Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	1	50

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN SAN BERNARDINO COUNTY
IN NEEDLES
FROM SAFARI DRIVE TO
EAST JUNCTION ROUTE 40

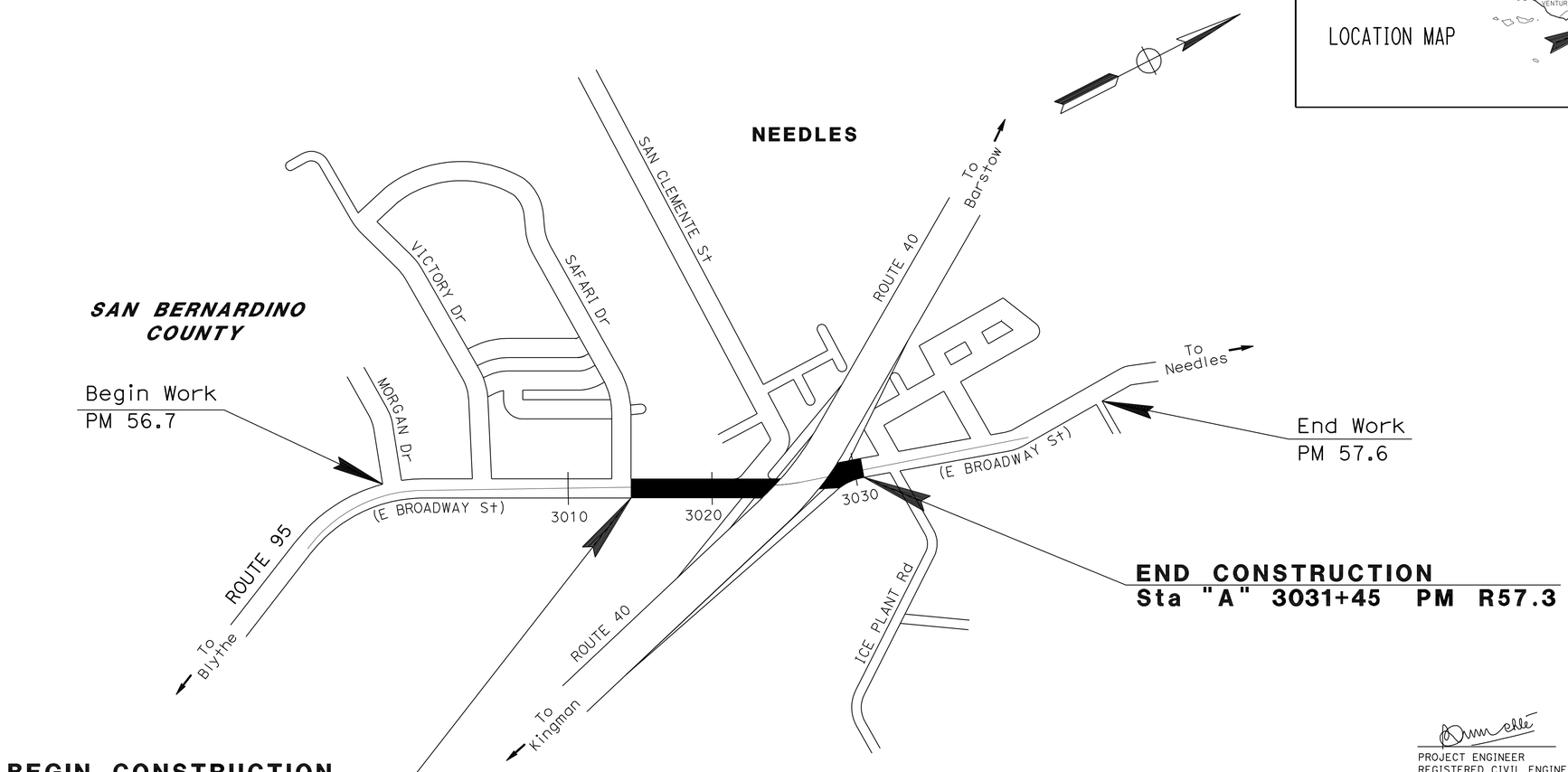
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2010

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	TYPICAL CROSS SECTIONS
4	PROJECT CONTROL
5-7	LAYOUT
8-11	PROFILE
12-20	CONSTRUCTION DETAILS
21	TEMPORARY WATER POLLUTION
22-24	UTILITY PLAN
25	CONSTRUCTION AREA SIGNS
26-28	TRAFFIC HANDLING PLAN
29-31	PAVEMENT DELINEATION PLAN
32	PAVEMENT DELINEATION QUANTITIES
33-34	SIGN QUANTITIES
35-36	SUMMARY OF QUANTITIES
37-42	RETAINING WALL PLAN
43-50	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 ENGINEER REGISTERED CIVIL ENGINEER — DATE 5-28-13

June 3, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL — STATE OF CALIFORNIA

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

CONTRACT No.	08-0M6904
PROJECT ID	0800000493

PROJECT MANAGER: HONG VAN
DESIGN ENGINEER: BIHARI MEHTA

LAST REVISION 05-28-13 — DATE PLOTTED => 29-MAY-2013 TIME PLOTTED => 07:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	2	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

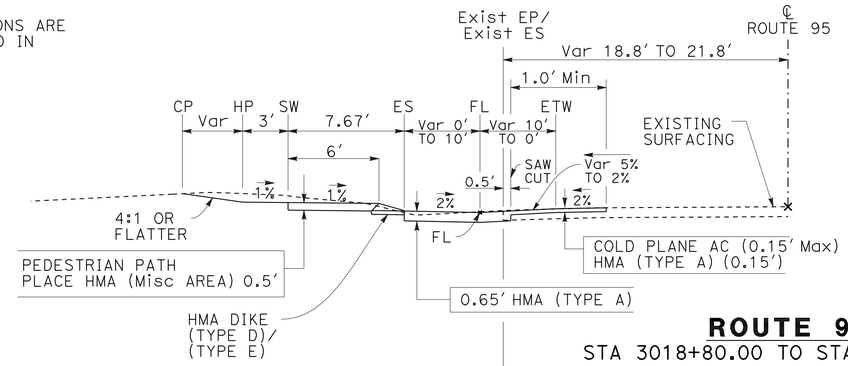
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

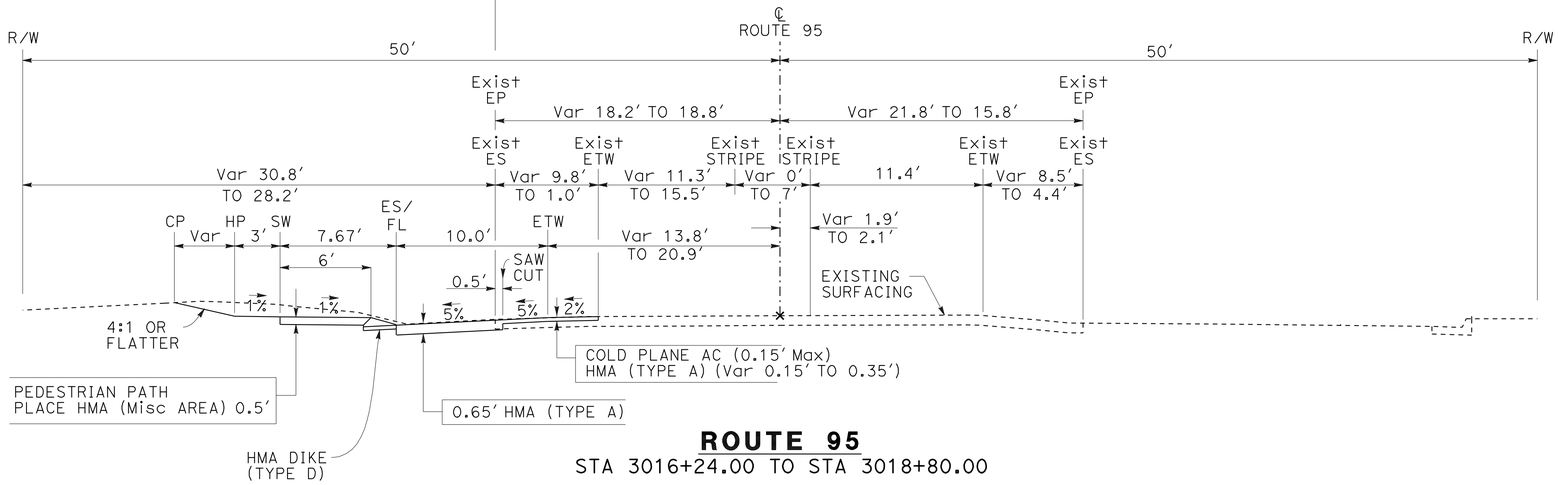
1. DIMENSIONS OF STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

DESIGN DESIGNATION

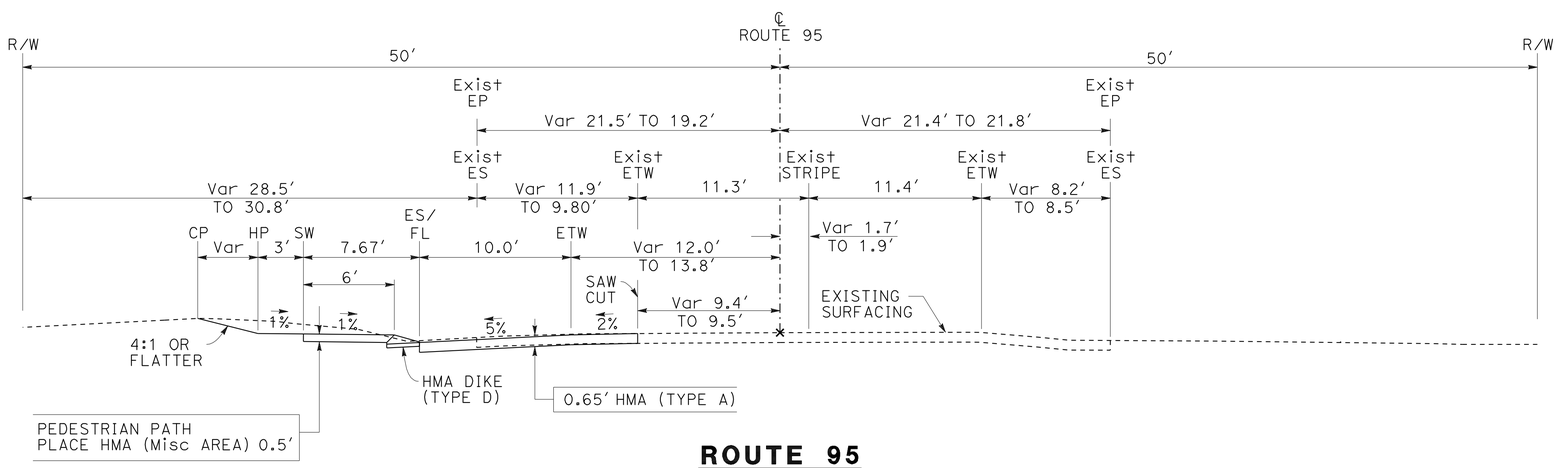
ADT (2009)	3,400	D	13%
ADT (2030)	9,100	T	7%
DHV	860	TI_{20} (MAINLINE)	11
ESAL	6,425,155	TI_{20} (SHOULDER)	7



ROUTE 95
STA 3018+80.00 TO STA 3019+80.00



ROUTE 95
STA 3016+24.00 TO STA 3018+80.00



ROUTE 95
STA 3015+22.34 TO STA 3016+24.00

TYPICAL CROSS SECTIONS
NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: BIHARI MEHTA
CHECKED BY: BIHARI MEHTA
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

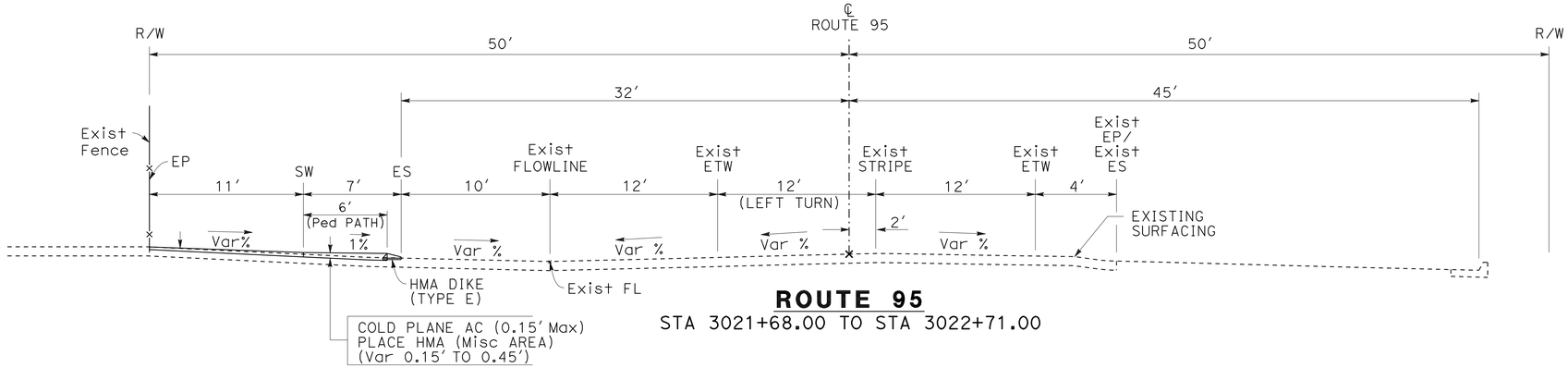
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	3	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

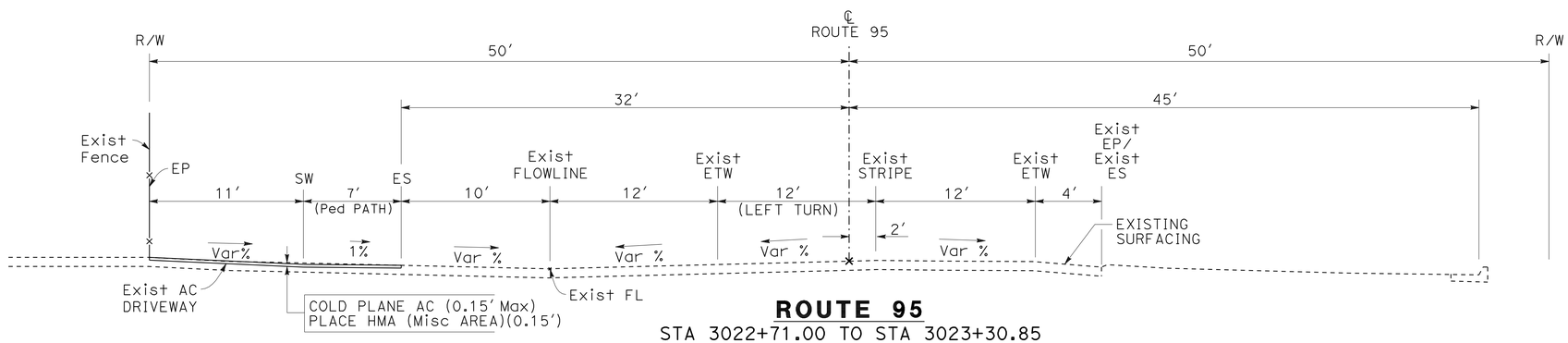
6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

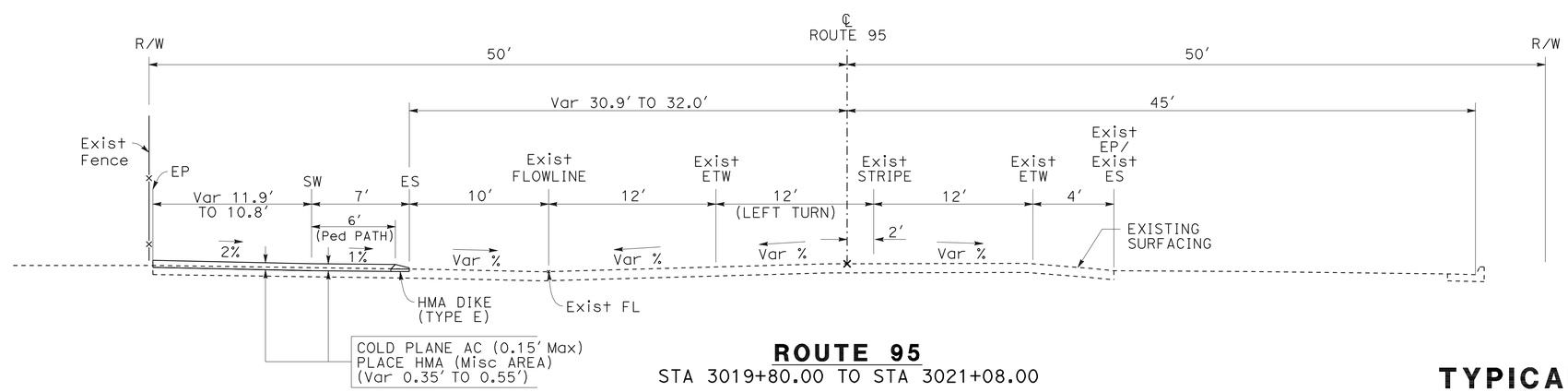
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



ROUTE 95
STA 3021+68.00 TO STA 3022+71.00



ROUTE 95
STA 3022+71.00 TO STA 3023+30.85
STA 3021+08.00 TO STA 3021+68.00



ROUTE 95
STA 3019+80.00 TO STA 3021+08.00

TYPICAL CROSS SECTIONS
NO SCALE

X-2

REVISED BY	DATE REVISED
BIHARI MEHTA	BIHARI MEHTA

CALCULATED-DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR: DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	4	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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

NOTES:

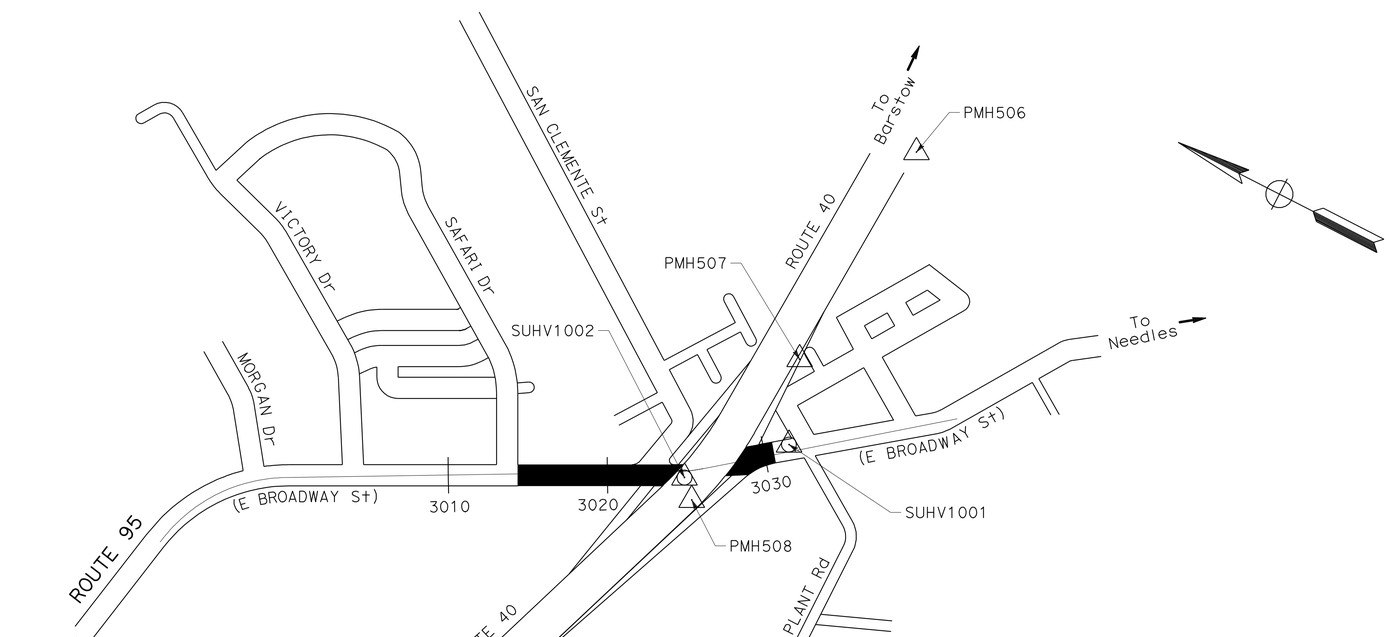
1. FOR COMPLETE PROJECT CONTROL DATA, SEE THE SURVEY RECORDS ON FILE FOR SURVEY JOB NUMBER 5567-01, IN THE SURVEYS DEPARTMENT AT THE DISTRICT OFFICE.
2. BEARINGS AND COORDINATES FOR THIS PROJECT ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, HPGN EPOCH ADJUSTMENT [CCS 83 (1991.35)], ZONE5, U.S. SURVEY FOOT.
3. ELEVATIONS FOR THIS PROJECT ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).
4. IN THE EVENT GPS MACHINE CONTROL/GUIDANCE IS USED FOR THIS PROJECT, THE CONTRACTOR SHALL CONTACT AND MEET WITH THE SURVEYS DEPARTMENT AT THE DISTRICT OFFICE TO OBTAIN THE CONTROL NECESSARY TO ESTABLISH A PROJECT CALIBRATION COMPATIBLE FOR ALL USERS.

LEGEND:

△ PROJECT CONTROL

CONTROL FOR DESIGN AND CONSTRUCTION

STATION DESIGNATION	NORTHING	EASTING	ELEVATION
PMH506	2141548.54	7581637.98	541.19
PMH507	2140287.91	7582442.16	557.96
PMH508	2139273.70	7582904.89	
SUHV1001	2139976.72	7582884.78	549.37
SUHV1002	2139299.53	7582759.44	559.55



PROJECT CONTROL

NO SCALE

PC-1

APPROVED FOR PROJECT CONTROL INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: ROBERT LYLES
CHECKED BY: BIHARI MEHTA
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	5	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FOR CURB RAMP DETAILS, SEE CONSTRUCTION DETAIL SHEETS.
3. FOR CURB DETAILS, SEE STANDARD PLAN A87A.
4. ALL HMA WORK FOR THIS PROJECT INCLUDING ROADWAYS, DIKES, SIDEWALKS AND Misc AREAS SHALL BE HMA (TYPE A).

