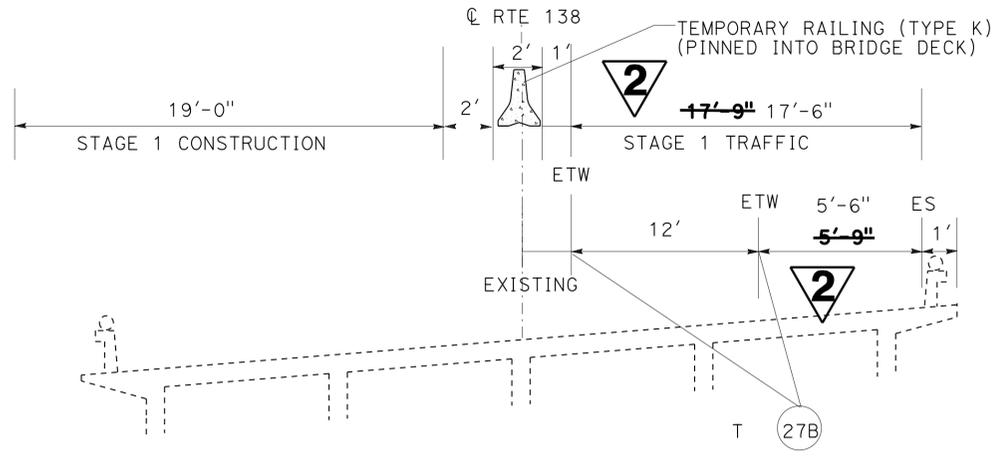


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	20	107

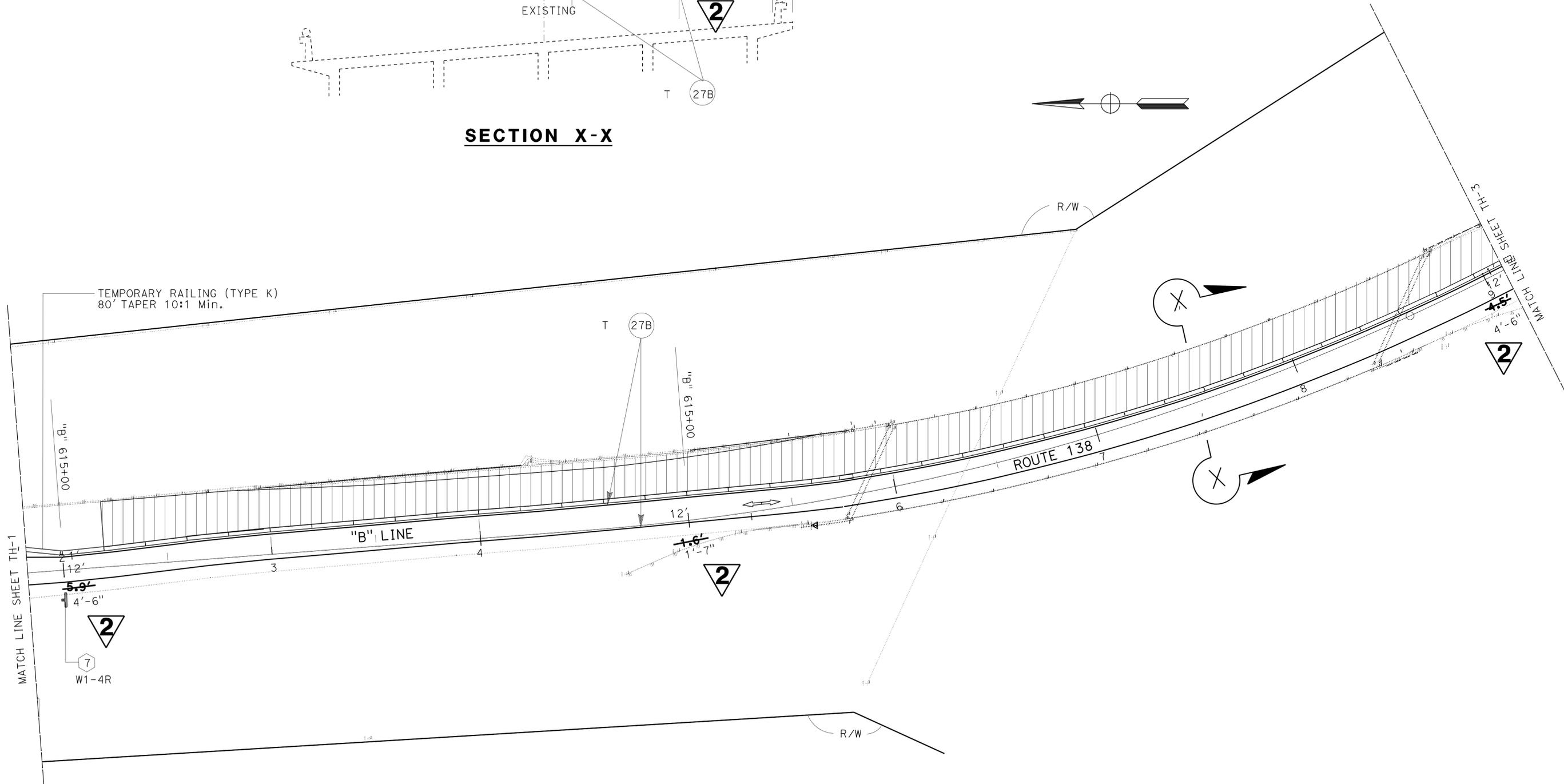
Thanh Trinh 10-14-13
 REGISTERED CIVIL ENGINEER DATE
 12-30-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 No. C41189
 Exp. 3-31-15
 CIVIL
 STATE OF CALIFORNIA

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SECTION X-X



2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014 TRAFFIC HANDLING PLAN
 STAGE 1 TH-2
 APPROVED FOR TRAFFIC HANDLING WORK ONLY
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR WILLIAM WASSER
 REVISIONS: KEVIN NGUYEN, THANH TRINH, TH-1, TH-2, TH-3

LAST REVISION DATE PLOTTED => 14-MAY-2014
 10-14-13 TIME PLOTTED => 13:06

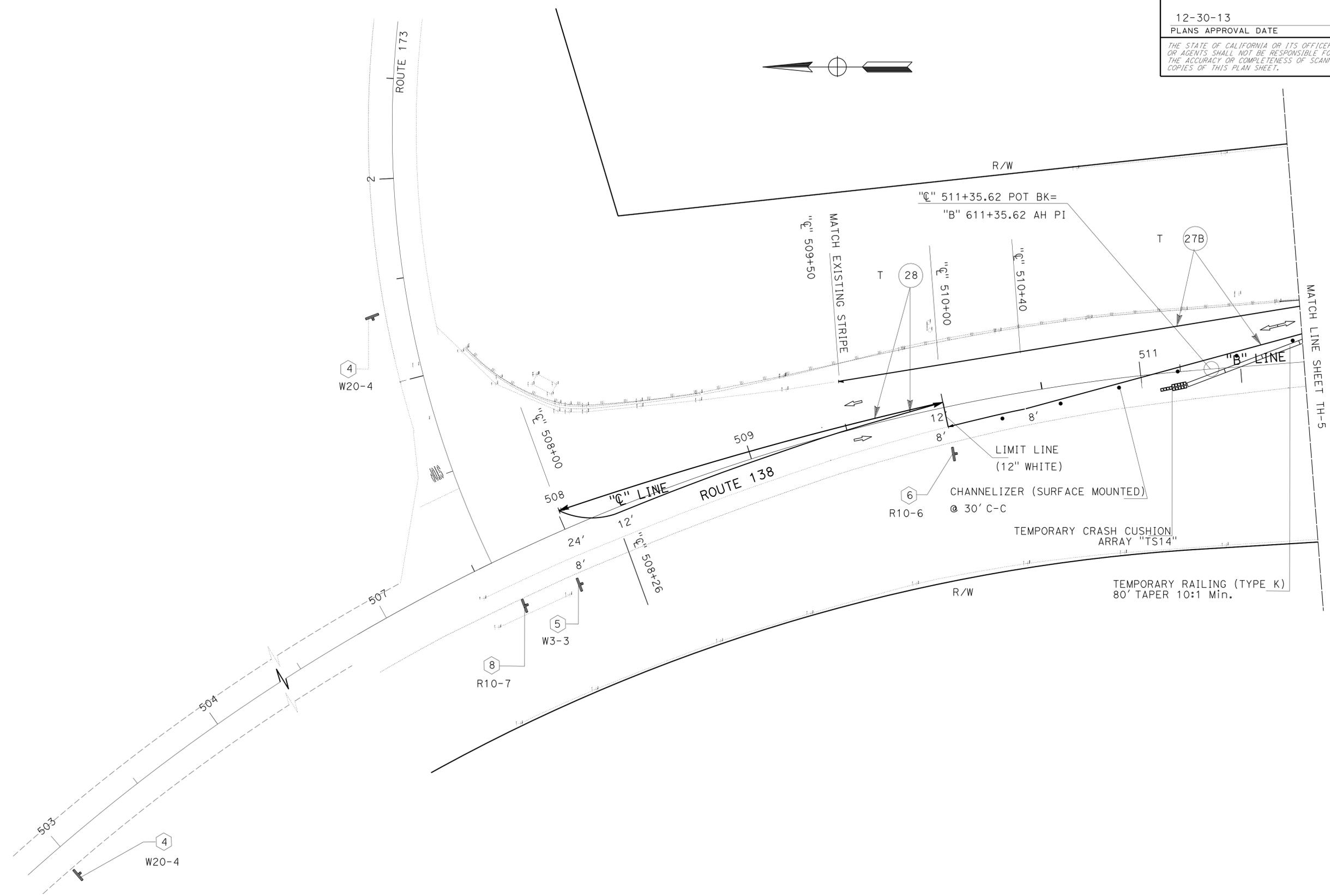
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	22	107

<i>Thanh Trinh</i>	10-14-13
REGISTERED CIVIL ENGINEER	DATE
12-30-13	
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans TRAFFIC DESIGN	WILLIAM WASSER	KEVIN NGUYEN	THANH TRINH
		CHECKED BY	DATE REVISED



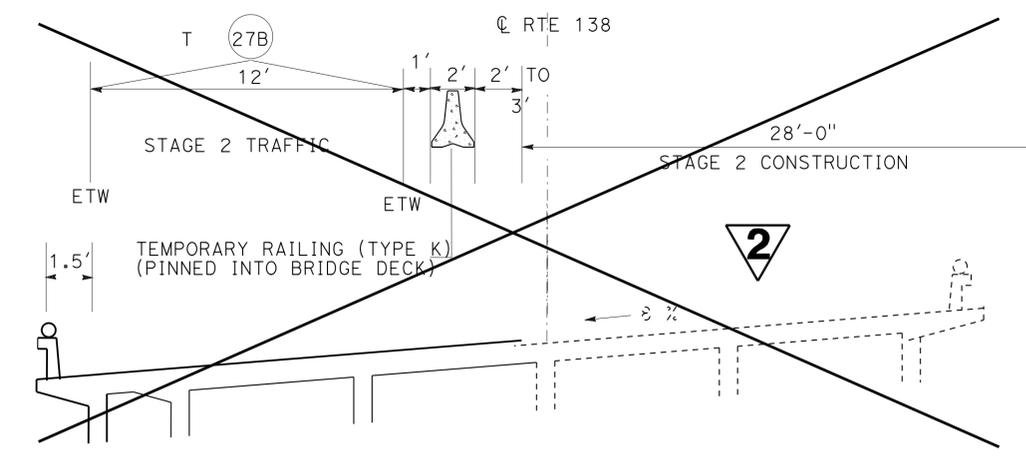
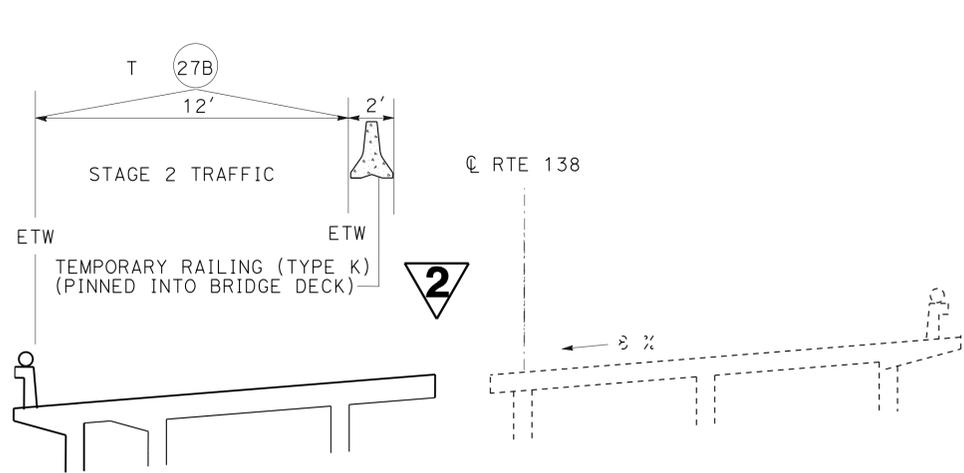
2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014 **TRAFFIC HANDLING PLAN**
 STAGE X 2 **2** **TH-4**
 APPROVED FOR TRAFFIC HANDLING WORK ONLY
 NO SCALE

LAST REVISION DATE PLOTTED => 14-MAY-2014
 10-14-13 TIME PLOTTED => 13:06

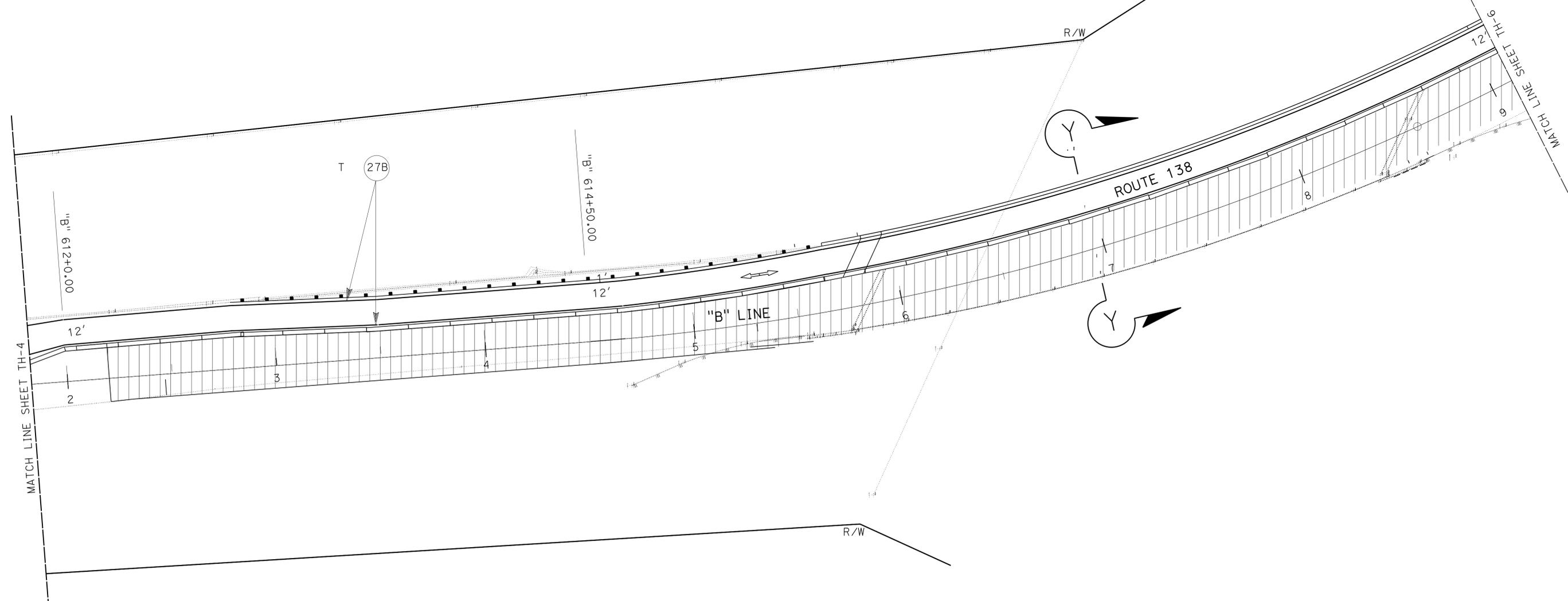
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	23	107

Thanh Trinh 10-14-13
 REGISTERED CIVIL ENGINEER DATE
 12-30-13
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
THANH TRINH
 No. C41189
 Exp. 3-31-15
 CIVIL
STATE OF CALIFORNIA



SECTION Y-Y



REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

**TRAFFIC HANDLING PLAN
STAGE 2**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

NO SCALE **TH-5**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans TRAFFIC DESIGN	WILLIAM WASSER	KEVIN NGUYEN	THANH TRINH
		CALCULATED/DESIGNED BY	CHECKED BY
		REVISOR	DATE

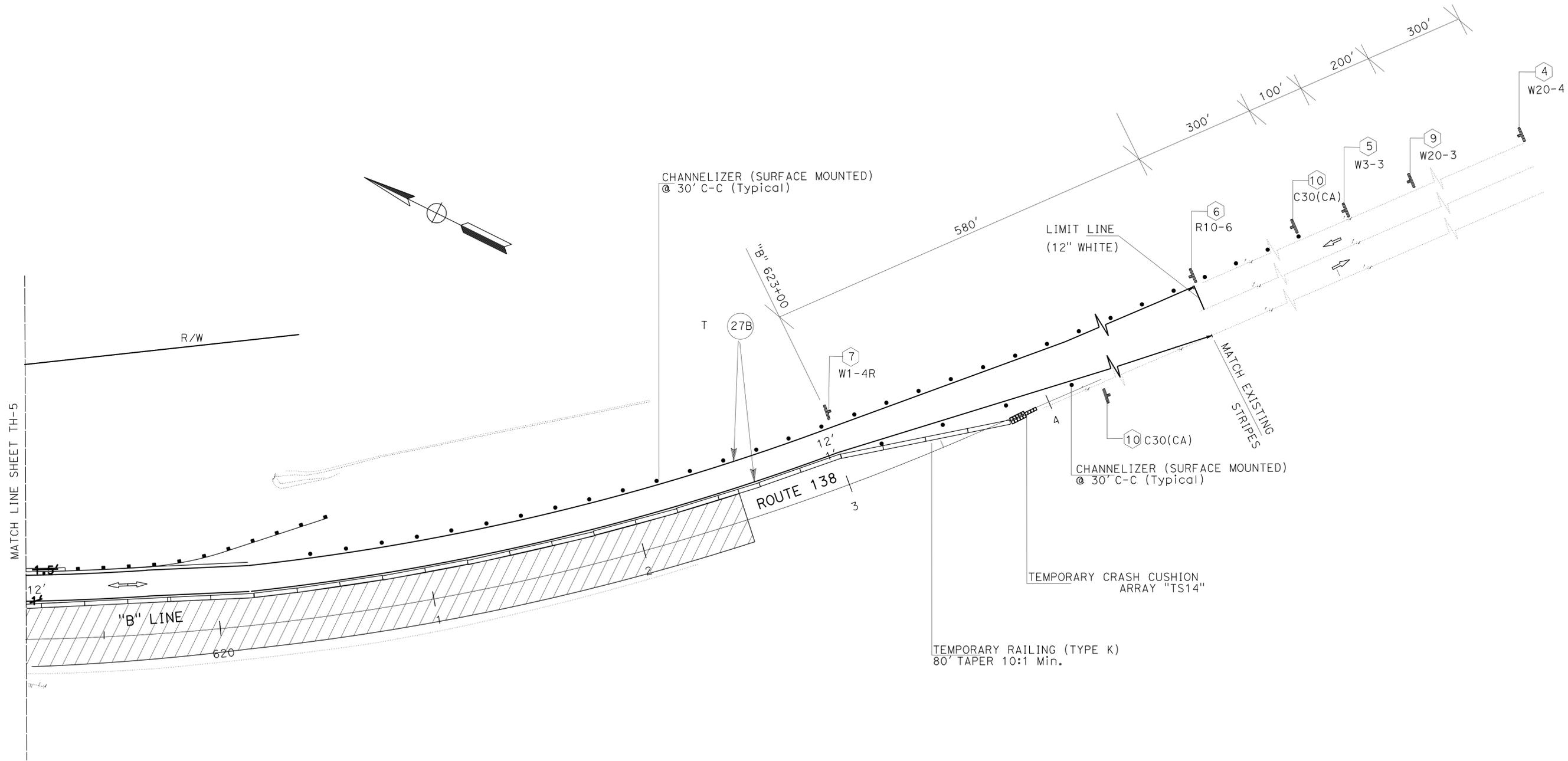
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	24	107

Thanh Trinh 10-14-13
 REGISTERED CIVIL ENGINEER DATE
 12-30-13
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
Caltrans TRAFFIC DESIGN	WILLIAM WASSER	KEVIN NGUYEN	THANH TRINH
		CHECKED BY	DATE REVISOR



2

REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

**TRAFFIC HANDLING PLAN
STAGE 2**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

NO SCALE **TH-6**

LAST REVISION DATE PLOTTED => 14-MAY-2014
 10-14-13 TIME PLOTTED => 13:06

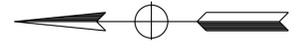
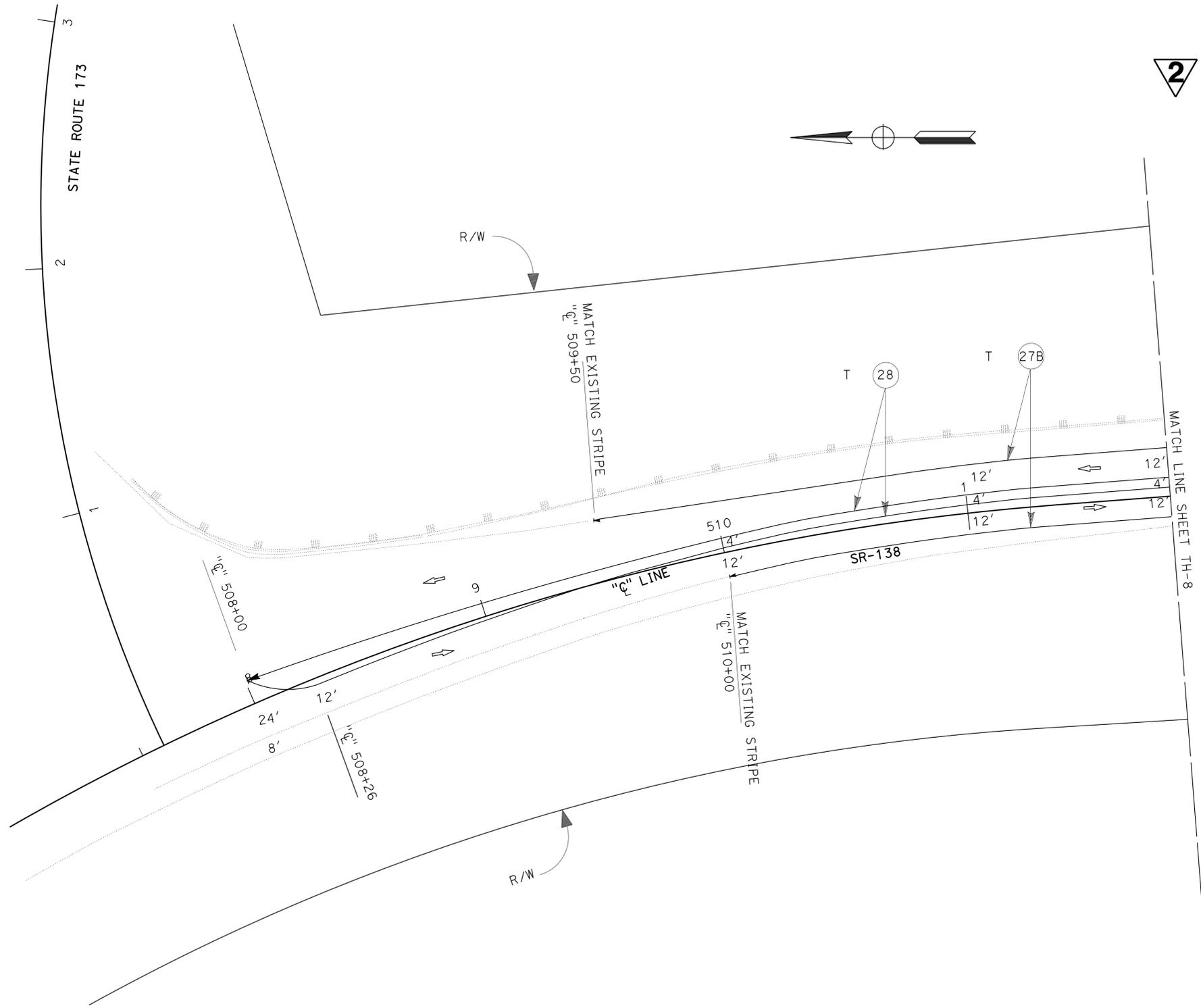
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	24A	107

W E Wasser 4-25-14
 REGISTERED CIVIL ENGINEER DATE
 12-30-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM WASSER
 No. C37378
 Exp. 6-30-14
 CIVIL
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
Caltrans TRAFFIC DESIGN	WILLIAM WASSER	WILLIAM WASSER	KEVIN NGUYEN	
		CHECKED BY	WILLIAM WASSER	



2

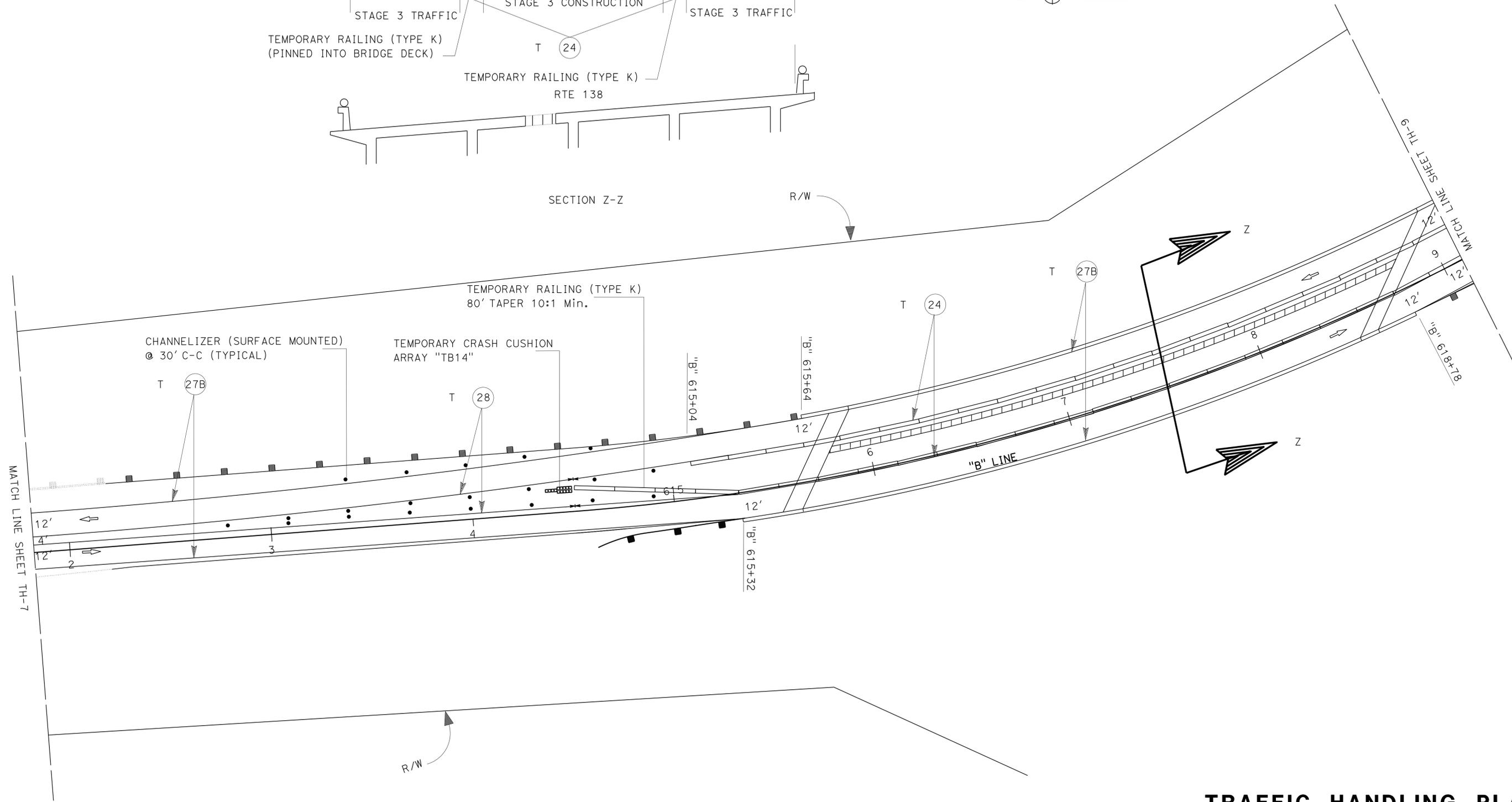
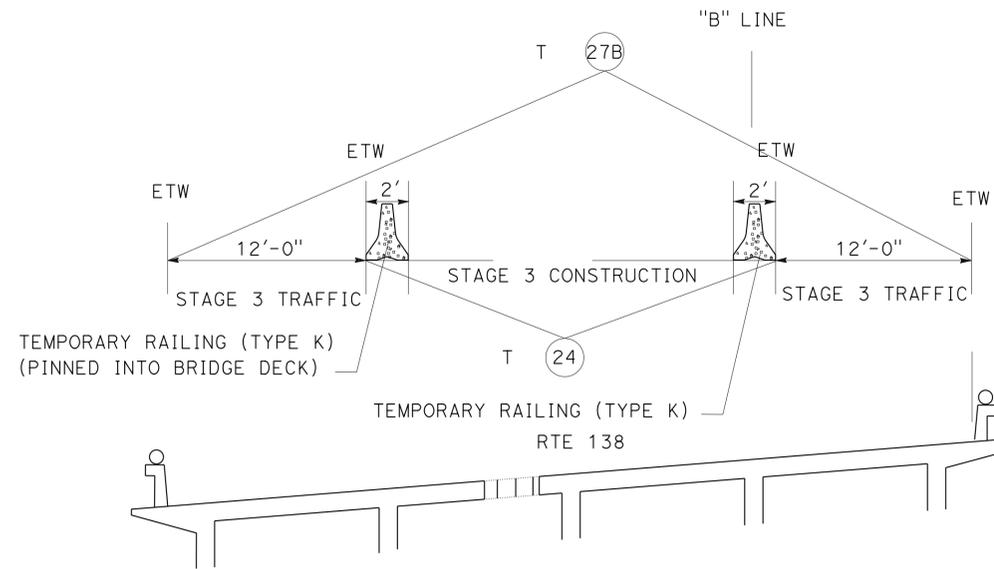
2 ADDED PER ADDENDUM No. 2 DATED MAY 14, 2014

TRAFFIC HANDLING PLAN
STAGE 3
 NO SCALE **TH-7**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

LAST REVISION DATE PLOTTED => 14-MAY-2014
 10-14-13 TIME PLOTTED => 13:06

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	24B	107
<i>W E Wasser</i> REGISTERED CIVIL ENGINEER		4-25-14 DATE			
12-30-13 PLANS APPROVAL DATE		<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>			

