



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	42.5/46.0	414	824

1-30-14
 REGISTERED CIVIL ENGINEER DATE

6-23-14
 PLANS APPROVAL DATE

AHMAD SHAH
 No. C55259
 Exp. 9-30-14
 CIVIL

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RETAINING WALL QUANTITIES

RW No.	STATION TO STATION	STRUCTURAL CONCRETE RETAINING WALL	BAR REINFORCING STEEL (RETAINING WALL)	CABLE RAILING *	STRUCTURE BACKFILL	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	(N)	PREPARE AND STAIN CONCRETE	STRUCTURE EXCAVATION (RETAINING WALL)
		CY	LB	LF	CY	CY	LF	SQFT	CY
160	159+80 TO 163+20	1,535	211,000	342	5350	15	500	5880	2200
163	162+00 TO 163+40	480	61,500	145	1550	10	180	2150	1600
	TOTAL	2,015	272,500	487	6900	25	680	8030	3800

SOUND WALL QUANTITIES

SW No.	STATION TO STATION	CONCRETE BARRIER (TYPE 736SV)	BAR REINFORCING STEEL (SOUND WALL)	16" CAST-IN-DRILLED-HOLE CONCRETE PILING (SOUND WALL)	SOUND WALL (MASONRY BLOCK)	ACCESS GATE (SOUND WALL)	STRUCTURAL CONCRETE, SOUND WALL
		LF	LB	LF	SQFT	EA	CY
194	192+20 TO 208+00	1,580	101,500	1900	14700	1	12
	TOTAL	1,580	101,500	1900	14700	1	12

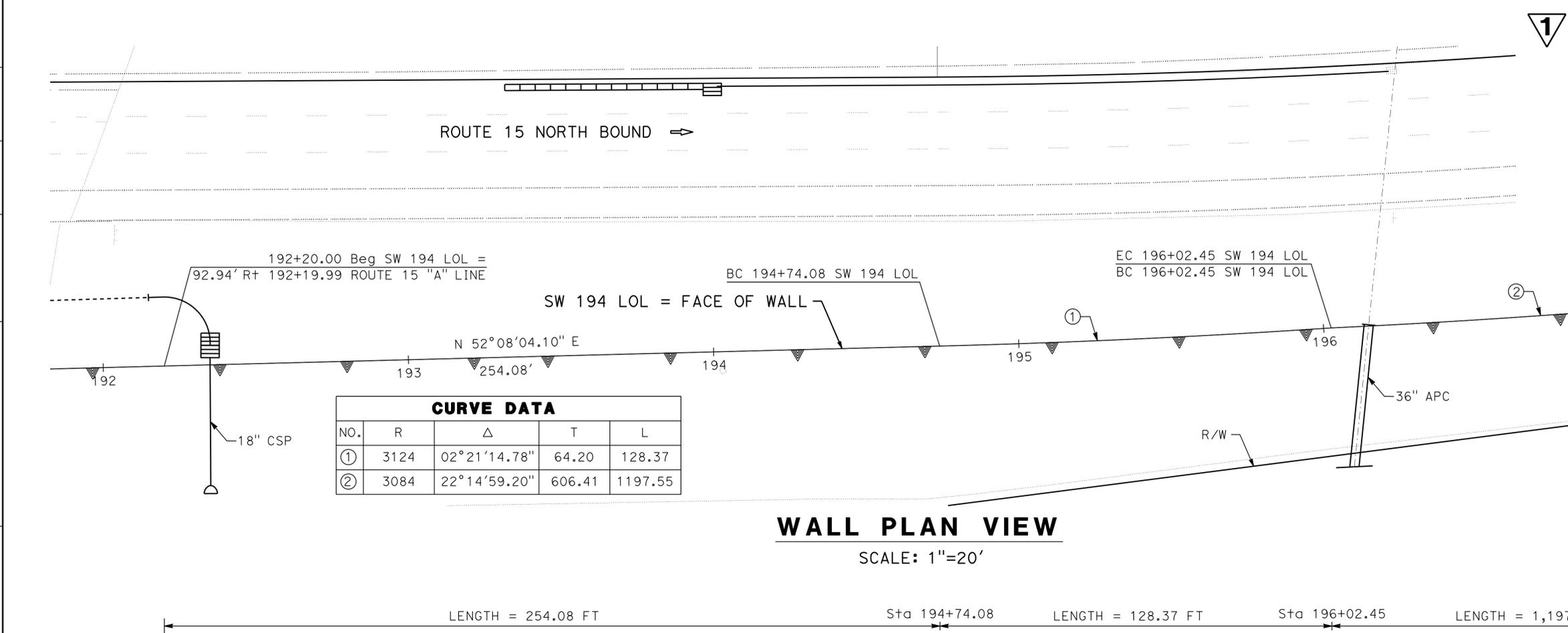
1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

NOTE: (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY
 * - FOR TOTAL QUANTITY OF CABLE RAILING, SEE SHEET DQ-35.

SUMMARY OF QUANTITIES Q-9

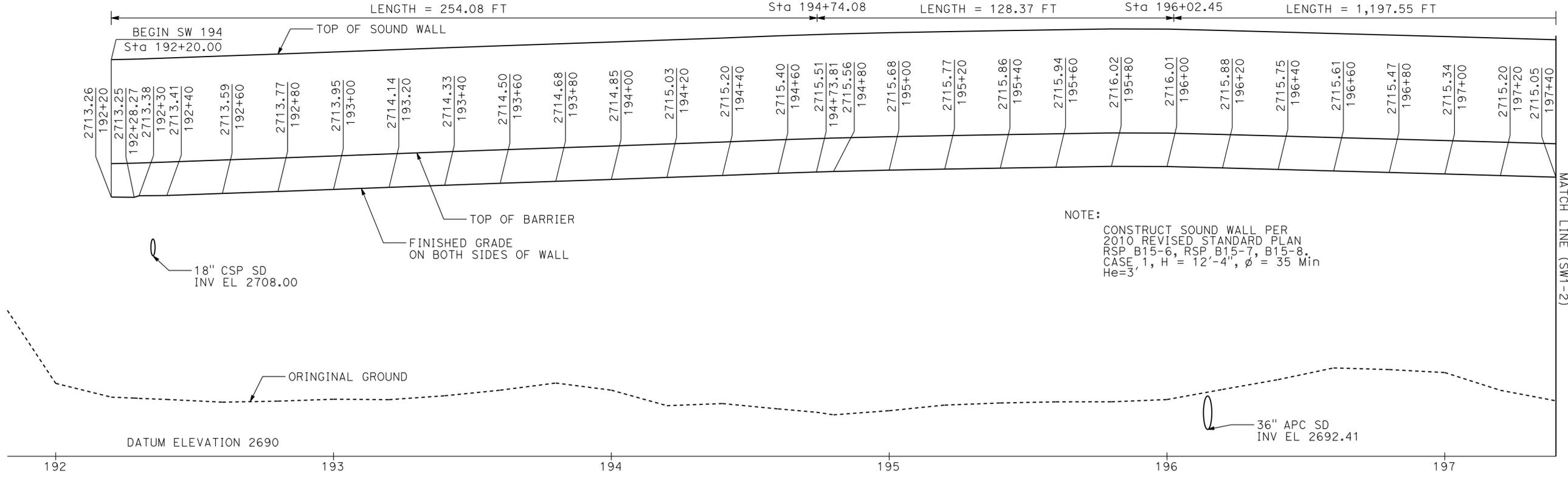
LAST REVISION DATE PLOTTED => 16-JUL-2015 01-30-14 TIME PLOTTED => 13:32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN



CURVE DATA				
NO.	R	Δ	T	L
①	3124	02°21'14.78"	64.20	128.37
②	3084	22°14'59.20"	606.41	1197.55

WALL PLAN VIEW
 SCALE: 1"=20'



WALL PROFILE
 SCALE: HORZ. 1"=20'
 VERT. 1"=5'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	42.5/46.0	419	824

REGISTERED CIVIL ENGINEER
 1-30-14 DATE
 6-23-14 PLANS APPROVAL DATE
 REGISTERED PROFESSIONAL ENGINEER
 AHMAD SHAH
 No. C55259
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

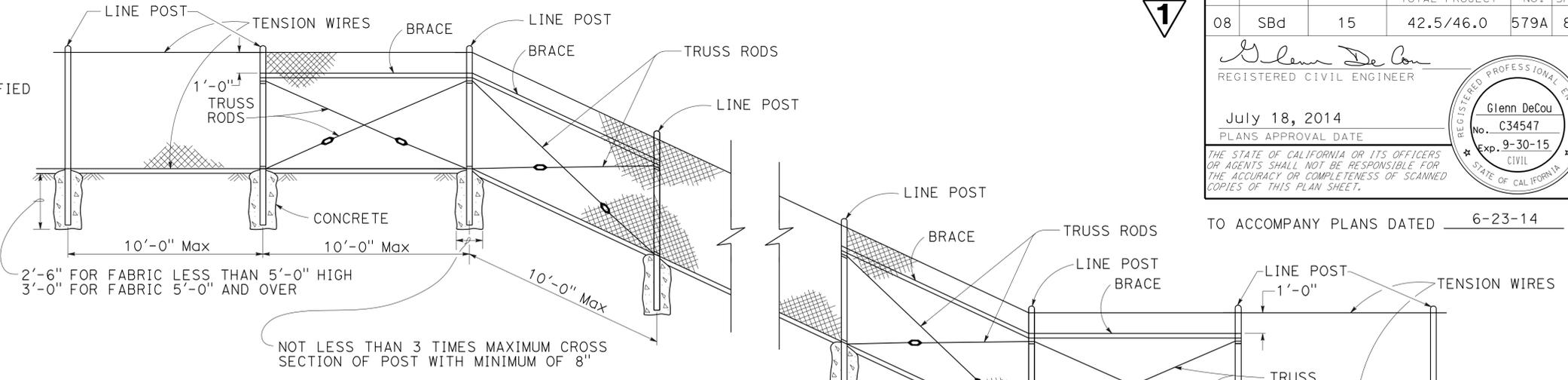
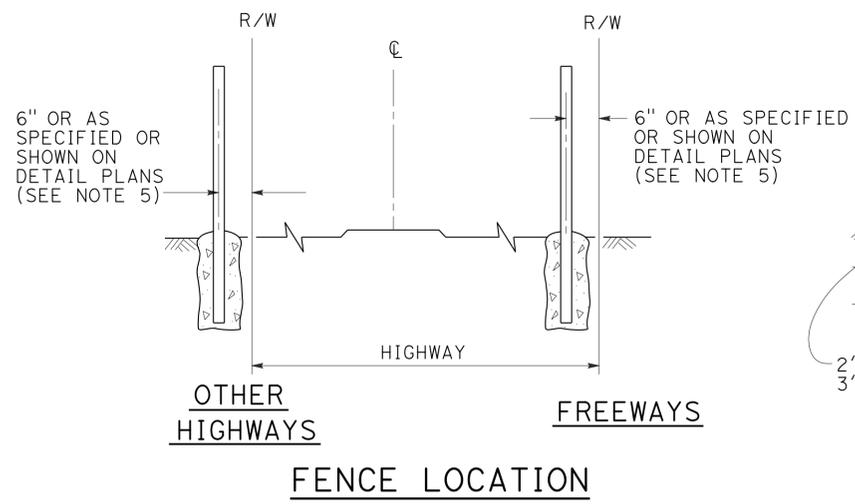
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1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

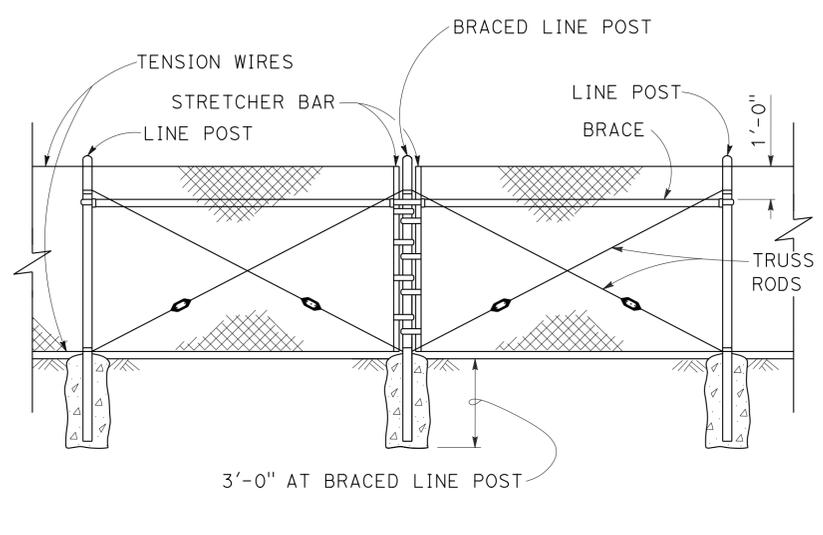
APPROVED FOR SOUND WALL WORK ONLY

SOUND WALL PLAN
 SCALE AS SHOWN

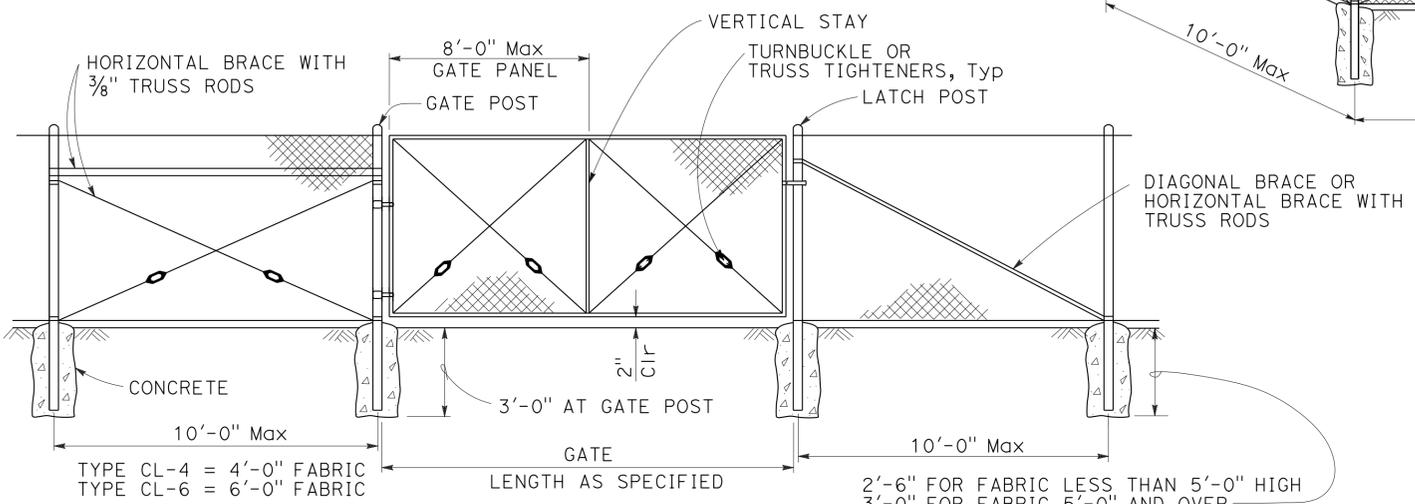
SW1-1



TO ACCOMPANY PLANS DATED 6-23-14



BRACED LINE POST INSTALLATION
Braced line post at intervals not exceeding 1000'



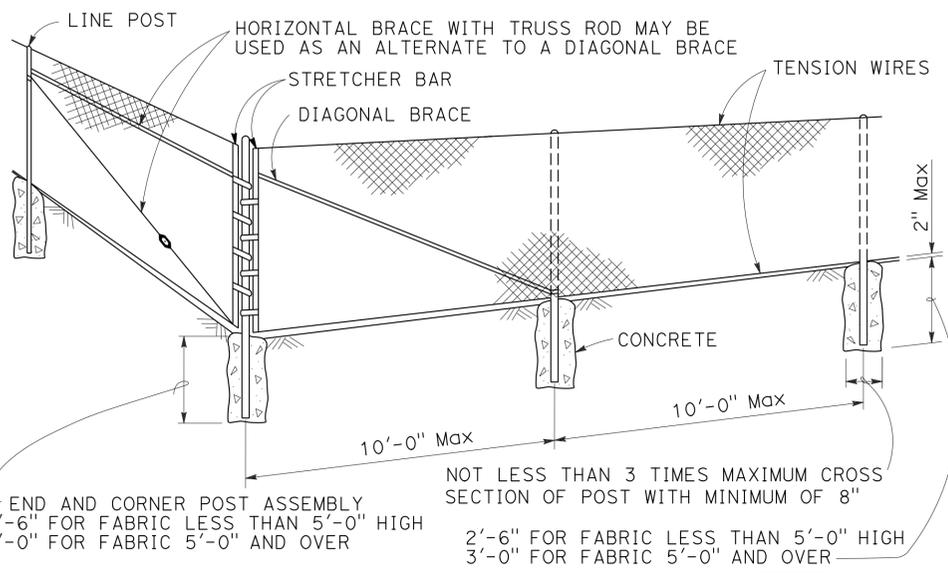
CHAIN LINK GATE INSTALLATION

FENCE HEIGHT	GATE WIDTHS	ROUND OD PIPE	WEIGHT (lb/ft)
6'-0" AND LESS	UP THRU 6'-0"	2.875"	5.80
	OVER 6'-0" THRU 12'-0"	4.500"	10.80
	OVER 12'-0" THRU 18'-0"	5.563"	14.63
OVER 6'-0" TO 8'-0" Max	OVER 18'-0" TO 24'-0" Max	6.625"	18.99
	UP THRU 6'-0"	3.500"	7.58
	OVER 6'-0" THRU 12'-0"	5.563"	14.63
	OVER 12'-0" THRU 18'-0"	6.625"	18.99
	OVER 18'-0" TO 24'-0" Max	8.625"	28.58

Above post dimensions and weights are minimums. Larger sizes may be used upon approval.

