Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	1	34

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ACIM-010-2(256)95E

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN RIVERSIDE COUNTY
IN BEAUMONT, BANNING AND CABAZON
FROM PENNSYLVANIA AVENUE UNDERCROSSING
TO ROUTE 10/111 SEPARATION

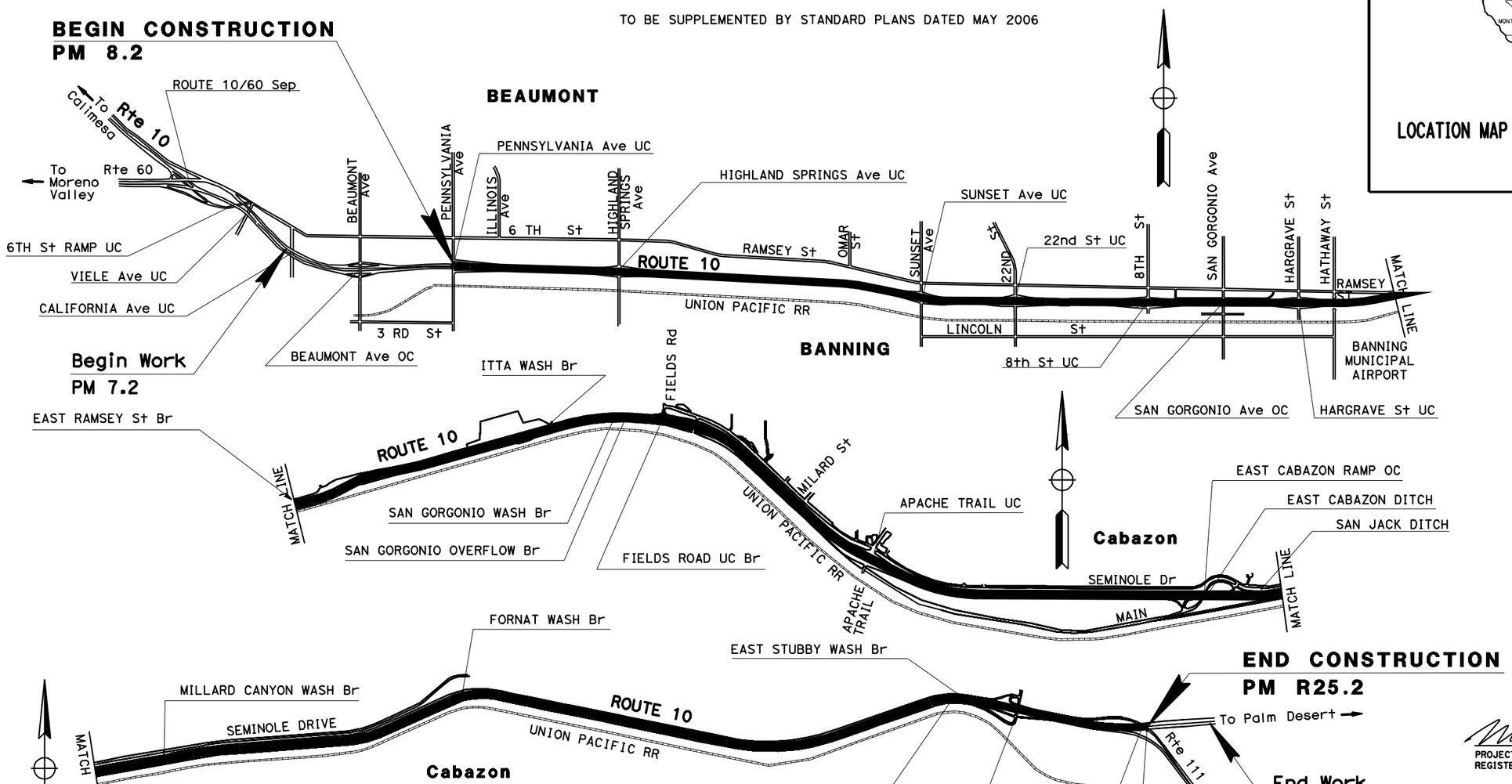
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-5	TYPICAL CROSS SECTIONS
6-7	CONSTRUCTION DETAILS
8	CONSTRUCTION AREA SIGNS
9-19	DETOUR PLANS
20	PAVEMENT DELINEATION QUANTITIES
21	SUMMARY OF QUANTITIES
22-24	ELECTRICAL PLANS
25-34	REVISED STANDARD PLANS

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

LOCATION MAP



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

PROJECT MANAGER: CATALINO PINING III
DESIGN ENGINEER: MARC TALAVERA

3-14-11
PROJECT ENGINEER REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER — MARC TALAVERA — No. C70662 — Exp. 6/30/11 — CIVIL — STATE OF CALIFORNIA

March 14, 2011
PLANS APPROVAL DATE

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

CONTRACT No.	08-0P7204
PROJECT ID	0800020025

LAST REVISION 03-14-11 — DATE PLOTTED => 14-MAR-2011 — TIME PLOTTED => 16:39

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	2	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MARC TALAVERA No. C70662 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. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT DISTRICT OFFICE.
4. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
5. FOR INFORMATION ON REPLACE CONCRETE PAVEMENT (RSC) THICKNESS, LOCATIONS AND QUANTITIES SEE SHEETS C-1 AND Q-1.

ABBREVIATIONS

RSC - RAPID STRENGTH CONCRETE

EXISTING STRUCTURAL SECTIONS

A: 3" AC, Var AB, 6" AS

B: 9" PCC, 4" RM CTB, 6" AS

C: 8" PCC, 4" RM CTB, 6" AS

D: 2" AC (TYPE A), 4" CLASS 2 AB

E: 7" AC (TYPE A), 15" CLASS 2 AB

F: 7" AC (TYPE A), 9" CLASS 2 AB

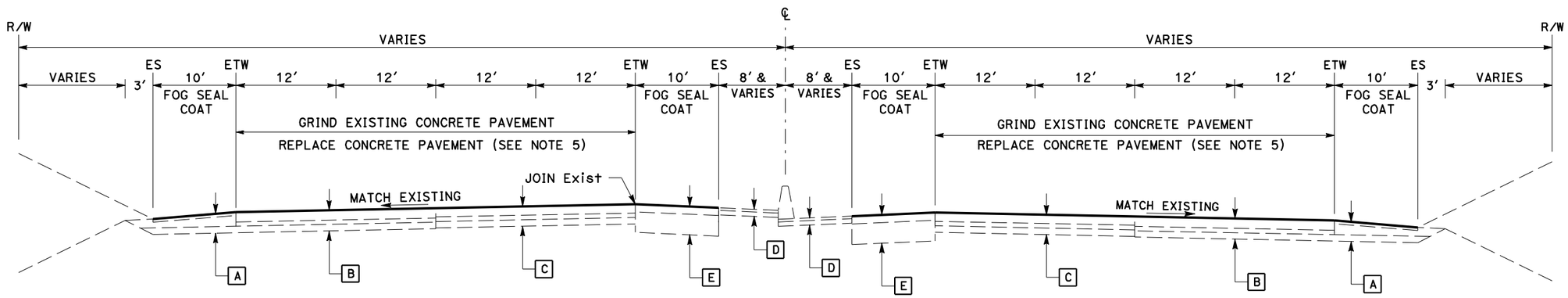
G: 8" PCC, 5" RMCTB, 6" AS

H: 11.5" REPLACE CONCRETE PAVEMENT (RSC), BOND BREAKER, 4" RSC

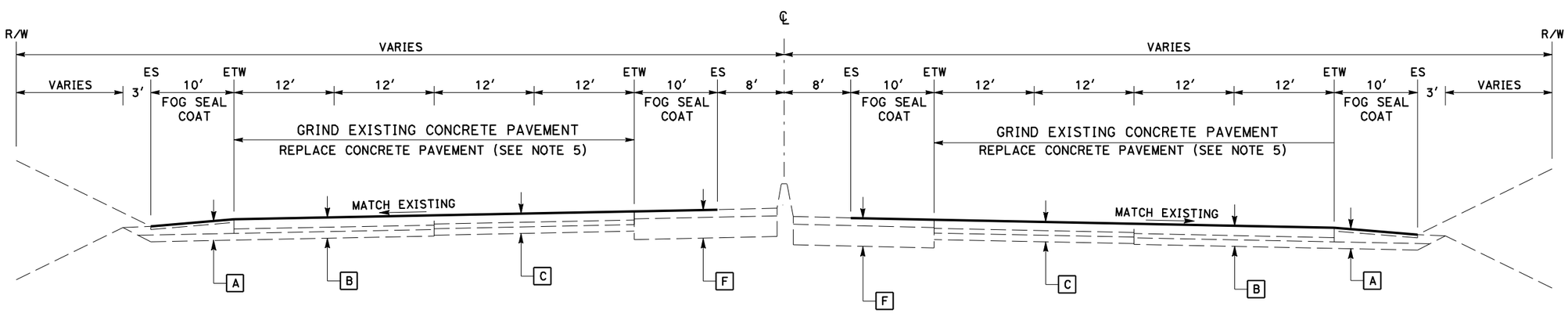
I: 9" REPLACE CONCRETE PAVEMENT (RSC), BOND BREAKER, 4" RSC

J: 8" PCC, 4" RMCTB, 7" AS

K: 8" PCC, 4" RMCTB



WESTBOUND — **ROUTE 10** PM 9.41 TO PM 11.33 — EASTBOUND



WESTBOUND — **ROUTE 10** PM 8.2 TO PM 9.41 — EASTBOUND

TYPICAL CROSS SECTIONS

NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: KUANG CHEN
CALCULATED-DESIGNED BY: M. TALAVERA
CHECKED BY: K. CHEN
REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:40

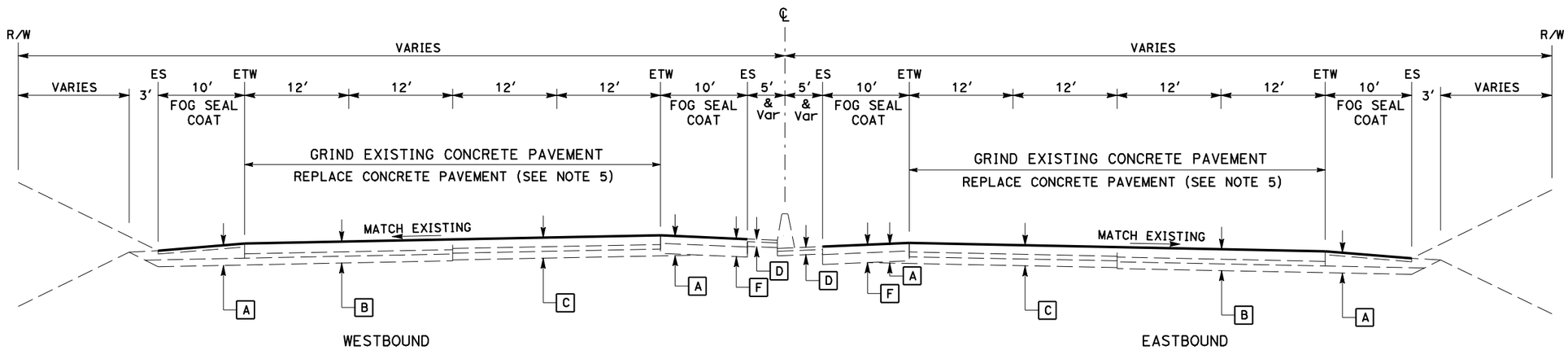
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	3	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

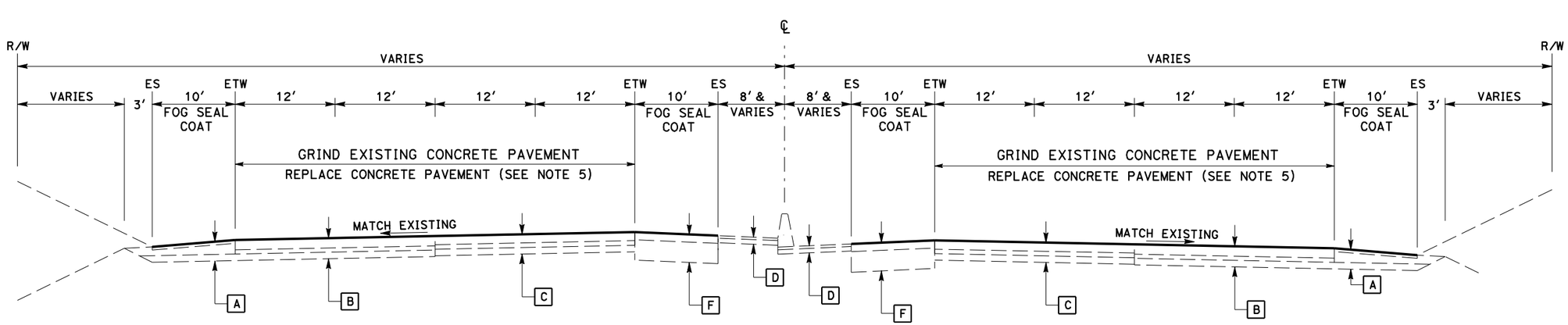
REGISTERED PROFESSIONAL ENGINEER MARC TALAVERA No. C70662 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.



ROUTE 10

PM 11.96 TO PM 13.87



ROUTE 10

PM 11.33 TO PM 11.96

TYPICAL CROSS SECTIONS

NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: KUANG CHEN

CALCULATED-DESIGNED BY: M. TALAVERA
CHECKED BY: K. CHEN
REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	4	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MARC TALAVERA No. C70662 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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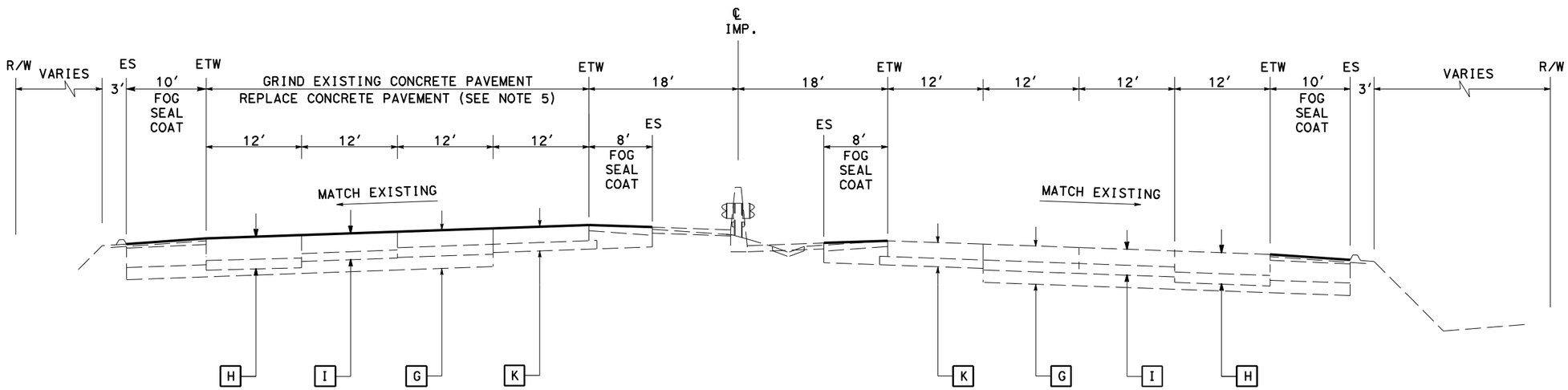


ROUTE 10
PM 13.87 TO R19.7

TYPICAL CROSS SECTIONS

NO SCALE

X-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: KUANG CHEN

CALCULATED-DESIGNED BY: M. TALAVERA
CHECKED BY: K. CHEN

REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:40

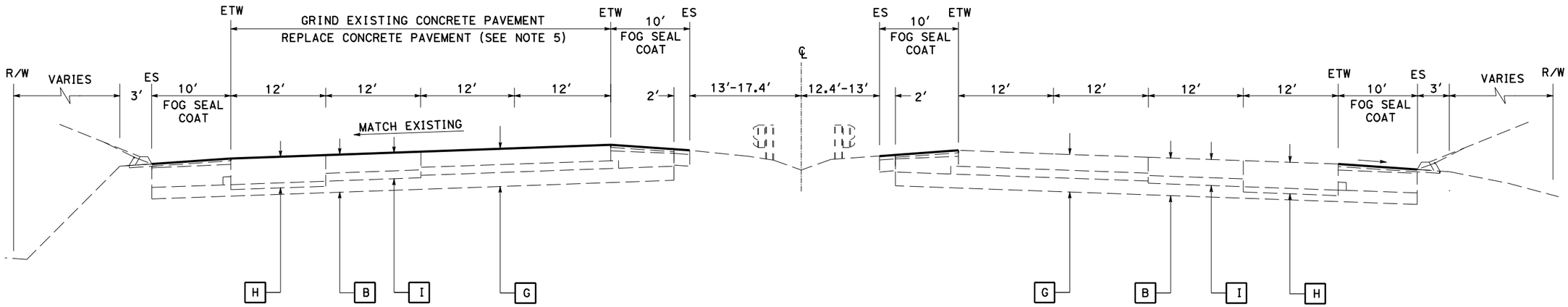
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	5	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MARC TALAVERA No. C70662 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

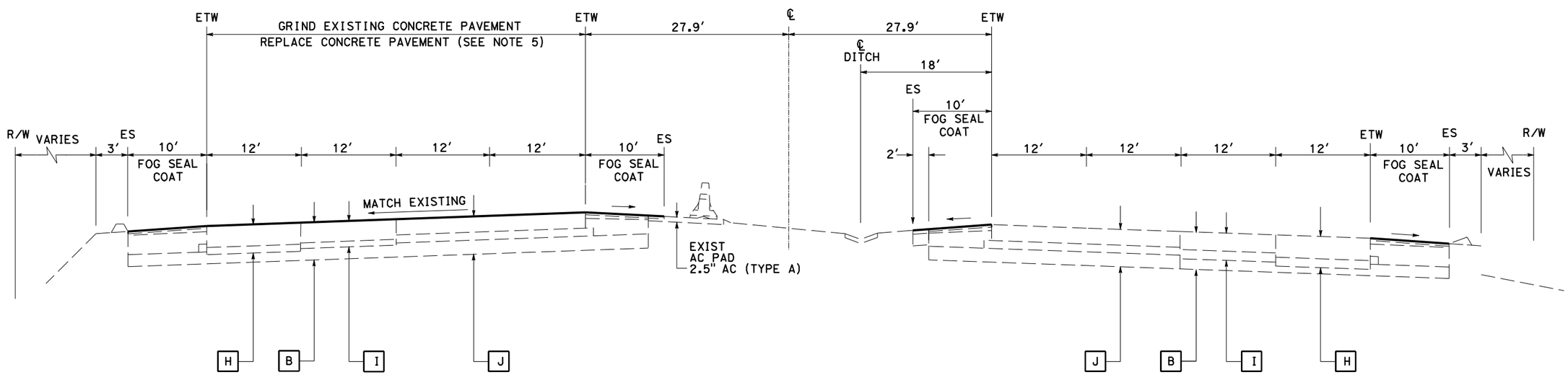
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



WESTBOUND **EASTBOUND**

ROUTE 10

PM R24.17 TO R25.2



WESTBOUND **EASTBOUND**

ROUTE 10

PM R19.7 TO R24.17

TYPICAL CROSS SECTIONS

NO SCALE

X-4

REVISED BY	DATE REVISED
M. TALAVERA	K. CHEN
CALCULATED-DESIGNED BY	CHECKED BY
FUNCTIONAL SUPERVISOR	KUANG CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	6	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MARC TALAVERA No. C70662 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.