LEGEND:

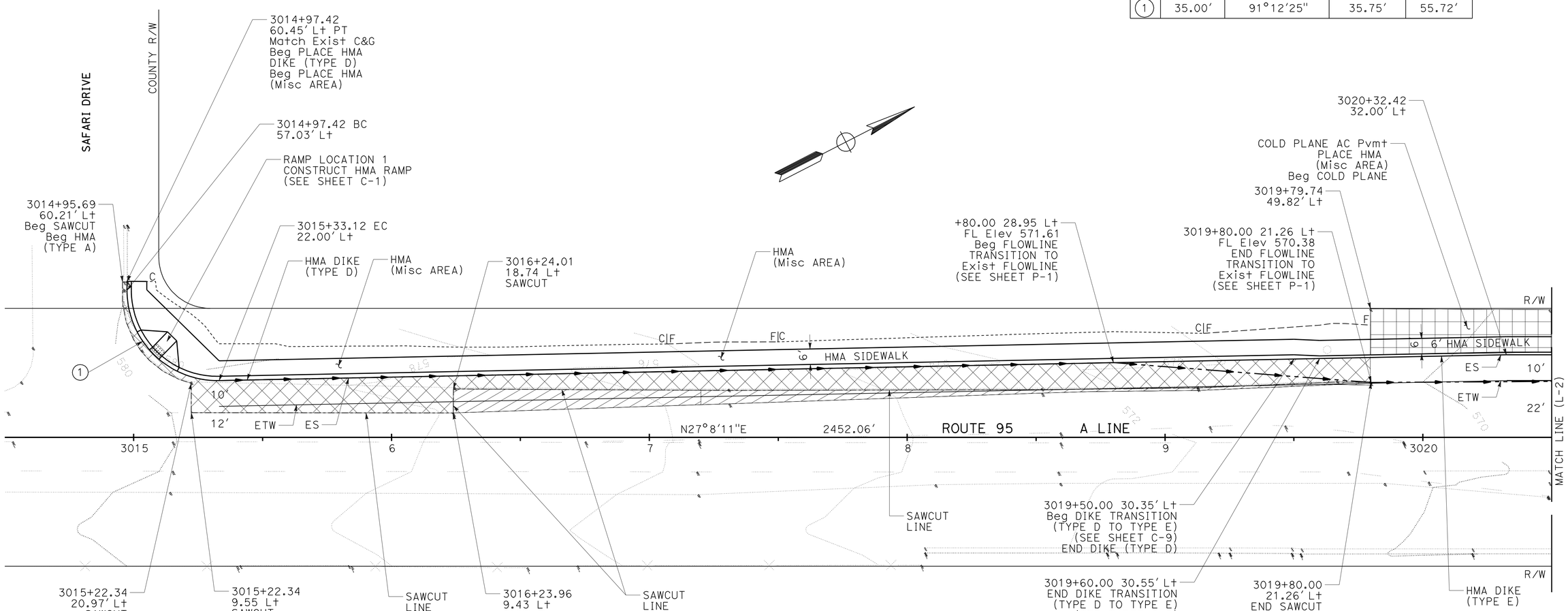
- HMA (TYPE A)
- COLD PLANE AC Pvmt HMA (TYPE A)
- COLD PLANE AC Pvmt PLACE HMA (Misc AREA)
- REMOVE AC SURFACING PLACE HMA (Misc AREA)
- CONCRETE

ABBREVIATIONS:

TR - TOP OF RAMP
TS - TOP OF SIDEWALK
TC - TOP OF CURB
C&G - CURB AND GUTTER

CURVE DATA

No.	R	Δ	T	L
1	35.00′	91°12′25"	35.75′	55.72′



LAYOUT

SCALE: 1"=20′ **L-1**

REVISED BY | DATE REVISED
ROBERT LYLES | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	6	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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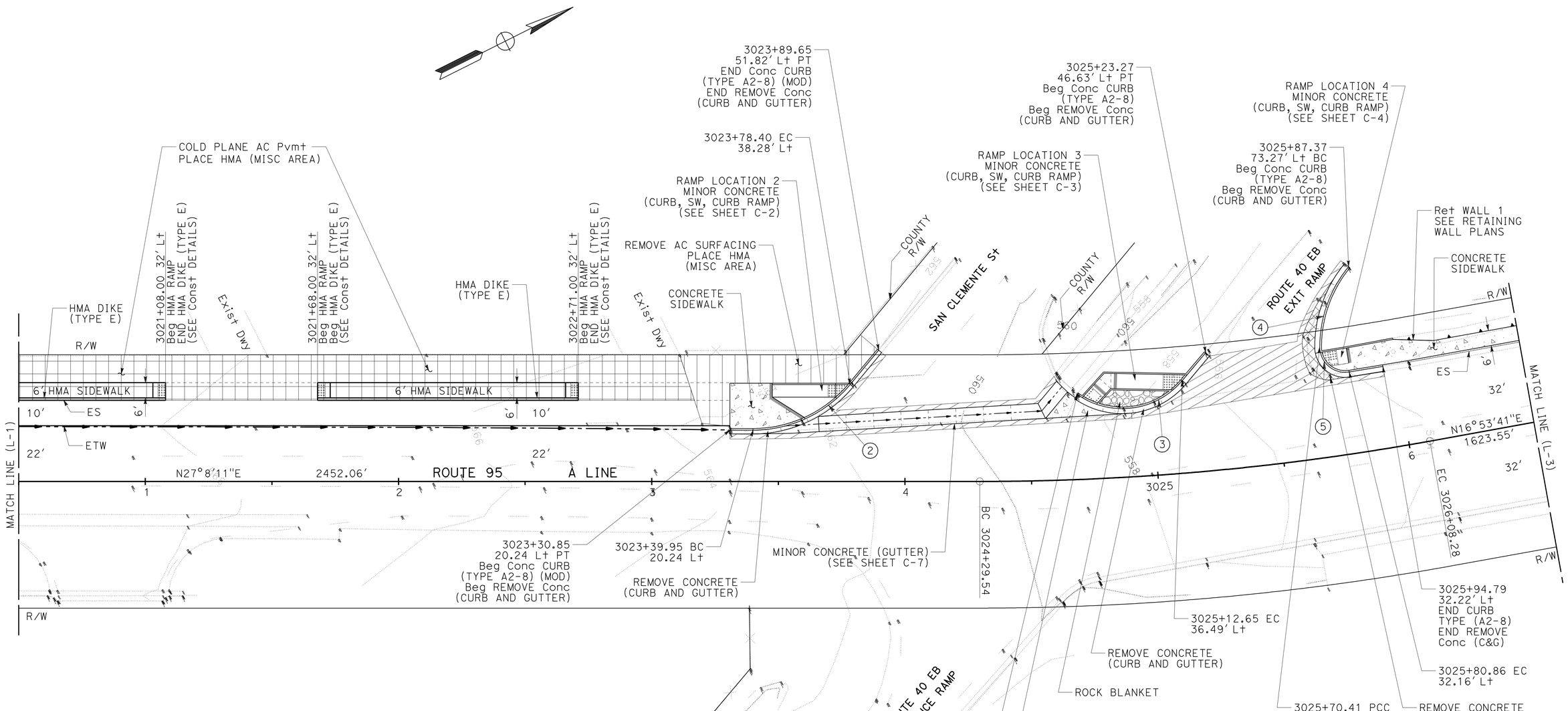
NOTE:

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



CURVE DATA

No.	R	Δ	T	L
2	50.00'	50°15'58"	23.46'	43.87'
3	31.00'	84°47'16"	28.30'	45.87'
4	50.00'	39°20'30"	17.87'	34.33'
5	10.00'	99°22'43"	11.79'	17.34'

LAYOUT

SCALE: 1"=20' **L-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: ROBERT LYLES
CHECKED BY: BIHARI MEHTA
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	7	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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NOTE:

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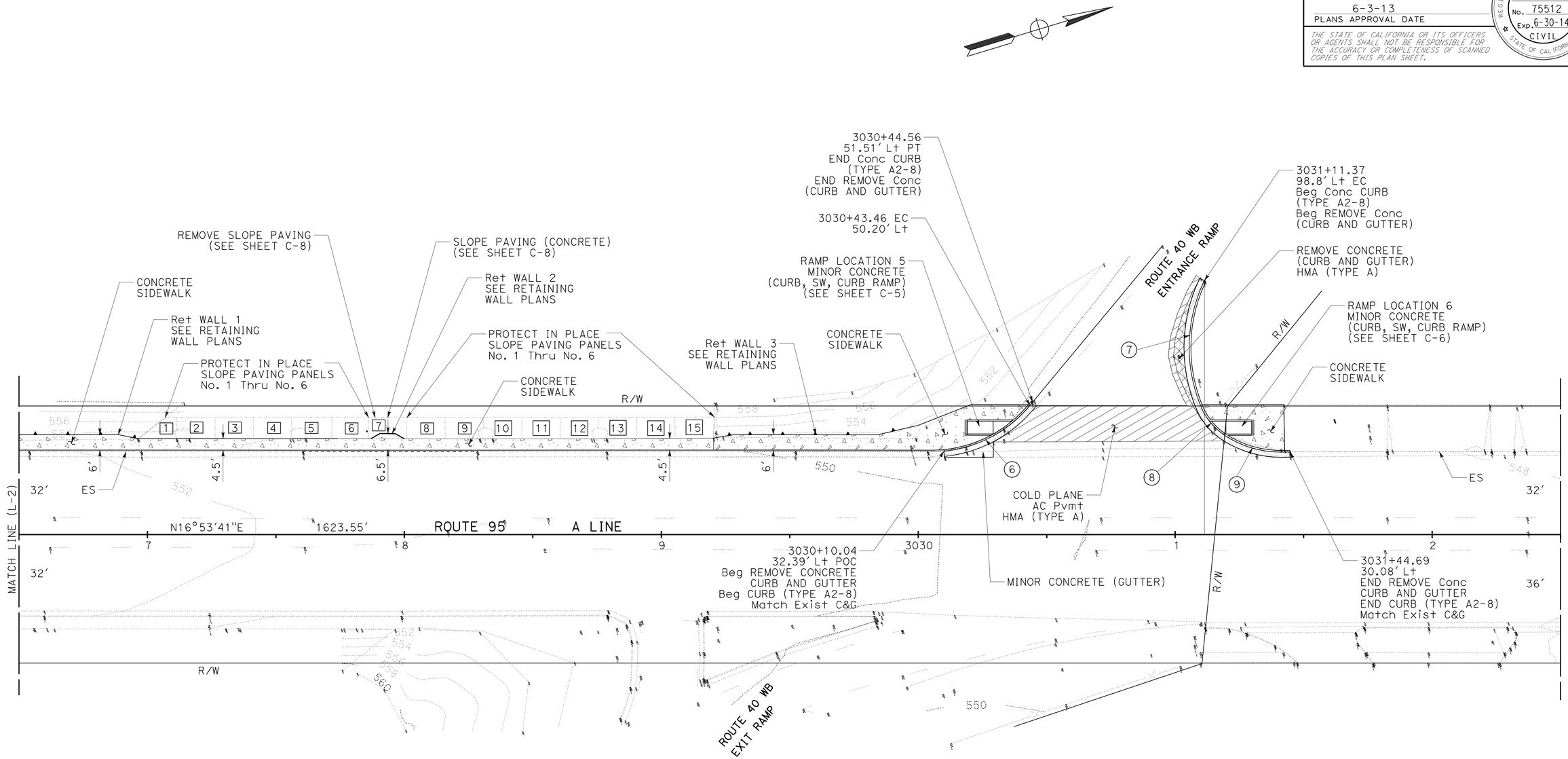

CURVE DATA

No.	R	Δ	T	L
6	50.00'	50°20'51"	23.50'	43.94'
7	60.00'	48°10'27"	26.82'	50.45'
8	25.00'	35°1'50"	7.89'	15.28'
9	40.00'	32°39'12"	11.72'	22.80'

LAYOUT

SCALE: 1"=20'

L-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: ROBERT LYLES
CHECKED BY: BIHARI MEHTA
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	8	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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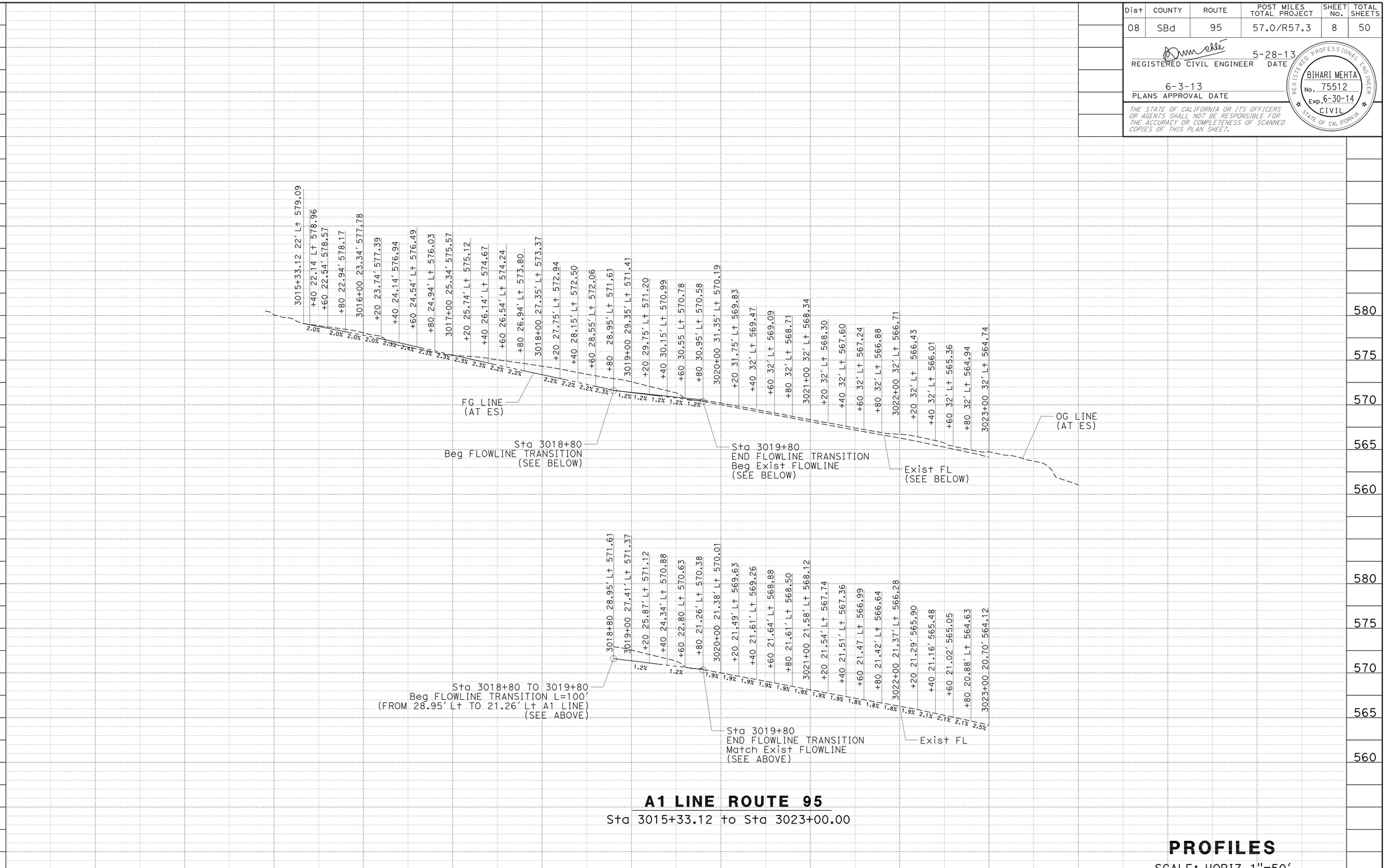

A1 LINE ROUTE 95

Sta 3015+33.12 to Sta 3023+00.00

PROFILES

SCALE: HORIZ 1"=50'
VERT 1"=5'

P-1

REVISED BY
DATE REVISED

ROBERT LYLES
BIHARI MEHTA

CALCULATED-DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR
DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	9	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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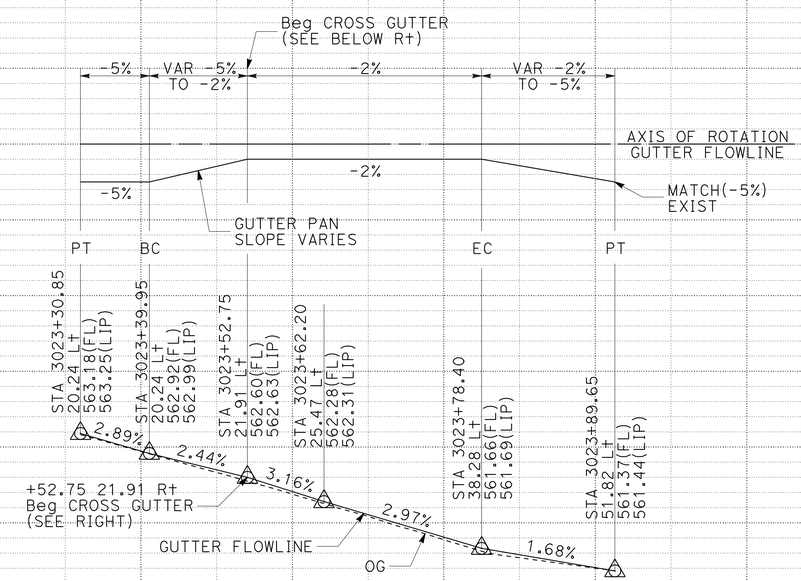
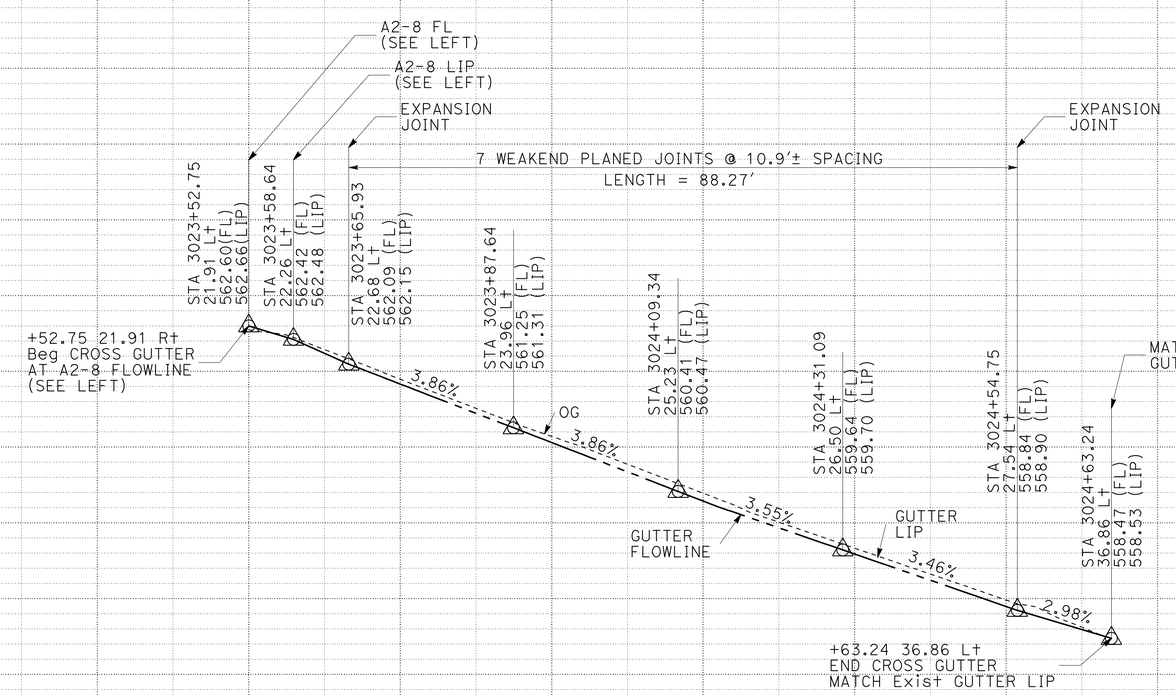
NOTES: ALL ELEVATIONS ARE BASED ON NGVD29



RAMP LOCATION 2
ROUTE 95/SAN CLEMENTE INTERSECTION
(SW CORNER)



CROSS GUTTER - ROUTE 95/SAN CLEMENTE INTERSECTION

PROFILES

SCALE: HORIZ 1"=10'
VERT 1"=5'

P-2

STATION		TOTAL
CY	Exc	
	Emb	

REVISED BY | DATE REVISED
ROBERT LYLES | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	10	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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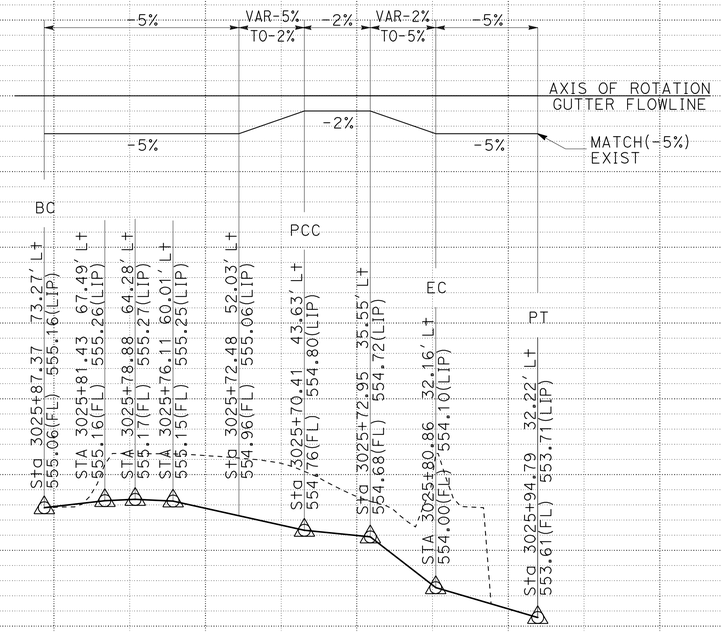
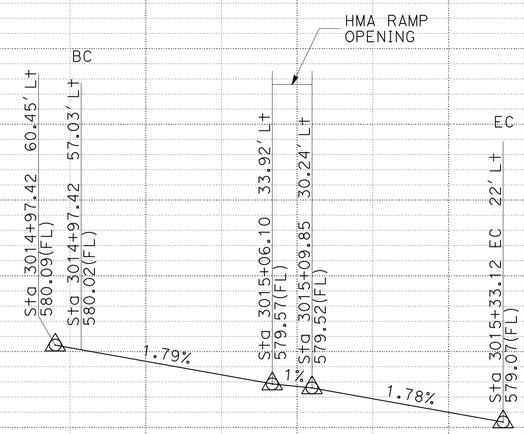


RAMP LOCATION 4
ROUTE 95/ROUTE 40 SB Exit RAMP
(NW CORNER)



RAMP LOCATION 1
RTE 95/SAFARI DR
(NW CORNER)

PROFILES

SCALE: HORIZ 1"=10'
VERT 1"=5'

P-3

STATION		TOTAL
CY	Exc	
	Emb	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

FUNCTIONAL SUPERVISOR: DU LU

CALCULATED-DESIGNED BY: ROBERT LYLES
CHECKED BY: BIHARI MEHTA

REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	11	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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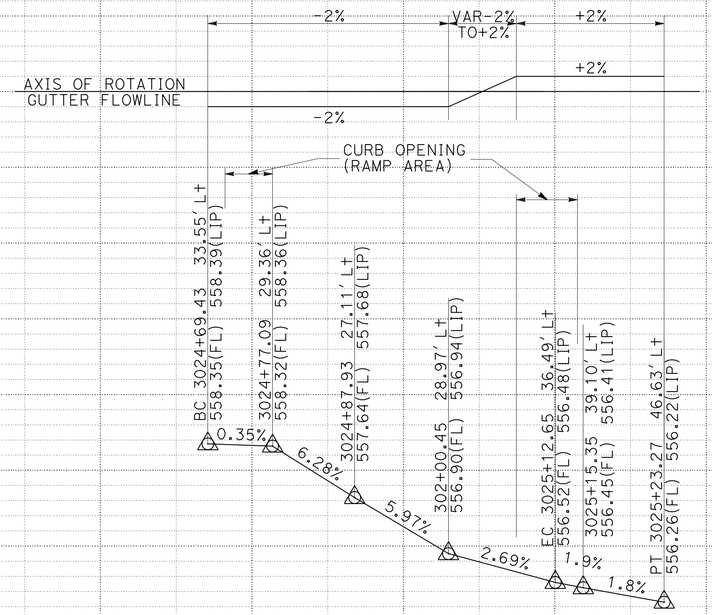
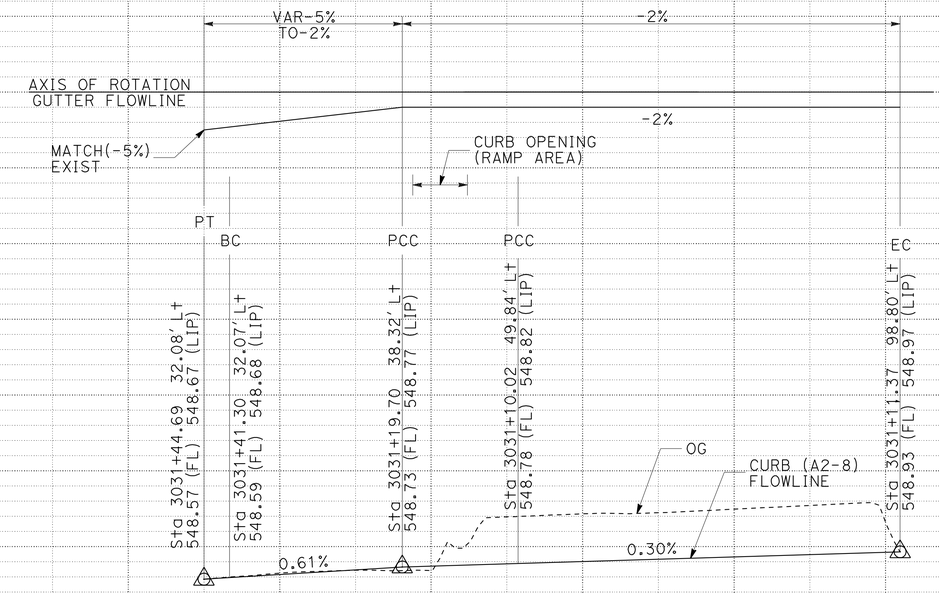
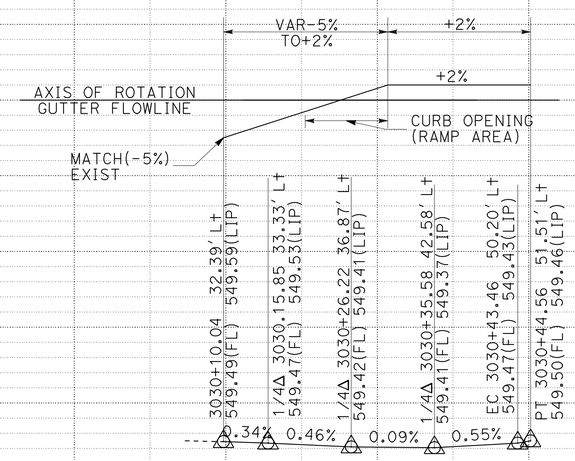
NOTES: ALL ELEVATIONS ARE BASED ON NGVD29



RAMP LOCATION 3
ROUTE 95/ROUTE 40 SB Exit RAMP
(SW CORNER)



RAMP LOCATION 6
ROUTE 95/ROUTE 40 NB Entrance RAMP
(NW CORNER)



RAMP LOCATION 5
ROUTE 95/ROUTE 40 SB Entrance RAMP
(SW CORNER)

PROFILES

SCALE: HORIZ 1"=10'
VERT 1"=5'

P-4

STATION		
CY	Exc	
	Emb	

TOTAL

REVISED BY | DATE REVISED

ROBERT LYLES | BIHARI MEHTA

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	12	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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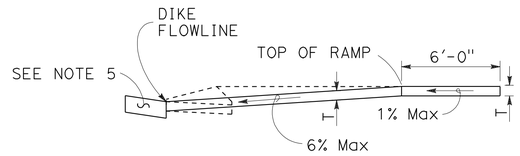
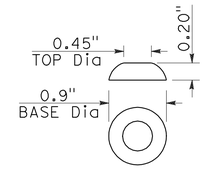
CURVE DATA

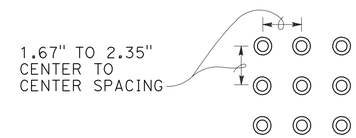
No.	R	Δ	T	L
1	35.00′	91°12′25″	35.75′	55.72′



