	18.02
QUANTITIES	BY T. Bui	CHECKED G. Joe				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1122	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
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Note:  
 For additional top and bottom reinforcement, see "GIRDER REINFORCEMENT" sheet.

<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION				DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0329 POST MILE 18.02		<b>SOUTH STOCKTON WIDENING</b> <b>DR. MARTIN LUTHER KING JR. BLVD. OC</b> <b>TYPICAL SECTION</b>	
DESIGN	BY T. Bui	CHECKED M. Friedheim							
DETAILS	BY C. Figuerres	CHECKED M. Friedheim							
QUANTITIES	BY T. Bui	CHECKED G. Joe							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	
						DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 3-24-10 10-12-11 2-14-12	
								SHEET 12 OF 26	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1123	1414

REGISTERED CIVIL ENGINEER	DATE
Chris Udarbe	11-04-11
No. C62985	Exp. 6/30/12
PLANS APPROVAL DATE	
3-26-12	

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**PRESTRESSING NOTES**

270 KSI Low Relaxation Strand:

$P_{jack} = 16,750$  kips

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

Total Number of Girders = 6

$\mu = 0.15$        $K = 2 \times 10^{-4}$  /ft

Long term losses assumed to be: 25 ksi.

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

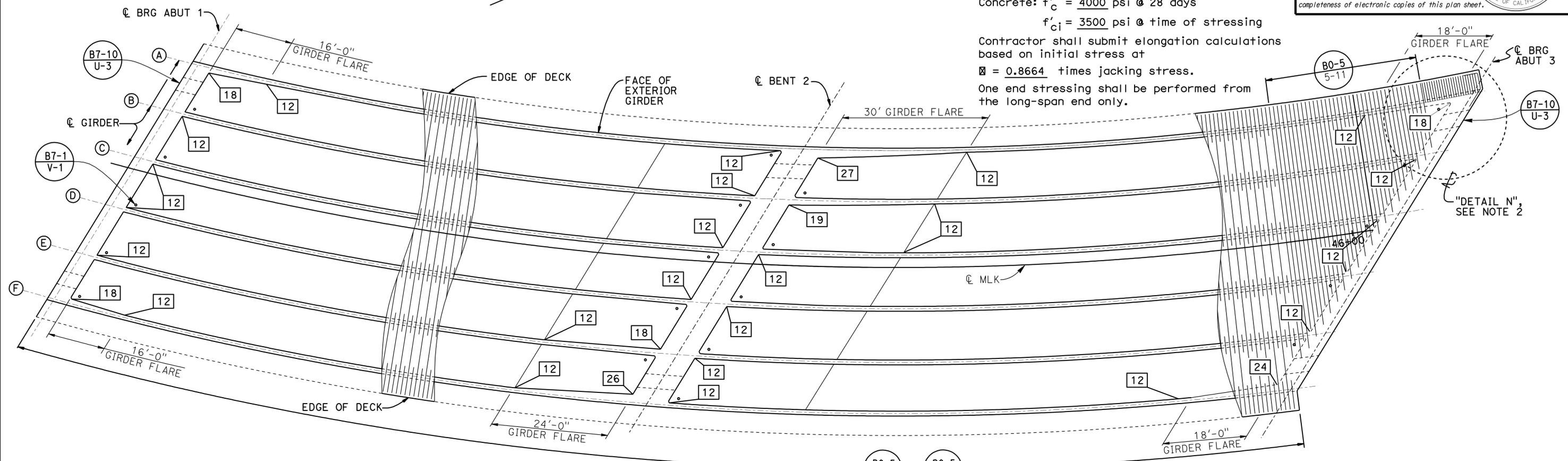
$f'_{ci} = 3500$  psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at

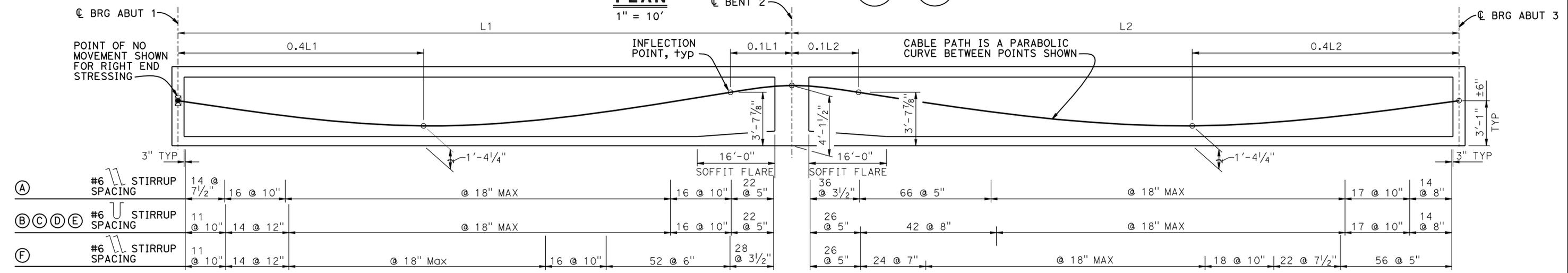
$\lambda = 0.8664$  times jacking stress.

One end stressing shall be performed from the long-span end only.

- Notes:**
- Top mat reinforcement shown, bottom mat reinforcement similar.
  - For Detail N, see "GIRDER REINFORCEMENT" sheet.
- Legend:**
- Denotes girder stem width



**PLAN**  
1" = 10'



**LONGITUDINAL SECTION**  
NO SCALE

(A)	#6 STIRRUP SPACING	14 @ 7 1/2"	16 @ 10"	@ 18" MAX	16 @ 10"	22 @ 5"	16 @ 10"	22 @ 5"	36 @ 3 1/2"	66 @ 5"	@ 18" MAX	17 @ 10"	14 @ 8"
(B)(C)(D)(E)	#6 STIRRUP SPACING	11 @ 10"	14 @ 12"	@ 18" MAX	16 @ 10"	22 @ 5"	16 @ 10"	22 @ 5"	26 @ 5"	42 @ 8"	@ 18" MAX	17 @ 10"	14 @ 8"
(F)	#6 STIRRUP SPACING	11 @ 10"	14 @ 12"	@ 18" Max	16 @ 10"	52 @ 6"	28 @ 3 1/2"	26 @ 5"	24 @ 7"	@ 18" MAX	18 @ 10"	22 @ 7 1/2"	56 @ 5"

**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD. OC**  
**GIRDER LAYOUT**

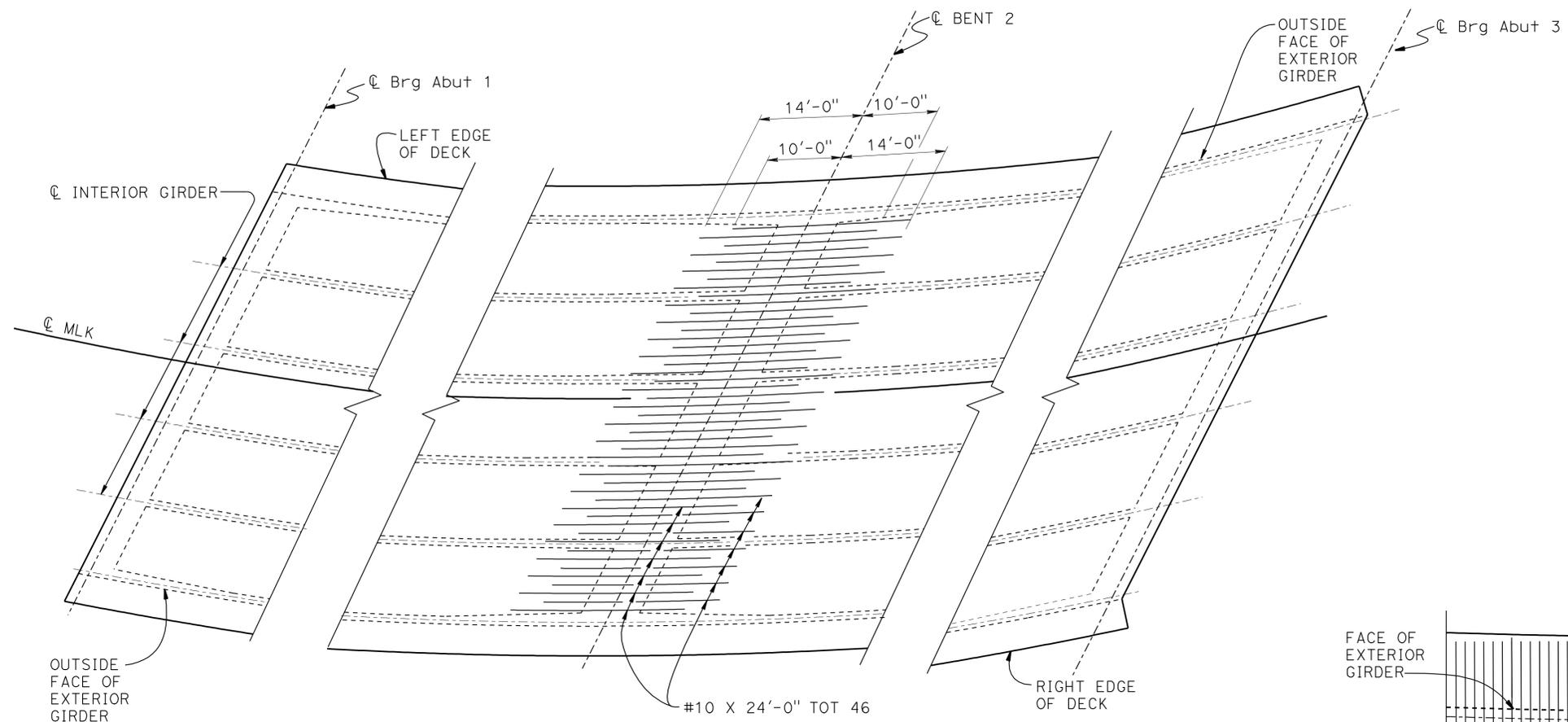
DESIGN BY T. Bui	CHECKED M. Friedheim	BRIDGE NO. 29-0329
DETAILS BY C. Figuerres	CHECKED M. Friedheim	POST MILE 18.02
QUANTITIES BY T. Bui	CHECKED G. Joe	

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

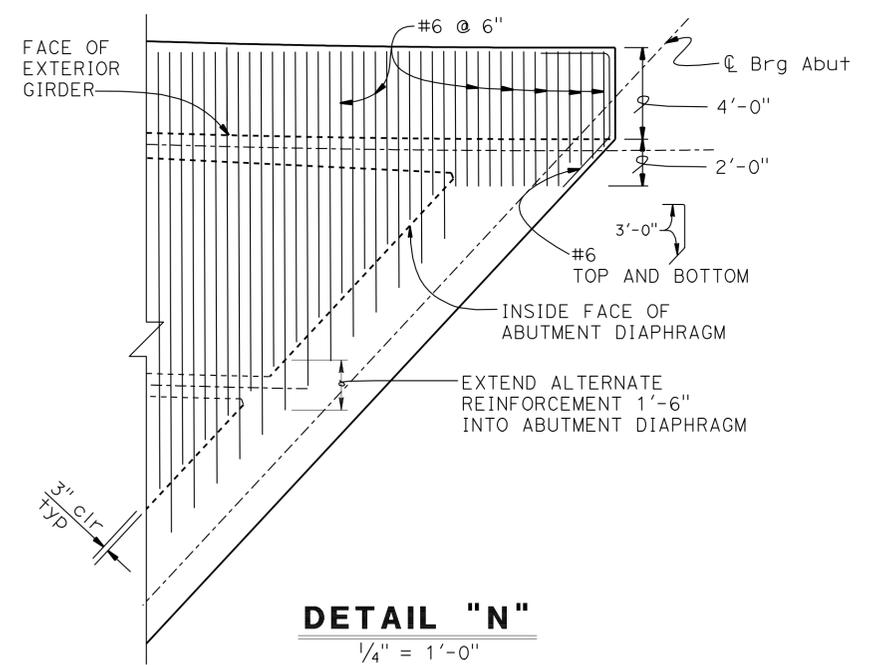
DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1124	1414
			REGISTERED CIVIL ENGINEER	DATE	
			Chris Udarbe	11-04-11	
			PLANS APPROVAL DATE		
			3-26-12		
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.					

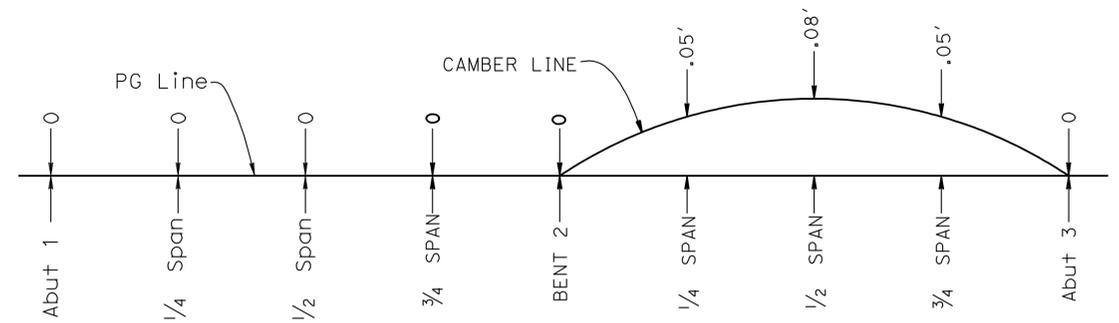


**TOP REINFORCEMENT**  
1" = 10'



**DETAIL "N"**  
1/4" = 1'-0"

Notes:  
For location of Detail "N", see "GIRDER LAYOUT" sheet



Camber values shown do not include allowance for falsework settlement

**CAMBER DIAGRAM**  
No Scale

DESIGN	BY T. Bui	CHECKED M. Friedheim
DETAILS	BY C. Figuerres/L. Wang	CHECKED M. Friedheim
QUANTITIES	BY T. Bui	CHECKED G. Joe

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

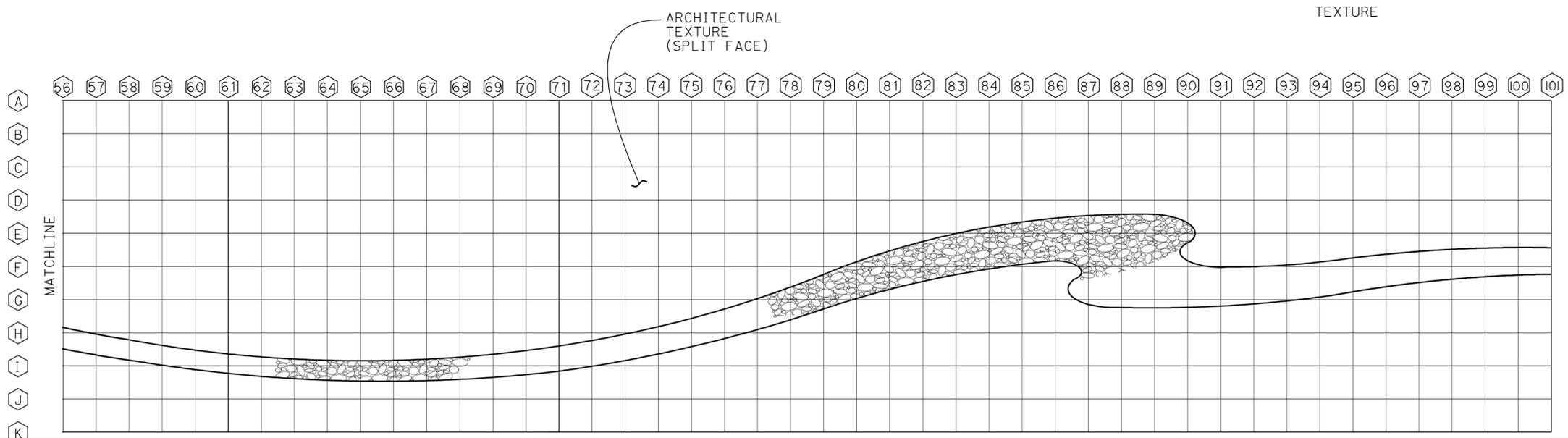
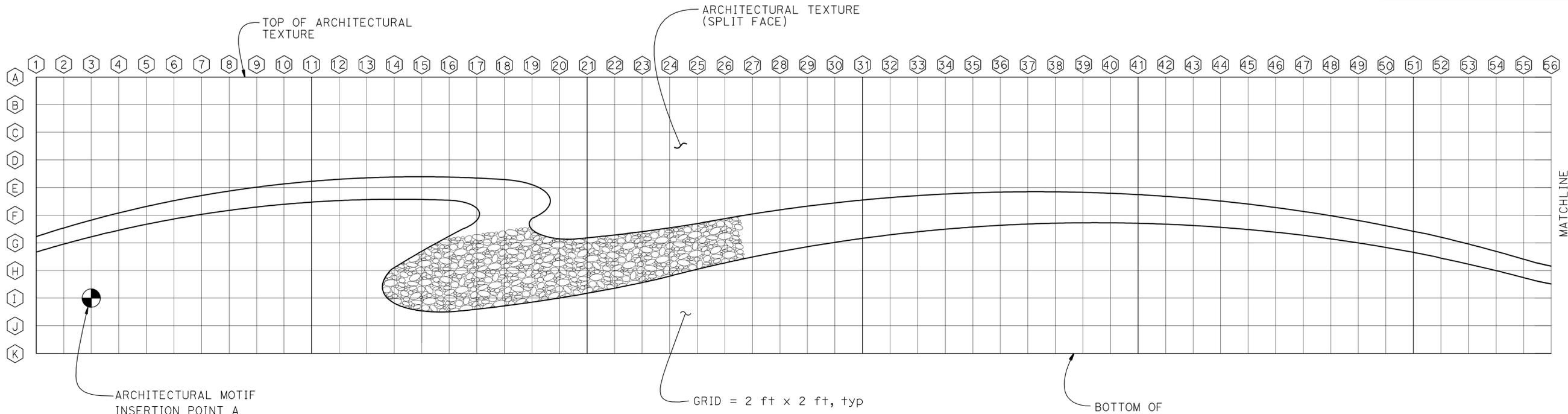
BRIDGE NO.	29-0329
POST MILE	18.02

**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD. OC**  
**GIRDER REINFORCEMENT**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1125	1414
			REGISTERED CIVIL ENGINEER	DATE	
			Chris V. Udarbe	11-04-11	
			PLANS APPROVAL DATE		
			3-26-12		
<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>					

**NOTES:**

- For the architectural insertion point, see "Slope Paving - Full Slope" sheet. Band of local river rocks to be continuous between adjacent structures.
- Rocks to be spaced at 1" to 3" apart the first and last 5'-0" of this motif. Additionally, space rocks 1" to 3" apart over a distance of 5'-0" on either side of an angle point in the wall. Elsewhere, space the rocks 1/2" to 3/4" apart. Provide gradual transitions where spacings differ.



**LEGEND**

Local River Rocks, embedded on slope paving. See "SLOPE PAINTING - FULL SLOPE" sheet.

OR

Architectural Texture (River Rock) on vertical concrete surfaces. These surfaces shall be prepared and stained.

Grid reference

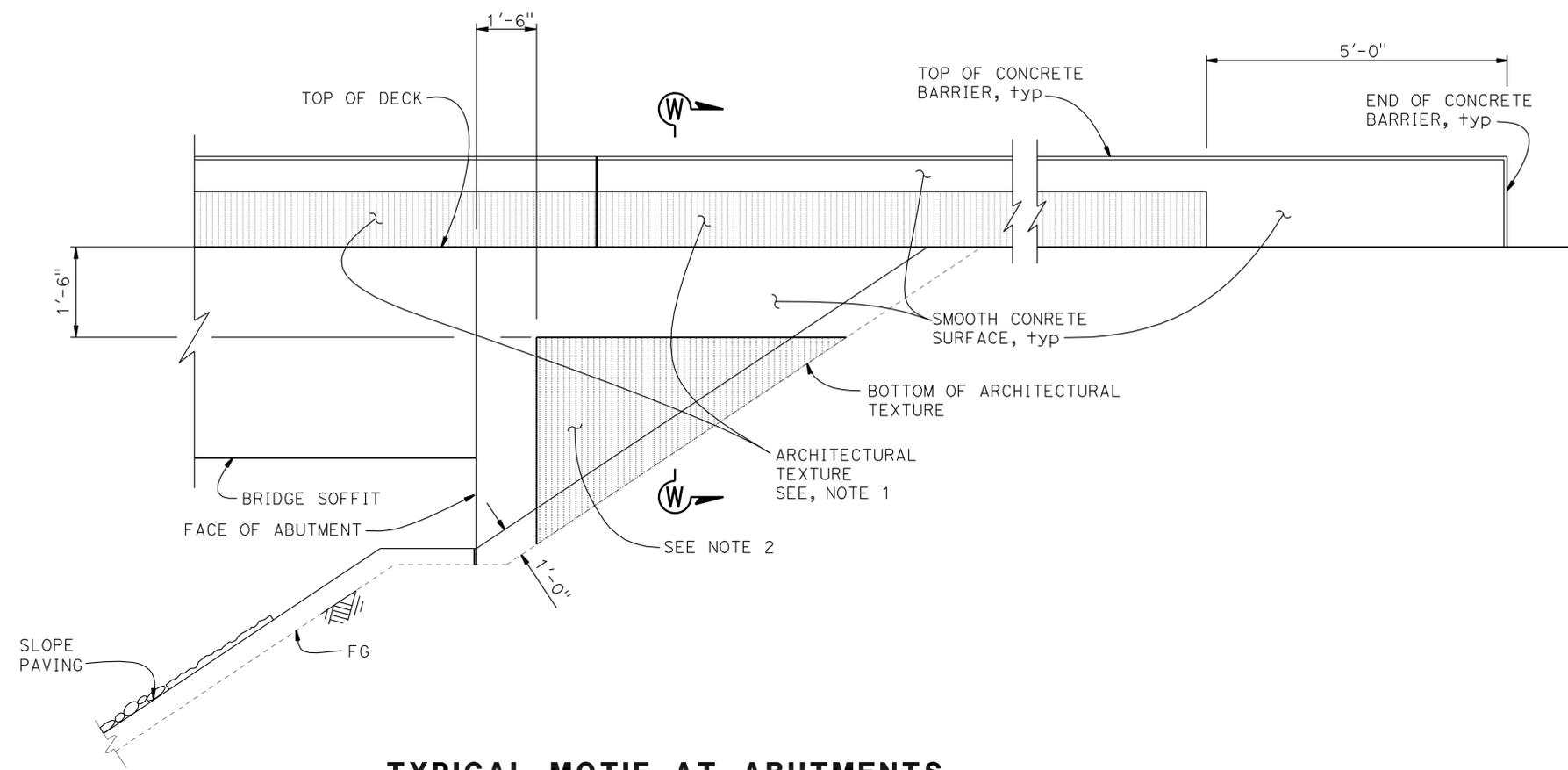
Grid reference

**ABUTMENT, RETAINING WALL AND SLOPE PAVING ARCHITECTURAL MOTIF**

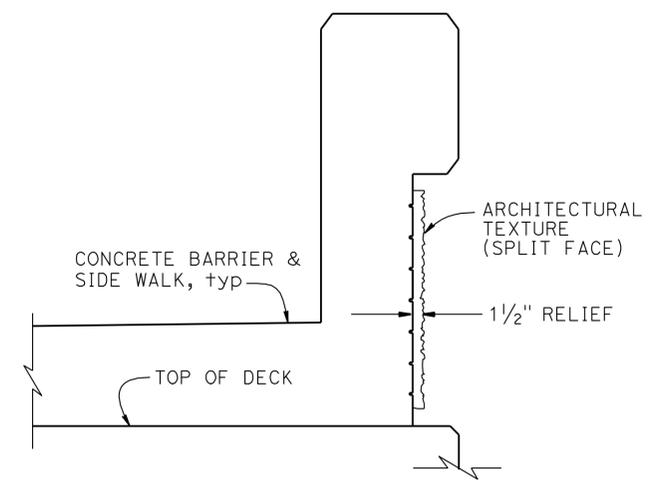
1/4" = 1'-0"

DESIGN BY C. Udarbe		CHECKED M. Friedheim	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0329	<b>SOUTH STOCKTON WIDENING</b> <b>DR. MARTIN LUTHER KING JR. BLVD. OC</b> <b>ARCHITECTURAL DETAILS NO. 1</b>			
DETAILS BY L. Wang		CHECKED M. Friedheim			POST MILE 18.02				
QUANTITIES BY C. Udarbe		CHECKED M. Friedheim							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3586	PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 15 OF 26

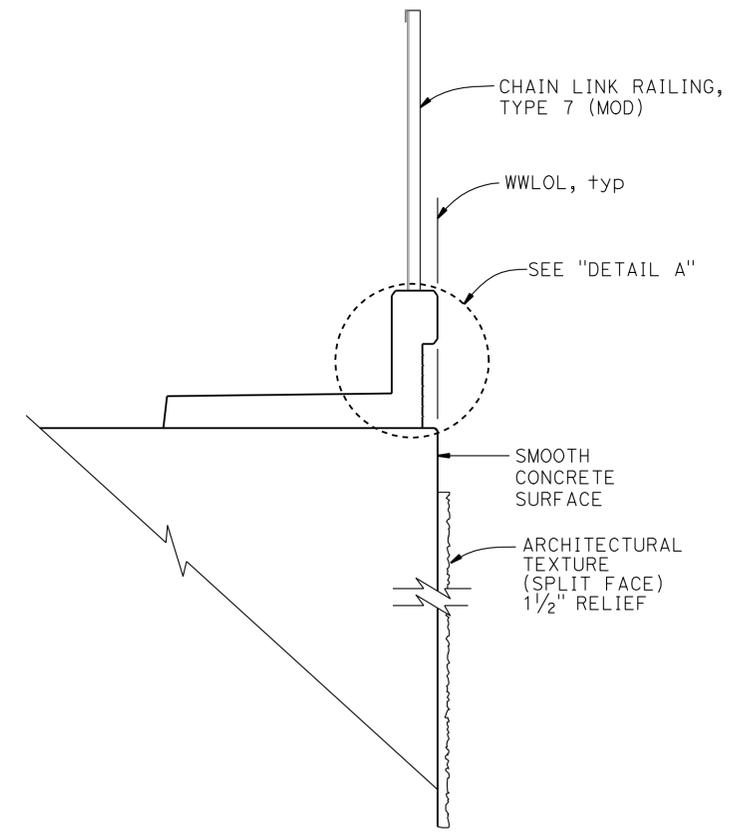
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1126	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
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**TYPICAL MOTIF AT ABUTMENTS**  
NO SCALE



**DETAIL "A"**  
NO SCALE



**SECTION W-W**  
NO SCALE

- NOTES:
- Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on barrier.
  - Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on wingwall

DESIGN	BY	C. Udarbe	CHECKED	K. Green
DETAILS	BY	L. Wang	CHECKED	C. Udarbe
QUANTITIES	BY	C. Udarbe	CHECKED	M. Friedheim

<b>STATE OF CALIFORNIA</b>	
DEPARTMENT OF TRANSPORTATION	

<b>DIVISION OF ENGINEERING SERVICES</b>	
STRUCTURE DESIGN	
<b>DESIGN BRANCH 17</b>	

BRIDGE NO.	29-0329
POST MILE	18.02

<b>SOUTH STOCKTON WIDENING</b>	
<b>DR. MARTIN LUTHER JR. KING BLVD. OC</b>	
<b>ARCHITECTURAL DETAILS NO. 2</b>	

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



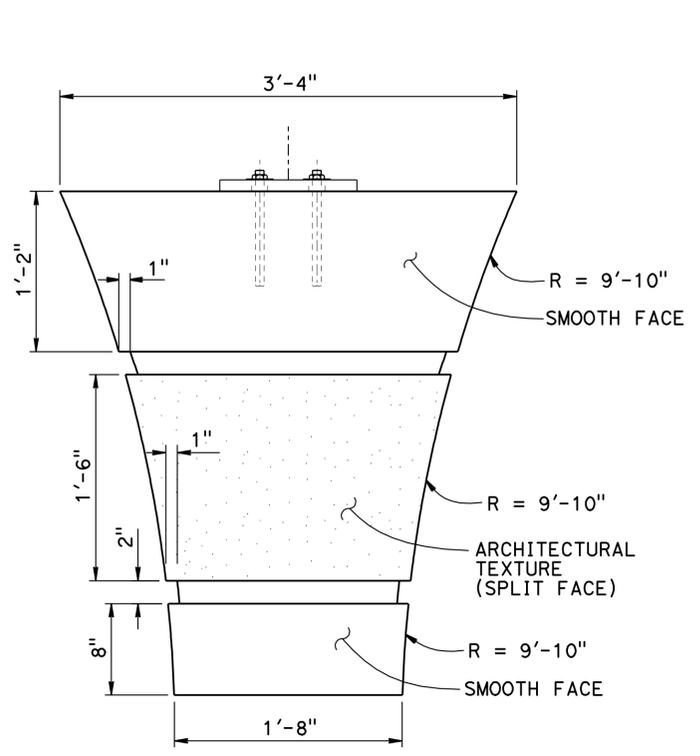
UNIT: 3586  
PROJECT NUMBER & PHASE: 10000004091

CONTRACT NO.: 10-3A1001

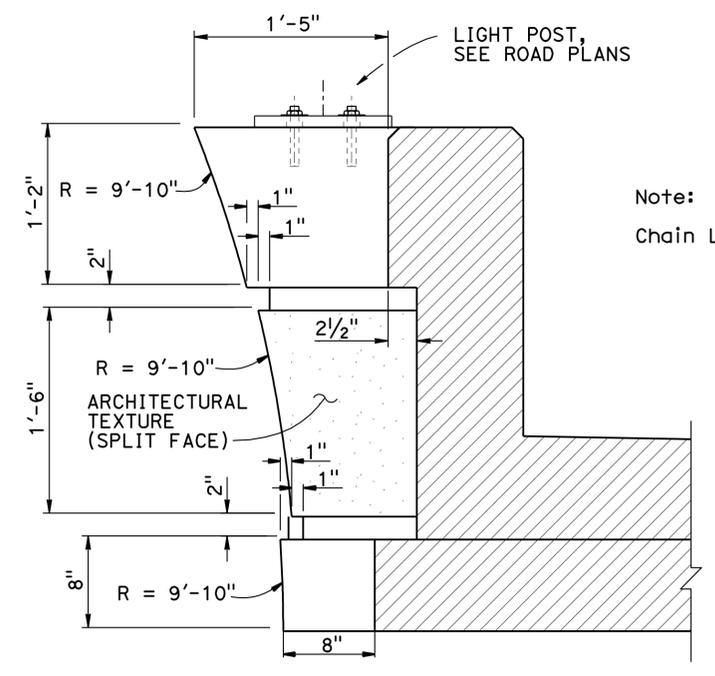
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
01-07-11	16	26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1127	1414
<i>Chris V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					

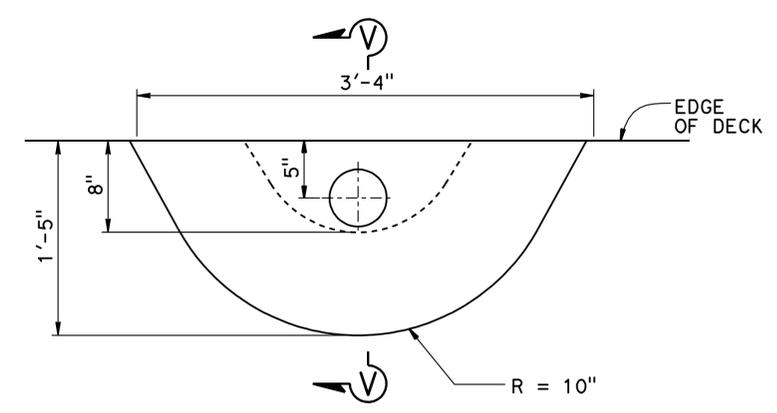


**PEDESTAL ELEVATION (FRONT)**  
1/2" = 1'-0"

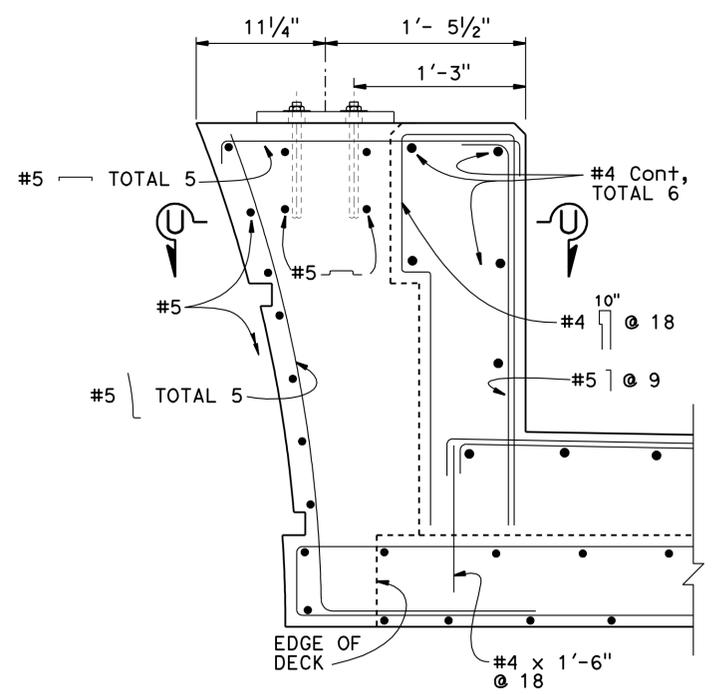


**PEDESTAL ELEVATION (SIDE)**  
1/2" = 1'-0"

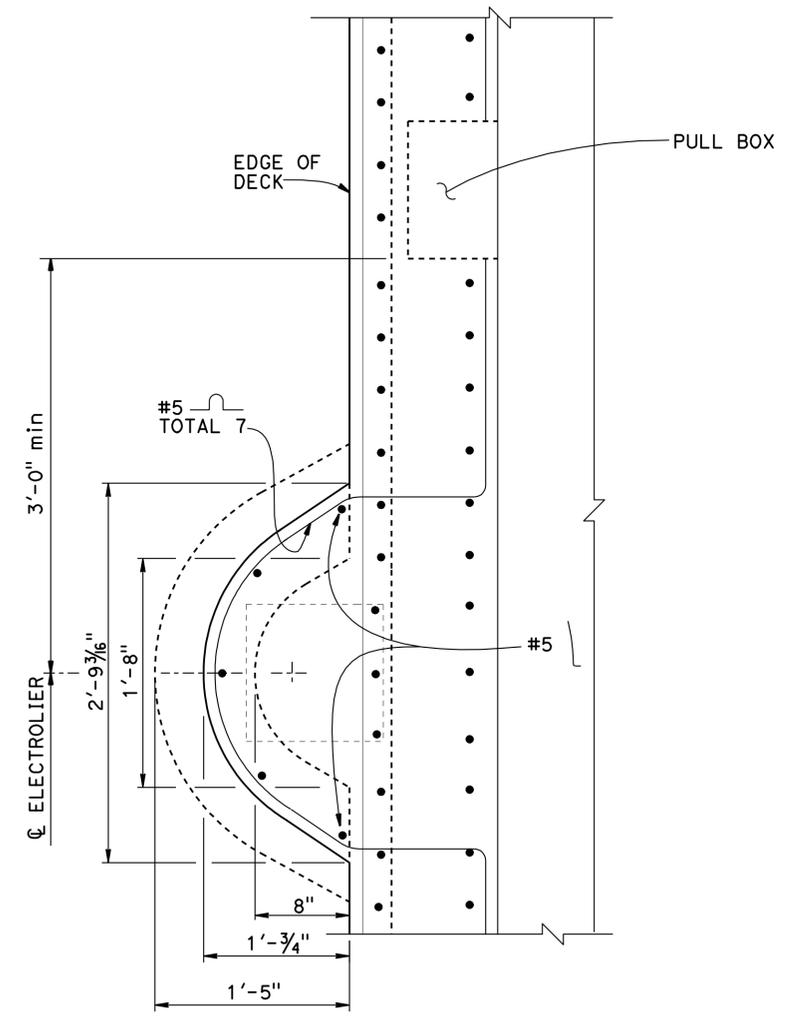
Note:  
Chain Link Railing Type 7 (MOD), not shown.



**PLAN VIEW**  
1/2" = 1'-0"



**SECTION V-V**  
1/2" = 1'-0"



**SECTION U-U**  
1/2" = 1'-0"

DESIGN	BY C. Udarbe	CHECKED K. Green
DETAILS	BY L. Wang	CHECKED C. Udarbe
QUANTITIES	BY C. Udarbe	CHECKED M. Friedheim

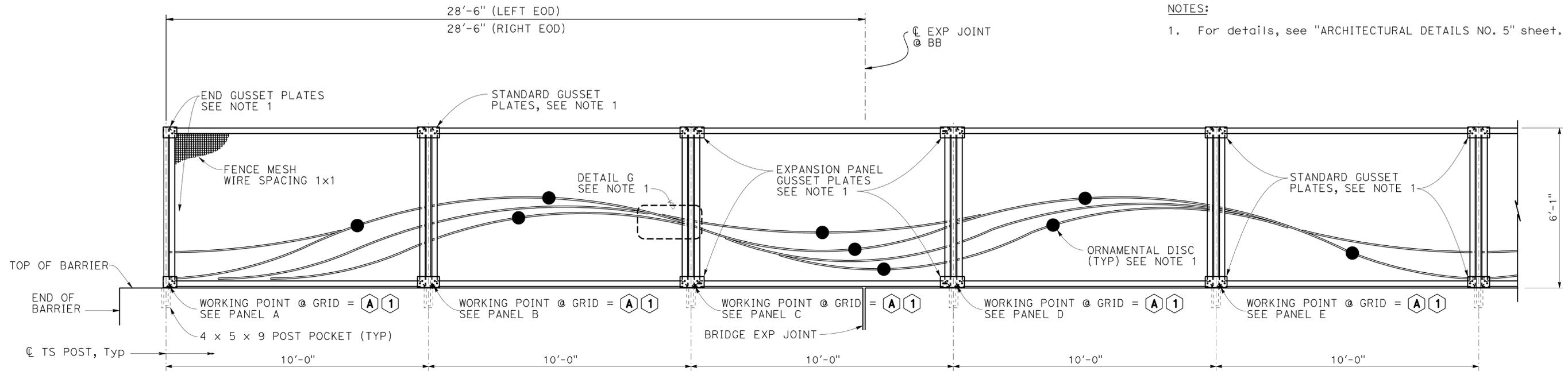
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0329
POST MILE	18.02

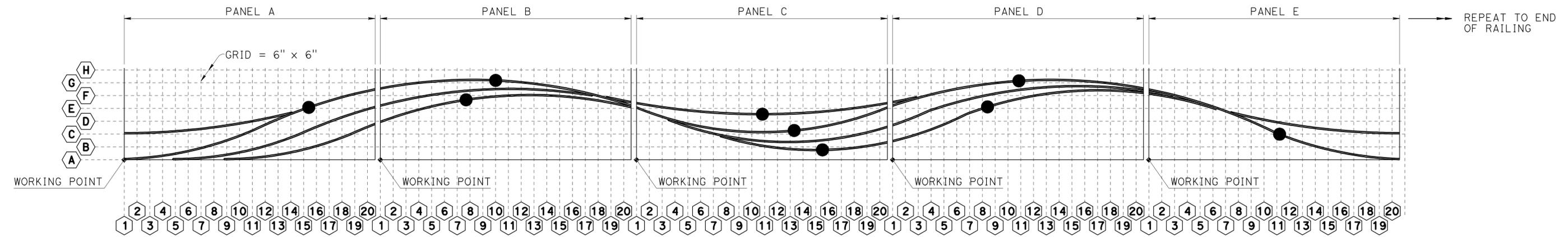
**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD OC**  
**ARCHITECTURAL DETAILS NO. 3**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1128	1414
REGISTERED CIVIL ENGINEER Chris V. Udarbe No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA			11-04-11 DATE 3-26-12 PLANS APPROVAL DATE		
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NOTES:  
1. For details, see "ARCHITECTURAL DETAILS NO. 5" sheet.

**ELEVATION**  
1/2" = 1'-0"



**LAYOUT**  
1/2" = 1'-0"

DESIGN	BY C. UDARBE	CHECKED R. SIMMONS
DETAILS	BY C. FIGUERRES	CHECKED R. SIMMONS
QUANTITIES	BY R. SIMMONS	CHECKED C. UDARBE

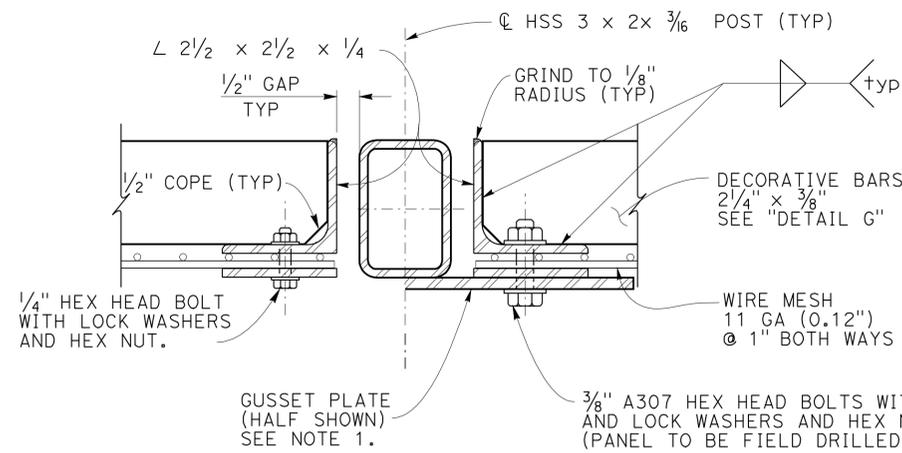
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

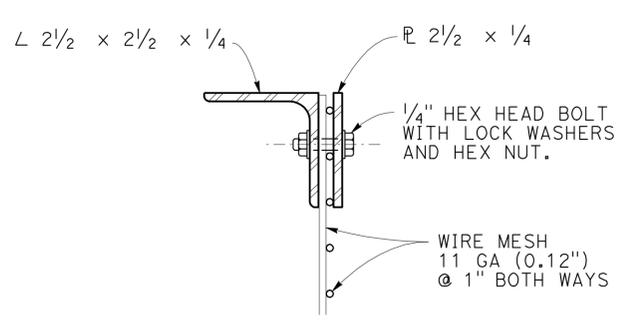
BRIDGE NO.	29-0329
POST MILE	18.02

**SOUTH STOCKTON WIDENING**  
**DR. MARTIN LUTHER KING JR. BLVD. OC**  
**ARCHITECTURAL DETAILS NO. 4**

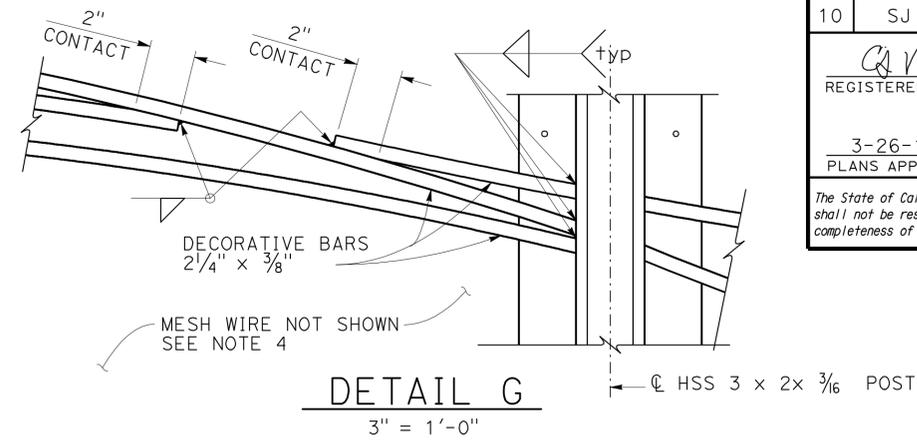
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1129	1414
C. V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			Chris Y. Udarbe No. C62985 Exp. 60-30-12 CIVIL STATE OF CALIFORNIA		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



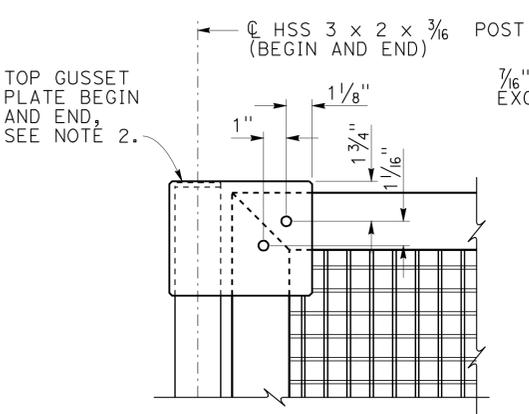
SECTION O-O  
6" = 1'-0"



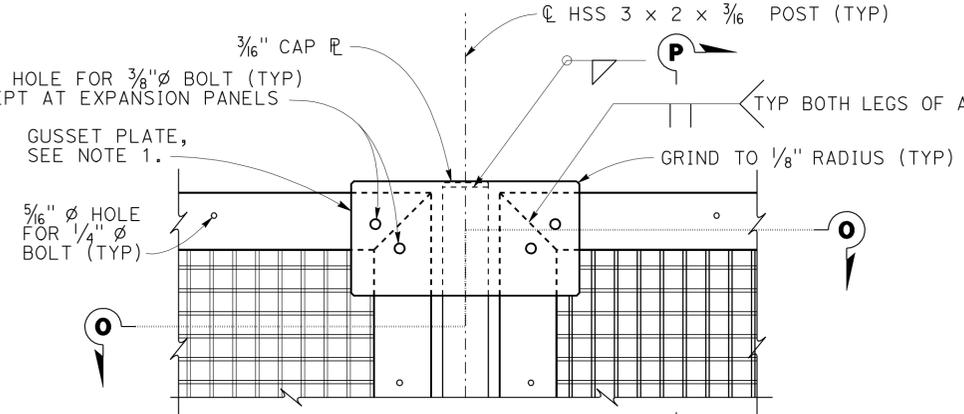
SECTION P-P  
6" = 1'-0"



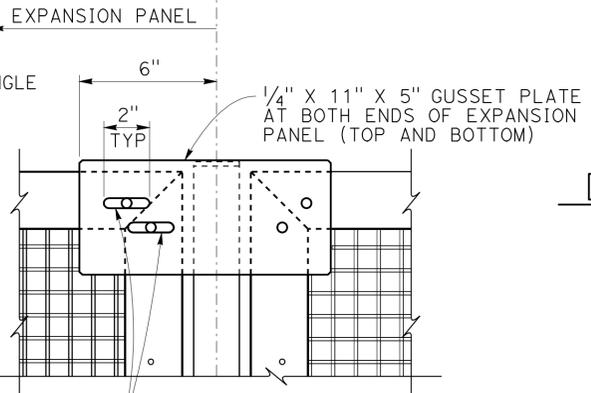
DETAIL G  
3" = 1'-0"



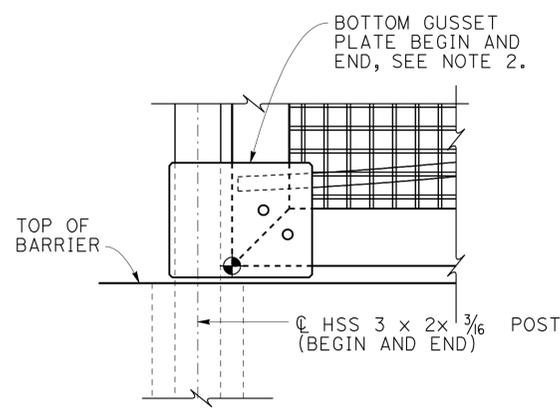
DETAIL A  
3" = 1'-0"



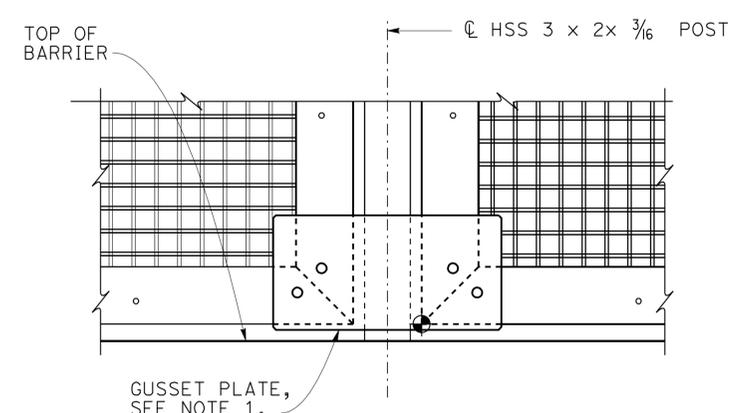
DETAIL B  
3" = 1'-0"



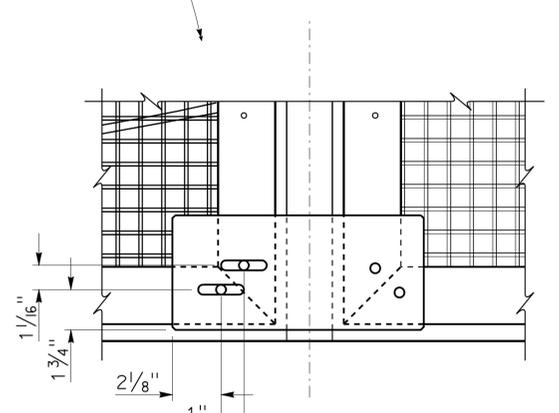
DETAIL C  
3" = 1'-0"



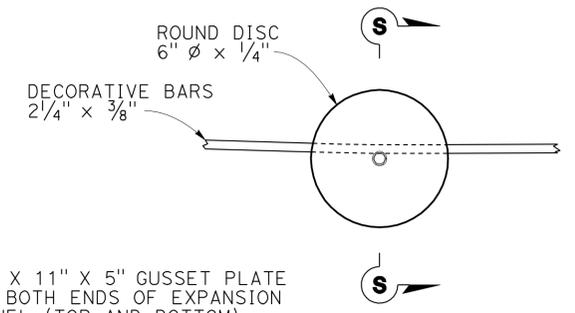
DETAIL D  
3" = 1'-0"



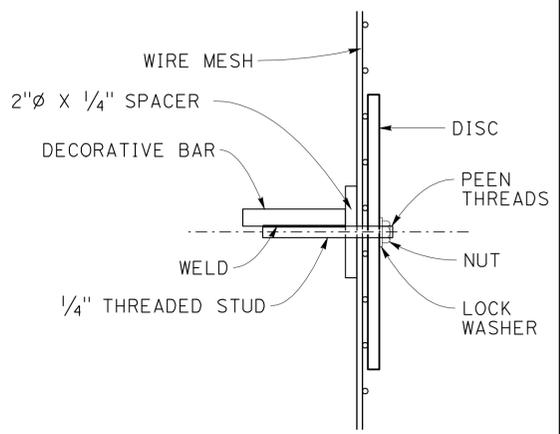
DETAIL E  
3" = 1'-0"



DETAIL F  
3" = 1'-0"



DISC DETAIL  
3" = 1'-0"



SECTION S-S  
6" = 1'-0"

NOTES:

1. 1/4" x 10" x 5" Gusset Plate, groove weld at sides of post. Fillet weld at top and bottom (continuous weld.)
2. 1/4" x 6 1/4" x 5" begin and end Gusset Plate, groove weld at sides of post. Fillet weld at top and bottom (continuous weld.)
3. All materials including fasteners to be galvanized after fabrication and painted black.
4. Shown on traffic side of fence.
5. For details not shown, see 811-52
6. At all slotted holes, use 3/8" hex bolt with 2 plain washers and hex nut, finger tight, peen threads.
7. Holes in gusset plates to be shop drilled. Field drill holes in panels after adjusting panel to line and grade. Field drilled holes to be deburred and painted prior to installing bolts.
8. C.C. spacing of posts shall be within 1/2" tolerance.
9. Posts shall be set plumb to within 1/4" in 6'.

DESIGN BY R. Simmons CHECKED C. Udarbe		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0329	SOUTH STOCKTON WIDENING DR. MARTIN LUTHER KING JR. BLVD. OC ARCHITECTURAL DETAILS NO. 5
DETAILS BY J. Casarino CHECKED R. Simmons				POST MILE 18.02	
QUANTITIES BY R. Simmons CHECKED C. Udarbe				UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES SHEET OF 12-13-11 19 26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1130	1414

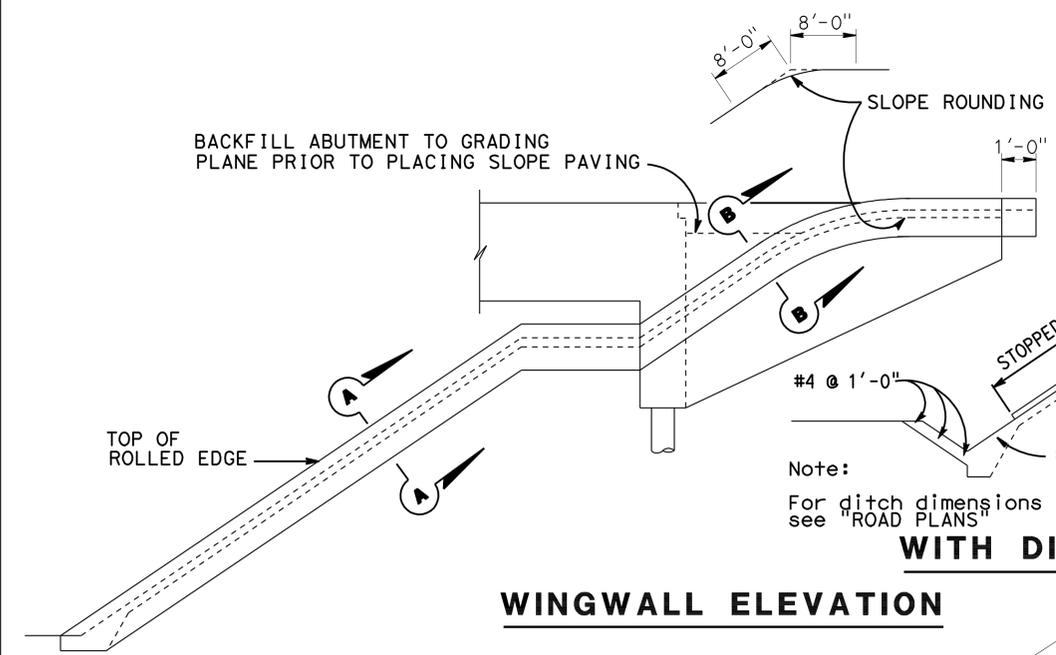
C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 CHRIS UDARBE  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA

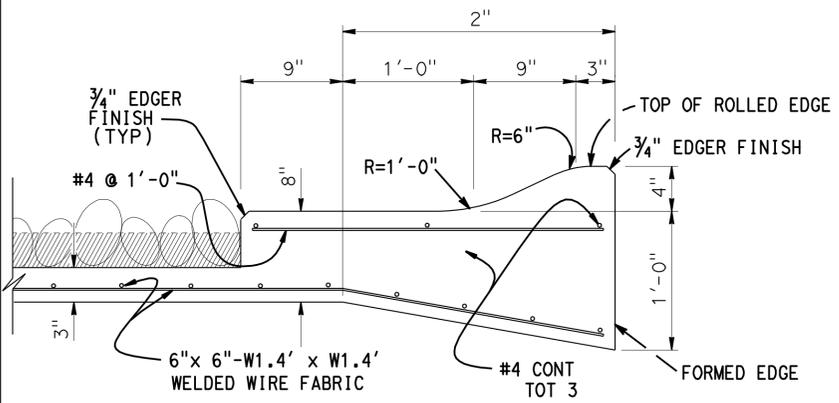
- Notes:**
- Cobbles shall be fully seated in the mortar bed. The mortar surface shall be trimmed to the mid depth of the cobbles.
  - Excess mortar shall be removed and the river rock surfaces shall be cleaned after placement.
  - Bottom of slope paving to match toe of fill. Dimensions to be field verified.

**Legend:**

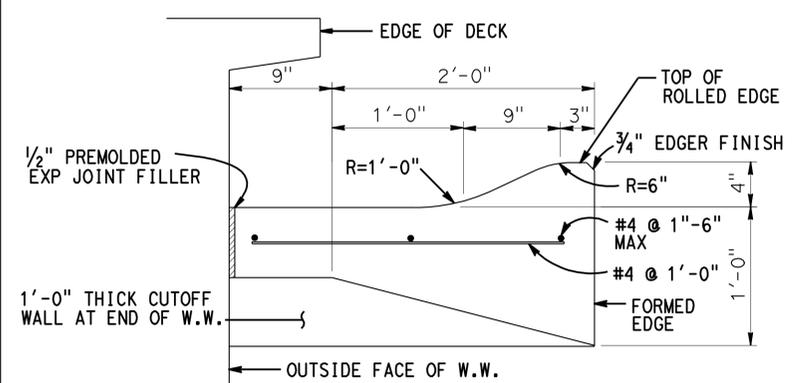
Indicates mortar bed area



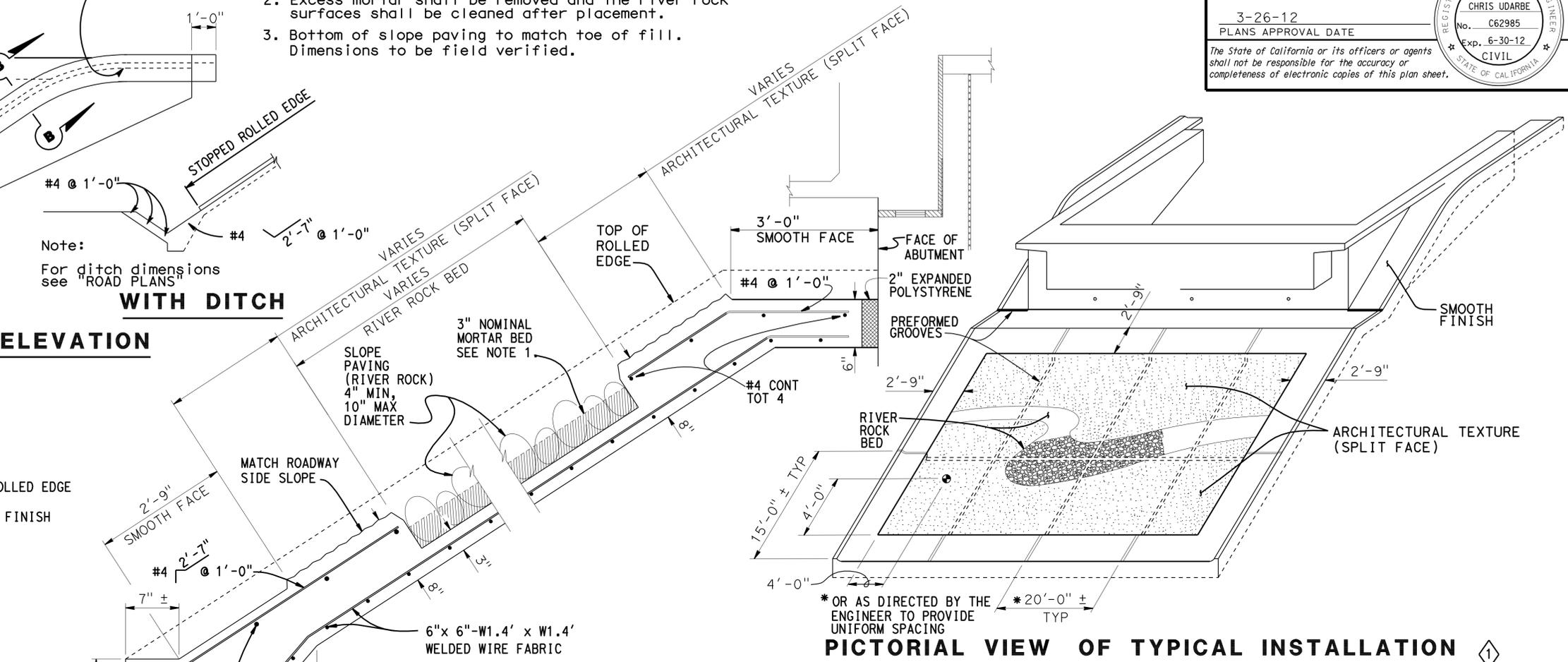
**WINGWALL ELEVATION**



**SECTION A-A**

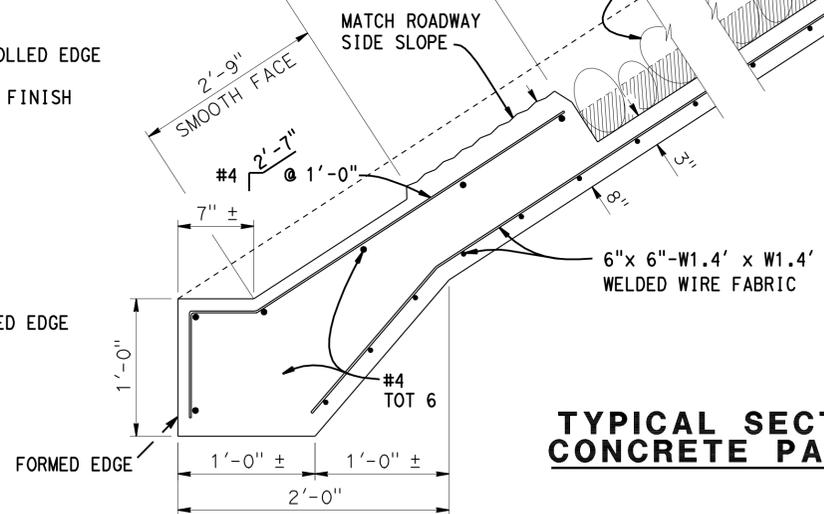


**SECTION B-B**

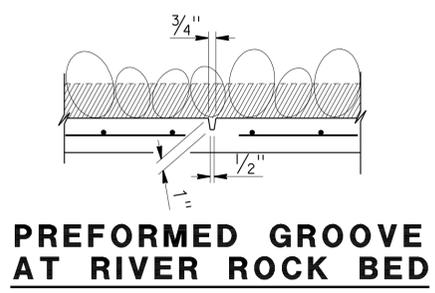


**PICTORIAL VIEW OF TYPICAL INSTALLATION**

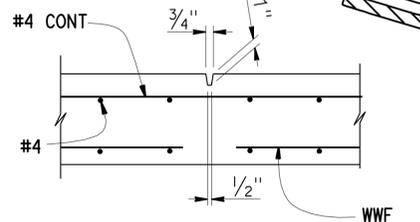
Indicates Location of Insertion Point A, see "ARCHITECTURAL DETAILS NO. 1" sheet.



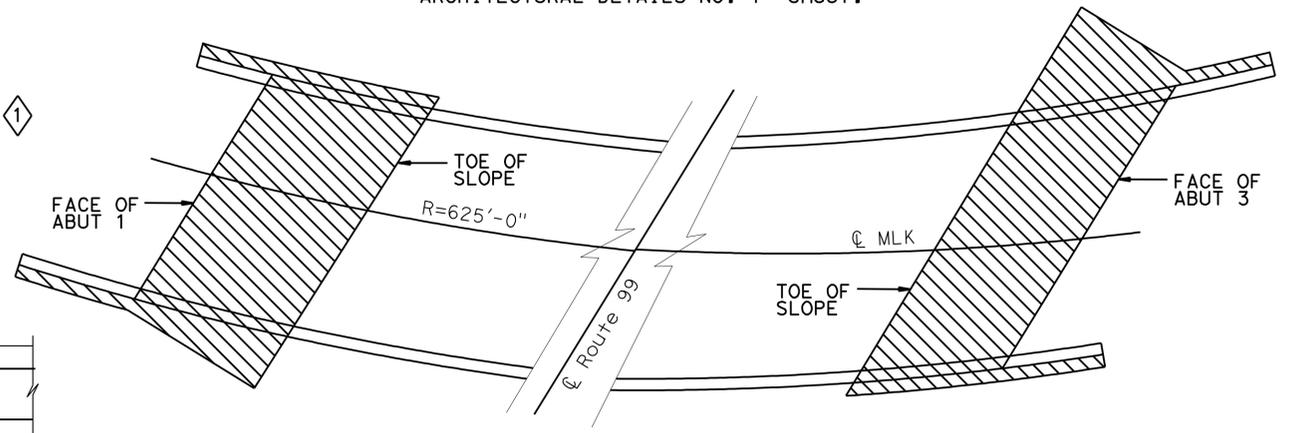
**TYPICAL SECTION CONCRETE PAVING**



**PREFORMED GROOVE AT RIVER ROCK BED**



**PREFORMED GROOVE AT PERIMETER**



**LIMITS OF SLOPE PAVING**

NO SCALE Legend: Indicates limits of slope paving

REVISED STANDARD DRAWING	
FILE NO. <b>xs4-210</b>	APPROVAL DATE July-2011

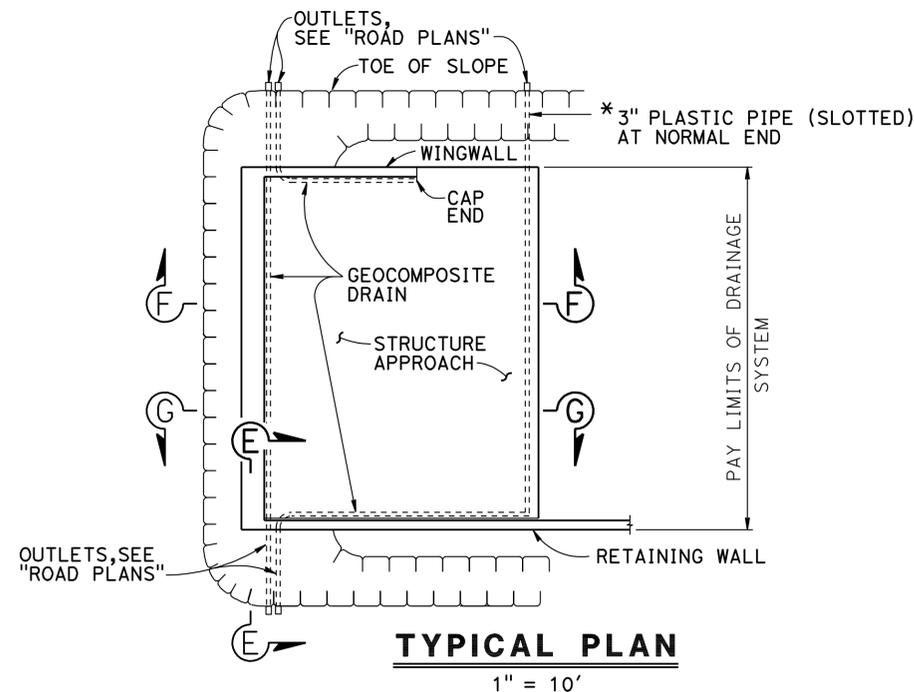
- ① Slope paving details.
- ② Removed Drainage details.
- ③ Removed drainage notes

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES
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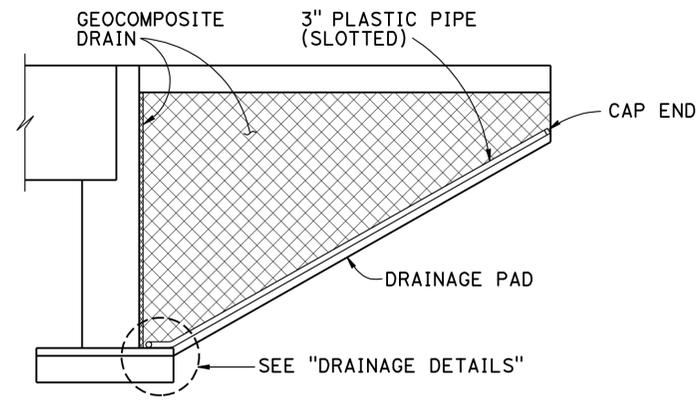
BRIDGE NO. 29-0329
POST MILE 18.02

<b>SOUTH STOCKTON WIDENING</b>	
<b>DR. MARTIN LUTHER KING JR. BLVD OC</b>	
<b>SLOPE PAVING - FULL SLOPE</b>	

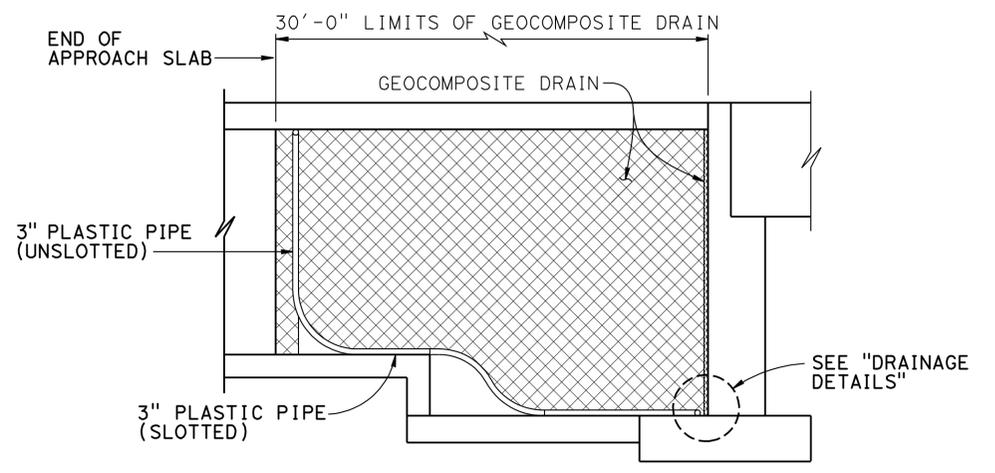
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1131	1414
REGISTERED CIVIL ENGINEER Chris Udarbe No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA			11-04-11 DATE 3-26-12 PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



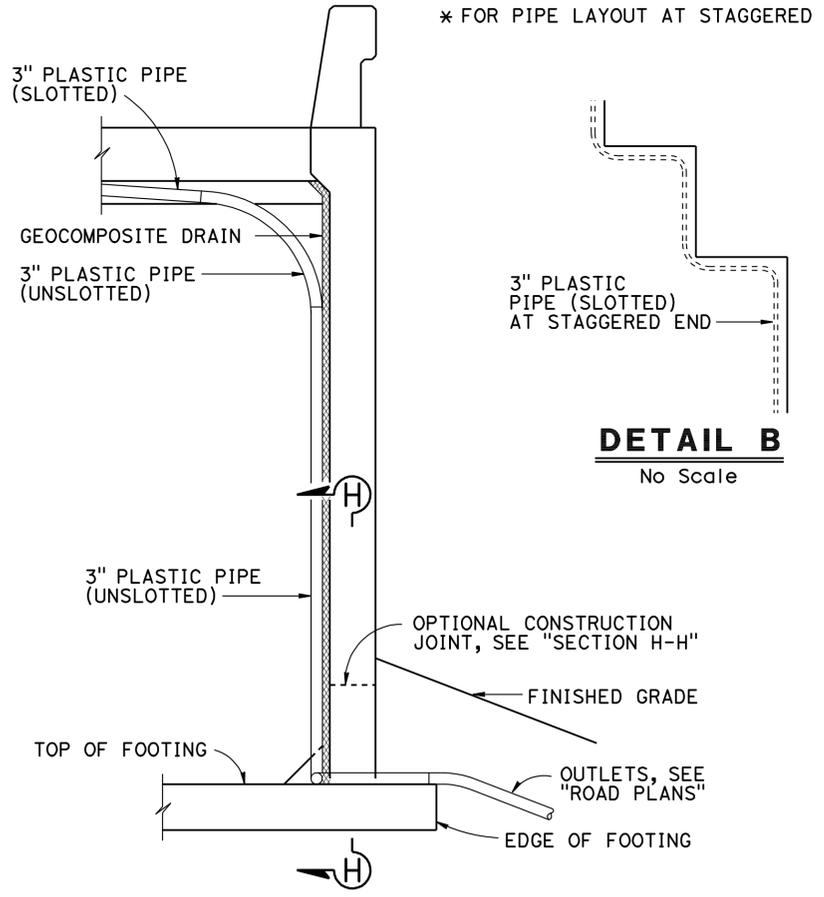
**TYPICAL PLAN**  
1" = 10'



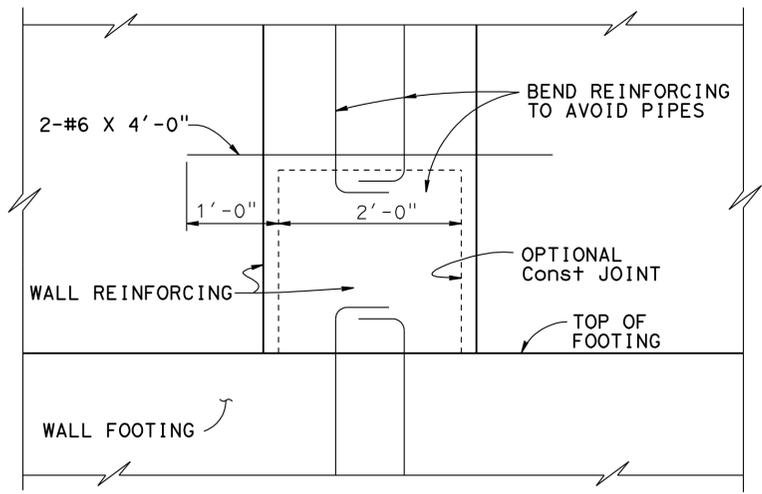
**CANTILEVER WINGWALL**  
**SECTION F-F**  
1/4" = 1'-0"



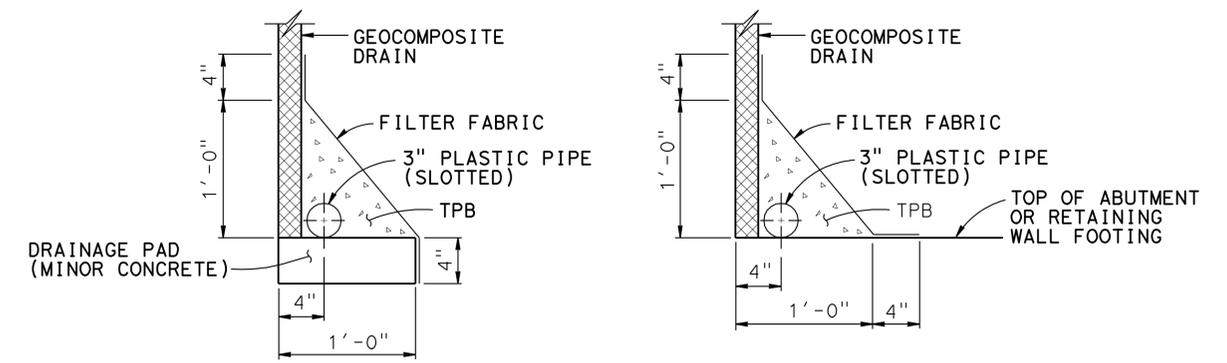
**RETAINING WALL WINGWALL DRAINAGE DETAILS**  
**SECTION G-G**  
1/4" = 1'-0"