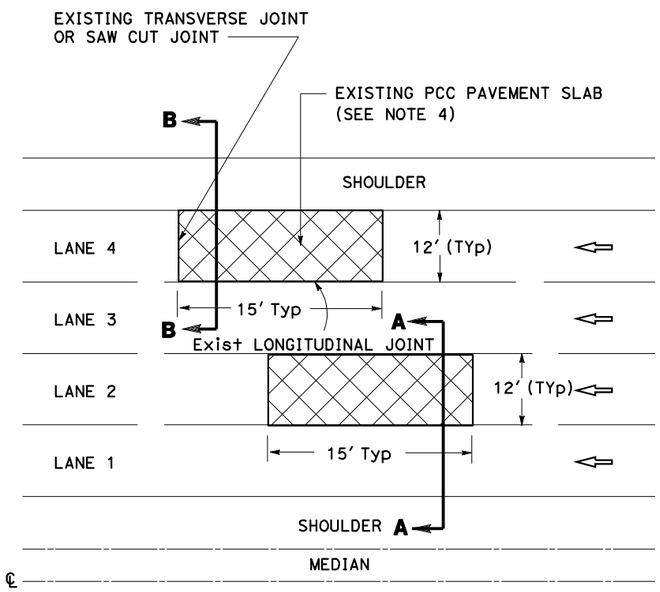
NOTES:

1. FOR LOCATIONS OF PCC SLAB REPLACEMENT, SEE SHEET Q-1.
2. TYPICAL PCC SLAB DIMENSIONS IS 12′x 15′.
3. USE THE TYPE II SLAB LAYOUT OF REVISED STANDARD PLAN RSP P8.
4. EXACT LIMITS OF PCC PAVEMENT SLAB TO BE REPLACED SHALL BE DETERMINED BY THE ENGINEER.

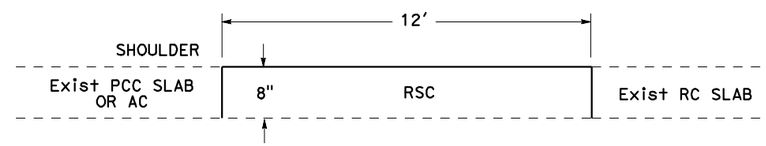
LEGEND

REPLACE CONCRETE PAVEMENT (RSC)

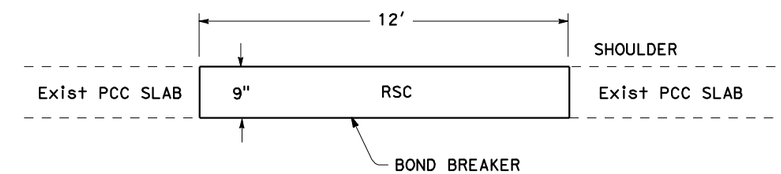
DIRECTION OF TRAVEL



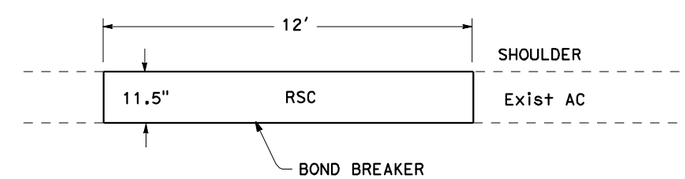
REPLACE CONCRETE PAVEMENT (RSC)
TYPICAL



SECTION A-A
(LANES No. 1 & 2)



SECTION B-B
(LANE No. 3)



SECTION B-B
(LANE No.4)

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: KUANG CHEN
CALCULATED-DESIGNED BY: M. TALAVERA
CHECKED BY: K. CHEN
REVISED BY
DATE REVISED

LAST REVISION 03-14-11 DATE PLOTTED => 14-MAR-2011 TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	7	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MARC TALAVERA No. C70662 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.

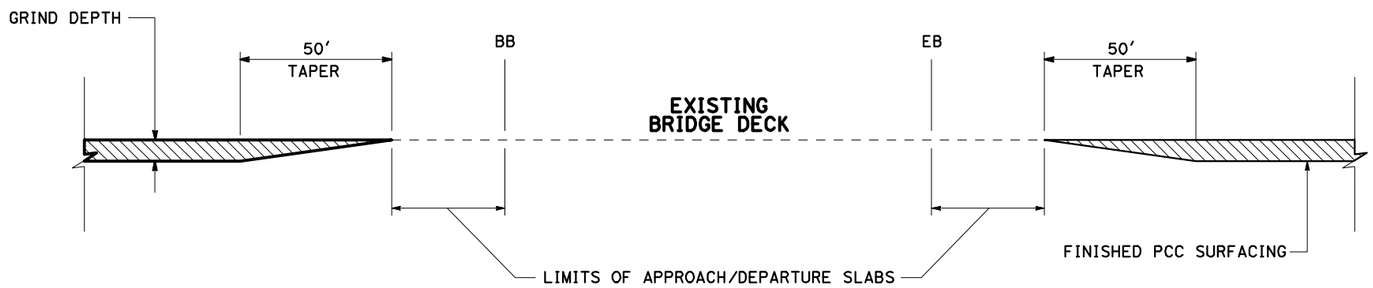
NOTES:

1. OMIT GRINDING ON APPROACH, DEPARTURE SLABS, AND BRIDGE DECK.
2. GRIND 50' TAPER FROM CONVENTIONAL PCC SLABS TO EDGE OF APPROACH/DEPARTURE SLAB.

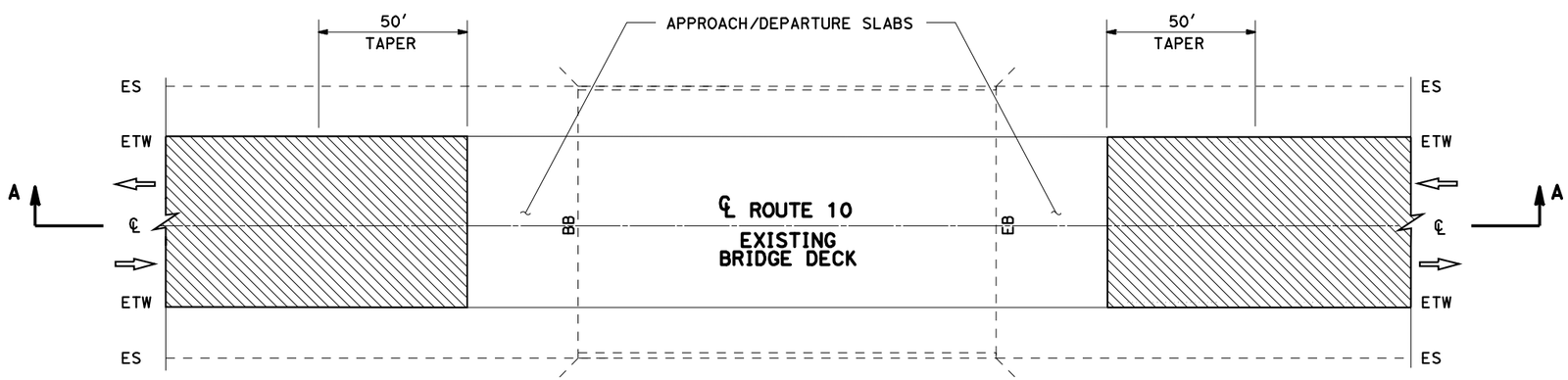
LEGEND

GRIND EXISTING CONCRETE PAVEMENT

DIRECTION OF TRAVEL



SECTION A-A



TYPICAL LIMITS OF WORK AT BRIDGE DECK

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: KUANG CHEN

CALCULATED-DESIGNED BY: M. TALAVERA
CHECKED BY: K. CHEN

REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	8	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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

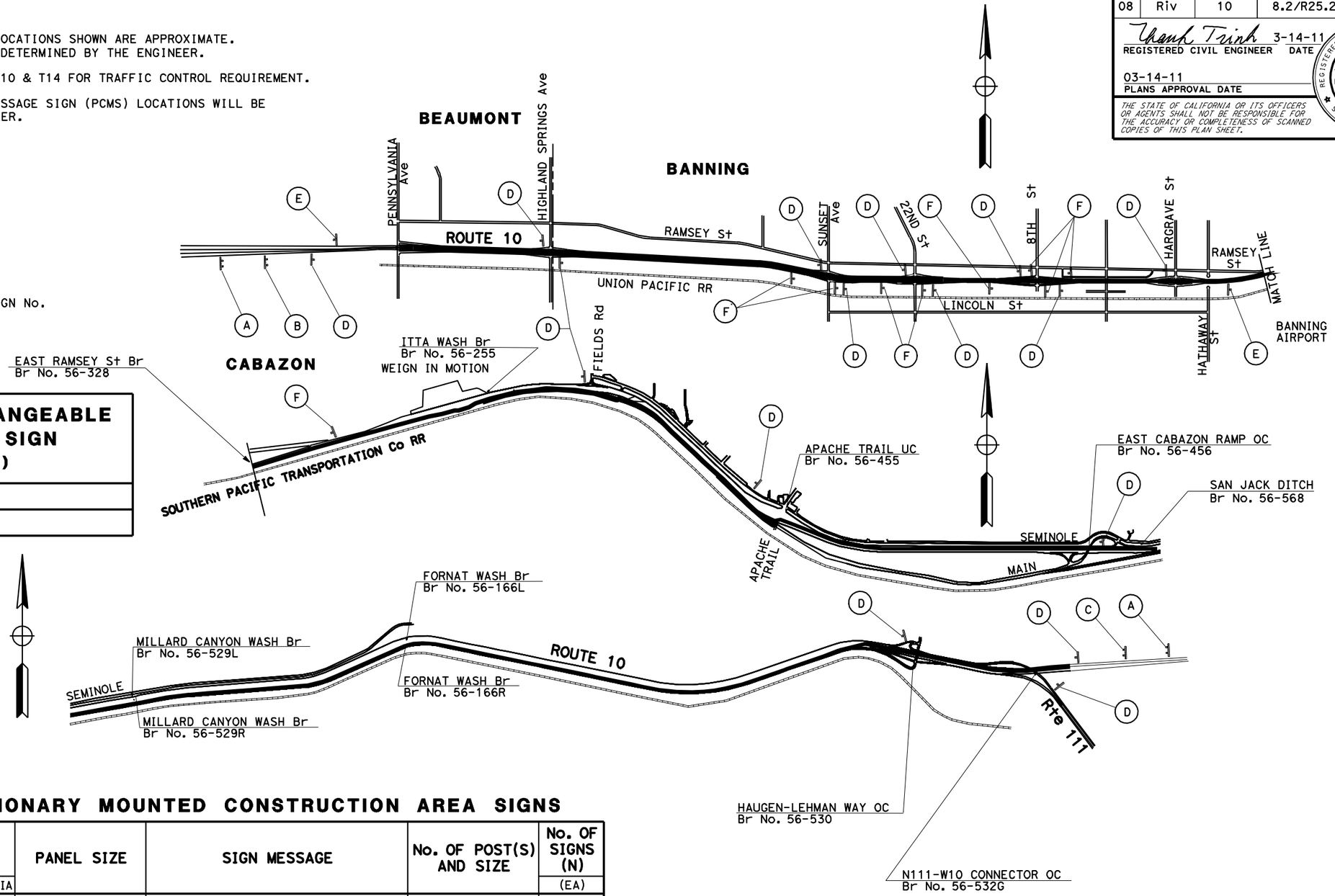
NOTES:

1. CONSTRUCTION AREA SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. REFER TO STANDARD PLAN T10 & T14 FOR TRAFFIC CONTROL REQUIREMENT.
3. EXACT PORTABLE CHANGE MESSAGE SIGN (PCMS) LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

LEGEND

- ONE POST SIGN
- TWO POST SIGN
- WORK AREA
- (X) CONSTRUCTION AREA SIGN No.

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
(EA)
4



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)
A	—	C40	144" X 60"	TRAFFIC FINES DOUBLED IN WORK ZONES	2 - 6" X 8"	2
B	—	C11	90" X 48"	ROAD WORK NEXT 6 MILES	2 - 6" X 6"	1
C	—	C11	90" X 48"	ROAD WORK NEXT 17 MILES	2 - 6" X 6"	1
D	W20-1	—	48" X 48"	ROAD WORK AHEAD	1 - 6" X 6"	16
E	G20-2	—	48" X 18"	END ROAD WORK	1 - 4" X 4"	2
F		SC6-4	48" X 60"	RAMP CLOSED (DATE - TIME)	1 - 6" X 6"	9

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

REVISED BY | DATE REVISED
TRI TRAN | THANH TRINH
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | BILL WASSER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN A

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	9	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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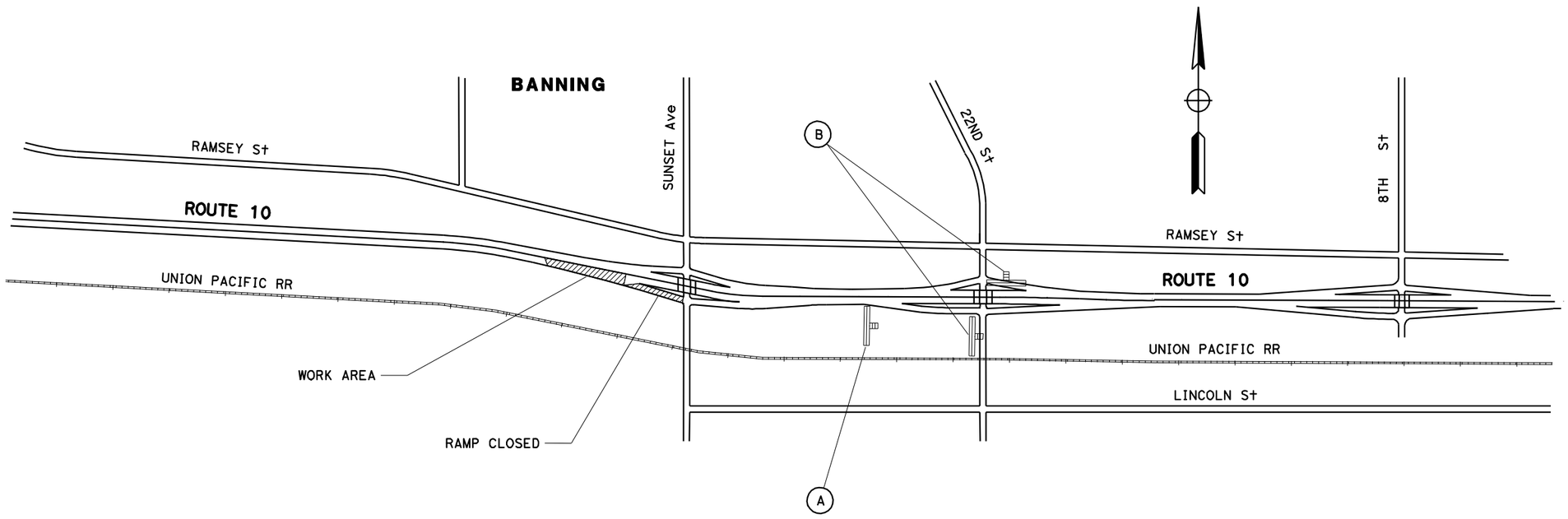
LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA

DETOUR DURING CLOSURE OF THE SUNSET Ave OFF RAMP ON ROUTE 10 EAST FOR SLAB REPLACEMENT WORK



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
A	G7(CA) M4-10(RT)	60" X 18" 48" X 36"	SUNSET Ave DETOUR (RT)	1 - 4" X 6"	1	—
B	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	2	2
TOTAL					3	2

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

G7(CA)

DETOUR PLAN

NO SCALE

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DE-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN A

FUNCTIONAL SUPERVISOR: BILL WASSER
CALCULATED-DESIGNED BY: TRI TRAN
CHECKED BY: THANH TRINH
REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	10	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

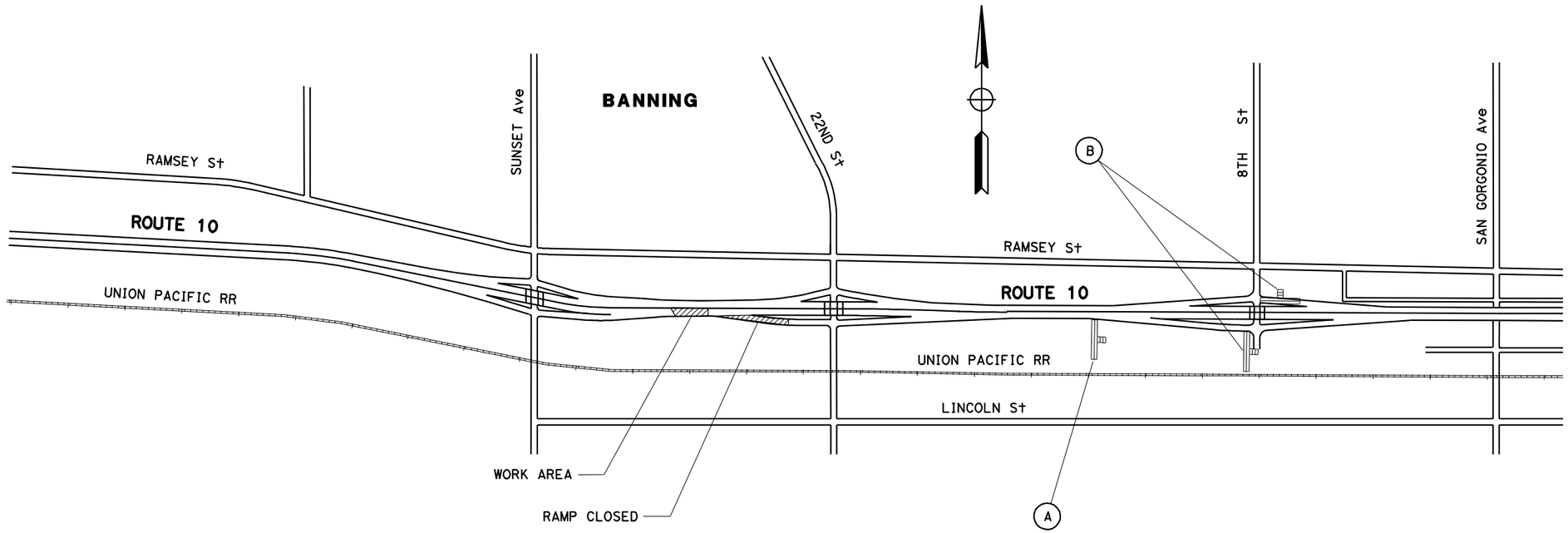
REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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

LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA

DETOUR DURING CLOSURE OF THE 22ND St OFF RAMP ON ROUTE 10 EAST FOR SLAB REPLACEMENT WORK



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
A	G7(CA) M4-10(RT)	60" X 18" 48" X 36"	22ND STREET DETOUR (RT)	1 - 4" X 6"	1	—
B	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	2	2
TOTAL					3	2

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

G7(CA)

DETOUR PLAN

NO SCALE

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DE-2

REVISED BY | DATE REVISED
TRI TRAN | THANH TRINH
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
BILL WASSER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN A

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	11	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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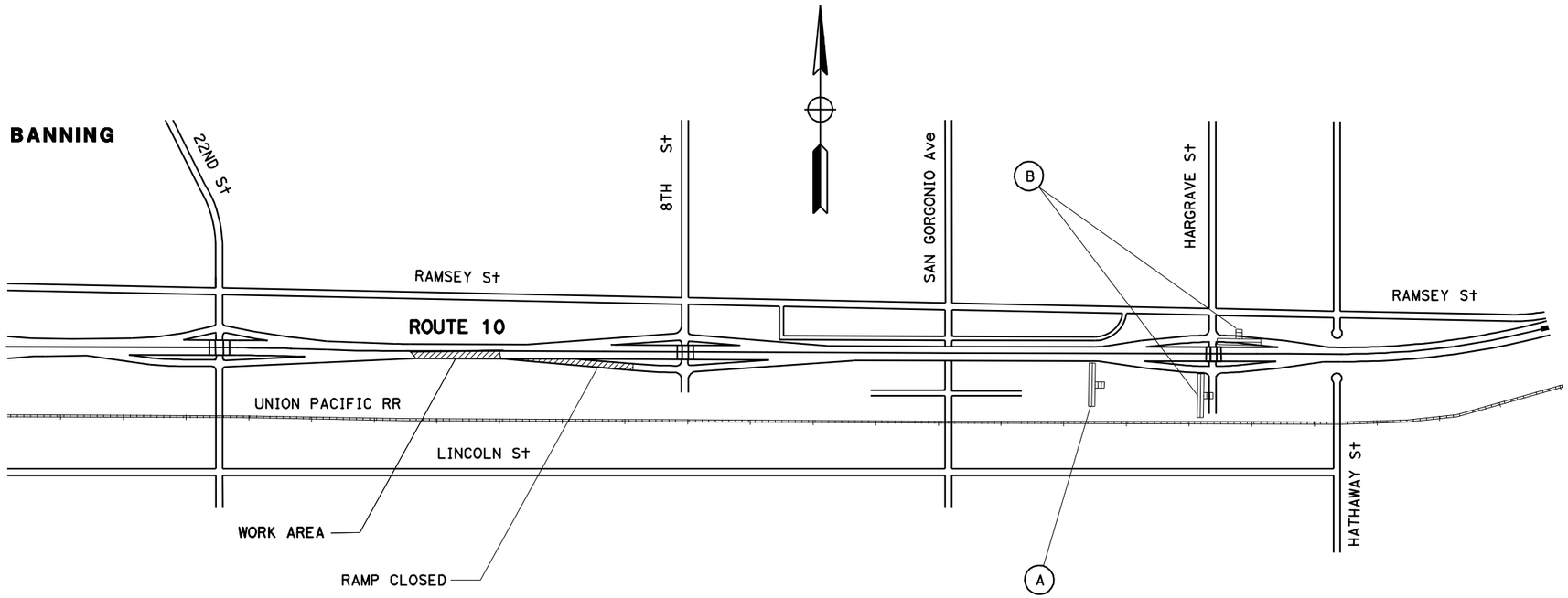
LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA

DETOUR DURING CLOSURE OF THE 8TH St OFF RAMP ON ROUTE 10 EAST FOR SLAB REPLACEMENT WORK



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
A	G7(CA) M4-10(RT)	60" X 18" 48" X 36"	8TH STREET DETOUR (RT)	1 - 4" X 6"	1	—
B	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	2	2
				TOTAL	3	2

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

G7(CA)

DETOUR PLAN

NO SCALE

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DE-3

REVISED BY | DATE REVISED
TRI TRAN | THANH TRINH
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
BILL WASSER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN A

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	12	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

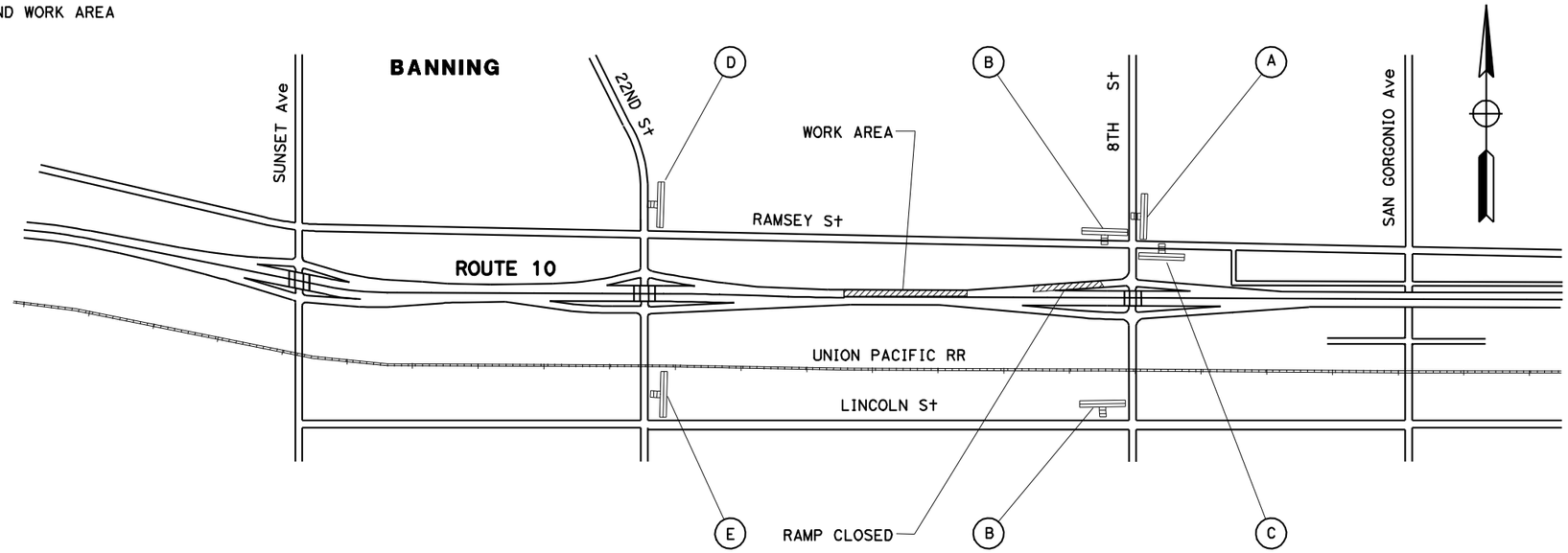
REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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

LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA

DETOUR DURING CLOSURE OF THE 8TH St ON RAMP ON ROUTE 10 WEST FOR SLAB REPLACEMENT WORK



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
A	SC3 (CA)	48" X 36"	STRAIGHT DETOUR	1 - 4" X 6"	1	——
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-4	26" X 12"	WEST			
B	M4-10(RT)	48" X 36"	DETOUR (RT)	1 - 4" X 6"	2	——
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-4	26" X 12"	WEST			
C	M4-10(LT)	48" X 36"	DETOUR (LT)	1 - 4" X 6"	1	——
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-4	26" X 12"	WEST			
D	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	1	1
E	M4-10(RT)	48" X 36"	DETOUR (RT)	ON TYPE III BARRICADE	1	1
				TOTAL	6	2

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DETOUR PLAN

NO SCALE

DE-4

REVISED BY | DATE REVISED
TRI TRAN | THANH TRINH
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | BILL WASSER
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN A

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	13	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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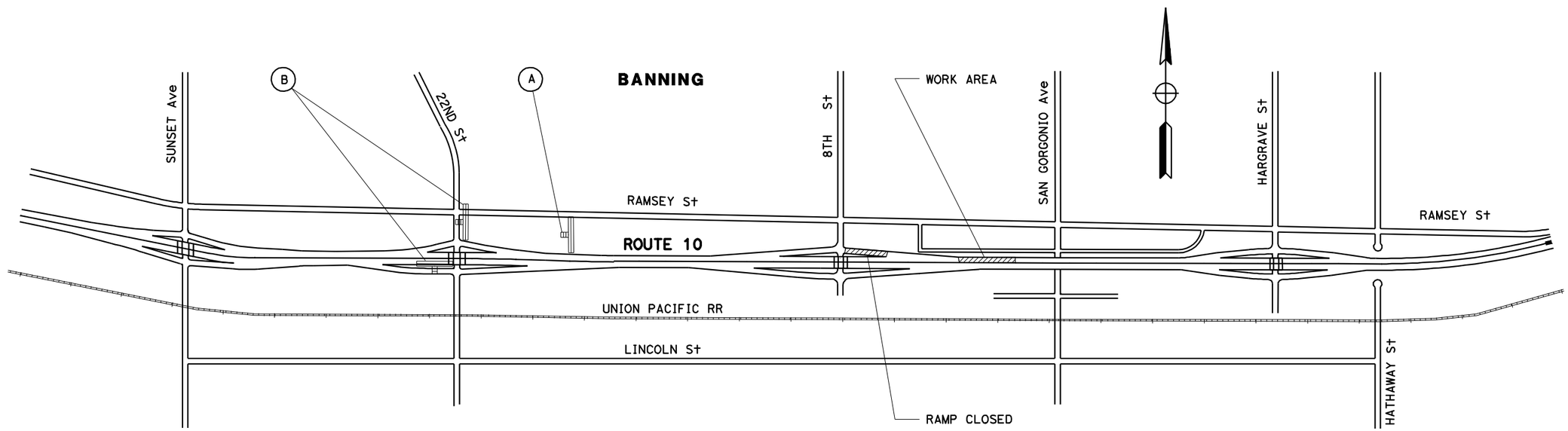
LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA

DETOUR DURING CLOSURE OF THE 8TH St OFF RAMP ON ROUTE 10 WEST FOR SLAB REPLACEMENT WORK



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
A	G7(CA) M4-10(RT)	60" X 18" 48" X 36"	8TH STREET DETOUR (RT)	1 - 4" X 6"	1	—
B	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	2	2
TOTAL					3	2

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

G7(CA)

DETOUR PLAN

NO SCALE

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DE-5

REVISED BY | DATE REVISED
TRI TRAN | THANH TRINH
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
BILL WASSER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN A

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	14	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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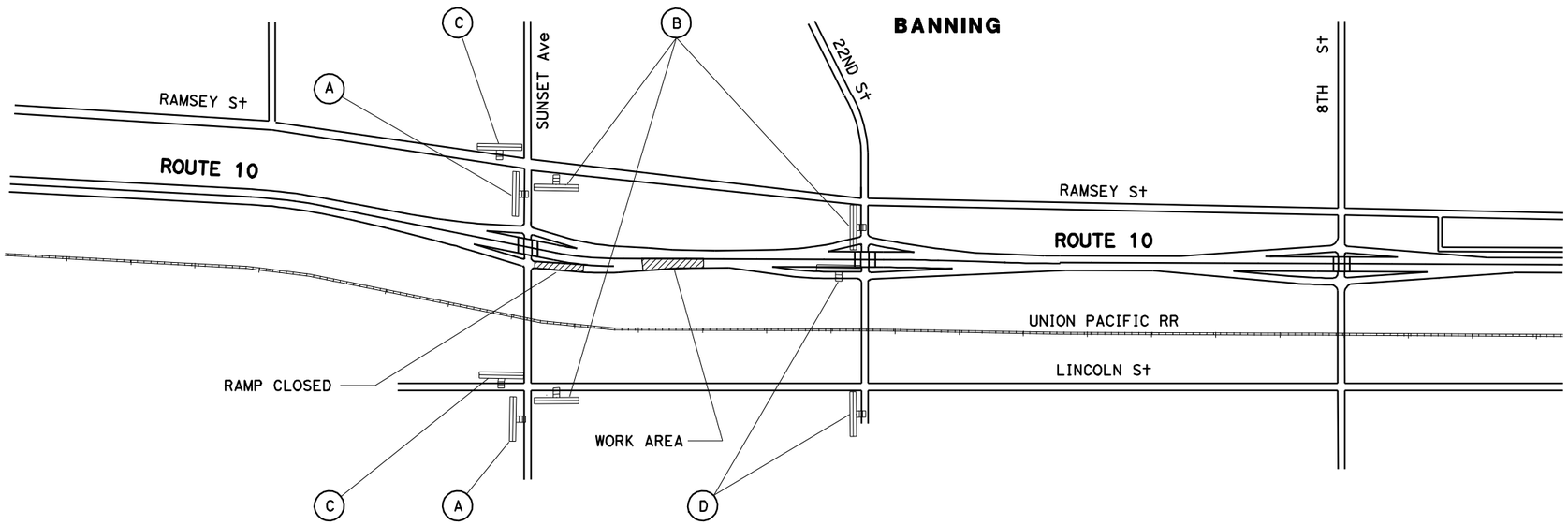
LEGEND

ONE POST CONSTRUCTION AREA SIGN

(X) CONSTRUCTION AREA SIGN LETTER

CLOSURE AND WORK AREA

DETOUR DURING CLOSURE OF THE SUNSET Ave ON RAMP ON ROUTE 10 EAST FOR SLAB REPLACEMENT WORK



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
(A)	SC3 (CA)	48" X 36"	STRAIGHT DETOUR	1 - 4" X 6"	2	—
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(B)	M4-10(RT)	48" X 36"	DETOUR (RT)	1 - 4" X 6"	3	—
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(C)	M4-10(LT)	48" X 36"	DETOUR (LT)	1 - 4" X 6"	2	—
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(D)	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	2	2
				TOTAL	9	2

