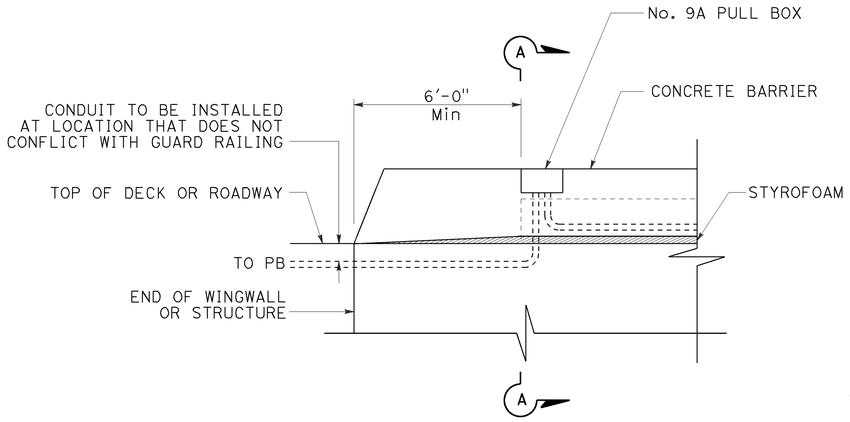
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	101	147

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

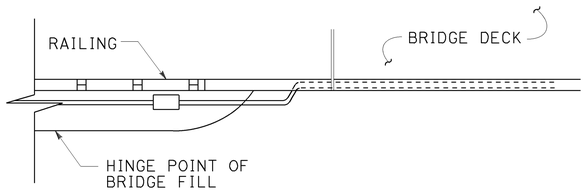
October 30, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Theresa Aziz Gabriel — No. E15129 — Exp. 6-30-16 — ELECTRICAL — STATE OF CALIFORNIA

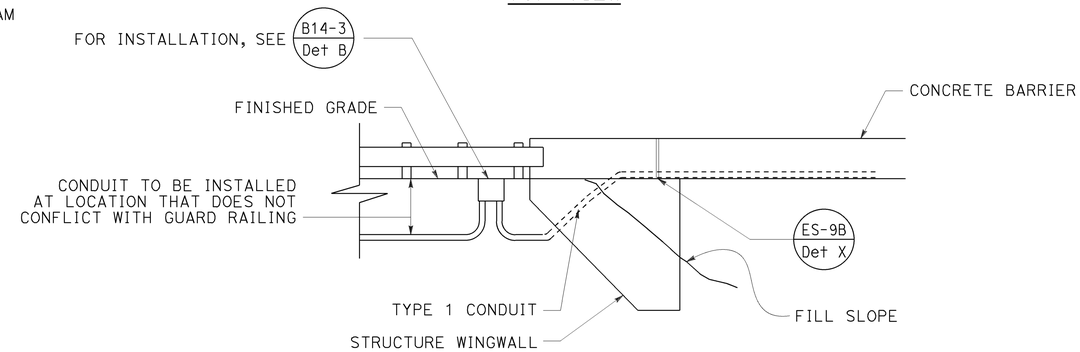
TO ACCOMPANY PLANS DATED 5-26-16



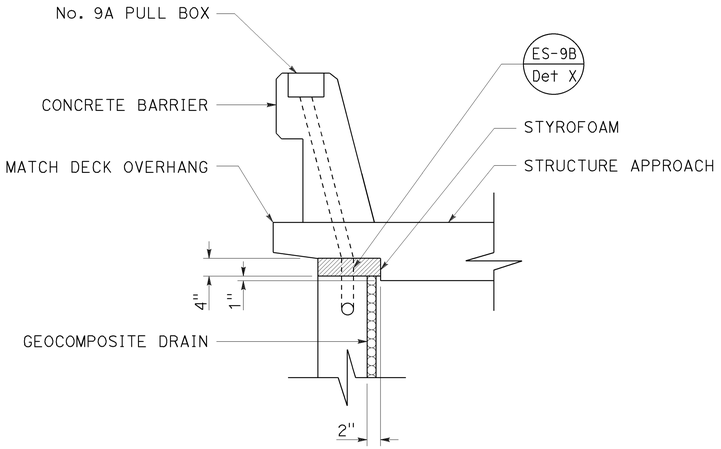
SIDE VIEW



TOP VIEW



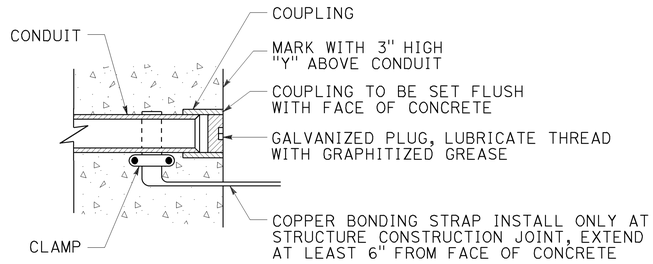
SIDE VIEW



SECTION A-A

CONDUIT TERMINATION
DETAIL A

CONDUIT TERMINATION
DETAIL I



CONDUIT TERMINATION
DETAIL C

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (STRUCTURE PULL BOX INSTALLATIONS)

NO SCALE

RSP ES-9A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-9A DATED MAY 20, 2011 - PAGE 481 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-9A

2010 REVISED STANDARD PLAN RSP ES-9A

8-20-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	102	147

Jaswinder S Gill
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jaswinder S. Gill — No. E18551 — Exp. 12-31-16 — ELECTRICAL — STATE OF CALIFORNIA

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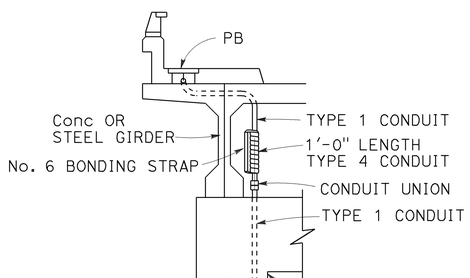
TO ACCOMPANY PLANS DATED 5-26-16

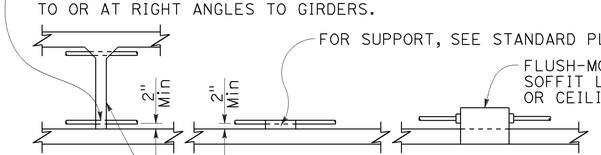
2010 REVISED STANDARD PLAN RSP ES-9B



CONDUIT RISER CONNECTION

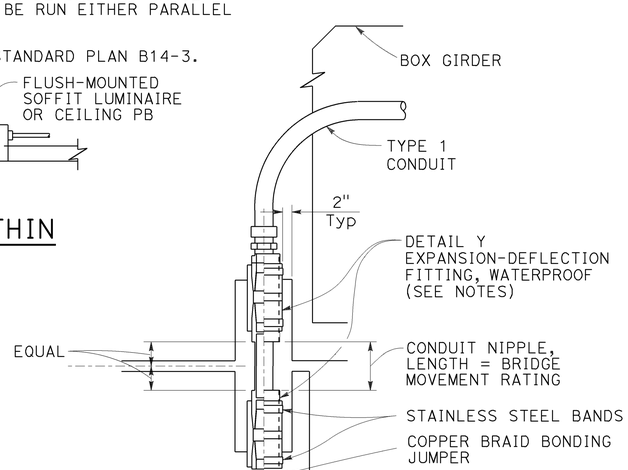
DETAIL R

CONDUIT PASSING THROUGH GIRDER OR DIAPHRAGM OF BOX GIRDER SECTION SHALL BE EITHER CAST INTO CONCRETE OR PASSED THROUGH OPENING. OPENING SHALL NOT BE DRAINAGE OPENING AND SHALL BE ONLY AS LARGE AS REQUIRED TO INSTALL CONDUIT. CONDUIT SHALL BE RUN EITHER PARALLEL TO OR AT RIGHT ANGLES TO GIRDERS.



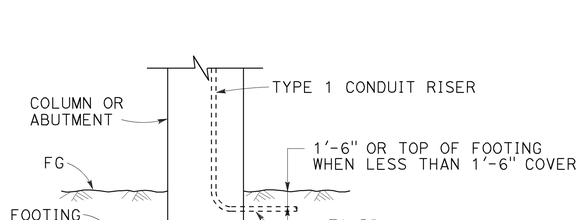
CONDUIT INSTALLATION WITHIN BOX GIRDER SECTIONS

DETAIL S



NOTES:

1. Except for sidewalk joints, a conduit expansion fitting or expansion-deflection fitting shall be installed at each ½" or greater structure joint, hinge or abutment.
2. Fittings or combination of fittings shall be installed to accommodate the movement rating as shown on the structure plans.
3. Fittings shall be installed parallel to superstructure girders.
4. Where lateral movement greater than ¼" may occur, a neoprene sleeve expansion-deflection fitting shall be installed straddling the joint.



LOWER END OF CONDUIT RISER AT COLUMN OR ABUTMENT

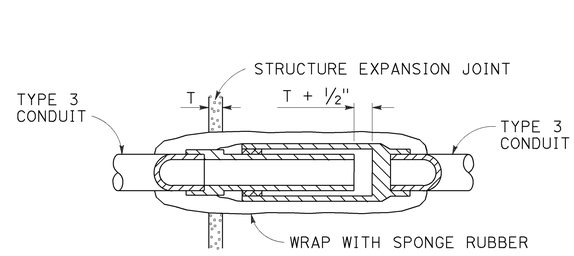
DETAIL T

NOTES:

1. Fitting and pocket required only where movement can occur between girder and abutment.
2. Fill pocket around fitting with resilient waterproof compound.

CONDUIT RISER CONNECTION AT COLUMN, ABUTMENT OR STRUCTURE WING WALL

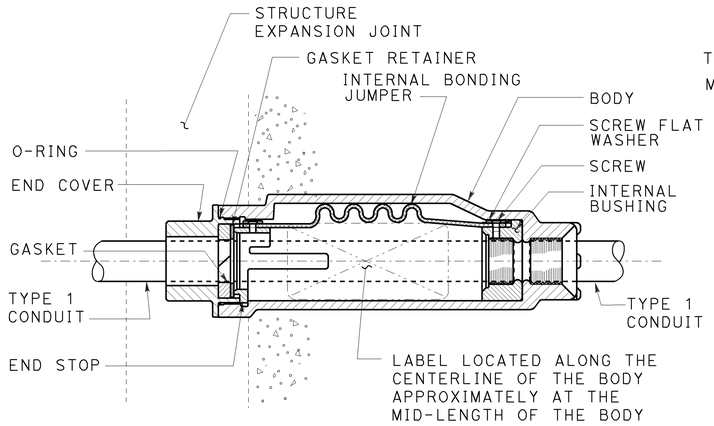
DETAIL U



NON-METALLIC CONDUIT EXPANSION FITTING INSTALLATION DETAIL

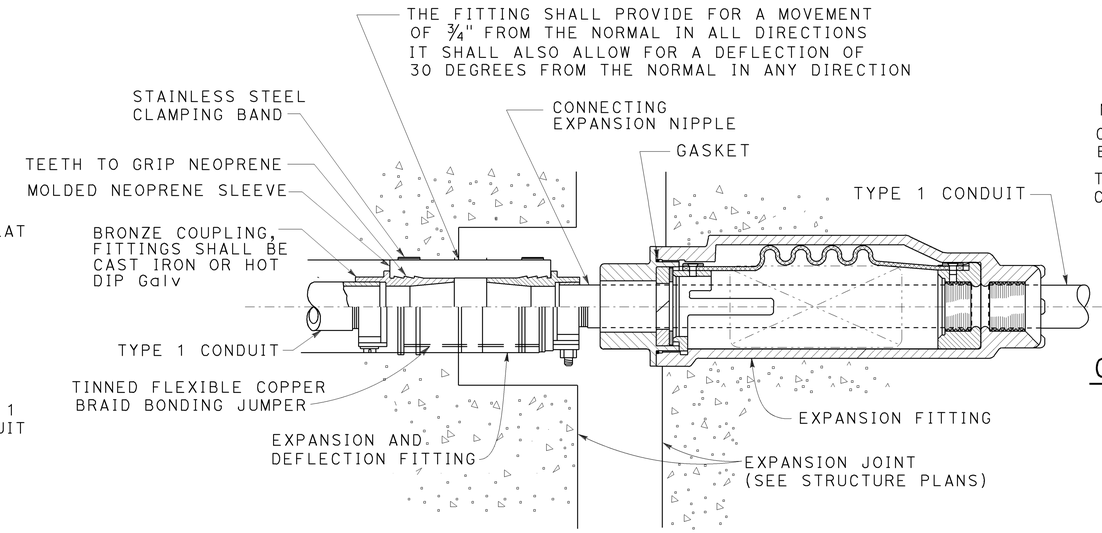
To be used only when shown or specified on Project Plans

DETAIL V



CONDUIT EXPANSION FITTING

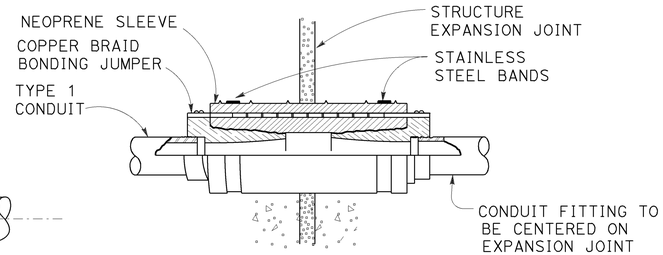
DETAIL X



COMBINATION EXPANSION-DEFLECTION FITTINGS

METALLIC CONDUIT INSTALLATION

DETAIL XY



CONDUIT EXPANSION-DEFLECTION FITTING

DETAIL Y

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (CONDUIT RISER AND EXPANSION FITTING, STRUCTURE INSTALLATIONS)

NO SCALE

RSP ES-9B DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-9B DATED MAY 20, 2011 - PAGE 482 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-9B

9-1-15

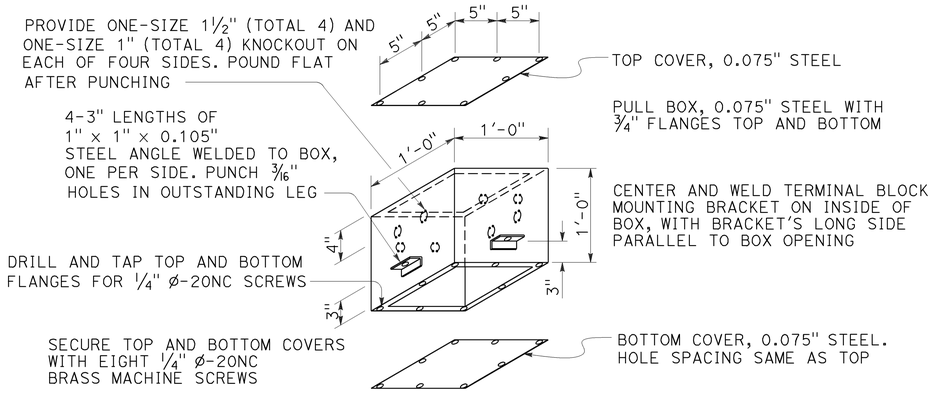
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	103	147

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

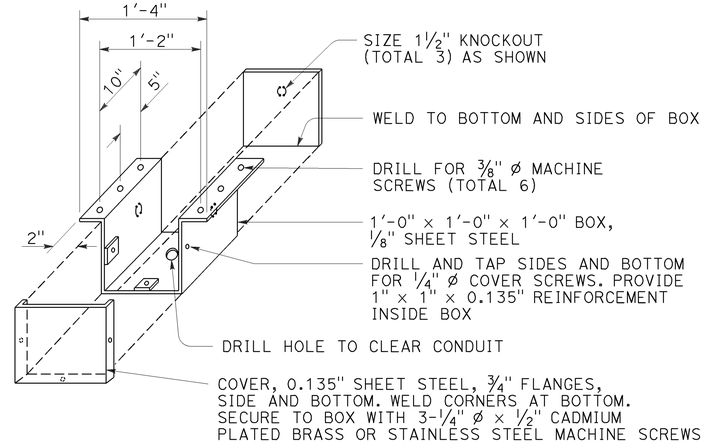
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 5-26-16



No. 7 CEILING PULL BOX

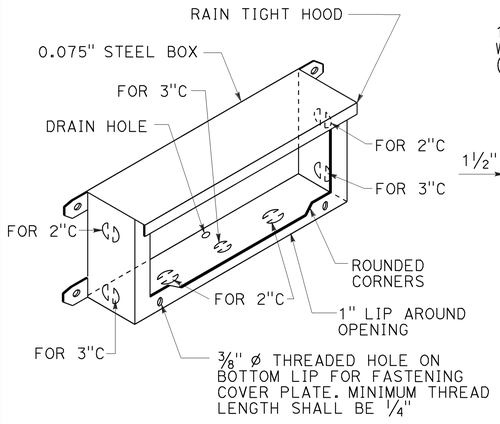
See Note 6

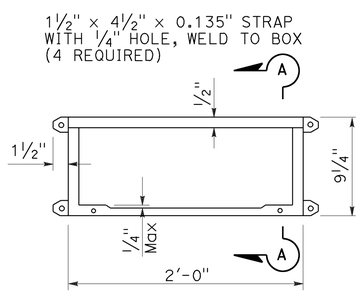


No. 8 PULL BOX

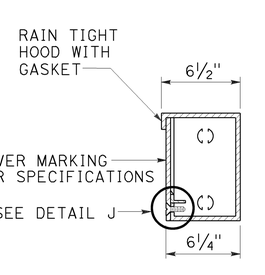
NOTES:

1. Corner joints shall be lapped and secured by spot welding or riveting.
2. Where cap screws are used to attach cover to box, either of the following methods of providing adequate threading may be used:
   a. Tack weld stainless steel Hex nut to bottom of flange (total 4)
   b. Tack weld a ¼" x ⅝" x 8" bar beneath flange (total 2)
3. Pound knockouts flat after punching.
4. Multiple size knockouts (concentric) shall not be permitted.
5. Pull box covers shall be marked as specified on Revised Standard Plans RSP ES-8A and RSP ES-8B.
6. Installation of No. 7 pull box:
   a) Install with bottom flange flush with concrete.
   b) Both covers shall be on a box during pouring.
7. Install box parallel to top of railing. Cover box during pouring with ¼" plywood of sufficient size to provide 1:1 chamfer on 3 sides of cover. Upper edge of plywood shall fit against lower edge of rain tight hood.

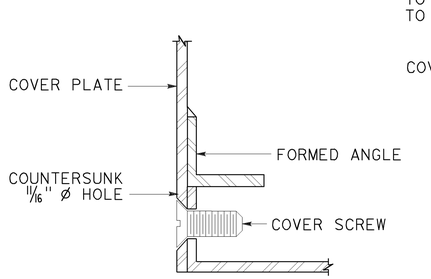




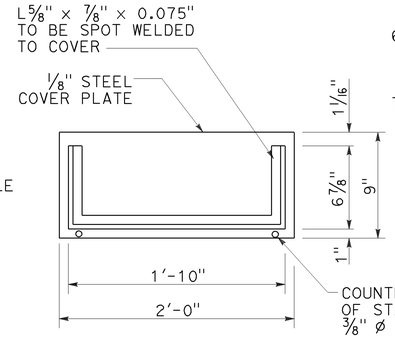
PLAN



SECTION A-A



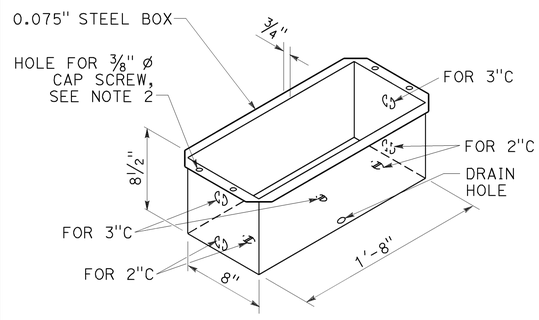
DETAIL J

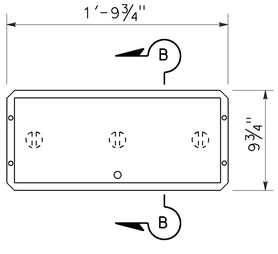


COVER DETAIL

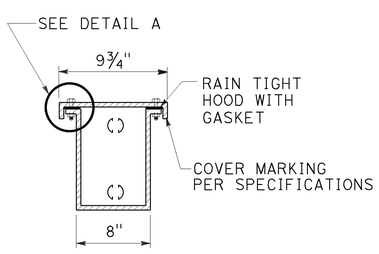
No. 9 STRUCTURE PULL BOX

See Note 7

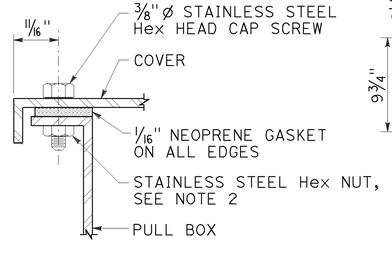




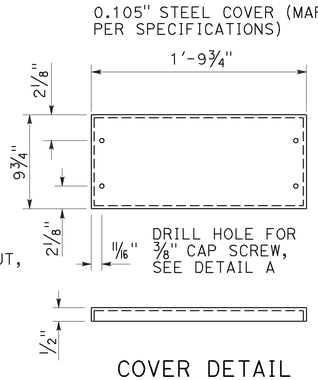
PLAN



SECTION B-B



DETAIL A



COVER DETAIL

No. 9A STRUCTURE PULL BOX

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (STRUCTURE PULL BOX)

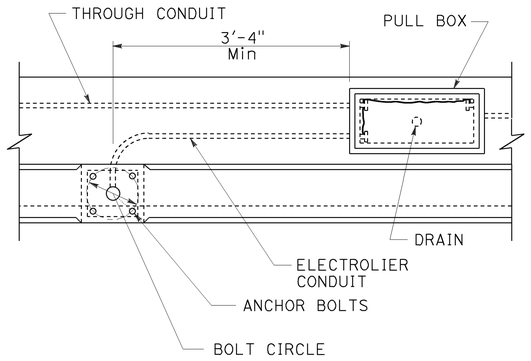
NO SCALE

RSP ES-9C DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-9C DATED MAY 20, 2011 - PAGE 483 OF THE STANDARD PLANS BOOK DATED 2010.

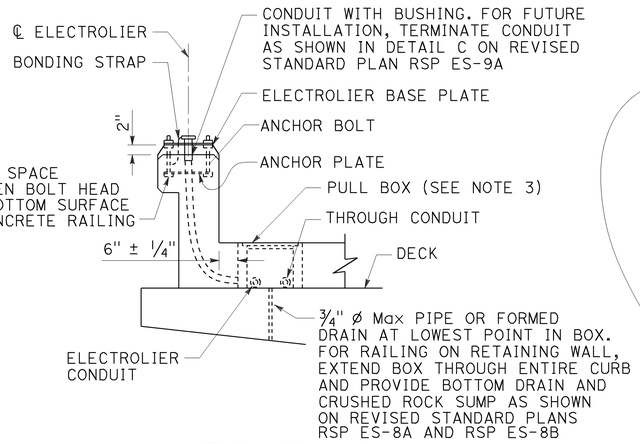
REVISED STANDARD PLAN RSP ES-9C

2010 REVISED STANDARD PLAN RSP ES-9C

9-1-15



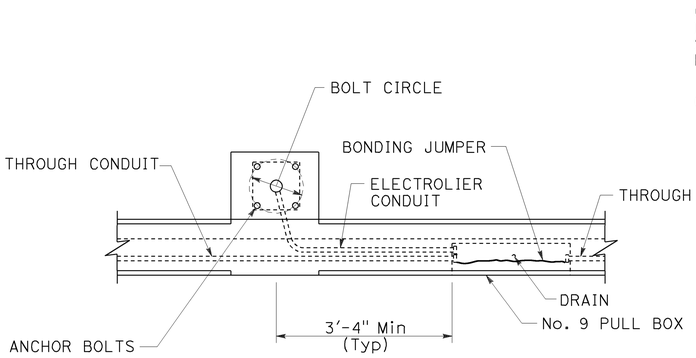
TOP VIEW



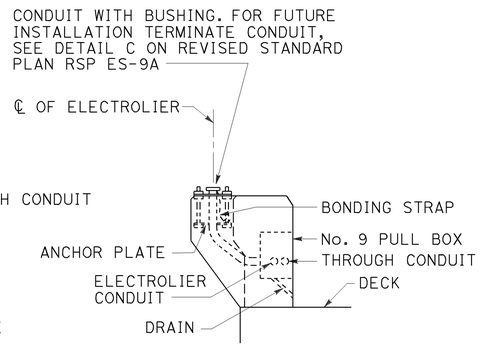
END VIEW

No. 3½, 5, OR 6 PULL BOX INSTALLATION

DETAIL A



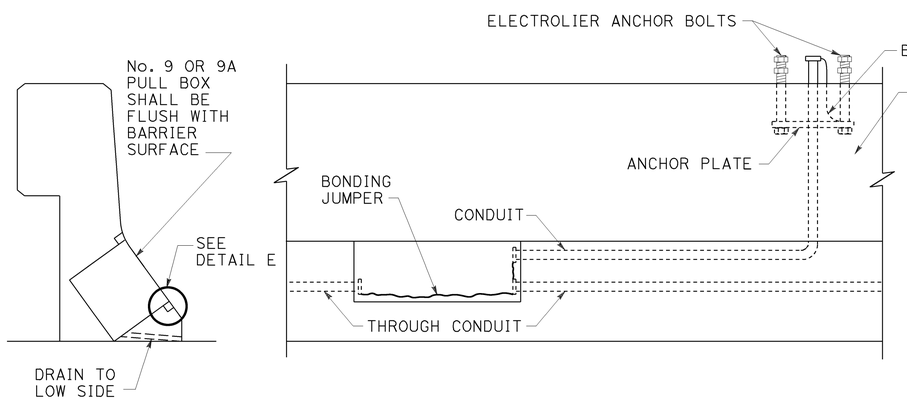
TOP VIEW



END VIEW

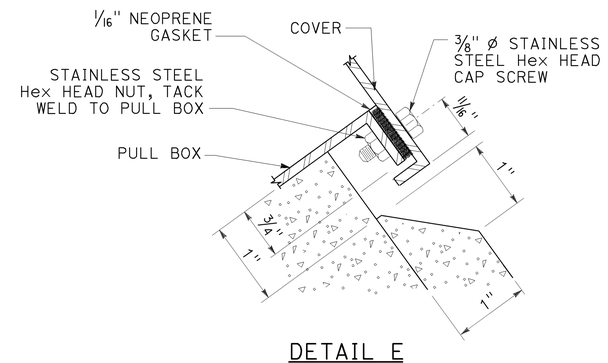
No. 9 PULL BOX INSTALLATION

DETAIL B

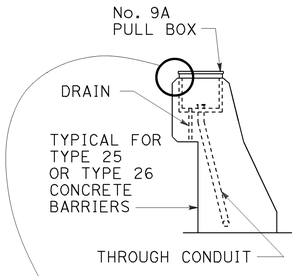


INSTALLATION IN SLOPING PARAPETS

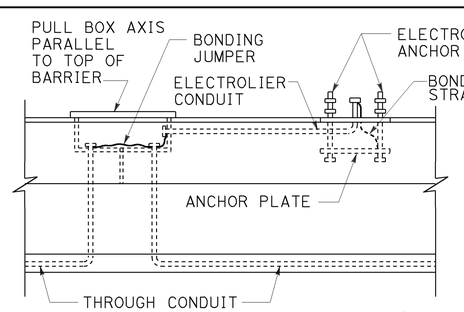
DETAIL D



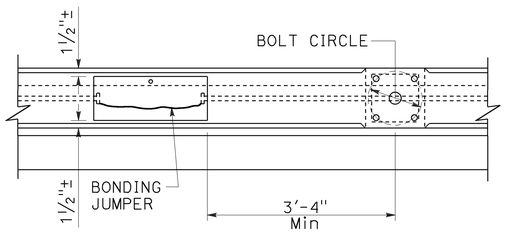
DETAIL E



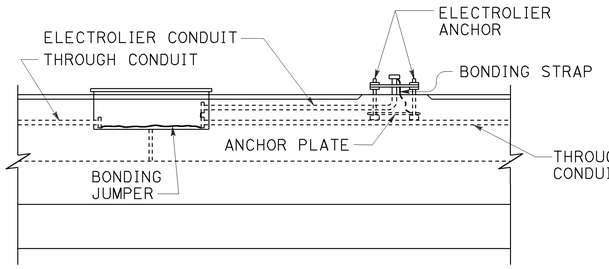
END VIEW



SIDE VIEW



TOP VIEW



SIDE VIEW

No. 9A PULL BOX INSTALLATION

DETAIL C

NOTES:

1. Axis of pull box shall be parallel to top of barrier, sidewalk or railing.
2. See railing sheet for reinforcement and structural details at electroliers and pull boxes.
3. Top of pull boxes in sidewalk areas shall be flush with sidewalk. Modify base of pull box as required.
4. Boxes inside of vertical barrier or railing shall be closed during pouring of PCC with ¼" plywood of sufficient size to provide 1:1 chamfer on 3 sides of cover. Upper edge of plywood shall fit against lower edge of raintight hood.
5. Use drain in center if box is horizontal, or at low end if box is inclined. When box is mounted in sloping parapet ½" elongated drain hole inside at center or near end as required for drainage.
6. For electrolier anchorage bolts and grouting details, see Standard Plan ES-6B.
7. See Standard Plan B14-3 for conduit in concrete barrier.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	104	147

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Theresa Aziz Gabriel — No. E15129 — Exp. 6-30-16 — ELECTRICAL — STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 5-26-16

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (STRUCTURE PULL BOX INSTALLATIONS)

NO SCALE

RSP ES-9D DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-9D DATED MAY 20, 2011 - PAGE 484 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-9D

2010 REVISED STANDARD PLAN RSP ES-9D

9-1-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	105	147

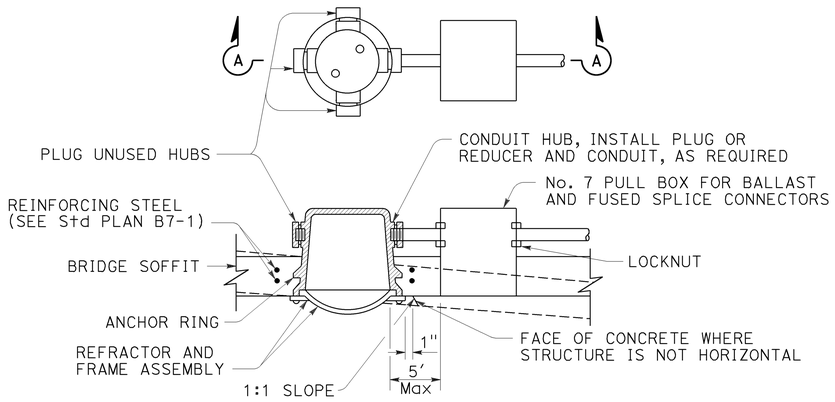
Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

April 15, 2016
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

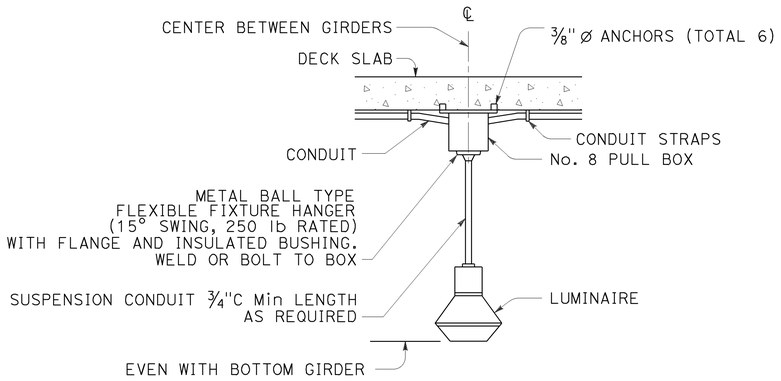
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 5-26-16

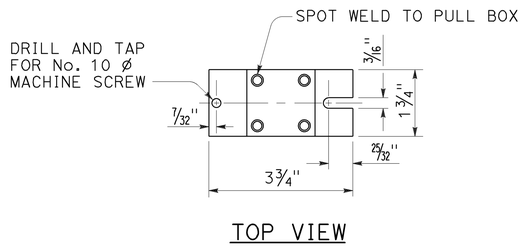


SECTION A-A

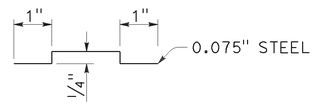
FLUSH-MOUNTED SOFFIT LUMINAIRE INSTALLATION
DETAIL F



PENDANT SOFFIT LUMINAIRE INSTALLATION
DETAIL P

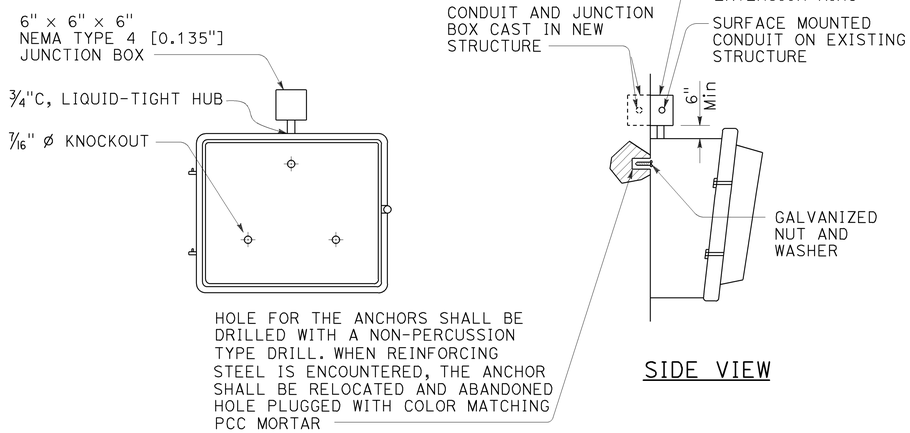


TOP VIEW



SIDE VIEW

TERMINAL BLOCK MOUNTING BRACKET
DETAIL T



SIDE VIEW

WALL-MOUNTED LUMINAIRE INSTALLATION
DETAIL W

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (FLUSH-MOUNTED SOFFIT, PENDANT SOFFIT AND WALL-MOUNTED LUMINAIRE STRUCTURE INSTALLATIONS)

NO SCALE

RSP ES-9E DATED APRIL 15, 2016 SUPERSEDES RSP ES-9E DATED OCTOBER 30, 2015 AND STANDARD PLAN ES-9E DATED MAY 20, 2011 - PAGE 485 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-9E

2010 REVISED STANDARD PLAN RSP ES-9E

1-12-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	106	147

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

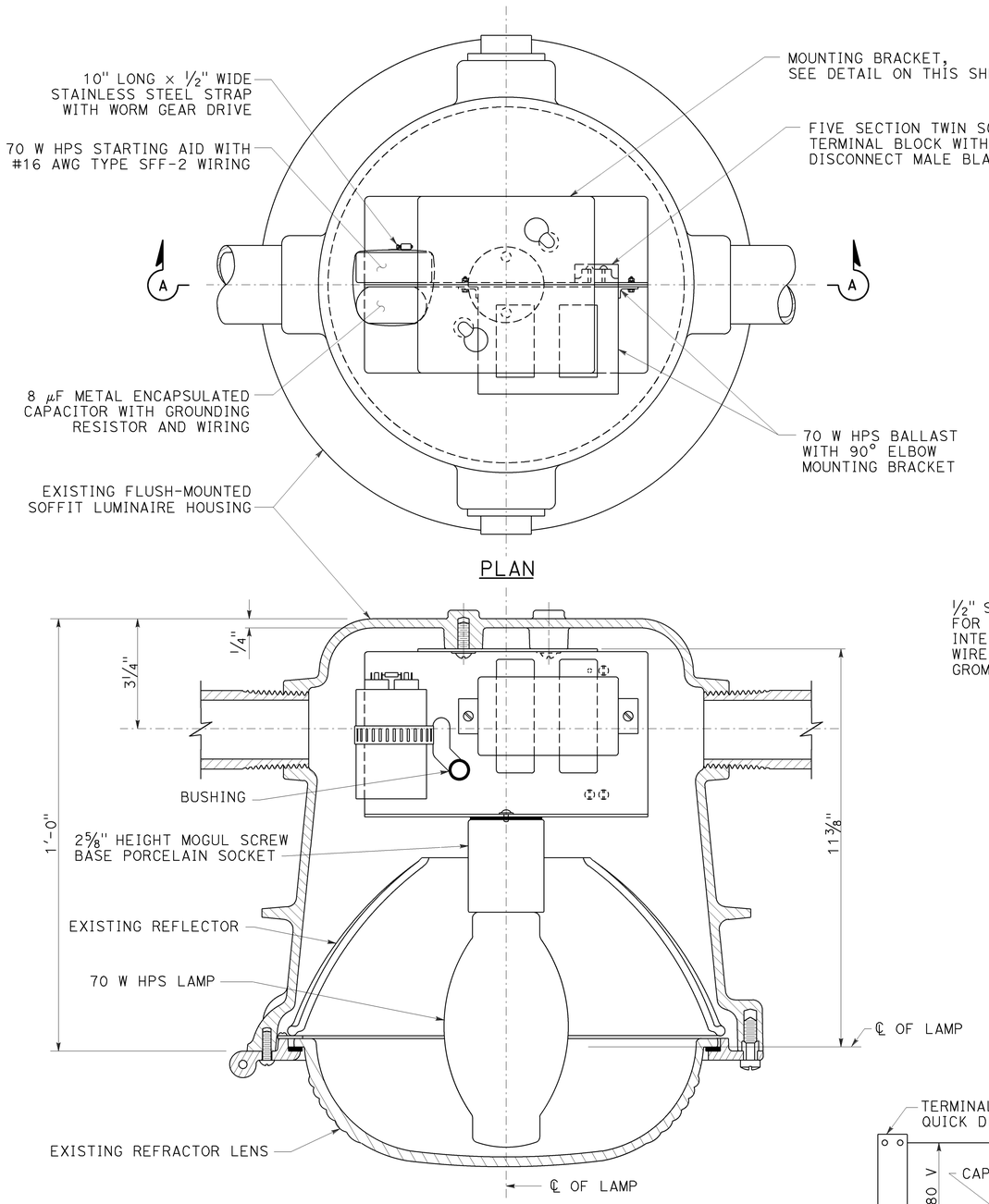
Theresa Aziz Gabriel No. E15129 Exp. 6-30-16 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

October 30, 2015
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.

TO ACCOMPANY PLANS DATED 5-26-16

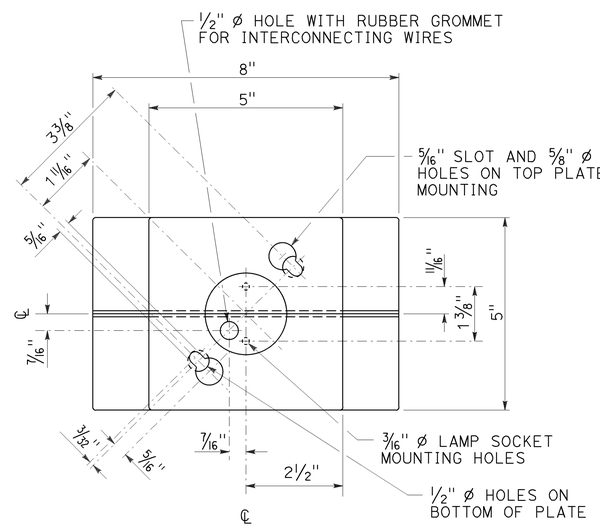
2010 REVISED STANDARD PLAN RSP ES-9F



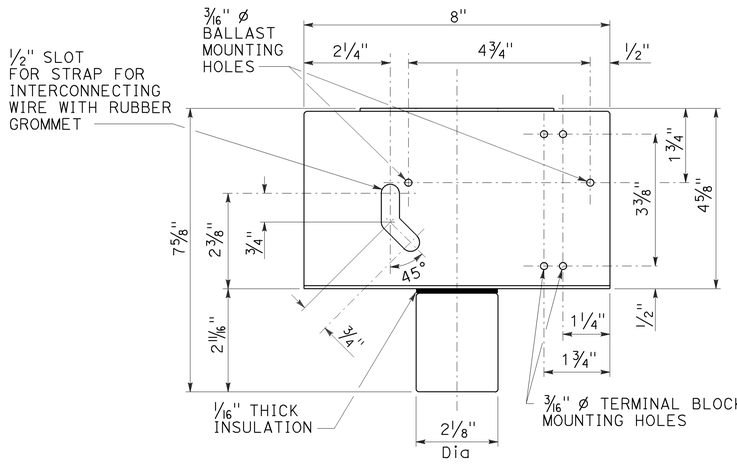
PLAN

SECTION A-A

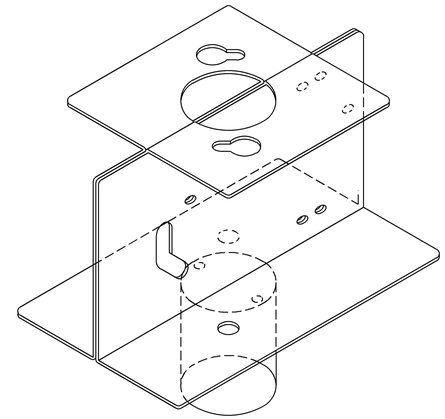
FLUSH-MOUNTED SOFFIT LUMINAIRE ASSEMBLY



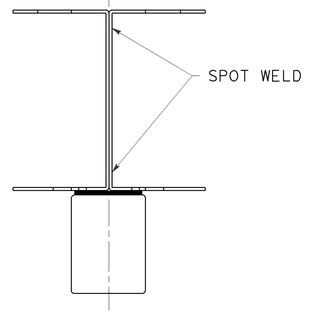
TOP VIEW



FRONT VIEW

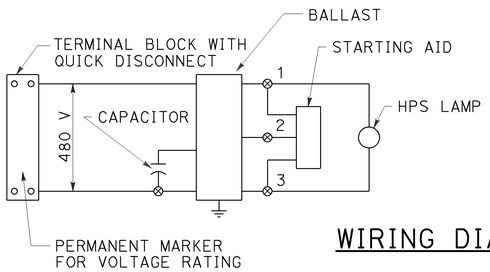


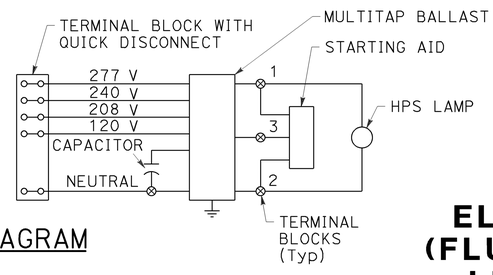
PREFORM TWO SHEETS 1/16" MILD STEEL AS SHOWN, SPOTWELD TOGETHER IN EACH CORNER WITH FOUR SPOTWELDS.