NOTES:

- The table below shows minimum sized posts and braces complying with the specifications. Larger or heavier post and brace sizes may be used upon approval.
- Sections shown in the tables must also comply with the strength requirements and other provisions of the Specifications.
- Other sections which comply with the strength requirements and other provisions of the Specifications may be used upon approval.
- Options exercised shall be uniform on any one project.
- Offset to be 2'-0" at monument locations, measured at right angles to R/W lines. Taper to achieve offset to be at least 20'-0" long.
- See Revised Standard Plan RSP A85B for Brace, Stretcher Bar, and Truss Tightener Details.



CORNER POST

FENCE HEIGHT	LINE POSTS				END, LATCH AND CORNER POSTS		BRACES			
	ROUND OD PIPE	WEIGHT (lb/ft)	ROLL FORMED		ROUND OD PIPE	WEIGHT (lb/ft)	ROUND OD PIPE	WEIGHT (lb/ft)	ROLL FORMED	
			SECTION	WEIGHT (lb/ft)					SECTION	WEIGHT (lb/ft)
6'-0" AND LESS	1.900"	2.72	1.875" x 1.625"	1.85	2.375"	3.65	1.66"	2.27	1.625" x 1.25"	1.35
OVER 6'-0" TO 8'-0" Max	2.375"	3.65	2.25" x 1.70"	2.78	2.875"	5.80	1.66"	2.27	1.625" x 1.25"	1.35

1 ADDED PER ADDENDUM No. 1 DATED JULY 17, 2015

RSP A85 DATED JULY 18, 2014 SUPERSEDES STANDARD PLAN A85 DATED MAY 20, 2011 - PAGE 112 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A85

2010 REVISED STANDARD PLAN RSP A85

DESIGN NOTES:

Design Specifications:
AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments.

Loading:
Live load: (AASHTO LRFD 3.6.1.2)
HL-93 consists of design truck or design tandem and design lane load.

Impact Factor: (Apply to roof slab only)
 $IM = 33(1.0 - 0.125D_e) \geq 0\%$ (AASHTO LRFD 3.6.2.2)
 D_e = minimum depth of earth cover

Earth load:
Earth pressure for two conditions:
140 pcf vertical, 42 pcf horizontal
140 pcf vertical, 140 pcf horizontal

Load Factors:
AASHTO LRFD Table 3.4.1.1 & Table 3.4.1.2

Unit stresses:
 $f'_c = 3600$ psi
 $f_y = 60,000$ psi

Distribution "d" bars:
Up to and including 10'-0" cover
Express as a percentage of main positive reinforcement required: $\frac{100}{\sqrt{s}}$, Max 50%,
Over 10'-0" cover,
4 @ 12 maximum

Shear:
 $V_c = \{2.14\sqrt{f'_c} + 4600 \frac{A_s}{b d_e} \frac{V_u d_e}{M_u}\} b d_e \leq 4.0 \sqrt{f'_c} b d_e$ (Pounds)
 V_c shall not be less than $3.00 \sqrt{f'_c} b d_e$ for frame members and $2.5 \sqrt{f'_c} b d_e$ for simply supported members.

Exclusion:
Compressive reinforcement and negative moment reduction (for continuity) do not apply.
Axial loading on members has not been considered.

CONSTRUCTION NOTES:

Construction loads:
Strutting required as shown on Standard Plan D88.
Strutting may be required on culvert extensions when existing parapet is removed.

Expansion joints:
Invert:
No expansion joints shall be permitted.

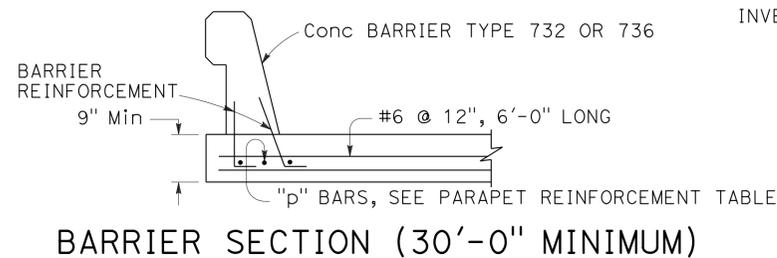
Roof and Walls:
When cover is less than span length-
Place 1/2" premolded expansion joint filler at 30'-0" ± centers outside the paved roadway lanes and place Bridge Detail 3-2, Standard Plan B0-3, at 30'-0" centers under paved roadway lanes.
When cover is more than span length-
Place 1/2" premolded expansion joint filler at 30'-0" ± centers and additional 1/2" premolded expansion joints at locations of change in foundation character, as directed by the Engineer.

Construction joints:
Temporary joints may be permitted if normal (or radial) to ϕ of RCB. Otherwise, the contractor is to submit a proposal for consideration.

Cutoff walls:
4'-0" cutoff walls are to be provided at inlet and/or outlet unless adjacent channel is lined and unless otherwise shown. These walls are to be extended if scour conditions warrant.

Earthwork:
See Standard Plan A62E.

Backfill:
See Standard Specifications, except that the difference in level of backfill (against outside walls) shall not exceed 2'-0".



GENERAL NOTES:

Designation:
Standard single or multiple box culverts are shown on plans as span times height with maximum cover over roof thus: 8' x 5' RCB with 10' or double 10' x 5' RCB with 20', followed by alternatives.

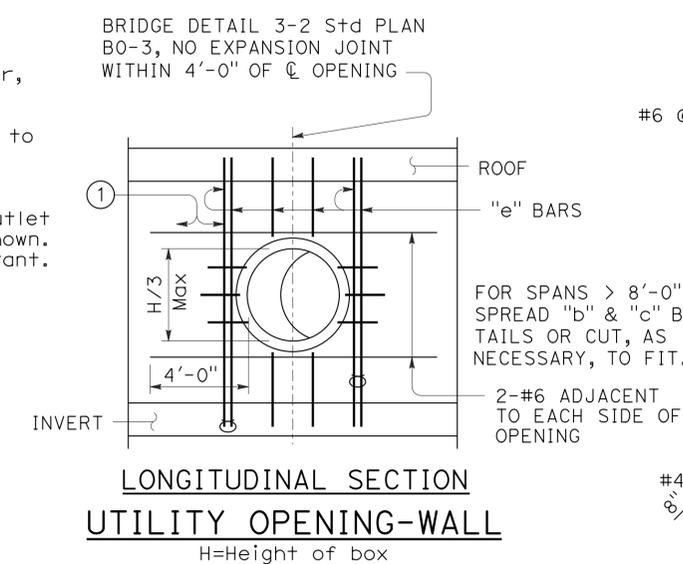
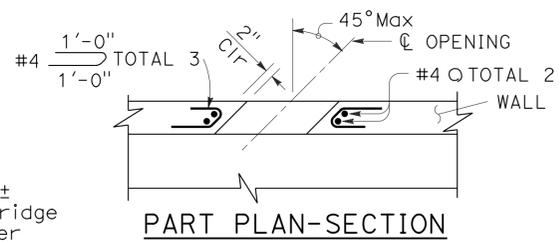
Alternatives:
Single cell: Invert will be sloped unless "trapezoidal invert", "flat invert" or "V invert" is included in designation.
Multiple cell: Invert will be vee unless "flat invert" is specified. Ends of culvert will be rounded unless "square ends" are designated. Parapets will be as shown unless designated in plans. Such designations may be different for inlet and outlet ends.

Quantities:
Quantities do not include the following:
• Concrete for parapet, paving notches and cut-off wall.
• Reinforcement for 2% splices, parapets, paving notches, cut-off wall and additional required bars for exposed top slab (D-80, Note 9).

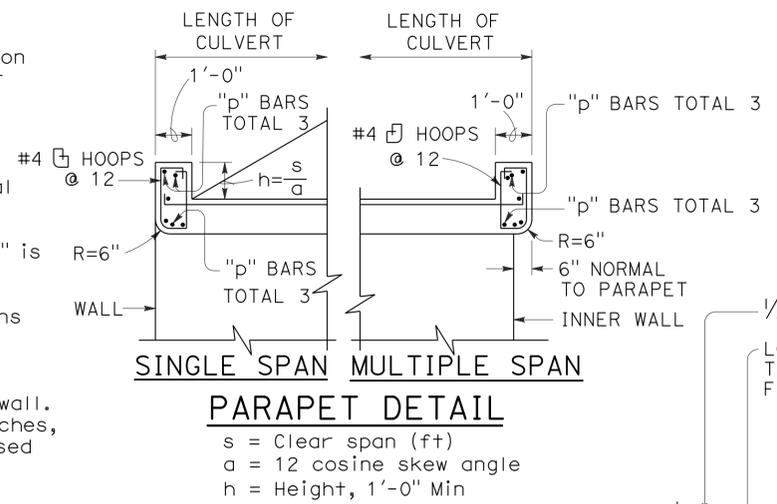
Reinforcement placement:
Main reinforcement is to be placed transversely or, for curved culverts, radially. When radial reinforcing spacing of the "a", "f" and "g" bars is measured along the centerline. Stagger splices not shown. Hooks may be rotated or tilted, as necessary, for clearance.

Special reinforcement coverage:
Box standard plans are not to be used for culverts in a corrosive environment or where there is a severe abrasive flow condition or in freeze-thaw locations.

Special design:
Required for culverts with conditions, loads, design bearing pressures or sizes greater than those given on this plan or Standard Plans D80 & D81. Also required for multiple cell culverts with unequal spans. For culverts with railroad loading, see the current AREMA design specification.
3 or more cells:
For culverts with more than two cells, use dimensions and reinforcement for the standard "double box culvert" and adjust quantities accordingly.

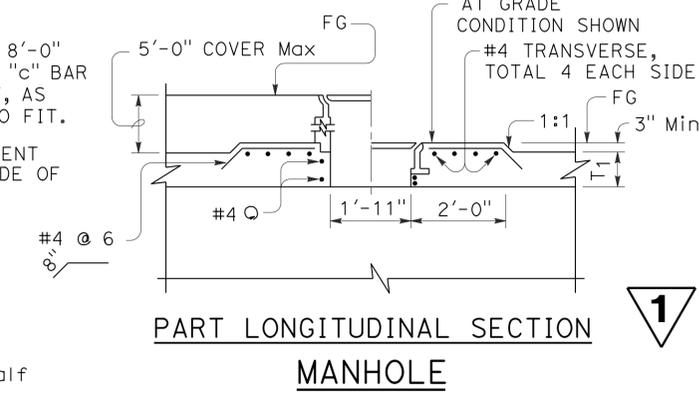
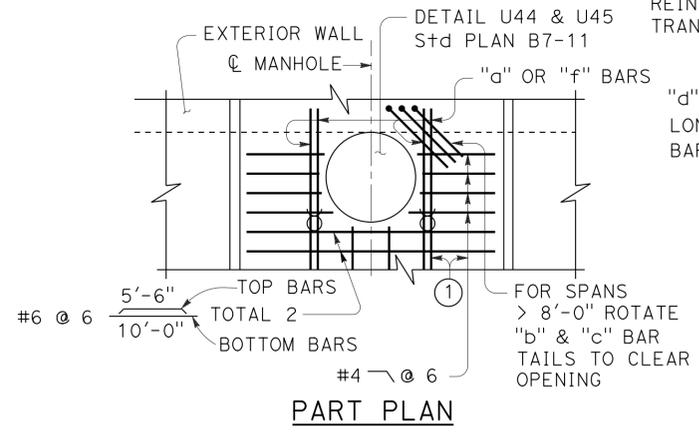


① Adjacent to each side of the opening, place additional bars equivalent to half the interrupted main reinforcement.



PARAPET "p" BARS		0° TO 15°	16° TO 30°	31° TO 45°
SPAN	SKIEW ANGLE			
4'		#4	#4	#4
6'		#4	#4	#5
8'		#4	#5	#6
10'		#5	#6	#7
12'		#6	#7	#8
14'		#7	#8	#9

PARAPET REINFORCEMENT



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	42.5/46.0	593A	824

Carl M. Duan
REGISTERED CIVIL ENGINEER

July 18, 2014
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 6-23-14

REGISTERED PROFESSIONAL ENGINEER

Carl M. Duan

No. C59976

Exp. 6-30-16

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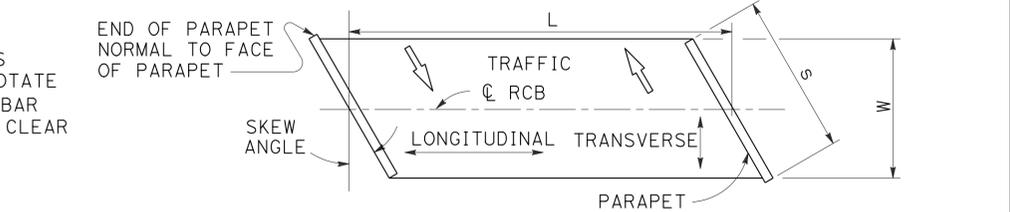
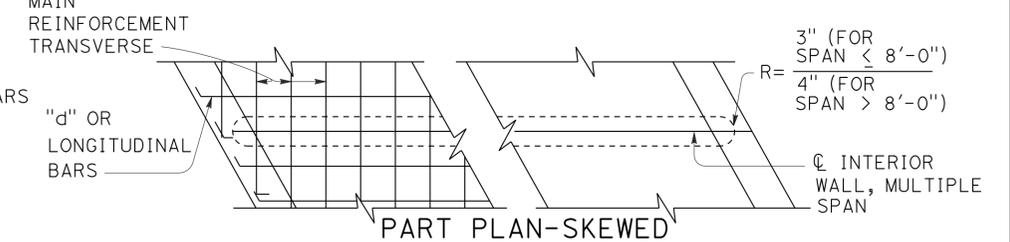
STATE OF CALIFORNIA

DETAIL A
LOCATE Exp Jt WITHIN A Max OF 2 TIMES SPAN OR 2 TIMES HEIGHT FROM THIS CONSTRUCTION JOINT

DETAIL B
Single cell only, no skew allowed, 1'-0" minimum cover.
* Measured perpendicular to parapet

20° maximum skew as shown. If existing longitudinal and transverse reinforcing bars in top slab are lap spliced with new longitudinal and transverse reinforcing bars, the 20° skew may be exceeded. Lap splicing may require removal of top slab in excess of 2'-0" shown.

CULVERT EXTENSION



RCB TERMINOLOGY

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CAST-IN-PLACE REINFORCED CONCRETE BOX CULVERT MISCELLANEOUS DETAILS
NO SCALE

ADDED PER ADDENDUM No. 1 DATED JULY 17, 2015

RSP D82 DATED JULY 18, 2014 SUPERSEDES STANDARD PLAN D82 DATED MAY 20, 2011 - PAGE 174 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP D82

2010 REVISED STANDARD PLAN RSP D82

DESIGN NOTES:

Specifications:
AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments.

Earth load:
Earth pressures for two conditions:
140 pcf Vert, 42 pcf Horiz
140 pcf Vert, 140 pcf Horiz

Unit stresses:
 $f'_c = 5.0$ ksi
 $f_y = 65.0$ ksi for weld wire fabric
 $n = 7$

Shear:
Based on
 $V_c = \{2.14\sqrt{f'_c} + 4600 \frac{A_s V_u d_e}{b d_e M_u}\} b d_e \leq 4.0\sqrt{f'_c} b d_e$ (Pounds)
 V_c shall not be less than $3.00\sqrt{f'_c} b d_e$ for frame members and $2.5\sqrt{f'_c} b d_e$ for simply supported members.

Exclusion:
Axial loading on the members has not been considered.

GENERAL NOTES:

Designation:
Standard single or multiple precast box culverts are shown on the plans as span times height with maximum cover over roof thus: 8' x 5' RCB with 10'-0" or double 10' x 5' RCB with 20'-0", followed by alternatives.

Alternatives:
Single cell:
Standard dimensions of AASHTO Material Specification 'M259' or 'M273'.
Multiple cell:
Constructed by placing single cells adjacent to each other. Inlet and outlet ends of culvert will be rounded unless square ends are designated. Parapet will be shown unless designated in plans. Such designation may be different for inlet and outlet ends.

Limitations:
Where the overfill is less than 12", Precast RCB culverts are not to be used. Precast RCB culverts are not to be used in siphon or pressurized installations unless appropriate "watertight" jointing is provided.

Special reinforcement coverage:
Precast RCB culvert standard plans are not to be used in a corrosive environment or where there is a severe abrasive flow condition or freeze-thaw locations.

Special design:
Required for culvert with different conditions, loads or design bearing pressures greater than those given on these plans. Required for culverts where end details need higher skew angles, higher parapets or barrier sections.

CONSTRUCTION NOTES:

Cutoff walls:
4'-0" Cutoff walls are to be provided at inlet and/or outlet unless channel is lined and unless otherwise shown. These walls are to be extended if scour conditions warrant. See Standard Plans D84, D85 and D86A.

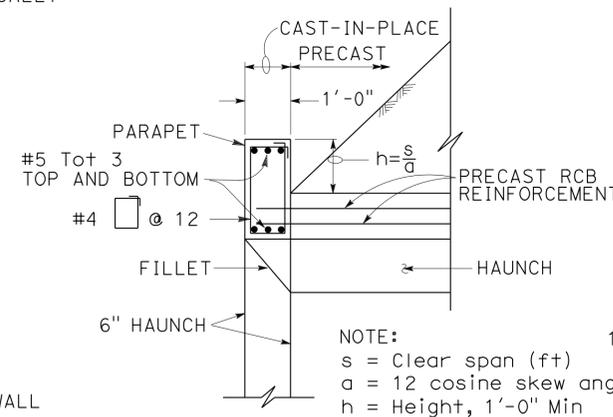
Wingwalls:
Wingwalls shall be cast-in-place and shall conform to standard plan details for box culvert wingwalls. See Standard Plans D84, D85 and D86A.

Earthwork:
See Standard Plan A62G.

