

INDEX OF PLANS

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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN TRINITY COUNTY AT AND NEAR PEANUT
FROM ROUTE 36 TO 0.1 MILE NORTH
OF DOBBINS GULCH BRIDGE

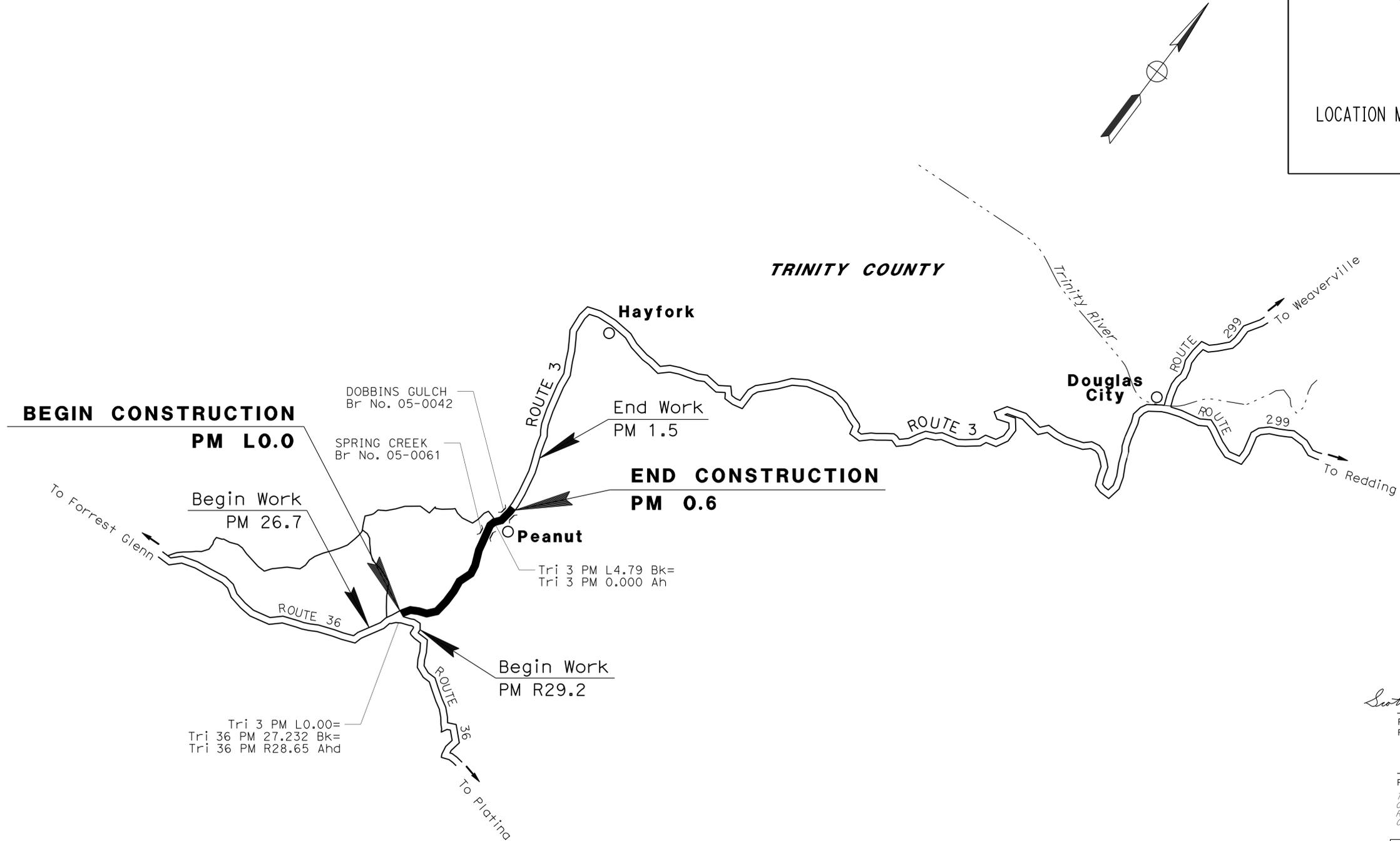
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	1	33





LOCATION MAP



PROJECT MANAGER
MICHAEL CONNER
 DESIGN ENGINEER
MICHAEL CONNER

Scott C. Gregory 11-04-15

PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER

November 4, 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.



THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

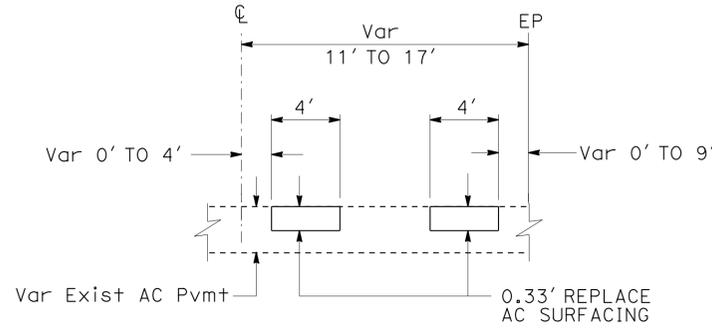
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02	Tri	3	L0.0/0.6	2	33
<i>Scott C. Gregory</i> 11-04-15 REGISTERED CIVIL ENGINEER DATE					
11-04-15 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

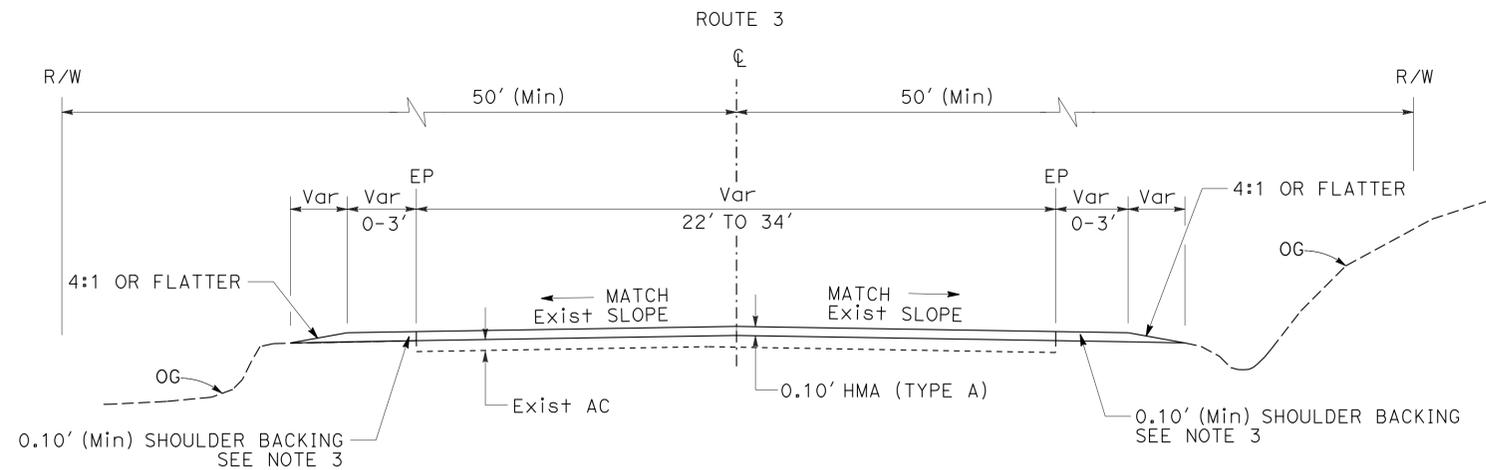
- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT R/W ENGINEERING AT THE DISTRICT OFFICE.
- GRADE TO DRAIN AWAY FROM ROADWAY.
- THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

PAVEMENT CLIMATE ZONE:

LOW MOUNTAIN



REPLACE AC SURFACING
(TYPICAL BOTH DIRECTIONS)



ROUTE 3
PM L0.05 TO PM 0.56

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE
 FUNCTIONAL SUPERVISOR: MICHAEL CONNER
 CALCULATED/DESIGNED BY: SCOTT GREGORY
 CHECKED BY: KARLIE SMITH
 REVISED BY: [] DATE REVISED: []
 USERNAME => s115152
 DGN FILE => 20h990ca001.dgn
 BORDER LAST REVISED 7/2/2010



UNIT 0156

PROJECT NUMBER & PHASE 02 1500 0090 1

LAST REVISION DATE PLOTTED => 18-NOV-2015
 11-05-15 TIME PLOTTED => 12:46

NOTES:

- FOR TEMPORARY CONSTRUCTION TAPERS, GRIND EXISTING SURFACES TO ACCOMMODATE A MINIMUM TAPER THICKNESS OF 0.10' WHEN EITHER:
 - HMA MATERIAL SUCH AS RUBBERIZED, POLYMER MODIFIED OR OPEN GRADED IS UNSUITABLE FOR RAKING TO A MAXIMUM 0.02' THICKNESS AT THE CONFORM.
 - TEMPORARY TAPER WILL BE IN PLACE FOR MORE THAN 14 DAYS.
- PERMANENT SURFACE MAY BE EXISTING OR NEW PAVEMENT.
- ROADWAY SURFACE IS THE TOP OF EXISTING SURFACE OR THE TOP OF THE PLANED SURFACE.
- THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

LEGEND:

- COLD PLANE ASPHALT CONCRETE PAVEMENT (0.00' TO 0.10')
- HMA MATERIAL (TEMPORARY TAPER)
- IF NECESSARY, COLD PLANE ASPHALT CONCRETE PAVEMENT AND PLACE HMA MATERIAL (SEE NOTE 1)
- 0.33' REPLACE AC SURFACING
- 0.10' COLD PLANE ASPHALT CONCRETE PAVEMENT
0.10' HMA (TYPE A)

ABBREVIATIONS:

CPACP COLD PLANE ASPHALT CONCRETE PAVEMENT

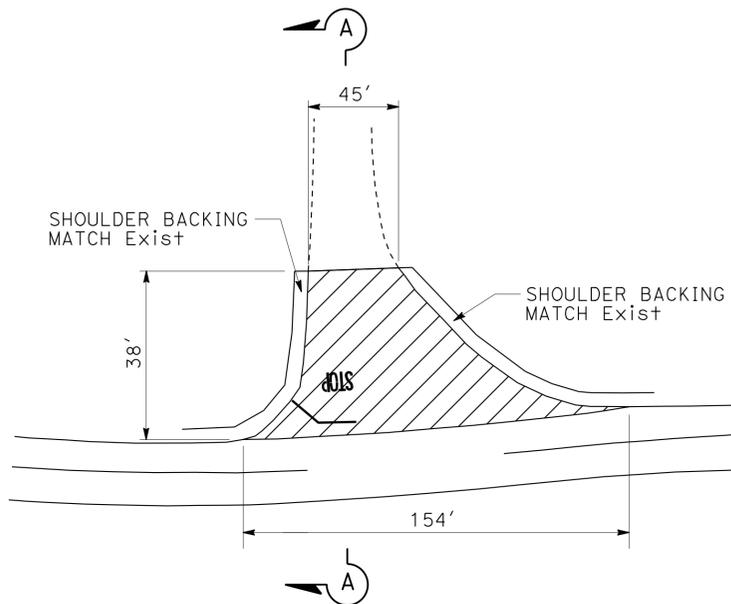
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02	Tri	3	L0.0/0.6	3	33

11-04-15
 REGISTERED CIVIL ENGINEER DATE
 11-04-15
 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.

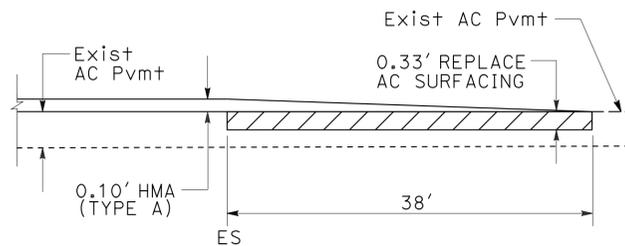
SCOTT C. GREGORY
 No. C75565
 Exp. 06-30-16
 CIVIL

ROAD CONNECTIONS

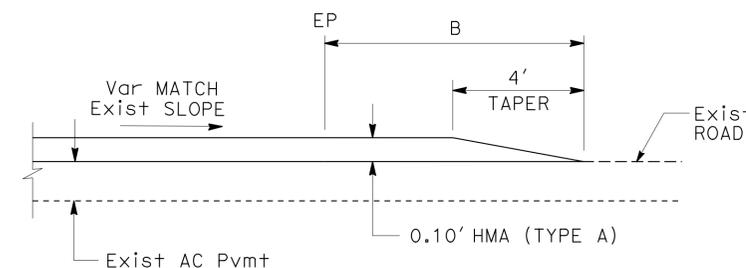
ROAD CONNECTION	SIDE	POST MILE	DIMENSIONS (LF)			CASE
			A	B	C	
DRIVEWAY	L+	L3.84	28	17	14	B
13 DIPS Rd	R+	L3.98	84	22	18	A
DOBBINS CREEK Rd	R+	0.54	37	27	12	B



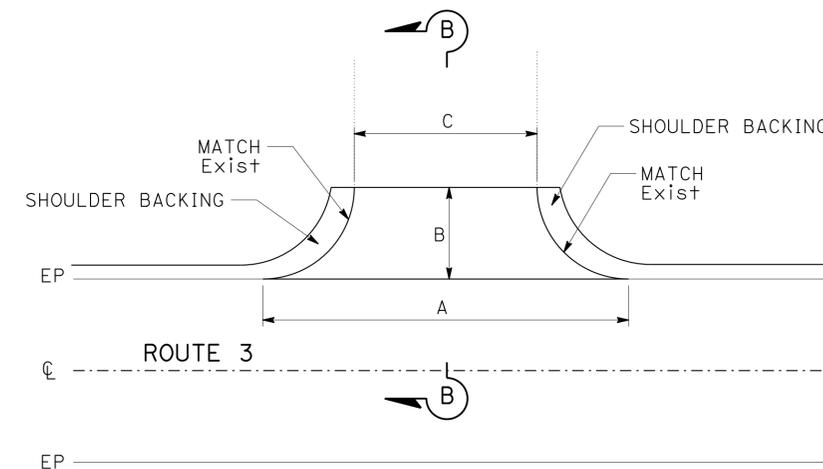
RATTLESNAKE Rd PM 0.05



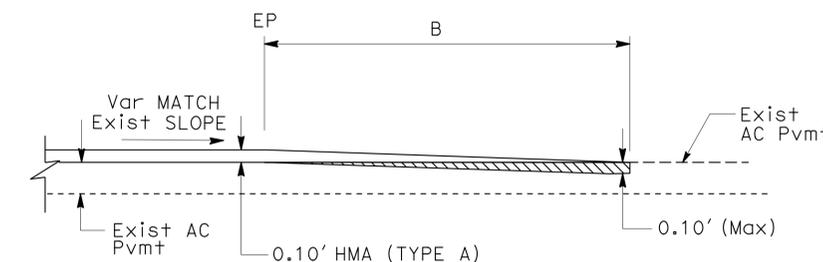
SECTION A-A



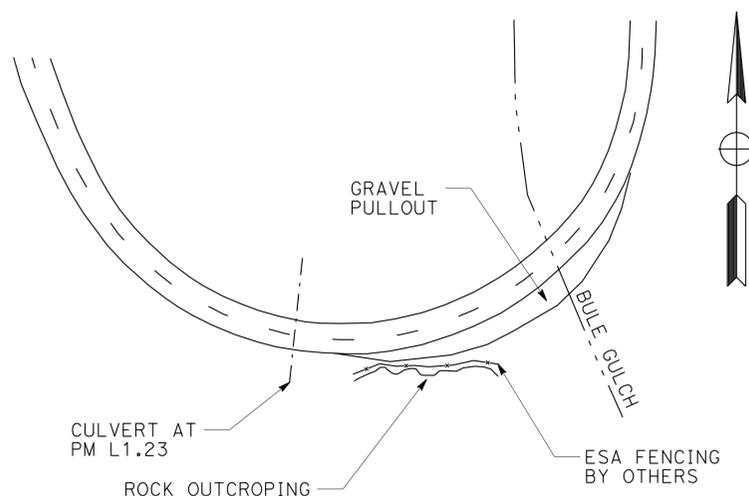
CASE B SECTION B-B



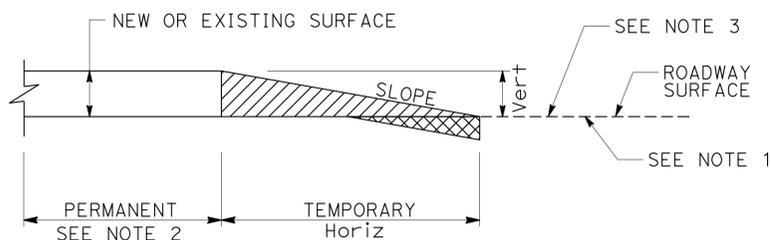
PAVED ROAD CONNECTIONS



CASE A SECTION B-B



ENVIRONMENTALLY SENSITIVE AREA



Vert	SLOPE RATIO Horiz/Vert
0-0.10'	70:1
GREATER THAN 0.10'	160:1

TYPICAL PAVING CONFORM FOR TEMPORARY CONSTRUCTION TAPERS

CONSTRUCTION DETAILS

NO SCALE

C-1

P:\proj\3\02\0h990\plans\pse\20h990ga001.dgn

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

FUNCTIONAL SUPERVISOR
MICHAEL CONNER

CALCULATED/DESIGNED BY
CHECKED BY

SCOTT GREGORY
KARLIE SMITH

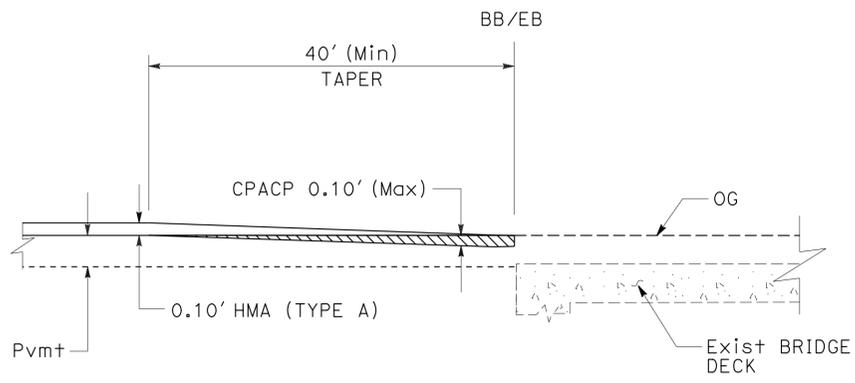
REVISED BY
DATE REVISED

DATE

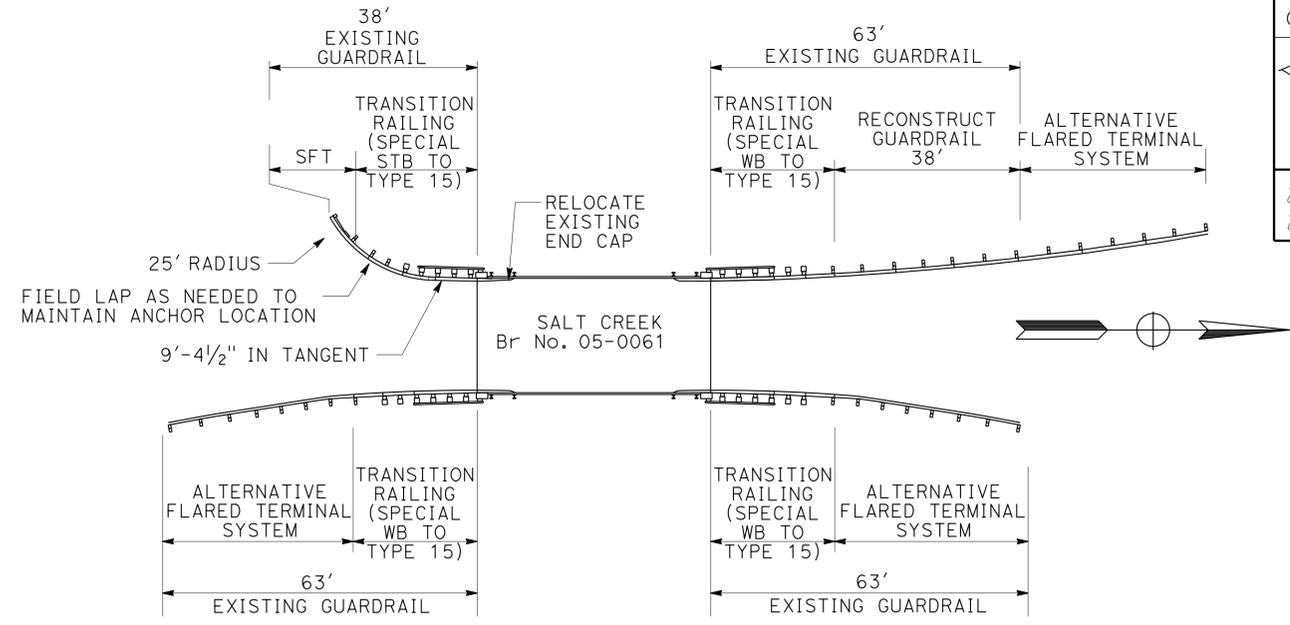
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02	Tri	3	L0.0/0.6	4	33

Scott C. Gregory 11-04-15
 REGISTERED CIVIL ENGINEER DATE
 11-04-15
 PLANS APPROVAL DATE
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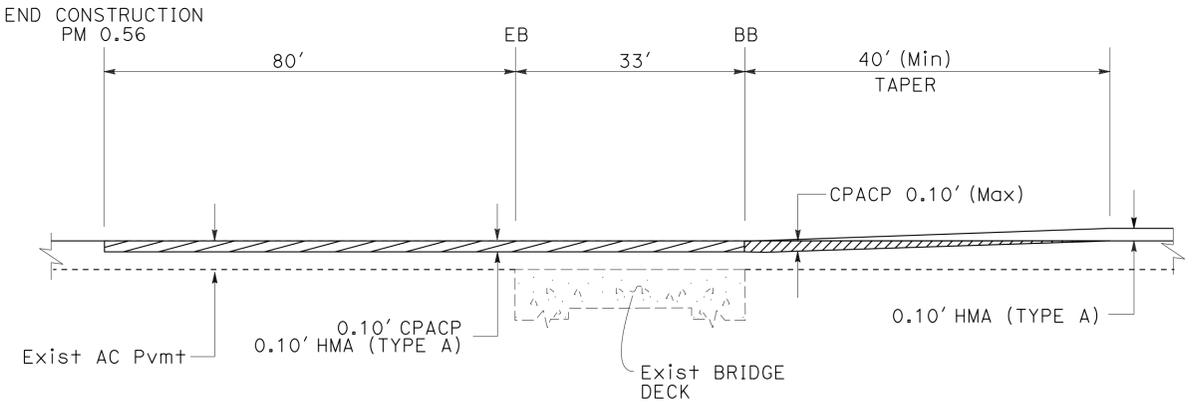
NOTE:
 1. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.



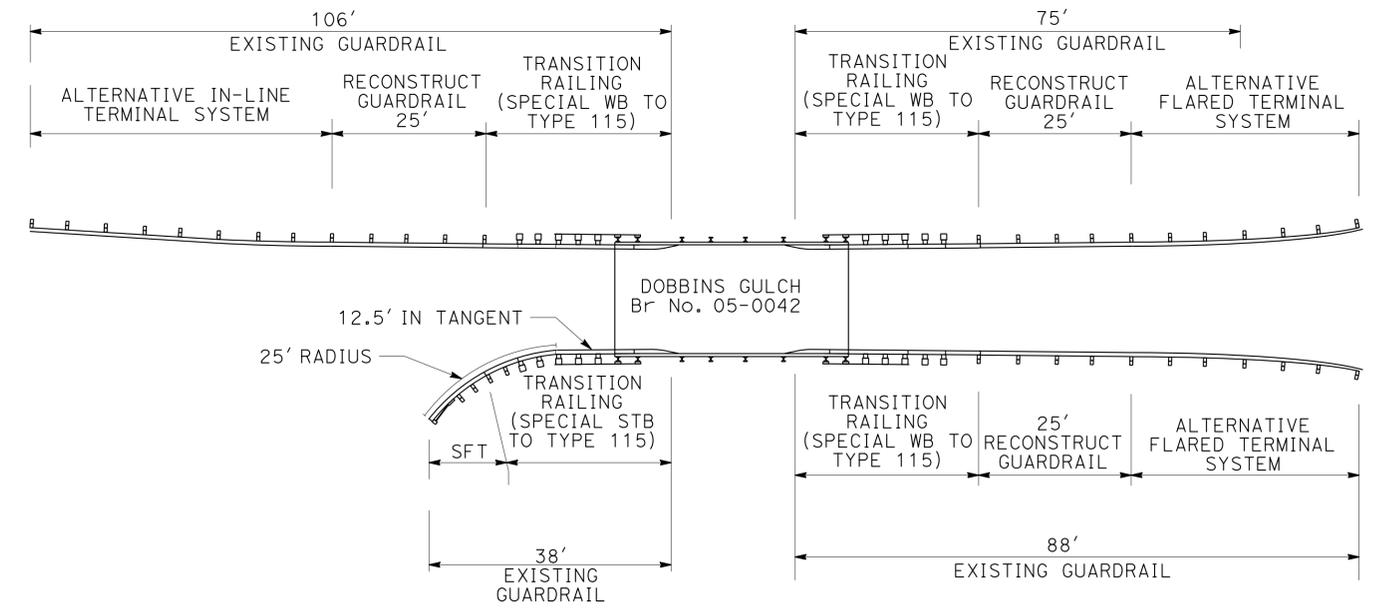
BRIDGE CONFORM TAPER
 SALT CREEK Br, PM L3.84



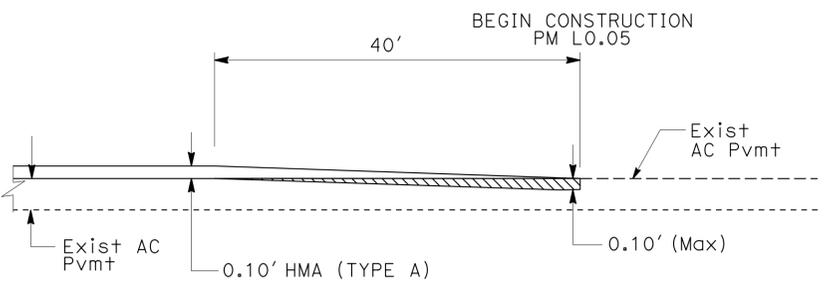
GUARDRAIL AT SALT CREEK BRIDGE
 (TYPE 15 BRIDGE RAIL)



BRIDGE CONFORM TAPER
 DOBBINS GULCH Br, PM 0.54



GUARDRAIL AT DOBBINS GULCH BRIDGE
 (TYPE 115 BRIDGE RAIL)