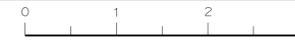


2 ADDED PER ADDENDUM No. 2 DATED MAY 14, 2014

**TRAFFIC HANDLING PLAN
STAGE 3
NO SCALE
TH-8**

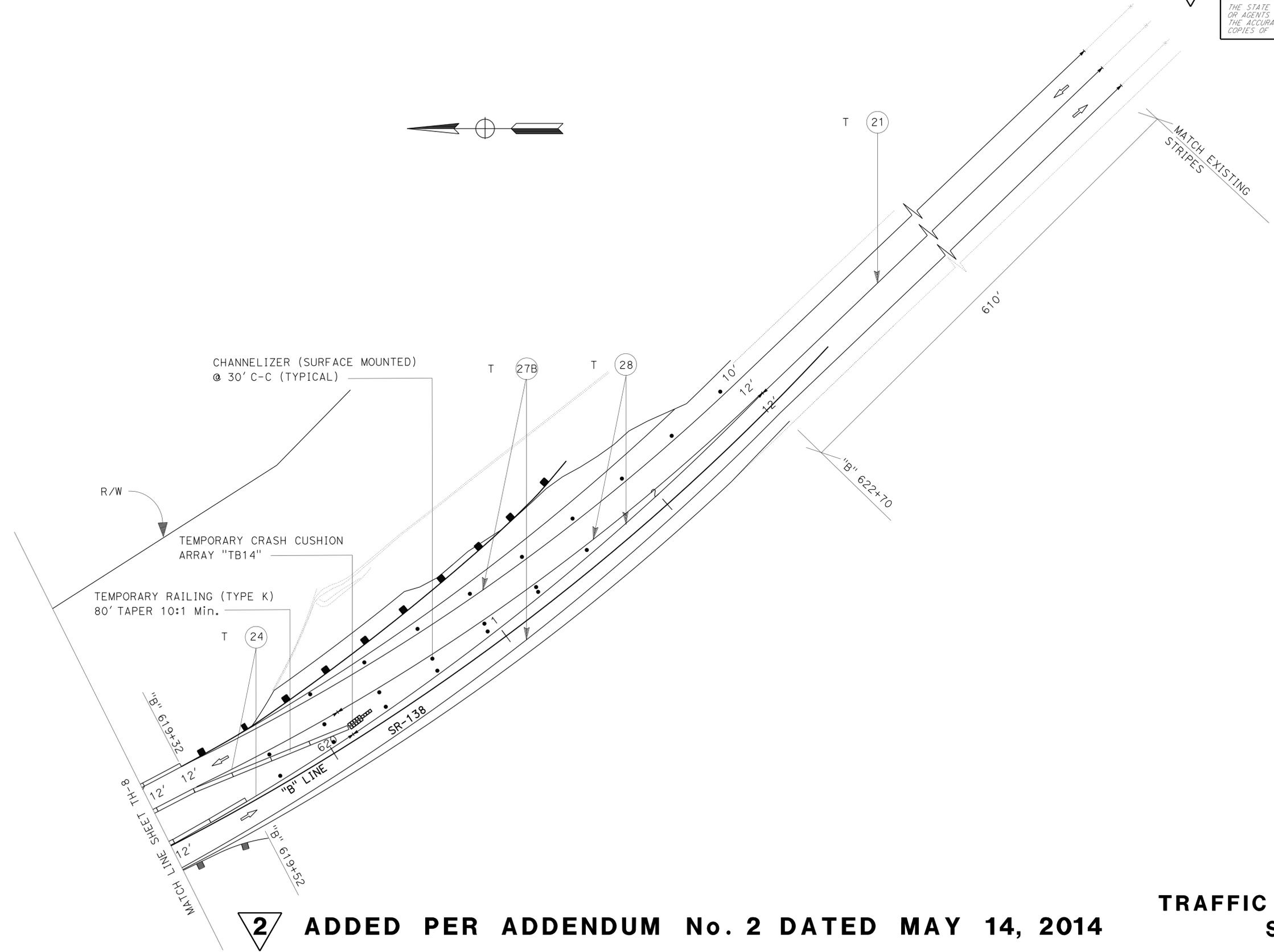
APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans TRAFFIC DESIGN	WILLIAM WASSER	KEVIN NGUYEN	WILLIAM WASSER
	CHECKED BY	DESIGNED BY	DATE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	24C	107
<i>W E Wasser</i> 4-25-14 REGISTERED CIVIL ENGINEER DATE					
12-30-13			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE
Caltrans TRAFFIC DESIGN	WILLIAM WASSER	WILLIAM WASSER	KEVIN NGUYEN	
		CHECKED BY	DATE	
			WILLIAM WASSER	



2 ADDED PER ADDENDUM No. 2 DATED MAY 14, 2014

**TRAFFIC HANDLING PLAN
STAGE 3
NO SCALE TH-9**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

LAST REVISION DATE PLOTTED => 14-MAY-2014 10-14-13 TIME PLOTTED => 13:06

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	25	138

Thanh Trinh 10-14-13
 REGISTERED CIVIL ENGINEER DATE

12-30-13
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



TRAFFIC HANDLING QUANTITIES

SHEET No.	TEMPORARY TRAFFIC STRIPE (TAPE) (LF)	TEMPORARY PAVEMENT MARKING (TAPE) (SQFT)	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE) (LF)	REMOVE THERMOPLASTIC TRAFFIC STRIPE (LF)	REMARKS
		LIMIT LINE			
TH-1, TH-2, & TH-3	4060	24			
TH-4, TH-5, & TH-6	3670	24			
TH-7, TH-8, & TH-9	7060				
			5020	4160	REMOVAL IN STAGE 1 & STAGE 2
TOTAL	15790	48	5020	4160	

TEMPORARY CRASH CUSHION MODULE

SHEET No.	STATION	SIDE	EA
TH-1	"C" 511+20	L+	14
TH-3	"B" 623+80	L+	14
TH-4	"C" 511+20	R+	14
TH-6	"B" 623+80	R+	14
TH-8	"B" 614+50	L+	14
TH-9	"B" 620+12	L+	14
TOTAL			84

TEMPORARY RAILING (TYPE K)

SHEET No.	STATION	SIDE	LF
TH-2, TH-2, & TH-3	"C" 511+20 TO "B" 623+80	L+	1260
TH-4, TH-5, & TH-6	"C" 511+20 TO "B" 623+80	L+	1310
TH-8 & TH-9	"B" 614+50 TO "B" 620+12	L+	920
TOTAL			3490

CHANNELIZER (SURFACE MOUNTED)

SHEET No.	STATION	SIDE	EA
TH-3	"B" 623+20.00 TO "B" 628+40	L+	29
TH-4	"C" 510+30 TO "C" 511+80	R+	6
TH-6	"B" 623+20 TO "B" 624+10	L+	35
TH-8	"B" 612+80 TO "B" 614+90	L+	20
TH-9	"B" 619+32 TO "B" 622+70	L+	22
TOTAL			112



REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

**TRAFFIC HANDLING QUANTITIES
THQ-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR WILLIAM WASSER
 CALCULATED/DESIGNED BY KEVIN NGUYEN
 CHECKED BY THANH TRINH
 REVISED BY KEVIN NGUYEN
 DATE REVISED THANH TRINH

LAST REVISION DATE PLOTTED => 14-MAY-2014
 10-14-13 TIME PLOTTED => 13:06

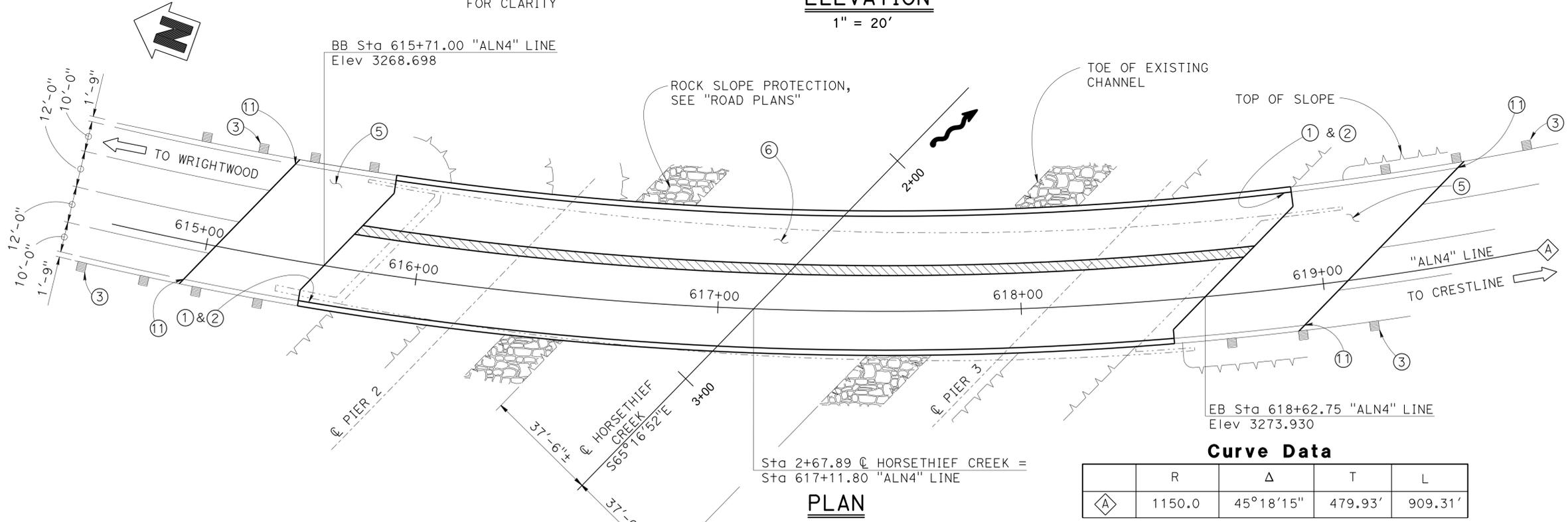
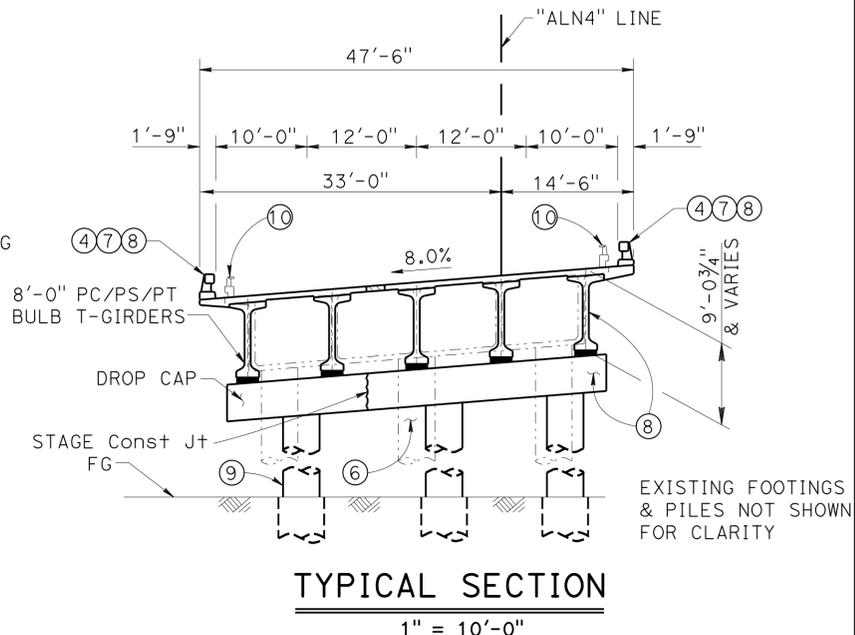
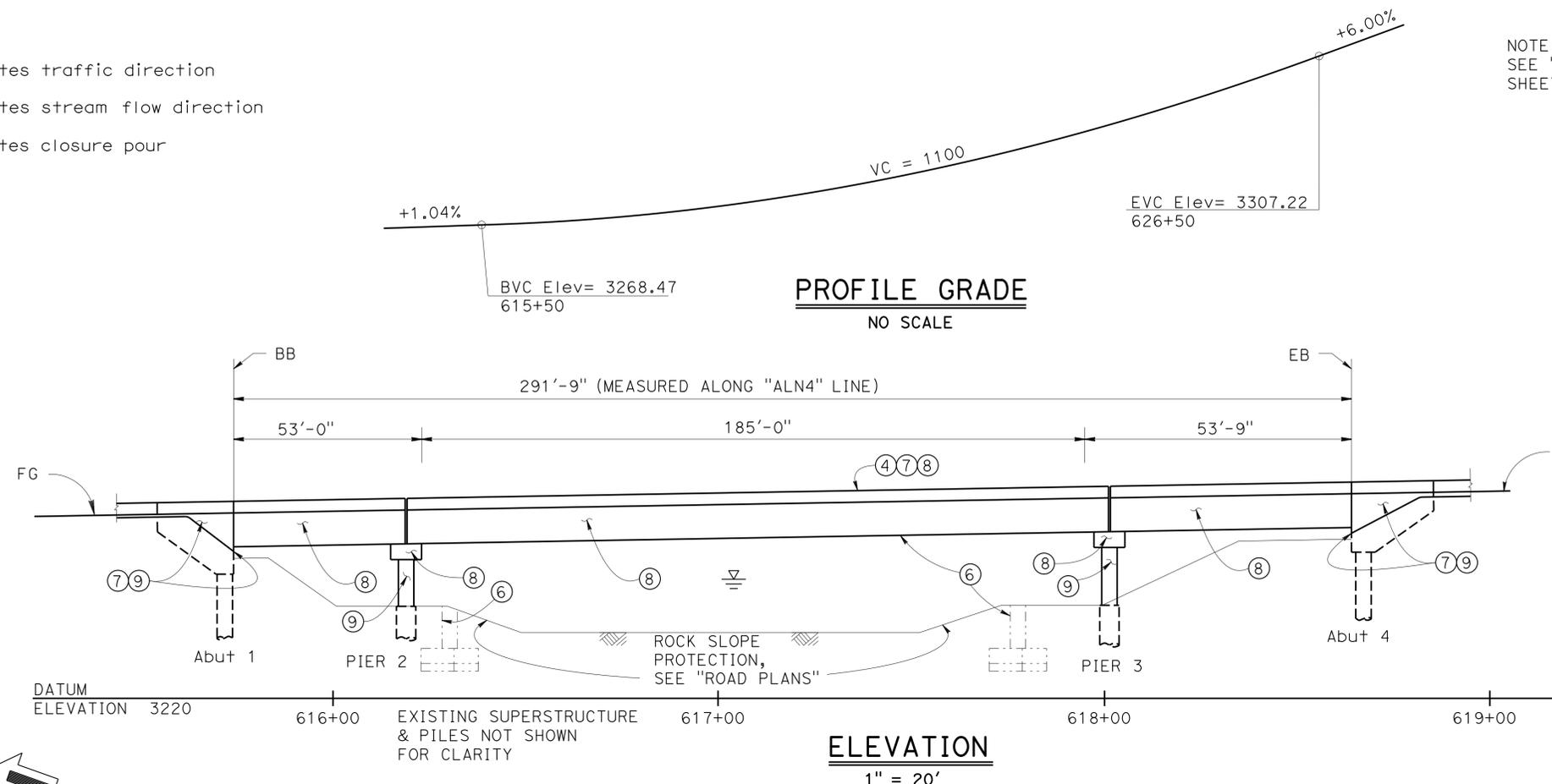
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	68	103

REGISTERED CIVIL ENGINEER
 DATE 04/16/14
 PLANS APPROVAL DATE 12-30-13
 MAMUNUR RAHMAN
 No. C48515
 Exp. 6/30/14
 CIVIL
 STATE OF CALIFORNIA
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LEGEND:

- Denotes traffic direction
- Denotes stream flow direction
- Denotes closure pour

NOTE:
SEE "DECK CONTOURS NO.1"
SHEET FOR QUANTITIES



- NOTES:**
- ① Paint Bridge No. "54-1271".
 - ② Paint "HORSETHIEF CREEK BRIDGE"
 - ③ Midwest Guardrail System see "ROAD PLANS".
 - ④ Concrete Barrier Type 80 (MOD).
 - ⑤ Structure Approach Type N(30S).
 - ⑥ Existing Bridge No. 54-0816 to be removed in stages.
 - ⑦ Architectural Treatment on barrier, wingwall and abutment surfaces.
 - ⑧ Stain all exposed concrete surfaces with the exception of the deck riding surface.
 - ⑨ Stain all exposed concrete surfaces to 1'-0" below OG/FG.
 - ⑩ Existing Type 9 Barrier Bridge Metal Railing to be salvaged.
 - ⑪ End of barrier rail to match the leading /trailing edge of Type N(30S) Approach Slab.

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

REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

B. Gunter DESIGN ENGINEER	DESIGN	BY M. RAHMAN	CHECKED J. FANG	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 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) GENERAL PLAN
	DETAILS	BY H. INIGUEZ / H. M.	CHECKED J. FANG	LAYOUT	BY M. RAHMAN			CHECKED H. WIN	POST MILE	
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO / D. BALBAS	SPECIFICATIONS	BY T. NEDWIG	CHECKED E. RUIFINO				

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 UNIT: 3621
 PROJECT NUMBER & PHASE: 0800000324 1
 CONTRACT NO.: 08-0J8501
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 2-08-12, 09-11-13, 08-27-13
 SHEET 1 OF 36

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th edition and the Caltrans Amendments, preface dated NOVEMBER 2011.

SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC), Version 1.6 dated NOVEMBER 2010.

DEAD LOAD: Includes 35 psf for future wearing surface.

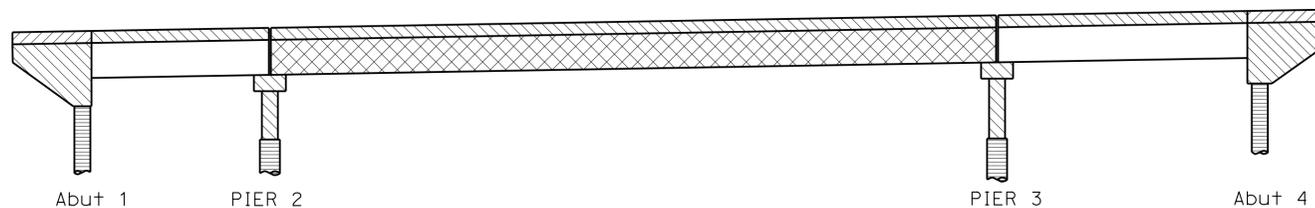
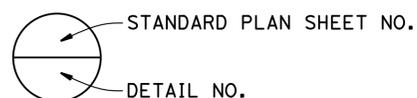
LIVE LOADING: HL93 and permit design load.

SEISMIC LOADING:
Soil profile: $V_{s30} = 300$ m/s
Moment Magnitude: $M_{max} = 6.50$
Peak Ground Acceleration 0.87 g

CONCRETE:
 $f_y = 60$ ksi
 $f'_c = 3.6$ ksi
 $n = 8$
See prestressing notes.

STANDARD PLANS DATED 2010

- A10A ABBREVIATIONS (SHEET 1 OF 2)
- A10B ABBREVIATIONS (SHEET 2 OF 2)
- A10C LINES AND SYMBOLS (SHEET 1 OF 3)
- A10D LINES AND SYMBOLS (SHEET 2 OF 3)
- A10E LINES AND SYMBOLS (SHEET 3 OF 3)
- A10F LEGEND-SOIL (SHEET 1 OF 2)
- A10G LEGEND-SOIL (SHEET 2 OF 2)
- A10H LEGEND-ROCK
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
- BO-1 BRIDGE DETAILS
- BO-3 BRIDGE DETAILS
- BO-5 BRIDGE DETAILS
- BO-13 BRIDGE DETAILS
- B6-1 T-BEAM DETAILS
- B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- B11-60 CONCRETE BARRIER TYPE 80 (SHEET 1 OF 2)
- T3A TEMPORARY RAILING (TYPE K)

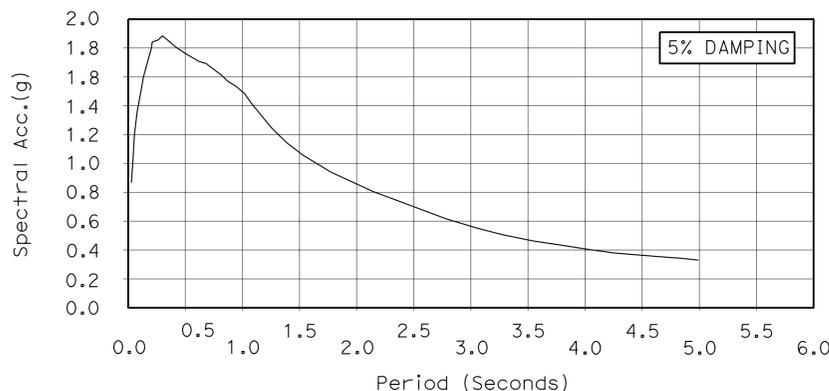


LEGEND:

- Precast, Prestressed Girders, see "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 2" sheet
- Structure Concrete, Bridge (4 ksi @ 28 days)
- Structural Concrete, Approach Slab
- CIDH Piles / Shafts
- Precast, Prestressed, Postentioned Girders, see "GIRDER LAYOUT NO. 2" and "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 2" sheets

CONCRETE STRENGTH AND TYPE LIMITS

No Scale



ARS CURVE

No Scale

PILE DATA TABLE

LOCATION	PILE TYPE	PILE DESIGNATION	NOMINAL RESISTANCE		CUT-OFF ELEVATION (ft)	ESTIMATED PERMANENT CASING TIP ELEVATION (ft)	ESTIMATED TOP OF ROCK SOCKET ELEVATION (ft)	DESIGN TIP ELEVATION (ft)	SPECIFIED TIP ELEVATION (ft)
			COMPRESSION (kips)	TENSION					
ABUTMENT 1	48-inch CIDH	PILES 1 & 2	574	0	3,251.25	3,195.00	3,200.00	3,180.00	3,180.00
		PILES 3, 4 & 5	574	0	3,253.25				
PIER 2	60-inch CIDH	ALL SHAFTS	2,400	1100	3,245.00	3,205.00	3,210.00	3,155.00 (a-I) 3,170.00 (a-II) 3,175.00 (b-II)	3,155.00
PIER 3	60-inch CIDH	ALL SHAFTS	2,500	1100	3,250.00	3,200.00	3,205.00	3,155.00 (a-I) 3,165.00 (a-II) 3,170.00 (b-II)	3,155.00
ABUTMENT 4	48-inch CIDH	PILES 1 & 2	612	0	3,257.25	3,205.00	3,210.00	3,185.00	3,185.00
		PILES 3, 4 & 5	612	0	3,259.25				

NOTE: Design Tip Elevations is controlled by: (a-I) Compression (Strength Limit), (a-II) Compression (Extreme Event), (b-II) Tension (Extreme Event).



REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	69	103

REGISTERED CIVIL ENGINEER DATE 04/16/14

12-30-13 PLANS APPROVAL DATE

MAMUNUR RAHMAN No. C48515 Exp. 6/30/14 CIVIL

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INDEX TO PLANS

- | NO. | SHEET NAME |
|-----|---|
| 1 | GENERAL PLAN |
| 2 | INDEX TO PLANS |
| 3 | REMOVAL PLAN |
| 4 | CONSTRUCTION STAGING NO. 1 |
| 5 | CONSTRUCTION STAGING NO. 2 |
| 6 | CONSTRUCTION SEQUENCE |
| 7 | DECK CONTOURS NO. 1 |
| 8 | DECK CONTOURS NO. 2 |
| 9 | FOUNDATION PLAN |
| 10 | ABUTMENT 1 LAYOUT |
| 11 | ABUTMENT 4 LAYOUT |
| 12 | ABUTMENT DETAILS NO. 1 |
| 13 | ABUTMENT DETAILS NO. 2 |
| 14 | ABUTMENT DETAILS NO. 3 |
| 15 | ABUTMENT DETAILS NO. 4 |
| 16 | ABUTMENT DETAILS NO. 5 |
| 17 | PIER LAYOUT |
| 18 | PIER DETAILS NO. 1 |
| 19 | PIER DETAILS NO. 2 |
| 20 | PIER DETAILS NO. 3 |
| 21 | PIER DETAILS NO. 4 |
| 22 | TYPICAL SECTION |
| 23 | GIRDER LAYOUT NO. 1 |
| 24 | GIRDER LAYOUT NO. 2 |
| 25 | PRESTRESSED BULB-TEE GIRDER DETAILS NO. 1 |
| 26 | PRESTRESSED BULB-TEE GIRDER DETAILS NO. 2 |
| 27 | PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS) |
| 28 | STRUCTURE APPROACH TYPE N(30S) |
| 29 | STRUCTURE APPROACH DRAINAGE DETAILS |
| 30 | ARCHITECTURAL TREATMENT NO. 1 |
| 31 | ARCHITECTURAL TREATMENT NO. 2 |
| 32 | LOG OF TEST BORING 1 OF 5 |
| 33 | LOG OF TEST BORING 2 OF 5 |
| 34 | LOG OF TEST BORING 3 OF 5 |
| 35 | LOG OF TEST BORING 4 OF 5 |
| 36 | LOG OF TEST BORING 5 OF 5 |

DESIGN	BY M. RAHMAN	CHECKED J. FANG
DETAILS	BY H. INIGUEZ / H. M.	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

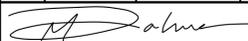
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 19

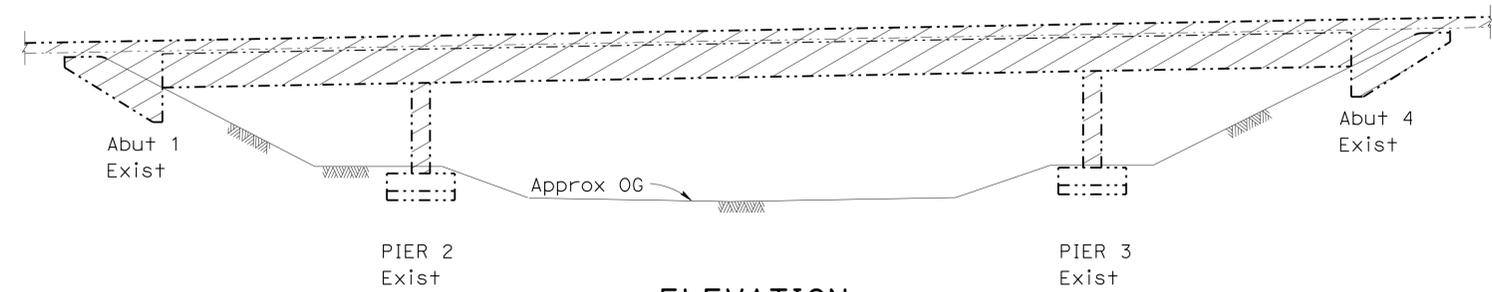
BRIDGE NO. 54-1271
POST MILE 24.2

HORSETHIEF CREEK BRIDGE (REPLACE)

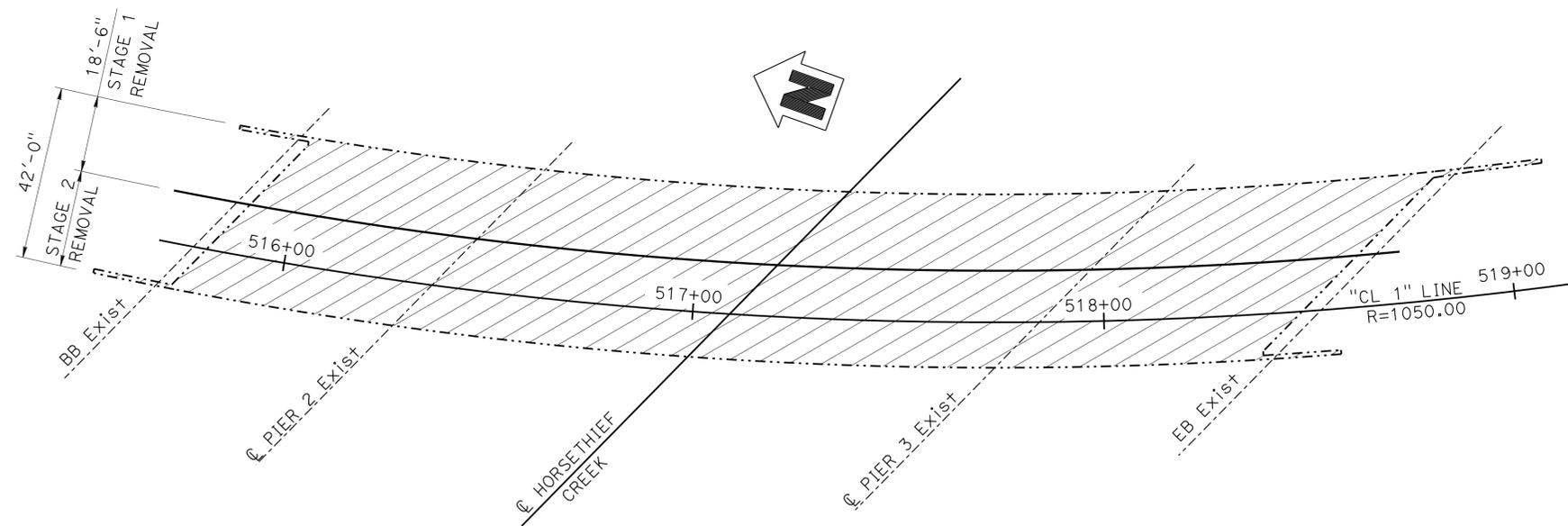
INDEX TO PLANS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	70	103
 REGISTERED CIVIL ENGINEER			DATE	04/16/14 12-30-13 PLANS APPROVAL DATE	
REGISTERED PROFESSIONAL ENGINEER MAMUNUR RAHMAN No. C48515 Exp. 6/30/14 CIVIL STATE OF CALIFORNIA					
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LEGEND:
 Indicates limits of Bridge Removal

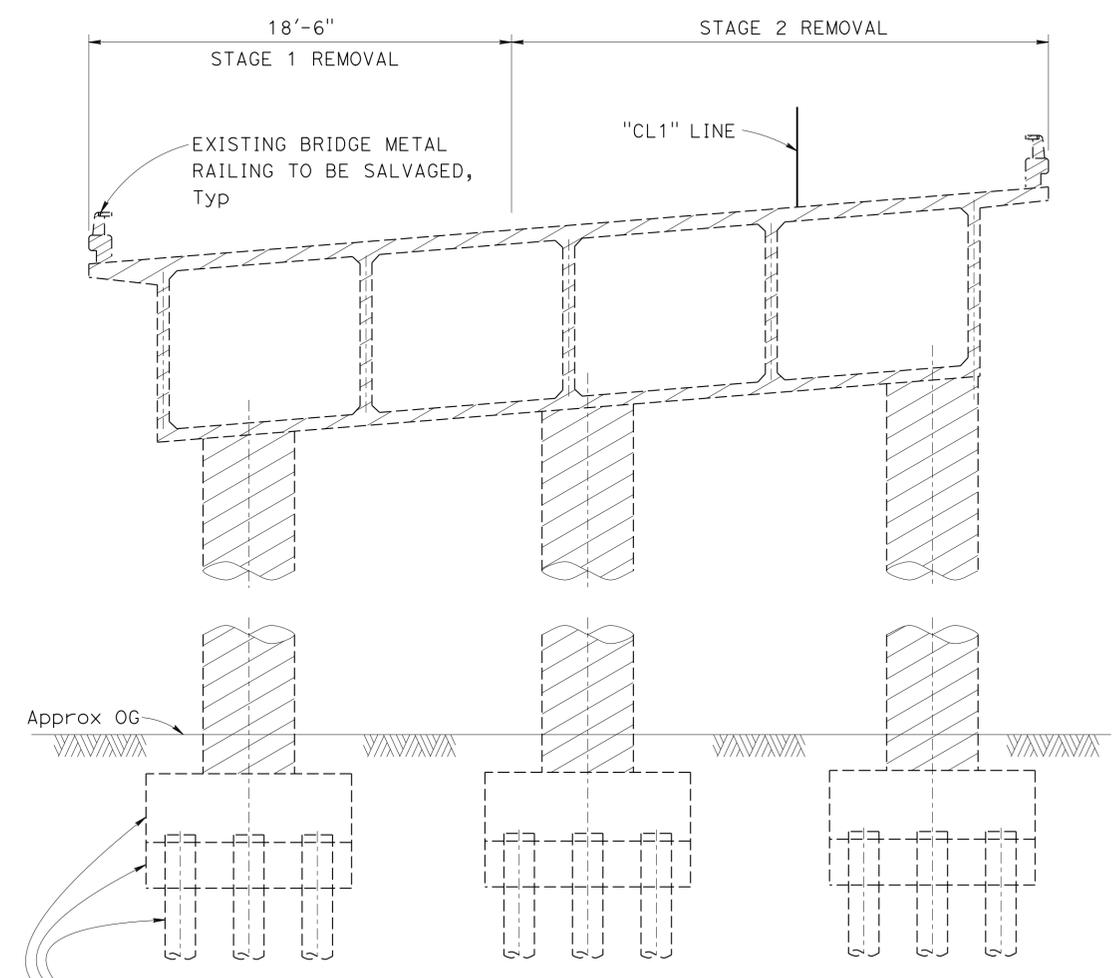


ELEVATION
 1" = 20'



PLAN
 1" = 20'

NOTE:
 FOR "CL1" LINE DATA, SEE
 "FOUNDATION PLAN" SHEET



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

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

2 **REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014**

DESIGN	BY M. RAHMAN	CHECKED J. FANG
DETAILS	BY H. INIGUEZ	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 19

BRIDGE NO.	54-1271
POST MILE	24.2

HORSETHIEF CREEK BRIDGE (REPLACE)
REMOVAL PLAN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	71	103

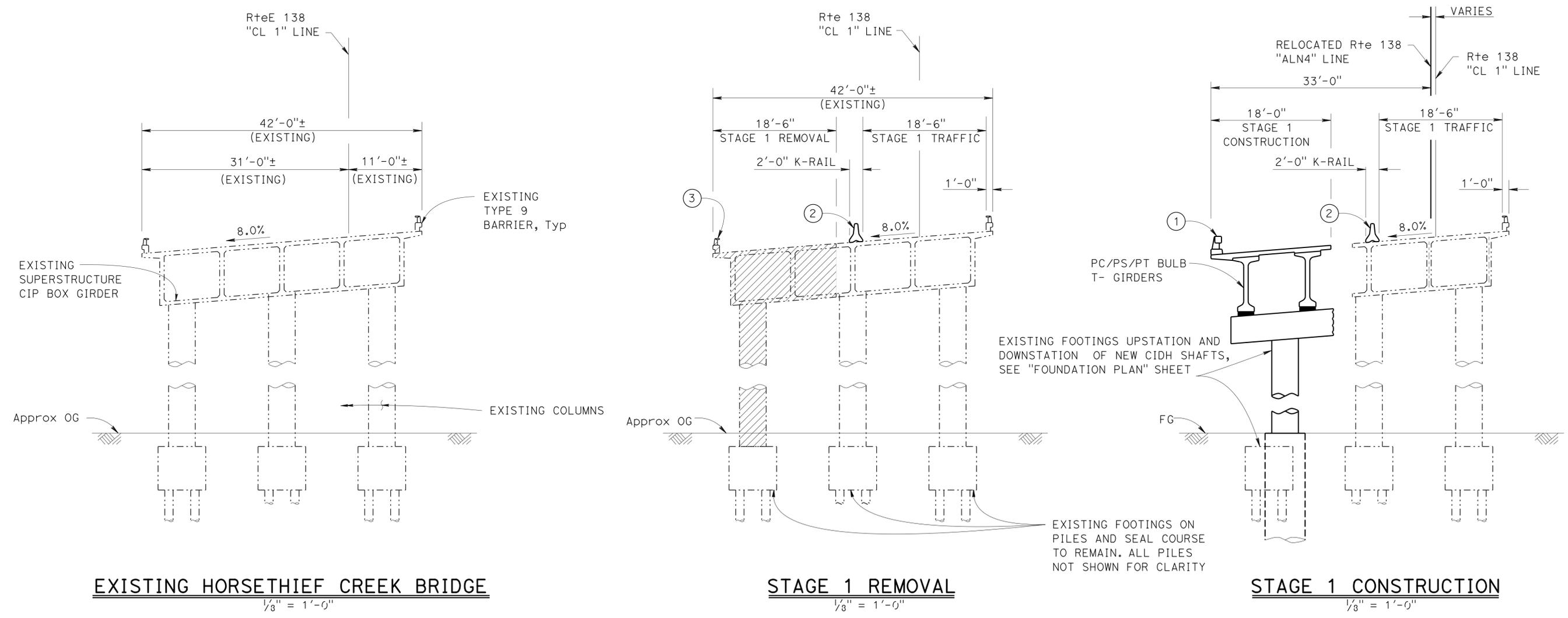
04/16/14
 REGISTERED CIVIL ENGINEER DATE
 12-30-13
 PLANS APPROVAL DATE
 MAMUNUR RAHMAN
 No. C48515
 Exp. 06-30-14
 CIVIL
 STATE OF CALIFORNIA
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NOTES:

- ① Concrete Barrier Type 80 (Mod)
- ② Temp Railing (Type K), see ROADWAY PLANS
- ③ Salvage Type 9 Barrier Bridge Metal Rail

LEGEND:

- Denotes Existing Structure
- ▨ Denotes Removal



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

2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) CONSTRUCTION STAGING NO. 1
	DETAILS	BY H. INIGUEZ	CHECKED J. FANG			POST MILE	24.2	
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS			UNIT: 3621 PROJECT NUMBER & PHASE: 0800000324 1	CONTRACT NO.: 08-0J8501	

06408
 14-MAY-2014
 DATE PLOTTED =>
 TIME PLOTTED =>

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	72	103


 REGISTERED CIVIL ENGINEER DATE 04/16/14
 PLANS APPROVAL DATE 12-30-13
 MAMUNUR RAHMAN
 No. C48515
 Exp. 06-30-14
 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.