SIDE VIEW

MOUNTING BRACKET DETAILS





WIRING DIAGRAM

NOTES:

1. Use No. 8 ø machine screws, lockwashers and nuts for mounting ballast and terminal strips.
2. In-line fuse as required on Standard Plan ES-13B.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (FLUSH-MOUNTED SOFFIT LUMINAIRE DETAILS)

NO SCALE

RSP ES-9F DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-9F DATED MAY 20, 2011 - PAGE 486 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-9F

9-1-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	107	147

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

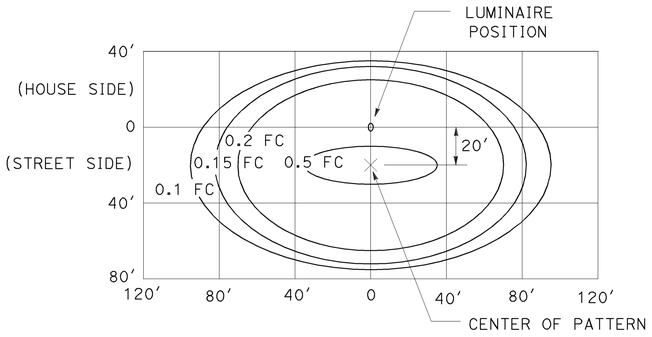
October 30, 2015
PLANS APPROVAL DATE

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.

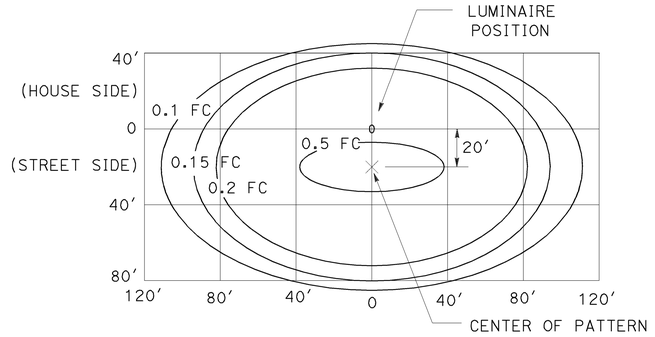
TO ACCOMPANY PLANS DATED 5-26-16

NOTE:

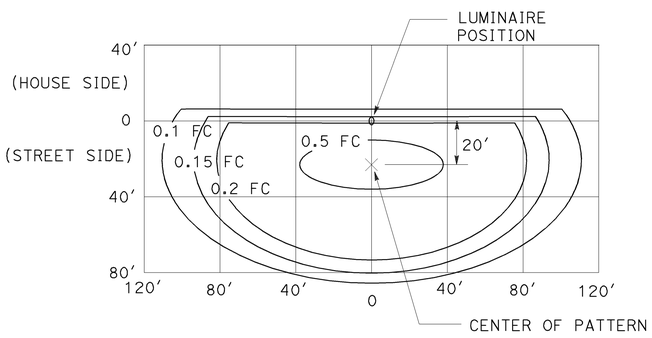
Curves represent the minimum footcandle (FC).



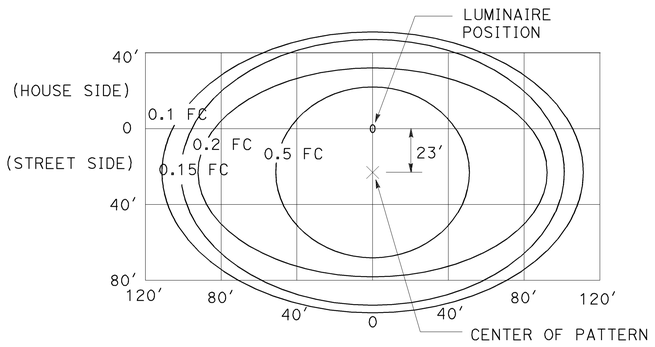
LED LUMINAIRE 165 W
34′ Mounting Height



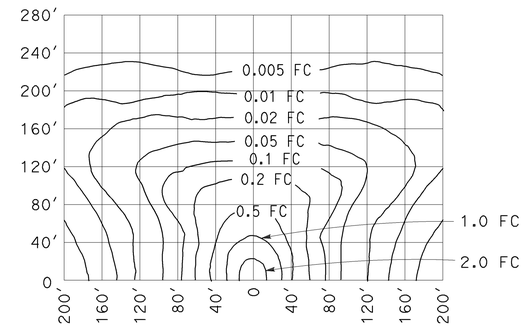
LED LUMINAIRE 235 W
40′ Mounting Height



LED LUMINAIRE 235 W
40′ Mounting Height
with back side control



LED LUMINAIRE 300 W
40′ Mounting Height



LOW-PRESSURE SODIUM LUMINAIRE 180 W
40′ Mounting Height
Lamp operated at 33,000 lm

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (ISOFOOTCANDLE CURVES)

NO SCALE

RSP ES-10A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-10A DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-10A

2010 REVISED STANDARD PLAN RSP ES-10A

9-29-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	108	147

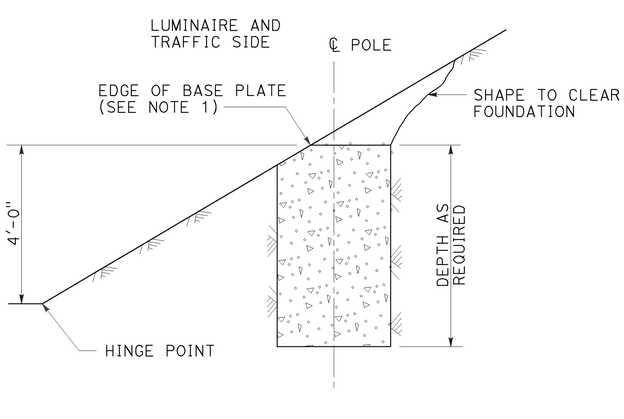
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

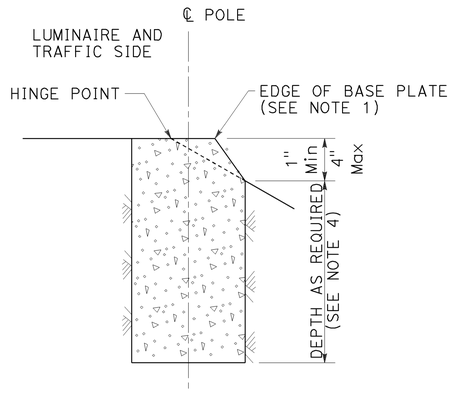
REGISTERED PROFESSIONAL ENGINEER
Stanley P. Johnson
No. C57793
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 5-26-16

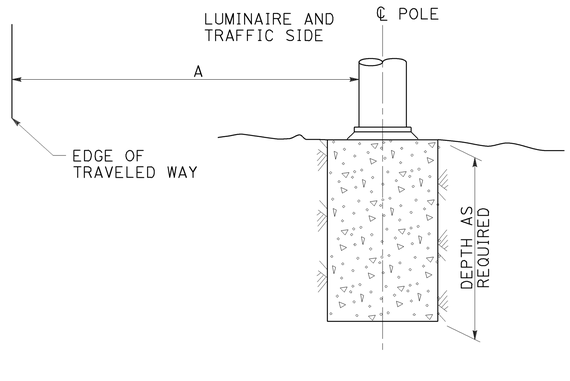
STANDARD TYPE	SETBACK (DIMENSION A)
32	30'-0" (Min)
31	20'-0" (Min)
15, 15D, 15-SB, 21, 21D, 30	ARM LENGTH (Min)



CUT SLOPES
STEEPER THAN 4:1,
LESS THAN 2:1
DETAIL A-1
See Note 2 and 3

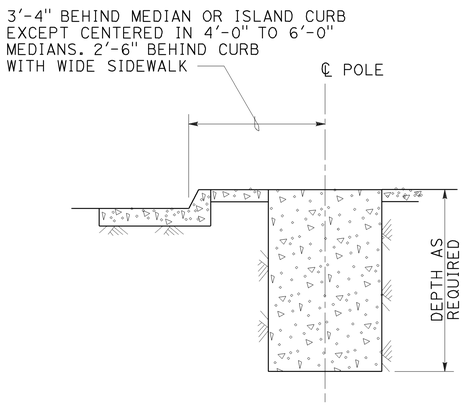


FILL SLOPES
STEEPER THAN 4:1,
LESS THAN 2:1
DETAIL A-2
See Note 2 and 3

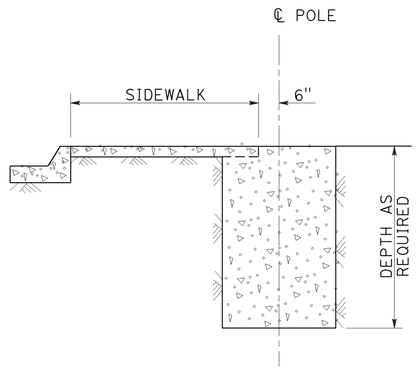


FLAT SECTIONS, CUT OR FILL SLOPES
4:1 OR FLATTER
DETAIL A-3
See Note 2

FOUNDATIONS ADJACENT TO ALL ROADWAYS EXCEPT IN SIDEWALK, MEDIAN AND ISLAND AREAS
DETAIL A



MEDIAN, ISLAND
OR WIDE SIDEWALK
DETAIL B-1
7' Wide and wider



NARROW SIDEWALK
DETAIL B-2
Less than 7' wide

FOUNDATIONS IN SIDEWALK, MEDIAN AND ISLAND AREAS
DETAIL B

NOTES:

1. Where a portion of the foundation is above grade, the top edges shall have a 1" chamfer.
2. Slopes shall be horizontal to vertical ratio (Horizontal : Vertical).
3. Horizontal setbacks on cut and fill slopes steeper than 4:1 shall not exceed the distance shown for flat sections.
4. CIDH embedment depth shall be increased beyond standard depths by the diameter of the CIDH.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (FOUNDATION INSTALLATIONS)

NO SCALE

RSP ES-11 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-11
DATED MAY 20, 2011 - PAGE 488 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-11

2010 REVISED STANDARD PLAN RSP ES-11

7-9-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	109	147

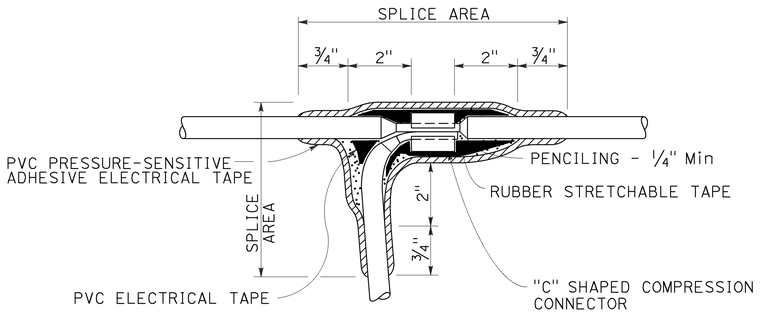
Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

October 30, 2015
PLANS APPROVAL DATE

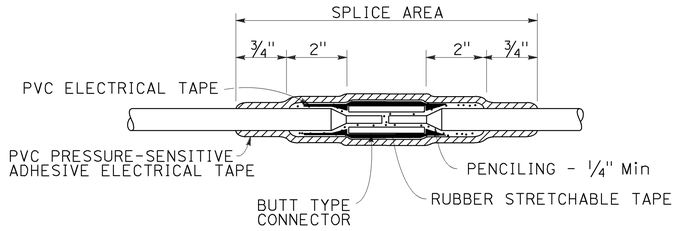
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 5-26-16



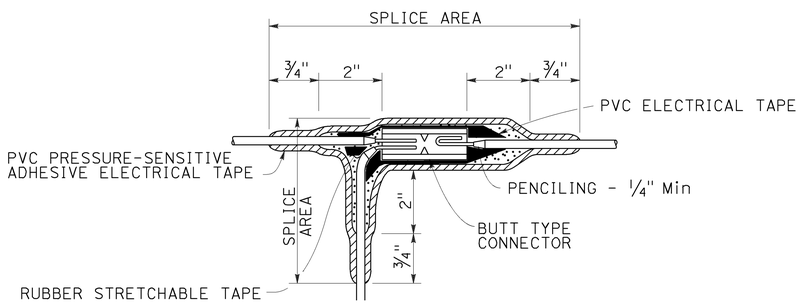
TYPE C SPLICE

See Note 3



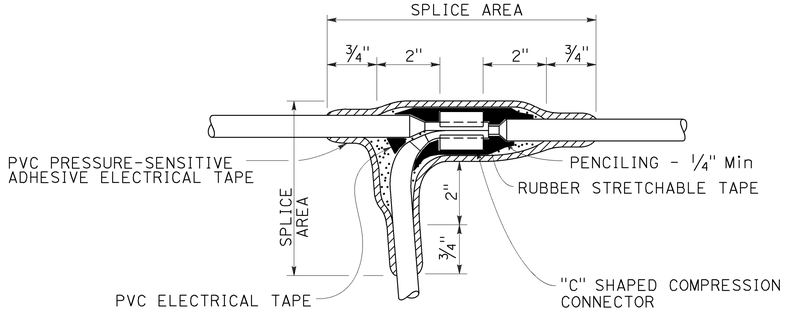
TYPE S SPLICE

See Note 4



TYPE ST SPLICE

See Note 5



TYPE T SPLICE

See Note 5

NOTES:

1. Dimensions are minimum.
2. Rubber tapes shall be rolled after application.
3. Between 1 free-end and 1 through conductor.
4. Between 2 free-end conductors.
5. Between 3 free-end conductors.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SPLICING DETAILS)

NO SCALE

RSP ES-13A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-13A DATED MAY 20, 2011 - PAGE 491 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-13A

2010 REVISED STANDARD PLAN RSP ES-13A

9-28-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	110	147

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

April 15, 2016
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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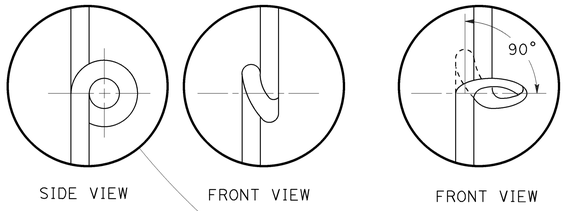
TO ACCOMPANY PLANS DATED 5-26-16

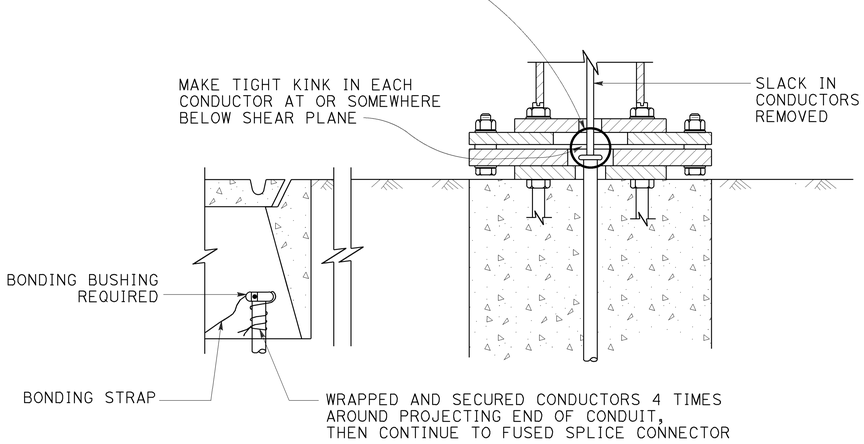
CIRCUIT VOLTAGE	FUSE VOLTAGE RATING	FUSE CURRENT RATING						
		HPS LAMP BALLAST		LOW PRESSURE SODIUM BALLAST	INDUCTION SIGN LIGHTING	SINGLE PHASE (TWO WIRE) TRANSFORMERS (PRIMARY SIDE)		
		70 W	100 W	180 W	85 W	1 kVA	2 kVA	3 kVA
120 V	250 V	5 A	5 A	5 A	5 A	10 A	20 A	30 A
240 V	250 V	5 A	5 A	5 A	5 A	6 A	10 A	20 A
480 V	500-600 V	5 A	5 A	3 A	1 A (SEE NOTE 2)	3 A	6 A	10 A

NOTES:

1. Primary lines of multiple ballasts shall be provided with fused connectors. Fuse ratings shall be as noted above.
2. See Standard Plan ES-15D, Type SC3 control.

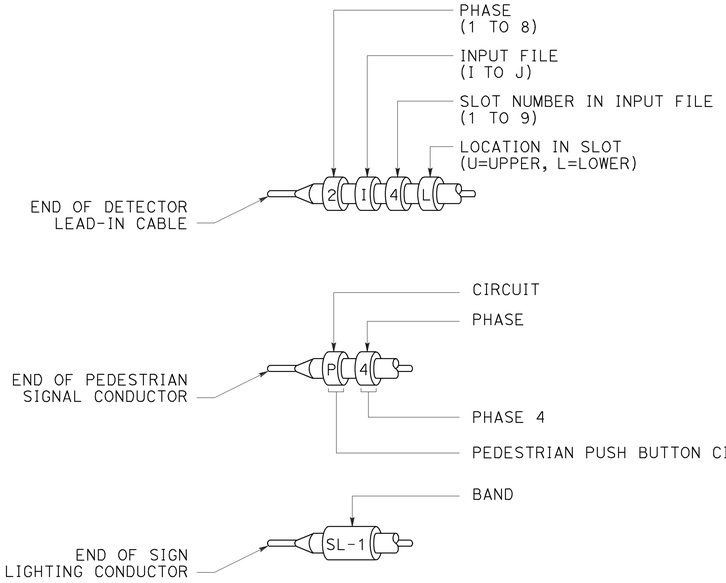
FUSE RATINGS FOR FUSED CONNECTORS





KINKING DETAIL FOR SLIP BASE STANDARDS

DETAIL A



TYPICAL BANDING DETAILS

DETAIL B

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (FUSE RATING, KINKING AND BANDING DETAIL)

NO SCALE

RSP ES-13B DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-13B DATED OCTOBER 30, 2015 - PAGE 485 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP ES-13B

2015 REVISED STANDARD PLAN RSP ES-13B

1-12-16

NOTES:

1. Timber Infill at Abutment Backwall
2. Infill walls at Bents
3. New Joint Seals
4. Approach Slab Type R (30S)(Modified)
5. Corbel Seat Extension
6. Geocomposite Drain at Abutment
7. Remove exist Concrete Barrier and Rail (Type 2)
8. Salvage Metal Barrier Railing and Post
9. Concrete Barrier Type 732
10. Concrete Barrier Type 732 (Mod)
11. Carbon Fiber Reinforced Polymer (CFRP) Strips
12. Polyester Concrete Overlay (1" Min)
13. Reconstruct Deck overhang
14. Shear Block
15. Cement Slurry
16. 1 -2" and 1 -3" conduits for electrical (Future use), see "ROADWAY PLANS"
17. Install pull box, see "ROADWAY PLANS"
18. Tubular Bicycle Railing

LEGEND:

- Indicates new construction
- Indicates existing
- Indicates concrete removal
- Indicates polyester concrete overlay
- Indicates point of minimum vertical clearance

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	111	147

I'Jalan Y — 5-25-16
REGISTERED CIVIL ENGINEER — DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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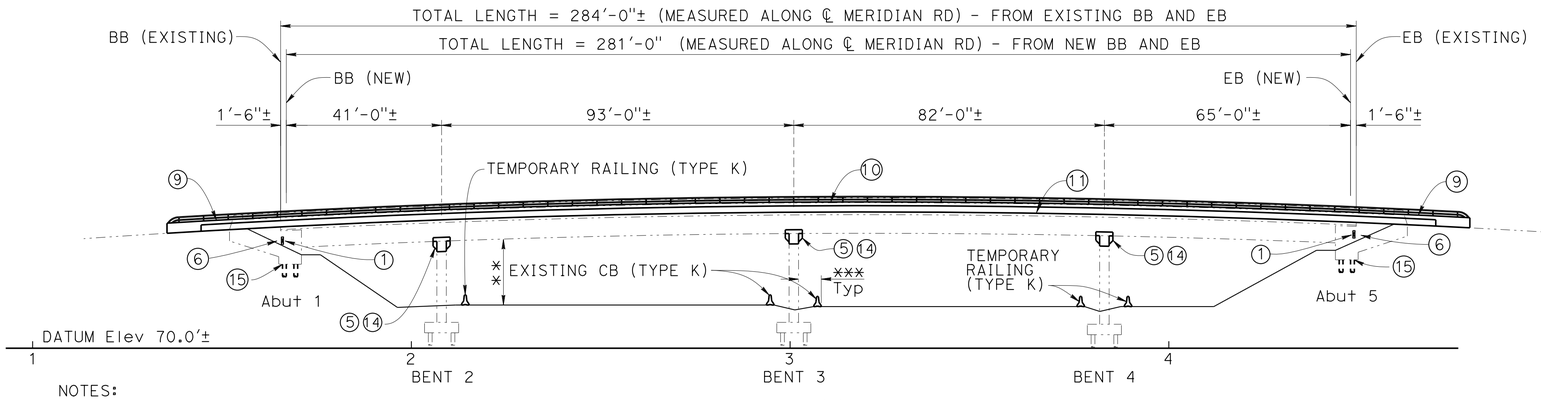
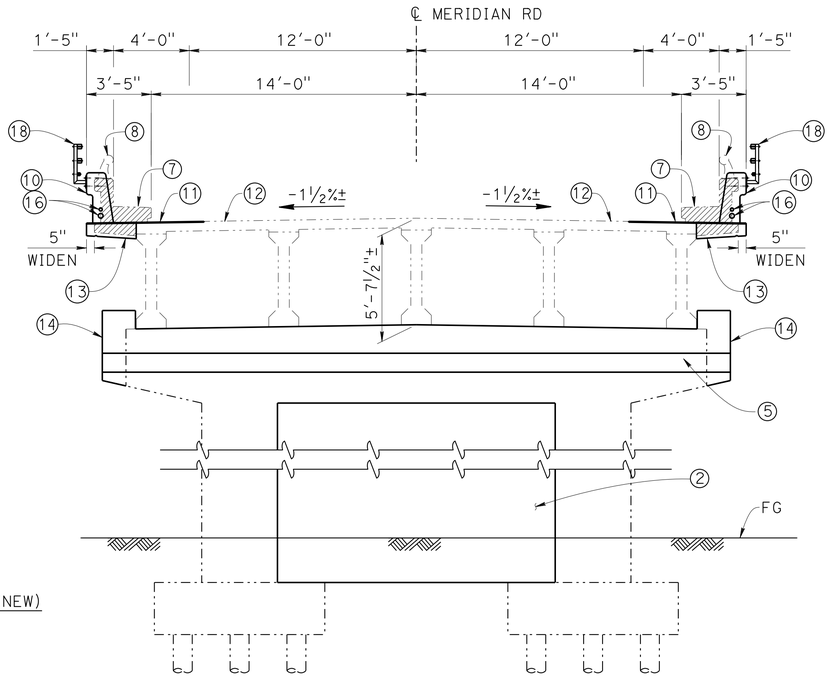


NOTES:

** MINIMUM VERTICAL CLEARANCE = 17'-7"
*** MAXIMUM DISTANCE = POINT WHERE OUTSIDE BOTTOM FACE OF K RAIL IS AT 1'-0" FROM ETW

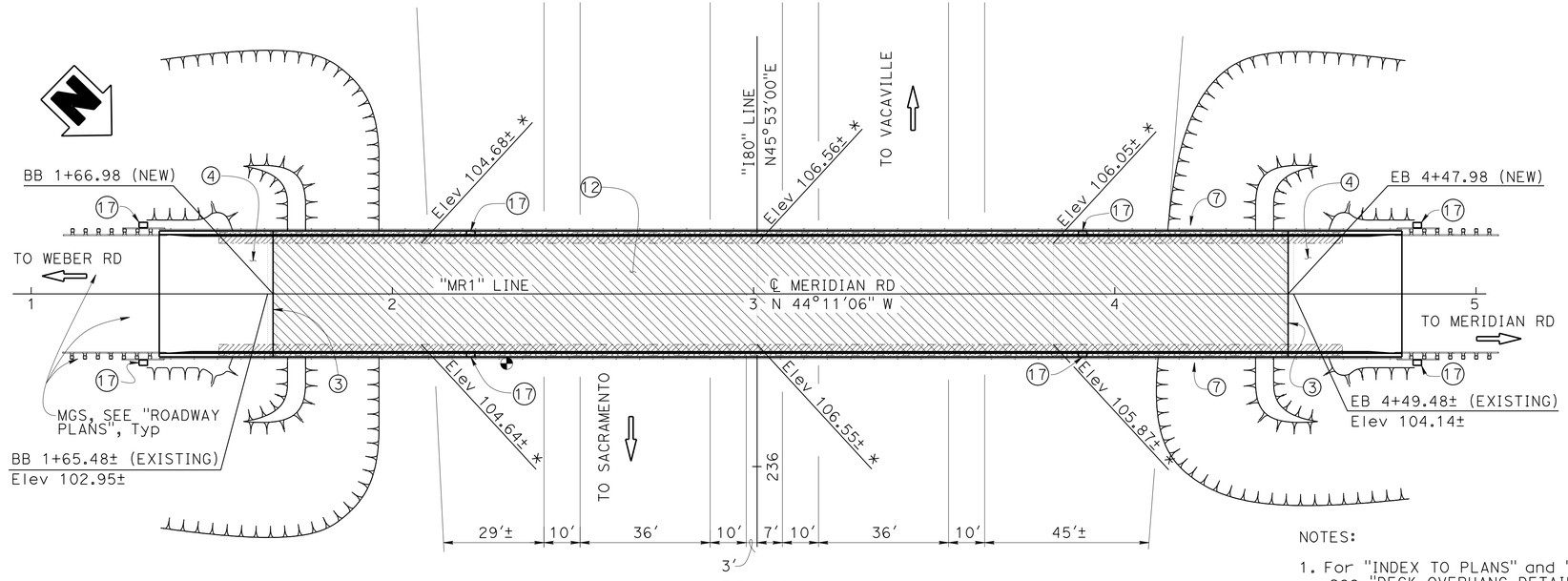
ELEVATION

1" = 20'



TYPICAL SECTION

¼" = 1'-0"



PLAN

1" = 20'

NOTES:

Elevation shown is as per As-Builts.

* Elevation is approximate at location of existing deck at front curb of existing concrete barrier.

NOTES:

1. For "INDEX TO PLANS" and "GENERAL NOTES", see "DECK OVERHANG DETAILS" sheet.
2. For placement of Temporary Railing (Type K), see "ROADWAY PLANS".

QUANTITIES

CORE AND PRESSURE GROUT DOWEL	75 LF
SALVAGE METAL BRIDGE RAILING	622 LF
PREPARE CONCRETE BRIDGE DECK SURFACE	8,992 SQFT
FURNISH POLYESTER CONCRETE OVERLAY	750 CF
PLACE POLYESTER CONCRETE OVERLAY	8,992 SQFT
CORE CONCRETE (3")	4 LF
CARBON FIBER REINFORCED POLYMER STRIPS	3,134 LF
BRIDGE REMOVAL (PORTION)	LUMP SUM
STRUCTURE EXCAVATION (BRIDGE)	53 CY
STRUCTURE BACKFILL (BRIDGE)	40 CY
STRUCTURE BACKFILL (SLURRY CEMENT)	31 CY
STRUCTURAL CONCRETE, BRIDGE	50 CY
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	39 CY
AGGREGATE BASE (APPROACH SLAB)	10 CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R MODIFIED)	97 CY
DRILL AND BOND DOWEL	411 LF
JOINT SEAL (MR 1 1/2")	68 LF
BAR REINFORCING STEEL (BRIDGE)	23,020 LB
ABUTMENT LUMBER BLOCKING	1 MFBM
TUBULAR HANDRAILING	682 LF
CONCRETE BARRIER (TYPE 732 MODIFIED)	682 LF

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

RICHARD MELKO
DESIGN ENGINEER

DESIGN	BY ISAIAS YALAN	CHECKED ROSA CANDIOTTI	LOAD & RESISTANCE FACTOR DESIGN				
DETAILS	BY DAVID ELLIOTT	CHECKED ROSA CANDIOTTI	LAYOUT	BY ISAIAS YALAN	CHECKED ROSA CANDIOTTI		
QUANTITIES	BY JOHN TJOELKER	CHECKED ISAIAS YALAN	SPECIFICATIONS	BY DARWIN VARGAS	PLANS AND SPECS COMPARED DARWIN VARGAS		

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0147
POST MILE 31.36

MERIDIAN ROAD OC SEISMIC RETROFIT

GENERAL PLAN

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3954
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-5-16	4-7-16	5-25-16	3-4-16	1	11

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

FILE => 23-0147-a-gp-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:55

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	112	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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.

INDEX TO PLANS

STANDARD PLANS DATED 2010

PLAN NO.	PLAN TITLE
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)
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
RSP B11-55	CONCRETE BARRIER TYPE 732

STANDARD PLAN NO.

DETAIL NO.

GENERAL NOTES

LOAD AND RESISTANCE FACTOR DESIGN

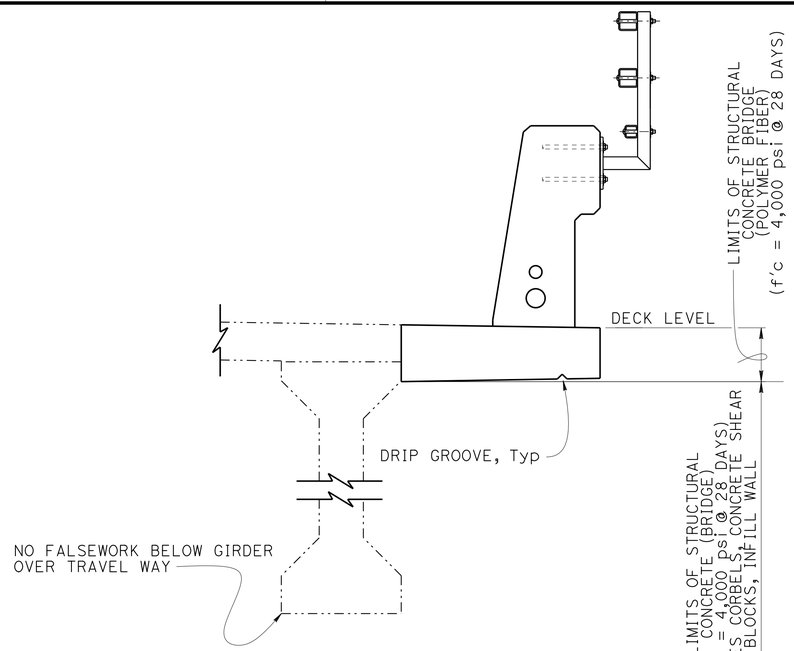
DESIGN : AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6th EDITION and the Caltrans Amendments, dated April 2012.

SEISMIC DESIGN : Caltrans Seismic Design Criteria (SDC), Version 1.7 dated 2013.

CONCRETE : fy = 60,000 psi
f'c = 3,600 psi
n = 8

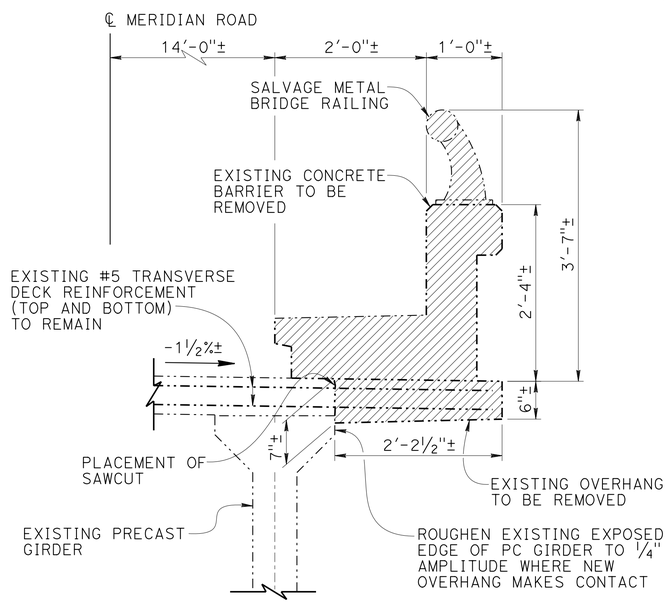
CARBON FIBER REINFORCED POLYMERS (CFRP) STRIPS : Minimum Tensile Strength = 315,000 psi
Tensile Modulus of Elasticity = 18,000,000 psi
Effective Cross-Sectional Area = 0.11 in^2

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



CONCRETE TYPE LIMITS

1" = 1'-0"

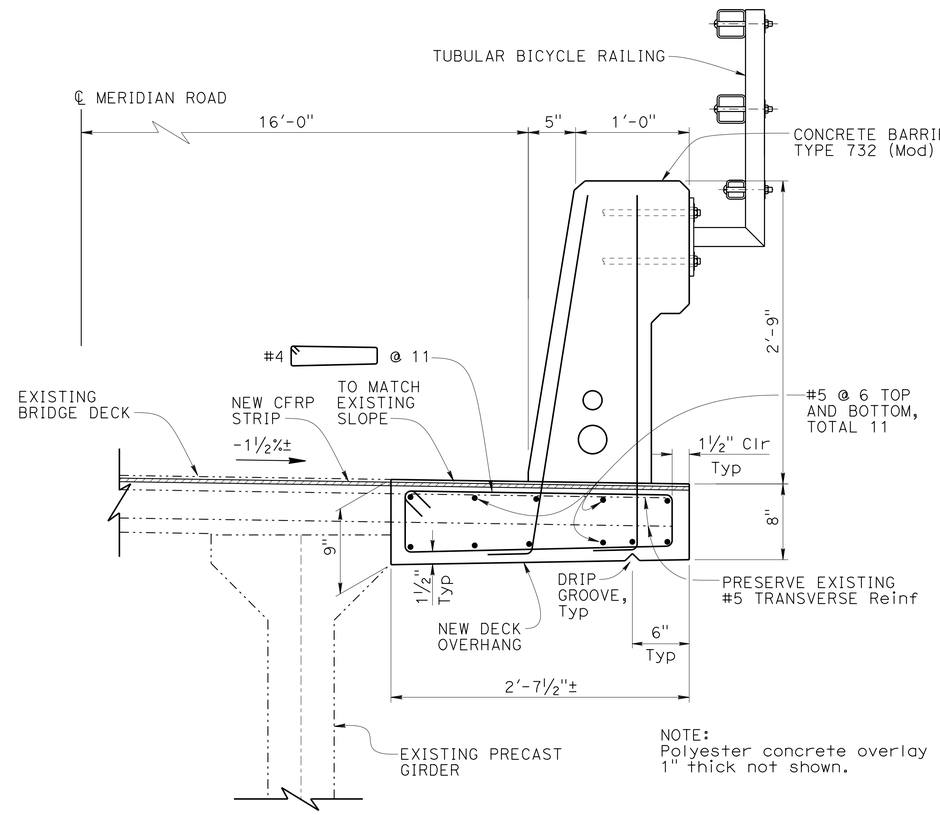


REMOVAL OF EXISTING CONCRETE BARRIER & OVERHANG

1" = 1'-0"

LEGEND:
- Indicates existing
- Indicates new construction
- Indicates removal of bridge and concrete barrier

NOTES:
1. For concrete barrier details not shown, see RSP B11-55 .
2. For CFRP Strip and Limits of Polyester Concrete Overlay 1" thick, see "CARBON FIBER REINFORCED POLYMER" sheet.
3. Reconstruction of concrete deck overhang is symmetrical about ℄ of structure.



NOTE:
Polyester concrete overlay 1" thick not shown.

RECONSTRUCTION OF CONCRETE DECK OVERHANG

1½" = 1'-0"

DESIGN	BY John Tjoelker	CHECKED Isaias Yalan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 23-0147
DETAILS	BY Carlo Cancino	CHECKED Isaias Yalan			POST MILE 31.36
QUANTITIES	BY John Tjoelker	CHECKED Isaias Yalan			

MERIDIAN ROAD OC SEISMIC RETROFIT

DECK OVERHANG DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
5-25-16		3-23-16	4-14-16	2	11

FILE => 23-0147-b-donang_det01-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:55

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	113	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

5-26-16 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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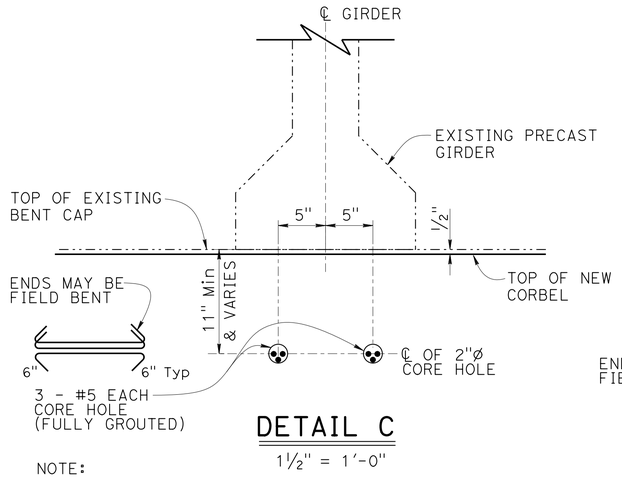
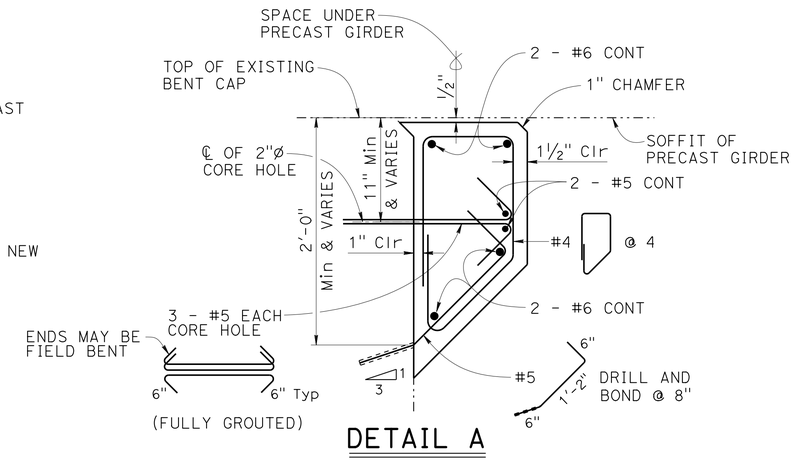


DETAIL C

1½" = 1'-0"

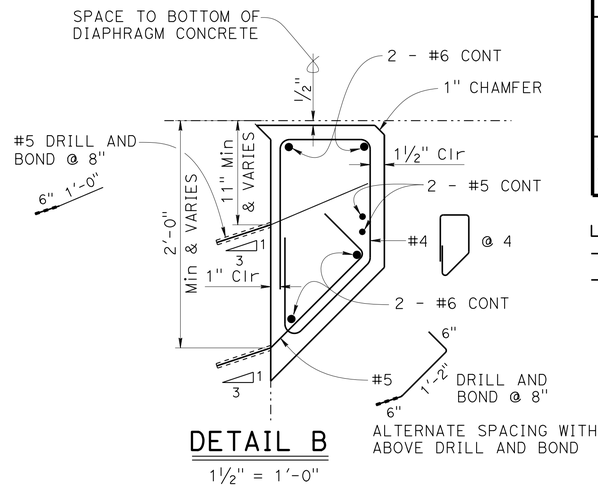
NOTE:

2"ø CORE HOLE MAY BE MOVED 2" HORIZONTALLY IN EITHER DIRECTION TO AVOID EXISTING #6 SHEAR BAR.



