Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	1	35

ACNH-P092(038)E

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

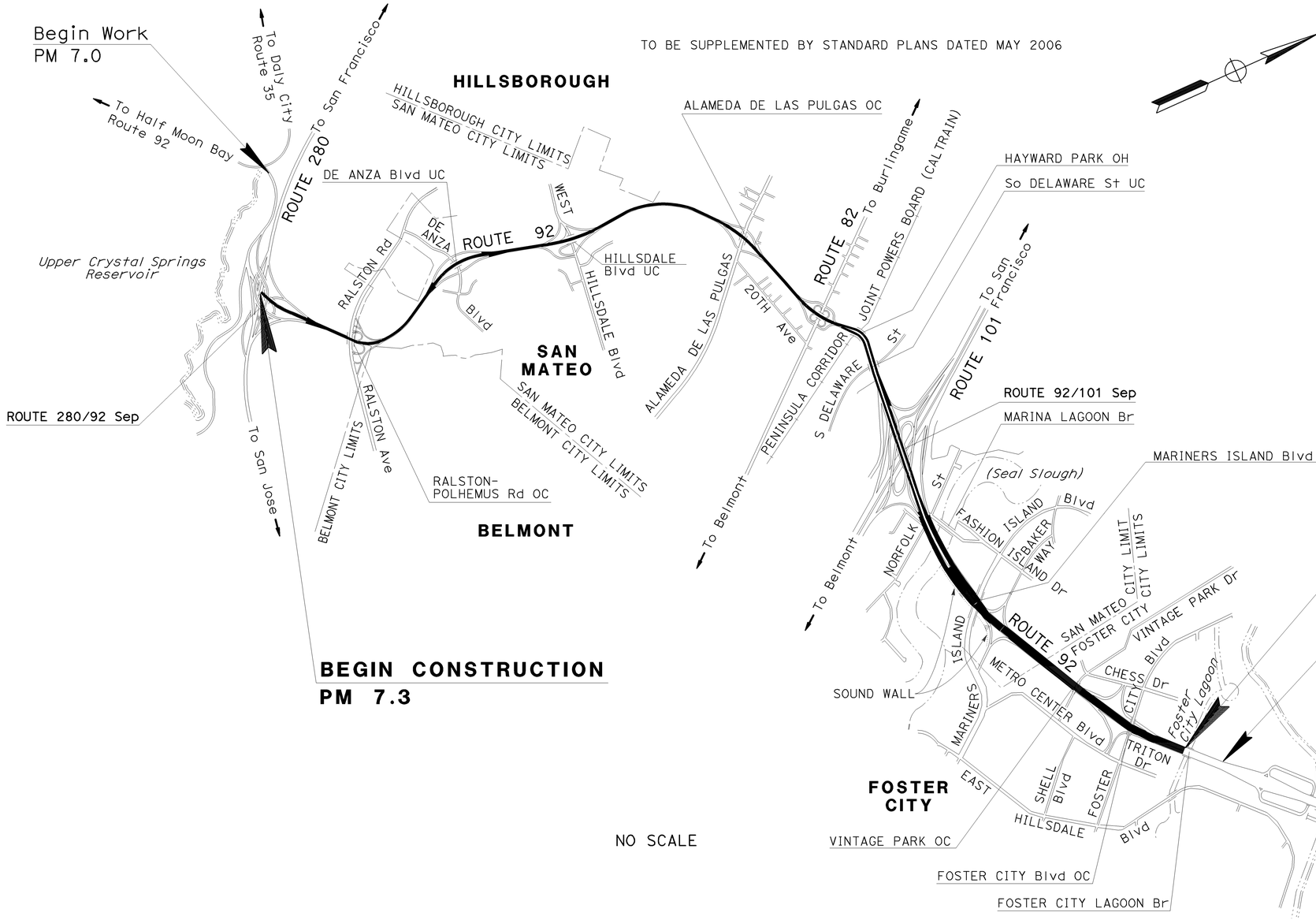
IN SAN MATEO COUNTY
IN AND NEAR SAN MATEO AND FOSTER CITY
FROM ROUTE 280/92 SEPARATION TO
0.3 MILE EAST OF FOSTER CITY BOULEVARD OVERCROSSING

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	TYPICAL CROSS-SECTIONS
4	CONSTRUCTION DETAILS
5-16	CONSTRUCTION AREA SIGNS
17-21	PAVEMENT DELINEATION PLAN AND QUANTITIES
22-23	SUMMARY OF QUANTITIES
24-27	ELECTRICAL PLANS
28-35	REVISED & NEW STANDARD PLANS

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

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

11-2-09
DATE

Abdel Rahman M. Beshair
No. 66856
Exp. 9-30-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

November 2, 2009
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.

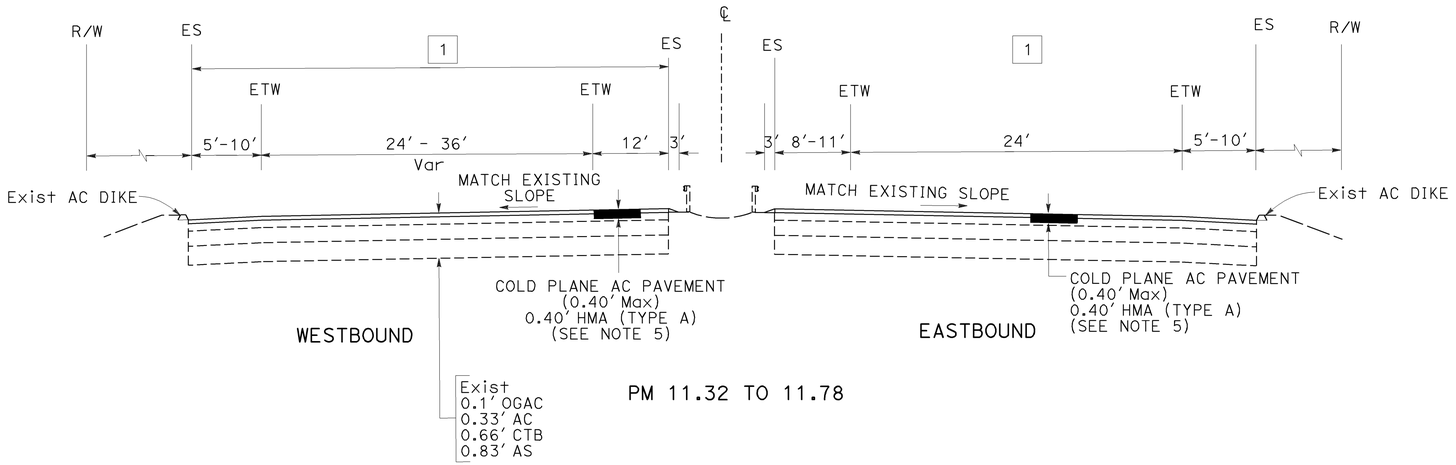
PROJECT MANAGER: RAMSES SARGISS

DESIGN ENGINEER: ABDELRAHMAN BESHAIR

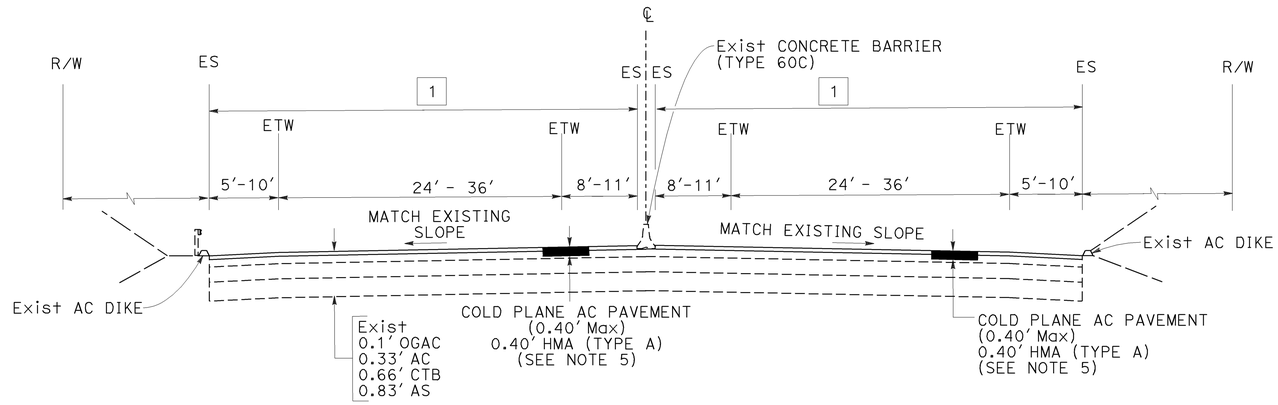
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

LAST REVISION => DATE PLOTTED => 01-FEB-2010
10-27-09 TIME PLOTTED => 1233

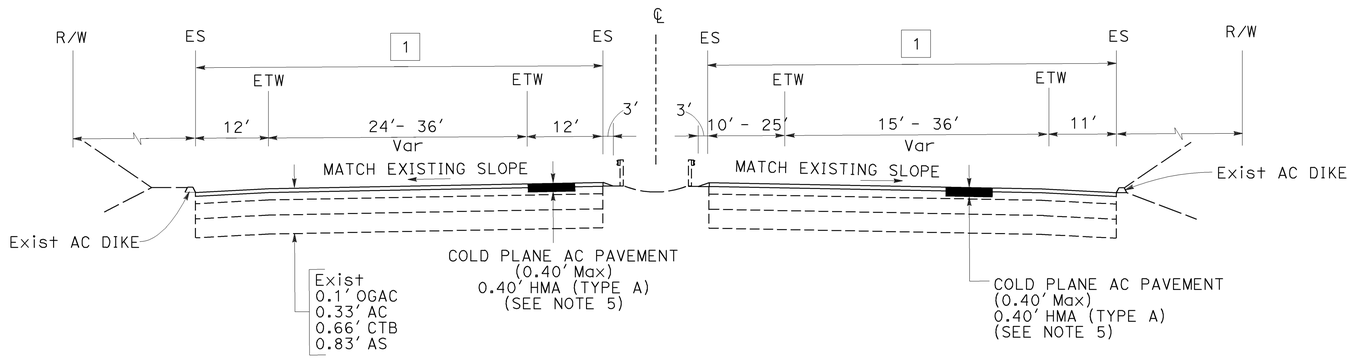
CONTRACT No. 04-1E7204



PM 11.32 TO 11.78



PM 7.94 TO 9.54
PM 9.54 TO 10.17 (EB)
PM 10.40 TO 10.55 (EB)
PM 10.55 TO 11.10
PM 11.10 TO 11.32 (WB)



PM 7.30 TO 7.94

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	2	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Abdel Rahman M. Beshair No. 66856 Exp 9-30-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
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.

ABBREVIATION:

RHMA-G RUBBERIZED HOT MIX ASPHALT- GAP GRADED

LEGEND:

1	COLD PLANE AC PAVEMENT 0.10' RHMA-G 0.10'

NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTION ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATION.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. CONTRACTOR SHALL PLACE IMPORTED MATERIAL (SHOULDER BACKING) WHERE THERE IS NO DIKE, CONCRETE BARRIER OR WALL.
4. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
5. SEE Q-SHEET FOR LOCATION & DIMENSIONS.

TYPICAL CROSS SECTIONS (MAINLINE)

NO SCALE

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

X-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: ABDELRAHMAN BESHAIR
CHECKED BY: MUSTAQUR RAHMAN
FUNCTIONAL SUPERVISOR: RONNIE CHUA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION DATE PLOTTED => 04-NOV-2009
TIME PLOTTED => 15:37
10-12-09

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720ca001.dgn

CU 04609

EA 1E7201

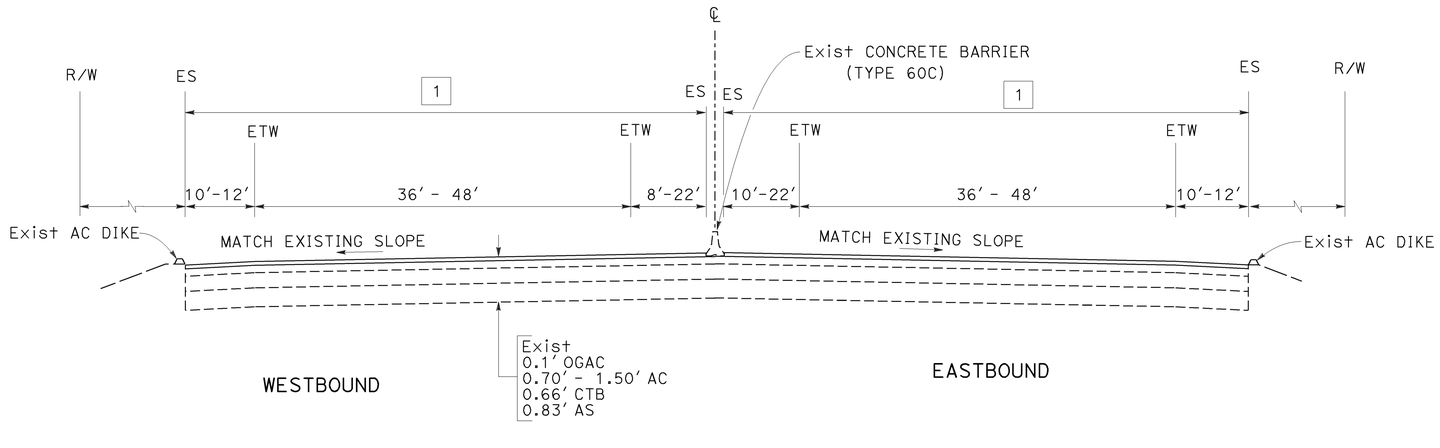
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	3	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

11-2-09
PLANS APPROVAL DATE

Registered Professional Engineer — Abdel Rahman M. Beshair — No. 66856 — Exp 9-30-10 — 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.



PM 12.60 TO 13.83

TYPICAL CROSS SECTIONS
(MAINLINE & RAMPS)

NO SCALE

FOR NOTES, ABBREVIATION AND LEGEND, SEE SHEET X-1

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

X-2

LAST REVISION — DATE PLOTTED => 04-NOV-2009 — TIME PLOTTED => 15:37 — 10-12-09

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

Caltrans

FUNCTIONAL SUPERVISOR: RONNIE CHUA

CALCULATED-DESIGNED BY: ABDELRAHMAN BESHAIR

CHECKED BY: MUSTAQUR RAHMAN

REVISED BY — DATE REVISED

A — A

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720ca002.dgn

CU 04609

EA 1E7201

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	4	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Abdel Rahman M. Beshair
No. 66856
Exp 9-30-10
CIVIL
STATE OF CALIFORNIA

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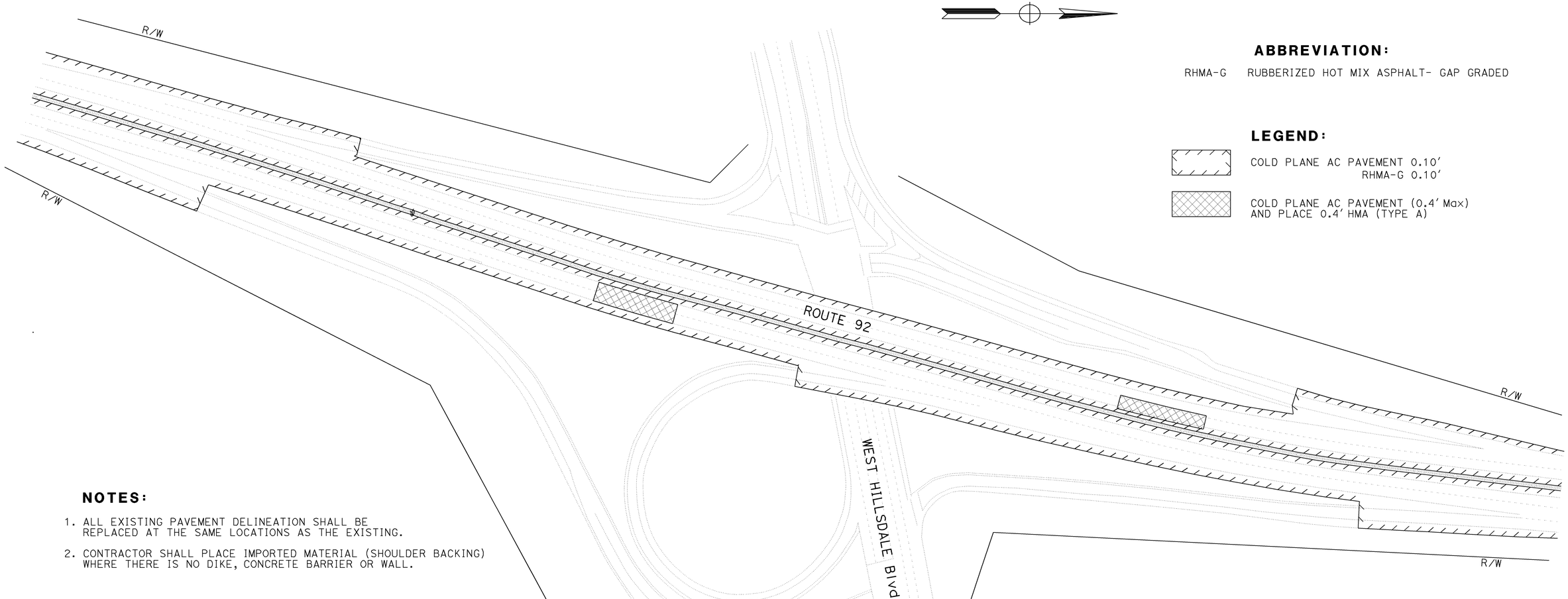

ABBREVIATION:

RHMA-G RUBBERIZED HOT MIX ASPHALT- GAP GRADED

LEGEND:

COLD PLANE AC PAVEMENT 0.10'
RHMA-G 0.10'

COLD PLANE AC PAVEMENT (0.4' Max)
AND PLACE 0.4' HMA (TYPE A)

NOTES:

1. ALL EXISTING PAVEMENT DELINEATION SHALL BE REPLACED AT THE SAME LOCATIONS AS THE EXISTING.
2. CONTRACTOR SHALL PLACE IMPORTED MATERIAL (SHOULDER BACKING) WHERE THERE IS NO DIKE, CONCRETE BARRIER OR WALL.

ALL DIMENSIONS ARE IN FEET
UNLESS OTHERWISE SHOWN

CONSTRUCTION DETAILS
(TYPICAL)
NO SCALE

C-1

REVISED BY	DATE REVISED
A	A

CALCULATED-DESIGNED BY: ABDELRAHMAN BESHAIR
CHECKED BY: MUSTAQUR RAHMAN
FUNCTIONAL SUPERVISOR: RONNIE CHUA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION: DATE PLOTTED => 04-NOV-2009
10-15-09 TIME PLOTTED => 15:38

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720ga001.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	5	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Jerilyn L. Struven, No. 49964, Exp. 12-31-10, CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
PLANS APPROVAL DATE

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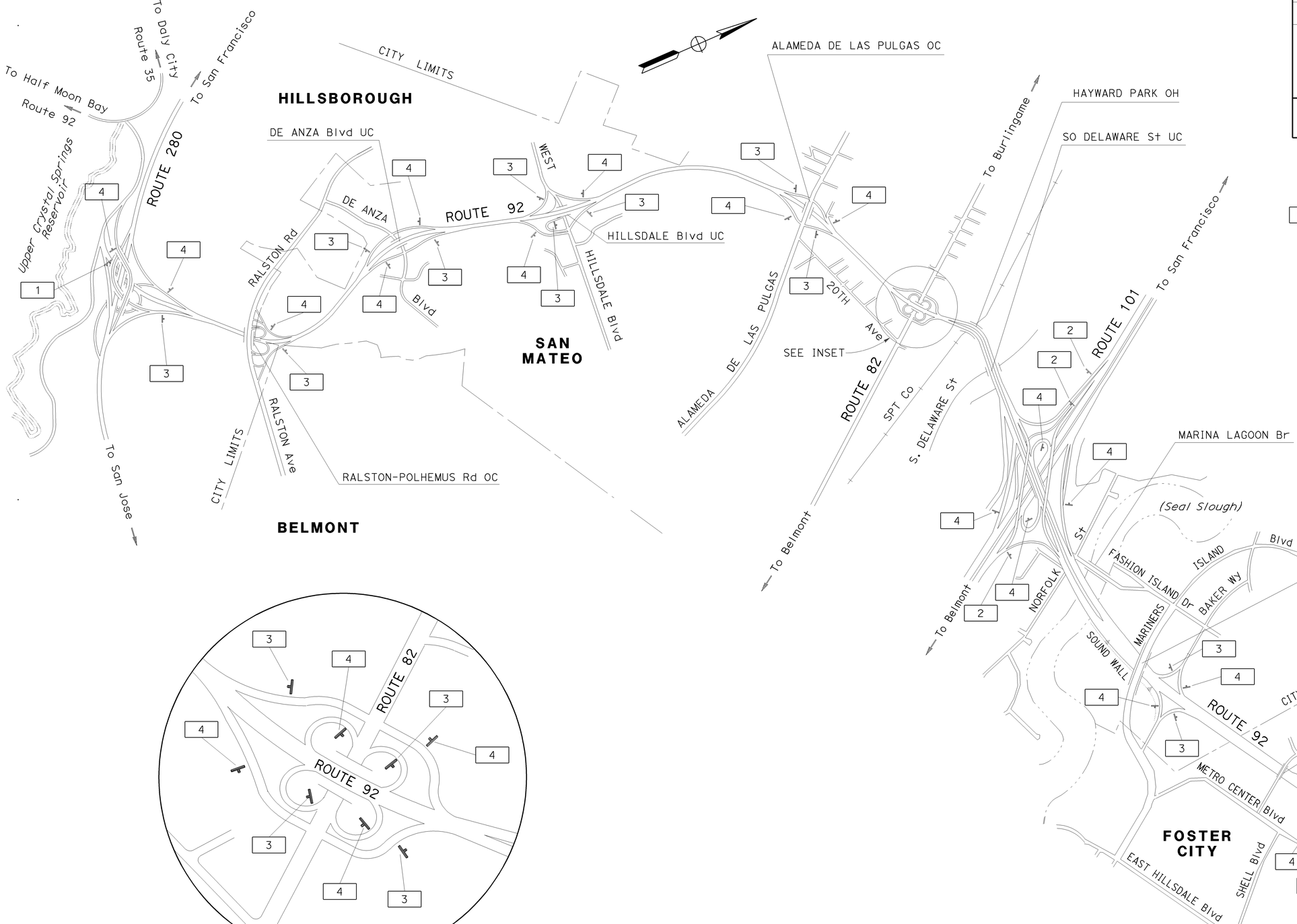
LEGEND:

[No.] CONSTRUCTION AREA SIGNS

→ DIRECTION OF TRAFFIC

NOTE:

EXACT LOCATION OF CONSTRUCTION AREA SIGNS TO BE DETERMINED BY THE ENGINEER.



INSET

CONSTRUCTION AREA SIGNS

NO SCALE

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-1

LAST REVISION DATE PLOTTED => 04-NOV-2009
09-15-09 TIME PLOTTED => 15:40

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC
FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN
CALCULATED-DESIGNED BY: HERMINIO RUIDERA
CHECKED BY: JERILYN L. STRUVEN
REVISED BY
DATE REVISED

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e7201a001.dgn

CU 04609

EA 1E7201

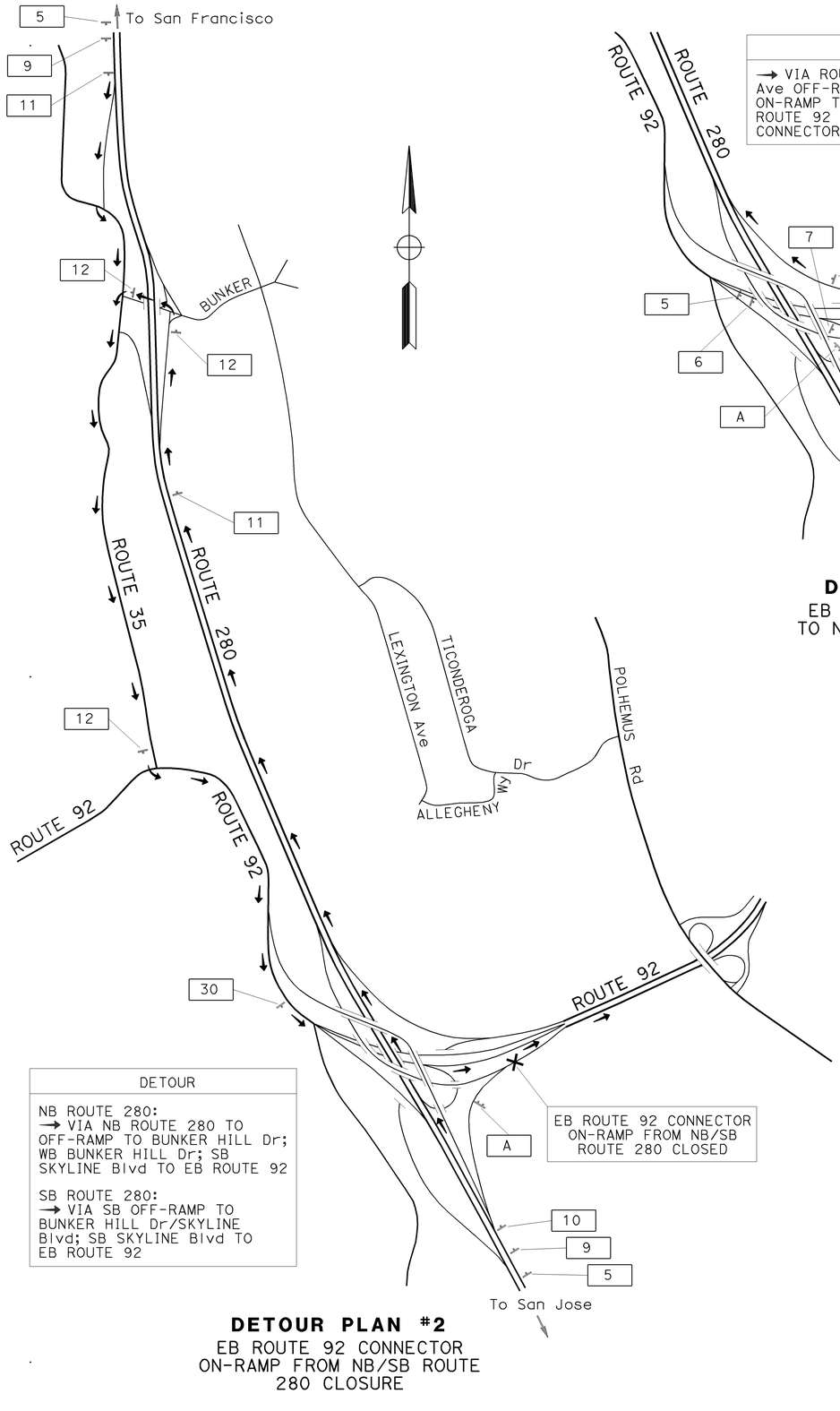
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	6	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

11-2-09
PLANS APPROVAL DATE

Jerilyn L. Struven
No. 49964
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
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.