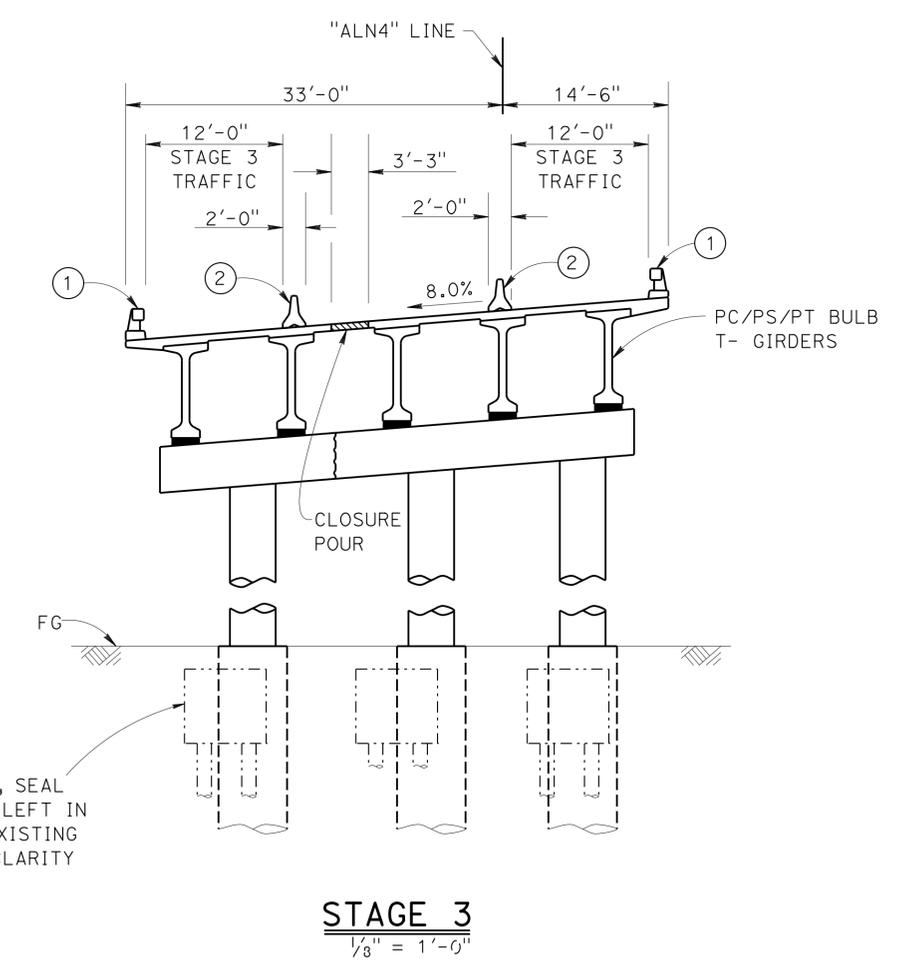
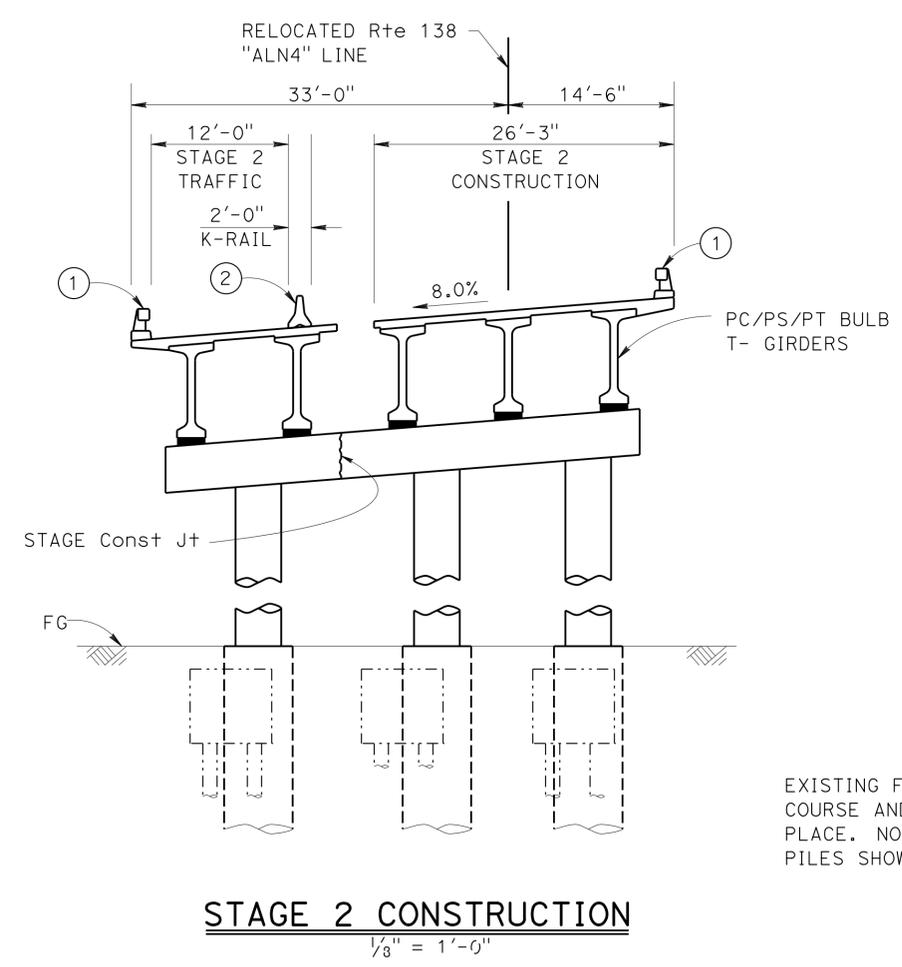
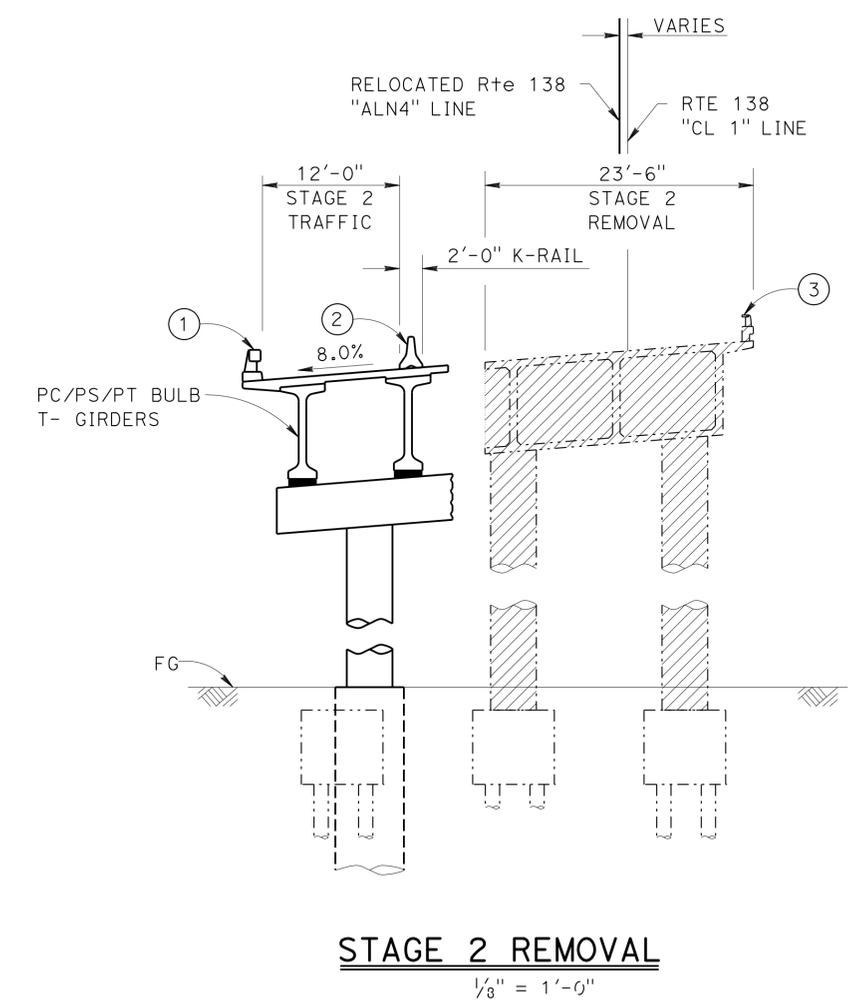


NOTES:

- ① Concrete Barrier Type 80 (Mod).
- ② Temp Railing (Type K), see ROADWAY PLANS.
- ③ Salvage Type 9 Barrier Bridge Metal Rail.

LEGEND:

- Denotes Existing Structure
-  Denotes Removal
-  Denotes Closure Pour



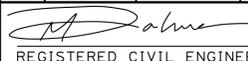
EXISTING FOOTINGS, SEAL COURSE AND PILES LEFT IN PLACE. NOT ALL EXISTING PILES SHOWN FOR CLARITY

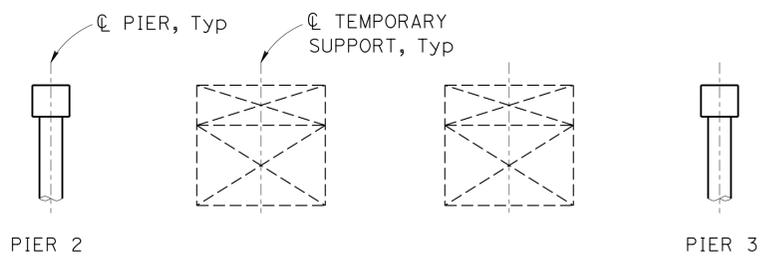
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

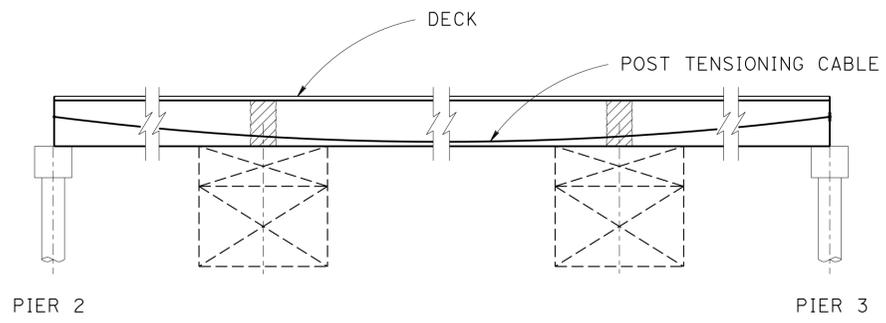
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) CONSTRUCTION STAGING NO. 2		
	DETAILS	BY H. INIGUEZ	CHECKED J. FANG			POST MILE	24.2			
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS							
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3621 PROJECT NUMBER & PHASE: 0800000324 1 CONTRACT NO.: 08-0J8501		DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 5 OF 36

TIME PLOTTED => 14-MAY-2014
 USERNAME => s121614 DATE PLOTTED => 06:08

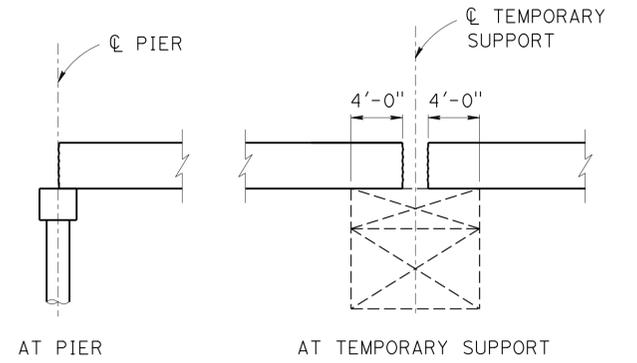
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	73	103
 REGISTERED CIVIL ENGINEER			04/16/14	DATE	
12-30-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.</small>					



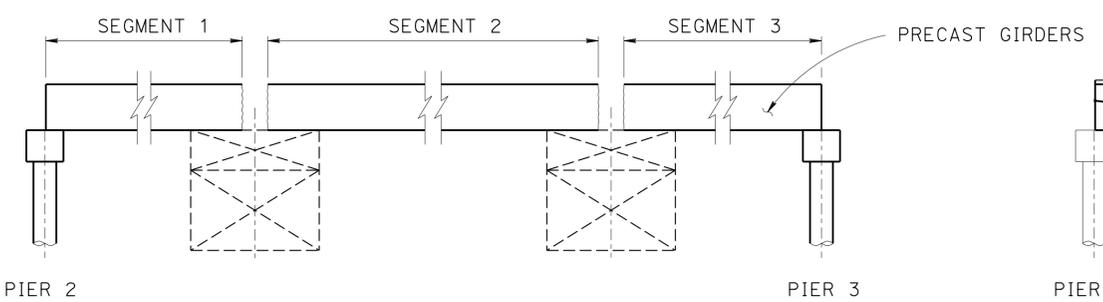
STEP 1
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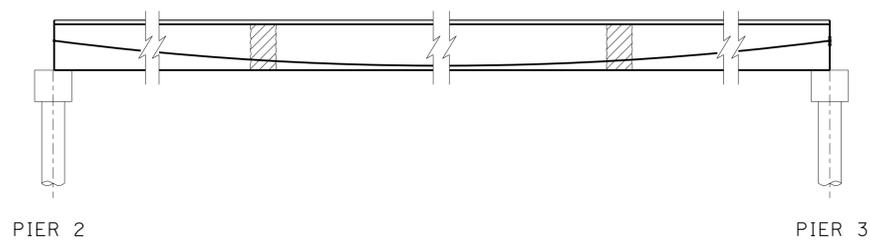
STEP 5 & 6
No Scale



TEMPORARY SUPPORT LOCATIONS
No Scale



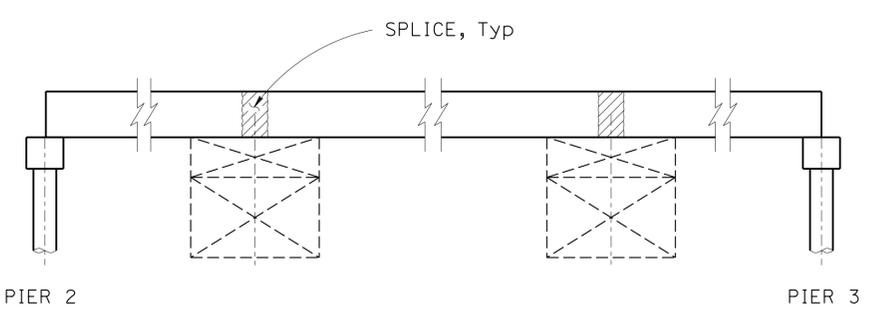
STEP 2
No Scale



STEP 7
No Scale

**SPAN 2
BRIDGE CONSTRUCTION SEQUENCE**

Any alternatives to this construction sequence must be approved by the engineer.



STEP 3 & 4
No Scale

- Step 1. Construct Piers 2 & 3 and temporary supports.
- Step 2. Erect Span 2 precast/prestressed girders on piers and temporary supports prior to erecting Spans 1 & 3 girders.
- Step 3. Construct cast-in-place splices.
- Step 4. Allow splice concrete to reach the specified concrete strength as shown on "GIRDER LAYOUT NO. 2" sheet.
- Step 5. Place deck concrete and all diaphragms.
- Step 6. Complete longitudinal prestressing (post-tensioning). Longitudinal prestressing shall not be permitted prior to 10 days after deck and intermediate diaphragm concrete has been placed.
- Step 7. Removal of temporary supports shall not be permitted prior to 10 days after prestressing (post-tensioning) has been completed.
- Step 8. Erect Span 1 & 3 girders.

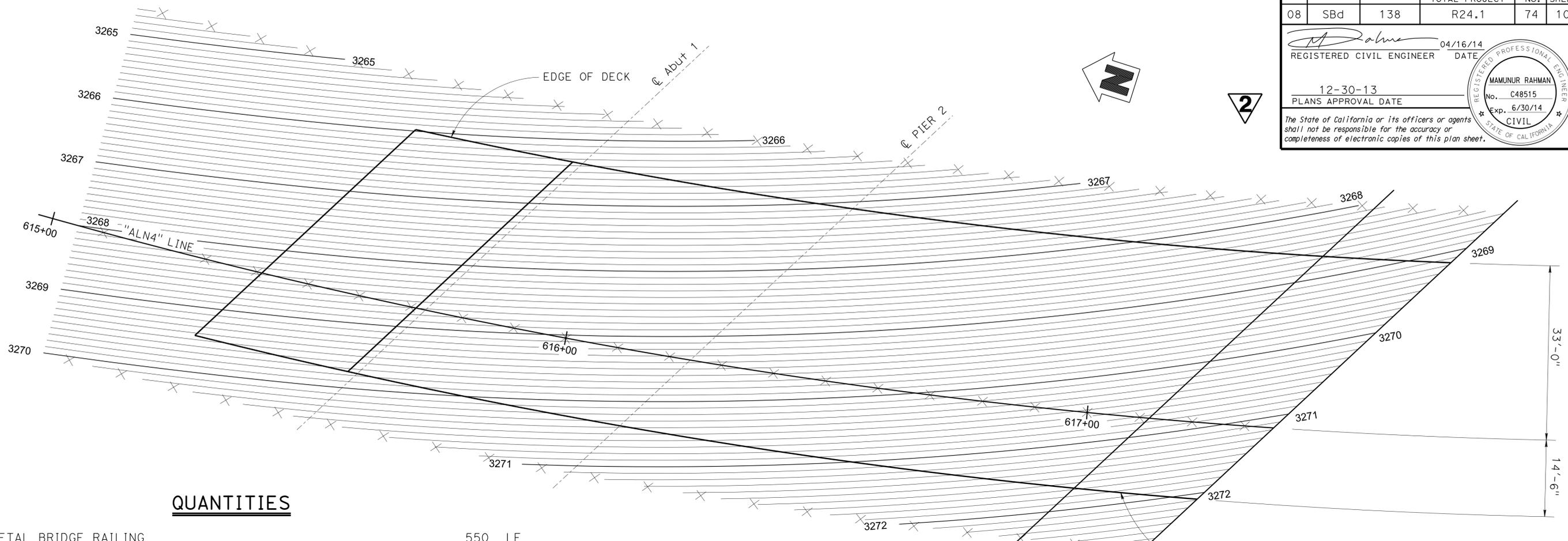
NOTE:
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2 **REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014**

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	HORSETHIEF CREEK BRIDGE (REPLACE)
	DETAILS	BY H. INIGUEZ	CHECKED J. FANG			54-1271	
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS			24.2	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					UNIT: 3621	CONTRACT NO.: 08-0J8501	
					PROJECT NUMBER & PHASE: 0800000324 1	DISREGARD PRINTS BEARING EARLIER REVISION DATES	
					0	1	2
					3	4	5
					6	7	8
					9	10	11
					12	13	14
					15	16	17
					18	19	20
					21	22	23
					24	25	26
					27	28	29
					30	31	32
					33	34	35
					36	37	38
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					93	94	95
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					99	100	101
					102	103	104

USERNAME => s121614 DATE PLOTTED => 14-MAY-2014 TIME PLOTTED => 06:08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	74	103
			04/16/14	DATE	
REGISTERED CIVIL ENGINEER			DATE		
12-30-13			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.					



QUANTITIES

SALVAGE METAL BRIDGE RAILING	550	LF
BRIDGE REMOVAL	LUMP	SUM
STRUCTURE EXCAVATION (BRIDGE)	450	CY
STRUCTURE BACKFILL (BRIDGE)	185	CY
48" PERMANENT STEEL CASING	555	LF
60" PERMANENT STEEL CASING	270	LF
48" CAST-IN-DRILLED-HOLE CONCRETE PILING	555	LF
60" CAST-IN-DRILLED-HOLE CONCRETE PILING	270	LF
36" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	175	LF
48" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	285	LF
PRESTRESSING PRECAST GIRDER	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE	1,150	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	102	CY
RANDOM BOULDER TEXTURE	1,250	SQFT
FURNISH PRECAST PRESTRESSED CONCRETE BULB-TEE GIRDER (80'-90')	5	EA
FURNISH PRECAST PRESTRESSED CONCRETE BULB-TEE GIRDER (40'-50')	10	EA
FURNISH PRECAST PRESTRESSED CONCRETE BULB-TEE GIRDER (50'-60')	10	EA
ERECT PRECAST PRESTRESSED CONCRETE GIRDER	25	EA
JOINT SEAL (MR 1/2")	115	LF
JOINT SEAL (MR 2")	115	LF
BAR REINFORCING STEEL (BRIDGE)	275,000	LB
BAR REINFORCING STEEL (EPOXY COATED) (BRIDGE)	116,000	LB
PREPARE AND STAIN CONCRETE	41,780	SQFT
MISCELLANEOUS METAL (BRIDGE)	6,360	LB
CONCRETE BARRIER (TYPE 80 MODIFIED)	667	LF

DECK CONTOURS
1" - 10'-0"

- NOTES:**
- Contours do not include camber
 - 0.10' Contour Interval
 - X- Denotes 10' Interval along station line

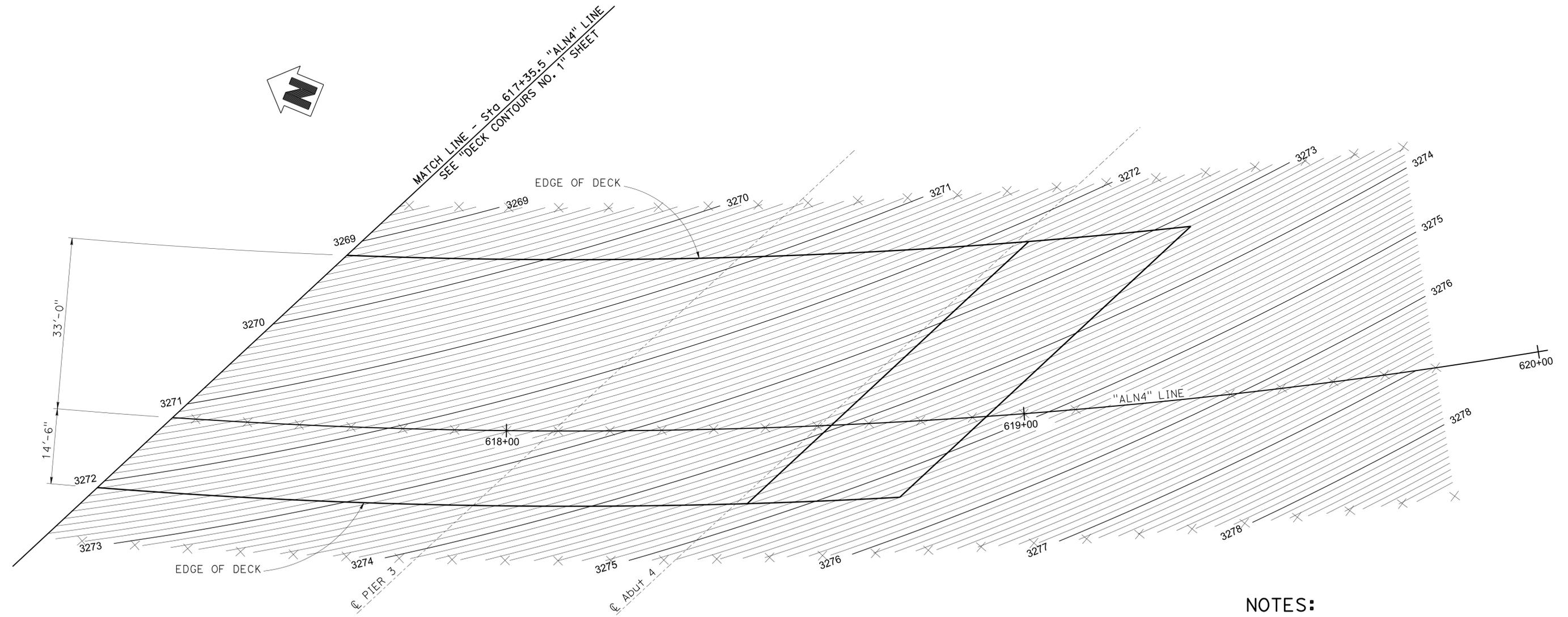
2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) DECK CONTOURS NO. 1	
	DETAILS	BY J. ZHOU / H. INIGUEZ	CHECKED J. FANG			POST MILE	24.2		
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS						
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					UNIT: 3621	PROJECT NUMBER & PHASE: 0800000324 1		CONTRACT NO.: 08-0J8501	
DISREGARD PRINTS BEARING EARLIER REVISION DATES								REVISION DATES	SHEET 7 OF 36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	75	103

 04/16/14
 REGISTERED CIVIL ENGINEER DATE
 12-30-13
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 MAMUNUR RAHMAN
 No. C48515
 Exp. 6/30/14
 CIVIL
 STATE OF CALIFORNIA



- NOTES:**
1. Contours do not include camber
 2. 0.10' Contour Interval
 3. X- Denotes 10' Interval along station line

DECK CONTOURS
1" - 10'-0"



REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	HORSETHIEF CREEK BRIDGE (REPLACE) DECK CONTOURS NO. 2								
	DETAILS	BY J. ZHOU / H. INIGUEZ	CHECKED J. FANG			54-1271									
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS			POST MILE 24.2									
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					UNIT: 3621	PROJECT NUMBER & PHASE: 0800000324 1	CONTRACT NO.: 08-0J8501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	<table border="1" style="font-size: 8px;"> <tr> <th>REVISION DATES</th> <th>SHEET</th> <th>OF</th> </tr> <tr> <td>08-26-13 08-27-13 09-11-13</td> <td>8</td> <td>36</td> </tr> </table>	REVISION DATES	SHEET	OF	08-26-13 08-27-13 09-11-13	8	36
REVISION DATES	SHEET	OF													
08-26-13 08-27-13 09-11-13	8	36													

Existing Elevation at selected Locations on Existing Bridge

- ① - 30.466 Lt. @ Rte 138, Sta 516+02.570, Elev 3261.640
- ② - 10.271 Rt. @ Rte 138, Sta 515+74.228, Elev 3267.880
- ③ - 30.499 Lt. @ Rte 138, Sta 518+82.581, Elev 3269.390
- ④ - 9.691 Rt. @ Rte 138, Sta 518+36.472, Elev 3268.800

No.	R	Δ	T	L	NAME
⑤	1050.000	44°48'15"	432.824	821.080	"CL1" LINE
⑥	1150.000	45°18'15"	479.927	909.314	"ALN4" LINE

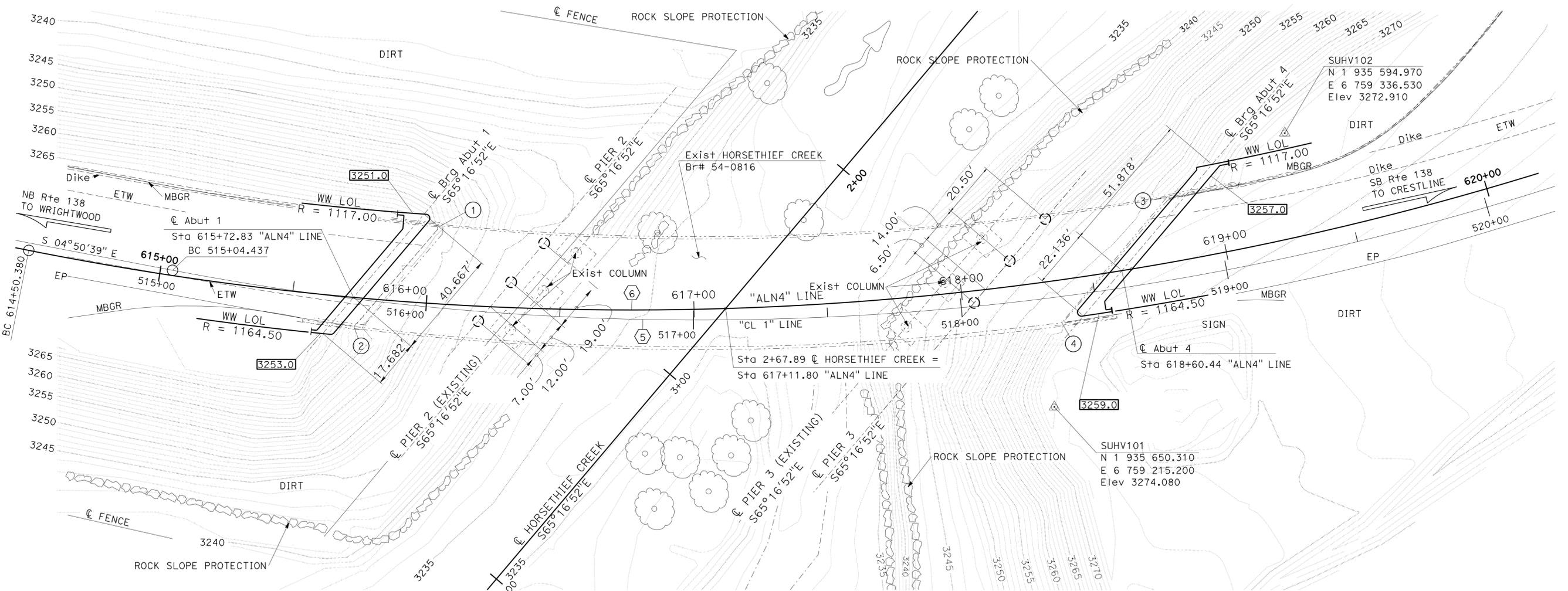
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	76	103

04/16/14
 REGISTERED CIVIL ENGINEER DATE

12-30-13
 PLANS APPROVAL DATE

MAMUNUR RAHMAN
 No. c 48515
 Exp. 6/30/14
 CIVIL
 STATE OF CALIFORNIA

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SURVEY CONTROL
 SUHV101
 PD: Set 1" IP w/ Alum cap stamped "SBD138 PNO 100" DN 0.5'
 40.484 Rt. @ Rte 138
 Sta 518+29.950
 N 1 935 650.310
 E 6 759 215.200
 Elev 3274.080

SUHV102
 PD: Set 1" IP w/ Alum cap stamp "SBD 138 PNO 102" DN 0.5'
 45.486 Lt. @ Rte 138
 Sta 519+32.260
 N 1 935 594.970
 E 6 759 336.530
 Elev 3272.910

- NOTES:**
- For pile layout and dimensions at abutments, see "ABUTMENT 1 LAYOUT" and "ABUTMENT 4 LAYOUT" sheets.
 - Indicates bottom of footing elevation.
 - Existing contours shown. For final contours, see Road Plans.