SECTION A-A



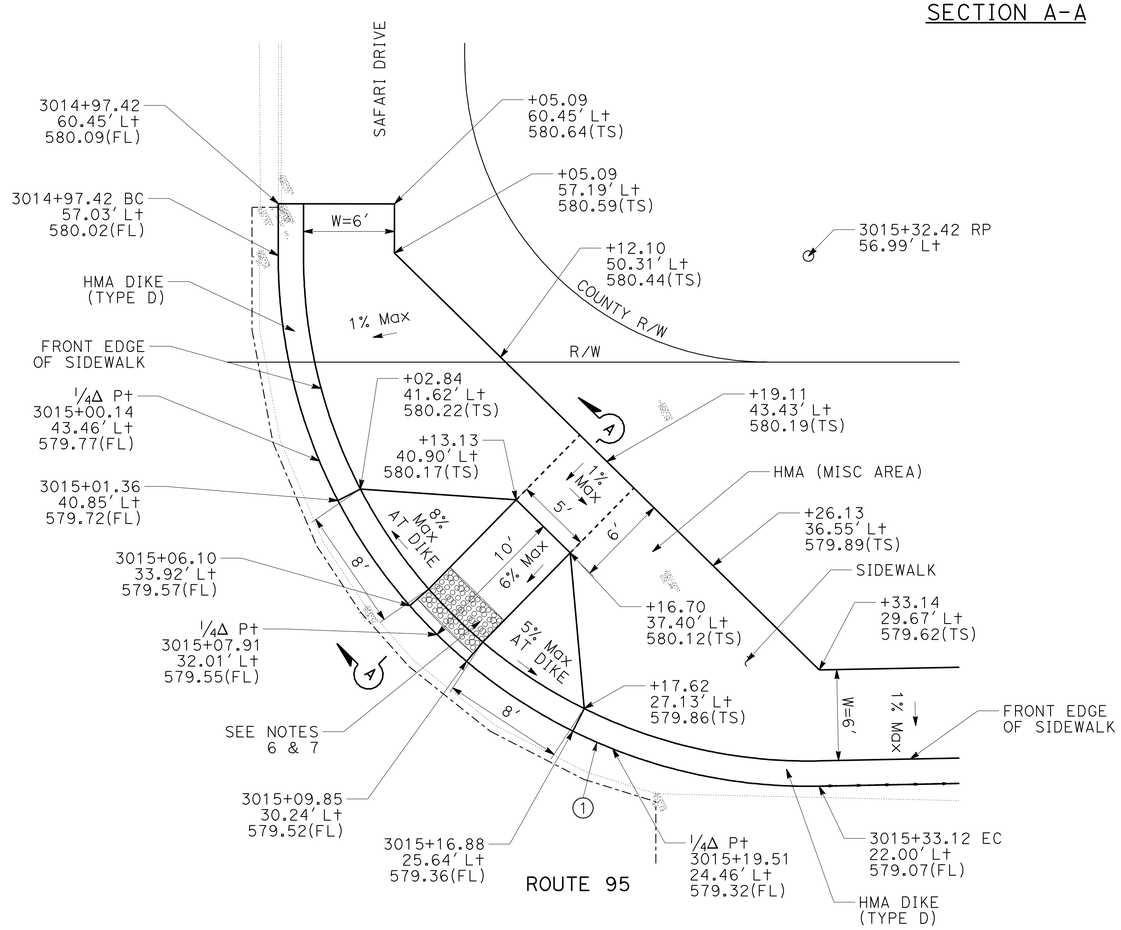
RAISED TRUNCATED DOME



RAISED TRUNCATED DOME PATTERN (IN-LINE)

DETECTABLE WARNING SURFACE

See Note 6



RAMP LOCATION 1
RAMP (CASE A)(MOD)

NOTES:

1. Sidewalk width, "W", is measured from back of dike.
2. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 5′-0″.
3. Side slope of ramp flares vary uniformly from a maximum of 8% at dike to conform with longitudinal sidewalk slope adjacent to top of the ramp.
4. Transitions from ramp and landing to walks, gutters or streets shall be flush and free of abrupt changes.
5. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the ramp or accessible route shall not exceed 5 percent within 4′-0″ of the top and bottom of the ramp.
6. Ramp shall have a detectable warning surface that extends the full width and 3′-0″ depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
7. The edge of the detectable warning surface nearest the street shall be between 6″ and 8″ from the dike flowline.
8. Sidewalk and ramp thickness, "T", shall be 6″ minimum.
9. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
10. For flowline and gutter elevations, see profile sheets.

CONSTRUCTION DETAILS

NO SCALE **C-1**

REVISED BY | DATE REVISED
ROBERT LYLES | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DU LU
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	13	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

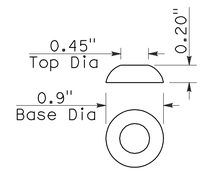
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

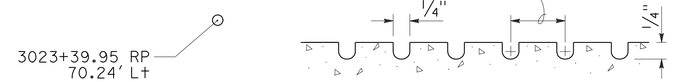
1. For curve radius of Curb Type (A2-8)(MOD), weakened plane joints shall be constructed at interior 1/4Δ point locations between the expanion joints at BC and EC. For tangents of Curb Type (A2-8)(MOD), weakened Plane Joints shall be constructed at even spaces between expansion Joints not exceeding 10′ max spacing.
2. If located on a curve, the sides of the ramp need to be parallel, and the minimum width of the ramp shall be 5′-0".
3. Side slope of ramp flares vary uniformly from a maximum of 7.5% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp.
4. The curb ramp shall be outlined, as shown, with a 1′-0" wide border with 1/4" grooves approximately 3/4" on center. See Grooving Detail.
5. Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.
6. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 2 percent within 4′-0" of the top and bottom of the curb ramp.
7. Curb ramps shall have a detectable warning surface that extends the full width and 3′-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
8. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
9. Sidewalk and ramp thickness, "T", shall be 4" minimum.
10. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
11. For flowline and gutter elevations, see profile sheets.

CURVE DATA

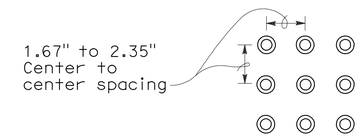
No.	R	Δ	T	L
2	50.00′	50°15′58"	23.46′	43.87′



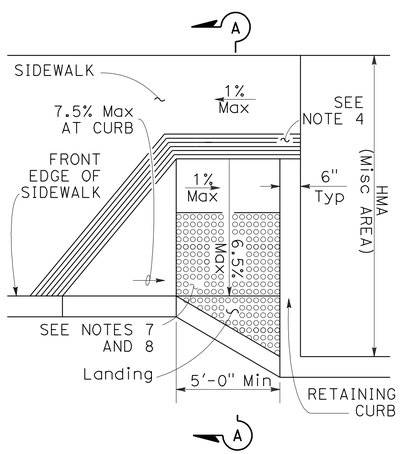
RAISED TRUNCATED DOME



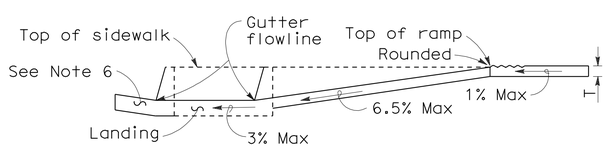
GROOVING DETAIL
See Note 4



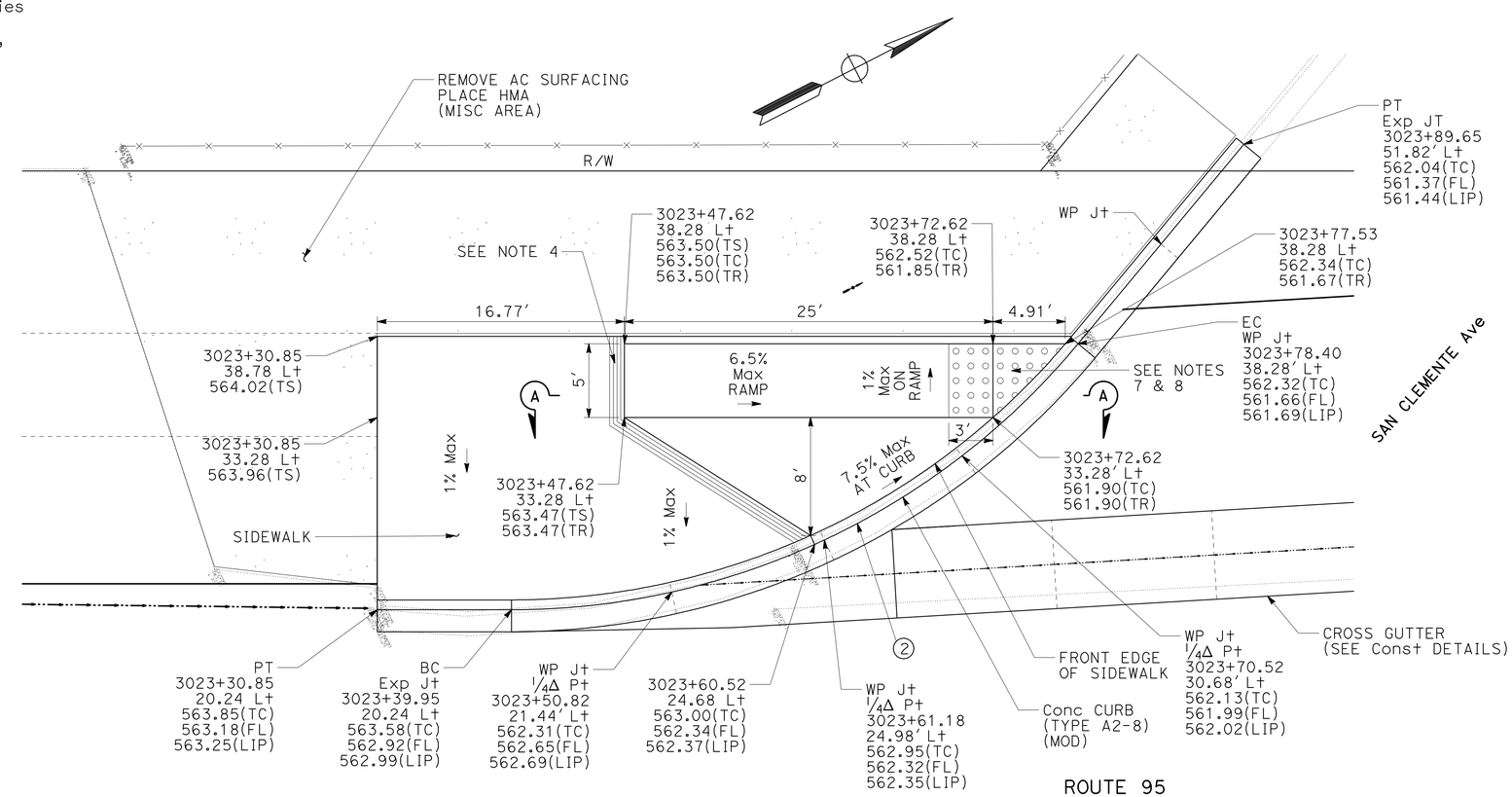
RAISED TRUNCATED DOME PATTERN (IN-LINE) DETECTABLE WARNING SURFACE
See Note 7



CASE G (MOD)



SECTION A-A



RAMP LOCATION 2
CURB RAMP (CASE G)(MOD)

CONSTRUCTION DETAILS
NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

ROBERT LYLES | BIHARI MEHTA | DU LU

REVISED BY | DATE REVISED | CALCULATED-DESIGNED BY | CHECKED BY | FUNCTIONAL SUPERVISOR

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	14	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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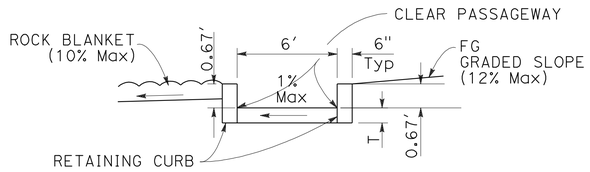
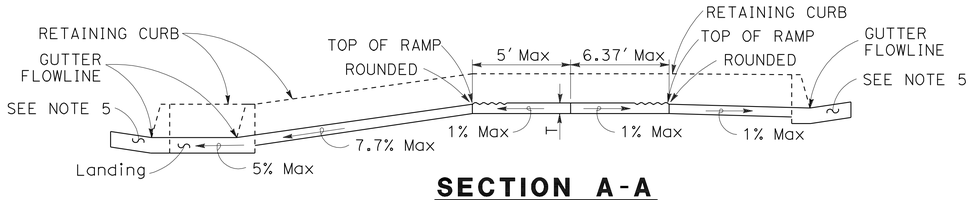
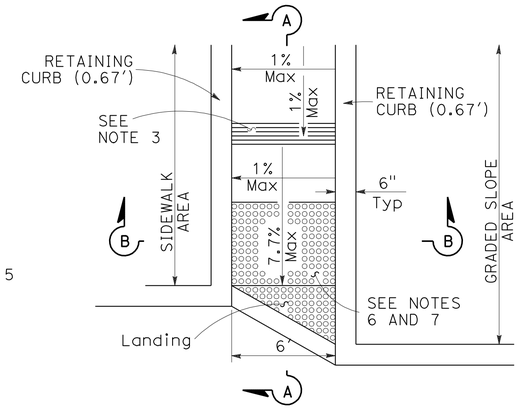


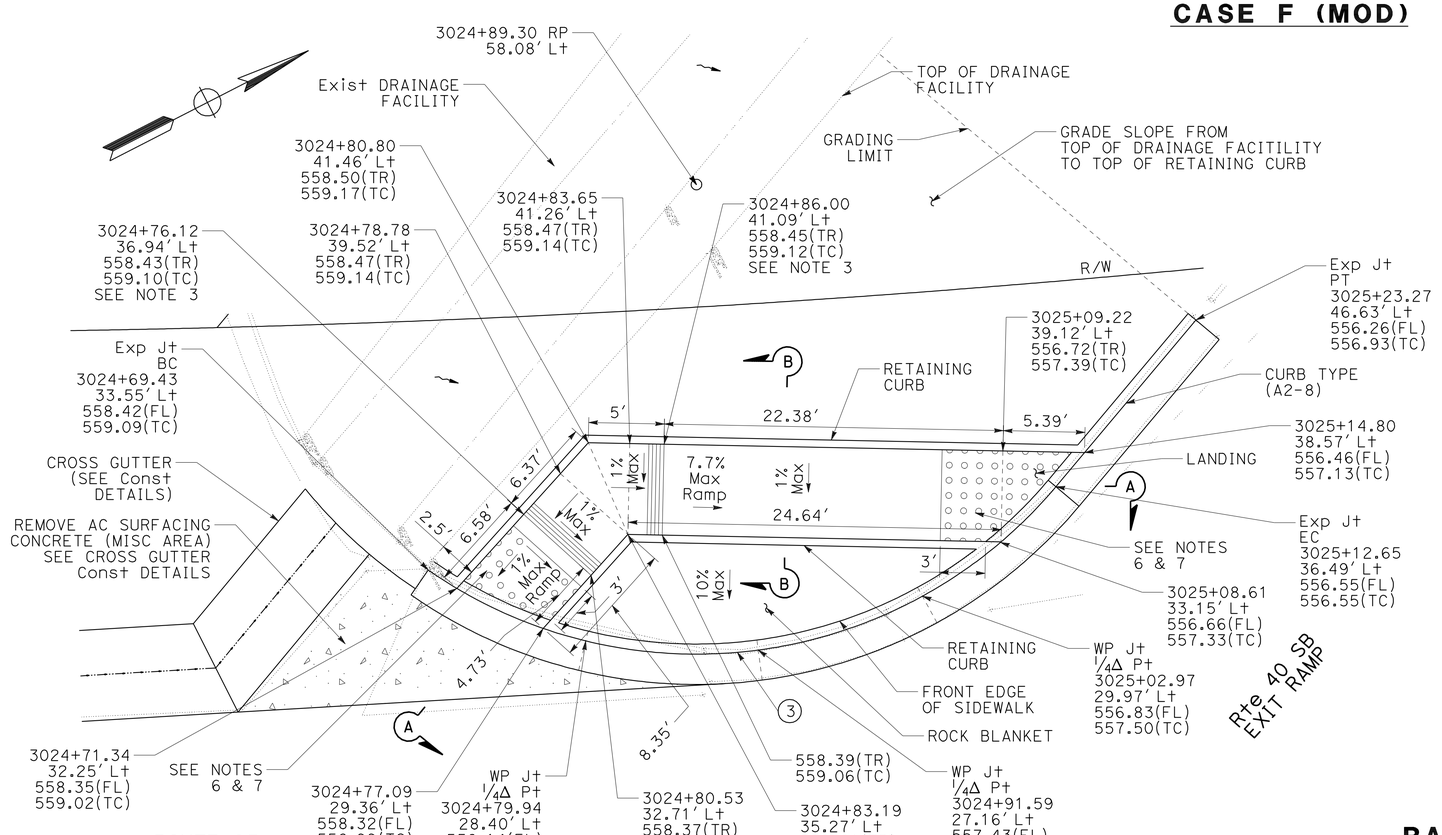
SECTION B-B



SECTION A-A



CASE F (MOD)



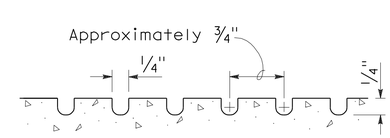
CURVE DATA

No.	R	Δ	T	L
3	31.00'	84°47'16"	28.30'	45.87'

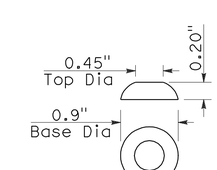
RAMP LOCATION 3
CURB RAMP (CASE F) (MOD)

NOTES:

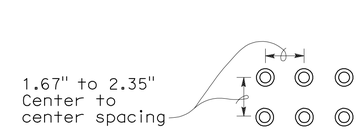
1. For curve radius of Curb Type (A2-8), weakened plane joints shall be constructed at interior 1/4Δ point locations between the expanion joints at BC and EC.
2. If located on a curve, the sides of the ramp need to be parallel, and the minimum width of the ramp shall be 6'-0".
3. The curb ramp shall be outlined, as shown, with a 1'-0" wide border with 1/4" grooves approximately 3/4" on center. See Grooving Detail.
4. Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.
5. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 2 percent within 4'-0" of the top and bottom of the curb ramp.
6. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
7. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
8. Sidewalk and ramp thickness, "T", shall be 4" minimum.
9. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
10. For flowline and gutter elevations, see profile sheets.



GROOVING DETAIL
See Note 3



RAISED TRUNCATED DOME



RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE
See Note 6

CONSTRUCTION DETAILS
NO SCALE **C-3**

REVISED BY | DATE REVISED
ROBERT LYLES | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DU LU
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	15	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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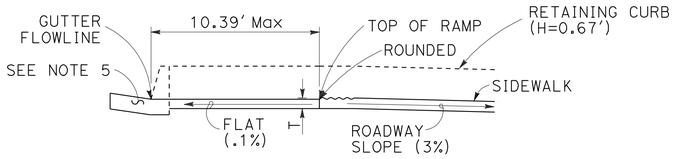
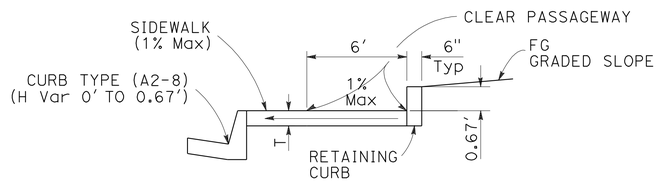
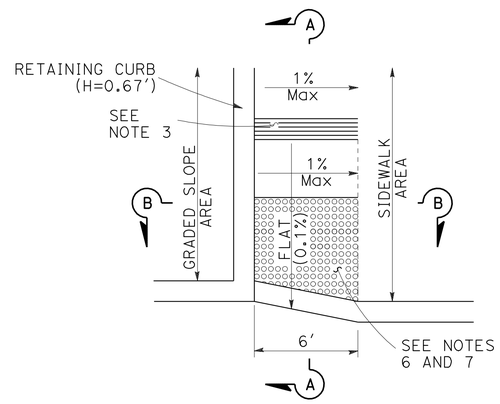


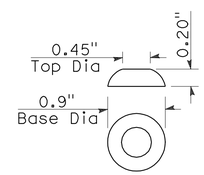
SECTION A-A



SECTION B-B



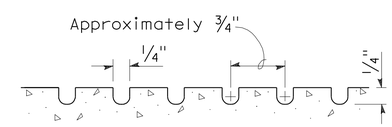
CASE F (MOD)



RAISED TRUNCATED DOME

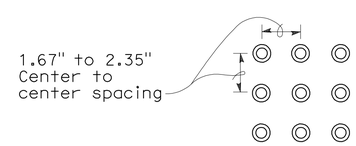
NOTES:

1. For curve radius of Curb Type (A2-8), weakened plane joints shall be constructed at interior ¼Δ point locations between the expanion joints at BC and EC.
2. If located on a curve, the sides of the ramp need to be parallel, and the minimum width of the ramp shall be 6′-0".
3. The curb ramp shall be outlined, as shown, with a 1′-0" wide border with ¼" grooves approximately ¾" on center. See Grooving Detail.
4. Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.
5. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 2 percent within 4′-0" of the top and bottom of the curb ramp.
6. Curb ramps shall have a detectable warning surface that extends the full width and 3′-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
7. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
8. Sidewalk and ramp thickness, "T", shall be 4" minimum.
9. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
10. For flowline and gutter elevations, see profile sheets.



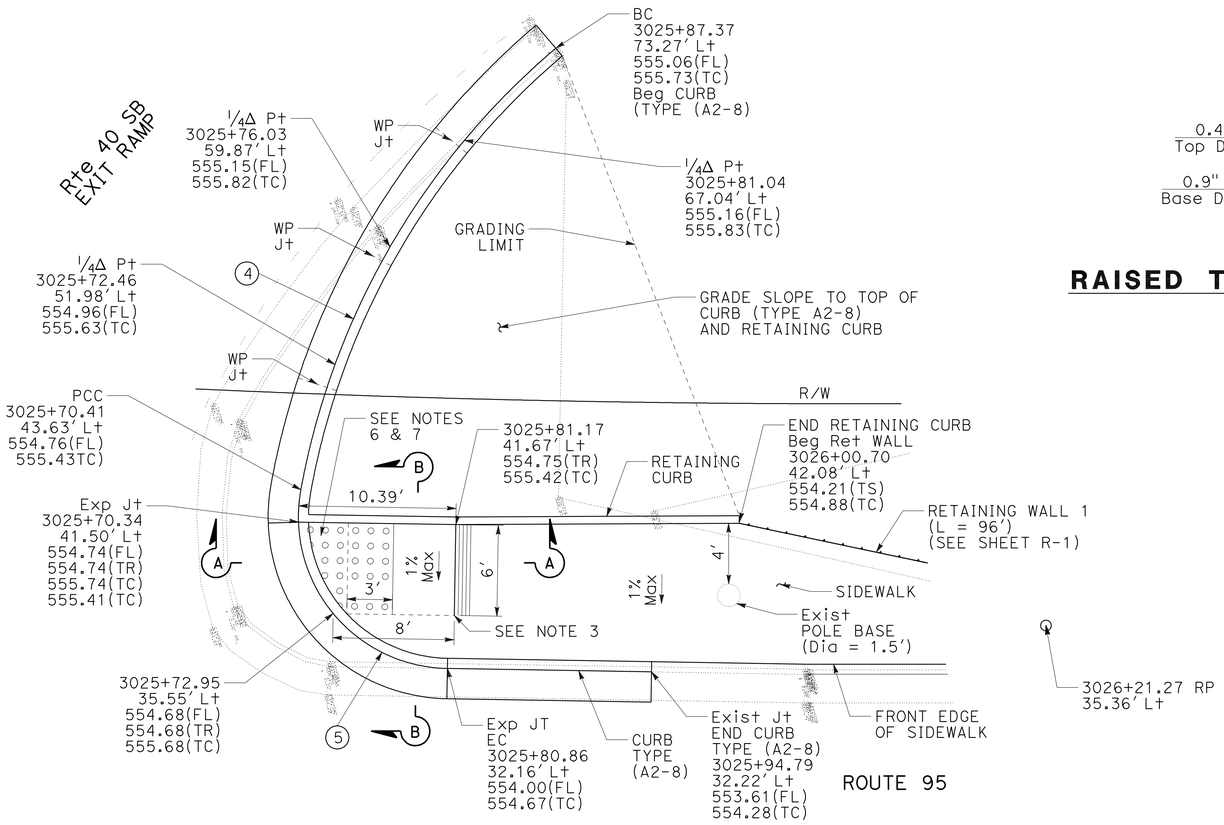
GROOVING DETAIL

See Note 3



RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE

See Note 6



CURVE DATA

No.	R	Δ	T	L
4	50.00′	39°20′30"	17.87′	34.33′
5	10.00′	99°22′43"	11.79′	17.34′

RAMP LOCATION 4
CURB RAMP (CASE F)(MOD)

CONSTRUCTION DETAILS

NO SCALE **C-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN
FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: ROBERT LYLES
CHECKED BY: BIHARI MEHTA
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	16	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

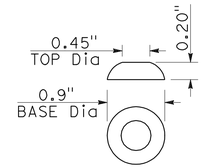
NOTES:

1. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 5'-0".
2. The curb ramp shall be outlined, as shown, with a 1'-0" wide border with 1/4" grooves approximately 3/4" on center. See grooving detail.
3. Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.
4. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 2 percent within 4'-0" of the top and bottom of the curb ramp.
5. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
6. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the gutter flowline.
7. Sidewalk and ramp thickness, "T", shall be 4" minimum.
8. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
9. For flowline and gutter elevations, see profile sheets.