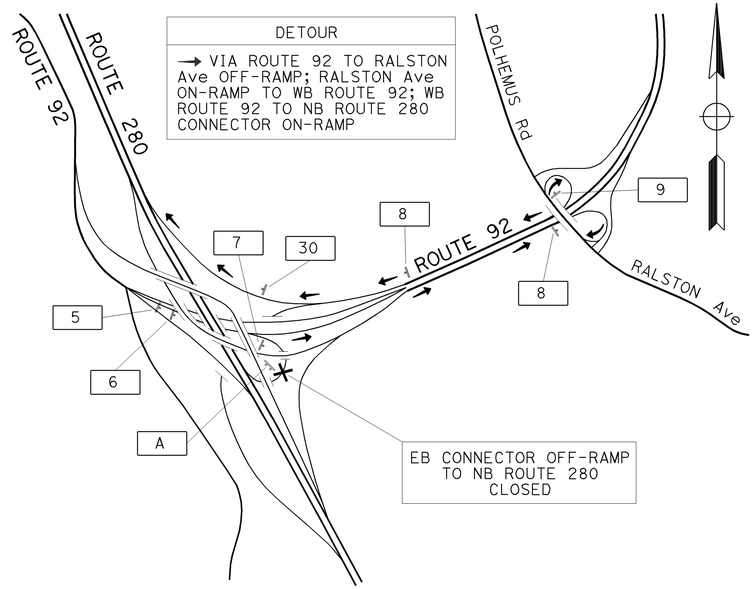
DETOUR

NB ROUTE 280:
→ VIA NB ROUTE 280 TO OFF-RAMP TO BUNKER HILL Dr; WB BUNKER HILL Dr; SB SKYLINE Blvd TO EB ROUTE 92

SB ROUTE 280:
→ VIA SB OFF-RAMP TO BUNKER HILL Dr/SKYLINE Blvd; SB SKYLINE Blvd TO EB ROUTE 92

EB ROUTE 92 CONNECTOR ON-RAMP FROM NB/SB ROUTE 280 CLOSED

DETOUR PLAN #2
EB ROUTE 92 CONNECTOR ON-RAMP FROM NB/SB ROUTE 280 CLOSURE

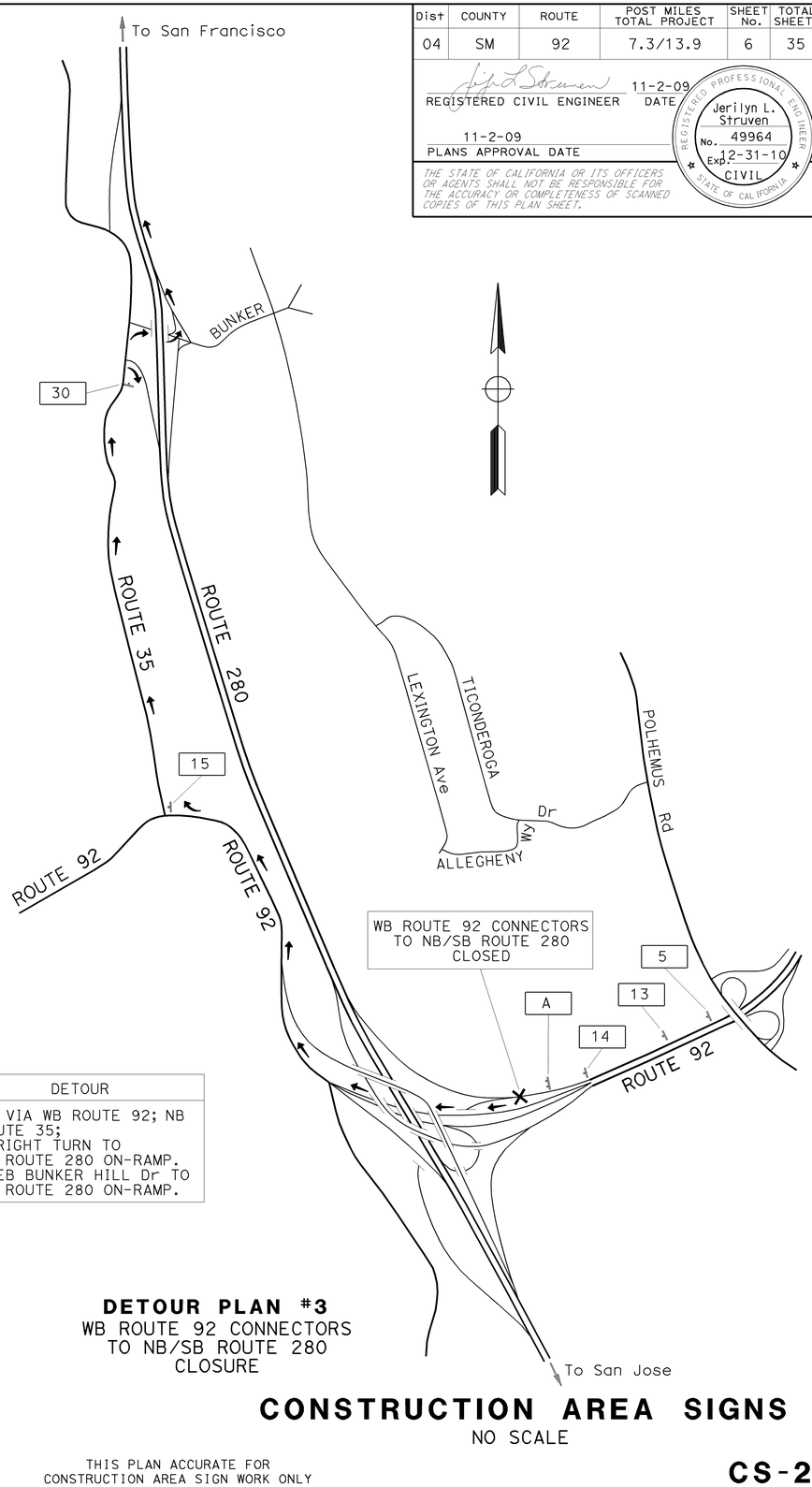


DETOUR

→ VIA ROUTE 92 TO RALSTON Ave OFF-RAMP; RALSTON Ave ON-RAMP TO WB ROUTE 92; WB ROUTE 92 TO NB ROUTE 280 CONNECTOR ON-RAMP

EB CONNECTOR OFF-RAMP TO NB ROUTE 280 CLOSED

DETOUR PLAN #1
EB CONNECTOR OFF-RAMP TO NB ROUTE 280 CLOSURE



DETOUR

→ VIA WB ROUTE 92; NB ROUTE 35;
- RIGHT TURN TO SB ROUTE 280 ON-RAMP.
- EB BUNKER HILL Dr TO NB ROUTE 280 ON-RAMP.

DETOUR PLAN #3
WB ROUTE 92 CONNECTORS TO NB/SB ROUTE 280 CLOSURE

CONSTRUCTION AREA SIGNS

NO SCALE

FOR NOTES AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-2

LAST REVISION: DATE PLOTTED => 04-NOV-2009
TIME PLOTTED => 15:40

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC
Caltrans

FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN
CALCULATED-DESIGNED BY: HERMINIO RUIDERA
CHECKED BY: JERILYN L. STRUVEN
REVISED BY
DATE REVISED

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e7201a002.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	7	35

REGISTERED CIVIL ENGINEER 11-2-09 DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Jerilyn L. Struven No. 49964 Exp. 12-31-10 CIVIL STATE OF CALIFORNIA

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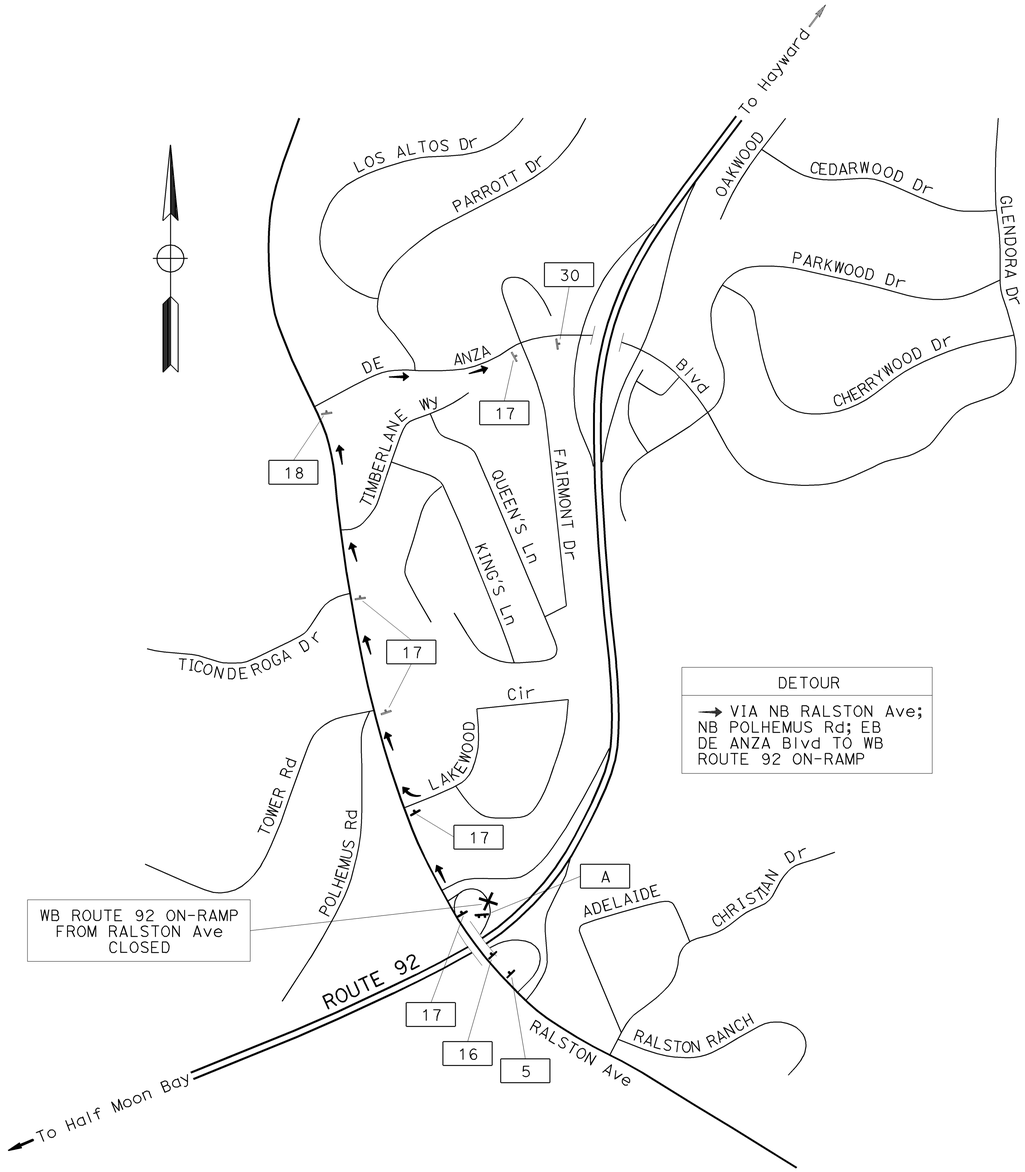
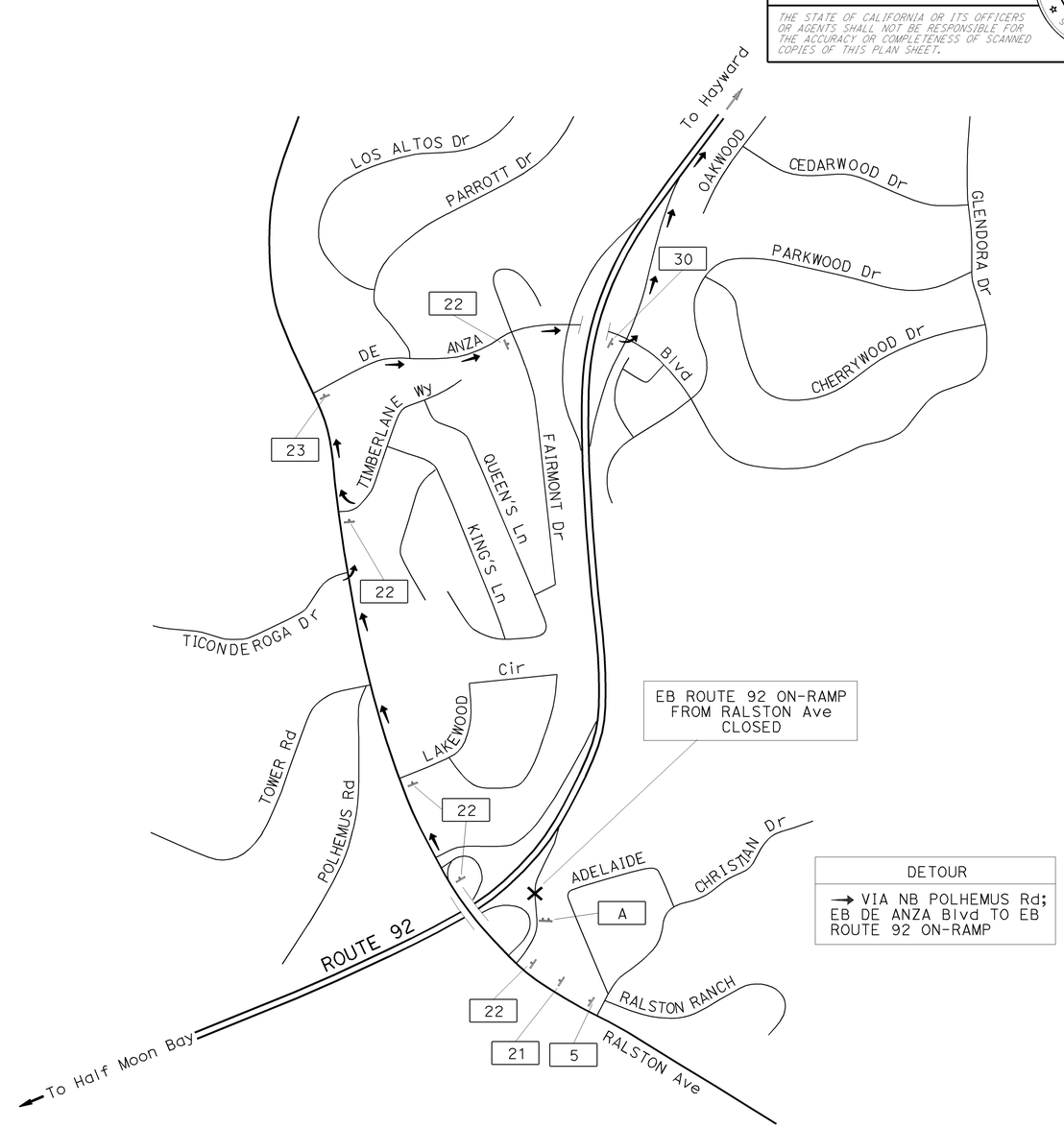


DETOUR PLAN #4
WB ROUTE 92 ON-RAMP
FROM RALSTON Ave
CLOSURE



DETOUR PLAN #5
EB ROUTE 92 ON-RAMP
FROM RALSTON Ave
CLOSURE

CONSTRUCTION AREA SIGNS

NO SCALE

FOR NOTES AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN
CALCULATED-DESIGNED BY: HERMINIO RUIDERA
CHECKED BY: JERILYN L. STRUVEN
REVISED BY
DATE REVISED

LAST REVISION 10-12-09
DATE PLOTTED => 04-NOV-2009
TIME PLOTTED => 15:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	8	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Jerilyn L. Struven No. 49964 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
PLANS APPROVAL DATE

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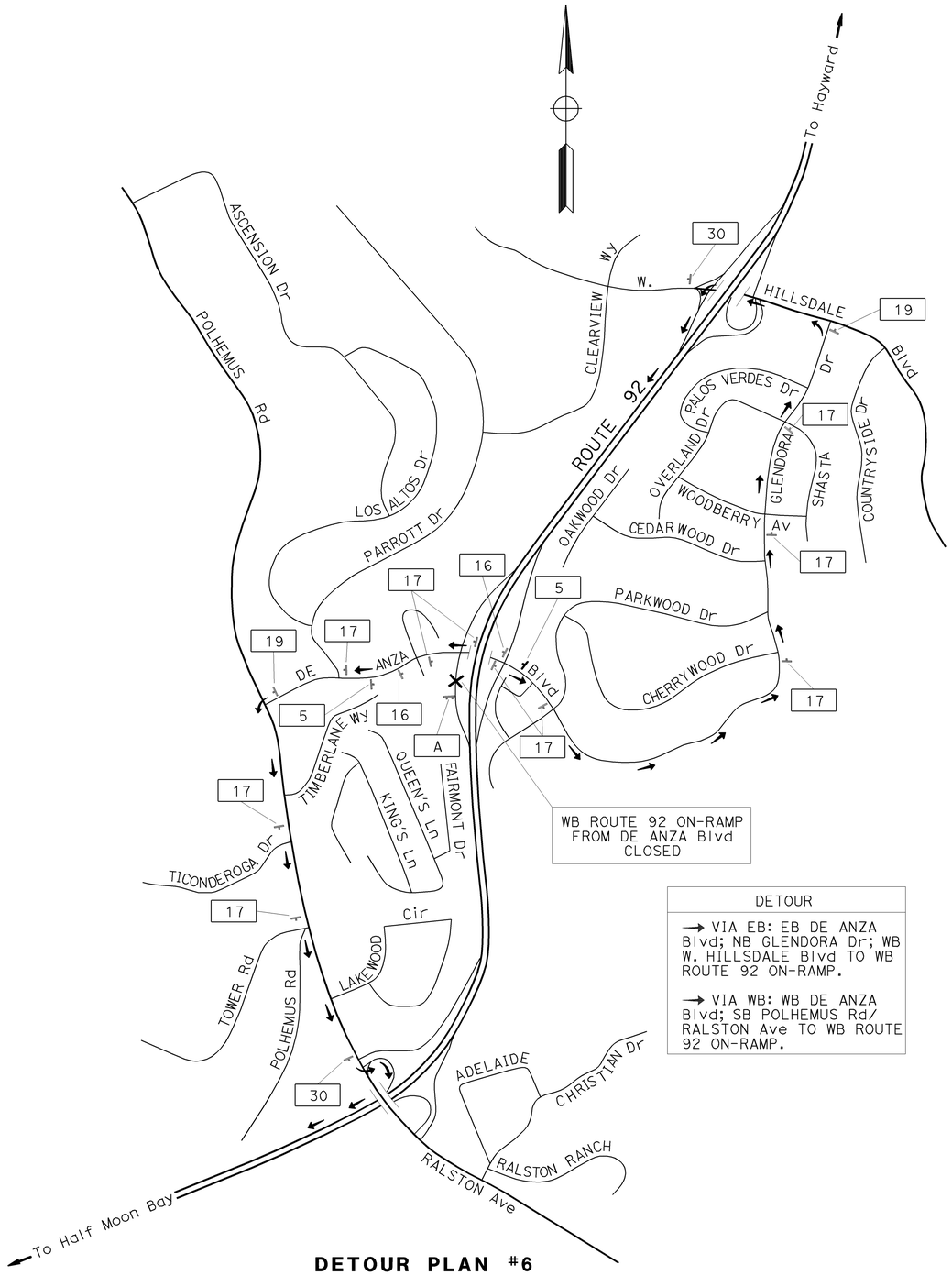
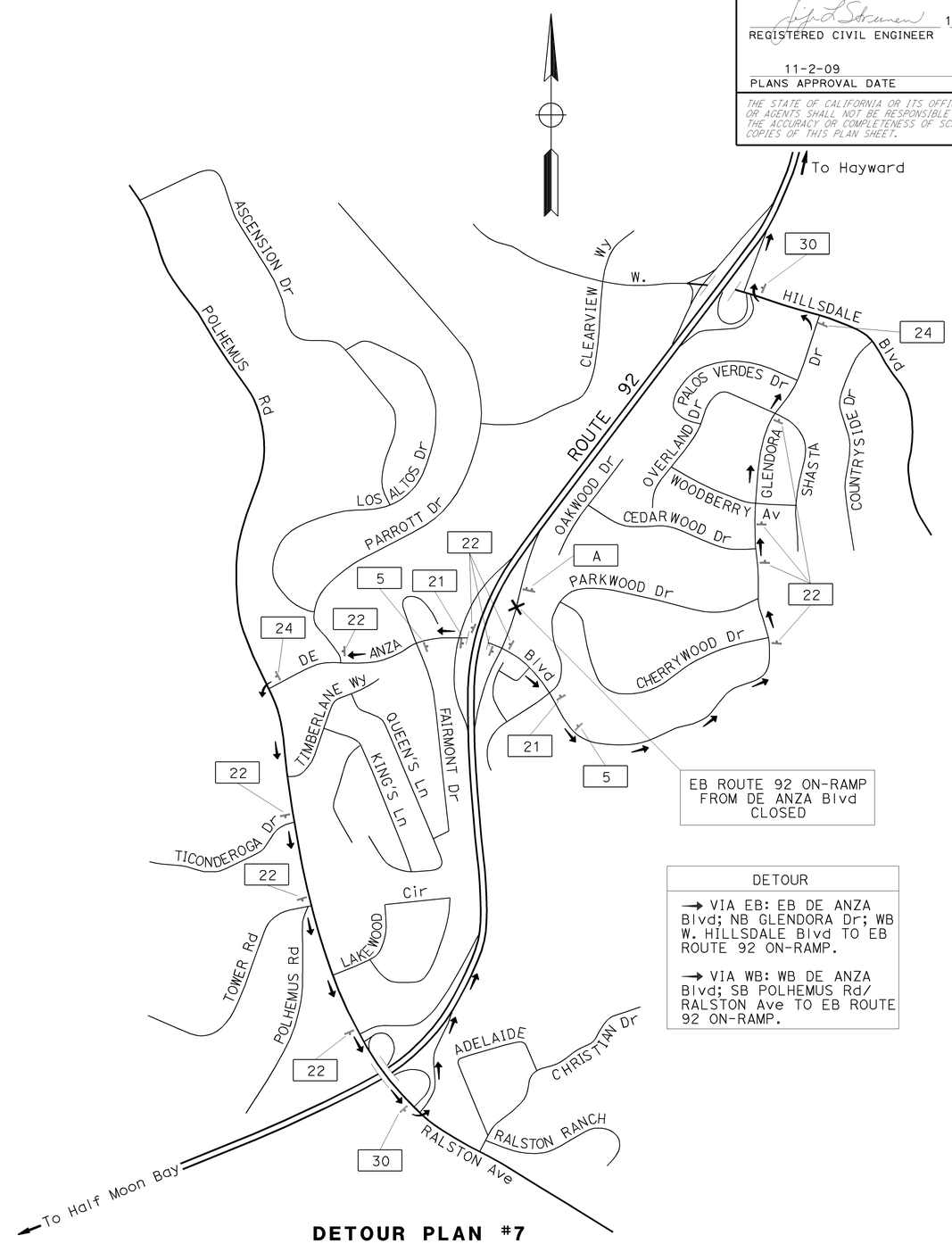


DETOUR

→ VIA EB: EB DE ANZA Blvd; NB GLENDORA Dr; WB W. HILLSDALE Blvd TO WB ROUTE 92 ON-RAMP.

→ VIA WB: WB DE ANZA Blvd; SB POLHEMUS Rd/ RALSTON Ave TO WB ROUTE 92 ON-RAMP.

DETOUR PLAN #6
WB ROUTE 92 ON-RAMP
FROM DE ANZA Blvd
CLOSURE



DETOUR

→ VIA EB: EB DE ANZA Blvd; NB GLENDORA Dr; WB W. HILLSDALE Blvd TO EB ROUTE 92 ON-RAMP.

