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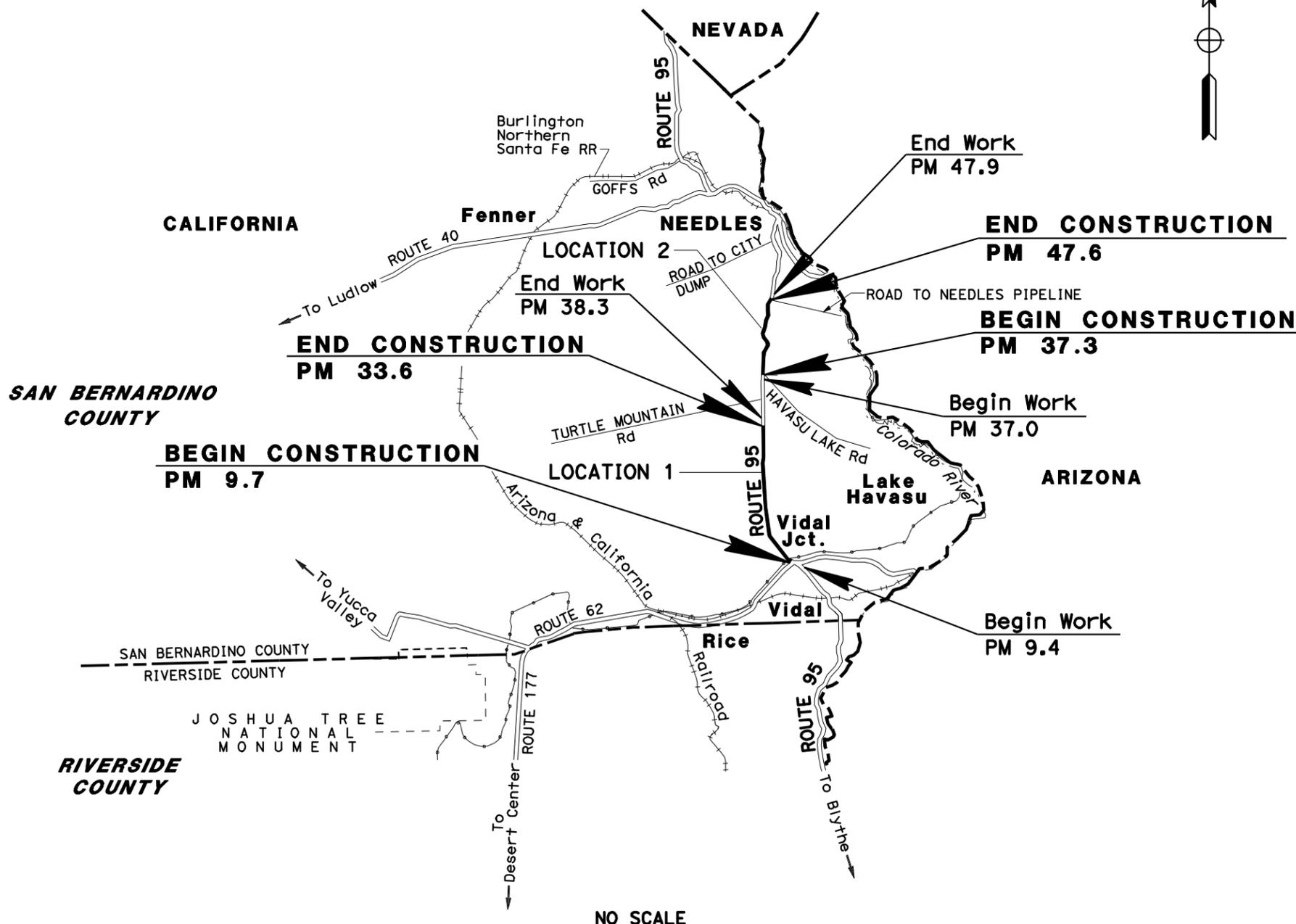
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY
 IN SAN BERNARDINO COUNTY
 NEAR VIDAL AND NEEDLES
 FROM ROUTE 62/95 SEPARATION TO
 2 MILES SOUTH OF TURTLE MOUNTAIN ROAD
 AND FROM HAVASU LAKE ROAD
 TO ROAD TO NEEDLES PIPELINE**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SbD	95	9.7/33.6, 37.3/47.6	1	17

LOCATION MAP

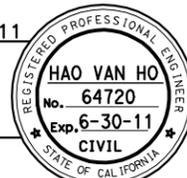


NO SCALE

PROJECT MANAGER
CATALINO PINING
 DESIGN ENGINEER
HAO VAN HO

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

PROJECT ENGINEER DATE 2-7-11
 REGISTERED CIVIL ENGINEER
February 07, 2011
 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.



CONTRACT No.	08-0P8304
PROJECT ID	0800020035

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6, 37.3/47.6	2	17

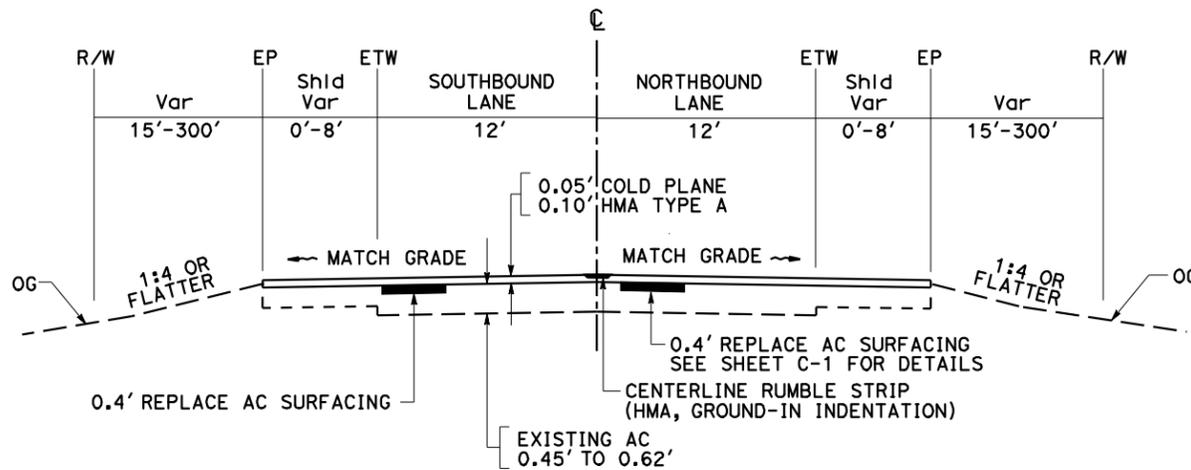
<i>Vanitas</i>	2-7-11
REGISTERED CIVIL ENGINEER	DATE
2-7-11	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	HAO VAN HO
No. 64720	
Exp 6-30-11	
CIVIL	

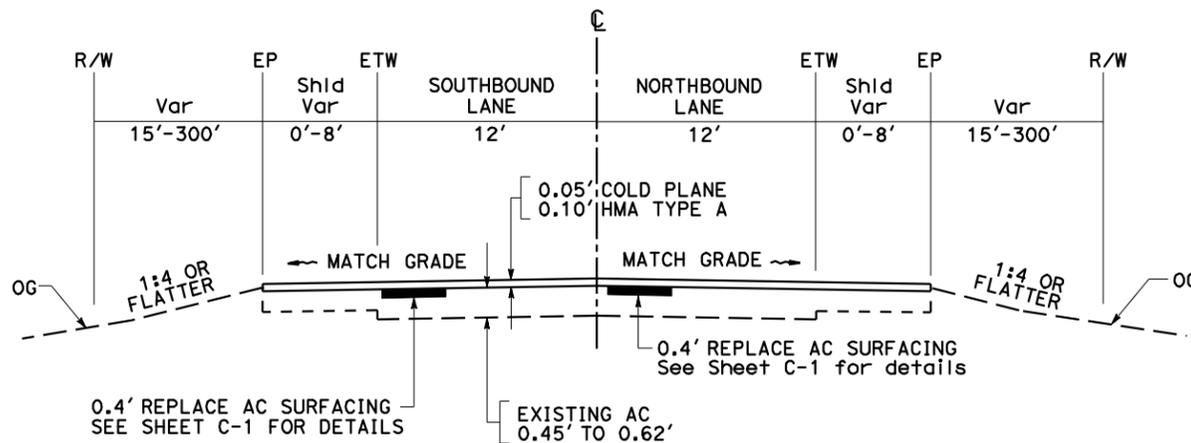
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. DIMENSIONS OF STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. NO WORK SHALL BE ALLOWED ON BRIDGES AND RAILROAD.
4. EXACT LOCATIONS AND DIMENSIONS OF REPLACE AC SURFACING SHALL BE DETERMINED BY THE ENGINEER.



ROUTE 95
FROM PM 17.5 TO PM 25.1



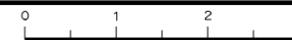
ROUTE 95
FROM PM 9.7 TO PM 17.5
FROM PM 25.1 TO PM 33.6
FROM PM 37.3 TO PM 47.6

TYPICAL CROSS SECTIONS

NO SCALE

X-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	HAO VAN HO	REVISOR
Caltrans MAINTENANCE DESIGN	MICHAEL RISTIC	DATE
FUNCTIONAL SUPERVISOR	MICHAEL RISTIC	DESIGNED BY
		CHECKED BY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6, 37.3/47.6	3	17

<i>Vanitas</i>	2-7-11
REGISTERED CIVIL ENGINEER	DATE
2-7-11	
PLANS APPROVAL DATE	

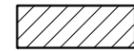
REGISTERED PROFESSIONAL ENGINEER	HAO VAN HO
No. 64720	
Exp 6-30-11	
CIVIL	

