Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	1	29

INDEX OF PLANS

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

STP-P119(013)E

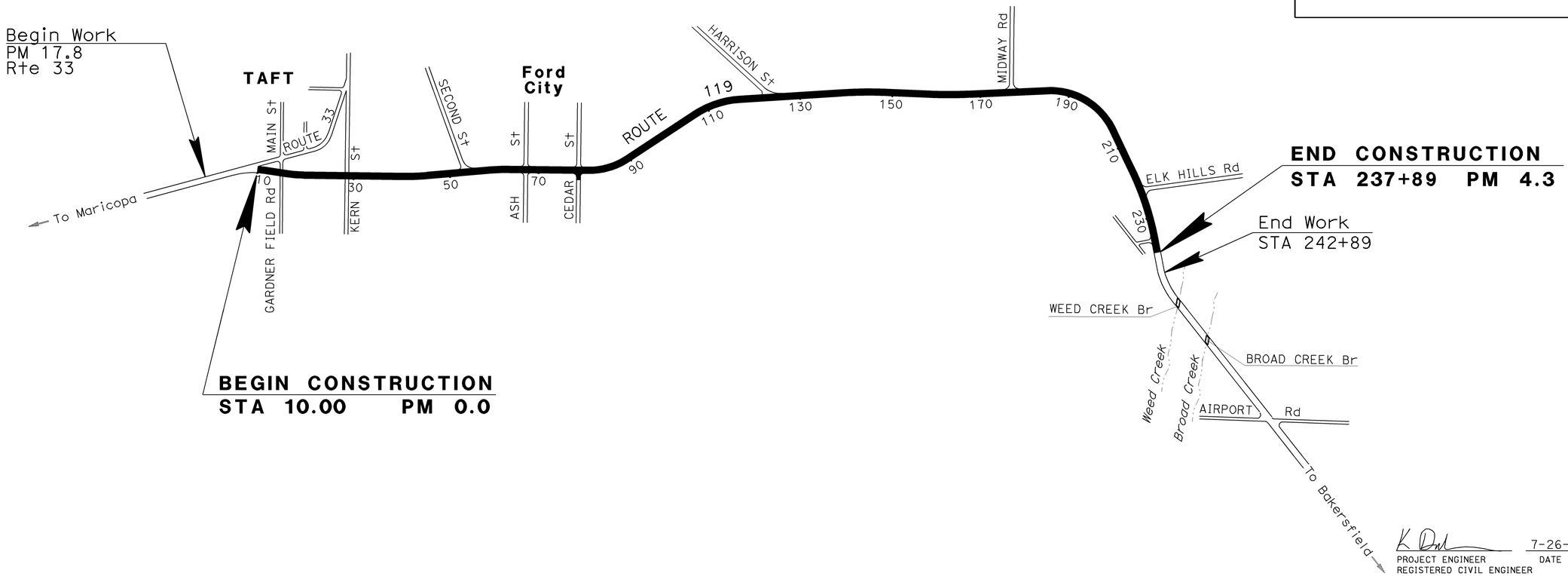
PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN KERN COUNTY
IN AND NEAR TAFT
FROM ROUTE 33
TO 0.6 MILE SOUTH OF AIRPORT ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

LOCATION MAP



NO SCALE

K Dahr 7-26-10
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

KAL H. DAHER
No. C44510
Exp. 3-31-12
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

July 26, 2010
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.

PROJECT MANAGER: ABDUL EL-DAHABI

DESIGN ENGINEER: TERRY OGLE

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

CONTRACT No.	06-459104
PROJECT ID	0600020149

LAST REVISION 07-26-10

DATE PLOTTED => 24-AUG-2010
TIME PLOTTED => 11:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	2	29

K. Daher 7-26-10
REGISTERED CIVIL ENGINEER DATE

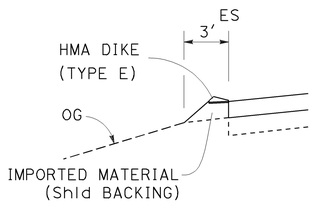
7-26-10
PLANS APPROVAL DATE

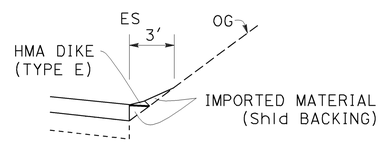
REGISTERED PROFESSIONAL ENGINEER
KAL H. DAHER
No. C44510
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

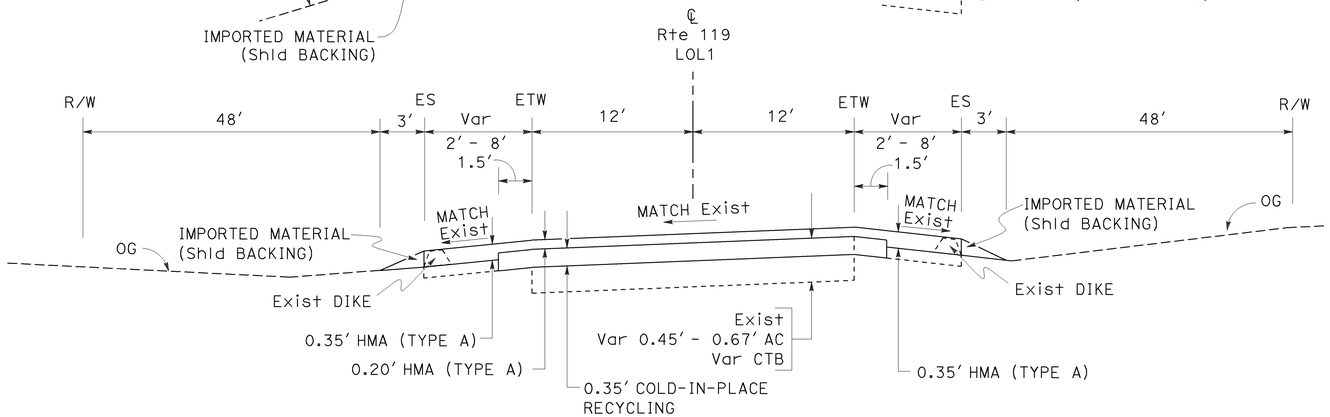
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

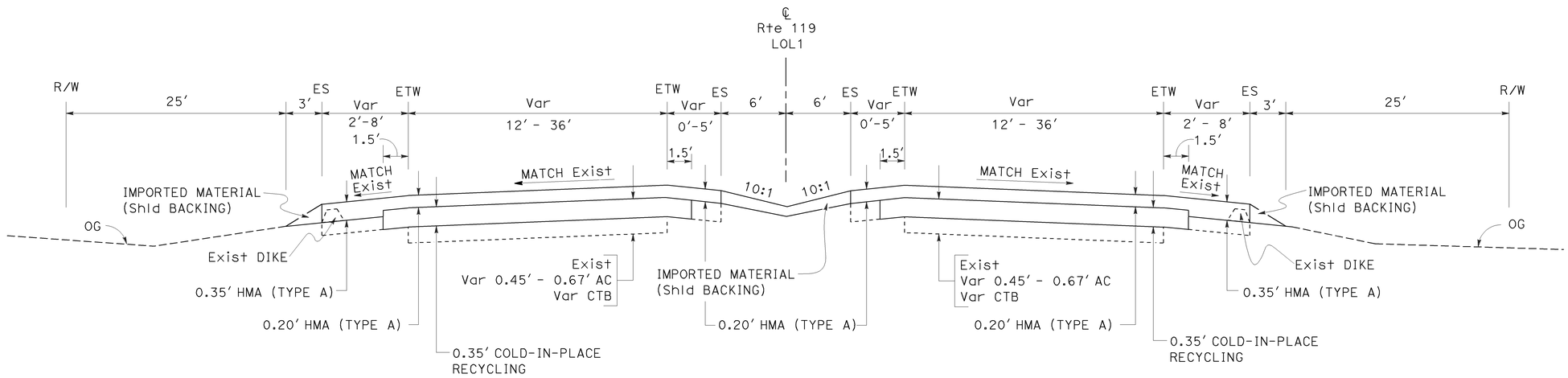
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
4. FOR TYPE AND LOCATION OF HMA DIKE SEE SUMMARY OF QUANTITIES SHEET.
5. STATIONING SHOWN IS FOR CONSTRUCTION PURPOSES ONLY.
6. SEE Q-1 SHEET FOR LOCATION OF REMOVE EXISTING DIKE.







Sta 184+24 TO Sta 237+04
Sta 25+84 TO Sta 173+68



Sta 10+00 TO Sta 25+84

ROUTE 119

TYPICAL CROSS SECTIONS
X-1

NO SCALE

BILL ALLEN — DESIGNED BY
KAL DAHER — CALCULATED BY
CHECKED BY
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR: TERRY OGLE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

LAST REVISION: DATE PLOTTED => 24-AUG-2010; TIME PLOTTED => 13:13
07-26-10

BORDER LAST REVISED 7/2/2010
USERNAME => s118789
DGN FILE => 645910ca001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1443
PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	3	29

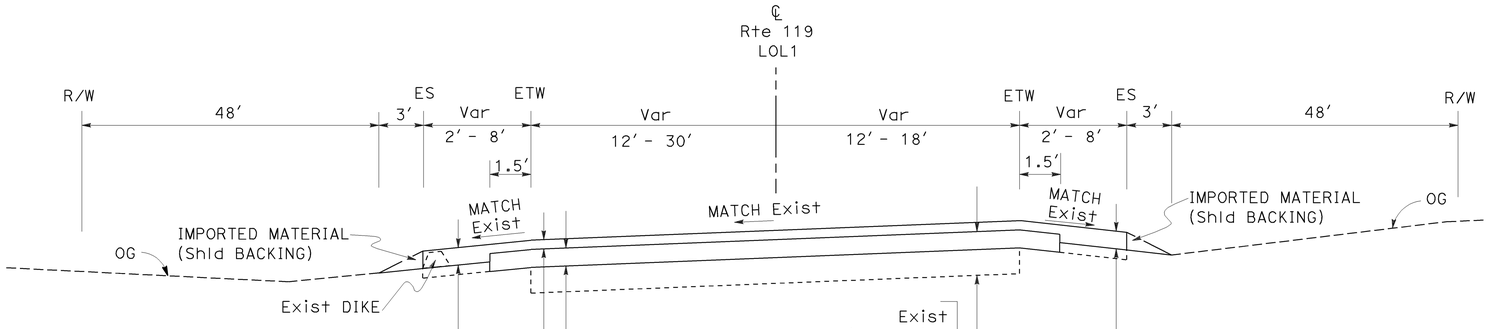
K. Dal 7-26-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAL H. DAHER
No. C44510
Exp. 3-31-12
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.

NOTE: FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



Sta 173+68 TO Sta 184+24

ROUTE 119

TYPICAL CROSS SECTIONS

X-2

NO SCALE

CALCULATED-DESIGNED BY: BILL ALLEN
CHECKED BY: KAL DAHER
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR: TERRY OGLE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

LAST REVISION DATE PLOTTED => 24-AUG-2010
TIME PLOTTED => 14:20
07-26-10

BORDER LAST REVISED 7/2/2010
USERNAME => s118789
DGN FILE => 645910ca002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1443
PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	4	29

K. Dal 7-26-10
REGISTERED CIVIL ENGINEER DATE

KAL H. DAHER No. C44510 Exp. 3-31-12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

7-26-10
PLANS APPROVAL DATE

NOTES:

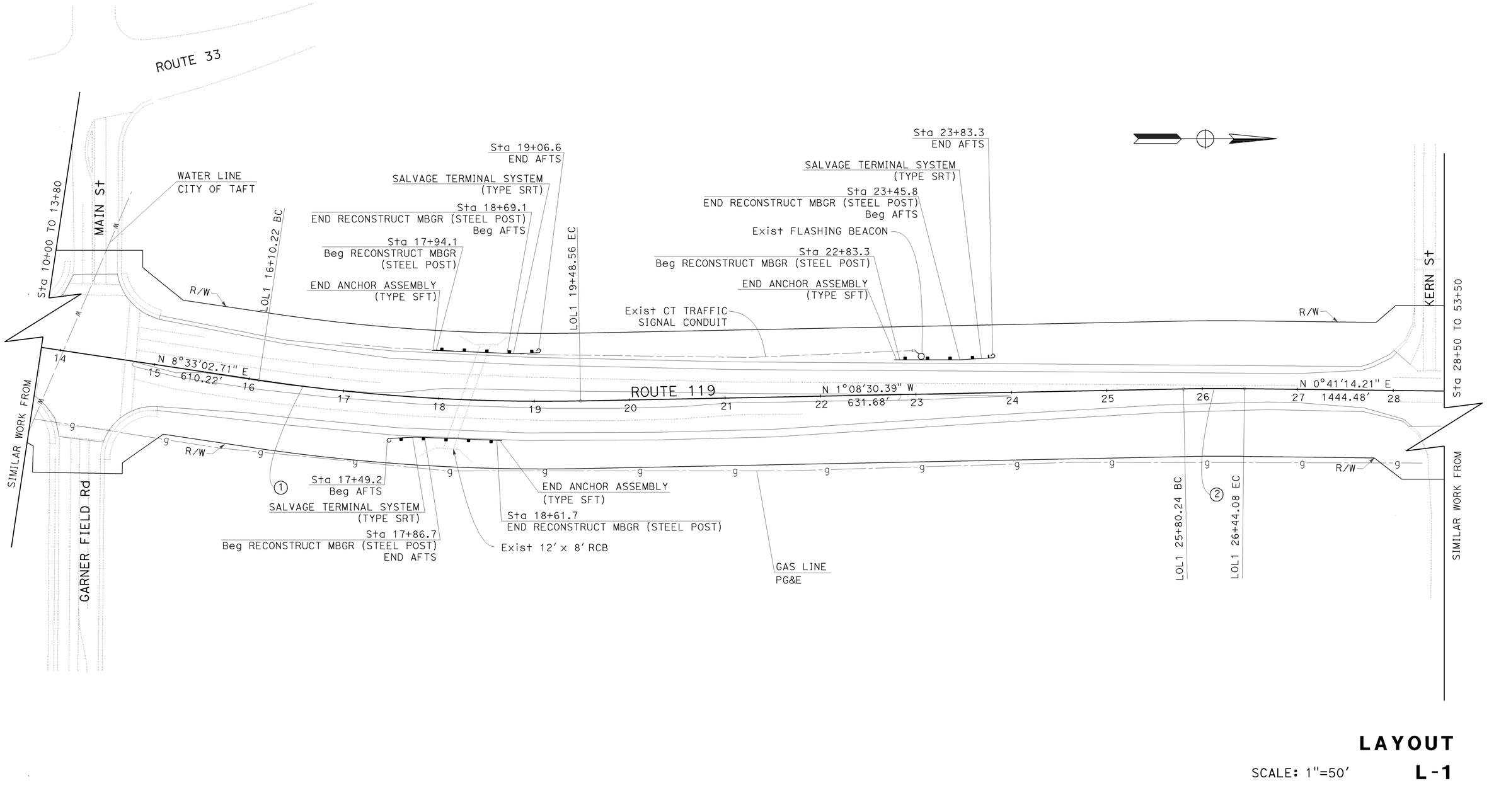
1. UTILITY LOCATIONS ARE APPROXIMATE, AND HAVE NOT BEEN POSITIVELY LOCATED EXACT LOCATIONS TO BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. EXISTING UTILITIES SHOWN AT MBGR LOCATIONS ONLY. OTHER UTILITIES WITHIN THE PROJECT LIMITS ARE NOT IN CONFLICT WITH CONSTRUCTION AND ARE NOT SHOWN.
3. SEE SUMMARY OF QUANTITIES SHEET FOR LIMITS OF MBGR.
4. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