2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

PRELIMINARY INVESTIGATION SECTION				DESIGN BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO. 54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) FOUNDATION PLAN
SCALE: VERT. DATUM NGVD1929	PHOTOGRAMMETRY AS OF: X	DETAILS BY H. INIGUEZ	CHECKED J. FANG	POST MILE 24.2					
1"=20'	HORIZ. DATUM NAD83	QUANTITIES BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/B. BALBAS						

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3647 PROJECT NUMBER & PHASE: 08 00000324 1 CONTRACT NO.: 08-0J8501

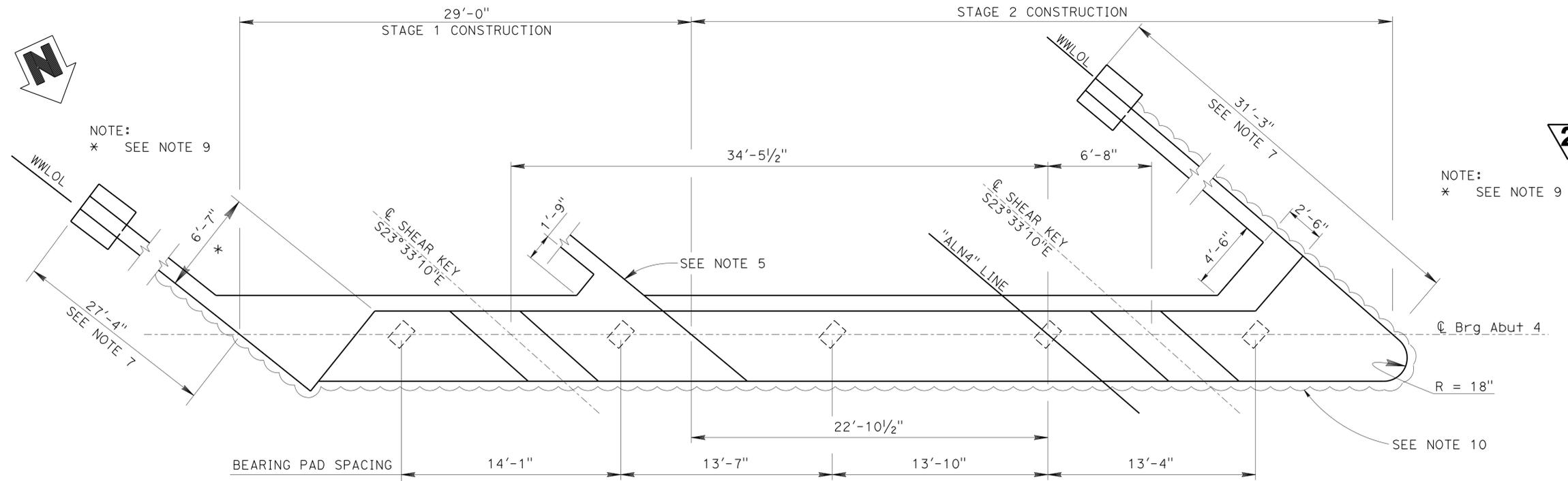
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET 9	OF 36
02/28/12	09-11-13	08-24-13

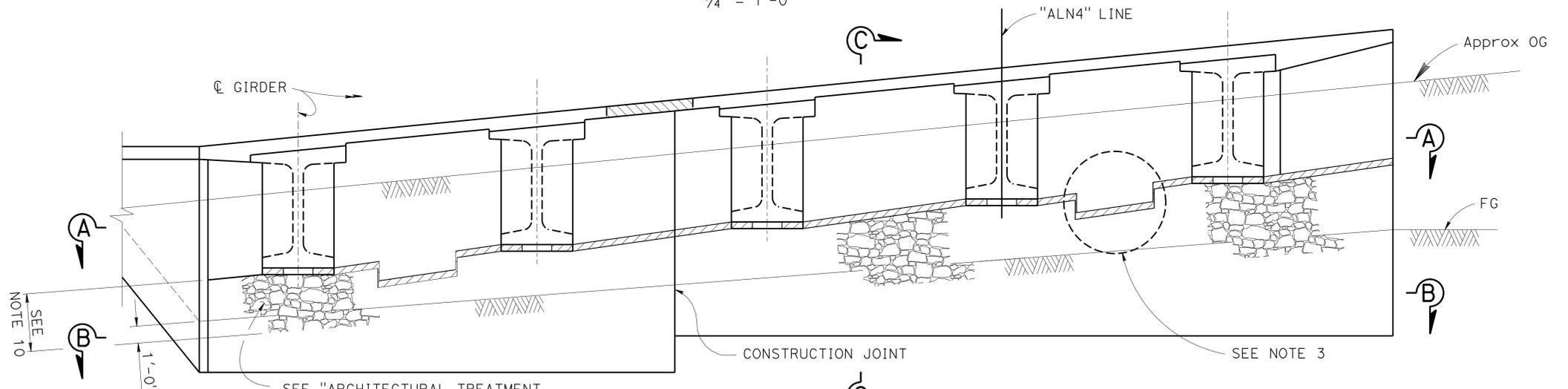
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TIME PLOTTED => 06:09 USERNAME => s121614 DATE PLOTTED => 14-MAY-2014

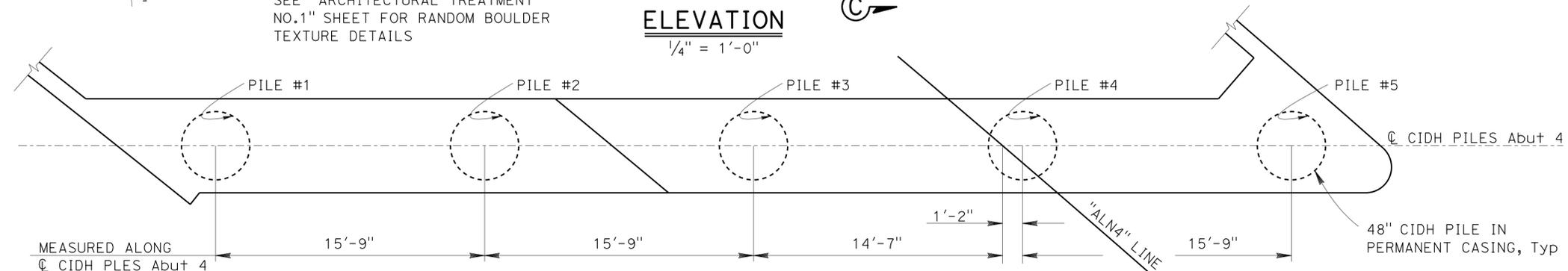
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	78	103
REGISTERED CIVIL ENGINEER			DATE		
12-30-13			04/16/14		
PLANS APPROVAL DATE					
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PLAN
1/4" = 1'-0"



ELEVATION
1/4" = 1'-0"



PILE LAYOUT
1/4" = 1'-0"

LEGEND:

- Expanded Polystyrene
- Closure Pour

NOTES:

1. All dimensions measured along CL Brg Abut 4 unless otherwise specified.
2. Barrier Rail Type 80 (MOD) not shown for clarity.
3. For "INTERIOR SHEAR KEY DETAIL", see "ABUTMENT DETAILS NO.3" sheet.
4. For "SECTION A-A" and "SECTION B-B" See "ABUTMENT DETAILS NO. 2" sheet.
5. Temporary wingwall, see "ABUTMENT DETAILS NO. 3" sheet.
6. Steel Reinforced Elastomeric Bearing Pad 24" X 12" X 4". For Bearing Pad details, see "ABUTMENT DETAILS NO. 1" sheet.
7. Measured along WWLOL
8. For "SECTION C-C" see "ABUTMENT DETAILS NO.1" sheet.
9. Measured radial to "ALN4" Line.
10. Limits of "RANDOM BOULDER TEXTURE" and "PREPARE AND STAIN CONCRETE".

NOTE:
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REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

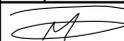
DESIGN	BY M. RAHMAN	CHECKED J. FANG
DETAILS	BY H. INIGUEZ	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

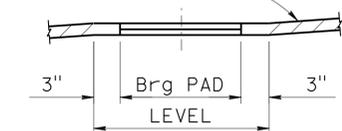
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 19

BRIDGE NO.	54-1271
POST MILE	24.2

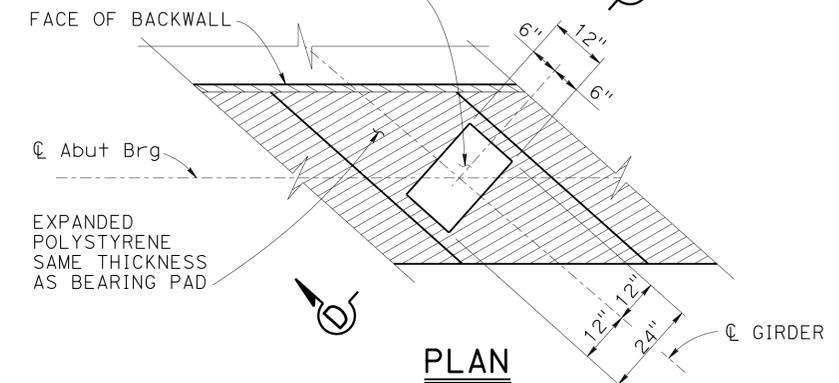
HORSETHIEF CREEK BRIDGE (REPLACE)
ABUTMENT 4 LAYOUT

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	79	103
			04/16/14	DATE	
REGISTERED CIVIL ENGINEER			DATE		
12-30-13			PLANS APPROVAL DATE		
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SECTION D-D

STEEL REINFORCED ELASTOMERIC BEARING PADS. FOR BEARING PAD DIMENSIONS SEE NOTE 6 ON "ABUTMENT 1 LAYOUT" AND "ABUTMENT 4 LAYOUT" SHEETS

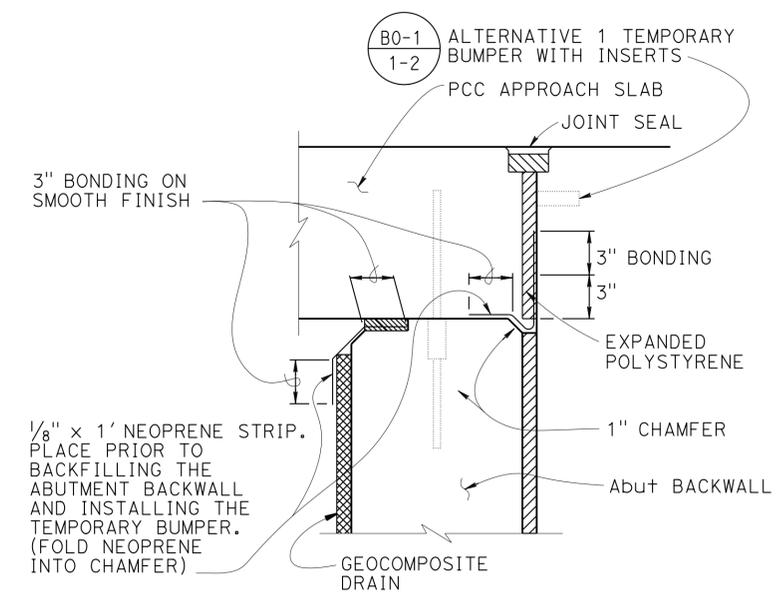


BEARING PAD DETAIL

No Scale

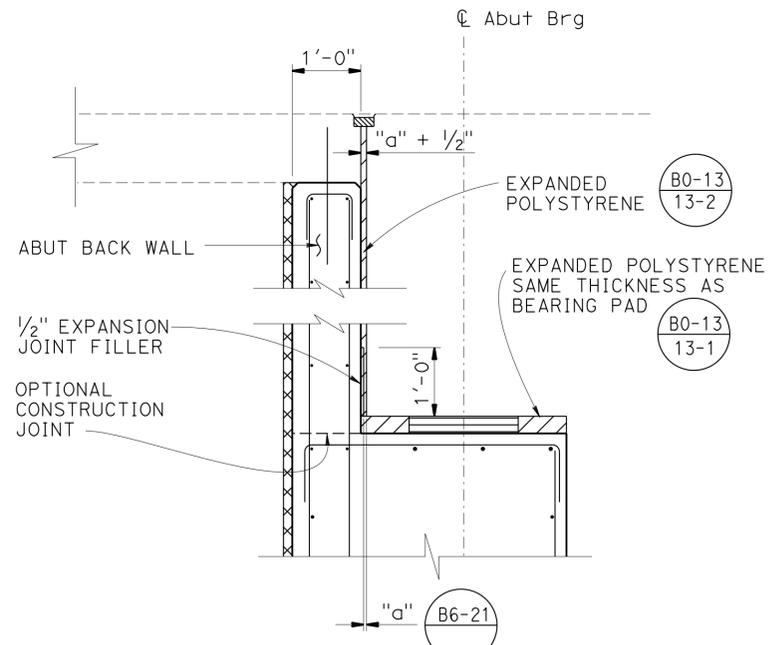
NOTES:

1. See "ABUTMENT 1 LAYOUT" or "ABUTMENT 4 LAYOUT" sheet for location of "SECTION C-C".
2. All hoops are "ultimate" butt spliced continuous.
3. For limits of payment for 48" CIDH concrete piling and permanent steel casing, see "ABUTMENT DETAILS NO. 5" sheet.
4. For limits of payment for 36" CIDH concrete piling (rock socket), see "ABUTMENT DETAILS NO. 5" sheet.
5. Reinforcement to be spliced at construction joints unless otherwise shown.



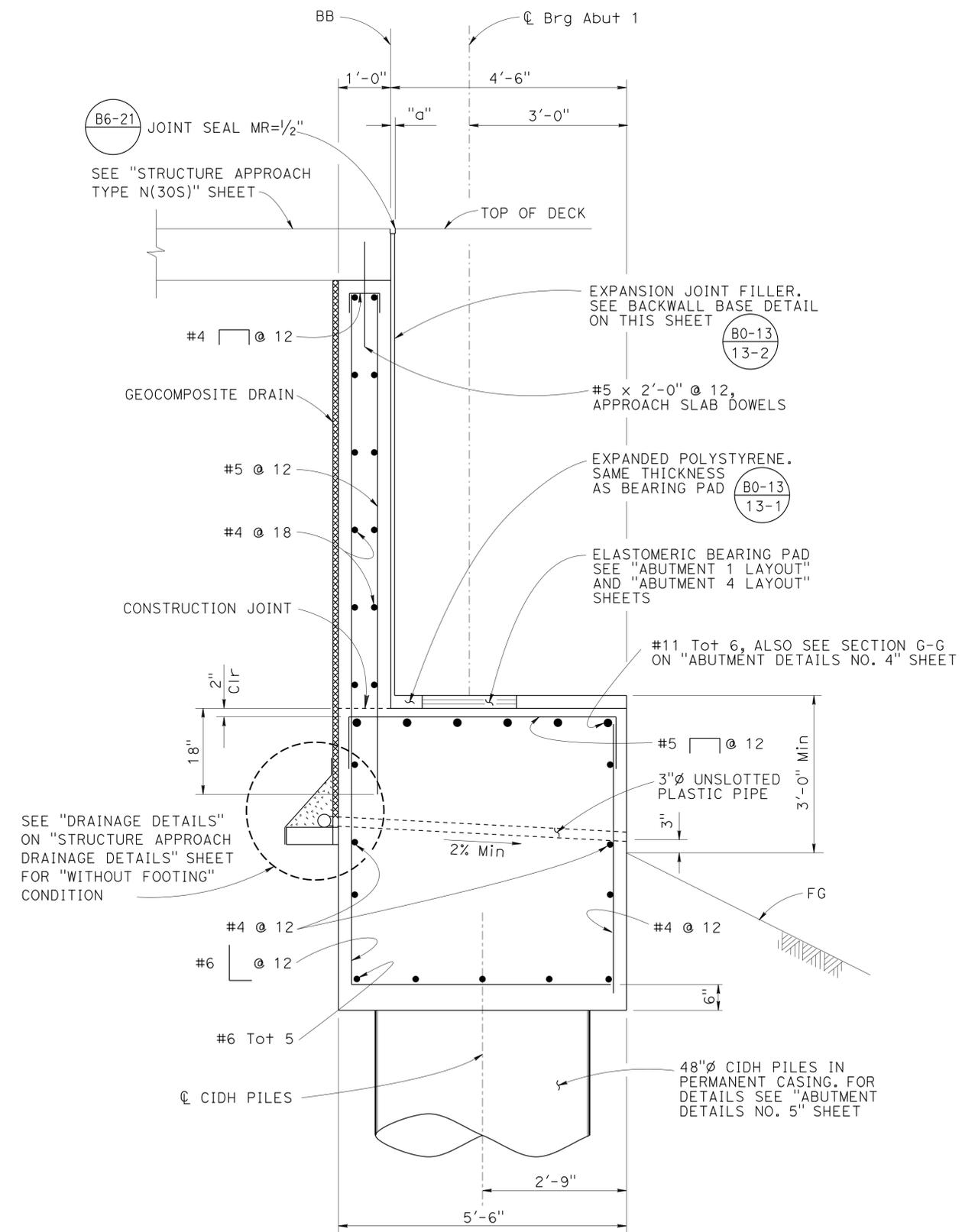
JOINT PROTECTION DETAIL

No Scale



BACKWALL BASE DETAIL

1" = 1'-0"



SECTION C-C

3/4" = 1'-0"

NOTE:
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REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DESIGN	BY M. RAHMAN	CHECKED J. FANG
DETAILS	BY H. INIGUEZ	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

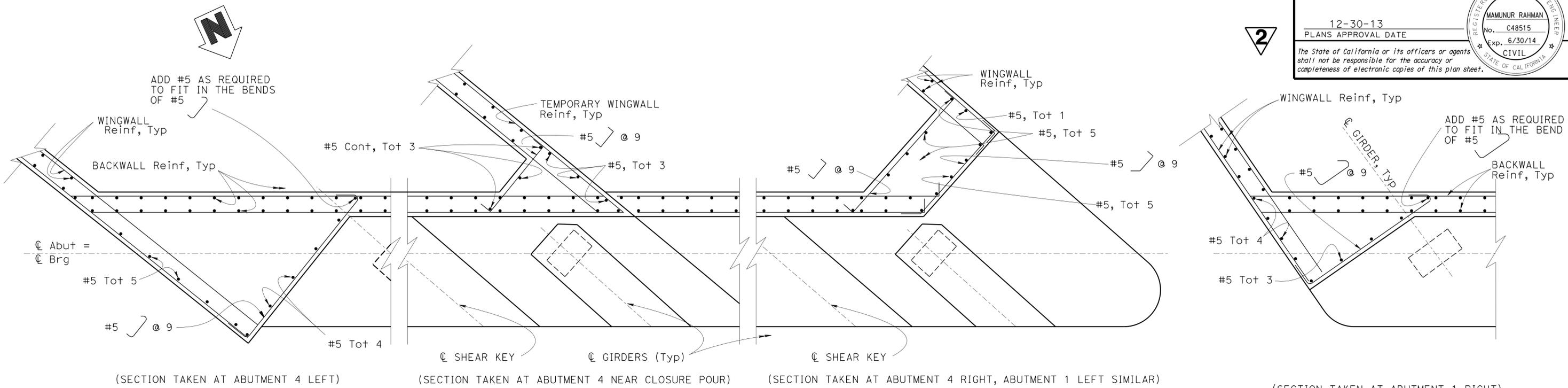
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 19

BRIDGE NO.	54-1271
POST MILE	24.2

HORSETHIEF CREEK BRIDGE (REPLACE)
ABUTMENT DETAILS NO. 1

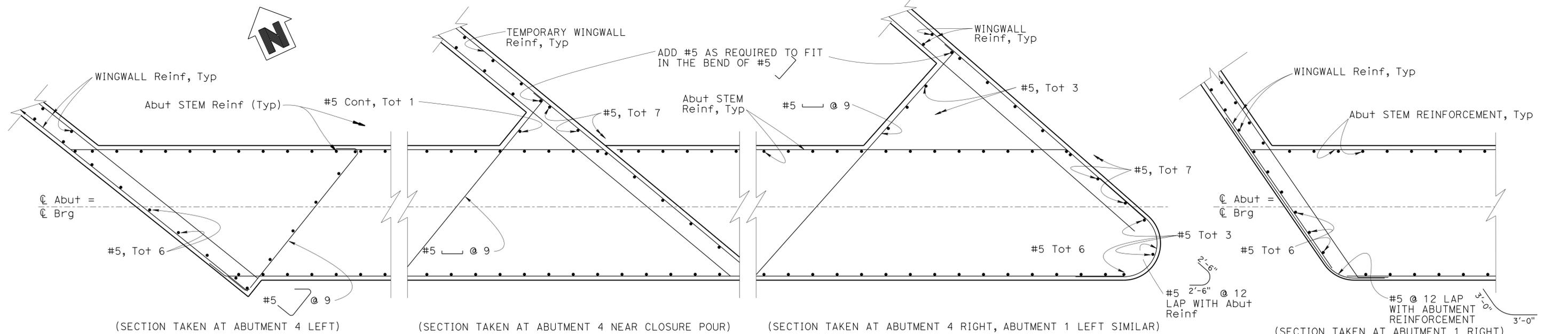
USERNAME => s121614 DATE PLOTTED => 14-MAY-2014 TIME PLOTTED => 06:09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	80	103
			04/16/14		
REGISTERED CIVIL ENGINEER			DATE		
12-30-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER MAMUNUR RAHMAN No. C48515 Exp. 6/30/14 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 A-A
1/2" = 1'-0"

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



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

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

2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DESIGN	BY M. RAHMAN / B. GUNTER	CHECKED J. FANG
DETAILS	BY H. INIGUEZ	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO / D. BALBAS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

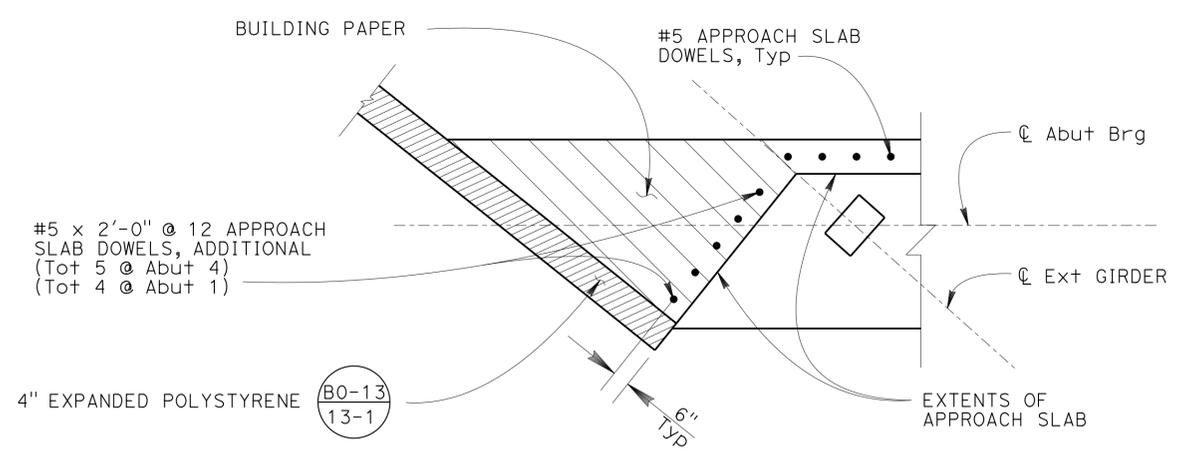
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 19

BRIDGE NO.	54-1271
POST MILE	24.2

HORSETHIEF CREEK BRIDGE (REPLACE)
ABUTMENT DETAILS NO. 2

USERNAME => s121614 DATE PLOTTED => 14-MAY-2014 TIME PLOTTED => 06:09

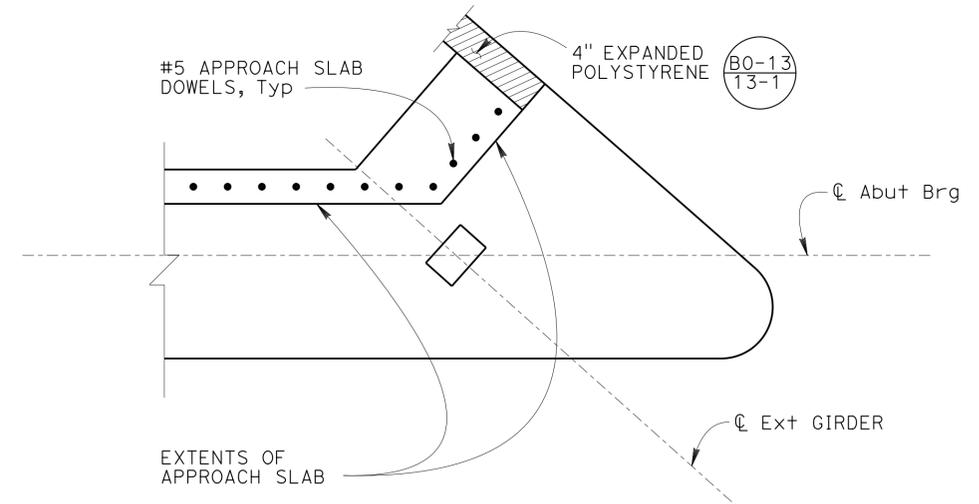
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08	SBd	138	R24.1	81	103
 REGISTERED CIVIL ENGINEER DATE 04/16/14					
12-30-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



#5 x 2'-0" @ 12 APPROACH SLAB DOWELS, ADDITIONAL (Tot 5 @ Abut 4) (Tot 4 @ Abut 1)

OBTUSE CORNER

ABUTMENT 4 LEFT SHOWN ABUTMENT 1 RIGHT SIMILAR FOR SECTION UNDER APPROACH SLAB ONLY, SEE NOTE 3

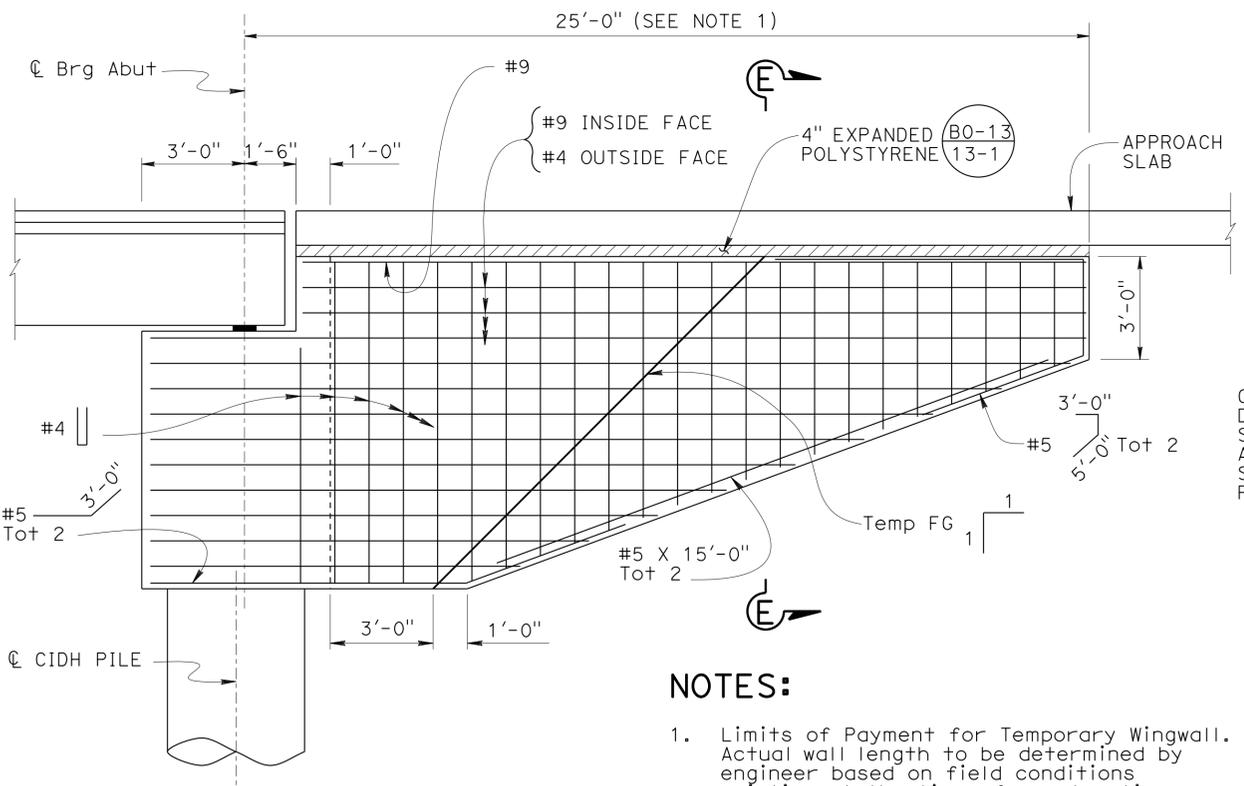


ACUTE CORNER

ABUTMENT 4 RIGHT SHOWN ABUTMENT 1 LEFT SIMILAR

ABUTMENT CORNER DETAILS

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

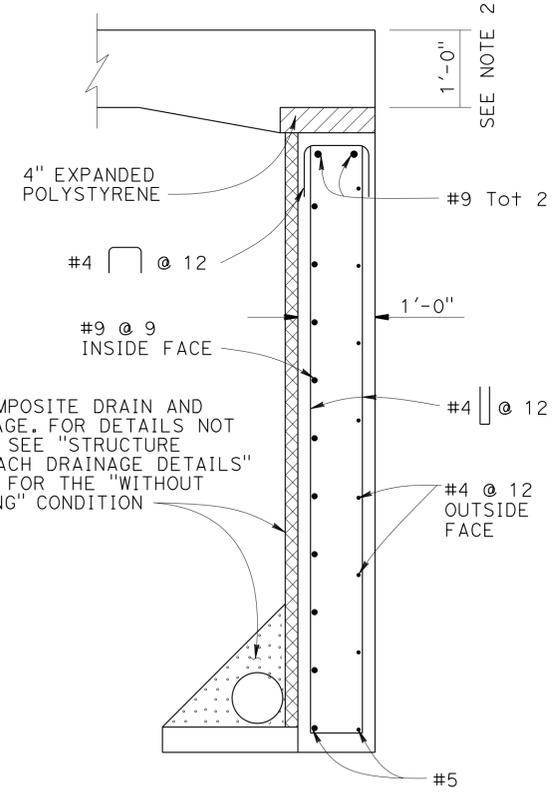


TEMPORARY WINGWALL

$\frac{3}{8}'' = 1'-0''$
(SIMILAR AT BOTH ABUTMENTS)

NOTES:

- Limits of Payment for Temporary Wingwall. Actual wall length to be determined by engineer based on field conditions existing at the time of construction.
- SECTION E-E location is at ABUT 1 TEMPORARY WINGWALL. For edge of APPROACH SLAB dimensions not shown see detail "TYPE E-1" in "SECTION C-C" on "STRUCTURE APPROACH TYPE N(30S)" sheet.
- Geometric shape shown here is for ABUTMENT 4 LEFT only. See "ABUTMENT 1 LAYOUT" sheet for ABUTMENT 1, RIGHT geometry. Details below Approach Slab are similar for both abutments.