→ VIA WB: WB DE ANZA Blvd; SB POLHEMUS Rd/ RALSTON Ave TO EB ROUTE 92 ON-RAMP.

DETOUR PLAN #7
EB ROUTE 92 ON-RAMP
FROM DE ANZA Blvd
CLOSURE

CONSTRUCTION AREA SIGNS

NO SCALE

FOR NOTES AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JERILYN L. STRUVEN	HERMINIO RUIDERA	JERILYN L. STRUVEN		

LAST REVISION | DATE PLOTTED => 04-NOV-2009
10-12-09 | TIME PLOTTED => 15:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	9	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

11-2-09 PLANS APPROVAL DATE

Jerilyn L. Struven, No. 49964, Exp. 12-31-10, CIVIL, REGISTERED PROFESSIONAL ENGINEER, STATE OF CALIFORNIA

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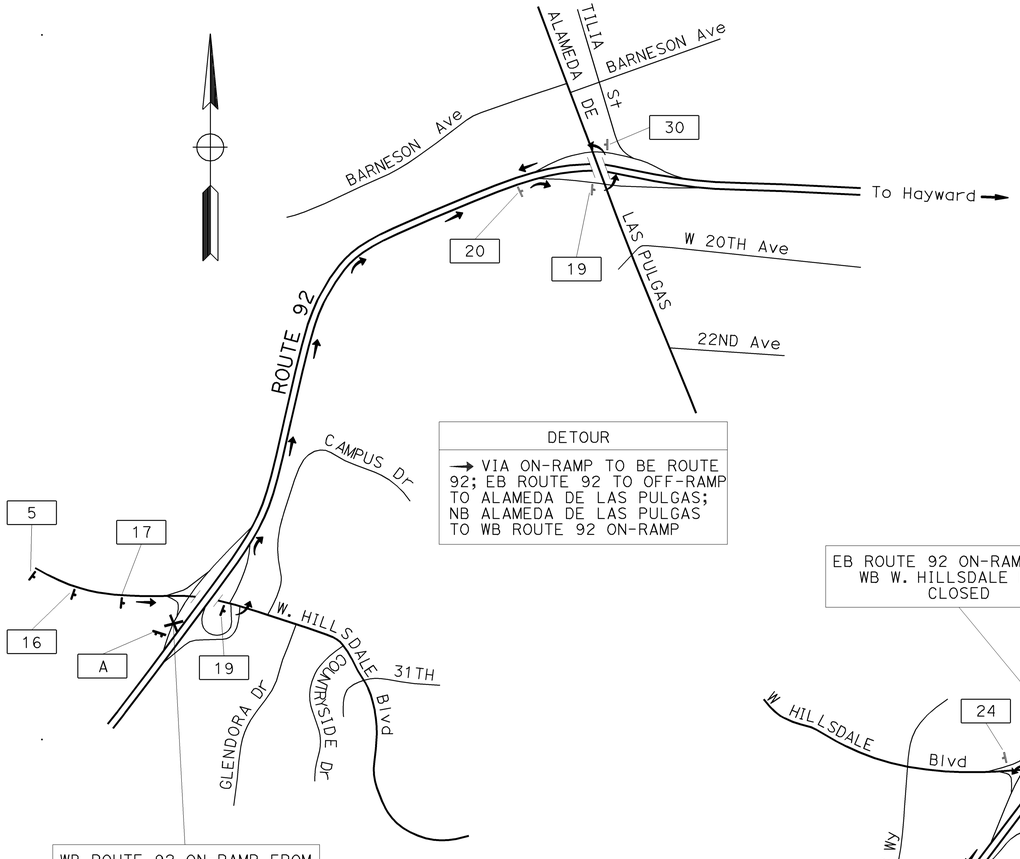
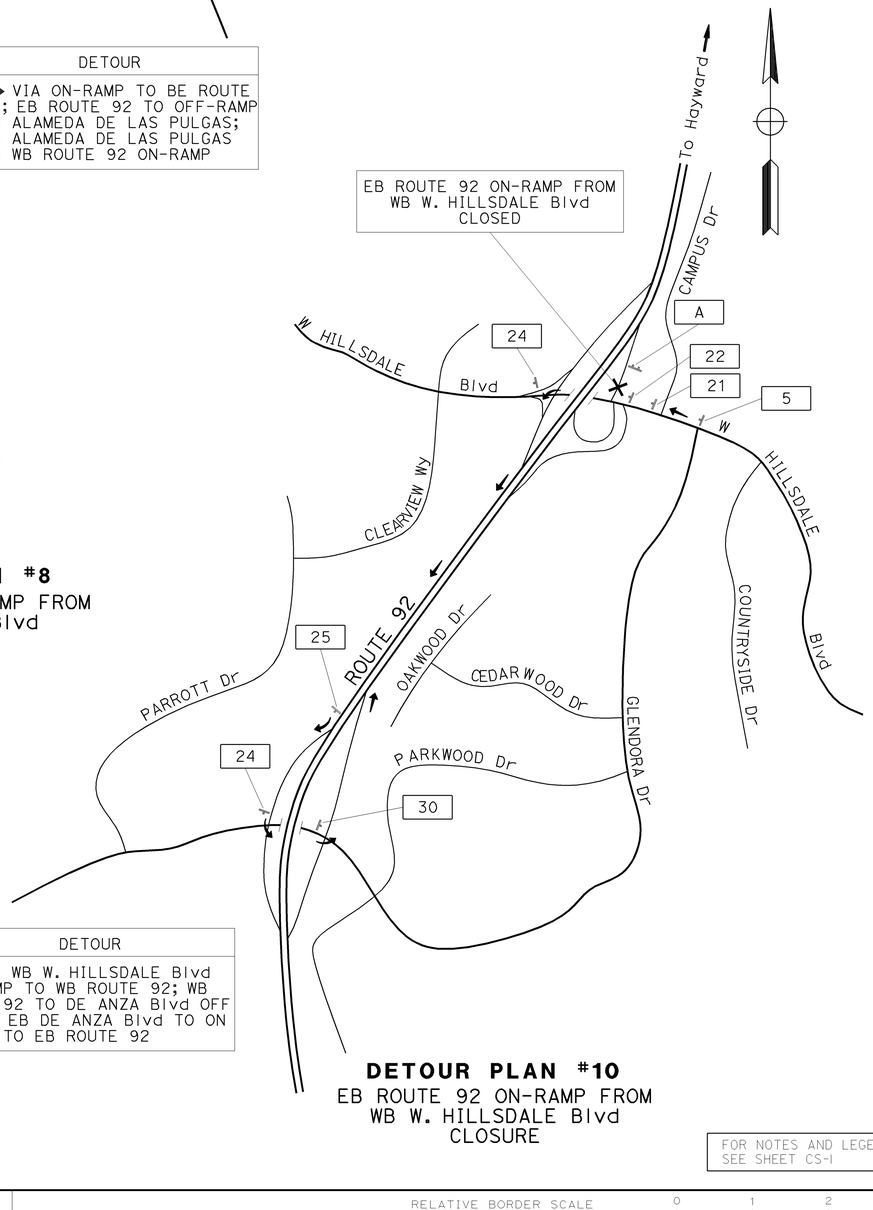


DETOUR

→ VIA ON-RAMP TO BE ROUTE 92; EB ROUTE 92 TO OFF-RAMP TO ALAMEDA DE LAS PULGAS; NB ALAMEDA DE LAS PULGAS TO WB ROUTE 92 ON-RAMP

WB ROUTE 92 ON-RAMP FROM W. HILLSDALE Blvd CLOSED

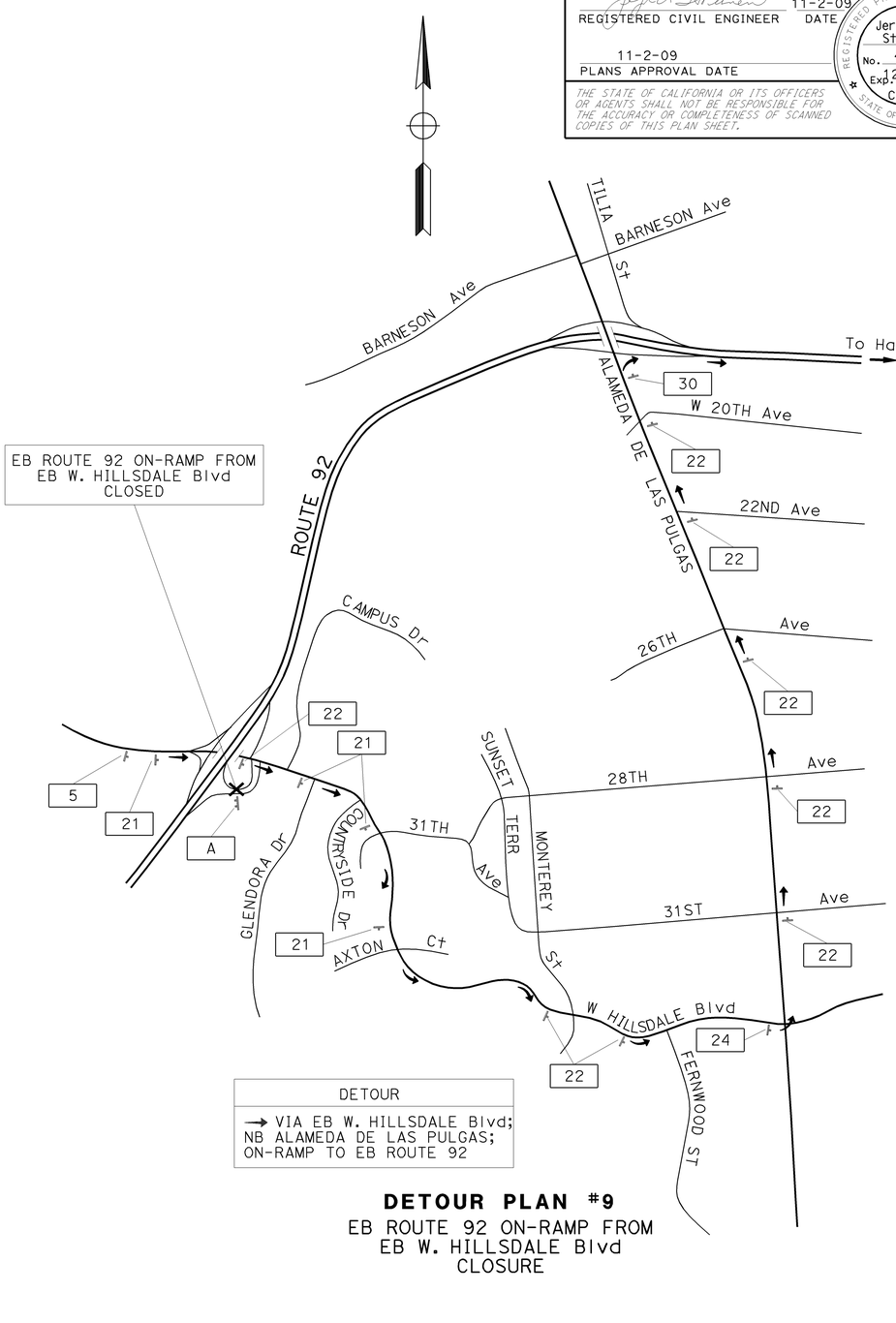
DETOUR PLAN #8
WB ROUTE 92 ON-RAMP FROM W. HILLSDALE Blvd CLOSURE



DETOUR

→ VIA WB W. HILLSDALE Blvd ON-RAMP TO WB ROUTE 92; WB ROUTE 92 TO DE ANZA Blvd OFF-RAMP; EB DE ANZA Blvd TO ON-RAMP TO EB ROUTE 92

DETOUR PLAN #10
EB ROUTE 92 ON-RAMP FROM WB W. HILLSDALE Blvd CLOSURE



DETOUR

→ VIA EB W. HILLSDALE Blvd; NB ALAMEDA DE LAS PULGAS; ON-RAMP TO EB ROUTE 92

DETOUR PLAN #9
EB ROUTE 92 ON-RAMP FROM EB W. HILLSDALE Blvd CLOSURE

FOR NOTES AND LEGEND, SEE SHEET CS-1

CONSTRUCTION AREA SIGNS

NO SCALE

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC
FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN
CALCULATED-DESIGNED BY: HERMINIO RUIDERA
CHECKED BY: JERILYN L. STRUVEN
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 04-NOV-2009 | TIME PLOTTED => 15:41 | 10-12-09

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e7201a005.dgn

CU 04609

EA 1E7201

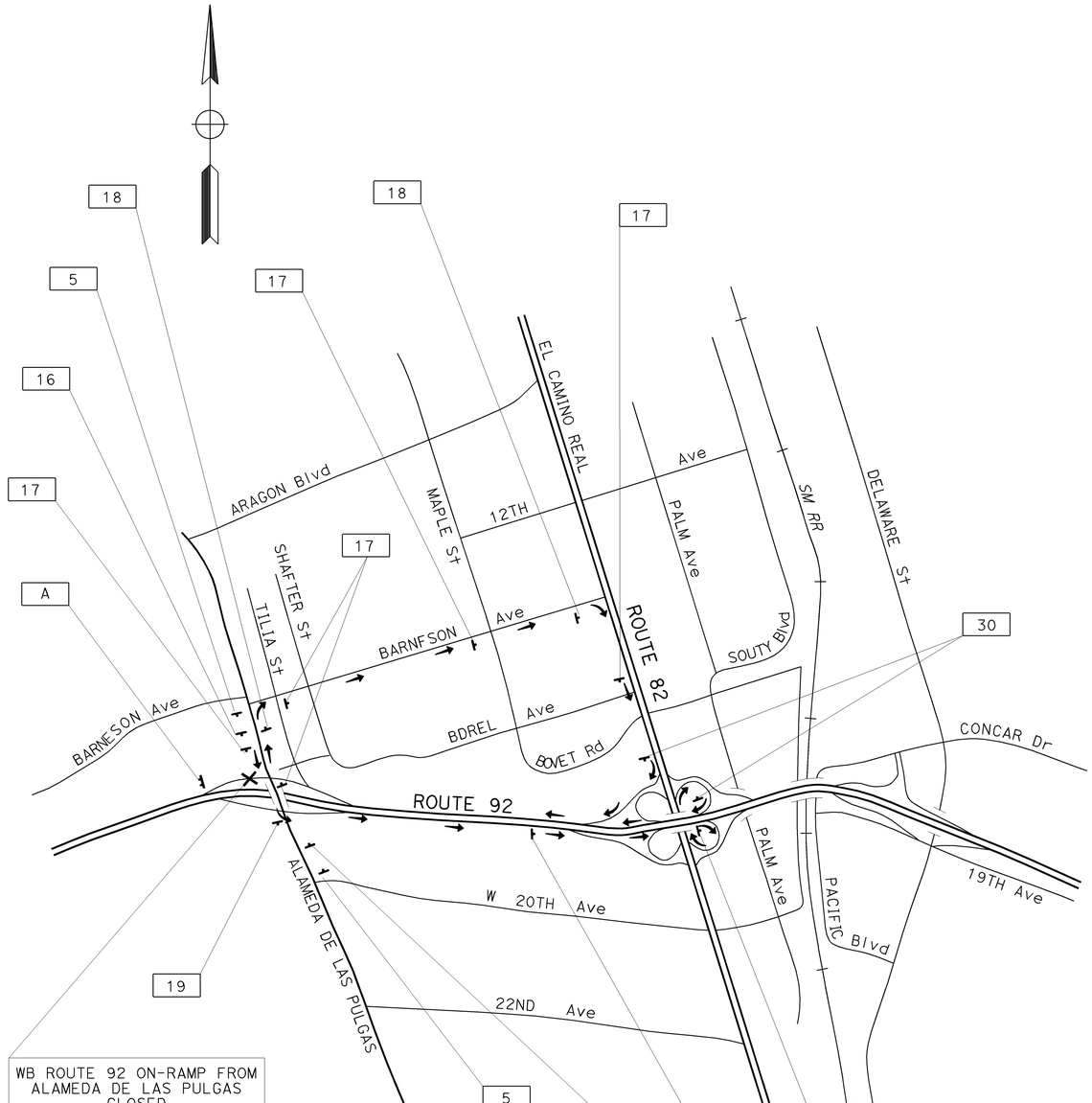
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	10	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jerilyn L. Struven — No. 49964 — Exp. 12-31-10 — 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.

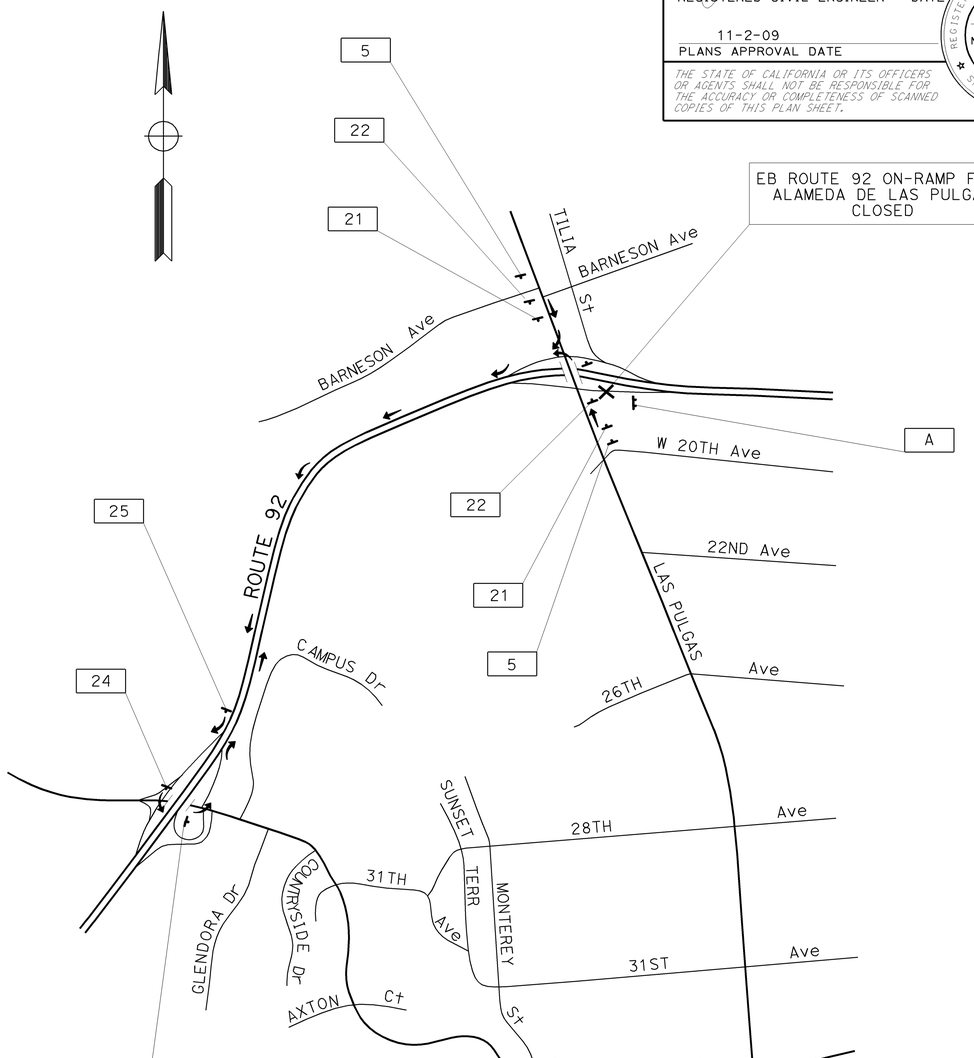


WB ROUTE 92 ON-RAMP FROM ALAMEDA DE LAS PULGAS CLOSED

DETOUR
→ VIA NB ALAMEDA DE LAS PULGAS EB BARNESON Ave; SB EL CAMINO REAL; ON-RAMP TO WB ROUTE 92 → VIA SB ALAMEDA DE LAS PULGAS; ON-RAMP TO EB ROUTE 92; LOOP OFF -RAMP TO NB ROUTE 82; NB ROUTE 82 LOOP OFF-RAMP TO WB ROUTE 92

DETOUR PLAN #11

WB ROUTE 92 ON-RAMP FROM ALAMEDA DE LAS PULGAS CLOSURE



DETOUR PLAN #12

EB ROUTE 92 ON-RAMP FROM ALAMEDA DE LAS PULGAS CLOSURE

DETOUR
→ VIA ON-RAMP TO WB ROUTE 92; WB ROUTE 92 TO OFF-RAMP TO W. HILLSDALE Blvd; EB W. HILLSDALE Blvd TO EB ROUTE 92 ON-RAMP

CONSTRUCTION AREA SIGNS

NO SCALE

FOR NOTES AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN

REVISED BY	DATE REVISED
HERMINIO RUIDERA	

CALCULATED-DESIGNED BY: JERILYN L. STRUVEN
CHECKED BY:

LAST REVISION DATE PLOTTED => 04-NOV-2009
TIME PLOTTED => 15:41

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e7201a006.dgn

CU 04609

EA 1E7201

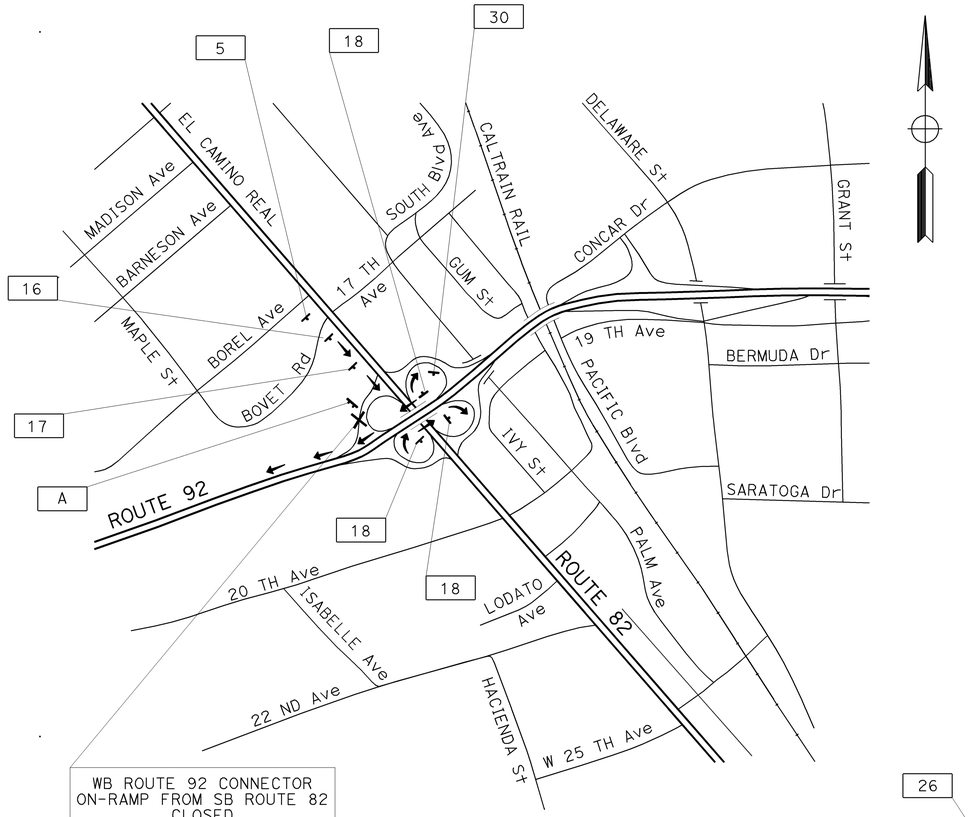
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	11	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Jerilyn L. Struven, No. 49964, Exp. 12-31-10, CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
PLANS APPROVAL DATE

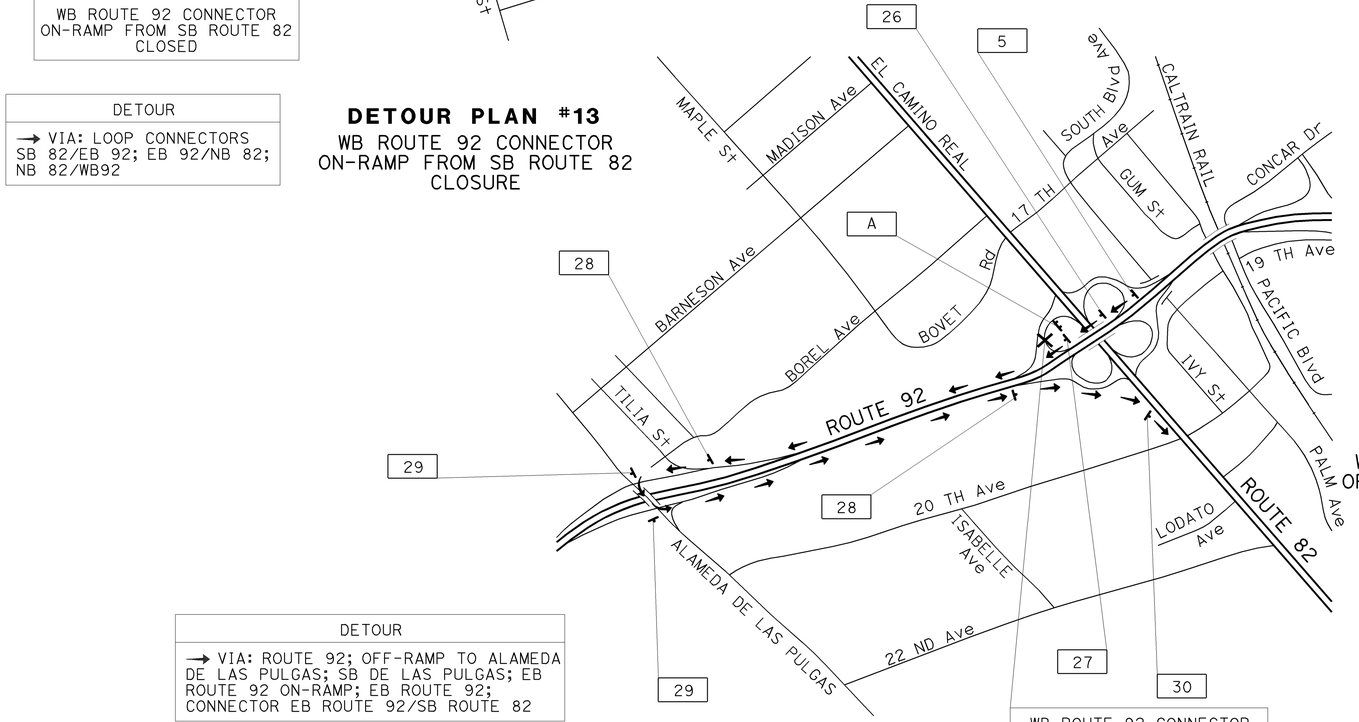
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