ABBREVIATIONS

AFTS - ALTERNATIVE FLARED TERMINAL SYSTEM
CT - CALTRANS

CURVE DATA

No.	R	Δ	T	L
①	2000.00	9°41'31"	169.56	338.32
②	2000.00	1°49'43"	31.92	63.83



LAYOUT

SCALE: 1"=50'

L-1

CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
JORGE AGUILERA
KAL DAHER
FUNCTIONAL SUPERVISOR
TERRY OGLE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

LAST REVISION DATE PLOTTED => 25-AUG-2010
TIME PLOTTED => 09:08
07-26-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	5	29

K Daher 7-26-10
REGISTERED CIVIL ENGINEER DATE

KAL H. DAHER No. C44510 Exp. 3-31-12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

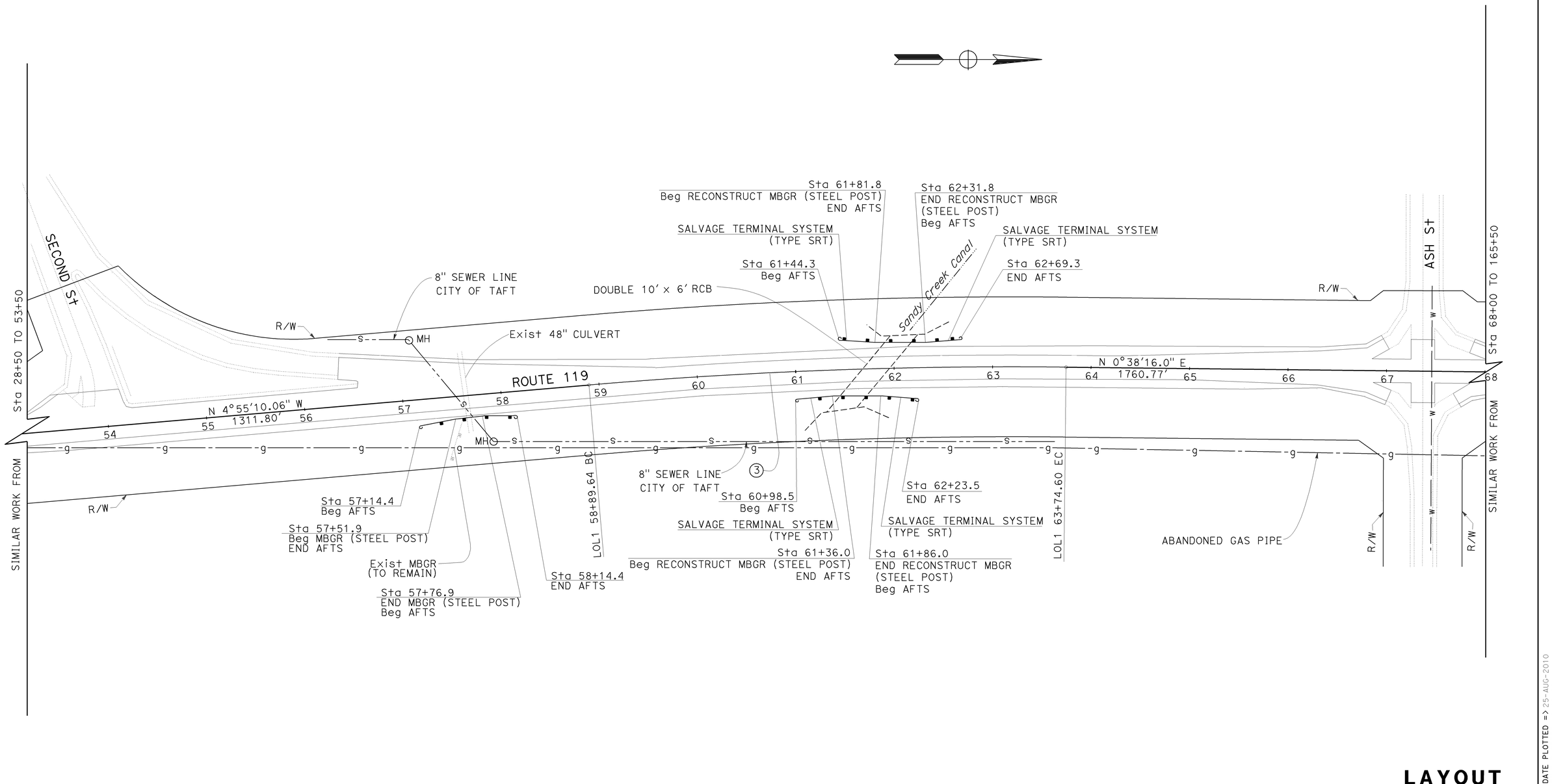
7-26-10
PLANS APPROVAL DATE

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.

NOTE: FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA

No.	R	Δ	T	L
③	5000.00	5°33'26"	242.67	484.96



LAYOUT

SCALE: 1"=50'

L-2

CALCULATED-DESIGNED BY: JORGE AGUILERA
CHECKED BY: KAL DAHER
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR: TERRY OGLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION DATE PLOTTED => 25-AUG-2010
TIME PLOTTED => 09:08
07-26-10

BORDER LAST REVISED 7/2/2010
USERNAME => s115755
DGN FILE => 645910ea002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1443
PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	6	29

K Dal 7-26-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAL H. DAHER
No. C44510
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

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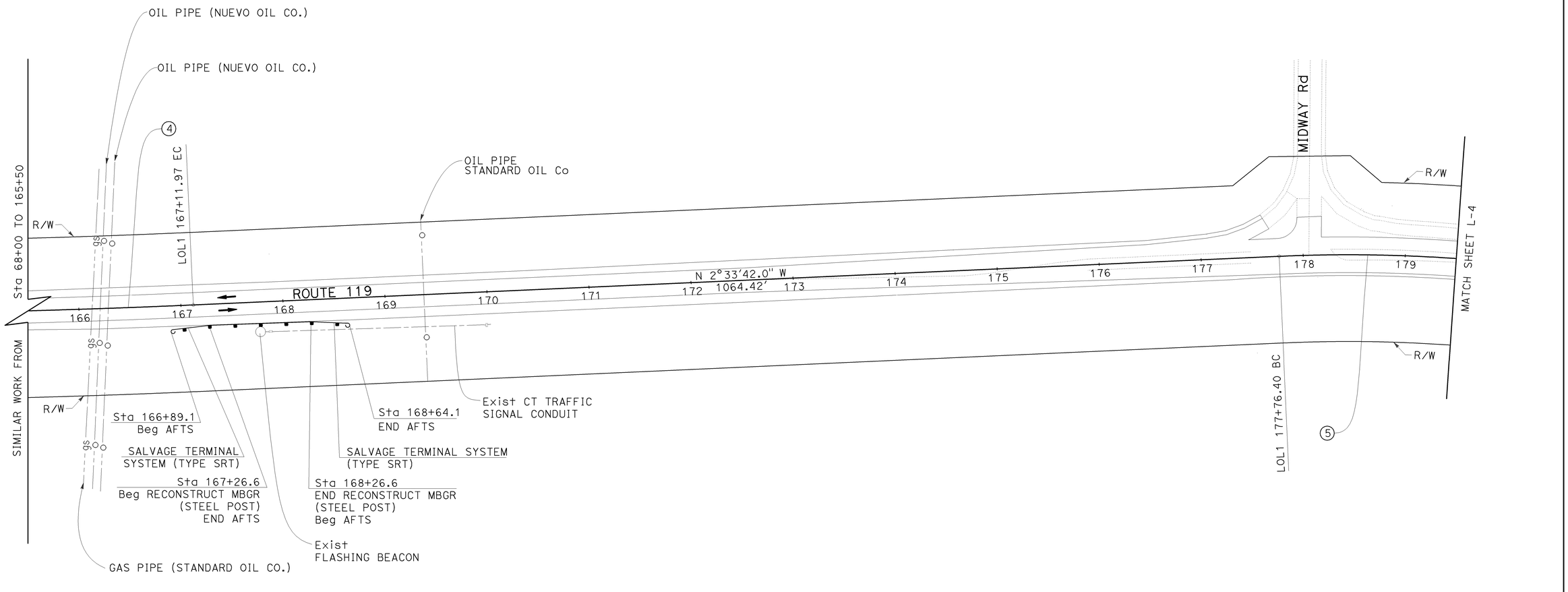
NOTE: FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA

No.	R	Δ	T	L
(4)	9000.00′	1°1′51″	80.96′	161.91′
(5)	1520.00′	6°32′38″	86.90′	173.60′



LAYOUT

SCALE: 1"=50′ **L-3**

REVISED BY	DATE REVISED
JORGE AGUILERA	KAL DAHER
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	TERRY OGLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION DATE PLOTTED => 25-AUG-2010
TIME PLOTTED => 09:08
07-26-10

BORDER LAST REVISED 7/2/2010 | USERNAME => s115755 | DGN FILE => 645910ea003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1443 | PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	7	29

K. Daher 7-26-10
REGISTERED CIVIL ENGINEER DATE

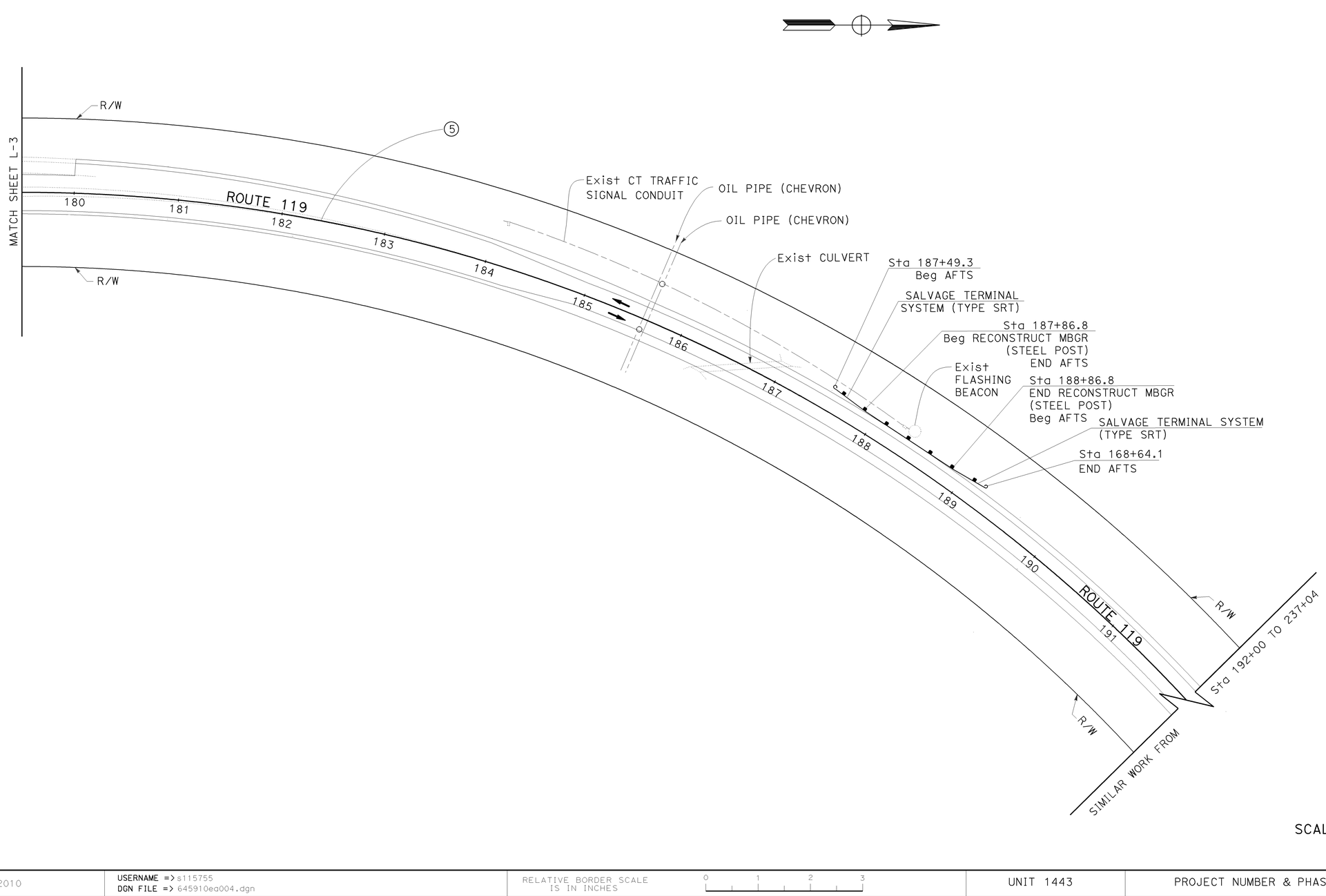
7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAL H. DAHER
No. C44510
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

NOTE: FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA

No.	R	Δ	T	L
⑤	1520.00′	6°32′38"	86.90′	173.60′



LAYOUT

SCALE: 1"=50′ **L-4**

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: JORGE AGUILERA
CHECKED BY: KAL DAHER
FUNCTIONAL SUPERVISOR: TERRY OGLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

LAST REVISION DATE PLOTTED => 25-AUG-2010
07-26-10 TIME PLOTTED => 09:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	8	29

K. Dah 7-26-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

KAL H. DAHER No. C44510 Exp. 3-31-12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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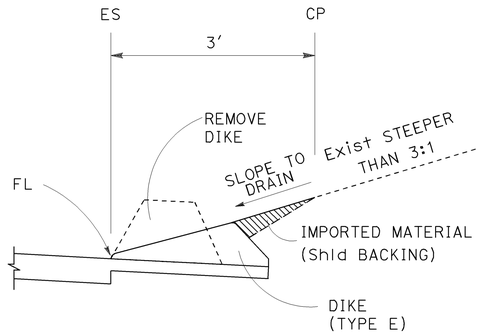
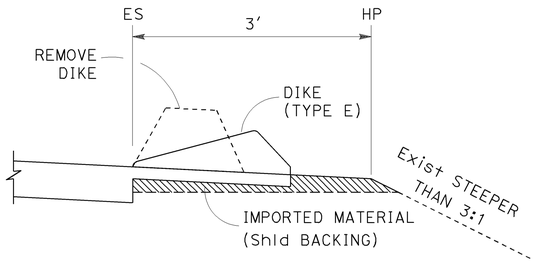
LEGEND:

COLD PLANE AC PAVEMENT

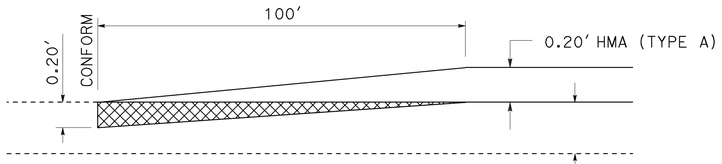
IMPORTED MATERIAL (SHOULDER BACKING)