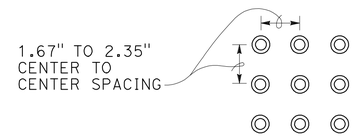
3030+04.99 RP
82.14' Lt

CURVE DATA

No.	R	Δ	T	L
6	50.00'	50°20'51"	23.50'	43.94'

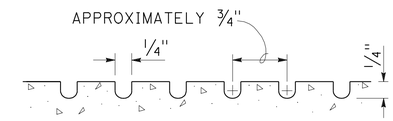


RAISED TRUNCATED DOME



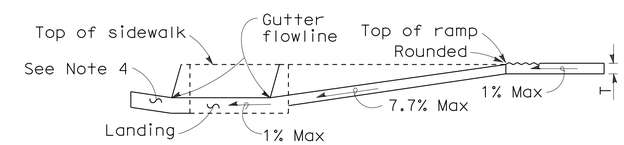
RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE

See Note 5

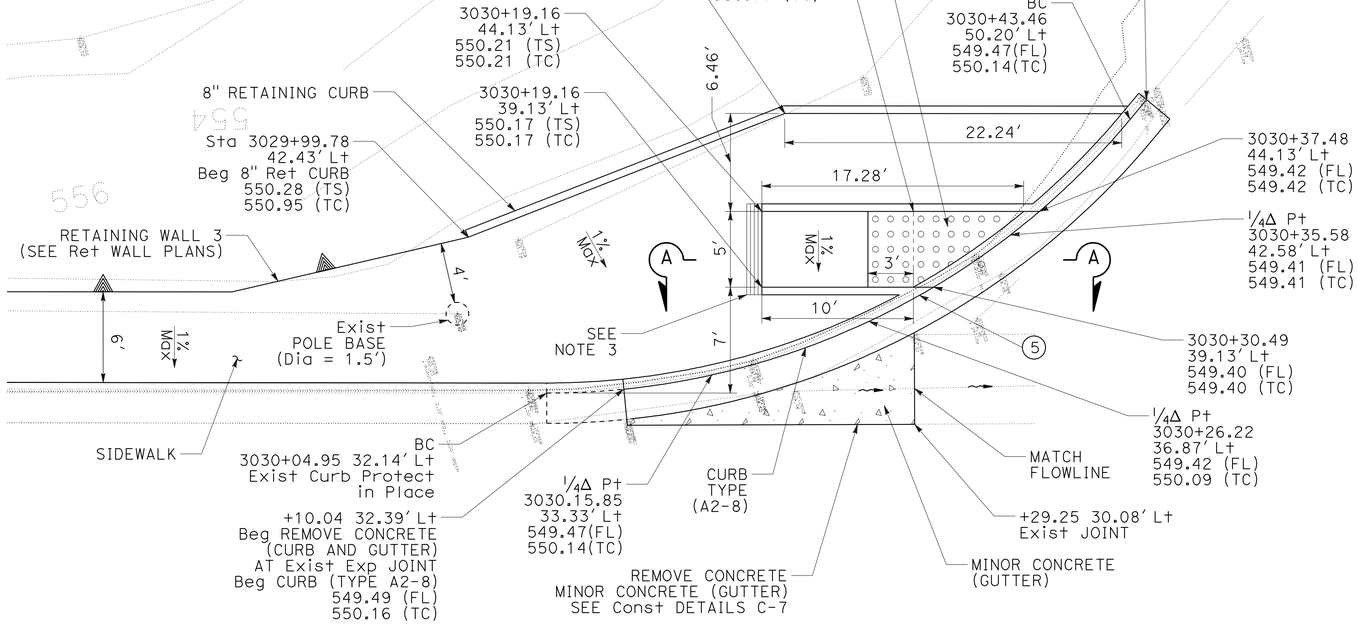


GROOVING DETAIL

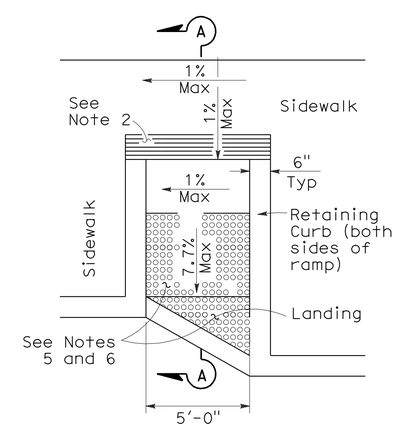
See Note 2



SECTION A-A



CURB RAMP (LOCATION 5)
CASE F (MOD)



CASE F (MOD)

CONSTRUCTION DETAILS

SCALE: 1" = 5' **C-5**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: DU LU

CALCULATED-DESIGNED BY: ROBERT LYLES
CHECKED BY: BIHARI MEHTA

REVISED BY / DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	17	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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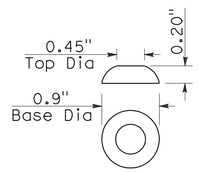
NOTES:

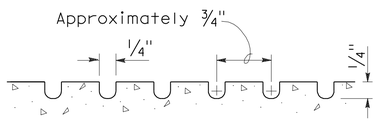
1. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 5′-0″.
2. The curb ramp shall be outlined, as shown, with a 1′-0″ wide border with ¼″ grooves approximately ¾″ on center.
3. Transitions from ramps and landing to walks, gutters or streets shall be flush and free of abrupt changes.
4. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the curb ramp or accessible route shall not exceed 2 percent within 4′-0″ of the top and bottom of the curb ramp.
5. Curb ramps shall have a detectable warning surface that extends the full width and 3′-0″ depth of the ramp.
6. The edge of the detectable warning surface nearest the street shall be between 6″ and 8″ from the gutter flowline.
7. Sidewalk and ramp thickness, "T", shall be 4″ minimum.
8. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
9. For flowline and gutter elevations, see profile sheets.

CURVE DATA

No.	R	Δ	T	L
7	60.00′	48°10′27″	26.82′	50.45′
8	25.00′	35°1′50″	7.89′	15.28′
9	40.00′	32°39′12″	11.72′	22.80′

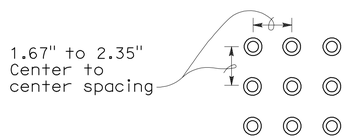


RAISED TRUNCATED DOME



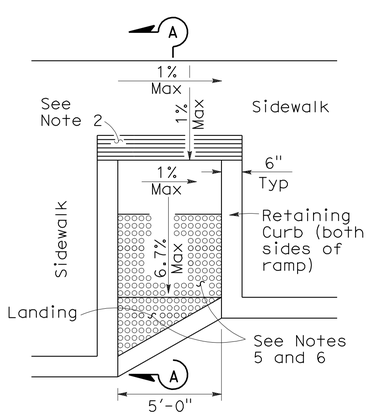
GROOVING DETAIL

See Note 2

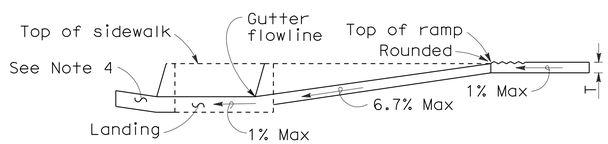


RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE

See Note 5

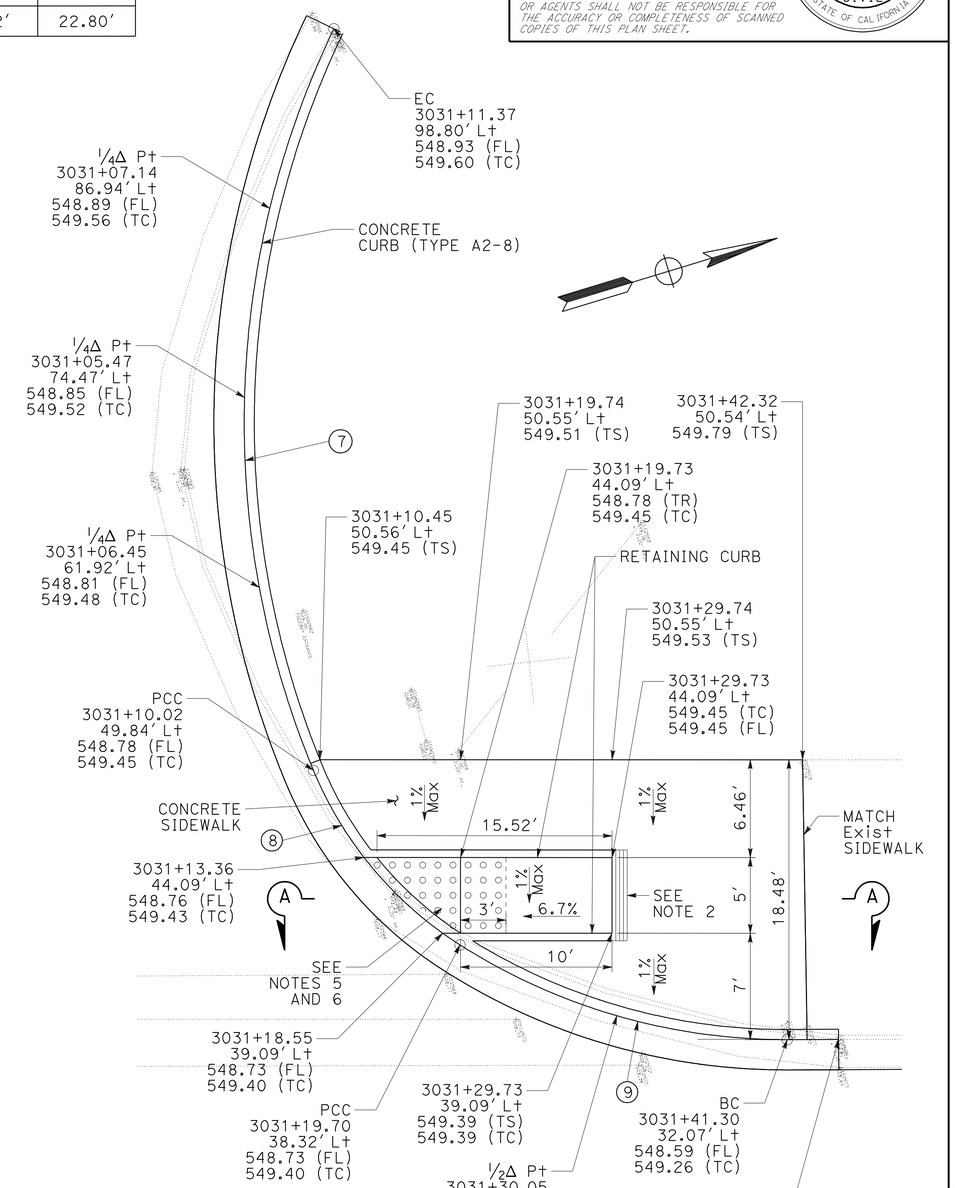


CASE F (MOD)



SECTION A-A

CURB RAMP (LOCATION 6)
CASE F (MOD)



CONSTRUCTION DETAILS

SCALE: 1″ = 5′ **C-6**

REVISED BY | DATE REVISED
ROBERT LYLES | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR | DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	18	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

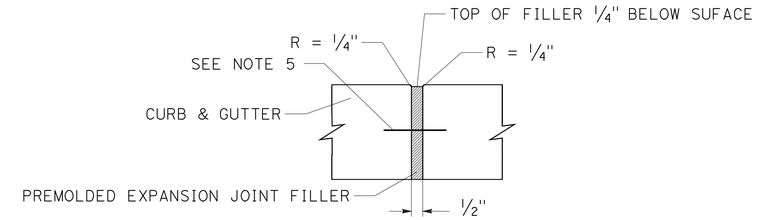
6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

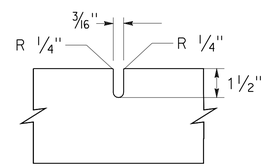
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

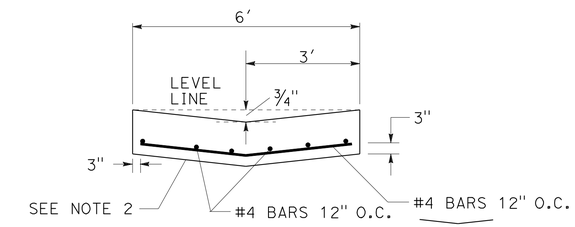
1. CROSS GUTTER THICKNESS TO BE 10" MINIMUM OF PORTLAND CEMENT CONCRETE PER STANDARD SPECIFICATIONS SECTION 90.
2. SOIL UNDER GUTTER SHALL BE COMPACTED TO 95%, AS PER STANDARD SPECIFICATIONS SECTION 26.
3. ALL REINFORCING STEEL SHALL HAVE 3" MINIMUM CLEAR COVER. REINFORCING STEEL PER STANDARD SPECIFICATIONS SECTION 52.
4. REINFORCING TO EXTEND TO LIMITS OF CROSS GUTTER.
5. ALL EXPANSION JOINTS SHALL HAVE ½" x 18" SMOOTH DOWELS @ 22" O.C. WRAPPED OR GREASED.
6. ROUGH BROOM FINISH WITH 8" FLOWLINE SMOOTH TROWELED.
7. TO ACCOMMODATE EXCAVATION WORK AND NEWLY PLACED CONCRETE CURING, SEE CALTRANS ENCROACHMENT PERMIT MANUAL, ENCROACHMENT PERMIT STEEL PLATE BRIDGING UTILITY PROVISIONS TR-0157 (Rev. 07/2009) METHOD 2, FOR THE USE OF STEEL PLATES. ALSO SEE TRAFFIC HANDLING PLANS.



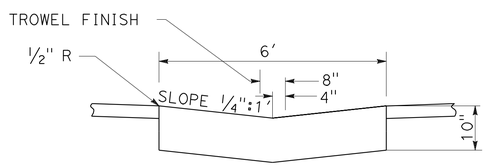
EXPANSION JOINT



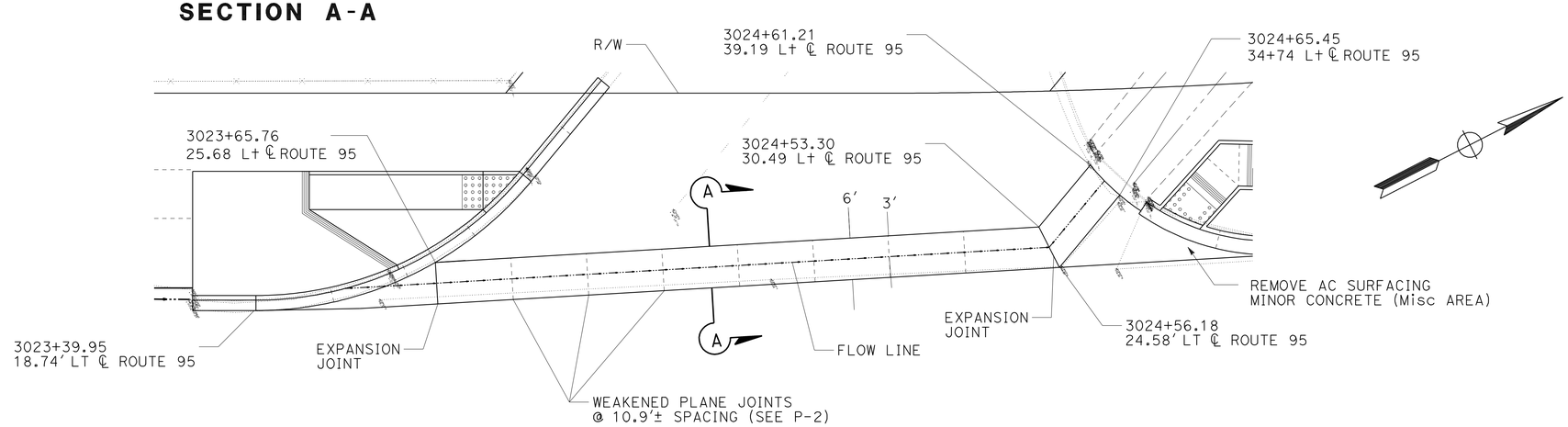
WEAKENED PLANE JOINT



REINFORCING DETAIL



SECTION A-A



CROSS GUTTER DETAIL

CONSTRUCTION DETAILS

NO SCALE

C-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

ROBERT LYLES — CALCULATED-DESIGNED BY
BIHARI MEHTA — CHECKED BY
DU LU — FUNCTIONAL SUPERVISOR
REVISED BY — DATE REVISED

LAST REVISION 05-28-13 — DATE PLOTTED => 29-MAY-2013 — TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	19	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

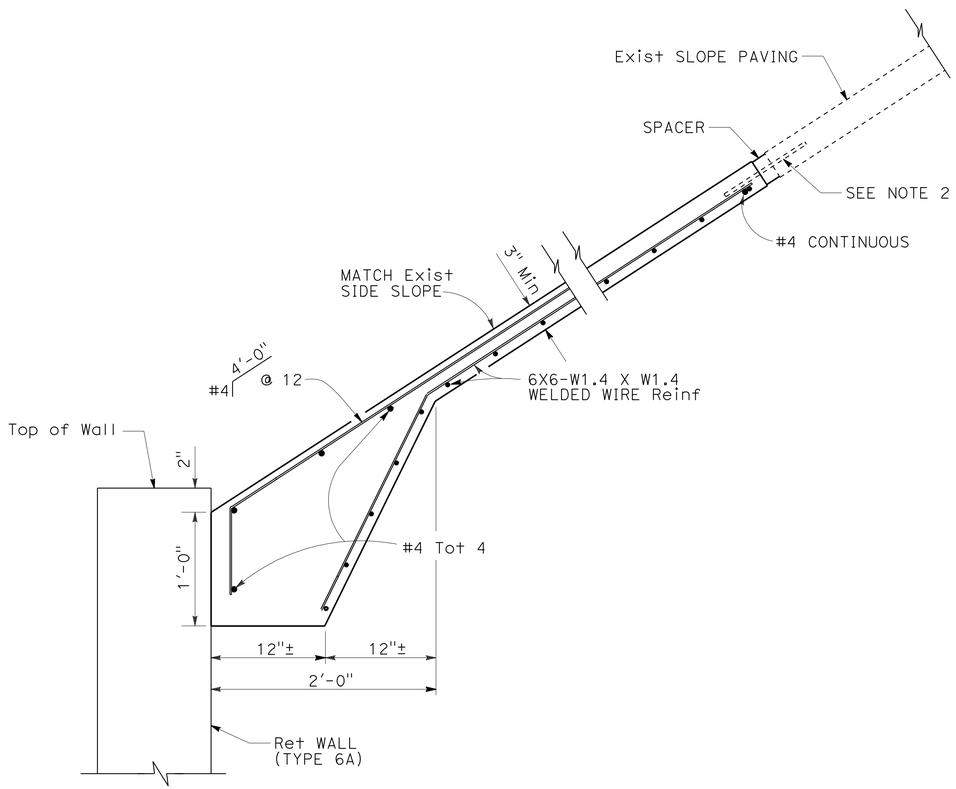
6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

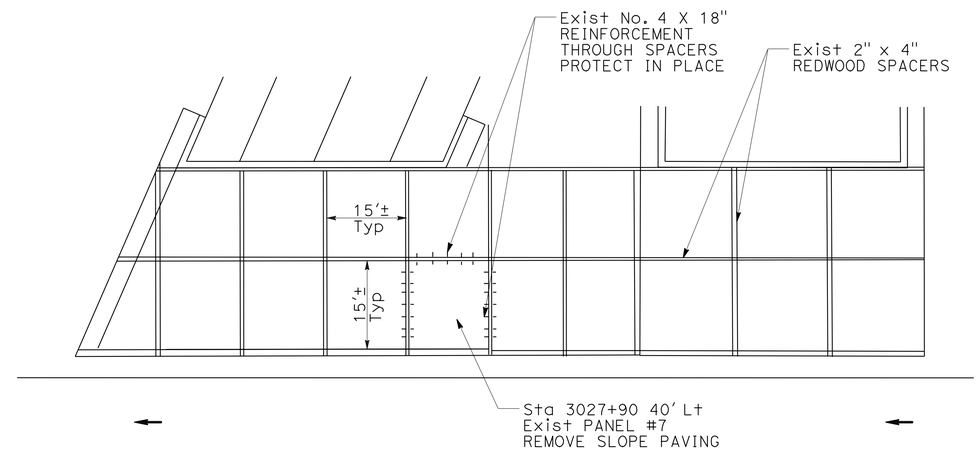
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

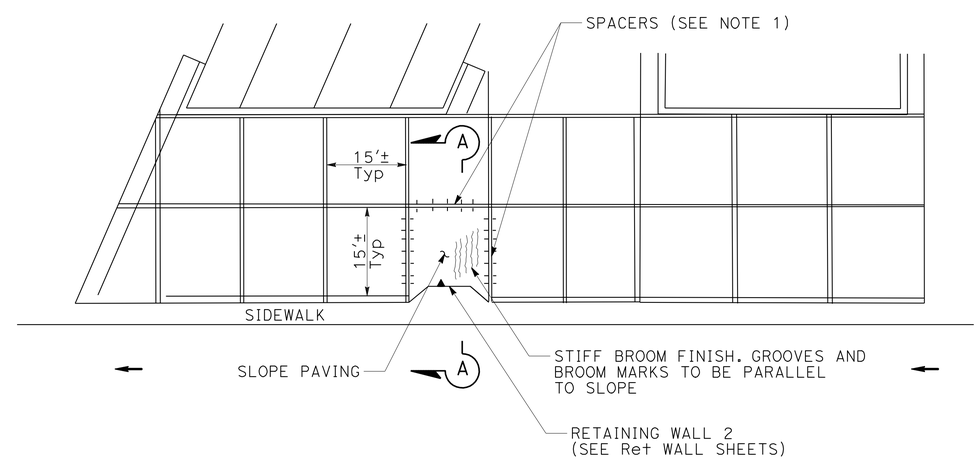
1. For spacers use 2" x 4" Redwood on 15'± centers in both directions.
2. When removing concrete protect in place reinforcement through spacers.
3. Stiff broom finish. Grooves and broom marks to be parallel to slope.



SECTION A-A - SLOPE PAVING



PLAN



PLAN

CONSTRUCTION DETAILS

NO SCALE

C-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DU LU

CALCULATED-DESIGNED BY: BIHARI MEHTA
CHECKED BY: BIHARI MEHTA

REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	20	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

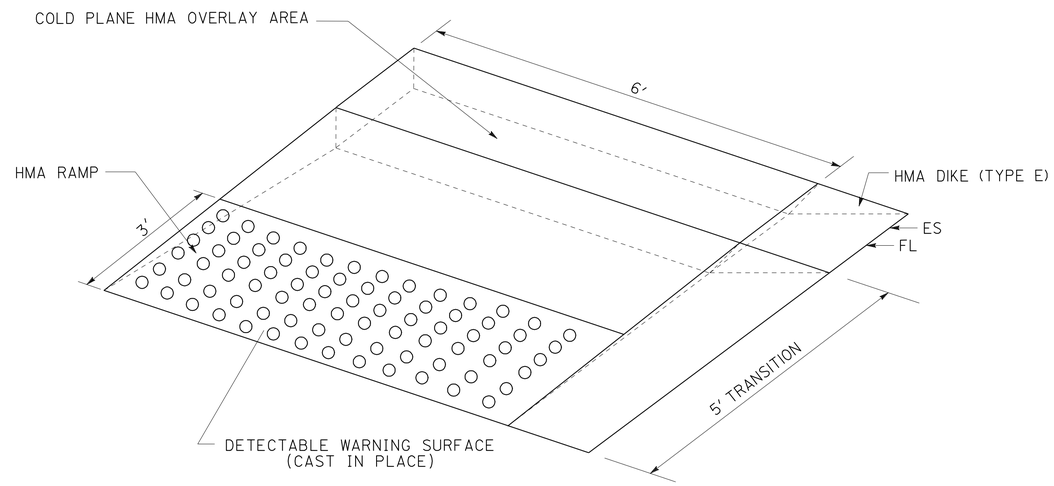
6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

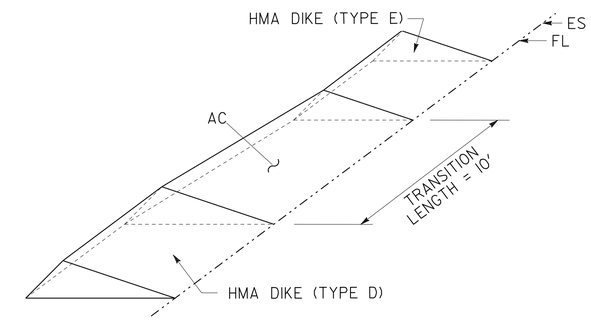
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

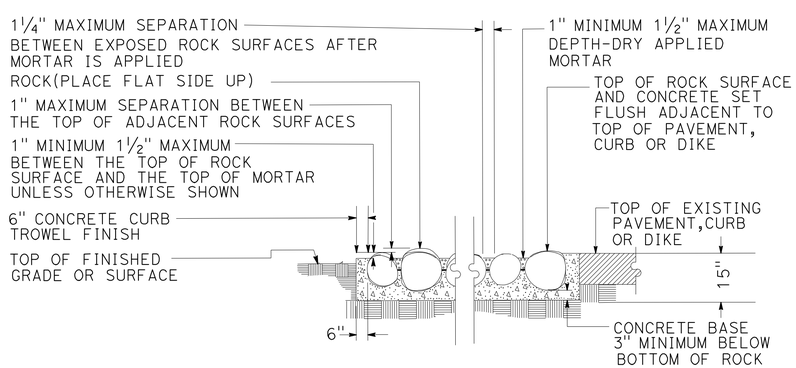
1. Transitions from ramp and landing to walks, gutters or streets shall be flush and free of abrupt changes.
2. Maximum slopes of adjoining gutters, the road surface immediately adjacent to the ramp or accessible route shall not exceed 5 percent within 4'-0" of the top and bottom of the ramp.
3. Ramp shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable Warning Surfaces shall conform to the details on this plan and the requirements in the Special Provisions.
4. The edge of the detectable warning surface nearest the street shall be between 6" and 8" from the dike flowline.



