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

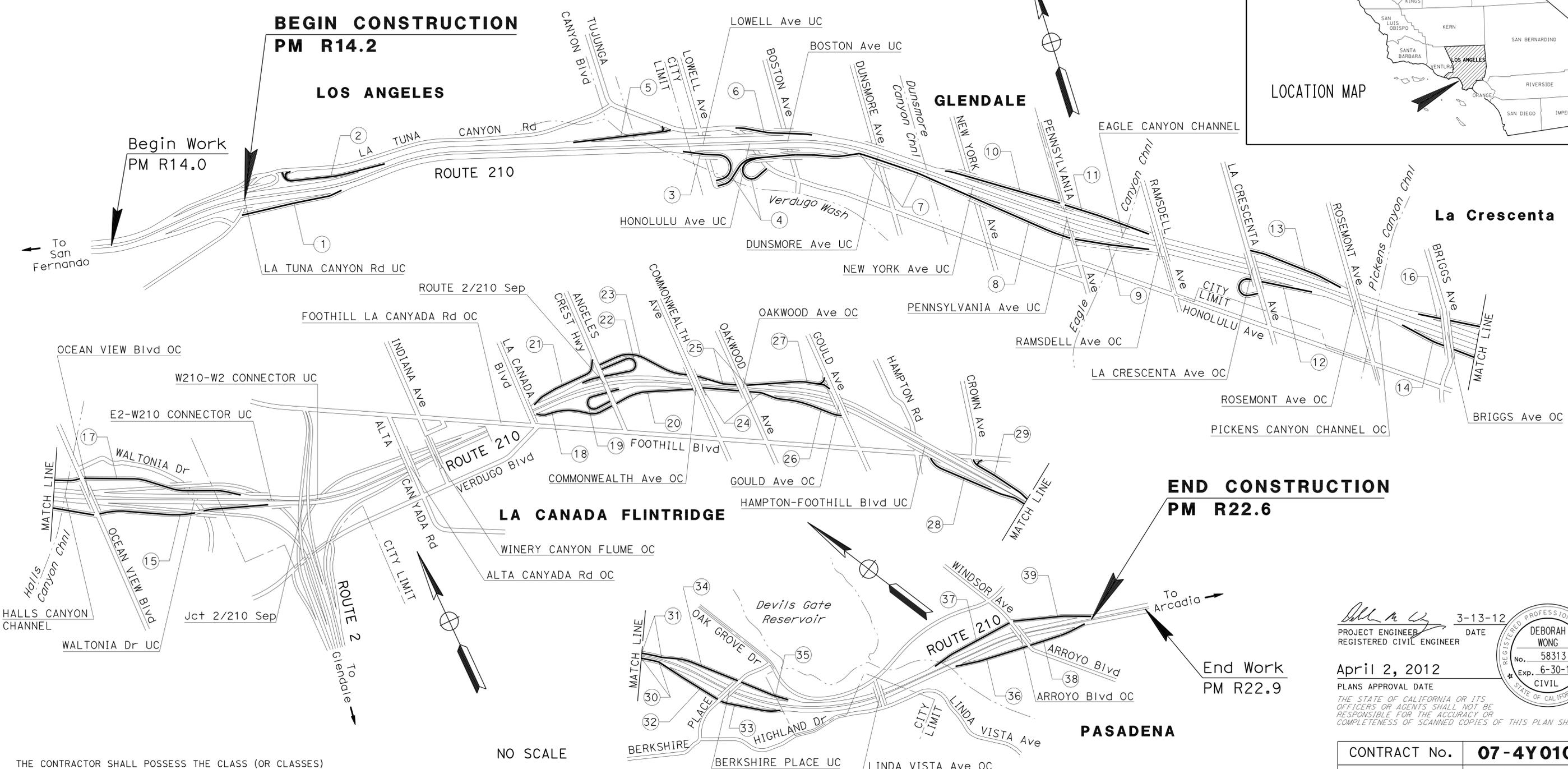
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY AT VARIOUS LOCATIONS
FROM LA TUNA CANYON ROAD UNDERCROSSING TO
0.1 MILE EAST OF ARROYO BOULEVARD OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	1	52

Caltrans



NO SCALE

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

PROJECT MANAGER
GARY KEVORKIAN
DESIGN ENGINEER
DEBORAH WONG

3-13-12
DATE

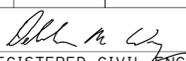
PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

April 2, 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.

CONTRACT No.	07-4Y0104
PROJECT ID	0700020228

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	2	52

 3-13-12
 REGISTERED CIVIL ENGINEER DATE

4-2-12
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
DEBORAH WONG
 No. 58313
 Exp. 6-30-12
 CIVIL
STATE OF CALIFORNIA

LOCATIONS OF CONSTRUCTION

Loc	PM	DESCRIPTION
①	R14.41	EB ON FROM LA TUNA CANYON Rd
②	R14.47	WB OFF TO LA TUNA CANYON Rd
③	R15.62	EB OFF TO LOWELL Ave
④	R15.89	EB ON FROM LOWELL Ave / HONOLULU Ave
⑤	R15.31	WB ON FROM HONOLULU Ave / LOWELL Ave
⑥	R15.87	WB OFF TO HONOLULU Ave / LOWEL Ave
⑦	R15.89- R16.58	EB AUXILARY LANE BETWEEN HONOLULU Ave AND PENNSYLVANIA Ave
⑧	R16.58	EB OFF TO PENNSYLVANIA Ave
⑨	R17.00	EB ON FROM PENNSYLVANIA Ave
⑩	R16.61	WB ON FROM PENNSYLVANIA Ave
⑪	R16.94	WB OFF TO PENNSYLVANIA Ave
⑫	R17.47	EB ON FROM LA CRESCENTA Ave
⑬	R17.61	WB OFF TO LA CRESCENTA Ave
⑭	R17.94	EB OFF TO OCEAN VIEW Blvd
⑮	R18.73	EB ON FROM OCEAN VIEW Blvd
⑯	R17.95	WB ON FROM OCEAN VIEW Blvd
⑰	R18.63	WB OFF TO OCEAN VIEW Blvd
⑱	R19.72	EB OFF TO ANGELES CREST Hwy/Rte 2
⑲	R19.89	EB ON FROM SB ANGELES CREST Hwy/Rte 2
⑳	R20.07	EB ON FROM NB ANGELES CREST Hwy/Rte 2
㉑	R19.68	WB ON FROM SB ANGELES CREST Hwy/Rte 2
㉒	R19.87	WB ON FROM NB ANGELES CREST Hwy/Rte 2
㉓	R20.12	WB OFF TO ANGELES CREST Hwy/Rte 2
㉔	R20.07- R20.44	EB AUXILARY LANE BETWEEN ANGELES CREST Hwy & GOULD Ave
㉕	R20.12- R20.42	WB AUXILARY LANE BETWEEN ANGELES CREST Hwy & GOULD Ave
㉖	R20.44	EB OFF TO GOULD Ave
㉗	R20.42	WB ON FROM GOULD Ave
㉘	R21.07	EB ON FROM FOOTHILL Blvd
㉙	R21.16	WB OFF TO FOOTHILL / CROWN Ave
㉚	R21.07- R21.36	EB AUXILARY LANE BETWEEN FOOTHILL Blvd AND BERKSHIRE PLACE
㉛	R21.16- R21.41	WB AUXILARY LANE BETWEEN FOOTHILL Blvd AND BERKSHIRE PLACE
㉜	R21.36	EB OFF TO BERKSHIRE PLACE
㉝	R21.65	EB ON FROM BERKSHIRE PLACE
㉞	R21.41	WB ON FROM BERKSHIRE PLACE
㉟	R21.70	WB OFF TO BERKSHIRE PLACE
㊱	R22.35	EB OFF TO ARROYO Blvd
㊲	R22.29	WB ON FROM ARROYO Blvd
㊳	R22.64	EB ON FROM ARROYO Blvd
㊴	R22.62	WB OFF TO ARROYO Blvd

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR
 HECTOR OBESO

CALCULATED/DESIGNED BY
 CHECKED BY

QUAN HA
 DEBORAH WONG

REVISED BY
 DATE REVISED

LOCATIONS OF CONSTRUCTION

LC-1

LAST REVISION DATE PLOTTED => 29-MAR-2012
 00-00-00 TIME PLOTTED => 11:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	3	52

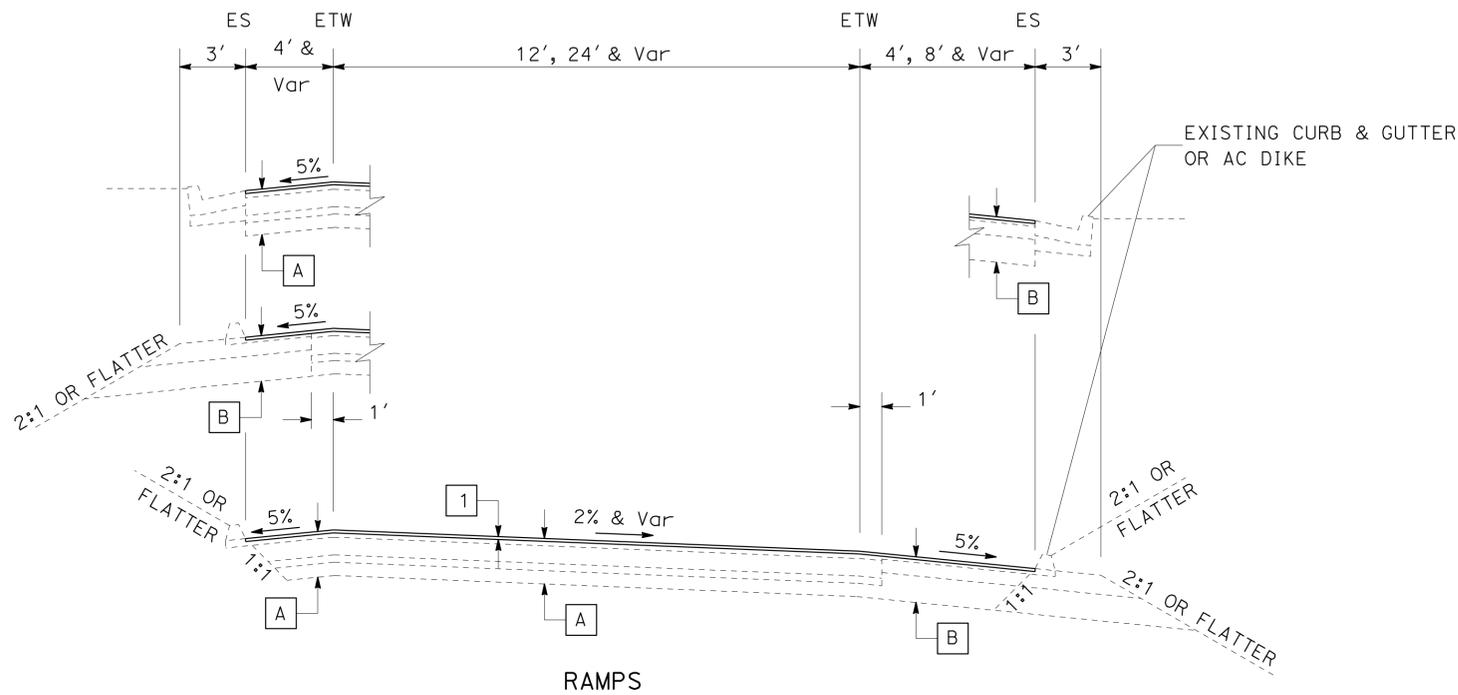
REGISTERED CIVIL ENGINEER	DATE
<i>Deborah Wong</i>	3-13-12
PLANS APPROVAL DATE	
4-2-12	

REGISTERED PROFESSIONAL ENGINEER
DEBORAH WONG
No. 58313
Exp. 6-30-12
CIVIL

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

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.

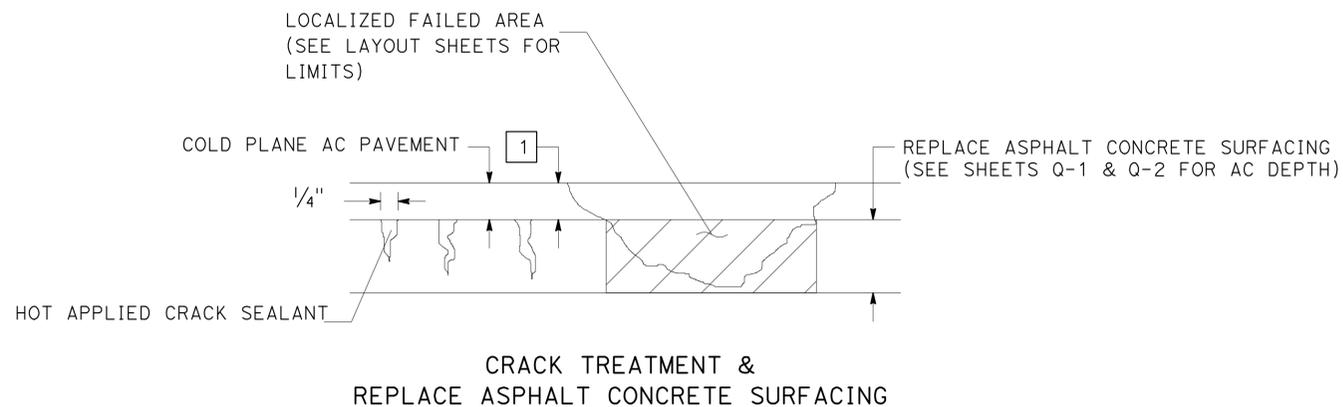
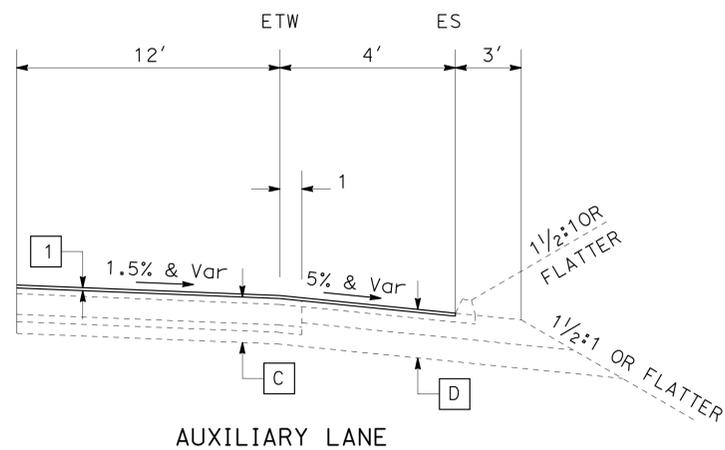


PROPOSED STRUCTURAL SECTION

- 1 0.10' COLD PLANE AC PAVEMENT
- 0.10' RUBBERIZED HOT MIX ASPHALT (GAP GRADED)

EXISTING STRUCTURAL SECTION

- A 0.25'/0.30'/0.35' AC (TYPE B)
- 0.60'/0.65'/0.70' CLASS A CTB
- 0.25' CLASS 3 AB
- 0/0.45'/Var CLASS 4 AS
- B 0.20'/0.25' AC (TYPE B)
- 0.35'/0.45' CLASS 2 AB
- 0/0.90'/Var CLASS 4 AS
- C 0.30' AC (TYPE B)
- 0.70' CLASS A CTB
- 0.25' CLASS 3 AB
- 0.40' CLASS 4 AS
- D 0.30' AC (TYPE B)
- 0.55' CLASS 2 AB
- 0.80' & Var CLASS 4 AS



TYPICAL CROSS SECTIONS

NO SCALE

X-1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	4	52

<i>Deborah Wong</i>	3-13-12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
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REGISTERED PROFESSIONAL ENGINEER
DEBORAH WONG
No. 58313
Exp. 6-30-12
CIVIL
STATE OF CALIFORNIA

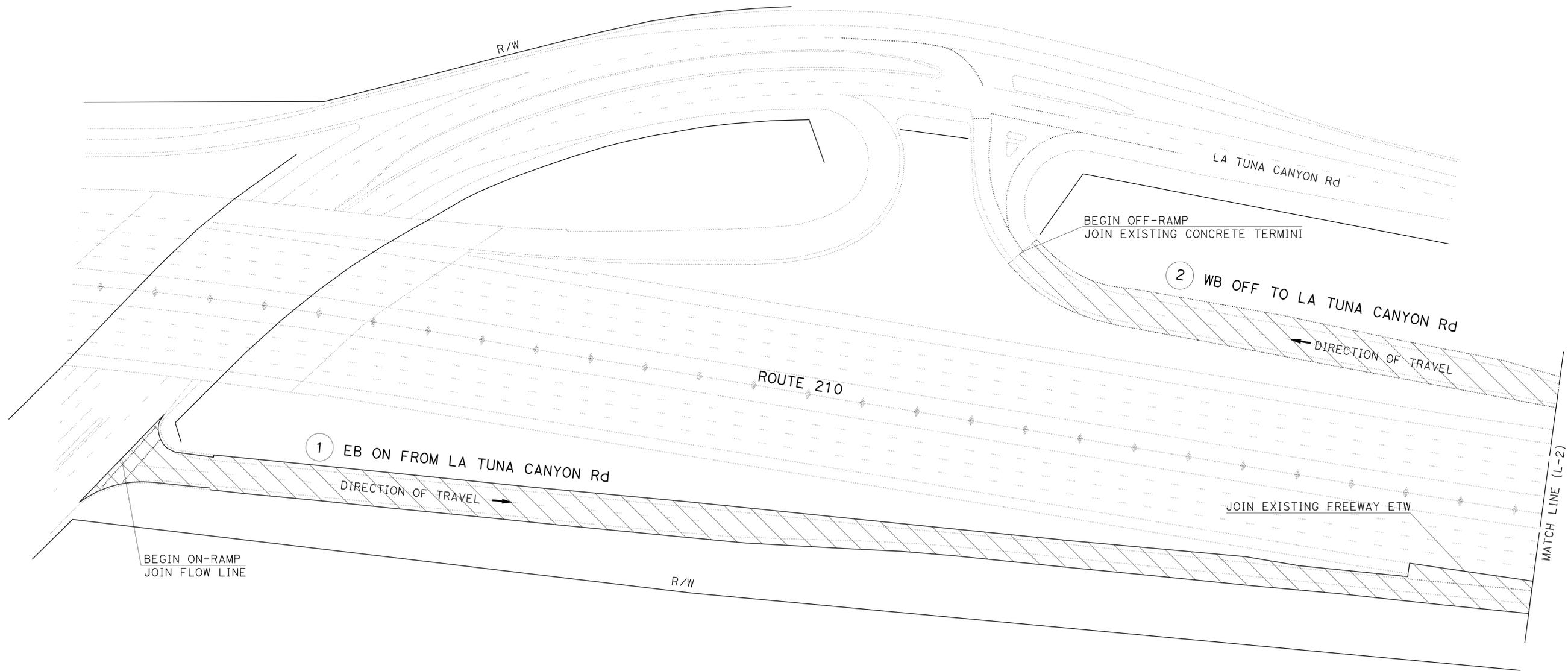
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NOTES:

- EXISTING UTILITY FACILITIES AND DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND:

-  0.10' COLD PLANE AC PAVEMENT
-  0.10' RUBBERIZED HOT MIX ASPHALT (GAP GRADED)
-  REPLACE ASPHALT CONCRETE SURFACING



LAYOUT
SCALE: 1" = 50'

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	QUAN HA	REVISOR BY	
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	5	52

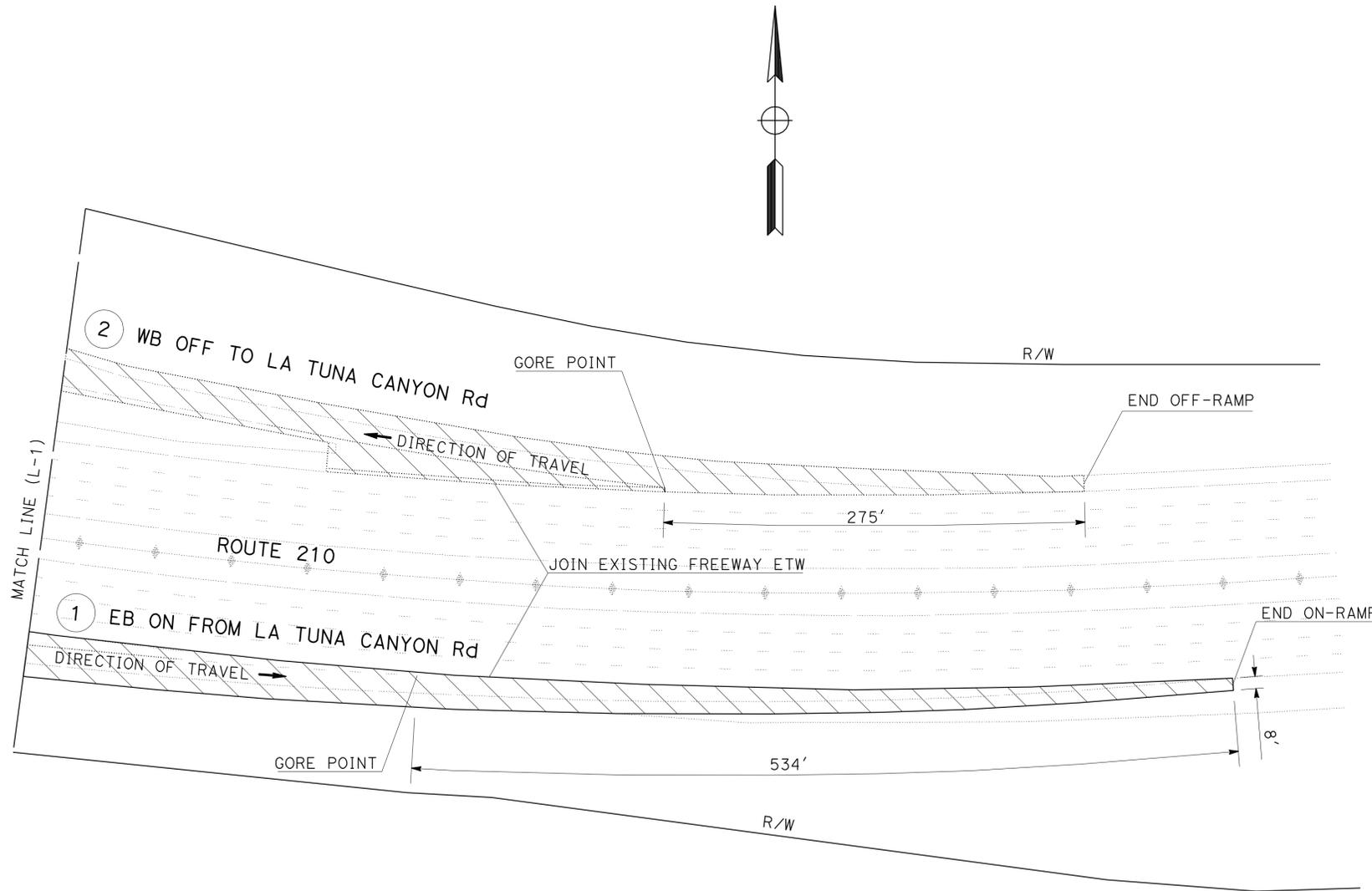
<i>Deborah Wong</i>	3-13-12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER DEBORAH WONG No. 58313 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA
--

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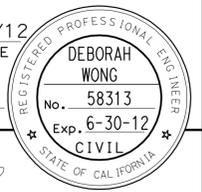


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	QUAN HA	REVISED BY	
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	

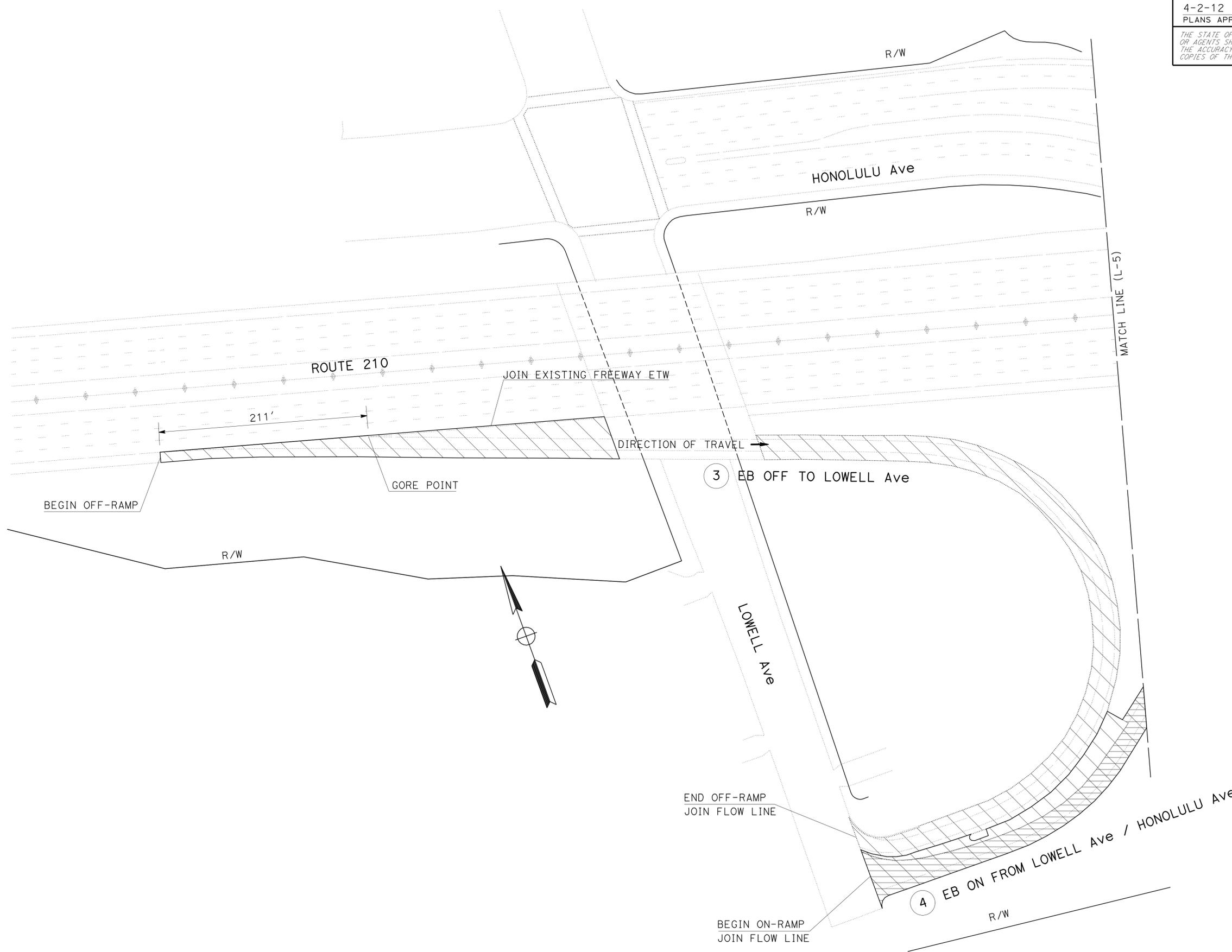
LAYOUT
SCALE: 1" = 50'
L-2

LAST REVISION | DATE PLOTTED => 29-MAR-2012
00-00-00 | TIME PLOTTED => 11:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	7	52
			3/13/12	DATE	
			REGISTERED CIVIL ENGINEER	DATE	
			4-2-12	PLANS APPROVAL DATE	
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	QUAN HA	REVISOR
Caltrans MAINTENANCE ENGINEERING	DEBORAH WONG	DATE
FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY
HECTOR OBESO		