WB ROUTE 92 CONNECTOR ON-RAMP FROM SB ROUTE 82 CLOSED

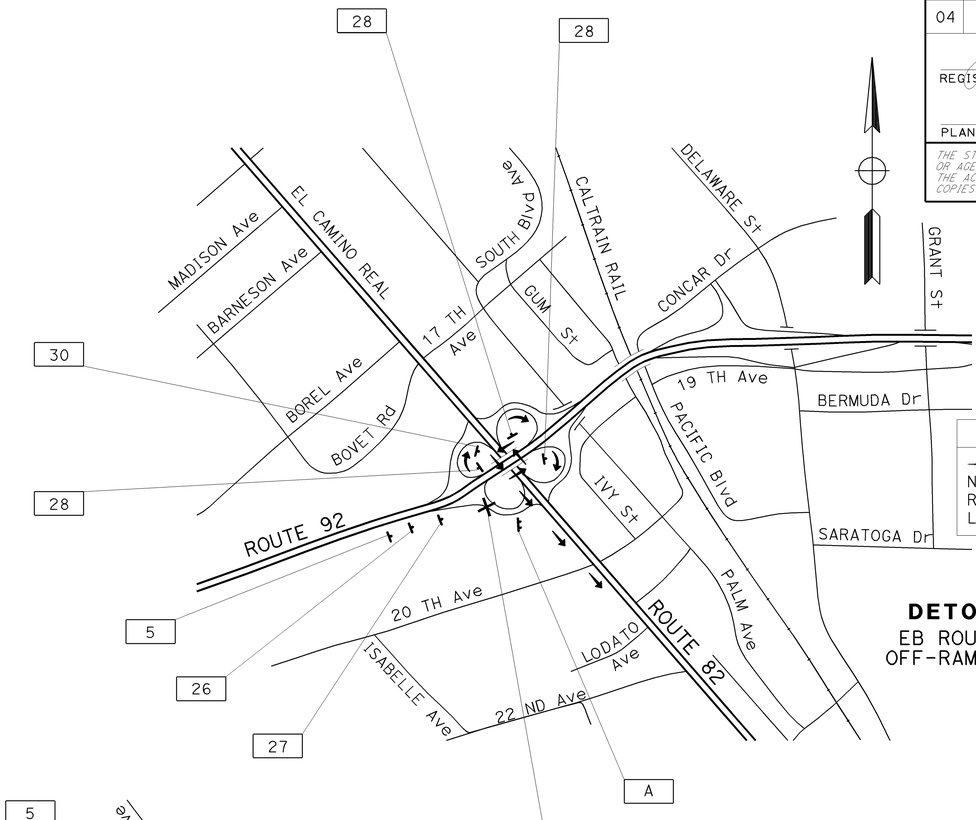
DETOUR
→ VIA: LOOP CONNECTORS SB 82/EB 92; EB 92/NB 82; NB 82/WB92

DETOUR PLAN #13
WB ROUTE 92 CONNECTOR ON-RAMP FROM SB ROUTE 82 CLOSURE



DETOUR
→ VIA: ROUTE 92; OFF-RAMP TO ALAMEDA DE LAS PULGAS; SB DE LAS PULGAS; EB ROUTE 92 ON-RAMP; EB ROUTE 92; CONNECTOR EB ROUTE 92/SB ROUTE 82

WB ROUTE 92 CONNECTOR OFF-RAMP TO SB ROUTE 82 CLOSED



DETOUR
→ VIA: CONNECTOR LOOP OFF-RAMP TO NB ROUTE 82; NB ROUTE 82 LOOP OFF-RAMP TO WB ROUTE 92; WB ROUTE 92 LOOP OFF-RAMP TO SB ROUTE 82

DETOUR PLAN #14
EB ROUTE 92 CONNECTOR OFF-RAMP TO SB ROUTE 82 CLOSURE

EB ROUTE 92 CONNECTOR OFF-RAMP TO SB ROUTE 82 CLOSED

DETOUR PLAN #15
WB ROUTE 92 CONNECTOR OFF-RAMP TO SB ROUTE 82 CLOSURE

WB ROUTE 92 CONNECTOR OFF-RAMP TO SB ROUTE 82 CLOSED

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS
NO SCALE

FOR NOTES AND LEGEND, SEE SHEET CS-1

CS-7

REVISED BY | DATE REVISED
HERMINIO RUIDERA | JERILYN L. STRUVEN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

LAST REVISION | DATE PLOTTED => 04-NOV-2009
10-12-09 | TIME PLOTTED => 15:42

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s120183 | DGN FILE => 41e7201a007.dgn | CU 04609 | EA 1E7201

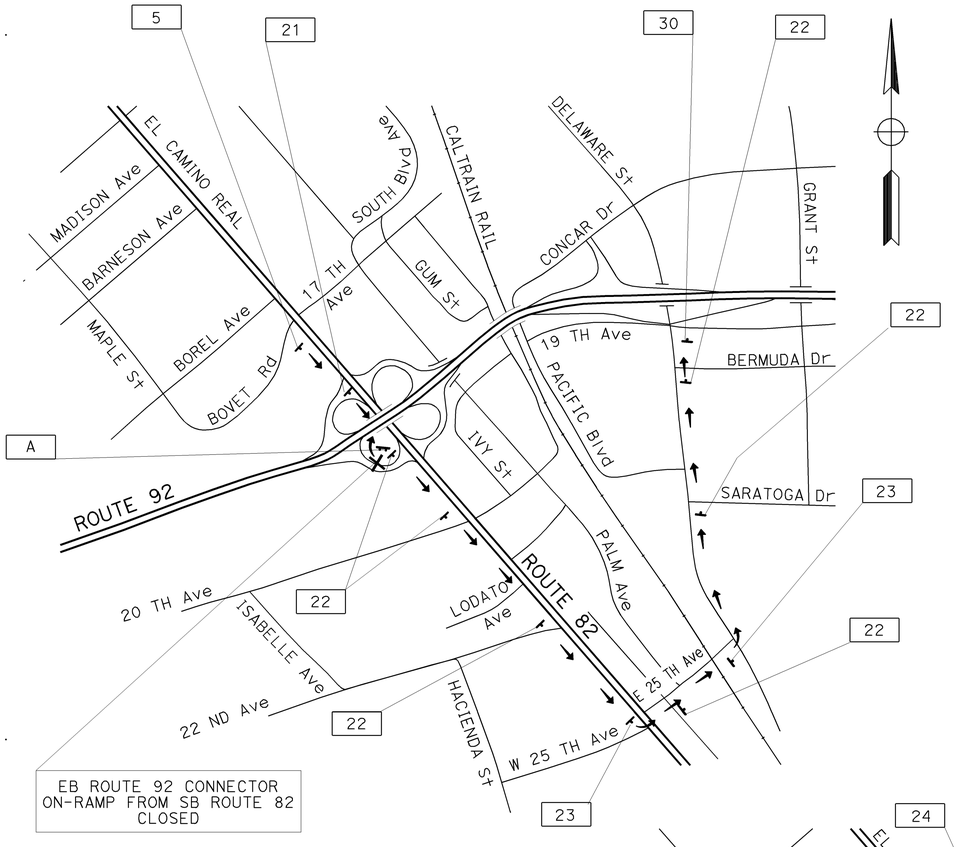
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	12	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Jerilyn L. Struven No. 49964 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
PLANS APPROVAL DATE

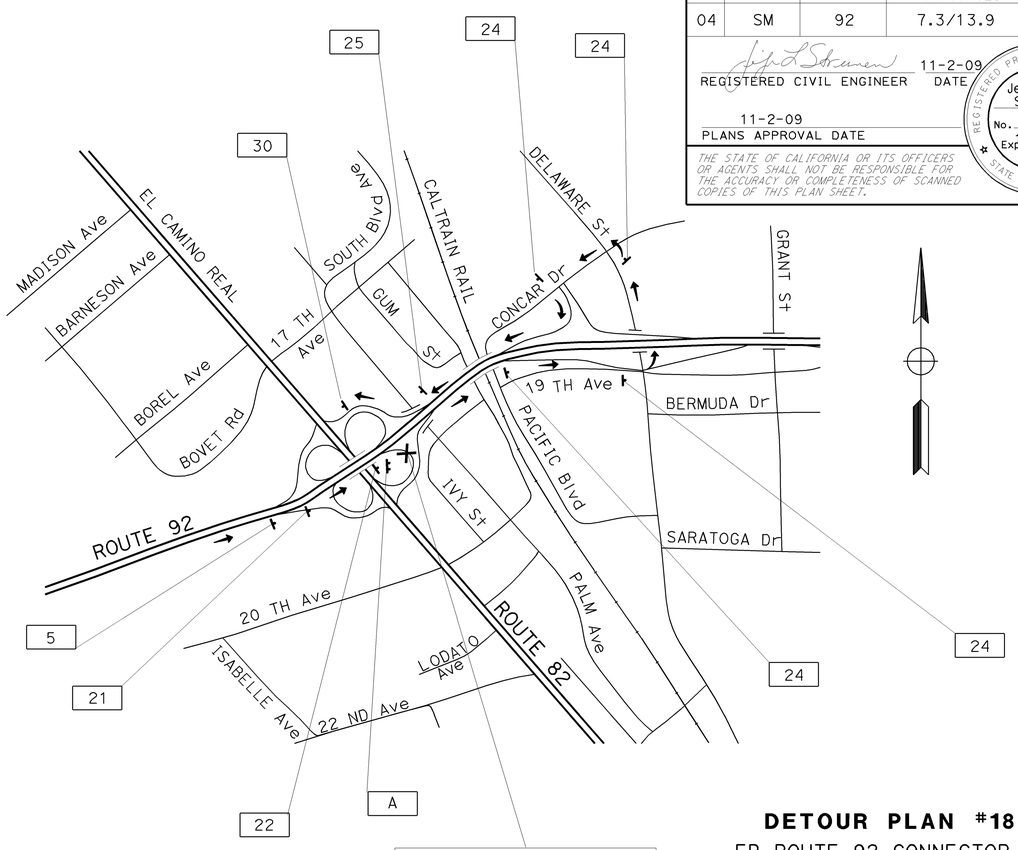
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



EB ROUTE 92 CONNECTOR ON-RAMP FROM SB ROUTE 82 CLOSED

DETOUR PLAN #16

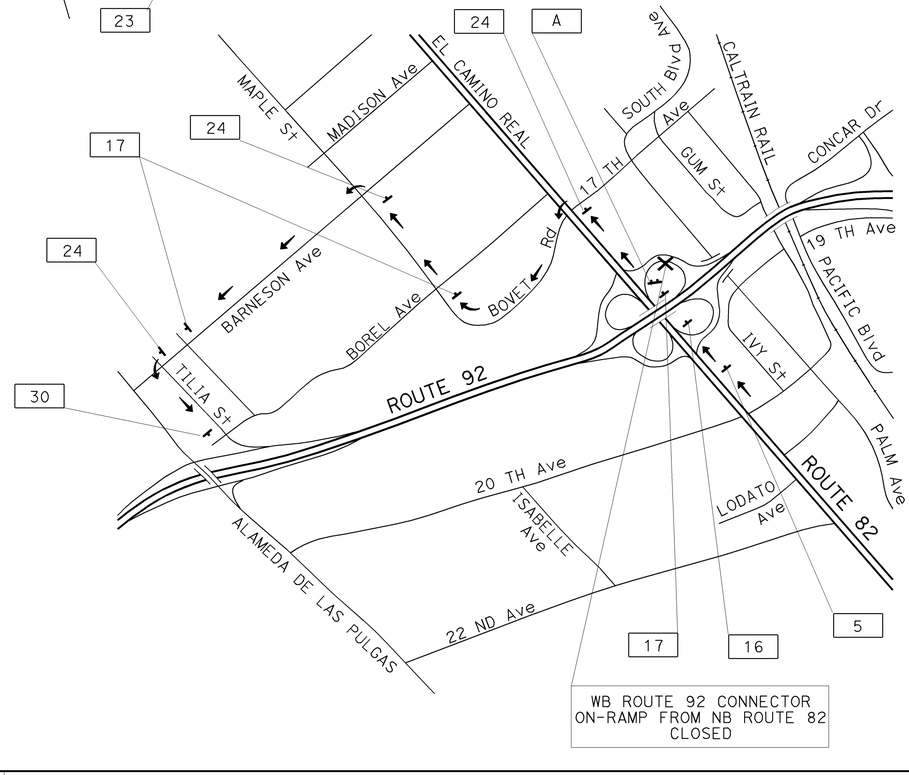
EB ROUTE 92 CONNECTOR ON-RAMP FROM SB ROUTE 82 CLOSURE



EB ROUTE 92 CONNECTOR OFF-RAMP TO NB ROUTE 82 CLOSED

DETOUR PLAN #18

EB ROUTE 92 CONNECTOR OFF-RAMP TO NB ROUTE 82 CLOSURE



WB ROUTE 92 CONNECTOR ON-RAMP FROM NB ROUTE 82 CLOSED

DETOUR PLAN #17

WB ROUTE 92 CONNECTOR ON-RAMP FROM NB ROUTE 82 CLOSURE

FOR NOTES AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-8

LAST REVISION DATE PLOTTED => 04-NOV-2009
TIME PLOTTED => 15:42

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY: HERMINIO RUIDERA
CHECKED BY: JERILYN L. STRUVEN
FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e7201a008.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	13	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

11-2-09
PLANS APPROVAL DATE

Jerilyn L. Struven
No. 49964
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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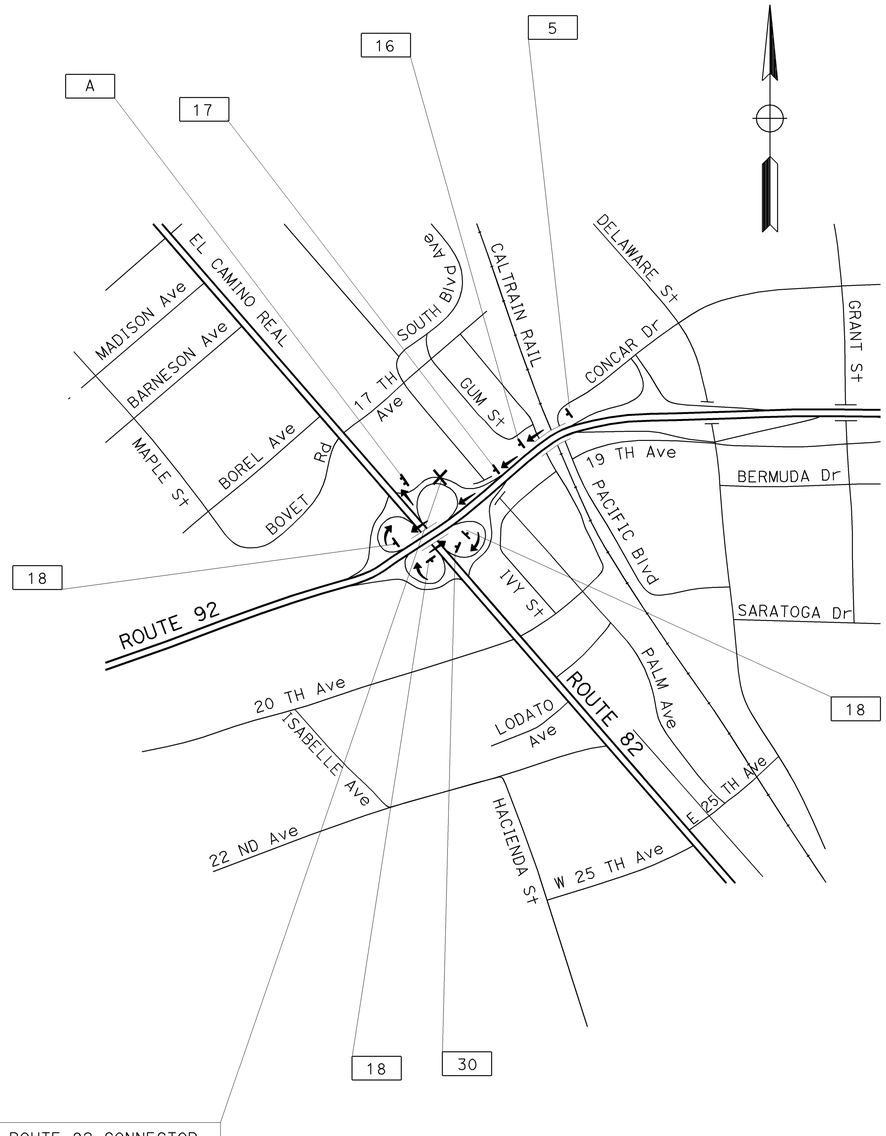
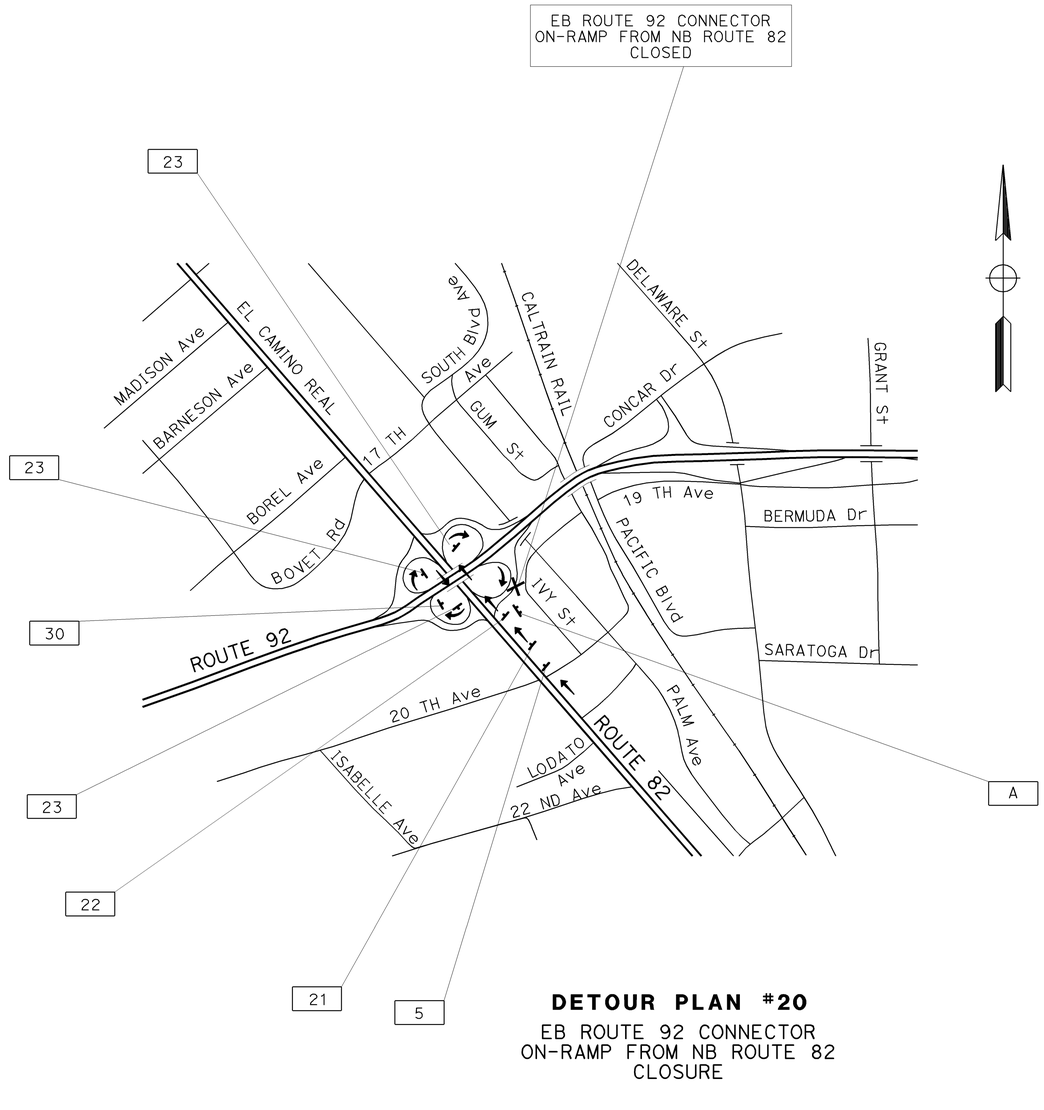


WB ROUTE 92 CONNECTOR OFF-RAMP TO NB ROUTE 82 CLOSED

DETOUR PLAN #19

WB ROUTE 92 CONNECTOR
OFF-RAMP TO NB ROUTE 82
CLOSURE



DETOUR PLAN #20

EB ROUTE 92 CONNECTOR
ON-RAMP FROM NB ROUTE 82
CLOSURE

CONSTRUCTION AREA SIGNS

NO SCALE

CS-9

FOR NOTES AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC
Caltrans

	REVISED BY	DATE REVISED
CALCULATED-DESIGNED BY	HERMINIO RUIDERA	
CHECKED BY	JERILYN L. STRUVEN	
FUNCTIONAL SUPERVISOR	JERILYN L. STRUVEN	

LAST REVISION | DATE PLOTTED => 04-NOV-2009
10-12-09 | TIME PLOTTED => 15:42

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e7201a009.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	14	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Jerilyn L. Struven No. 49964 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
PLANS APPROVAL DATE

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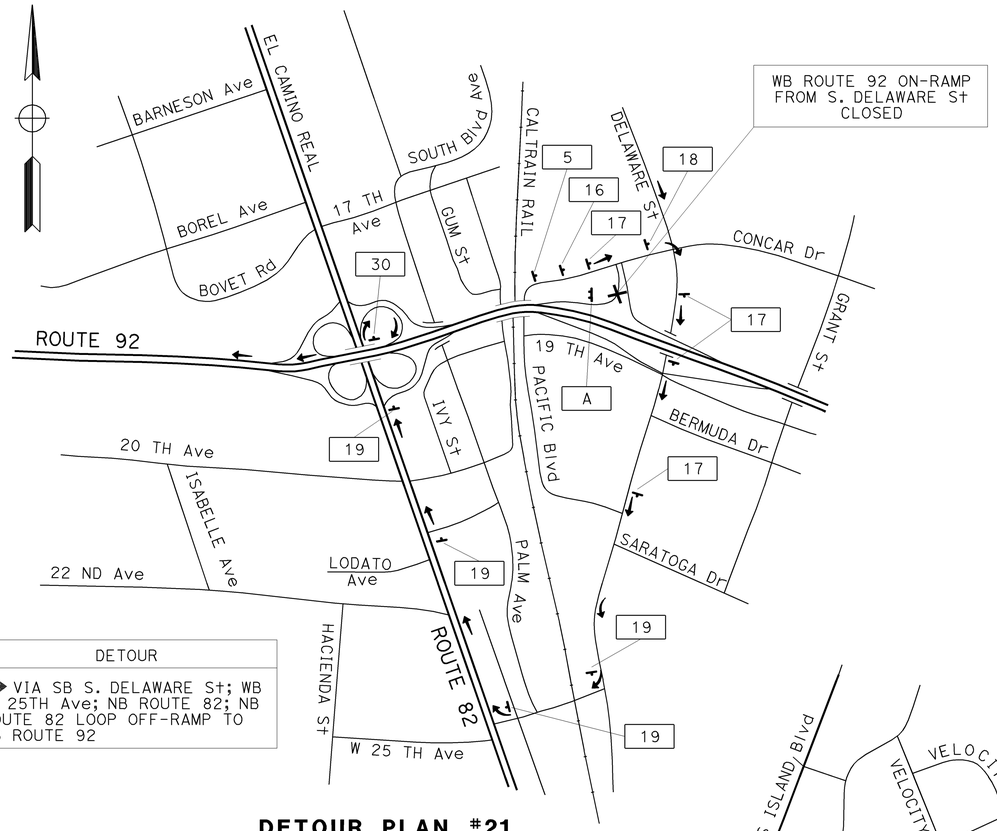
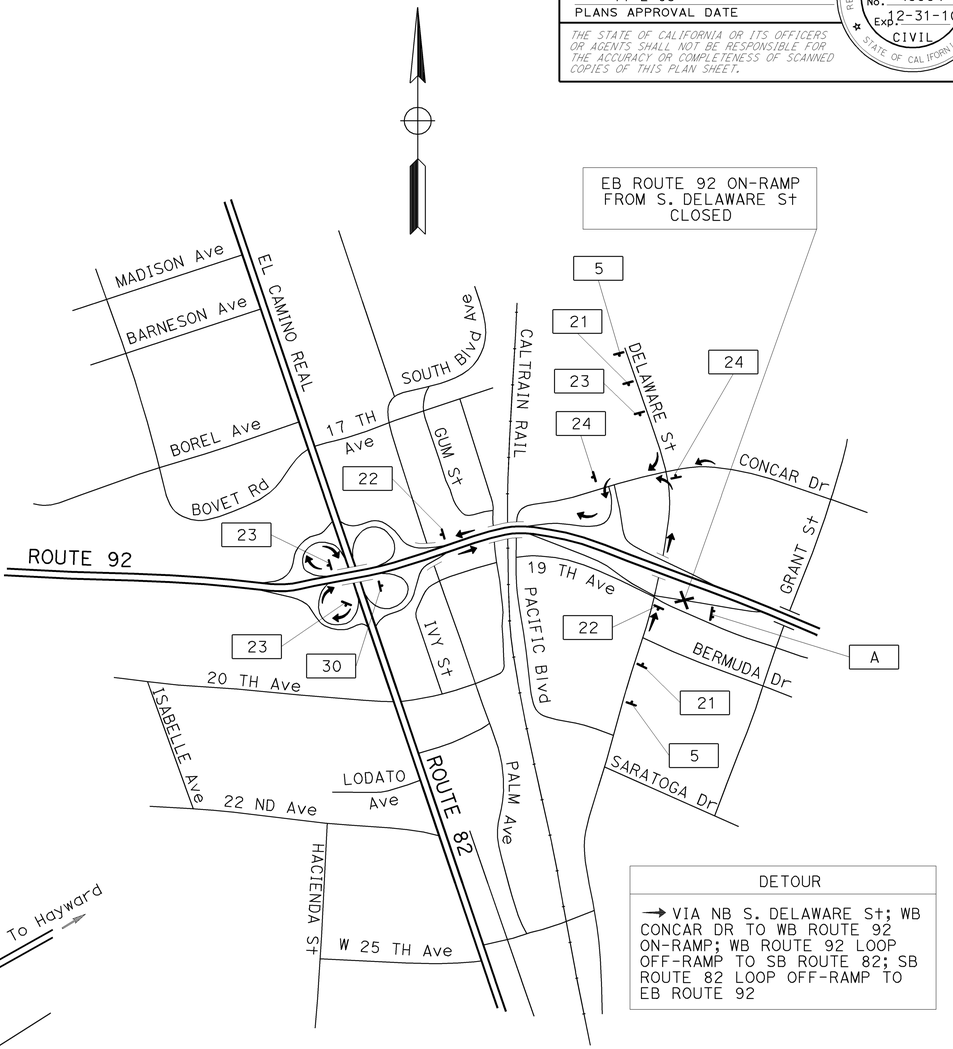