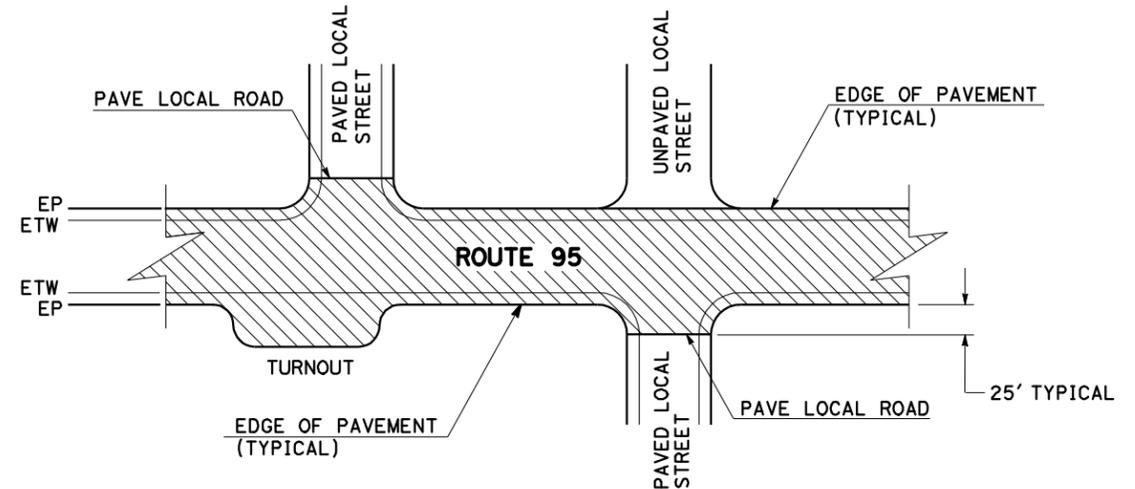
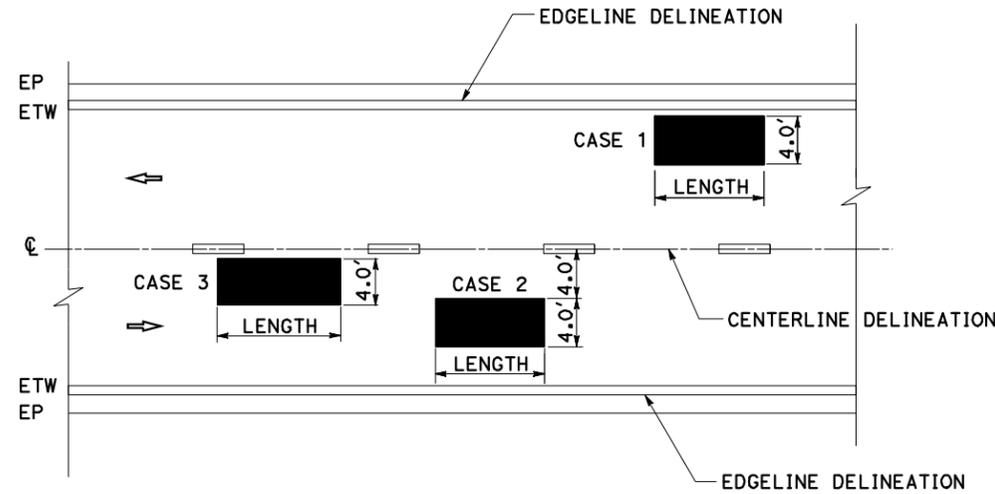
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. ALL WORK ARE WITHIN STATE RIGHT OF WAY.
2. EXACT LIMITS AND LOCATIONS OF REPLACE ASPHALT CONCRETE SURFACING SHALL BE DETERMINED BY THE ENGINEER.

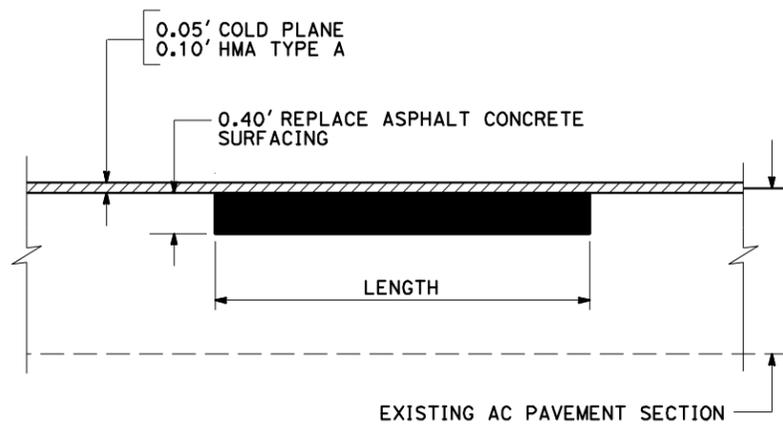
LEGEND:

-  HMA TYPE A
-  PAVING LIMIT OF WORK
-  0.40' REPLACE ASPHALT CONCRETE SURFACING
-  DIRECTION OF TRAVEL



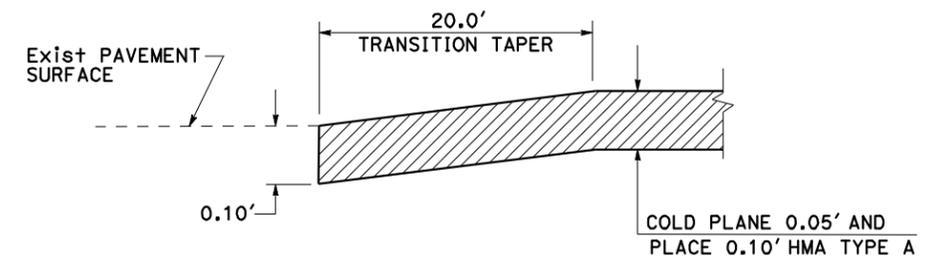
TYPICAL REPLACE ASPHALT CONCRETE SURFACING LOCATIONS

- CASE 1: RIGHT WHEEL TRACK (R)
- CASE 2: CENTER OF A TRAVELWAY LANE (C)
- CASE 3: LEFT WHEEL TRACK (L)



REPLACE ASPHALT CONCRETE SURFACING

PAVING LIMITS OF WORK



PAVEMENT CONFORM (LONGITUDINAL)
BEGIN / END CONSTRUCTION

CONSTRUCTION DETAILS

NO SCALE

C-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: MICHAEL RISTIC

HAO VAN HO (DESIGNED BY)

MICHAEL RISTIC (CHECKED BY)

REVISOR: HAO VAN HO

DATE REVISED: MICHAEL RISTIC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6 37.3/47.6	4	17

REGISTERED CIVIL ENGINEER	DATE
<i>Vanitas</i>	2-7-11
PLANS APPROVAL DATE	
	2-7-11

REGISTERED PROFESSIONAL ENGINEER
HAO VAN HO
No. 64720
Exp 6-30-11
CIVIL
STATE OF CALIFORNIA

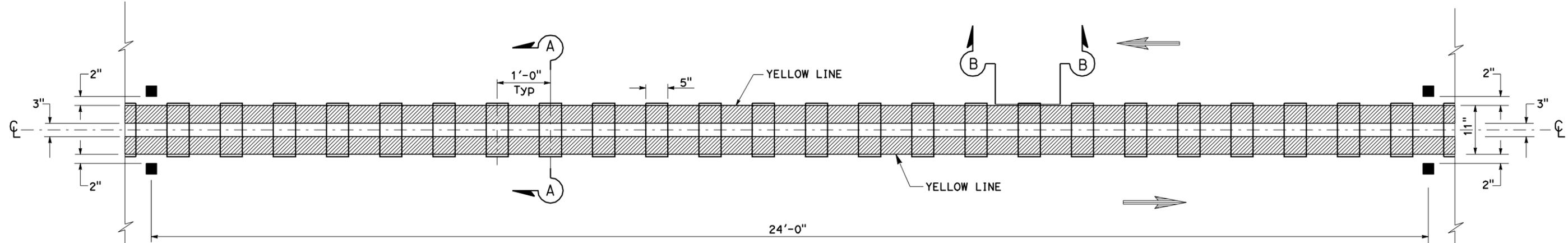
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

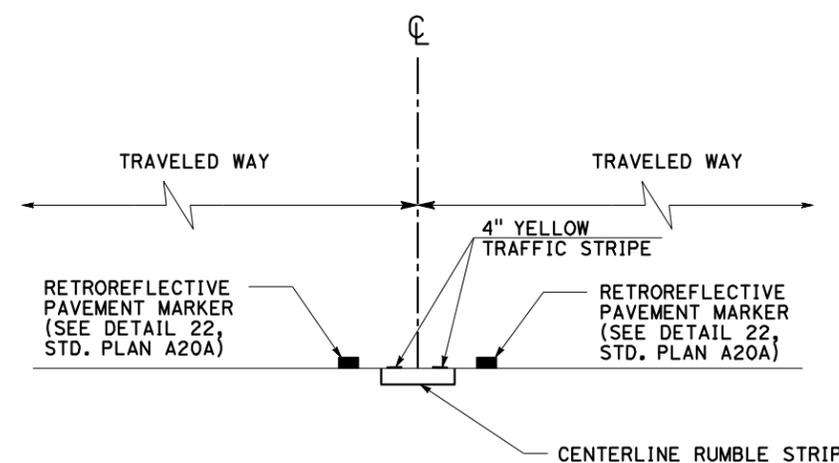
- EXACT LIMITS SHALL BE DETERMINED BY THE ENGINEER.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND:

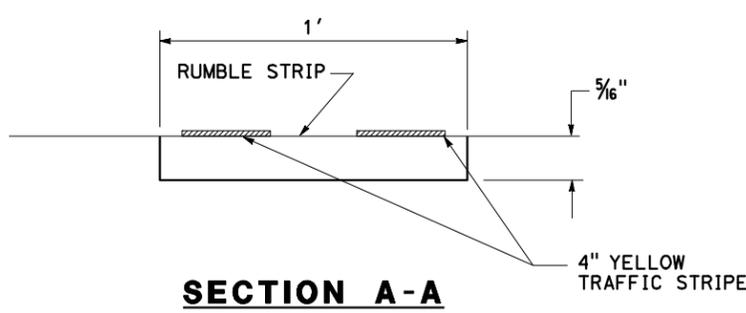
- TYPE D, YELLOW RETROREFLECTIVE MARKER
- ▨ 4" YELLOW THERMOPLASTIC TRAFFIC STRIPE - TO BE STRIPED AFTER RUMBLE STRIP IS CONSTRUCTED.
- ▭ CENTERLINE RUMBLE STRIP (HMA, GROUND-IN INDENTATION)
- ➔ DIRECTION OF TRAVEL



