

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	2	20

<i>Marc Talavera</i>	02-07-13
REGISTERED CIVIL ENGINEER	DATE
3-4-13	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
MARC TALAVERA
No. C70662
Exp. 6/30/13
CIVIL

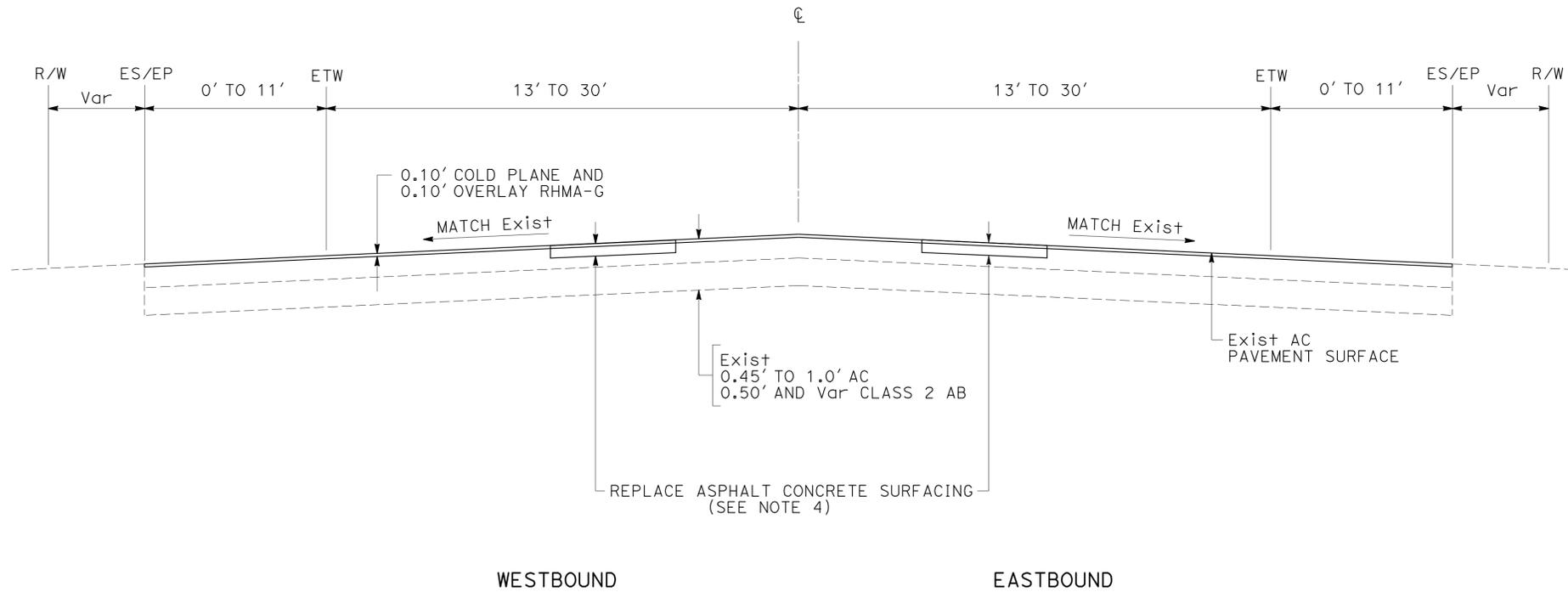
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

- DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- MATCH EXISTING SUPERELEVATION.
- FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT DISTRICT OFFICE.
- SEE SHEET C-1 AND Q-1 FOR DETAILS AND LIMITS OF REPLACE ASPHALT CONCRETE SURFACING (DIGOUTS).

ABBREVIATION:

RHMA-G RUBBERIZED HOT MIX ASPHALT TYPE G



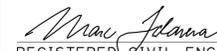
ROUTE 74
PM 42.6/47.9

TYPICAL CROSS SECTIONS

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR TYPICAL CROSS SECTIONS WORK ONLY

NO SCALE **X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
FUNCTIONAL SUPERVISOR
KUANG CHEN
CALCULATED/DESIGNED BY
CHECKED BY
M. TALAVERA
K. CHEN
REVISED BY
DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	3	20
			02-07-13	DATE	
REGISTERED CIVIL ENGINEER					
3-4-13			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



NOTES:

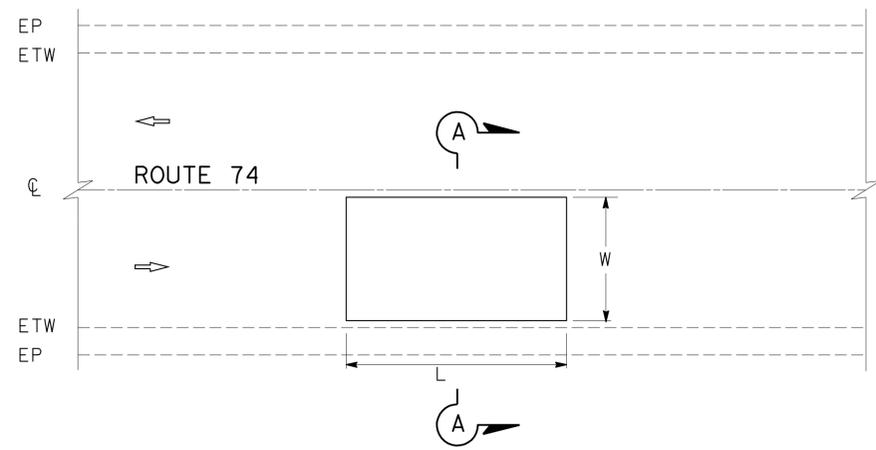
- FOR REPLACE ASPHALT CONCRETE SURFACING LOCATIONS AND DIMENSIONS SEE SHEET Q-1.
- SEE SHEET Q-1 FOR OVERLAY LIMITS OF RHMA-G
- DO NOT PAVE DIRT TURNOUTS OR DIRT SHOULDER AREAS.

LEGEND:

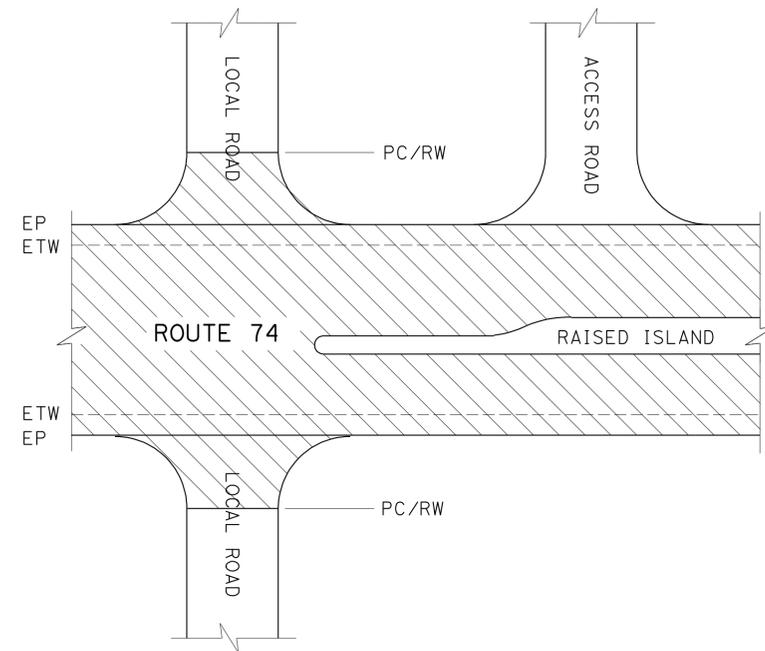
-  COLD PLANE EXISTING AC PAVEMENT AND 0.10' OVERLAY (RHMA-G)
-  TYPICAL LIMITS OF REPLACE AC SURFACING
-  DIRECTION OF TRAVEL

ABBREVIATION:

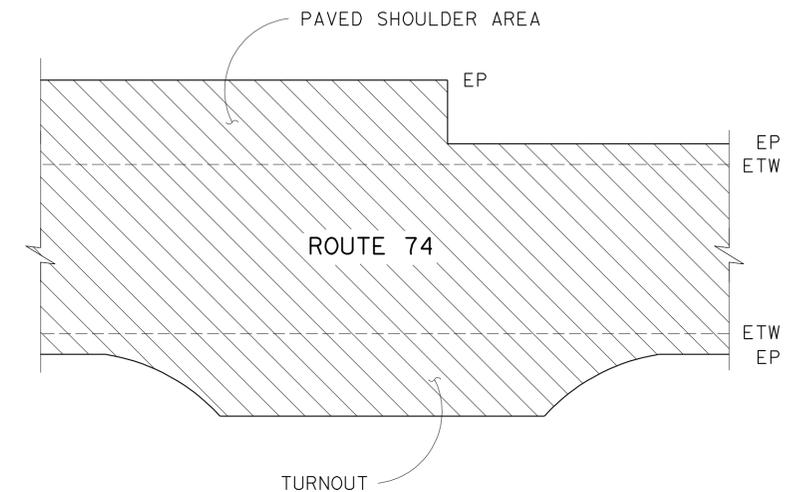
HMA-A HOT MIX ASPHALT (TYPE A)



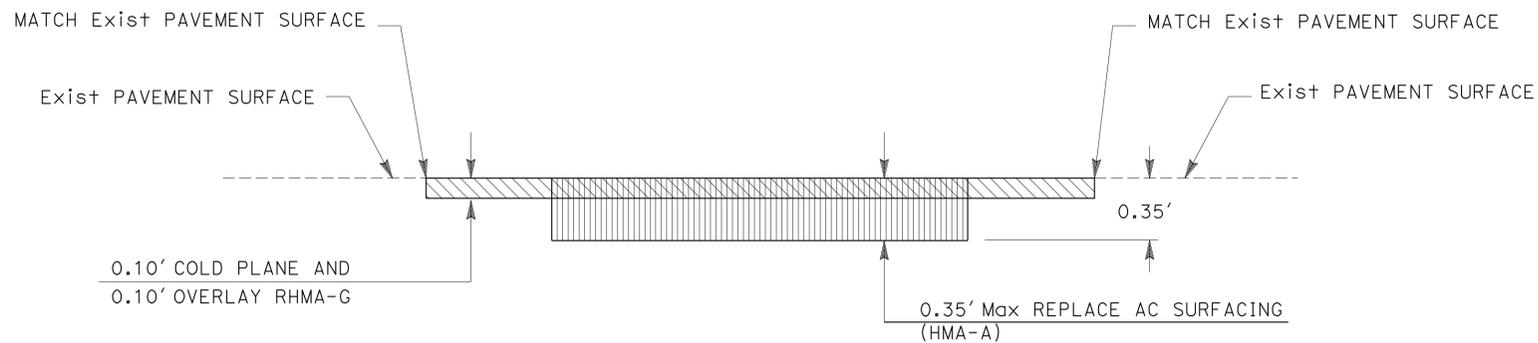
TYPICAL REPLACE ASPHALT SURFACING LOCATIONS