**DETAIL B**  
No Scale



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



**DRAINAGE DETAILS**  
1 1/2" = 1'-0"

**SECTION E-E**  
1/2" = 1'-0"  
NOTE: Bends and junctions in 3" plastic pipe are 30" radius Min

<b>SOUTH STOCKTON WIDENING</b>	
<b>DR. MARTIN LUTHER KING JR. OC</b>	
<b>STRUCTURE APPROACH DRAINAGE DETAILS</b>	

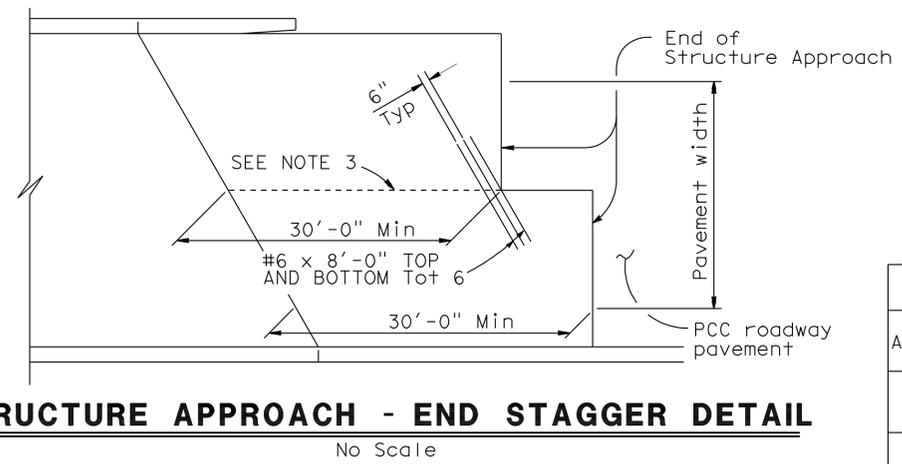
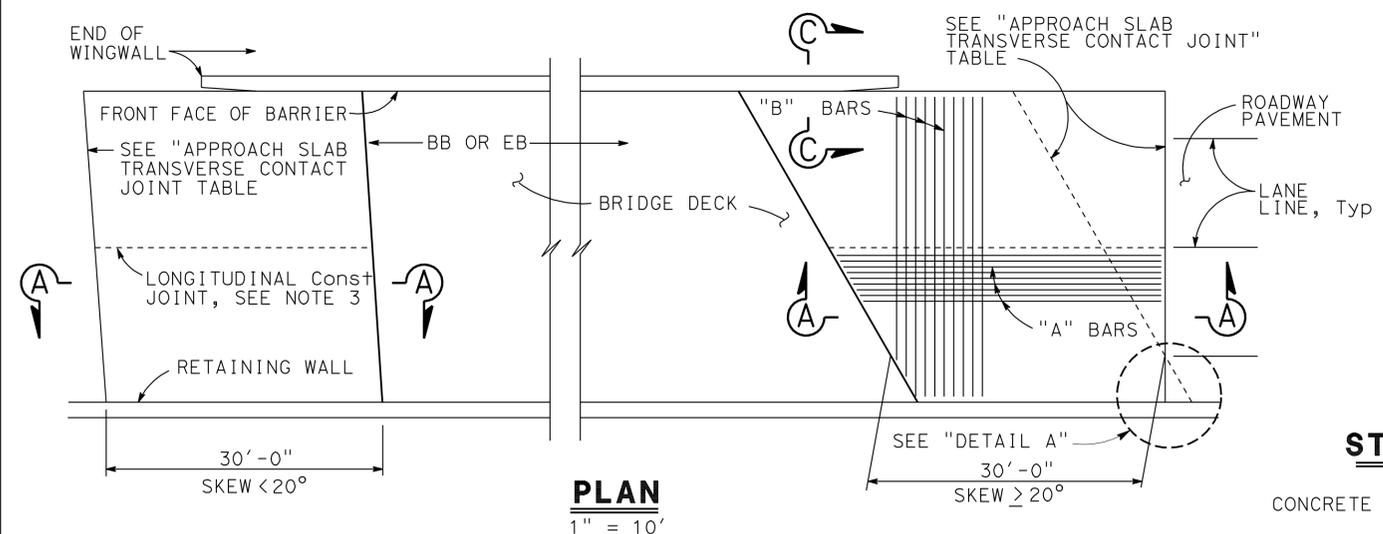
STANDARD DRAWING
FILE NO. <b>xs3-110</b>
APPROVAL DATE <u>July 2011</u>

<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	<b>DIVISION OF ENGINEERING SERVICES</b>	BRIDGE NO. 29-0329 POST MILE 18.02
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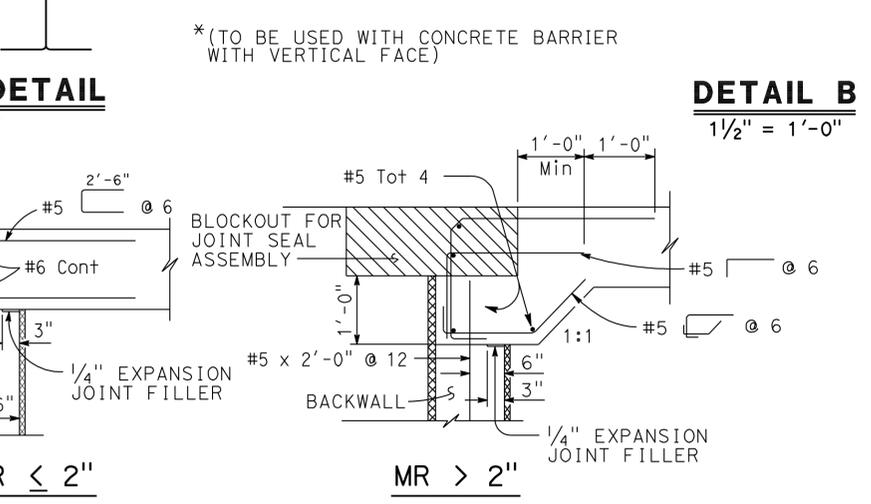
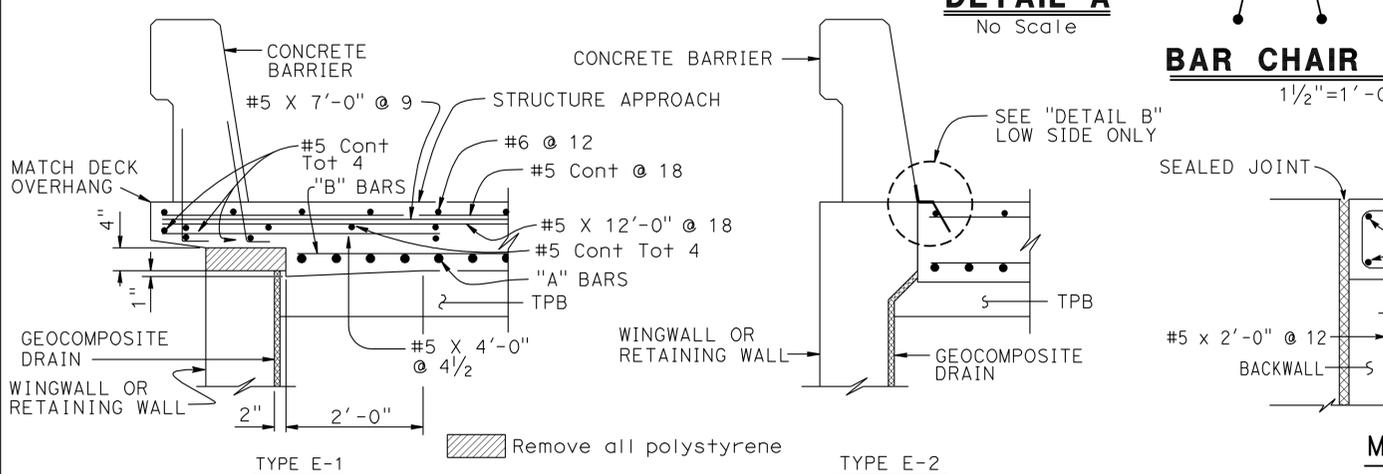
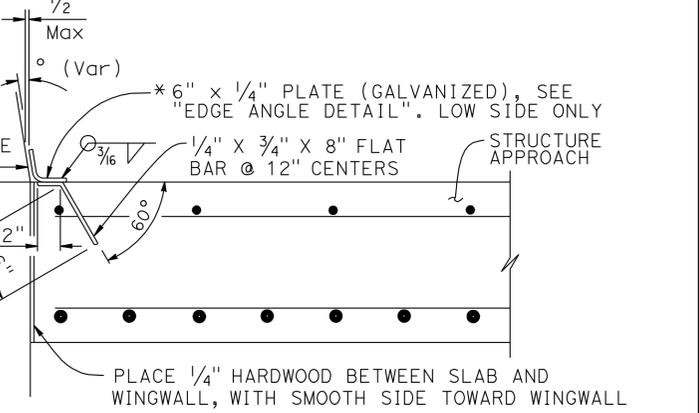
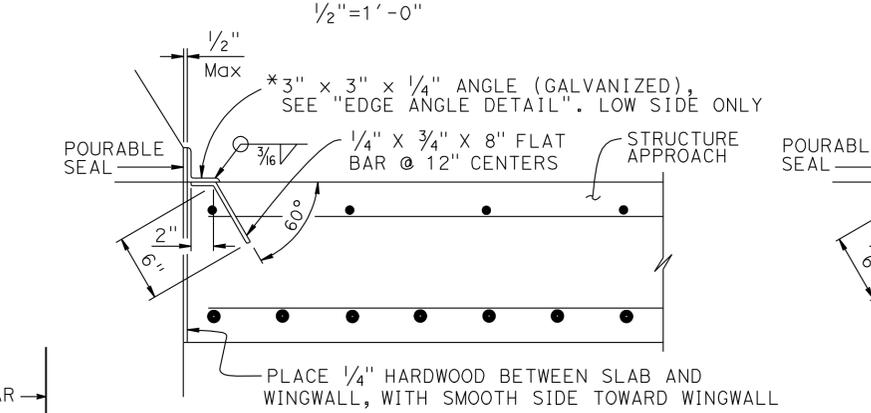
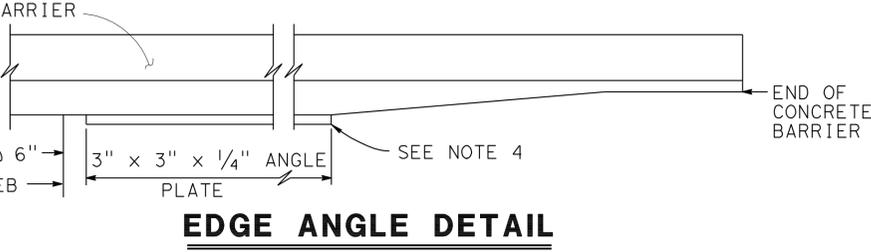
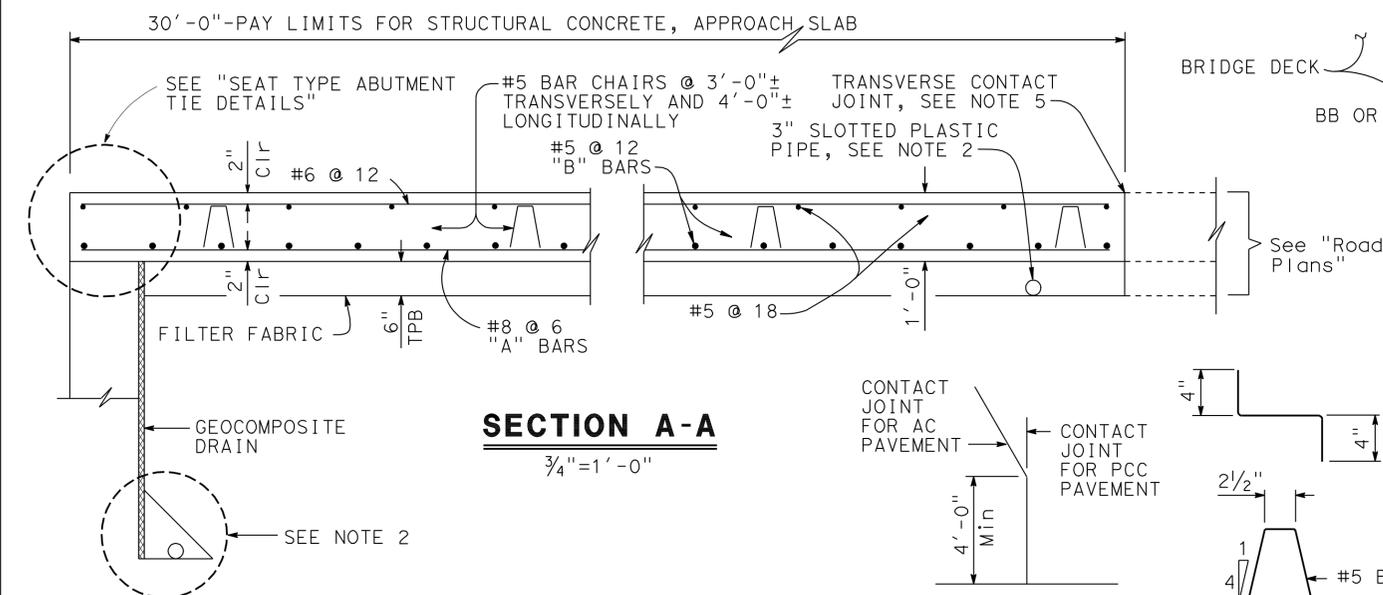
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1132	1414

C.V. Udabe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 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 PN	PARALLEL TO FACE OF PN
20° - 45°	PARALLEL TO FACE OF PN USE "DETAIL A"	STAGGER LINES 24' TO 36' APART
> 45°	PARALLEL TO FACE OF PN USE "DETAIL A"	STAGGER AT EACH LANE LINE



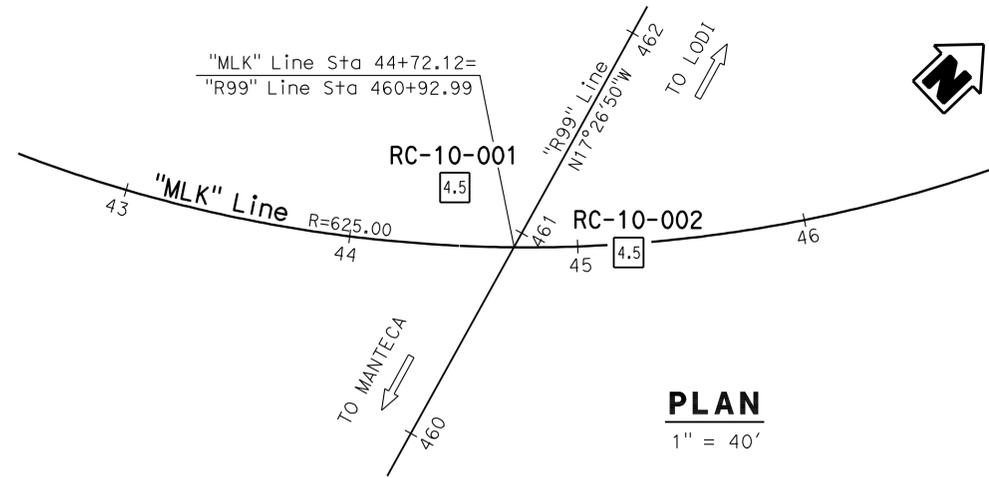
- NOTES:**
- For details not shown, see Structure Plans. For MR ≤ 2', adjust bar reinforcement to clear a sawcut for sealed joint, when required.
  - For drainage details, see "STRUCTURE APPROACH DRAINAGE DETAILS" sheet.
  - Longitudinal construction joints, when permitted by the Engineer, shall be located 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.

STANDARD DRAWING		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES		BRIDGE NO. 29-0329		DR. MARTIN LUTHER KING JR. BLVD OC	
FILE NO. <b>xs3-120</b>	APPROVAL DATE July 2011	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		POST MILE 18.02		STRUCTURE APPROACH TYPE N(30S)	
DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11))		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 22 OF 26	

DATE PLOTTED => 29-MAR-2012  
 USERNAME => s123631

**BENCH MARK**

NW corner of existing Br. No. 29-0120G  
 56.70' Lt @ "R99" Line Sta 460+22.65  
 Elev= 35.09'.  
 As shown on Foundation Plan for Dr. Martin  
 Luther King BLVD OC dated 5-12-11  
 Vertical Datum NGVD 29.



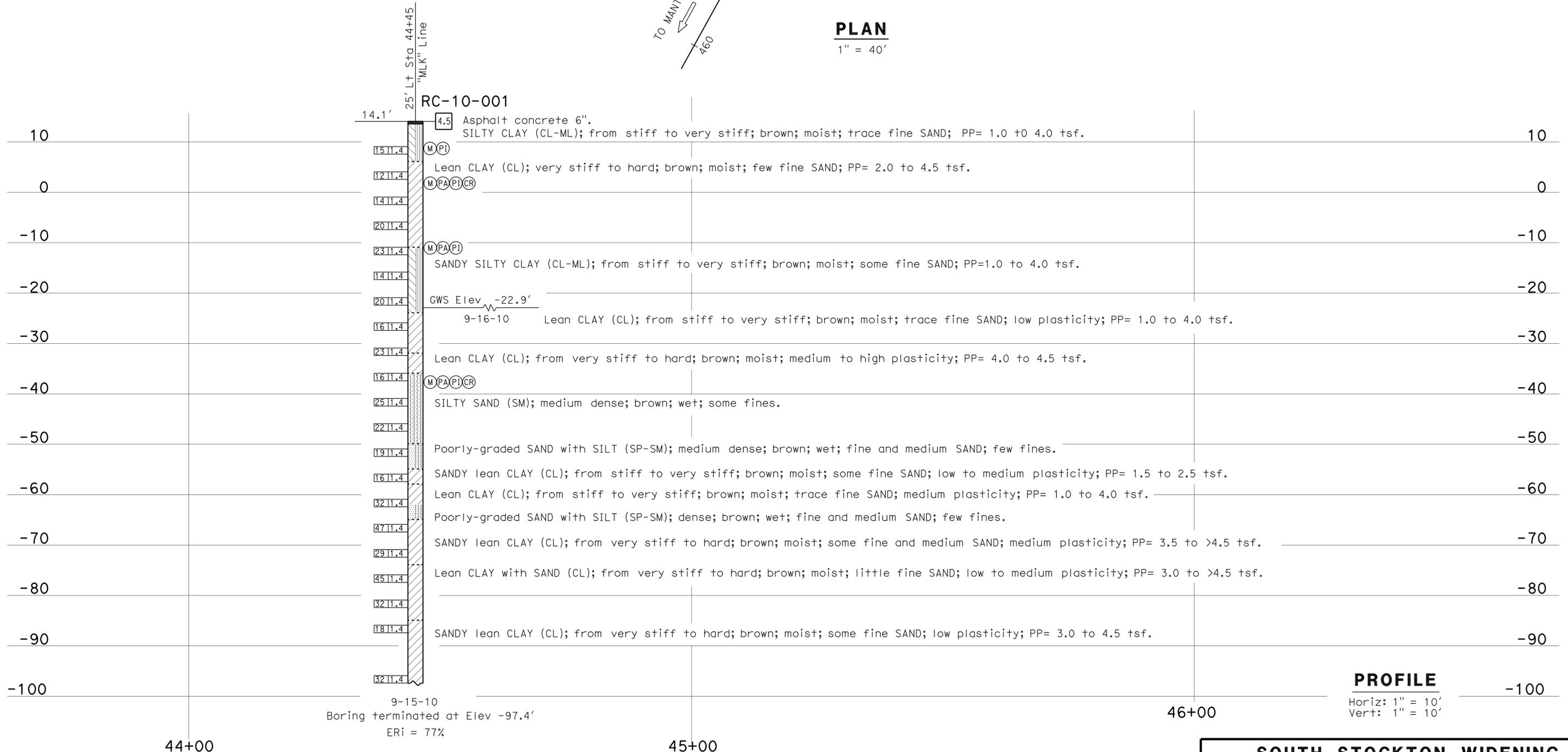
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1133	1414

Professional Geologist: Joseph M. Kaump  
 No. 7837  
 Exp. 01-31-13  
 State of California

PLANS APPROVAL DATE: 3-26-12  
 8-22-11

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).



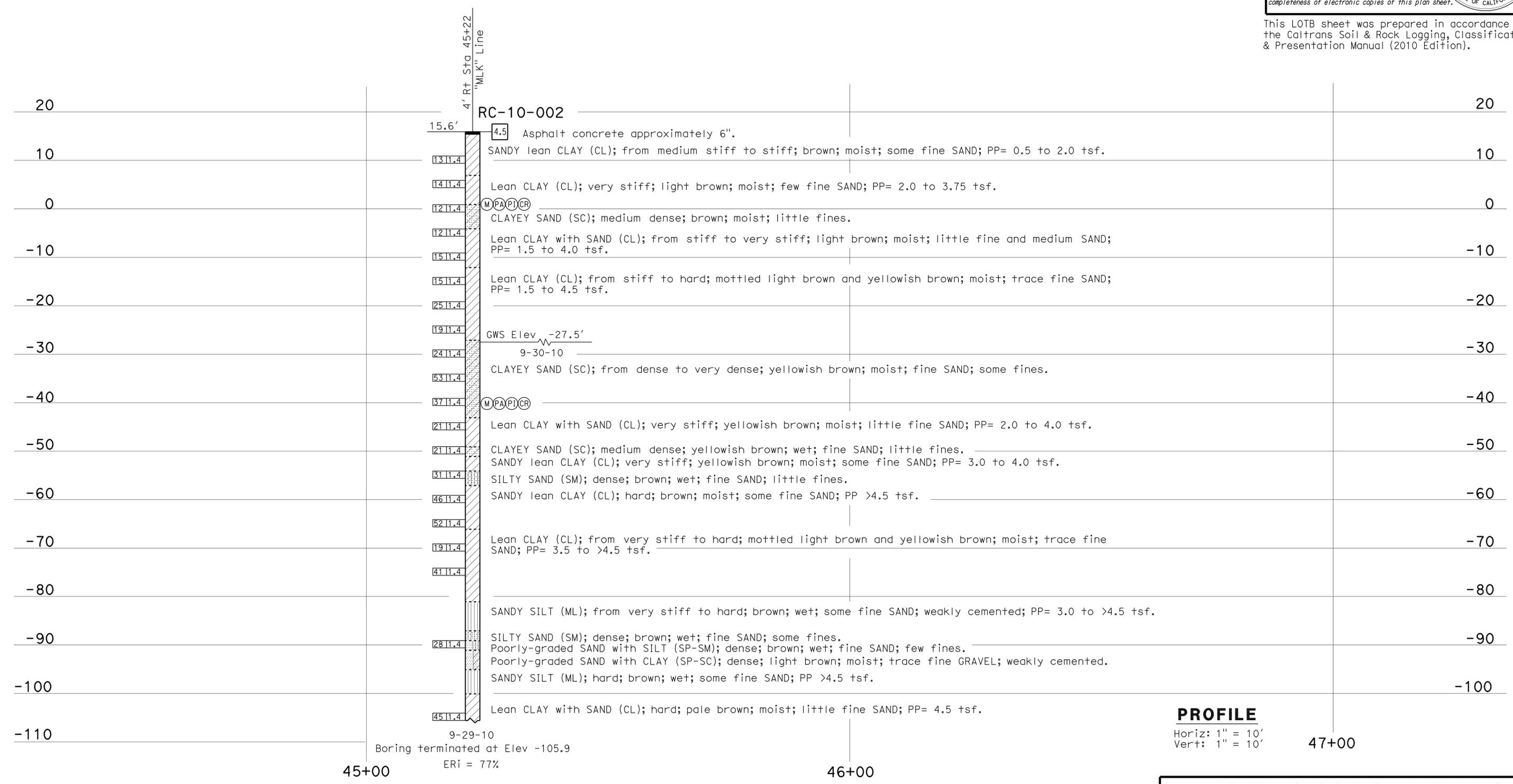
**PROFILE**  
 Horiz: 1" = 10'  
 Vert: 1" = 10'

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION</b>		<b>DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17</b>		<b>SOUTH STOCKTON WIDENING DR. MARTIN LUTHER KING JR. BLVD. OC LOG OF TEST BORINGS 1 OF 4</b>	
FUNCTIONAL SUPERVISOR NAME: R. Buehl	DRAWN BY: F. Nguyen 6/11, I.G.-Remmen 8/11 CHECKED BY:	FIELD INVESTIGATION BY: T. Alderman		BRIDGE NO. 29-0329 POST MILE 18.02		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.:10-3A1001	
OGS CIVIL LOG OF TEST BORINGS SHEET				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES: 01-07-11, 01-08-11, 08-14-11, 9-21-11	
				0 1 2 3				SHEET 23 OF 26	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1134	1414

Joseph M. Kaump 8-22-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
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FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 4"



This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: F. Nguyen 6/11, I.G.-Remmen 8/11		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 29-0329		DR. MARTIN LUTHER KING JR. BLVD. OC	
NAME: R. Buehl		CHECKED BY:		FIELD INVESTIGATION BY: T. Alderman		POST MILE 18.02		LOG OF TEST BORINGS 2 OF 4	
06S CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.:10-3A1001	
				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 24 OF 26	

USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:31:15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1135	1414

PROFESSIONAL GEOLOGIST  
 Joseph M. Kaump  
 No. 7837  
 Exp. 01-31-13  
 STATE OF CALIFORNIA

8-22-11  
 3-26-12  
 PLANS APPROVAL DATE

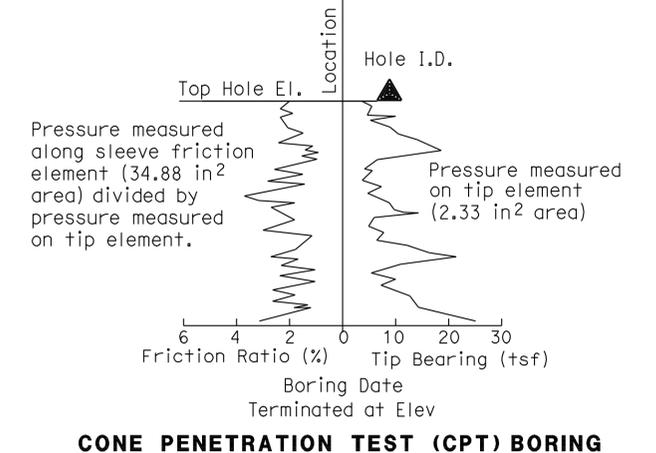
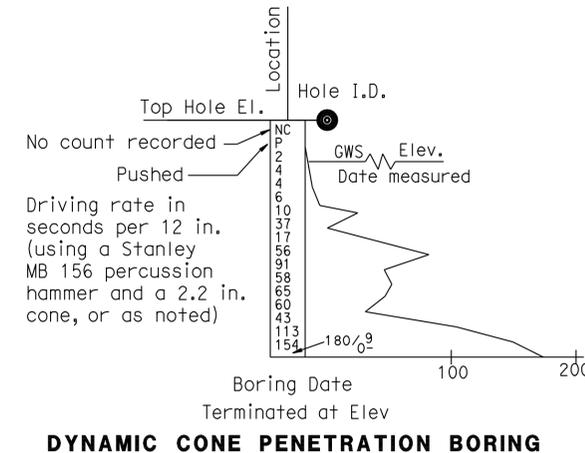
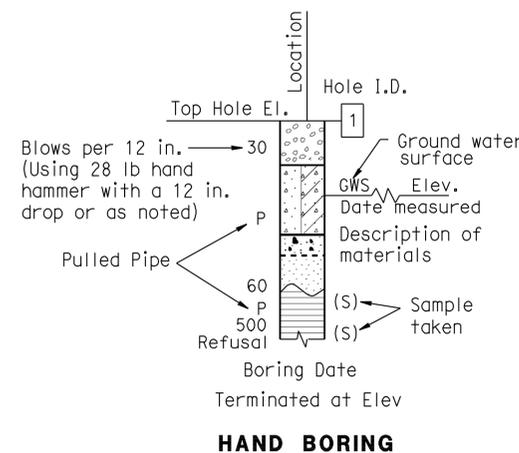
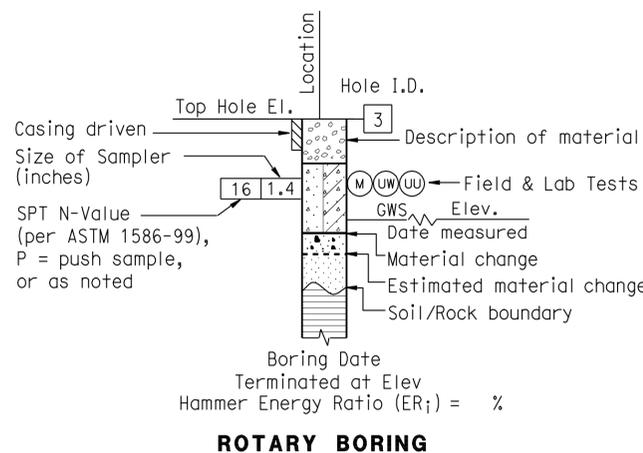
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	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)
	O	Other (note on LOTB)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>BRIDGE NO.</b>		<b>SOUTH STOCKTON WIDENING</b>	
		PREPARED BY: I.G.-Remmen		<b>DEPARTMENT OF TRANSPORTATION</b>		<b>STRUCTURE DESIGN</b>		29-0329		<b>DR. MARTIN LUTHER KING JR. BLVD. OC</b>	
						<b>DESIGN BRANCH 17</b>		18.02		<b>LOG OF TEST BORINGS 3 OF 4</b>	
GS LOTB SOIL LEGEND		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3		9-21-11		REVISION DATES		SHEET 25 OF 26	

FILE => 29-0329-Z-1+3of4.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1136	1414

8-22-11  
 PROFESSIONAL GEOLOGIST  
 Joseph M. Kaump  
 No. 7837  
 Exp. 01-31-13  
 PLANS APPROVAL DATE  
 3-26-12  
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GROUP SYMBOLS AND NAMES					
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	GW		CL		Lean CLAY
	GW-GM				Lean CLAY with SAND
	GP		CL		Lean CLAY with GRAVEL
	GP-GM				SANDY lean CLAY
	GW-GM		CL-ML		SILTY CLAY
	GW-GC				SILTY CLAY with SAND
	GW-GC		CL-ML		SILTY CLAY with GRAVEL
	GP-GC				SANDY SILTY CLAY
	GP-GM		ML		SILT
	GP-GC				SILT with SAND
	GM		OL		ORGANIC lean CLAY
	GC				ORGANIC lean CLAY with SAND
	GC		OL		ORGANIC lean CLAY with GRAVEL
	GC-GM				SANDY ORGANIC lean CLAY
	GC-GM		OL		ORGANIC SILT
	SW				ORGANIC SILT with SAND
	SW		CH		Fat CLAY
	SP				Fat CLAY with SAND
	SP		CH		Fat CLAY with GRAVEL
	SW-SM				SANDY fat CLAY
	SW-SM		MH		Elastic SILT
	SW-SC				Elastic SILT with SAND
	SW-SC		MH		Elastic SILT with GRAVEL
	SP-SM				SANDY elastic SILT
	SP-SM		OH		ORGANIC fat CLAY
	SP-SC				ORGANIC fat CLAY with SAND
	SM		OH		ORGANIC fat CLAY with GRAVEL
	SC				ORGANIC fat CLAY with SAND
	SC		OH		ORGANIC elastic SILT
	SC-SM				ORGANIC elastic SILT with GRAVEL
	SC-SM		OH		SANDY ORGANIC elastic SILT
	PT				SANDY ORGANIC elastic SILT with GRAVEL
	PT		OL/OH		ORGANIC SOIL
					ORGANIC SOIL with SAND
			OL/OH		ORGANIC SOIL with GRAVEL
					SANDY ORGANIC SOIL
					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
(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)
(UC)	Unconfined Compression-Soil (ASTM D 2166)
(UU)	Unconfined Compression-Rock (ASTM D 2938)
(UW)	Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N <sub>60</sub> (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

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

PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0329	SOUTH STOCKTON WIDENING		
				POST MILE 18.02	DR. MARTIN LUTHER KING JR. BLVD. OC		
PREPARED BY: I.G. Remmen				LOG OF TEST BORINGS 4 OF 4		REVISION DATES	SHEET 26 OF 26
UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091			CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		9-21-11

GS LOTB SOIL LEGEND ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

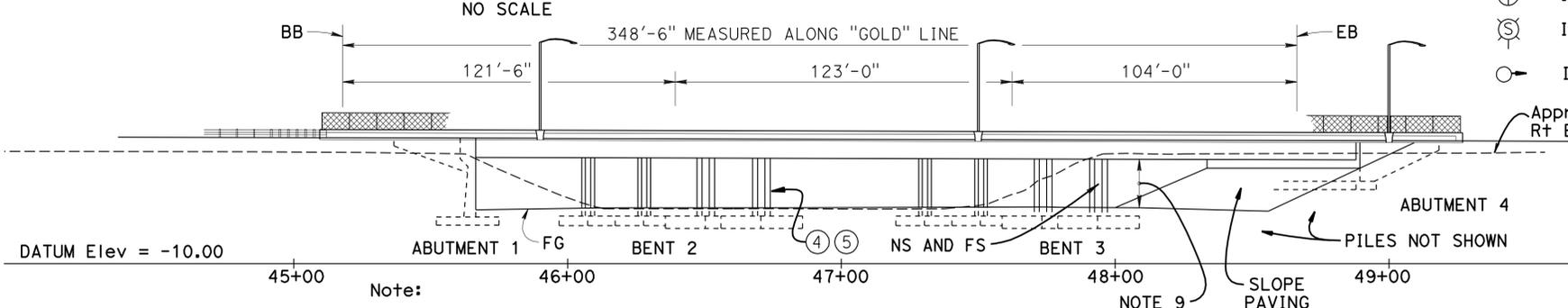
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1137	1414

11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
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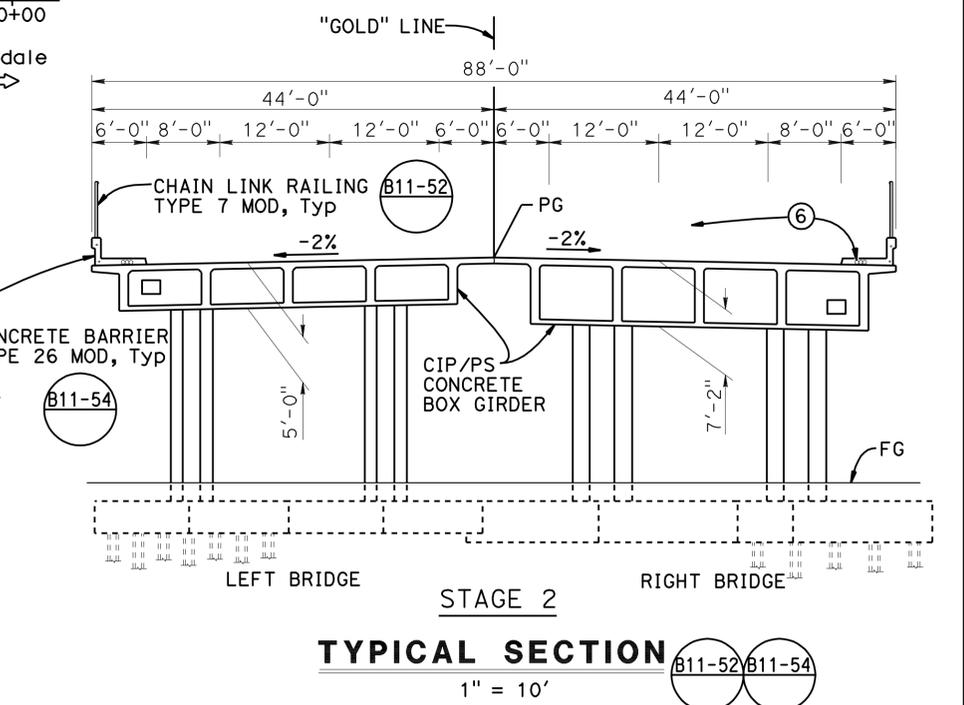
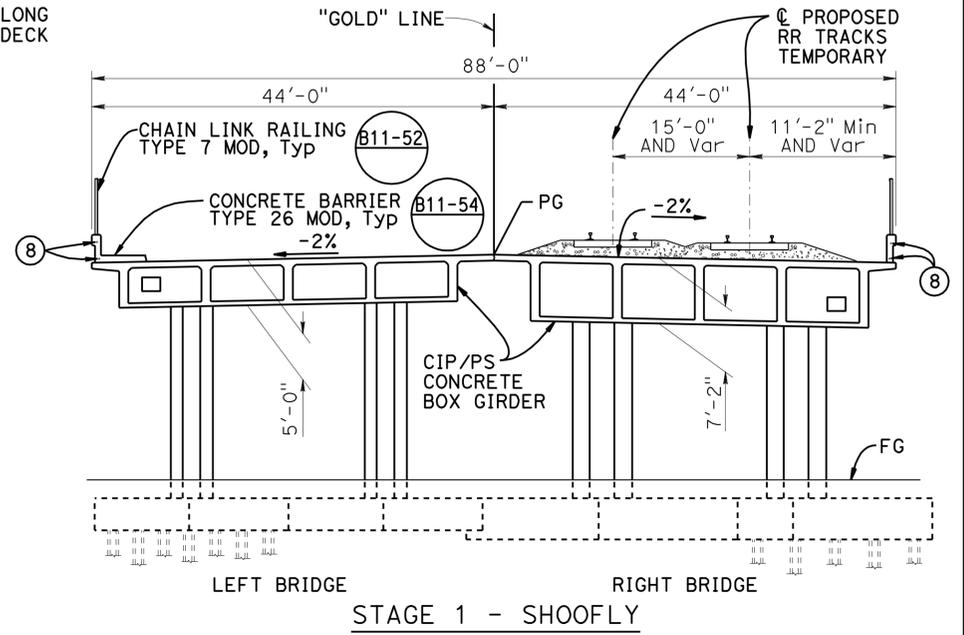
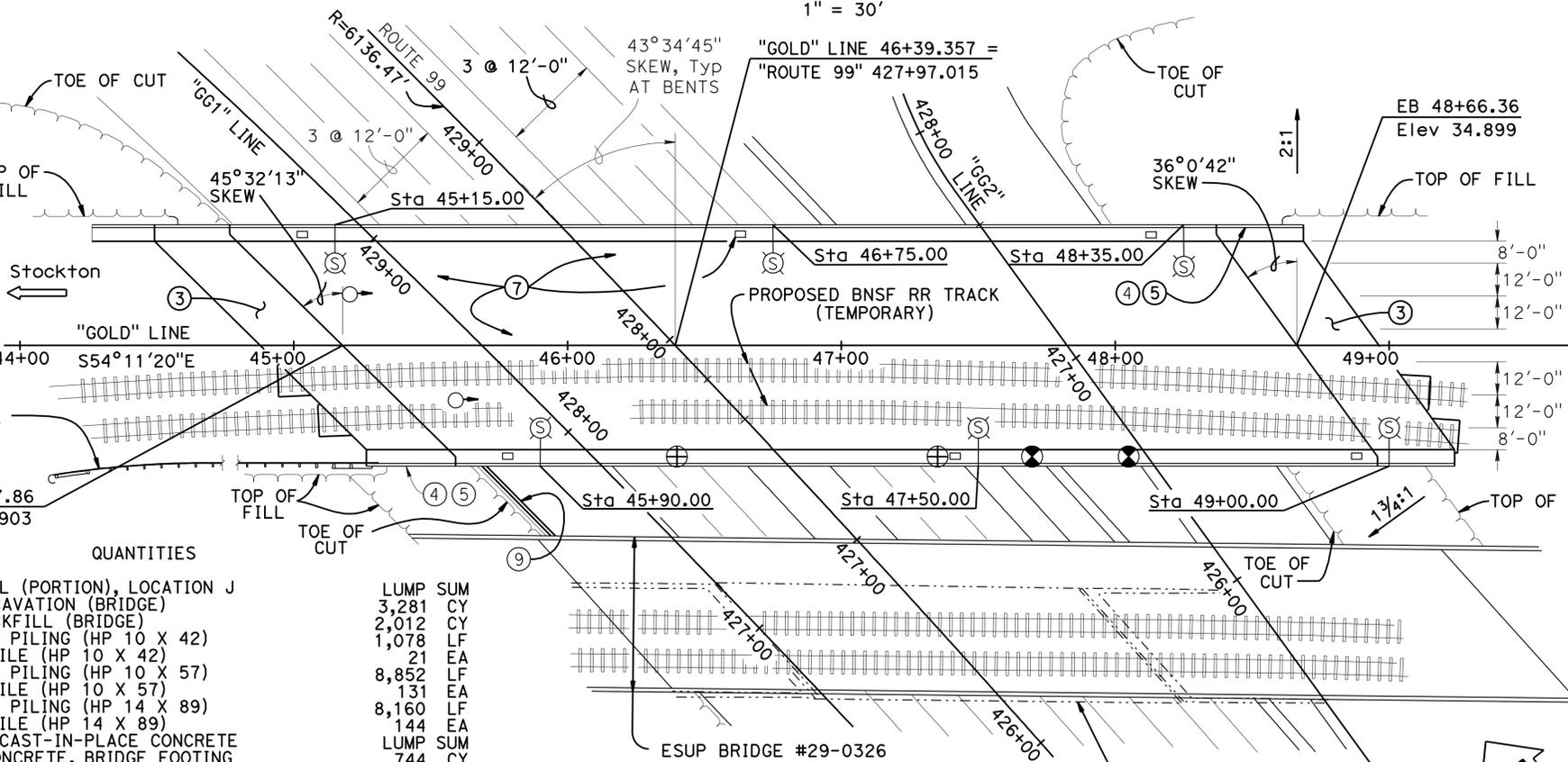
BVC 44+00 Elev 35.35  
 +0.70%  
 300.00' VC  
 R/C = -0.39%/Sta  
 EVC 47+00 Elev 35.69  
 -0.47%

**PROFILE GRADE**



- Legend:**
- Indicates existing structure
  - Indicates limits of bridge removal, bridge removal (Portion), LOCATION J
  - ⊗ Indicates Point of Min Vert Clr (Permanent)
  - ⊕ Indicates Point of Min Vert Clr (Temporary)
  - ⊙ Indicates Structure Lighting
  - Indicates Soffit Lighting, see "ROAD PLANS"

**ELEVATION**



**QUANTITIES**

BRIDGE REMOVAL (PORTION), LOCATION J	LUMP	SUM
STRUCTURE EXCAVATION (BRIDGE)	3,281	CY
STRUCTURE BACKFILL (BRIDGE)	2,012	CY
FURNISH STEEL PILING (HP 10 X 42)	1,078	LF
DRIVE STEEL PILE (HP 10 X 42)	21	EA
FURNISH STEEL PILING (HP 10 X 57)	8,852	LF
DRIVE STEEL PILE (HP 10 X 57)	131	EA
FURNISH STEEL PILING (HP 14 X 89)	8,160	LF
DRIVE STEEL PILE (HP 14 X 89)	144	EA
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	744	CY
STRUCTURAL CONCRETE, BRIDGE	3,115	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	196	CY
ARCHITECTURAL TEXTURE (SPLIT FACE)	834	SQFT
ARCHITECTURAL TEXTURE (RIVER ROCK)	5,952	SQFT
DRILL AND BOND DOWEL	234	LF
DRILL AND BOND DOWEL (CHEMICAL ADHESIVE)	42	EA
JOINT SEAL ASSEMBLY (MR 2 1/2")	205	LF
JOINT SEAL (TYPE AL)	349	LF
BAR REINFORCING STEEL (BRIDGE)	930,478	LB
PREPARE AND STAIN CONCRETE	5,952	SQFT
SLOPE PAVING (CONCRETE)	44	CY
SLOPE PAVING (RIVER ROCK)	654	SQFT
MISCELLANEOUS METAL (BRIDGE)	180,018	LB
BRIDGE DECK DRAINAGE SYSTEM	1,614	LB
CHAIN LINK RAILING (TYPE 7 MODIFIED)	839	LF
CONCRETE BARRIER (TYPE 26 MODIFIED)	812	LF
CONCRETE BARRIER (TYPE 26A MODIFIED)	27	LF

- NOTES:**
- Temporary track realignment by others
  - Minimum vertical clearance on NB Offramp = 16'-6 3/4", Minimum vertical clearance on Route 99 = 16'-7 1/2"
  - Structure Approach Type N(30S)
  - Paint "GOLDEN GATE AVE OC"
  - Paint "Br No. 29-0330"
  - City of Stockton communication lines (3" ∅ conduit in 5" opening)
  - No. 5 Pullbox on sidewalk, see "ROAD PLANS"
  - 2-2" conduit, see "ROAD PLANS"
  - CONNECTING WALL BR NO. 29E0003

Gary Joe DESIGN ENGINEER	DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	29-0330	
	DETAILS	BY E. MONTEVIRGEN C. FIGUERRES	CHECKED T. BUI	LAYOUT	BY M. FRIEDHEIM		CHECKED T. BUI	POST MILE	17.41
	QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI	SPECIFICATIONS	BY V. RENGANATHAN		CHECKED M. FRIEDHEIM	PLANS AND SPECS COMPARED	M. FRIEDHEIM

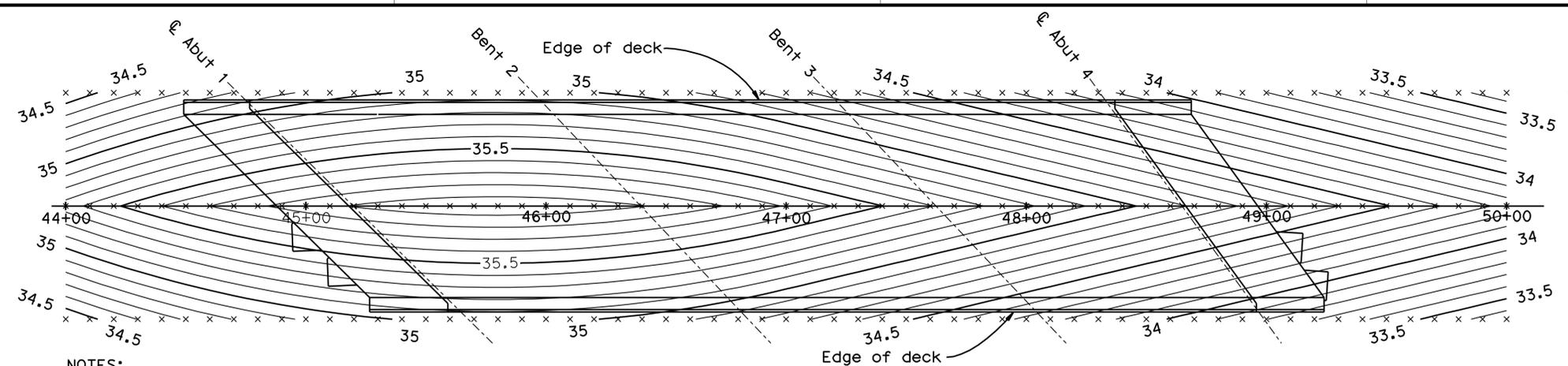
**SOUTH STOCKTON WIDENING**  
**GOLDEN GATE AVE OC**  
**GENERAL PLAN**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1138	1414

REGISTERED CIVIL ENGINEER  
 Chris Udarbe  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA

11-04-11  
 DATE  
 3-26-12  
 PLANS APPROVAL DATE

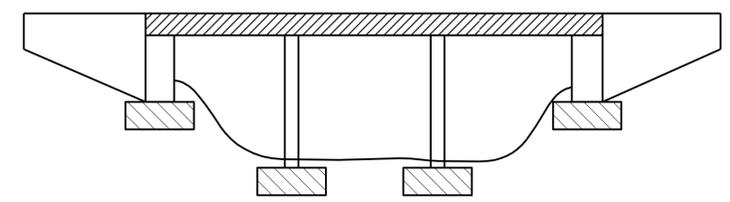
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**NOTES:**  
 1. Contour interval = 0.1 ft  
 2. x = 10 ft intervals along station line  
 3. Contours do not include camber

**DECK CONTOURS**

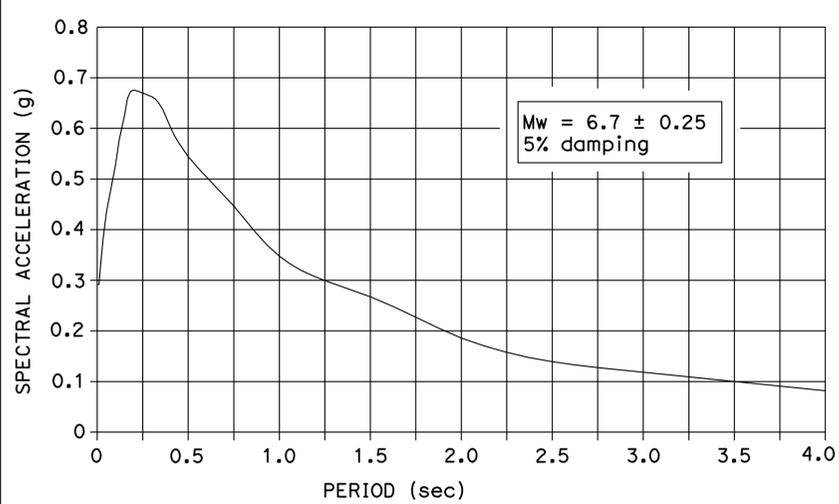
1" = 30'



- Structural Concrete, Bridge (Left Side) (5000 psi at 28 days)
- Structural Concrete, Bridge (Right Side) (6500 psi at 28 days)
- Structural Concrete, Bridge (4000 psi at 28 days, Rt side only)
- Structural Concrete, Bridge Footing (includes abut. 1 left RW footing) (4000 psi at 28 days, Rt side only)

**CONCRETE STRENGTH AND TYPE LIMITS**

No Scale



**SITE SPECIFIC ACCELERATION RESPONSE SPECTRA CURVE**

**GENERAL NOTES  
LOAD AND RESISTANCE FACTOR DESIGN**

**DESIGN:**  
 AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments, preface dated December 2008  
 Right Bridge Stage 1: AREMA 2010

**SEISMIC DESIGN:**  
 Caltrans Seismic Design Criteria (SDC), Version 1.5 dated January 2010

**DEAD LOAD:**  
 Includes 35 psf for future wearing surface.

**LIVE LOADING:**  
 HL93 and permit design load.  
 Right Bridge Stage 1: E80 Cooper with Diesel Impact

**SEISMIC LOADING:**  
 Soil profile type D  
 Magnitude group 6.7 ± 0.25  
 Peak Rock Acceleration 0.29g  
 See ARS curve below  
 $V_{50} = 890$  ft/sec

**REINFORCED CONCRETE:**  
 $f_y = 60$  ksi  
 $f'_c = 3.6$  ksi  
 $n = 8$

**PILE DATA TABLE**

Location	Pile Type	Nominal Resistance		Design Tip Elev. (ft)	Specified Tip Elevation (ft)	Nominal Driving Resistance (kips)
		Compression	Tension			
Abut 1 Left	HP 10 X 57	260 kips	0	-56.0	-56.0	260 kips
Abut 1 Right	HP 10 X 57	280 kips	0	-58.0	-58.0	280 kips
Bent 2 Left	HP 14 X 89	220 kips	0	-34.0	-34.0	220 kips
Bent 2 Right	HP 14 X 89	430 kips	0	-67.0	-67.0	430 kips
Bent 3 Left	HP 14 X 89	220 kips	0	-34.0	-34.0	220 kips
Bent 3 Right	HP 14 X 89	430 kips	0	-67.0	-67.0	430 kips
Abut 4 Left	HP 10 X 57	280 kips	0	-54.0	-54.0	280 kips
Abut 4 Right	HP 10 X 57	300 kips	0	-58.0	-58.0	300 kips
Abut 1 Left RW H=24	HP 10 X 42	180 kips	0	-36.0	-36.0	180 kips
Abut 1 Left RW H=20	HP 10 X 42	180 kips	0	-34.0	-34.0	180 kips
Abut 1 Left RW H=16	HP 10 X 42	180 kips	0	-32.0	-32.0	180 kips
Abut 1 Left RW H=12	HP 10 X 42	180 kips	0	-30.0	-30.0	180 kips
Abut 1 Left RW H=8	HP 10 X 42	180 kips	0	-28.0	-28.0	180 kips

Note: Design tip elevations are controlled by compression at all locations.

**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
  - B7-1 BOX GIRDER DETAILS
  - B7-10 UTILITY OPENING BOX GIRDER
  - B8-5 CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
  - B11-52 CHAIN LINK RAILING TYPE 7
  - B11-54 CONCRETE BARRIER TYPE 26
  - ES-6B ELECTRICAL SYSTEMS (LIGHTING STANDARD TYPES 15 AND 21 BARRIER RAIL MOUNTED DETAILS)
  - ES-9D ELECTRICAL SYSTEMS (ELECTRICAL DETAILS STRUCTURE INSTALLATIONS)
- STANDARD PLAN SHEET NO.  
 DETAIL NO.

**SOUTH STOCKTON WIDEN**

**GOLDEN GATE AVE OC**

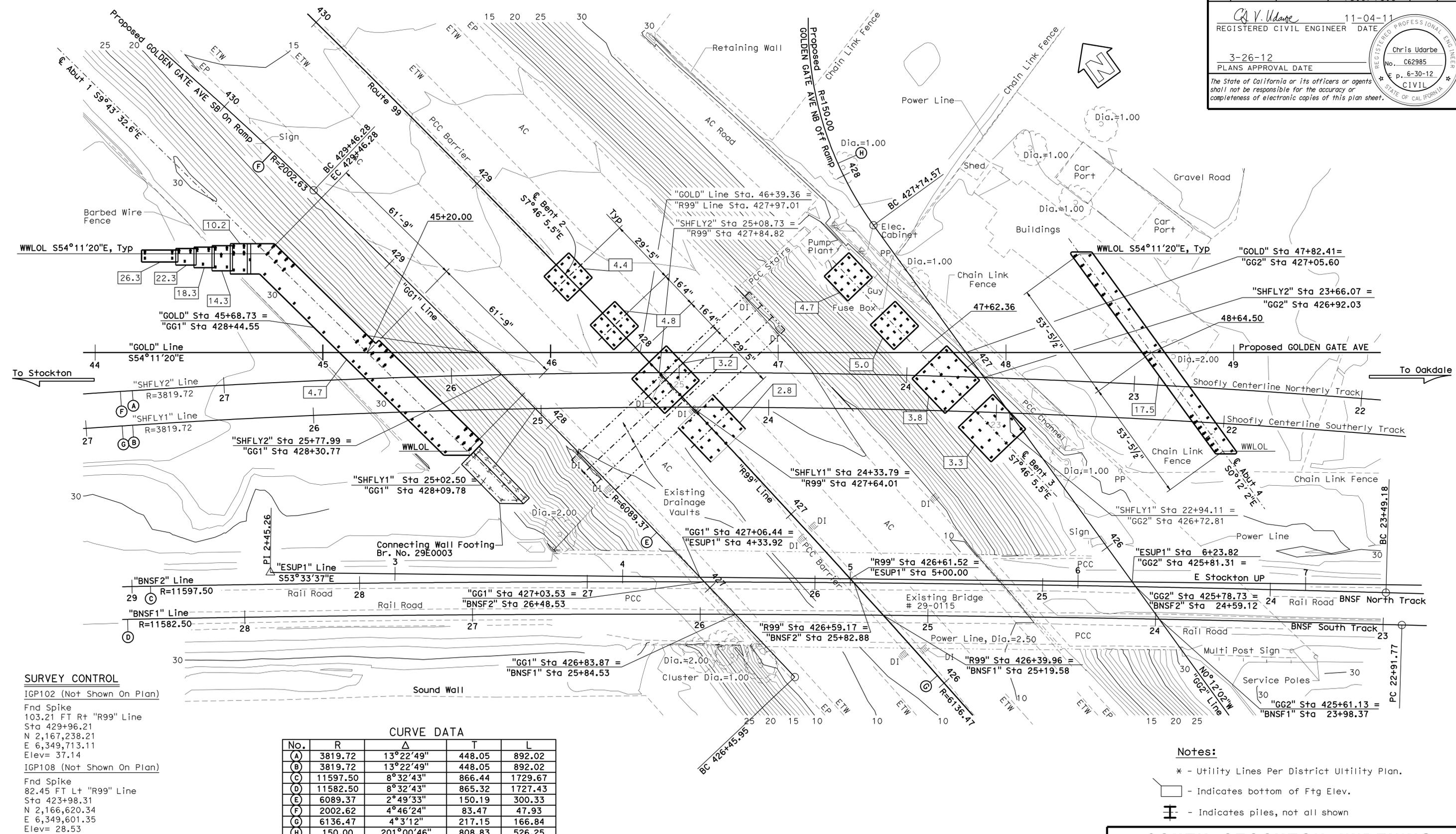
**INDEX TO PLANS**

DESIGN BY M. FRIEDHEIM	CHECKED T. BUI	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.
DETAILS BY C. FIGUERRES	CHECKED T. BUI			29-0330
QUANTITIES BY M. FRIEDHEIM	CHECKED T. BUI			POST MILE
				17.41

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1139	1414

C.V. Udabe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 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.

Chris Udabe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA



**SURVEY CONTROL**

IGP102 (Not Shown On Plan)  
 Fnd Spike  
 103.21 FT Rt "R99" Line  
 Sta 429+96.21  
 N 2,167,238.21  
 E 6,349,713.11  
 Elev= 37.14

IGP108 (Not Shown On Plan)  
 Fnd Spike  
 82.45 FT Lt "R99" Line  
 Sta 423+98.31  
 N 2,166,620.34  
 E 6,349,601.35  
 Elev= 28.53

**CURVE DATA**

NO.	R	Δ	T	L
(A)	3819.72	13°22'49"	448.05	892.02
(B)	3819.72	13°22'49"	448.05	892.02
(C)	11597.50	8°32'43"	866.44	1729.67
(D)	11582.50	8°32'43"	865.32	1727.43
(E)	6089.37	2°49'33"	150.19	300.33
(F)	2002.62	4°46'24"	83.47	47.93
(G)	6136.47	4°3'12"	217.15	166.84
(H)	150.00	201°00'46"	808.83	526.25

**Notes:**

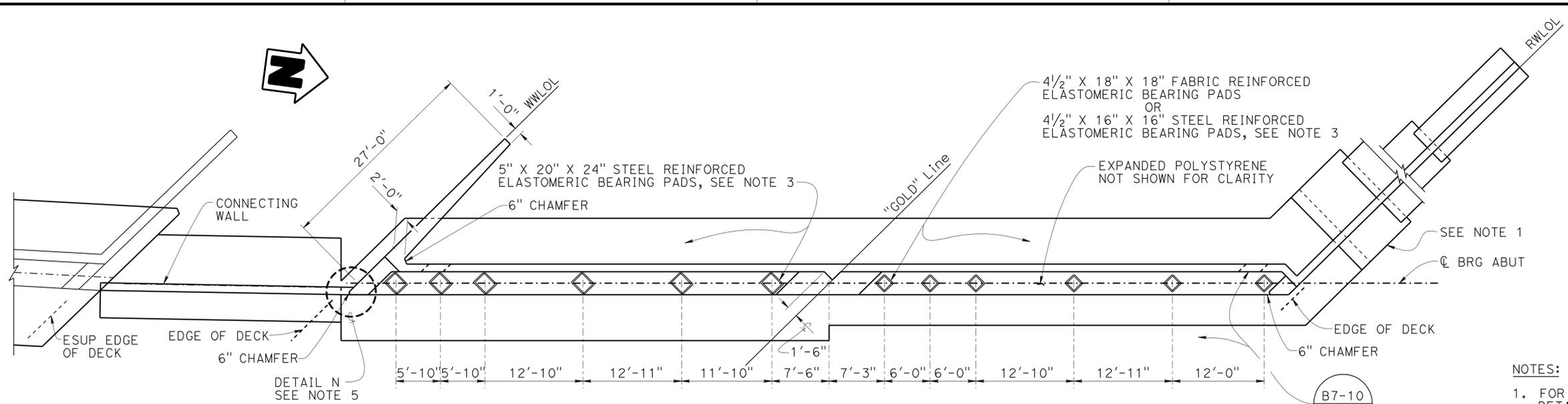
- \* - Utility Lines Per District Utility Plan.
- - Indicates bottom of Ftg Elev.
- ⊕ - Indicates piles, not all shown

**SOUTH STOCKTON WIDENING**  
**GOLDEN GATE AVE OC**  
**FOUNDATION PLAN**

<b>PRELIMINARY INVESTIGATION SECTION</b>				DESIGN BY M. FRIEDHEIM CHECKED T. BUI	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DIVISION OF ENGINEERING SERVICES</b> <b>STRUCTURE DESIGN</b> <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0330 POST MILE 28.58	<b>REVISION DATES</b> SHEET 3 OF 37
SCALE VERT. DATUM NGVD29 1"=20'	PHOTOGRAMMETRY AS OF: X SURVEYED BY District/T.Gillett CHECKED BY T.Gillett 09/2009	DETAILS BY P. SILVA CHECKED T. BUI	PROJECT NUMBER & PHASE: 1000000409 1 CONTRACT NO.: 10-3A1001					
ALIGNMENT TIES Dist. Traverse Sheet DRAFTED BY J.Martinez 09/2009 CHECKED BY L.Lew 09/2009	QUANTITIES BY M. FRIEDHEIM CHECKED T. BUI	DISREGARD PRINTS BEARING EARLIER REVISION DATES	UNIT: 3586 PROJECT NUMBER & PHASE: 1000000409 1 CONTRACT NO.: 10-3A1001					

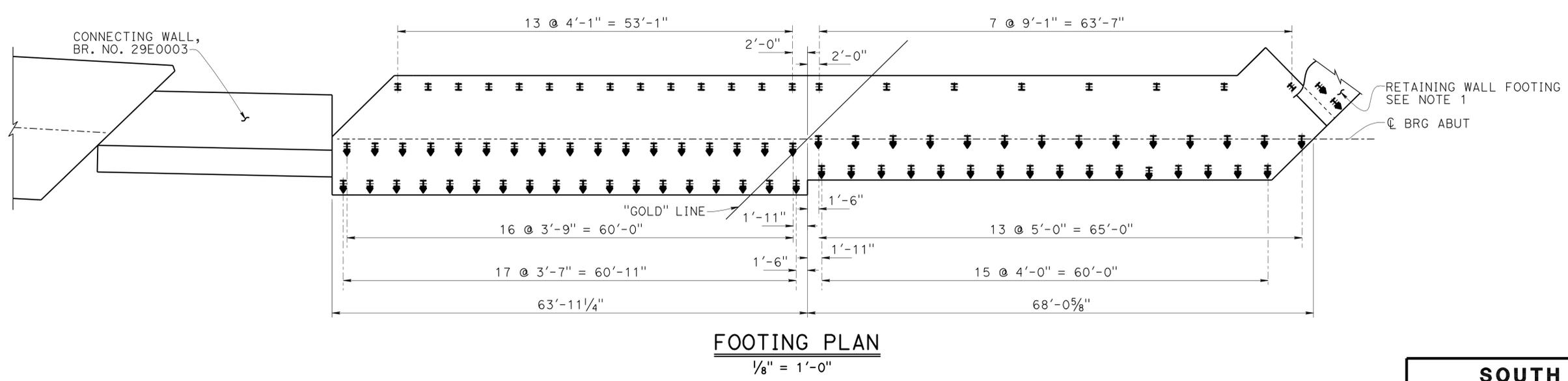
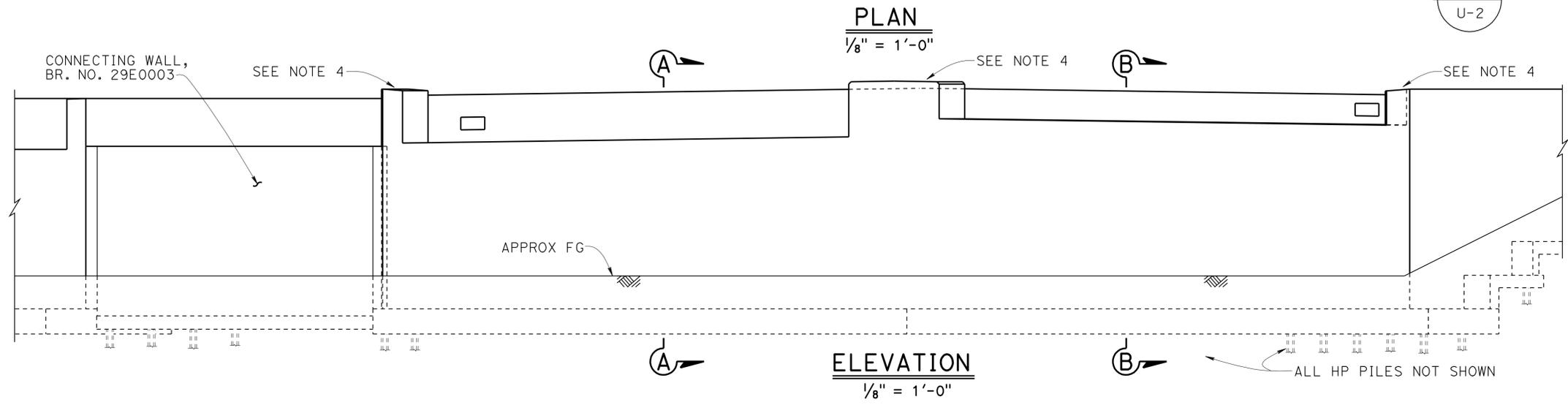
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
 FILE => 29-0330-e-fp.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1140	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					



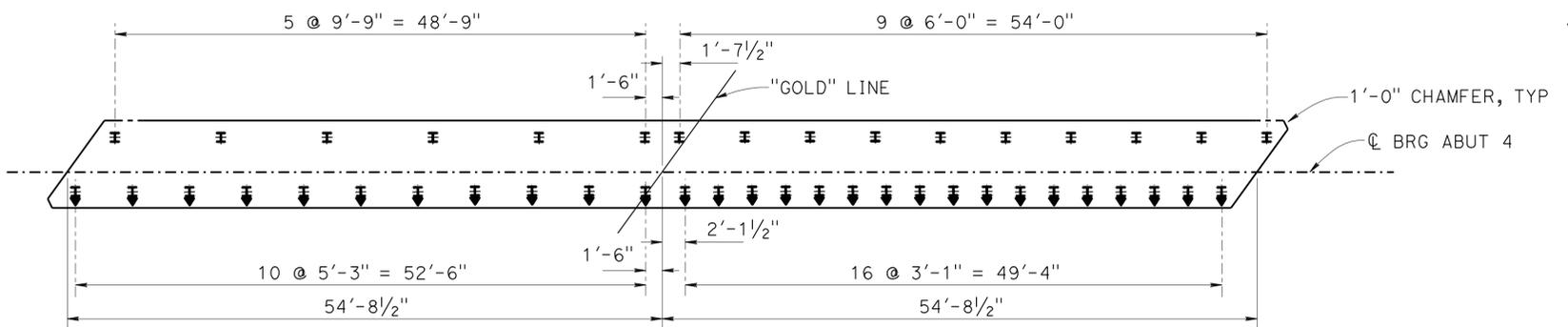
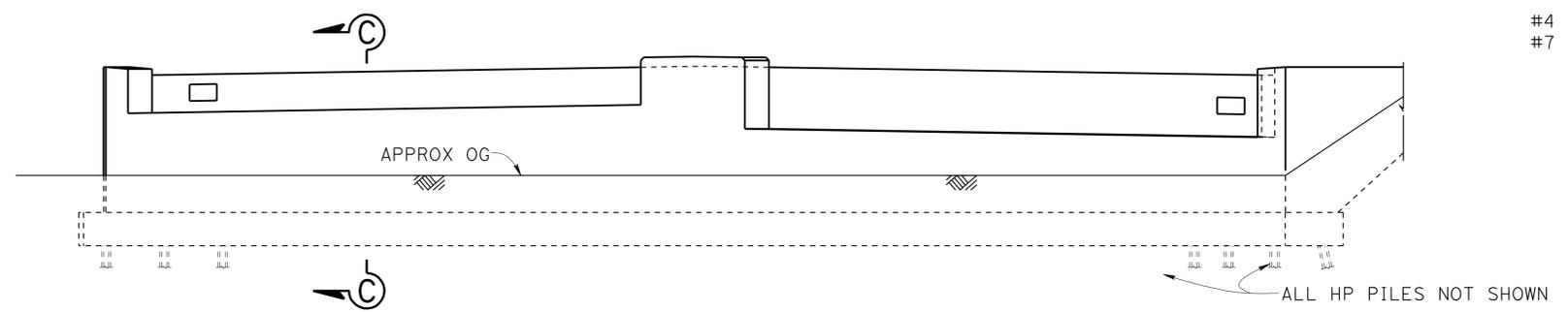
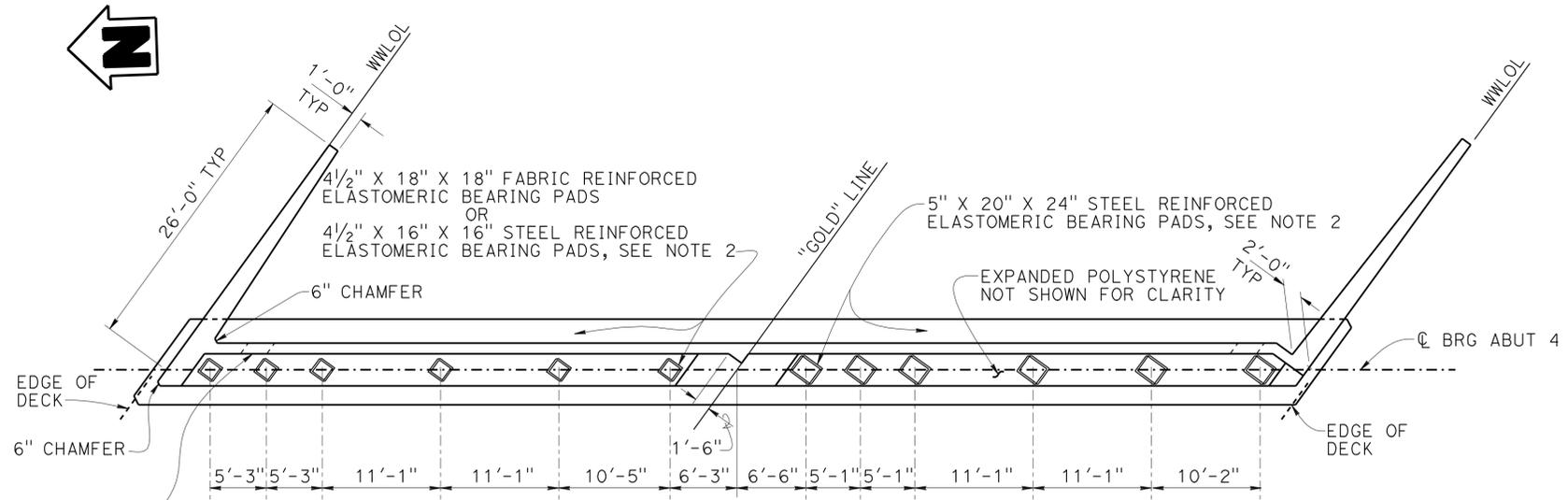
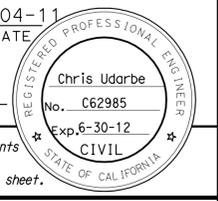
- NOTES:
- FOR RETAINING WALL FOOTING, SEE "ABUTMENT DETAILS NO. 3" SHEET.
  - FOR SECTIONS A-A AND B-B, SEE "ABUTMENT DETAILS NO. 1" SHEET.
  - FOR BEARING PAD, BACKWALL BASE AND JOINT PROTECTION DETAIL, SEE "ABUTMENT DETAILS NO. 5" SHEET.
  - FOR INTERNAL ABUTMENT KEY DETAIL, SEE "ABUTMENT DETAILS NO. 2" SHEET.
  - FOR DETAIL N, SEE "ABUTMENT DETAILS NO. 5" SHEET.