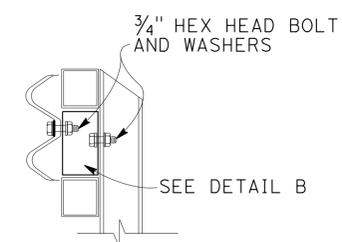
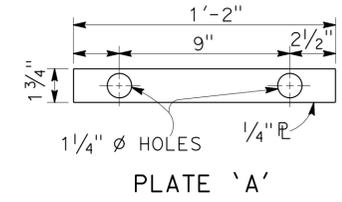
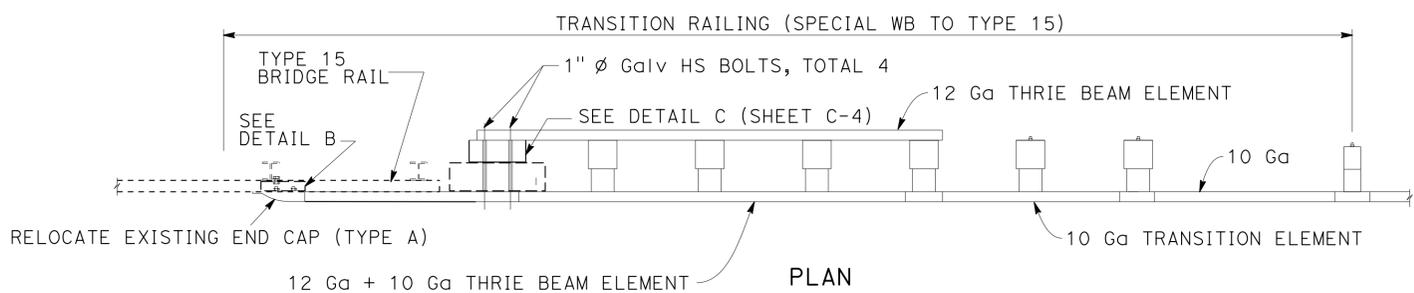
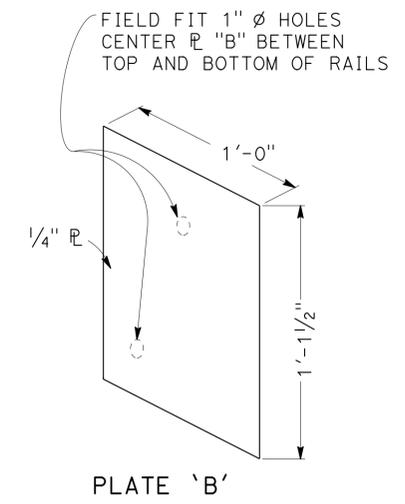
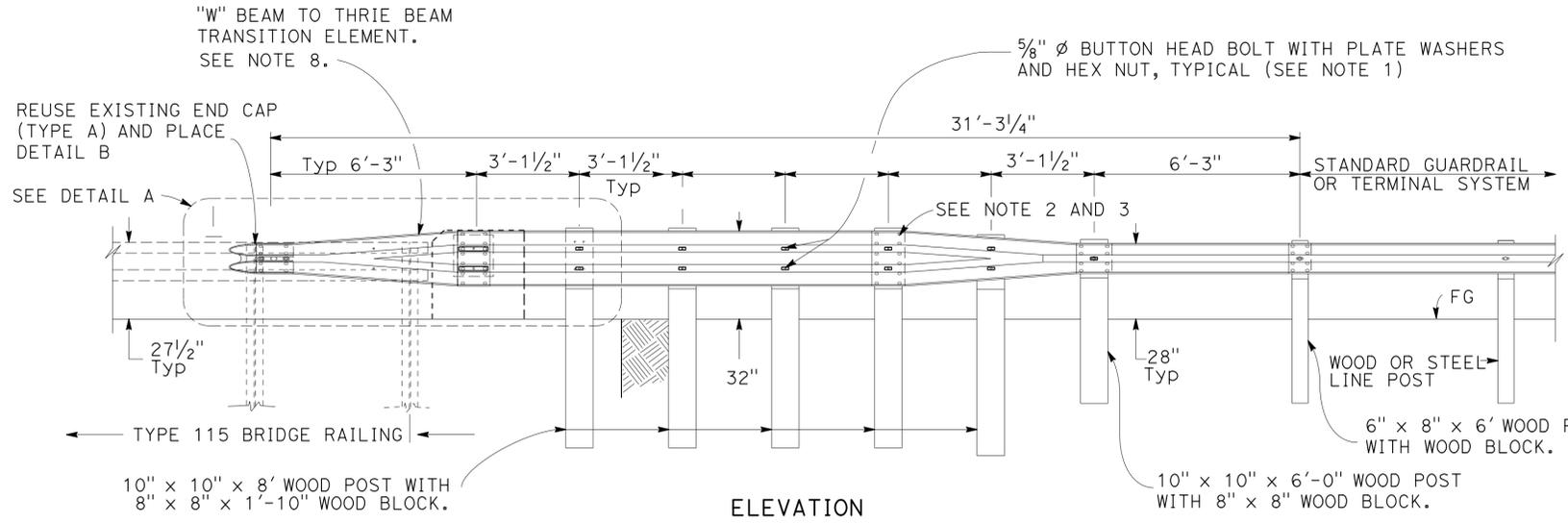


MAINLINE CONFORM TAPER

CONSTRUCTION DETAILS
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 SCOTT GREGORY
 KARLIE SMITH
 MICHAEL CONNER
 11-05-15 12:46

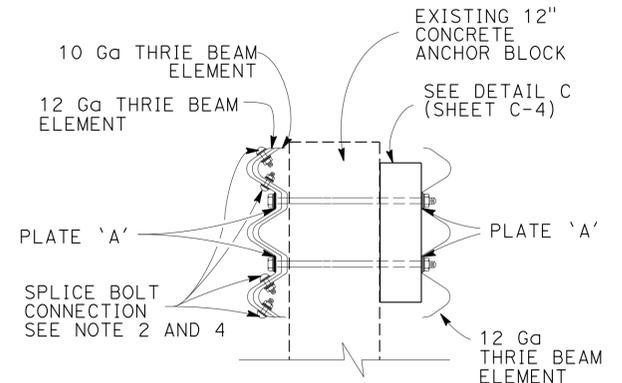
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	5	33
<i>Dwight D Winterlin</i> 11-04-15 REGISTERED CIVIL ENGINEER DATE			REGISTERED PROFESSIONAL ENGINEER DWIGHT WINTERLIN No. C68438 Exp. 9-30-17 CIVIL STATE OF CALIFORNIA		
11-04-15			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



- NOTES:**
- USE 5/8" Ø BUTTON HEAD BOLTS WITH PLATE WASHERS AND HEX NUTS FOR CONNECTIONS TO 10" x 10" WOOD POSTS. PLACE PLATE WASHERS UNDER BOLTS AND NUTS FOR BOLTED CONNECTIONS TO 10"x10" POSTS.
 - INTERIOR SPLICE BOLT HOLES AT NESTED THRIE BEAM LOCATIONS MAY BE INCREASED UP TO 1 1/4" Ø.
 - ONLY THE TOP 4 AND BOTTOM 4 SPLICE BOLTS WITH WASHERS AND NUTS ARE REQUIRED FOR THRIE BEAM RAIL SPLICES.
 - WHERE THE THRIE BEAM RAIL SPLICE IS SUPPORTED WITH FOUR, 1" Ø HS ANCHOR BOLTS, ONLY THE TOP 2 AND BOTTOM 2 SPLICE BOLTS WITH WASHERS AND NUTS ARE REQUIRED.
 - PLACE 1" Ø HS BOLTS AND 'A' ON EACH SIDE OF BOLTED CONNECTION AT CONCRETE ANCHOR, TOTAL 4.
 - THE TOP ELEVATION OF POST SHALL NOT PROJECT MORE THAN 1" ABOVE THE TOP ELEVATION OF THE RAIL ELEMENT.
 - BEGIN TAPER TO 29" GR HEIGHT AT 120:1 AT END OF THRIE BEAM TRANSITION
 - IF TOP OF BRIDGE RAIL IS 30" OR LESS ABOVE THE TRAVELEDWAY PLACE THRIE BEAM TO GR TRANSITION WITH TYPE A END CAP. IF TOP OF BRIDGE RAIL IS GREATER THAN 30" ABOVE THE TRAVELEDWAY PLACE ASYMETRICAL TRANSITION AND TYPE A END CAP.
 - THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

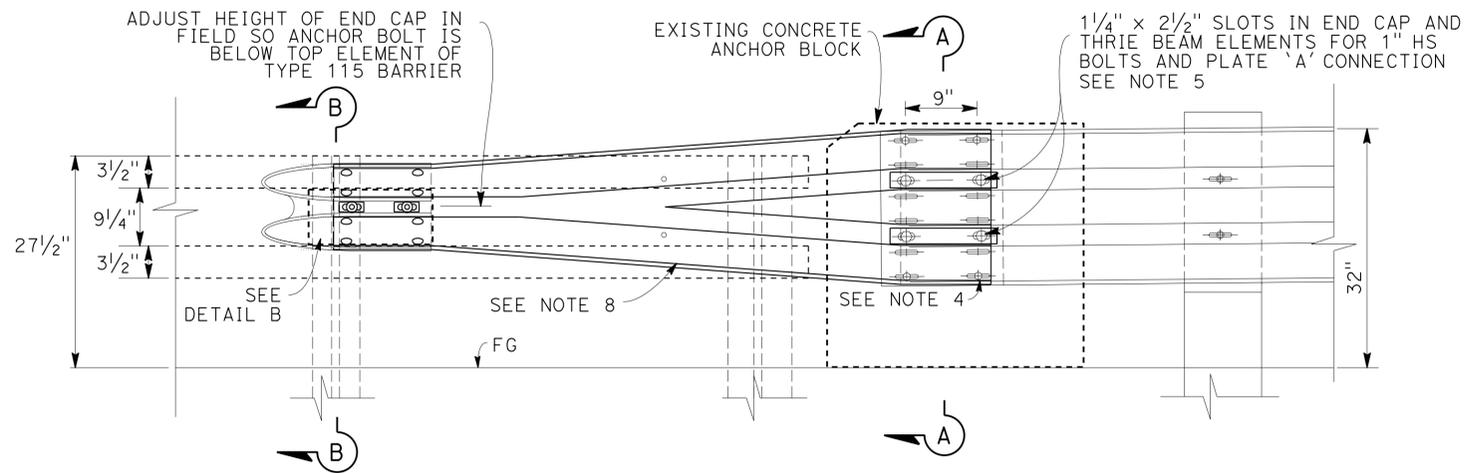
TRANSITION RAILING (SPECIAL WB TO TYPE 15)
 (SPECIAL CONNECTION TO TYPE 15 BRIDGE RAIL BLOCKOUT ATTACHMENT)

SECTION B-B

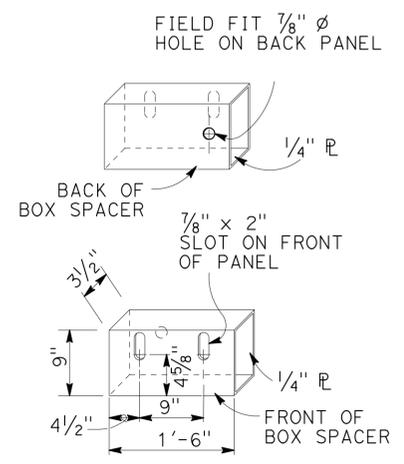


SECTION A-A

CONSTRUCTION DETAILS
GUARD RAILING
TRANSITION RAILING
(SPECIAL WB TO
TYPE 15 BRIDGE RAIL)
 NO SCALE



DETAIL A
 CONNECTION OF THRIE BEAM TO TYPE 15 BRIDGE RAIL



DETAIL B
 TYPE 15 SHORT METAL BOX SPACER

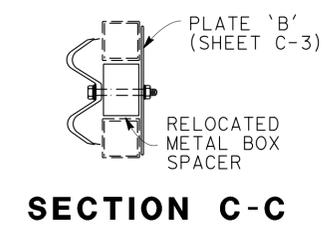
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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAFFIC
 DWIGHT WINTERLIN
 SCOTT GREGORY
 KRISTI WESTOBY
 FUNCTIONAL SUPERVISOR
 REVISIONS: 11-05-15 DATE PLOTTED => 11-05-15 TIME PLOTTED => 12:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	7	33

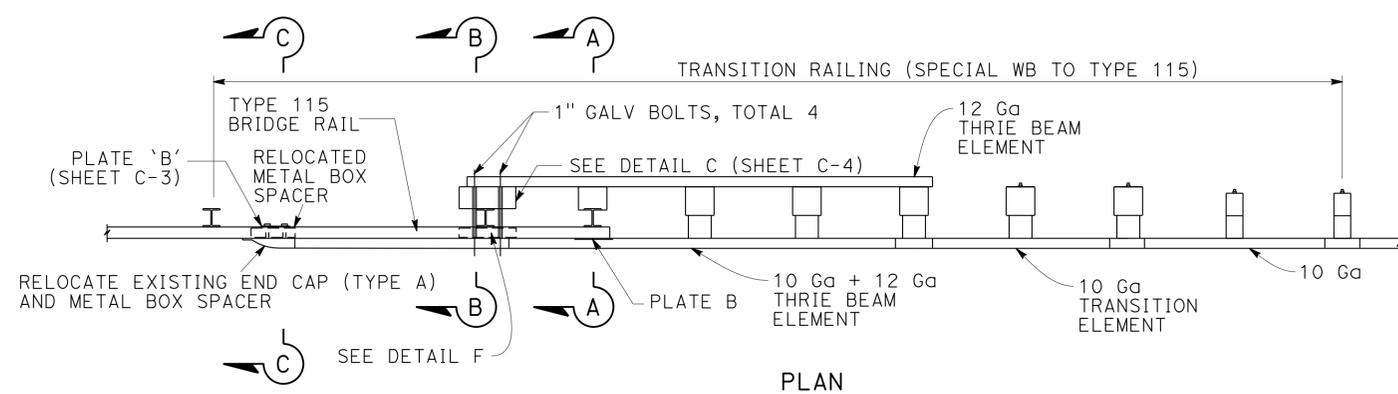
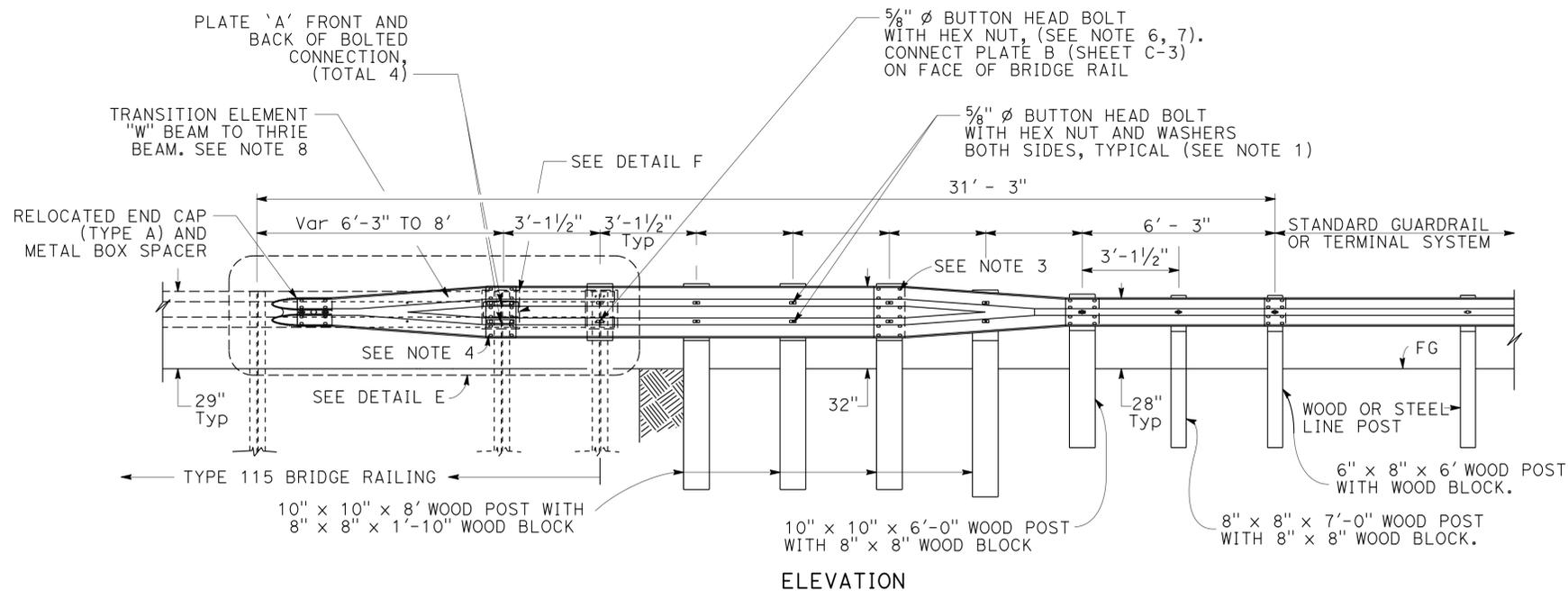
DWIGHT D. WINTERLIN 11-04-15
 REGISTERED CIVIL ENGINEER DATE
 11-04-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 DWIGHT WINTERLIN
 No. C68438
 Exp. 9-30-17
 CIVIL
 STATE OF CALIFORNIA

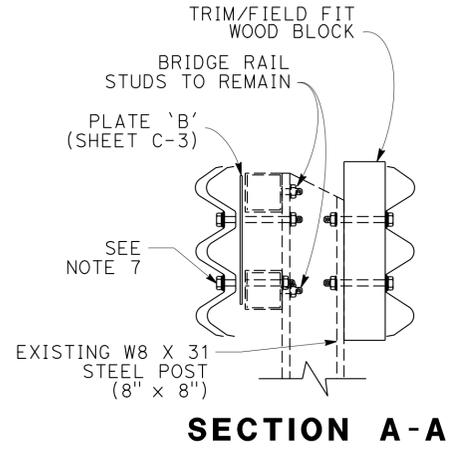
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



- NOTES:**
- USE 5/8" Ø BUTTON HEAD BOLTS WITH PLATE WASHERS AND HEX NUTS FOR CONNECTIONS TO 10" x 10" WOOD POSTS. PLACE PLATE WASHER UNDER BOLT AND NUT FOR BOLTED CONNECTIONS TO 10" x 10" POST.
 - INTERIOR SPLICE BOLT HOLES AT NESTED THRIE BEAM LOCATIONS MAY BE INCREASED UP TO 1 1/4" Ø.
 - ONLY THE TOP 4 AND BOTTOM 4 SPLICE BOLTS WITH WASHERS AND NUTS ARE REQUIRED FOR THRIE BEAM RAIL SPLICES.
 - WHERE THE THRIE BEAM RAIL SPLICE IS SUPPORTED WITH FOUR, 1" Ø HS ANCHOR BOLTS, ONLY THE TOP 2 AND BOTTOM 2 SPLICE BOLTS WITH WASHERS AND NUTS ARE REQUIRED.
 - THE TOP ELEVATION OF POST SHALL NOT PROJECT MORE THAN 1" ABOVE THE TOP ELEVATION OF THE RAIL ELEMENT.
 - FIELD DRILL 3/4" Ø HOLE THROUGH R B AND POST FLANGE AS NEEDED FOR 5/8" Ø BOLT WITH PLATE WASHER.
 - FIELD DRILL 3/4" Ø HOLE THROUGH THRIE BEAM, R B, AND BRIDGE RAIL. EXISTING BRIDGE RAIL STUD TO REMAIN.
 - IF TOP OF BRIDGE RAIL IS 30" OR LESS ABOVE THE TRAVELEDWAY PLACE THRIE BEAM TO GR TRANSITION WITH TYPE A END CAP. IF TOP OF BRIDGE RAIL IS GREATER THAN 30" ABOVE THE TRAVELWAY PLACE ASYMETRICAL TRANSITION AND TYPE A END CAP.
 - BEGIN TAPER TO 29" GR HEIGHT AT 120:1 AT END OF THRIE BEAM TRANSITION
 - THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

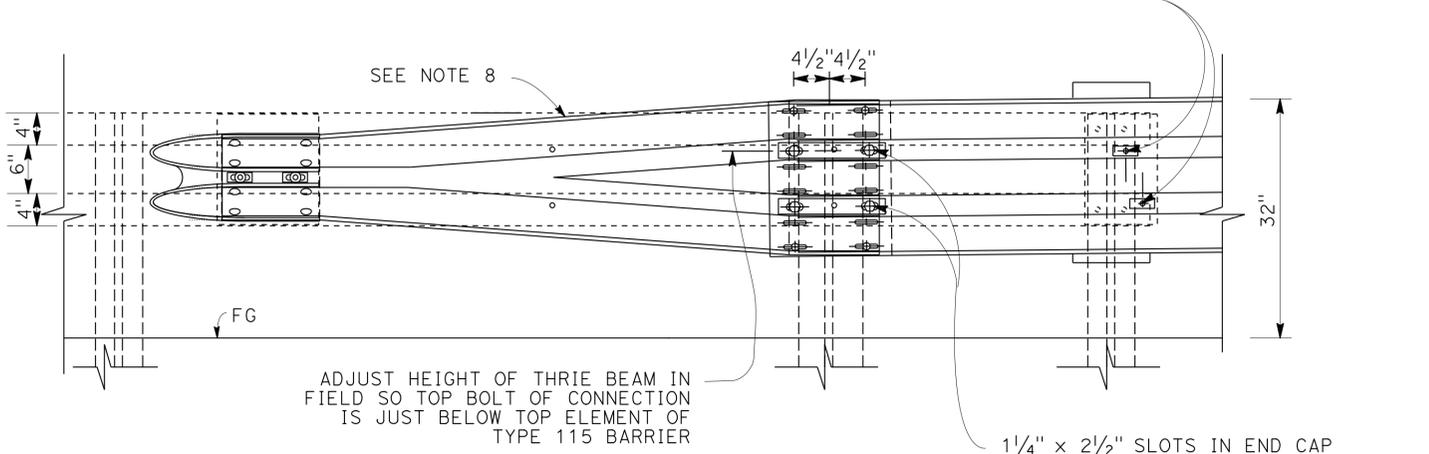


TRANSITION RAILING (SPECIAL WB TO TYPE 115)
(SPECIAL CONNECTION TO TYPE 115 BRIDGE RAIL BLOCKOUT ATTACHMENT)

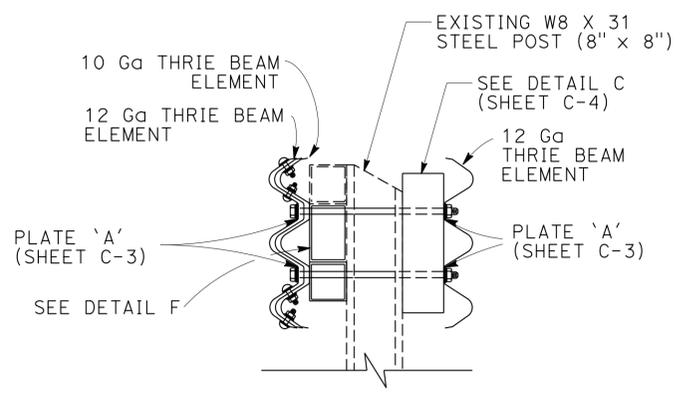


IF THE ALIGNMENT OF THE 5/8" Ø BOLT THROUGH THE VALLEY OF THE THRIE BEAM RAIL ALSO ALIGNS WITH THE HORIZONTAL 4" x 4" BRIDGE RAIL, THEN DO NOT ATTACH THROUGH FLANGE ON BRIDGE RAIL POST, AND ATTACH PER NOTE 7.

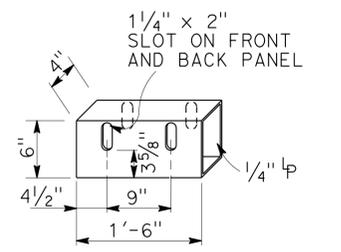
IF 5/8" Ø BOLT THROUGH THE THRIE BEAM DOES NOT GO THROUGH THE HORIZONTAL 4" x 4" BRIDGE RAIL, THEN SEE NOTE 6 AND ATTACH BY DRILLING THROUGH FLANGE ON BRIDGE RAIL POST.