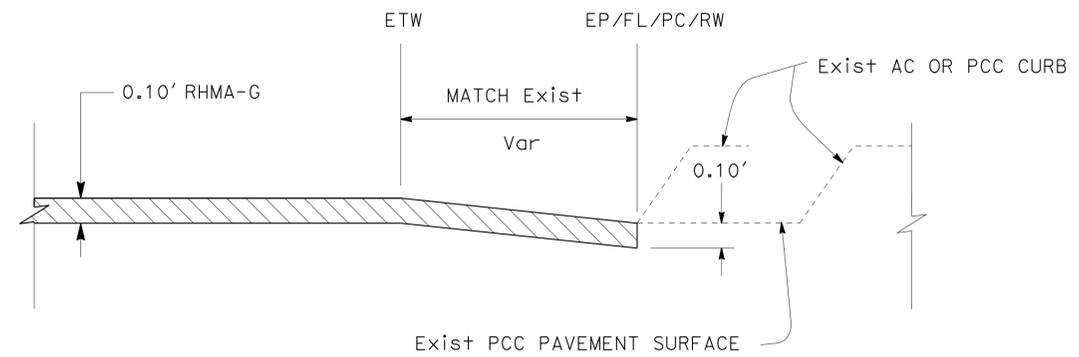
LIMITS OF WORK AT TYPICAL ACCESS ROAD AND LOCAL INTERSECTIONS



LIMITS OF WORK AT TYPICAL PAVED TURNOUT AND PAVED SHOULDER AREA



SECTION A-A



PAVEMENT CONFORM (TRANSVERSE) AT INTERSECTIONS WITH LOCAL STREET PAVED ACCESS ROAD, CURB AND GUTTER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: KUANG CHEN
 CALCULATED/DESIGNED BY: M. TALAVERA
 CHECKED BY: K. CHEN
 REVISED BY: DATE
 REVISIONS:

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS. APPROVED FOR CONSTRUCTION DETAILS WORK ONLY

CONSTRUCTION DETAILS

NO SCALE **C-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	4	20

<i>Marc Talavera</i>	02-07-13
REGISTERED CIVIL ENGINEER	DATE
3-4-13	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	MARC TALAVERA
No. C70662	Exp. 6/30/13
CIVIL	STATE OF CALIFORNIA

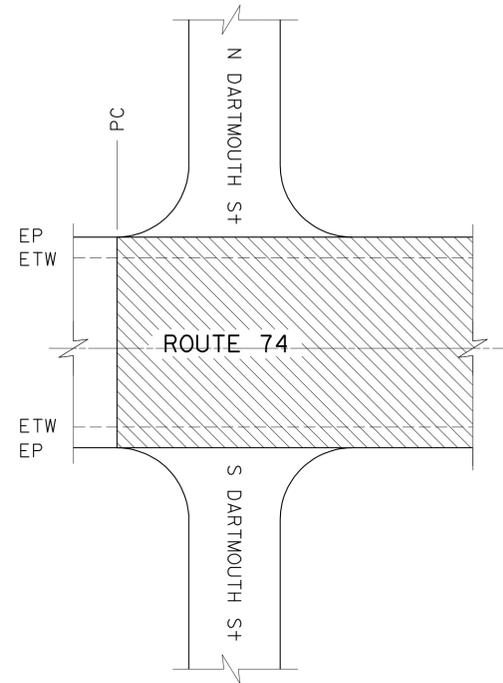
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

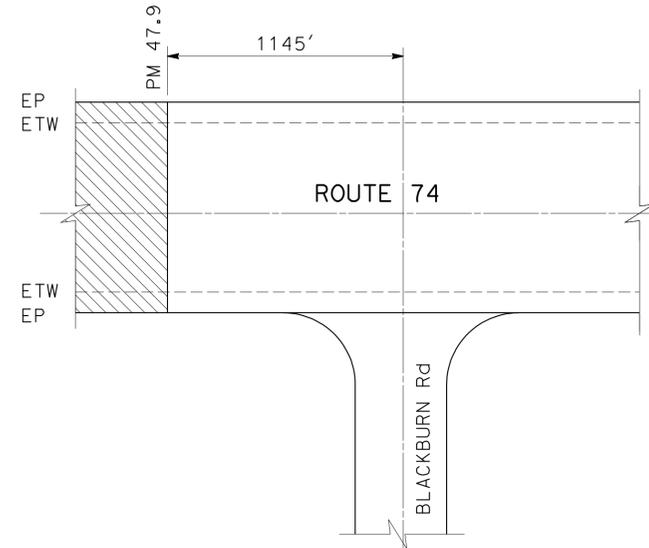
- DO NOT PAVE OVER PCC.
- PROTECT-IN-PLACE PCC-BORDERED MANHOLE AND WATER VALVE COVERS. FOR LIST AND LOCATION OF MANHOLE AND WATER VALVES TO BE ADJUSTED, SEE SHEET Q-1
- MATCH FINAL GRADE OF RHMA-G SURFACING WITH THE EXISTING GRADE OF PCC-BORDERED MANHOLE AND WATER VALVE COVERS.

LEGEND:

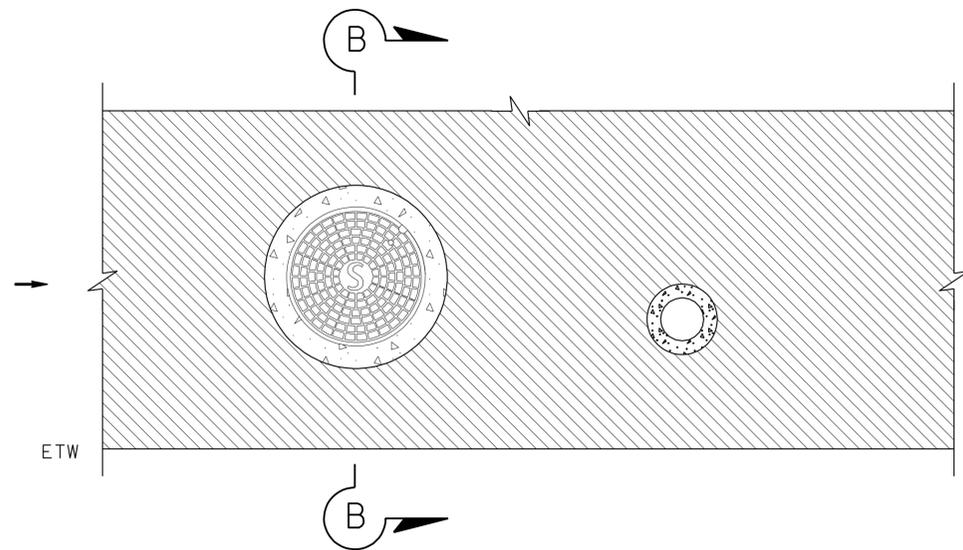
-  LIMITS OF 0.10' COLD PLANE AND OVERLAY
-  RHMA-G
-  DIRECTION OF TRAVEL
-  PCC-BORDERED WATER VALVE COVER
-  PCC-BORDERED MANHOLE COVER



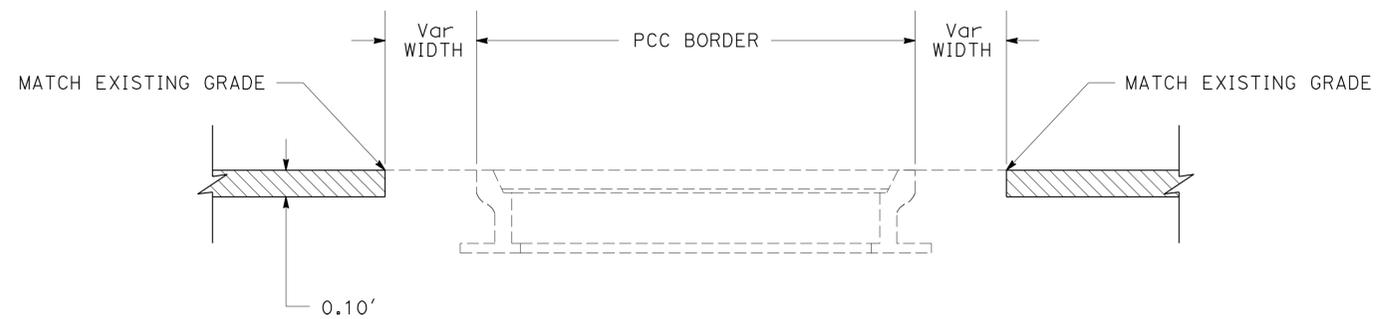
LIMITS OF WORK AT PM 42.6



LIMITS OF WORK AT PM 47.9



TYPICAL LIMITS OF WORK AT PCC-BORDERED MANHOLE AND WATER VALVE COVERS



SECTION B-B

CONSTRUCTION DETAILS

NO SCALE

C-2

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

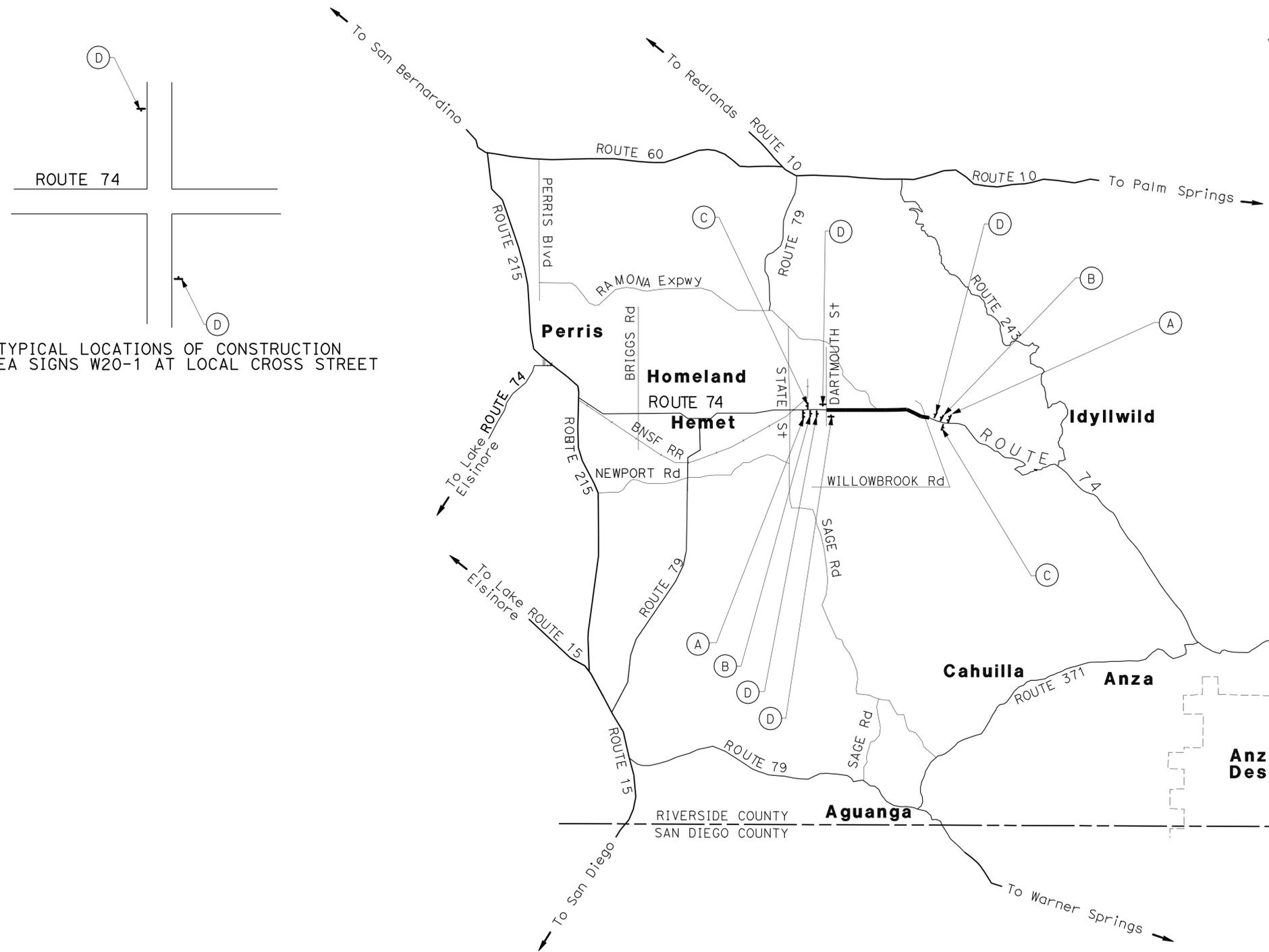
APPROVED FOR CONSTRUCTION DETAILS WORK ONLY

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	5	12

W.E. Wasser 02-07-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
W.E. WASSER
 No. 37378
 Exp. 6-30-14
 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.