- LEGEND:
- ⊞ INDICATES VERTICAL PILE
  - ⊞ INDICATES BATTERED PILE (1:3)



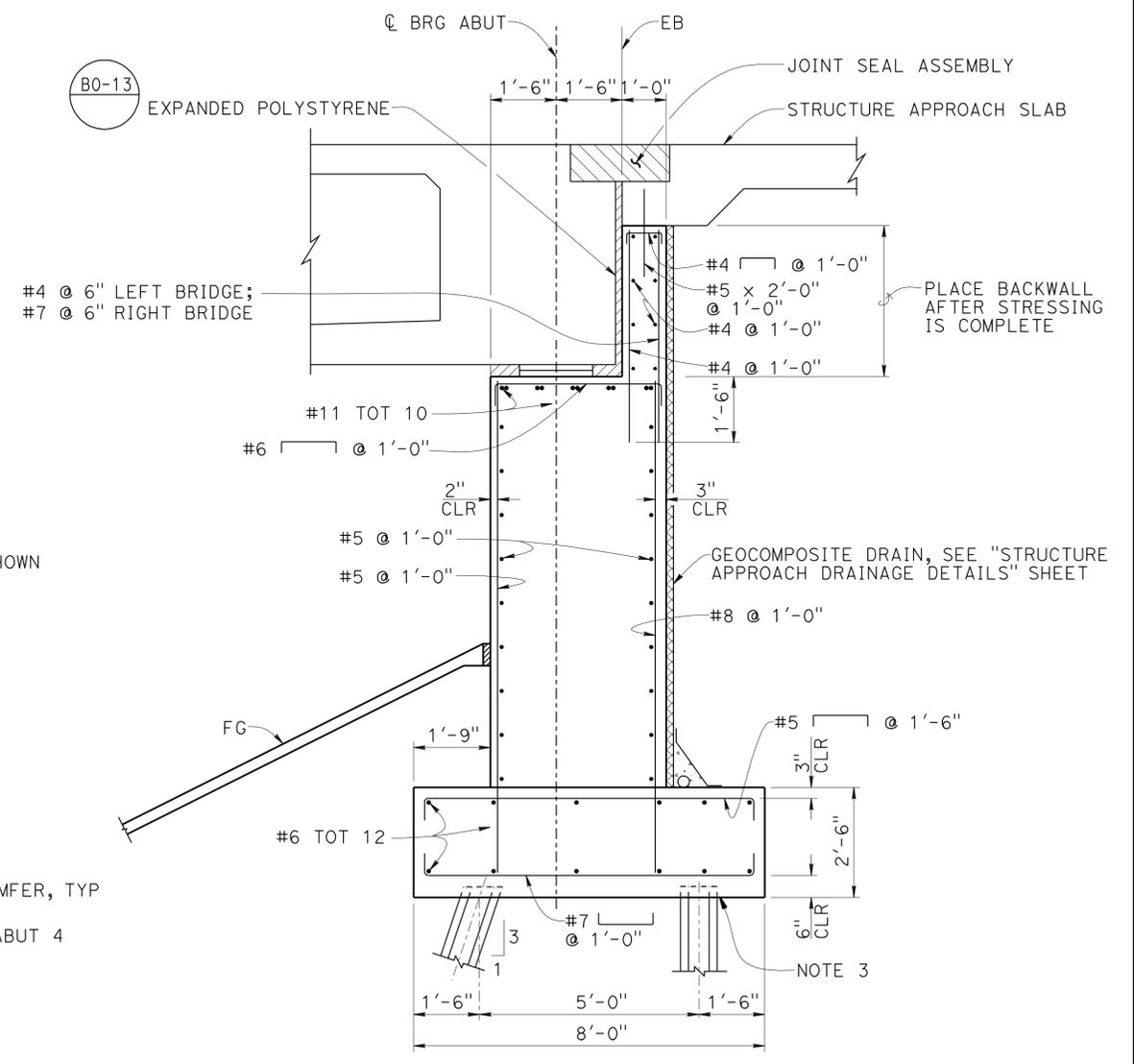
DESIGN BY M. FRIEDHEIM CHECKED T. BUI DETAILS BY C. FIGUERRES CHECKED T. BUI QUANTITIES BY M. FRIEDHEIM CHECKED T. BUI				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0330 POST MILE 28.58	<b>SOUTH STOCKTON WIDEN          GOLDEN GATE AVE OC          ABUTMENT 1 LAYOUT</b>	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.:	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES SHEET 4 OF 37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1141	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
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NOTES:

1. Abutment 4 left shown, abutment 4 right similar.
2. For bearing pad, backwall base and joint protection detail, see "ABUTMENT DETAILS NO. 5" sheet.
3. For pile anchor details, see "ABUTMENT DETAILS NO. 4" sheet



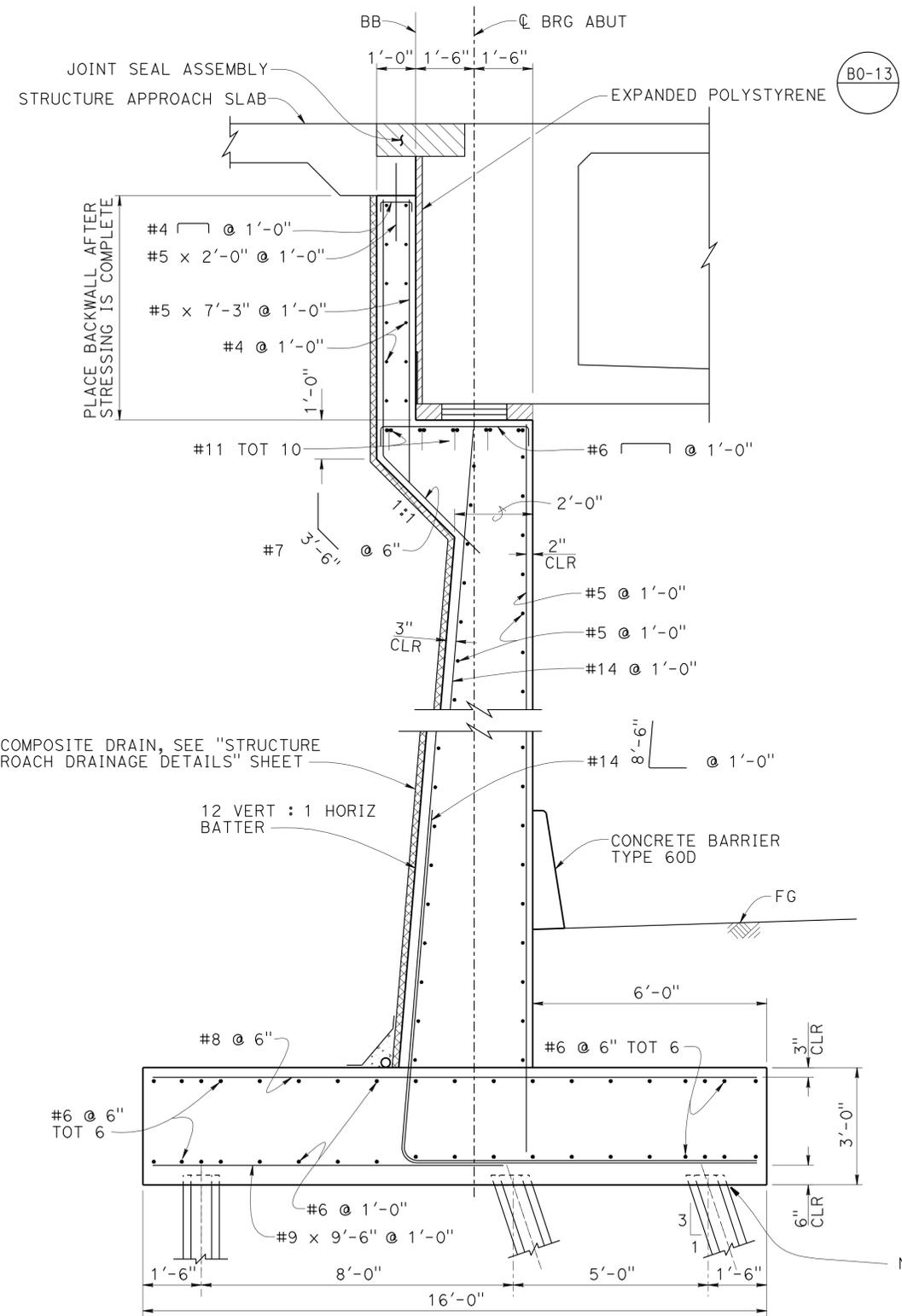
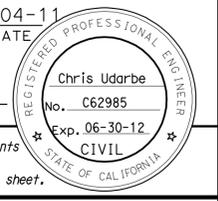
**SOUTH STOCKTON WIDEN  
GOLDEN GATE AVE OC  
ABUTMENT 4 LAYOUT**

DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI
DETAILS	BY C. FIGUERRES	CHECKED T. BUI
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI

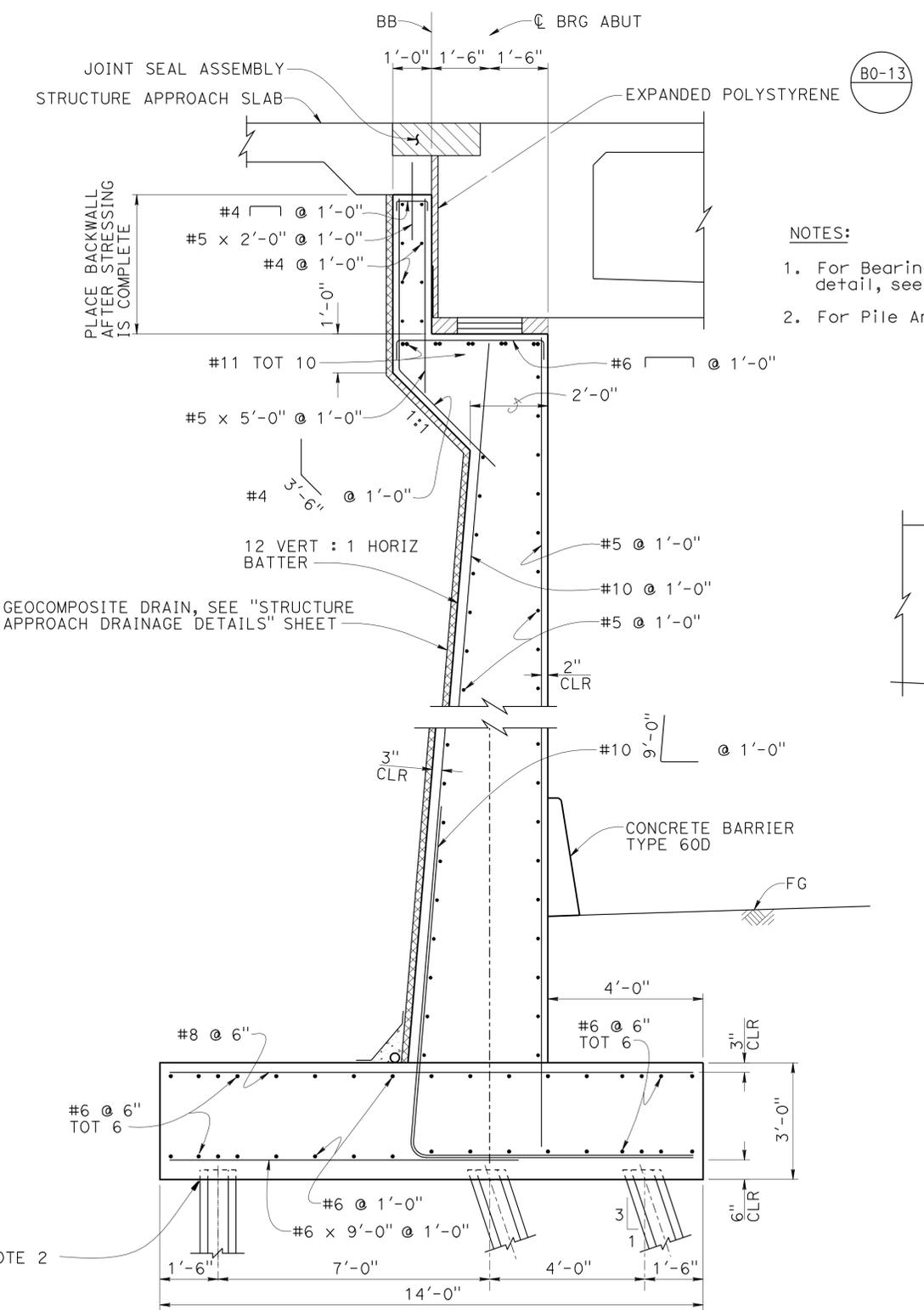
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0330
POST MILE	28.58

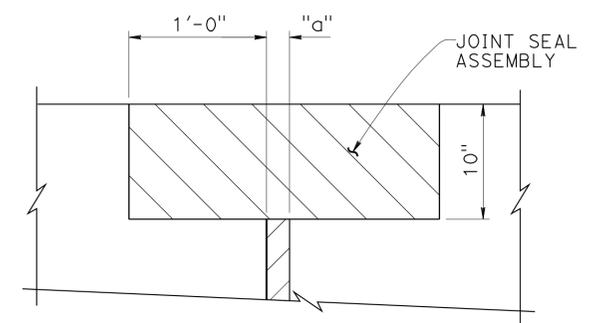
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1142	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
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**RIGHT BRIDGE SECTION A-A**  
1/2" = 1'-0"



**LEFT BRIDGE SECTION B-B**  
1/2" = 1'-0"



**BLOCKOUT DETAIL**  
1/2" = 1'-0"

**NOTES:**

1. For Bearing Pad, Backwall Base, and Joint Protection detail, see "ABUTMENT DETAILS NO. 5" sheet.
2. For Pile Anchor Details, see "ABUTMENT DETAILS NO. 4" sheet.

DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI
DETAILS	BY C. FIGUERRES	CHECKED T. BUI
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

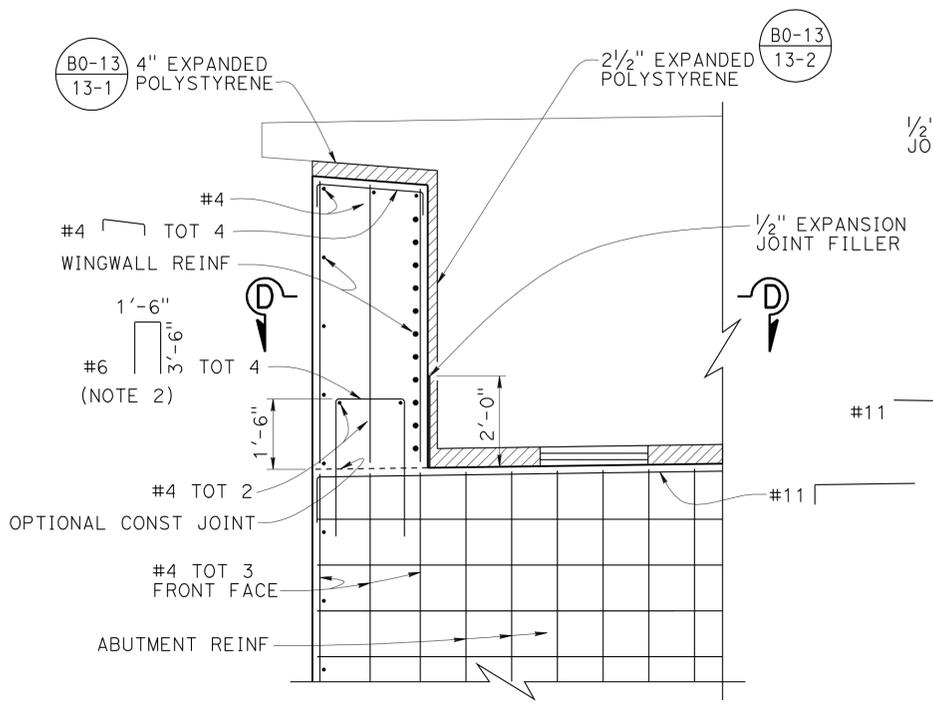
DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0330
POST MILE	17.41

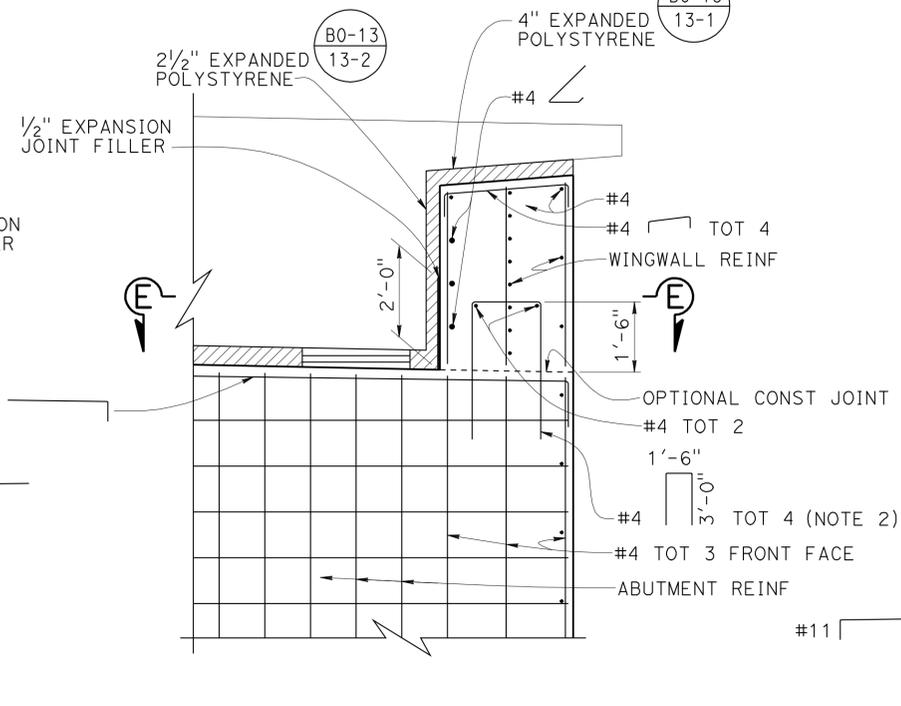
**SOUTH STOCKTON WIDEN  
GOLDEN GATE AVE OC  
ABUTMENT DETAILS NO. 1**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1143	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
Chris Udarbe			REGISTERED PROFESSIONAL ENGINEER		
No. C62985			Exp. 06-30-12		
CIVIL			STATE OF CALIFORNIA		
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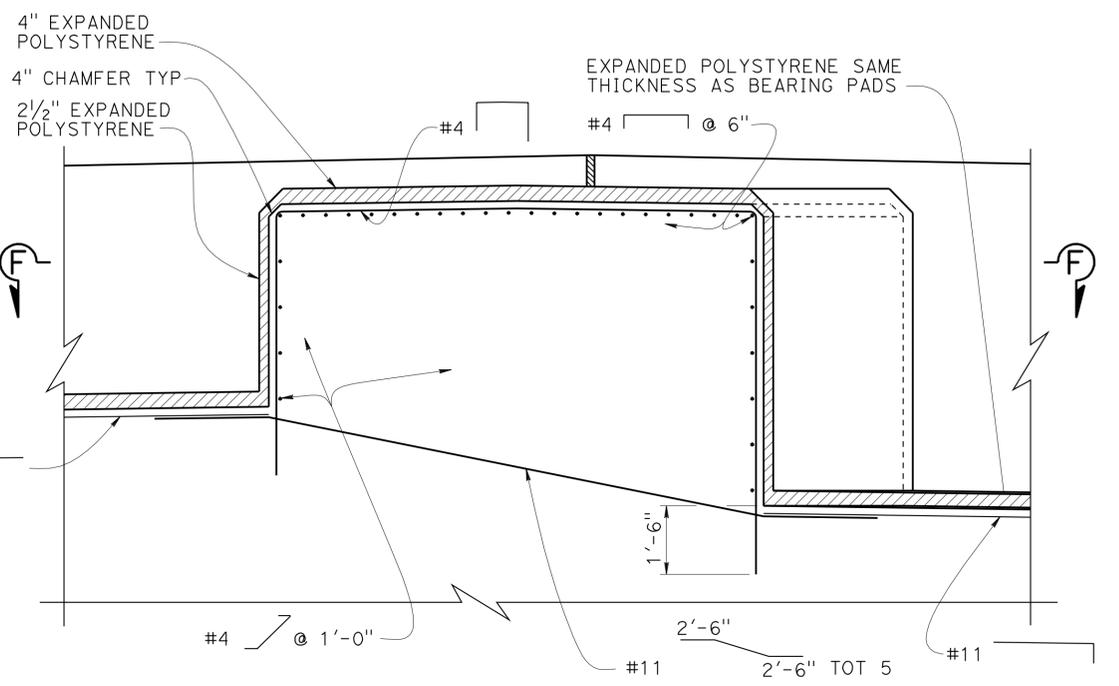
- NOTES:
1. ABUTMENT 1 SHEAR KEY DETAILS SHOWN, ABUTMENT 4 SIMILAR.
  2. WITHIN THE SHEAR KEY, THESE BARS ONLY SHALL CROSS THE OPTIONAL CONSTRUCTION JOINT PLANE.



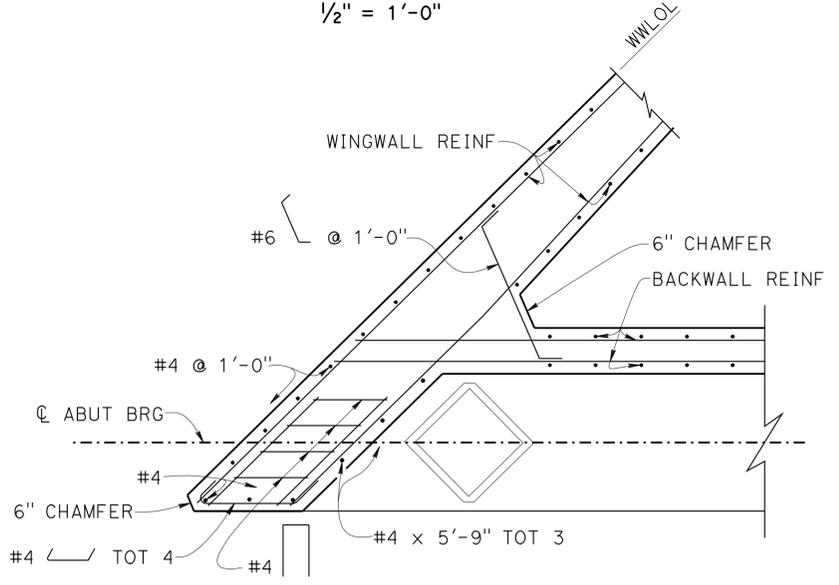
**SHEAR KEY DETAIL**  
1/2" = 1'-0"



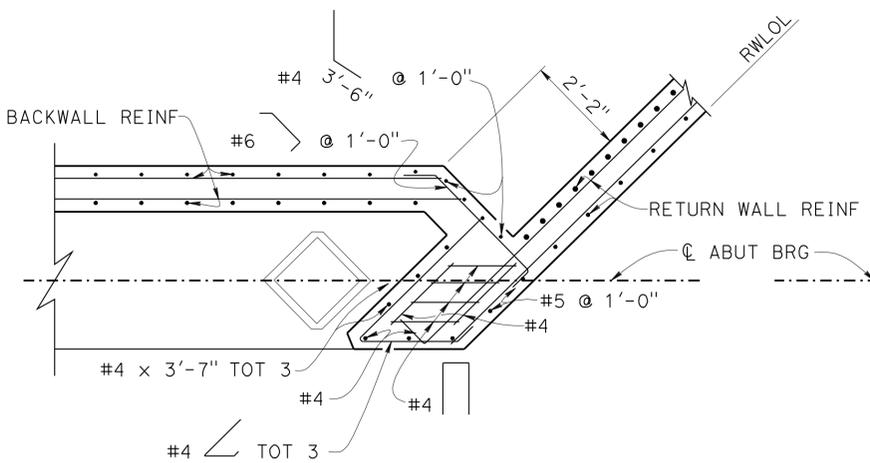
**SHEAR KEY DETAIL**  
1/2" = 1'-0"



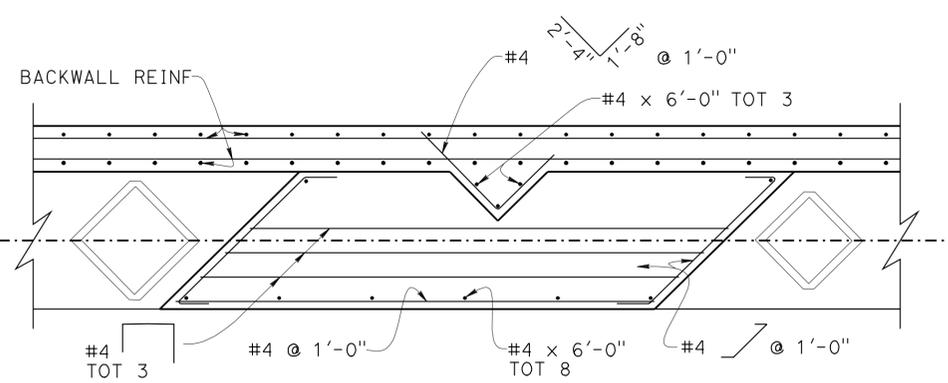
**INTERNAL ABUTMENT KEY DETAIL**  
1/2" = 1'-0"



**SECTION D-D**  
1/2" = 1'-0"



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



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

DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI
DETAILS	BY C. FIGUERRES	CHECKED T. BUI
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI

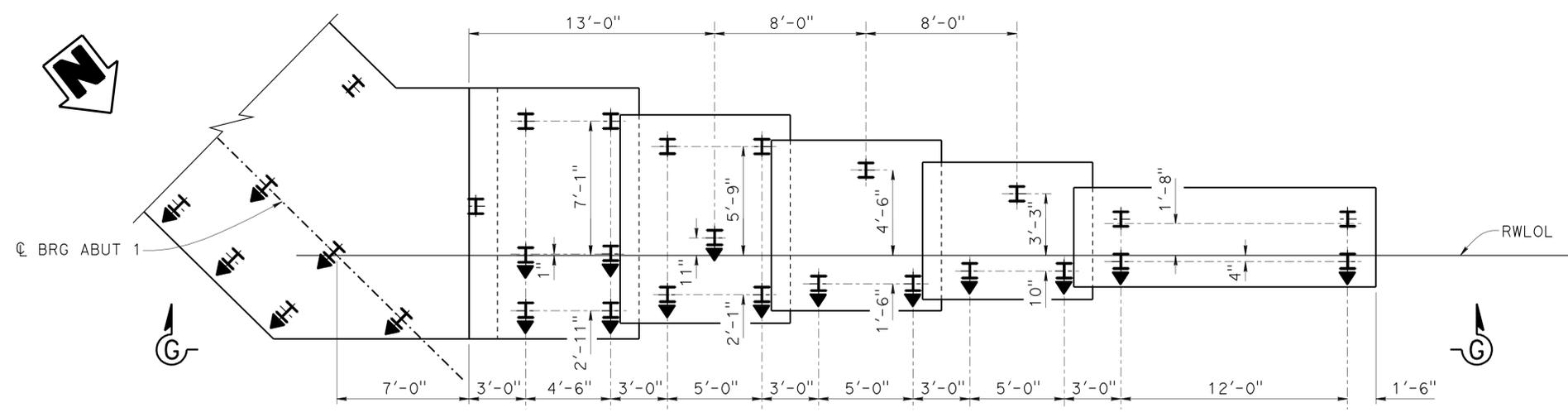
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0330
POST MILE	17.41

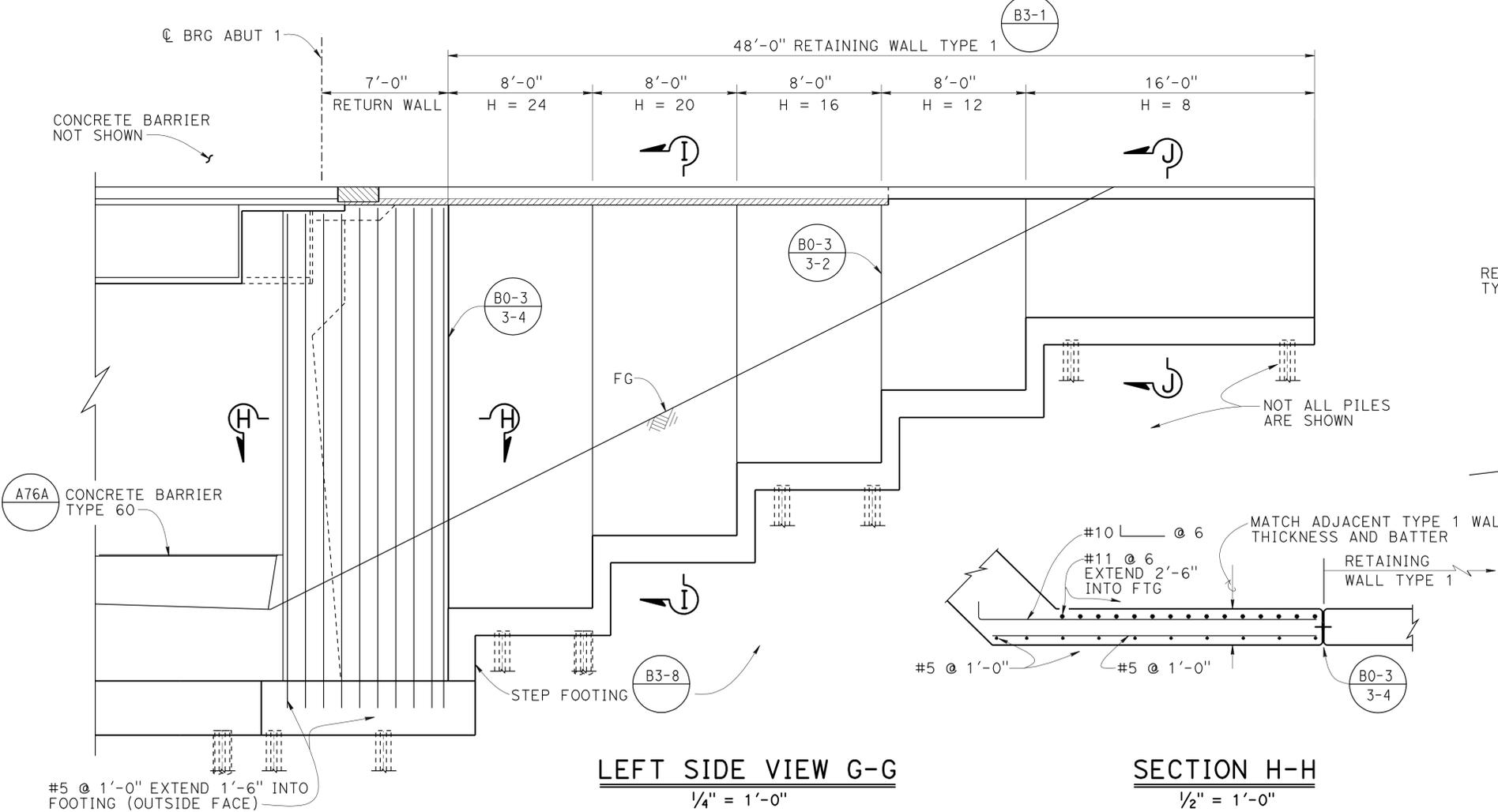
**SOUTH STOCKTON WIDEN  
GOLDEN GATE AVE OC  
ABUTMENT DETAILS NO. 2**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1144	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			Chris Udarbe No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA		
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.					



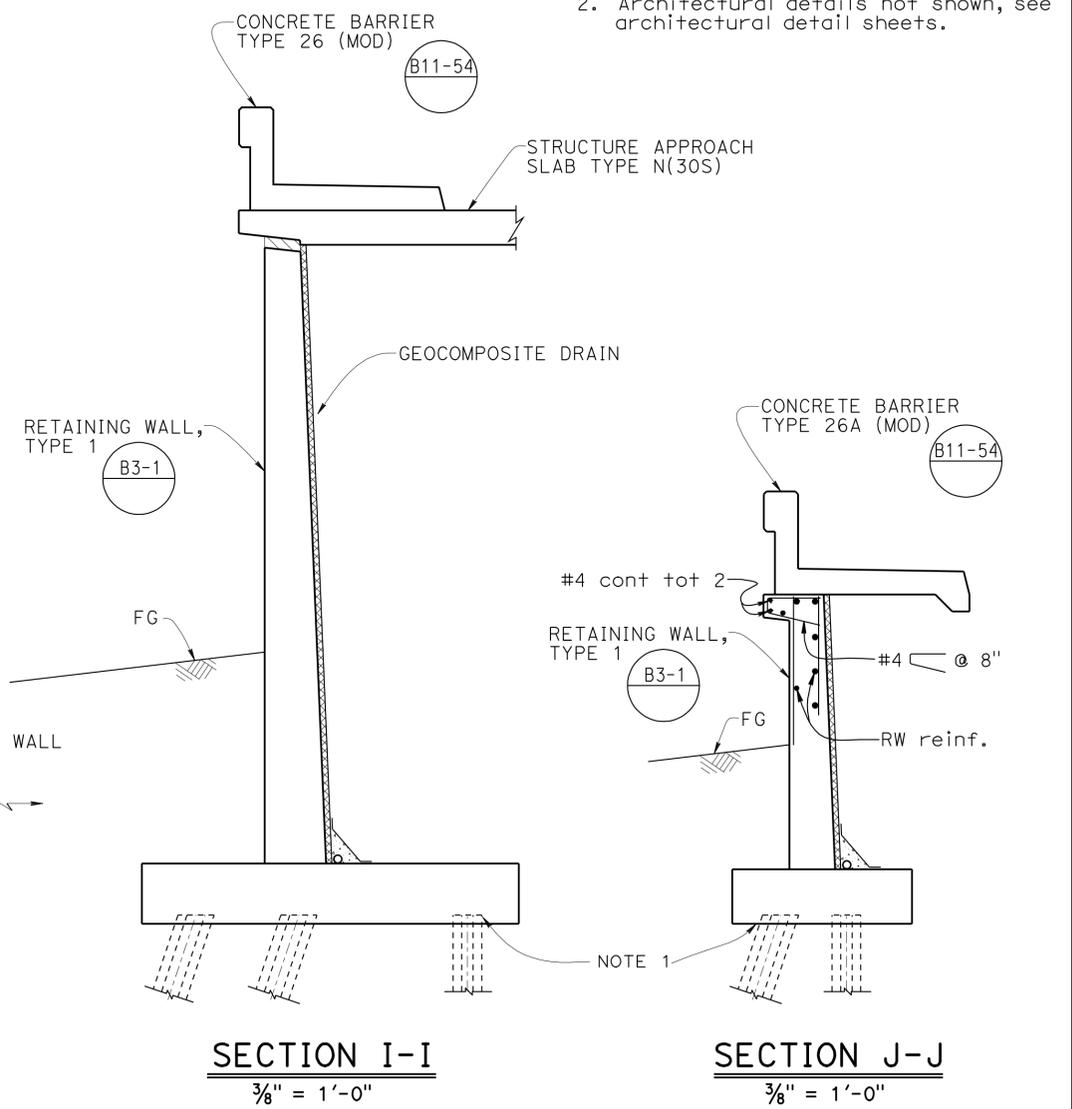
**RETAINING WALL FOOTING PLAN**  
 $1/4" = 1'-0"$

- LEGEND:**
- ⊞ INDICATES VERTICAL PILE
  - ⊞ INDICATES BATTERED PILE (1:3)
- NOTES:**
- For Pile Anchor details, see "ABUTMENT DETAILS NO. 4" sheet.
  - Architectural details not shown, see architectural detail sheets.



**LEFT SIDE VIEW G-G**  
 $1/4" = 1'-0"$

**SECTION H-H**  
 $1/2" = 1'-0"$

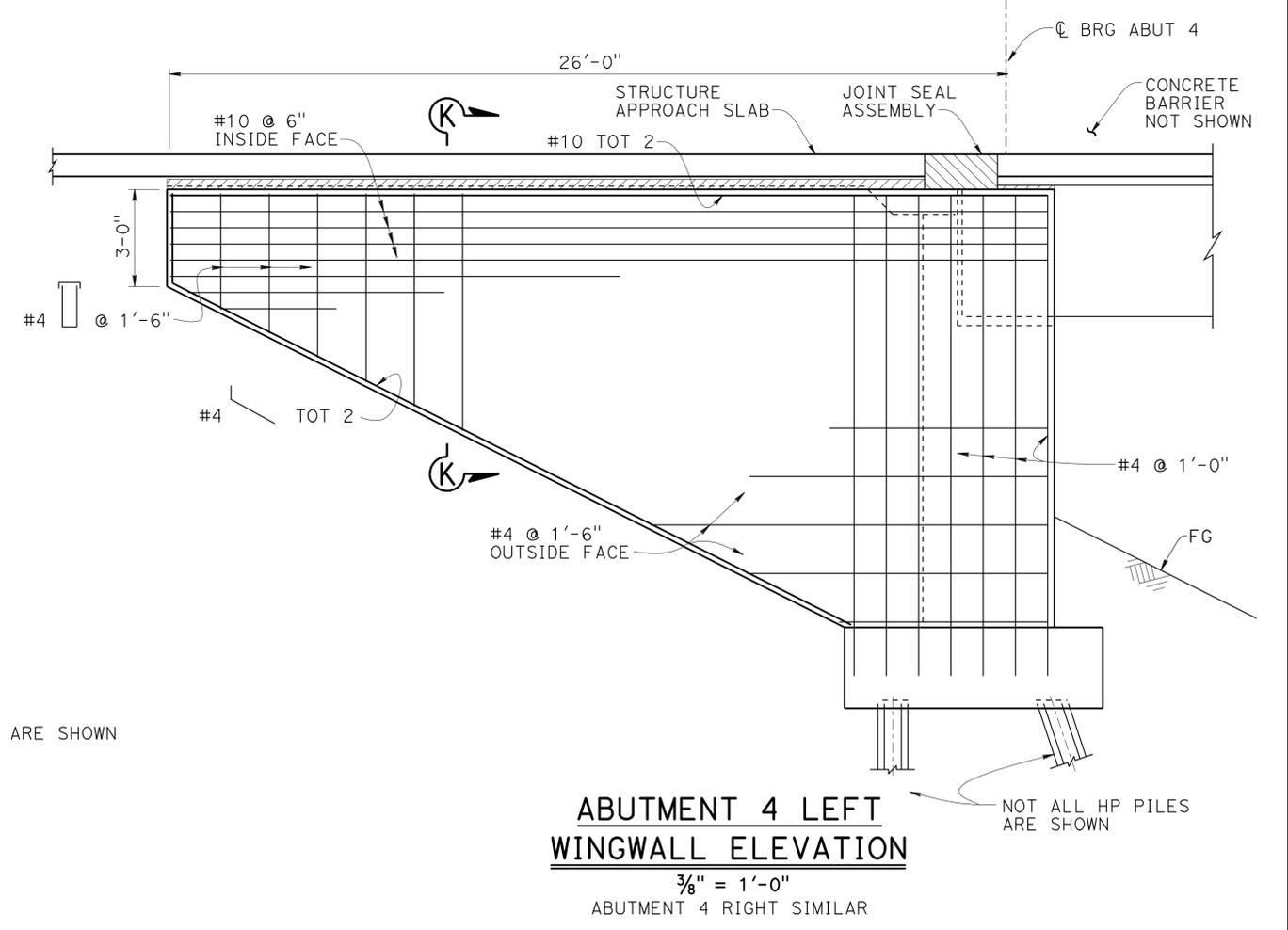
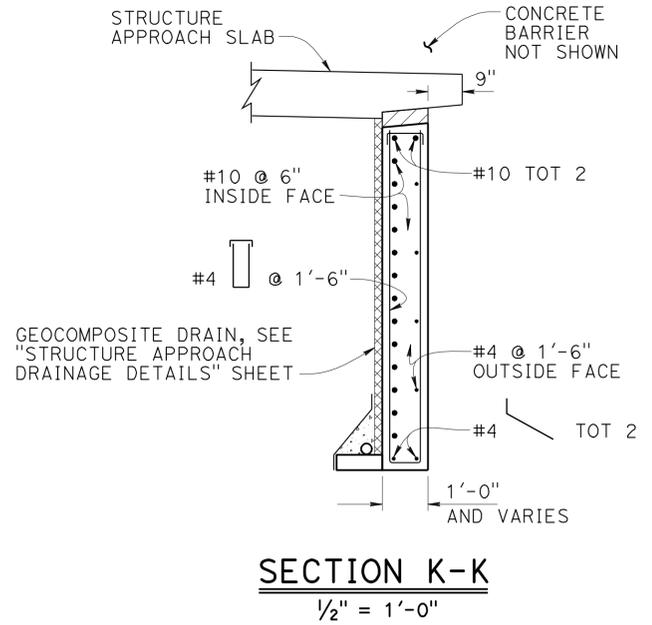
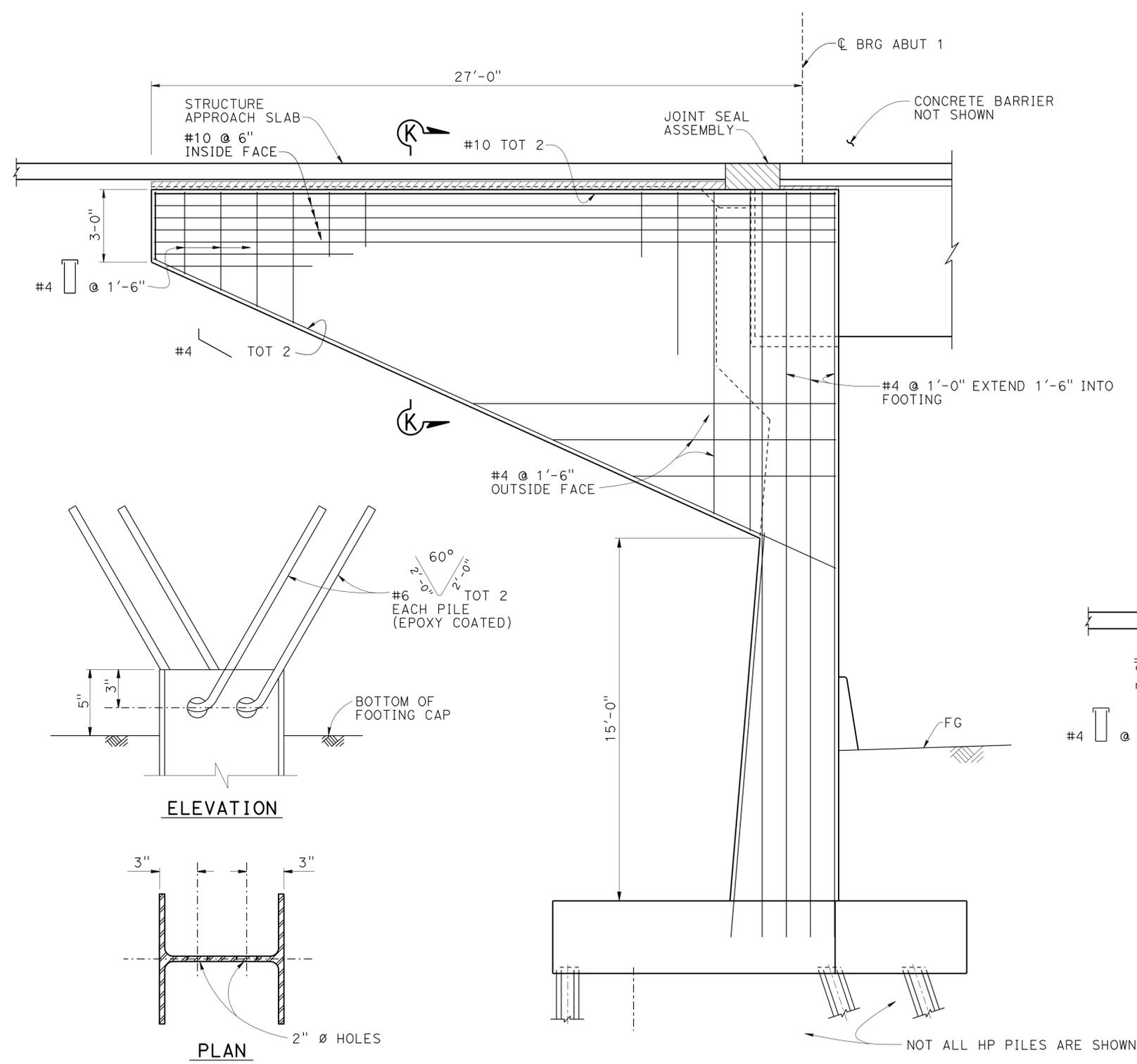


**SECTION I-I**  
 $3/8" = 1'-0"$

**SECTION J-J**  
 $3/8" = 1'-0"$

DESIGN BY M. FRIEDHEIM CHECKED T. BUI DETAILS BY C. FIGUERRES CHECKED T. BUI QUANTITIES BY M. FRIEDHEIM CHECKED T. BUI				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0330 POST MILE 17.41		<b>SOUTH STOCKTON WIDEN          GOLDEN GATE AVE OC          ABUTMENT DETAILS NO. 3</b>		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		
						0 1 2 3		REVISION DATES: 11-02-10, 12-15-10, 2-15-11, 06-08-11		SHEET 8 OF 37		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1145	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
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**STEEL PILE ANCHOR DETAIL**  
No Scale

NOTE: This detail applies to all piles for this bridge.

**ABUTMENT 1 RIGHT WINGWALL ELEVATION**  
3/8" = 1'-0"

**ABUTMENT 4 LEFT WINGWALL ELEVATION**  
3/8" = 1'-0"  
ABUTMENT 4 RIGHT SIMILAR

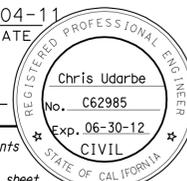
DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI
DETAILS	BY C. FIGUERRES	CHECKED T. BUI
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI

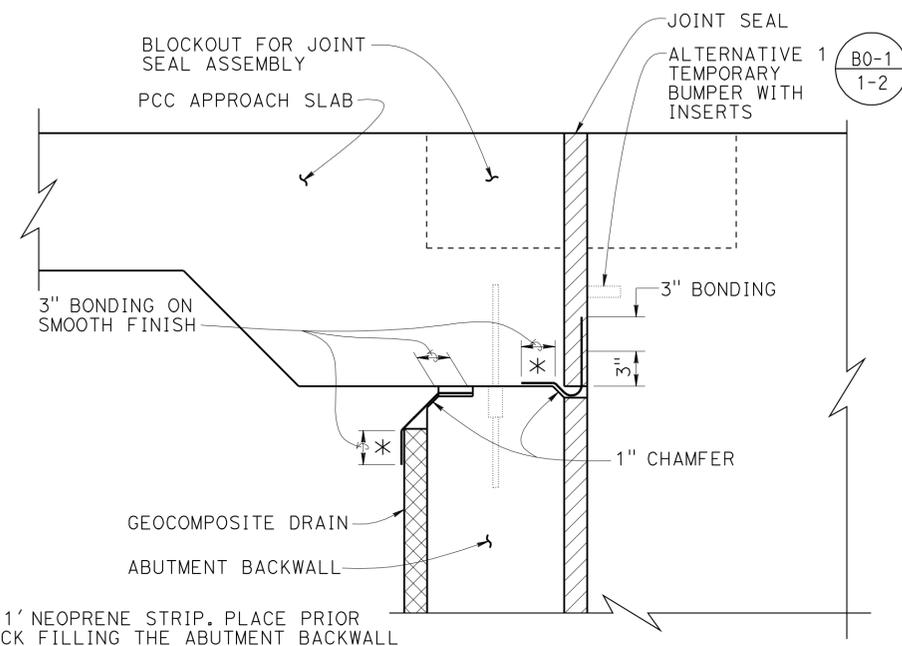
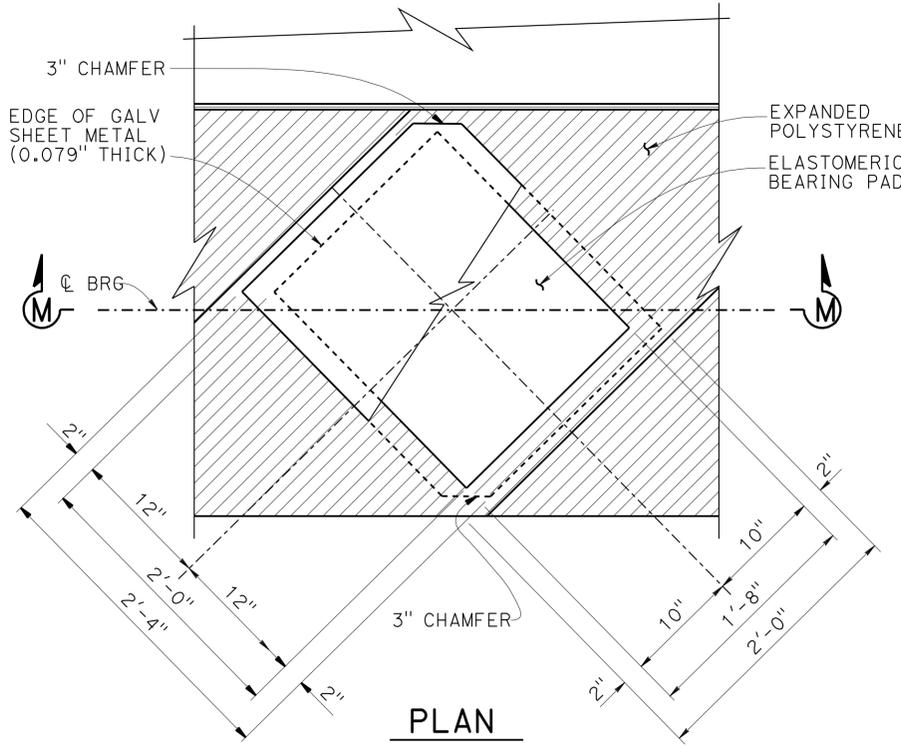
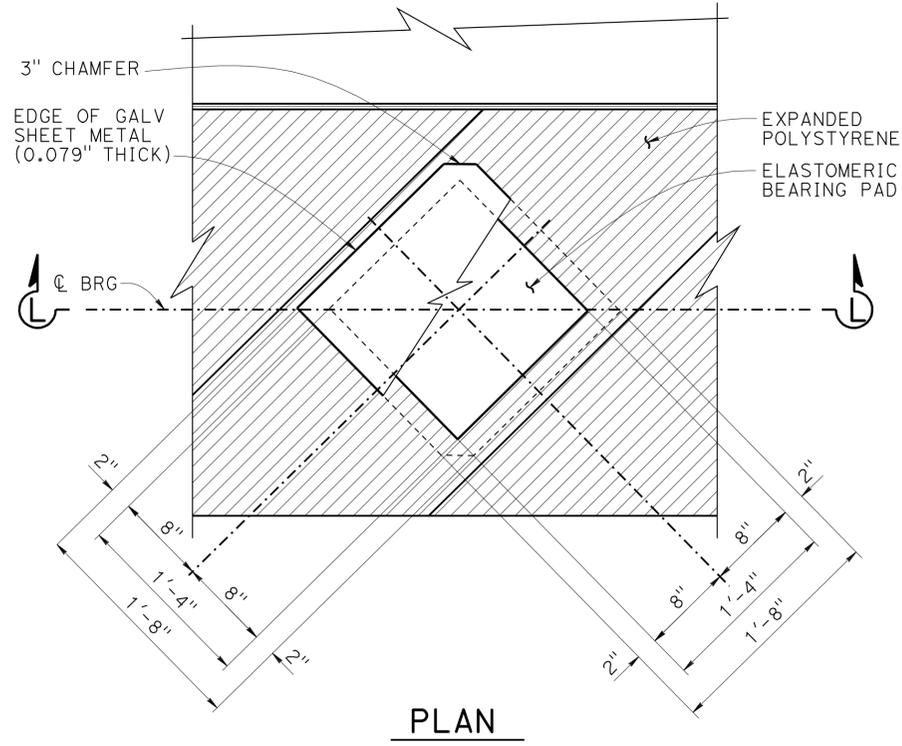
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0330
POST MILE	17.41

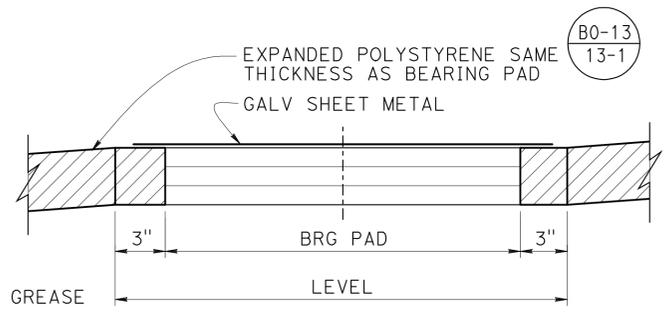
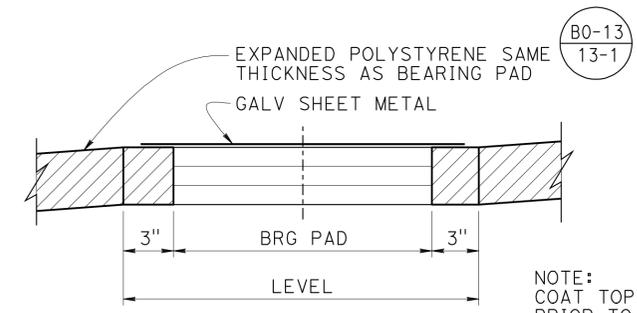
**SOUTH STOCKTON WIDEN**  
**GOLDEN GATE AVE OC**  
**ABUTMENT DETAILS NO. 4**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1146	1414
C.V. Udabe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					



\* 1/8" x 1' NEOPRENE STRIP. PLACE PRIOR TO BACK FILLING THE ABUTMENT BACKWALL AND INSTALLING THE TEMPORARY BUMPER. (FOLD NEOPRENE INTO CHAMFER)

**JOINT PROTECTION DETAIL**  
NO SCALE

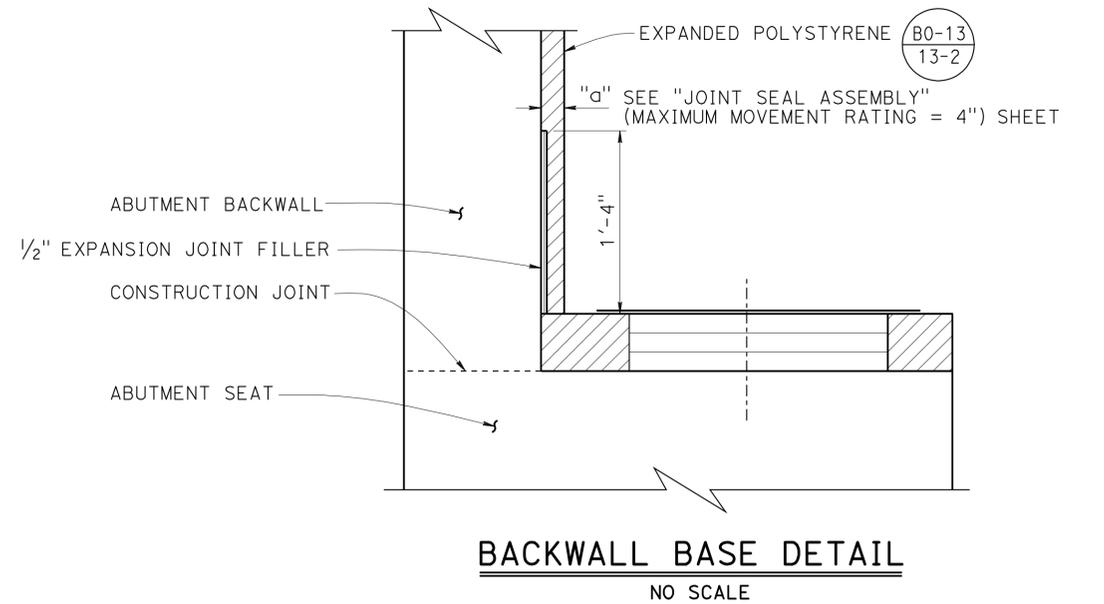
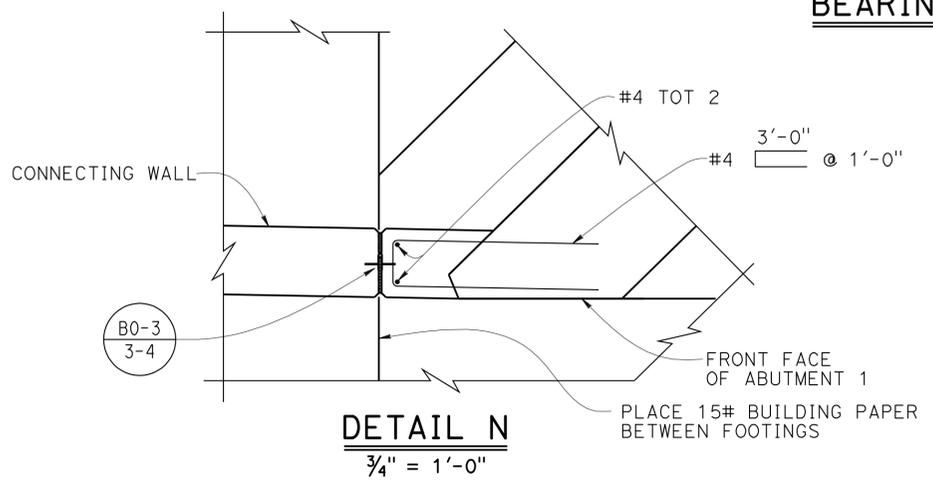


NOTE: COAT TOP OF BEARING PAD WITH GREASE PRIOR TO PLACING SHEET METAL.

**SECTION L-L**  
**LEFT BRIDGE**

**SECTION M-M**  
**RIGHT BRIDGE**

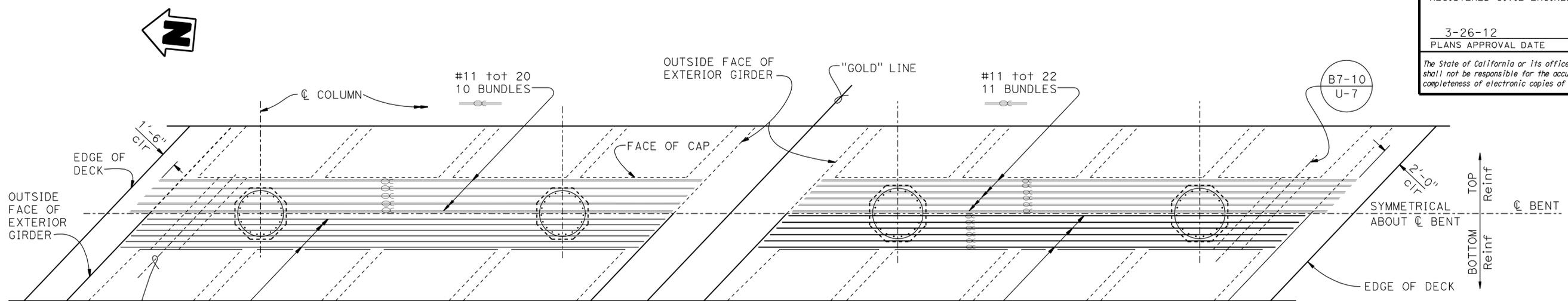
**BEARING PAD DETAIL**  
1/2" = 1'-0"



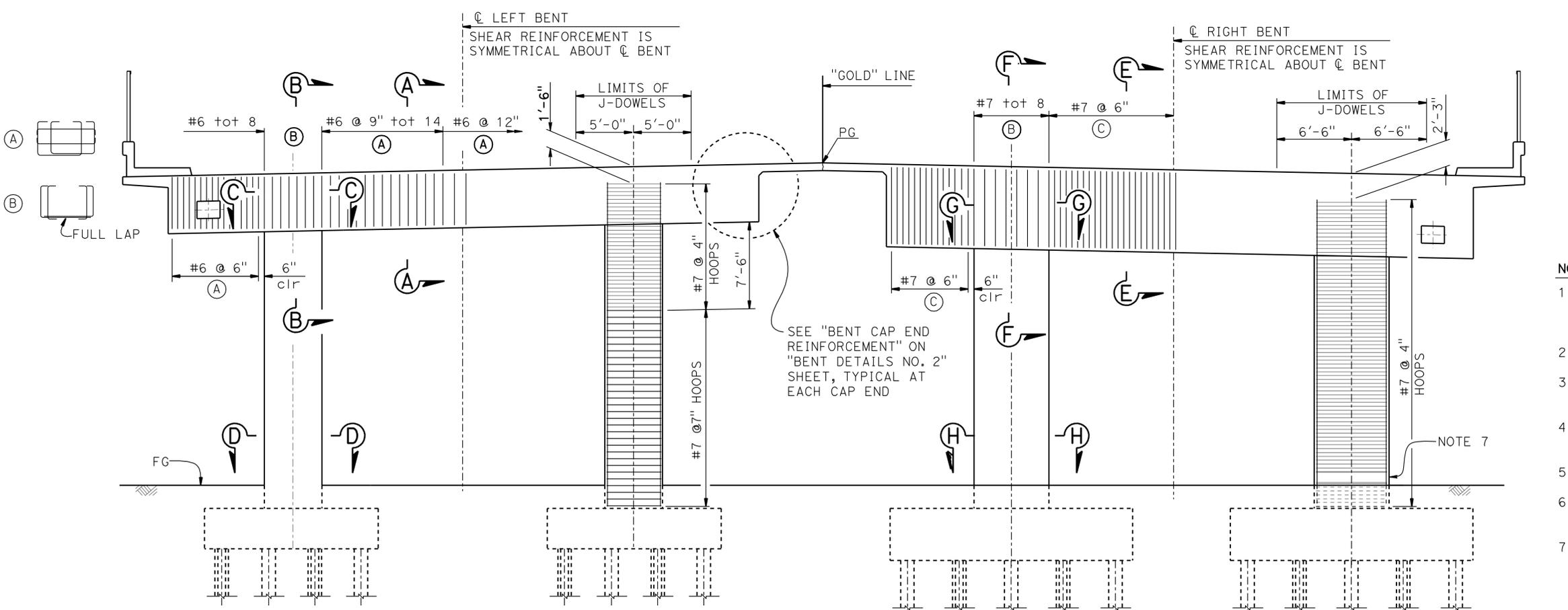
**SOUTH STOCKTON WIDEN**  
**GOLDEN GATE AVE OC**  
**ABUTMENT DETAILS NO. 5**

DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI	<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DIVISION OF ENGINEERING SERVICES</b> <b>STRUCTURE DESIGN</b> <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0330
DETAILS	BY C. FIGUERRES	CHECKED T. BUI			POST MILE	17.41
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1147	1414
C.V. Udabe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					



**PLAN**  
3/16" = 1'



**ELEVATION**  
3/16" = 1'

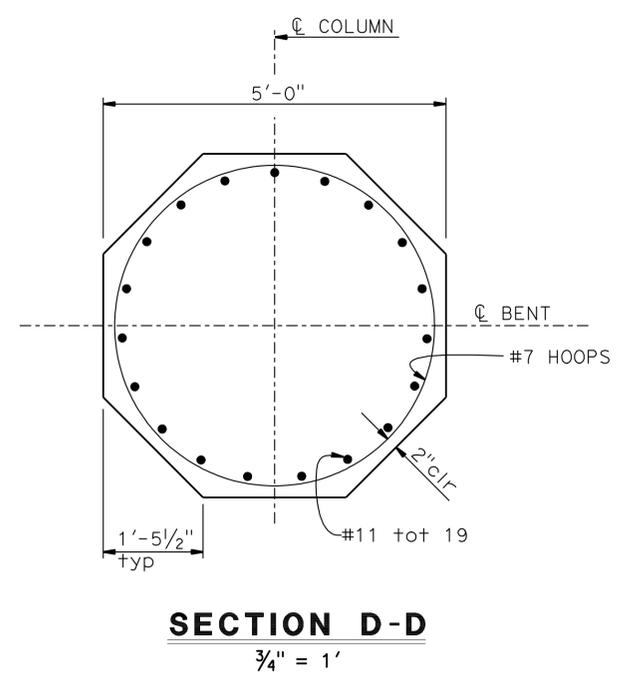
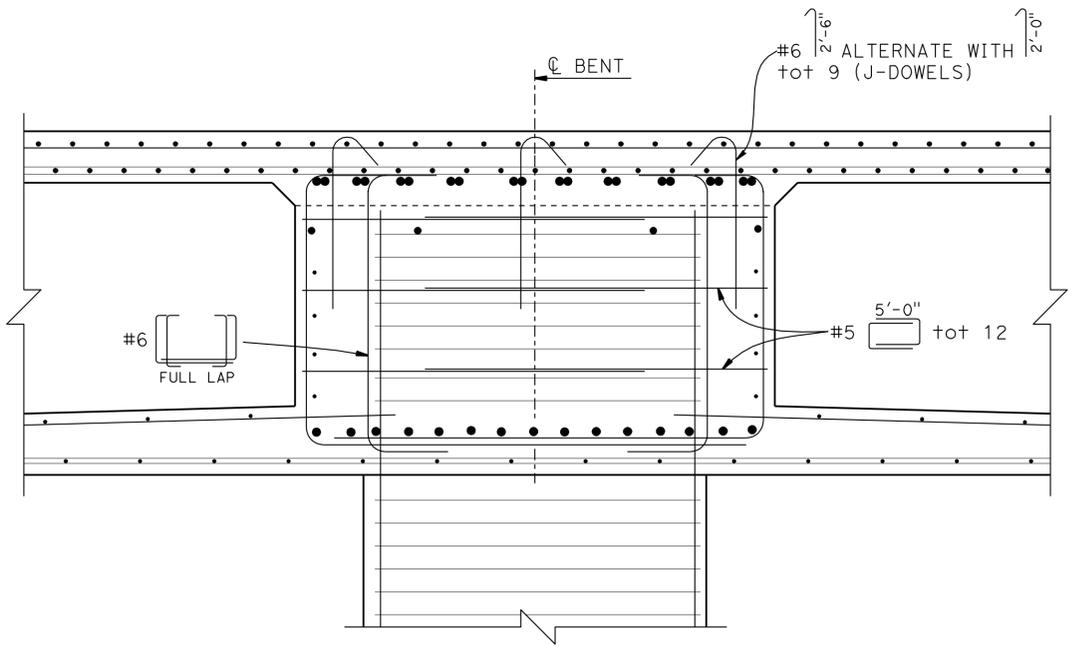
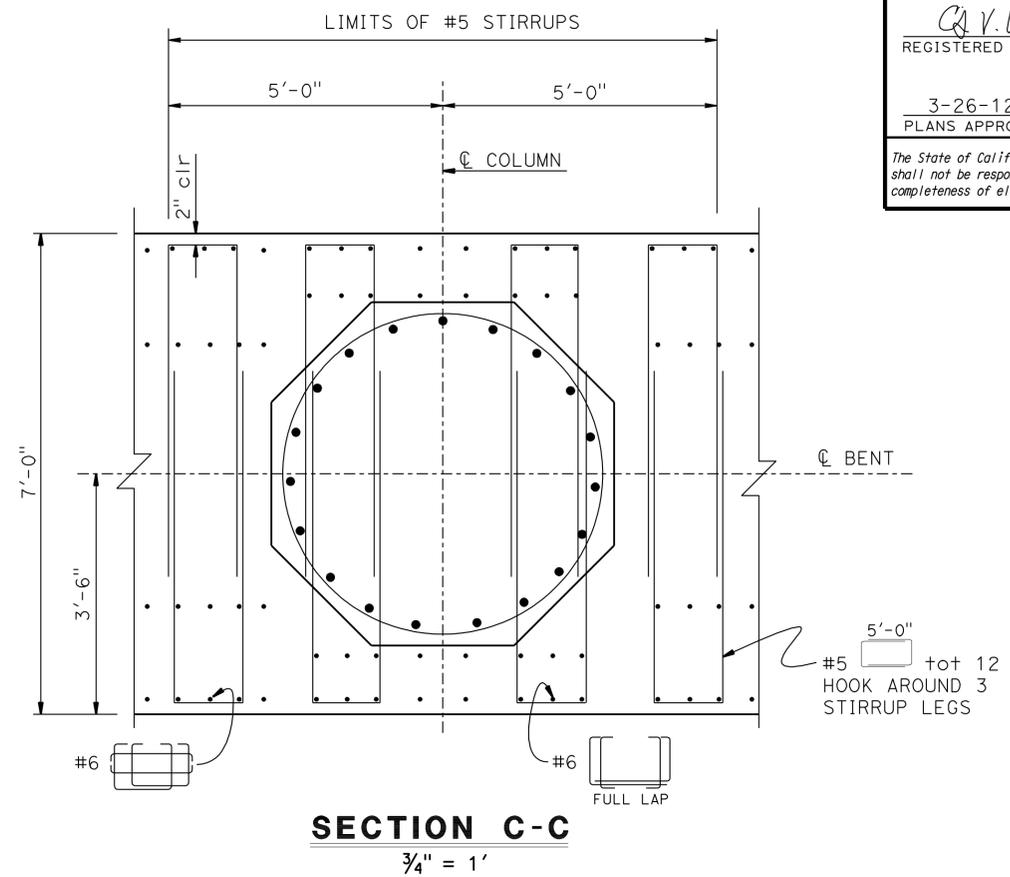
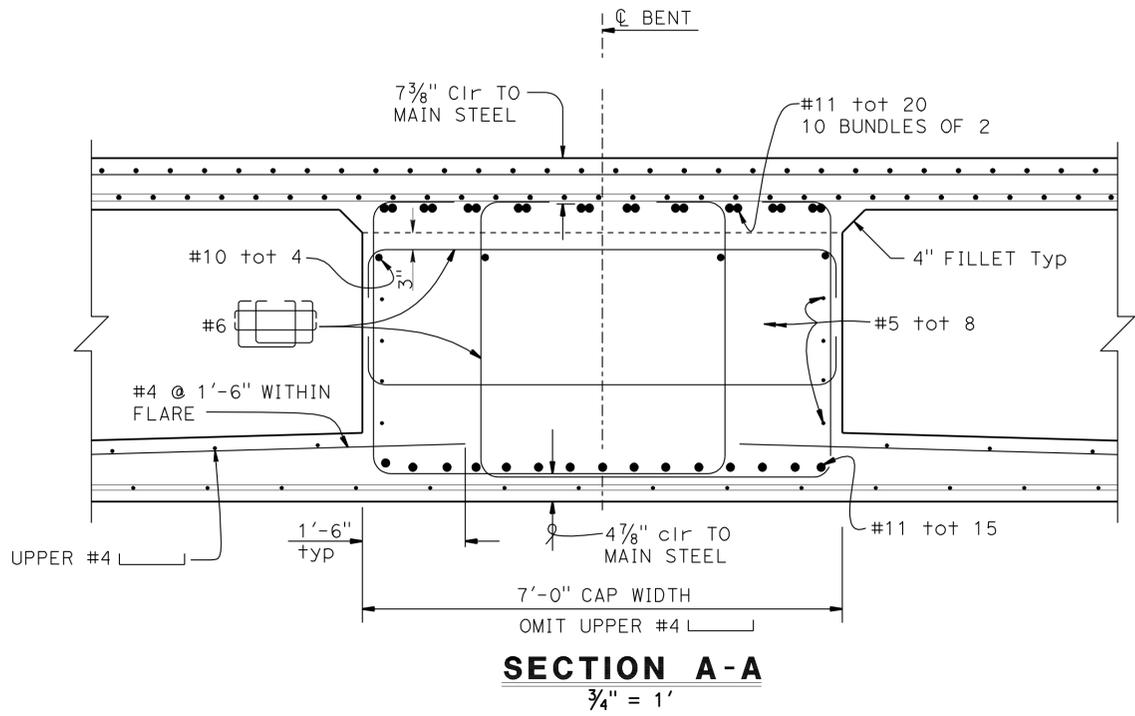
- NOTES:**
- For "SECTION A-A", "SECTION B-B", "SECTION C-C", and "SECTION D-D", see "BENT DETAILS No. 1" sheet.
  - Bent 2 shown, Bent 3 similar.
  - For "SECTION E-E, F-F, G-G, and H-H" see "BENT DETAILS NO. 2" sheet.
  - For J-dowels, see "BENT DETAILS NO. 1 & NO. 2" sheets.
  - Hoops within bent cap may be bundled @8".
  - No splices allowed in main column steel or in main bent cap steel unless noted otherwise.
  - Hoops may be bundled on either side of deck drainage pipe. Main longitudinal column reinforcement adjacent to the drain pipe may be bundled radially.

DESIGN BY M. FRIEDHEIM CHECKED T. BUI DETAILS BY C. FIGUERRES CHECKED T. BUI QUANTITIES BY M. FRIEDHEIM CHECKED T. BUI				<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0330 POST MILE 17.41		<b>SOUTH STOCKTON WIDEN</b> <b>GOLDEN GATE AVE OC</b> <b>BENT LAYOUT</b>	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
								REVISION DATES: 09-28-11, 06-08-11, 07-28-11, 07-24-11		SHEET 11 OF 37	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1148	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 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  
 Chris Udarbe  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA

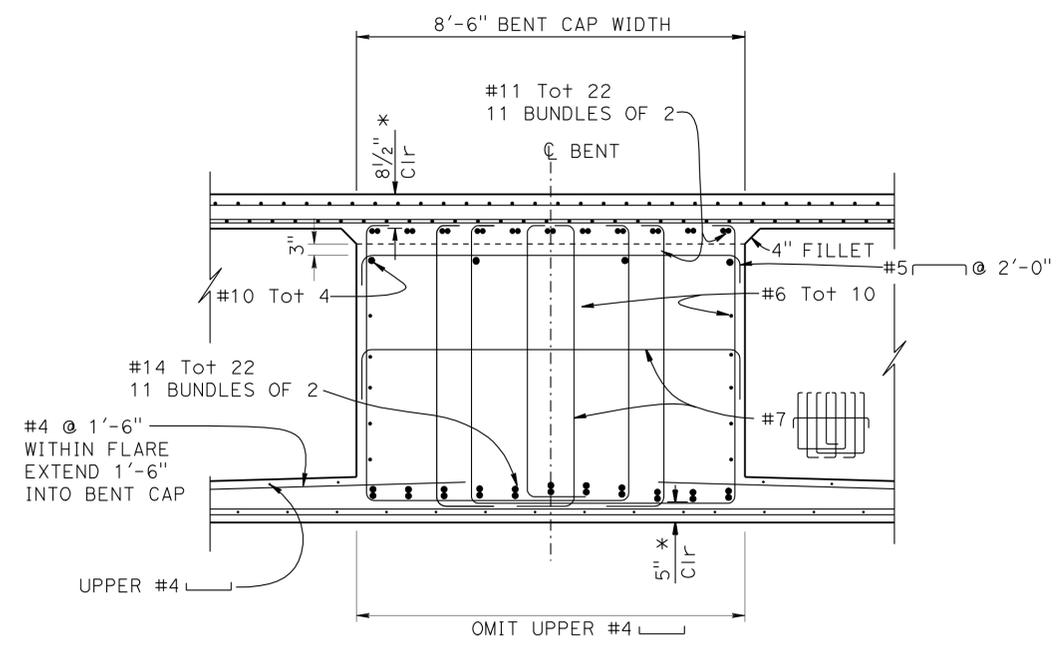


Note: For details not shown, see "SECTION A-A".

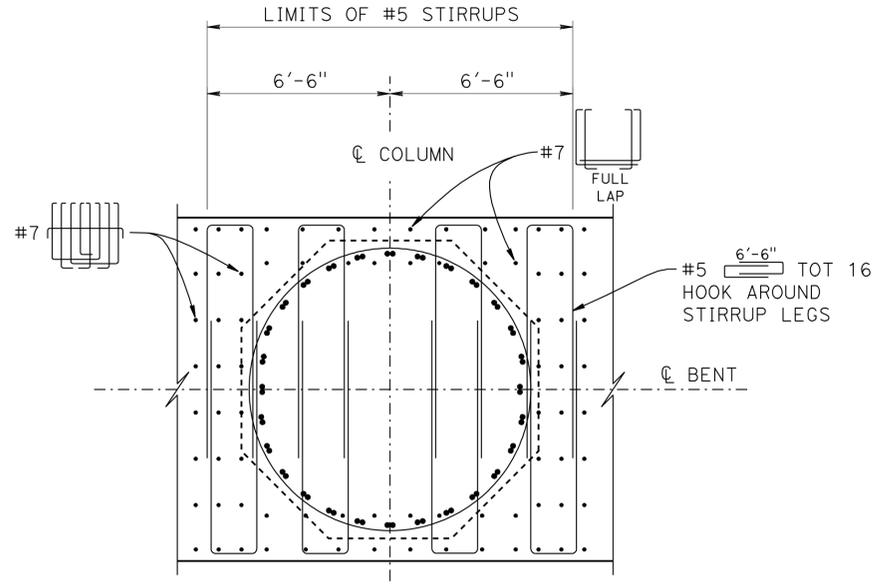
DESIGN BY M. FRIEDHEIM CHECKED T. BUI DETAILS BY C. FIGUERRES CHECKED T. BUI QUANTITIES BY M. FRIEDHEIM CHECKED T. BUI				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0330 POST MILE 17.41		<b>SOUTH STOCKTON WIDEN          GOLDEN GATE AVE OC          BENT DETAILS NO. 1</b>		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 8-24-11, 12-13-10, 06-04-11, 8-28-11 SHEET 12 OF 37		

USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:33:32

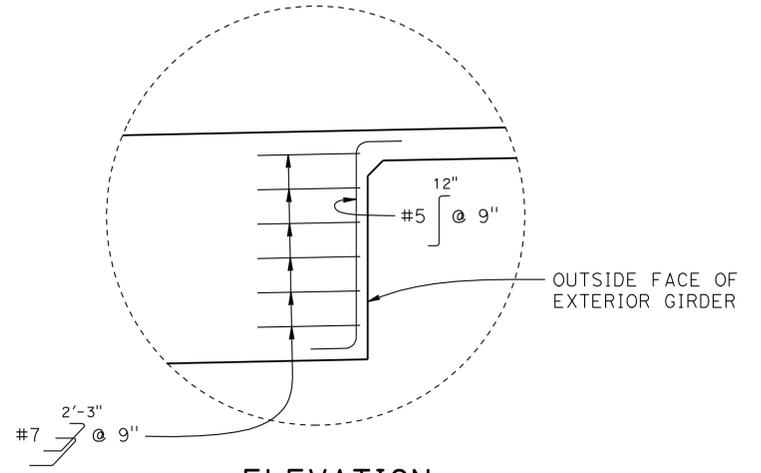
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1149	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
			REGISTERED PROFESSIONAL ENGINEER		
			Chris Udarbe		
			No. C62985		
			Exp. 06-30-12		
			CIVIL		
<small>The 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>					



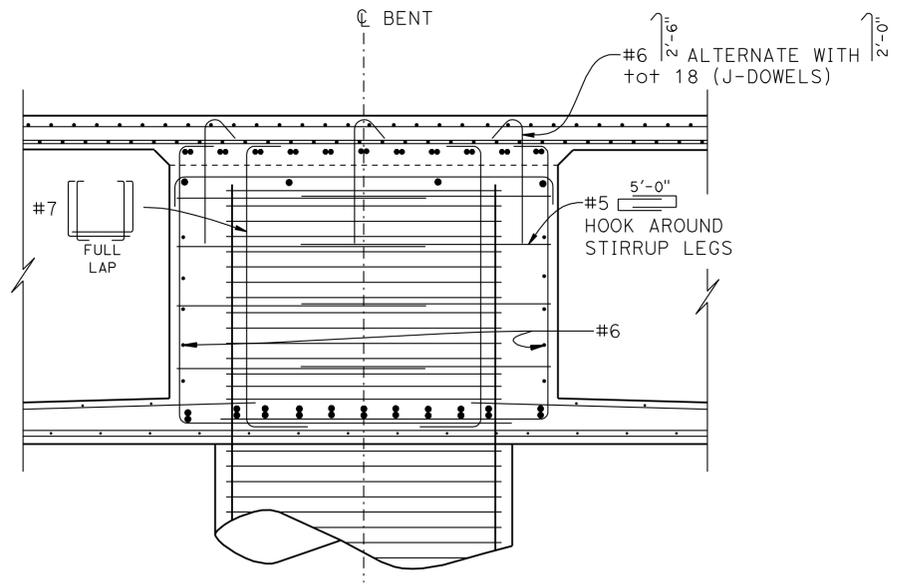
**SECTION E-E**  
1/2" = 1'-0"



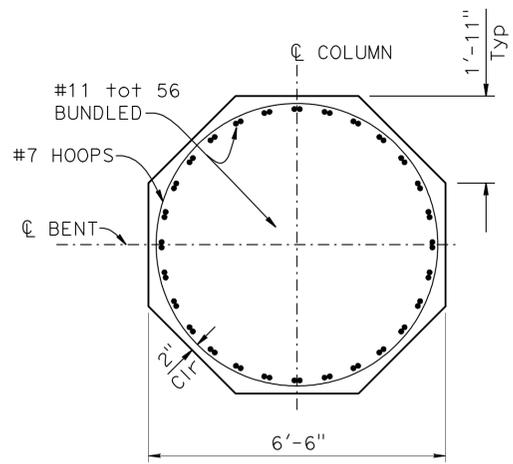
**SECTION G-G**  
1/2" = 1'-0"



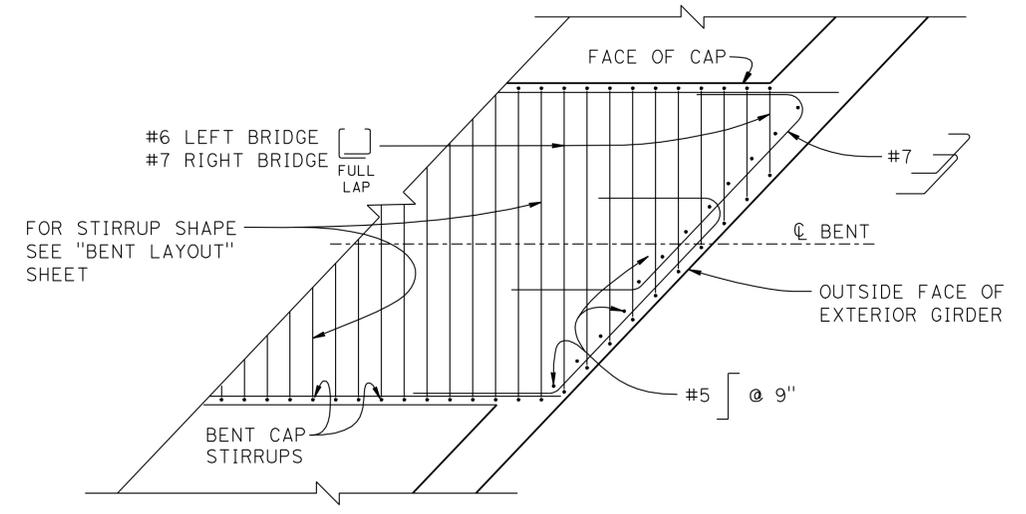
**ELEVATION**



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



**SECTION H-H**  
1/2" = 1'-0"



**PART PLAN**  
**CAP END REINFORCEMENT**  
1/2" = 1'-0"

NOTE: For details not shown see SECTION E-E

Note: Left bridge shown, right bridge similar.

