

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 IM-005-4(186)205E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN KERN COUNTY
AT FORT TEJON FROM LOS ANGELES COUNTY LINE
TO 0.1 MILE NORTH OF GRAPEVINE CREEK BRIDGE

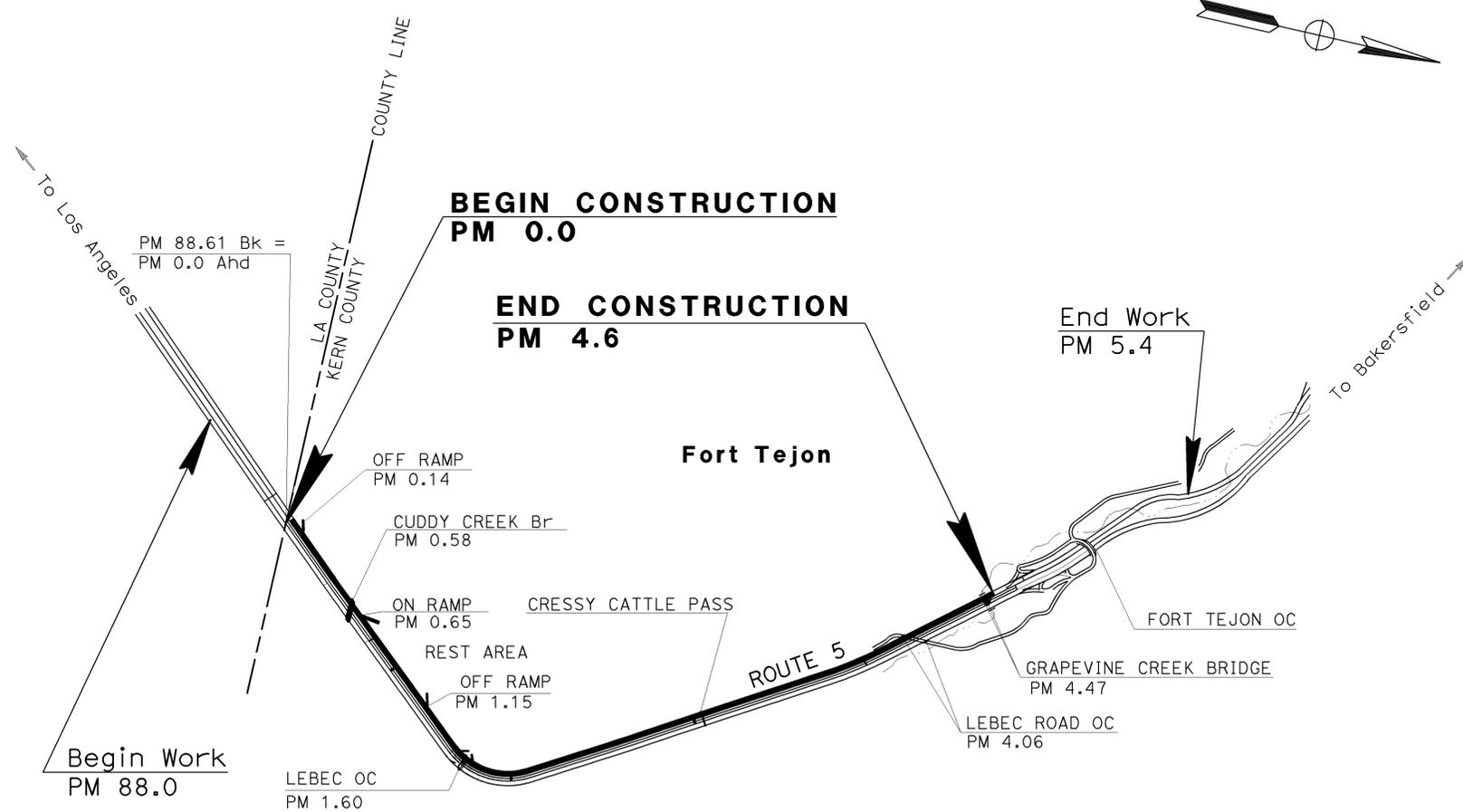
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	1	47





LOCATION MAP



NO SCALE

PROJECT MANAGER STEVEN MILTON	DESIGN ENGINEER GURBHAY BRAR
---	--

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

 03-11-10
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
March 29, 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.

REGISTERED PROFESSIONAL ENGINEER

WEI-LUNG CHANG

No. 41899

Exp. 3-31-12

CIVIL

STATE OF CALIFORNIA

CONTRACT No.	06-460604
PROJECT ID	0600020252

DATE PLOTTED => 06-AUG-2010 TIME PLOTTED => 08:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	2	47

Chay Wee-ly 03-11-10
 REGISTERED CIVIL ENGINEER DATE
 03-29-10
 PLANS APPROVAL DATE

W.L. CHANG
 No. 41899
 Exp 3-31-12
 CIVIL

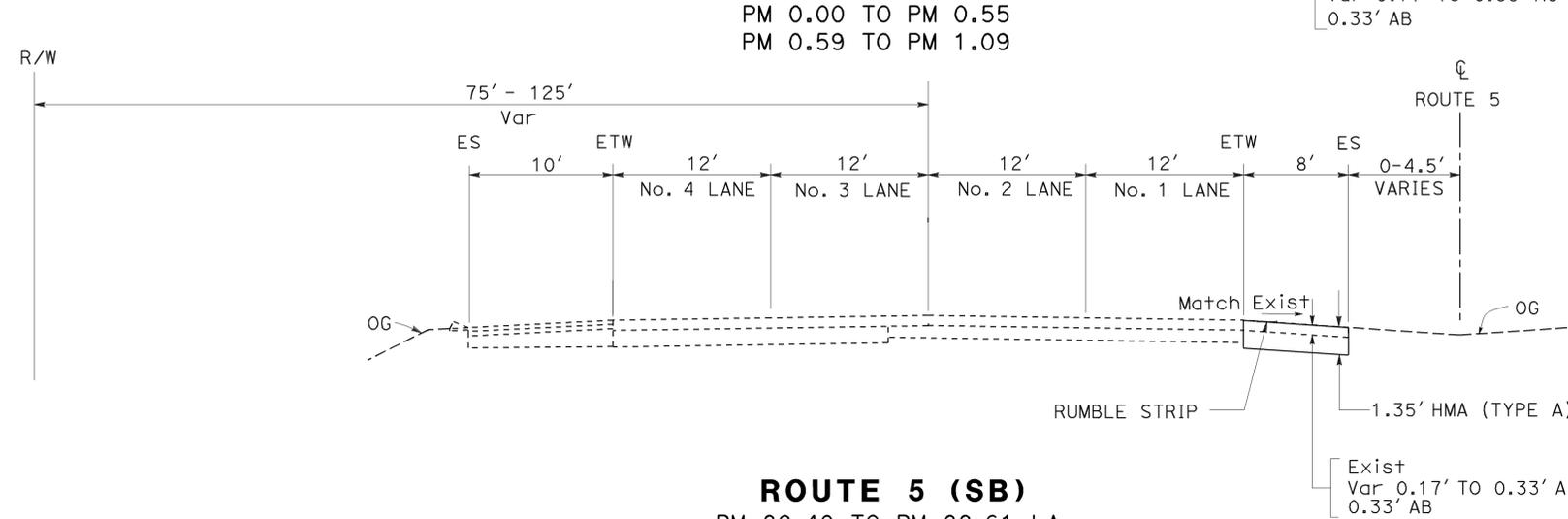
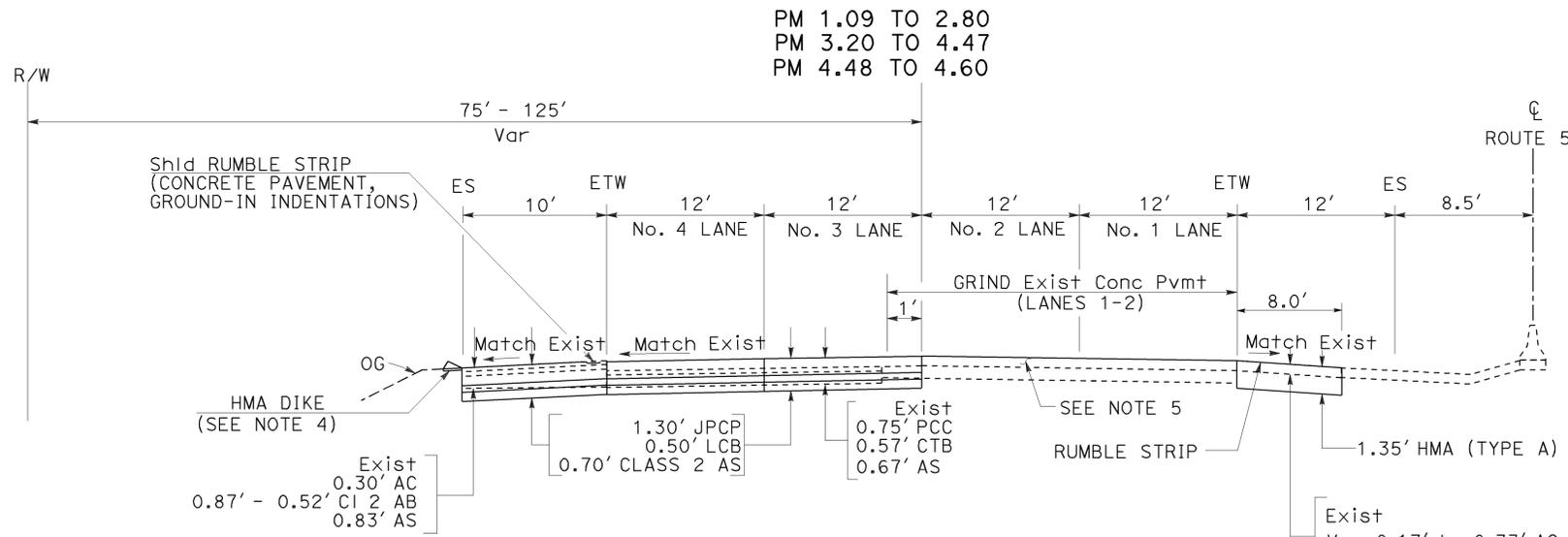
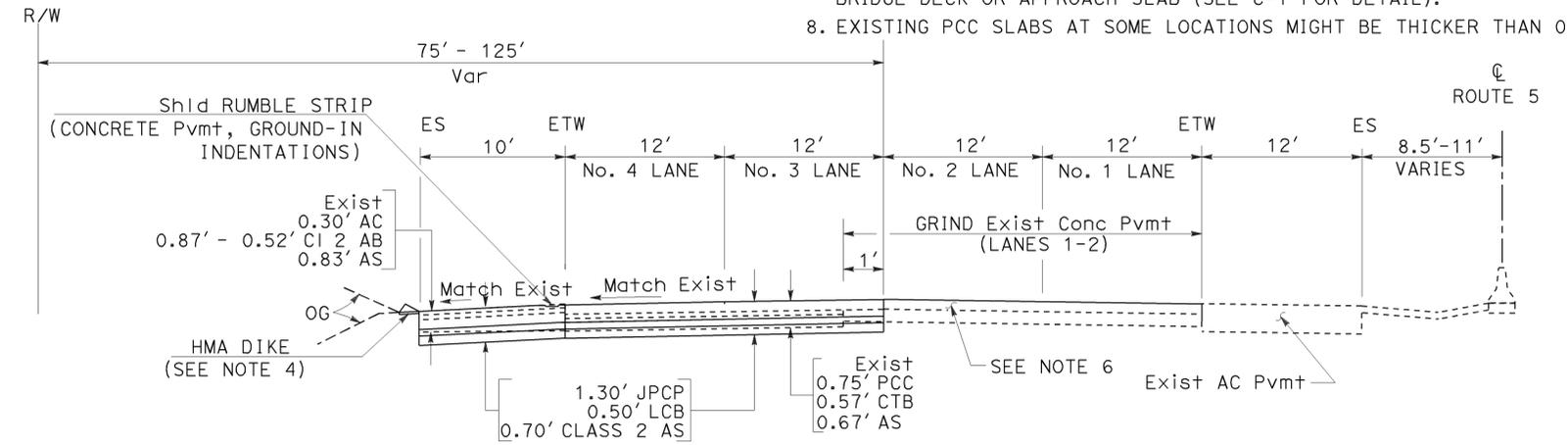
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DESIGN DESIGNATION (ROUTE 5)

2010 ADT = 83,500 D = 57%
 2050 ADT = 238,000 T = 9%
 DHV = 26,000 V = 70 MPH

NOTES:

- DIMENSIONS OF THE PAVEMENT STRUCTURE (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- FOR PLACE, LOCATION AND TYPE OF HMA DIKE SEE SHEET C-1 AND Q-1.
- FOR LOCATIONS AND QUANTITIES OF REPLACE CONCRETE PANELS SEE SHEET Q-2.
- PLACE ISOLATION JOINT BETWEEN LANE No. 2 AND LANE No. 3.
- CONCRETE PANEL REPLACEMENT SHOULD BE ENDED BEFORE BRIDGE DECK OR APPROACH SLAB (SEE C-1 FOR DETAIL).
- EXISTING PCC SLABS AT SOME LOCATIONS MIGHT BE THICKER THAN 0.75' OR FULL DEPTH AC.



ROUTE 5 (SB)
 PM 88.40 TO PM 88.61 LA

TYPICAL CROSS SECTIONS

NO SCALE

X-1



REVISIONS:
 REVISION NO. | DATE | BY | DESCRIPTION
 1 | 03-11-10 | W.L. CHANG | DESIGN
 2 | 03-29-10 | GURBHAY BRAR | CHECKED
 3 | 03-29-10 | GURBHAY BRAR | SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 GURBHAY BRAR
 GURBHAY BRAR
 WEI-LUNG CHANG
 GURBHAY BRAR
 REVISIONS BY DATE
 CALCULATED/DESIGNED BY CHECKED BY
 FUNCTIONAL SUPERVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	3	47

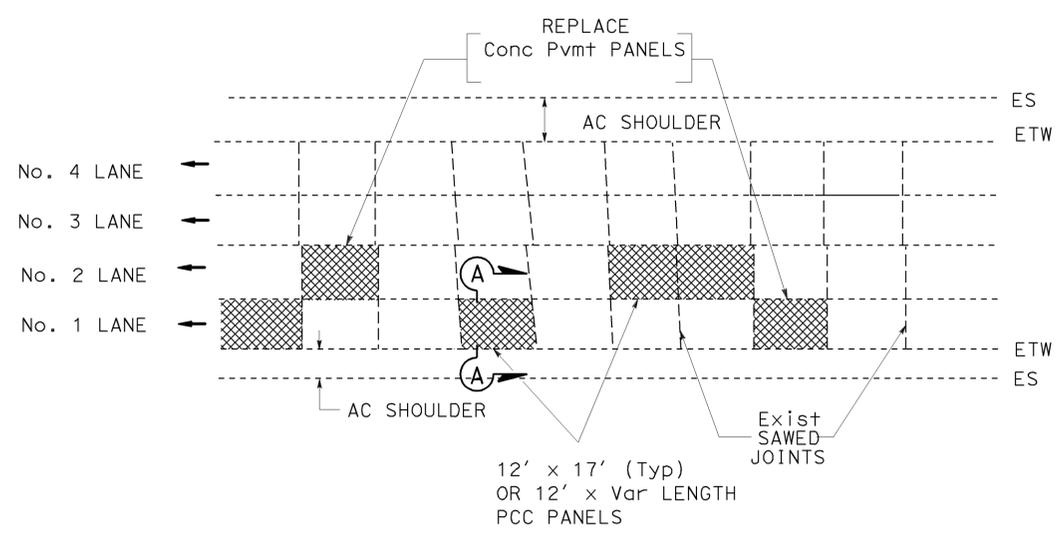
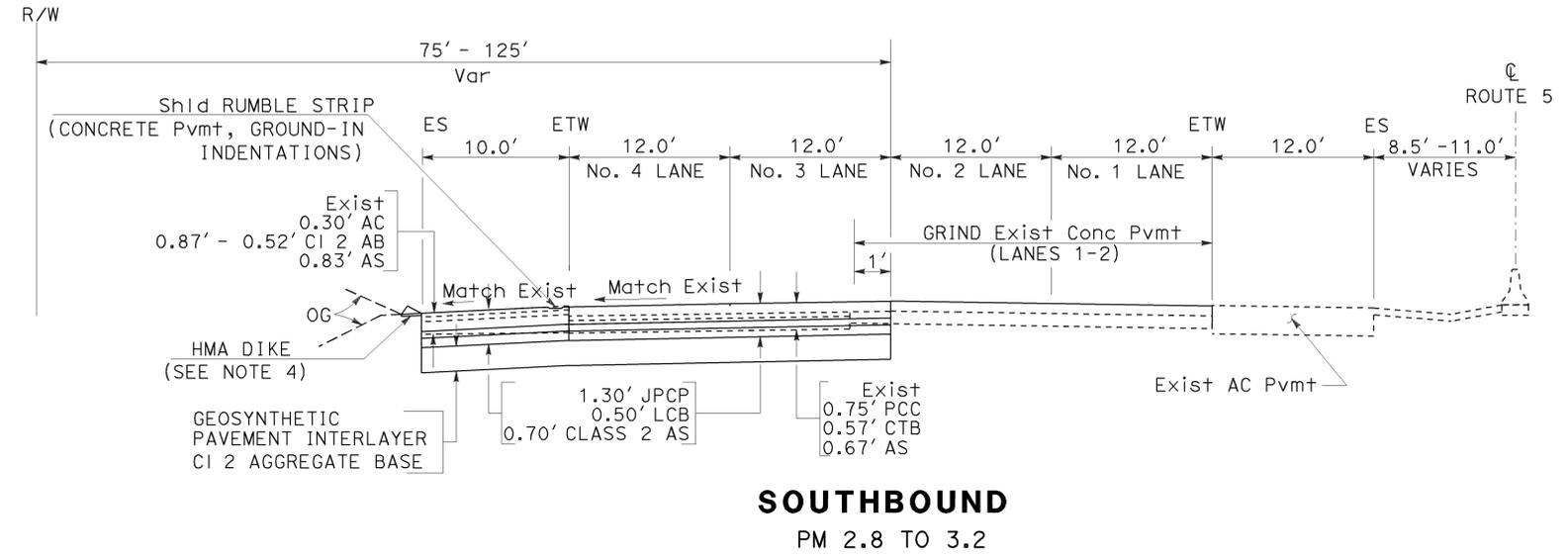
Chay Wei-dy 03-11-10
 REGISTERED CIVIL ENGINEER DATE
 03-29-10
 PLANS APPROVAL DATE
 W.L. CHANG
 No. 41899
 Exp 3-31-12
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

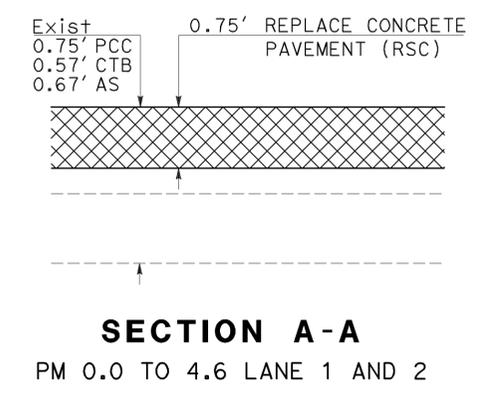
- REPLACE CONCRETE PAVEMENT
- DIRECTION OF TRAFFIC

NOTE:

CONTRACTOR RESPONSIBLE TO PROTECT THE PIPES SHOWN ON TABLE IN PLACE AND ANY DAMAGE TO THESE EXISTING PIPES DUE TO CONTRACTOR OPERATIONS WILL BE THE CONTRACTOR RESPONSIBILITY TO REPAIR THE DAMAGE AT HIS OWN COST.



TYPICAL REPLACE CONCRETE PAVEMENT



EXISTING CROSS PIPE LOCATIONS

LOCATIONS					
PM	PM	PM	PM	PM	PM
0.20	1.70	2.38	2.90	3.51	4.10
0.60	1.95	2.48	3.10	3.65	4.21
1.23	2.10	2.70	3.20	3.70	4.24
1.30	2.18	2.75	3.30	3.80	4.40
1.60	2.30	2.85	3.50	3.90	4.48

Note: These pipes will be within the new structural section.

TYPICAL CROSS SECTIONS

NO SCALE

X-2

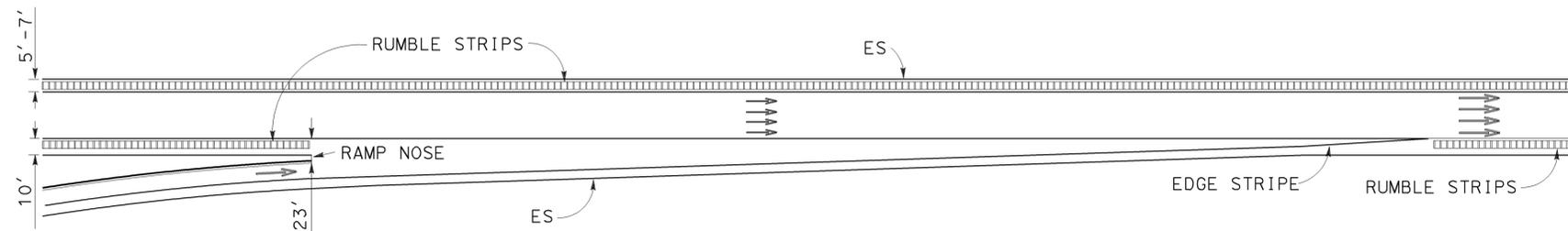
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	4	47

<i>Chay We-dy</i> REGISTERED CIVIL ENGINEER No. 41899 Exp. 3-31-12 CIVIL	03-11-10 DATE 03-29-10 PLANS APPROVAL DATE
--	---

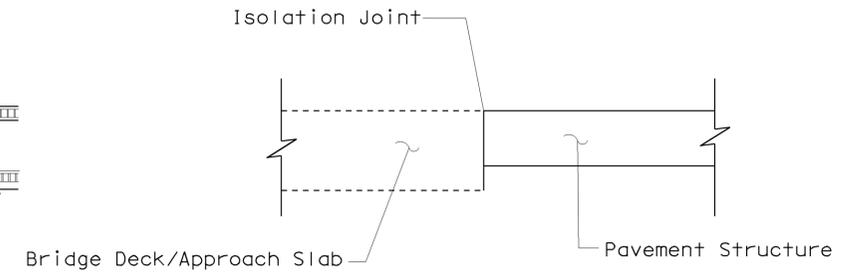
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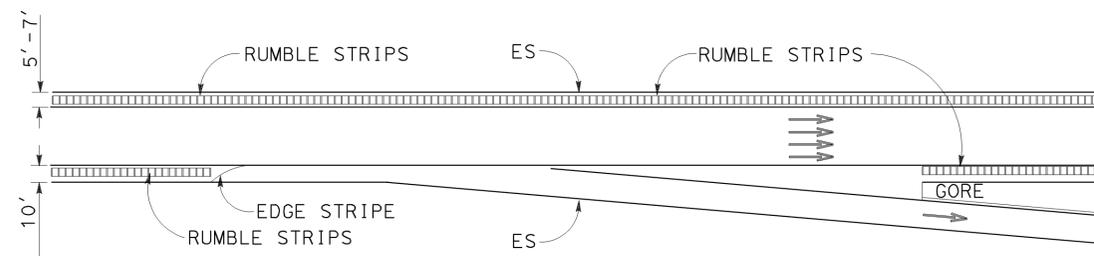
-  COLD PLANE AC PvmT AND PLACE HMA (TYPE A) (0.20' Thickness)
-  DIRECTION OF TRAFFIC
-  RUMBLE STRIP



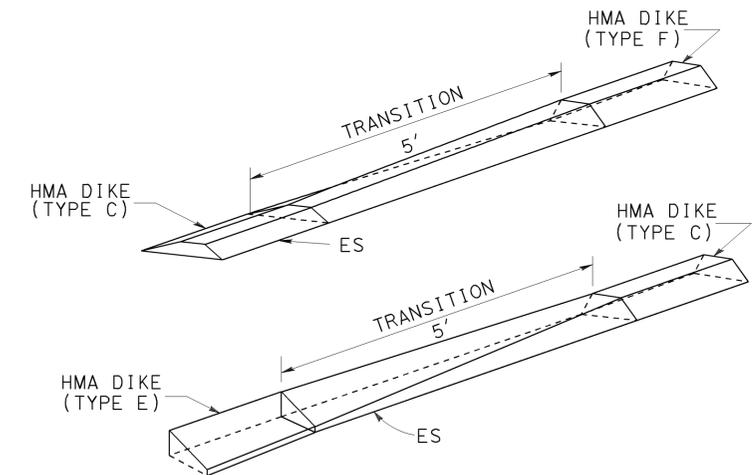
TYPICAL ON RAMP RUMBLE STRIP



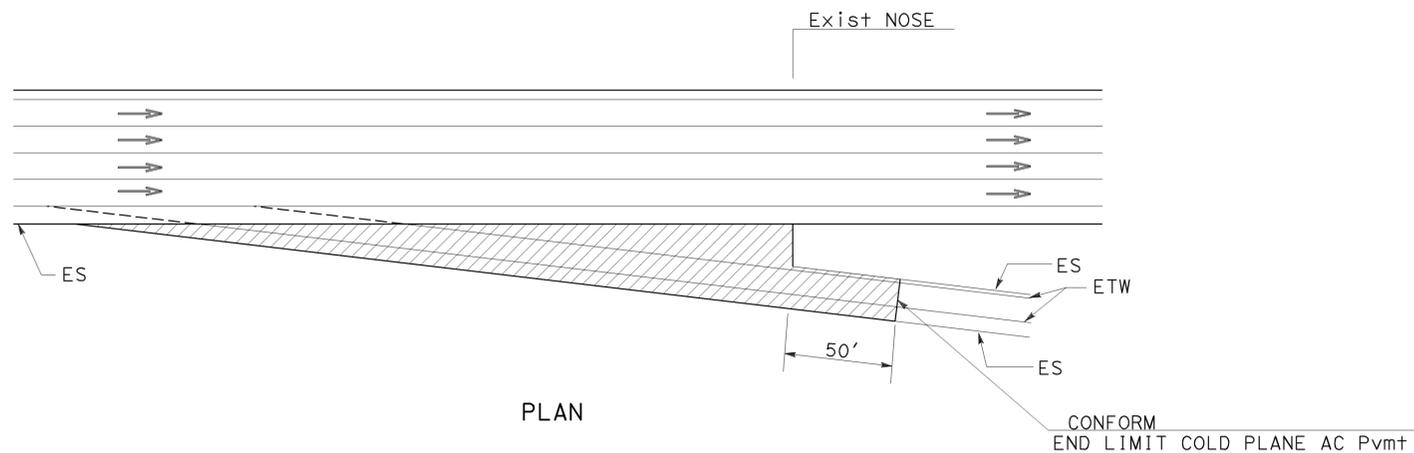
CONFORM TO BRIDGE DECK



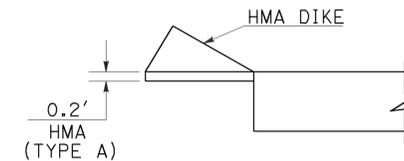
TYPICAL OFF RAMP RUMBLE STRIP



HMA DIKE TRANSITION



TRANSITION DETAIL AT RAMP
(OFF RAMP SHOWN, ON RAMP SIMILAR)



HMA DIKE

CONSTRUCTION DETAILS

NO SCALE

C-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	5	47

Chay Wei-dy 03-11-10
 REGISTERED CIVIL ENGINEER DATE

03-29-10
 PLANS APPROVAL DATE

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NOTE:

- LOCATION OF UTILITY FACILITIES ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION

EXISTING UTILITY LOCATIONS

LOCATION PM	UTILITY	OWNERSHIP	DEPTH FROM OG	REMARKS
0.36	10" OIL PIPE	PLAINS PIPELINE	5' Min	CROSSING ROUTE 5
0.67	1.5"C 2#6 LIGHT	CALTRANS	2'	CROSSING ROUTE 5
0.93	12" SLEEVE ELECTRIC CABLE 480 V	CALTRANS	46"	CROSSING ROUTE 5
1.00	2" GAS LINE (LOW PRESSURE)	PG&E	5' Min	CROSSING ROUTE 5
1.05	1.5"C 2#6 LIGHT	CALTRANS	2'	CROSSING ROUTE 5
1.17	8" & 10" OIL PIPES (ABANDONED)	GENERAL PETROLEUM CORP.	5' Min	CROSSING ROUTE 5
1.25	16" OIL PIPE	EXXON MOBILE	5' Min	CROSSING ROUTE 5
1.38	2"C 2#8 LIGHT	CALTRANS	2'	CROSSING ROUTE 5
1.50	4" WATER LINE IN 12" CASING (LOW PRESSURE)	CALTRANS	5' Min	CROSSING ROUTE 5
1.52	2" GAS LINE (LOW PRESSURE)	PG&E	5' Min	CROSSING ROUTE 5
1.66	2" GAS LINE (LOW PRESSURE)	SOUTHERN CALIFORNIA	5' Min	CROSSING ROUTE 5
1.79	2C 2#8 LIGHT	CALTRANS	2'	CROSSING ROUTE 5
2.00	TELEPHONE LINE	PACIFIC TELEPHONE	5' Min	CROSSING ROUTE 5
2.09	3"C 2#8 LIGHT	CALTRANS	2'	CROSSING ROUTE 5
3.59	2" GAS LINE (LOW PRESSURE)	SOUTHERN CALIFORNIA	5' Min	CROSSING ROUTE 5
4.17	10" OIL PIPE	EXXON MOBILE	5' Min	CROSSING ROUTE 5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 GURBHAY BRAR
 CALCULATED/DESIGNED BY
 CHECKED BY
 WEI-LUNG CHANG
 GURBHAY BRAR
 REVISED BY
 DATE REVISED

**UTILITY PLAN
U-1**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	7	47

Choy Wei-dy 03-11-10
 REGISTERED CIVIL ENGINEER DATE
 03-29-10
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
W.L. CHANG
 No. 41899
 Exp 3-31-12
 CIVIL
STATE OF CALIFORNIA

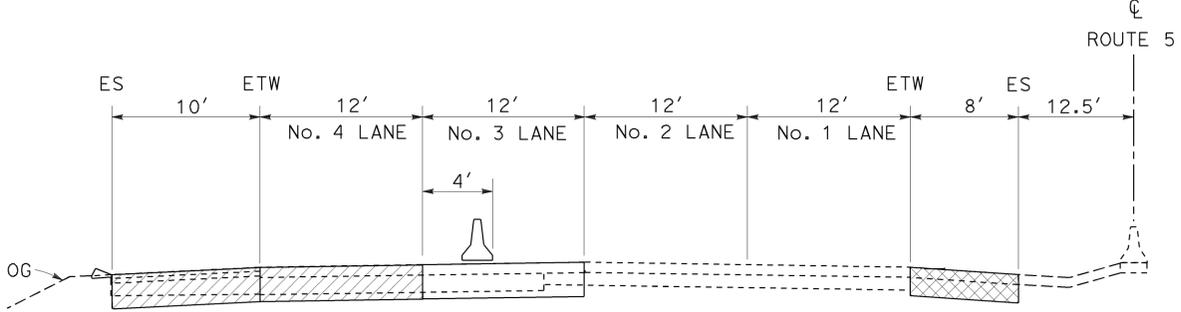
NOTES:

STAGE 1 -- RECONSTRUCT THE INSIDE 8' SHOULDER FOR PM 88.40/88.61 LA AND PM 0.0/1.09 KERN
 STAGE 2 -- CONSTRUCT LANE NO. 4 AND OUTSIDE SHOULDER IN THREE PHASES --
 PHASE 1 -- FROM PM 3.0 TO PM 4.6
 PHASE 2 -- FROM PM 1.5 TO PM 3.0
 PHASE 3 -- FROM PM 0.0 TO PM 1.5
 PROFILE GRIND 2' OF LANE NO. 3 BEFORE REMOVAL OF LANE NO. 4.
 STAGE 3 -- CONSTRUCT LANE NO. 3 IN THREE PHASES --
 PHASE 1 -- FROM PM 3.0 TO PM 4.6
 PHASE 2 -- FROM PM 1.5 TO PM 3.0
 PHASE 3 -- FROM PM 0.0 TO PM 1.5
 STAGE 4 -- REPLACE LANE NO. 1 AND 2 CONCRETE PANELS (SEE C-2 AND Q-2 FOR DETAIL AND LOCATIONS).
 STAGE 5 -- CONSTRUCT RUMBLE STRIP
 THE STAGE CONSTRUCTION LIMITS ARE APPROXIMATE, THE EXACT LIMITS TO BE DETERMINED BY THE ENGINEER.
 CONTRACTOR REQUIRED TO BUILD THE PROJECT AS PER CONSTRUCTION STAGES IN THE PLAN.