LAYOUT
SCALE: 1" = 50'
L-4

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00-00-00 | TIME PLOTTED => 11:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	8	52

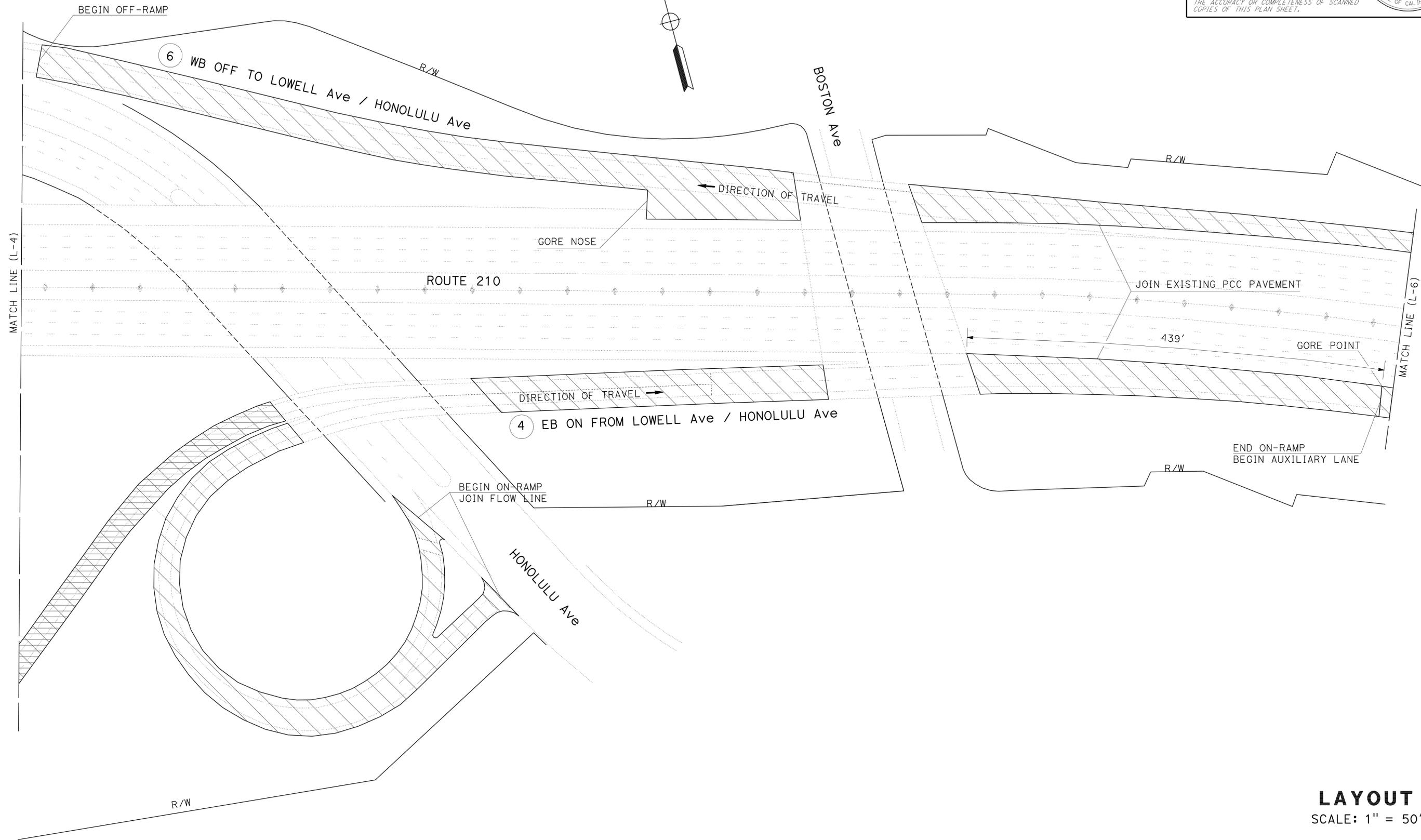
<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DEBORAH WONG
No. 58313
Exp. 6-30-12
CIVIL

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Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	

LAYOUT
SCALE: 1" = 50'
L-5

LAST REVISION | DATE PLOTTED => 29-MAR-2012
00-00-00 | TIME PLOTTED => 11:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	9	52

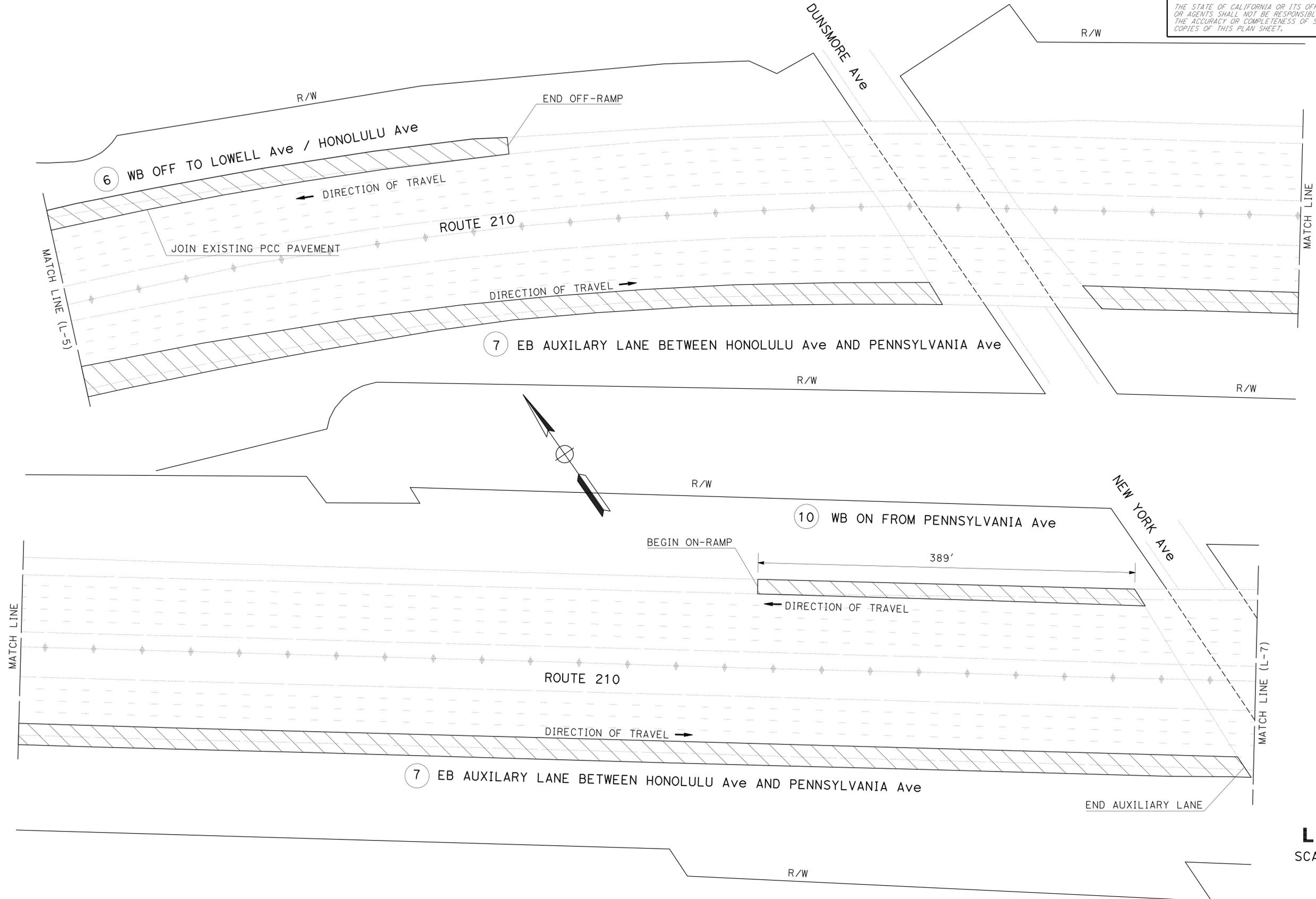
<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
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REGISTERED PROFESSIONAL ENGINEER
DEBORAH WONG
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LAYOUT
SCALE: 1" = 50'
L-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
FUNCTIONAL SUPERVISOR
HECTOR OBESO
CALCULATED/DESIGNED BY
CHECKED BY
QUAN HA
DEBORAH WONG
REVISED BY
DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	10	52

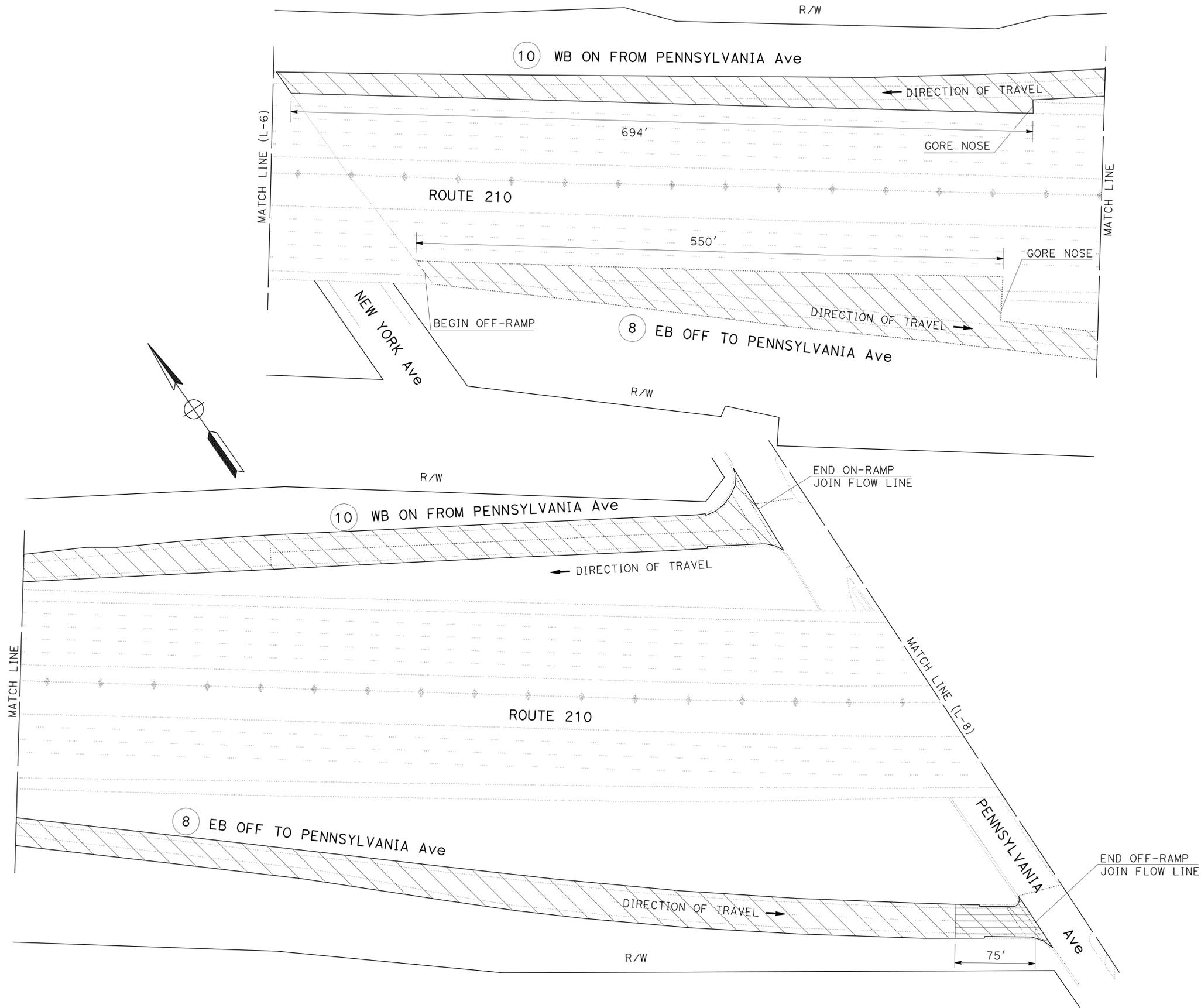
<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DEBORAH WONG
No. 58313
Exp. 6-30-12
CIVIL

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LAYOUT
SCALE: 1" = 50'

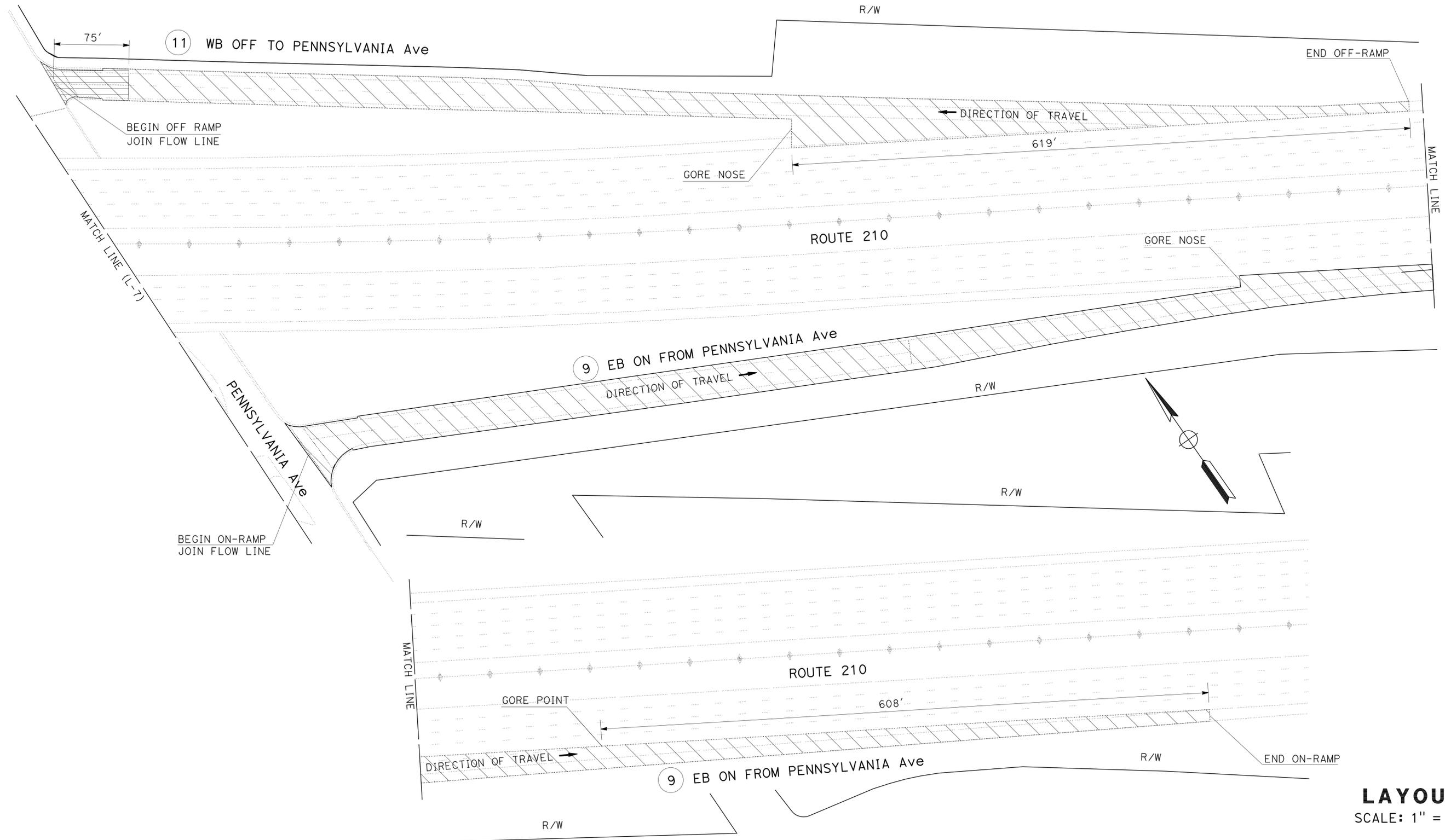
L-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	HECTOR OBESO
Caltrans MAINTENANCE ENGINEERING		
CALCULATED/DESIGNED BY	CHECKED BY	
QUAN HA	DEBORAH WONG	
REVISED BY	DATE REVISED	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	11	52
			3/13/12	DATE	
			4-2-12	PLANS APPROVAL DATE	
REGISTERED CIVIL ENGINEER DEBORAH WONG No. 58313 Exp. 6-30-12 CIVIL					
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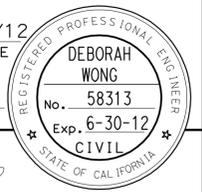


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	QUAN HA	REVISOR	DATE
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	REVISED

LAYOUT
SCALE: 1" = 50'
L-8

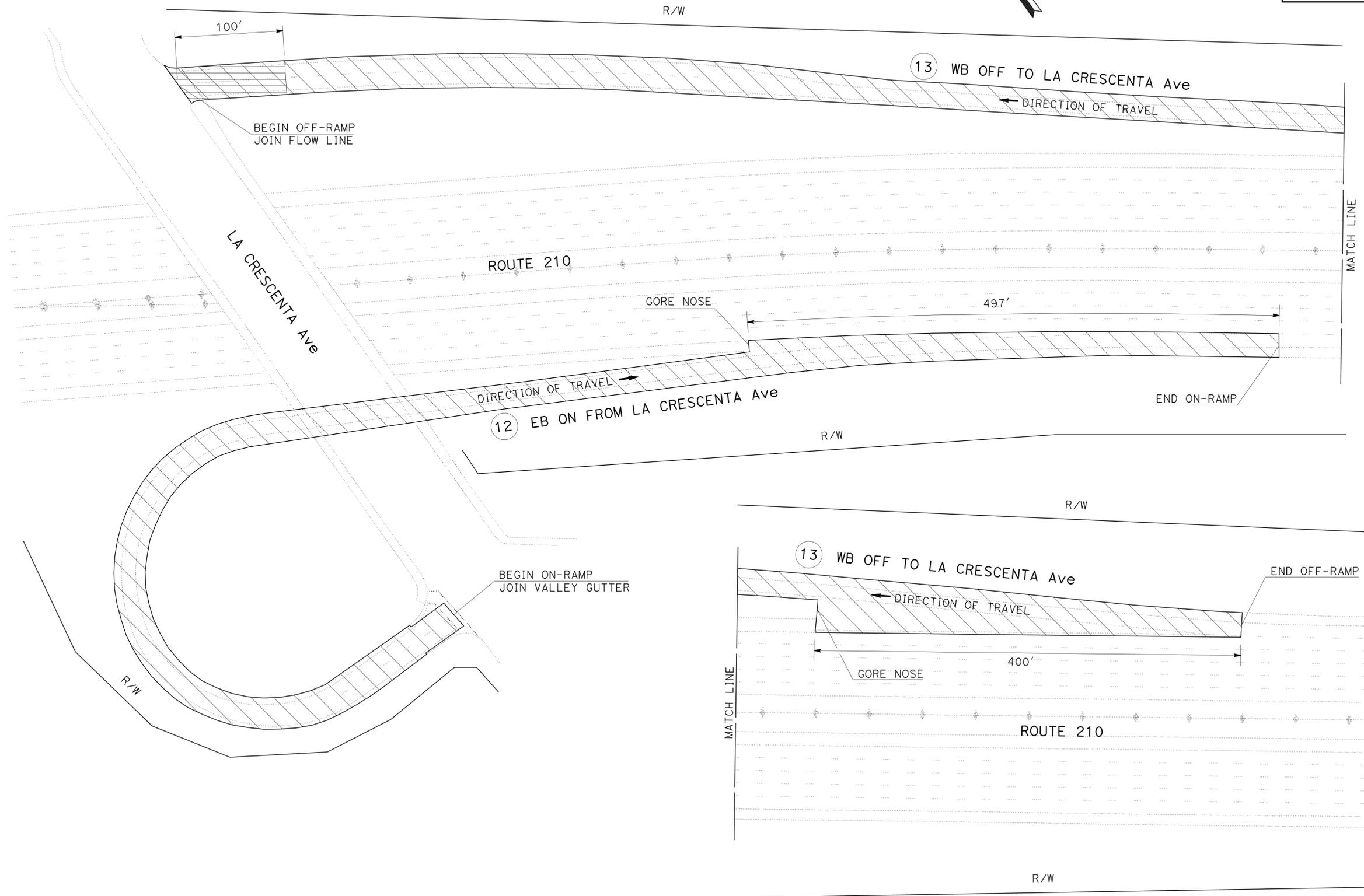
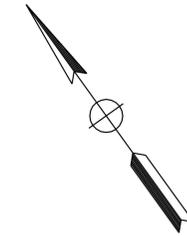
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00-00-00 | TIME PLOTTED => 11:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	12	52
			3/13/12	DATE	
			REGISTERED CIVIL ENGINEER	DATE	
			4-2-12	PLANS APPROVAL DATE	
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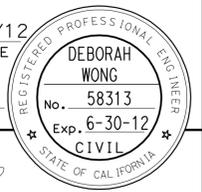
LAYOUT
SCALE: 1" = 50'
L-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	HECTOR OBESO
Caltrans MAINTENANCE ENGINEERING	CHECKED BY	DEBORAH WONG
	DESIGNED BY	QUAN HA
	REVISOR	REVISOR
	DATE	DATE

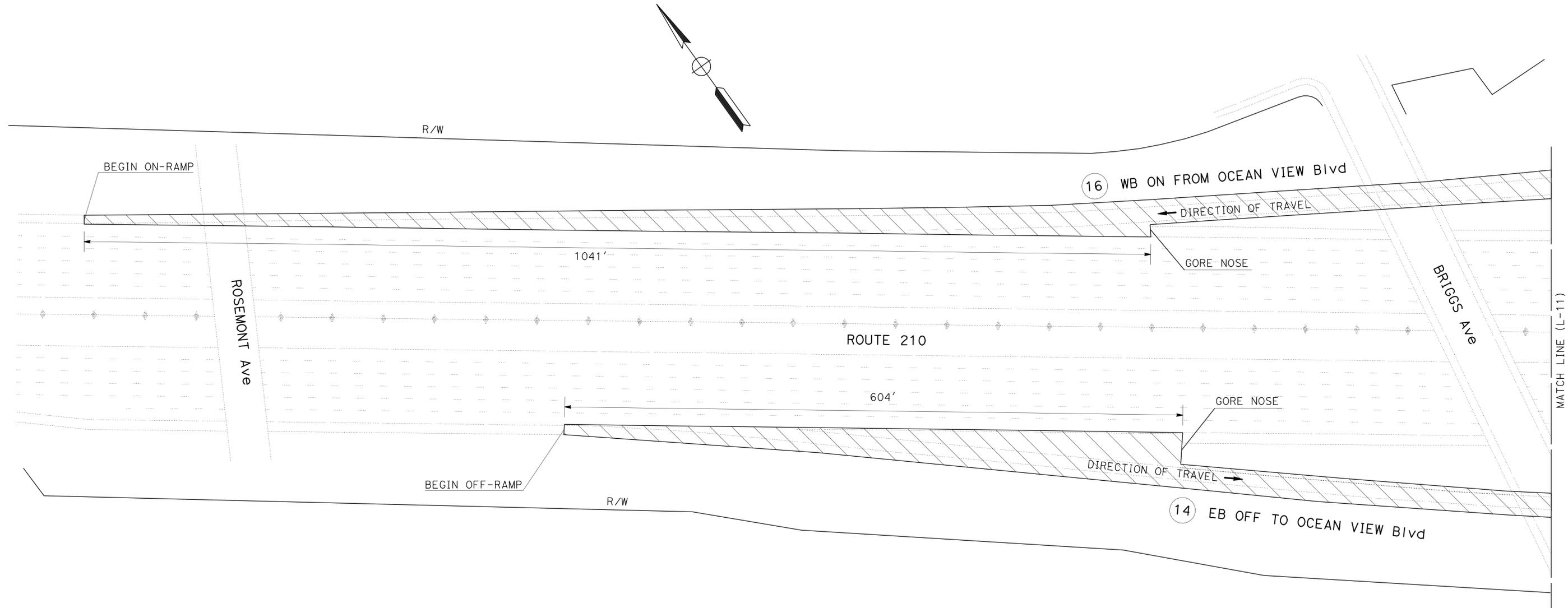
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	13	52

<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

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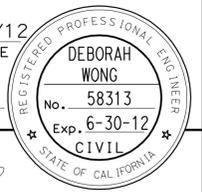


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	QUAN HA	REVISOR BY	
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	

LAYOUT
SCALE: 1" = 50'
L-10

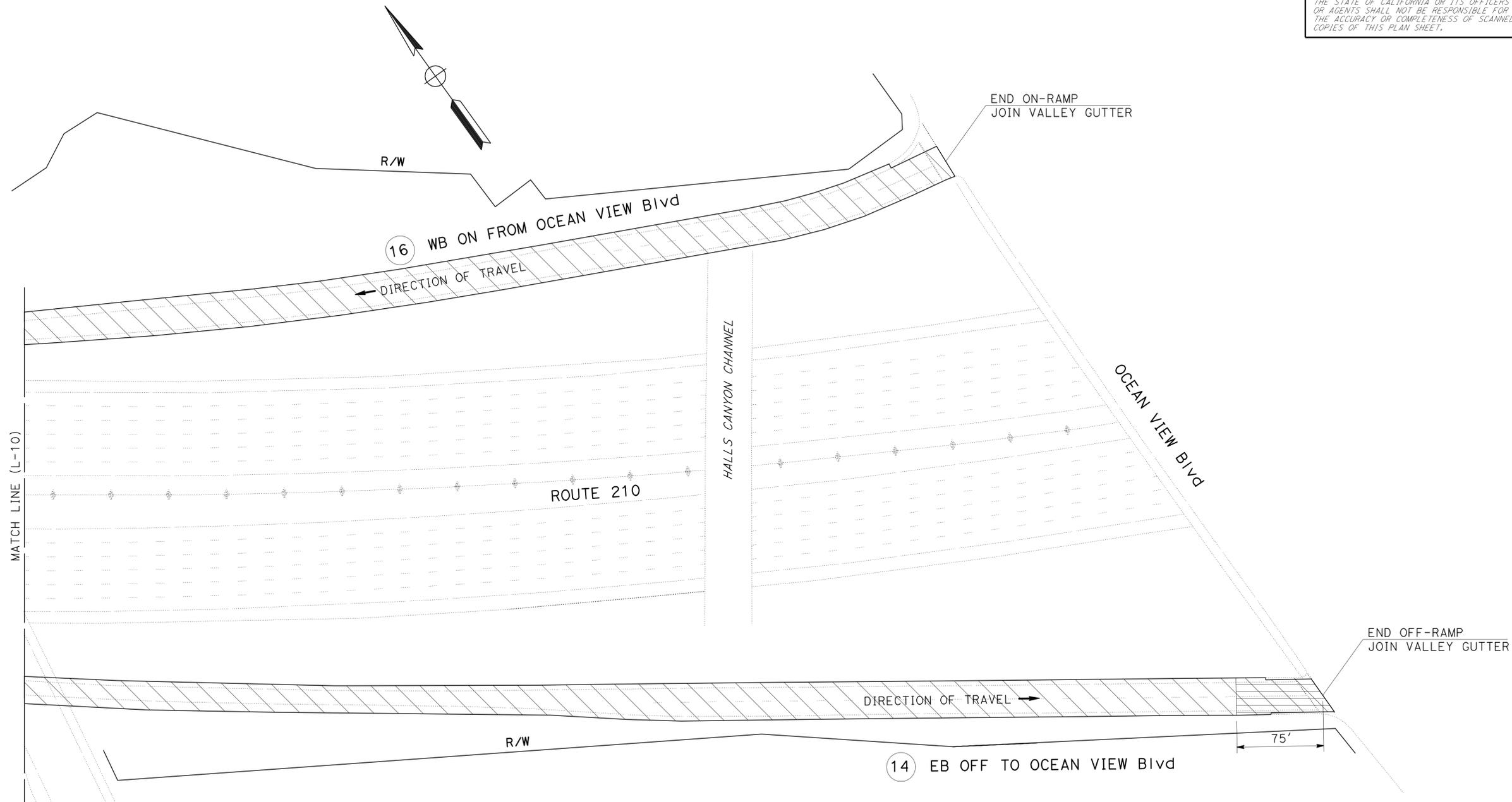
LAST REVISION | DATE PLOTTED => 29-MAR-2012
00-00-00 | TIME PLOTTED => 11:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	14	52
			3/13/12	DATE	
			REGISTERED CIVIL ENGINEER	DATE	
			4-2-12	PLANS APPROVAL DATE	
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Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	REVISOR