HMA DIKE CUT SECTIONS

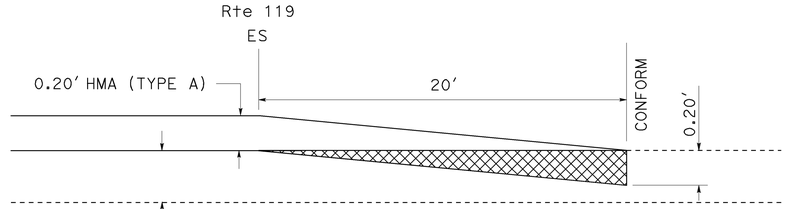


HMA DIKE FILL SECTIONS



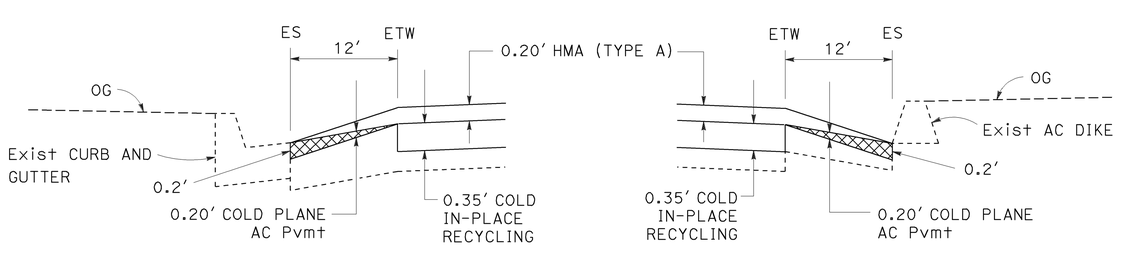
TYPICAL CONFORM TO HMA PAVEMENT

Sta 10+00
Sta 237+04



PAVING CONFORM

AT INTERSECTIONS



Rte 119 AND MAIN St/GARDNER FIELD Rd INTERSECTION (CURB RETURNS)

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: TERRY OGLE
CALCULATED-DESIGNED BY: BILL ALLEN
CHECKED BY: KAL DAHER
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 24-AUG-2010
07-26-10 TIME PLOTTED => 11:06

BORDER LAST REVISED 7/2/2010
USERNAME => s115755
DGN FILE => 645910ga001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1443
PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	9	29

K. Daher 7-26-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAL H. DAHER
No. C44510
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

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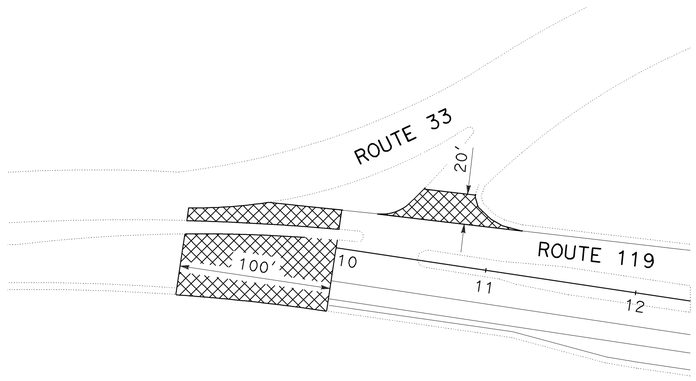

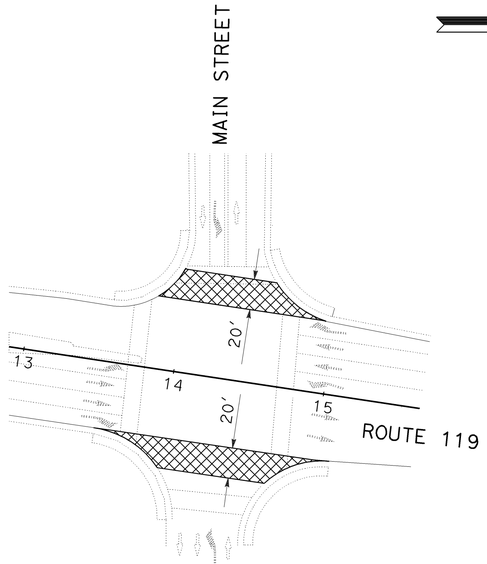

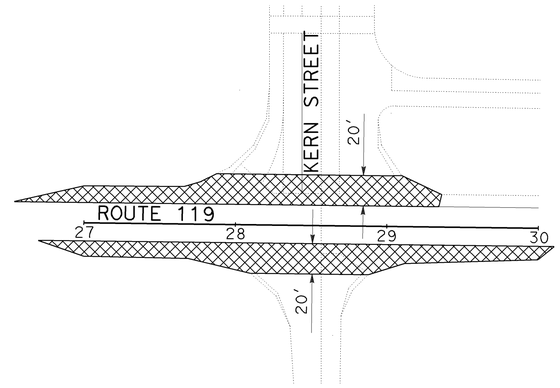

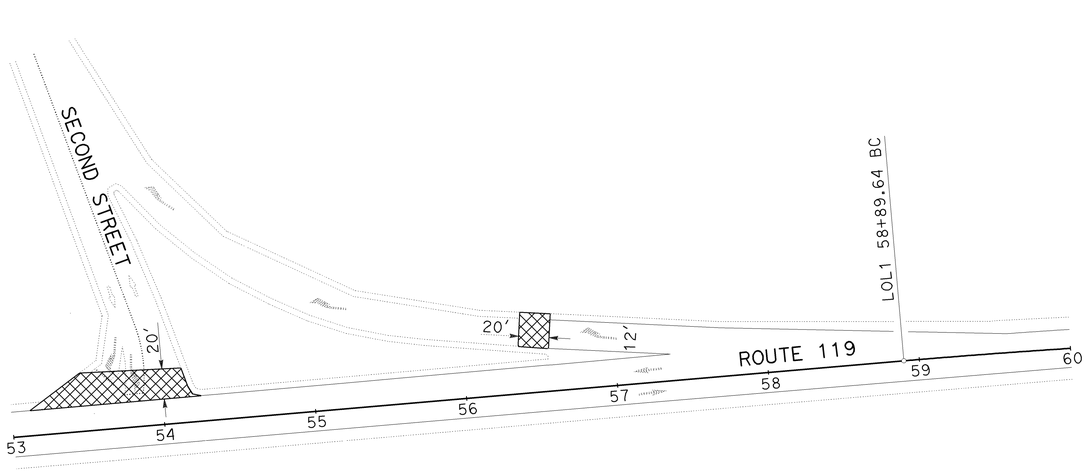

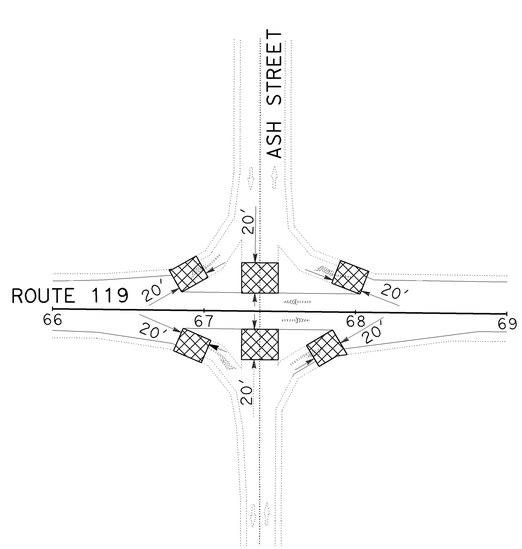

CONSTRUCTION DETAILS
(HMA CONFORM LOCATIONS)

SCALE: 1"=50'

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: TERRY OGLE
CALCULATED-DESIGNED BY
CHECKED BY
BILL ALLEN
KAL DAHER
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 24-AUG-2010
TIME PLOTTED => 13:27
07-26-10

BORDER LAST REVISED 7/2/2010
USERNAME => s118789
DGN FILE => 645910ga002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1443
PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	10	29

K. Daher 7-26-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAL H. DAHER
No. C44510
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

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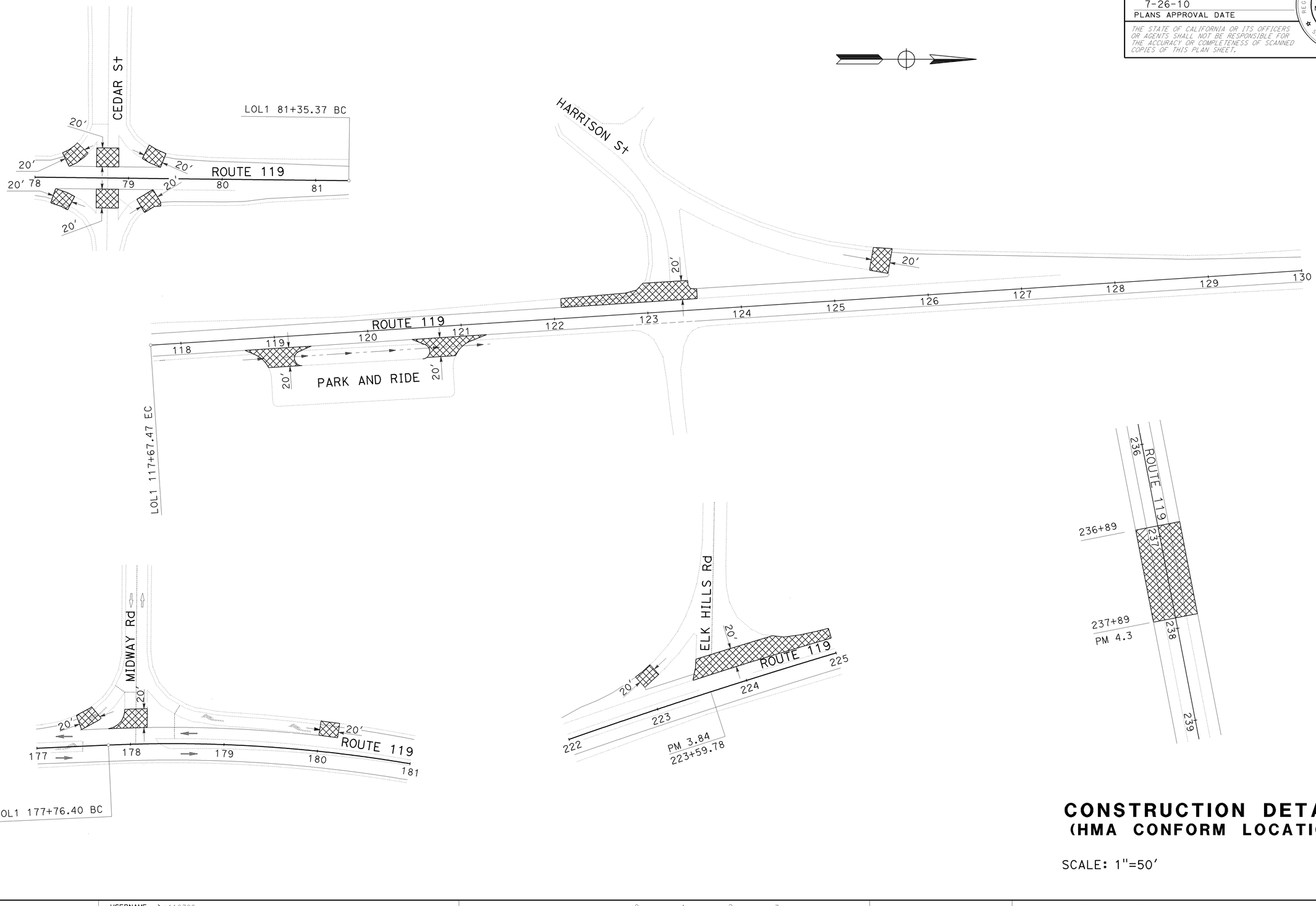


CONSTRUCTION DETAILS
(HMA CONFORM LOCATIONS)

SCALE: 1"=50′

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: TERRY OGLE
CALCULATED-DESIGNED BY
CHECKED BY
BILL ALLEN
KAL DAHER
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 24-AUG-2010
07-26-10 TIME PLOTTED => 13:28

BORDER LAST REVISED 7/2/2010
USERNAME => s118789
DGN FILE => 645910ga003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1443
PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	11	29

K. Dal 7-26-10
REGISTERED CIVIL ENGINEER DATE

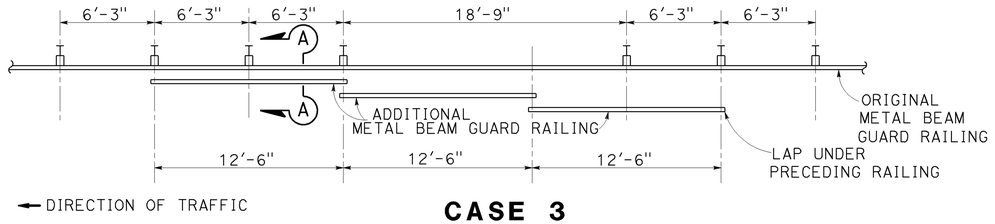
7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAL H. DAHER
No. C44510
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

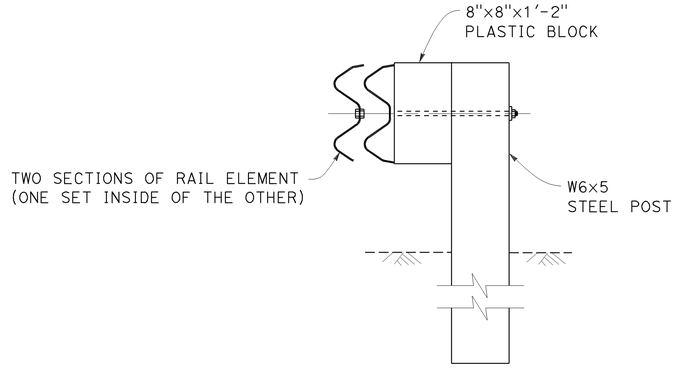
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

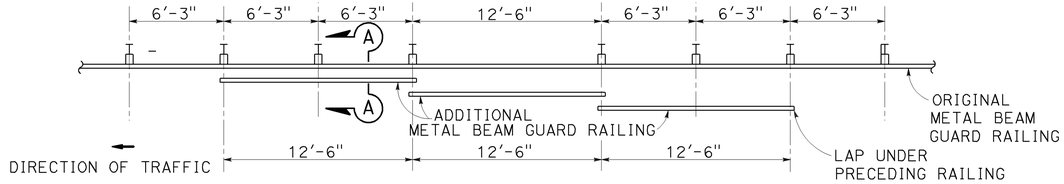
1. USE CASE 1 OR CASE 2 WHEN ONE POST OMITTED.
2. USE CASE 3 WHEN TWO POSTS ARE OMITTED.
3. USE SPECIAL POST FOOTING ONLY WHERE STANDARD EMBEDMENT OF RAILING POST IS RESTRICTED BY UNDERGROUND CONCRETE FACILITIES SUCH AS BOX CULVERTS.