LEGEND

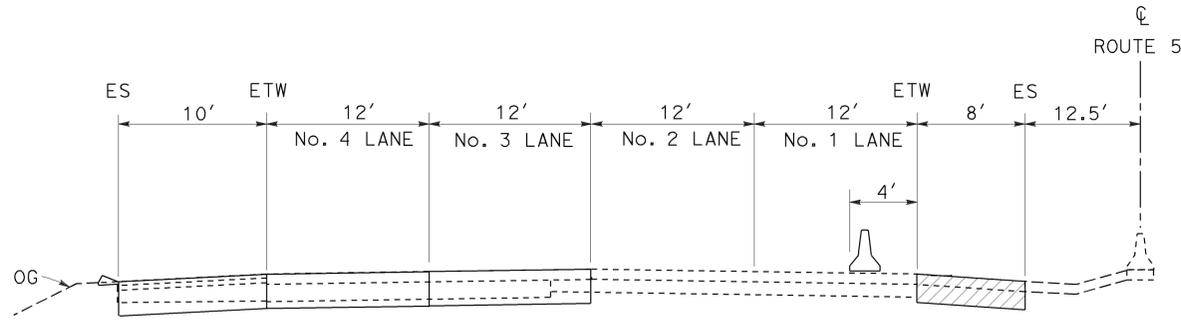
- CONSTRUCTION THIS STAGE.
- COMPLETE CONSTRUCTION OPEN TO TRAFFIC.
- FUTURE CONSTRUCTION.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 GURBHAY BRAR
 CALCULATED/DESIGNED BY
 CHECKED BY
 WEI-LUNG CHANG
 GURBHAY BRAR
 REVISED BY
 DATE REVISED

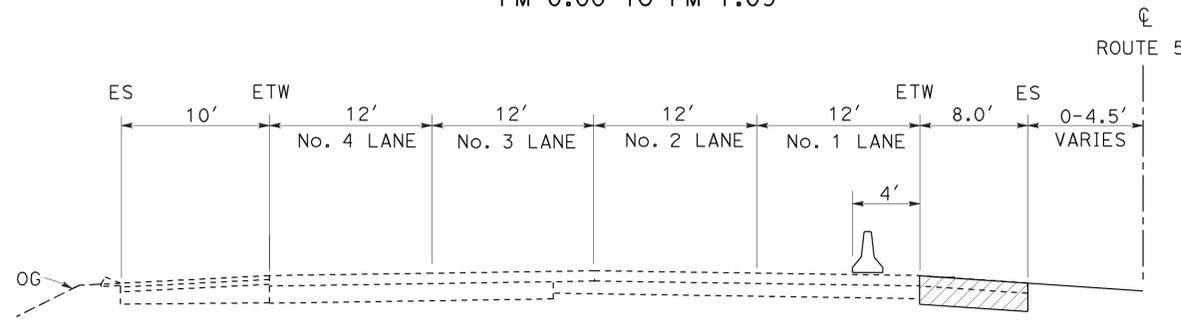


STAGE 2
PM 0.00 TO PM 4.60

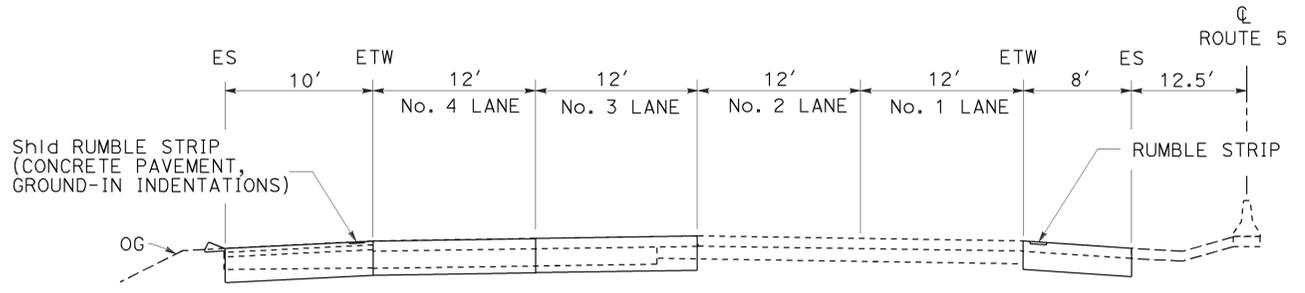
PHASE 1 -- FROM PM 3.0 TO PM 4.6
 PHASE 2 -- FROM PM 1.5 TO PM 3.0
 PHASE 3 -- FROM PM 0.0 TO PM 1.5



STAGE 1
PM 0.00 TO PM 1.09

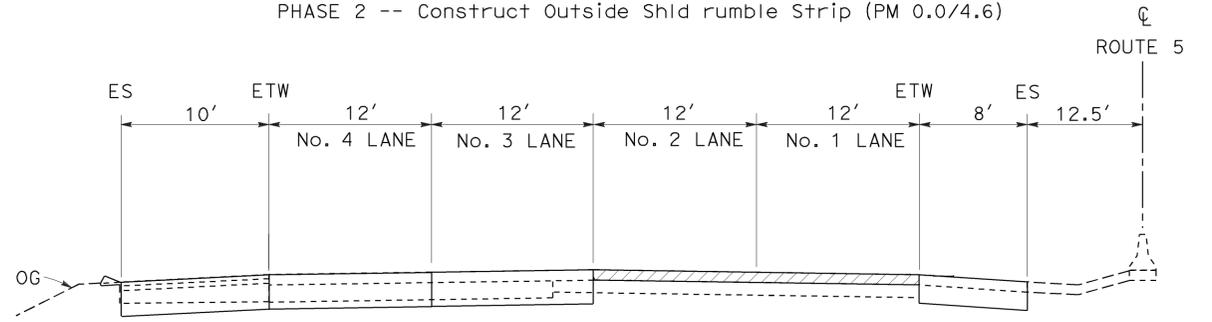


STAGE 1
PM 88.40 TO PM 88.61 LA

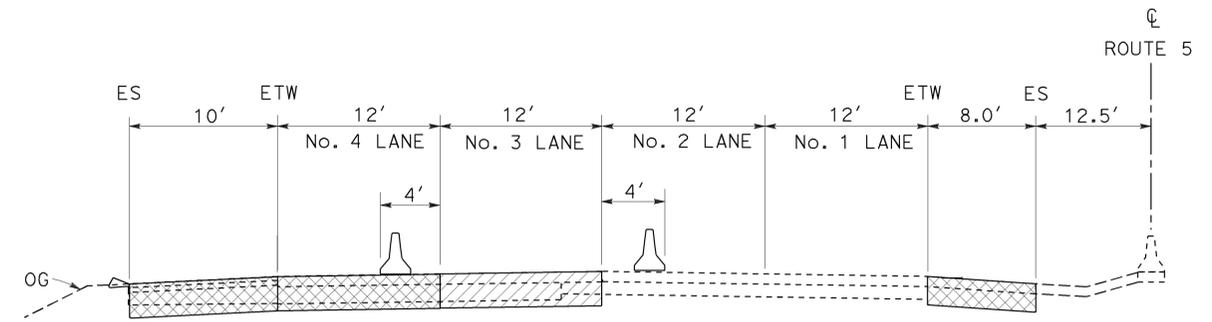


STAGE 5
PM 0.00 TO PM 4.60

PHASE 1 -- Construct Inside Shld Rumble Strip
 PM 88.4/88.61 LA County, PM 0.0/1.09 Kern County
 PHASE 2 -- Construct Outside Shld rumble Strip (PM 0.0/4.6)



STAGE 4
PM 0.00 TO PM 4.60
Replace Lane No. 1 and 2 Concrete Panels



STAGE 3
PM 0.00 TO PM 4.60
PHASE 1 -- FROM PM 3.0 TO PM 4.6
PHASE 2 -- FROM PM 1.5 TO PM 3.0
PHASE 3 -- FROM PM 0.0 TO PM 1.5

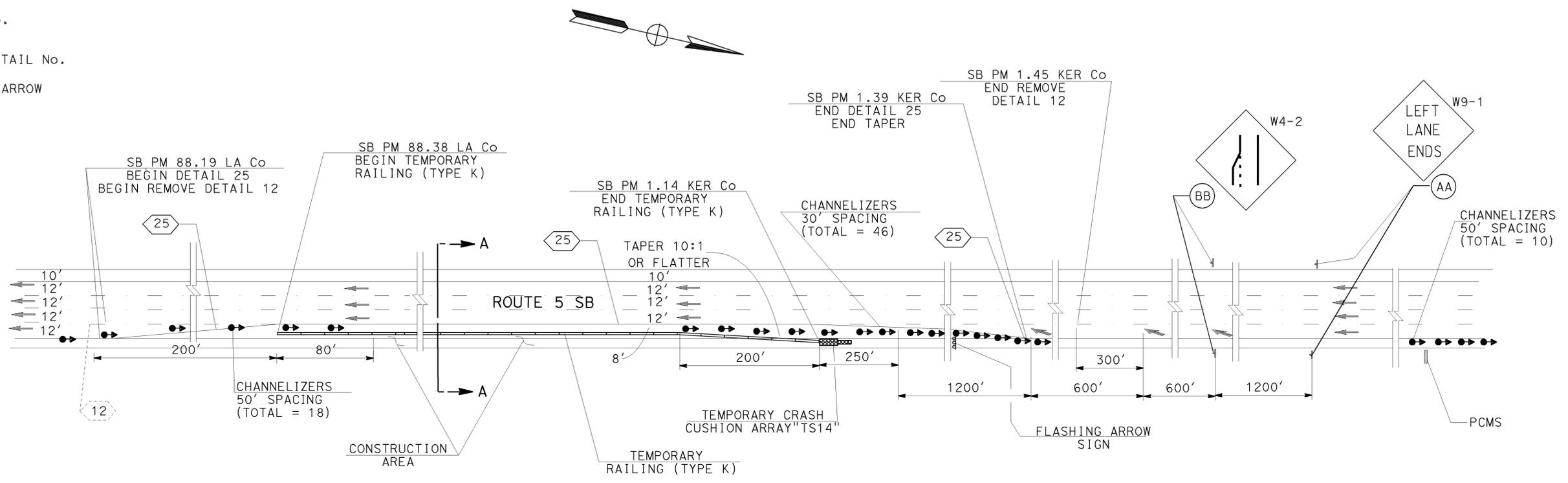
THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY

STAGE CONSTRUCTION
SC-1
NO SCALE

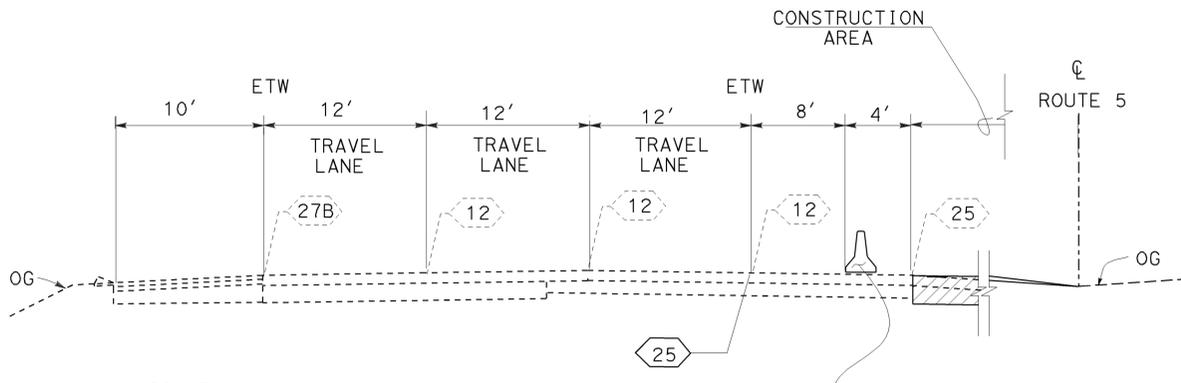
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	8	47
<i>Hassan Cohe</i> REGISTERED CIVIL ENGINEER			03/24/10 DATE	REGISTERED PROFESSIONAL ENGINEER HASSAN M. TAHA No. 60130 Exp. 06/30/10 CIVIL	
03-29-10 PLANS APPROVAL DATE			THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.		

- LEGEND**
- ← DIRECTION OF TRAFFIC OR DIRECTION OF DETOUR
 - ⌋ TEMPORARY RAILING (TYPE K)
 - CHANNELIZER (SURFACE MOUNTED)
 - (C-C) CENTER TO CENTER
 - Temp CRASH CUSHION
 - XX TEMPORARY TRAFFIC STRIPE DETAIL No.
 - 1 / 1 CONSTRUCTION AREA SIGN (ONE POST/ TWO POST)
 - (X) CONSTRUCTION AREA SIGNS No.
 - XX EXISTING TRAFFIC STRIPE DETAIL No.
 - PAVEMENT MARKING TYPE VI ARROW
 - FLASHING ARROW SIGN
 - (PCMS) PORTABLE CHANGEABLE MESSAGE SIGN

- NOTES:**
1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE, EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
 2. FOR ADDITIONAL LANE CLOSURE REQUIREMENTS REFER TO STANDARD PLANS 2006
 3. REFER TO THE LANE CLOSURE CHARTS OF THE SPECIAL PROVISION FOR ROADWAY CLOSURE REQUIREMENTS
 4. EXACT LOCATIONS OF PCMS IS TO BE DETERMINED BY THE ENGINEER
 5. FOR ADDITIONAL CONSTRUCTION AREA SIGNS REFER TO CS SHEETS



TYPICAL TRAFFIC CONTROL SYSTEM DETAILS WITH TEMPORARY RAILING (TYPE K)



STAGE 1
TYPICAL TEMPORARY RAILING (TYPE K) PLACEMENT SECTION A-A
 PM 88.40 TO PM 88.61 LA Co
 PM 0.00 TO PM 1.09 Ker Co

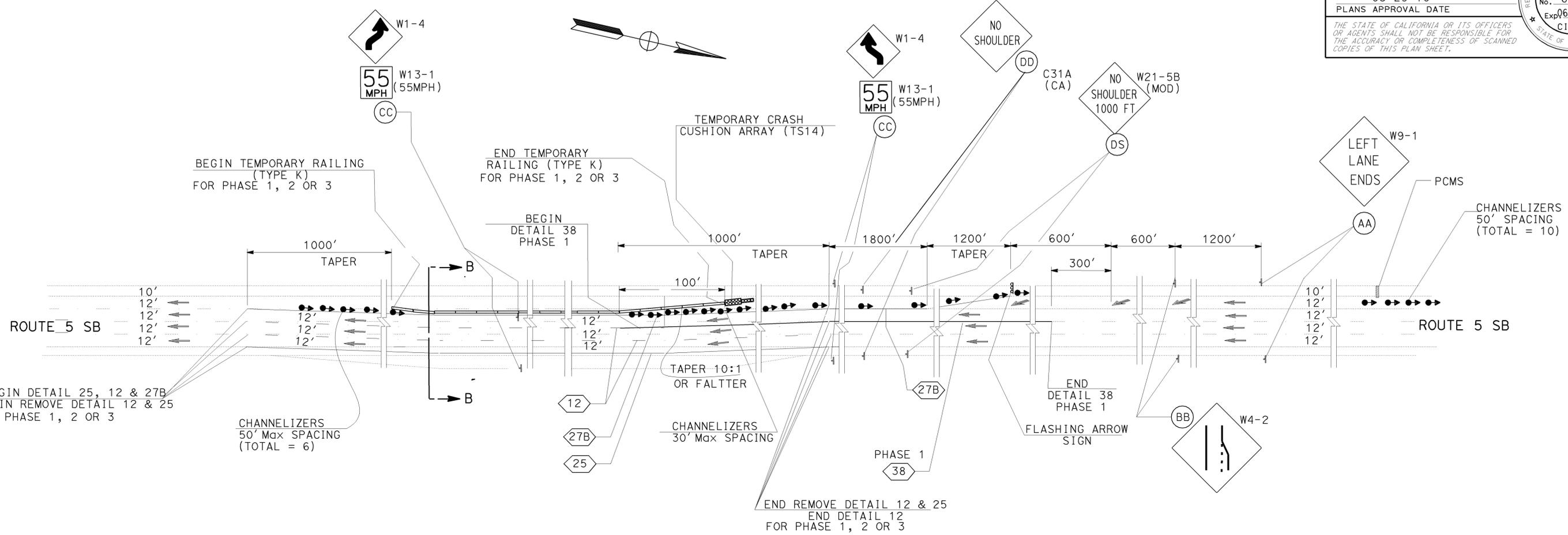
TRAFFIC HANDLING PLAN (STAGE 1)

NO SCALE **TH-1**

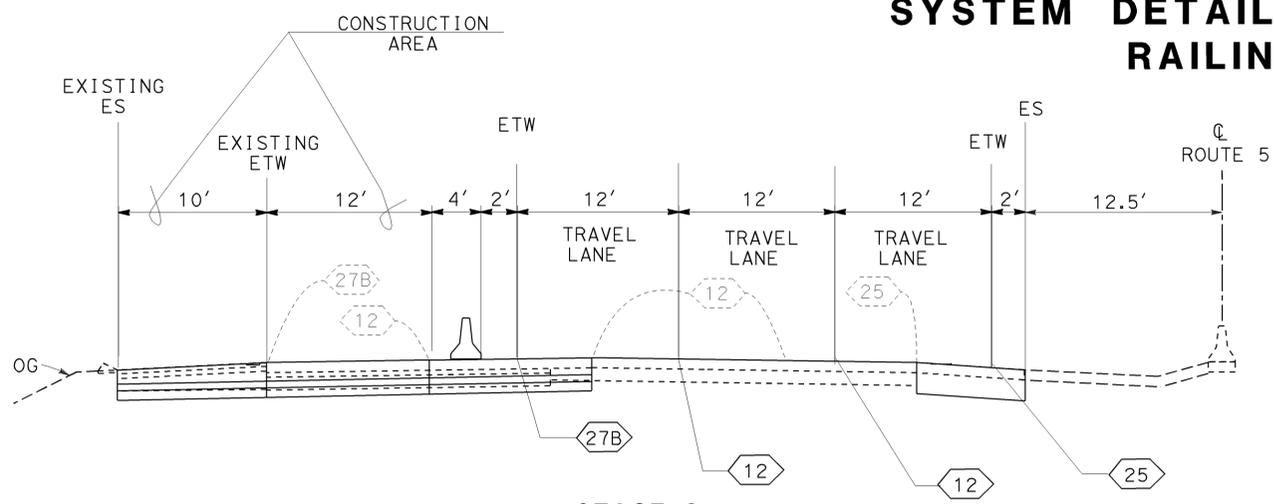
THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: **MOHAMMED QATAMI**
 CHECKED BY: **MUNIR ASSAF**
 HASSAN TAHA
 REVISOR BY: **M.A.**
 DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	9	47
Hassan Cohe		03/24/10		REGISTERED CIVIL ENGINEER DATE	
MUNIR ASSAF		HASSAN TAHA		REGISTERED PROFESSIONAL ENGINEER	
M.A.		REVISED BY		DATE REVISED	
CALCULATED/DESIGNED BY		CHECKED BY		FUNCTIONAL SUPERVISOR	
MOHAMMED QATAMI		TRAFFIC DESIGN		STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	
ET		Caltrans		TRAFFIC DESIGN	



TYPICAL TRAFFIC CONTROL SYSTEM DETAILS WITH TEMPORARY RAILING (TYPE K)



STAGE 2
TYPICAL TEMPORARY RAILING (TYPE K) PLACEMENT
SECTION B-B

PHASE 1 -- FROM PM 3.0 TO PM 4.6
PHASE 2 -- FROM PM 1.5 TO PM 3.0
PHASE 3 -- FROM PM 0.0 TO PM 1.5

TRAFFIC HANDLING PLAN (STAGE 2)

NO SCALE **TH-2**

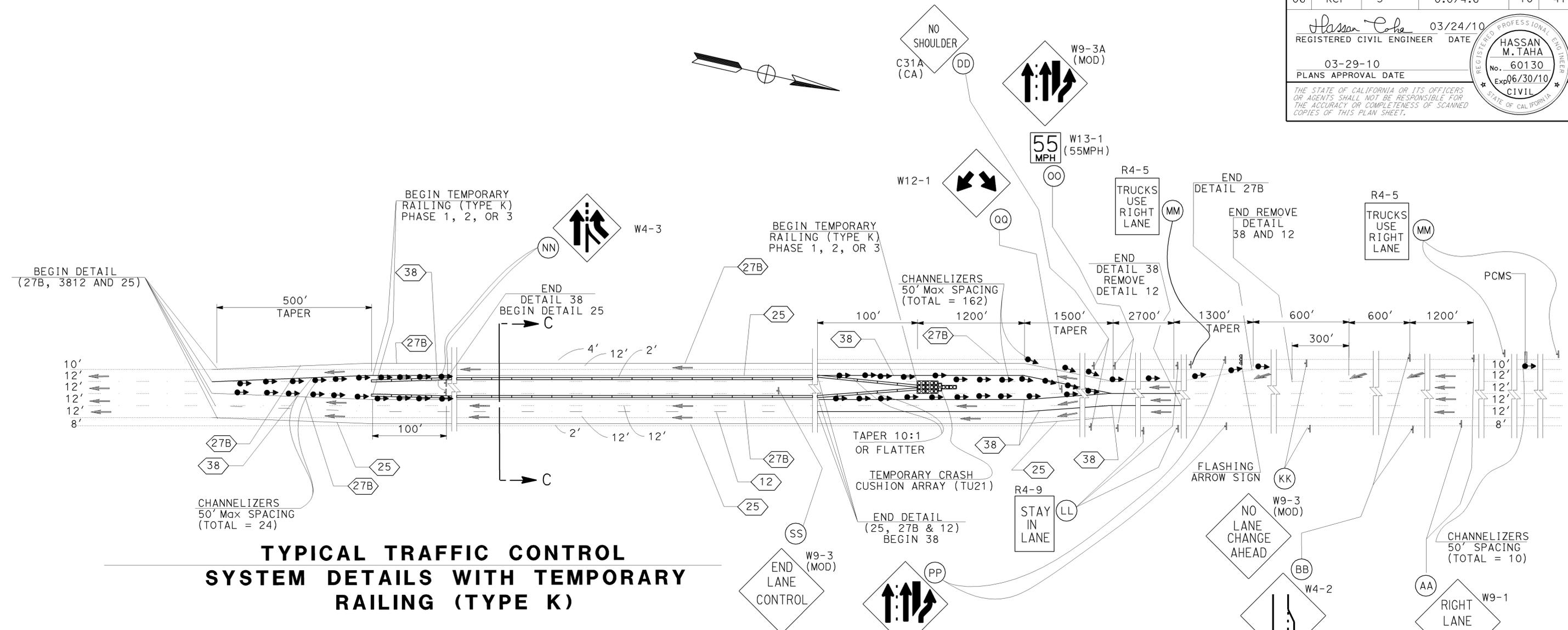
THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	10	47

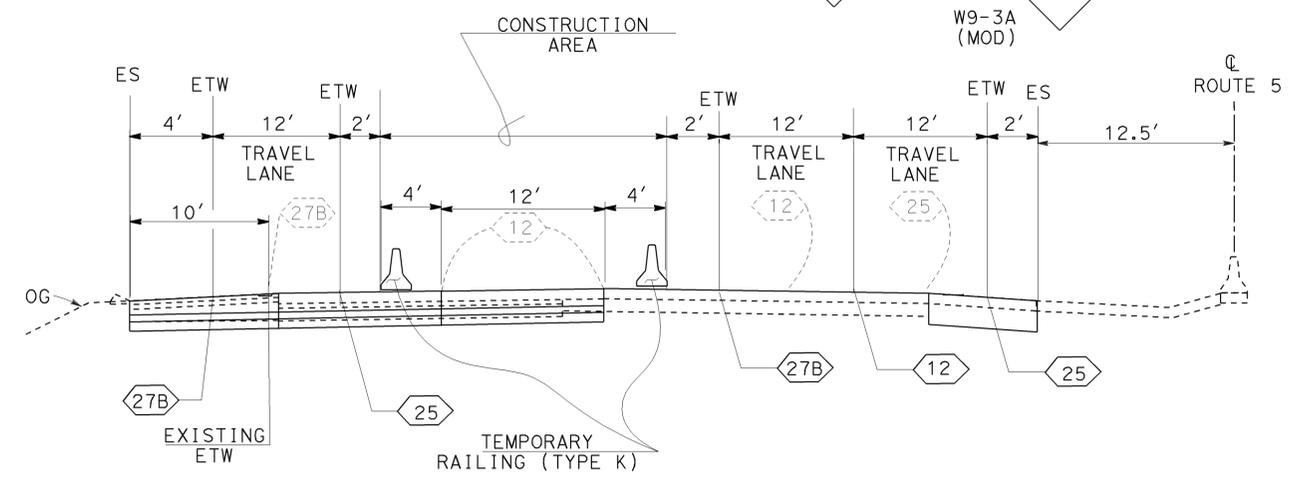
Hassan M. Taaha		03/24/10
REGISTERED CIVIL ENGINEER	DATE	
03-29-10		
PLANS APPROVAL DATE		

REGISTERED PROFESSIONAL ENGINEER	HASSAN M. TAHA
No. 60130	Exp. 06/30/10
CIVIL	

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TYPICAL TRAFFIC CONTROL SYSTEM DETAILS WITH TEMPORARY RAILING (TYPE K)



- PHASE 1 -- FROM PM 3.0 TO PM 4.6
- PHASE 2 -- FROM PM 1.5 TO PM 3.0
- PHASE 3 -- FROM PM 0.0 TO PM 1.5

TRAFFIC HANDLING PLAN (STAGE 3) TH-3

NO SCALE

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - **Caltrans** - TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: **MOHAMMED QATAMI**

CALCULATED/DESIGNED BY: **MUNIR ASSAF**

CHECKED BY: **HASSAN TAHA**

REVISOR: **M.A.**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	11	47

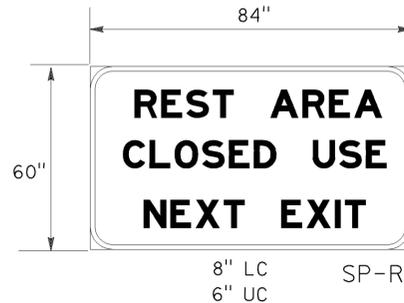
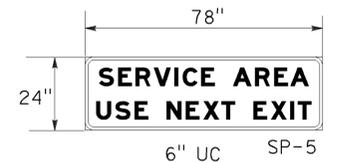
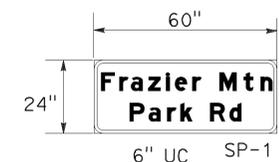
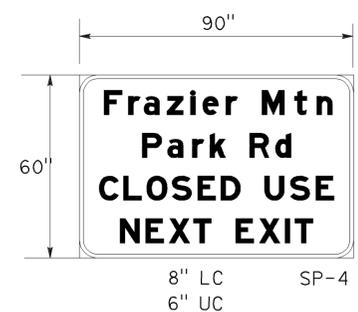
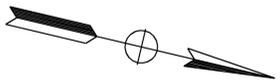
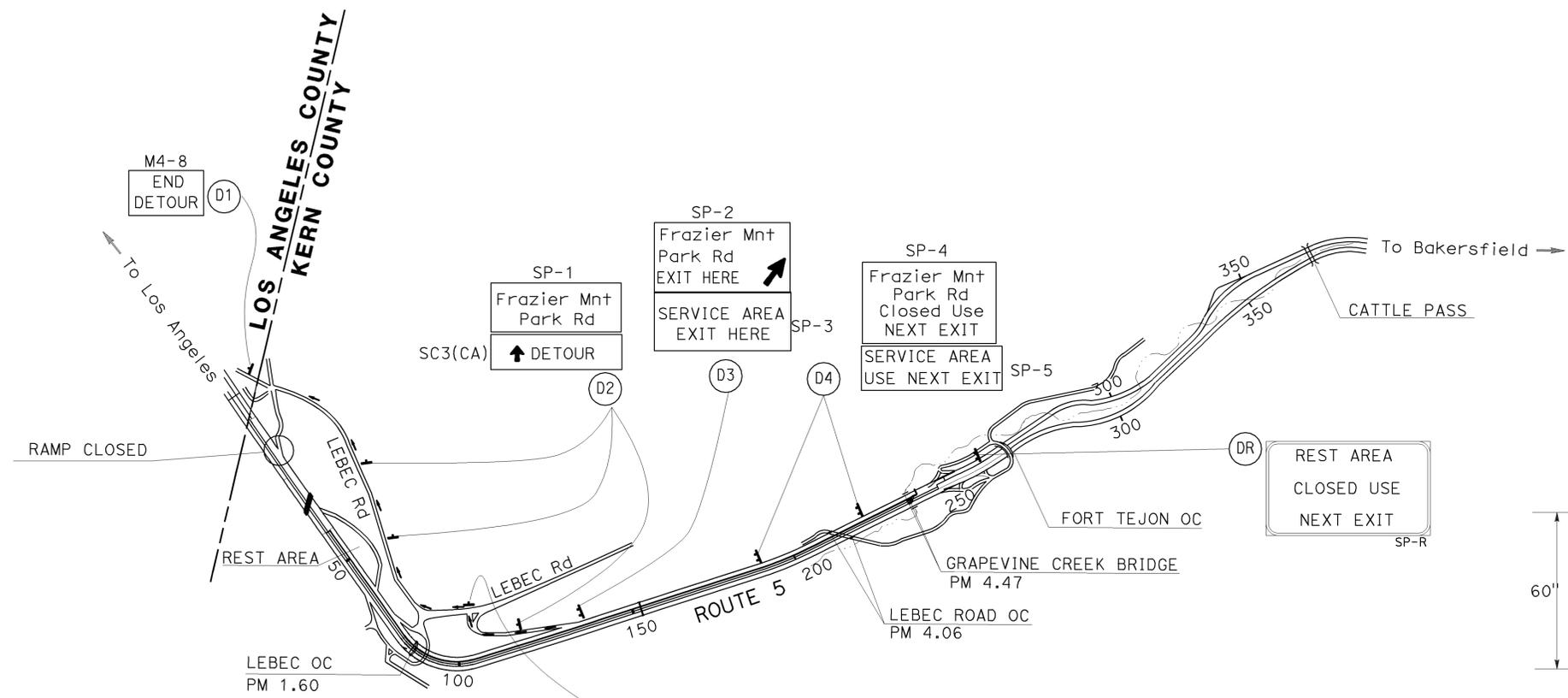
Hassan Cohe 03/24/10
REGISTERED CIVIL ENGINEER DATE

03-29-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
No. 60130
Exp 06/30/10
CIVIL
STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR	DATE
Caltrans	MOHAMMED GATAMI	KEVIN NGUYEN	M.A.	
TRAFFIC DESIGN		MUNIR ASSAF		



**TRAFFIC HANDLING PLAN
(STAGE 3)
(FRAZIER Mnt PARK DETOUR)**

NO SCALE

TH-4

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

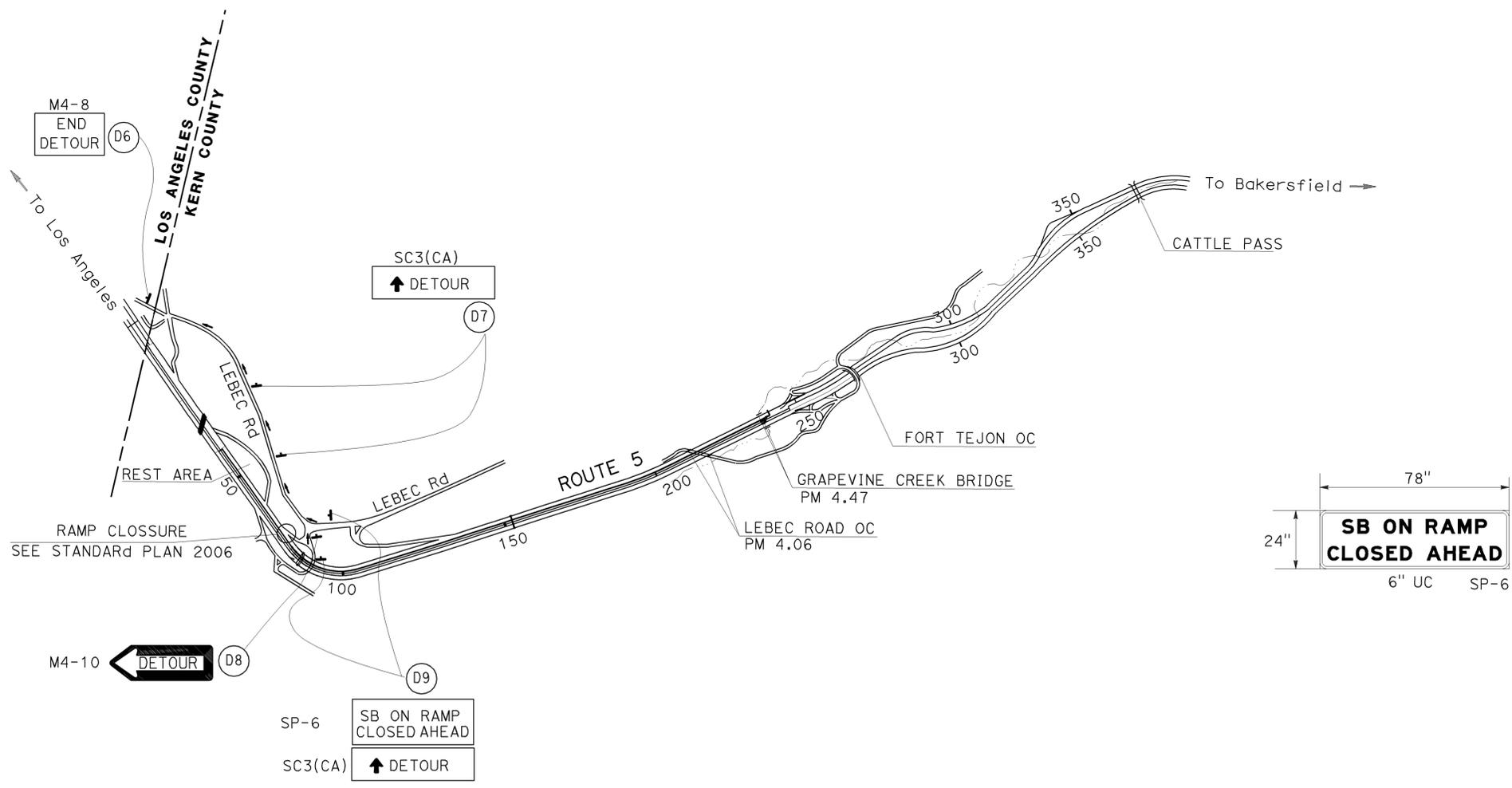
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	12	47

Hassan Cohe 03/24/10
 REGISTERED CIVIL ENGINEER DATE

03-29-10
 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.

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
 No. 60130
 Exp. 06/30/10
 CIVIL
 STATE OF CALIFORNIA



**TRAFFIC HANDLING PLAN
 (STAGE 3)
 (ON RAMP DETOUR)**

NO SCALE

TH-5

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

TEMPORARY PAVEMENT DELINEATION QUANTITIES

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	13	47

Hassan M. Taaha 03/24/10
 REGISTERED CIVIL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
 No. 60130
 Exp. 06/30/10
 CIVIL
 STATE OF CALIFORNIA

03-29-10
 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.

STAGE	LOCATION PM TO PM	DETAIL No.	TEMPORARY PAVEMENT MARKERS		REMOVE PAVEMENT MARKER	TEMPORARY TRAFFIC STRIPE (PAINT)			REMOVE THERMO- PLASTIC TRAFFIC STRIPE	REMOVE PAINTED TRAFFIC STRIPE	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	TEMPORARY PAVEMENT MARKING (PAINT)		REMOVE PAINTED PAVEMENT MARKING
			TYPE G	TYPE H		8" SOLID	4" SOLID	4" (BROKEN 36-12)				DESCRIPTION	SQFT	
STAGE 1	88.40 LA Co TO 1.09 Ker Co	25	EA	EA	EA	LF	LF	LF	LF	LF	LF	3-TYPE VI ARROW	126	126
		12												
STAGE 2- Phase 1	0.0 Ker TO PM 1.5 Ker Co	27B						9920						
		12	187						8920					
		38	172				4100			8200		8200		
		12	208			208								
		25		208				9920			9920			
		12				208					2480			
		12				208					2480			
		25				208							9920	
STAGE 2- Phase 2	1.5 Ker TO PM 3.0 Ker Co	27B						9920				3-TYPE VI ARROW	126	126
		12	187						8920					
		38	172				4100				8200			
		12	208					9920			2480			
		25				166					8200			
		12				166					1980			
		12				166					1980			
		25		208									7920	
STAGE 2- Phase 3	3.0 Ker TO PM 4.6 Ker Co	27B					10,448			10,448	10,448	3-TYPE VI ARROW	126	126
		12	219						10,448		5224			
		12	219						10,448		5224			
		25		219			10,448			10,448	10,448			
		12				176					2112			
		12				176					2112			
STAGE 3- Phase 1	0.0 Ker TO PM 1.5 Ker Co	27B						13,220			13,220	3-TYPE VI ARROW	126	126
		38	26				600			1200	1200			
		25		245				11,720			11,720	11,720		
		27B						9420			9420	9420		
		38	139				3300			6600	6600			
		12	197					9420			9420	2355		
		38	139				3300			6600	6600			
		25		276				13,220			13,220	13,220		
STAGE 3- Phase 2	1.5 Ker TO PM 3.0 Ker Co	27B						13,220			13,220	3-TYPE VI ARROW	126	126
		38	26				600			1200	1200			
		25		245				11,720			11,720	11,720		
		27B						9420			9420	9420		
		38	139				3300			6600	6600			
		12	197					9420			9420	2355		
		38	139				3300			6600	6600			
		25		276				13,220			13,220	13,220		
STAGE 3- Phase 3	3.0 Ker TO PM 4.6 Ker Co	27B						13,748			13,748	3-TYPE VI ARROW	126	126
		38	26				600			1200	1200			
		25		256				12,248			12,248	12,248		
		27B						9948			9948	9948		
		38	139				3300			6600	6600			
		12	208					9948			9948	2487		
		38	139				3300			6600	6600			
		25		287				13,748			13,748	13,748		
SUBTOTAL			3237	2420		29,800	205,045	77,444	356,417	289,230	26,291		882	882
TOTAL			5657		2058	312,289		356,417	289,230		26,291		882	882

TRAFFIC HANDLING QUANTITIES

THQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	14	47

Hassan M. Taaha 03/24/10
 REGISTERED CIVIL ENGINEER DATE
 03-29-10
 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.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS (TRAFFIC HANDLING)

SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE	No. OF SIGNS
AA	W9-1	LEFT LANE END	48" X 48"	1- 6" X 6"	14
BB	W4-2	LLEFT LAN END (SYMBOL)	48" X 48"	1- 6" X 6"	14
CC	W1-4	DETOUR RIGHT/LEFT (SYMBOL)	48" X 48"	2- 6" X 6"	12
DD	W13-1	55 MPH	48" X 48"	1- 6" X 6"	6
DS	C13(CA)	NO SHOULDER	48" X 48"	1- 6" X 6"	6
DS	W21-5B (MOD)	NO SHOULDER 1000 FT	48" X 48"	1- 6" X 6"	6
KK	W9-3(Mod)	NO LANE CHANGE AHEAD	48" X 48"	1- 6" X 6"	6
LL	R4-9	STAY IN LANE	48" X 60"	1- 6" X 6"	6
MM	R4-5	TRUCKS USE RIGHT LANE	48" X 48"	1- 6" X 6"	7
NN	W4-3	MERGE LANE	48" X 48"	1- 6" X 6"	6
OO	W13-1 (55 MPH)	SPEED LIMIT(55 PMH)	48" X 48"	2- 6" X 6"	6
PP	W9-3A	AS SHOWN ON PLAN	48" X 48"	2- 6" X 6"	6
PP	W9-3A	AS SHOWN ON PLAN	60" X 60"	2- 6" X 6"	6
QQ	W12-1	AS SHOWN ON PLAN	36" X 36"	1- 4" X 6"	3
SS	W9-3(Mod)	END LANE CONTROL	48" X 48"	1- 6" X 6"	1
D1	M4-8	END DETOUR	24" X 16"	1- 4" X 4"	1
D2	SP-1	AS SHOWN ON PLAN	60" X 24"	2- 6" X 6"	3
D2	SC3(CA)	DETOUR	48" X 18"	2- 6" X 6"	3
D3	SP-2	AS SHOWN ON PLAN	60" X 84"	2- 6" X 6"	1
D3	SP-3	AS SHOWN ON PLAN	78" X 24"	2- 6" X 6"	1
D4	SP-4	AS SHOWN ON PLAN	78" X 24"	2- 6" X 6"	2
D4	SP-5	AS SHOWN ON PLAN	48" X 90"	2- 6" X 6"	2
D5	SP-1	AS SHOWN ON PLAN	60" X 24"	2- 4" X 6"	1
D5	SC3(CA)	DETOUR	48" X 18"	2- 4" X 6"	1
D6	M4-8	END DETOUR	24" X 16"	1- 4" X 4"	1
D7	SC3(CA)	DETOUR	24" X 16"	1- 4" X 4"	2
D8	M4-10	DETOUR	36" X 12"	1- 4" X 4"	1
D9	SP-6	AS SHOWN ON PLAN	24" X 78"	2- 4" X 6"	2
D9	SC3(CA)	DETOUR	48" X 18"	2- 4" X 6"	2
DR	SP-2	AS SHOWN ON PLAN	60" X 84"	2- 6" X 6"	1

FOR ADDITIONAL CONSTRUCTION AREA SIGNS REFER TO CS SHEETS

TEMPORARY RAILING, CRASH CUSHION AND CHANNELIZER QUANTITY						
STAGE	PHASE	LOCATION		TEMPORARY RAILING (TYPE K)	TEMPORARY CRASH CUSHION MODULE	CHANNELIZER (SURFACE MOUNTED)
		PM TO PM				
STAGE 1		88.38 LA Co	1.14 Ker Co	7220	14	66
STAGE 2	PHASE 1	2.99 Ker Co	4.62 Ker Co	8600	14	143
	PHASE 2	1.49 Ker Co	3.02 Ker Co	8100	14	143
	PHASE 3	88.59 LA Co	1.52 Ker Co	8100	14	143
STAGE 3	PHASE 1	2.99 Ker Co	4.62 Ker Co	17,200	21	196
	PHASE 2	1.49 Ker Co	3.02 Ker Co	16,200	21	196
	PHASE 3	88.59 LA Co	1.52 Ker Co	16,200	21	196
				81,620	119	1083

TRAFFIC HANDLING QUANTITIES THQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR
MOHAMMED QATAMI
 TRAFFIC DESIGN
 M.A.
 MUNIR ASSAF
 HASSAN TAHA
 REVISOR BY
 DATE REVISOR
 CALCULATED/DESIGNED BY
 CHECKED BY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	15	47

Hassan Cohe 03/24/10
REGISTERED CIVIL ENGINEER DATE

03-29-10
P5-LANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
No. 60130
Exp. 06/30/10
CIVIL

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS P5-LAN SHEET.