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DETOUR PLAN

NO SCALE

DE-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC DESIGN A
FUNCTIONAL SUPERVISOR: BILL WASSER
CALCULATED-DESIGNED BY: TRI TRAN
CHECKED BY: THANH TRINH
REVISED BY / DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	15	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

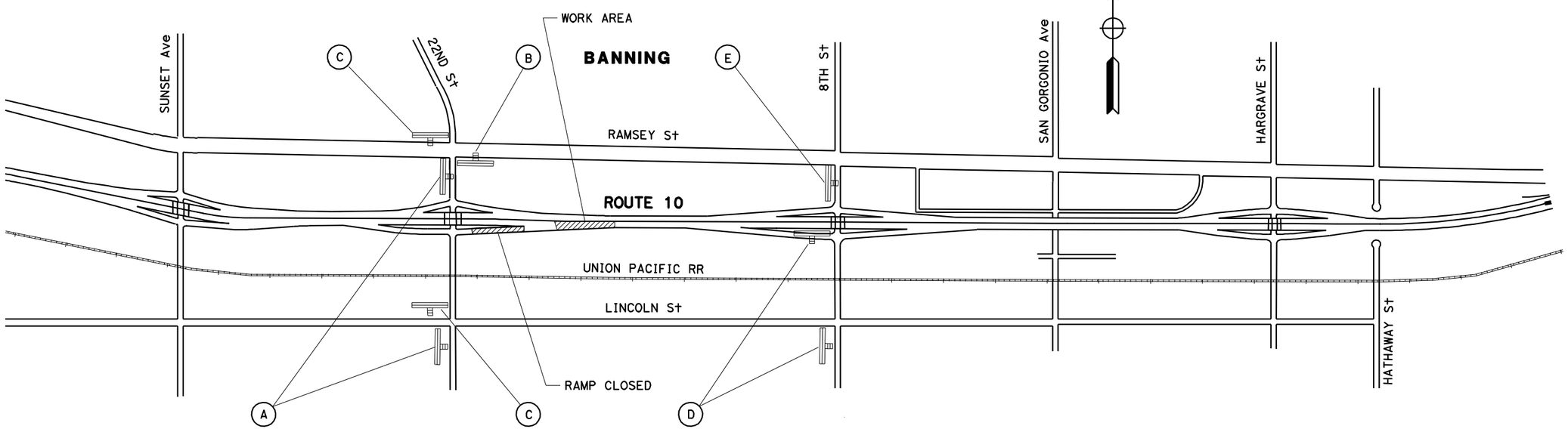
REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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

LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA

DETOUR DURING CLOSURE OF THE 22ND Ave ON RAMP ON ROUTE 10 EAST FOR SLAB REPLACEMENT WORK



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
(A)	SC3 (CA)	48" X 36"	STRAIGHT DETOUR	1 - 4" X 6"	2	——
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(B)	M4-10(RT)	48" X 36"	DETOUR (RT)	1 - 4" X 6"	1	——
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(C)	M4-10(LT)	48" X 36"	DETOUR (LT)	1 - 4" X 6"	2	——
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(D)	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	2	2
(E)	M4-10(RT)	48" X 36"	DETOUR (RT)	ON TYPE III BARRICADE	1	1
				TOTAL	8	3

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DETOUR PLAN

NO SCALE

DE-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN A

FUNCTIONAL SUPERVISOR: BILL WASSER
CALCULATED-DESIGNED BY: TRI TRAN
CHECKED BY: THANH TRINH
REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	16	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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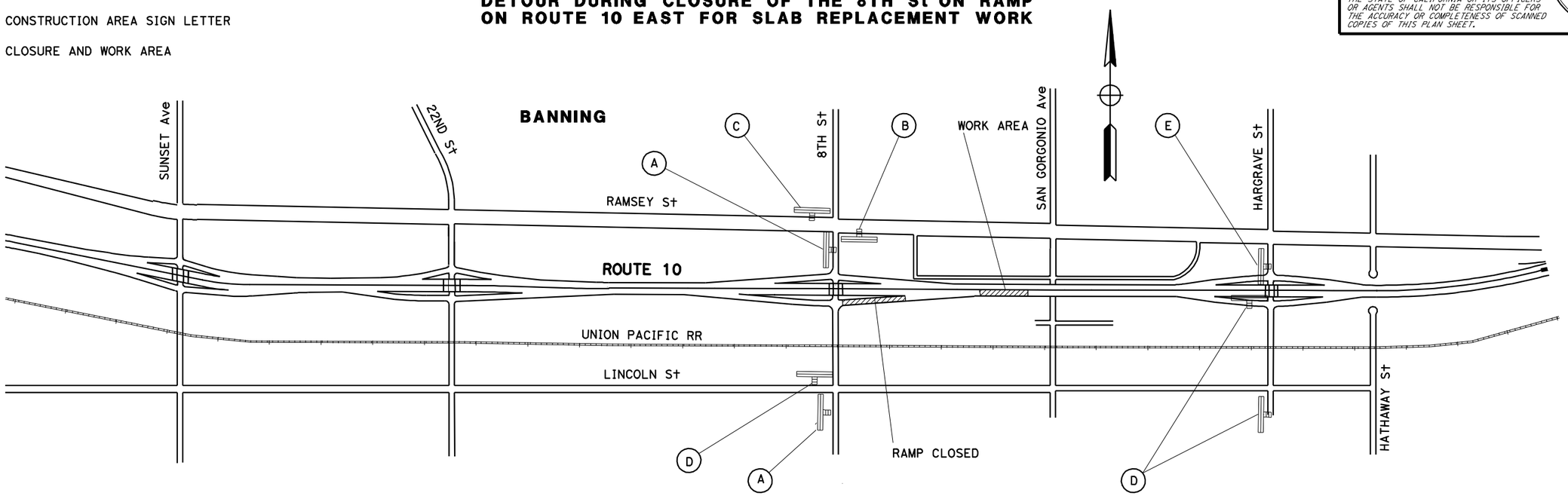
LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA

DETOUR DURING CLOSURE OF THE 8TH St ON RAMP ON ROUTE 10 EAST FOR SLAB REPLACEMENT WORK



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
(A)	SC3 (CA)	48" X 36"	STRAIGHT DETOUR	1 - 4" X 6"	2	—
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(B)	M4-10(RT)	48" X 36"	DETOUR (RT)	1 - 4" X 6"	1	—
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(C)	M4-10(LT)	48" X 36"	DETOUR (LT)	1 - 4" X 6"	1	—
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-2	26" X 12"	EAST			
(D)	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	3	3
(E)	M4-10(RT)	48" X 36"	DETOUR (RT)	ON TYPE III BARRICADE	1	1
				TOTAL	8	4

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DETOUR PLAN

NO SCALE

DE-8

REVISED BY	DATE REVISED

TRI TRAN — THANH TRINH

CALCULATED-DESIGNED BY — CHECKED BY

FUNCTIONAL SUPERVISOR — BILL WASSER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN A

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	17	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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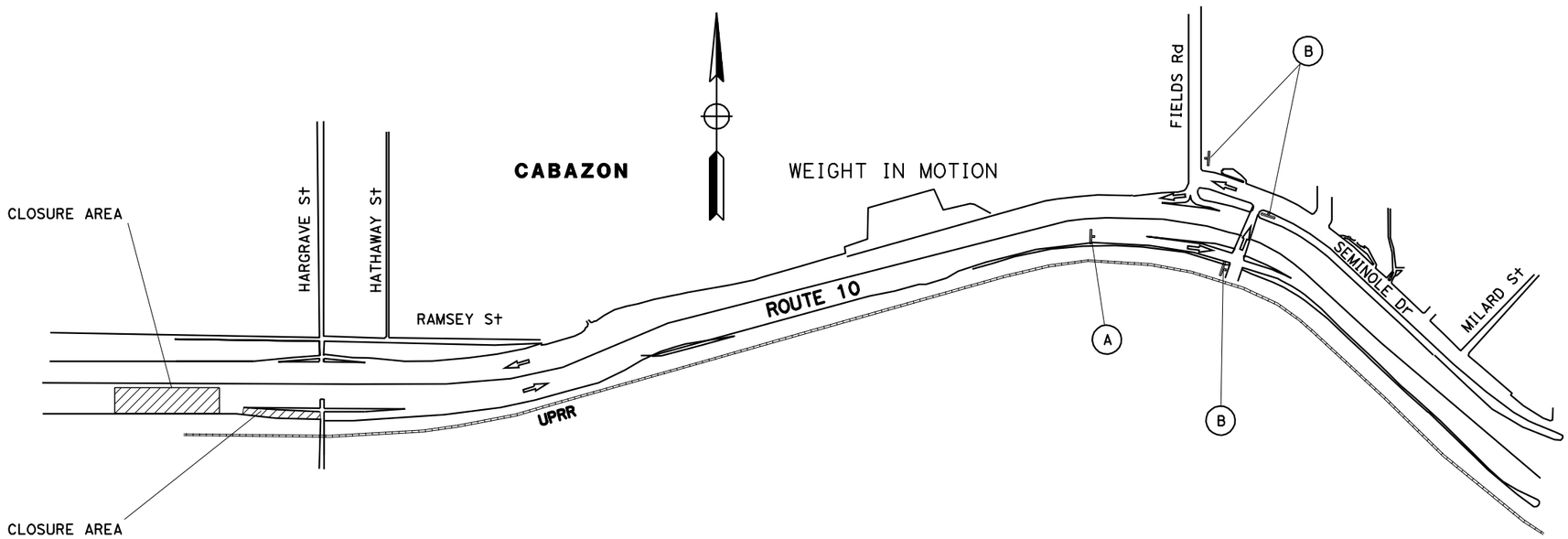
LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA
- DIRECTION OF DETOUR

DETOUR DURING CLOSURE OF HARGRAVE St OFF RAMP ON ROUTE 10 EAST FOR SLAB REPLACEMENT WORK

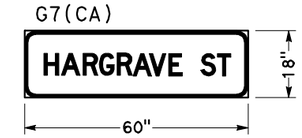


CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
(A)	G7(CA) M4-10(RT)	66" X 18" 48" X 36"	HARGRAVE St DETOUR (RT)	1 - 4" X 6"	1	—
(B)	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	1	3
				TOTAL	2	3

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

G7(CA)



DETOUR PLAN

NO SCALE

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DE-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN A

FUNCTIONAL SUPERVISOR: BILL WASSER
CALCULATED-DESIGNED BY: TRI TRAN
CHECKED BY: THANH TRINH
REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	18	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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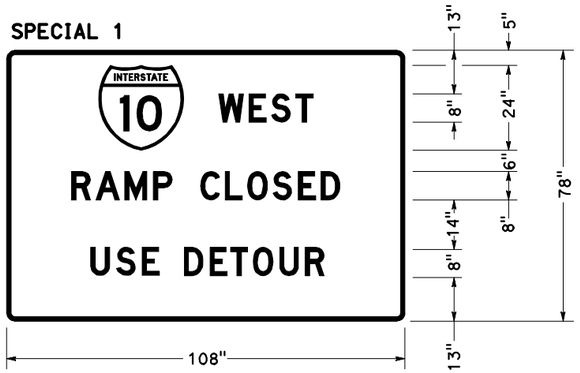
LEGEND

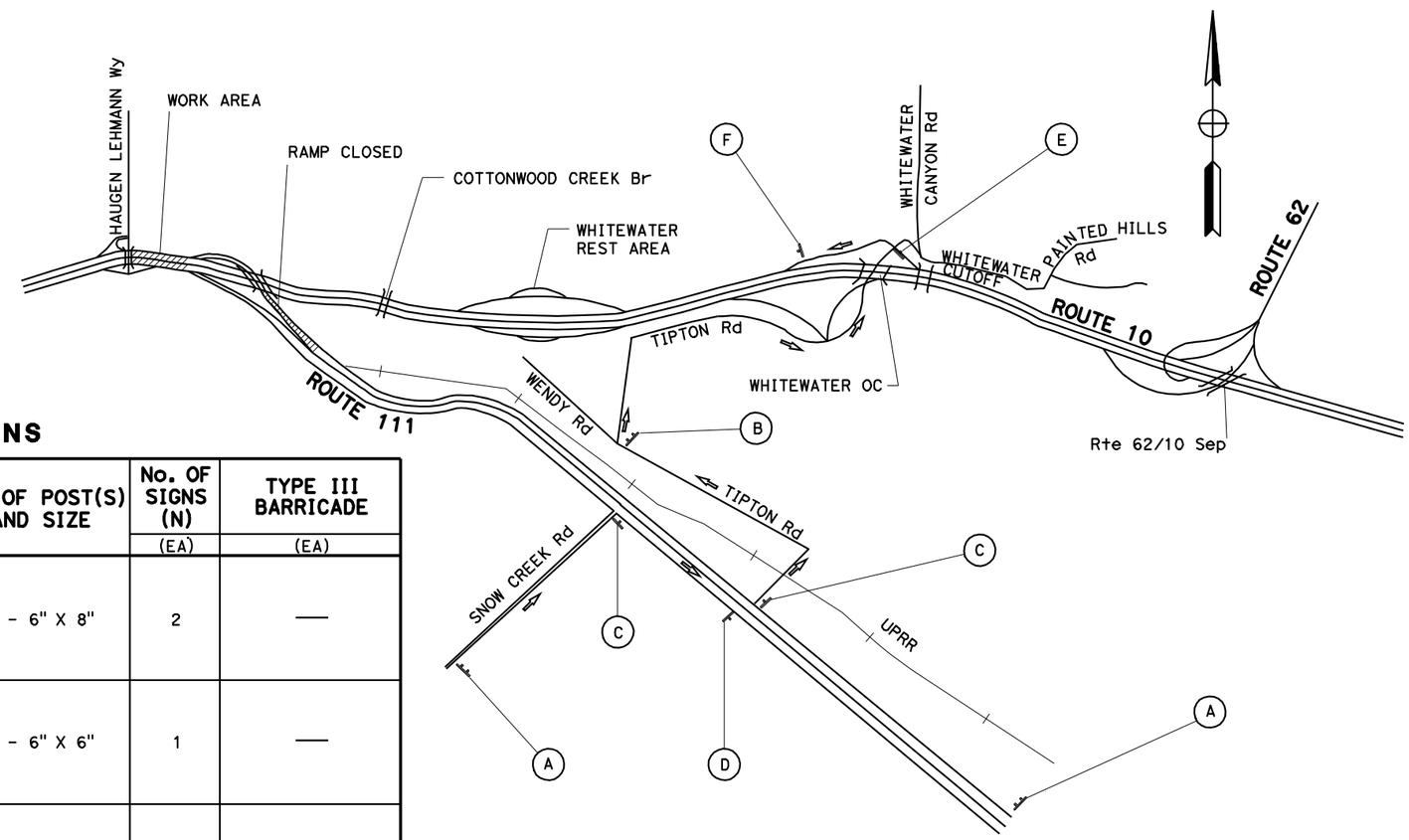
- CLOSURE AND WORK AREA
- CONSTRUCTION AREA SIGN (ONE POST)
- CONSTRUCTION AREA SIGN (TWO POST)
- (X) CONSTRUCTION AREA SIGN LETTER
- DIRECTION OF DETOUR

SPECIAL 1



ALL SIGNS ARE CAPITAL LETTER SIZE 8D, BLACK ON ORANGE.

DETOUR DURING CLOSURE OF CONNECTOR FROM ROUTE 111 NB TO ROUTE 10 WB

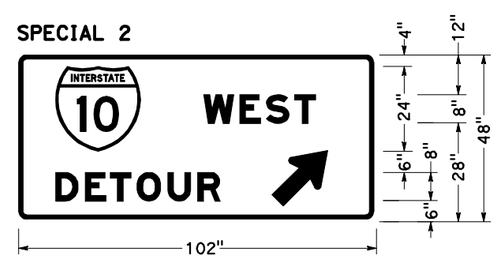


CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
(A)	SPECIAL 1	108" X 78"	INTERSTATE 10 WEST RAMP CLOSED USE DETOUR	2 - 6" X 8"	2	—
(B)	SPECIAL 2	102" X 48"	INTERSTATE 10 WEST DETOUR ↗	2 - 6" X 6"	1	—
(C)	M4-10(RT)	48" X 36"	DETOUR (RT)	1 - 4" X 6"	2	—
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-4	26" X 12"	WEST			
(D)	M4-10(LT)	48" X 36"	DETOUR (LT)	1 - 4" X 6"	1	—
	G27-2 (CA)	24" X 24"	INTERSTATE ROUTE 10			
	M3-4	26" X 12"	WEST			
(E)	M4-10(LT)	48" X 36"	DETOUR (LT)	ON TYPE III BARRICADE	1	1
(F)	M4-8a	24" X 18"	END DETOUR	ON TYPE III BARRICADE	1	1
				TOTAL	8	2

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

SPECIAL 2



ALL SIGNS ARE CAPITAL LETTER SIZE 8D, BLACK ON ORANGE.