TYPICAL LOCATIONS OF CONSTRUCTION AREA SIGNS W20-1 AT LOCAL CROSS STREET

- NOTES:**
1. EXACT LOCATION AND POSITION OF SIGNS WILL BE DETERMINED BY THE ENGINEER.
 2. SIGN POST LENGTH ARE APPROXIMATE, EXACT SIZE AND LENGTH WILL BE DETERMINED BY THE ENGINEER.
 3. LOCATIONS OF PCMS WILL BE DETERMINED BY THE ENGINEER.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: W.E. WASSER
 DEAN TO: W.E. WASSER
 REVISIONS: (Grids X, Y, Z)
 CALCULATED/DESIGNED BY: W.E. WASSER
 CHECKED BY:
 REVISED BY: W.E. WASSER
 DATE REVISED:

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	No. OF SIGNS
(A)	C40(CA)	144" x 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONE	2- 6" x 8"	2
(B)	G20-1	90" x 48"	ROAD CONSTRUCTION NEXT 6 MILES	2- 6" x 6"	2
(C)	G20-2	48" x 24"	END ROAD WORK	2- 4" x 4"	2
(D)	W20-1	48" x 48"	ROAD WORK AHEAD	1- 6" x 6"	36

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)

EA
2

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE **CS-1**

LAST REVISION | DATE PLOTTED => 26-FEB-2013
 02-06-13 | TIME PLOTTED => 13:29

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	6	12

W.E. Wasser 02-07-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 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.

PAVEMENT DELINEATION QUANTITIES

POST MILE	DETAIL No. OR PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)			PAVEMENT MARKER		THERMOPLASTIC PAVEMENT MARKING SQFT
		4" YELLOW	4" WHITE	8" WHITE	RETROREFLECTIVE		
		LF	LF	LF	TYPE D EA	TYPE G EA	
42.6/47.9	12		43718			911	
	22	6400			535		
	24	2400					
	27B		40918				
	29	23120			964		
	32	40048			1670		
	38			2435		98	
	8" WHITE CHEVRON						120
	12" WHITE LINE						1376
	12" YELLOW LINE						344
	TYPE IV(R) ARROW						120
	TYPE IV(L) ARROW						1005
	"SIGNAL" MARKING						768
	"AHEAD" MARKING						744
SUBTOTAL		71968	84636	2435	3169	1009	4477
TOTAL		159039			4178		4477

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR
 W.E. WASSER
 CALCULATED/DESIGNED BY
 CHECKED BY
 DEAN TO
 REVISED BY
 DATE REVISED

PAVEMENT DELINEATION QUANTITIES PDQ-1

LAST REVISION | DATE PLOTTED => 26-FEB-2013
 02-06-13 | TIME PLOTTED => 13:29

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	7	12

Marc Talavera 02-07-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MARC TALAVERA
 No. C70662
 Exp. 6/30/13
 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 QUANTITIES

DIRECTION	POST MILE	COLD PLANE AC PAVEMENT	TACK COAT	RHMA GAP GRADED
		SQYD	TON	TON
EASTBOUND	42.6/47.9	113,930.7	23.7	7,280.2
WESTBOUND	42.6/47.9	107,536.0	22.4	6,871.6
TOTALS		221,466.7	46.1	14,151.7

ADJUST MANHOLE AND WATER VALVE COVER TO GRADE

DIRECTION	POST MILE ⁺	MANHOLE	WATER VALVE
		EA	EA
EB	42.5/43.5	6	4
EB	43.5/44.5	-	3
EB	44.5/45.5	1	1
EB	45.5/46.5	1	2
EB	46.5/47.5	4	7
EB	47.5/47.9	-	4
WB	47.5/46.5	-	5
WB	46.5/45.5	1	5
WB	45.5/44.5	2	4
WB	44.5/43.5	2	20
WB	43.5/42.5	2	5
TOTAL		19	60

(+) POST MILE IS APPROXIMATE.

NOTE:

MANHOLE AND WATER VALVE QUANTITIES ON THIS TABLE DO NOT HAVE PCC BORDERS.

REPLACE ASPHALT CONCRETE SURFACING

DIRECTION	POST MILE *	DIMENSIONS (N)	VOLUME
		L' x W' x D'	CY
EASTBOUND	43.09	1100 x 12 x 0.35	171.1
EASTBOUND	42.55	1100 x 12 x 0.35	171.1
EASTBOUND	42.99	400 x 24 x 0.35	124.4
WESTBOUND	43.73	1000 x 24 x 0.35	311.1
WESTBOUND	47.90	600 x 12 x 0.35	93.3
TOTAL			871.0

(*) EXACT LOCATIONS AND DIMENSIONS OF REPLACE AC SURFACING SHALL BE DETERMINED BY THE ENGINEER.

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

SUMMARY OF QUANTITIES

Q-1

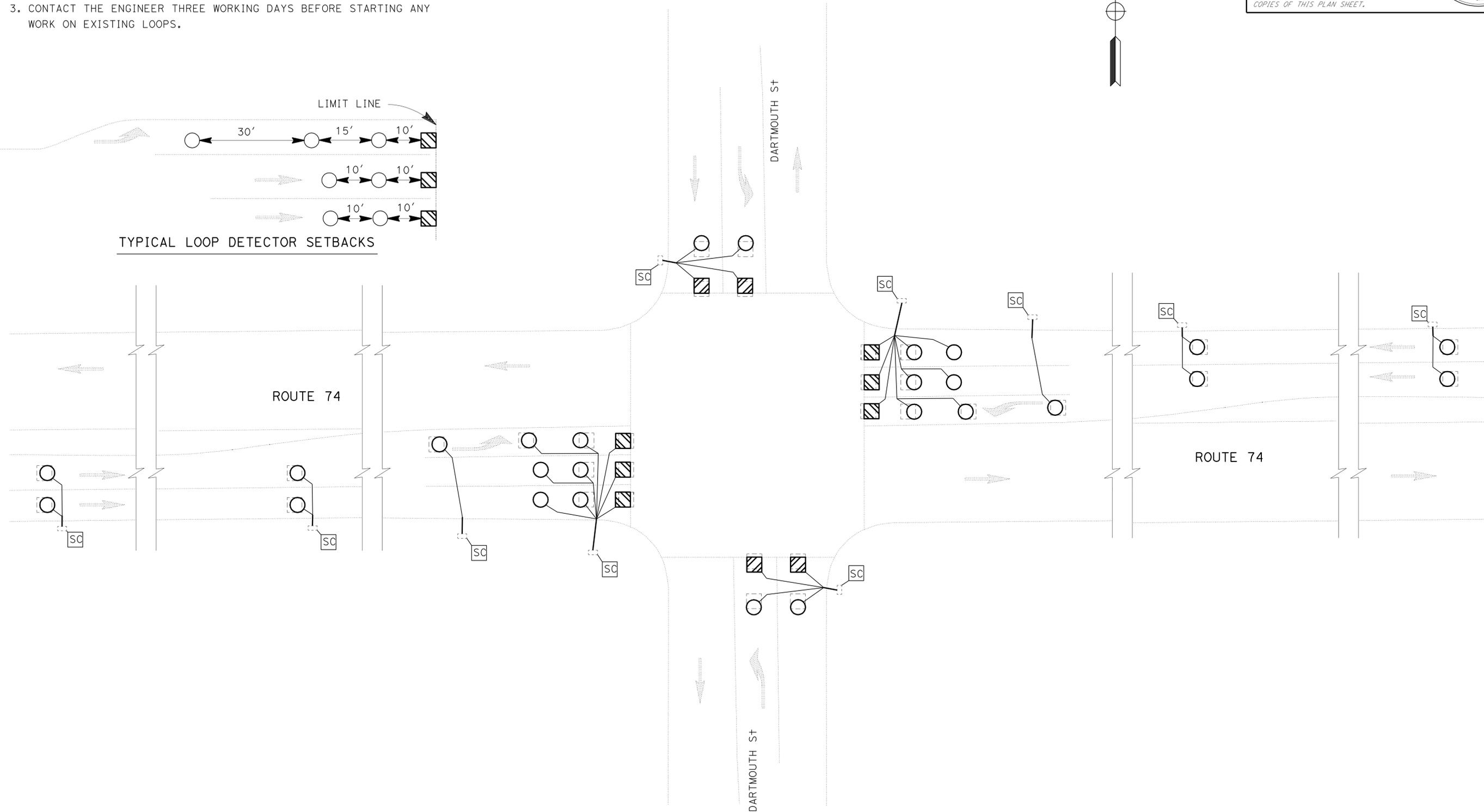
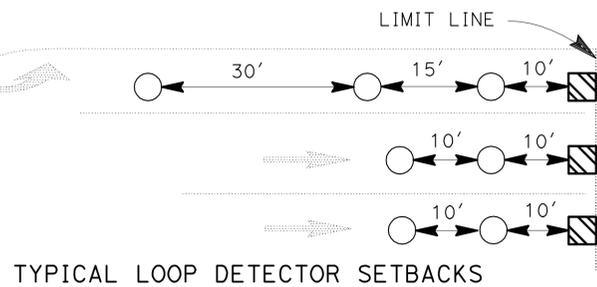
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: KUANG CHEN
 M. TALAVERA
 K. CHEN
 REVISOR: M. TALAVERA
 DATE: 02-07-13
 DESIGNED BY: M. TALAVERA
 CHECKED BY: K. CHEN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	8	20
<i>Jaime Estrada</i> 02-07-13 REGISTERED ELECTRICAL ENGINEER DATE					
3-4-13 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



NOTES (E-1 THRU E-7):