DETAIL A

1½" = 1'-0"



DETAIL B

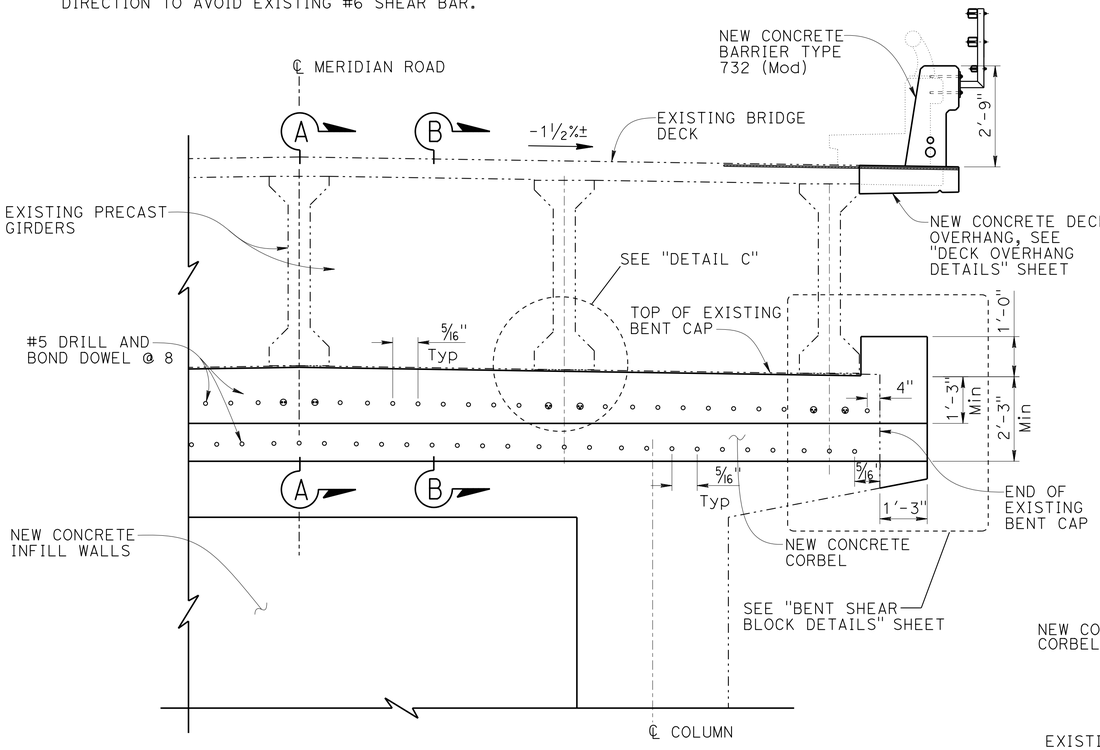
1½" = 1'-0"

ALTERNATE SPACING WITH ABOVE DRILL AND BOND

LEGEND:

-·-·-·- Indicates existing

——— Indicates new construction



BENT PART ELEVATION (DRILL AND BOND LAYOUT)

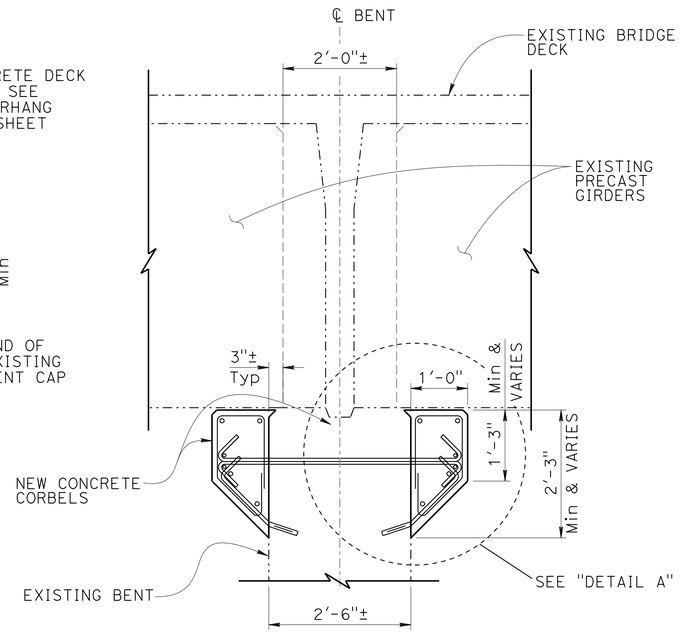
½" = 1'-0"

NOTE:

THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTE:

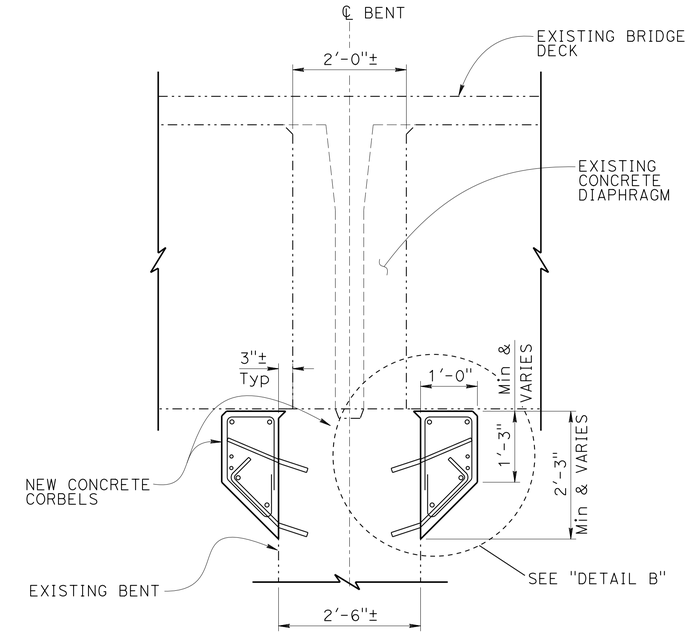
THIS DETAIL APPLIES TO BENT NO. 2, 3 & 4 AND SYMMETRICAL TO ℄ OF STRUCTURE.



SECTION A-A

(TYPICAL SECTION AT PRECAST GIRDERS)

¾" = 1'-0"



SECTION B-B

(TYPICAL SECTION)

(BETWEEN PRECAST GIRDERS)

¾" = 1'-0"

DESIGN	BY John Tjoelker	CHECKED Isaias Yalan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 23-0147
DETAILS	BY Carlo Cancino	CHECKED Isaias Yalan			POST MILE 31.36
QUANTITIES	BY John Tjoelker	CHECKED Isaias Yalan			

MERIDIAN ROAD OC SEISMIC RETROFIT

BENT CORBEL DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594

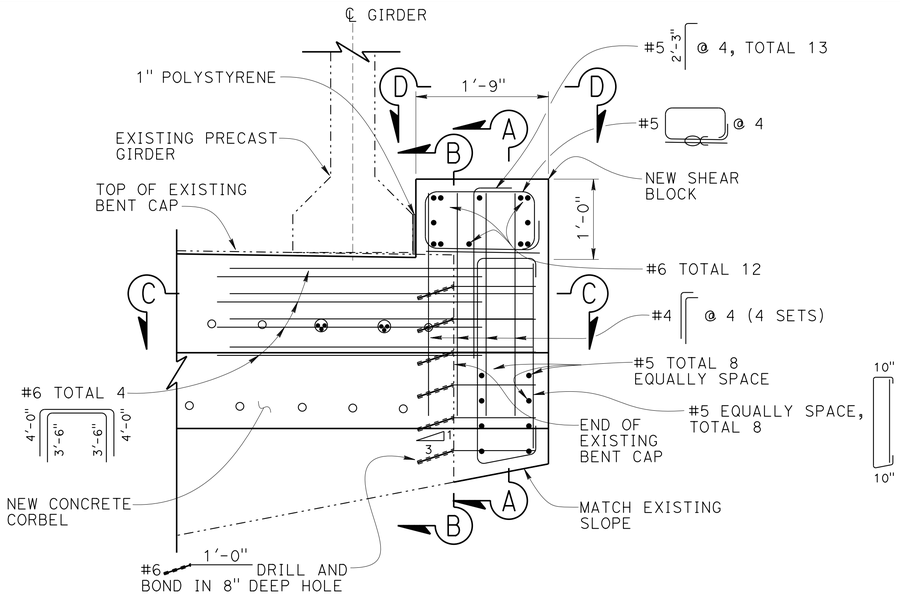
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
01-26-16	3-1-16	3-4-16		3	11

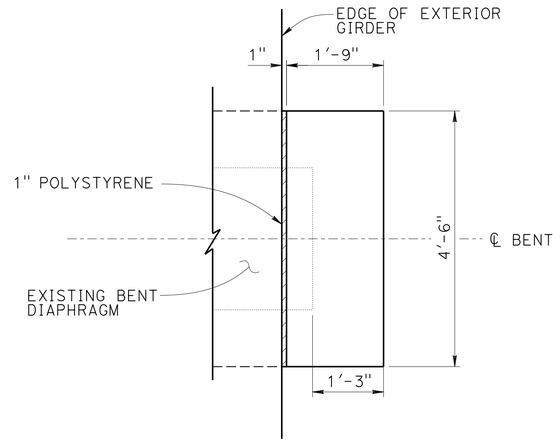
FILE => 23-0147-c-bcorbel_det01-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:55



BENT SHEAR BLOCK - ELEVATION

1" = 1'-0"



VIEW D-D

¾" = 1'-0"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	114	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

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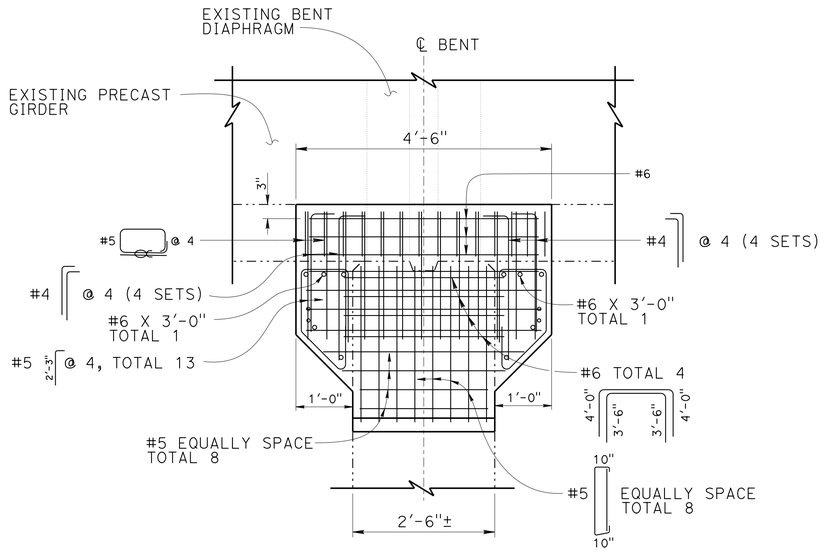
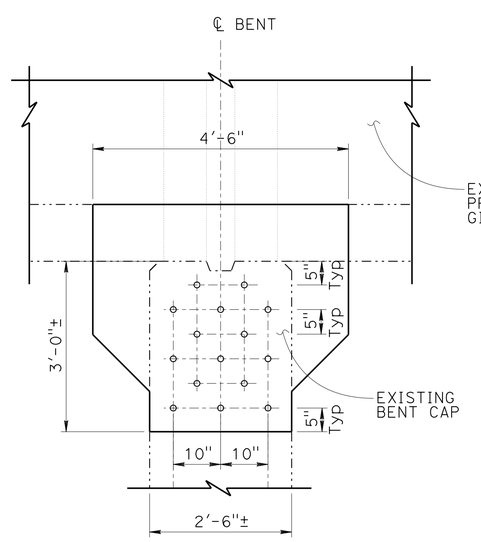
LEGEND:

- Indicates existing
- Indicates new construction
- Indicates Expanded Polystyrene



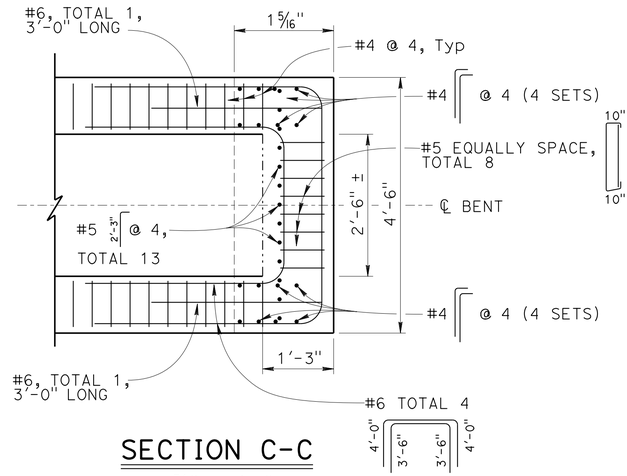
SECTION A-A

¾" = 1'-0"



SECTION B-B
(DRILL AND BOND LAYOUT)

¾" = 1'-0"



SECTION C-C

¾" = 1'-0"

NOTE: Drill and Bond not shown for clarity.

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

DESIGN	BY John Tjoelker	CHECKED Isaias Yalan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Carlo Cancino	CHECKED Isaias Yalan	
QUANTITIES	BY John Tjoelker	CHECKED Isaias Yalan	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0147
POST MILE 31.36

MERIDIAN ROAD OC SEISMIC RETROFIT
BENT SHEAR BLOCK DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

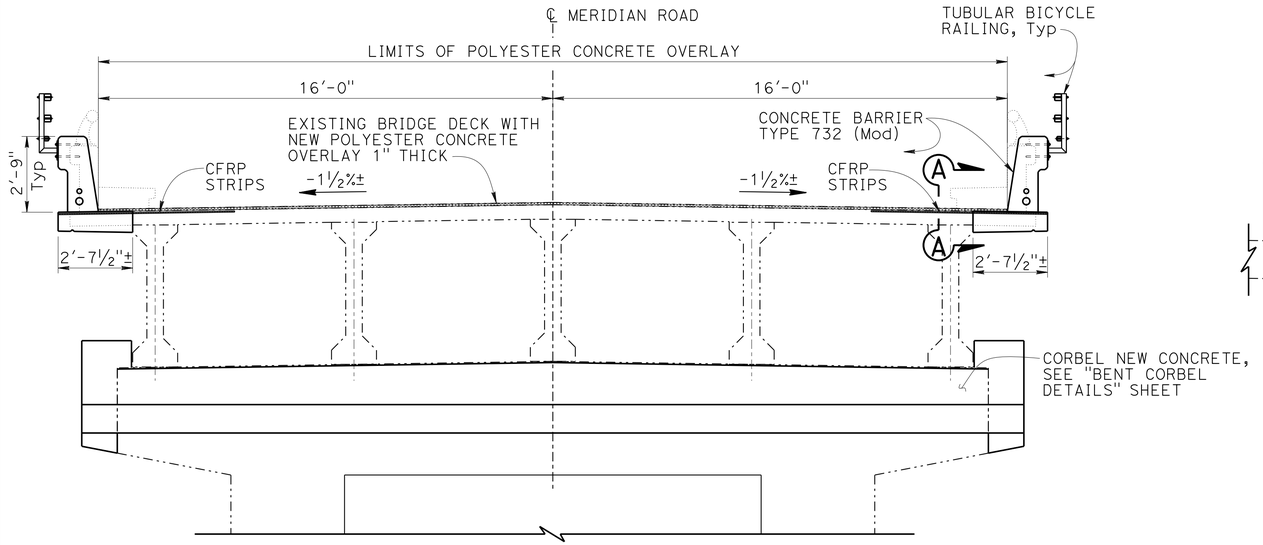
DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 2-16-16 | 3-9-16 | 3-8-16

SHEET 4 OF 11

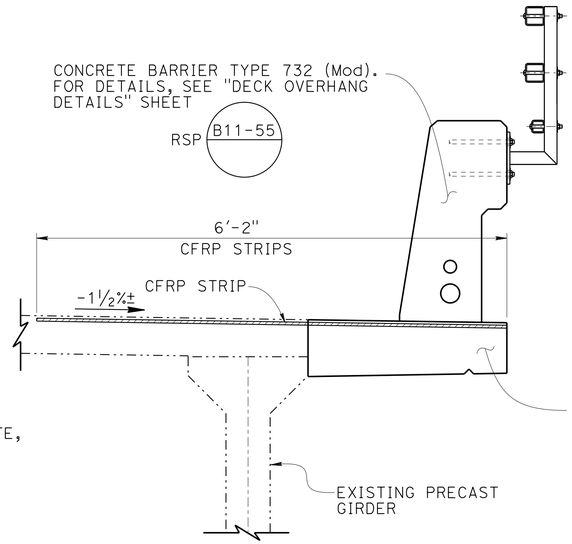
FILE => 23-0147-d-sheark_det01-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:55



TYPICAL SECTION

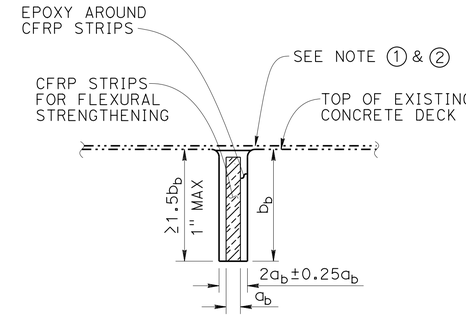
3/8" = 1′-0"



TYPICAL SECTION (CFRP AT DECK OVERHANG)

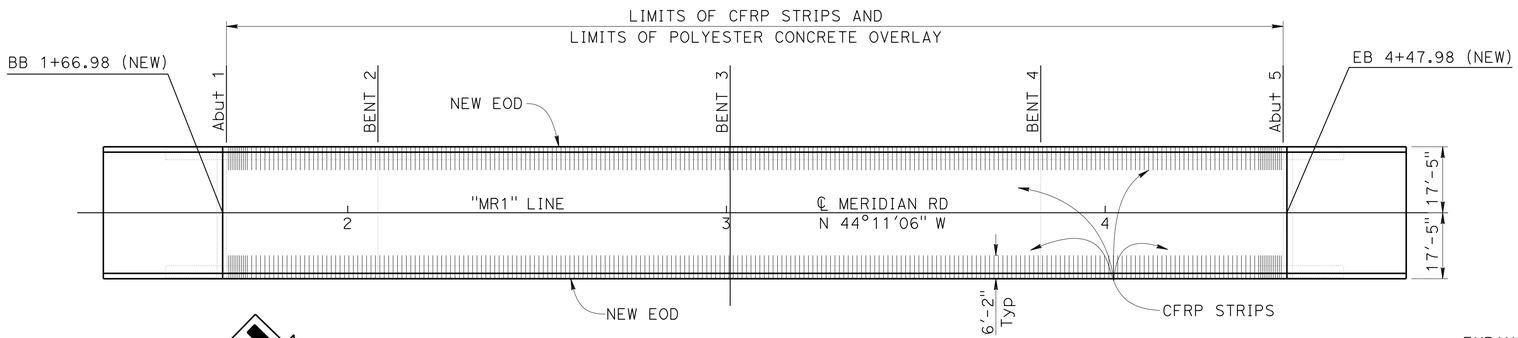
1" = 1′-0"

NOTE: POLYESTER CONCRETE NOT SHOWN.



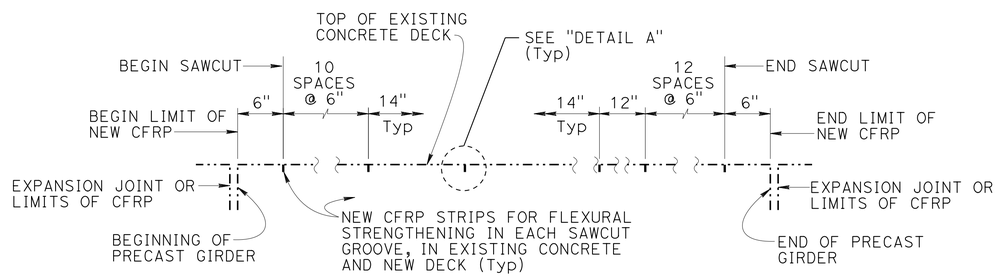
DETAIL A RECTANGULAR (CFRP) STRIPS

No Scale



PLAN

1" = 20′-0"



SECTION A-A

No Scale

NOTES:
1. Space sawcuts along Limits of CFRP.
2. Polyester Concrete overlay not shown.

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	115	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE 5-26-16

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LEGEND:

Indicates existing

Indicates new construction

NOTES:

① 1" Polyester concrete overlay placed after CFRP strips

② CFRP strips placed after new overhang is cast

a_b = horizontal dimension for min. cross sectional area ≥ 0.11 in^2

b_b = 0.63" or equivalent

DESIGN	BY John Tjoelker	CHECKED Isaias Yalan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Carlo Cancino	CHECKED Isaias Yalan	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9
QUANTITIES	BY John Tjoelker	CHECKED Isaias Yalan	BRIDGE NO. 23-0147 POST MILE 31.36

MERIDIAN ROAD OC SEISMIC RETROFIT

CARBON FIBER REINFORCED POLYMER

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-5-16	3-8-16	3-11-16	3-14-16	5	11

FILE => 23-0147-e-cfrp_det01-sheet.dgn

DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:55

USERNAME => s130888

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	116	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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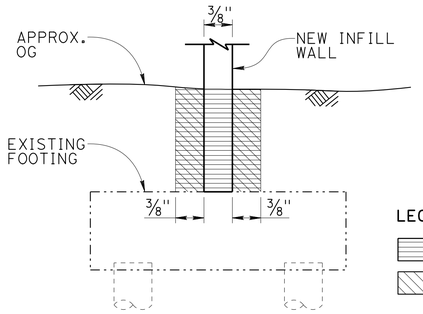
ELEVATION TABLE

LOCATION	TOP OF FOOTING OR BOTTOM OF INFILL WALL ELEVATIONS	OG ELEVATIONS
BENT 2	77.8±	83.0±
BENT 3	77.8±	83.0±
BENT 4	77.3±	82.5±

NOTES:

1. For CFRP Strip, see "CARBON FIBER REINFORCED POLYMER" sheet.
2. For Reconstruction of Concrete Deck Overhang, see "DECK OVERHANG DETAILS" sheet.
3. For New Concrete Corbel, see "BENT CORBEL DETAILS" sheet.
4. For New Concrete Shear Block, see "BENT SHEAR BLOCK DETAILS" sheet.

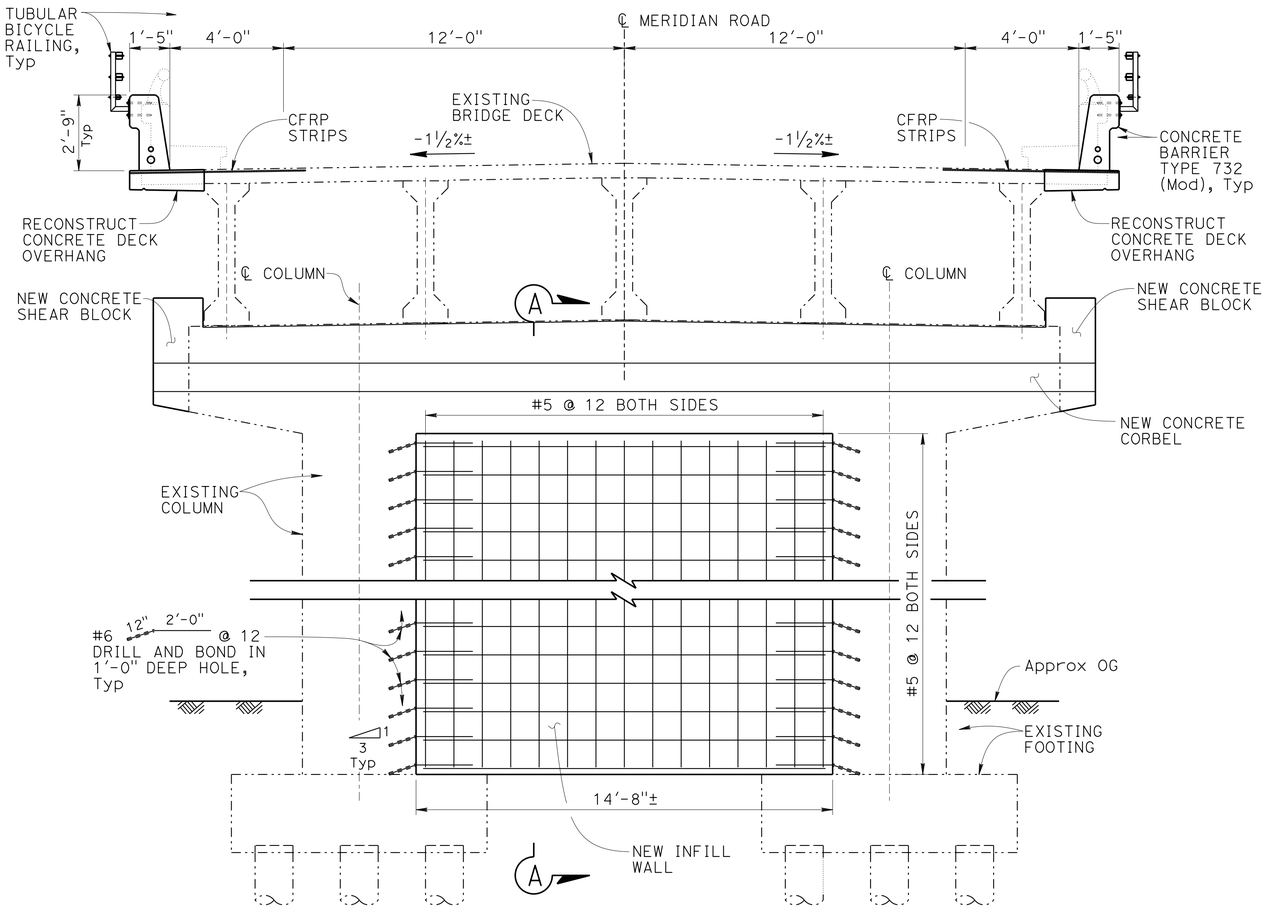


LEGEND:
- Structure Excavation
- Structure Backfill

LIMITS OF STRUCTURE EXCAVATION AND BACKFILL

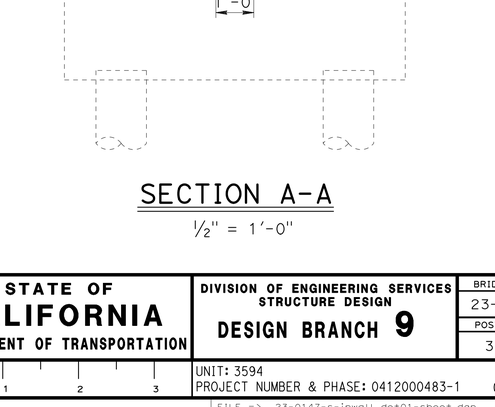
3/8" = 1'-0"

LEGEND:
- Indicates existing
- Indicates new construction
- Indicates 2" polystyrene



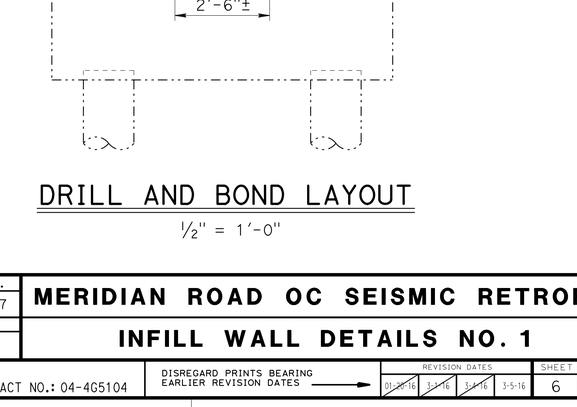
TYPICAL BENT ELEVATION (BENT 3 & 4)

3/8" = 1'-0"



SECTION A-A

½" = 1'-0"



DRILL AND BOND LAYOUT

½" = 1'-0"

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

DESIGN	BY John Tjoelker	CHECKED Isaias Yalan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 23-0147
DETAILS	BY Carlo Cancino	CHECKED Isaias Yalan			POST MILE 31.36
QUANTITIES	BY John Tjoelker	CHECKED Isaias Yalan			

MERIDIAN ROAD OC SEISMIC RETROFIT

INFILL WALL DETAILS NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
01-26-16	3-1-16	3-4-16	3-5-16	6	11

FILE => 23-0147-s-inwall_det01-sheet.dgn

DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:55
USERNAME => s130888

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	117	147

I Yalan 5-25-16
REGISTERED CIVIL ENGINEER DATE

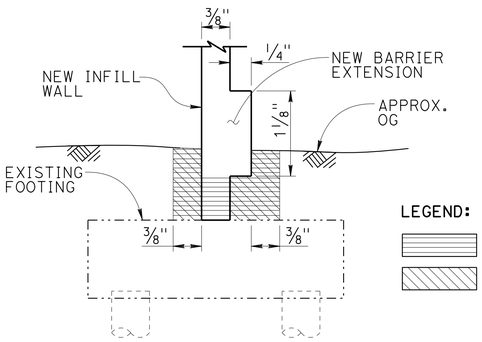
5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

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.

NOTES:

1. For Drill and Bond on inside of existing column, see "INFILL WALL DETAILS NO. 1" sheet.
2. For CFRP Strips, see "CARBON FIBER REINFORCED POLYMER" sheet.
3. For Reconstruction of Concrete Deck Overhang, see "DECK OVERHANG DETAILS" sheet.
4. For New Concrete Corbel, see "BENT CORBEL DETAILS" sheet.
5. For New Concrete Shear Block, see "BENT SHEAR BLOCK DETAILS" sheet.



LEGEND:

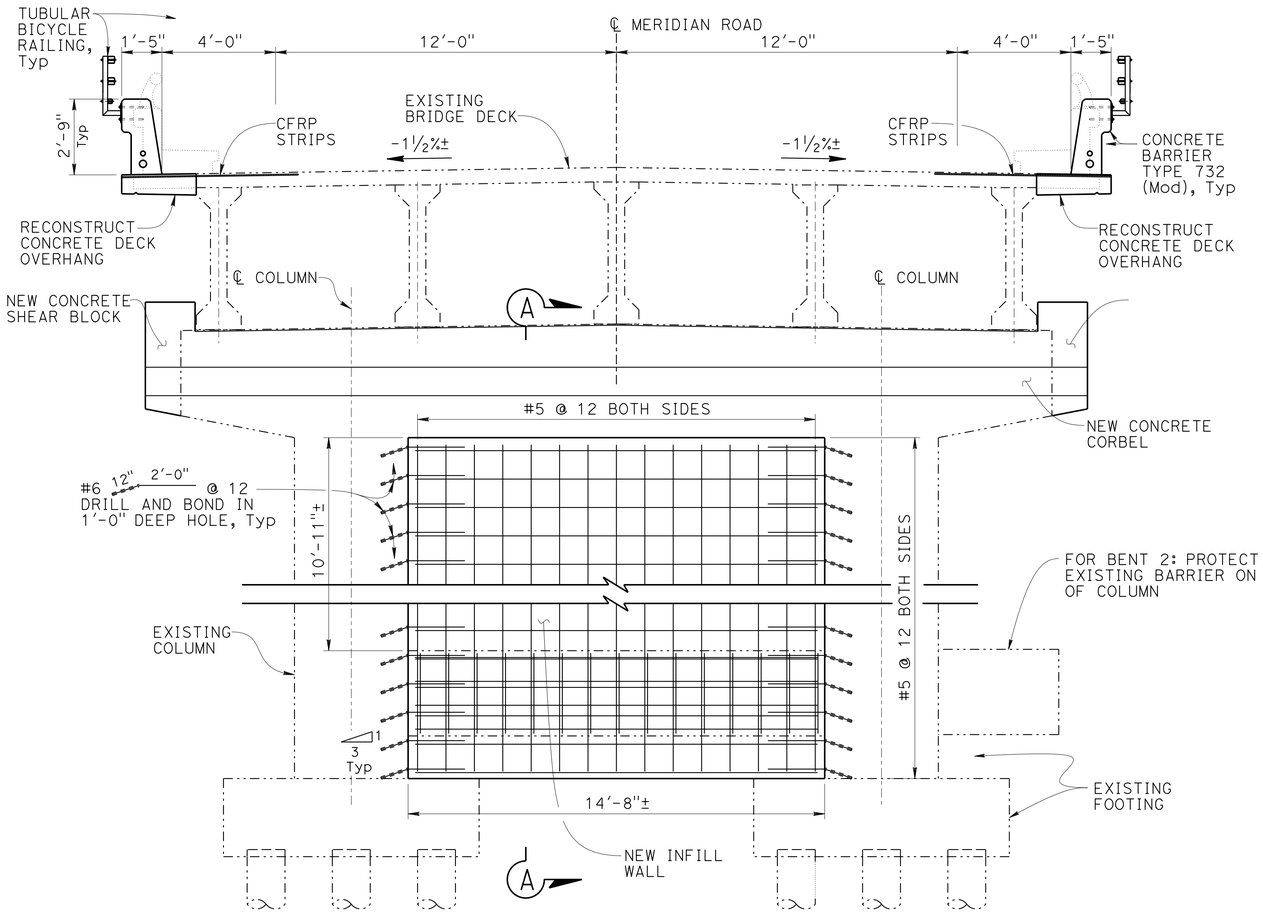
- Structure Excavation
- Structure Backfill

LIMITS OF STRUCTURE EXCAVATION AND BACKFILL

3/8" = 1'-0"

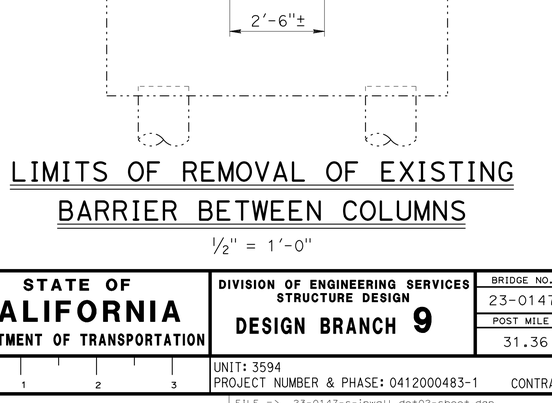
LEGEND:

- Indicates existing
- Indicates new construction
- Indicates removal of existing concrete barrier



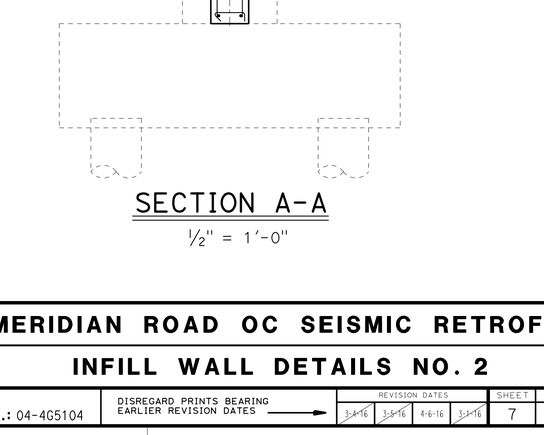
BENT ELEVATION (BENT 2)

No Scale



LIMITS OF REMOVAL OF EXISTING BARRIER BETWEEN COLUMNS

½" = 1'-0"



SECTION A-A

½" = 1'-0"

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

DESIGN	BY John Tjoelker	CHECKED Isaias Yalan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Carlo Cancino	CHECKED Isaias Yalan	
QUANTITIES	BY John Tjoelker	CHECKED Isaias Yalan	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0147
POST MILE 31.36

MERIDIAN ROAD OC SEISMIC RETROFIT

INFILL WALL DETAILS NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-4-16	3-5-16	4-6-16	3-1-16	7	11

FILE => 23-0147-s-inwall_det02-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:55

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	118	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

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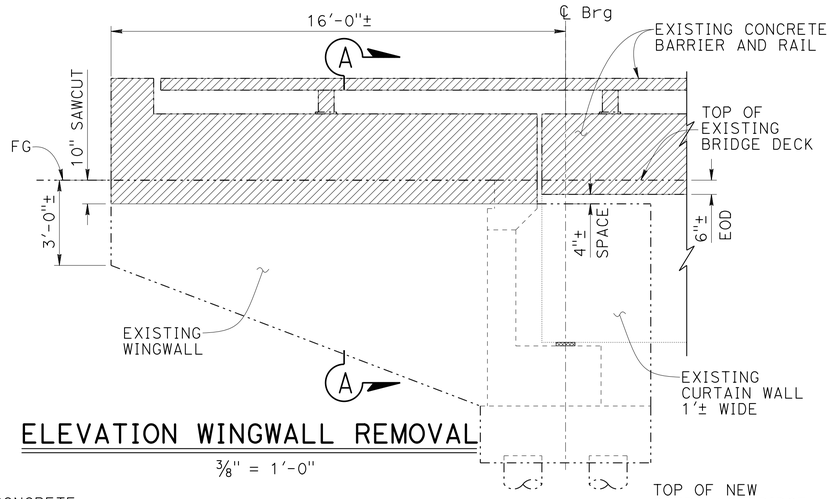
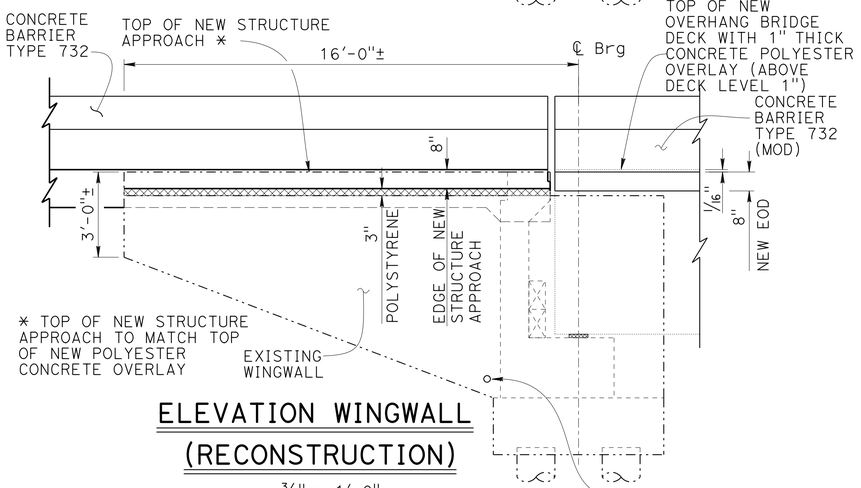


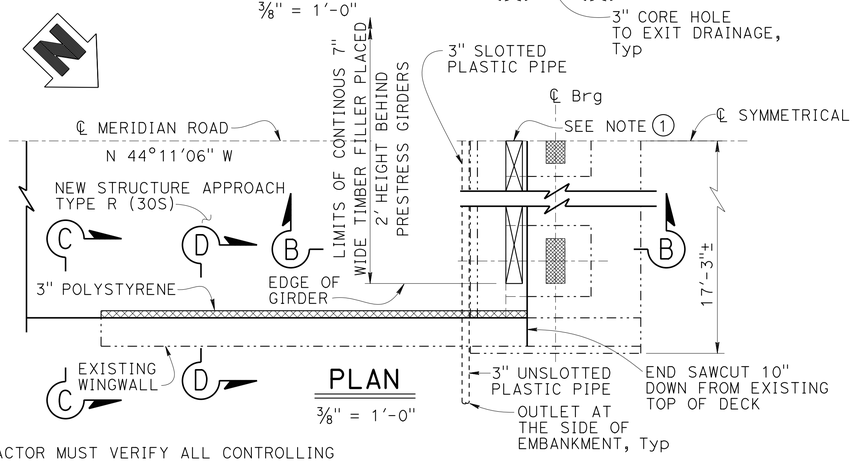
ELEVATION WINGWALL REMOVAL

3/8" = 1'-0"



ELEVATION WINGWALL (RECONSTRUCTION)

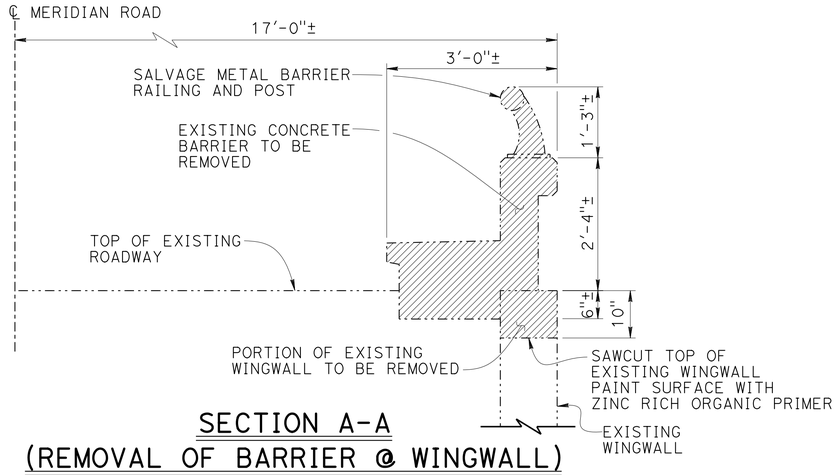
3/8" = 1'-0"



PLAN

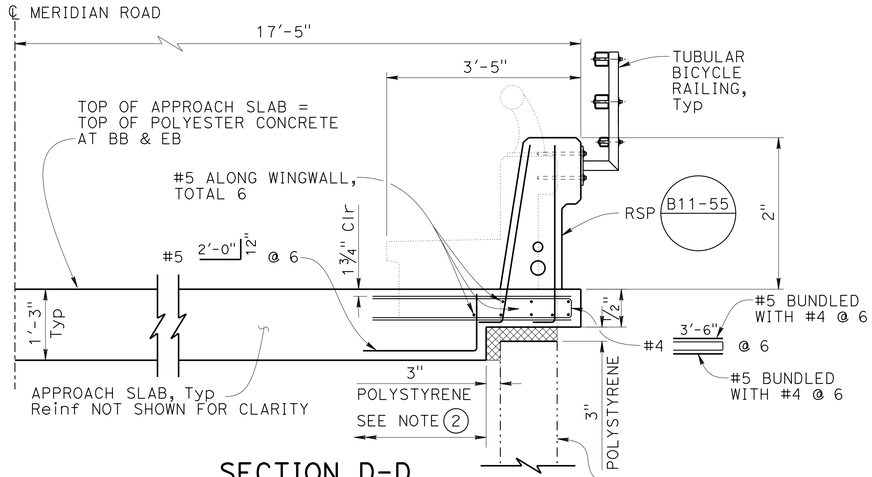
3/8" = 1'-0"

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



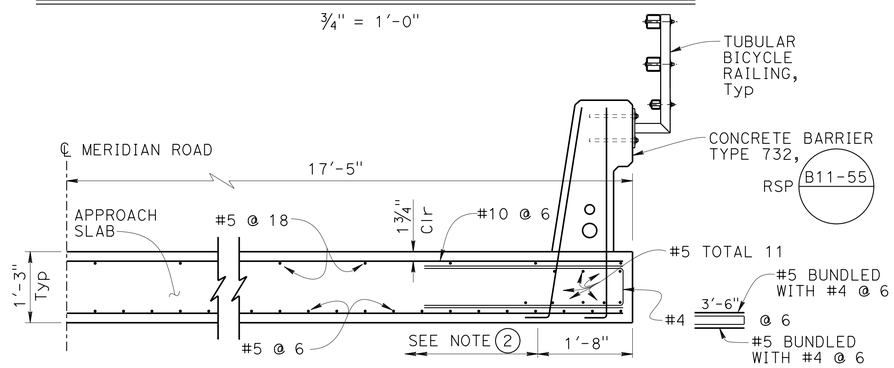
SECTION A-A (REMOVAL OF BARRIER @ WINGWALL)

3/4" = 1'-0"



SECTION D-D (RECONSTRUCTION OF BARRIER @ WINGWALL)

3/4" = 1'-0"



SECTION C-C (APPROACH SLAB WITHOUT WINGWALL)

3/4" = 1'-0"

LEGEND:

- Indicates existing
- Indicates new construction
- Indicates removal of existing concrete barrier, rai, wingwall and backwall portion
- Indicates 3" polystyrene
- Indicates Structure Excavation
- Indicates Structure Backfill

NOTES:

1. 7" Wide continous treated timber filler placed behind prestress girders, 2' height from Abutment seat.
2. Start edge of Structure Approach. For reinforcement, see "SECTION B-B" at "STRUCTURE APPROACH TYPE R (30S)" sheet.