PAVEMENT DELINEATION QUANTITIES

ROUTE COUNTY	LOCATION PM TO PM	DETAIL No.	PAVEMENT MARKER (RETROREFLECTIVE- RECESSED)		THERMOPLASTIC TRAFFIC STRIPE (RECESSED)			
			TYPE G	TYPE H	8" SOLID	4" SOLID	4" (BROKEN 36-12)	4" (BROKEN 17-7)
			EA	EA	LF	LF	LF	LF
5-KERN	PM 0.00 TO PM 4.85	25		535		25,608		
5-KERN	PM 0.00 TO PM 5.10	12	562				26,928	
5-KERN	PM 0.00 TO PM 4.85	12	535				25,608	
5-KERN	PM 4.47 TO PM 5.40	38	206		4910			
5-KERN	PM 0.00 TO PM 4.47	12	493				23,602	
5-KERN	PM 4.74 TO PM 4.68	36						
5-KERN	PM 1.82 TO PM 4.72	27B				15,312		
5-KERN	PM 1.75 TO PM 1.82	36	34		739			
5-KERN	PM 1.47 TO PM 1.75	27B				1,478		
5-KERN	PM 1.47 TO PM 1.50	36A	8		158			
5-KERN	PM 1.42 TO PM 1.47	8						264
5-KERN	PM 1.07 TO PM 1.51	27B				2,323		
5-KERN	PM 1.06 TO PM 1.11	36	24		528			
5-KERN	PM 0.70 TO PM 1.06	27B				1,901		
5-KERN	PM 0.78 TO PM 0.70	36A						
5-KERN	PM 0.68 TO PM 0.70	8						264
5-KERN	PM 0.14 TO PM 0.75	27B				3,221		106
5-KERN	PM 0.10 TO PM 0.14	36	20		422			
5-KERN	PM 0.00 TO PM 0.10	27B				528		
5-LA	PM 88.17 TO PM 88.61	25		49		2,323		
5-LA	PM 88.17 TO PM 88.61	12	49				2,323	
5-LA	PM 88.17 TO PM 88.61	12	49				2,323	
5-LA	PM 88.17 TO PM 88.61	12	49				2,323	
5-LA	PM 89.66 TO PM 88.61	27B						
SUBTOTAL			2029	584	6757	52,694	83,107	634
TOTAL				2613	6757	52,694	83,107	634

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR
MOHAMMED QATAMI

DESIGNED BY
KEVIN NGUYEN
MUNIR ASSAF

CHECKED BY

REVISOR BY
DATE REVISED

PAVEMENT DELINEATION QUANTITIES

PDQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	16	47

Chay Wee-ly 03-11-10
 REGISTERED CIVIL ENGINEER DATE
 03-29-10
 PLANS APPROVAL DATE

W.L. CHANG
 No. 41899
 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.

ROADWAY QUANTITIES SUMMARY

* SOUTHBOUND LOCATION PM TO PM	GRIND EXISTING CONCRETE PAVEMENT	ROADWAY EXCAVATION	CLASS 2 AGGREGATE SUBBASE	LEAN CONCRETE BASE	JOINTED PLAIN CONCRETE PAVEMENT	HMA (TYPE A)	COLD PLANE AC PAVEMENT	TACK COAT	SHOULDER RUMBLE STRIP (Conc PAVEMENT GROUND-IN INDENTATIONS)	RUMBLE STRIP	REMOVE Conc PAVEMENT	SEAL ISOLATION JOINTS	SEAL PAVEMENT JOINTS	GEOSYNTHETIC PAVEMENT INTERLAYER	CLASS 2 AGGREGATE BASE
	SQYD	CY	CY	CY	CY	TON	SQYD	TON	STA	STA	CY	LF	LF	SQYD	CY
88.40 TO 88.61 INSIDE SHOULDER		450				900		1.7		11					
0.00 TO 0.55 AND 0.58 TO 1.09	16,680	15,990	4,890	3,492	9,080	4492		8.4	56	56	3,700	5,544	23,653		
1.09 TO 4.47 AND 4.48 TO 4.60	55,460	51,180	16,290	11,640	30,253				186		12,320	18,480	78,848	8,000	5,320
HOT MIX ASPHALT DIKE						371.2									
HMA OVERSIDE DRAINS						8.3									
DOWNDRAINS						2.1									
ON/OFF RAMPS						1135	12,000	3.5							
TOTAL	72,140	67,620	21,180	15,132	39,333	6908.6	12,000	13.6	242	67	16,020	24,024	102,501	8,000	5,320

METAL BEAM GUARD RAILING

* SOUTHBOUND LOCATION (PM)	LAYOUT TYPE	RECONSTRUCT MBGR	ALTERNATIVE FLARED TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	TRANSITION RAILING (TYPE WB)	REMOVE TERMINAL SYSTEM (N)	REMOVE ANCHOR ASSEMBLY (N)
		LF	EA	EA	EA	EA	EA
0.00 Lt	12B	175.0	1		1	1	
0.00 Rt	12B	100.0	1		1	1	
0.14 Lt	16B	25.0	1	1		1	1
0.57 Lt	12B	25.0	1		1	1	
1.61 Lt	16B	25.0	1	1		1	1
1.80 Lt	16B	25.0	1	1		1	1
1.99 Lt	16B	25.0	1	1	1	1	1
2.90 Lt	12B	25.0	1		1	1	
3.50 Lt	12B	25.0	1		1	1	
4.06 Lt	16B	75.0	1	1		1	1
4.20 Lt	12B	50.0	1		1	1	
TOTAL		575.0	11	5	7	11	5

HOT MIX ASPHALT DIKE

SOUTHBOUND LOCATION PM TO PM	PLACE HMA DIKE (TYPE C)	PLACE HMA DIKE (TYPE F)	PLACE HMA DIKE (TYPE E)	REMOVE AC DIKE	HMA (TYPE A) **
*	LF	LF	LF	LF	TON
0.00 - 0.10 Lt	62.5	50	416	528.5	11.9
0.20 - 0.57 Lt			1954	1954	51.4
1.16 - 1.50 Lt			1795	1795	47.3
1.50 - 1.75 Lt	62.5	25	1232	1319.5	33.4
2.20 - 2.41 Lt			1110	1110	29.2
2.60 - 2.90 Lt	62.5	25	1497	1584.5	40.2
2.90 - 3.15 Lt			1320	1320	34.7
3.22 - 3.42 Lt			1056	1056	27.8
3.54 - 4.01 Lt	62.5	50	2370	2482.5	63.5
4.02 - 4.17 Lt	62.5	50	680	792.5	19.0
4.50 - 4.60 Lt	62.5	25	442	529.5	12.8
TOTAL	375	225	13,872	14,472	371.2

* APPROXIMATE LOCATIONS ONLY. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
 ** QUANTITY IS INCLUDED IN ROADWAY QUANTITIES SUMMARY TABLE.
 (N) NOT A SEPERATE PAY ITEM, FOR INFORMATION ONLY.

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: GURBHAY BRAR
 WEI-LUNG CHANG
 GURBHAY BRAR
 CALCULATED/DESIGNED BY: GURBHAY BRAR
 CHECKED BY: GURBHAY BRAR
 REVISED BY: GURBHAY BRAR
 DATE REVISED: GURBHAY BRAR

LAST REVISION: 03-24-10
 DATE PLOTTED => 06-AUG-2010
 TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	17	47

Chay Wee Lay 03-11-10
 REGISTERED CIVIL ENGINEER DATE

03-29-10
 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.

REGISTERED PROFESSIONAL ENGINEER
W.L. CHANG
 No. 41899
 Exp 3-31-12
 CIVIL
 STATE OF CALIFORNIA

ABBREVIATIONS:

RSC - RAPID STRENGTH CONCRETE

NOTE:

THE LENGTH OF PANELS AND PAVEMENT QUANTITY APPROXIMATE ONLY,
 EXACT TO BE DETERMINED IN THE FIELD.

**REPLACE CONCRETE PAVEMENT
 (RAPID STRENGTH CONCRETE)**

SOUTHBOUND												
LOCATION	LANE	LENGTH OF PANEL	RSC	LOCATION	LANE	LENGTH OF PANEL	RSC	LOCATION	LANE	LENGTH OF PANEL	RSC	
PM*	No.	LF	CY	PM*	No.	LF	CY	PM*	No.	LF	CY	
0.519	1	17	5.7	1.600	2	17	5.7	3.705	1	17	5.7	
0.553	1	17	5.7	1.636	2	17	5.7	3.708	1	17	5.7	
0.568	2	17	5.7	1.726	2	17	5.7	3.728	1	17	5.7	
0.571	2	17	5.7	1.766	2	17	5.7	3.731	1	17	5.7	
0.573	2	17	5.7	1.769	2	17	5.7	3.735	1	17	5.7	
0.577	2	17	5.7	1.853	2	17	5.7	3.737	1	17	5.7	
0.591	2	17	5.7	1.951	2	17	5.7	3.796	1	17	5.7	
0.617	2	17	5.7	2.070	2	17	5.7	3.799	1	17	5.7	
0.631	2	17	5.7	2.087	2	17	5.7	3.804	2	17	5.7	
0.634	2	17	5.7	2.102	2	17	5.7	3.873	2	17	5.7	
0.636	2	17	5.7	2.128	2	17	5.7	3.896	2	17	5.7	
0.639	2	17	5.7	2.132	2	17	5.7	3.948	2	17	5.7	
0.642	2	17	5.7	2.145	2	17	5.7	4.006	2	17	5.7	
0.691	2	17	5.7	1.158	2	17	5.7	4.050	2	17	5.7	
0.699	2	17	5.7	2.167	2	17	5.7	4.196	1	17	5.7	
0.754	2	17	5.7	2.193	2	17	5.7	4.200	2	17	5.7	
0.797	2	17	5.7	2.216	2	17	5.7	4.287	2	17	5.7	
0.822	2	17	5.7	2.233	2	17	5.7	4.305	1	17	5.7	
0.825	2	17	5.7	2.259	2	17	5.7	4.325	2	17	5.7	
0.845	2	17	5.7	2.304	2	17	5.7	4.328	1	17	5.7	
0.868	2	17	5.7	2.379	2	17	5.7	4.359	1	17	5.7	
0.879	2	17	5.7	2.427	2	17	5.7	4.380	2	17	5.7	
0.882	2	17	5.7	2.571	2	17	5.7	4.405	1	17	5.7	
0.891	2	17	5.7	2.608	2	17	5.7	4.411	1	17	5.7	
0.905	2	17	5.7	2.633	2	17	5.7	4.417	1	17	5.7	
0.908	2	17	5.7	2.635	2	17	5.7	4.438	2	17	5.7	
0.911	2	17	5.7	2.690	2	17	5.7	4.497	2	17	5.7	
0.925	2	17	5.7	2.699	2	17	5.7	4.527	1	17	5.7	
0.931	2	17	5.7	2.778	2	17	5.7					
0.934	2	17	5.7	2.781	2	17	5.7					
0.951	2	17	5.7	2.783	2	17	5.7					
1.011	1	17	5.7	2.807	2	17	5.7					
1.035	2	17	5.7	2.810	2	17	5.7					
1.136	2	17	5.7	2.822	2	17	5.7					
1.139	2	17	5.7	2.850	2	17	5.7					
1.142	2	17	5.7	2.946	2	17	5.7					
1.188	2	17	5.7	3.044	1	17	5.7					
1.193	2	17	5.7	3.058	2	17	5.7					
1.225	2	17	5.7	3.374	2	17	5.7					
1.330	2	17	5.7	3.423	2	17	5.7					
1.333	2	17	5.7	3.470	2	17	5.7					
1.339	2	17	5.7	3.504	2	17	5.7					
1.345	2	17	5.7	3.514	2	17	5.7					
1.378	2	17	5.7	3.518	2	17	5.7					
1.409	2	17	5.7	3.556	2	17	5.7					
1.417	2	17	5.7	3.585	2	17	5.7					
1.559	2	17	5.7	3.589	2	17	5.7					
SUBTOTAL			267.9	SUBTOTAL			267.9	SUBTOTAL			159.6	
TOTAL												695.4

**TEMPORARY DRAINAGE
 INLET PROTECTION**

DI LOCATIONS (PM)			
MEDIAN	EA	OUTSIDE SHOULDER	EA
0.16	1	0.09	1
1.09	1	0.10	1
1.64	1	0.11	1
2.32	1	1.68	1
2.45	1	3.61	1
2.63	1	3.68	1
2.78	1	3.72	1
3.02	1	3.78	1
3.19	1	3.89	1
3.36	1	3.99	1
3.53	1	4.30	1
3.64	1		
3.72	1		
3.89	1		
3.99	1		
4.30	1		
SUBTOTAL	16		11
TOTAL		27	

NOTE: THE EXACT LOCATION WILL BE
 DETERMINED BY THE ENGINEER

**SUMMARY OF QUANTITIES
 Q-2**

* APPROXIMATE LOCATIONS ONLY, EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 GURBHAY BRAR
 FUNCTIONAL SUPERVISOR
 GURBHAY BRAR
 CHECKED BY
 WEI-LUNG CHANG
 GURBHAY BRAR
 REVISIONS BY
 DATE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	18	47

Choy Wei-dy 03-11-10
 REGISTERED CIVIL ENGINEER DATE

03-29-10
 PLANS APPROVAL DATE

W.L. CHANG
 No. 41899
 Exp 3-31-12
 CIVIL

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.

HMA OVERSIDE DRAINS

LOCATION	[N] LENGTH	PLACE HMA (Misc AREA)	* HMA (TYPE A)	[N] REMOVE OVERSIDE DRAIN
PM		SQYD	TON	EA
0.48 Lt SHOULDER	7'	3.3	0.55	1
1.15 Lt SHOULDER	7'	3.3	0.55	1
1.26 Lt SHOULDER	7'	3.3	0.55	1
1.36 Lt SHOULDER	7'	3.3	0.55	1
1.44 Lt SHOULDER	7'	3.3	0.55	1
2.22 Lt SHOULDER	7'	3.3	0.55	
2.27 Lt SHOULDER	7'	3.3	0.55	
2.35 Lt SHOULDER	7'	3.3	0.55	
2.69 Lt SHOULDER	7'	3.3	0.55	
2.75 Lt SHOULDER	7'	3.3	0.55	
2.88 Lt SHOULDER	7'	3.3	0.55	
2.95 Lt SHOULDER	7'	3.3	0.55	
3.07 Lt SHOULDER	7'	3.3	0.55	
3.29 Lt SHOULDER	7'	3.3	0.55	
4.17 Lt SHOULDER	7'	3.3	0.55	
TOTAL		49.5	8.25	

* QUANTITY INCLUDED IN THE ROADWAY QUANTITY SUMMARY SHEET.
 [N] NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

CORRUGATED METAL PIPE DOWNDRAINS

LOCATION	18" ENTRANCE TAPER	18" CSP DOWNDRAIN (0.079" THICK)	PLACE HMA (Misc AREA)	* HMA (TYPE A)	REMOVE AC [N]	ANCHOR ASSEMBLY	REMOVE DOWNDRAIN	REMOVE ENTRANCE TAPER	REMOVE ANCHOR ASSEMBLY
PM	EA	LF	SQYD	TON	CY	EA	LF	EA	EA
0.23 Lt Shoulder	1	24	5.0	0.7	0.11	1	24	1	1
0.33 Lt Shoulder	1	20	5.0	0.7	0.11	1	20	1	1
0.28 Lt Shoulder	1	20	5.0	0.7		1			
TOTAL	3	64	15.0	2.1		3	44	2	2

PLACE HMA (Misc AREA)

	SQYD
CMP DOWNDRAIN	15.0
HMA OVERSIDE DRAIN	49.5
TOTAL	64.5

SUMMARY OF QUANTITIES

Q-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	19	47

<i>Daniel Thanh Vo</i>	3-29-10
REGISTERED ELECTRICAL ENGINEER	DATE
03-29-10	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DANIEL THANH VO
No. 17408
Exp. 9/30/10
ELECTRICAL

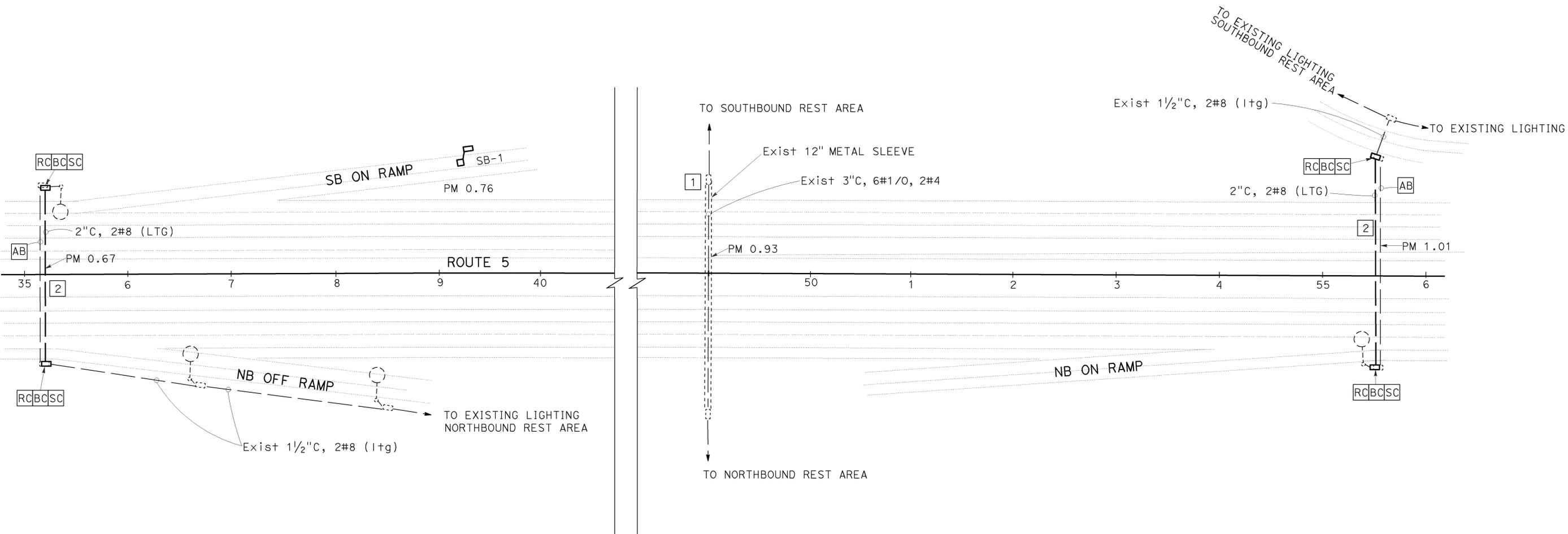
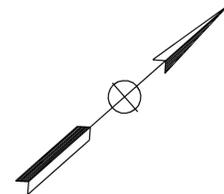
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. Exist CONDUIT CROSSING CONTAINS 480 VOLT CIRCUITS. SEE UTILITY PLANS FOR DETAILS.
2. CONDUIT INSTALLED ACROSS ROUTE 5 SHALL BE MINIMUM 40 INCHES BELOW FINISHED GRADE.
3. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
4. 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.

ABBREVIATION:

PG&E = PACIFIC GAS AND ELECTRIC



**MODIFY LIGHTING
INDUCTIVE LOOP DETECTOR
E-1**

SCALE: 1" = 50'

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DANIEL VO	REVISOR
ELECTRICAL DESIGN	NORMA GALLEGOS	DATE
FUNCTIONAL SUPERVISOR	ALI BAKHDOUD	REVISION
CALCULATED/DESIGNED BY		DATE
CHECKED BY		REVISION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	20	47

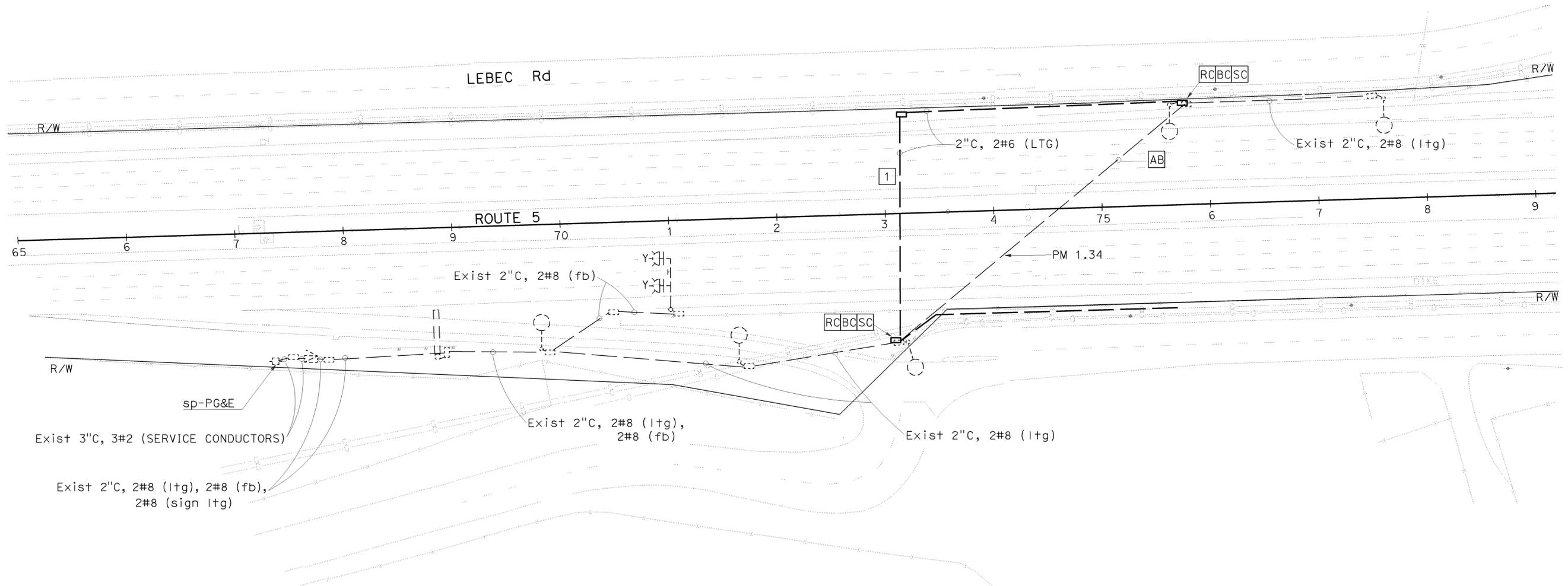
<i>Daniel Vo</i>	3-29-10
REGISTERED ELECTRICAL ENGINEER	DATE
03-29-10	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DANIEL THANH VO
No. 17408
Exp. 9/30/10
ELECTRICAL

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NOTES:

- 1 CONDUIT INSTALLED ACROSS ROUTE 5 SHALL BE MINIMUM 40 INCHES BELOW FINISHED GRADE.
2. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
3. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: DANIEL VO
 CHECKED BY: NORMA GALLEGOS
 REVISED BY: [] DATE: []
 REVISIONS: []

MODIFY LIGHTING
E-2

SCALE: 1"=50'

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



USERNAME => s115755
DGN FILE => 646060u002.dgn

CU 06391

EA 460601

BORDER LAST REVISED 4/11/2008

LAST REVISION: [] DATE PLOTTED => 05-AUG-2010
 03-02-10 TIME PLOTTED => 13:36

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	21	47

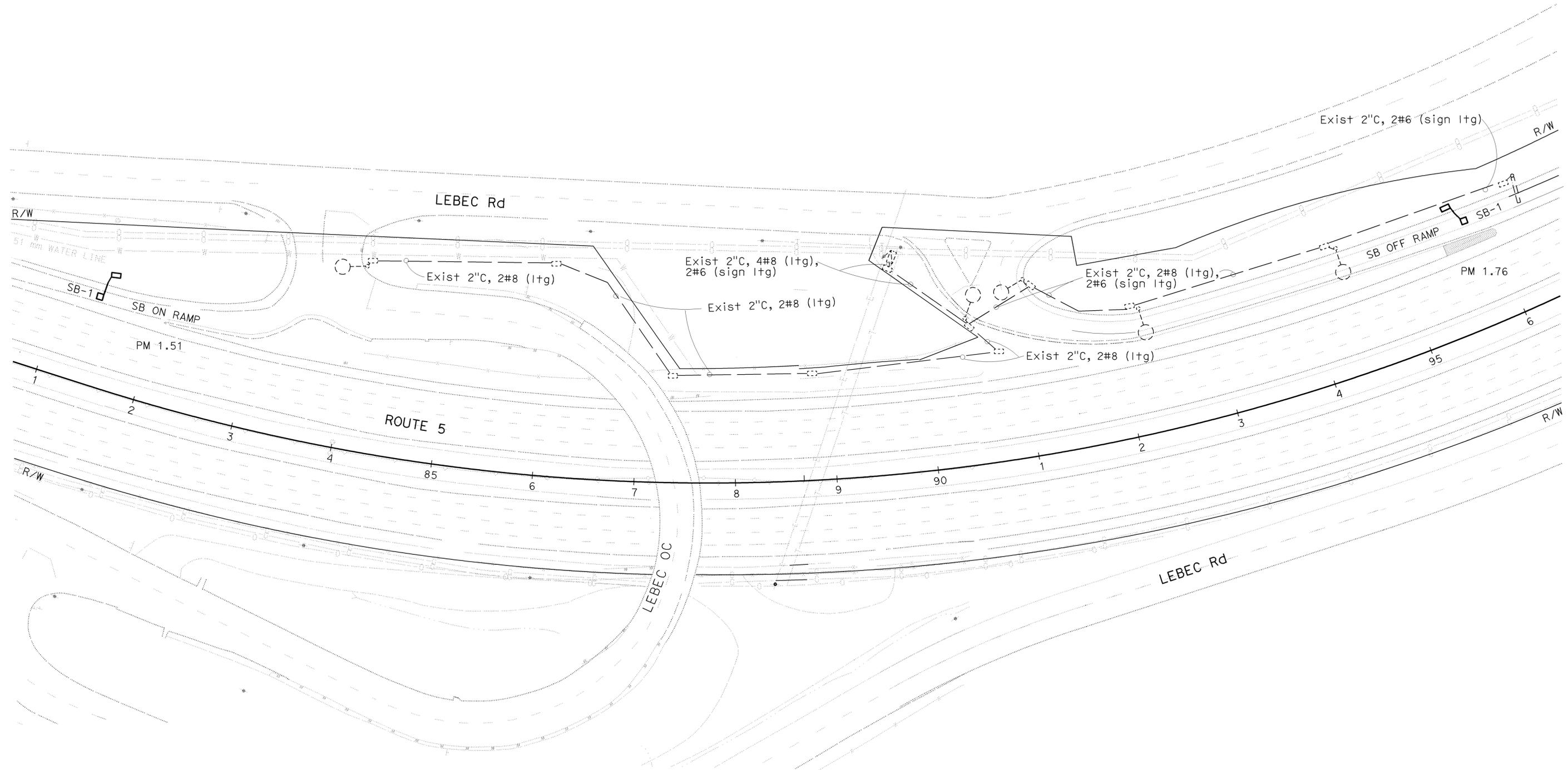
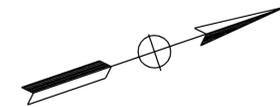
<i>Daniel Thanh Vo</i>	3-29-10
REGISTERED ELECTRICAL ENGINEER	DATE
03-29-10	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	DANIEL THANH VO
No.	17408
Exp.	9/30/10
ELECTRICAL	

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NOTES:

1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
 CALCULATED/DESIGNED BY: DANIEL VO
 CHECKED BY: NORMA GALLEGOS
 REVISED BY: [] DATE: []
 REVISIONS: []

INDUCTIVE LOOP DETECTOR
E-3

SCALE: 1"=50'

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



USERNAME => s115755
DGN FILE => 646060u0003.dgn

CU 06391

EA 460601

BORDER LAST REVISED 4/11/2008

LAST REVISION: [] DATE PLOTTED => 05-AUG-2010
 03-02-10 TIME PLOTTED => 13:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	5	0.0/4.6	22	47

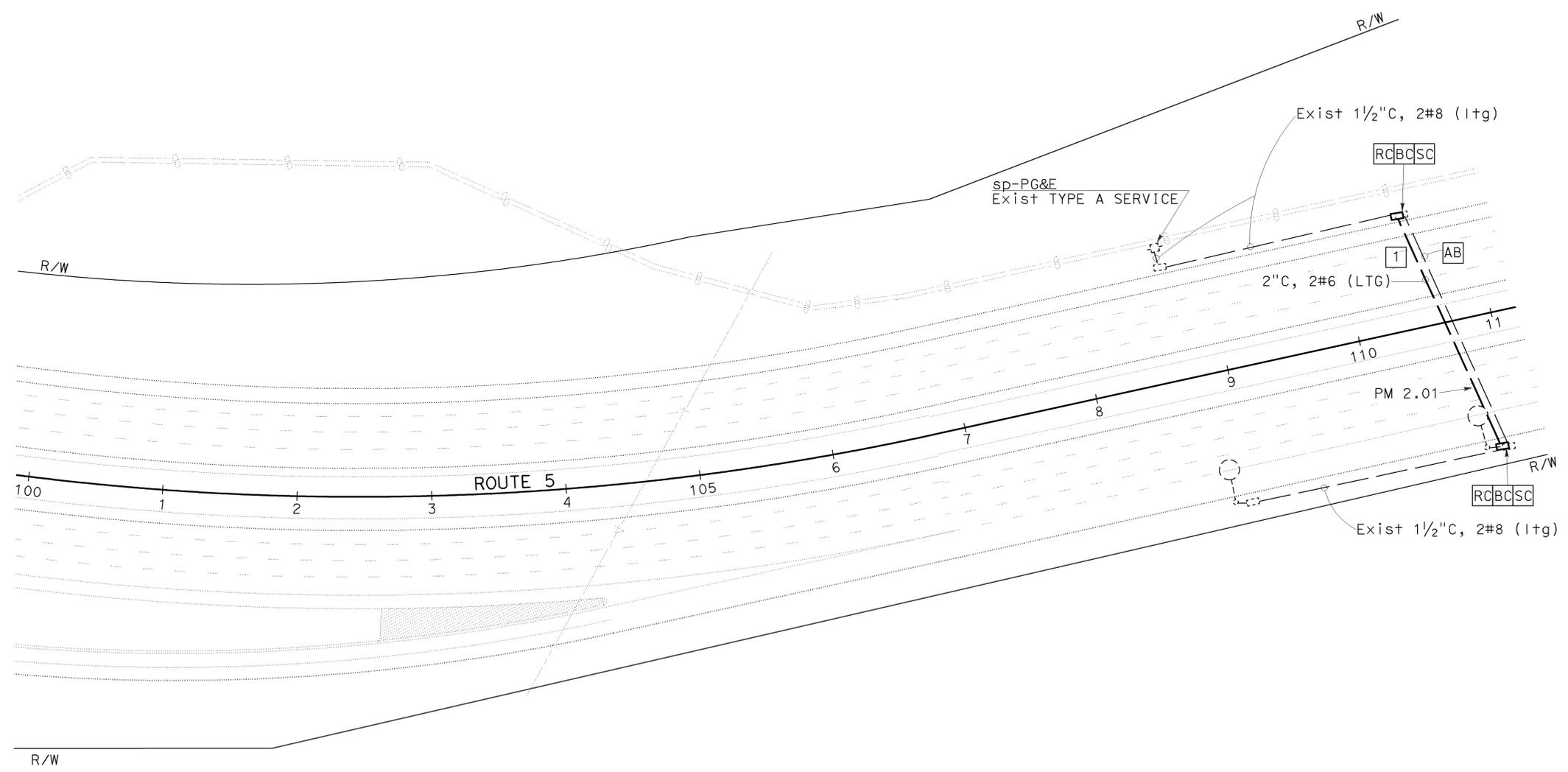
<i>Daniel Paul</i>	3-29-10
REGISTERED ELECTRICAL ENGINEER	DATE
03-29-10	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DANIEL THANH VO
No. 17408
Exp. 9/30/10
ELECTRICAL

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NOTES:

1. CONDUIT INSTALLED ACROSS ROUTE 5 SHALL BE MINIMUM 40 INCHES BELOW FINISHED GRADE.
2. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
3. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
 ALI BAKHDOUD

CALCULATED/DESIGNED BY
 CHECKED BY

DANIEL VO
 NORMA GALLEGOS

REVISED BY
 DATE REVISED

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



USERNAME => s115755
 DGN FILE => 646060u0004.dgn

MODIFY LIGHTING
E-4

SCALE: 1"=50'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	23	47

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

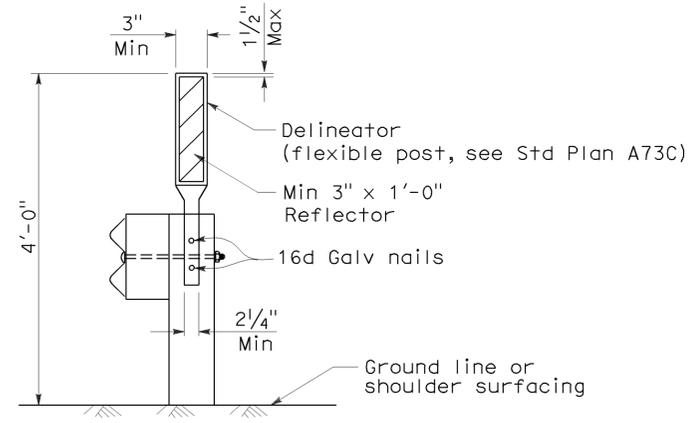
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

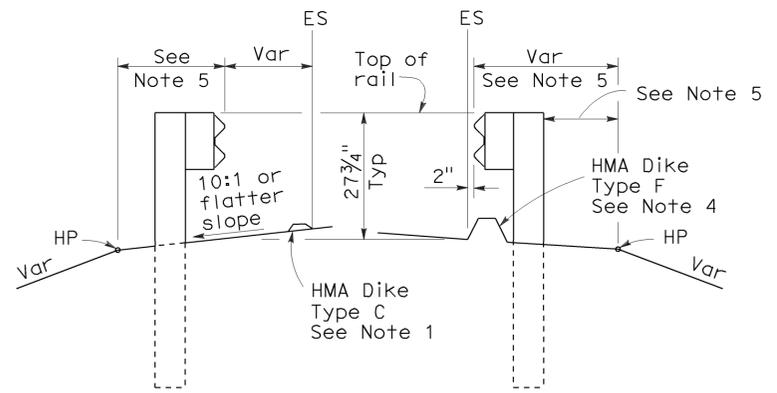
To accompany plans dated 3-29-10

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	24	47

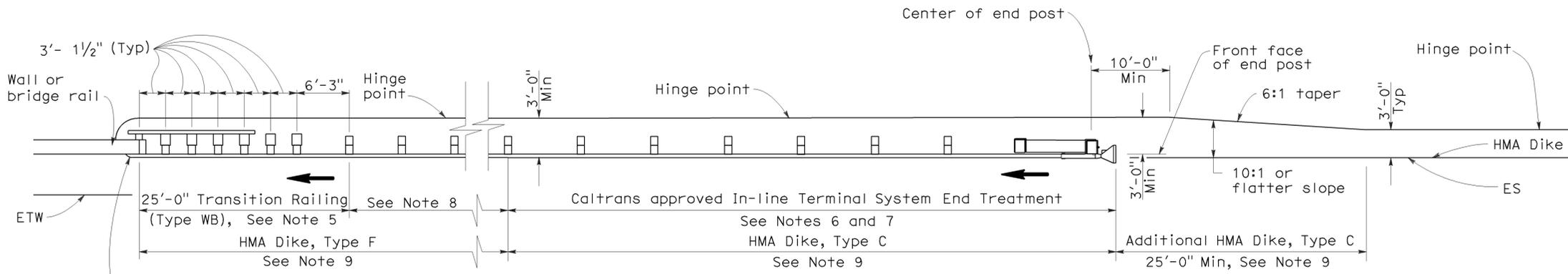
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

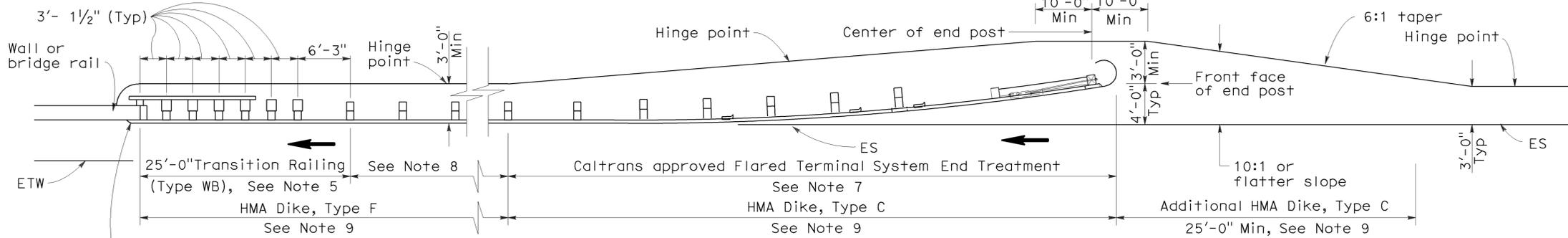
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To accompany plans dated 3-29-10



TYPE 12A LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 10



TYPE 12B LAYOUT

(GUARD RAILING INSTALLATION AT STRUCTURE APPROACH WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 10

NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- 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 plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by \rightarrow .
- For Transition Railing (Type WB) details for Types 12A and 12B Layouts, see Standard Plan A77J4.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes, or other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatment.

- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- Type 12A or Type 12B Layouts are typically used:
 - To the right of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
 - To the left of approaching traffic, at the end of a structure, on two-lane conventional highway where the roadbed width across the structure is less than 40 feet.
 - To the right of approaching traffic at the end of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
 - To the right of approaching traffic at the end of the structure on multilane freeways or expressways with decked median on the bridge.
- See Revised Standard Plan RSP A77F3 for typical layout used left of approaching traffic at the ends of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.

- For additional details of typical connections to bridge rail, see Connection Detail AA on Revised Standard Plans RSP A77J1 and RSP A77J2 and Connection Detail FF on Standard Plans A77K1 and A77K2.
- For additional details of a typical connection to walls or abutments, see Standard Plan A77J3.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
STRUCTURE APPROACH**

NO SCALE

RSP A77F1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77F1
DATED MAY 1, 2006 - PAGE 54 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77F1

2006 REVISED STANDARD PLAN RSP A77F1

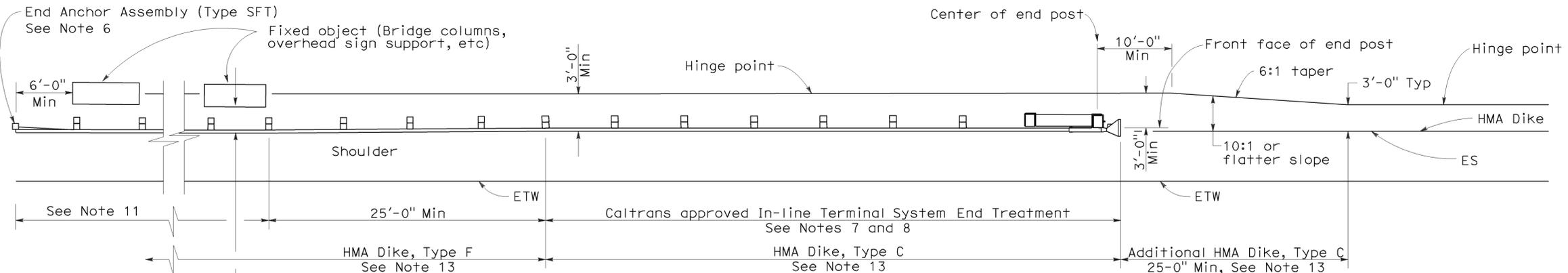
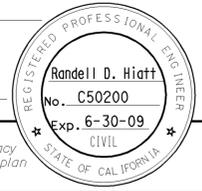
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	25	47

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

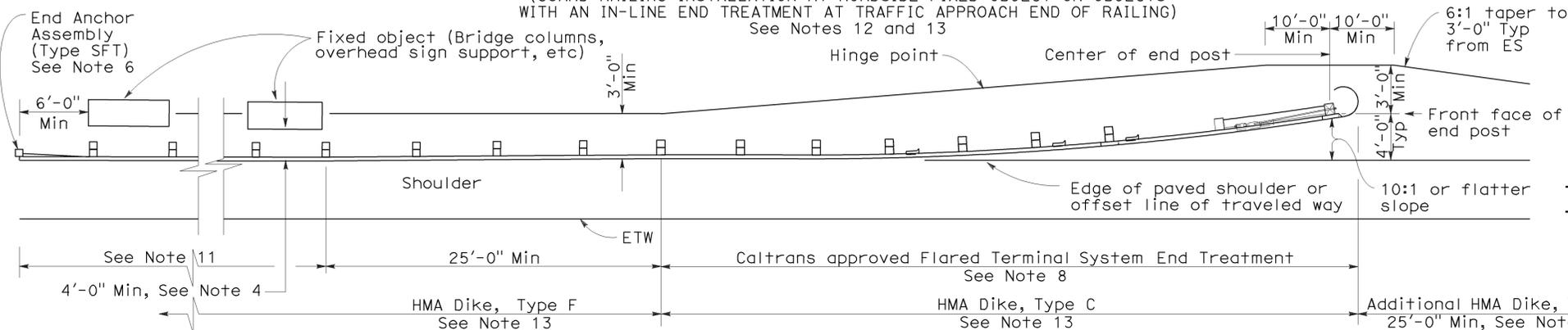
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To accompany plans dated 3-29-10



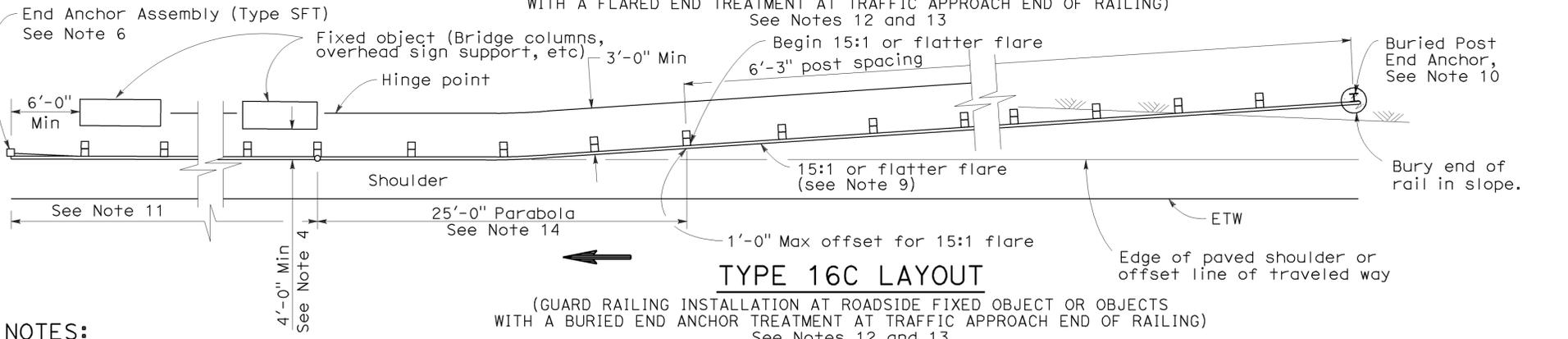
TYPE 16A LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13



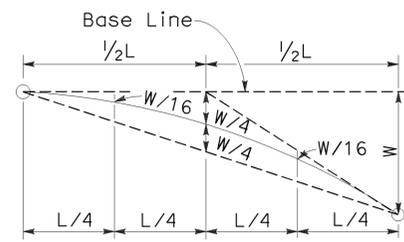
TYPE 16B LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13

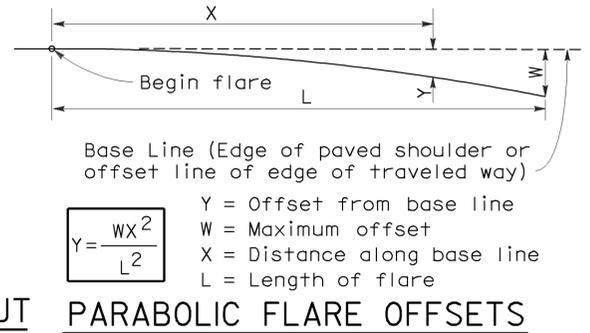


TYPE 16C LAYOUT

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)
See Notes 12 and 13



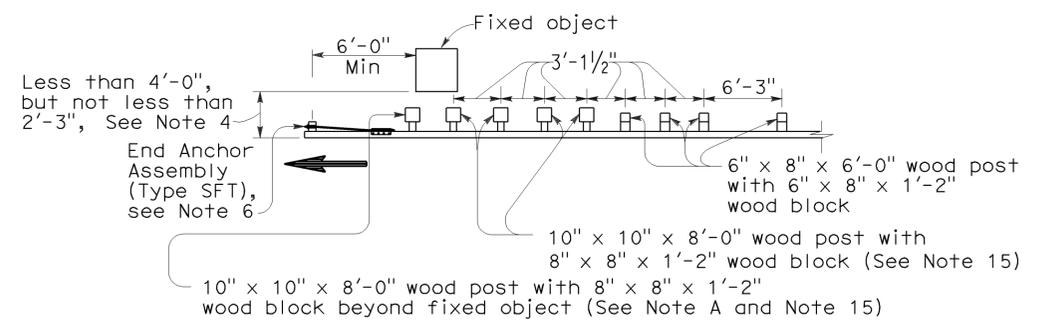
TYPICAL PARABOLIC LAYOUT



PARABOLIC FLARE OFFSETS

NOTES:

- Line post, blocks and hardware to be used are shown on Revised Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- 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.
- 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 of 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).
- Direction of adjacent traffic indicated by \rightarrow .
- For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
- 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.
- The 15:1 or flatter flare used with Type 16C Layout 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".
- For details of the Buried Post End Anchor used with Type 16C Layout, see Standard Plan A77I2.
- 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.
- Layout Types 16A, 16B or 16C are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for only one direction of traffic.
- Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
- W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks 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".



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'-1/2" center to center spacing are to be used between fixed objects.

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
ROADSIDE FIXED OBJECTS**

NO SCALE

RSP A77G3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G3
DATED MAY 1, 2006 - PAGE 61 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77G3

2006 REVISED STANDARD PLAN RSP A77G3

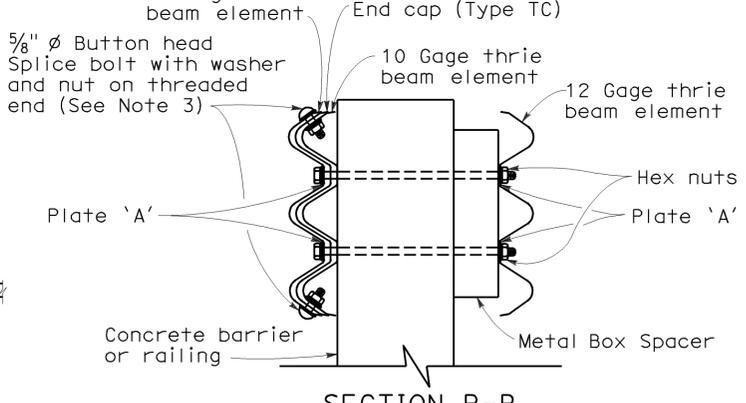
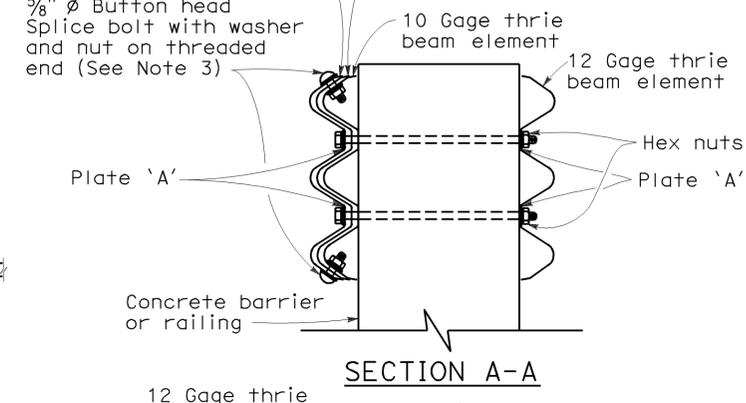
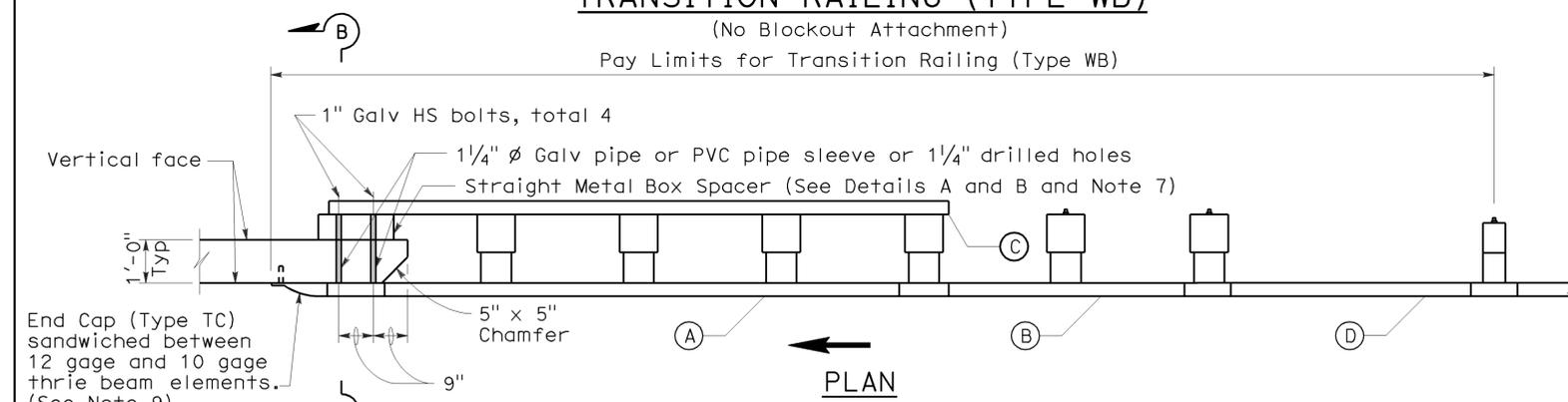
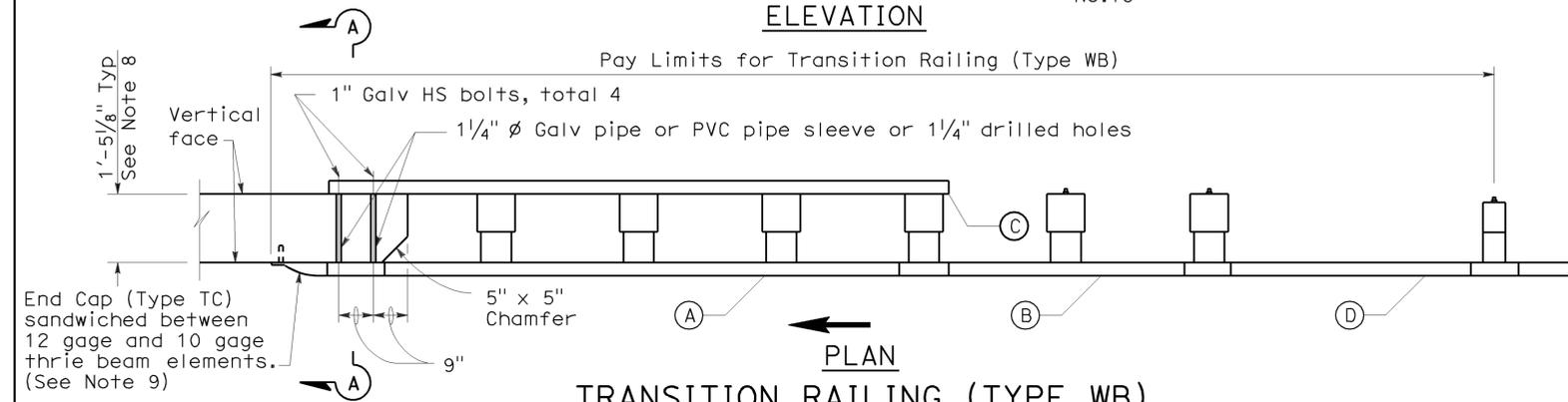
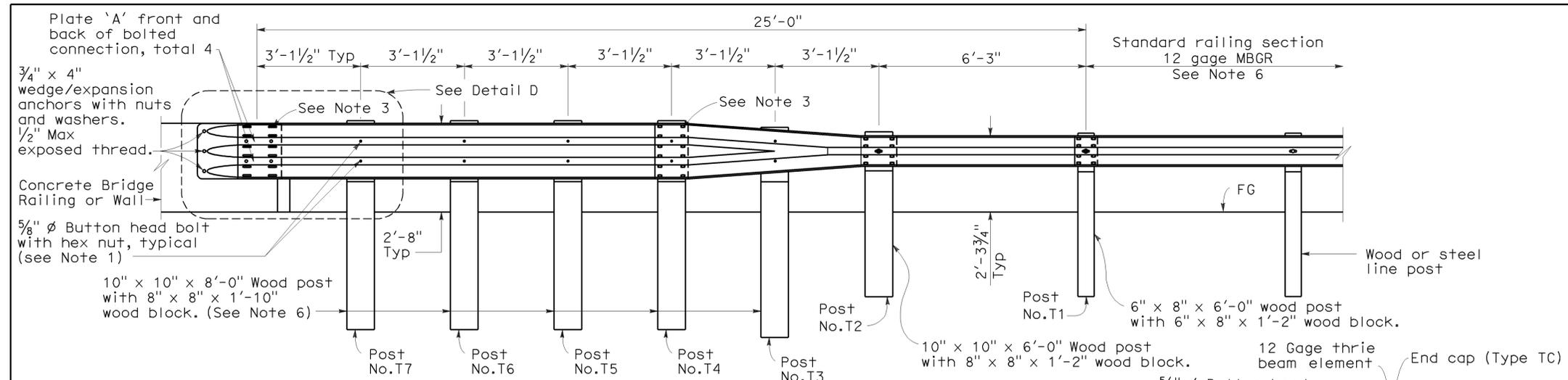
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	26	47

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 5, 2009
PLANS APPROVAL DATE

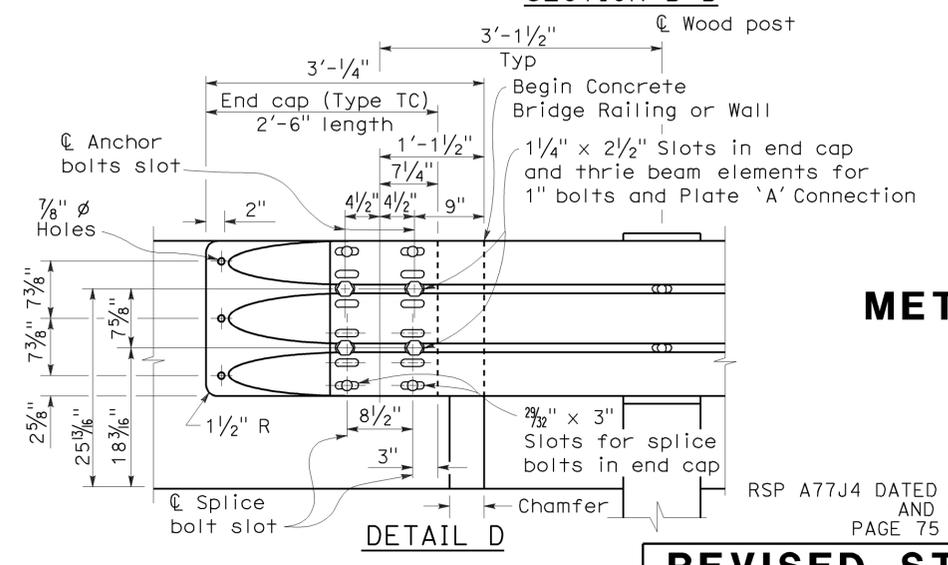
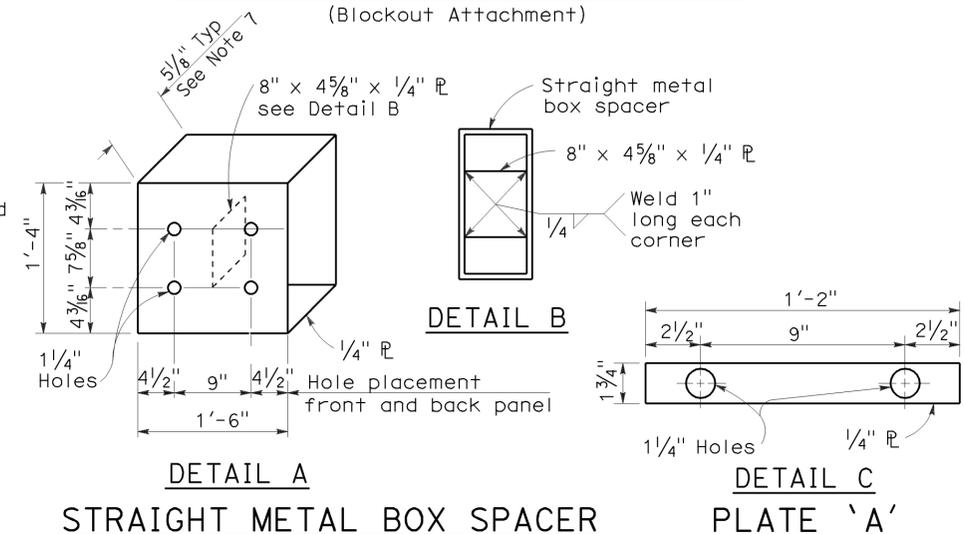
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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
STATE OF CALIFORNIA
CIVIL



- NOTES:** To accompany plans dated 3-29-10
- Use 5/8 " ϕ Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
 - The nested rail elements, end cap, and 'W' beam to thrie beam element may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
 - Exterior splice bolt holes for rail element splices at Post No.T4 and the connection to the concrete barrier or railing shall be the standard 29/32 " x 1 1/8 " slot size. Interior splice bolt holes at these locations may be increased up to 1 1/4 " ϕ . Only the top 2 and the bottom 2 splice bolts with washers and nuts are required for rail splices at Post No.T4 and the connection to the concrete barrier or railing.
 - Direction of adjacent traffic indicated by \rightarrow .
 - The top elevation of Post Nos.T2 through T7 shall not project more than 1" above the top elevation of the rail element.
 - Typically, the railing connected to Transition Railing (Type WB) will be either standard railing section of metal beam guard railing or an approved Caltrans end treatment attached to Post No.T1.
 - The depth of the metal box spacer varies from the 5 1/8 " to 1 1/2 " and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 17 1/8 ". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1 1/2 ", metal plates similar to Plate 'A' are to be used as spacers.
 - Where the width of the concrete railing or wall is greater than 17 1/8 ", wood blocks are to be used to fill the space created between the backside of Posts No.4 through No.7 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
 - End cap may be installed over 12 gage and 10 gage thrie beam elements where transition railing is installed on the departure end of bridge railing.

- LEGEND**
- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
 - (B) One 10 gage "W" beam to thrie beam element.
 - (C) One 12 gage thrie beam element.
 - (D) One 10 gage "W" beam rail element (7'-3 1/2" length)
- 10 gage = 0.135" thick
12 gage = 0.108" thick



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TRANSITION RAILING (TYPE WB)

NO SCALE

RSP A77J4 DATED JUNE 5, 2009 SUPERSEDES RSP A77J4 DATED JUNE 6, 2008 AND STANDARD PLAN A77J4 DATED MAY 1, 2006 - PAGE 75 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77J4

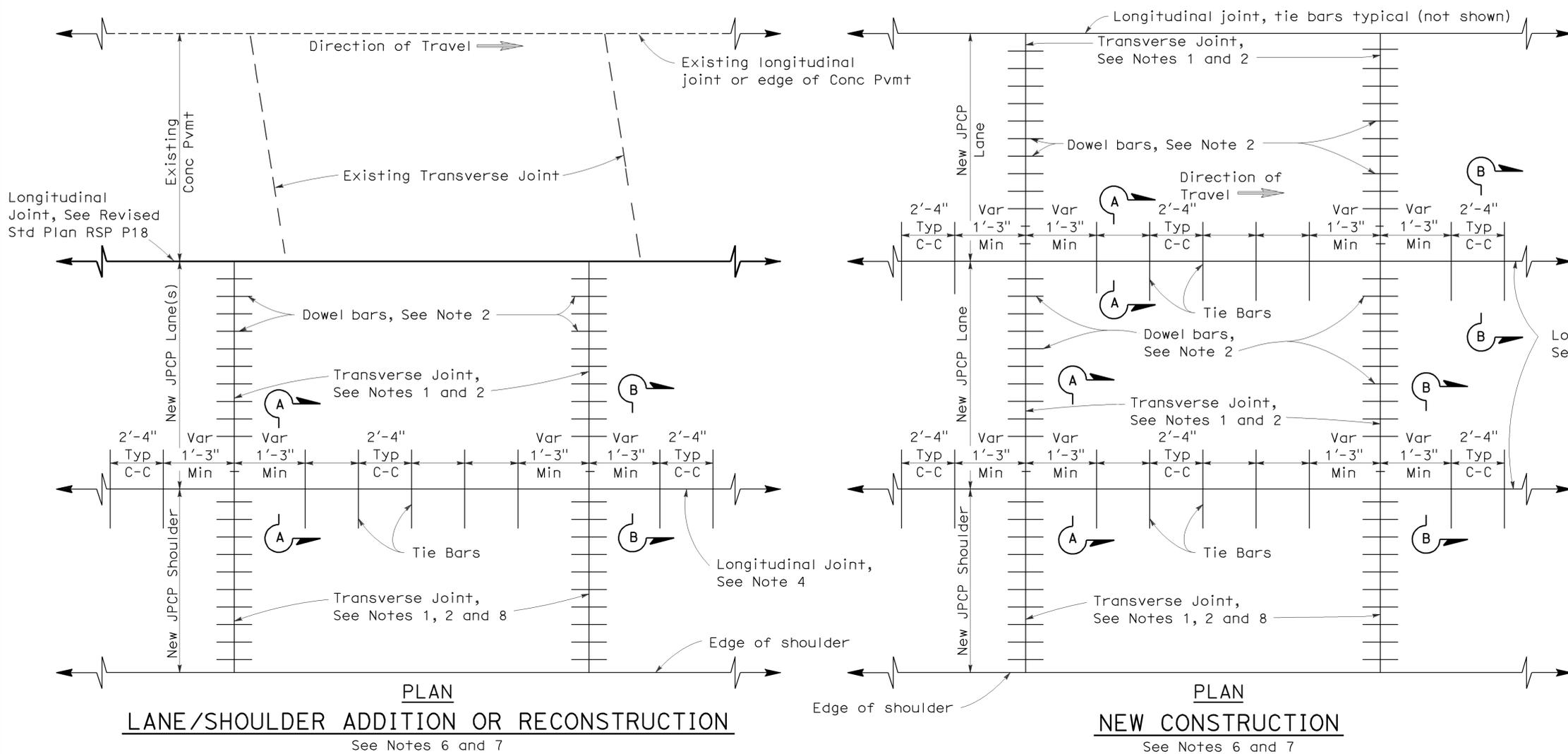
2006 REVISED STANDARD PLAN RSP A77J4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	27	47

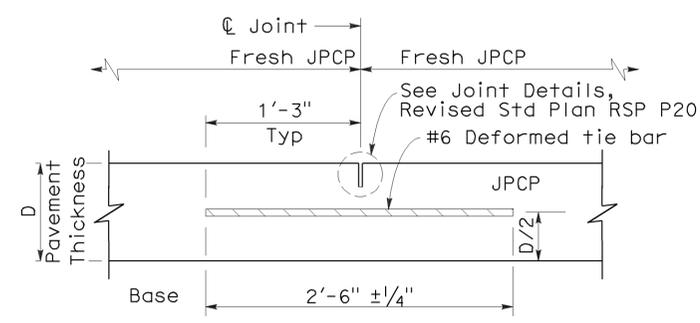
William K. Farnbach
 REGISTERED CIVIL ENGINEER
 May 15, 2009
 PLANS APPROVAL DATE
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2006 REVISED STANDARD PLAN RSP P1

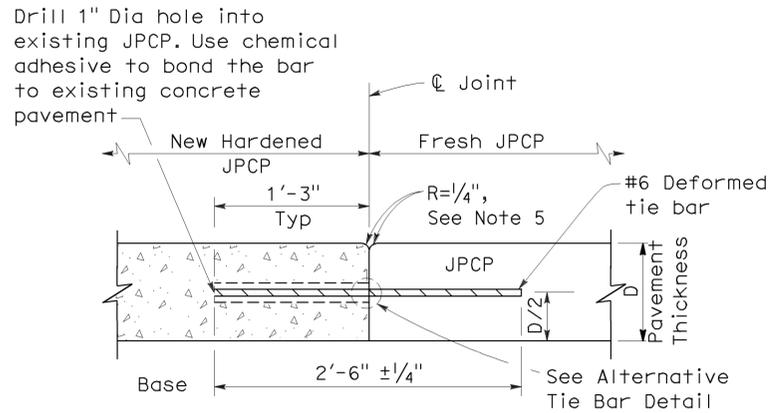
To accompany plans dated 3-29-10



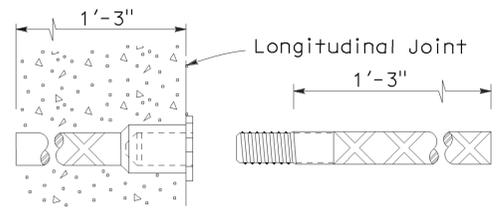
- NOTES:**
1. Transverse joints shall be constructed at right angles to the longitudinal pavement joints in new jointed plain concrete pavement and spaced at successive repeated intervals of 12', 15', 13' and 14'.
 2. For transverse joint and dowel bar details not shown, See Revised Standard Plan RSP P10.
 3. Construct longitudinal contraction joints as shown in Section A-A when more than one lane or shoulder widths are placed at one time. If constructing one lane at a time, use longitudinal construction joint, as shown in Section B-B.
 4. For additional longitudinal joint details, see Revised Standard Plan RSP P18.
 5. If fresh concrete is placed adjacent to existing concrete, the top corner of the new hardened concrete does not need to be rounded to the 1/4" radius as shown.
 6. Joint spacing patterns do not apply to intersections.
 7. Details can also apply to inside widening.
 8. Dowel bars may be omitted from shoulders when the shoulder cross slope is not the same as the adjacent traffic lane.



SECTION A-A
LONGITUDINAL CONTRACTION JOINT



SECTION B-B
LONGITUDINAL CONSTRUCTION JOINT



ALTERNATIVE TIE BAR SPLICE DETAIL
(Splice Coupler)

TIE BAR DETAILS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**JOINTED PLAIN
CONCRETE PAVEMENT**

NO SCALE

RSP P1 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P1
DATED MAY 1, 2006 - PAGE 119 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P1

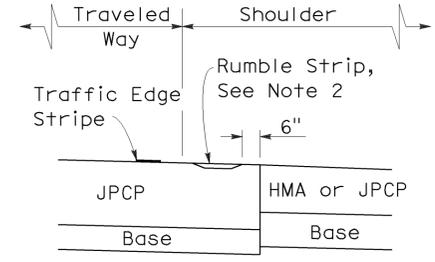
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	28	47

William K. Farnbach
 REGISTERED CIVIL ENGINEER
 June 5, 2009
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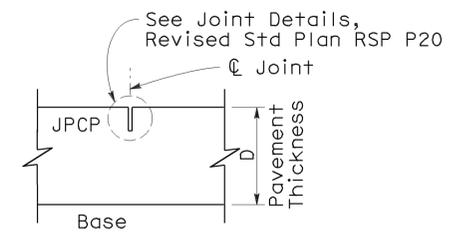
REGISTERED PROFESSIONAL ENGINEER
 William K. Farnbach
 No. C49042
 Exp. 9-30-10
 CIVIL
 STATE OF CALIFORNIA

To accompany plans dated 3-29-10

- NOTES:**
- Transverse joints shall be constructed at right angles to the longitudinal pavement joints in new Jointed Plain Concrete Pavement and spaced at successive repeated intervals of 12', 15', 13' and 14'.
 - For locations of rumble strips, see project plans. For rumble strip details not shown, see Standard Plans A40A and A40B.
 - Joint spacing patterns do not apply to intersections.