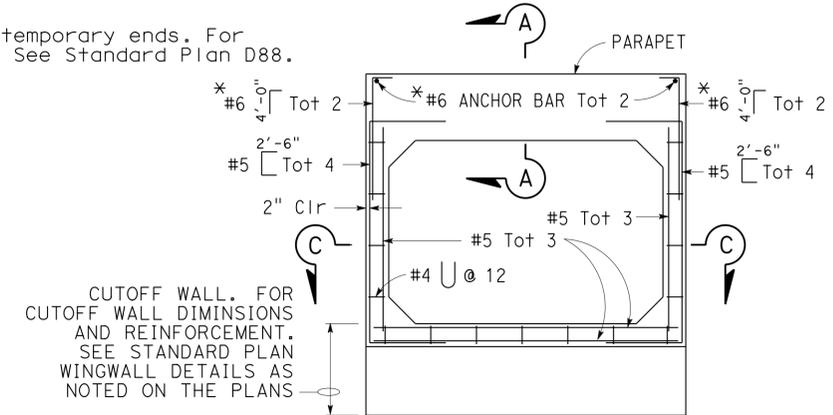
Construction loads:
Strutting may be required near temporary ends. For construction loads on culverts, See Standard Plan D88.

SPAN	PARAPET "P" BARS		
	SKEW ANGLE 0° TO 15°	16° TO 30°	31° TO 45°
4'-0"	#5	#5	#5
5'-0"	#5	#5	#6
6'-0"	#6	#6	#6
7'-0"	#7	#7	#7
8'-0"	#7	#7	#8
10'-0"	#8	#8	#9
12'-0"	#9	#9	#10

BARRIER PARAPET REINFORCEMENT

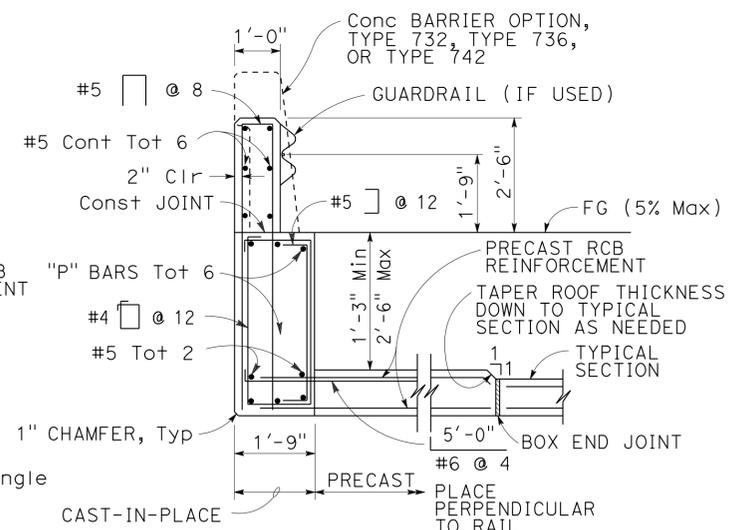


SECTION A-A
(Standard Height Parapet)



CAST-IN-PLACE END ELEVATION

* Reinforcing required for barrier parapet application only.



SECTION A-A
(Barrier Parapet)

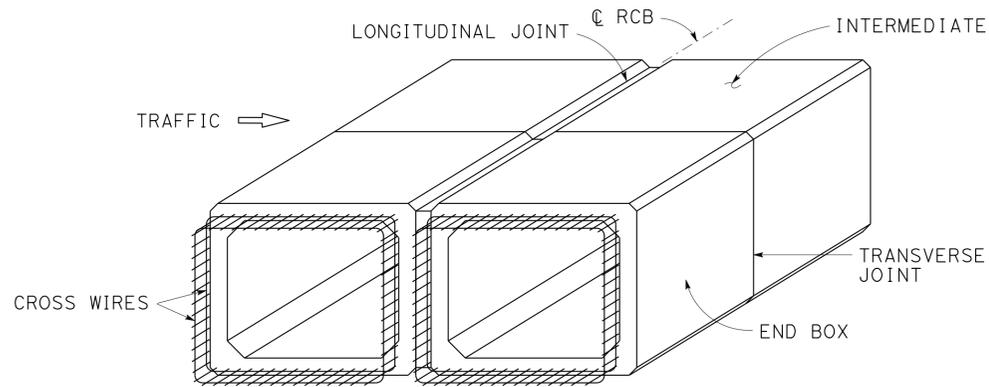
TYPICAL CULVERT END DETAILS
For wall and invert reinforcement not shown, See "End Elevation" detail.

PRECAST REINFORCED CONCRETE BOX CULVERT MISCELLANEOUS DETAILS

NO SCALE

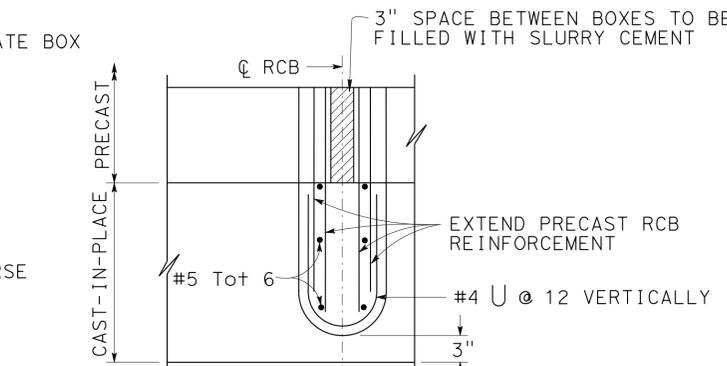
RSP D83B DATED JULY 18, 2014 SUPERSEDES STANDARD PLAN D83B DATED MAY 20, 2011 - PAGE 176 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP D83B

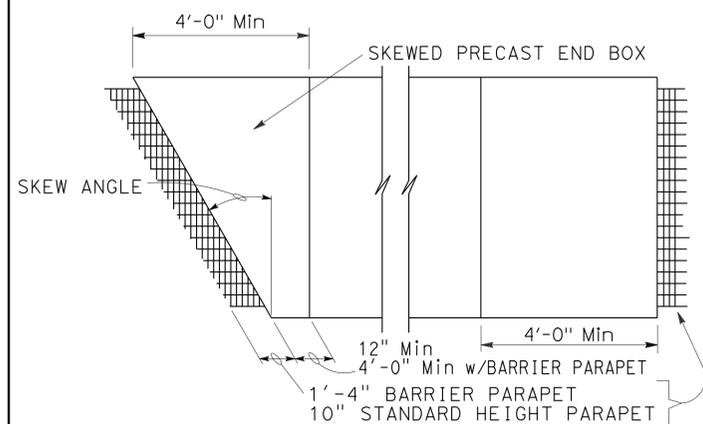


PRECAST RCB TERMINOLOGY

NOTE: Inner and outer reinforcement to be exposed as required to tie to cast-in-place construction. A minimum of two cross wires shall be exposed on all sides.

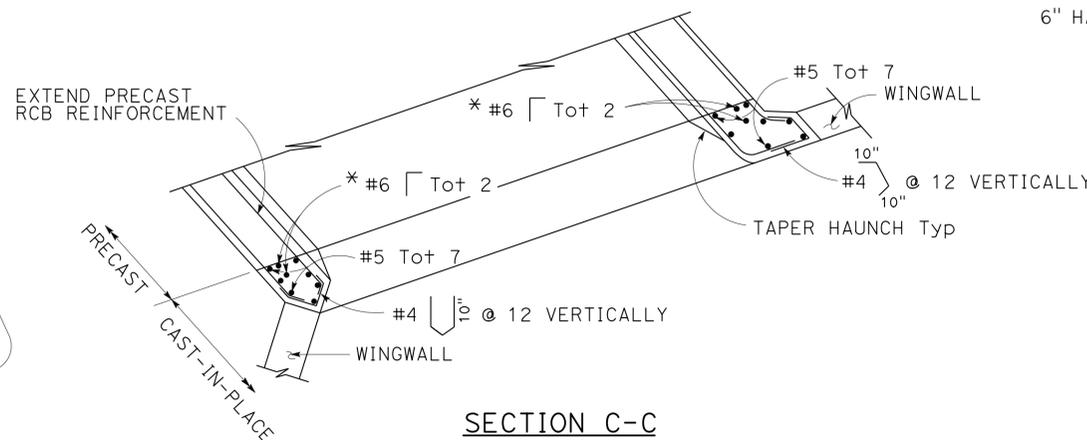


PARTIAL PLAN INTERIOR WALL MULTICELL CULVERT



PARTIAL PLAN VIEW

For illustrative purposes only. For correct skew direction see plans.



SECTION C-C

* Reinforcing required for barrier parapet application only.

1 ADDED PER ADDENDUM No. 1 DATED JULY 17, 2015

2010 REVISED STANDARD PLAN RSP D83B

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08	SBd	15	42.5/46.0	593C	824

REGISTERED CIVIL ENGINEER
Carl M. Duan
No. C59976
Exp. 6-30-16
CIVIL
STATE OF CALIFORNIA

July 18, 2014
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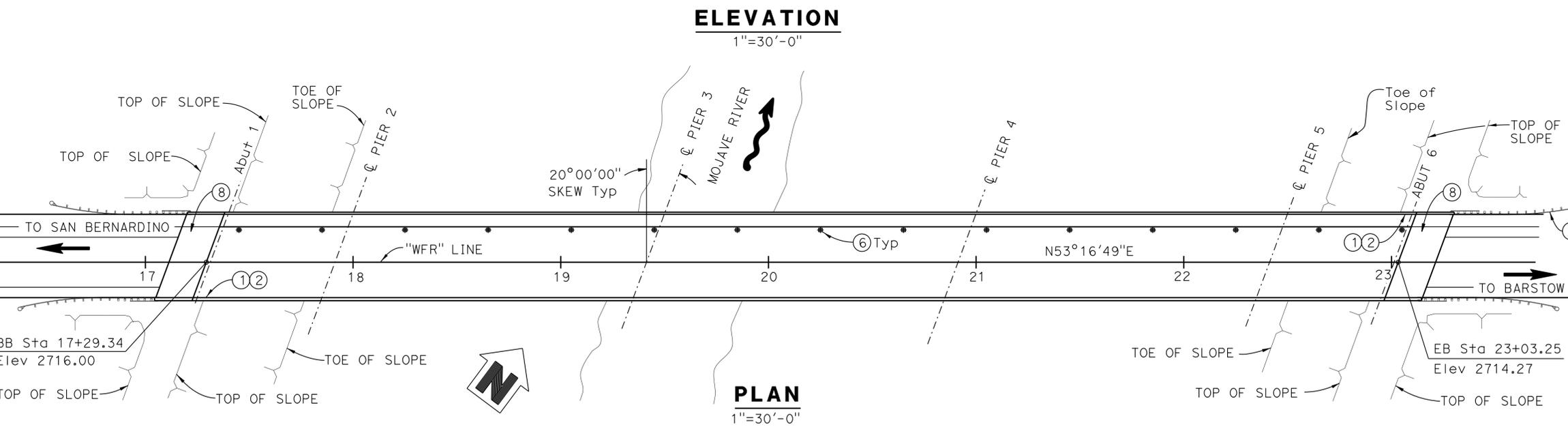
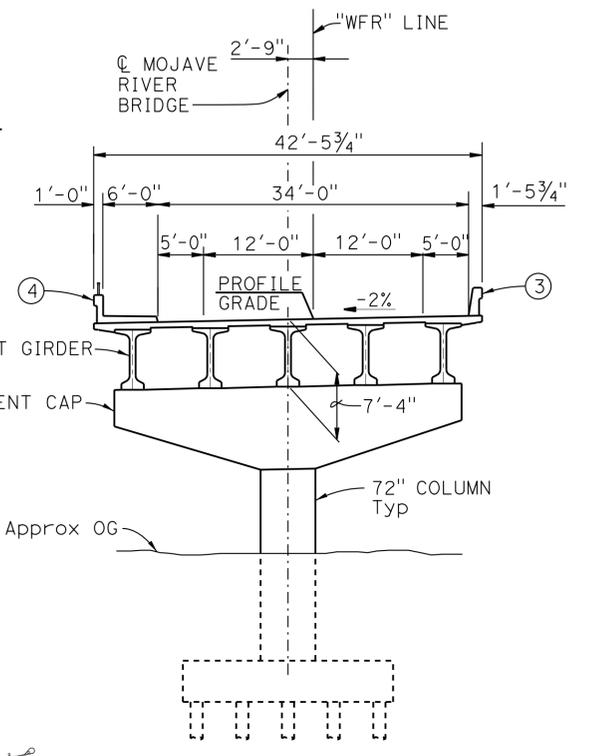
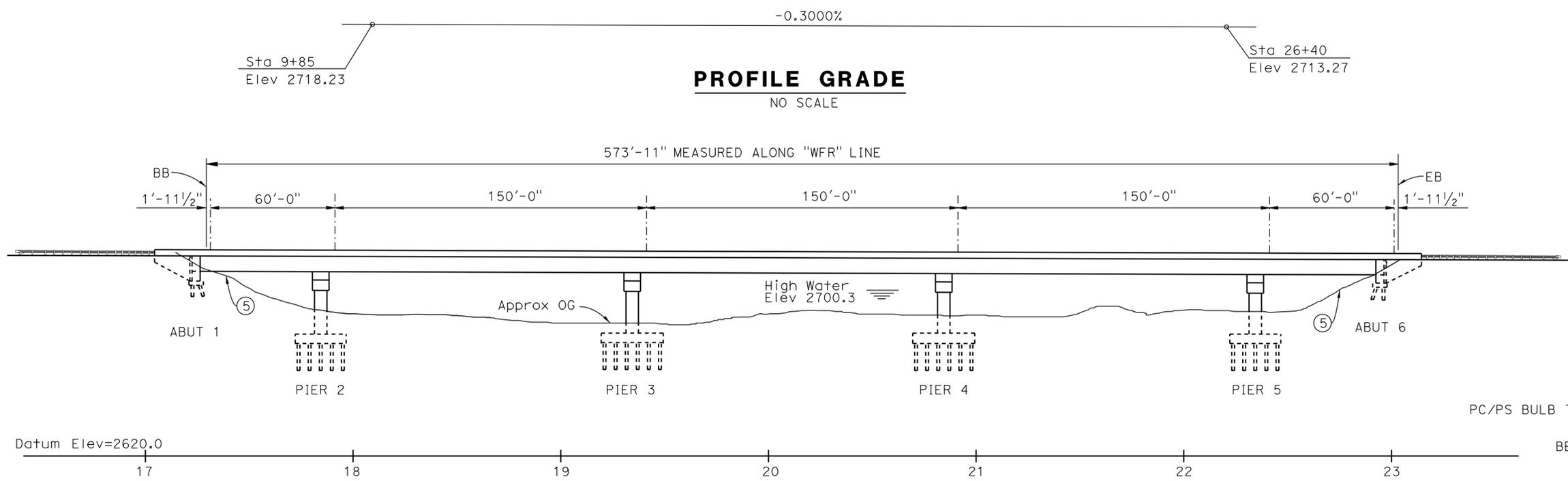
TO ACCOMPANY PLANS DATED 6-23-14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	42.5/46.0	643	824

	6-30-15
REGISTERED CIVIL ENGINEER	DATE
6-23-14	
PLANS APPROVAL DATE	

RYAN STILTZ
No. C65738
Exp. 9/30/15
CIVIL

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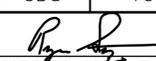
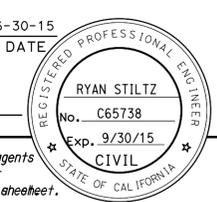


- TYPICAL SECTION**
1"=10'-0"
- ① Paint "BR. NO. 54C0661".
 - ② Paint "MOJAVE RIVER BRIDGE".
 - ③ Conc Barrier, Type 736.
 - ④ Conc Barrier Type 26(MOD), with Tubular Hand Railing.
 - ⑤ Existing RSP
 - ⑥ Drainage Inlet
 - ⑦ MGS, See "Roadway Plans"
 - ⑧ Structure Approach Type N(30S) MOD

NOTE: Mojave River Bridge (Widen) not shown, see Structures Plans for Bridge No. 54-0483.

