Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	101	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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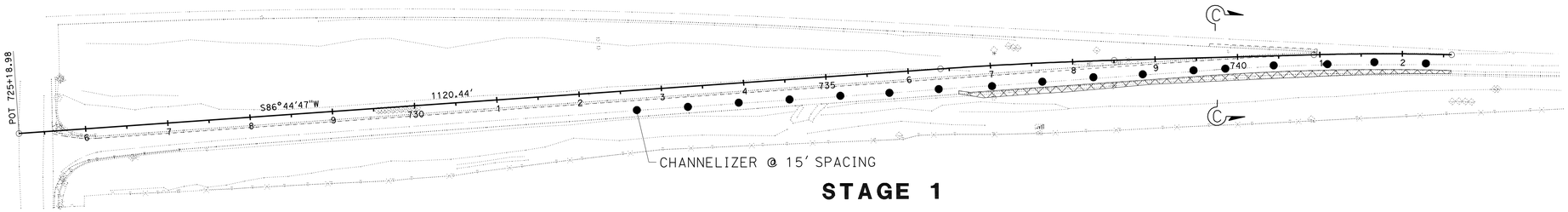
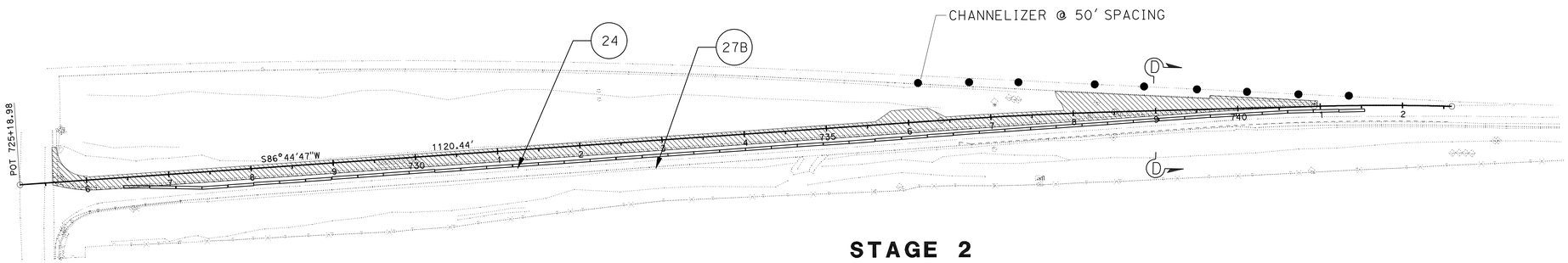
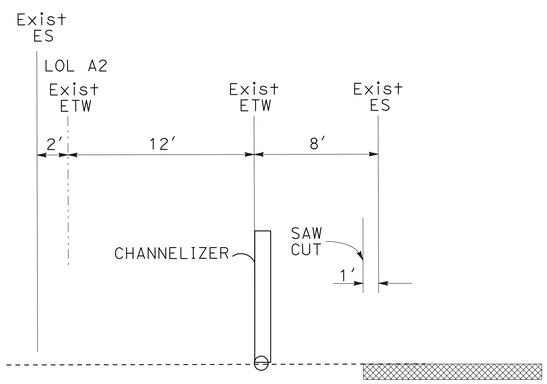


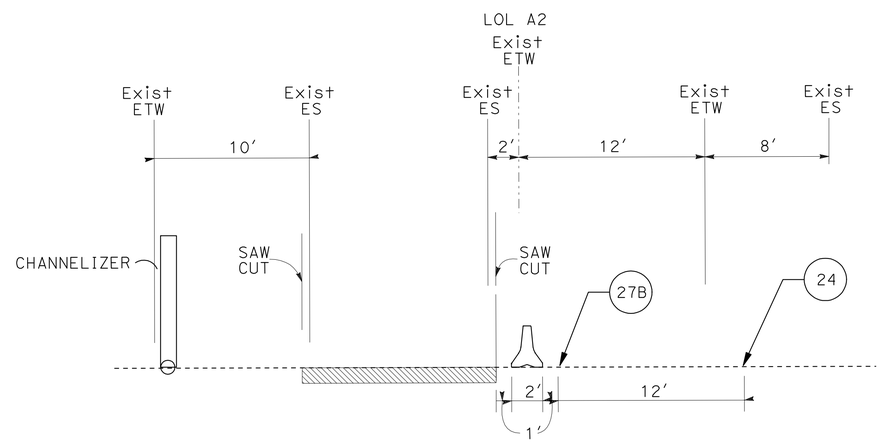
STAGE 1



STAGE 2



SECTION C-C
STAGE 1
CEDAR Ave EB ENTRANCE RAMP



SECTION D-D
STAGE 2
CEDAR Ave EB ENTRANCE RAMP

NOTES:

1. ALL CONFLICTING SIGN AND PAVEMENT DELINEATION SHALL BE REMOVED PRIOR TO STARTING ON EACH STAGE.
2. REFER TO STANDARD PLAN T14 AND LANE CLOSURE CHARTS FOR TRAFFIC CONTROL REQUIREMENT.

STAGE CONSTRUCTION TRAFFIC HANDLING PLAN

NO SCALE

TH-3

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

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

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11 DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 13:15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	102	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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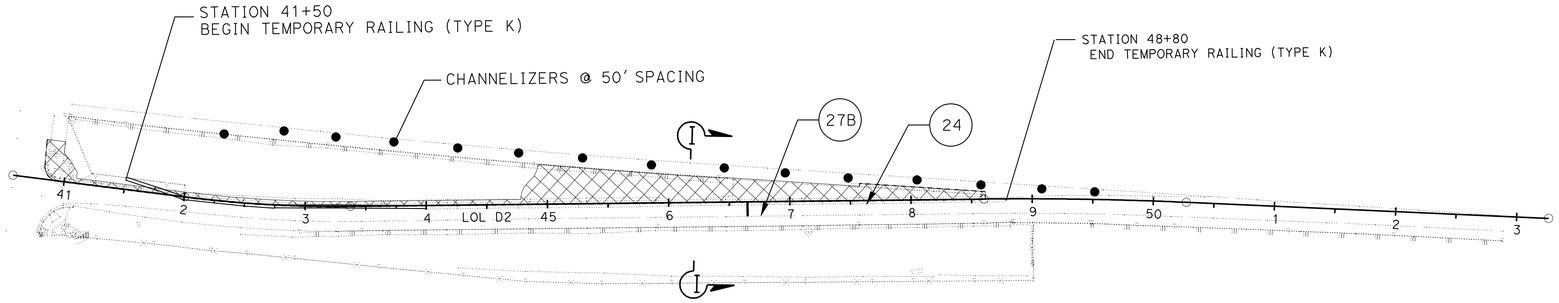
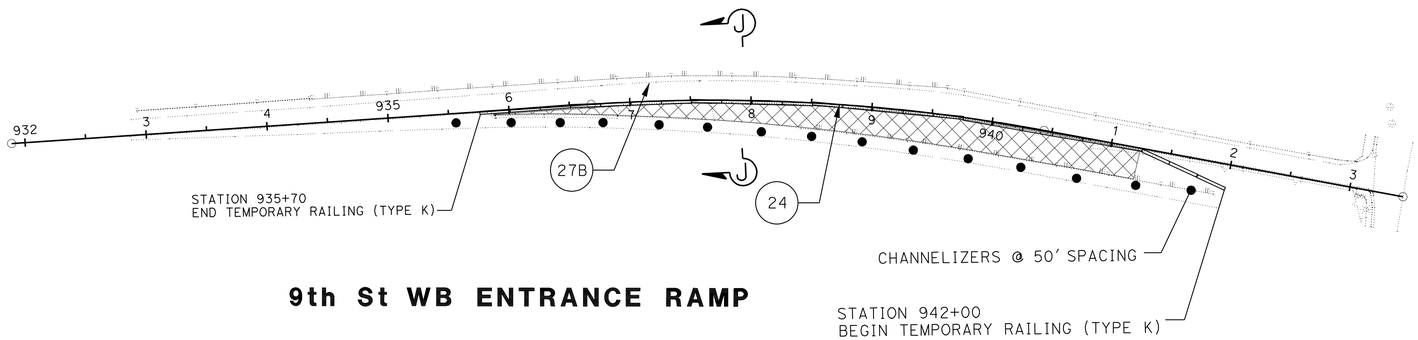
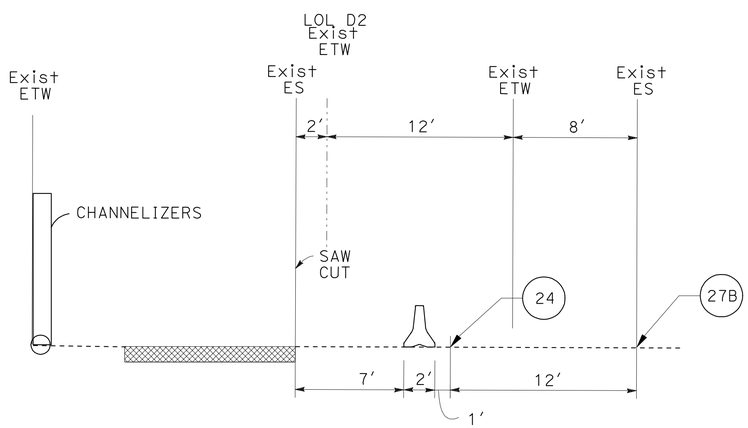


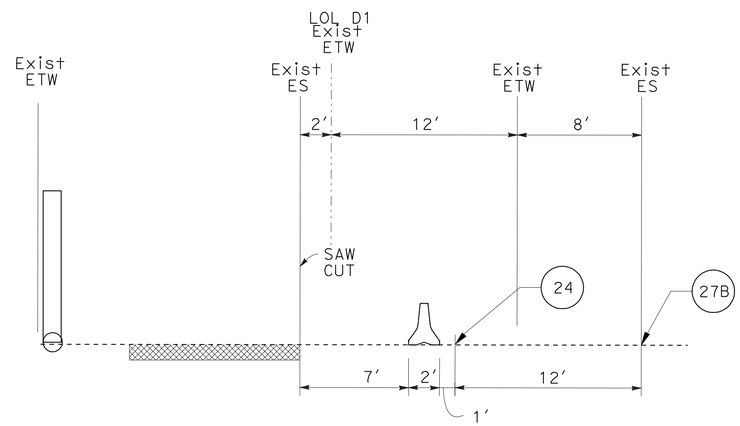
9th St EB ENTRANCE RAMP



9th St WB ENTRANCE RAMP



SECTION I-I
STAGE 1
9th St EB ENTRANCE RAMP



SECTION J-J
STAGE 1
9th St WB ENTRANCE RAMP

NOTE:

1. REFER TO STANDARD PLAN T14 AND LANE CLOSURE CHARTS FOR TRAFFIC CONTROL REQUIREMENT.

STAGE CONSTRUCTION TRAFFIC HANDLING PLAN

NO SCALE

TH-4

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

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

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 13:15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	103	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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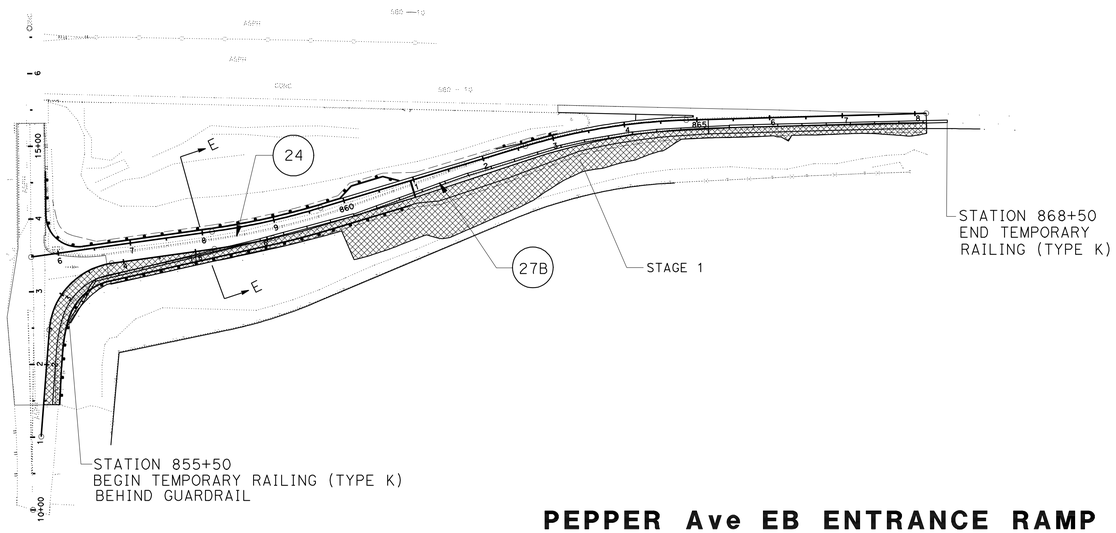
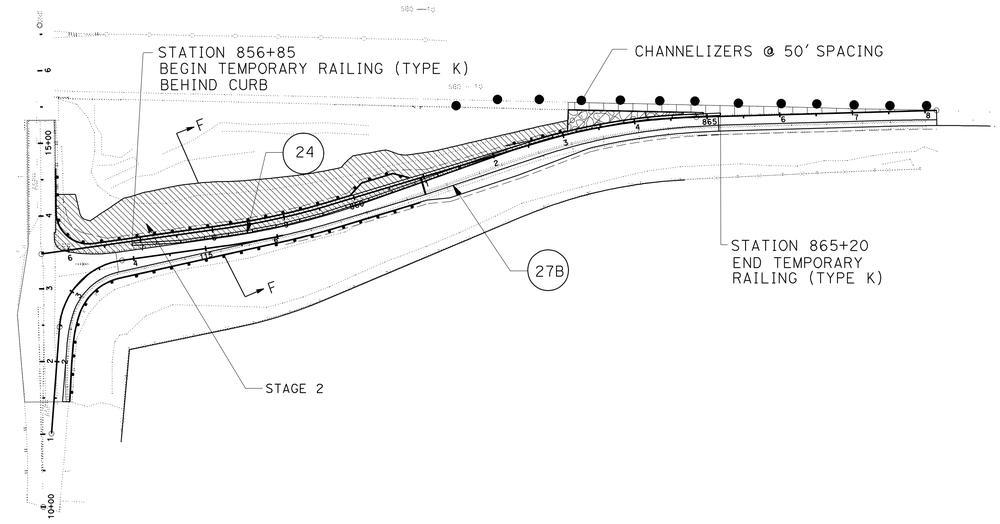
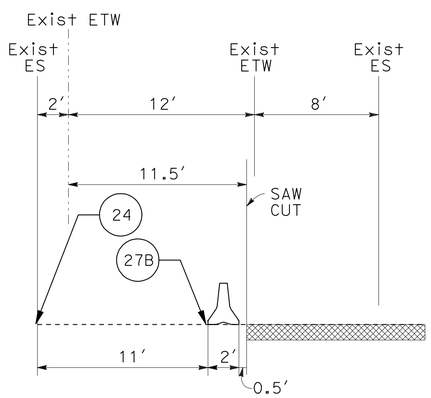
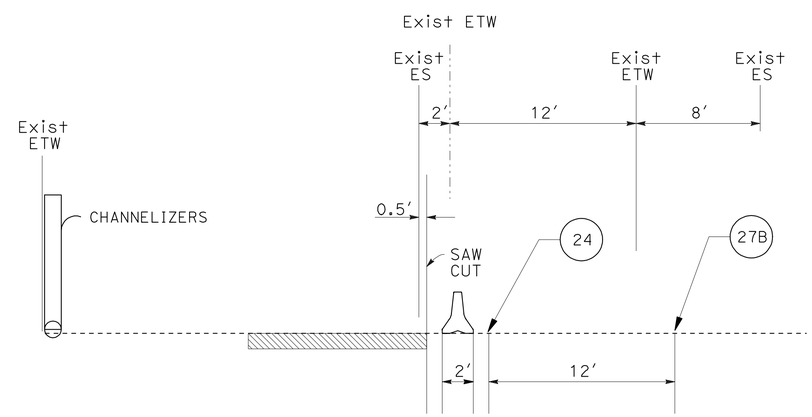




PEPPER Ave EB ENTRANCE RAMP



SECTION E-E
STAGE 1
PEPPER Ave EB ENTRANCE RAMP



SECTION F-F
STAGE 2
PEPPER Ave EB ENTRANCE RAMP

NOTES:

1. SIMILAR ABOVE STAGE CONCEPT WILL BE APPLIED TO RANCHO WESTBOUND ENTRANCE RAMP.
2. REFER TO STANDARD PLAN T-14 FOR RAMP CLOSURE REQUIREMENT.

STAGE CONSTRUCTION TRAFFIC HANDLING PLAN

NO SCALE

TH-5

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	104	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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TEMPORARY PAVEMENT DELINEATION

LOCATION	STATION LIMITS	DETAIL	4" YELLOW LF	4" WHITE LF
CEDAR Ave WB ENTRANCE RAMP	710+10 TO 725+00	24	1490	
CEDAR Ave WB ENTRANCE RAMP	710+10 TO 725+00	27B		1490
CEDAR Ave EB ENTRANCE RAMP	726+00 TO 741+50	24	1550	
CEDAR Ave EB ENTRANCE RAMP	726+00 TO 741+50	27B		1550
PEPPER Ave WB ENTRANCE RAMP	844+90 TO 855+00	24	1010	
PEPPER Ave WB ENTRANCE RAMP	844+90 TO 855+00	27B		1010
PEPPER Ave EB ENTRANCE RAMP	855+60 TO 868+20	24	1260	
PEPPER Ave EB ENTRANCE RAMP	855+60 TO 868+20	27B		1260
9th St WB ENTRANCE RAMP	934+00 TO 942+00	24	800	
9th St WB ENTRANCE RAMP	934+00 TO 942+00	27B		800
9th St EB ENTRANCE RAMP	41+00 TO 51+00	24	1000	
9th St EB ENTRANCE RAMP	41+00 TO 51+00	27B		1000
RANCHO Ave WB ENTRANCE RAMP	895+50 TO 907+50	24	1200	
RANCHO Ave WB ENTRANCE RAMP	895+50 TO 907+50	27B		1200
Mt VERNON WB ENTRANCE RAMP	60+00 TO 67+50	24	750	
Mt VERNON WB ENTRANCE RAMP	60+00 TO 67+50	27B		750
Mt VERNON EB ENTRANCE RAMP	75+00 TO 82+50	24	750	
Mt VERNON EB ENTRANCE RAMP	75+00 TO 82+50	27B		750
TOTAL			9810	9810

PCMS

QUANTITY	COMMENTS
2 (EACH)	EXACT LOCATION TO BE DIRECTED BY THE ENGINEER. RESUSE IN DIFFERENT RAMPS.

BARRICADE (TYPE II)

QUANTITY	COMMENTS
2 (EACH)	EXACT LOCATION TO BE DIRECTED BY THE ENGINEER. RESUSE IN DIFFERENT RAMPS.

CHANNELIZER (SURFACE MOUNTED)

LOCATION	STATION LIMITS	QUANTITY EA
CEDAR Ave EB ENTRANCE RAMP	716+50 TO 725+00	93
CEDAR Ave EB ENTRANCE RAMP	716+50 TO 722+50	
CEDAR Ave WB ENTRANCE RAMP	732+50 TO 743+00	71
CEDAR Ave WB ENTRANCE RAMP	736+00 TO 741+50	
PEPPER Ave WB ENTRANCE RAMP	848+00 TO 857+00	91
PEPPER Ave WB ENTRANCE RAMP	848+00 TO 852+00	
PEPPER Ave EB ENTRANCE RAMP	861+90 TO 868+25	44
RANCHO Ave WB ENTRANCE RAMP	902+50 TO 908+50	65
RANCHO Ave WB ENTRANCE RAMP	902+50 TO 906+50	
MT VERNON Ave WB ENTRANCE RAMP	62+50 TO 67+00	40
Mt VERNON Ave WB ENTRANCE RAMP	62+50 TO 66+50	
Mt VERNON Ave EB ENTRANCE RAMP	75+50 TO 80+00	85
9th St EB ENTRANCE RAMP	42+00 TO 49+50	45
9th St WB ENTRANCE RAMP	935+50 TO 942+00	51
TOTAL		585

TEMPORARY RAILING (TYPE K)

LOCATION	STATION LIMITS	LF
CEDAR Ave WB ENTRANCE RAMP	713+00 TO 725+00	1200
PEPPER Ave WB ENTRANCE RAMP	844+90 TO 855+00	1010
PEPPER Ave EB ENTRANCE RAMP	855+60 TO 868+50	1290
PEPPER Ave EB ENTRANCE RAMP	856+85 TO 865+20	835
RANCHO Ave WB ENTRANCE RAMP	895+50 TO 907+50	1200
Mt VERNON Ave WB ENTRANCE RAMP	60+00 TO 67+50	750
Mt VERNON Ave EB ENTRANCE RAMP	75+00 TO 82+50	750
CEDAR Ave EB ENTRANCE RAMP	726+00 TO 741+50	1550
9th St EB ENTRANCE RAMP	41+50 TO 48+80	730
9th St WB ENTRANCE RAMP	935+70 TO 942+00	630
TOTAL		9945

TRAFFIC HANDLING QUANTITIES

THQ-1

REVISED BY | DATE REVISED
TRAN HOANG | VU TRAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
LARRY SARTORI

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

LAST REVISION 01-13-11 | DATE PLOTTED => 16-APR-2011 | TIME PLOTTED => 06:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	105	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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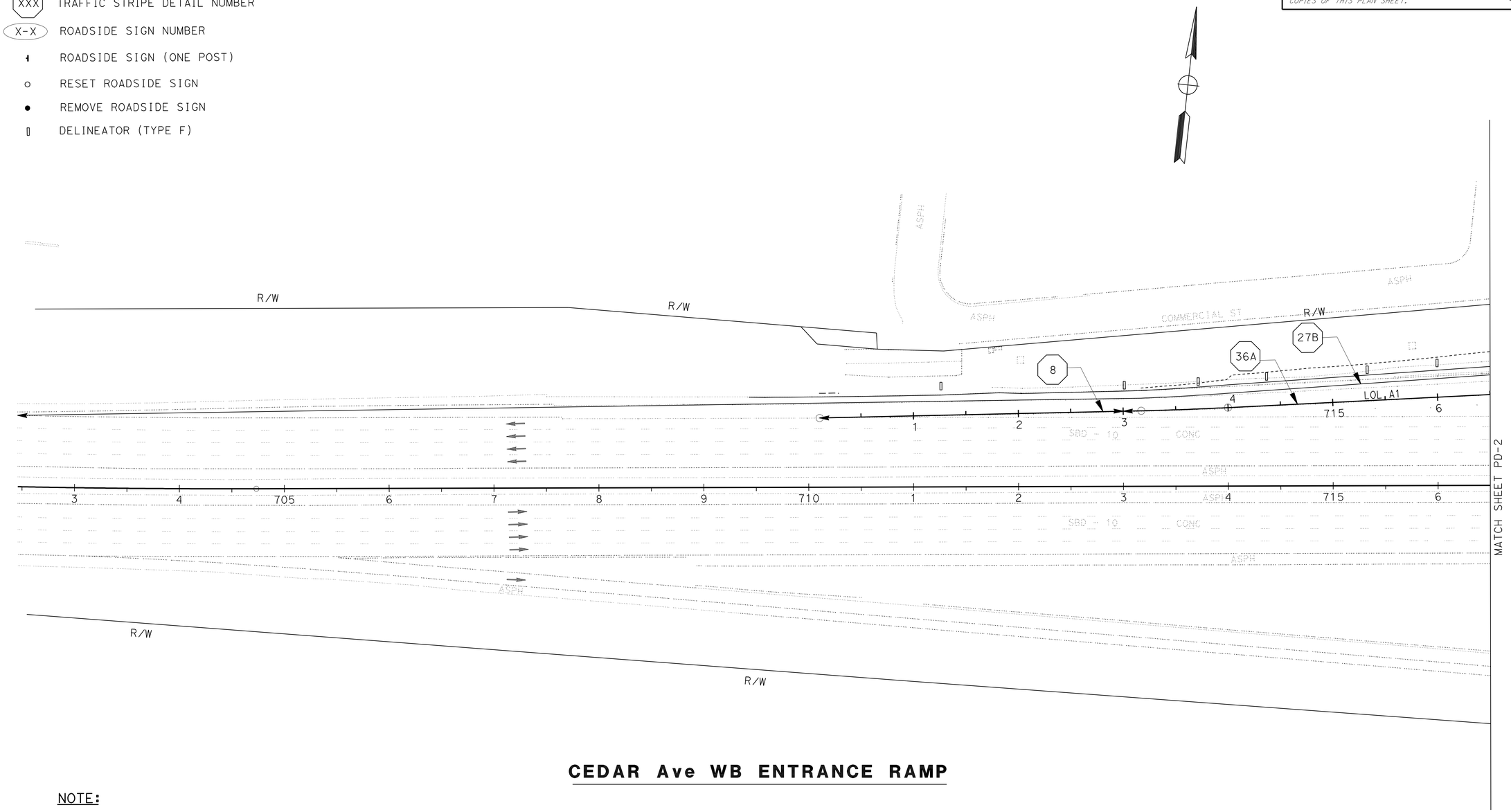
NOTE:

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

LEGEND

- XXX — TRAFFIC STRIPE DETAIL NUMBER
- X-X — ROADSIDE SIGN NUMBER
- ROADSIDE SIGN (ONE POST)
- RESET ROADSIDE SIGN
- REMOVE ROADSIDE SIGN
- DELINEATOR (TYPE F)



CEDAR Ave WB ENTRANCE RAMP

NOTE:

DETAIL 8 QUANTITIES INCLUDED UNDER DETAIL 36A.

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-1

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
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LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	106	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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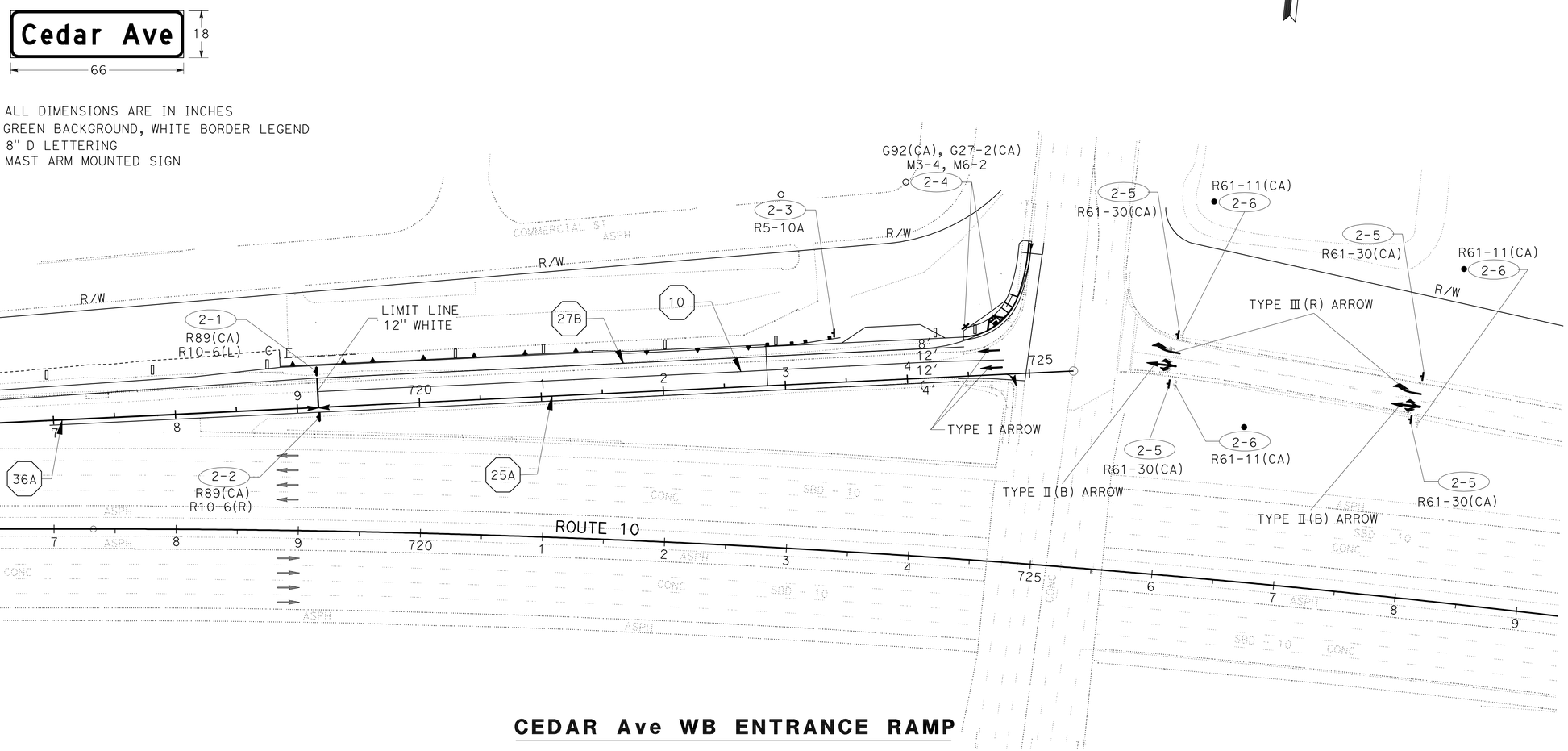

CEDAR Ave WB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-2

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

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

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	107	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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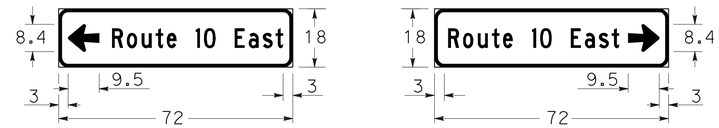
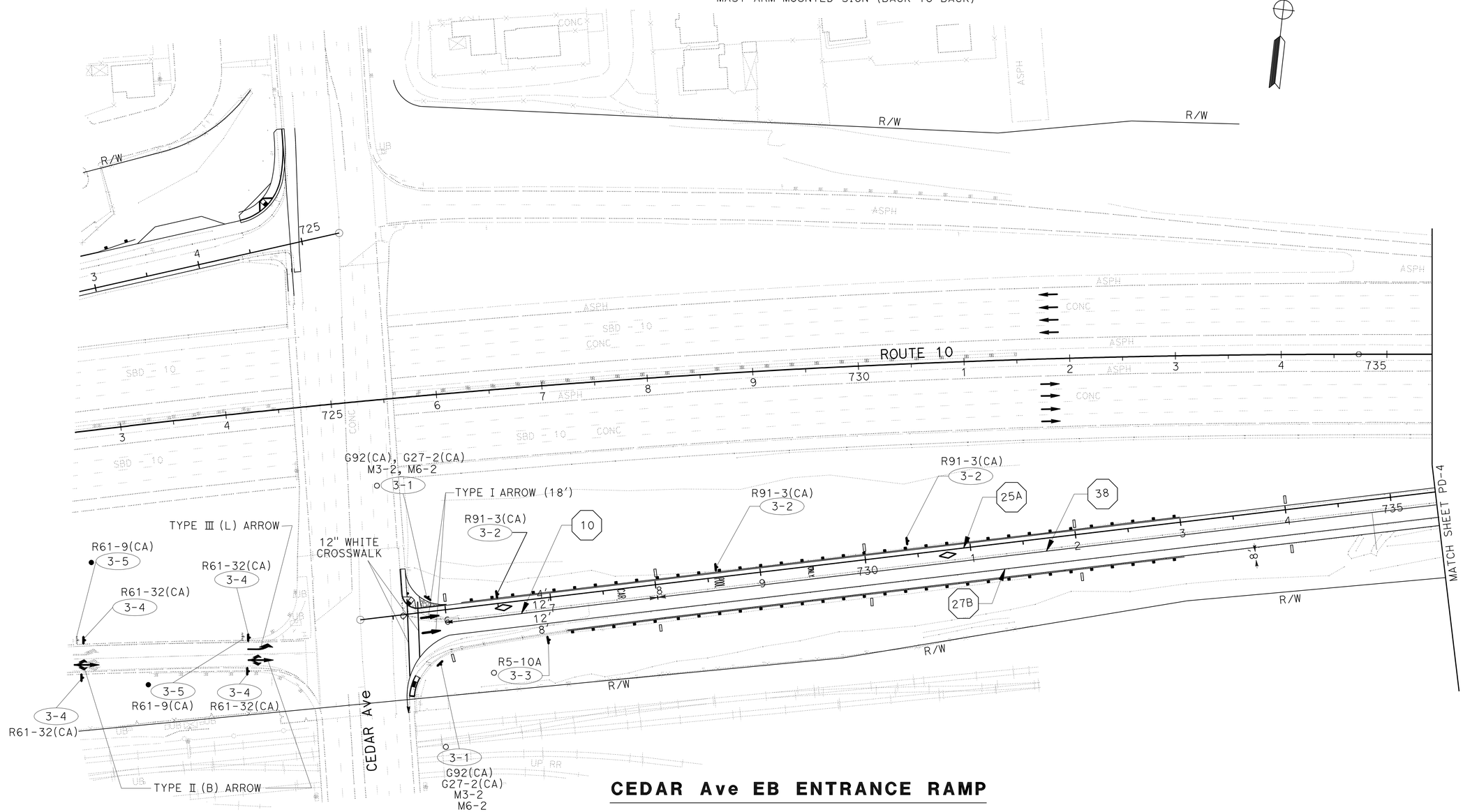


ALL DIMENSIONS ARE IN INCHES
GREEN BACKGROUND, WHITE BORDER LEGEND
6" C LETTERING
MAST ARM MOUNTED SIGN (BACK TO BACK)



CEDAR Ave EB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-3

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

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

FUNCTIONAL SUPERVISOR: LARRY SARTORI

CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-JUN-2011
TIME PLOTTED => 06:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	108	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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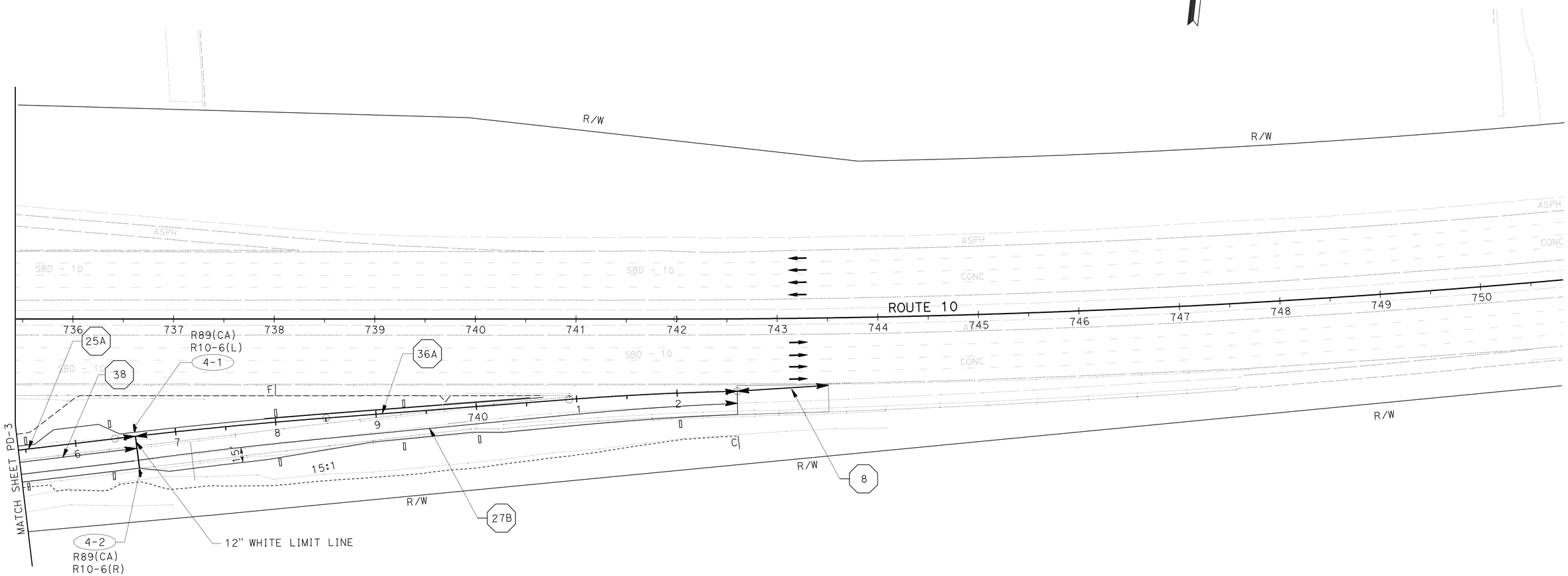

CEDAR Ave EB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-4

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

FUNCTIONAL SUPERVISOR: LARRY SARTORI

CALCULATED-DESIGNED BY: TRAN HOANG
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REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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NOTE:

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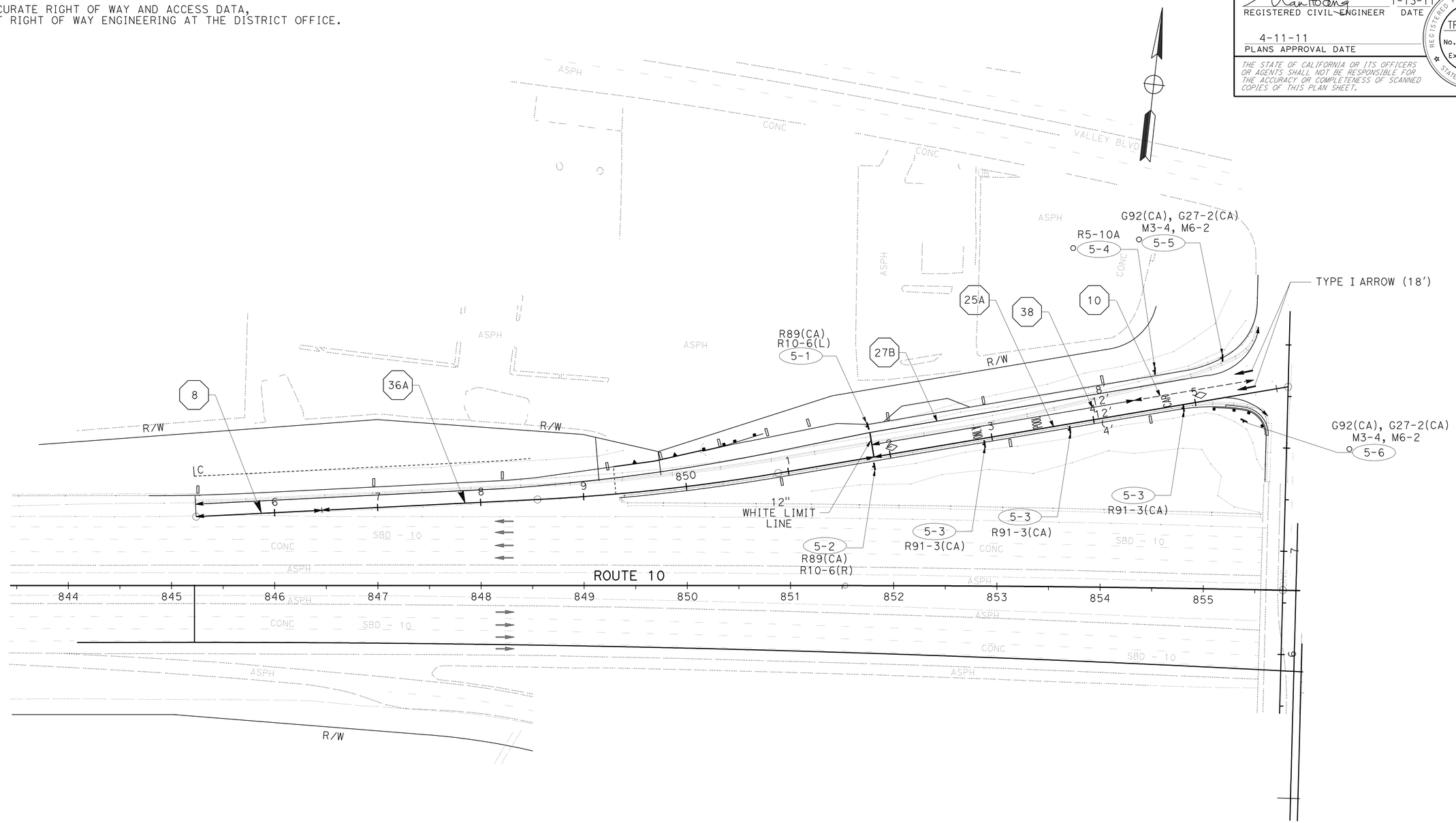

PEPPER Ave WB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-5

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI

CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-JUN-2011
TIME PLOTTED => 06:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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4-11-11
PLANS APPROVAL DATE

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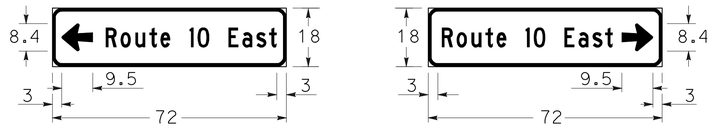
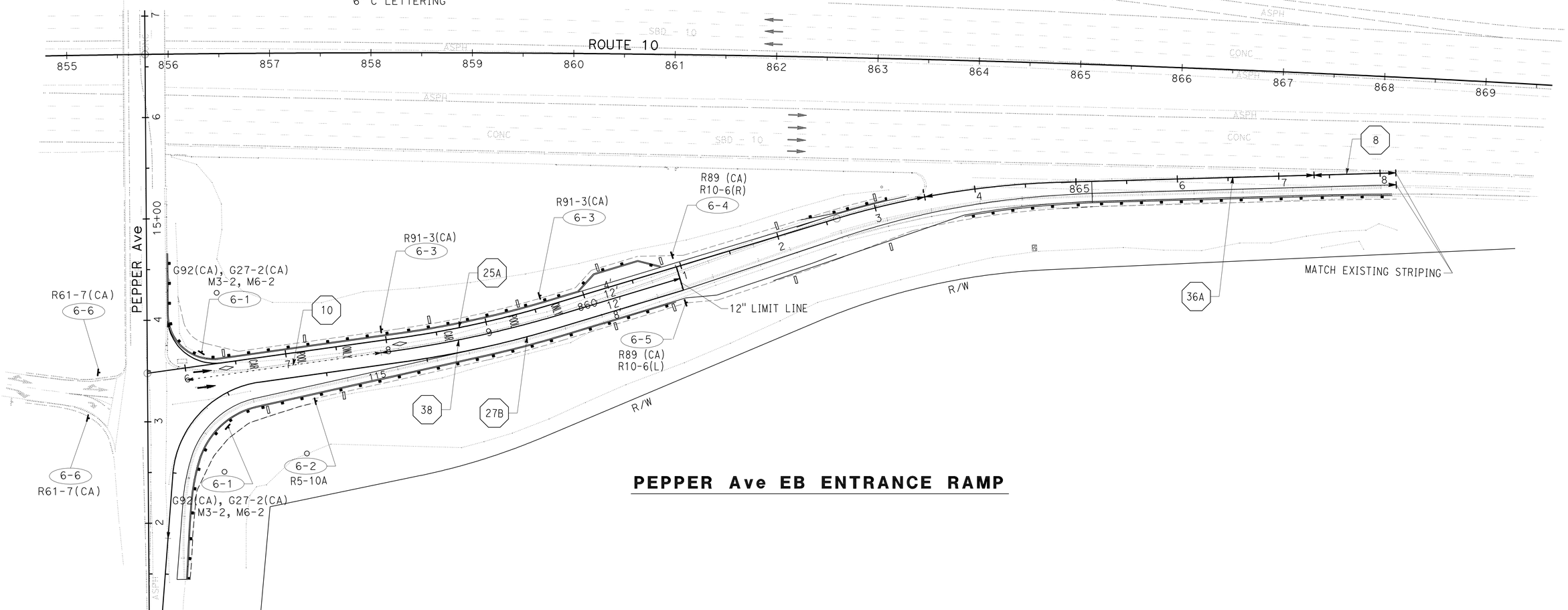


ALL DIMENSIONS ARE IN INCHES
GREEN BACKGROUND, WHITE BORDER LEGEND
6" C LETTERING



PEPPER Ave EB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-6

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	111	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

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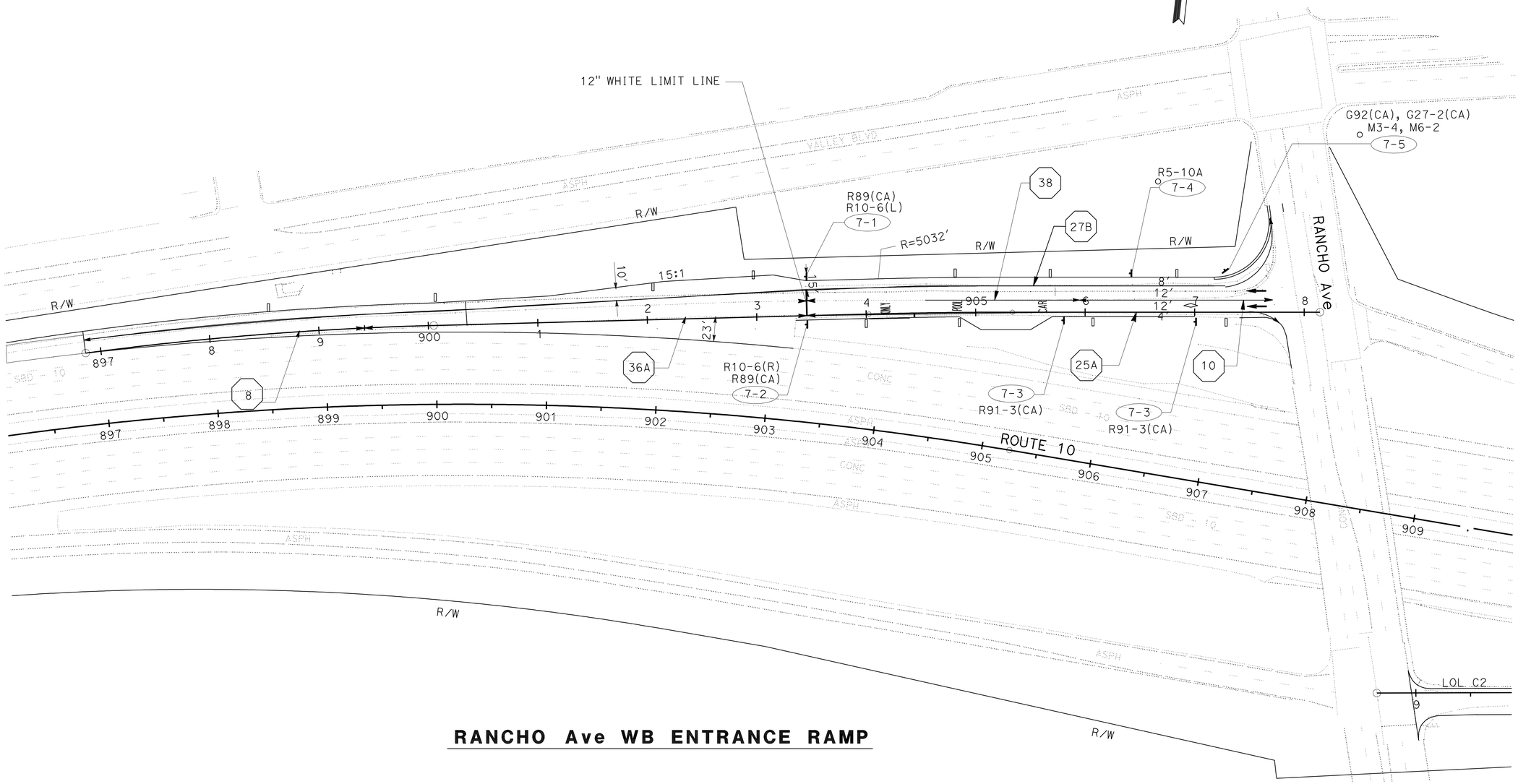
FOR ACCURATE RIGHT OF WAY AND ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



RANCHO Ave WB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-7

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

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

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:56

BORDER LAST REVISED 7/2/2010
USERNAME => trmnguye
DGN FILE => 838434na007.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 2285
PROJECT NUMBER & PHASE 08000006401

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	112	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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

NOTE:

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA,
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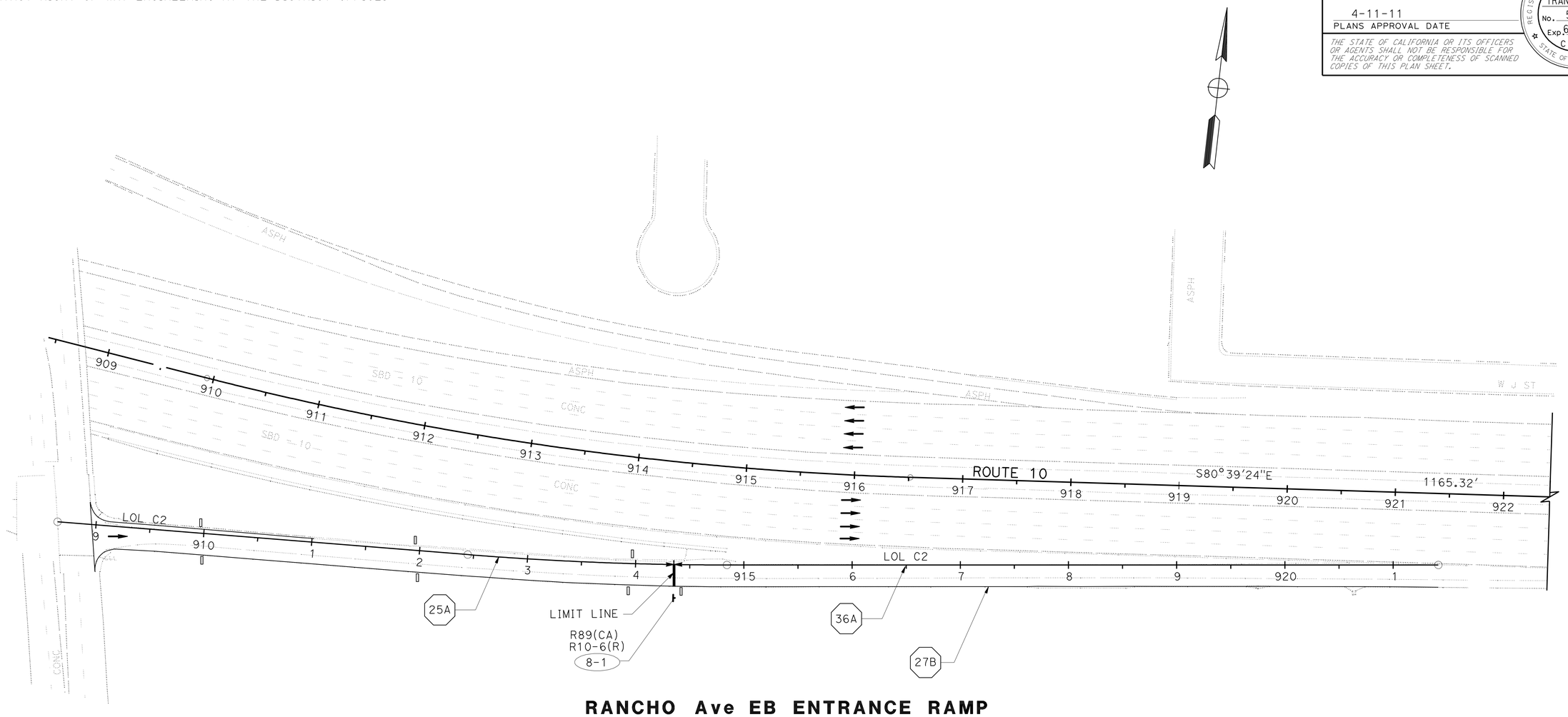

RANCHO Ave EB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-8

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-JUN-2011
TIME PLOTTED => 06:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	113	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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

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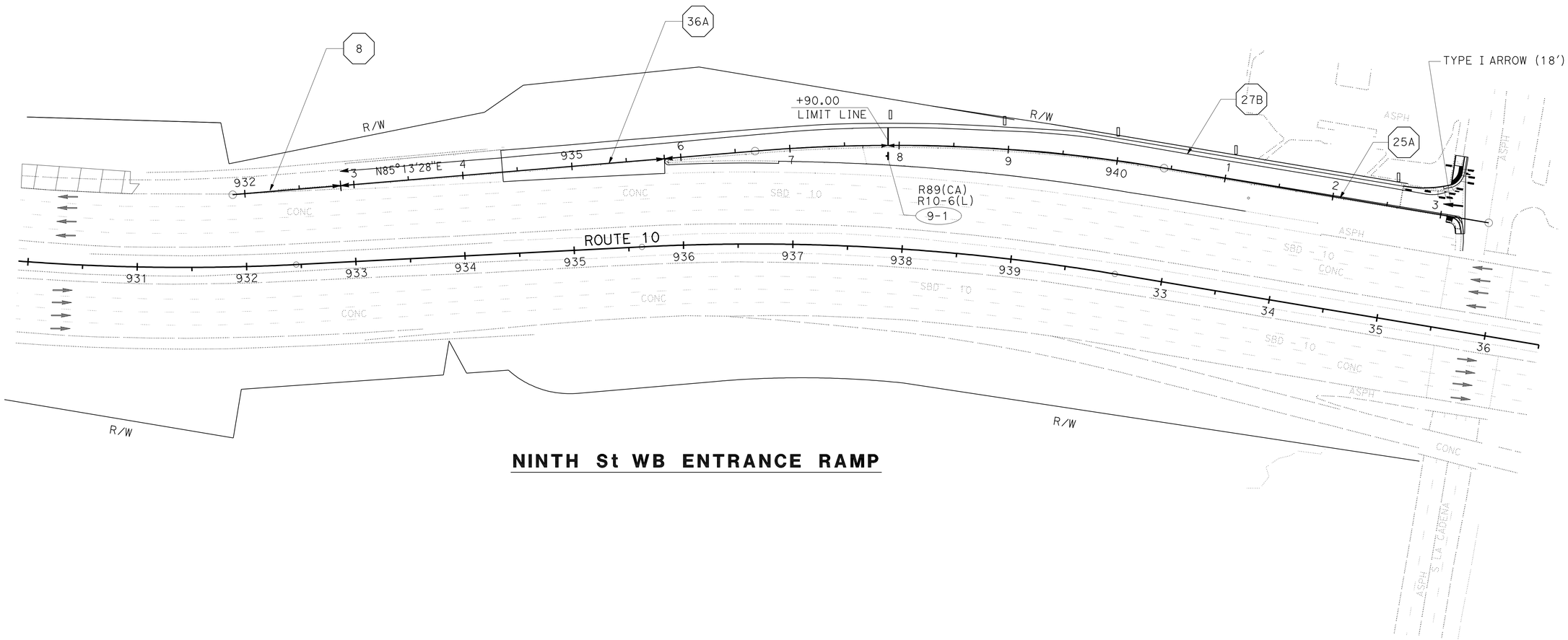