DESIGN	BY	M. FRIEDHEIM	CHECKED	T. BUI
DETAILS	BY	C. FIGUERRES	CHECKED	T. BUI
QUANTITIES	BY	M. FRIEDHEIM	CHECKED	T. BUI

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

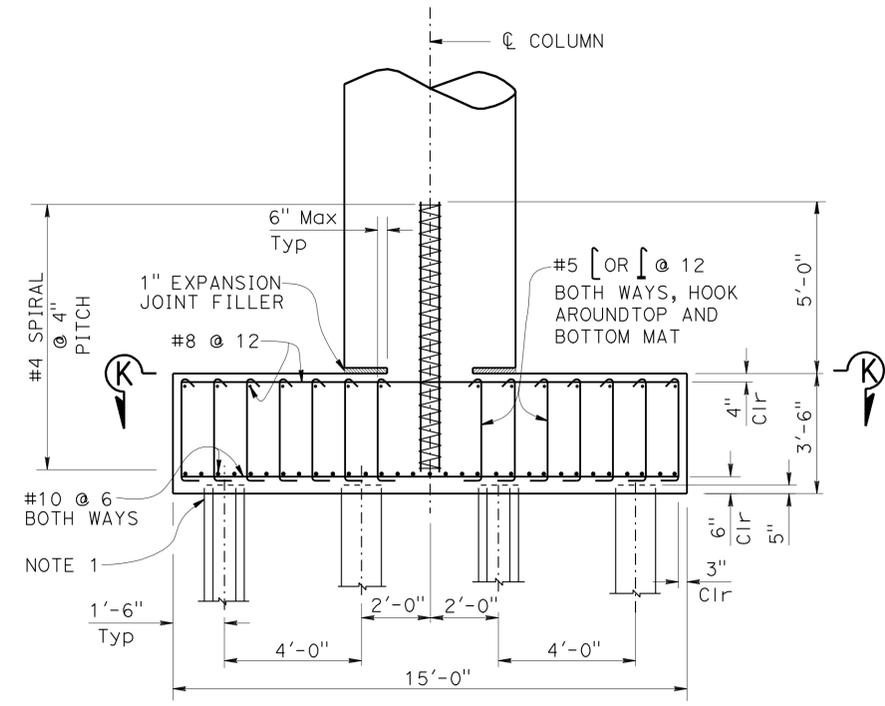
BRIDGE NO.	29-0330
POST MILE	17.41

**SOUTH STOCKTON WIDEN**  
**GOLDEN GATE AVE OC**  
**BENT DETAILS NO. 2**

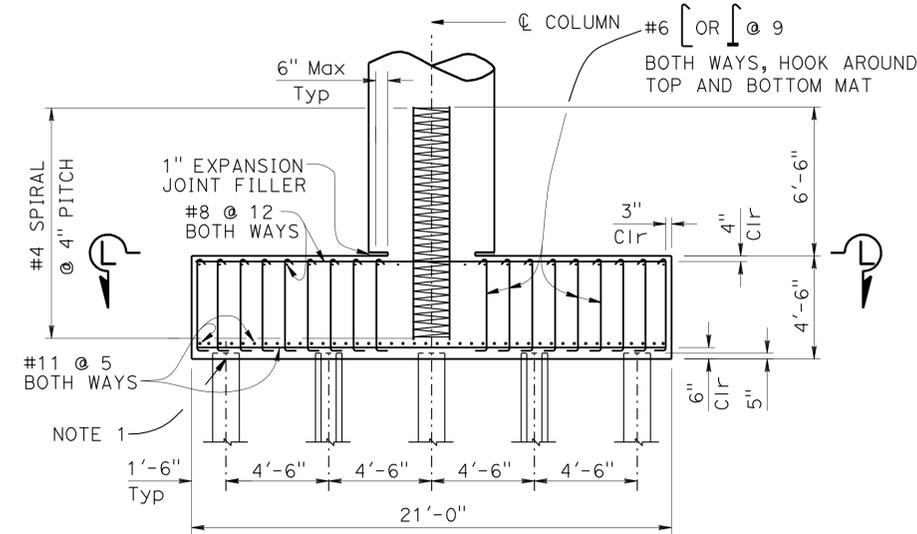
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1150	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
			REGISTERED PROFESSIONAL ENGINEER		
			Chris Udarbe		
			No. C62985		
			Exp. 06-30-12		
			CIVIL		
<small>The 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>					

**LEGEND:**  
 Indicates headed reinforcement

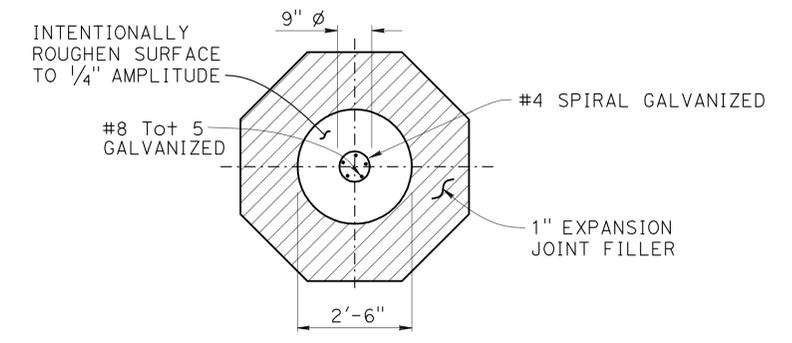
**NOTES:**  
 1. For pile anchor details, see "ABUTMENT DETAILS NO. 4" sheet.



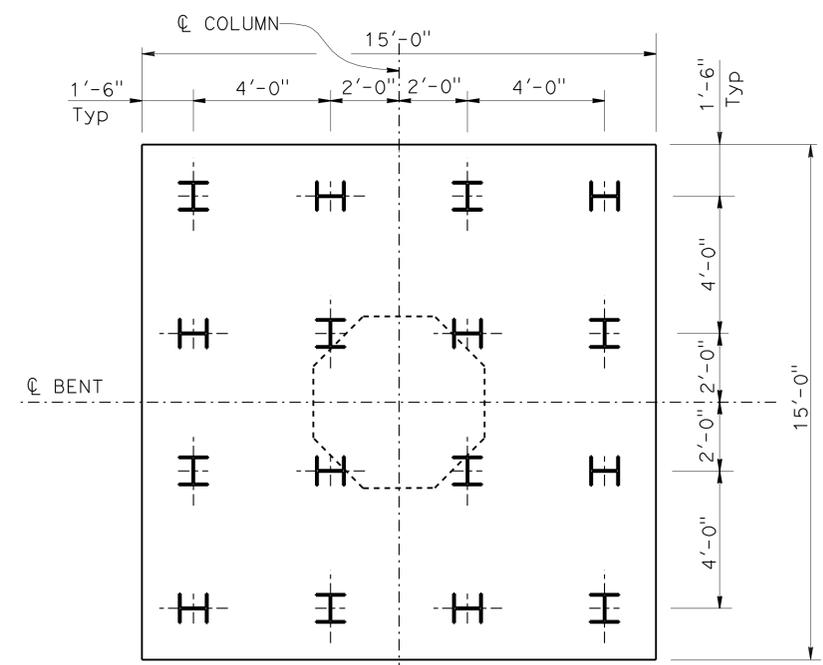
**FOOTING ELEVATION**  
 $\frac{3}{8}'' = 1'-0''$



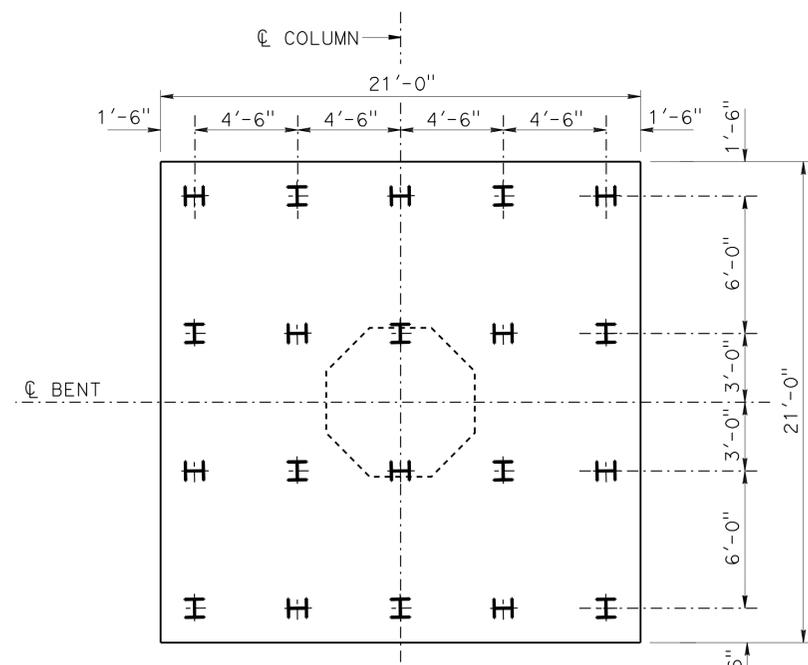
**FOOTING ELEVATION**  
 $\frac{1}{4}'' = 1'-0''$



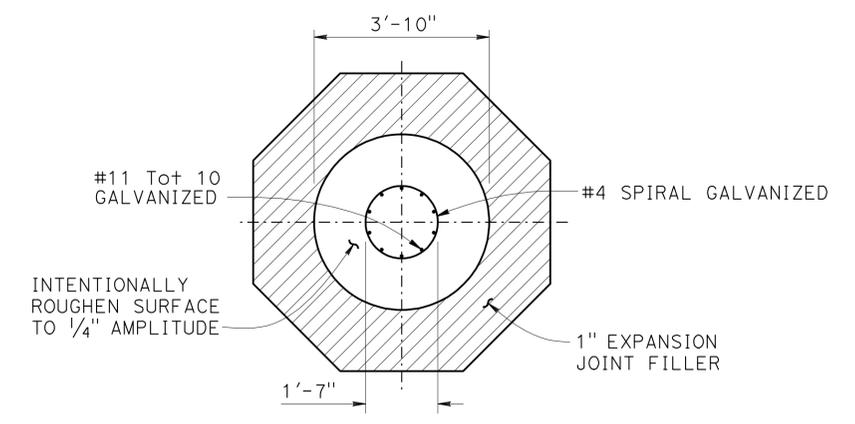
**SECTION K-K**  
 $\frac{1}{2}'' = 1'-0''$



**PILE LAYOUT**  
 $\frac{3}{8}'' = 1'-0''$   
**LEFT BRIDGE**



**PILE LAYOUT**  
 $\frac{1}{4}'' = 1'-0''$   
**RIGHT BRIDGE**



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

DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI
DETAILS	BY C. FIGUERRES	CHECKED T. BUI
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI

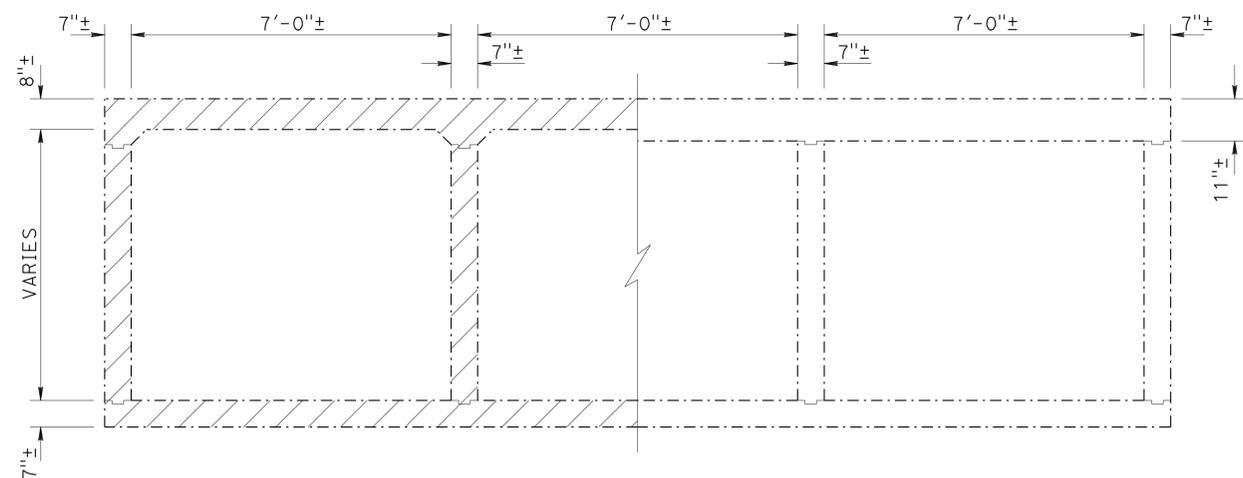
**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

**DIVISION OF ENGINEERING SERVICES**  
 STRUCTURE DESIGN  
**DESIGN BRANCH 17**

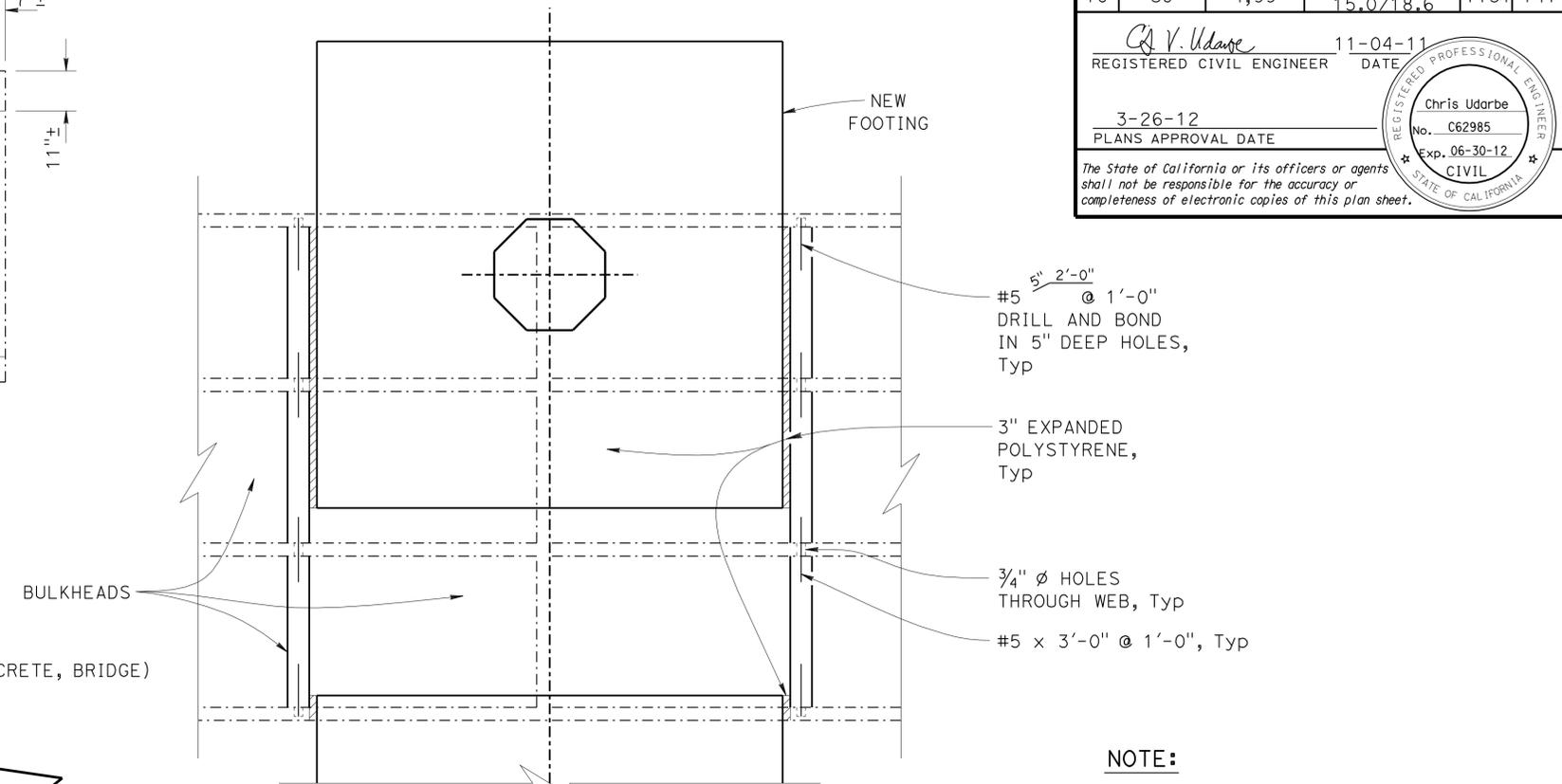
BRIDGE NO.	29-0330
POST MILE	17.41

**SOUTH STOCKTON WIDEN**  
**GOLDEN GATE AVE OC**  
**BENT DETAILS NO. 3**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1151	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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.					



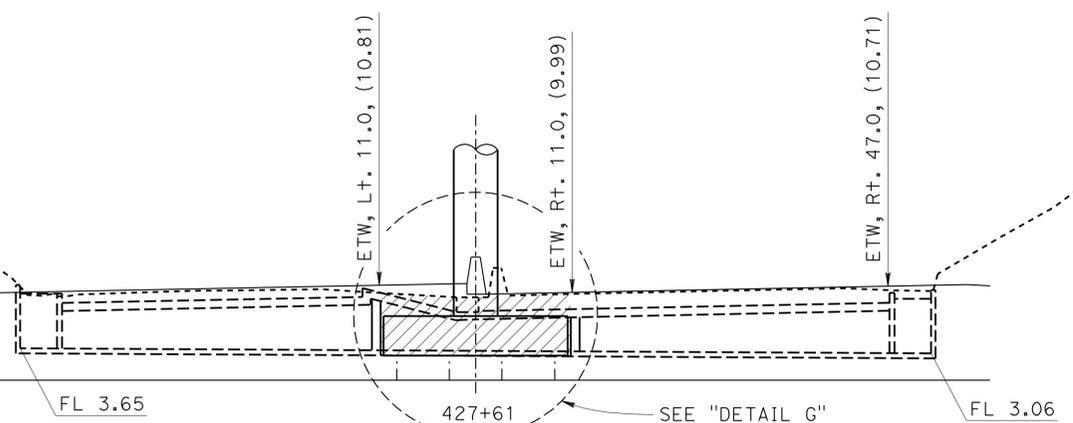
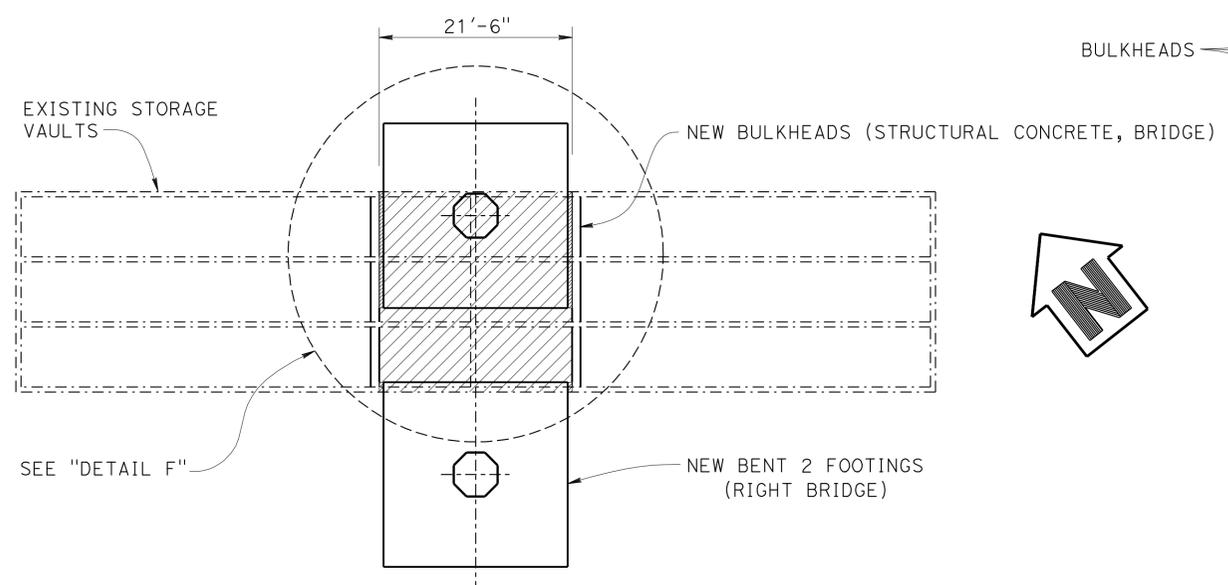
**EXISTING VAULT SECTION**  
1/2" = 1'-0"



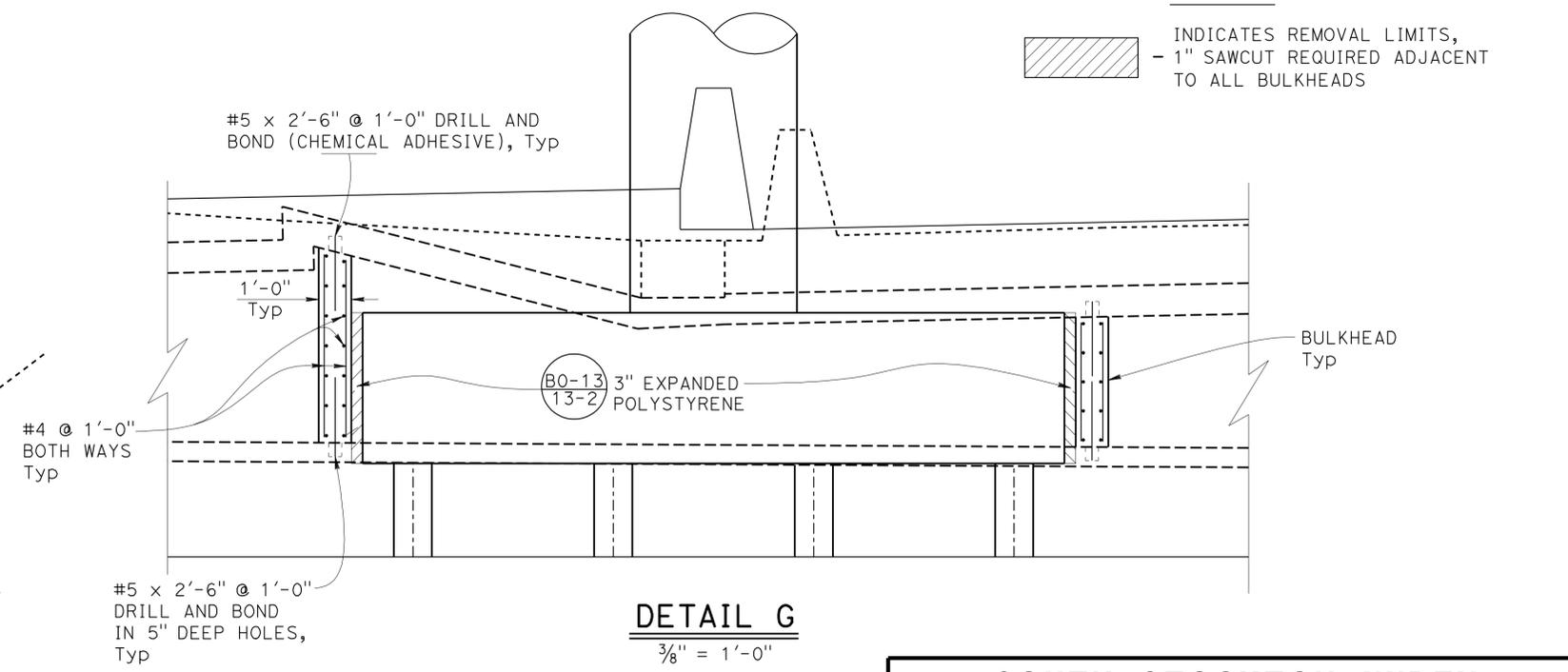
**DETAIL F**  
1/4" = 1'-0"

**NOTE:**  
ALL DRILL AND BOND DOWELS PLACED HORIZONTALLY SHALL HAVE HOLES AT 3h:1v SLOPE.

**LEGEND:**  
 INDICATES REMOVAL LIMITS, - 1" SAWCUT REQUIRED ADJACENT TO ALL BULKHEADS



**EXISTING STORAGE TANK**  
3/32" = 1'-0"

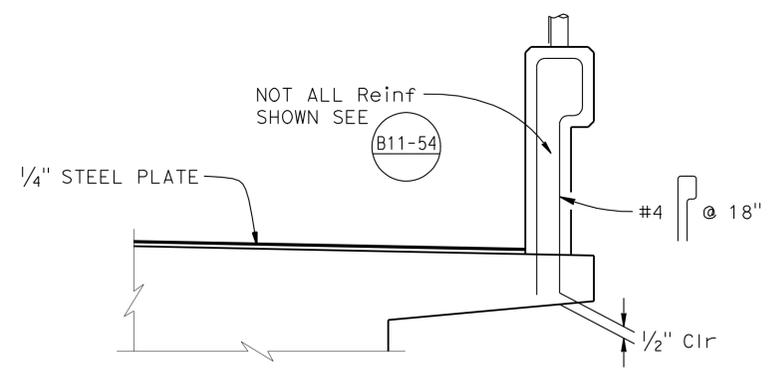


**DETAIL G**  
3/8" = 1'-0"

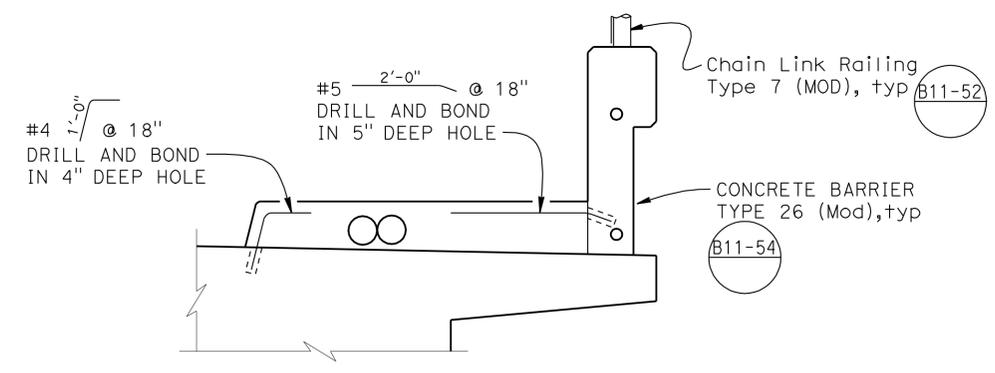
**NOTE:**  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN BY M. FRIEDHEIM CHECKED T. BUI		<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0330	<b>SOUTH STOCKTON WIDEN</b> <b>GOLDEN GATE AVE OC</b> <b>BENT DETAILS NO. 4</b>
DETAILS BY C. FIGUERRES CHECKED T. BUI				POST MILE 17.41	
QUANTITIES BY M. FRIEDHEIM CHECKED T. BUI					
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
		0 1 2 3	REVISION DATES	SHEET 15	OF 37

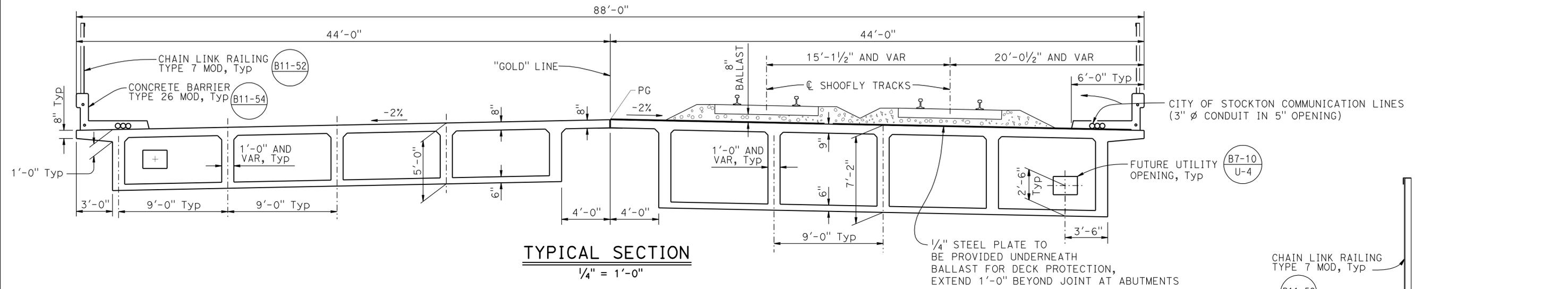
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1152	1414
C. V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



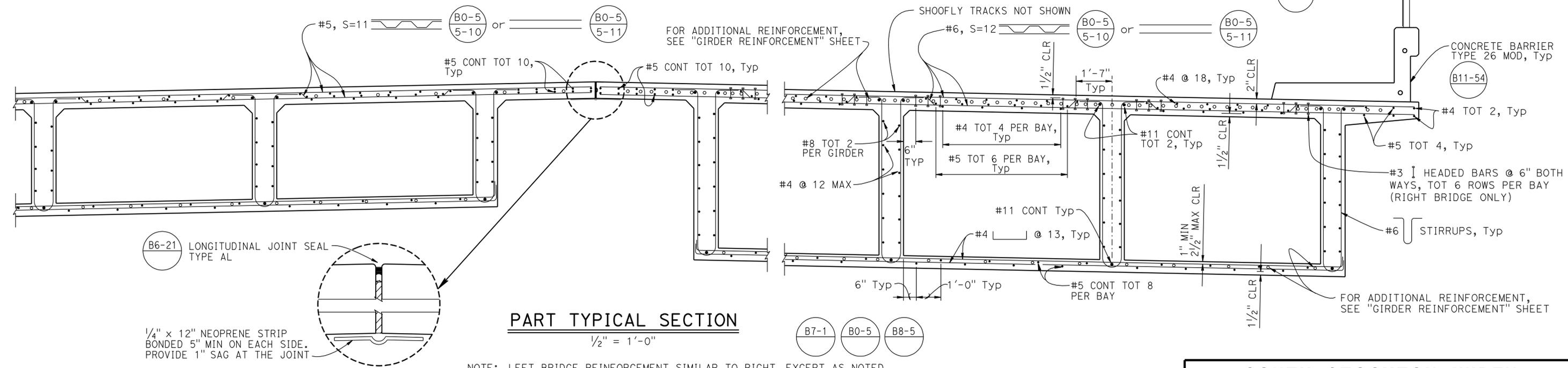
**STAGE 1 RIGHT BARRIER**  
3/4" = 1'-0"



**STAGE 2 RIGHT BARRIER**  
3/4" = 1'-0"



**TYPICAL SECTION**  
1/4" = 1'-0"

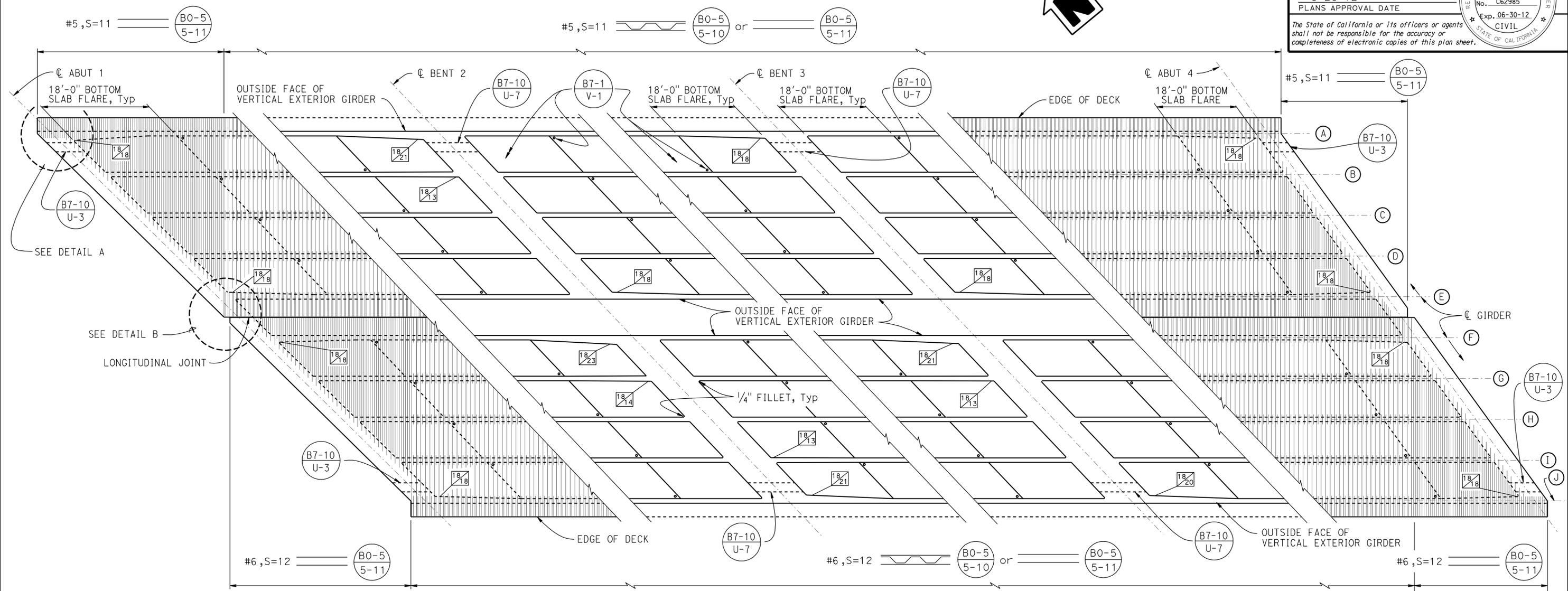


**PART TYPICAL SECTION**  
1/2" = 1'-0"

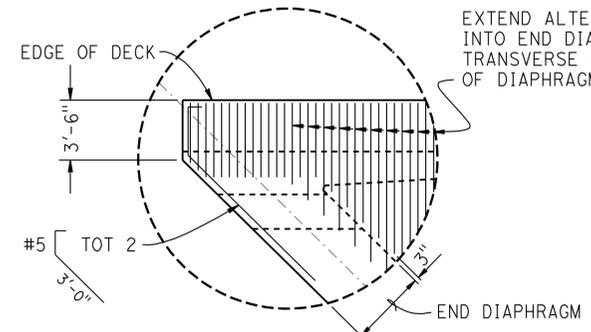
NOTE: LEFT BRIDGE REINFORCEMENT SIMILAR TO RIGHT, EXCEPT AS NOTED

DESIGN BY M. FRIEDHEIM CHECKED T. BUI DETAILS BY C. FIGUERRES CHECKED T. BUI QUANTITIES BY M. FRIEDHEIM CHECKED T. BUI				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0330 POST MILE 17.41	<b>SOUTH STOCKTON WIDEN</b> <b>GOLDEN GATE AVE OC</b> <b>TYPICAL SECTION</b>		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES		
				0	1	2	3	REVISION DATES 10-14-11 12-1-11 07-24-11 09-14-11	SHEET 16 OF 37

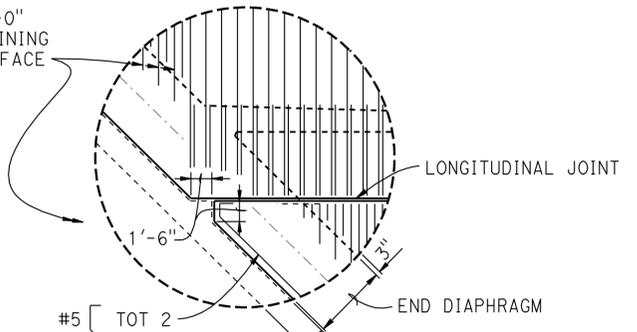
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1153	1414
<i>C.V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			Chris Udarbe No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



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



**DETAIL A**  
NO SCALE



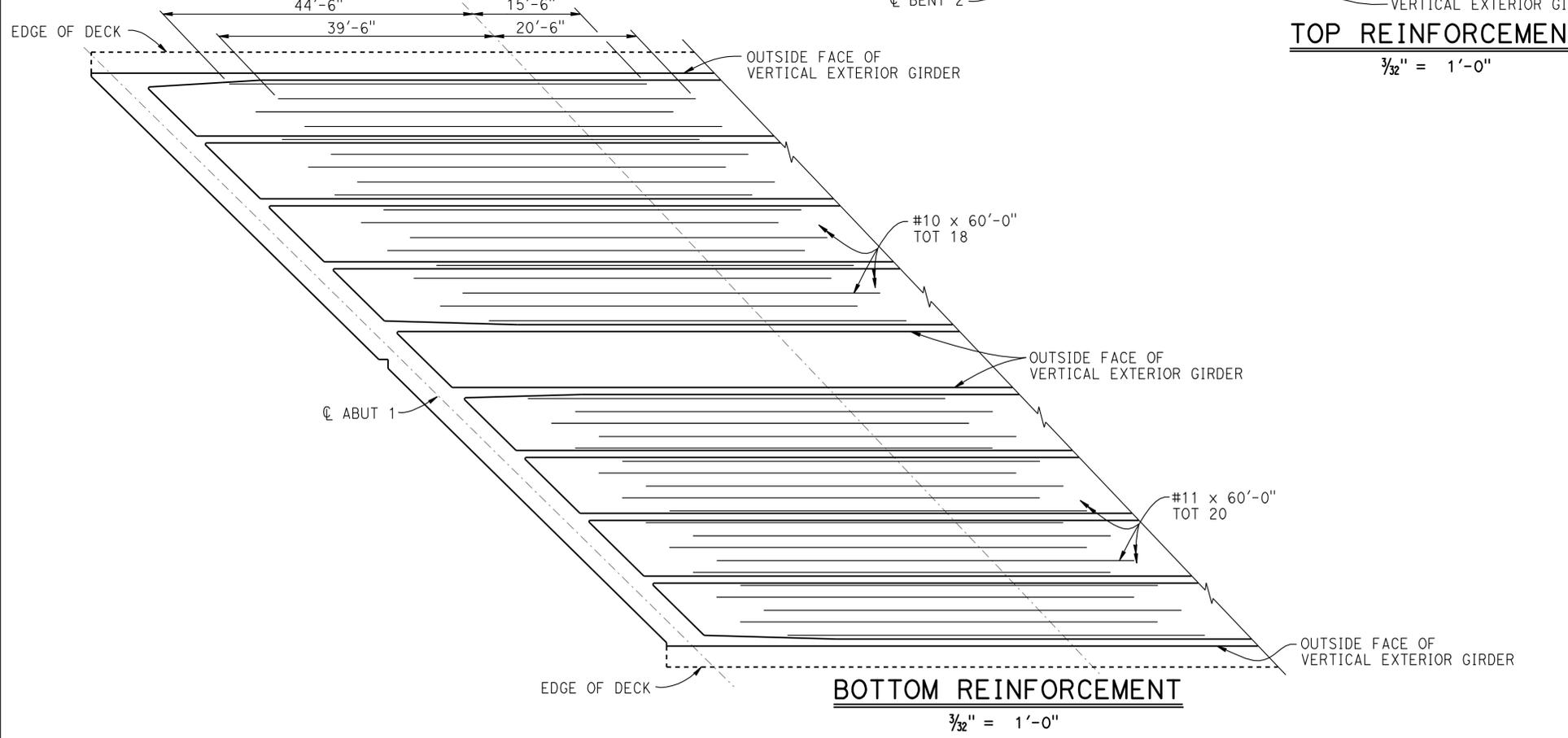
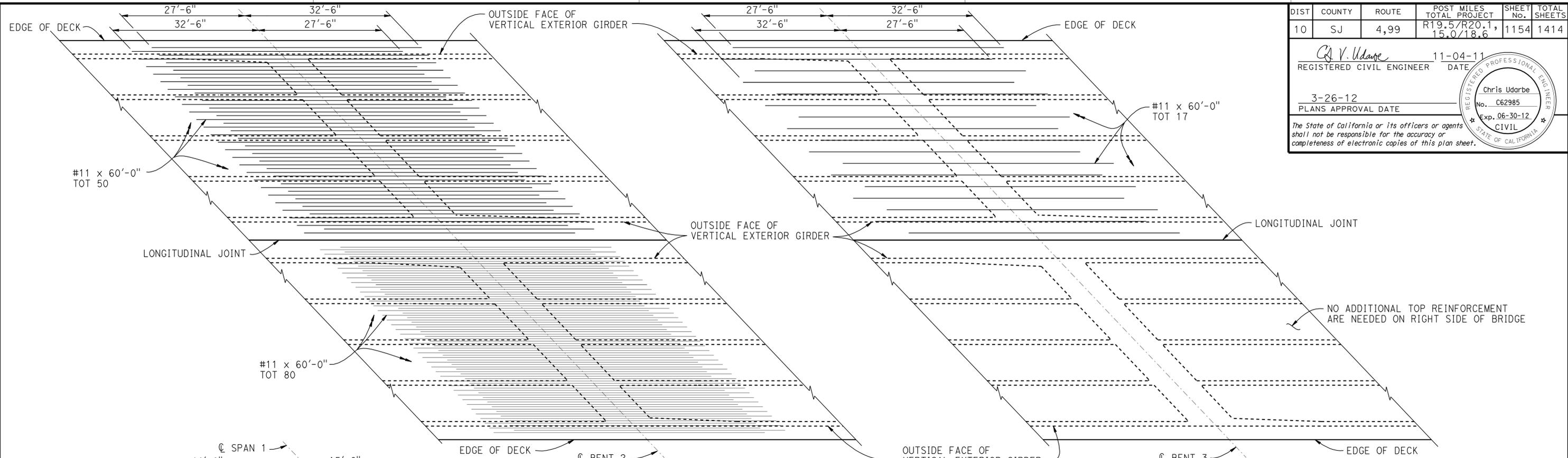
**DETAIL B**  
NO SCALE

- NOTES:
- = TOP NUMBER INDICATES LENGTH OF GIRDER FLARE IN FEET
  - = BOTTOM NUMBER INDICATES WIDTH OF GIRDER STEM IN INCHES

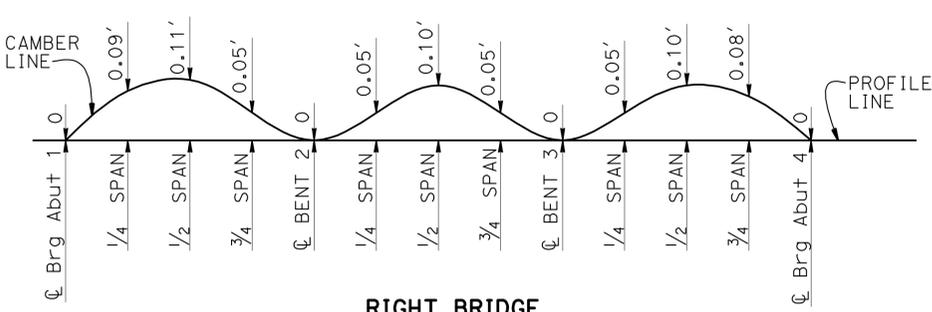
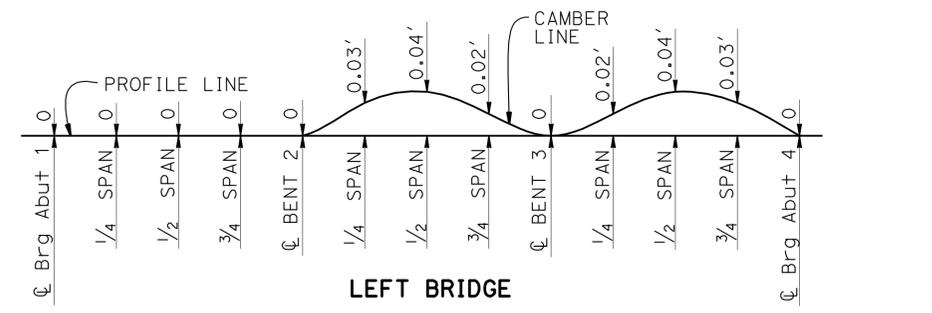
DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0330
DETAILS	BY C. FIGUERRES	CHECKED T. BUI			POST MILE	17.41
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI				

<b>SOUTH STOCKTON WIDEN</b>	
<b>GOLDEN GATE AVE OC</b>	
<b>GIRDER LAYOUT</b>	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1154	1414
			REGISTERED CIVIL ENGINEER	DATE	
			Chris Udarbe	11-04-11	
			PLANS APPROVAL DATE		
			3-26-12		
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.					



**TOP REINFORCEMENT**  
3/32" = 1'-0"



**CAMBER DIAGRAM**  
No Scale

(Camber values shown do not include allowance for falsework settlement)

DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI
DETAILS	BY C. FIGUERRES	CHECKED T. BUI
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI

<b>STATE OF CALIFORNIA</b>	
DEPARTMENT OF TRANSPORTATION	

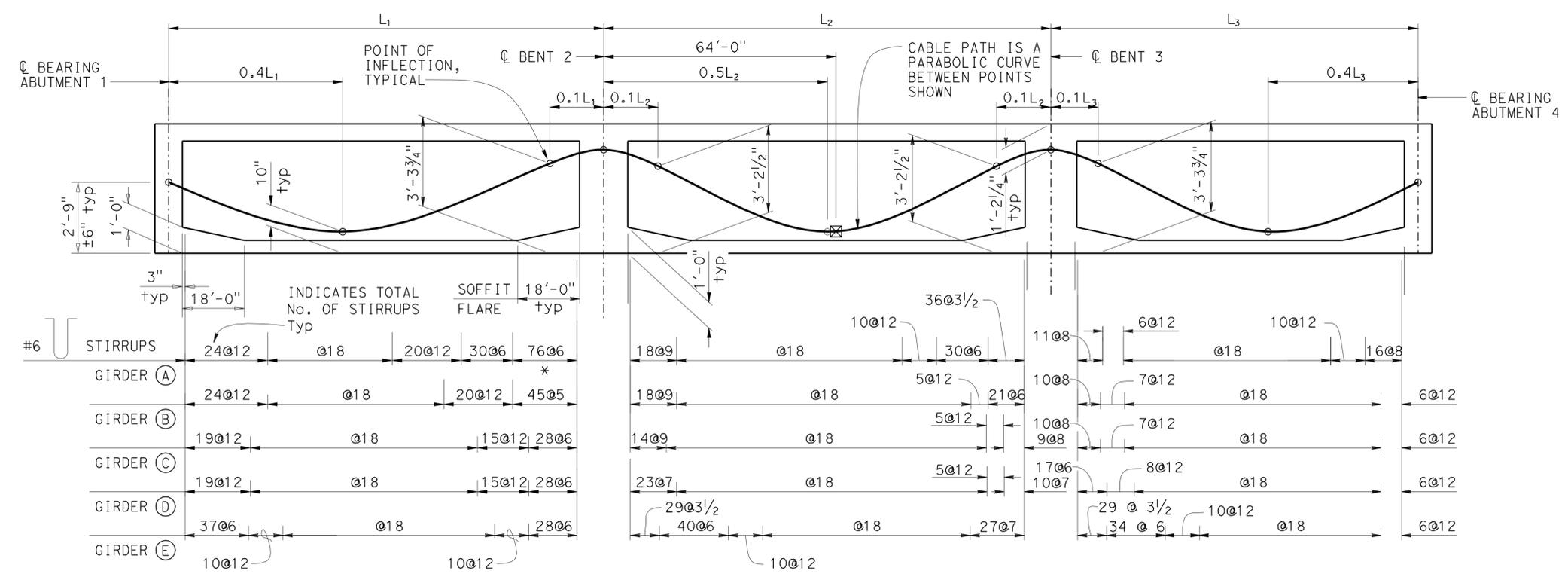
<b>DIVISION OF ENGINEERING SERVICES</b>	
STRUCTURE DESIGN	
<b>DESIGN BRANCH 17</b>	

BRIDGE NO.	29-0330
POST MILE	17.41

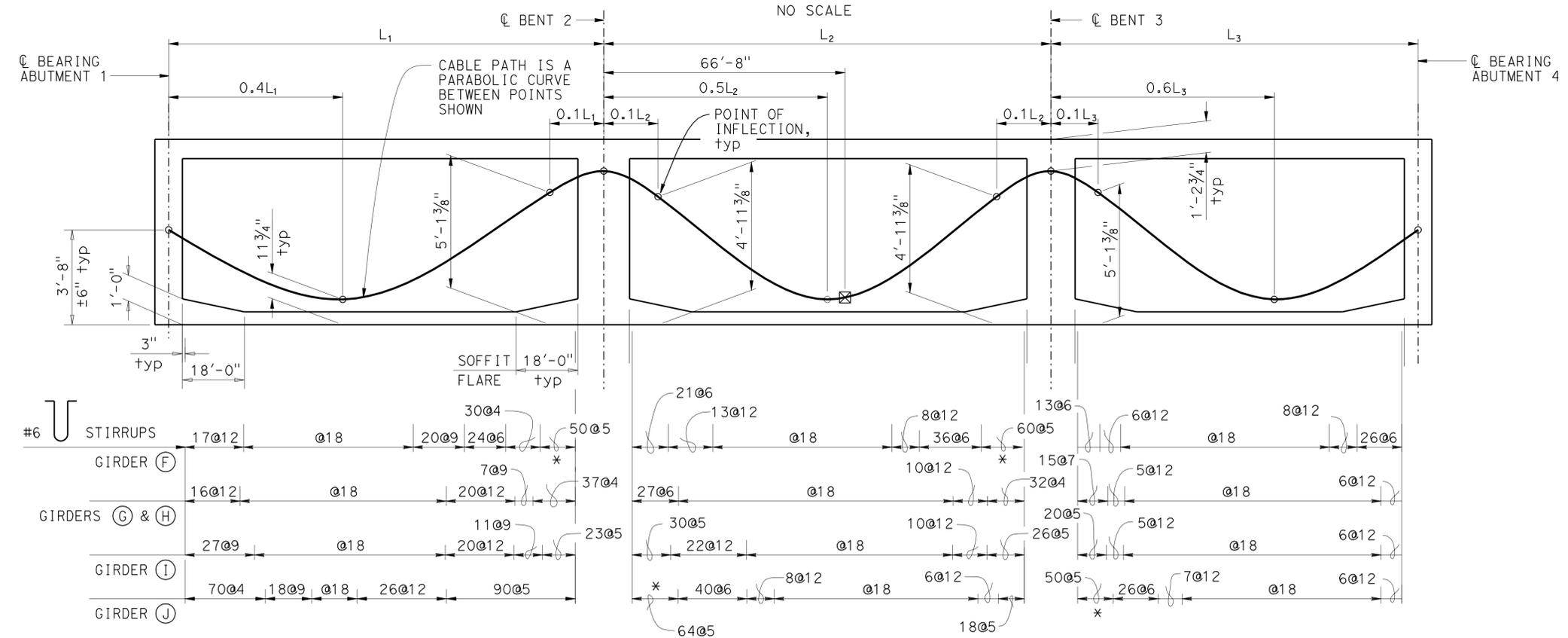
**SOUTH STOCKTON WIDEN  
GOLDEN GATE AVE OC  
GIRDER REINFORCEMENT**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1155	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udarbe  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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**LONGITUDINAL SECTION: GIRDERS A THROUGH E** \* - BUNDLES OF TWO



**LONGITUDINAL SECTION: GIRDERS F THROUGH J** \* - BUNDLES OF TWO

☒ INDICATES POINT OF NO MOVEMENT FOR PRESTRESS SHORTENING

**PRESTRESSING NOTES  
GIRDERS A THROUGH E**

270 KSI Low Relaxation Strand:  
 $P_{jack} = 8600$  kips  
 Anchor Set =  $\frac{3}{8}$  in  
 Total Number of Girders = 5  
 Friction curvature coefficient,  $\mu = 0.15$  (1/rad)  
 Friction wobble coefficient,  $K = 0.0002$  (1/ft)  
 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:  $f'_c = 5000$  psi @ 28 days  
 $f'_{ci} = 3500$  psi @ time of stressing  
 Contractor shall submit elongation calculations based on initial stress at  
 $\lambda = 0.9$  times jacking stress.  
 Both end stressing shall be performed.

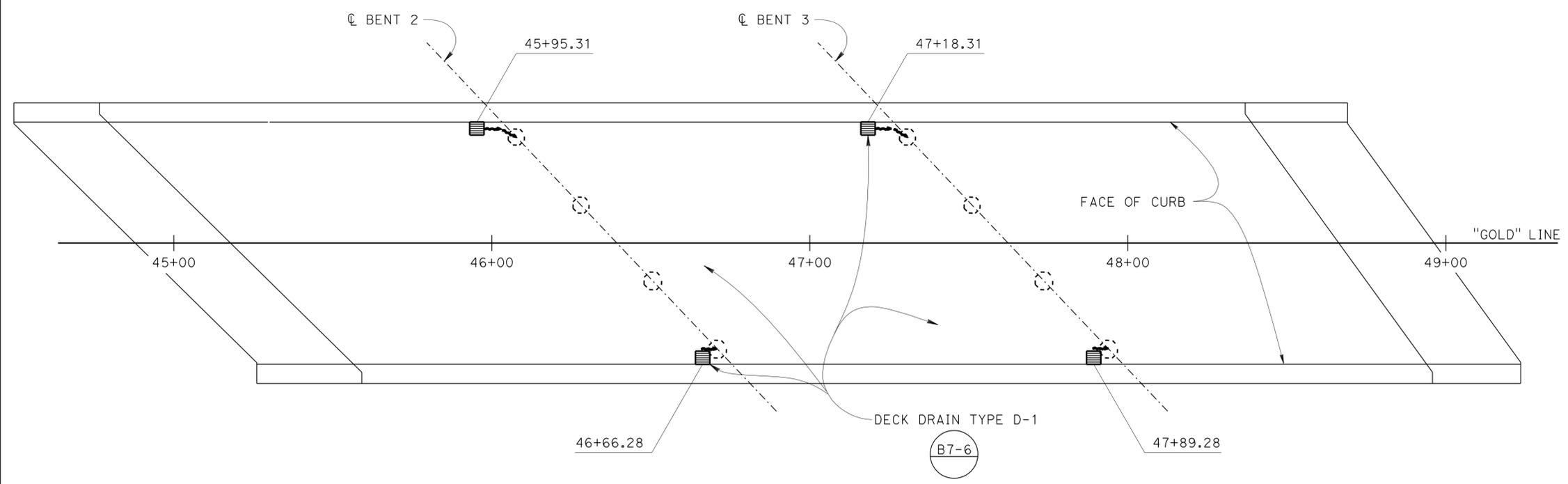
**PRESTRESSING NOTES  
GIRDERS F THROUGH J**

270 KSI Low Relaxation Strand:  
 $P_{jack} = 15000$  kips  
 Anchor Set =  $\frac{3}{8}$  in  
 Total Number of Girders = 5  
 Friction curvature coefficient,  $\mu = 0.15$  (1/rad)  
 Friction wobble coefficient,  $K = 0.0002$  (1/ft)  
 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:  $f'_c = 6500$  psi @ 28 days  
 $f'_{ci} = 5000$  psi @ time of stressing  
 Contractor shall submit elongation calculations based on initial stress at  
 $\lambda = 0.866$  times jacking stress.  
 Both end stressing shall be performed.

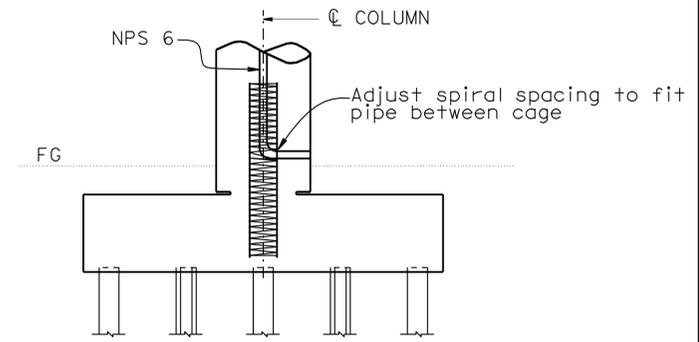
DESIGN	BY M. FRIEDHEIM	CHECKED T. BUI	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0330
DETAILS	BY C. FIGUERRES	CHECKED T. BUI		POST MILE	17.41
QUANTITIES	BY M. FRIEDHEIM	CHECKED T. BUI			

**SOUTH STOCKTON WIDEN**  
**GOLDEN GATE AVE OC**  
**LONGITUDINAL SECTION**

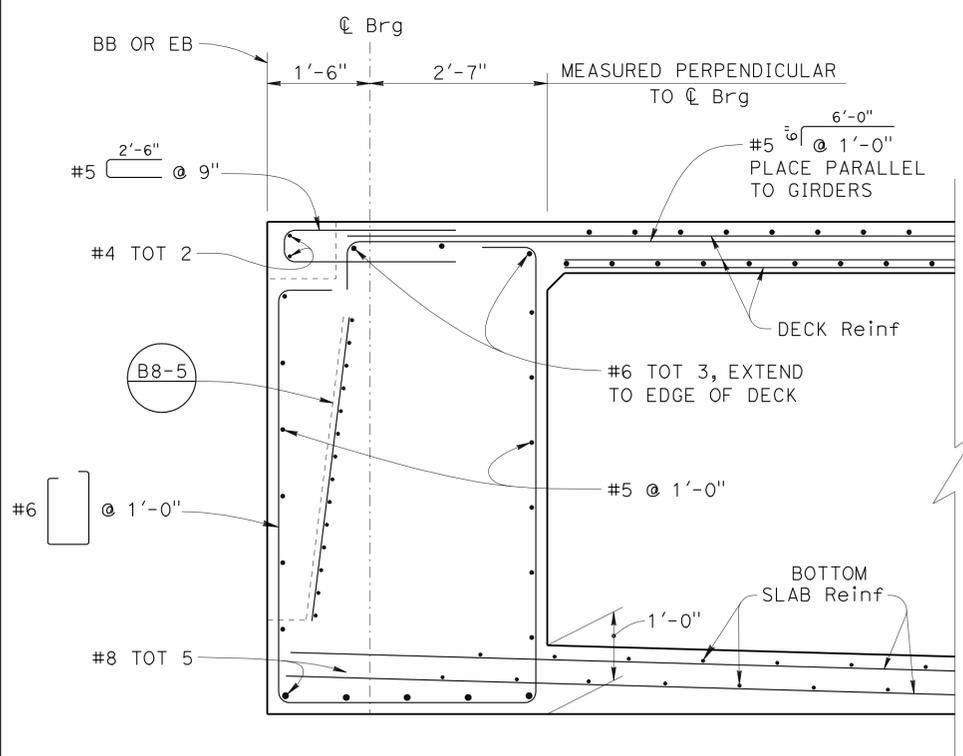
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1156	1414
C.V. Udabe REGISTERED CIVIL ENGINEER			11-04-11 DATE	Chris Udabe No. C62985 Exp. 06-30-12 CIVIL	
3-26-12			PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



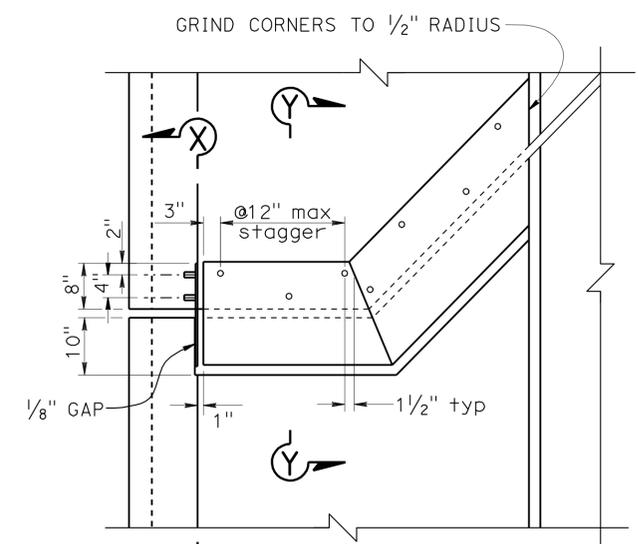
**DECK DRAIN DIAGRAM**  
1" = 20'  
INDICATES DIRECTION OF FLOW



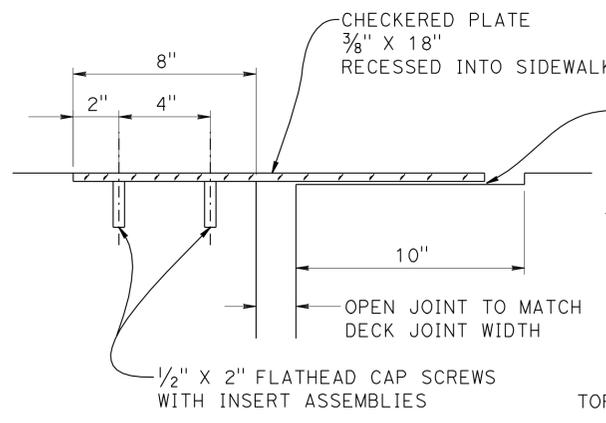
**DRAIN OUTLET**  
NO SCALE  
Note: Right bridge column shown, left side similar.



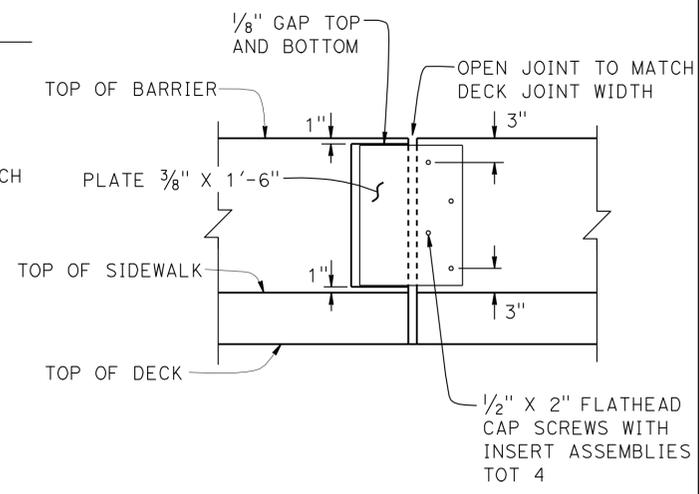
**END DIAPHRAGM**  
 $\frac{3}{4}" = 1'-0"$  (RIGHT BRIDGE SHOWN, LEFT BRIDGE SIMILAR)



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



**SECTION Y-Y**  
 $3" = 1'-0"$



**SECTION X-X**  
 $\frac{3}{4}" = 1'-0"$

**SIDEWALK EXPANSION JOINT ARMOR**

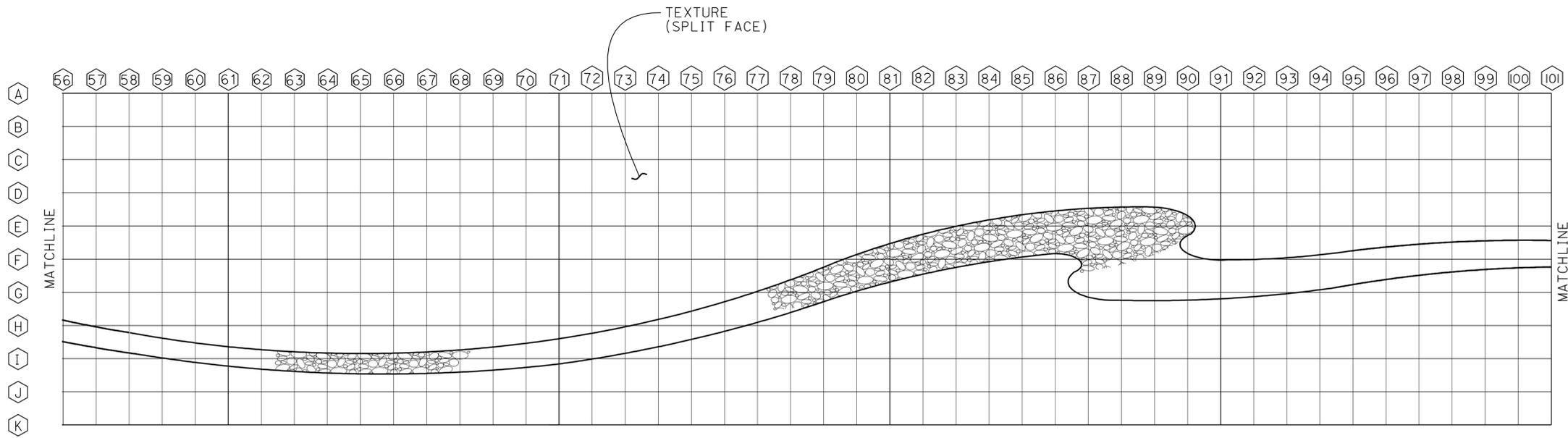
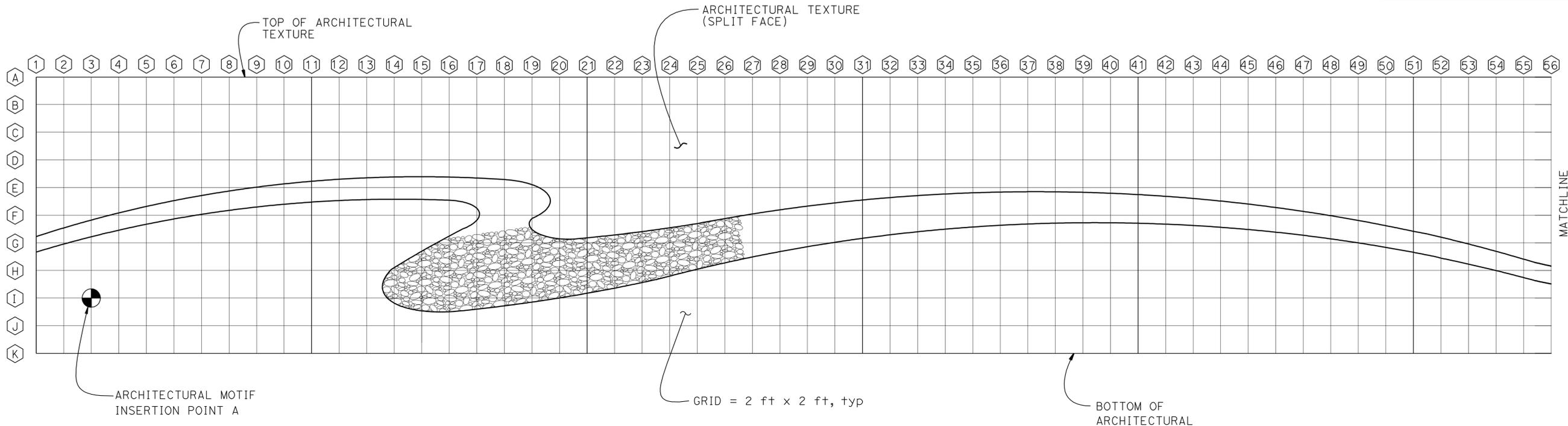
NOTE: DETAIL BOLTS TO MISS UTILITIES WHEN PRESENT IN SIDEWALK

DESIGN BY M. FRIEDHEIM CHECKED T. BUI DETAILS BY C. FIGUERRES CHECKED T. BUI QUANTITIES BY M. FRIEDHEIM CHECKED T. BUI				STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0330 POST MILE 17.41	<b>SOUTH STOCKTON WIDEN          GOLDEN GATE AVE OC          DECK DRAINAGE</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				0 1 2 3	10-10-10 8-28-11 8-24-11 9-28-11	SHEET 20 OF 37	USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 13:33

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1157	1414
			REGISTERED CIVIL ENGINEER	DATE	
			Chris V. Udarbe	11-04-11	
			PLANS APPROVAL DATE		
			3-26-12		
<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>					

**NOTES:**

- For the architectural insertion point, see Br. No. 29-0326.  
Band of local river rocks to be continuous between adjacent structures.
- Rocks to be spaced at 1" to 3" apart the first and last 5'-0" of this motif. Additionally, space rocks 1" to 3" apart over a distance of 5'-0" on either side of an angle point in the wall. Elsewhere, space the rocks 1/2" to 3/4" apart. Provide gradual transitions where spacings differ.