DETAIL E
CONNECTION OF THRIE BEAM TO TYPE 115 BRIDGE RAIL



SECTION B-B



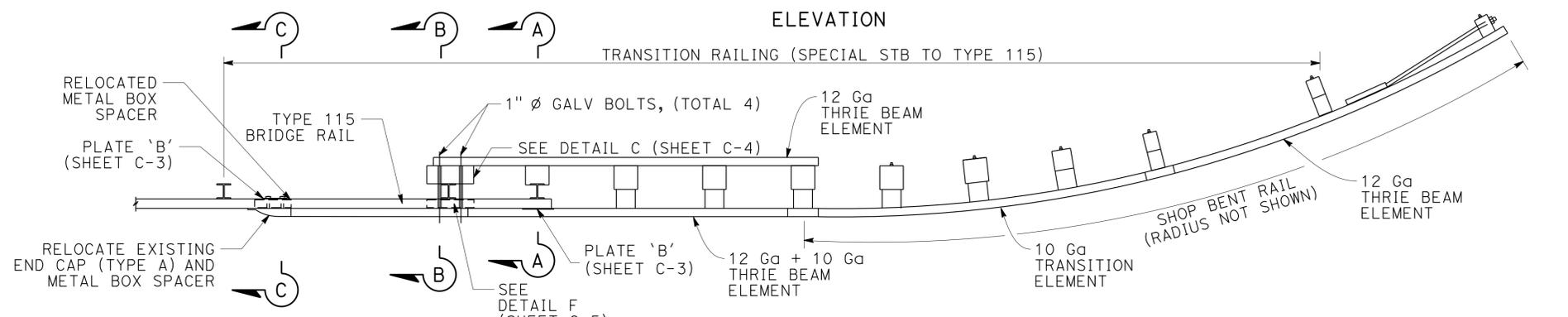
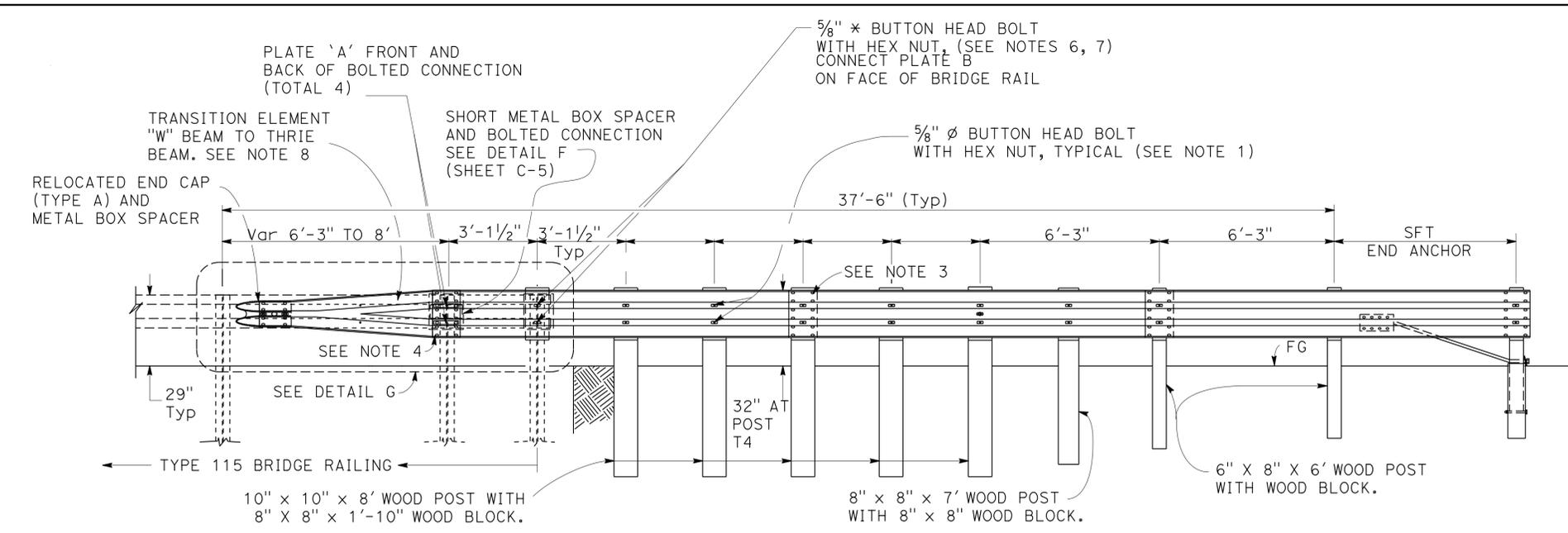
DETAIL F
TYPE 115 METAL BOX SPACER

CONSTRUCTION DETAILS
GUARD RAILING
TRANSITION RAILING
(SPECIAL WB TO
TYPE 115 BRIDGE RAIL)
NO SCALE **C-5**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAFFIC
 FUNCTIONAL SUPERVISOR KRISTI WESTOBY
 CALCULATED/DESIGNED BY DWIGHT WINTERLIN
 CHECKED BY SCOTT GREGORY
 REVISIONS: 11-04-15, 11-05-15, 11-05-15
 USERNAME => s115152
 DGN FILE => 20h990ga005.dgn
 BORDER LAST REVISED 7/2/2010
 RELATIVE BORDER SCALE IS IN INCHES
 UNIT 0148
 PROJECT NUMBER & PHASE 02 1500 0090 1

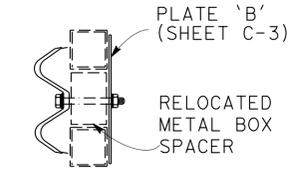
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	8	33

DWIGHT WINTERLIN 11-04-15
 REGISTERED CIVIL ENGINEER DATE
 11-04-15
 PLANS APPROVAL DATE
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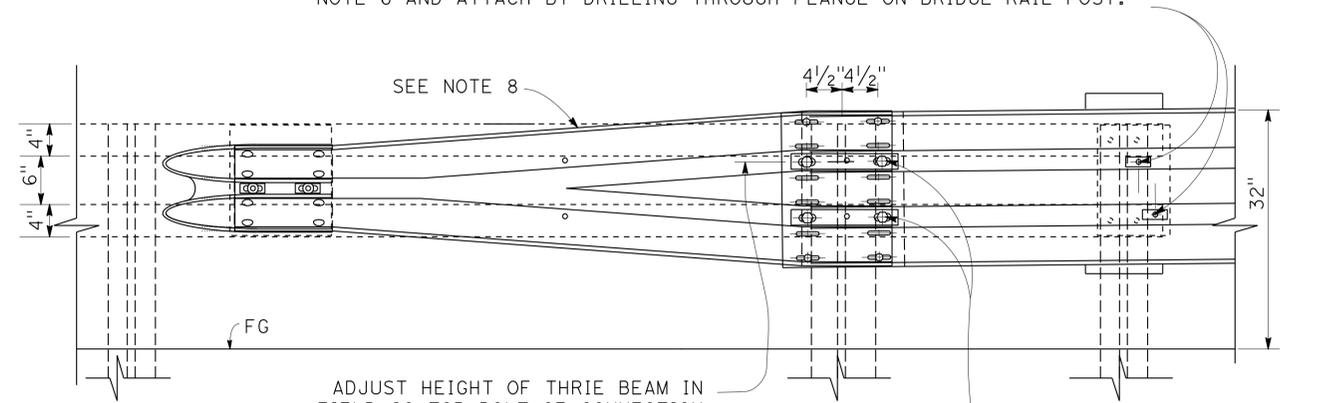


TRANSITION RAILING (SPECIAL STB TO TYPE 115)
(SPECIAL CONNECTION TO TYPE 115 BRIDGE RAIL BLOCKOUT ATTACHMENT)

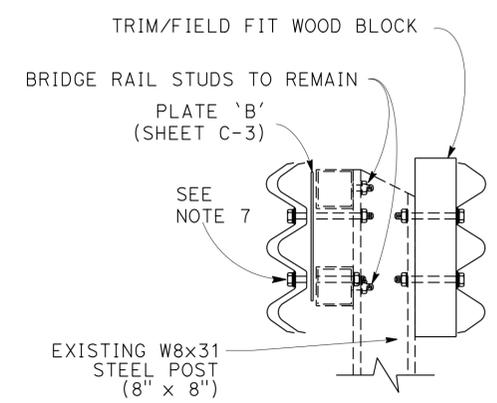
IF THE ALIGNMENT OF THE 5/8" Ø BOLT THROUGH THE VALLEY OF THE THRIE BEAM RAIL ALSO ALIGNS WITH THE HORIZONTAL 4" x 4" BRIDGE RAIL, THEN DO NOT ATTACH THROUGH FLANGE ON BRIDGE RAIL POST, AND ATTACH PER NOTE 7.
 IF 5/8" Ø BOLT THROUGH THE THRIE BEAM DOES NOT GO THROUGH THE HORIZONTAL 4" x 4" BRIDGE RAIL, THEN SEE NOTE 6 AND ATTACH BY DRILLING THROUGH FLANGE ON BRIDGE RAIL POST.



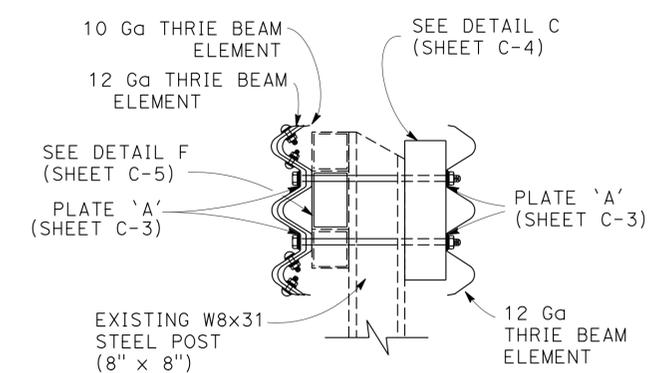
SECTION C-C



DETAIL G
CONNECTION OF THRIE BEAM TO TYPE 115 BRIDGE RAIL



SECTION A-A



SECTION B-B

CONSTRUCTION DETAILS
GUARD RAILING
TRANSITION RAILING
(SPECIAL STB TO TYPE 115 BRIDGE RAIL)
NO SCALE

DWIGHT WINTERLIN
 SCOTT GREGORY
 KRISTI WESTOBY
 DEPARTMENT OF TRANSPORTATION
 TRAFFIC
 STATE OF CALIFORNIA
 USERNAME => s115152
 DGN FILE => 20h990ga006.dgn
 BORDER LAST REVISED 7/2/2010
 RELATIVE BORDER SCALE IS IN INCHES
 UNIT 0148
 PROJECT NUMBER & PHASE 02 1500 0090 1

LAST REVISION DATE PLOTTED => 18-NOV-2015
 11-05-15 TIME PLOTTED => 12:46

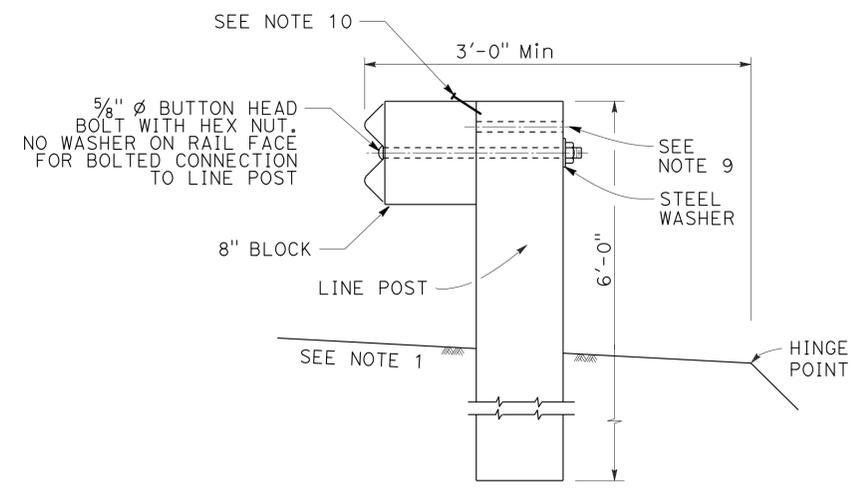
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	9	33

<i>Scott C. Gregory</i> 11-04-15 REGISTERED CIVIL ENGINEER DATE	
11-04-15 PLANS APPROVAL DATE	
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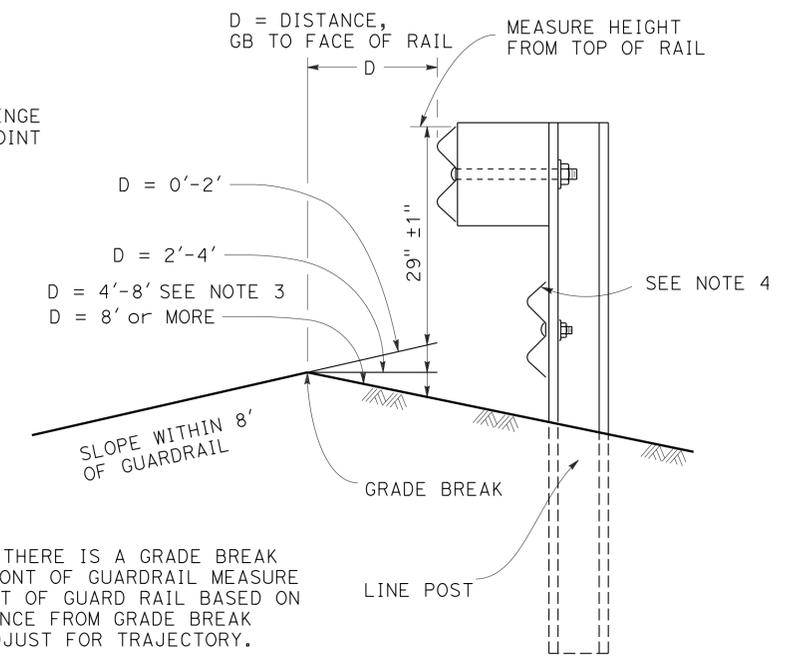
REGISTERED PROFESSIONAL ENGINEER
SCOTT C. GREGORY
 No. C75565
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

NOTES:

1. Max 10:1 SLOPE IN FRONT OF GUARDRAIL.
2. FOR POST AND BLOCK DETAILS SEE RSP A77N1 OR RSP A77N2. FOR RAIL ELEMENT AND HARDWARE DETAILS, USE MGS DETAILS SHOWN ON RSP A77M1 AND RSP A77L1 OR RSP A77L2 AND RSP A77M1.
3. WHEN THERE IS A BREAK POINT IN FRONT OF GUARDRAIL BETWEEN 4'-8' THE HEIGHT WILL BE DETERMINED BY THE ENGINEER.
4. PLACE RUB RAIL (GUARDRAIL ELEMENT) AND ATTACH TO POST WITH NO BLOCK WHEN HEIGHT OF GUARDRAIL IS Min 31" ABOVE FINISH GRADE UNDER FACE OF RAIL.
5. A SINGLE LINE POST MAY BE OFFSET UP TO 12" INLINE WITH THE GUARDRAIL.
6. PLACE L-1 MARKER WHERE GUARD RAIL 1ST GETS PARALLEL/CLOSEST TO ETW. IF THE PAVED SHOULDER IS REDUCED APPROACHING A FIXED OBJECT, PLACE A "P" MARKER INSTEAD OF THE L-1 MARKER.
7. FOR BOLTED CONNECTION OF RAIL ELEMENT TO BLOCK AND POST, SEE "RAIL ELEMENT SPLICE DETAIL" AND "SECTION THRU RAIL ELEMENT", RSP A77L1 OR RSP A77L2.
8. TO CONNECT RAILING TO TERMINAL SYSTEM END TREATMENT, TRANSITION THE TOP OF RAILING HEIGHT AT A RATIO OF 120:1 TO TERMINAL SYSTEM END TREATMENT HEIGHT PLUS ONE 12'-6" STANDARD RAILING SECTION AT THE TERMINAL HEIGHT.
9. ADDITIONAL HOLE IN UPPERMOST PORTION OF LINE POST IS FOR POTENTIAL FUTURE ADJUSTMENTS OF RAILING HEIGHT. SEE RSP A77N1, RSP A77N2.
10. FOR WOOD POST, TOENAIL BLOCKS TO POST WITH 2-16D Galv NAILS.
11. DIMENSIONS FOR POST AND BLOCKS ARE NOMINAL.
12. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

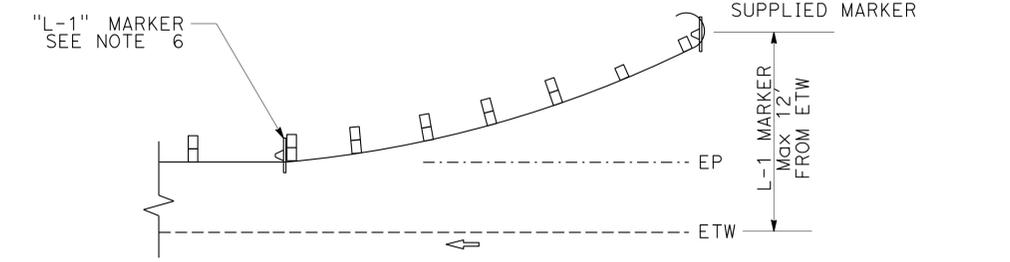
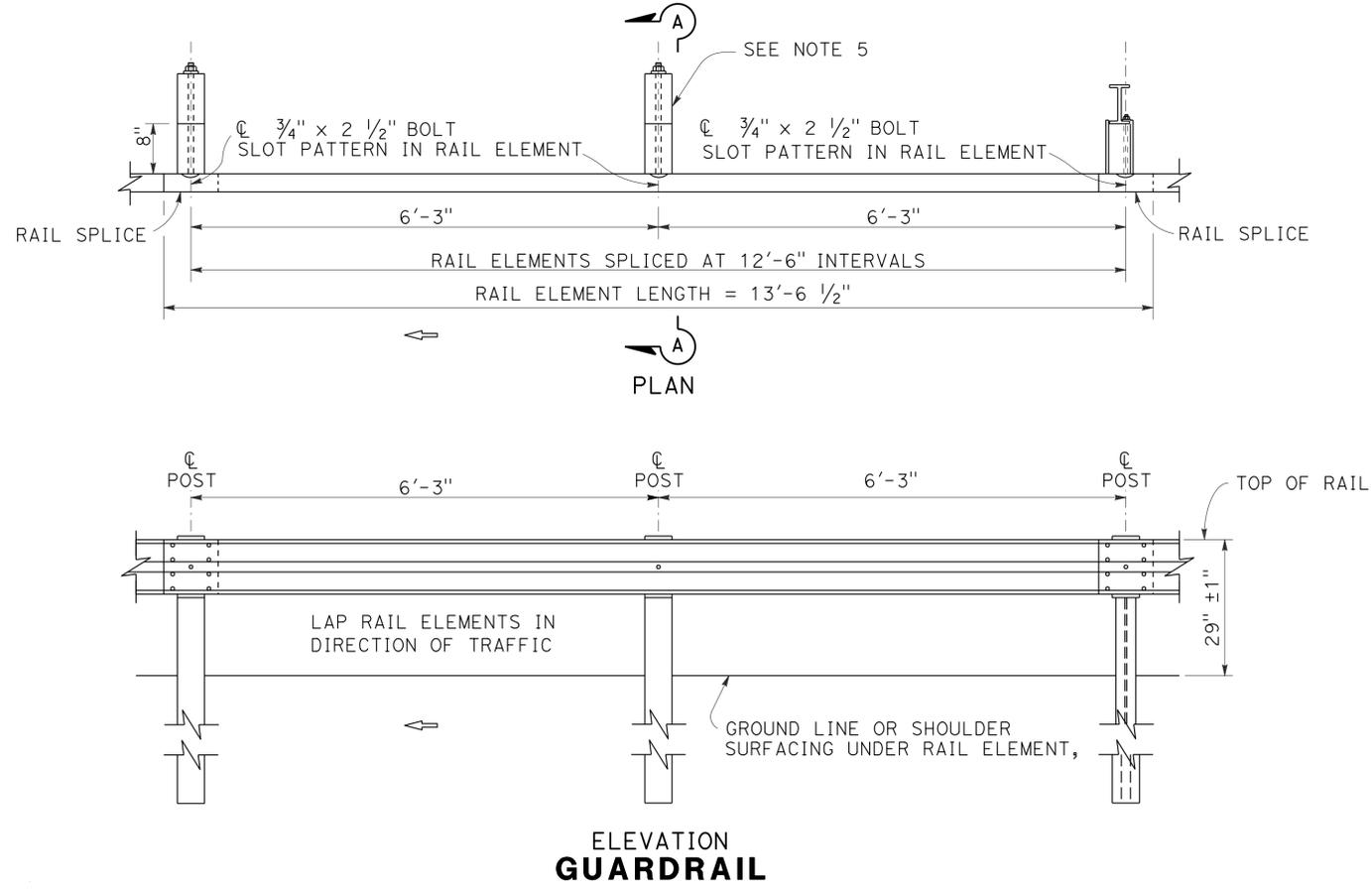


**SECTION A-A
TYPICAL ROADWAY
INSTALLATION**
SEE NOTE 2



WHEN THERE IS A GRADE BREAK IN FRONT OF GUARDRAIL MEASURE HEIGHT OF GUARD RAIL BASED ON DISTANCE FROM GRADE BREAK TO ADJUST FOR TRAJECTORY.

**MEASURE HEIGHT DETAIL
AT GRADE BREAK (GB)**



GUARDRAIL DELINEATION
PLACE OBJECT MARKER(S) TO DELINEATE FIXED OBJECTS WITHIN 12' OF ETW.

**CONSTRUCTION DETAILS
GUARD RAILING
STANDARD RAILING SECTION C-7**
NO SCALE

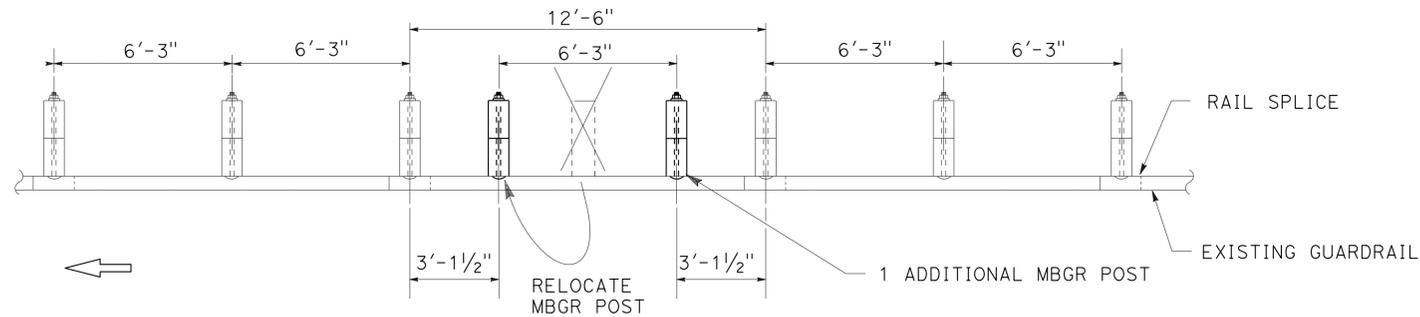
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 SCOTT GREGORY
 KARLIE SMITH
 MICHAEL CONNER
 FUNCTIONAL SUPERVISOR
 CALCULATED/DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED
 USERNAME => s115152
 DGN FILE => 20h990ga007.dgn
 BORDER LAST REVISED 7/2/2010
 RELATIVE BORDER SCALE IS IN INCHES
 UNIT 0156
 PROJECT NUMBER & PHASE 02 1500 0090 1

LAST REVISION DATE PLOTTED => 18-NOV-2015
 11-05-15 TIME PLOTTED => 12:46

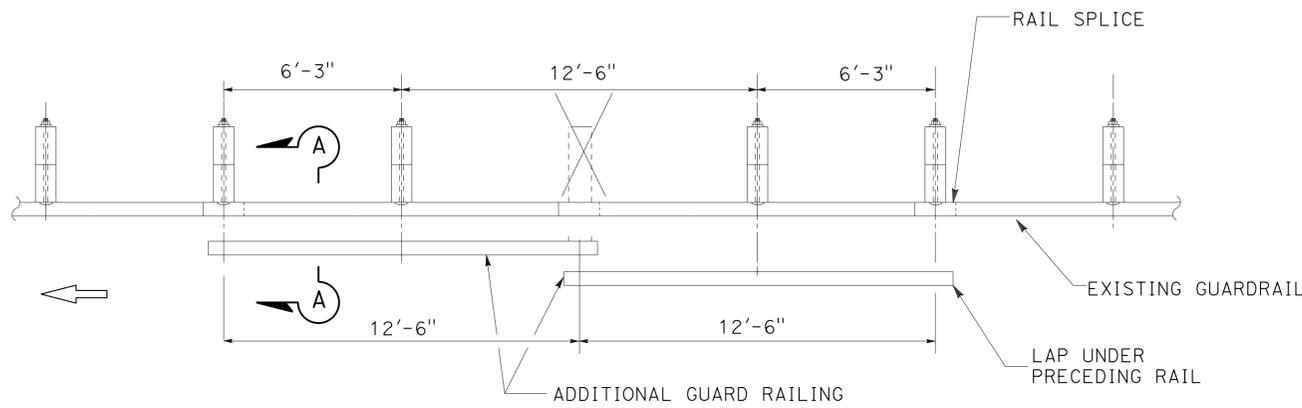
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	10	33

Scott C. Gregory 11-04-15
 REGISTERED CIVIL ENGINEER DATE
 11-04-15
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

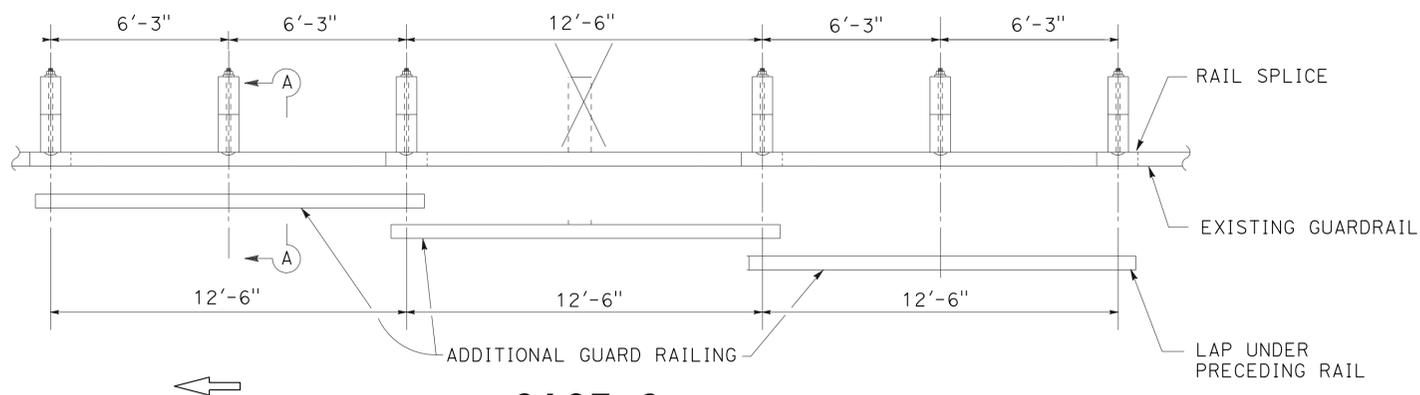
REGISTERED PROFESSIONAL ENGINEER
 SCOTT C. GREGORY
 No. C75565
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA



CASE 1
 (ONE POST CONFLICT, MOVE THE POST and ADD ONE POST)
 (NO NESTED RAIL REQUIRED)



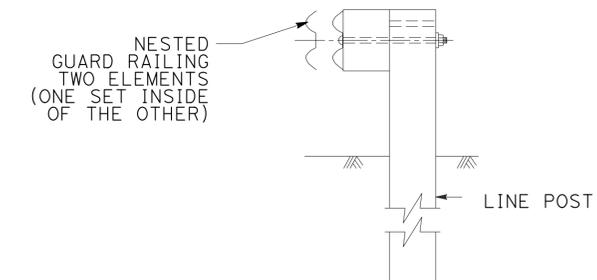
CASE 2
 (ONE POST OMITTED AT JUNCTION OF TWO ELEMENTS)
 (NEST TWO LENGTHS OF RAIL REQUIRED)



CASE 3
 (ONE POST OMITTED AT CENTER OF OF ELEMENT)
 (NEST THREE LENGTHS OF RAIL REQUIRED)
 (ONE ADDITIONAL POST MAY BE OMITTED SEE NOTE 3)

NOTES:

1. NEST ALL RAILS AT EXISTING RAIL LAPS
2. WHEN A POST IS REMOVED AND THE RAIL ELEMENTS ARE NESTED, THE NESTED ELEMENTS MUST BE SUPPORTED BY A Min of 2 POST EACH SIDE OF THE OMITTED POST.
3. USING CASE 3, A SECOND ADJACENT POST CAN BE REMOVED IF THE NESTED RAIL ELEMENTS ARE SUPPORTED BY A Min of 2 POSTS EACH SIDE OF THE MISSING POSTS. THE 2-POST OPTION USES CASE 3, BUT NOT SHOWN.
4. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.