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DETOUR PLAN

NO SCALE

DE-10

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
TRI TRAN	THANH TRINH

FUNCTIONAL SUPERVISOR: BILL WASSER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN A

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	19	34

Thanh Trinh 3-14-11
REGISTERED CIVIL ENGINEER DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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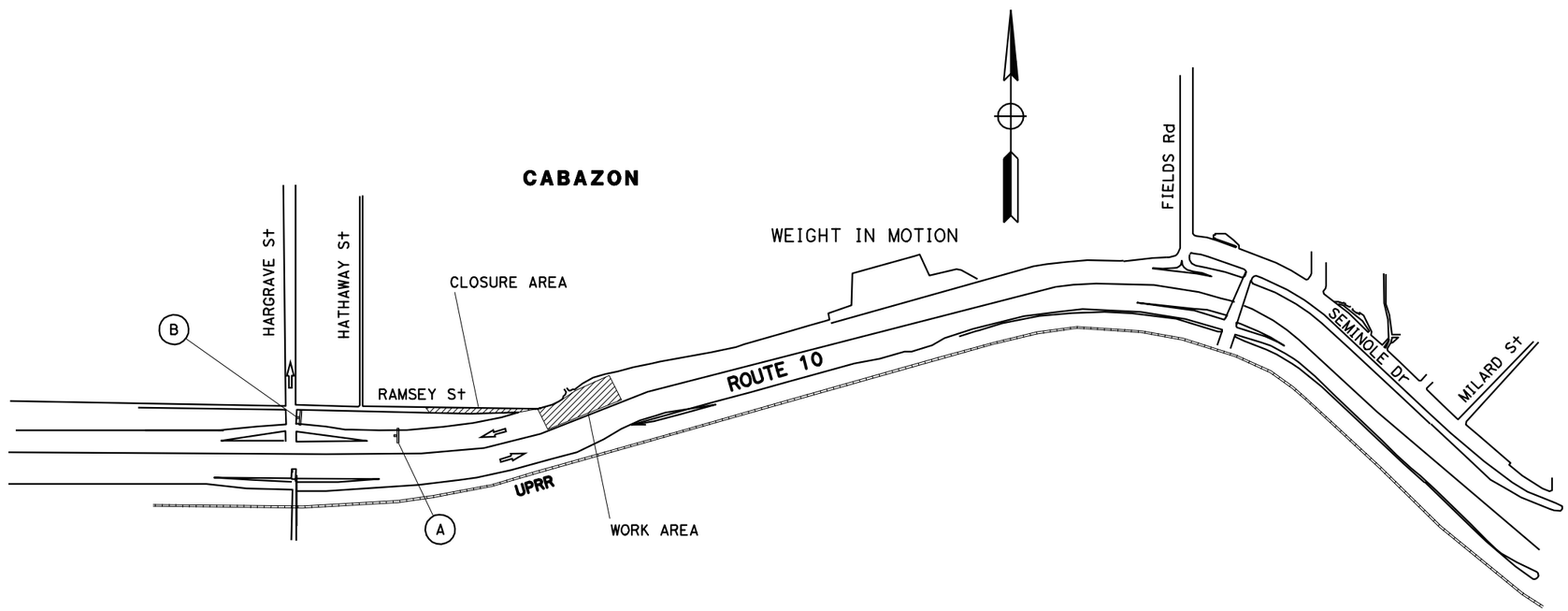
LEGEND

- ONE POST CONSTRUCTION AREA SIGN
- (X) CONSTRUCTION AREA SIGN LETTER
- CLOSURE AND WORK AREA
- DIRECTION OF DETOUR

DETOUR DURING CLOSURE OF RAMSEY St OFF RAMP ON ROUTE 10 WEST FOR SLAB REPLACEMENT WORK

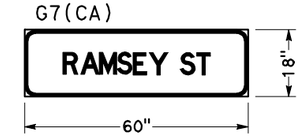


CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS (N) (EA)	TYPE III BARRICADE (EA)
(A)	G7(CA) M4-10(RT)	60" X 18" 48" X 36"	RAMSEY St DETOUR (RT)	1 - 4" X 6"	1	—
(B)	M4-10(RT)	48" X 36"	DETOUR (RT)	ON TYPE III BARRICADE	1	1
				TOTAL	2	1

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

G7(CA)



DETOUR PLAN

NO SCALE

THIS PLAN ACCURATE FOR DETOUR CONSTRUCTION WORK ONLY

DE-11

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
TRI TRAN	THANH TRINH

FUNCTIONAL SUPERVISOR: BILL WASSER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN A

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	20	34

REGISTERED CIVIL ENGINEER DATE 3-14-11

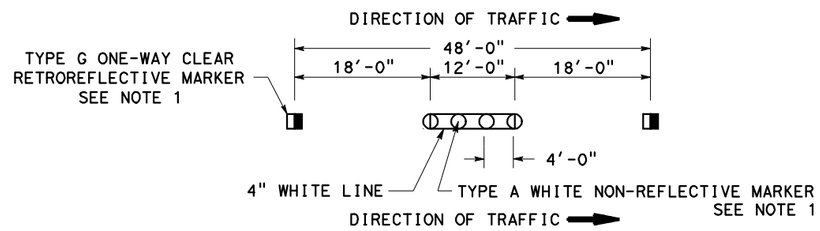
03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER THANH TRINH No. C41189 Exp. 3/31/13 CIVIL STATE OF CALIFORNIA

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

NOTE:

1. PAVEMENT MARKERS SHALL BE INSTALLED BEFORE TRAFFIC STRIPE.



DETAIL 13M

PAVEMENT DELINEATION QUANTITIES

LOCATION		TRAFFIC STRIPE DETAIL No. OR PAVEMENT MARKING	REMOVE PAVEMENT MARKER	PAVEMENT MARKER: NON REFLECTIVE	PAVEMENT MARKER: RETROREFLECTIVE			PAVEMENT MARKER: REFLECTIVE RECESSED			THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)		
				TYPE A	TYPE C	TYPE G	TYPE H	TYPE C	TYPE G	TYPE H	4" YELLOW	4" WHITE	8" WHITE
			EA	EA	EA			EA			FT		
ROUTE 10 EASTBOUND FOR PM 8.2 TO 13.87 ONLY (GRIND PCC, REPLACE SLABS)		12	1996					120	1876			90000	
		25	625							625	30000		
		27B										30000	
		36	80						80				1680
		36A	35						35			1235	720
WB	PM 8.2 to 16.25	12	2778					120	2658			127512	
	PM 16.25 to R25.2	13M	14889	11814	120	2955						141768	
	PM 8.2 to 16.25	25	886							886	42510		
	PM 16.25 to R25.2	25	986				986				47256		
	PM 8.2 to R25.2	27B										90000	
	PM 8.2 to 16.25	36	112						112				2352
	PM 16.25 to R25.2	36	64			64							1344
	PM 8.2 to 16.25	36A	35						35			1235	720
	PM 16.25 to R25.2	36A	28			28						988	576
	PM 15.35 to 15.5 (TRUCK AUX LANE)	37	72					64	8				792
	PM R24.65 to R24.80	37	72		64	8							792
SUBTOTAL			22658	11814	184	3055	986	304	4804	1511	119766	482738	8976
TOTAL			22658	11814	4225			6619			611480		

PAVEMENT DELINEATION QUANTITIES

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN A

FUNCTIONAL SUPERVISOR: BILL WASSER
CALCULATED-DESIGNED BY: TRI TRAN
CHECKED BY: THANH TRINH
REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	21	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MARC TALAVERA No. C70662 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. POST MILES ARE APPROXIMATE FOR EACH PCC PAVEMENT SLAB LOCATION.
2. EXACT LOCATION OF EACH PCC PAVEMENT SLAB TO BE REPLACED SHALL BE DETERMINED BY THE ENGINEER.

REPLACE CONCRETE PAVEMENT (RAPID STRENGTH CONCRETE)

DIRECTION	POSTMILE/S	No. OF SLABS PER LANE (N)				
		LANE 1	LANE 2	LANE 3	LANE 4	TOTAL
EASTBOUND	9.4				2	2
	10.6			2	3	5
	11.0				2	2
	11.8				4	4
	12.2/13.0			2	62	64
	12.9/13.87	3	3	2	56	64
WESTBOUND	12.4/12.8			6	3	9
	12.9/13.3			3	3	6
	14.7/14.8			3	3	6
	13.1	3	3			6
	14.7/14.8			3	3	6
	15.0				2	2
	16.2				2	2
	19.2			2		2
	19.8				1	1
	20.3				1	1
	20.5				2	2
	21.2			2	2	4
	22.0				2	2
	22.5				2	2
	22.7			3	2	5
	23.0			2		2
					TOTAL	199

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

PAVEMENT QUANTITIES

LOCATION (POSTMILES)	DIRECTION	GRIND EXISTING CONCRETE PAVEMENT	REPLACE CONCRETE PAVEMENT (RAPID STRENGTH CONCRETE)	ASPHALT EMULSION (FOG SEAL COAT)	DOWEL BAR (DRILL AND BOND)
		SQYD	CY	TON	EA
8.2/13.87	EASTBOUND	142,416	881	-	3072
8.2/R25.2	EASTBOUND	-	-	83	-
8.2/R25.2	WESTBOUND	464,001	325	83	1704
TOTAL		606,417	1206	166	4776

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: KUANG CHEN
CALCULATED-DESIGNED BY: M. TALAVERA
CHECKED BY: K. CHEN
REVISED BY
DATE REVISED

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	22	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MICHAEL APANTE No. E 17164 Exp. 9/30/11 ELECTRICAL STATE OF CALIFORNIA

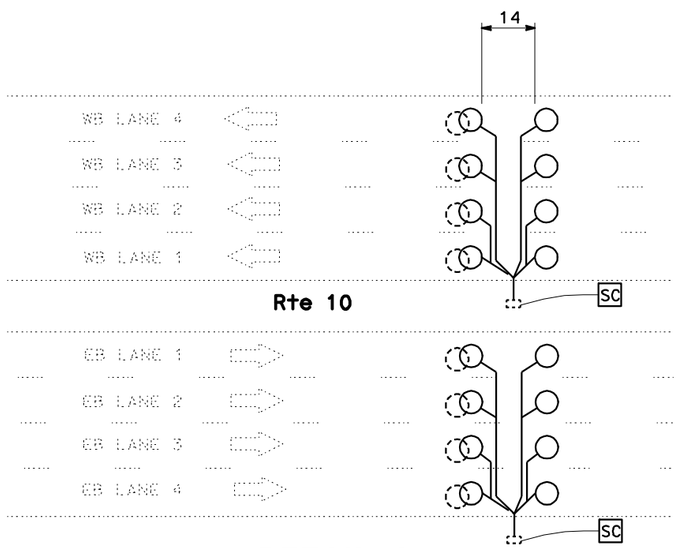
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

GENERAL NOTES (THIS SHEET ONLY):

1. THE POST MILE LOCATIONS ARE APPROXIMATE.
   PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL LOCATIONS OF EXISTING INDUCTIVE LOOP DETECTORS.
2. EXISTING LOOP DETECTORS, SHOWN TO BE REPLACED SHALL BE AB.

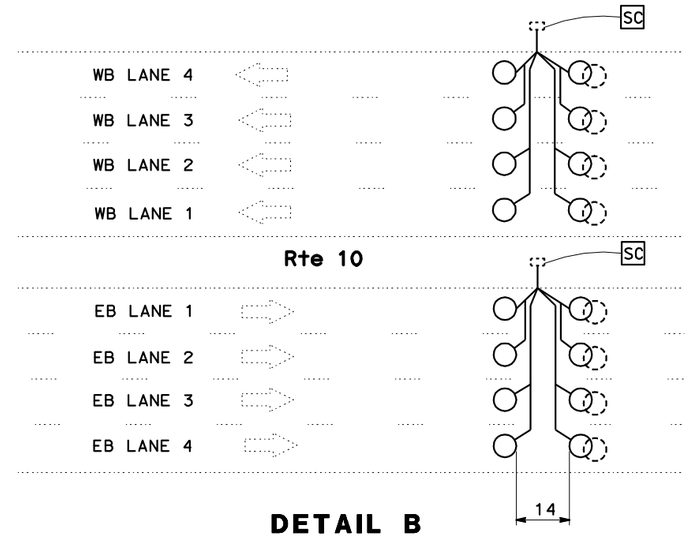
PROJECT NOTE (THIS SHEET ONLY):

1 SPLICE BY OTHERS.



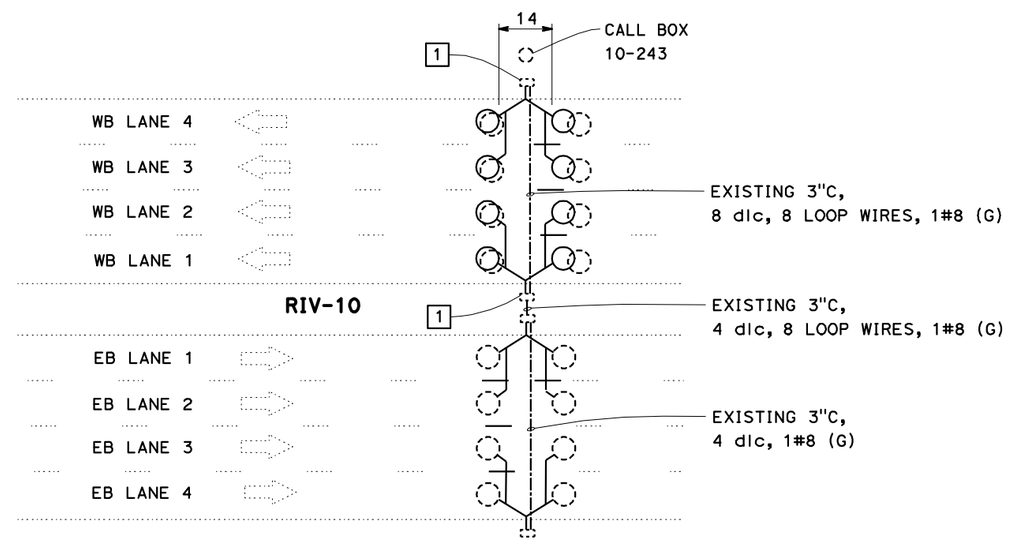
DETAIL A

CENSUS STATION 865,
WEST OF PENSYLVANNIA AVENUE EXIT, PM 8.2



DETAIL B

CENSUS STATION 103,
EAST OF 22ND ST EXIT, PM 11.9



DETAIL C

SMART CALL BOX CENSUS STATION,
WEST OF EB HAUGEN-LEHMANN EXIT, PM 24.5

INDUCTIVE LOOP DETECTOR

NO SCALE

E-1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL DESIGN A

FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ
CALCULATED-DESIGNED BY: MICHAEL APANTE
CHECKED BY: DAVID A GONZALEZ
REVISED BY
DATE REVISED

LAST REVISION 03-14-11
DATE PLOTTED => 14-MAR-2011
TIME PLOTTED => 16:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	23	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MICHAEL APANTE No. E 17164 Exp. 9/30/11 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 RR SENSYS VSN PER MANUFACTURER'S INSTRUCTIONS PRIOR TO ROADWAY REHABILITATION WORK.

2 AFTER ROADWAY REHABILITATION, INSTALL THE REMOVED VEHICLE SENSOR NODE WITH NEW CLAM SHELL HOUSING IN THE EXISTING CORED HOLE. SEE SHEET E-3 FOR INSTALLATION DETAILS.

GENERAL NOTES (THIS SHEET ONLY):

1. THE POSTMILE LOCATIONS ARE APPROXIMATE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL LOCATIONS OF EXISTING VIDEO SENSOR NODES.