NINTH St WB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-9

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI

CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	114	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

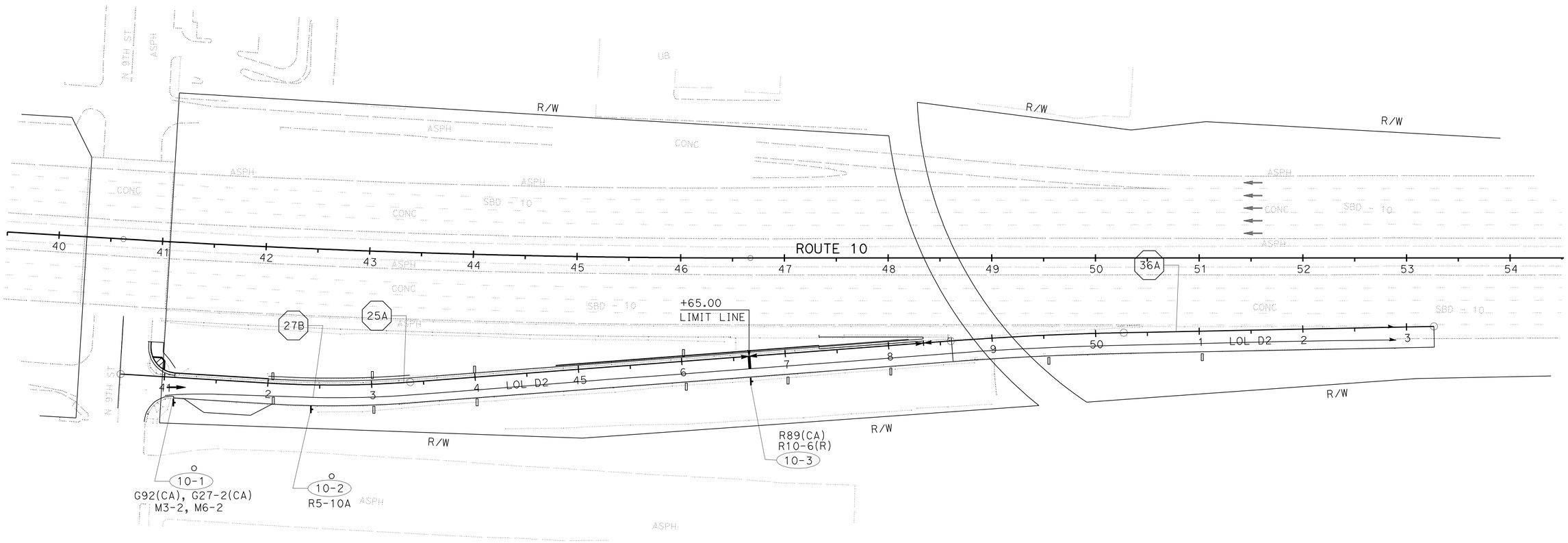
4-11-11
PLANS APPROVAL DATE

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

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

NOTE:

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



9TH Ave EB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-10

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

REVISED BY | DATE REVISED
TRAN HOANG | VU TRAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
LARRY SARTORI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

LAST REVISION 01-13-11 | DATE PLOTTED => 16-APR-2011 | TIME PLOTTED => 06:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	115	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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NOTE:

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA,
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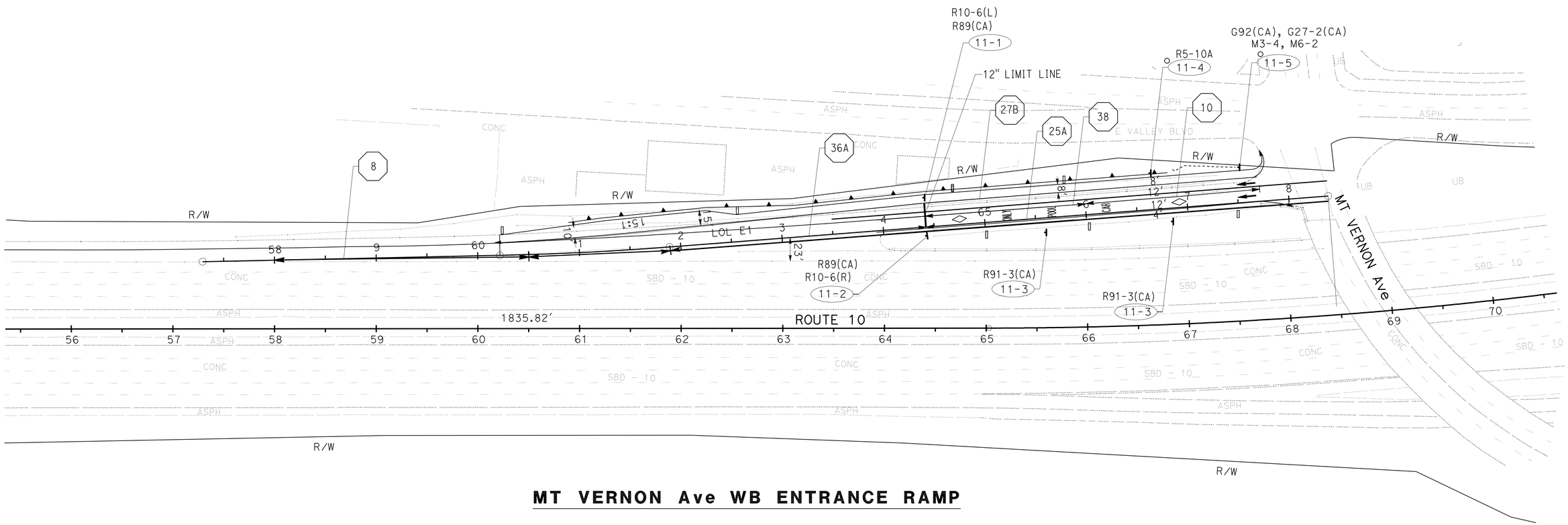

MT VERNON Ave WB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-11

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI

CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 07:29

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	116	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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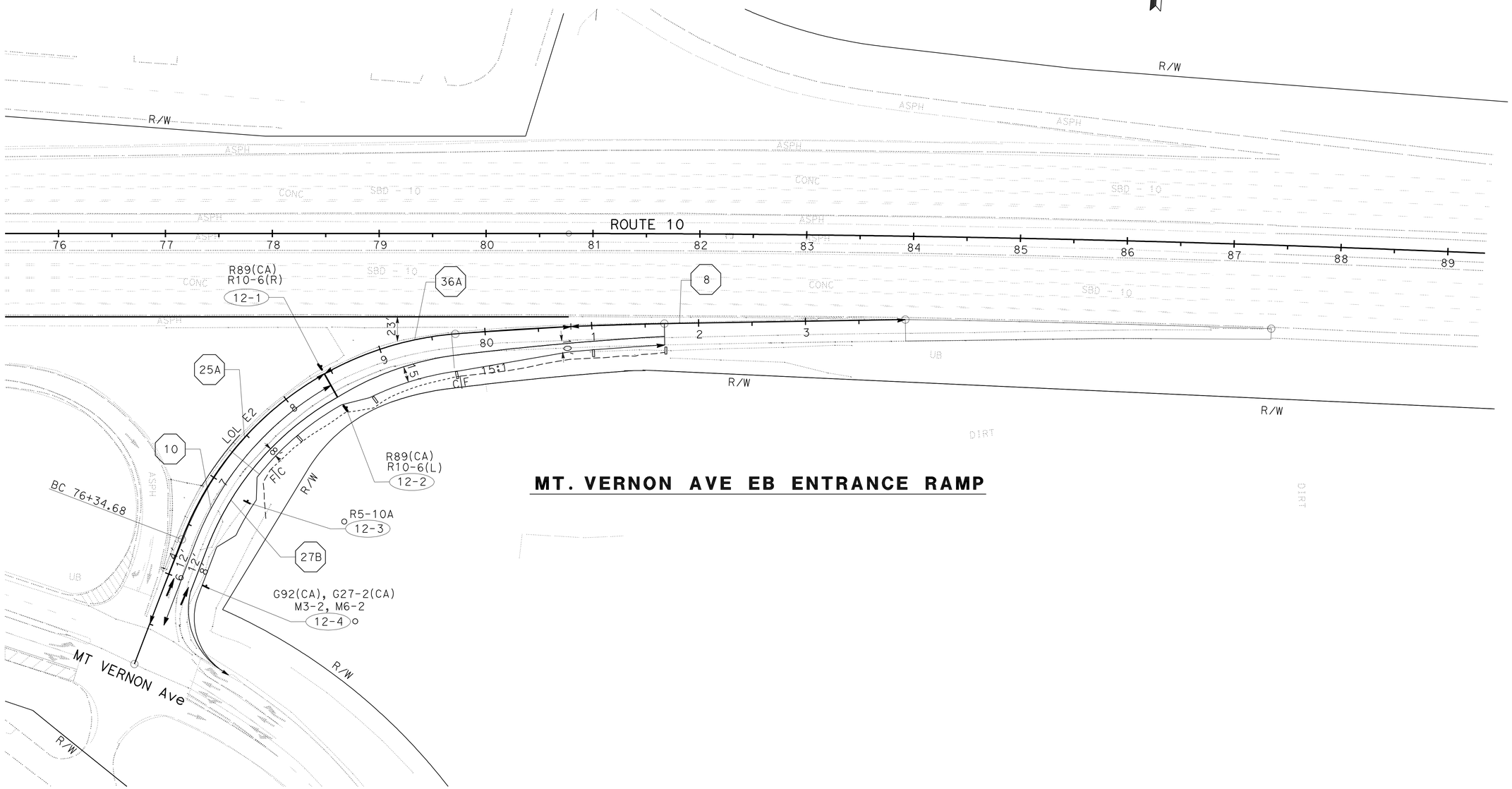

MT. VERNON AVE EB ENTRANCE RAMP

PAVEMENT DELINEATION AND SIGN PLAN

NO SCALE

PD-12

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-JUN-2011
TIME PLOTTED => 06:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	117	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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

PAVEMENT DELINEATION QUANTITIES

SHEET No.	LOCATION	DETAIL No.	PAVEMENT MARKING	REMOVE PAVEMENT MARKERS	REMOVE THERMOPLASTIC PAVEMENT MARKING	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	REMOVE THERMOPLASTIC TRAFFIC STRIPE		PAVEMENT MARKER			THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)				THERMOPLASTIC PAVEMENT MARKING
							WHITE		NON-REFLECTIVE TYPE	RETROREFLECTIVE TYPE						
					WHITE	4 IN	4 IN	8 IN	A	G	H	4 IN YELLOW	4 IN WHITE	6 IN WHITE	8 IN WHITE	WHITE
				EA		LF	LF		EA	EA		LF				SQFT
PD-1	STA 710+00 TO STA 719+20 CEDAR AVE WB ENT RAMP	36A		27			300	1240		27			300		620	
PD-1	STA 701+30 TO STA 716+50 CEDAR AVE WB ENT RAMP	27B					1520						1520			
PD-2	STA 719+20 TO STA 725+00 CEDAR AVE WB ENT RAMP	25A		26		580					26	580				
PD-2	STA 716+50 TO STA 725+00 CEDAR AVE WB ENT RAMP	27B											850			
PD-2	STA 723+00 TO STA 725+00 CEDAR AVE WB ENT RAMP	10							114	19						
PD-2	STA 719+20 CEDAR AVE WB ENT RAMP		12" LIMIT LINE													24
PD-2	CEDAR AVE WB EXIT RAMP		TYPE III ARROW (X2)		84											84
PD-2	STA 716+50 TO STA 725+00 CEDAR AVE WB ENT RAMP		TYPE II ARROW (B) (X2)		118											118
PD-2	STA 716+50 TO STA 725+00 CEDAR AVE WB ENT RAMP		TYPE I ARROW (18') (X2)		25											50
PD-3	STA 725+50 TO STA 728+00 CEDAR AVE EB ENT RAMP	10							30	5						
PD-3	STA 725+50 TO STA 735+50 CEDAR AVE EB ENT RAMP	27B											1000			
PD-3	STA 728+00 TO STA 735+50 CEDAR AVE EB ENT RAMP	38								33					750	
PD-3	STA 725+50 TO STA 735+50 CEDAR AVE EB ENT RAMP	25A		43		1000					43	1000				
PD-3	STA 725+67 TO STA 735+50 CEDAR AVE EB ENT RAMP		CARPOOL SYMBOL													22
PD-3	STA 725+67 TO STA 735+50 CEDAR AVE EB ENT RAMP		CAR													17
PD-3	STA 725+67 TO STA 735+50 CEDAR AVE EB ENT RAMP		POOL													23
PD-3	STA 725+67 TO STA 735+50 CEDAR AVE EB ENT RAMP		ONLY													22
PD-3	STA 725+67 TO STA 735+50 CEDAR AVE EB ENT RAMP		12" LIMIT LINE													115
PD-3	STA 725+50 TO STA 735+50 CEDAR AVE EB EXIT RAMP		TYPE II ARROW(B) (X2)		118											118
PD-3	STA 725+50 TO STA 735+50 CEDAR AVE EB EXIT RAMP		TYPE III ARROW (L)		42											42
PD-3	STA 725+50 TO STA 735+50 CEDAR AVE EB ENT RAMP		TYPE I ARROW (18') (X2)		25											50
PD-4	STA 735+50 TO STA 736+60 CEDAR AVE EB ENT RAMP	25A		7		110					7	110				
PD-4	STA 735+50 TO STA 736+60 CEDAR AVE EB ENT RAMP	38		7				220		7					110	
PD-4	STA 735+50 TO STA 742+60 CEDAR AVE EB ENT RAMP	27B					710						710			
PD-4	STA 736+60 TO STA 743+50 CEDAR AVE EB ENT RAMP	36A		26			90	1200		26			90		600	
PD-4	STA 736+60 CEDAR AVE EB ENT RAMP		12" LIMIT LINE													24
PD-5	STA 845+20 TO STA 851+80 PEPPER AVE WB ENT RAMP	36A		24			130	1060		24			130		530	
PD-5	STA 851+80 TO STA 856+00 PEPPER AVE WB ENT RAMP	25A		20		420					20	420				
PD-5	STA 845+00 TO STA 856+00 PEPPER AVE WB ENT RAMP	27B					1100						1100			
PD-5	STA 851+80 TO STA 854+50 PEPPER AVE WB ENT RAMP	38								13					270	
PD-5	STA 854+50 TO STA 856+00 PEPPER AVE WB ENT RAMP	10							18	3						
PD-5	STA 845+31 TO STA 855+60 PEPPER AVE WB ENT RAMP		CAR													17
PD-5	STA 845+31 TO STA 855+60 PEPPER AVE WB ENT RAMP		POOL													23
PD-5	STA 845+31 TO STA 855+60 PEPPER AVE WB ENT RAMP		ONLY													22
PD-5	STA 845+31 TO STA 855+60 PEPPER AVE WB ENT RAMP		CARPOOL SYMBOL													22
PD-5	STA 845+31 TO STA 855+60 PEPPER AVE WB ENT RAMP		12" LIMIT LINE													24
PD-5	PEPPER AVE WB ENT RAMP		TYPE I ARROW (18')(X2)		25											50
PD-6	STA 856+00 TO STA 863+50 PEPPER AVE EB ENT RAMP	25A		33		750					33	750				
PD-6	STA 863+50 TO STA 868+10 PEPPER AVE EB ENT RAMP	36A		18			70	780		18			70		390	
PD-6	STA 856+00 TO STA 858+00 PEPPER AVE EB ENT RAMP	10							24	4						
PD-6	STA 858+00 TO STA 860+90 PEPPER AVE EB ENT RAMP	38								14					290	
PD-6	STA 856+00 TO STA 868+10 PEPPER AVE EB ENT RAMP	27B					1210						1210			
PD-6	STA 856+00 TO STA 868+10 PEPPER AVE EB ENT RAMP		CAR													34
PD-6	STA 856+00 TO STA 868+10 PEPPER AVE EB ENT RAMP		POOL													46
PD-6	STA 856+00 TO STA 868+10 PEPPER AVE EB ENT RAMP		ONLY													44
PD-6	STA 856+00 TO STA 868+10 PEPPER AVE EB ENT RAMP		CARPOOL SYMBOL													22
PD-6	STA 856+00 TO STA 868+10 PEPPER AVE EB ENT RAMP		12" LIMIT LINE													24
PD-6	PEPPER AVE EB ENT RAMP		TYPE I ARROW (18') (X2)		25											50
SUBTOTAL				231	462	2860	5130	4500	186	193	129	2860	6980		3560	1087
TOTAL				231	462	2860	9630		186	322			13,400			1087

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

PAVEMENT DELINEATION QUANTITIES
PDQ-1

LAST REVISION 01-13-11
DATE PLOTTED => 15-JUN-2011
TIME PLOTTED => 06:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	118	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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

PAVEMENT DELINEATION QUANTITIES

SHEET No.	LOCATION	DETAIL No.	PAVEMENT MARKING	REMOVE PAVEMENT MARKERS	REMOVE THERMOPLASTIC PAVEMENT MARKING	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	REMOVE THERMOPLASTIC TRAFFIC STRIPE		PAVEMENT MARKER			THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)				THERMOPLASTIC PAVEMENT MARKING
							WHITE		NON-REFLECTIVE TYPE	RETROREFLECTIVE TYPE						
					WHITE	4 IN	4 IN	8 IN	A	G	H	4 IN YELLOW	4 IN WHITE	6 IN WHITE	8 IN WHITE	WHITE
				EA	SQFT	LF	LF		EA	EA		LF				SQFT
PD-7	STA 896+80 TO STA 903+50 RANCHO AVE WB ENT RAMP	36A		16			320	700		16			320		350	
PD-7	STA 903+50 TO STA 907+60 RANCHO AVE WB ENT RAMP	25A		19		410					19	410				
PD-7	STA 896+10 TO STA 908+00 RANCHO AVE WB ENT RAMP	27B					1190						1190			
PD-7	STA 903+50 TO STA 906+00 RANCHO AVE WB ENT RAMP	38		12				500		12					250	
PD-7	STA 906+00 TO STA 907+20 RANCHO AVE WB ENT RAMP	10							18	3						
PD-7	STA 898+00 TO STA 907+80 RANCHO AVE WB ENT RAMP		CAR													17
PD-7	STA 898+00 TO STA 907+80 RANCHO AVE WB ENT RAMP		POOL													23
PD-7	STA 898+00 TO STA 907+80 RANCHO AVE WB ENT RAMP		ONLY													22
PD-7	STA 898+00 TO STA 907+80 RANCHO AVE WB ENT RAMP		CARPOOL SYMBOL													11
PD-7	STA 898+00 TO STA 907+80 RANCHO AVE WB ENT RAMP		12" LIMIT LINE													24
PD-7	RANCHO AVE WB ENT RAMP		TYPE I (18') ARROW		25											50
PD-8	STA 909+00 TO STA 914+35 RANCHO AVE EB ENT RAMP	25A		23		535					23	535				
PD-8	STA 914+35 TO STA 921+50 RANCHO AVE EB ENT RAMP	36A		26			150	1130		26			150		565	
PD-8	STA 909+00 TO STA 921+50 RANCHO AVE EB ENT RAMP	27B					1250						1250			
PD-8	STA 909+00 TO STA 921+35 RANCHO AVE EB ENT RAMP		12" LIMIT LINE													12
PD-8	RANCHO AVE EB ENT RAMP		TYPE I (18') ARROW		25											25
PD-9	STA 931+90 TO STA 943+10 9TH ST WB ENT RAMP	27B					1120						1120			
PD-9	STA 935+90 TO STA 943+25 9TH ST WB ENT RAMP	25A		32		735					32	735				
PD-9	STA 931+90 TO STA 935+90 9TH ST WB ENT RAMP	36A		11			160	480		11			160		240	
PD-9	STA 933+00 TO STA 943+25 9TH ST WB ENT RAMP		12" LIMIT LINE													12
PD-9	9TH ST WB ENT RAMP		TYPE I (18') ARROW		25											25
PD-10	STA 41+00 TO STA 46+65 9TH ST EB ENT RAMP	25A		25		565					25	565				
PD-10	STA 46+65 TO STA 53+26 9TH ST EB ENT RAMP	36A		18			276	770		18			276		385	
PD-10	STA 41+00 TO STA 53+26 9TH ST EB ENT RAMP	27B					1226						1226			
PD-10	STA 41+00 TO STA 46+65 9TH ST EB ENT RAMP		12" LIMIT LINE													12
PD-10	9TH ST EB ENT RAMP		TYPE I (18') ARROW		25											25
PD-11	STA 57+30 TO STA 64+45 MT VERNON WB ENT RAMP	36A		18			320	790		18			320		395	
PD-11	STA 64+45 TO STA 68+00 MT VERNON WB ENT RAMP	25A		16		355					16	355				
PD-11	STA 64+45 TO STA 66+00 MT VERNON WB ENT RAMP	38		8				310		8					155	
PD-11	STA 66+00 TO STA 67+75 MT VERNON WB ENT RAMP	10		35					30	5						
PD-11	STA 60+25 TO STA 68+00 MT VERNON WB ENT RAMP	27B					775						775			
PD-11	STA 60+25 TO STA 68+00 MT VERNON WB ENT RAMP		CAR													17
PD-11	STA 60+25 TO STA 68+00 MT VERNON WB ENT RAMP		POOL													23
PD-11	STA 60+25 TO STA 68+00 MT VERNON WB ENT RAMP		ONLY													22
PD-11	STA 60+25 TO STA 68+00 MT VERNON WB ENT RAMP		CARPOOL SYMBOL													22
PD-11	STA 60+25 TO STA 68+00 MT VERNON WB ENT RAMP		12" LIMIT LINE													24
PD-11	MT VERNON WB ENT RAMP		TYPE I (18') ARROW		25											50
PD-12	STA 75+50 TO STA 78+50 MT VERNON EB ENT RAMP	25A		14		300					14	300				
PD-12	STA 78+50 TO STA 84+00 MT VERNON EB ENT RAMP	36A		18			175	750		18			175		375	
PD-12	STA 75+50 TO STA 78+50 MT VERNON EB ENT RAMP	10							42	7						
PD-12	STA 75+00 TO STA 81+50 MT VERNON EB ENT RAMP	27B					650						650			
PD-12	STA 78+50 MT VERNON EB ENT RAMP		12" LIMIT LINE													24
PD-12	MT VERNON EB ENT RAMP		TYPE I (18') ARROW		25											50
SUBTOTAL				291	150	2900	7612	5430	90	142	129	2900	7612		2715	490
TOTAL SHEET PDQ-2				291	150	2900	13,042		90	271			13,227			490
TOTAL SHEET PDQ-1				231	462	2860	9630		186	322			13,400			1087
GRAND TOTAL (PDQ-1 & PDQ-2)				522	612	5760	22,672		276	593			26,627			1577

REVISED BY | DATE REVISED
TRAN HOANG | VU TRAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
LARRY SARTORI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

PAVEMENT DELINEATION QUANTITIES
PDQ-2

LAST REVISION 01-13-11 | DATE PLOTTED => 15-JUN-2011 | TIME PLOTTED => 06:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	119	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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ROADSIDE SIGN QUANTITIES

SIGN No.	SIGN CODE	POST LENGTH L†	POST LENGTH R†	POST SIZE 4x4	POST SIZE 4x6	POST SIZE 6x6	ROADSIDE SIGN ONE POST	ROADSIDE SIGN TWO POST	ROADSIDE SIGN REMOVE	ROADSIDE SIGN RESET	ROADSIDE SIGN RELOCATE	INSTALL SIGN OVERLAY	INSTALL ROADSIDE SIGN (LAMINATED WOOD BOX POST)	INSTALL ROADSIDE SIGN METAL POST	INSTALL METAL RAIL-MOUNTED SIGN	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	REMARKS
		ft	ft	in x in			EA	EA	EA	EA	EA	ft^2	EA	EA	lbs	EA	
2-1	R89(CA), R10-6(L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
2-2	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
2-3	R5-10A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
2-4	G92(CA), G27-2(CA), M3-4, M6-2		-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
2-5	R61-30(CA)	17	-	-	X	-	4	-	-	-	-	-	-	-	-	-	-
2-6	R61-11(CA)	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
3-1	G92(CA), G27-2(CA), M3-2, M6-2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
3-2	R91-3(CA)	17	-	-	-	X	3	-	-	-	-	-	-	-	-	-	-
3-3	R5-10A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
3-4	R61-32(CA)	17	-	-	X	-	4	-	-	-	-	-	-	-	-	-	-
3-5	R61-9(CA)	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
4-1	R89CA), R10-6(L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
4-2	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
5-1	R89(CA), R10-6(L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
5-2	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
5-3	R91-3(CA)	17	-	-	-	X	3	-	-	-	-	-	-	-	-	-	-
5-4	R5-10A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
5-5	G92(CA), G27-2(CA), M3-4, M6-2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
5-6	G92(CA), G27-2(CA), M3-4, M6-2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
6-1	G92(CA), G27-2(CA), M3-2, M6-2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
6-2	R5-10A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
6-3	R91-3(CA)	17	-	-	-	X	2	-	-	-	-	-	-	-	-	-	-
6-4	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
6-5	R89(CA), R10-6(L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
6-6	R61-7(CA)	17	-	-	X	-	2	-	-	-	-	-	-	-	-	-	-
7-1	R89(CA), R10-6(L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
7-2	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
7-3	R91-3(CA)	17	-	-	-	X	2	-	-	-	-	-	-	-	-	-	-
7-4	R5-10A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
7-5	G92(CA), G27-2(CA), M3-4, M6-2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
8-1	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
9-1	R89(CA), R10-6(L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
10-1	G92(CA), G27-2(CA), M3-2, M6-2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
10-2	R5-10A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
10-3	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
11-1	R89(CA), R10-6(L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
11-2	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
11-3	R91-3(CA)	17	-	-	-	X	2	-	-	-	-	-	-	-	-	-	-
11-4	R5-10A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
11-5	G92(CA), G27-2(CA), M3-4, M6-2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
12-1	R89(CA), R10-6(R)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
12-2	R89(CA), R10-6(L)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
12-3	R5-10A	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
12-4	G92(CA), G27-2(CA), M3-2, M6-2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL							22	-	5	19	-	-	-	-	-	31	

NOTE:

1. EXACT LOCATION & POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER. POST LENGTHS GIVEN ARE APPROXIMATE. EXACT LENGTH TO BE DETERMINED BY THE ENGINEER.

DELINEATORS AND OBJECT MARKERS

	DELINEATORS	OBJECT MARKERS	REMARK
	EA	EA	
CEDAR Ave EB ENTRANCE RAMP	19	1	RESET
CEDAR Ave WB ENTRANCE RAMP	15		
PEPPER Ave WB ENTRANCE RAMP	14		
PEPPER Ave EB ENTRANCE RAMP	14		
RANCHO Ave EB ENTRANCE RAMP	5		
RANCHO Ave WB ENTRANCE RAMP	11	3	RESET
MOUNT VERNON Ave WB ENTRANCE RAMP	7		
MOUNT VERNON Ave EB ENTRANCE RAMP	5		
LA CADENA WB ENTRANCE RAMP	5		
9TH STREET EB ENTRANCE RAMP	10		
TOTAL	105	4	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

SIGN QUANTITIES

SQ-1

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 13:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	120	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

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

SIGN PANEL MATERIAL SUMMARY

SIGN CODE	SIGN SIZE L x D (in x in)	SIGN AREA (SQFT)	SINGLE FACED	DOUBLE FACED	BACKGROUND		LEGEND		GRAFFITI FILM		ROADSIDE								OVERHEAD			REMARKS
											SINGLE-SHEET				LAMINATED							
											FRAMED ALUMINUM		UNFRAMED ALUMINUM									
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	STANDARD	PREMIUM	0.063 in	0.080 in	0.063 in	0.080 in	1 in TYPE B	2.5" TYPE B	2.5 in TYPE H	ROADSIDE FORMED	LAMINATED TYPE A	FORMED W/O RSPF	FORMED WITH RSPF	
R89 (CA)	24 x 6	1 (x17)= 17	X	-	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	
R10-6(R)	24 x 36	6 (x9)= 54	X	-	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	
R10-6(L)	24 x 36	6 (x8)= 48	X	-	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	
R91-3 (CA)	48 x 60	20 (x12)= 240	X	-	WHITE	IV	BLACK	IV	-	X	-	-	-	X	-	-	-	-	-	-	-	
R61-30 (CA)	36 x 30	7.5 (x4)= 30	X	-	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	
R61-32 (CA)	36 x 30	7.5 (x4)= 30	X	-	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	
R61-7 (CA)	36 x 30	7.5 (x2)= 15	X	-	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	
D3-1	72 x 18	1 (x9)= 9	-	X	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	MAST ARM MOUNTED SIGN
D3-1	72 x 18	1 (x9)= 9	-	X	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	MAST ARM MOUNTED SIGN
D3-1	66 x 18	1 (x8.25)= 8.25	-	X	WHITE	IV	BLACK	IV	-	X	-	-	X	-	-	-	-	-	-	-	-	MAST ARM MOUNTED SIGN
TOTAL		461*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

* 220.25 SQFT 0.063 in
240 SQFT 0.080 in

SIGN QUANTITIES
(CONTRACTOR FURNISHED)

SQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: VU TRAN
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 13:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	121	260

Robert S Lyles Jr. 3-28-11
REGISTERED CIVIL ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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

ROADWAY QUANTITIES

LOCATION	HOT MIX ASPHALT (TYPE C)	CLASS 2 AGGREGATE BASE	LIQUID ASPHALT (PRIME COAT)	TACK COAT	ROADWAY EXCAVATION	(N) EMBANKMENT
	TON	CY	TON	TON	CY	CY
CEDAR Ave WB ENTRANCE RAMP	2757	394	1.9	1.7	2370	747
CEDAR Ave EB ENTRANCE RAMP	3016	440	2.1	1.9	3317	812
PEPPER Ave WB ENTRANCE RAMP	1908	296	1.4	1.1	1806	671
PEPPER Ave EB ENTRANCE RAMP	2979	479	2.3	1.6	1780	9160
RANCHO Ave WB ENTRANCE RAMP	2170	348	1.7	1.1	1491	418
RANCHO Ave EB ENTRANCE RAMP	773			1.0		
9th St WB ENTRANCE RAMP	327			0.4	7	
9th St EB ENTRANCE RAMP	828	73	0.4	0.7	313	12
Mt VERNON Ave WB ENTRANCE RAMP	1797	289	1.4	0.9	2653	35
Mt VERNON Ave EB ENTRANCE RAMP	1510	234	1.1	0.9	1487	460
TOTAL	18066	2553	12.3	11.3	15224	12315

FENCE

LOCATION	LOCATION	RECONSTRUCT CHAIN LINK FENCE	RECONSTRUCT CHAIN LINK GATE
	Rt/Lt	LF	EA
CEDAR Ave WB ENTRANCE RAMP - STA 719+00 A1	Lt	150	1
PEPPER Ave WB ENTRANCE RAMP - STA 851+95 B1	Lt	30	
TOTAL		180	1

NOTE: (N) - FOR INFORMATION ONLY. NOT A SEPARATE PAYABLE ITEM.

COLD PLANE ASPHALT CONCRETE PAVEMENT

LOCATION	SQYD
CEDAR Ave WB ENTRANCE RAMP	5210
CEDAR Ave EB ENTRANCE RAMP	5435
PEPPER Ave WB ENTRANCE RAMP	2940
PEPPER Ave EB ENTRANCE RAMP	4095
RANCHO Ave WB ENTRANCE RAMP	2995
RANCHO Ave EB ENTRANCE RAMP	4638
9th St WB ENTRANCE RAMP	1960
9th St EB ENTRANCE RAMP	2870
Mt VERNON Ave WB ENTRANCE RAMP	2479
Mt VERNON Ave EB ENTRANCE RAMP	2317
TOTAL	34939

ROCK BLANKET

LOCATION	ROADWAY EXCAVATION (GORE REMOVAL)	ROCK BLANKET
	CY	SQYD
CEDAR Ave WB ENTRANCE RAMP	69	656
CEDAR Ave EB ENTRANCE RAMP		404
PEPPER Ave WB ENTRANCE RAMP		248
PEPPER Ave EB ENTRANCE RAMP	56	248
RANCHO Ave WB ENTRANCE RAMP	30	337
RANCHO Ave EB ENTRANCE RAMP	37	506
9th St WB ENTRANCE RAMP	56	1053
9th St EB ENTRANCE RAMP		634
Mt VERNON Ave WB ENTRANCE RAMP	53	621
Mt VERNON Ave EB ENTRANCE RAMP	52	587
TOTAL	353	5294

CURB RAMP DETECTABLE WARNING SURFACE

LOCATION	SQFT
9th St EB ENTRANCE RAMP, Rt	12
TOTAL	12

REMOVE ASPHALT CONCRETE

LOCATION	CY
9th St WB ENTRANCE RAMP, Lt	7
9th St EB ENTRANCE RAMP, Lt	6
TOTAL	13

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: ROBERT S. LYLES Jr.
CHECKED BY: ALEN NOU
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 12:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	122	260

Robert S Lyles Jr. 3-28-11
REGISTERED CIVIL ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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

REMOVE CONCRETE

LOCATION	STATION TO STATION	Loc R+/L+	CY
CEDAR AVE WB ENTRANCE RAMP	724+47.02 18.19′ L+ TO 725+04.61 104.29′ L+ A1	L+	10.7
CEDAR AVE WB ENTRANCE RAMP	724+76.33 5.88′ R+ TO 724+86.97 26.65′ R+ A1	R+	3.0
CEDAR AVE EB ENTRANCE RAMP	725+61.72 43.04′ L+ TO 725+64.85 1.93′ R+ A2	L+	4.0
CEDAR AVE EB ENTRANCE RAMP	725+64.82 2′ R+ TO 740+92.71 2′ L+ A2	L+	97.5
CEDAR AVE EB ENTRANCE RAMP	725+56.40 77.43′ R+ TO 725+64.46 58.43′ R+ A2	R+	1.8
PEPPER AVE WB ENTRANCE RAMP	845+23.89 L+ 15.17′ L+ TO 855+71.39 62.28 L+ B1	L+	70.6
PEPPER AVE WB ENTRANCE RAMP	849+39.79 2′ R+ B1 TO 18+11.88 20′ L+ PEPPER AVE	R+	41.5
PEPPER AVE EB ENTRANCE RAMP	855+86.14 26.6′ L+ TO 863+41.00 2′ L+ B2	L+	49.8
PEPPER AVE EB ENTRANCE RAMP	11+41.47 34.5′ R+ PEPPER AVE TO 868+00 12′ R+ B2	R+	89.7
RANCHO AVE WB ENTRANCE RAMP	STA 907+37.15 18.9′ L+ TO 907+66.13 97.23′ L+ C1	L+	12.8
9th St WB ENTRANCE RAMP	942+61.89 20′ L+ TO 943+05.27 28.41 L+ D1	L+	1.3
9th St WB ENTRANCE RAMP	943+05.27 28.41′ L+ TO 943+12.48 55.92 L+ D1	L+	4.2
9th St WB ENTRANCE RAMP	943+05.83 R+ TO 943+21.40 14′ R+ D1	R+	2.8
9th St EB ENTRANCE RAMP	40+84.97 32.9′ L+ TO 41+09.97 4′ L+ D2	L+	8.5
9th St EB ENTRANCE RAMP	41+09.97 4′ L+ D2 TO 48+60.14 2′ L+ D2	L+	54.4
Mt VERNON AVE WB ENTRANCE RAMP	67+69.48 25.45′ L+ TO 67+75.61 L+ 46.21′ L+ E1	L+	0.8
TOTAL			453.4

MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)

LOCATION	STATION TO STATION	Loc R+/L+	CY
CEDAR AVE WB ENTRANCE RAMP	724+47.64 32′ L+ TO 725+04.61 104.29′ L+ A1	L+	14.2
CEDAR AVE WB ENTRANCE RAMP	724+76.33 5.88′ R+ TO 724+86.97 26.65′ R+ A1	R+	3.0
CEDAR AVE EB ENTRANCE RAMP	725+61.72 43.04′ L+ TO 726+01.62 4′ L+ A2	L+	6.7
CEDAR AVE EB ENTRANCE RAMP	725+56.40 77.43′ R+ TO 725+64.46 58.43′ R+ A2	R+	1.8
PEPPER AVE WB ENTRANCE RAMP	855+28.25 9.3′ R+ B1 TO 18+11.88 20′ L+ PEPPER AVE	R+	3.5
RANCHO AVE WB ENTRANCE RAMP	STA 907+17.87 32′ L+ TO 907+66.13 97.23′ L+ C1	L+	11.2
9th St WB ENTRANCE RAMP	942+61.89 20′ L+ TO 943+05.27 28.41 L+ D1	L+	1.4
9th St WB ENTRANCE RAMP	943+05.27 28.41′ L+ TO 943+12.48 55.92 L+ D1	L+	4.4
9th St WB ENTRANCE RAMP	943+05.83 R+ TO 943+21.40 14′ R+ D1	R+	2.8
9th St EB ENTRANCE RAMP	40+84.97 32.9′ L+ TO 41+09.97 4′ L+ D2	L+	7.5
TOTAL			56.5

SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: ROBERT S. LYLES Jr.
CHECKED BY: ALEN NOU
REVISED BY
DATE REVISED

LAST REVISION 03-28-11 DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	123	260

Robert S Lyles Jr. 3-28-11
REGISTERED CIVIL ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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

METAL BEAM GUARD RAILING

LOCATION	LAYOUT TYPE	CONNECTION DETAIL	LOCATION	METAL BEAM GUARD RAILING (WOOD POST)	REMOVE METAL BEAM GUARD RAILING	RECONSTRUCT METAL BEAM GUARD RAILING	END ANCHOR ASSEMBLY (TYPE SFT)	ALTERNATIVE IN-LINE TERMINAL SYSTEM	ALTERNATIVE FLARED TERMINAL SYSTEM	TRANSITION RAILING (TYPE WB)	END CAP (TYPE TC)
			Rt/Lt	LF	LF	LF	EA	EA	EA	EA	EA
CEDAR Ave WB ENTRANCE RAMP - Sta 722+85.50 Lt A1	12B	AA	Lt						1	1	1
CEDAR Ave EB ENTRANCE RAMP - Sta 726+02 Lt A2		HH	Lt	925			1			1	1
CEDAR Ave EB ENTRANCE RAMP - Sta 738+02 Lt A2			Lt		88						
PEPPER Ave WB ENTRANCE RAMP - Sta 850+19 Lt B1	12B	DD	Lt						1	1	1
PEPPER Ave WB ENTRANCE RAMP - Sta 855+61 Rt B1			Lt			75	1				
PEPPER Ave EB ENTRANCE RAMP - Sta 14+66 Rt PEPPER AVE			Rt	600			1				
PEPPER Ave EB ENTRANCE RAMP - Sta 11+44 Rt PEPPER AVE	11A		Rt	1300			1	1			
9th St WB ENTRANCE RAMP - Sta 937+72 Lt Rte 10			Lt			350	1				
9th St EB ENTRANCE RAMP - Sta 44+66 Rt Rte 10			Rt			200	1				
Mt VERNON Ave WB ENTRANCE RAMP - Sta 64+98 Rt E1			Rt			100	1				
Mt VERNON Ave WB ENTRANCE RAMP - Sta 66+07 E1	12A	DD	Lt					1		1	1
Mt VERNON Ave EB ENTRANCE RAMP - Sta 75+33 E2			Rt			88	1				
TOTAL				2825	88	813	8	2	2	4	4

CONCRETE BARRIER AND RAILINGS

LOCATION	LOCATION	CONCRETE BARRIER (TYPE 26A Mod)	CONCRETE BARRIER (TYPE 736A)	CONCRETE BARRIER (TYPE 736B)	CONCRETE BARRIER (TYPE 60C)	CONCRETE BARRIER (TYPE 60D)	REMOVE BARRIER RAILING	TUBULAR HAND RAILING	CHAIN LINK RAILING (TYPE 7)	CABLE RAILING
	Rt/Lt	LF	LF	LF	LF	LF	LF	LF	LF	LF
CEDAR Ave WB ENTRANCE RAMP - Sta 718+87.50 A1	Lt		204			192			204	
CEDAR Ave WB ENTRANCE RAMP - Sta 720+79.50 A1	Lt				64				64	
CEDAR Ave WB ENTRANCE RAMP - Sta 720+43.50 A1	Lt			30					30	
CEDAR Ave WB ENTRANCE RAMP - Sta 721+73.50 A1	Lt		112						112	
CEDAR Ave EB ENTRANCE RAMP - Sta 725+66.72 A2	Lt	60					103	60		
PEPPER Ave WB ENTRANCE RAMP - Sta 849+31.26 B1	Lt					88				
Mt VERNON Ave WB ENTRANCE RAMP - Sta 60+90.21 E1	Lt					592				82
Mt VERNON Ave EB ENTRANCE RAMP - Sta 75+36.55 E2	Rt									144
TOTAL		60	316	30	64	872	103	60	410	226

SUMMARY OF QUANTITIES

Q-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

ROBERT S. LYLES Jr. — REVISED BY
ALEN NOU — DATE REVISED
CALCULATED-DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR
DU LU

LAST REVISION 03-28-11 | DATE PLOTTED => 20-APR-2011 | TIME PLOTTED => 09:30

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	124	260

Robert S Lyles Jr. 3-28-11
REGISTERED CIVIL ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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

HMA DIKE QUANTITIES

LOCATION	STATION TO STATION	LOCATION	REMOVE AC DIKE	PLACE HMA DIKE				HMA (TYPE A)
				TYPE C	TYPE D	TYPE E	TYPE F	
		RT/LT	LF	LF	LF	LF	LF	TON
CEDAR Ave WB ENTRANCE RAMP	713+17.21, 19.25′ Lt TO 718+87.50, 35′ Lt A1	Lt				570		14.9
CEDAR Ave WB ENTRANCE RAMP	722+85.50, 32′ Lt TO 723+09.50, 32′ Lt A1	Lt					24	0.3
CEDAR Ave WB ENTRANCE RAMP	723+10.50, 32′ Lt TO 724+47.64, 32′ Lt A1	Lt		138				1.1
CEDAR Ave EB ENTRANCE RAMP	727+12.65 32.80′ Rt TO 734+68.76 32′ Rt A2	Rt	756			756		19.7
CEDAR Ave EB ENTRANCE RAMP	734+92.97 32′ Rt TO 739+94.81 25.30′ Rt A2	Rt	167			502		13.1
CEDAR Ave EB ENTRANCE RAMP	739+94.81 25.30′ Rt TO 742+59.81 23′ Rt A2	Rt			264			15.5
PEPPER Ave WB ENTRANCE RAMP	844+78.01 87.11′ Lt Rte 10 TO 849+31.26 26.62′ Lt B1	Lt				449		11.7
PEPPER Ave WB ENTRANCE RAMP	850+20.27 32.95′ Lt TO 850+44.51 33.99′ Lt B1	Lt					24	0.3
PEPPER Ave WB ENTRANCE RAMP	850+44.51 33.99′ Lt TO 851+06.98 36.44′ Lt B1	Lt		63				0.5
PEPPER Ave WB ENTRANCE RAMP	851+06.98 36.44′ Lt B1 TO 19+39.23 32′ Lt′ PEPPER AVE	Lt				494		12.9
PEPPER Ave EB ENTRANCE RAMP	11+44.36 36.99′ Rt TO 11+94.27 39.88′ Rt PEPPER AVE	Rt		50				0.2
PEPPER Ave EB ENTRANCE RAMP	11+94.27 39.88′ Rt PEPPER AVE TO 868+15.58 20.97 Rt B2	Rt					1300	17.2
PEPPER Ave EB ENTRANCE RAMP	868+15.58 20.97 Rt B2 TO 868+91.32 112.13 Rt "℄ Rte 10"	Rt				74		1.9
PEPPER Ave EB ENTRANCE RAMP	14+65.89 20′ Rt PEPPER AVE TO 859+95.58 4′ Lt B2	Lt					498	6.6
PEPPER Ave EB ENTRANCE RAMP	859+95.58 4′ Lt TO 861+20.00 4′ Lt B2	Lt		125				1.0
PEPPER Ave EB ENTRANCE RAMP	863+00.72 111.78′ Rt TO 863+40.50 111.68′ Rt"℄ Rte 10"	Rt	40					
PEPPER Ave EB ENTRANCE RAMP	863+00.72 111.78′ Rt TO 864+59.88 110.89′ Rt "℄ Rte 10"	Rt				158		4.1
RANCHO Ave WB ENTRANCE RAMP	900+10.73 20.83′ Lt TO 907+17.87 Lt 32′ C2	Lt				710		18.5
9th St EB ENTRANCE RAMP	41+09.07 4′ Lt TO 48+08.23 4′ Lt D2	Lt				698		18.2
Mt VERNON Ave WB ENTRANCE RAMP	60+21.86 20′ Lt TO 60+90.21 30′ Lt E1	Lt				69		1.8
Mt VERNON Ave WB ENTRANCE RAMP	66+82.97 35′ Lt TO 67+06.84 35′ Lt E1	Lt					24	0.3
Mt VERNON Ave WB ENTRANCE RAMP	67+06.84 35′ Lt TO 67+75.61 46.21′ Lt E1	Lt		78				0.6
Mt VERNON Ave EB ENTRANCE RAMP	75+32.48 82.69′ Rt TO 75+96.60 33′ Rt E2	Rt					88	1.2
Mt VERNON Ave EB ENTRANCE RAMP	78+73.02 38.83′ Rt TO 80+00.00 Rt 32.29′ Rt E2	Rt				115		3.0
TOTAL			963	454	264	4595	1958	164.6

SUMMARY OF QUANTITIES

Q-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: ROBERT S. LYLES Jr.
CHECKED BY: ALEN NOU
REVISED BY
DATE REVISED

LAST REVISION 03-28-11 DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	125	260

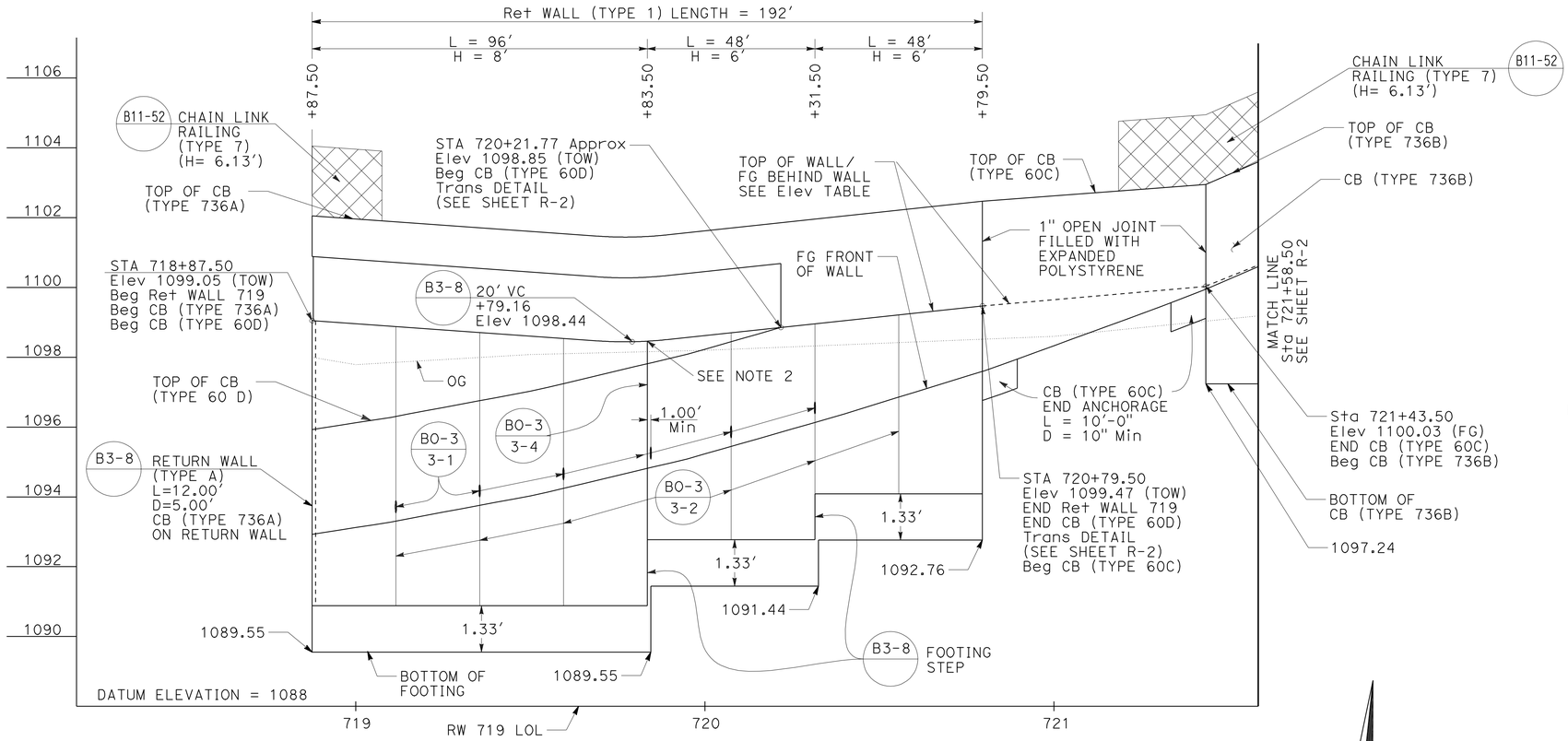
Robert S. Lyles Jr. 1-13-11
REGISTERED CIVIL ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

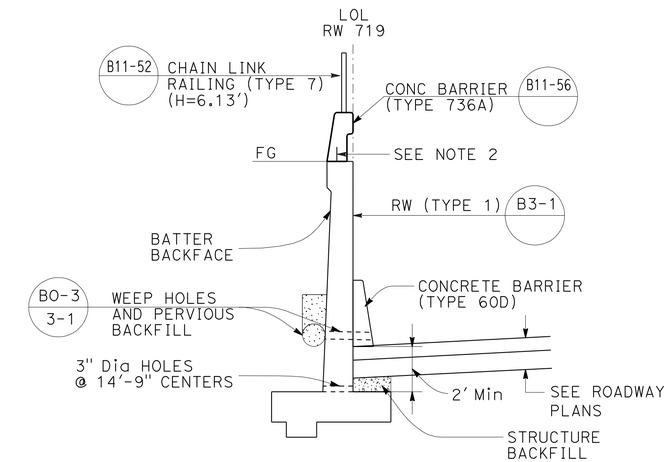
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:
1. FOR DETAILS NOT SHOWN, SEE Std PLANS A76A, B0-3, B0-13, B3-1, B3-8, B3-9, B11-52 AND B11-56.
2. THE WATERSTOP IN THE WALL EXPANSION JOINTS SHALL BE EXTENDED 6" INTO THE CONCRETE BARRIER (TYPE 736A).
3. THE EXISTING FOUNDATION MATERIAL BENEATH THE PROPOSED Ret WALL FOOTING SHALL BE SCARIFIED AND COMPACTED TO NOT LESS THAN 95% RELATIVE COMPACTION.
4. CONCRETE BARRER (TYPE 60C) SHALL BE PLACED OVER 1'-0" Min WELL COMPACTED BASE.
5. CHAIN LINK RAILING (TYPE 7) SHALL ALSO BE INSTALLED ON THE CB BARRIER (TYPE 736 A) ON THE RETURN WALL.