1. ALL DISTANCES ARE APPROXIMATE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL LOOP LOCATIONS.
2. EXISTING DETECTOR LOOPS SHOWN SHALL BE RC.
3. CONTACT THE ENGINEER THREE WORKING DAYS BEFORE STARTING ANY WORK ON EXISTING LOOPS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B
 FUNCTIONAL SUPERVISOR: DAVID A GONZALEZ
 CALCULATED/DESIGNED BY: DAVID A GONZALEZ
 CHECKED BY:
 REVISOR: DAVID A GONZALEZ
 DATE:

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

APPROVED FOR ELECTRICAL WORK ONLY

INDUCTIVE LOOP DETECTOR

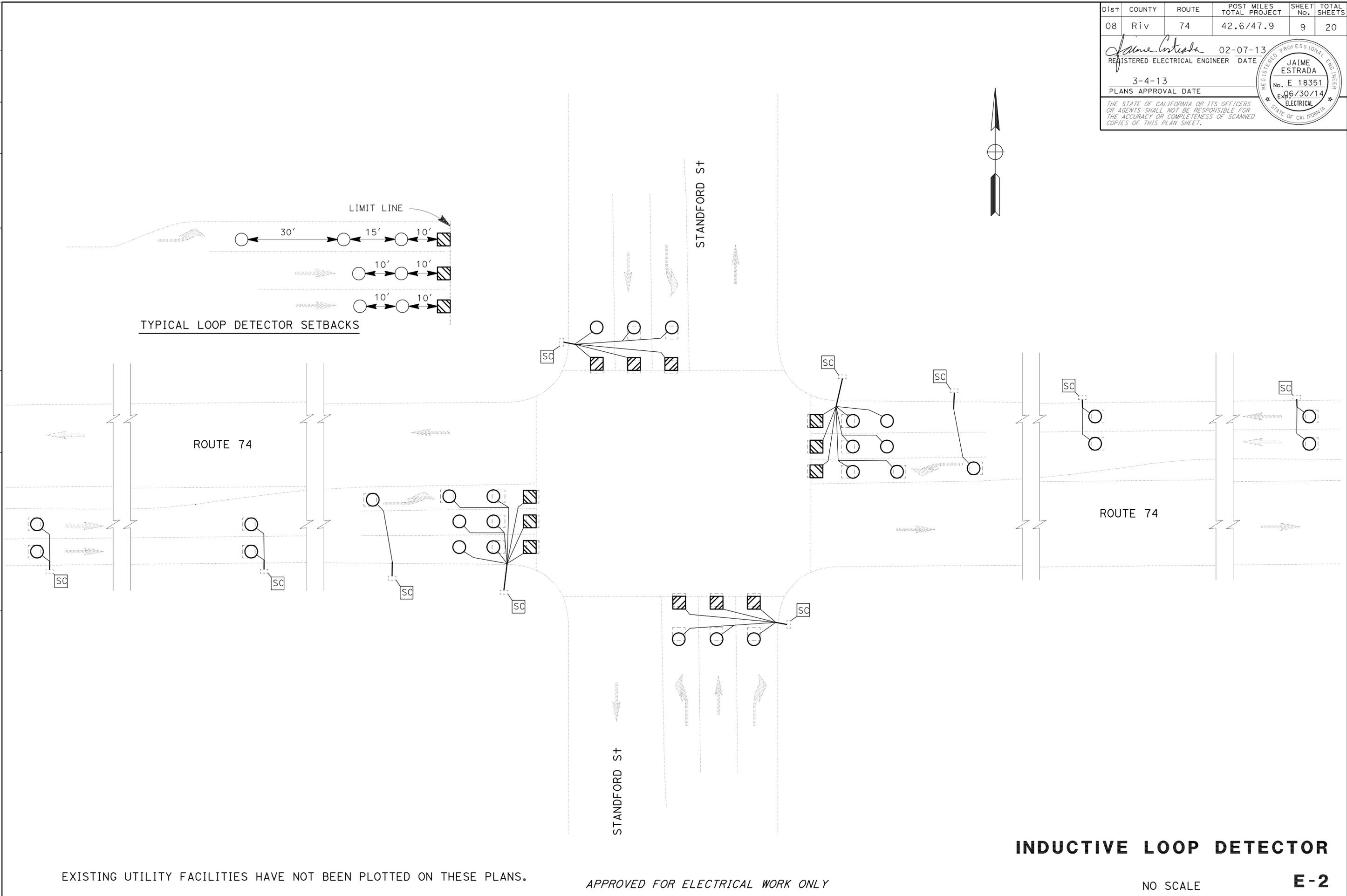
NO SCALE

E-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	9	20
		<i>Jaime Estrada</i> 02-07-13 REGISTERED ELECTRICAL ENGINEER DATE			
		3-4-13 PLANS APPROVAL DATE			
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	REVISOR	DATE
Caltrans ® ELECTRICAL DESIGN B	JAIIME ESTRADA	
	DAVID A GONZALEZ	
FUNCTIONAL SUPERVISOR	CHECKED BY	
DAVID A GONZALEZ		
CALCULATED/DESIGNED BY	REVISOR	DATE



TYPICAL LOOP DETECTOR SETBACKS

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

APPROVED FOR ELECTRICAL WORK ONLY

INDUCTIVE LOOP DETECTOR

NO SCALE

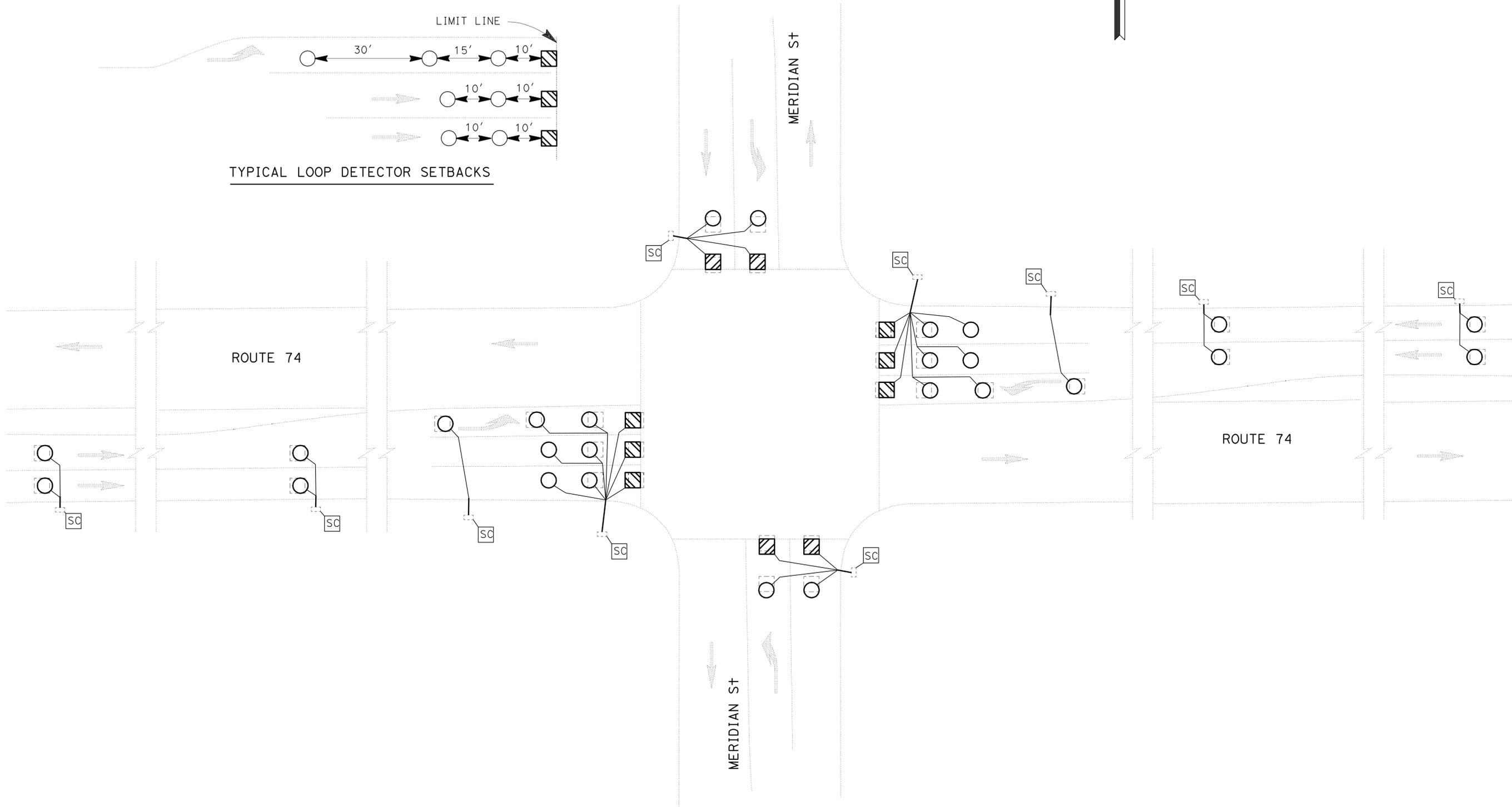
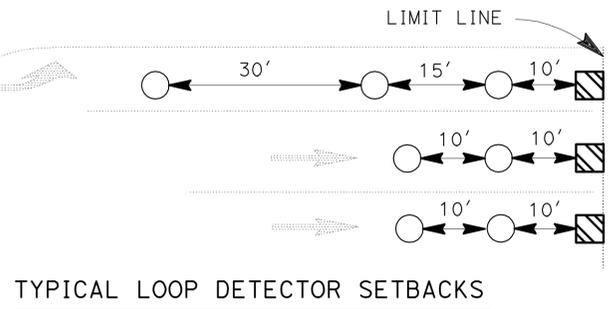
E-2

LAST REVISION | DATE PLOTTED => 26-FEB-2013 02-06-13 | TIME PLOTTED => 13:29

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	10	20

Jaime Estrada 02-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 3-4-13
 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 ELECTRICAL DESIGN B
 FUNCTIONAL SUPERVISOR: DAVID A GONZALEZ
 CALCULATED/DESIGNED BY: DAVID A GONZALEZ
 CHECKED BY: DAVID A GONZALEZ
 REVISOR: JAIME ESTRADA
 DATE REVISION: DAVID A GONZALEZ