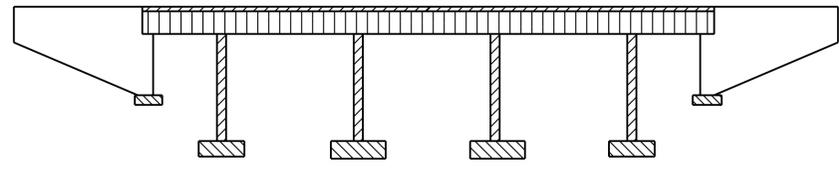
1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

DANIEL T. ADAMS DESIGN ENGINEER	DESIGN	BY R. Stiltz	CHECKED F. Chen	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 10	BRIDGE NO.	MOJAVE RIVER BRIDGE			
	DETAILS	BY Y. Tang	CHECKED F. Chen	LAYOUT	BY R. Stiltz			CHECKED F. Chen	54C0661	GENERAL PLAN		
	QUANTITIES	BY Y. Tang	CHECKED F. Chen	SPECIFICATIONS	BY K. Doll	PLANS AND SPECS COMPARED	K. Doll	POST MILE	43.93			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS							UNIT: 3589	PROJECT NUMBER & PHASE: 08140000861	CONTRACT NO.: 08-3555V1	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 1 OF 34

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	42.5/46.0	644	824
 REGISTERED CIVIL ENGINEER			6-30-15 DATE		
6-23-14 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of these drawings or specifications.</small>					

QUANTITIES

STRUCTURE EXCAVATION (BRIDGE)	145	CY
STRUCTURE EXCAVATION (TYPE D)	2,260	CY
STRUCTURE BACKFILL (BRIDGE)	93	CY
FURNISH PILING (CLASS 200) (ALTERNATIVE W)	5,806	LF
DRIVE PILE (CLASS 200) (ALTERNATIVE W)	138	EA
STRUCTURAL CONCRETE, BRIDGE FOOTING	512	CY
STRUCTURAL CONCRETE, BRIDGE	1,450	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	57	CY
FURNISH PRECAST PRESTRESSED CONCRETE BULB-TEE GIRDER (140'-150')	15	EA
FURNISH PRECAST PRESTRESSED CONCRETE BULB-TEE GIRDER (50'-60')	10	EA
ERECT PRECAST PRESTRESSED CONCRETE GIRDER	25	EA
JOINT SEAL ASSEMBLY (MR 2 1/2")	87	LF
BAR REINFORCING STEEL (BRIDGE)	644,125	LB
BRIDGE DECK DRAINAGE SYSTEM	12,036	LB
CONCRETE BARRIER (TYPE 26 MODIFIED)	610	LF
CONCRETE BARRIER (TYPE 736)	610	LF
TUBULAR HAND RAILING	610	LF



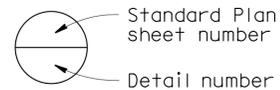
-  Structural Concrete, Bridge
-  PC/PS Bulb Tee Girder
-  Structural Concrete, Bridge Footing
-  Structural Concrete, Bridge (4,000 psi at 28 days)

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

STANDARD PLANS DATED 2010

RSP	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
	B2-8	PILE DETAILS CLASS 200
	B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
	B7-8	DECK DRAINAGE DETAILS
	B7-10	UTILITY OPENING BOX GIRDER
	B11-51	TUBULAR HAND RAILING
RSP	B11-54	CONCRETE BARRIER TYPE 26
RSP	B11-56	CONCRETE BARRIER TYPE 736



PILE DATA TABLE

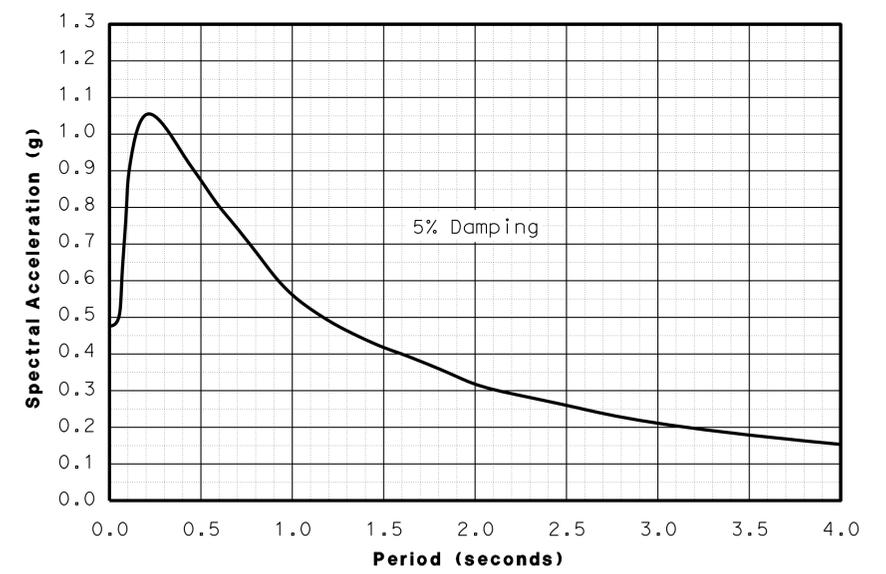
Location	Pile Type	Nominal Resistance (kips)		Design Tip Elevation (ft)	Specified Tip Elevation (ft)	Nominal Driving Resistance (kips)
		Compression	Tension			
Abut 1	Class 200 Alt "W"	300 kips	0	2663 (a) 2660 (d)	2660	500
Pier 2	Class 200 Alt "W"	430 kips	190	2631 (a) 2628 (b) 2639 (d)	2628	460
Pier 3	Class 200 Alt "W"	370 kips	190	2631 (a) 2625 (b) 2634 (d)	2625	400
Pier 4	Class 200 Alt "W"	370 kips	190	2621 (a) 2633 (b) 2636 (d)	2621	400
Pier 5	Class 200 Alt "W"	430 kips	190	2633 (a) 2624 (b) 2635 (d)	2624	480
Abut 6	Class 200 Alt "W"	300 kips	0	2666 (a) 2660 (d)	2660	500

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Sheet No.	Title
1.	GENERAL PLAN
2.	INDEX TO PLANS
3.	DECK CONTOURS
4.	FOUNDATION PLAN NO. 1
5.	FOUNDATION PLAN NO. 2
6.	ABUTMENT LAYOUT
7.	ABUTMENT DETAILS NO. 1
8.	ABUTMENT DETAILS NO. 2
9.	PIER LAYOUT
10.	PIER DETAILS NO. 1
11.	PIER DETAILS NO. 2
12.	PIER DETAILS NO. 3
13.	TYPICAL SECTION
14.	GIRDER LAYOUT
15.	PC/PS BULB-TEE GIRDER (HARPED STRANDS)
16.	GIRDER DETAILS
17.	GIRDER REINFORCEMENT
18.	STRUCTURE APPROACH TYPE N(30S) MOD
19.	APPROACH DRAINAGE DETAILS
20.	STRUCTURE DRAINAGE LAYOUT
21.	STRUCTURE DRAINAGE DETAILS
22.	JOINT SEAL ASSEMBLY MAXIMUM MOVEMENT RATING = 4"
23.	SIDEWALK COVER PLATE
24.	LOG OF TEST BORINGS 1 OF 11
25.	LOG OF TEST BORINGS 2 OF 11
26.	LOG OF TEST BORINGS 3 OF 11
27.	LOG OF TEST BORINGS 4 OF 11
28.	LOG OF TEST BORINGS 5 OF 11
29.	LOG OF TEST BORINGS 6 OF 11
30.	LOG OF TEST BORINGS 7 OF 11
31.	LOG OF TEST BORINGS 8 OF 11
32.	LOG OF TEST BORINGS 9 OF 11
33.	LOG OF TEST BORINGS 10 OF 11
34.	LOG OF TEST BORINGS 11 OF 11

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

- DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th Edition with California Amendments, Preface dated Nov. 2011.
- SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.6, November 2010
- DEAD LOAD: Includes 35 Psf for future wearing surface. The deck load between the girders has been increased by a factor of 10% to allow for the use of steel deck forms.
- LIVE LOADING: HL93 and permit design load.
- SEISMIC LOADING: Soil Profile: $V_{s30} = 1030$ ft/s
Moment Magnitude: $M_{max} = 6.5$
Peak Ground Acceleration = 0.49g



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

STRUCTURAL STEEL: Steel Pipe Piles: Astm A252 Grade 3

PRESTRESSED CONCRETE: See "Prestressing Notes" on "PC/PS BULB-TEE GIRDER (HARPED STRANDS)" sheet.

NOTE: All design tip elevations are controlled by the following demands:
(a) Compression (b) tension (c) settlement (d) lateral

1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

DESIGN	BY R. Stiltz	CHECKED F. Chen	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	54C0661	MOJAVE RIVER BRIDGE INDEX TO PLANS
DETAILS	BY Y. Tang	CHECKED F. Chen		POST MILE	43.93	
QUANTITIES	BY Y. Tang	CHECKED F. Chen		DESIGN BRANCH 10		

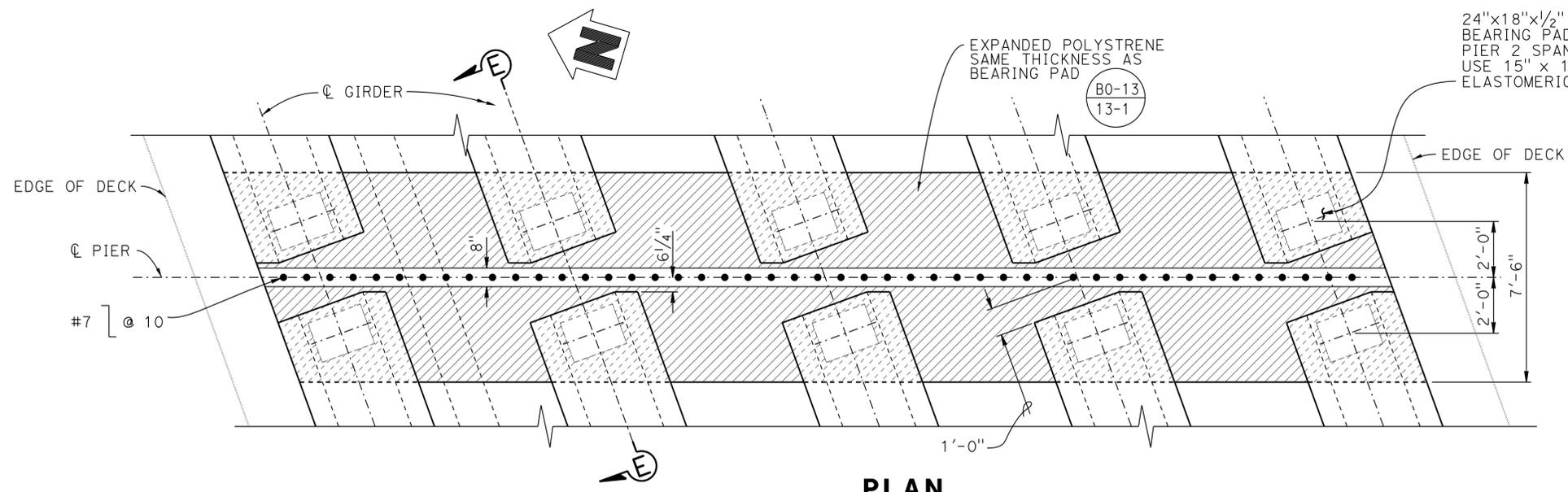
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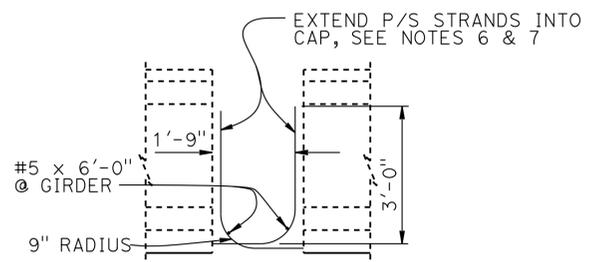
REGISTERED CIVIL ENGINEER	DATE
6-23-14	6-30-15
PLANS APPROVAL DATE	

RYAN STILTZ
No. C65738
Exp. 9/30/15
CIVIL

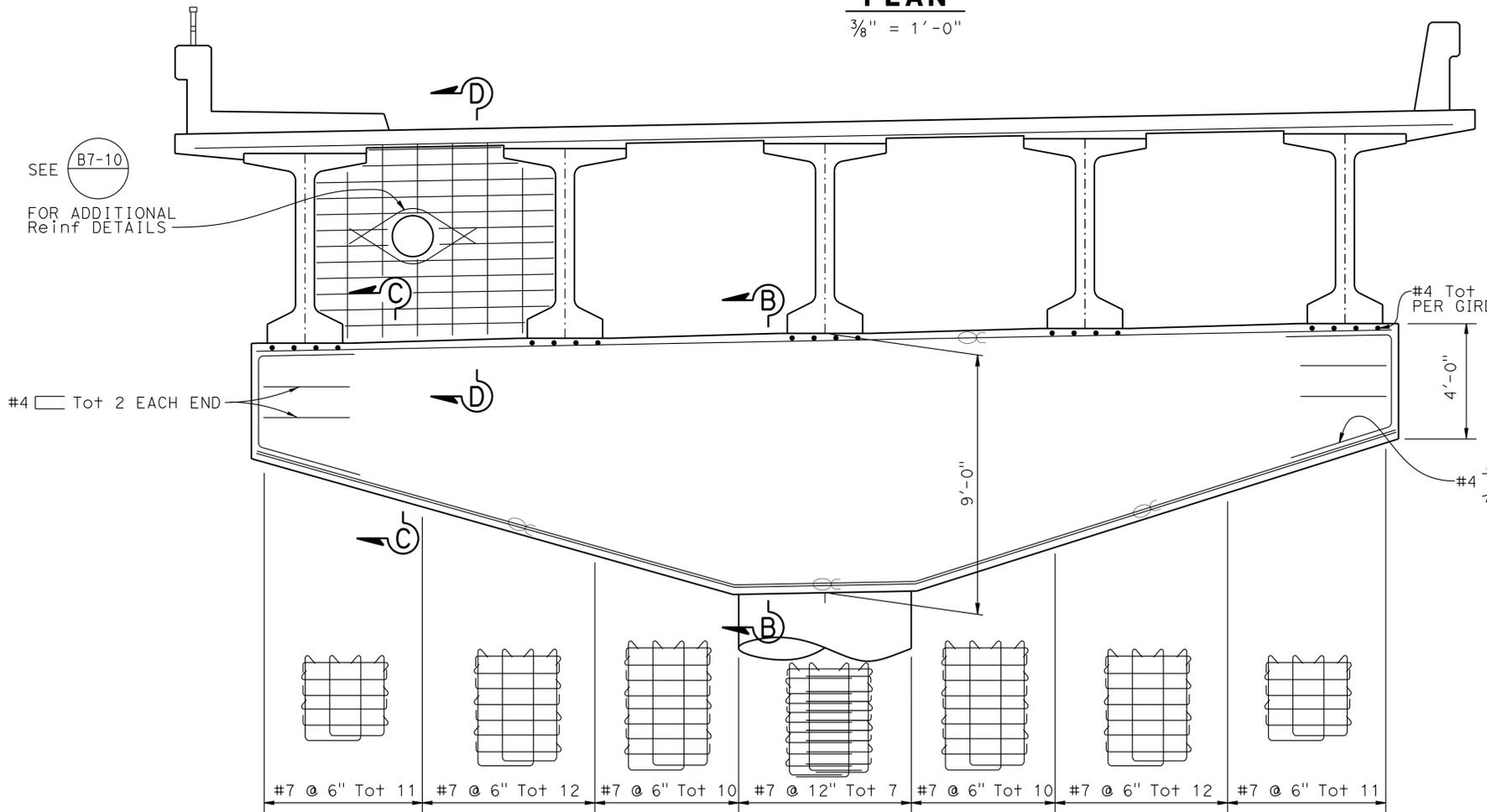
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



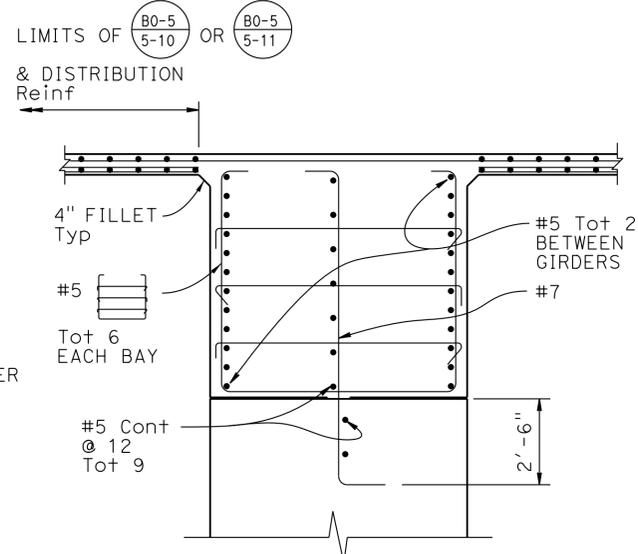
PLAN
3/8" = 1'-0"



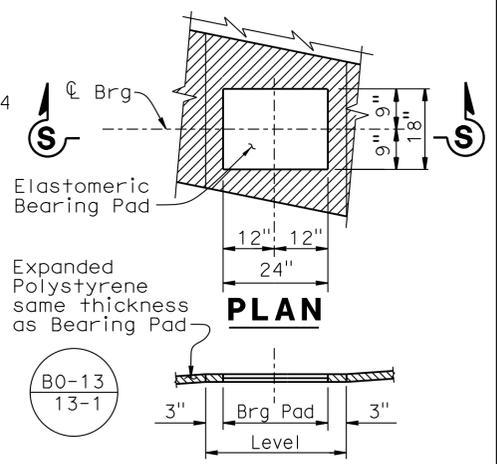
SECTION E-E
1/2" = 1'-0"



PIER ELEVATION
3/8" = 1'-0"



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



SECTION S-S BEARING PAD DETAIL
No Scale

- NOTES:
- For Section B-B and Section C-C, see "PIER DETAILS NO. 1" sheet.
 - Place stirrups parallel to \O girder and space along \O of Pier.
 - Place 3'-0" Hook on each end of top bars of each bundle as shown in Elevation.
 - For Column details, see "PIER DETAILS NO. 2, and NO. 3" sheets.
 - Diaphragms shall be poured no earlier than 90 days after precast girders have been cast.
 - Total of 8 bottom P/S Strands shall be extended into Pier Cap. (CG of Strands shall be within the bottom 8" of PC Girder). Strand spacing shall be a minimum of 4" both horizontally and vertically.
 - Strands extending into Cap may be either a portion of the girder pretensioned Strands or additional P/S Strands. Strands shall extend a Min of 8'-0" into P/C Girder.