ELEVATION

SCALE Horiz 1" = 20'
Vert 1" = 2'

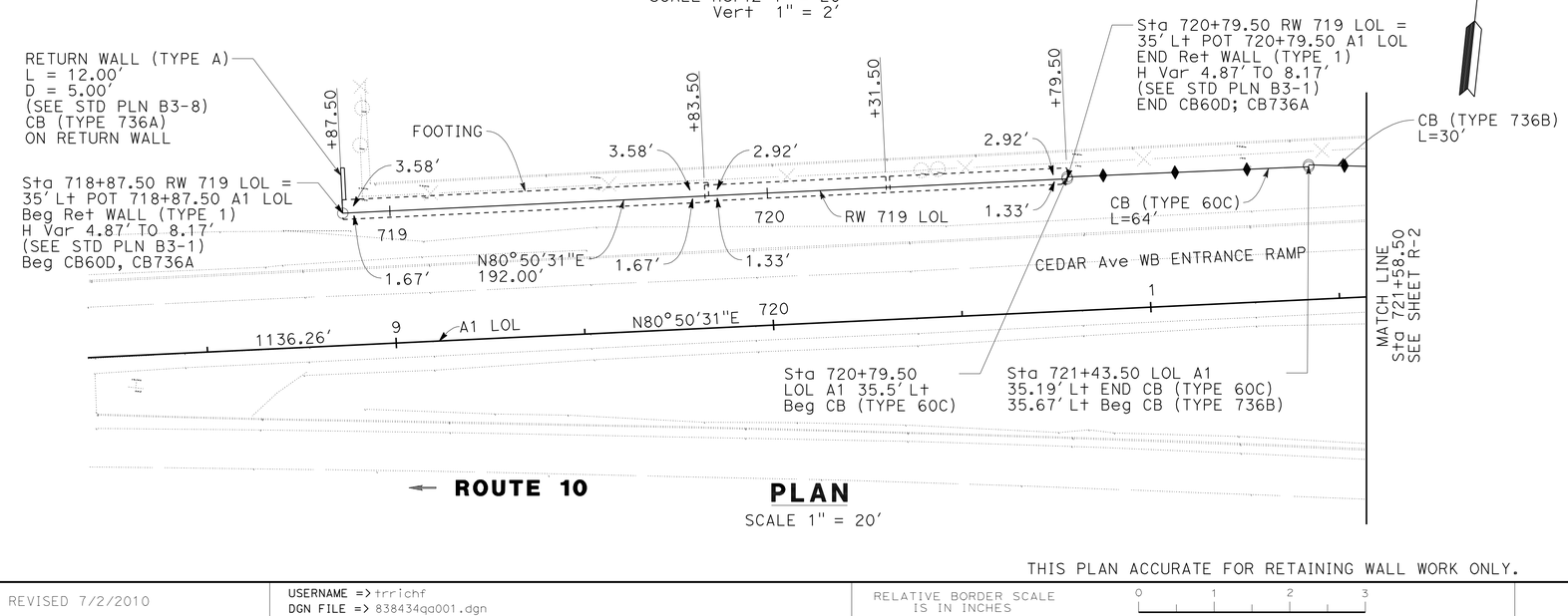


TYPICAL SECTION

NO SCALE
RETAINING WALL 719 (TYPE 1)
STA 718+87.50 TO STA 720+79.50

RETAINING WALL ELEVATION TABLE (@ WEAKENED PLANES/EXPANSION JOINTS)		
RW 719 LOL STATION	ELEVATION	
	TOW	FG (BACK OF WALL)
718+87.50	1099.05	1099.05
719+11.50	1098.88	1098.88
719+35.50	1098.71	1098.71
719+59.50	1098.54	1098.54
719+83.50	1098.46	1098.46
720+07.50	1098.70	1098.70
720+31.50	1098.96	1098.96
720+55.50	1099.21	1099.21
720+79.50	1099.47	1099.47

* TOW - TOP OF WALL



PLAN

SCALE 1" = 20'

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

RETAINING WALL PLAN
RETAINING WALL No. 719

SCALE AS SHOWN

R-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: RICK LAM
CHECKED BY: ROBERT S. LYLES Jr.
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 12:24

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	126	260

Robert S. Lyles Jr. 1-13-11
REGISTERED CIVIL ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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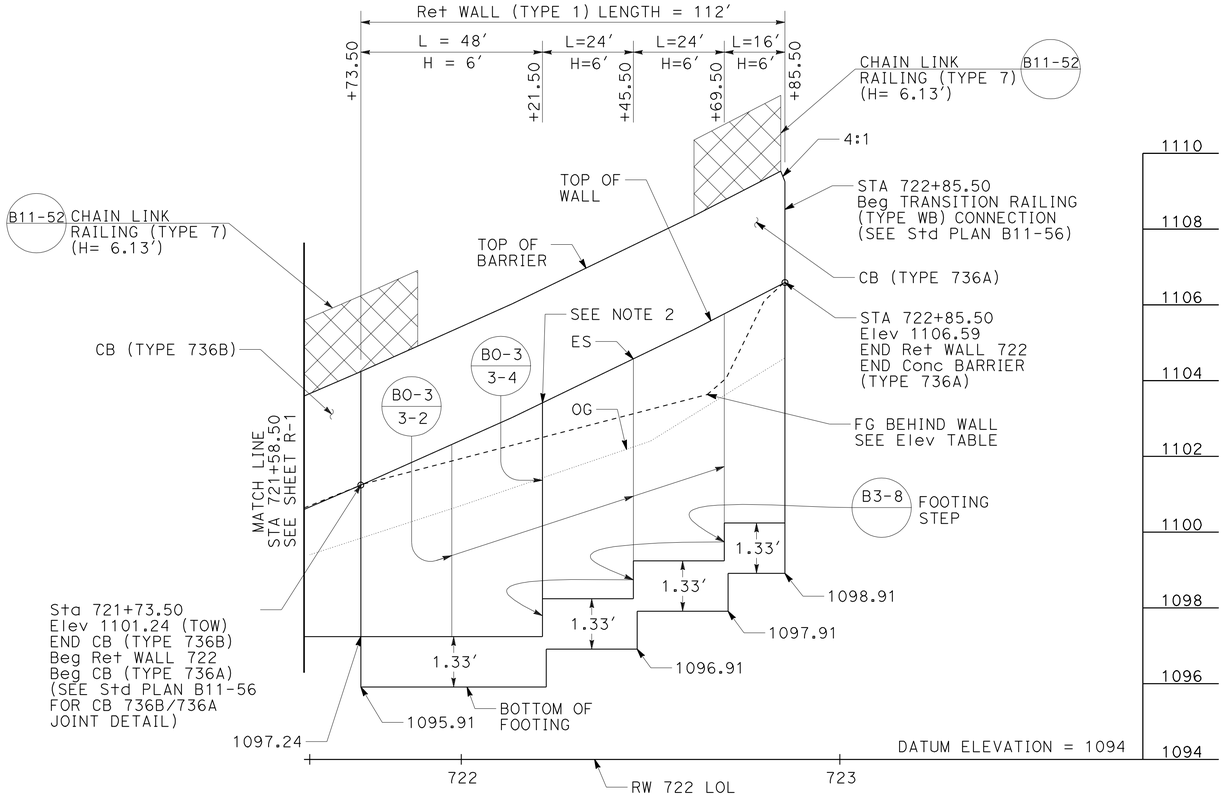
NOTES:

1. FOR DETAILS NOT SHOWN, SEE Std PLANS A76A, B0-3, B0-13, B3-1, B3-8, B3-9, B11-52 AND B11-56.
2. THE WATERSTOP IN THE WALL EXPANSION JOINT SHALL BE EXTENDED 6" INTO THE CONCRETE BARRIER (TYPE A).
3. THE EXISTING FOUNDATION MATERIAL BENEATH THE PROPOSED FOOTING SHALL BE SCARIFIED AND COMPACTED TO NOT LESS THAN 95% RELATIVE COMPACTION.

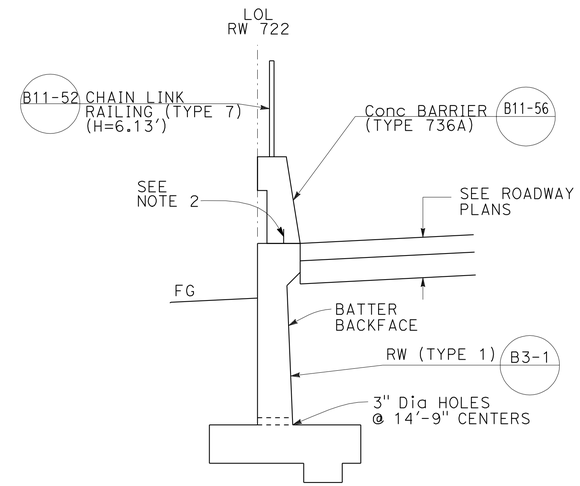
CONSTRUCTION NOTES:

1. FOR Sta 720+21.77 TO Sta 720+79.50 LOL RW 719, CONCRETE BARRIER (TYPE 60D) SHALL BE MONOLITHICALLY POURED WITH CONCRETE BARRIER (TYPE 736A). SEE SHEET R-1.



ELEVATION

SCALE Horiz 1" = 20'
Vert 1" = 2'

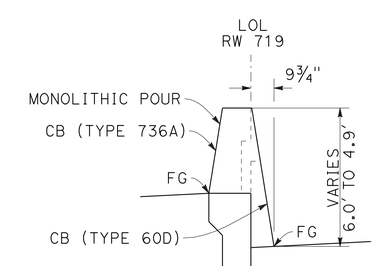


TYPICAL SECTION

NO SCALE
RETAINING WALL 722 (TYPE 1)
STA 721+73.50 TO STA 722+85.50

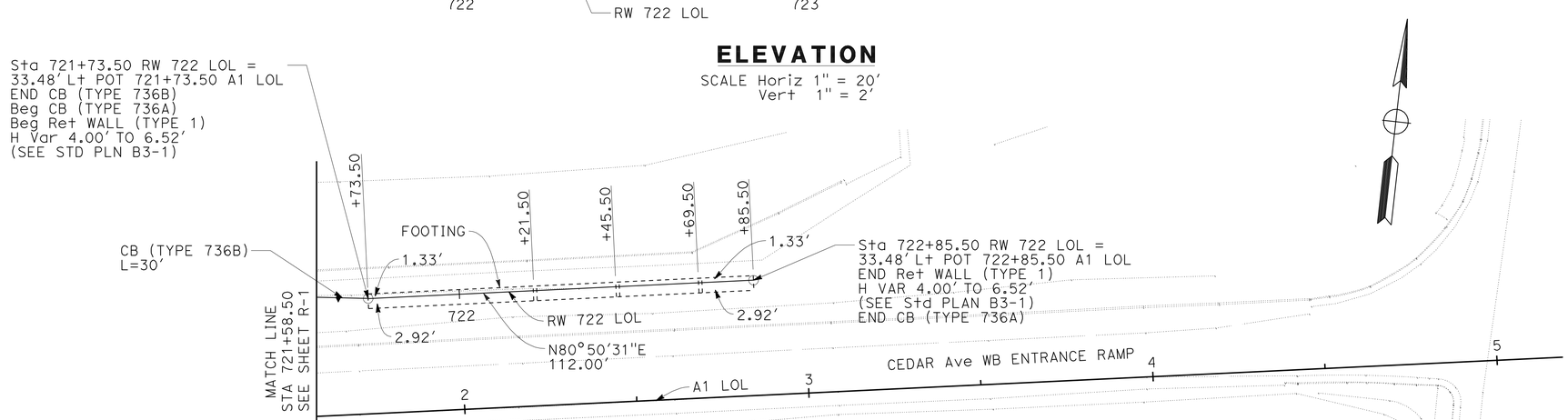
RETAINING WALL ELEVATION TABLE (@ WEAKEN PLANES/JOINTS)		
RW 722 LOL STATION	ELEVATION	
	TOW	FG (BACK OF WALL)
721+73.50	1101.24	1101.24
721+97.50	1102.31	1101.88
722+21.50	1103.42	1102.50
722+45.50	1104.58	1103.12
722+69.50	1105.76	1103.96
722+85.50	1106.59	1106.59

* TOW - TOP OF WALL



CONCRETE BARRIER (TYPE 60D) TRANSITION DETAIL

NO SCALE
STA 720+21.77 TO STA 720+79.50 LOL RW 719
(SEE CONSTRUCTION NOTE 1)



PLAN

SCALE 1" = 20'

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

RETAINING WALL PLAN
RETAINING WALL No. 722

SCALE AS SHOWN

R-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: RICK LAM
CHECKED BY: ROBERT S. LYLES Jr.
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 12:25

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	127	260

Robert S Lyles Jr. 1-13-11
REGISTERED CIVIL ENGINEER DATE

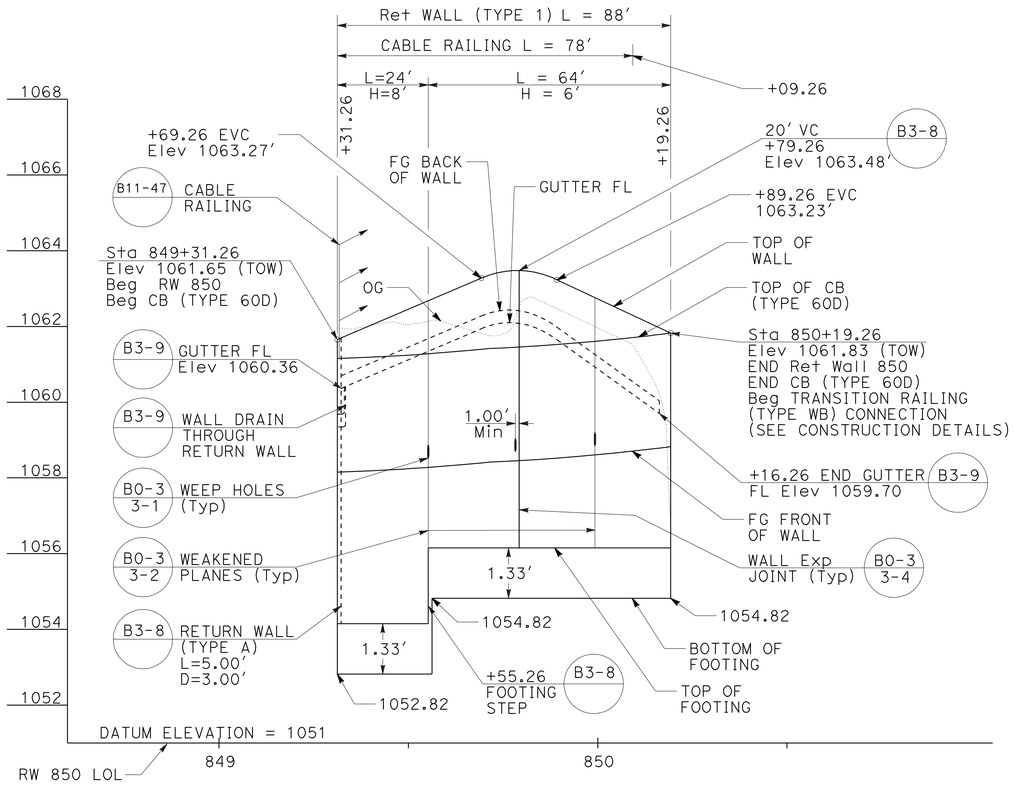
4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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

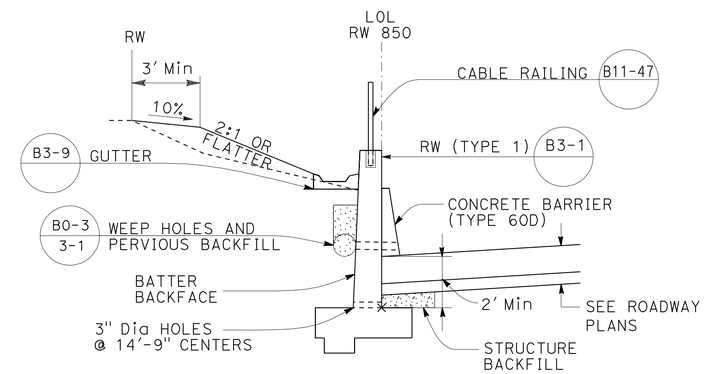
NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FOR DETAILS NOT SHOWN, SEE STD PLANS B0-3, B3-1, B3-8, B3-9, AND B11-47.
3. THE EXISTING FOUNDATION MATERIAL BENEATH THE PROPOSED FOOTING SHALL BE SCARIFIED AND COMPACTED TO NOT LESS THAN 95% RELATIVE COMPACTION.
4. INSTALL ADDITIONAL 4' CABLE RAILING ON RETURN WALL.



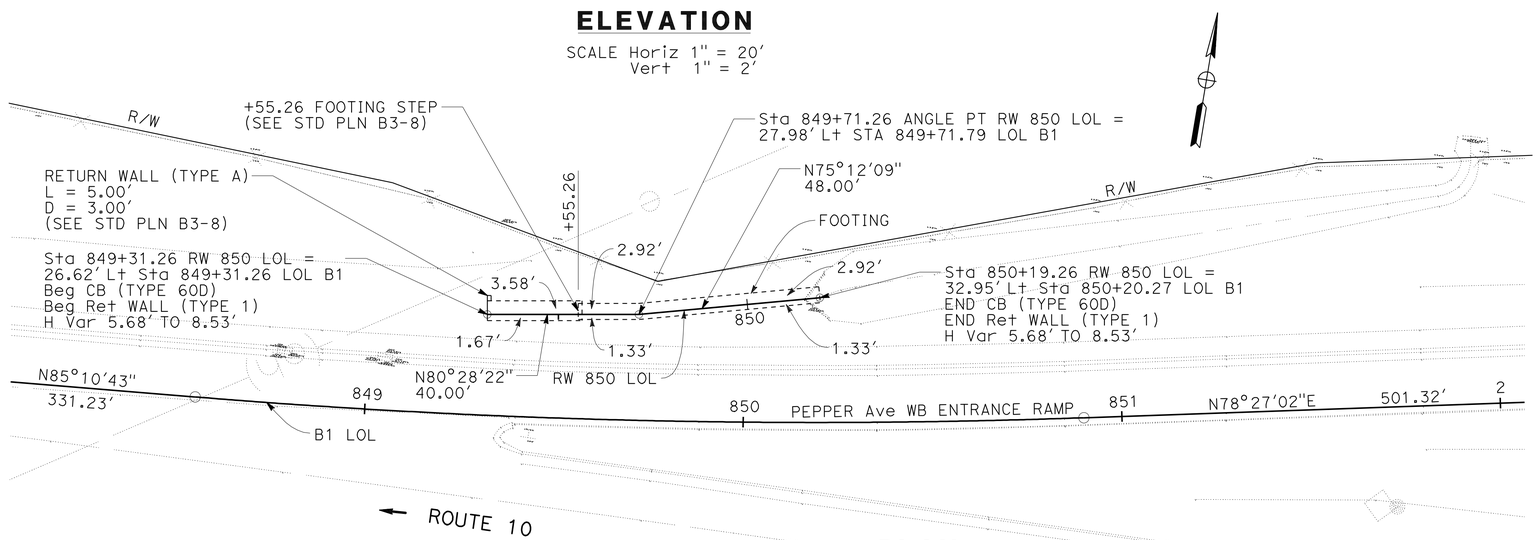
ELEVATION

SCALE Horiz 1" = 20'
Vert 1" = 2'



TYPICAL SECTION

NO SCALE
RETAINING WALL 850 (TYPE 1)
FROM Sta 849+31.26 TO Sta 850+19.26



PLAN

SCALE 1" = 20'

RETAINING WALL ELEVATIONS

RETAINING WALL ELEVATION TABLE (@ WEAKENED PLANES/JOINTS)

RW 850 LOL STATION	ELEVATION		
	TOW	FL	FG
849+31.26	1061.65	1060.36	1060.69
849+55.26	1062.68	1061.34	1061.67
849+79.26	1063.48	1062.08	1062.41
849+99.26	1062.76	1060.93	1061.26
850+19.26	1061.83	-	1060.03

* TOW - TOP OF WALL
* FL - FLOWLINE AT GUTTER
* FG - FINISH GRADE AT BACK OF WALL

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

RETAINING WALL PLAN
RETAINING WALL No. 850

SCALE AS SHOWN

R-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: RICK LAM
CHECKED BY: ROBERT S. LYLES Jr.
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 12:25

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	128	260

Robert S. Lyles Jr. 1-13-11
REGISTERED CIVIL ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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NOTES:
1. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FOR DETAILS NOT SHOWN, SEE Std PLANS B0-3, B3-1, B3-8, B3-9, AND B11-47.
3. THE EXISTING FOUNDATION MATERIAL BENEATH THE PROPOSED FOOTING SHALL BE SCARIFIED AND COMPACTED TO NOT LESS THAN 95% RELATIVE COMPACTION.
4. INSTALL ADDITIONAL 4' CABLE RAILING ON BOTH RETURN WALLS.

RETAINING WALL ELEVATIONS

RETAINING WALL ELEVATION TABLE (@ WEAKENED PLANES/JOINTS)

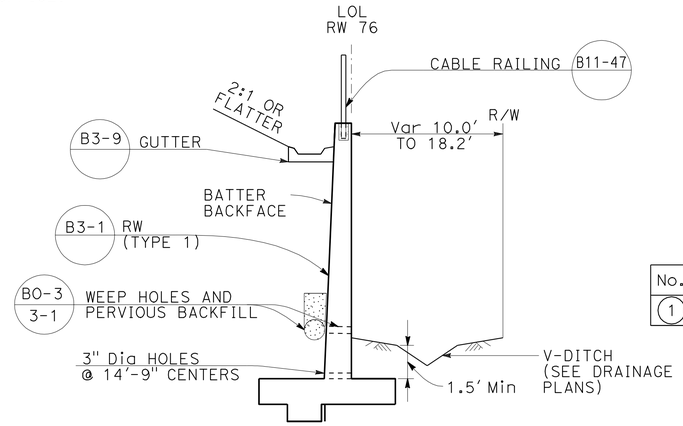
RW 76 LOL STATION	ELEVATION		
	TOW	FL	FG
75+36.55	963.50	962.43	959.50
75+56.55	968.70	967.37	959.73
75+76.55	971.30	969.97	959.96
76+00.55	970.37	969.04	960.21

RETAINING WALL ELEVATIONS CON'T

RETAINING WALL ELEVATION TABLE (@ WEAKENED PLANES/JOINTS)

RW 76 LOL STATION	ELEVATION		
	TOW	FL	FG
76+24.55	968.78	967.45	960.45
76+48.55	967.19	965.86	960.96
76+72.55	965.60	964.33	961.60

* TOW - TOP OF WALL
* FL - FLOWLINE AT GUTTER
* FG - FINISH GRADE IN FRONT OF WALL

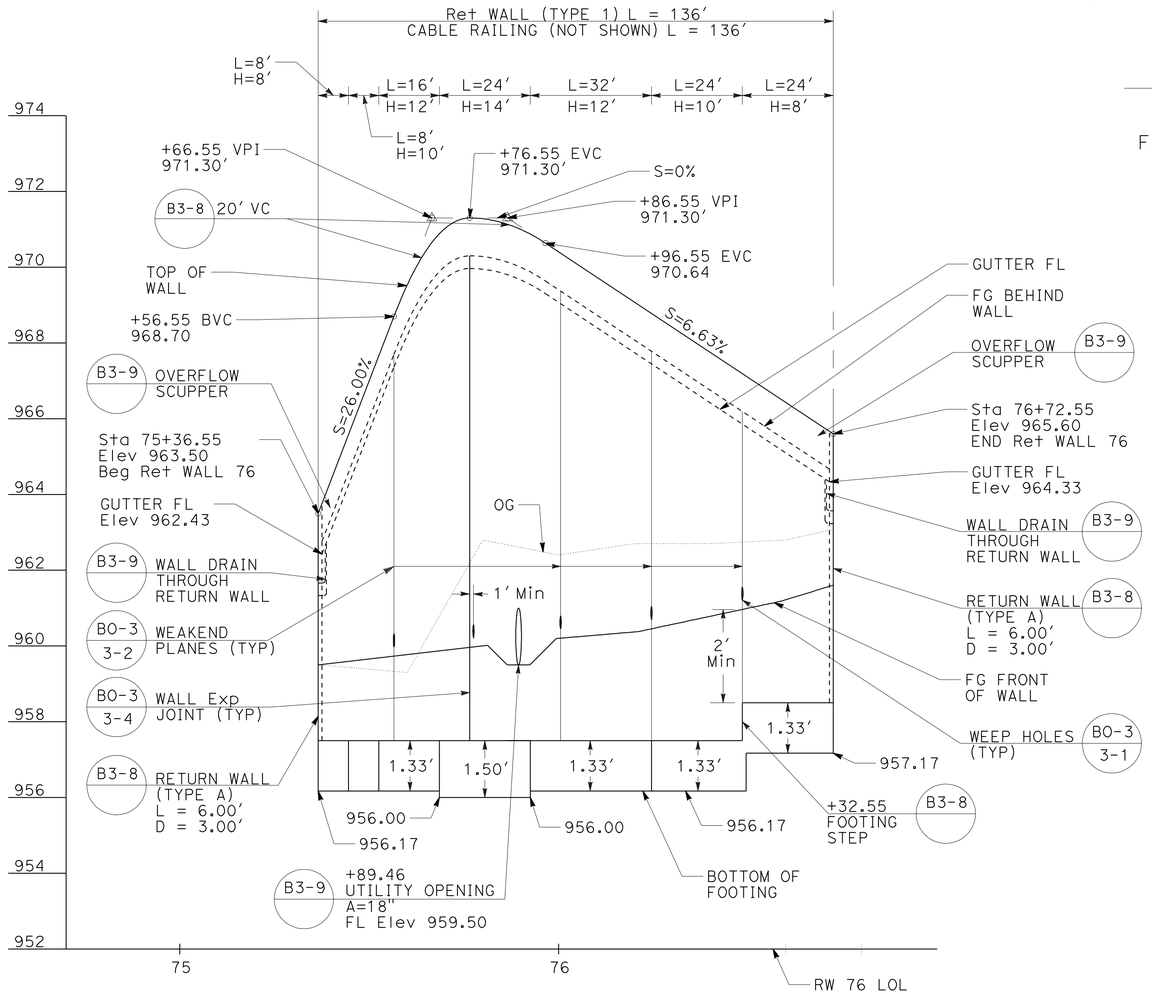


TYPICAL SECTION

NO SCALE
RETAINING WALL 76 (TYPE 1)
FROM STA 75+36.55 TO STA 76+72.55

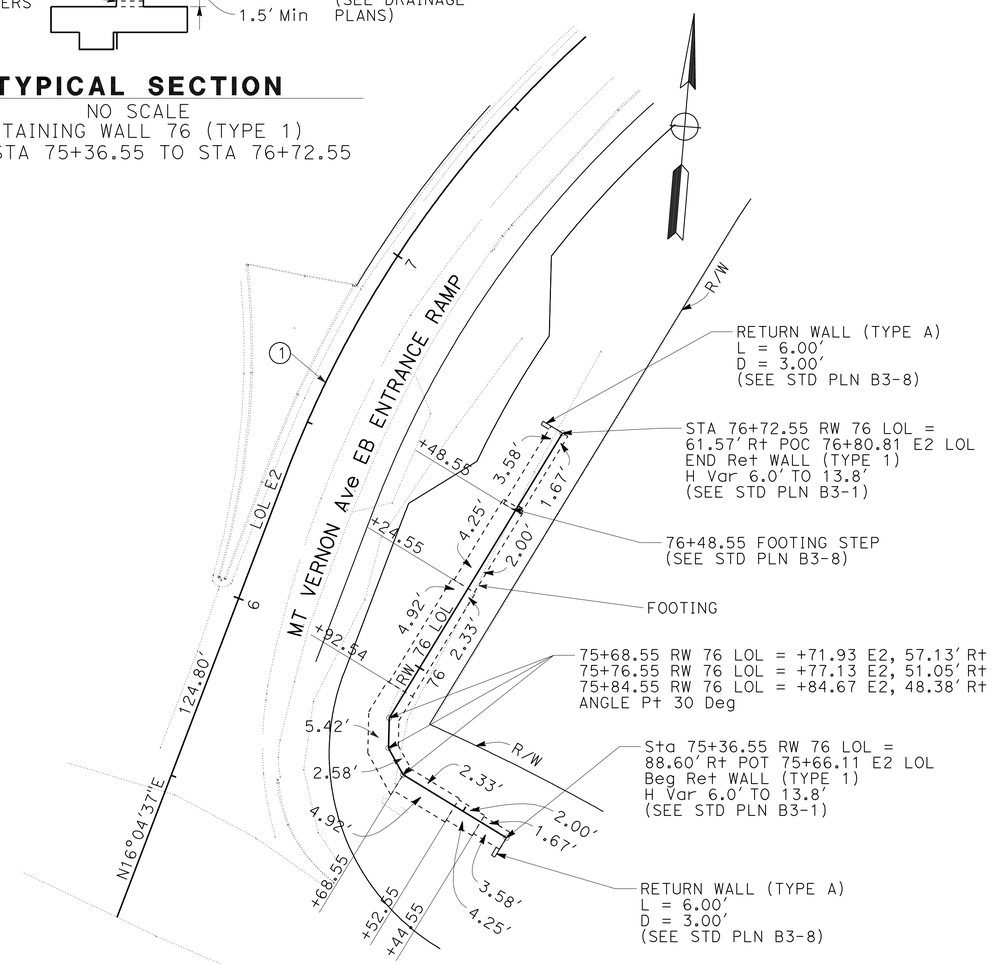
CURVE TABLE

No.	R	Δ	T	L
1	300.00'	64°27'26"	189.13'	337.50'



ELEVATION

SCALE Horiz 1" = 20'
Vert 1" = 2'



PLAN

SCALE 1" = 20'

RETAINING WALL PLAN
RETAINING WALL No. 76

SCALE AS SHOWN

R-4

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: RICK LAM
CHECKED BY: ROBERT S. LYLES Jr.
REVISED BY
DATE REVISED

LAST REVISION 01-13-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 12:25

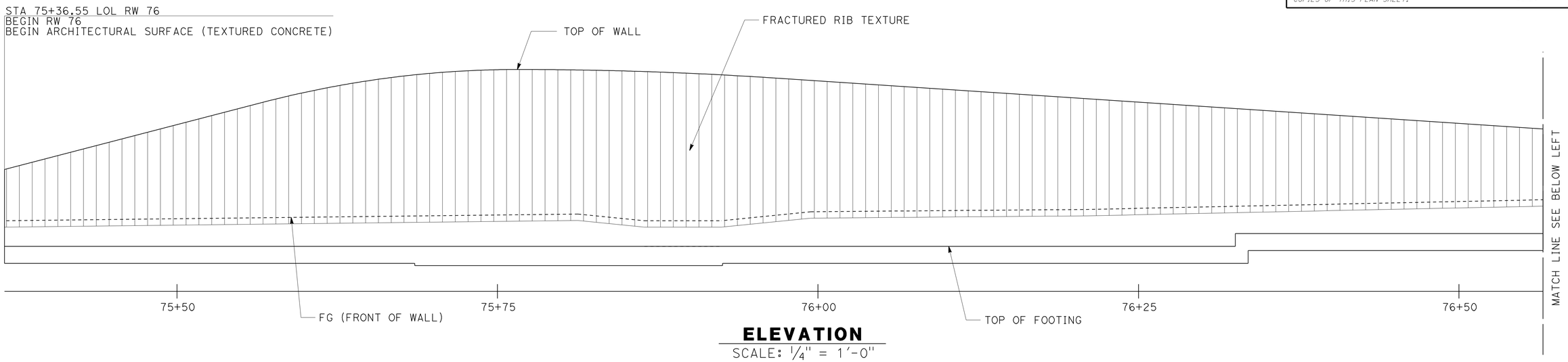
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	129	260

LICENSED LANDSCAPE ARCHITECT

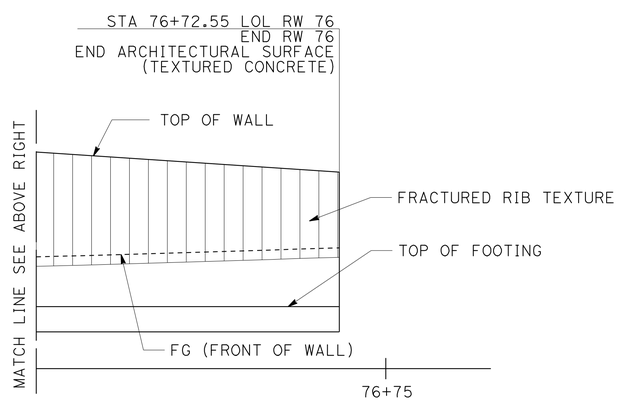
4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 3015 — Signature — 11-30-11 Renewal Date — 01-13-11 Date — STATE OF CALIFORNIA

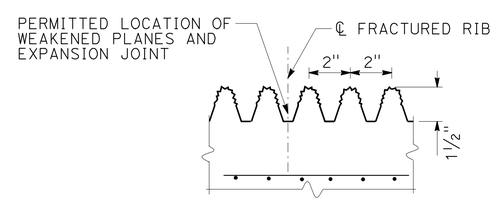
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



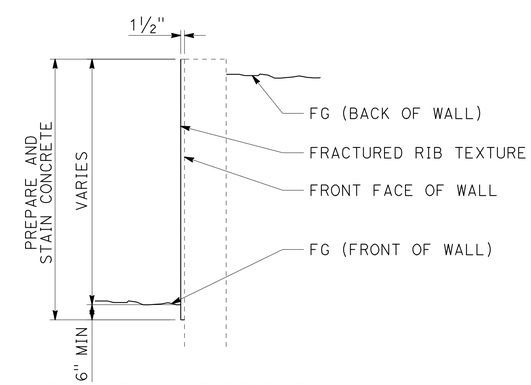
ELEVATION
SCALE: 1/4" = 1'-0"



ELEVATION
SCALE: 1/4" = 1'-0"



FRACTURED RIB TEXTURE
NOT TO SCALE



TYPICAL SECTION
NOT TO SCALE

ARCHITECTURAL TREATMENT
RETAINING WALL - 76
SCALE: AS SHOWN

R-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B
SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: MATTHEW HALL
CHECKED BY: TIM WANDS
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 12:25

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	130	260

Robert S Lyles Jr. 1-13-11
REGISTERED CIVIL ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. LYLES Jr. No. 67873 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

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

RETAINING WALL QUANTITIES

LOCATION	STATION	STRUCTURE EXCAVATION (RETAINING WALL)	STRUCTURE BACKFILL (RETAINING WALL)	STRUCTURAL CONCRETE (RETAINING WALL)	BAR REINFORCING STEEL (RETAINING WALL)	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	MINOR CONCRETE (GUTTER)
		CY	CY	CY	LB	CY	LF
2 - Ret WALL 719 (CEDAR AVE WB ONRAMP)	Sta 718+87.50 TO Sta 720+79.50	438	264	107	6159	8.2	0
2 - Ret WALL 722 (CEDAR AVE WB ONRAMP)	Sta 721+73.50 TO Sta 722+85.50	171	155	54	3115	0	0
3 - Ret WALL 850 (PEPPER AVE WB ONRAMP)	Sta 849+31.26 TO Sta 850+19.26	185	109	46	2760	3.2	84
6 - Ret WALL 76 (MT VERNON AVE EB ONRAMP)	Sta 75+36.55 TO Sta 76+72.55	285	315	122	8267	25.6	134
TOTAL		1079	843	329	20301	37.0	218

ARCHITECTURAL TREATMENT (TEXTURED CONCRETE)

WALL No.	RW/SW	STATION TO STATION LOL RETAINING WALL (UNLESS OTHERWISE SHOWN)	ARCHITECTURAL TREATMENT	PREPARE AND STAIN CONCRETE
			SQFT	SQFT
76	RW	75+36.55 TO 76+72.55	1200	1200

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: RICK LAM
CHECKED BY: ROBERT S. LYLES Jr.
REVISED BY
DATE REVISED

RETAINING WALL QUANTITIES
RQ-1

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 12:25

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	10	9.9/R24.5	131	260

REGISTERED CIVIL ENGINEER 11-1-10

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Brian Gutierrez
No. C66258
Exp. 6-6-12
CIVIL
STATE OF CALIFORNIA

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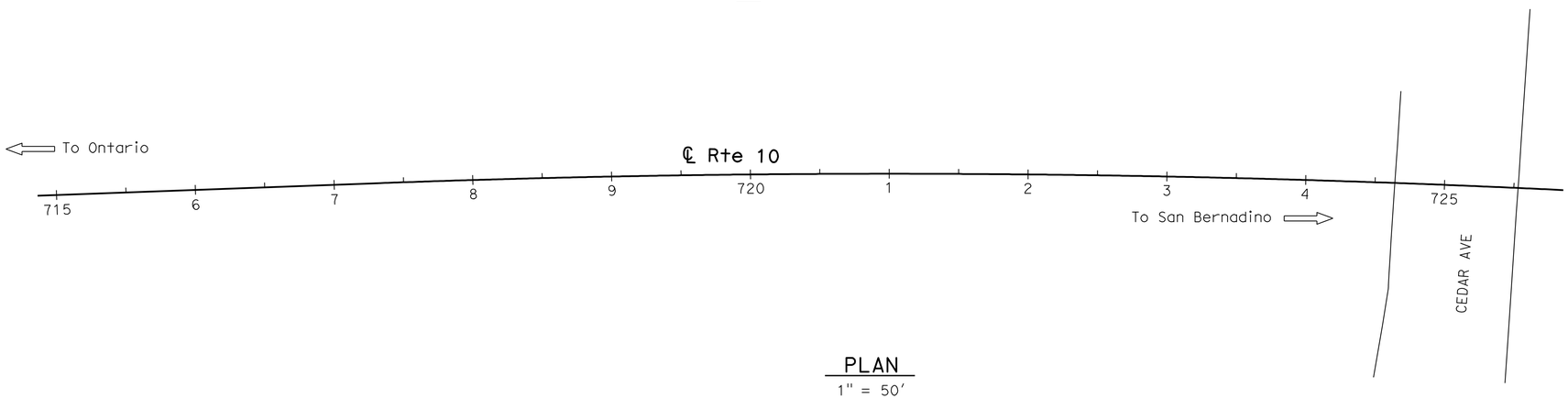
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2007 Edition).

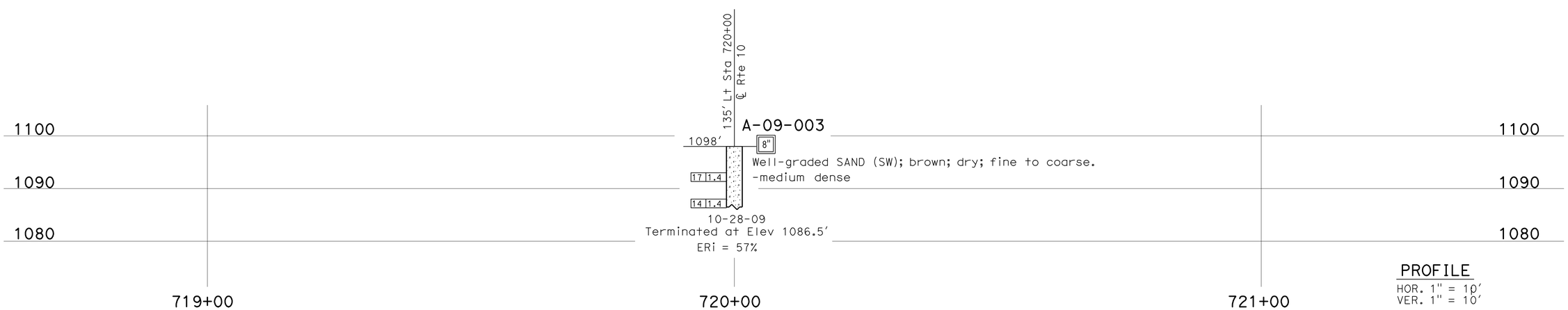
BENCH MARK

Control Point # SUHV 506
"C NAIL"
N 1848042.708
E 7644491.195
Elev 1115.510′
NAVD 88



PLAN
1" = 50′

Note: No ground water encountered during field investigation.



PROFILE
HOR. 1" = 10′
VER. 1" = 10′

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	RETAINING WALL NO. 719 & 722
FUNCTIONAL SUPERVISOR	DRAWN BY: F. Nguyen 10/10	FIELD INVESTIGATION BY:	DESIGN BRANCH	POST MILES 9.9-R24.5	LOG OF TEST BORINGS 1 OF 3
NAME: S. Wei	CHECKED BY: M. Wilson	B. Gutierrez			

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qa003.dgn

USERNAME => trrrchf DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:25

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	10	9.9/R24.5	132	260

REGISTERED CIVIL ENGINEER 11-1-10

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Brian Gutierrez
No. C66258
Exp. 6-6-12
CIVIL
STATE OF CALIFORNIA

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CEMENTATION

Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

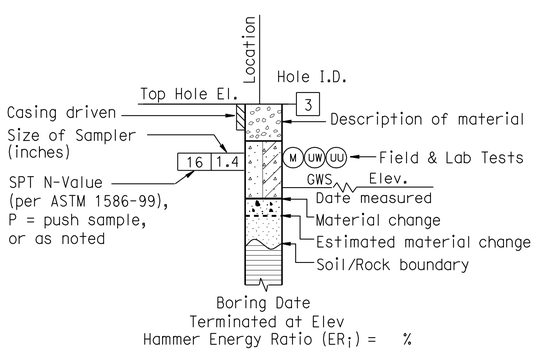
BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
Size	A	Auger Boring (hollow or solid stem bucket)
Size	R RW RC P	Rotary drilled boring (conventional) Rotary drilled with self-casing wire-line Rotary core with continuously-sampled, self-casing wire-line Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
●	D	Dynamic Cone Penetration Boring
▲	CPT	Cone Penetration Test (ASTM D 5778)
⬚	O	Other (note on LOTB)

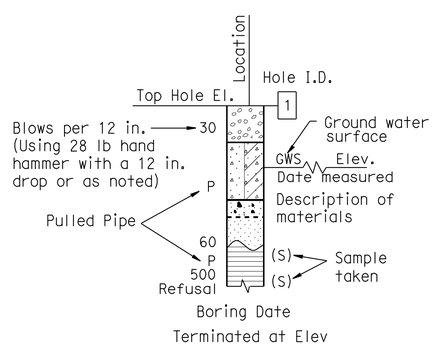
Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS

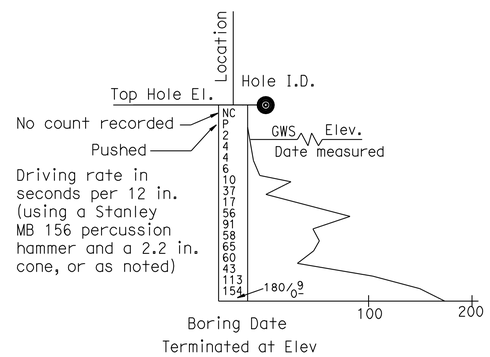
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



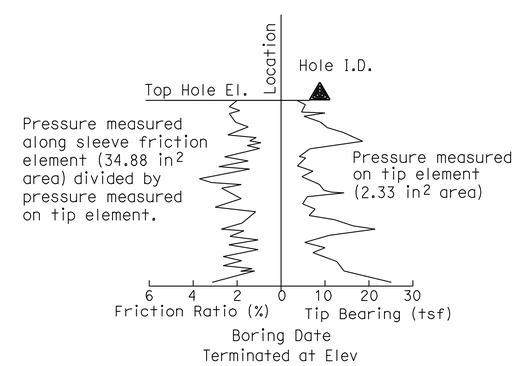
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) BORING

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO. / POST MILE 9.9-R24.5	RETAINING WALL NO. 719 & 722 LOG OF TEST BORINGS 2 OF 3
	PREPARED BY: F. Nguyen 10/10				

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qa004.dgn

USERNAME => trrichf DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:25

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	10	9.9/R24.5	133	260

REGISTERED CIVIL ENGINEER 11-1-10

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Brian Gutierrez No. C66258 Exp. 6-6-12 CIVIL STATE OF CALIFORNIA

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GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly-graded SAND Poorly-graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL		
SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (UC) Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE

Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

PARTICLE SIZE

Description		Size (in.)
Boulder		Greater than 12
Cobble		3 - 12
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay		Less than 1/300

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO. / POST MILE 9.9-R24.5	RETAINING WALL NO. 719 & 722 LOG OF TEST BORINGS 3 of 3
	PREPARED BY: F. Nguyen 10/10				

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qa005.dgn

USERNAME => trrlcht DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	10	9.9/R24.5	134	260

REGISTERED CIVIL ENGINEER 11-1-10

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Brian Gutierrez
No. C66258
Exp. 6-6-12
CIVIL
STATE OF CALIFORNIA

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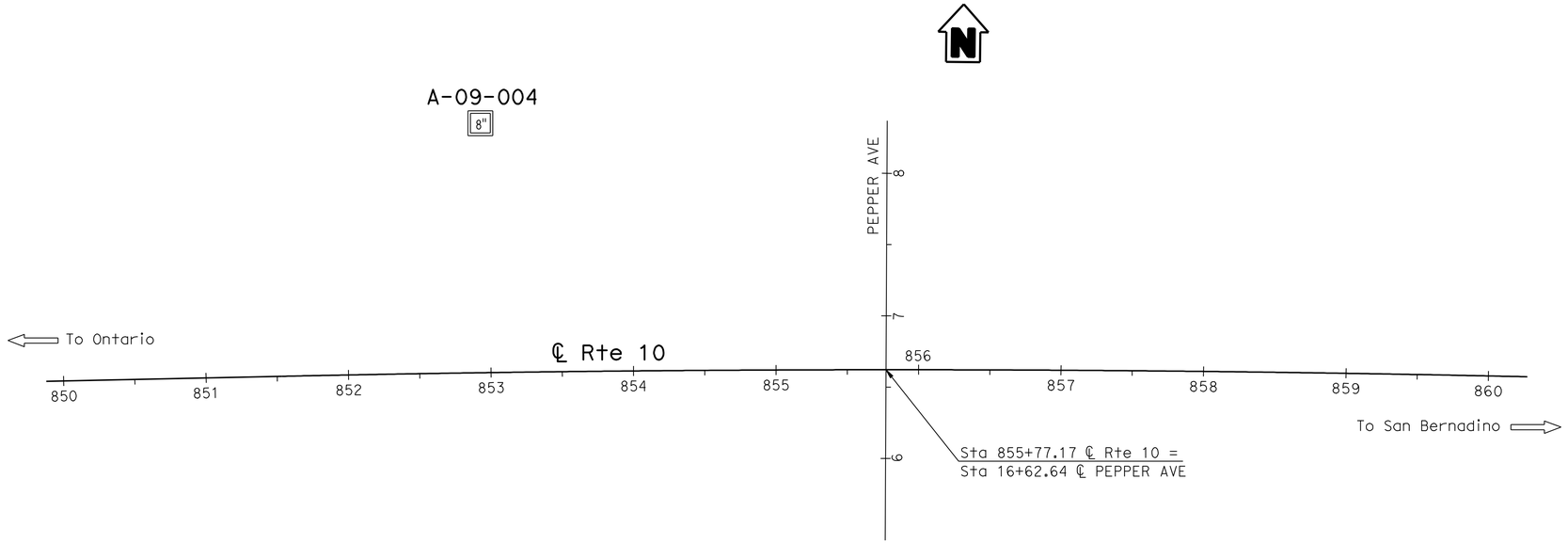
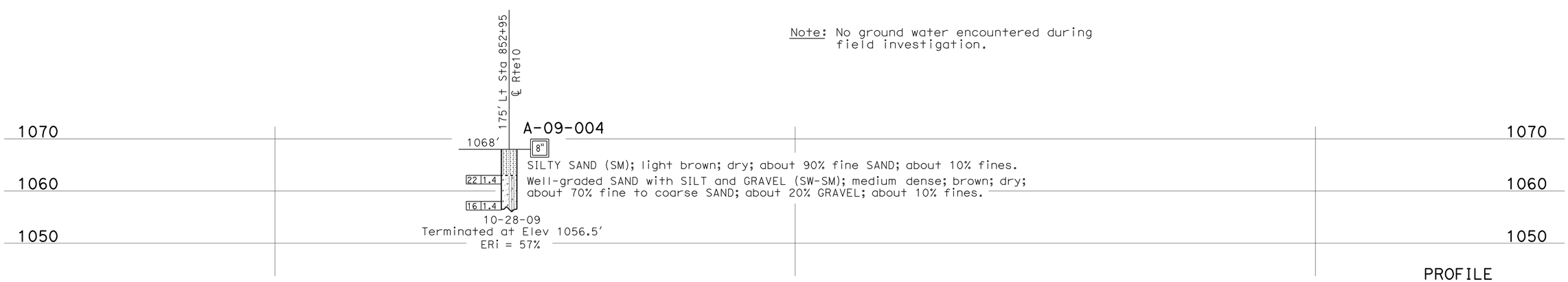
BENCH MARK

Control Point # SUHV 507
"C NAIL"
N 1848290.325
E 6757462.995
Elev 1070.270′
NAVD 88



PLAN
1" = 50′

Note: No ground water encountered during field investigation.



PROFILE
HOR. 1" = 10′
VER. 1" = 10′

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	RETAINING WALL NO. 850
FUNCTIONAL SUPERVISOR	DRAWN BY: F. Nguyen 10/10	FIELD INVESTIGATION BY:	DESIGN BRANCH	POST MILES 9.9-R24.5	LOG OF TEST BORINGS 1 OF 3
NAME: S. Wei	CHECKED BY: M. Wilson	B. Gutierrez			

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qb002.dgn

USERNAME => trrlcnf DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:26

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4-11-11
PLANS APPROVAL DATE

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No. C66258
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CEMENTATION

Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

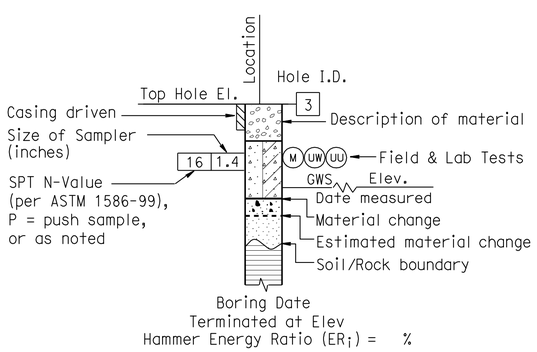
BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
Size	A	Auger Boring (hollow or solid stem bucket)
Size	R RW RC P	Rotary drilled boring (conventional) Rotary drilled with self-casing wire-line Rotary core with continuously-sampled, self-casing wire-line Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
●	D	Dynamic Cone Penetration Boring
▲	CPT	Cone Penetration Test (ASTM D 5778)
⬚	O	Other (note on LOTB)

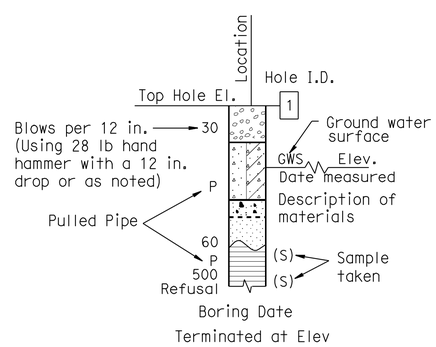
Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS

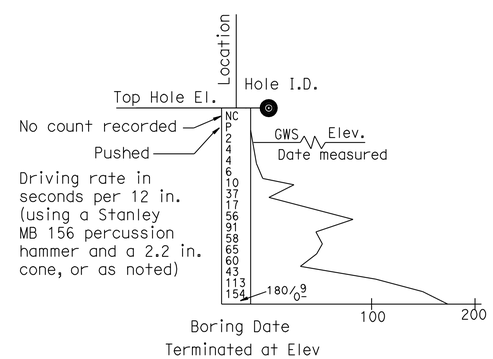
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



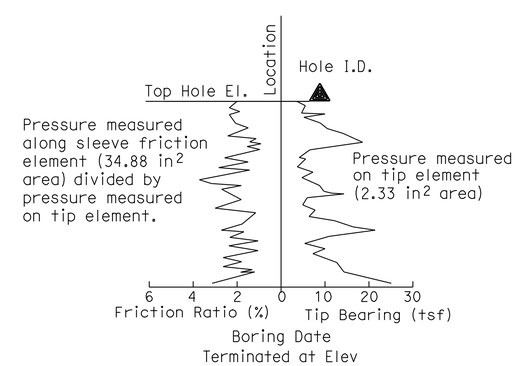
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) BORING

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO. / POST MILE 9.9-R24.5	RETAINING WALL NO. 850 LOG OF TEST BORINGS 2 OF 3
	PREPARED BY: F. Nguyen 10/10				

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qb003.dgn

USERNAME => trrichf DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:26

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	10	9.9/R24.5	136	260

REGISTERED CIVIL ENGINEER 11-1-10

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Brian Gutierrez No. C66258 Exp. 6-6-12 CIVIL STATE OF CALIFORNIA

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GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly-graded SAND Poorly-graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL		
SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (UC) Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE

Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

PARTICLE SIZE

Description		Size (in.)
Boulder		Greater than 12
Cobble		3 - 12
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay		Less than 1/300

ENGINEERING SERVICES

GEOTECHNICAL SERVICES
PREPARED BY: F. Nguyen 10/10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH

BRIDGE NO.
POST MILE 9.9-R24.5

RETAINING WALL NO. 850
LOG OF TEST BORINGS 3 of 3

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qb004.dgn

USERNAME => trrlcht DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	10	9.9/R24.5	137	260

REGISTERED CIVIL ENGINEER 11-1-10

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Brian Gutierrez No. C66258 Exp. 6-6-12 CIVIL STATE OF CALIFORNIA

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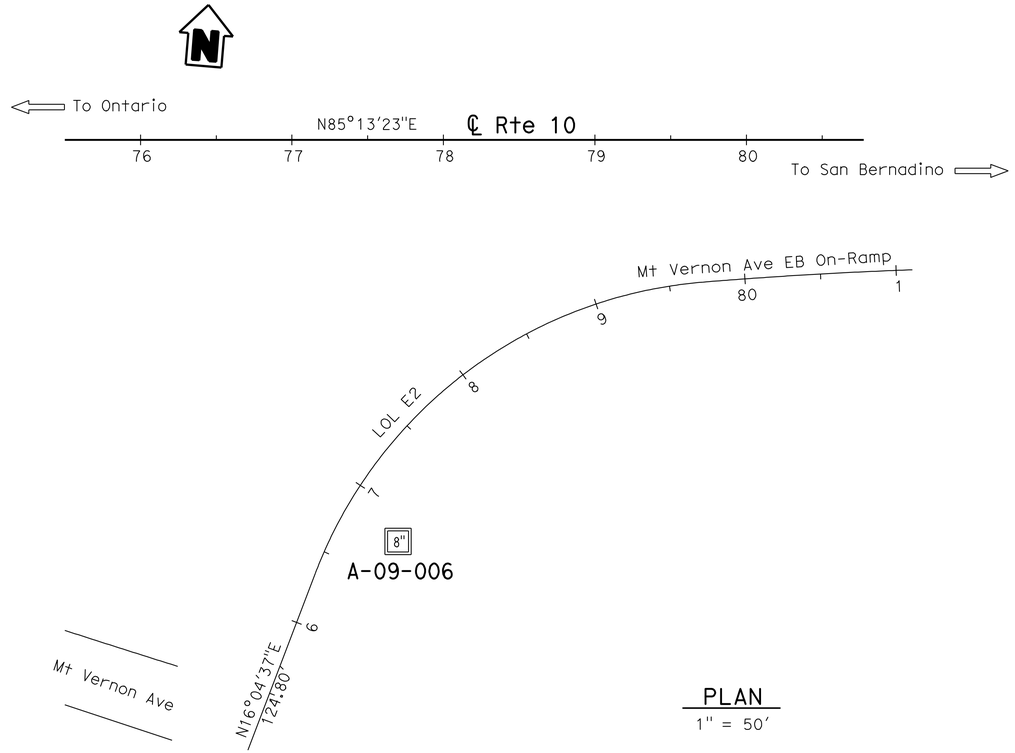
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).