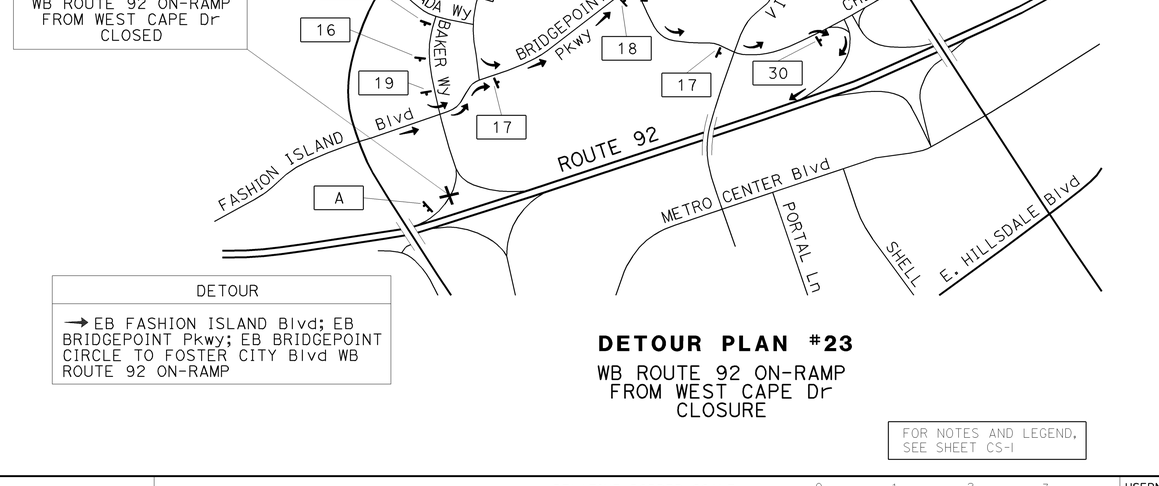
DETOUR PLAN #21

WB ROUTE 92 ON-RAMP
FROM S.DELAWARE St
CLOSURE



DETOUR PLAN #22

EB ROUTE 92 ON-RAMP
FROM S.DELAWARE St
CLOSURE



DETOUR PLAN #23

WB ROUTE 92 ON-RAMP
FROM WEST CAPE Dr
CLOSURE

FOR NOTES AND LEGEND, SEE SHEET CS-1

CONSTRUCTION AREA SIGNS

NO SCALE

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC

FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN
CALCULATED-DESIGNED BY: HERMINIO RUIDERA
CHECKED BY: JERILYN L. STRUVEN
REVISED BY / DATE REVISED

LAST REVISION: DATE PLOTTED => 04-NOV-2009; TIME PLOTTED => 15:42
10-12-09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	15	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Jerilyn L. Struven No. 49964 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
PLANS APPROVAL DATE

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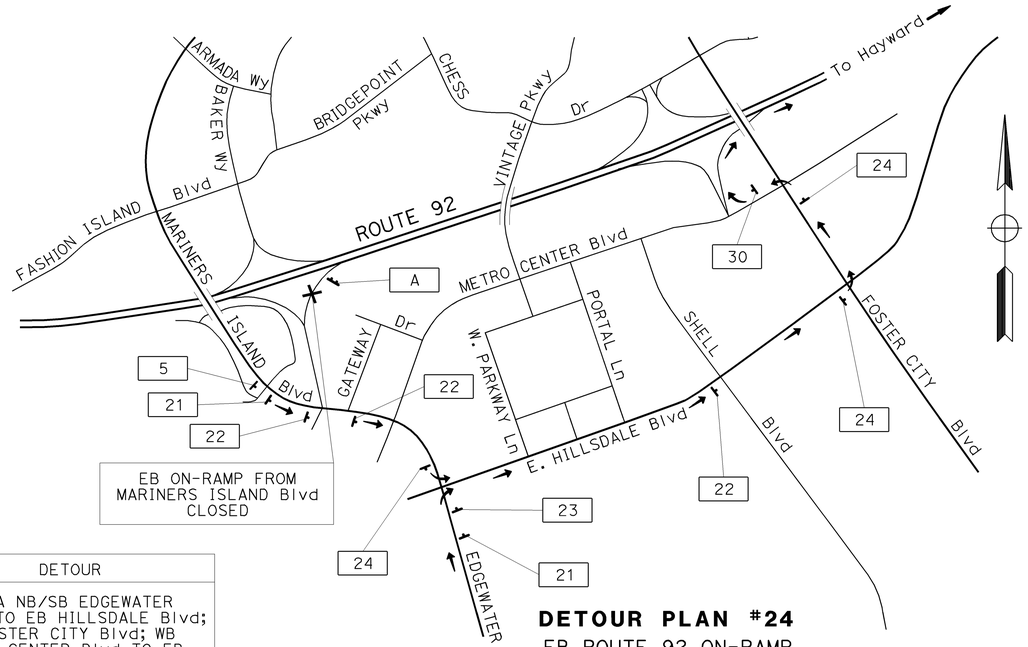
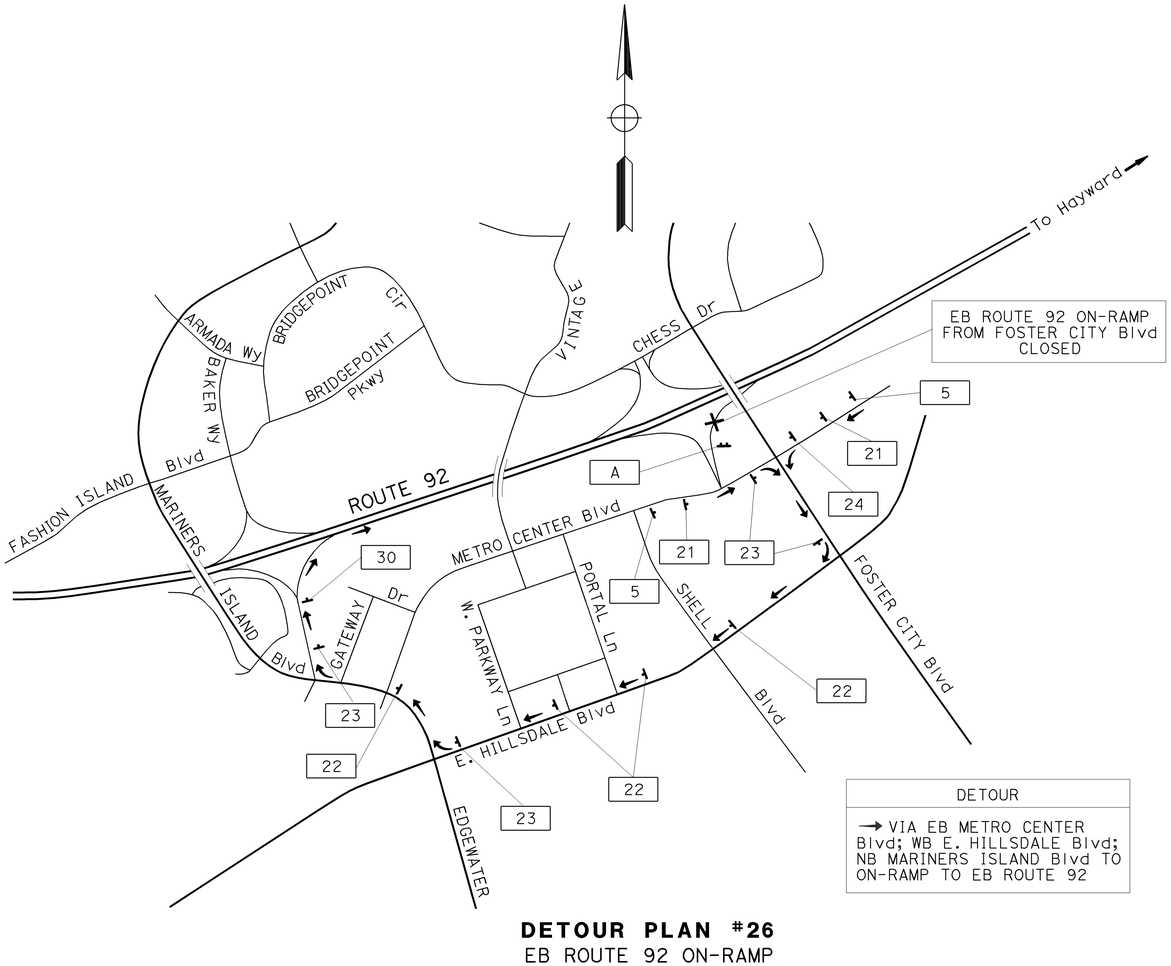
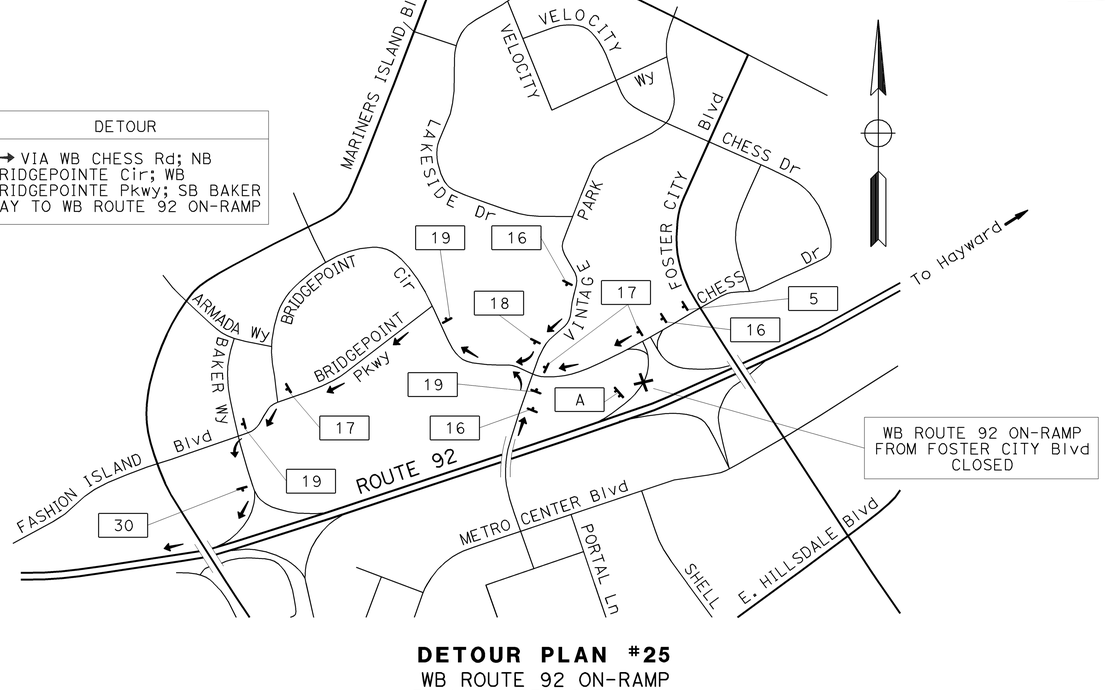


DETOUR PLAN #24
EB ROUTE 92 ON-RAMP
FROM MARINERS ISLAND Blvd
CLOSURE



DETOUR PLAN #26
EB ROUTE 92 ON-RAMP
FROM FOSTER CITY Blvd
CLOSURE



DETOUR PLAN #25
WB ROUTE 92 ON-RAMP
FROM FOSTER CITY Blvd
CLOSURE

FOR NOTES AND LEGEND, SEE SHEET CS-1

CONSTRUCTION AREA SIGNS

NO SCALE

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CS-11

HERMINIO RUIDERA — REVISED BY
JERILYN L. STRUVEN — DATE REVISED
CALCULATED-DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC

LAST REVISION — DATE PLOTTED => 04-NOV-2009 — TIME PLOTTED => 15:42 — 10-12-09

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e7201a011.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	16	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Jerilyn L. Struven No. 49964 Exp. 12-31-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
PLANS APPROVAL DATE

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STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	CODE	MESSAGE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS	REMARKS
			INCHES	EA-INCHES	EA	
1	W20-1	ROAD WORK AHEAD	60 x 60	2-4 x 4	2	
2	W20-1	ROAD WORK AHEAD	48 x 48	1-4 x 4	3	
3	w20-1	ROAD WORK AHEAD	36 x 36	1-4 x 6	16	
4	G20-2	END ROAD WORK	36 x 36	1-4 x 6	22	
5	W20-3	RAMP CLOSED AHEAD	48 x 48			
6	W20-3	RAMP CLOSED AHEAD	48 x 48	1-4 x 6	30	
	G27-2	280	42 x 36			
	M3-3	NORTH	30 x 15			
7	M4-8	DETOUR	30 x 15	1-4 x 6	1	
	G27-2	280	42 x 36			
	M3-3	NORTH	30 x 15			
	M6-3 (↑)	UP ARROW	30 x 15			
8	M4-8	DETOUR	30 x 15	1-4 x 6	2	
	G27-2	280	42 x 36			
	M3-3	NORTH	30 x 15			
	M6-2 (↗)	UP RIGHT ARROW	30 x 15			
9	W20-3	RAMP CLOSED AHEAD	48 x 48	1-4 x 6	1	
	G28-2	92	35 x 31			
	M3-2	EAST	30 x 15			
10	M4-8	DETOUR	30 x 15	1-4 x 6	1	
	G28-2	92	35 x 31			
	M3-2	EAST	30 x 15			
	M6-3 (↑)	UP ARROW	30 x 15			
11	M4-8	DETOUR	30 x 15	1-4 x 6	1	
	G28-2	92	35 x 31			
	M3-2	EAST	30 x 15			
	M6-2 (↗)	UP RIGHT ARROW	30 x 15			
12	M4-8	DETOUR	30 x 15	1-4 x 6	1	
	G28-2	92	35 x 31			
	M3-2	EAST	30 x 15			
	M6-1 (←)	LEFT ARROW	30 x 15			
13	W20-3	RAMP CLOSED AHEAD	48 x 48	1-4 x 6	1	
	G27-2	280	42 x 36			
14	M4-8	DETOUR	30 x 15	1-4 x 6	1	
	G27-2	280	42 x 36			
	M6-2 (↗)	UP RIGHT ARROW	30 x 15			
15	M4-8	DETOUR	30 x 15	1-4 x 6	1	
	G27-2	280	42 x 36			
	M6-1 (→)	RIGHT ARROW	30 x 15			
16	W20-3	RAMP CLOSED AHEAD	48 x 48	1-4 x 6	21	
	G28-2	92	24 x 25			
	M3-4	WEST	21 x 9			
17	M4-8	DETOUR	21 x 9	1-4 x 6	26	
	G28-2	92	24 x 25			
	M3-4	WEST	21 x 9			
	M6-3 (↑)	UP ARROW	21 x 15			
18	M4-8	DETOUR	21 x 9	1-4 x 6	11	
	G28-2	92	24 x 25			
	M3-4	WEST	21 x 9			
	M6-1 (→)	RIGHT ARROW	21 x 15			
19	M4-8	DETOUR	21 x 9	1-4 x 6	13	
	G28-2	92	24 x 25			
	M3-4	WEST	21 x 9			
	M6-1 (←)	LEFT ARROW	21 x 15			

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	CODE	MESSAGE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS	REMARKS
			INCHES	EA-INCHES	EA	
20	M4-8	DETOUR	30 x 15	1-4 x 6	3	
	G28-2	92	35 x 31			
	M3-4	WEST	30 x 15			
	M6-2 (↗)	UP RIGHT ARROW	30 x 15			
21	W20-3	RAMP CLOSED AHEAD	48 x 48	1-4 x 6	13	
	G28-2	92	24 x 25			
	M3-3	EAST	21 x 9			
22	M4-8	DETOUR	21 x 9	1-4 x 6	43	
	G28-2	92	24 x 25			
	M3-3	EAST	21 x 9			
	M6-2 (↑)	UP ARROW	21 x 15			
23	M4-8	DETOUR	21 x 9	1-4 x 6	14	
	G28-2	92	30 x 15			
	M3-3	EAST	42 x 36			
	M6-1 (→)	RIGHT ARROW	30 x 15			
24	M4-8	DETOUR	21 x 9	1-4 x 6	18	
	G28-2	92	24 x 25			
	M3-3	EAST	21 x 9			
	M6-1 (←)	LEFT ARROW	21 x 30			
25	M4-8	DETOUR	30 x 15	1-4 x 6	3	
	G28-2	92	35 x 31			
	M3-2	EAST	30 x 15			
	M6-2 (↗)	UP RIGHT ARROW	30 x 15			
26	W20-3	RAMP CLOSED AHEAD	48 x 48	1-4 x 6	2	
	G28-2	82	24 x 25			
	M3-3	SOUTH	21 x 9			
27	M4-8	DETOUR	30 x 15	1-4 x 6	2	
	G28-2	82	35 x 31			
	M3-3	SOUTH	30 x 15			
	M6-3 (↑)	UP ARROW	30 x 15			
28	M4-8	DETOUR	30 x 15	1-4 x 6	5	
	G28-2	82	35 x 31			
	M3-3	SOUTH	30 x 15			
	M6-2 (↗)	UP RIGHT ARROW	30 x 15			
29	M4-8	DETOUR	21 x 9	1-4 x 6	2	
	G28-2	82	24 x 25			
	M3-3	SOUTH	21 x 9			
	M6-1 (←)	LEFT ARROW	21 x 15			
30	M4-8a	END DETOUR	30 x 18	1-4 x 4	28	
A	SC6-4 (CA)	RAMP CLOSED AHEAD (DATES,TIME)	60 x 36	2-4 x 4	26	

NOTES:

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. ALL SIGN CODES ARE AS PER FEDERAL DESIGNATION UNLESS APPENDED BY (CA) FOR CALIFORNIA DESIGNATION.

FOR NOTES AND LEGEND, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

CS-12

REVISED BY | DATE REVISED
HERMINIO RUIDERA | JERILYN L. STRUVEN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: JERILYN L. STRUVEN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC

LAST REVISION | DATE PLOTTED => 04-NOV-2009
10-27-09 | TIME PLOTTED => 15:43

BORDER LAST REVISED 4/11/2008

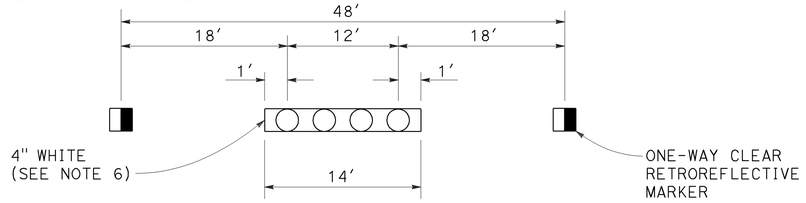
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e7201a012.dgn

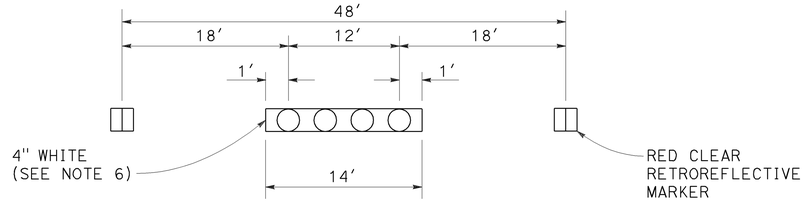
CU 04609

EA 1E7201

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



DETAIL 13M



DETAIL 14M

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	17	35

A. Beshair 11-2-09
REGISTERED CIVIL ENGINEER DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Abdel Rahman M. Beshair
No. 66856
Exp 9-30-10
CIVIL
STATE OF CALIFORNIA

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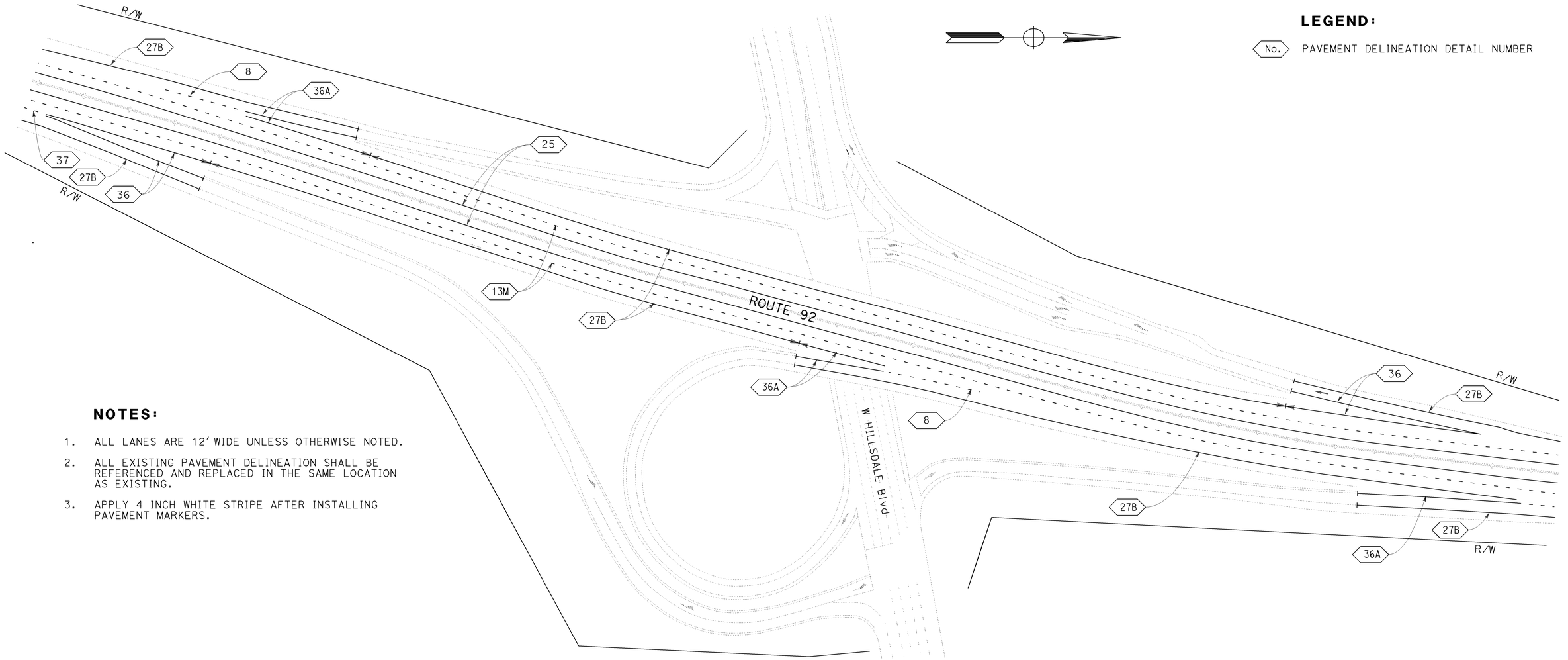

LEGEND:

(No.) PAVEMENT DELINEATION DETAIL NUMBER

NOTES:

1. ALL LANES ARE 12' WIDE UNLESS OTHERWISE NOTED.
2. ALL EXISTING PAVEMENT DELINEATION SHALL BE REFERENCED AND REPLACED IN THE SAME LOCATION AS EXISTING.
3. APPLY 4 INCH WHITE STRIPE AFTER INSTALLING PAVEMENT MARKERS.