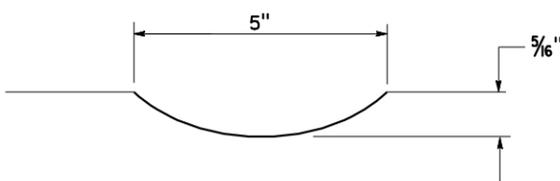
**ASPHALT CONCRETE SURFACING
GROUND-IN INDENTATIONS
PLAN VIEW**



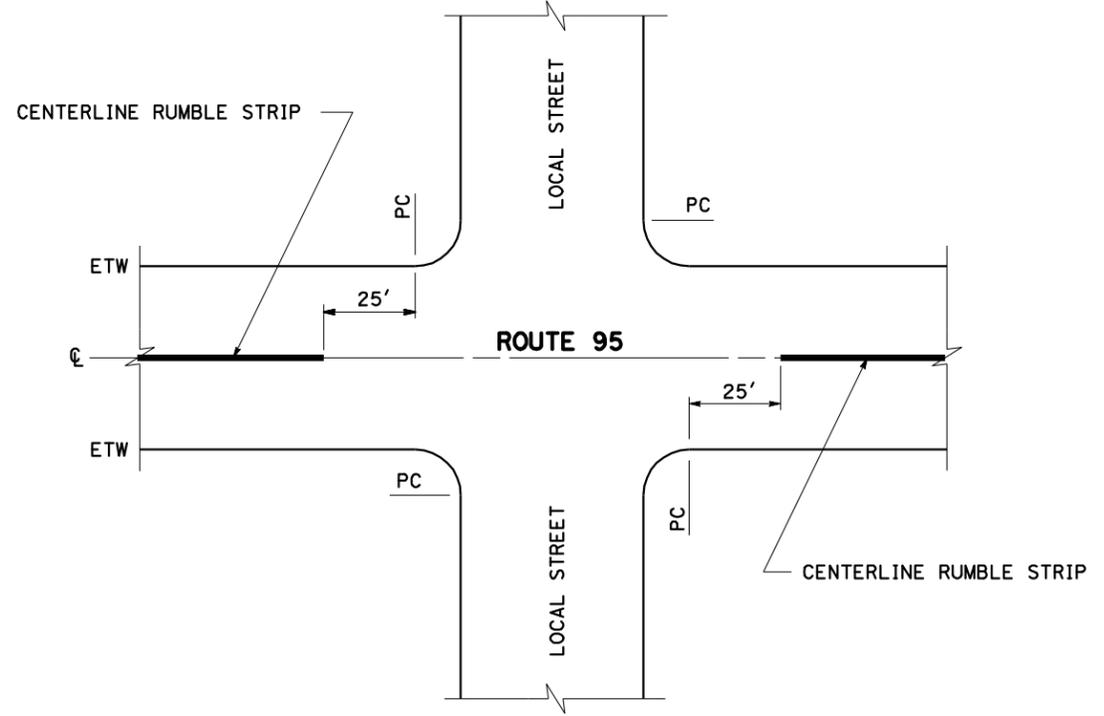
**TYPICAL CENTERLINE
RUMBLE STRIP (GROUND-IN INDENTATION)
CROSS SECTION**



SECTION A-A



SECTION B-B



**CENTERLINE RUMBLE STRIP
LIMITS OF WORK AT TYPICAL INTERSECTION**

**CONSTRUCTION DETAILS
NO SCALE
C-2**

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: MICHAEL RISTIC

HAO VAN HO

REVISOR: MICHAEL RISTIC

DESIGNER: MICHAEL RISTIC

DATE: 2-7-11

USERNAME => s125726
DGN FILE => 80p830ga002.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT 2343

PROJECT NUMBER & PHASE

08000200351

DATE PLOTTED => 03-FEB-2011
TIME PLOTTED => 07:45

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6 37.3/47.6	5	17

2-7-11
 REGISTERED CIVIL ENGINEER DATE
 2-7-11
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 TRAN HOANG
 No. 54996
 Exp. 6-30-12
 CIVIL
 STATE OF CALIFORNIA

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

LEGEND:

- CONSTRUCTION AREA
- ⊗ CONSTRUCTION AREA SIGN LETTER
- ⊥ CONSTRUCTION AREA SIGN (TWO POST)
- ☒ PORTABLE CHANGEABLE MESSAGE SIGN

NOTES:

- CONSTRUCTION AREA SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
- REFER TO STANDARD PLAN T13 FOR TRAFFIC CONTROL REQUIREMENTS WHEN LANE CLOSURES ARE REQUIRED.
- LOCATIONS OF PORTABLE CHANGEABLE MESSAGE SIGNS TO BE DETERMINED BY THE ENGINEER.

WORK AREAS

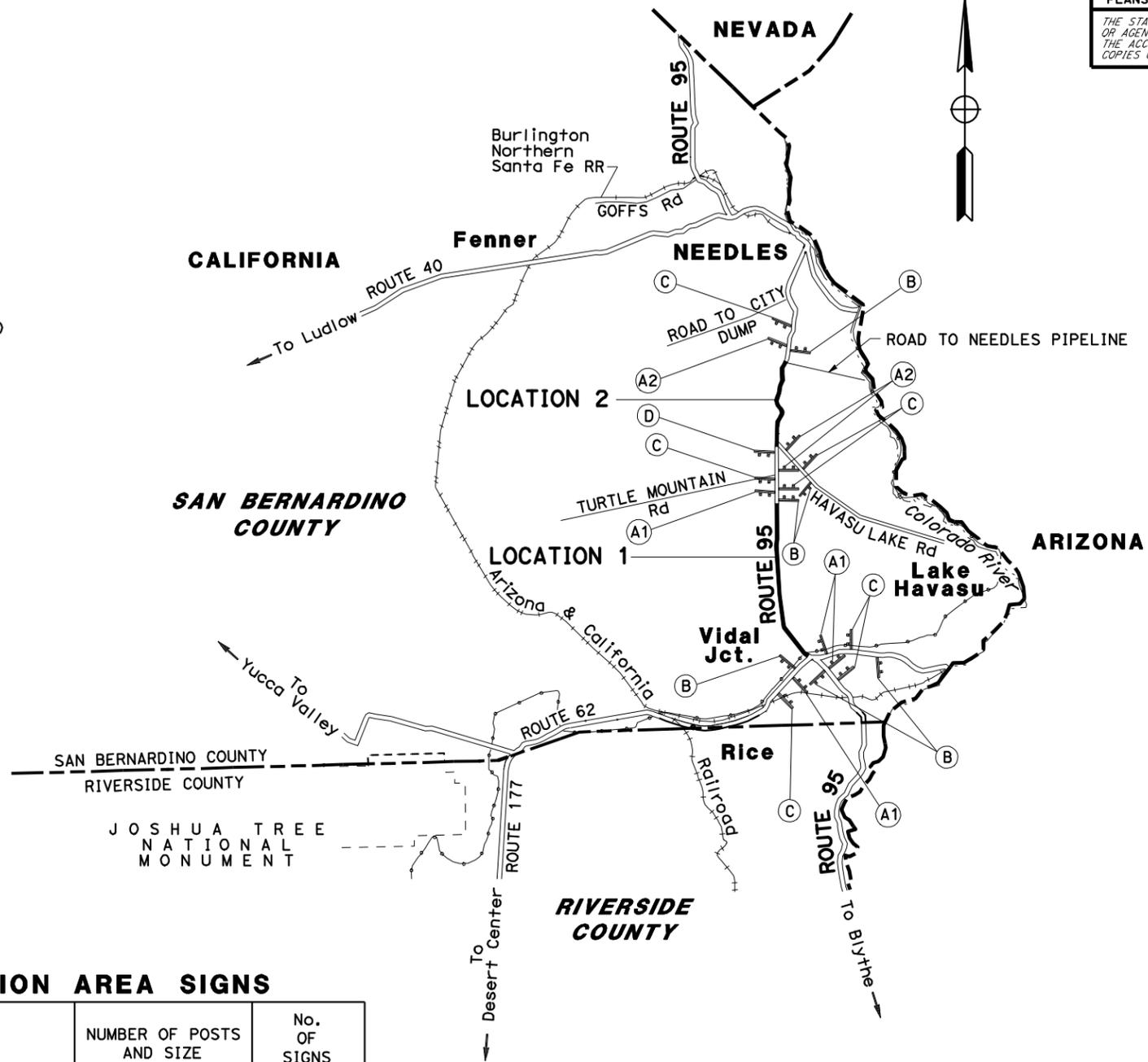
LOCATION No.	FROM PM	TO PM
1	9.2	34.1
2	36.8	48.1

PORTABLE CHANGEABLE MESSAGE SIGNS

EA
2

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. ⊗	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	No. OF SIGNS
	FEDERAL	CALIFORNIA				
A1	G20-1		90" x 48"	ROAD WORK NEXT 25 MILES	2 - 6" x 6"	4
A2	G20-1		90" x 48"	ROAD WORK NEXT 11 MILES	2 - 6" x 6"	3
B	G20-2		48" x 24"	END ROAD WORK	2 - 4" x 4"	7
C		C40A	72" x 36"	TRAFFIC FINES DOUBLED IN WORK ZONES	2 - 4" x 6"	7



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGNS WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6 37.3/47.6	6	17

Tran Hoang 2-7-11
 REGISTERED CIVIL ENGINEER DATE

2-7-11
 PLANS APPROVAL DATE

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 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
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 COPIES OF THIS PLAN SHEET.