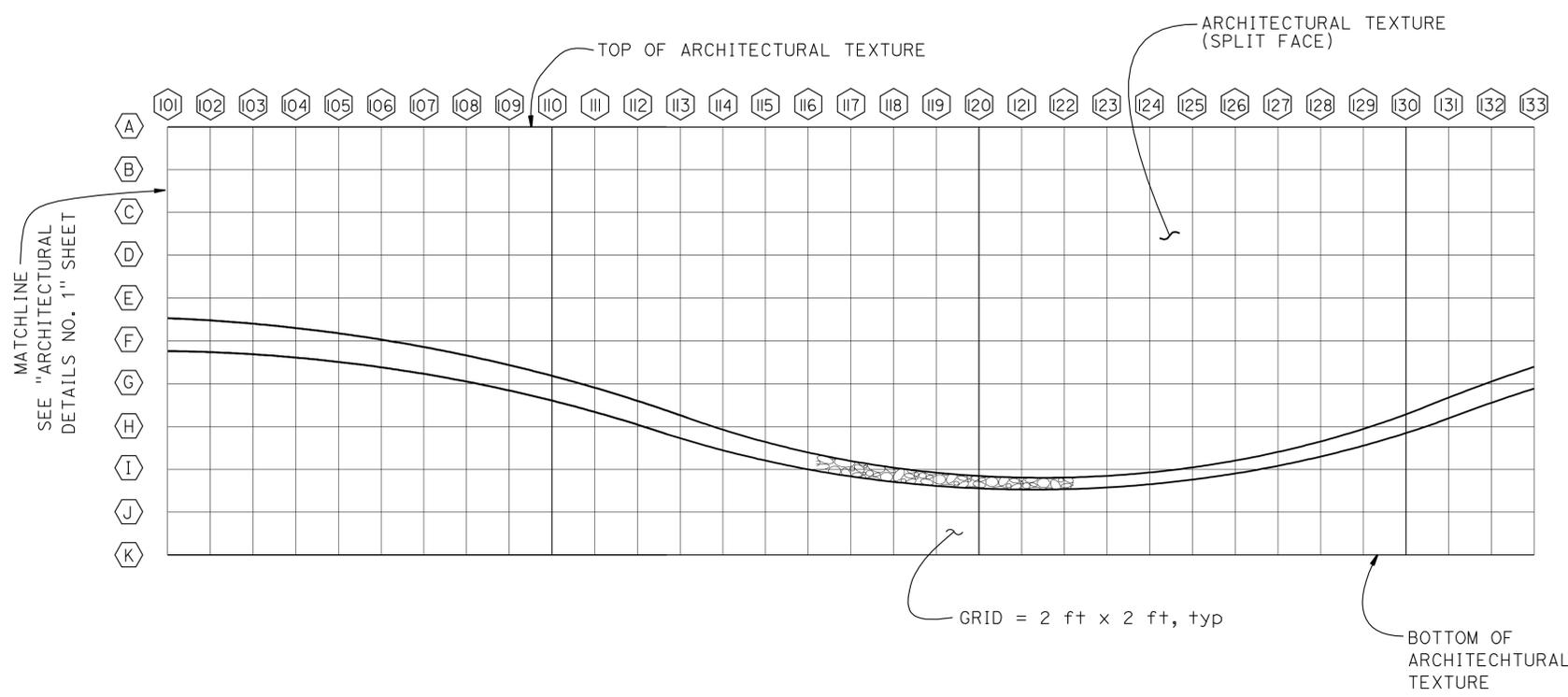
**LEGEND**

	Local River Rocks, embedded on slope paving. See "SLOPE PAVING - FULL SLOPE" sheet.
	OR Architectural Texture (River Rock) on vertical concrete surfaces. These surfaces shall be prepared and stained.
	Grid reference
	Grid reference

**ABUTMENT, RETAINING WALL AND SLOPE PAVING ARCHITECTURAL MOTIF**  
1/4" = 1'-0"

DESIGN BY C. Udarbe CHECKED M. Friedheim		<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0330	<b>SOUTH STOCKTON WIDENING</b> <b>GOLDEN GATE AVE OC</b> <b>ARCHITECTURAL DETAILS NO. 1</b>		
DETAILS BY L. Wang CHECKED M. Friedheim				POST MILE 17.41			
QUANTITIES BY C. Udarbe CHECKED M. Friedheim							
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 21 OF 37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1158	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			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>					



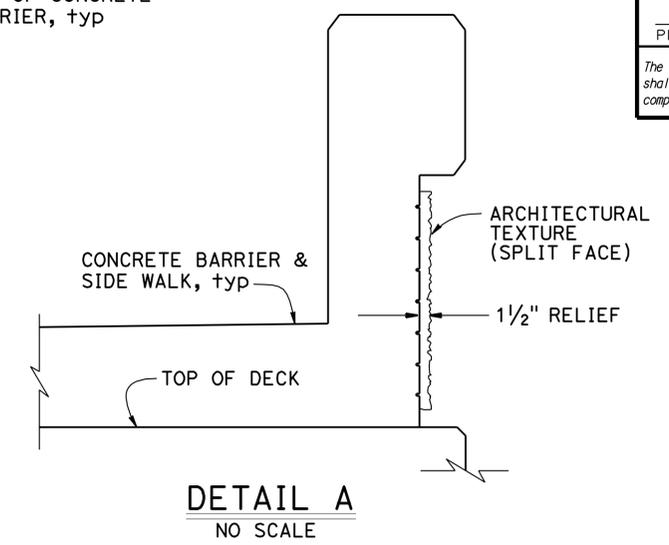
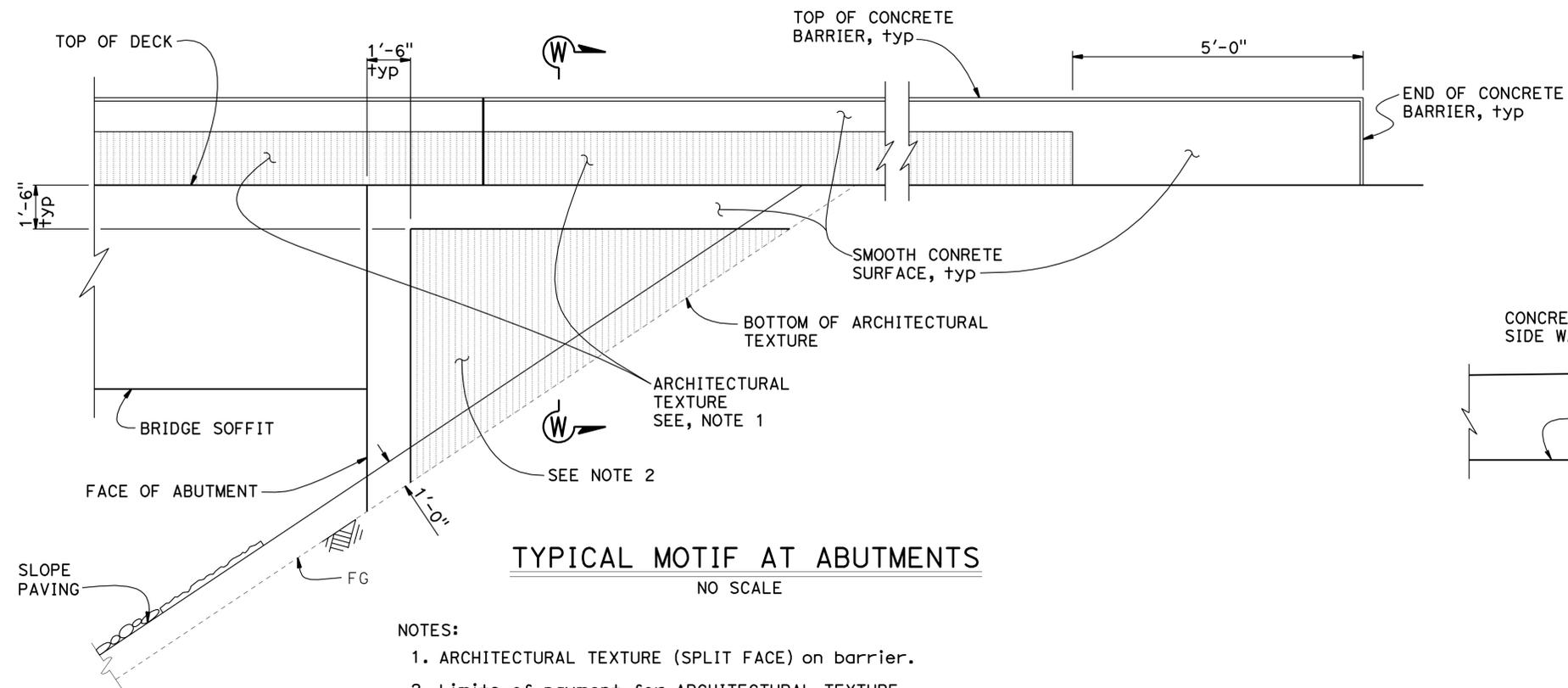
**ABUTMENT, RETAINING WALL AND SLOPE PAVING ARCHITECTURAL MOTIF**  
 1/4" = 1'-0"

- LEGEND**
- Local River Rocks, embedded on slope paving. See "SLOPE PAINTING - FULL SLOPE" sheet.
  - OR
  - Architectural Texture (River Rock) on vertical concrete surfaces. These surfaces shall be prepared and stained.
  - Grid reference
  - Grid reference

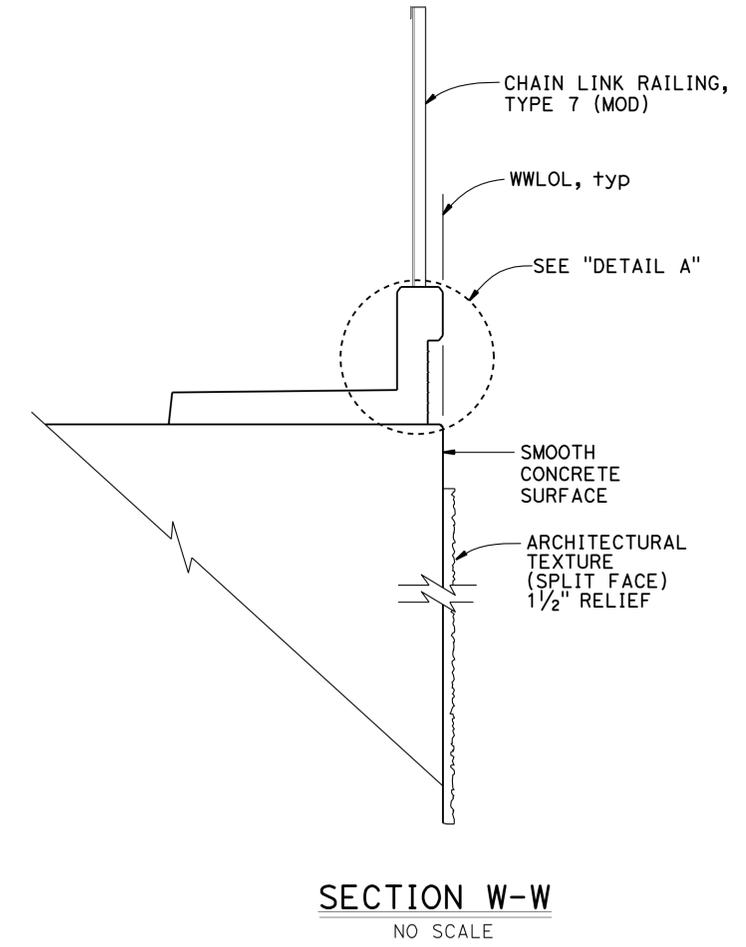
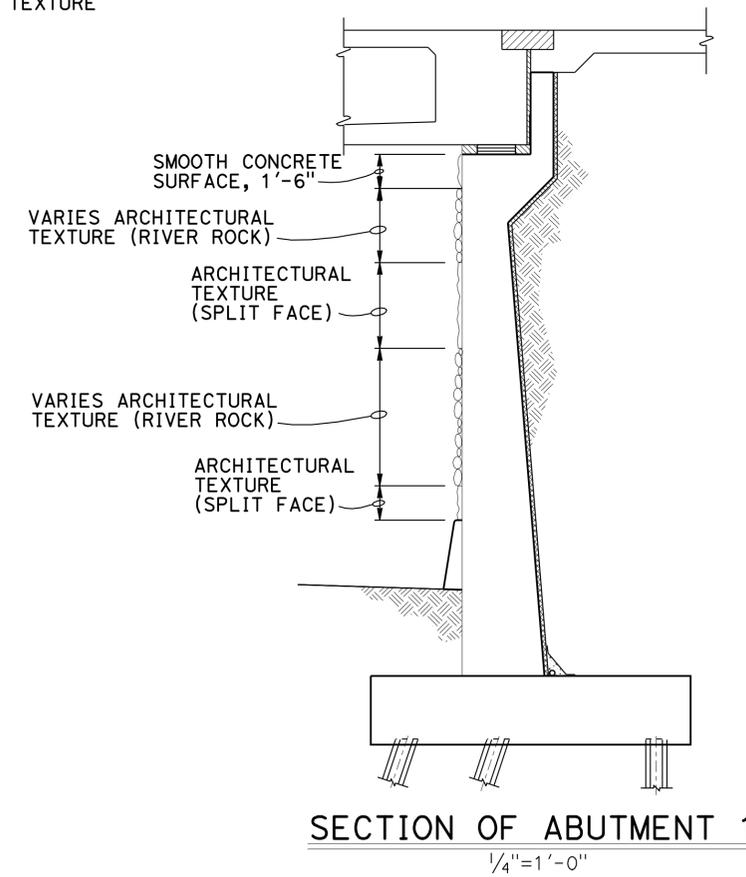
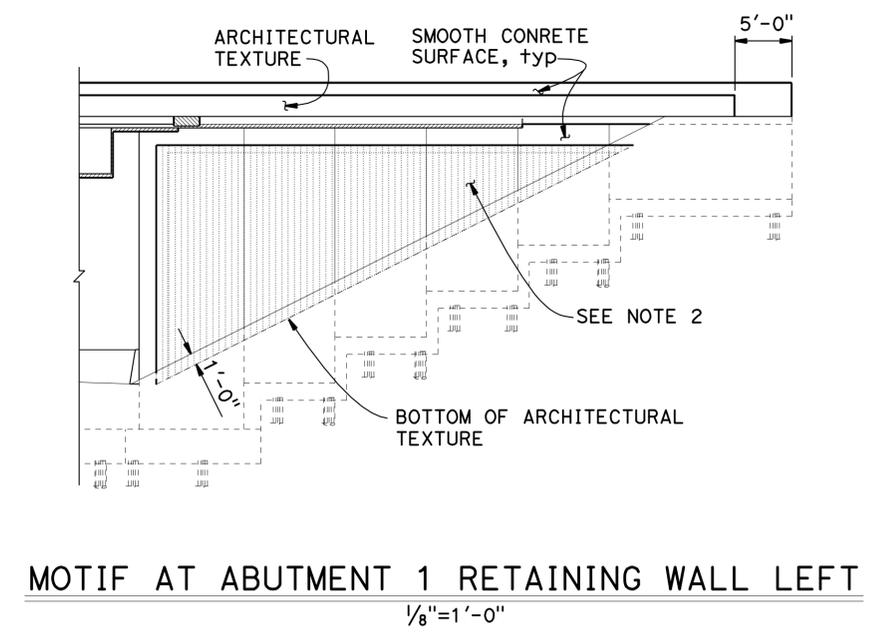
DESIGN BY C. Udarbe CHECKED M. Friedheim DETAILS BY L. Wang CHECKED M. Friedheim QUANTITIES BY C. Udarbe CHECKED M. Friedheim			<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0330 POST MILE 17.41	<b>SOUTH STOCKTON WIDENING</b> <b>GOLDEN GATE AVE OC</b> <b>ARCHITECTURAL DETAILS NO. 2</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES
					REVISION DATES 07-12-11 09-21-11	SHEET OF 22 37

USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:33:33

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1159	1414
REGISTERED CIVIL ENGINEER Chris V. Udarbe No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA			11-04-11 DATE 3-26-12 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.		

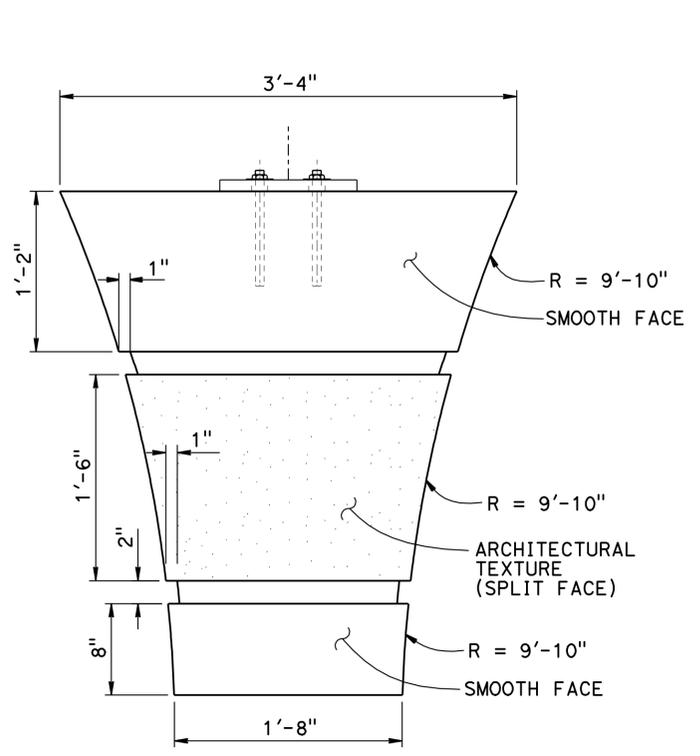


- NOTES:
1. ARCHITECTURAL TEXTURE (SPLIT FACE) on barrier.
  2. Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on wingwall

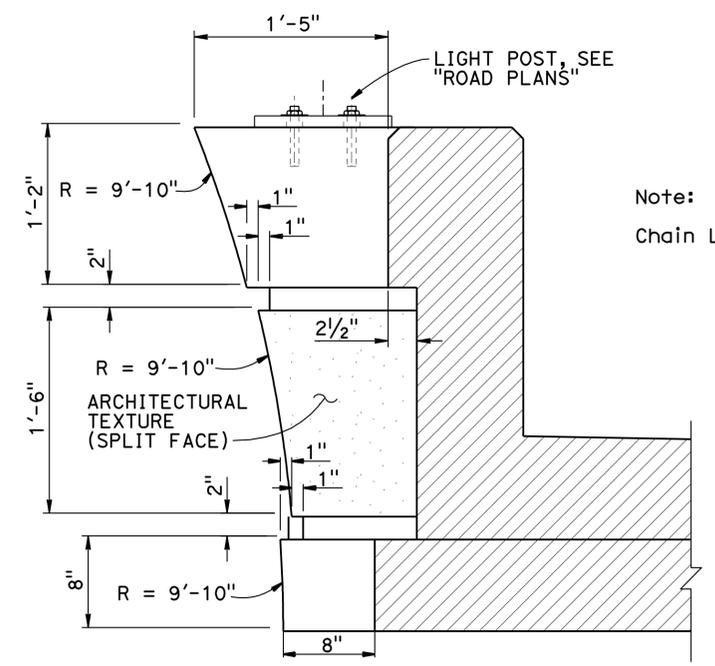


DESIGN BY C. Udarbe CHECKED K. Green DETAILS BY L. Wang CHECKED C. Udarbe QUANTITIES BY C. Udarbe CHECKED M. Friedheim			STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0330 POST MILE 17.41	<b>SOUTH STOCKTON WIDENING</b> <b>GOLDEN GATE AVE OC</b> <b>ARCHITECTURAL DETAILS NO. 3</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 07-07-11, 10-26-11, 10-27-11 SHEET 23 OF 37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1160	1414
<i>Chris V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
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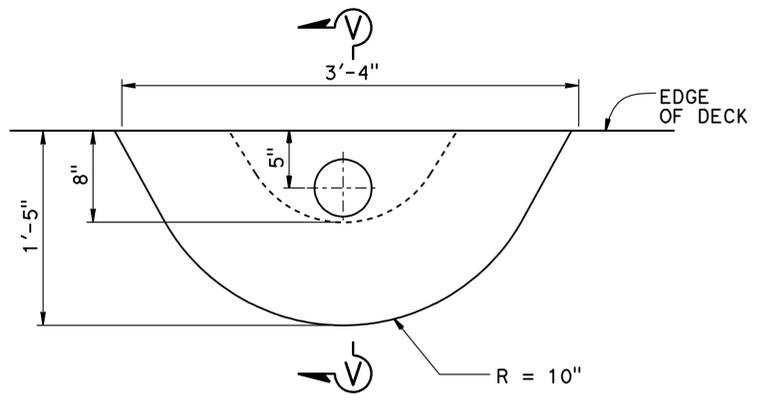


**PEDESTAL ELEVATION (FRONT)**  
1/2" = 1'-0"

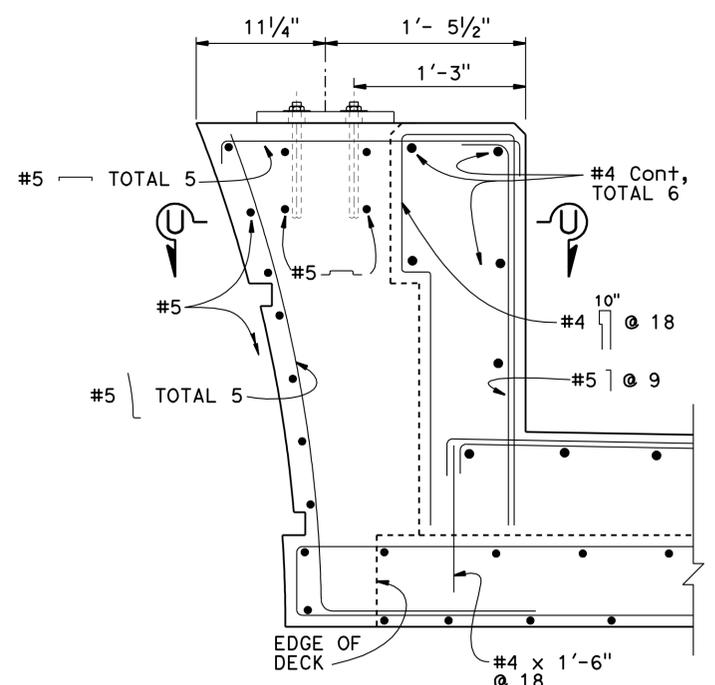


Note:  
Chain Link Railing Type 7 (MOD), not shown.

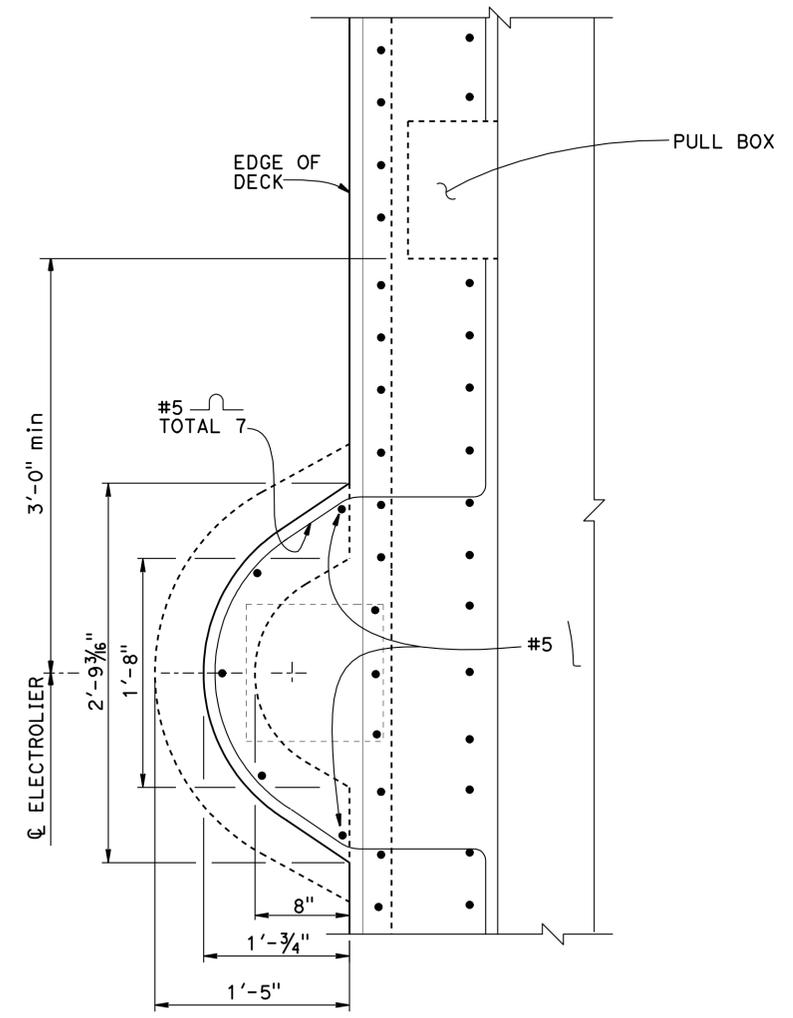
**PEDESTAL ELEVATION (SIDE)**  
1/2" = 1'-0"



**PLAN VIEW**  
1/2" = 1'-0"



**SECTION V-V**  
1/2" = 1'-0"



**SECTION U-U**  
1/2" = 1'-0"

DESIGN	BY C. Udarbe	CHECKED K. Green
DETAILS	BY L. Wang	CHECKED C. Udarbe
QUANTITIES	BY C. Udarbe	CHECKED X

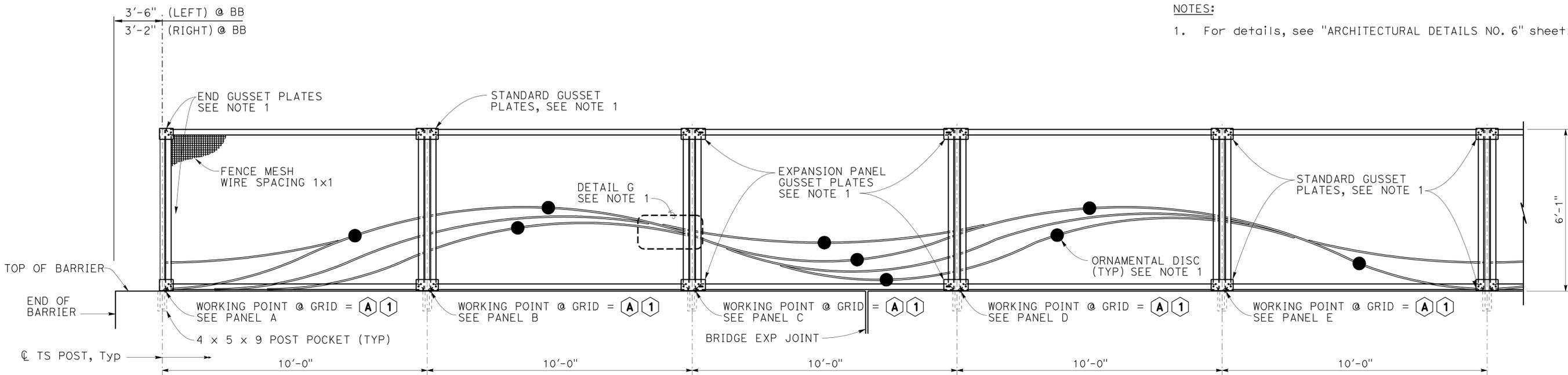
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0330
POST MILE	17.41

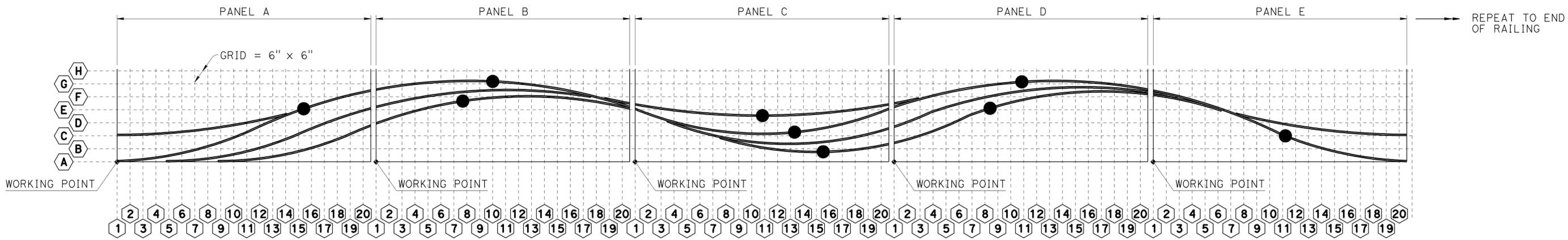
**SOUTH STOCKTON WIDENING**  
**GOLDEN GATE AVE OC**  
**ARCHITECTURAL DETAILS NO. 4**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1161	1414
			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	11-04-11	
			PLANS APPROVAL DATE		
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NOTES:  
1. For details, see "ARCHITECTURAL DETAILS NO. 6" sheet.

**ELEVATION**  
1/2" = 1'-0"



**LAYOUT**  
1/2" = 1'-0"

DESIGN	BY C. UDARBE	CHECKED R. SIMMONS
DETAILS	BY C. FIGUERRES	CHECKED R. SIMMONS
QUANTITIES	BY R. SIMMONS	CHECKED C. UDARBE

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 17

BRIDGE NO.	29-0330
POST MILE	17.41

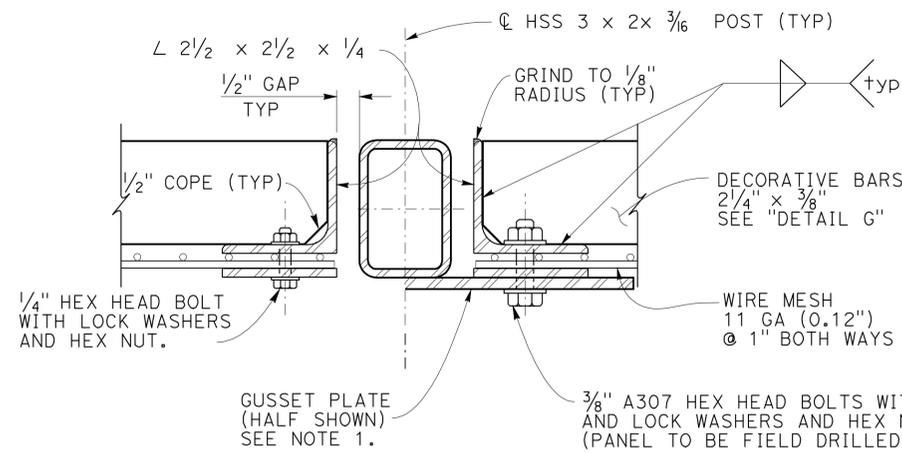
**SOUTH STOCKTON WIDENING**  
**GOLDEN GATE AVE OC**  
**ARCHITECTURAL DETAILS NO. 5**



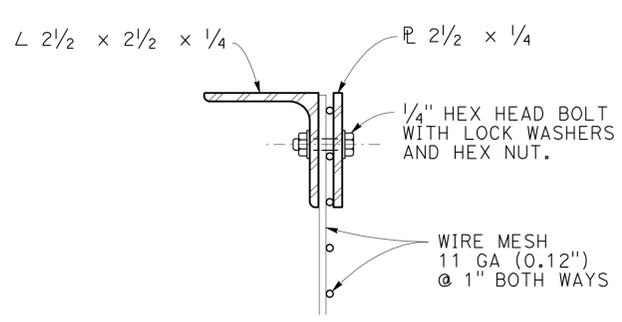
REVISION DATES	SHEET	OF
12-13-11	25	37

USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 1:34:34

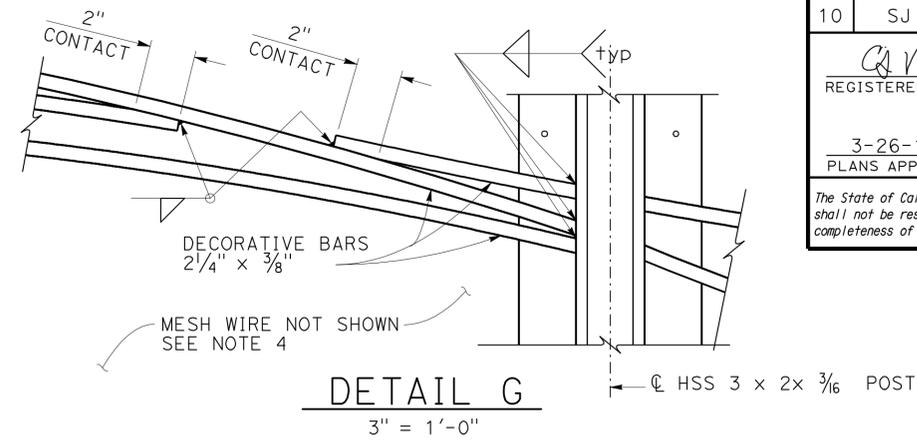
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1162	1414
C. V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			Chris Y. Udarbe No. C62985 Exp. 60-30-12 CIVIL STATE OF CALIFORNIA		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



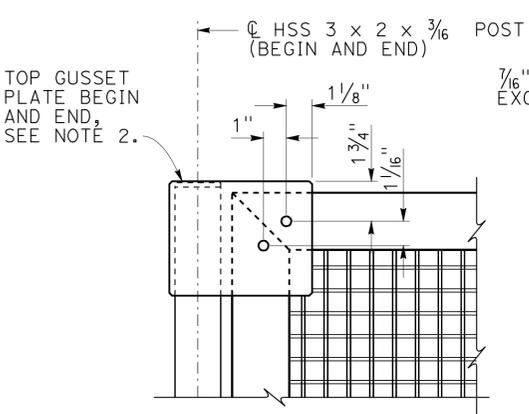
SECTION O-O  
6" = 1'-0"



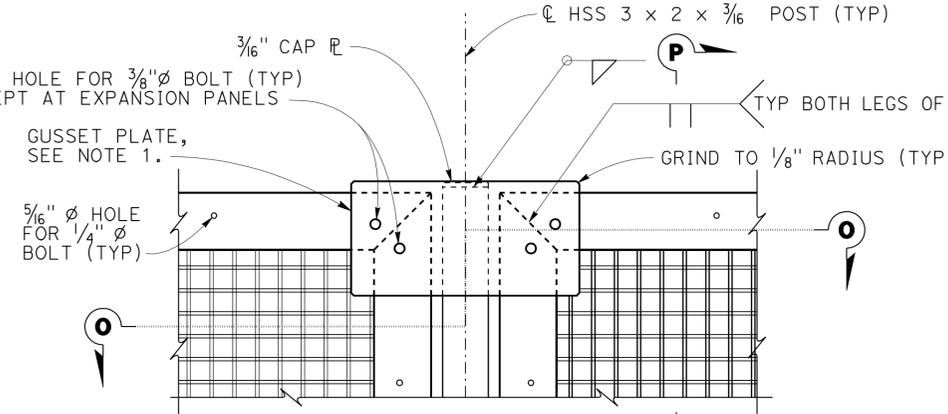
SECTION P-P  
6" = 1'-0"



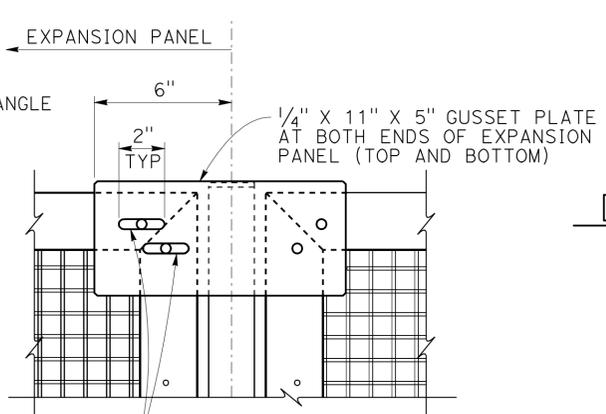
DETAIL G  
3" = 1'-0"



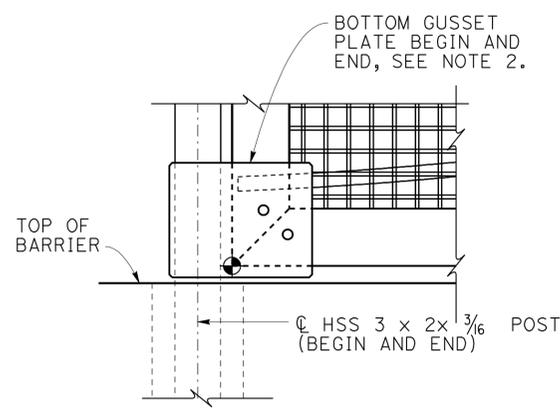
DETAIL A  
3" = 1'-0"



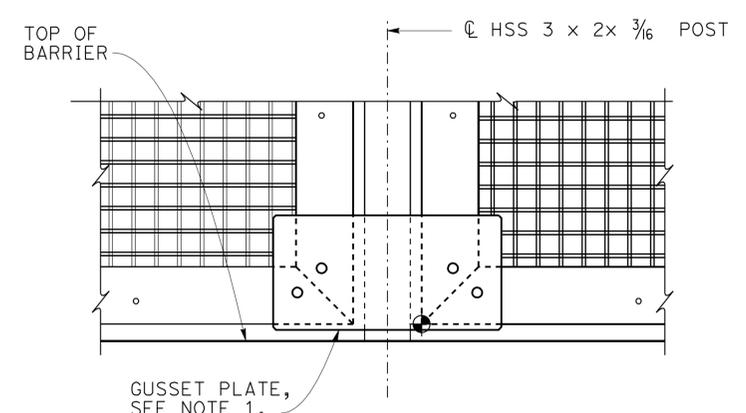
DETAIL B  
3" = 1'-0"



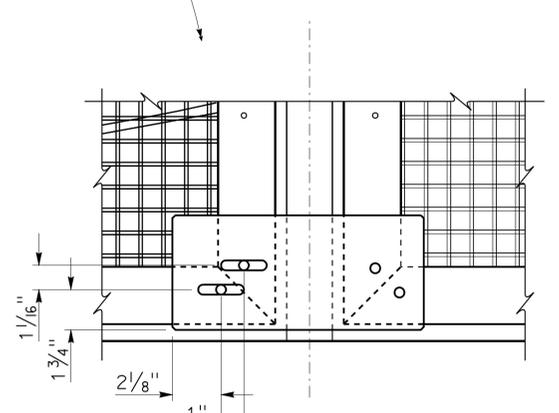
DETAIL C  
3" = 1'-0"



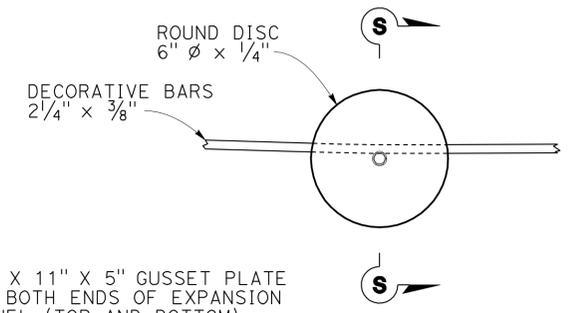
DETAIL D  
3" = 1'-0"



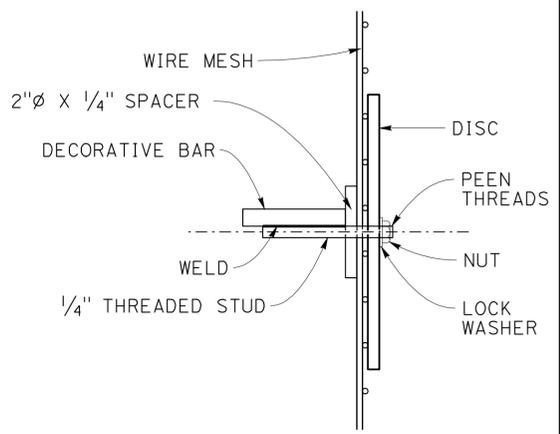
DETAIL E  
3" = 1'-0"



DETAIL F  
3" = 1'-0"



DISC DETAIL  
3" = 1'-0"



SECTION S-S  
6" = 1'-0"

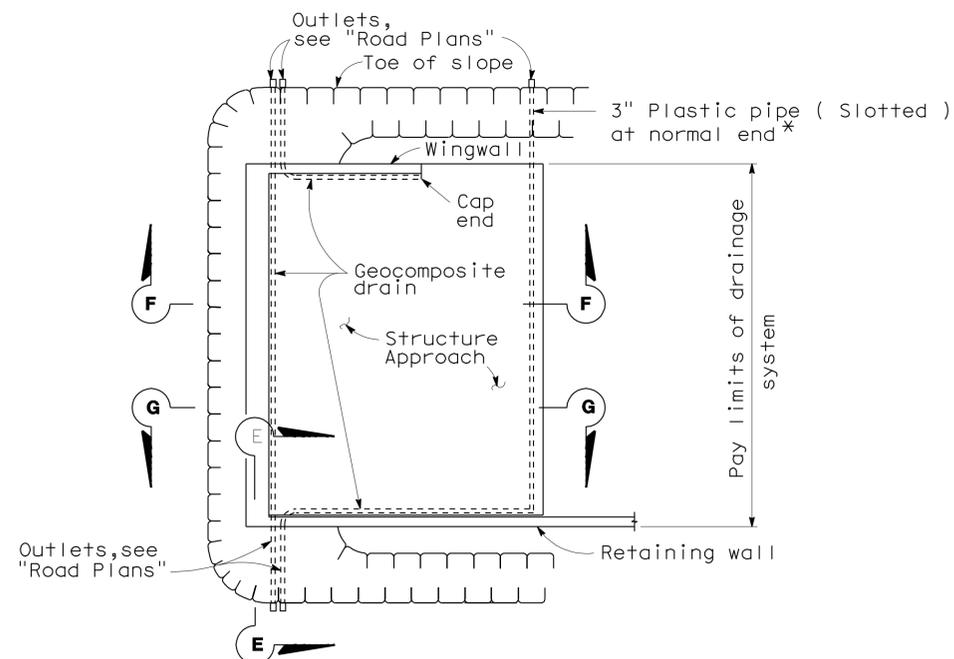
- NOTES:
1. 1/4" x 10" x 5" Gusset Plate, groove weld at sides of post. Fillet weld at top and bottom (continuous weld.)
  2. 1/4" x 6 1/4" x 5" begin and end Gusset Plate, groove weld at sides of post. Fillet weld at top and bottom (continuous weld.)
  3. All materials including fasteners to be galvanized after fabrication and painted black.
  4. Shown on traffic side of fence.
  5. For details not shown, see 811-52
  6. At all slotted holes, use 3/8" hex bolt with 2 plain washers and hex nut, finger tight, peen threads.
  7. Holes in gusset plates to be shop drilled. Field drill holes in panels after adjusting panel to line and grade. Field drilled holes to be deburred and painted prior to installing bolts.
  8. C.C. spacing of posts shall be within 1/2" tolerance.
  9. Posts shall be set plumb to within 1/4" in 6'.

DESIGN	BY R. Simmons	CHECKED C. Udarbe	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0330
DETAILS	BY J. Casarino	CHECKED R. Simmons			POST MILE	17.41
QUANTITIES	BY R. Simmons	CHECKED C. Udarbe				

<b>SOUTH STOCKTON WIDENING</b>	
<b>GOLDEN GATE AVE OC</b>	
<b>ARCHITECTURAL DETAILS NO. 6</b>	

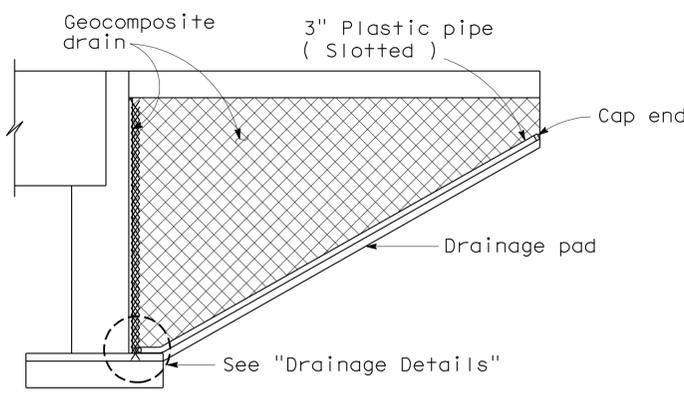


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1164	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

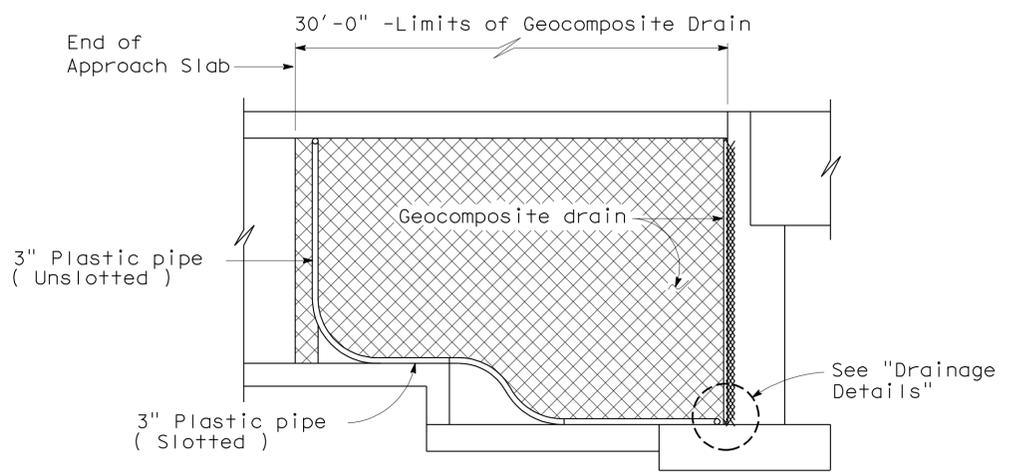


**TYPICAL PLAN**  
1"=10'

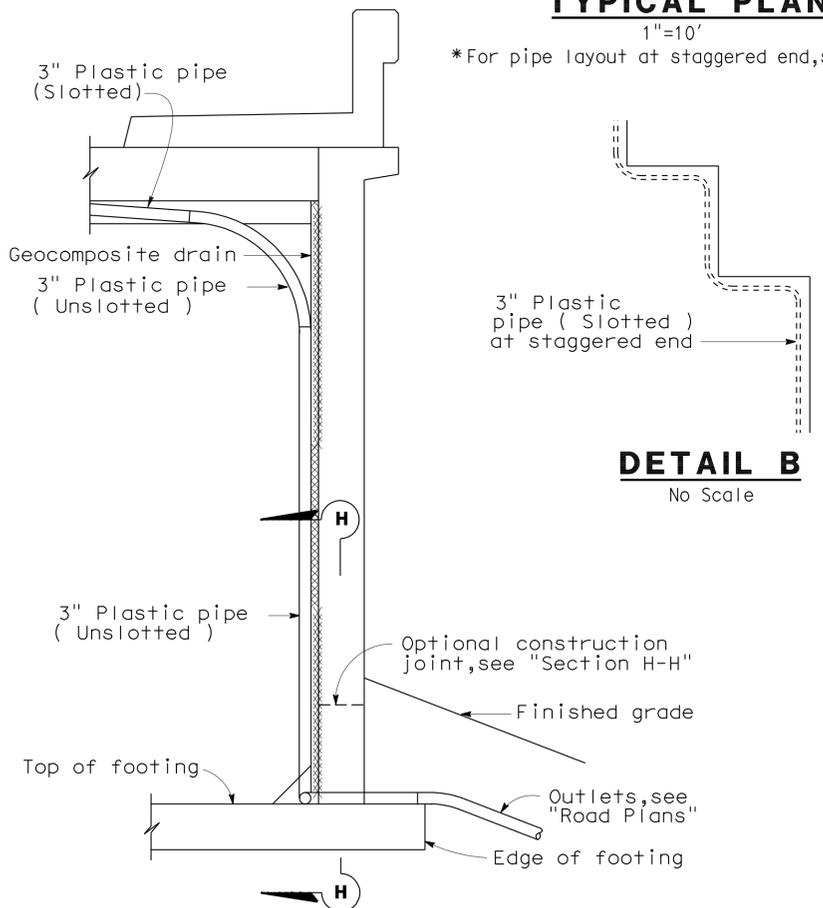
\*For pipe layout at staggered end, see "Detail B".



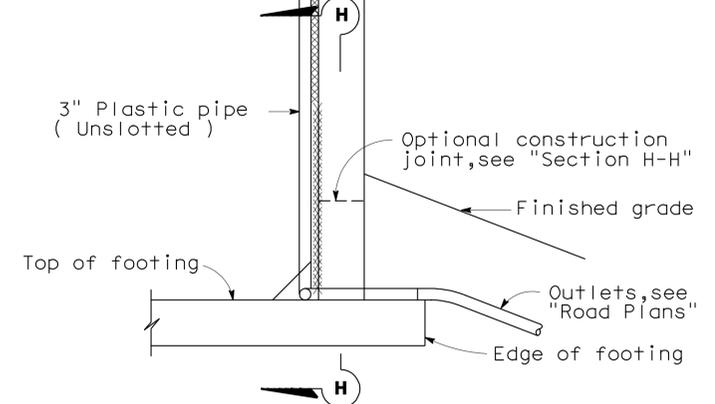
**CANTILEVER WINGWALL SECTION F-F**  
1/4"=1'-0"



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

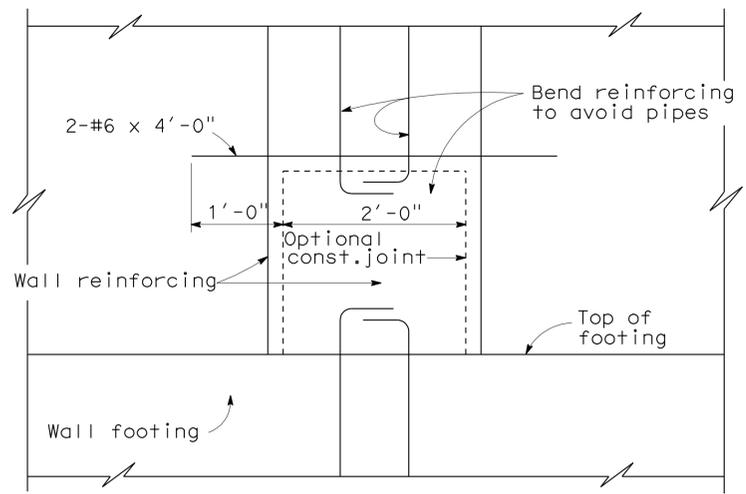


**DETAIL B**  
No Scale

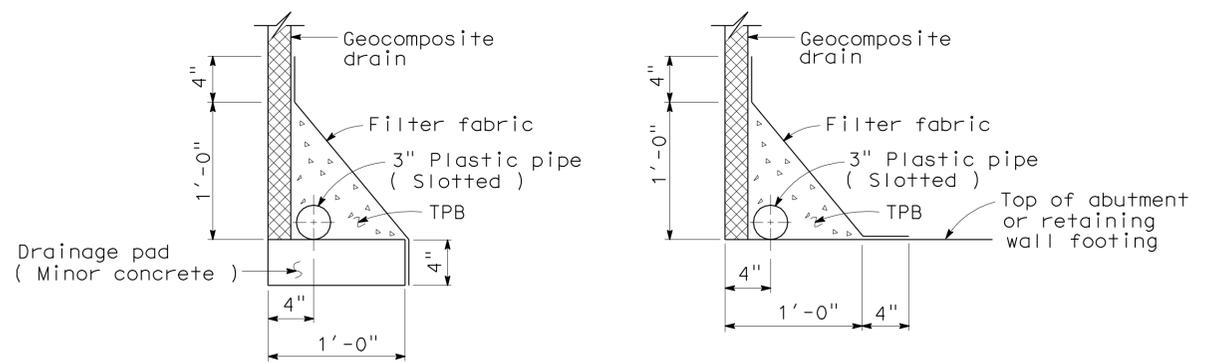


**SECTION E-E**  
1/2"=1'-0"

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



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



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

<b>SOUTH STOCKTON WIDEN</b>	
<b>GOLDEN GATE AVE OC</b>	
<b>STRUCTURE APPROACH DRAINAGE DETAILS</b>	

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

<b>STATE OF CALIFORNIA</b>	<b>DIVISION OF ENGINEERING SERVICES</b>
BRIDGE NO.	29-0330
POST MILE	28.58

UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 3A1001

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
		28	37

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0	1	2	3
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FILE => 29-0330-x63-110e.dgn

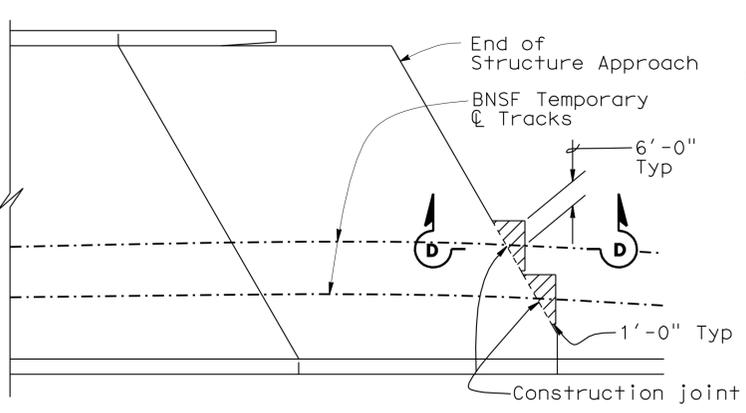
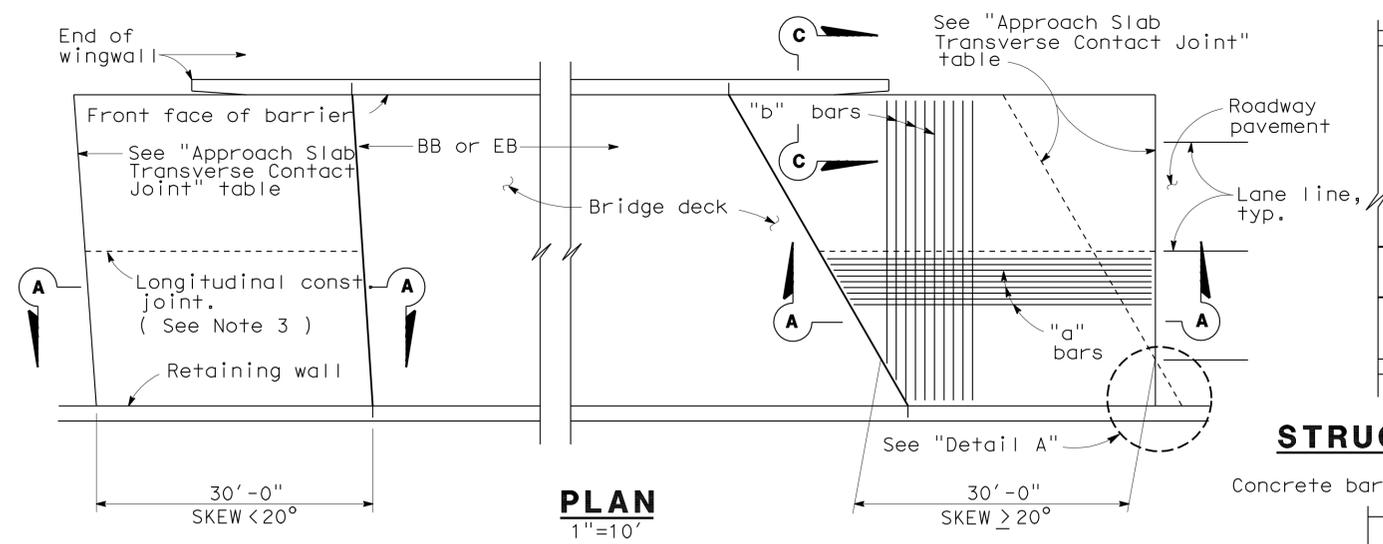
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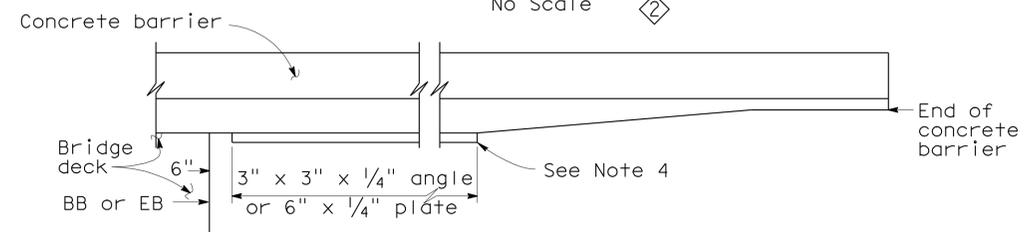
REGISTERED CIVIL ENGINEER  
 Chris Udarbe  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA

11-04-11  
 DATE  
 3-26-12  
 PLANS APPROVAL DATE

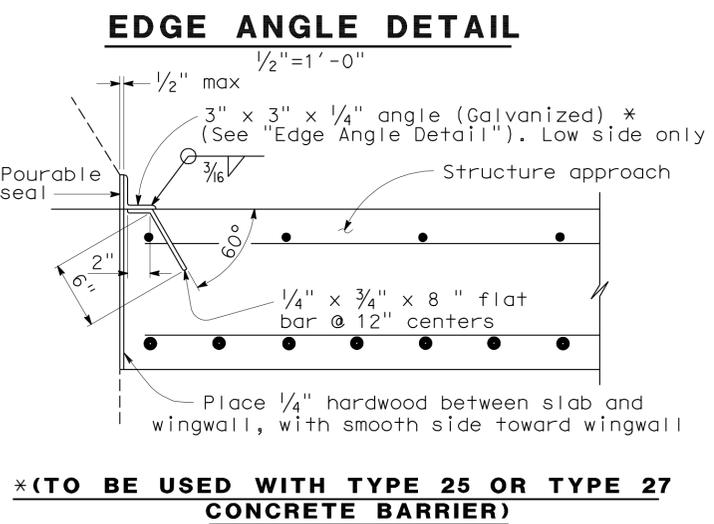
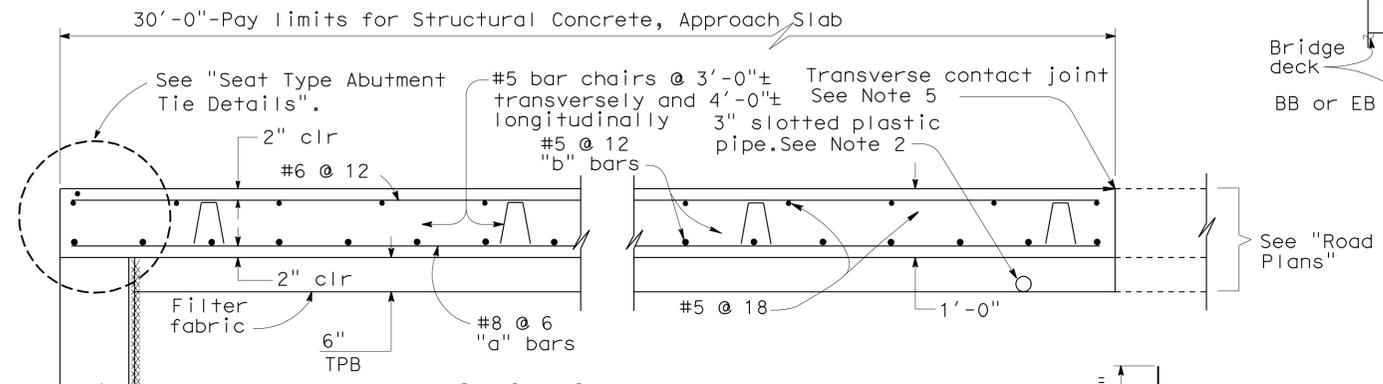
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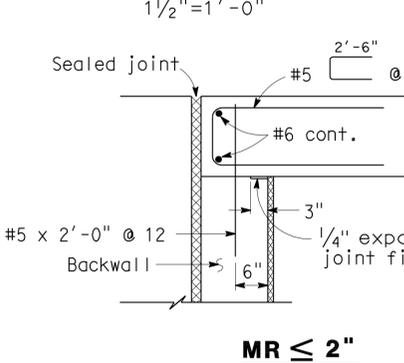
**STRUCTURE APPROACH - END STAGGER DETAIL**



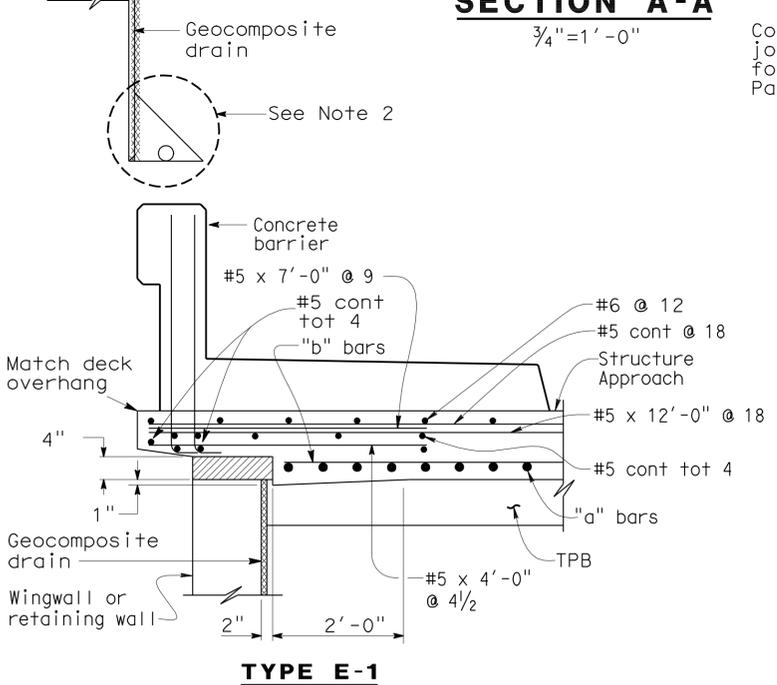
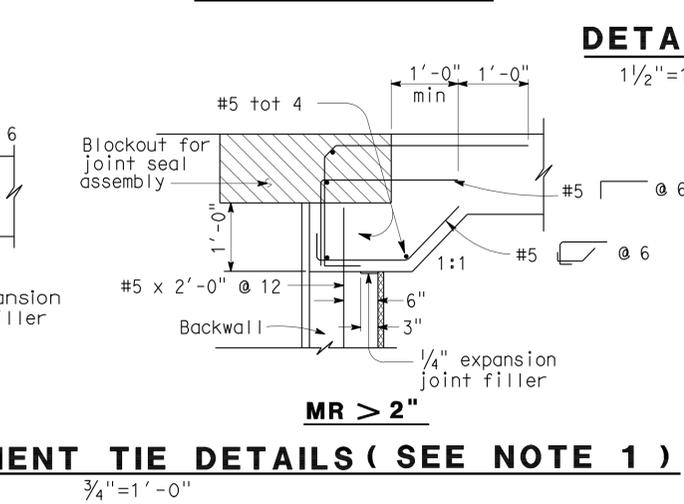
APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	Parallel to face of paving notch	Parallel to face of paving notch
20° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart.
> 45°	Parallel to face of P N use (Detail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



**BAR CHAIR DETAIL**



**SEAT TYPE ABUTMENT TIE DETAILS (SEE NOTE 1)**



**SECTION C-C**

3/4"=1'-0"  
(Type E-1 to be used, unless otherwise shown on plans)

- 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.

**STANDARD DRAWING**

RELEASE DATE: 3/14/05	DESIGN BY: M. TRAFFALIS	CHECKED: E. THORKILDSEN	RELEASED BY:
FILE NO.: xs3-120e	DETAILS BY: R. YEE	CHECKED: E. THORKILDSEN	
	SUBMITTED BY: M. HA	DRAWING DATE: 4/98	OFFICE CHIEF:

1	DETAIL DELETED	3	DETAIL ADDED
2	DETAIL REPLACED		

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

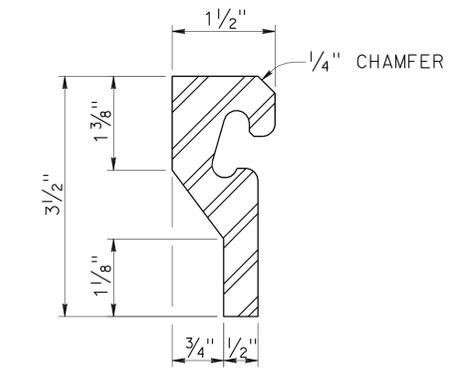
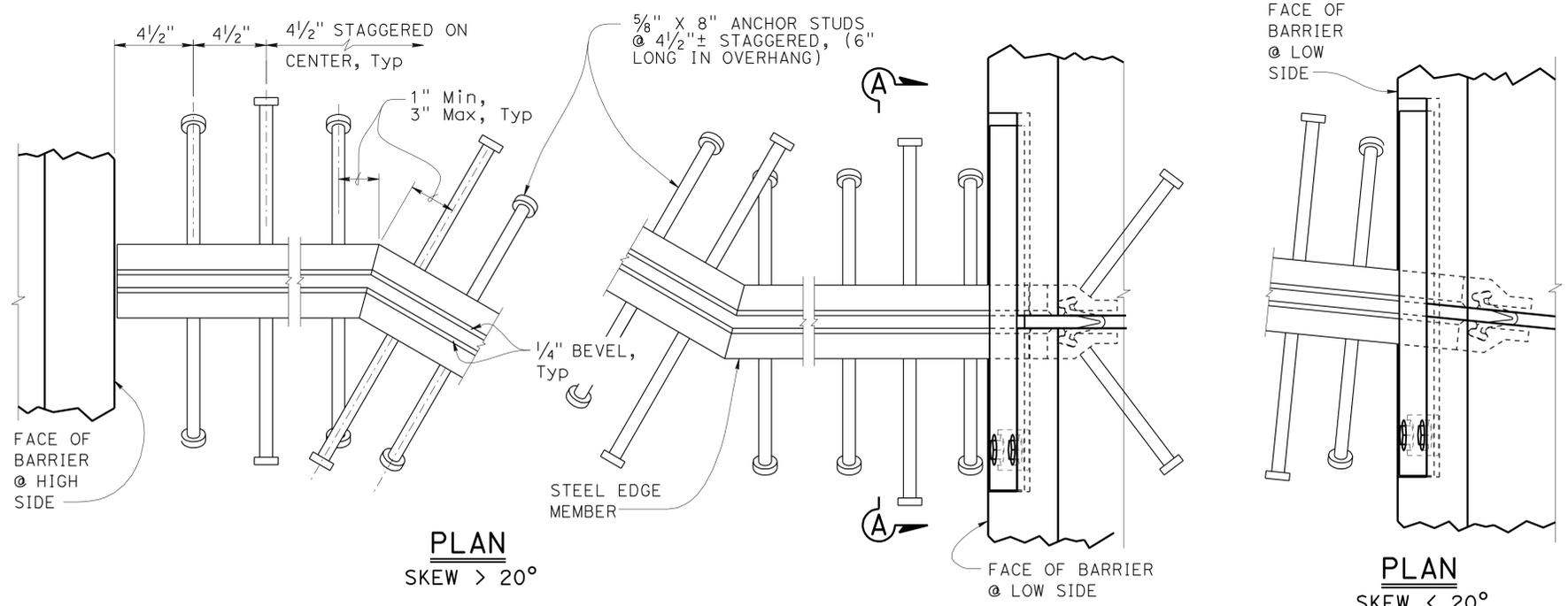
DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 29-0330  
POST MILE 28.58

**SOUTH STOCKTON WIDEN**

**GOLDEN GATE AVE OC**

**STRUCTURE APPROACH TYPE N(30S)**



**STEEL EDGE MEMBER**

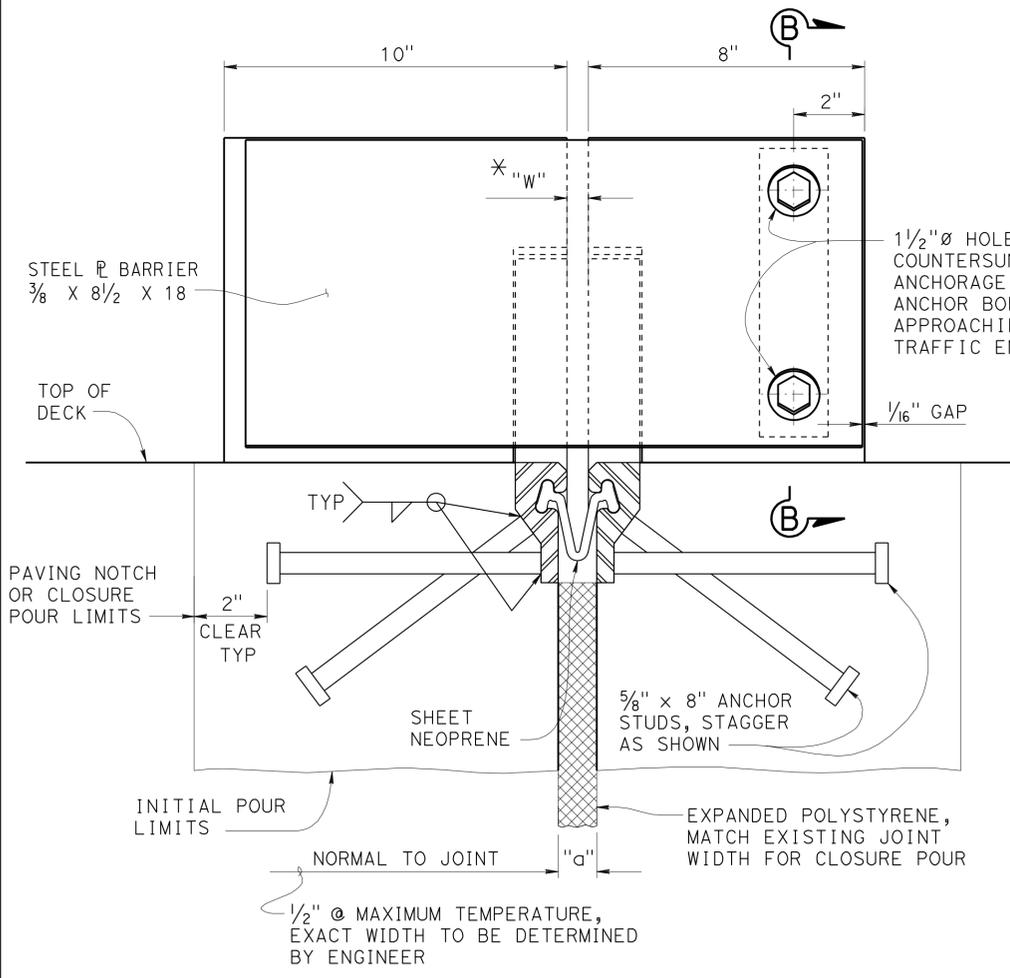
**NOTES:**

1. Full penetration butt welds may be substituted for fillet welds on all anchor studs
2. Alternate types of anchor studs may be permitted subject to the approval by the Engineer
3. Joint seal assembly to be used in conjunction with closure pour. (See other sheets for limits). Closure pour shall not be placed until final deck surface is within the tolerances specified
4. Use joint at crown of roadway, at any change in traverse slope in deck and at changes in horizontal direction. Place other joints at or near lanes. All metal parts to be painted or galvanized after fabrication
5. Sheet Neoprene shall be fabricated in one continuous piece and shall be fabricated to bend around corners
6. Insert assembly or expansion anchorage for 5/8" x 1 3/4" bolts. Use installation bolts extended 1/2" minimum past nut and coat with bond breaker, after concrete has cured, remove installation bolts, install A325 bolts and sheet neoprene
7. Sidewalk Detail similar to Barrier Detail on low side at both sides if the roadway is crowned or if the difference in elevation between the ends of the seal is 0.5' or less
8.  $a_c$ ,  $a_s$ , are the thermal expansion coefficients for concrete and steel respectfully.

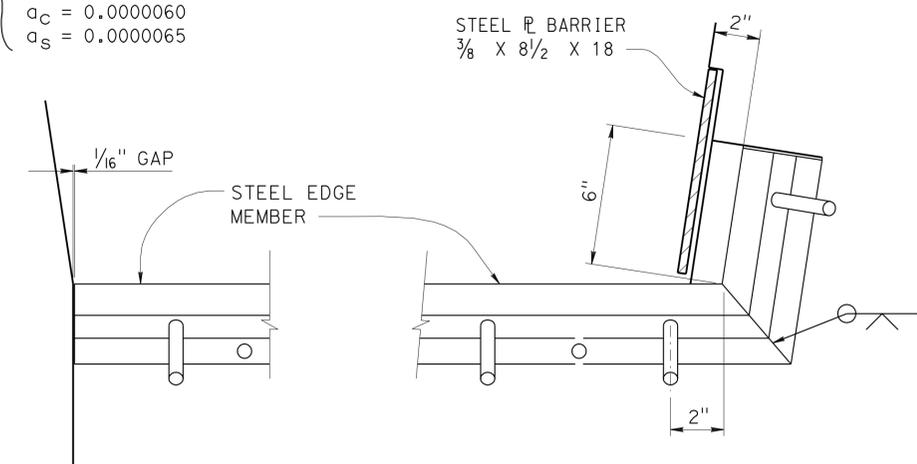
JOINT INFORMATION			"a" DIMENSIONS		
LOCATION	MOVEMENT RATING (MR)	SKIEW	WINTER	SPRING & FALL	SUMMER
Abut 1	2.5"	45.5°	1.5"	1.0"	1.0"
Abut 4	2.5"	36.0°	1.5"	1.0"	1.0"

\* TO SET MINIMUM JOINT OPENING "w"

$$w = \begin{cases} \frac{1}{2} + [(Max \text{ Str temperature in } F^\circ) - (actual \text{ Str temperature in } F^\circ)] * (a_c \text{ or } a_s) * (12) * (\text{contributory L in feet}) \\ \frac{1}{2} \text{ Minimum} \\ a_c = 0.0000060 \\ a_s = 0.0000065 \end{cases}$$

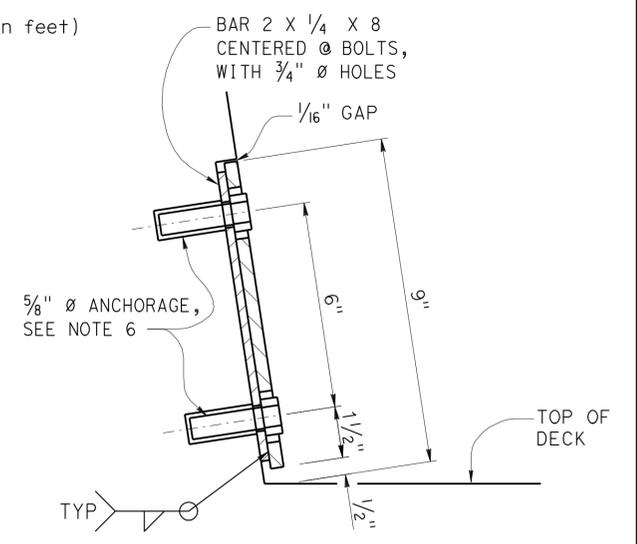


**SECTION A-A**



**BARRIER DETAIL HIGH SIDE**

**BARRIER DETAIL LOW SIDE**



**SECTION B-B**

NO SCALE

**SOUTH STOCKTON WIDEN**

**GOLDEN GATE AVE OC**

**JOINT SEAL ASSEMBLY**  
(MAXIMUM MOVEMENT RATING = 4")

STANDARD DRAWING	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 29-0330
FILE NO. <b>xs8-010</b>	APPROVAL DATE <u>October 2011</u>	PROJECT NUMBER & PHASE: 10000004091	POST MILE 28.58

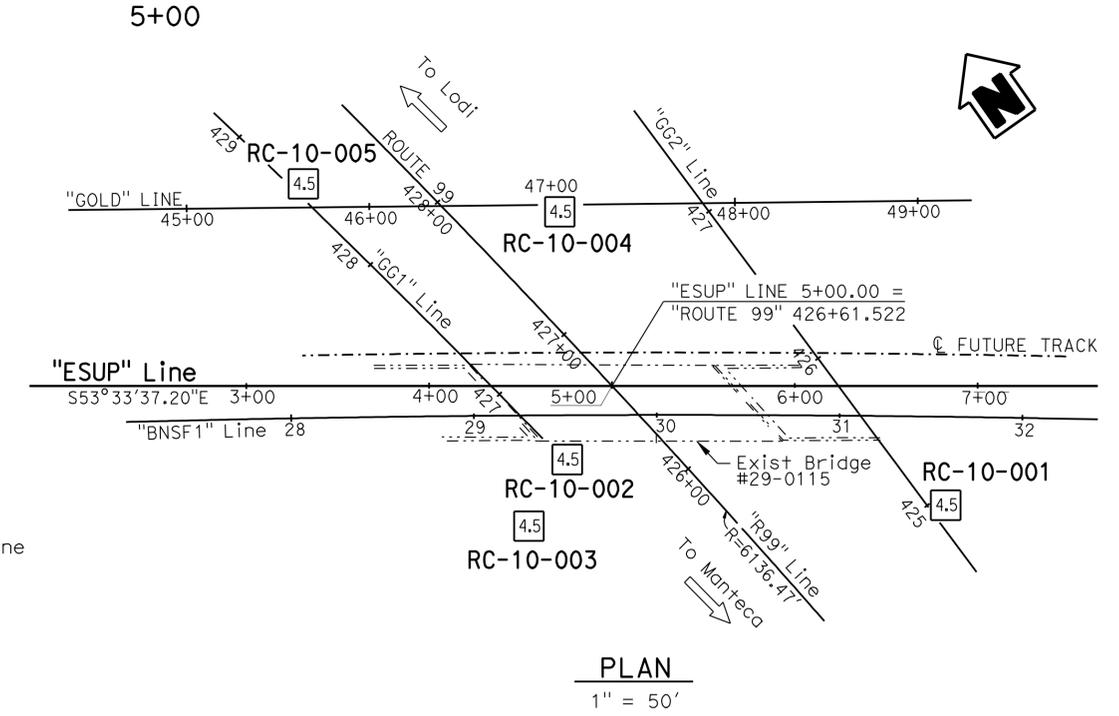
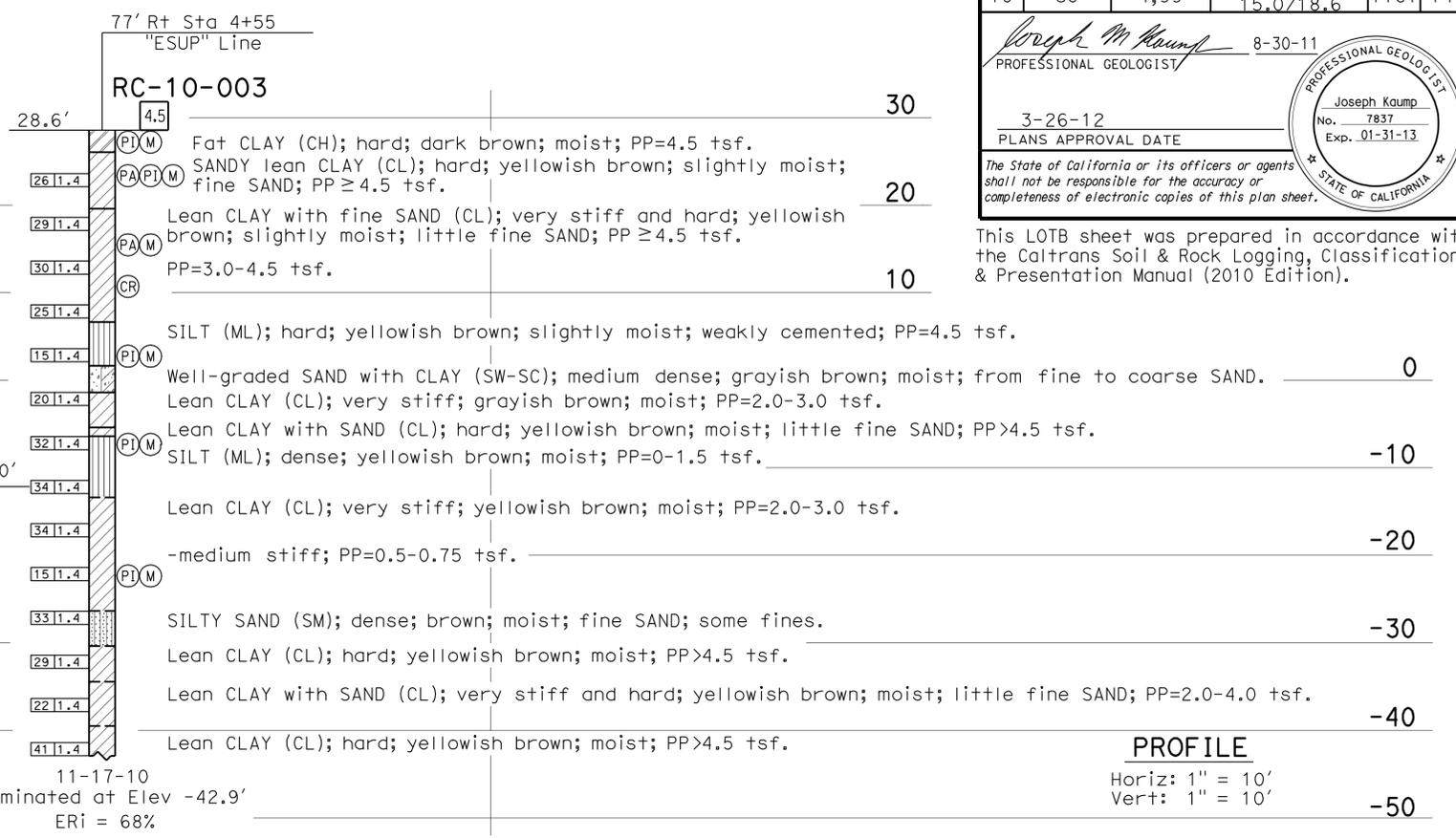
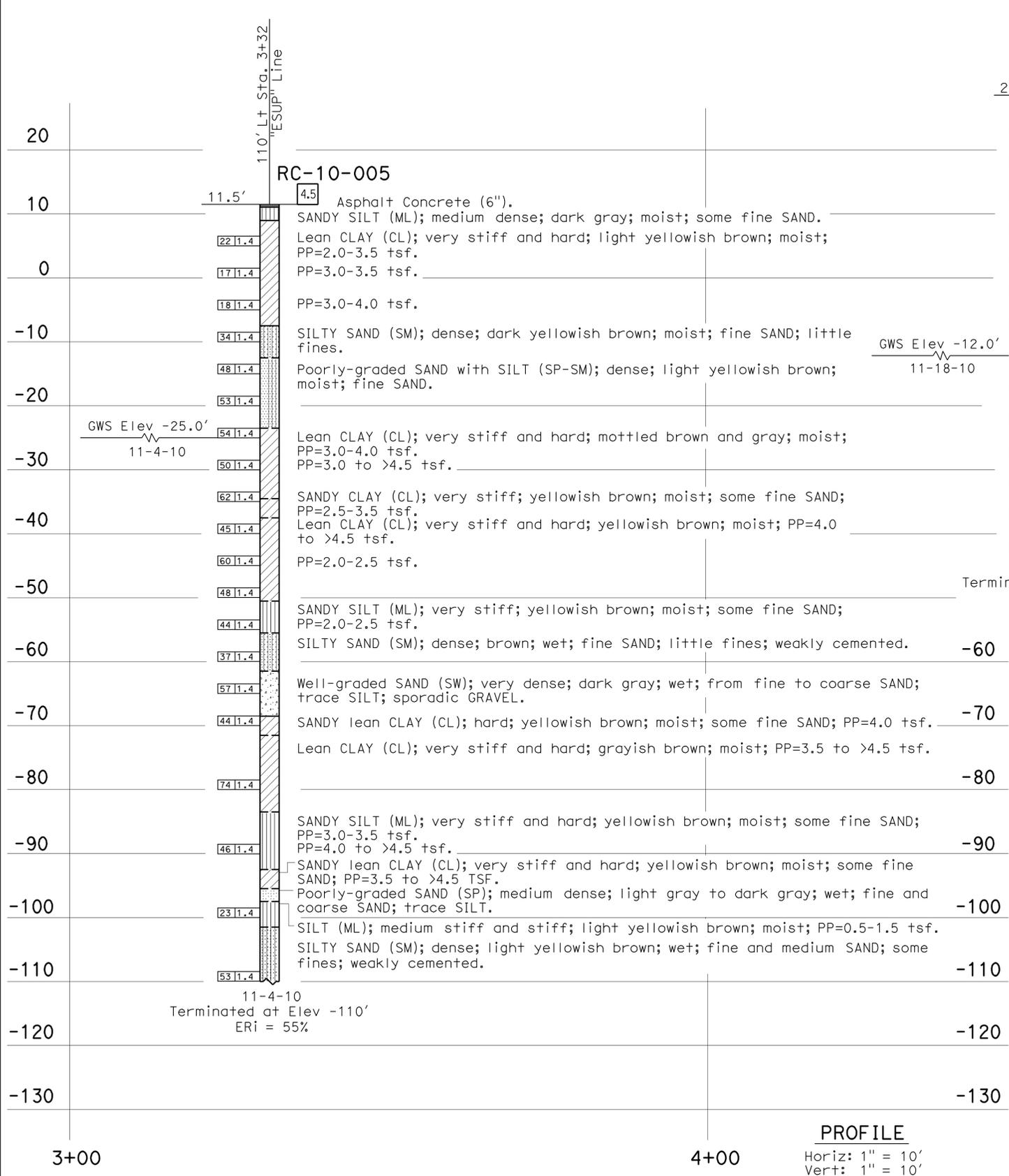
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1167	1414

PROFESSIONAL GEOLOGIST  
 Joseph M Kaump  
 No. 7837  
 Exp. 01-31-13  
 STATE OF CALIFORNIA

8-30-11  
 3-26-12  
 PLANS APPROVAL DATE

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).