PAVEMENT DELINEATION PLAN
(TYPICAL)
NO SCALE

THIS PLAN ACCURATE FOR
PAVEMENT DELINEATION WORK ONLY

PD-1

REVISED BY	A
DATE REVISED	A
ABDELRAHMAN BESHAIR	
MUSTAQUR RAHMAN	
CALCULATED-DESIGNED BY	
CHECKED BY	
FUNCTIONAL SUPERVISOR	RONNIE CHUA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN

LAST REVISION DATE PLOTTED => 04-NOV-2009
10-12-09 TIME PLOTTED => 15:43

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720na001.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	18	35

REGISTERED CIVIL ENGINEER — DATE 11-2-09

Abdel Rahman M. Beshair, No. 66856, Exp 9-30-10, CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
PLANS APPROVAL DATE

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

PAVEMENT DELINEATION QUANTITIES (MAINLINE)

DIRECTION	LOCATION (PM) FROM	LOCATION (PM) TO	DETAIL No. OR PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE 4" WHITE	4" YELLOW	4" WHITE (BROKEN 34 - 14)	4" WHITE (BROKEN 17 - 7)	8" WHITE	8" WHITE (BROKEN 12 - 3)	PAVEMENT MARKER NON-REFLECTIVE TYPE A	PAVEMENT MARKER RETRO-REFLECTIVE TYPE G	PAVEMENT MARKER RETRO-REFLECTIVE TYPE H	THERMOPLASTIC PAVEMENT MARKING WHITE	REMOVE PAVEMENT MARKER
				LF						EA			SQFT	EA
EB	7.30	7.50	13M			1056				88	23			111
EB	7.35	7.619	27B	1420										
EB	7.30	10.172	25		15164							317		317
EB	7.40	7.559	SHOULDER MARKING										228	
EB	7.50		4-TYPE VI ARROW(R)										168	
WB	7.30	7.582	27B	1489										
WB	7.30	9.541	13M			11832				986	248			1234
WB	7.30	9.541	25		11832							248		248
WB	7.582	7.651	36					364			16			16
EB	7.617	7.858	27B	1272										
EB	7.617	7.858	37						1272		87			87
EB	7.617	10.171	13M			13485				1124	282			1406
WB	7.651	7.705	38B					285			13			13
WB	7.651	7.939	27B	1521										
WB	7.705	7.898	37						1019		70			70
EB	7.858	7.906	36					253			12			12
EB	7.898	8.208	27B	1637										
WB	7.898	8.126	27B	1204										
WB	8.126	8.175	36					259			12			12
WB	8.175	8.382	27B	1093										
WB	8.175	8.382	37						1093		75			75
EB	8.208	8.426	27B	1151										
EB	8.208	8.426	37						1151		79			79
EB	8.426	8.472	36					250			11			11
WB	8.382	8.830	27B	2365										
EB	8.472	8.959	27B	2571										
WB	8.830	8.876	36					252			12			12
WB	8.876	9.236	27B	1901										
EB	8.959	9.197	27B	1257										
EB	8.959	9.197	37B						1257		86			86
EB	9.197	9.235	36					201			9			9
EB	9.235	9.401	27B	876										
WB	9.236	9.495	27B	1368										
EB	9.401	9.553	27B	803										
WB	9.495	9.541	36					243			11			11
EB	9.553	10.171	27B	3263										
EB	9.553	9.595	8				222							
EB	10.398	10.443	36					238			11			11
EB	10.398	11.096	13M			3685				307	78			385
EB	10.398	11.096	25		3685							78		78
EB	10.443	10.738	27B	1558										
EB	10.738	10.768	8				158							
WB	10.551	10.731	27B	950										
WB	10.731	10.768	36					250						
WB	10.551	11.779	13M			6484				540	136			676
WB	10.551	11.779	25		6484							136		136
WB	10.731	10.768	36					195			9			9
WB	10.768	11.037	27B	1420										
WB	11.012	11.037	8				132							
SUBTOTAL				29119	37166	36543	512	2790	5792	3045	1278	778	396	5102

PAVEMENT DELINEATION QUANTITIES

PDQ-1

REVISED BY	ABDELRAHMAN BESHAIR	CALCULATED-DESIGNED BY	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans
DATE REVISED	MUSTAQUR RAHMAN	CHECKED BY		DESIGN
A	RONNIE CHUA	FUNCTIONAL SUPERVISOR		
A				

LAST REVISION 10-12-09 | DATE PLOTTED => 04-NOV-2009 | TIME PLOTTED => 15:43

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	19	35

A. Beshair 11-2-09
REGISTERED CIVIL ENGINEER DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Abdel Rahman M. Beshair — No. 66856 — Exp 9-30-10 — 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 (MAINLINE)

DIRECTION	LOCATION (PM) FROM	LOCATION (PM) TO	DETAIL No. OR PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE 4" WHITE	4" YELLOW	4" WHITE (BROKEN 34 - 14)	4" WHITE (BROKEN 17 - 7)	8" WHITE	8" WHITE (BROKEN 12 - 3)	PAVEMENT MARKER NON-REFLECTIVE TYPE A	PAVEMENT MARKER RETRO-REFLECTIVE TYPE G	PAVEMENT MARKER RETRO-REFLECTIVE TYPE H	THERMOPLASTIC PAVEMENT MARKING WHITE	REMOVE PAVEMENT MARKER
				LF						EA			SQFT	EA
EB	10.769	11.029	27B	1373										
EB	11.029	11.069	36					250			11			11
WB	11.037	11.161	27B	665										
EB	11.069	11.096	27B	143										
WB	11.161	11.177	36					84			5			5
WB	11.177	11.227	27B	264										
WB	11.177	11.227	37B						264		20			20
WB	11.227	11.314	27B	459										
WB	11.314	11.356	36					222			10			10
EB	11.315	11.367	27B	275										
EB	11.315	11.779	13M			2450				204	52			256
EB	11.315	11.779	25		2450							52		52
WB	11.356	11.378	38					116			6			6
WB	11.356	11.453	27B	512										
WB	11.378	11.453	37B						396					
EB	11.367	11.440	27B	385										
EB	11.367	11.440	37B						385		28			28
EB	11.440	11.472	36					169			8			8
EB	11.472	11.779	27B	1621										
WB	11.453	11.604	27B	797										
WB	11.604	11.641	36					195			9			9
WB	11.641	11.779	27B	729										
WB	11.641	11.779	37B						729		51			51
WB	12.595	12.756	27B	850										
WB	12.595	12.756	37B						850		59			59
WB	12.595	13.830	13M			13042				1087	274			1361
WB	12.595	13.830	25		6521							137		137
EB	12.608	12.750	27B	750										
EB	12.608	13.830	13M			12904				1075	271			1346
EB	12.608	13.830	25		6452							135		135
EB	12.750	13.803	36					280			13			13
EB	12.803	12.996	27B	1019										
WB	12.756	12.961	27B	1082										
WB	12.961	13.012	36					269			12			12
EB	12.996	13.324	37B						1732		117			117
EB	12.996	13.402	27B	2144										
WB	13.012	13.080	38					359			16			16
WB	13.012	13.370	27B	1890										
WB	13.080	13.370	37B						1531		104			104
EB	13.324	13.402	38					412			18			18
EB	13.402	13.461	36					312			14			14
WB	13.370	13.634	27B	1394										
EB	13.461	13.665	27B	1077										
WB	13.634	13.684	36					264			12			12
EB	13.665	13.830	27B	871										
EB	13.665	13.830	37B						871		60			60
WB	13.684	13.740	38					296			13			13
WB	13.684	13.830	27B	771										
WB	13.740	13.830	37B						475		34			34
SUBTOTAL				19061	15423	28396		3228	7234	2366	1216	324		3907

PAVEMENT DELINEATION QUANTITIES

PDQ-2

LAST REVISION 10-12-09 | DATE PLOTTED => 04-NOV-2009 | TIME PLOTTED => 15:43

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

FUNCTIONAL SUPERVISOR: RONNIE CHUA

CALCULATED-DESIGNED BY: ABDELRAHMAN BESHAIR

CHECKED BY: MUSTAQUR RAHMAN

REVISED BY | DATE REVISED: A | A

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720nc002.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	20	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Abdel Rahman M. Beshair — No. 66856 — Exp 9-30-10 — 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 (RAMPS)

DIRECTION	LOCATION OF RAMP		DETAIL No. OR PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE						PAVEMENT MARKER			THERMOPLASTIC PAVEMENT MARKING	REMOVE PAVEMENT MARKER
				4"	4"	4"	4"	8"	8"	NON-REFLECTIVE	RETRO-REFLECTIVE			
	PM	DESCRIPTION		WHITE	YELLOW	WHITE (BROKEN 34 - 14)	WHITE (BROKEN 17 - 7)	WHITE	WHITE (BROKEN 12 - 3)	TYPE A	TYPE G	TYPE H	WHITE	
				LF						EA			SQFT	EA
EB	7.222	EB OFF-RAMP TO SB ROUTE 280	27B	188										
			36					188			9			9
EB	7.361	EB OFF-RAMP TO NB ROUTE 280	27B	298										
			36					298			13			13
EB	7.551	EB ON-RAMP FROM SB/NB ROUTE 280	27B	403										
			36A					403			18			18
			MARKING										320	
WB	7.584	WB OFF-RAMP TO SB/NB ROUTE 280	27B	555										
			36					385			17			17
EB	7.904	EB OFF-RAMP TO POLHEMUS & RALSTON Ave	27B	265										
			36					265			12			12
WB	7.941	WB ON-RAMP FROM POLHEMUS & RALSTON Ave	27B	250										
			36A					250			11			11
WB	8.131	WB OFF-RAMP TO POLHEMUS & RALSTON Ave	27B	252										
			36					252			12			12
EB	8.134	EB ON-RAMP FROM POLHEMUS & RALSTON Ave	27B	407										
			36A					407			18			18
WB	8.421	WB ON-RAMP FROM DE ANZA Blvd	27B	300										
			36A					300			14			14
EB	8.454	EB OFF-RAMP TO DE ANZA Blvd	27B	250										
			36					250			11			11
WB	8.831	WB OFF-RAMP TO DE ANZA Blvd	27B	255										
			36					255			12			12
EB	8.854	EB ON-RAMP FROM DE ANZA Blvd	27B	378										
			36					378			17			17
EB	9.244	EB OFF-RAMP TO HILLSDALE Blvd	27B	210										
			36					210			10			10
WB	9.271	WB ON-RAMP FROM HILLSDALE Blvd	27B	165										
			36A					165			8			8
EB	9.374	EB ON-RAMP FROM EB HILLSDALE Blvd	27B	130										
			36A					130			6			6
WB	9.491	WB OFF-RAMP TO HILLSDALE Blvd	27B	235										
			36					235			11			11
EB	9.534	EB ON-RAMP FROM WB HILLSDALE Blvd	27B	115										
			36					115			6			6
EB	10.434	EB OFF-RAMP TO DE LAS PULGAS	27B	240										
			36					240			11			11
EB	10.694	EB ON-RAMP FROM DE LAS PULGAS	27B	130										
			36					130			6			6
SUBTOTAL				5026				4856			221		320	221

REVISED BY | DATE REVISED
A | A

ABDELRAHMAN BESHAIR | MUSTAQUR RAHMAN

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: RONNIE CHUA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

Caltrans

PAVEMENT DELINEATION QUANTITIES

PDQ-3

LAST REVISION | DATE PLOTTED => 04-NOV-2009
10-12-09 | TIME PLOTTED => 15:44

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720nc003.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	21	35

REGISTERED CIVIL ENGINEER — DATE 11-2-09

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Abdel Rahman M. Beshair — No. 66856 — Exp 9-30-10 — CIVIL — STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES (RAMPS)

DIRECTION	LOCATION OF RAMP		DETAIL No. OR PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE						PAVEMENT MARKER			THERMOPLASTIC PAVEMENT MARKING	REMOVE PAVEMENT MARKER
				4"	4"	4"	4"	8"	8"	NON-REFLECTIVE	RETRO-REFLECTIVE			
	PM	DESCRIPTION		WHITE	YELLOW	WHITE (BROKEN 34 - 14)	WHITE (BROKEN 17 - 7)	WHITE	WHITE (BROKEN 12 - 3)	TYPE A	TYPE G	TYPE H	WHITE	
				LF						EA			SQFT	EA
WB	10.701	WB OFF-RAMP TO DE LAS PULGAS	27B	250										
			36					250			11			11
WB	11.061	WB ON-RAMP FROM SB ROUTE 82	27B	220										
			36A					220			10			10
EB	11.074	EB OFF-RAMP TO SB ROUTE 82	27B	208										
			36					208			10			10
WB	11.171	WB OFF-RAMP TO SB ROUTE 82	36					60			4			4
			27B	60										
WB	11.251	WB ON-RAMP FROM NB ROUTE 82	36					95			5			5
			27B	95										
EB	11.264	EB OFF-RAMP TO NB ROUTE 82	36					75			4			4
			27B	75										
WB	11.321	WB OFF-RAMP TO NB ROUTE 82	36B					240			11			11
			27B	240										
EB	11.334	EB ON-RAMP FROM NB ROUTE 82	27B	220										
			36A					220			10			10
EB	11.464	EB OFF-RAMP TO S DELAWARE St	27B	165										
			36					165			8			8
WB	11.471	WB ON-RAMP FROM S DELAWARE St	27B	200										
			36A					200			9			9
WB	11.591	WB OFF-RAMP TO S DELAWARE St	27B	200										
			36					200			9			9
EB	11.742	EB ON-RAMP FROM S DELAWARE St	27B	170										
			36A					170			8			8
EB	12.801	EB OFF-RAMP TO MARINERS Blvd	27B	332										
			36					332			15			15
WB	12.822	WB ON-RAMP FROM W CAPE Dr	27B	300										
			36A					300			14			14
EB	12.950	EB ON-RAMP FROM MARINERS Blvd	27B	290										
			36A					290			13			13
WB	12.960	WB OFF-RAMP TO W CAPE Dr	27B	280										
			36					280			13			13
WB	13.411	WB ON-RAMP FROM FOSTER CITY Blvd	27B	295										
			36A					295			13			13
EB	13.454	EB OFF-RAMP TO FOSTER CITY Blvd	27B	309										
			13M			309				30				30
			36					309			14			14
WB	13.631	WB OFF-RAMP TO FOSTER CITY Blvd	27B	270										
			36					270			12			12
EB	13.634	EB ON-RAMP FROM FOSTER CITY Blvd	27B	230										
			36A					230			11			11
SUBTOTAL				4409		309		4409		30	204			234
SUB TOTAL SHEET PDQ-1				29119	37166	36543	512	2790	5792	3045	1278	778	396	5102
SUB TOTAL SHEET PDQ-2				19061	15423	28396		3228	7234	2366	1216	324		3907
SUB TOTAL SHEET PDQ-3				5026				4856			221		320	221
SUBTOTAL				57615	52589	65248	512	15283	13026	5441	2919	1102	716	9463
TOTAL				175964				15283	13026	5441	4021		716	9463

PAVEMENT DELINEATION QUANTITIES

PDQ-4

REVISED BY: A — DATE REVISED: A
CALCULATED-DESIGNED BY: ABDELRAHMAN BESHAIR — CHECKED BY: MUSTAQUR RAHMAN
FUNCTIONAL SUPERVISOR: RONNIE CHUA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN — Caltrans

LAST REVISION — DATE PLOTTED => 04-NOV-2009 — TIME PLOTTED => 15:44 — 10-12-09

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720nc004.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	22	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Abdel Rahman M. Beshair — No. 66856 — Exp 9-30-10 — CIVIL — STATE OF CALIFORNIA

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ROADWAY QUANTITIES MAINLINE

PM FROM	PM TO	DIRECTION	LANE No.	COLD PLANE AC PAVEMENT 0.10' Max	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT
				SQYD	TON	
7.30	10.17	EB	1 & 2	40424	2728.60	17.20
7.62	7.86		Aux LANE	1683	113.57	0.72
8.21	8.43		Aux LANE	1535	103.59	0.65
8.96	9.20		Aux LANE	1676	113.10	0.71
10.40	11.10		1 & 2	9828	663.38	4.18
11.32	11.38		1 & 2	887	59.88	0.38
11.44	11.78		1 & 2	4773	322.19	2.03
12.61	13.83		1, 2 & 3	25830	1743.51	10.99
13.00	13.40		Aux LANE	2858	192.93	1.22
13.67	13.83		Aux LANE	1162	78.41	0.49
7.30	9.54	WB	1 & 2	31553	2129.85	13.43
7.71	7.90		Aux LANE	1359	91.71	0.58
8.18	8.38		Aux LANE	1457	98.37	0.62
10.55	11.19		1 & 2	9053	611.11	3.85
11.23	11.38		1 & 2	2084	140.66	0.89
11.44	11.78		1 & 2	4773	322.19	2.03
12.60	13.83		1, 2 & 3	26083	1760.62	11.10
11.64	11.78		Aux LANE	972	65.58	0.41
12.60	12.76		Aux LANE	1126	76.03	0.48
13.01	13.37		Aux LANE	2520	170.12	1.07
13.67	13.83		Aux LANE	1162	78.41	0.49
SUBTOTAL				172798	11663.81	73.53

ROADWAY QUANTITIES SHOULDER

PM FROM	PM TO	DIRECTION	SHOULDER	COLD PLANE AC PAVEMENT 0.10' Max	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT
				SQYD	TON	
7.30	10.17	EB	INSIDE SHOULDER	25265	1705.37	10.75
			OUTSIDE SHOULDER	18528	1250.61	7.88
10.40	11.10		INSIDE SHOULDER	4095	276.41	1.74
			OUTSIDE SHOULDER	4095	276.41	1.74
11.32	11.38		INSIDE SHOULDER	370	24.95	0.16
			OUTSIDE SHOULDER	370	24.95	0.16
11.44	11.78		INSIDE SHOULDER	1989	134.24	0.85
			OUTSIDE SHOULDER	1989	134.24	0.85
12.61	13.83		INSIDE SHOULDER	7175	484.31	3.05
			OUTSIDE SHOULDER	7175	484.31	3.05
7.30	9.54	WB	INSIDE SHOULDER	13147	887.44	5.59
			OUTSIDE SHOULDER	13147	887.44	5.59
10.55	11.19		INSIDE SHOULDER	3772	254.63	1.61
			OUTSIDE SHOULDER	3772	254.63	1.61
11.23	11.38		INSIDE SHOULDER	868	58.61	0.37
			OUTSIDE SHOULDER	868	58.61	0.37
11.44	11.78		INSIDE SHOULDER	1989	134.24	0.85
			OUTSIDE SHOULDER	1989	134.24	0.85
12.60	13.83		INSIDE SHOULDER	7245	489.06	3.08
			OUTSIDE SHOULDER	7245	489.06	3.08
SUBTOTAL				125093	8443.76	53.23

ROADWAY QUANTITIES MAINLINE
COLD PLANE AC PAVEMENT (0.40' Max)

PM FROM	PM TO	DIRECTION	LANE No.	COLD PLANE AC PAVEMENT (0.40' Max) LENGTH	WIDTH	AREA	HOT MIX ASPHALT (TYPE A)	TACK COAT
				LF(N)		SQYD	TON	
7.30	10.17	EB	1	150	12	200	10.75	0.17
			2	100	6	67	18.00	0.06
			1, 2, Aux & Shld	30	44	147	39.60	0.12
			1, 2, Aux & Shld	30	44	147	39.60	0.12
			2	25	6	17	4.50	0.01
			2	10	4	4	1.20	0.00
			2	10	3	3	0.90	0.00
			2	20	4	9	2.40	0.01
			2	10	4	4	1.20	0.00
			2	25	12	33	9.00	0.03
			1 & 2	30	6	20	5.40	0.02
10.40	11.10		2	50	12	67	18.00	0.06
			2	110	12	147	39.60	0.12
			2	25	12	33	9.00	0.03
11.32	11.38		2	55	6	37	9.90	0.03
11.44	11.78		2	25	12	33	9.00	0.03
			1 & 2	30	24	80	21.60	0.07
			1 & 2	35	24	93	25.20	0.08
			2	20	12	27	7.20	0.02
13.80	13.83		1 & 2	40	24	107	28.80	0.09
7.30	9.54	WB	2	200	12	267	72.00	0.23
			2	35	12	47	12.60	0.04
			2	100	6	67	18.00	0.06
			2	55	12	73	19.80	0.06
			2	25	12	33	9.00	0.03
			2	20	12	27	7.20	0.02
			2	15	12	20	5.40	0.02
			2	10	12	13	3.60	0.01
			2	35	12	47	12.60	0.04
			2	30	12	40	10.80	0.03
			2	15	6	10	2.70	0.01
			2	25	24	67	18.00	0.06
10.55	11.19		2	15	6	10	2.70	0.01
			2	65	4	29	7.80	0.02
11.23	11.38		2	65	6	43	11.70	0.04
11.44	11.78		1 & 2	65	12	87	23.40	0.07
			1 & 2	30	24	80	21.60	0.07
SUBTOTAL						2233	603.00	1.90

SUMMARY OF QUANTITIES

Q-1

LAST REVISION DATE PLOTTED => 04-NOV-2009
10-13-09 TIME PLOTTED => 15:44

A	A	
REVISED BY	DATE REVISED	
ABDELRAHMAN BESHAIR	MUSTAQUR RAHMAN	
CALCULATED-DESIGNED BY	CHECKED BY	
FUNCTIONAL SUPERVISOR	RONNIE CHUA	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	
Caltrans		

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720pa001.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	23	35

REGISTERED CIVIL ENGINEER — 11-2-09 DATE

Abdel Rahman M. Beshair No. 66856 Exp 9-30-10 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

11-2-09
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.

ROADWAY QUANTITIES RAMP

PM	NAME OF RAMP	LOCATION	COLD PLANE AC PAVEMENT 0.10' Max	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT
			SQYD	TON	
7.361	EB OFF-RAMP TO NB ROUTE 280	GORE & ADJACENT RAMP	911	61.49	0.39
7.551	EB ON-RAMP FROM SB/NB ROUTE 280	GORE & ADJACENT RAMP	2262	152.66	0.96
7.584	WB OFF-RAMP TO SB/NB ROUTE 280	GORE & ADJACENT RAMP	2332	157.43	0.99
7.904	EB OFF-RAMP TO POLHEMUS & RALSTON Ave	GORE & ADJACENT RAMP	688	46.46	0.29
7.941	WB ON-RAMP FROM POLHEMUS & RALSTON Ave	GORE & ADJACENT RAMP	872	58.88	0.37
8.131	WB OFF-RAMP TO POLHEMUS & RALSTON Ave	GORE & ADJACENT RAMP	611	41.22	0.26
8.134	EB ON-RAMP FROM POLHEMUS & RALSTON Ave	GORE & ADJACENT RAMP	962	64.91	0.41
8.421	WB ON-RAMP FROM DE ANZA Blvd	GORE & ADJACENT RAMP	439	29.64	0.19
8.454	EB OFF-RAMP TO DE ANZA Blvd	GORE & ADJACENT RAMP	689	46.54	0.29
8.831	WB OFF-RAMP TO DE ANZA Blvd	GORE & ADJACENT RAMP	836	56.40	0.36
8.854	EB ON-RAMP FROM DE ANZA Blvd	GORE & ADJACENT RAMP	900	60.77	0.38
9.244	EB OFF-RAMP TO HILLSDALE Blvd	GORE & ADJACENT RAMP	575	38.84	0.24
9.271	WB ON-RAMP FROM HILLSDALE Blvd	GORE & ADJACENT RAMP	439	29.64	0.19
9.374	EB ON-RAMP FROM EB HILLSDALE Blvd	GORE & ADJACENT RAMP	337	22.74	0.14
9.491	WB OFF-RAMP TO HILLSDALE Blvd	GORE & ADJACENT RAMP	634	42.80	0.27
9.534	EB ON-RAMP FROM WB HILLSDALE Blvd	GORE & ADJACENT RAMP	303	20.48	0.13
10.434	EB OFF-RAMP TO DE LAS PULGAS	GORE & ADJACENT RAMP	610	41.19	0.26
10.461	WB ON-RAMP FROM DE LAS PULGAS	GORE & ADJACENT RAMP	336	22.67	0.14
10.694	EB ON-RAMP FROM DE LAS PULGAS	GORE & ADJACENT RAMP	1162	78.43	0.49
10.701	WB OFF-RAMP TO DE LAS PULGAS	GORE & ADJACENT RAMP	566	38.18	0.24
11.061	WB ON-RAMP FROM SB ROUTE 82	GORE & ADJACENT RAMP	983	66.37	0.42
11.074	EB OFF-RAMP TO SB ROUTE 82	GORE & ADJACENT RAMP	613	41.36	0.26
11.171	WB OFF-RAMP TO SB ROUTE 82	GORE & ADJACENT RAMP	266	17.96	0.11
11.321	WB OFF-RAMP TO NB ROUTE 82	GORE & ADJACENT RAMP	608	41.07	0.26
11.334	WB ON-RAMP FROM NB ROUTE 82	GORE & ADJACENT RAMP	583	39.32	0.25
11.464	EB OFF-RAMP TO S DELAWARE St	GORE & ADJACENT RAMP	489	33.04	0.21
11.471	WB ON-RAMP FROM S DELAWARE St	GORE & ADJACENT RAMP	536	36.18	0.23
11.591	WB OFF-RAMP TO S DELAWARE St	GORE & ADJACENT RAMP	79	5.36	0.03
11.742	EB ON-RAMP FROM S DELAWARE St	GORE & ADJACENT RAMP	494	33.32	0.21
12.801	EB OFF-RAMP TO MARINERS Blvd	GORE & ADJACENT RAMP	1437	97.03	0.61
12.822	WB ON-RAMP FROM W CAPE Dr	GORE & ADJACENT RAMP	1229	82.93	0.52
12.950	EB ON-RAMP FROM MARINERS Blvd	GORE & ADJACENT RAMP	958	64.64	0.41
12.960	WB OFF-RAMP TO W CAPE Dr	GORE & ADJACENT RAMP	817	55.16	0.35
13.411	WB ON-RAMP FROM FOSTER CITY Blvd	GORE & ADJACENT RAMP	491	33.17	0.21
13.454	EB OFF-RAMP TO FOSTER CITY Blvd	GORE & ADJACENT RAMP	1422	96.00	0.61
13.631	WB OFF-RAMP TO FOSTER CITY Blvd	GORE & ADJACENT RAMP	645	43.55	0.27
13.634	EB ON-RAMP FROM FOSTER CITY Blvd	GORE & ADJACENT RAMP	759	51.22	0.32
SUBTOTAL			28875	1949.03	12.29

SUMMARY OF ROADWAY QUANTITIES

SHEET	COLD PLANE AC PAVEMENT 0.10' Max	COLD PLANE AC PAVEMENT 0.40' Max	HOT MIX ASPHALT (TYPE A)	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT
	SQYD		TON		
SUBTOTAL SHEET Q-1 MAINLINE	172798			11663.81	73.53
SUBTOTAL SHEET Q-1 MAINLINE (COLD PLANE & HMA)		2233	603.00		12.00
SUBTOTAL SHEET Q-1 (SHOULDER)	125093			8443.76	53.23
SUBTOTAL SHEET Q-2 RAMP	28875			1949.03	12.29
TOTAL	328999		603.00	22056.60	140.95

SUMMARY OF QUANTITIES

Q-2

CALCULATED-DESIGNED BY: ABDELRAHMAN BESHAIR
CHECKED BY: MUSTAQUR RAHMAN
FUNCTIONAL SUPERVISOR: RONNIE CHUA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

REVISED BY	DATE REVISED
A	A

LAST REVISION: DATE PLOTTED => 04-NOV-2009; TIME PLOTTED => 15:44
10-13-09

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720pa002.dgn

CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	24	35

Kenneth Y. Xu 11-2-09
REGISTERED ELECTRICAL ENGINEER DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Kenneth Y. Xu
No. 15219
Exp 6-30-10
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.