DESIGN	BY John Tjoelker	CHECKED Isaias Yalan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Carlo Cancino	CHECKED Isaias Yalan	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN — DESIGN BRANCH 9
QUANTITIES	BY John Tjoelker	CHECKED Isaias Yalan	BRIDGE NO. 23-0147 — POST MILE 31.36

MERIDIAN ROAD OC SEISMIC RETROFIT

STRUCTURE APPROACH DETAILS NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-4-16	3-5-16	3-24-16	3-31-16	8	11

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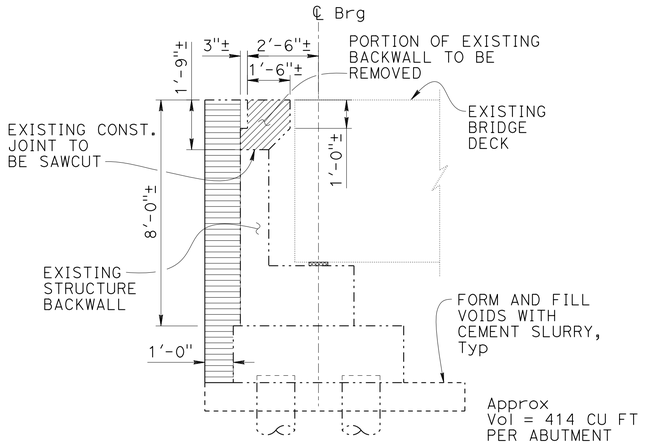
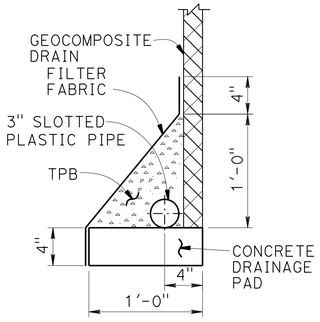
USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56



SECTION B-B
REMOVAL PORTION OF BACKWALL

3/8" = 1'-0"



DRAINAGE PAD

No Scale

LEGEND:

- Indicates existing
- Indicates new construction
- Indicates removal of existing concrete barrier, rai, wingwall and backwall portion
- Indicates 3" polystyrene
- Indicates Structure Excavation
- Indicates Structure Backfill

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	119	147

I Yalan 5-25-16
REGISTERED CIVIL ENGINEER DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

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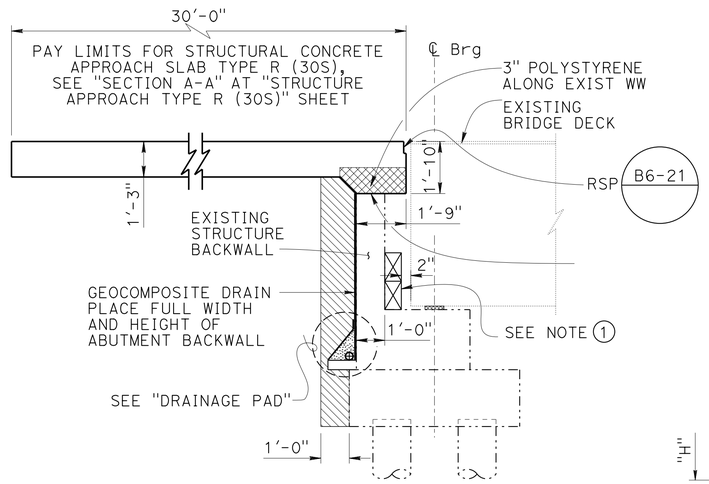
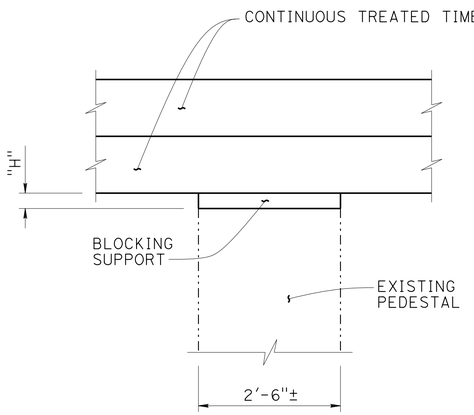
NOTES:

1. 7" Wide continous treated timber filler placed behind prestress girders, 2'+"H" height from Abutment seat.
2. Start edge of Structure Approach. For reinforcement, see "SECTION B-B" at "STRUCTURE APPROACH TYPE R (30S)" sheet.
3. The contractor must securely join the continuous treated timber to the blocking support to prevent an individual from removing it without tools.



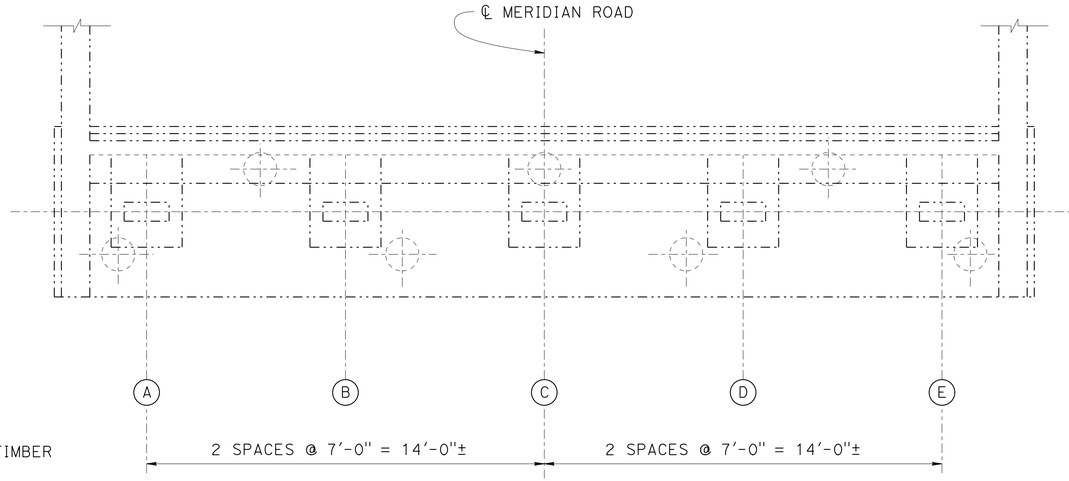
SECTION B-B
RECONSTRUCTION BACKWALL

3/8" = 1'-0"

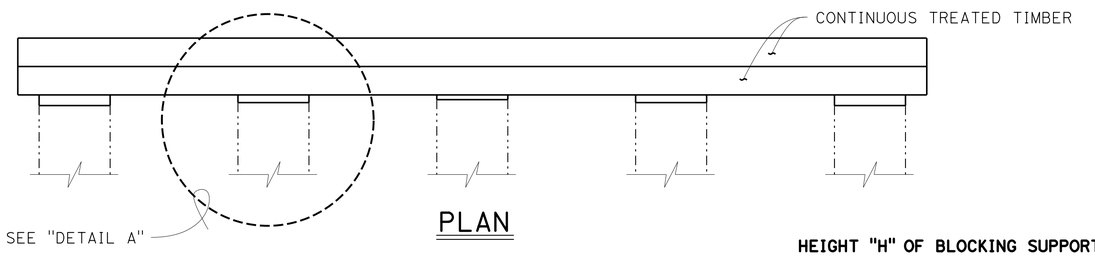


DETAIL A

NO SCALE



ELEVATION



PLAN

BLOCKING SUPPORT DETAIL

3/8" = 1'-0"

NOTE: Abutment 1 shown, Abutment 5 similar.

HEIGHT "H" OF BLOCKING SUPPORT

GIRDER:	(A)	(B)	(C)	(D)	(E)
Abut 1	4½"	3¼"	2"	3¼"	4½"
Abut 5	4½"	3¼"	2"	3¼"	4½"

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

DESIGN	BY John Tjoelker	CHECKED Isaias Yalan	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Carlo Cancino	CHECKED Isaias Yalan	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN — DESIGN BRANCH 9
QUANTITIES	BY John Tjoelker	CHECKED Isaias Yalan	BRIDGE NO. 23-0147 — POST MILE 31.36

MERIDIAN ROAD OC SEISMIC RETROFIT

STRUCTURE APPROACH DETAILS NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-2-16	3-9-16	4-7-16		9	11

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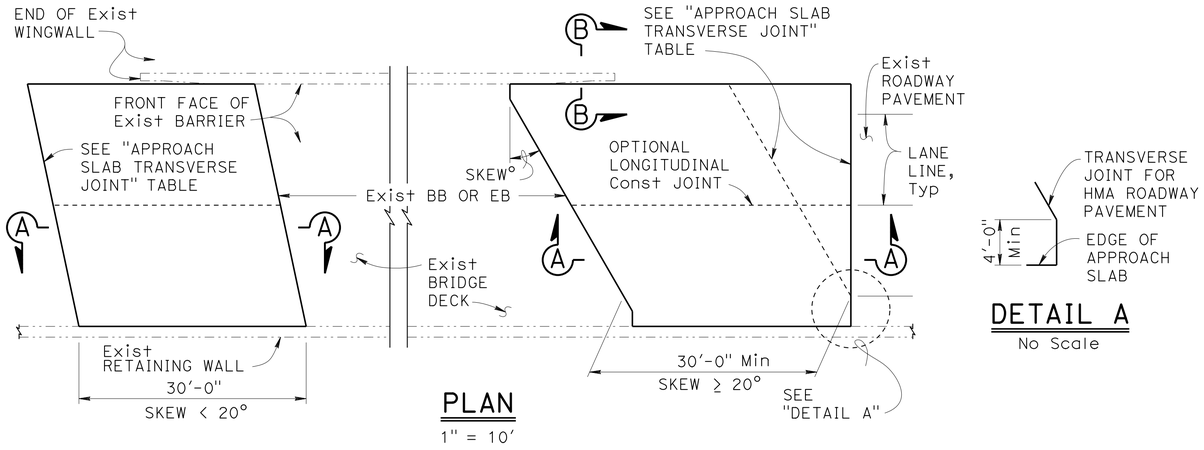

PLAN
1" = 10'

DETAIL A
No Scale

APPROACH SLAB TRANSVERSE JOINT		
APPROACH SKEW	WITH HMA ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	PARALLEL TO BB OR EB	PARALLEL TO BB OR EB

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	120	147

Isaias Yalan 5-25-16
REGISTERED CIVIL ENGINEER DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Isaias Yalan No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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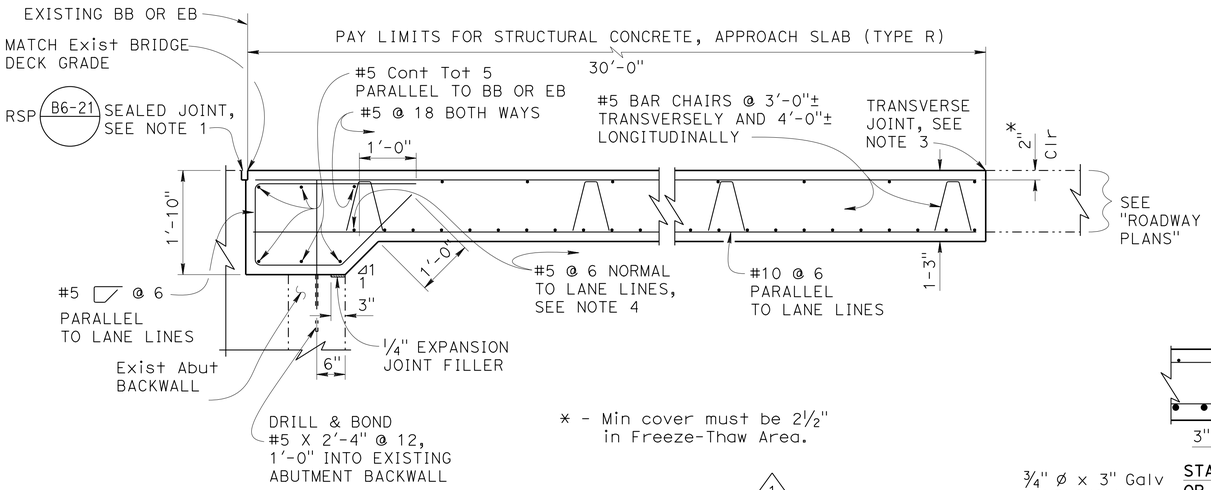
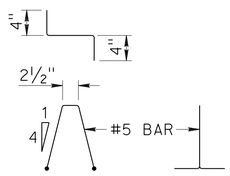
The components of this Bridge Standard Drawing have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California. Refer to: http//www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheet/index.html.
The selection and proper application of the component design and any modifications shown have been prepared under the responsible charge of the registered civil engineer for the project.



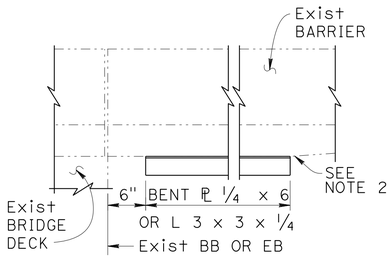
* - Min cover must be 2½" in Freeze-Thaw Area.

SECTION A-A
¾" = 1'-0"

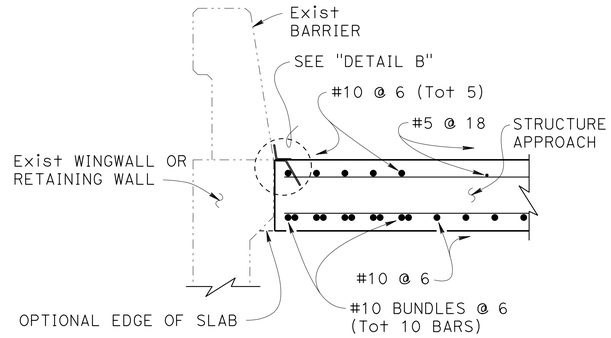


BAR CHAIR DETAIL
1" = 1'-0"

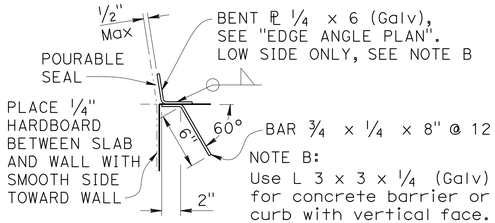
NOTE:
The contractor must verify all controlling field dimensions before ordering or fabricating any material.



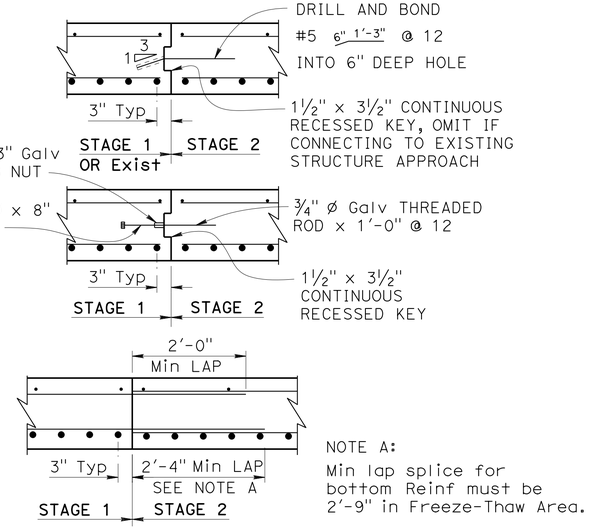
EDGE ANGLE PLAN
1" = 1'-0"



SECTION B-B
¾" = 1'-0"



DETAIL B
1½" = 1'-0"



LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES
¾" = 1'-0"

NOTE A:
Min lap splice for bottom Reinf must be 2'-9" in Freeze-Thaw Area.

DESIGN NOTES

DESIGN: AASHTO LRFD Bridge Design Specifications, 2012 Edition with Caltrans Amendments, preface dated January 2014

LIMIT STATES: Service I, Strength I & II, Extreme II and Fatigue I (γ_{FAT} = 1.0)

DEAD LOAD: Includes 35 psf for future wearing surface

LIVE LOAD: HL93 and permit design load
Equivalent strip width method: W_1 = 12 ft
Slab span: L_1 = 24.5 ft

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

NOTES:

1. For joint protection details and other details not shown, see other plan sheets. Adjust reinforcement to clear sawcut for sealed joint.
2. End the plate or edge angle at beginning of barrier transition, end of wingwall, or end of structure approach as applicable.
3. Transverse Joint must be a minimum of 5'-0" from an existing or constructed weakened plane joint in approach PCC roadway pavement. Refer to Standard Plans P10 and P14.
4. At the Contractor's option, approach slab transverse reinforcement may be placed parallel to BB or EB. Spacing of transverse reinforcement is measured along ℄ roadway.

---- Indicates Existing Structure

MODIFIED

STANDARD DRAWING

FILE NO. **xs3-130**

APPROVAL DATE January 2015

1 Details Modified

STATE OF **CALIFORNIA** DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 23-0147

POST MILE 31.36

SPECIAL DETAILS

MERIDIAN ROAD OC SEISMIC RETROFIT

STRUCTURE APPROACH TYPE R (30S)(MODIFIED)

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (10-01-14)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3593
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
10-21-15	01-20-16	3-4-16	3-5-16	10	11

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USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	121	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

5-26-16
PLANS APPROVAL DATE

ISAIAS YALAN
No. C68269
Exp. 9-30-17
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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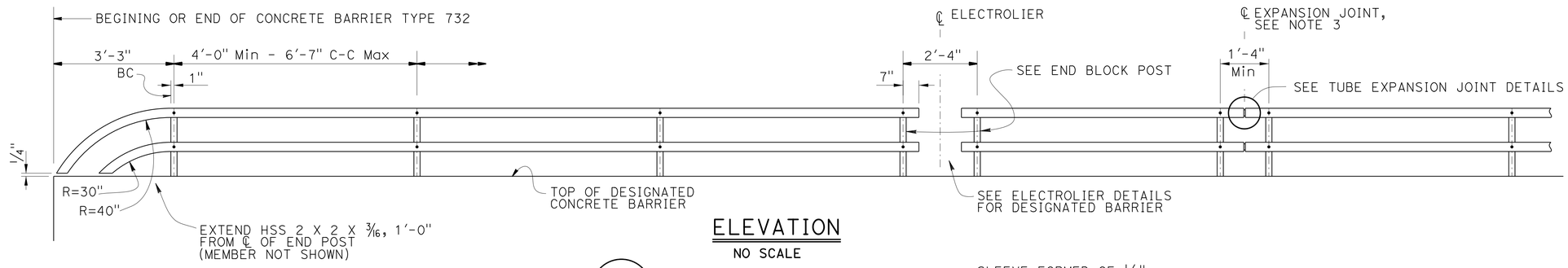
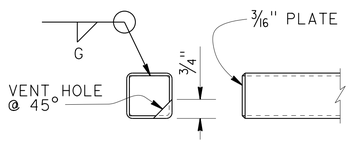
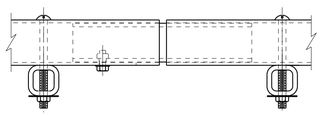
The selection and proper application of the component design and any modifications shown have been prepared under the responsible charge of the registered civil engineer for the project.

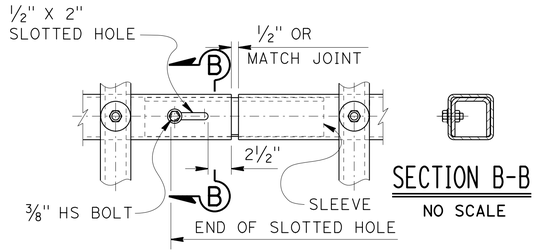


ELEVATION
NO SCALE



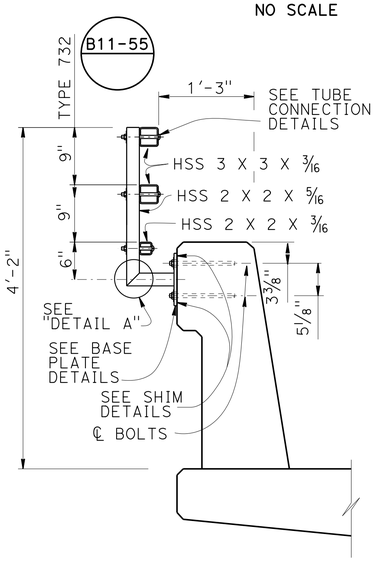
RAIL CAP DETAIL
NO SCALE



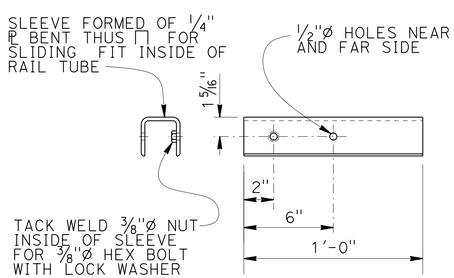


TUBE EXPANSION JOINT DETAILS
NO SCALE

SECTION B-B
NO SCALE



TYPE 732
NO SCALE



SLEEVE DETAIL
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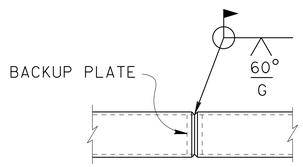
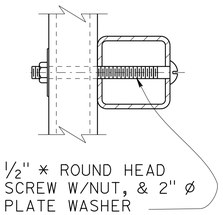


WELDED SPLICE DETAIL
NO SCALE

NOTES:

1. Post must be normal to railing.
2. Rail tubes must be shop bent or fabricated to fit horizontal curve when radius is less than 950'.
3. Tube expansion joints must be located in the tubes spanning deck or wall joints. Increase joint width in tubes to match expansion joint width and increase sleeve length correspondingly.
4. Top rail tube must be continuous over not less than two posts except a short post spacing is permitted near deck or wall joints, electroliers, or other rail discontinuities as noted.



TUBE CONNECTION DETAIL
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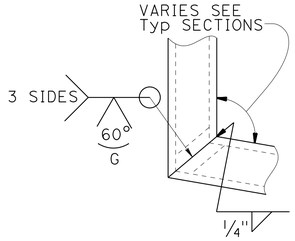
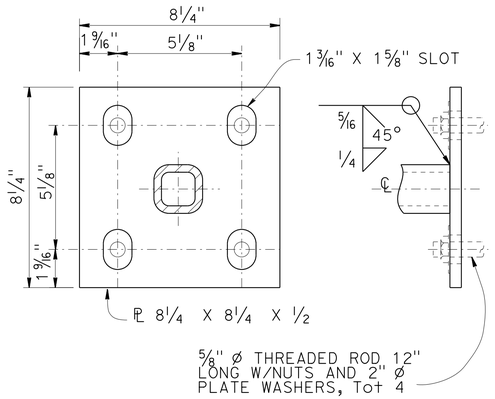
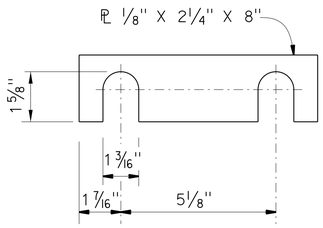


DETAIL A
NO SCALE



BASE PLATE DETAIL
NO SCALE



SHIM DETAILS
NO SCALE

MODIFIED
STANDARD DRAWING
FILE NO. xs16-035
APPROVAL DATE October 2014

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 23-0147
POST MILE 31.36

SPECIAL DETAILS
MERIDIAN ROAD OC SEISMIC RETROFIT
CONCRETE BARRIER TYPE 732
TUBULAR BICYCLE RAILING DETAILS

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3954
PROJECT NUMBER & PHASE: 0412000483-1 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
4-6-16	10-1-14	3-3-16	3-3-16	11	11

FILE => 23-0147-xx-xs16-035-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	122	147

REGISTERED CIVIL ENGINEER — 8-31-16 DATE

5-26-16
PLANS APPROVAL DATE

ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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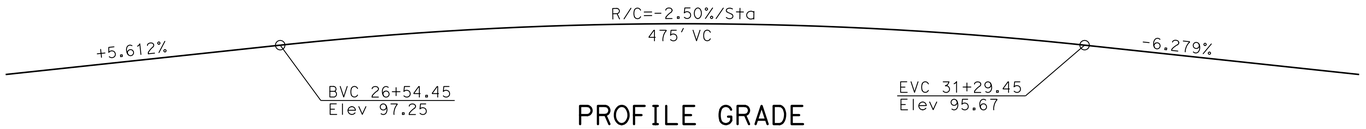
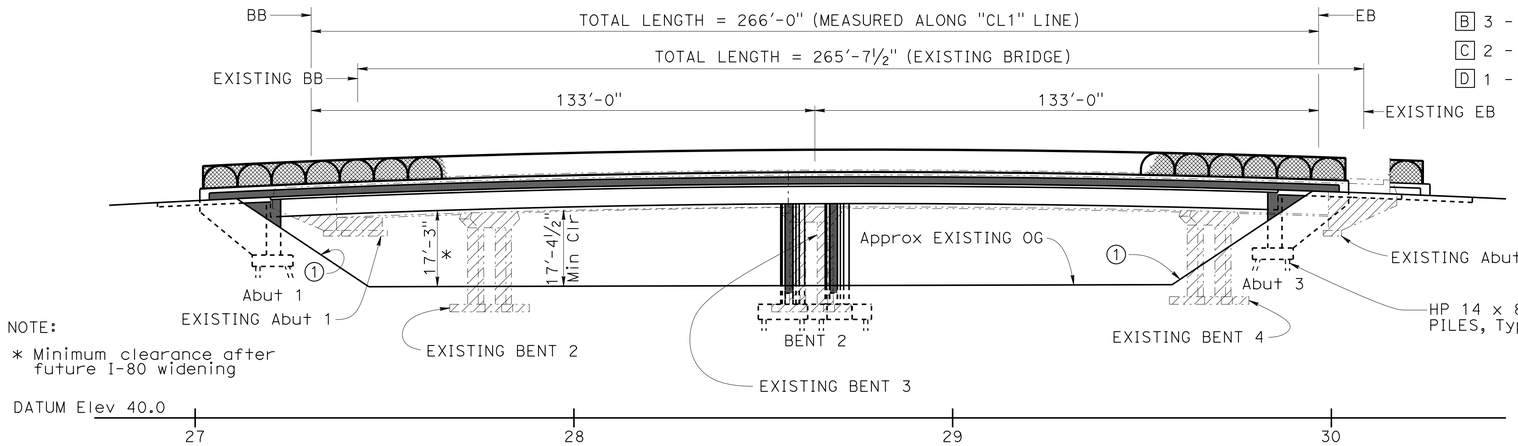
NOTES:
1. Slope paving
2. Install Pull Box, see "ROADWAY PLANS"
3. Salvage existing metal barrier railing and posts
4. For Temporary K Railing, see "ROADWAY PLANS"

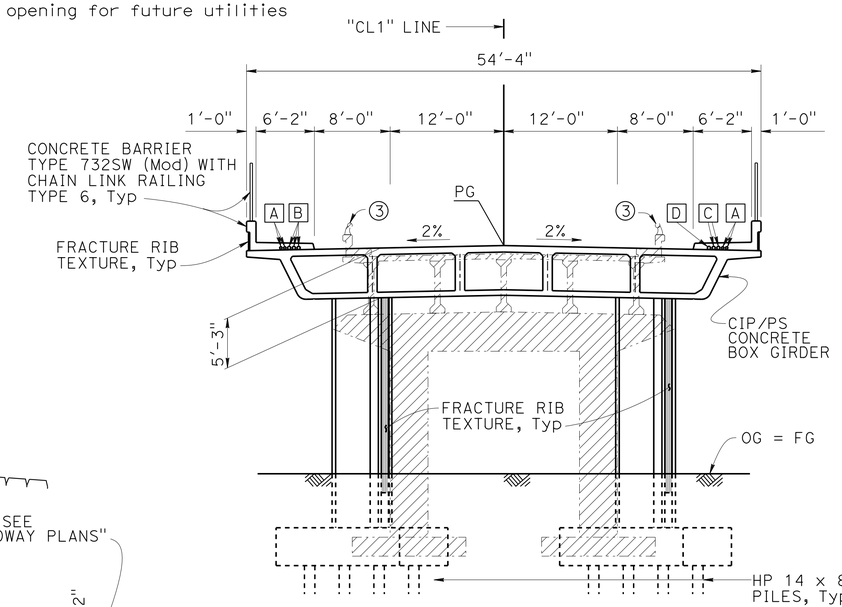
A 2 - 3" ø conduits for electrical (Future use), see "ROADWAY PLANS"
B 3 - 4" ø openings for future utilities (AT&T)
C 2 - 4" ø openings for future utilities (AT&T)
D 1 - 4" ø opening for future utilities



PROFILE GRADE
NO SCALE



NOTE:
* Minimum clearance after future I-80 widening



TYPICAL SECTION
⅛" = 1'-0"

QUANTITIES

SALVAGE METAL BRIDGE RAILING	596	LF
BRIDGE REMOVAL	LUMP	SUM
STRUCTURE EXCAVATION (BRIDGE)	719	CY
STRUCTURE BACKFILL (BRIDGE)	532	CY
FURNISH STEEL PILING (HP 14 X 89)	4,216	LF
DRIVE STEEL PILE (HP 14 X 89)	88	EA
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP	SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	187	CY
STRUCTURAL CONCRETE, BRIDGE	817	CY
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	409	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	151	CY
CONCRETE SURFACE TEXTURE	4,386	SQFT
JOINT SEAL (MR 2")	115	LF
BAR REINFORCING STEEL (BRIDGE)	343,673	LB
PREPARE AND STAIN CONCRETE	5,479	SQFT
SLOPE PAVING (CONCRETE)	62	CY
MISCELLANEOUS METAL (BRIDGE)	700	LB
CHAIN LINK RAILING (TYPE 6)	602	LF
CONCRETE BARRIER (TYPE 732SW MODIFIED)	606	LF

ELEVATION
1" = 20'

PLAN
1" = 20'

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

LEGEND:
- Indicates concrete removal
- Indicates point of minimum vertical clearance
- Indicates new structure
- Indicates existing structure to be removed

RICHARD MELKO
DESIGN ENGINEER

	BY	CHECKED
DESIGN	ISAIAS YALAN	AUSTIN QUIROZ
DETAILS	DAVID ELLIOTT	AUSTIN QUIROZ
QUANTITIES	AUSTIN QUIROZ	ROSA CANDIOTTI

LOAD & RESISTANCE FACTOR DESIGN — LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE

	BY	CHECKED
LAYOUT	ISAIAS YALAN	ROSA CANDIOTTI
SPECIFICATIONS	DARWIN VARGAS	PLANS AND SPECS COMPARED: DARWIN VARGAS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
GENERAL PLAN

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-9-16	4-8-16	5-25-16	5-26-16	1	26

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

FILE => 23-0254-a-gp-sheet.dgn

USERNAME => s1130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	123	147

REGISTERED CIVIL ENGINEER — 8-31-16 DATE

5-26-16 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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.

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
AASHTO LRFD Bridge Design Specifications, 6th edition and the Caltrans Amendments, preface dated 2012.

SEISMIC DESIGN:
Caltrans Seismic Design Criteria (SDC), Version 1.7 dated APRIL 2013.

DEAD LOAD:
Includes 35 psf for future wearing surface.

LIVE LOADING:
HL93 and permit design load.

SEISMIC LOADING:
Soil profile: V_{S30} = 270 m/s
Moment Magnitude: M_w = 6.7
Peak Ground Acceleration 0.48 g
See "SITE SPECIFIC ARS" detail for ARS Curve

CONCRETE:
fy = 60 ksi
f'c = 3.6 ksi
n = 8
See prestressing notes and "CONCRETE STRENGTH AND TYPE LIMITS" detail.

STRUCTURAL STEEL (new construction):
fy = ASTM A709 Grade 50

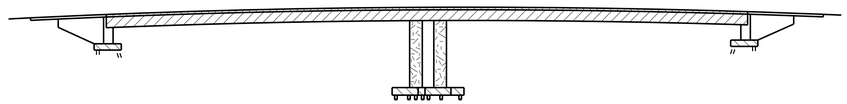
STANDARD PLANS DATED 2010

	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)
RSP	A10F	LEGEND - SOIL (SHEET 1 OF 2)
RSP	A10G	LEGEND - SOIL (SHEET 2 OF 2)
	A10H	LEGEND - ROCK
	A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE SURCHARGE AND WALL
RSP	A77V1	MIDWEST GUARDRAIL SYSTEM CONNECTIONS TO BRIDGE RAILINGS WITH SIDEWALKS DETAILS No. 1
RSP	A77V2	MIDWEST GUARDRAIL SYSTEM CONNECTIONS TO BRIDGE RAILINGS WITH SIDEWALKS DETAILS No. 2
	B0-1	BRIDGE DETAILS
	B0-3	BRIDGE DETAILS
	B0-5	BRIDGE DETAILS
	B0-13	BRIDGE DETAILS
RSP	B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
	B7-1	BOX GIRDER DETAILS
RSP	B8-5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS

INDEX TO PLANS

STANDARD PLAN SHEET No.

DETAIL No.



Structural Concrete, Bridge

Structural Concrete, Bridge (f'c = 4,000 psi @ 28 days)

Structural Concrete, Bridge Footing

Structural Concrete, Bridge (f'c = 4,000 psi @ 28 days)

Structural Concrete, Bridge (Polymer Fiber) (f'c = 4,000 psi @ 28 days)

CONCRETE STRENGTH AND TYPE LIMITS

No Scale

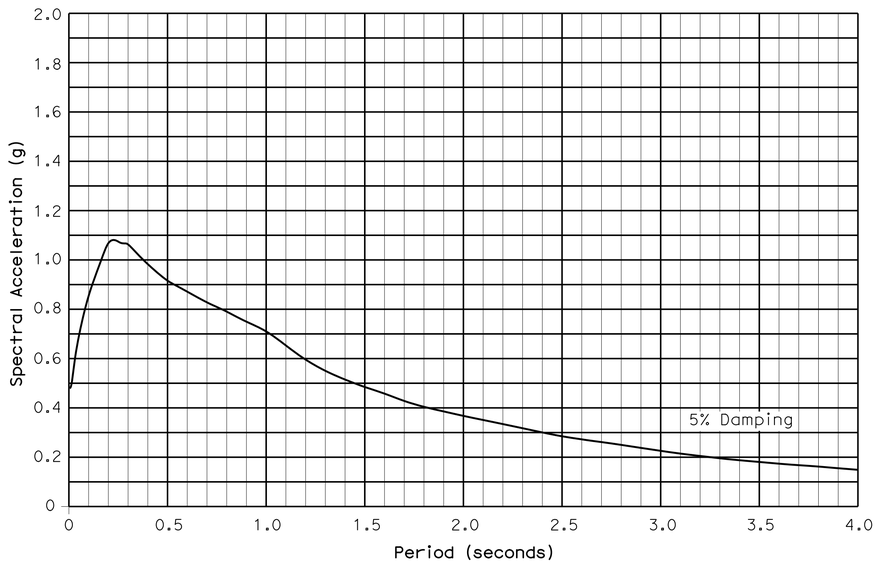
PILE DATA TABLE

SUPPORT NO.	PILE TYPE	NOMINAL RESISTANCE (kips)		CUTOFF ELEVATION (ft)	DESIGN TIP ELEVATIONS (ft)	SPECIFIED TIP ELEVATION (ft)	NOMINAL DRIVING RESISTANCE (kips)
		COMPRESSION	TENSION				
Abut 1	HP 14 X 89	300	20	82.92	38 (a) 75 (b) 65 (c) 55 (d)	38	300
BENT 2		310	130	68.92	26 (a) 45 (b) 47 (c) 31 (d)	26	310
Abut 3		300	20	83.92	30 (a) 71 (b) 63 (c) 49 (d)	30	300

NOTES: 1) Design tip elevations are controlled by:
(a) Compression
(b) Tension
(c) Settlement, and (d) Laternal Load, respectively.

2) The specified tip elevation shall not be raised above the design tip elevation for tension load, laternal load, and tolerable settlement.