SECTION A-A
**TYPICAL RAILING OVERLAP
 INSTALLATION AT POST**

LONG SPAN NESTED GUARD RAILING

**CONSTRUCTION DETAILS
 GUARDRIAL
 OMIT POST OPTIONS**

NO SCALE

C-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 SCOTT GREGORY
 KARLIE SMITH
 MICHAEL CONNER
 FUNCTIONAL SUPERVISOR
 CALCULATED/DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	11	33

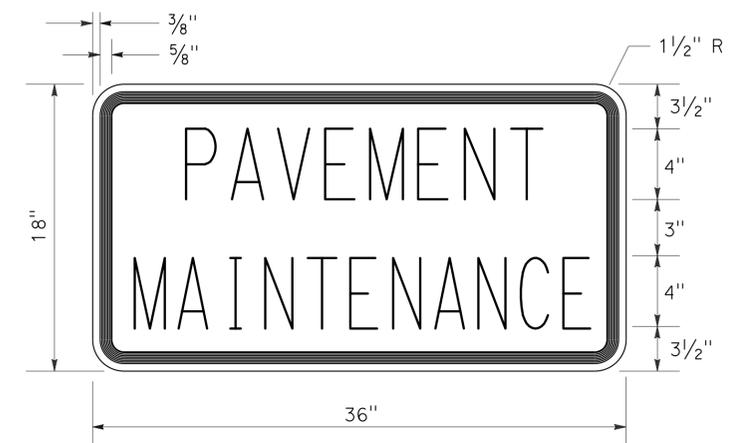
Scott C. Gregory 11-04-15
 REGISTERED CIVIL ENGINEER DATE
 11-04-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 SCOTT C. GREGORY
 No. C75565
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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NOTES:

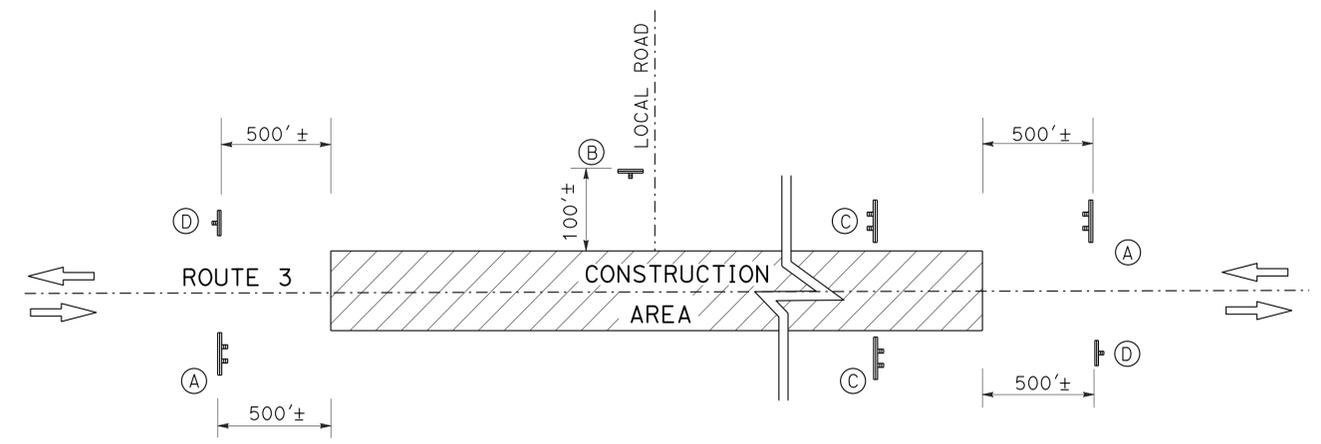
1. EXACT LOCATION OF ALL SIGNS TO BE DETERMINED BY THE ENGINEER.
2. CALIFORNIA CODES ARE DESIGNATED BY (CA), OTHERWISE FEDERAL CODES ARE SHOWN.
3. INTERMEDIATE C11(CA) SIGNS SHOULD BE PLACED EVERY 3 TO 5 MILES AS NECESSARY.
4. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.



C23B(CA) SIGN PANEL DETAIL

LOCAL ROADS

PM	DESCRIPTION
L3.98	13 DIPS Rd - Rt
0.05	RATTLESNAKE Rd - Lt



CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

TYPE	CODE	PANEL SIZE	SIGN MESSAGE	No. AND SIZE OF POST	No. OF SIGNS
(A)	C11(CA) C23B(CA)	60" x 36" 36" x 18"	ROAD CONSTRUCTION NEXT XX MILES PAVEMENT MAINTENANCE	2-4" x 6"	2
(B)	W20-1	48" x 48"	ROAD WORK AHEAD	1-4" x 6"	2
(C)	C11(CA)	60" x 36"	ROAD CONSTRUCTION NEXT XX MILES	2-4" x 6"	2
(D)	G20-2	36" x 18"	END ROAD WORK	1-4" x 4"	2

CONSTRUCTION AREA SIGNS
NO SCALE **CS-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Michael Conner
 Functional Supervisor
 Scott Gregory
 Karlie Smith
 Revised By
 Date Revised
 Calculated/Designed By
 Checked By
 Caltrans

LAST REVISION DATE PLOTTED => 18-NOV-2015
 11-05-15 TIME PLOTTED => 12:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	12	33

Scott C. Gregory 11-04-15
 REGISTERED CIVIL ENGINEER DATE
 11-04-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 SCOTT C. GREGORY
 No. C75565
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 CIVIL
 STATE OF CALIFORNIA

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NOTES:

- (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
- ACTUAL LOCATIONS OF REPLACE ASPHALT CONCRETE SURFACING TO BE DETERMINED BY THE ENGINEER.
- DO NOT PAVE ON BRIDGE No. 05-0061.
- THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.

REMOVE MARKERS (N)

PM	EA
L0.05-L0.50	38

ROADWAY QUANTITIES

POST MILE LIMITS	(N) WIDTH	(N) LENGTH	HOT MIX ASPHALT (TYPE A)	TACK COAT	SHOULDER BACKING
PM - PM	LF	LF	TON	TON	TON
L0.05-L0.06	34.0-28.3	52.8	5249	23	1881
L0.06-L0.50	28.3-25.0	2323.2			
L0.50-L1.00	25.0-26.0	2640.0			
L1.00-L1.50	26.0-24.0	2640.0			
L1.50-L2.00	24.0-25.0	2640.0			
L2.00-L2.50	25.0-25.0	2640.0			
L2.50-L3.00	25.0-24.7	2640.0			
L3.00-L3.50	24.7-28.4	2640.0			
L3.50-L4.00	28.4-24.0	2640.0			
L4.00-L4.50	24.0-22.2	2640.0			
L4.50-L4.79	22.2-24.8	1531.2			
0.00-0.50	24.8-23.0	2640.0			
0.50-0.56	23.0-23.2	316.8			
DIKE					
ROAD CONNECTIONS AND DRIVEWAYS			31	1	6
TOTAL			5305	24	1887

COLD PLANE ASPHALT CONCRETE PAVEMENT

POST MILE LIMITS	(N) LENGTH	(N) WIDTH	AREA	REMARKS
	LF	LF	SQYD	
L0.05	40	34	151	MAINLINE CONFORM TAPER
L3.84	40	28	124	SALT CREEK BRIDGE CONFORM TAPER
L3.85	22	18	44	SALT CREEK BRIDGE CONFORM TAPER
L3.98	40	28	124	13 DIPS ROAD CONFORM TAPER - R+
0.54-0.56	153	27	459	DOBBINS GULCH BRIDGE CONFORM TAPER
TOTAL			902	

REPLACE ASPHALT CONCRETE SURFACING

POST MILE LIMITS	(N) Approx No. OF DIGOUTS	(N) LENGTH Avg	(N) WIDTH	(N) DEPTH	REPLACE ASPHALT CONCRETE SURFACING
PM - PM		LF	LF	LF	CY
L0.05-L0.50	12	50	4	0.33	30
L0.50-L1.00	12	50	4	0.33	30
L1.00-L1.50	12	50	4	0.33	30
L1.50-L2.00	12	50	4	0.33	30
L2.00-L2.50	12	50	4	0.33	30
L2.50-L3.00	12	50	4	0.33	30
L3.00-L3.50	12	50	4	0.33	30
L3.50-L4.00	12	50	4	0.33	30
L4.00-L4.79	12	50	4	0.33	30
0.00-0.56	12	50	4	0.33	30
RATTLESNAKE Rd				0.33	47
TOTAL					347

* ACTUAL LOCATIONS OF REPLACE ASPHALT CONCRETE SURFACING TO BE DETERMINED BY THE ENGINEER.

PREPAVING GRINDING DAY

PM	EA
L0.05-0.56	5

PLACE HMA DIKE (TYPE D)

PM	SIDE	LF
L0.36	L+	245
L3.50	R+	170
TOTAL		415

REMOVE AC DIKE

PM	SIDE	LF
L0.36	L+	245
L3.50	R+	170
TOTAL		415

THERMOPLASTIC PAVEMENT MARKING

PM	L+	Mid	R+	EA	SQFT	REMARKS
L3.98			X	1	22	STOP
L3.98			X	1	12	ROAD CONNECTION LIMIT LINE
0.05	X			1	22	STOP
0.05	X			1	24	ROAD CONNECTION LIMIT LINE
TOTAL					80	

GUARD RAILING

POST MILE	SIDE R+/L+	REMOVE GUARDRAIL	RECONSTRUCT GUARDRAIL	TRANSITION RAILING (SPECIAL WB TO TYPE 115)	TRANSITION RAILING (SPECIAL STB TO TYPE 115)	TRANSITION RAILING (SPECIAL WB TO TYPE 15)	TRANSITION RAILING (SPECIAL STB TO TYPE 15)	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE IN-LINE TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	OBJECT MARKER (TYPE L-1)	TREATED WOOD WASTE	
		LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
L3.84	L+	38					1			1		8235	
L3.84	R+	63						1			2		
L3.85	L+	25	38					1			2		
L3.85	R+	63						1					
0.54	L+	81	25	1					1				
0.54	R+	38			1					1	2		
0.55	L+	50	25	1				1			2		
0.55	R+	63	25	1				1					
TOTAL		421	113	3	1	3	1	5	1	2	8		8235

THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)

POST MILE LIMITS	DETAIL 21	DETAIL 27B	DETAIL 27C
	LF	LF	LF
L0.05-0.56	27,984	55,773	195
TOTAL		83,952	

SUMMARY OF QUANTITIES Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE
 SCOTT GREGORY
 KARLIE SMITH
 MICHAEL CONNER
 11-05-15 12:46

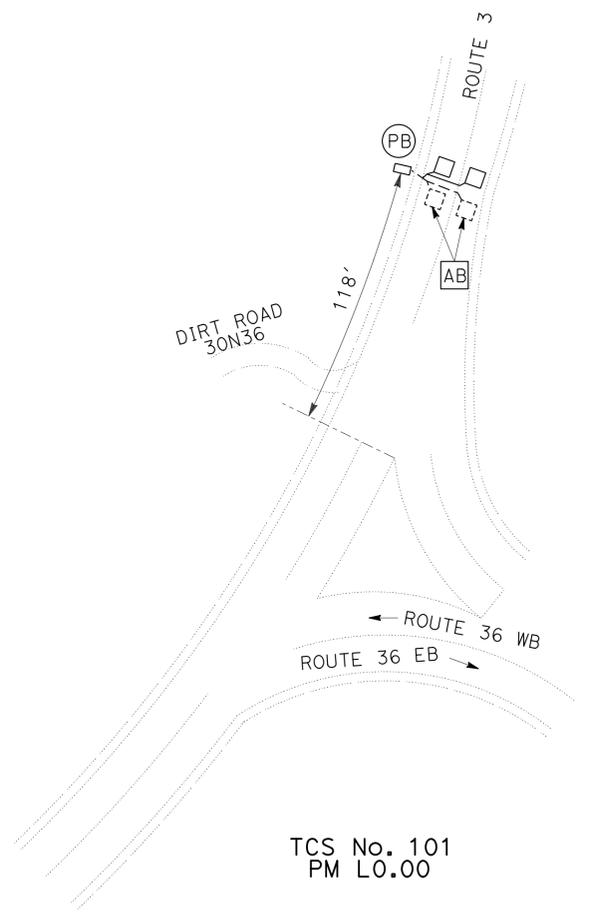
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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR
 ROB STINGER
 CALCULATED/DESIGNED BY
 CHECKED BY
 ARTURO P. ROBLES
 KAREN LAW
 REVISED BY
 DATE REVISED

NOTES:

1. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.
2. REUSE SHOULDER TERMINATION.
3. REPLACE PB WITH No. 5(T) PB WITH TAMPER RESISTANT COVER.

LEGEND:

(PB) OBJECT MARKER (TYPE PB)



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	13	33

ART 11-04-15
 REGISTERED ELECTRICAL ENGINEER DATE
 11-04-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 A.P. ROBLES
 No. E15293
 Exp. 3-31-17
 ELECTRICAL
 STATE OF CALIFORNIA

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MODIFY TRAFFIC COUNT STATION

NO SCALE

E-1

APPROVED FOR ELECTRICAL WORK ONLY

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 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR
 ROB STINGER
 CALCULATED/DESIGNED BY
 CHECKED BY
 ARTURO P. ROBLES
 KAREN LAW
 REVISED BY
 DATE REVISED

NOTES:

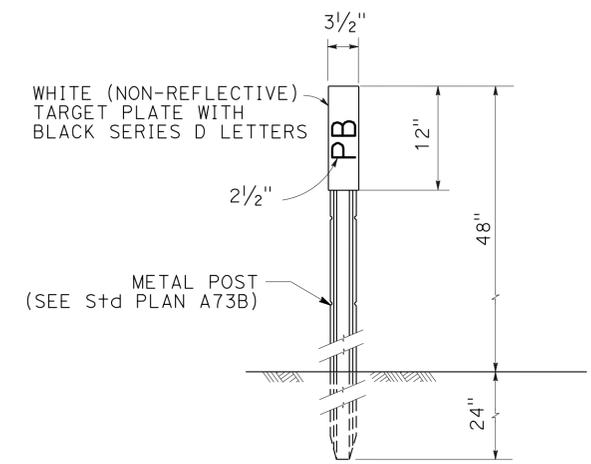
1. THE LOCATIONS OF WORK ARE FLEXIBLE AND MAY BE ADJUSTED TO MITIGATE ANY CONFLICTS WITH EXISTING UTILITY FACILITIES. EXISTING UTILITY FACILITIES ARE NOT INCLUDED ON THESE PLANS.
2. (N) - NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	14	33

ART 11-04-15
 REGISTERED ELECTRICAL ENGINEER DATE
 11-04-15
 PLANS APPROVAL DATE

A.P. ROBLES
 No. E15293
 Exp. 3-31-17
 REGISTERED PROFESSIONAL ENGINEER
 ELECTRICAL
 STATE OF CALIFORNIA

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OBJECT MARKER (TYPE PB)

NOTE: PLACE MARKER SIDE AWAY FROM TRAFFIC. INSTALL SNOW POLE BRACKET.

MODIFY TRAFFIC COUNT STATION

SHEET No.	(N)	(N)	(N)
	TYPE A LOOP DETECTOR	No. 5 TRAFFIC PULL BOX	OBJECT MARKER (TYPE PB)
E-1	2	1	1

ELECTRICAL DETAILS AND QUANTITIES

NO SCALE

E-2

M	
Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED, MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD RAILING
MR	MOVEMENT RATING
MSE	MECHANICALLY STABILIZED EMBANKMENT
Mt	MOUNTAIN, MOUNT
MtI	MATERIAL
MVP	MAINTENANCE VEHICLE PULLOUT
N	
N	NORTH
NB	NORTHBOUND
No.	NUMBER (MUST HAVE PERIOD)
Nos.	NUMBERS (MUST HAVE PERIOD)
NPS	NOMINAL PIPE SIZE
NS	NEAR SIDE
NSP	NEW STANDARD PLAN
NTS	NOT TO SCALE
O	
Obir	OBLITERATE
OC	OVERCROSSING
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OGAC	OPEN GRADED ASPHALT CONCRETE
OGFC	OPEN GRADED FRICTION COURSE
OH	OVERHEAD
OHWM	ORDINARY HIGH WATER MARK
O-O	OUT TO OUT
Opp	OPPOSITE
OSD	OVERSIDE DRAIN
P	
p	PAGE
PAP	PERFORATED ALUMINUM PIPE
PB	PULL BOX
PC	POINT OF CURVATURE, PRECAST
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PEC	PERMIT TO ENTER AND CONSTRUCT
Ped	PEDESTRIAN
Ped OC	PEDESTRIAN OVERCROSSING
Ped UC	PEDESTRIAN UNDERCROSSING
Perm MtI	PERMEABLE MATERIAL

P continued	
PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
Pkwy	PARKWAY
PL, PL	PLATE
P/L	PROPERTY LINE
PM	POST MILE, TIME FROM NOON TO MIDNIGHT
PN	PAVING NOTCH
POC	POINT OF HORIZONTAL CURVE
POT	POINT OF TANGENT
POVC	POINT OF VERTICAL CURVE
PP	PIPE PILE, PLASTIC PIPE, POWER POLE
PPL	PERFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PRC	POINT OF REVERSE CURVE
PRF	PAVEMENT REINFORCING FABRIC
PRVC	POINT OF REVERSE VERTICAL CURVE
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES
PS, P/S	PRESTRESSED
PSP	PERFORATED STEEL PIPE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
Pvmt	PAVEMENT
Q	
Qty	QUANTITY
R	
R	RADIUS
R & D	REMOVE AND DISPOSE
R & S	REMOVE AND SALVAGE
R/C	RATE OF CHANGE
RCA	REINFORCED CONCRETE ARCH
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
Rd	ROAD
Reinf	REINFORCED, REINFORCEMENT, REINFORCING
Rel	RELOCATE
Repl	REPLACEMENT
Ret	RETAINING
Rev	REVISED, REVISION
Rdwy	ROADWAY
RHMA	RUBBERIZED HOT MIX ASPHALT
Riv	RIVER
RM	ROAD-MIXED
RP	RADIUS POINT, REFERENCE POINT
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN
Rt	RIGHT
Rte	ROUTE
RW	REDWOOD, RETAINING WALL
R/W	RIGHT OF WAY
Rwy	RAILWAY

S	
S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND, SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
SL	STATION LINE
SM	SELECTED MATERIAL
Spec	SPECIAL, SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE
SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
St	STREET
Sta	STATION
STBB	SINGLE THRIE BEAM BARRIER
Std	STANDARD
Str	STRUCTURE
Surf	SURFACING
SW	SIDEWALK, SOUND WALL
Swr	SEWER
Sym	SYMMETRICAL
S4S	SURFACE 4 SIDES
T	
T	SEMI-TANGENT
Tan	TANGENT
TBB	THRIE BEAM BARRIER
Tbr	TIMBER
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TCE	TEMPORARY CONSTRUCTION EASEMENT
TeI	TELEPHONE
Temp	TEMPORARY
TG	TOP OF GRADE
Tot	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL
Typ	TYPICAL
U	
UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
V	
V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME
W	
W	WEST, WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWL	WINGWALL LAYOUT LINE
X	
X Sec	CROSS SECTION
Xing	CROSSING
Y	
Yr	YEAR
Yrs	YEARS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	15	33

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 11-04-15

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
Ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

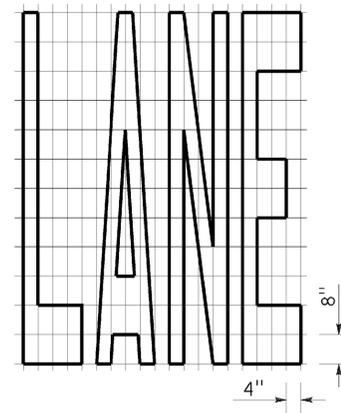
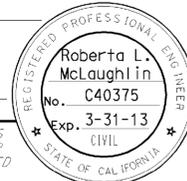
REVISED STANDARD PLAN RSP A10B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	16	33

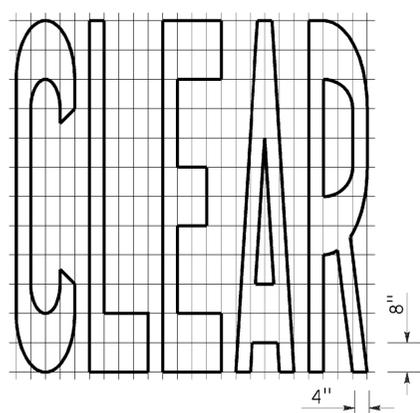
Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 July 20, 2012
 PLANS APPROVAL DATE

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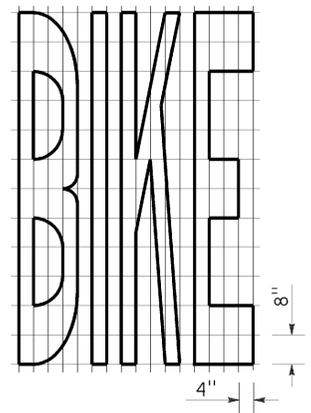
TO ACCOMPANY PLANS DATED 11-04-15



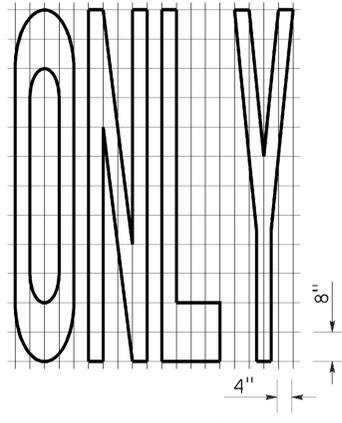
A=24 ft²



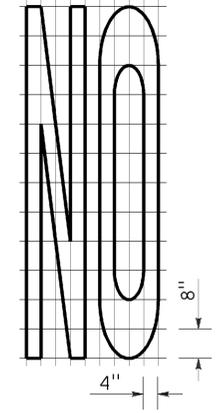
A=27 ft²



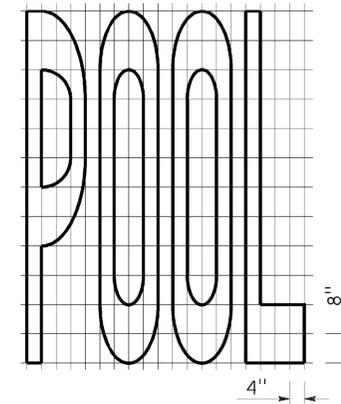
A=21 ft²



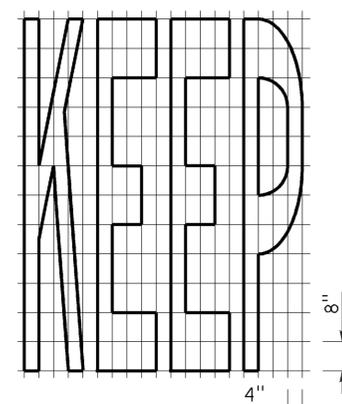
A=22 ft²



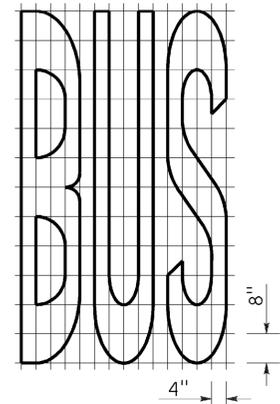
A=14 ft²



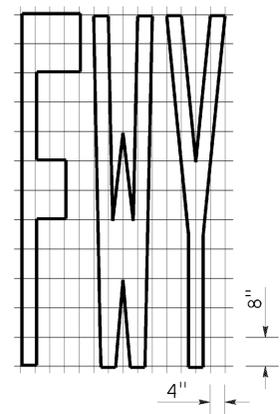
A=23 ft²



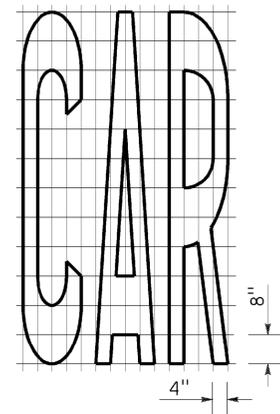
A=24 ft²



A=20 ft²

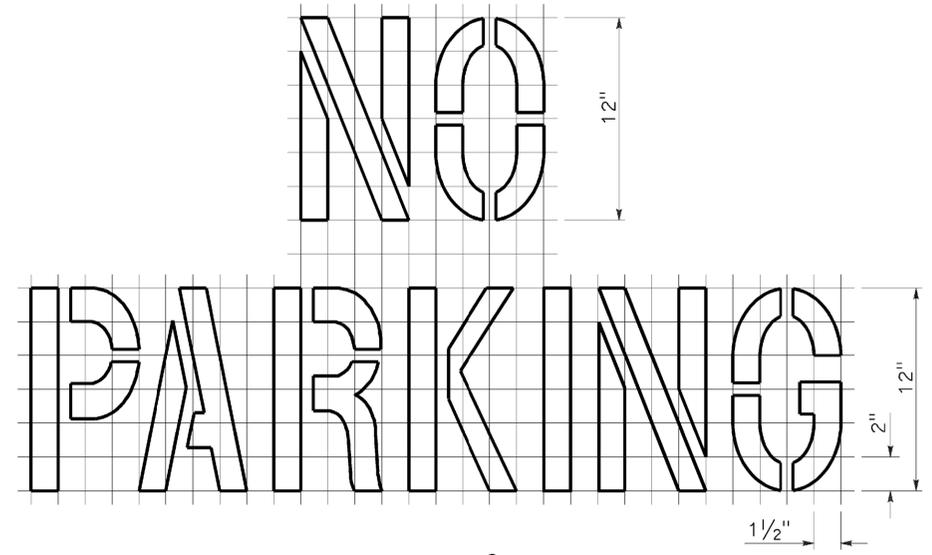


A=16 ft²

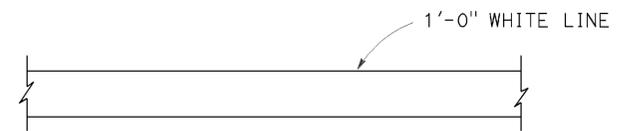


A=17 ft²

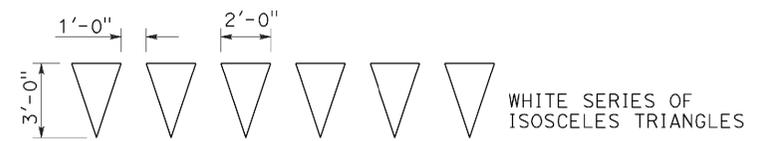
WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



DIRECTION OF TRAVEL
YIELD LINE

NOTES:

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES**

NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	LO.0/0.6	17	33

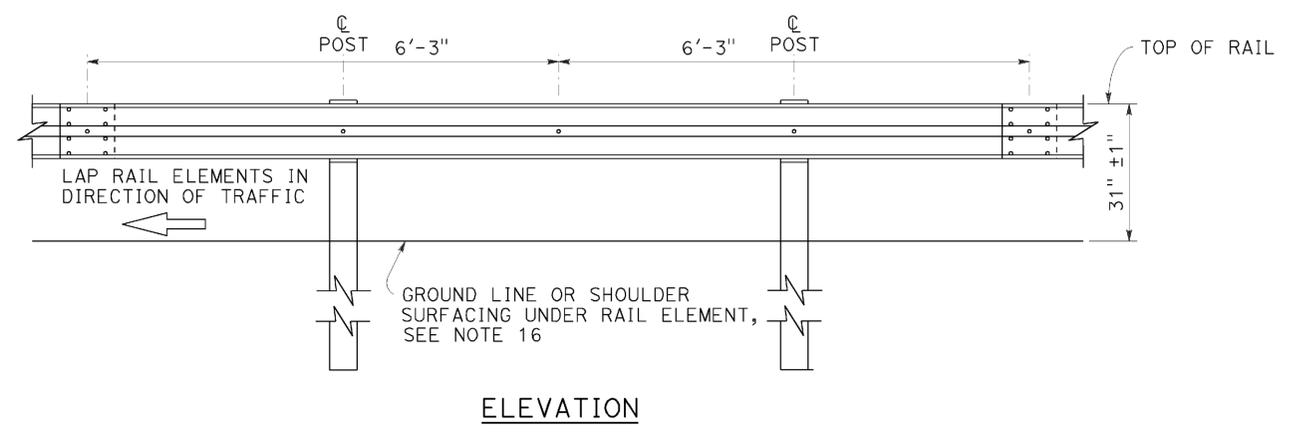
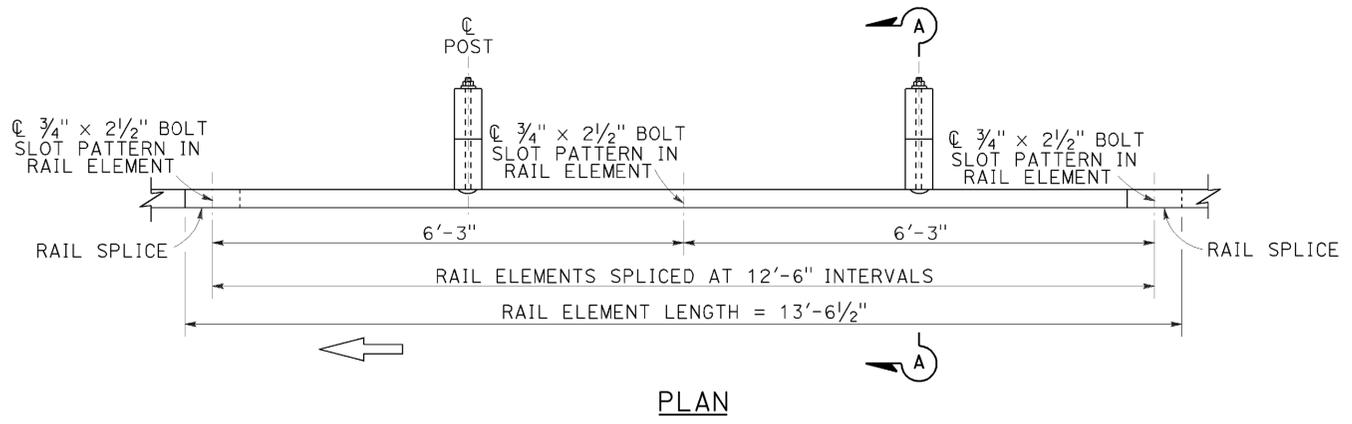
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

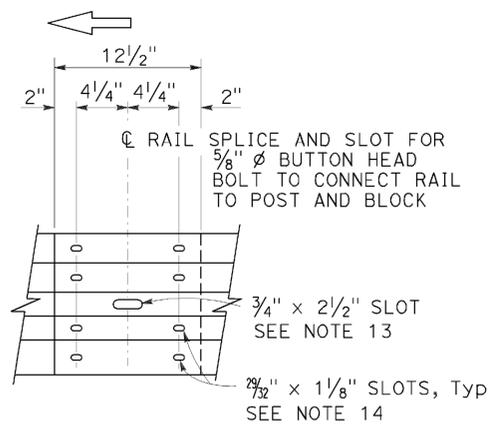
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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

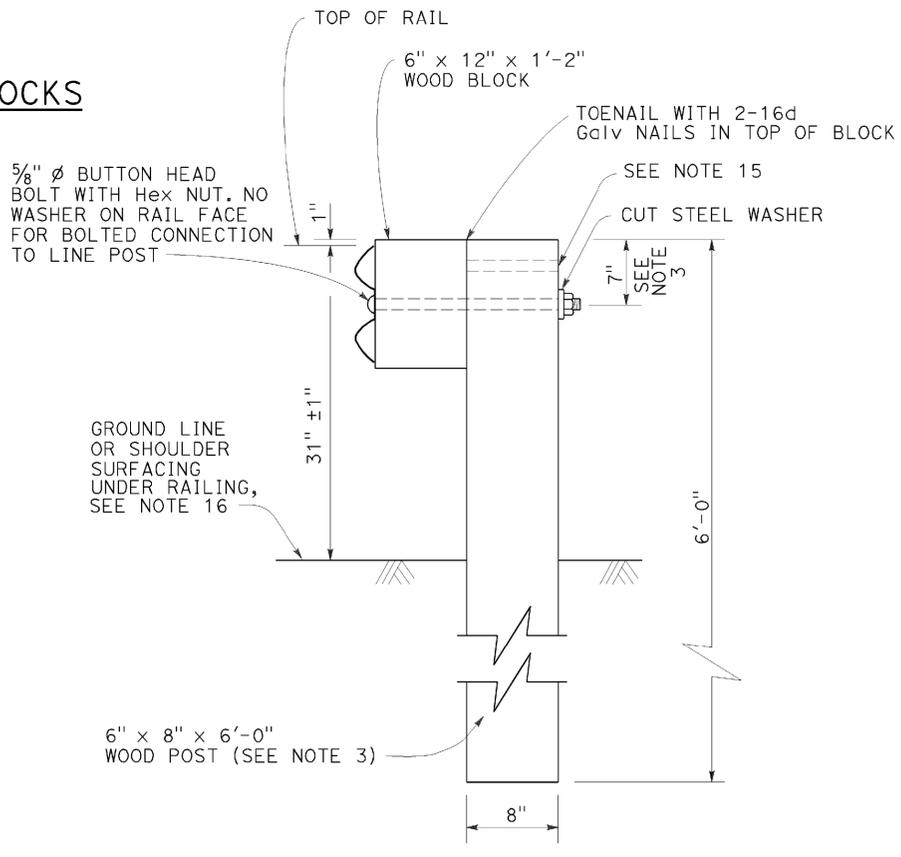
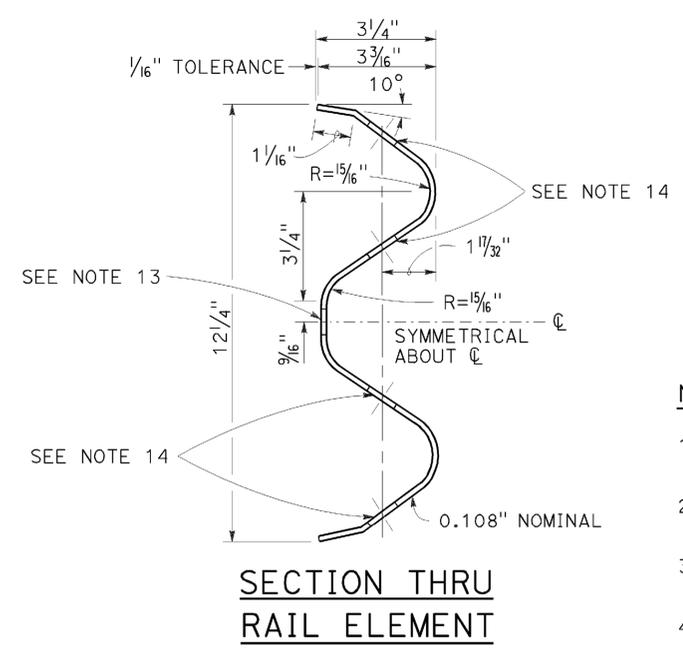
TO ACCOMPANY PLANS DATED 11-04-15



MIDWEST GUARDRAIL SYSTEM WITH WOOD POST AND BLOCKS



- Connect the over lapped end of the rail elements with $\frac{5}{8}$ " ϕ x $1\frac{3}{8}$ " button head oval shoulder splice bolts inserted into the $\frac{7}{32}$ " x $1\frac{1}{8}$ " slots and bolted together with $\frac{5}{8}$ " ϕ recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



SECTION A-A
TYPICAL WOOD LINE POST INSTALLATION
See Note 4

NOTES:

- For details of steel post installations, see Revised Standard Plan RSP A77L2.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of wood posts and wood blocks used to construct MGS, see Revised Standard Plan RSP A77N1.
- For additional installation details, see Revised Standard Plan RSP A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77Q and A77R Series of Standard Plans.
- If railing is connected to terminal system end treatment, use 31" height terminal system end treatment.
- For MGS end anchor details, see Revised Standard Plans RSP A77S1 and RSP A77T2.
- For details of MGS transition to bridge railing, see Revised Standard Plan RSP A77U4.
- For additional details of MGS connection to bridge railing, see Revised Standard Plans RSP A77U1, RSP A77U2 and RSP A77V1.
- For MGS connection details to abutments and walls, see Revised Standard Plan RSP A77U3.
- For typical MGS delineation and dike positioning details, see Revised Standard Plan RSP A77N4.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Additional hole in uppermost portion of line post is for potential future adjustments of railing height. See Revised Standard Plan RSP A77N1.
- Install posts in soil.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**MIDWEST GUARDRAIL SYSTEM
STANDARD RAILING SECTION
(WOOD POST WITH
WOOD BLOCK)**

NO SCALE

RSP A77L1 DATED JULY 19, 2013 SUPPLEMENTS STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L1

2010 REVISED STANDARD PLAN RSP A77L1

DATE PLOTTED => 18-NOV-2015
TIME PLOTTED => 12:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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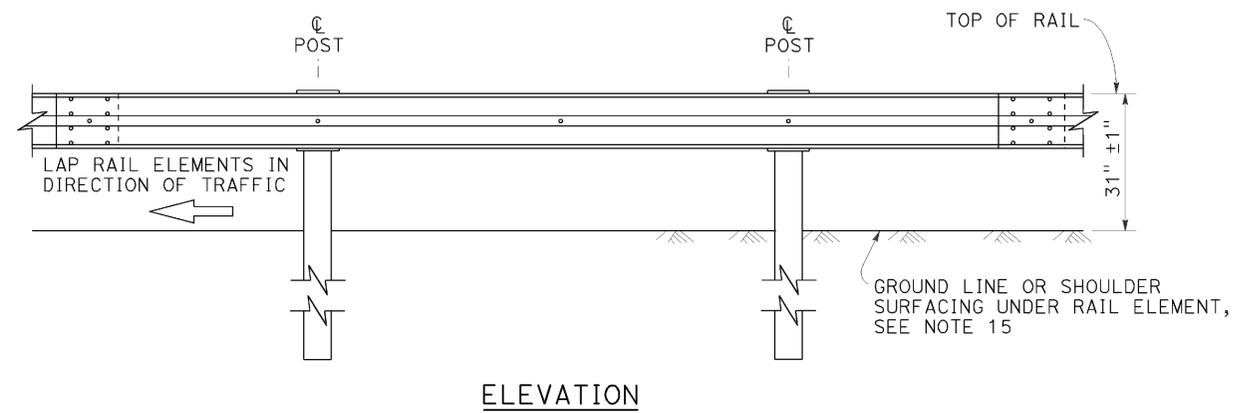
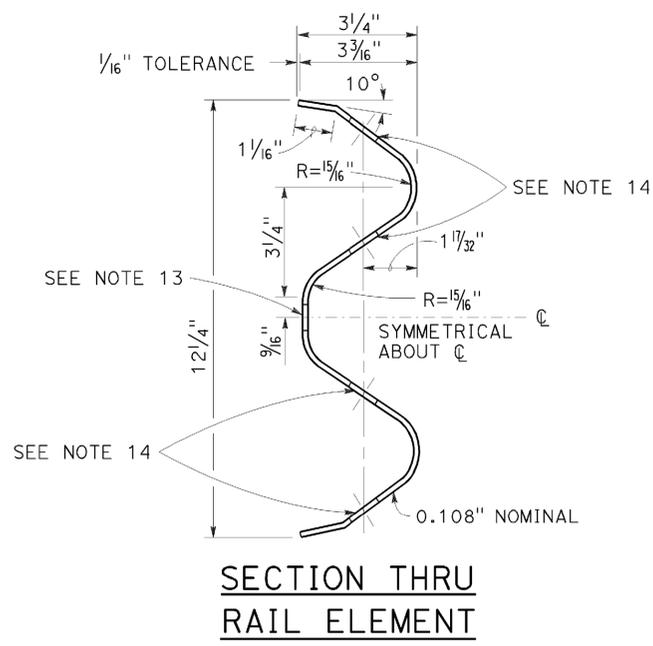
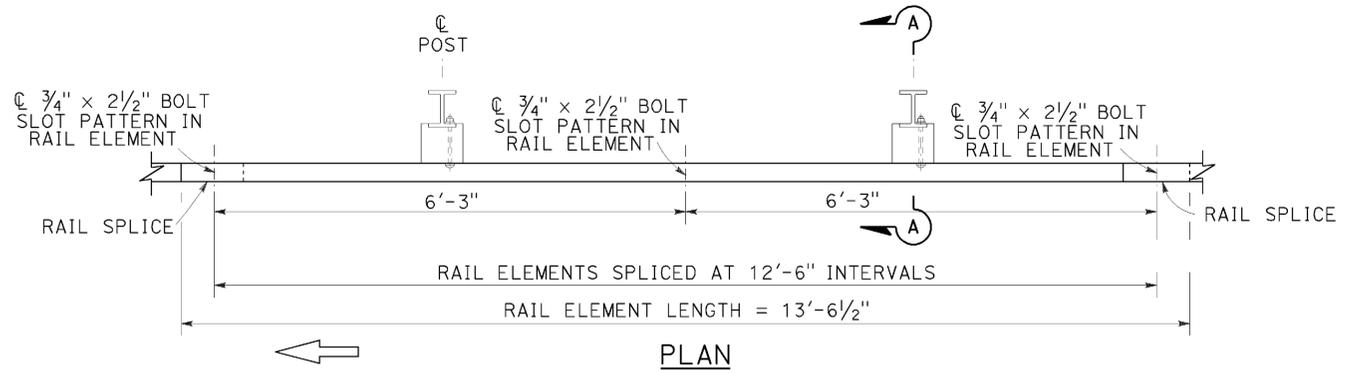
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 11-04-15

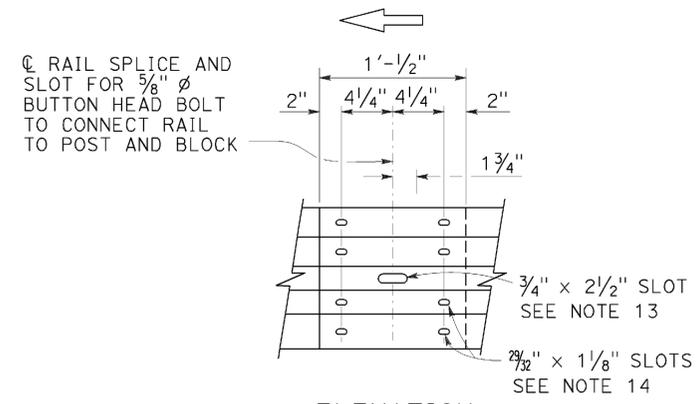
2010 REVISED STANDARD PLAN RSP A77L2



MIDWEST GUARDRAIL SYSTEM WITH STEEL POSTS AND NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCKS

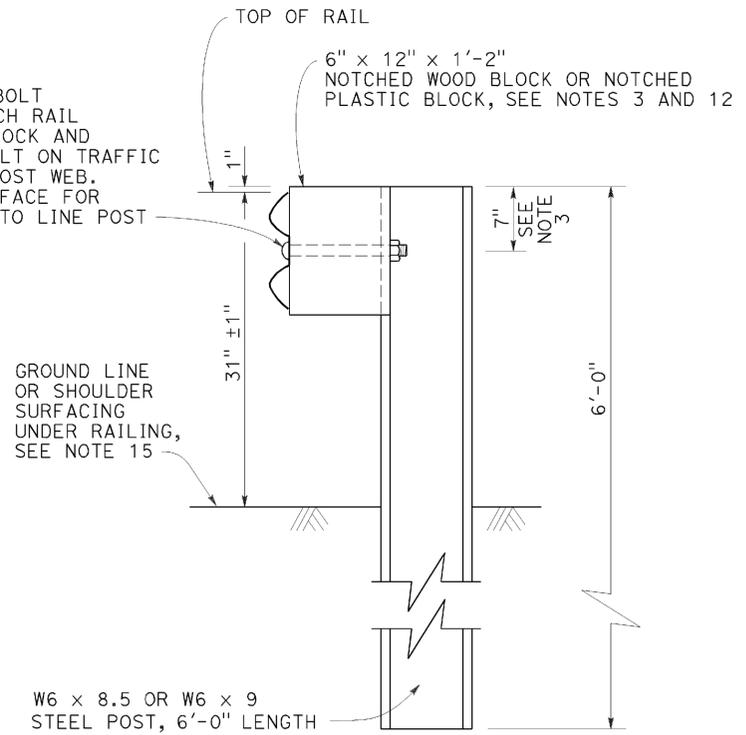
NOTES:

- For details of wood post installations, see Revised Standard Plan RSP A77L1.
- For details of standard hardware used to construct MGS, see Revised Standard Plan RSP A77M1.
- For details of steel posts and notched wood blocks used to construct MGS, see Revised Standard Plan RSP A77N2.
- For additional installation details, see Revised Standard Plan RSP A77N3.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- For MGS typical layouts, see the A77P, A77Q and A77R Series of Standard Plans.
- If railing is connected to terminal system end treatment, use 31" height terminal system end treatment.
- For MGS end anchor details, see Revised Standard Plans RSP A77S1 and RSP A77T2.
- For details of MGS transition to bridge railing, see Revised Standard Plan RSP A77U4.
- For additional details of MGS connection to bridge railings, see Revised Standard Plans RSP A77U1, RSP A77U2 and RSP A77V1.
- For dike positioning and MGS delineation details, see Revised Standard Plan RSP A77N4.
- Notched face of block faces steel post.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Install posts in soil.



- Connect the overlapped end of the rail elements with 5/8" ϕ x 1 3/8" button head oval shoulder splice bolts inserted into the 2 7/32" x 1 1/8" slots and bolted together with 5/8" ϕ recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.

5/8" ϕ BUTTON HEAD BOLT WITH Hex NUT. ATTACH RAIL ELEMENT TO WOOD BLOCK AND STEEL POST WITH BOLT ON TRAFFIC APPROACH SIDE OF POST WEB. NO WASHER ON RAIL FACE FOR BOLTED CONNECTION TO LINE POST



See Note 4

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWEST GUARDRAIL SYSTEM STANDARD RAILING SECTION (STEEL POST WITH NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCK)

NO SCALE

RSP A77L2 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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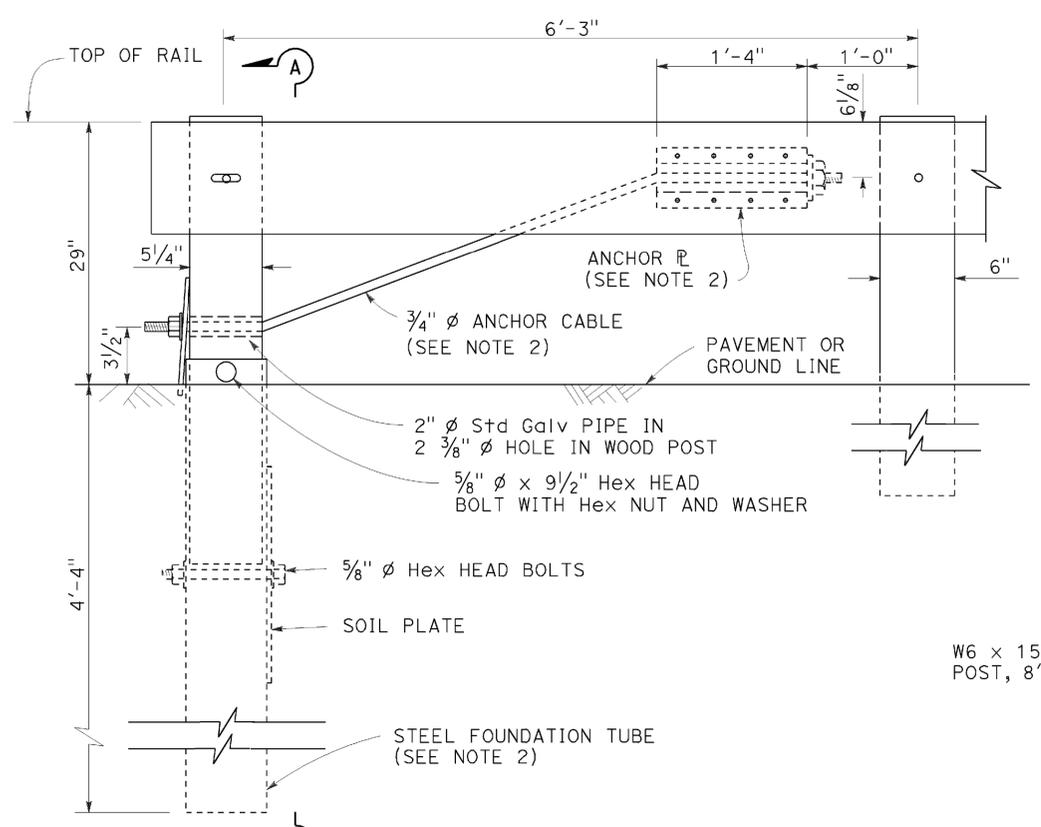
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

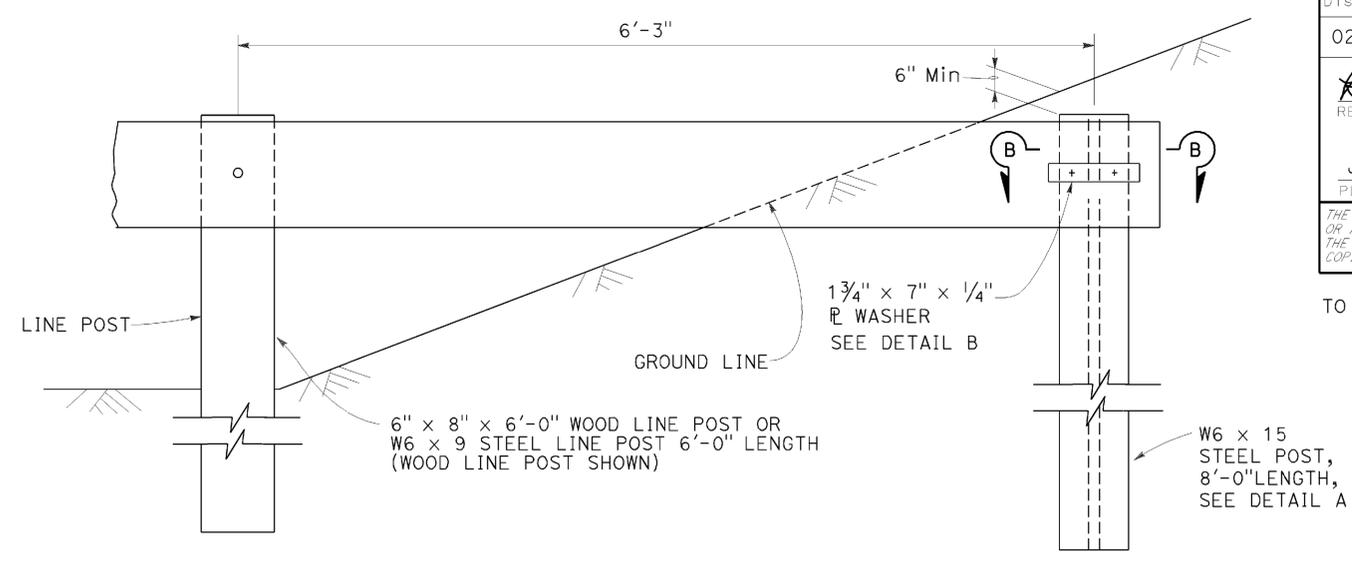
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TO ACCOMPANY PLANS DATED 11-04-15

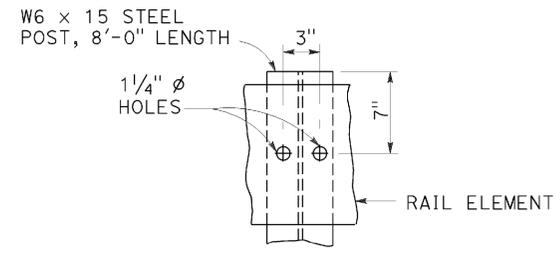
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA



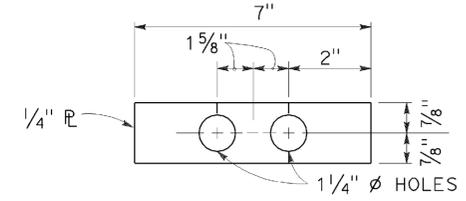
**ELEVATION
END ANCHOR
ASSEMBLY (TYPE SFT)**