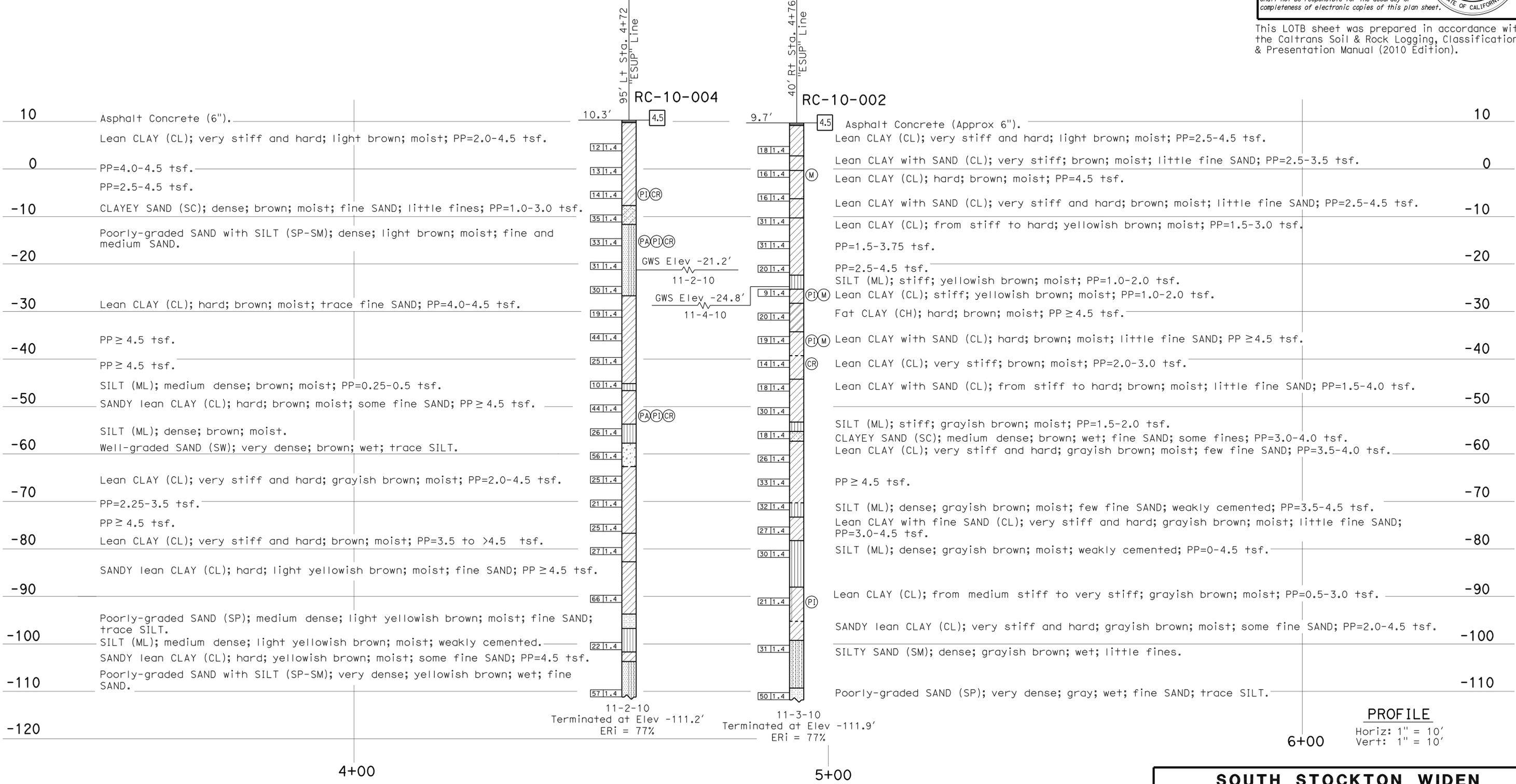


<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDEN</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: I. G-Remmen		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 29-0330		<b>GOLDEN GATE AVE OC</b>	
NAME: R. Buehl		CHECKED BY: C. Zhen-Ru		FIELD INVESTIGATION BY: A. Barrie / T. Alderman		POST MILE 17.41		<b>LOG OF TEST BORINGS 1 OF 7</b>	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	
				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 31 OF 37	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1168	1414

Joseph M Kaump 8-30-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
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 PROFESSIONAL GEOLOGIST  
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FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 7"



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDEN</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: I. G-Remmen		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 29-0330		<b>GOLDEN GATE AVE OC</b>	
NAME: R. Buehl		CHECKED BY: C. Zhen-Ru		FIELD INVESTIGATION BY: T. Alderman		DESIGN BRANCH 17		<b>LOG OF TEST BORINGS 2 OF 7</b>	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	
				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 32 OF 37	

USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 13:35

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

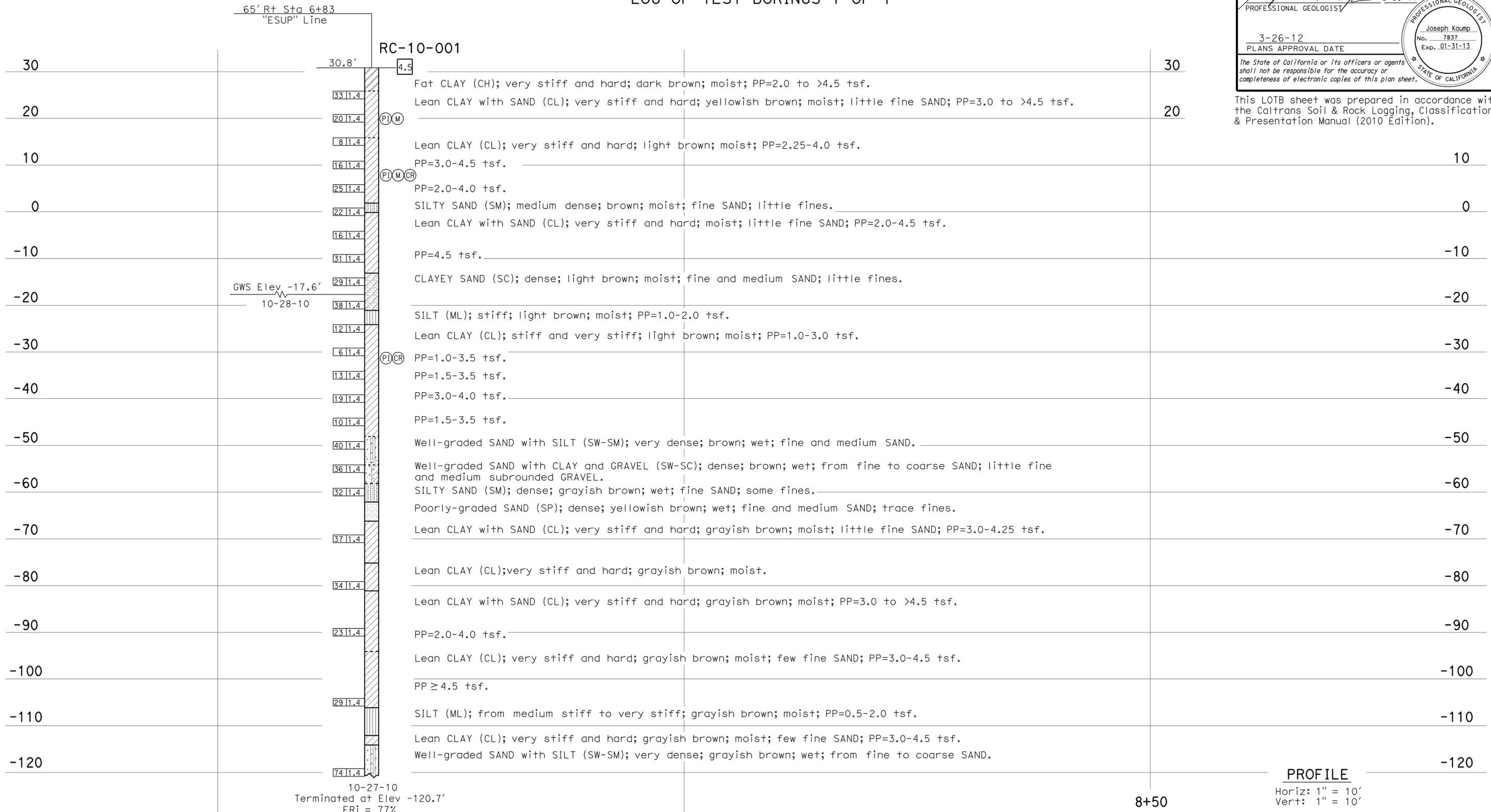
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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Joseph M Kaump 8-30-11  
PROFESSIONAL GEOLOGIST

3-26-12  
PLANS APPROVAL DATE

Joseph Kaump  
No. 7837  
Exp. 01-31-13  
STATE OF CALIFORNIA

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<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDEN</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: I. G-Remmen		DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 29-0330		<b>GOLDEN GATE AVE OC</b>	
NAME: R. Buehl		CHECKED BY: C. Zhen-Ru		FIELD INVESTIGATION BY: T. Alderman		POST MILE 17.41		<b>LOG OF TEST BORINGS 3 OF 7</b>	
OGS CIVIL LOG OF TEST BORINGS SHEET				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643		REVISION DATES	
				PROJECT NUMBER & PHASE: 1000004091		CONTRACT NO.: 10-3A1001		SHEET 33 OF 37	

DISREGARD PRINTS BEARING EARLIER REVISION DATES

08-09-11 08-23-11

FILE => 29-0330-Z-1+tb3of7.dgn

DATE PLOTTED => 29-MAR-2012 USERNAME => s123631 TIME PLOTTED => 13:36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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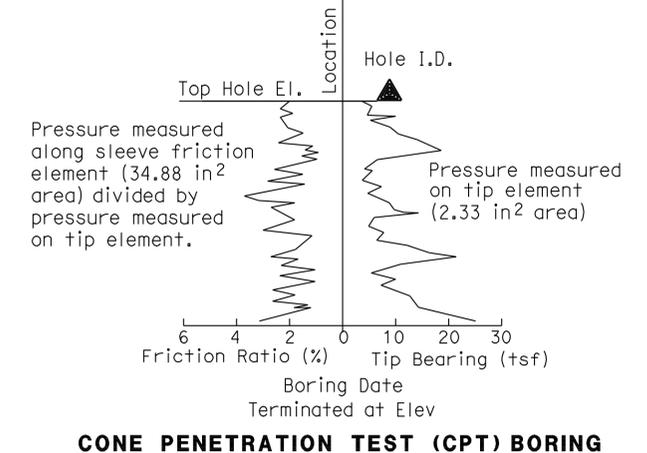
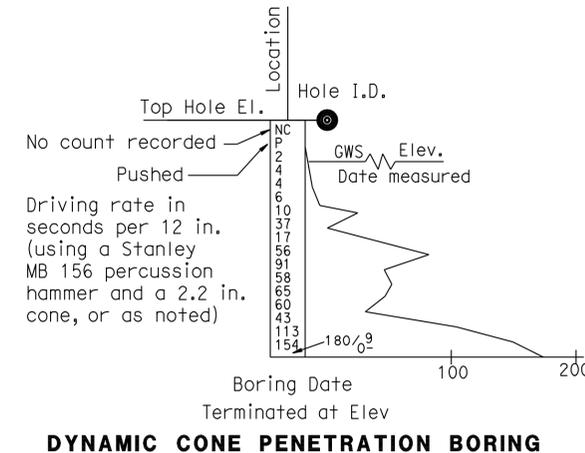
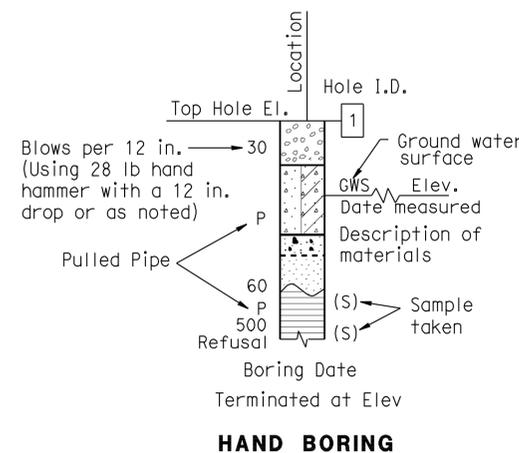
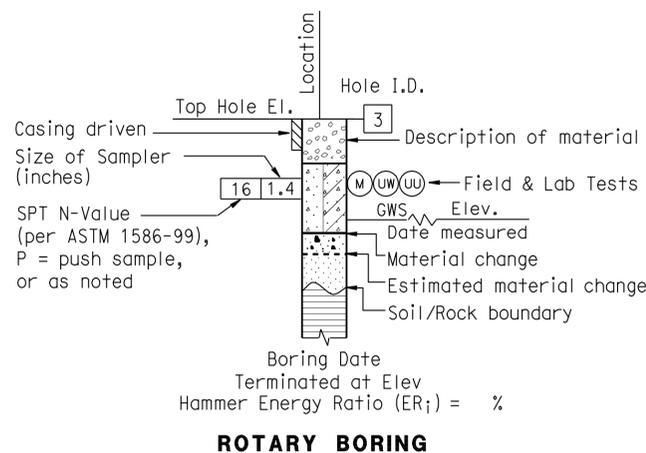
PROFESSIONAL GEOLOGIST  
 Joseph M Kaump  
 No. 7837  
 Exp. 01-31-13  
 8-30-11  
 3-26-12  
 PLANS APPROVAL DATE  
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	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)
	O	Other (note on LOTB)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION		<b>DIVISION OF ENGINEERING SERVICES</b> STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0330 POST MILE 17.41		<b>SOUTH STOCKTON WIDEN</b> <b>GOLDEN GATE AVE OC</b> <b>LOG OF TEST BORINGS 4 OF 7</b>	
PREPARED BY: I.G-Remmen				UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES SHEET 34 OF 37	

GS LOTB SOIL LEGEND  
 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS  
 FILE => 29-0330-Z-1+4of7.dgn

USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 13:36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1171	1414

*Joseph M Kaump* 8-30-11  
 PROFESSIONAL GEOLOGIST  
 No. 7837  
 Exp. 01-31-13  
 STATE OF CALIFORNIA

3-26-12  
 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 (or SILTY CLAY)		GRAVELLY lean CLAY with SAND
	Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SILTY CLAY
	Poorly-graded GRAVEL with SILT		SILTY CLAY with SAND
	Poorly-graded GRAVEL with SILT and SAND		SILTY CLAY with GRAVEL
	Poorly-graded GRAVEL with CLAY (or SILTY CLAY)		SANDY SILTY CLAY
	Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SANDY SILTY CLAY with GRAVEL
	SILTY GRAVEL		GRAVELLY SILTY CLAY
	SILTY GRAVEL with SAND		GRAVELLY SILTY CLAY with SAND
	CLAYEY GRAVEL		SILT
	CLAYEY GRAVEL with SAND		SILT with SAND
	SILTY, CLAYEY GRAVEL		SILT with GRAVEL
	SILTY, CLAYEY GRAVEL with SAND		SANDY SILT
	Well-graded SAND		SANDY SILT with GRAVEL
	Well-graded SAND with GRAVEL		GRAVELLY SILT
	Poorly-graded SAND		GRAVELLY SILT with SAND
	Poorly-graded SAND with GRAVEL		ORGANIC lean CLAY
	Well-graded SAND with SILT		ORGANIC lean CLAY with SAND
	Well-graded SAND with SILT and GRAVEL		ORGANIC lean CLAY with GRAVEL
	Well-graded SAND with CLAY (or SILTY CLAY)		SANDY ORGANIC lean CLAY
	Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		SANDY ORGANIC lean CLAY with GRAVEL
	Poorly-graded SAND with SILT		GRAVELLY ORGANIC lean CLAY
	Poorly-graded SAND with SILT and GRAVEL		GRAVELLY ORGANIC lean CLAY with SAND
	Poorly-graded SAND with CLAY (or SILTY CLAY)		ORGANIC SILT
	Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		ORGANIC SILT with SAND
	SILTY SAND		ORGANIC SILT with GRAVEL
	SILTY SAND with GRAVEL		SANDY ORGANIC SILT
	CLAYEY SAND		SANDY ORGANIC SILT with GRAVEL
	CLAYEY SAND with GRAVEL		GRAVELLY ORGANIC SILT
	SILTY, CLAYEY SAND		GRAVELLY ORGANIC SILT with SAND
	SILTY, CLAYEY SAND with GRAVEL		ORGANIC fat CLAY
	PEAT		ORGANIC fat CLAY with SAND
	COBBLES		ORGANIC fat CLAY with GRAVEL
	COBBLES and BOULDERS		SANDY ORGANIC fat CLAY
	BOULDERS		SANDY ORGANIC fat CLAY with GRAVEL
			GRAVELLY ORGANIC fat CLAY
			GRAVELLY ORGANIC fat CLAY 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
(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)
(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)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N <sub>60</sub> (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

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

PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0330	SOUTH STOCKTON WIDEN GOLDEN GATE AVE OC LOG OF TEST BORINGS 5 OF 7
				POST MILE 17.41	
PREPARED BY: I.G-Remmen	UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	REVISION DATES	SHEET 35 OF 37	

GS LOTB SOIL LEGEND ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001 DISREGARD PRINTS BEARING EARLIER REVISION DATES

USERNAME => s123631 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 13:36

DATE APPROVED: November 9 1965

TO ACCOMPANY PLANS DATED 3-26-12

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES  
 As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	4,99	R19.5/R20.1,15.0/18.6	1172	1414

PROFESSIONAL GEOLOGIST  
 Joseph Kaump  
 No. 7837  
 Exp. 1-31-13

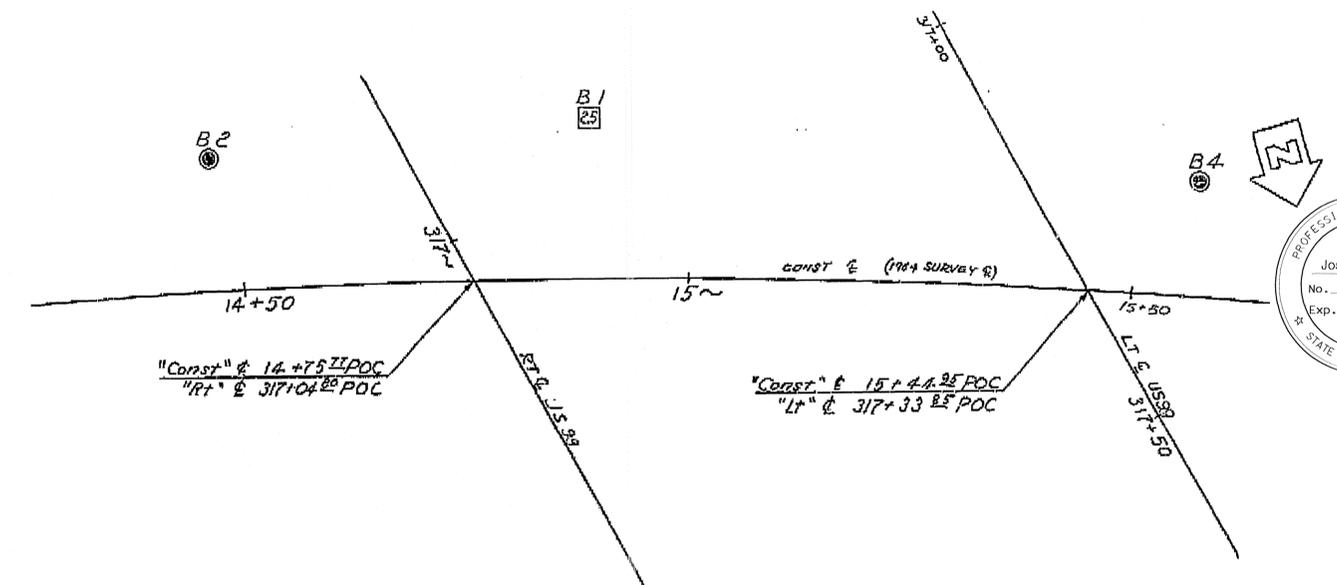
**SOUTH STOCKTON WIDEN GOLDEN GATE AVE O.C. LOG OF TEST BORINGS 6 OF 7**

UNIT: 3643 CONTRACT No. 10-3A1001 BRIDGE No. 29-0330  
 PROJECT NUMBER & PHASE: 10000004091 10-3A1001 29-0330  
 NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

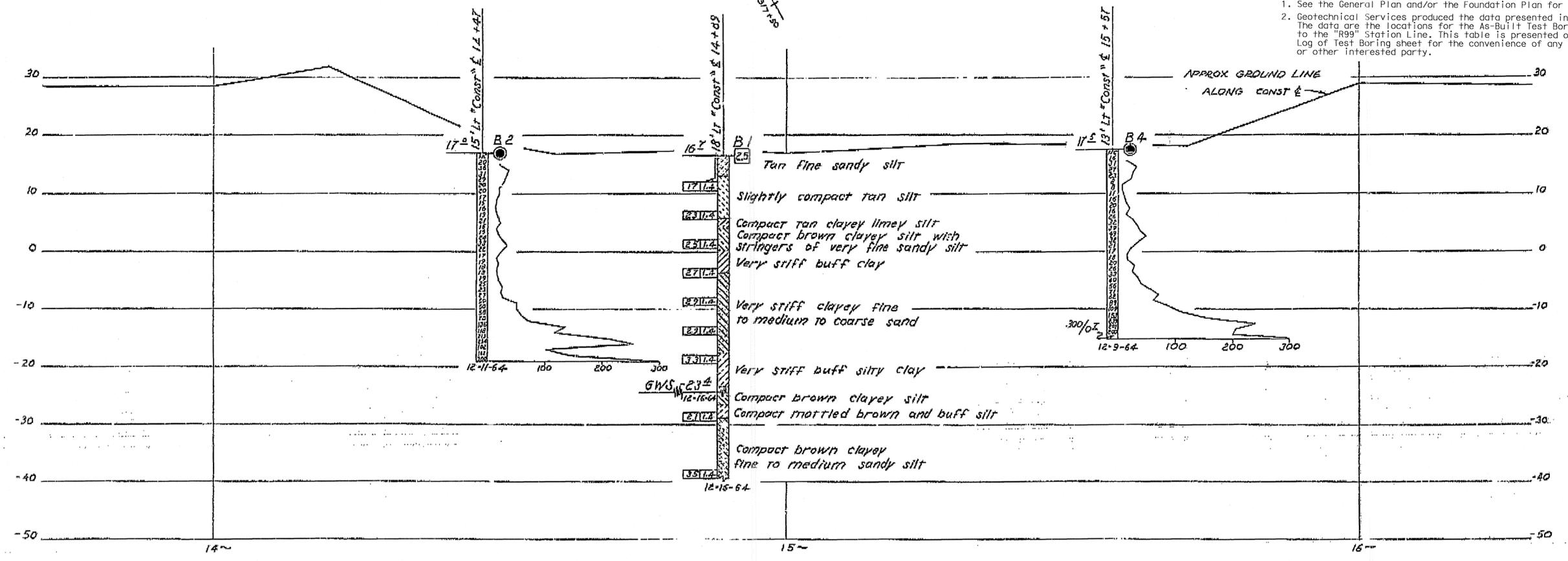
Revisions made to this Log of Test Borings from the original 1957 Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "R99" Line
B-1	430+40	+5 ft Right
B-2	430+20	+50 ft Right
B-4	430+75	+55 ft Left

- Notes:
- See the General Plan and/or the Foundation Plan for "R99" Stationing.
  - Geotechnical Services produced the data presented in the table above. The data are the locations for the As-Built Test Borings referenced to the "R99" stationing line. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.



BM #24  
 CHC DISC, STA 15+50, 100' LT  
 CONST E  
 ELEV 28.12



LEGEND OF EARTH MATERIALS

GRAVEL	SAND	SILT	CLAY
GRAVEL	SAND	SILT	CLAY
GRAVEL	SAND	SILT	CLAY
GRAVEL	SAND	SILT	CLAY

LEGEND OF EARTH MATERIALS

SILTY CLAY OR CLAYEY SILT	PEAT OR ORGANIC MATTER	FILL MATERIAL	MASSIVE ROCK
SANDY CLAY OR CLAYEY SAND	SANDY SILT OR SILTY SAND	SEMISUBSTRATE ROCK	METASUBSTRATE ROCK

NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

**AS BUILT PLANS**  
 Contract No. 14-058724  
 Date Completed 8--66  
 Document No. 00000018

INFORMATION ON ACTUAL FOUNDATION CONDITIONS ENCOUNTERED IS ON FILE IN BRIDGE GEOLOGY SECTION

STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

**GOLDEN GATE AVENUE O.C. LOG OF TEST BORINGS**

SCALE 1"=10' BRIDGE 29-103 FILE DRAWING 29/03-7

STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF HIGHWAYS  
BRIDGE DEPARTMENT

FORM BD-95, EST. 1964  
27887 10-43 1M 3P0

TO ACCOMPANY PLANS DATED 3-26-12

DIVISION OF ENGINEERING SERVICES - MATERIALS AND GEOTECHNICAL SERVICES

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DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
10	SJ	4,99	R19.5/R20.1,15.0/18.6	1173	1414

Professional Geologist: Joseph Kaump, No. 7837, Exp. 1-31-13

DATE: 8-25-11

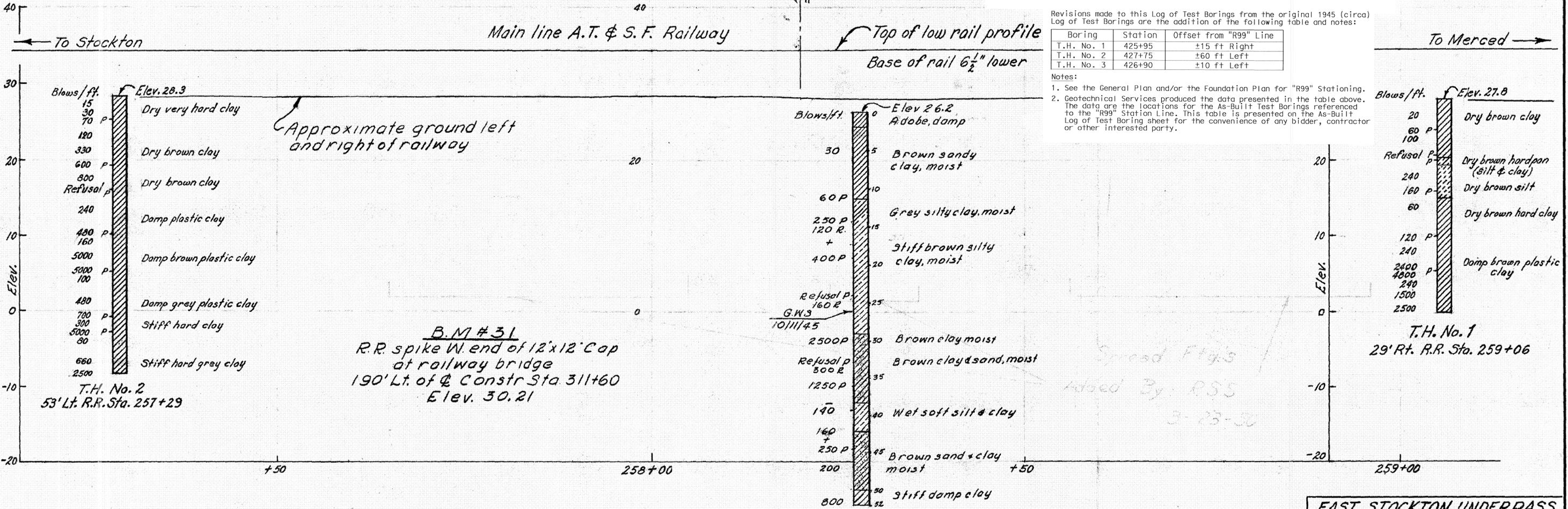
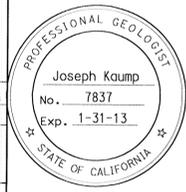
**SOUTH STOCKTON WIDEN  
GOLDEN GATE AVE OC  
LOG OF TEST BORINGS 7 OF 7**

UNIT: 3643 CONTRACT No. 10-3A1001 BRIDGE No. 29-0330  
PROJECT NUMBER & PHASE: 1000004091

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

DIST.	COUNTY	ROUTE	SECTION
X	S.J	4	E

BRIDGE ENGINEER LICENSE 1414  
DATE APPROVED



Revisions made to this Log of Test Borings from the original 1945 (circa) Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "R99" Line
T.H. No. 1	425+95	±15 ft Right
T.H. No. 2	427+75	±60 ft Left
T.H. No. 3	426+90	±10 ft Left

Notes:  
1. See the General Plan and/or the Foundation Plan for "R99" Stationing.  
2. Geotechnical Services produced the data presented in the table above. The data are the locations for the As-Built Test Borings referenced to the "R99" Station Line. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.

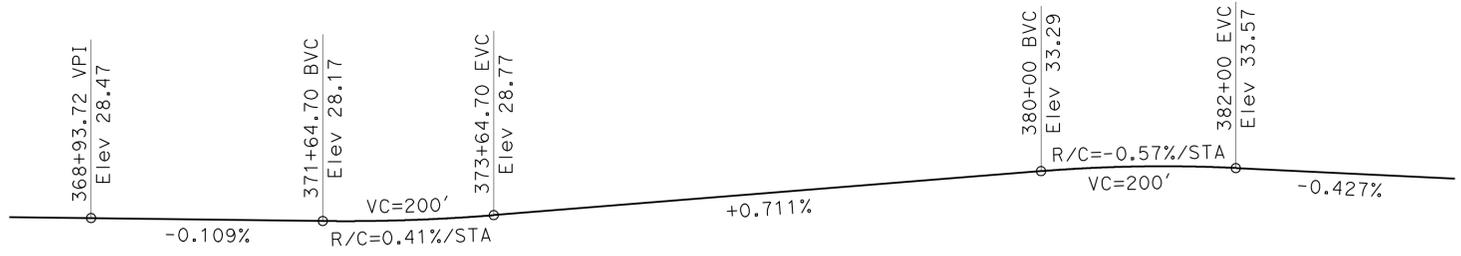
**EAST STOCKTON UNDERPASS  
TRACK PROFILE AND TEST HOLES**

SCALE: 1" = 10' FILE NO. E-29

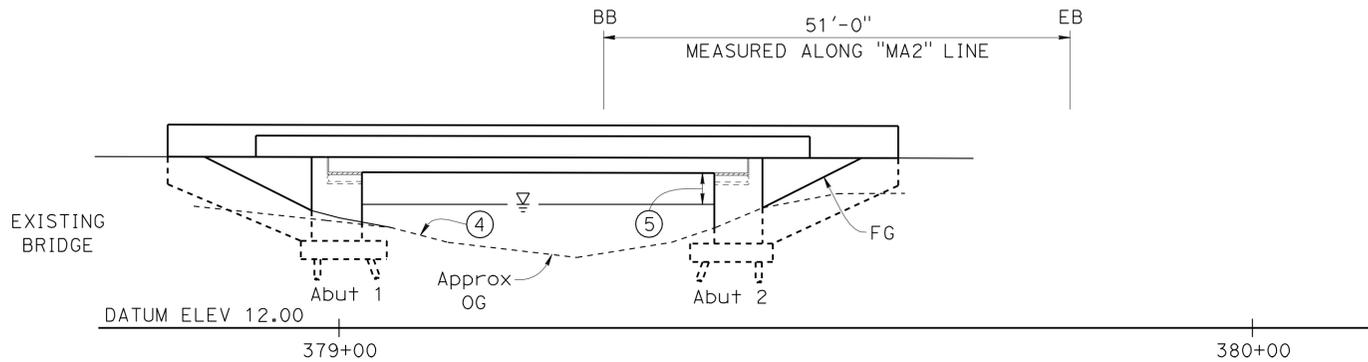
BRIDGE NO. 29-115 DRWG. NO. P-1008-2-RL

DRAWN BY: S.S.P. DATE: 9-45  
CHECKED BY:  
APPROVED:  
SURVEY BY: C.W.W.A. DATE: 9-45

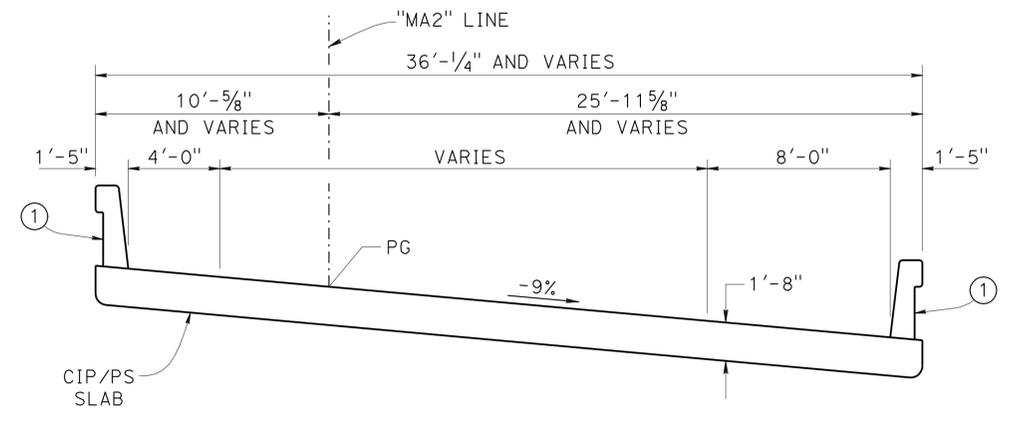
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1174	1414
C. V. Udape REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			REGISTERED PROFESSIONAL ENGINEER No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



**PROFILE GRADE**  
NO SCALE



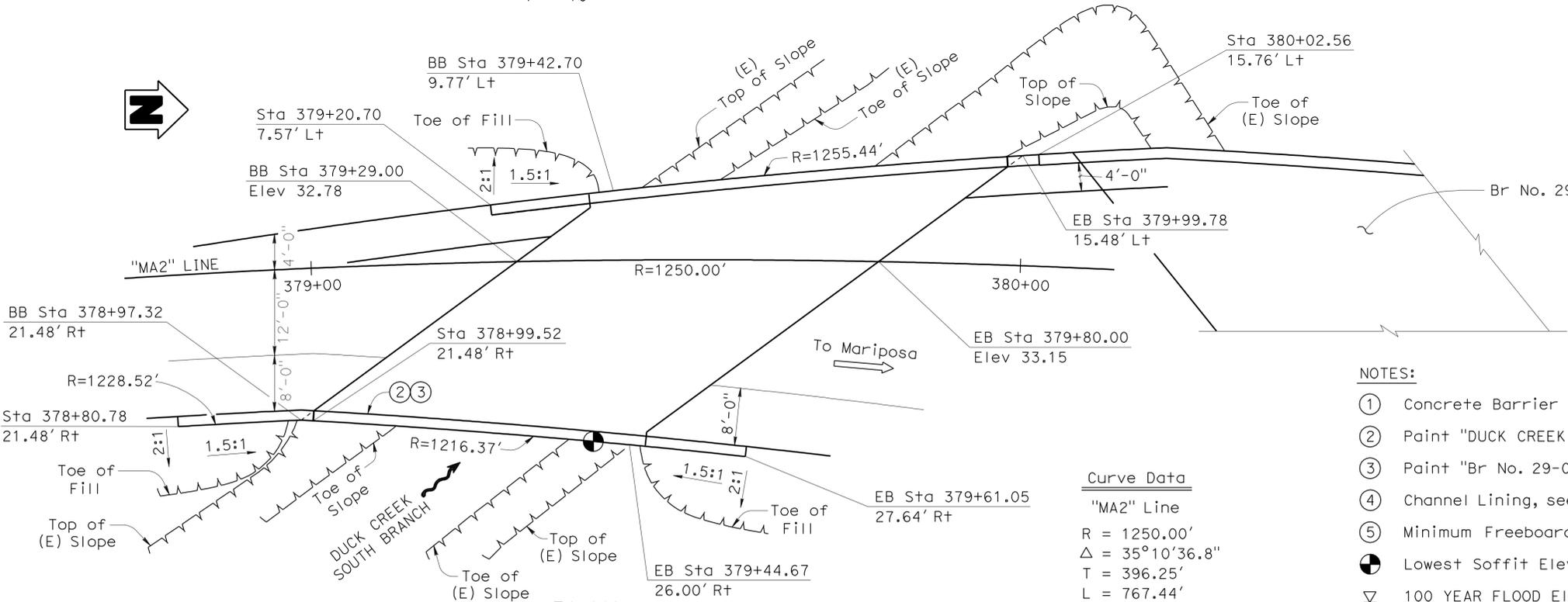
**ELEVATION**  
1" = 10'



**TYPICAL SECTION**  
1/4" = 1'-0"

**QUANTITIES**

STRUCTURE EXCAVATION (BRIDGE)	243	CY
STRUCTURE BACKFILL (BRIDGE)	211	CY
FURNISH STEEL PILING (HP 10 X 42)	1,164	LF
DRIVE STEEL PILE (HP 10 X 42)	20	EA
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	67	CY
STRUCTURAL CONCRETE, BRIDGE	300	CY
ARCHITECTURAL TEXTURE (SPLIT FACE)	850	SQFT
JOINT SEAL (MR 1")	122	LF
BAR REINFORCING STEEL (BRIDGE)	35,190	LB
CONCRETE BARRIER (TYPE 742, MOD)	163	LF
CONCRETE BARRIER (TYPE 742B, MOD)	4	LF



**PLAN**  
1" = 10'

**Curve Data**

"MA2" Line

R = 1250.00'

Δ = 35°10'36.8"

T = 396.25'

L = 767.44'

**NOTES:**

- ① Concrete Barrier Type 742 (Mod)
- ② Paint "DUCK CREEK SOUTH BRANCH BRIDGE"
- ③ Paint "Br No. 29-0334"
- ④ Channel Lining, see "ROAD PLANS"
- ⑤ Minimum Freeboard = 3'-10"
- Lowest Soffit Elev = 28.89
- ▽ 100 YEAR FLOOD Elev=25.1' FOR HYDROLOGIC STUDY SEE "FOUNDATION PLAN" SHEET

**LEGEND:**

— INDICATES NEW STRUCTURE

**NOTE:**

For General Notes and Pile Data Table see "INDEX TO PLANS" sheet

**SOUTH STOCKTON WIDENING**

**DUCK CREEK SOUTH BRANCH BRIDGE**

**GENERAL PLAN**

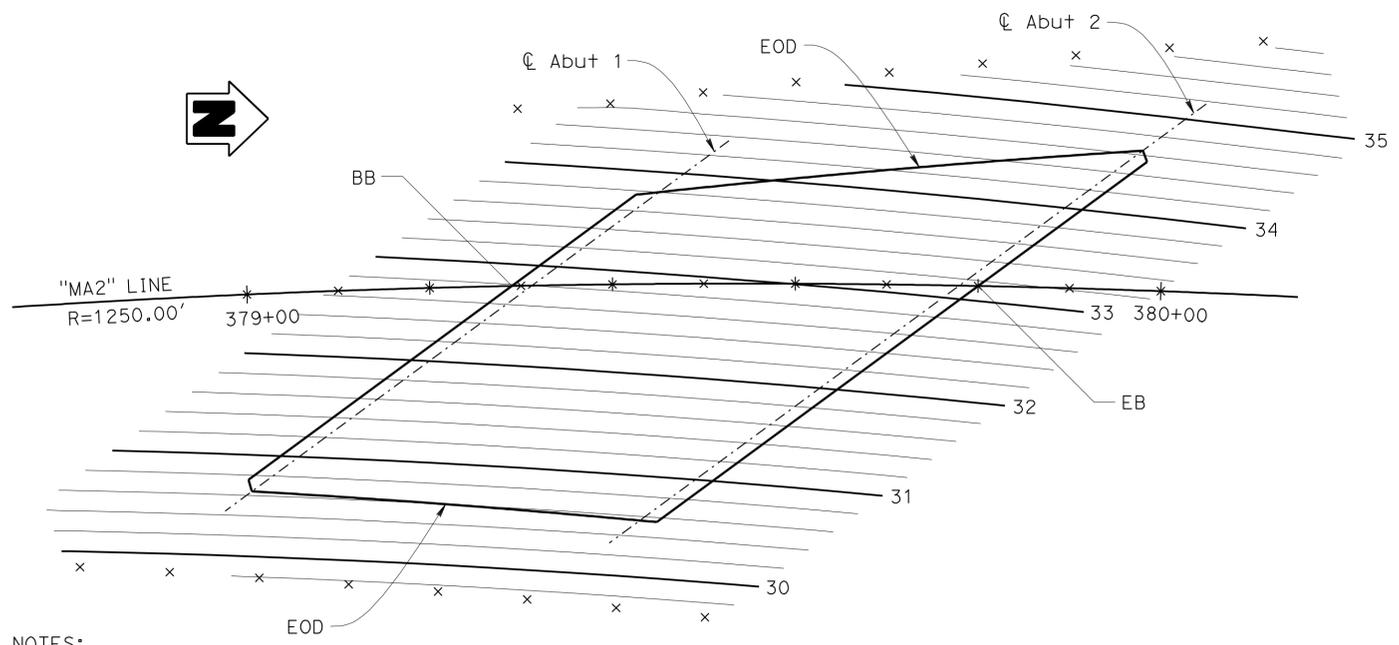
Gary Joe DESIGN ENGINEER	DESIGN	BY R. Coria, I. Cherniogo	CHECKED R. Coria, I. Cherniogo	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0334	
	DETAILS	BY P. Silva	CHECKED R. Coria, I. Cherniogo	LAYOUT	BY R. Coria			CHECKED M. Friedheim	POST MILE	16.46
	QUANTITIES	BY R. Coria, I. Cherniogo	CHECKED J. Burke	SPECIFICATIONS	BY V. Renganathan			CHECKED V. Renganathan	PLANS AND SPECS COMPARED	

## GENERAL NOTES (LOAD RESISTANCE FACTOR DESIGN)

- DESIGN:** AASHTO LRFD Bridge Design Specifications, 4th edition and the Caltrans Amendments, preface dated Dec 2008; except that barrier and railing details taken from Standard Plans March 2006 and earlier versions are designed using Bridge Design Specifications. ('96 AASHTO w/ Revisions by Caltrans)
- SEISMIC DESIGN:** Caltrans Seismic Design Criteria (SDC), Version 1.6 dated November 2010
- DEAD LOAD:** Includes 35 psf for future wearing surface.
- LIVE LOAD:** HL93 and P15 permit design load.
- SEISMIC LOADING:** See 'SITE SPECIFIC ARS'.  
V<sub>50</sub> = 920 ft/sec

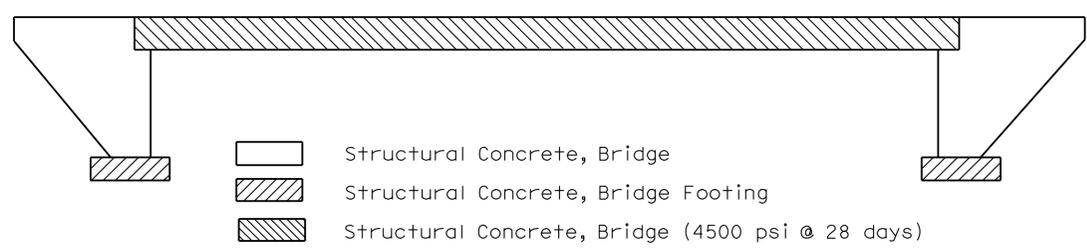
### INDEX TO PLANS

Sheet No.	Title
1.	GENERAL PLAN
2.	INDEX TO PLANS
3.	FOUNDATION PLAN
4.	ABUTMENT 1 LAYOUT
5.	ABUTMENT 2 LAYOUT
6.	ABUTMENT DETAILS
7.	TYPICAL SECTION
8.	SLAB REINFORCEMENT DETAILS NO. 1
9.	SLAB REINFORCEMENT DETAILS NO. 2
10.	STRUCTURE APPROACH DRAINAGE DETAILS
11.	ARCHITECTURAL DETAILS
12.	LOG OF TEST BORINGS 1 OF 3
13.	LOG OF TEST BORINGS 2 OF 3
14.	LOG OF TEST BORINGS 3 OF 3



- NOTES:**
- X - Indicates 10' increments along station line.
  - Contour does not include camber.
  - Contour interval = 0.2'

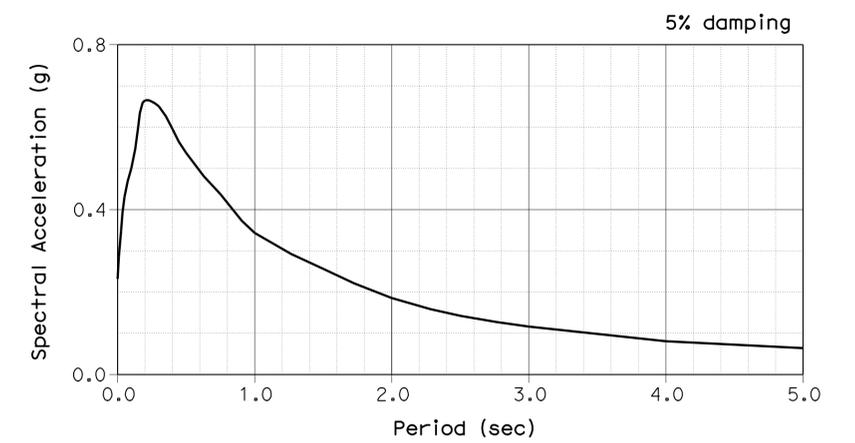
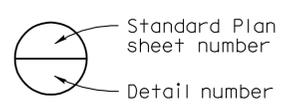
### DECK CONTOURS 1" = 10'



### CONCRETE STRENGTH AND TYPE LIMITS NO SCALE

Support	Pile Type	Nominal Resistance (kips)		Design Tip Elevations (ft)	Specified Tip Elevation (ft)	Nominal Driving Resistance Required (kips)
		Compression	Tension			
Abut 1	HP 10x42	180	0	-36 (a)	-36	180
Abut 2	HP 10x42	180	0	-36 (a)	-36	180

- Note: Design tip elevations are controlled by:
- (a) Compression
  - The specified tip elevation shall not be raised above the design tip elevations for lateral load.
  - Since there are no soft compressible soil layers below the design tip elevation there is no design tip elevation for settlement.



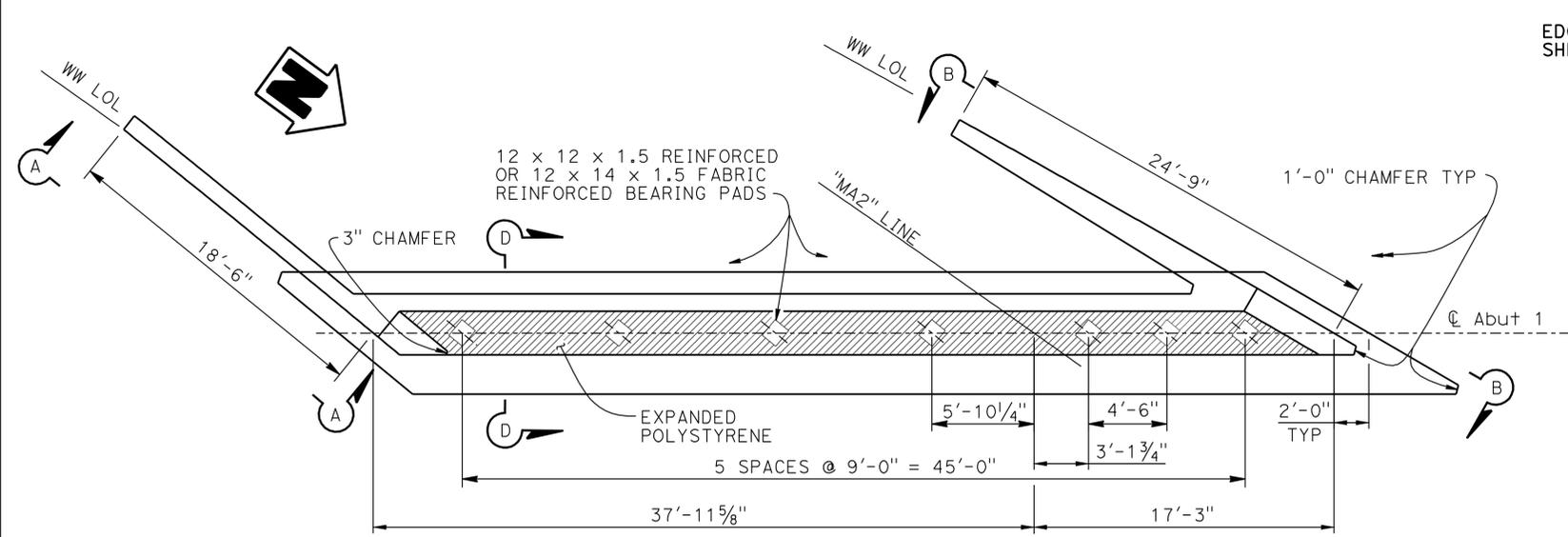
### SITE SPECIFIC ARS

<b>SOUTH STOCKTON WIDENING</b>	
<b>DUCK CREEK SOUTH BRANCH BRIDGE</b>	
<b>INDEX TO PLANS</b>	

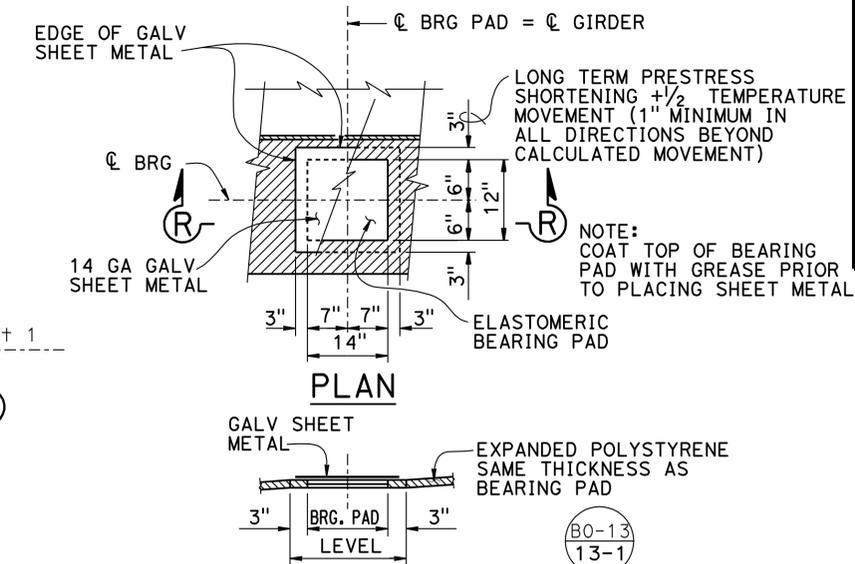
DESIGN BY I. Chernioglo	CHECKED R. Coria	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	<b>DIVISION OF ENGINEERING SERVICES</b> STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0334	<b>SOUTH STOCKTON WIDENING</b> <b>DUCK CREEK SOUTH BRANCH BRIDGE</b> <b>INDEX TO PLANS</b>
DETAILS BY G. Leung, P. Silva	CHECKED I. Chernioglo			POST MILE 16.46	
QUANTITIES BY I. Chernioglo	CHECKED J. Burke				



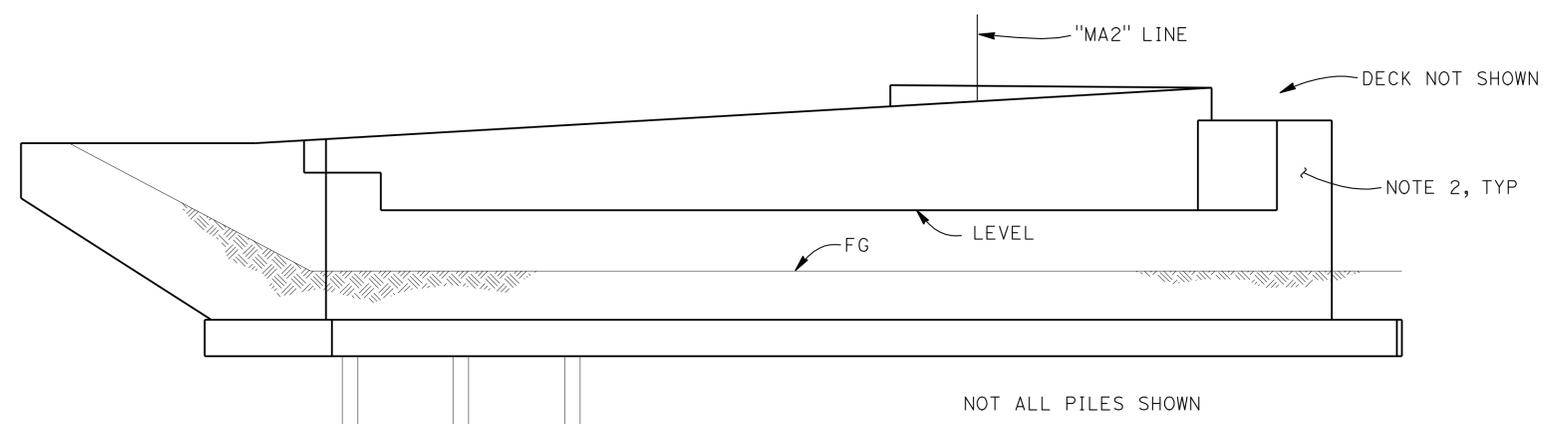
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			REGISTERED CIVIL ENGINEER	DATE	
			3-26-12	PLANS APPROVAL DATE	
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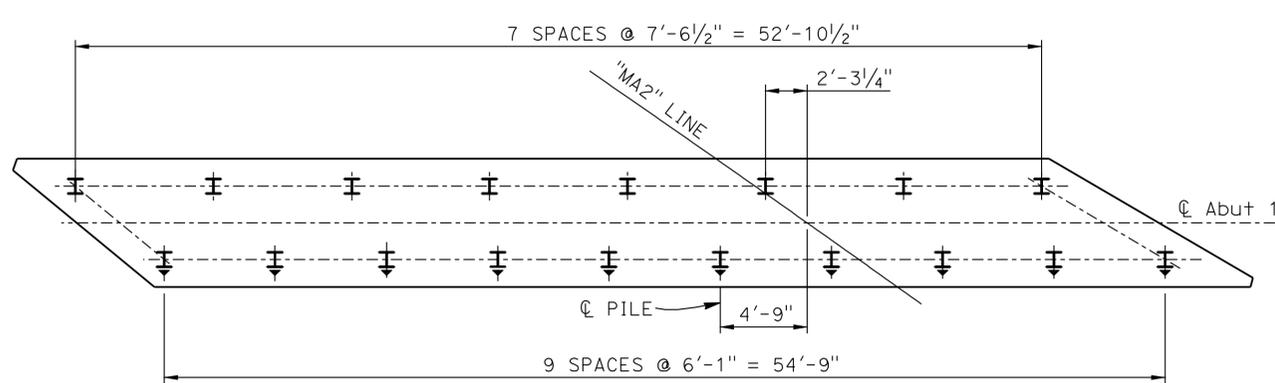
**ABUTMENT LAYOUT**  
1"=5'-0"



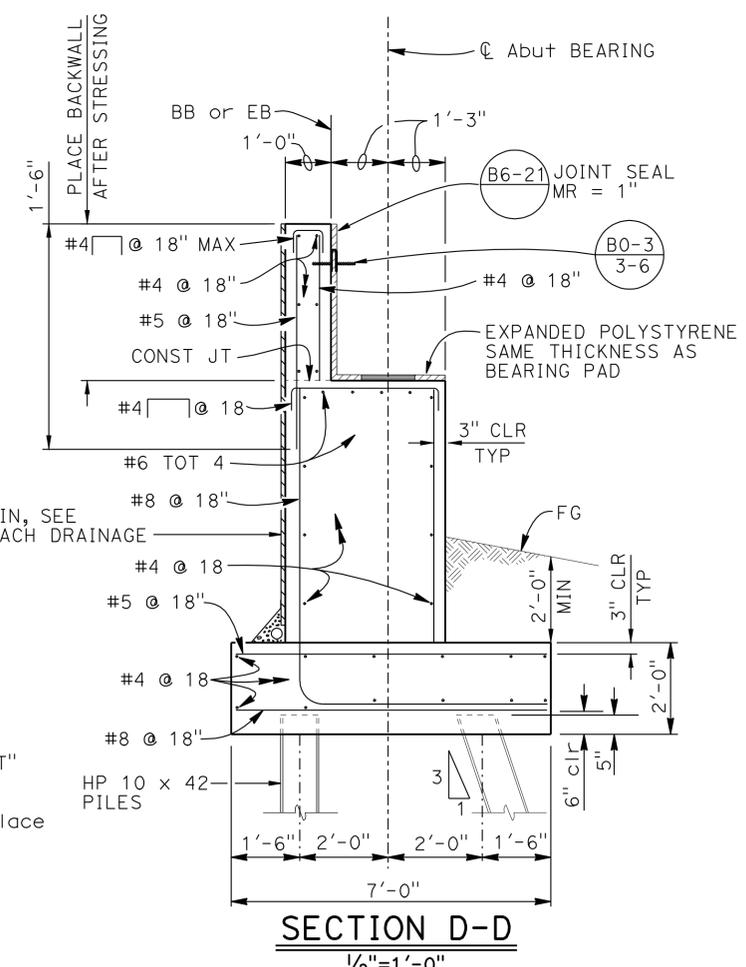
**SECTION R-R BEARING PAD DETAIL**  
No Scale  
Details typical at all bearing pads



**ELEVATION**  
1"=5'-0"



**PILE LAYOUT**  
1"=5'-0"



- NOTES:
- For "ELEVATION A-A" and "ELEVATION B-B," see "ABUTMENT DETAILS" sheet
  - For "SHEAR KEY DETAIL," see "ABUTMENT 2 LAYOUT" sheet
  - Space all bars along CL abutment of Brg, and place parallel to "MA2" Line
  - Abutment 4 shown, Abutment 3 similar
- LEGEND:
- ⊥ Indicates vertical pile
  - ⊥ Indicates battered pile

DESIGN BY R. Coria		CHECKED I. Chernioglo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0334	SOUTH STOCKTON WIDENING DUCK CREEK SOUTH BRANCH BRIDGE ABUTMENT 1 LAYOUT
DETAILS BY A. OnoderavG. Zweier		CHECKED R. Coria			POST MILE 16.46	
QUANTITIES BY R. Coria		CHECKED P. Vu				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

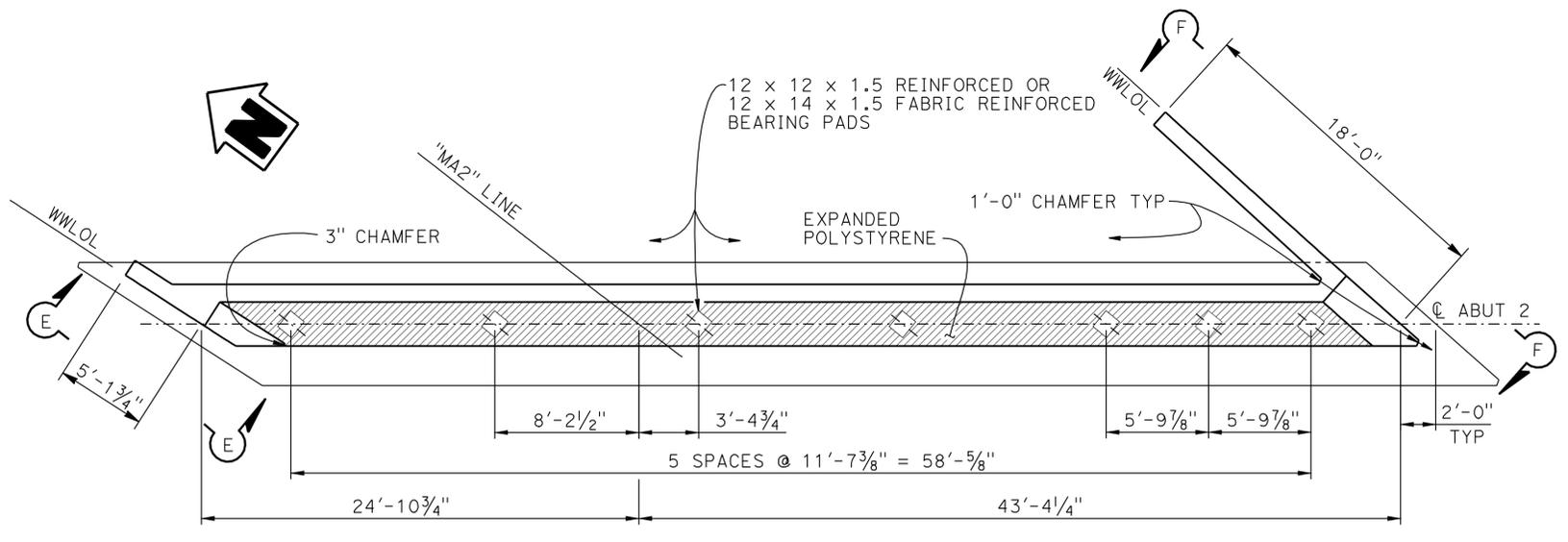
UNIT: 3586  
PROJECT NUMBER & PHASE: 10000004091  
CONTRACT NO.: 10-3A1001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

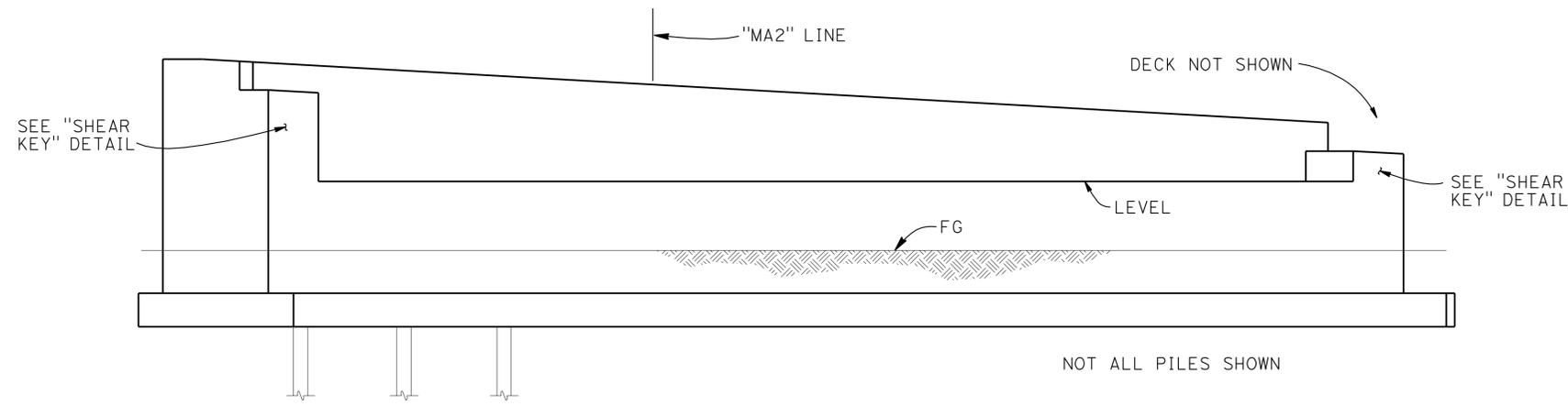
REVISION DATES	SHEET	OF
10-31-11	4	14

FILE => 29-0334-FR-001\_101.dgn

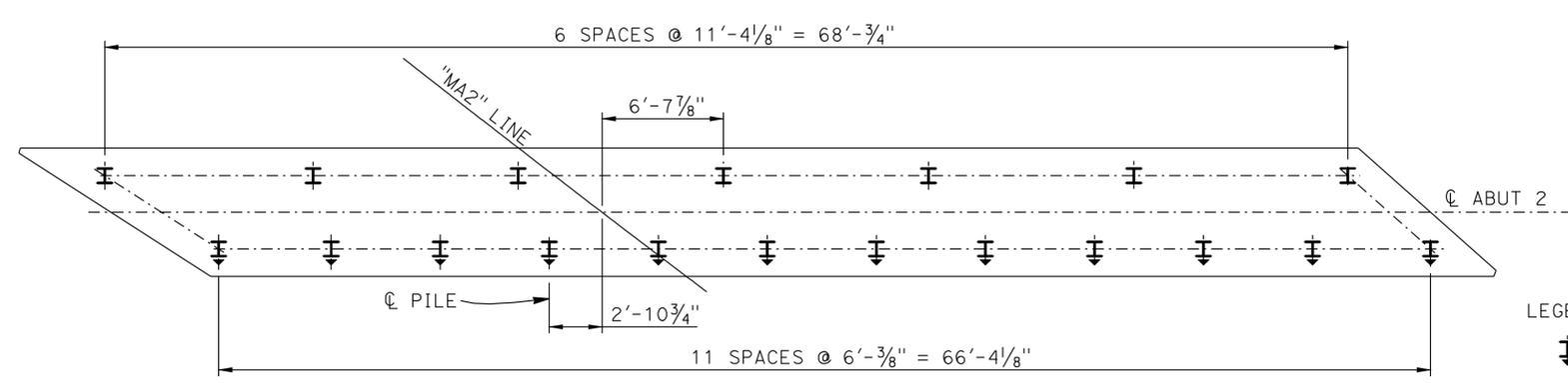
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C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE	REGISTERED PROFESSIONAL ENGINEER No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA	
3-26-12			PLANS APPROVAL DATE		
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**ABUTMENT LAYOUT**  
1"=5'-0"



**ELEVATION**  
1"=5'-0"

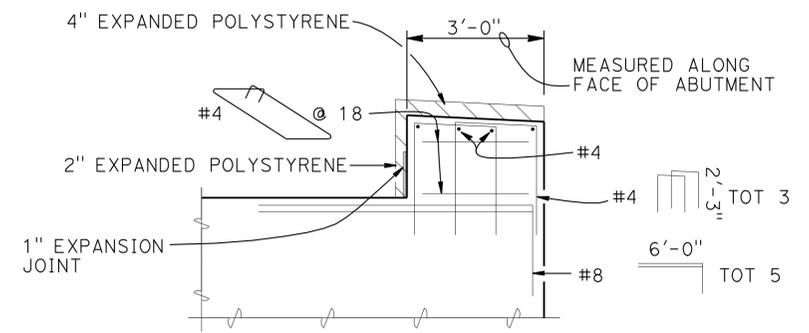


**PILE LAYOUT**  
1"=5'-0"

LEGEND:

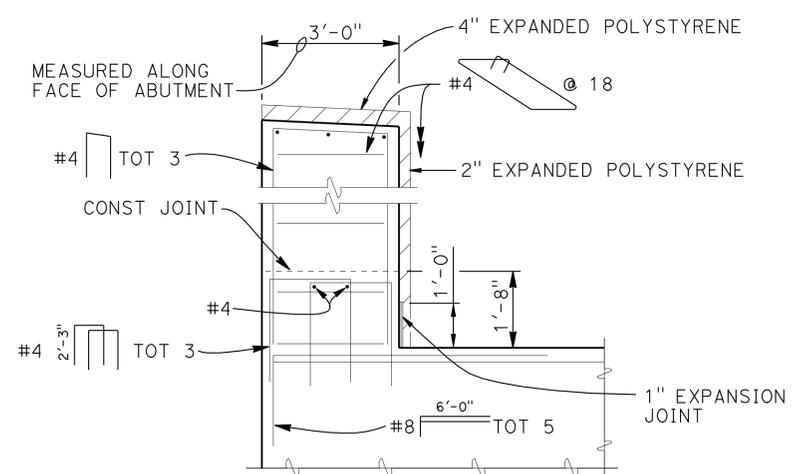
⊥ Indicates battered pile

I Indicates vertical pile



NOTE:  
Abutment 2 shown, Abutment 1 left similar

**RIGHT SHEAR KEY DETAIL**  
1/2"=1'-0"



NOTE:  
Abutment 2 shown, Abutment 1 right similar

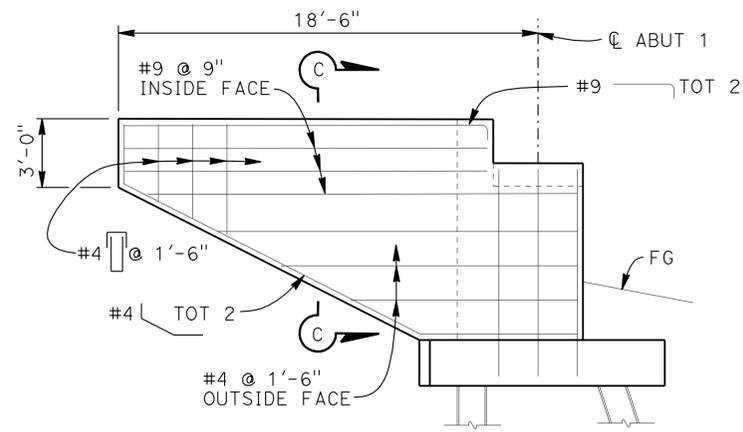
**LEFT SHEAR KEY DETAIL**  
1/2"=1'-0"

Notes:

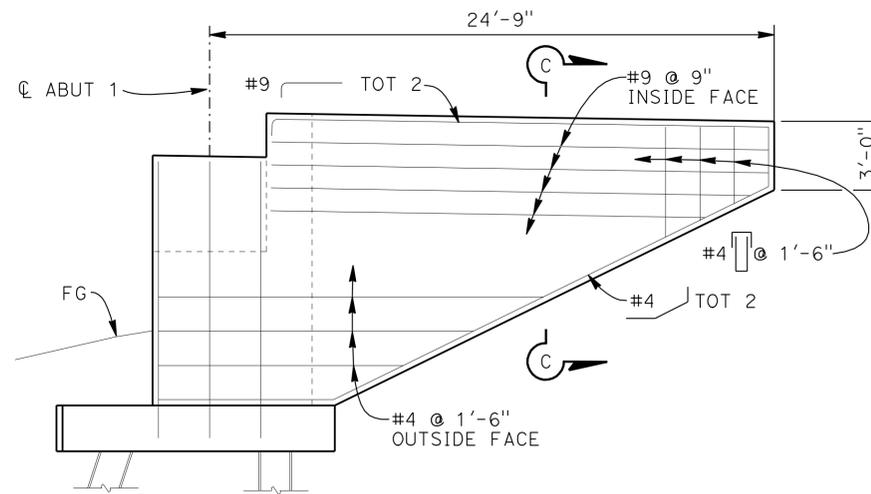
- For Elevation View E-E and Elevation View F-F, see "ABUTMENT DETAILS" sheet
- For Section D-D, see "ABUTMENT 1 LAYOUT" sheet

DESIGN BY R. Coria CHECKED I. Cherniogo		<b>STATE OF CALIFORNIA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	<b>SOUTH STOCKTON WIDENING</b> <b>DUCK CREEK SOUTH BRANCH BRIDGE</b> <b>ABUTMENT 2 LAYOUT</b>		
DETAILS BY A. OnoderavG. Zweier CHECKED R. Coria				29-0334			
QUANTITIES BY R. Coria CHECKED P. Vu				POST MILE 16.46			
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 10-31-11 01-11-12	SHEET 5 OF 14

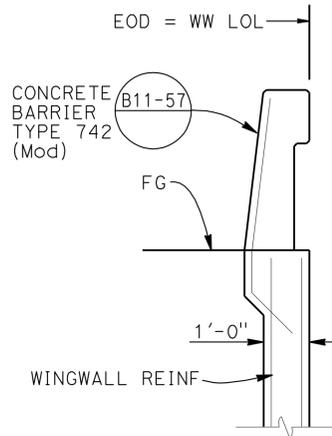
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10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1179	1414
			REGISTERED CIVIL ENGINEER	DATE	
			11-04-11		
			PLANS APPROVAL DATE		
			3-26-12		
			REGISTERED PROFESSIONAL ENGINEER		
			CHRIS UDARBE		
			No. C62985		
			Exp. 06-30-12		
			CIVIL		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



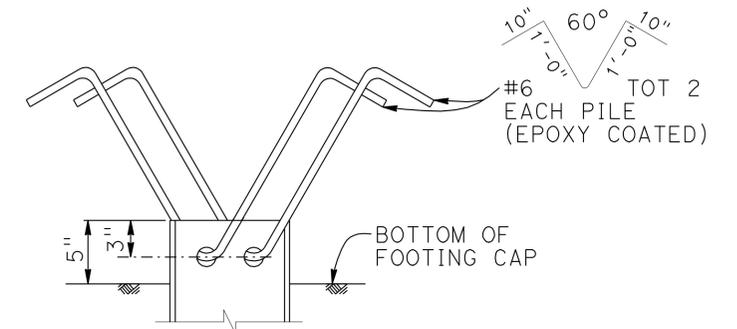
**ELEVATION VIEW A-A**  
1/4"=1'-0"



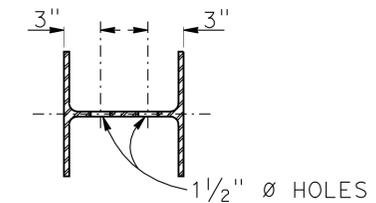
**ELEVATION VIEW B-B**  
1/4"=1'-0"



NOTE:  
Not all reinf shown  
**SECTION C-C**  
1/2"=1'-0"



**ELEVATION**

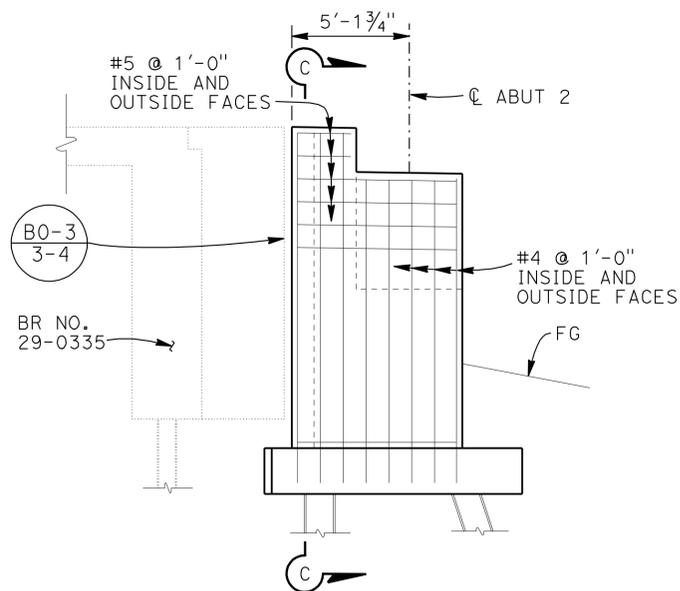


**PLAN**

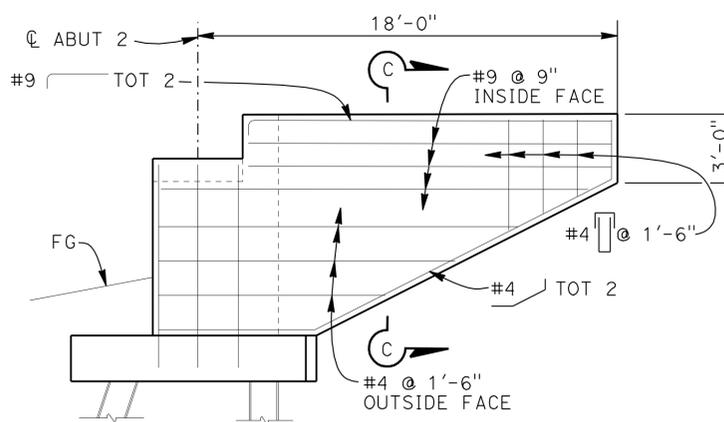
**STEEL PILE ANCHOR DETAIL**

NO SCALE

NOTE: This detail applies to all piles for this bridge.