ABBREVIATIONS:

VDS VEHICLE DETECTION SYSTEM
VSN VEHICLE SENSOR NODE

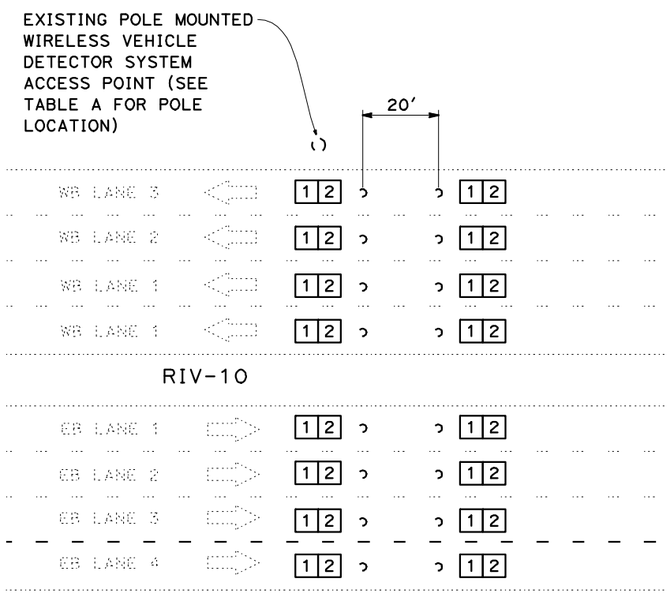
LEGEND:

( ) EXISTING VEHICLE SENSOR NODE

TABLE A

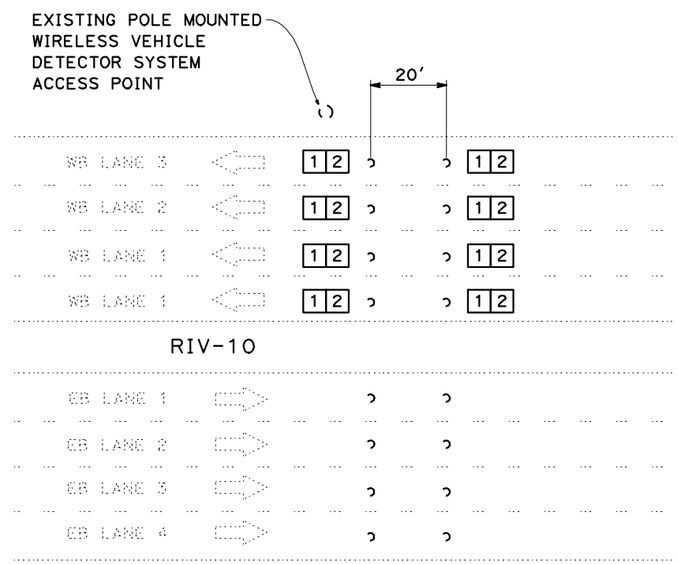
LOCATION OF INSTALLATIONS

No.	APPROXIMATE LOCATION	POST MILE	VDS POLE LOCATION	APPROXIMATE GPS COORDINATES OF VDS POLE		VSN Qty
				LATITUDE	LONGITUDE	
1	WEST OF HIGHLAND STREET	9.0	EB	N 33° 55′ 36.5″	W 116° 57′ 11.0″	16
2	EAST OF HIGHLAND STREET	10.5	EB	N 33° 55′ 33.9″	W 116° 55′ 40.7″	16
3	22ND STREET	12.0	EB	N 33° 55′ 26.8″	W 116° 54′ 1.0″	16
4	SAN GORGONIO OC	13.4	EB	N 33° 55′ 26.7″	W 116° 52′ 35.6″	16
5	EAST OF RAMSEY STREET (WB ONLY)	14.7	EB	N 33° 55′ 35.0″	W 116° 51′ 7.4″	16
6	SAN GORGONIO WASH (WB ONLY)	16.3	WB	N 33° 55′ 54.2″	W 116° 49′ 38.1″	8
7	WEST OF MAIN STREET (WB ONLY)	18.0	WB	N 33° 55′ 9.7″	W 116° 48′ 1.9″	8
8	MAIN STREET (WB ONLY)	19.4	EB	N 33° 55′ 5.9″	W 116° 46′ 38.3″	8
9	FORNAT WASH (WB ONLY)	21.7	CNTR	N 33° 55′ 28.4″	W 116° 44′ 17.0″	8
10	WEST OF VERBENIA AVENUE (WB ONLY)	24.3	EB	N 33° 55′ 27.7″	W 116° 41′ 39.4″	8
11	WHITEWATER REST AREA (WB ONLY)	26.1	EB	N 33° 55′ 19.2″	W 116° 39′ 46.2″	8
					TOTAL	128



DETAIL A

PLACEMENT DETAIL FOR LOCATIONS 1 THROUGH 4



DETAIL B

PLACEMENT DETAIL FOR LOCATIONS 5 THROUGH 11

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

VEHICLE SENSOR NODE

NO SCALE

E-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A

FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ
CALCULATED-DESIGNED BY: MICHAEL APANTE
CHECKED BY: DAVID A GONZALEZ
REVISED BY
DATE REVISED

LAST REVISION 03-14-11 DATE PLOTTED => 14-MAR-2011 TIME PLOTTED => 16:42

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	24	34

REGISTERED CIVIL ENGINEER 3-14-11 DATE

03-14-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER MICHAEL APANTE No. E 17164 Exp. 9/30/11 ELECTRICAL STATE OF CALIFORNIA

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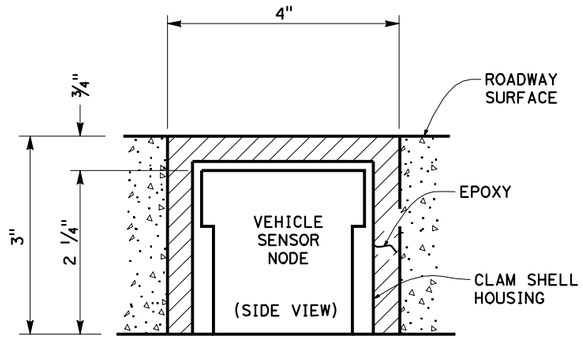

DETAIL C

VEHICLE SENSOR NODE INSTALLED IN ROADWAY

VEHICLE SENSOR NODE INSTALLATION PROCEDURE

1. PRIOR TO INSTALLATION, IDENTIFY SENSOR'S ID, LANE NUMBER AND LOCATION IN LANE.
2. CORE A HOLE AT LEAST 3" DEEP WITH THE TOP OF SENSOR AT LEAST 3/4" BELOW SURFACE.
3. INSTALL SENSOR, WITH A CLAM SHELL HOUSING, FLAT ON THE BOTTOM OF THE CORED HOLE AND DO NOT INSTALL SENSOR TILTED.
4. USE THE HEAT-GUN OR HOT COMPRESSED AIR TO DRY THE INSIDE OF THE CORED HOLE. NO MOISTURE IS PERMITTED ON THE APPLIED SURFACE.
5. FILL THE HOLE ABOUT 1/4 FULL OF SENSOR EPOXY/ADHESIVE.
6. ORIENT THE SENSOR IN THE HOLE WITH THE ARROW POINTING IN THE DIRECTION OF TRAFFIC. IF NEEDED, THE EPOXY SHOULD STILL HAVE SOME WORK TIME SO THAT THE SENSOR CAN BE ROTATED TO THE CORRECT POSITION. PUSH SENSOR DOWN FLAT ON THE BOTTOM OF THE HOLE TO INSURE A BOND UNDERNEATH THE SENSOR WITH THE EPOXY.
7. FILL THE HOLE WITH THE REMAINING EPOXY TO COVER THE SENSOR. LEVEL EPOXY WITH THE SURFACE OF THE ROAD.
8. DO NOT LET THE EPOXY SIT FOR MORE THAN 30 SECONDS BETWEEN THE FIRST AND SECOND APPLICATION.
9. THE INSTALLATION PAVEMENT TEMPERATURE SHOULD BE GREATER THAN 32° F.
10. DEPENDING ON AMBIENT TEMPERATURE AND HUMIDITY, ADHESIVE DRYING TIME WILL VARY FROM 5 TO 15 MINUTES. VERIFY HARDNESS OF EPOXY BEFORE REOPENING THE LANE FOR TRAFFIC.
11. RECORD THE DISTANCES BETWEEN EACH SENSOR PAIR.

VEHICLE SENSOR NODE

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

E-3

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
MICHAEL APANTE	DAVID A GONZALEZ

FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A

LAST REVISION 03-14-11 | DATE PLOTTED => 14-MAR-2011 | TIME PLOTTED => 16:43

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	25	34

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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

To accompany plans dated March 14, 2011

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

NOTES:

1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
2. Luminaires shall be the cutoff type, ANSI Type Ⅲ medium cutoff lighting distribution, unless otherwise specified.
3. Variations noted adjacent to symbol on project plans.

Electrolier (see project notes or project plans)

Luminaire on wood pole

STANDARD NOTES:

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

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED	EXISTING	
BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type Ⅰ, Ⅱ, Ⅲ, Ⅳ or Ⅴ as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

SOFFIT AND WALL MOUNTED LUMINAIRES

Pendant, 70 W HPS unless otherwise specified.

Flush, 70 W HPS unless otherwise specified.

Wall surface, 70 W HPS unless otherwise specified.

Existing soffit or wall luminaire to remain unmodified.

Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	26	34

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated March 14, 2011

CONDUIT

PROPOSED	EXISTING	
		Lighting Conduit, unless otherwise indicated or noted
		Traffic signal conduit
C	c	Communication conduit
T	t	Telephone conduit
F	f	Fire alarm conduit
FO	fo	Fiber optic conduit
		Conduit termination (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

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

POLE-MOUNTED SERVICE DESIGNATION

Type of installation

TYPE H SERVICE - 28'-10" ← Pole height above grade

ILLUMINATED OVERHEAD SIGN

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

SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
PV	PV	Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
R	Y	Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SIGNAL EQUIPMENT Cont

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1B

2006 REVISED STANDARD PLAN RSP ES-1B

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	27	34

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated March 14, 2011

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345

10 ISL SCI 1.0

- Sign number - Place on post or structure
- Transformer rating (kVA)
- Lighting control type
- Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"

- Mast arm length, if shown. Do not place on standard or structure.
- Equipment number - Place on standard or structure. Existing equipment numbers are shown in parenthesis

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC

- Number and size of conductors and cables
- Size of conduit in inches

ø1, ø2, ø2P, etc.	Traffic phase identification for signal faces, detectors and phase diagrams
1 2 3	Project note numbers
A B C	Equipment description, installation or item numbers
1 2 3	Conduit run numbers

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100

- Wind velocity = 100 mph
- Case 3 arm loading
- Standard type
- Standard Plan sheet number
- Detail number or letter

MISCELLANEOUS EQUIPMENT

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

WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)

- External conductor
- Conductor or bus
- Tie point
- Contactor coil
- Contactor, Contact NO
- Terminal blocks
- Contactor, Contact NC
- Enclosure bond
- Grounding electrode
- Circuit breaker
- Receptacle

PULL BOXES

PROPOSED	EXISTING	
		Pull box-No. 5 unless otherwise indicated or noted.
3	9A(21)	Pull box-Additional designations or descriptions

3 = No. 3½ pull box
5 = No. 5 pull box
6 = No. 6 pull box
7 = No. 7 (Ceiling pull box)
8 = No. 8 (Pendant soffit pull box)
9 = No. 9 pull box
9A = No. 9A pull box

(C) = Communications pull box
(E) = Pull box with extension
(S) = Sprinkler control pull box
(21) = Anchor bolts and conduit for future installation of Type 21 Standard
(T) = Traffic pull box

VEHICLE DETECTORS

5 J 9 U

- U = Upper
- L = Lower
- Slot number in input file
- Input file (I or J)
- Phase

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	28	34

REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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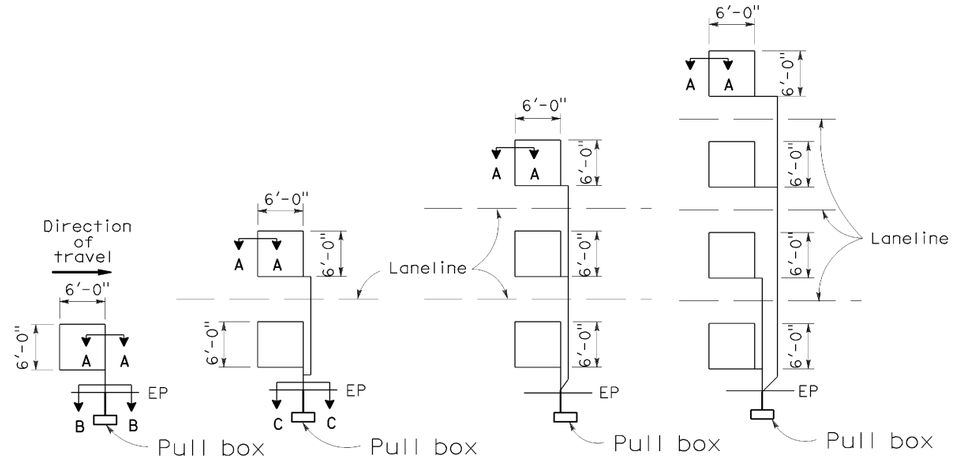
To accompany plans dated March 14, 2011

2006 REVISED STANDARD PLAN RSP ES-5A

LOOP INSTALLATION PROCEDURE

1. Loops shall be centered in lanes.
2. Saw slots in pavement for loop conductors as shown in details.
3. Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
4. Bottom of saw slot shall be smooth with no sharp edges.
5. Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
6. Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
7. Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
8. Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
9. No more than 2 twisted pairs shall be installed in one sawed slot.
10. Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
11. The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
12. Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
13. Fill slots as shown in details.
14. Splice loop conductors to lead-in-cable. Splices shall be soldered.
15. End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
16. Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
17. Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
18. Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.

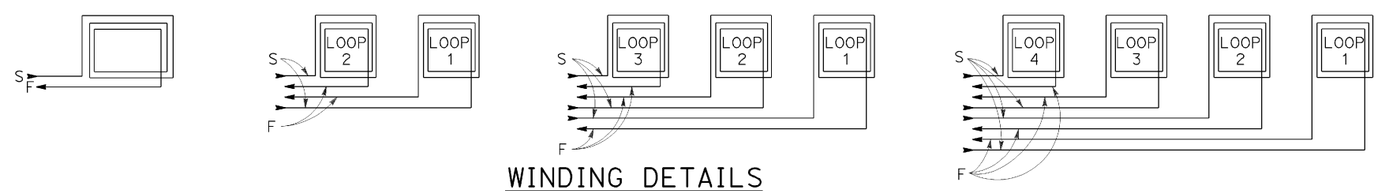


TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

SAWCUT DETAILS

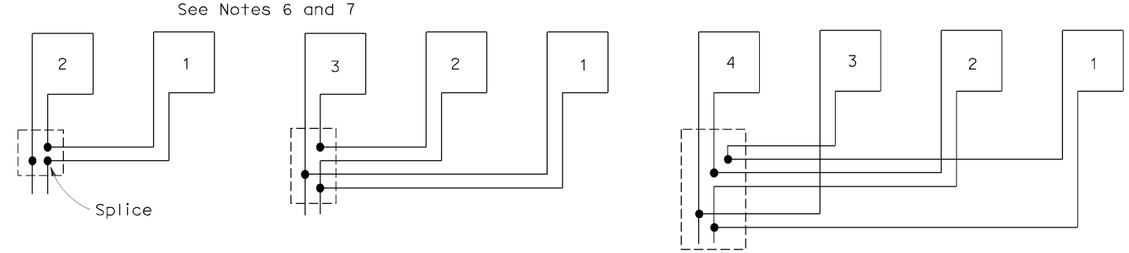
(Type A loop detector configurations illustrated)

1. 1A thru 4A = 1 Type A loop configuration in each lane.
2. 1B thru 4B = 1 Type B loop configuration in each lane.
3. 1C = 1 Type C loop configuration entering lanes as required.
4. 1D thru 4D = 1 Type D loop configuration in each lane.
5. 1E thru 4E = 1 Type E loop configuration in each lane.
6. 1Q thru 4Q = 1 Type Q loop configuration in each lane.
   (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



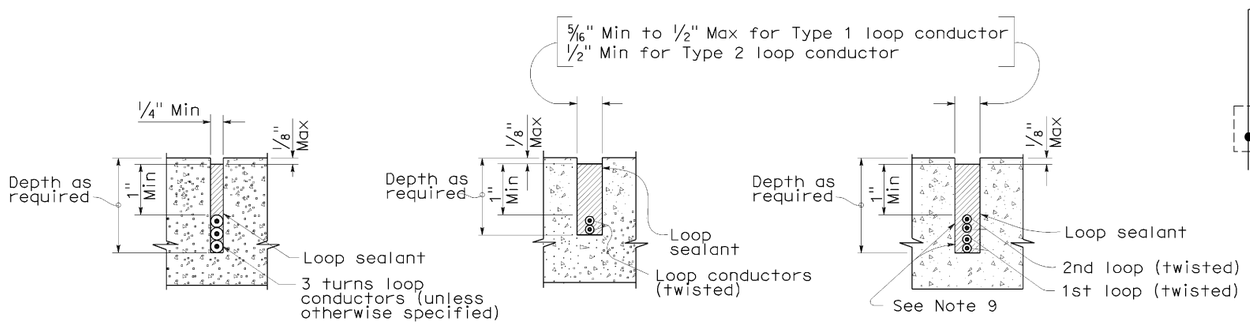
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A | SECTION B-B | SECTION C-C

SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	29	34

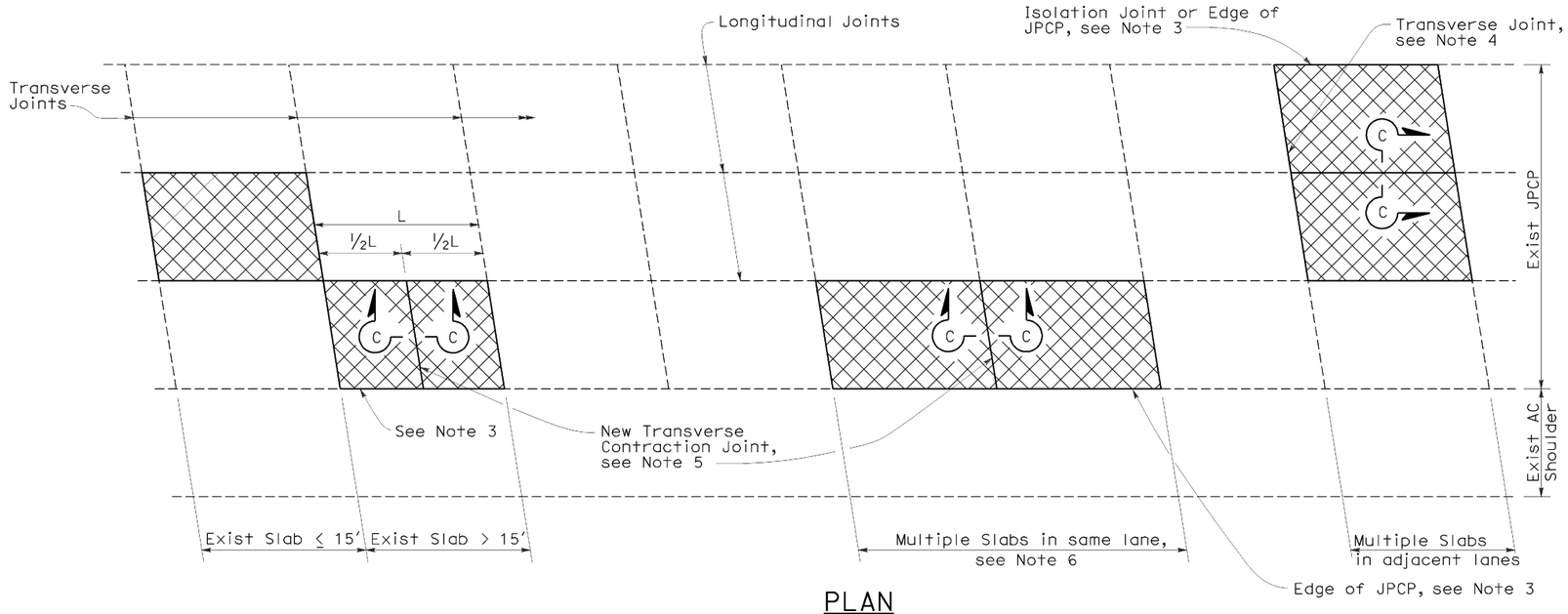
William K. Farnbach
REGISTERED CIVIL ENGINEER