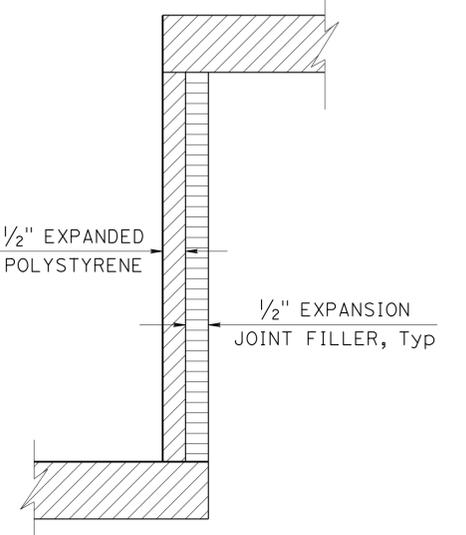


SECTION E-E

NO SCALE

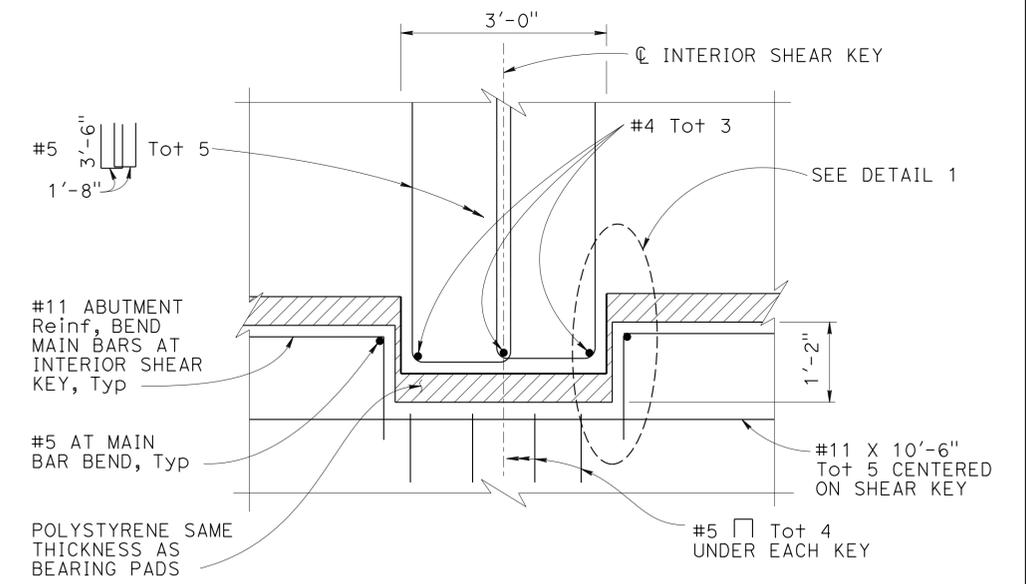
LEGEND:

- EXPANDED POLYSTYRENE
- 15 LB BUILDING PAPER
- EXPANSION JOINT FILLER
- GEOCOMPOSITE DRAIN



DETAIL 1

NO SCALE



INTERIOR SHEAR KEY DETAIL

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

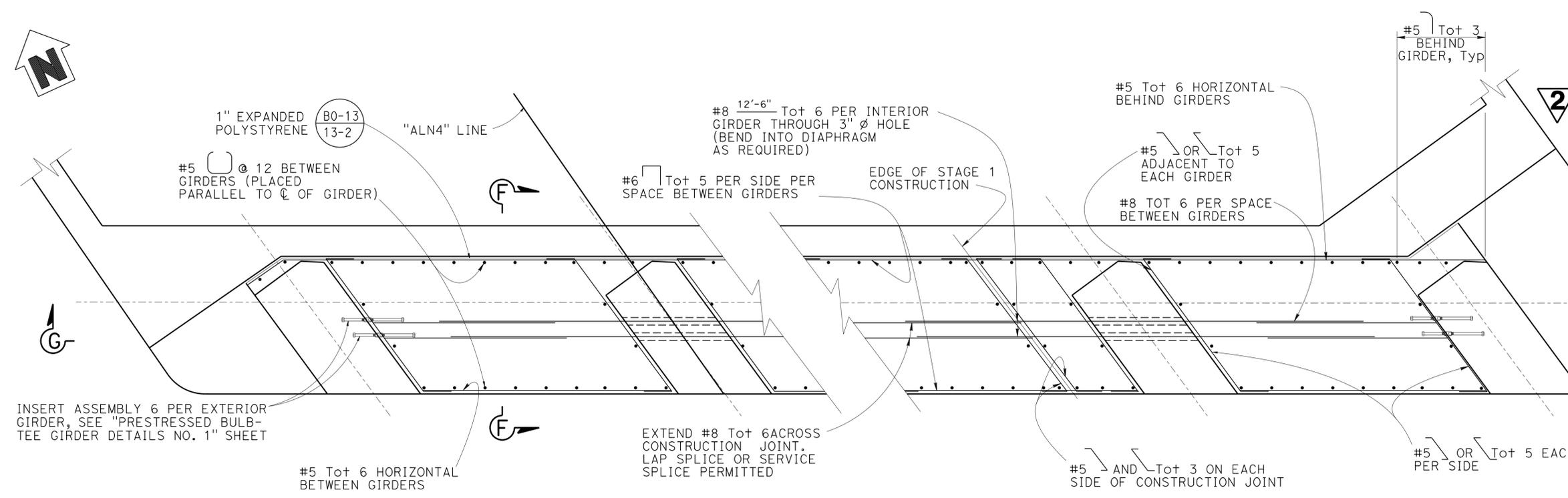


REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

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

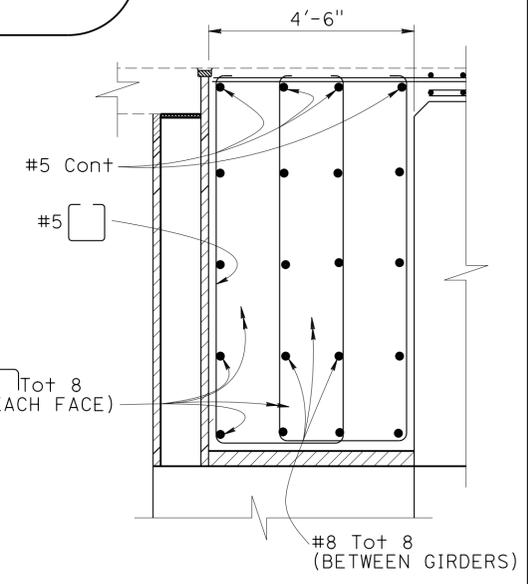
DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	HORSETHIEF CREEK BRIDGE (REPLACE)					
	DETAILS BY H. INIGUEZ	CHECKED J. FANG			54-1271						
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS	DEPARTMENT OF TRANSPORTATION	DESIGN BRANCH 19	POST MILE	24.2					
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3621	PROJECT NUMBER & PHASE: 080000324	1	CONTRACT NO.: 08-0J8501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
			0	1	2	3	09-27-13	09-11-13	08-27-13	14	36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	82	103
			04/16/14		
REGISTERED CIVIL ENGINEER			DATE		
12-30-13			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>					



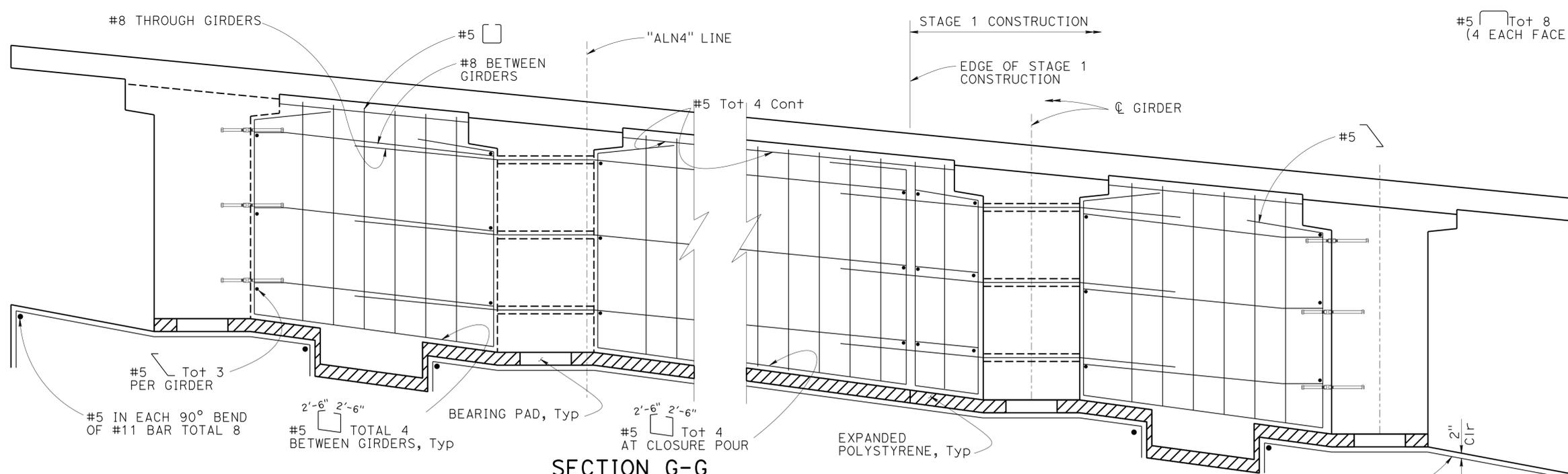
PART PLAN - END DIAPHRAGM

1/2" = 1'-0" ABUTMENT 1 SHOWN
ABUTMENT 4 SIMILAR



SECTION F-F

1/2" = 1'-0"



SECTION G-G

1/2" = 1'-0"

2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DESIGN	BY M. RAHMAN	CHECKED J. FANG
DETAILS	BY F. HOSSEINIOUN / H. I.	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

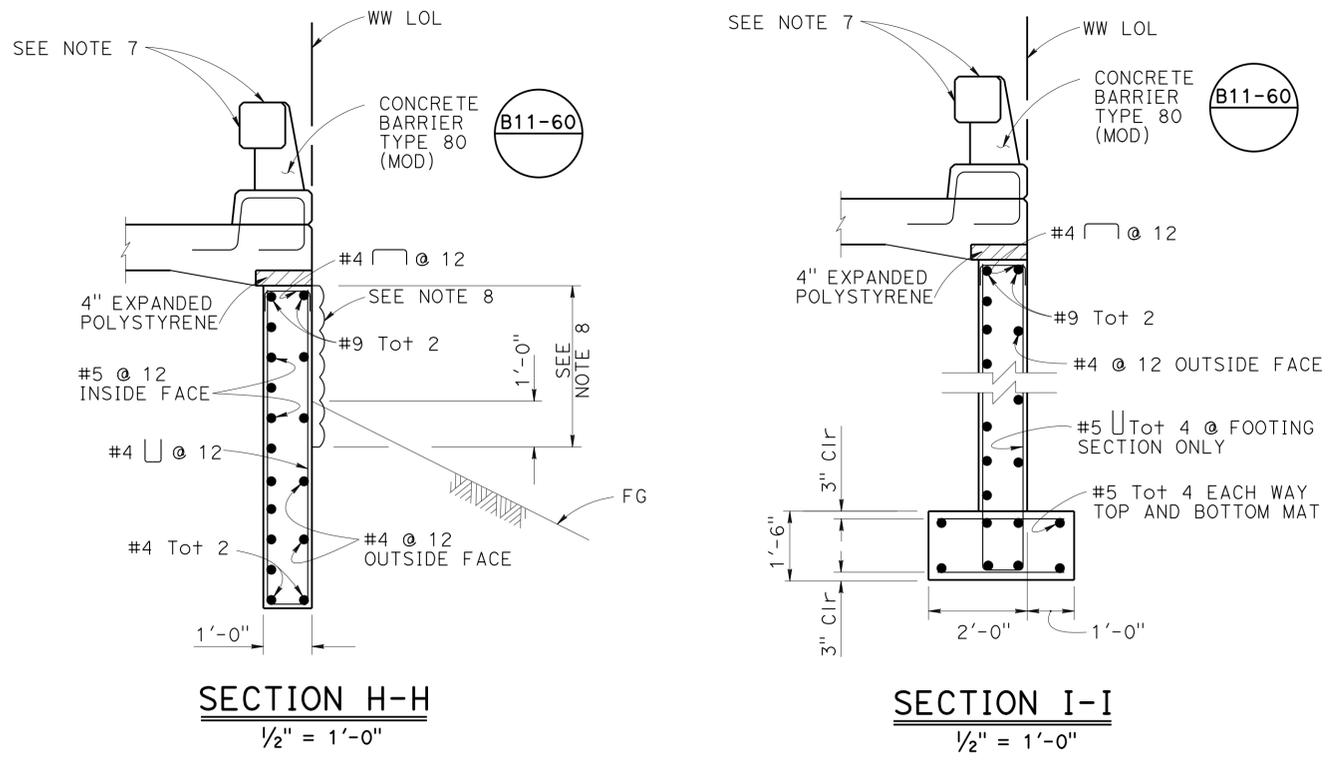
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 19

BRIDGE NO.
54-1271
POST MILE
24.2

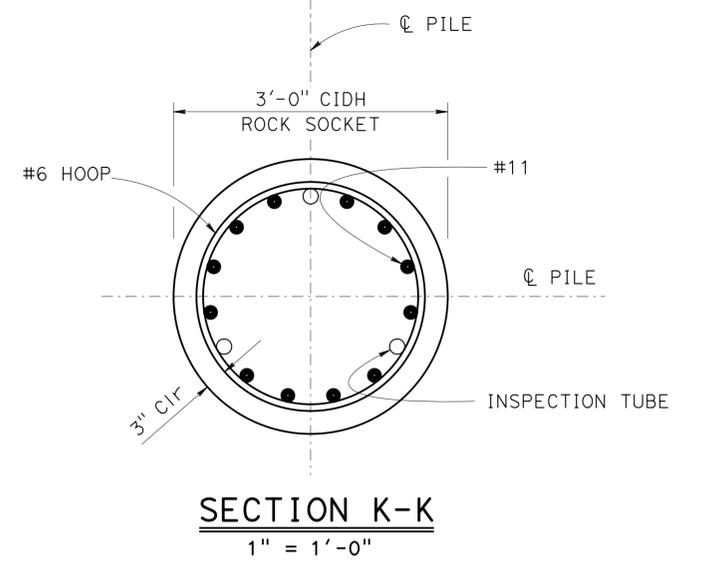
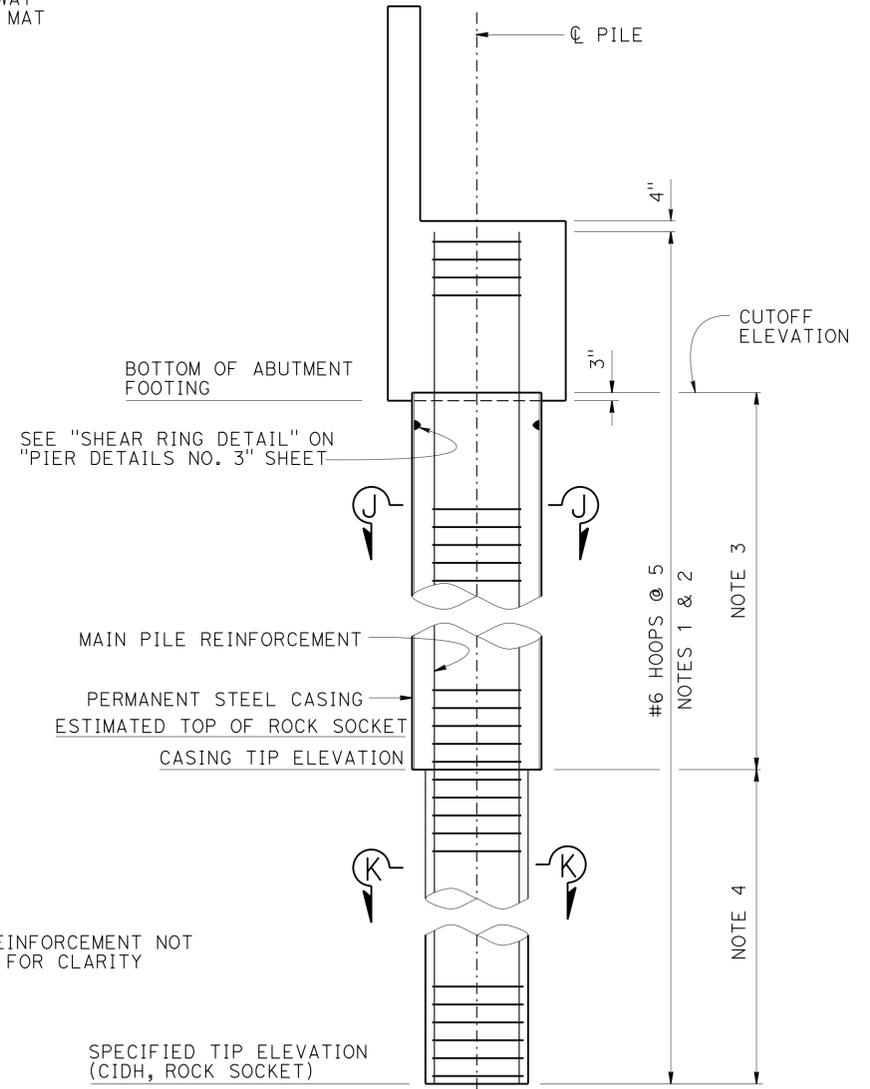
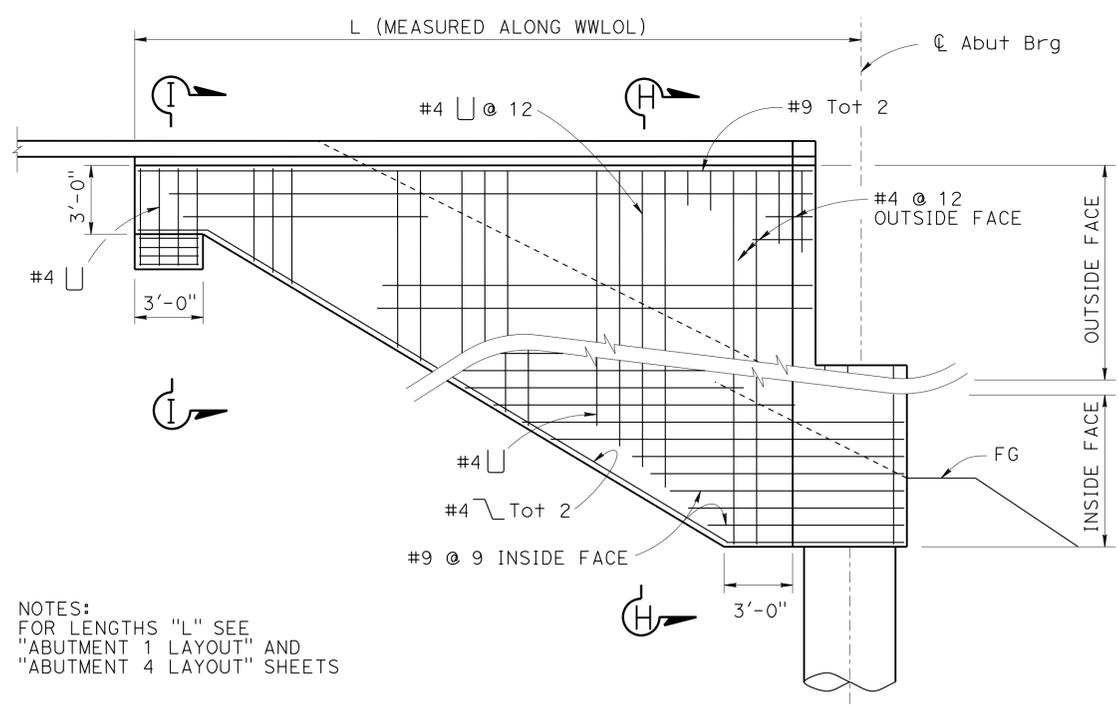
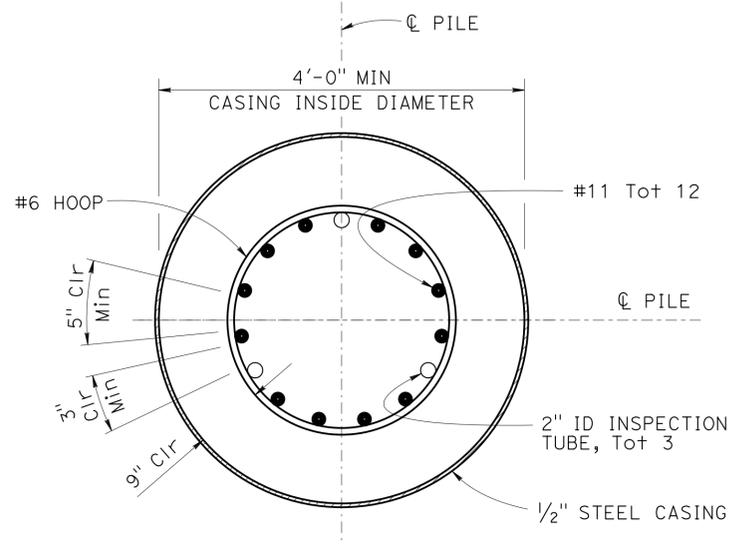
HORSETHIEF CREEK BRIDGE (REPLACE)
ABUTMENT DETAILS NO. 4

TIME PLOTTED => 14-MAY-2014 06:09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD	138	R24.1	83	103
 REGISTERED CIVIL ENGINEER			04/16/14 DATE		
12-30-13 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:**
- All hoops are "Ultimate" butt spliced continuous.
 - Only staggered "Ultimate" butt splices are allowed in main pile reinforcement in this zone.
 - Limits of payment for 48" CIDH concrete piling and permanent steel casing.
 - Limits of payment for 36" CIDH concrete piling (rock socket).
 - Reinforcement to be spliced at construction joints unless otherwise shown.
 - For "SPIRAL END ANCHOR AND SPLICE DETAIL" see "PIER DETAILS NO. 3" sheet.
 - For Type 80 (MOD) Barrier rail treatment, see "ARCHITECTURAL TREATMENT NO. 2" sheet.
 - Limits of "RANDOM BOULDER TEXTURE" and "PREPARE AND STAIN CONCRETE". See "ARCHITECTURAL TREATMENT NO. 1" for RANDOM BOULDER TEXTURE details.



**WINGWALL ELEVATION
ABUTMENT 4 LEFT**
1/4" = 1'-0"
(ALL OTHERS SIMILAR)

CIDH PILE @ ABUTMENT
NO SCALE

REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

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

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) ABUTMENT DETAILS NO. 5
	DETAILS	BY H. INIGUEZ	CHECKED J. FANG			POST MILE	24.2	
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS			UNIT: 3621 PROJECT NUMBER & PHASE: 0800000324 1	CONTRACT NO.: 08-0J8501	

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

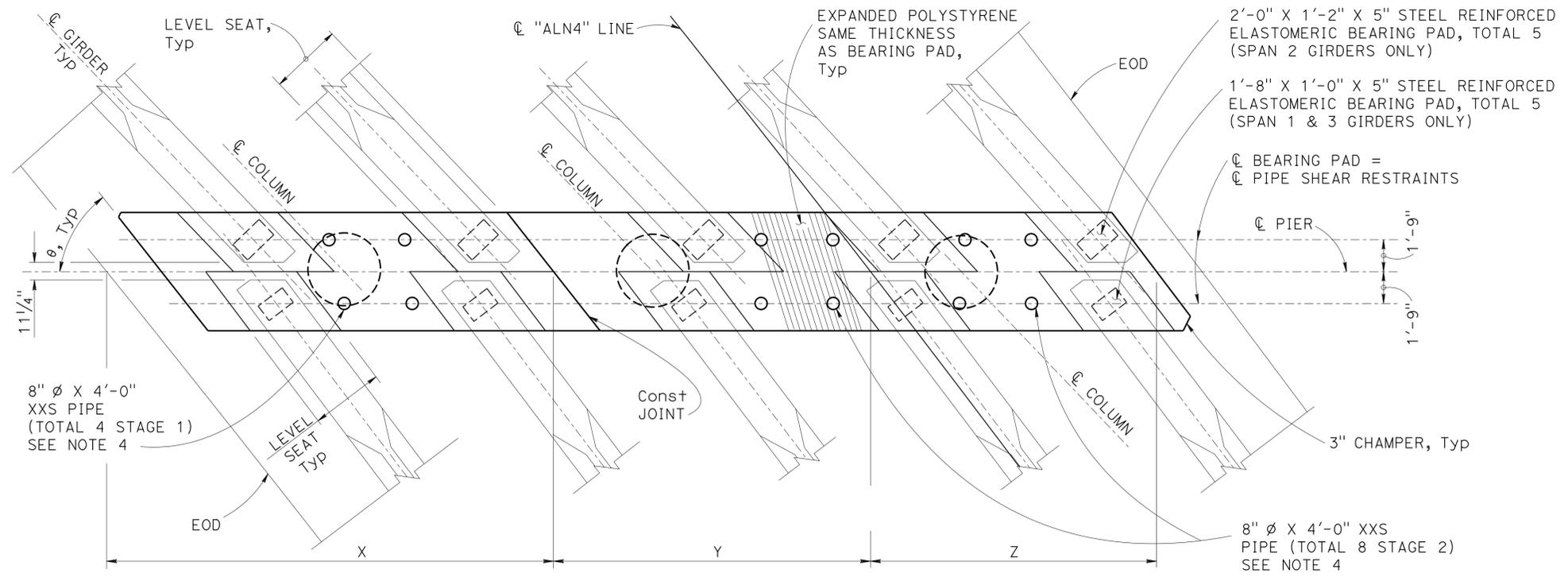
UNIT: 3621
PROJECT NUMBER & PHASE: 0800000324 1
CONTRACT NO.: 08-0J8501

DISREGARD PRINTS BEARING EARLIER REVISION DATES

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	84	103

04/16/14 DATE
 REGISTERED CIVIL ENGINEER
 MAMUNUR RAHMAN
 No. C48515
 Exp. 6/30/14
 CIVIL
 STATE OF CALIFORNIA

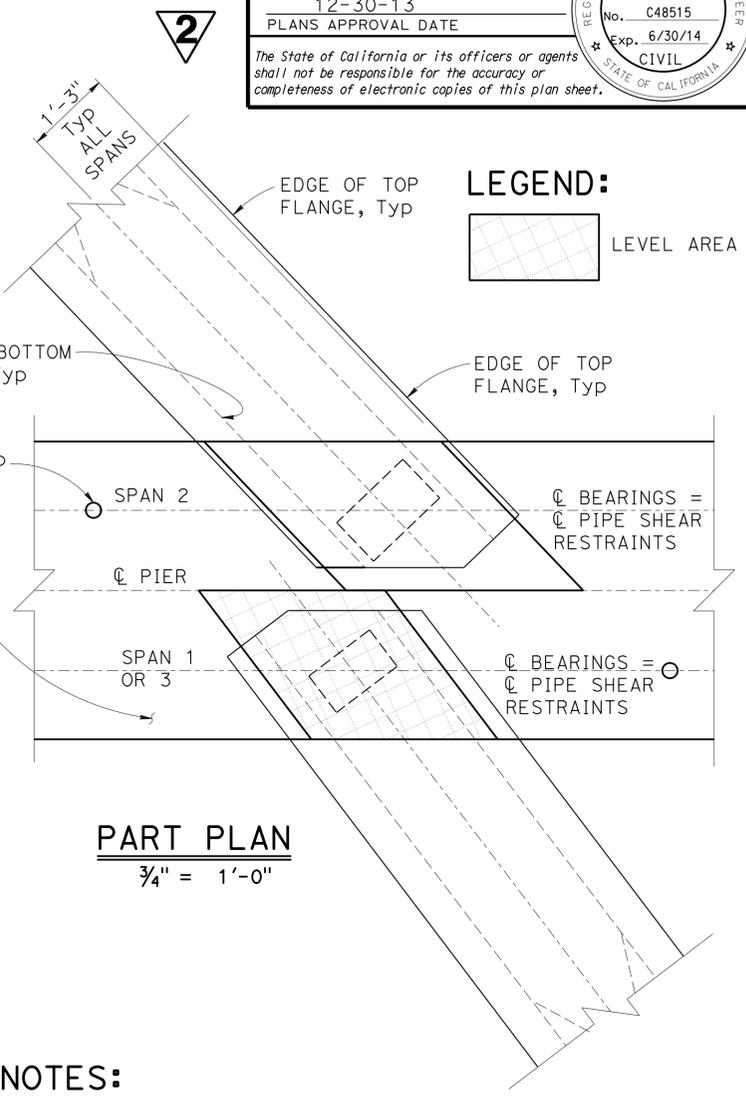
12-30-13
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



	PIER 2	PIER 3
X	18'-7 ³ / ₈ "	23'-8 ⁷ / ₈ "
Y	18'-8 ⁵ / ₈ "	21'-9 ¹ / ₈ "
Z	17'-2"	17'-0"
θ	52°	44°

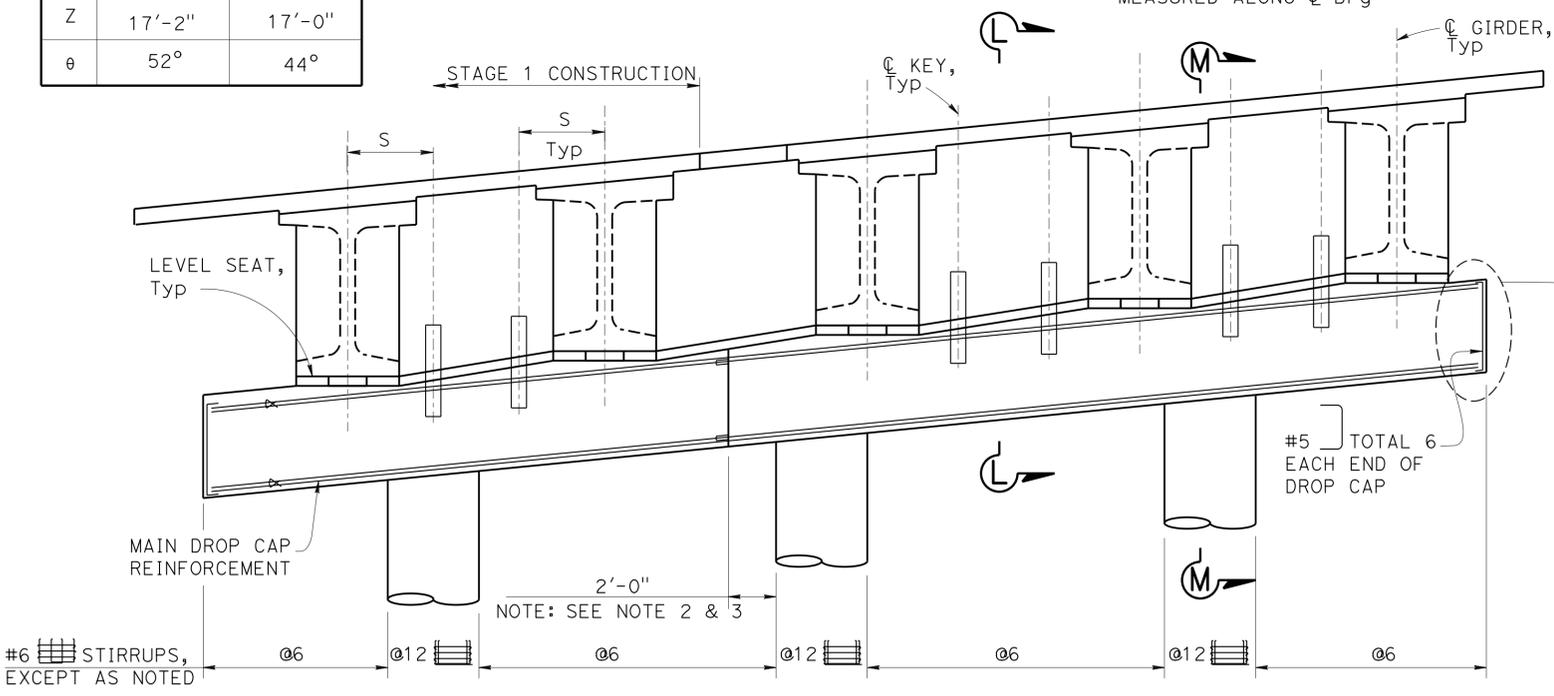
PLAN
1/4" = 1'-0"

NOTE:
 S = 3'-10" @ PIER 2
 S = 4'-5" @ PIER 3
 MEASURED ALONG C Brg



PART PLAN
3/4" = 1'-0"

- NOTES:**
1. Pier 2 shown, Pier 3 similar.
 2. Stagger splice criteria does not apply in this region.
 3. Embed threaded coupler into end of stage 1 pier cap & cover with a plastic cap prior to stage 2 construction.
 4. For Pipe Shear Restraint details, see "PIER DETAILS NO. 4" sheet.
 5. See "PIER DETAILS NO. 1" sheet for "SECTION L-L" and "SECTION M-M" details.
 6. Drop cap stirrups shown shall be placed normal to C pier.