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

APPROVED FOR ELECTRICAL WORK ONLY

INDUCTIVE LOOP DETECTOR

NO SCALE

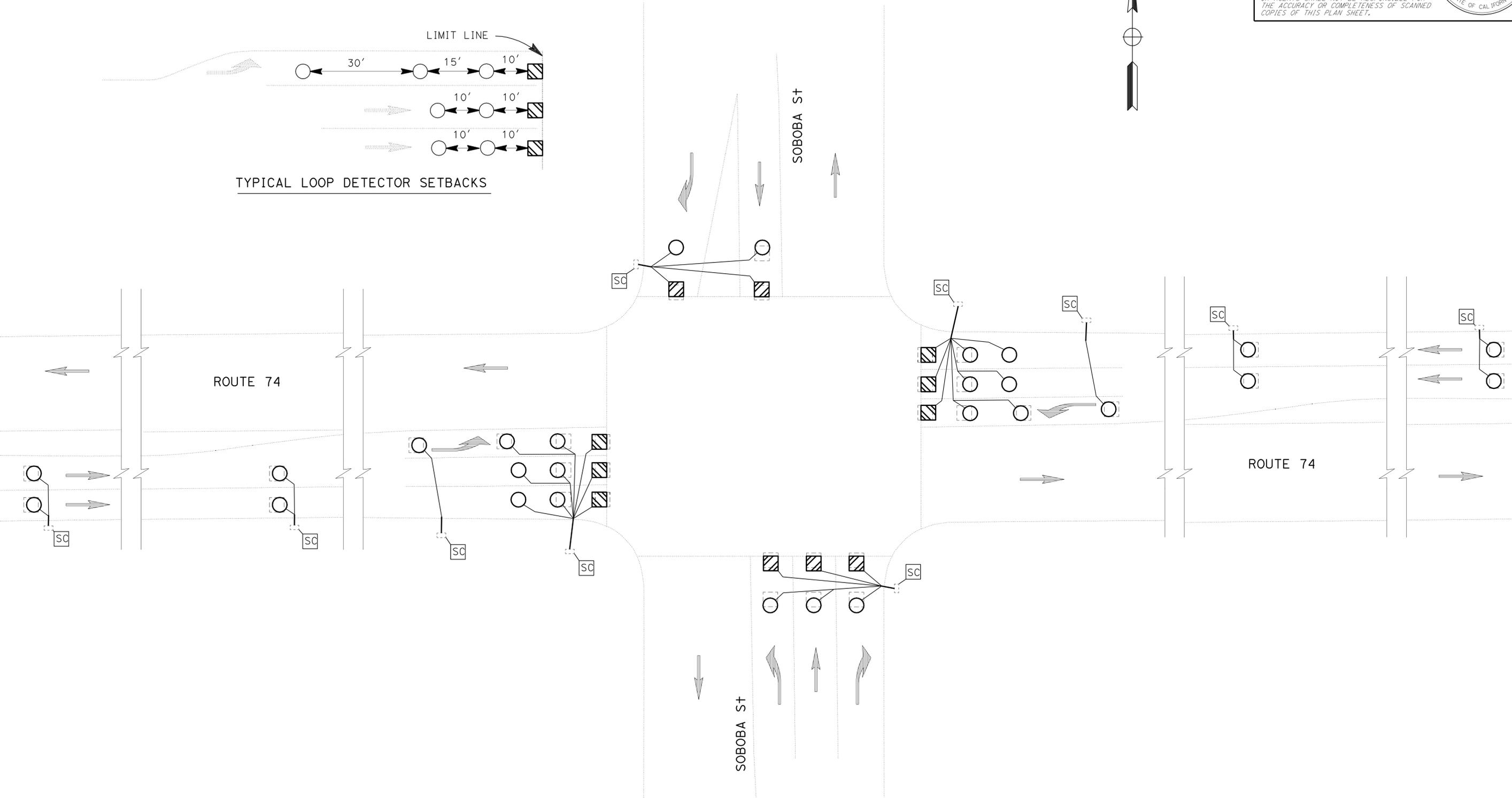
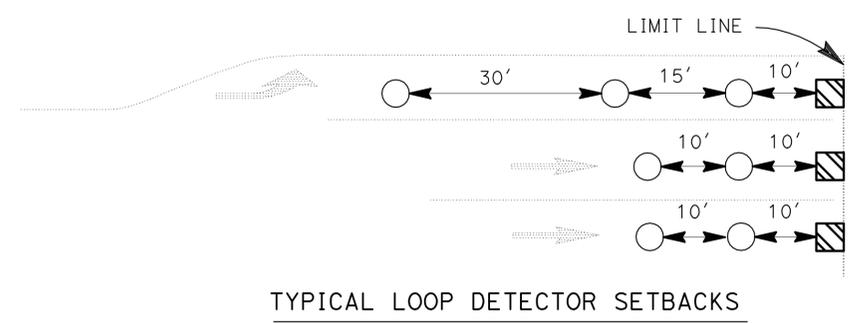
E-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	11	20

02-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JAIME ESTRADA
 No. E 18351
 Exp. 06/30/14
 ELECTRICAL
 STATE OF CALIFORNIA

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B
 FUNCTIONAL SUPERVISOR: DAVID A GONZALEZ
 CALCULATED/DESIGNED BY: DAVID A GONZALEZ
 CHECKED BY: DAVID A GONZALEZ
 REVISOR: JAIME ESTRADA
 DATE: 02-07-13
 REVISION: 3-4-13

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

APPROVED FOR ELECTRICAL WORK ONLY

INDUCTIVE LOOP DETECTOR

NO SCALE

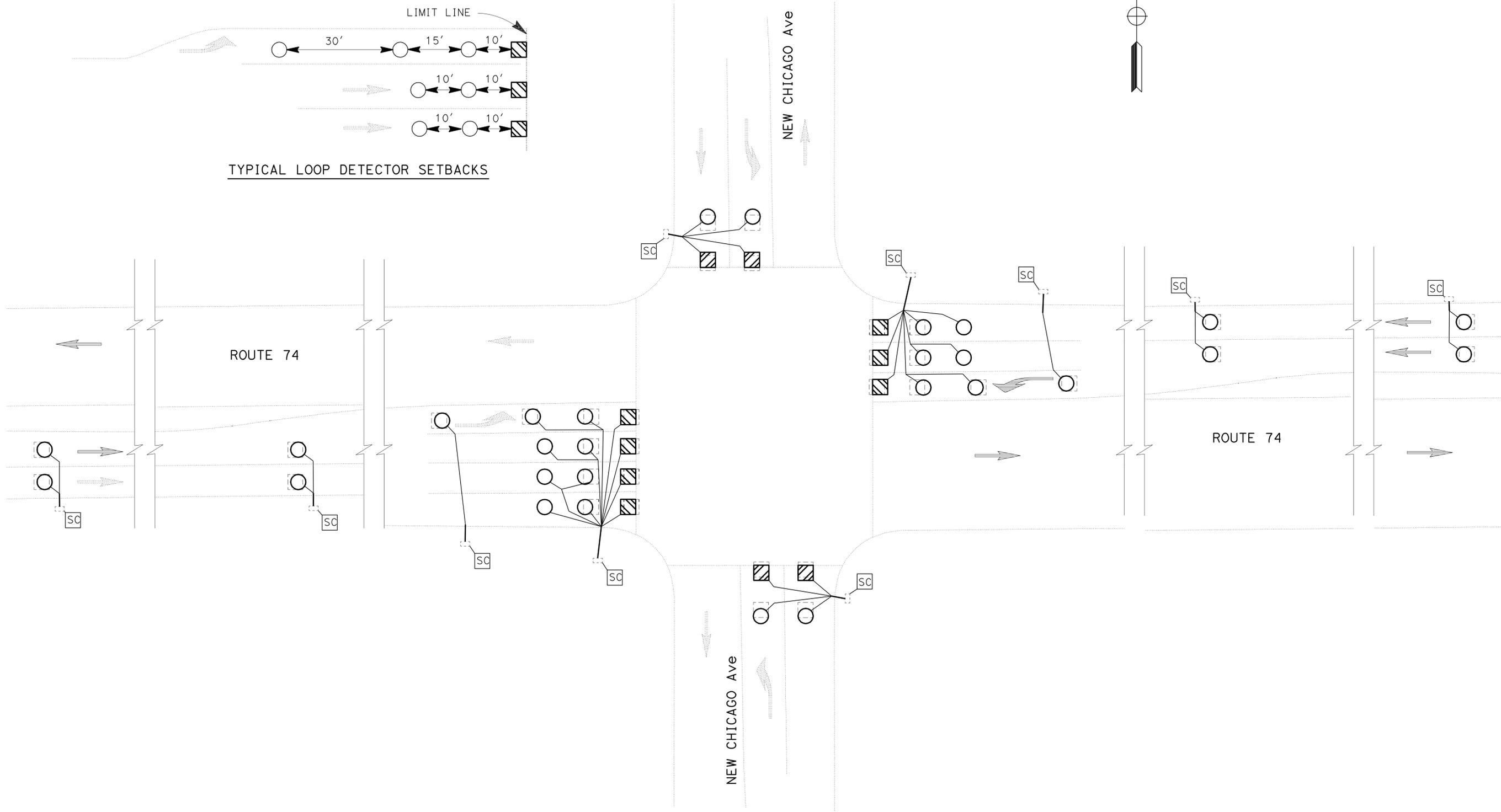
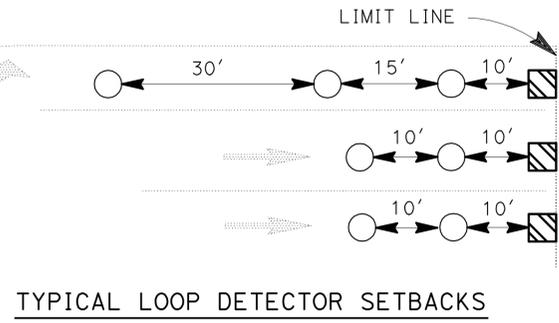
E-4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	12	20

Jaime Estrada 02-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JAIME ESTRADA
 No. E 18351
 Exp. 06/30/14
 ELECTRICAL
 STATE OF CALIFORNIA