**ELEVATION VIEW E-E**  
1/4"=1'-0"

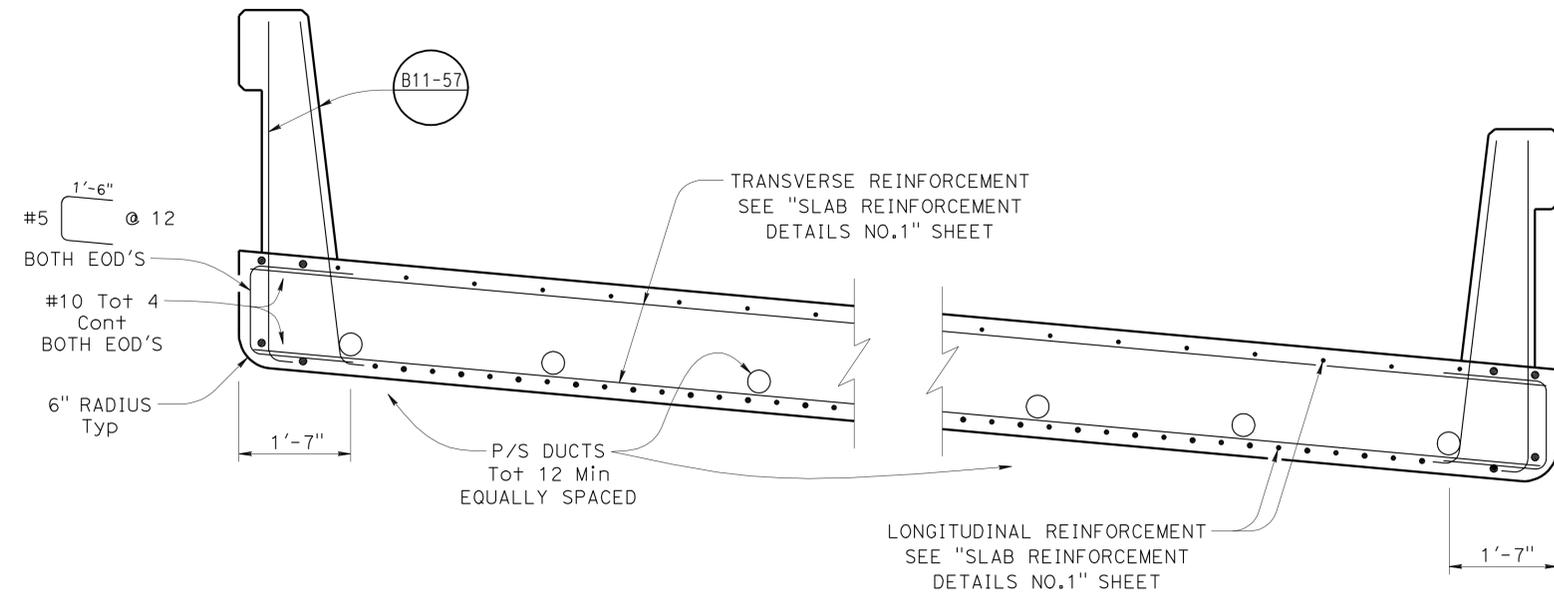


**ELEVATION VIEW F-F**  
1/4"=1'-0"

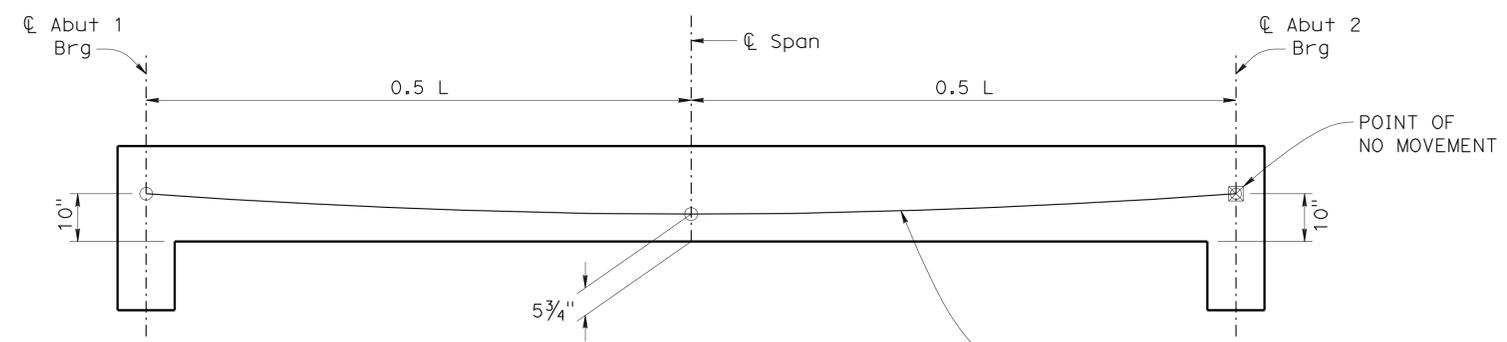
<table border="1"> <tr> <td>DESIGN</td> <td>BY R. Coria</td> <td>CHECKED I. Cherniogo</td> </tr> <tr> <td>DETAILS</td> <td>BY A. OnoderavG. Zweier</td> <td>CHECKED R. Coria</td> </tr> <tr> <td>QUANTITIES</td> <td>BY R. Coria</td> <td>CHECKED P. Vu</td> </tr> </table>				DESIGN	BY R. Coria	CHECKED I. Cherniogo	DETAILS	BY A. OnoderavG. Zweier	CHECKED R. Coria	QUANTITIES	BY R. Coria	CHECKED P. Vu	<p align="center"><b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION</p>	<p align="center">DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b></p>	<table border="1"> <tr> <td>BRIDGE NO.</td> <td>29-0334</td> </tr> <tr> <td>POST MILE</td> <td>16.46</td> </tr> </table>	BRIDGE NO.	29-0334	POST MILE	16.46	<p align="center"><b>SOUTH STOCKTON WIDENING</b> <b>DUCK CREEK SOUTH BRANCH BRIDGE</b> <b>ABUTMENT DETAILS</b></p>
DESIGN	BY R. Coria	CHECKED I. Cherniogo																		
DETAILS	BY A. OnoderavG. Zweier	CHECKED R. Coria																		
QUANTITIES	BY R. Coria	CHECKED P. Vu																		
BRIDGE NO.	29-0334																			
POST MILE	16.46																			
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	<table border="1"> <tr> <td>REVISION DATES</td> <td>SHEET</td> <td>OF</td> </tr> <tr> <td>10-31-11 01-11-12 03-01-12</td> <td>6</td> <td>14</td> </tr> </table>	REVISION DATES	SHEET	OF	10-31-11 01-11-12 03-01-12	6	14						
REVISION DATES	SHEET	OF																		
10-31-11 01-11-12 03-01-12	6	14																		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1180	1414

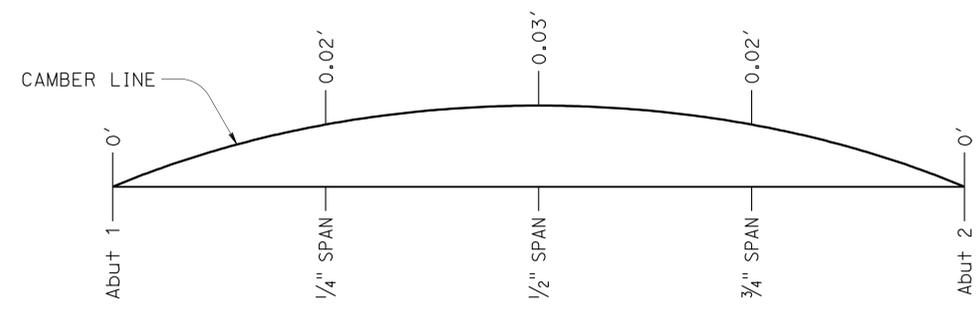
C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 Chris Udarbe  
 No. C62985  
 Exp 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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**TYPICAL SECTION**  
 $\frac{3}{4}'' = 1'-0''$



**LONGITUDINAL SECTION**  
 NO SCALE



**CAMBER DIAGRAM**  
 NO SCALE

NOTE:  
 Does not include allowance for falsework settlement

**PRESTRESSING NOTES**

270 KSI MPa Low Relaxation Strand:  
 $P_{jack} = 9,530$  KIPS  
 Anchor Set = 0.37 in  
 Distribute of prestress force ( $P_{jack}$ ) evenly between all tendons.  
 Concrete:  $f'_c = 4500$  psi @ 28 days  
 $f'_c = 3500$  psi @ time of stressing  
 Contractor shall submit elongation calculations based on initial stress at  
 $\mu = 0.909$  times jacking stress.  
 One end stressing shall be performed from either end.  
 $\mu = 0.15$   
 $k = 0.0002/ft$

**SOUTH STOCKTON WIDENING**  
**DUCK CREEK SOUTH BRANCH BRIDGE**  
**TYPICAL SECTION**

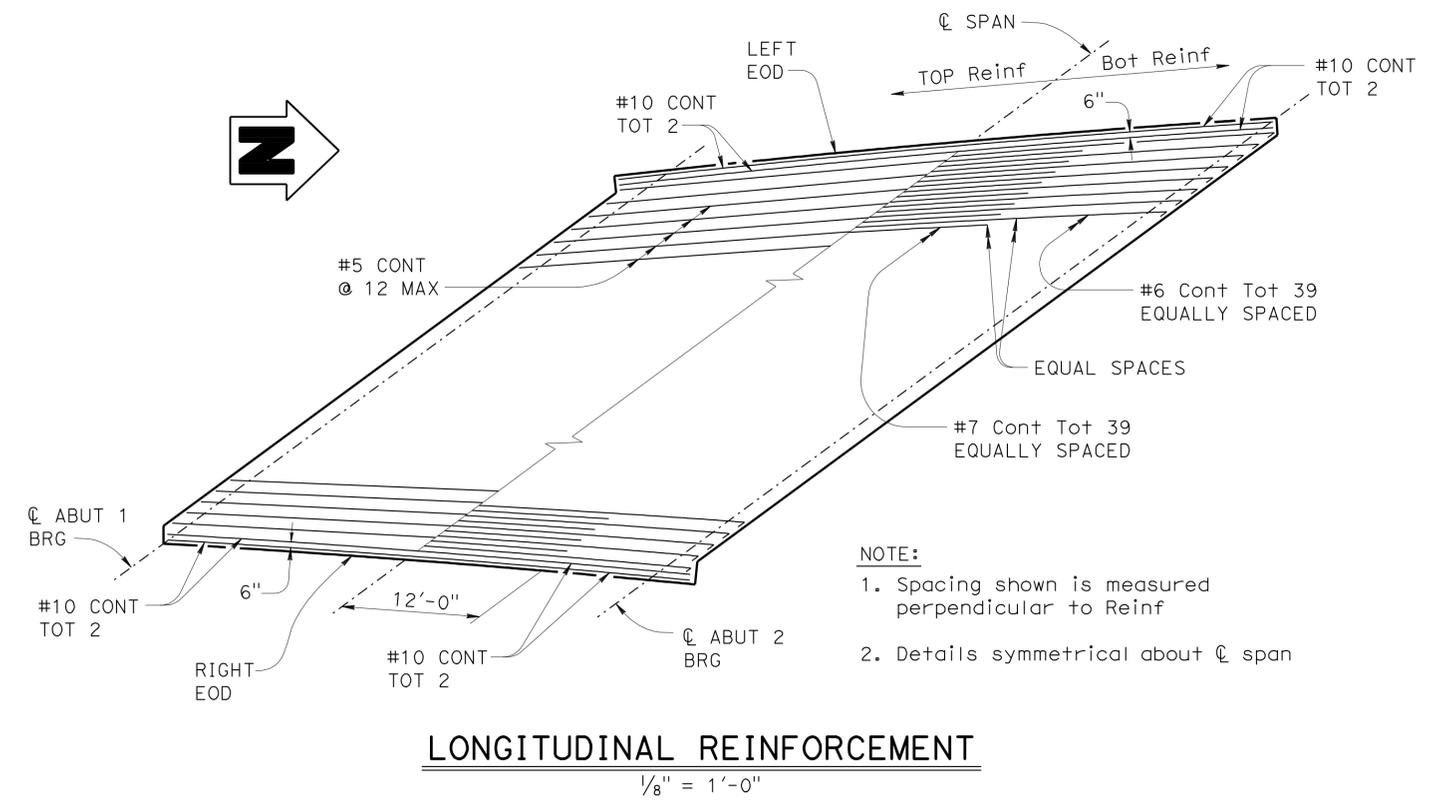
DESIGN	BY I. Chernioglo	CHECKED R. Coria
DETAILS	BY P. Silva	CHECKED I. Chernioglo
QUANTITIES	BY I. Chernioglo	CHECKED J. Burke

**STATE OF CALIFORNIA**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF ENGINEERING SERVICES**  
**STRUCTURE DESIGN**  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0334
POST MILE	16.46

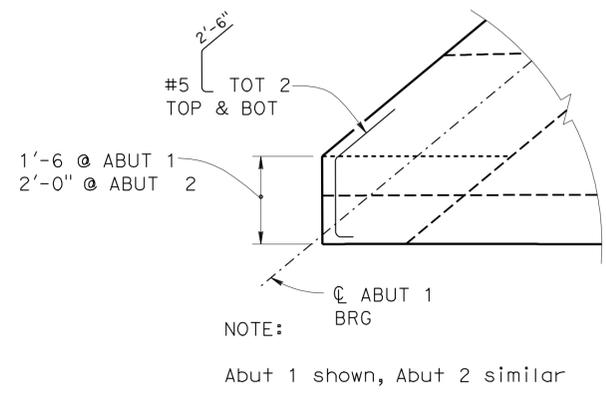
USERNAME => 8128843 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1181	1414
C.V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE					
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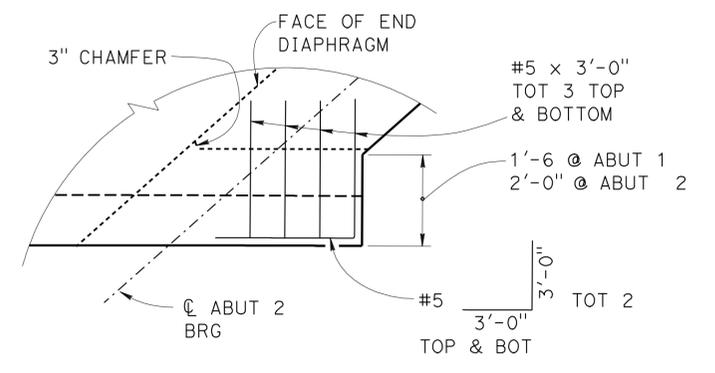
**LONGITUDINAL REINFORCEMENT**  
 $\frac{1}{8}'' = 1'-0''$

**NOTE:**  
 1. Spacing shown is measured perpendicular to Reinf  
 2. Details symmetrical about  $\text{C}$  span



**DETAIL A**  
 $\frac{1}{2}'' = 1'-0''$

**NOTE:**  
 Abut 1 shown, Abut 2 similar

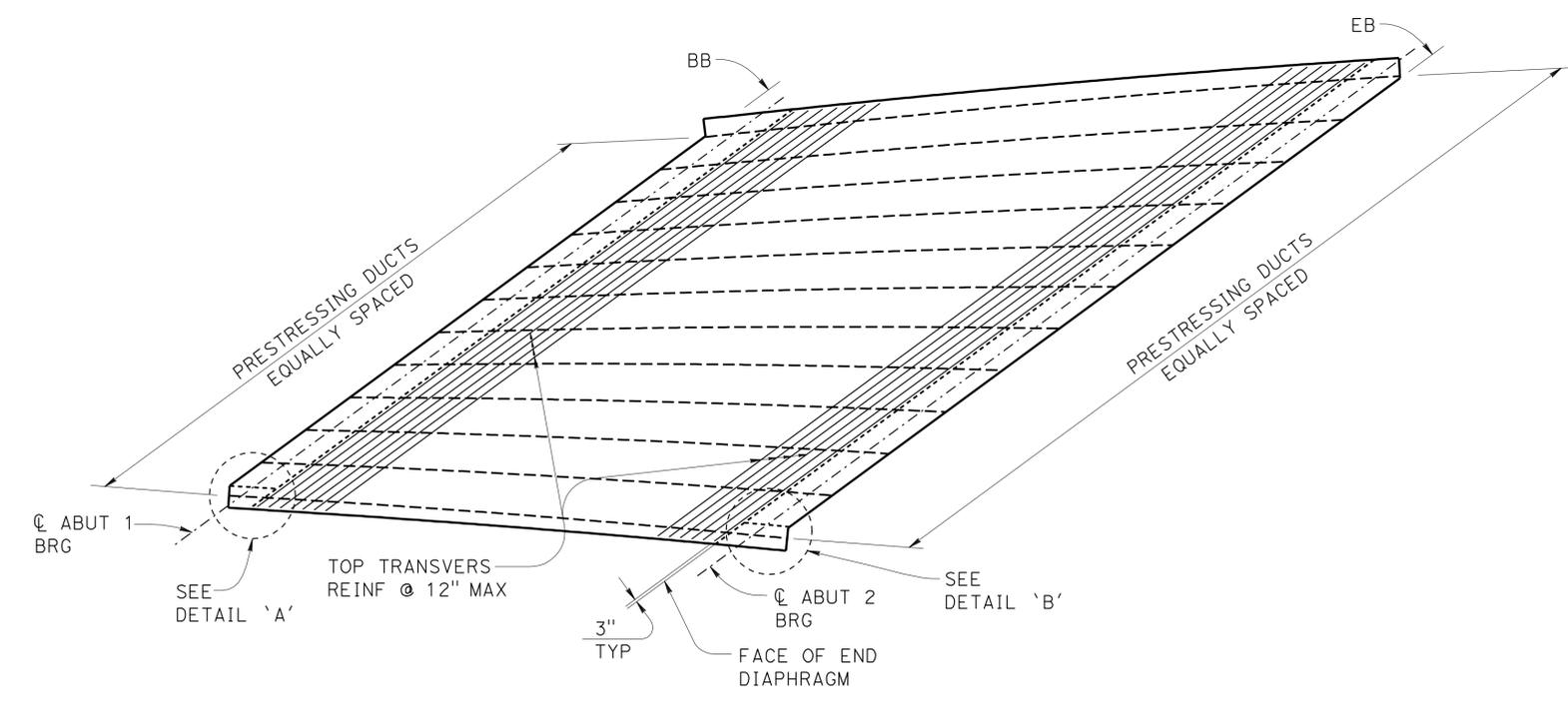


**DETAIL B**  
 $\frac{1}{2}'' = 1'-0''$

**NOTE:**  
 Abut 1 shown, Abut 2 similar

**LEGEND:**  
 ----- Denotes  $\text{C}$  ducts

**NOTES:**  
 1. Top transverse Reinf shown. Bottom transverse Reinf similar. See "TYPICAL SECTION" sheet for Reinf size and spacing.  
 2. For Reinf in End Diaphragms, see "END DIAPHRAGMS SECTION" detail on "ABUTMENT DIAPHRAGMS" sheet.  
 3. Spacing shown is measured perpendicular to Reinf.



**PRESTRESS DUCT LAYOUT AND TRANSVERSE REINFORCEMENT**  
 $\frac{1}{8}'' = 1'-0''$

DESIGN	BY I. Chernioglo	CHECKED R. Coria
DETAILS	BY P. Silva	CHECKED I. Chernioglo
QUANTITIES	BY I. Chernioglo	CHECKED J. Burke

**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION

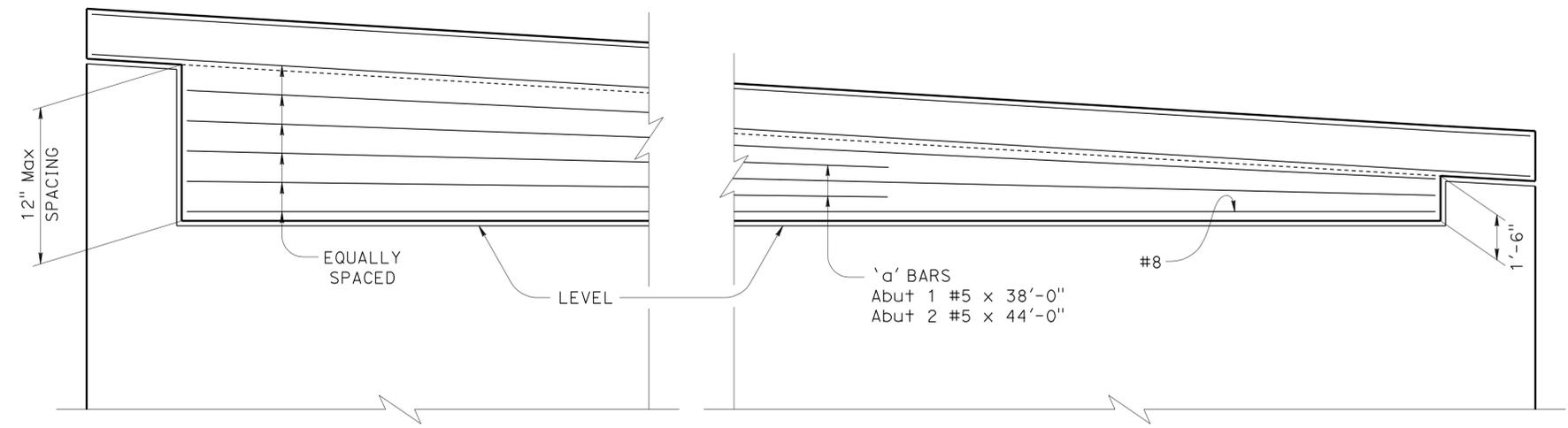
**DIVISION OF ENGINEERING SERVICES**  
 STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0334
POST MILE	16.46

**SOUTH STOCKTON WIDENING**  
**DUCK CREEK SOUTH BRANCH BRIDGE**  
**SLAB REINFORCEMENT DETAILS NO. 1**

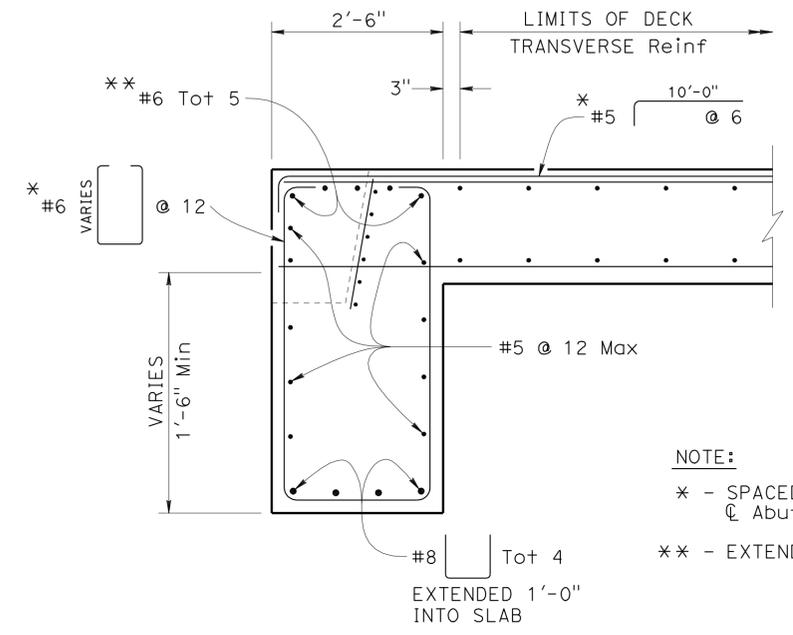
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1182	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 CHRIS UDARBE  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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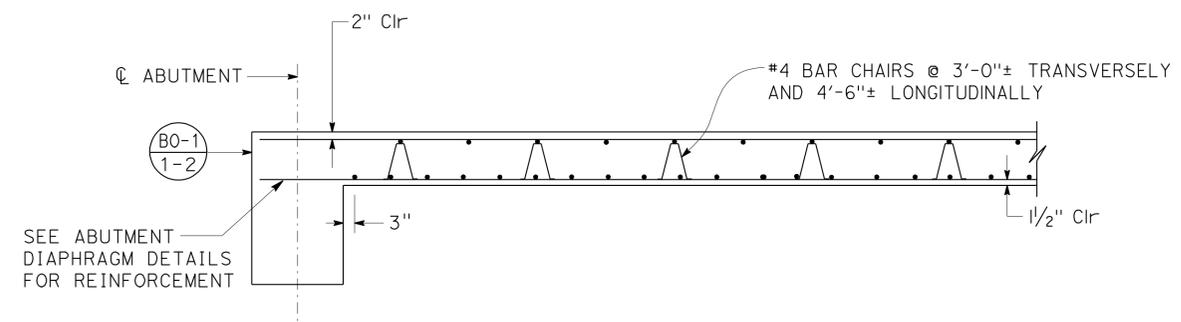
**END DIAPHRAGM ELEVATION**  
 $\frac{3}{8}'' = 1'-0''$

Note:  
 1. Abutment 2 shown, Abutment 1 similar.



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

NOTE:  
 \* - SPACED ALONG  $\phi$  Abut  
 \*\* - EXTEND BARS TO EOD



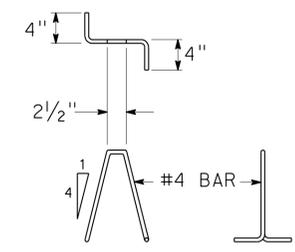
**LONGITUDINAL SECTION**

NO SCALE

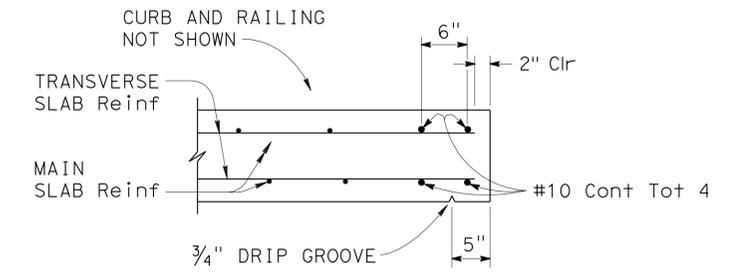
BAR SPlice LENGTH								
BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
ALL BARS, EXCEPT TOP BARS IN SPANS OVER 23 ft	23"	28"	34"	39"	45"	68"	76"	85"
TOP BARS IN SPANS OVER 23 ft	23"	28"	34"	53"	60"	77"	97"	120"

REINFORCEMENT NOTES:

Splices in top main bars to be located near center of span.  
 Splices in bottom main bars to be located near bent.



**BAR CHAIR DETAIL**  
 $1'' = 1'-0''$



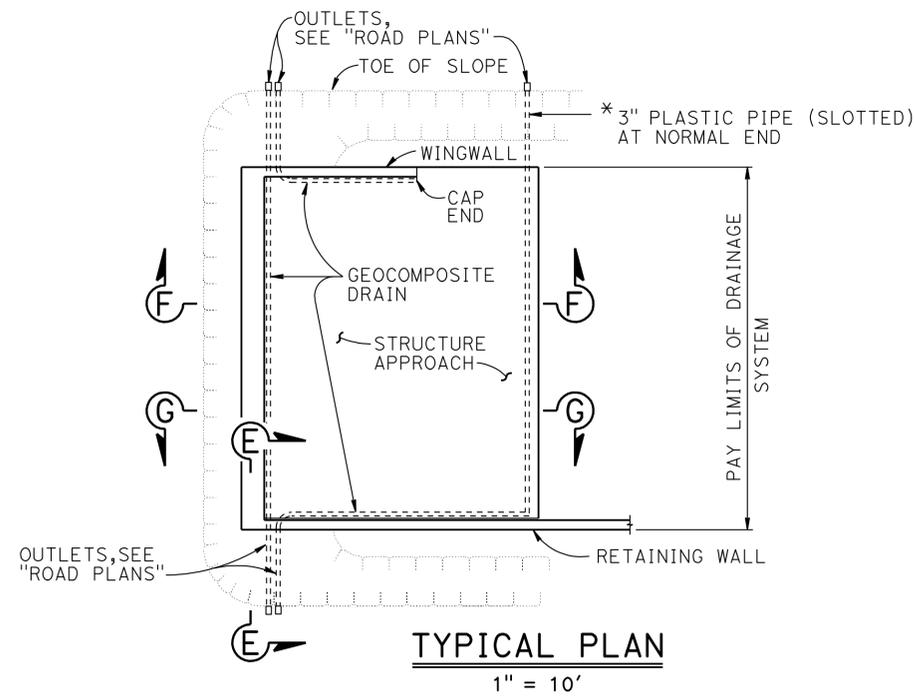
**EDGE OF SLAB DETAILS**  
 $1'' = 1'-0''$

DESIGN BY I. Chernioglo CHECKED R. Coria			<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0334	<b>SOUTH STOCKTON WIDENING</b> <b>DUCK CREEK SOUTH BRANCH BRIDGE</b> <b>SLAB REINFORCEMENT DETAILS NO. 2</b>
DETAILS BY P. Silva CHECKED I. Chernioglo					POST MILE 16.46	
QUANTITIES BY I. Chernioglo CHECKED J. Burke					CONTRACT NO.: 10-3A1001	

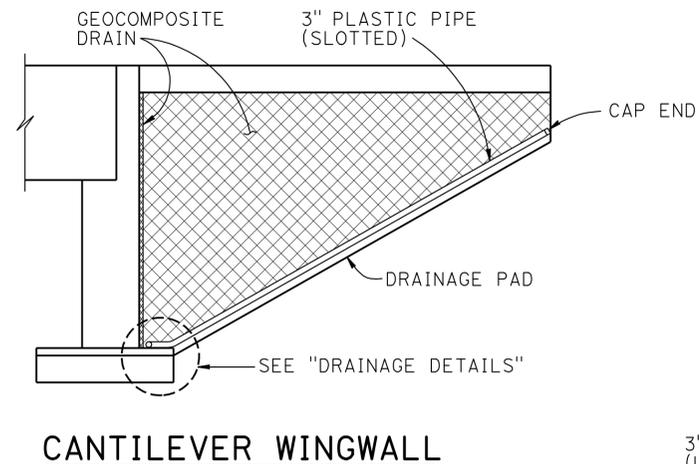
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001 DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
01-04-10 07-28-10 02-18-11 08-05-10	9	14

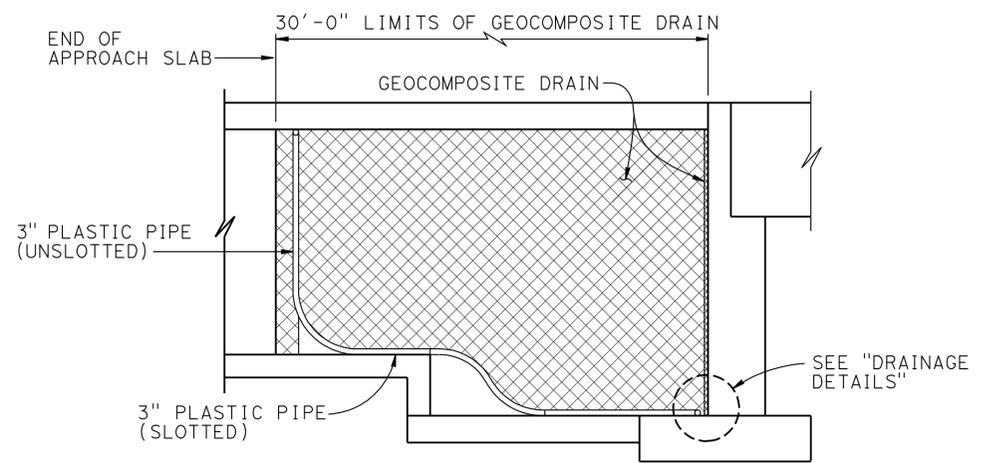
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1183	1414
REGISTERED CIVIL ENGINEER Chris Udarbe No. C62985 Exp. 6/30/12 CIVIL			11-04-11 DATE 3-26-12 PLANS APPROVAL DATE		
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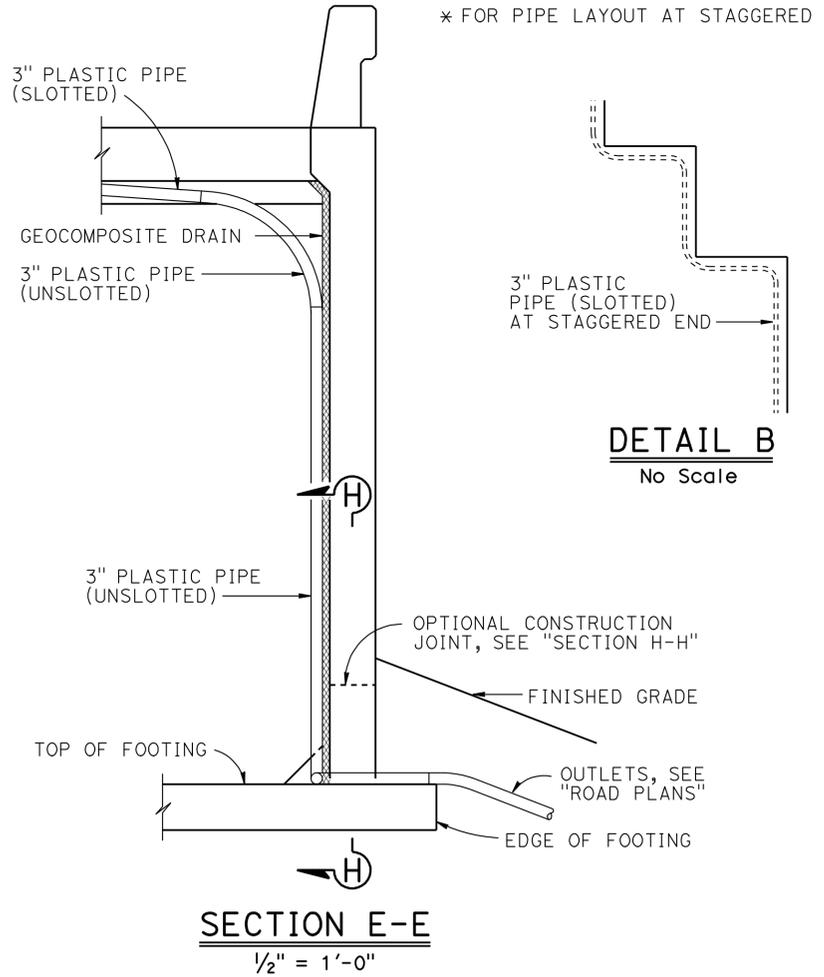
**TYPICAL PLAN**  
1" = 10'



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

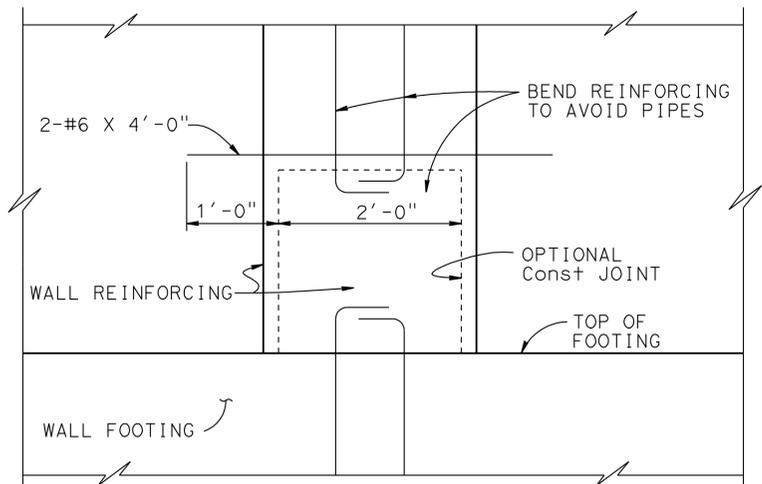


**RETAINING WALL WINGWALL DRAINAGE DETAILS**  
**SECTION G-G**  
1/4" = 1'-0"

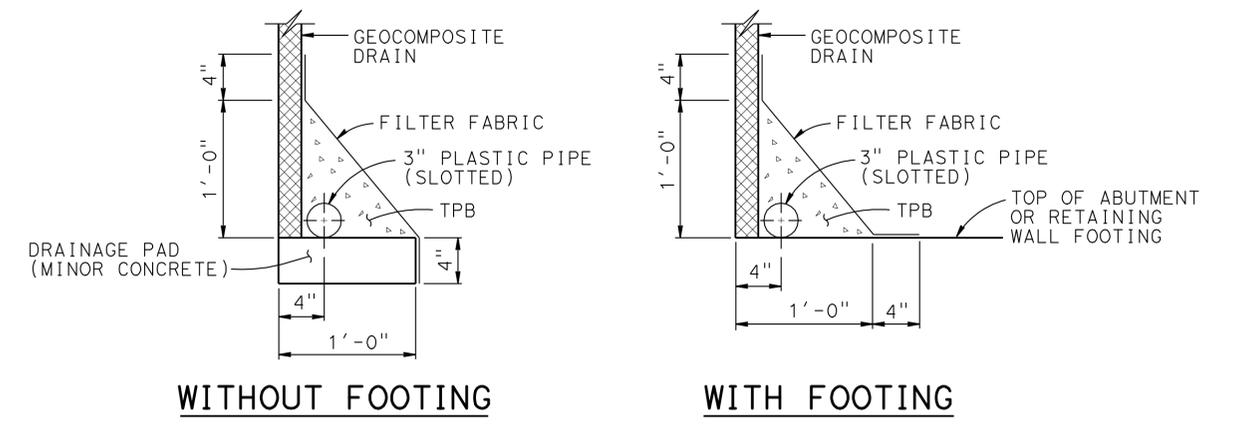


**DETAIL B**  
No Scale

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



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



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

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

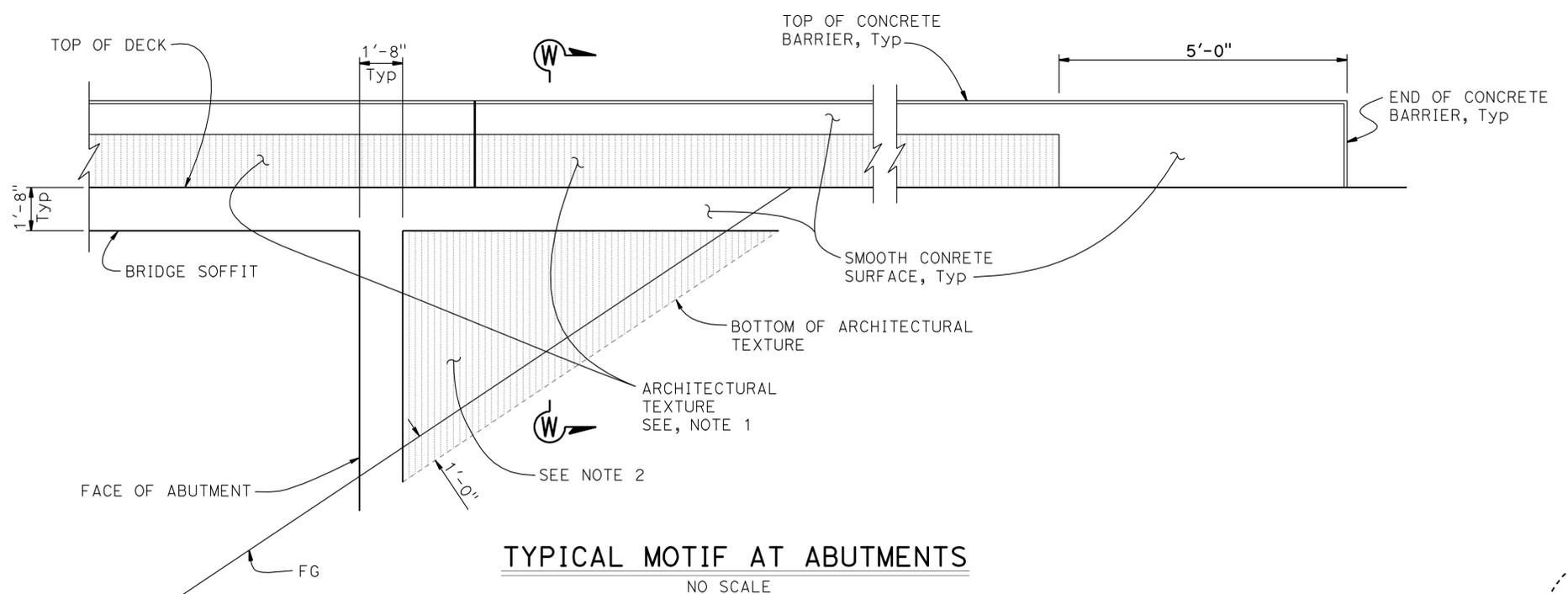
STANDARD DRAWING	
FILE NO. <b>xs3-110</b>	APPROVAL DATE July 2011

STATE OF CALIFORNIA	
DEPARTMENT OF TRANSPORTATION	

DIVISION OF ENGINEERING SERVICES	
BRIDGE NO. 29-0334	POST MILE 16.46

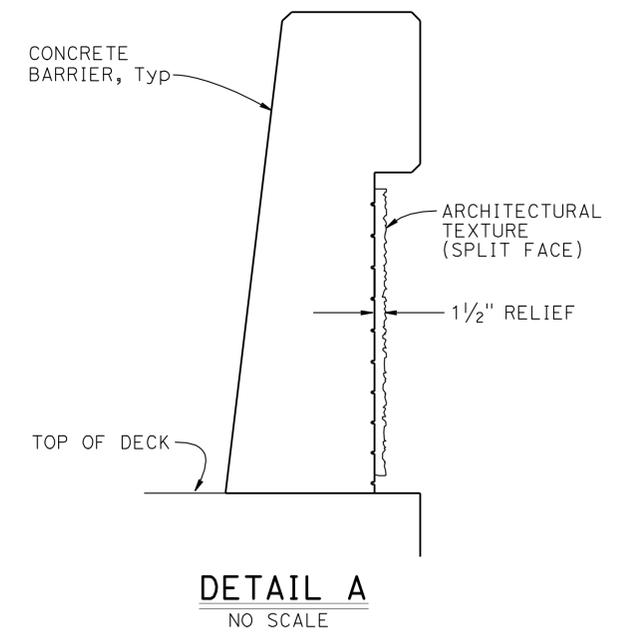
SOUTH STOCKTON WIDENING	
DUCK CREEK SOUTH BRANCH BRIDGE	
STRUCTURE APPROACH DRAINAGE DETAILS	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1184	1414
Chris V. Udarbe REGISTERED CIVIL ENGINEER			11-04-11	DATE	
3-26-12 PLANS APPROVAL DATE					
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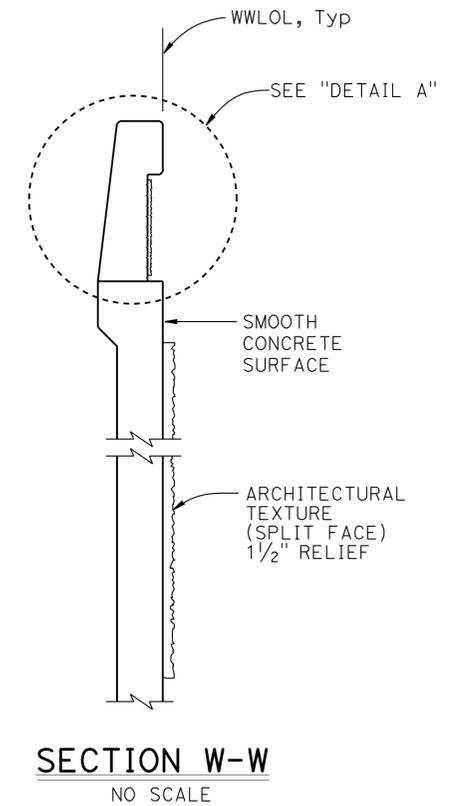


**TYPICAL MOTIF AT ABUTMENTS**  
NO SCALE

- NOTES:
1. ARCHITECTURAL TEXTURE (SPLIT FACE) on barrier.
  2. Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on wingwall.



**DETAIL A**  
NO SCALE



**SECTION W-W**  
NO SCALE

DESIGN BY I. Chernioglo CHECKED C. Udarbe				<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	<b>SOUTH STOCKTON WIDENING</b> <b>DUCK CREEK SOUTH BRANCH BRIDGE</b> <b>ARCHITECTURAL DETAILS</b>	
DETAILS BY L. Wang CHECKED I. Chernioglo						29-0334		
QUANTITIES BY I. Chernioglo CHECKED J. Burke						POST MILE 16.46		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 11-04-11 10-26-11 10-27-11	SHEET 11 OF 14

USERNAME => s128843 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:37

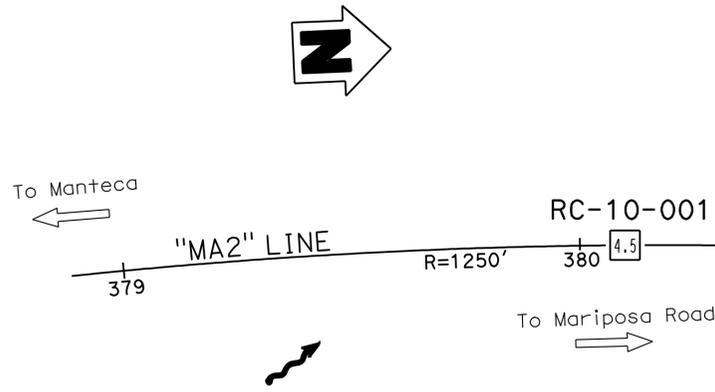
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1185	1414

Joseph M Kaump 9-15-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
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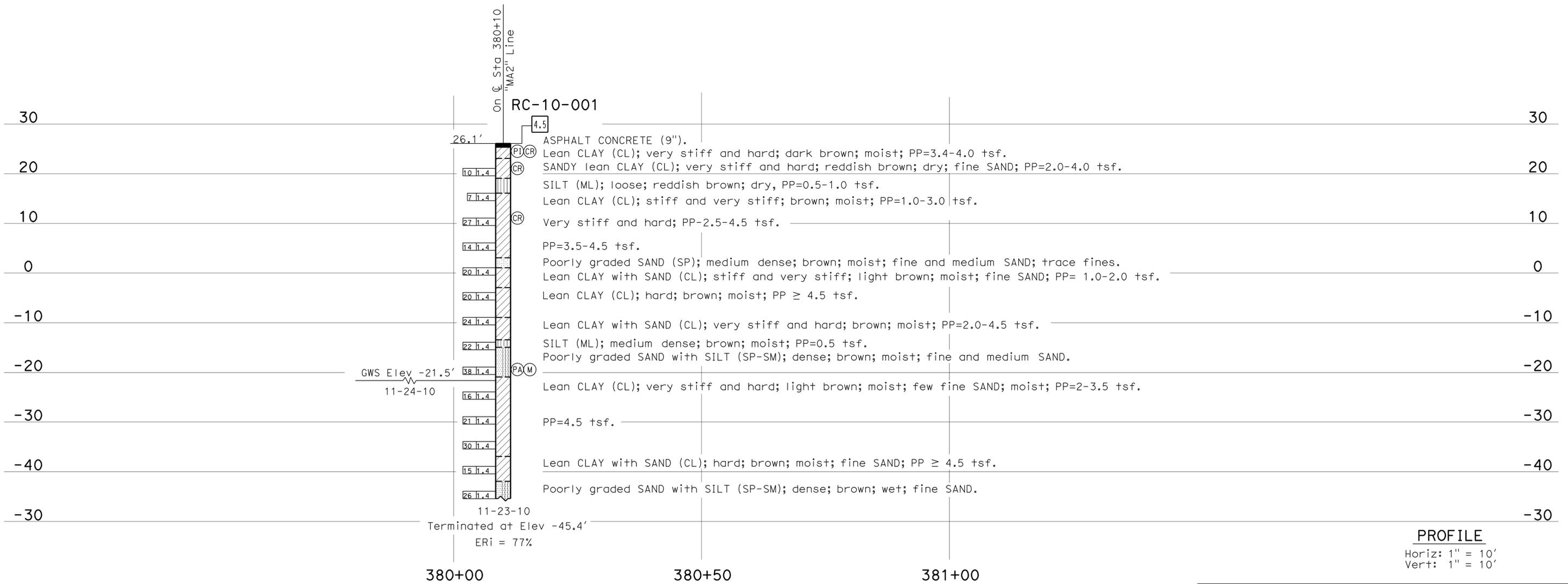
PROFESSIONAL GEOLOGIST  
 Joseph Kaump  
 No. 7837  
 Exp. 01-31-13  
 STATE OF CALIFORNIA

**BENCH MARK**

LGC 143  
 Fnd spike on south shoulder of Mariposa Road  
 approx 90' west of SW corner of existing  
 Duck Creek Bridge (BR No. 29C-0451)  
 Elev 27.43'  
 NGVD29



**PLAN**  
 1" = 20'



**PROFILE**

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

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: W. Tang, I.G-Remmen		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		<b>DUCK CREEK SOUTH BRANCH BRIDGE</b>	
NAME: R. Buehl		CHECKED BY: A. Barrie		FIELD INVESTIGATION BY:		<b>DESIGN BRANCH 17</b>		<b>LOG OF TEST BORINGS 1 OF 3</b>	
NAME: T. Alderman		T. Alderman		BRIDGE NO. 29-0334		POST MILE 16.46		CONTRACT NO.: 10-3A1001	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643		PROJECT NUMBER & PHASE: 10000004091		DISREGARD PRINTS BEARING EARLIER REVISION DATES	
				0 1 2 3		REVISION DATES		SHEET 12 OF 14	

FILE => 29-0334-z-1+b1of3.dgn

USERNAME => s128843 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:37

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1186	1414

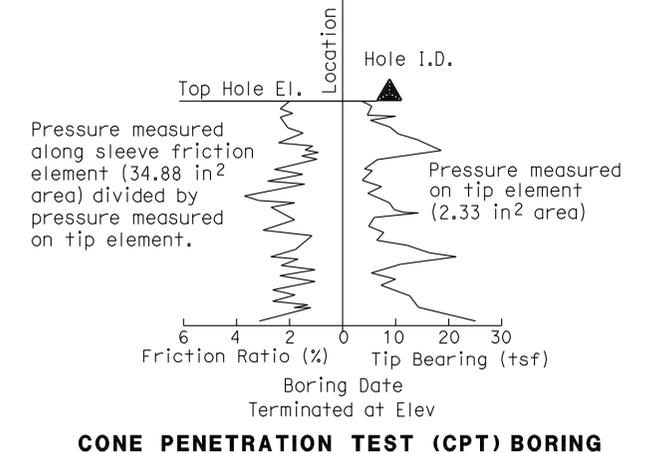
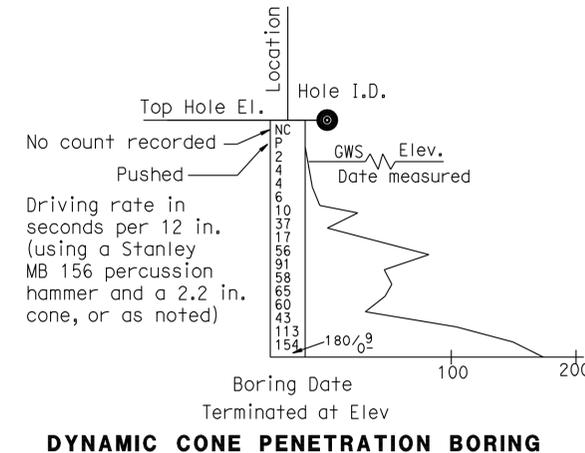
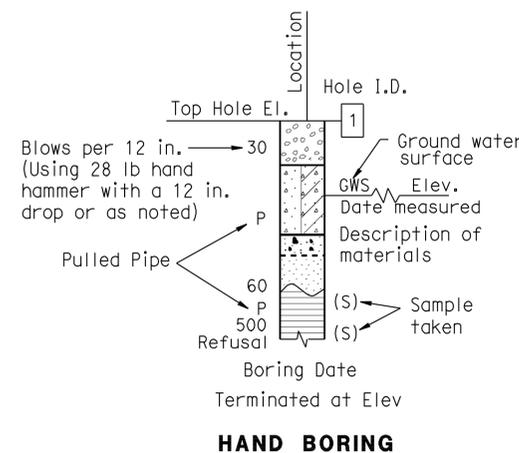
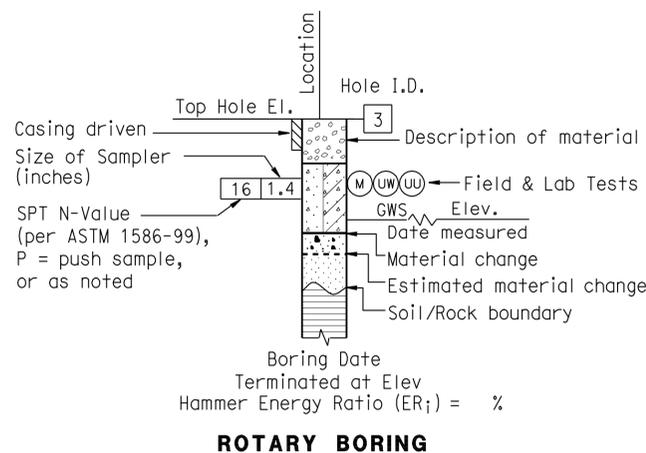
*Joseph M Kaump* 9-15-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	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)
	O	Other (note on LOTB)

Note: Size in inches.

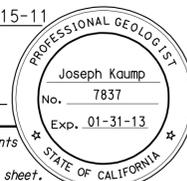
CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>BRIDGE NO.</b>		<b>SOUTH STOCKTON WIDENING</b>	
		PREPARED BY: I. G-Remmen		<b>DEPARTMENT OF TRANSPORTATION</b>		<b>STRUCTURE DESIGN</b>		29-0334		<b>DUCK CREEK SOUTH BRANCH BRIDGE</b>	
						<b>DESIGN BRANCH 17</b>		POST MILE 16.46		<b>LOG OF TEST BORINGS 2 OF 3</b>	
GS LOTB SOIL LEGEND		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
										SHEET 13 OF 14	

FILE => 29-0334-z-1+tb2of3.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1187	1414


 9-15-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 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 (or SILTY CLAY)		GRAVELLY lean CLAY with SAND
	Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SILTY CLAY
	Poorly-graded GRAVEL with SILT		SILTY CLAY with SAND
	Poorly-graded GRAVEL with SILT and SAND		SILTY CLAY with GRAVEL
	Poorly-graded GRAVEL with CLAY (or SILTY CLAY)		SANDY SILTY CLAY
	Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		SANDY SILTY CLAY with GRAVEL
	SILTY GRAVEL		GRAVELLY SILTY CLAY
	SILTY GRAVEL with SAND		GRAVELLY SILTY CLAY with SAND
	CLAYEY GRAVEL		SILT
	CLAYEY GRAVEL with SAND		SILT with SAND
	SILTY, CLAYEY GRAVEL		SILT with GRAVEL
	SILTY, CLAYEY GRAVEL with SAND		SANDY SILT
	Well-graded SAND		SANDY SILT with GRAVEL
	Well-graded SAND with GRAVEL		GRAVELLY SILT
	Poorly-graded SAND		GRAVELLY SILT with SAND
	Poorly-graded SAND with GRAVEL		ORGANIC lean CLAY
	Well-graded SAND with SILT		ORGANIC lean CLAY with SAND
	Well-graded SAND with SILT and GRAVEL		ORGANIC lean CLAY with GRAVEL
	Well-graded SAND with CLAY (or SILTY CLAY)		SANDY ORGANIC lean CLAY
	Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		SANDY ORGANIC lean CLAY with GRAVEL
	Poorly-graded SAND with SILT		GRAVELLY ORGANIC lean CLAY
	Poorly-graded SAND with SILT and GRAVEL		GRAVELLY ORGANIC lean CLAY with SAND
	Poorly-graded SAND with CLAY (or SILTY CLAY)		ORGANIC SILT
	Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		ORGANIC SILT with SAND
	SILTY SAND		ORGANIC SILT with GRAVEL
	SILTY SAND with GRAVEL		SANDY ORGANIC SILT
	CLAYEY SAND		SANDY ORGANIC SILT with GRAVEL
	CLAYEY SAND with GRAVEL		GRAVELLY ORGANIC SILT
	SILTY, CLAYEY SAND		GRAVELLY ORGANIC SILT with SAND
	SILTY, CLAYEY SAND with GRAVEL		ORGANIC fat CLAY
	PEAT		ORGANIC fat CLAY with SAND
	COBBLES		ORGANIC fat CLAY with GRAVEL
	COBBLES and BOULDERS		SANDY ORGANIC fat CLAY
	BOULDERS		SANDY ORGANIC fat CLAY with GRAVEL
			GRAVELLY ORGANIC fat CLAY
			GRAVELLY ORGANIC fat CLAY with 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
			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

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
(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)
(UC)	Unconfined Compression-Soil (ASTM D 2166)
(UU)	Unconfined Compression-Rock (ASTM D 2938)
(UW)	Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS	
Description	SPT N <sub>60</sub> (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE	
Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

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

PARTICLE SIZE		
Description	Size (in.)	
Boulder	Greater than 12	
Cobble	3 - 12	
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay	Less than 1/300	

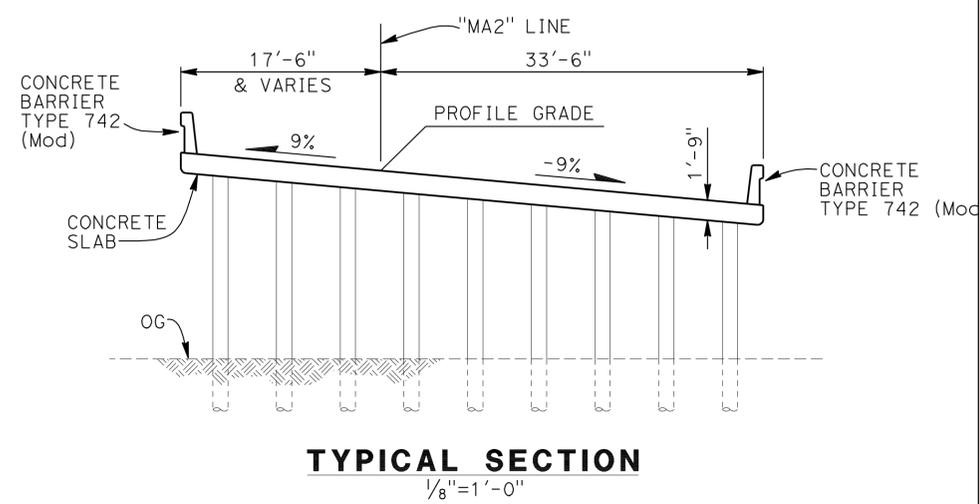
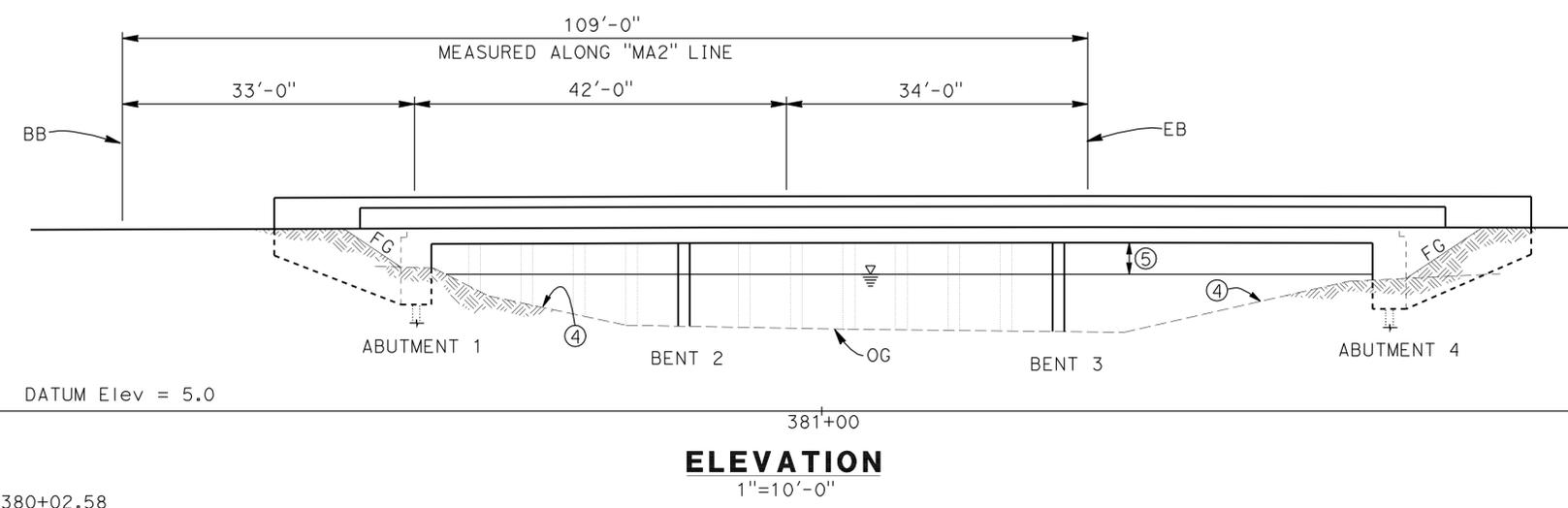
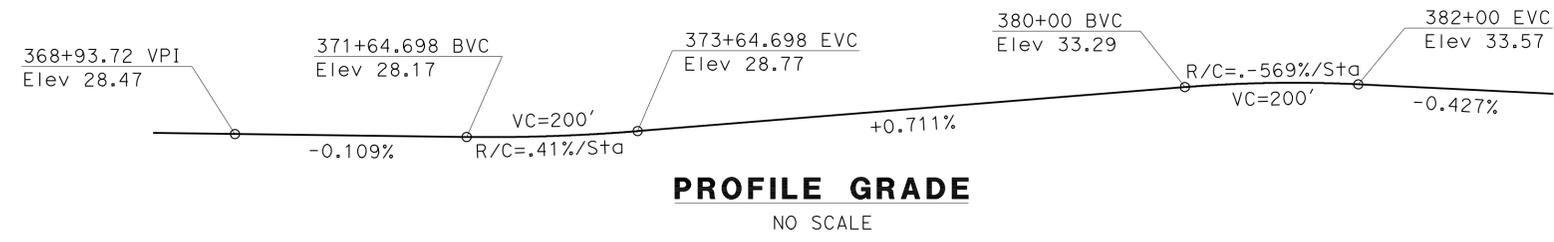
ENGINEERING SERVICES	MATERIALS AND GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0334	SOUTH STOCKTON WIDENING DUCK CREEK SOUTH BRANCH BRIDGE	
				POST MILE 16.46	LOG OF TEST BORINGS 3 OF 3	
PREPARED BY: I.G-REMMEN	UNIT: 3643 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	REVISION DATES	SHEET 14	OF 14	

GS LOTB SOIL LEGEND ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3  
 FILE => 29-0334-Z-1+D3of3.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1188	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			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.					

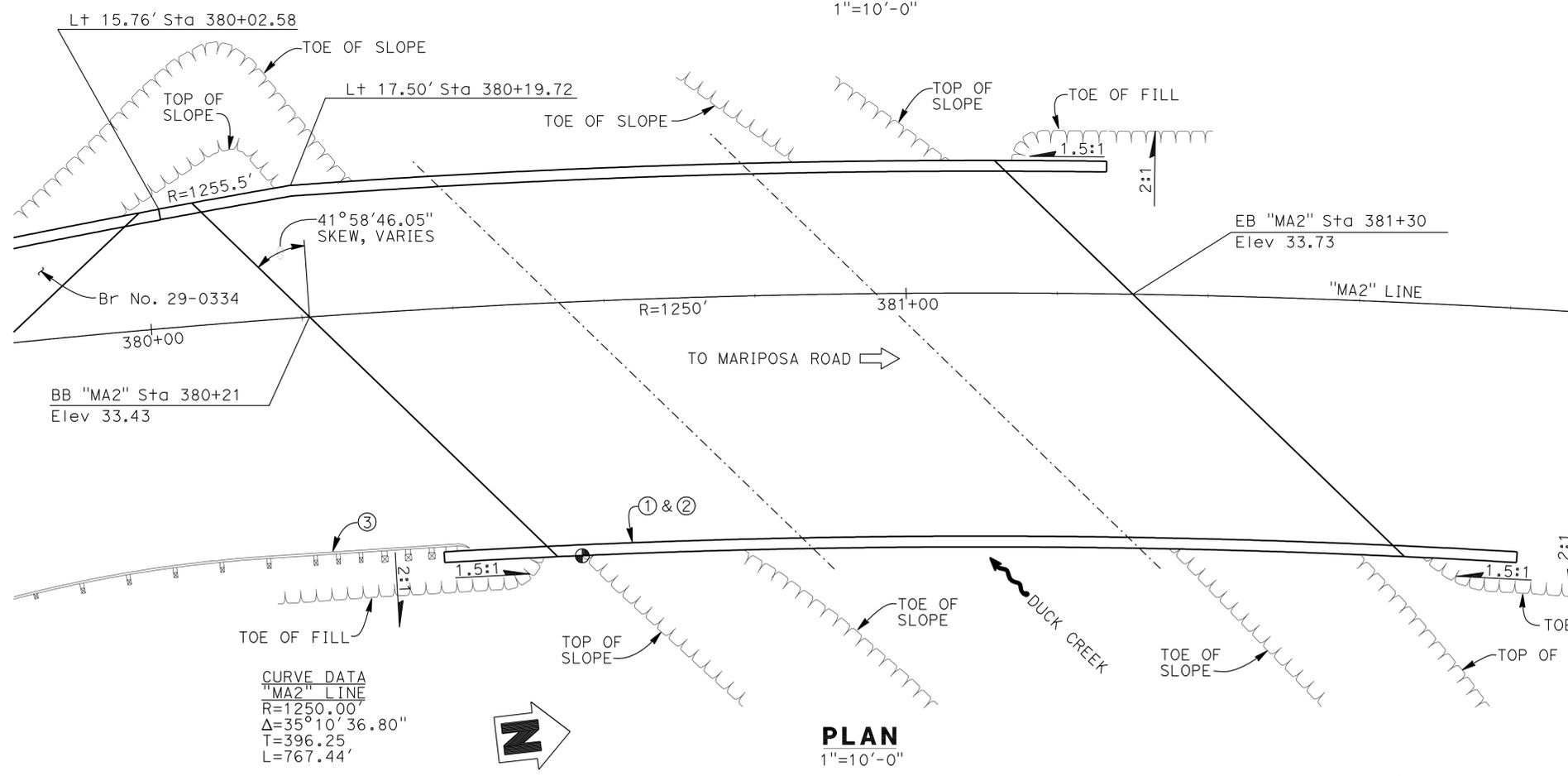


- Notes:
- ① Paint "BR. NO. 29-0335"
  - ② Paint "DUCK CREEK BRIDGE"
  - ③ Metal Beam Guardrail
  - ④ Channel Lining, see "ROAD PLANS"
  - ⑤ Minimum Freeboard = 3'-10"
- ▽ 100 Year flood elev = 25.0 ft, for Hydrologic Summary, see "FOUNDATION PLAN" sheet
- ⊕ Lowest soffit Elev = 28.83



QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	151	CY
STRUCTURE BACKFILL (BRIDGE)	100	CY
FURNISH 16" CAST-IN-STEEL SHELL CONCRETE PILING	862	LF
DRIVE 16" CAST-IN-STEEL SHELL CONCRETE PILE	18	EA
FURNISH STEEL PILING (HP 10 X 42)	1978	LF
DRIVE STEEL PILE (HP 10 X 42)	34	EA
STRUCTURAL CONCRETE, BRIDGE	515	CY
ARCHITECTURAL TEXTURE (SPLIT FACE)	1,127	SQFT
BAR REINFORCING STEEL (BRIDGE)	87,918	LB
CONCRETE BARRIER (TYPE 742, MOD)	268	LF
CONCRETE BARRIER (TYPE 742B, MOD)	4	LF



INDEX TO PLANS

SHT NO.	TITLE
1.	General Plan
2.	Deck Contours
3.	Foundation Plan
4.	Abutment 1 Layout
5.	Abutment 4 Layout
6.	Bent Details
7.	Typical Section
8.	Girder Reinforcement
9.	Slab Reinforcement Details
10.	Structure Approach Drainage Details
11.	Architectural Details
12.	Log of Test Borings 1 of 3
13.	Log of Test Borings 2 of 3
14.	Log of Test Borings 3 of 3

Note: For General Notes, Standard Plans and Pile Data Table see "DECK CONTOURS" sheet.