LAYOUT
SCALE: 1" = 50'

L-11

LAST REVISION | DATE PLOTTED => 29-MAR-2012
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	15	52

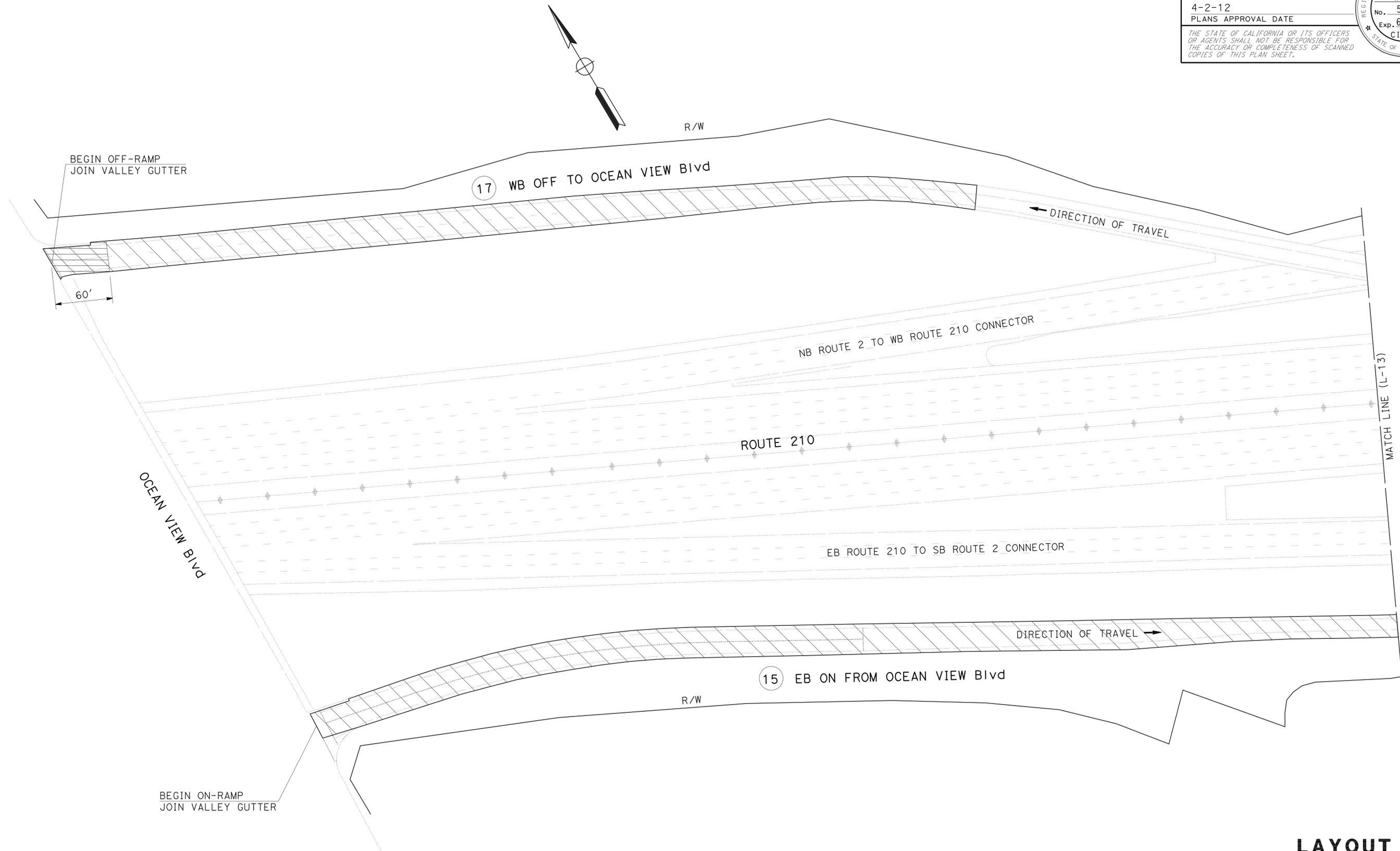
<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DEBORAH WONG
No. 58313
Exp. 6-30-12
CIVIL
STATE OF CALIFORNIA

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FUNCTIONAL SUPERVISOR
HECTOR OBESO
CALCULATED-DESIGNED BY
CHECKED BY
QUAN HA
DEBORAH WONG
REVISED BY
DATE REVISED

LAYOUT
SCALE: 1" = 50'

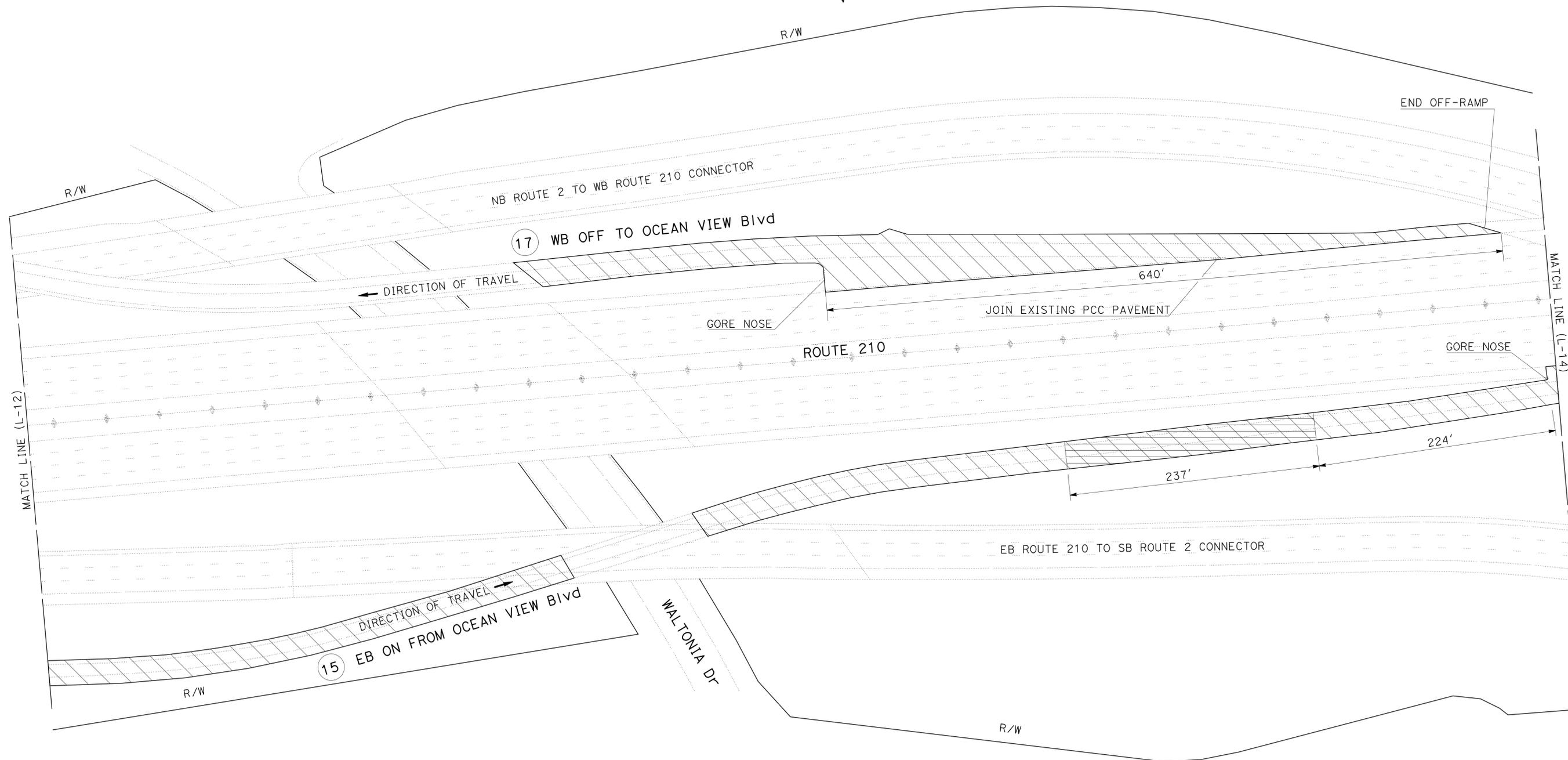
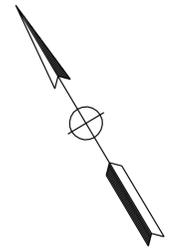
L-12

LAST REVISION | DATE PLOTTED => 29-MAR-2012
00-00-00 | TIME PLOTTED => 11:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	16	52
			3/13/12	DATE	
			REGISTERED CIVIL ENGINEER	DATE	
			4-2-12	PLANS APPROVAL DATE	
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Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	QUAN HA
			DEBORAH WONG
			DATE REVISOR

LAYOUT
SCALE: 1" = 50'
L-13

LAST REVISION | DATE PLOTTED => 29-MAR-2012
00-00-00 | TIME PLOTTED => 11:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	17	52

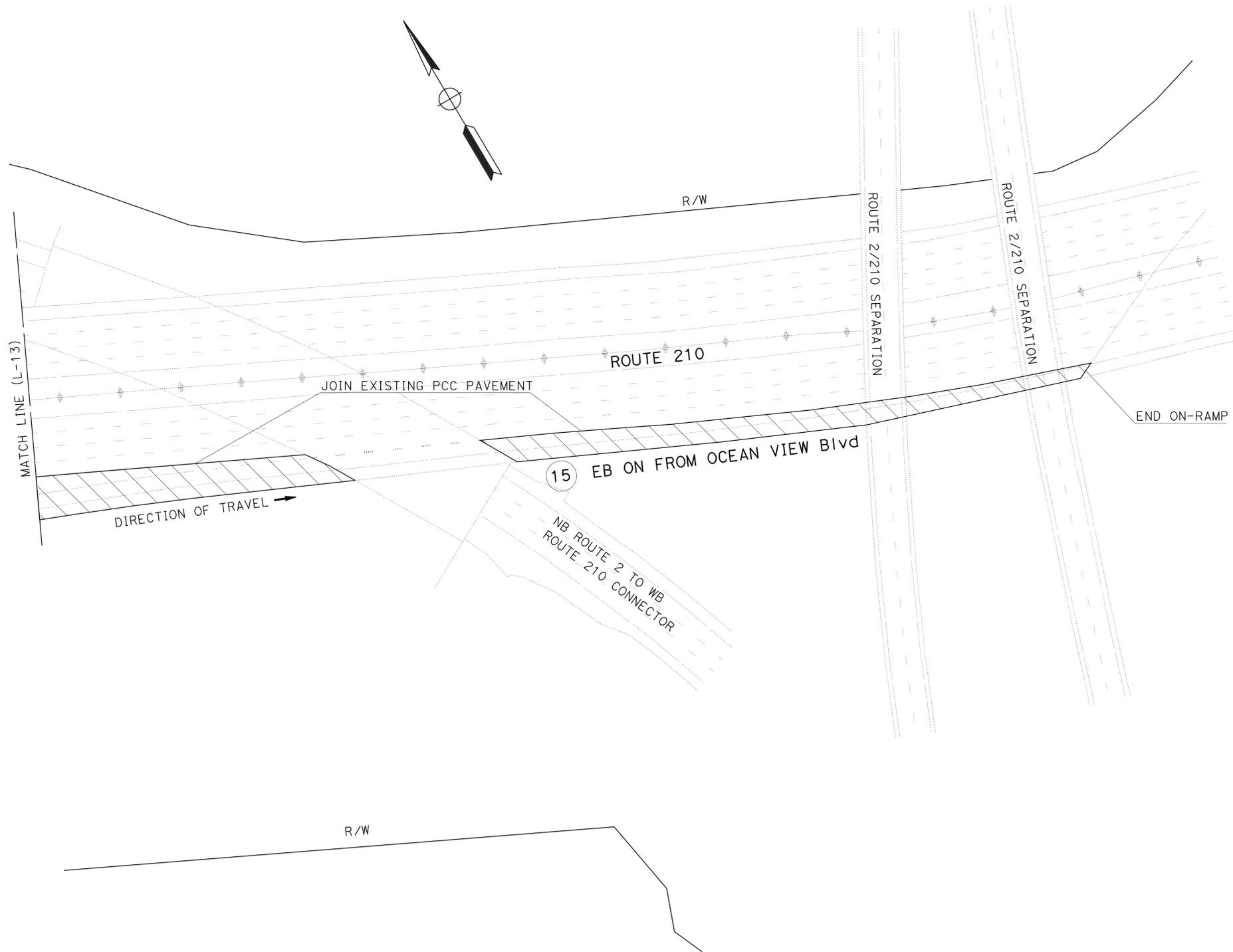
<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER DEBORAH WONG No. 58313 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.

NOTE:

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	QUAN HA	REVISOR BY	
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	

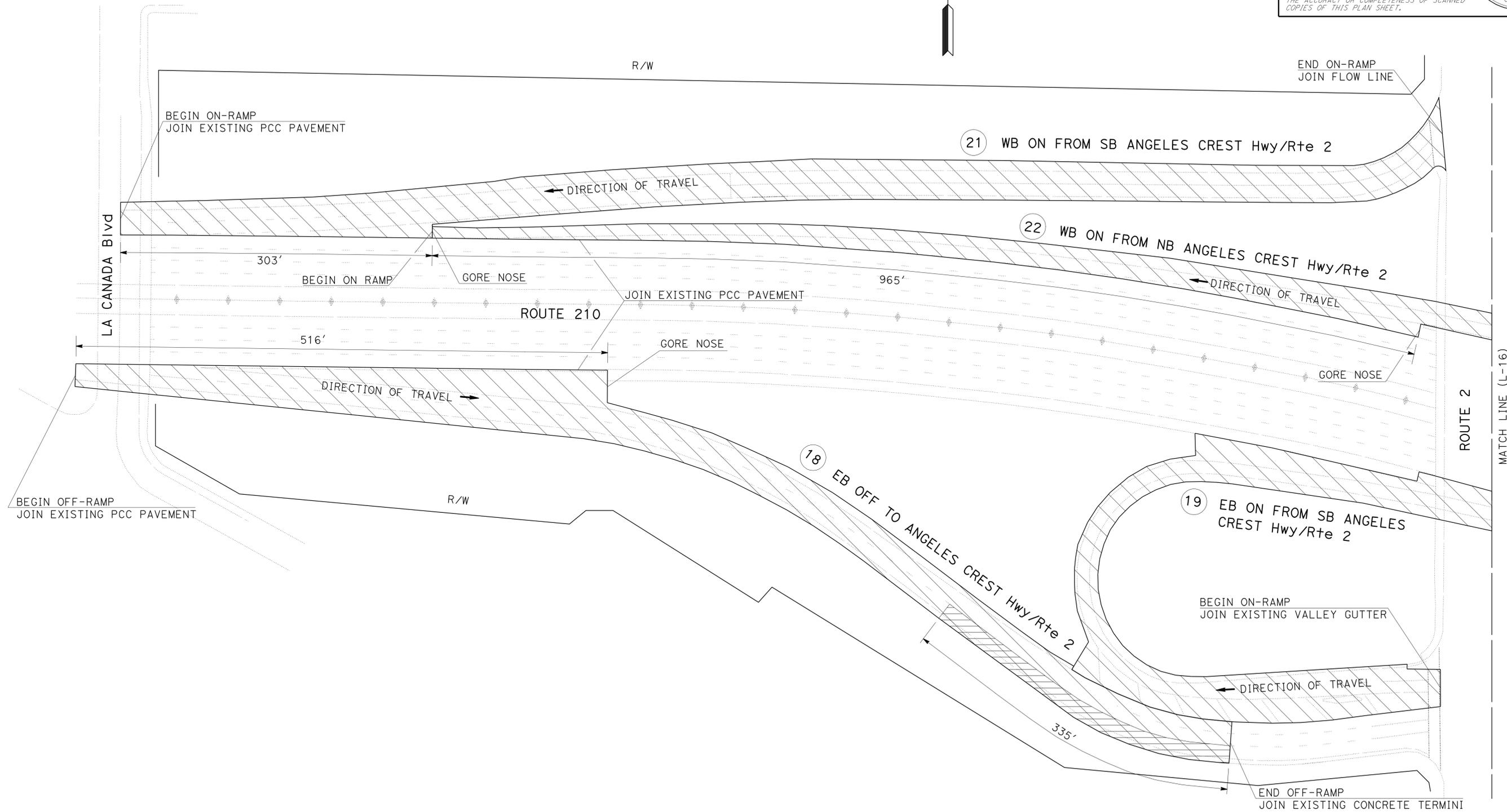
LAYOUT
SCALE: 1" = 50'
L-14

LAST REVISION | DATE PLOTTED => 29-MAR-2012
00-00-00 | TIME PLOTTED => 11:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	18	52
			REGISTERED CIVIL ENGINEER	DATE	
			3/13/12		
			PLANS APPROVAL DATE		
			4-2-12		
			REGISTERED PROFESSIONAL ENGINEER		
			DEBORAH WONG		
			No. 58313		
			Exp. 6-30-12		
			CIVIL		
<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>					

NOTE:

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	QUAN HA	REVISOR BY	
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	

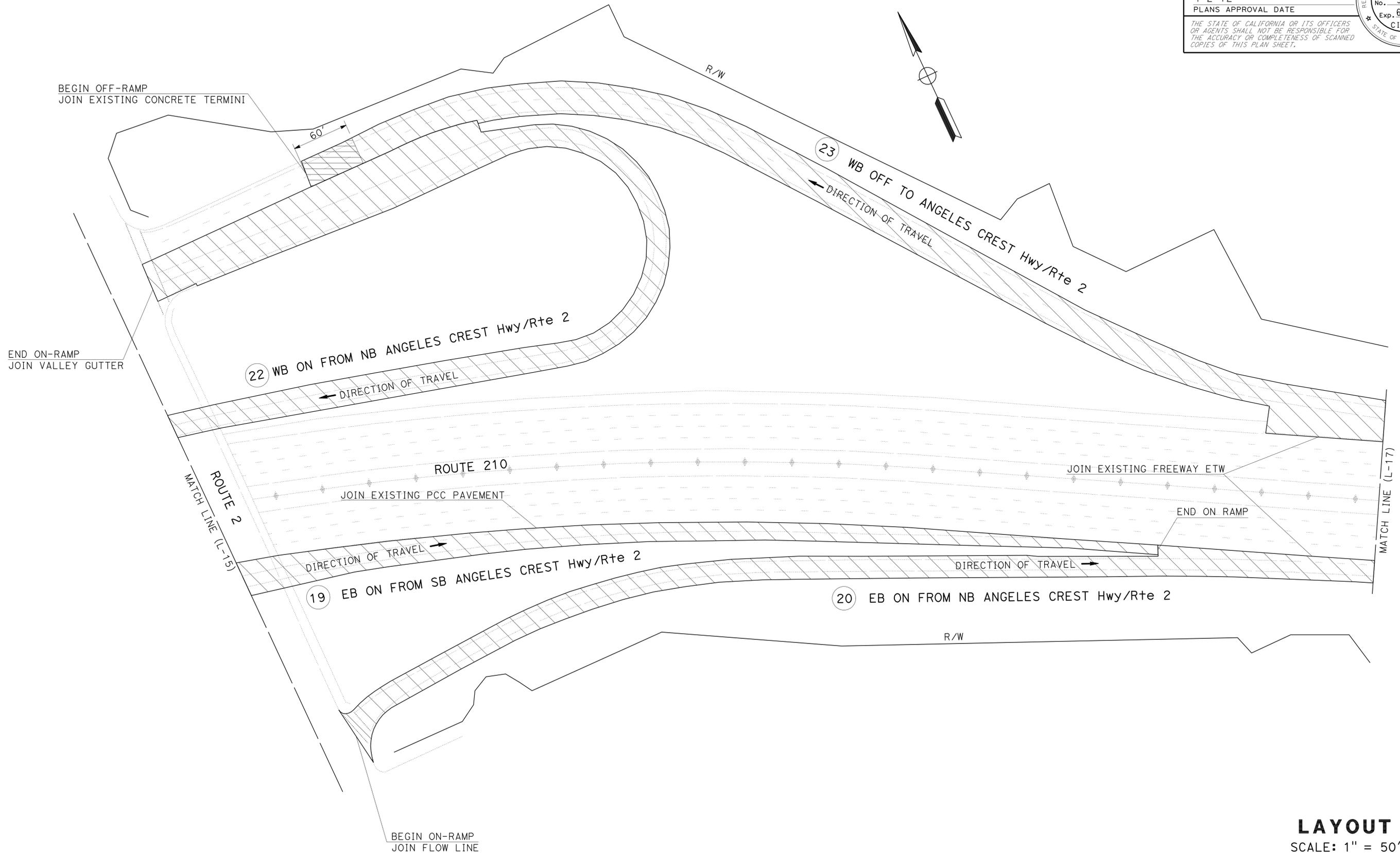
LAYOUT
SCALE: 1" = 50'

L-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	19	52
			3/13/12	DATE	
			4-2-12	PLANS APPROVAL DATE	
REGISTERED CIVIL ENGINEER DEBORAH WONG No. 58313 Exp. 6-30-12 CIVIL					
<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>					

NOTE:

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	QUAN HA
			DEBORAH WONG
			DATE REVISOR

LAYOUT
SCALE: 1" = 50'

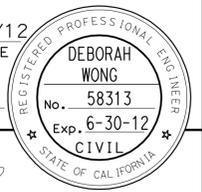
L-16

LAST REVISION DATE PLOTTED => 29-MAR-2012
00-00-00 TIME PLOTTED => 11:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	20	52

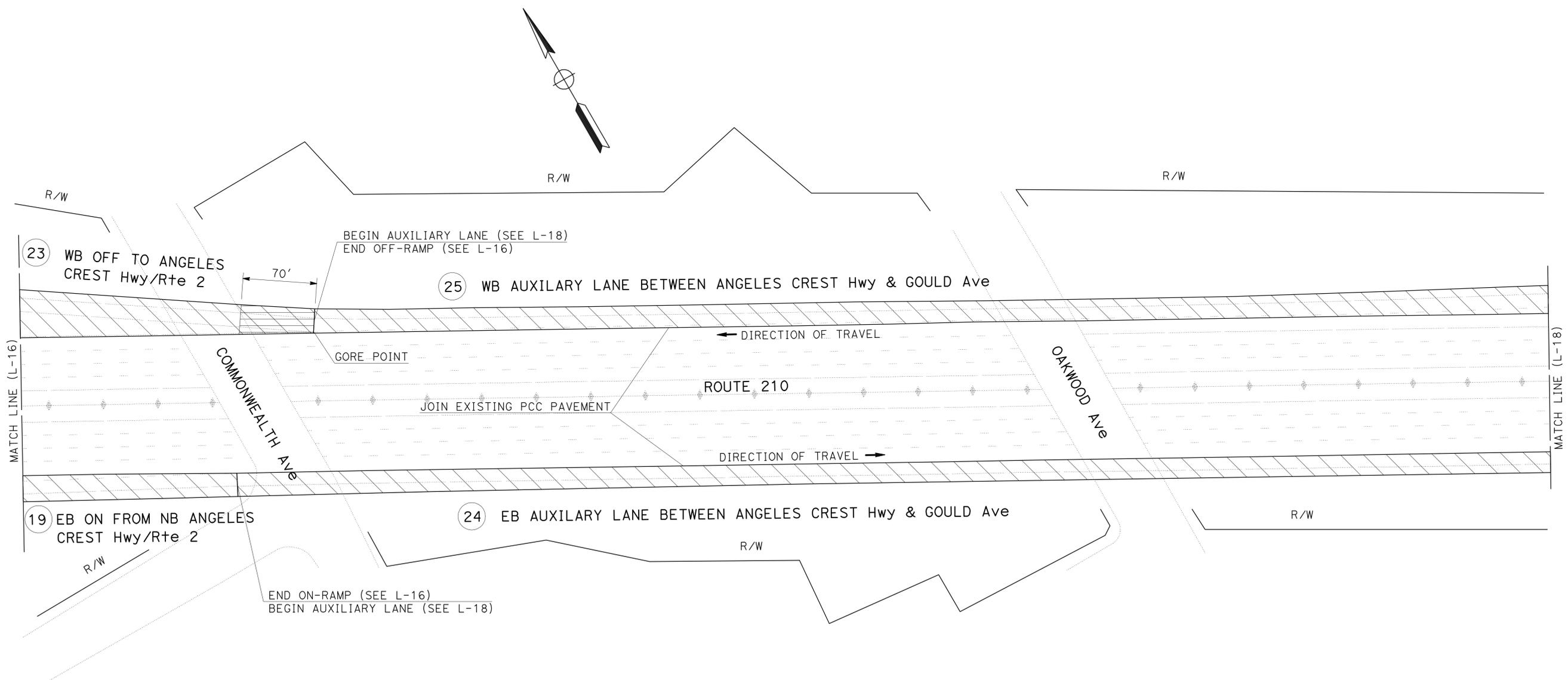
<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

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



NOTE:

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	QUAN HA	REVISOR BY	
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	

LAYOUT
SCALE: 1" = 50'