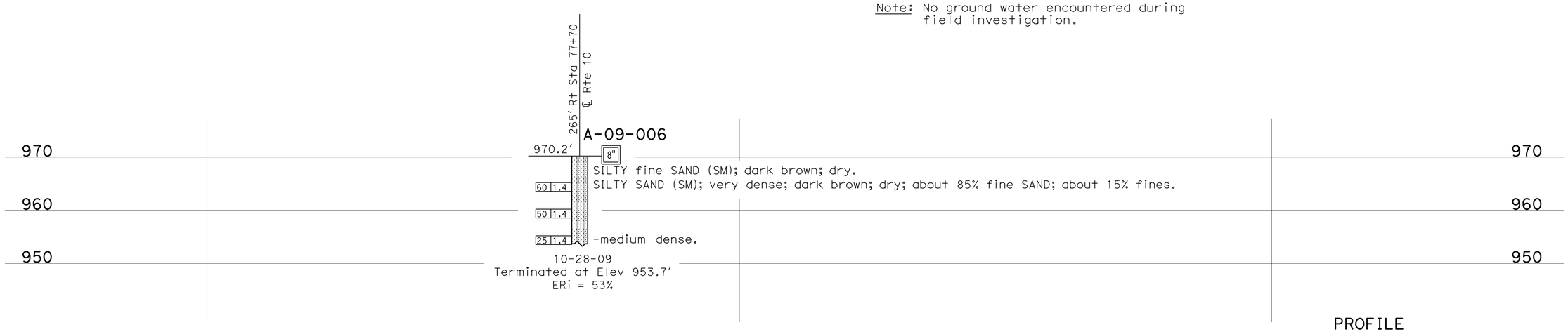
BENCH MARK

Control Point # SUHV 527
"C NAIL"
N 1846510.788
E 6770381.978
Elev 971.170′
NAVD 88



PLAN
1" = 50′

Note: No ground water encountered during field investigation.



PROFILE
HOR. 1" = 10′
VER. 1" = 10′

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	RETAINING WALL NO. 76
FUNCTIONAL SUPERVISOR	DRAWN BY: F. Nguyen 10/10	FIELD INVESTIGATION BY:	DESIGN BRANCH	POST MILES	LOG OF TEST BORINGS 1 OF 3
NAME: S. Wei	CHECKED BY: M. Wilson	B. Gutierrez		9.9-R24.5	

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qd003.dgn

USERNAME => trrichf DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:26

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	10	9.9/R24.5	138	260

REGISTERED CIVIL ENGINEER 11-1-10

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Brian Gutierrez
No. C66258
Exp. 6-6-12
CIVIL
STATE OF CALIFORNIA

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CEMENTATION

Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

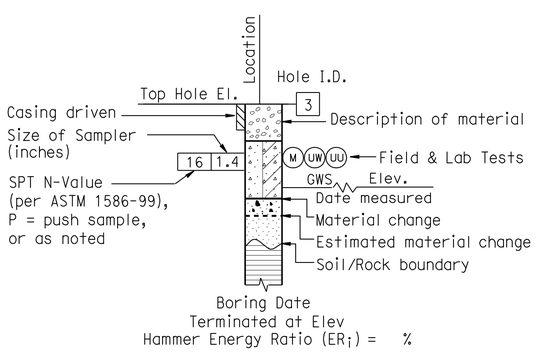
BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
Size	A	Auger Boring (hollow or solid stem bucket)
Size	R RW RC P	Rotary drilled boring (conventional) Rotary drilled with self-casing wire-line Rotary core with continuously-sampled, self-casing wire-line Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
●	D	Dynamic Cone Penetration Boring
▲	CPT	Cone Penetration Test (ASTM D 5778)
⬚	O	Other (note on LOTB)

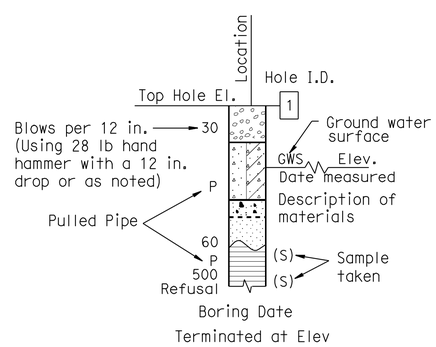
Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS

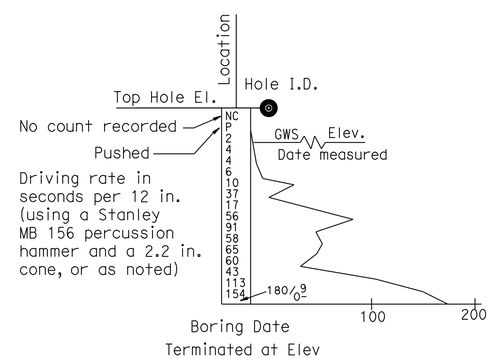
Description	Shear Strength (tsf)	Pocket Penetrometer Measurement, PP, (tsf)	Torvane Measurement, TV, (tsf)	Vane Shear Measurement, VS, (tsf)
Very Soft	Less than 0.12	Less than 0.25	Less than 0.12	Less than 0.12
Soft	0.12 - 0.25	0.25 - 0.5	0.12 - 0.25	0.12 - 0.25
Medium Stiff	0.25 - 0.5	0.5 - 1	0.25 - 0.5	0.25 - 0.5
Stiff	0.5 - 1	1 - 2	0.5 - 1	0.5 - 1
Very Stiff	1 - 2	2 - 4	1 - 2	1 - 2
Hard	Greater than 2	Greater than 4	Greater than 2	Greater than 2



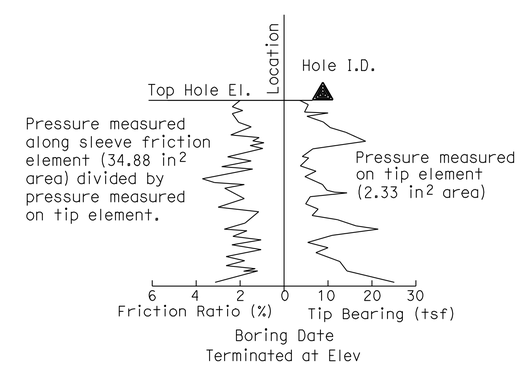
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) BORING

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO. / POST MILE 9.9-R24.5	RETAINING NO. 76 LOG OF TEST BORINGS 2 OF 3
	PREPARED BY: F. Nguyen 10/10				

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qd004.dgn

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REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	10	9.9/R24.5	139	260

REGISTERED CIVIL ENGINEER 11-1-10

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Brian Gutierrez No. C66258 Exp. 6-6-12 CIVIL STATE OF CALIFORNIA

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GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly-graded SAND Poorly-graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL		
SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (UC) Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 in.)
Very Loose	0 - 5
Loose	5 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	Greater than 50

MOISTURE

Description	Criteria
Dry	No discernable moisture
Moist	Moisture present, but no free water
Wet	Visible free water

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

PARTICLE SIZE

Description		Size (in.)
Boulder		Greater than 12
Cobble		3 - 12
Gravel	Coarse	3/4 - 3
	Fine	1/5 - 3/4
Sand	Coarse	1/16 - 1/5
	Medium	1/64 - 1/16
	Fine	1/300 - 1/64
Silt and Clay		Less than 1/300

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH	BRIDGE NO. / POST MILE 9.9-R24.5	RETAINING WALL NO. 76 LOG OF TEST BORINGS 3 of 3
	PREPARED BY: F. Nguyen 10/10				

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 08
EA 384341

DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-27-10

REVISION DATES | SHEET | OF

FILE => 838434qd005.dgn

USERNAME => trrright DATE PLOTTED => 15-APR-2011 TIME PLOTTED => 12:27

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	140	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 3343 — STATE OF CALIFORNIA
Signature 11-30-11 Renewal Date 01-13-11 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.

ABBREVIATIONS

AMEND — amendment
B & B — balled and burlapped
Dia — diameter
EA — each
LB — pound
Oz — ounce
Ft — foot/feet
SQFT — square feet
SQYD — square yard
CF — cubic feet
Max — maximum
Min — minimum
NCN — no common name
No. — number
Pkt — packet
PLT ESTB — plant establishment
Pvmt — pavement
R/W — right of way
SF — state furnished
TRVD — traveled

PLANT LIST AND PLANTING SPECIFICATIONS

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (INCH) Dia	HOLE SIZE (INCH) DEPTH	BASIN TYPE	IRON SULFATE ①	SOIL AMEND ①	COMMERCIAL FERTILIZER PLANTING	COMMERCIAL FERTILIZER PLT ESTB	BASIN COMPOST	STAKING	PLANTING LIMITS MINIMUM DISTANCE (Ft) FROM TRVD WAY	PVMT	FENCE	WALL	PAVED DITCH	EARTH DITCH	ON CENTER (Ft)	REMARKS
A	1		EUCALYPTUS CAMALDULENSIS	RED GUM	NO. 1	22	18	24	1	—	.75 CF	.25 LB	.25 LB	.02 CY	—	40	30	15	—	—	—	④	TREE
B	2		PRUNUS LYONII	CATALINA CHERRY	NO. 5	58	24	24	1	—	1.0 CF	.25 LB	.25 LB	.04 CY	—	—	15	—	—	15	—	④	SHRUB
	3		RHUS OVATA	SUGAR BUSH	NO. 5	90	24	24	1	—	1.0 CF	.25 LB	.25 LB	.04 CY	—	—	15	—	—	15	—	④	SHRUB
H	4		CARPOBROTUS EDULIS	HOTTENTOT FIG	CUTTING	72,400	⑧	⑧	—	—	—		—	—	—	—	6	—	6	—	—	1.0	⑤
U	5		LAGERSTROEMIA INDICA "CATAWBA"	CATAWBA CRAPE MYRTLE	NO. 15	43	24	24	1	—	2.0 CF	.25 LB	.25 LB	.08 CY	—	—	10	8	8	8	8	④	MULTITRUNK TREE
	6		LAGERSTROEMIA INDICA "CHEROKEE"	CHEROKEE CRAPE MYRTLE	NO. 15	22	24	24	1	—	2.0 CF	.25 LB	.25 LB	.08 CY	—	—	10	8	8	8	8	④	MULTITRUNK TREE

APPLICABLE WHEN CIRCLED:

① - Quantities shown are "per plant" unless shown as SQFT or SQYD application rates.
2 - Sufficient to receive root ball.
3 - Does not apply to mulch areas.
④ - As shown on plans.
⑤ - 2" Compost Blanket Prior to Planting
6 - See detail.
⑦ - For Varieties/Quantities, See Plans
⑧ - See Standard Specifications

EROSION CONTROL (TYPE 1) COMPOST BLANKET & WILDFLOWER SEEDING AREA
EXISTING TREES
PRUNE EXISTING PLANTS (43 TREES)
EXISTING SHRUBS
REMOVE TREES (76 TREES)

EROSION CONTROL (COMPOST BLANKET) 2"

QUANTITY TABLE	
EROSION CONTROL (TYPE I)	4322.8 CY
CARPOBROTU EDULIS	492.9 CY
TOTAL	4815.7 CY

MAINTAIN EXIST PLANTED AREAS AND IRRIGATION

NOTE:

Underlined portions of botanical name indicate abbreviations used on Planting Plans.

PLANT LIST
PL-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B
SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL
REVISED BY / DATE REVISED

LAST REVISION 01-13-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 13:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	141	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 3015 — Signature — 11-30-11 Renewal Date — 01-13-11 Date — STATE OF CALIFORNIA

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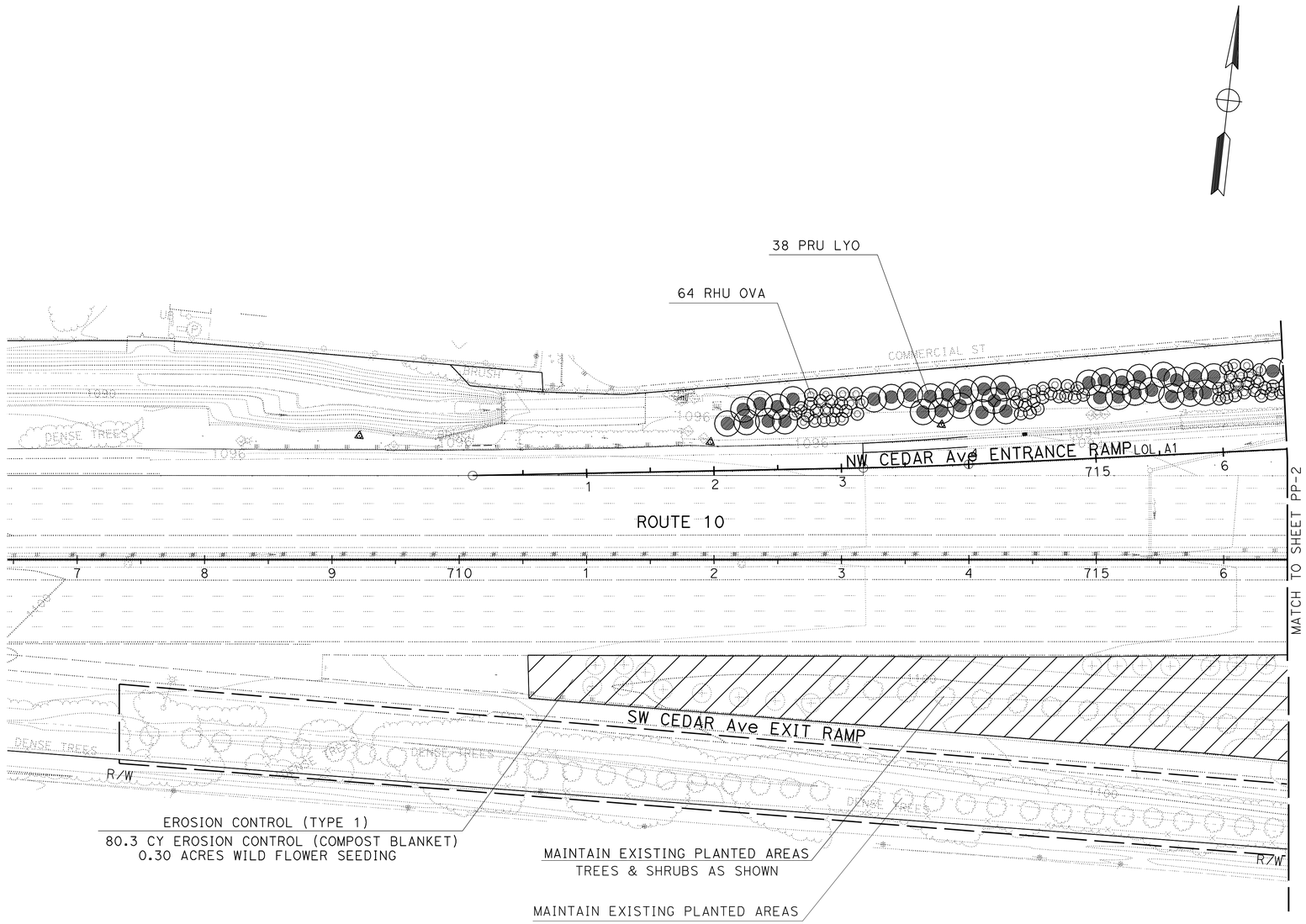
NOTE:

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



PLANTING PLAN

SCALE 1"=50'

PP-1

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY T. DESSELLE No. 3015
Signature
11-30-11
Renewal Date
01-13-11
Date
STATE OF CALIFORNIA

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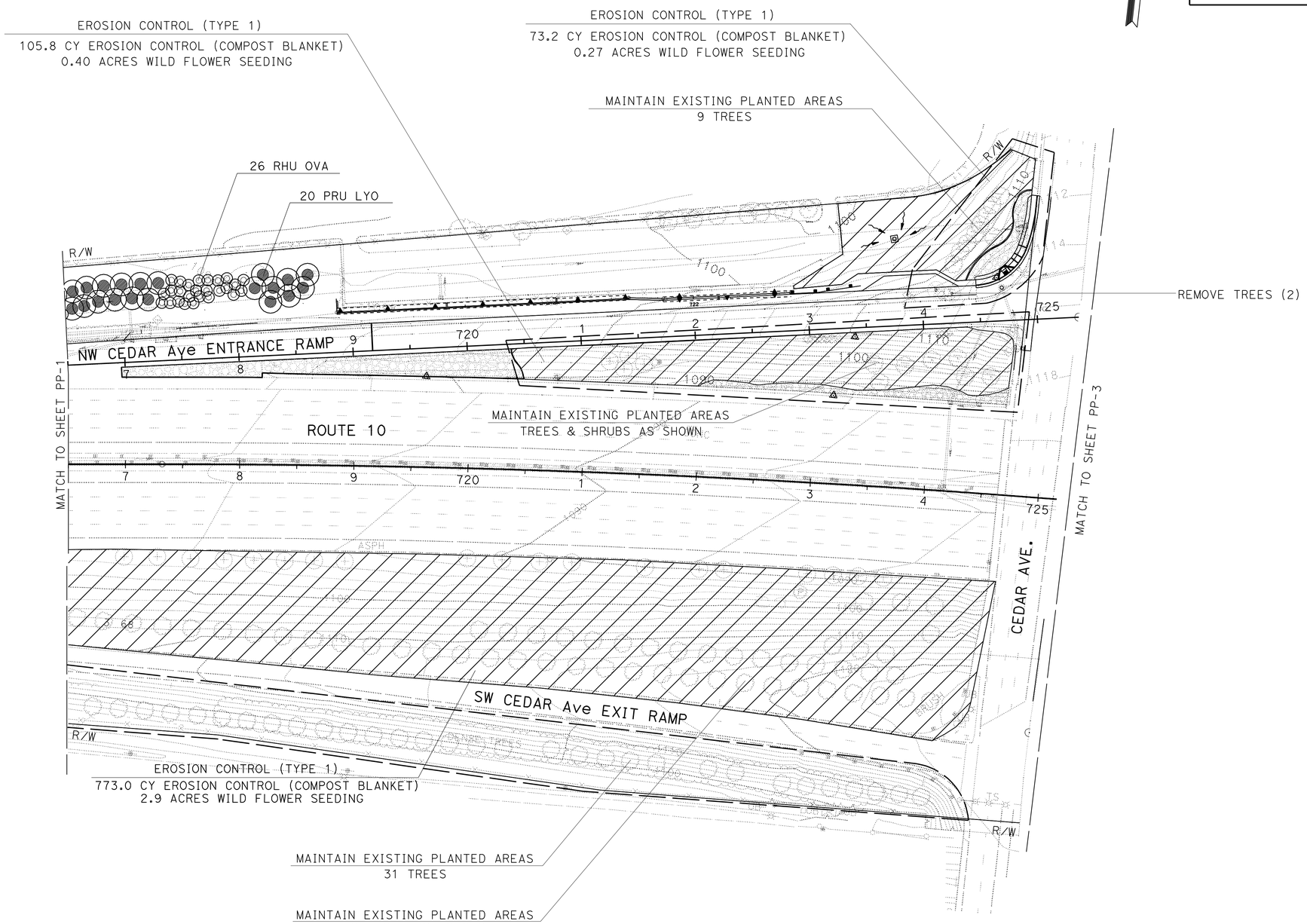


PLANTING PLAN

SCALE 1"=50'

PP-2

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 13:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	143	260

LICENSED LANDSCAPE ARCHITECT

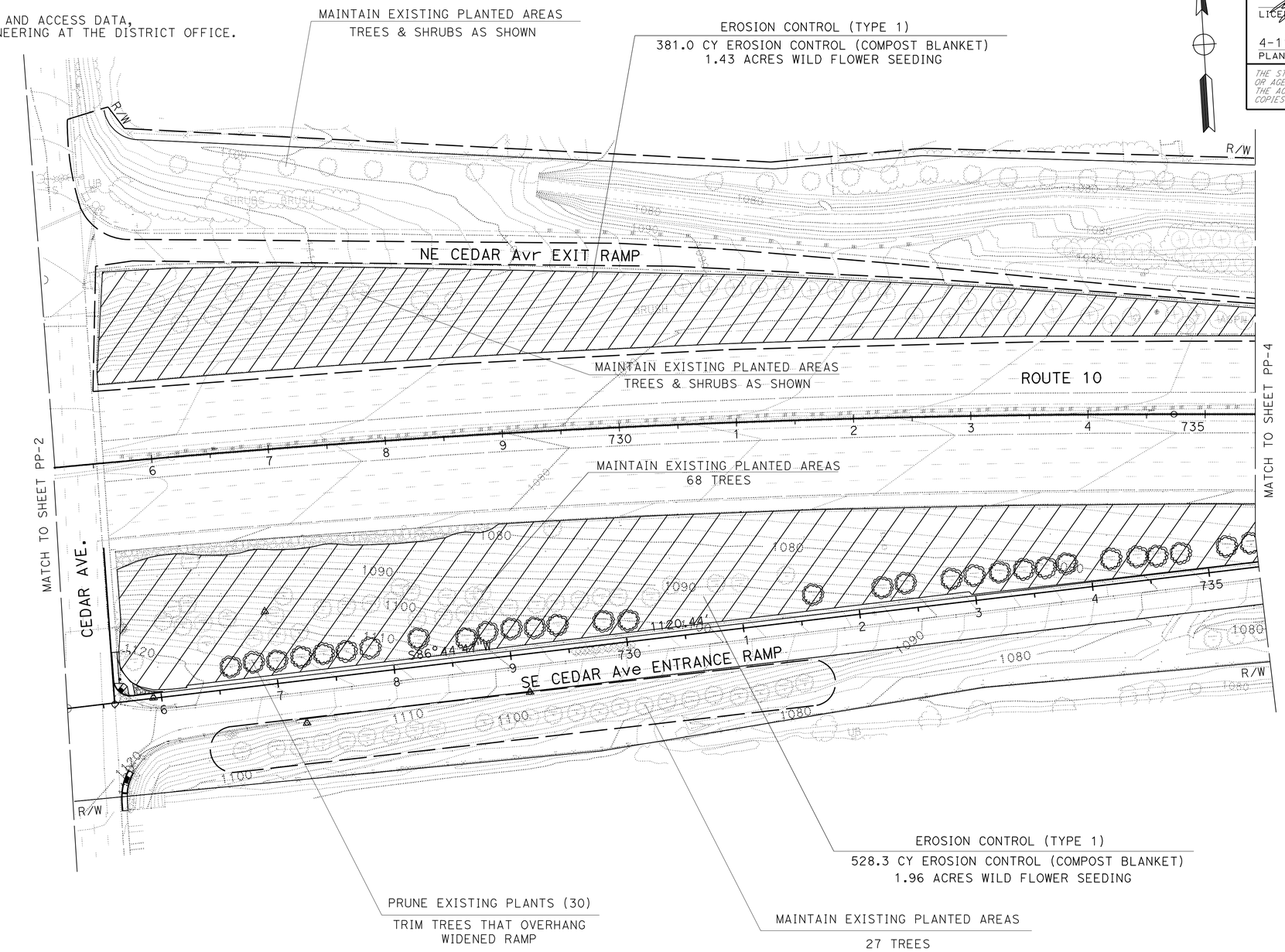
4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT RAY T. DESSELLE No. 3343 Signature 11-30-11 Renewal Date 01-13-11 Date 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 AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



PLANTING PLAN

SCALE 1"=50'

PP-3

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 13:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	144	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 3015
Signature
11-30-11
Renewal Date
01-13-11
Date
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:

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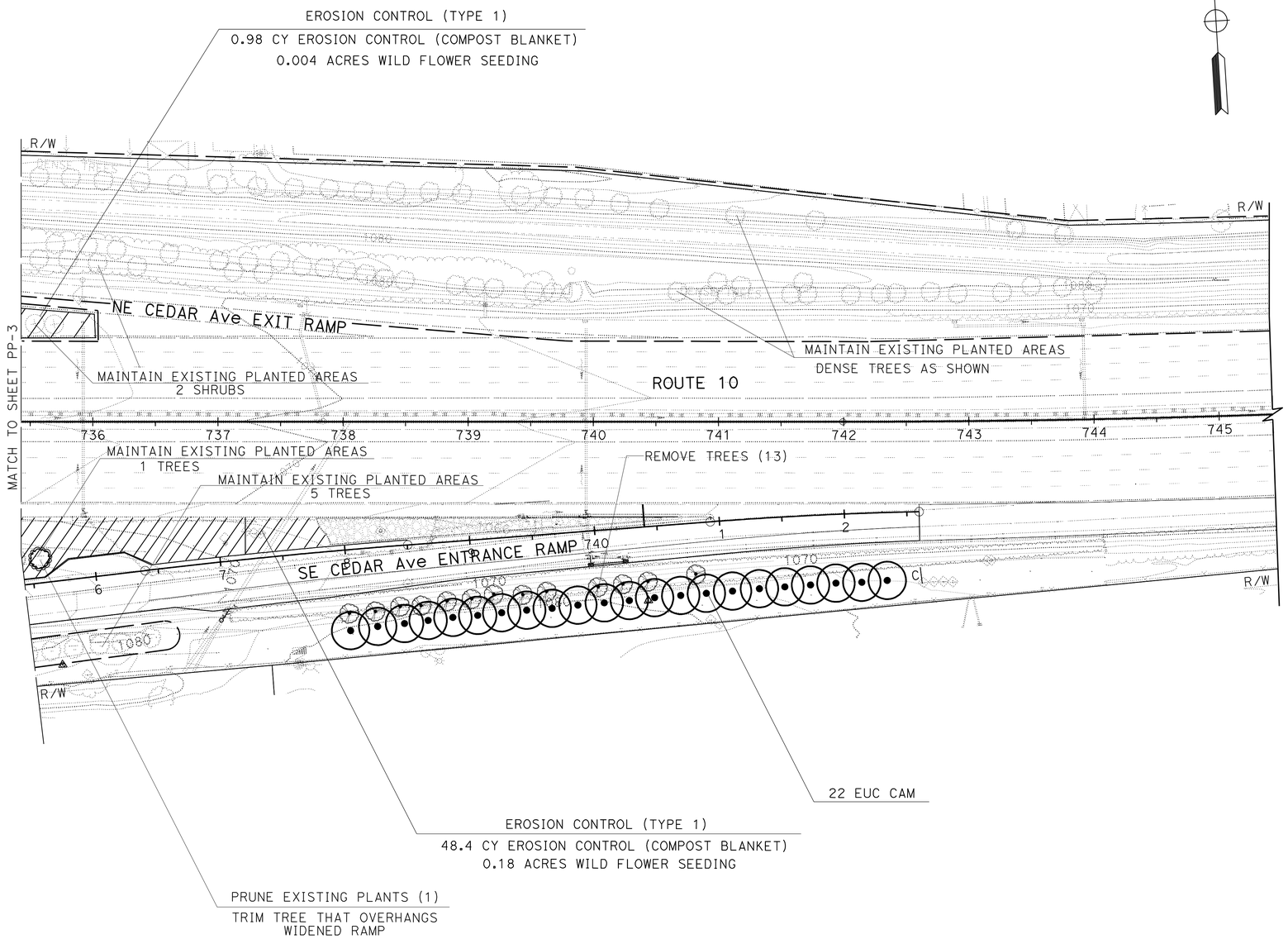


THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

PLANTING PLAN

SCALE 1"=50'

PP-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY | DATE REVISED

LAST REVISION 01-13-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 13:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	145	260

LICENSED LANDSCAPE ARCHITECT

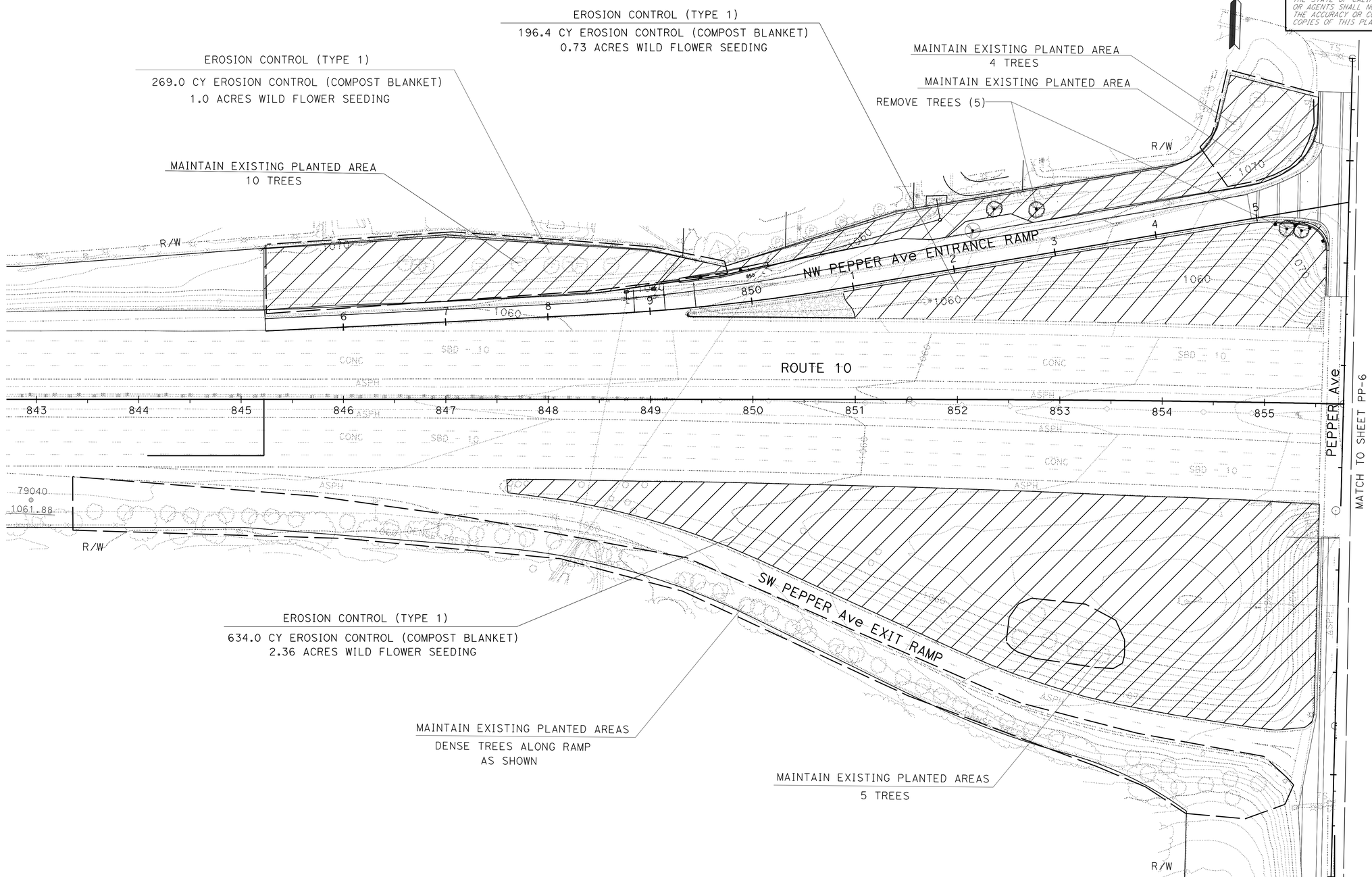
4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 2343 — Signature 11-30-11 Renewal Date — 01-13-11 Date — 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 AND ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



PLANTING PLAN

SCALE: 1" = 50'

PP-5

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 07:39

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	146	260

LICENSED LANDSCAPE ARCHITECT

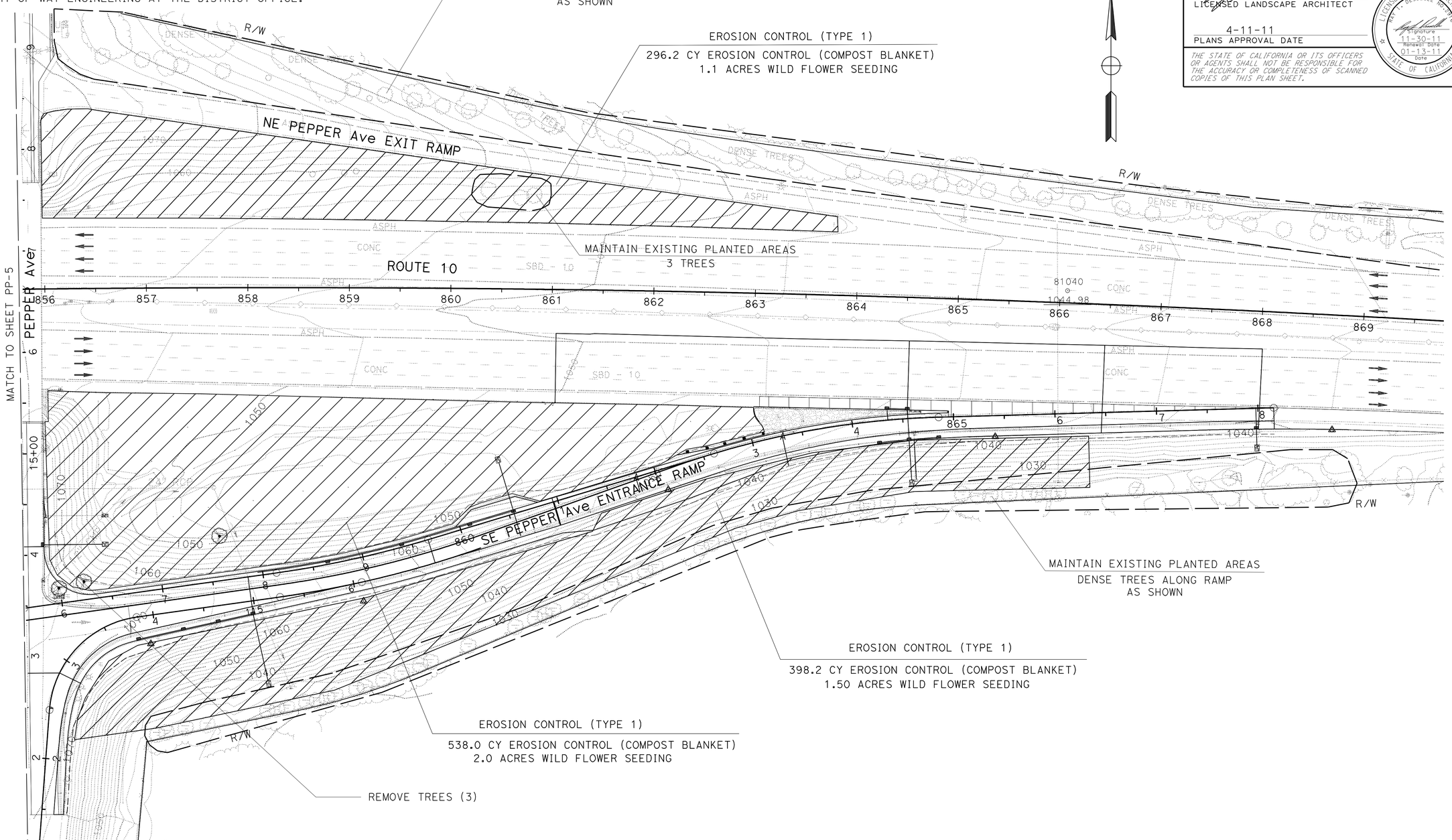
4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 2272 — Signature 11-30-11 Renewal Date — 01-13-11 Date — 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 AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



PLANTING PLAN

SCALE: 1" = 50'

PP-6

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 07:39

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	147	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 3343
Signature
11-30-11
Renewal Date
01-13-11
Date
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.

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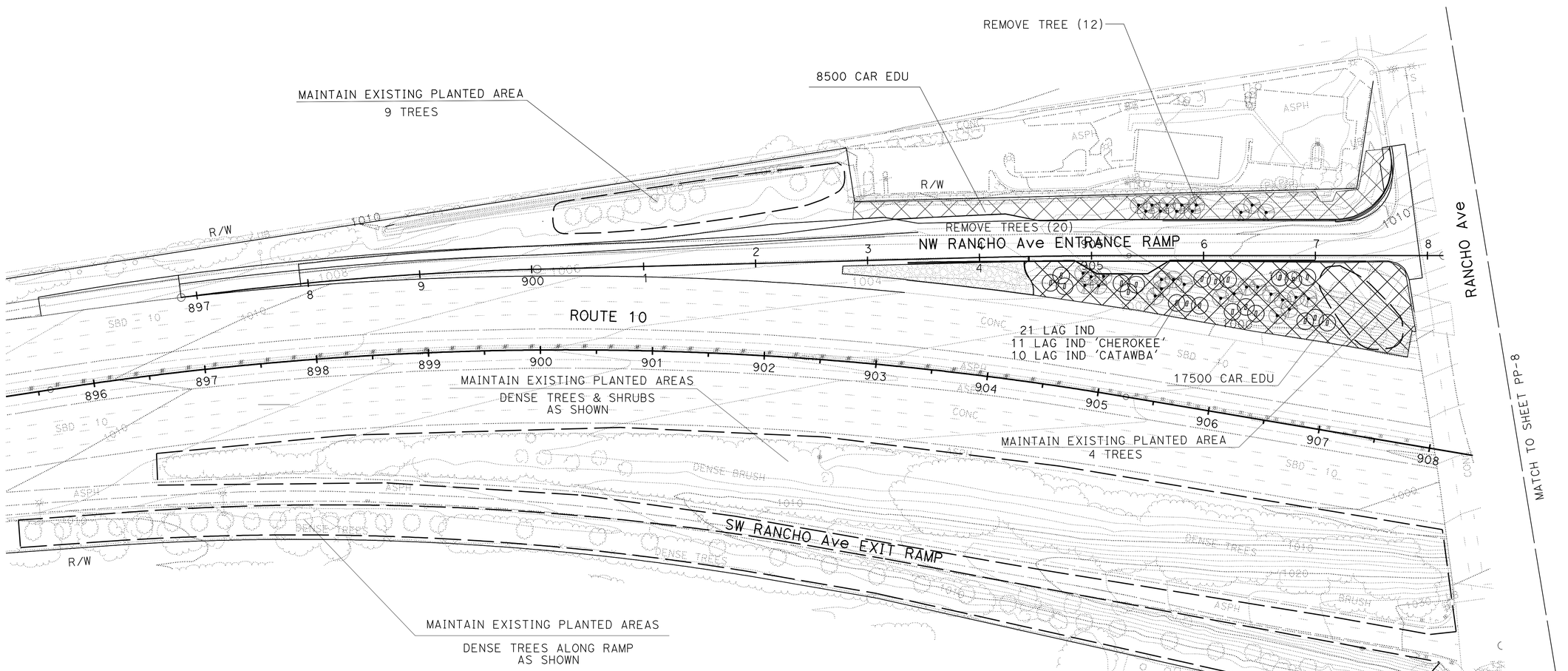

PLANTING PLAN

SCALE 1" = 50'

PP-7

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	148	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 3135
Signature
11-30-11
Renewal Date
01-13-11
Date
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 AND ACCESS DATA,
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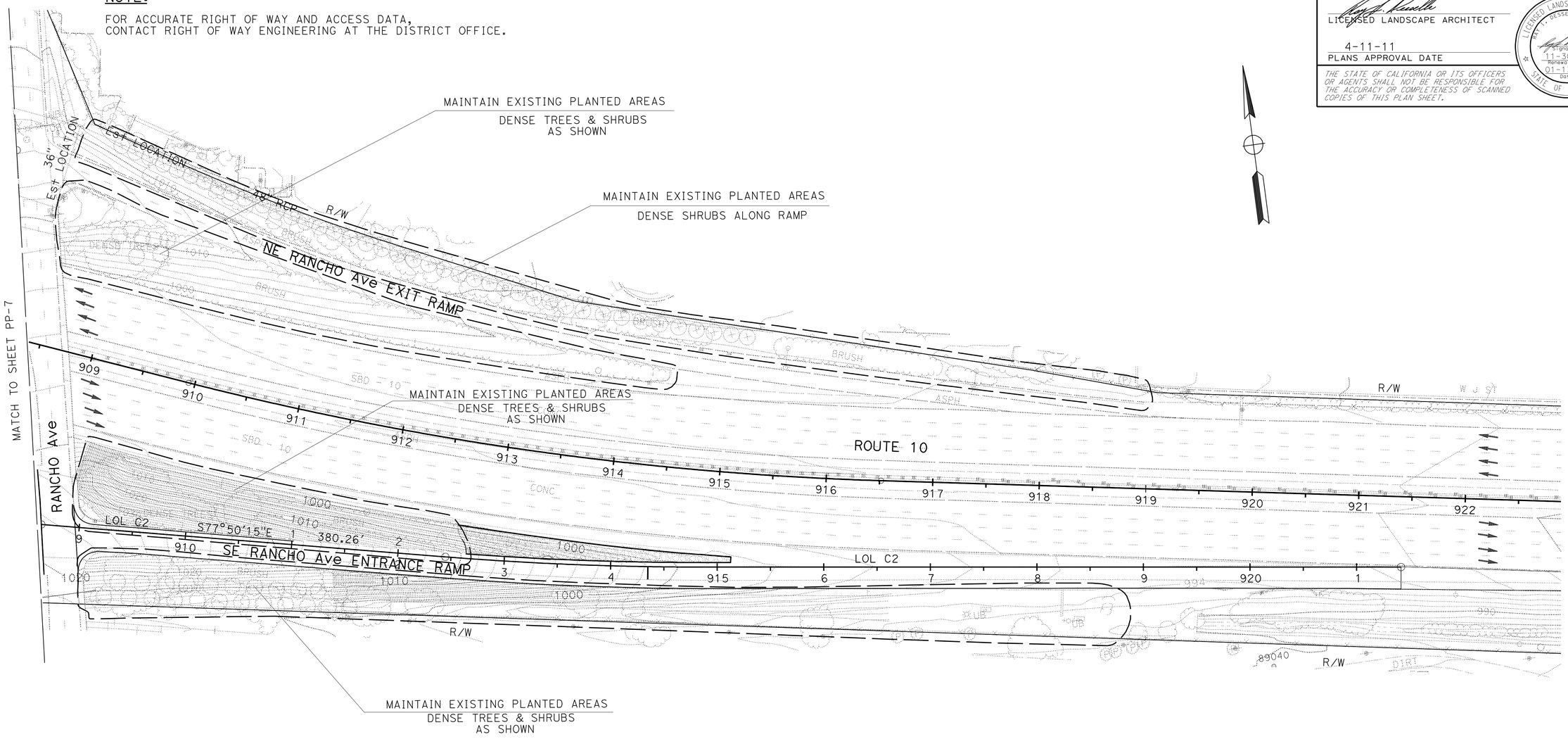

PLANTING PLAN

SCALE 1" = 50'

PP-8

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	149	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 3015
Signature
11-30-11
Renewal Date
01-13-11
Date
STATE OF CALIFORNIA

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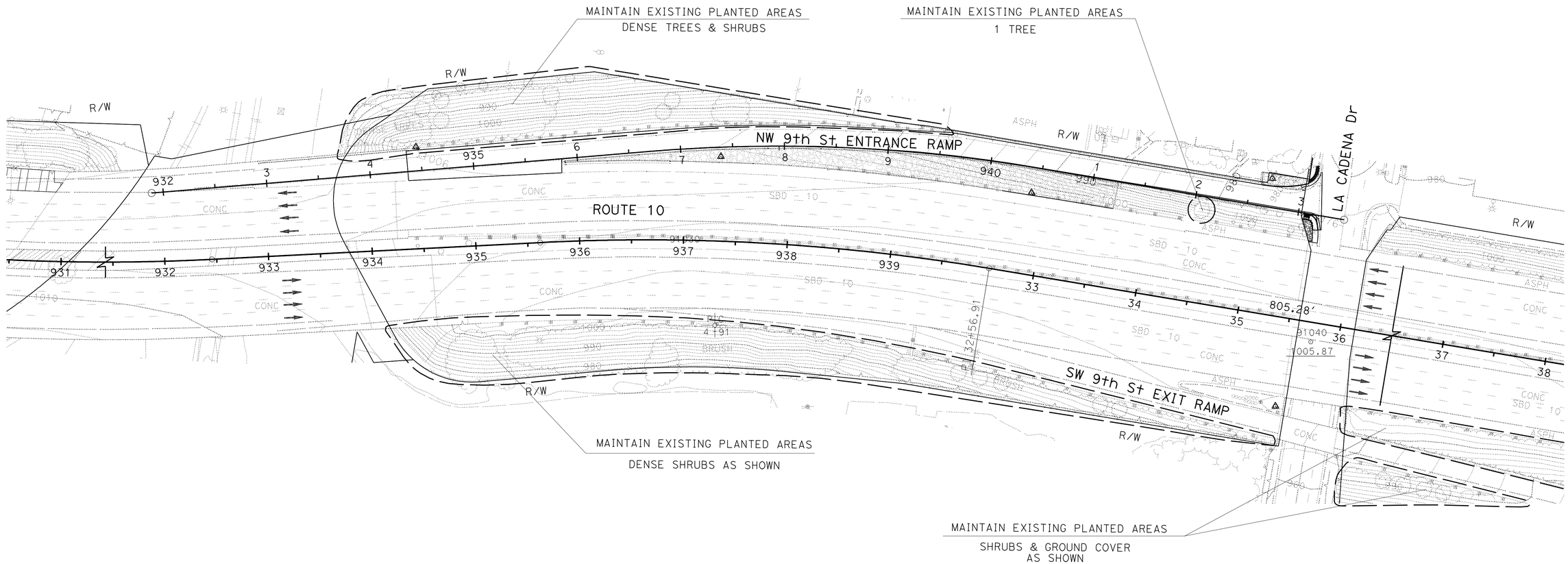

PLANTING PLAN

SCALE 1" = 50'

PP-9

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 14:59

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	150	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 3343
Signature
11-30-11
Renewal Date
01-13-11
Date
STATE OF CALIFORNIA

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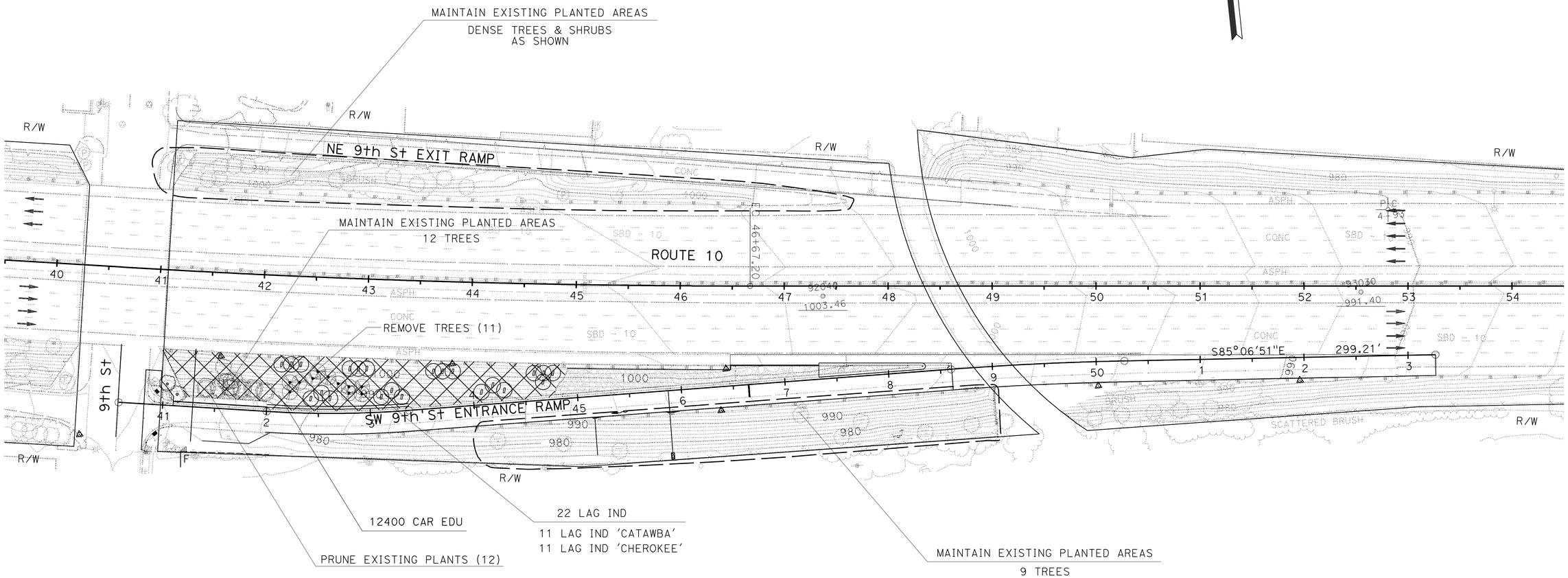

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

PLANTING PLAN

SCALE 1" = 50'

PP-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: MATTHEW HALL
CHECKED BY: TIM WANDS
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 14:59

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	151	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT RAY A. DESSELLE No. 3343 Signature 11-30-11 Renewal Date 01-13-11 Date STATE OF CALIFORNIA

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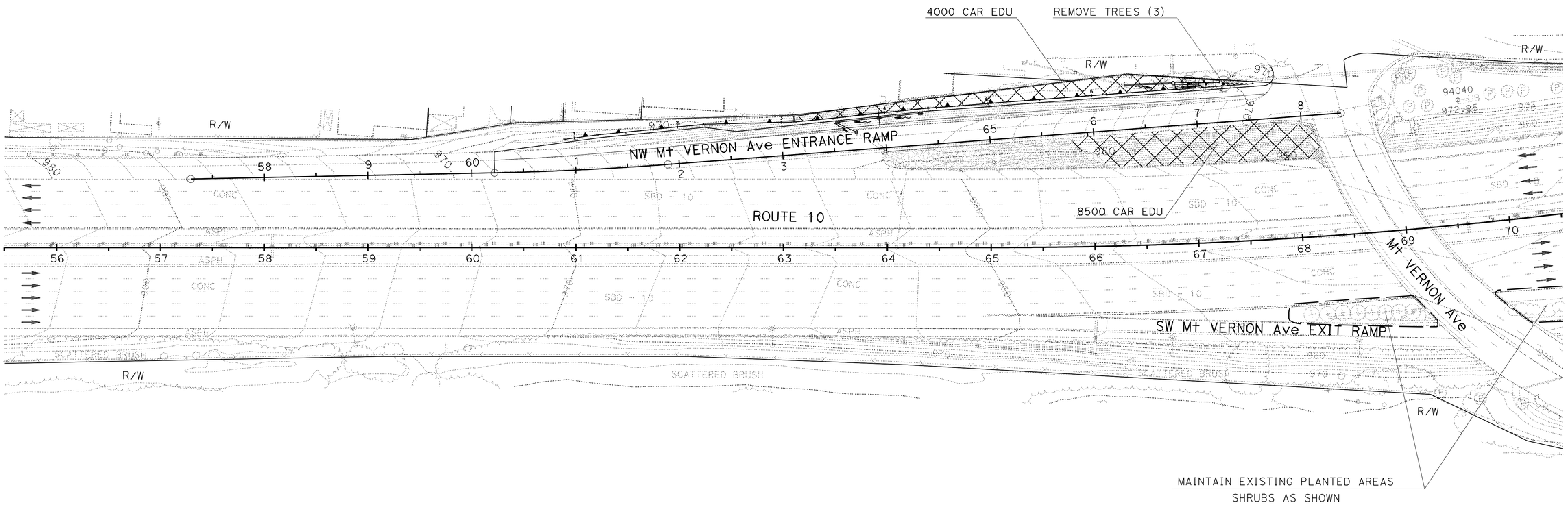

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

PLANTING PLAN

SCALE 1" = 50'

PP-11

REVISED BY | DATE REVISED

TIM WANDS | MATTHEW HALL

CALCULATED-DESIGNED BY | CHECKED BY

SENIOR LANDSCAPE ARCHITECT

RAY DESSELLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® LANDSCAPE ARCHITECTURE B

LAST REVISION 01-13-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 15:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	152	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 3015
Signature
11-30-11
Renewal Date
01-13-11
Date
STATE OF CALIFORNIA

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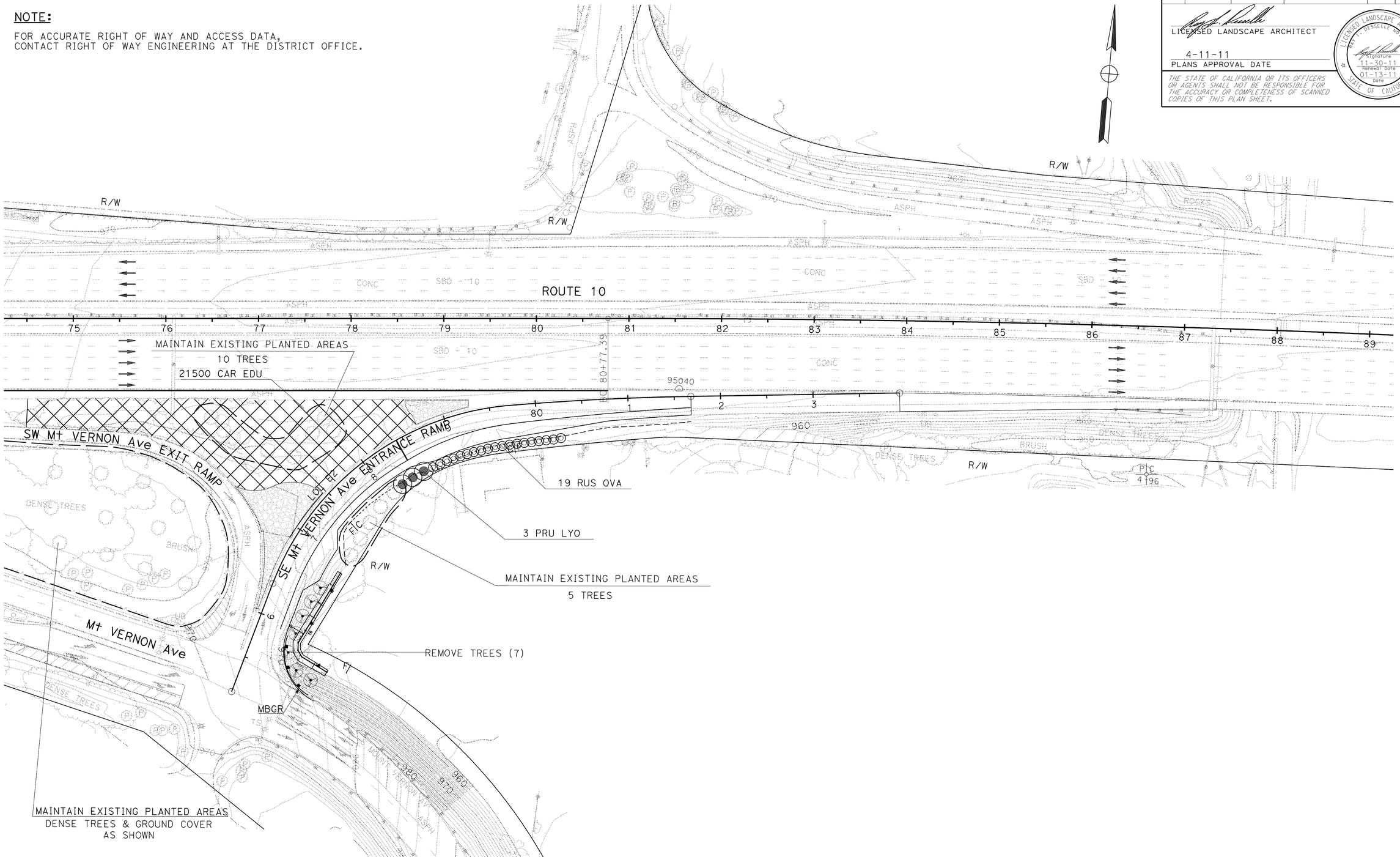

PLANTING PLAN

SCALE 1" = 50'

PP-12

THIS PLAN ACCURATE FOR PLANTING WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	153	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY A. DESSELLE — No. 2272 — Signature — 11-30-11 Renewal Date — 01-13-11 Date — STATE OF CALIFORNIA

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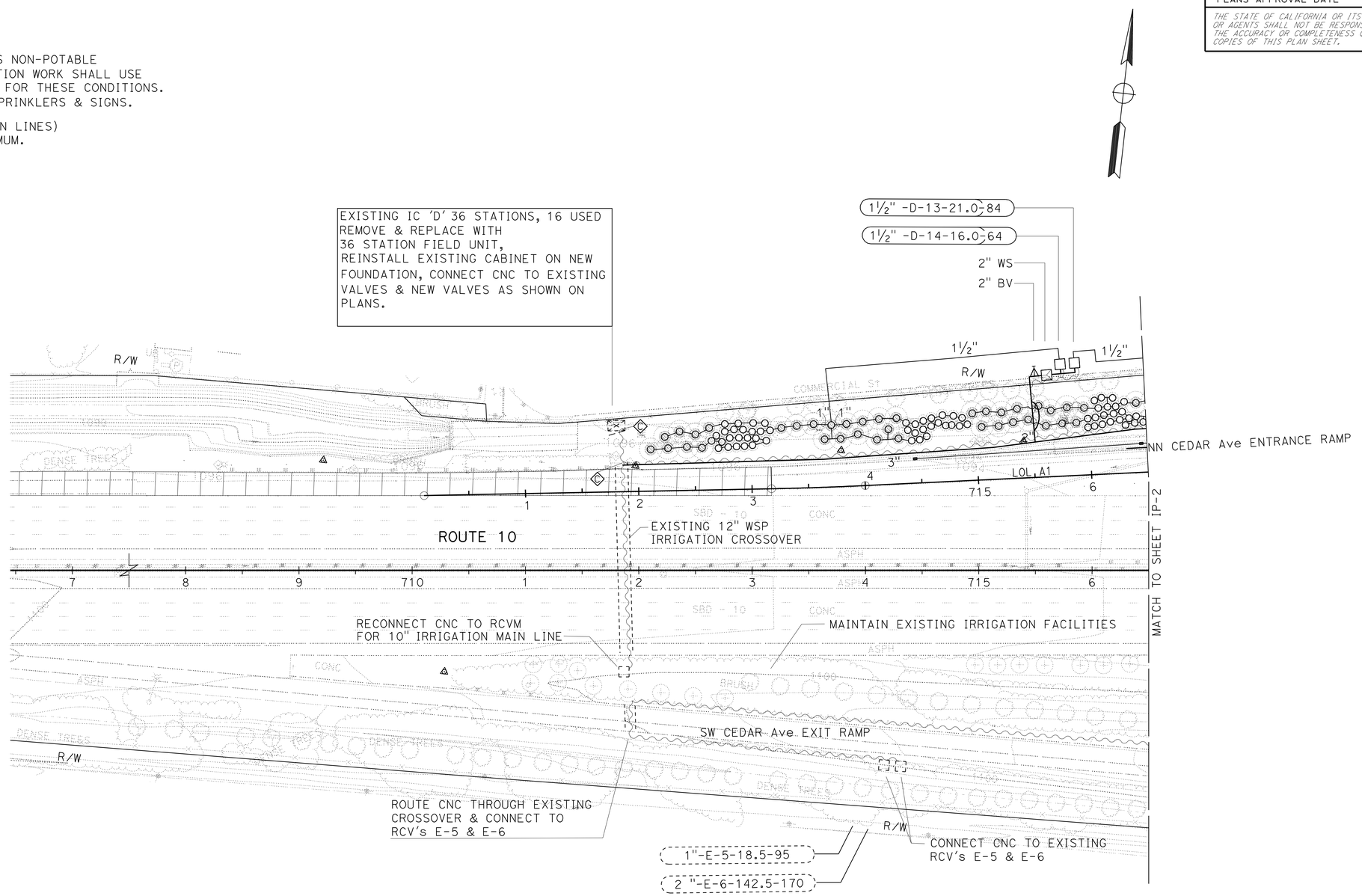
NOTE:

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

NOTES:

1. THE CEDAR AVE IC USES NON-POTABLE WATER AND ALL IRRIGATION WORK SHALL USE APPROPRIATE PRODUCTS FOR THESE CONDITIONS. SEE SSP's FOR PIPE, SPRINKLERS & SIGNS.
2. ALL PLASTIC PIPE (MAIN LINES) SHALL BE SCH 40 MINIMUM.