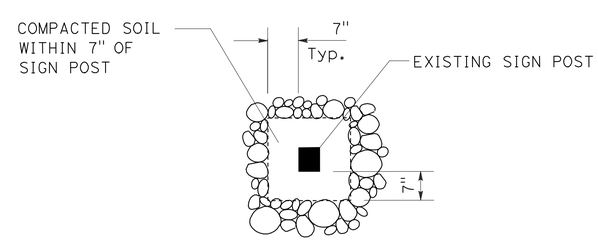
HMA RAMP



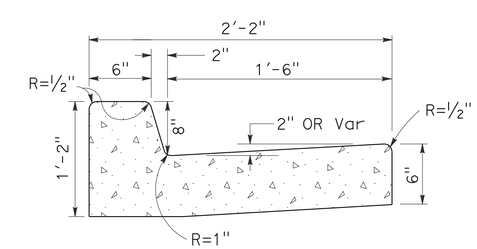
DIKE TRANSITION



ROCK BLANKET



ROCK BLANKET APPLICATION AT POST



TYPE A2-8 (MOD) CURB

CONSTRUCTION DETAILS

NO SCALE

C-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN
FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: BIHARI MEHTA
CHECKED BY: BIHARI MEHTA
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	21	50

N V Nguyen 5-28-13
REGISTERED CIVIL ENGINEER DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
NHUAN NGUYEN
No. 42692
Exp. 3-31-14
CIVIL
STATE OF CALIFORNIA

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

TEMPORARY WATER POLLUTION CONTROL

APPROXIMATE STATION	TEMPORARY DRAINAGE INLET PROTECTION	DRAINAGE INLET MARKER	TEMPORARY GRAVEL BAG BERM	TEMPORARY CONCRETE WASHOUT	REMARKS
	EA	EA	LF	LS	
3022+80	1				APPROX. 23' LT "℄ RTE 95"
3022+91	1	1			APPROX. 22' LT "℄ RTE 95"
3024+69 TO 3025+23			50		APPROX. 30' LT "℄ RTE 95"
				1	
TOTAL	2	1	50	1	

TEMPORARY WATER POLLUTION CONTROL QUANTITIES

WPCQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: GEORGE MORHIG
CALCULATED-DESIGNED BY: H. PHAM
CHECKED BY: GEORGE MORHIG
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	22	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

NOTES:

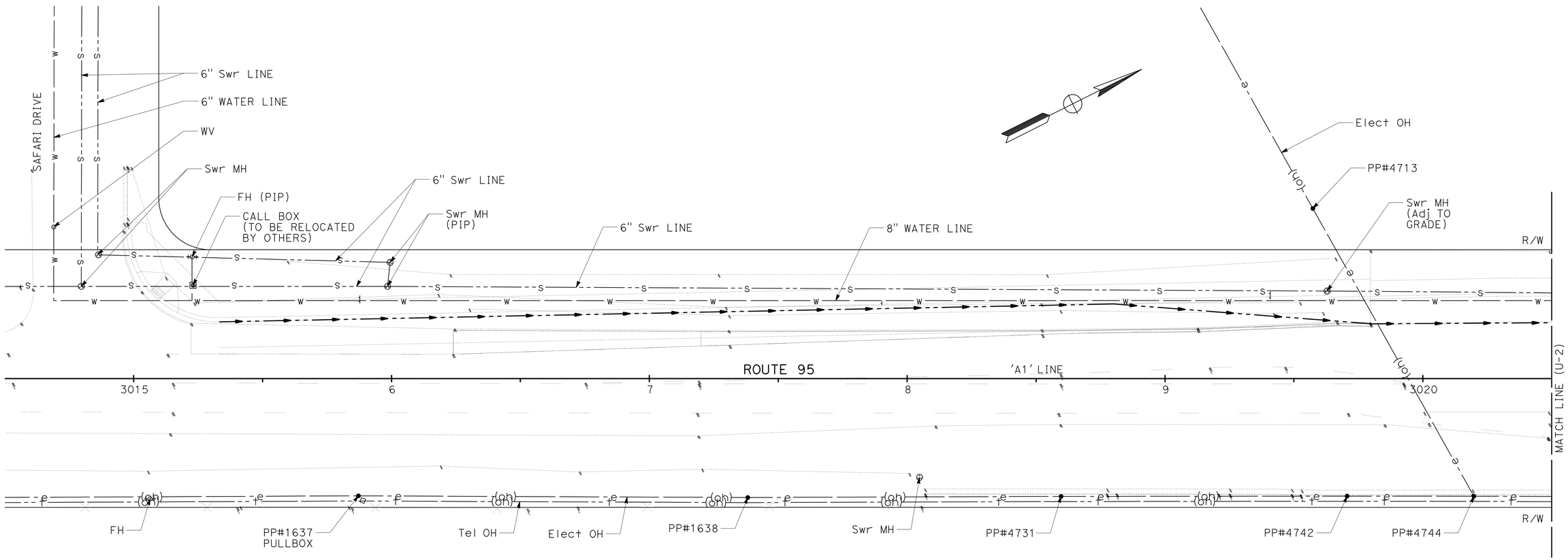
1. CALL BEFORE YOU DIG. SECTION 4216 OF THE GOVERNMENT CODE REQUIRES AN INQUIRY IDENTIFICATION NUMBER BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID. FOR YOUR PRE-EXCAVATION I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT TOLL FREE AT 1-800-227-2600 FIVE WORKING DAYS BEFORE YOU DIG.
2. ALL UTILITY LOCATIONS ARE APPROXIMATE BASED ON AS BUILTS AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
3. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE
4. UTILITY INFORMATION WAS PROVIDED BY UTILITIES OWNERSHIP. FOR ACCURATE MARKINGS OF FACILITY LOCATIONS, PLEASE CALL UNDERGROUND SERVICE ALERT.

LEGEND:

-——w—— —— ——w—	INDICATES EXISTING UNDERGROUND WATER LINE (CITY OF NEEDLES)
——--s——-- ——--s-	INDICATES EXISTING UNDERGROUND Swr LINE (CITY OF NEEDLES)
——-e—— ——-{oh}-	INDICATES EXISTING OVERHEAD ELECTRIC LINE (CITY OF NEEDLES)
——--t—— ——--{oh}	INDICATES EXISTING OVERHEAD TELEPHONE LINE

ABBREVIATIONS:

PIP - PROTECT IN PLACE



UTILITY PLAN

SCALE: 1"=20' **U-1**

APPROVED FOR UTILITY INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® **DESIGN**

FUNCTIONAL SUPERVISOR: DU LU

CALCULATED-DESIGNED BY: ROBERT LYLES JR
CHECKED BY: BIHARI MEHTA

REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	23	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

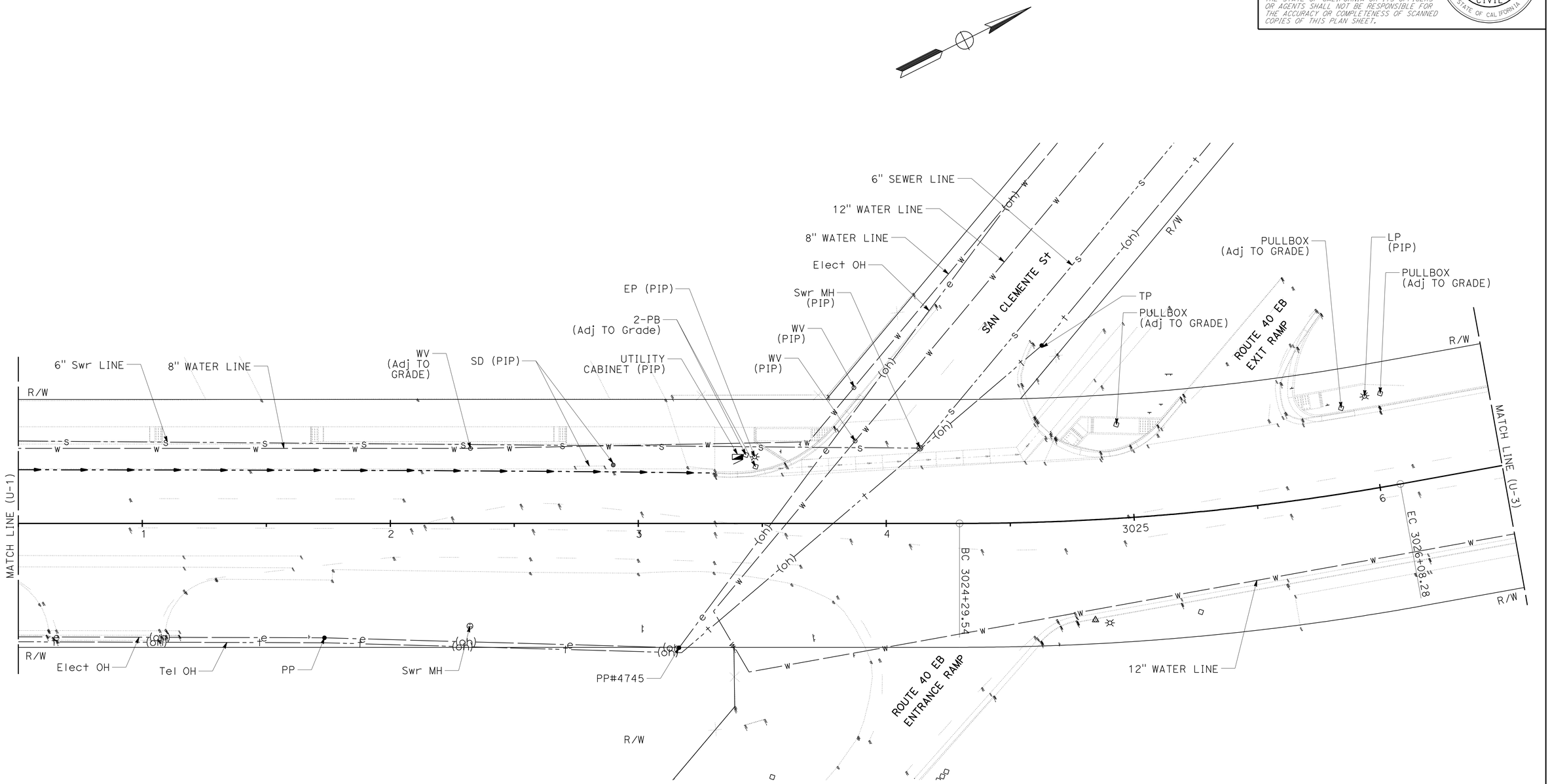
6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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

NOTE:

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



APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1"=20' **U-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® **DESIGN**

FUNCTIONAL SUPERVISOR: DU LU

CALCULATED-DESIGNED BY: ROBERT LYLES JR
CHECKED BY: BIHARI MEHTA

REVISED BY | DATE REVISED

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	24	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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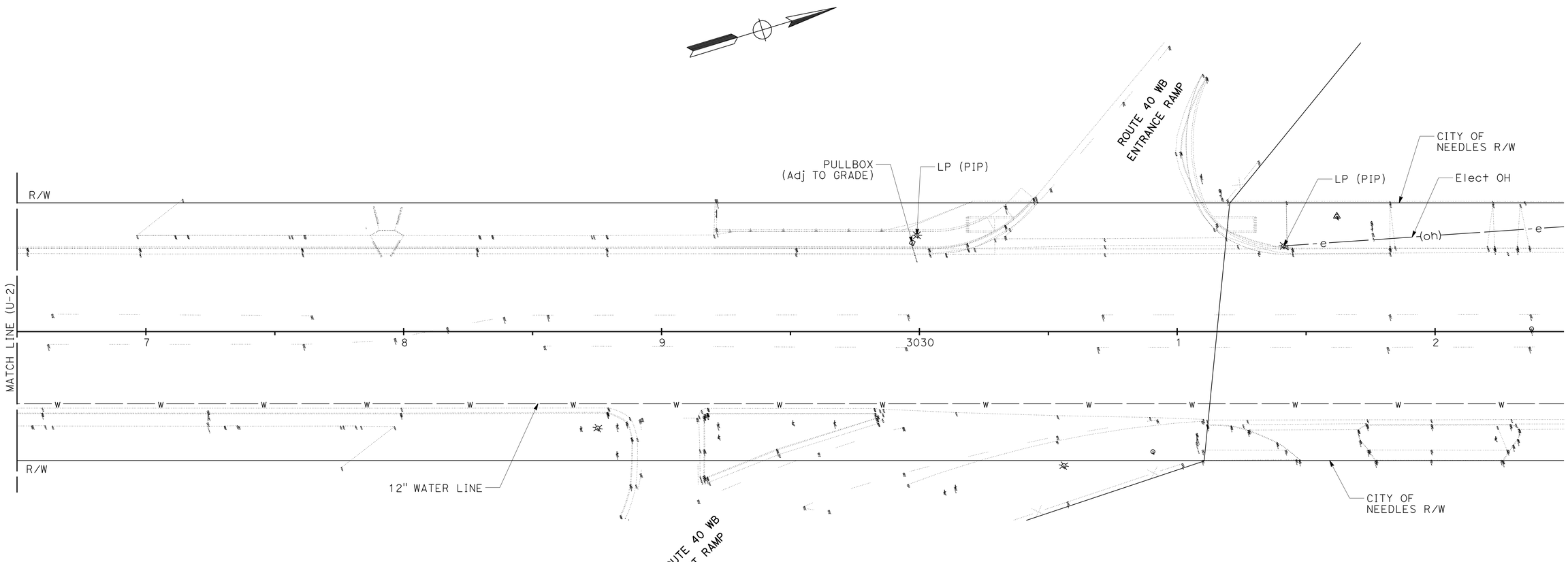
NOTE:

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



APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1"=20' **U-3**

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
ROBERT LYLES JR	BIHARI MEHTA

FUNCTIONAL SUPERVISOR: DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	25	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRAN HOANG No. 54996 Exp 6/30/14 CIVIL STATE OF CALIFORNIA

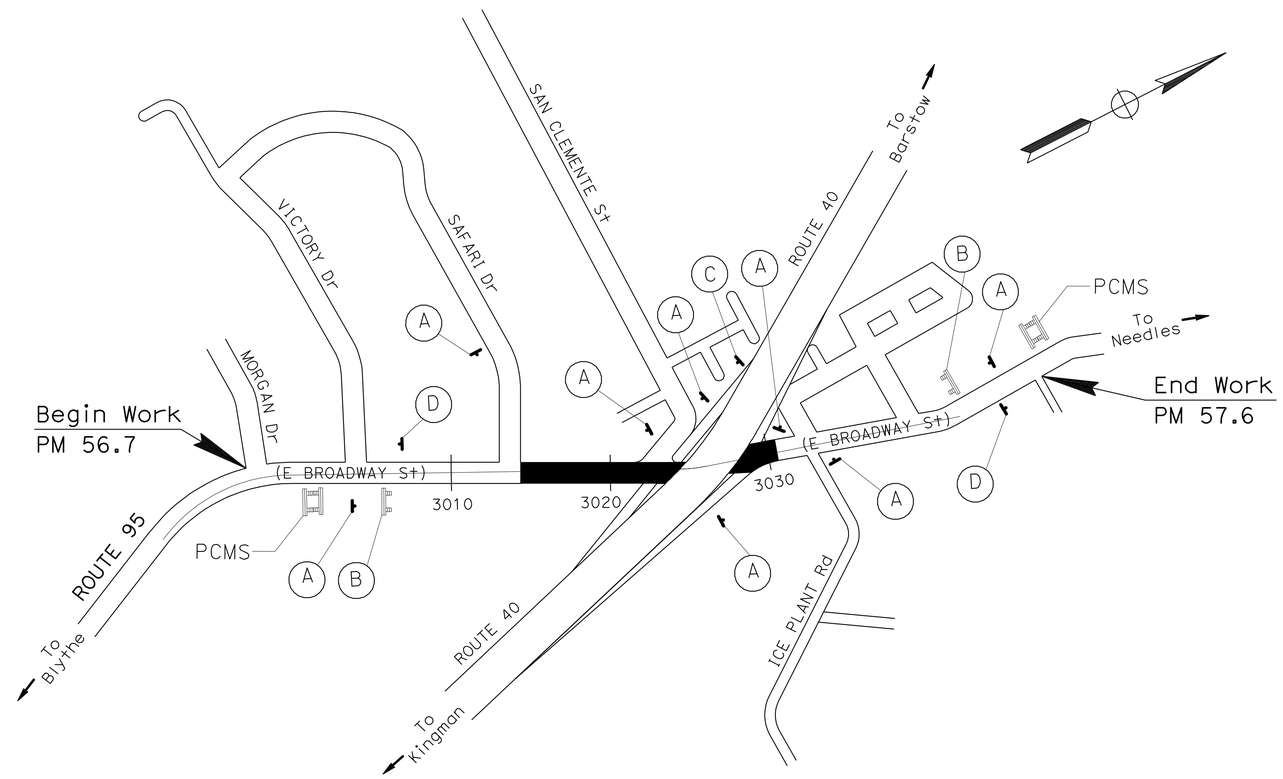
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. CONSTRUCTION AREA SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. REFER TO SHEETS TCS-1 THRU4 FOR TRAFFIC CONTROL REQUIREMENTS.
3. LOCATIONS AND MESSAGES ON PCMS SHALL BE AS DETERMINED BY THE ENGINEER.
4. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO SCHEDULE RAMP CLOSURE.
5. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND RELOCATE THE NECESSARY ROADSIDE SIGNS AS SHOWN ON THE LAYOUT PLAN SHEETS.

LEGEND:

- PCMS
- (X) CONSTRUCTION AREA SIGN NO.
- ONE POST SIGN
- TWO POST SIGN



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE FEDERAL	SIGN CODE CALIFORNIA	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
A	W20-2		48" x 48"	ROAD WORK AHEAD	1 - 4" x 6"	8
B		C40A	108" x 42"	TRAFFIC FINES DOUBLED IN WORK ZONES	2 - 6" x 6"	2
C	SC6-3		48" x 48"	RAMP CLOSED	1 - 4" x 6"	1
D	G20-2		48" x 18"	END ROAD WORK	1 - 4" x 4"	2

PORTABLE CHANGEABLE MESSAGE SIGN

QUANTITY (EA)
2

CONSTRUCTION AREA SIGNS
NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: WILLIAM E WASSER
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: WILLIAM E WASSER
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	26	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRAN HOANG No. 54996 Exp 6/30/14 CIVIL STATE OF CALIFORNIA

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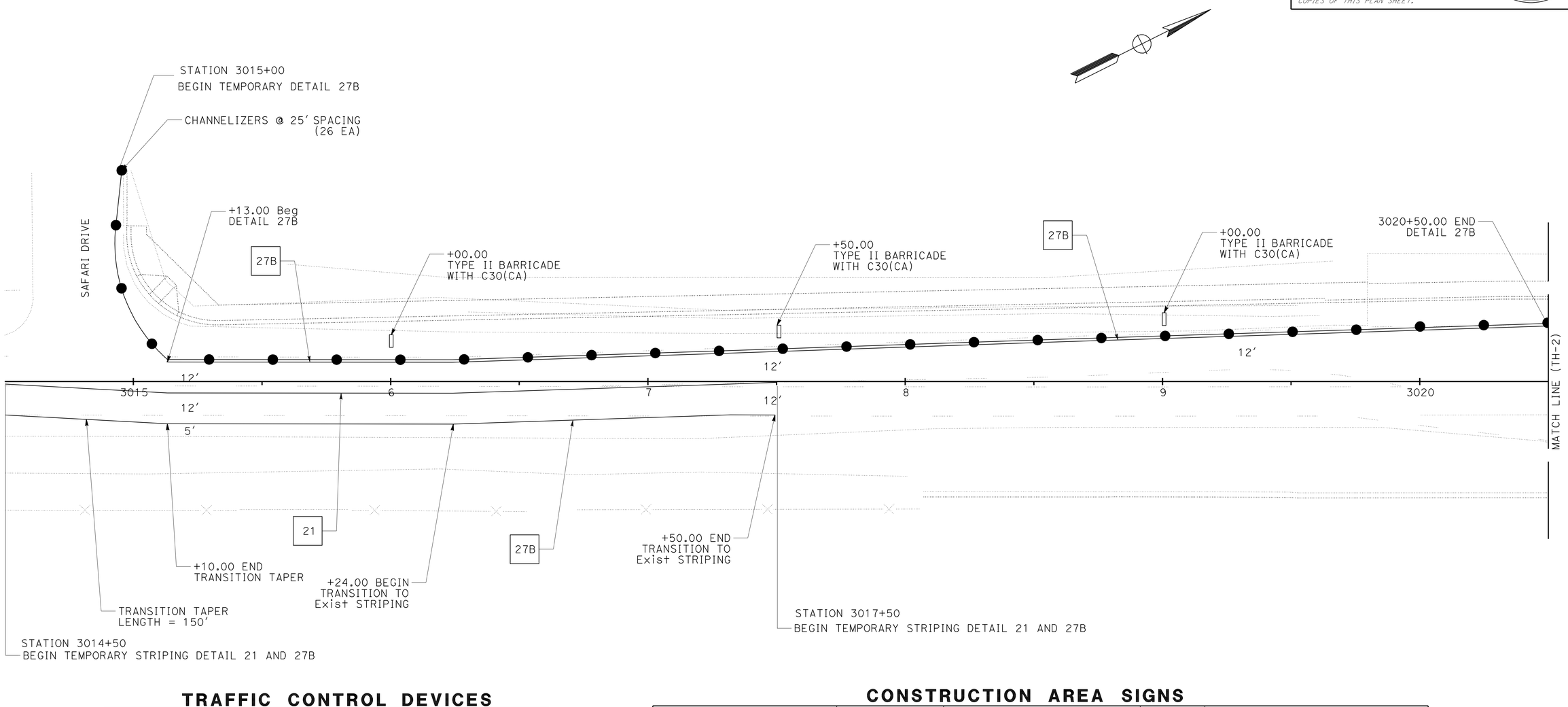
NOTES:

1. CONTRACTOR MUST MAINTAIN ACCESS TO ALL LOCAL BUSINESSES DURING THE ENTIRE LENGTH OF PROJECT.
2. CONTRACTOR MAY USE PORTABLE DELINEATORS IN LIEU OF CHANNELIZERS.
3. DURING RECONSTRUCTION OF THE CROSS-GUTTER, REFER TO PLAN SHEETS TCS-1 THRU 3 AND STEEL PLATE REQUIREMENT FOR TRAFFIC CONTROL.