ELEVATION
1/4" = 1'-0"

DROP CAP CORNER DETAIL PLAN VIEW
1/4" = 1'-0"

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



2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DESIGN	BY M. RAHMAN	CHECKED J. FANG
DETAILS	BY F. HOSSEINIOUN / H. I.	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

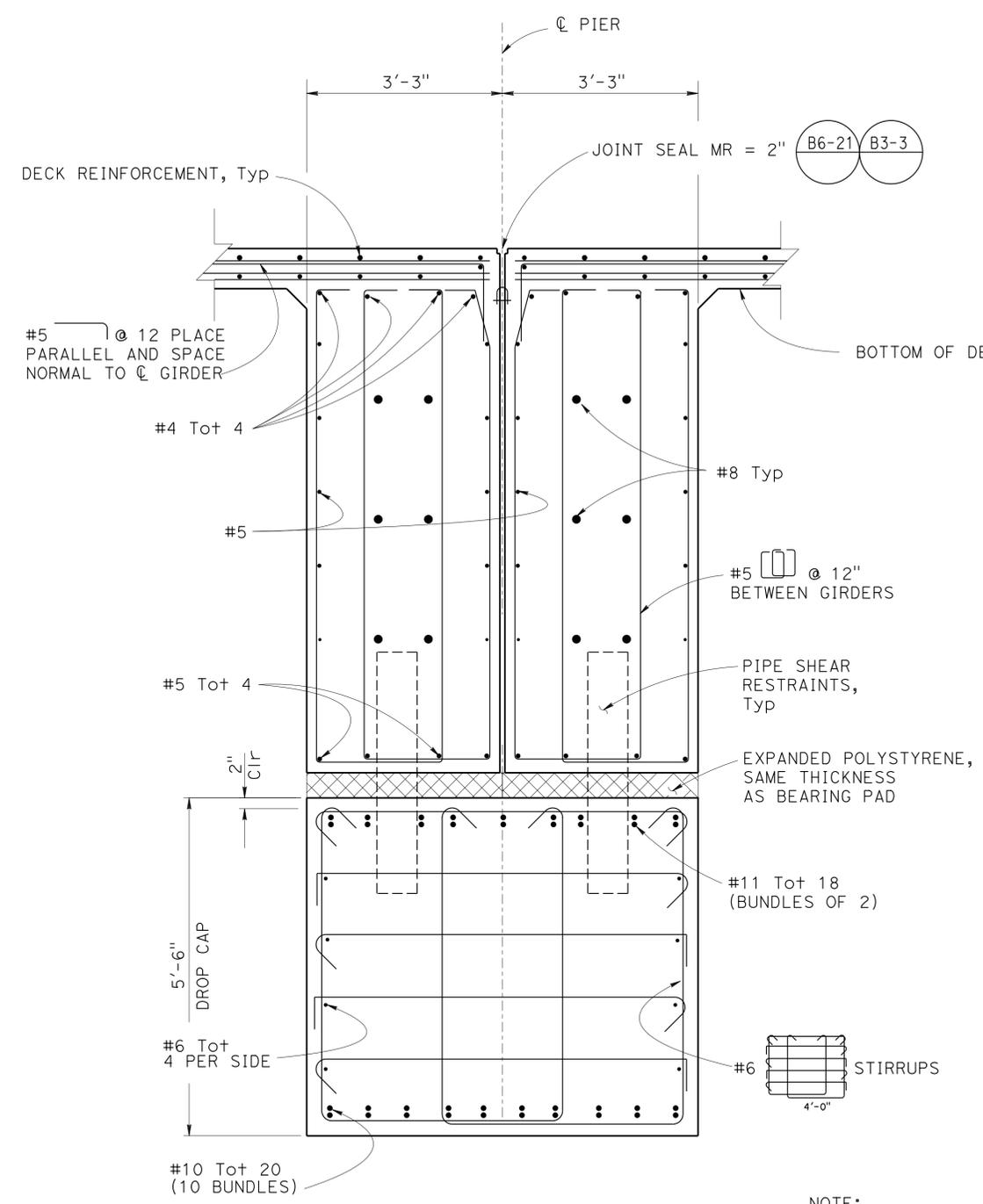
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 19

BRIDGE NO.	54-1271
POST MILE	24.2

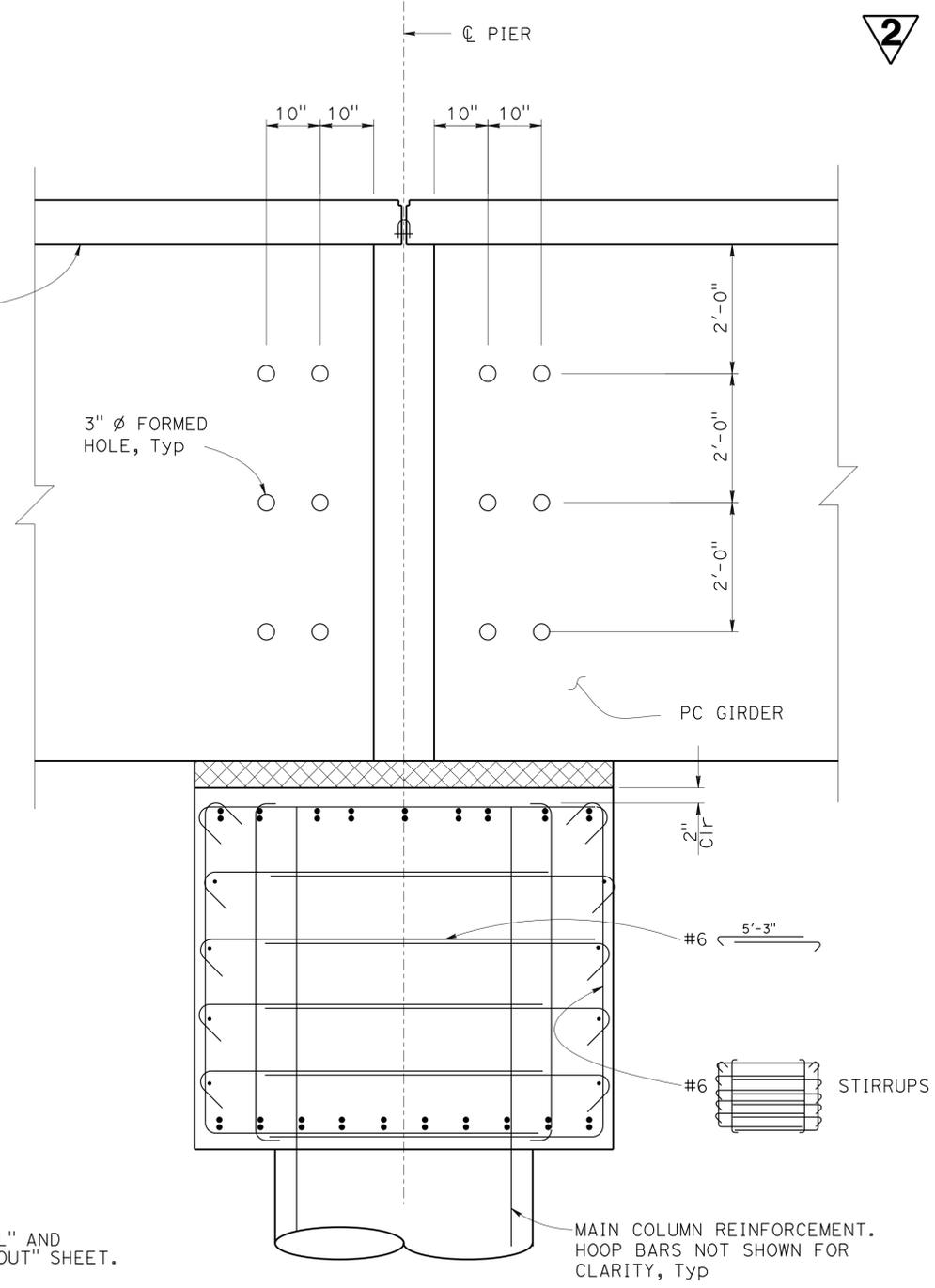
HORSETHIEF CREEK BRIDGE (REPLACE)
PIER LAYOUT

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	85	103

 04/16/14
 REGISTERED CIVIL ENGINEER DATE
 12-30-13
 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 L-L
3/4" = 1'-0"



SECTION M-M
3/4" = 1'-0"

NOTE:
FOR LOCATION OF "SECTION L-L" AND "SECTION M-M", SEE "PIER LAYOUT" SHEET.

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

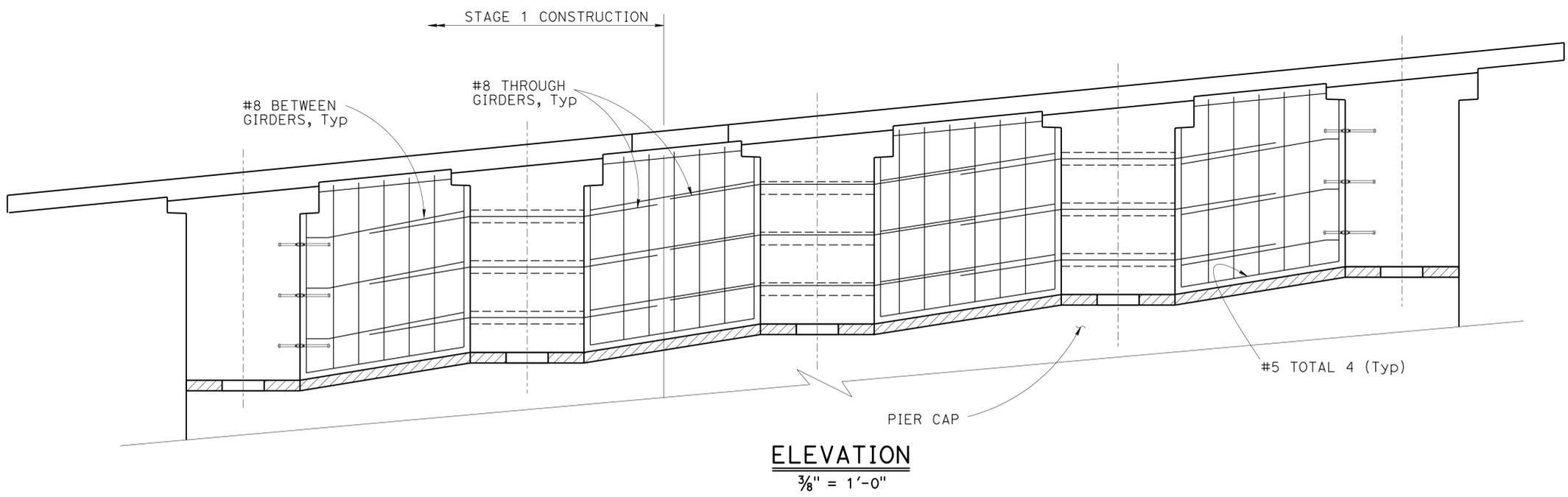
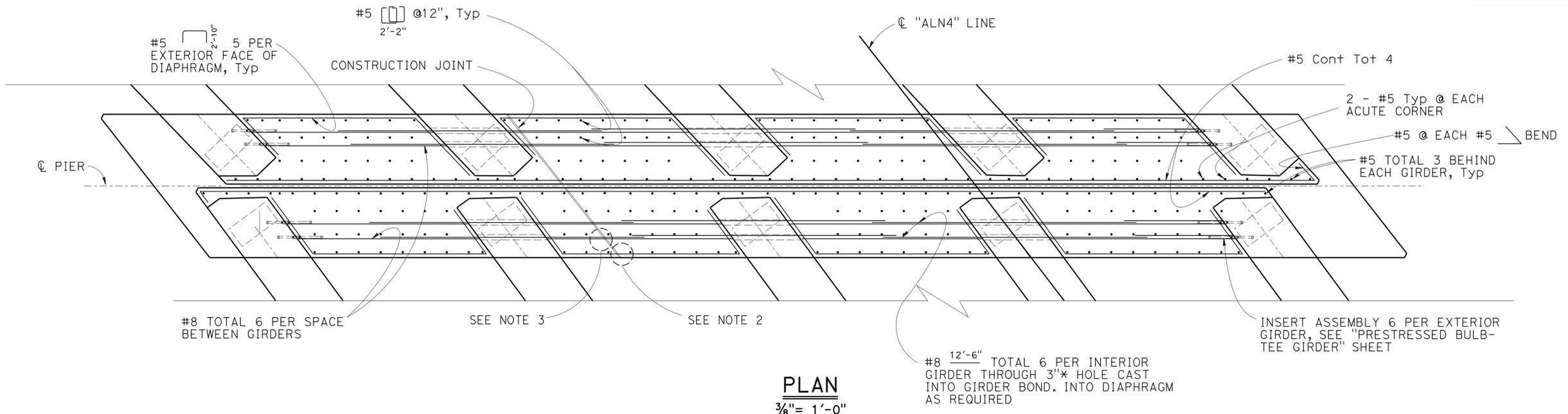


REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) PIER DETAILS NO. 1	
	DETAILS	BY F. HOSSEINIOUN / H. I.	CHECKED J. FANG			POST MILE	24.2		
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS						
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3621	PROJECT NUMBER & PHASE: 0800000324 1	CONTRACT NO.: 08-0J8501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 18 OF 36

USERNAME => s121614 DATE PLOTTED => 14-MAY-2014 TIME PLOTTED => 06:09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	86	103
REGISTERED CIVIL ENGINEER			DATE		
12-30-13			04/16/14		
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:**
- Diaphragm stirrups shown for each span shall be placed perpendicular to C Pier and spaced along C Pier.
 - Lap splice #5 \perp and #5 cont which cross construction joint.
 - Service splice #8 12'-6" between girders which cross construction joint.
 - Not all reinforcement shown.

2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DESIGN	BY M. RAHMAN	CHECKED J. FANG
DETAILS	BY F. HOSSEINIOUN / H. I.	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

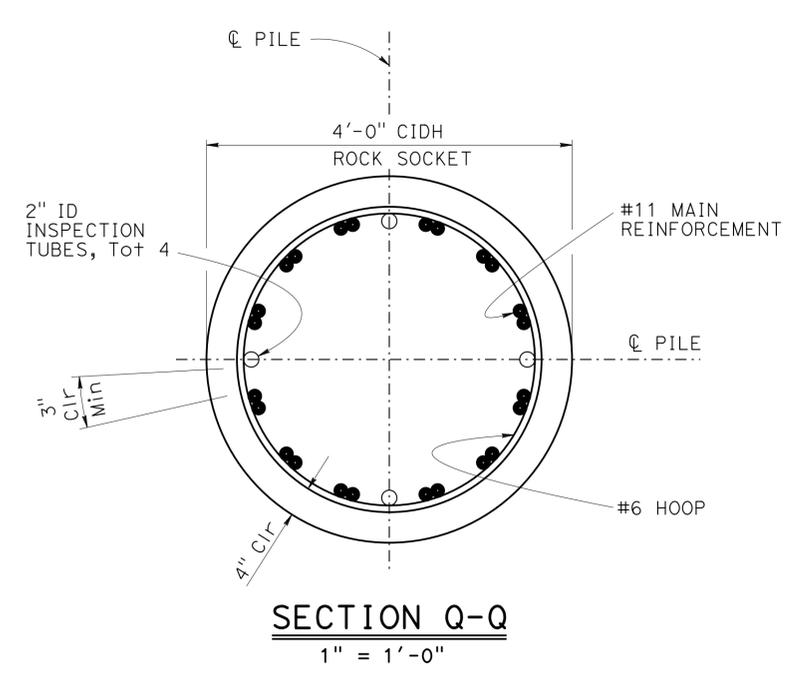
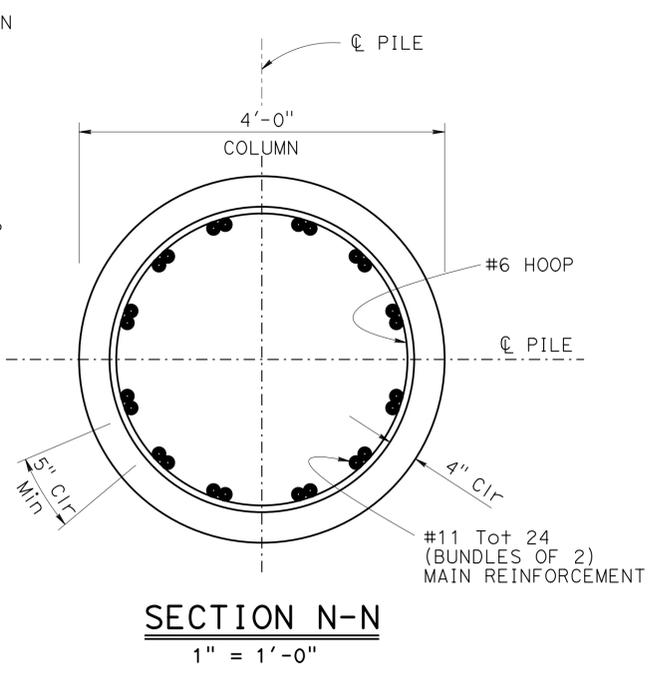
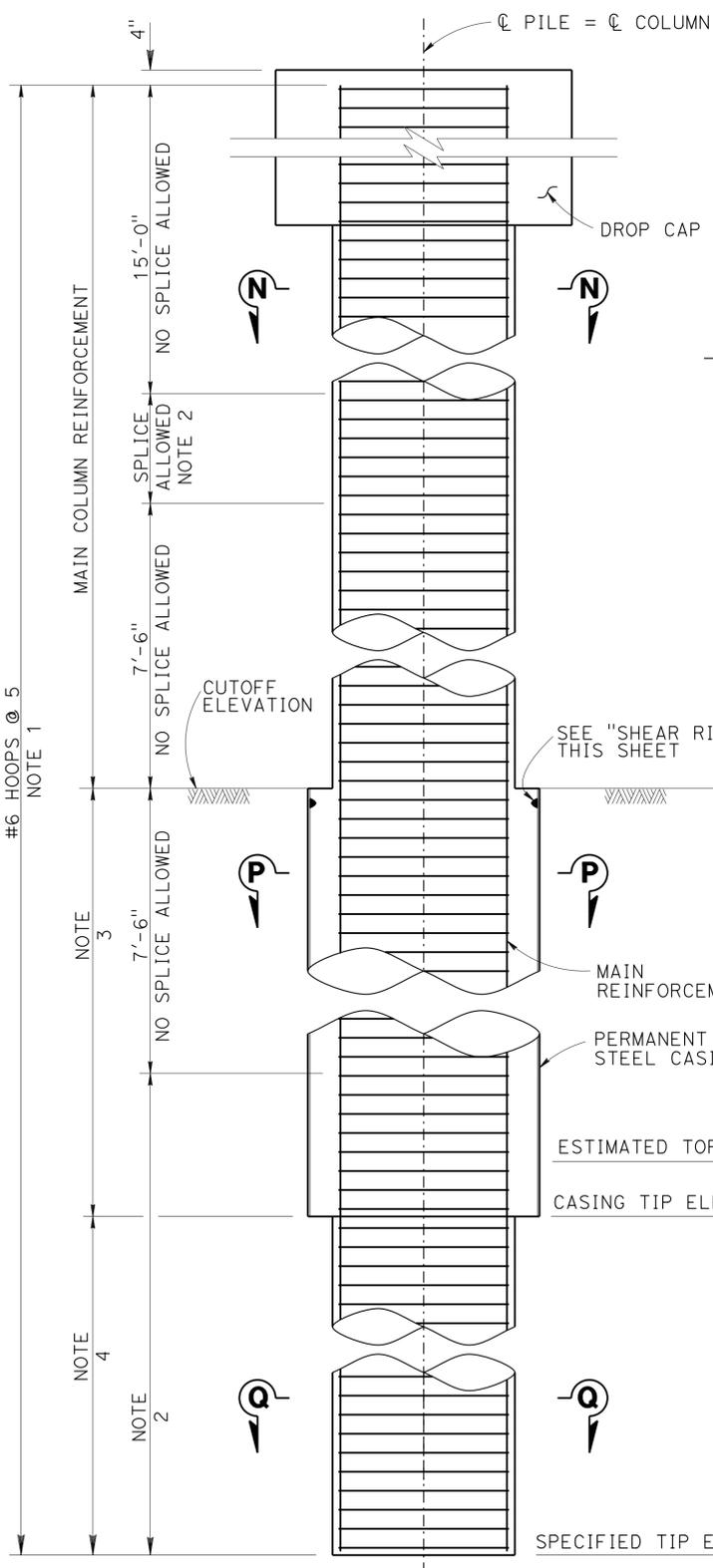
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 19

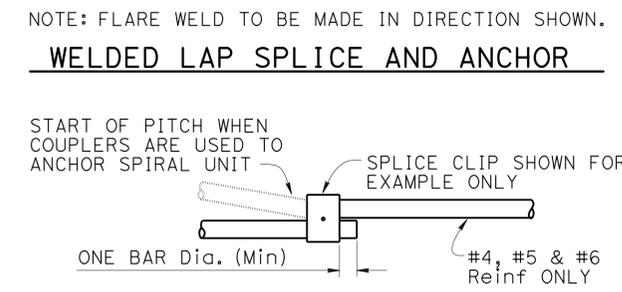
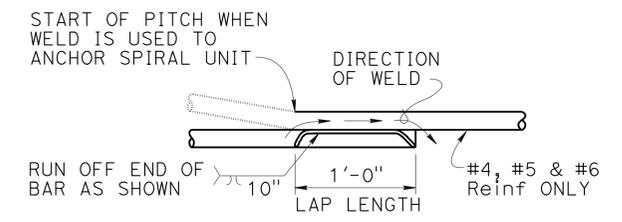
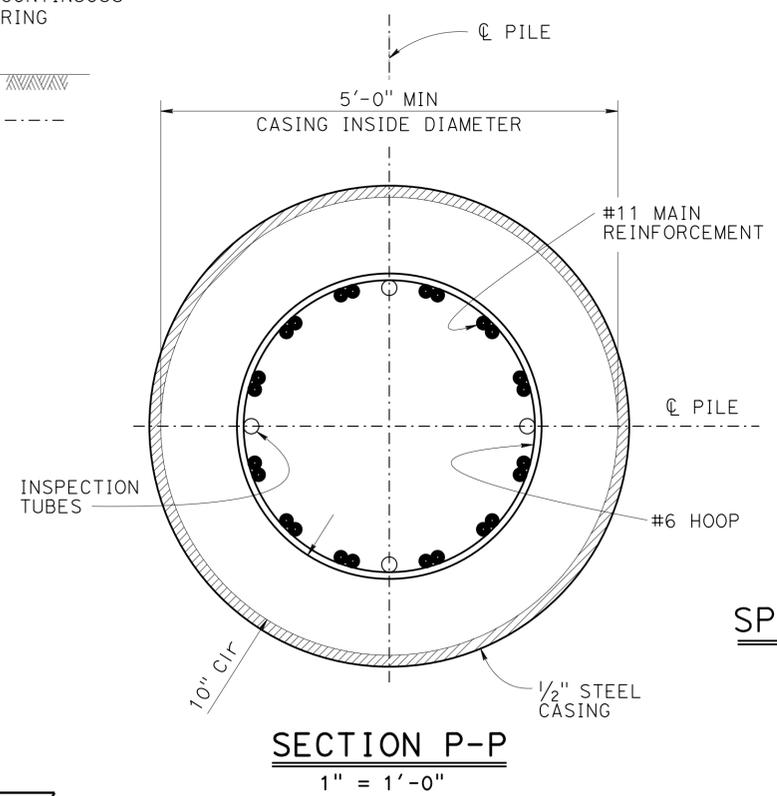
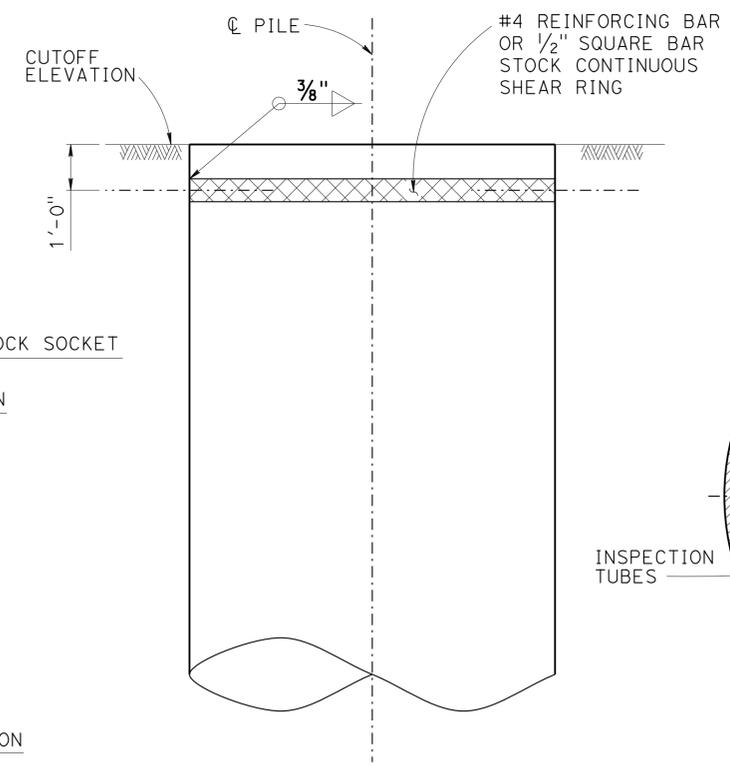
BRIDGE NO.	54-1271
POST MILE	24.2

HORSETHIEF CREEK BRIDGE (REPLACE)
PIER DETAILS NO. 2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	87	103
			04/16/14		
			REGISTERED CIVIL ENGINEER	DATE	
			12-30-13	PLANS APPROVAL DATE	
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- NOTES:**
- All hoops are "Ultimate" butt spliced continuous.
 - Only staggered "Ultimate" butt splices are allowed in main column/pile reinforcement in this zone.
 - Limits of payment for 60" CIDH concrete piling and permanent steel casing.
 - Limits of payment for 48" CIDH concrete piling (rock socket).
 - Reinforcement to be spliced at construction joints unless otherwise shown.



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

NOTE: Weld bead to be field welded.



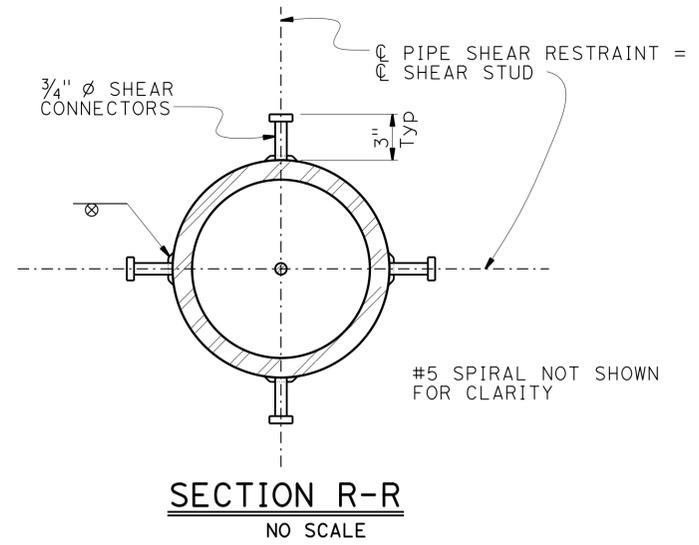
REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DESIGN	BY	M. RAHMAN	CHECKED	J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE)					
	DETAILS	BY	F. HOSSEINIOUN/ H. INIGUEZ	CHECKED			J. FANG	POST MILE		24.2	PIER DETAILS NO. 3			
QUANTITIES	BY	R. WANG / H. WIN	CHECKED	V. ALTAMIRANO/D. BALBAS	UNIT: 3621	PROJECT NUMBER & PHASE: 0800000324 1	CONTRACT NO.: 08-0J8501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET		OF		
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)										05-27-13	09-11-13	08-27-13	20	36

DATE PLOTTED => 14-MAY-2014 TIME PLOTTED => 06:10

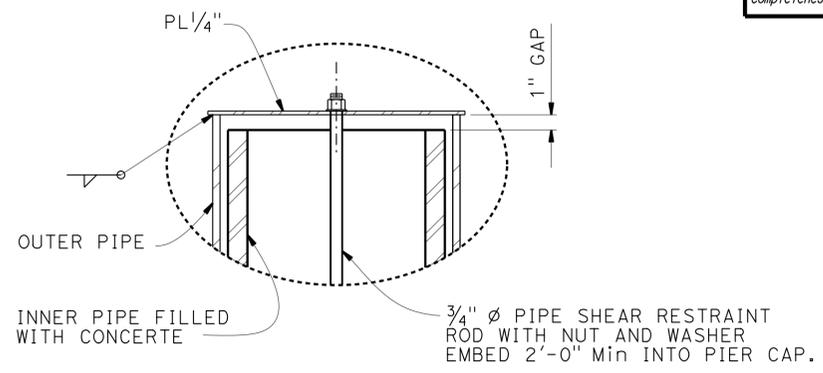
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	88	103


 REGISTERED CIVIL ENGINEER DATE 04/16/14
 12-30-13
 PLANS APPROVAL DATE
 REGISTERED PROFESSIONAL ENGINEER
 MAMUNUR RAHMAN
 No. C48515
 Exp. 6/30/14
 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.

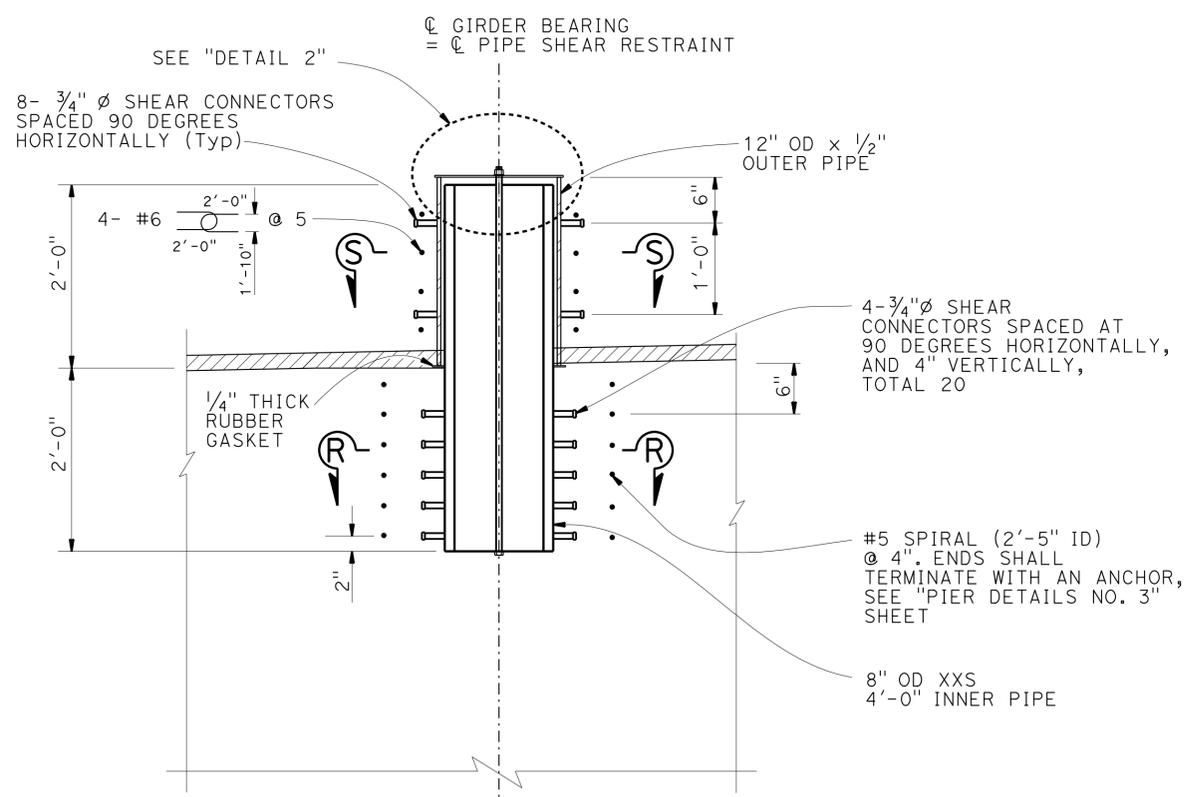


SECTION R-R
NO SCALE

NOTE:
TIGHTEN NUT TO SEAT OUTER PIPE TIGHTLY AGAINST 1/4" THICK RUBBER GASKET PLACED ON CONCRETE AROUND PIPE PIN AND INNER PIPE.

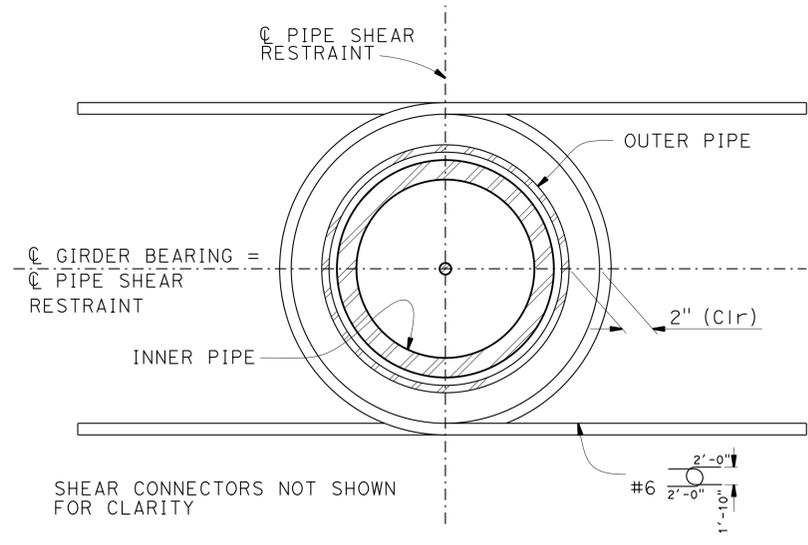


DETAIL 2
NO SCALE



PIPE SHEAR RESTRAINT
NO SCALE

NOTE:
CONTRACTOR SHALL CENTER OUTER AND INNER PIPES PRIOR TO PLACEMENT OF CONCRETE



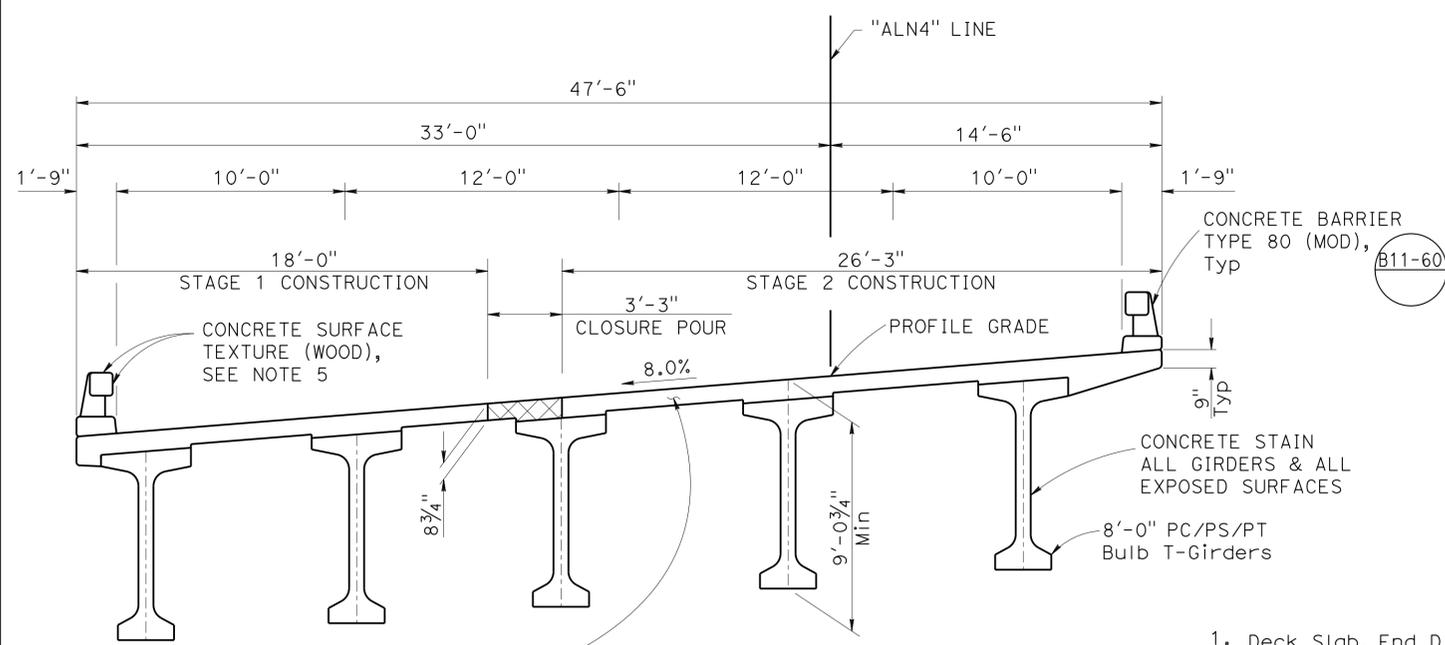
SECTION S-S
NO SCALE

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

2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) PIER DETAILS NO.4						
	DETAILS	BY F. HOSSEINIOUN / H. INIGUEZ	CHECKED J. FANG			POST MILE	24.2							
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS											
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0	1	2	3	UNIT: 3621	PROJECT NUMBER & PHASE: 0800000324 1	CONTRACT NO.: 08-0J8501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 21	OF 36

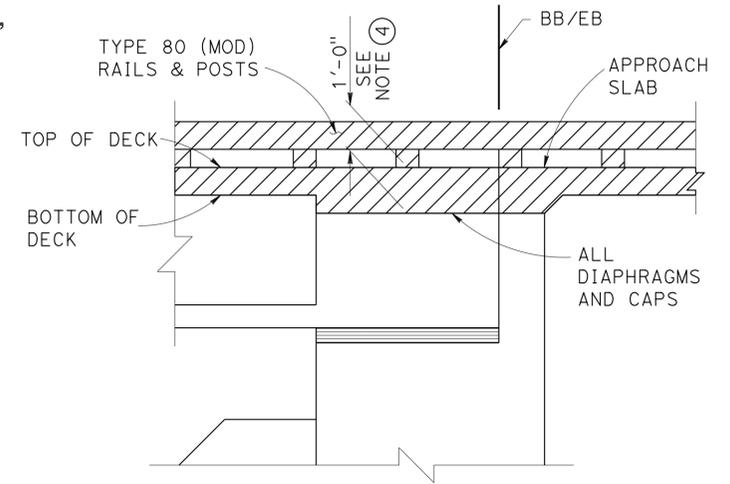
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	89	103
 REGISTERED CIVIL ENGINEER DATE 04/16/14					
12-30-13 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



- NOTES:**
- For girder reinforcement details, see "PRESTRESSED BULB TEE GIRDER DETAILS NO. 1" sheet.
 - Dimensions measured radial (normal) to "ALN4" Line
 - 3/4" drip groove, Typ
 - All Reinforcement within or extended into this area  shall be epoxy coated in their entirety.
 - For Type 80 (MOD) Barrier rail treatment, see "ARCHITECTURAL TREATMENT NO. 2" sheet.
 - Extend transverse reinforcement into closure pour. At locations where existing bridge prevents lap splice, use sevice splice to complete the extension during stage 2 construction.