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR
 DAVID A GONZALEZ

CALCULATED/DESIGNED BY
 CHECKED BY

JAIME ESTRADA
 DAVID A GONZALEZ

REVISED BY
 DATE REVISED

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

E-5

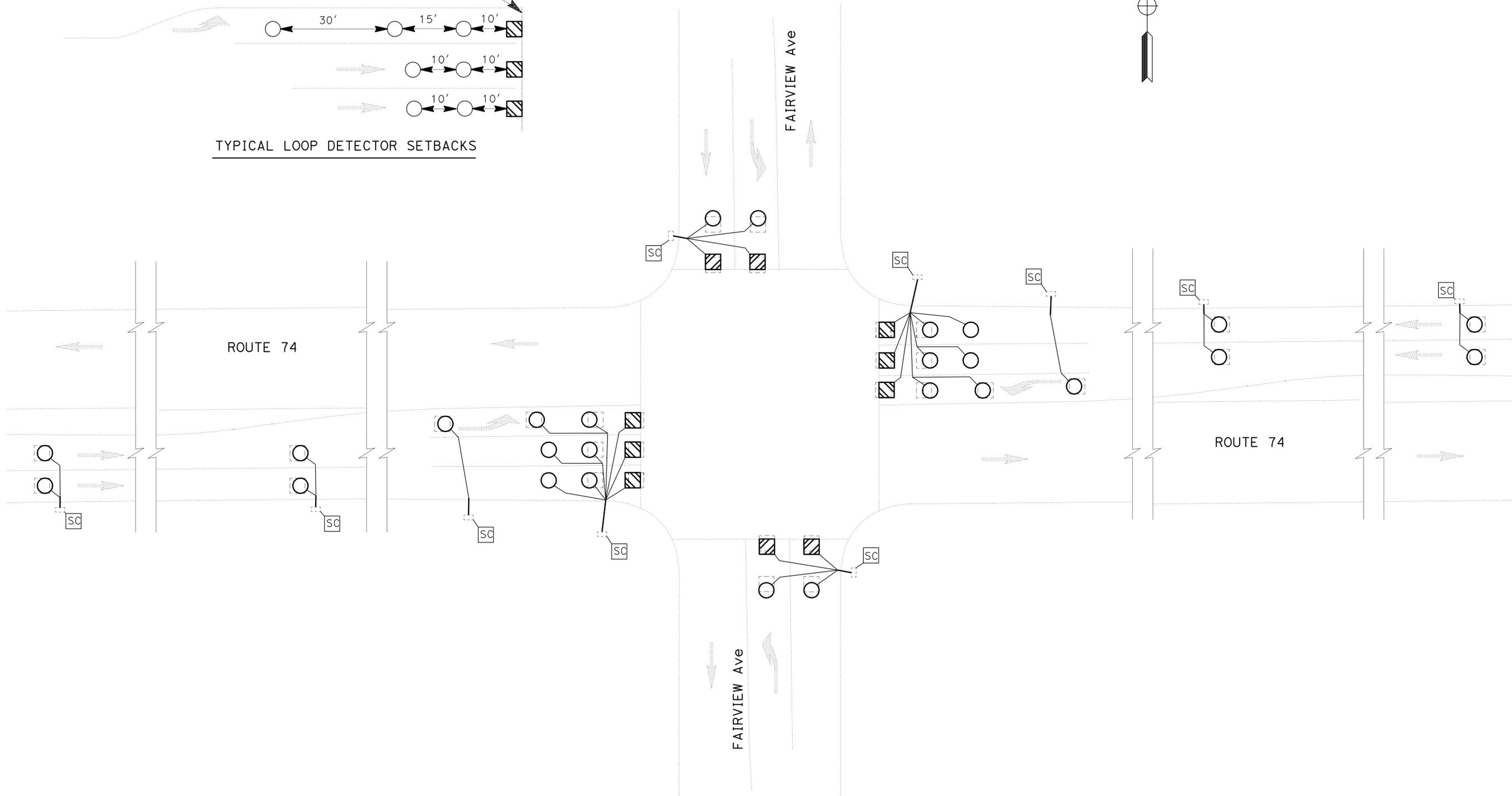
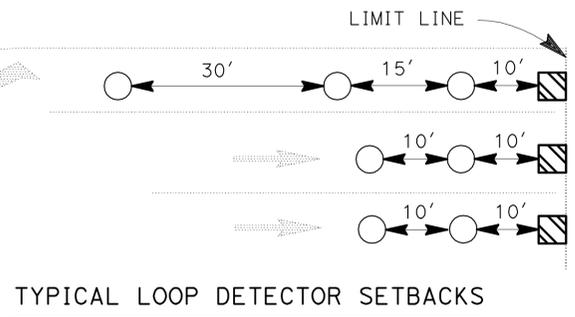


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	14	20

02-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JAIME ESTRADA
 No. E 18351
 Exp. 06/30/14
 ELECTRICAL
 STATE OF CALIFORNIA

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B
 FUNCTIONAL SUPERVISOR: DAVID A GONZALEZ
 CALCULATED/DESIGNED BY: DAVID A GONZALEZ
 CHECKED BY: DAVID A GONZALEZ
 REVISOR: JAIME ESTRADA
 DATE: DAVID A GONZALEZ

EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

APPROVED FOR ELECTRICAL WORK ONLY

INDUCTIVE LOOP DETECTOR

NO SCALE

E-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN B

BORDER LAST REVISED 7/2/2010

USERNAME => s102458
 DGN FILE => 0812000301ud008.dgn

RELATIVE BORDER SCALE IS IN INCHES



UNIT 2292

PROJECT NUMBER & PHASE 08120003011

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	15	20

Jaime Estrada 02-07-13
 REGISTERED ELECTRICAL ENGINEER DATE
 3-4-13
 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.

INDUCTIVE LOOP DETECTOR

SHEET No.	TYPE D LOOPS	TYPE E LOOPS
	EA	EA
E-1	10	26
E-2	12	28
E-3	10	26
E-4	11	27
E-5	11	29
E-6	9	24
E-7	10	26
SUB TOTAL	73	186
TOTAL	259	

ELECTRICAL QUANTITIES

NO SCALE

E-8

LAST REVISION | DATE PLOTTED => 26-FEB-2013
 02-06-13 | TIME PLOTTED => 13:50

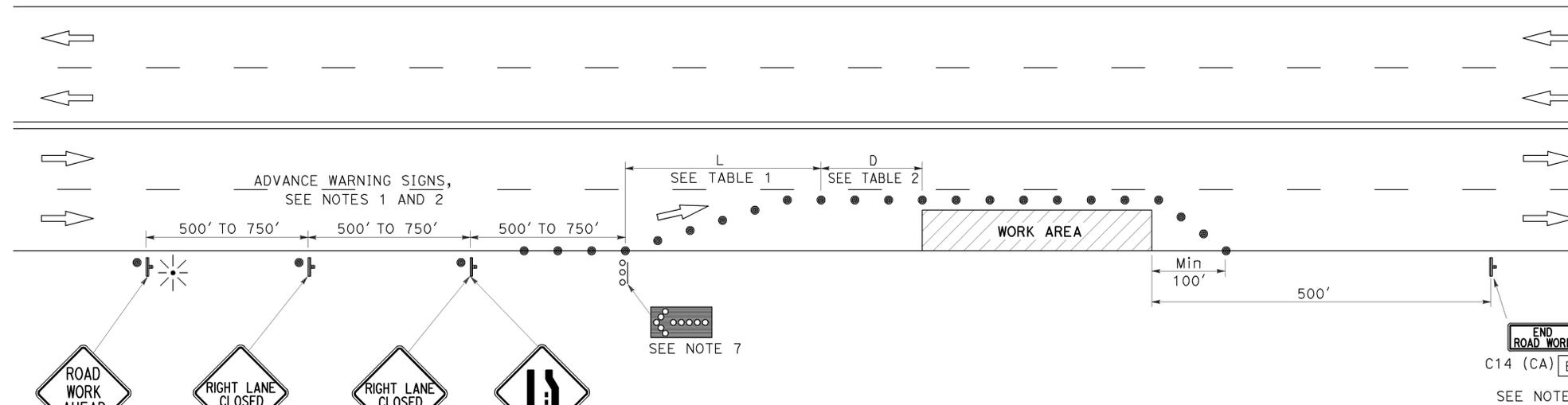
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	16	20

REGISTERED CIVIL ENGINEER *gbbmlr* DATE 12-7-12
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpa Bhuilor
 No. C48815
 Exp. 9-30-14
 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.

TYPICAL LANE CLOSURE



NOTES:

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

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

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY SIGN
- ⋯ FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⊛ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 36" x 36"
- B 36" x 18"

TABLE 1

APPROACH SPEED	* MINIMUM L	** Max SPACING OF CONES ALONG TAPER
mph	ft	ft
20 AND BELOW	80	20
25	125	25
30	180	30
35	245	35
40	320	40
45	540	45
50	600	50
Over 50	SEE NOTE 9	
* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.		
** SEE NOTE 8.		

TABLE 2

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
OVER 50	SEE NOTE 9			
* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.				

NOTES:

- Where approach speeds are low, advance warning signs may be placed at 300' spacing and placed closer in urban areas.
- Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT _____ MILES", use a C20 (CA) sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Flashing arrow sign shall be either Type I or Type II.
- The maximum spacing between cones along a tangent shall be 50' and along a taper shall be approximately as shown in Table 1.
- For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

TCS-1

REVISIONS: 3-4-13
 DESIGNED BY: []
 CHECKED BY: []
 CALCULATED BY: []
 FUNCTIONAL SUPERVISOR: []
 DEPARTMENT OF TRANSPORTATION
 STATE OF CALIFORNIA
 GT Caltrans

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	17	20

REGISTERED CIVIL ENGINEER: *gpbmiller*
 DATE: 12-7-12
 PLANS APPROVAL DATE: 3-4-13
 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:
 Gurinderpa Bhuilior
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY SIGN
- ⬇ FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⊛ PORTABLE FLASHING BEACON

TABLE 1

APPROACH SPEED	* MINIMUM L	** Max SPACING OF CONES ALONG TAPER
mph	ft	ft
20 and below	80	20
25	125	25
30	180	30
35	245	35
40	320	40
45	540	45
50	600	50
OVER 50	SEE NOTE 11	

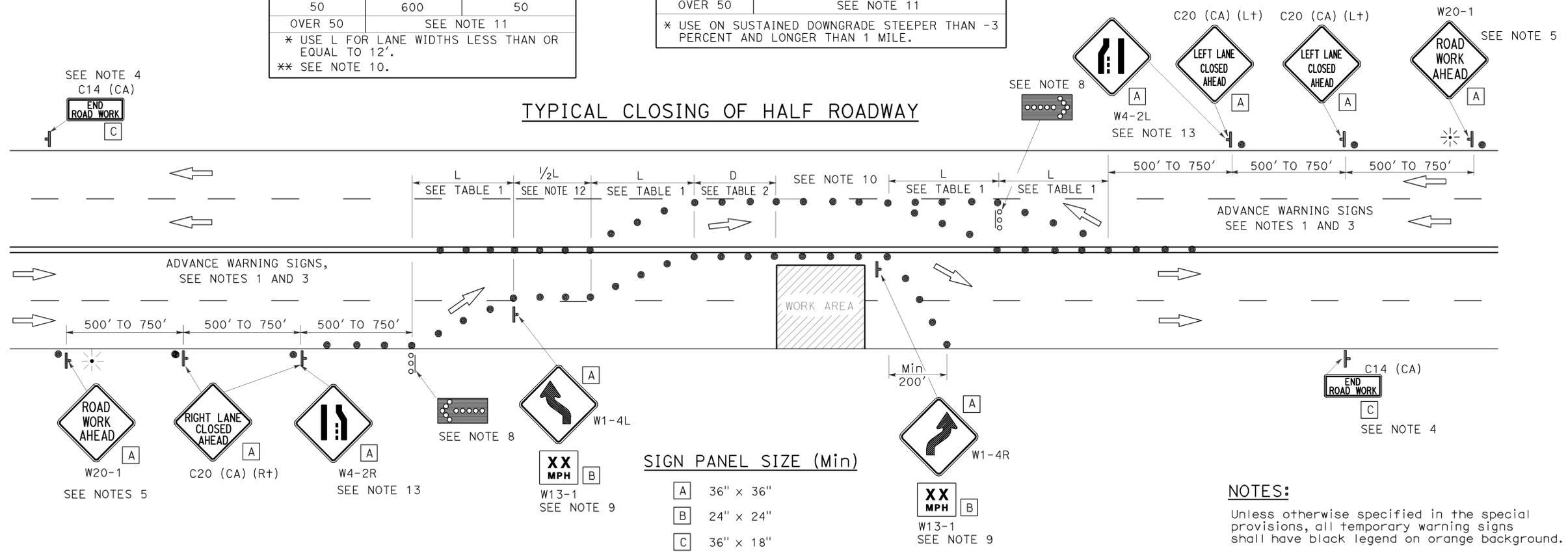
* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.
 ** SEE NOTE 10.

TABLE 2

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
25 AND BELOW	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
OVER 50	SEE NOTE 11			

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

TYPICAL CLOSING OF HALF ROADWAY



SIGN PANEL SIZE (Min)

- A 36" x 36"
- B 24" x 24"
- C 36" x 18"

NOTES:

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background.
 California code are designated by (CA).
 Otherwise, Federal (MUTCD) codes are shown.