IRRIGATION PLAN

SCALE: 1" = 50'

IP-1

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B
SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	154	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 2272 — Signature 11-30-11 Renewal Date — 01-13-11 Date — STATE OF CALIFORNIA

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NOTE:

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

NOTE:

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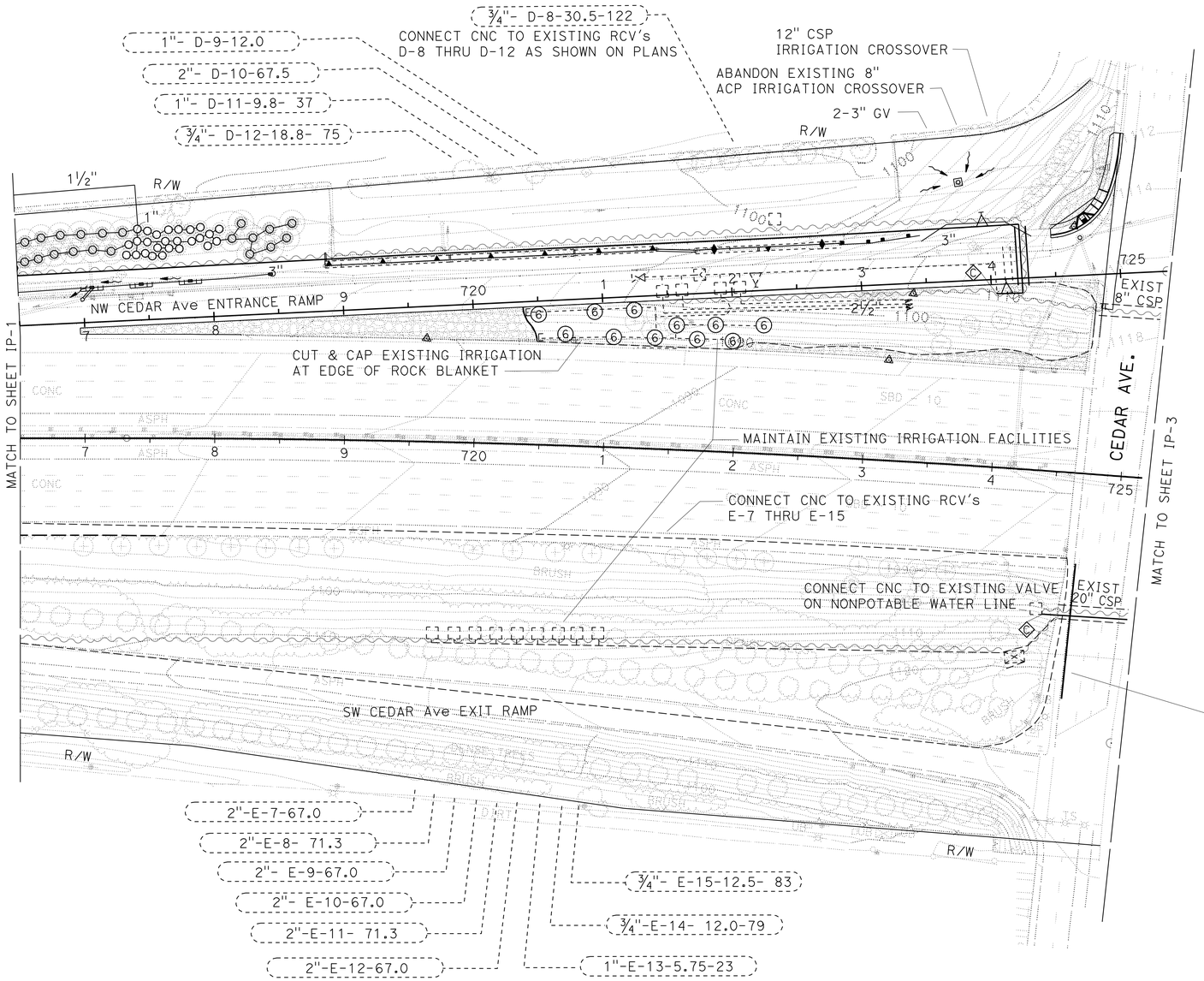

EXISTING IC 'E' 36 STATIONS, 28 USED
REMOVE & REPLACE WITH
36 STATION FIELD UNIT,
REINSTALL EXISTING CABINET ON NEW FOUNDATION, CONNECT CNC TO EXISTING VALVES & NEW VALVES AS SHOWN ON PLANS.

IRRIGATION PLAN

SCALE: 1" = 50'

IP-2

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B
SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: MATTHEW HALL
CHECKED BY: TIM WANDS
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:36

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	155	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 2272 — Signature — 11-30-11 Renewal Date — 01-13-11 Date — STATE OF CALIFORNIA

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NOTE:

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NOTE:

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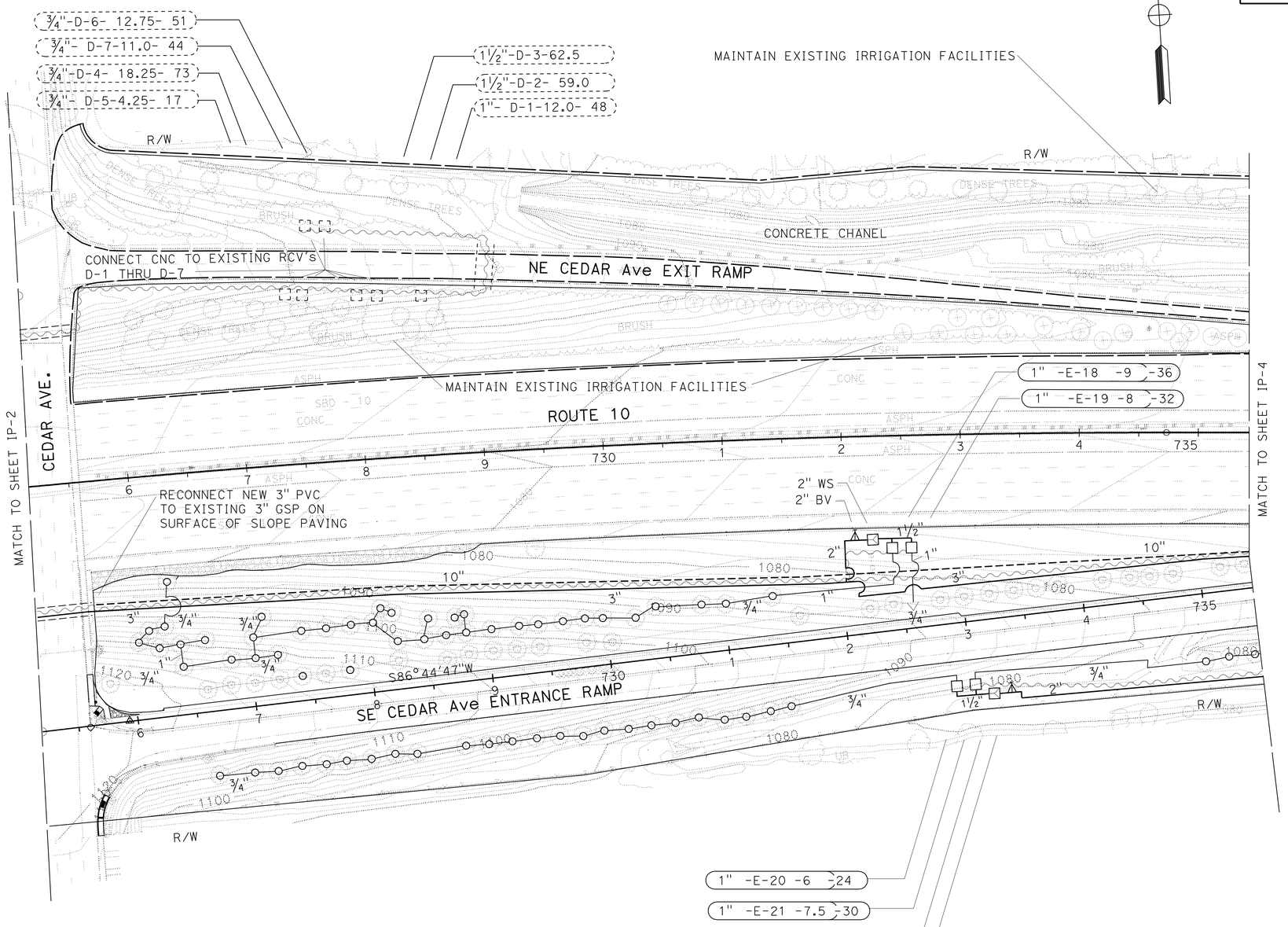

IRRIGATION PLAN

SCALE: 1" = 50'

IP-3

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 08:43

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	156	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY A. DESSELLE — No. 3015 — Signature 11-30-11 Renewal Date — 01-13-11 Date — STATE OF CALIFORNIA

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

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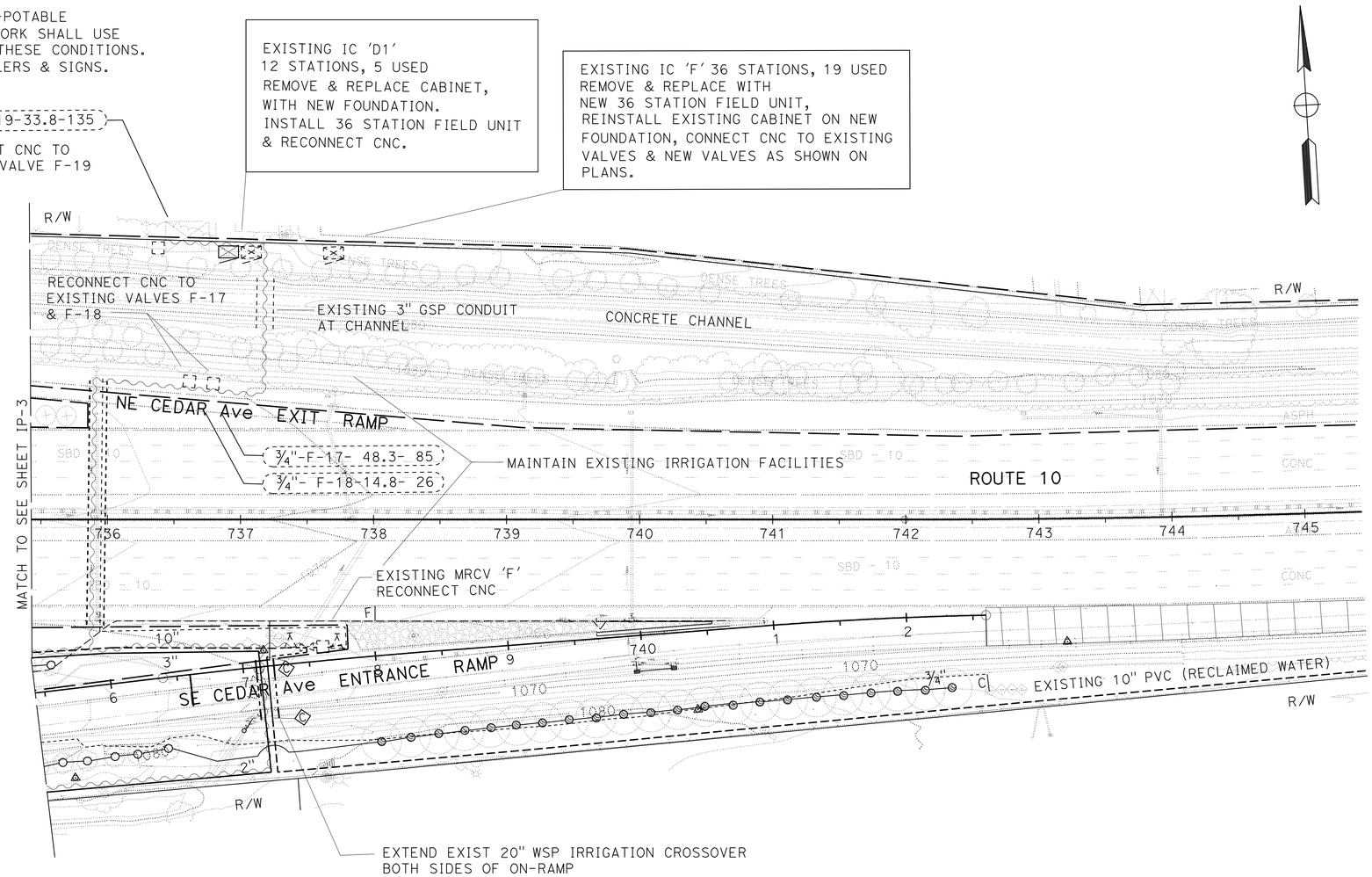

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

IRRIGATION PLAN

SCALE: 1" = 50'

IP-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY / DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 08:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	157	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY A. DESSELLE — No. 3343 — Signature — 11-30-11 Renewal Date — 01-13-11 Date — STATE OF CALIFORNIA

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NOTE:

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA,
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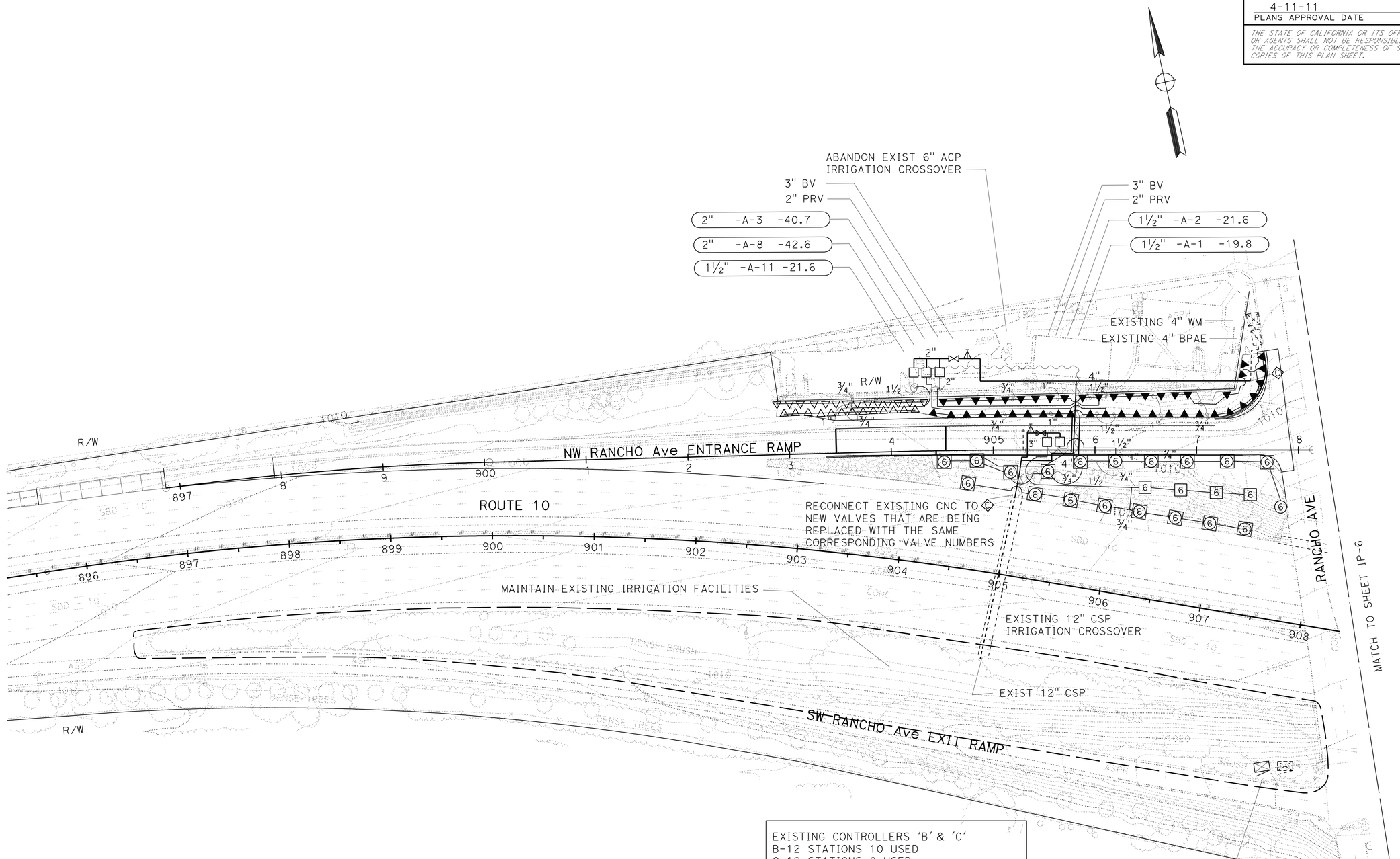


EXISTING CONTROLLERS 'B' & 'C'
B-12 STATIONS 10 USED
C-12 STATIONS 8 USED
REMOVE & REPLACE CABINET WITH NEW FOUNDATION. INSTALL 36 STATION FIELD UNIT & RECONNECT CNC, DESIGNATING 'B' & 'C' STATIONS IN CONTROLLER.

IRRIGATION PLAN

SCALE 1" = 50'

IP-5

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

REVISED BY | DATE REVISED
TIM WANDS | MATTHEW HALL
CALCULATED-DESIGNED BY | CHECKED BY
SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

LAST REVISION 01-13-11 | DATE PLOTTED => 16-APR-2011 | TIME PLOTTED => 08:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	158	260

LICENSED LANDSCAPE ARCHITECT

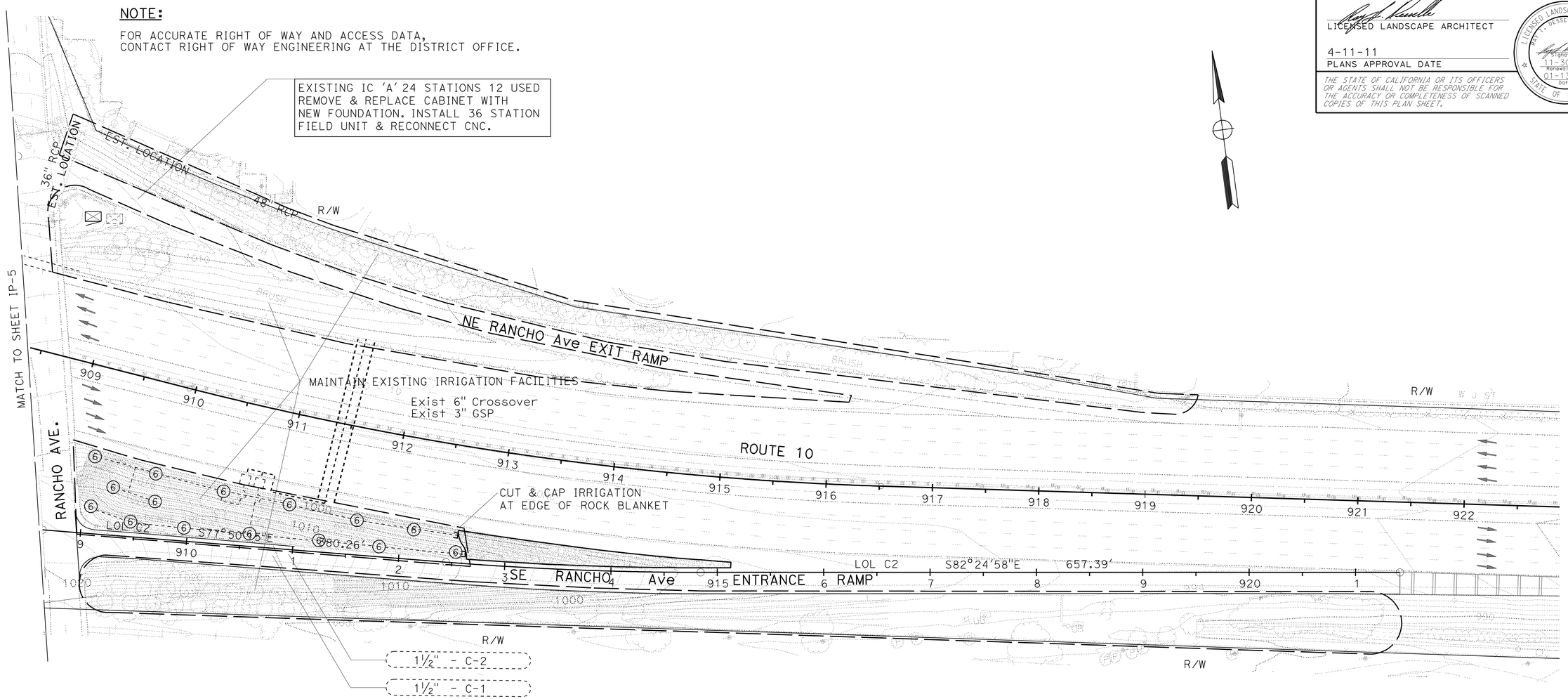
4-11-11
PLANS APPROVAL DATE

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

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 2272
Signature
11-30-11
Renewal Date
01-13-11
Date
STATE OF CALIFORNIA

NOTE:

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



IRRIGATION PLAN

SCALE 1"=50'

IP-6

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	159	260

LICENSED LANDSCAPE ARCHITECT

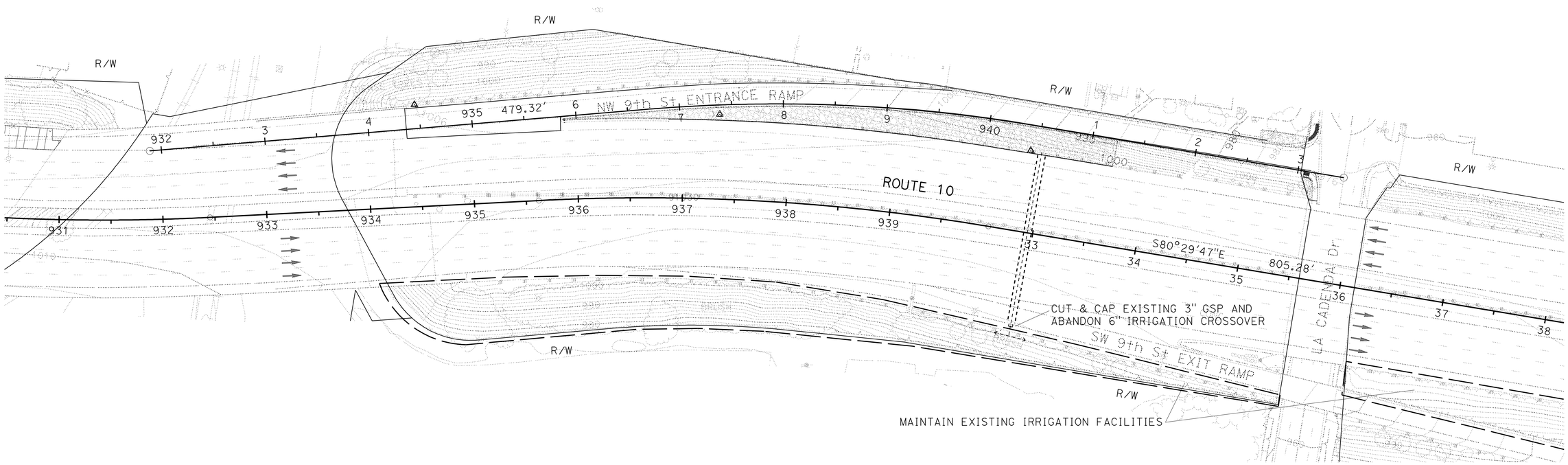
4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 3015
Signature
11-30-11
Renewal Date
01-13-11
Date
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 AND ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



IRRIGATION PLAN

SCALE 1"=50'

IP-7

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	160	260

LICENSED LANDSCAPE ARCHITECT

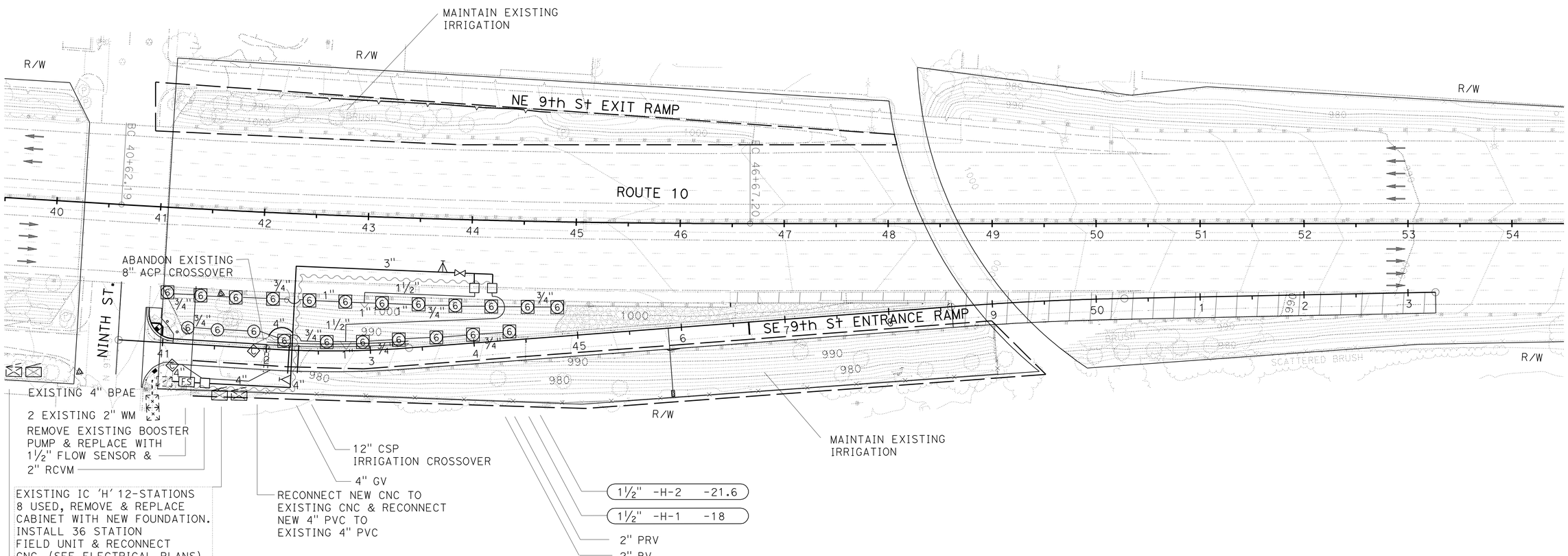
4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
RAY T. DESSELLE No. 3015
Signature
11-30-11
Renewal Date
01-13-11
Date
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 AND ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

IRRIGATION PLAN

SCALE 1"=50'

IP-8

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 09:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	161	260

LICENSED LANDSCAPE ARCHITECT

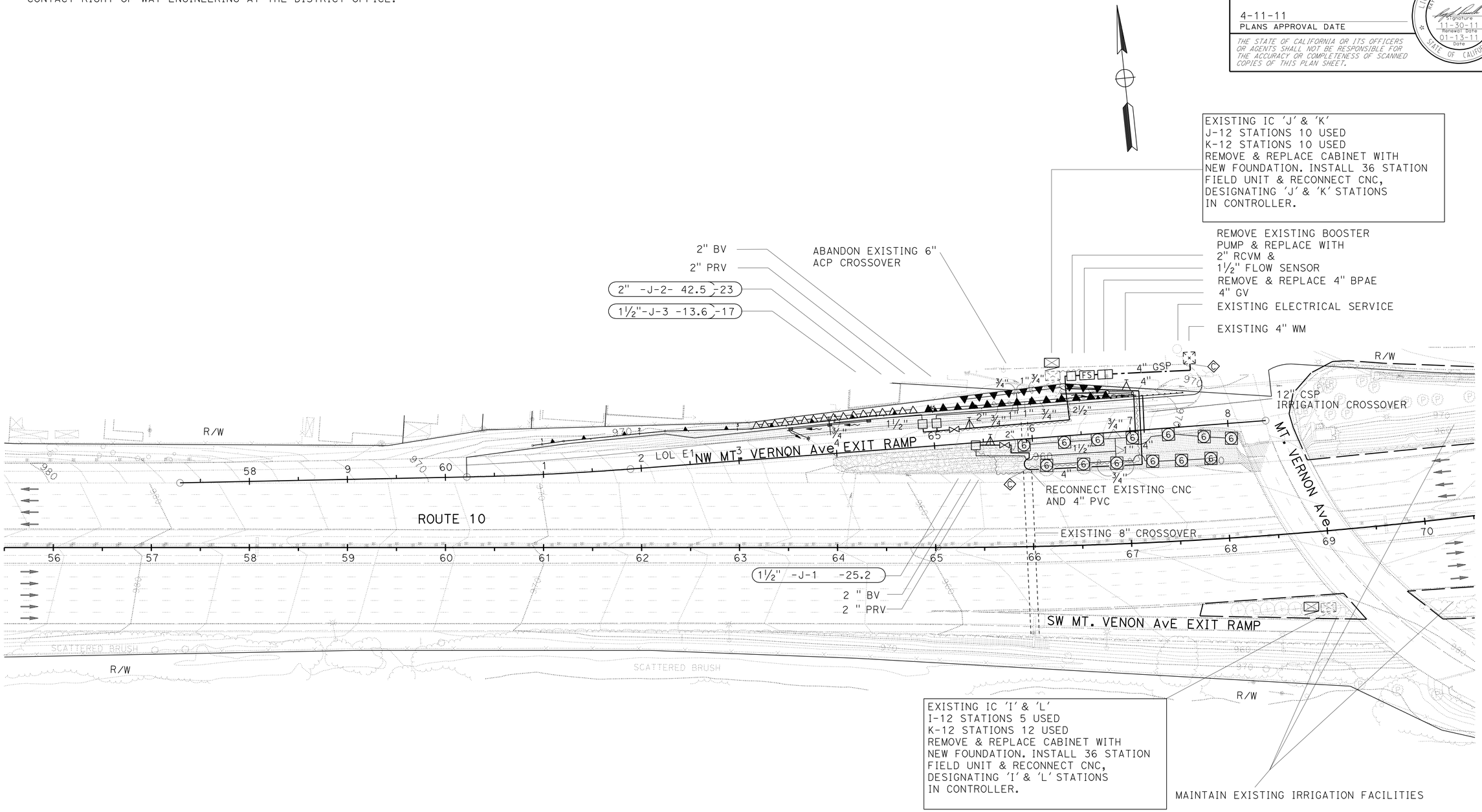
4-11-11
PLANS APPROVAL DATE

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

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 2272
Signature
11-30-11
Renewal Date
01-13-11
Date
STATE OF CALIFORNIA

NOTE:

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



IRRIGATION PLAN

SCALE 1"=50'

IP-9

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 12:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	162	260

LICENSED LANDSCAPE ARCHITECT

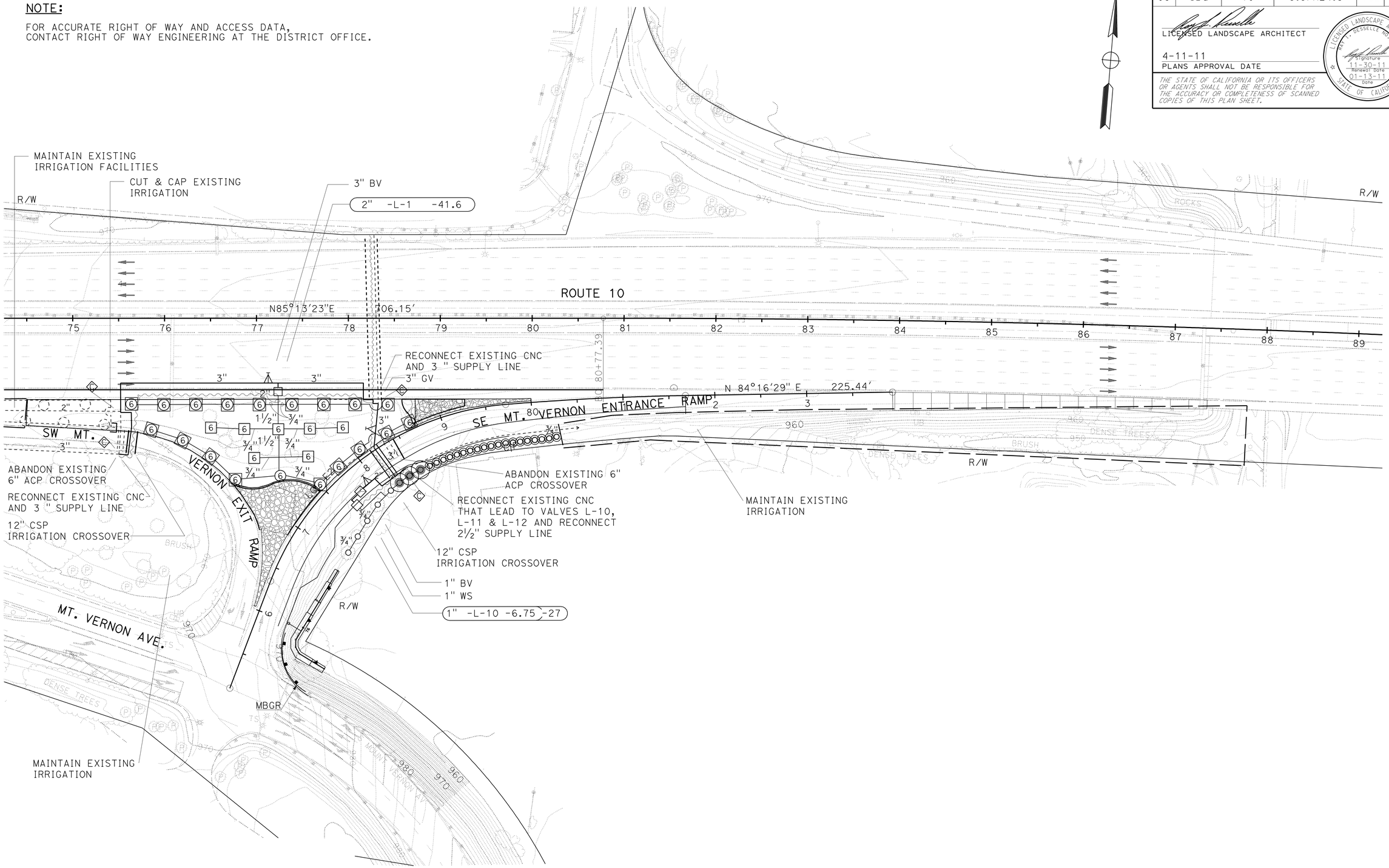
4-11-11
PLANS APPROVAL DATE

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

LICENSED LANDSCAPE ARCHITECT
RAY A. DESSELLE No. 2343
Signature
11-30-11
Renewal Date
01-13-11
Date
STATE OF CALIFORNIA

NOTE:

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



THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY.

IRRIGATION PLAN

SCALE 1"=50'

IP-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: MATTHEW HALL
CHECKED BY: TIM WANDS
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 12:57

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	163	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 3035 — Signature — Renewal Date 11-30-11 — Date 01-13-11 — 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.

SPRINKLER SCHEDULE

SYMBOL	TYPE	DESCRIPTION	SPRAY PATTERN	OPERATING PRESSURE (PSI)	PRESSURE COMPENSATING	PLUS/MINUS 5% ② DISCHARGE: GALLONS PER MINUTE (GPM)	GALLONS PER HOUR (GPH)	RADIUS (Ft)	WIDTH x LENGTH (Ft)	MATERIAL	INLET CONNECTION (NPT INCH)	POSITIVE-LOCKING ADJ ARC STOP	BACKSPLASH PREVENTER	DIFFUSER PIN	DISTANCE CONTROL FLAP	ADJ DISCHARGE	RISER: TYPE	MATERIAL: PLASTIC	GALVANIZED	SIZE (IPS INCH)	HEIGHT (INCH)	FLOW SHUTOFF DEVICE	⑤ SWING JOINT (TYPE)	RISER SUPPORT	SPRINKLER PROTECTOR (TYPE)	REMARKS
⑥	A-6	GEAR DRIVEN POP UP	P	40	—	1.8	—	36	—	PL	¾	—	—	—	—	X	VI	X	—	¾	—	⑦	⑤	—	X	12" POP UP WITH SPRINKLER PROTECTOR
[6]	A-6	GEAR DRIVEN POP UP	F	40	—	1.8	—	36	—	PL	¾	—	—	—	—	X	VI	X	—	¾	—	⑦	—	—	—	12" POP UP
▲	B-1	SHRUB SPRAY POP UP	H	30	—	1.85	—	15	—	PL	½	—	—	—	—	X	VI	X	—	½	—	⑦	⑤	—	—	6" POP UP
△	B-2	SHRUB SPRAY POP UP	H	30	—	0.8	—	10	—	PL	½	—	—	—	—	X	VI	X	—	½	—	⑦	⑤	—	—	6" POP UP
○	C-2	FLOOD BUBBLER	—	30	X	0.25	—	—	—	PL	½	—	—	—	—	—	II	X	—	½	—	—	—	—	—	PRESSURE COMPENSATING

APPLICABLE WHEN CIRCLED BELOW:

1 - See Special Provisions.
2 - If a pressure compensating device is specified, the discharge and radii shown reflect its use.
3 - Arc Stop shall be fitted with a nut and bolt.
4 - Vinyl-coated cast iron housing.
⑤ - Swing Joints required adjacent to shoulders, curbs, sidewalks, and dikes.
6 - Unless otherwise shown on plans.
⑦ - Flow shut off device shall be located 2" below bottom of head.

X IN BOX DENOTES REQUIREMENT

ABBREVIATIONS

F — full circle
P — part circle
F/P — full/part circle
Q — quarter circle
T — third circle
H — half circle
TT — two third circle
TQ — three quarter circle
CST — center strip
SST — side strip
EST — end strip
Ft — feet/foot
GPM — gallons per minute
GPH — gallons per hour
Adj — adjustable
PL — plastic
B/B — brass/bronze
B/PL — brass/plastic
B/B/PL — brass/bronze/plastic
NPT — national pipe thread
IPS — inside pipe size
PSI — pounds per square inch

LANDSCAPE DETAILS
LD-1

REVISED BY | DATE REVISED
TIM WANDS | MATTHEW HALL
CALCULATED-DESIGNED BY | CHECKED BY
SENIOR LANDSCAPE ARCHITECT | RAY DESSELLE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B

LAST REVISION 01-13-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 15:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	164	260

LICENSED LANDSCAPE ARCHITECT

4-11-11
PLANS APPROVAL DATE

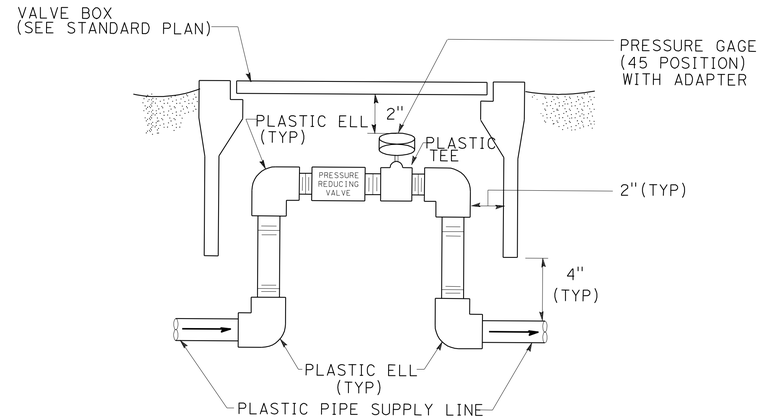
LICENSED LANDSCAPE ARCHITECT — RAY T. DESSELLE — No. 2272 — Signature — 11-30-11 Renewal Date — 01-13-11 Date — STATE OF CALIFORNIA

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.

EXTEND IRRIGATION CROSSOVERS

LOCATION		SIDE		EXTEND CONDUIT SIZE (20")		W	OL	(N) WATER LINE CROSSOVER SIZE (INCH)	(N) SPRINKLER CONTROL CROSSOVER SIZE (INCH)
LINE	STATION	R†	L†	R†-LENGTH-L†					
LOL A-2	737+15	X	X	10'	15'	X	—	10	2
TOTAL									

(N) - NOT A SEPARATE PAY ITEM FOR INFORMATION ONLY
X - DENOTES REQUIREMENT
W - WELDED JOINT
OL - OVERLAP



PRESSURE-REDUCING VALVE

IRRIGATION CROSSOVERS

LOCATION		SIDE		CONDUIT TYPE (2)		(N) WATER LINE CROSSOVER SIZE (INCH)	(N) SPRINKLER CONTROL CROSSOVER SIZE (INCH)
LINE	STATION	R†	L†	LENGTH (LF)	SIZE (INCH)		
LOL A-1	724+35	—	—	45	12	3	2
LOL C-1	905+75	—	—	40	12	4	2
LOL D-2	42+20	—	—	25	12	4	2
LOL E-1	67+05	—	—	40	12	4	2
LOL E-2	75+60	—	—	25	12	3	2
LOL E-2	78+15	—	—	40	12	3	2
TOTAL				215	—		

(N) - NOT A SEPARATE PAY ITEM FOR INFORMATION ONLY
X - DENOTES REQUIREMENT

CONDUIT TYPE

(Applicable when circled below and shown under the 'CONDUIT TYPE' column heading)

1 BITUMINOUS COATED CORRUGATED STEEL PIPE (0.064 INCH THICK)
2 CORRUGATED STEEL PIPE (0.064 INCH THICK)
3 CORRUGATED HIGH DENSITY POLYETHYLENE PIPE
4 WELDED STEEL PIPE CONDUIT

LANDSCAPE DETAILS
LD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE B
SENIOR LANDSCAPE ARCHITECT: RAY DESSELLE
CALCULATED-DESIGNED BY: TIM WANDS
CHECKED BY: MATTHEW HALL
REVISED BY
DATE REVISED

LAST REVISION 01-13-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	165	260

REGISTERED CIVIL ENGINEER 1-13-11 DATE

4-11-11
PLANS APPROVAL DATE

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

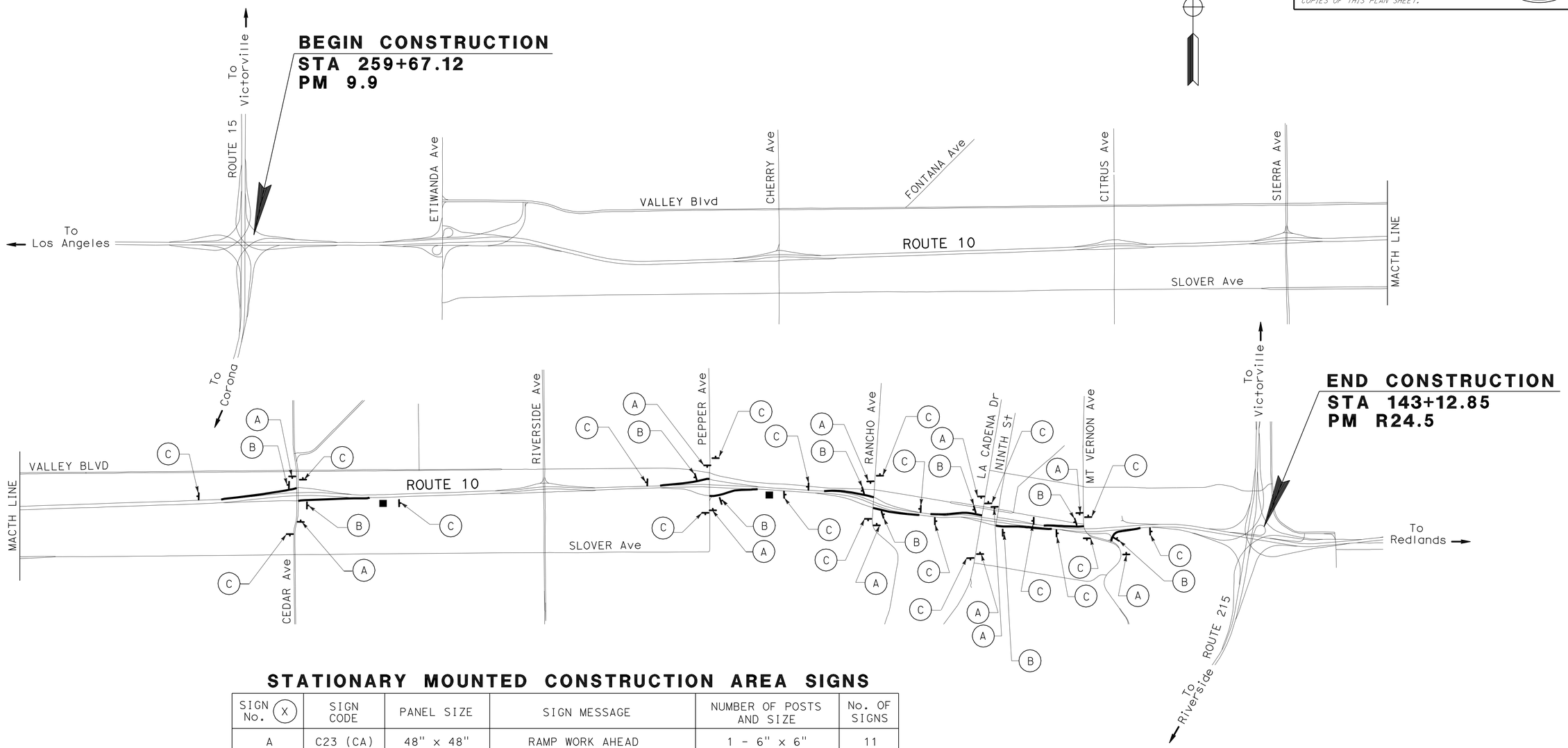
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

- ONE POST SIGN
- RAMP WORK AREA
- (X) CONSTRUCTION AREA SIGN CODE

NOTES:

1. CONSTRUCTION AREA SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	No. OF SIGNS
A	C23 (CA)	48" x 48"	RAMP WORK AHEAD	1 - 6" x 6"	11
B	SC6-4	48" x 60"	RAMP CLOSED (DATE, TIME)	1 - 6" x 6"	10
C	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	20

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B

FUNCTIONAL SUPERVISOR: LARRY SARTORI
CALCULATED-DESIGNED BY: VU TRAN
CHECKED BY: TRAN HOANG
REVISED BY
DATE REVISED

LAST REVISION 01-13-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 16:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	166	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
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.

PROJECT NOTES:

A INSTALL EQUIPMENT AS PER SHEET E-25.

B SPLICE NEW TYPE "D" FO CABLE TO EXISTING TYPE "C" FO CABLE IN EXISTING SPLICE CLOSURE.

C INSTALL CONDUIT INTO EXISTING FIBER OPTIC SPLICE VAULT.

D INSTALL TYPE "D" FO CABLE INTO EXISTING TYPE 332 SIGNAL CABINET.

E EXISTING TYPE 334 CABINET FOR TOS EQUIPMENT. INSTALL EQUIPMENT AS PER DETAILS ON SHEET E-32.

F INSTALL STATE-FURNISHED MODEL 334 CABINET ASSEMBLY A MINIMUM OF 30′ FROM RAMP LANE ETW. SEE SHEET E-33 FOR RAMP METERING DETAILS.

G INSTALL MVDS AS PER SHEETS E-44 AND E-45. RS WVDS POLE AND POLE MOUNTED EQUIPMENT AFTER RAMP METERING SYSTEMS ARE OPERATIONAL.

H INSTALL EQUIPMENT AS PER SHEET E-26.

I INSTALL EQUIPMENT AS PER SHEET E-27.

J RS WVDS POLE AND POLE MOUNTED EQUIPMENT.

K EQUIPMENT NOT SHOWN ON PLANS. FOR INFORMATIONAL USE ONLY.

L INSTALL EQUIPMENT AS PER SHEET E-28.

M INSTALL EQUIPMENT AS PER SHEET E-29.

N INSTALL EQUIPMENT AS PER SHEET E-30.

P INSTALL EQUIPMENT AS PER SHEET E-31.

ABBREVIATIONS:

FO	FIBER OPTIC	FOC	FIBER OPTIC CABLE
SCE	SOUTHERN CALIFORNIA EDISON	EFOS	ELEMENT FIBER OPTIC SWITCH
TOS	TRAFFIC OPERATIONS SYSTEM	POE	POWER OVER ETHERNET
VSN	VEHICLE SENSOR NODE	WER	WIRELESS ETHERNET RADIO
WVDS	WIRELESS VEHICLE DETECTION SYSTEM	GPRS	GENERAL PACKET RADIO SERVICE
TCVR	TRANSCEIVER	MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
TC-1	SCE TRAFFIC CONTROL RATE	ITU	INTERCONNECT AND TERMINATION UNIT
LS-3	SCE LIGHTING RATE	TOS	TRAFFIC OPERATIONS SYSTEM
G-1	SCE IRRIGATION RATE	FDU	FIBER DISTRIBUTION UNIT
N2S	NETWORK TO SERIAL ADAPTER CARD		

LEGEND:

V EXISTING FIBER OPTIC SPLICE VAULT

PROPOSED RAMP METERING SIGNAL HEAD. SEE SHEET E-29 FOR DETAILS.

EXISTING WIRELESS VEHICLE DETECTION POLE

EXISTING VSN

EXISTING TOS CABINET

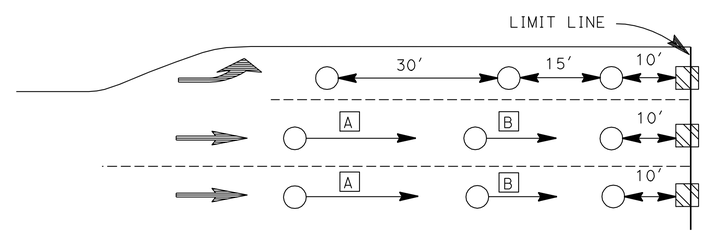
—— FO —— INSTALL 4" CONDUIT WITH 4-1" INNERDUCTS AND ONE TYPE A, B, AND C FO CABLES IN SEPARATE INNERDUCTS. SEE SHEET E-34 FOR DETAILS.