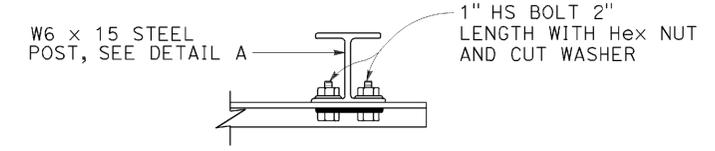
BURIED POST END ANCHOR



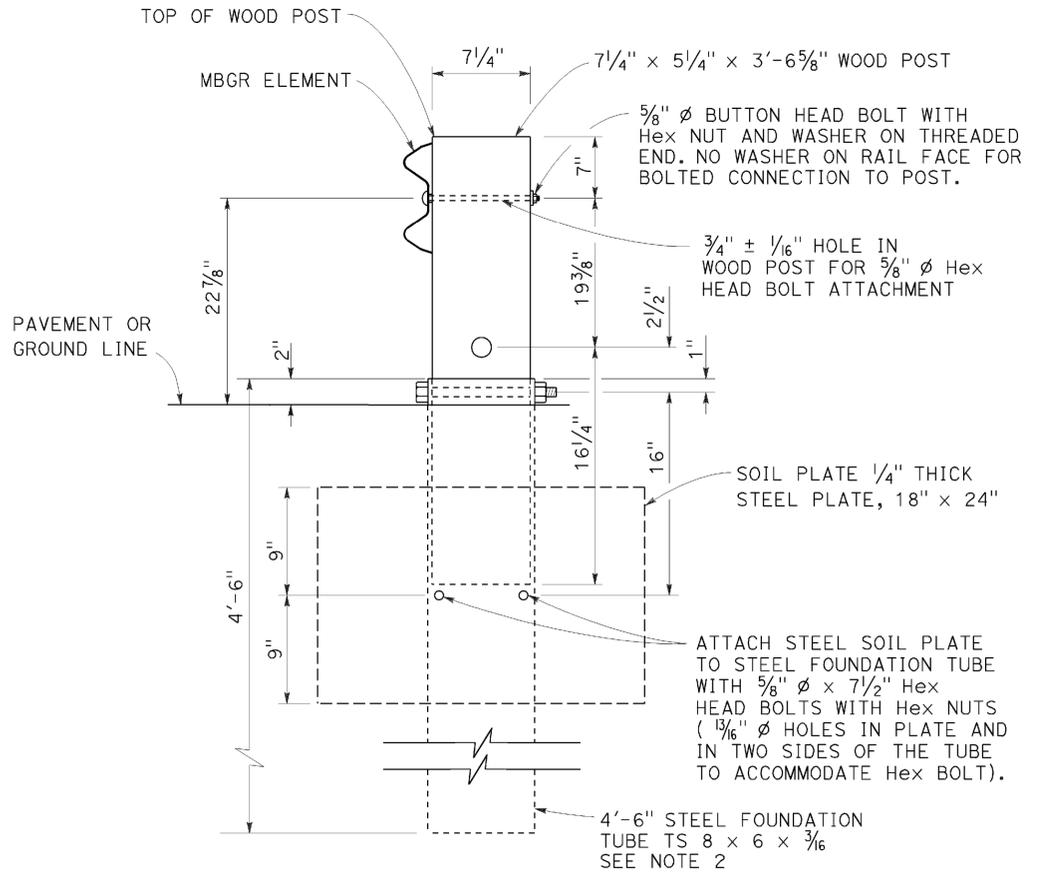
DETAIL A



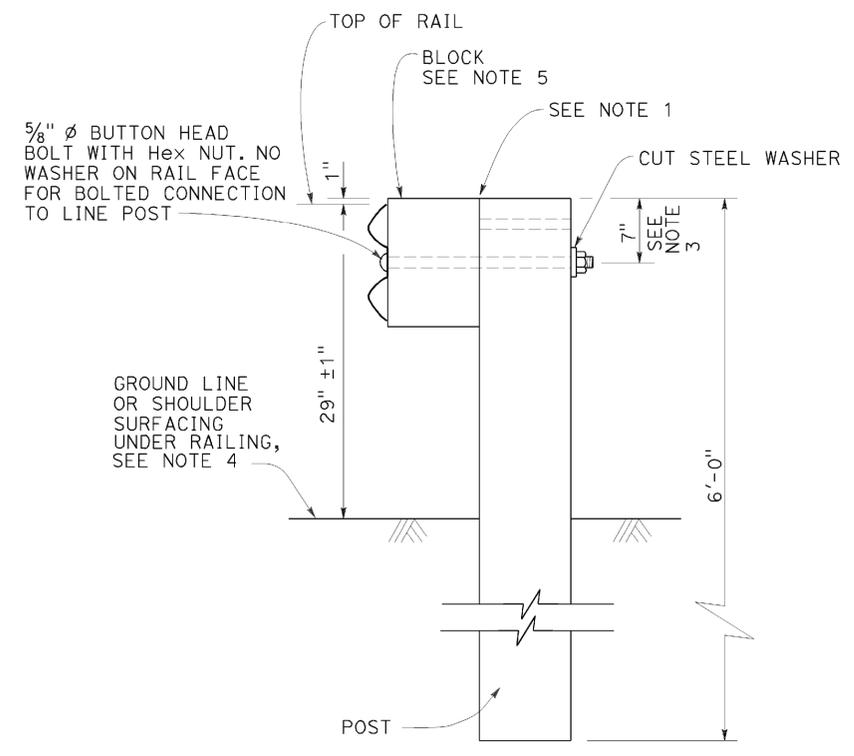
DETAIL B



SECTION B-B



SECTION A-A



**TYPICAL LINE
POST INSTALLATION**

NOTES:

1. For wood post and wood block, toenail with 2-16d Galv nails in top of block. For steel post and notched wood or plastic block, notched face of block faces steel post.
2. A 6'-0" Length steel foundation tube, TS 8 x 6 x 3/16, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 5/8" diameter hex head bolt and nut shall be installed in the hole in the 6'-0" length tube to keep the wood post from dropping into the tube.
3. To connect railing to 27" terminal system end treatment, transition the top of railing height at a ratio of 120:1 to terminal system end treatment height plus one 12'-6" standard railing section at the transitioned height for a horizontal connection to the end treatment.
4. Install posts in soil.
5. See Revised Standard Plans RSP A77N1 and RSP A77N2 for details.
6. Holes excavation in the slope to construct the buried post end anchor shall be backfilled with selected earth, placed in layers approximately 1'-0" thick. Each layer shall be moistened and thoroughly compacted.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
RECONSTRUCT INSTALLATION**

NO SCALE

RSP A77L3 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77L3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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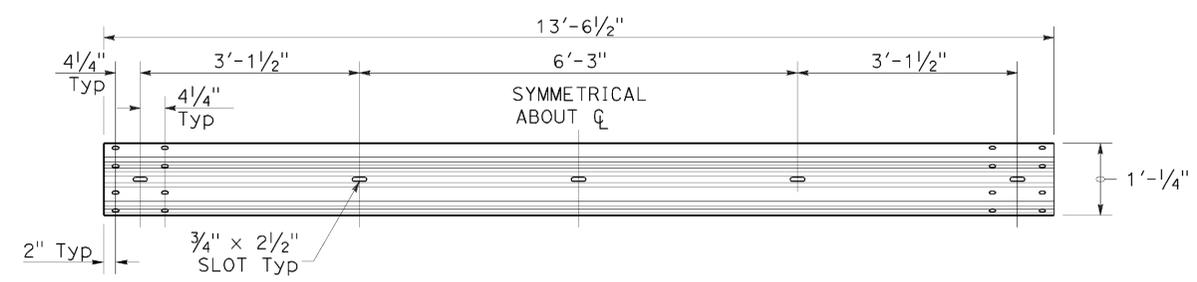
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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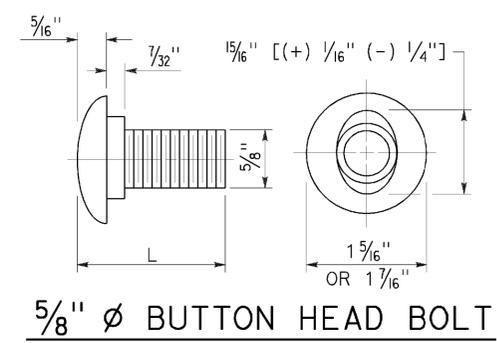
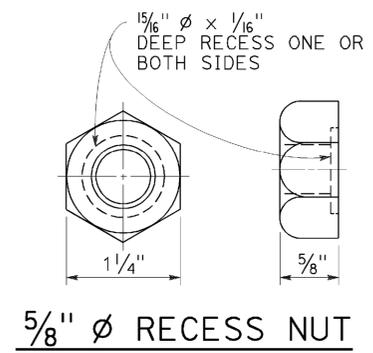
TO ACCOMPANY PLANS DATED 11-04-15



TYPICAL RAIL ELEMENT

NOTE:

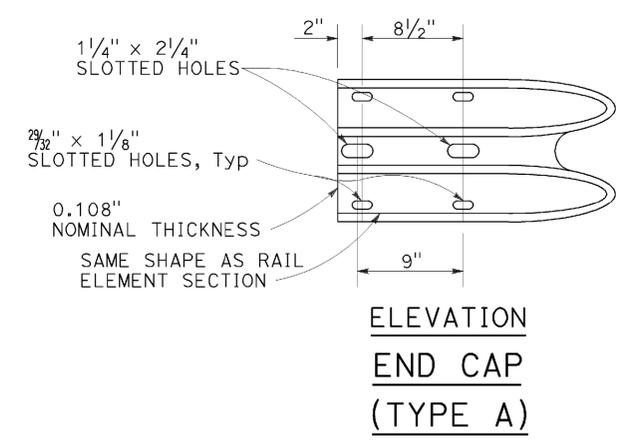
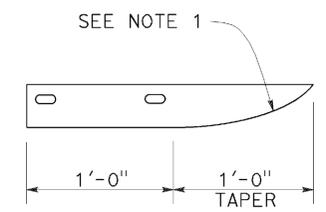
1. Slotted holes for splice bolts to overlap ends of rail element.



BUTTON HEAD BOLT

L	THREAD LENGTH
1 3/8"	FULL THREAD LENGTH
2"	FULL THREAD LENGTH
10"	4" Min THREAD LENGTH
18"	4" Min THREAD LENGTH
20"	4" Min THREAD LENGTH
22"	4" Min THREAD LENGTH
26"	4" Min THREAD LENGTH
36"	4" Min THREAD LENGTH
** 2 3/4"	2" Min THREAD LENGTH
** 19"	4" Min THREAD LENGTH

** For nested rail applications.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STANDARD HARDWARE**

NO SCALE

RSP A77M1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77M1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	21	33

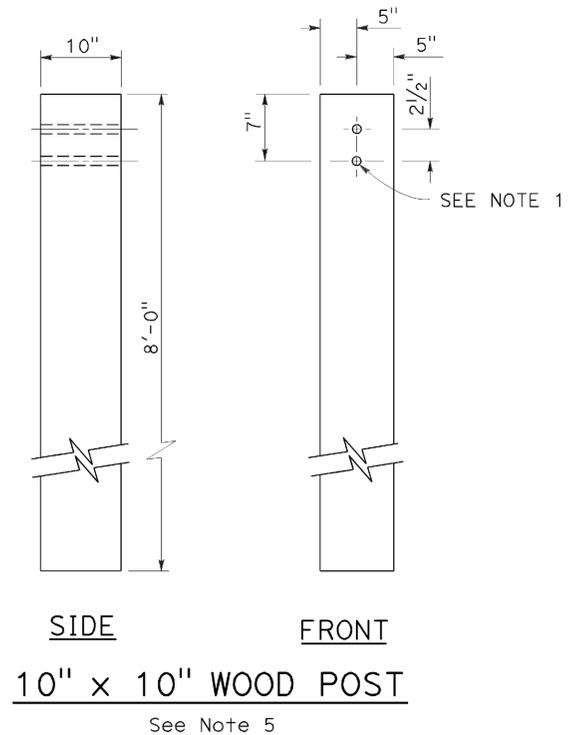
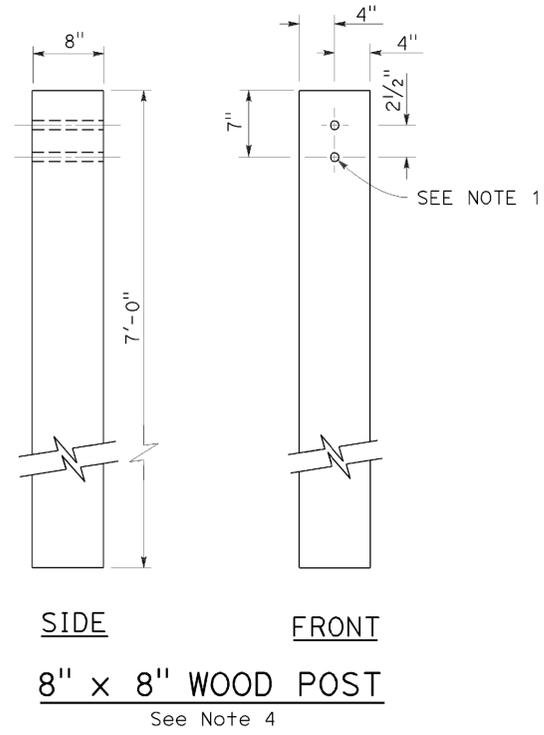
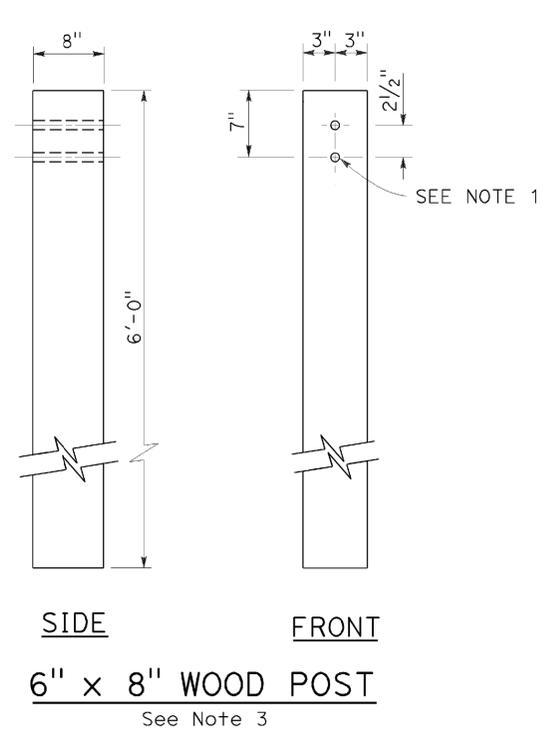
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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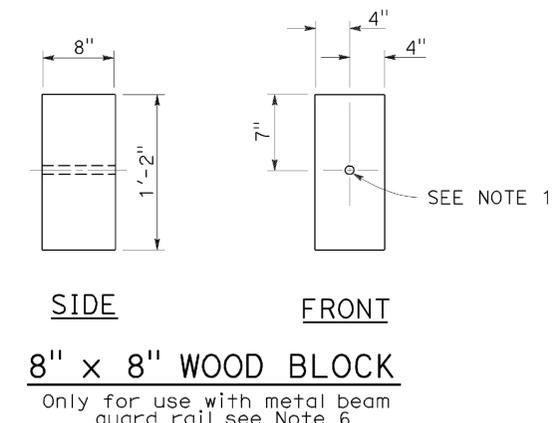
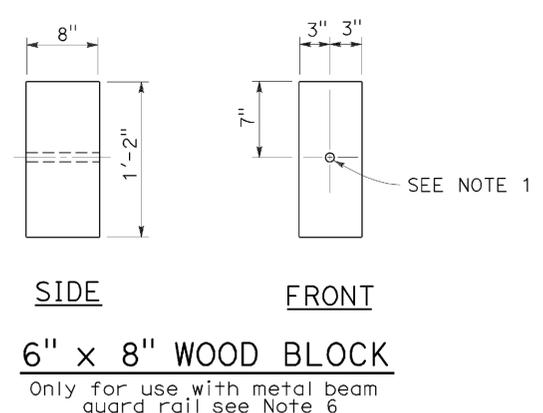
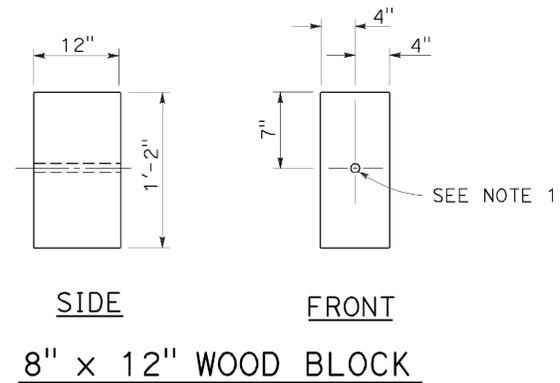
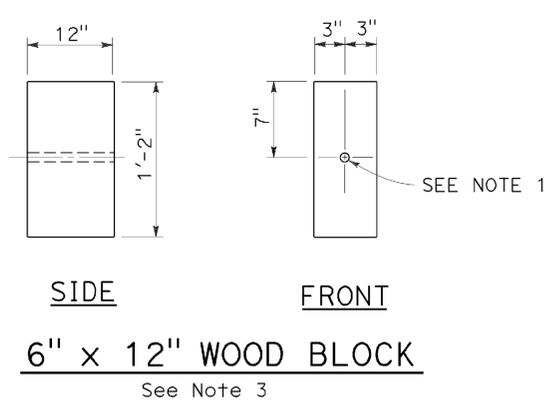
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 11-04-15



NOTES:

1. All holes in wood posts and blocks shall be 3/4" Dia ± 1/16".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post and 8" x 12" block combination is typically used where strengthened line post sections of MGS are warranted to shield fixed objects.
6. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" wood blocks.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
WOOD POST AND
WOOD BLOCK DETAILS**

NO SCALE

RSP A77N1 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N1

2010 REVISED STANDARD PLAN RSP A77N1

DATE PLOTTED => 18-NOV-2015
TIME PLOTTED => 12:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	LO.0/0.6	22	33

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

November 15, 2013
PLANS APPROVAL DATE

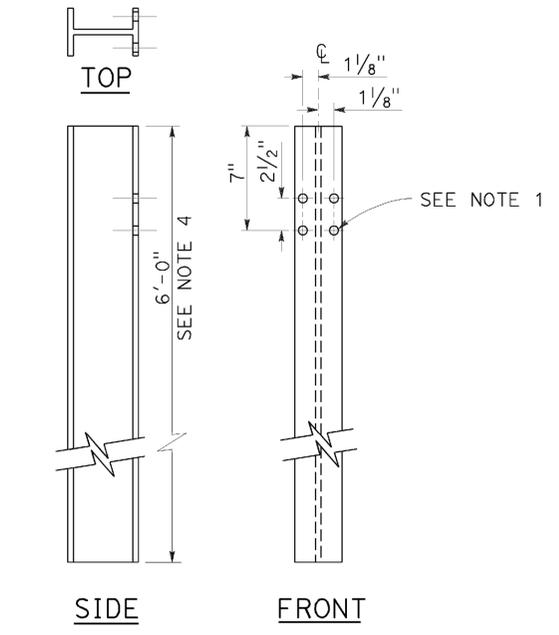
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

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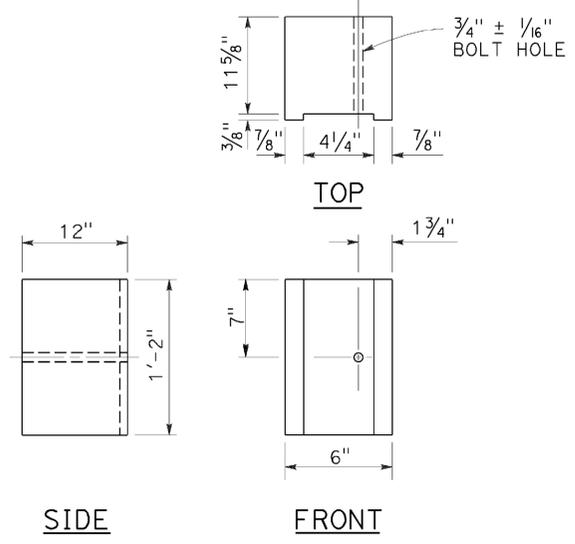
TO ACCOMPANY PLANS DATED 11-04-15

NOTES:

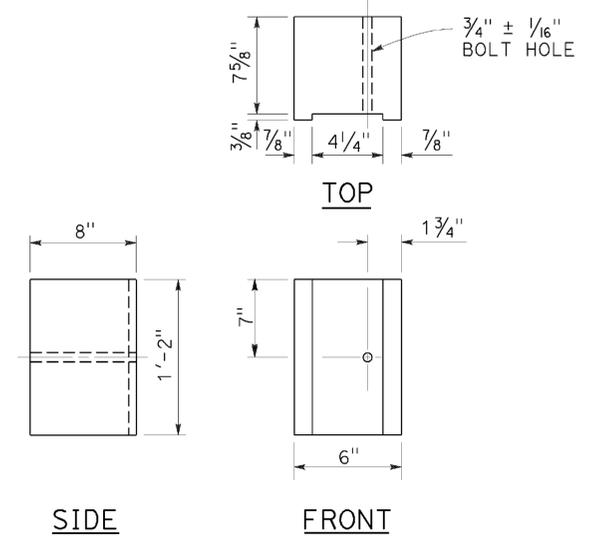
1. All holes in steel post shall be 1 3/8" Dia maximum.
2. Dimensions shown for wood block are nominal.
3. Notched face of block faces steel post.
4. 6'-0" length posts to be used for typical roadway installation. See Revised Standard Plan RSP A77N3.
5. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" notched wood blocks.
6. This post and 8" x 12" block combination to be used for line post sections of MGS on narrow roadways and where strengthened line post sections of MGS are warranted to shield fixed objects.



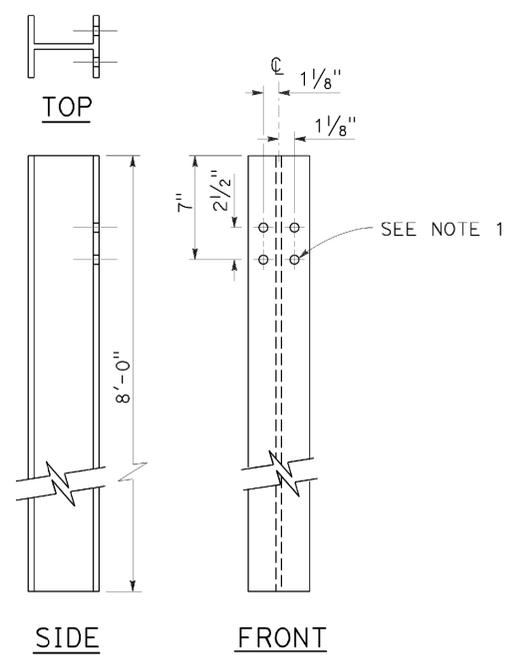
**W6 x 9 OR W6 x 8.5
STEEL POST**
See Note 4



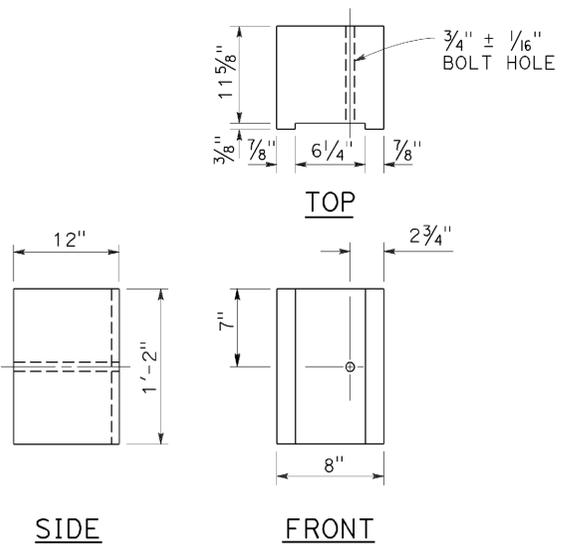
**6" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



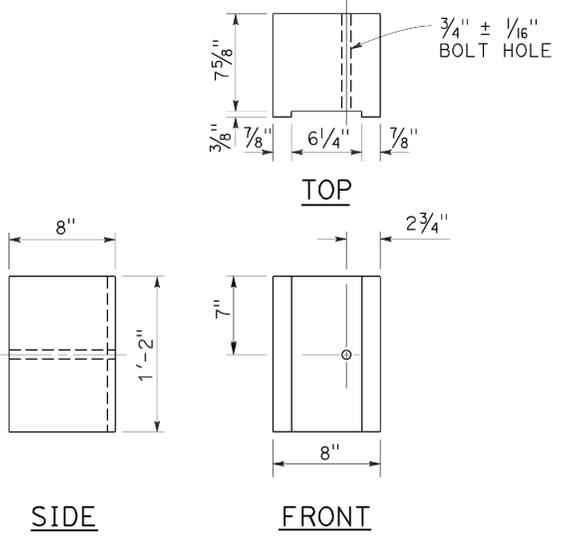
**6" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5



**W6 x 15
STEEL POST**
See Note 6



**8" x 12"
NOTCHED WOOD BLOCK**
See Notes 2 and 3



**8" x 8"
NOTCHED WOOD BLOCK**
Only for use with metal beam guard railing. See Note 5

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**MIDWEST GUARDRAIL SYSTEM
STEEL POST AND
NOTCHED WOOD BLOCK DETAILS**

NO SCALE

RSP A77N2 DATED NOVEMBER 15, 2013 SUPERSEDES RSP A77N2
DATED JULY 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A77N2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	23	33

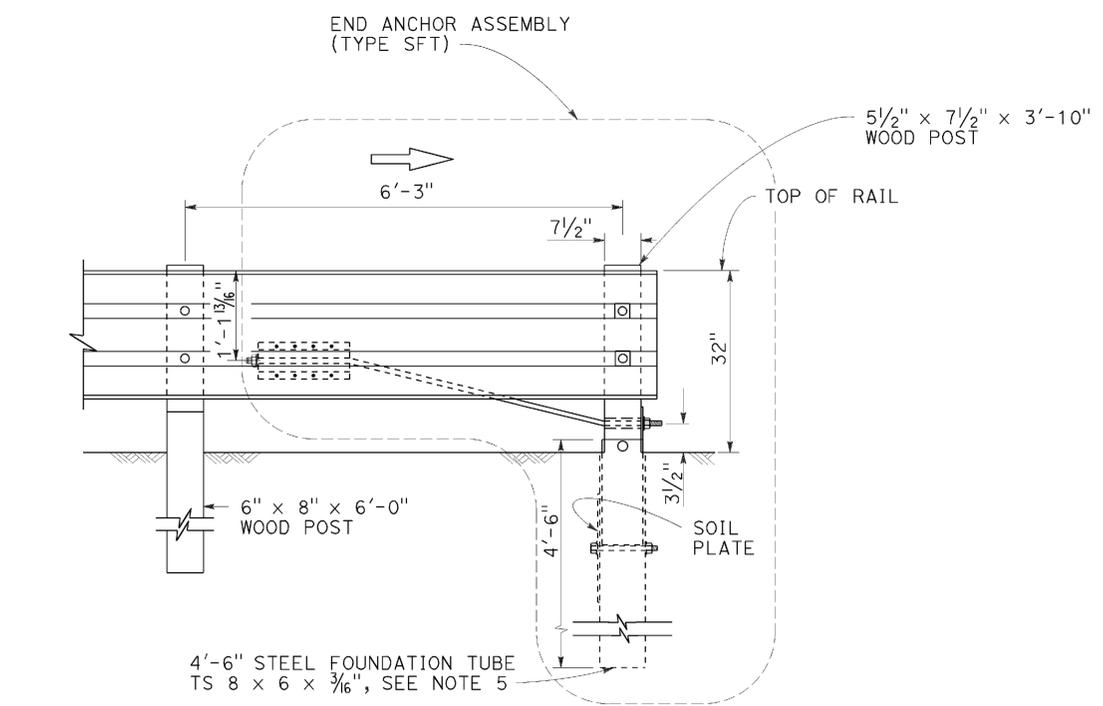
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-15
CIVIL
STATE OF CALIFORNIA

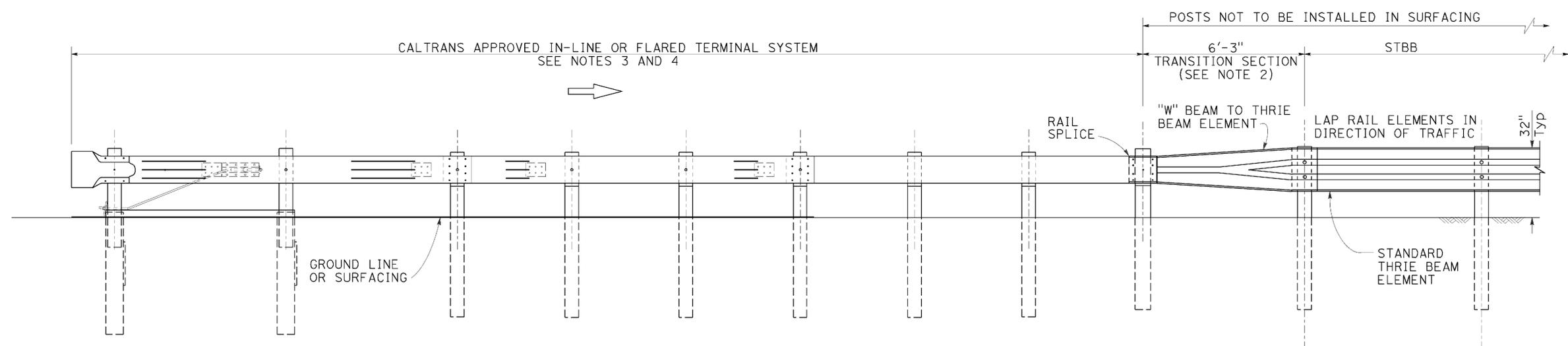
TO ACCOMPANY PLANS DATED 11-04-15



END ANCHOR FOR TRAFFIC DEPARTURE END OF SINGLE THRIE BEAM BARRIER
(For one-way roadways)
See Note 1

NOTES:

1. For additional details of End Anchor Assembly (Type SFT), see Revised Standard Plan RSP A77S1.
2. The "W" beam to thrie beam section is only required where the terminal system connection to the thrie beam barrier is a "W" beam rail.
3. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment. The type of terminal system to be used will be shown on the Project Plans. Do not use a Caltrans approved 31" end treatment.
4. A Caltrans approved crash cushion should be used in place of a terminal system end treatment where the backside of the railing would be exposed to traffic.
5. A 6'-0" length steel foundation tube, TS 8 x 6 x 3/16, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 5/8" ø hex head bolt and nut shall be installed in the hole in the 6'-0" length tube to keep the wood post from dropping into the tube.