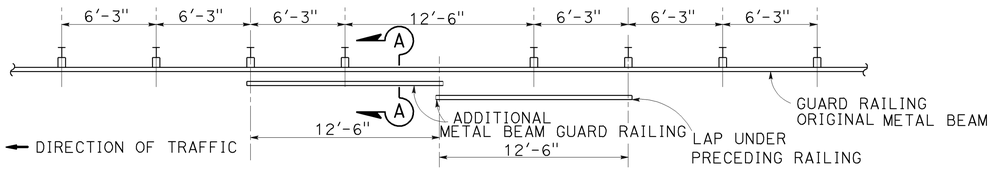
CASE 3
TWO POSTS OMITTED



SECTION A-A



CASE 2
ONE POST OMITTED (SPLICE AT POSTS)



CASE 1
ONE POST OMITTED (SPLICE IN CENTER)

LONG SPAN NESTED GUARD RAILING

SPECIAL
POST FOOTING

SEE NOTE 3

CONSTRUCTION DETAILS

NO SCALE **C-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: TERRY OGLE
CALCULATED-DESIGNED BY
CHECKED BY
KAL DAHER
LILIANA BRASALI
REVISED BY
DATE REVISED
Caltrans

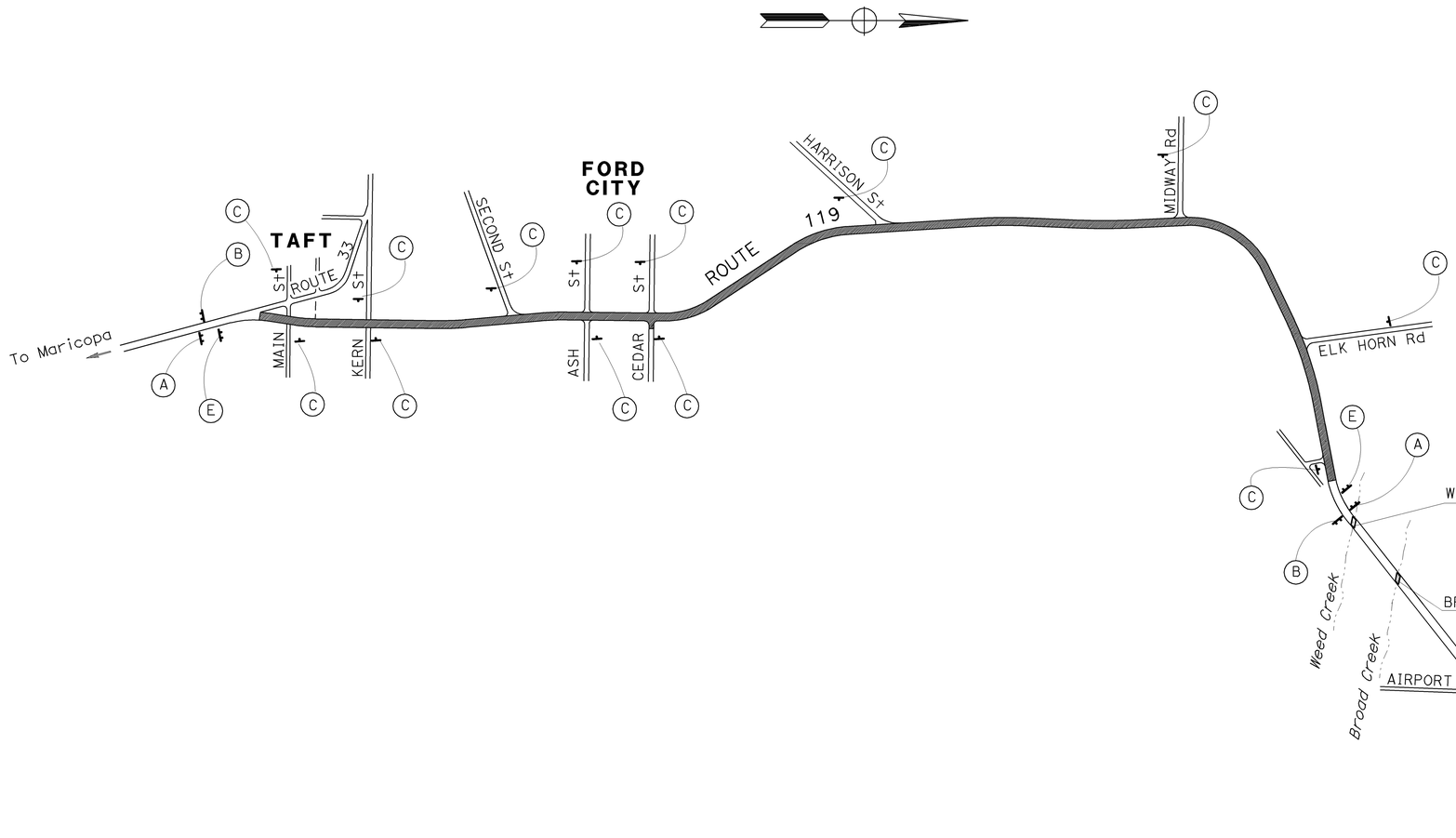
LAST REVISION DATE PLOTTED => 25-AUG-2010
07-26-10 TIME PLOTTED => 09:14

BORDER LAST REVISED 7/2/2010
USERNAME => s115755
DGN FILE => 645910ga004.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1443
PROJECT NUMBER & PHASE 06000201491

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POSTS	POST SIZE	No. OF SIGNS
(A)	W20-1	60" x 60"	ROAD WORK AHEAD	2	6" x 6"	2
(B)	G20-2	60" x 24"	END ROAD WORK	2	4" x 4"	2
(C)	W20-1	48" x 48"	ROAD WORK AHEAD	1	6" x 6"	13
(E)	C40	102" x 42"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2	6" x 6"	2

NOTE: LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN ONLY.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	12	29

Hassan Taha 7-21-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HASSAN M. TAHA No. 60130 Exp 06/30/12 CIVIL — STATE OF CALIFORNIA

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

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: VANIK POGOSYAN
CHECKED BY: HASSAN TAHA
FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
TRAFFIC DESIGN

LAST REVISION | DATE PLOTTED => 24-AUG-2010 | TIME PLOTTED => 11:06 | 07-21-10

BORDER LAST REVISED 7/2/2010 | USERNAME => s115755 | DGN FILE => 6459101a001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1513 | PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	13	29

Hassan Taha 7-21-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
No. 60130
Exp 06/30/12
CIVIL
STATE OF CALIFORNIA

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

TEMPORARY PAVEMENT DELINEATION QUANTITIES

LOCATION PM TO PM			DIRECTION	DETAIL No.	TEMPORARY TRAFFIC STRIPE (PAINT) 8" SOLID LF	4" SOLID LF	4" BROKEN (36-12) LF	8" BROKEN (12-3) LF	TEMPORARY PAVEMENT MARKING (PAINT) DESCRIPTION	SQFT
Route 119	0.00	0.01	EB	38	53				13 TYPE I (18)	325
Route 119	0.00	0.08	EB	12			422.4		12 TYPE III	504
Route 119	0.00	0.03	EB	27B		158			3 TYPE VI	126
Route 119	0.03	0.08	EB	38	264				2 PED	36
Route 119	0.10	0.28	EB	25		950			2 XING	42
Route 119	0.10	0.22	EB	12			633.6		4 SIGNAL	128
Route 119	0.10	0.34	EB	27B		1267			4 AHEAD	124
Route 119	0.28	0.35		22		370			16 XWALK&LL	16
Route 119	0.34	0.37	EB	27C				158		
Route 119	0.37	1.09	EB	27B		3802				
Route 119	0.37	0.46		22		475				
Route 119	0.46	0.78		6			1689.6			
Route 119	0.78	0.83		19		264	264			
Route 119	0.85	1.09		22		1267				
Route 119	1.09	1.10	EB	27C				53		
Route 119	1.10	1.30		22		1056				
Route 119	1.10	1.28	EB	27B		950				
Route 119	1.28	1.32	EB	27C				211		
Route 119	1.32	4.30	EB	27B		15,734				
Route 119	1.32	1.38		22		317				
Route 119	1.38	1.66		19		1478	1478.4			
Route 119	1.66	2.09		6			2270.4			
Route 119	2.09	2.14		19		264	264			
Route 119	2.16	2.22		22		634				
Route 119	2.22	3.01		6			4171.2			
Route 119	3.01	3.18		22		898				
Route 119	3.15	3.18	EB	38	158					
Route 119	3.21	3.44		22		1215				
Route 119	3.44	3.68		19		1267	1267.2			
Route 119	3.68	3.85		22		898				
Route 119	3.81	3.85	EB	38	211					
Route 119	3.86	3.88		22		105				
Route 119	3.88	3.95		19		370	369.6			
Route 119	3.95	4.16		6			1108.8			
Route 119	4.16	4.30		19		739	739.2			
Route 119	0.00	0.04	WB	27B		211				
Route 119	0.04	0.07	WB	36A	158					
Route 119	0.08	0.13	WB	27B		264				
Route 119	0.15	0.40	WB	27B		1320				
Route 119	0.15	0.16	WB	38	53					
Route 119	0.15	0.17	WB	38	106					
Route 119	0.15	0.33	WB	12			950.4			
Route 119	0.33	0.40	WB	22		370				
Route 119	0.40	0.42	WB	27C				106		
Route 119	0.42	0.87	WB	27B		2376				
Route 119	0.86	0.90	WB	27C				211		
Route 119	0.90	0.94	WB	27B		211				
Route 119	0.94	0.96	WB	36	211					
Route 119	1.01	1.13	WB	27B		634				
Route 119	1.13	1.16	WB	27C				158		
Route 119	1.16	1.36	WB	27B		1056				
Route 119	1.36	1.38	WB	27C				106		
Route 119	1.38	2.25	WB	27B		4594				
Route 119	2.25	2.27	WB	36	211					
Route 119	2.32	3.23	WB	27B		4805				
Route 119	3.30	3.89	WB	27B		3115				
Route 119	3.25	3.29	WB	38	211					
Route 119	3.89	3.90	WB	27C				53		
Route 119	3.90	3.92	WB	27B		106				
Route 119	3.92	3.95	WB	27C				158		
Route 119	3.95	4.30	WB	27B		1848				
SUBTOTAL					1636	39,019	15,629	1214		1301
TOTAL					57,498					1301

CALCULATED-DESIGNED BY: HT 4/27/10
CHECKED BY: VANIK POGOSYAN
REVISED BY: HASSAN TAHA
DATE REVISED:
FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

TRAFFIC HANDLING QUANTITIES

THQ-1

LAST REVISION DATE PLOTTED => 24-AUG-2010
TIME PLOTTED => 13:32
07-21-10

BORDER LAST REVISED 7/2/2010
USERNAME => s118789
DGN FILE => 645910md001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1513
PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	14	29

Hassan Taha 7-26-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
No. 60130
Exp 06/30/12
CIVIL
STATE OF CALIFORNIA

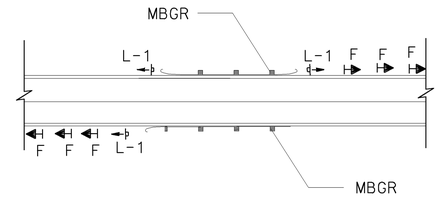
PAVEMENT DELINEATION QUANTITIES

LOCATION PM TO PM			DIRECTION	DETAIL No.	PAVEMENT MARKERS (RETROREFLECTIVE)			REMOVE PAVEMENT MARKER (N)	THERMOPLASTIC TRAFFIC STRIPE				THERMOPLASTIC PAVEMENT MARKING	
					TYPE D	TYPE G	TYPE H		8" SOLID	4" SOLID	4" BROKEN (36-12)	8" BROKEN (12-3)	DESCRIPTION	SQFT
					EA	EA	EA	EA	LF	LF	LF	LF		
Route 119	0.00	0.01	EB	38		3		3	53				13 TYPE V (18)	429
Route 119	0.00	0.08	EB	12		10		10			422.4		12 TYPE III	504
Route 119	0.00	0.03	EB	27B						158			3 TYPE VI	126
Route 119	0.03	0.08	EB	38		12		12	264				2 PED	36
Route 119	0.10	0.28	E/WB	25			42	42		1900			2 XING	42
Route 119	0.10	0.22	EB	12		14		14			633.6		4 SIGNAL	128
Route 119	0.10	0.34	EB	27B						1267			4 AHEAD	124
Route 119	0.28	0.35		22	34			34		1478			16 XWALK&LL	16
Route 119	0.34	0.37	EB	27C								158		
Route 119	0.37	1.09	EB	27B						3802				
Route 119	0.37	0.46		22	42			42		950				
Route 119	0.46	0.78		6	36			36			1689.6			
Route 119	0.78	0.83		19	8		12	20		264	264			
Route 119	0.85	1.09		22	108			108		2534				
Route 119	1.09	1.10	EB	27C								53		
Route 119	1.10	1.30		22	90			90		2112				
Route 119	1.10	1.28	EB	27B						950				
Route 119	1.28	1.32	EB	27C								211		
Route 119	1.32	4.30	EB	27B						15,734				
Route 119	1.32	1.38		22	30			30		634				
Route 119	1.38	1.66		19	34		63	97		1478	1478.4			
Route 119	1.66	2.09		6	48			48			2270.4			
Route 119	2.09	2.14		19	8		12	20		264	264			
Route 119	2.16	2.22		22	30			30		634				
Route 119	2.22	3.01		6	88			88			4171.2			
Route 119	3.01	3.18		22	78			78		1795				
Route 119	3.15	3.18	EB	38		8		8	158					
Route 119	3.21	3.44		22	104			104		2429				
Route 119	3.44	3.68		19	30		54	84		1267	1267.2			
Route 119	3.68	3.85		22	78			78		1795				
Route 119	3.81	3.85	EB	38		10		10	211					
Route 119	3.86	3.88		22	12			12		211				
Route 119	3.88	3.95		19	10		16	26		370	369.6			
Route 119	3.95	4.16		6	24			24			1108.8			
Route 119	4.16	4.30		19	18		32	50		739	739.2			
Route 119	0.00	0.04	WB	27B						211				
Route 119	0.04	0.07	WB	36A		8		8	158					
Route 119	0.08	0.13	WB	27B						264				
Route 119	0.15	0.40	WB	27B						1320				
Route 119	0.15	0.16	WB	38		3		3	53					
Route 119	0.15	0.17	WB	38		5		5	106					
Route 119	0.15	0.33	WB	12		21		21			950.4			
Route 119	0.33	0.40	WB	22	34			34		739				
Route 119	0.40	0.42	WB	27C								106		
Route 119	0.42	0.87	WB	27B						2376				
Route 119	0.86	0.90	WB	27C								211		
Route 119	0.90	0.94	WB	27B						211				
Route 119	0.94	0.96	WB	36		12		12	211					
Route 119	1.01	1.13	WB	27B						634				
Route 119	1.13	1.16	WB	27C								158		
Route 119	1.16	1.36	WB	27B						1056				
Route 119	1.36	1.38	WB	27C								106		
Route 119	1.38	2.25	WB	27B						4594				
Route 119	2.25	2.27	WB	36		12		12	211					
Route 119	2.32	3.23	WB	27B						4805				
Route 119	3.30	3.89	WB	27B						3115				
Route 119	3.25	3.29	WB	38		10		10	211					
Route 119	3.89	3.90	WB	27C								53		
Route 119	3.90	3.92	WB	27B						106				
Route 119	3.92	3.95	WB	27C								158		
Route 119	3.95	4.30	WB	27B						1848				
SUBTOTAL					945	127	230	1302	1637	64,046	15,629	1214		1405
TOTAL						1302			1637	64,046	15,629	1214		1405