DETAIL "A"



SECTION C-C
TRANSVERSE/LONGITUDINAL JOINT

(no dowel bars/tie bars)

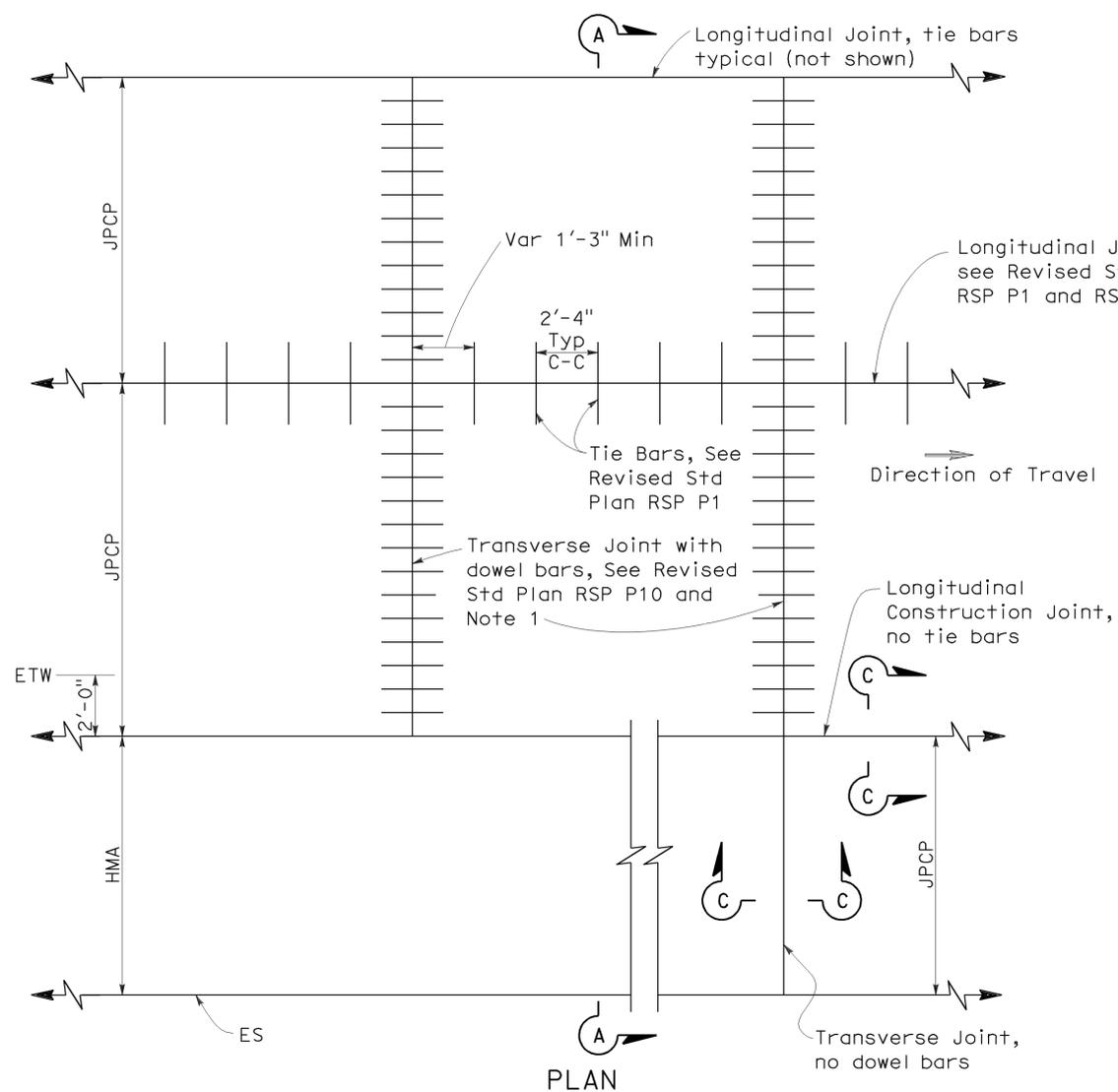
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINTED PLAIN CONCRETE PAVEMENT-WIDENED SLAB DETAILS

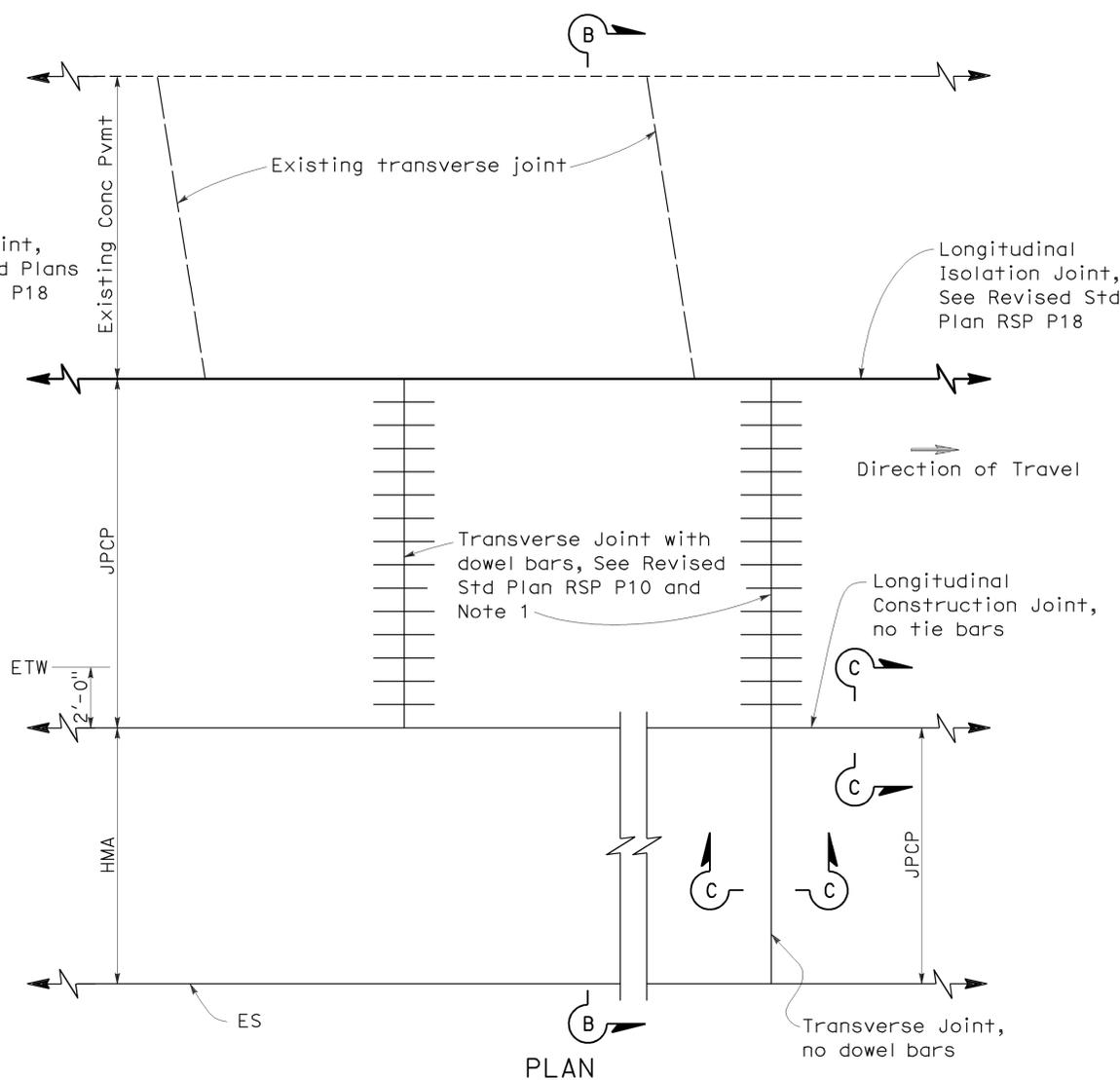
NO SCALE

RSP P2 DATED JUNE 5, 2009 SUPERCEDES STANDARD PLAN P2
DATED MAY 1, 2006 - PAGE 120 OF THE STANDARD PLANS BOOK DATED MAY 2006.

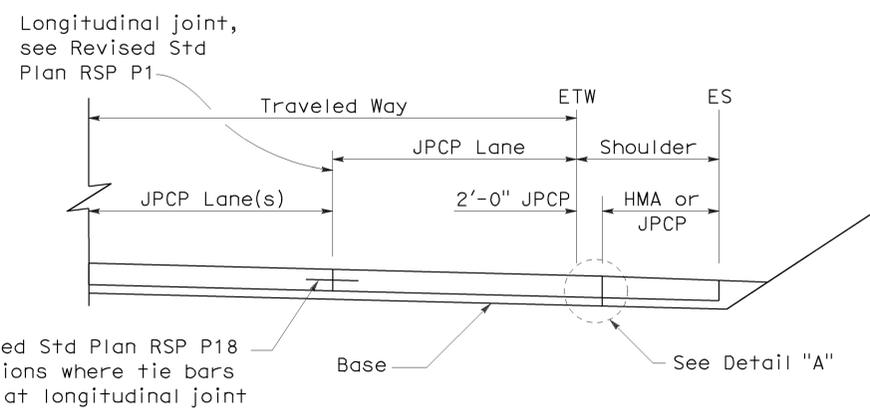
REVISED STANDARD PLAN RSP P2



PLAN
NEW CONSTRUCTION



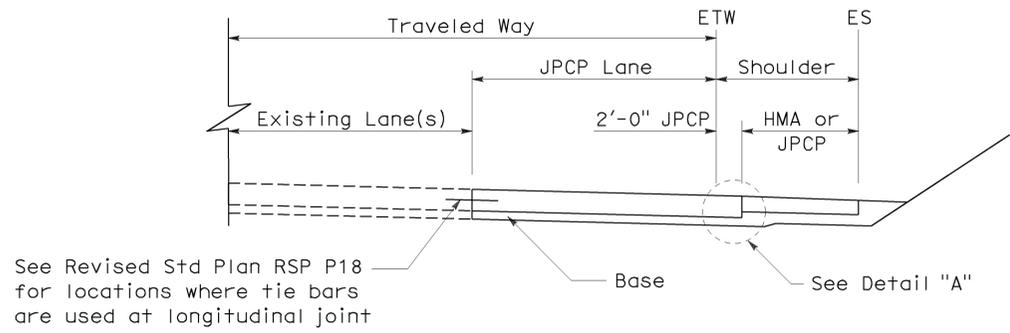
PLAN
LANE/SHOULDER ADDITION OR RECONSTRUCTION



SECTION A-A

See Revised Std Plan RSP P18 for locations where tie bars are used at longitudinal joint

See Detail "A"



SECTION B-B

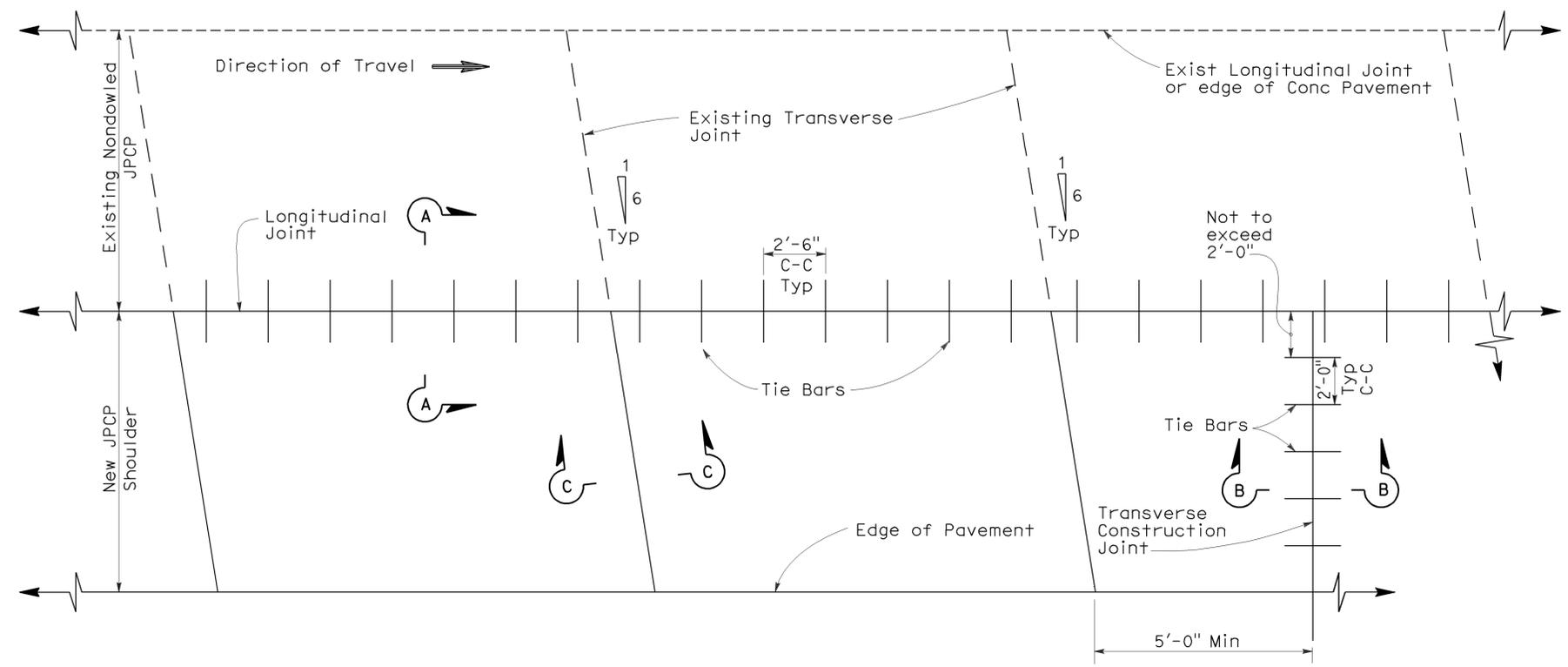
See Revised Std Plan RSP P18 for locations where tie bars are used at longitudinal joint

See Detail "A"

2006 REVISED STANDARD PLAN RSP P2

To accompany plans dated 3-29-10

2006 REVISED STANDARD PLAN RSP P3



PLAN

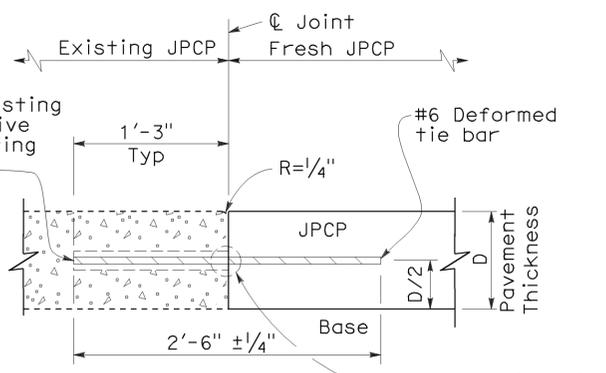
NOTES:

1. New transverse contraction joints shall match the skewed offset and spacing of the adjacent existing contraction joints, as shown.
2. Transverse construction joints, with tie bars spaced as shown, shall be installed at the end of paving operations. Transverse construction joints shall be placed at least 5'-0" from any contraction joint.
3. This Standard Plan only applicable for constructing a nondoweled Jointed Plain Concrete Pavement shoulder next to existing nondoweled Jointed Plain Concrete Pavement lane.
4. If fresh concrete is placed adjacent to existing concrete, the top corner of the new hardened concrete does not need to be rounded to the 1/4" radius as shown.

TABLE A

Tie Bar Spacing		
Slab Length	Total Tie Bars per Slab	Clearance Tie Bar to Transverse Joint
9'-0"	3	1'-3"
9'-6"	3	1'-4 1/2"
12'-0"	5	1'-4"
13'-0"	5	1'-10"
14'-0"	5	2'-3 3/4"
15'-0"	6	1'-8"

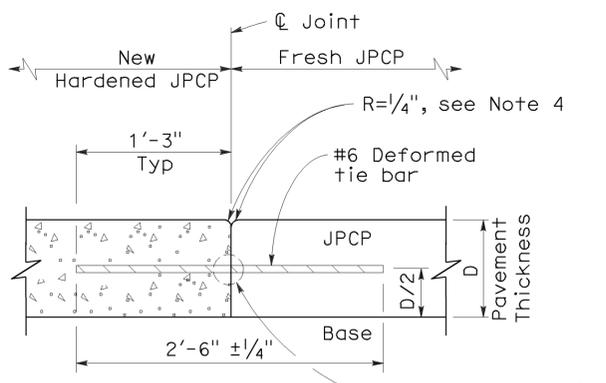
Drill 1" Dia hole into existing JPCP. Use chemical adhesive to bond tie bar to existing concrete pavement.



SECTION A-A

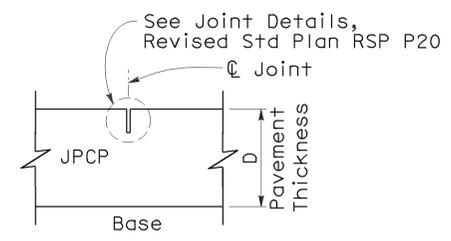
LONGITUDINAL JOINT

(Between fresh and hardened concrete)



SECTION B-B

TRANSVERSE CONSTRUCTION JOINT



SECTION C-C

TRANSVERSE CONTRACTION JOINT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINTED PLAIN CONCRETE PAVEMENT-NONDOWELED SHOULDER ADDITION/RECONSTRUCTION

NO SCALE

RSP P3 DATED MAY 15, 2009 SUPERSEDES RSP P3 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P3 DATED MAY 1, 2006 - PAGE 121 OF THE STANDARD PLANS BOOK DATED MAY 2006.

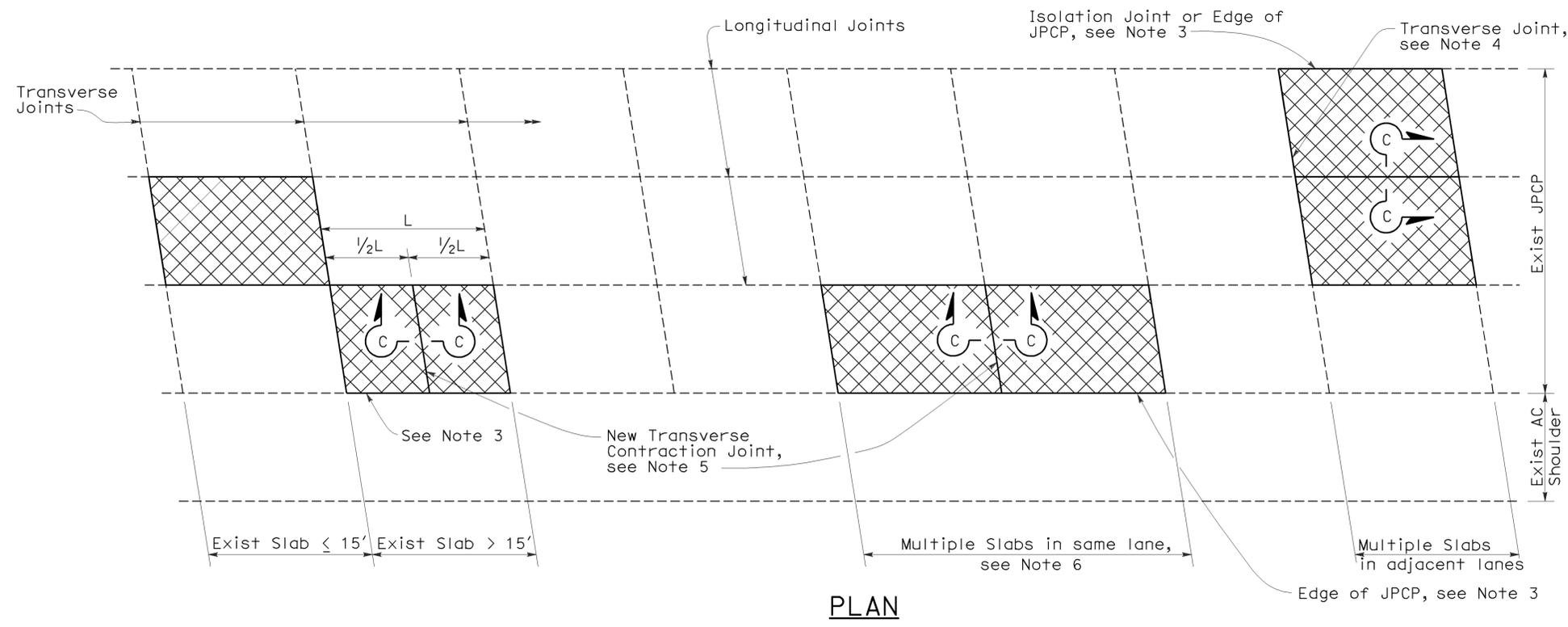
REVISED STANDARD PLAN RSP P3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	30	47

William K. Farnbach
 REGISTERED CIVIL ENGINEER
 May 15, 2009
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 William K. Farnbach
 No. C49042
 Exp. 9-30-10
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 STATE OF CALIFORNIA

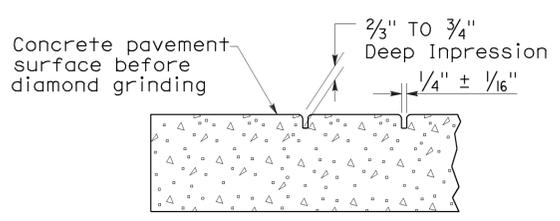
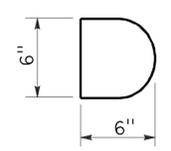
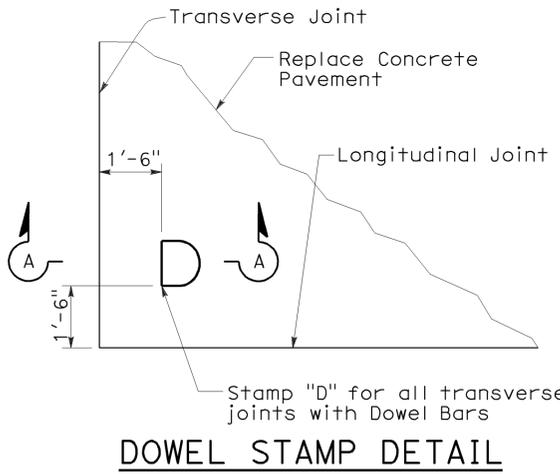
To accompany plans dated 3-29-10



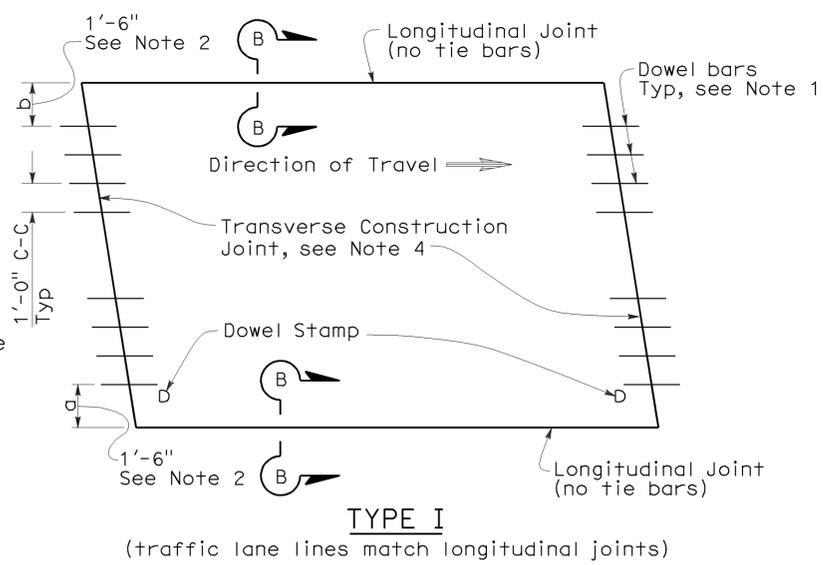
NOTES:

- For details not shown, see Revised Standard Plan RSP P10.
- Where the existing outer shoulder pavement is asphalt concrete pavement, the "a" dimension shall be 1'-0" and the "b" dimension shall be 2'-0".
- Side forms shall be used where edge of pavement is adjacent to asphalt concrete.
- For detail, see Transverse Construction Joint for existing concrete pavement detail on Revised Standard Plan RSP P10.
- Transverse joint to match skew of existing joint. Omit dowel bars.
- This Standard Plan only applicable when replacing multiple slabs in the same lane is less than 100'.

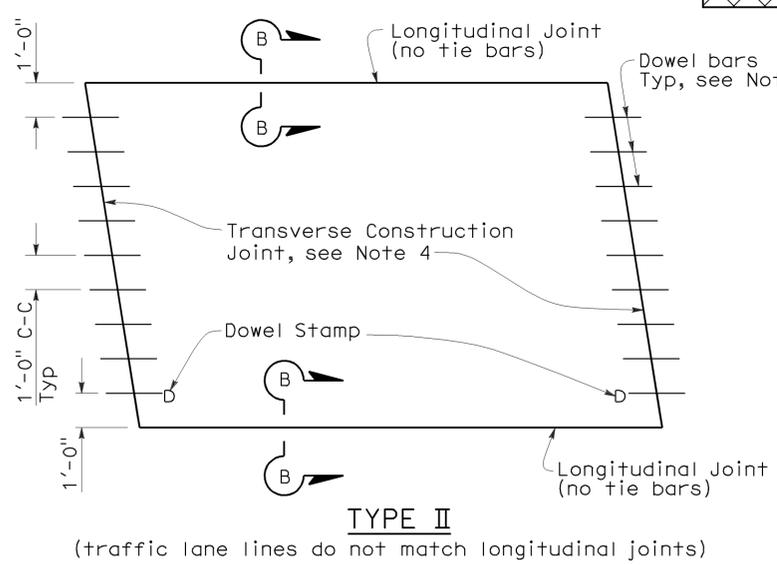
LEGEND



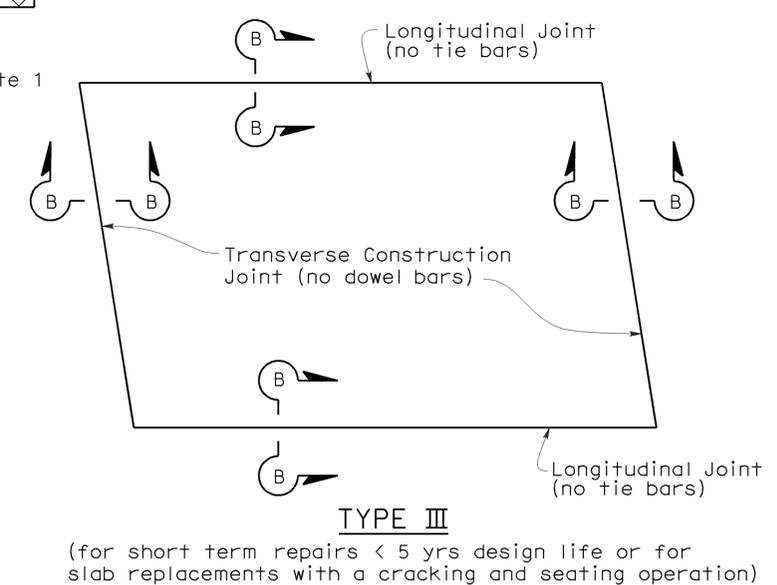
SECTION A-A



TYPE I
(traffic lane lines match longitudinal joints)

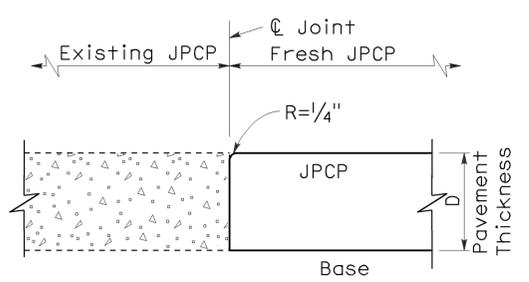


TYPE II
(traffic lane lines do not match longitudinal joints)

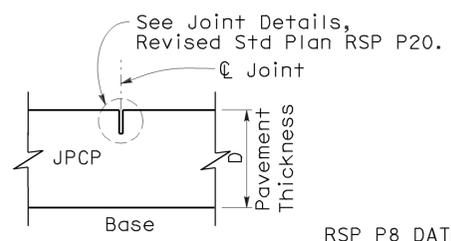


TYPE III
(for short term repairs < 5 yrs design life or for slab replacements with a cracking and seating operation)

SLAB LAYOUT



SECTION B-B



SECTION C-C

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINTED PLAIN CONCRETE PAVEMENT-INDIVIDUAL SLAB REPLACEMENT

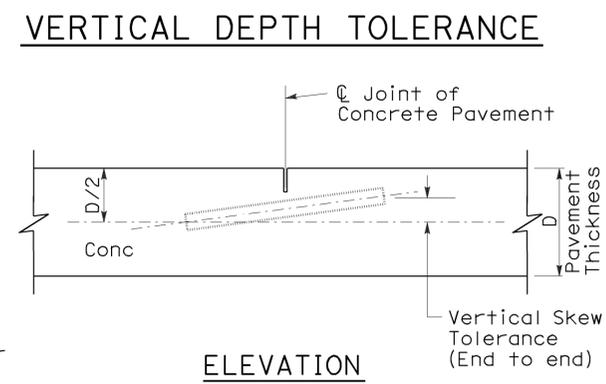
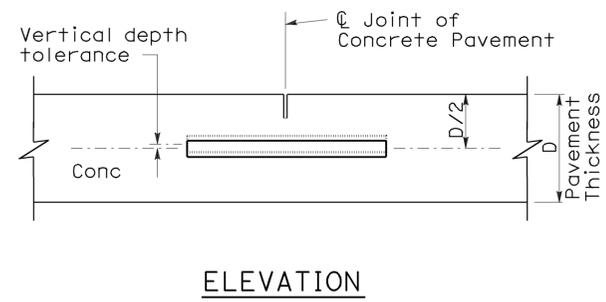
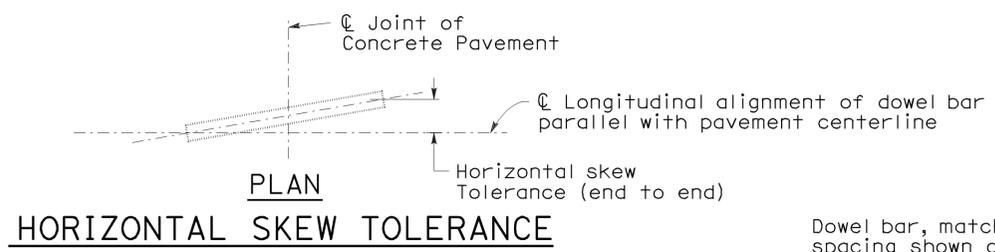
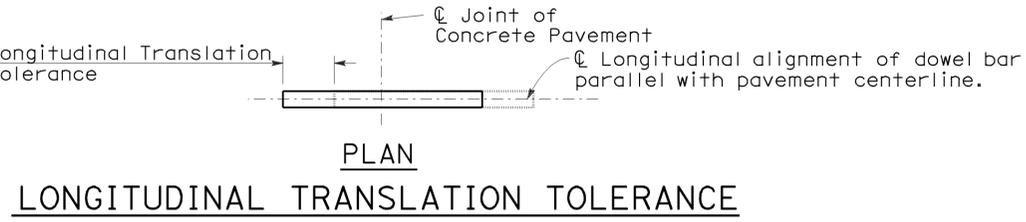
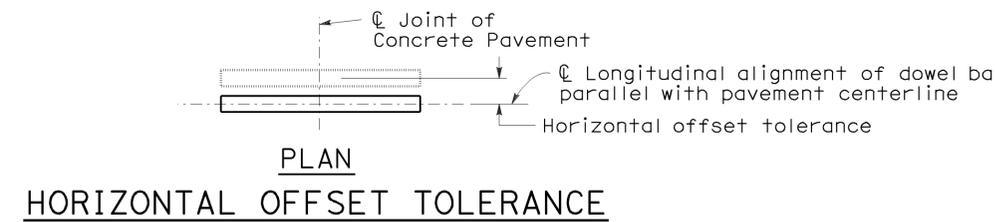
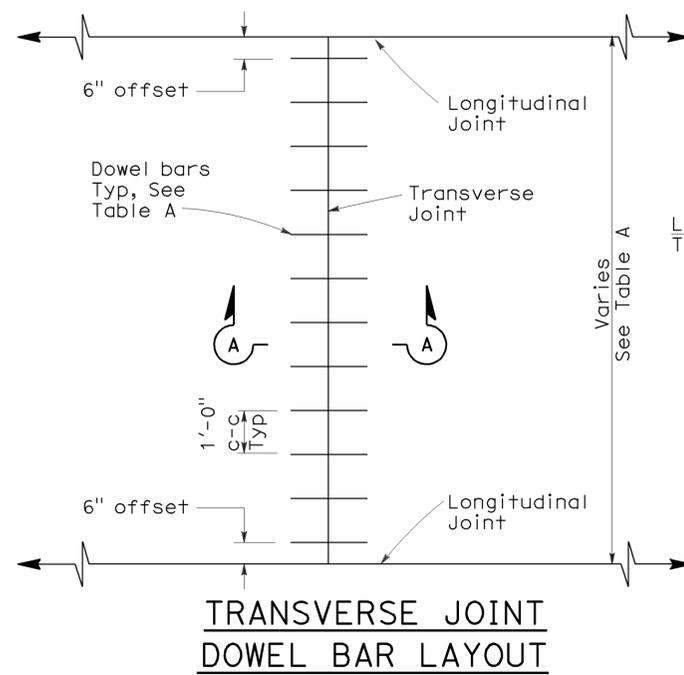
NO SCALE

RSP P8 DATED MAY 15, 2009 SUPERSEDES RSP P8 DATED SEPTEMBER 1, 2006 AND STANDARD PLAN P8 DATED MAY 1, 2006 - PAGE 123 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P8

2006 REVISED STANDARD PLAN RSP P8

123



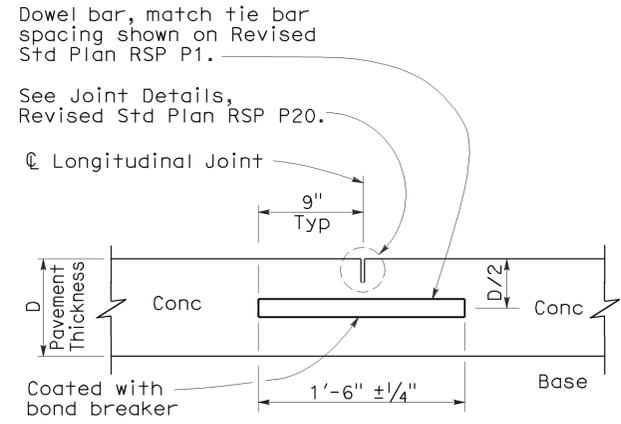
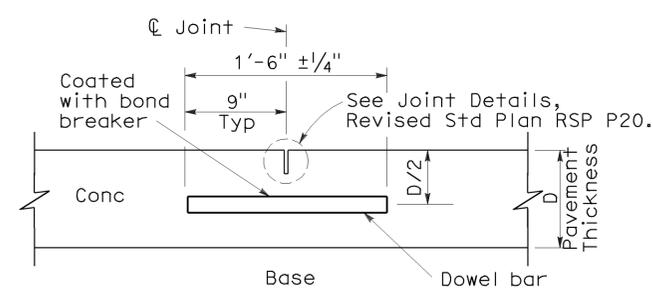
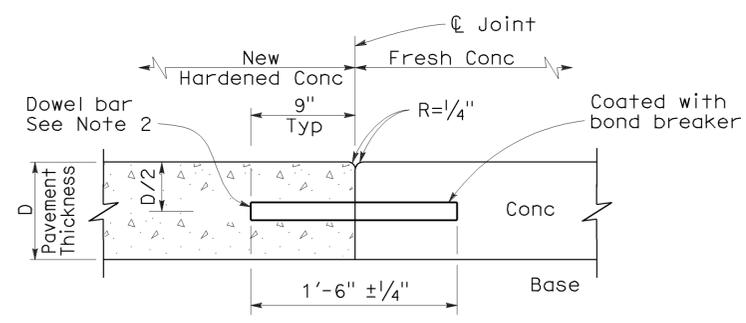
To accompany plans dated 3-29-10

- NOTES:**
- See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
 - 1 1/2" Dia smooth dowel bars are to be used with a pavement thickness, D, equal to or greater than 0.70 feet. For pavement thickness, D, less than 0.70 feet, use 1 1/4" Dia smooth dowel bars.
 - For widths not shown, see Project Plans.
 - If fresh concrete pavement is placed adjacent to existing concrete pavement, the top corner of the existing concrete pavement does not need to be rounded to the 1/4" radius, as shown.