NOTES:

- Where Approach speeds are low, advance warning signs may be placed at 300' spacing and placed closer in urban areas.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT" MILES, use a C20 (CA) sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Flashing arrow signs shall be either Type I or Type II.
- Advisory speed will be determined by the Engineer. The W13-1 Sign will not be required when advisory speed is more than the posted or maximum speed limit.
- The maximum spacing between cones along a tangent shall be 50' and along a taper shall be approximately as shown in Table 1.
- For approach speeds over 50 mph, use the "Traffic Control System For Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- Unless otherwise specified in the special provisions, the (1/2 L) shown between the two (L) lane closure tapers shall be used.
- When specified in the special provisions, a W4-2 "Lane Ends" symbol sign is to be used in place of the C20 (CA) "RIGHT (LEFT) LANE CLOSED AHEAD" sign.

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

TCS-2

REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	18	20

REGISTERED CIVIL ENGINEER: *gbbmlhr* DATE: 12-7-12
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpa Bhuilior
 No. C48815
 Exp 9-30-14
 CIVIL
 STATE OF CALIFORNIA

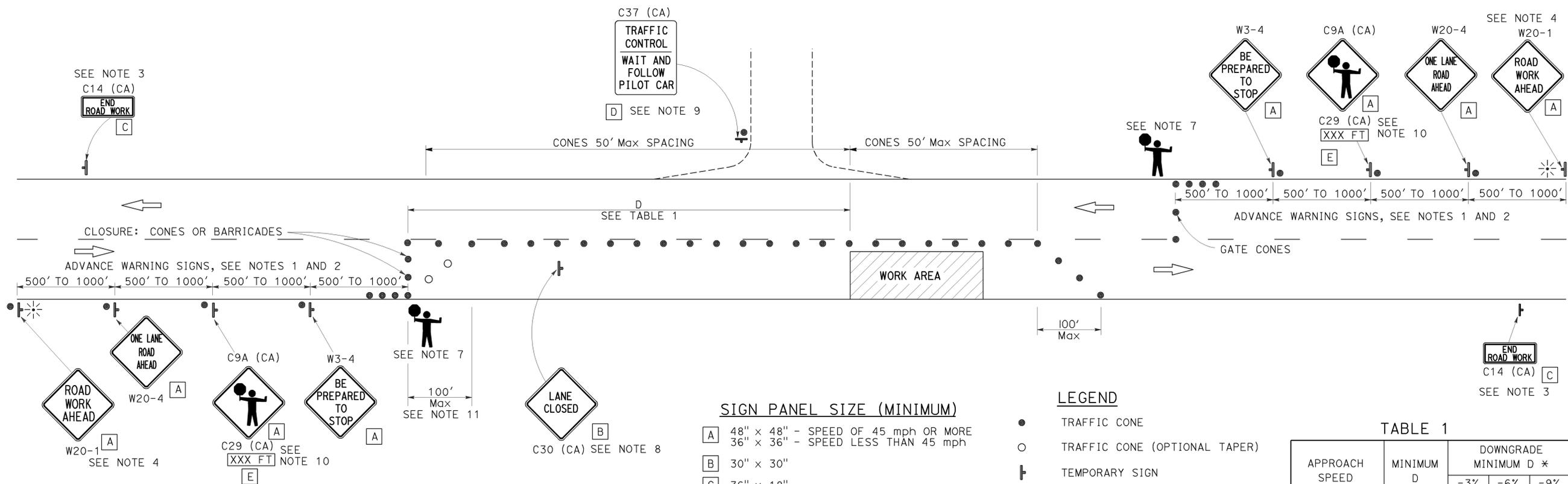
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

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

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

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



SIGN PANEL SIZE (MINIMUM)

- A 48" x 48" - SPEED OF 45 mph OR MORE
36" x 36" - SPEED LESS THAN 45 mph
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 36" x 9"

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- ⊥ TEMPORARY SIGN
- ⚡ PORTABLE FLASHING BEACON
- 🚧 FLAGGER

TABLE 1

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

NOTES:

- Where approach speeds are low, advance warning signs may be placed at 300' spacing, and closer in urban areas.
- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A C14 (CA) "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
- Place C30 (CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37 (CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign at all intersections within traffic control area. Signs shall be clean and visible at all times.
- An optional C29 (CA) sign may be placed below the C9A (CA) sign.
- Traffic cones or barricades may be placed on the optional taper as shown, barricades shall be Type I, II, or III.

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

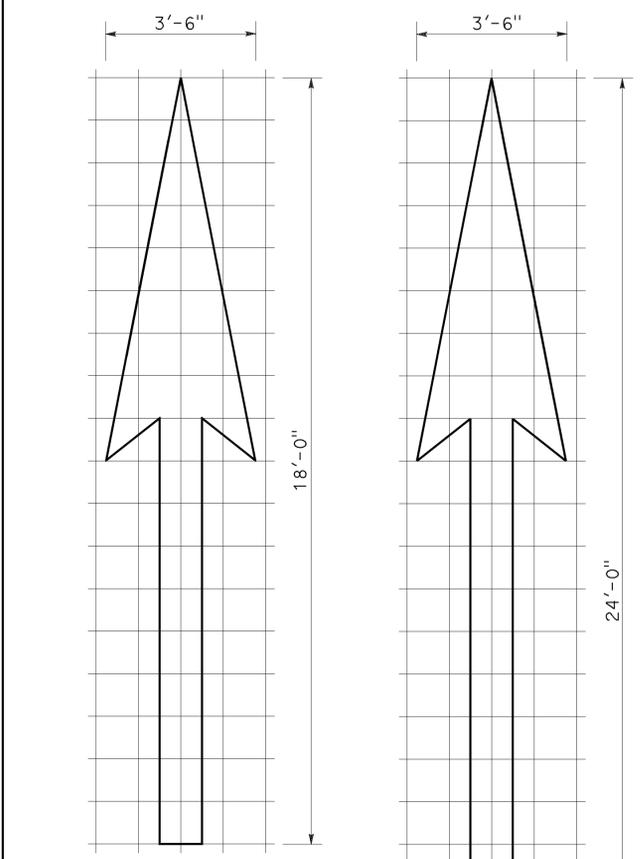
TCS-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	19	20

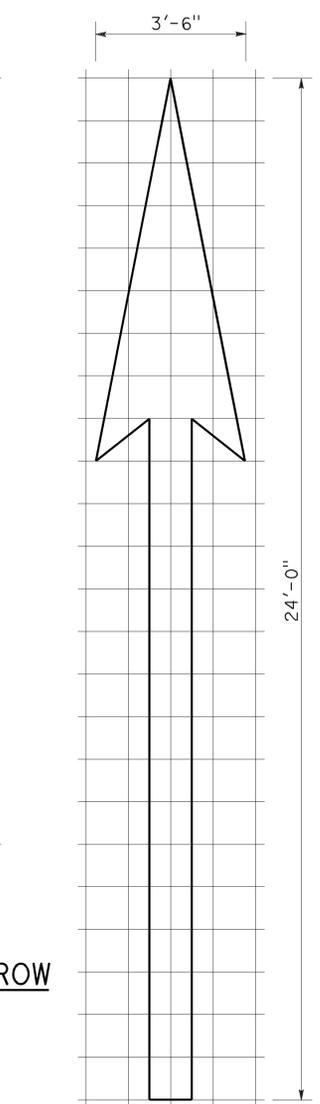
Registered Professional Engineer
 Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

April 20, 2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

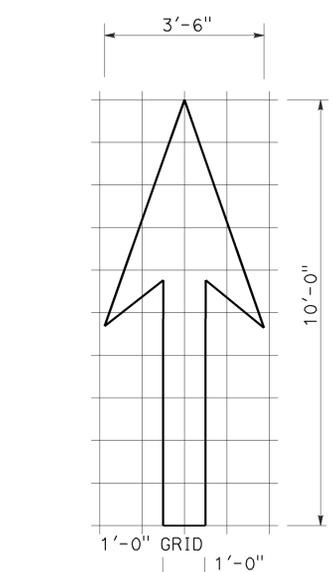
TO ACCOMPANY PLANS DATED 3-4-13



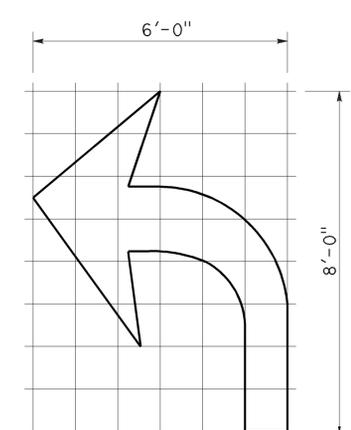
A=25 ft²
TYPE I 18'-0" ARROW



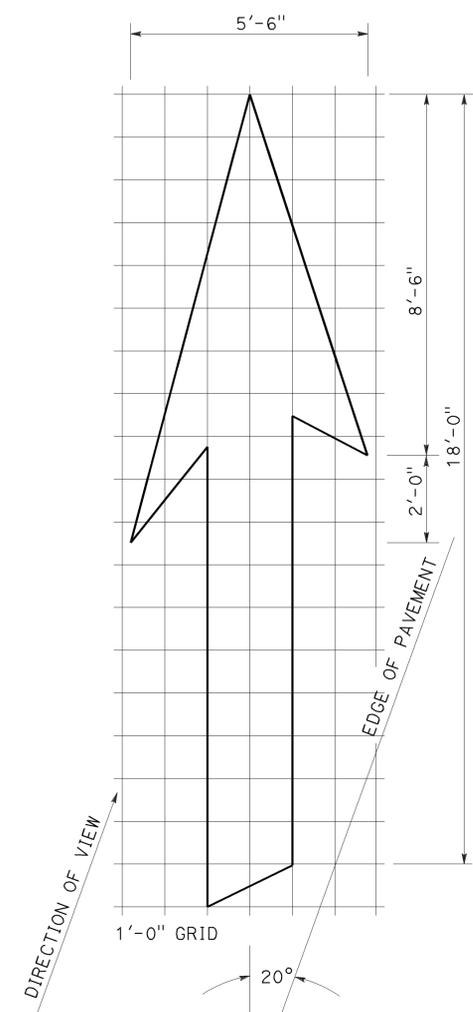
A=31 ft²
TYPE I 24'-0" ARROW



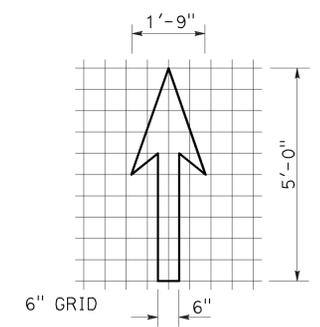
A=14 ft²
TYPE I 10'-0" ARROW



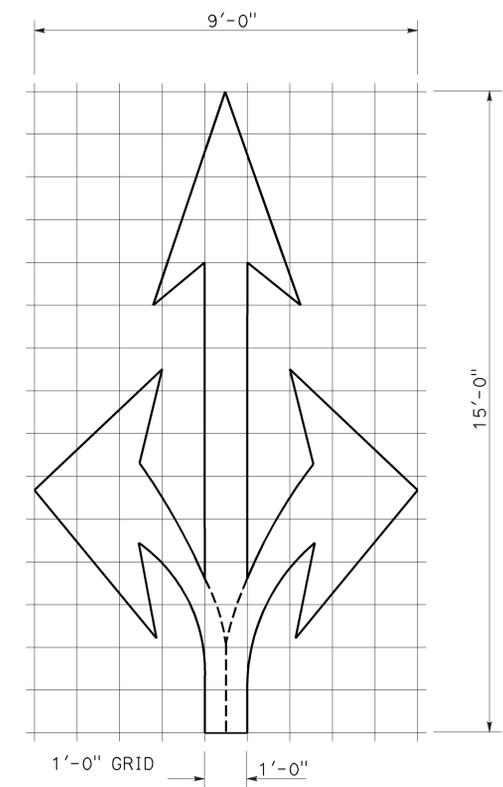
A=15 ft²
TYPE IV (L) ARROW
 (For Type IV (R) arrow, use mirror image)