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



SITE SPECIFIC ACCELERATION RESPONSE SPECTRA CURVE

DESIGN	BY ISAIAS YALAN	CHECKED AUSTIN QUIROZ	
DETAILS	BY DAVID ELLIOTT	CHECKED AUSTIN QUIROZ	
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
INDEX TO PLANS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
~~3-8-16~~	~~5-25-16~~	~~2-26-16~~	~~3-1-16~~	2	26

FILE => 23-0254-a-itp-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	124	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

5-26-16
PLANS APPROVAL DATE

ISAIAS YALAN
No. C68269
Exp. 9-30-17
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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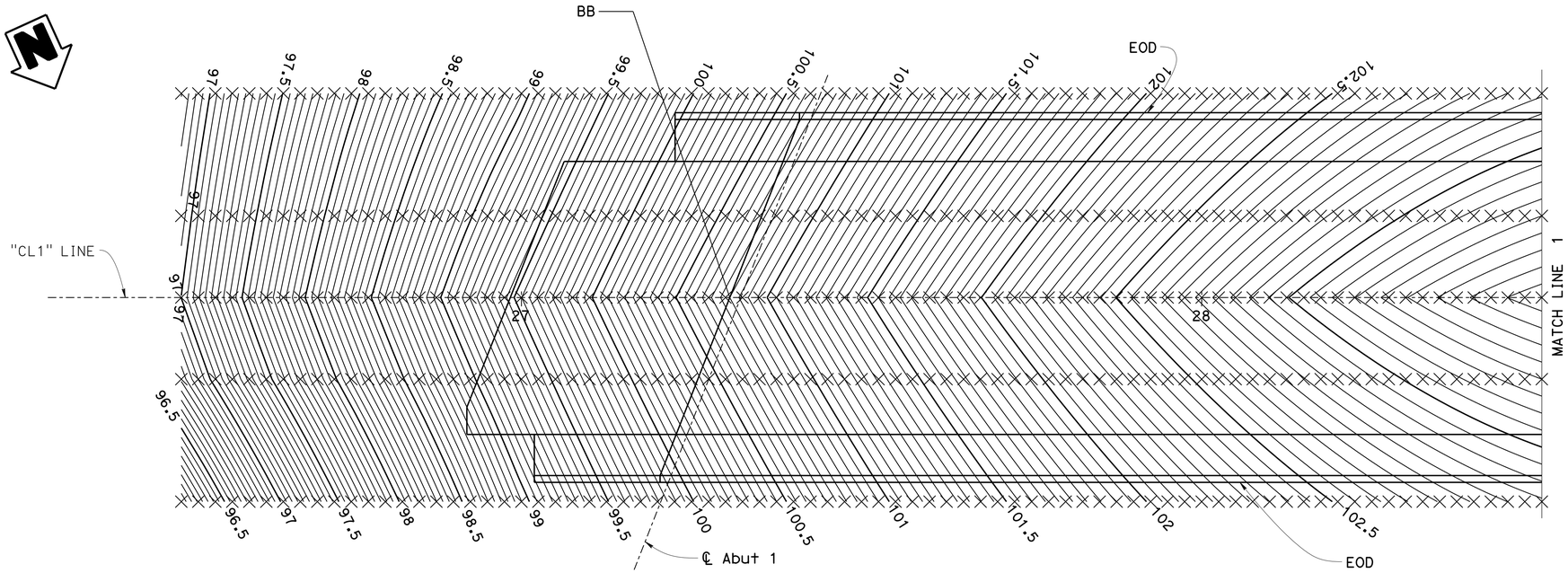
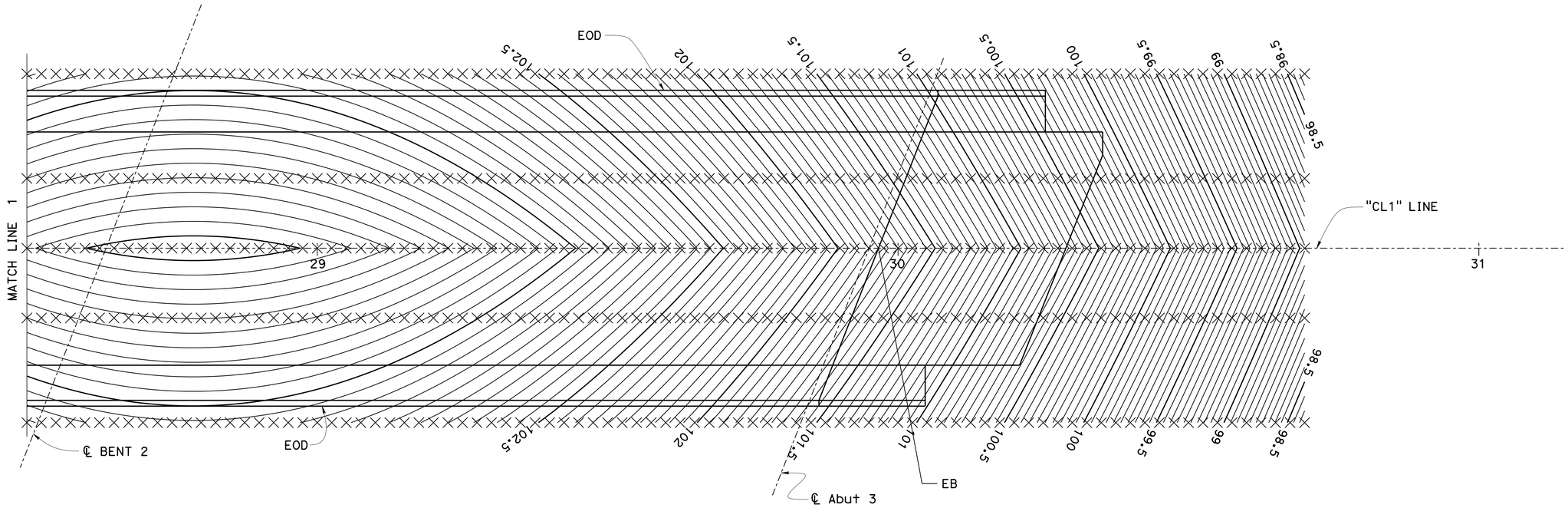




NOTES:

- 2.5 ft intervals station line
- Contours do not include camber
- Contour interval = 0.05 ft

LEGEND:

——— Denotes new construction

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

DECK CONTOURS

1" = 10'

DESIGN	BY ISAIAS YALAN	CHECKED AUSTIN QUIROZ	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 23-0254
DETAILS	BY DAVID ELLIOTT	CHECKED AUSTIN QUIROZ			POST MILE 32.60
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA			

MIDWAY ROAD OC (REPLACE)
DECK CONTOUR

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-8-16	5-25-16	5-26-16	5-26-16	3	26

FILE => 23-0254-d-dk contour-sheet.dgn

DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56
USERNAME => s130888

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	125	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

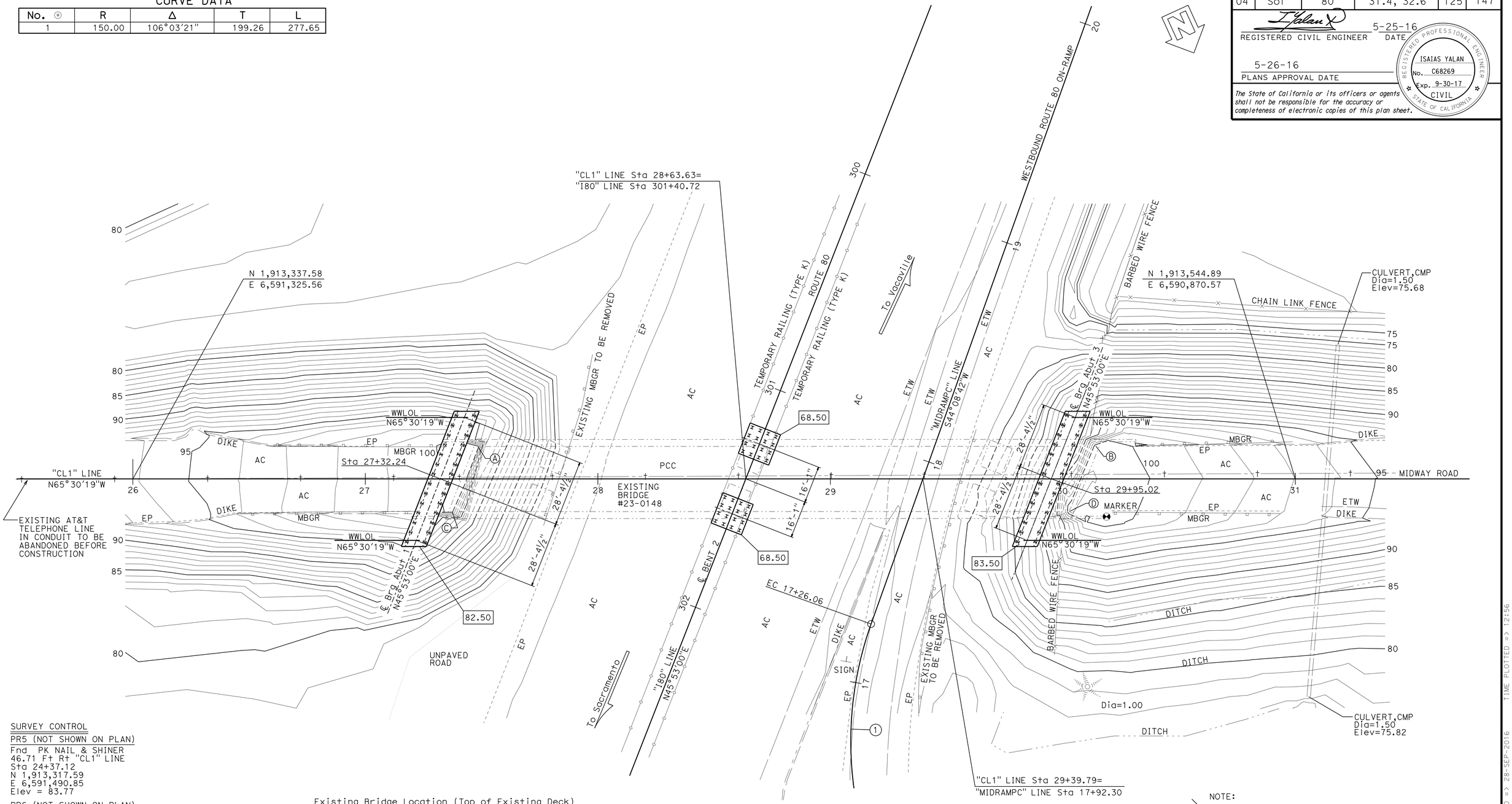
5-26-16
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

CURVE DATA

No. ⑪	R	Δ	T	L
1	150.00	106°03'21"	199.26	277.65



SURVEY CONTROL

PR5 (NOT SHOWN ON PLAN)
Fnd PK NAIL & SHINER
46.71 Ft Rt "CL1" LINE
Sta 24+37.12
N 1,913,317.59
E 6,591,490.85
Elev = 83.77

PR6 (NOT SHOWN ON PLAN)
Fnd 1"IP w/ PP
217.77 Ft Rt "CL1" LINE
Sta 30+55.35
N 1,913,724.55
E 6,591,001.49
Elev = 77.94

Existing Bridge Location (Top of Existing Deck)

Ⓐ - 13.73 Lt "CL1" LINE, Sta 27+48.52, Elev=100.62 ±
Ⓑ - 14.10 Lt "CL1" LINE, Sta 30+14.18, Elev=100.76 ±
Ⓒ - 14.25 Rt "CL1" LINE, Sta 27+37.39, Elev=100.14 ±
Ⓓ - 13.92 Rt "CL1" LINE, Sta 30+03.07, Elev=101.29 ±

NOTE:
XXXX Indicates bottom of footing elevation

PRELIMINARY INVESTIGATION SECTION

SCALE 1"=20'	VERT.DATUM NAVD88	PHOTOGRAMMETRY AS OF: X				
	HORZ.DATUM NAD83 (1991.35)	SURVEYED	BY DISTRICT	CHECKED	BY D. IVY	02/2015
	ALIGNMENT TIES Dist TRAVERSE SHEET	DRAFTED	BY T. ZOLNIKOV 02/2015	CHECKED	BY L. LEW	02/2015

DESIGN	BY ISAIAS YALAN	CHECKED AUSTIN QUIROZ
DETAILS	BY DAVID ELLIOTT	CHECKED AUSTIN QUIROZ
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.62

MIDWAY ROAD OC REPLACEMENT
FOUNDATION PLAN

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3646
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

SUBMITTAL DATE	REVISION DATES				SHEET	OF
02/12/15	2-5-16	3-1-16	4-6-16	11-14-16	4	26

FILE => 23-0254-e-fpl01.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	126	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

5-26-16
PLANS APPROVAL DATE

ISAIAS YALAN
No. C68269
Exp. 9-30-17
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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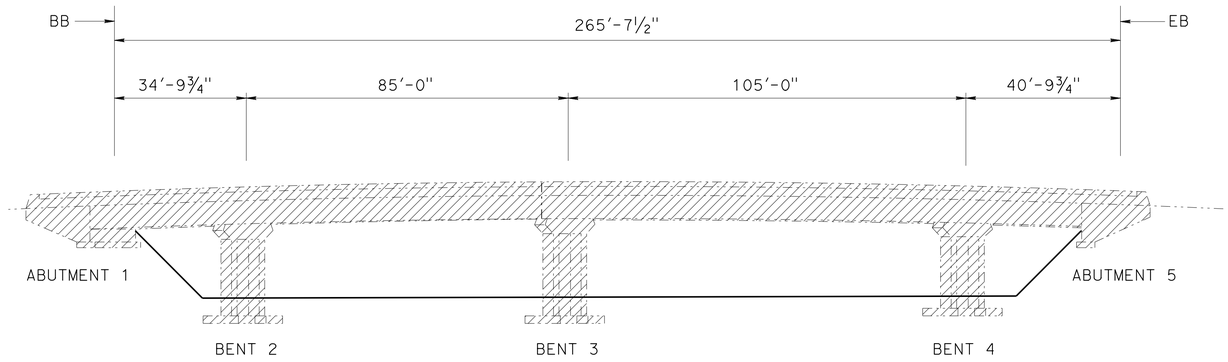
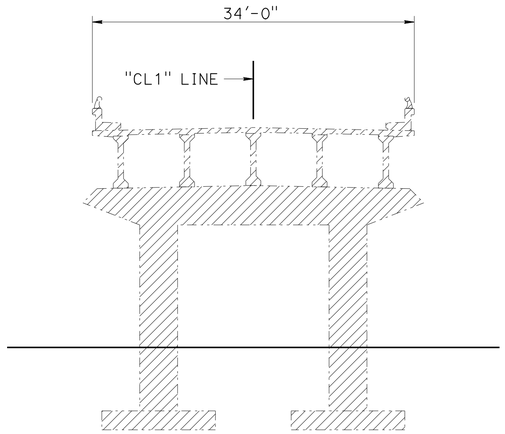
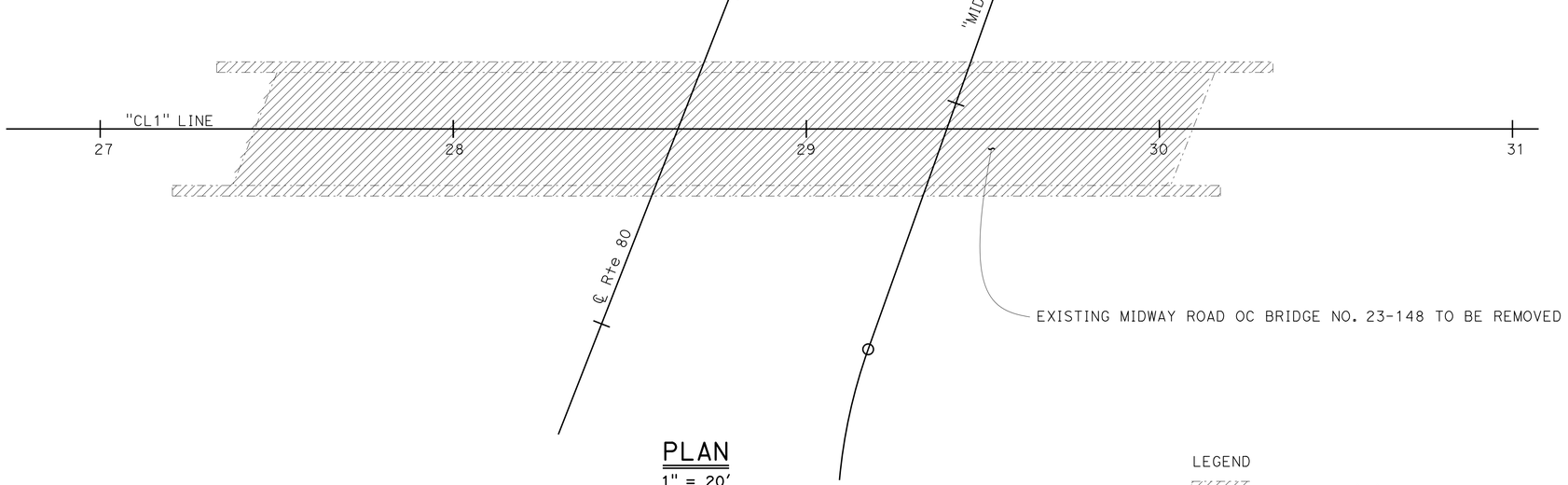


ELEVATION
1" = 20'



TYPICAL SECTION
⅛" = 1'-0"



PLAN
1" = 20'

LEGEND

Denotes limits of removal of existing Midway Road OC Bridge No. 23-148

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

DESIGN	BY ISAIAS YALAN	CHECKED ISAIAS YALAN	
DETAILS	BY DAVID ELLIOTT	CHECKED ISAIAS YALAN	
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
REMOVAL DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

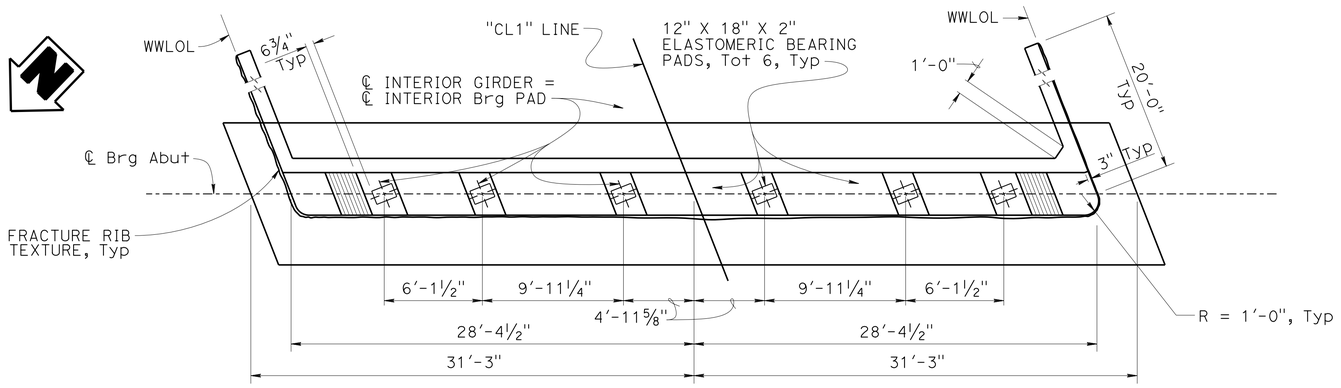
UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-10-16				5	26

FILE => 23-0254-e-remove det-sheet.dgn

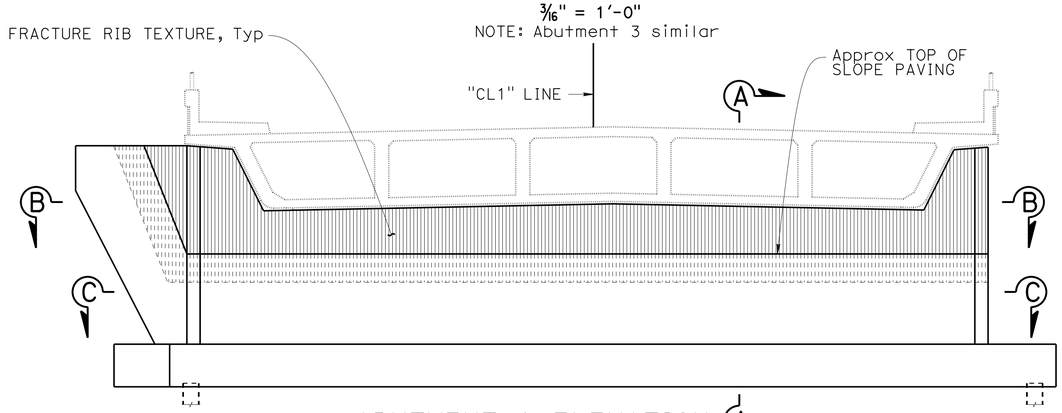
USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56



ABUTMENT 1 PLAN

3/16" = 1'-0"

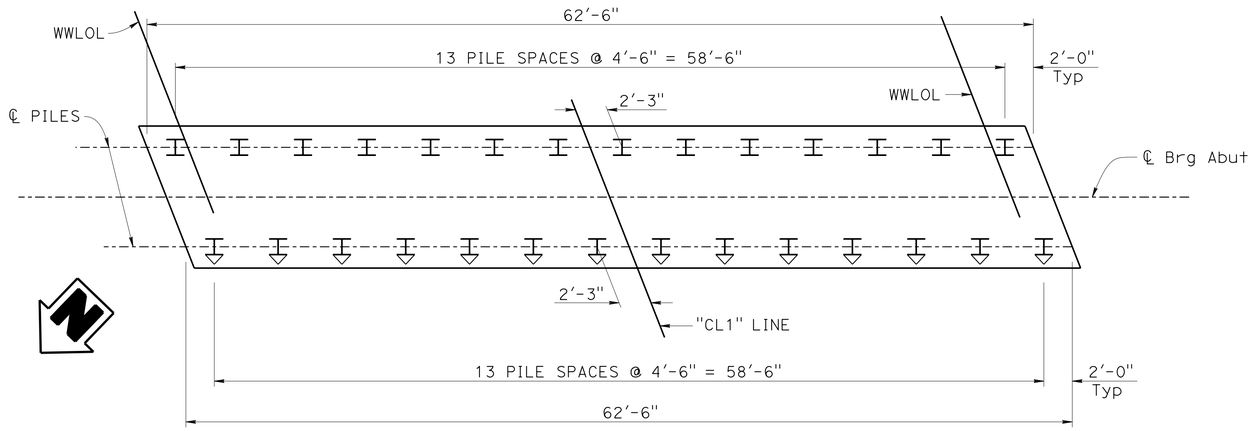
NOTE: Abutment 3 similar



ABUTMENT 1 ELEVATION (A)

3/16" = 1'-0"

NOTE: Abutment 3 similar



ABUTMENT 1 PILE LAYOUT

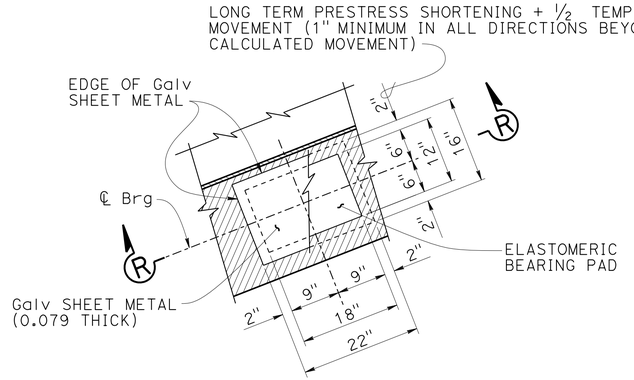
3/16" = 1'-0"

NOTE: Abutment 3 similar

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

NOTES:

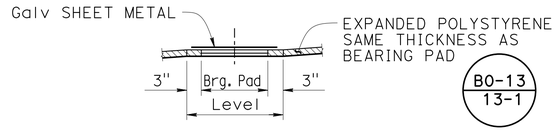
1. For Section A-A, B-B, and C-C, see "ABUTMENT DETAILS NO. 1" sheet.
2. For fracture rib texture, see "ARCHITECTURAL TREATMENT DETAILS" sheet.



PLAN

NO SCALE

NOTE: Coat top of bearing pad with grease prior to placing sheet metal.



SECTION R-R

NO SCALE

BEARING PAD DETAIL

DETAILS TYPICAL AT ALL BEARING PADS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	127	147

I Yalan — 5-25-16
REGISTERED CIVIL ENGINEER — DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

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DESIGN	BY ISAIAS YALAN	CHECKED AUSTIN QUIROZ	
DETAILS	BY DAVID ELLIOTT	CHECKED AUSTIN QUIROZ	
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
ABUTMENT LAYOUT

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-16-16	2-4-16	2-26-16	3-3-16	6	26

FILE => 23-0254-f-abut_lo-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	128	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

5-26-16
PLANS APPROVAL DATE

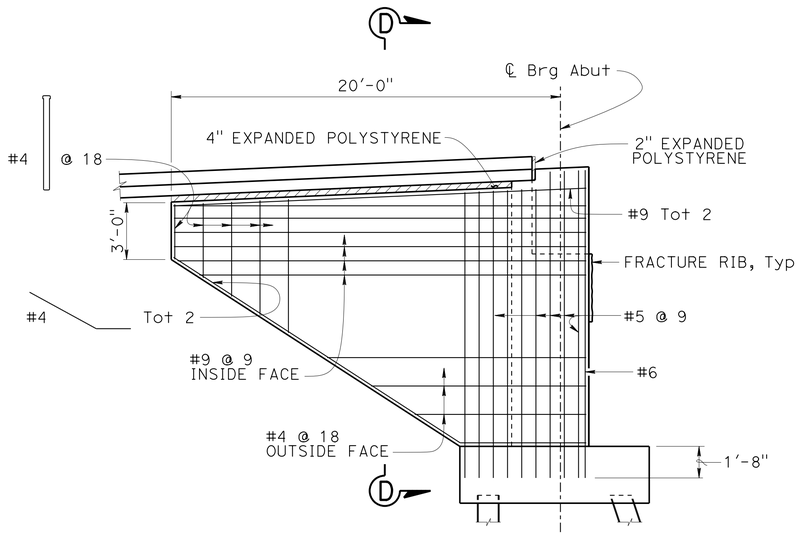
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.

LEGEND:

Denotes Expanded Polystrene

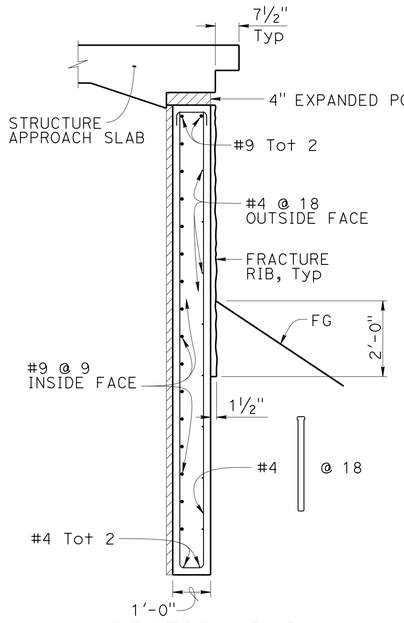
NOTES:

1. For location of Sections A-A, B-B, and C-C, see "ABUTMENT LAYOUT" sheet.
2. For "STEEL PILE ANCHOR", see "ABUTMENT DETAILS NO. 2" sheet.



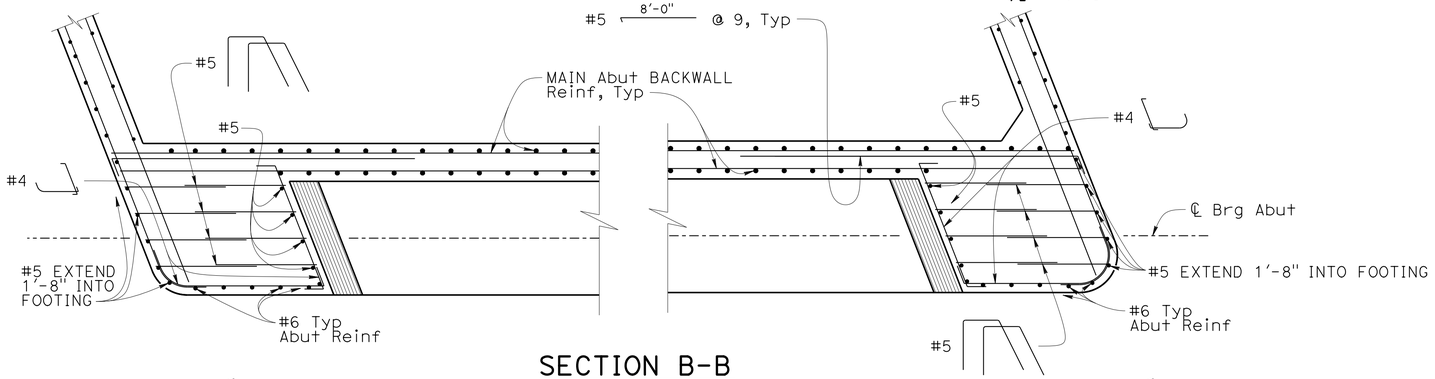
WINGWALL SECTION

1/4" = 1'-0"



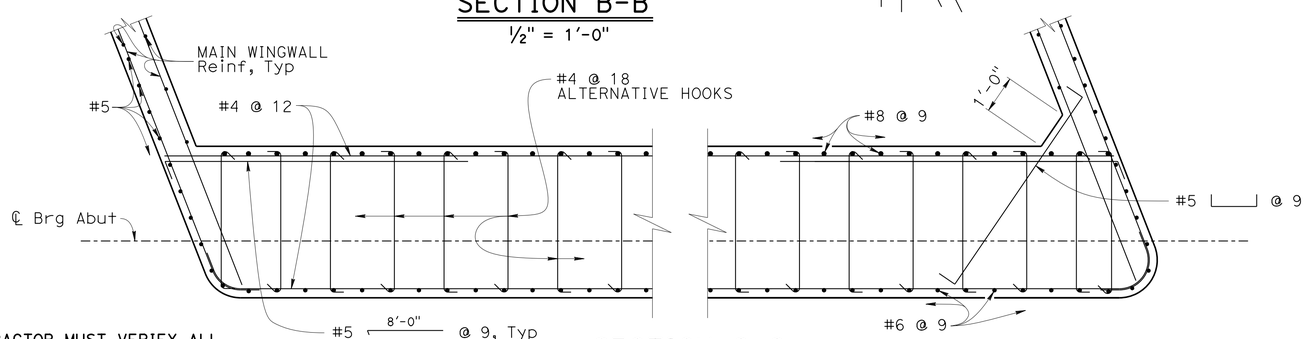
SECTION D-D

½" = 1'-0"



SECTION B-B

½" = 1'-0"

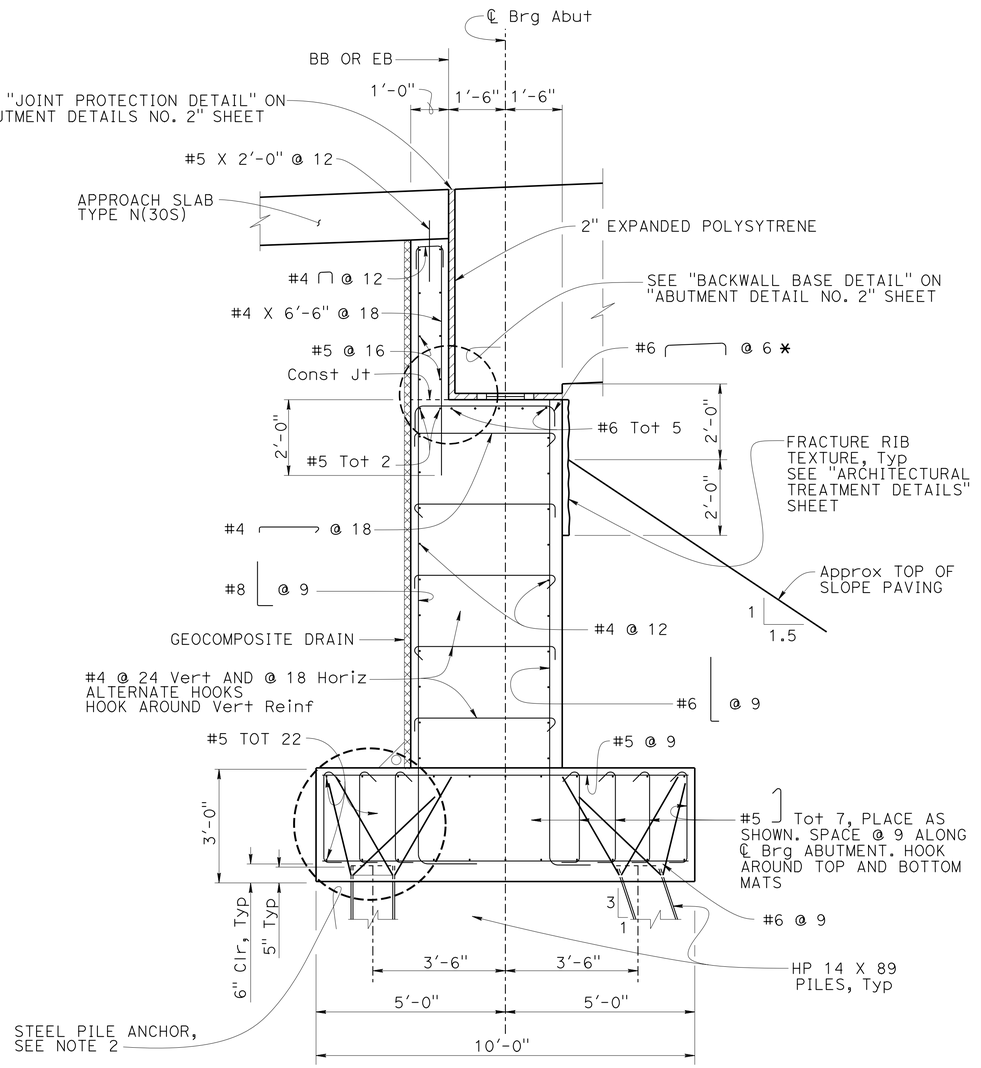


SECTION C-C

½" = 1'-0"

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

B0-13 / 13-2 SEE "JOINT PROTECTION DETAIL" ON "ABUTMENT DETAILS NO. 2" SHEET



SECTION A-A

½" = 1'-0"

* PLACE PARALLEL TO ℄ GIRDER AND SPACE ALONG ℄ BRIDGE ABUTMENT

	BY	CHECKED
DESIGN	ISAIAS YALAN	AUSTIN QUIROZ
DETAILS	DAVID ELLIOTT	AUSTIN QUIROZ
QUANTITIES	AUSTIN QUIROZ	SAM KOTALAWALA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
ABUTMENT DETAILS NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

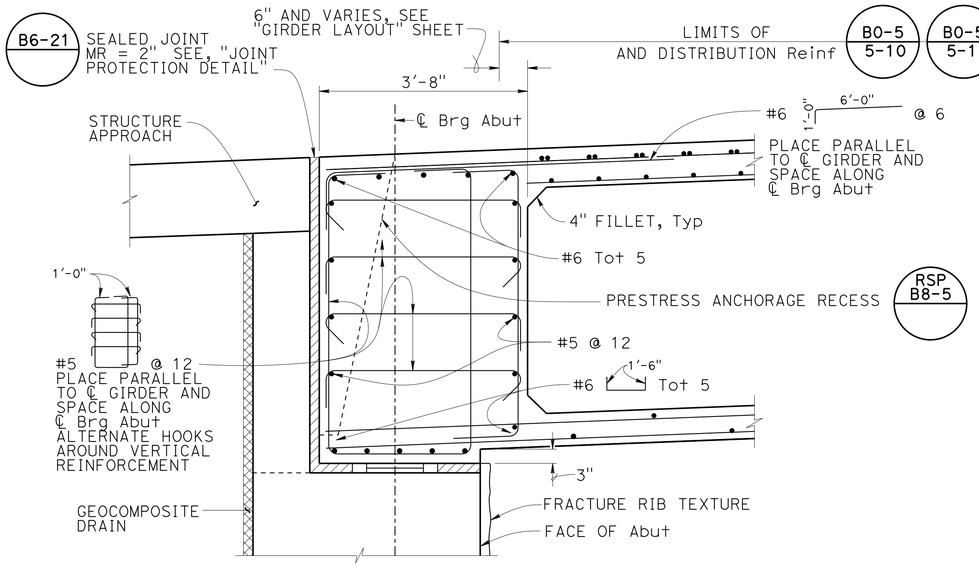
UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-16-16	5-25-16	3-9-16	3-16-16	7	26

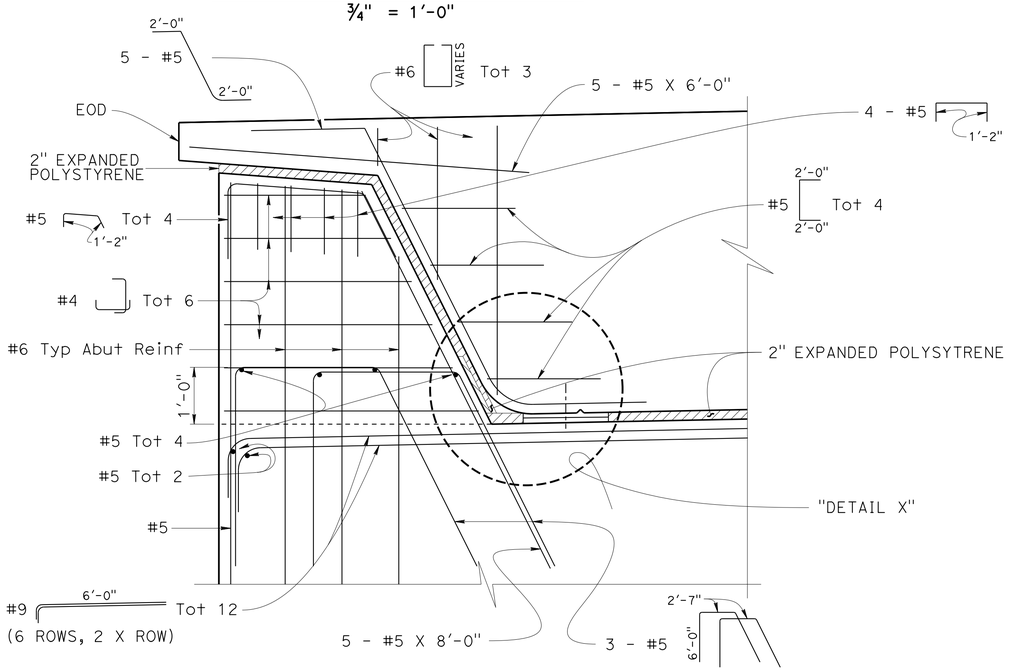
FILE => 23-0254-f-abut-det01-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56



END DIAPHRAGM SECTION

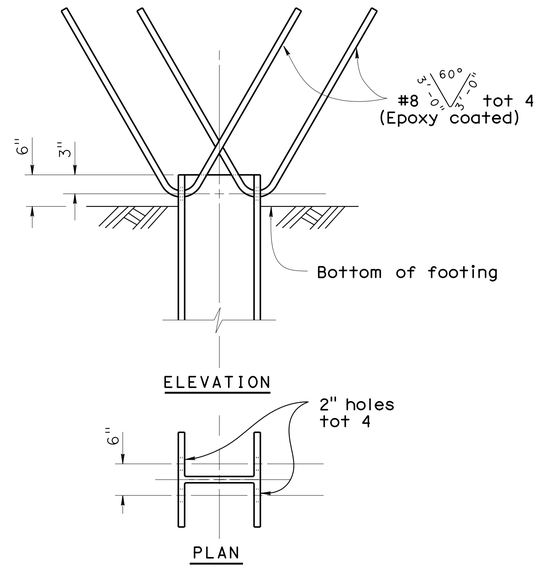
¾" = 1'-0"



PART ELEVATION EXTERIOR KEY

¾" = 1'-0"

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

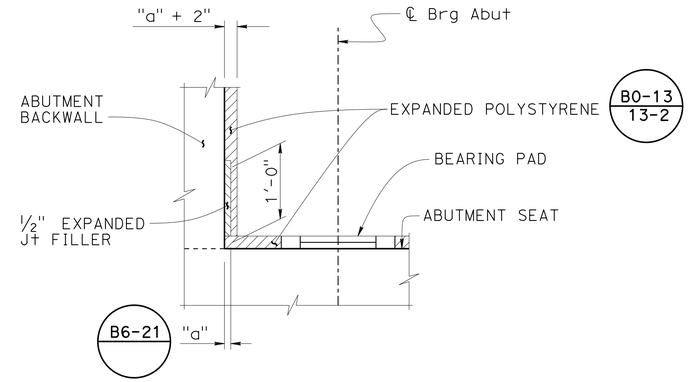


(140 kip Pile)

STEEL PILE ANCHOR

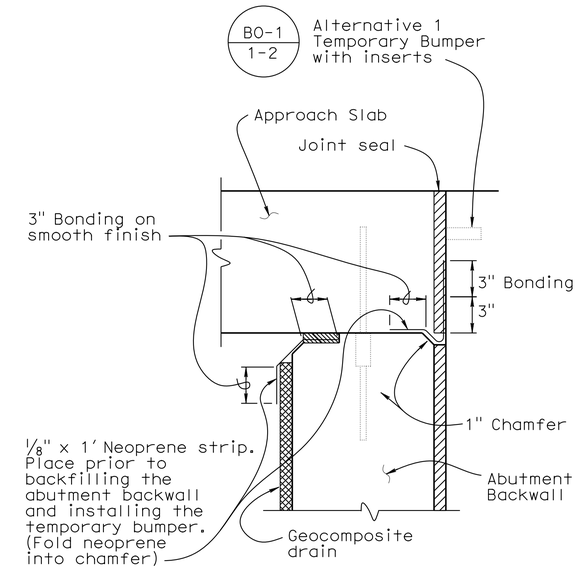
NO SCALE

DESIGN CAPACITY:
Tension = 140 kips (Nominal axial reistance)



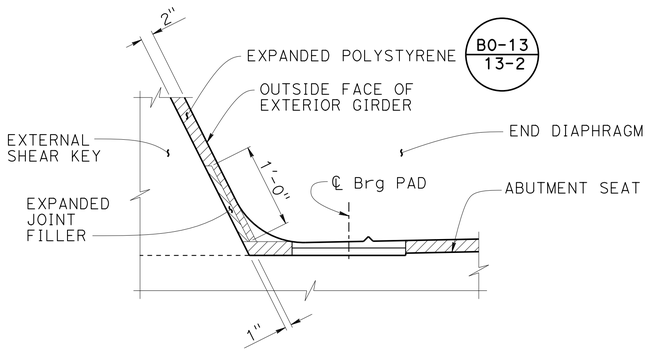
BACKWALL BASE DETAIL

NO SCALE



JOINT PROTECTION DETAIL

No Scale



DETAIL "X"

NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	129	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

PLANS APPROVAL DATE 5-26-16

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.