—— fo —— EXISTING 4" CONDUIT WITH 4-1" INNERDUCTS AND ONE TYPE A, B, AND C FO CABLES IN SEPARATE INNERDUCTS.

SC CONNECTORS

SPLICE PIGTAIL TO TYPE D CABLE

DARK FIBER



A = DISTANCE TO LIMIT LINE, SEE PLANS
B = DISTANCE TO LIMIT LINE, SEE PLANS

TYPICAL LOOP DETECTOR SETBACKS
(SHEETS E-16, E-18, E-20, E-22, E-23)

PROJECT NOTES, ABBREVIATIONS AND LEGEND
E-1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 16:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	167	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES-THIS SHEET ONLY:

1 EXISTING 120/240 V, 1Ø, 3 WIRE, TYPE SCE-2 SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (LS-3)
30 A, 120 V, 1P, CB. (lighting)

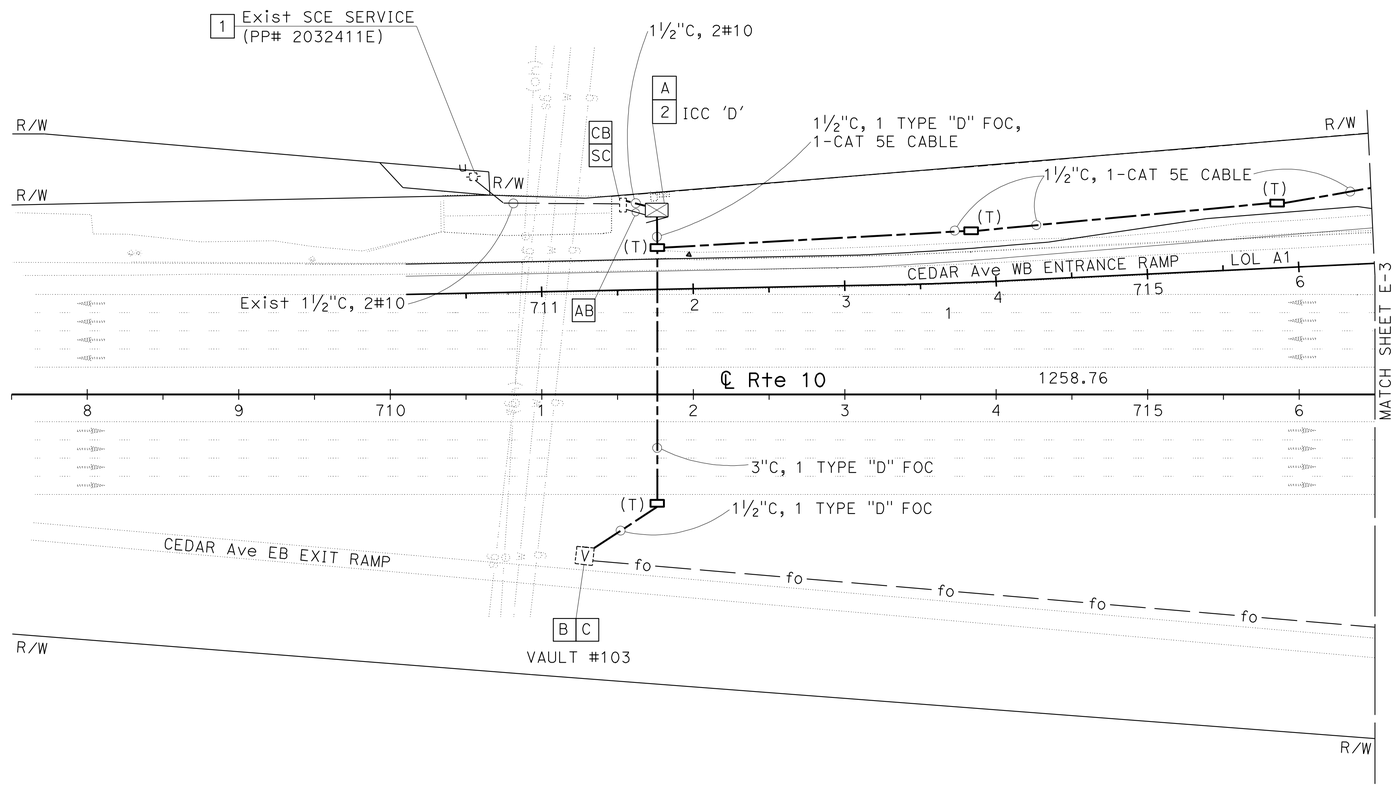
METER B: 100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
30 A, 120 V, 1P, CB. (sign lighting) 3
20 A, 120 V, 1P, CB. (irrigation)
15 A, 120 V, 1P, CB. (cctv)

2 IRRIGATION CONTROLLER ENCLOSURE CABINET TO BE INSTALLED BY OTHERS. REFER TO IRRIGATION PLANS FOR DETAILS.

3 RELOCATE EXISTING CB TO METER "A".

NOTE:

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



ELECTRIC SERVICE (IRRIGATION)
MODIFY COMMUNICATION SYSTEM

SCALE 1" = 50'

E-2

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	168	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES-THIS SHEET ONLY:

1 INSTALL 120/240 V, 1Ø, 3 WIRE, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE AS PER RSP ES-2C AND PER RSP ES-2E, WITH THE FOLLOWING CIRCUIT BREAKERS: (ADDRESS: 10160 MAGNOLIA St, BLOOMINGTON, CA 92316)

CALTRANS ID No. 08540100021201M

100 A, 240 V, 2P, CB. (MAIN BREAKER)
30 A, 120 V, 1P, CB. (RAMP METERING)

2 EXISTING 120/240 V, 1Ø, TYPE SCE-2 SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
30 A, 120 V, 1P, CB. (TRAFFIC SIGNAL - WB ON-RAMP)
30 A, 120 V, 1P, CB. (TRAFFIC SIGNAL - EB ON-RAMP)

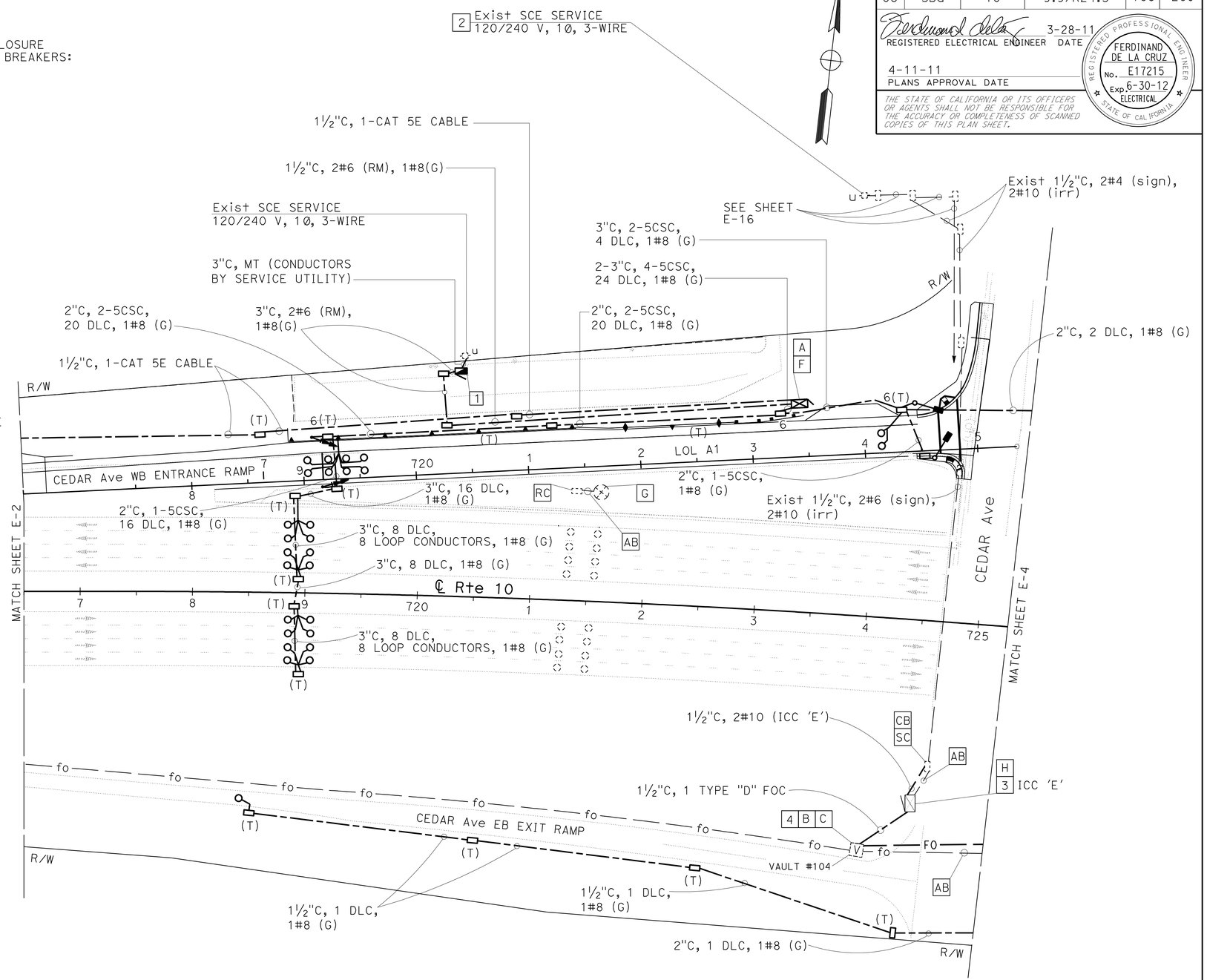
METER B: 100 A, 240 V, 2P, CB. MAIN BREAKER (LS-3)
15 A, 240 V, 2P, CB. (LIGHTING)
20 A, 120 V, 1P, CB. (SIGN ILLUMINATION)
20 A, 120 V, 1P, CB. (IRRIGATION)

3 IRRIGATION CONTROLLER ENCLOSURE CABINET TO BE INSTALLED BY OTHERS. REFER TO IRRIGATION PLANS FOR DETAILS.

4 INSTALL 3 SPLICE CLOSURES. CUT ALL EXISTING FO CABLES (TYPE A, B, & C) AND PULL FO CABLES BACK TO THE EXISTING SPLICE VAULT #106 AT Sta 738.25 (SHEET E-5). AFTER THE FO CABLES HAVE BEEN INSTALLED IN THE NEW FO CONDUITS, THEY SHALL BE SPLICED TO THE EXISTING CABLES AS PER SHEET E-35.

NOTE:

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



RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 1)

MODIFY COMMUNICATION SYSTEM

ELECTRIC SERVICE (IRRIGATION)

SCALE 1" = 50'

E-3

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY / DATE REVISED

LAST REVISION 03-28-11 | DATE PLOTTED => 16-APR-2011 | TIME PLOTTED => 06:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	169	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

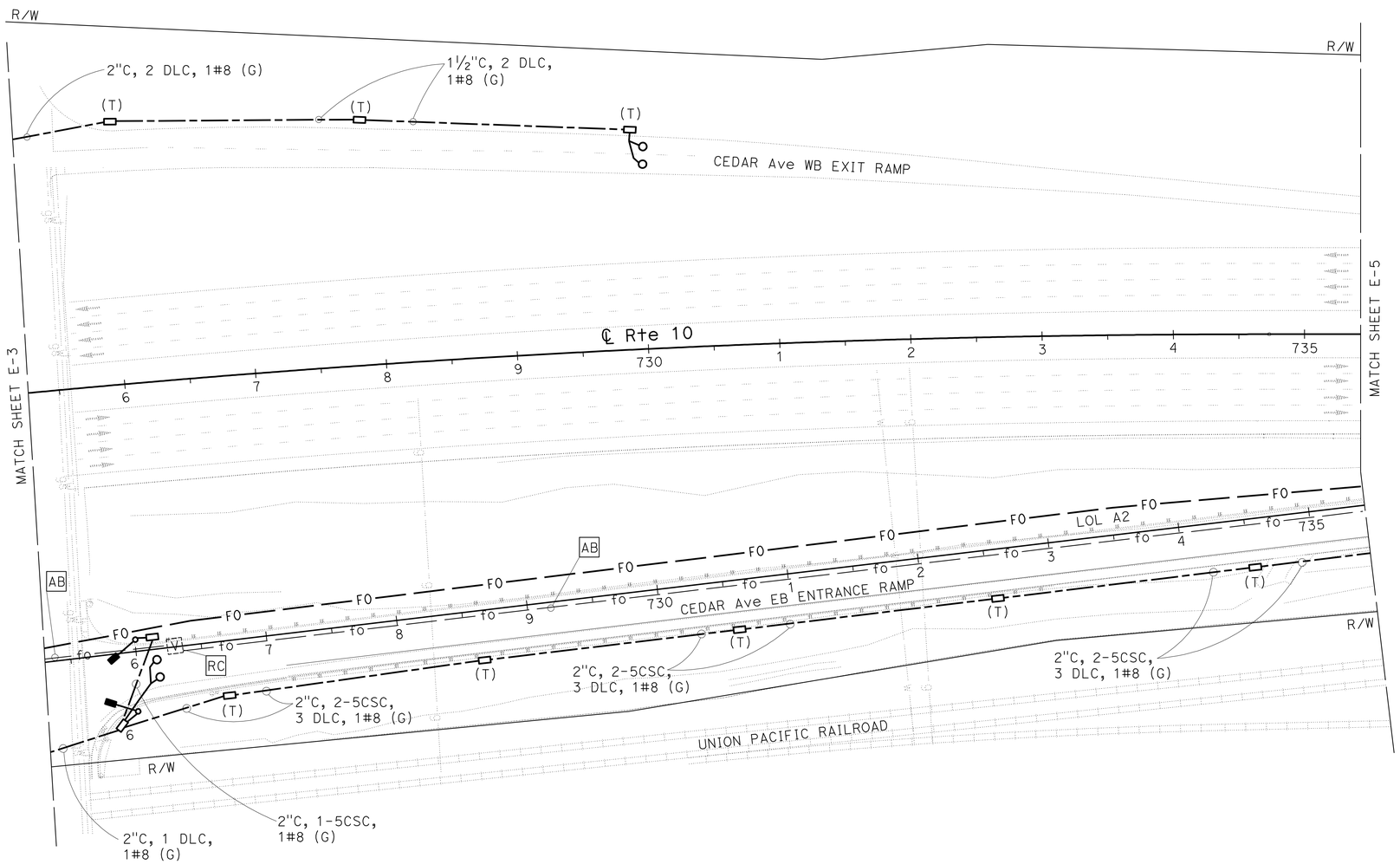
4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
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.

NOTE:

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



RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 2)

MODIFY COMMUNICATION SYSTEM

SCALE 1" = 50'

E-4

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	170	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES-THIS SHEET ONLY:

1 EXISTING 120/240 V, 1Ø, 3 WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (LS-3)
40 A, 240 V, 2P, CB. (HIGHWAY LIGHTING)
30 A, 240 V, 2P, CB. (SIGN ILLUMINATION)
15 A, 120 V, 1P, CB. (LTG CONTROL)

METER B: 100 A, 240 V, 2P, CB. MAIN BREAKER (G-1)
15 A, 120 V, 1P, CB. (ICC "C")
15 A, 120 V, 1P, CB. (ICC EAST)

2 EXISTING 120/240 V, 1Ø, 3 WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
15 A, 120 V, 1P, CB. (CCTV)
INSTALL 30 A, 120 V, 1P, CB. (RM)

METER B: 100 A, 240 V, 2P, CB. MAIN BREAKER (FUTURE)

3 IRRIGATION CONTROLLER ENCLOSURE CABINET TO BE INSTALLED BY OTHERS. REFER TO IRRIGATION PLANS FOR DETAILS.

4 REMAINING CIRCUIT NOT SHOWN BEYOND THIS POINT.

5 SEE DETAIL 'B' ON SHEET E-36.

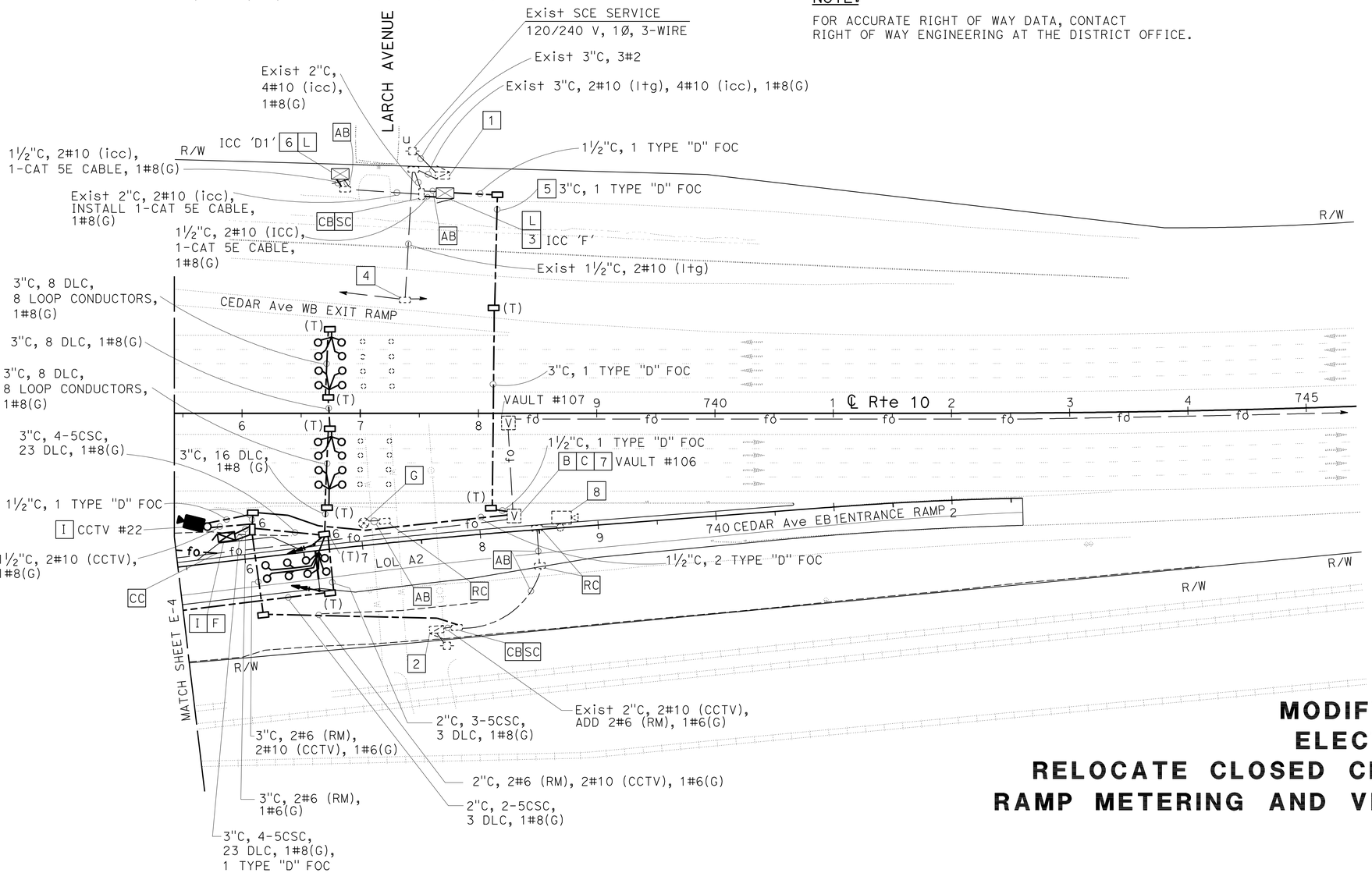
6 NEW IRRIGATION CONTROLLER ENCLOSURE CABINET TO BE INSTALLED BY OTHERS. REFER TO IRRIGATION PLANS FOR INSTALLATION DETAILS.

7 EXISTING FO CABLES ARE TO BE REMOVED AND COILED TO THIS SPLICE VAULT.

8 RL EXISTING CCTV CAMERA ASSEMBLY, POLE AND EQUIPMENT TO NEW LOCATION SHOWN ON THIS SHEET.

NOTE:

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



MODIFY COMMUNICATION SYSTEM
ELECTRIC SERVICE (IRRIGATION)
RELOCATE CLOSED CIRCUIT TELEVISION SYSTEM
RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 2)

SCALE 1" = 50'

E-5

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	171	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

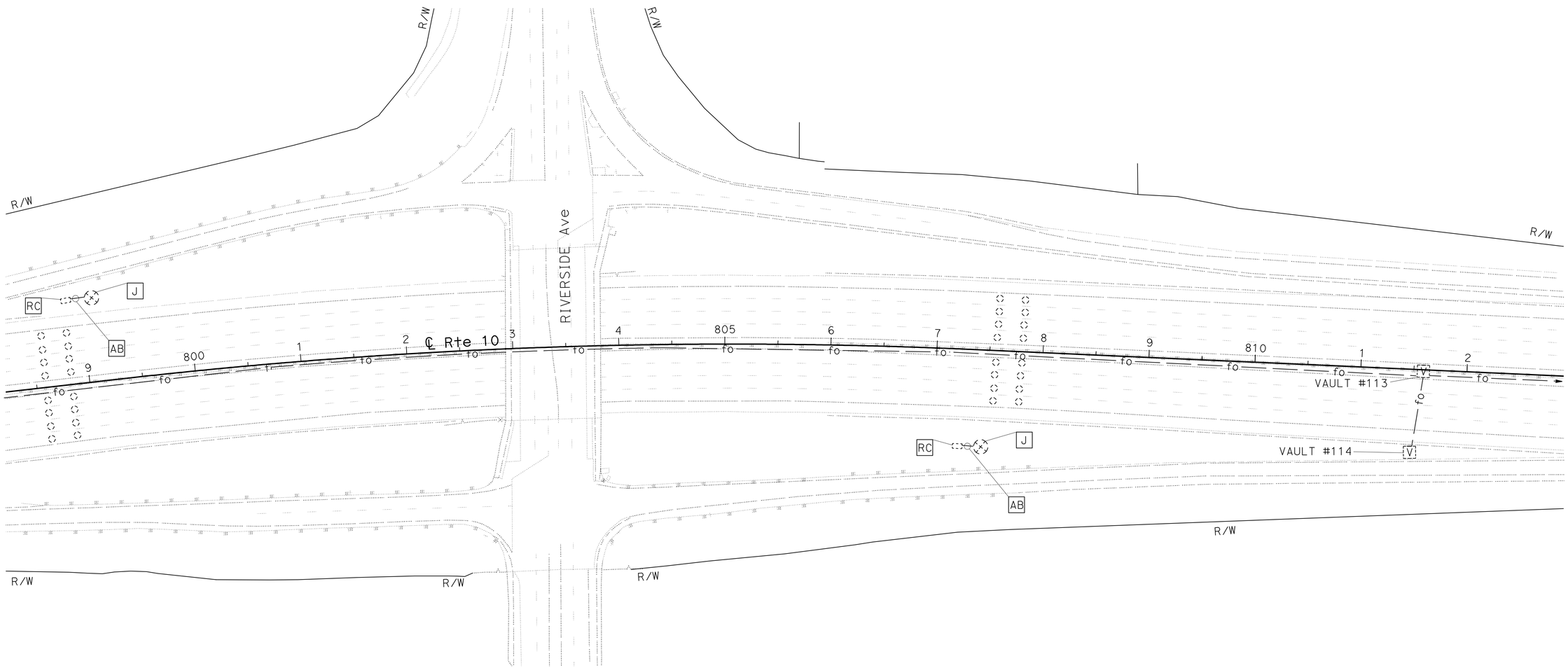
4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
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.

NOTE:

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



MODIFY COMMUNICATION SYSTEM

RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 3)

SCALE 1" = 50'

E-6

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

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

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11 | DATE PLOTTED => 16-APR-2011 | TIME PLOTTED => 06:18

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 838434ua006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2292 | PROJECT NUMBER & PHASE 08000006401

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	172	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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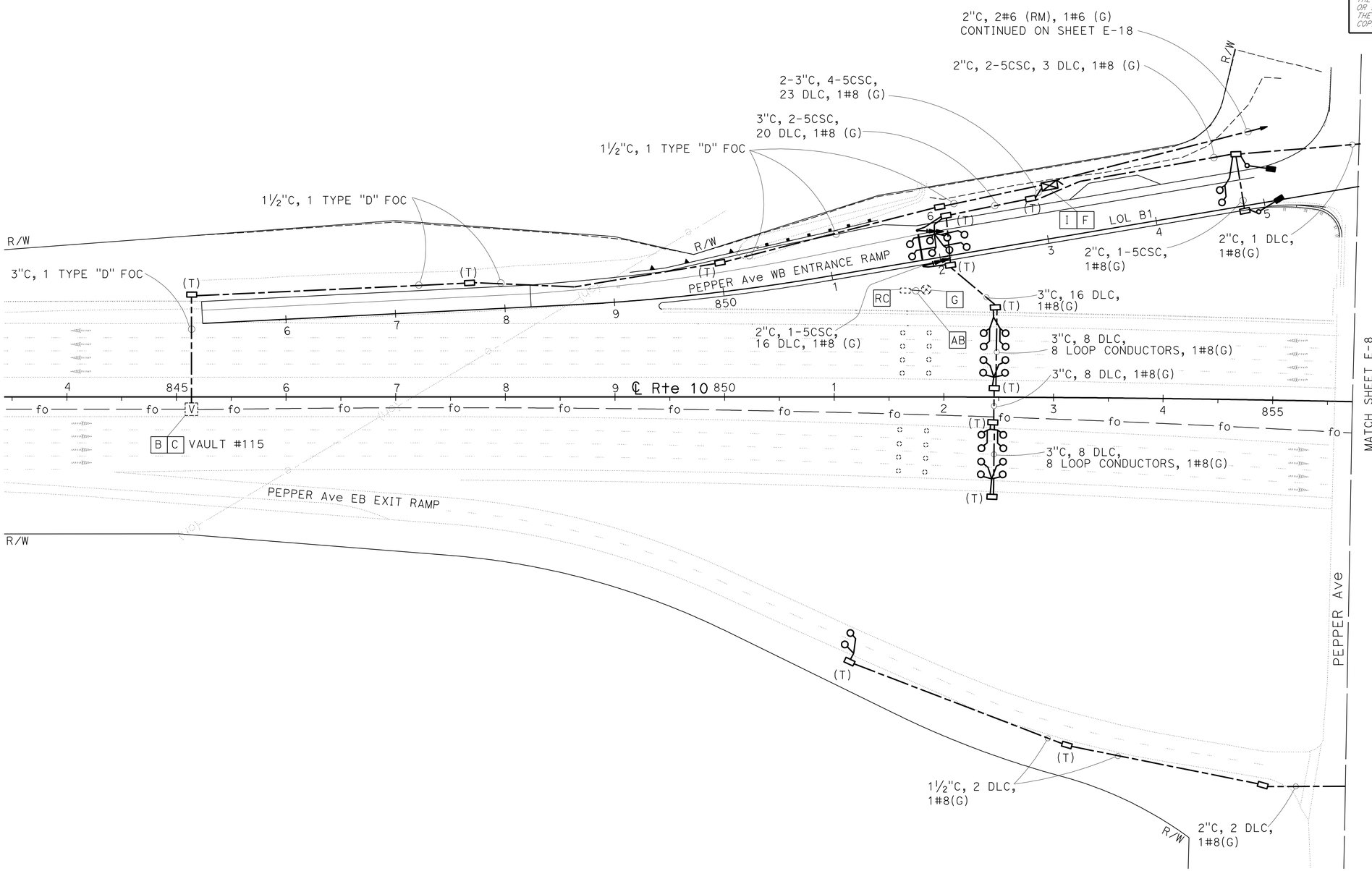
NOTE:

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



RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 4) MODIFY COMMUNICATION SYSTEM

SCALE 1" = 50'

E-7

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:18

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	173	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

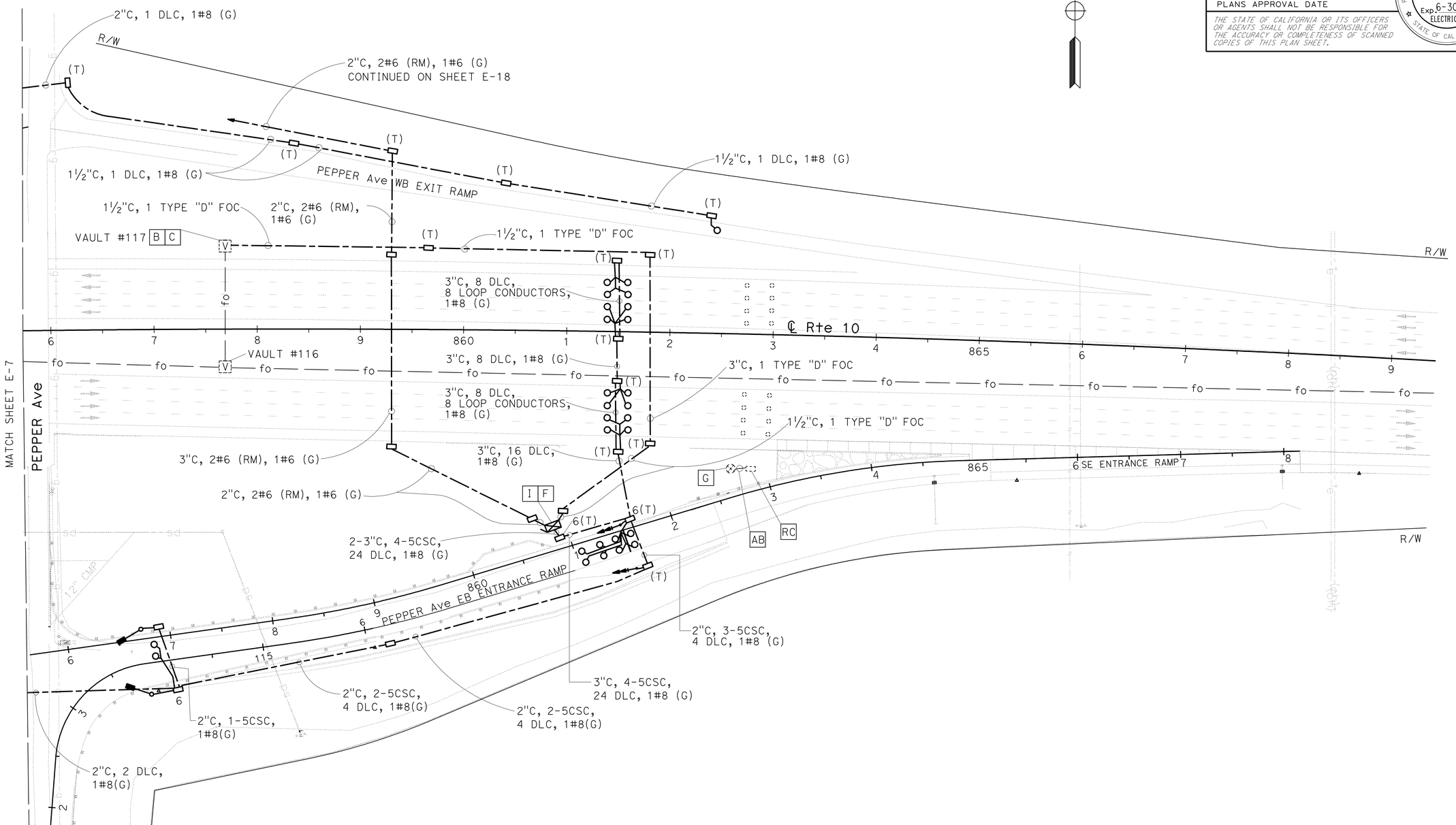
4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
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.

NOTE:

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



RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 5) MODIFY COMMUNICATION SYSTEM

SCALE 1" = 50'

E-8

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:18

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	174	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES-THIS SHEET ONLY:

1 INSTALL 120/240 V, 1Ø, 3 WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:
(ADDRESS: 1210 WEST VALLEY Blvd, COLTON, CA 92324)

CALTRANS ID No. 08540100021441M

METER A: 100 A, 240 V, 2P, CB. (MAIN BREAKER) (LS-3)
30 A, 240 V, 2P, CB. (SIGN LIGHTING)

CALTRANS ID No. 08540100021443M

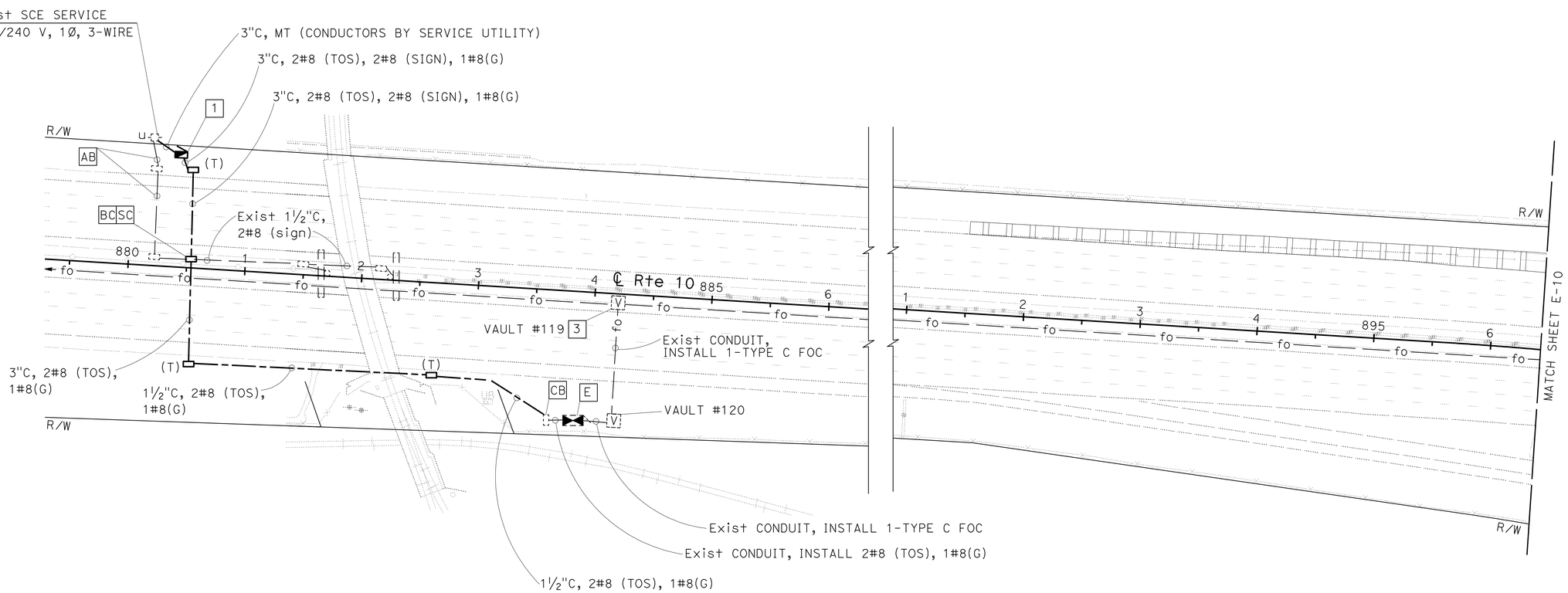
METER B: 100 A, 240 V, 2P, CB. (MAIN BREAKER) (TC-1)
30 A, 120 V, 1P, CB. (TOS)

2 RC TYPE SCE-1 SERVICE EQUIPMENT.

3 INSTALL SPLICE CLOSURE. SPLICE EXISTING TYPE 'C' FO CABLE TO NEW TYPE 'C' FO CABLE.

NOTE:

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



MODIFY TRAFFIC OPERATIONS SYSTEM CABINET ASSEMBLY
MODIFY COMMUNICATION SYSTEM

SCALE 1" = 50'

E-9

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:18

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	175	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 ELECTRICAL STATE OF CALIFORNIA

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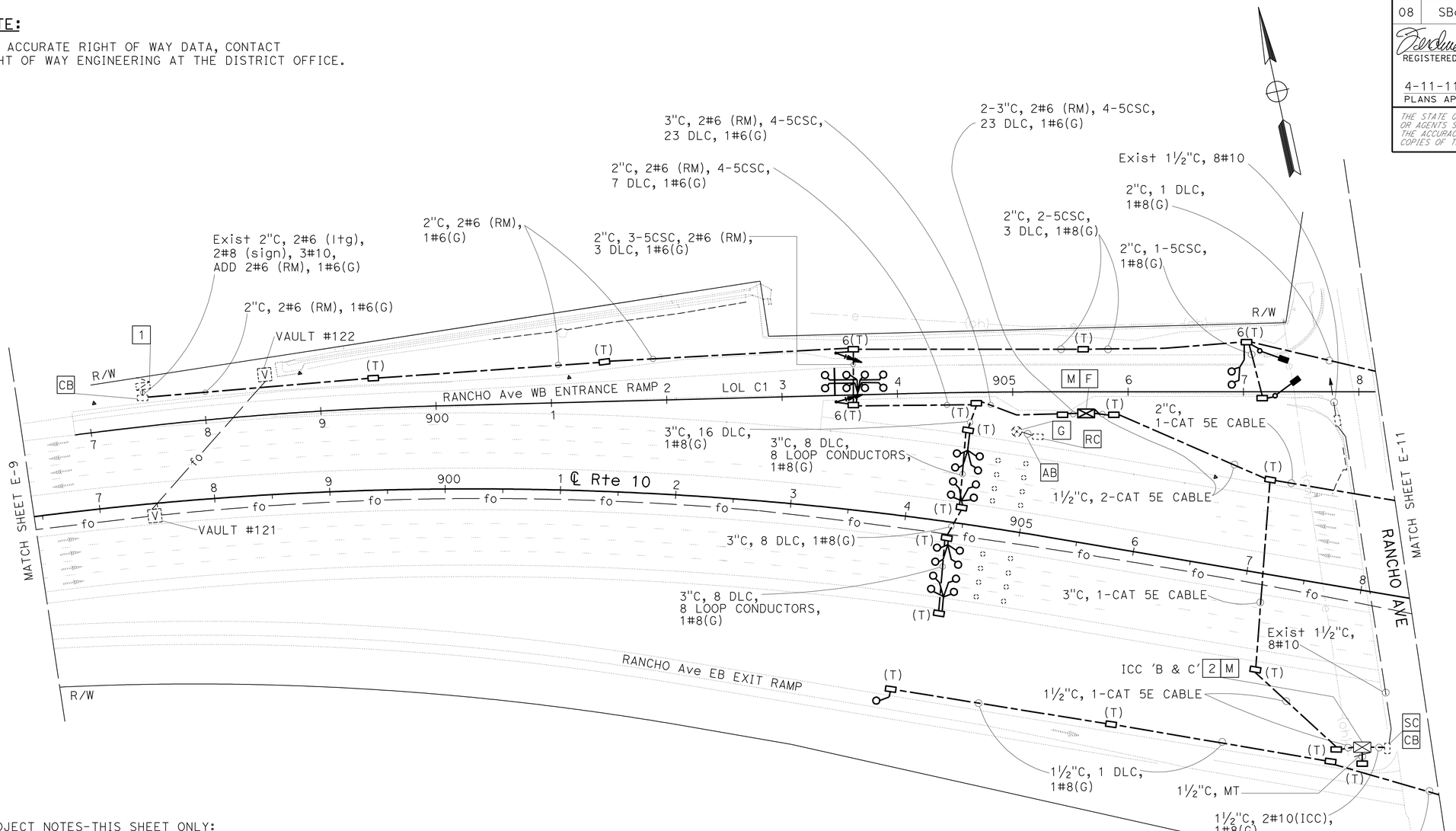
NOTE:

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



PROJECT NOTES-THIS SHEET ONLY:

1 EXISTING 120/240 V, 1Ø, 3 WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (LS-3)
50 A, 120 V, 1P, CB. (IRRIGATION)
15 A, 120 V, 1P, CB. (FLASHING BEACON)
30 A, 240 V, 2P, CB. (SIGN LIGHTING)
15 A, 120 V, 1P, CB. (LIGHTING CONTROL)

METER B: 100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
20 A, 120 V, 1P, CB. (SIGNAL)
15 A, 120 V, 1P, CB. (IISNS)
40 A, 240 V, 2P, CB. (LIGHTING)
15 A, 120 V, 1P, CB. (LIGHTING CONTROL)
15 A, 120 V, 1P, CB. (RAMP METER)
INSTALL 30 A, 120 V, 1P, CB. (RM)

2 IRRIGATION CONTROLLER ENCLOSURE CABINET TO BE INSTALLED BY OTHERS. REFER TO IRRIGATION PLANS FOR DETAILS.

RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 6)
MODIFY COMMUNICATION SYSTEM ELECTRIC SERVICE (IRRIGATION)

SCALE 1" = 50'

E-10

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:18

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	176	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 ELECTRICAL STATE OF CALIFORNIA

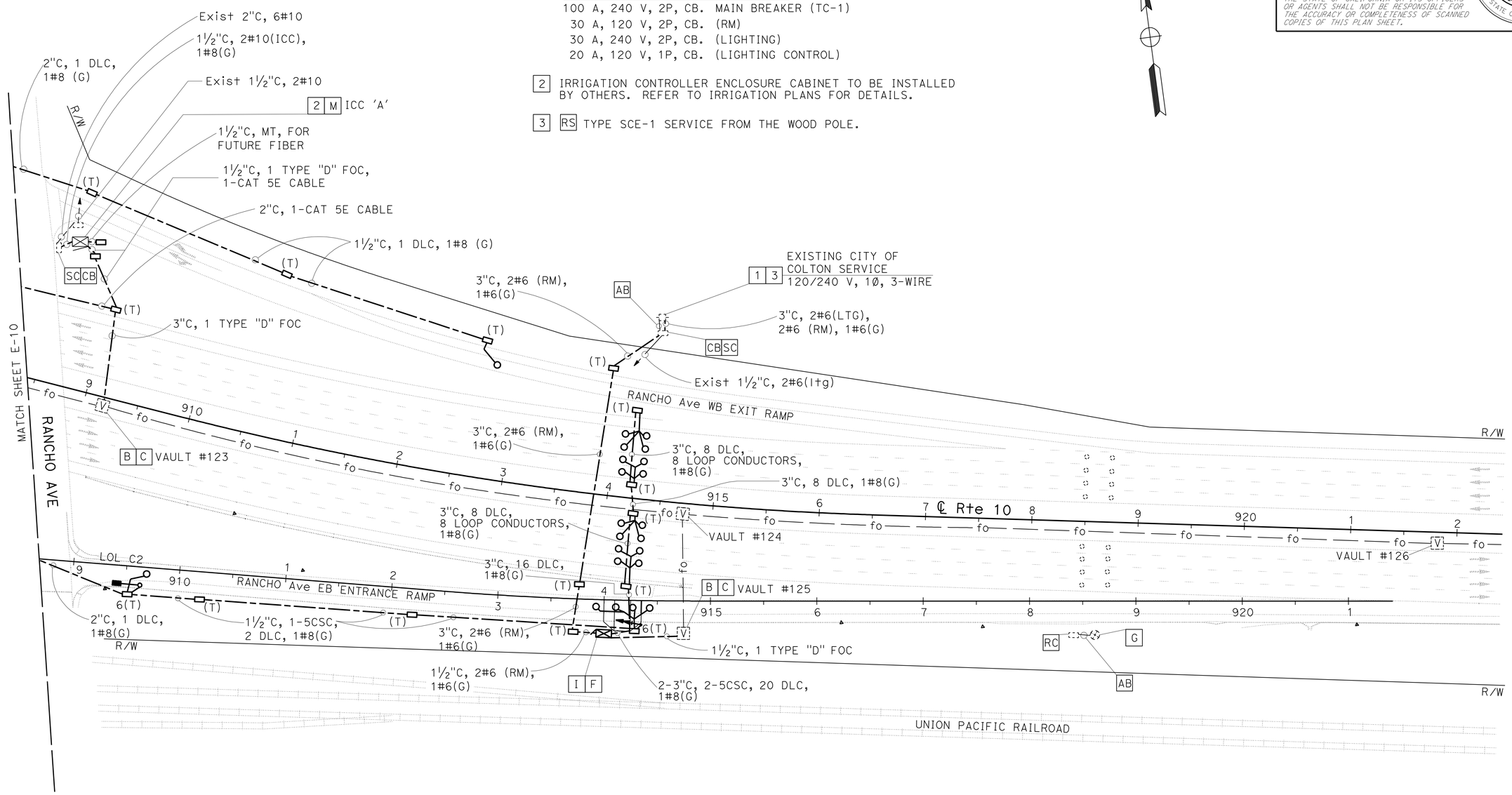
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

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

PROJECT NOTES-THIS SHEET ONLY:

1. INSTALL 120/240 V, 1Ø, 3 WIRE, TYPE SCE-1 SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS: (ADDRESS: 161 NORTH 2ND St, COLTON, CA 92324)
   CALTRANS ID No. 08540100022101M
   100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
   30 A, 120 V, 2P, CB. (RM)
   30 A, 240 V, 2P, CB. (LIGHTING)
   20 A, 120 V, 1P, CB. (LIGHTING CONTROL)
2. IRRIGATION CONTROLLER ENCLOSURE CABINET TO BE INSTALLED BY OTHERS. REFER TO IRRIGATION PLANS FOR DETAILS.
3. RS TYPE SCE-1 SERVICE FROM THE WOOD POLE.



RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 7)
MODIFY COMMUNICATION SYSTEM ELECTRIC SERVICE (IRRIGATION)

SCALE 1" = 50'

E-11

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY / DATE REVISED

LAST REVISION 03-28-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 15:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	177	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

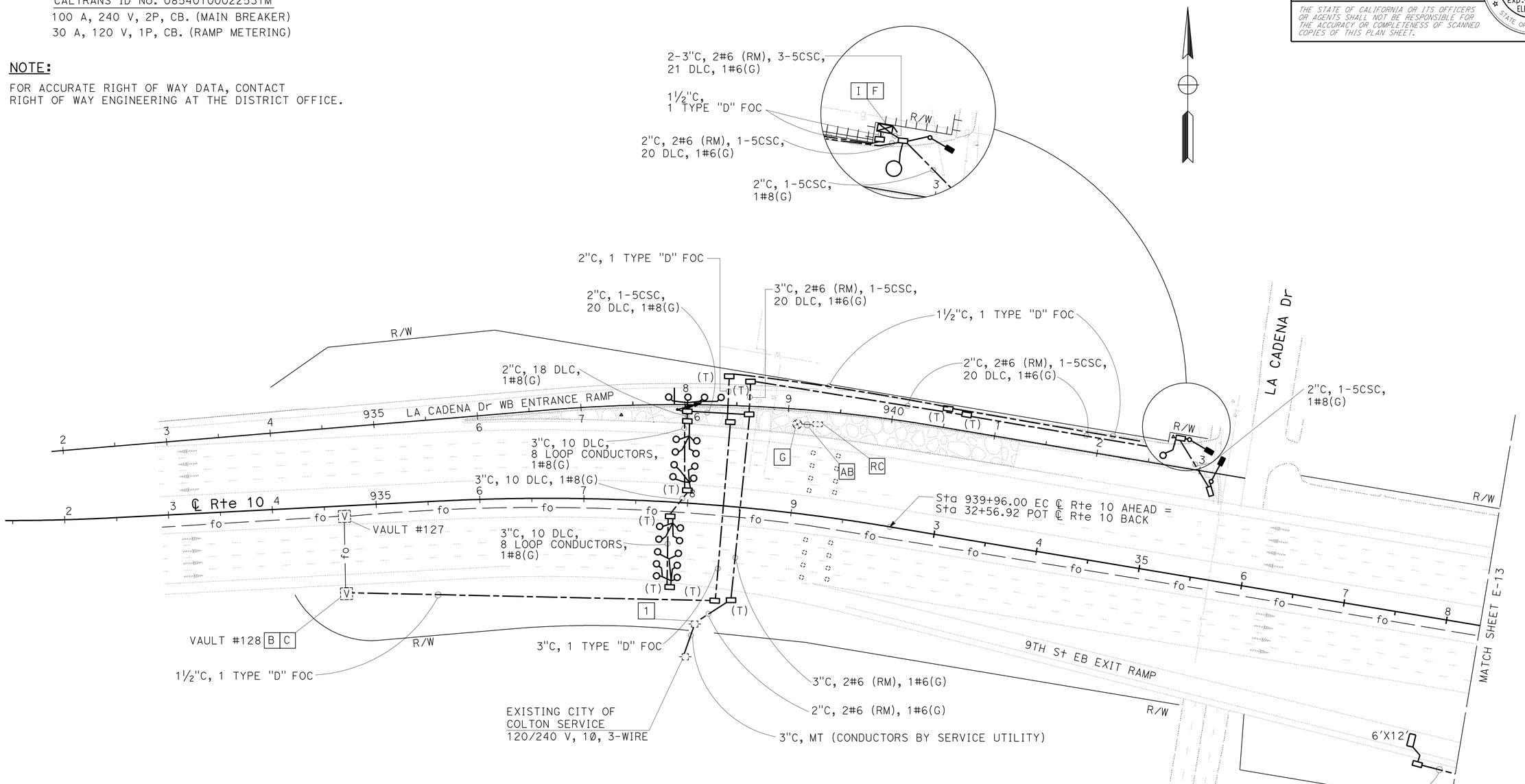
PROJECT NOTES-THIS SHEET ONLY:

1 INSTALL 120/240 V, 1Ø, 3 WIRE, TYPE SCE-1 SERVICE EQUIPMENT ENCLOSURE AS PER ES-2A, WITH THE FOLLOWING CIRCUIT BREAKERS:
(ADDRESS: 111 NORTH 7TH St, COLTON, CA 92324)

CALTRANS ID No. 08540100022531M
100 A, 240 V, 2P, CB. (MAIN BREAKER)
30 A, 120 V, 1P, CB. (RAMP METERING)

NOTE:

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



ELECTRIC SERVICE (IRRIGATION)
MODIFY COMMUNICATION SYSTEM
RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 8)

SCALE 1" = 50'

E-12

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 15:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	178	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES-THIS SHEET ONLY:

1 INSTALL 120/240 V, 1Ø, 3 WIRE, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE AS PER RSP ES-2C AND PER RSP ES-2E, WITH THE FOLLOWING CIRCUIT BREAKERS: (ADDRESS: 115 NORTH 9TH St, COLTON, CA 92324)

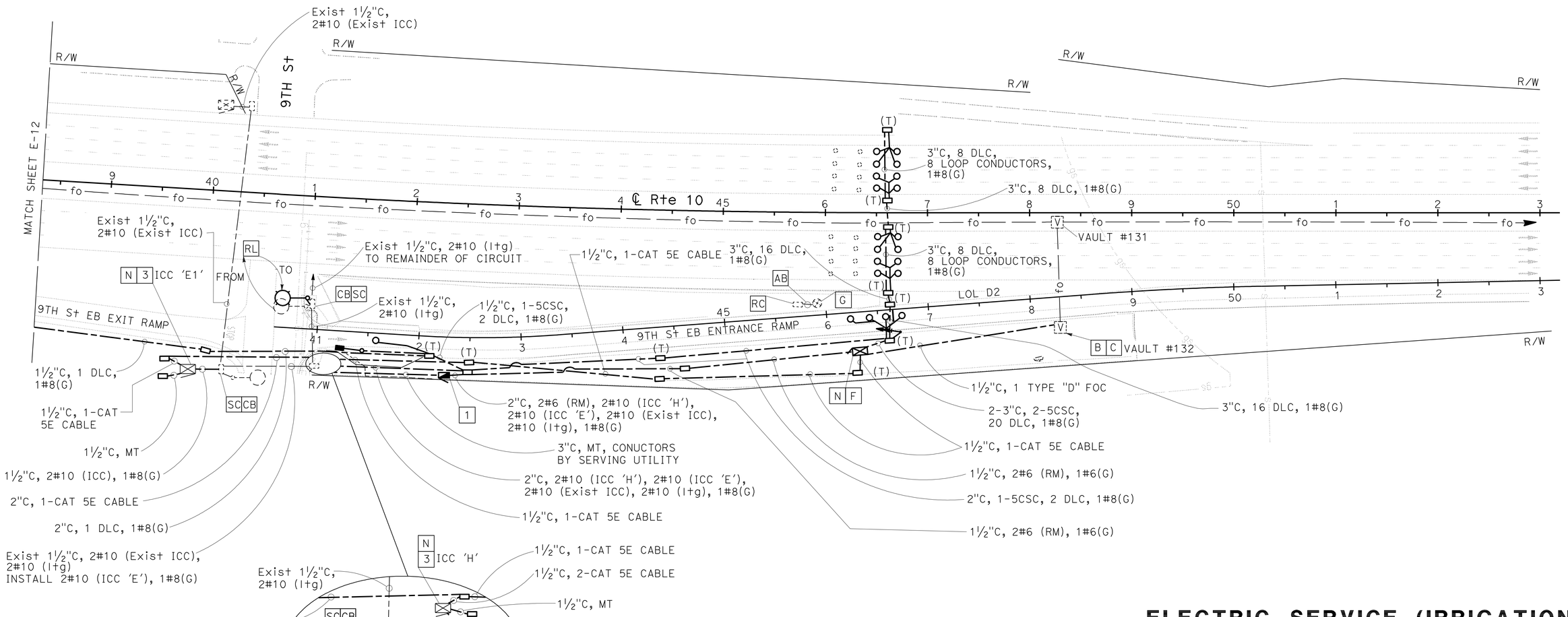
CALTRANS ID No. 08540100022720M
100 A, 240 V, 2P, CB. (MAIN BREAKER)
30 A, 120 V, 1P, CB. (RAMP METERING)
20 A, 120 V, 1P, CB. (IRRIGATION)
20 A, 120 V, 1P, CB. (IRRIGATION)
20 A, 120 V, 1P, CB. (IRRIGATION)
30 A, 240 V, 2P, CB. (LIGHTING)

2 RC TWO EXISTING TYPE SCE SERVICES ON WOOD POLE.

3 IRRIGATION CONTROLLER ENCLOSURE CABINET TO BE INSTALLED BY OTHERS. REFER TO IRRIGATION PLANS FOR DETAILS.

NOTE:

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



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

ELECTRIC SERVICE (IRRIGATION)
MODIFY COMMUNICATION SYSTEM
RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 9)

SCALE 1" = 50'

E-13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 15-APR-2011
03-28-11 TIME PLOTTED => 15:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	179	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES-THIS SHEET ONLY:

1 INSTALL 120/240 V, 1Ø, 3 WIRE, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:
(ADDRESS: 760 EAST VALLEY Blvd, COLTON, CA 92324)

CALTRANS ID No. 08540100033231M

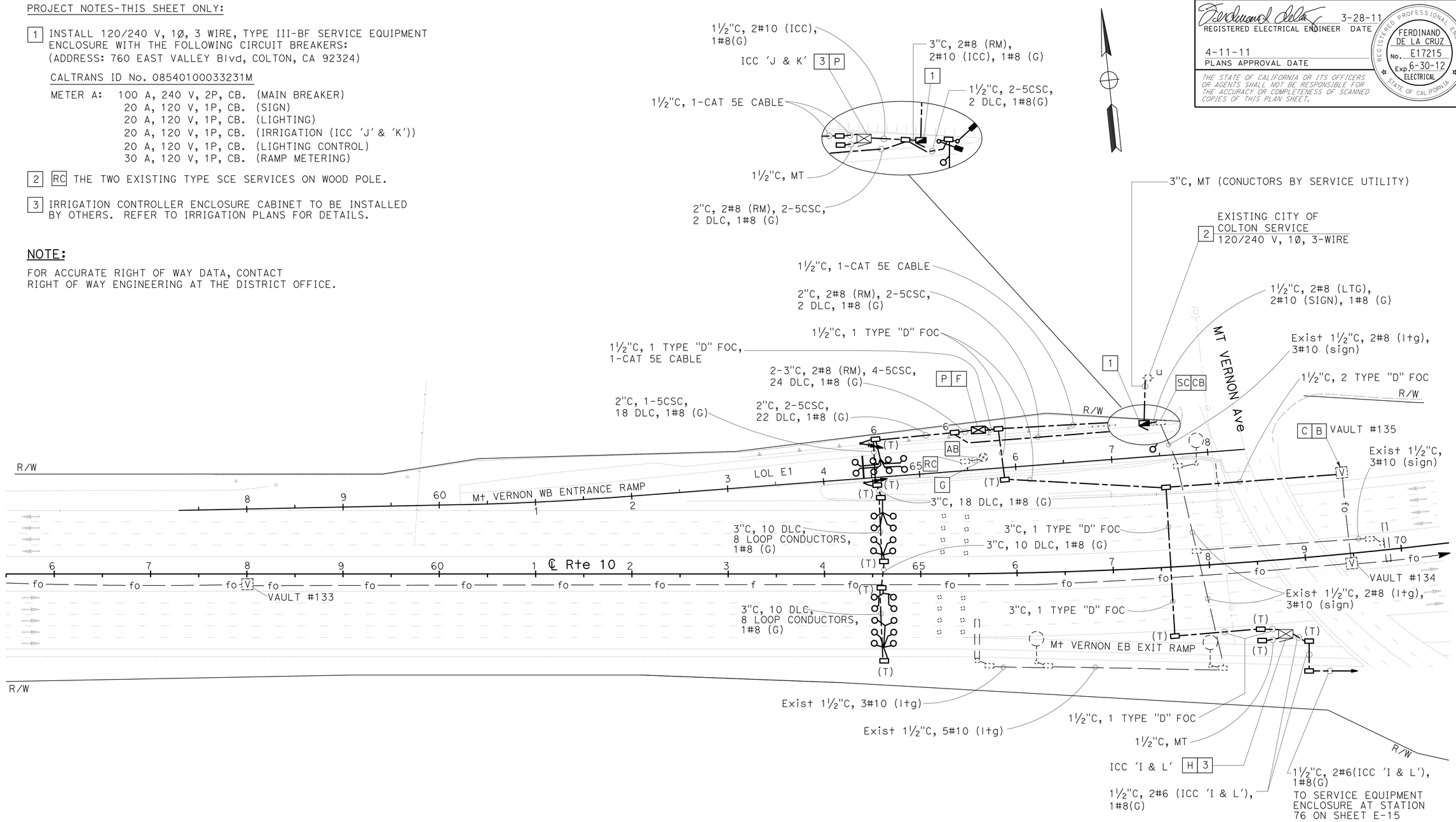
METER A: 100 A, 240 V, 2P, CB. (MAIN BREAKER)
20 A, 120 V, 1P, CB. (SIGN)
20 A, 120 V, 1P, CB. (LIGHTING)
20 A, 120 V, 1P, CB. (IRRIGATION (ICC 'J' & 'K'))
20 A, 120 V, 1P, CB. (LIGHTING CONTROL)
30 A, 120 V, 1P, CB. (RAMP METERING)

2 RC THE TWO EXISTING TYPE SCE SERVICES ON WOOD POLE.

3 IRRIGATION CONTROLLER ENCLOSURE CABINET TO BE INSTALLED BY OTHERS. REFER TO IRRIGATION PLANS FOR DETAILS.

NOTE:

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



ELECTRIC SERVICE (IRRIGATION)
MODIFY COMMUNICATION SYSTEM
RAMP METERING AND VEHICLE DETECTION STATION
(LOCATION 10)

SCALE 1" = 50'

E-14

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

REVISED BY | DATE REVISED
WALEED ABOUL-HOSN | FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

LAST REVISION 03-28-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 15:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	180	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES-THIS SHEET ONLY:

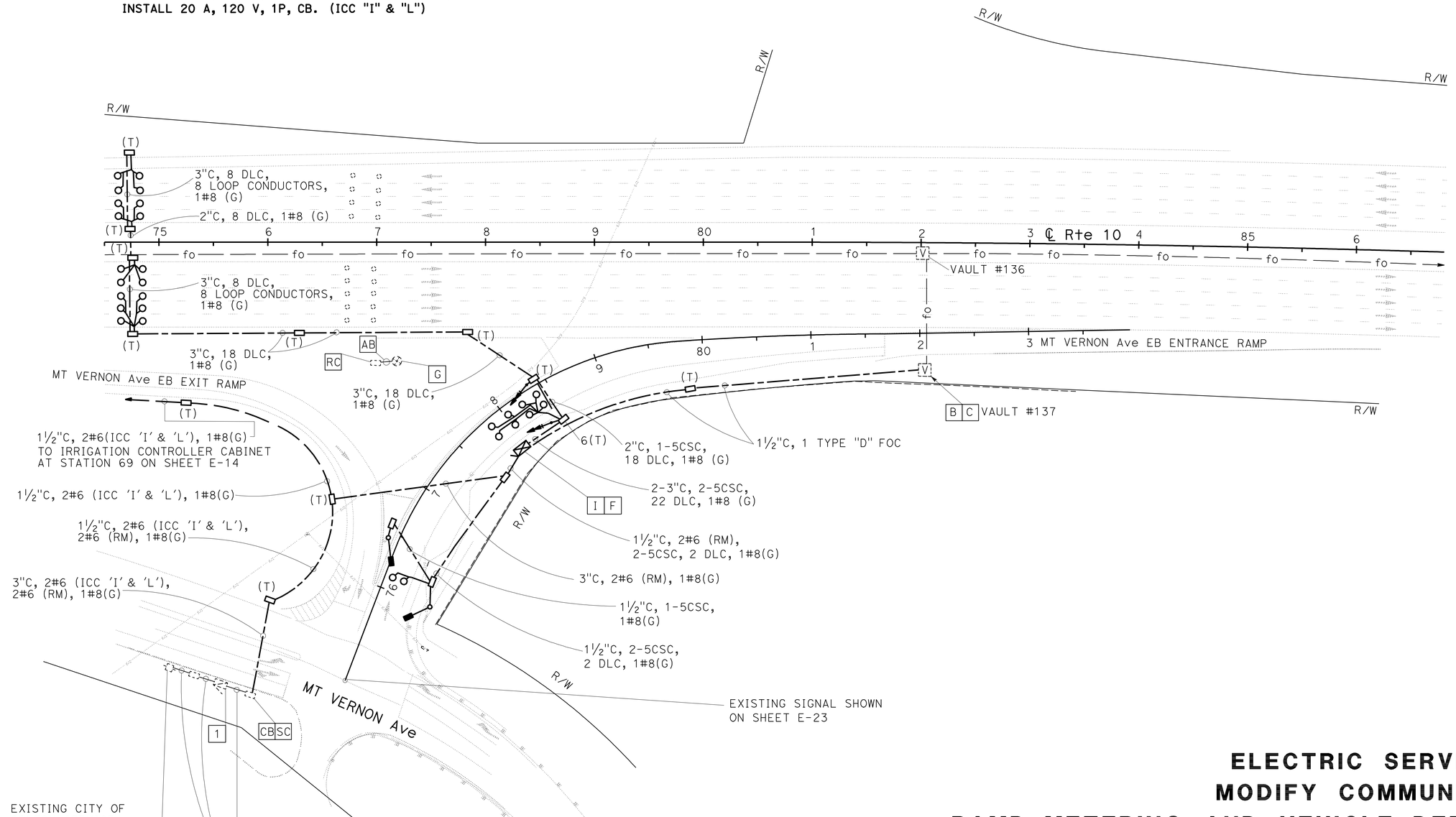
1 EXISTING 120/240 V, 1Ø, 3 WIRE, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

METER A: 100 A, 240 V, 2P, CB. (MAIN BREAKER)
50 A, 120 V, 1P, CB. (SIGNAL)
INSTALL 30 A, 120 V, 1P, CB. (RM)

METER B: 100 A, 240 V, 2P, CB. (MAIN BREAKER)
30 A, 120 V, 1P, CB. (LIGHTING)
15 A, 120 V, 1P, CB. (LIGHTNG CONTROL)
INSTALL 20 A, 120 V, 1P, CB. (ICC "I" & "L")

NOTE:

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



ELECTRIC SERVICE (IRRIGATION)
MODIFY COMMUNICATION SYSTEM
RAMP METERING AND VEHICLE DETECTION STATION (LOCATION 11)

SCALE 1" = 50'

E-15

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	181	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240 V, 1Ø, TYPE SCE-2 SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

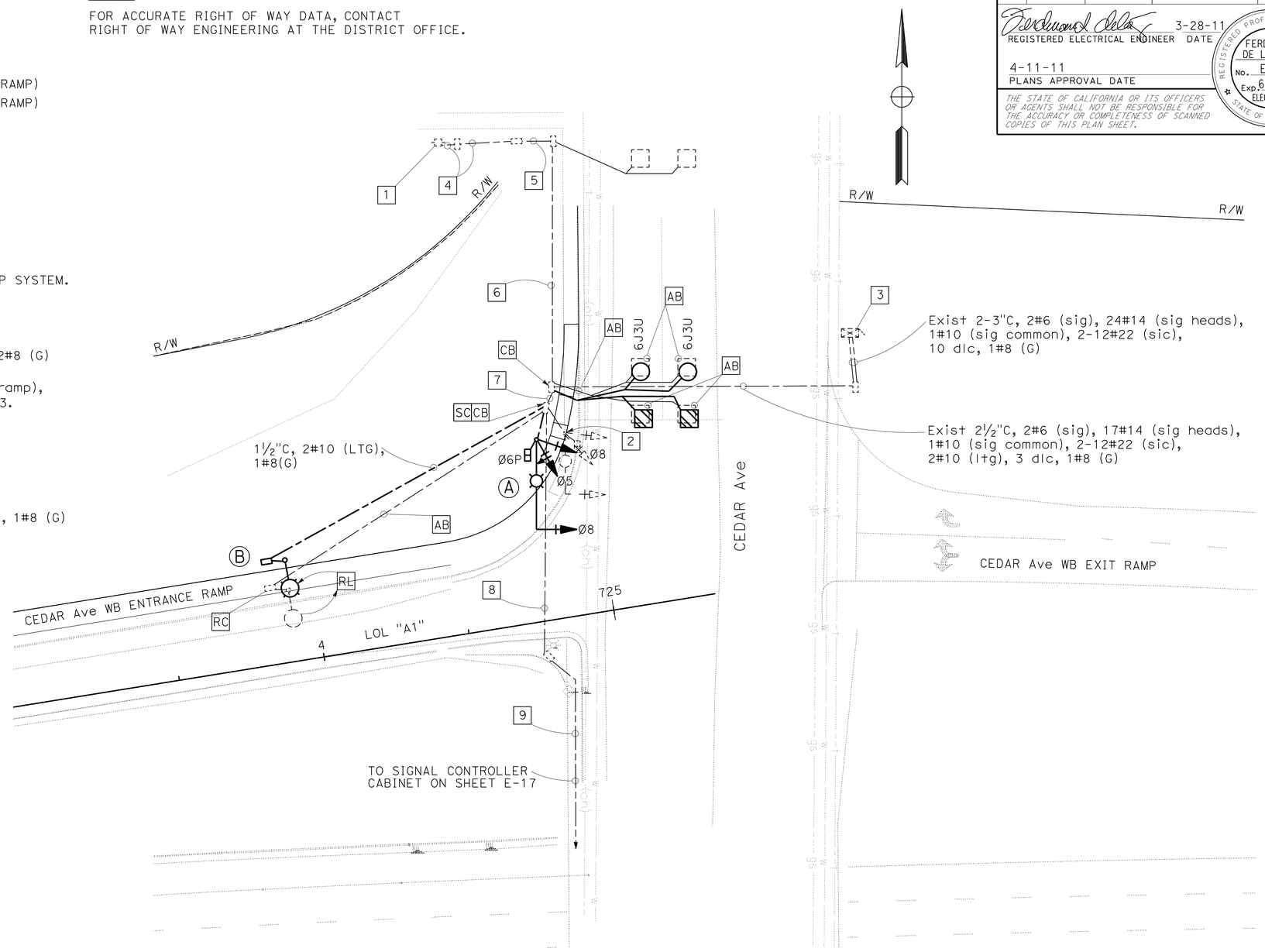
   METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
   30 A, 120 V, 1P, CB. (TRAFFIC SIGNAL - WB ON-RAMP)
   30 A, 120 V, 1P, CB. (TRAFFIC SIGNAL - EB ON-RAMP)

   METER B: 100 A, 240 V, 2P, CB. MAIN BREAKER (LS-3)
   15 A, 240 V, 2P, CB. (LIGHTING)
   20 A, 120 V, 1P, CB. (SIGN ILLUMINATION)
   20 A, 120 V, 1P, CB. (IRRIGATION)

2. RS EXISTING POLE WITH LUMINAIRE, SIGNAL HEADS, AND PPB.
   RR EXISTING SIGNS.
3. EXISTING SIGNAL CONTROLLER ASSEMBLY WITH BATTERY BACKUP SYSTEM.
4. EXISTING 2"C, 2#10 (Itg), 2#10 (Irr), 2#6 (sig), 2#4 (sig EB ramp), 2#4 (sign), 2#8 (G)
5. EXISTING 1½"C, 2#10 (Itg), 2#6 (sig), 2#4 (sig EB ramp), 2#8 (G)
6. EXISTING 2"C, 2#10 (Itg), 2#6 (sig WB ramp), 2#4 (sig EB ramp), 1-12#22 (sic), 2 dlc, 2#8 (G). CONTINUATION FOR SHEET E-3.
7. EXISTING 2"C, 2#10 (Itg), 1#10 (sig common), 17#14 (sig), 2#4 (sig EB ramp), 1-12#22 (sic), 1#8 (G)
8. EXISTING 2"C, 2#10 (Itg), 1#10 (sig common), 13#14 (sig), 2#4 (sig EB ramp), 1-12#22 (sic), 1#8 (G)
9. EXISTING 2"C, 2#10 (Itg), 2#4 (sig EB ramp), 1-12#22 (sic), 1#8 (G)

NOTE:

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



POLE and EQUIPMENT SCHEDULE

No.	STANDARD TYPE	SMA	LMA	VEH SIG MTG Mast Arm	POLE	PED SIG Mtg	PPB Ø	ARROW	HPS LUM	SPECIAL REQUIREMENTS
* A	19-3-100	30	12	MAS	SV-2-T	SP-1-T	6	←	200 W	D3-1 SIGN (CEDAR Ave).
** B	15		12						200 W	

* NEW EQUIPMENT TO BE INSTALLED.
** EXISTING STANDARD AND EQUIPMENT TO REMAIN.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

MODIFY SIGNAL AND LIGHTING (LOCATION 1)

NO SCALE

E-16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	182	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES: (THIS SHEET ONLY)

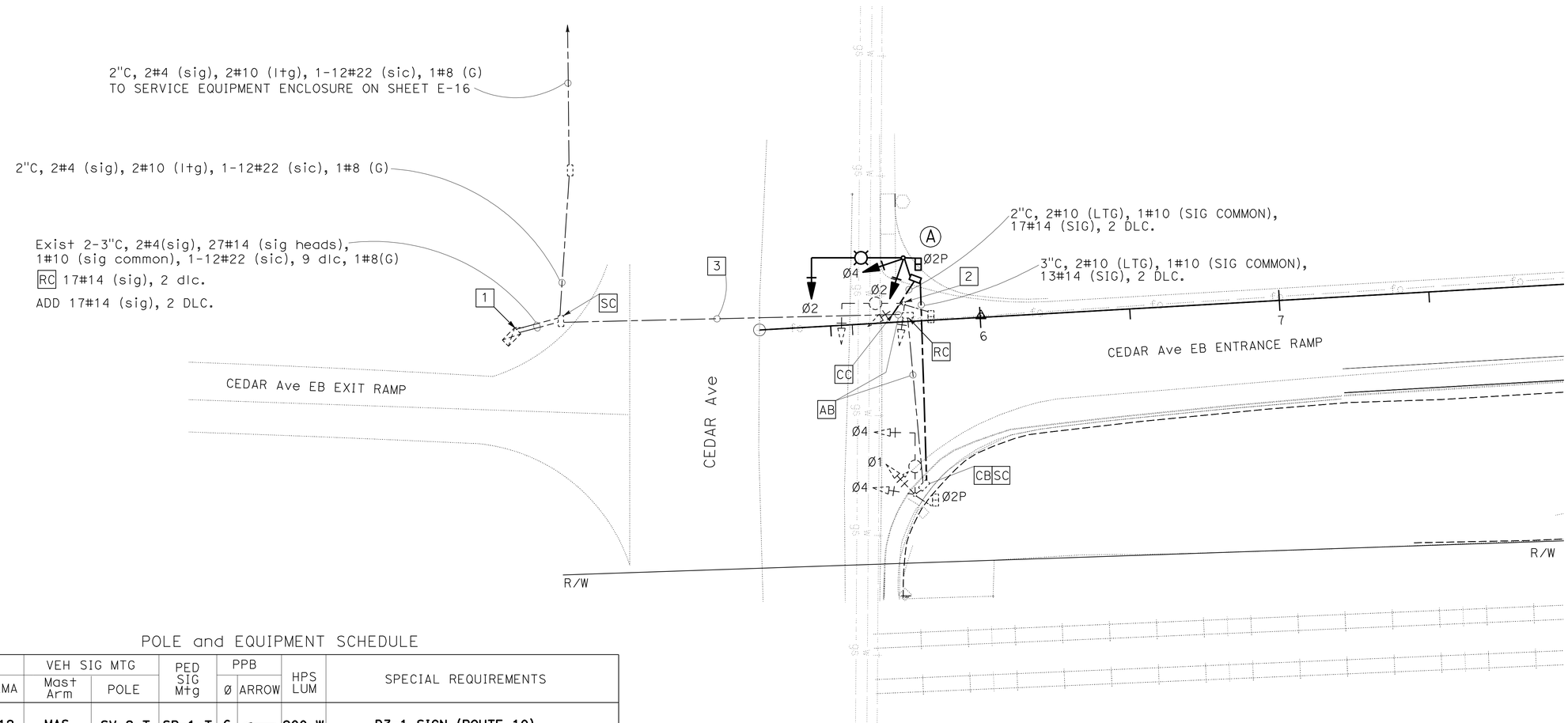
1 EXISTING SIGNAL CONTROLLER ASSEMBLY WITH BATTERY BACKUP SYSTEM.

2 RS EXISTING SIGNAL POLE WITH LUMINAIRE, SIGNAL HEADS, AND PPB.
RR EXISTING SIGNS.

3 EXISTING 2"C, 2#10 (ltg), 1#10 (sig common), 17#14 (sig), 2 dlc.
RC 2#10 (ltg), 1#10 (sig common), 17#14 (sig), 2 dlc.
ADD 2#10 (LTG), 1#10 (SIG COMMON), 17#14 (SIG), 2 DLC.

NOTE:

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



POLE and EQUIPMENT SCHEDULE

No.	STANDARD TYPE	SMA	LMA	VEH SIG MTG Mast Arm	VEH SIG MTG POLE	PED SIG Mtg	PPB Ø	PPB ARROW	HPS LUM	SPECIAL REQUIREMENTS
* A	19-3-100	30	12	MAS	SV-2-T	SP-1-T	6	←	200 W	D3-1 SIGN (ROUTE 10)

* NEW EQUIPMENT.

MODIFY SIGNAL AND LIGHTING (LOCATION 2)

NO SCALE

E-17

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	183	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES: (THIS SHEET ONLY)

1 EXISTING 120/240 V, 1Ø, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
50 A, 120 V, 1P, CB. (TRAFFIC SIGNAL - WB RAMPS)
50 A, 120 V, 1P, CB. (TRAFFIC SIGNAL - EB RAMPS)
15 A, 120 V, 1P, CB. (IISNS - WB RAMPS)
15 A, 120 V, 1P, CB. (IISNS - EB RAMPS)

METER B: 100 A, 240 V, 2P, CB. MAIN BREAKER (LS-3)
20 A, 240 V, 2P, CB. (LIGHTING - WB RAMPS SIGNAL)
20 A, 240 V, 2P, CB. (LIGHTING - EB RAMPS SIGNAL)

2 EXISTING SIGNAL CONTROLLER ASSEMBLY WITH BATTERY BACKUP SYSTEM.

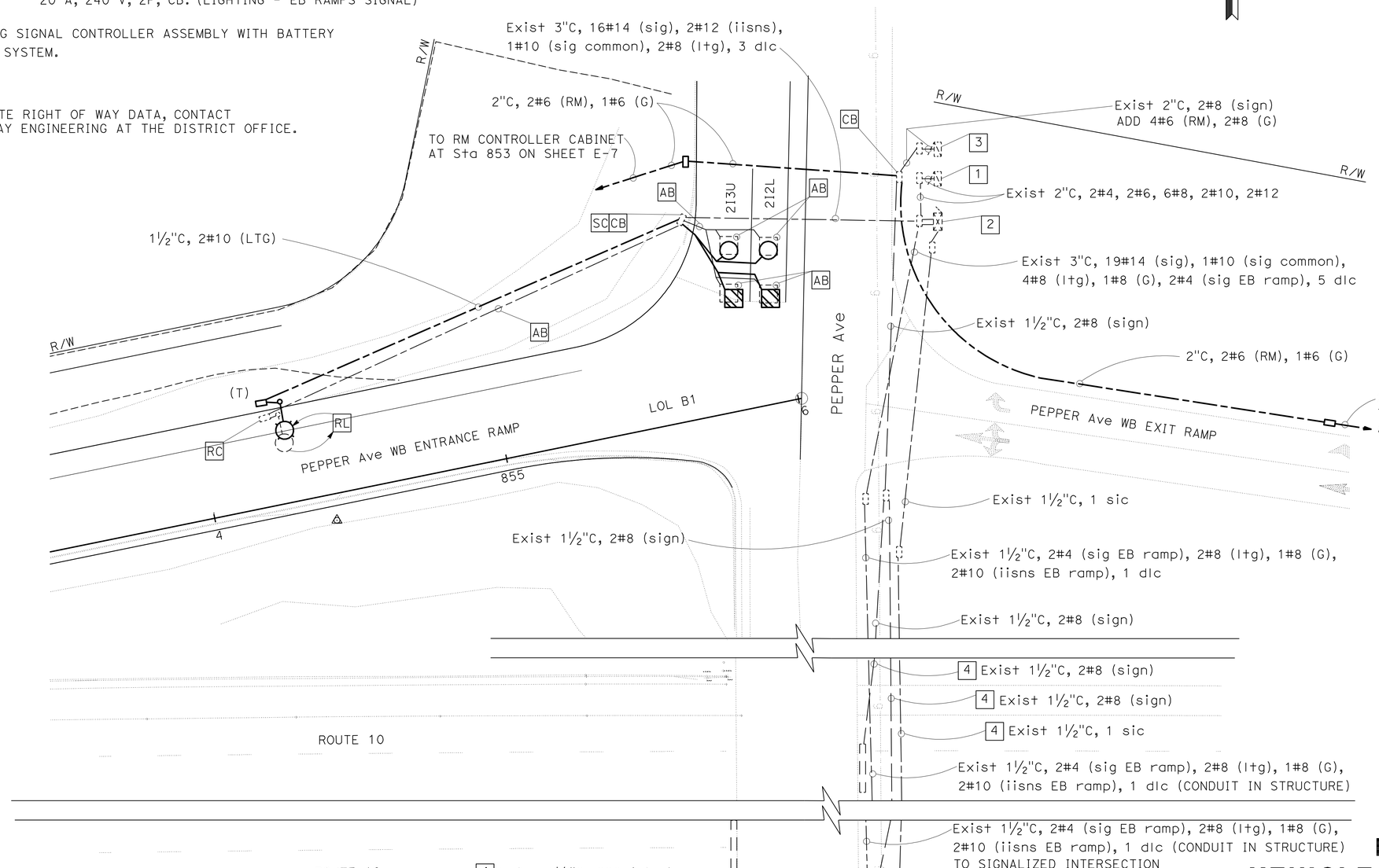
3 EXISTING 120/240 V, 1Ø, 3-WIRE, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
15 A, 120 V, 1P, CB. (FUTURE IRRIGATION)
30 A, 120 V, 1P, CB. (FREEWAY SIGN LIGHTING WITH PEC)
INSTALL 30 A, 120 V, 1P, CB. (RM - WB)
INSTALL 30 A, 120 V, 1P, CB. (RM - EB)

4 CONDUIT IS CLAMPED TO SIDE OF STRUCTURE.

NOTE:

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



RAMP METERING AND VEHICLE DETECTION STATION (LOCATIONS 4 & 5) MODIFY SIGNAL AND LIGHTING (LOCATION 3)

SCALE 1" = 20'

E-18

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

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

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 15-APR-2011
03-28-11 TIME PLOTTED => 15:46

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	184	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 ELECTRICAL STATE OF CALIFORNIA

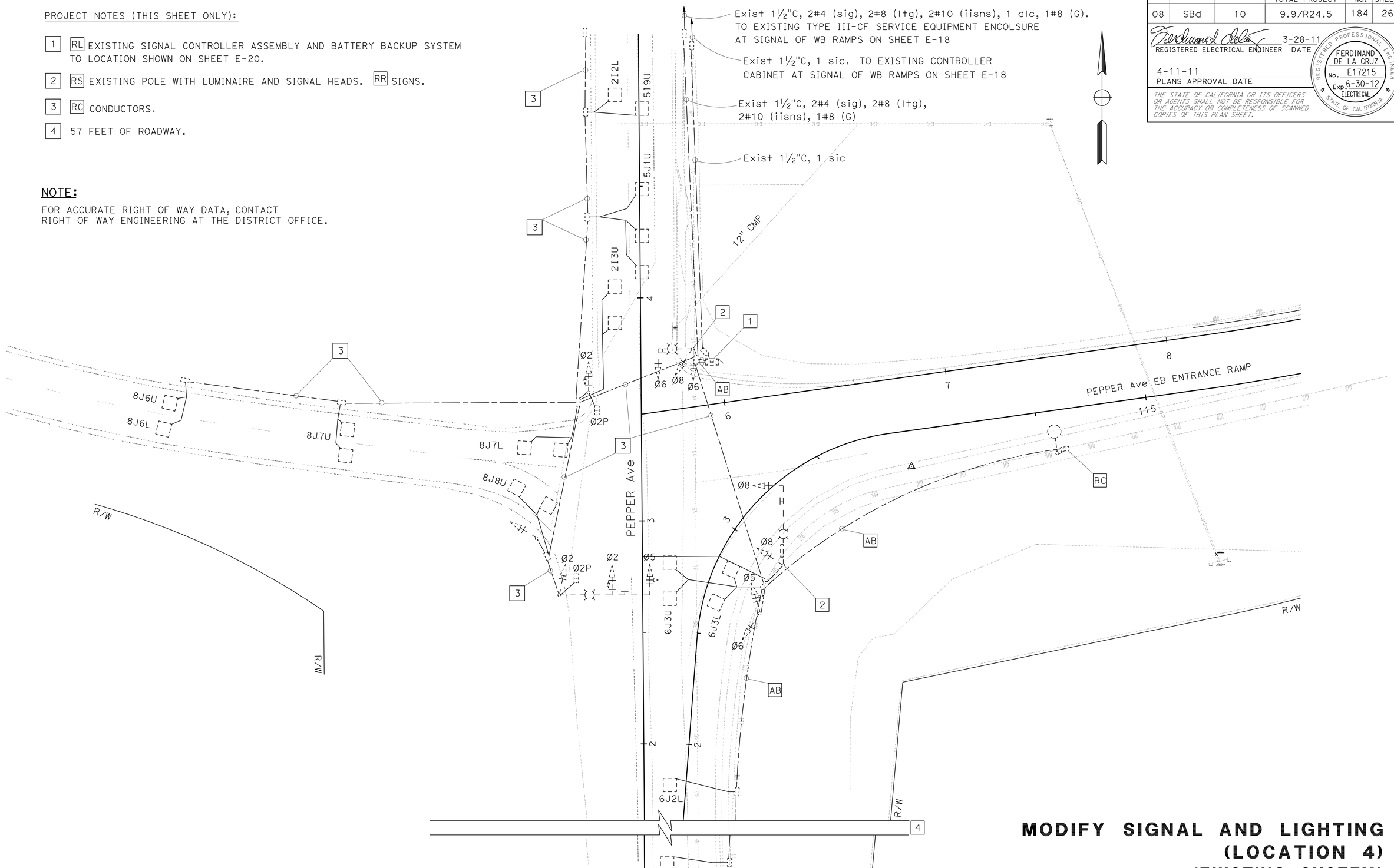
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PROJECT NOTES (THIS SHEET ONLY):

1. RL EXISTING SIGNAL CONTROLLER ASSEMBLY AND BATTERY BACKUP SYSTEM TO LOCATION SHOWN ON SHEET E-20.
2. RS EXISTING POLE WITH LUMINAIRE AND SIGNAL HEADS. RR SIGNS.
3. RC CONDUCTORS.
4. 57 FEET OF ROADWAY.

NOTE:

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



MODIFY SIGNAL AND LIGHTING (LOCATION 4) (EXISTING SYSTEM)

SCALE 1" = 20'

E-19

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	185	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 ELECTRICAL STATE OF CALIFORNIA

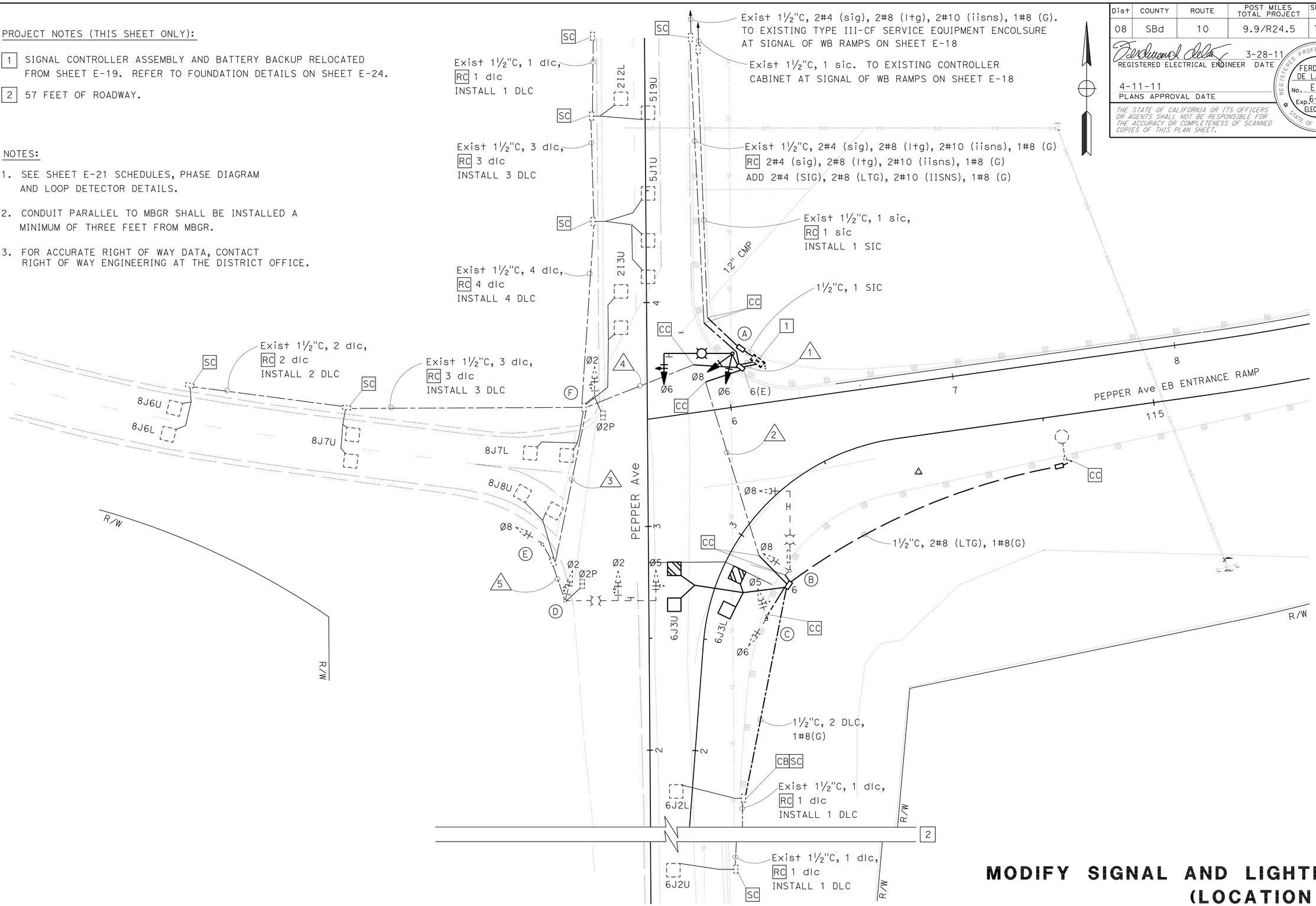
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PROJECT NOTES (THIS SHEET ONLY):

1. SIGNAL CONTROLLER ASSEMBLY AND BATTERY BACKUP RELOCATED FROM SHEET E-19. REFER TO FOUNDATION DETAILS ON SHEET E-24.
2. 57 FEET OF ROADWAY.

NOTES:

1. SEE SHEET E-21 SCHEDULES, PHASE DIAGRAM AND LOOP DETECTOR DETAILS.
2. CONDUIT PARALLEL TO MBGR SHALL BE INSTALLED A MINIMUM OF THREE FEET FROM MBGR.
3. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

MODIFY SIGNAL AND LIGHTING (LOCATION 4)

SCALE 1" = 20'

E-20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 15:47

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 838434ua020.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 2292 | PROJECT NUMBER & PHASE 08000006401

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	186	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

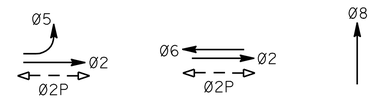
REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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.

CABLE SCHEDULE			CONDUIT RUN AND SIZE				
CABLE TYPE	POLE	PHASE	1	2	3	4	5
VEH-PED 12CSC	Ⓐ	6,8	1				
	Ⓑ	8	1	1			
	Ⓒ	5,6	1	1			
	Ⓓ	2,5,2P	1		1	1	1
	Ⓔ	8 / 2	1 / 1		1 / 1	1 / 1	
PPB 3CSC	Ⓕ	2,2P / 2	1 / 1			1 / 1	
		TOTAL	6 / 2	2 / 0	2 / 1	3 / 2	1 / 0
AWG		CIRCUIT					
#8		LIGHTING		2	2	2	2
#8		GROUND	1	1	1	1	1
#10		IISNS		2			
DLC							
PHASE							
Ø2			1			1	
Ø2 MID			1			1	
Ø2 ADV			1			1	
Ø5			2			2	
Ø6			2	2			
Ø6 MID			1	1			
Ø6 ADV			1	1			
Ø8			2		1	2	
Ø8 MID			1			1	
Ø8 ADV			2			2	
TOTAL			14	4	1	10	
CONDUIT SIZE			2-4"	3"	3"	3"	2"

ABBREVIATIONS:

MID - MIDDLE
ADV - ADVANCED



PHASE DIAGRAM
STEADY DEMAND SEQUENCE

POLE and EQUIPMENT SCHEDULE

	STANDARD			VEH SIG MTG		PED SIG Mtg	PPB		HPS LUM	SPECIAL REQUIREMENTS
No.	TYPE	SMA	LMA	Mast Arm	POLE		Ø	ARROW		
** Ⓐ	**19-4-100**	**30′**	**15′**	**MAS**	**SV-2-T**	-	-	-	**200 W**	**D3-1 SIGN (ROUTE 10)**
* Ⓑ	24-3-80	35′	15′	MAS	SV-1-T	-	-	-	200 W	-
* Ⓒ	1-A	-	-	-	TV-2-T	-	-	-	-	-
* Ⓓ	24-3-80	40′	15′	MAS MAS	SV-1-T	SP-1-T	-	-	200 W	-
* Ⓔ	1-A	-	-	-	TV-1-T	-	2	→		-
* Ⓕ	1-A	-	-	-	TV-1-T	SP-1-T	2	←		-

* EXISTING STANDARDS AND EQUIPMENT TO REMAIN.
** NEW EQUIPMENT.

MODIFY SIGNAL AND LIGHTING (LOCATION 4)

NO SCALE

E-21

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	187	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

PROJECT NOTES: (THIS SHEET ONLY)

1. EXISTING 120/240 V, 1Ø, TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

   METER A: 100 A, 240 V, 2P, CB. MAIN BREAKER (TC-1)
   15 A, 240 V, 2P, CB. (SIGNAL A)
   25 A, 120 V, 1P, CB. (SIGNAL B)
   15 A, 120 V, 1P, CB. (SIGN ILLUMINATION)
   15 A, 120 V, 1P, CB. (IRRIGATION)

   METER B: 100 A, 240 V, 2P, CB. MAIN BREAKER (LS-3)
   15 A, 120 V, 1P, CB. (LIGHTING)

2. EXISTING SIGNAL CONTROLLER ASSEMBLY WITH BATTERY BACKUP SYSTEM (SIGNAL A).

3. Exist 2-3"C, 26#14, 1#10 (signal N), 2#10 (sig-A), 10 dlc, 1 sic, 1#8 (G)
   RC 3 dlc, ADD 3 DLC

4. Exist 2½"C, 16#14, 2#10 (ltg), 2#10 (sign), 1#10 (signal N), 2#10 (irr), 3 dlc
   RC 3 dlc, ADD 3 DLC

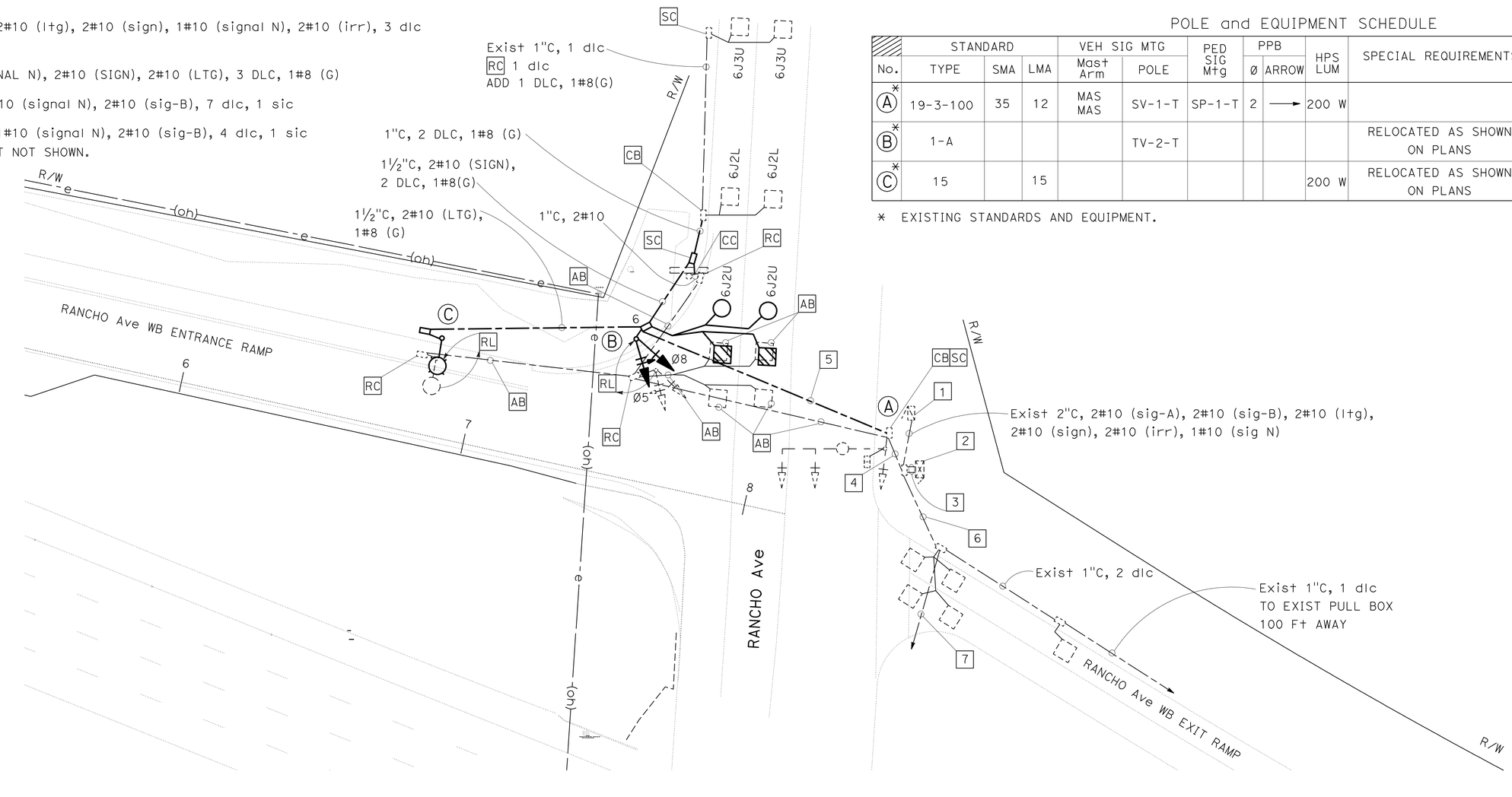
5. 3"C, 9#14, 1#10 (SIGNAL N), 2#10 (SIGN), 2#10 (LTG), 3 DLC, 1#8 (G)

6. Exist 3"C, 13#14, 1#10 (signal N), 2#10 (sig-B), 7 dlc, 1 sic

7. Exist 2½"C, 13#14, 1#10 (signal N), 2#10 (sig-B), 4 dlc, 1 sic
   REMAINDER OF CIRCUIT NOT SHOWN.

NOTE:

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



POLE and EQUIPMENT SCHEDULE

No.	STANDARD TYPE	SMA	LMA	VEH SIG MTG Mast Arm	POLE	PED SIG Mtg	PPB Ø	PPB ARROW	HPS LUM	SPECIAL REQUIREMENTS
A*	19-3-100	35	12	MAS MAS	SV-1-T	SP-1-T	2	→	200 W	
B*	1-A				TV-2-T					RELOCATED AS SHOWN ON PLANS
C*	15		15						200 W	RELOCATED AS SHOWN ON PLANS

* EXISTING STANDARDS AND EQUIPMENT.

MODIFY SIGNAL AND LIGHTING (LOCATION 5)

SCALE 1" = 20′

E-22

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	188	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 ELECTRICAL STATE OF CALIFORNIA

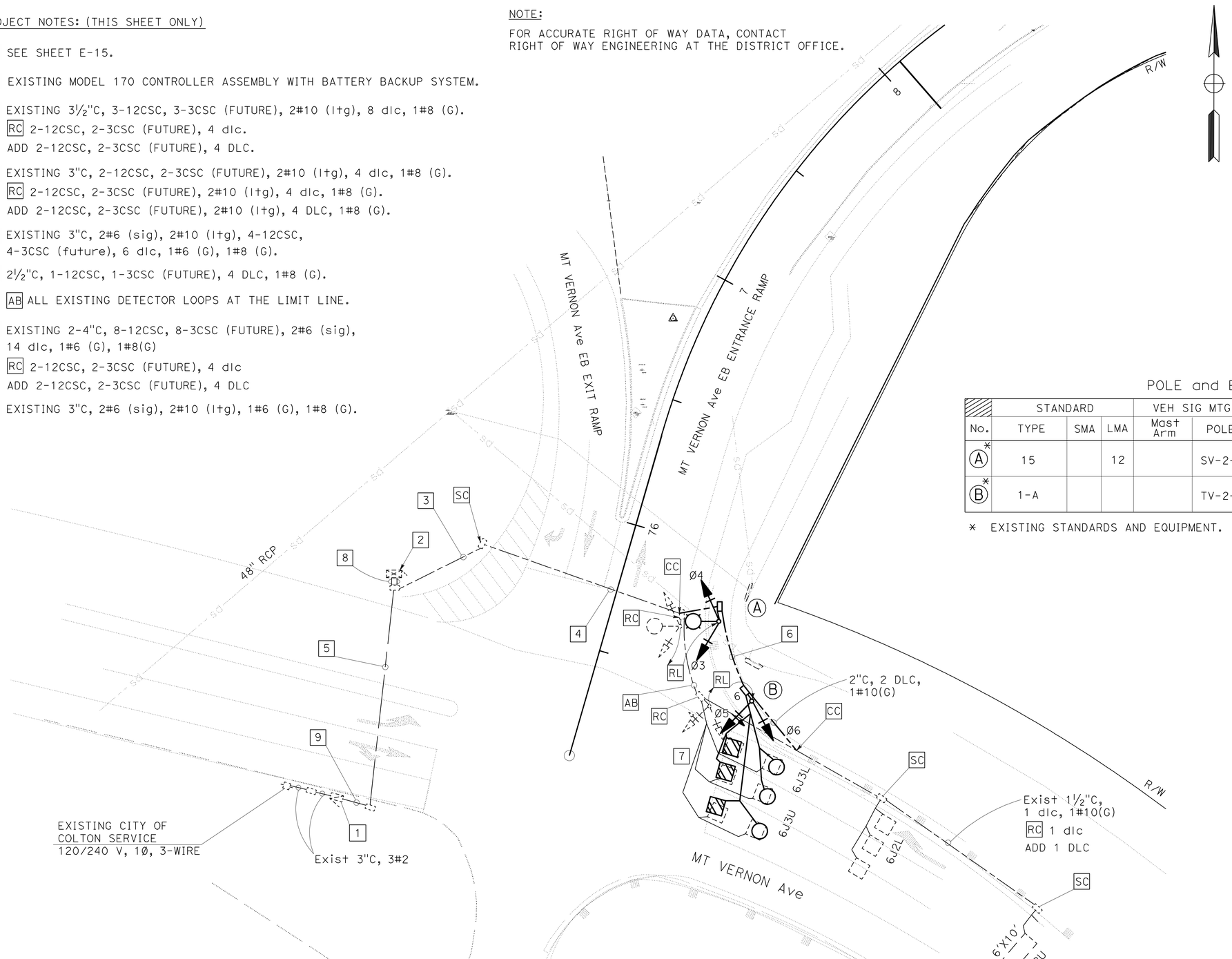
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PROJECT NOTES: (THIS SHEET ONLY)

1. SEE SHEET E-15.
2. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH BATTERY BACKUP SYSTEM.
3. EXISTING 3½"C, 3-12CSC, 3-3CSC (FUTURE), 2#10 (ltg), 8 dlc, 1#8 (G).
   RC 2-12CSC, 2-3CSC (FUTURE), 4 dlc.
   ADD 2-12CSC, 2-3CSC (FUTURE), 4 DLC.
4. EXISTING 3"C, 2-12CSC, 2-3CSC (FUTURE), 2#10 (ltg), 4 dlc, 1#8 (G).
   RC 2-12CSC, 2-3CSC (FUTURE), 2#10 (ltg), 4 dlc, 1#8 (G).
   ADD 2-12CSC, 2-3CSC (FUTURE), 2#10 (ltg), 4 DLC, 1#8 (G).
5. EXISTING 3"C, 2#6 (sig), 2#10 (ltg), 4-12CSC, 4-3CSC (future), 6 dlc, 1#6 (G), 1#8 (G).
6. 2½"C, 1-12CSC, 1-3CSC (FUTURE), 4 DLC, 1#8 (G).
7. AB ALL EXISTING DETECTOR LOOPS AT THE LIMIT LINE.
8. EXISTING 2-4"C, 8-12CSC, 8-3CSC (FUTURE), 2#6 (sig), 14 dlc, 1#6 (G), 1#8(G)
   RC 2-12CSC, 2-3CSC (FUTURE), 4 dlc
   ADD 2-12CSC, 2-3CSC (FUTURE), 4 DLC
9. EXISTING 3"C, 2#6 (sig), 2#10 (ltg), 1#6 (G), 1#8 (G).

NOTE:

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



POLE and EQUIPMENT SCHEDULE

No.	STANDARD TYPE	STANDARD SMA	STANDARD LMA	VEH SIG MTG Mast Arm	VEH SIG MTG POLE	PED SIG Mtg	PPB Ø	PPB ARROW	HPS LUM	SPECIAL REQUIREMENTS
A *	15		12		SV-2-T				200 W	
B *	1-A				TV-2-T					

* EXISTING STANDARDS AND EQUIPMENT.

MODIFY SIGNAL AND LIGHTING (LOCATION 6)

SCALE 1" = 20'

E-23

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	189	260

Theresa Gabriel 3-28-11
REGISTERED ~~ELECTRICAL~~ ENGINEER DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
THERESA A. GABRIEL
No. E15129
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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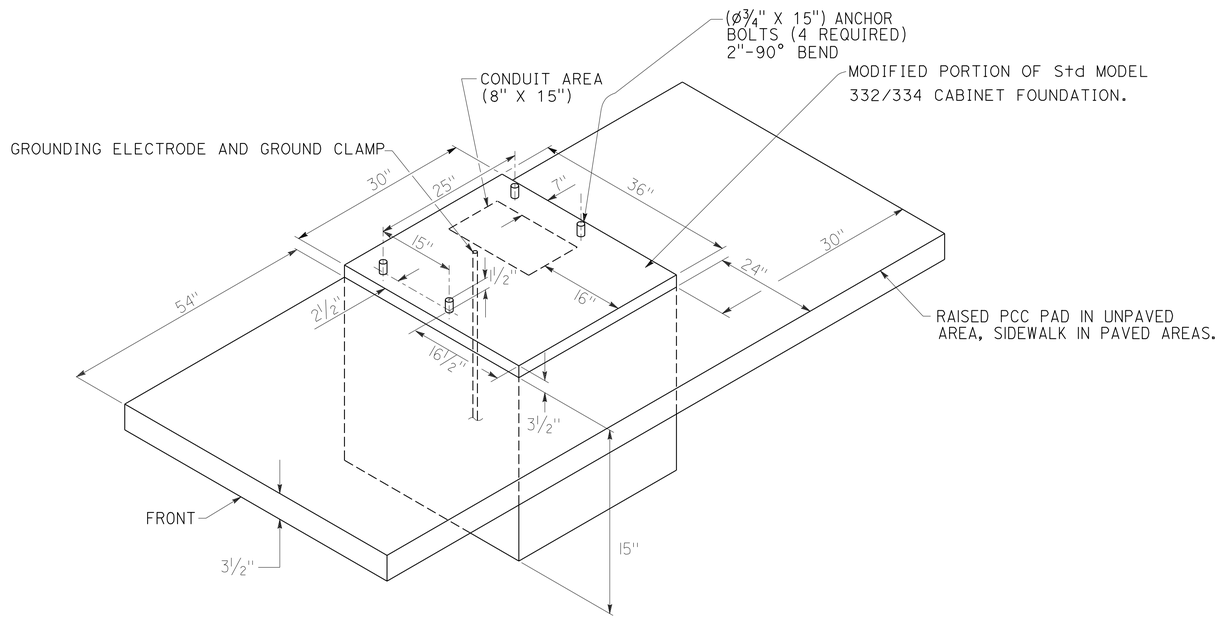

MODIFIED FOUNDATION DETAILS FOR BATTERY BACKUP SYSTEM

(SEE ES-3C OF THE STANDARD PLANS FOR STANDARD FOUNDATION DETAIL FOR MODEL 332 AND 334 CABINETS)

NOTE: THE CONTRACTOR SHALL VERIFY ALL MOUNTING REQUIREMENTS, AND CABINET DIMMENSIONS, MOUNTING, AND BOLT REQUIREMENTS PRIOR TO INSTALLATION.