1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

DESIGN	BY R. Stiltz	CHECKED F. Chen
DETAILS	BY Y. Tang	CHECKED F. Chen
QUANTITIES	BY Y. Tang	CHECKED F. Chen

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	54C0661
POST MILE	43.93

MOJAVE RIVER BRIDGE
PIER LAYOUT

1:3:35 TIME PLOTTED => 16-JUL-2015 USERNAME => s114640 DATE PLOTTED =>

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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6-30-15
DATE

REGISTERED CIVIL ENGINEER

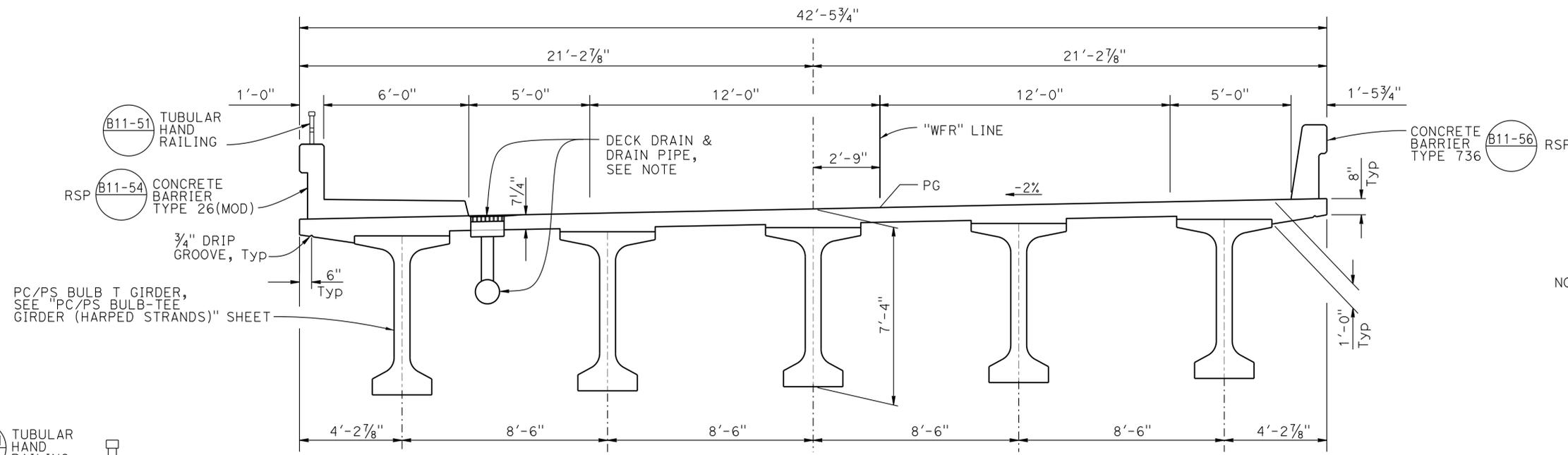
6-23-14
PLANS APPROVAL DATE

6-30-15
DATE

RYAN STILTZ
No. C65738
Exp. 9/30/15
CIVIL
STATE OF CALIFORNIA

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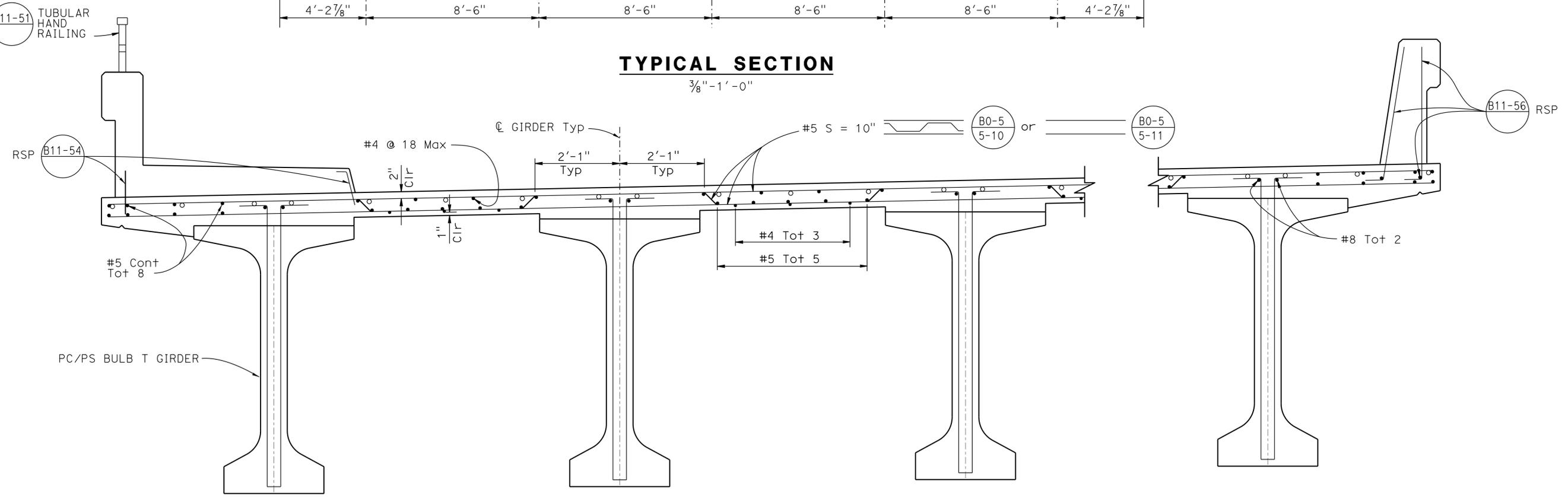
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NOTE:
For drainage layout and details, see "STRUCTURE DRAINAGE LAYOUT" and "STRUCTURE DRAINAGE DETAILS" sheets.

TYPICAL SECTION

3/8" - 1' - 0"



PART TYPICAL SECTION

3/4" - 1' - 0"

For top slab additional Reinf, see "GIRDER REINFORCEMENT" sheet.

1 **REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015**

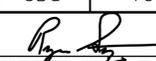
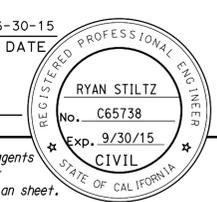
DESIGN	BY R. Stiltz	CHECKED F. Chen
DETAILS	BY Y. Tang	CHECKED F. Chen
QUANTITIES	BY Y. Tang	CHECKED F. Chen

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

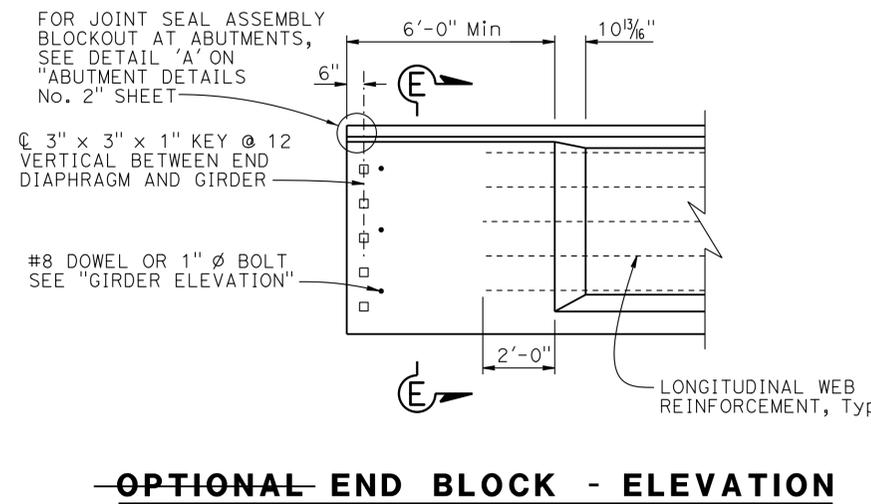
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	54C0661
POST MILE	43.93

MOJAVE RIVER BRIDGE
TYPICAL SECTION

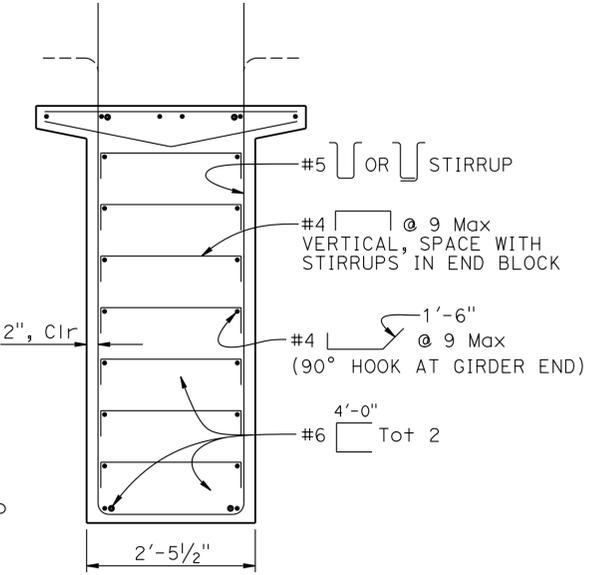
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	42.5/46.0	658	824
 REGISTERED CIVIL ENGINEER			6-30-15 DATE		
6-23-14 PLANS APPROVAL DATE					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

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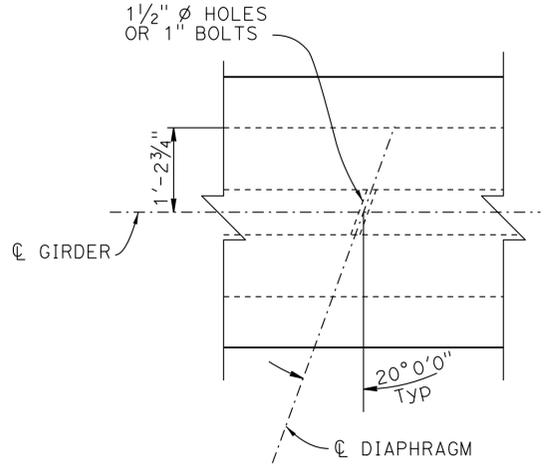
OPTIONAL END BLOCK - ELEVATION
NO SCALE

END BLOCK REQ'D AT ABUTMENTS ONLY



NOTE:
For details not shown, see "TYPICAL GIRDER SECTION" detail

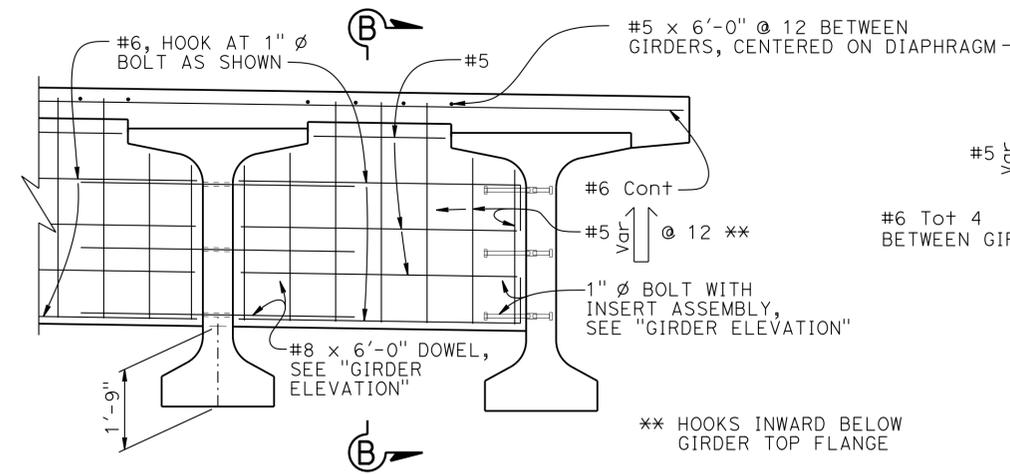
SECTION E-E
NO SCALE



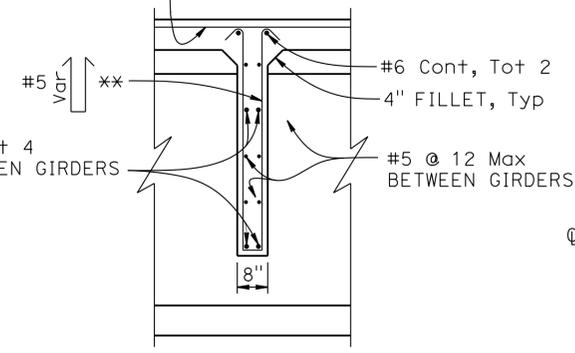
INTERMEDIATE DIAPHRAGM - ANGLE DETAIL
NO SCALE

NOTE:
For "GIRDER ELEVATION" and "TYPICAL GIRDER SECTION", see "PC/PS BULB-TEE GIRDER (HARPED STRANDS)" sheet

NOTES:
1. For details shown but not noted, see "TYPICAL GIRDER SECTION" detail
2. W8 WWR not shown

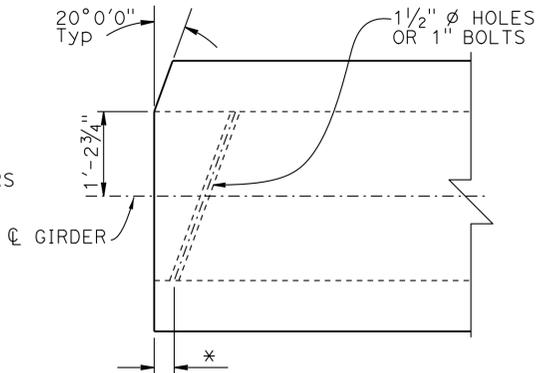


INTERMEDIATE DIAPHRAGM
NO SCALE

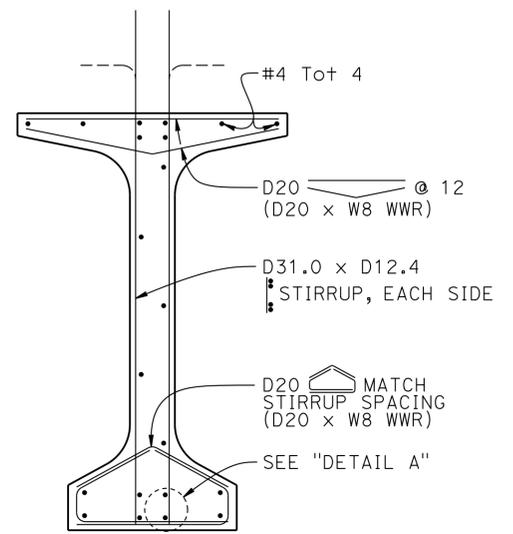


NOTE:
Diaphragm may be vertical or normal to deck grade

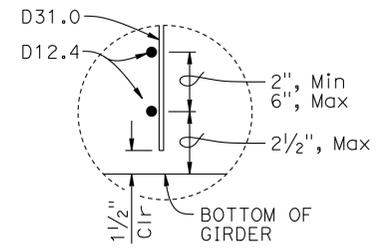
SECTION B-B
NO SCALE



* 3 1/2" at Abutment, 1"-0" at Piers
END GIRDER AT ABUTMENT-ANGLE DETAIL
NO SCALE



WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE
NO SCALE



DETAIL A
NO SCALE

NOTES:
1. Bottom of stirrup WWR detail shown, top similar
2. Longitudinal wire area shall be 40% or greater of vertical deformed wire's area

1 **REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015**

DESIGN	BY R. Stiltz	CHECKED F. Chen
DETAILS	BY Y. Tang	CHECKED F. Chen
QUANTITIES	BY Y. Tang	CHECKED F. Chen

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

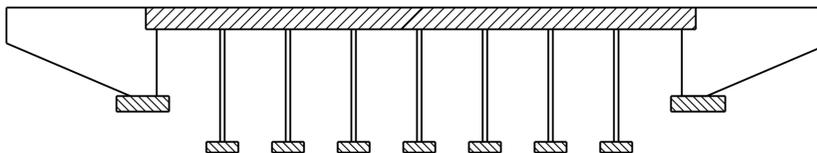
DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	54C0661
POST MILE	43.93

MOJAVE RIVER BRIDGE
GIRDER DETAILS

INDEX TO PLANS

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1.	GENERAL PLAN
2.	INDEX TO PLANS
3.	FOUNDATION PLAN NO. 1
4.	FOUNDATION PLAN NO. 2
5.	ABUTMENT 1 LEFT LAYOUT
6.	ABUTMENT 1 RIGHT LAYOUT
7.	ABUTMENT 9 RIGHT LAYOUT
8.	ABUTMENT DETAILS NO. 1
9.	ABUTMENT DETAILS NO. 2
10.	ABUTMENT DETAILS NO. 3
11.	PIER LEFT LAYOUT
12.	PIER RIGHT LAYOUT
13.	PIER DETAILS
14.	TYPICAL SECTION
15.	LEFT WIDENING GIRDER LAYOUT
16.	RIGHT WIDENING GIRDER LAYOUT NO. 1
17.	RIGHT WIDENING GIRDER LAYOUT NO. 2
18.	HINGE LAYOUT
19.	HINGE DETAILS
20.	HINGE RETROFIT DETAILS
21.	CABLE RESTRAINER TYPE 2
22.	CABLE RESTRAINER ADJUSTMENT HARDWARE
23.	LEFT WIDENING TOP & BOTTOM GIRDER REINFORCEMENT
24.	RIGHT WIDENING TOP GIRDER REINFORCEMENT
25.	RIGHT WIDENING BOTTOM GIRDER REINFORCEMENT
26.	STRUCTURE APPROACH TYPE N(30S)
27.	STRUCTURE APPROACH TYPE R(30S)
28.	STRUCTURE APPROACH DRAINAGE DETAILS
29.	ABUTMENT RECONSTRUCTION DETAILS NO. 1
30.	ABUTMENT RECONSTRUCTION DETAILS NO. 2
31.	ABUTMENT RECONSTRUCTION DETAILS NO. 3
32.	ABUTMENT RECONSTRUCTION DETAILS NO. 4
33.	STRUCTURE DRAINAGE LAYOUT
34.	LOG OF TEST BORINGS 1 OF 11
35.	LOG OF TEST BORINGS 2 OF 11
36.	LOG OF TEST BORINGS 3 OF 11
37.	LOG OF TEST BORINGS 4 OF 11
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43.	LOG OF TEST BORINGS 10 OF 11
44.	LOG OF TEST BORINGS 11 OF 11



- Structural Concrete, Bridge
- Structural Concrete, Bridge Footing
- Structural Concrete, Bridge (4,000 psi at 28 days)

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

STANDARD PLANS DATED 2010

A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP 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
A76A	CONCRETE BARRIER TYPE 60
BO-1	BRIDGE DETAILS
BO-3	BRIDGE DETAILS
BO-5	BRIDGE DETAILS
BO-13	BRIDGE DETAILS
B2-8	PILE DETAILS CLASS 200
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B7-6	DECK DRAINS TYPES D-1 AND D-2
B7-7	DECK DRAIN TYPE D-3
B7-8	DECK DRAINAGE DETAILS
B7-10	UTILITY OPENING BOX GIRDER
RSP B11-56	CONCRETE BARRIER TYPE 736



QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	34,870	SQFT
REFINISH BRIDGE DECK	1,896	SQFT
FURNISH POLYESTER CONCRETE OVERLAY	2,180	CF
PLACE POLYESTER CONCRETE OVERLAY	34,870	SQFT
CORE CONCRETE (6")	120	LF
CORE CONCRETE (10")	110	LF
BRIDGE REMOVAL (PORTION), LOCATION A	LUMP	SUM
STRUCTURE EXCAVATION (BRIDGE)	301	CY
STRUCTURE EXCAVATION (TYPE D)	4,249	CY
STRUCTURE BACKFILL (BRIDGE)	152	CY
TEMPORARY SUPPORT (LOCATION A)	LUMP	SUM
FURNISH PILING (CLASS 200) (ALTERNATIVE W)	10,123	LF
DRIVE PILE (CLASS 200) (ALTERNATIVE W)	226	EA
STRUCTURAL CONCRETE, BRIDGE FOOTING	554	CY
STRUCTURAL CONCRETE, BRIDGE	3,205	CY
AGGREGATE BASE (APPROACH SLAB)	18	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	150	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	185	CY
DIAPHRAGM BOLSTER	18	EA
DRILL AND BOND DOWEL	1,976	LF
JOINT SEAL (MR 1")	336	LF
JOINT SEAL (MR 2")	336	LF
BAR REINFORCING STEEL (BRIDGE)	1,552,381	LB
MISCELLANEOUS METAL (RESTRAINER-CABLE TYPE)	9,649	LB
MISCELLANEOUS METAL (RESTRAINER-PIPE/CABLE TYPE)	7,500	LB
BRIDGE DECK DRAINAGE SYSTEM	4,640	LB
CONCRETE BARRIER (TYPE 60A MODIFIED)	632	LF
CONCRETE BARRIER (TYPE 736)	1,277	LF

NOTES:
1. Design tip elevations are controlled by: (a) compression, (b) Tension, (d) Lateral Load.