DESIGN	BY AUSTIN QUIROZ	CHECKED ISAIAS YALAN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY DAVID ELLIOTT	CHECKED ISAIAS YALAN	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	BRIDGE NO. 23-0254 POST MILE 32.60

MIDWAY ROAD OC (REPLACE)

ABUTMENT DETAILS NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

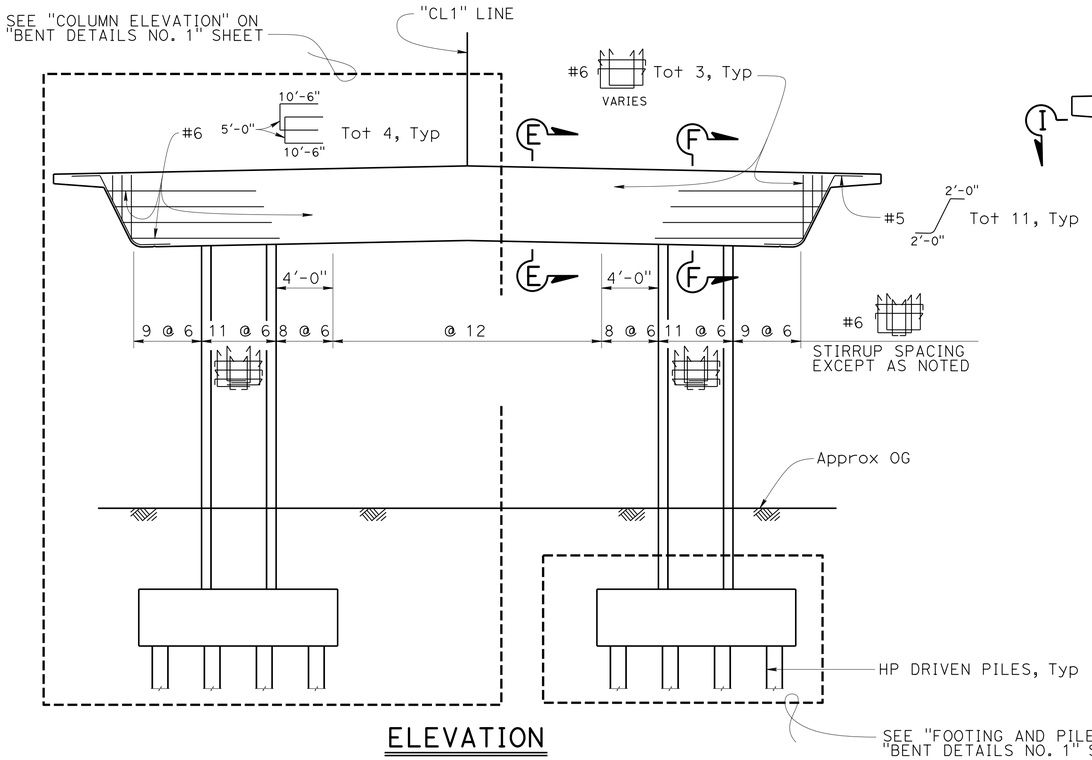
UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-5-16	3-14-16	3-16-16	3-17-16	8	26

FILE => 23-0254-f-abut-det02-sheet.dgn

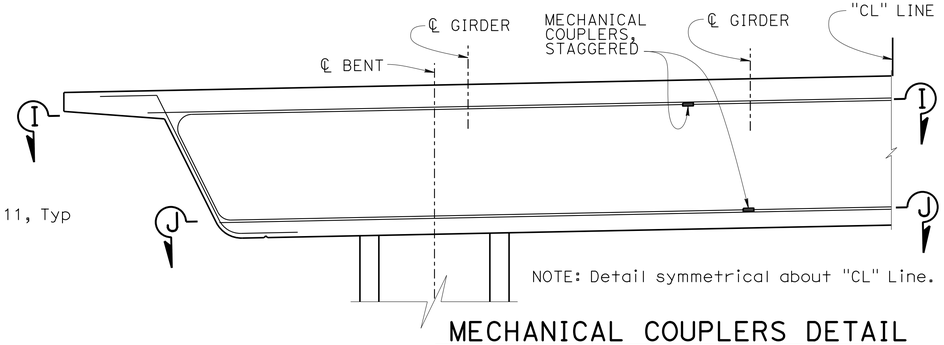
USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56



ELEVATION

1/4" = 1'-0"

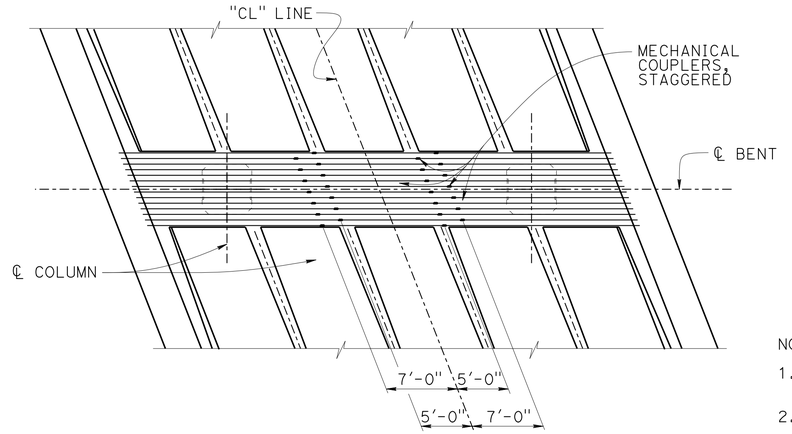
NOTE: Concrete Barrier and Chain Link Railing not shown.



NOTE: Detail symmetrical about "CL" Line.

MECHANICAL COUPLERS DETAIL

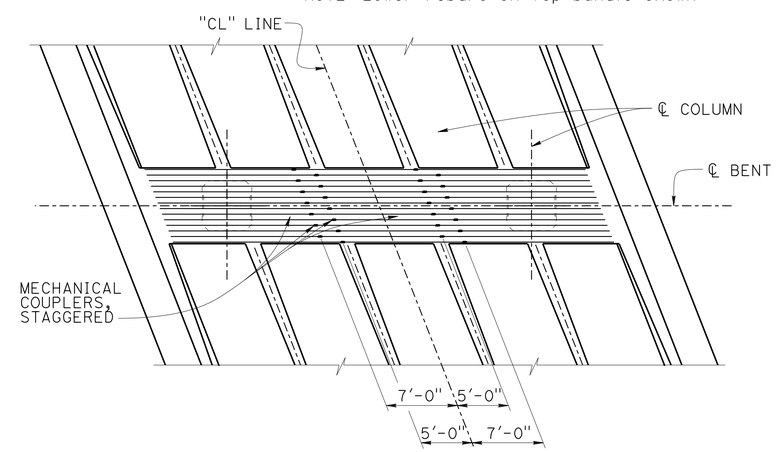
3/8" = 1'-0"



SECTION I-I

1/8" = 1'-0"

NOTE: Lower rebars on top bundle shown



SECTION J-J

1/8" = 1'-0"

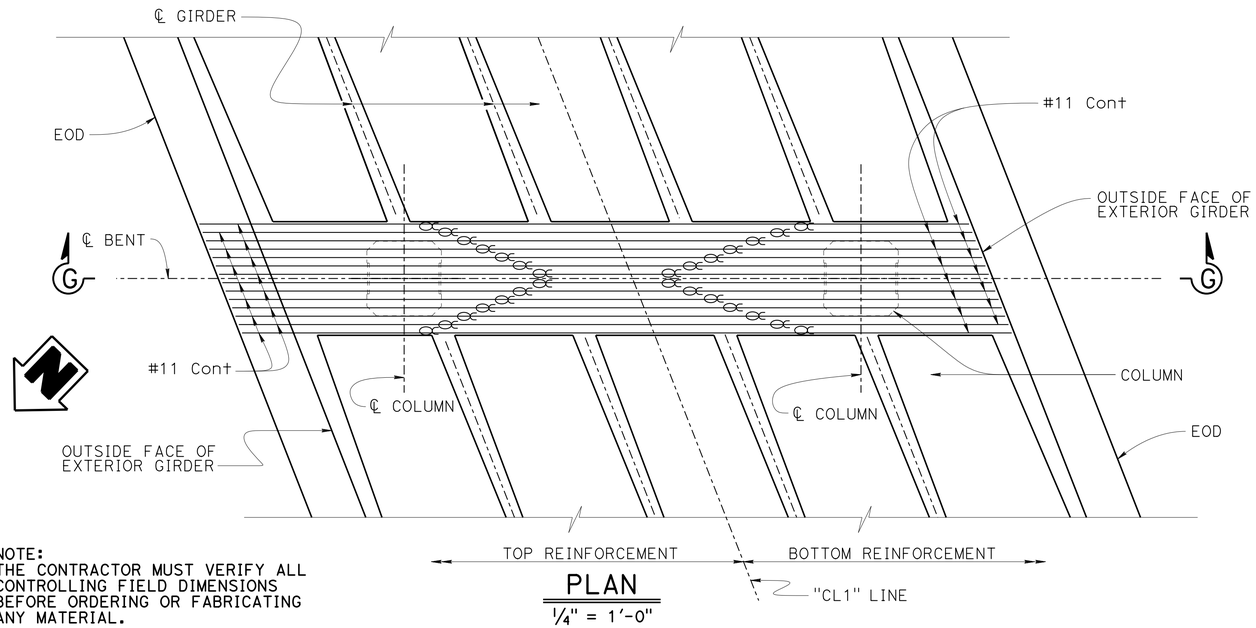
NOTE: Top rebars on bottom bundle shown

NOTE:

1. For Section E-E, F-F and G-G, see "BENT DETAILS NO. 2" sheet.
2. Top reinforcement on top bundles shown on "PLAN" view.
3. Bottom reinforcement on bottom bundles shown on "PLAN" view.

LEGEND:

ᘔ Denotes bundled bar



PLAN

1/4" = 1'-0"

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	130	147

I Yalan 5-25-16
REGISTERED CIVIL ENGINEER DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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DESIGN	BY AUSTIN QUIROZ	CHECKED ISAIAS YALAN	
DETAILS	BY DAVID ELLIOTT	CHECKED ISAIAS YALAN	
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
BENT LAYOUT

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-5-16	3-9-16	3-10-16	3-16-16	9	26

FILE => 23-0254-n-bent_lo-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	131	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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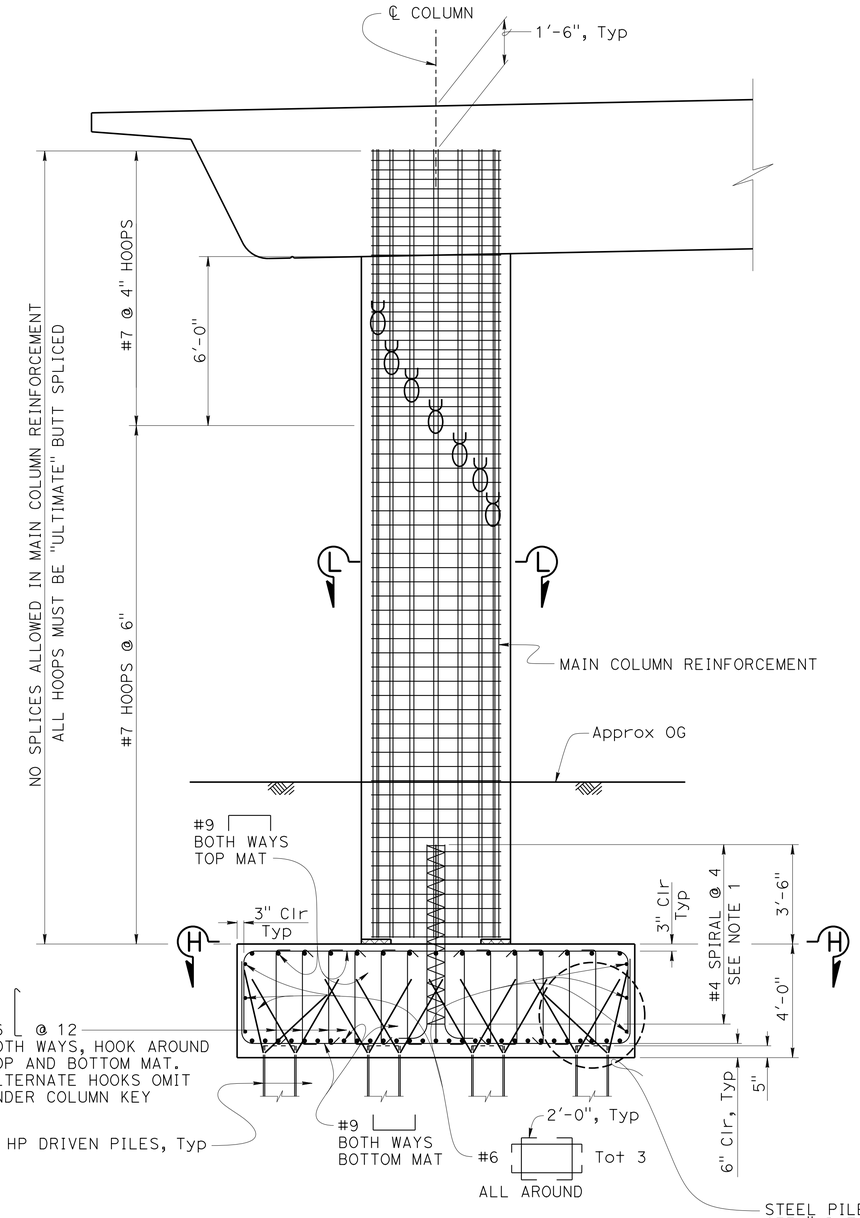
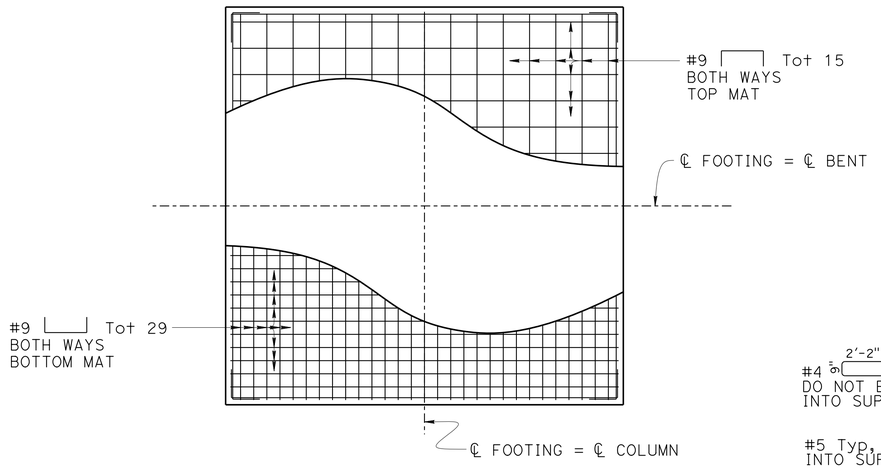


COLUMN ELEVATION

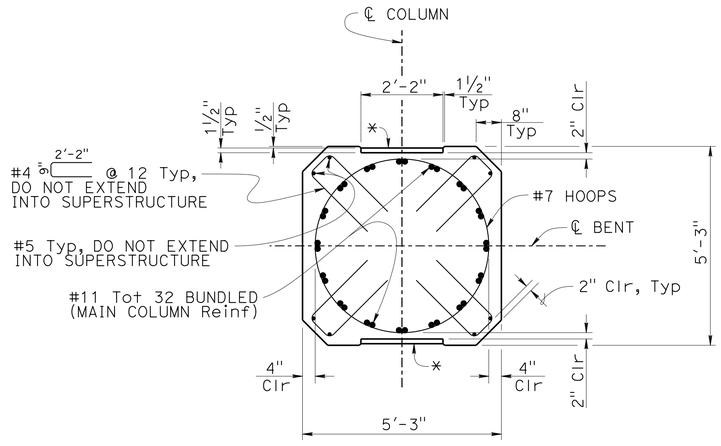
3/8" = 1'-0"

NOTE: #5 reinforcement in corners of column not shown.



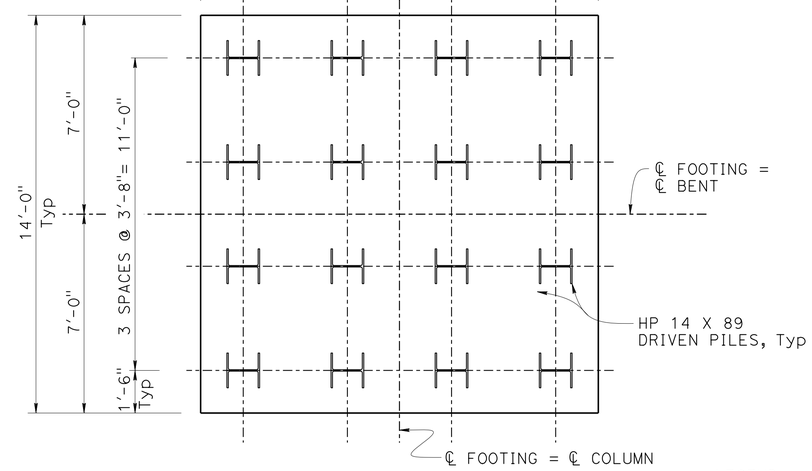
FOOTING PLAN

3/8" = 1'-0"



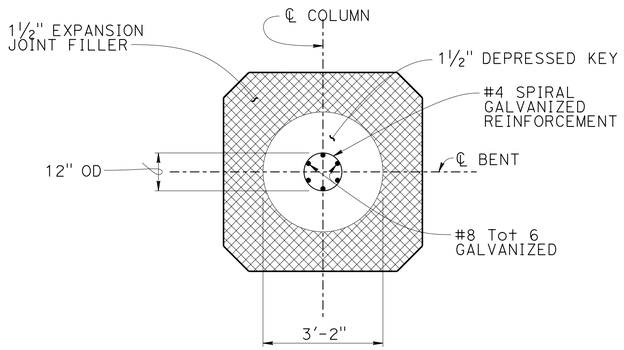
SECTION L-L

½" = 1'-0"



FOOTING AND PILE LAYOUT

3/8" = 1'-0"



SECTION H-H

½" = 1'-0"

LEGEND:

Denotes expanded polyster

* Fracture Rib Texture, see "ARCHITECTURAL TREATMENT DETAILS" sheet

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

DESIGN	BY ISAIAS YALAN	CHECKED AUSTIN QUIROZ	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY DAVID ELLIOTT	CHECKED AUSTIN QUIROZ	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	BRIDGE NO. 23-0254 POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
BENT DETAILS NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-9-16	3-16-16	3-23-16	3-25-16	10	26

FILE => 23-0254-h-bent-det01-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	132	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

PLANS APPROVAL DATE 5-26-16

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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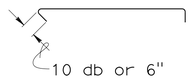
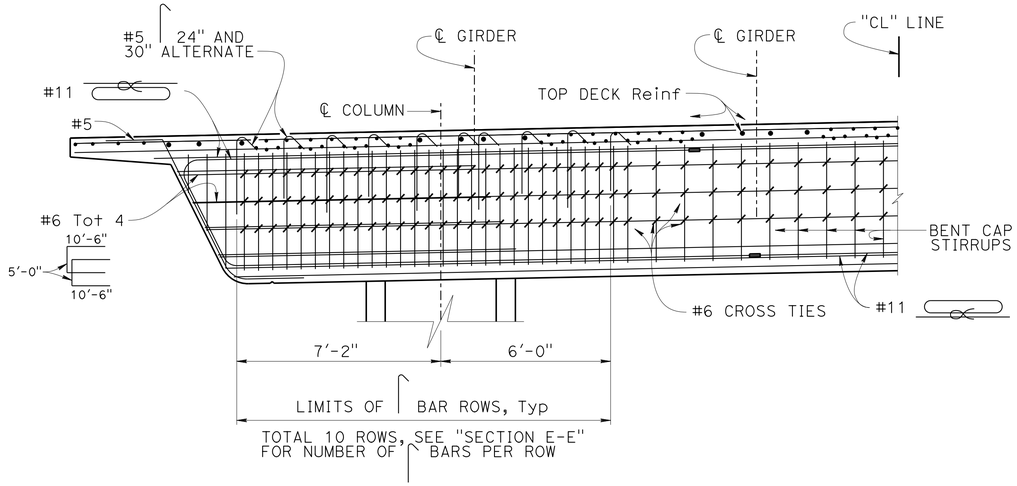
NOTE:

1. For location of Sections E-E, F-F and G-G, see "BENT LAYOUT" sheet.
2. Place Bent Cap stirrups perpendicular to the ℄ of Bent.
3. Adjust main longitudinal cap reinforcement to clear main column reinforcement.

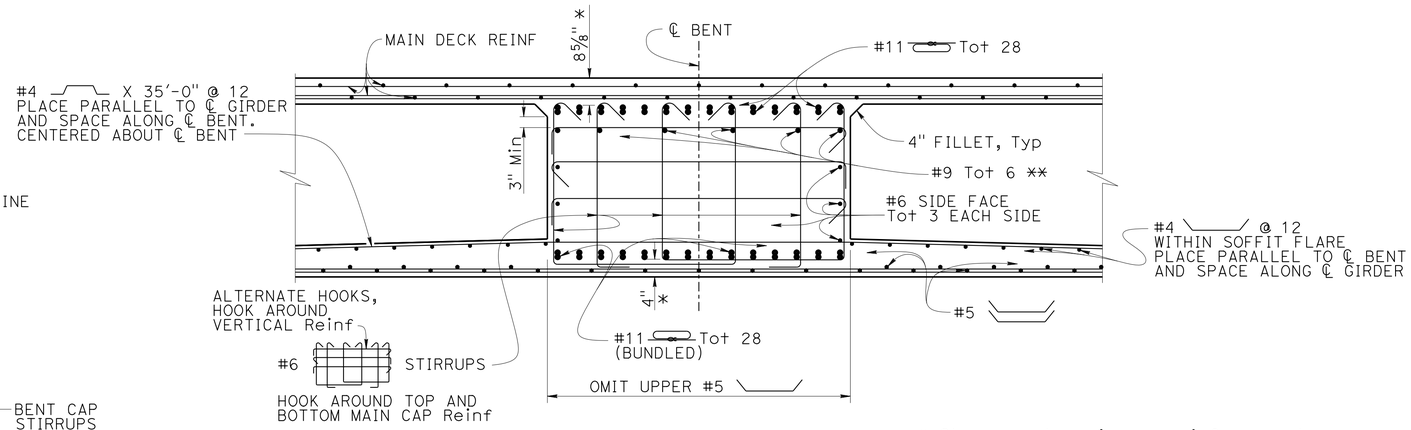




SECTION G-G

3/8" = 1'-0"

NOTE: Detail symmetrical about "CL" Line.

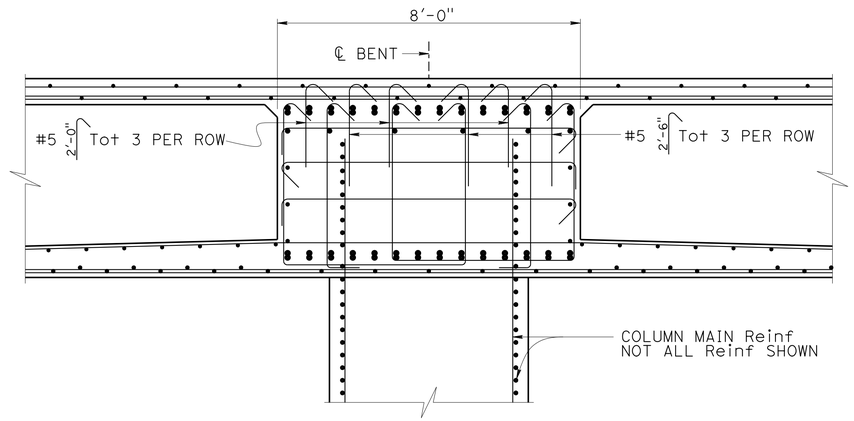


SECTION E-E

1/2" = 1'-0"

* Clearance to main cap reinforcement

** Reinforcement may be bent or lowered to clear prestress ducts. Place as high as prestress ducts will allow



SECTION F-F

1/2" = 1'-0"

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

DESIGN	BY AUSTIN QUIROZ	CHECKED ISAIAS YALAN	
DETAILS	BY DAVID ELLIOTT	CHECKED ISAIAS YALAN	
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
BENT DETAILS NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-15-16	3-16-16	3-9-16	3-15-16	11	26

FILE => 23-0254-h-bent-det02-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	133	147

REGISTERED CIVIL ENGINEER — 8-31-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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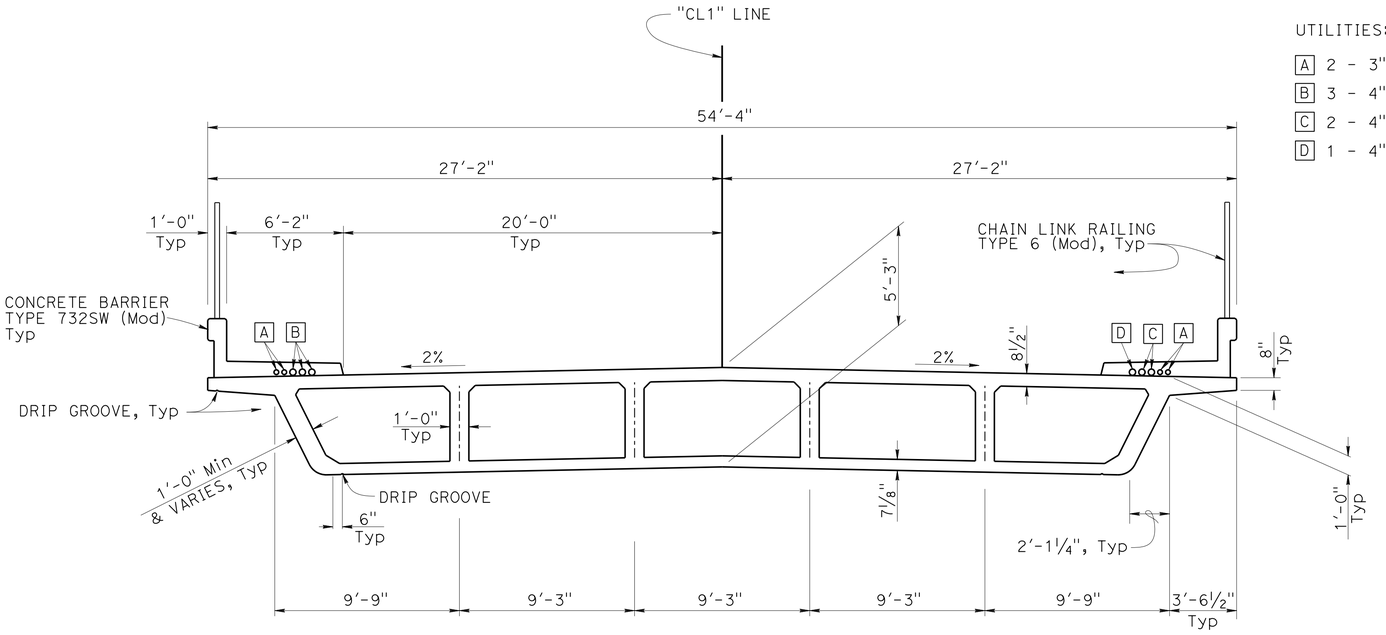
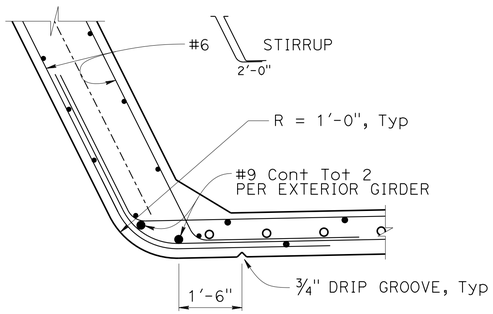
UTILITIES:

- A 2 - 3" Ø conduits for electrical (Future use), see "ROADWAY PLANS"
- B 3 - 4" Ø openings for future utilities (AT&T)
- C 2 - 4" Ø openings for future utilities (AT&T)
- D 1 - 4" Ø opening for future utilities



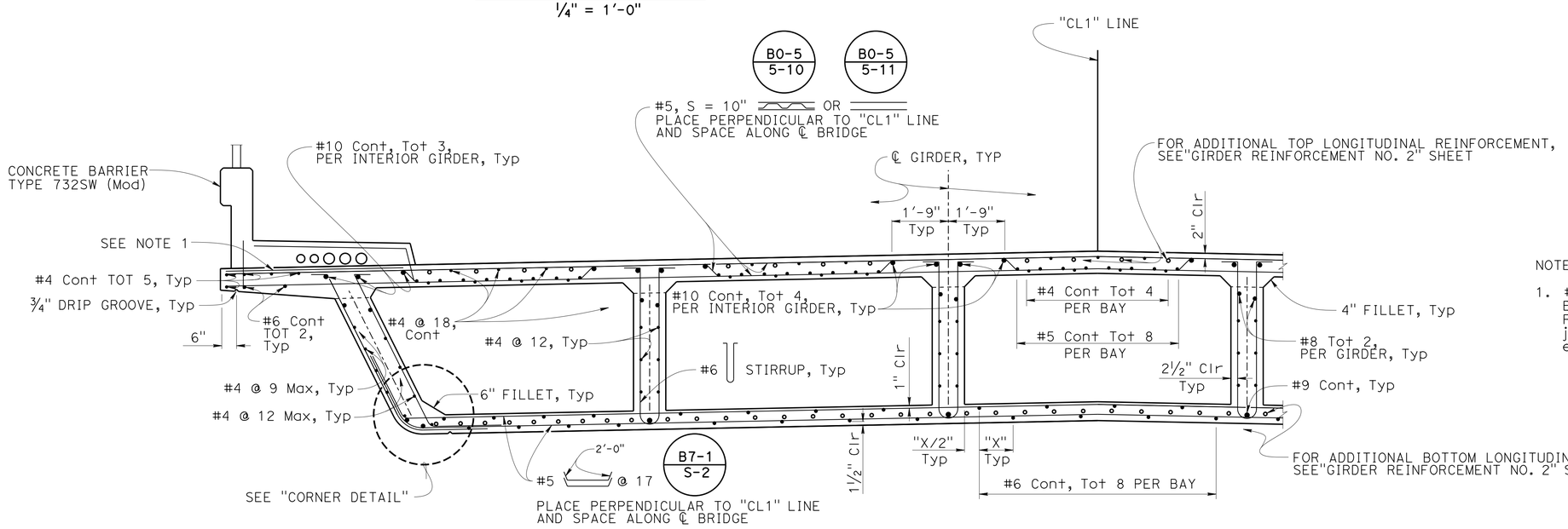
TYPICAL SECTION

¼" = 1'-0"



CORNER DETAIL

1" = 1'-0"



NOTE:

1. #5 X 5'-6" Bundle with each alternating top transverse bar. Place only for a distance of 5'-0" from expansion joint in the concrete barrier on both sides of each end of the deck at the BB and EB.

PART TYPICAL SECTION

½" = 1'-0"

B0-5 B7-1 RSP B8-5

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

DESIGN	BY AUSTIN QUIROZ	CHECKED ISAIAS YALAN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 23-0254
DETAILS	BY DAVID ELLIOTT	CHECKED ISAIAS YALAN			POST MILE 32.60
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA			

MIDWAY ROAD OC (REPLACE)
TYPICAL SECTION

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
3-5-16	3-9-16	3-18-16	5-25-16	12	26

FILE => 23-0254-k-ts-sheet.dgn

USERNAME => s130868 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

PRESTRESSING NOTES

270 KSI Low Relaxation Strand:

P_{jack} = 10,550 kips

Anchor Set = 0.37 in

Friction curvature coefficient, μ = 15 X 10^{-2} (1/rad)

Friction wobble coefficient, K = 0.0002 (1/ft)

Assumed long term losses = 20 (ksi)

Total Number of Girders = 6

The final force ratio (larger divided by smaller) between any two girders shall not exceed exceed the ratio of 10 to 9

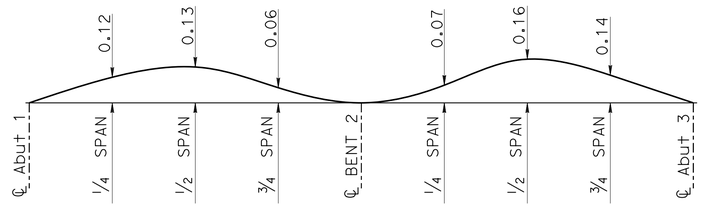
Concrete: f'_c = 4 psi @ 28 days

f'_{ci} = 3.5 psi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at

⊠ = 0.8740 times jacking stress.

One end stressing shall be performed from Abutment 1



CAMBER DIAGRAM

NO SCALE

NOTE: Does not include allowance for falsework settlement.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	134	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

5-26-16 PLANS APPROVAL DATE

ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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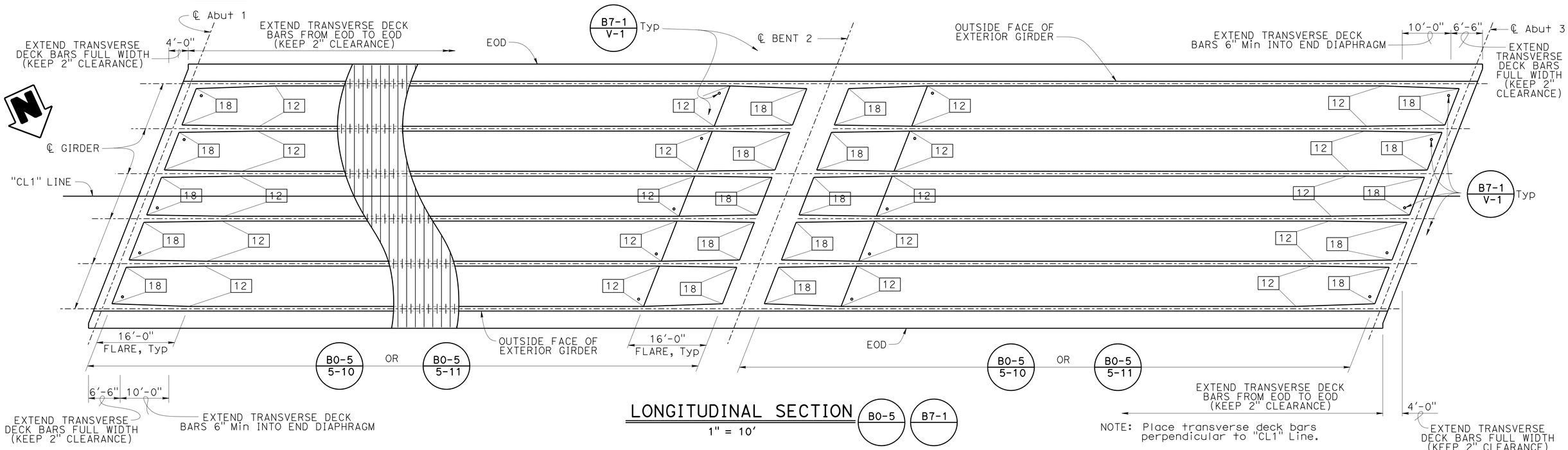
NOTE:

[xx] Denotes girder stem width in inches.

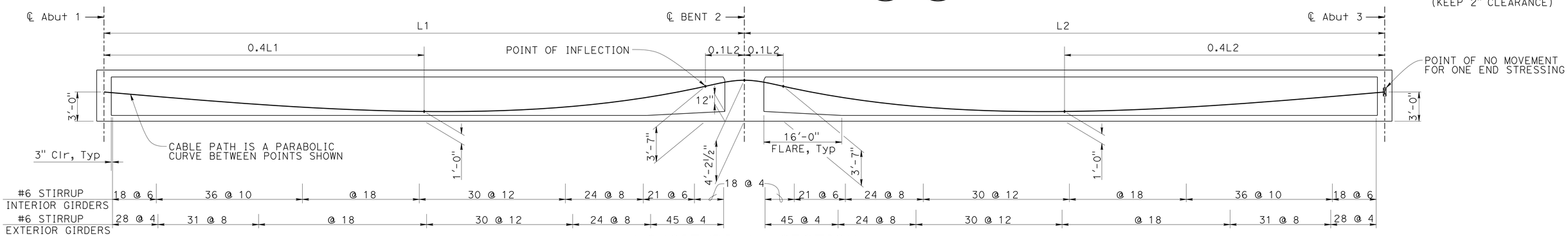


LONGITUDINAL SECTION

B0-5 B7-1

1" = 10'

NOTE: Place transverse deck bars perpendicular to "CL1" Line.



LONGITUDINAL SECTION

NO SCALE

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

	BY	CHECKED
DESIGN	AUSTIN QUIROZ	ISAIAS YALAN
DETAILS	DAVID ELLIOTT	ISAIAS YALAN
QUANTITIES	AUSTIN QUIROZ	SAM KOTALAWALA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0148
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
GIRDER LAYOUT

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
2-26-16	3-1-16	3-8-16	3-10-16	13	26

FILE => 23-0254-1-girder layout-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	135	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ISAIAS YALAN
No. C68269
Exp. 9-30-17
CIVIL
STATE OF CALIFORNIA

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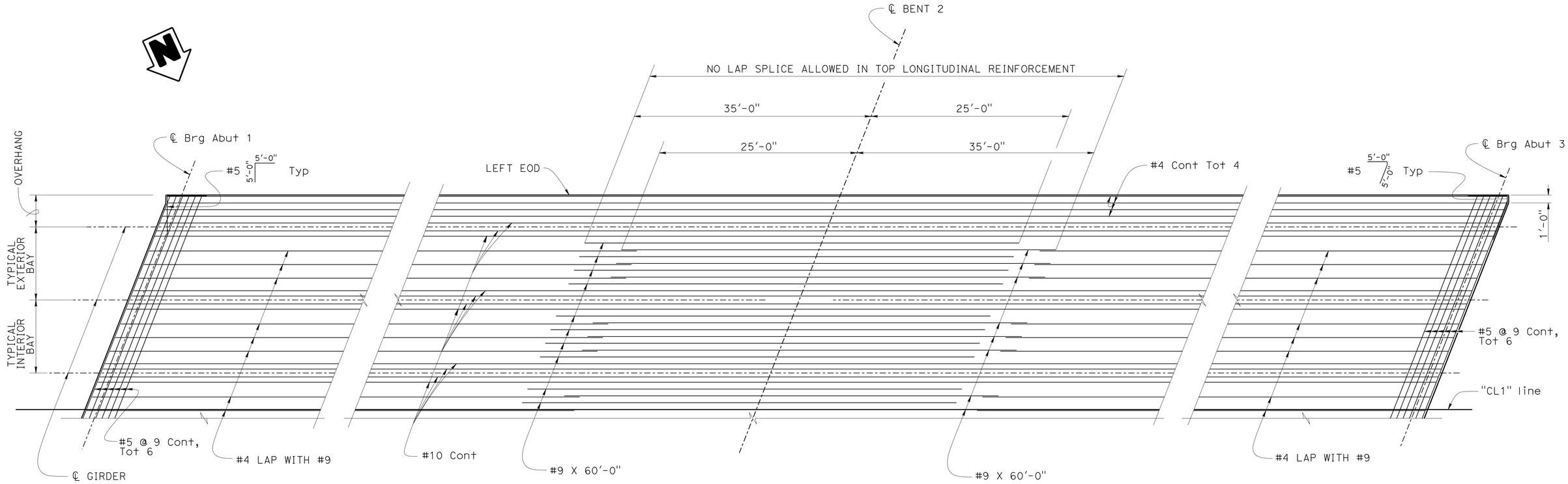
NOTES:

1. For additional information, see "TYPICAL SECTION" sheet.
2. Reinforcement is symetrical about "CL1"line.



TOP LONGITUDINAL REINFORCEMENT

NO SCALE

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

DESIGN	BY AUSTIN QUIROZ	CHECKED ISAIAS YALAN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY DAVID ELLIOTT	CHECKED ISAIAS YALAN	
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
GIRDER REINFORCEMENT NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
1-12-16	2-5-16	3-5-16		14	26

FILE => 23-0254-I-girder reinf_01-sheet.dgn

DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56
USERNAME => s130888

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	136	147

I Yalan
REGISTERED CIVIL ENGINEER — 5-25-16 DATE

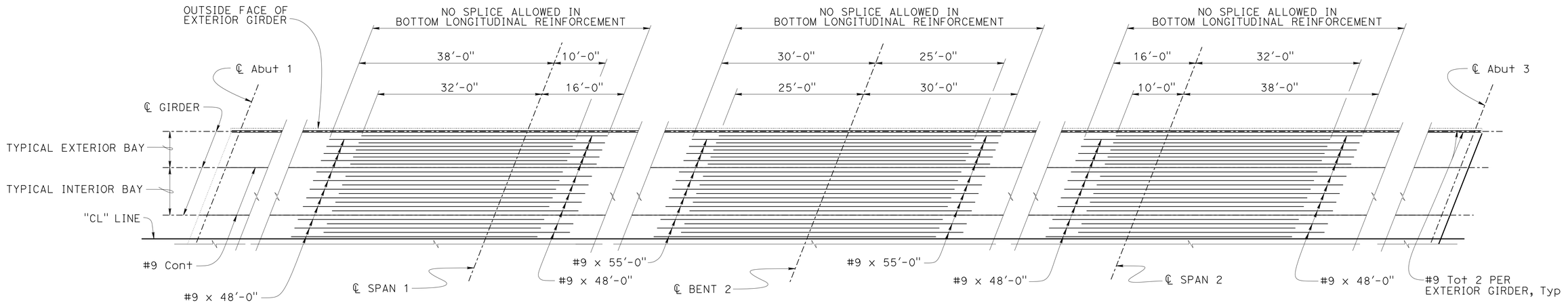
5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ISAIAS YALAN
No. C68269
Exp. 9-30-17
CIVIL
STATE OF CALIFORNIA

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.