MODIFY SIGNAL AND LIGHTING (DETAIL)

NO SCALE

E-24

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: THERESA A. GABRIEL
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY
DATE REVISED

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	190	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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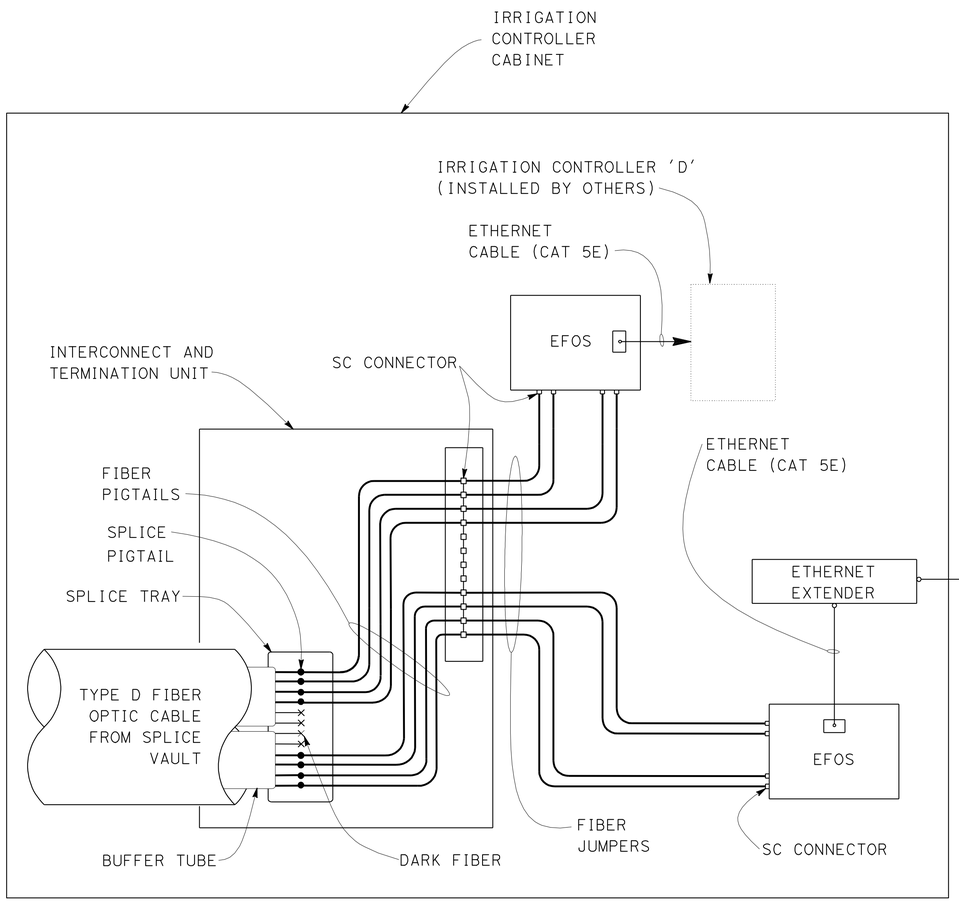
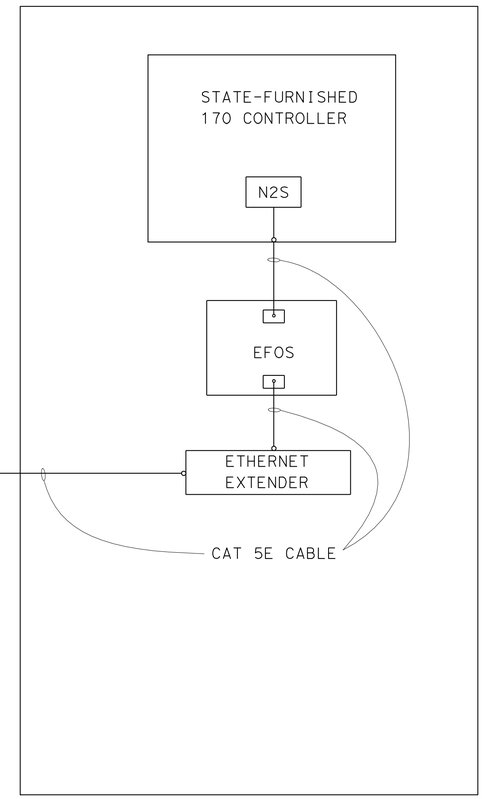


IRRIGATION CABINET WIRING DETAIL
(FIBER TO ETHERNET)
SHEET E-2



RAMP METERING CABINET LOCATION 1/ SHEET E-3

MODIFY COMMUNICATION SYSTEM (DETAILS)

NO SCALE

E-25

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 15:47

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	191	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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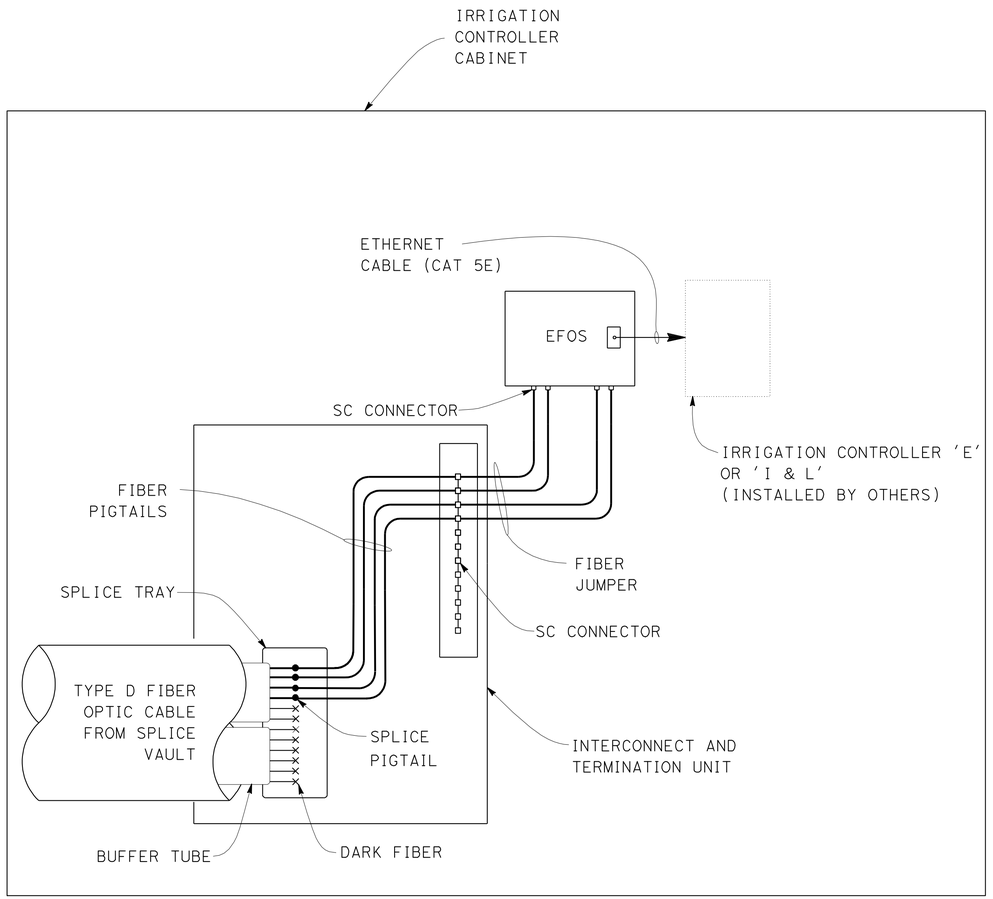

IRRIGATION CABINET WIRING DETAIL
(FIBER TO ETHERNET)
SHEET E-3 & E-14

MODIFY COMMUNICATION SYSTEM
(DETAILS)

NO SCALE

E-26

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

CALCULATED-DESIGNED BY	WALEED ABOUL-HOSN	REVISED BY	WA
CHECKED BY	FERDINAND DE LA CRUZ	DATE REVISED	12-10-10
FUNCTIONAL SUPERVISOR	FERDINAND DE LA CRUZ		

LAST REVISION 03-28-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 16:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	192	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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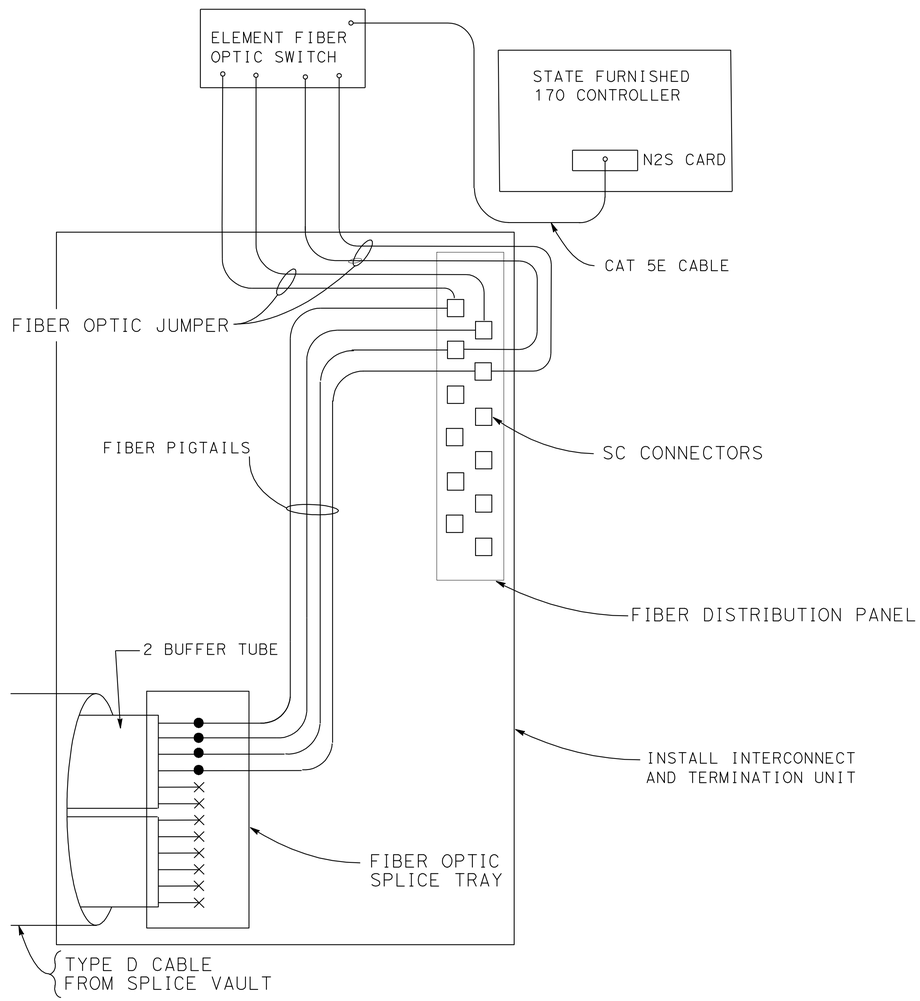
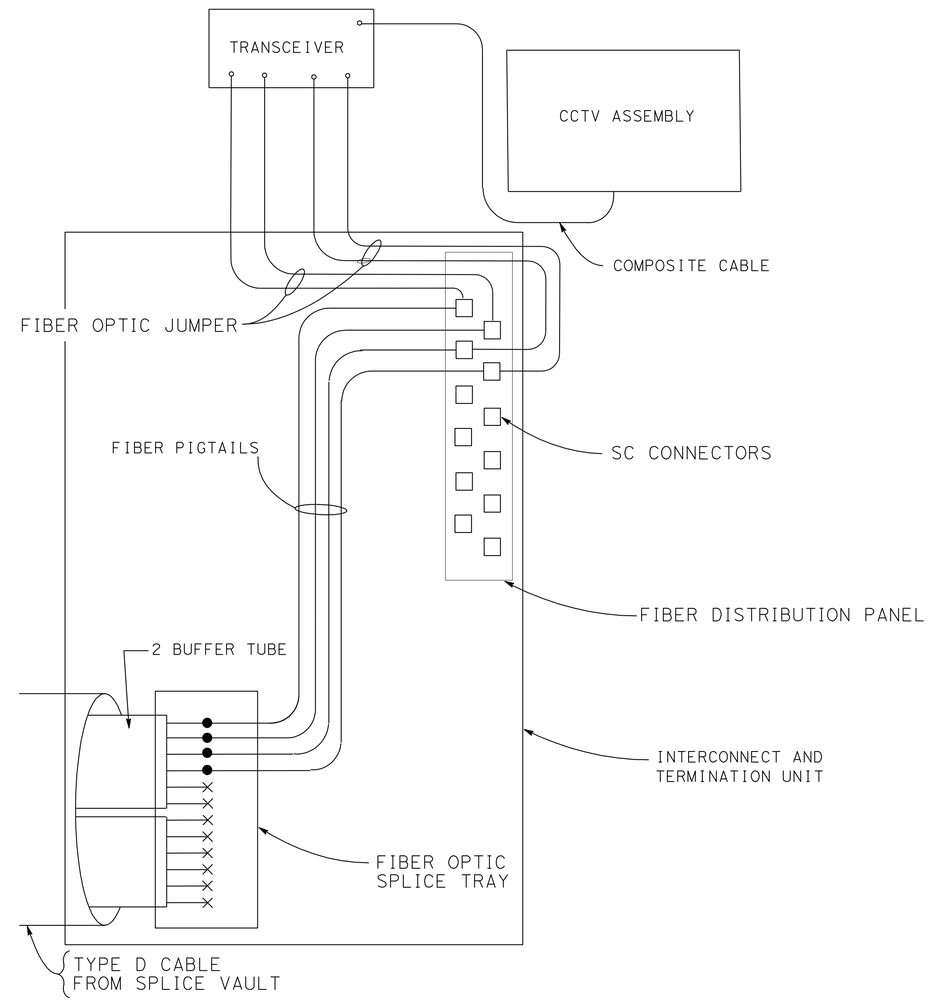


MODEL 170 CONTROLLER INTERFACE
LOCATIONS 2, 4, 5, 7, 8 & 11
SHEETS E-5, E-7, E-8, E-11, E-12 & E-15
(RAMP METER/VDS)



CCTV INTERFACE
SHEET E-5

MODIFY COMMUNICATION SYSTEM (DETAILS)

NO SCALE

E-27

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

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

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 16:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	193	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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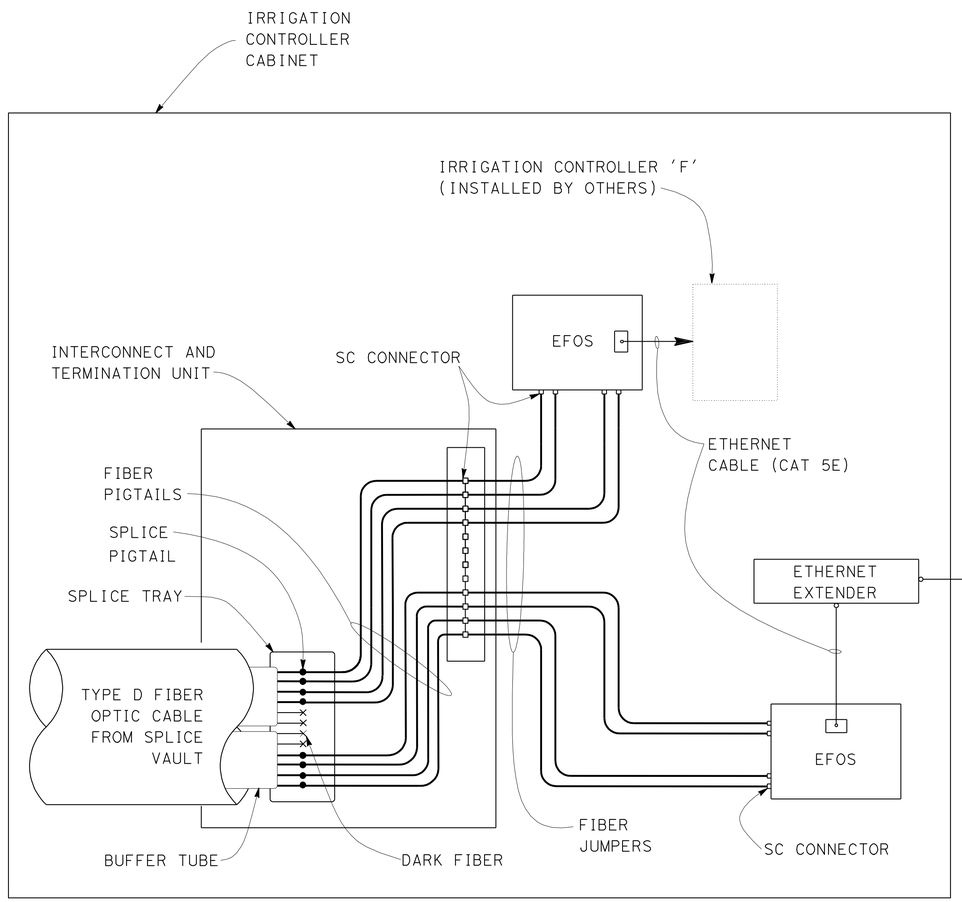
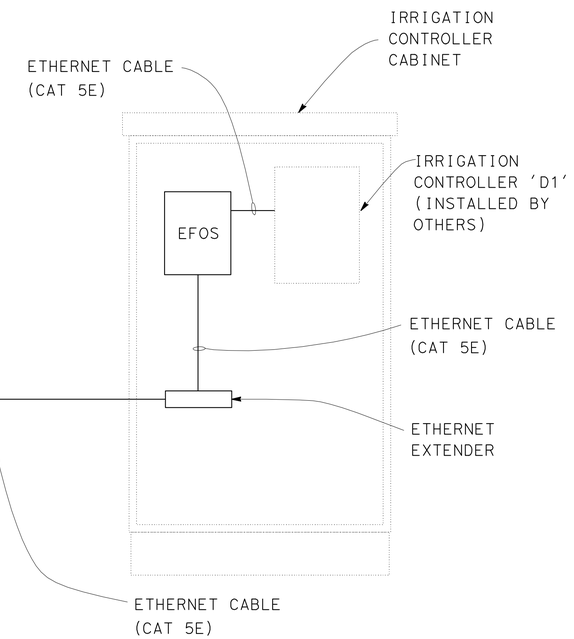


IRRIGATION CABINET WIRING DETAIL
(FIBER TO ETHERNET)
SHEET E-5



IRRIGATION CONTROLLER INTERFACE
SHEET E-5

MODIFY COMMUNICATION SYSTEM (DETAILS)

NO SCALE

E-28

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

CALCULATED-DESIGNED BY	WALEED ABOUL-HOSN	REVISED BY	WA
CHECKED BY	FERDINAND DE LA CRUZ	DATE REVISED	12-10-10
FUNCTIONAL SUPERVISOR	FERDINAND DE LA CRUZ		

LAST REVISION 03-28-11 | DATE PLOTTED => 15-APR-2011 | TIME PLOTTED => 16:06

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	194	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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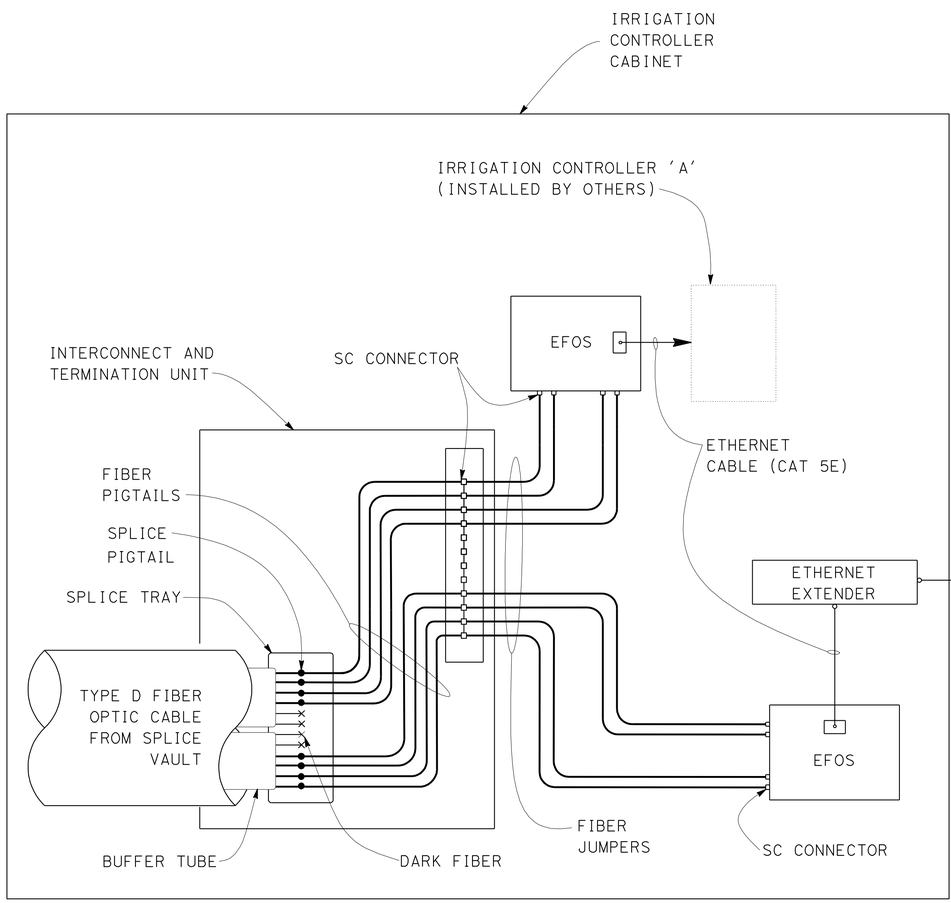
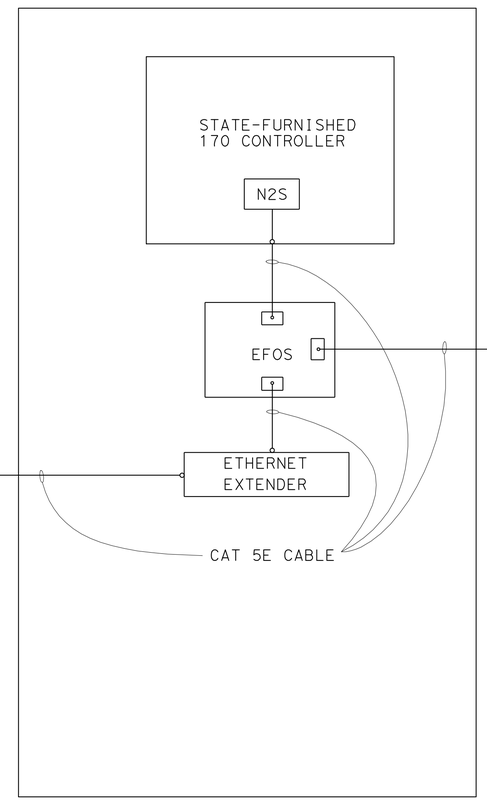
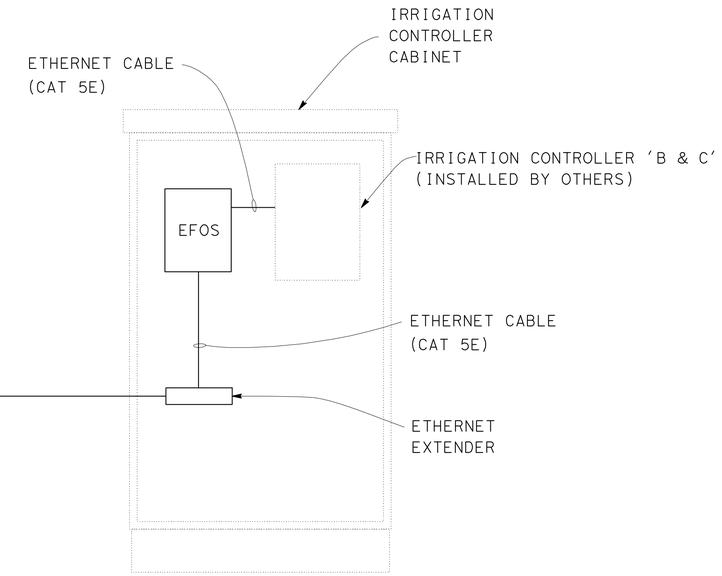


IRRIGATION CABINET WIRING DETAIL (FIBER TO ETHERNET) SHEET E-11



RAMP METERING CABINET LOCATION 6/ SHEET E-10



IRRIGATION CONTROLLER INTERFACE SHEET E-10

MODIFY COMMUNICATION SYSTEM (DETAILS)

NO SCALE

E-29

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11
DATE PLOTTED => 15-APR-2011
TIME PLOTTED => 16:06

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	195	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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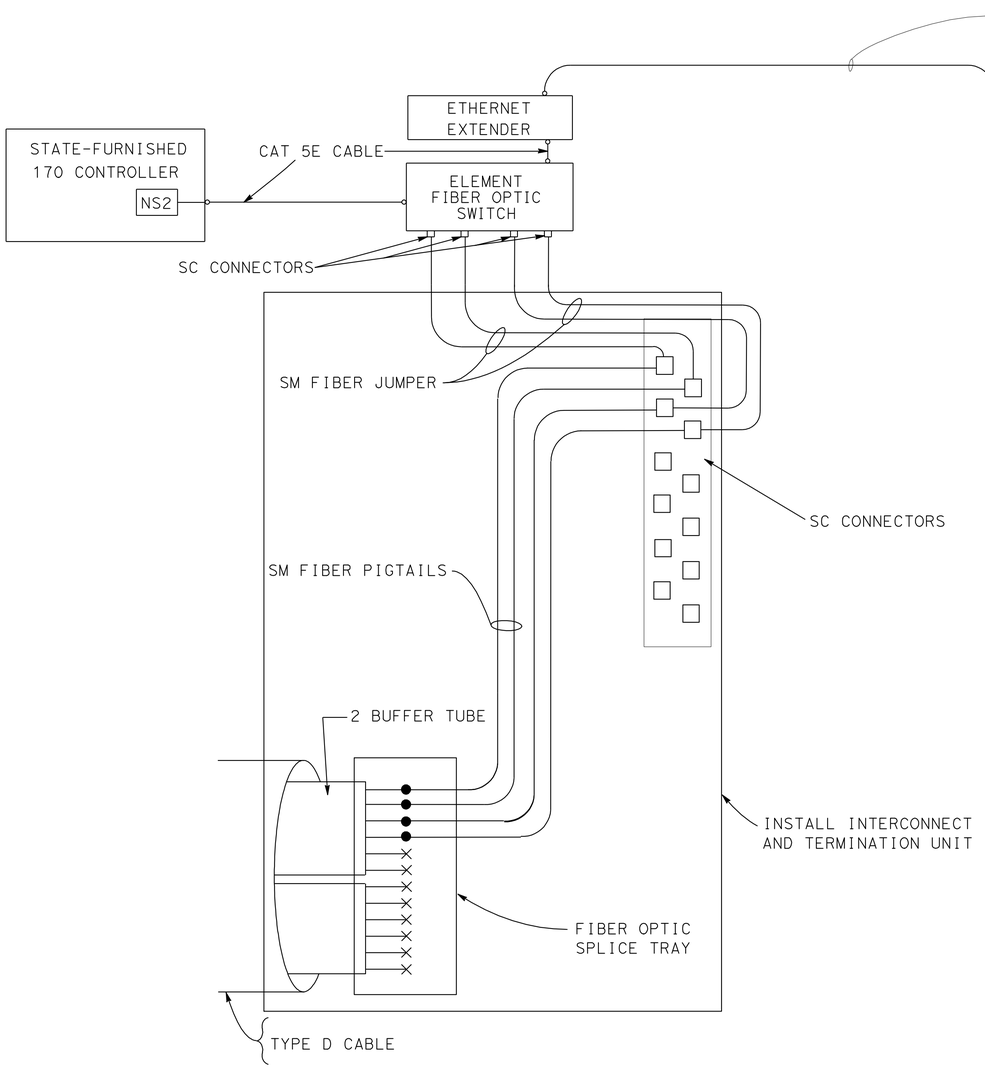
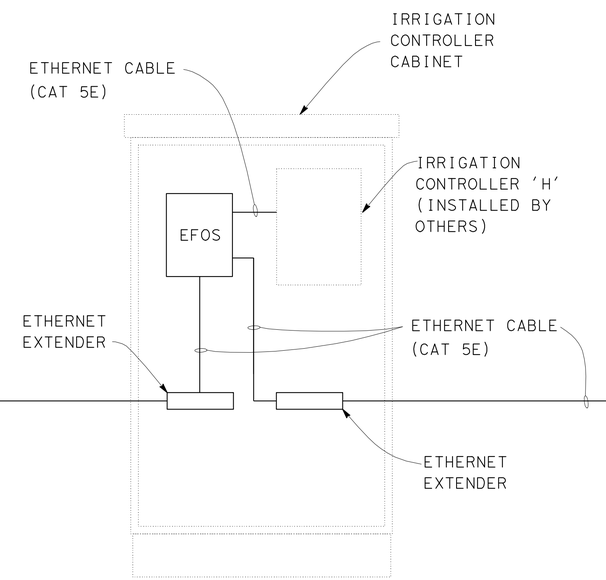
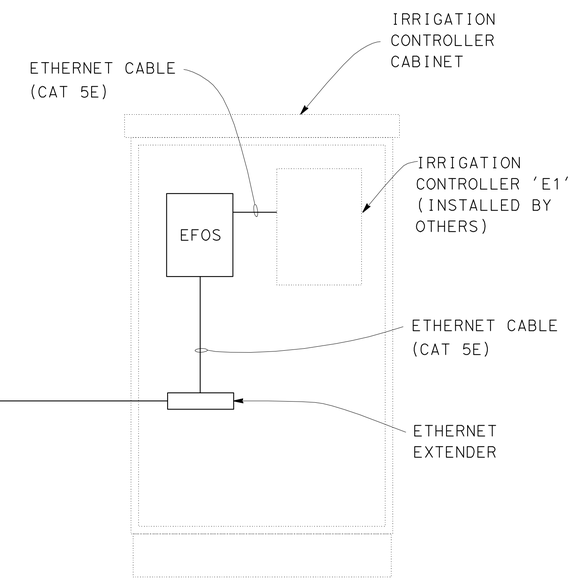


RAMP METER CABINET
LOCATION 9/SHEET E-13
MODEL 170 CONTROLLER INTERFACE



IRRIGATION CONTROLLER INTERFACE
SHEET E-13



IRRIGATION CONTROLLER INTERFACE
SHEET E-13

MODIFY COMMUNICATION SYSTEM
(DETAILS)

NO SCALE

E-30

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

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	196	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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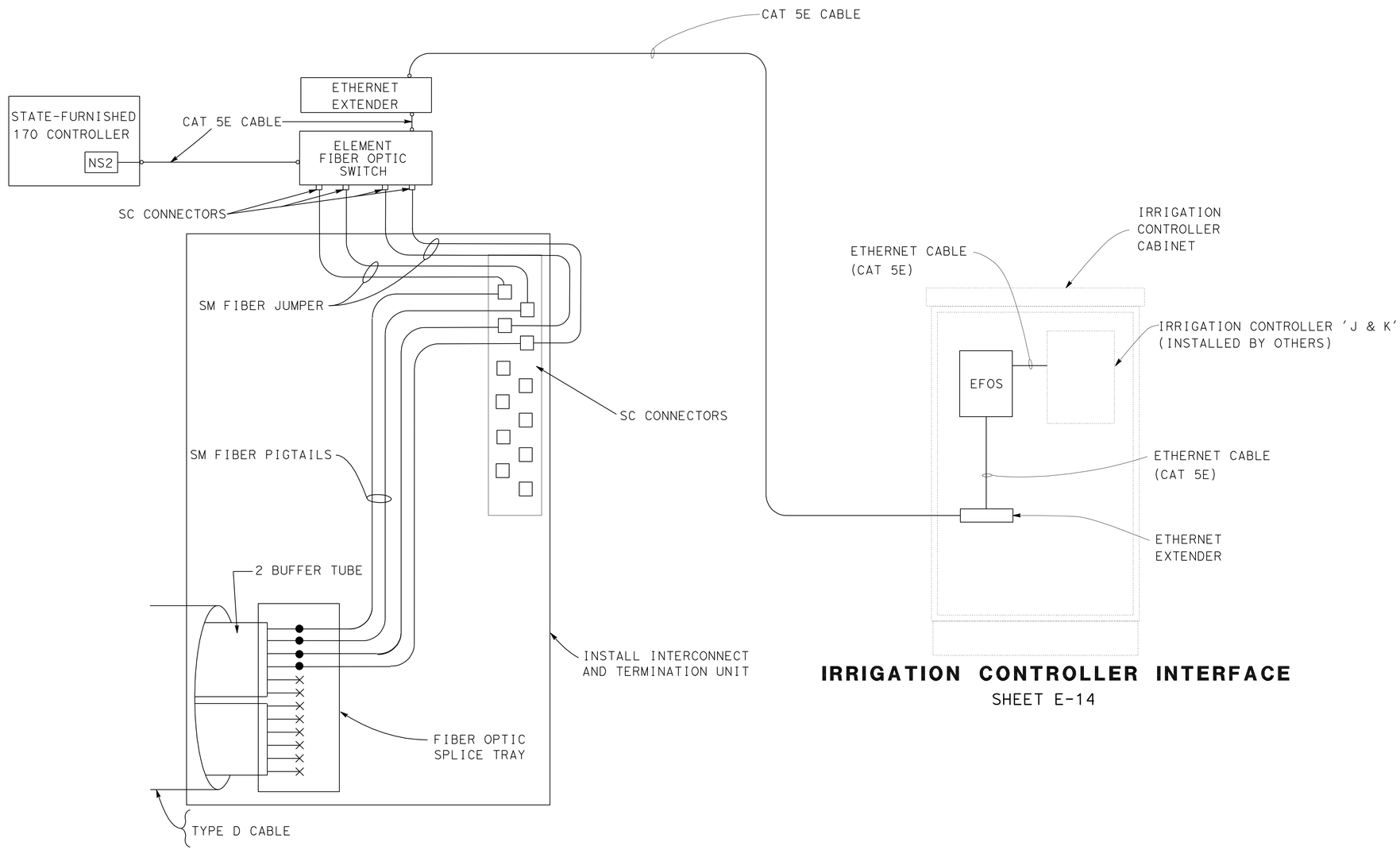

RAMP METER CABINET
LOCATION 10/SHEET E-14
MODEL 170 CONTROLLER INTERFACE

IRRIGATION CONTROLLER INTERFACE
SHEET E-14

MODIFY COMMUNICATION SYSTEM (DETAILS)

NO SCALE

E-31

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

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION DATE PLOTTED => 16-APR-2011
03-28-11 TIME PLOTTED => 06:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	197	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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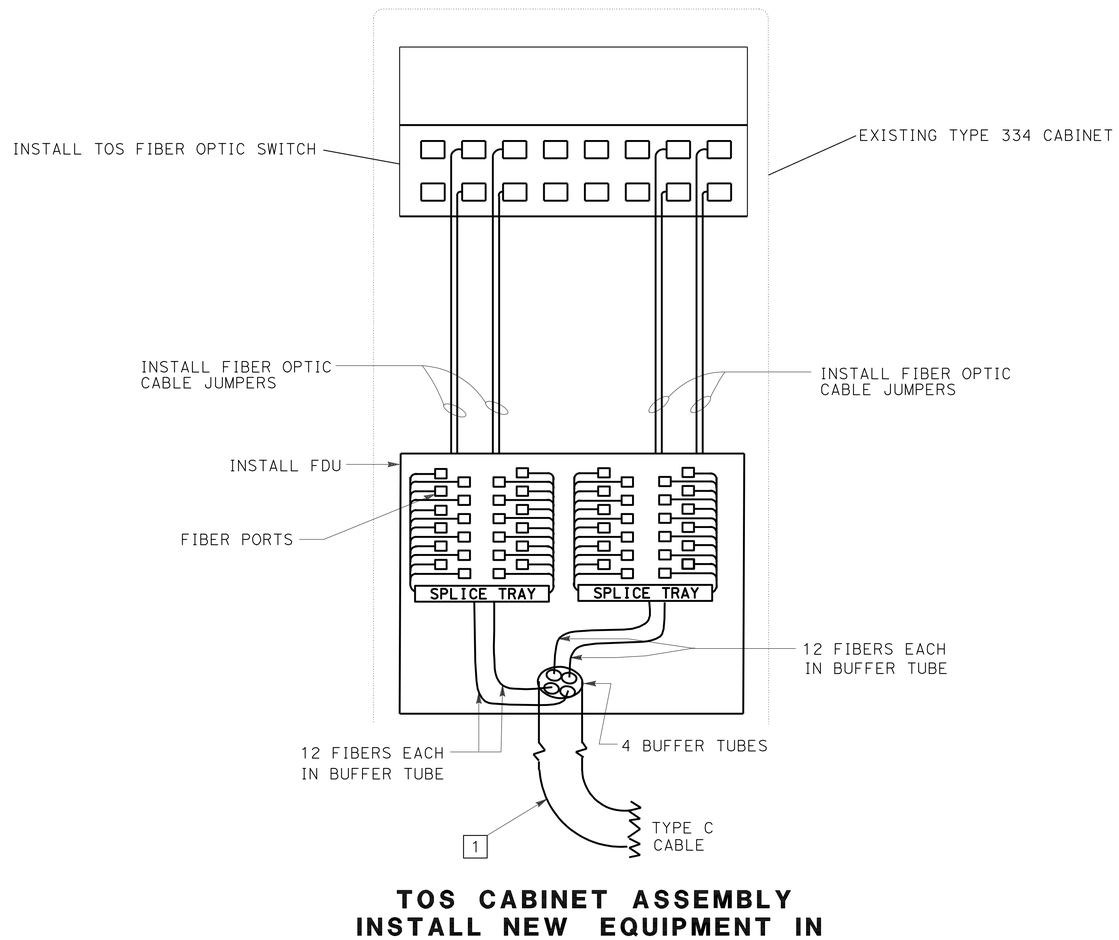
PORJECT NOTE:

1 REFER TO SHEET E-40 FOR FIBER OPTIC CABLE SCHEMATIC.

TOS CABINET ASSEMBLY DETAILS



TOS CABINET ASSEMBLY INSTALL NEW EQUIPMENT IN EXISTING TYPE 334 CABINET

QUANTITIES

QUANTITIES	DESCRIPTION
1	TOS Fiber Optic Switch
8	Fiber Optic Jumper
1	FDU

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

MODIFY COMMUNICATION SYSTEM
(TOS CABINET ASSEMBLY DETAIL)

NO SCALE

E-32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

CALCULATED-DESIGNED BY	WALEED ABOUL-HOSN	REVISED BY	WA
CHECKED BY	FERDINAND DE LA CRUZ	DATE REVISED	12-10-10
FUNCTIONAL SUPERVISOR	FERDINAND DE LA CRUZ		

LAST REVISION 03-28-11 | DATE PLOTTED => 16-APR-2011 | TIME PLOTTED => 06:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	198	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 ELECTRICAL STATE OF CALIFORNIA

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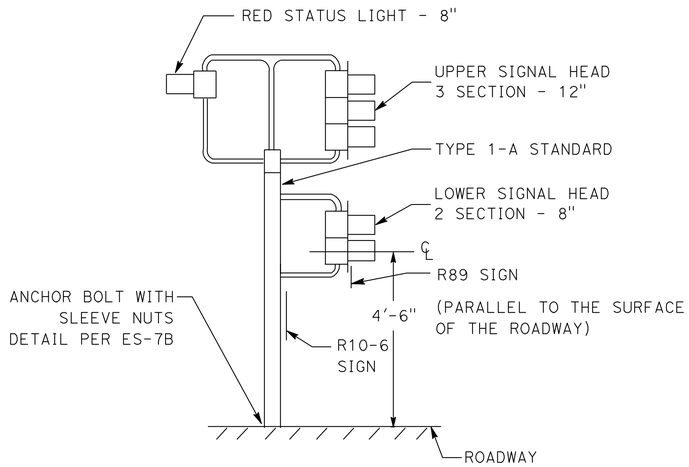
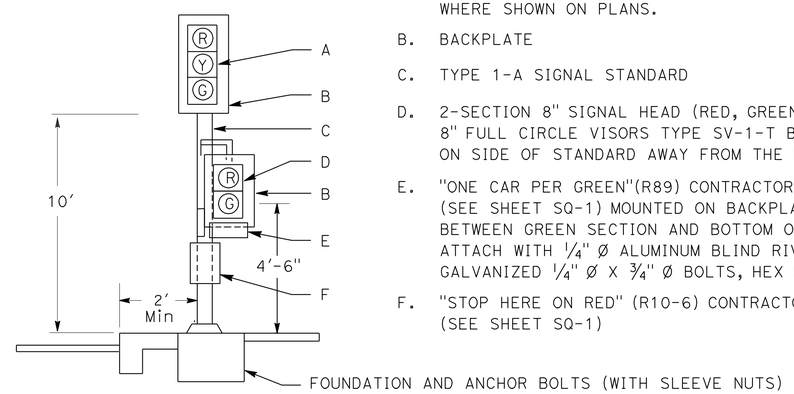


SIDE ELEVATION



FRONT ELEVATION

A. 3-SECTION 12" SIGNAL HEAD (RED, YELLOW, GREEN), 12" FULL 18" X 8" ANGLED VISORS ARE REQUIRED WHERE SHOWN ON PLANS.

B. BACKPLATE

C. TYPE 1-A SIGNAL STANDARD

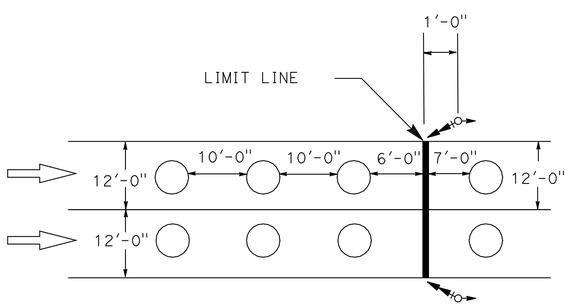
D. 2-SECTION 8" SIGNAL HEAD (RED, GREEN), 8" FULL CIRCLE VISORS TYPE SV-1-T BRACKET MOUNTING ON SIDE OF STANDARD AWAY FROM THE RAMP TRAFFIC.

E. "ONE CAR PER GREEN"(R89) CONTRACTOR-FURNISHED SIGN (SEE SHEET SQ-1) MOUNTED ON BACKPLATE AND CENTERED BETWEEN GREEN SECTION AND BOTTOM OF BACKPLATES AND SIDES. ATTACH WITH 1/4" Ø ALUMINUM BLIND RIVETS OR GALVANIZED 1/4" Ø X 3/4" Ø BOLTS, HEX NUTS PLAIN AND LOCK WASHERS.

F. "STOP HERE ON RED" (R10-6) CONTRACTOR-FURNISHED SIGN. (SEE SHEET SQ-1)

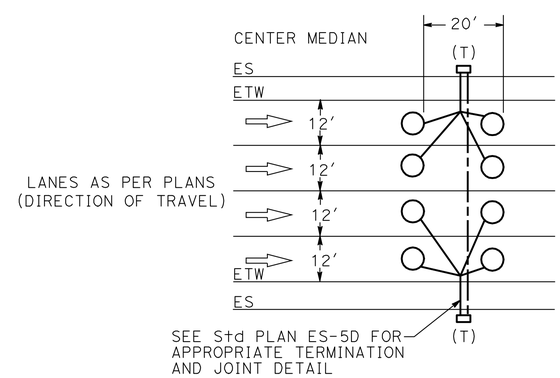
DETAIL 1

RAMP METER SIGNAL



DETAIL 2

2-LANE ON RAMP LOOP INSTALLATION



DETAIL 3

MAINLINE LOOP INSTALLATION

RAMP METERING AND VEHICLE DETECTION STATION (DETAILS)

NO SCALE

E-33

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	199	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

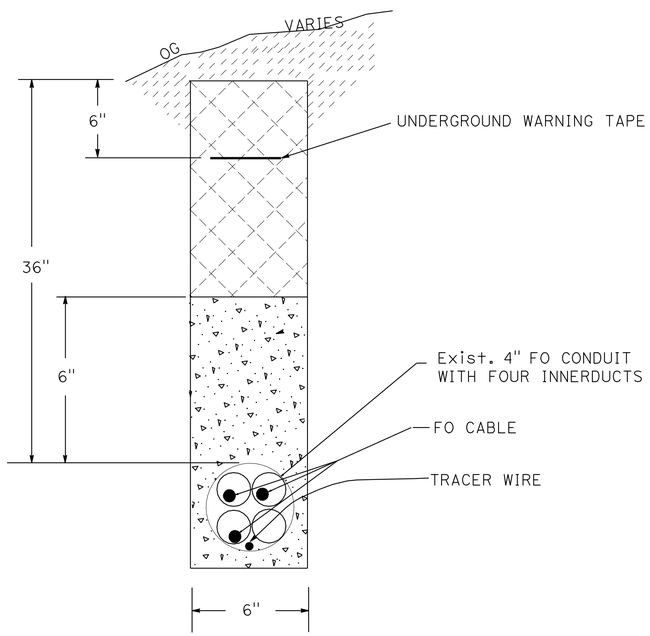
4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER FERDINAND DE LA CRUZ No. E17215 Exp. 6-30-12 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.

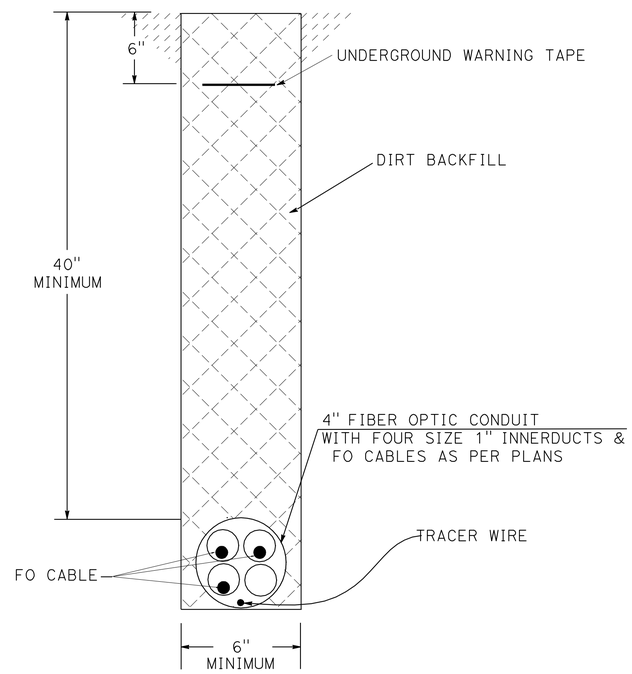
NOTES:

1. FIBER OPTIC CONDUIT SHALL BE INSTALLED A MINIMUM OF 4 FEET FROM ANY EXISTING/PROPOSED GUARD RAILING.

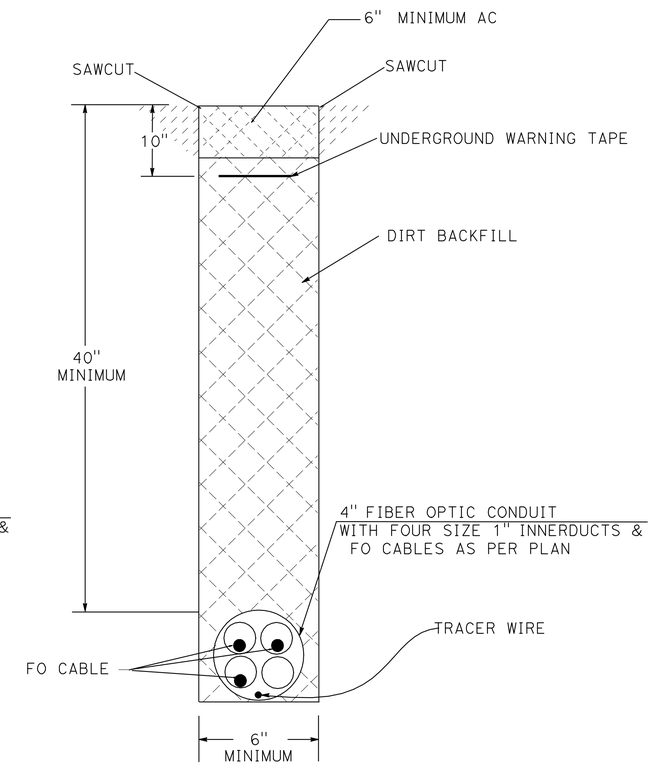


EXISTING FO CONDUIT-(TRENCHED)

ALL DIMENSIONS ARE APPROXIMATE
(SEE PLANS FOR LOCATIONS)



TRENCH IN DIRT DETAIL



TRENCH IN AC SHOULDER DETAIL

(CENTERED WITHIN THE SHOULDER OR AS DIRECTED BY THE ENGINEER)

MODIFY COMMUNICATION SYSTEM
(CONDUIT PLACEMENT DETAILS)

NO SCALE

E-34

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

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

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11 | DATE PLOTTED => 16-APR-2011 | TIME PLOTTED => 06:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	10	9.9/R24.5	200	260

REGISTERED ELECTRICAL ENGINEER 3-28-11 DATE

4-11-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E17215
Exp. 6-30-12
ELECTRICAL
STATE OF CALIFORNIA

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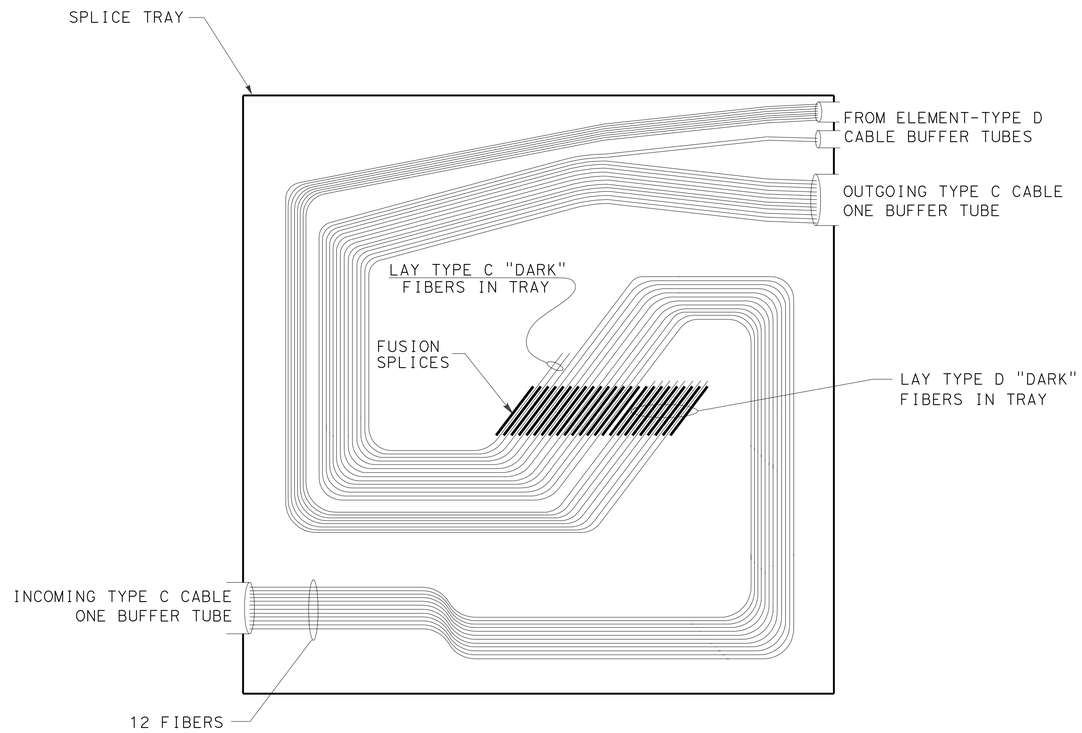
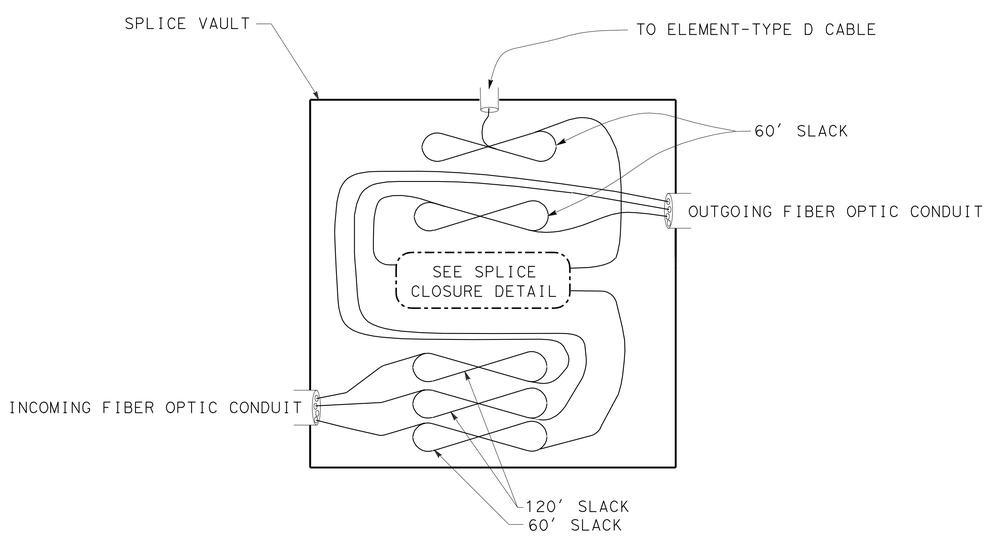
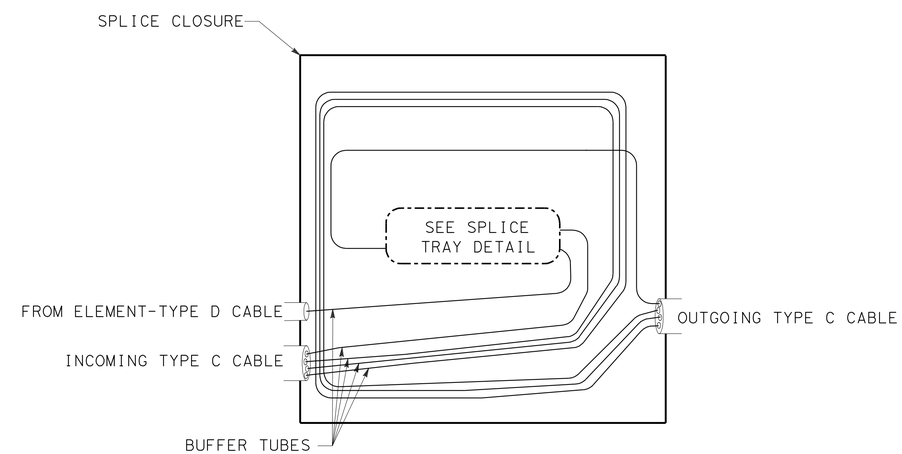


SPLICE TRAY DETAIL



SPLICE VAULT DETAIL



SPLICE CLOSURE DETAIL

MODIFY COMMUNICATION SYSTEM
(SPLICE VAULT DETAILS)

NO SCALE

E-35

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN B

FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
CALCULATED-DESIGNED BY: WALEED ABOUL-HOSN
CHECKED BY: FERDINAND DE LA CRUZ
REVISED BY: WA
DATE REVISED: 12-10-10

LAST REVISION 03-28-11
DATE PLOTTED => 16-APR-2011
TIME PLOTTED => 06:06