1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	15	42.5/46.0	697	824

REGISTERED CIVIL ENGINEER DATE 6-30-15

6-23-14 PLANS APPROVAL DATE

RYAN STILTZ No. C65738 Exp. 9/30/15 CIVIL

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**GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN**

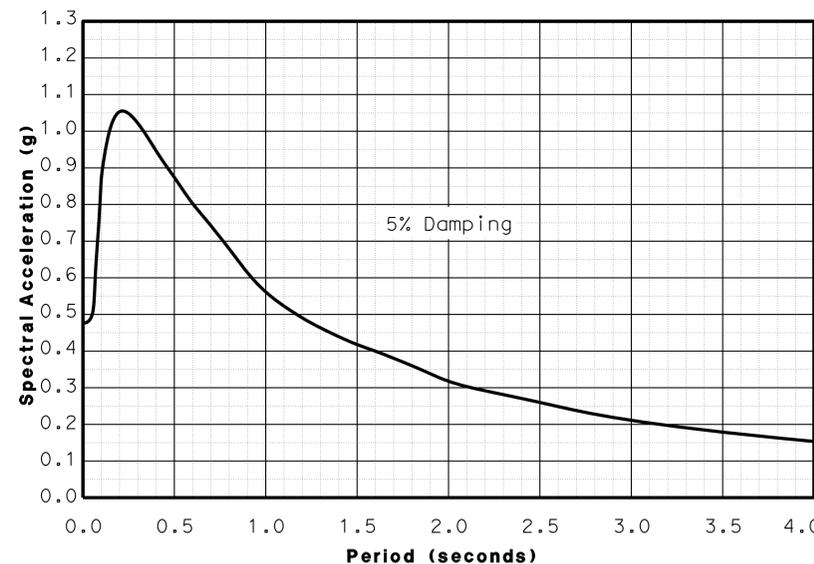
DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th Edition with California Amendments, Preface dated Nov. 2011.

SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC) Version 1.6, November 2010

DEAD LOAD: Includes 35 Psf for future wearing surface. The deck load between the girders has been increased by a factor of 10% to allow for the use of steel deck forms.

LIVE LOADING: HL93 and permit design load.

SEISMIC LOADING: Soil Profile: $V_{s30} = 1030$ ft/s
Moment Magnitude: $M_{max} = 6.5$
Peak Ground Acceleration = 0.49g



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

STRUCTURAL STEEL: NEW CONSTRUCTION: $f_y =$ ASTM A709 Grade 50

STEEL PIPE PILES: ASTM A252 Grade 3

DESIGN	BY	CHECKED
DESIGN	Ryan Stiltz	L. Wu
DETAILS	G. Hallstrom	L. Wu
QUANTITIES	D. Azzam	A. McPhee/F. Chen

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN

BRIDGE NO. 54-0483

POST MILE 43.93

DESIGN BRANCH 10

MOJAVE RIVER BRIDGE (WIDEN)

INDEX TO PLANS

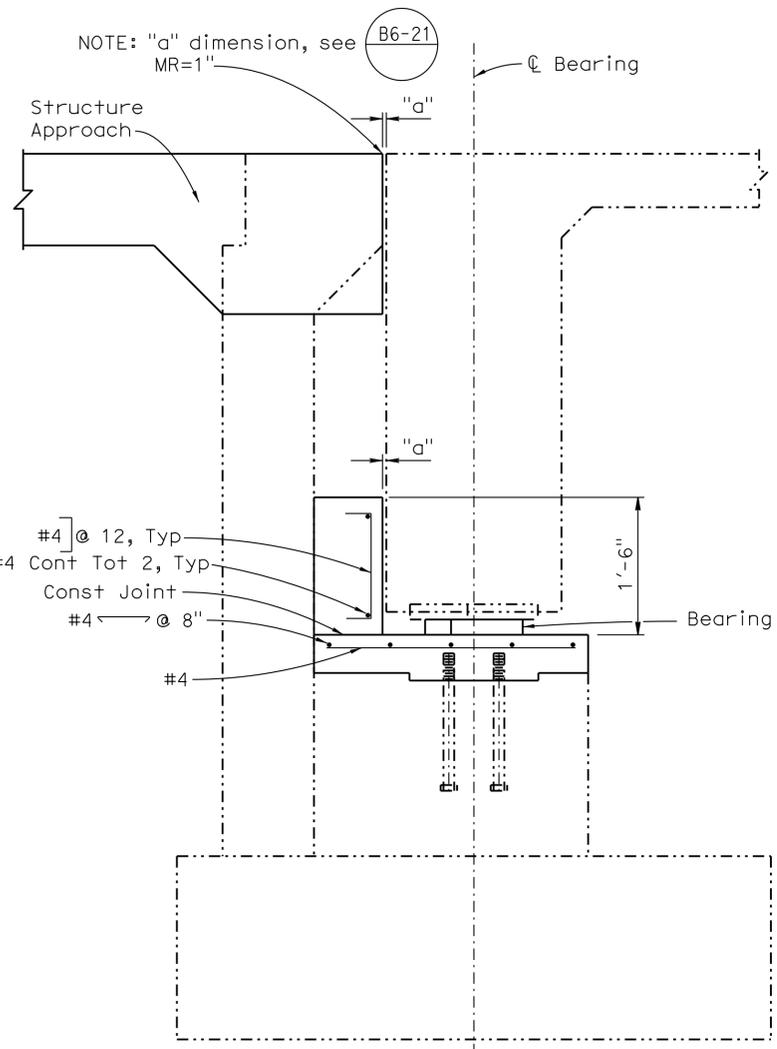
REVISION DATES

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4-28-14	
5-14-14	
6-30-15	
6-18-15	
7-14-15	
9-30-15	
10-31-15	

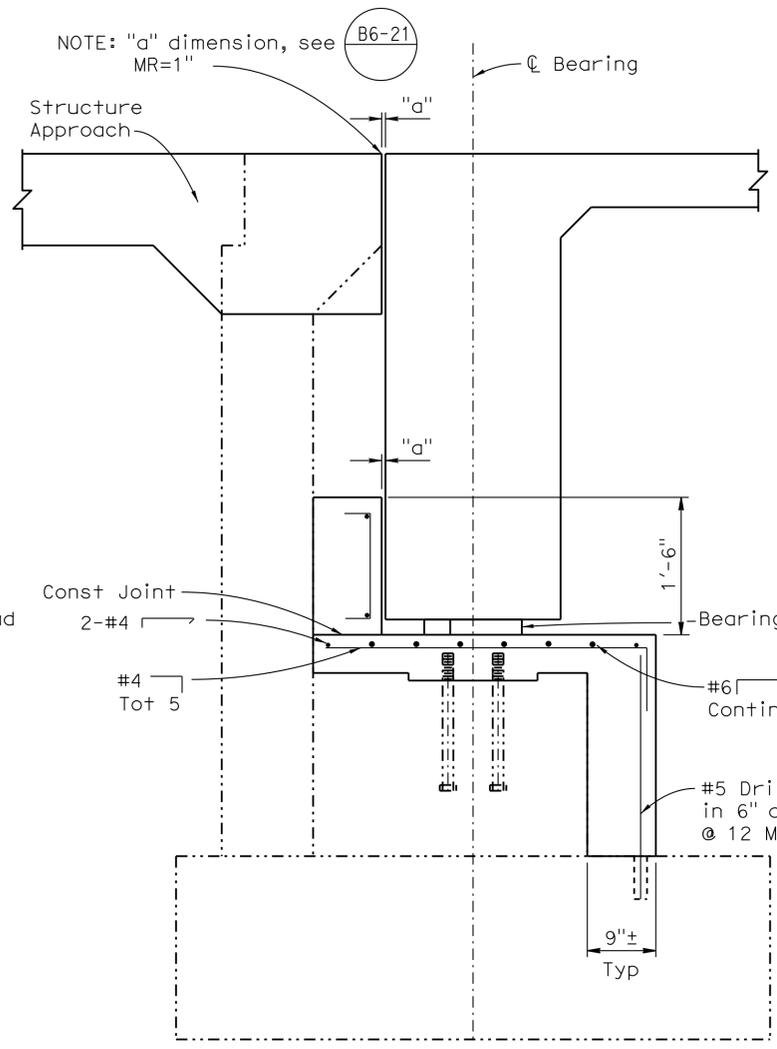
SHEET 2 OF 44

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
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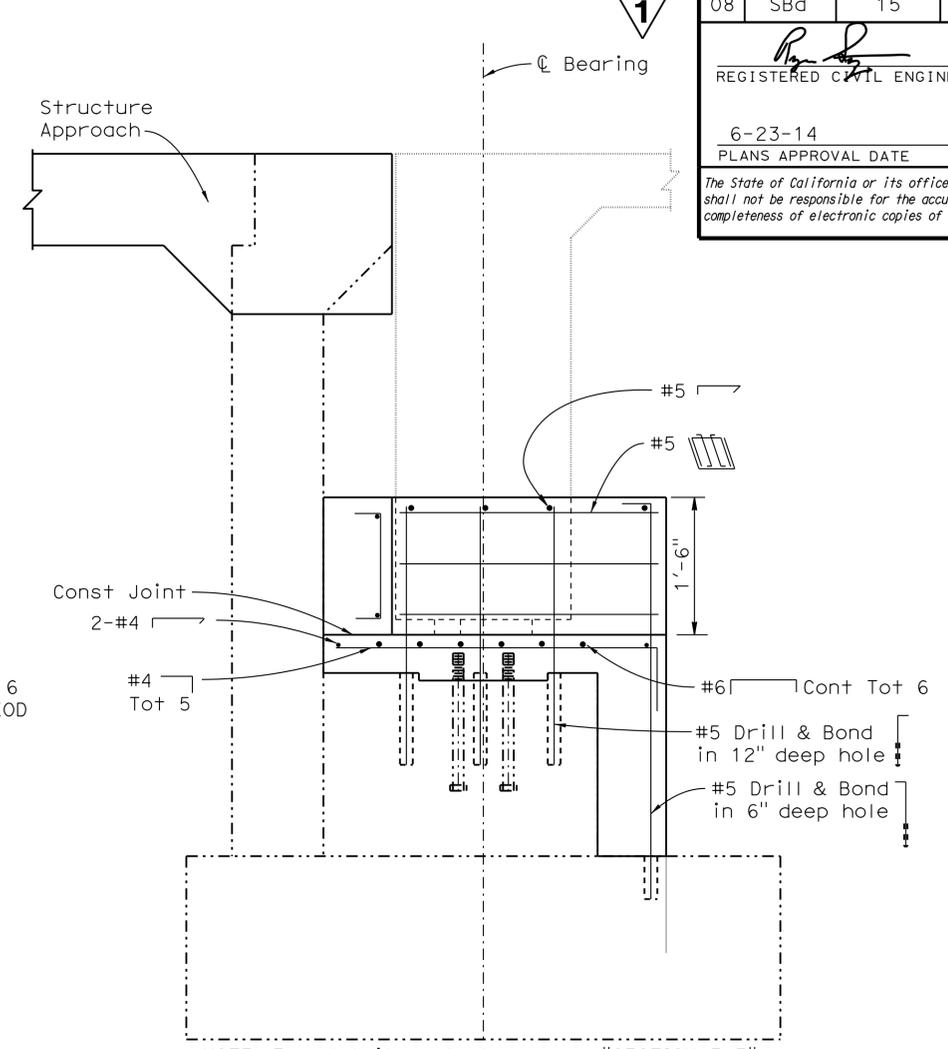
REGISTERED CIVIL ENGINEER DATE 6-30-15
 6-23-14 PLANS APPROVAL DATE
 RYAN STILTZ No. C65738 Exp. 9/30/15 CIVIL
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



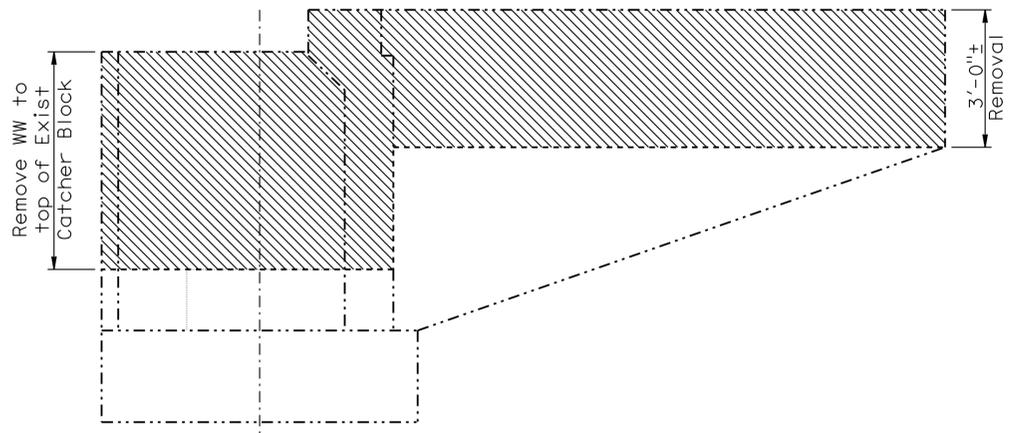
SECTION E-E
1"=1'-0"



SECTION F-F
1"=1'-0"
NOTE: For details not shown, see "SECTION E-E".



SECTION G-G
1"=1'-0"
NOTE: For details not shown, see "SECTION E-E".



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

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

1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

TEMPORARY SUPPORT TABLE

Location	DL+LL+I (KIP)	DL (KIP)	LATERAL LOAD (KIP)
Abut 1	95	50	10
Abut 7	95	50	10

LEGEND:
 — Indicates new construction
 - - - Indicates existing structure
 [Hatched] Indicates bridge removal (portion)

- NOTES:
1. The jacking force shall be applied simultaneously to all jacks along the abutment to be jacked. Jacks shall be placed along girder centerline at abutments.
 2. The total vertical lift at the abutments shall be enough to release the existing bearings, but no greater than 1/2" above existing final grade.
 3. Lower super structure onto elastomeric bearing pads after concrete has attained 100% compressive strength.

NOTES:
 1. For location of "SECTION D-D", "SECTION E-E", "SECTION F-F", and "SECTION G-G", see "ABUTMENT RECONSTRUCTION DETAILS NO. 1" and "ABUTMENT RECONSTRUCTION DETAILS NO. 2" sheets.

DESIGN	BY R. Stiltz	CHECKED L. Wu
DETAILS	BY G. Hallstrom	CHECKED L. Wu
QUANTITIES	BY D. Azzam	CHECKED A. McPhee/F. Chen

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
 DESIGN BRANCH 10

BRIDGE NO. 54-0483
 POST MILE 43.93

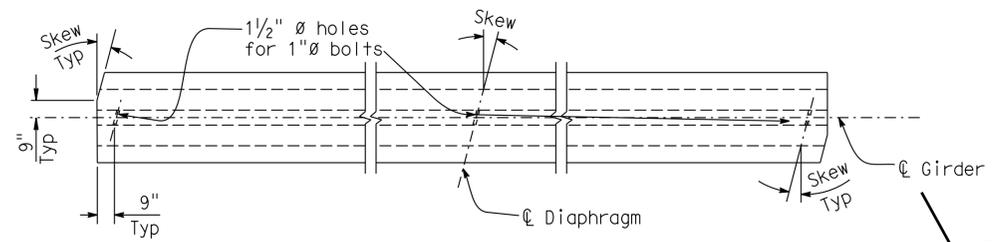
MOJAVE RIVER BRIDGE (WIDEN)
ABUTMENT RECONSTRUCTION DETAILS NO. 4

USERNAME => s114640 DATE PLOTTED => 16-JUL-2015 TIME PLOTTED => 13:36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	42.5/46.0	754	824

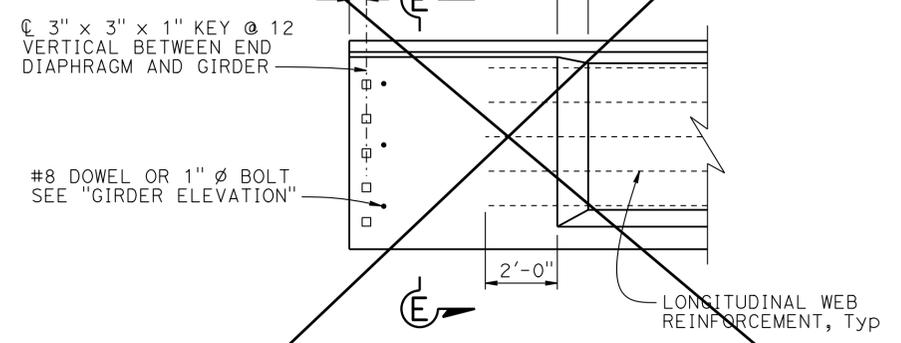
REGISTERED CIVIL ENGINEER	DATE
6-30-15	
PLANS APPROVAL DATE	
6-23-14	

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.