ELECTRICAL INDEX

E-1	ELECTRICAL NOTES, INDEX AND LEGEND
E-2 AND E-3	MODIFY INDUCTIVE LOOP DETECTOR
E-4	ELECTRICAL DETAILS

GENERAL NOTES:

1. NO ABOVE GROUND ELECTRICAL WORK SHALL BE PERFORMED ON ANY SYSTEM WITHIN THE PROJECT SITE UNTIL ALL CONTRACTOR-FURNISHED ELECTRICAL MATERIALS FOR THAT INDIVIDUAL SYSTEM HAVE BEEN TESTED AND DELIVERED TO CONTRACTOR.
2. ABANDON EXISTING LOOPS IN PLACE WHEN CUTTING NEW REPLACEMENT LOOPS. SPLICE NEW DETECTOR CONDUCTORS TO CORRESPONDING dlc IN TERMINATION PULL BOX. VERIFY IDENTIFICATION OF dlc BEFORE CONNECTING TO THE CORRESPONDING LOOP DETECTORS.
3. WHERE ONE OR MORE TRAFFIC SIGNAL DETECTOR(S) CONSIST OF A SEQUENCE OF 4 LOOPS IN A SINGLE LANE, THE FRONT LOOP CLOSEST TO THE LIMIT LINE OR CROSSWALK SHALL BE LOCATED 1 FOOT FROM THE LINE. THE SET OF 3 LOOPS OR 4 LOOPS ASSIGNED TO THE SAME LOOP DETECTOR LEAD-IN CABLE (DLC) SHALL BE CONNECTED IN SERIES FOR TRAFFIC SIGNAL SYSTEM ONLY AND NOT FOR RAMP METERING SYSTEM.
4. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE LOOP DETECTOR TO BE REPLACED PRIOR TO REPAVING.
5. ALL LOOP DETECTOR AT EACH LOCATION SHALL BE REPLACED AND TESTED WITHIN THE TIME ALLOTTED FOR TRAFFIC SIGNAL SYSTEM SHUTDOWN AT THAT LOCATION.
6. THE CONTRACTOR SHALL PROVIDE TWO REPORTS PER LOCATION ON THE STATUS OF EACH DETECTOR LOOP REPLACEMENT SHOWING CONTINUITY AND INSULATION RESISTANCE READINGS. THE REPORTS SHALL BE SUBMITTED TO THE ENGINEER, ONE BEFORE STARTING WORK AND THE OTHER AFTER WORK HAS BEEN COMPLETED AT EACH LOCATION.
7. INSTALL LOCKING GRADE RING FOR EXISTING DETECTOR HANDHOLE AS NEEDED.

PROJECT NOTE

[1] PULL BOX REPLACEMENT SHALL BE AT THE EXACT LOCATION OF THE EXISTING DETECTOR TERMINATION PULL BOX.

ELECTRICAL LEGEND

SIG	SIGNALS
DIAG	DIAGONAL

ELECTRICAL INDEX, LEGEND AND NOTES

NO SCALE

THIS SHEET IS ACCURATE FOR ELECTRICAL WORK ONLY

E-1

REVISED BY | DATE REVISED
DORIS YANG | KENNETH Y. XU
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: KENNETH Y. XU
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
ELECTRICAL

LAST REVISION | DATE PLOTTED => 04-NOV-2009
10-13-09 | TIME PLOTTED => 15:45

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s120183 | DGN FILE => 41e720ua001.dgn | CU 04609 | EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	25	35

Kenneth Y. Xu 11-2-09
REGISTERED ELECTRICAL ENGINEER DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Kenneth Y. Xu — No. 15219 — Exp 6-30-10 — ELECTRICAL — STATE OF CALIFORNIA

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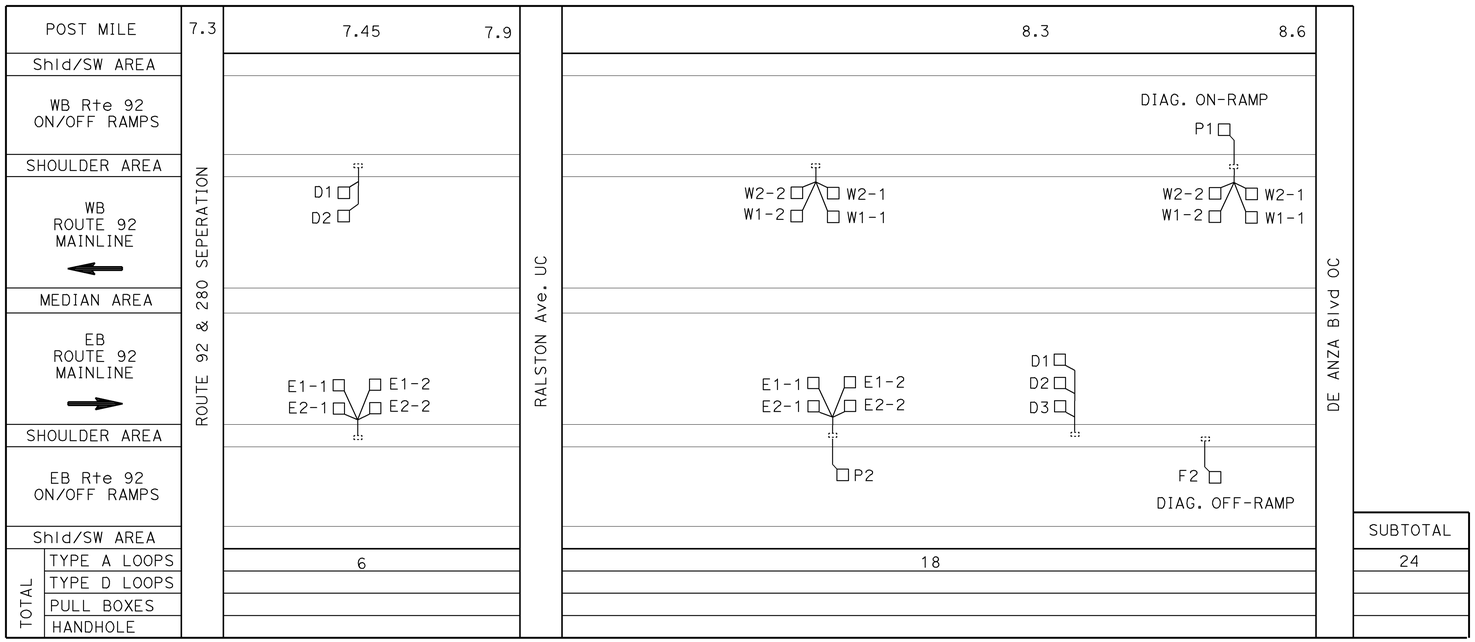

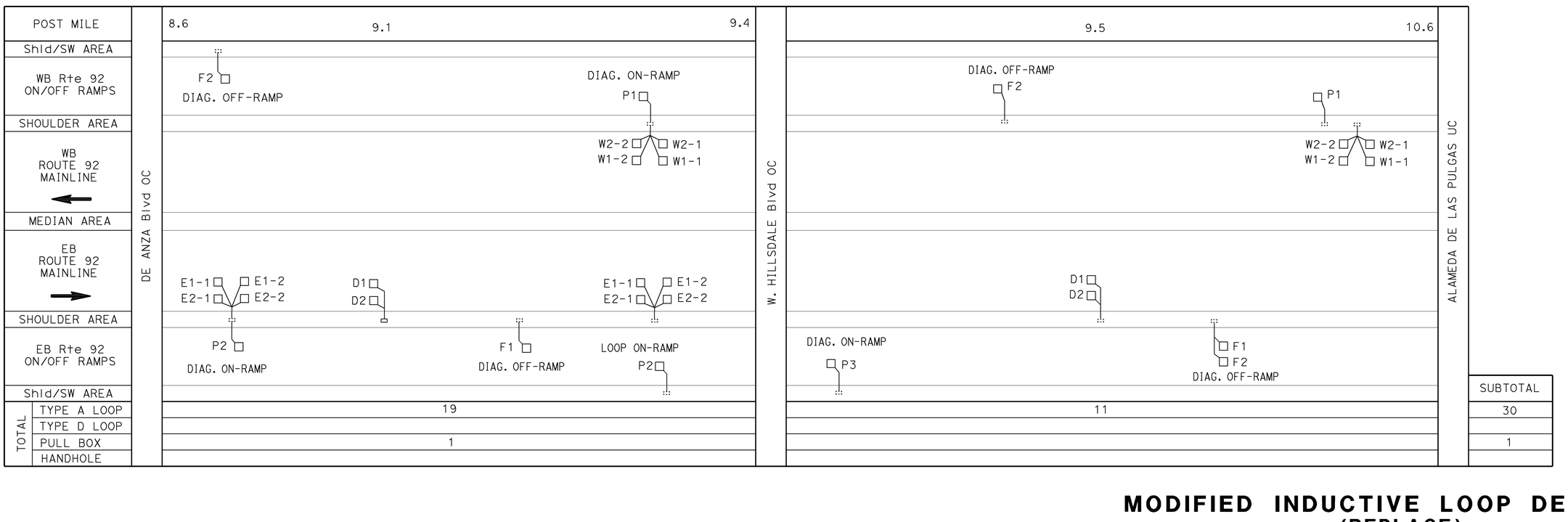

MODIFIED INDUCTIVE LOOP DETECTOR
(REPLACE)

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

FOR NOTES, INDEX AND LEGEND, SEE SHEET E-1

E-2

DORIS YANG — CALCULATED-DESIGNED BY
KENNETH Y. XU — CHECKED BY
KENNETH Y. XU — FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL
Caltrans

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 04-NOV-2009 | TIME PLOTTED => 15:45
10-13-09

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USERNAME => s120183
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CU 04609

EA 1E7201

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	26	35

Kenneth Y. Xu 11-2-09
REGISTERED ELECTRICAL ENGINEER DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Kenneth Y. Xu No. 15219 Exp. 6-30-10 ELECTRICAL STATE OF CALIFORNIA

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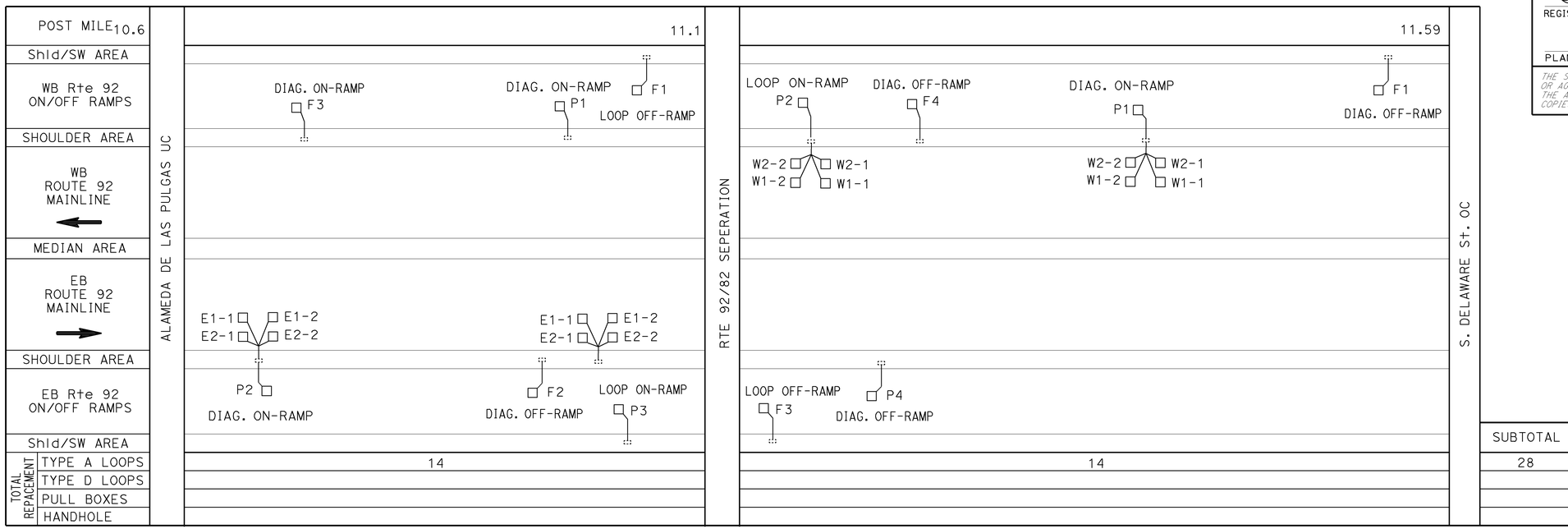

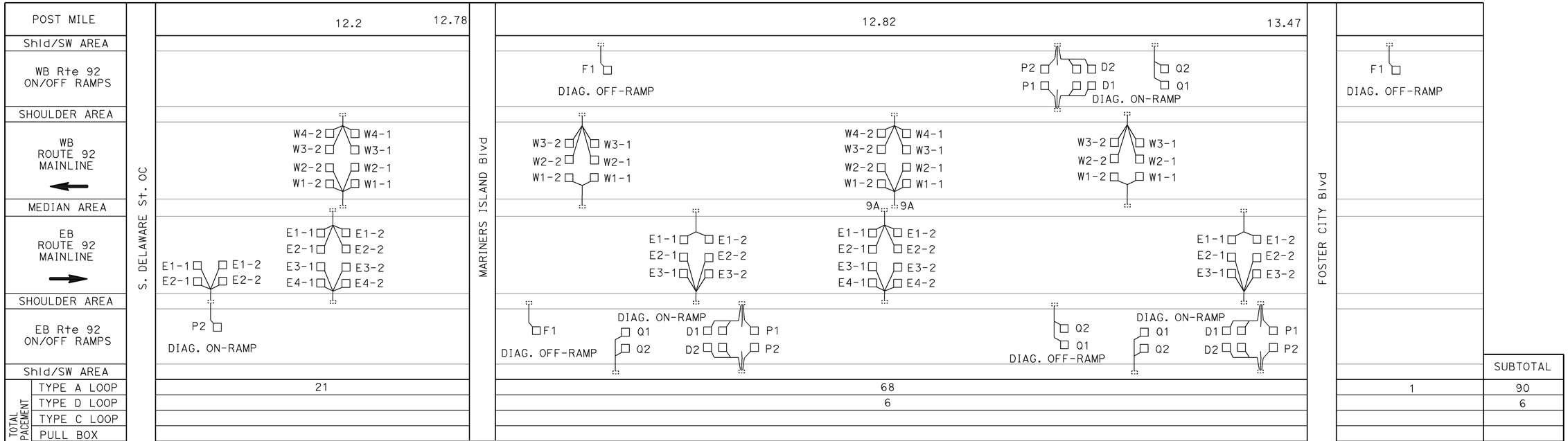

MODIFIED INDUCTIVE LOOP DETECTOR
(REPLACE)
NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

FOR NOTES, INDEX AND LEGEND, SEE SHEET E-1

E-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ELECTRICAL

FUNCTIONAL SUPERVISOR: KENNETH Y. XU
CALCULATED-DESIGNED BY: DORIS YANG
CHECKED BY: KENNETH Y. XU
REVISED BY
DATE REVISED

LAST REVISION 10-13-09
DATE PLOTTED => 04-NOV-2009
TIME PLOTTED => 15:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SM	92	7.3/13.9	27	35

Ahmad Fahimi 11-2-09
REGISTERED ELECTRICAL ENGINEER DATE

11-2-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Ahmad Fahimi
No. 16774
Exp. 9-30-10
ELECTRICAL
STATE OF CALIFORNIA

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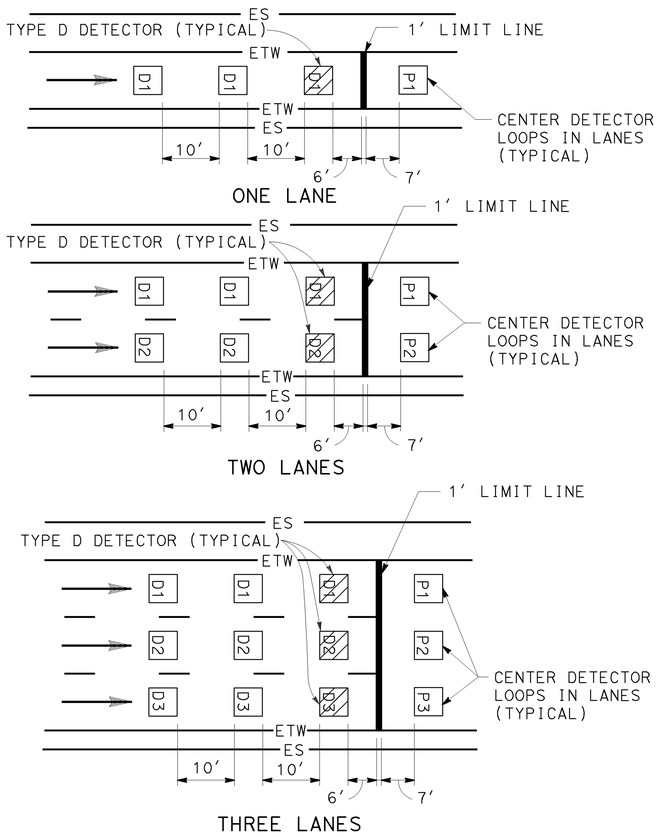
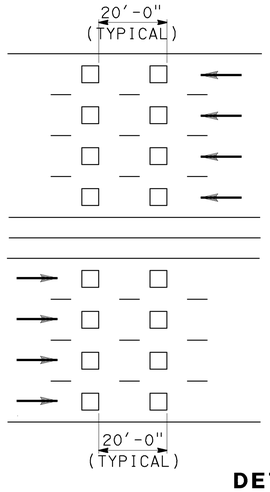


DETAIL "RM"
RAMP METERING STATION

RAMP METERING STATION NOTES

1. SEE ES-5A, ES-5B, AND ES-13A FOR ADDITIONAL DETAILS.
2. DLC CONDUCTORS SHALL BE SPLICED TO THE LOOP CONDUCTORS IN THE NEAREST PULLBOX.
3. ALL SPLICES SHALL BE TYPE "S" OR TYPE "ST" AS REQUIRED.



TRAFFIC MONITORING STATION NOTES

FREEWAY MAINLINE DETECTOR DESIGNATION:

- N=NORTHBOUND LANES (NB)
- S=SOUTHBOUND LANES (SB)
- E=EASTBOUND LANES (EB)
- W=WESTBOUND LANES (WB)

NUMBER OF LANES FROM LEFT WITH RESPECT TO DIRECTION OF TRAFFIC:

- 1=FIRST LANE FROM LEFT
- 2=SECOND LANE FROM LEFT
- 3=THIRD LANE FROM LEFT
- 4=FOURTH LANE FROM LEFT

NUMBER OF DETECTOR IN THE SAME LANE:

- 1=ENTERING DETECTOR
- 2=LEAVING DETECTOR

N 3-2

RAMP DETECTOR DESIGNATION:

- D=DEMAND DETECTOR
- P=PASSAGE DETECTOR
- Q=QUEUE DETECTOR
- F=OFFRAMP DETECTOR

- 1=FIRST LANE FROM LEFT
- 2=SECOND LANE FROM LEFT

D-2

DETAIL "TM"
TRAFFIC MONITORING STATION

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

FOR NOTES, INDEX AND LEGEND, SEE SHEET E-1

MODIFIED INDUCTIVE LOOP DETECTOR
(REPLACE)

NO SCALE

E-4

LAST REVISION DATE PLOTTED => 04-NOV-2009
10-13-09 TIME PLOTTED => 15:45

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
ELECTRICAL

FUNCTIONAL SUPERVISOR: CHARLES PRICE

CALCULATED-DESIGNED BY: AHMAD FAHIMI
CHECKED BY: CHARLES PRICE

REVISED BY | DATE REVISED

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s120183
DGN FILE => 41e720ua004.dgn

CU 04609

EA 1E7201

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	7.3/13.9	28	35

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

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

October 5, 2007
PLANS APPROVAL DATE

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To accompany plans dated 11-2-09

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,
MAS-4B	mas-4B	side attachment - 4 signal section
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces,
MAS-5B	mas-5B	side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	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

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	7.3/13.9	29	35

Jeffrey 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 11-2-09

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345 — Sign number - Place on post or structure

10 ISL SCI 1.0
- 1.0 — Transformer rating (kVA)
- SCI — Lighting control type
- ISL — Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"
- 15'-0" — Mast arm length, if shown. Do not place on standard or structure.
- 12345 — 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
- 2#10, 15#14, 2 DLC — Number and size of conductors and cables
- 1½"C, — 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
- 100 — Wind velocity = 100 mph
- 3 — Case 3 arm loading
- 19A — 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
3	9A(21)

Pull box-No. 5 unless otherwise indicated or noted.

Pull box-Additional designations or descriptions

- (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

- 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

VEHICLE DETECTORS

5 J 9 U
- 5 — Vehicle detector designation
- J — U = Upper, L = Lower
- 9 — Slot number in input file
- U — Input file (I or J)
- 5 J 9 U — 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
04	SM	92	7.3/13.9	30	35

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

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

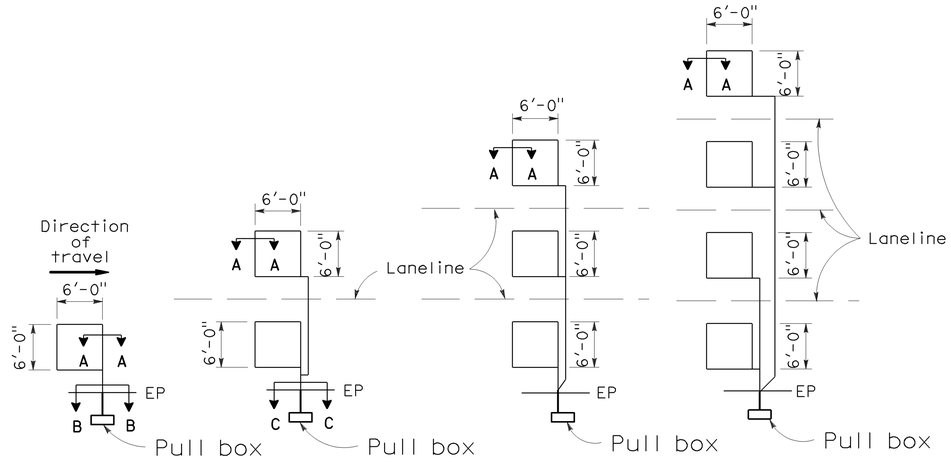
October 5, 2007
PLANS APPROVAL DATE

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

To accompany plans dated 11-2-09

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.