(N) - NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY

DELINEATOR AND OBJECT MARKER

SHEET No.	DELINEATOR (CLASS 1)	OBJECT MARKER
	TYPE F	TYPE L1(OM2-2V)
	EA	EA
L-1	9	3
L-2	9	6
L-3	3	2
L-4	3	2
TOTAL	24	13



TYPICAL DELINEATORS AND OBJECT MARKERS FOR MBGR

PAVEMENT DELINEATION DETAIL AND QUANTITIES

PDQ-1

REVISED BY | DATE REVISED
VANIK POGOSYAN | HASSAN TAHA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | MOHAMMED QATAMI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

LAST REVISION DATE PLOTTED => 24-AUG-2010
07-26-10 TIME PLOTTED => 13:34

BORDER LAST REVISED 7/2/2010 | USERNAME => s118789 | DGN FILE => 645910nc001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1513 | PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	15	29

K. Dah 7-26-10
REGISTERED CIVIL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
KAL H. DAHER
No. C44510
Exp. 3-31-12
CIVIL
STATE OF CALIFORNIA

ROADWAY QUANTITIES

LOCATION	COLD IN_PLACE RECYCLING	HOT MIX ASPHALT	TACK COAT	EMULSIFIED RECYCLING AGENT	SAND COVER	ASPHALTIC EMULSION (FOG SEAL COAT)	IMPORTED MATERIAL (SHOULDER BACKING)
STATION - STATION	SQYD	TON	TON	TON	TON	TON	TON
0+00 - 17+92	6,733	1,185.00	11	47.7	6.7	3.4	72
17+92 - 25+84	5,250	865.00	10	37.2	5.3	2.6	58
25+84 - 173+68	45,947	11,261.00	123	325.7	45.9	22.9	1355
173+68 - 184+24	4,593	755.00	9	32.6	4.6	2.3	96
184+24 - 205+89	6,665	1,574.00	21	47.2	6.7	3.8	230
205+89 - 220+14	5,367	1,113.00	8	38.0	5.4	2.7	77
220+14 - 237+04	5,711	1,469.00	16	40.5	5.7	2.8	172
HMA DIKE		166.32					
TOTAL	80,266	18,388.32	198	568.9	80.3	40.5	2060

METAL BEAM GUARD RAILING

LOCATION	DIRECTION	MBGR (STEEL POST)	RECONSTRUCT MBGR (STEEL POST)	ALTERNATIVE FLARED TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	MBGR LAYOUT (N)	SALVAGE TERMINAL SYSTEM (TYPE SRT)
STATION-STATION		LF	LF	EA	EA	TYPE	EA
17+49.2 TO 18+61.7	NB		75.0	1	1	11B	1
57+14.4 TO 58+14.4	NB	25		2		16E	
60+98.5 TO 62+23.5	NB		50.0	2		16E	2
166+89.1 TO 168+64.1	NB		100.0	2		16E	2
17+94.1 TO 19+06.6	SB		75.0	1	1	11B	1
22+83.3 TO 23+83.3	SB		62.5	1	1	16B	1
61+44.3 TO 62+69.3	SB		50.0	2		16E	2
187+49.3 TO 189+24.3	SB		100.0	2		16E	2
TOTAL		25	512.5	13	3		11

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

DIKE QUANTITIES

LOCATION	DIRECTION	REMOVE AC DIKE	PLACE HMA DIKE (TYPE E)	HMA (TYPE A)
STATION - STATION		LF	LF	TON
15+28 - 15+81	NB	52.8	52.8	1.39
123+52 - 129+86	NB	633.6	633.6	16.68
138+30 - 140+94	NB	264.0	264.0	6.95
148+86 - 150+45	NB	158.4	158.4	4.17
182+13 - 190+05	NB	792.0	792.0	20.85
14+22 - 16+34	SB	211.2	211.2	5.56
18+45 - 18+98	SB	52.8	52.8	1.39
128+27 - 133+55	SB	528.0	528.0	13.90
140+42 - 142+00	SB	158.4	158.4	4.17
152+56 - 155+73	SB	316.8	316.8	8.34
156+29 - 173+68	SB	739.2	739.2	19.50
180+02 - 180+54	SB	52.8	52.8	1.39
181+07 - 183+18	SB	230.0	230.0	6.06
194+80 - 209+06	SB	1425.6	1425.6	37.53
214+86 - 215+92	SB	105.6	105.6	2.78
216+98 - 219+09	SB	211.2	211.2	5.56
TOTAL		5932.4	5932.4	166.32*

* - INCLUDED IN ROADWAY QUANTITY TABLE

COLD PLANE AC PAVEMENT

STATION	LOCATION	AREA
	Lt/Rt	SQYD
9+00 TO 10+00	Lt/Rt	612
10+23 TO 11+19	Lt	114
13+53 TO 15+10	Lt/Rt	393
26+54 TO 30+11	Lt/Rt	742
53+19 TO 54+26	Lt	204
56+37 TO 56+59	Lt	51
66+79 TO 68+07	Lt/Rt	250
78+18 TO 79+39	Lt/Rt	253
118+77 TO 119+25	Rt	90
120+57 TO 121+10	Rt	96
122+08 TO 123+54	Lt	232
125+39 TO 125+64	Lt	52
177+45 TO 178+18	Lt	100
180+00 TO 180+20	Lt	32
212+89 TO 215+00	Lt	320
236+89 TO 237+89	Lt/Rt	447
TOTAL		3988

SUMMARY OF QUANTITIES

Q-1

REVISED BY	DATE REVISED
KHD	05-26-10

CALCULATED-DESIGNED BY: BILL ALLEN
CHECKED BY: KAL DAHER
FUNCTIONAL SUPERVISOR: TERRY OGLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

LAST REVISION DATE PLOTTED => 24-AUG-2010
07-26-10 TIME PLOTTED => 13:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	16	29

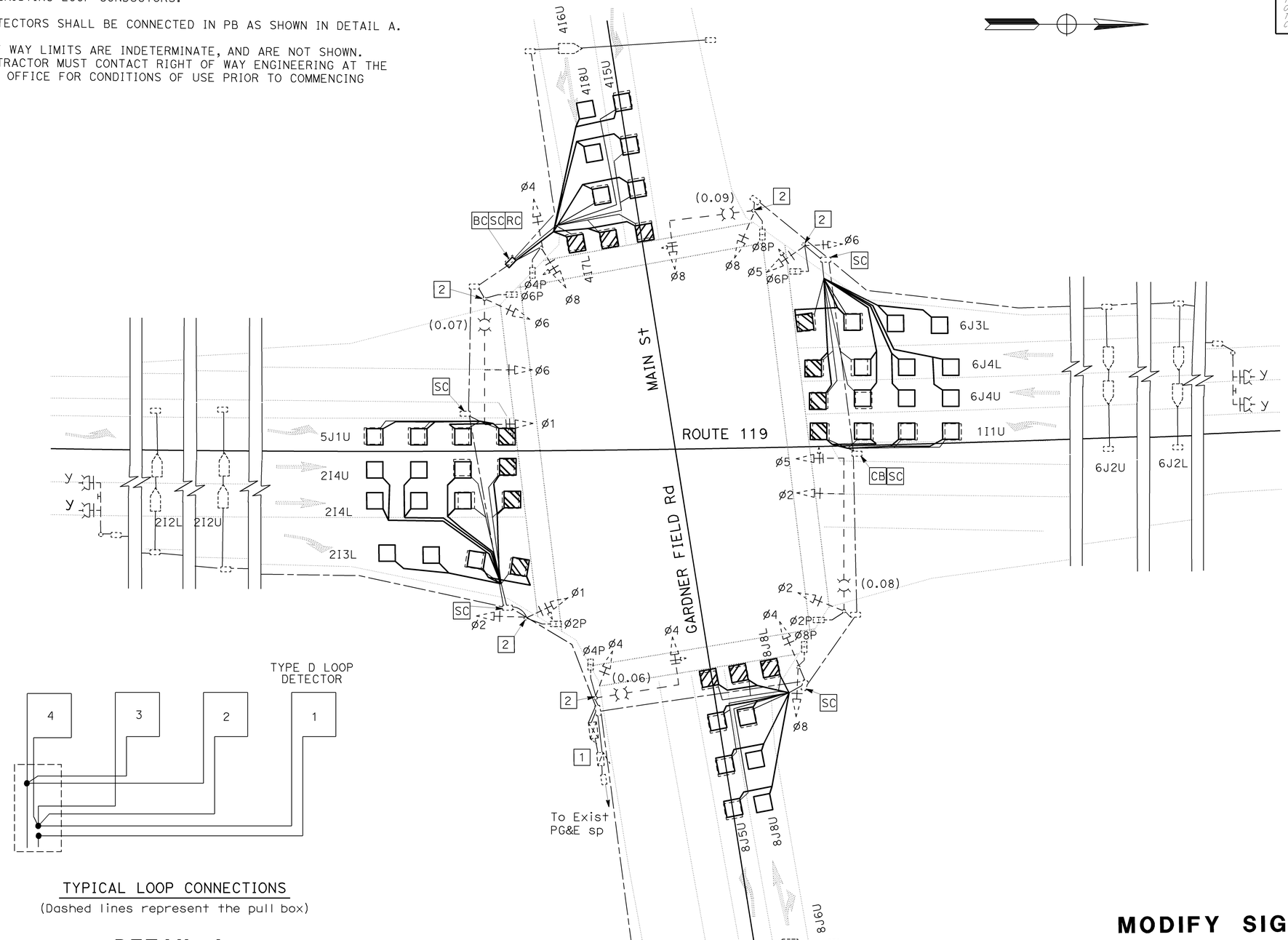
Mona Attallah 7-20-10
REGISTERED ELECTRICAL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MONA N. ATTALLAH
No. 18407
Exp 6/30/12
ELECTRICAL
STATE OF CALIFORNIA

NOTES: (FOR THIS SHEET ONLY)

1. Exist 120/240 V, 1ø, 3 WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE.
2. RC Exist ppb, INSTALL NEW PPB.
3. AB ALL EXISTING LOOP CONDUCTORS.
4. LOOP DETECTORS SHALL BE CONNECTED IN PB AS SHOWN IN DETAIL A.
5. RIGHT OF WAY LIMITS ARE INDETERMINATE, AND ARE NOT SHOWN. THE CONTRACTOR MUST CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE FOR CONDITIONS OF USE PRIOR TO COMMENCING WORK.



TYPE D LOOP DETECTOR

TYPICAL LOOP CONNECTIONS
(Dashed lines represent the pull box)

DETAIL A

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

MODIFY SIGNAL AND LIGHTING (LOCATION 1)

SCALE: 1"=20'

E-1

LAST REVISION DATE PLOTTED => 24-AUG-2010
07-20-10 TIME PLOTTED => 13:37

CALCULATED-DESIGNED BY: MONA ATTALLAH
CHECKED BY: RAJPREET SINGH
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

REVISED BY | DATE REVISED

BORDER LAST REVISED 7/1/2010

USERNAME => s118789
DGN FILE => 645910ua001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1515

PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	17	29

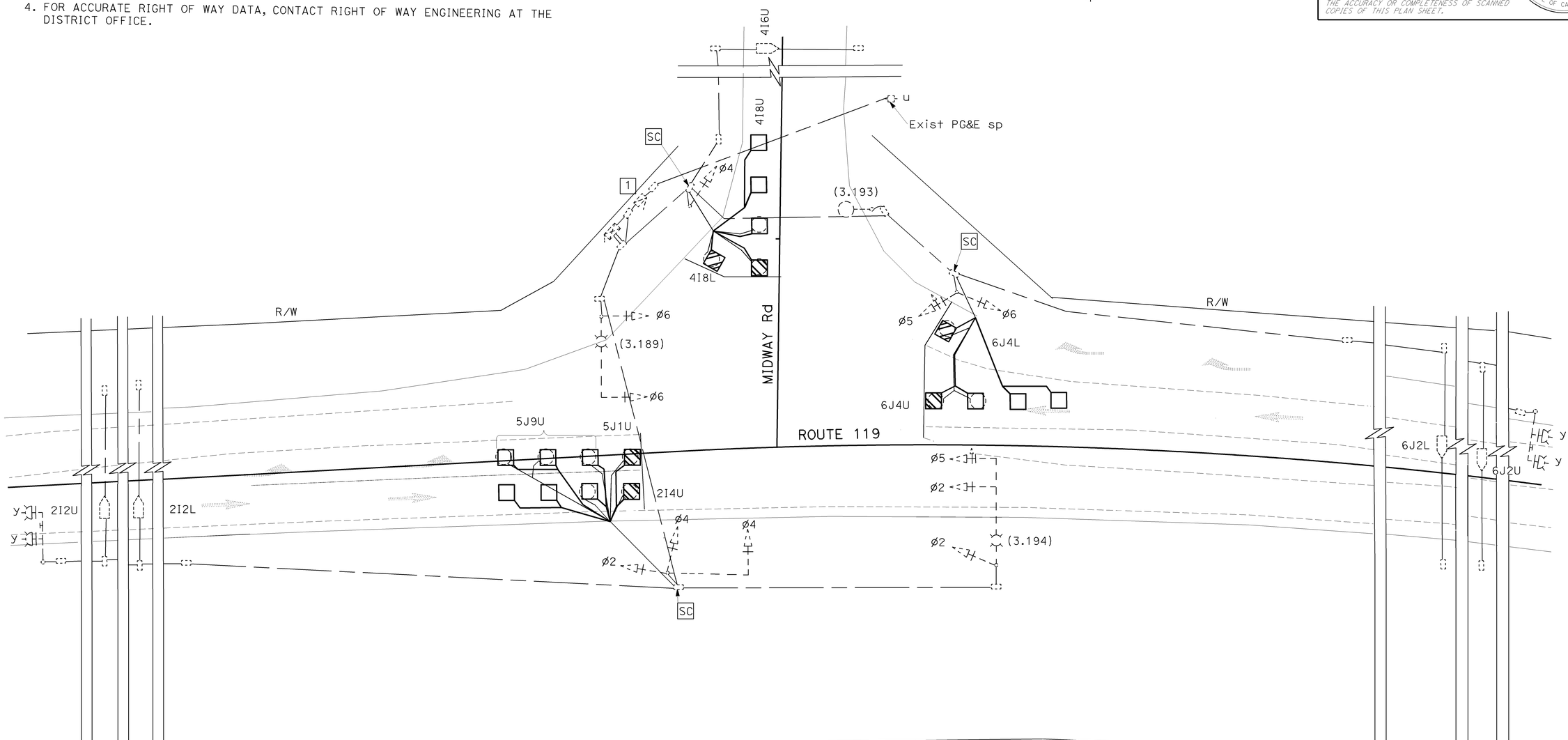
Mona Attallah 7-21-10
REGISTERED ELECTRICAL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