CONCRETE DECK SLAB CONSTRUCTION SEQUENCE

- Deck Slab, End Diaphragm and intermediate Diaphragms between girders, when present, shall be a monolithic pour.
- Intermediate diaphragms between girders shall be formed to allow for differential girder deflection.
- Revibrate concrete at the regions between the form work pivot point and the centerline of adjacent girder prior to final concrete deck slab finishing.

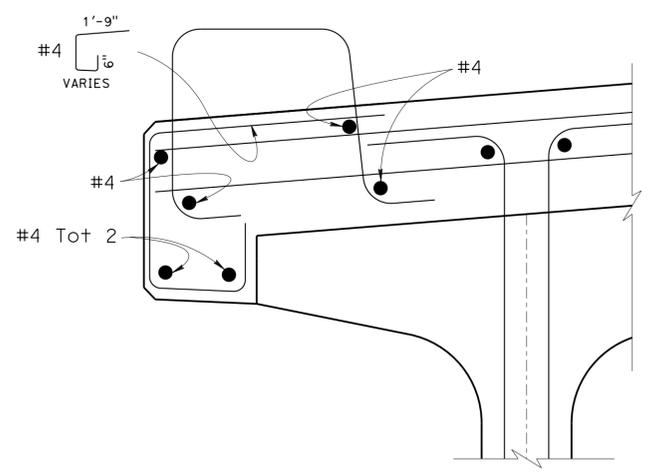
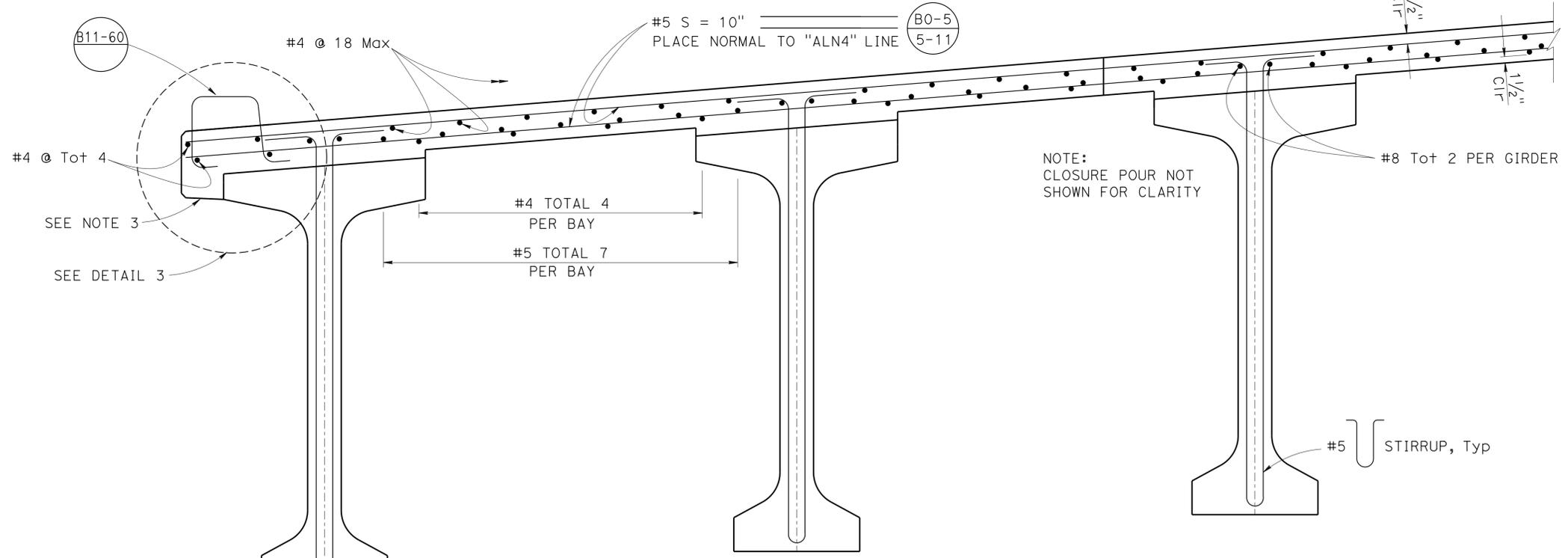


EPOXY COATED REINFORCEMENT LIMITS
NO SCALE

TYPICAL SECTION @ Sta 617+47.79
1/4" = 1'-0"

LEGEND:

 DENOTES CLOSURE POUR



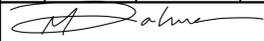
DETAIL 3
NO SCALE

NOTE:
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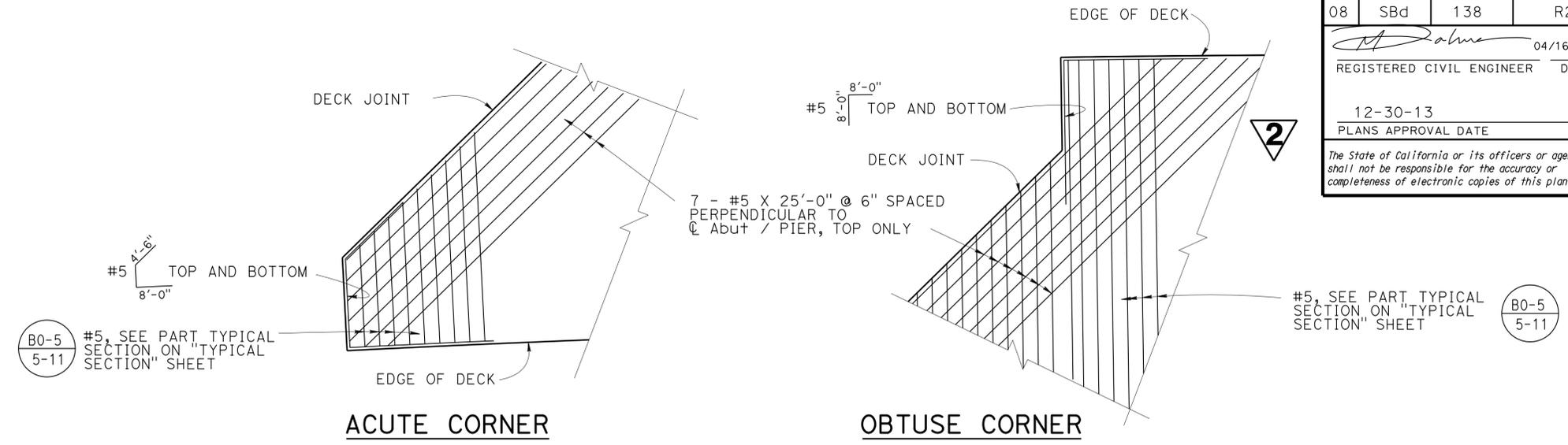
PART TYPICAL SECTION
3/4" = 10'

REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

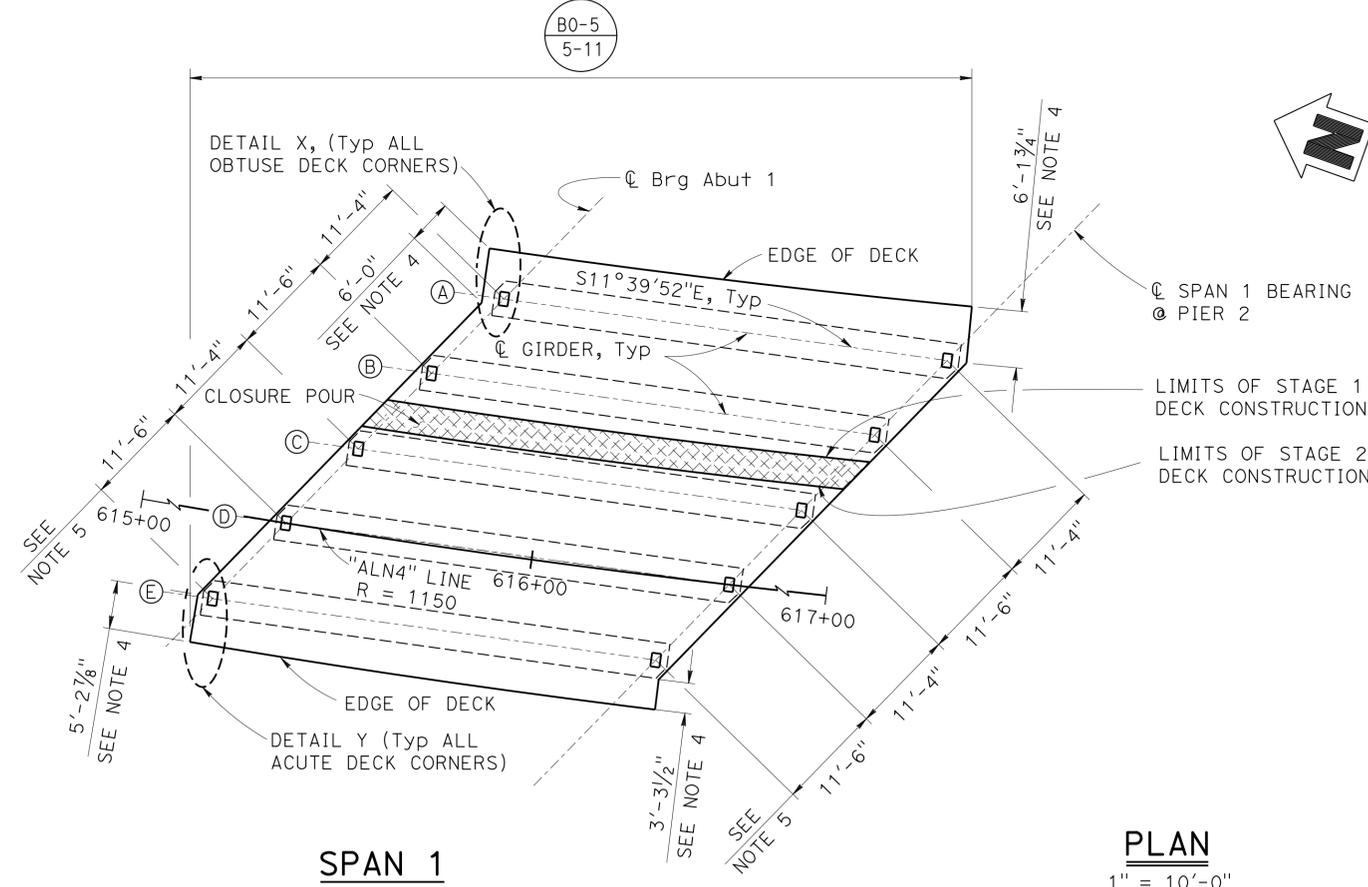
DESIGN BY M. RAHMAN CHECKED J. FANG DETAILS BY H. INIGUEZ CHECKED J. FANG QUANTITIES BY R. WANG / H. WIN CHECKED V. ALTAMIRANO/D. BALBAS	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO. 54-1271 POST MILE 24.2	HORSETHIEF CREEK BRIDGE (REPLACE) TYPICAL SECTION
	STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3621 PROJECT NUMBER & PHASE: 0800000324 1 CONTRACT NO.: 08-0J8501	DISREGARD PRINTS BEARING EARLIER REVISION DATES
	0 1 2 3	FILE => 54-1271-K-TS.add	REVISION DATES 04-24-13 05-07-13 08-27-13 09-11-13	SHEET 22 OF 36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	90	103
			04/16/14		
REGISTERED CIVIL ENGINEER			DATE		
12-30-13			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:**
- Centerline of abutments and piers are parallel.
 - Extend alternate top transverse deck reinforcement 2'-0" into end diaphragm. Stop remaining transverse steel reinforcement 3" from face of abutment.
 - Lap splice top transverse deck reinforcement between stage constructions or as determined by the Engineer.
 - Measured Radially to "ALN4" LINE.
 - All dimensions measured along ϕ support unless noted.

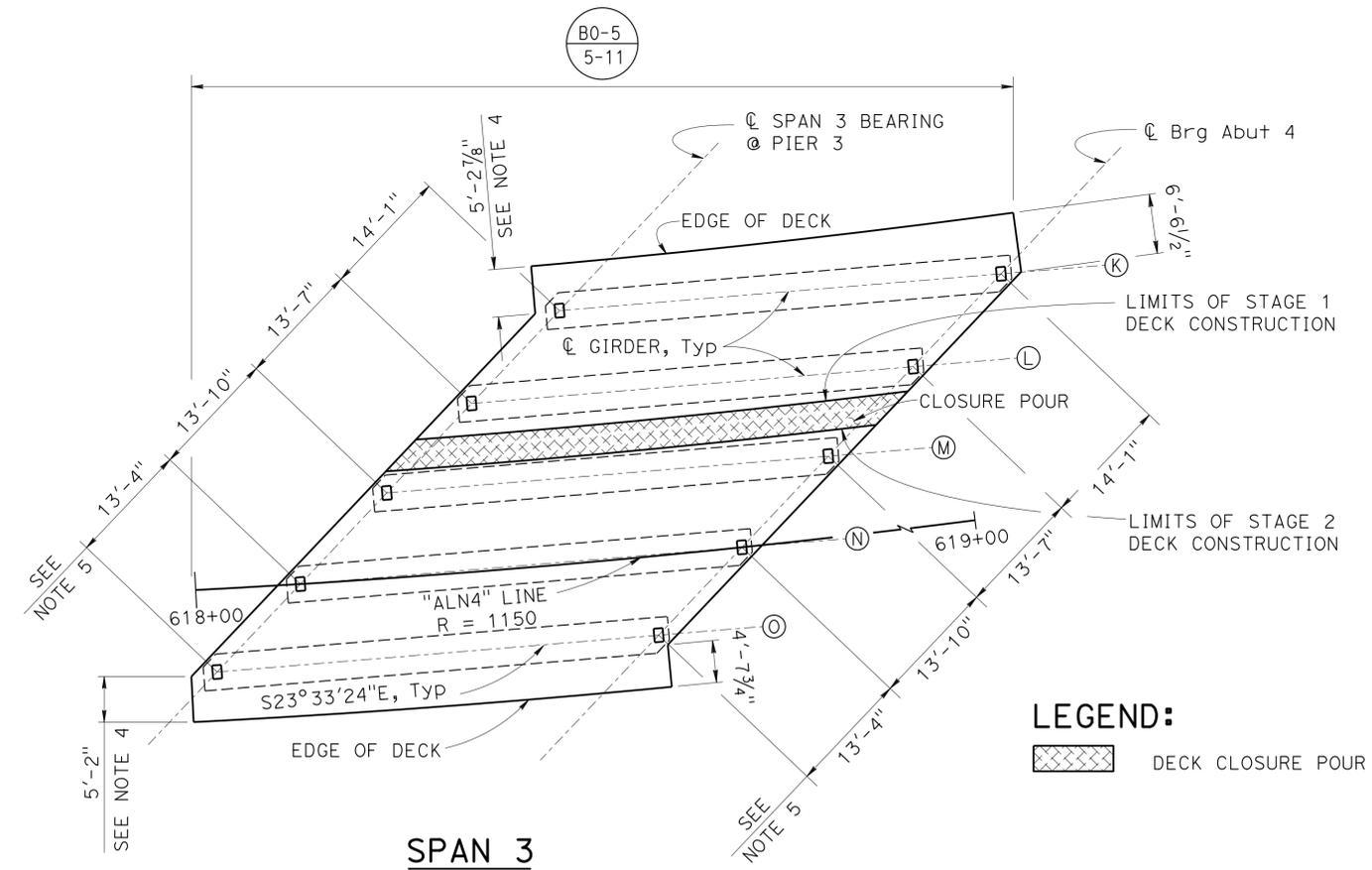


DECK CORNER DETAILS
NO SCALE



SPAN 1

PLAN
1" = 10'-0"



SPAN 3

LEGEND:
 DECK CLOSURE POUR

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

NOTE:
FOR SPAN 2 DETAILS & DECK REINFORCEMENT LAYOUT, SEE "GIRDER LAYOUT NO. 2" SHEET.

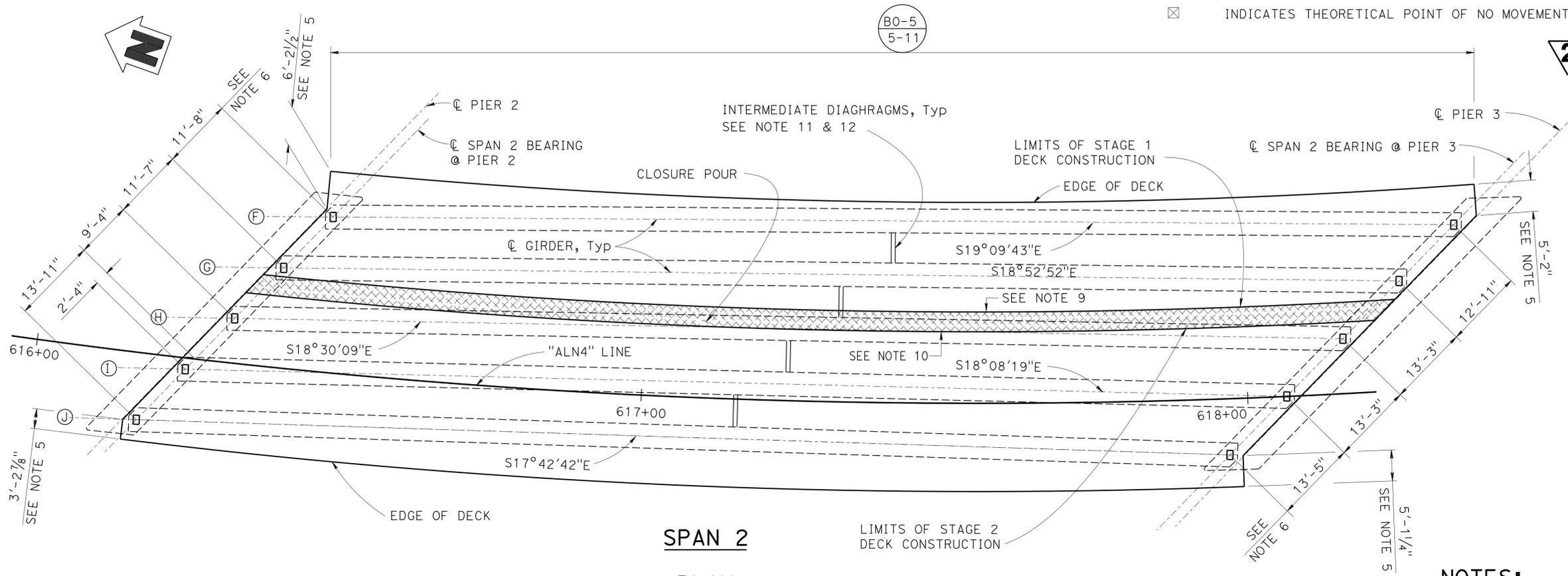
2 **REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014**

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54--1271	HORSETHIEF CREEK BRIDGE (REPLACE) GIRDER LAYOUT NO. 1
	DETAILS	BY H. INIGUEZ	CHECKED J. FANG			POST MILE	24.2	
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS			UNIT: 3621 PROJECT NUMBER & PHASE: 080000324 1 CONTRACT NO.: 08-0J8501		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES		SHEET 23 OF 36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	91	103
 REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE 12-30-13					
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LEGEND:

-  CLOSURE POUR
-  INDICATES THEORETICAL POINT OF NO MOVEMENT



SPAN 2

PLAN

1" = 10'-0"

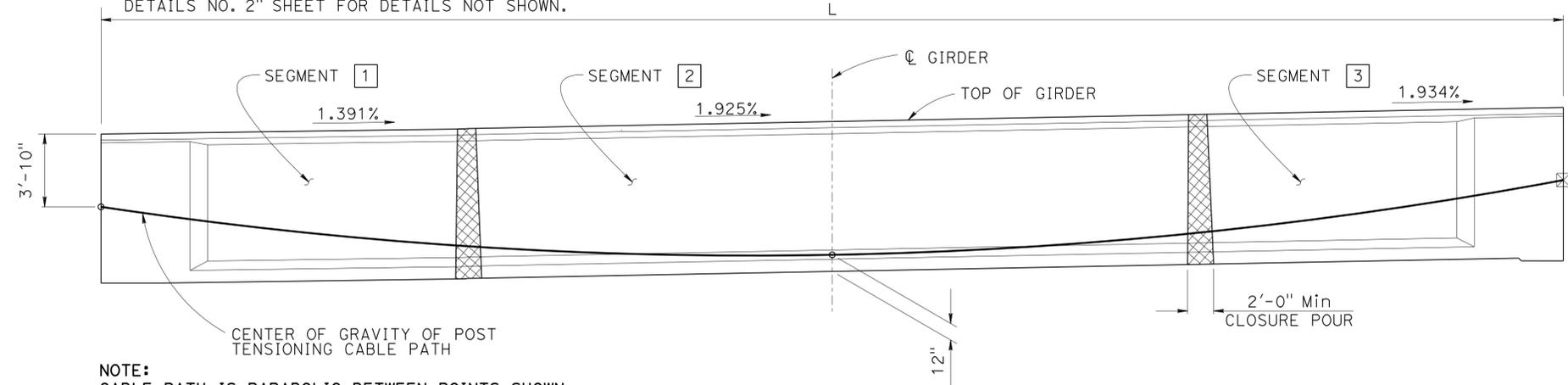
POST TENSIONING NOTES

- 270 ksi Low Relaxation Strand:
- P_{jack} = 3500 kips per girder
 - Anchor Set = $\frac{3}{8}$ in
 - Friction curvature coefficient μ = 0.15
 - Friction wobble coefficient K = 0.0002 /ft
 - Total Number of Girders: = 5
 - Splice Concrete: f'_c = 6000 psi @ time of stressing
- Contractor shall submit elongation calculations based on initial stress at $\square = 0.903$ times jacking stress.
- \square indicates theoretical point of no movement.
- One end stressing shall be performed from the beginning of bridge end.

NOTES:

1. Centerline of abutments and piers are parallel.
2. Extend alternate top transverse deck reinforcement 2'-0" into end diaphragm. Stop remaining transverse steel reinforcement 3" from face of abutment.
3. Lap splice top transverse deck reinforcement between stage constructions or as determined by the Engineer.
4. L= Girder Length given on PRESTRESSED BULB-TEE GIRDER DETAILS NO. 2" sheet.
5. Measured Radially to "ALN4" LINE .
6. All dimensions measured along \perp support unless noted.
7. Limits of stage 1 deck construction.
8. Limits of stage 2 deck construction.
9. For location of Intermediate Diaphragms, see "PRESTRESSED BULB-TEE GIRDER DETAILS NO.1" sheet.
10. For details of Intermediate Diaphragms, see "PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)" sheet.

NOTE:
SEE "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 1" AND "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 2" SHEET FOR DETAILS NOT SHOWN.



ELEVATION

SPAN 2 POST TENSIONING
NO SCALE

NOTE:
CABLE PATH IS PARABOLIC BETWEEN POINTS SHOWN.

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



REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DESIGN	BY	M. RAHMAN	CHECKED	J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) GIRDER LAYOUT NO. 2	
	DETAILS	BY	H. INIGUEZ	CHECKED			J. FANG	POST MILE		24.2
	QUANTITIES	BY	R. WANG / H. WIN	CHECKED			V. ALTAMIRANO/D. BALBAS			

PRESTRESSING NOTES

- The Jacking Force (P) is the jacking force required at the point of control along the span. The jacking force does not include any fabrication specific losses
- The maximum temporary tensile stress (jacking stress) in the prestressing steel shall not exceed 80% of the specified minimum ultimate tensile strength of the prestressing steel
- Concrete strength:
f'ci is at time of initial stressing
f'c is at 28 days

- Deflection components are informational and will be used to set screed line elevations
- Screed line elevations for deck concrete will be determined by the Engineer
- Prestressing strand shall be 270 ksi low relaxation
- Strand locations may be adjusted as approved by the Engineer

LEGEND:

- DENOTES CONTINUOUSLY BONDED STRAND LOCATION

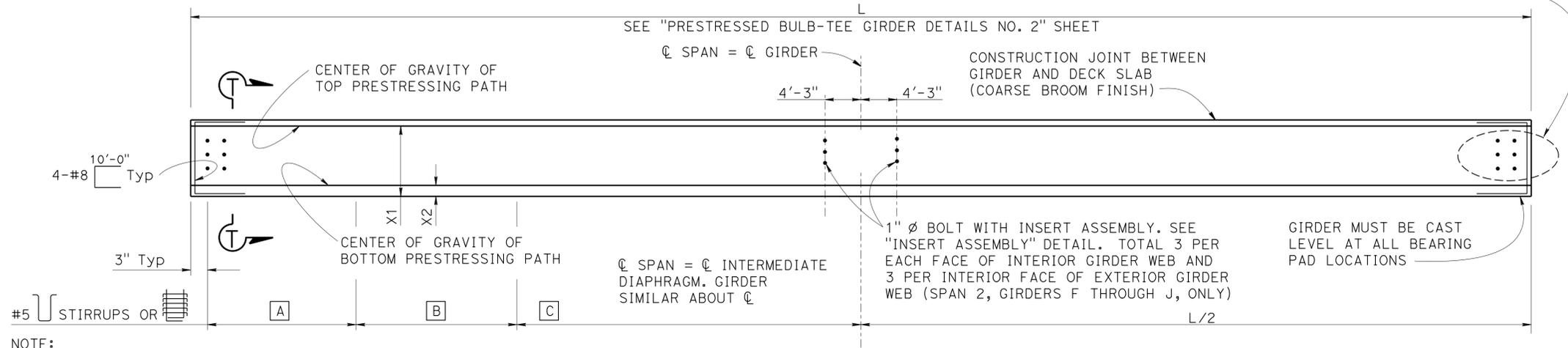
3" * THROUGH HOLES FOR #8 x 12'-0" DOWELS IN ALL INTERIOR GIRDER END BLOCKS, AND, 1" * BOLTS WITH INSERT ASSEMBLIES AT EXTERIOR GIRDER END BLOCKS. SEE INSERT ASSEMBLY DETAIL. TOTAL 6 PER EACH END BLOCK PER GIRDER (ALL SPANS). SEE "PIER DETAILS NO. 1" AND "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 2" SHEETS FOR DETAILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	92	103

05/06/14
 REGISTERED CIVIL ENGINEER DATE
 12-30-13
 PLANS APPROVAL DATE

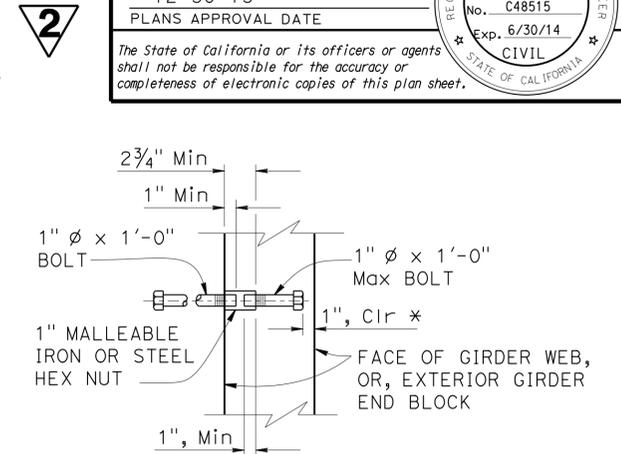
MAMUNUR RAHMAN
 No. C48515
 Exp. 6/30/14
 CIVIL
 STATE OF CALIFORNIA

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GIRDER ELEVATION

No Scale

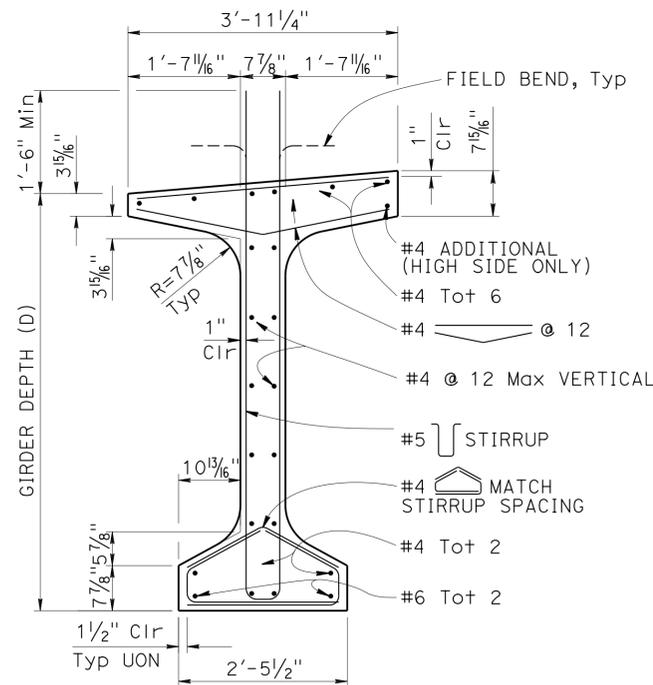


* DIMENSION MAY BE INCREASED WHEN INSERT ASSEMBLY IS USED AT END BLOCK

INSERT ASSEMBLY

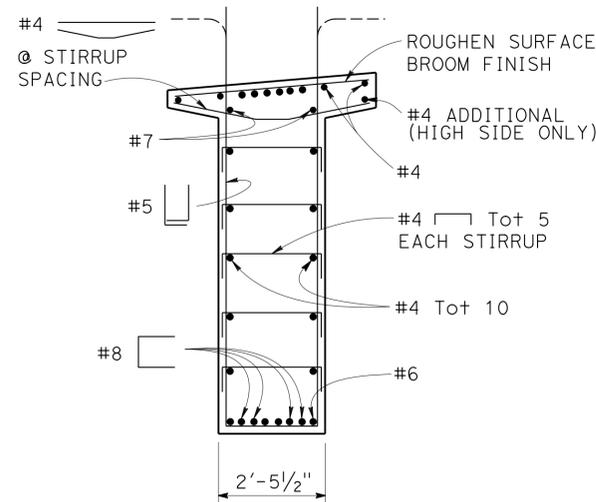
No Scale

NOTE:
 FOR SHEAR REINFORCEMENT LAYOUT DATA, SEE SHEAR REINFORCING DATA TABLE ON "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 2." SHEET



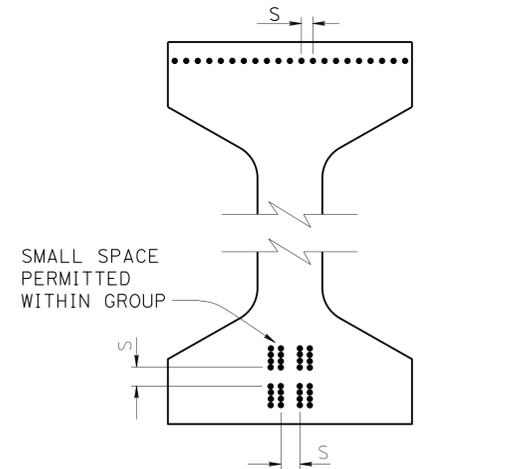
TYPICAL GIRDER SECTION

No Scale



SECTION T-T

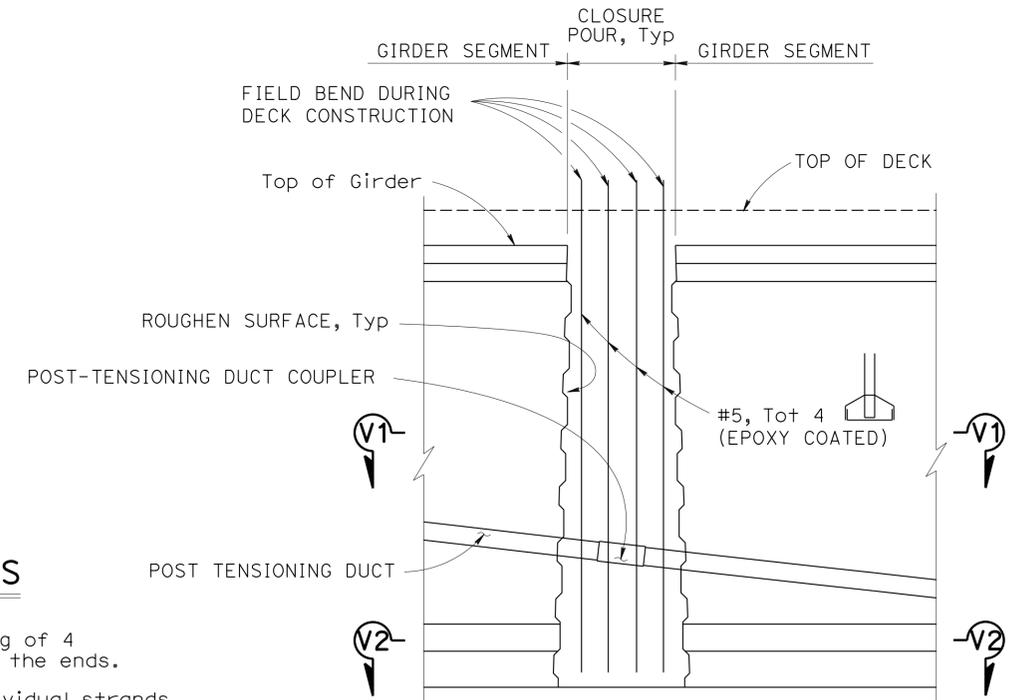
No Scale



CLEARANCES FOR PRETENSIONED STRANDS

No Scale

- Strands may be bundled in groups consisting of 4 vertically 2 horizontally, and separated at the ends.
- The min distance "S" between groups or individual strands is 1 1/2" for 3/8" ϕ strands, 1 3/4" for 1/2" ϕ strands, and 2" for 0.6" ϕ strands.
- "S" is measured between centers of adjacent strands.
- Approval of Engineer is required for deviation.
- See "PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)" sheet for "SECTION V1-V1" and "SECTION V2-V2" details.