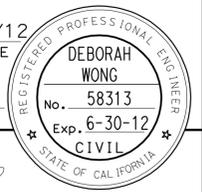
L-17

LAST REVISION | DATE PLOTTED => 29-MAR-2012
00-00-00 | TIME PLOTTED => 11:11

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	21	52

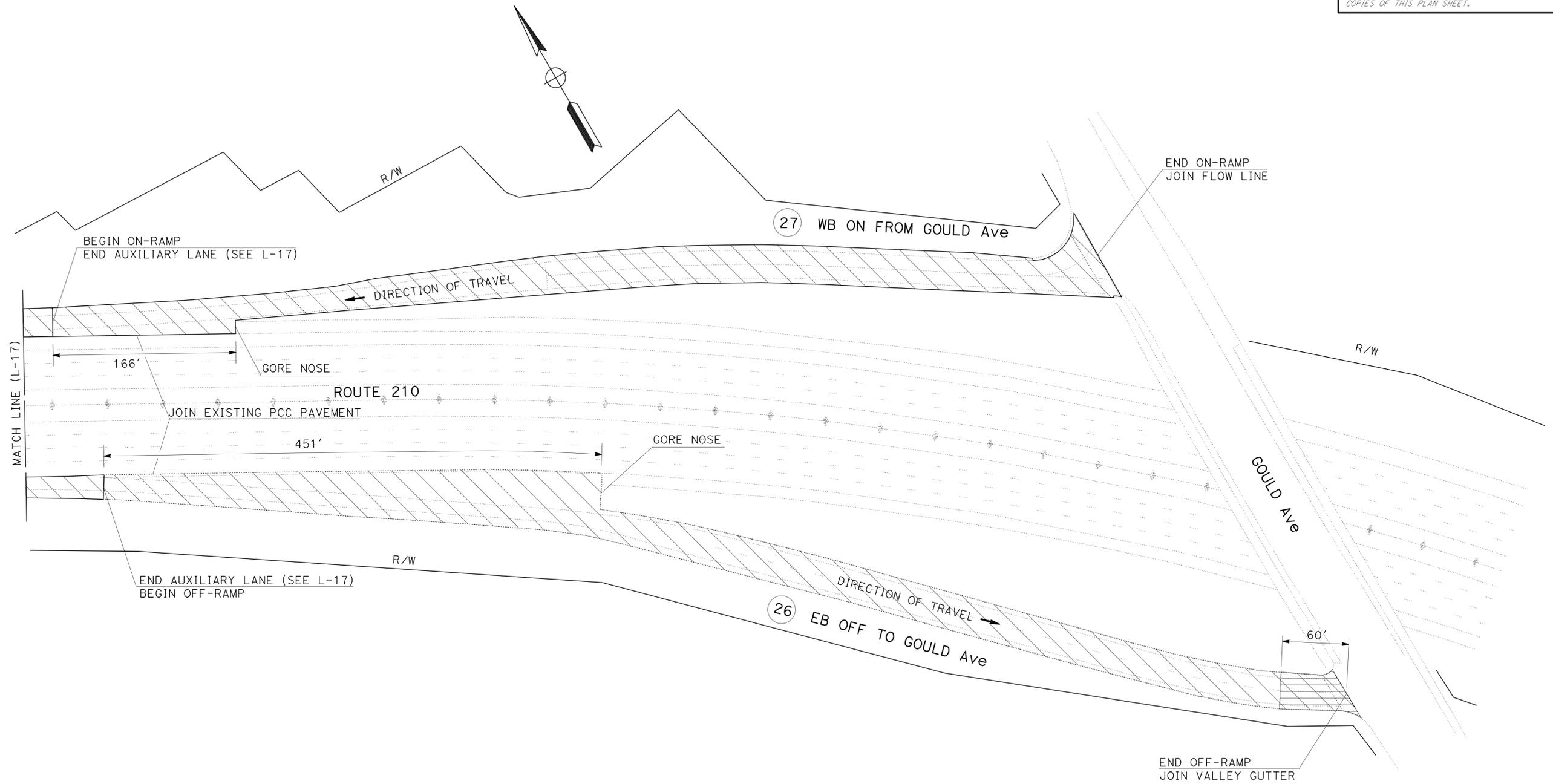
<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

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



NOTE:

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



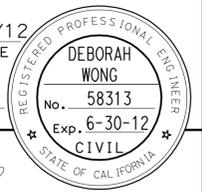
LAYOUT
SCALE: 1" = 50'

L-18

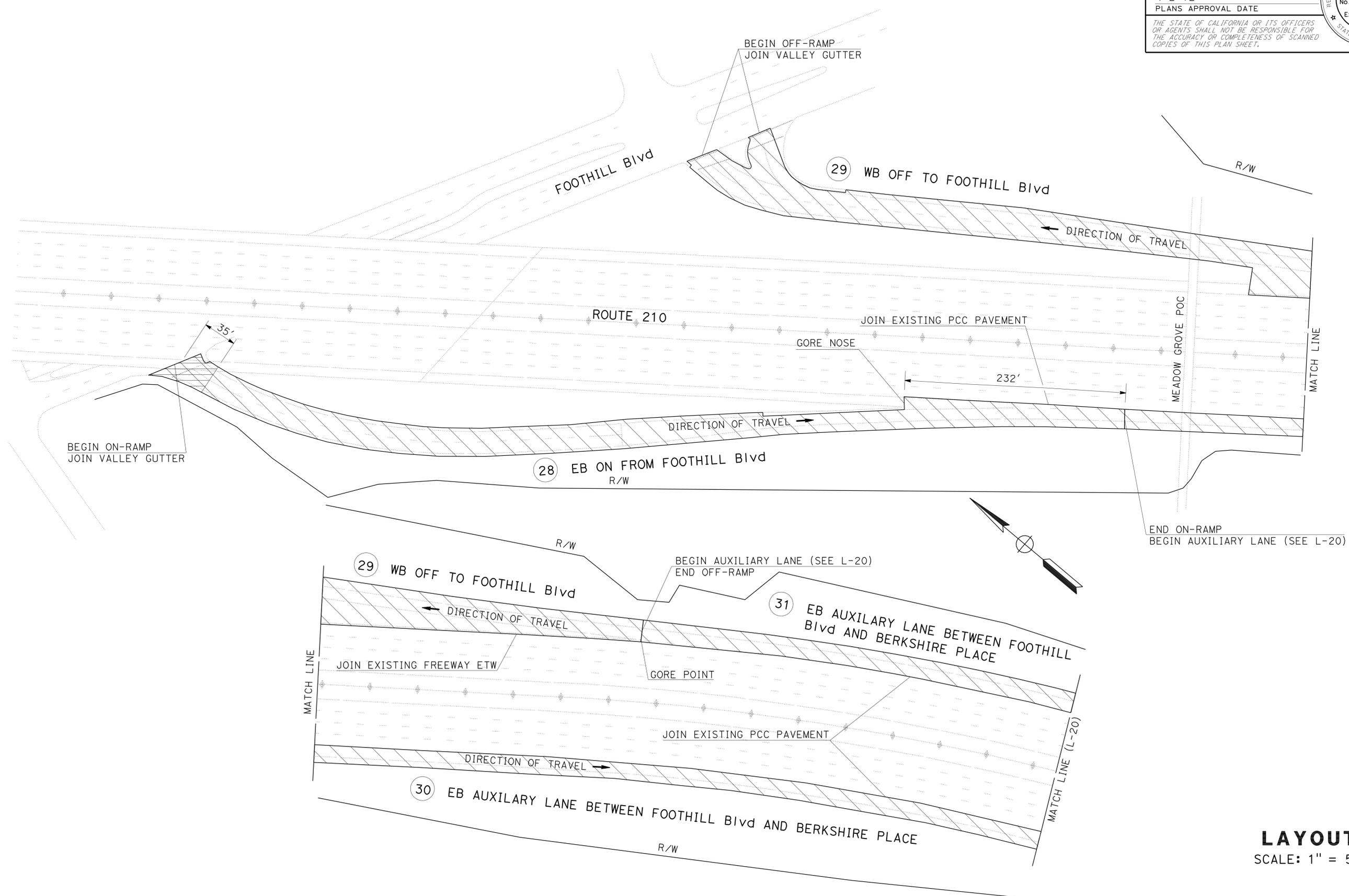
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	QUAN HA	REVISOR
Caltrans MAINTENANCE ENGINEERING	DEBORAH WONG	DATE
FUNCTIONAL SUPERVISOR	HECTOR OBESO	CHECKED BY
		DESIGNED BY



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	22	52
			3/13/12	DATE	
REGISTERED CIVIL ENGINEER			DATE		
4-2-12			PLANS APPROVAL DATE		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



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



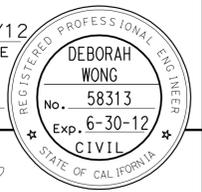
LAYOUT
SCALE: 1" = 50'

L-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	QUAN HA	REVISOR BY
Caltrans MAINTENANCE ENGINEERING	DEBORAH WONG	DATE REVISED
FUNCTIONAL SUPERVISOR	CHECKED BY	
HECTOR OBESO		
CALCULATED/DESIGNED BY		

LAST REVISION DATE PLOTTED => 29-MAR-2012 00-00-00 TIME PLOTTED => 11:11

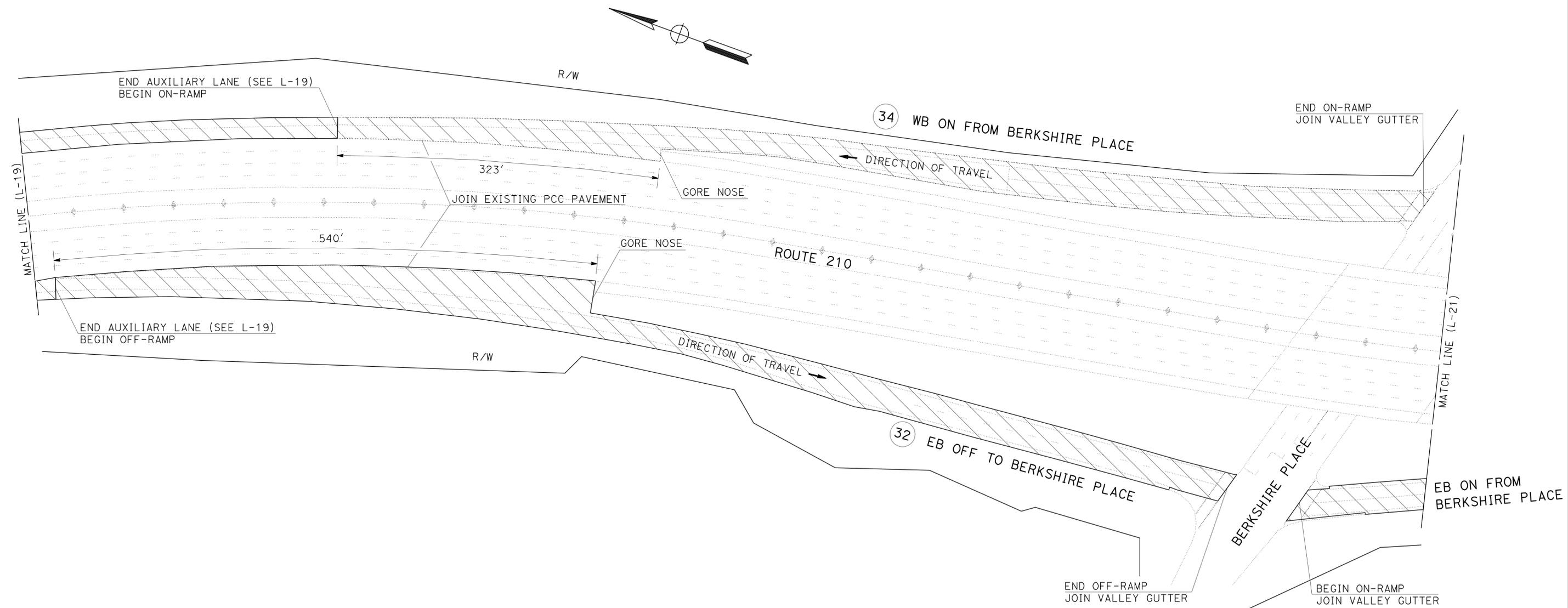
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	23	52
			REGISTERED CIVIL ENGINEER	DATE	
			3/13/12		
			PLANS APPROVAL DATE		
			4-2-12		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



NOTE:

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	QUAN HA	REVISOR BY	
Caltrans MAINTENANCE ENGINEERING	HECTOR OBESO	CHECKED BY	DEBORAH WONG	DATE	



LAYOUT
SCALE: 1" = 50'
L-20

LAST REVISION | DATE PLOTTED => 29-MAR-2012
00-00-00 | TIME PLOTTED => 11:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	24	52

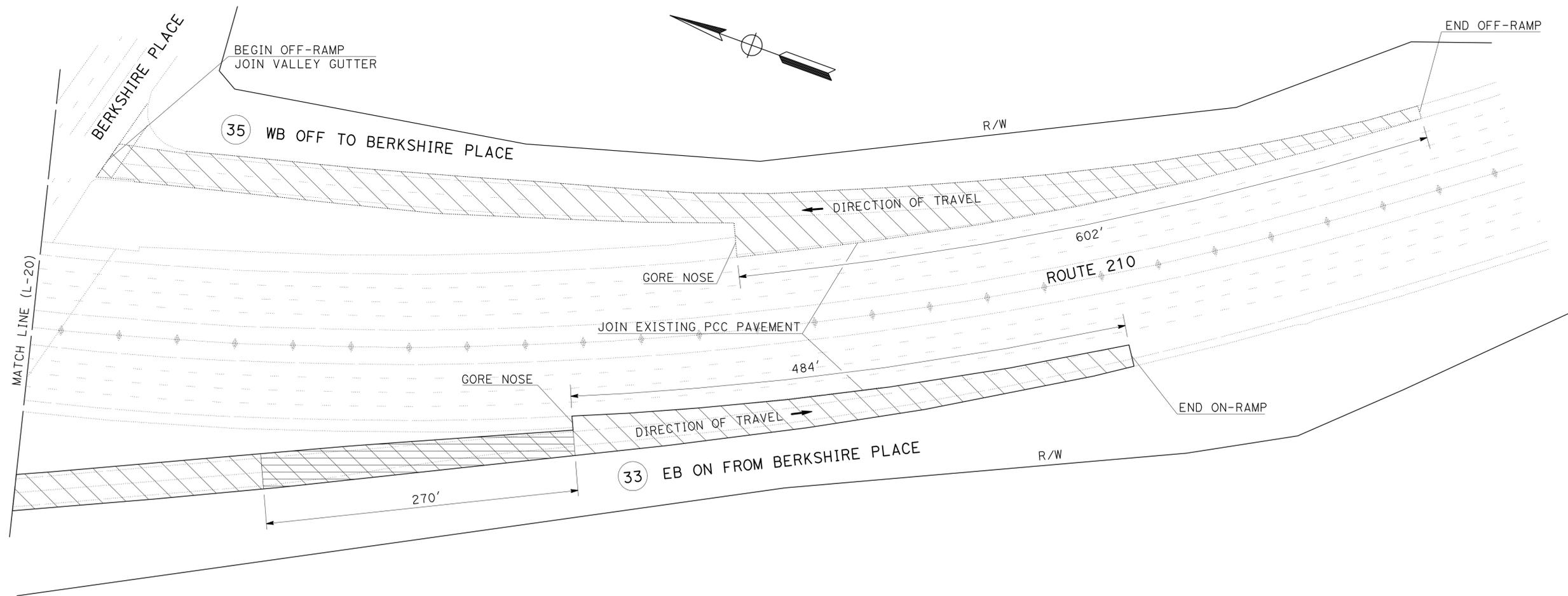
<i>Deborah Wong</i>	3/13/12
REGISTERED CIVIL ENGINEER	DATE
4-2-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DEBORAH WONG
No. 58313
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.

NOTE:

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



LAYOUT
SCALE: 1" = 50'

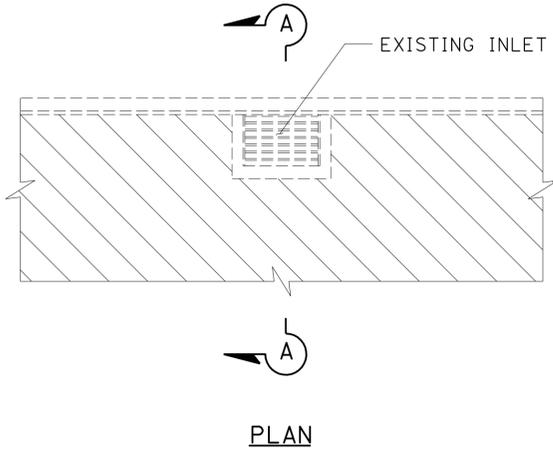
L-21

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	QUAN HA	REVISOR
Caltrans MAINTENANCE ENGINEERING	DEBORAH WONG	DATE
FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY
HECTOR OBESO		

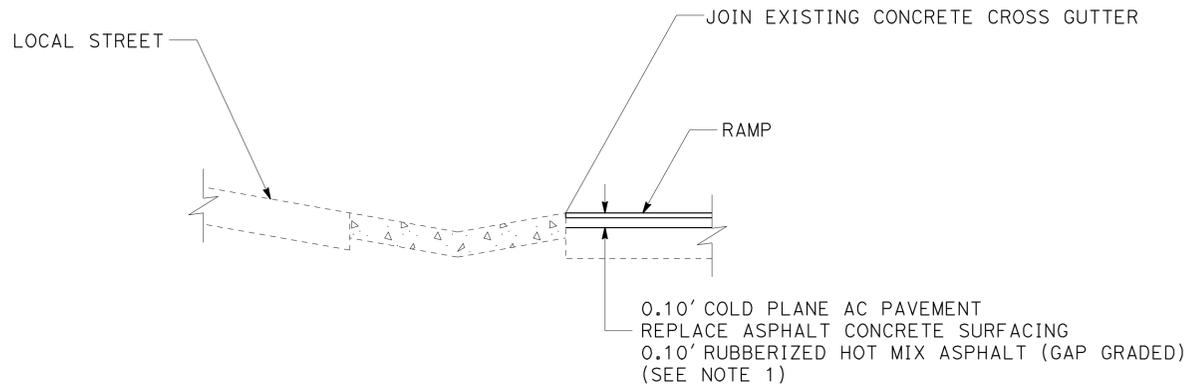
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	26	52
			REGISTERED CIVIL ENGINEER	DATE	
			3/13/12		
			REGISTERED PROFESSIONAL ENGINEER		
			DEBORAH WONG		
			No. 58313		
			Exp. 6-30-12		
			CIVIL		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTE:

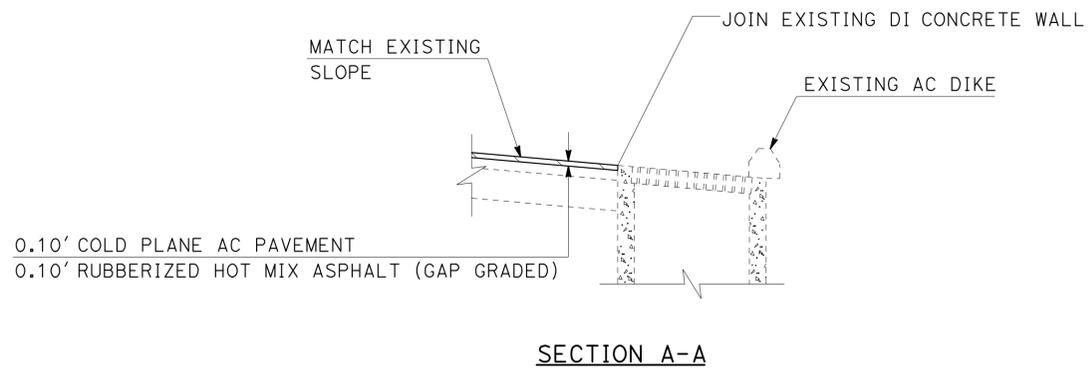
1. SEE LAYOUT SHEETS FOR LOCATIONS OF REPLACE ASPHALT CONCRETE SURFACING



**PAVING LIMITS
(DRAINAGE INLET)**



**PAVING LIMITS
(CONCRETE CROSS GUTTER)**



SECTION A-A

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: HECTOR OBESO
 CALCULATED/DESIGNED BY: QUAN HA
 CHECKED BY: DEBORAH WONG
 REVISOR BY: QUAN HA
 DATE REVISOR: DEBORAH WONG

CONSTRUCTION DETAILS

NO SCALE

C-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	27	52

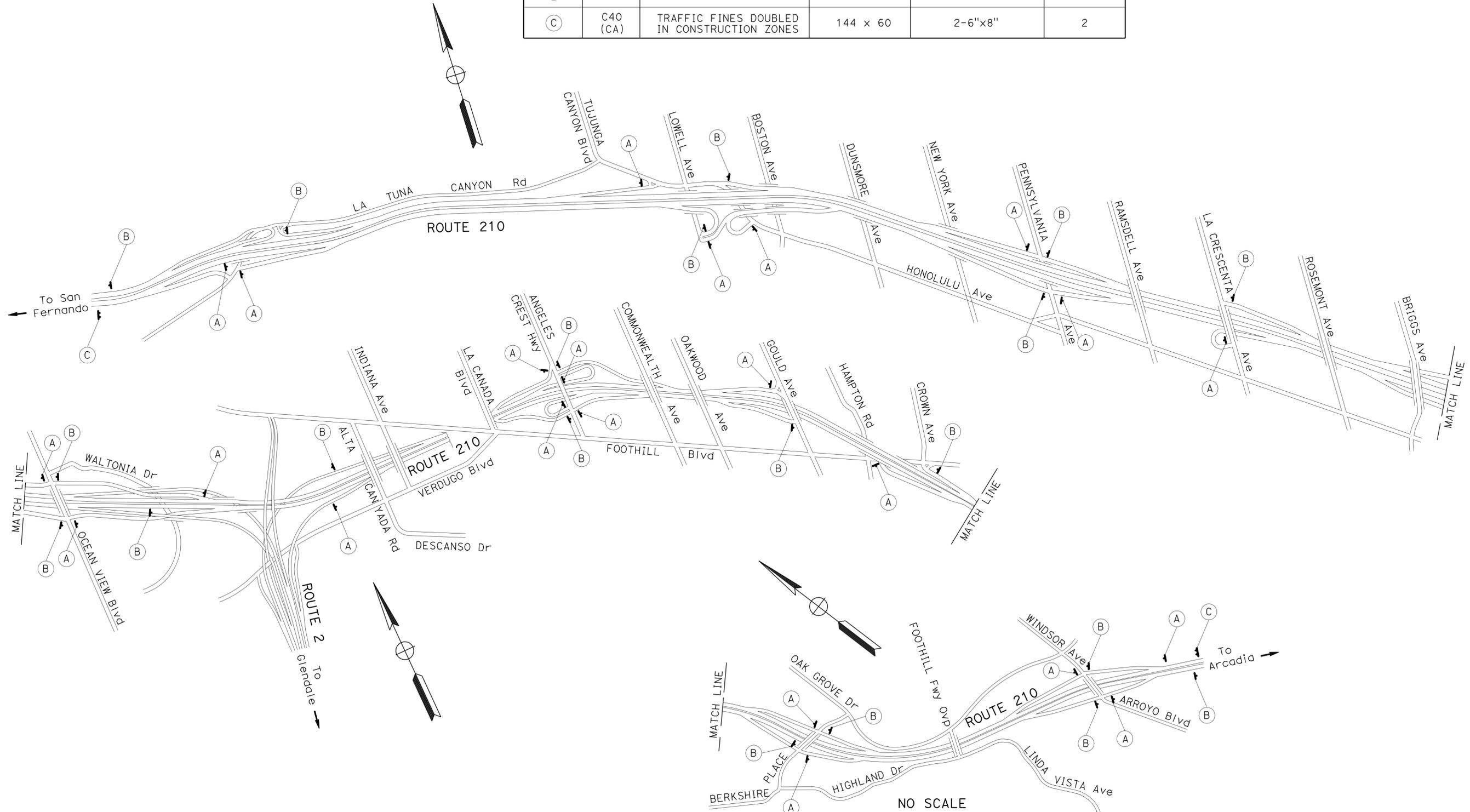
3/13/12
 REGISTERED CIVIL ENGINEER DATE
DEBORAH WONG
 No. 58313
 Exp. 6-30-12
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN	SIGN CODE	SIGN MESSAGE	PANEL SIZE (INCH)	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
(A)	W20-1	ROAD WORK AHEAD	48 x 48	1-6"x6"	23
(B)	G20-2	END ROAD WORK	48 x 24	1-4"x6"	20
(C)	C40 (CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	144 x 60	2-6"x8"	2

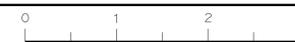


CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE ENGINEERING

Caltrans

FUNCTIONAL SUPERVISOR: HECTOR OBESO

DESIGNED BY: QUAN HA

CHECKED BY: DEBORAH WONG

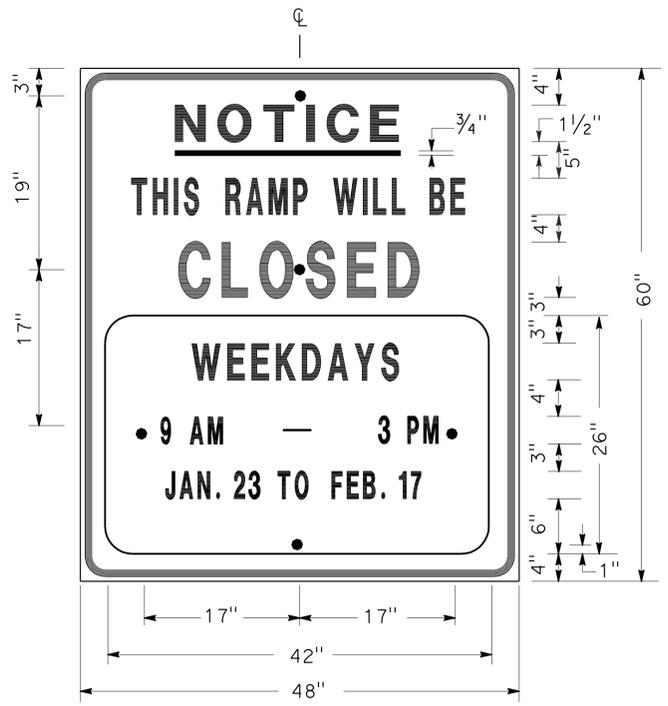
REVISOR: [REDACTED]

DATE: [REDACTED]

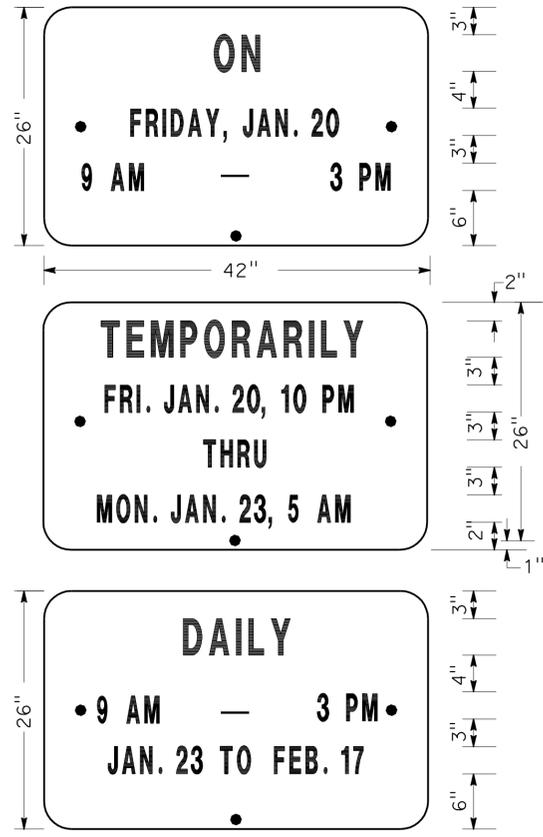
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	28	52

REGISTERED CIVIL ENGINEER: *Benjamin Ramos* DATE: 2-22-12
 PLANS APPROVAL DATE: 4-2-12
 No. C. 61340
 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.