LEGEND:

XX TEMPORARY PAVEMENT DELINEATION DETAILS



TRAFFIC CONTROL DEVICES

SHEET No.	CHANNELIZERS	TYPE II BARRICADE	TEMPORARY TRAFFIC STRIPE (PAINT)	
			DETAIL 21	DETAIL 27B
TH-1	26	3	387	925
TH-2	40	3		
TH-3	33	2		
TOTAL	99	8	1212	

CONSTRUCTION AREA SIGNS

SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF SIGNS	REMARKS
FEDERAL	CALIFORNIA				
	C30(CA)	30" x 30"	LANE CLOSED	4	MOUNT ON TYPE III BARRICADE
R9-3A		18" x 18"	NO PEDESTRIANS SYMBOL	4	MOUNT ON TYPE III BARRICADE

TRAFFIC HANDLING PLAN

SCALE: 1"=20' **TH-1**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: WILLIAM E WASSER
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: WILLIAM E WASSER
REVISED BY / DATE REVISED

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:08

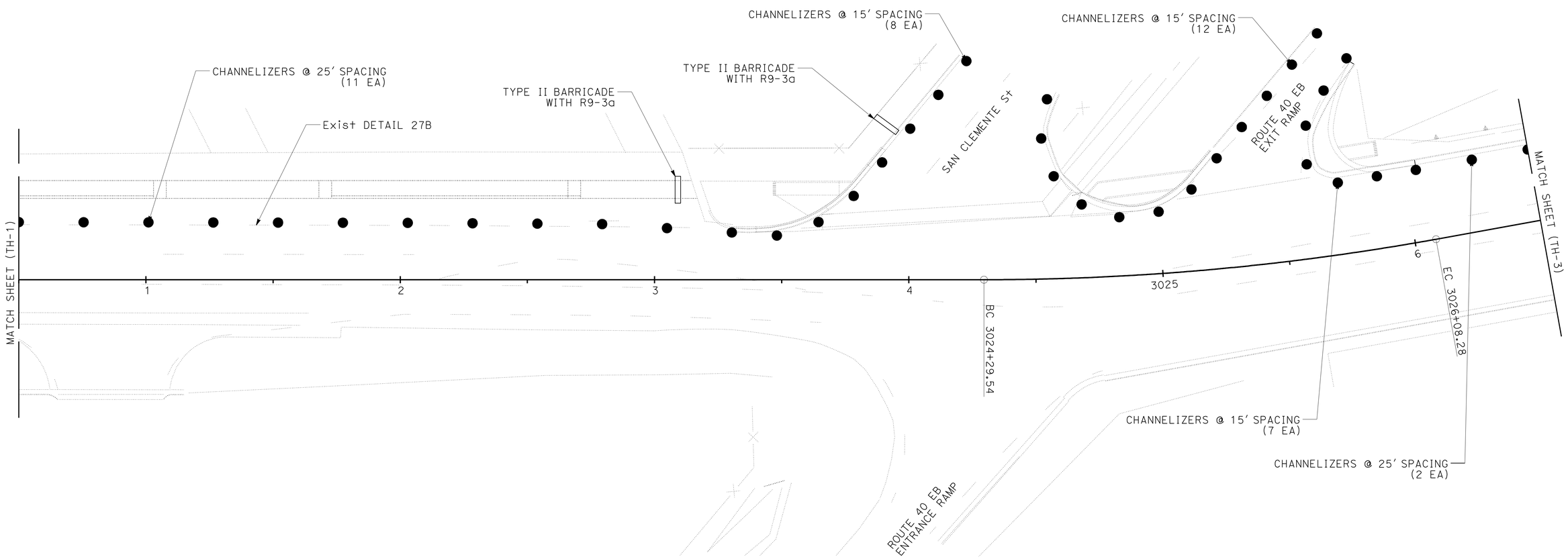
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	27	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
TRAN HOANG
No. 54996
Exp 6/30/14
CIVIL
STATE OF CALIFORNIA

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



TRAFFIC HANDLING PLAN

SCALE: 1"=20' **TH-2**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

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

FUNCTIONAL SUPERVISOR: WILLIAM E WASSER
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: WILLIAM E WASSER
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	28	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
TRAN HOANG
No. 54996
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STATE OF CALIFORNIA

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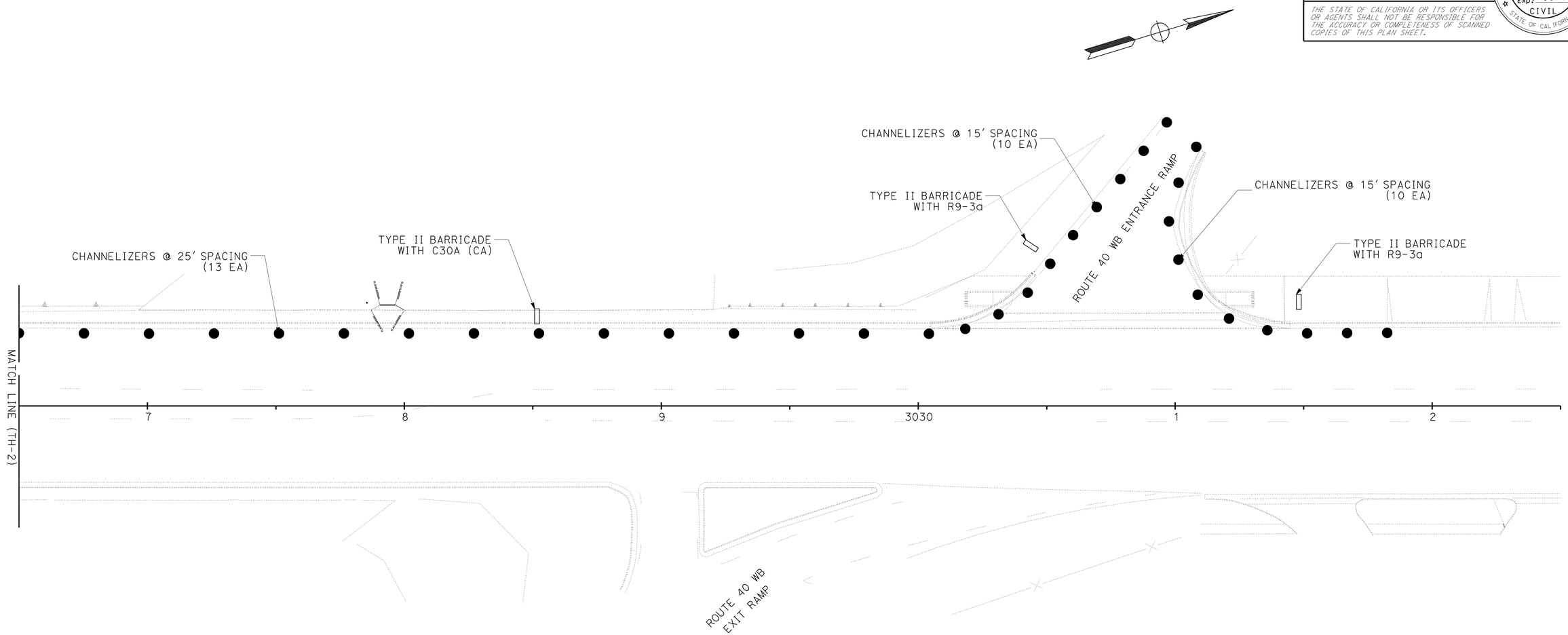

TRAFFIC HANDLING PLAN

SCALE: 1"=20' **TH-3**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

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

FUNCTIONAL SUPERVISOR: WILLIAM E WASSER
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: WILLIAM E WASSER
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	29	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRAN HOANG No. 54996 Exp 6/30/14 CIVIL STATE OF CALIFORNIA

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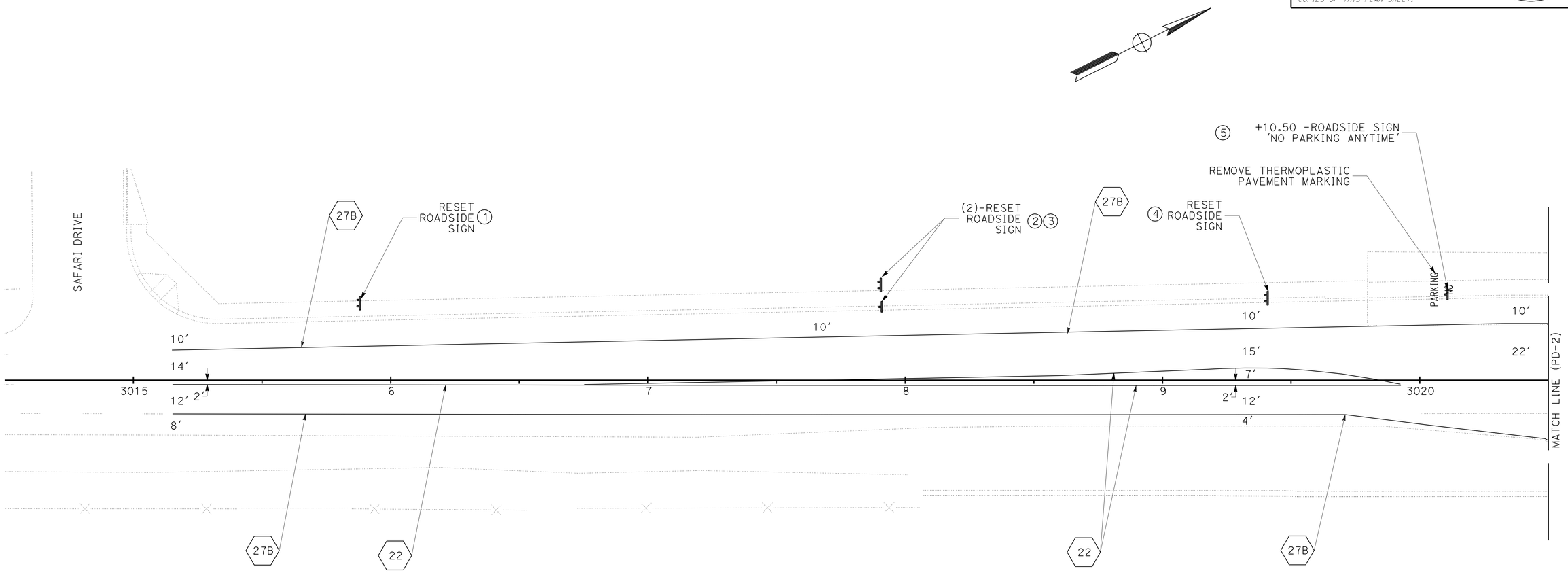

PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20′ **PD-1**

APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

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

FUNCTIONAL SUPERVISOR: WILLIAM E WASSER

CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: WILLIAM E WASSER

REVISED BY | DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	30	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRAN HOANG No. 54996 Exp. 6/30/14 CIVIL STATE OF CALIFORNIA

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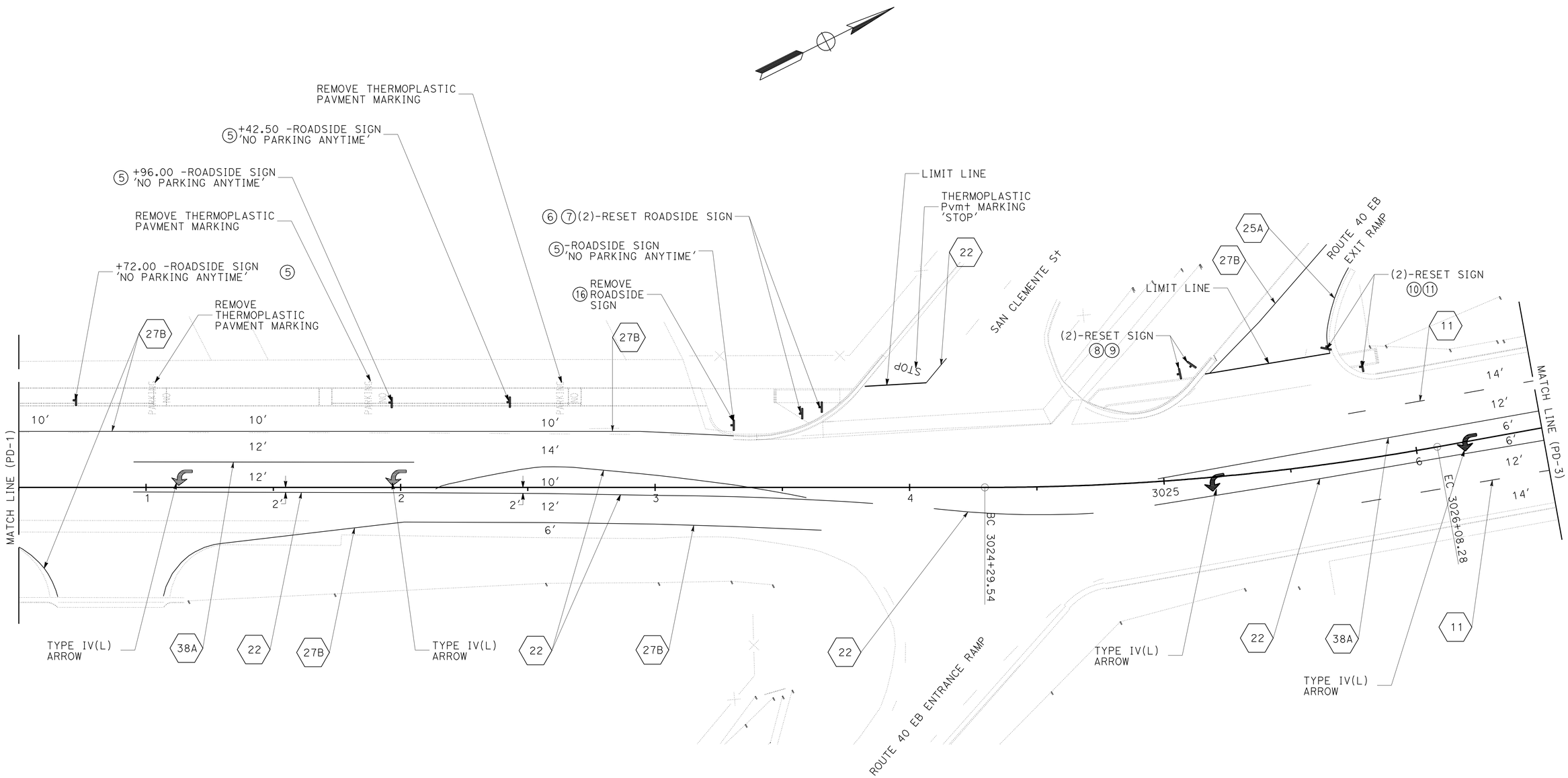

PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20′ **PD-2**

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: WILLIAM E WASSER
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: WILLIAM E WASSER
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	31	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
TRAN HOANG
No. 54996
Exp. 6/30/14
CIVIL
STATE OF CALIFORNIA

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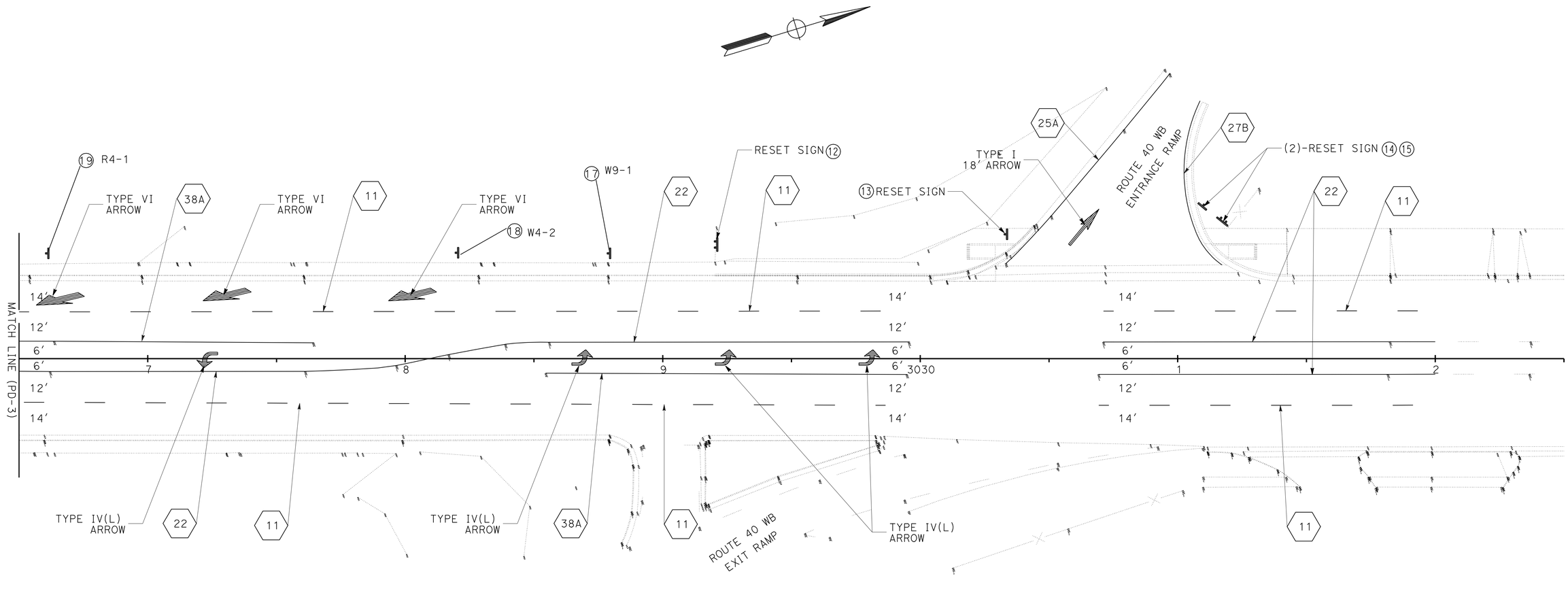

PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-3

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

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

FUNCTIONAL SUPERVISOR: WILLIAM E WASSER
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: WILLIAM E WASSER
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	32	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
TRAN HOANG
No. 54996
Exp. 6/30/14
CIVIL
STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES

LOCATION	STATION TO STATION	DETAIL OR PAVEMENT MARKING	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)			REMOVE PAVEMENT MARKER	PAVEMENT MARKER RETRO REFLECTIVE
			4" WHITE	8" WHITE	4" YELLOW	TYPE D	TYPE D
			LF	LF	LF	EA	EA
ROUTE 95	3015+15 TO 3032+00	22			2075	92	175
		27B	1788				
		38A		517			
		11	1105				
		25A			134	7	7
SUB-TOTAL			2893	517	2209	99	182
TOTAL			5619			99	182

PAVEMENT DELINEATION QUANTITIES

STATION TO STATION	REMOVE THERMOPLASTIC PAVEMENT MARKING			THERMOPLASTIC PAVEMENT MARKING		
	DESCRIPTION	EA	SQFT	DESCRIPTION	EA	SQFT
3015+15 TO 3032+00	NO PARKING	4	228			
	TYPE IV(L) ARROW	5	240	TYPE IV(L) ARROW	8	120
	12" WHITE LIMIT LINE	2	80	12" WHITE LIMIT LINE	2	80
	STOP	1	52	STOP	1	22
	TYPE VI ARROW	4	396	TYPE VI ARROW	3	126
	TYPE I(18') ARROW	1	63	TYPE I(18') ARROW	1	25
	TOTAL		1059	TOTAL		373

PAVEMENT DELINEATION QUANTITIES

PDQ-1

REVISED BY | DATE REVISED
TRAN HOANG | WILLIAM E WASSER
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR
WILLIAM E WASSER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	33	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRAN HOANG No. 54996 Exp. 6/30/14 CIVIL STATE OF CALIFORNIA

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

NOTES:

1. THE FINAL LOCATION OF THE SIGNS TO BE RESET SHALL BE AS DIRECTED BY THE ENGINEER.
2. SIGN POSTS FOR ALL SIGNS ON SQ-1 & SQ-2 THAT ARE PLACED WITHIN THE SIDEWALK OR DESIGNATED PEDESTRIAN PATHWAY SHALL HAVE A MINIMUM 4' CLEAR WIDTH TO COMPLY WITH ADA REQUIREMENTS.

RESET ROADSIDE SIGNS

SHEET No.	LOCATION	SIGN No.	SIGN MESSAGE	(ONE POST) (EA)	(TWO POST) (EA)
PD-1	SB ROUTE 95 BETWEEN SAFARI Dr AND SAN CLEMENTE Rd	1	NEXT SERVICES 49 MILES		1
		2	LITTER REMOVAL NEXT 2 MILES ADOPT A HIGHWAY	1	
		3	FOR SALE XXX-XXXX		1
		4	VIDAL 54 BLYTHE 96		1
PD-2	ON SB ROUTE 95 NEAR ROUTE 40 WB EXIT RAMP	6	SAN CLEMENTE/ STATE HWY	1	
		7	STOP	1	
		8	DO NOT ENTER WRONG WAY	1	
		9	STOP ONE WAY	1	
		10	DO NOT ENTER WRONG WAY	1	
		11	ONE WAY	1	

RESET ROADSIDE SIGNS

SHEET No.	LOCATION	SIGN No.	SIGN MESSAGE	(ONE POST) (EA)	(TWO POST) (EA)
PD-3	ROUTE40 WB ENTRANCE RAMP SB ROUTE 95 NEAR	12	INTERSTATE CALIFORNIA 40 KINGMAN LAKE HAVASU CITY 95 BLYTHE		1
		13	FREEWAY ENTRANCE INTERSTATE CALIFORNIA 40 WEST 95 NORTH	1	
		14	FREEWAY ENTRANCE INTERSTATE CALIFORNIA 40 WEST 95 NORTH	1	
		15	INTERSTATE CALIFORNIA 40 WEST		1
			TOTAL	9	5

SIGN QUANTITIES
SQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: WILLIAM E WASSER
CALCULATED-DESIGNED BY: TRAN HOANG
CHECKED BY: WILLIAM E WASSER
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	34	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TRAN HOANG No. 54996 Exp. 6/30/14 CIVIL STATE OF CALIFORNIA

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

NOTES:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGN TO BE DETERMINED BY THE ENGINEER.
2. POST LENGTH GIVEN IS APPROXIMATE.
3. "VC" DIM = VERTICAL CLEARANCE EP TO BOTTOM OF SIGN PANEL.

REMOVE ROADSIDE SIGN

SHEET No.	LOCATION	SIGN No.	SIGN MESSAGE	No. OF POSTS	No. OF SIGN (EA)
PD-2	ON SB ROUTE 95 NEAR ROUTE 40 WB EXITRAMP	16	NO PARKING HERE TO CORNER	1	1
				TOTAL	1

ROADSIDE SIGN QUANTITIES

SIGN No.	SHEET No.	SIGN CODE		"VC" DIMENSION IN FEET	POST LENGTH	POST SIZE	ROADSIDE SIGN		REMARKS
							ONE POST	METAL POST	
		FEDERAL	CALIFORNIA		FT	4" x 4"	EA	EA	
17	PD-3	W9-1 (RIGHT)		7	14	1	1		
18	PD-3	W4-2R		7	14	1	1		
19	PD-3	R4-1		7	14	1	1		
5	PD-1, 2		R26	7	14	5		5	INSTALL FIVE SIGNS AS SHOWN ON PD SHEETS
						TOTAL	3	5	

SIGN PANEL MATERIAL SUMMARY

SHEET No.	SIGN No.	SIGN CODE		PANEL SIZE L x D	SINGLE FACED	BACKGROUND		LEGEND	PROTECTIVE OVERLAY	ROADSIDE SINGLE-SHEET UNFRAMED ALUMINUM	REMARKS
						SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	PREMIUM	0.063"	
		FEDERAL	CALIFORNIA							SQFT	
PD-3	17	W9-1(RIGHT)		30" x 30"	X	YELLOW	III	BLACK	X	6.25	
PD-3	18	W4-2 R		30" x 30"	X	YELLOW	III	BLACK	X	6.25	
PD-3	19	R4-1		24" x 30"	X	WHITE	III	BLACK	X	5.0	
PD-1, 2	5		R26	12" x 18"	X	WHITE	III	RED	X	7.5	TOTAL OF FIVE SIGN PANELS 1.5 SQFT EACH
									TOTAL	25	

SIGN QUANTITIES
SQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: WILLIAM E. WASSER
CALCULATED-DESIGNED BY: HORMUZD SETHNA
CHECKED BY: TRAN HOANG
REVISED BY
DATE REVISED

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	35	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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

ROADWAY

FOR	STATION	HOT MIX ASPHALT (TYPE A)	TACK COAT (ASPHALTIC EMULSION)	
		TON *	LAYERS	TON **
WIDENING	3014+95.69 TO 3019+80.11	210.88	3	0.40
	TOTAL	210.88		0.40

* QUANTITY INCLUDED IN HOT MIX ASPHALT (TYPE A) SUMMARY
** QUANTITY INCLUDED IN TACK COAT SUMMARY

COLD PLANE AND HMA (TYPE A) OVERLAY

	STATION	SQYD	HOT MIX ASPHALT (TYPE A)	TACK COAT (ASPHALTIC EMULSION)	
			TON *	LAYERS	TON **
COLD PLANE 0.15' Max OVERLAY 0.15' TO 0.35' Max	3016+23.96 TO 3019+80.00	145	51.68	3	0.17
COLD PLANE 0.15' Max	3019+79.74 TO 3023+11.00	661.22			
COLD PLANE 0.15' Max OVERLAY 0.15'	3023+30.85 TO 3025+80.86	188.11	18.28	1	0.07
COLD PLANE 0.15' Max OVERLAY 0.15'	3030+29.00 TO 3031+18.99	126.22	12.27	1	0.05
	TOTAL	1120.55	82.23		0.29

* QUANTITY INCLUDED IN HOT MIX ASPHALT (TYPE A) SUMMARY
** QUANTITY INCLUDED IN TACK COAT SUMMARY

PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)

	STATION	PLACE HMA (Misc AREA)		TACK COAT (ASPHALTIC EMULSION)	
		SQYD	TON *	LAYERS	TON **
6' HMA SIDEWALK	3015+32.97 TO 3021+08.00 3021+68.00 TO 3022+71.00	475.72	154.13	3	0.38
RAMP AT SAFARI Dr	3014+97.42	57.11	18.50	3	0.05
SHEET L-1, L-2	3019+79.74 TO 3023+11.00	661.22	64.27	1	0.26
SHEET L-2	3023+11.00 TO 3023+89.65	118.11	38.27	3	0.14
	TOTAL	1312.16	275.17		0.83

* QUANTITY INCLUDED IN HOT MIX ASPHALT (TYPE A) SUMMARY
** QUANTITY INCLUDED IN TACK COAT SUMMARY

PLACE HOT MIX ASPHALT DIKE

STATION	TYPE D	TYPE E	HMA (TYPE A)
	LF	LF	TON *
3014+97.42 TO 3019+62.93	486.4		27.99
3019+67.94 TO 3021+08.00		140.06	3.54
3021+68.00 TO 3022+71.00		103	2.6
TOTAL	486.4	243.06	34.13

* QUANTITY INCLUDED IN HOT MIX ASPHALT (TYPE A) SUMMARY

TACK COAT SUMMARY

FOR	TACK COAT (ASPHALTIC EMULSION)
	TON
WIDENING	0.40
OVERLAY	0.29
PLACE HMA (TYPE A) (Misc AREA)	0.83
TOTAL	1.52

HOT MIX ASPHALT (TYPE A) SUMMARY

FOR	HOT MIX ASPHALT (TYPE A)
	TON
WIDENING	210.88
OVERLAY	82.23
PLACE HMA (Misc AREA)	275.17
DIKES	34.13
TOTAL	602.41

SUMMARY OF QUANTITIES
Q-1

REVISED BY | DATE REVISED
BIHARI MEHTA | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DU LU
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	36	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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PORTLAND CEMENT CONCRETE