May 15, 2009
PLANS APPROVAL DATE

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

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

To accompany plans dated March 14, 2011



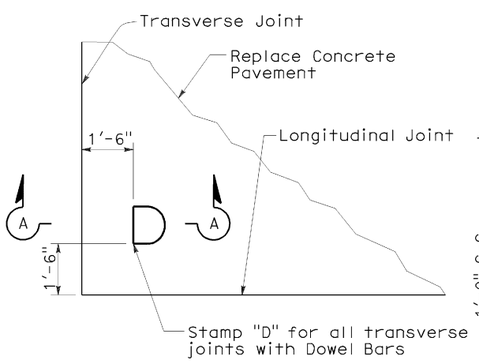
PLAN

NOTES:

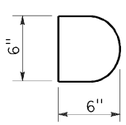
1. For details not shown, see Revised Standard Plan RSP P10.
2. Where the existing outer shoulder pavement is asphalt concrete pavement, the "a" dimension shall be 1'-0" and the "b" dimension shall be 2'-0".
3. Side forms shall be used where edge of pavement is adjacent to asphalt concrete.
4. For detail,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

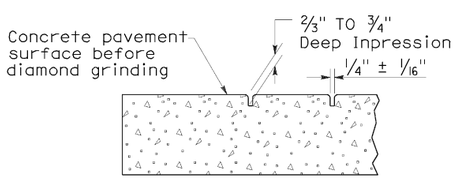
LEGEND

Replace Concrete Pavement (See Slab Layout Detail)

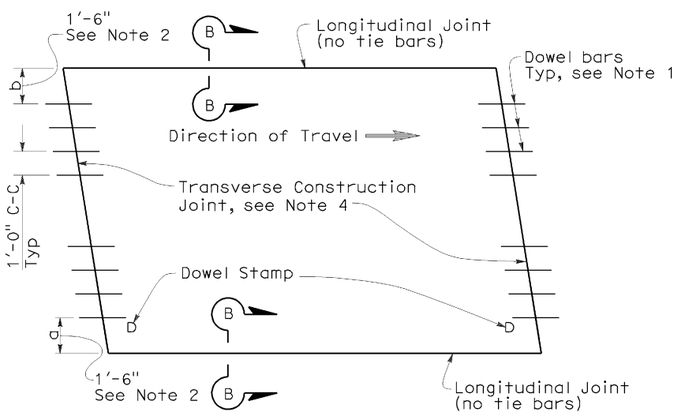


DOWEL STAMP DETAIL

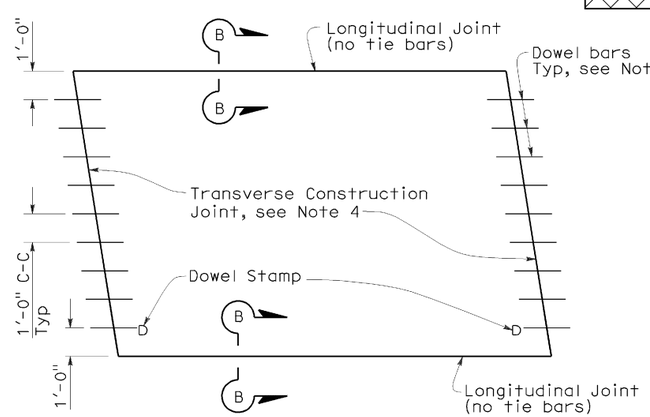




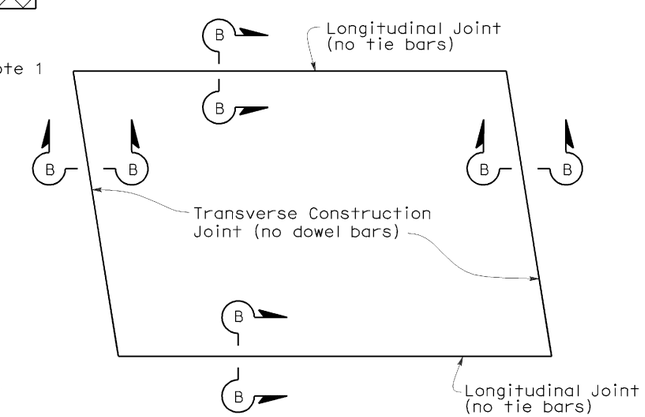
SECTION A-A



TYPE I
(traffic lane lines match longitudinal joints)

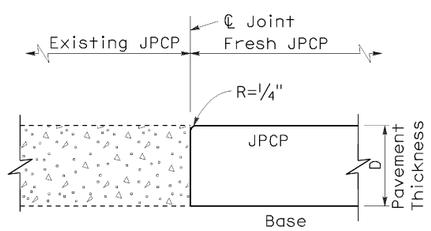


TYPE II
(traffic lane lines do not match longitudinal joints)

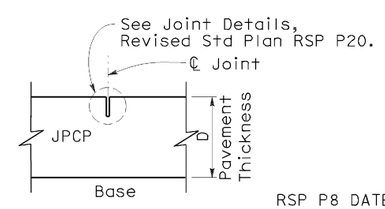


TYPE III
(for short term repairs < 5 yrs design life or for slab replacements with a cracking and seating operation)

SLAB LAYOUT



SECTION B-B



SECTION C-C

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINTED PLAIN CONCRETE PAVEMENT-INDIVIDUAL SLAB REPLACEMENT

NO SCALE

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

REVISED STANDARD PLAN RSP P8

2006 REVISED STANDARD PLAN RSP P8

5-8-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	30	34

William K. Farnbach
REGISTERED CIVIL ENGINEER

May 15, 2009
PLANS APPROVAL DATE

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

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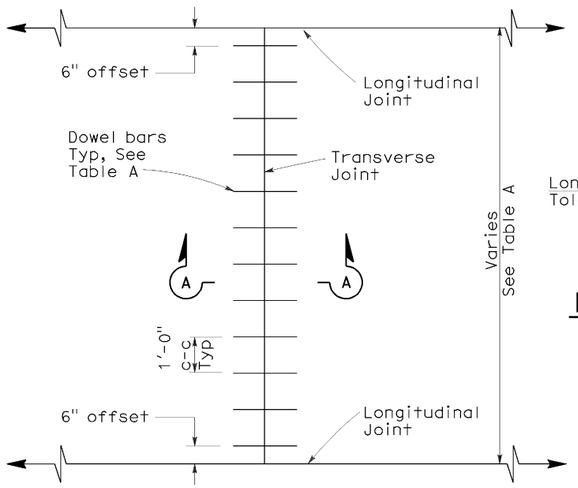
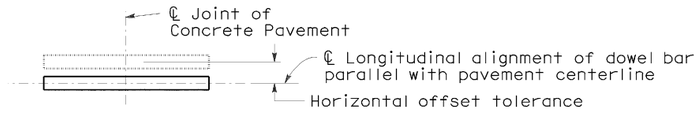
To accompany plans dated March 14, 2011

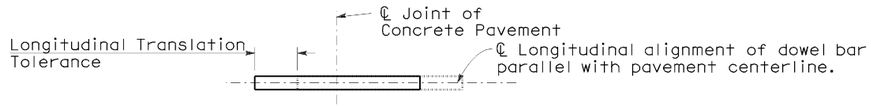


TRANSVERSE JOINT DOWEL BAR LAYOUT



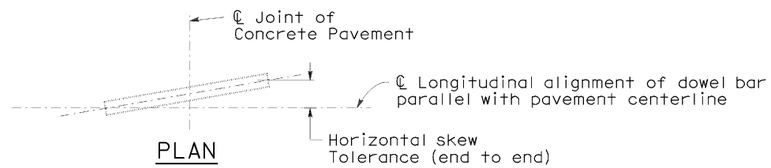
PLAN

HORIZONTAL OFFSET TOLERANCE



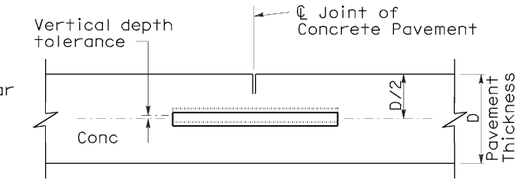
PLAN

LONGITUDINAL TRANSLATION TOLERANCE



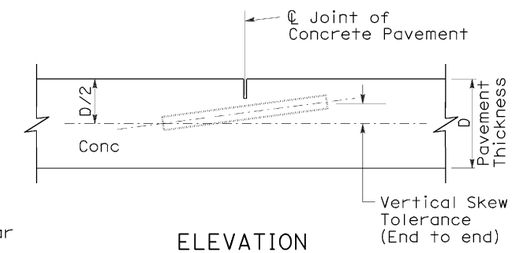
PLAN

HORIZONTAL SKEW TOLERANCE



ELEVATION

VERTICAL DEPTH TOLERANCE



ELEVATION

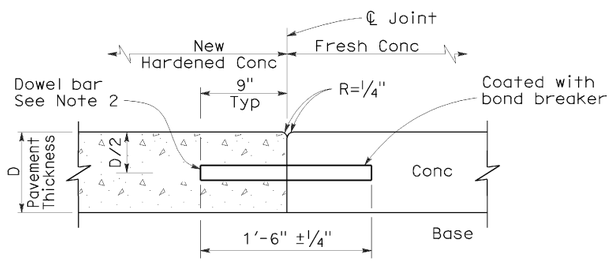
VERTICAL SKEW TOLERANCE

NOTES:

1. See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
2. 1½" Dia smooth dowel bars are to be used with a pavement thickness, D, equal to or greater than 0.70 feet. For pavement thickness, D, less than 0.70 feet, use 1¼" Dia smooth dowel bars.
3. For widths not shown, see Project Plans.
4. If fresh concrete pavement is placed adjacent to existing concrete pavement, the top corner of the existing concrete pavement does not need to be rounded to the ¼" radius, as shown.

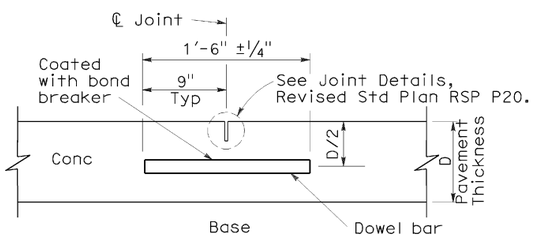
TABLE A (See Note 3)

Dowel Bar Transverse Spacing Table	
Width between Longitudinal Joints	Number of Dowels between Longitudinal Joints
14'-0"	14
13'-0"	13
12'-0"	12
11'-0"	11
10'-0"	10
8'-0"	8
5'-0"	5
4'-0"	4

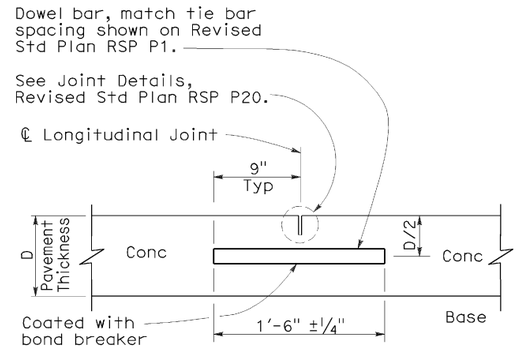


SECTION A-A

TRANSVERSE CONSTRUCTION JOINT DETAIL

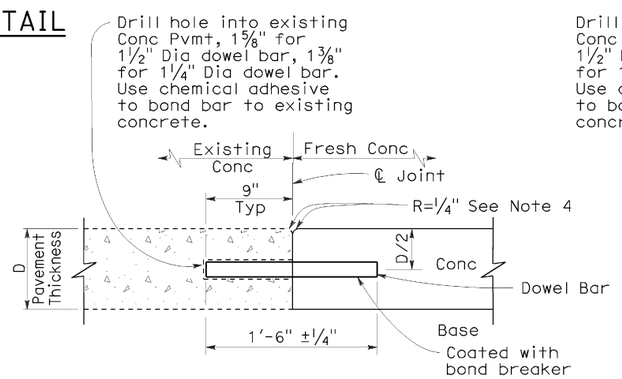


TRANSVERSE CONTRACTION JOINT



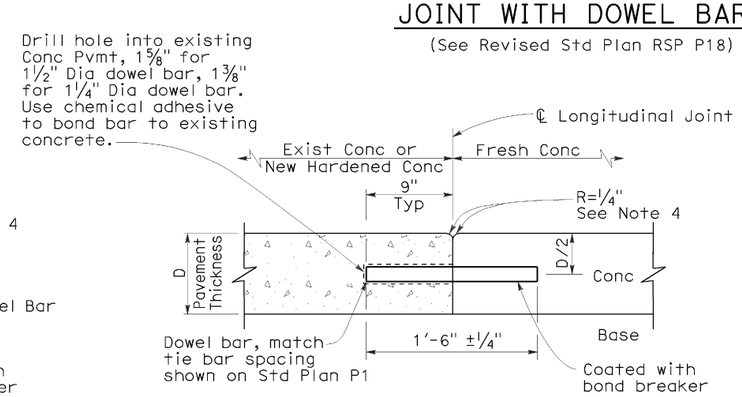
LONGITUDINAL CONTRACTION JOINT WITH DOWEL BARS

(See Revised Std Plan RSP P18)



TRANSVERSE CONSTRUCTION JOINT FOR EXISTING CONCRETE PAVEMENT

(Drill and bond locations)



LONGITUDINAL CONSTRUCTION JOINT WITH DOWEL BARS

(See Revised Std Plan RSP P18)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT-DOWEL BAR DETAILS

NO SCALE

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

REVISED STANDARD PLAN RSP P10

2006 REVISED STANDARD PLAN RSP P10

5-8-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	31	34

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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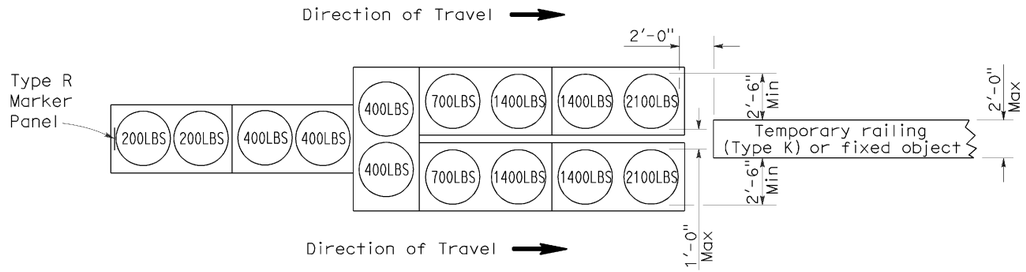
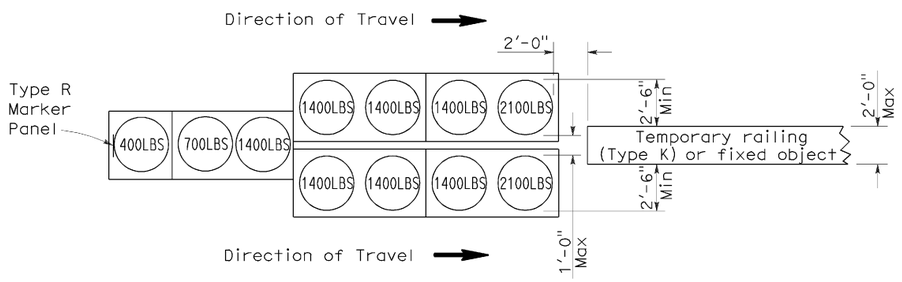
To accompany plans dated March 14, 2011



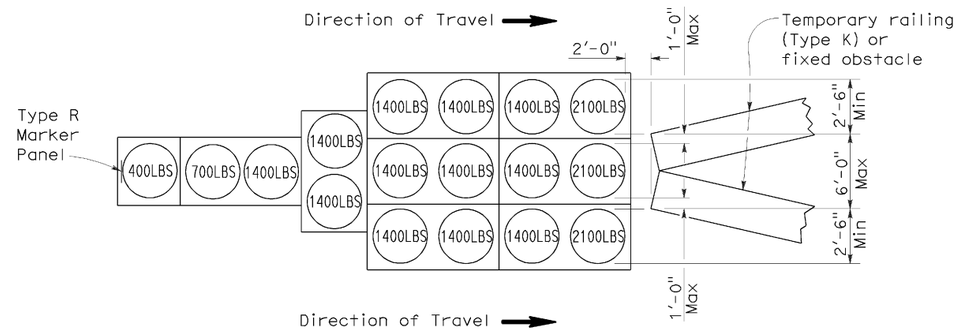
ARRAY 'TU14'