MONA N. ATTALLAH No. 18407 Exp 6/30/12 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

NOTES: (FOR THIS SHEET ONLY)

1. [1] Exist 120/240 V, 1ø, 3 WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE.
2. [AB] ALL EXISTING LOOP CONDUCTORS.
3. LOOP DETECTORS SHALL BE CONNECTED IN PB AS SHOWN IN DETAIL A ON SHEET E-1.
4. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



MODIFY SIGNAL AND LIGHTING
(LOCATION 2)

SCALE: 1"=20'

E-2

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
CALCULATED-DESIGNED BY: MONA ATTALLAH
CHECKED BY: RAJPREET SINGH
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 24-AUG-2010
TIME PLOTTED => 13:38
07-21-10

BORDER LAST REVISED 7/1/2010
USERNAME => s118789
DGN FILE => 645910ua002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1515
PROJECT NUMBER & PHASE 06000201491

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	119	0.0/4.3	18	29

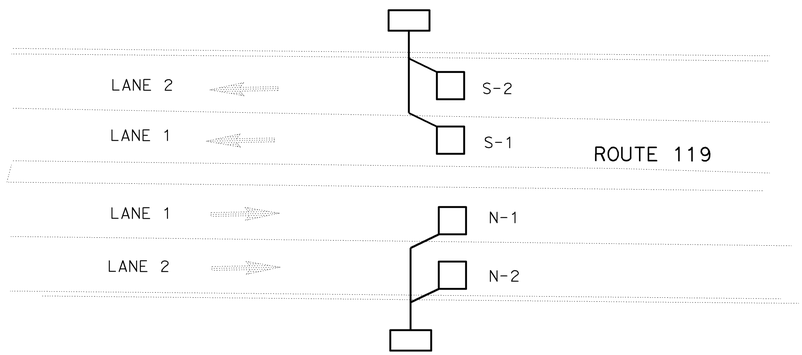
Mona Attallah 7-21-10
REGISTERED ELECTRICAL ENGINEER DATE

7-26-10
PLANS APPROVAL DATE

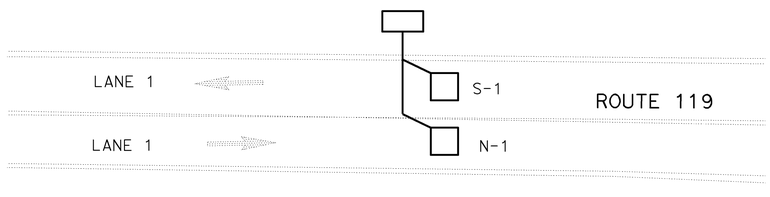
REGISTERED PROFESSIONAL ENGINEER
MONA N. ATTALLAH
No. 18407
Exp 6/30/12
ELECTRICAL
STATE OF CALIFORNIA

NOTES: (FOR THIS SHEET ONLY)

1. RIGHT OF WAY LIMITS ARE INDETERMINATE, AND ARE NOT SHOWN. THE CONTRACTOR MUST CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE FOR CONDITIONS OF USE PRIOR TO COMMENCING WORK.



PM 0.0 (EAST OF JCT RTE 33)



PM 0.34 (EAST OF KERN STREET)
PM 0.83 (EAST OF SECOND STREET)

TRAFFIC COUNT STATION

NO SCALE

E-3

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
CALCULATED-DESIGNED BY: MONA ATTALLAH
CHECKED BY: RAJPREET SINGH
REVISED BY | DATE REVISED

LAST REVISION 07-21-10
DATE PLOTTED => 24-AUG-2010
TIME PLOTTED => 13:40

BORDER LAST REVISED 7/1/2010
USERNAME => s118789
DGN FILE => 645910ua003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1515
PROJECT NUMBER & PHASE 06000201491

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	19	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

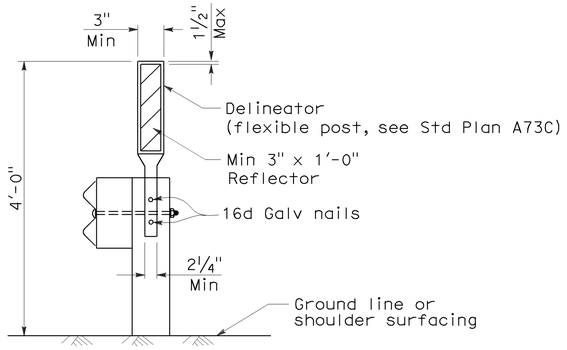
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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

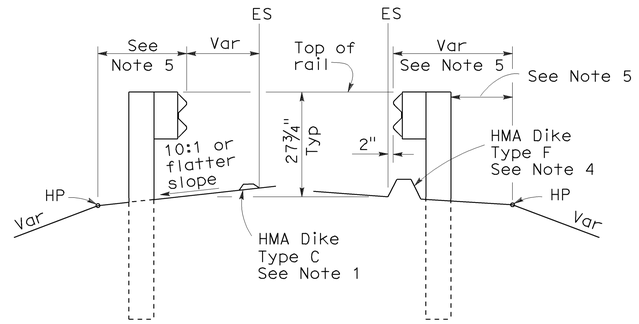
To accompany plans dated 7-26-10

NOTES:

1. When necessary to place dike in front of face of guard railing, only Type C dike may be used. For dike details, see Standard Plan A87B.
2. For standard railing post embedment, see Standard Plans A77C3.
3. Guard railing delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under guard railing, the maximum height of the dike or curb shall be 4". Mountable dike should not be used. For dike and curb details, see Revised Standard Plans RSP A87A and Standard Plan A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77C3.



GUARD RAILING DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL RAILING DELINEATION AND DIKE POSITIONING DETAILS

NO SCALE

RSP A77C4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77C4 DATED MAY 1, 2006 - PAGE 47 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77C4

2006 REVISED STANDARD PLAN RSP A77C4

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	20	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-09 — CIVIL — STATE OF CALIFORNIA

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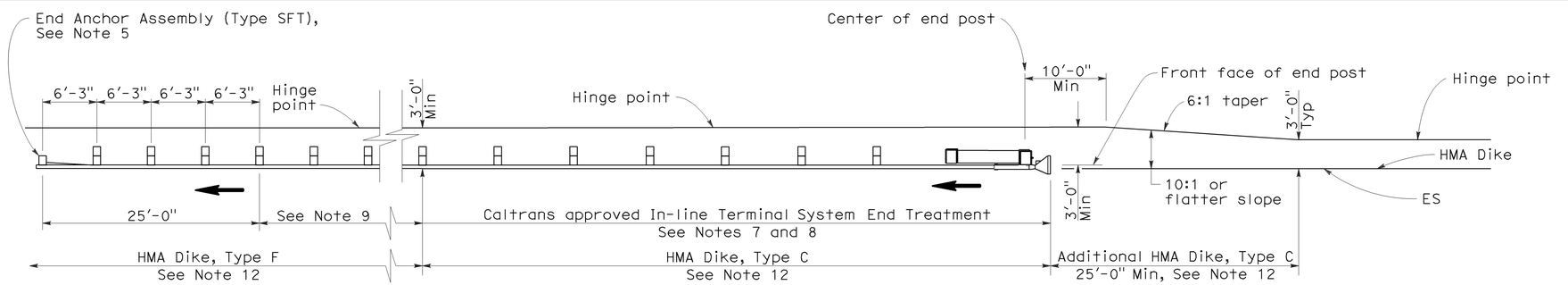
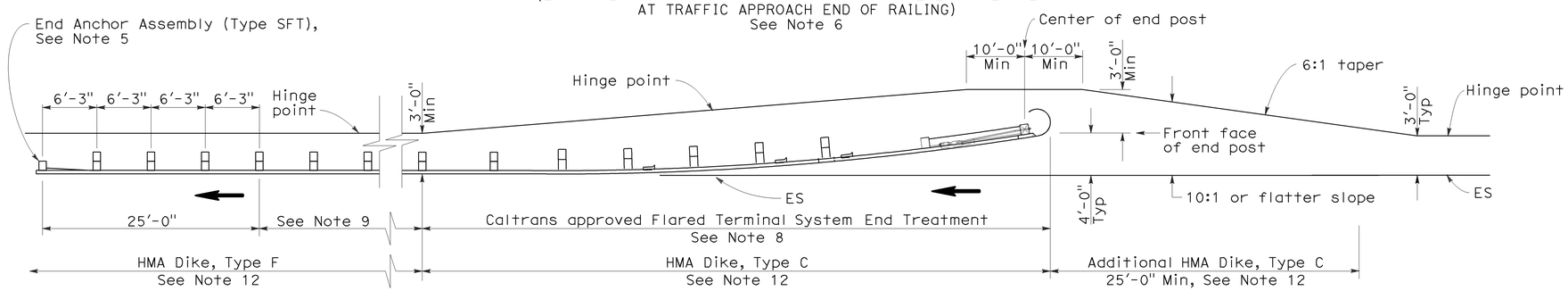
To accompany plans dated 7-26-10



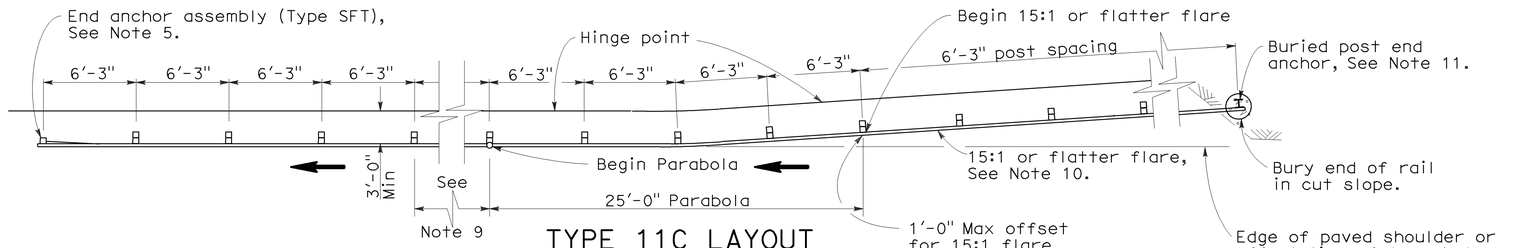
TYPE 11A LAYOUT

(EMBANKMENT GUARD INSTALLATION WITH IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6



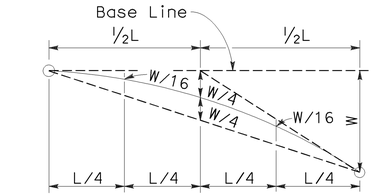
TYPE 11B LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Note 6

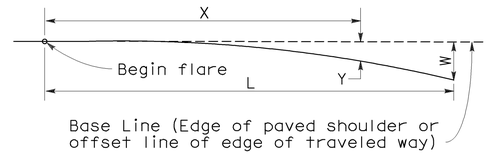


TYPE 11C LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 6 and 12



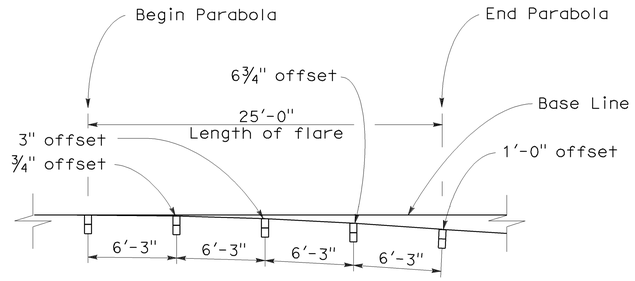
TYPICAL PARABOLIC LAYOUT



$$Y = \frac{WX^2}{L^2}$$

Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPICAL FLARE OFFSETS FOR 1 FOOT MAX END OFFSET

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1, and A77C2.
2. Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or recycled plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. Direction of adjacent traffic indicated by ➞.
5. For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
6. Layout Types 11A, 11B or 11C are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for only one direction of traffic.
7. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
8. The type of terminal system end treatment to be used will be shown on the Project Plans.
9. Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
10. The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
11. For details of the buried post end anchor used with Type 11C Layout, see Standard Plan A77I2.
12. Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR EMBANKMENTS

NO SCALE

RSP A77E1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E1
DATED MAY 1, 2006 - PAGE 48 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E1

2006 REVISED STANDARD PLAN RSP A77E1

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	21	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-09 CIVIL — STATE OF CALIFORNIA

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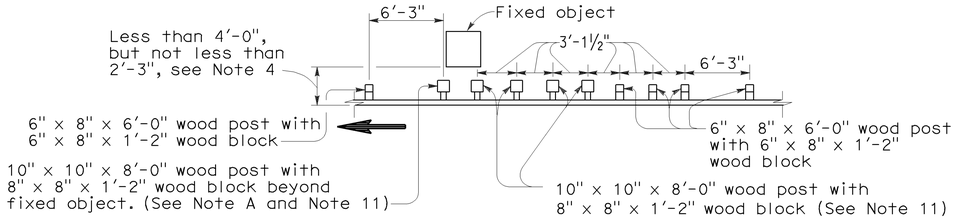
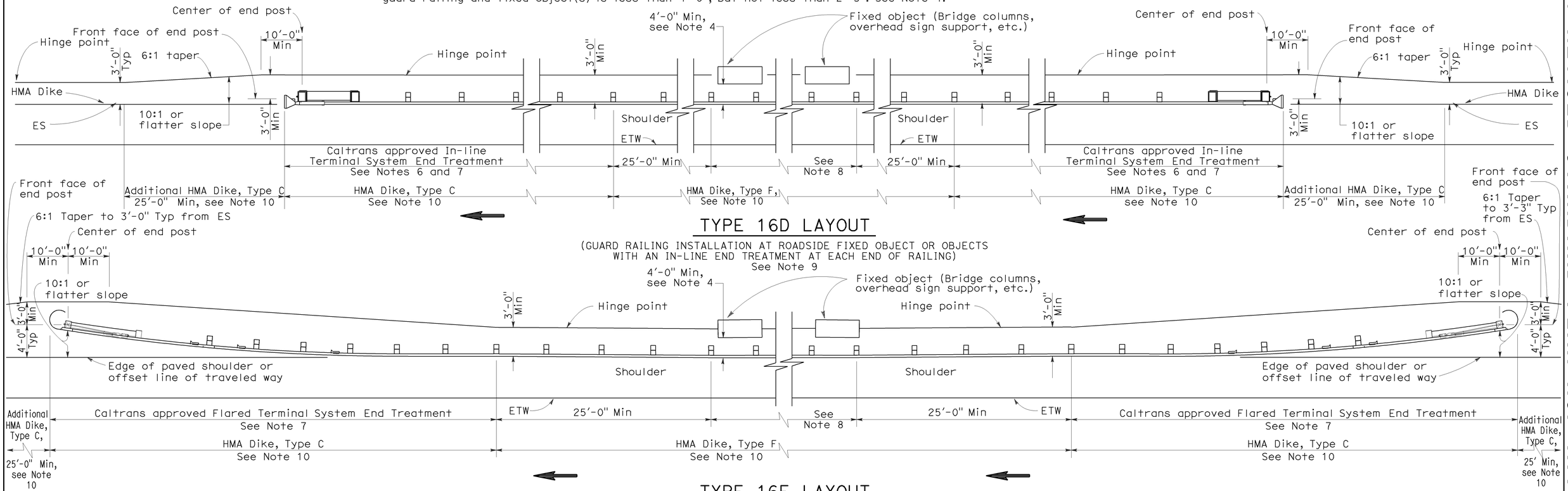
To accompany plans dated 7-26-10



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed object(s).