NOTES:

1. For additional information, see "TYPICAL SECTION" sheet.
2. Reinforcement is symetrical about "CL1"line.



BOTTOM LONGITUDINAL REINFORCEMENT

NO SCALE

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

DESIGN	BY AUSTIN QUIROZ	CHECKED ISAIAS YALAN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY DAVID ELLIOTT	CHECKED ISAIAS YALAN	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA	BRIDGE NO. 23-0254 POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
GIRDER REINFORCEMENT NO. 2

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
3-5-16	3-10-16	3-5-16	3-1-16	15	26

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USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	137	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

5-26-16
PLANS APPROVAL DATE

ISAIAS YALAN
No. C68269
Exp. 9-30-17
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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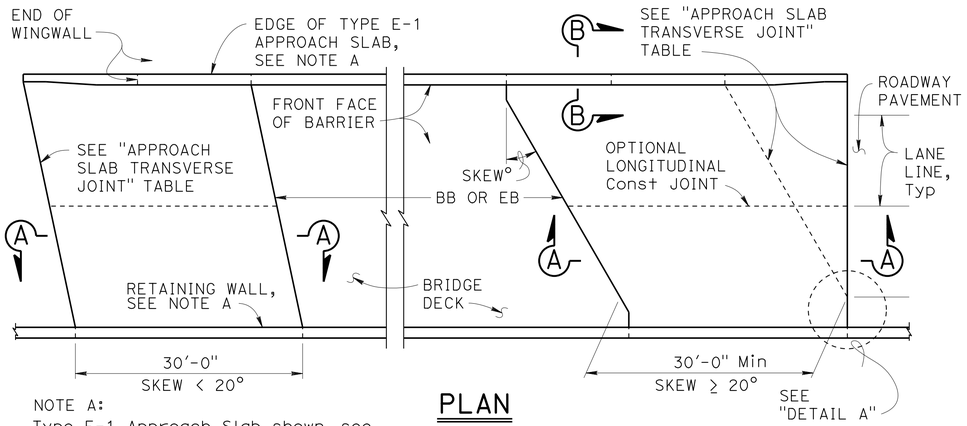
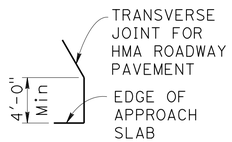
The components of this Bridge Standard Drawing have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California. Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheet/index.html.
The selection and proper application of the component design and any modifications shown have been prepared under the responsible charge of the registered civil engineer for the project.

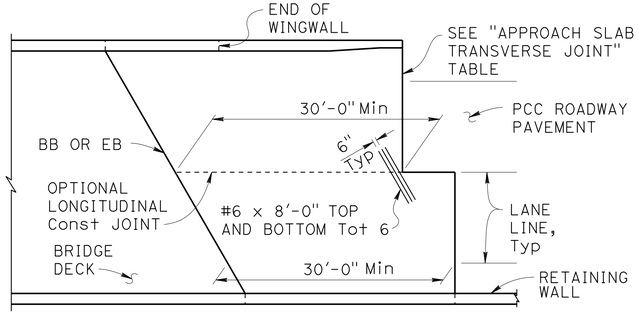


NOTE A:
Type E-1 Approach Slab shown, see "SECTION B-B" for Type E-2 details.

PLAN
1" = 10'

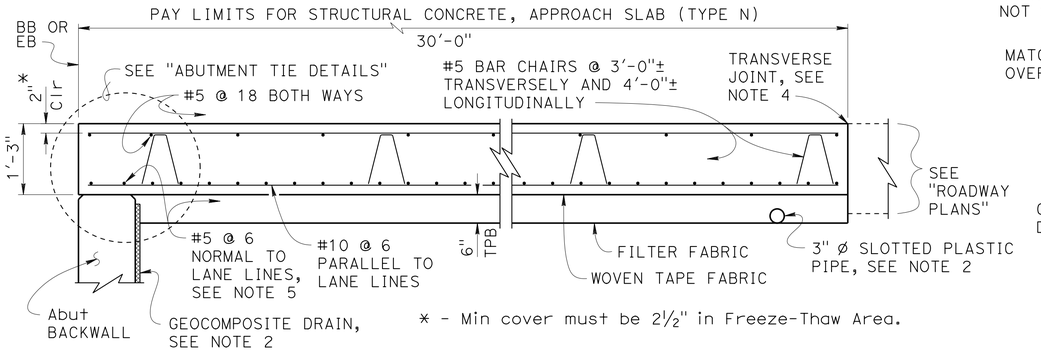


DETAIL A
No Scale

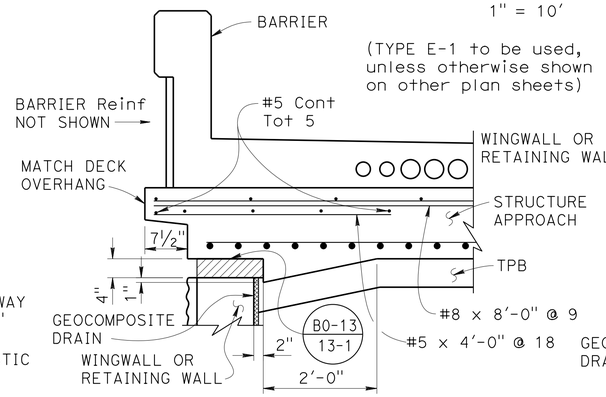


END STAGGER DETAIL
1" = 10'

APPROACH SLAB TRANSVERSE JOINT		
APPROACH SKEW	WITH HMA ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	PARALLEL TO BB OR EB	PARALLEL TO BB OR EB
20° - 45°	PARALLEL TO BB OR EB USE "DETAIL A"	STAGGER AT LANE LINES 24' TO 36' APART, SEE "END STAGGER DETAIL"
> 45°	PARALLEL TO BB OR EB USE "DETAIL A"	STAGGER AT EACH LANE LINE, SEE "END STAGGER DETAIL"



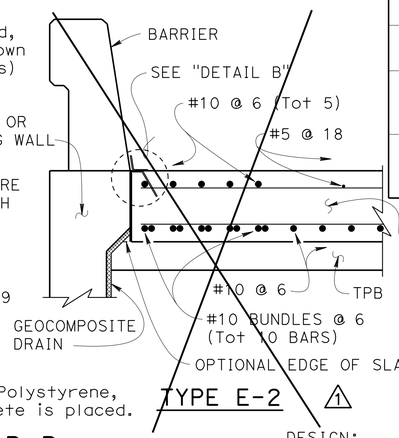
* - Min cover must be 2½" in Freeze-Thaw Area.



② TYPE E-1

▨ Indicates Expanded Polystyrene, remove after concrete is placed.

SECTION B-B
¾" = 1'-0"



TYPE E-2 ①

DESIGN NOTES

DESIGN: AASHTO LRFD Bridge Design Specifications, 2012 Edition with Caltrans Amendments, preface dated January 2014

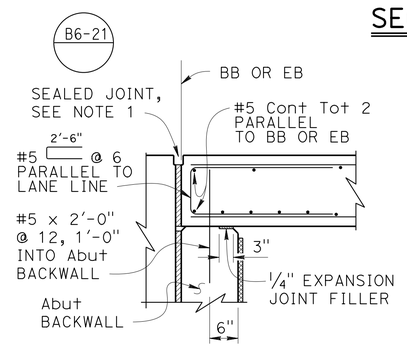
LIMIT STATES: Service I, Strength I & II, Extreme II and Fatigue I (γ_{FAT} = 1.0)

DEAD LOAD: Includes 35 psf for future wearing surface

LIVE LOAD: HL93 and permit design load
Equivalent strip width method: W_1 = 12 ft
Slab span: L_1 = 24.5 ft

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

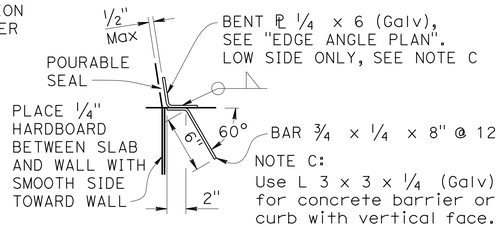
NOTES:
1. For joint protection details, blockout dimensions for joint seal assembly, and other details not shown, see other plan sheets. For MR ≤ 2", adjust reinforcement to clear sawcut for sealed joint. For MR > 2", haunch reinforcement placed for joint seal assembly blockout must be normal to BB or EB and spaced to avoid joint seal assembly anchorage.
2. For drainage details, see "STRUCTURE APPROACH DRAINAGE DETAILS" sheet.
3. End the plate or edge angle at beginning of barrier transition, end of wingwall, or end of structure approach as applicable.
4. Transverse Joint must be a minimum of 5'-0" from an existing or constructed weakened plane joint in approach PCC roadway pavement. Refer to Standard Plans P10 and P14.
5. At the Contractor's option, approach slab transverse reinforcement may be placed parallel to BB or EB. Spacing of transverse reinforcement is measured along ℄ roadway.



MR ≤ 2"

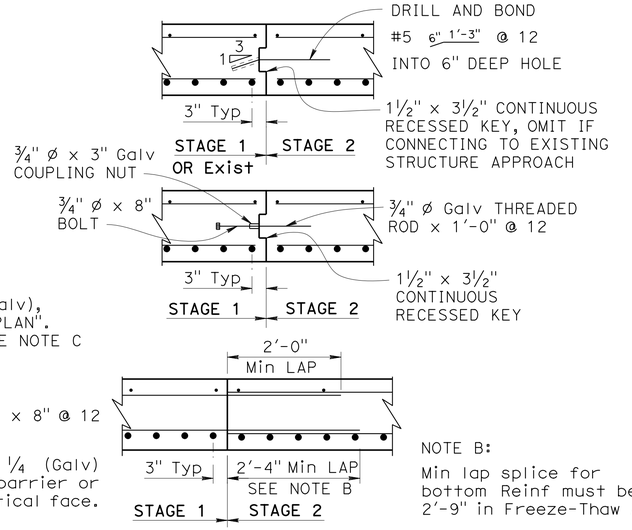
ABUTMENT TIE DETAILS
¾" = 1'-0"

SECTION A-A
¾" = 1'-0"



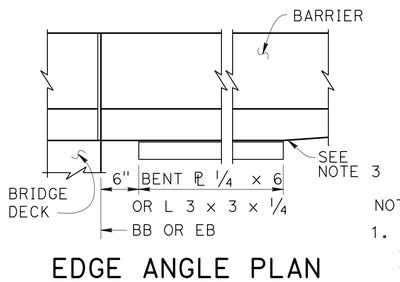
NOTE C:
Use L 3 x 3 x ¼ (Galv) for concrete barrier or curb with vertical face.

DETAIL B
1½" = 1'-0"

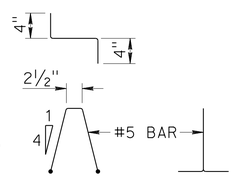


LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES
¾" = 1'-0"

NOTE B:
Min lap splice for bottom Reinf must be 2'-9" in Freeze-Thaw Area.



EDGE ANGLE PLAN
1" = 1'-0"



BAR CHAIR DETAIL
1" = 1'-0"

STANDARD DRAWING					
FILE NO. xs3-120	APPROVAL DATE January 2015	① DELETE DETAIL ② MODIFY DETAIL	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 23-0254 POST MILE 32.60

SPECIAL DETAILS
MIDWAY ROAD OC (REPLACE)
STRUCTURE APPROACH TYPE N (30S)

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (10-01-14)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-28-15	3-1-16	3-10-16		16	26

FILE => 23-0254-sa-type_n_30s_15_xs3-120-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	138	147

REGISTERED CIVIL ENGINEER — 5-25-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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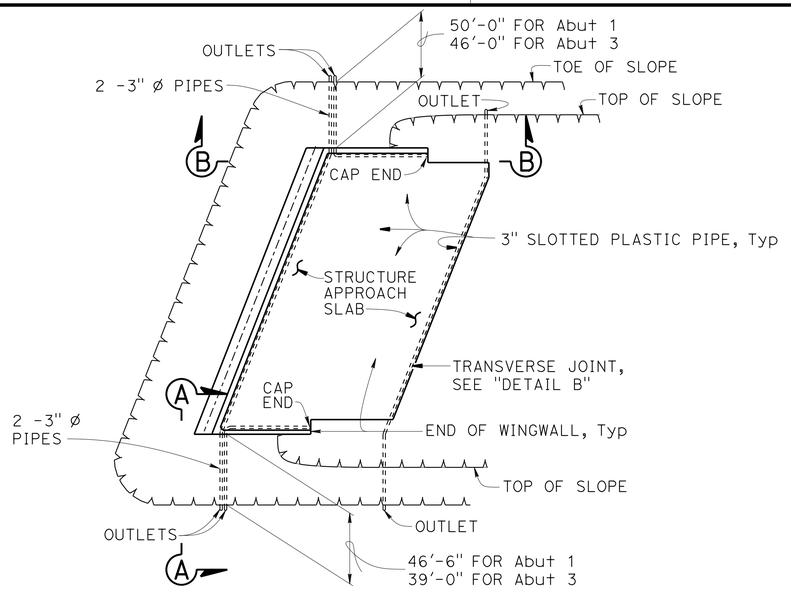
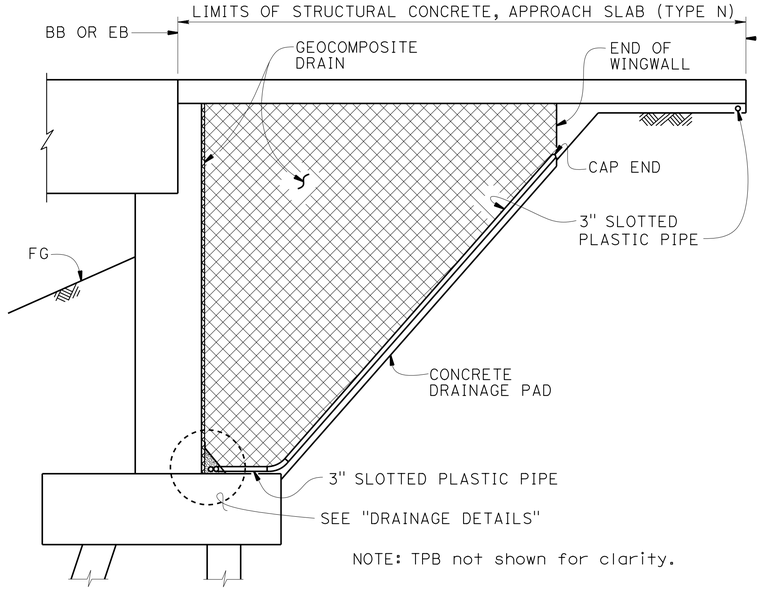


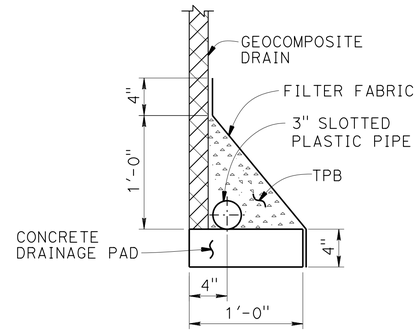
PLAN
NO SCALE

NOTE: Abut 3, Abut 1 similar.

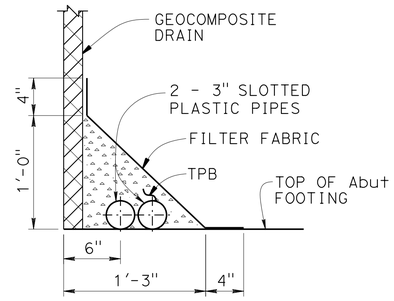


NOTE: TPB not shown for clarity.

SECTION B-B
NO SCALE

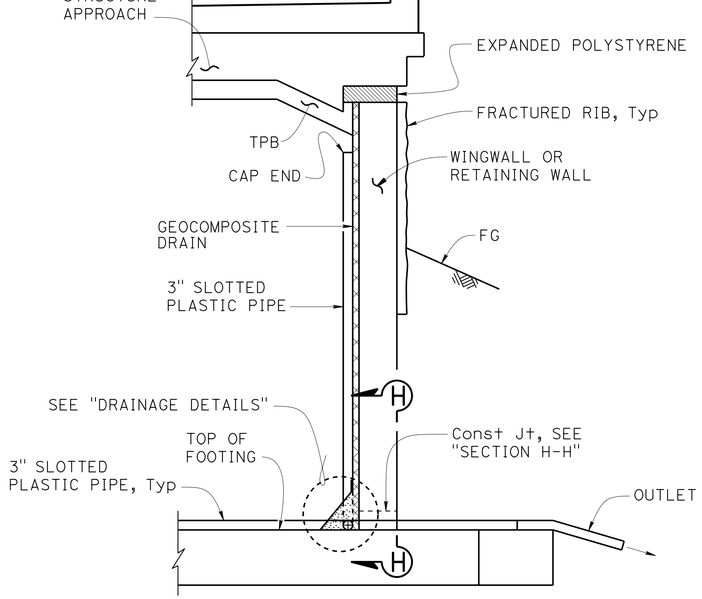


DRAINAGE PAD



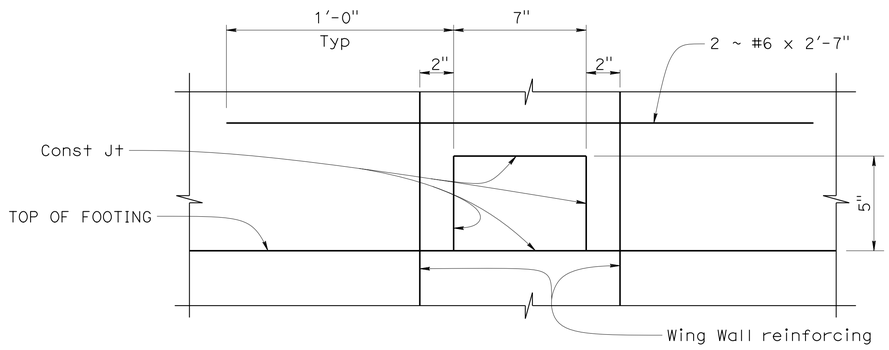
FOOTING

DRAINAGE DETAILS
1½" = 1'-0"



SECTION A-A
NO SCALE

NOTE: Section A-A typical for all 4 wing walls.



SECTION H-H
NO SCALE

NOTES:

1. For structural approach and other details not shown, see other plan sheets.
2. All bends in plastic pipe must have 3'-0" minimum radius. Plastic pipe used for bends is not required to be slotted.

	BY	CHECKED
DESIGN	AUSTIN QUIROZ	ISAIAS YALAN
DETAILS	DAVID ELLIOTT	ISAIAS YALAN
QUANTITIES	AUSTIN QUIROZ	SAM KOTALAWALA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
STRUCTURE APPROACH DRAINAGE DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
2-9-16	3-1-16	3-30-16	4-6-16	17	26

FILE => 23-0254-s-sadd-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	139	147

I Yalan 5-25-16
REGISTERED CIVIL ENGINEER DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
ISAIAS YALAN
No. C68269
Exp. 9-30-17
CIVIL
STATE OF CALIFORNIA

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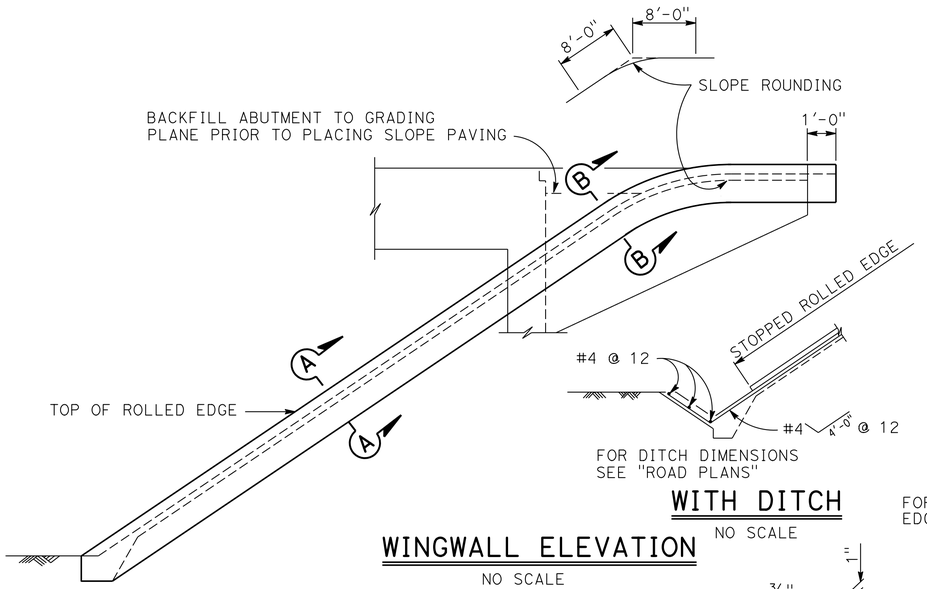
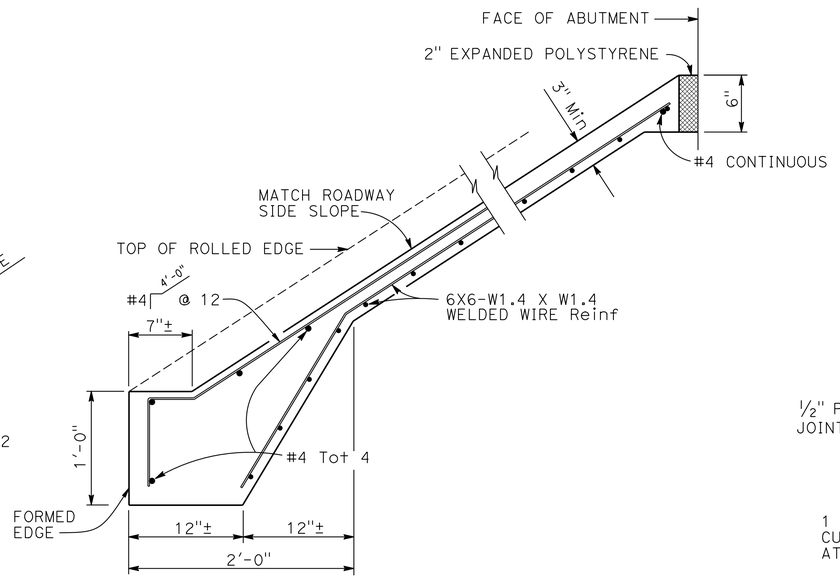
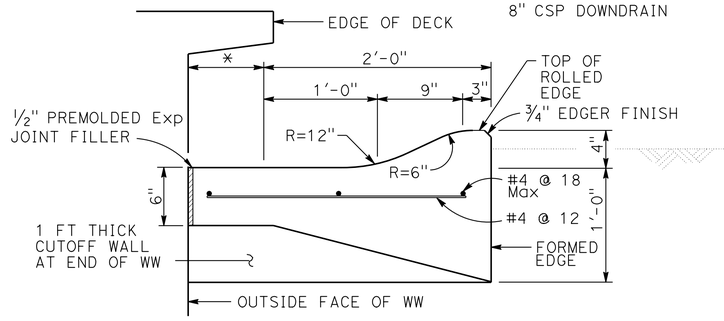


WITH DITCH
NO SCALE

WINGWALL ELEVATION
NO SCALE

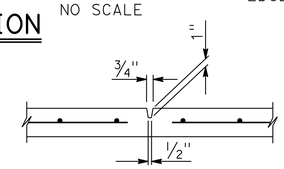


TYPICAL SECTION - CONCRETE PAVING
NO SCALE

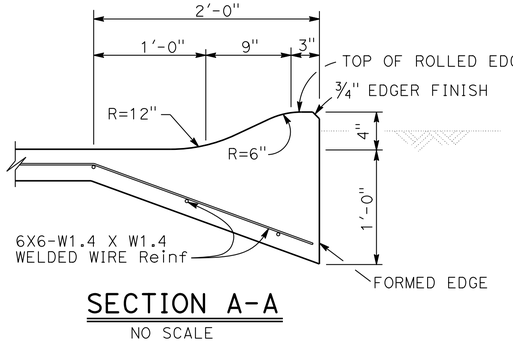


SECTION B-B
NO SCALE

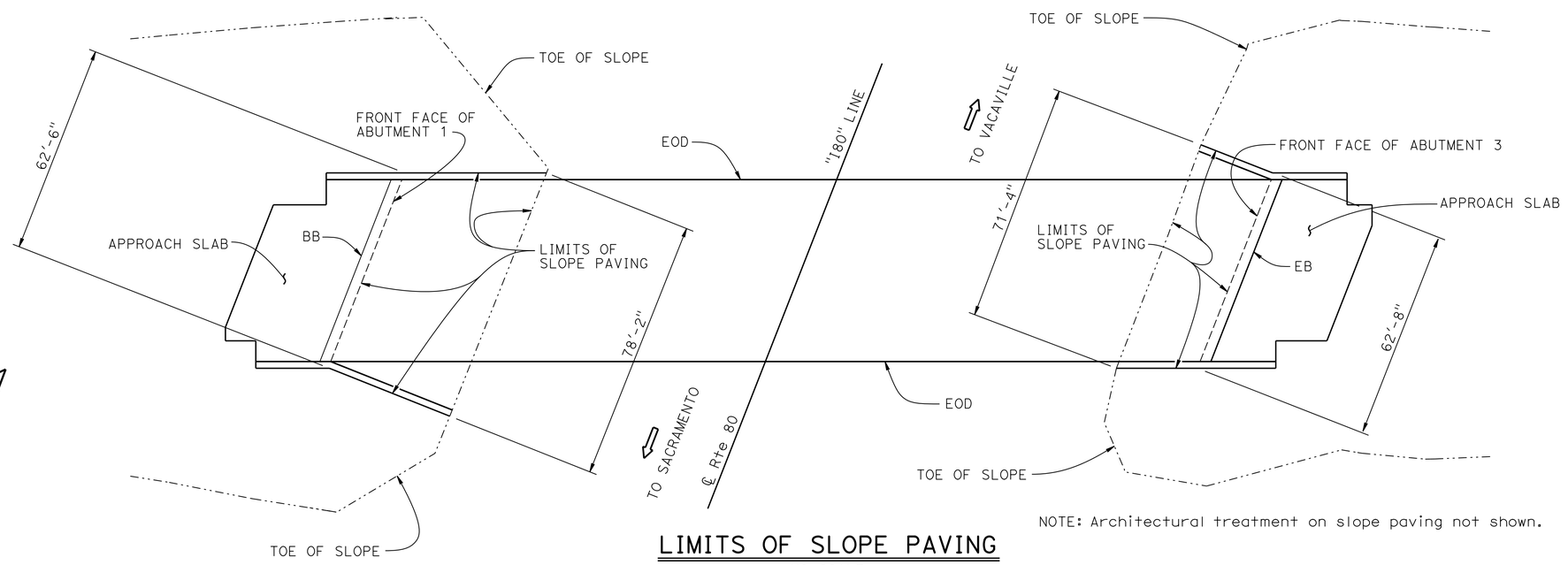
* THIS DIMENSION BECOMES ZERO WHEN EDGE OF DECK IS AT OUTSIDE FACE OF WW



PREFORMED GROOVE
NO SCALE



SECTION A-A
NO SCALE



NOTE: Architectural treatment on slope paving not shown.

LIMITS OF SLOPE PAVING
NO SCALE

	BY	CHECKED
DESIGN	AUSTIN QUIROZ	ISAIAS YALAN
DETAILS	DAVID ELLIOTT	ISAIAS YALAN
QUANTITIES	AUSTIN QUIROZ	SAM KOTALAWALA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 23-0254
POST MILE 32.60

MIDWAY ROAD OC (REPLACE)
SLOPE PAVING DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
2-9-16	3-5-16	4-6-16		18	26

FILE => 23-0254-s-spd-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	140	147

REGISTERED CIVIL ENGINEER — 8-31-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN No. C68269 Exp. 9-30-17 CIVIL — STATE OF CALIFORNIA

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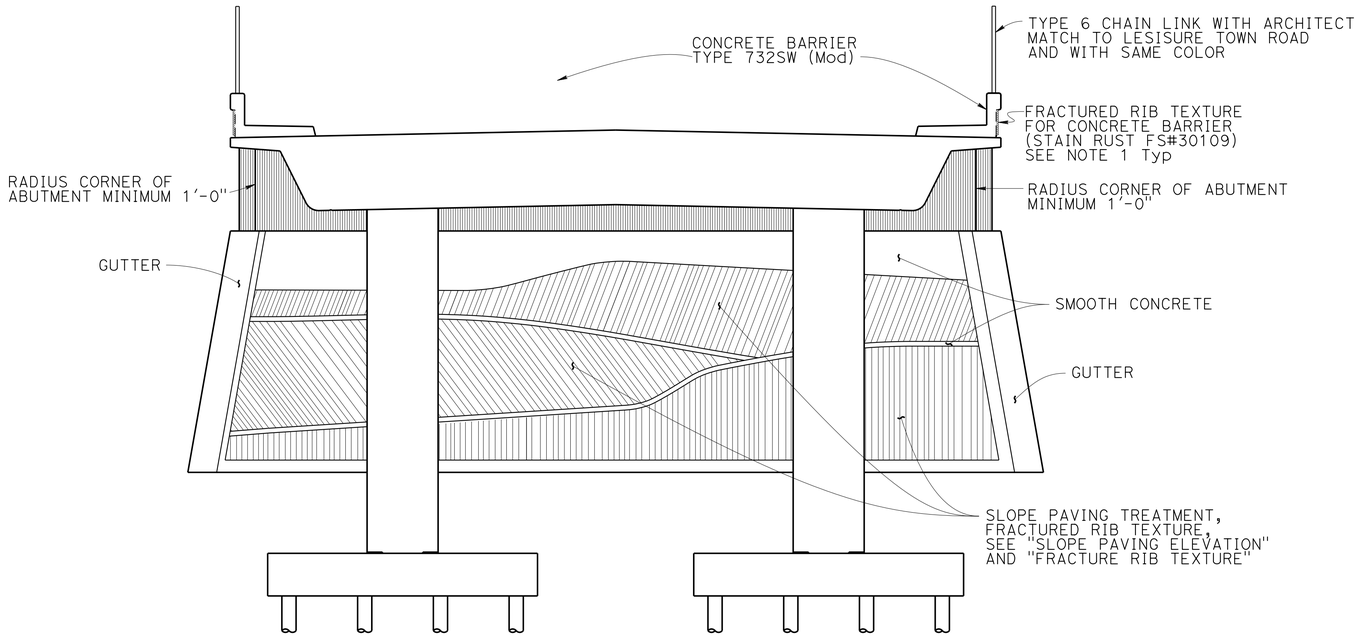
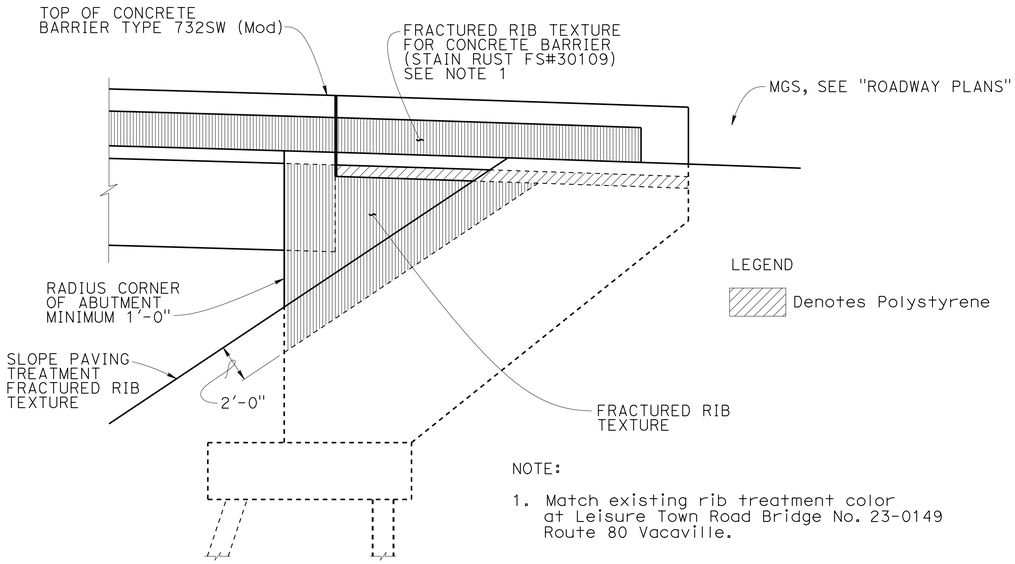


SLOPE PAVING ELEVATION

NO SCALE

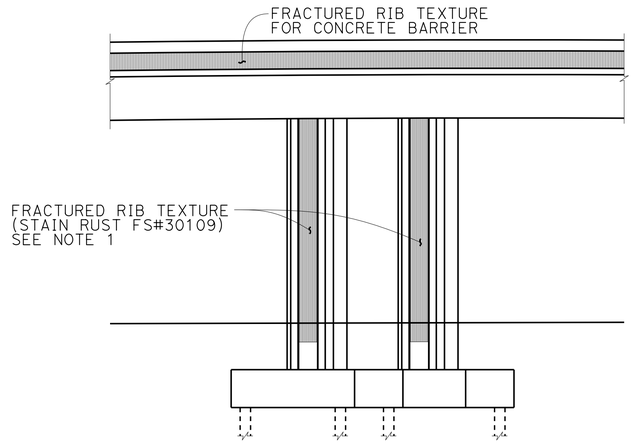


NOTE:

1. Match existing rib treatment color at Leisure Town Road Bridge No. 23-0149 Route 80 Vacaville.

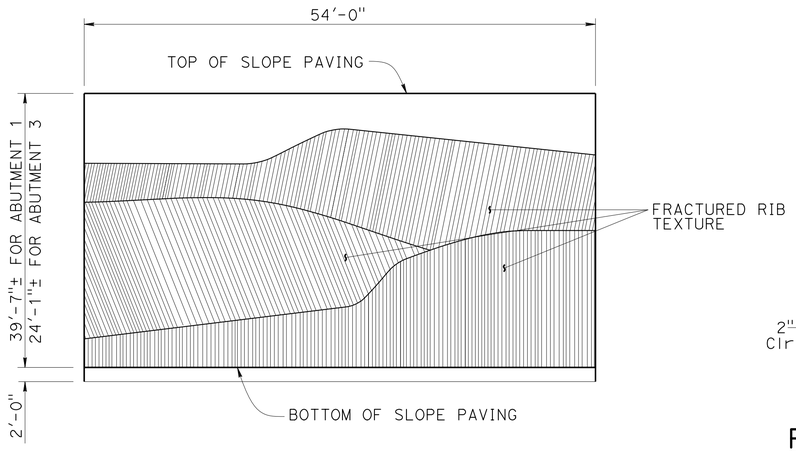
ABUTMENT ARCHITECTURAL TREATMENT

NO SCALE



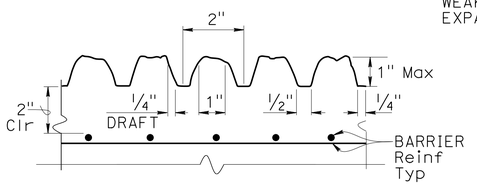
COLUMN ARCHITECTURAL TREATMENT

NO SCALE



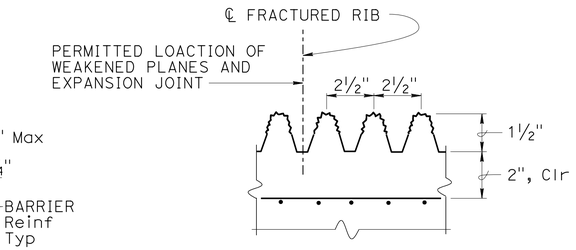
SLOPE PAVING ELEVATION

NO SCALE



FRACTURED RIB TEXTURE FOR CONCRETE BARRIER

NO SCALE



FRACTURED RIB TEXTURE

NO SCALE

DESIGN	BY VALERIE MOORE	CHECKED ISAIAS YALAN	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9	BRIDGE NO. 23-0254
DETAILS	BY DAVID ELLIOTT	CHECKED ISAIAS YALAN			POST MILE 32.60
QUANTITIES	BY AUSTIN QUIROZ	CHECKED SAM KOTALAWALA			

MIDWAY ROAD OC (REPLACE)

ARCHITECTURAL TREATMENT DETAILS

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
8-31-16	1-20-16	2-9-16	3-1-16	19	26

FILE => 23-0254-t-arch treatment-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:56

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	141	147

I Yalan — REGISTERED CIVIL ENGINEER — 8-31-16 DATE

5-26-16 PLANS APPROVAL DATE

ISAIAS D. YALAN No. 68269 Exp. 9-30-17 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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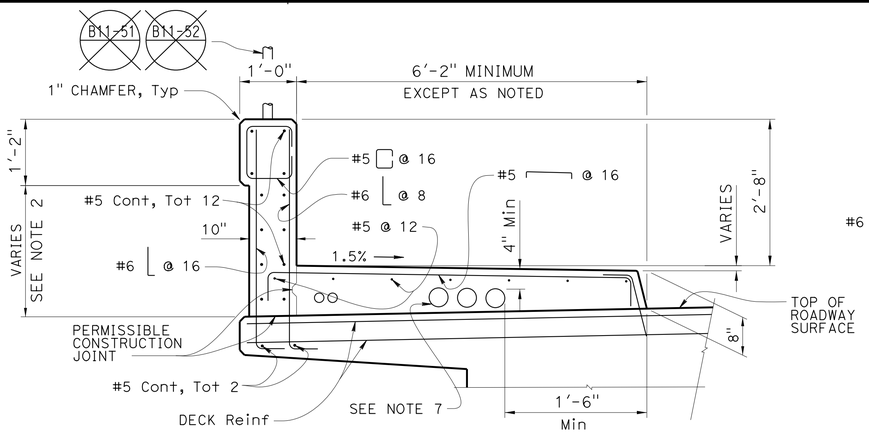
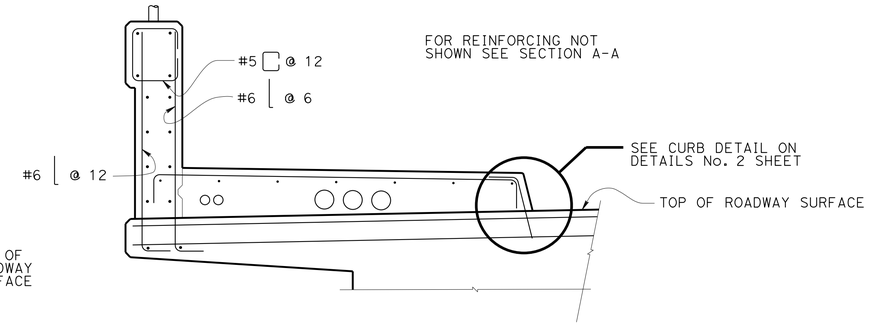
The Registered Civil Engineer for the project is responsible for the selection and proper application of the component design and any modifications shown.



① SECTION A-A

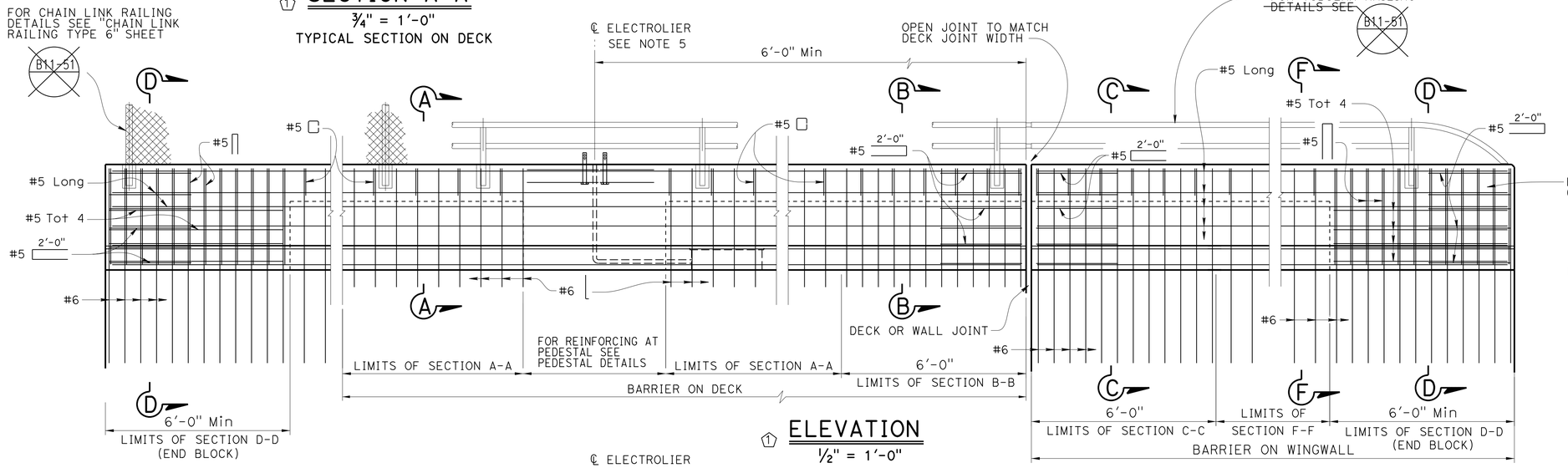
¾" = 1'-0"

TYPICAL SECTION ON DECK



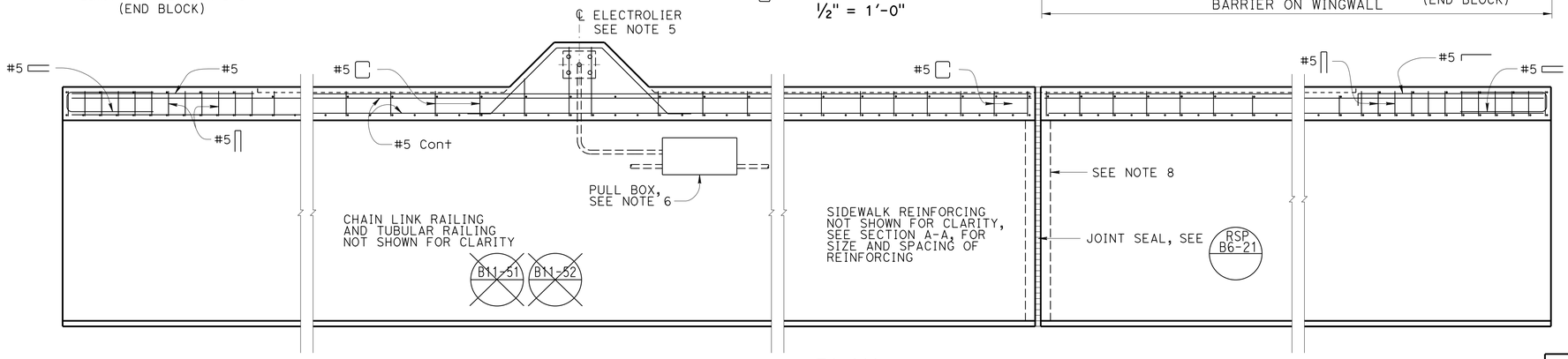
SECTION B-B

¾" = 1'-0"



① ELEVATION

½" = 1'-0"



① PLAN

½" = 1'-0"

NOTES:

1. This barrier is to be used only for speeds of 45 MPH or less. For speeds greater than 45 MPH, pedestrians should be protected by a separation traffic barrier.
2. Dimensions will vary with cross slope and surfacing thickness. See other sheets.
3. Walls must be backfilled before curb and parapet is placed.
4. Clearance to reinforcing steel in curb and railing is 2" except as noted. Longitudinal reinforcement to stop at all expansion joints.
5. See Project Plans for electrolier locations and pull box type.
6. For electrical details, see Standard Plans ES-9A, ES-9B, ES-9C, ES-9D, and ES-9E.
7. Three - 4" round openings for future utilities must be located a minimum of 6" from face of barrier and a minimum of 1'-6" from the face of curb. Openings must be sealed at ends and extended 8" minimum past end of sidewalk if not used. Duct forms must be tied down. For exact number and placement of utility openings see project plans.
8. See Project Plans for "Joint Armor For Pedestrian Walkways" details.
9. Tubular hand railing and chain link railing continuous at pedestal.