ELEVATION
END TREATMENT FOR TRAFFIC APPROACH END OF SINGLE THRIE BEAM BARRIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
SINGLE THRIE BEAM BARRIER
END ANCHOR ASSEMBLY AND
TERMINAL SYSTEM
END TREATMENT

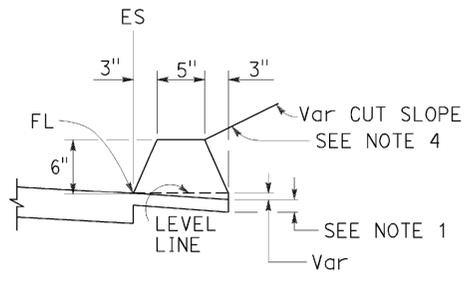
NO SCALE
RSP A78E1 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A78E1
DATED MAY 20, 2011 - PAGE 99 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A78E1

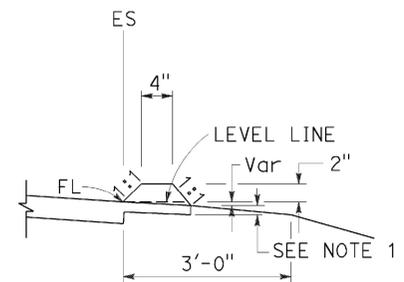
2010 REVISED STANDARD PLAN RSP A78E1

DATE PLOTTED => 18-NOV-2015
TIME PLOTTED => 12:49

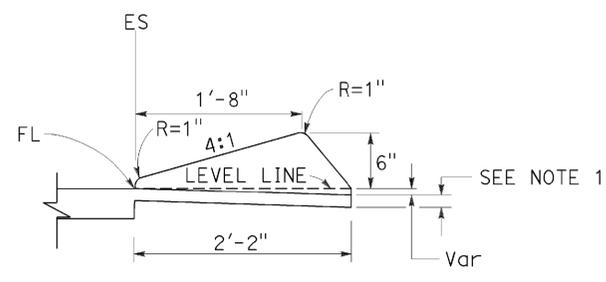
TO ACCOMPANY PLANS DATED 11-04-15



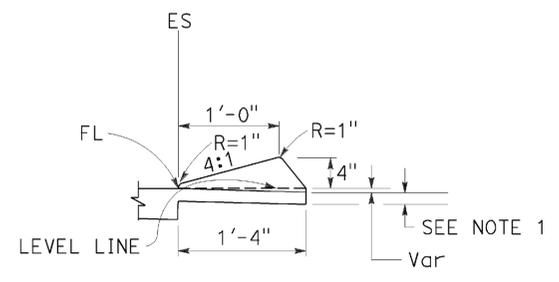
TYPE A
See Note 3



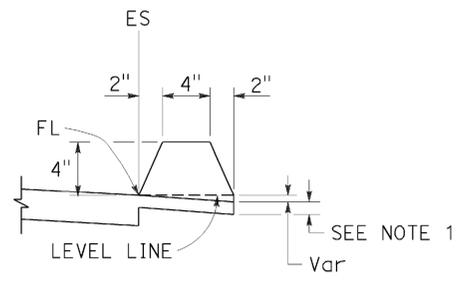
TYPE C



TYPE D

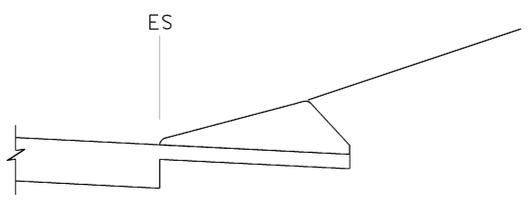


TYPE E

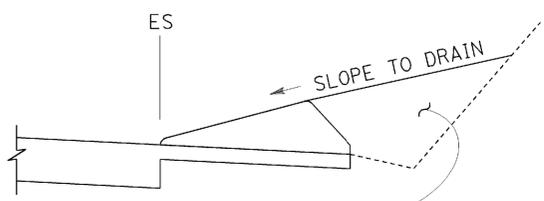


TYPE F
See Note 5

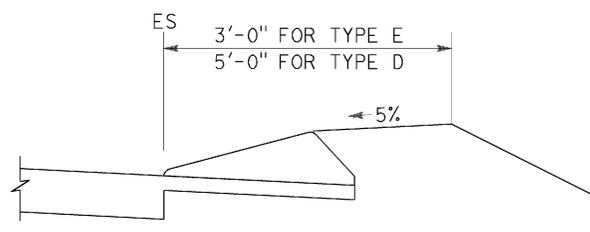
DIKES



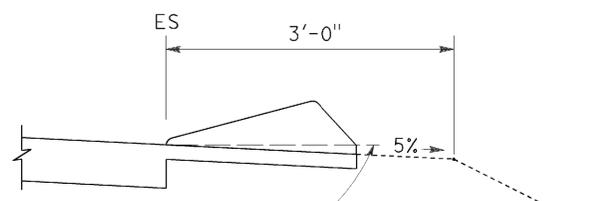
CASE C-1
Cut Slope



CASE C-2
Cut Slope



CASE F



CASE R
See Note 2

TYPE D AND E BACKFILL DETAILS

NOTES:

1. For HMA shoulders only, extend top layer of HMA placed on the shoulder under dike with no joint at the ES. For projects with OGFC shoulders, do not extend OGFC under dike. See project plans for modified dike detail.
2. Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
3. Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
4. Fill and compact with excavated material to top of dike.
5. Use Type F dike, where dike is required with guard railing installations. See Revised Standard Plan RSP A77N4 for dike positioning details.

DIKE QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A	0.0135
C	0.0038
D	0.0293
E	0.0130
F	0.0066

Quantities based on 5% cross slope.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

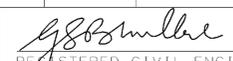
HOT MIX ASPHALT DIKES

NO SCALE

RSP A87B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87B
DATED MAY 20, 2011 - PAGE 120 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A87B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	25	33


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 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 11-04-15

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2/60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
 W = Width of offset in feet
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph
 ** - Longitudinal buffer space or flagger station spacing
 *** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	26	33

Devinder Singh
 REGISTERED CIVIL ENGINEER
 No. C50470
 Exp. 6-30-15
 CIVIL
 STATE OF CALIFORNIA

October 17, 2014
 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.

NOTES:

See Revised Standard Plan RSP T9 for tables.

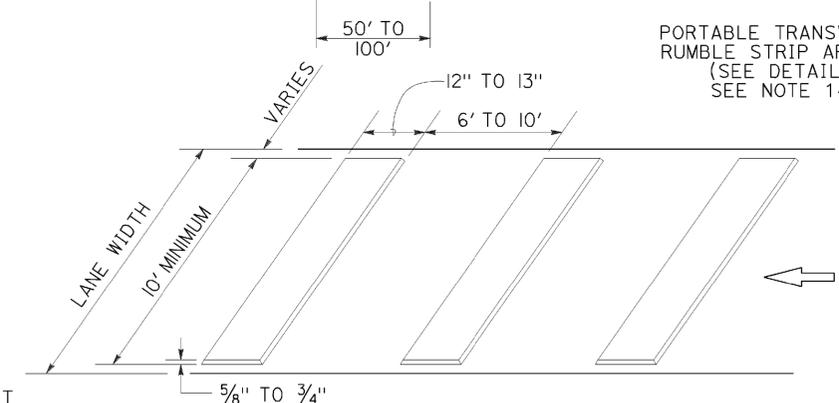
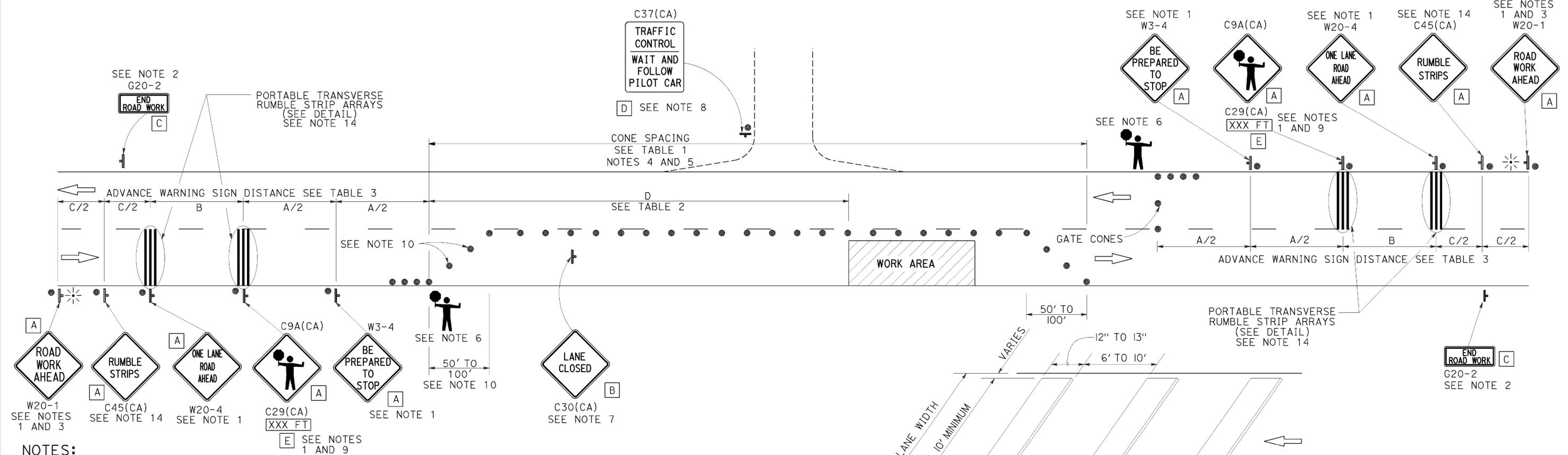
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 11-04-15



LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⚡ PORTABLE FLASHING BEACON
- 🚧 FLAGGER

- NOTES:**
- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
 - If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
 - All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
 - Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
 - Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
 - Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
 - When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
 - An optional C29(CA) sign may be placed below the C9A(CA) sign.
 - Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
 - The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
 - Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
 - If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
 - Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
 - Work duration occupies a location for four hours or less
 - Posted speed limit is below 45 MPH
 - Work is of emergency nature
 - Work zone is in snow or icy weather conditions

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 20" x 7"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T13 DATED OCTOBER 17, 2014 SUPERSEDES RSP T13 DATED JULY 18, 2014 AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

LEGEND:

- AB** ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
- BC** INSTALL PULL BOX IN EXISTING CONDUIT RUN
- BP** PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
- CB** INSTALL CONDUIT INTO EXISTING PULL BOX
- CC** CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
- CF** CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
- DH** DETECTOR HANDHOLE
- FA** FOUNDATION TO BE ABANDONED
- IS** INSTALL SIGN ON SIGNAL MAST ARM
- NS** NO SLIP BASE ON STANDARD
- PEC** PHOTOELECTRIC CONTROL
- PEU** PHOTOELECTRIC UNIT
- RC** EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
- RE** REMOVE ELECTROLIER, FUSES AND BALLAST. TAPE ENDS OF CONDUCTORS
- RL** RELOCATE EQUIPMENT
- RR** REMOVE AND REUSE EQUIPMENT
- RS** REMOVE AND SALVAGE EQUIPMENT
- SC** SPLICE NEW TO EXISTING CONDUCTORS
- SD** SERVICE DISCONNECT
- TSP** TELEPHONE SERVICE POINT

ABBREVIATIONS

- | | | | |
|-------|---|-------|--------------------------------------|
| APS | ACCESSIBLE PEDESTRIAN SIGNAL | M/M | MULTIPLE TO MULTIPLE TRANSFORMER |
| BBS | BATTERY BACKUP SYSTEM | Mtg | MOUNTING |
| BC | BOLT CIRCLE | MV | MERCURY VAPOR LIGHTING FIXTURE |
| BPB | BICYCLE PUSH BUTTON | MVDS | MICROWAVE VEHICLE DETECTION SYSTEM |
| C | CONDUIT | N | NEUTRAL (GROUNDED CONDUCTOR) |
| CB | CIRCUIT BREAKER | NB | NEUTRAL BUS |
| CCTV | CLOSED CIRCUIT TELEVISION | NC | NORMALLY CLOSE |
| Ckt | CIRCUIT | NO | NORMALLY OPEN |
| CMS | CHANGEABLE MESSAGE SIGN | P | CIRCUIT BREAKER'S POLE |
| Ctid | CALTRANS IDENTIFICATION | PB | PULL BOX |
| Comm | COMMUNICATION | PBA | PUSH BUTTON ASSEMBLY |
| DLC | LOOP DETECTOR LEAD-IN CABLE | PEC | PHOTOELECTRIC CONTROL |
| EMS | EXTINGUISHABLE MESSAGE SIGN | Ped | PEDESTRIAN |
| EVUC | EMERGENCY VEHICLE UNIT CABLE | PEU | PHOTOELECTRIC UNIT |
| EVUD | EMERGENCY VEHICLE UNIT DETECTOR | PT | CONDUIT WITH PULL TAPE |
| FB | FLASHING BEACON | RE | RELOCATED EQUIPMENT |
| FBCA | FLASHING BEACON CONTROL ASSEMBLY | RM | RAMP METERING |
| FBS | FLASHING BEACON WITH SLIP BASE | RWIS | ROADSIDE WEATHER INFORMATION SYSTEM |
| FO | FIBER OPTIC | SB | SLIP BASE |
| G | EQUIPMENT GROUNDING CONDUCTOR | SIC | SIGNAL INTERCONNECT CABLE |
| GB | GROUND BUS | Sig | SIGNAL |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER | SMA | SIGNAL MAST ARM |
| HAR | HIGHWAY ADVISORY RADIO | SNS | STREET NAME SIGN |
| Hex | HEXAGONAL | SP | SERVICE POINT |
| HPS | HIGH PRESSURE SODIUM | TDC | TELEPHONE DEMARCATION CABINET |
| IISNS | INTERNALLY ILLUMINATED STREET NAME SIGN | TMS | TRAFFIC MONITORING STATION |
| ISL | INDUCTION SIGN LIGHTING | TOS | TRAFFIC OPERATIONS SYSTEM |
| LED | LIGHT EMITTING DIODE | Veh | VEHICLE |
| LMA | LUMINAIRE MAST ARM | VIVDS | VIDEO IMAGE VEHICLE DETECTION SYSTEM |
| LPS | LOW PRESSURE SODIUM | WIM | WEIGH-IN-MOTION |
| Ltg | LIGHTING | Xfmr | TRANSFORMER |
| Lum | LUMINAIRE | | |
| M | METERED | | |
| MAT | MAST ARM MOUNTING TOP ATTACHMENT | | |
| MAS | MAST ARM MOUNTING SIDE ATTACHMENT | | |

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	27	33

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 11-04-15

SOFFIT AND WALL MOUNTED LUMINAIRES

- PENDANT, 70 W HPS UNLESS OTHERWISE SPECIFIED
- FLUSH, 70 W HPS UNLESS OTHERWISE SPECIFIED
- WALL SURFACE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO REMAIN UNMODIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO BE MODIFIED AS SPECIFIED

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL USED	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
V(ac)	VOLT (DIRECT CURRENT)
V(ac)	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
μ	MICRO
P	PICO
HZ	HERTZ

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

- NOTES:**
- HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
 - LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
 - Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

STANDARD ELECTROLIER

NEW	EXISTING	STANDARD TYPE
		15
		15D
		15 STRUCTURE
		15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

RSP ES-1A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	28	33

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 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 11-04-15

CONDUIT

SIGNAL EQUIPMENT

NEW	EXISTING	
		LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
		TRAFFIC SIGNAL CONDUIT
		COMMUNICATION CONDUIT
		TELEPHONE CONDUIT
		FIRE ALARM CONDUIT
		FIBER OPTIC CONDUIT
		CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)

SIGNAL EQUIPMENT Cont

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

SERVICE EQUIPMENT

NEW	EXISTING	
		OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

POLE-MOUNTED SERVICE DESIGNATION

	TYPE H SERVICE, 28'-10"	TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE
--	-------------------------	--

FLASHING BEACON

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.

ILLUMINATED OVERHEAD SIGN

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

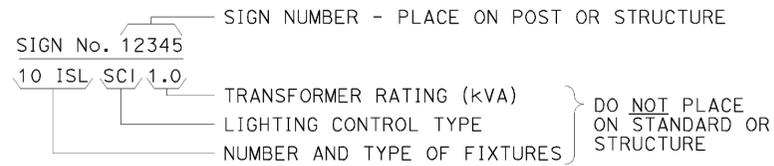
RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

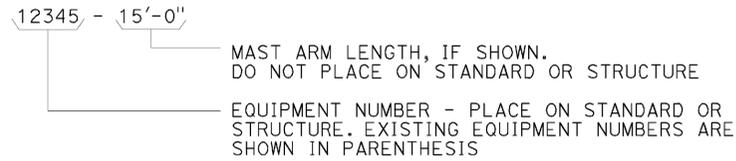
TO ACCOMPANY PLANS DATED 11-04-15

EQUIPMENT IDENTIFICATION

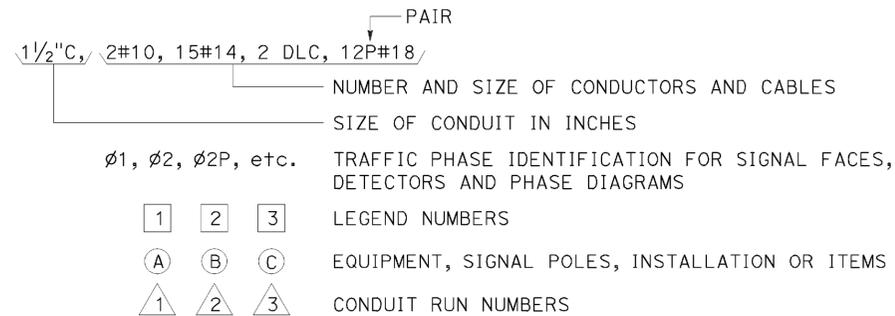
ILLUMINATED SIGN IDENTIFICATION NUMBER:



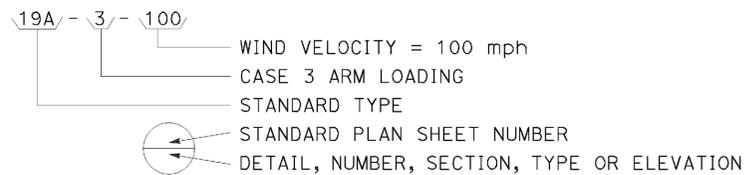
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



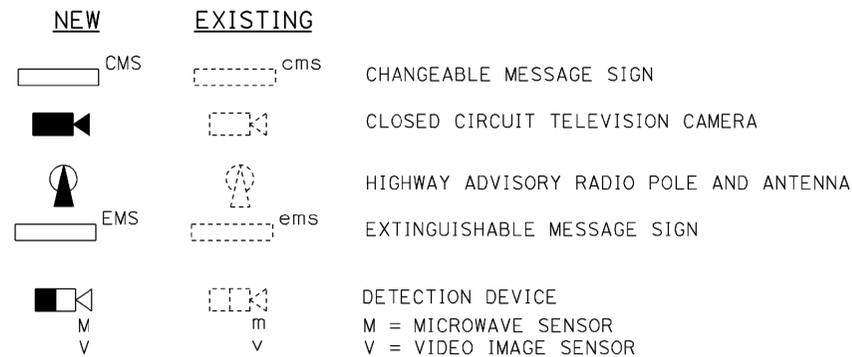
CONDUIT AND CONDUCTOR IDENTIFICATION:



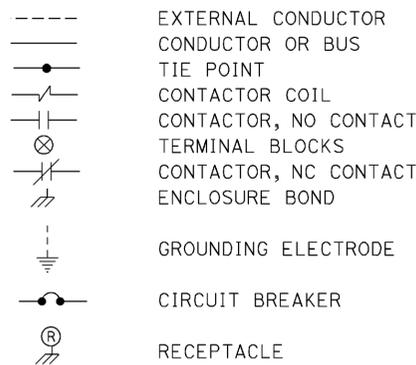
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



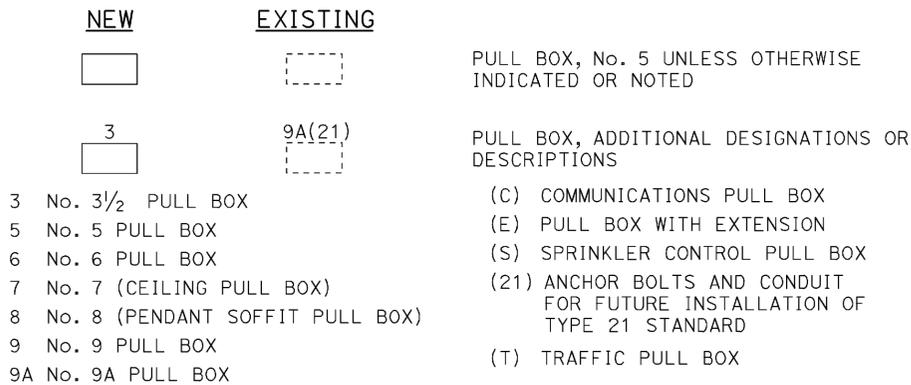
MISCELLANEOUS EQUIPMENT



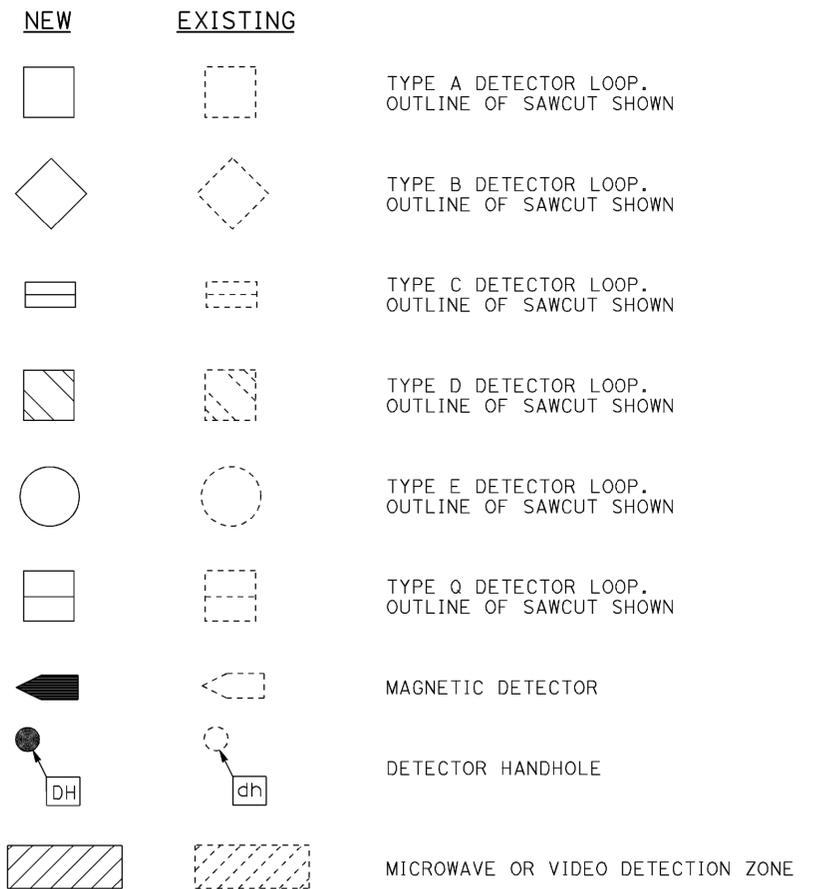
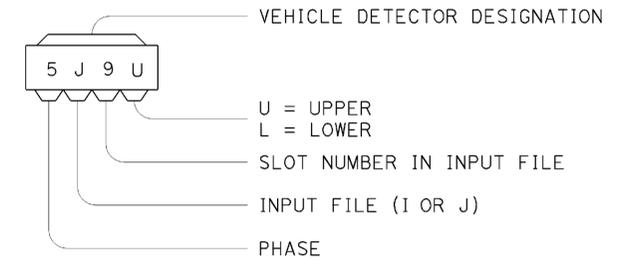
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1C
DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

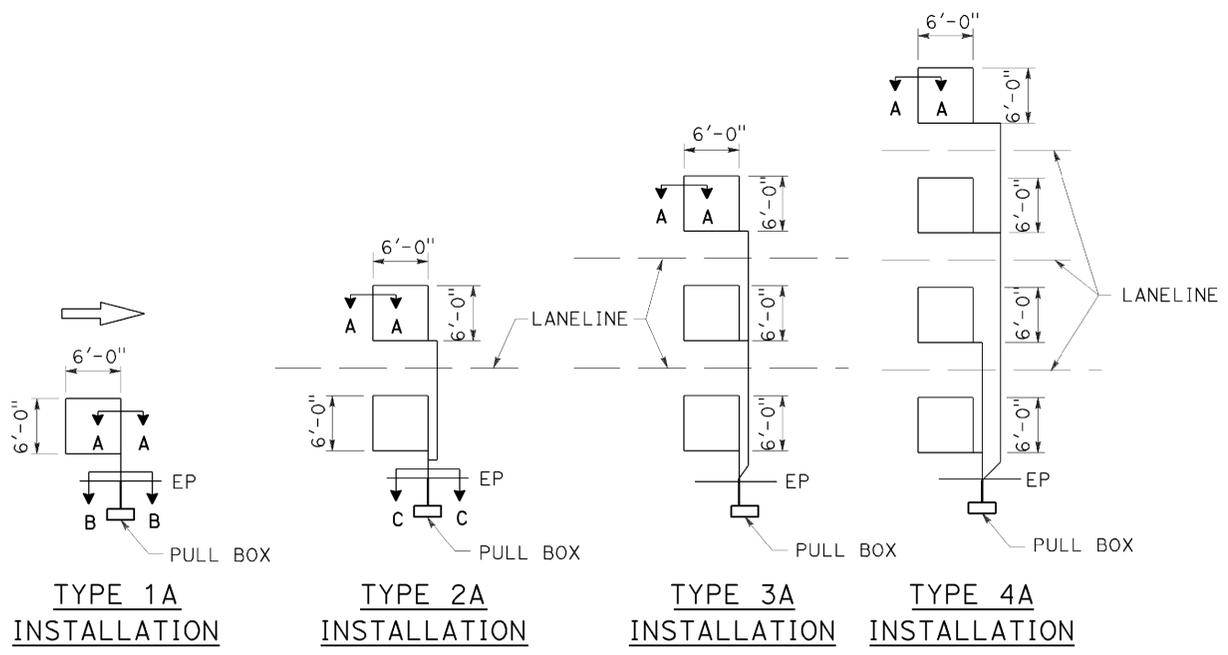
REVISED STANDARD PLAN RSP ES-1C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	30	33

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 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.