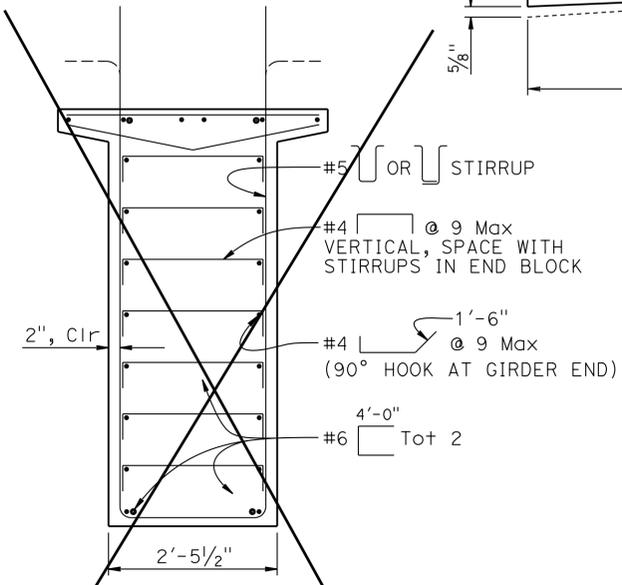


END GIRDER AT BENT-ANGLE DETAIL

No Scale



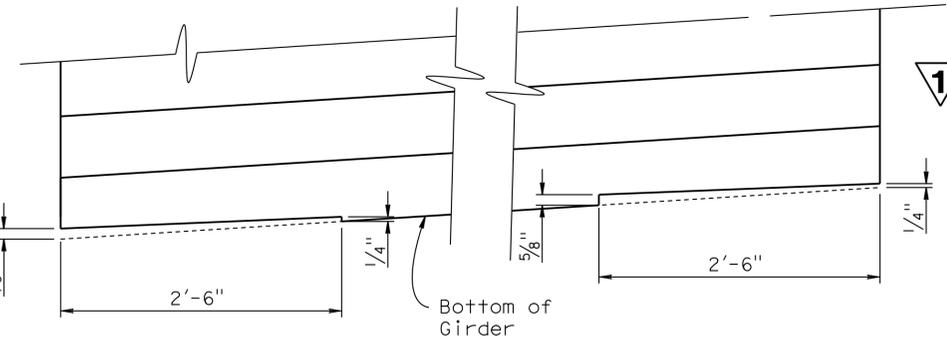
OPTIONAL END BLOCK - ELEVATION



NOTE:
For details not shown, see "TYPICAL GIRDER SECTION" detail

SECTION E-E

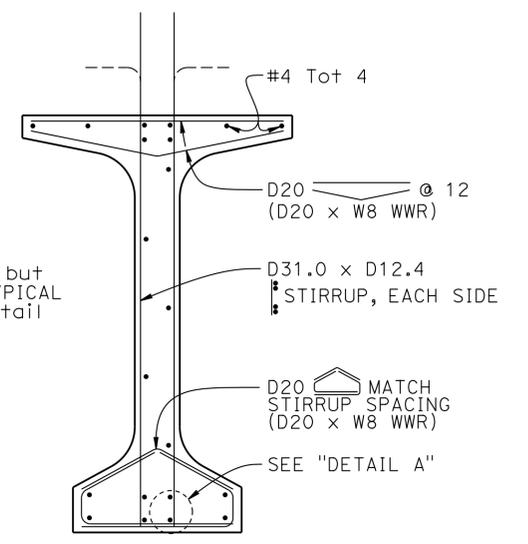
NOTE:
For "GIRDER ELEVATION" and "TYPICAL GIRDER SECTION", see "PC/PS BULB-TEE GIRDER (DEBONDED STRANDS)" sheet



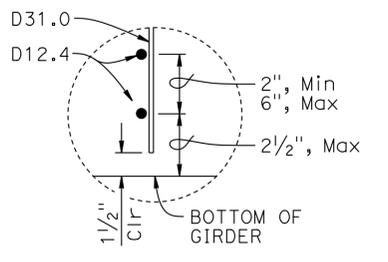
END GIRDER NOTCH DETAIL

No Scale

- NOTES:
- For details shown but not noted, see "TYPICAL GIRDER SECTION" detail
 - W8 WWR not shown

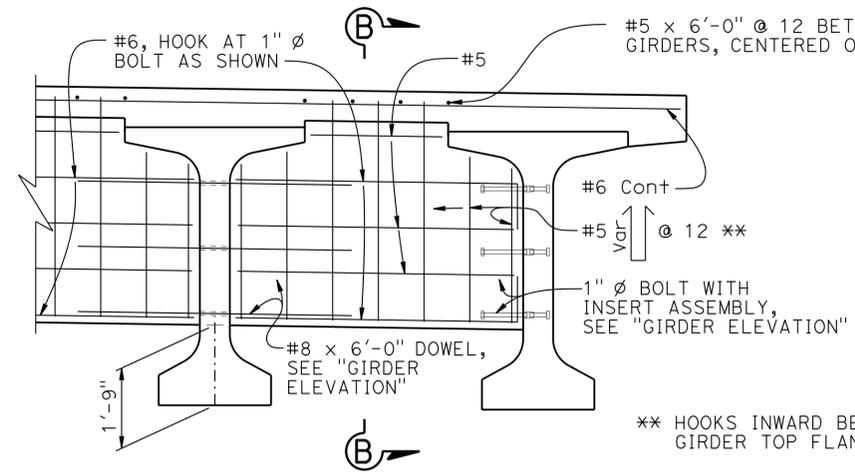


WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE

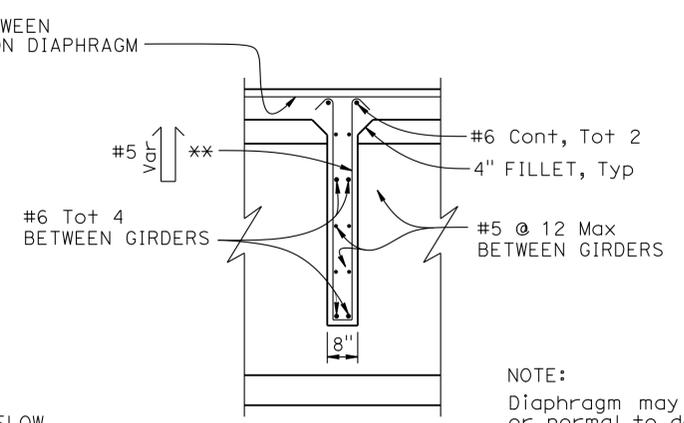


DETAIL A

- NOTES:
- Bottom of stirrup WWR detail shown, top similar
 - Longitudinal wire area shall be 40% or greater of vertical deformed wire's area



INTERMEDIATE DIAPHRAGM



SECTION B-B

NOTE:
Diaphragm may be vertical or normal to deck grade

1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

SPECIAL DETAILS NO SCALE

REVISED STANDARD DRAWING	Added Detail
FILE NO. xs1-121-2	APPROVAL DATE July 2011

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
DEPARTMENT OF TRANSPORTATION	

BRIDGE NO.	VICTORVILLE SEPARATION & OVERHEAD
54-0484G	
POST MILE	PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)
43.5	

UNIT: 3589	CONTRACT NO.: 08-3555V1
PROJECT NUMBER & PHASE: 08140000861	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	15	42.5/46.0	784	824

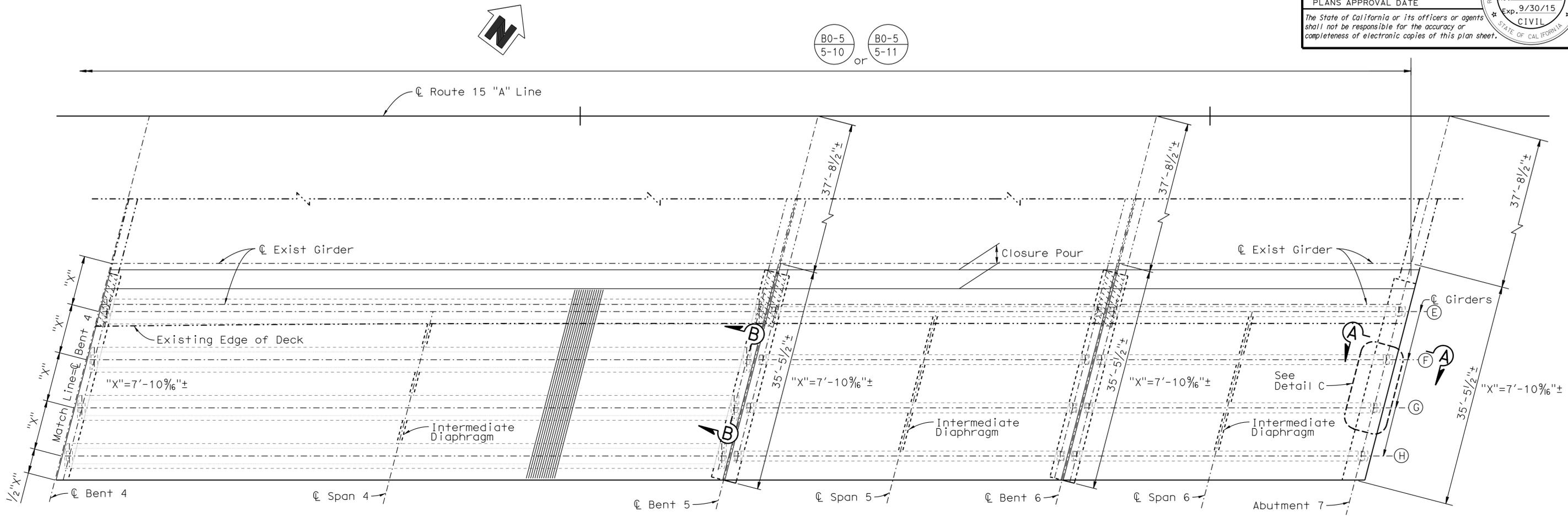
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6-15-15
REGISTERED CIVIL ENGINEER DATE

6-23-14
PLANS APPROVAL DATE

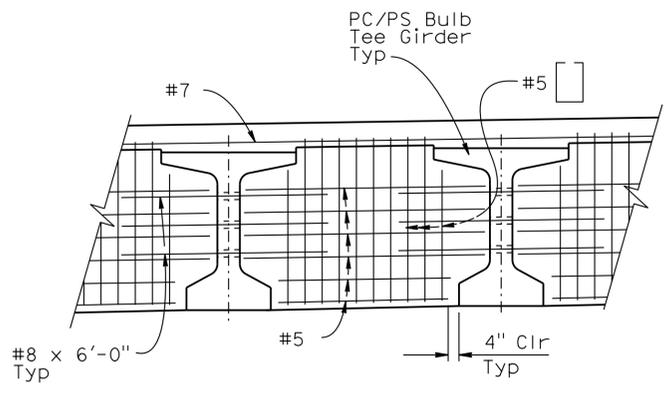
RYAN STILTZ
No. C65738
Exp. 9/30/15
CIVIL
STATE OF CALIFORNIA

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.



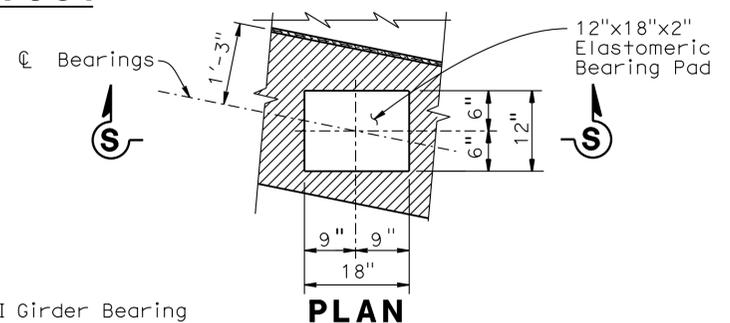
GIRDER LAYOUT

1/8" = 1' - 0"

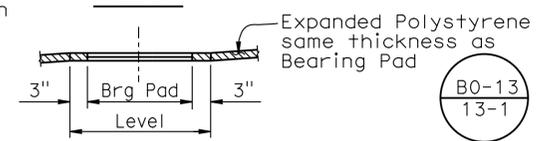


SECTION B-B

No Scale



PLAN



SECTION S-S

No Scale

BEARING PAD DETAIL FOR BULB TEE GIRDERS

NOTE:
For Precast I Girder Bearing pad detail, see "SECTION T-T" on "BENT DETAILS NO. 2" sheet.

LEGEND:

- Indicates new construction
- - - Indicates existing structure
- ▨ Indicates Bridge Removal (Portion) and Place Structure Concrete, Bridge

NOTES:

1. For "SECTION A-A", see "LEFT WIDENING GIRDER LAYOUT NO. 1" sheet.
2. For "DETAIL C", see "RIGHT WIDENING GIRDER LAYOUT NO. 1" sheet.
3. For Intermediate Diaphragm details, see "PRECAST PRESTRESSED I GIRDER" and "PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)" sheets.

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

1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

DESIGN	BY R. Stiltz	CHECKED J. Szabo
DETAILS	BY G. Hallstrom	CHECKED J. Szabo
QUANTITIES	BY J. Szabo	CHECKED T. Sanderson/F. Chen

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 10

BRIDGE NO.	54-0484
POST MILE	43.5

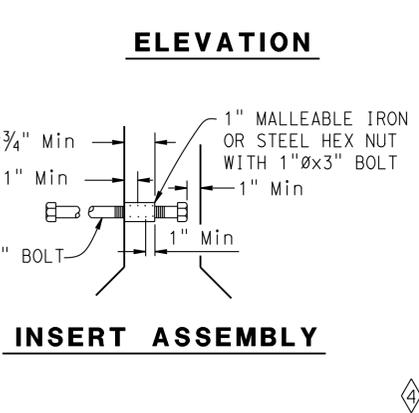
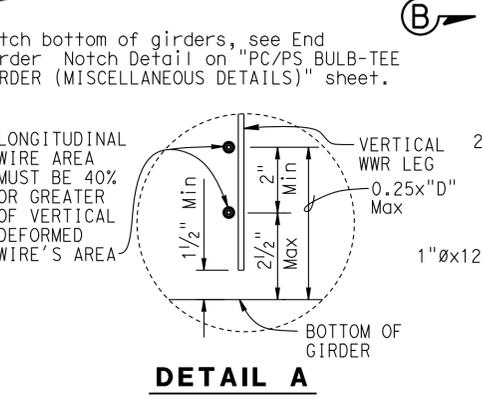
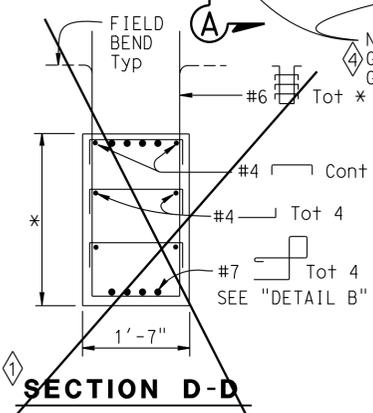
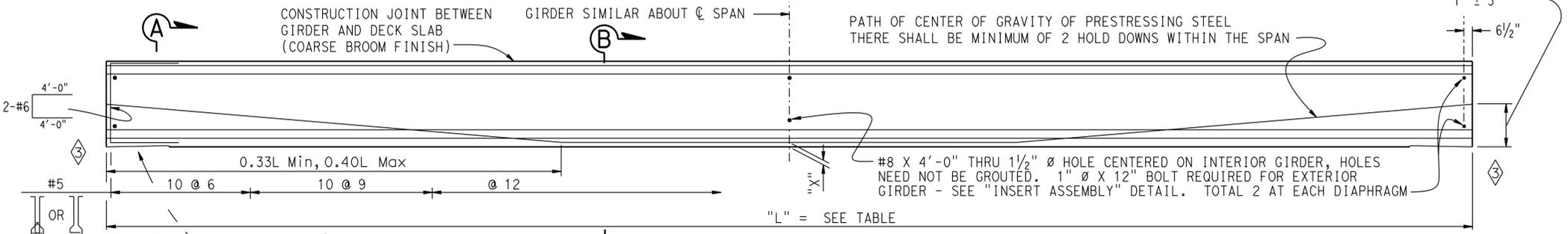
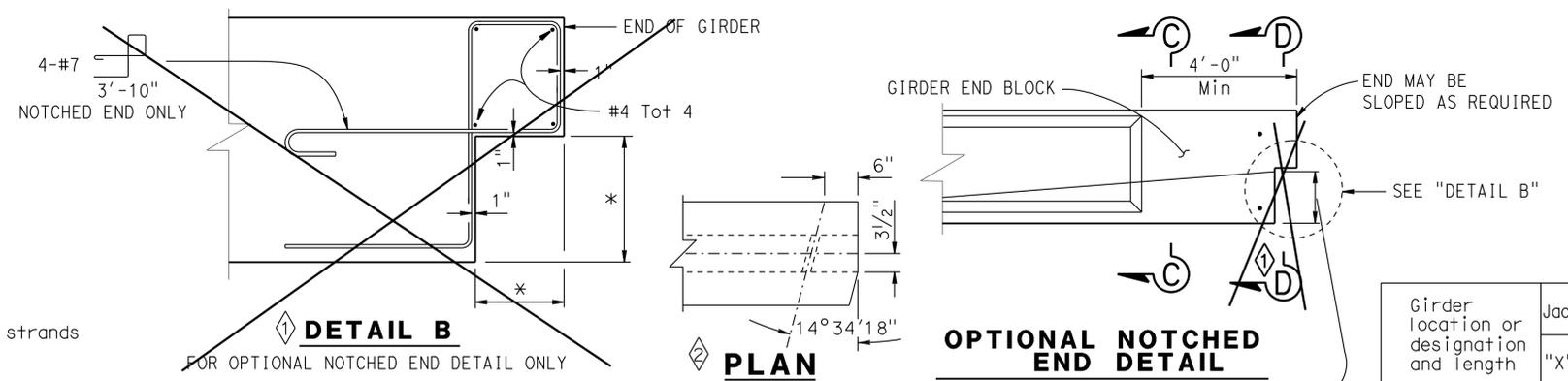
VICTORVILLE SEPARATION & OVERHEAD (WIDEN)
RIGHT WIDENING GIRDER LAYOUT NO. 2