SPECIAL DETAILS

MIDWAY ROAD OC (REPLACE)

CONCRETE BARRIER TYPE 732SW

DETAILS No. 1

BRIDGE STANDARD DETAILS

xs16-110-1 — FILE NO.

July 2016 — APPROVAL DATE

The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California

① Detail Revised

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 23-0254

POST MILE 32.60

Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html

FILE => 23-0254-t-basidewalk_dets01.dgn

USERNAME => s130888 *TIME PLOTTED => 12:57* *DATE PLOTTED => 28-SEP-2016*

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594

PROJECT NUMBER & PHASE: 04120004831 CONTRACT No.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
6-13-16	7-7-16	8-31-16		20	26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	142	147

REGISTERED CIVIL ENGINEER — 8-31-16 DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS D. YALAN — No. 68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

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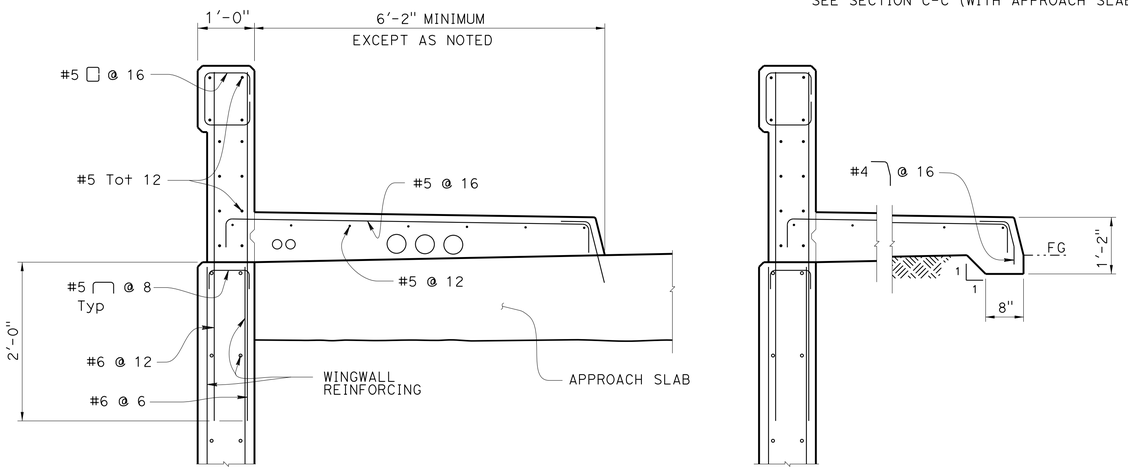
Caltrans
ACCELERATED BRIDGE CONSTRUCTION

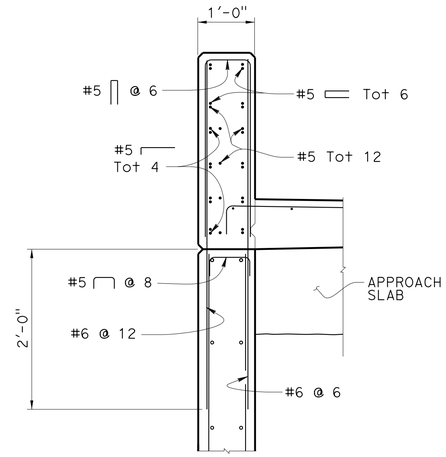
RAILING AND FENCE NOT SHOWN FOR CLARITY

FOR DIMENSIONS AND REINFORCING NOT SHOWN SEE SECTION C-C (WITH APPROACH SLAB)



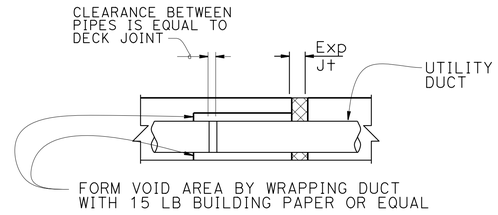
(WITH APPROACH SLAB) (WITHOUT APPROACH SLAB)

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

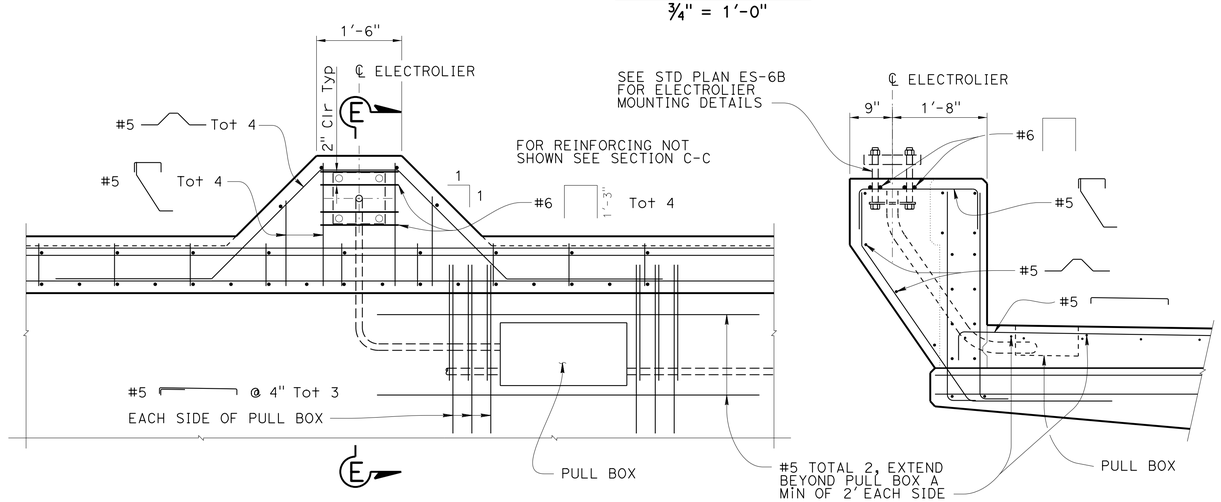


NOTE:
FOR SIDEWALK SEE SECTION C-C

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

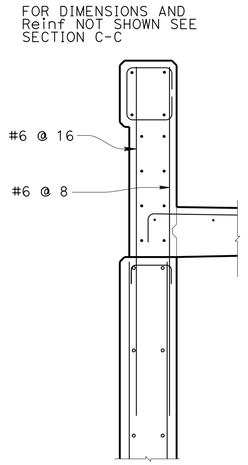


UTILITY DUCT EXPANSION JOINT
1½" = 1'-0"

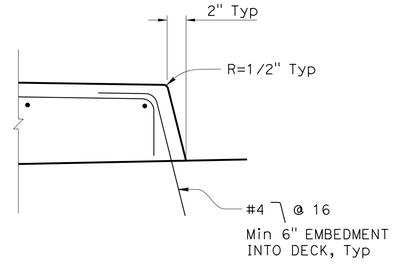


PEDESTAL PLAN

SECTION E-E



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



CURB DETAIL
1½" = 1'-0"

PEDESTAL DETAILS
3/4" = 1'-0"

BRIDGE STANDARD DETAILS

xs16-110-2	July 2016	The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California
FILE NO.	APPROVAL DATE	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO.	23-0254
POST MILE	32.60

MIDWAY ROAD OC (REPLACE)
CONCRETE BARRIER TYPE 732SW
DETAILS No. 2

Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html

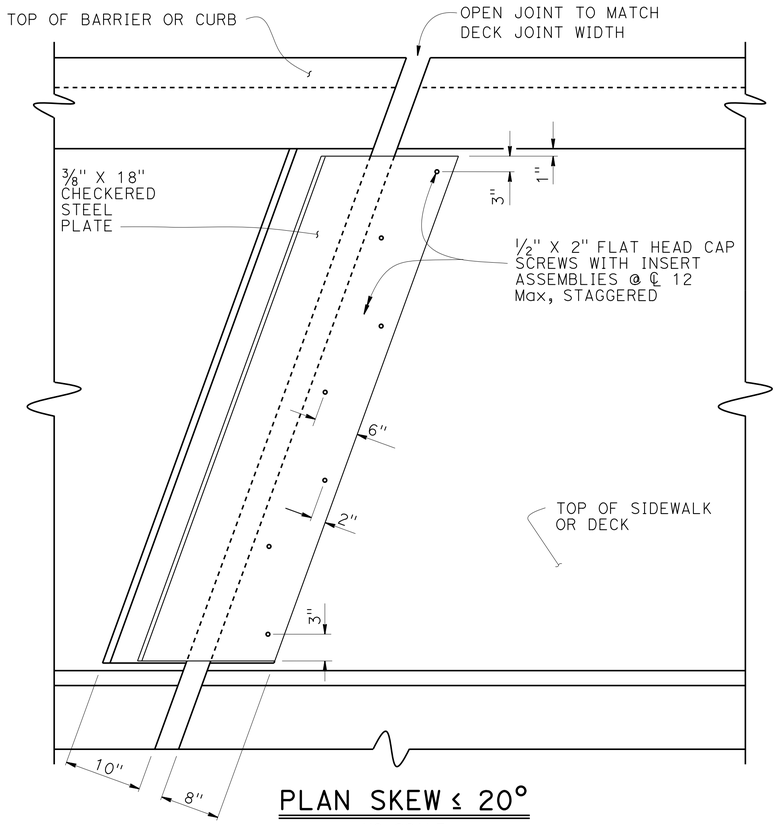
FILE => 23-0254-t-basidewalk_dets02.dgn
USERNAME => s130888 TIME PLOTTED => 12:57 DATE PLOTTED => 28-SEP-2016

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

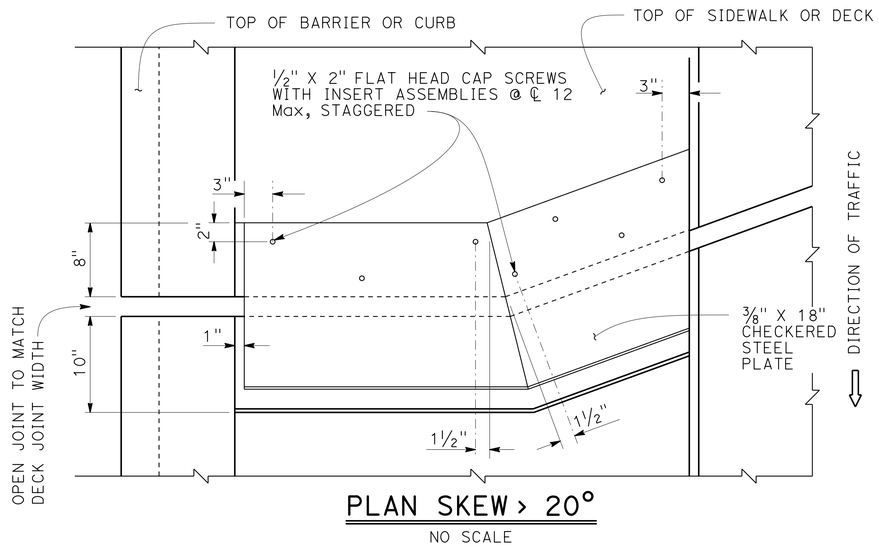
REVISION DATES				SHEET	OF
6-13-16	7-7-16	8-31-16		21	26



PLAN SKEW ≤ 20°

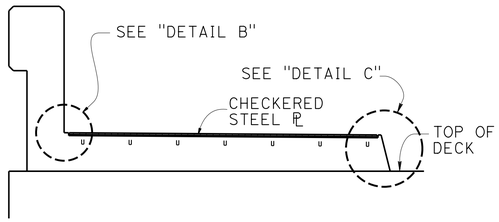
NO SCALE

⇦ DIRECTION OF TRAFFIC



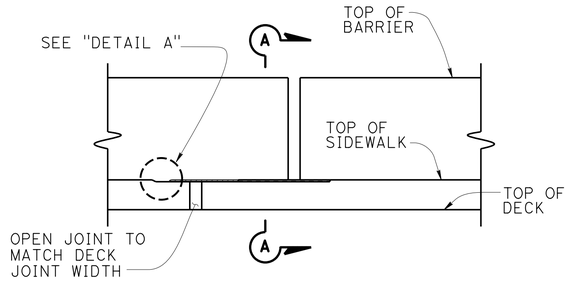
PLAN SKEW > 20°

NO SCALE



SECTION A-A

NO SCALE



ELEVATION

NO SCALE

NOTES:

1. Utility openings and expansion joints not shown for clarity.
2. Recess concrete 1/2" for plates.
3. Plates to be galvanized.
4. Architectural treatment not shown

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	143	147

I Yalan X — 5-25-16
REGISTERED CIVIL ENGINEER — DATE

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

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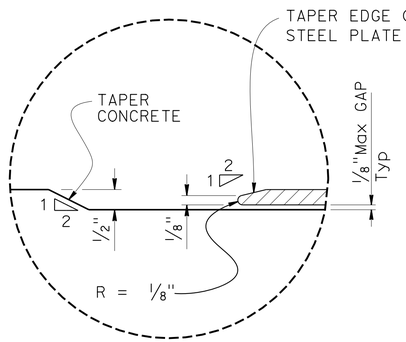
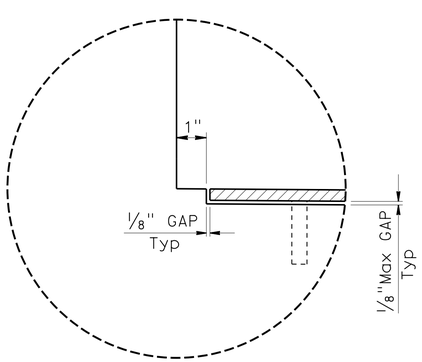
The components of this Bridge Standard Drawing have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California. Refer to: http//www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheet/index.html.
The selection and proper application of the component design and any modifications shown have been prepared under the responsible charge of the registered civil engineer for the project.



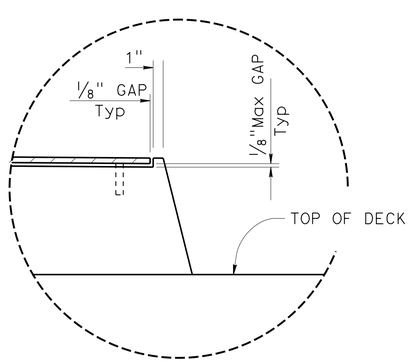
DETAIL A

NO SCALE



DETAIL B

NO SCALE



DETAIL C

NO SCALE

STANDARD DRAWING

FILE NO. xs8-050

APPROVAL DATE July 2014

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 23-0254
POST MILE 32.60

SPECIAL DETAILS

MIDWAY ROAD OC (REPLACE)

JOINT ARMOR FOR PEDESTRIAN WALKWAYS

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831
CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
7-29-14	4-6-16			22	26

FILE => 23-0254-xs2-jt_arm-sheet.dgn

USERNAME => s130388 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:57

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	144	147

REGISTERED CIVIL ENGINEER — DATE 5-25-16

PLANS APPROVAL DATE 5-26-16

REGISTERED PROFESSIONAL ENGINEER — ISAIAS YALAN — No. C68269 — Exp. 9-30-17 — CIVIL — STATE OF CALIFORNIA

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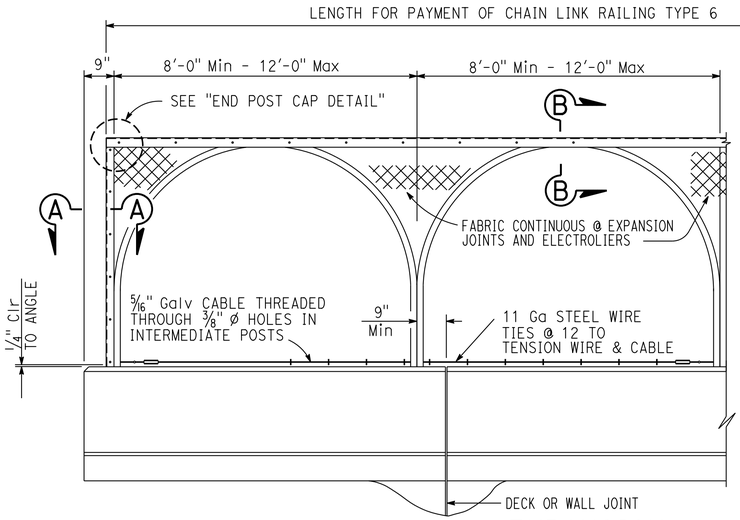
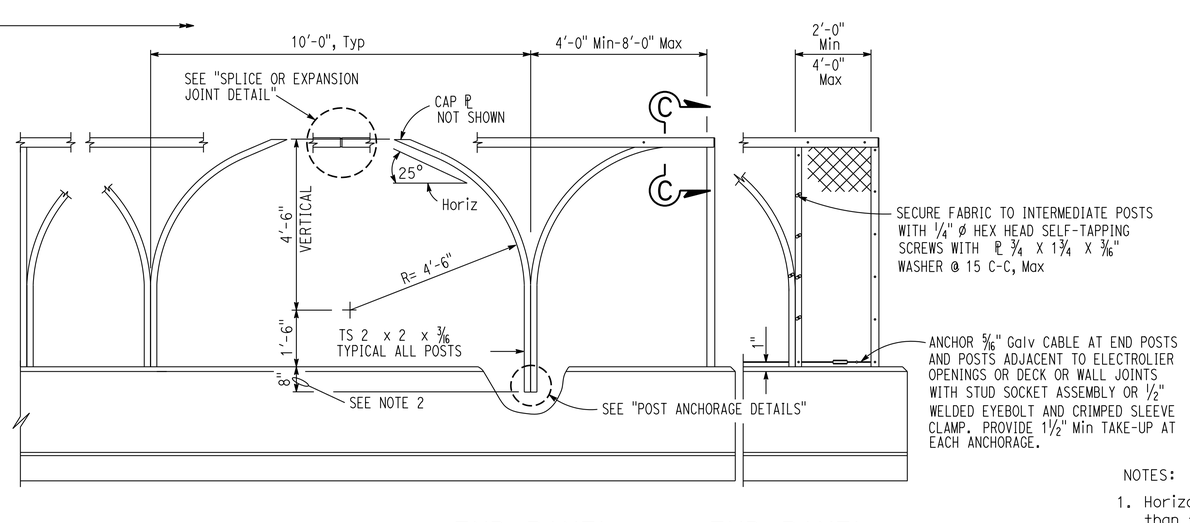


END PANEL 8'-0" - 12'-0"

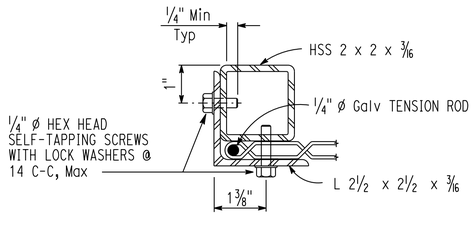


EXPANSION PANEL

TYPICAL INTERIOR PANEL

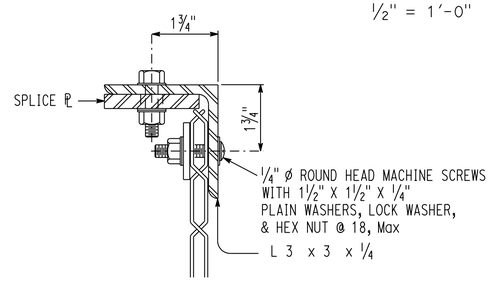
END PANEL 4'-0" - 8'-0"

END PANEL 2'-0" - 4'-0"



SECTION A-A

6" = 1'-0"

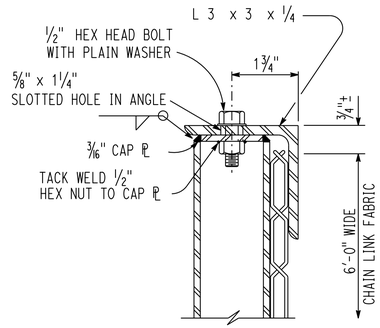


SECTION B-B

6" = 1'-0"

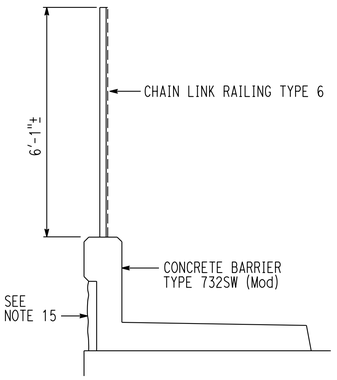
ELEVATION

1/2" = 1'-0"



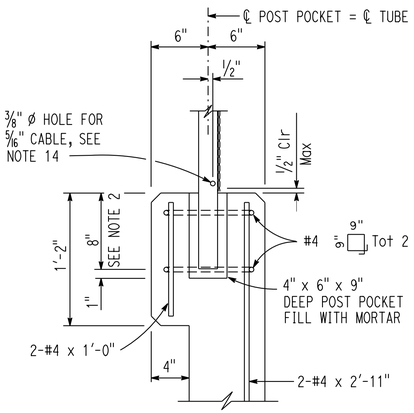
SECTION C-C

6" = 1'-0"



TYPICAL SECTION

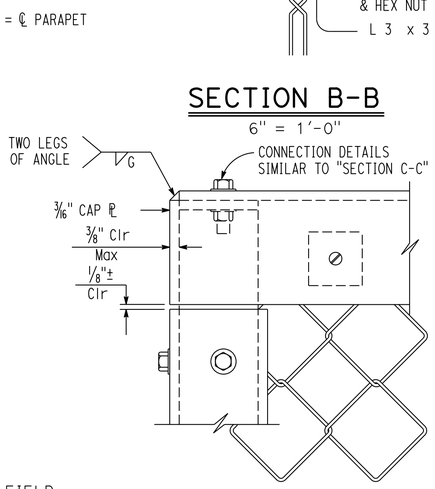
1/2" = 1'-0"



POST ANCHORAGE DETAIL

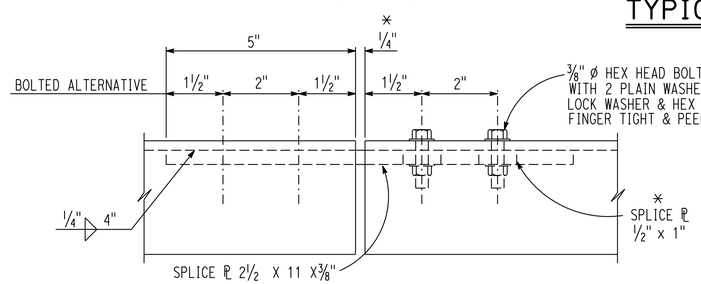
1 1/2" = 1'-0"

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



END POST CAP DETAIL

6" = 1'-0"



SPLICE OR EXPANSION JOINT DETAIL

6" = 1'-0"

* Expansion joint same dimension as expansion joint in deck or wall. Increase slotted hole length and splice ℄ length correspondingly.

NOTES:

1. Horizontal angle must be continuous over not less than two intermediate posts except that a shorter length is permitted at expansion joints, electroliers and other rail discontinuities.
2. One post may be embedded 6" minimum to accommodate grade changes, otherwise fabricate post lengths as required.
3. Curved posts may be rotated in plane within post pockets to accommodate curved horizontal alignment.
4. Straight posts and straight portions of curved posts must be installed normal to bridge profile grade.
5. Top horizontal angle must be parallel to bridge profile grade and must be shop bent to fit horizontal curves.
6. When railing is on slope, fabric must be placed parallel to slope.
7. Alternative details may be submitted by Contractor for Engineer's approval.
8. For details and reinforcement not shown, see "CONCRETE BARRIER TYPE 732SW" sheets.
9. See Bridge Plans for limits of Chain Link Railing Type 6.
10. Provide thimbles at all cable loops.
11. Chain link fabric to be 6'-0" wide with 1" mesh and with knuckled selvage top and bottom.
12. When railing is placed on a horizontal alignment with a radius of 150'-0" or less, thread 5/16" cable through 3/8" * welded eye rods embedded 4" into the top of the concrete parapet and equally spaced to limit the middle ordinate distance between 5/16" cable and the curve to 1" maximum.
13. Splices and expansion joints must be located at ℄ panel.
14. Holes in posts for 5/16" cable and its anchorage may be field drilled and painted with zinc rich paint.
15. For Architectural Treatment, see "ARCHITECTURAL TREATMENT DETAILS" sheet.

STANDARD DRAWING		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 23-0254	SPECIAL DETAILS
FILE NO. xs16-200	APPROVAL DATE October 2014			POST MILE 32.60	MIDWAY ROAD OC (REPLACE) CHAIN LINK RAILING TYPE 6

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11))

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

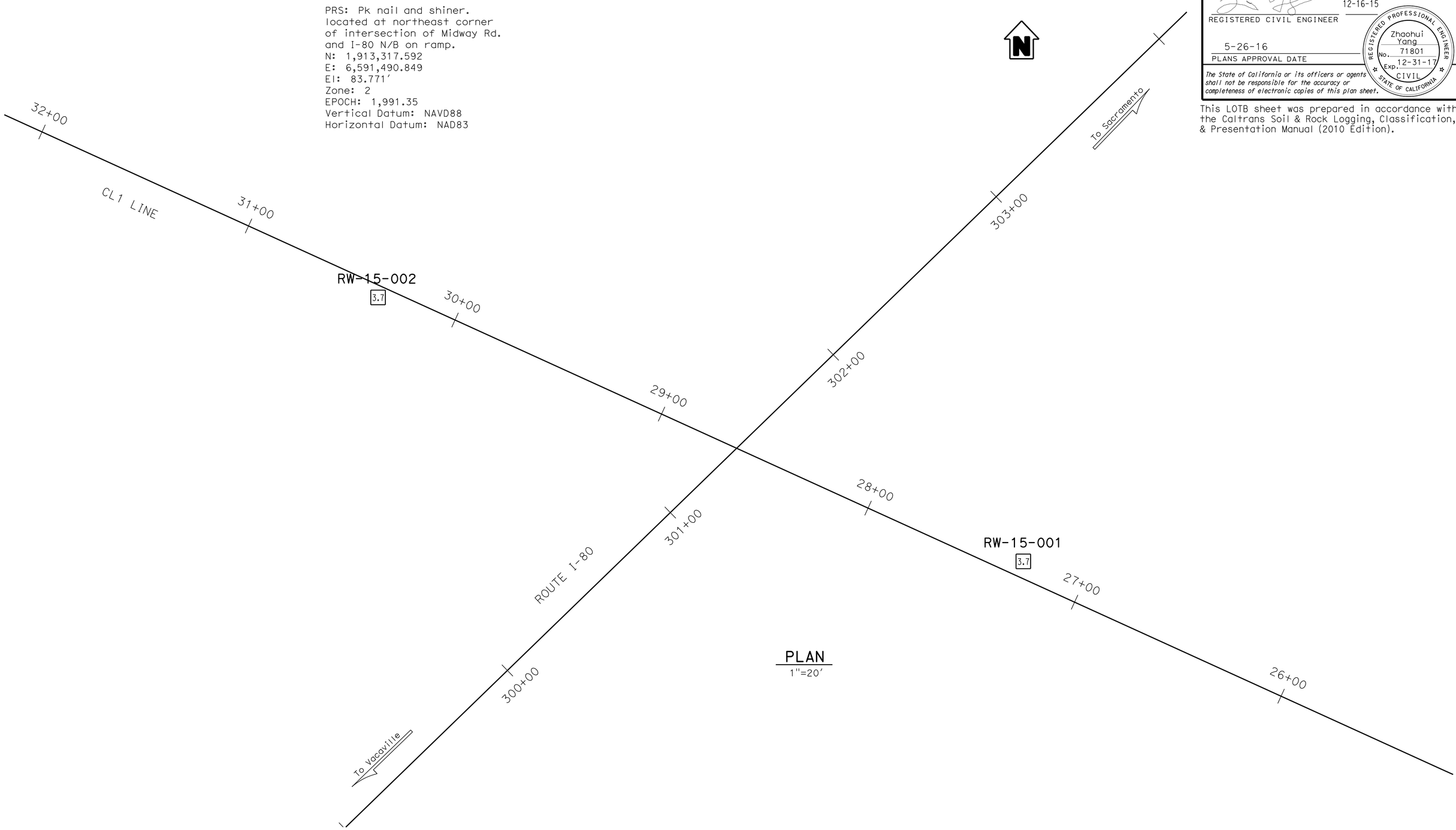
REVISION DATES				SHEET	OF
3-6-16	4-6-16	9-30-14	1-19-16	23	26

FILE => 23-0254-xs5-cl_rail_type6-sheet.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:57

BENCH MARK

PRS: Pk nail and shiner.
located at northeast corner
of intersection of Midway Rd.
and I-80 N/B on ramp.
N: 1,913,317.592
E: 6,591,490.849
EI: 83.771'
Zone: 2
EPOCH: 1,991.35
Vertical Datum: NAVD88
Horizontal Datum: NAD83



PLAN
1"=20'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	Sol	80	31.4, 32.6	145	147

12-16-15
REGISTERED CIVIL ENGINEER

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Zhaohui Yang
No. 71801
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

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

ENGINEERING SERVICES		GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF GEOTECHNICAL DESIGN BRANCH	BRIDGE NO. 23-0254	MIDWAY ROAD OC (REPLACE)
FUNCTIONAL SUPERVISOR	DRAWN BY: M. Reynolds 08/ 15	FIELD INVESTIGATION BY: R. Karpowicz			POST MILES 32.60	LOG OF TEST BORINGS 1 OF 2
NAME: H. Nikoui	CHECKED BY: S. Yang					

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3660
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
02-16-16	02-18-16			24	26

FILE => 23-0254-z-lotb01.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:57

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	Sol	80	31.4, 32.6	146	147

12-16-15
REGISTERED CIVIL ENGINEER

5-26-16
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Zhaohui Yang — No. 71801 — Exp. 12-31-17 — CIVIL — STATE OF CALIFORNIA

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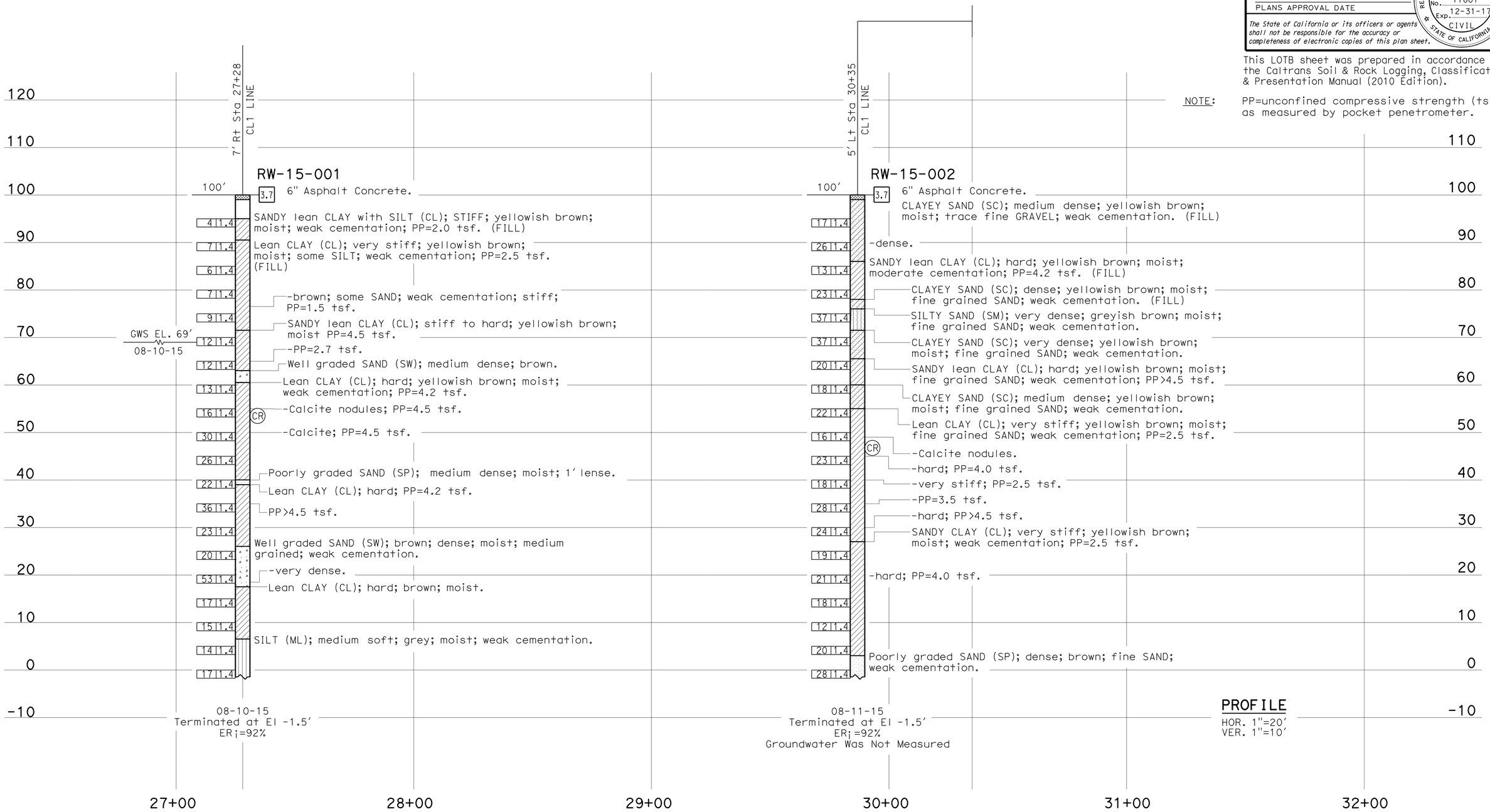
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).

(For Boring Location See Plan, LOTB Sheet 1 of 2)

NOTE: PP=unconfined compressive strength (tsf) as measured by pocket penetrometer.



PROFILE
HOR. 1"=20'
VER. 1"=10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF GEOTECHNICAL DESIGN BRANCH	BRIDGE NO. 23-0254	MIDWAY ROAD OC (REPLACE)
FUNCTIONAL SUPERVISOR NAME: H. Nikoui	DRAWN BY: M. Reynolds 08/ 15	FIELD INVESTIGATION BY: R. Karpowicz				POST MILES 32.60	LOG OF TEST BORINGS 2 OF 2
	CHECKED BY: S. Yang						

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3660
PROJECT NUMBER & PHASE: 04120004831 CONTRACT NO.: 04-4G5104

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
02-16-16	02-18-16			25	26

FILE => 23-0254-z-lotb02.dgn

USERNAME => s130888 DATE PLOTTED => 28-SEP-2016 TIME PLOTTED => 12:57

(New *Sol-80)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80	31.4, 32.6	147	147

TO ACCOMPANY PLANS DATED 5-26-16

May 11, 1964

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

As-Built Log of test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is complete and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	80			

04-08-2016
REGISTERED CIVIL ENGINEER — DATE

MIDWAY ROAD OC (REPLACE)

AS-BUILT LOG OF TEST BORINGS

UNIT: 3594
PROJECT NUMBER & PHASE: 04120004831

BRIDGE NO.	SHEET	OF
23-0754	26	26

REGISTERED PROFESSIONAL ENGINEER
ZHAOHUI YANG
No. 71801
Exp. 12-31-17
CIVIL
STATE OF CALIFORNIA

AS BUILT PLANS
Contract No. 10-056664
Date Completed
Document No. 0000/002

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

BRIDGE DEPARTMENT

℄ Abut 5 — ℄ Bent 47 — 302 Uit ℄ — To Sacramento → — ← To Vallejo — ℄ Bent 22 — ℄ Abut 12

B-3 — B-1 — ℄ Midway Rd. O.C. — B-4 — B-2

26 — 25 — 24 — 23

BM "A" Elev. 79.13
Railroad spike in tree
66' Lt. Sta. 301+50 Uit ℄

B-3: ℄ "OC" Sta 3+69; El. 76.5
B-1: ℄ "OC" Sta 3+27; El. 77.2
B-4: 2' Rt ℄ "OC" Sta 4+43; El. 76.2
B-2: ℄ "OC" Sta. 3+38; El. 75.2

Rubble
Slightly compact brown fine sand with good binder
Dense brown fine sand with good binder to brown sandy silt.
Dense grey iron stained fine silty sand to sandy silt.
Slightly compact sand
Compact brown silty sand with good binder
Compact brown sandy silt
Dense buff silty sand with little to moderate binder to grey silty sand with good binder

5-20-59 — 5-19-59 — 5-19-59 — 5-19-59

NO GROUND WATER ENCOUNTERED

60 — 70 — 60 — 50 — 40 — 30 — 20

5 — 4

SHEET 9 OF 9

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRAIN SIZE LIMITS

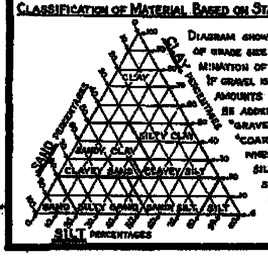


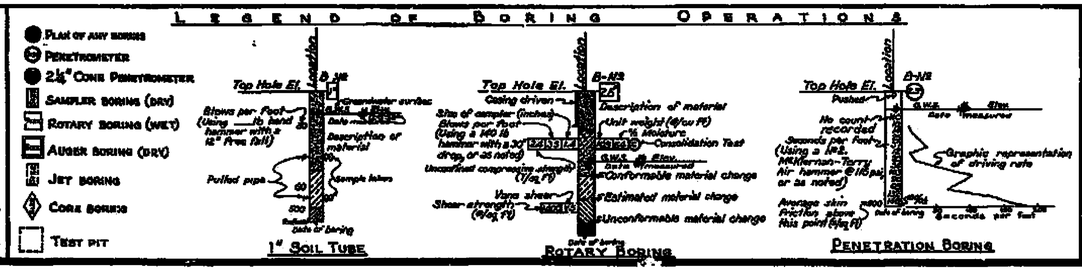
DIAGRAM SHOWING THE BASIS FOR ESTIMATES OF GRADE SIZE DISTRIBUTION USED IN DETERMINATION OF CLASS NAMES. IF GRAVEL IS PRESENT IN APPRECIABLE AMOUNTS THE TERM "GRAVELLY" MAY BE ADDED TO THE CLASS NAME, VIZ. "GRAVELLY SAND." THE TERMS "COARSE", "MEDIUM" AND "FINE" WHEN USED TO DESCRIBE SAND, SILT AND GRAVEL REFER TO STANDARD GRADE SIZE LIMITS.

LEGEND OF EARTH MATERIALS

- Gravel
- Sand
- Silt
- Clay
- Sandy Clay or Clayey Sand
- Sandy Silt or Silty Sand
- Silty Clay or Clayey Silt
- Peat and/or Organic Matter
- Fill Material
- Igneous Rock
- Sedimentary Rock
- Metamorphic Rock

LEGEND OF BORING OPERATIONS

- Plot of any boring
- Penetrometer
- 2½" Cone Penetrometer
- Sampler Boring (DRY)
- Rotary Boring (WET)
- Auger Boring (DRY)
- Jet Boring
- Core Boring
- Test pit



NOTES

The contractor's attention is directed to Section 2.-1.: 0.3 , of the Standard Specifications and to the Special Provisions accompanying this set of plans.

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

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

MIDWAY ROAD OVERCROSSING

LOG OF TEST BORINGS

SCALE 1"=10' | BRIDGE 23-148 | FILE E-23 | DRAWING 23/48-9

PREL. DRAWING NO. P-6545

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF PUBLIC WORKS.

DATE May 11, 1971 SIGNATURE [signature] TITLE HAO I

155