PAVEMENT DELINEATION QUANTITIES

LOCATION & DIRECTION						DETAIL No. OR PAVEMENT MARKING	REMOVE PAVEMENT MARKER	PAVEMENT MARKER					THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)					
								NON- REFLEC TIVE	RETRO REFLECTIVE -RECESSED		RETRO REFLECTIVE		4 INCH YELLOW	4 INCH WHITE				
									TYPE A	TYPE D	TYPE H	TYPE D			TYPE H			
ROUTE	FROM	PM	TO	PM	DIR	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	
Route 95	FROM	9.70	to	9.96		22	117										1373	
Route 95	FROM	9.70	to	9.96	NB/SB	27B												2746
Route 95	FROM	9.96	to	10.06	(NO PASSING SB)	19	36		12	24							528	
Route 95	FROM	10.06	to	10.52		6	52		52								2429	
Route 95	FROM	10.52	to	11.61		22	482		482								5755	
Route 95	FROM	11.61	to	11.69	(NO PASSING SB)	19	30		10	20							422	
Route 95	FROM	11.69	to	14.71		6	334		334								15946	
Route 95	FROM	14.71	to	14.91	(NO PASSING SB)	19	69		23	46							1056	
Route 95	FROM	14.91	to	15.14	(NO PASSING NB)	19	80		27	53							1214	
Route 95	FROM	15.14	to	15.21		6	9		9								370	
Route 95	FROM	15.21	to	15.39	(NO PASSING NB)	19	63		21	42							950	
Route 95	FROM	15.39	to	15.99		22	266		266								3168	
Route 95	FROM	15.99	to	16.16	(NO PASSING SB)	19	60		20	40							898	
Route 95	FROM	16.16	to	16.50		6	39		39								1795	
Route 95	FROM	16.50	to	16.68	(NO PASSING NB)	19	63		21	42							950	
Route 95	FROM	16.68	to	17.39		22	315		315								3749	
Route 95	FROM	17.39	to	17.57		6	21		21								950	
Route 95	FROM	17.57	to	17.78	(NO PASSING NB)	19	74		25	49							1109	
Route 95	FROM	17.78	to	18.37		22	262		262								3115	
Route 95	FROM	18.37	to	18.56	(NO PASSING SB)	19	66		22	44							1003	
Route 95	FROM	18.56	to	18.77	(NO PASSING NB)	19	74		25	49							1109	
Route 95	FROM	18.77	to	19.58		22	359		359								4277	
Route 95	FROM	19.58	to	19.77	(NO PASSING SB)	19	66		22	44							1003	
Route 95	FROM	19.77	to	19.87		6	12		12								528	
Route 95	FROM	19.87	to	20.05	(NO PASSING NB)	19	63		21	42							950	
Route 95	FROM	20.05	to	20.93		22	390		390								4646	
Route 95	FROM	20.93	to	21.13	(NO PASSING SB)	19	69		23	46							1056	
Route 95	FROM	21.13	to	22.47		6	149		149								7075	
Route 95	FROM	22.47	to	22.57	(NO PASSING NB)	19	36		12	24							528	
Route 95	FROM	22.57	to	22.71		6	17		17								739	
Route 95	FROM	22.71	to	22.81	(NO PASSING SB)	19	36		12	24							528	
Route 95	FROM	22.81	to	23.10		6	33		33								1531	
Route 95	FROM	23.10	to	23.20	(NO PASSING NB)	19	36		12	24							528	
Route 95	FROM	23.20	to	23.31		6	14		14								581	
Route 95	FROM	23.31	to	23.40	(NO PASSING SB)	19	33		11	22							475	
Route 95	FROM	23.40	to	23.48		6	10		10								422	
Route 95	FROM	23.48	to	23.68	(NO PASSING NB)	19	69		23	46							1056	
Route 95	FROM	23.68	to	23.79		22	51		51								581	
Route 95	FROM	23.79	to	23.93	(NO PASSING SB)	19	50		17	33							739	
Route 95	FROM	23.93	to	24.38		6	51		51								2376	
Route 95	FROM	24.38	to	24.59	(NO PASSING NB)	19	74		25	49							1109	
Route 95	FROM	24.59	to	25.02		22	192		192								2270	
Route 95	FROM	25.02	to	25.30	(NO PASSING SB)	19	96		32	64							1478	
Route 95	FROM	25.30	to	25.59		6	33		33								1531	
Route 95	FROM	25.59	to	25.80	(NO PASSING NB)	19	74		25	49							1109	
SUBTOTAL SHEET PDQ-1							4525		3649	876				85005	2746			

NOTE:
 1. REMOVAL OF MARKINGS AND MARKERS SHALL BE DONE PRIOR OF OVERLAY OPERATIONS.

PAVEMENT DELINEATION QUANTITIES

PDQ-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAN HOANG
 LARRY SARTORI
 B

LAST REVISION DATE PLOTTED => 03-FEB-2011
 02-07-11 TIME PLOTTED => 07:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6 37.3/47.6	7	17

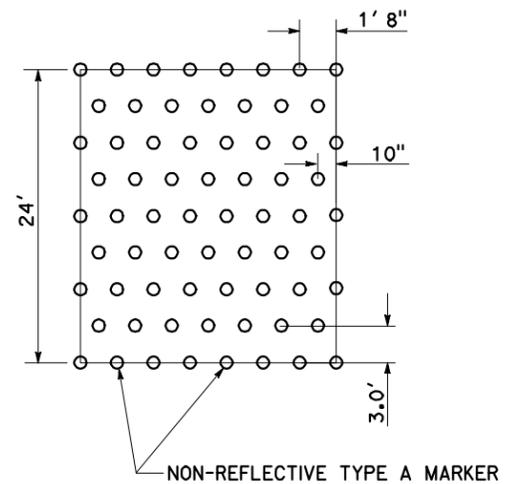
2-7-11
 REGISTERED CIVIL ENGINEER DATE
 2-7-11
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 TRAN HOANG
 No. 54996
 Exp. 6-30-12
 CIVIL
 STATE OF CALIFORNIA

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

PAVEMENT DELINEATION QUANTITIES

LOCATION & DIRECTION					DETAIL No. OR PAVEMENT MARKING	REMOVE THERMOPLASTIC PAVEMENT MARKING	REMOVE PAVEMENT MARKERS	PAVEMENT MARKER					THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)		THERMOPLASTIC PAVEMENT MARKING	
								NON-REFLECTIVE		RETRO REFLECTIVE RECESSED		RETRO REFLECTIVE		4 INCH		4 INCH
								TYPE	EA	TYPE	EA	TYPE	EA	YELLOW		WHITE
ROUTE	FROM	PM	TO	PM	DIR	SQFT	EA	EA	EA	EA	EA	EA	EA	EA	SQFT	
Route 95	FROM	25.80	to	26.13		22	148							1742		
Route 95	FROM	26.13	to	26.27	(NO PASSING SB)	19	50							739		
Route 95	FROM	26.27	to	26.54		6	31							1426		
Route 95	FROM	26.54	to	26.74	(NO PASSING NB)	19	69							1056		
Route 95	FROM	26.74	to	27.27		22	236							2798		
Route 95	FROM	27.27	to	27.52	(NO PASSING SB)	19	86							1320		
Route 95	FROM	27.52	to	28.33		22	359							4277		
Route 95	FROM	28.33	to	28.54	(NO PASSING SB)	19	74							1109		
Route 95	FROM	28.54	to	33.60		6	558							26717		
Route 95	FROM	33.60	to	33.80		6	23							1056		
Route 95	FROM	9.96	to	33.80	NB/SB	27B								251750		
Route 95	FROM	37.30	to	47.70	NB/SB	27B								109824		
Route 95	FROM	37.30	to	37.35	(NO PASSING NB)	19	20							264		
Route 95	FROM	37.35	to	37.45		22	46							528		
Route 95	FROM	37.45	to	37.64	(NO PASSING NB)	19	66							1003		
Route 95	FROM	37.64	to	37.84		22	90							1056		
Route 95	FROM	37.84	to	38.08	(NO PASSING SB)	19	83							1267		
Route 95	FROM	38.08	to	38.54		6	52							2429		
Route 95	FROM	38.54	to	38.73	(NO PASSING NB)	19	66							1003		
Route 95	FROM	38.73	to	39.06		22	148							1742		
Route 95	FROM	39.06	to	39.24	(NO PASSING SB)	19	63							950		
Route 95	FROM	39.24	to	39.33		6	11							475		
Route 95	FROM	39.33	to	39.47	(NO PASSING NB)	19	50							739		
Route 95	FROM	39.47	to	39.53		6	8							317		
Route 95	FROM	39.53	to	39.68	(NO PASSING SB)	19	53							792		
Route 95	FROM	39.68	to	39.98		6	34							1584		
Route 95	FROM	39.98	to	40.09	(NO PASSING NB)	19	41							581		
Route 95	FROM	40.09	to	40.71		22	275							3274		
Route 95	FROM	40.71	to	40.89	(NO PASSING SB)	19	63							950		
Route 95	FROM	40.89	to	41.21		22	143							1690		
Route 95	FROM	41.21	to	41.40	(NO PASSING SB)	19	66							1003		
Route 95	FROM	41.40	to	41.59		6	22							1003		
Route 95	FROM	41.59	to	41.75	(NO PASSING NB)	19	57							845		
Route 95	FROM	41.75	to	43.08		22	588							7022		
Route 95	FROM	43.08	to	43.26	(NO PASSING SB)	19	63							950		
Route 95	FROM	43.26	to	43.84		6	65							3062		
Route 95	FROM	43.84	to	44.04	(NO PASSING NB)	19	69							1056		
Route 95	FROM	44.04	to	44.12		22	38							422		
Route 95	FROM	44.12	to	44.51	(NO PASSING SB)	19	132							2059		
Route 95	FROM	44.51	to	45.28		6	96							4066		
Route 95	FROM	45.28	to	45.49	(NO PASSING NB)	19	74							1109		
Route 95	FROM	45.49	to	46.98		22	658							7867		
Route 95	FROM	46.98	to	47.06	(NO PASSING SB)	19	30							422		
Route 95	FROM	47.06	to	47.66		6	67							3168		
Route 95	FROM	47.66	to	47.70	(NO PASSING NB)		16							211		
Route 95	FROM	9.70	to	9.96	SB	LIMIT LINE	12.0								12.0	
Route 95	FROM	9.70	to	9.96	SB	STOP	51.0								44.0	
Route 95	FROM	9.70	to	9.96	SB	AHEAD	64.0								31.0	
Route 95	FROM	9.70	to	9.96	SB (SEE DETAIL)	RUMBLE STRIP		204	204							
SUBTOTAL SHEET PDQ-2							127.0	5191	204	1426	185	2704	672	97149	361574	87.00
SUBTOTAL SHEET PDQ-1								4525	-	3649	876	-	-	85005	2746	
TOTAL							127.0	9716	204	6136		3376		546474		87.00



RUMBLE STRIP DETAIL

NOTE:
 1. REMOVAL OF MARKINGS AND MARKERS SHALL BE DONE PRIOR OF OVERLAY OPERATIONS.