Approach speed 45 mph or more



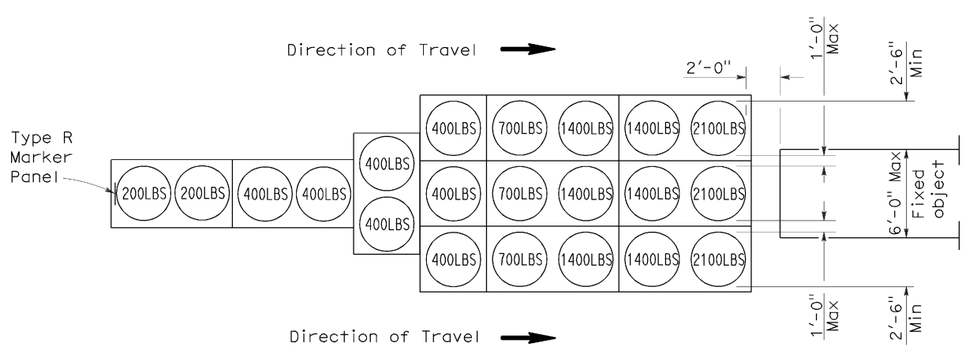
ARRAY 'TU11'

Approach speed less than 45 mph



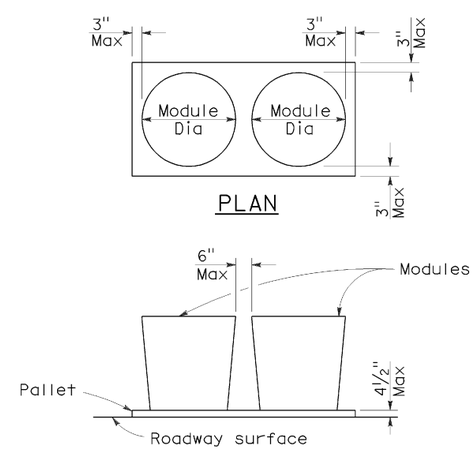
ARRAY 'TU17'

Approach speed less than 45 mph



ARRAY 'TU21'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	32	34

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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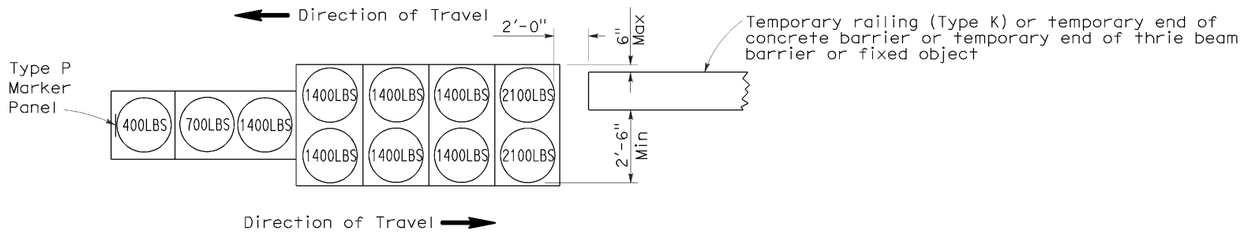
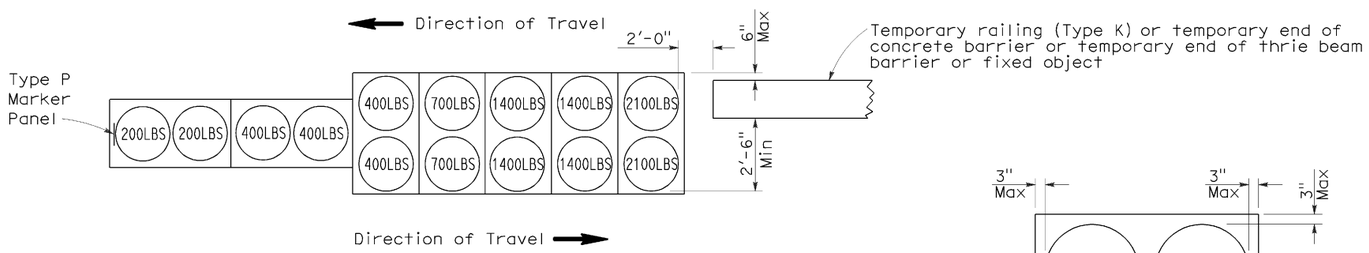
To accompany plans dated March 14, 2011

2006 REVISED STANDARD PLAN RSP T1B



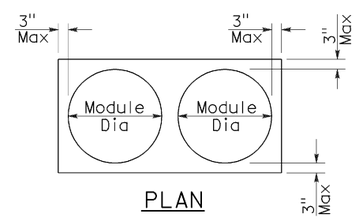
ARRAY 'TB11'

Approach speed less than 45 mph

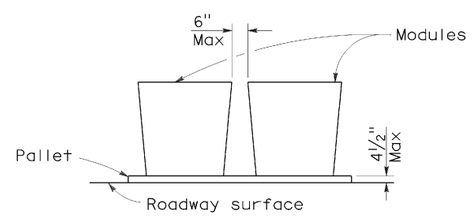


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	33	34

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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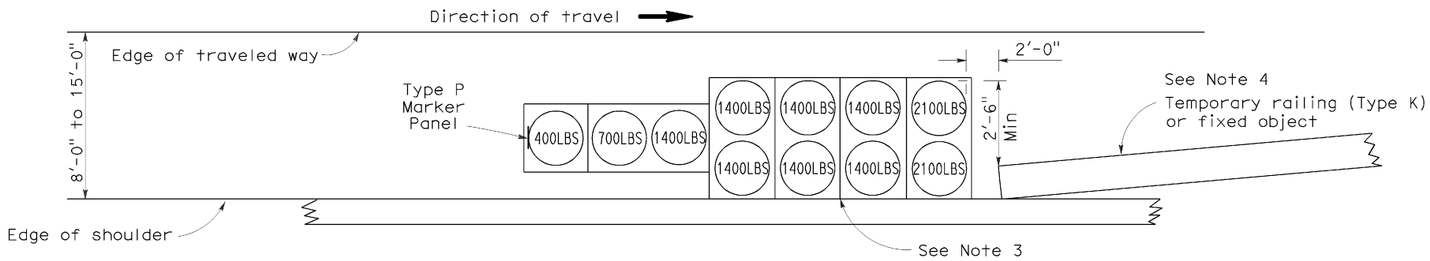
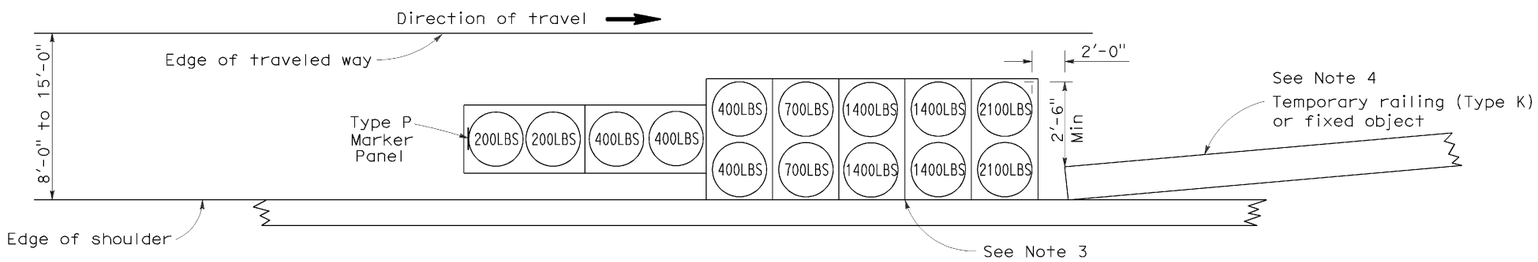
To accompany plans dated March 14, 2011



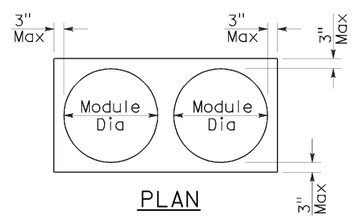
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

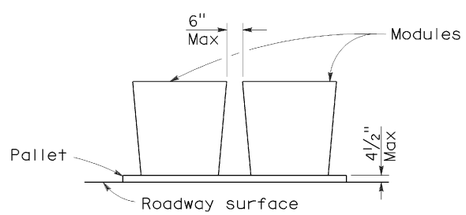


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	8.2/R25.2	34	34

REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

Greg W. Edwards No. C36386 Exp. 6-30-08 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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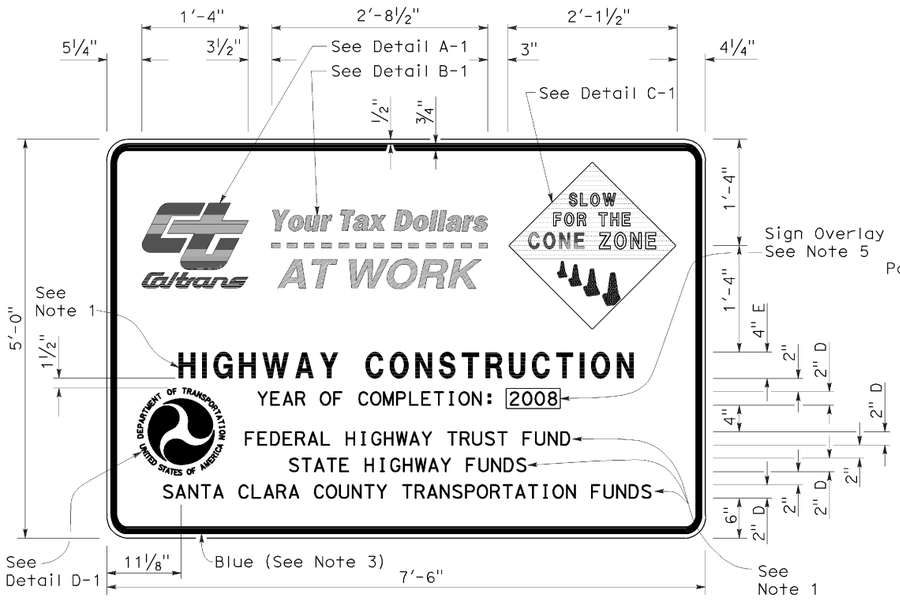
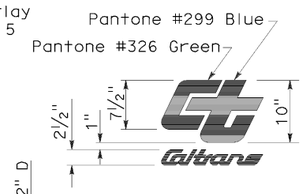
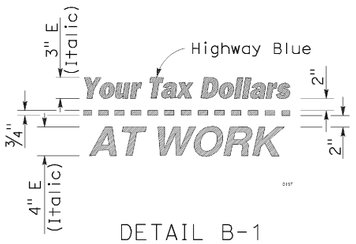
To accompany plans dated March 14, 2011



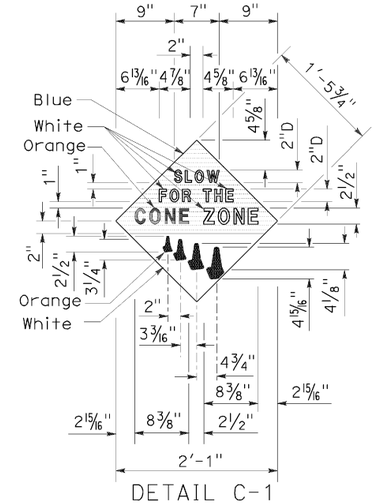
TYPE 1



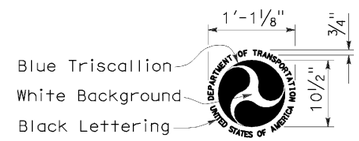
DETAIL A-1



DETAIL B-1
(See Note 3)



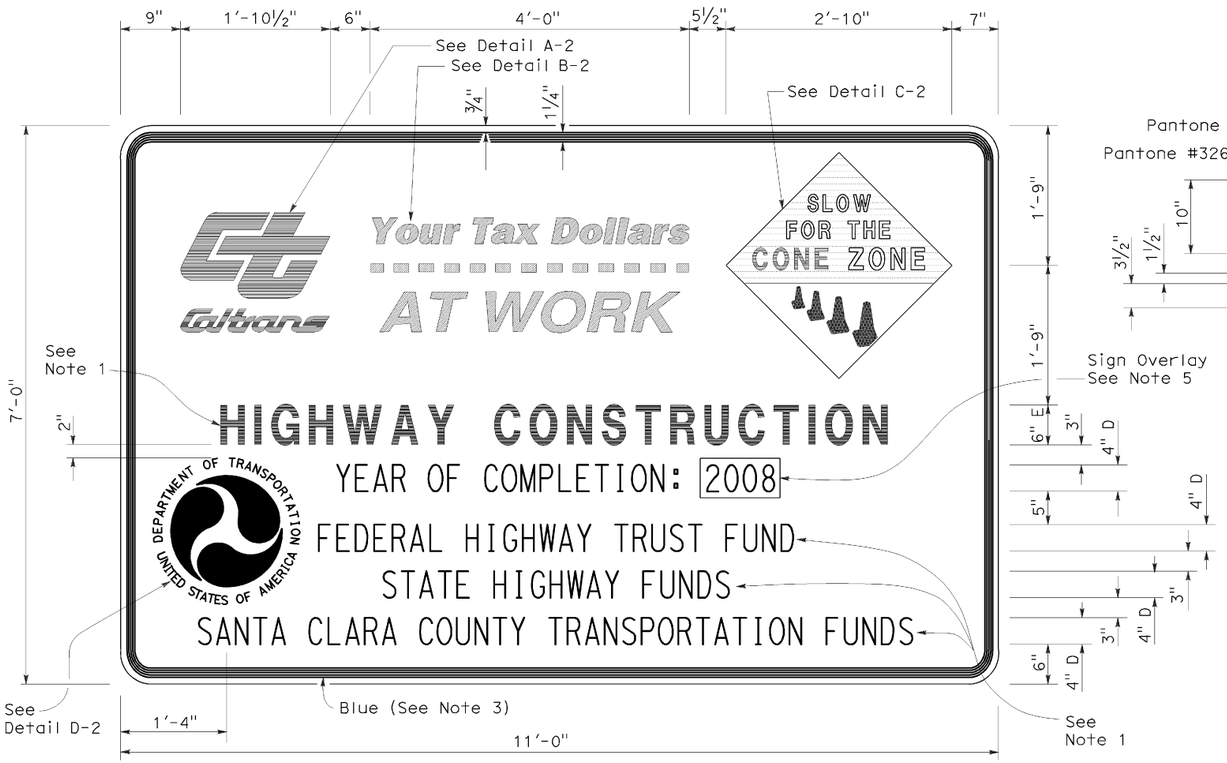
DETAIL C-1
(See Note 4)



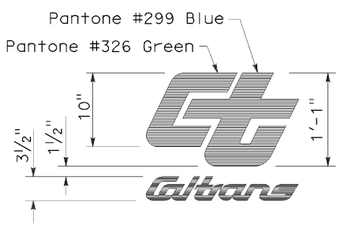
DETAIL D-1
(See Note 6)

NOTES:

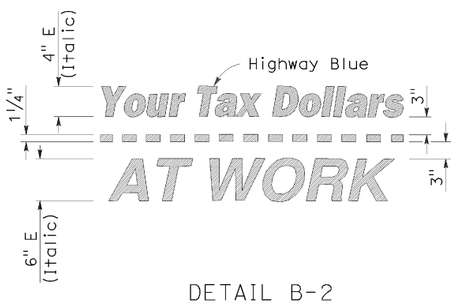
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



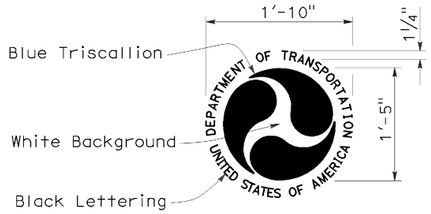
TYPE 2



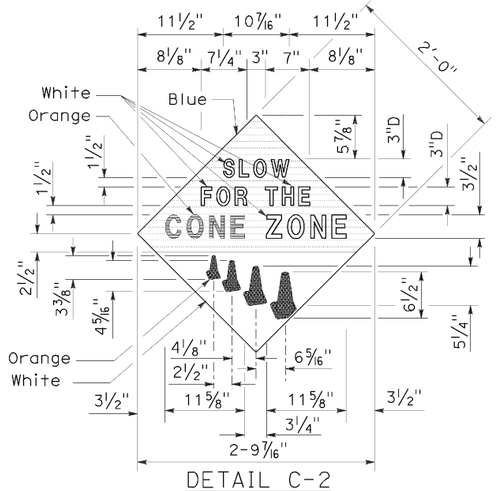
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL D-2
(See Note 6)



DETAIL C-2
(See Note 4)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

RSP T7 DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN T7
DATED MAY 1, 2006 - PAGE 217 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T7

2006 REVISED STANDARD PLAN RSP T7

9-7-06