TABLE A (See Note 3)

Dowel Bar Transverse Spacing Table

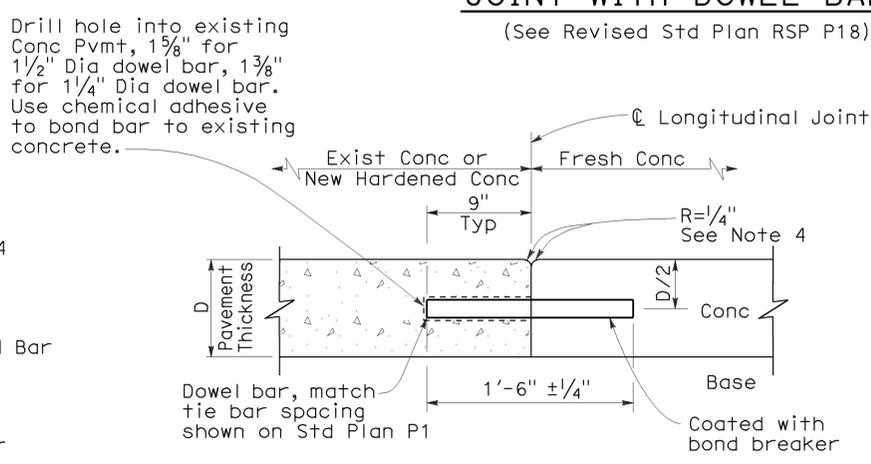
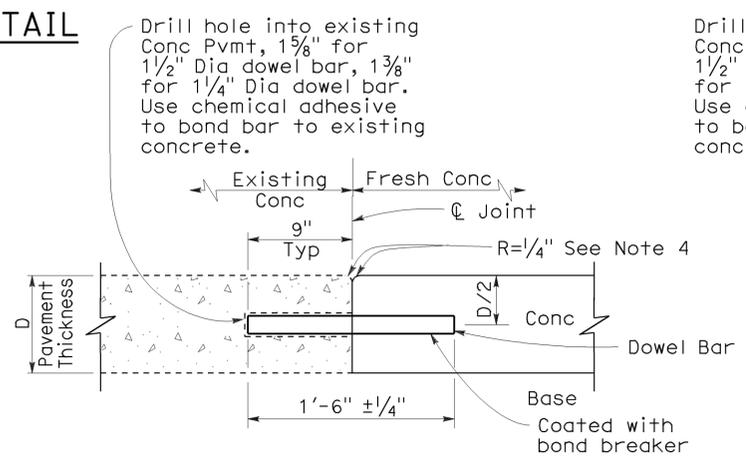
Width between Longitudinal Joints	Number of Dowels between Longitudinal Joints
14'-0"	14
13'-0"	13
12'-0"	12
11'-0"	11
10'-0"	10
8'-0"	8
5'-0"	5
4'-0"	4



SECTION A-A
TRANSVERSE
CONSTRUCTION JOINT DETAIL

TRANSVERSE CONTRACTION JOINT

LONGITUDINAL CONTRACTION
JOINT WITH DOWEL BARS
(See Revised Std Plan RSP P18)



TRANSVERSE CONSTRUCTION JOINT
FOR EXISTING CONCRETE PAVEMENT
(Drill and bond locations)

LONGITUDINAL CONSTRUCTION JOINT
WITH DOWEL BARS
(See Revised Std Plan RSP P18)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT-
DOWEL BAR
DETAILS**
NO SCALE

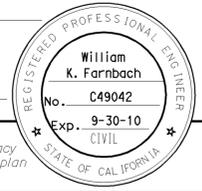
RSP P10 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P10
DATED MAY 1, 2006 - PAGE 124 OF THE STANDARD PLANS BOOK DATED MAY 2006.

124

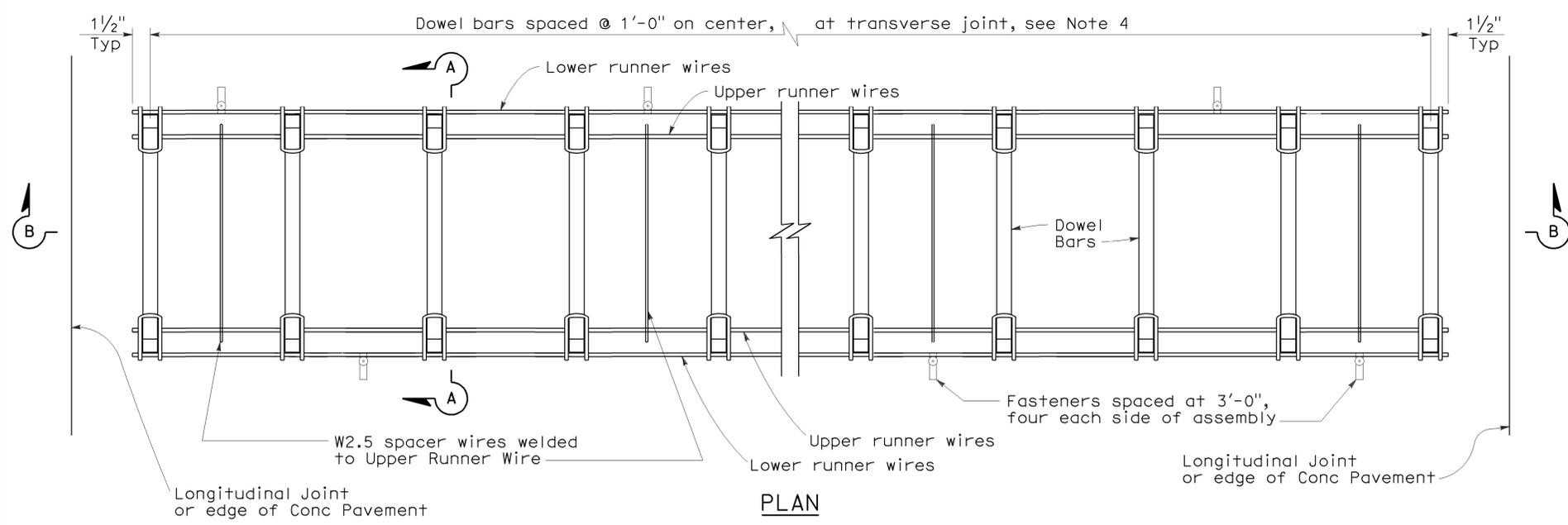
2006 REVISED STANDARD PLAN RSP P10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	32	47

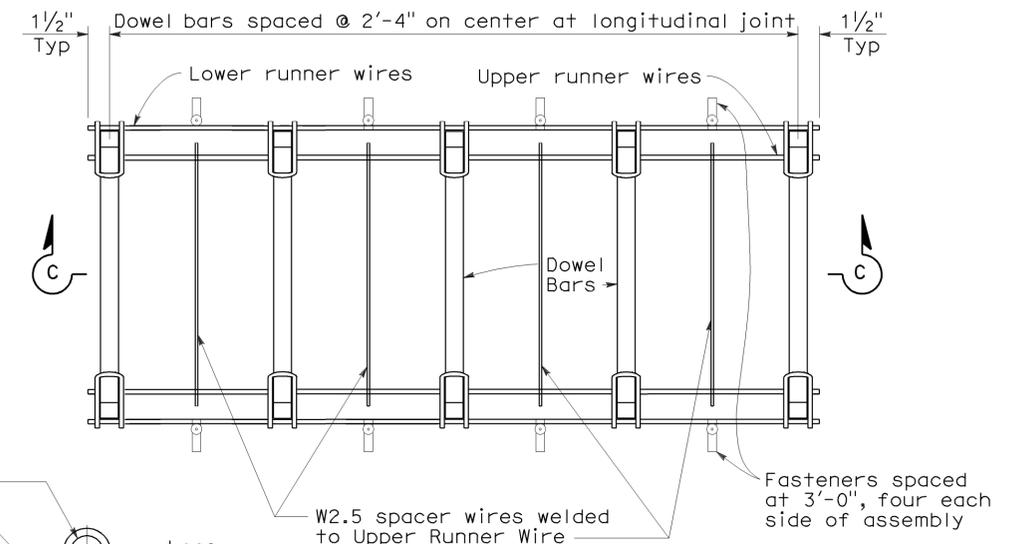
William K. Farnbach
 REGISTERED CIVIL ENGINEER
 May 15, 2009
 PLANS APPROVAL DATE
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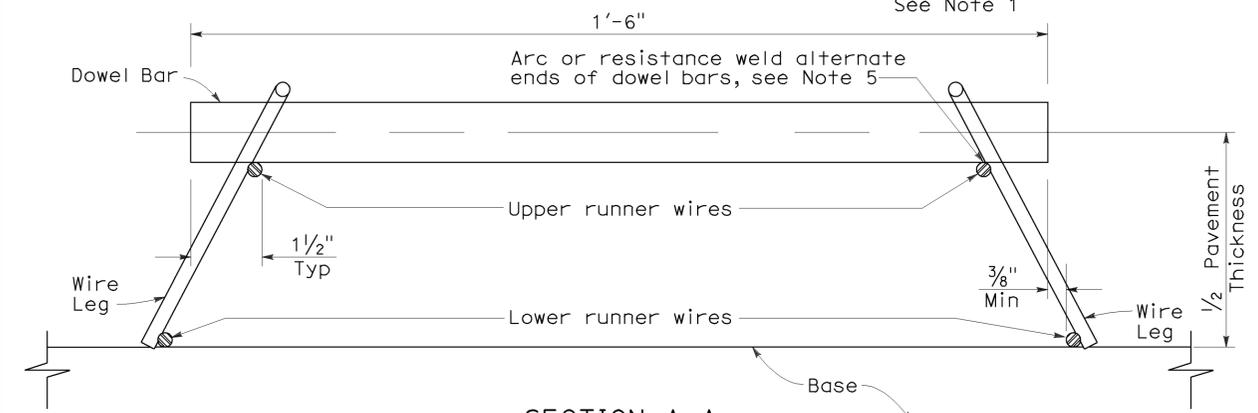
To accompany plans dated 3-29-10



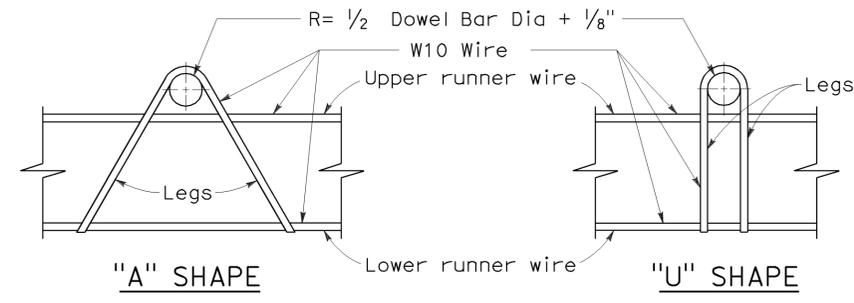
**PLAN
DOWEL BAR BASKET
(TRANSVERSE JOINT)**
See Note 1



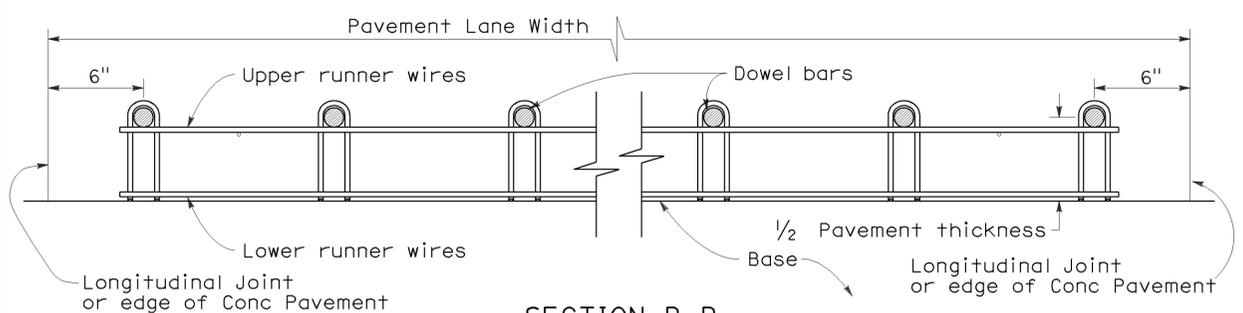
**PLAN
DOWEL BAR BASKET
(LONGITUDINAL JOINT)**
See Note 1



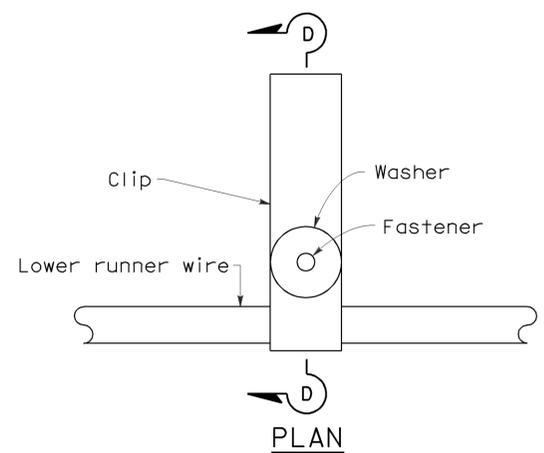
SECTION A-A



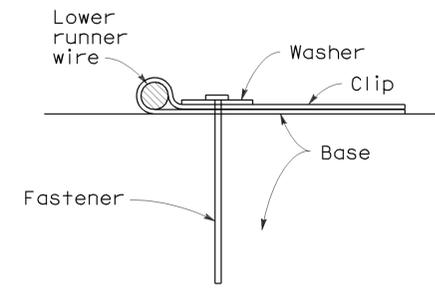
ASSEMBLY FRAME DETAILS



SECTION B-B
See Note 1



FASTENER DETAIL



SECTION D-D

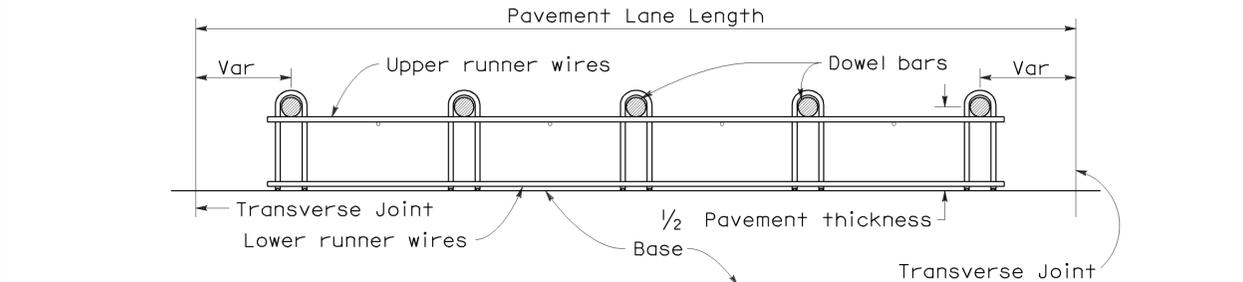
NOTES:

- "U" frame shape assembly shown. "U" frame shape or "A" frame shape are acceptable.
- Wire sizes shown are minimum required.
- All wire intersections are to be resistance welded.
- Use tie bar spacing for longitudinal dowel bar locations. See Revised Std Plans RSPs P1, P2, and P3 for tie bar requirements.
- Weld may be at top or bottom of dowel bar.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**CONCRETE PAVEMENT-
DOWEL BAR BASKET
DETAILS**

NO SCALE



SECTION C-C
See Notes 1 and 4

RSP P12 DATED MAY 15, 2009 SUPERSEDES RSP P12 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P12 DATED MAY 1, 2006 - PAGE 125 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P12

2006 REVISED STANDARD PLAN RSP P12

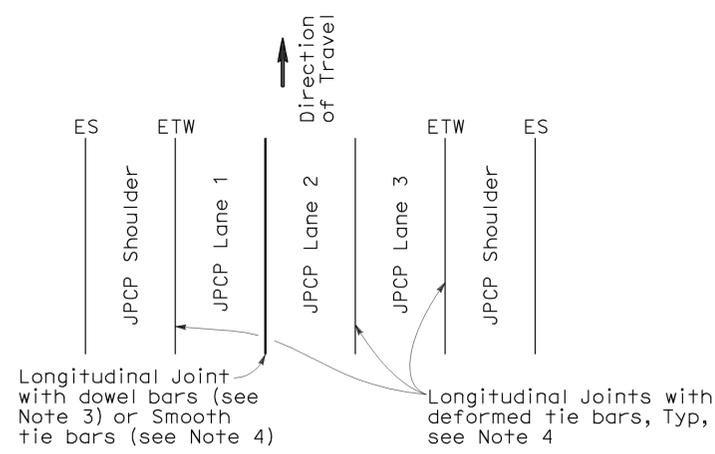
125

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	33	47

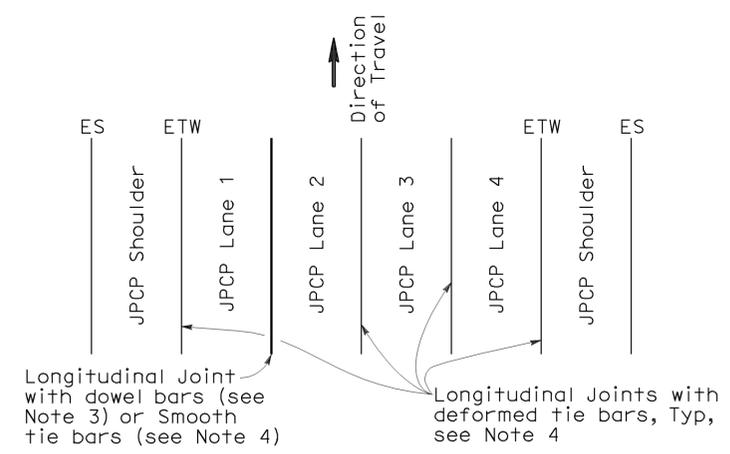
William K. Farnbach
 REGISTERED CIVIL ENGINEER
 June 5, 2009
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 William K. Farnbach
 No. C49042
 Exp. 9-30-10
 CIVIL
 STATE OF CALIFORNIA

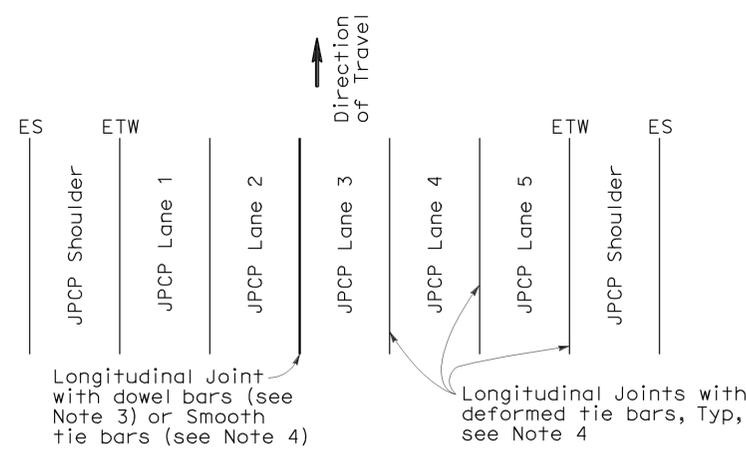
To accompany plans dated 3-29-10



3 LANES WITH TIED CONCRETE SHOULDERS
PLAN



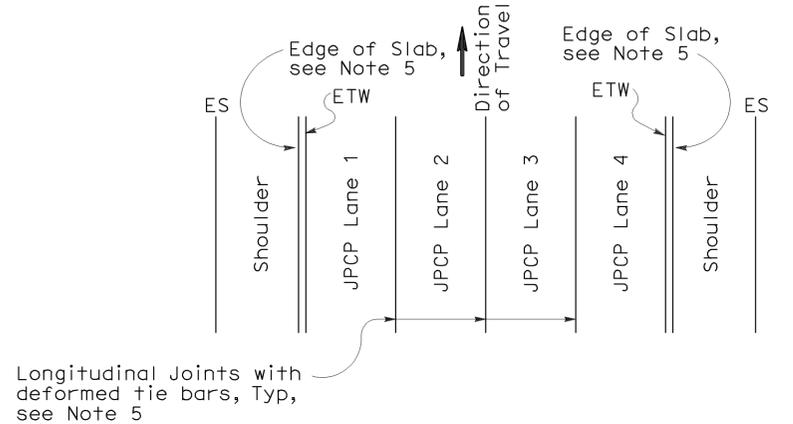
4 LANES WITH TIED CONCRETE SHOULDERS
PLAN



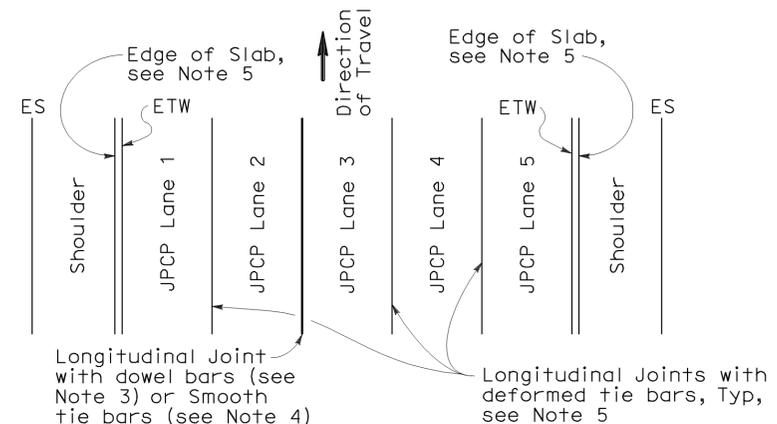
5 LANES WITH TIED CONCRETE SHOULDERS
PLAN

NOTES:

- Where Lean Concrete Base is not used as base material, the joint filler material used for the longitudinal isolation joint shall only extend to the bottom of the new concrete slab. See Detail A.
- Use $\frac{5}{8}'' \pm \frac{1}{16}''$ dimension for silicone sealant.
- See Revised Standard Plan RSP P10 for longitudinal joint with dowel bars.
- See Revised Standard Plan RSP P1.
- See Revised Standard Plan RSP P2.



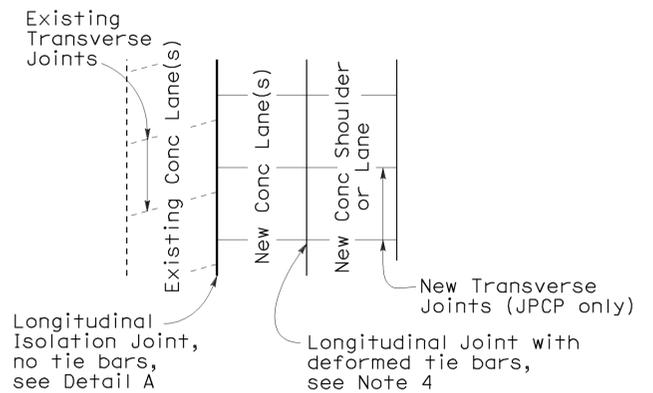
4 LANES OR LESS WITH WIDENED SLAB
PLAN



5 LANES WITH WIDENED SLAB
PLAN

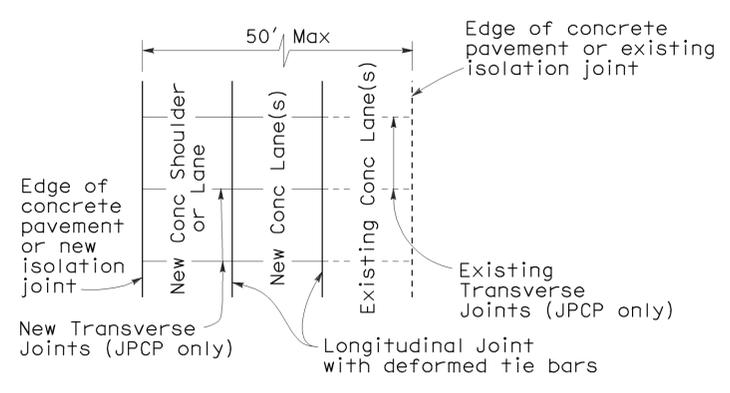
NEW CONSTRUCTION

Location of Longitudinal Joints (For JPCP)



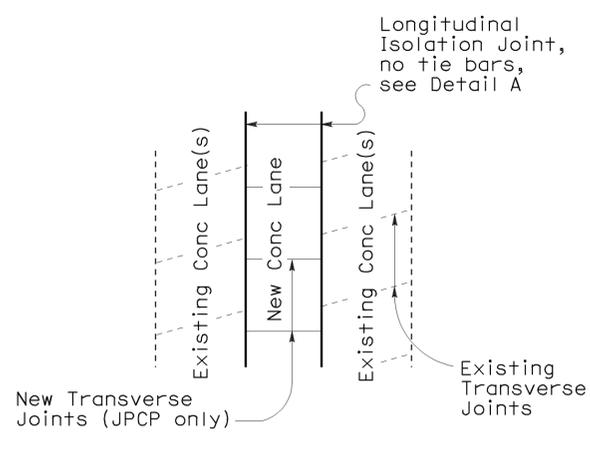
CASE 1
PLAN

Transverse Joints do not align between new and existing



CASE 2
PLAN

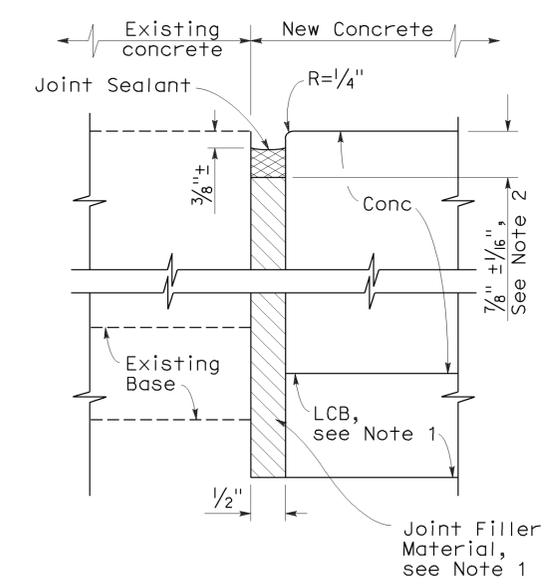
Transverse Joints align between new and existing



CASE 3 (INTERIOR LANE REPLACEMENT)
PLAN

Transverse Joints do not align between new and existing

LANE/SHOULDER ADDITION OR RECONSTRUCTION
(For JPCP and CRCP)



DETAIL A
ISOLATION JOINT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CONCRETE PAVEMENT-LANE SCHEMATICS AND ISOLATION JOINT DETAIL

NO SCALE

RSP P18 DATED JUNE 5, 2009 SUPERSEDES RSP P18 DATED MAY 15, 2009, RSP P18 DATED NOVEMBER 17, 2006 AND STANDARD PLAN P18 DATED MAY 1, 2006 - PAGE 127 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P18

2006 REVISED STANDARD PLAN RSP P18

NOTE:

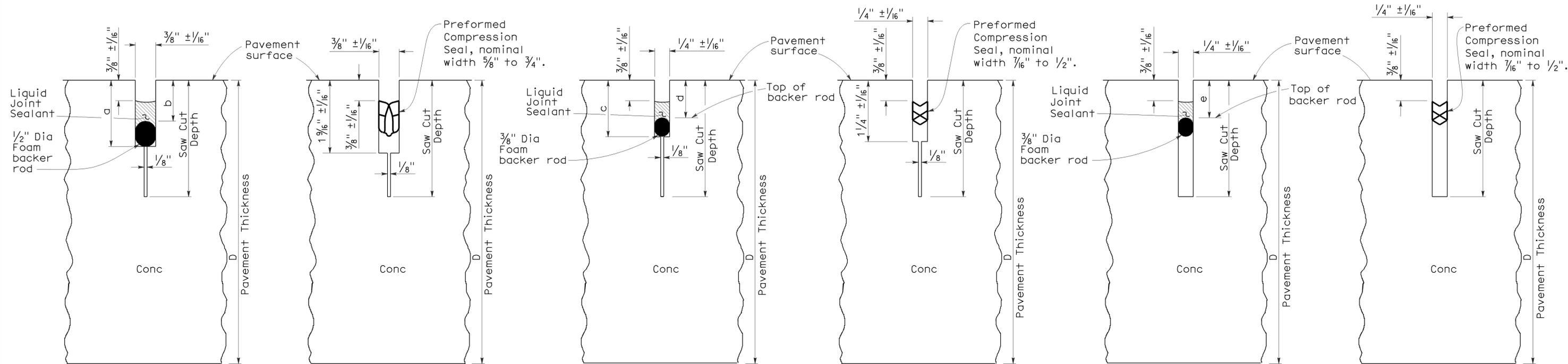
1. Tie bars, dowel bars, and reinforcement are not shown in joint seal details, see Revised Standard Plans RSP P1, RSP P3, RSP P10, RSP P35, RSP P45, or RSP P46 as applicable.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	34	47

William K. Farnbach
 REGISTERED CIVIL ENGINEER
 May 15, 2009
 PLANS APPROVAL DATE

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To accompany plans dated 3-29-10



LIQUID SEALANT COMPRESSION SEAL LIQUID SEALANT COMPRESSION SEAL LIQUID SEALANT COMPRESSION SEAL

TYPE A1

TYPE A2

TYPE B

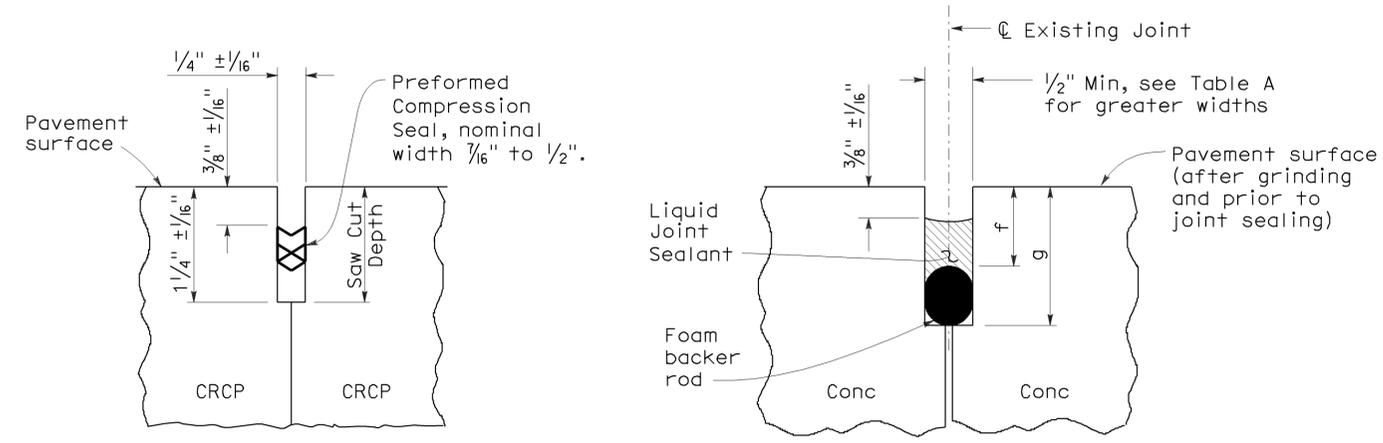
Transverse Contraction Joints Longitudinal Contraction Joints Longitudinal or Transverse Contraction Joint

LIQUID SEALANT RESERVOIR DEPTH

LIQUID SEALANT MATERIAL	3/8" Joint Width Type A1		1/4" Joint Width Type A2		1/4" Joint Width Type B
	DIMENSION		DIMENSION		DIMENSION
	a	b	c	d	e
SILICONE	1" ± 1/16"	5/8" ± 1/16"	15/16" ± 1/16"	9/16" ± 1/16"	9/16" ± 1/16"
ASPHALT RUBBER	1 3/16" ± 1/16"	3/4" ± 1/16"	1 1/16" ± 1/16"	11/16" ± 1/16"	11/16" ± 1/16"

TABLE A (TYPE R JOINT)

Sawn Joint Width	Backer Rod Diameter ± 1/16"	DIMENSION "f"	DIMENSION "g"
1"	1 5/16"	7/8"	2 1/4"
7/8"	1 3/16"	13/16"	2"
3/4"	1"	3/4"	1 3/4"
5/8"	7/8"	11/16"	1 1/2"
1/2"	11/16"	5/8"	1 1/4"



COMPRESSION SEAL

LIQUID SEALANT

TYPE C

TYPE R

Transverse and Longitudinal Construction Joints (For CRCP) Retrofit Transverse and Longitudinal Joints

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CONCRETE PAVEMENT-JOINT DETAILS

NO SCALE

RSP P20 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P20
DATED MAY 1, 2006 - PAGE 128 OF THE STANDARD PLANS BOOK DATED MAY 2006.