REVISION DATES	SHEET	OF
12-24-08 9-27-09 11-09-09 2-02-11 12-20-12 3-06-13 7-08-13 11-30-13 6-30-15	19	41

USERNAME => s114640 DATE PLOTTED => 16-JUL-2015 TIME PLOTTED => 13:37

CLEARANCES FOR PRETENSIONED STRANDS

1. Strands may be bundled in groups consisting of 3 vertically, 2 horizontally and separated at the ends
2. 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, 2" for 0.6" ϕ strands
3. "S" is measured between centers of adjacent strands
4. Approval by the Engineer is required for deviation



GENERAL NOTES

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

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

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

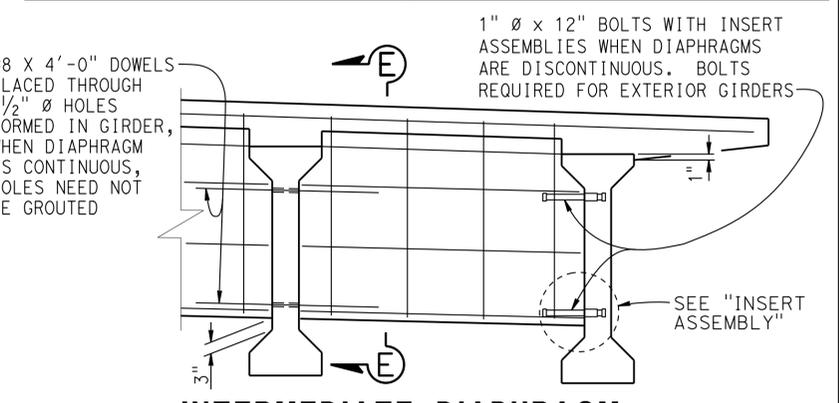
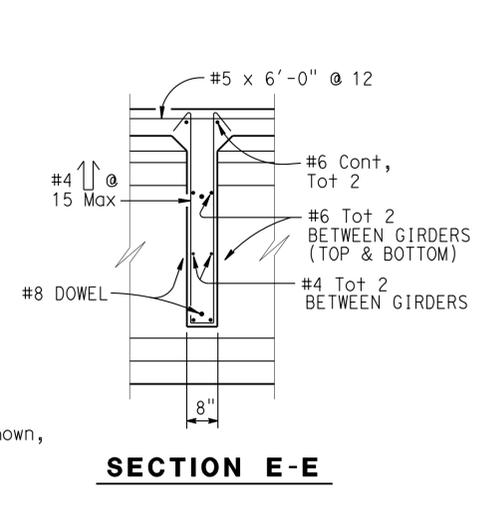
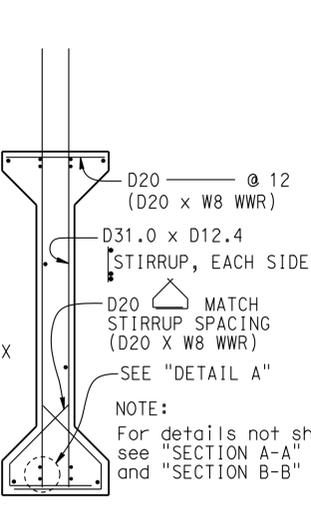
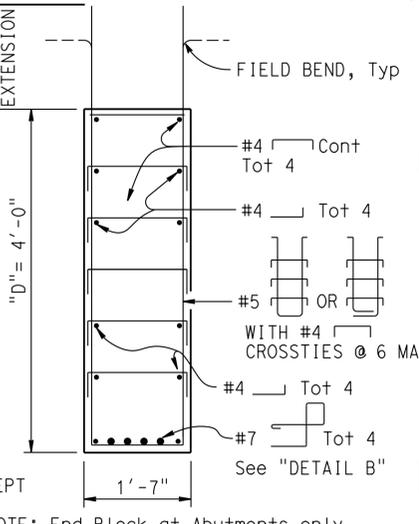
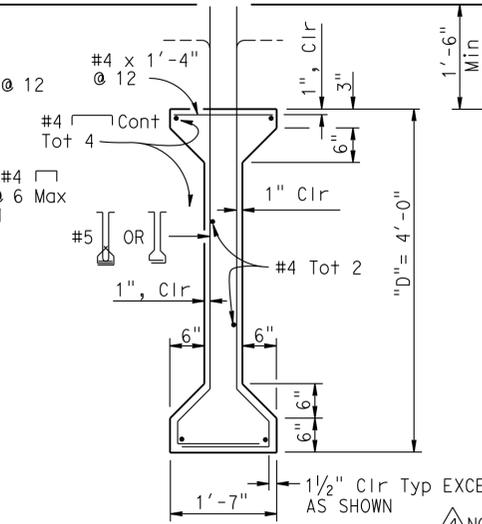
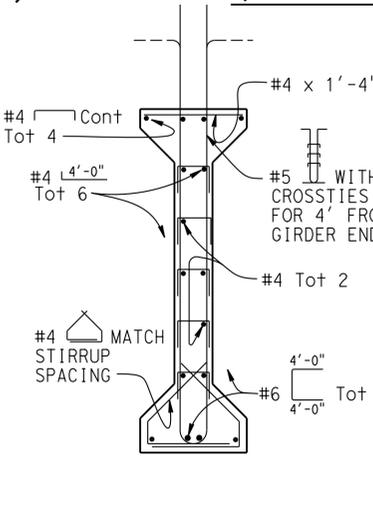
CONCRETE STRENGTH: f'_{ci} is at time of initial stressing
 f'_c is at 28 days

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

Screed line elevations for deck concrete will be determined by the Engineer. Contractor may interpolate "P" and "X" values between limits shown, as approved by the Engineer.

Use epoxy coated reinforcement in Environmental Area III
Contractor to verify span lengths prior to girder fabrication.

Girder location or designation and length	Jacking Force (P) (Kips)	"Y" (in)	Concrete Strength (ksi)		Midspan Dead Load Deflection (inches)	
			f'_{ci}	f'_c	Deck	Rail
SPAN 1 LEFT A, L=53'-3"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 1 LEFT B, L=53'-0"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 1 LEFT C, L=52'-9"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 1 LEFT D, L=52'-7"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 2 LEFT A,B, L=52'-0"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 2 LEFT C,D, L=51'-10"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 3 LEFT A,B, L=62'-2"	4" 6"	580 600	4.0	5.0	0.4	0.04
SPAN 3 LEFT C,D, L=62'-2"	4" 6"	580 600	4.0	5.0	0.4	0.04
SPAN 5 LEFT A,B, L=52'-5"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 6 LEFT A,B, L=46'-11"	4" 6"	490 500	4.0	5.0	0.15	0.01
SPAN 6 LEFT C,D, L=46'-11"	4" 6"	490 500	4.0	5.0	0.15	0.01
SPAN 1 RIGHT E,F, L=53'-9"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 1 RIGHT G,H, L=53'-6"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 2 RIGHT E,F, L=52'-6"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 2 RIGHT G,H, L=52'-3"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 3 RIGHT E,F, L=62'-3"	4" 6"	580 600	4.0	5.0	0.4	0.04
SPAN 3 RIGHT G,H, L=62'-3"	4" 6"	580 600	4.0	5.0	0.4	0.04
SPAN 5 RIGHT E,F, L=52'-5"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 5 RIGHT G,H, L=52'-5"	4" 6"	490 500	4.0	5.0	0.2	0.02
SPAN 6 RIGHT E,F, L=46'-9"	4" 6"	490 500	4.0	5.0	0.15	0.01
SPAN 6 RIGHT G,H, L=46'-9"	4" 6"	490 500	4.0	5.0	0.15	0.01



SPECIAL DETAILS

REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

REVISED STANDARD DRAWING

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 54-0484

POST MILE 43.5

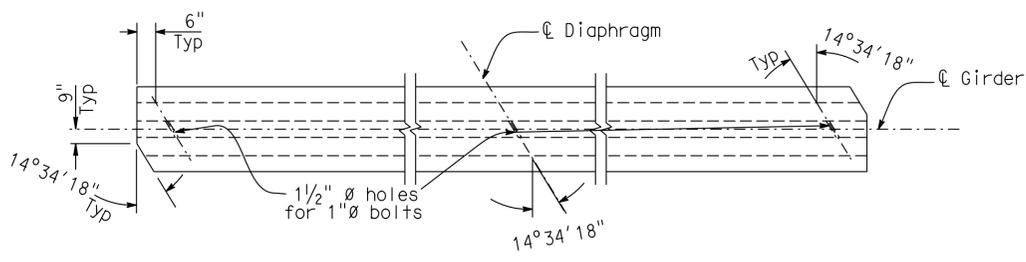
VICTORVILLE SEPARATION & OVERHEAD (WIDEN)

PRECAST PRESTRESSED I GIRDER

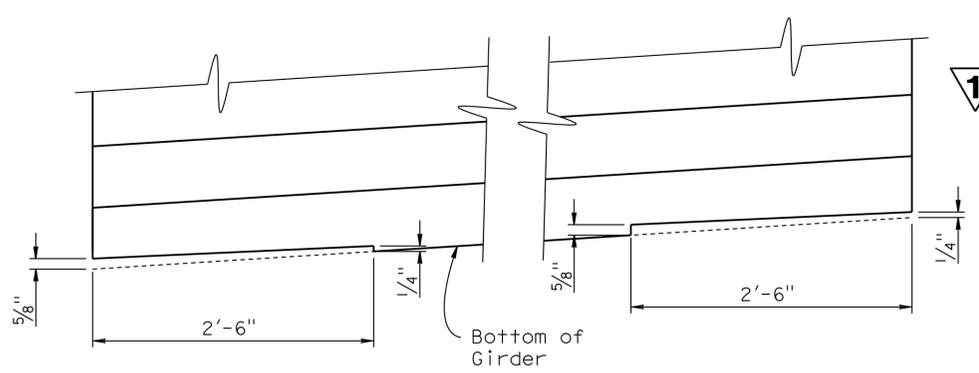
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	42.5/46.0	787	824

REGISTERED CIVIL ENGINEER	DATE
6-30-15	
6-23-14	PLANS APPROVAL DATE

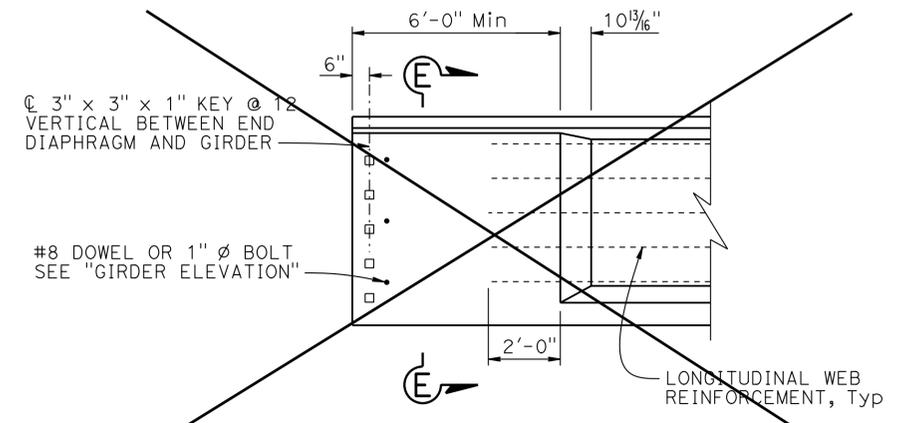
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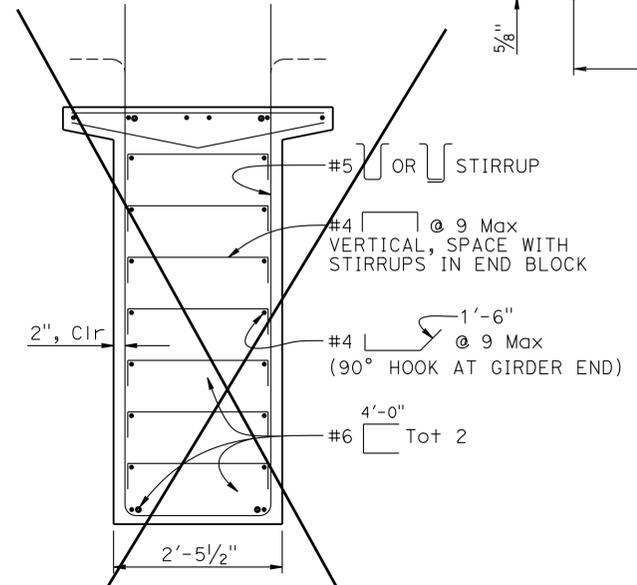
END GIRDER - ANGLE DETAIL
No Scale



END GIRDER NOTCH DETAIL
No Scale



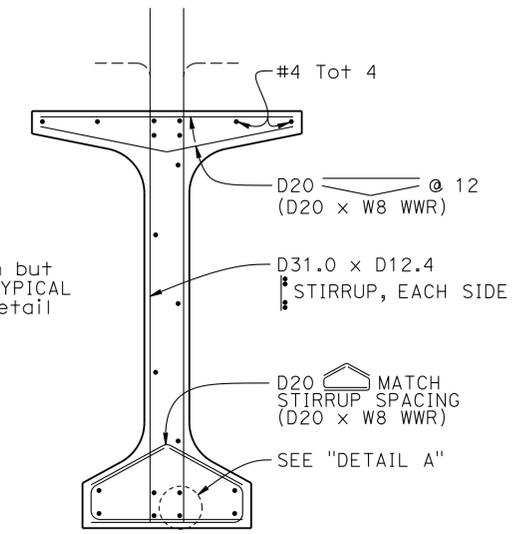
OPTIONAL END BLOCK - ELEVATION



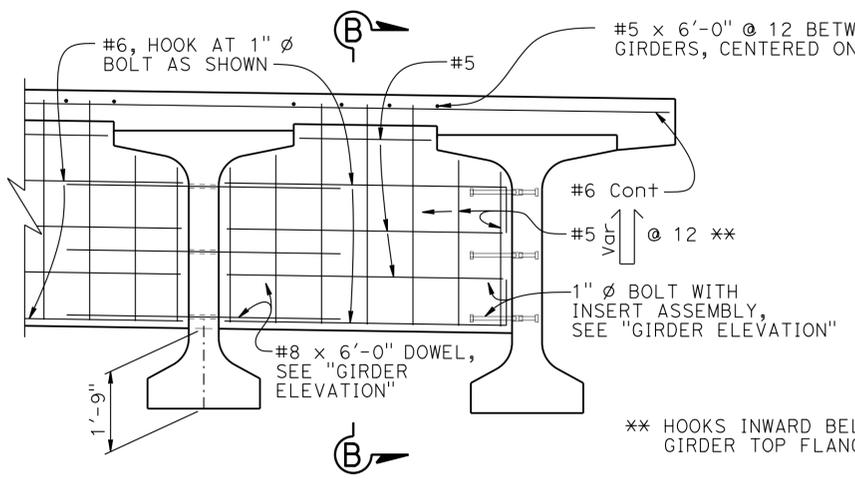
SECTION E-E
NOTE:
For details not shown, see "TYPICAL GIRDER SECTION" detail

NOTE:
For "GIRDER ELEVATION" and "TYPICAL GIRDER SECTION", see "PC/PS BULB-TEE GIRDER (DEBONDED STRANDS)" sheet

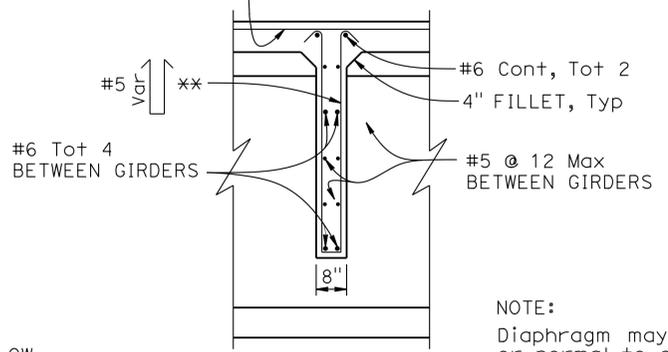
NOTES:
1. For details shown but not noted, see "TYPICAL GIRDER SECTION" detail
2. W8 WWR not shown



WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE

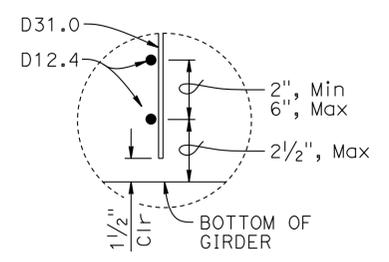


INTERMEDIATE DIAPHRAGM



SECTION B-B

NOTE:
Diaphragm may be vertical or normal to deck grade



DETAIL A

NOTES:
1. Bottom of stirrup WWR detail shown, top similar
2. Longitudinal wire area shall be 40% or greater of vertical deformed wire's area

1 REPLACED PER ADDENDUM No. 1 DATED JULY 17, 2015

NO SCALE

STANDARD DRAWING	Added Detail
FILE NO. xs1-121-2	APPROVAL DATE July 2011

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES
DEPARTMENT OF TRANSPORTATION	BRIDGE NO. 54-0484
	POST MILE 43.5

PROJECT NUMBER & PHASE: 08140000861	CONTRACT NO.: 08-3555V1
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VICTORVILLE SEPARATION & OVERHEAD (WIDEN)	PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)
REVISION DATES	SHEET 22 OF 41