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

Use strengthened railing sections with Layout Types 16D or 16E where minimum clearance between the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4.



TYPE 16D LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AT EACH END OF RAILING)
See Note 9

TYPE 16E LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AT EACH END OF RAILING)
See Note 9

NOTES:

1. Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
2. Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
3. Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
4. A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing at 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
5. Direction of adjacent traffic indicated by ⟶.
6. In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
7. The type of terminal system to be used will be shown on the Project Plans.
8. As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3", except as specified in Note 4.
9. Layout Types 16D through 16L, shown on the A77G Series of Revised Standard Plans, are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for both directions of traffic.
10. Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
11. W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic block may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail."

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

NO SCALE

RSP A77G4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G4
DATED MAY 1, 2006 - PAGE 62 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G4

2006 REVISED STANDARD PLAN RSP A77G4

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	22	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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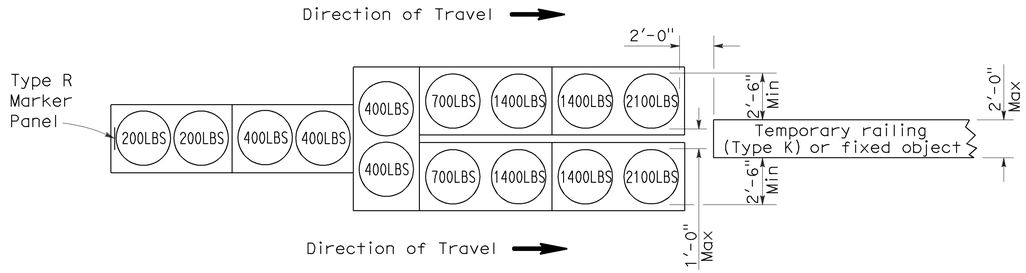
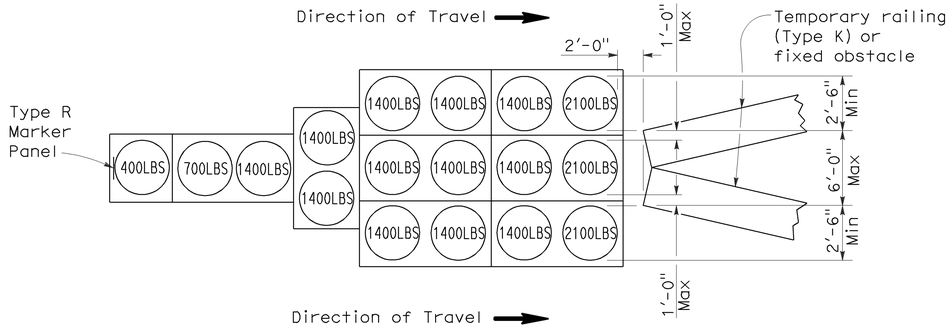
To accompany plans dated 7-26-10



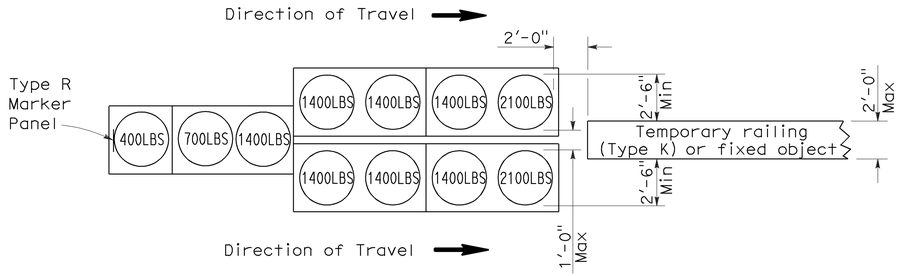
ARRAY 'TU14'

Approach speed 45 mph or more



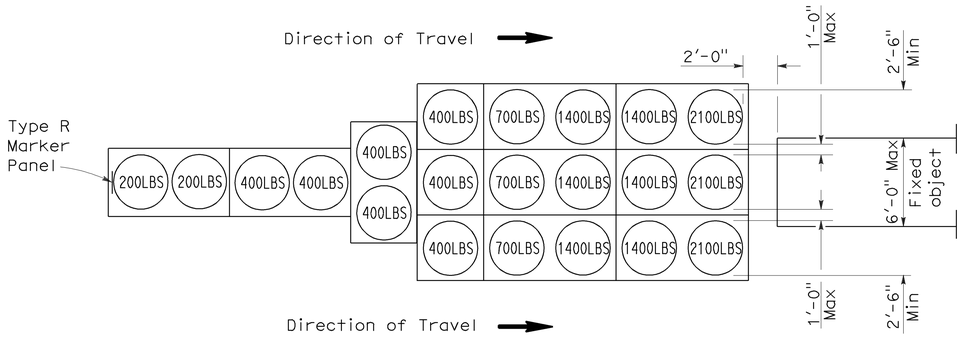
ARRAY 'TU17'

Approach speed less than 45 mph



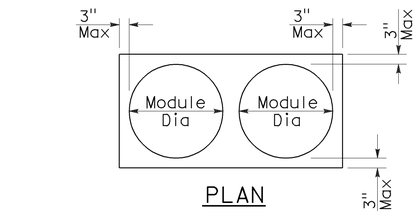
ARRAY 'TU11'

Approach speed less than 45 mph

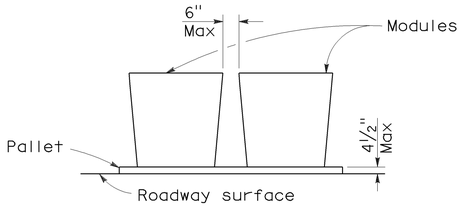


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	23	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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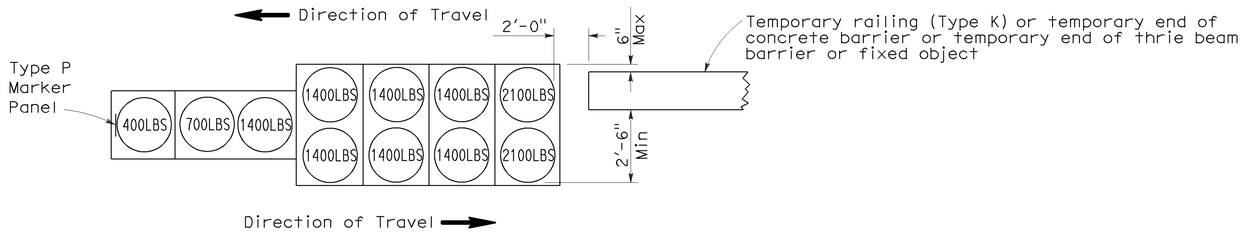
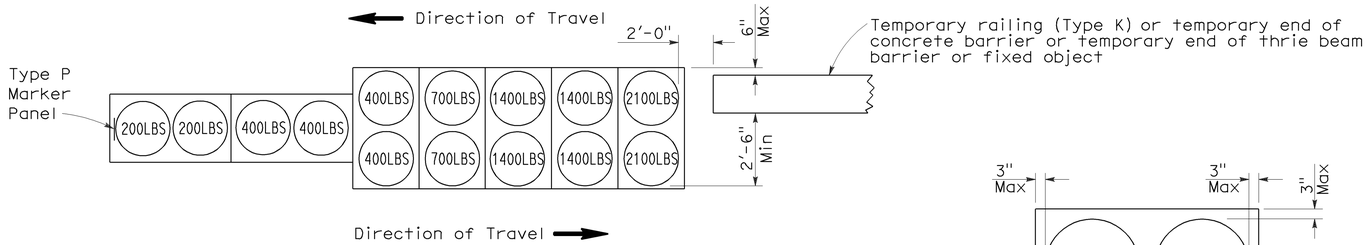
To accompany plans dated 7-26-10



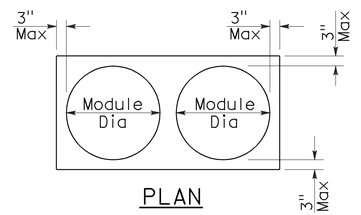
ARRAY 'TB11'

Approach speed less than 45 mph

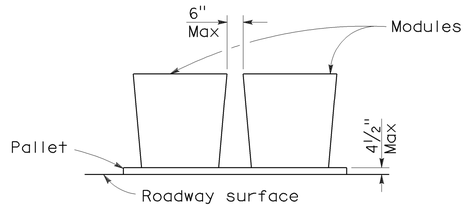


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	24	29

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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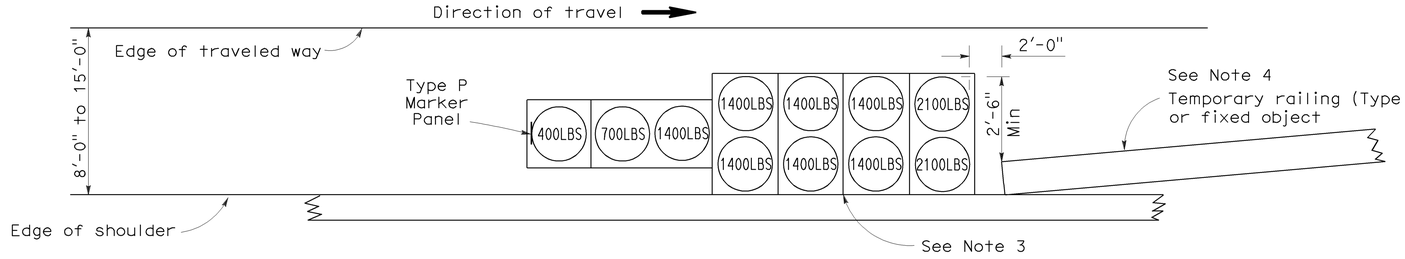
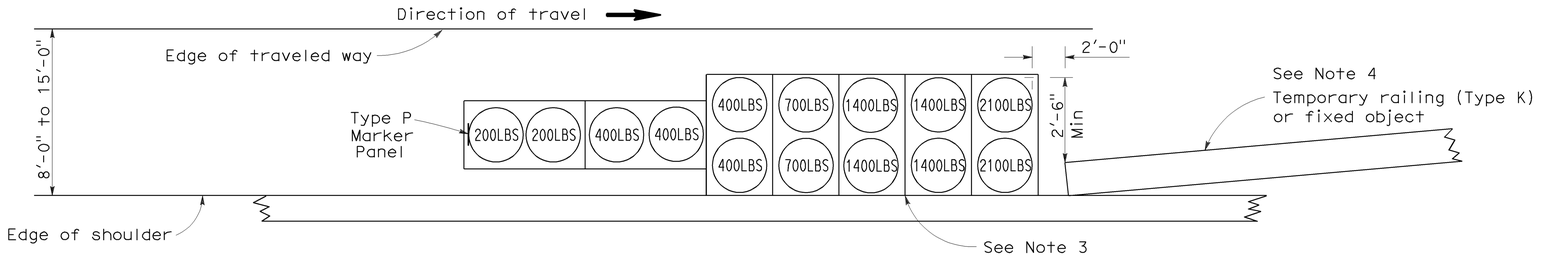
To accompany plans dated 7-26-10



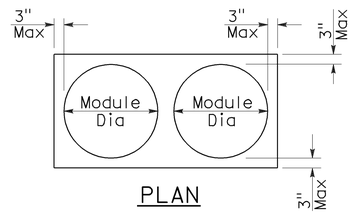
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

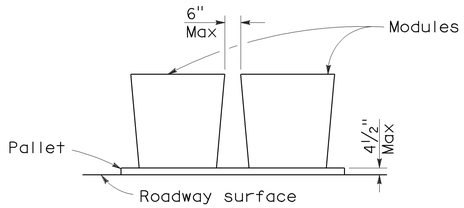


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
4. If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
5. Temporary crash cushion arrays shall not encroach on the traveled way.
6. Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
7. Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
8. Refer to Standard Plan A73B for marker details.
9. For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
10. Approach speeds indicated conform to NCHRP 350 Report criteria.
11. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	25	29

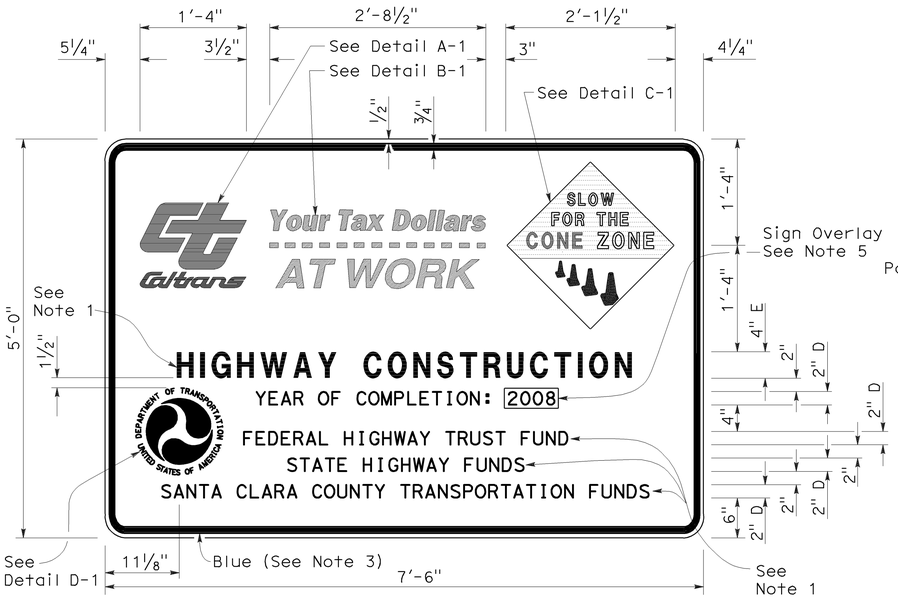
Greg W. Edwards
REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

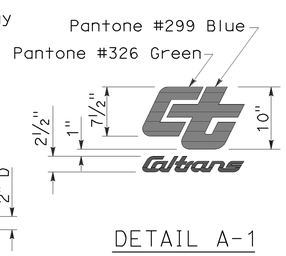
REGISTERED PROFESSIONAL ENGINEER — Greg W. Edwards — No. C36386 — Exp. 6-30-08 CIVIL — STATE OF CALIFORNIA

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

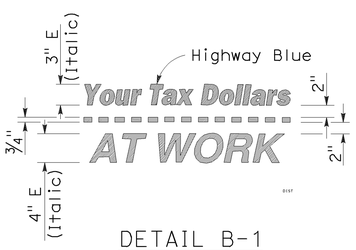
To accompany plans dated 7-26-10



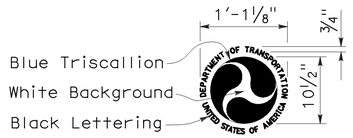
TYPE 1



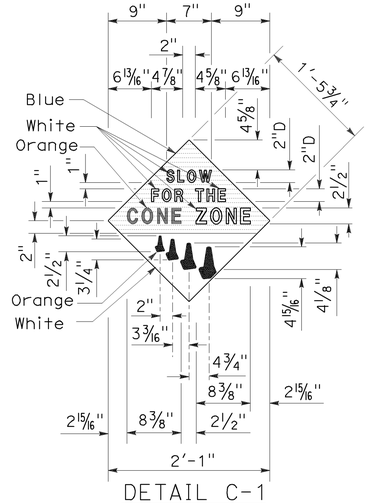
DETAIL A-1



DETAIL B-1
(See Note 3)