SIGN SP-1



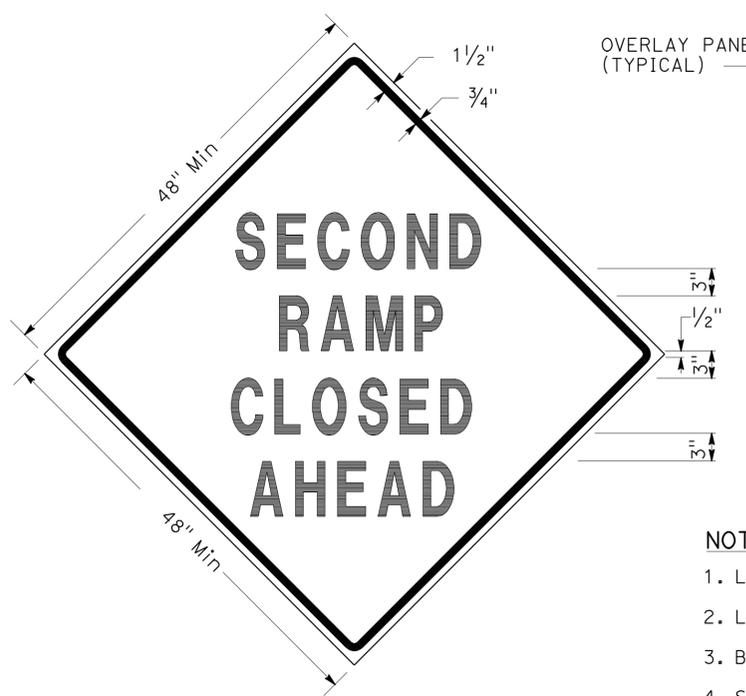
ALTERNATE OVERLAY PANELS (TYPICAL)

- NOTES: (SIGN SP-1)
- SIGNS SHALL HAVE ORANGE RETROREFLECTORIZED BACKGROUND WITH BLACK BORDER AND LETTERS.
 - BOLT HOLES SHALL BE 3/8" DIAMETER.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND.

SIZE	BORDER	MARGIN	LETTER SIZE					CORNER RADIUS
	WIDTH	WIDTH	LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5,6 & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"

* CONDENSED SPACING IF NECESSARY

SPECIAL ADVANCE NOTICE PUBLICITY SIGN



SIGN SP-3

SPECIAL SIGN FOR EXIT RAMP CLOSURES

- NOTES: (SIGNS SP-3 & SP-5)
- LETTERS - 6" SERIES D.
 - LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 6' ABOVE GROUND.



SIGN SP-5



SIGN SP-4

- NOTES: (SIGN SP-4)
- LETTERS - 6" SERIES C.
 - LETTERS AND BORDERS - BLACK ON RETROREFLECTORIZED WHITE BACKGROUND.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH STANDARD PLAN T14.

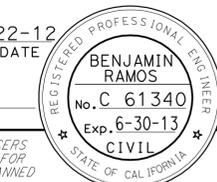
SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

**TRAFFIC HANDLING DETAILS
 TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURES, DETOUR SIGNS
 AND MISCELLANEOUS DETAILS**

SHEET 1 OF 2

NO SCALE

THD-1

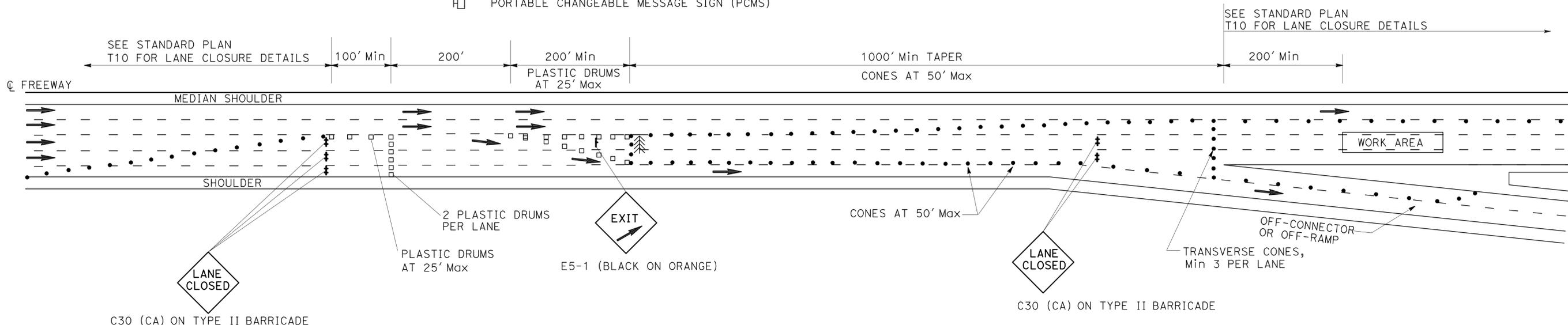
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	30	52
 REGISTERED CIVIL ENGINEER DATE 2-22-12					
4-2-12 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

LEGEND

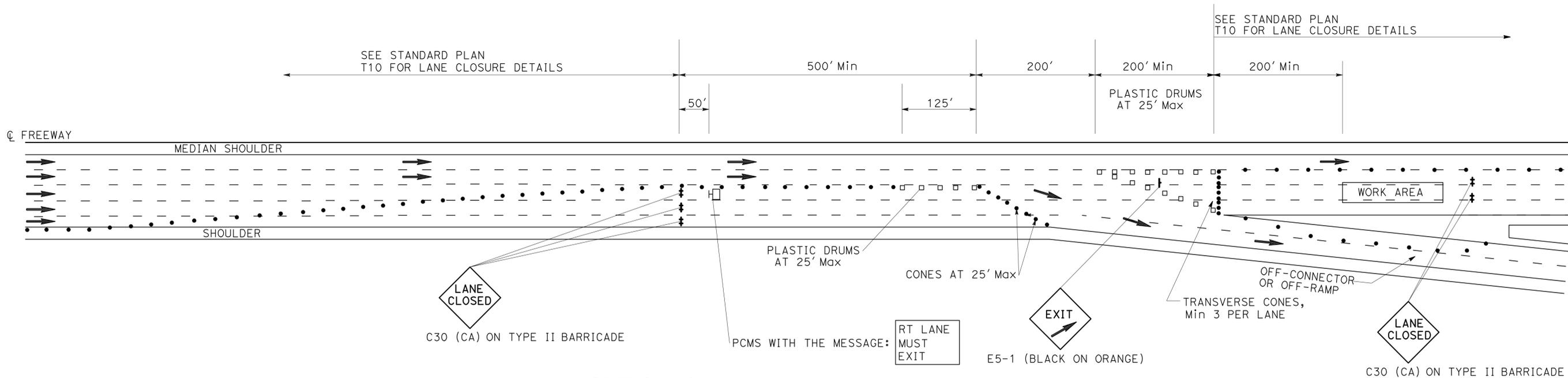
- CONE
- TRAFFIC PLASTIC DRUM
- ⚡ FLASHING ARROW SIGN
- † PORTABLE SIGN
- ➔ DIRECTION OF TRAVEL
- ◻ PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

ABBREVIATIONS

(CA) CALIFORNIA CODE



OPTION 1



OPTION 2

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR SLIP-RAMP AT
OFF-CONNECTOR OR OFF-RAMP**

NO SCALE

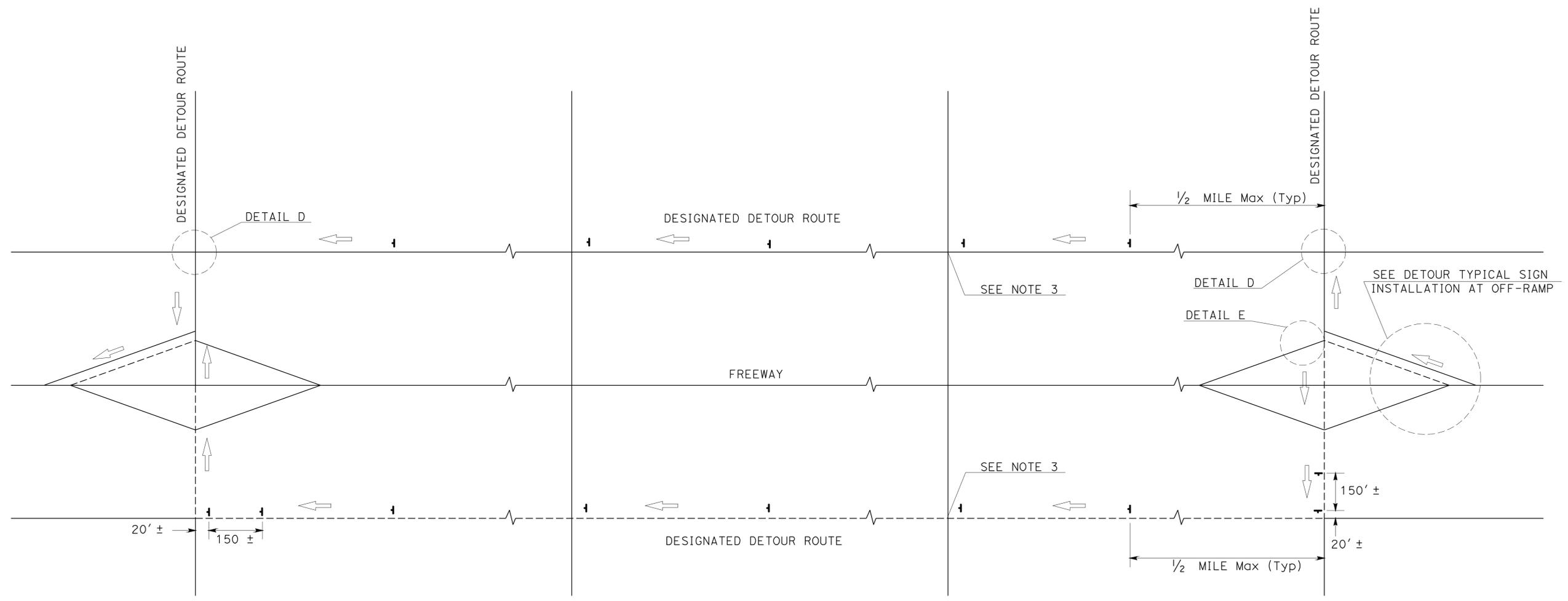
THD-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DT M
 FUNCTIONAL SUPERVISOR: MARTIN OREGEL
 CHECKED BY: JOCELYN C CHIANG
 DESIGNED BY: ALBERT K YU
 REVISIONS: JC 7/10
 REVISIONS: DATE REVISIONS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	31	52

REGISTERED CIVIL ENGINEER DATE 2-22-12
 4-2-12 PLANS APPROVAL DATE
 BENJAMIN RAMOS
 No. C 61340
 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.



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

- LEGEND**
- ┆ TEMPORARY SIGN (SP-2)
 - AND/OR — DESIGNATED DETOUR ROUTE
 - DIRECTION OF TRAVEL

- NOTES:**
1. SP-2 SIGNS SHALL NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
 2. SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
 3. SP-2 SIGNS SHALL BE POSTED AT SIGNALIZED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE OR 1/2 MILE MAXIMUM APART.

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 1 OF 2
NO SCALE**

THD-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DTM

ALBERT K YU
REVISOR

JOCELYN C CHIANG
CHECKER

MARTIN OREGEL
FUNCTIONAL SUPERVISOR

JC
DATE

7/10
DATE

BORDER LAST REVISED 7/2/2010

USERNAME => s125624
DGN FILE => 0700020228me0004.dgn

RELATIVE BORDER SCALE
IS IN INCHES

UNIT 1887

PROJECT NUMBER & PHASE

07000202281

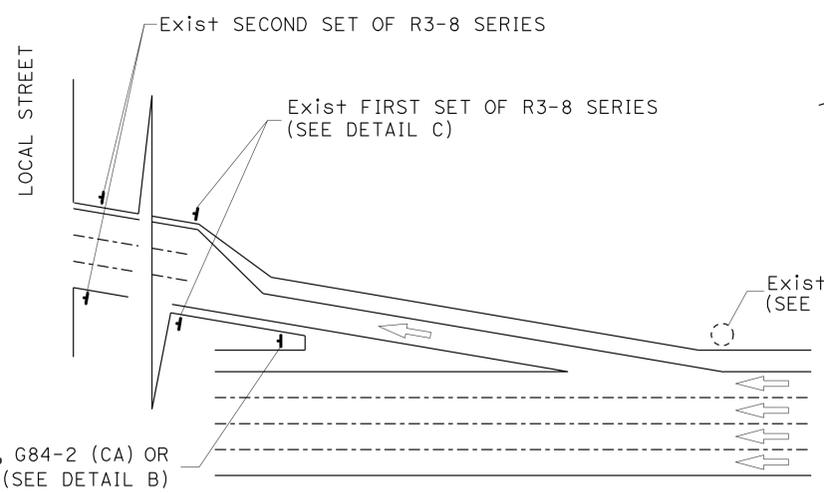
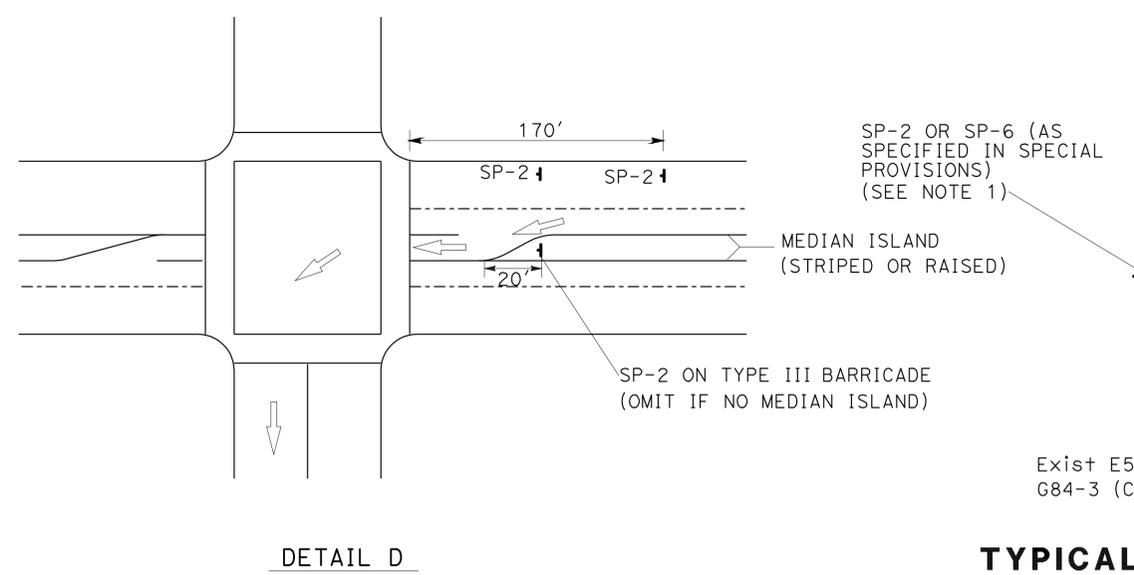
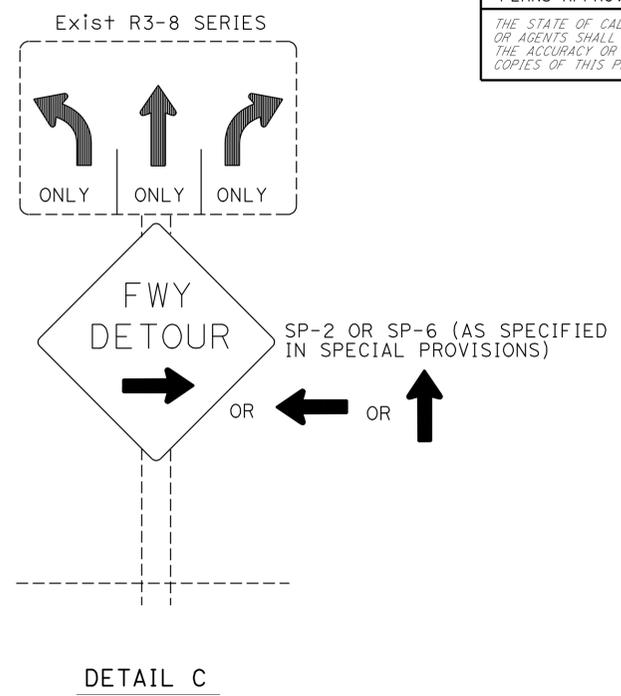
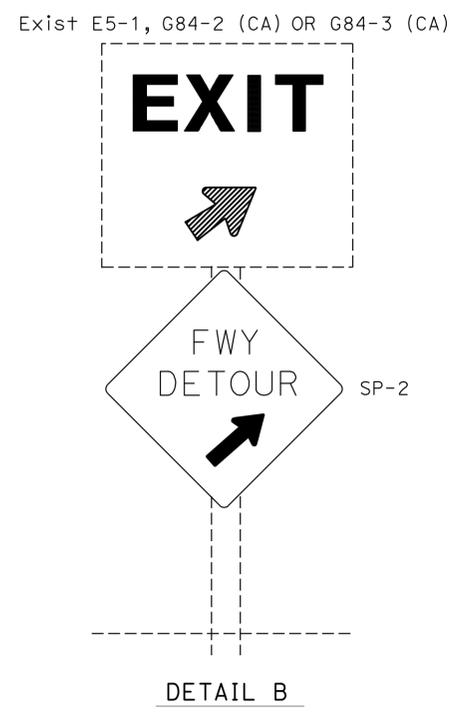
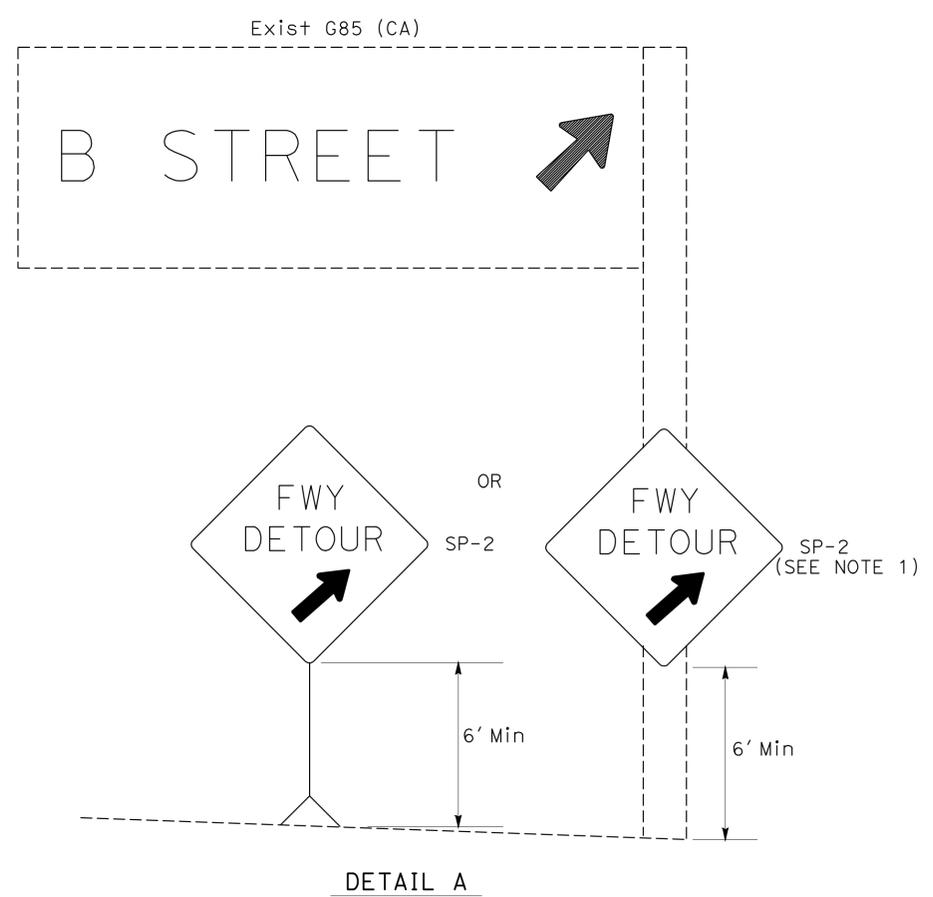
LAST REVISION DATE PLOTTED => 29-MAR-2012
00-00-00 TIME PLOTTED => 11:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	32	52

REGISTERED CIVIL ENGINEER	DATE
<i>Benjamin Ramos</i>	2-22-12
PLANS APPROVAL DATE	
4-2-12	

REGISTERED PROFESSIONAL ENGINEER
BENJAMIN RAMOS
No. C 61340
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.



TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

- NOTES:**
1. TEMPORARY SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POSTS, OR SIGN POSTS.
 2. OMIT DETAIL A AND DETAIL B FOR FULL FREEWAY CLOSURES.
 3. SEE TRAFFIC HANDLING DETAILS PLAN-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS AND MISCELLANEOUS DETAILS SHEET 2 OF 2 FOR SP-6.

ABBREVIATIONS
(CA) CALIFORNIA CODE

- LEGENDS**
- TRAFFIC CONE
 - ↑ TEMPORARY SIGN
 - ➔ DIRECTION OF TRAVEL
 - EXISTING OVERHEAD SIGN

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 2 OF 2
NO SCALE**

THD-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DTM
FUNCTIONAL SUPERVISOR: MARTIN OREGEL
CALCULATED/DESIGNED BY: ALBERT K YU
CHECKED BY: JOCELYN C CHIANG
REVISED BY: JC
DATE REVISED: 8/10

LAST REVISION DATE PLOTTED => 29-MAR-2012
00-00-00 TIME PLOTTED => 11:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	33	52

Deborah Wong 3/13/12
 REGISTERED CIVIL ENGINEER DATE

4-2-12
 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

Loc	PM	FACILITIES	DIRECTION	PAVEMENT MARKING							4" THERMOPLASTIC STRIPE				8" THERMOPLASTIC STRIPE				8" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17-7)	8" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12-3)													
				ARROW							WORDS AND SYMBOL	CROSSWALK AND LIMIT LINE	DIAGONAL 12" WHITE STRIPE	DETAIL 25A	DETAIL 27B	DETAIL 29	Misc	DETAIL 9	DETAIL 36	DETAIL 36A	DETAIL 38	DETAIL 38B	DETAIL 37										
				TYPE I	TYPE II (L OR R)	TYPE II (B)	TYPE III (L OR R)	TYPE III (B)	TYPE V	TYPE VI														4" YELLOW	4" WHITE	4" DOUBLE YELLOW	4" WHITE	4" WHITE	8" WHITE				
				SQFT	SQFT	SQFT	SQFT	SQFT	SQFT	SQFT														LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
1	R14.41	EB ON FROM LA TUNA CANYON Rd	EB	50						126		1,126	2,074		60	622		211															
2	R14.47	WB OFF TO LA TUNA CANYON Rd	WB				84		33	53		655	1,176			436		485															
3	R15.62	EB OFF TO LOWELL Ave	EB						33	75	13	735	1,279	226			485																
4	R15.89	EB ON FROM LOWELL Ave / HONOLULU Ave	EB	75							129	1,790	2,231	234		776		136	189	252													
5	R15.31	WB ON FROM HONOLULU Ave / LOWELL Ave	WB	50							114	1,163	2,062			320		175	160														
6	R15.87	WB OFF TO HONOLULU Ave / LOWEL Ave	WB						66	126		656	1,817		1,171	236																	
7	R15.89- R16.58	EB AUXILARY LANE BETWEEN HONOLULU Ave AND PENNSYLVANIA Ave	EB										2,371		2,369																		
8	R16.58	EB OFF TO PENNSYLVANIA Ave	EB		90		84		33	84	75	1,018	1,578		54	986	776																
9	R17.00	EB ON FROM PENNSYLVANIA Ave	EB	50							148	948	1,911		91	726		160															
10	R16.61	WB ON FROM PENNSYLVANIA Ave	WB	50						33	153	758	1,829			262		285	451														
11	R16.94	WB OFF TO PENNSYLVANIA Ave	WB			118	84		33		73	707	1,347		59	356	736																
12	R17.47	EB ON FROM LA CRESCENTA Ave	EB	50							29	1,100	1,512			452		170															
13	R17.61	WB OFF TO LA CRESCENTA Ave	WB				168		66		75	1,149	1,565		49	426	742				29												
14	R17.94	EB OFF TO OCEAN VIEW Blvd	EB		90		84		66		37	1,463	2,087		66	509	756																
15	R18.73	EB ON FROM OCEAN VIEW Blvd	EB	50						33	53	2,588	3,302			103		133	575														
16	R17.95	WB ON OCEAN VIEW Blvd	WB	50							57	1,200	2,197		47	497																	
17	R18.63	WB OFF TO OCEAN VIEW Blvd	WB		90		84		66		66	1,223	1,894		47	475	767																
18	R19.72	EB OFF TO ANGELES CREST Hwy/Rte 2	EB						99			533	1,210			1,185	793				141												
19	R19.89	EB ON FROM SB ANGELES CREST Hwy/Rte 2	EB	50							85	468	1,689	1,354	40	185		270															
SUBTOTAL				475	270	118	588		495	84	640	1,233	546	19,280	35,131	1,814	513	11,856	5,776	1,540	1,375	422											

PAVEMENT DELINEATION QUANTITIES PDQ-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	35	52

Deborah Wong 3/13/12
 REGISTERED CIVIL ENGINEER DATE

4-2-12
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
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PAVEMENT DELINEATION QUANTITIES

Loc	PM	FACILITIES	DIRECTION	PAVEMENT MARKER (RETROREFLECTIVE)						
				DETAIL 9	DETAIL 25A	DETAIL 29	DETAIL 37	DETAIL 38	DETAIL 38B	
				TYPE G	TYPE H	TYPE D	TYPE C	TYPE G	TYPE G	
				EA	EA	EA	EA	EA	EA	
1	R14.41	EB ON FROM LA TUNA CANYON Rd	EB	13	47					
2	R14.47	WB OFF TO LA TUNA CANYON Rd	WB	10	28					
3	R15.62	EB OFF TO LOWELL Ave	EB		31	5				
4	R15.89	EB ON FROM LOWELL Ave / HONOLULU Ave	EB	17	75	5		8	22	
5	R15.31	WB ON FROM HONOLULU Ave / LOWELL Ave	WB	7	49			7		
6	R15.87	WB OFF TO HONOLULU Ave / LOWEL Ave	WB	25	28					
7	R15.89 R16.58	EB AUXILARY LANE BETWEEN HONOLULU Ave AND PENNSYLVANIA Ave	EB	50						
8	R16.58	EB OFF TO PENNSYLVANIA Ave	EB	21	43					
9	R17.00	EB ON FROM PENNSYLVANIA Ave	EB	16	40					
10	R16.61	WB ON FROM PENNSYLVANIA Ave	WB	6	32			19		
11	R16.94	WB OFF TO PENNSYLVANIA Ave	WB	8	30					
12	R17.47	EB ON FROM LA CRESCENTA Ave	EB	10	46					
13	R17.61	WB OFF TO LA CRESCENTA Ave	WB	9	48					4
14	R17.94	EB OFF TO OCEAN VIEW Blvd	EB	11	61					
15	R18.73	EB ON FROM OCEAN VIEW Blvd	EB	3	108			24		
16	R17.95	WB ON OCEAN VIEW Blvd	WB	11	50					
17	R18.63	WB OFF TO OCEAN VIEW Blvd	WB	10	51					
18	R19.72	EB OFF TO ANGELES CREST Hwy/Rte 2	EB	25	23					12
19	R19.89	EB ON FROM SB ANGELES CREST Hwy/Rte 2	EB	4	20	29				
SUBTOTAL				256	810	39		58	38	

PAVEMENT DELINEATION QUANTITIES

PDQ-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 HECTOR OBESO
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 DEBORAH WONG
 QUAN HA
 REVISOR BY
 DATE REVISOR



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	36	52

Deborah Wong 3/13/12
 REGISTERED CIVIL ENGINEER DATE

4-2-12
 PLANS APPROVAL DATE

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 COPIES OF THIS PLAN SHEET.