SPLICE ELEVATION

NO SCALE

NOTE: For WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE, SEE "PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)" SHEET

2 REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

DESIGN	BY M. RAHMAN	CHECKED J. FANG
DETAILS	BY H. INIGUEZ	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 19

BRIDGE NO. 54-1271
 POST MILE 24.2

HORSETHIEF CREEK BRIDGE (REPLACE)
PRESTRESSED BULB-TEE GIRDER DETAILS NO. 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	93	103
 REGISTERED CIVIL ENGINEER DATE 04/16/14					
12-30-13 PLANS APPROVAL DATE					
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NOTE:
 FOR PRECAST PRESTRESSED GIRDERS A THROUGH E AND K THROUGH O SHEAR REINFORCING LAYOUT DETAILS SEE GIRDER ELEVATION VIEW ON "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 1" SHEET.

PESTRESSING DATA

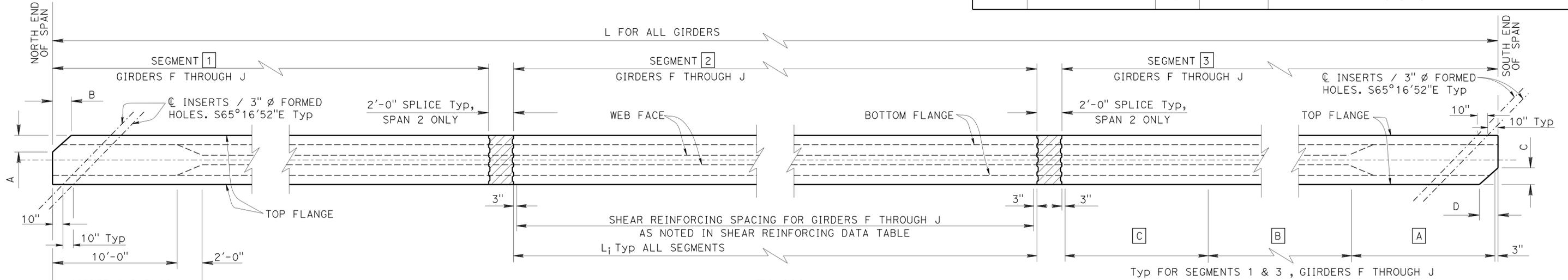
Location	Girder Length (L)	Girder Depth (D)	Pre-Stressing Jacking Force	Area of Pre-Stressing Steel, Bottom Strands	X1; Top Strands	Area of Pre-Stressing Steel, Top Strands	X2; Bottom Strands	Concrete Strength (ksi)		Mid-Span Deflections (in)		Girder End Dimensions See sketch below			
								Precast Girders		Deck	Rail	North End of Span		South End of Span	
								f'ci	f'c			A	B	C	D
SPAN 1	51'-9"	96"	340.0 kips	1.071 in ²	93.5"	0.612 in ²	2.5"	5.0 ksi	6.0 ksi	0.05	0.01	1'-3"	1'-0"	2'-6"	1'-9"
SPAN 3	51'-9"	96"	340.0 kips	1.071 in ²	93.5"	0.612 in ²	2.5"	5.0 ksi	6.0 ksi	0.04	0.01	1'-10"	2'-1"	1'-3"	1'-6"

LOCATION	GIRDER DESIGNATION	SEGMENT	TOTAL NUMBER OF SEGMENTS	SEGMENT LENGTH (L _i)	GIRDER DEPTH (D)	AREA OF PRE-STRESSING STEEL, TOP STRANDS	X1; TOP STRANDS	AREA OF PRE-STRESSING STEEL, BOTTOM STRANDS	X2; BOTTOM STRANDS	CONCRETE STRENGTH (ksi)		GIRDER END DIMENSIONS SEE SKETCH BELOW			
										f'ci	f'c	SEGMENT 1		SEGMENT 3	
												North End of Span		South End of Span	
SPAN 2	F	1 & 3	2	49'-8 1/8"	96"	-	-	1.302 in ²	2.75"	5.0	6.0	2'-0"	1'-11"	2'-0"	1'-11"
SPAN 2	G	1 & 3	2	49'-2 7/8"	96"	-	-	1.302 in ²	2.75"	5.0	6.0	2'-0"	1'-11"	2'-0"	1'-11"
SPAN 2	H	1 & 3	2	48'-7 7/8"	96"	-	-	1.302 in ²	2.75"	5.0	6.0	2'-0"	1'-11"	2'-0"	1'-11"
SPAN 2	I	1 & 3	2	48'-1 1/8"	96"	-	-	1.302 in ²	2.75"	5.0	6.0	2'-0"	1'-11"	2'-0"	1'-11"
SPAN 2	J	1 & 3	2	47'-5 1/2"	96"	-	-	1.302 in ²	2.75"	5.0	6.0	2'-0"	1'-11"	2'-0"	1'-11"
SPAN 2	F TO J	2	5	85'-0"	96"	1.736 in ²	94.00"	2.170 in ²	2.75"	5.0	6.0	NOT APPLICABLE			

SHEAR REINFORCING DATA

LOCATION	GIRDER DESIGNATION	ERECTED GIRDER LENGTH (L)	SEGMENT	SEGMENT LENGTH (L _i)	STIRRUP SPACING		
					A	B	C
SPAN 1	A to E	51'-9"	NA	NA	#5 @ 6", Tot 20	#5 @ 12", Tot 5	#5 @ 18"
SPAN 3	K to O	51'-9"	NA	NA	#5 @ 6", Tot 20	#5 @ 12", Tot 5	#5 @ 18"
SPAN 2	F	188'-4 1/4"	1 & 3	49'-8 1/8"	#5 @ 6", Tot 30	#5 @ 12", Tot 10	#5 @ 18"
	G	187'-5 3/4"	1 & 3	49'-2 7/8"	#5 @ 6", Tot 30	#5 @ 12", Tot 10	#5 @ 18"
	H	186'-3 3/4"	1 & 3	48'-7 7/8"	#5 @ 6", Tot 30	#5 @ 12", Tot 10	#5 @ 18"
	I	185'-2 1/4"	1 & 3	48'-1 1/8"	#5 @ 6", Tot 30	#5 @ 12", Tot 10	#5 @ 18"
	J	183'-11"	1 & 3	47'-5 1/2"	#5 @ 6", Tot 30	#5 @ 12", Tot 10	#5 @ 18"
		2		85'-0"	#5 @ 18"		

NOTE:
 FOR LOCATION AND DETAILS OF X1 AND X2, SEE GIRDER ELEVATION VIEW ON "PRESTRESSED BULB-TEE GIRDER" DETAILS NO. 1" SHEET



PLAN

1/4" = 1'-0"

LEGEND:
 SPLICE CLOSURE POUR (SPAN 2 ONLY)



REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

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

DESIGN	BY M. RAHMAN / B. GUNTER	CHECKED J. FANG
DETAILS	BY H. INIGUEZ	CHECKED J. FANG
QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

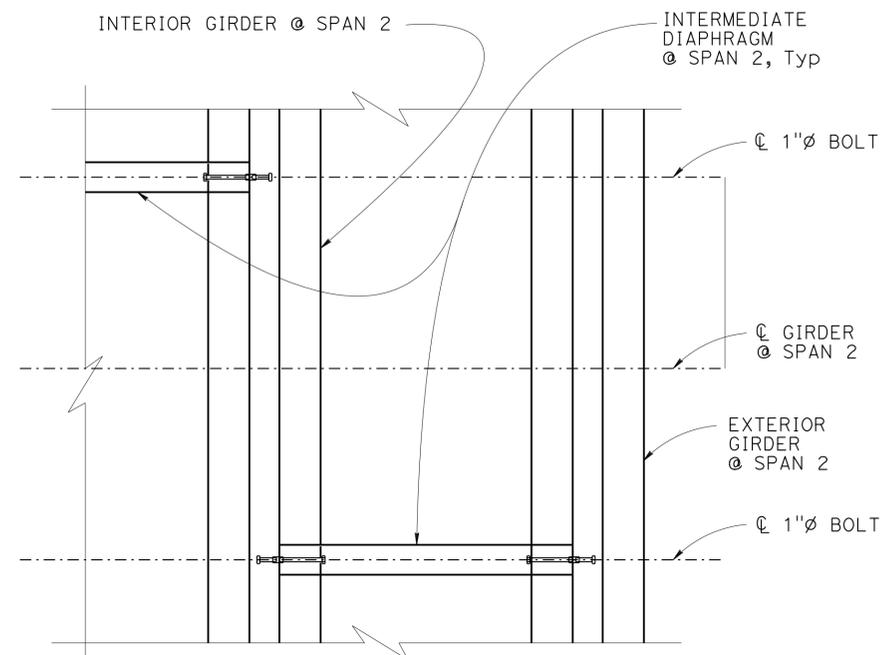
DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 19

BRIDGE NO. 54-1271
 POST MILE 24.2
HORSETHIEF CREEK BRIDGE (REPLACE)
PRESTRESSED BULB-TEE GIRDER DETAILS NO. 2

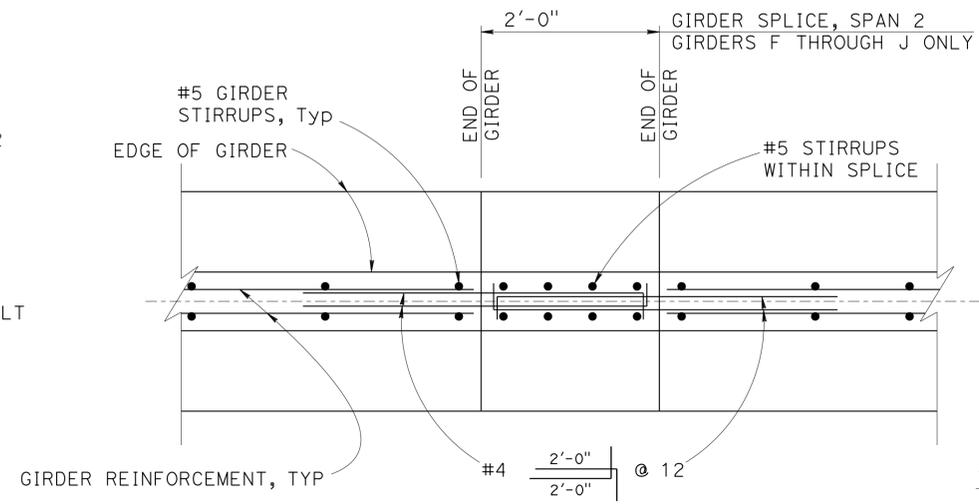
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	138	R24.1	94	103
			05/06/14		
			REGISTERED CIVIL ENGINEER	DATE	
			12-30-13	PLANS APPROVAL DATE	
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NOTES:

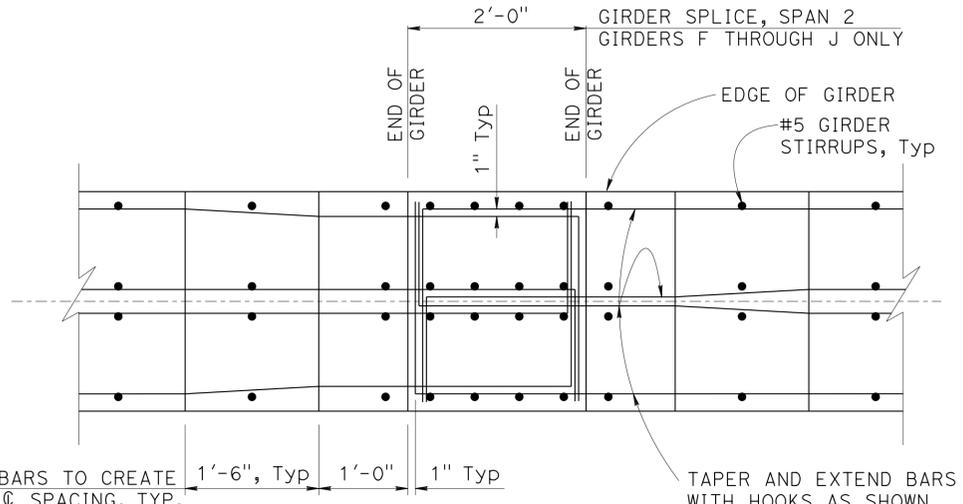
- FOR DETAILS SHOWN BUT NOT NOTED, SEE TYPICAL GIRDER SECTION DETAIL ON "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 1" SHEET.
- W8 WWR NOT SHOWN
- LONGITUDINAL WIRE AREA SHALL BE 40% OR GREATER OF VERTICAL DEFORMED WIRE AREA. BOTTOM OF STIRRUP WWR DETAIL SHOWN, TOP SIMILAR.
- SEE "PRESTRESSED BULB-TEE GIRDER DETAILS NO. 1" SHEET FOR LOCATION OF "SECTION V1-V1" AND "SECTION V2-V2".



SECTION U-U
NO SCALE



SECTION V1-V1
NO SCALE



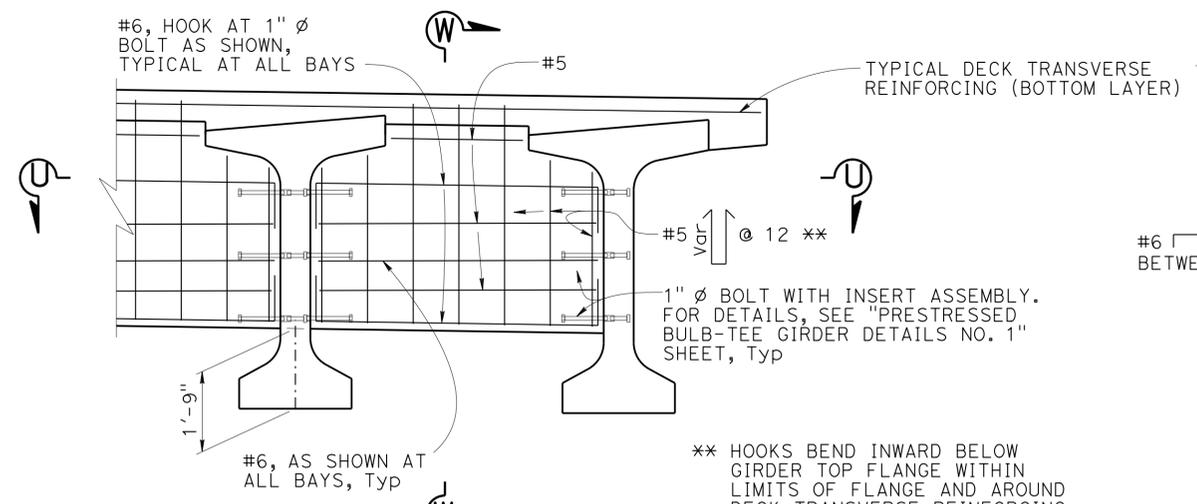
SECTION V2-V2
NO SCALE

REINFORCING NOT SHOWN FOR CLARITY, FOR FURTHER DETAILS, LOCATION AND OFFSET OF 1"Ø BOLTS SEE "PRESTRESSED BULB-TEE GIRDER DETAILS NO.1" SHEET.

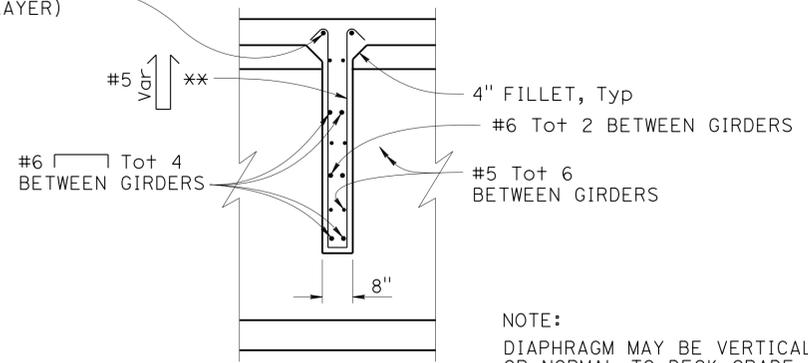
TAPER BARS TO CREATE 1" @ TO @ SPACING, TYP, BETWEEN EXTENDED BARS

TAPER AND EXTEND BARS WITH HOOKS AS SHOWN. HOOKS MAYBE OMITTED AND TAPERS MODIFIED FOR TOP FLANGE BARS, TYP

BOTTOM FLANGE SHOWN, TOP FLANGE SIMILAR



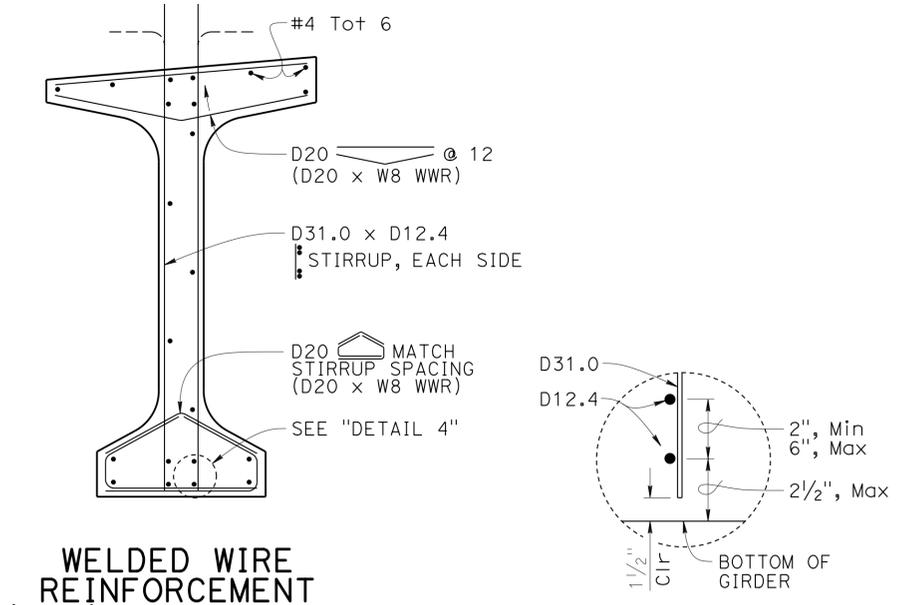
INTERMEDIATE DIAPHRAGM
NO SCALE



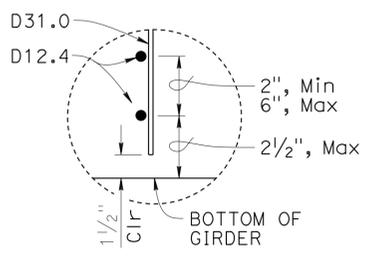
SECTION W-W
NO SCALE

NOTE: DIAPHRAGM MAY BE VERTICAL OR NORMAL TO DECK GRADE

** HOOKS BEND INWARD BELOW GIRDER TOP FLANGE WITHIN LIMITS OF FLANGE AND AROUND DECK TRANSVERSE REINFORCING WHEN EXTENDED INTO THE DECK



WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE
NO SCALE



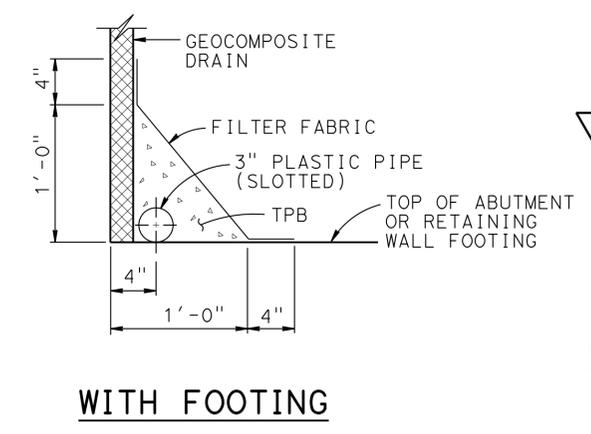
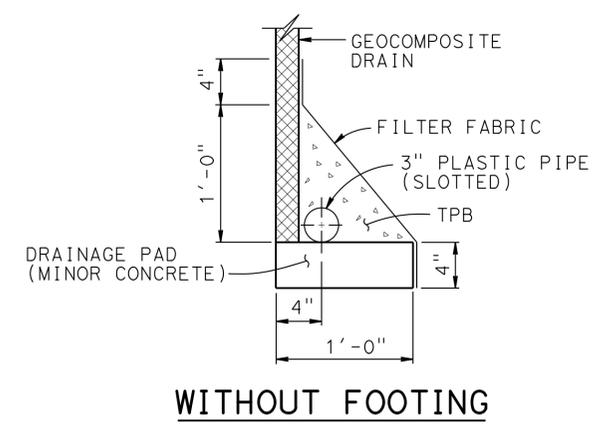
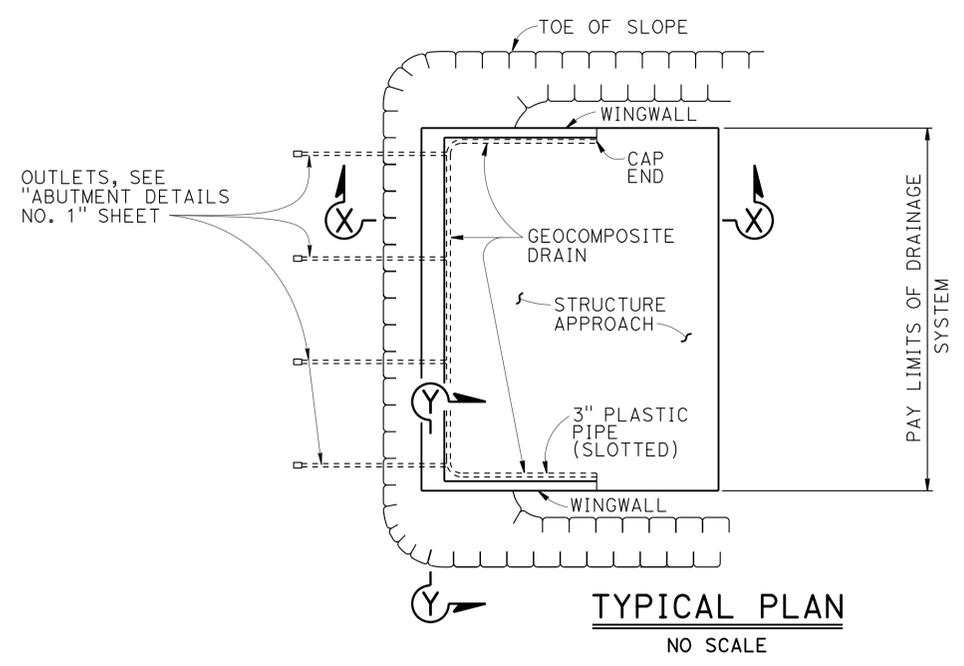
DETAIL 4
NO SCALE

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

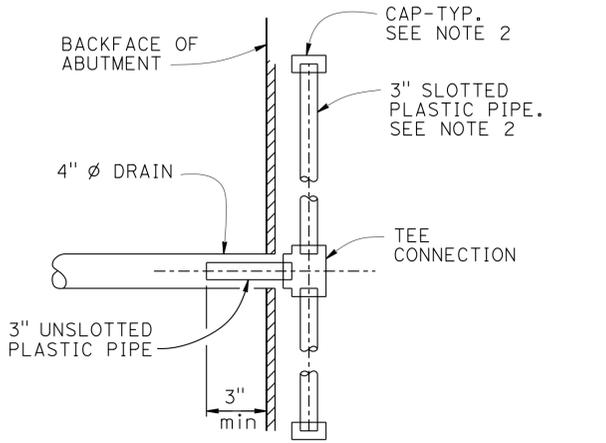
REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE)	
	DETAILS	BY H. INIGUEZ	CHECKED J. FANG			POST MILE	24.2		PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS			UNIT: 3621	PROJECT NUMBER & PHASE: 0800000324 1		CONTRACT NO.: 08-0J8501
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	REVISION DATES	05-07-13 08-27-13 09-11-13	SHEET 27 OF 36	

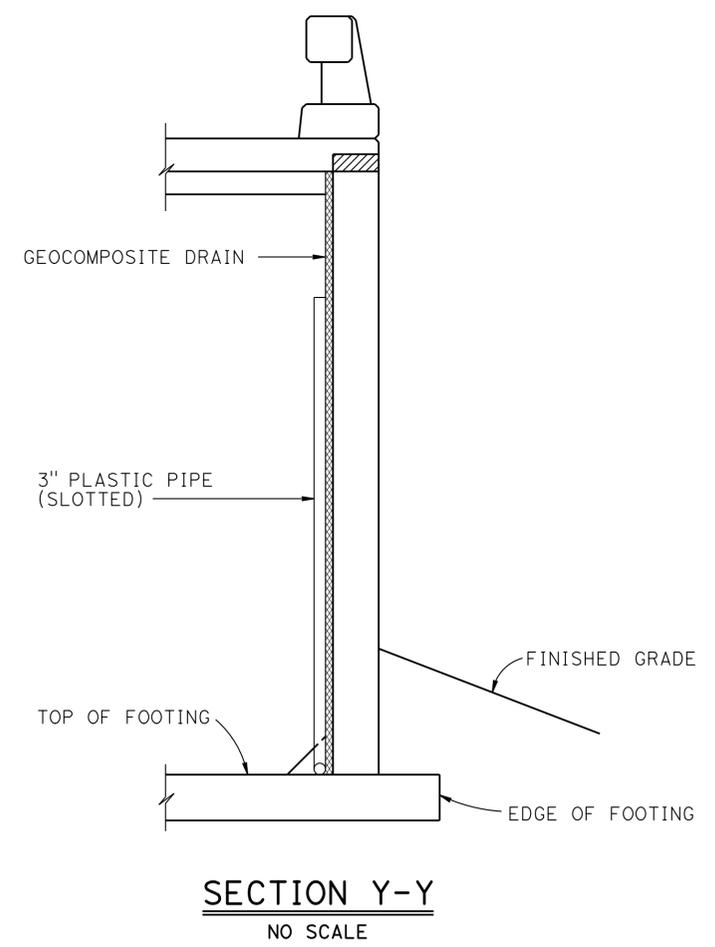
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SbD	138	R24.1	96	103
 REGISTERED CIVIL ENGINEER			04/16/14	DATE	
12-30-13 PLANS APPROVAL DATE					
<i>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</i>					



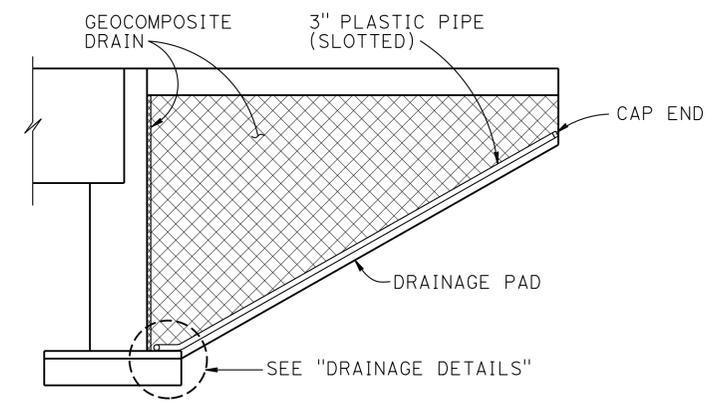
DRAINAGE DETAILS
1 1/2" = 1'-0"



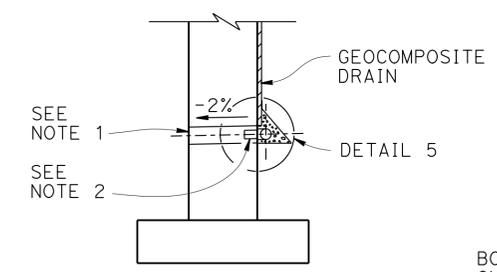
SECTION Z-Z



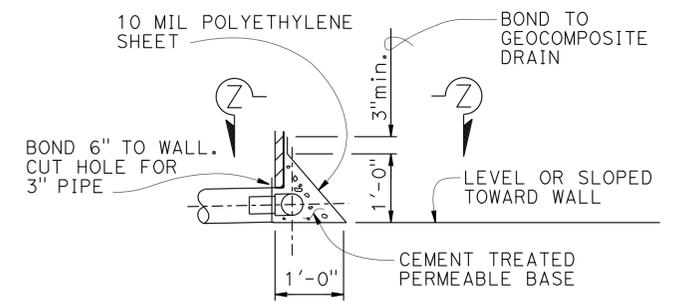
SECTION Y-Y
NO SCALE



WINGWALL SECTION X-X



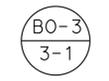
WALL SECTION



DETAIL 5

WEEP HOLE AND GEOCOMPOSITE DRAIN

NO SCALE
ALTERNATIVE TO BRIDGE DETAIL



- Notes:
- 4" ϕ drains, see "TYPICAL PLAN". Exposed wall drains shall be located 3" above Finished Grade.
 - Geocomposite drain, cement treated permeable base, and 3" slotted plastic pipe continuous behind retaining wall or abutment. Cap ends of pipe. Provide "Tee" connection at each 4" ϕ drain.
 - Connect the low end of plastic pipe to the main outlet pipe as applicable.

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

REPLACED PER ADDENDUM No. 2 DATED MAY 14, 2014

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY M. RAHMAN	CHECKED J. FANG	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 19	BRIDGE NO.	54-1271	HORSETHIEF CREEK BRIDGE (REPLACE) STRUCTURE APPROACH DRAINAGE DETAILS
	DETAILS	BY H. INIGUEZ	CHECKED J. FANG			POST MILE	24.2	
	QUANTITIES	BY R. WANG / H. WIN	CHECKED V. ALTAMIRANO/D. BALBAS			UNIT: 3621 PROJECT NUMBER & PHASE: 0800000324 1	CONTRACT NO.: 08-0J8501	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		03-26-13 08-27-13 09-18-13