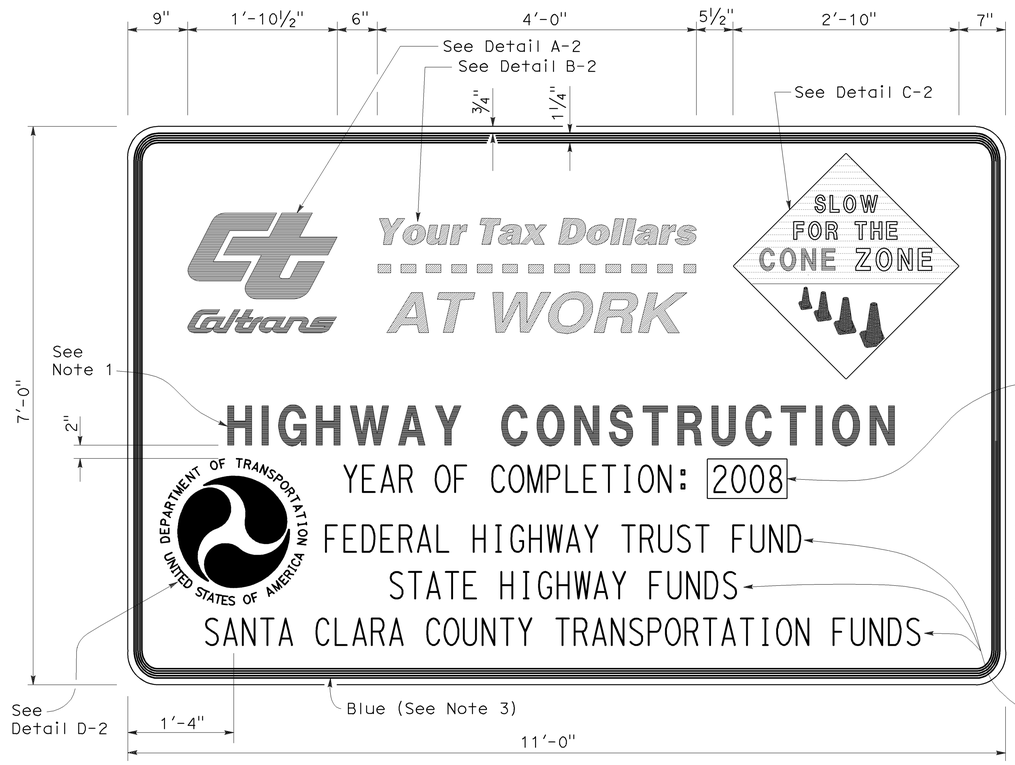
DETAIL D-1
(See Note 6)



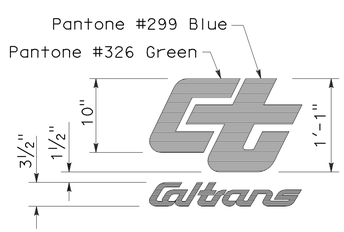
DETAIL C-1
(See Note 4)

NOTES:

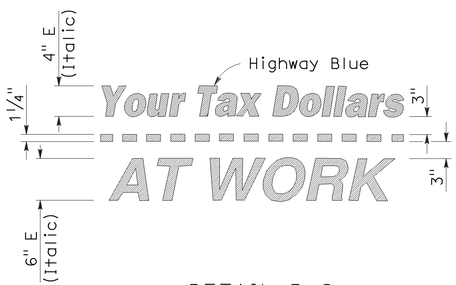
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



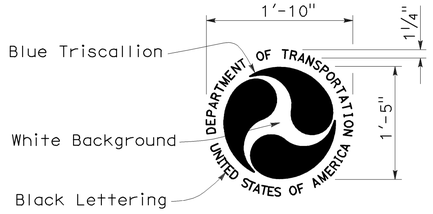
TYPE 2



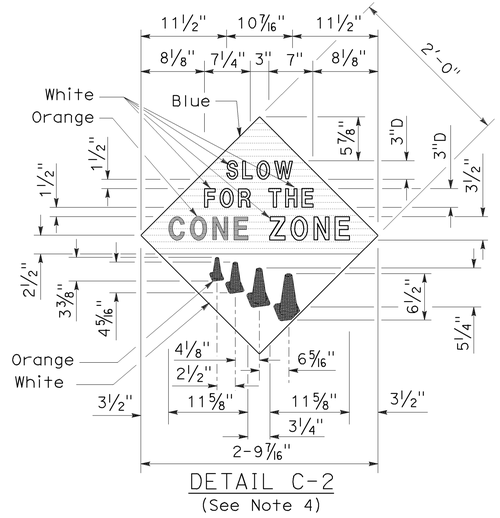
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL D-2
(See Note 6)



DETAIL C-2
(See Note 4)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

RSP T7 DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN T7
DATED MAY 1, 2006 - PAGE 217 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T7

2006 REVISED STANDARD PLAN RSP T7

9-7-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	26	29

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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

To accompany plans dated 7-26-10

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

NOTES:

1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
3. Variations noted adjacent to symbol on project plans.

Electrolier (see project notes or project plans)

Luminaire on wood pole

STANDARD NOTES:

- 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 wire or rope.
- 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.
- SF — Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP — Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED	EXISTING	
BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces,
MAS-4B	mas-4B	side attachment - 4 signal section
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces,
MAS-5B	mas-5B	side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

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.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A
DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	27	29

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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

To accompany plans dated 7-26-10

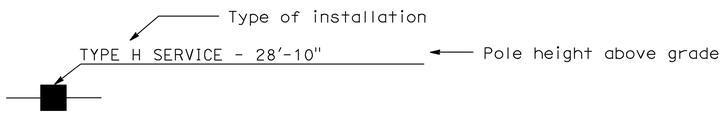
CONDUIT

PROPOSED	EXISTING	
— — —	— — —	Lighting Conduit, unless otherwise indicated or noted
— - — - —	— - — - —	Traffic signal conduit
—C— —	—c— —	Communication conduit
—T— —	—t— —	Telephone conduit
—F— —	—f— —	Fire alarm conduit
—FO— —	—fo— —	Fiber optic conduit
— — —]	— — —]	Conduit termination (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

PROPOSED	EXISTING	
—OH—	—oh—	Overhead lines
U	U	Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
III		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
T	t	Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
PV	PV	Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" Indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
R	Y	Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
●	○	Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

1. All signal sections shall be 12" unless shown otherwise.
2. Signal heads shall be provided with backplates unless shown otherwise.
3. Signal indication shall be LED.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

2006 REVISED STANDARD PLAN RSP ES-1B

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	28	29

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Jeffery G. McRae No. E14512 Exp. 6-30-08 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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

To accompany plans dated 7-26-10

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345 — Sign number - Place on post or structure

10 ISL SCI 1.0
- 1.0 — Transformer rating (kVA)
- SCI — Lighting control type
- ISL — Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"
- 15'-0" — Mast arm length, if shown. Do not place on standard or structure.
- 12345 — Equipment number - Place on standard or structure. Existing equipment numbers are shown in parenthesis

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC
- 2#10, 15#14, 2 DLC — Number and size of conductors and cables
- 1½"C, — Size of conduit in inches

ø1, ø2, ø2P, etc. — Traffic phase identification for signal faces, detectors and phase diagrams

[1] [2] [3] — Project note numbers

(A) (B) (C) — Equipment description, installation or item numbers

1 2 3 — Conduit run numbers

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100
- 100 — Wind velocity = 100 mph
- 3 — Case 3 arm loading
- 19A — Standard type
- Standard Plan sheet number
- Detail number or letter

MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
CMS	cms	Changeable message sign
		Closed circuit television camera
		Highway advisory radio pole and antenna
EMS	ems	Extinguishable message sign
M V	m v	Detection device M = Microwave sensor V = Video image sensor

WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)

- External conductor
- Conductor or bus
- Tie point
- Contactor coil
- Contactor, Contact NO
- Terminal blocks
- Contactor, Contact NC
- Enclosure bond
- Grounding electrode
- Circuit breaker
- Receptacle

PULL BOXES

PROPOSED	EXISTING	
		Pull box-No. 5 unless otherwise indicated or noted.
3	9A(21)	Pull box-Additional designations or descriptions

3 = No. 3½ pull box
5 = No. 5 pull box
6 = No. 6 pull box
7 = No. 7 (Ceiling pull box)
8 = No. 8 (Pendant soffit pull box)
9 = No. 9 pull box
9A = No. 9A pull box

(C) = Communications pull box
(E) = Pull box with extension
(S) = Sprinkler control pull box
(21) = Anchor bolts and conduit for future installation of Type 21 Standard
(T) = Traffic pull box

VEHICLE DETECTORS

5 J 9 U
- Vehicle detector designation
- U = Upper, L = Lower
- Slot number in input file
- Input file (I or J)
- Phase

PROPOSED	EXISTING	
		Type A detector loop. Outline of sawcut shown.
		Type B detector loop. Outline of sawcut shown.
		Type C detector loop. Outline of sawcut shown.
		Type D detector loop. Outline of sawcut shown.
		Type E detector loop. Outline of sawcut shown.
		Type Q detector loop. Outline of sawcut shown.
		Magnetic detector
DH	dh	Detector handhole
		Microwave or video detection zone

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

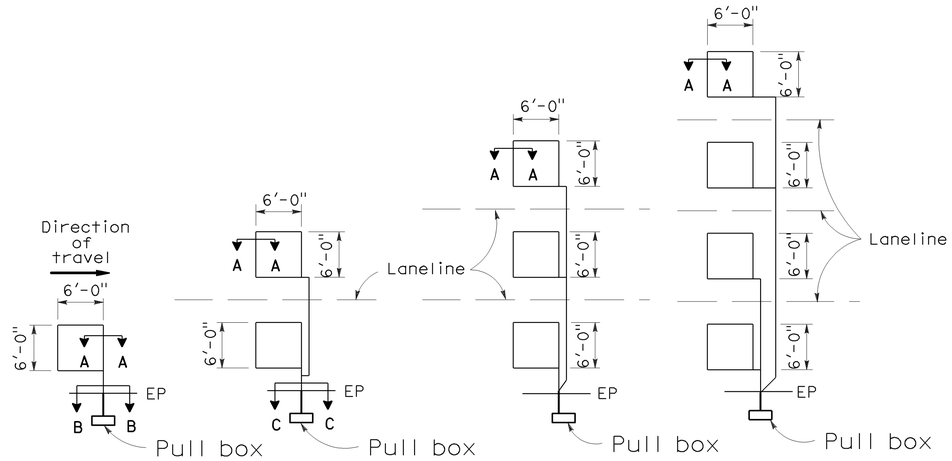
REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

LOOP INSTALLATION PROCEDURE

1. Loops shall be centered in lanes.
2. Saw slots in pavement for loop conductors as shown in details.
3. Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
4. Bottom of saw slot shall be smooth with no sharp edges.
5. Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
6. Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
7. Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
8. Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
9. No more than 2 twisted pairs shall be installed in one sawed slot.
10. Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
11. The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
12. Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
13. Fill slots as shown in details.
14. Splice loop conductors to lead-in-cable. Splices shall be soldered.
15. End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
16. Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
17. Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
18. Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.

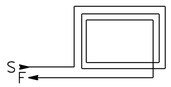


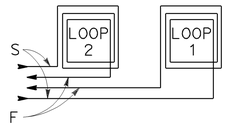
TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

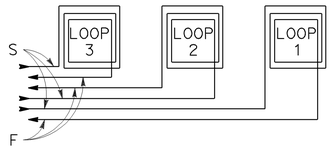
SAWCUT DETAILS

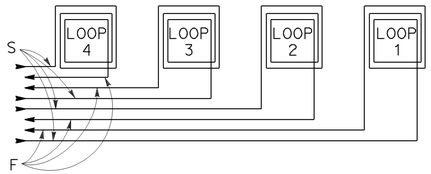
(Type A loop detector configurations illustrated)

1. 1A thru 4A = 1 Type A loop configuration in each lane.
2. 1B thru 4B = 1 Type B loop configuration in each lane.
3. 1C = 1 Type C loop configuration entering lanes as required.
4. 1D thru 4D = 1 Type D loop configuration in each lane.
5. 1E thru 4E = 1 Type E loop configuration in each lane.
6. 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)



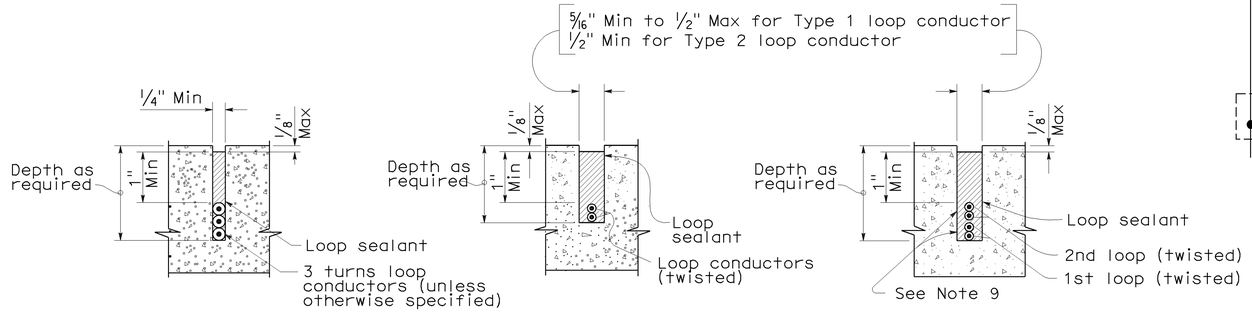






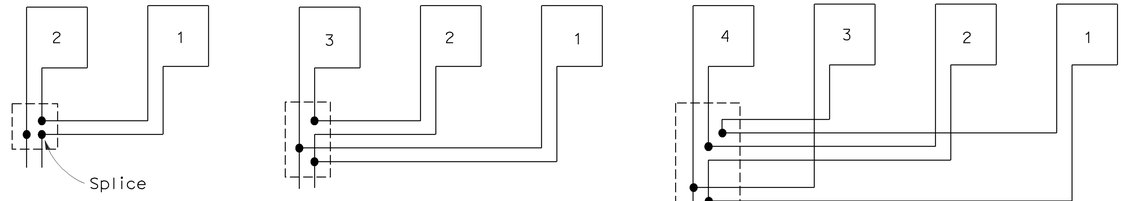
WINDING DETAILS

See Notes 6 and 7



SECTION A-A | SECTION B-B | SECTION C-C

SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	119	0.0/4.3	29	29

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 ELECTRICAL — STATE OF CALIFORNIA

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To accompany plans dated 7-26-10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A
DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A

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