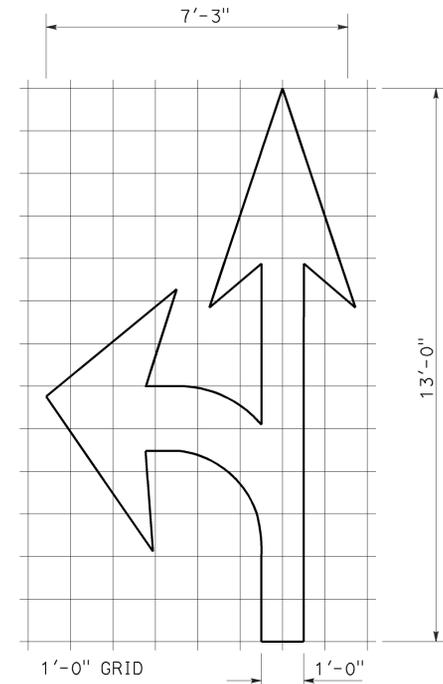
A=42 ft²
TYPE VI ARROW
 Right lane drop arrow
 (For left lane, use mirror image)



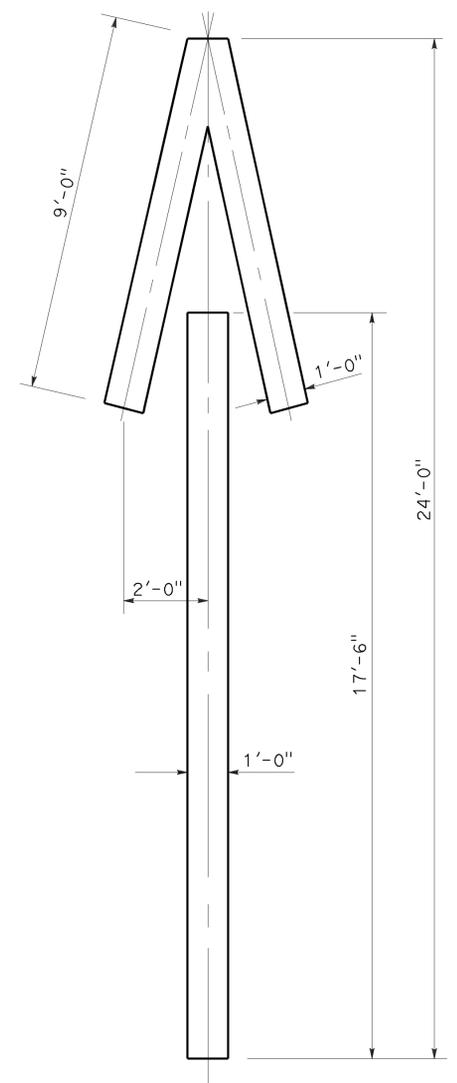
A=3.5 ft²
BIKE LANE ARROW



A=36 ft²
TYPE VIII ARROW



A=27 ft²
TYPE VII (L) ARROW
 (For Type VII (R) arrow, use mirror image)



A=33 ft²
TYPE V ARROW

NOTE:
 Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
 ARROWS**
 NO SCALE

RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A
 DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	74	42.6/47.9	20	20

Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER

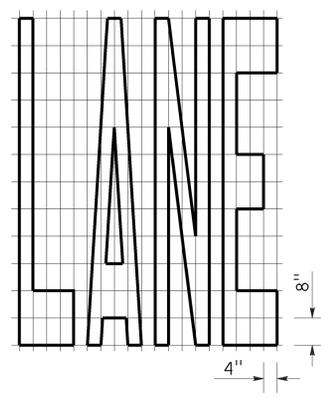
July 20, 2012
 PLANS APPROVAL DATE

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.

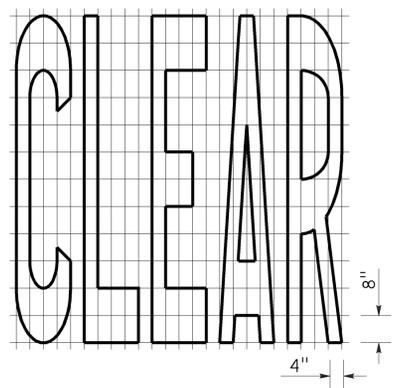
REGISTERED PROFESSIONAL ENGINEER
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 3-4-13

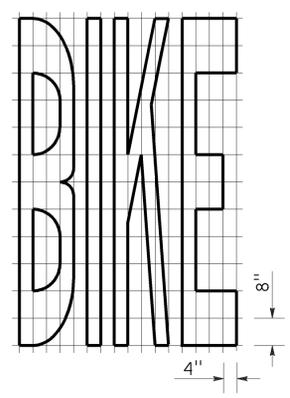
2010 REVISED STANDARD PLAN RSP A24E



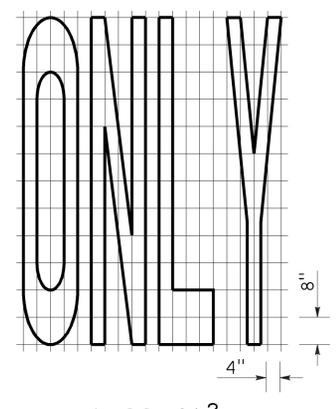
A=24 ft²



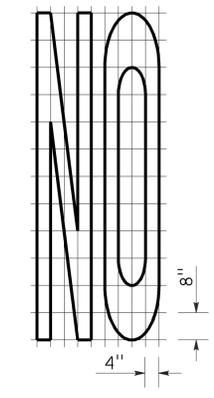
A=27 ft²



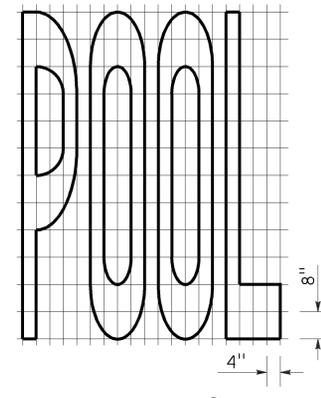
A=21 ft²



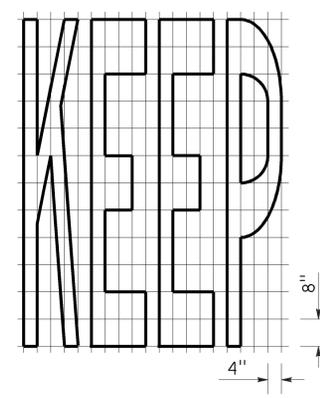
A=22 ft²



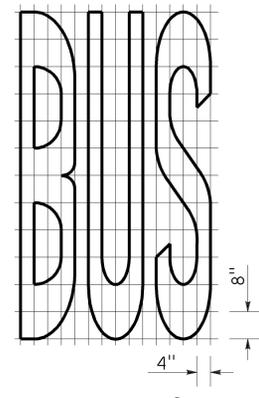
A=14 ft²



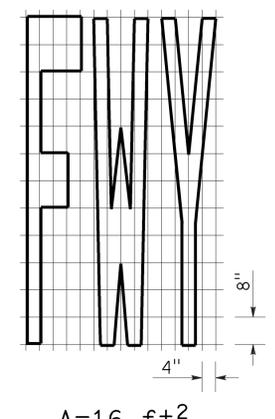
A=23 ft²



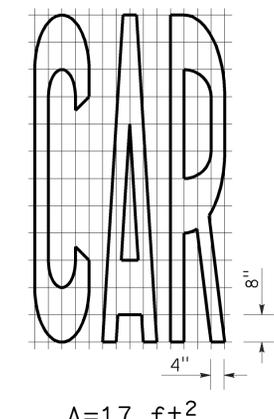
A=24 ft²



A=20 ft²

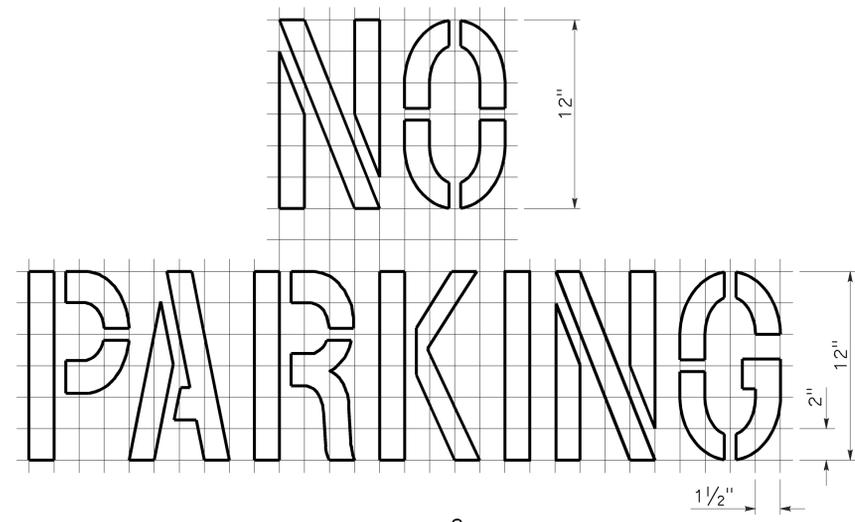


A=16 ft²

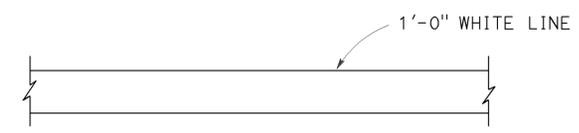


A=17 ft²

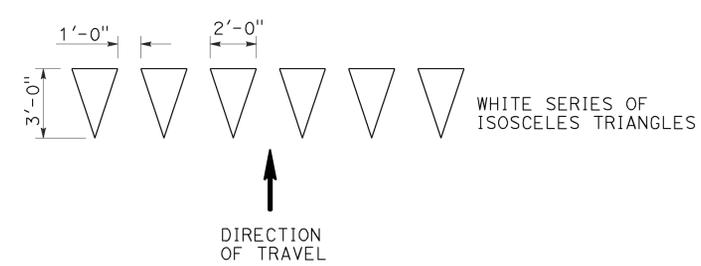
WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES

NO SCALE

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

REVISED STANDARD PLAN RSP A24E