PAVEMENT DELINEATION QUANTITIES

PDQ-2

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6 37.3/47.6	8	17

Vanitas 2-7-11
 REGISTERED CIVIL ENGINEER DATE
 2-7-11
 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR
 MICHAEL RISTIC
 CALCULATED-DESIGNED BY
 CHECKED BY
 HAO VAN HO
 MICHAEL RISTIC
 REVISED BY
 DATE REVISED

PAVEMENT QUANTITIES

ROUTE	PM	COLD PLANE ASPHALT CONCRETE PAVEMENT	HOT MIX ASPHALT	TACK COAT	CENTER LINE RUMBLE STRIP (HMA, GROUND-IN INDENTATION)
		(SQYD)	(TON)	(TON)	(STa)
95	9.7/33.6	364555	24607	114	402
	37.3/47.6	157109	10605	49	0
TOTAL		521664	35212	163	402

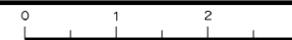
REPLACE ASPHALT CONCRETE SURFACING LOCATIONS

DIG-OUT NUMBER	PM	REPLACE ASPHALT CONCRETE SURFACING (CY)
1	9.7/15.0	569
2	15.0/20.0	533
3	20.0/25.0	320
4	25.0/30.0	273
5	30.0/33.6	379
6	37.3/42.0	504
7	42.0/47.6	504
TOTAL		3082

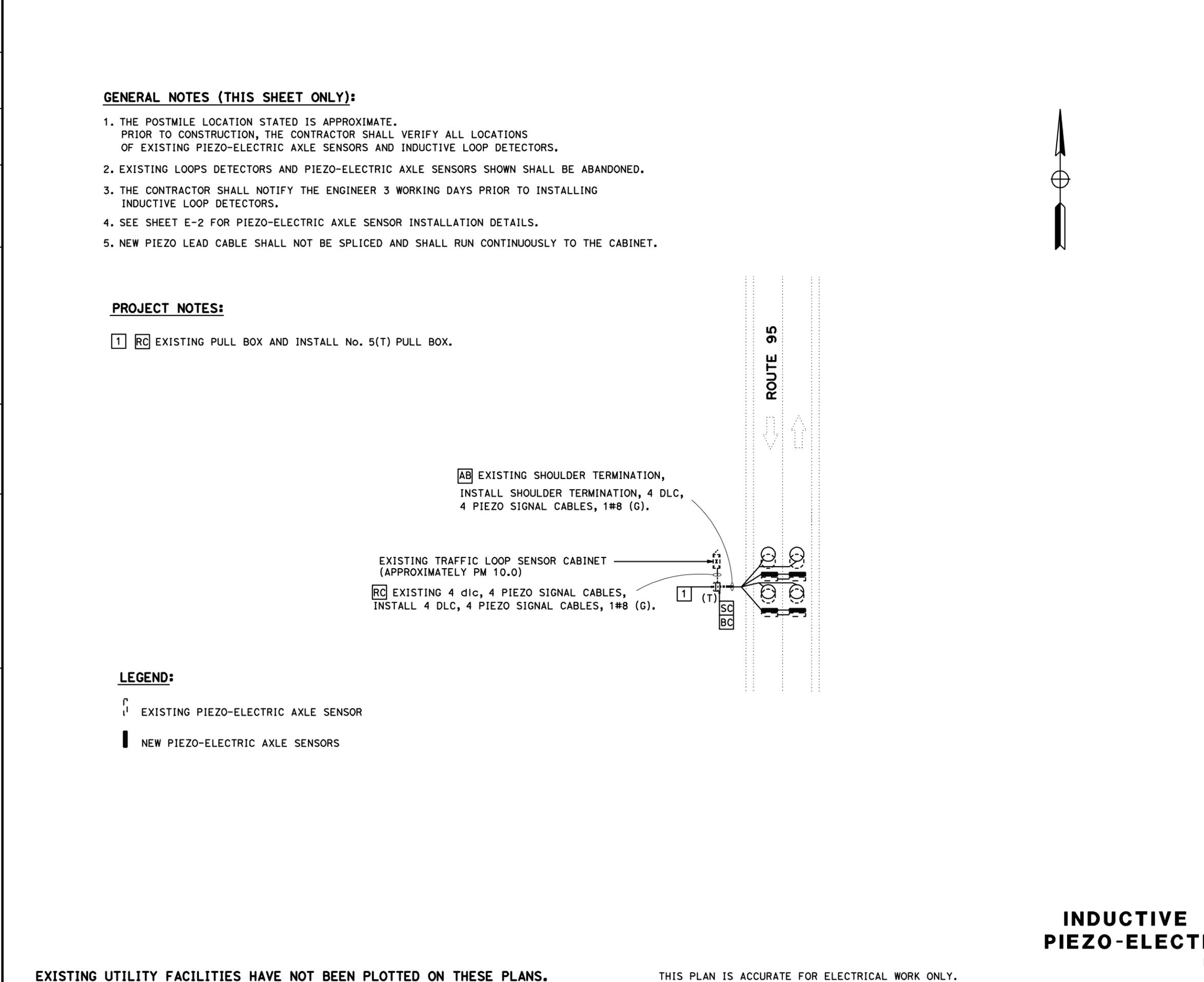
SUMMARY OF QUANTITIES

Q-1

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B



GENERAL NOTES (THIS SHEET ONLY):

1. THE POSTMILE LOCATION STATED IS APPROXIMATE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL LOCATIONS OF EXISTING PIEZO-ELECTRIC AXLE SENSORS AND INDUCTIVE LOOP DETECTORS.
2. EXISTING LOOPS DETECTORS AND PIEZO-ELECTRIC AXLE SENSORS SHOWN SHALL BE ABANDONED.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 3 WORKING DAYS PRIOR TO INSTALLING INDUCTIVE LOOP DETECTORS.
4. SEE SHEET E-2 FOR PIEZO-ELECTRIC AXLE SENSOR INSTALLATION DETAILS.
5. NEW PIEZO LEAD CABLE SHALL NOT BE SPLICED AND SHALL RUN CONTINUOUSLY TO THE CABINET.

PROJECT NOTES:

1 **RC** EXISTING PULL BOX AND INSTALL No. 5(T) PULL BOX.

LEGEND:

- EXISTING PIEZO-ELECTRIC AXLE SENSOR
- NEW PIEZO-ELECTRIC AXLE SENSORS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6 37.3/47.6	9	17

Ferdinand De La Cruz 2-7-11
 REGISTERED ELECTRICAL ENGINEER DATE
 2-7-11
 PLANS APPROVAL DATE
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EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

**INDUCTIVE LOOP DETECTOR
 PIEZO-ELECTRIC AXLE SENSOR
 NO SCALE**

E-1

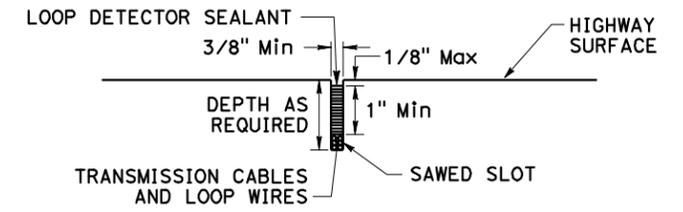
ME 09-28-10
 FD 09-27-10
 ME 07-22-10
 REVISOR BY DATE REVISED
 LUIS PENALOZA JR
 FERDINAND DE LA CRUZ
 CALCULATED-DESIGNED BY CHECKED BY
 FUNCTIONAL SUPERVISOR
 FERDINAND DE LA CRUZ
 DEPARTMENT OF TRANSPORTATION
 ELECTRICAL DESIGN B
 STATE OF CALIFORNIA - CALTRANS

AXLE SENSOR INSTALLATION PROCEDURE:

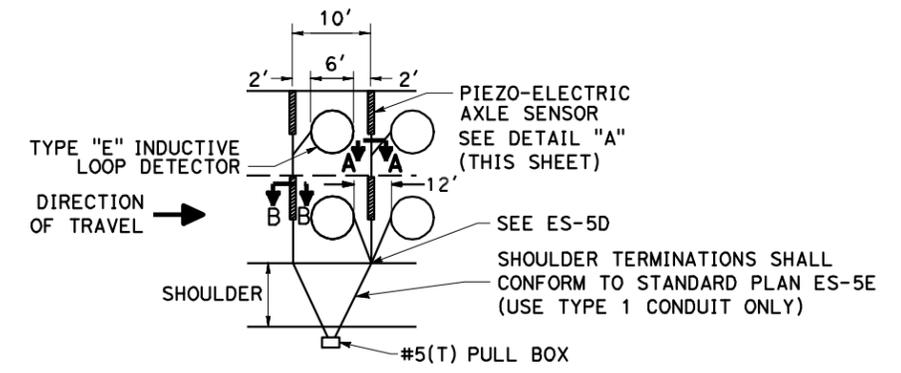
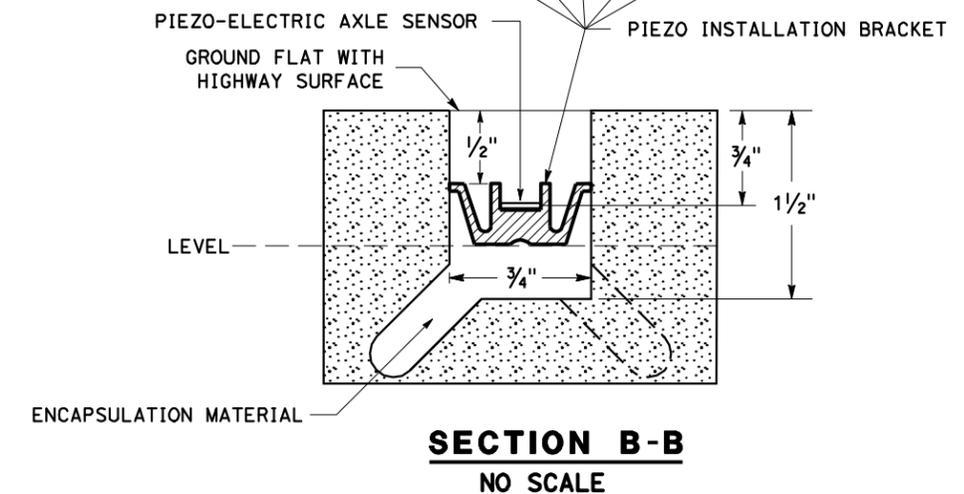
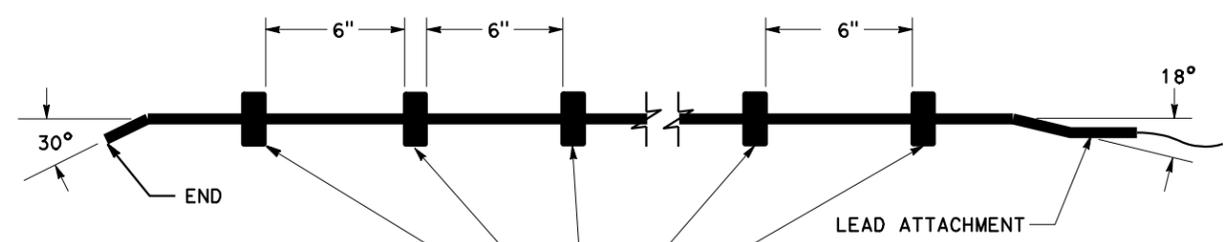
- MARK THE POSITION OF THE AXLE SENSORS AS DIRECTED BY THE ENGINEER. AXLE SENSOR CHANNELS MUST BE PERPENDICULAR TO TRAFFIC.
- MARK THE HOME RUN CUTS AS SHOWN IN THE AXLE SENSOR INSTALATION DETAIL.
- USING A CONCRETE SAW, CUT THE AXLE SENSOR CHANNELS 3/4" WIDE BY 1 1/2" DEEP IN A SINGLE PASS. CUTS SHALL BE STRAIGHT AND TRUE.
- DRILL 1/2" Dia HOLES 1" DEEP AT A 45 Deg ANGLE AT THE BOTTOM OF EACH AXLE SENSOR CHANNEL. HOLES SHALL BE 12" APART AND ON ALTERNATING SIDES OF THE CHANNEL.
- WASH OUT THE CHANNELS AND ALL SAW CUTS THOROUGHLY WITH HIGH PRESSURE WATER. DRY COMPLETELY WITH AN AIR COMPRESSOR. IN PCC PAVEMENT ONLY, WIPE OUT THE CHANNELS WITH LACQUER THINNER AND CLEAN COTTON RAGS.
- PLACE 4" DUCT TAPE STRIPS ON THE PAVEMENT AROUND THE CHANNELS.
- ENSURE THAT EACH SENSOR IS STRAIGHT AND FLAT. BEND EACH END DOWN SLIGHTLY AND PLACE THE INSTALLATION CLIPS ON THE SENSOR EVERY 6" ALONG THE LENGTH. SEE SECTION B-B BELOW.
- BLOCK OFF THE CABLE END OF THE CHANNEL WITH DUCT TAPE TO PREVENT THE GROUT FROM FLOWING OUT OF THE CHANNEL.
- ATTACH STATIC MIXING TUBE ONTO CARTRIDGE.
- HALF FILL THE CHANNEL WITH SENSOR EPOXY. ENSURE THAT THE BOTTOM OF THE CHANNEL IS COMPLETELY COVERED, AND THAT THE HOLES DRILLED IN STEP 4 ARE FILLED.
- PLACE THE SENSOR IN THE CHANNEL 3/4" BELOW THE ROAD SURFACE (AS SHOWN IN SECTION B-B BELOW), WITH NO VOIDS BENEATH THE SENSOR.
- COMPLETELY FILL THE CHANNEL WITH SENSOR EPOXY. SMOOTH OUT THE EPOXY ON TOP OF THE SENSOR TO ROAD LEVEL, WITH NO TROUGH ON TOP.
- WHEN SENSOR EPOXY HAS BEGUN TO SET, REMOVE THE DUCT TAPE FROM THE PAVMENT. REMOVE THE DUCT SEAL FROM THE END OF THE CHANNEL.
- SEAL ALL SAW CUTS. ELASTOMERIC SEALANT ONLY SHALL BE USED IN ALL CUTS CONTAINING SCREENED TRANSMISSION CABLE.
- REMOVE ANY HIGH SPOTS IN THE SENSOR EPOXY WITH A HAND GRINDER.
- CLEAN UP THE SITE. WHEN ALL SEALANTS ARE COMPLETELY CURED, LANES MAY BE OPENED TO TRAFFIC.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	9.7/33.6 37.3/47.6	10	17

REGISTERED ELECTRICAL ENGINEER DATE 2-7-11
 REGISTERED PROFESSIONAL ENGINEER
 FERDINAND DE LA CRUZ
 No. E 17215
 Exp. 6-30-11
 ELECTRICAL
 STATE OF CALIFORNIA
 PLANS APPROVAL DATE 2-7-11
 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.



DETAILED PIEZO SENSOR INSTALLATION - ELEVATION



PIEZO-ELECTRIC AXLE SENSOR (INSTALLATION DETAILS) NO SCALE

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

ELECTROLIERS

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

NOTES:

- 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.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
- Variations noted adjacent to symbol on project plans.

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, 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
08	SBd	95	9.7/33.6, 37.3/47.6	11	17

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated February 7, 2011

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
08	SBd	95	9.7/33.6, 37.3/47.6	12	17

Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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To accompany plans dated February 7, 2011

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

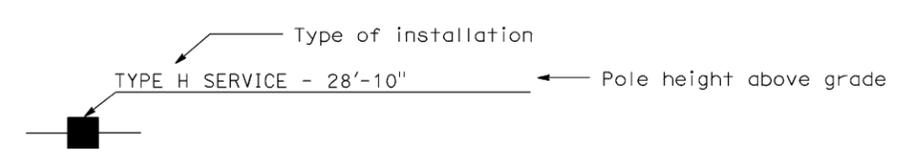
SIGNAL EQUIPMENT

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
T	T	Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

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

SIGNAL EQUIPMENT 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

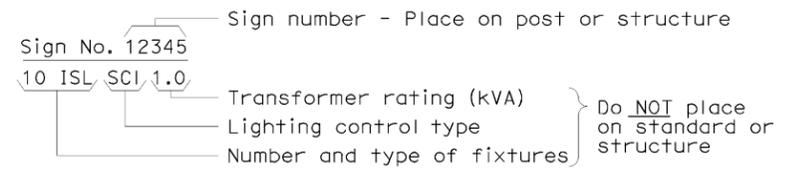
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

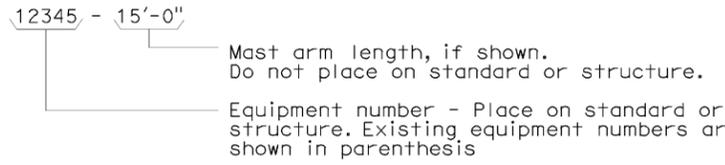
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

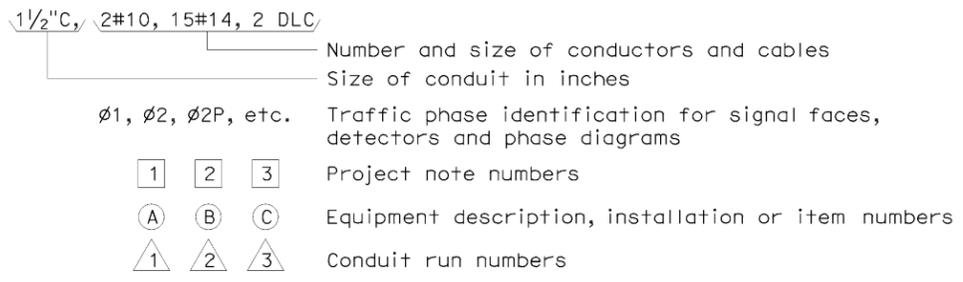
ILLUMINATED SIGN IDENTIFICATION NUMBER:



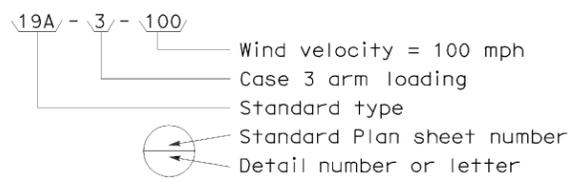
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



CONDUIT AND CONDUCTOR IDENTIFICATION:



SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



MISCELLANEOUS EQUIPMENT

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

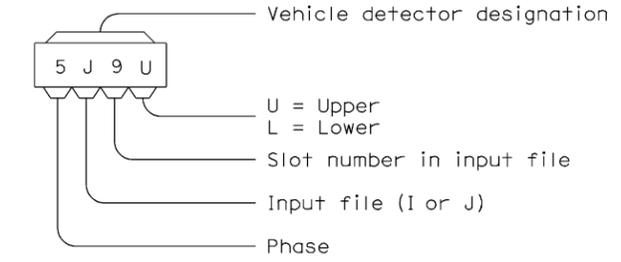
WIRING DIAGRAM LEGEND

P	Pole	----	External conductor
CB	Circuit breaker	—	Conductor or bus
A	Ampere	—●—	Tie point
V	Volt	—/—	Contactor coil
M	Metered	— —	Contactor, Contact NO
UM	Unmetered	— —	Contactor, Contact NC
NB	Neutral bus	—⊗—	Terminal blocks
GB	Ground bus	—/—	Enclosure bond
G	Equipment grounding conductor	— —	Grounding electrode
N	Grounded conductor (Neutral)	— —	Circuit breaker
		Ⓜ	Receptacle

PULL BOXES

PROPOSED	EXISTING	
		Pull box-No. 5 unless otherwise indicated or noted.
		Pull box-Additional designations or descriptions
3		(C) = Communications pull box
5		(E) = Pull box with extension
6		(S) = Sprinkler control pull box
7		(21) = Anchor bolts and conduit for future installation of Type 21 Standard
8		(T) = Traffic pull box
9		
9A		

VEHICLE DETECTORS



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

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

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

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	95	9.7/33.6, 37.3/47.6	14	17