PAVEMENT DELINEATION QUANTITIES

Loc	PM	FACILITIES	DIRECTION	PAVEMENT MARKER (RETROREFLECTIVE)						
				DETAIL 9	DETAIL 25A	DETAIL 29	DETAIL 37	DETAIL 38	DETAIL 38B	
				TYPE G	TYPE H	TYPE D	TYPE C	TYPE G	TYPE G	
				EA	EA	EA	EA	EA	EA	
20	R20.07	EB ON FROM NB ANGELES CREST Hwy/Rte 2	EB		38		20			
21	R19.68	WB ON FROM SB ANGELES CREST Hwy/Rte 2	WB	17	41			29		
22	R19.87	WB ON FROM NB ANGELES CREST Hwy/Rte 2	WB	12	39	32				
23	R20.12	WB OFF TO ANGELES CREST Hwy/Rte 2	WB	18	63					
24	R20.07- R20.44	EB AUXILARY LANE BETWEEN ANGELES CREST Hwy & GOULD Ave	EB				64			28
25	R20.12- R20.42	WB AUXILARY LANE BETWEEN ANGELES CREST Hwy & GOULD Ave	WB				72			8
26	R20.44	EB OFF TO GOULD Ave	EB	11	28					
27	R20.42	WB ON FROM GOULD Ave	WB		33			24		
28	R21.07	EB ON FROM FOOTHILL Blvd	EB	8	31		10			
29	R21.16	WB OFF TO FOOTHILL / CROWN Ave	WB	7	25			5		
30	R21.07- R21.36	EB AUXILARY LANE BETWEEN FOOTHILL Blvd AND BERKSHIRE PLACE	EB				56			14
31	R21.16- R21.41	WB AUXILARY LANE BETWEEN FOOTHILL Blvd AND BERKSHIRE PLACE	WB				34			24
32	R21.36	EB OFF TO BERKSHIRE PLACE	EB	6	28					
33	R21.65	EB ON FROM BERKSHIRE PLACE	EB	5	25			14		
34	R21.41	WB ON FROM BERKSHIRE PLACE	WB		31		12	17		
35	R21.70	WB OFF TO BERKSHIRE PLACE	WB	7	23					
36	R22.35	EB OFF TO ARROYO Blvd	EB	11	27					
37	R22.29	WB ON FROM ARROYO Blvd	WB	14	40					
SUBTOTAL				116	472	32	268	89	74	
TOTAL				2,252						

PAVEMENT DELINEATION QUANTITIES

PDQ-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 HECTOR OBESO
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 DEBORAH WONG
 QUAN HA
 REVISOR BY
 DATE REVISOR



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	37	52

Deborah Wong 3/13/12
 REGISTERED CIVIL ENGINEER DATE

4-2-12
 PLANS APPROVAL DATE

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

ROADWAY QUANTITIES

Loc	PM	FACILITIES	DIRECTION	COLD PLANE ASPHALT CONCRETE PAVEMENT		REPLACE ASPHALT CONCRETE SURFACING		CRACK TREATMENT	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT
				SQYD	AC DEPTH (N)	VOLUME	LNMI	TON	TON	
										FT
1	R14.41	EB ON FROM LA TUNA CANYON Rd	EB	5,847				0.49	434	1.00
2	R14.47	WB OFF TO LA TUNA CANYON Rd	WB	3,727				0.31	277	0.63
3	R15.62	EB OFF TO LOWELL Ave	EB	3,553				0.24	264	0.60
4	R15.89	EB ON FROM LOWELL Ave / HONOLULU Ave	EB	8,230	0.25	159		0.57	611	1.40
5	R15.31	WB ON FROM HONOLULU Ave / LOWELL Ave	WB	5,741				0.45	426	0.98
6	R15.87	WB OFF TO HONOLULU Ave / LOWELL Ave	WB	3,765				0.57	280	0.64
7	R15.89- R16.58	EB AUXILARY LANE BETWEEN HONOLULU Ave AND PENNSYLVANIA Ave	EB	6,011				0.45	446	1.02
8	R16.58	EB OFF TO PENNSYLVANIA Ave	EB	6,115	0.25	21		0.39	454	1.04
9	R17.00	EB ON FROM PENNSYLVANIA Ave	EB	5,668				0.48	421	0.96
10	R16.61	WB ON FROM PENNSYLVANIA Ave	WB	4,736				0.43	352	0.81
11	R16.94	WB OFF TO PENNSYLVANIA Ave	WB	4,327	0.25	21		0.33	321	0.74
12	R17.47	EB ON FROM LA CRESCENTA Ave	EB	4,672				0.31	347	0.80
13	R17.61	WB OFF TO LA CRESCENTA Ave	WB	5,309	0.25	30		0.39	394	0.90
14	R17.94	EB OFF TO OCEAN VIEW Blvd	EB	6,547	0.20	17		0.50	486	1.11
15	R18.73	EB ON FROM OCEAN VIEW Blvd	EB	9,578	0.20	47		0.73	711	1.63
16	R17.95	WB ON OCEAN VIEW Blvd	WB	6,242				0.47	463	1.06
17	R18.63	WB OFF TO OCEAN VIEW Blvd	WB	6,026	0.20	14		0.46	447	1.03
18	R19.72	EB OFF TO ANGELES CREST Hwy/Rte 2	EB	5,493	0.20	39		0.48	408	0.93
19	R19.89	EB ON FROM SB ANGELES CREST Hwy/Rte 2	EB	5,742				0.34	426	0.98
SUBTOTAL				107,329		347		8.39	7,969	18.27

(N) NOT A SEPERATE PAY ITEM, FOR INFORMATION ONLY.

SUMMARY OF QUANTITIES

Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	38	52

Deborah Wong 3/13/12
 REGISTERED CIVIL ENGINEER DATE

4-2-12
 PLANS APPROVAL DATE

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ROADWAY QUANTITIES

Loc	PM	FACILITIES	DIRECTION	COLD PLANE ASPHALT CONCRETE PAVEMENT	REPLACE ASPHALT CONCRETE SURFACING		CRACK TREATMENT	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT
				SQYD	AC DEPTH (N)	VOLUME	LNMI	TON	TON
					FT	CY			
20	R20.07	EB ON FROM NB ANGELES CREST Hwy/Rte 2	EB	3,605			0.25	268	0.61
21	R19.68	WB ON FROM SB ANGELES CREST Hwy/Rte 2	WB	5,451			0.49	405	0.93
22	R19.87	WB ON FROM NB ANGELES CREST Hwy/Rte 2	WB	7,186			0.46	534	1.22
23	R20.12	WB OFF TO ANGELES CREST Hwy/Rte 2	WB	5,693	0.20	25	0.34	423	0.97
24	R20.07 R20.44	EB AUXILARY LANE BETWEEN ANGELES CREST Hwy & GOULD Ave	EB	2,707			0.24	201	0.46
25	R20.12 R20.42	WB AUXILARY LANE BETWEEN ANGELES CREST Hwy & GOULD Ave	WB	2,705			0.22	201	0.46
26	R20.44	EB OFF TO GOULD Ave	EB	4,504	0.20	15	0.32	334	0.77
27	R20.42	WB ON FROM GOULD Ave	WB	3,421			0.27	254	0.58
28	R21.07	EB ON FROM FOOTHILL Blvd	EB	3,087	0.15	7	0.28	229	0.53
29	R21.16	WB OFF TO FOOTHILL / CROWN Ave	WB	3,914			0.25	291	0.67
30	R21.07 R21.36	EB AUXILARY LANE BETWEEN FOOTHILL Blvd AND BERKSHIRE PLACE	EB	2,160			0.18	160	0.37
31	R21.16 R21.41	WB AUXILARY LANE BETWEEN FOOTHILL Blvd AND BERKSHIRE PLACE	WB	1,722			0.15	128	0.29
32	R21.36	EB OFF TO BERKSHIRE PLACE	EB	4,398			0.28	327	0.75
33	R21.65	EB ON FROM BERKSHIRE PLACE	EB	3,311	0.15	40	0.27	246	0.56
34	R21.41	WB ON FROM BERKSHIRE PLACE	WB	3,441			0.28	255	0.59
35	R21.70	WB OFF TO BERKSHIRE PLACE	WB	3,823			0.27	284	0.65
36	R22.35	EB OFF TO ARROYO Blvd	EB	4,151			0.33	308	0.71
37	R22.29	WB ON FROM ARROYO Blvd	WB	4,207	0.15	62	0.34	312	0.72
SUBTOTAL				69,485		149	5.21	5,159	11.83
TOTAL				176,813		496	13.61	13,128	30.10

(N) NOT A SEPERATE PAY ITEM, FOR INFORMATION ONLY.

SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 HECTOR OBESO
 QUAN HA
 DEBORAH WONG
 REVISIED BY
 DATE REVISED



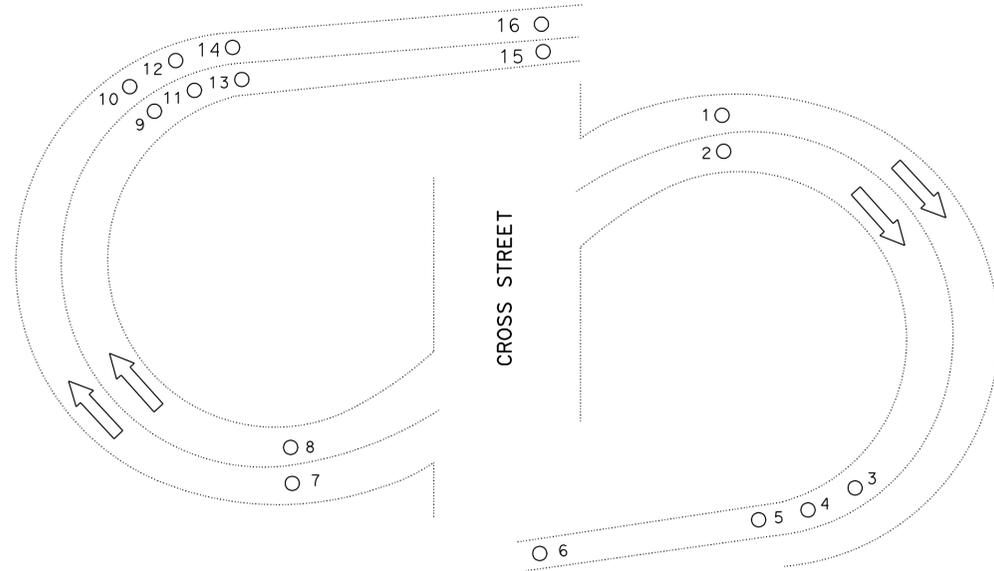
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	40	52

Kenny Nguyen 3/13/12
REGISTERED ELECTRICAL ENGINEER DATE

4-2-12
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
Kenny NGUYEN
No. E17759
Exp. 6/30/12
ELECTRICAL
STATE OF CALIFORNIA



DETAIL A

TYPICAL LOCATION OF THE RAMP LOOP DETECTORS

NOTES: (THIS SHEET)

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXISTING INDUCTIVE LOOP DETECTORS.
2. **AB** INDUCTIVE LOOP DETECTORS. INSTALL INDUCTIVE LOOP DETECTORS AT THE SAME LOCATION.
3. SPLICE LOOP DETECTOR CONDUCTORS TO EXISTING dic IN ADJACENT PULL BOX.
4. **AB** RIGHT HAND SIDE SHOULDER STUBOUTS. INSTALL 2"C STUBOUT FOR INDUCTIVE LOOP DETECTORS.
5. TAG EXISTING dic IN ADJACENT PULL BOX AND AT CONTROLLER CABINET.

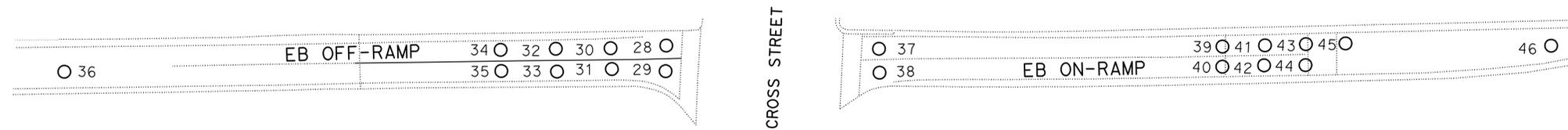
PROJECT LEGEND:

- TYPE "E" INDUCTIVE LOOP DETECTOR TO BE INSTALLED.



DETAIL B

TYPICAL LOCATION OF THE RAMP LOOP DETECTORS



DETAIL C

TYPICAL LOCATION OF THE RAMP LOOP DETECTORS

**INDUCTIVE LOOP DETECTOR
(REPLACEMENT)**

NO SCALE

E-2

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	HASSAN MANNA	XOCHILT NARANJO	
TRAFFIC DESIGN		KENNY NGUYEN	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	41	52

Kenny Nguyen 3/13/12
REGISTERED ELECTRICAL ENGINEER DATE

4-2-12
PLANS APPROVAL DATE

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INDUCTIVE LOOP DETECTOR SCHEDULE

	WORK LOCATION ON ROUTE 210	SEE DETAIL D THIS SHEET FOR TYPICAL LOCATION OF INDUCTIVE LOOP DETECTOR															No. OF STUB-OUT
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
①	E/B OFF-RAMP TO SUNLAND Blvd.	C	C	C	C	C	C										1
⑥	W/B OFF-RAMP TO SUNLAND Blvd.							C	C	C	C	C	C	C	C	C	2

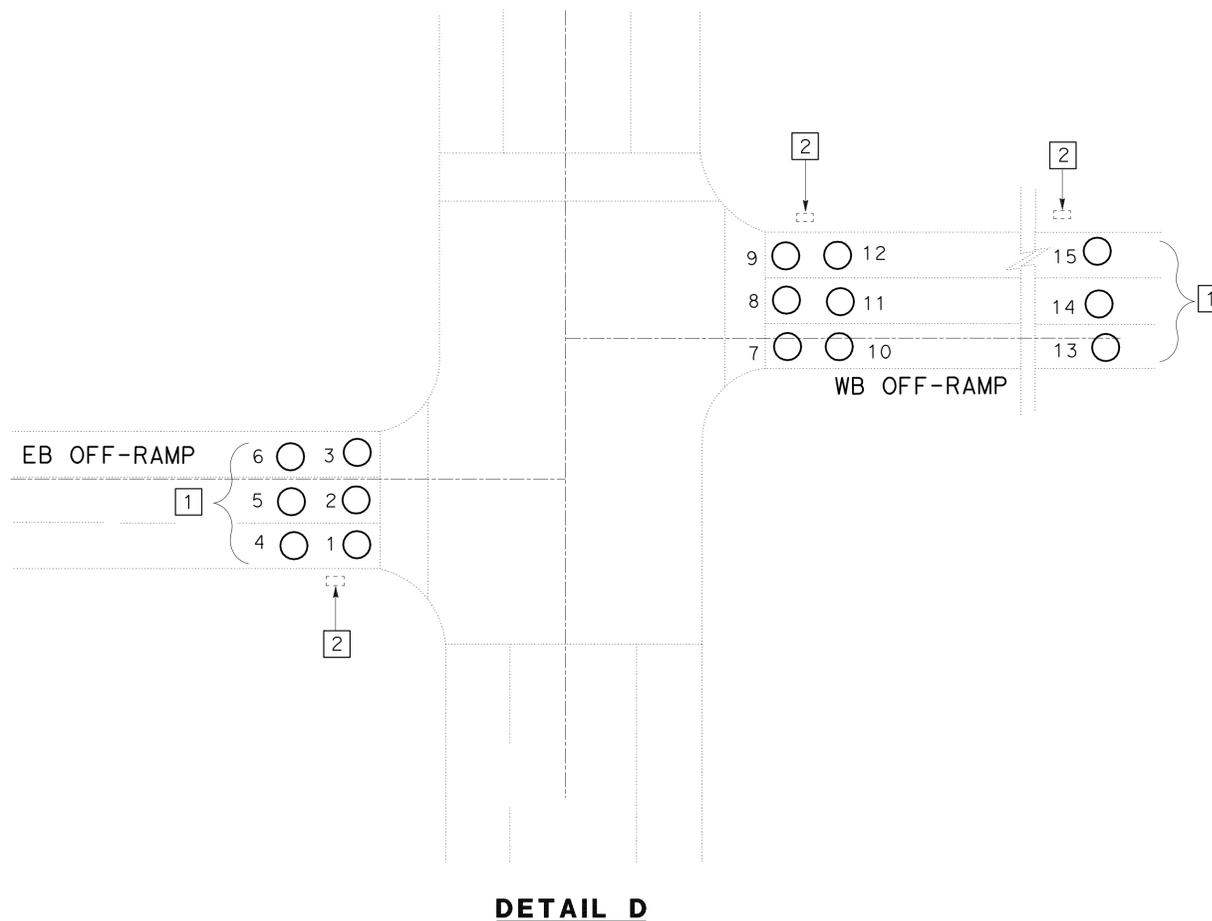
C - INSTALL TYPE E INDUCTIVE LOOP DETECTOR. ABANDON EXISTING INDUCTIVE LOOP DETECTOR AT SAME LOCATION.

GENERAL NOTES: (THIS SHEET ONLY)

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY INSPECTOR AT (213) 485-1071 PRIOR TO COMMENCEMENT OF WORK.
2. NEW LOOP WIRES TO EXISTING d/c. THE CONTRACTOR SHALL VERIFY AND IDENTIFY THE LOCATION OF EXISTING DETECTORS AND PULL BOXES PRIOR TO GRINDING OR EXCAVATION OF PAVEMENT.

PROJECT NOTES: (THIS SHEET ONLY)

- ① INDUCTIVE LOOP TO BE INSTALLED PER CITY OF LOS ANGELES (LADOT) STD DWG Nos. S-70.1A. SEE SHEETS E-4 AND E-5.
- ② INSTALL 2" C STUB-OUT FOR NEW LOOPS.



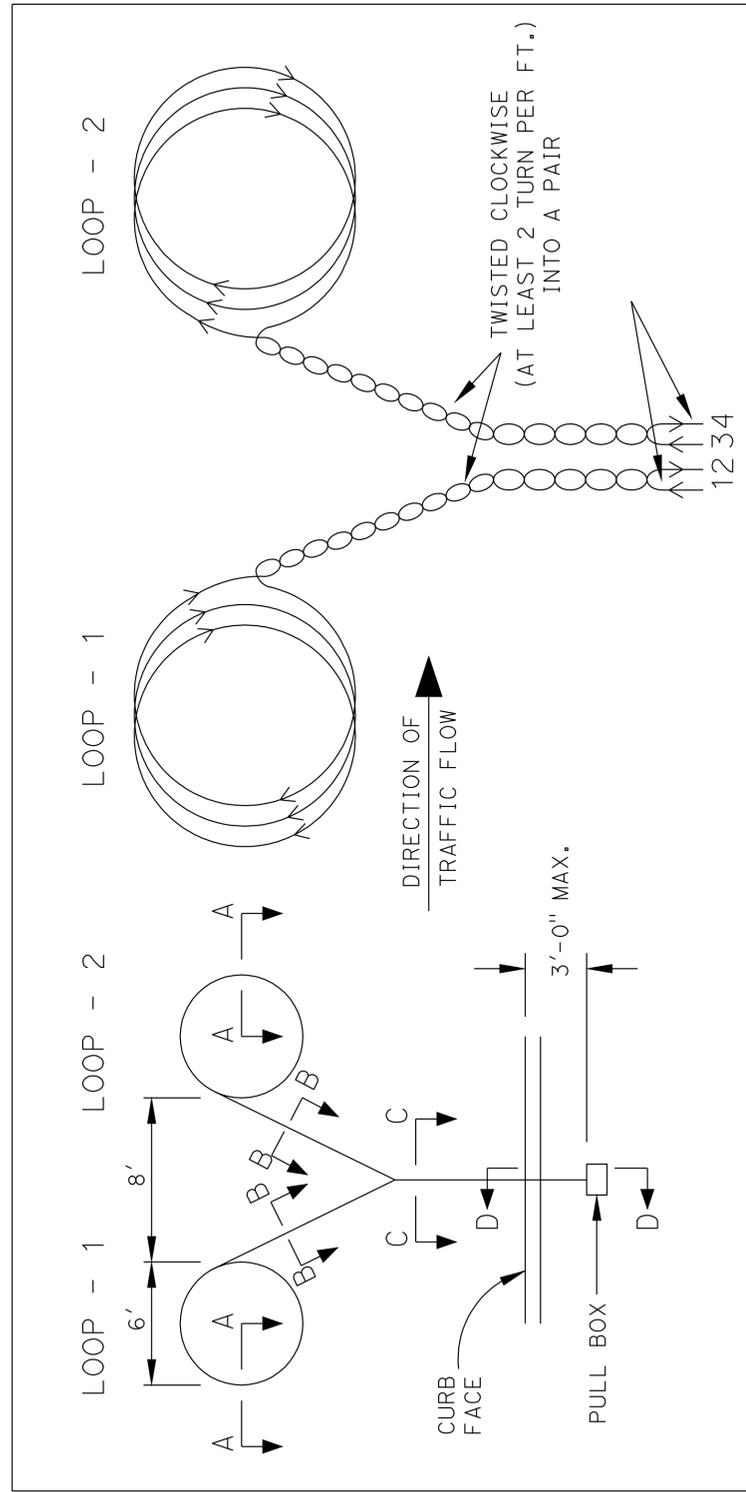
INDUCTIVE LOOP DETECTOR
(REPLACEMENT)

NO SCALE

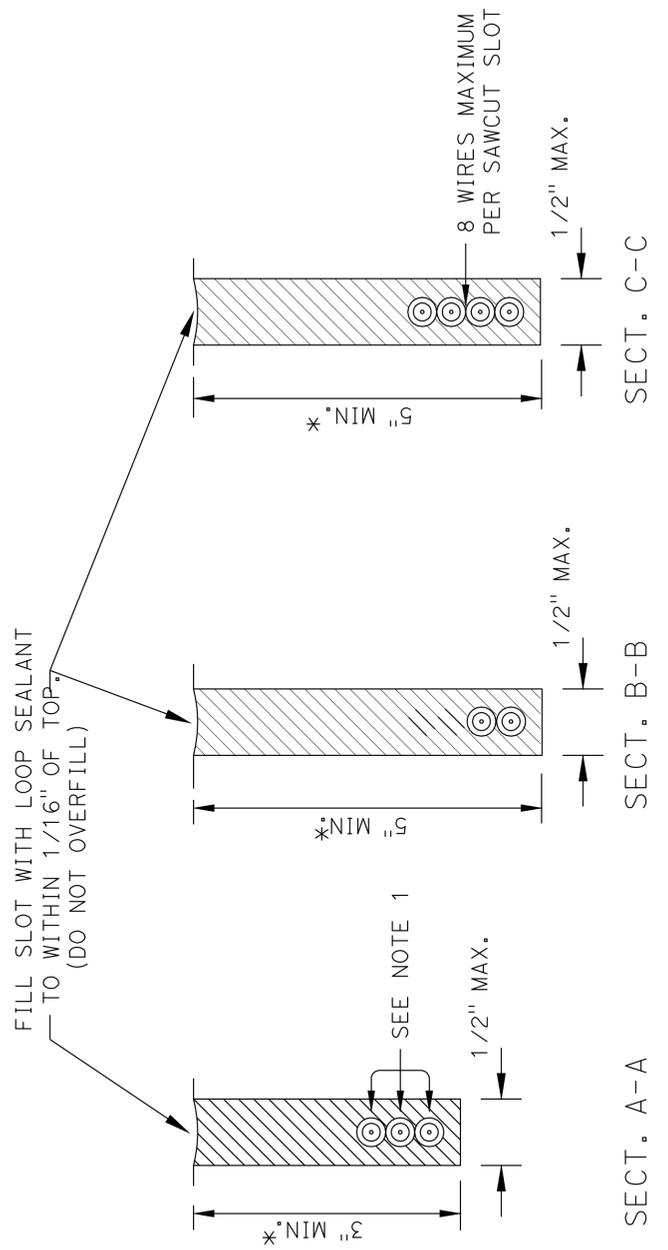
E-3

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN



WINDING DETAILS
 Not to Scale



* DEPTH OF SLOT NOT TO EXCEED DEPTH OF PAVEMENT, FOR P.C.C. (CONCRETE) SURFACES, THE MINIMUM COVER ABOVE LOOP WIRE SHALL BE 2.5" MINIMUM.

NOTES:

- INSTALL 3 CLOCKWISE TURNS OF LOOP WIRE FOR EACH DETECTOR, UNLESS OTHERWISE SHOWN ON SIGNAL PLAN.
- SEE LADOT MATERIAL SPECIFICATION NO. 92-081-05 OR LATEST REVISION.
- ANY NON-ROUND SHAPED LOOPS MUST CONFORM TO ALL OTHER SPECIFICATIONS SHOWN ON THIS STANDARD DRAWING.