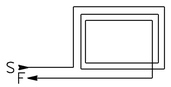


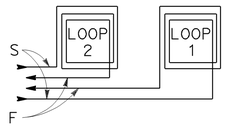
TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

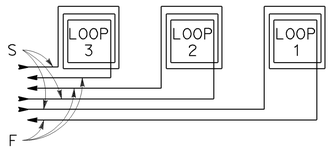
SAWCUT DETAILS

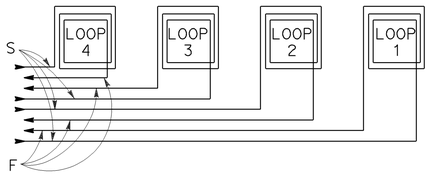
(Type A loop detector configurations illustrated)

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)



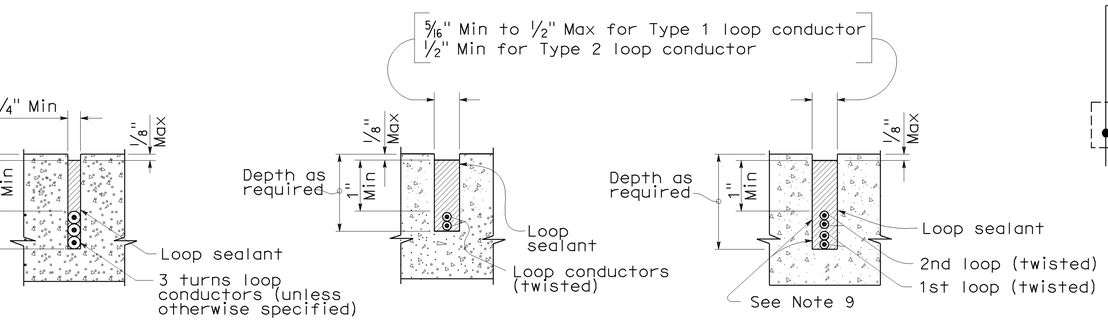






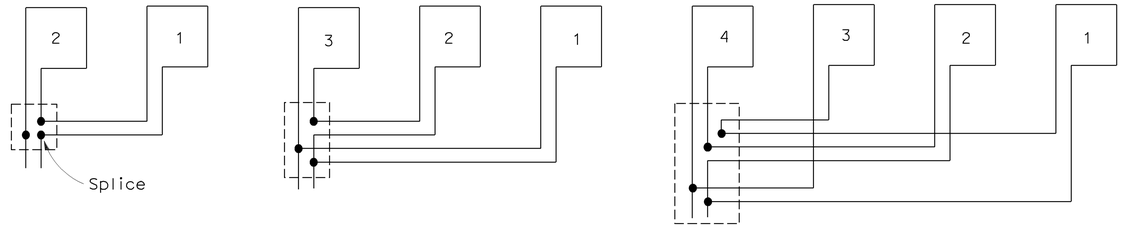
WINDING DETAILS

See Notes 6 and 7



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

SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)

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

2006 REVISED STANDARD PLAN RSP ES-5A

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	7.3/13.9	31	35

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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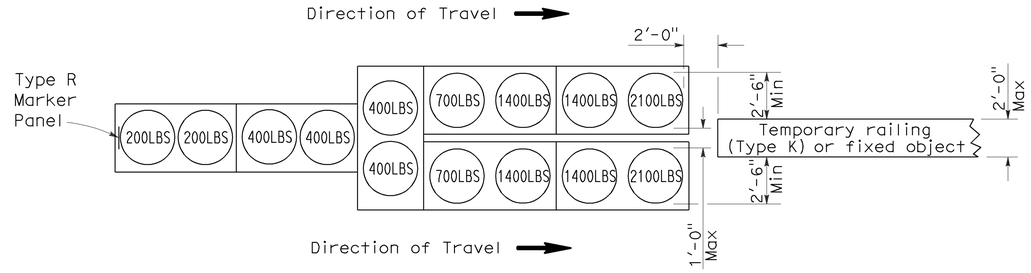
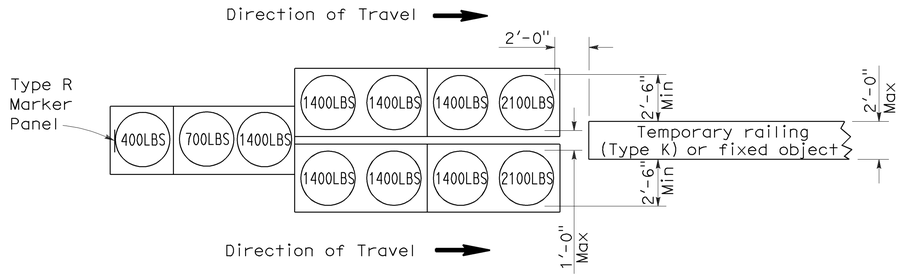
To accompany plans dated 11-2-09



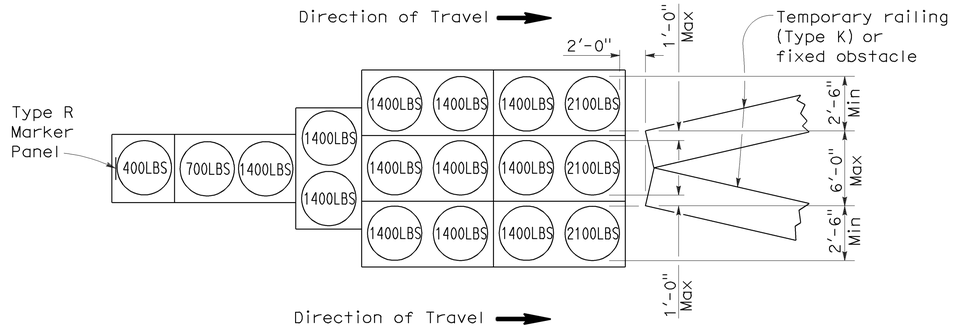
ARRAY 'TU14'

Approach speed 45 mph or more



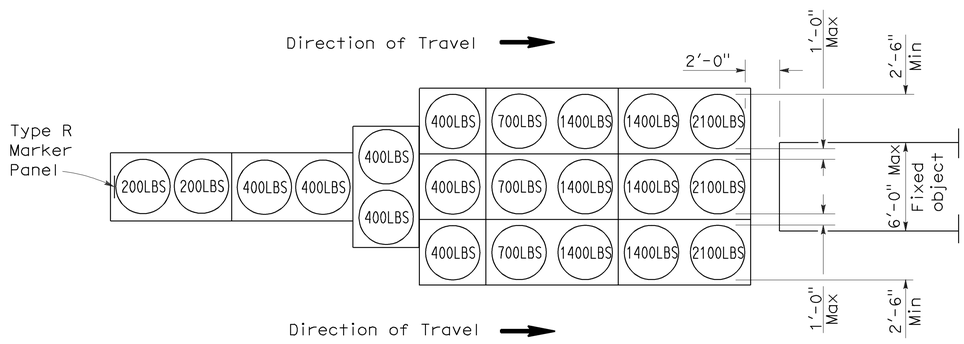
ARRAY 'TU11'

Approach speed less than 45 mph



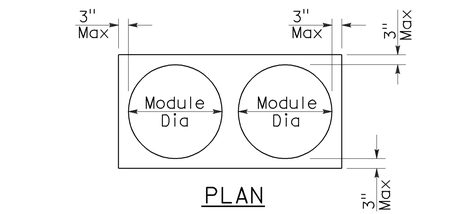
ARRAY 'TU17'

Approach speed less than 45 mph

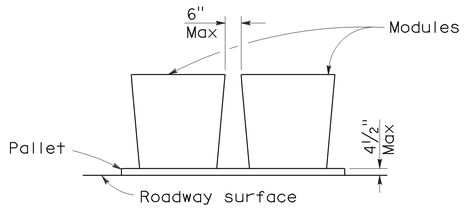


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	7.3/13.9	32	35

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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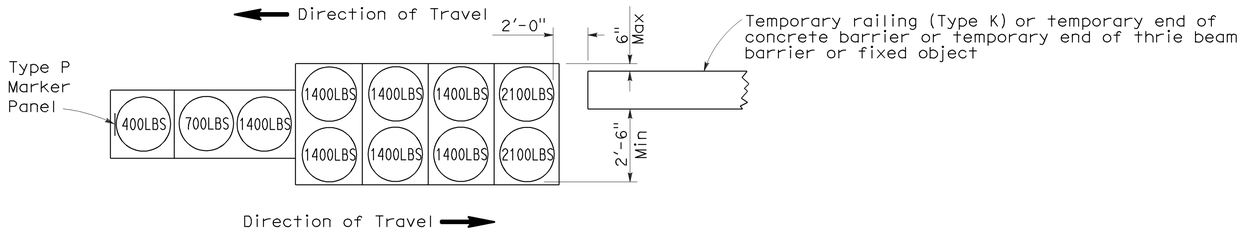
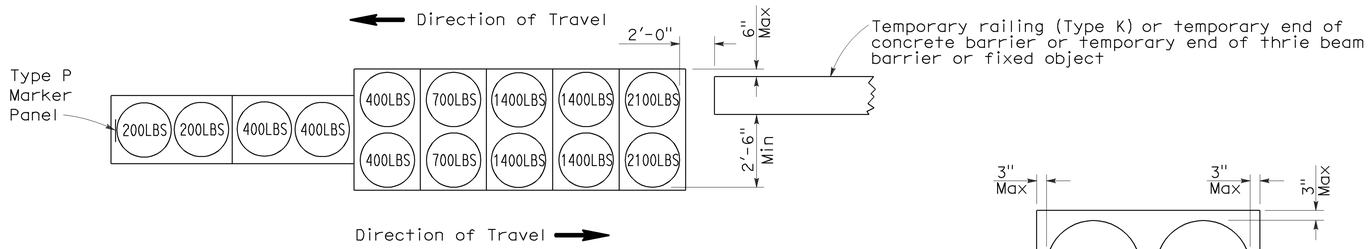
To accompany plans dated 11-2-09



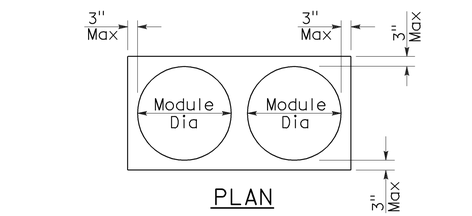
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	7.3/13.9	33	35

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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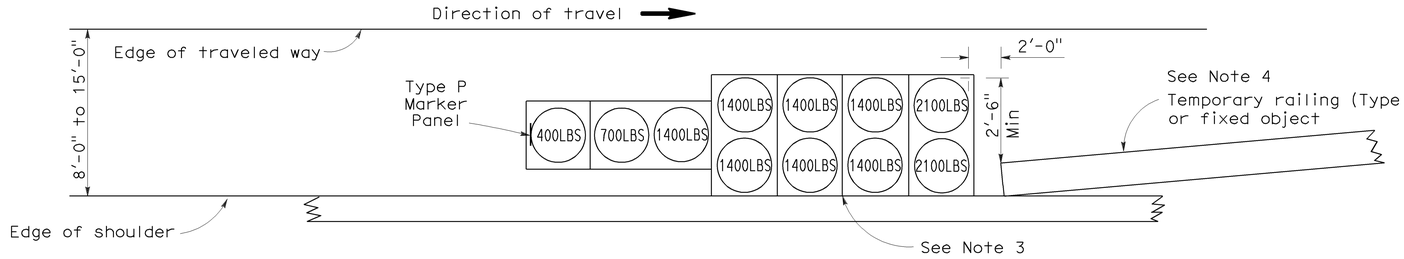
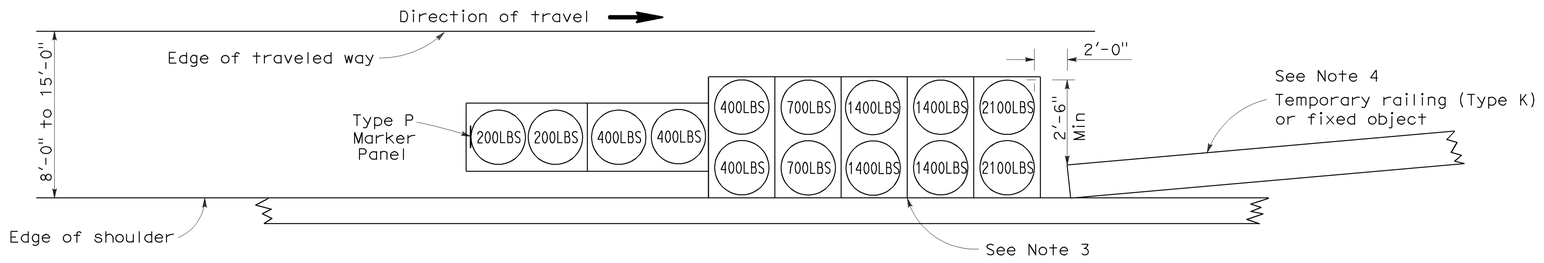
To accompany plans dated 11-2-09



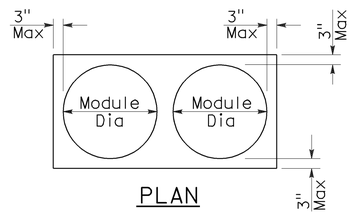
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

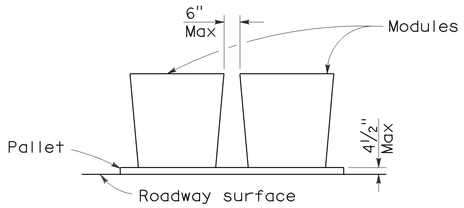


ARRAY 'TS14'

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)

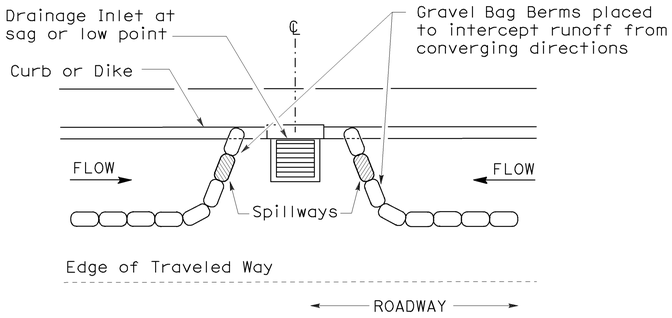
NO SCALE

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



PLAN

CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)

GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100′	75′	50′	25′	12′

For slope of less than 1%, install barriers only if erosion/sediment is prevalent

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	7.3/13.9	34	35

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3825 — Signature — 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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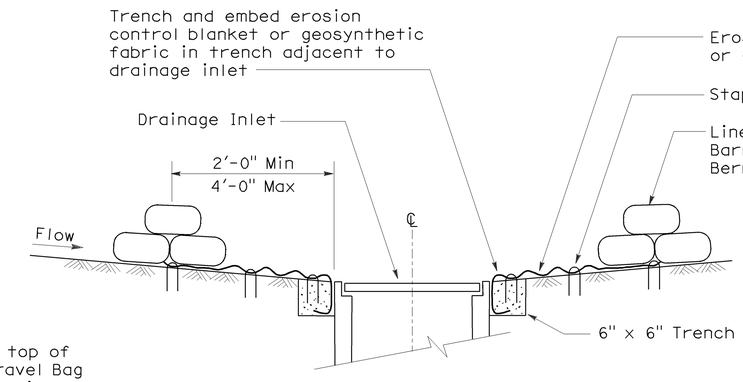
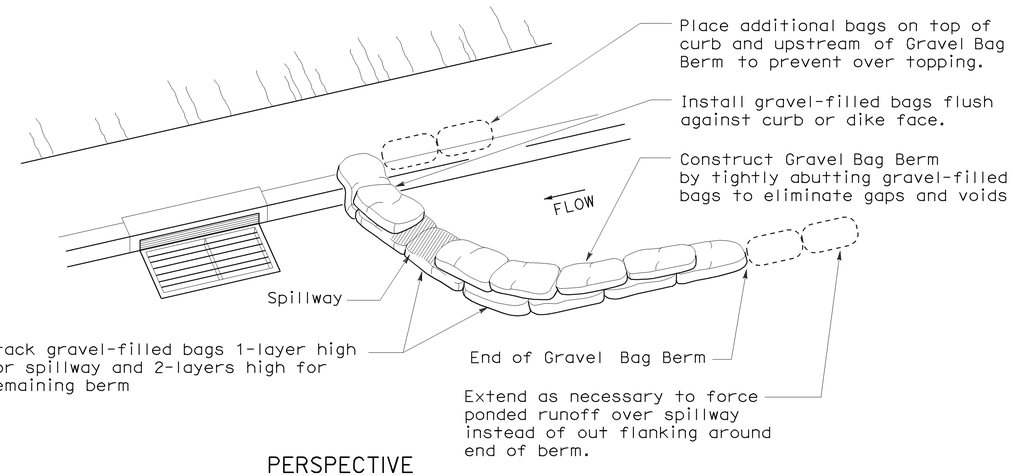
To accompany plans dated 11-2-09



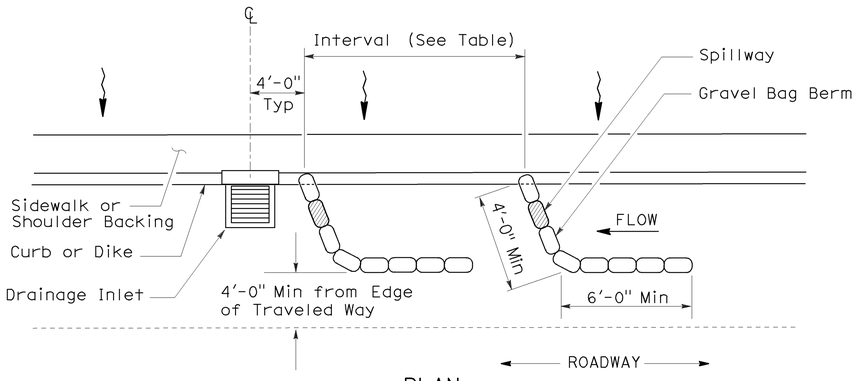
SECTION A-A

NOTES:

1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.

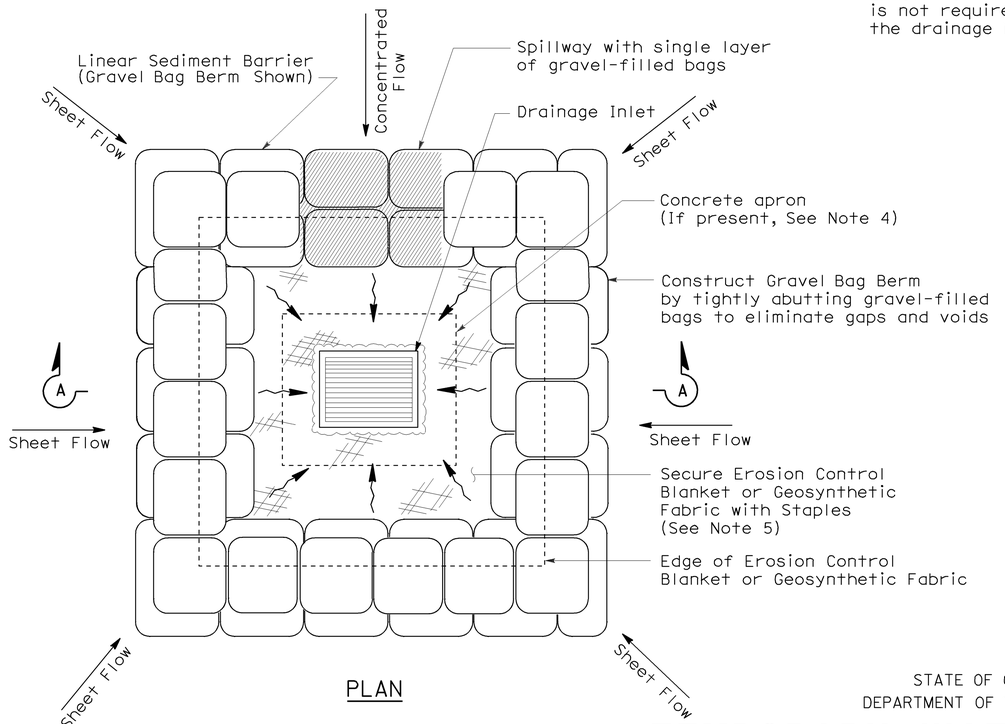


PERSPECTIVE



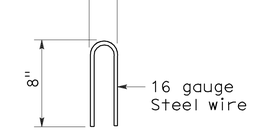
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3A) (GRAVEL BAG BERM)



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T62

2006 NEW STANDARD PLAN NSP T62

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SM	92	7.3/13.9	35	35

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
Robert B. Schott 3695
Signature
11-04-08
Renewal Date
08-11-08
Date
STATE OF CALIFORNIA

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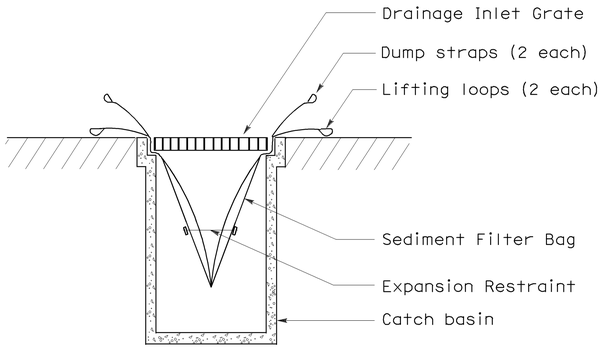
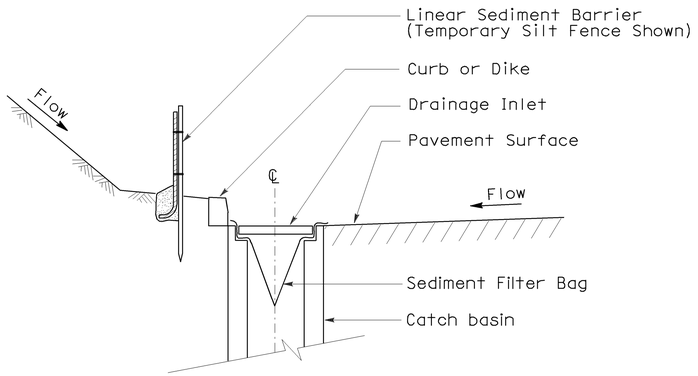
To accompany plans dated 11-2-09

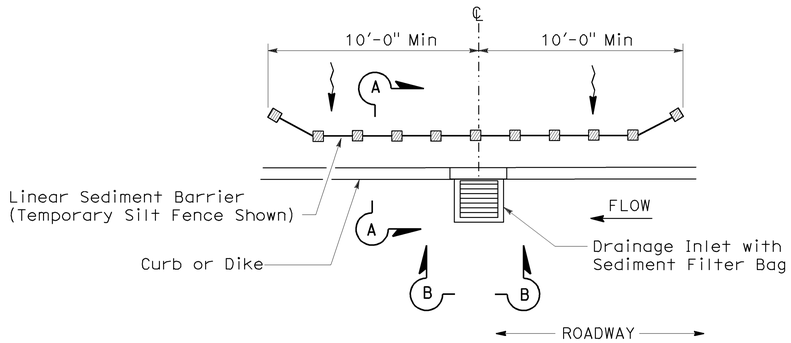


SECTION B-B

SEDIMENT FILTER BAG DETAIL

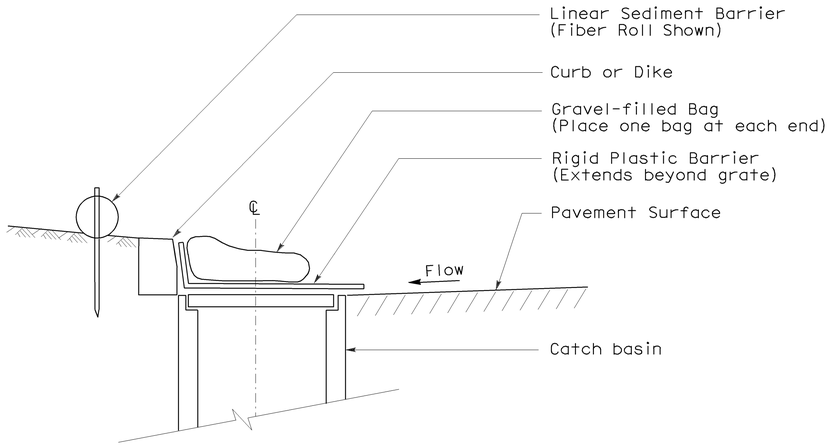


SECTION A-A



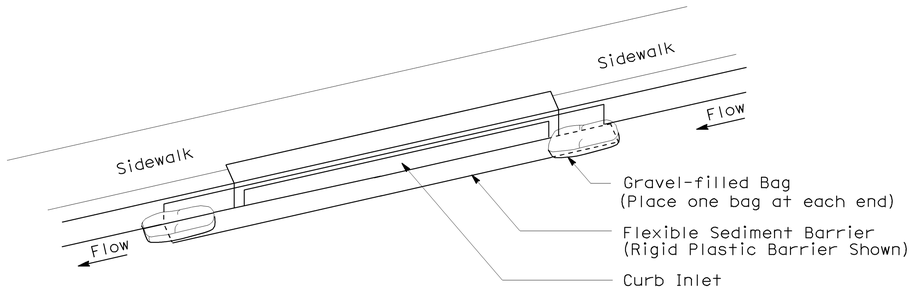
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 5) (SEDIMENT FILTER BAG)



SECTION

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 6A) (CATCH BASIN WITH GRATE)



PERSPECTIVE

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 6B) (CURB INLET WITHOUT GRATE)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

7-11-08