**SOUTH STOCKTON WIDENING**  
**DUCK CREEK BRIDGE**  
**GENERAL PLAN**

DESIGN ENGINEER Gary Joe	DESIGN	BY M. Friedheim	CHECKED R. Coria	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO.	29-0335	
	DETAILS	BY A. Onodera	CHECKED M. Friedheim	LAYOUT	BY M. Friedheim			CHECKED R. Coria	POST MILE	16.49
	QUANTITIES	BY R. Coria	CHECKED P. VU	SPECIFICATIONS	BY V. Renganathan			CHECKED V. Renganathan		

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

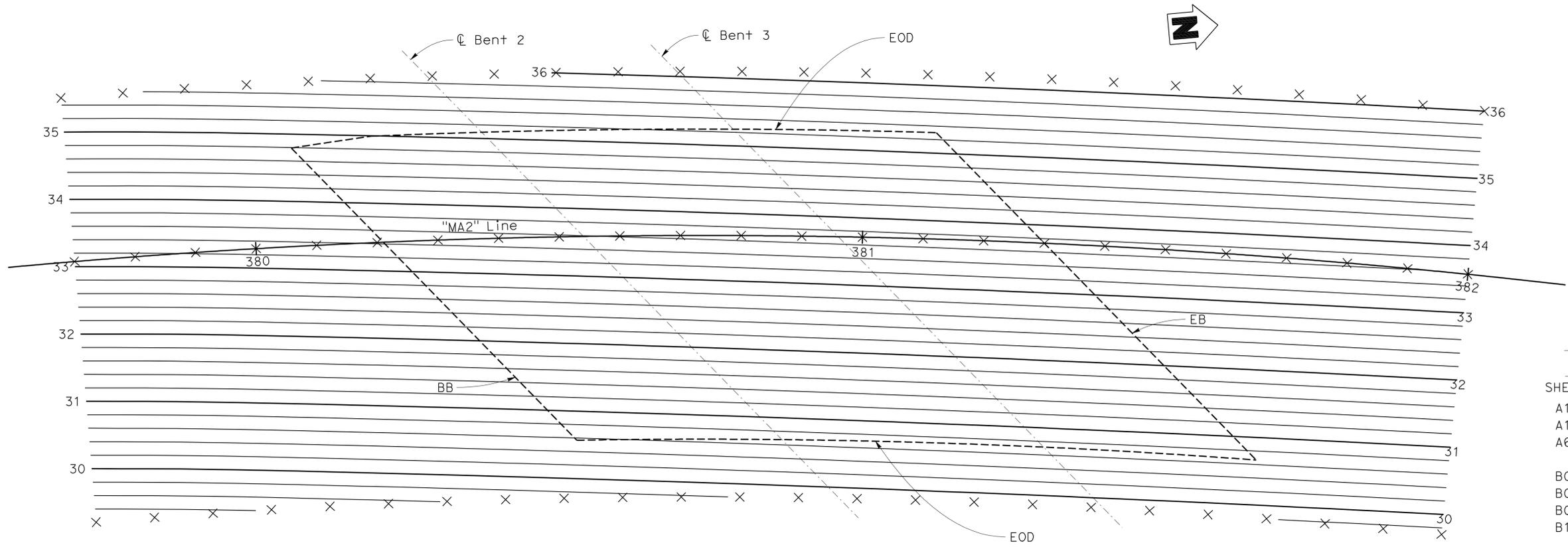
UNIT: 3586  
PROJECT NUMBER & PHASE: 10000004091

CONTRACT NO.: 10-3A1001

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	10-25-11 02-21-12 3-01-12	1	14

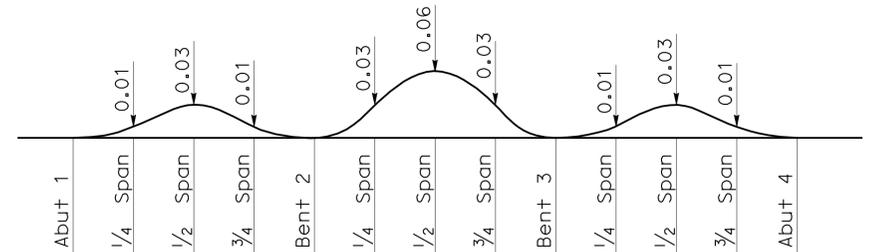
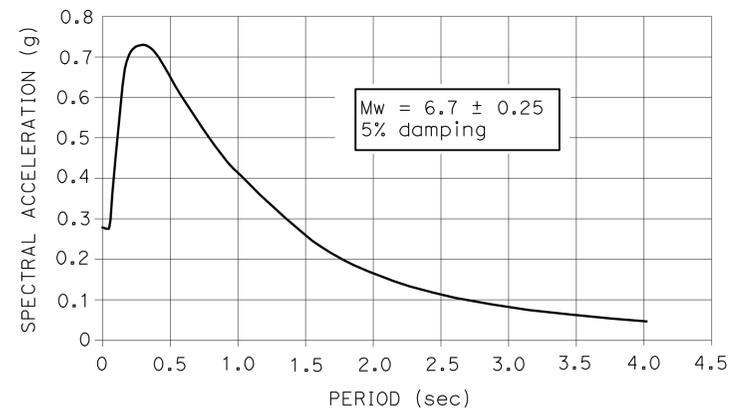
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REGISTERED CIVIL ENGINEER  
 DATE 11-04-11  
 PLANS APPROVAL DATE 3-26-12  
 REGISTERED PROFESSIONAL ENGINEER  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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**PLAN**  
1" = 10'

NOTES:  
 X - Indicates 10' increments along station line.  
 Contour does not include camber.  
 Contour interval = 0.2'



**CAMBER DIAGRAM**

No Scale  
 Does not include allowance for falsework settlement.

**PILE DATA TABLE**

LOCATION	PILE TYPE	NOMINAL RESISTANCE (kp)		DESIGN TIP ELEVATION (ft)	SPECIFIED TIP ELEVATION (ft)	DESIGN DRIVING RESISTANCE (kp)
		COMPRESSION	TENSION			
Abutment 1	HP 10x42	180	0	-36 (a)	-36	180
Bent 2	CISS 16x0.5	220	0	-30 (a)	-30	240
Bent 3	CISS 16x0.5	220	0	-30 (a)	-30	240
Abutment 4	HP 10x42	180	0	-36 (a)	-36	180

NOTE:  
 (a) Design tip elevations are controlled by compression.

**STANDARD PLANS DATED JULY 2010**

SHEET NO.	TITLE
A10A	ABBREVIATIONS
A10B	SYMBOLS
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B11-57	CONCRETE BARRIER TYPE 742

Standard Plan Sheet No. (Symbol)  
 Detail No. (Symbol)

**GENERAL NOTES**  
**LOAD AND RESISTANCE FACTOR DESIGN**

DESIGN:  
 AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments, preface dated December 2008

SEISMIC DESIGN:  
 Caltrans Seismic Design Criteria (SDC), Version 1.5 dated January 2010

DEAD LOAD:  
 Includes 35 psf for future wearing surface.

LIVE LOADING:  
 HL93 and permit design load.

SEISMIC LOADING:  
 Soil profile type D  
 Magnitude group 6.7 ± 0.25  
 Peak Rock Acceleration 0.29 g  
 Vs30 = 920 ft/sec

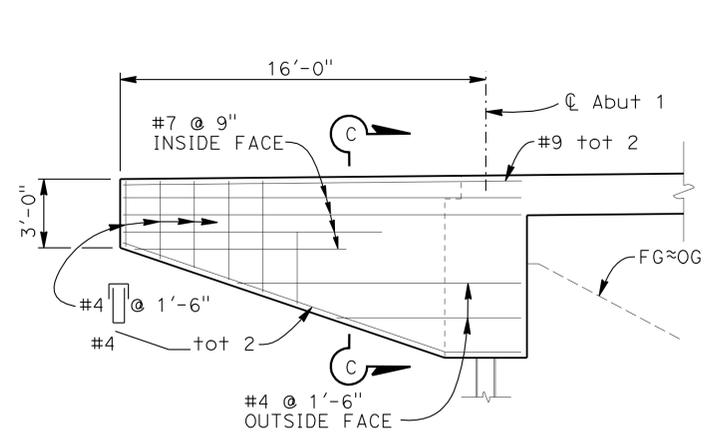
REINFORCED CONCRETE:  
 fy = 60 ksi  
 f'c = 3.6 ksi  
 n = 8

**SOUTH STOCKTON WIDENING**  
**DUCK CREEK BRIDGE**  
**DECK CONTOURS**

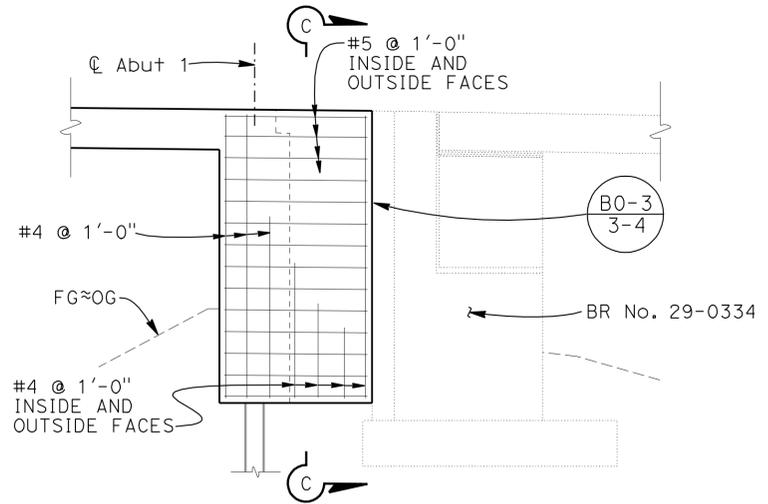
DESIGN BY M. Friedheim	CHECKED T. Bui/J. Burke	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17	BRIDGE NO. 29-0335
DETAILS BY JFCasarino	CHECKED T. Bui/J. Burke			POST MILE 16.49
QUANTITIES BY R. Coria	CHECKED P. Vu			



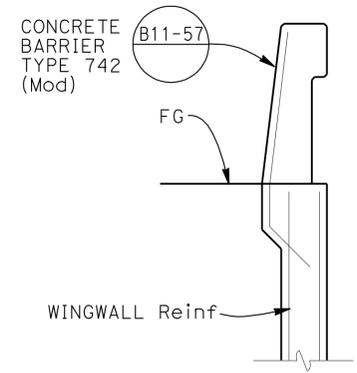
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C.V. Udape REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 PLANS APPROVAL DATE			REGISTERED PROFESSIONAL ENGINEER CHRIS UDARBE No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA		
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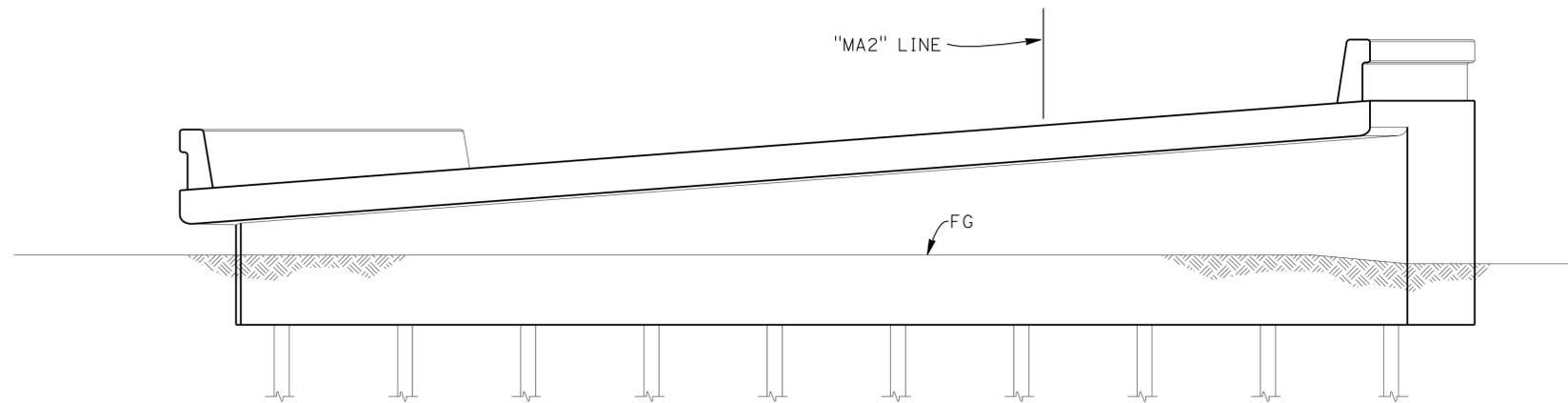
**ELEVATION VIEW A-A**  
1/4"=1'-0"



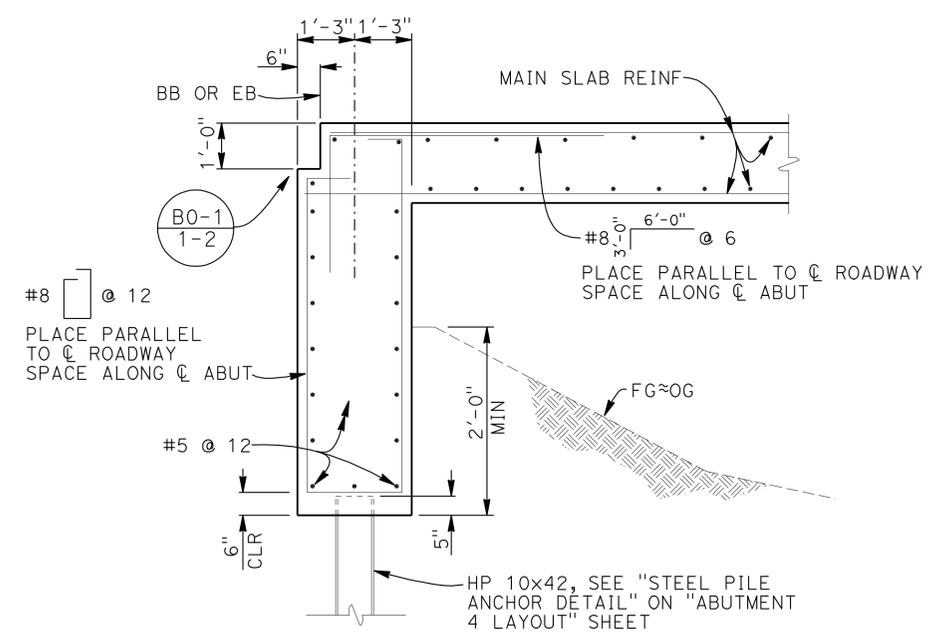
**ELEVATION VIEW B-B**  
1/4"=1'-0"



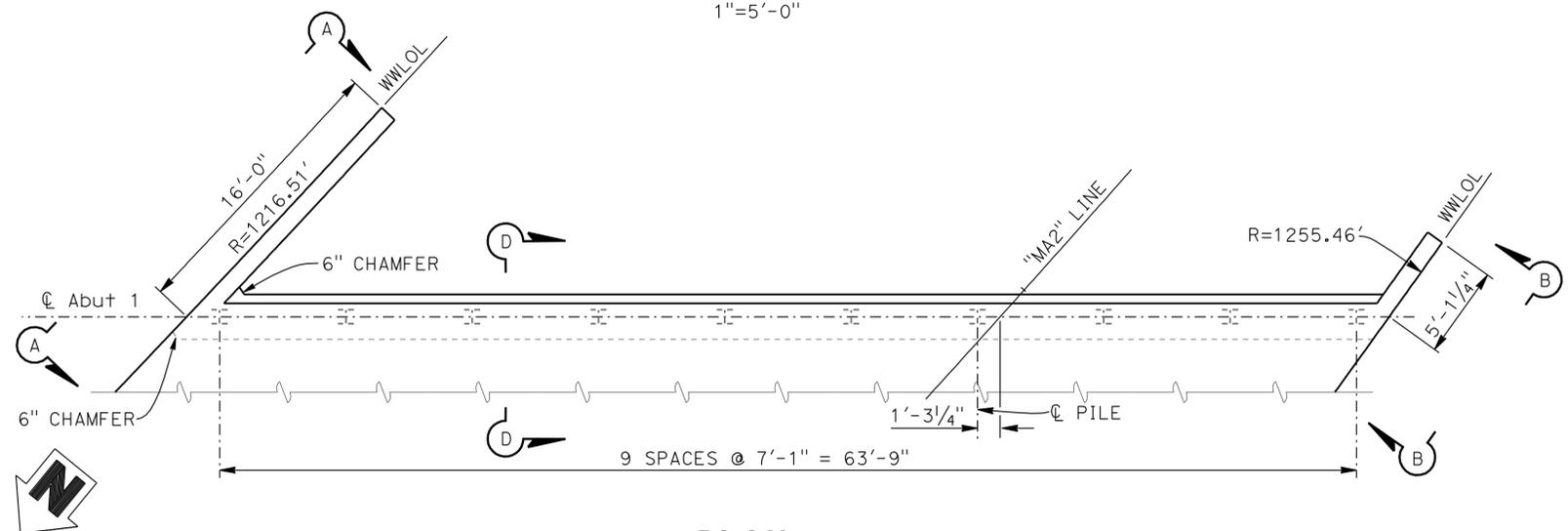
**SECTION C-C**  
1/2"=1'-0"



**ELEVATION**  
1"=5'-0"



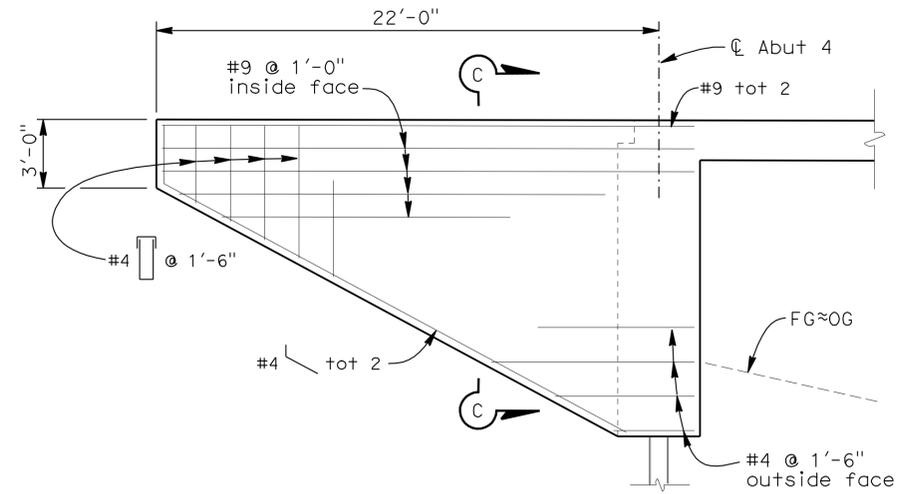
**SECTION D-D**  
1/2"=1'-0"



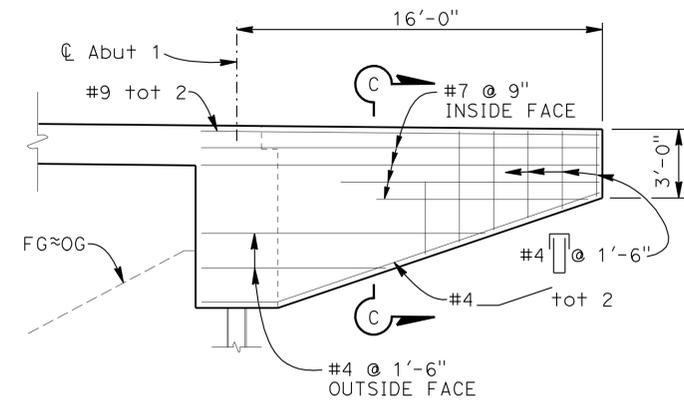
**PLAN**  
1"=5'-0"

DESIGN BY M. Friedheim CHECKED T. Bui/J. Burke		<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0335	<b>SOUTH STOCKTON WIDENING</b> <b>DUCK CREEK BRIDGE</b> <b>ABUTMENT 1 LAYOUT</b>
DETAILS BY A. Onodera CHECKED T. Bui/J. Burke				POST MILE 16.49	
QUANTITIES BY R. Coria CHECKED P. Vu				PROJECT NUMBER & PHASE: 10000004091 CONTRACT NO.: 10-3A1001	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)					
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT: 3586	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
0 1 2 3			PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	REVISION DATES 10-31-11 02-23-12 3-01-12
FILE => 29-0335-FR-001_1of1.dgn			PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	SHEET 4 OF 14

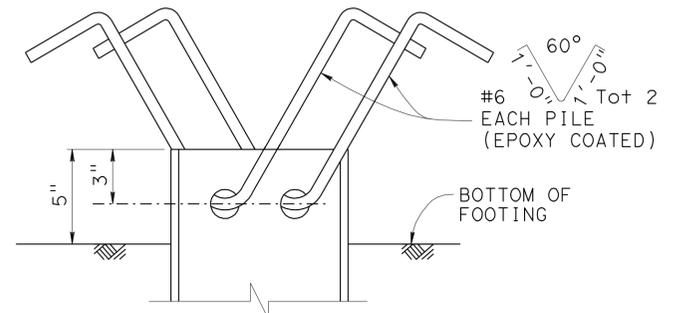
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C.V. Udarbe REGISTERED CIVIL ENGINEER			11-4-11 DATE		
3-26-12 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



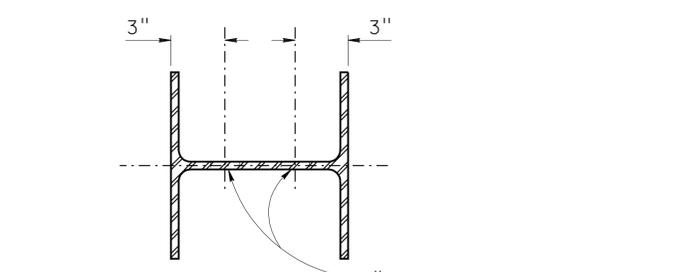
**ELEVATION VIEW A-A**  
1/4"=1'-0"



**ELEVATION VIEW B-B**  
1/4"=1'-0"



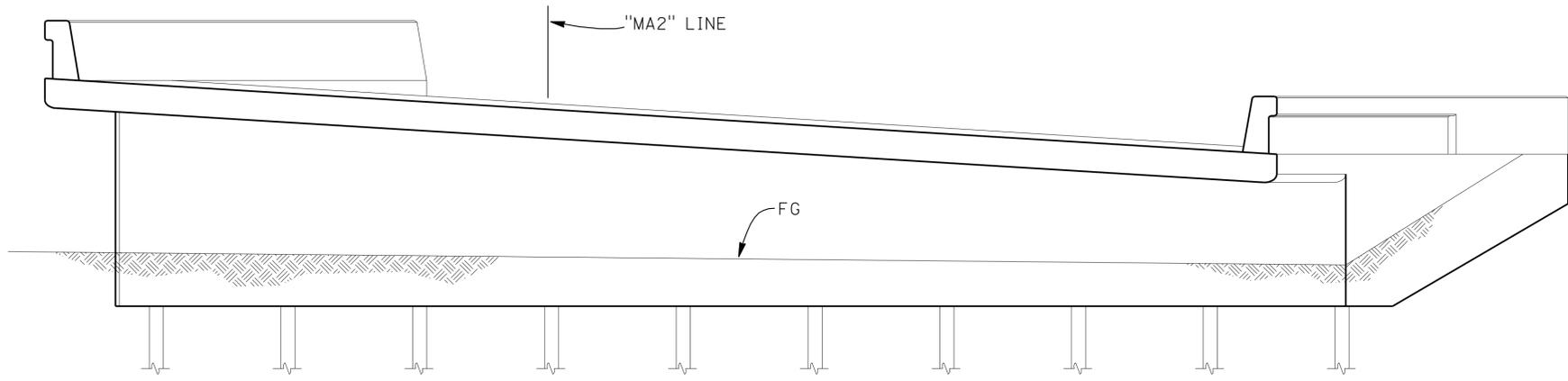
**ELEVATION**



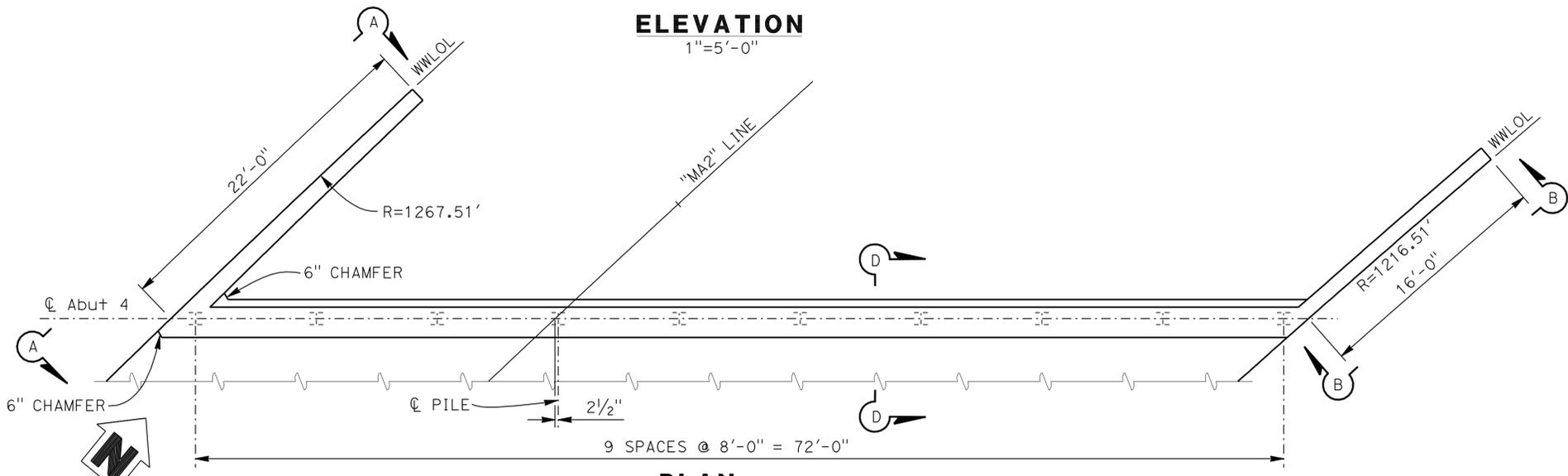
**PLAN**

**STEEL PILE ANCHOR DETAIL**  
No Scale

Note:  
1. For Section C-C and Section D-D, see "ABUTMENT 1 LAYOUT" sheet



**ELEVATION**  
1"=5'-0"



**PLAN**  
1"=5'-0"

DESIGN	BY M. Friedheim	CHECKED T. Bui/J. Burke
DETAILS	BY A. Onodera	CHECKED T. Bui/J. Burke
QUANTITIES	BY R. Coria	CHECKED P. Vu

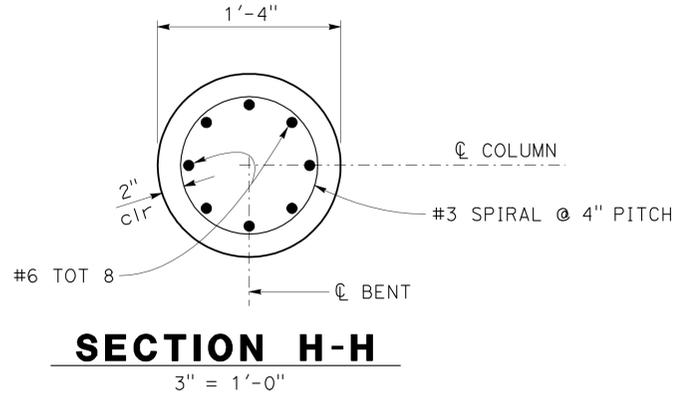
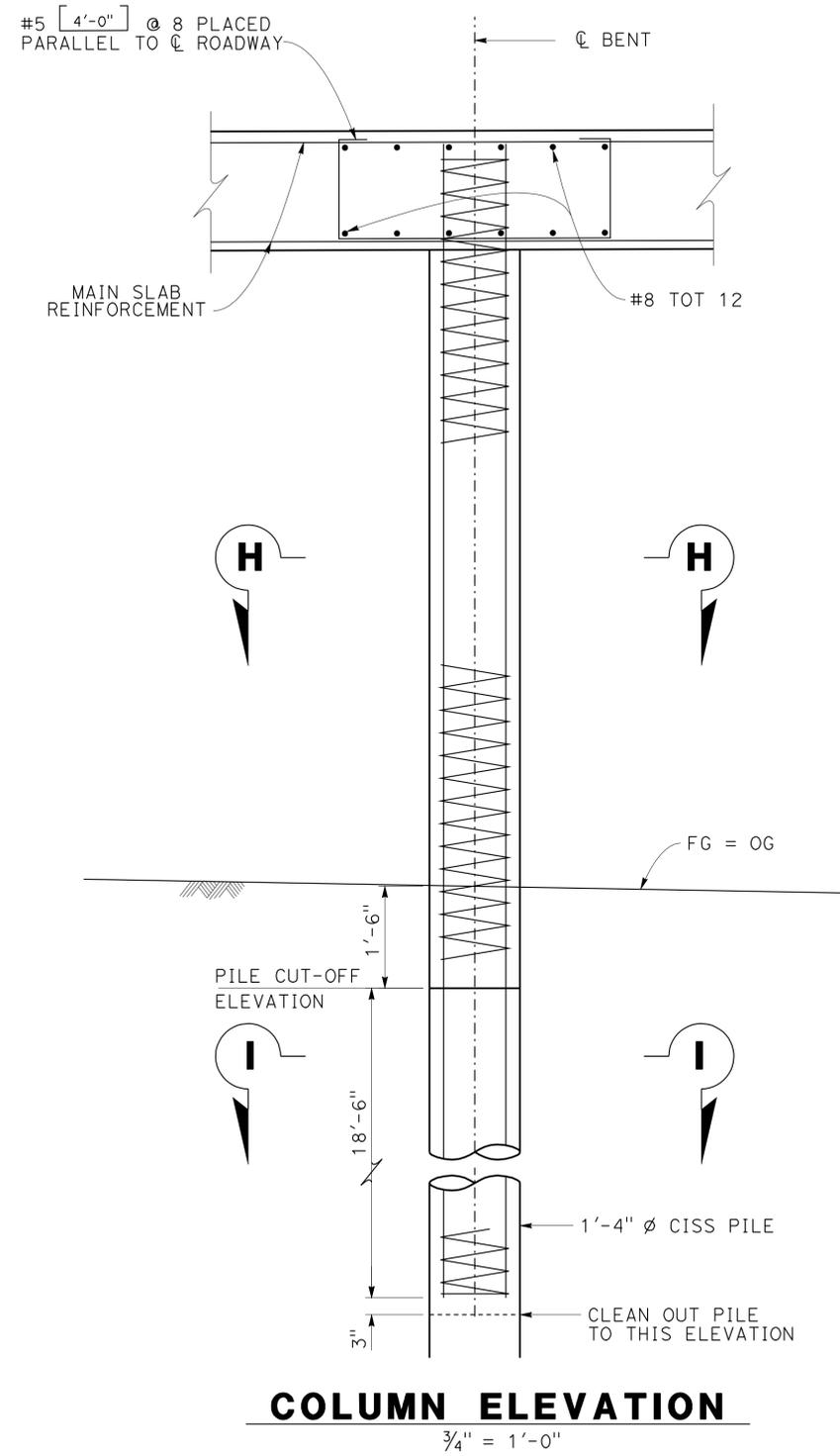
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

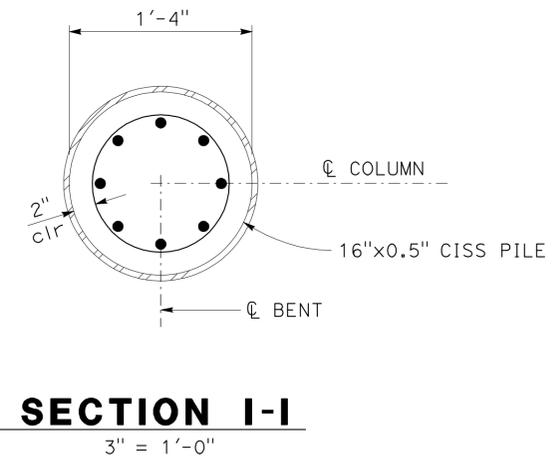
BRIDGE NO.	29-0335
POST MILE	16.49

**SOUTH STOCKTON WIDENING**  
**DUCK CREEK BRIDGE**  
**ABUTMENT 4 LAYOUT**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1193	1414
			11-04-11		
REGISTERED CIVIL ENGINEER			DATE		
3-26-12			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER CHRIS UDARBE No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA					
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**SECTION H-H**  
3" = 1'-0"



**SECTION I-I**  
3" = 1'-0"

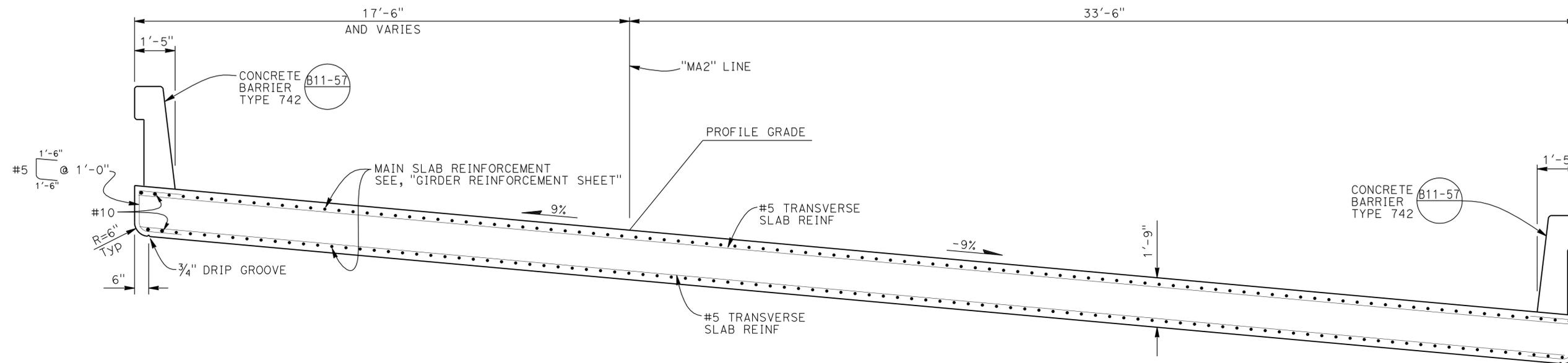
NOTES:  
1. For column locations, see "FOUNDATION PLAN" sheet.

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET OF	
DESIGN BY M. Friedheim CHECKED T. Bui		DETAILS BY JFCasarino CHECKED M. Friedheim		QUANTITIES BY R. Coria CHECKED P. Vu		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 17		BRIDGE NO. 29-0335 POST MILE 16.49		SOUTH STOCKTON WIDENING DUCK CREEK BRIDGE BENT DETAILS					
												11-01-11		6 14			

USERNAME => s124496 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:33

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1194	1414

C.V. Udarbe 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 PLANS APPROVAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 CHRIS UDARBE  
 No. C62985  
 Exp. 06-30-12  
 CIVIL  
 STATE OF CALIFORNIA  
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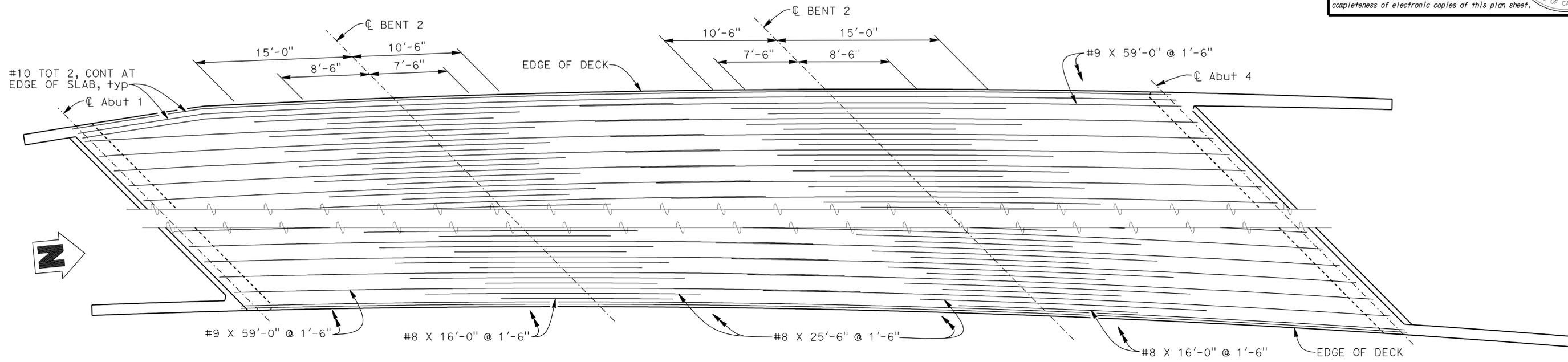


**TYPICAL SECTION**  
1/2"=1'-0"

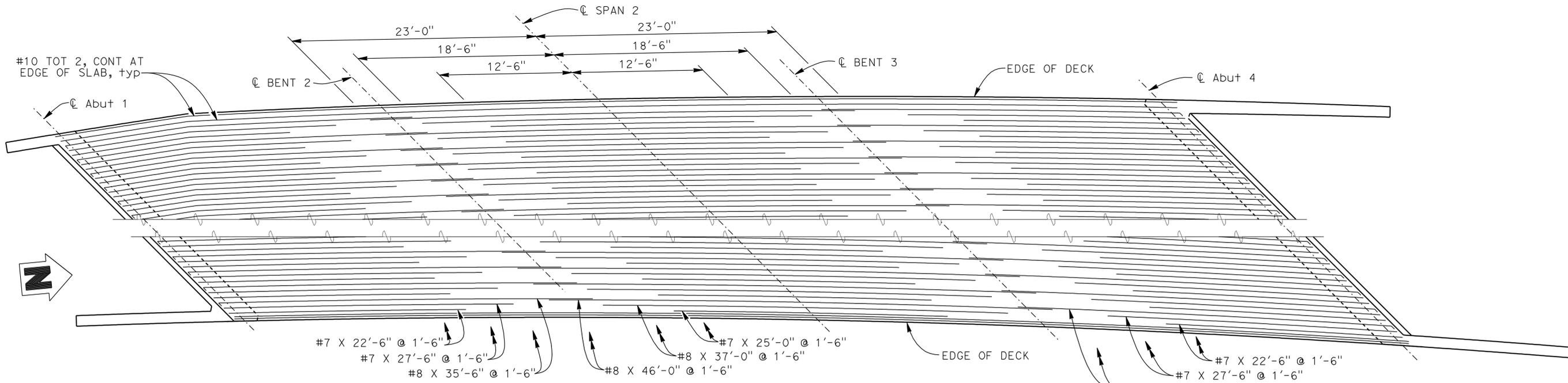
DESIGN BY M. Friedheim CHECKED T. Bui/J. Burke DETAILS BY A. Onodera CHECKED T. Bui/J. Burke QUANTITIES BY R. Coria CHECKED P. Vu			STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO. 29-0335 POST MILE 16.49	<b>SOUTH STOCKTON WIDENING</b> <b>DUCK CREEK BRIDGE</b> <b>TYPICAL SECTION</b>
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3586 PROJECT NUMBER & PHASE: 10000004091	CONTRACT NO.: 10-3A1001	DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 11-02-11, 02-23-12 SHEET 7 OF 14

USERNAME => s124486 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:33

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1195	1414
REGISTERED CIVIL ENGINEER DATE 11-04-11 3-26-12 PLANS APPROVAL DATE			REGISTERED PROFESSIONAL ENGINEER No. C62985 Exp. 06-30-12 CIVIL STATE OF CALIFORNIA		
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**TOP OF SLAB REINFORCEMENT**  
1"=5'-0"



**BOTTOM OF SLAB REINFORCEMENT**  
1"=5'-0"

**SOUTH STOCKTON WIDENING  
DUCK CREEK BRIDGE  
GIRDER REINFORCEMENT**

DESIGN	BY M. Freidheim	CHECKED T. Bui/J. Burke	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0335
DETAILS	BY A. Onodera	CHECKED T. Bui/J. Burke		POST MILE	16.49
QUANTITIES	BY R. Coria	CHECKED P. Vu			

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3586  
PROJECT NUMBER & PHASE: 10000004091

CONTRACT NO.: 10-3A1001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
11-04-11 02-23-12	8	14

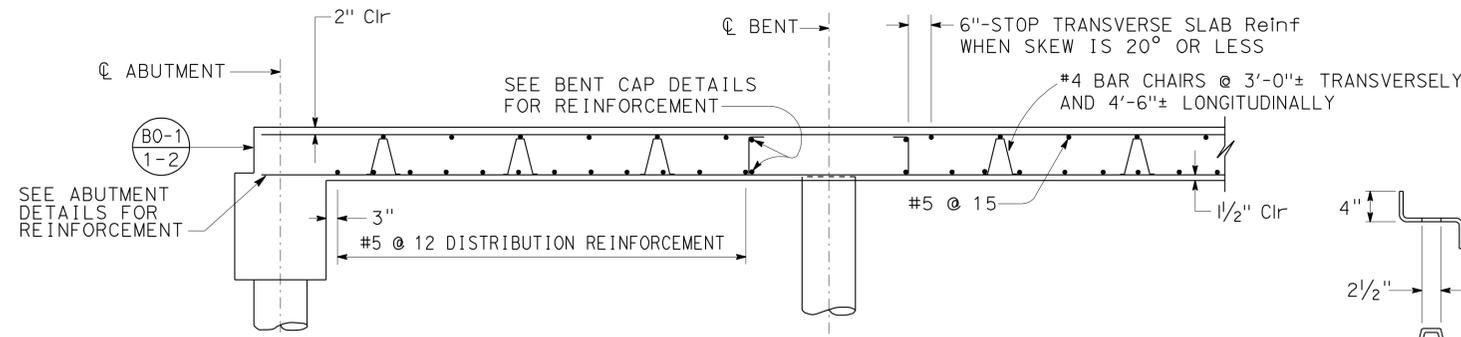
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1196	1414

C.V. Udape 11-04-11  
 REGISTERED CIVIL ENGINEER DATE  
 3-26-12  
 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  
 CHRIS UDARBE  
 No. C62985  
 Exp. 6-30-12  
 CIVIL  
 STATE OF CALIFORNIA



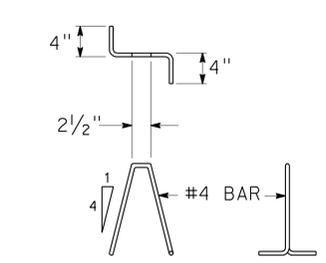
**LONGITUDINAL SECTION**

NO SCALE

BAR SPLICE LENGTH								
BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
ALL BARS, EXCEPT TOP BARS IN SPANS OVER 23 ft	23"	28"	34"	39"	45"	68"	76"	85"
TOP BARS IN SPANS OVER 23 ft	23"	28"	34"	53"	60"	77"	97"	120"

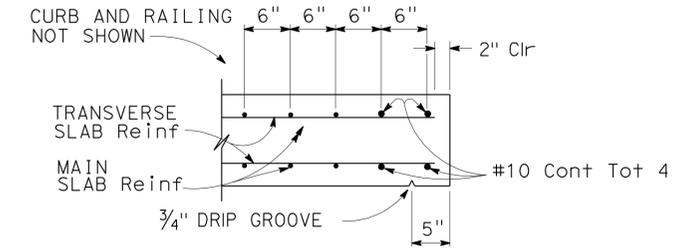
**REINFORCEMENT NOTES:**

Splices in top main bars to be located near center of span.  
 Splices in bottom main bars to be located near bent.  
 Spacing of all transverse bars is measured along CL roadway.  
 Skew 0° to 20°: Place all transverse bars parallel to bent.  
 Skew over 20°: Place transverse slab bars perpendicular to CL bridge. See details at right and below.



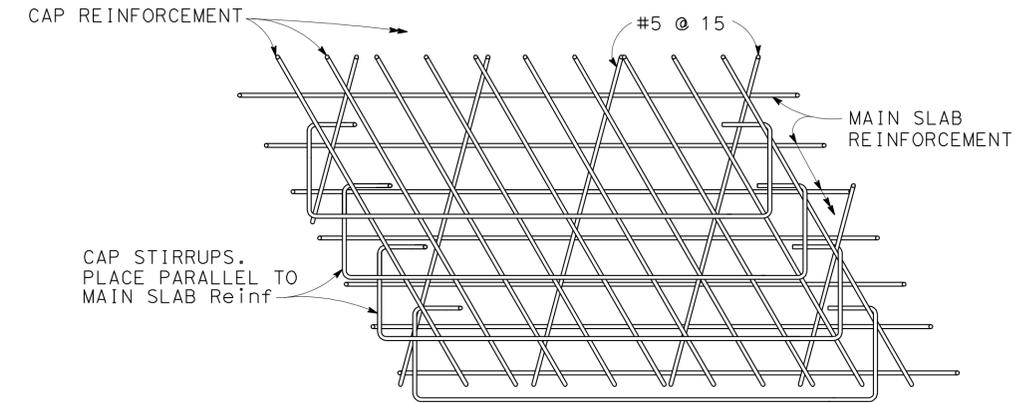
**BAR CHAIR DETAIL**

1" = 1'-0"



**EDGE OF SLAB DETAILS**

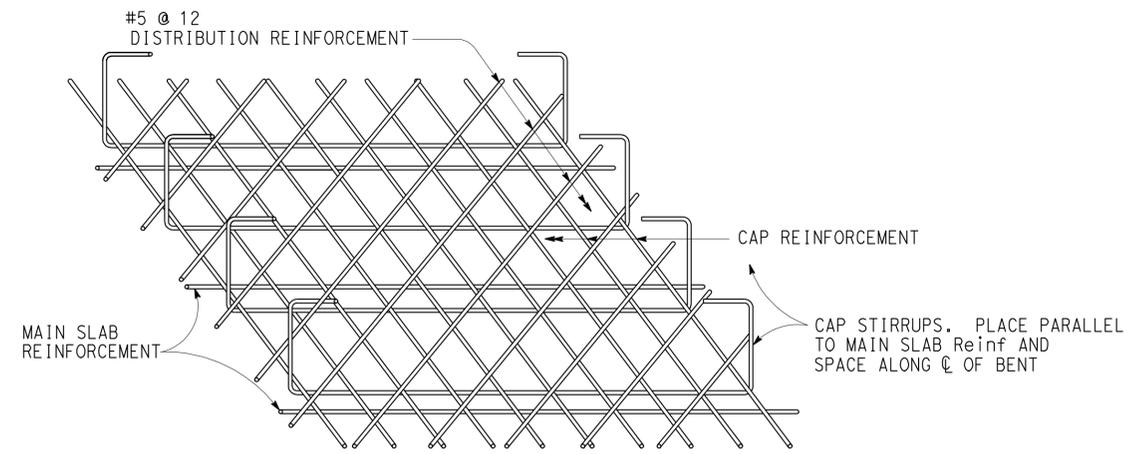
1" = 1'-0"



**TOP SLAB REINFORCEMENT AT BENT**

NO SCALE

Note: View for main span over 23 ft.  
 Bar placement similar for spans under 23 ft.



**FLUSH CAP**

**BOTTOM SLAB REINFORCEMENT AT BENT**

NO SCALE

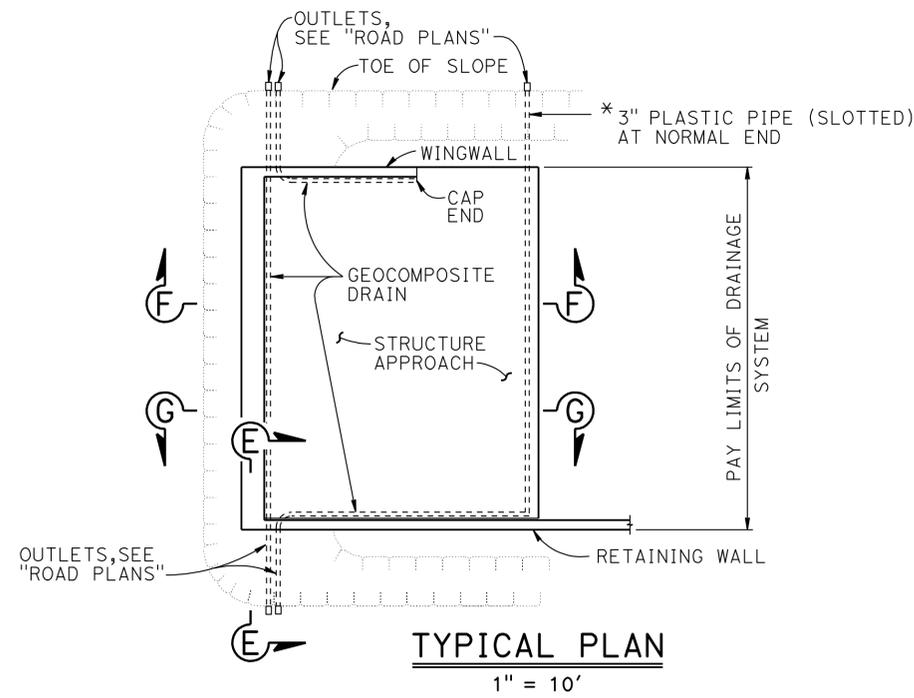
**SOUTH STOCKTON WIDENING**

**DUCK CREEK BRIDGE**

**SLAB REINFORCEMENT DETAILS**

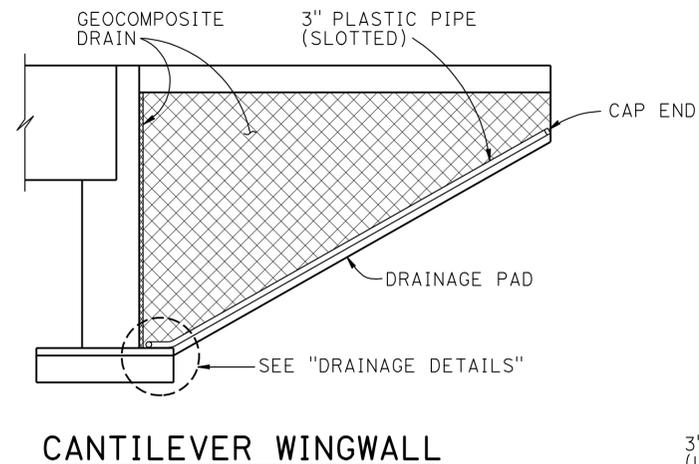
DESIGN	BY M. FRIEDHEIM	CHECKED T. Bui/J. Burke	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 17</b>	BRIDGE NO.	29-0335
DETAILS	BY S. NG	CHECKED T. Bui/J. Burke			POST MILE	16.49
QUANTITIES	BY R. CORIA	CHECKED P. VU				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1197	1414
REGISTERED CIVIL ENGINEER 3-26-12 PLANS APPROVAL DATE			11-04-11 DATE		
REGISTERED PROFESSIONAL ENGINEER No. C62985 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA					
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.					

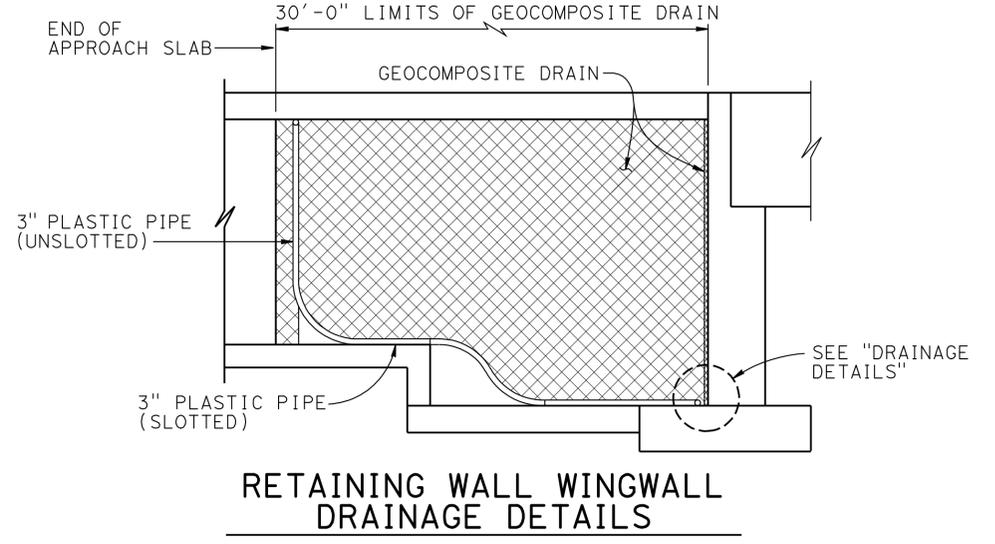


**TYPICAL PLAN**  
1" = 10'

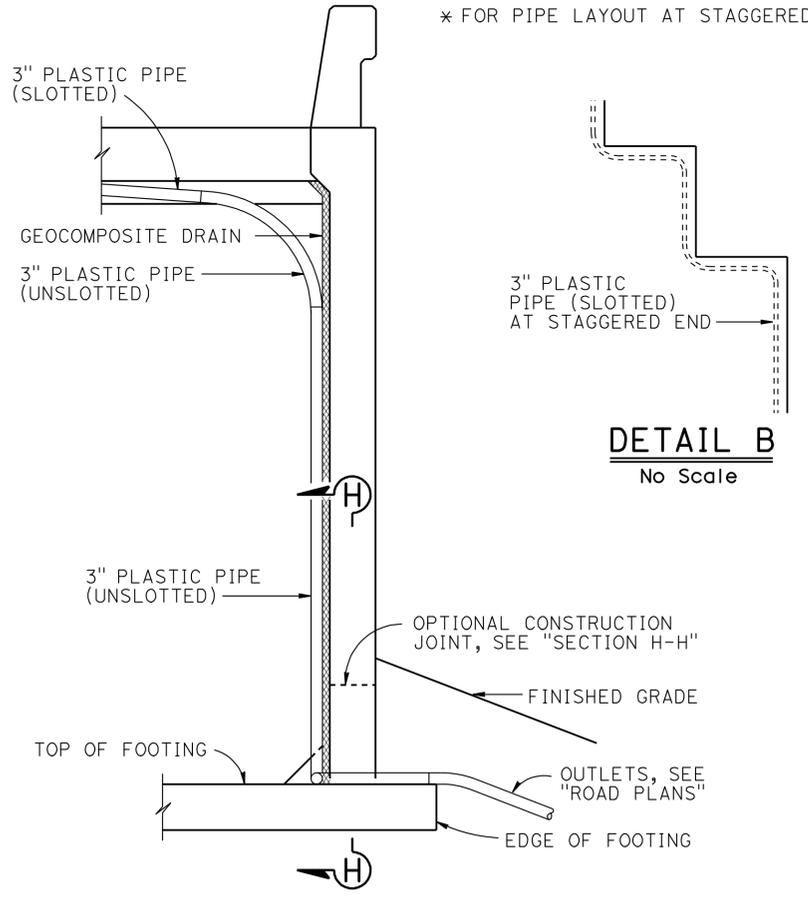
\* FOR PIPE LAYOUT AT STAGGERED END, SEE "DETAIL B"



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

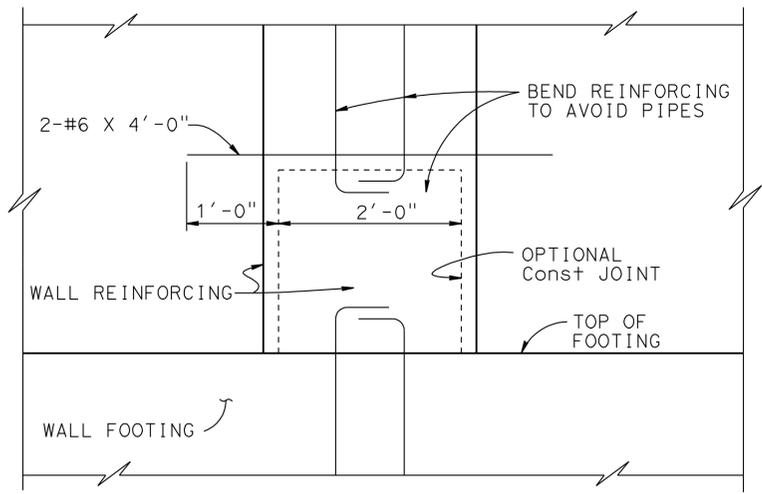


**RETAINING WALL WINGWALL DRAINAGE DETAILS**  
**SECTION G-G**  
1/4" = 1'-0"

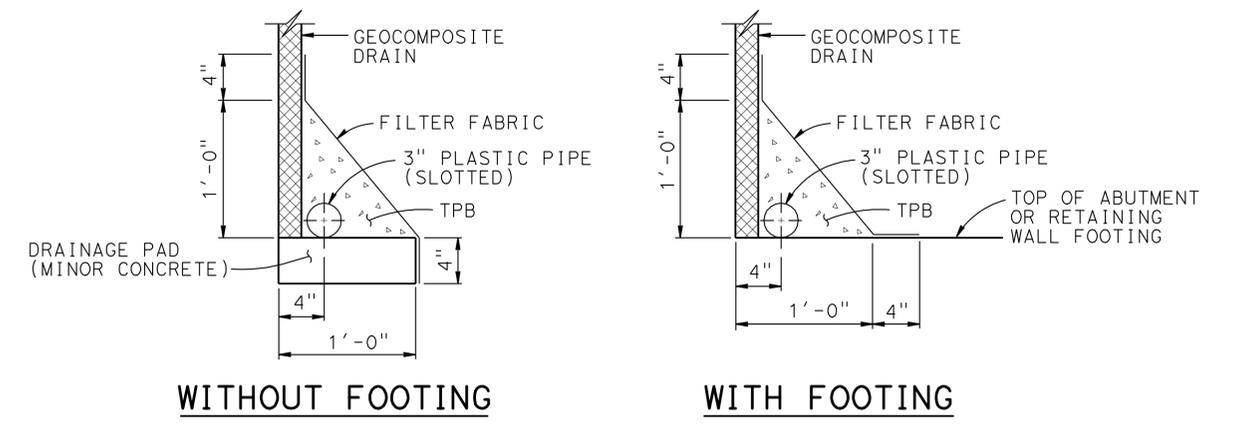


**DETAIL B**  
No Scale

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



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



**DRAINAGE DETAILS**  
1 1/2" = 1'-0"

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

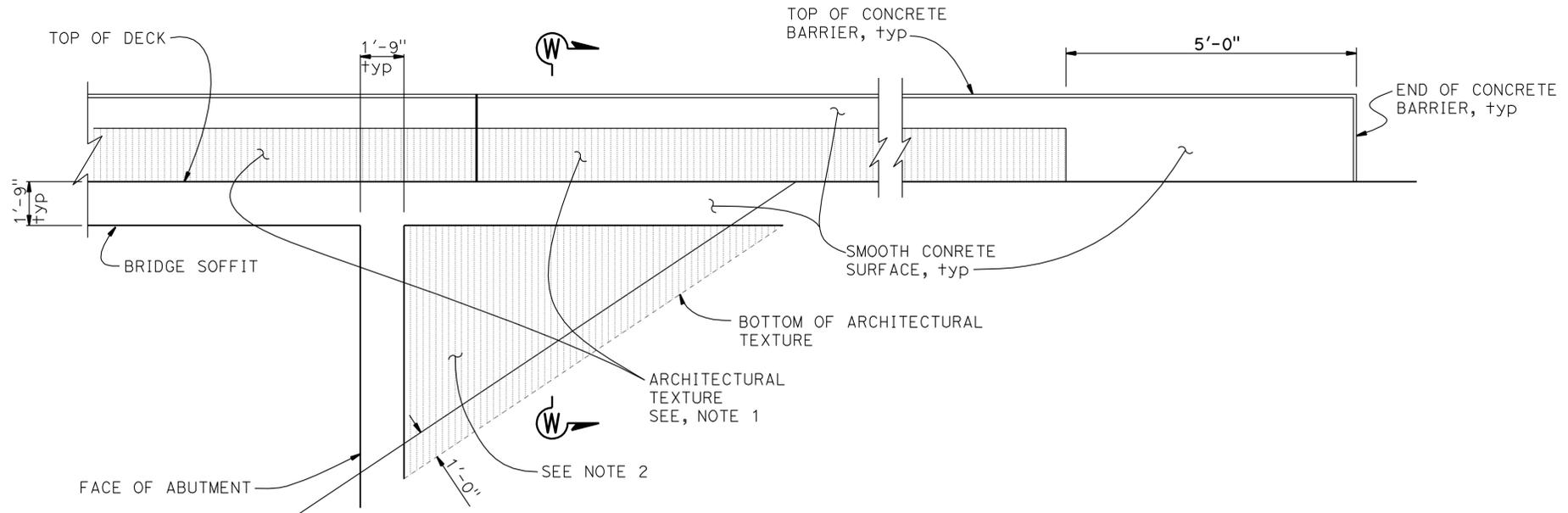
STANDARD DRAWING	
FILE NO. <b>xs3-110</b>	APPROVAL DATE July 2011

STATE OF CALIFORNIA	
DEPARTMENT OF TRANSPORTATION	

DIVISION OF ENGINEERING SERVICES	
BRIDGE NO. 29-0335	POST MILE 16.49

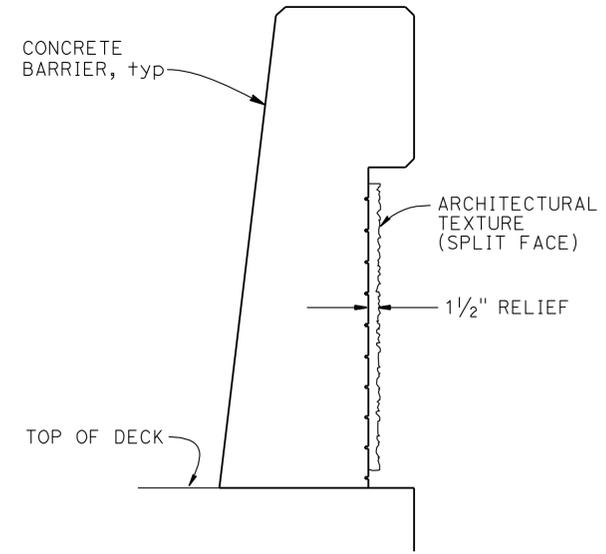
<b>SOUTH STOCKTON WIDENING</b>	
<b>DUCK CREEK BOX CULVERT</b>	
<b>STRUCTURE APPROACH DRAINAGE DETAILS</b>	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1, 15.0/18.6	1198	1414
<i>Chris V. Udarbe</i> REGISTERED CIVIL ENGINEER			11-04-11 DATE		
3-26-12 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>					

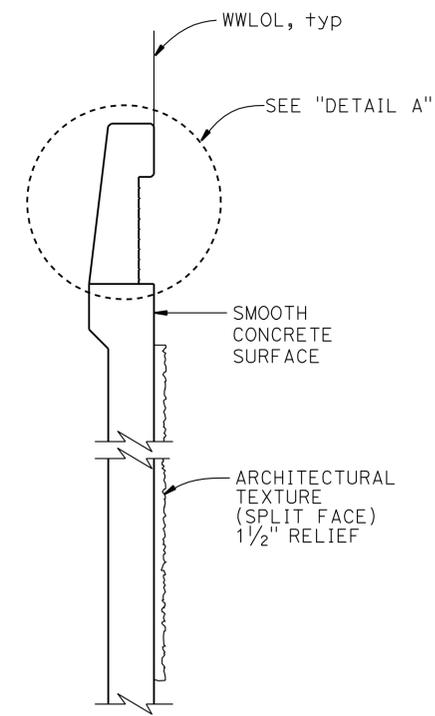


**TYPICAL MOTIF AT ABUTMENTS**  
NO SCALE

- NOTES:
1. ARCHITECTURAL TEXTURE (SPLIT FACE) on barrier.
  2. Limits of payment for ARCHITECTURAL TEXTURE (SPLIT FACE) on wingwall.



**DETAIL A**  
NO SCALE



**SECTION W-W**  
NO SCALE

DESIGN	BY M. Friedheim	CHECKED T. Bui/J. Burke
DETAILS	BY L. Wang	CHECKED T. Bui/J. Burke
QUANTITIES	BY R. Coria	CHECKED P. Vu

**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

**DIVISION OF ENGINEERING SERVICES**  
STRUCTURE DESIGN  
**DESIGN BRANCH 17**

BRIDGE NO.	29-0335
POST MILE	16.49

**SOUTH STOCKTON WIDENING**  
**DUCK CREEK BRIDGE**  
**ARCHITECTURAL DETAILS**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1199	1414

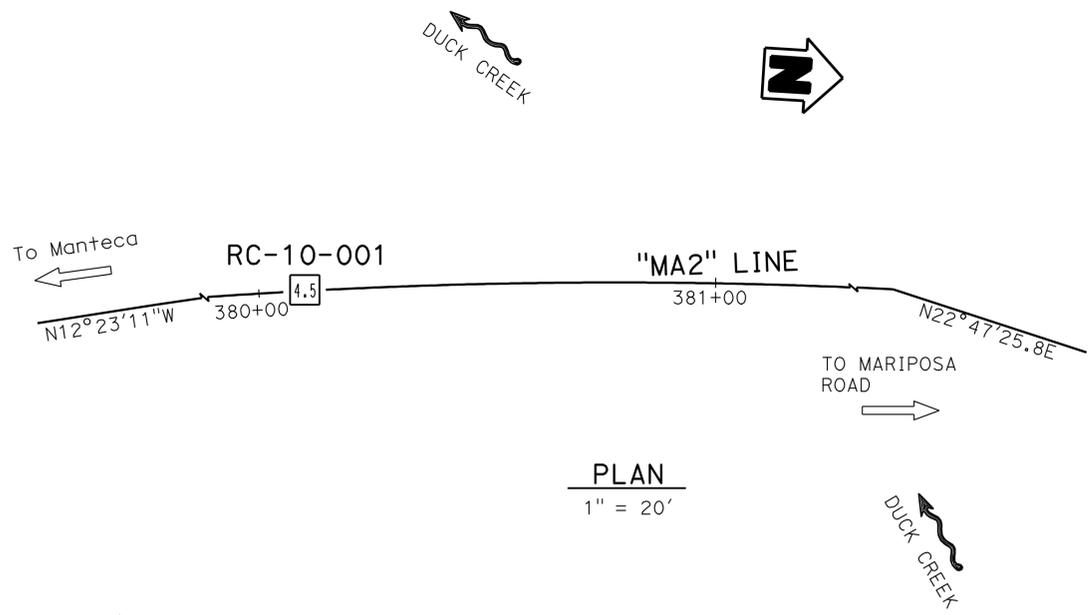
Joseph M Kaump 11-9-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

PROFESSIONAL GEOLOGIST  
 Joseph Kaump  
 No. 7837  
 Exp. 01-31-13  
 STATE OF CALIFORNIA

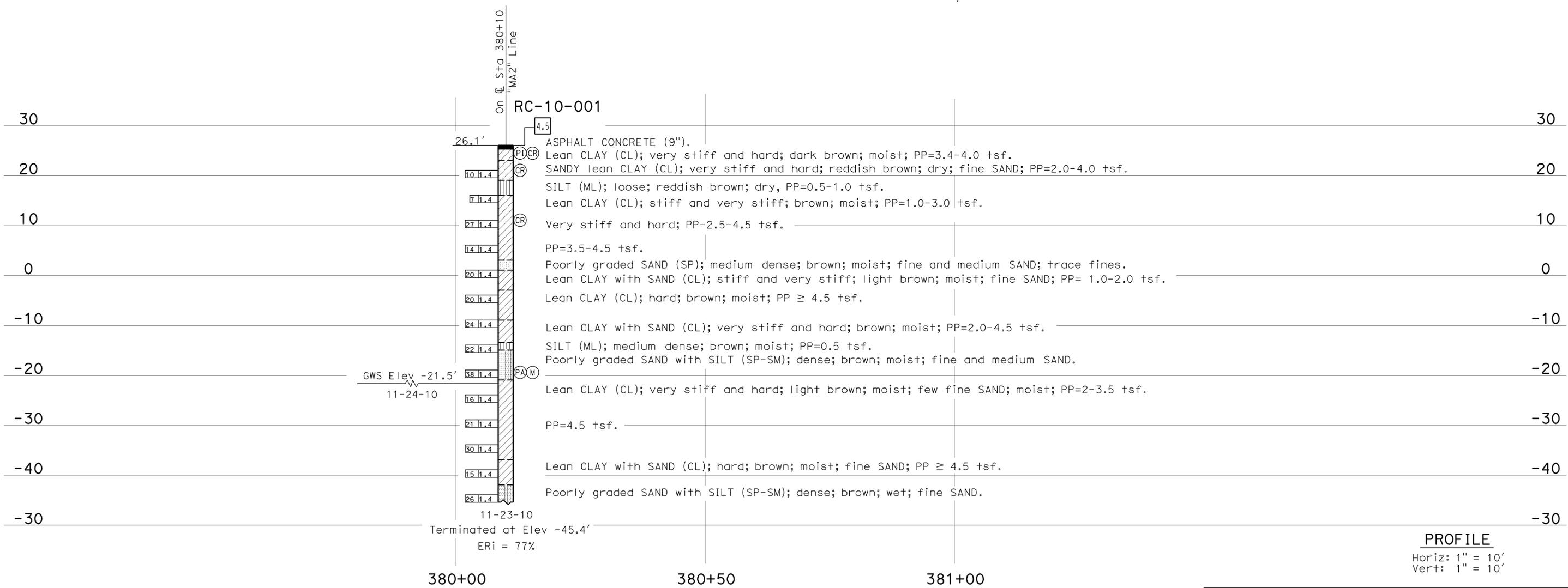
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).

**BENCH MARK**

LGC 143  
 Fnd spike on south shoulder of Mariposa Road  
 approx 90' west of SW corner of existing  
 Duck Creek Bridge (BR No. 29C-0451)  
 Elev 27.43'  
 NGVD29



**PLAN**  
1" = 20'



**PROFILE**

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

<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
FUNCTIONAL SUPERVISOR		DRAWN BY: W. Tang 07/11		DEPARTMENT OF TRANSPORTATION		STRUCTURE DESIGN		<b>DUCK CREEK BRIDGE</b>	
NAME: R. Buehl		CHECKED BY: A. Barrie		FIELD INVESTIGATION BY:		<b>DESIGN BRANCH 17</b>		<b>LOG OF TEST BORINGS 1 OF 3</b>	
NAME: R. Buehl		T. Alderman		BRIDGE NO. 29-0335		POST MILE 16.49		REVISION DATES	
065 CIVIL LOG OF TEST BORINGS SHEET		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3643		PROJECT NUMBER & PHASE: 10000004091		CONTRACT NO.: 10-3A1001	
FILE => 29-0335-z-1+b1of3.dgn		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 12		OF 14	

USERNAME => s124496 DATE PLOTTED => 29-MAR-2012 TIME PLOTTED => 12:38

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	SJ	4,99	R19.5/R20.1 15.0/18.6	1200	1414

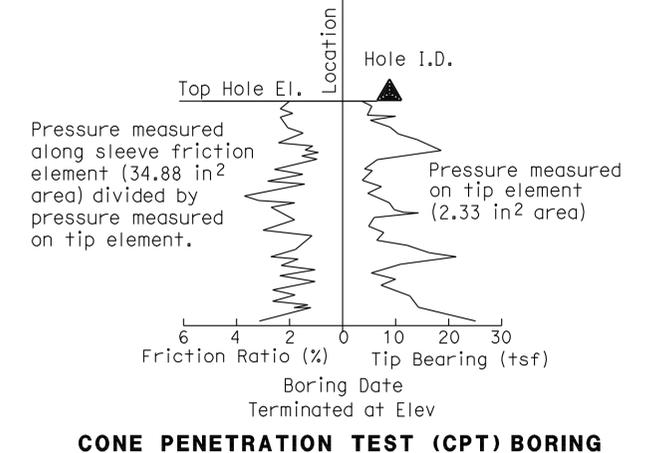
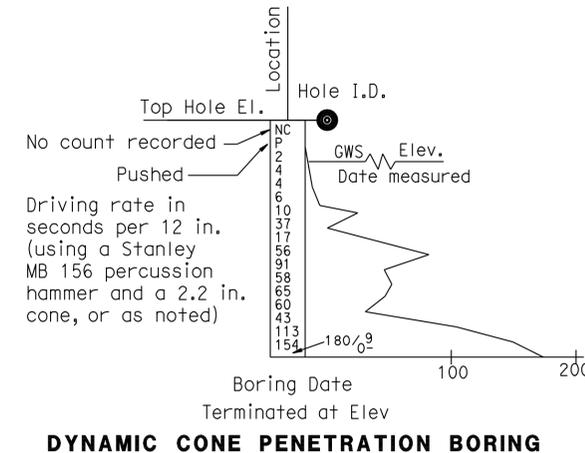
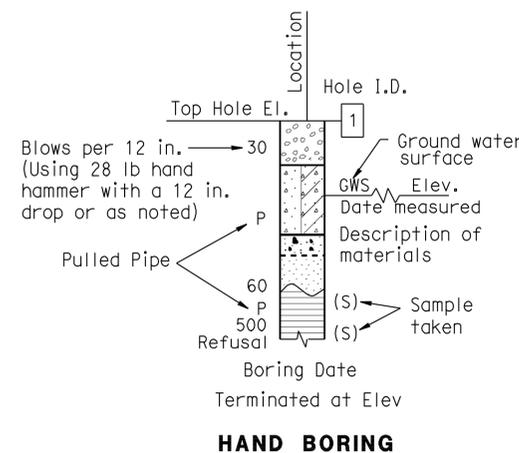
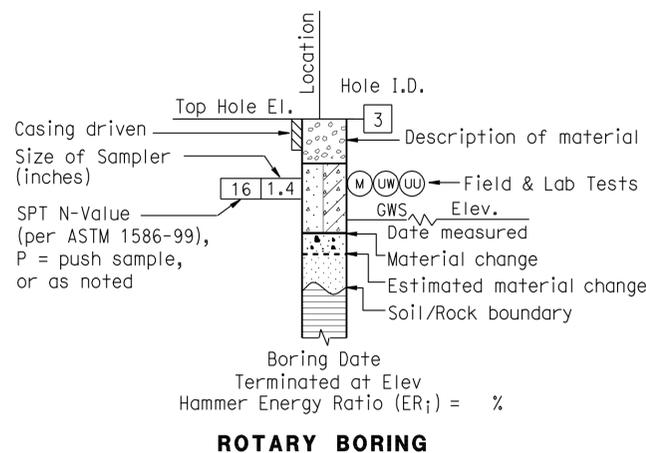
*Joseph M Kaump* 9-9-11  
 PROFESSIONAL GEOLOGIST  
 3-26-12  
 PLANS APPROVAL DATE  
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CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring (hollow or solid stem bucket)
	R	Rotary drilled boring (conventional)
	RW	Rotary drilled with self-casing wire-line
	RC	Rotary core with continuously-sampled, self-casing wire-line
	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)
	O	Other (note on LOTB)

Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS				
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



<b>ENGINEERING SERVICES</b>		<b>MATERIALS AND GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>SOUTH STOCKTON WIDENING</b>	
PREPARED BY: I. G-Remmen				<b>DEPARTMENT OF TRANSPORTATION</b>		<b>STRUCTURE DESIGN</b>		<b>DUCK CREEK BRIDGE</b>	
				<b>DESIGN BRANCH 17</b>		BRIDGE NO. 29-0335		<b>LOG OF TEST BORINGS 2 OF 3</b>	
				UNIT: 3643		POST MILE 16.49		CONTRACT NO.: 10-3A1001	
GS LOTB SOIL LEGEND		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		PROJECT NUMBER & PHASE: 10000004091		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES	
				FILE => 29-0335-z-1+tb2of3.dgn				SHEET 13 OF 14	