LOCATION	REMOVE CONCRETE (CURB, GUTTER & SIDEWALK)	MINOR CONCRETE (CURB, SIDEWALK GUTTER & DRIVEWAY)
	CY	CY
STA 3014+95 TO STA 3031+45	15	66
TOTAL	15	66

EARTHWORK

	STATION	ROADWAY EXCAVATION
		CY
6' HMA SIDEWALK	3015+32.97 TO 3021+08.00 3021+68.00 TO 3022+71.00	79.29
RAMP AT SAFARI Dr	3014+97.42	9.52
WIDENING	3015+22.34 TO 3019+80.00	108.48
TOTAL		197.29

SUMMARY FOR CROSS GUTTER

SHEET No.	MINOR CONCRETE (MINOR STRUCTURE)
	CY
L-2	20
TOTAL	20

REMOVE ASPHALT CONCRETE SURFACING

SHEET No.	STATION	REMOVE ASPHALT CONCRETE SURFACING
		SQFT
L-2	3023+11.00 TO 3023+89.65	1063
TOTAL		1063

MISCELLANEOUS WORK

LOCATION	ADJUST MANHOLE TO GRADE	ADJUST PULL BOX
	EA	EA
STA 3019+62.91	1	
STA 3023+43.96		1
STA 3023+47.86		1
STA 3024+95.32		1
STA 3025+89.97		1
STA 3026+07.03		1
STA 3029+97.24		1
TOTAL	1	6

ROCK BLANKET

SHEET No.	ROCK BLANKET
	SQYD
L-2	14
TOTAL	14

SUMMARY FOR DETECTABLE WARNING SURFACE

SHEET No.	DETECTABLE WARNING SURFACE
	SQFT
L-2	54
TOTAL	54

SUMMARY OF QUANTITIES
Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: BIHARI MEHTA
CHECKED BY: BIHARI MEHTA
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
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08	SBd	95	57.0/R57.3	37	50

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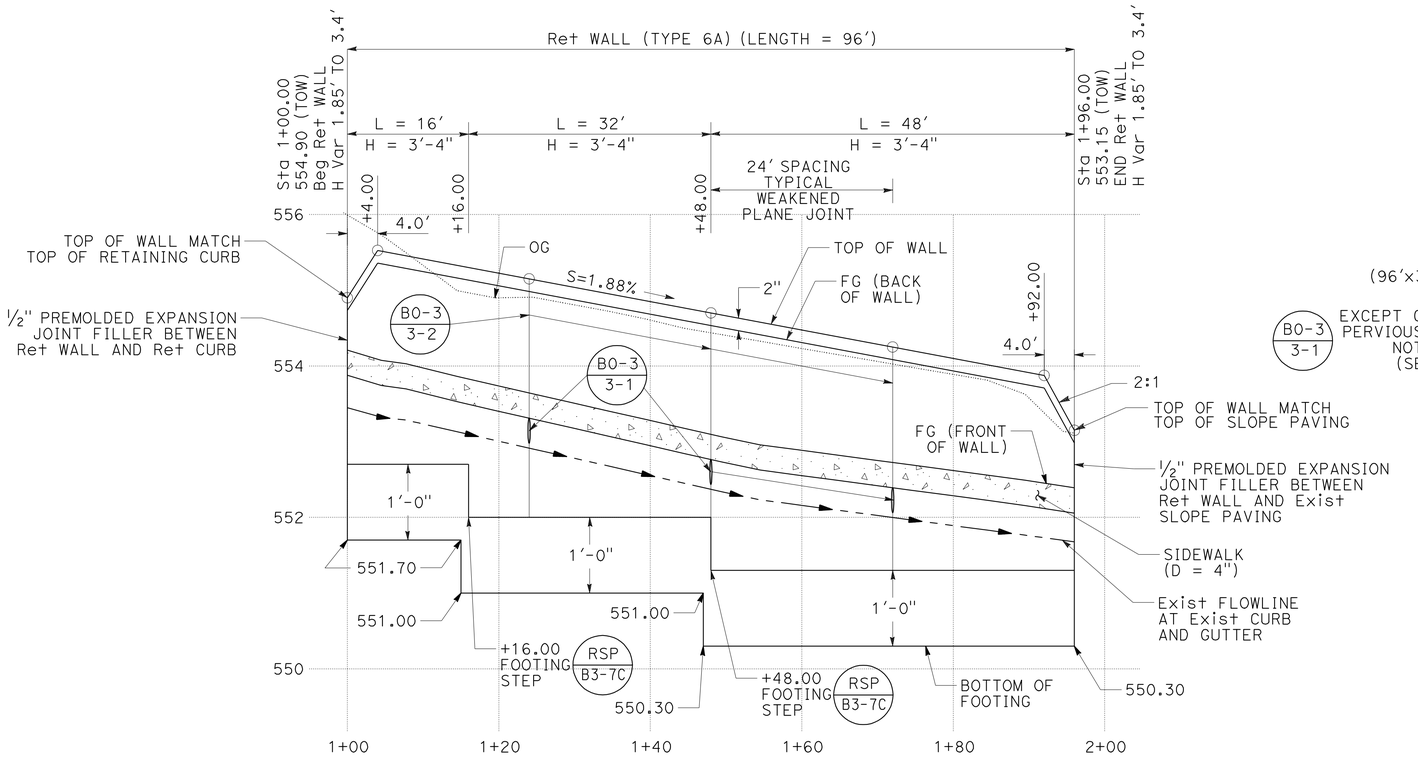
6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

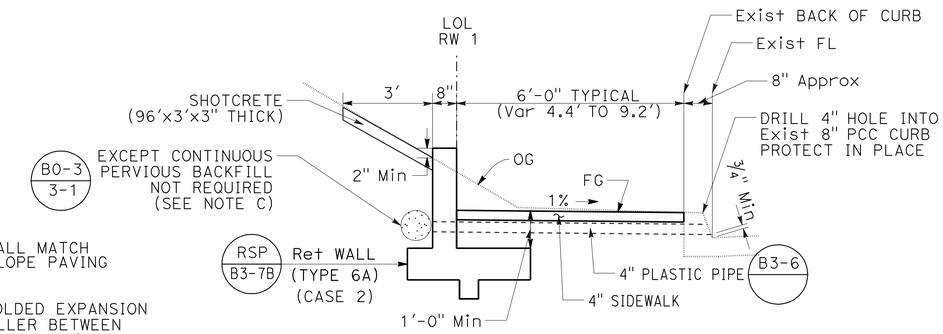
NOTES:

1. FOR DETAILS NOT SHOWN, SEE Std PLANS B0-3, B3-6, RSP B3-7B AND RSP B3-7C.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



ELEVATION

SCALE: Horiz 1" = 10'
Vert 1" = 1'



TYPICAL SECTION

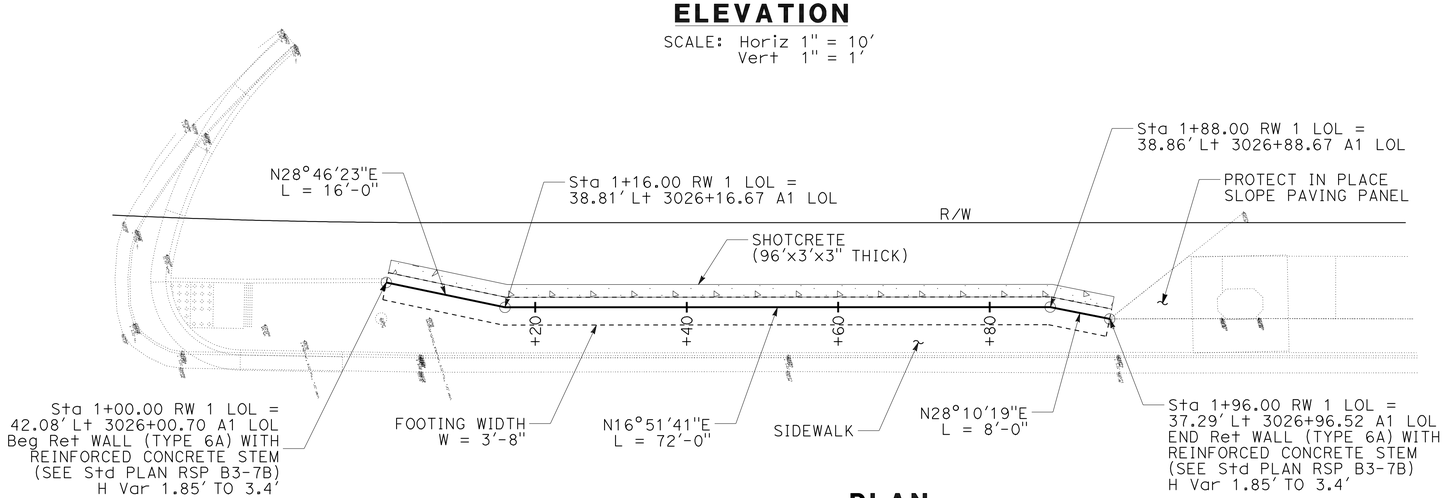
NO SCALE

RETAINING WALL 1 (TYPE 6A)
WITH REINFORCED CONCRETE STEM
Sta 1+00.00 TO Sta 1+96.00

RETAINING WALL ELEVATION TABLE

RW 1 LOL STATION	ELEVATION TOW	FG (BACK OF WALL)	FG (FRONT OF WALL)	WEEP HOLE CENTER	TOP OF FOOTING	JOINT TYPE
1+00.00	554.90	554.73	554.21		552.70	
1+04.00	555.53	555.36	554.09		552.70	
1+24.00	555.15	554.98	553.64	553.14	552.00	WP
1+48.00	554.70	554.53	553.10	552.60	552.00	WP
1+72.00	554.25	554.08	552.73	552.23	551.30	WP
1+92.00	553.88	553.71	552.45		551.30	
1+96.00	553.15	552.98	552.39		551.30	

TOW - TOP OF WALL
WP - WEAKENED PLANE



PLAN

SCALE: 1" = 10'

APPROVED FOR RETAINING WALL WORK ONLY

RETAINING WALL PLAN

SCALE AS SHOWN **R-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: DU LU
CALCULATED-DESIGNED BY: ROBERT LYLES
CHECKED BY: BIHARI MEHTA
REVISED BY
DATE REVISED

LAST REVISION 05-28-13
DATE PLOTTED => 29-MAY-2013
TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	38	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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

RETAINING WALL QUANTITIES

LOCATION	STATION	STRUCTURE EXCAVATION (RETAINING WALL)	STRUCTURE BACKFILL (RETAINING WALL)	STRUCTURAL CONCRETE, RETAINING WALL	BAR REINFORCING STEEL (RETAINING WALL)	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	SHOTCRETE	REMOVE SLOPE PAVING	SLOPE PAVING (CONCRETE)
		CY	CY	CY	LB	CY	CY	SQYD	CY
Ret WALL 1	STA 1+00.00 TO 1+96.00 RW LOL	96	54	16.6	1385	0.15	2.67		
TOTAL		96	54	16.6	1385	0.15	2.67		

RETAINING WALL QUANTITIES
R-1

REVISED BY | DATE REVISED
BIHARI MEHTA | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DU LU
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	39	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

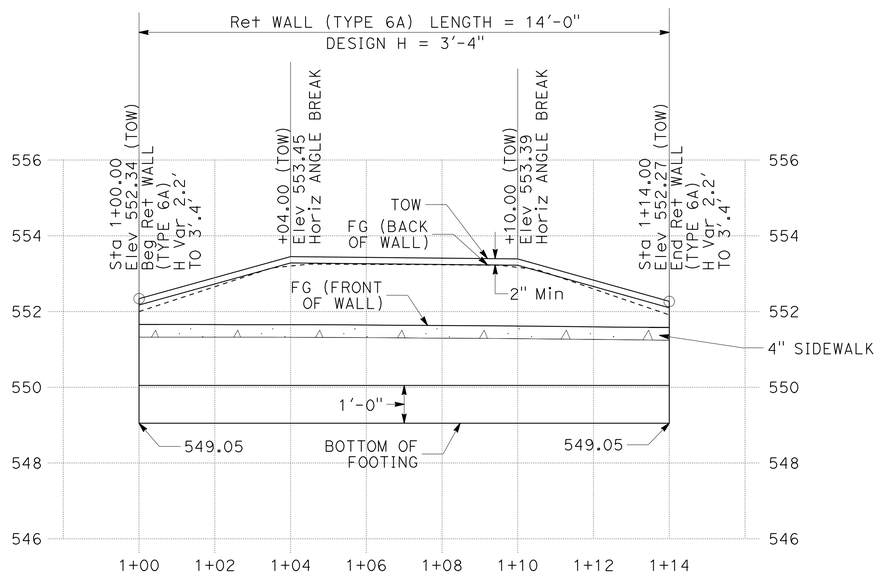
6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

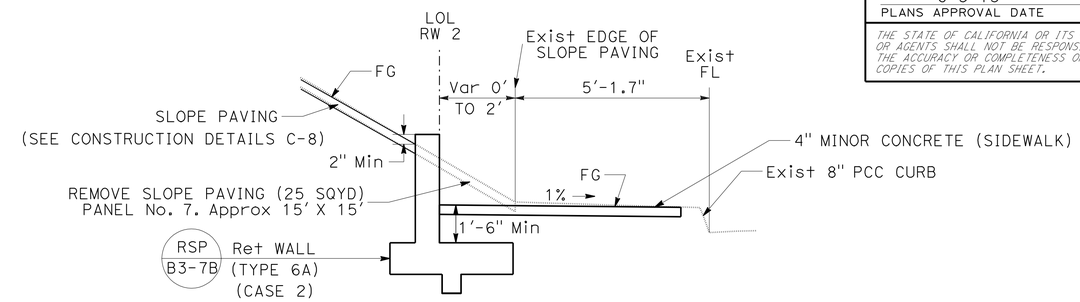
NOTES:

1. FOR DETAILS NOT SHOWN, SEE Std PLANS B0-3 AND RSP B3-7B.



ELEVATION

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



TYPICAL SECTION

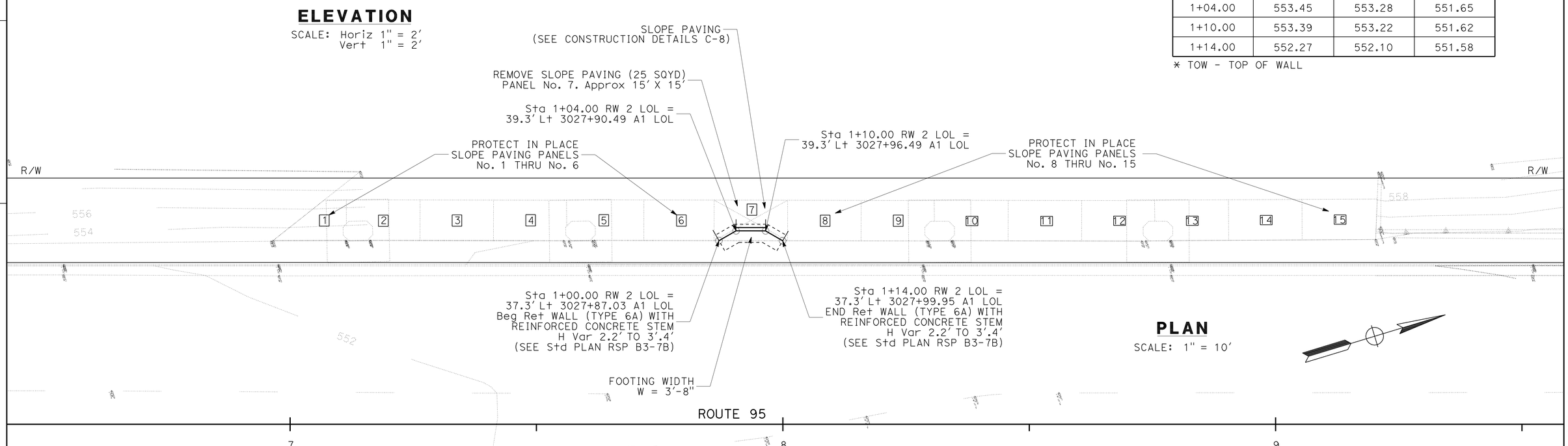
NO SCALE

RETAINING WALL 2 (TYPE 6A)
WITH REINFORCED CONCRETE STEM
Sta 1+00.00 TO Sta 1+14.00

RETAINING WALL ELEVATION TABLE

RW 2 LOL STATION	ELEVATION		
	TOW	FG (BACK OF WALL)	FG (FRONT OF WALL)
1+00.00	552.34	552.17	551.66
1+04.00	553.45	553.28	551.65
1+10.00	553.39	553.22	551.62
1+14.00	552.27	552.10	551.58

* TOW - TOP OF WALL



PLAN

SCALE: 1" = 10'

NOTE:

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

APPROVED FOR RETAINING WALL WORK ONLY

RETAINING WALL PLAN

SCALE AS SHOWN **R-2**

REVISED BY | DATE REVISED
ROBERT LYLES | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	40	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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

RETAINING WALL QUANTITIES

LOCATION	STATION	STRUCTURE EXCAVATION (RETAINING WALL)	STRUCTURE BACKFILL (RETAINING WALL)	STRUCTURAL CONCRETE, RETAINING WALL	BAR REINFORCING STEEL (RETAINING WALL)	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	SHOTCRETE	REMOVE SLOPE PAVING	SLOPE PAVING (CONCRETE)
		CY	CY	CY	LB	CY	CY	SQYD	CY
Ret WALL 2	Sta 1+00.00 TO 1+14.00 RW LOL	14	8	2.5	182			25	3.0
TOTAL		14	8	2.5	182			25	3.0

REVISED BY | DATE REVISED

BIHARI MEHTA | BIHARI MEHTA

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

RETAINING WALL QUANTITIES
R-2

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	41	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

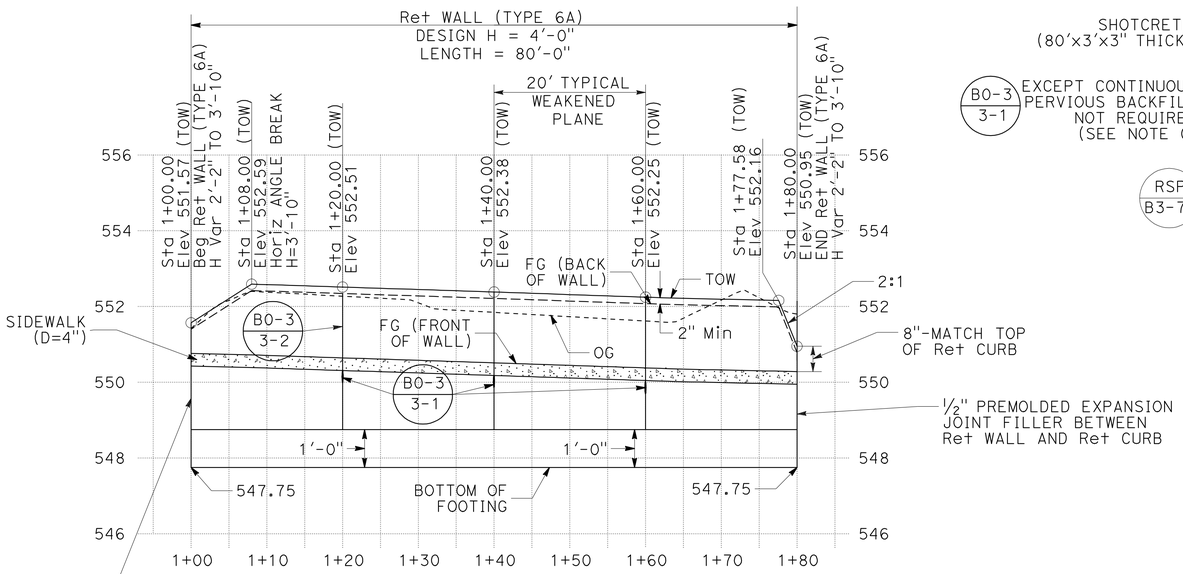
6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER BIHARI MEHTA No. 75512 Exp. 6-30-14 CIVIL STATE OF CALIFORNIA

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

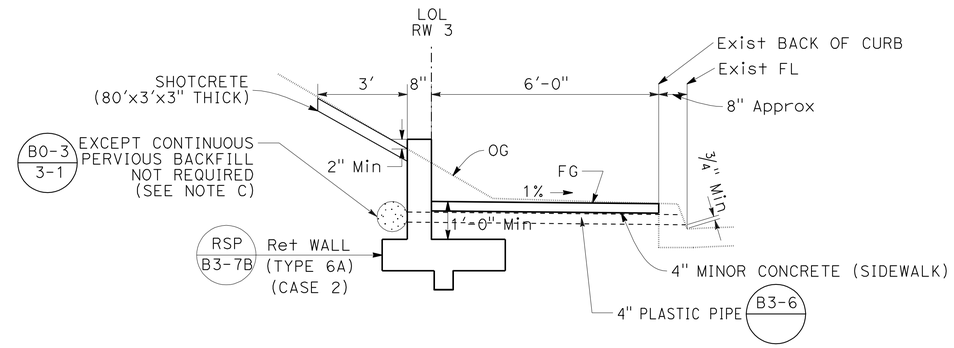
NOTES:

1. FOR DETAILS NOT SHOWN, SEE Std PLANS B0-3, RSP B3-7B AND B3-6.



ELEVATION

SCALE: Horiz 1" = 10'
Vert 1" = 2'



TYPICAL SECTION

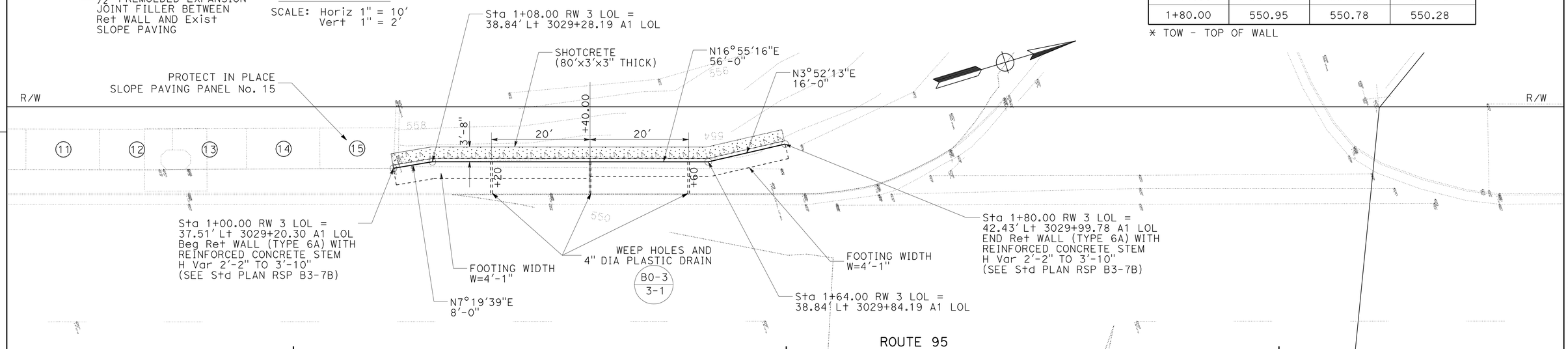
NO SCALE

RETAINING WALL 3 (TYPE 6A)
WITH REINFORCED CONCRETE STEM
Sta 1+00.00 TO Sta 1+80.00

RETAINING WALL ELEVATION TABLE

RW 3 LOL STATION	ELEVATION		
	TOW	FG (BACK OF WALL)	FG (FRONT OF WALL)
1+00.00	551.57	551.40	550.76
1+08.00	552.59	552.42	550.72
1+20.00	552.51	552.34	550.64
1+40.00	552.38	552.21	550.51
1+60.00	552.25	552.08	550.38
1+77.58	552.16	551.99	550.29
1+80.00	550.95	550.78	550.28

* TOW - TOP OF WALL



PLAN

SCALE: 1" = 10'

NOTE:

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

THIS PLAN ACCURATE FOR RETAINING WALL WORK ONLY.