DWN	MT	6-30-08	Title
CKD	RAR	7-9-08	INDUCTIVE LOOP INSTALLATION CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION July 9, 2008 Drawing No. S-70.1A
T. E.	JV	7-9-08	
Sr. T. E. JW	7-9-08		
Pr. T. E. SS	7-9-08		
Approved			
for Rita L. Robinson, General Manager			

**INDUCTIVE LOOP DETECTOR
 (CITY)
 (STANDARD DETAILS)**
 NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.



UNIT 1879

PROJECT NUMBER & PHASE

07000202281

USERNAME => s125624
 DGN FILE => 0700020228u004.dgn

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	42	52

Kenny Nguyen 3/13/12
 REGISTERED ELECTRICAL ENGINEER DATE

4-2-12
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 KENNY NGUYEN
 No. E17759
 Exp. 6/30/12
 ELECTRICAL
 STATE OF CALIFORNIA

LAST REVISION DATE PLOTTED => 29-MAR-2012
 00-00-00 TIME PLOTTED => 11:15

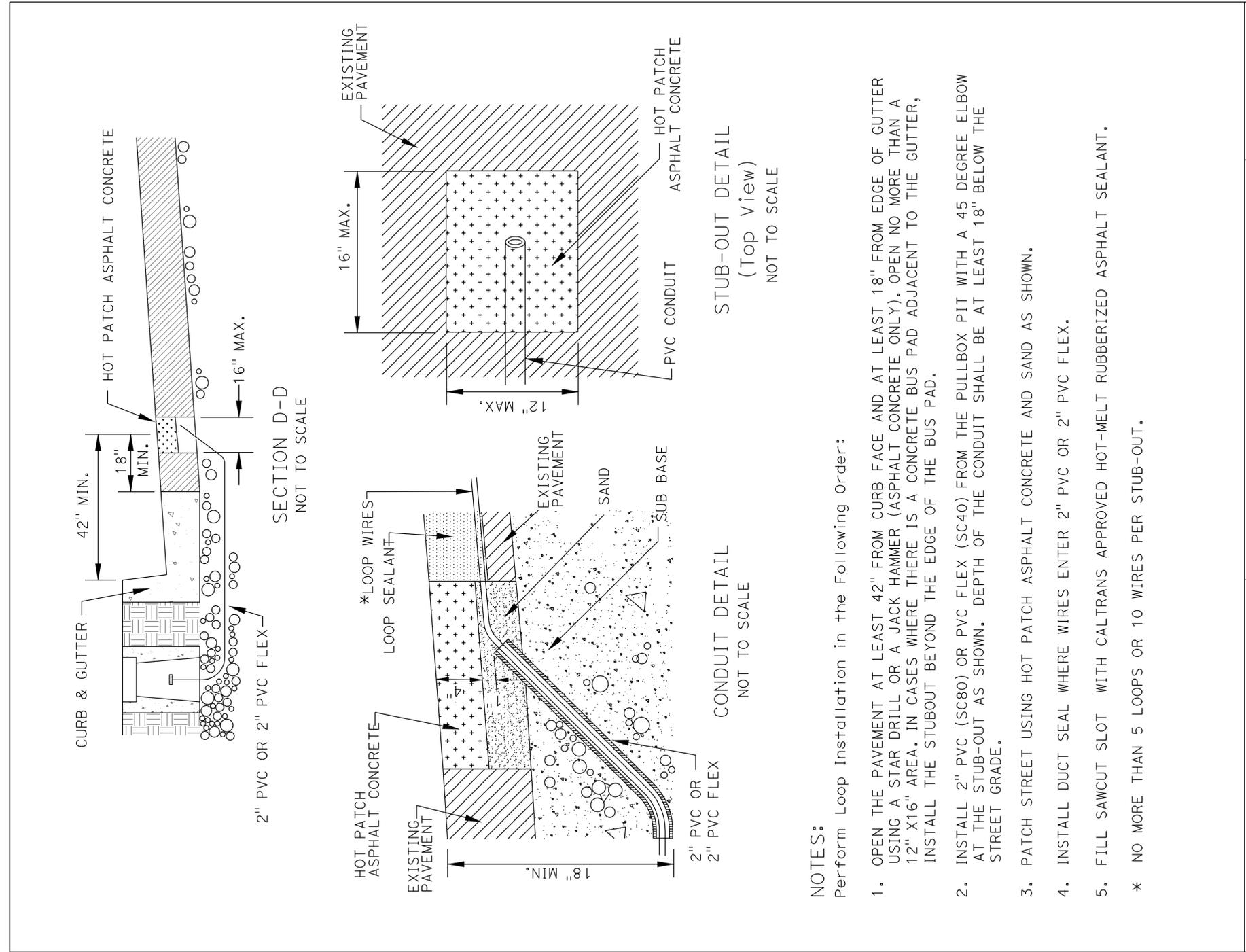
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	43	52

Kenny Nguyen 3/13/12
 REGISTERED ELECTRICAL ENGINEER DATE

4-2-12
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REGISTERED PROFESSIONAL ENGINEER
 KENNY NGUYEN
 No. E17759
 Exp. 6/30/12
 ELECTRICAL
 STATE OF CALIFORNIA



NOTES:
 Perform Loop Installation in the Following Order:

1. OPEN THE PAVEMENT AT LEAST 42" FROM CURB FACE AND AT LEAST 18" FROM EDGE OF GUTTER USING A STAR DRILL OR A JACK HAMMER (ASPHALT CONCRETE ONLY). OPEN NO MORE THAN A 12" X16" AREA. IN CASES WHERE THERE IS A CONCRETE BUS PAD ADJACENT TO THE GUTTER, INSTALL THE STUBOUT BEYOND THE EDGE OF THE BUS PAD.
 2. INSTALL 2" PVC (SC80) OR PVC FLEX (SC40) FROM THE PULLBOX PIT WITH A 45 DEGREE ELBOW AT THE STUB-OUT AS SHOWN. DEPTH OF THE CONDUIT SHALL BE AT LEAST 18" BELOW THE STREET GRADE.
 3. PATCH STREET USING HOT PATCH ASPHALT CONCRETE AND SAND AS SHOWN.
 4. INSTALL DUCT SEAL WHERE WIRES ENTER 2" PVC OR 2" PVC FLEX.
 5. FILL SAWCUT SLOT WITH CALTRANS APPROVED HOT-MELT RUBBERIZED ASPHALT SEALANT.
- * NO MORE THAN 5 LOOPS OR 10 WIRES PER STUB-OUT.

CITY OF LOS ANGELES
 DEPARTMENT OF TRANSPORTATION
 Title: INDUCTIVE LOOP INSTALLATION (2)
 Drawing No.: S-70.1A

**INDUCTIVE LOOP DETECTOR
 (CITY)
 (STANDARD DETAILS)
 NO SCALE**

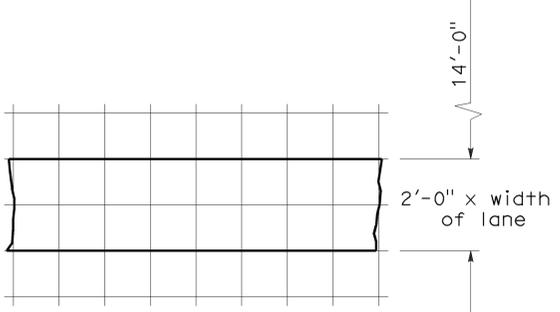
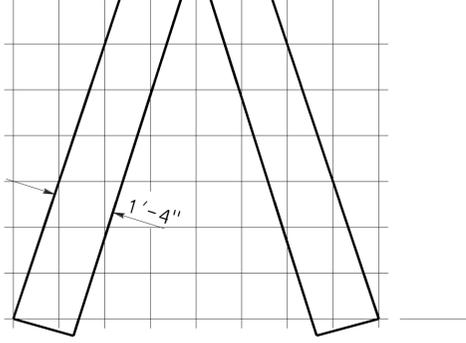
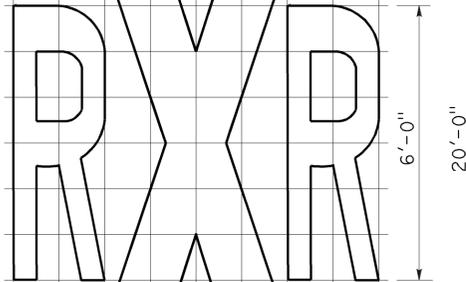
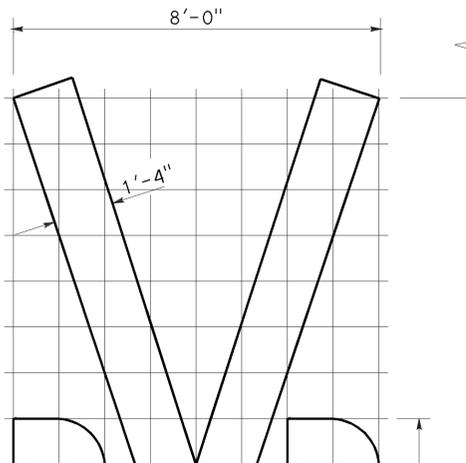
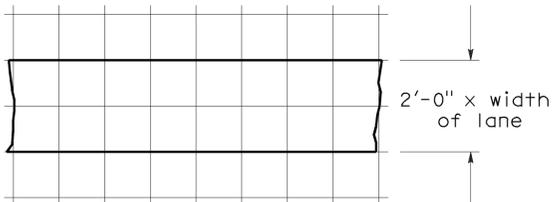
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	44	52

Donald E. Howe
 REGISTERED CIVIL ENGINEER
 June 6, 2008
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

REGISTERED PROFESSIONAL ENGINEER
 Donald E. Howe
 No. C46402
 Exp. 3-31-09
 CIVIL
 STATE OF CALIFORNIA

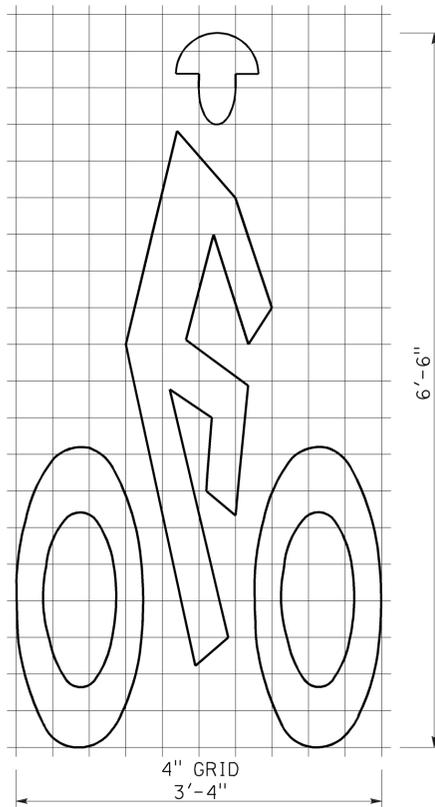
To accompany plans dated 4-2-12



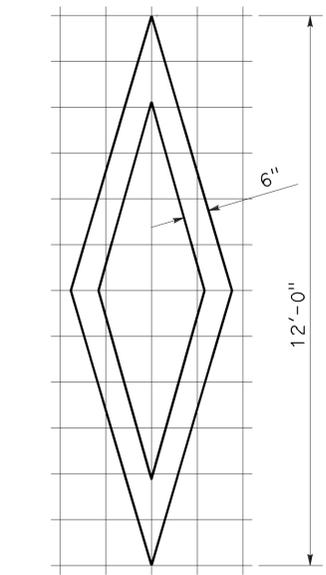
1'-0" GRID
A=70 sq ft *

RAILROAD CROSSING SYMBOL

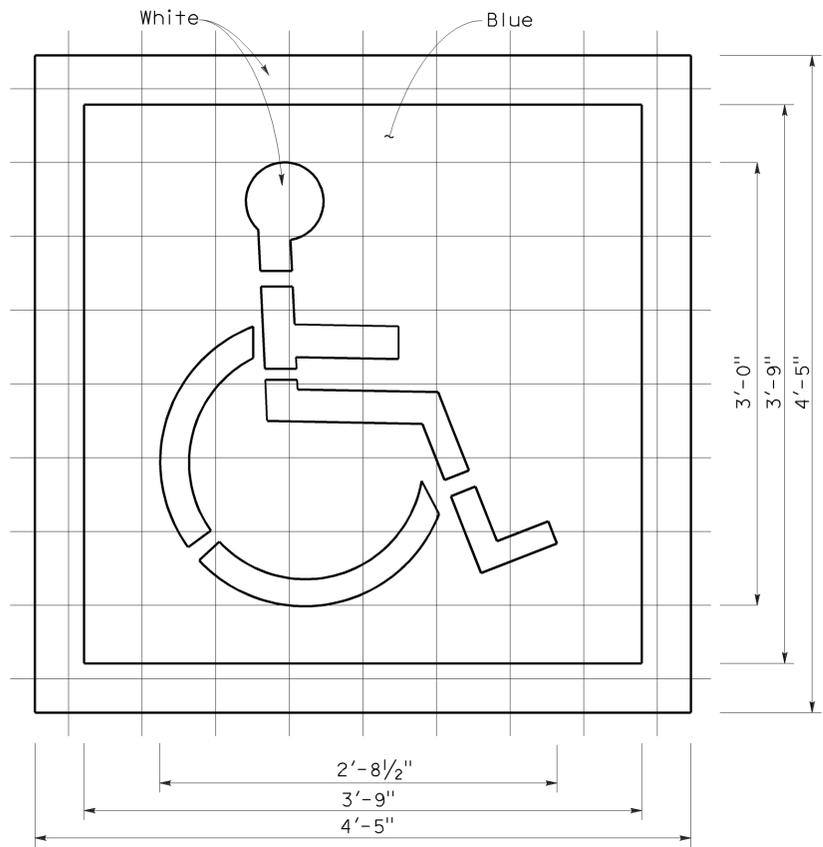
*70 sq ft DOES NOT INCLUDE THE 2'-0" x VARIABLE WIDTH TRANSVERSE LINES.



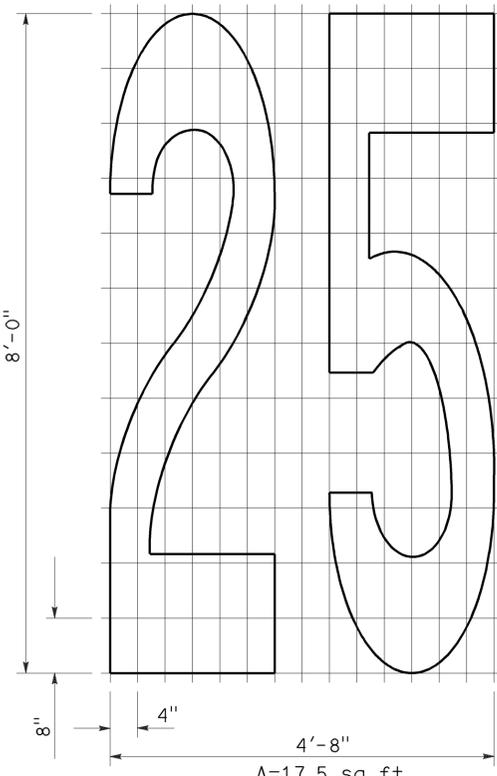
A=7 sq ft
BIKE LANE SYMBOL



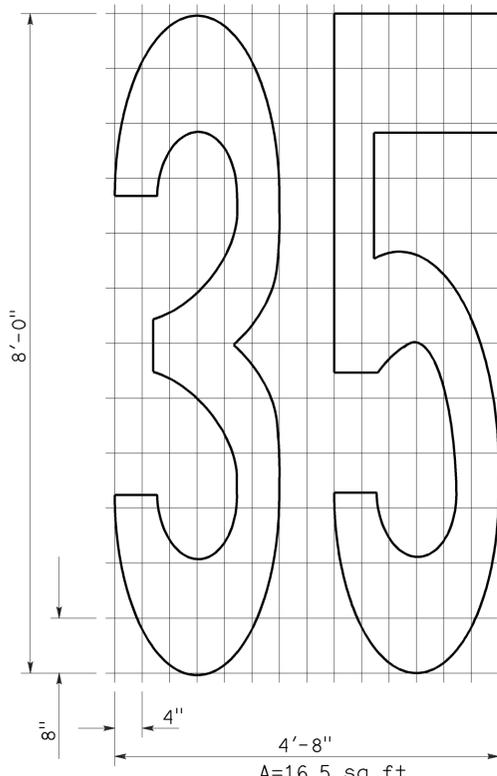
A=11 sq ft
DIAMOND SYMBOL



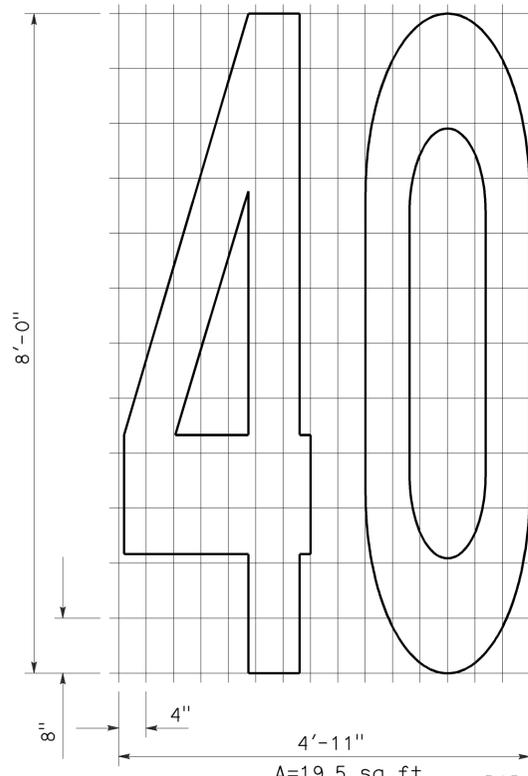
6" GRID
A (White) = 9 sq ft
A (Blue) = 14 sq ft
INTERNATIONAL SYMBOL OF ACCESSIBILITY MARKING



A=17.5 sq ft

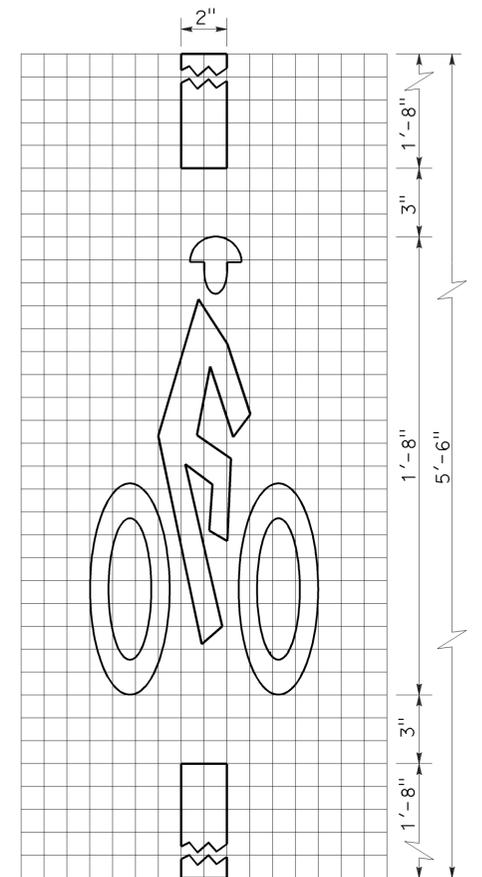


A=16.5 sq ft



A=19.5 sq ft

NUMERALS



A=2 sq ft
BICYCLE LOOP DETECTOR SYMBOL

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS SYMBOLS AND NUMERALS

NO SCALE

RSP A24C DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A24C DATED MAY 1, 2006 - PAGE 11 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A24C

2006 REVISED STANDARD PLAN RSP A24C

ELECTROLIERS

STANDARD TYPES	Symbol	Description
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		NOTES: 1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified. 2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified. 3. Variations noted adjacent to symbol on project plans.
32		
35		
36-20A		

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

STANDARD NOTES:

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

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

PROPOSED	EXISTING	Description
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	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4C	mas-4C	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
N	N	Mercury vapor lighting fixture
NC	NC	Neutral (Grounded Conductor)
NO	NO	Normally closed
PB	pb	Normally open
PEC	pec	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	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
07	LA	210	R14.2/R22.6	45	52

REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE

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

To accompany plans dated 4-2-12

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
07	LA	210	R14.2/R22.6	46	52

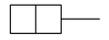
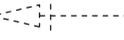
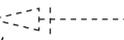
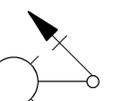
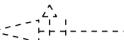
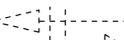
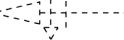
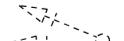
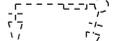
Jeffrey G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
 Jeffrey G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

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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

SERVICE EQUIPMENT

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

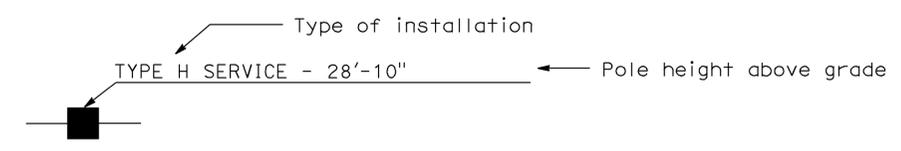
SIGNAL EQUIPMENT Cont

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

NOTES:

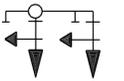
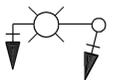
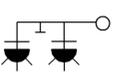
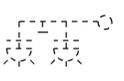
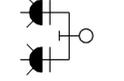
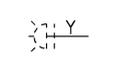
- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.
- Signal indication shall be LED.

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

		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

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

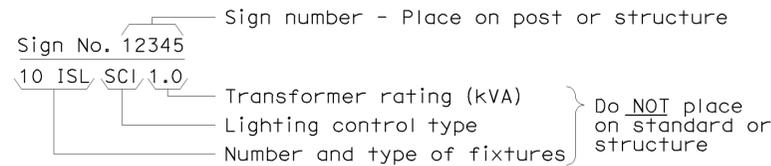
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

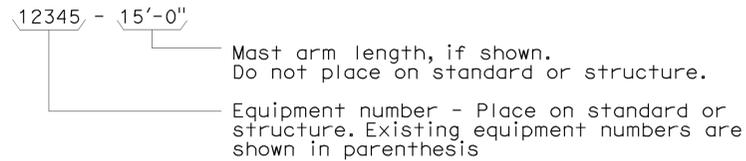
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

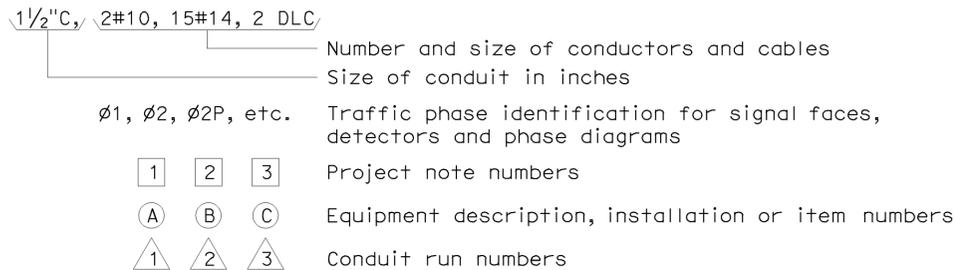
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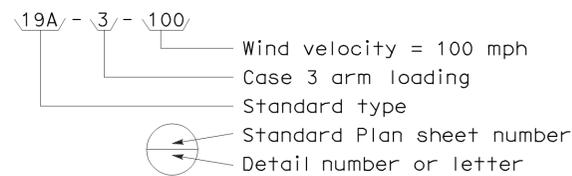
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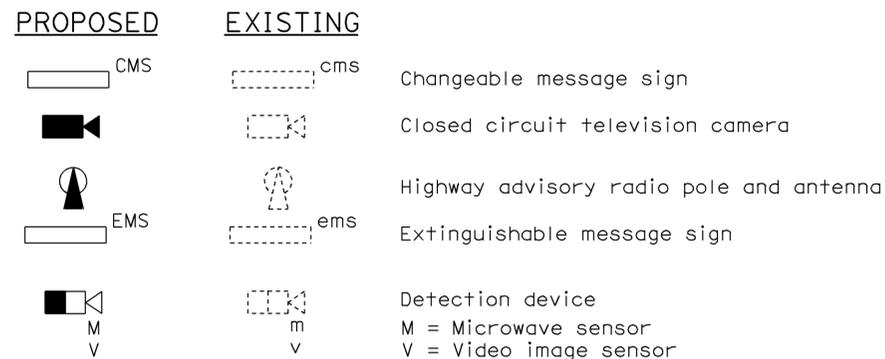
CONDUIT AND CONDUCTOR IDENTIFICATION:



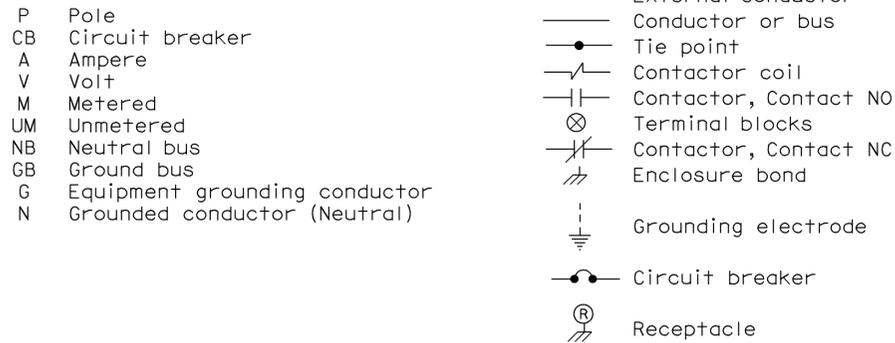
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



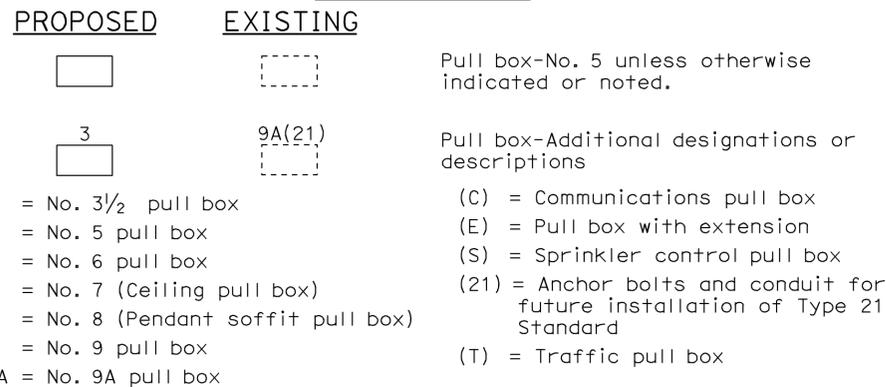
MISCELLANEOUS EQUIPMENT



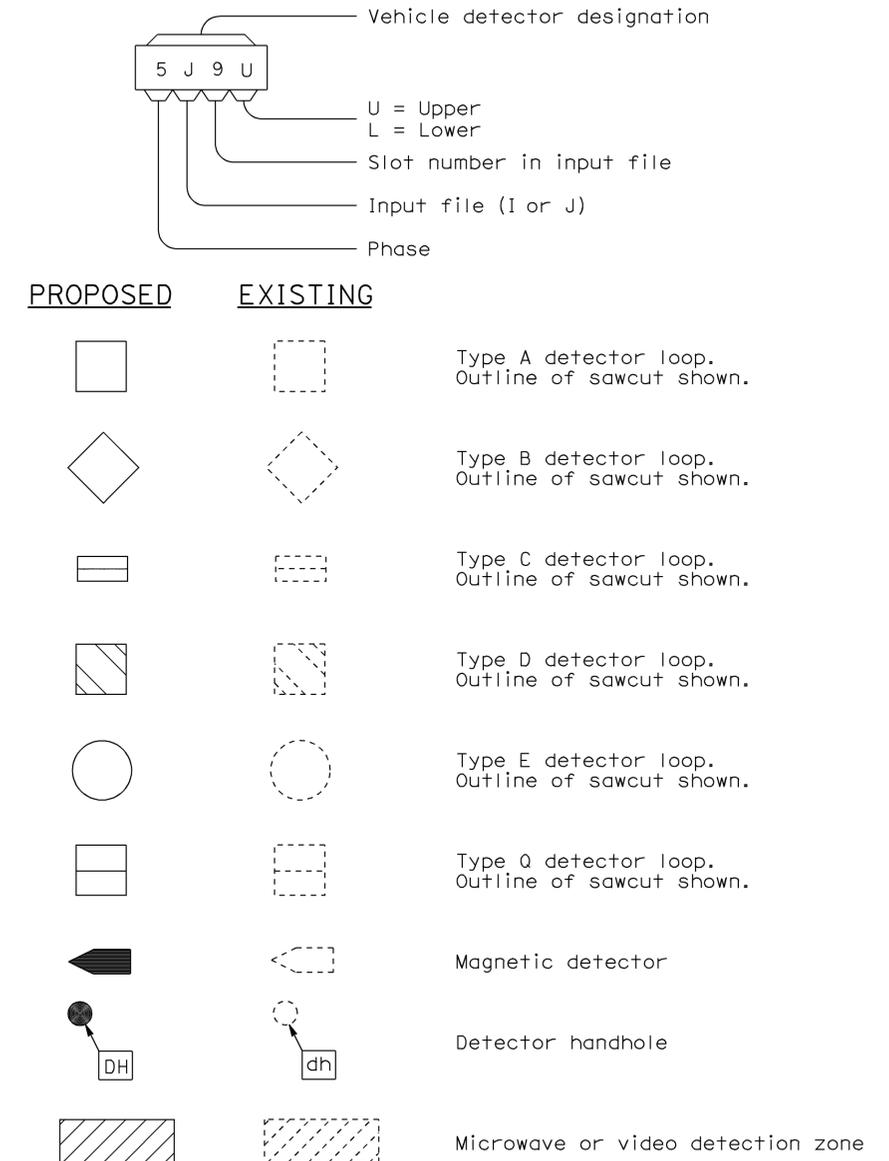
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