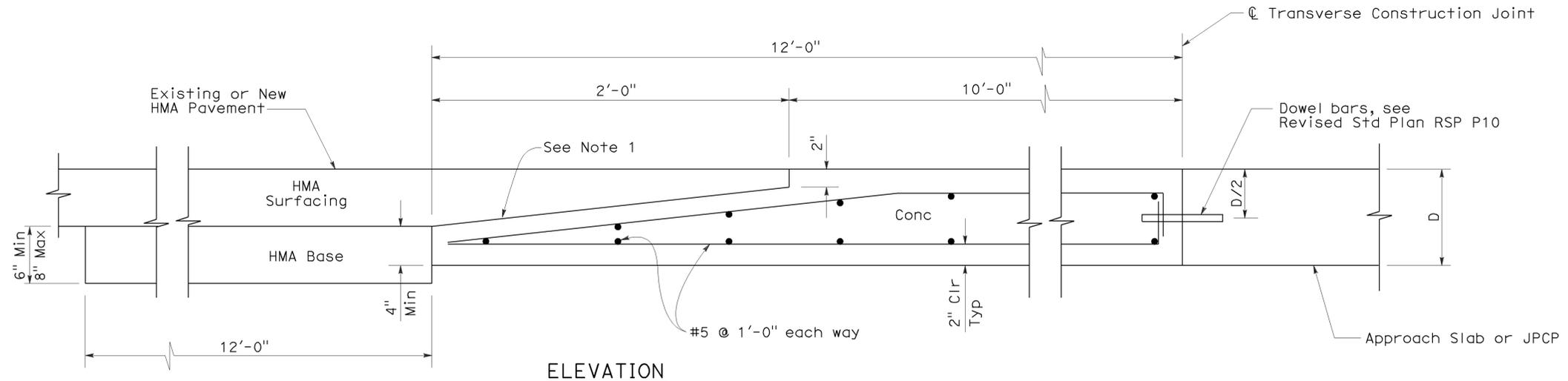
REVISED STANDARD PLAN RSP P20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	35	47

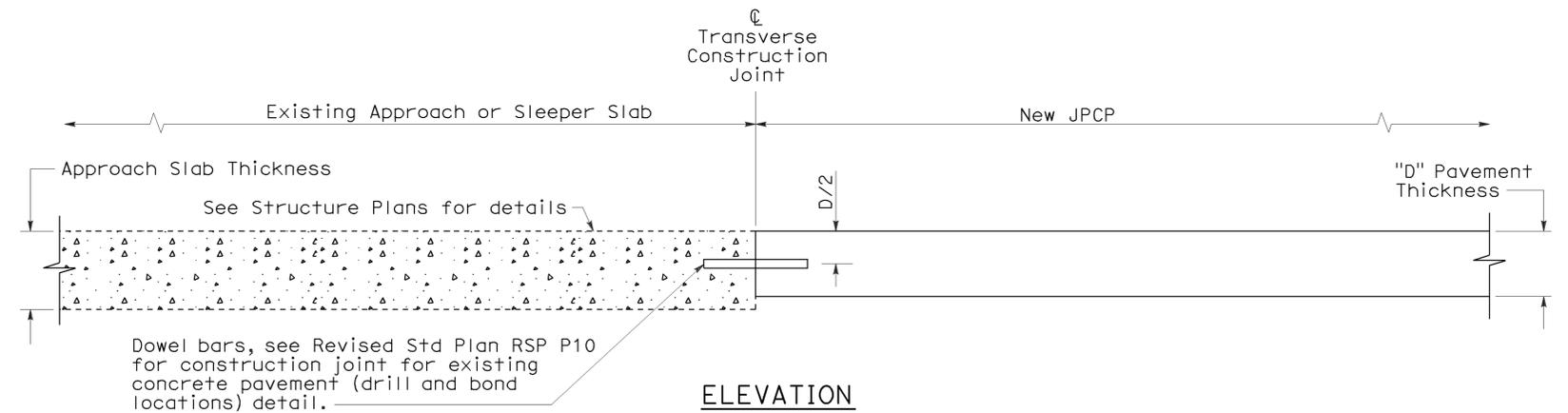
William K. Farnbach
 REGISTERED CIVIL ENGINEER
 May 15, 2009
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 William K. Farnbach
 No. C49042
 Exp. 9-30-10
 CIVIL
 STATE OF CALIFORNIA

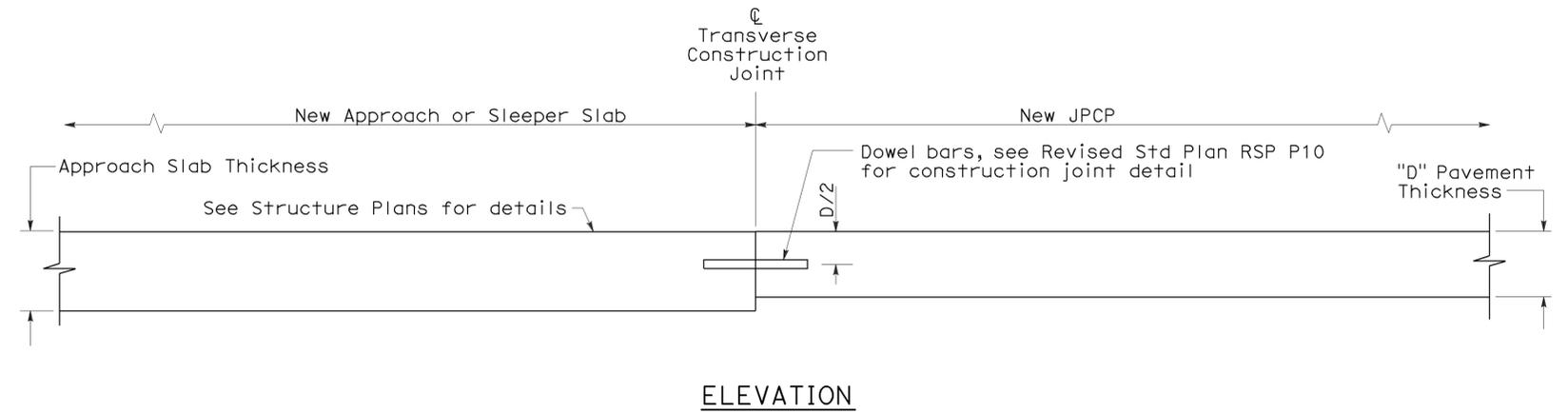
To accompany plans dated 3-29-10



CONCRETE PAVEMENT TO HOT MIXED ASPHALT PAVEMENT TRANSITION PANEL



PAVEMENT END ANCHOR



CONCRETE PAVEMENT TRANSITION TO APPROACH OR SLEEPER SLAB

NOTE:
1. Heavy broom finish.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**JOINTED PLAIN CONCRETE PAVEMENT-
END PANEL
PAVEMENT TRANSITIONS**
NO SCALE

RSP P30 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P30
DATED MAY 1, 2006 - PAGE 129 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P30

129

2006 REVISED STANDARD PLAN RSP P30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	36	47

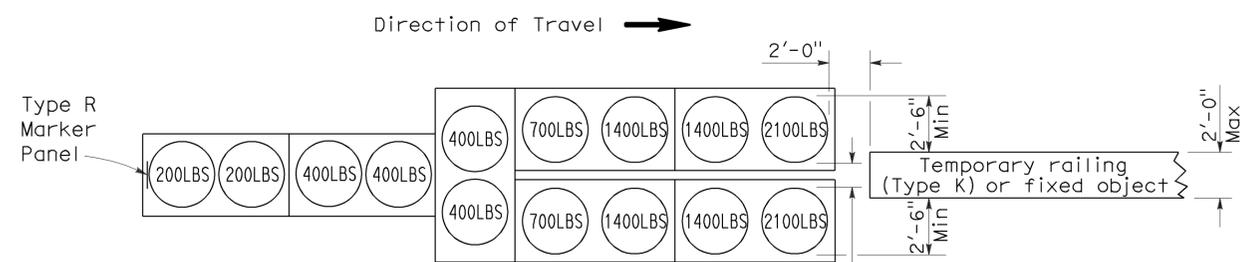
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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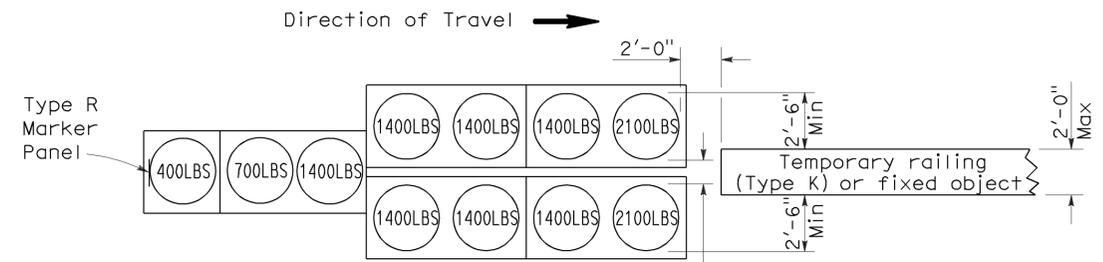
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 3-29-10



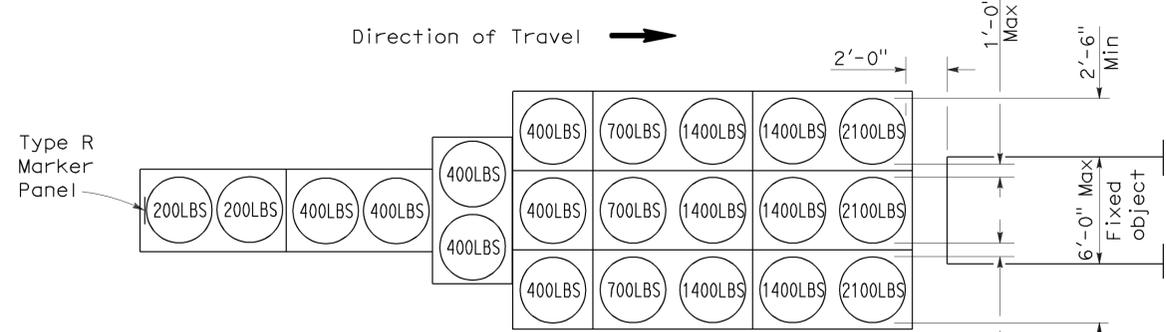
ARRAY 'TU14'

Approach speed 45 mph or more



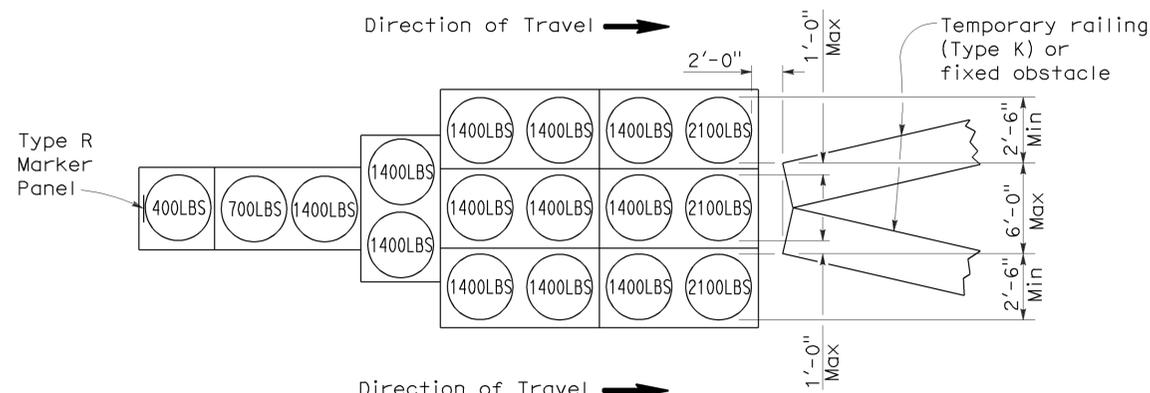
ARRAY 'TU11'

Approach speed less than 45 mph



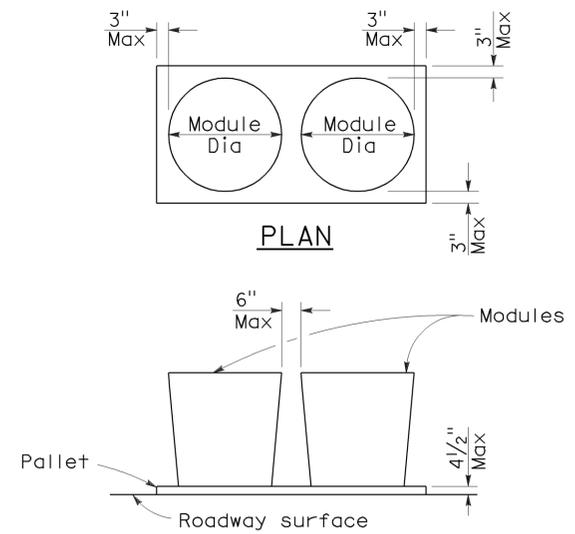
ARRAY 'TU21'

Approach speed 45 mph or more



ARRAY 'TU17'

Approach speed less than 45 mph



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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	37	47

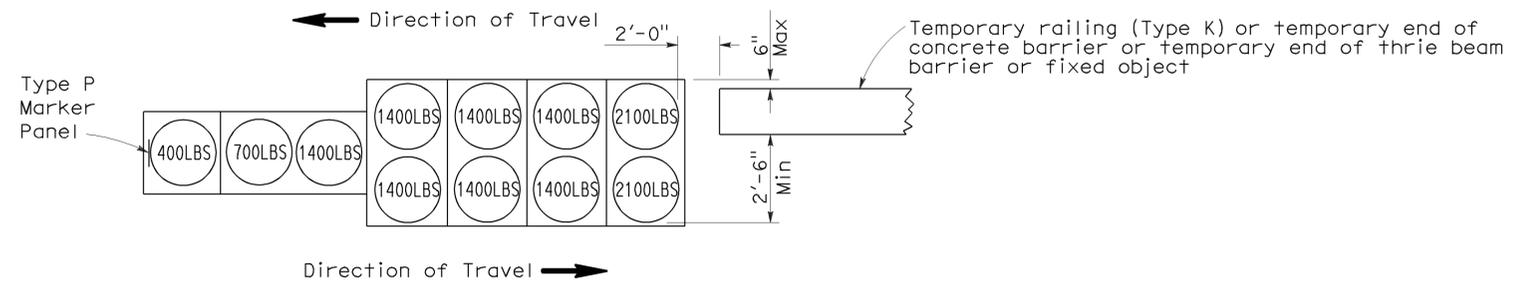
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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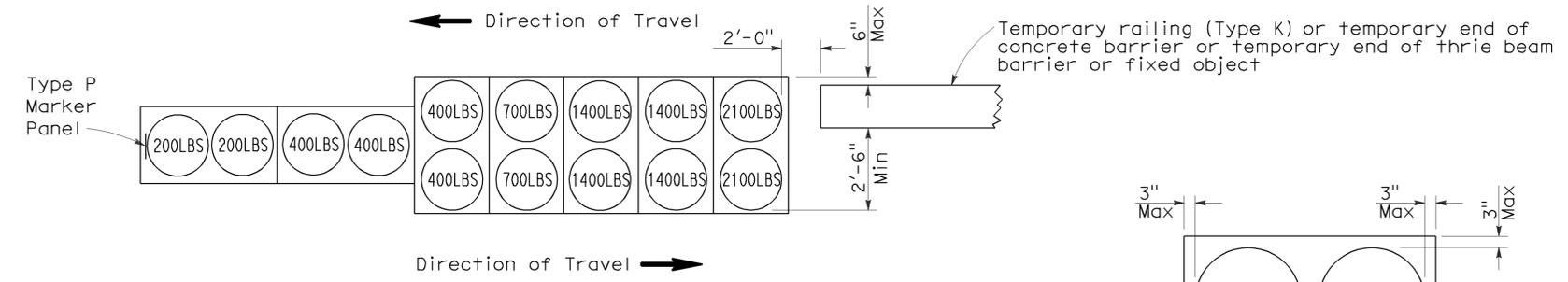
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 3-29-10



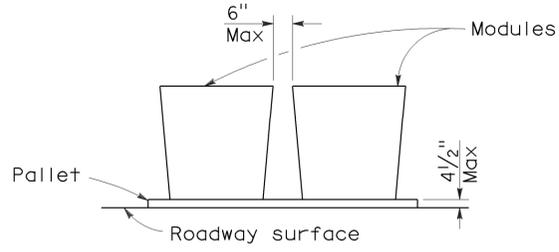
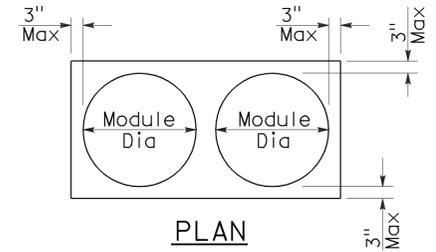
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



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

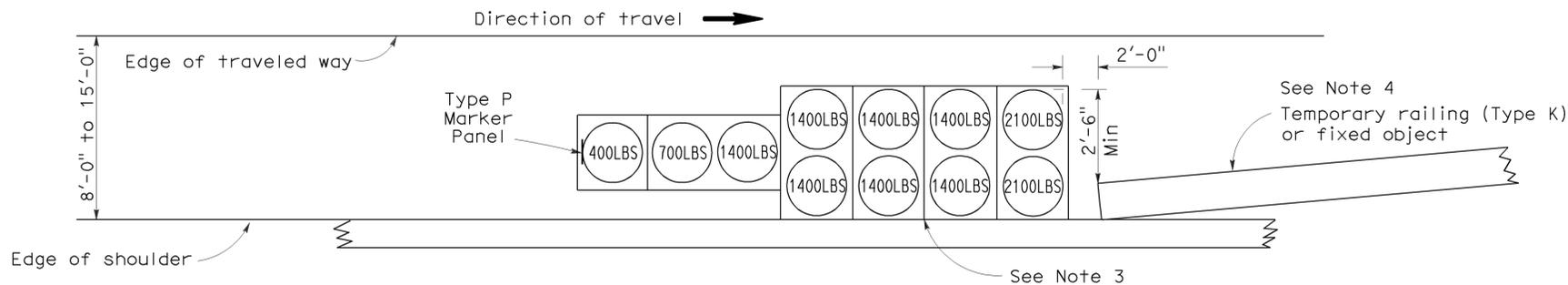
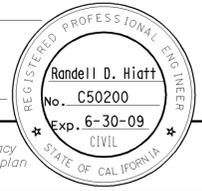
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	38	47

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

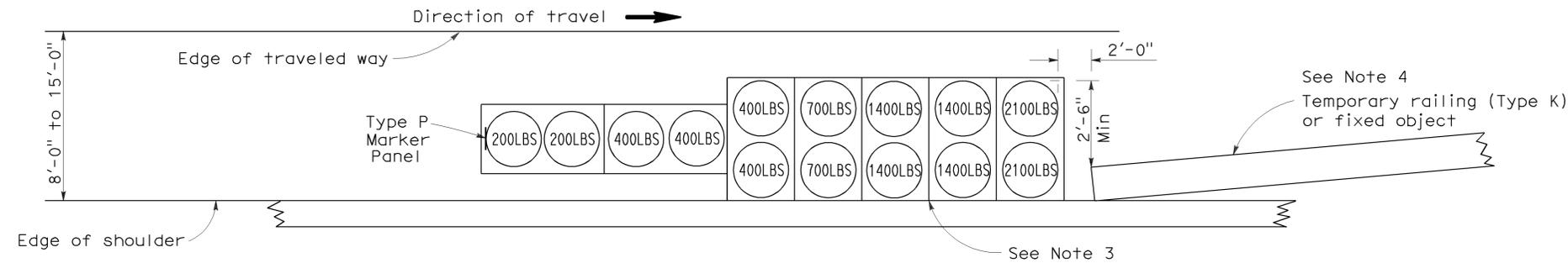
June 6, 2008
PLANS APPROVAL DATE

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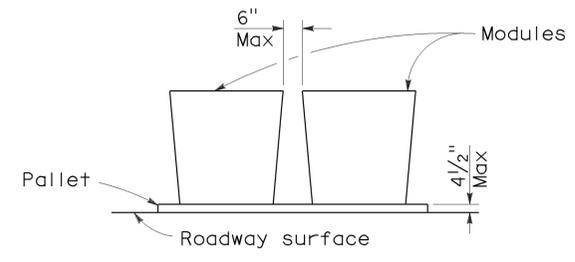
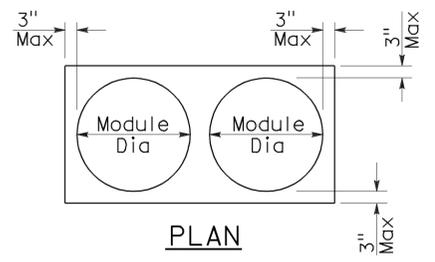
To accompany plans dated 3-29-10



ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

- (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.
- All sand weights are nominal.
- 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.
- 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.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- 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.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**
NO SCALE

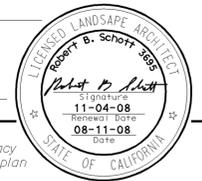
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

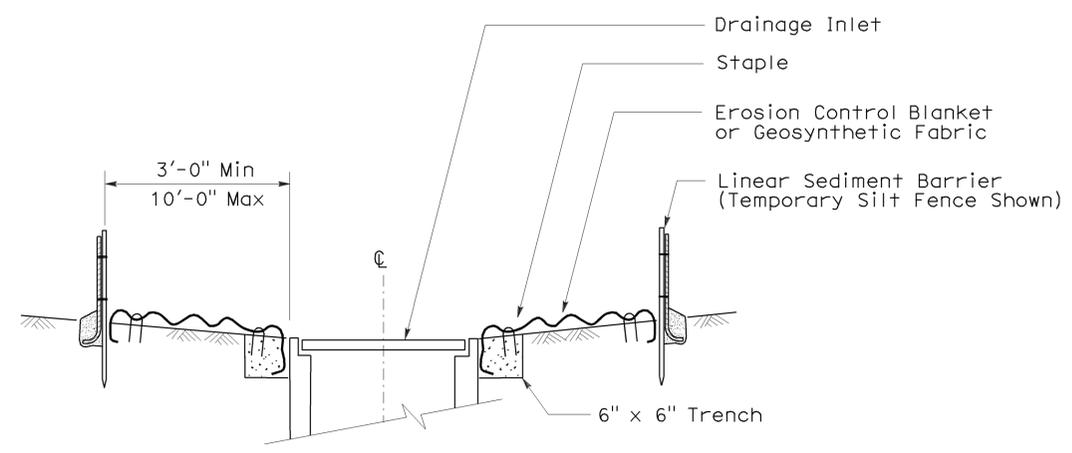
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	40	47

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

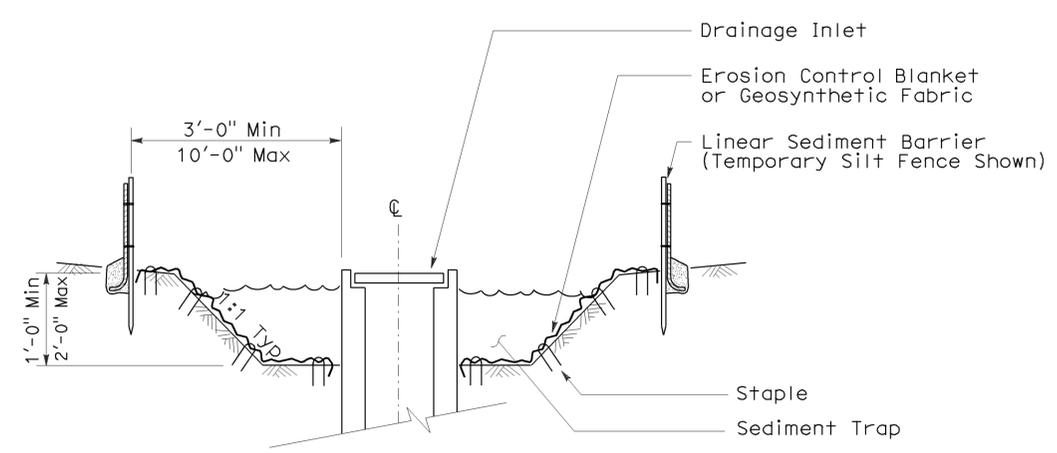


To accompany plans dated 3-29-10

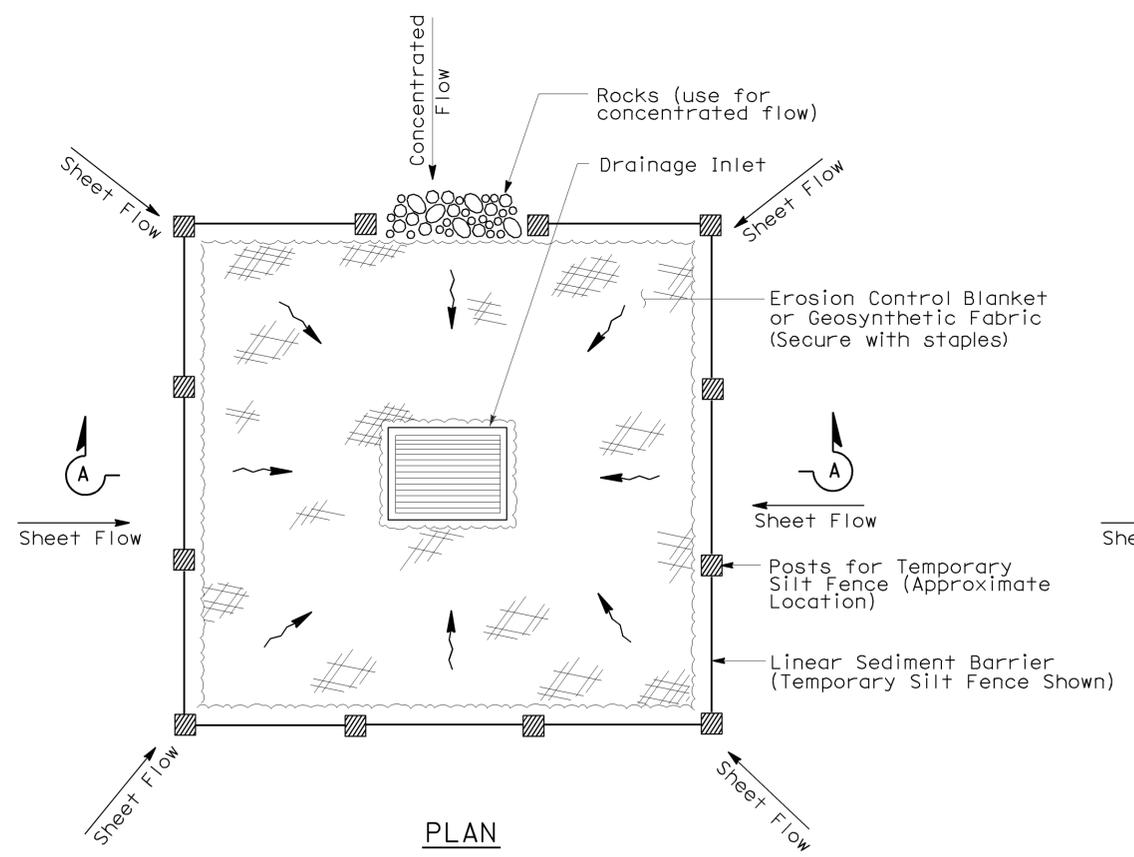
- NOTES:**
- See Standard Plan T51 for Temporary Silt Fence.
 - Dimensions may vary to fit field conditions.



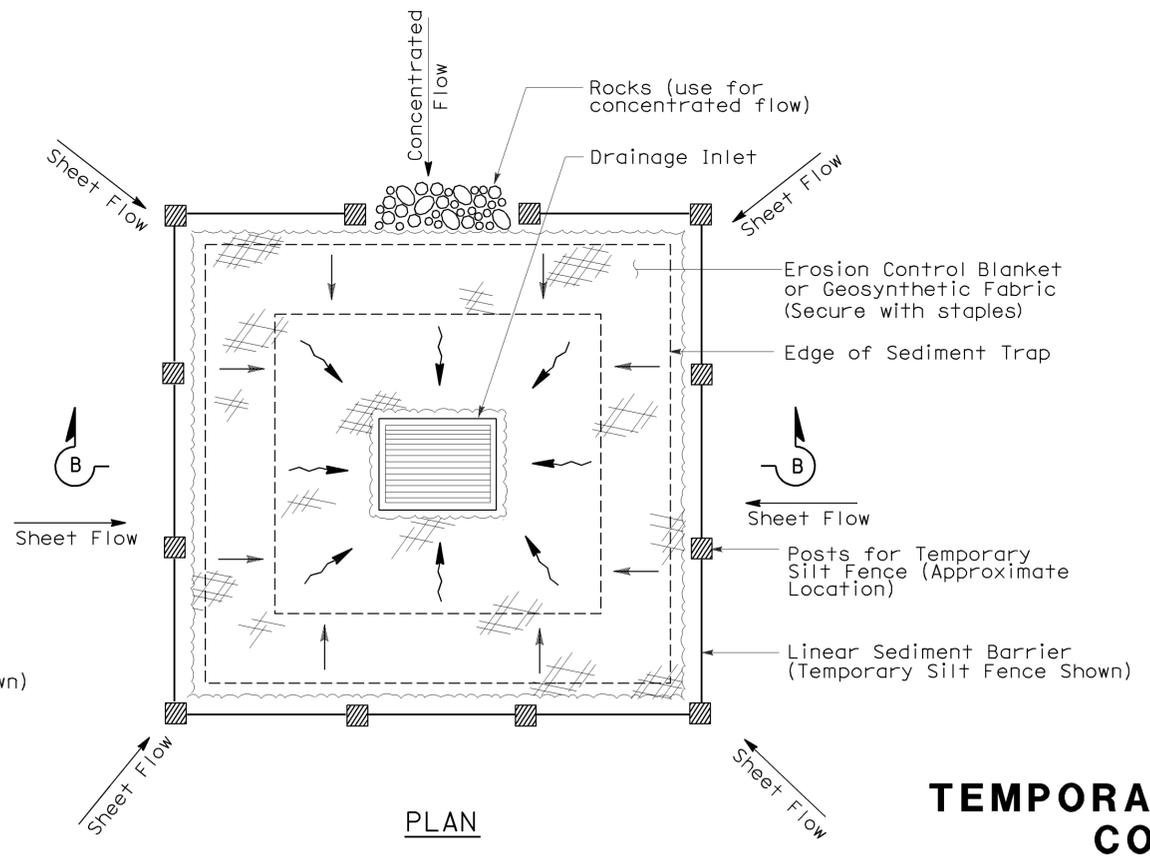
SECTION A-A



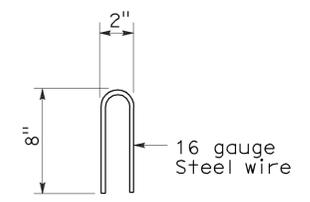
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

Nsp t61 dated august 15, 2008 supplements the standard plans book dated may 2006.

2006 NEW STANDARD PLAN NSP T61

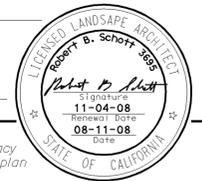
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	41	47

Robert B. Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

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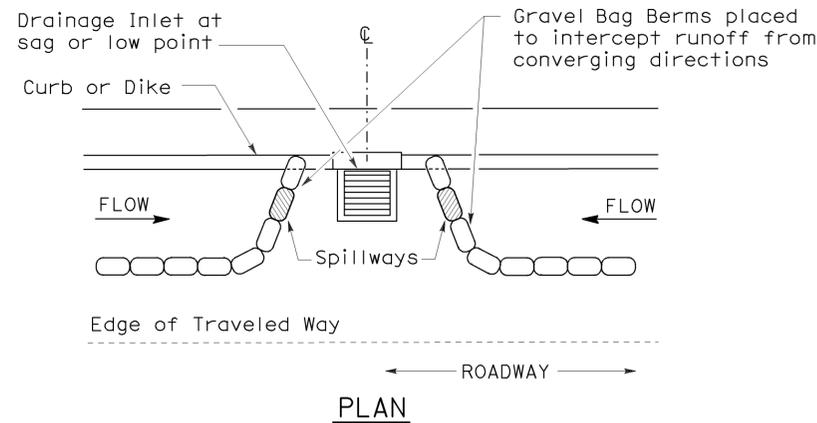
To accompany plans dated 3-29-10



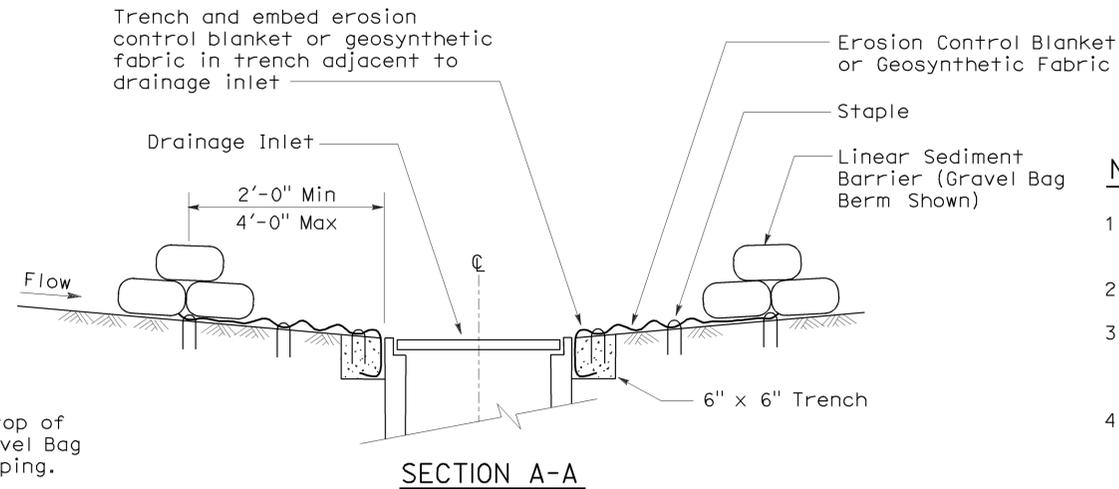
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent



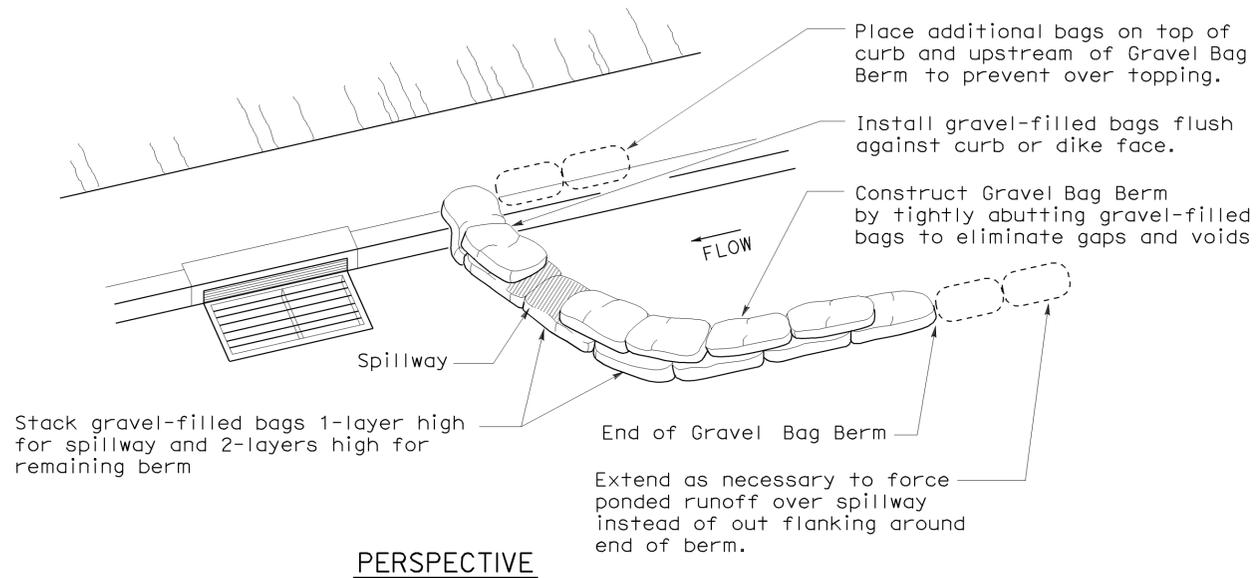
PLAN
CONFIGURATION FOR SAG POINT INLET
(GRAVEL BAG BERM)



SECTION A-A

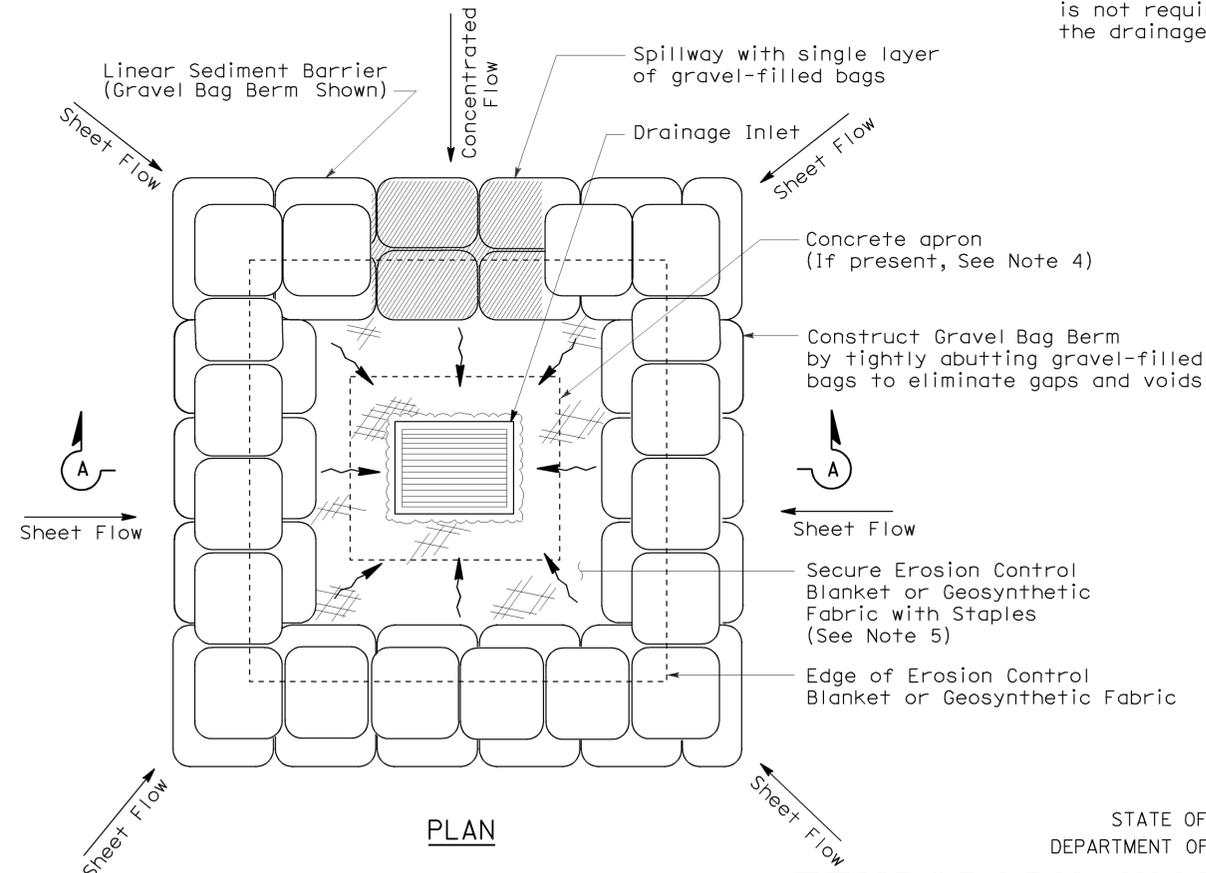
NOTES:

1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.