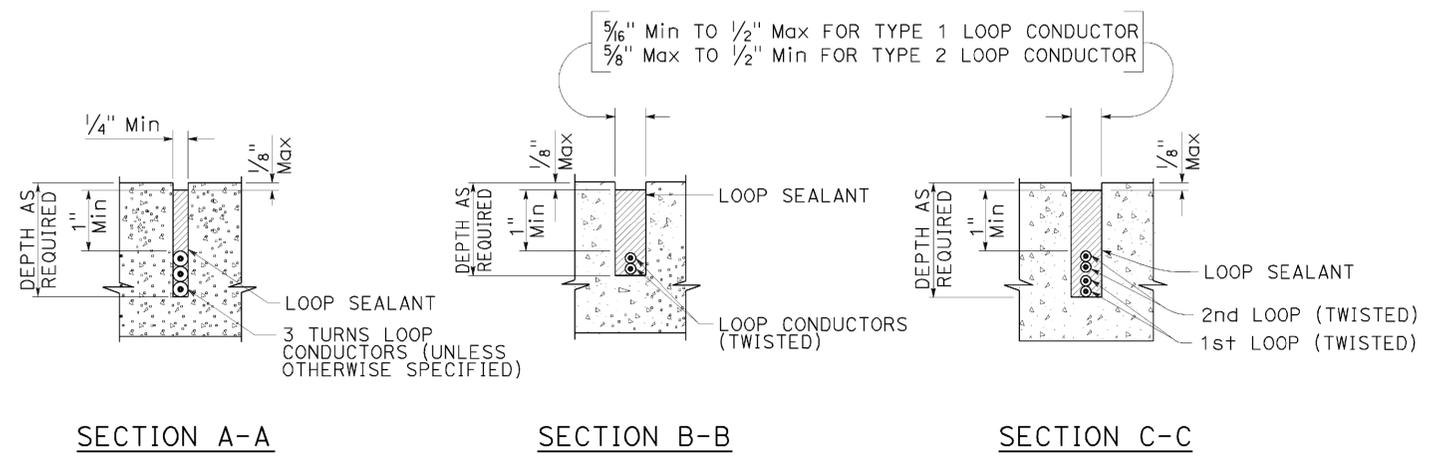


TO ACCOMPANY PLANS DATED 11-04-15

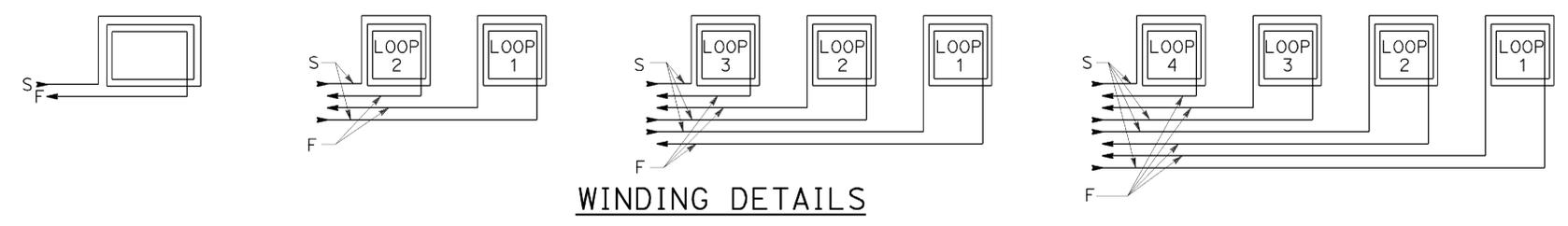


SAWCUT DETAILS

- Type A loop detector configurations illustrated
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans.

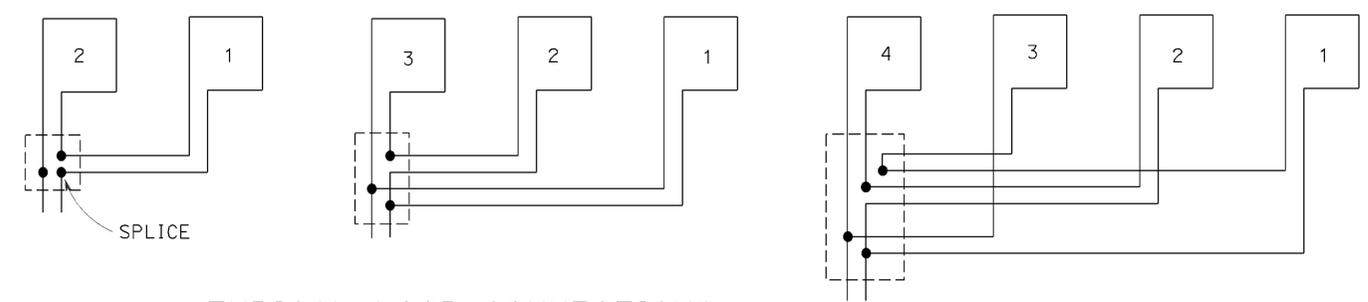


SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



WINDING DETAILS

ABBREVIATIONS:
 S - START
 F - FINISH



TYPICAL LOOP CONNECTIONS
 Dashed lines represent the pull box

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LOOP DETECTORS)**
 NO SCALE

RSP ES-5A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-5A DATED MAY 20, 2011 - PAGE 448 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5A

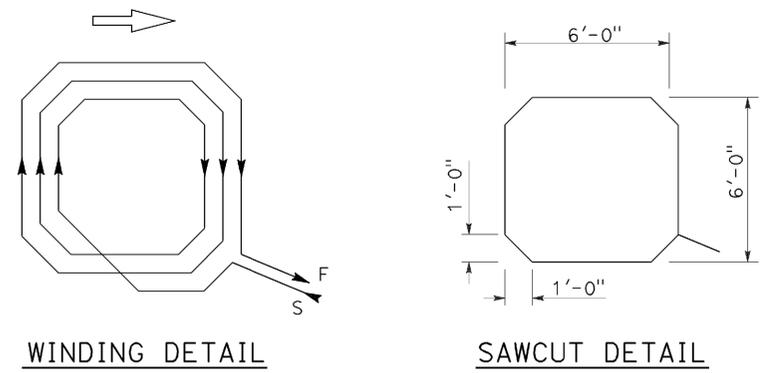
2010 REVISED STANDARD PLAN RSP ES-5A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	31	33

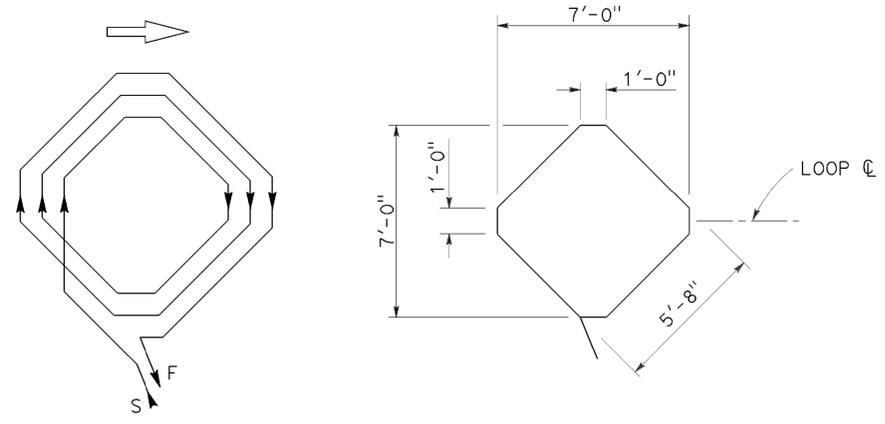
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

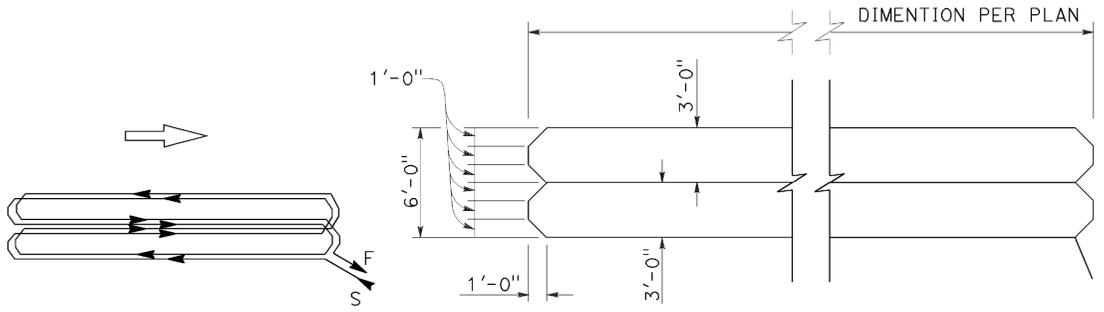
TO ACCOMPANY PLANS DATED 11-04-15



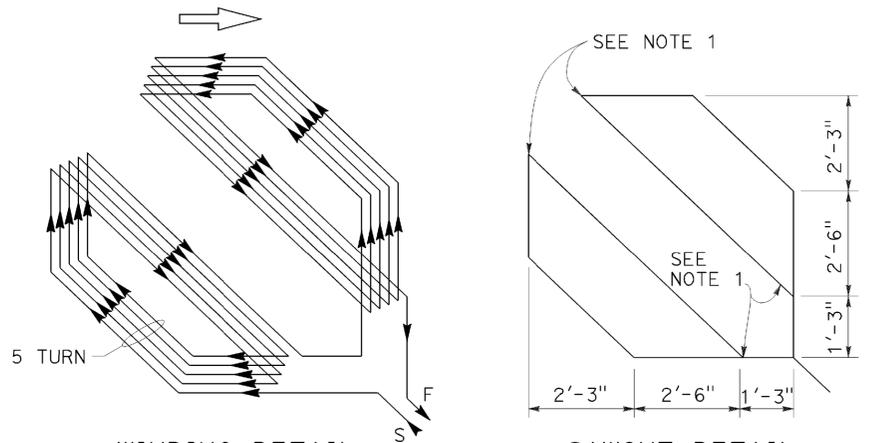
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



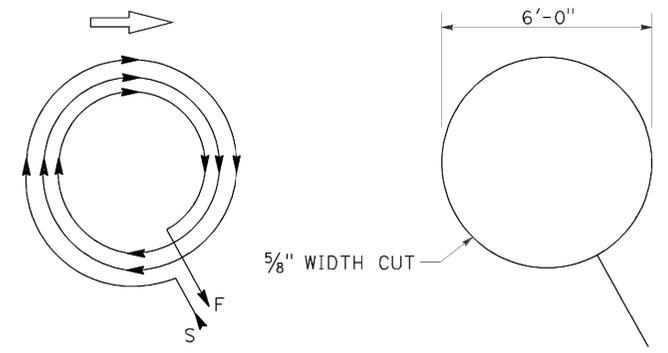
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



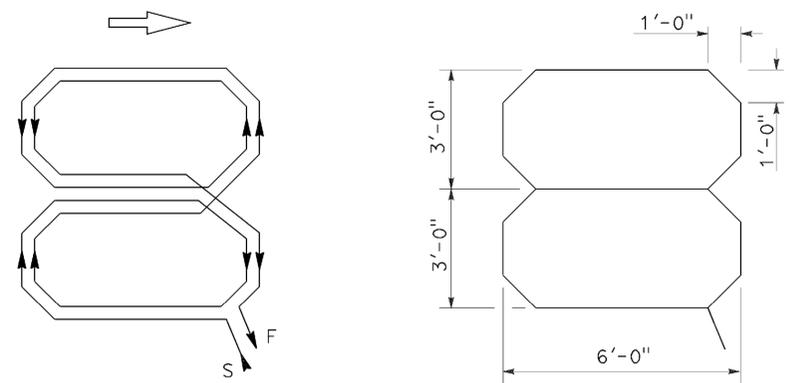
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



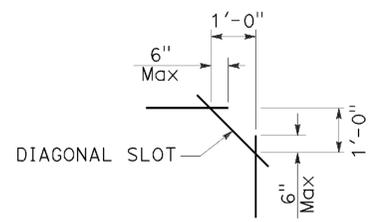
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
 2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS (DETECTORS)
NO SCALE

RSP ES-5B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5B DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

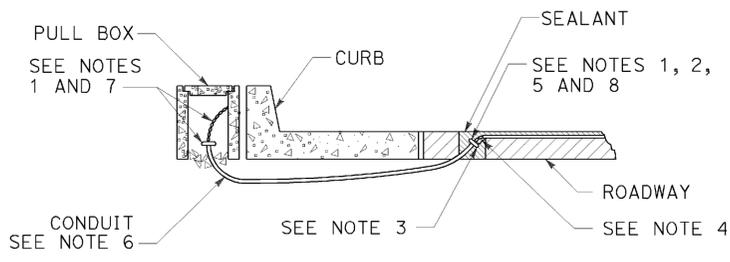
REVISED STANDARD PLAN RSP ES-5B

2010 REVISED STANDARD PLAN RSP ES-5B

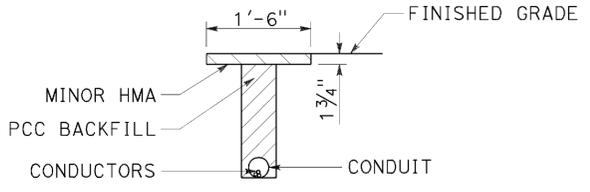
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	32	33

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
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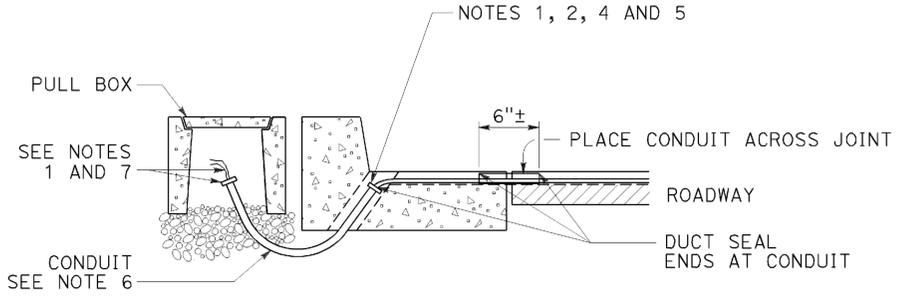
2010 REVISED STANDARD PLAN RSP ES-5D



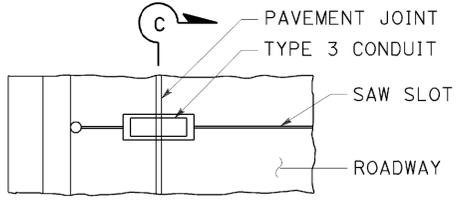
**TYPE A
CURB TERMINATION DETAIL**



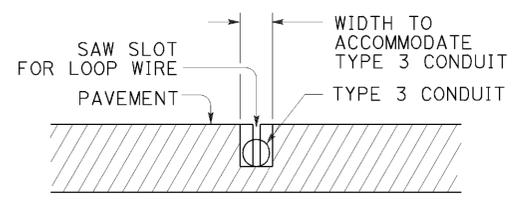
**"T" TRENCH
DETAIL T**



CROSS SECTION

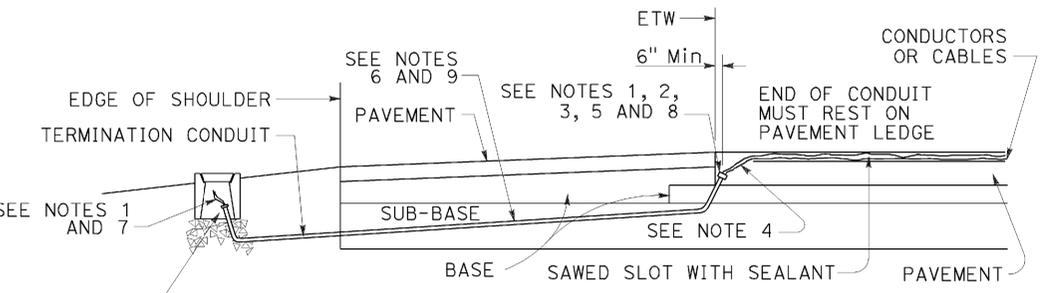


PLAN VIEW

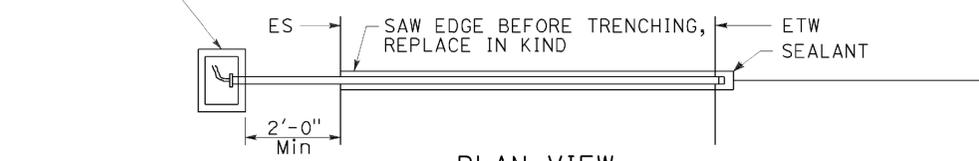


SECTION C-C

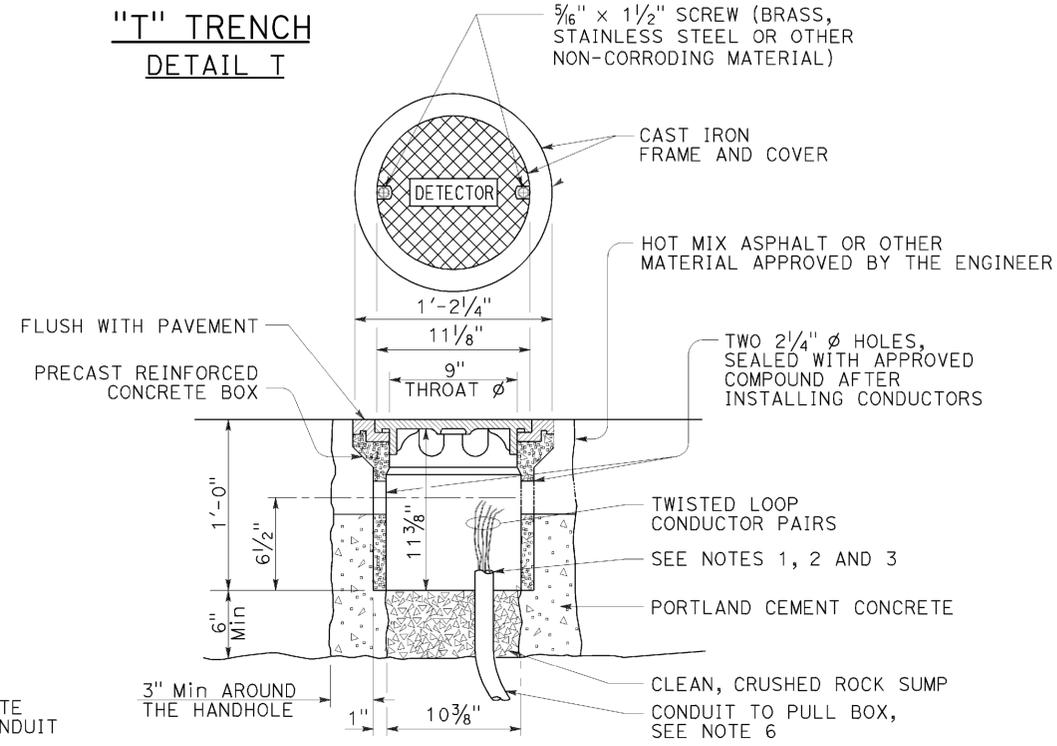
**TYPE B
CURB TERMINATION DETAIL**



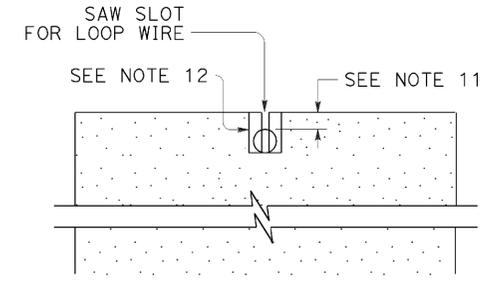
CROSS SECTION



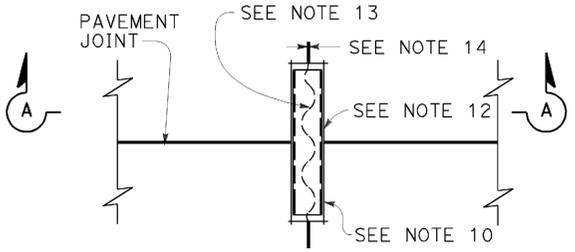
**PLAN VIEW
SHOULDER TERMINATION DETAILS**



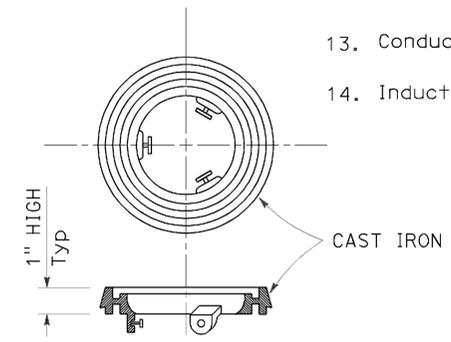
DETECTOR HANDHOLE DETAIL



SECTION A-A



**PLAN VIEW
TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT**



LOCKING GRADE RING

NOTES:

- Bushing shall be used at end of conduit.
- Tape detector conductors or cables 3" each side of bushings.
- Install duct seal compound to each end of termination conduit before installing sealant.
- Round all sharp edges where detector conductors or cables have to pass.
- End of conduit shall be 3/8" below roadway surface.
- | | |
|-----------------|-----------------|
| Conduit size | Loop conductors |
| 1"C minimum | 1 to 2 pairs |
| 1 1/2"C minimum | 3 to 4 pairs |
| 2"C minimum | 5 or more pairs |
- Splice detector conductors or cables to detector lead-in-cable.
- Location of detector handhole when shown on plans.
- When the shoulder and traveled way are paved with the same material and there is no joint between them, the conduit shall extend only 2'-0" into the shoulder pavement.
- 3/4"C, Type 3 conduit 6" long minimum, plug both ends with duct compound to keep out sealant.
- 1/2" Minimum between top of conduit and pavement surface.
- Sawcut shall not exceed 1" in width and 1/8" longer than conduit to be installed.
- Conductors with 1/2" minimum slack inside conduit.
- Inductive loop detector saw slot.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(CURB TERMINATION
AND HANDHOLE)**
NO SCALE

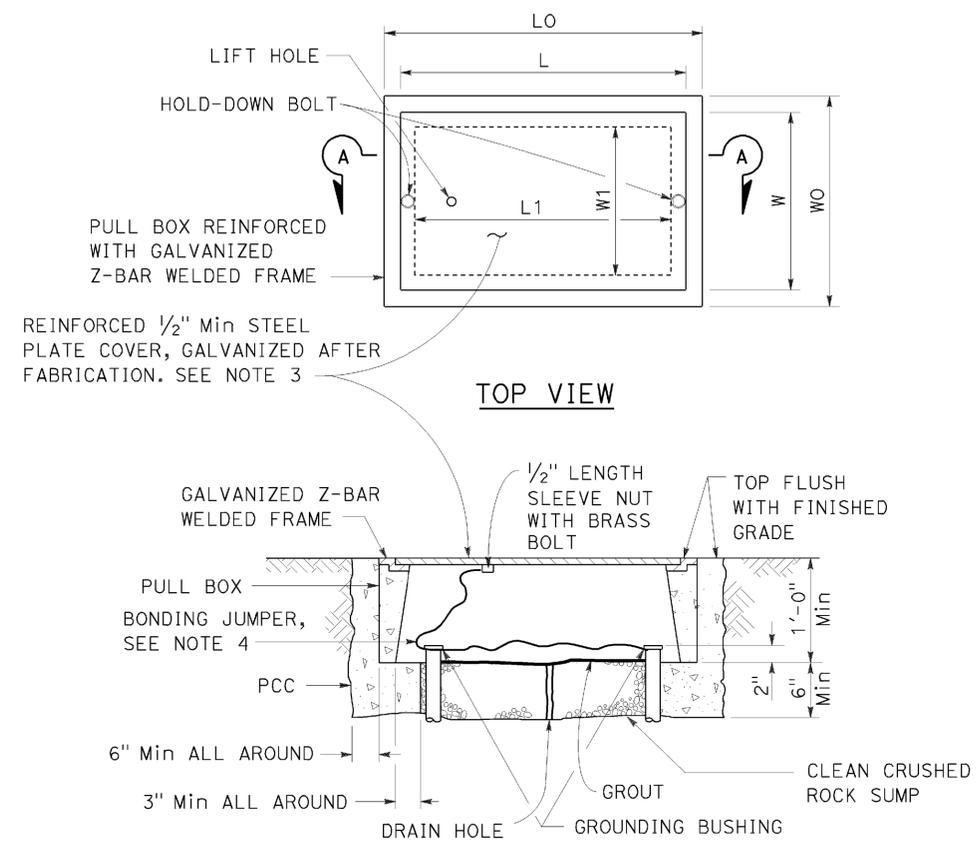
RSP ES-5D DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5D
DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Tri	3	L0.0/0.6	33	33

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 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 11-04-15



SECTION A-A
No. 3 1/2(T), No. 5(T) AND
No. 6(T) TRAFFIC PULL BOX

NOTES:

- Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
- Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" Sprinkler control circuits, 50 V or less; "CALTRANS" On all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service.
 - No. 3 1/2(T) pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5(T) or 6(T) pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATION" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communications line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- Bonding jumper for metal covers shall be 3' long, minimum.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8".

PULL BOX	PULL BOX						COVER				
	MINIMUM * THICKNESS	MINIMUM DEPTH BOX AND EXTENSION	W0	L0	L1	W1	L **	W **	R	EDGE THICKNESS	EDGE TAPER
No. 3 1/2(T)	1 1/2"	1'-0"	1'-5"± 1"	1'-8 7/8"±	1'-2 1/2"±	10 5/8"± 1"	1'-8"±	1'-1 3/4"±	0"	1/2"	NONE
No. 5(T)	1 3/4"	1'-0"	1'-11 1/2"± 1"	2'-5 1/2"±	1'-7"±	1'-1"± 1"	2'-3"±	1'-4"±	0"	1/2"	NONE
No. 6(T)	2"	1'-0"	2'-6"± 1"	2'-11 1/2"±	1'-11 1/2"±	1'-5"± 1"	2'-9"±	1'-8"±	0"	1/2"	NONE

* EXCLUDING CONDUIT WEB ** TOP DIMENSION

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(TRAFFIC PULL BOX)
 NO SCALE

RSP ES-8B DATED JULY 19, 2013 SUPERSEDES RSP ES-8B DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-8B

2010 REVISED STANDARD PLAN RSP ES-8B

DATE PLOTTED => 18-NOV-2015
 TIME PLOTTED => 12:52