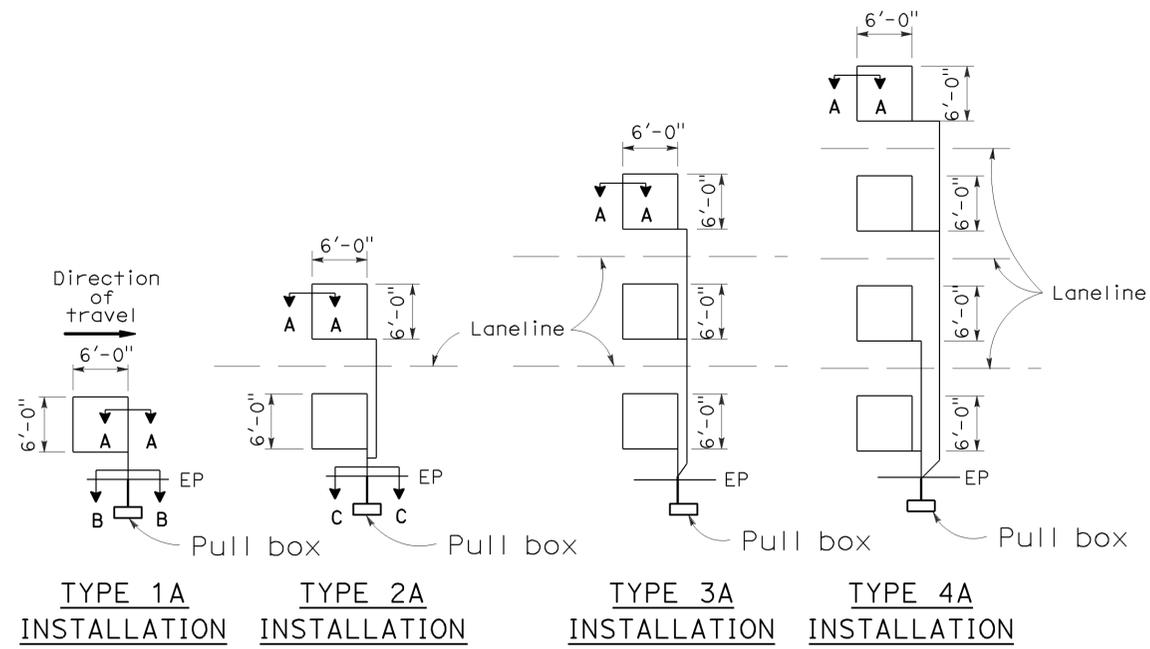
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	48	52

Jeffery G. McRae
 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE
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To accompany plans dated 4-2-12

LOOP INSTALLATION PROCEDURE

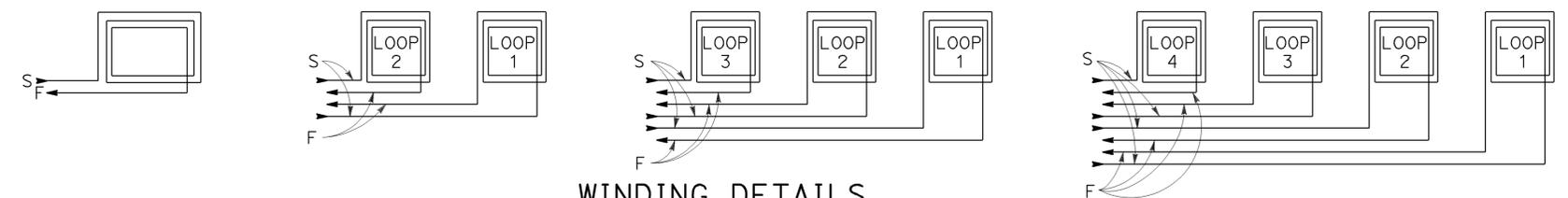
- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no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



TYPE 1A INSTALLATION **TYPE 2A INSTALLATION** **TYPE 3A INSTALLATION** **TYPE 4A INSTALLATION**

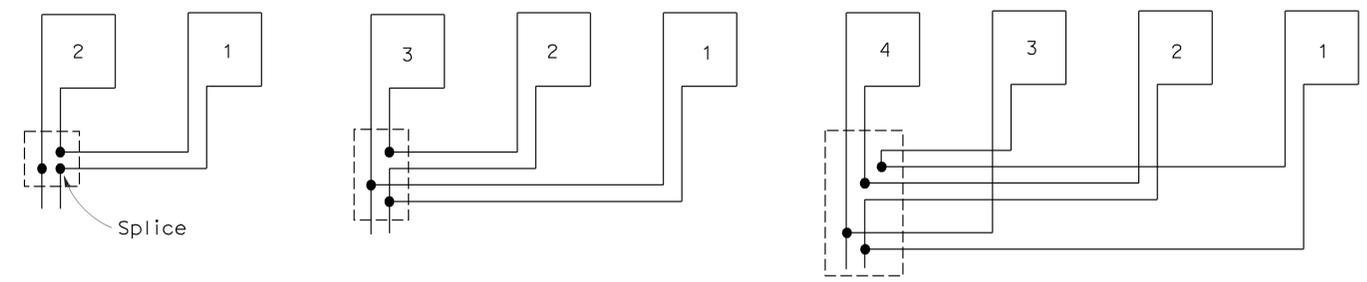
SAWCUT DETAILS

- (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)



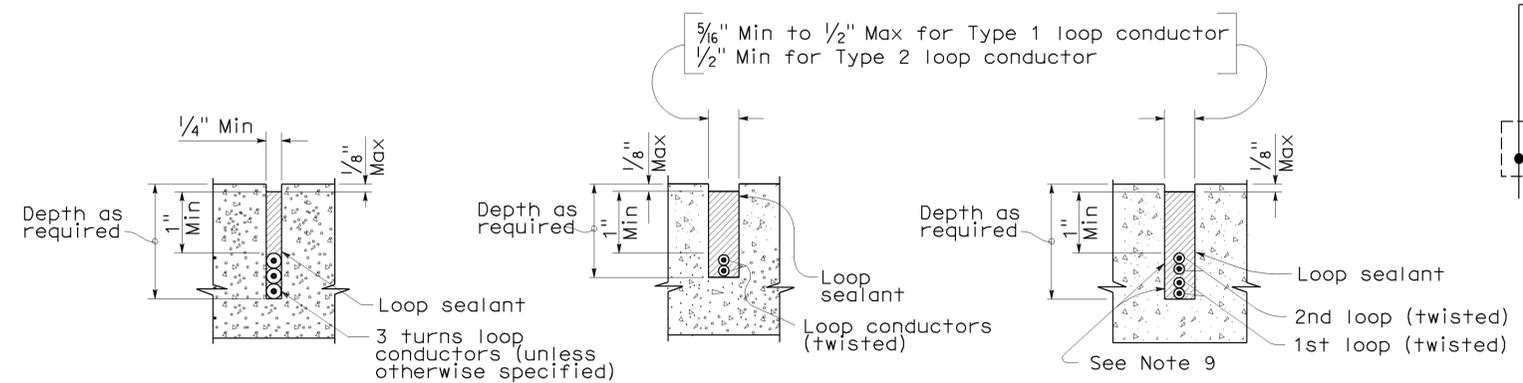
WINDING DETAILS

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)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

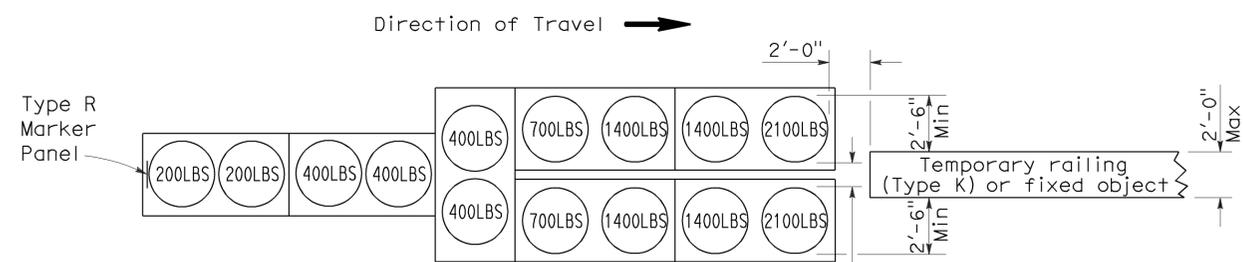
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	49	52

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

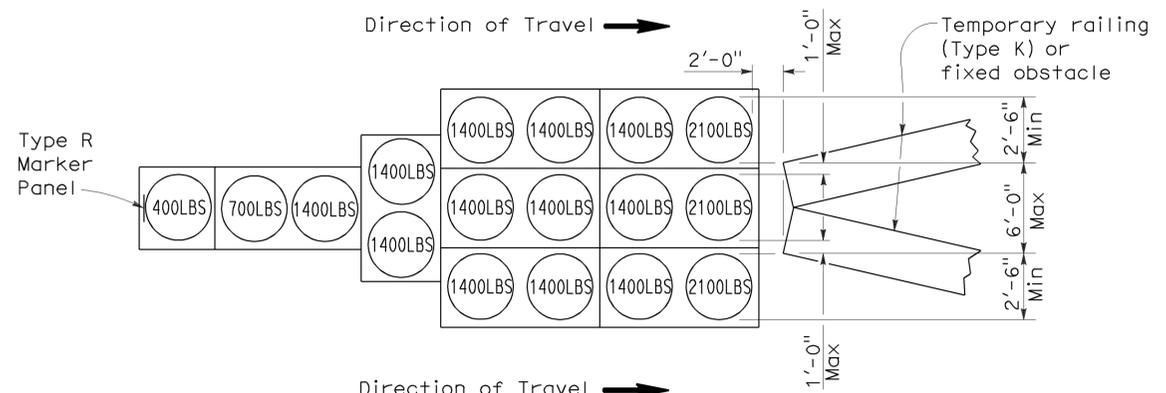
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 4-2-12



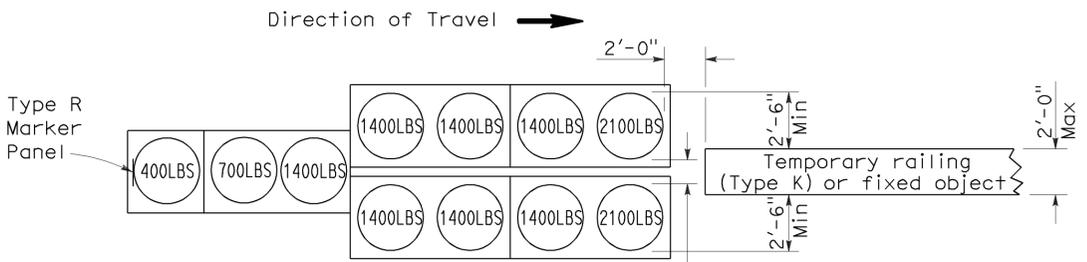
ARRAY 'TU14'

Approach speed 45 mph or more



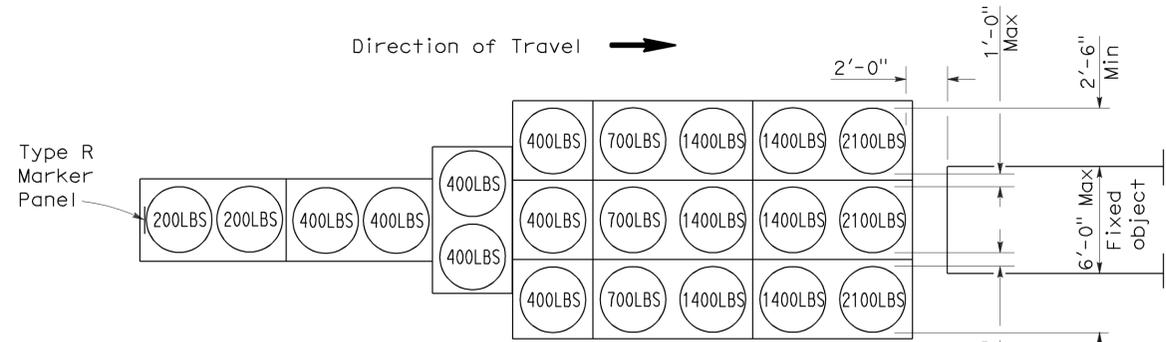
ARRAY 'TU17'

Approach speed less than 45 mph



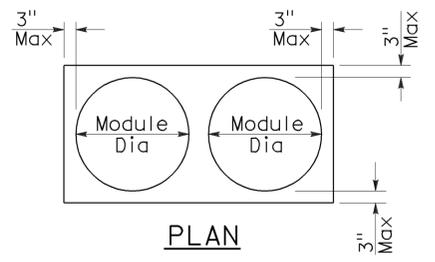
ARRAY 'TU11'

Approach speed less than 45 mph

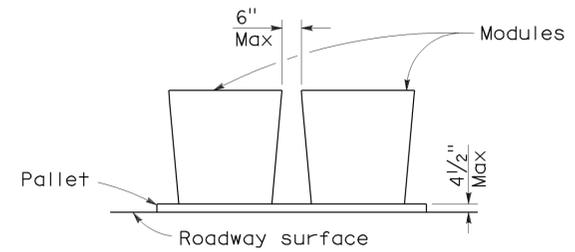


ARRAY 'TU21'

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

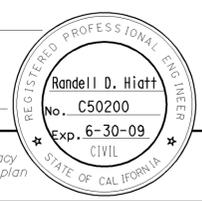
2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	50	52

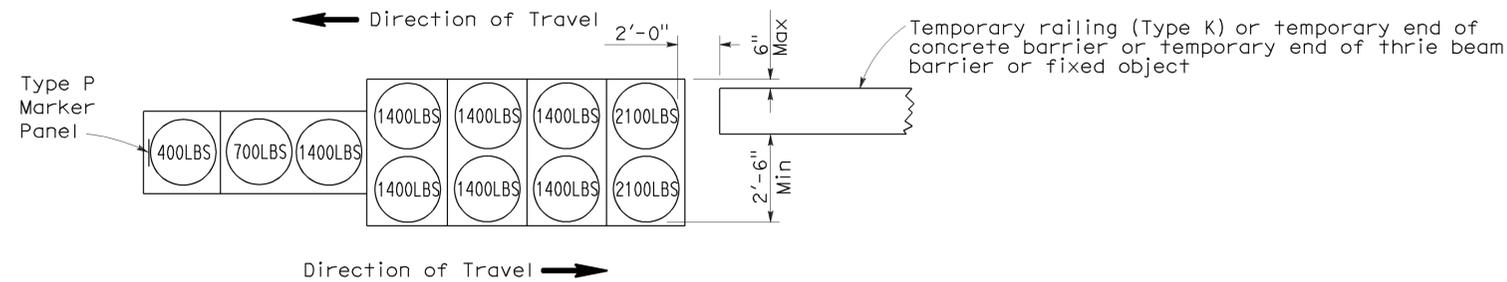
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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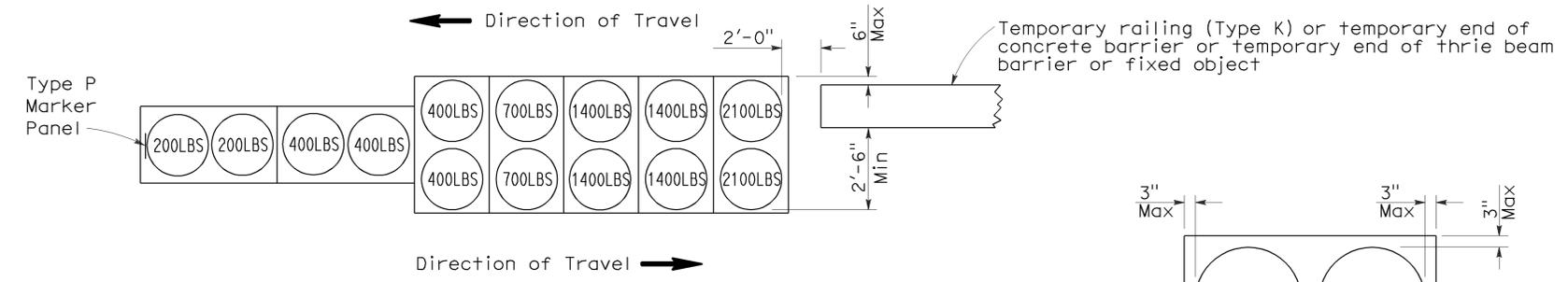


To accompany plans dated 4-2-12



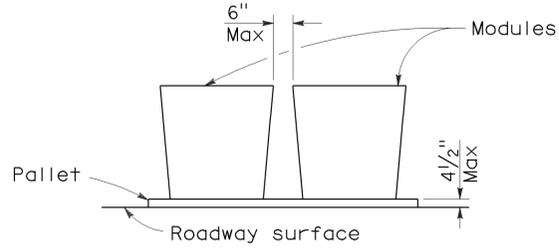
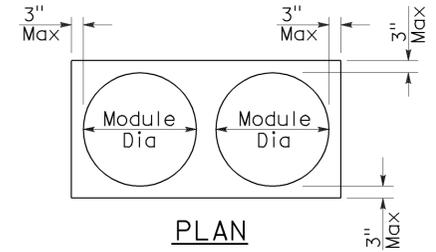
ARRAY 'TB11'

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

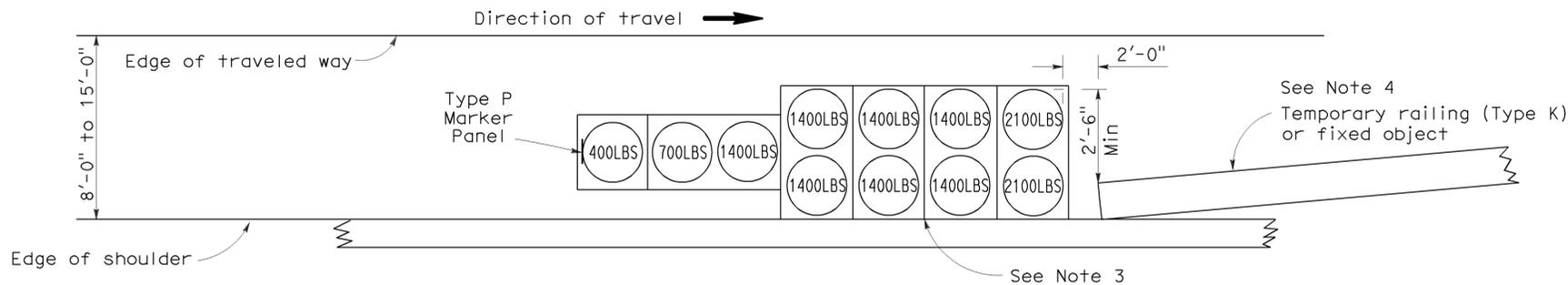
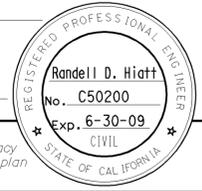
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	51	52

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

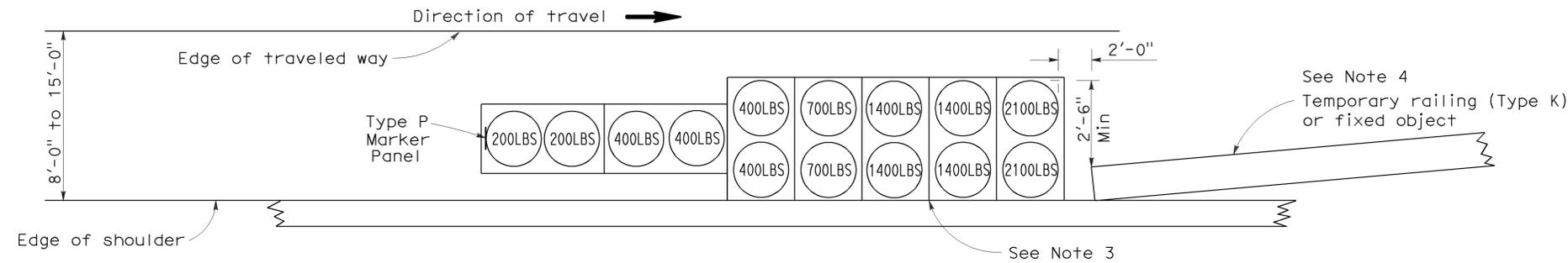
June 6, 2008
PLANS APPROVAL DATE

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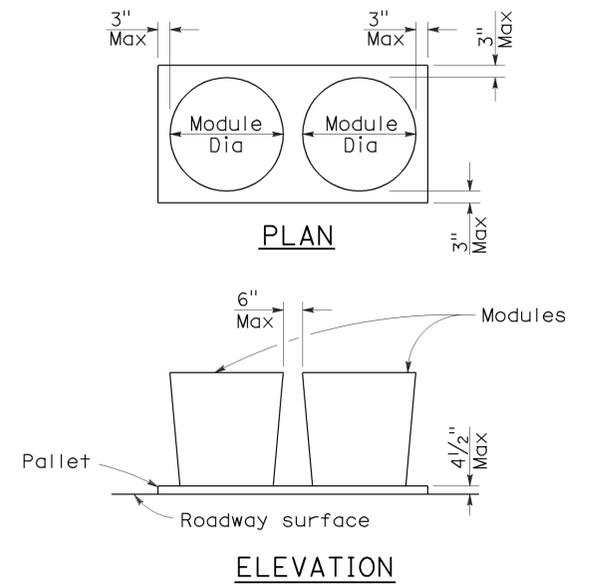
To accompany plans dated 4-2-12



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



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



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE

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

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

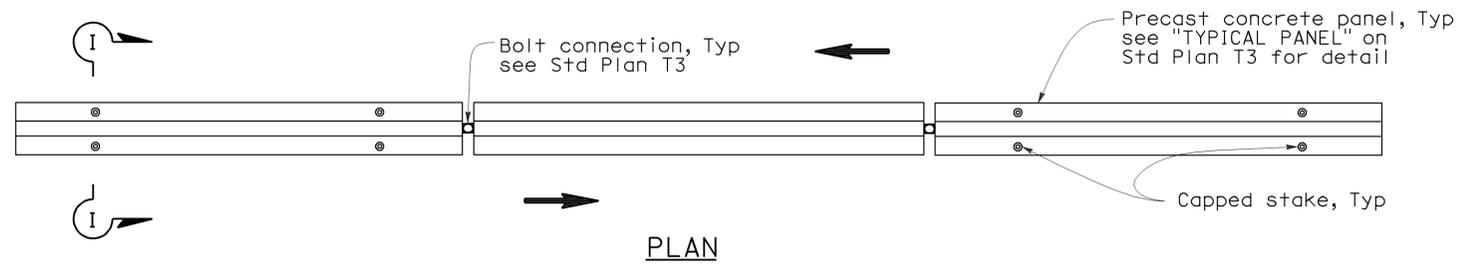
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R14.2/R22.6	52	52

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

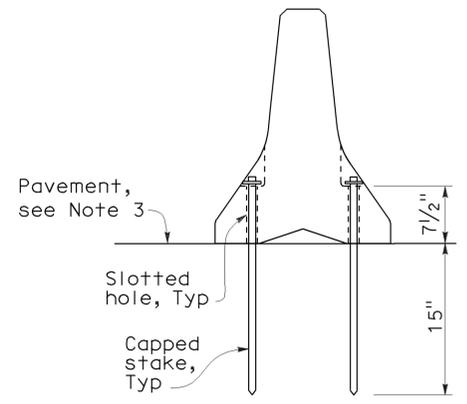
May 20, 2011
PLANS APPROVAL DATE

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To accompany plans dated 4-2-12

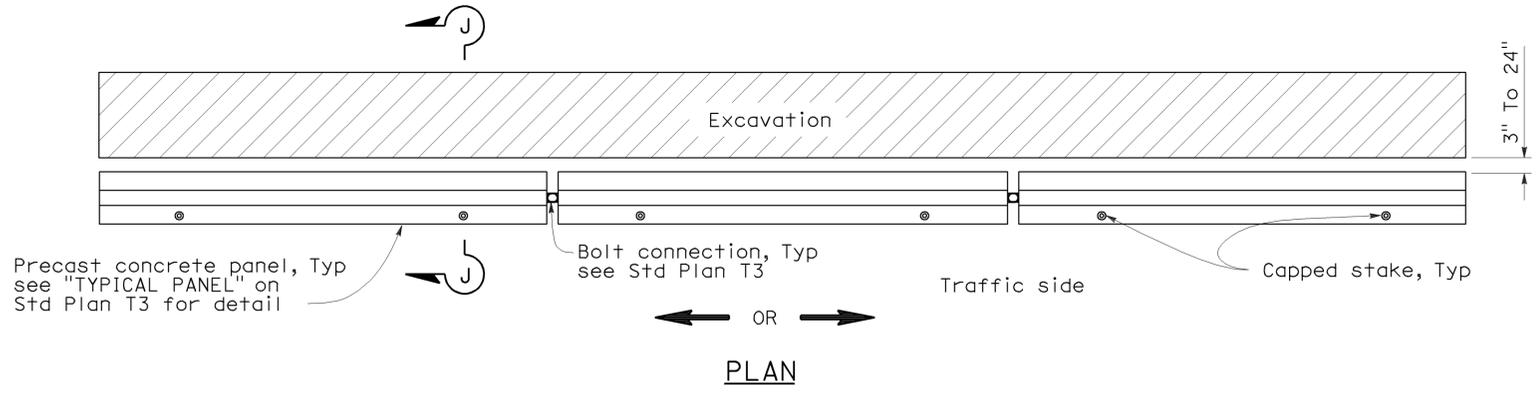


RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1

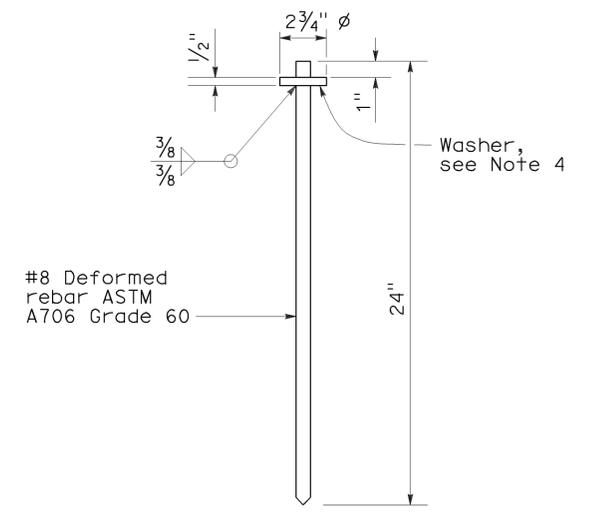
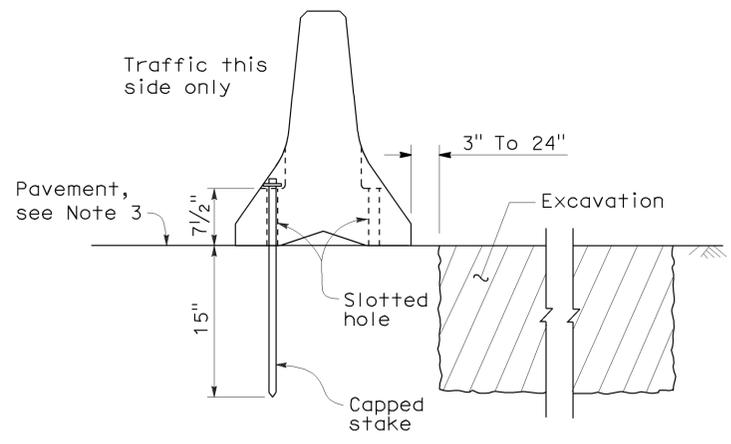


NOTES:

1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY RAILING
(TYPE K)**

NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A