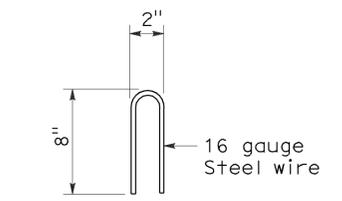


PERSPECTIVE

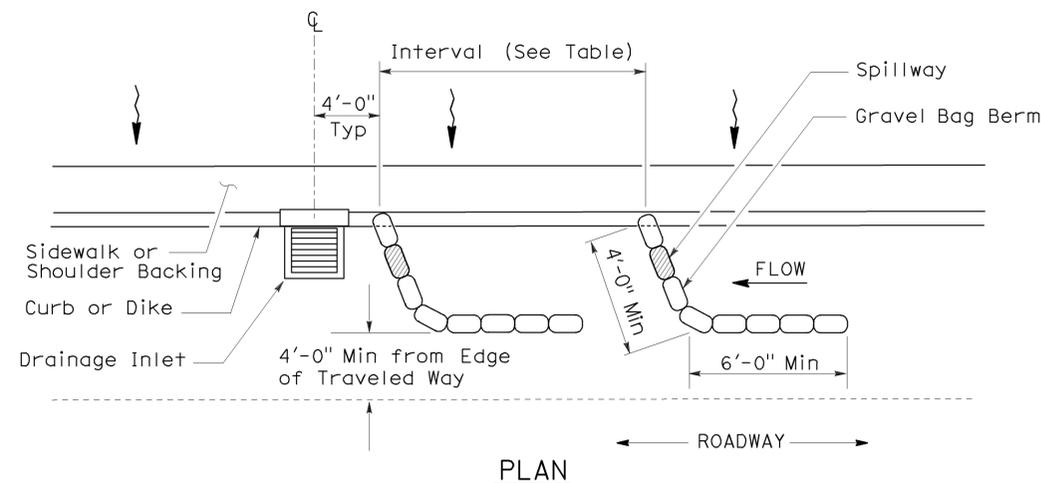
Stack gravel-filled bags 1-layer high for spillway and 2-layers high for remaining berm



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3A)
(GRAVEL BAG BERM)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T62

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'

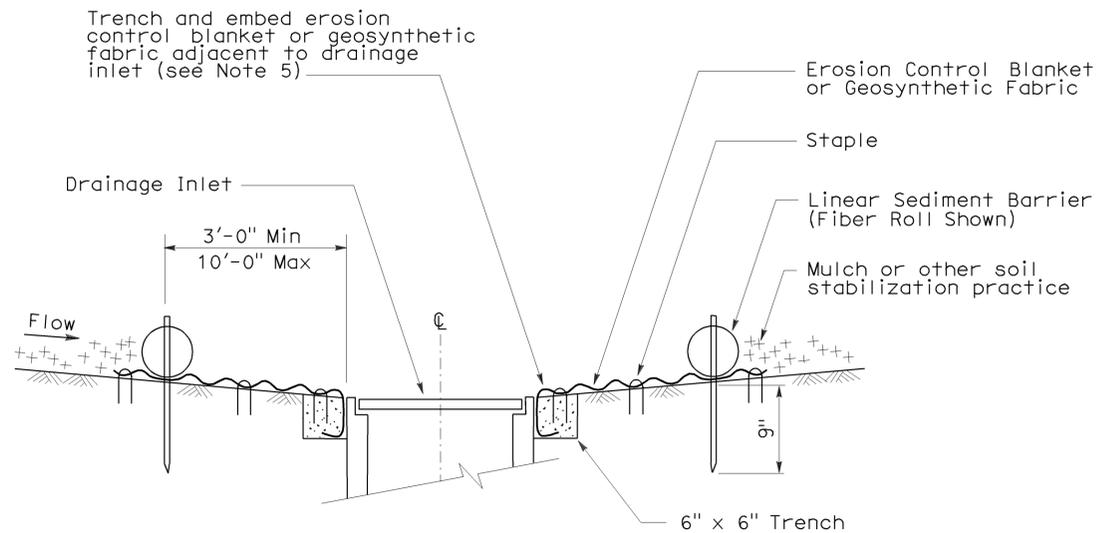
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	42	47

Robert B. Schott
LICENSED LANDSCAPE ARCHITECT

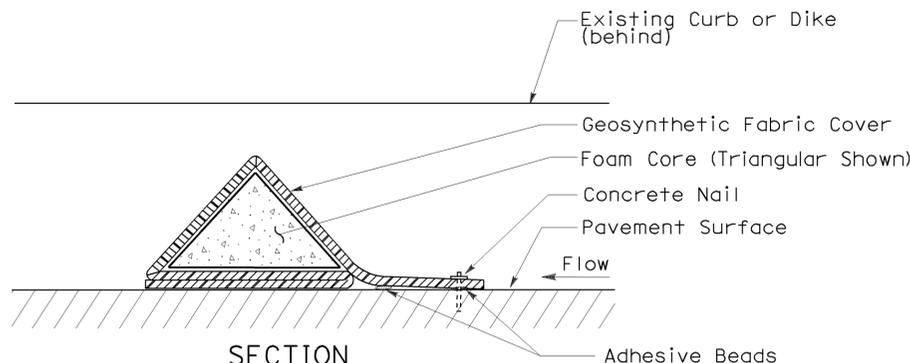
August 15, 2008
PLANS APPROVAL DATE

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To accompany plans dated 3-29-10



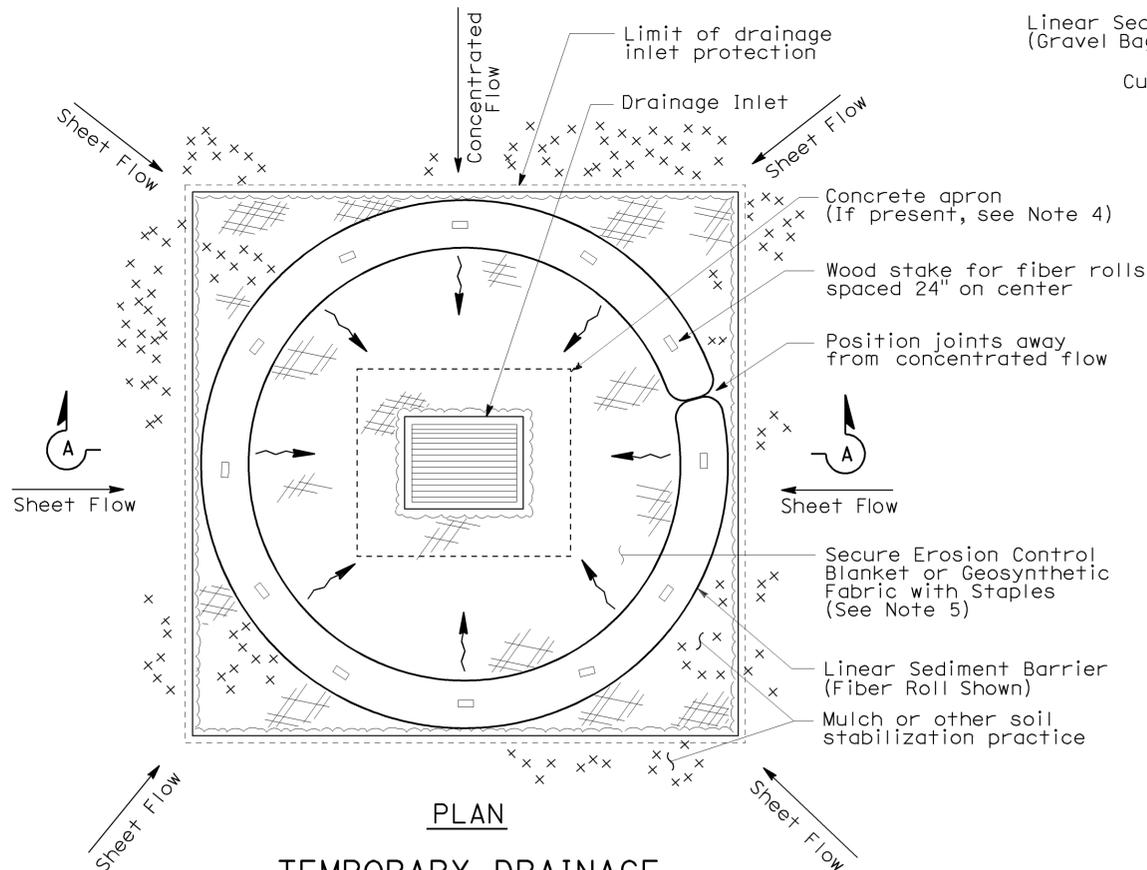
SECTION A-A



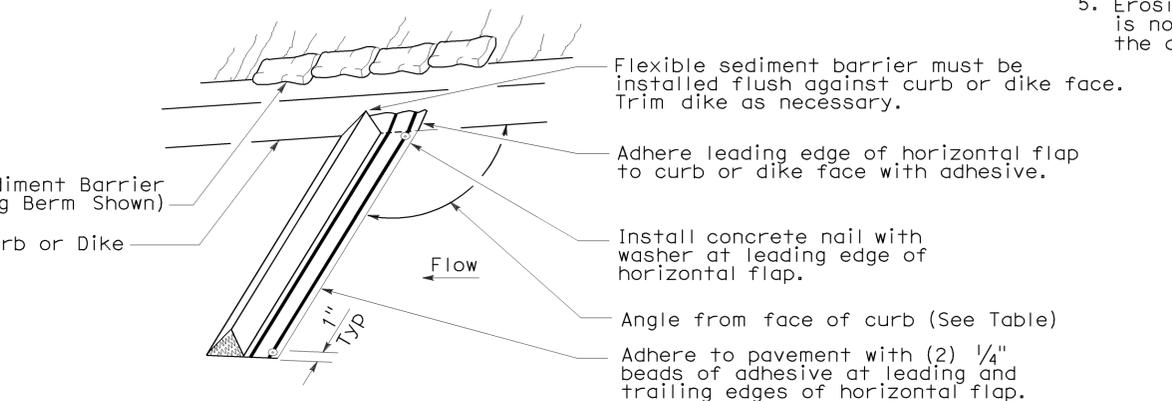
FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)

NOTES:

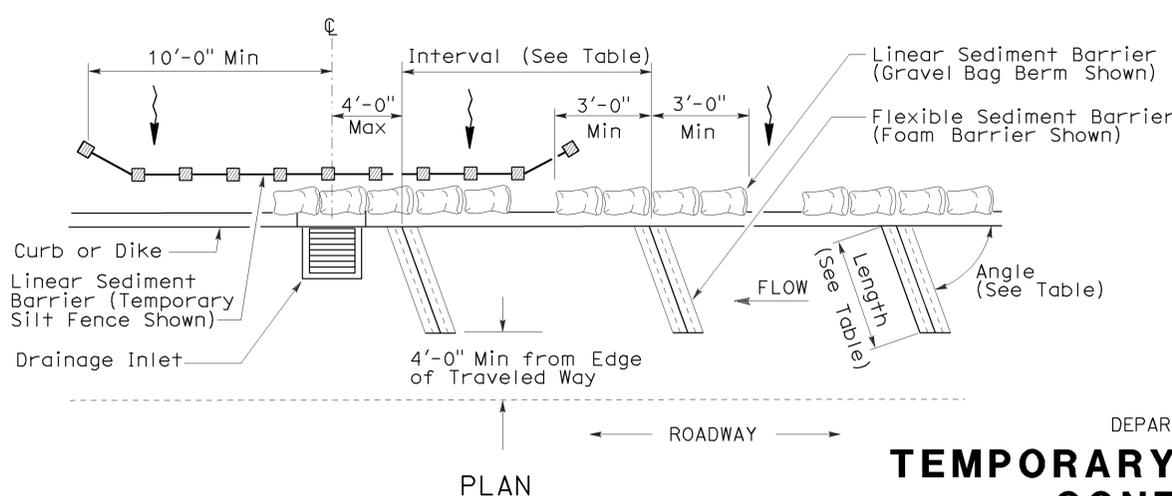
- See Standard Plan T51 for Temporary Silt Fence.
- Dimensions may vary to fit field conditions.
- Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
- Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
- Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.



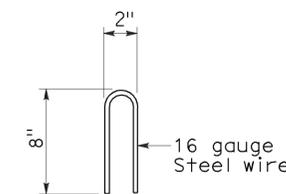
TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PERSPECTIVE



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4B) FLEXIBLE SEDIMENT BARRIER



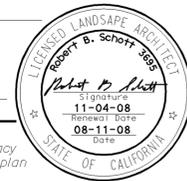
STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

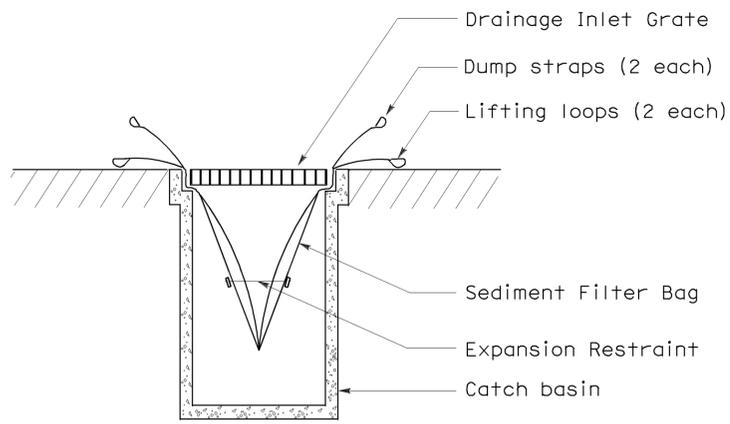
NO SCALE
NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	43	47

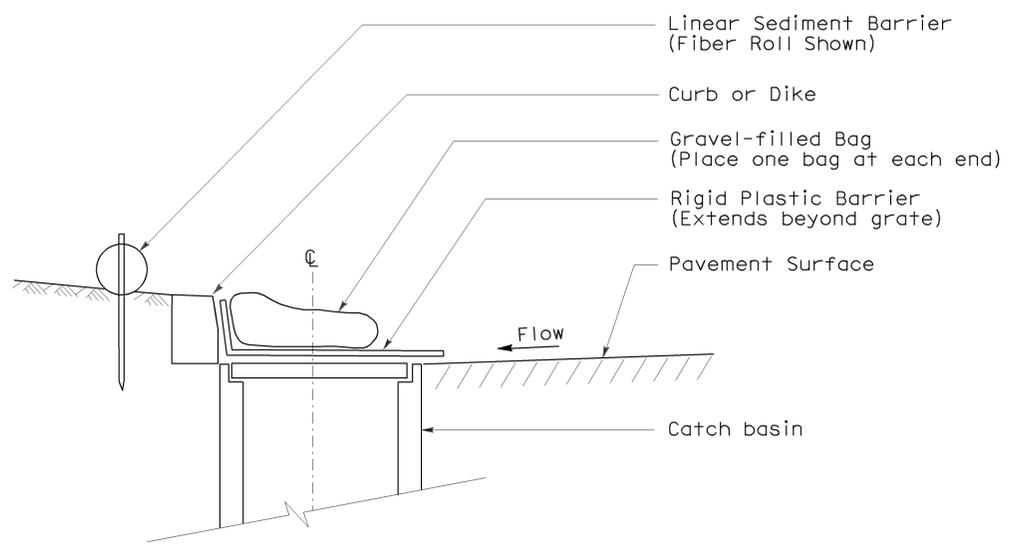
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



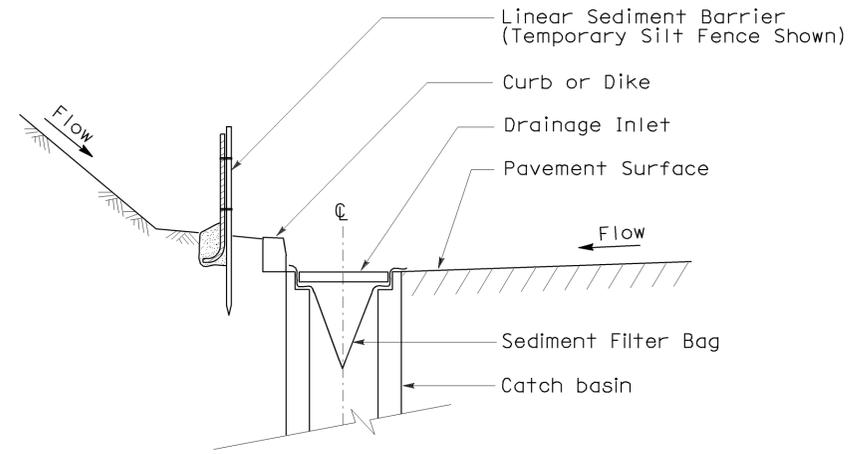
To accompany plans dated 3-29-10



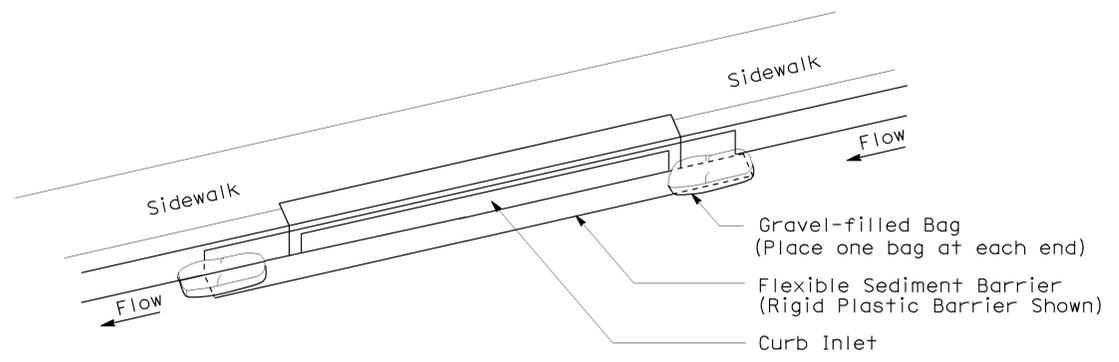
SECTION B-B
SEDIMENT FILTER BAG DETAIL



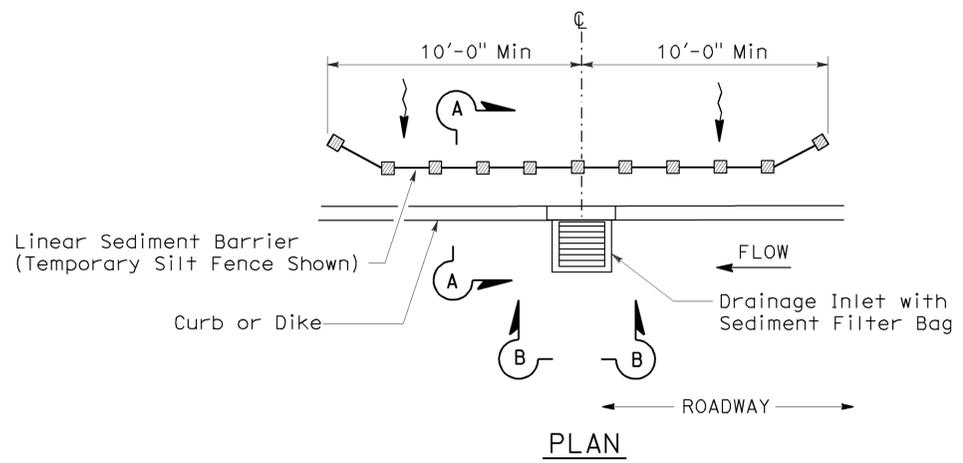
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



PERSPECTIVE
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
NO SCALE

NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

ELECTROLIERS

STANDARD TYPES	Symbol	Description
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		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.
32		
35		
36-20A		

- 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, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	44	47

REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE

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To accompany plans dated 3-29-10

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	45	47

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

October 5, 2007
 PLANS APPROVAL DATE

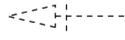
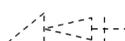
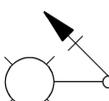
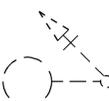
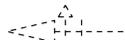
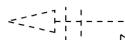
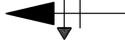
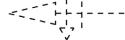
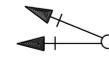
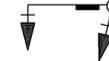
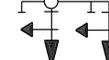
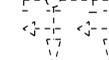
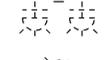
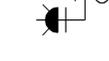
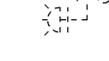
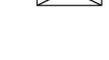
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To accompany plans dated 3-29-10

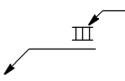
CONDUIT

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 
		Conduit riser in/on structure or service pole

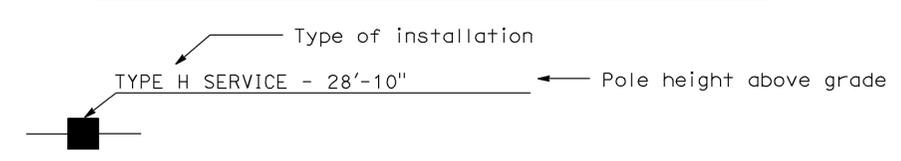
SIGNAL EQUIPMENT

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
		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
		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

SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH---	---oh---	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		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 Cont

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

NOTES:

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (SYMBOLS AND ABBREVIATIONS)**
 NO SCALE

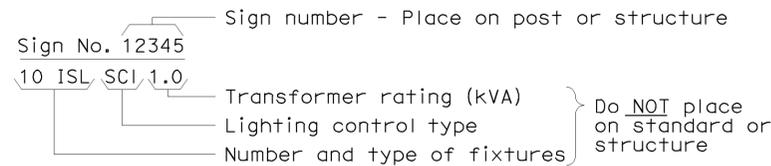
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

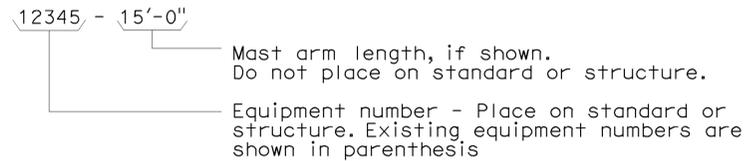
2006 REVISED STANDARD PLAN RSP ES-1B

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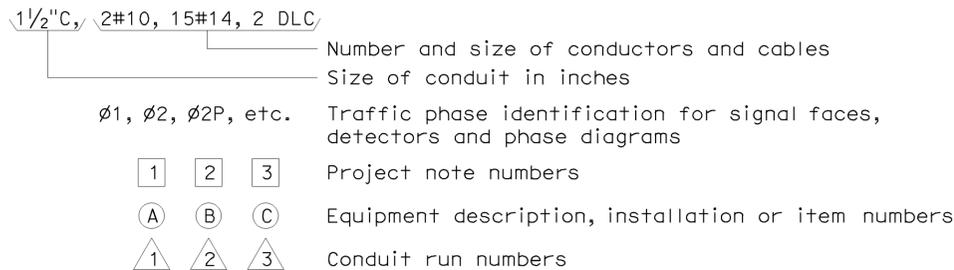
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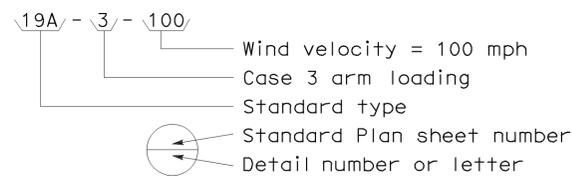
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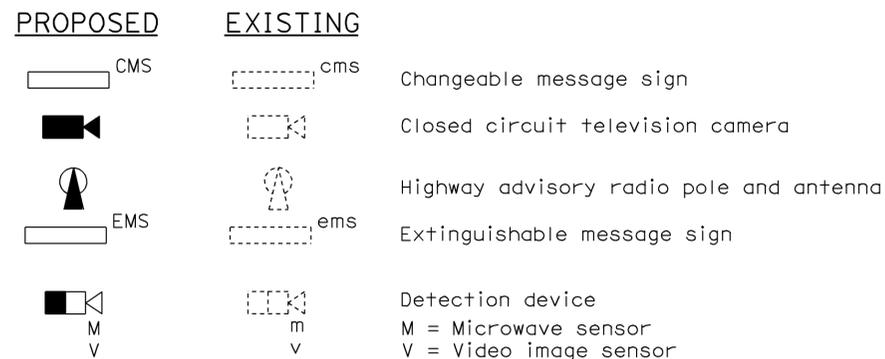
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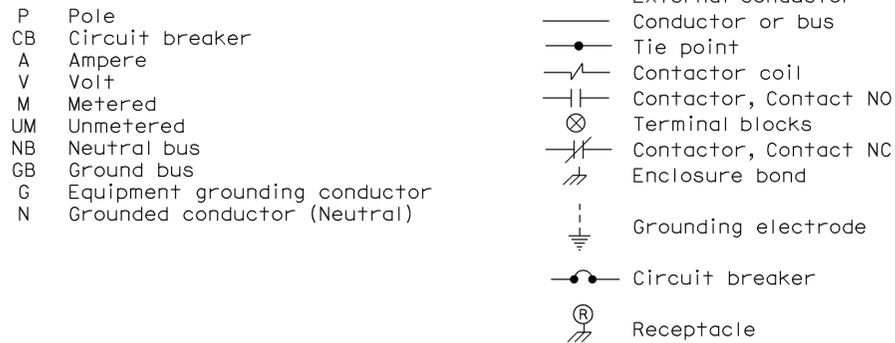
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



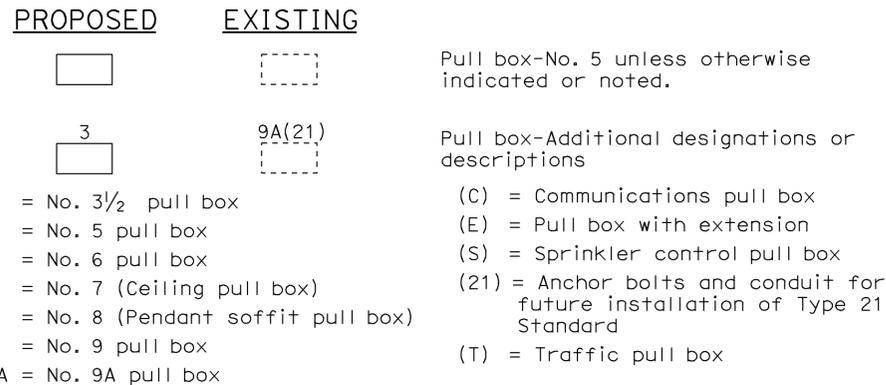
MISCELLANEOUS EQUIPMENT



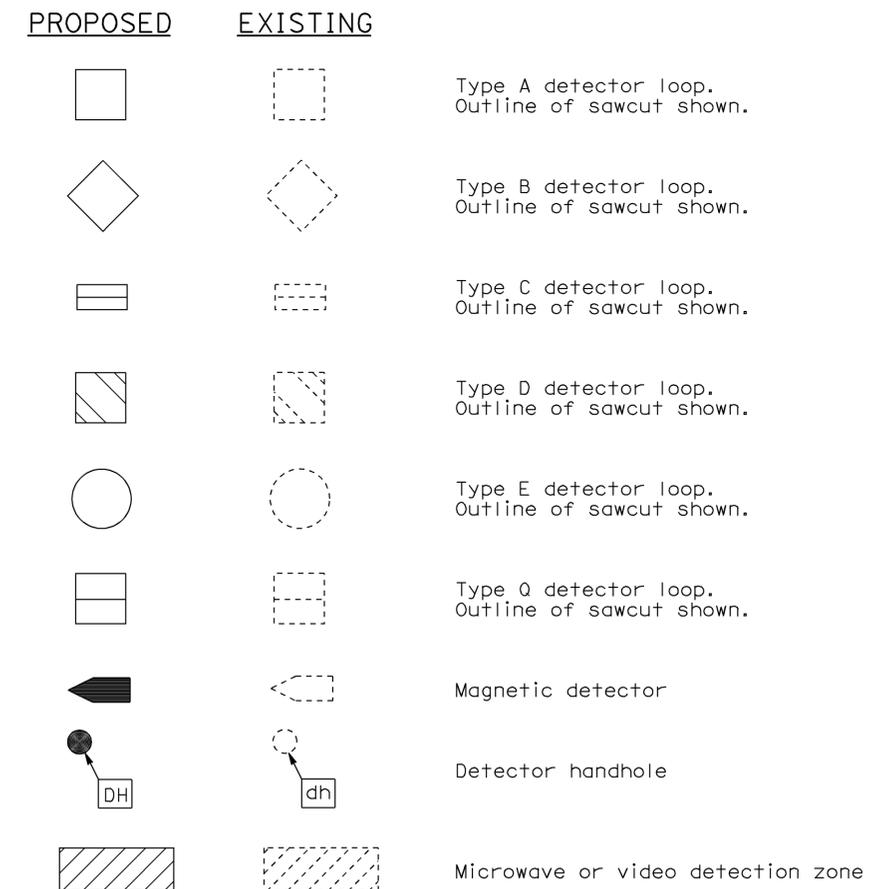
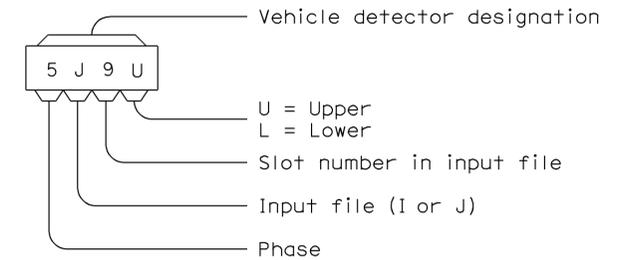
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



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

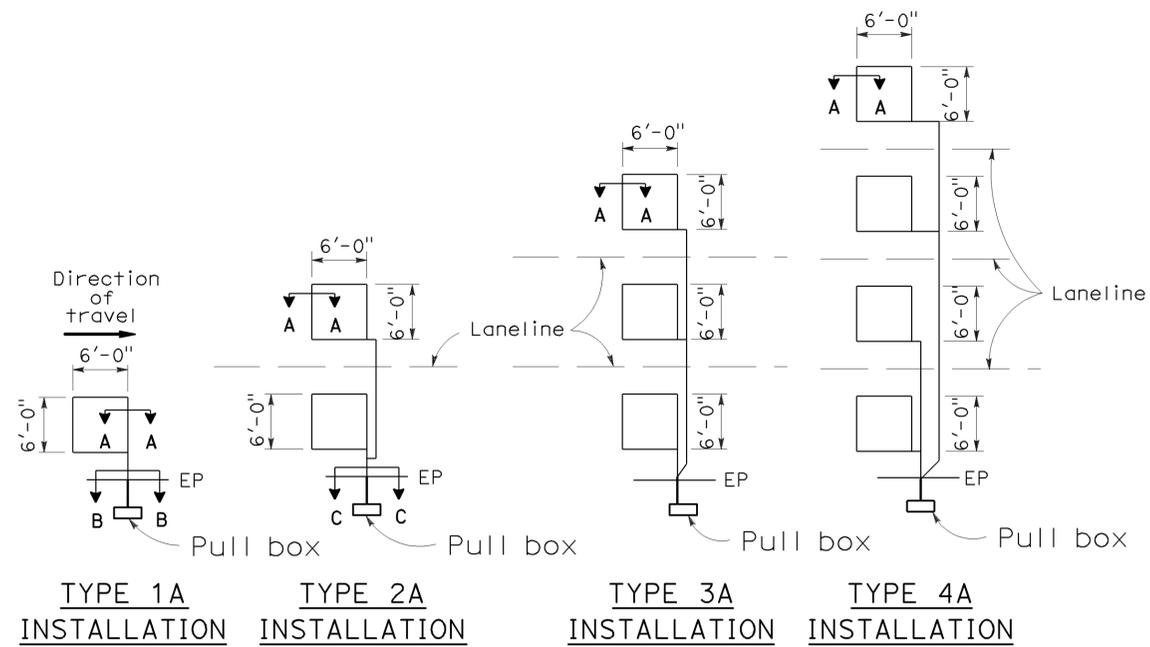
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	5	0.0/4.6	47	47

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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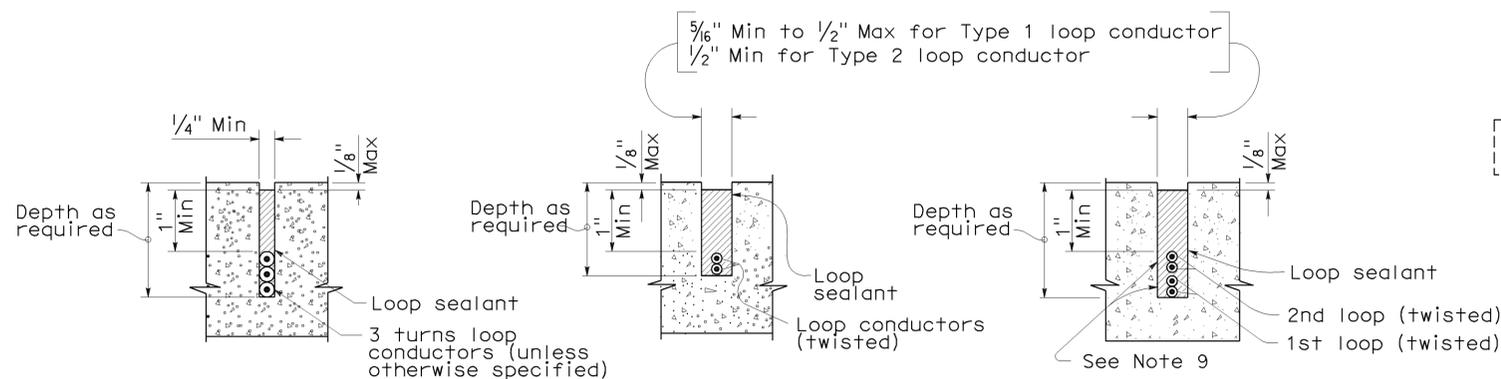
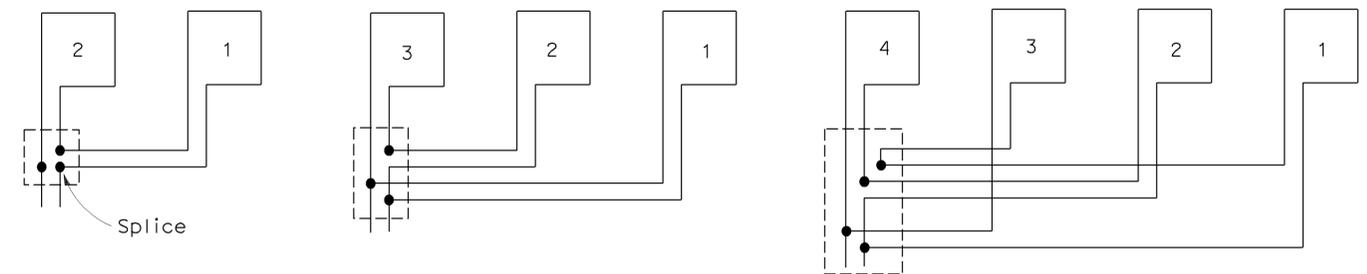
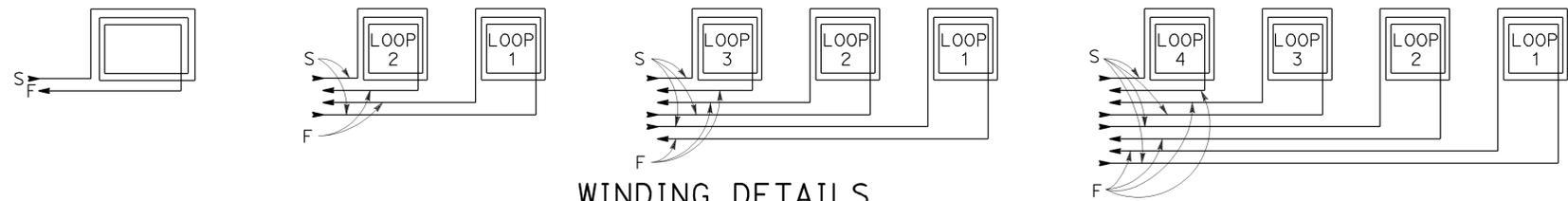
REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

LOOP INSTALLATION PROCEDURE

- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- 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.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- 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.
- 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.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- 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.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- 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.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- 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.



- 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)



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

2006 REVISED STANDARD PLAN RSP ES-5A