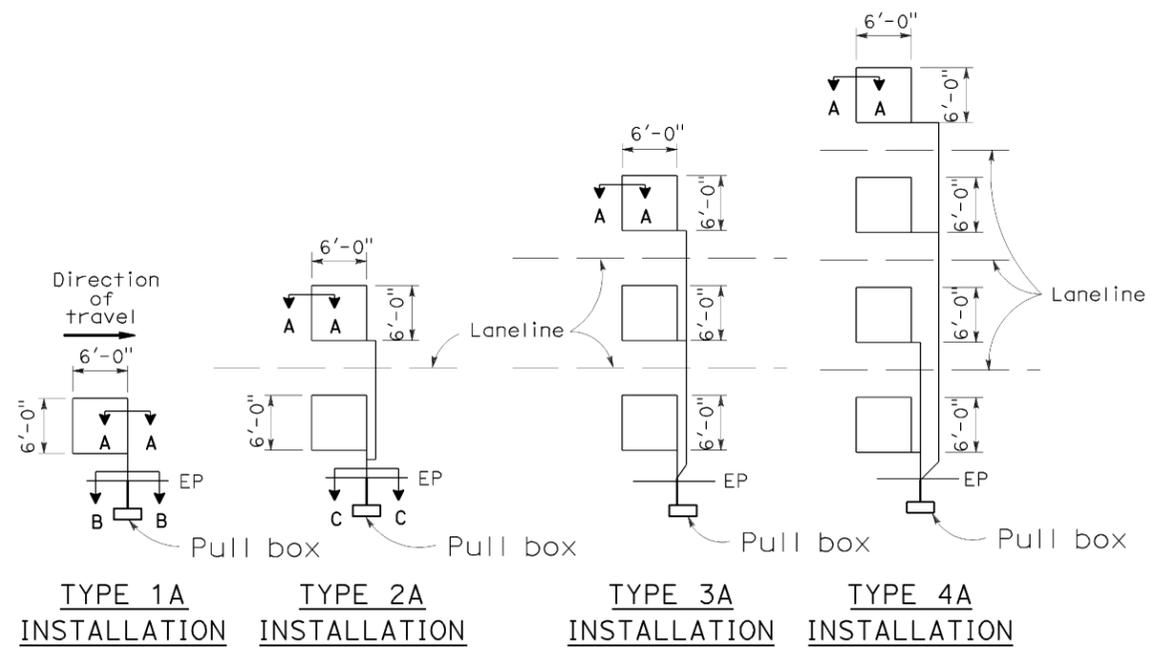
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

October 5, 2007
 PLANS APPROVAL DATE

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LOOP INSTALLATION PROCEDURE

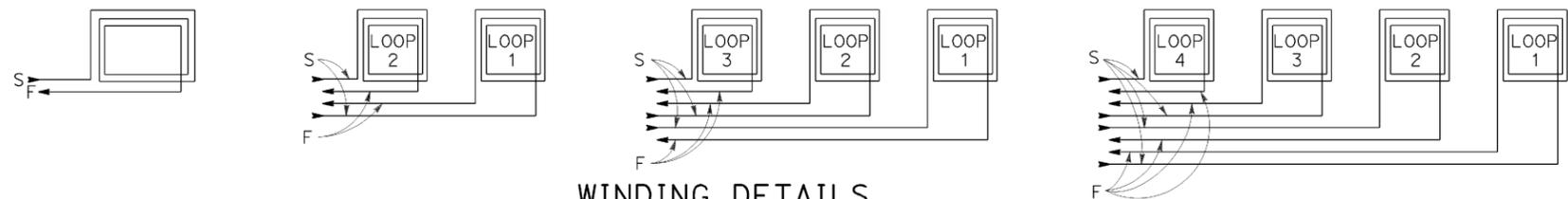
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no 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.



SAWCUT DETAILS

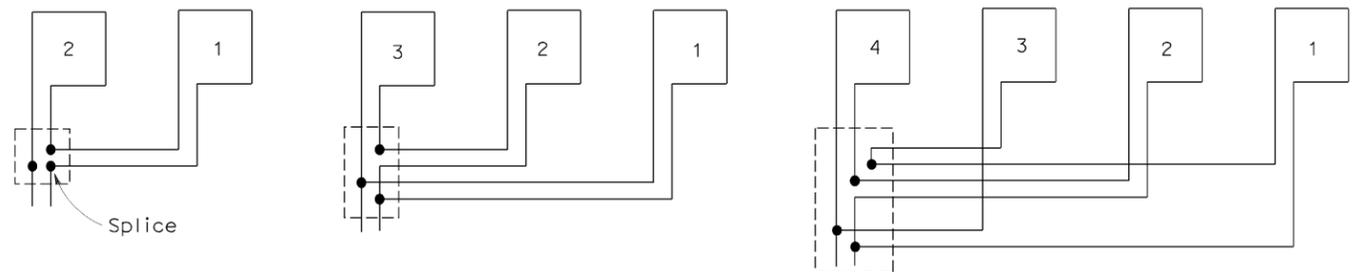
(Type A loop detector configurations illustrated)

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



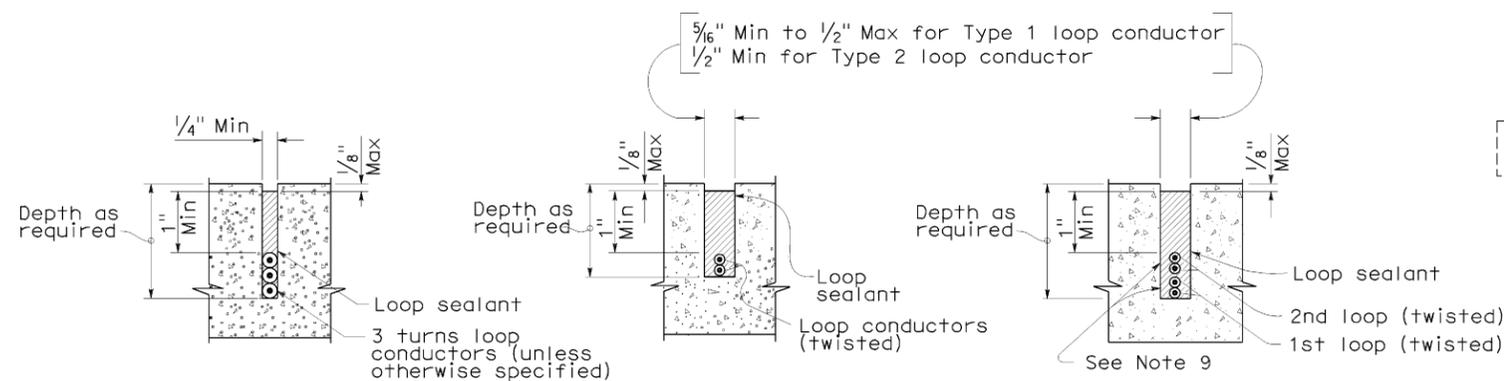
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C
 SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	95	9.7/33.6, 37.3/47.6	15	17

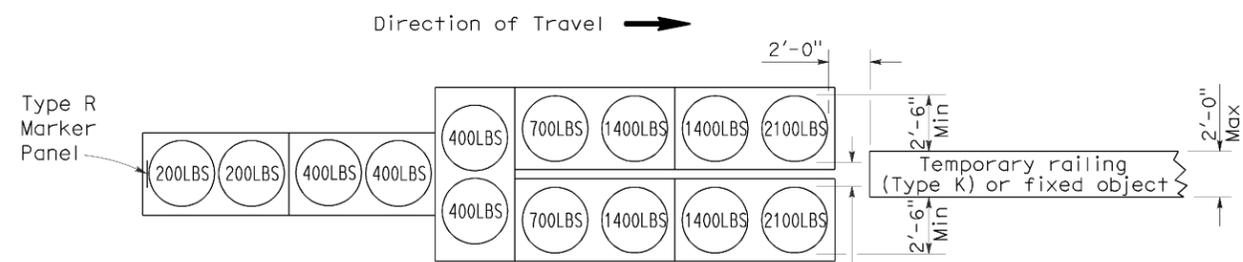
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

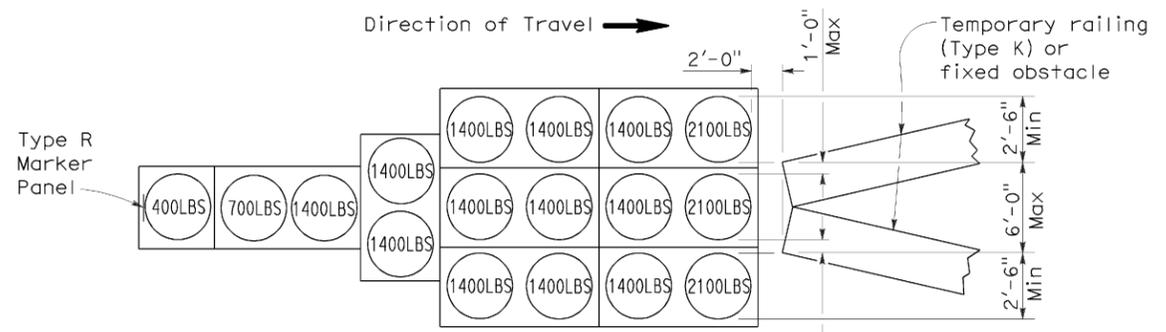
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To accompany plans dated February 7, 2011



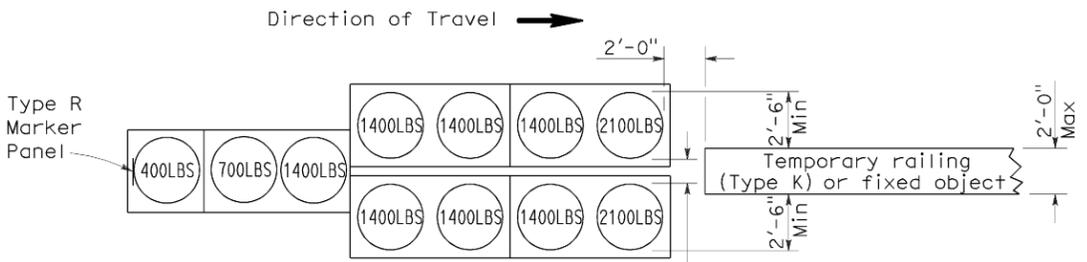
ARRAY 'TU14'

Approach speed 45 mph or more



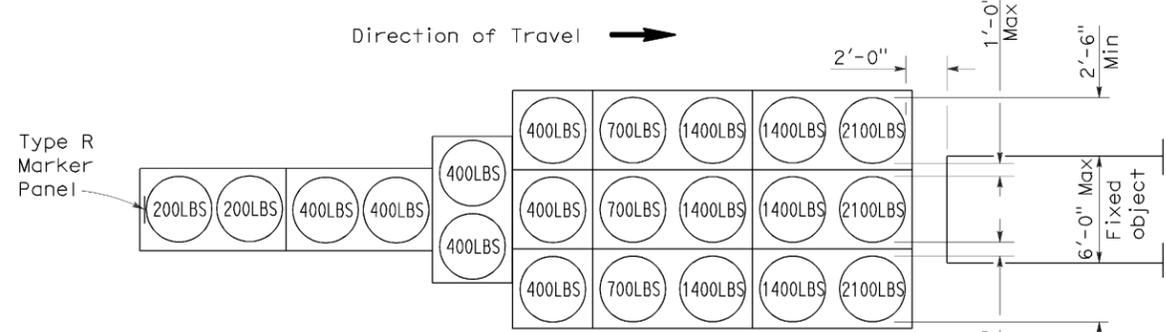
ARRAY 'TU17'

Approach speed less than 45 mph



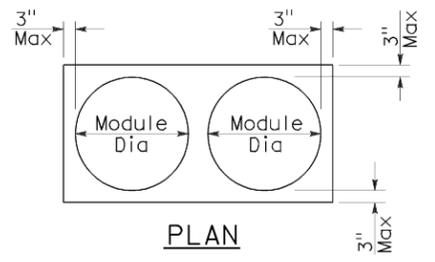
ARRAY 'TU11'

Approach speed less than 45 mph

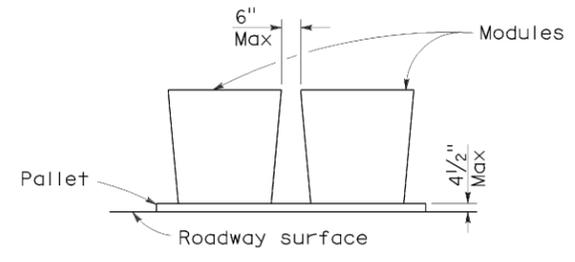


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	95	9.7/33.6 37.3/47.6	16	17

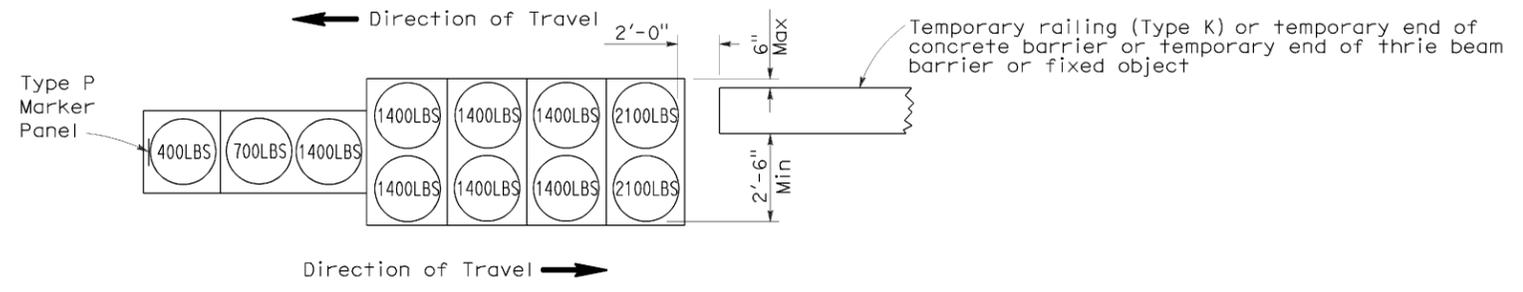
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

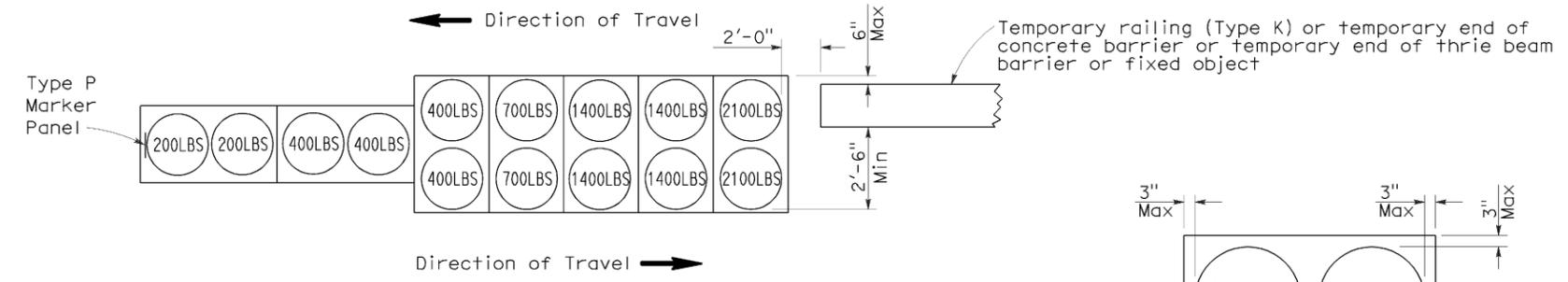
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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

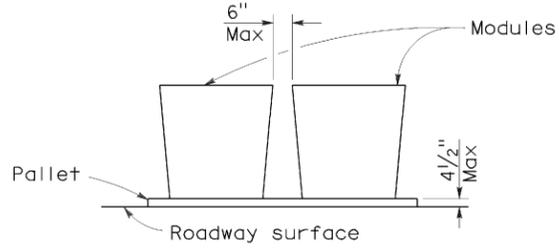
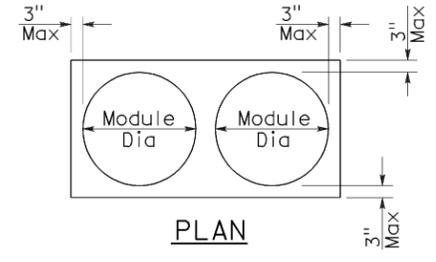
To accompany plans dated February 7, 2011



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

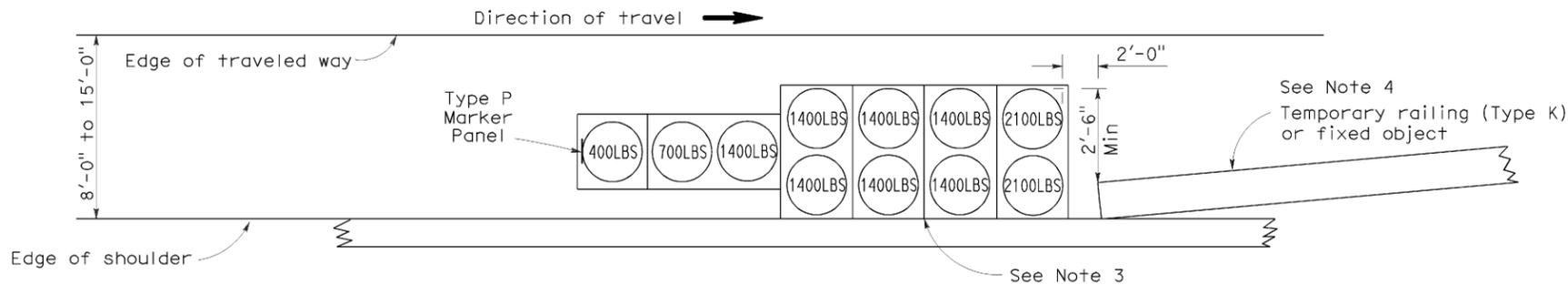
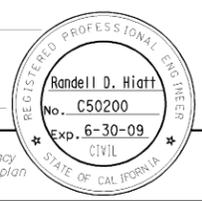
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	95	9.7/33.6, 37.3/47.6	17	17

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

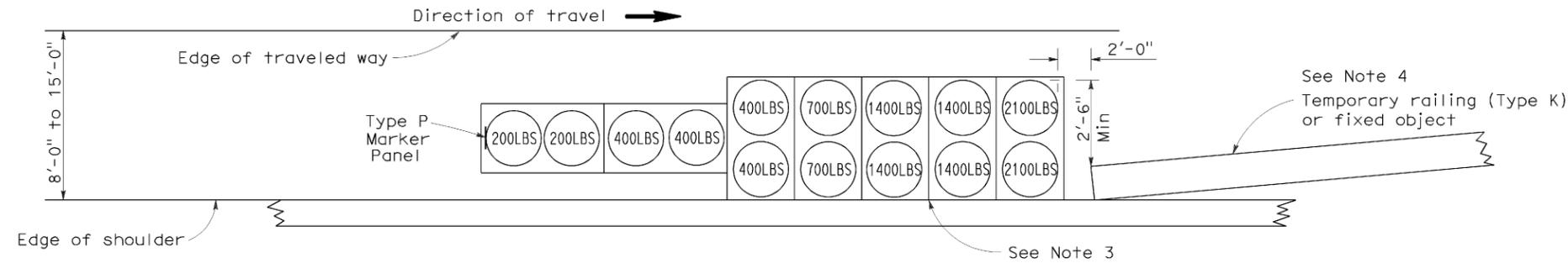
June 6, 2008
PLANS APPROVAL DATE

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To accompany plans dated February 7, 2011



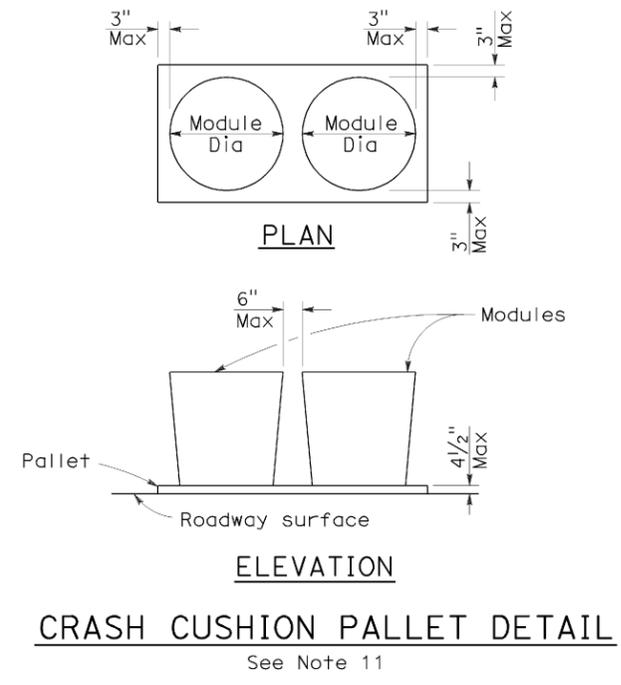
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



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

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