RETAINING WALL PLAN

SCALE AS SHOWN **R-3**

REVISED BY | DATE REVISED
ROBERT LYLES | BIHARI MEHTA
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: DU LU
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® DESIGN

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	42	50

REGISTERED CIVIL ENGINEER 5-28-13 DATE

6-3-13
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
BIHARI MEHTA
No. 75512
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

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

RETAINING WALL QUANTITIES

LOCATION	STATION	STRUCTURE EXCAVATION (RETAINING WALL)	STRUCTURE BACKFILL (RETAINING WALL)	STRUCTURAL CONCRETE, RETAINING WALL	BAR REINFORCING STEEL (RETAINING WALL)	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	SHOTCRETE	REMOVE SLOPE PAVING	SLOPE PAVING (CONCRETE)
		CY	CY	CY	LB	CY	CY	SQYD	CY
Ret WALL 3	Sta 1+00.00 TO 1+80.00 RW LOL	80	45	13.8	1155	0.15	2.22		
TOTAL		80	45	13.8	1155	0.15	2.22		

REVISED BY | DATE REVISED

BIHARI MEHTA | BIHARI MEHTA

CALCULATED-DESIGNED BY | CHECKED BY

FUNCTIONAL SUPERVISOR: DU LU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN

RETAINING WALL QUANTITIES
R-3

LAST REVISION 05-28-13 | DATE PLOTTED => 29-MAY-2013 | TIME PLOTTED => 07:09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	43	50

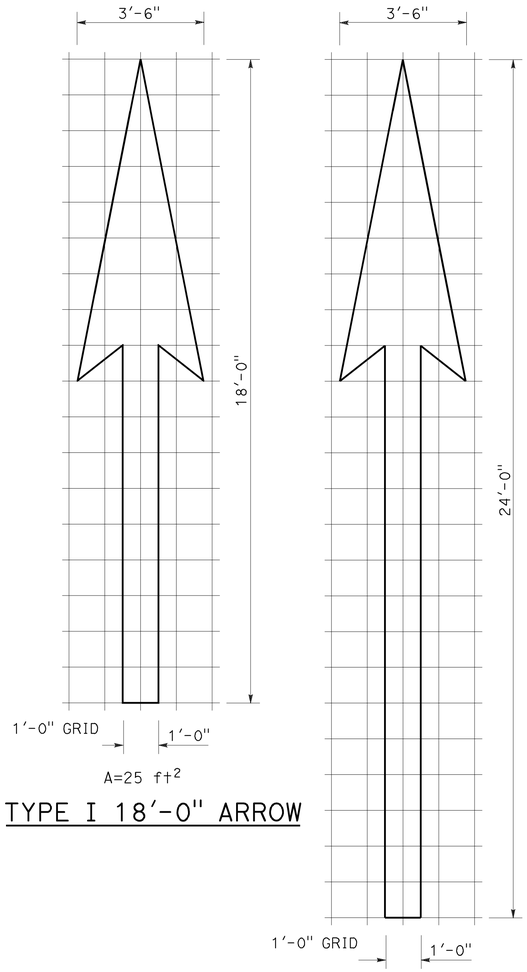
REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
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.

TO ACCOMPANY PLANS DATED 6-3-13

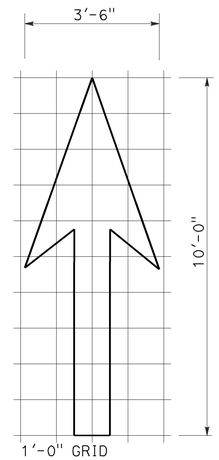


A=25 ft^2

TYPE I 18'-0" ARROW

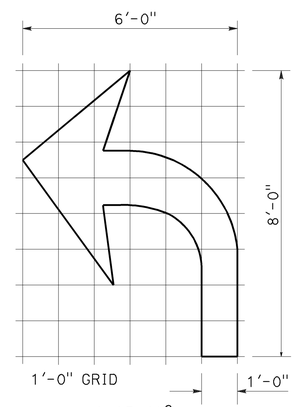
A=31 ft^2

TYPE I 24'-0" ARROW



A=14 ft^2

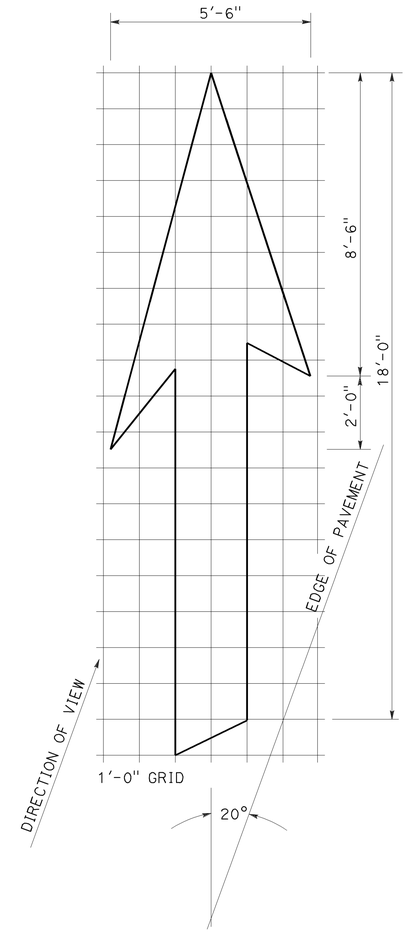
TYPE I 10'-0" ARROW



A=15 ft^2

TYPE IV (L) ARROW

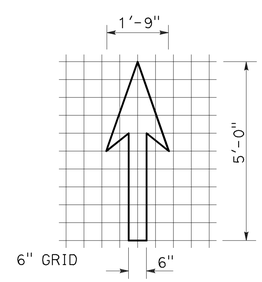
(For Type IV (R) arrow, use mirror image)



A=42 ft^2

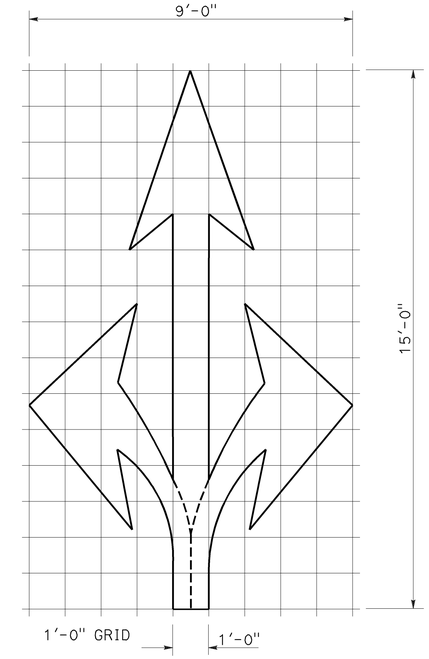
TYPE VI ARROW

Right lane drop arrow
(For left lane, use mirror image)



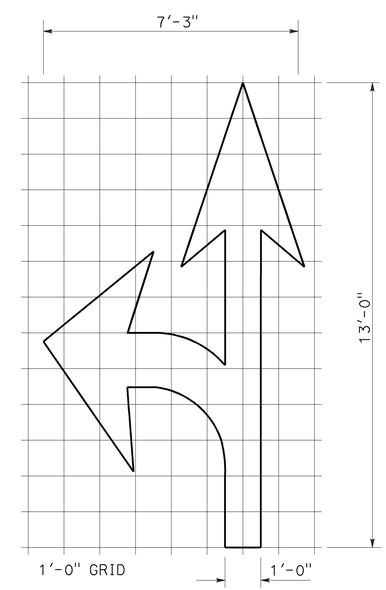
A=3.5 ft^2

BIKE LANE ARROW



A=36 ft^2

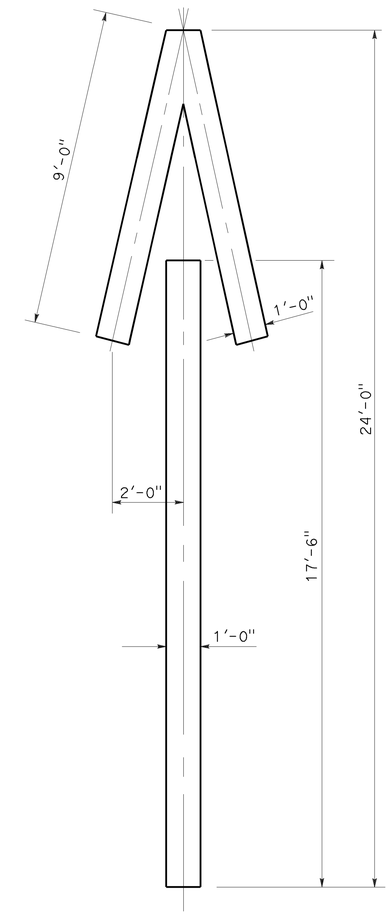
TYPE VIII ARROW



A=27 ft^2

TYPE VII (L) ARROW

(For Type VII (R) arrow, use mirror image)



A=33 ft^2

TYPE V ARROW

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS

NO SCALE

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

REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

3-14-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	44	50

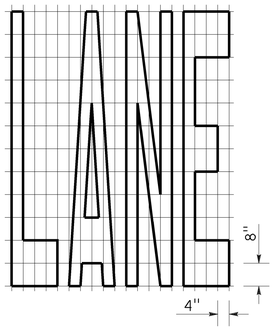
REGISTERED CIVIL ENGINEER

July 20, 2012
PLANS APPROVAL DATE

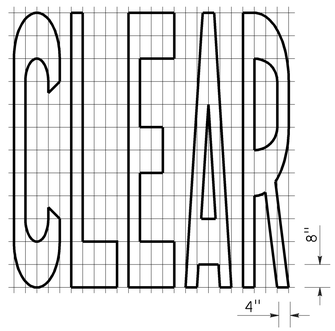
REGISTERED PROFESSIONAL ENGINEER
Roberta L. McLaughlin
No. C40375
Exp. 3-31-13
CIVIL
STATE OF CALIFORNIA

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.

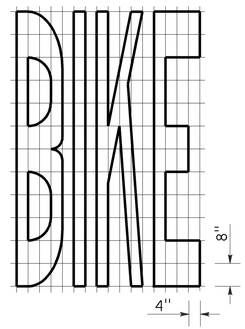
TO ACCOMPANY PLANS DATED 6-3-13



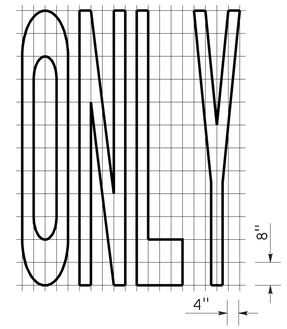
A=24 ft^2



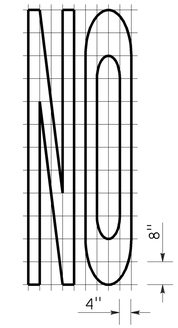
A=27 ft^2



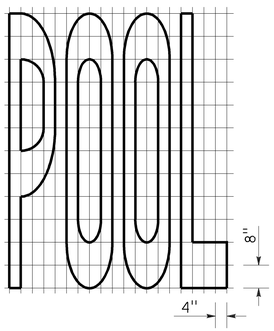
A=21 ft^2



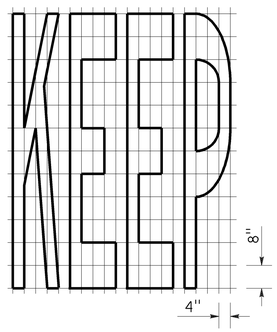
A=22 ft^2



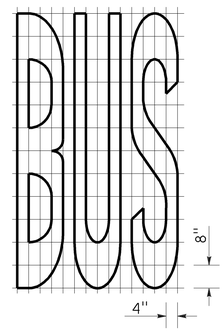
A=14 ft^2



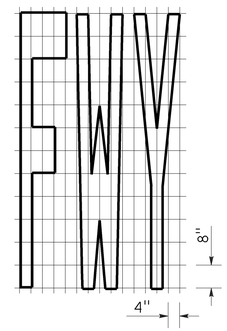
A=23 ft^2



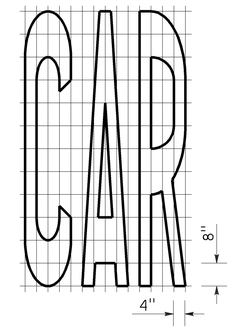
A=24 ft^2



A=20 ft^2

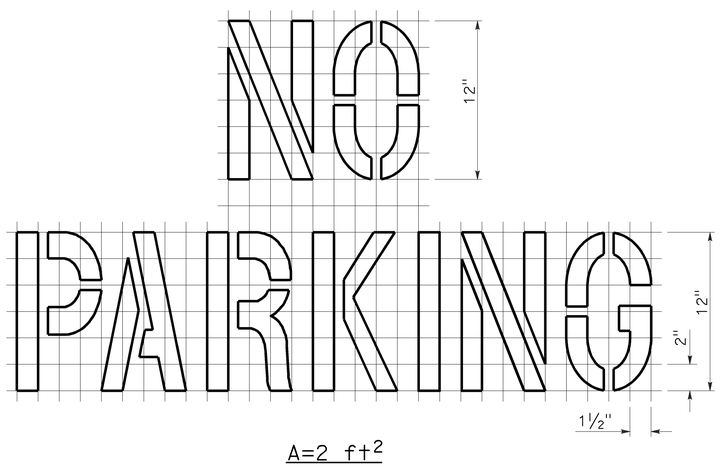


A=16 ft^2

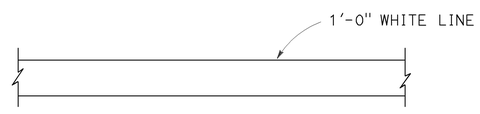


A=17 ft^2

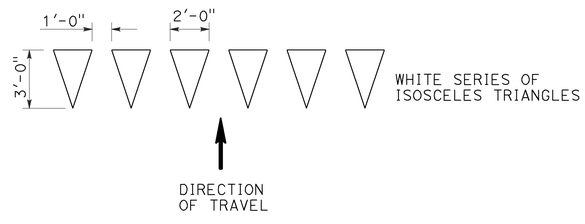
WORD MARKINGS			
ITEM	ft^2	ITEM	ft^2
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft^2
See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES

NO SCALE

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

REVISED STANDARD PLAN RSP A24E

2010 REVISED STANDARD PLAN RSP A24E

6-12-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	45	50

REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gary Wang No. C58298 Exp. 6-30-12 CIVIL STATE OF CALIFORNIA

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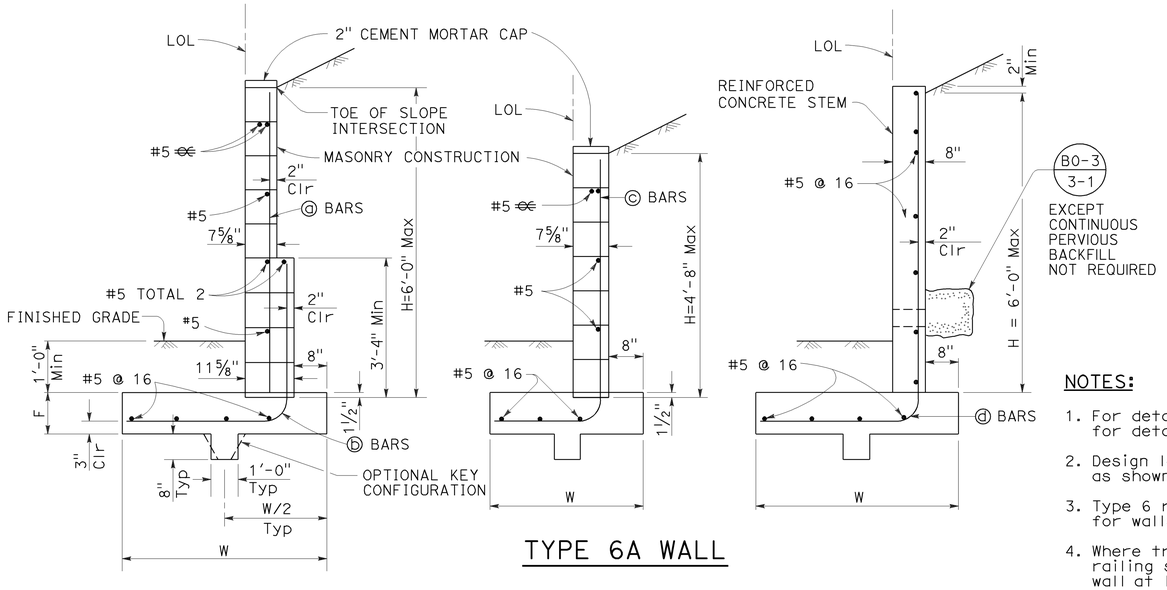
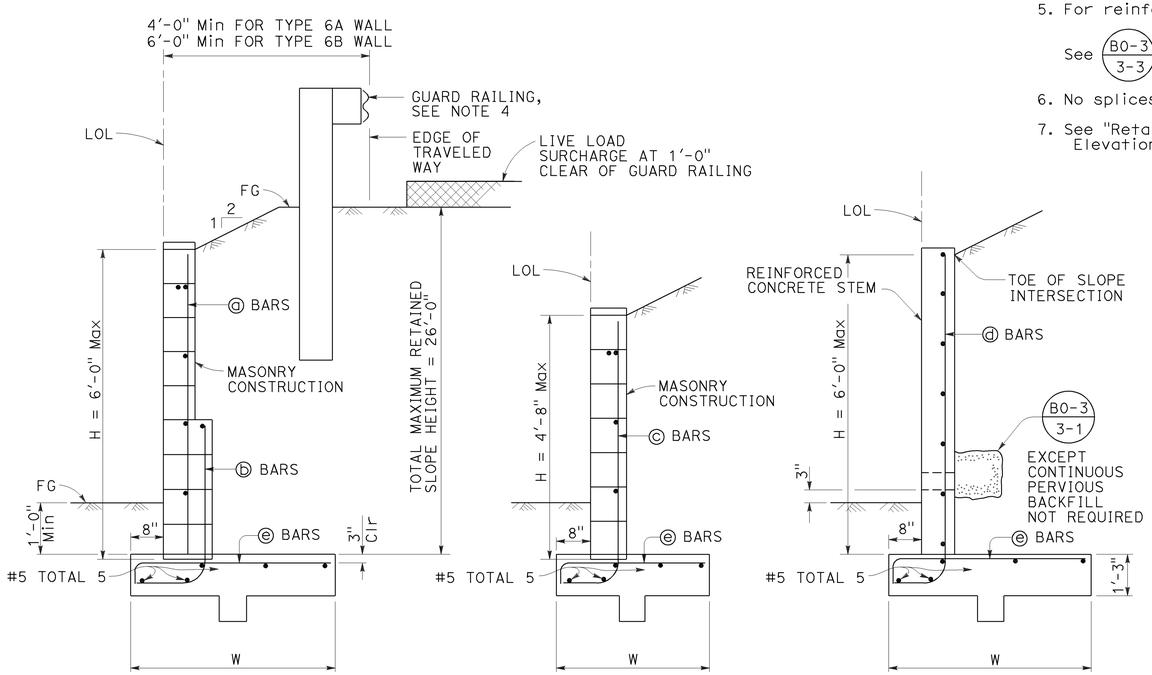


TYPE 6A WALL



TYPE 6B WALL

SYMBOLS:

Ser - service limit state 1
Str - strength limit state 1
Ext - extreme event limit state I
B′ - effective footing width (ft)
q_o' - net bearing stress (ksf), OG assumed to be FG at toe
q_o - gross uniform bearing stress (ksf)

NOTES:

1. For details not shown at "6B", see "6A", similarly, for details not shown at "6A", see "6B".
2. Design loading for both Type "6A" and "6B" is as shown at "6B".
3. Type 6 retaining wall shall be limited to use for walls of Design H of 6′-0″ or less.
4. Where traffic is adjacent to the top of wall, guard railing should be set back from the top front face of wall at least 4′-0″ or 6′-0″, dependent on wall type.
5. For reinforced concrete wall stem joint details,

   See B0-3/3-3 and B0-3/3-4
6. No splices are allowed on ⓐ, ⓑ, ⓒ and ⓓ bars.
7. See "Retaining Wall Type 6 Details" sheet for Elevation View and Footing Step Details.

DESIGN NOTES:

TO ACCOMPANY PLANS DATED 6-3-13

DESIGN: AASHTO LRFD Bridge Design Specifications, 4th Edition with California Amendments

Building Code Requirements for Masonry Structures (TMS 402-08/ACI 530-08/ASCE 5-08)

LS: 240 psf surcharge on level ground surface as limited by Guard Railing location

SEISMIC: $k_h = 0.2$
$k_v = 0.0$

SOIL: $\phi = 34°$
$\gamma = 120$ pcf

REINFORCED CONCRETE: $f'c = 3{,}600$ psi
$fy = 60{,}000$ psi

REINFORCED MASONRY: $fm' = 1{,}500$ psi
$fy = 60{,}000$ psi

LOAD COMBINATIONS AND LIMIT STATES:

Service I	$Q = 1.00DC+1.00EV+1.00EH+1.00LS$
Strength I	$Q = \alpha DC+\phi EV+\eta EH+1.75LS$
Extreme I	$Q = 1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE$

Where:

Q:	Force Effects
α:	1.25 or 0.90, Whichever Controls Design
ø:	1.35 or 1.00, Whichever Controls Design
η:	1.50 or 0.90, Whichever Controls Design
DC:	Dead Load of Structure Components
EH:	Horizontal Earth Fill Pressure
EV:	Vertical Earth Pressure from Earth Fill Weight
LS:	Live Load Surcharge
EQE:	Seismic Earth Pressure
EQD:	Soil and Structural and Nonstructural Components Inertia

TYPE 6A WALL - TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA

DESIGN H	3′-4″	4′-0″	4′-8″	5′-4″	6′-0″
W	3′-8″	4′-1″	4′-8″	5′-3″	6′-9″
F	1′-0″	1′-0″	1′-2″	1′-3″	1′-4″
ⓐ BARS	NONE	NONE	NONE	#5 @ 16″	#5 @ 16″
ⓑ BARS	NONE	NONE	NONE	#5 @ 16″	#5 @ 16″
ⓒ BARS	#5 @ 16	#5 @ 16	#5 @ 16	NONE	NONE
ⓓ BARS	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16	#6 @ 16
Ser: B′, q_o'	3.4, 0.3	3.8, 0.3	4.3, 0.3	4.9, 0.4	6.0, 0.4
Str: B′, q_o	3.3, 0.7	3.6, 0.7	4.1, 0.8	4.7, 0.8	5.7, 0.9
Ext: B′, q_o	1.3, 1.9	1.4, 2.0	1.7, 2.1	1.9, 2.2	3.9, 1.4

TYPE 6B WALL - TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA

DESIGN H	3′-4″	4′-0″	4′-8″	5′-4″	6′-0″
W	4′-6″	5′-1″	5′-7″	6′-2″	6′-9″
ⓐ BARS	NONE	NONE	NONE	#5 @ 16″	#5 @ 16″
ⓑ BARS	NONE	NONE	NONE	#5 @ 16″	#5 @ 16″
ⓒ BARS	#5 @ 16	#5 @ 16	#5 @ 16	NONE	NONE
ⓓ BARS	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16	#6 @ 16
ⓔ BARS	#5 @ 16	#5 @ 16	#6 @ 16	#6 @ 16	#7 @ 16
Ser: B′, q_o'	3.3, 0.6	3.7, 0.8	4.0, 0.9	4.5, 1.0	4.1, 1.4
Str: B′, q_o	1.9, 1.4	2.3, 1.6	2.5, 1.8	2.8, 1.9	1.8, 3.6
Ext: B′, q_o	1.5, 2.8	1.8, 3.1	1.9, 3.6	2.1, 3.8	2.4, 3.9

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

RETAINING WALL TYPE 6 (CASE 2)

NO SCALE

RSP B3-7B DATED APRIL 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B3-7B

2010 REVISED STANDARD PLAN RSP B3-7B

2-22-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	46	50

REGISTERED CIVIL ENGINEER

April 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gary Wang
No. C58298
Exp. 6-30-12
CIVIL
STATE OF CALIFORNIA

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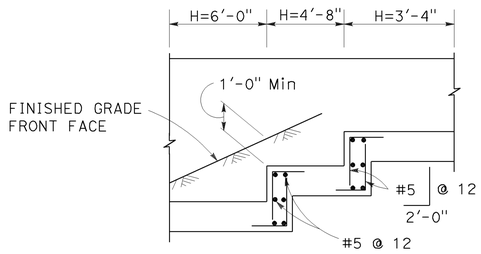
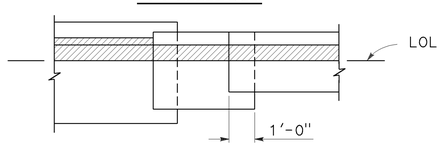
TO ACCOMPANY PLANS DATED 6-3-13

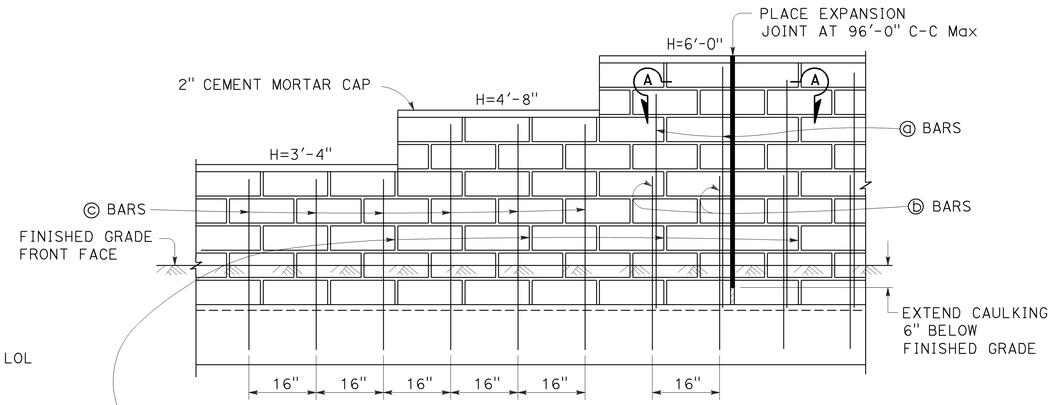


ELEVATION

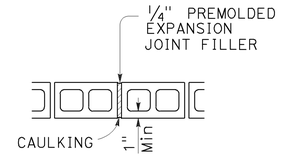


PLAN

FOOTING STEP DETAILS



ELEVATION - MASONRY CONSTRUCTION



SECTION A-A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

RETAINING WALL TYPE 6 DETAILS

NO SCALE

RSP B3-7C DATED APRIL 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP B3-7C

2010 REVISED STANDARD PLAN RSP B3-7C

2-22-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	47	50

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gurinderpal Bhullar
No. C48815
Exp. 9-30-14
CIVIL
STATE OF CALIFORNIA

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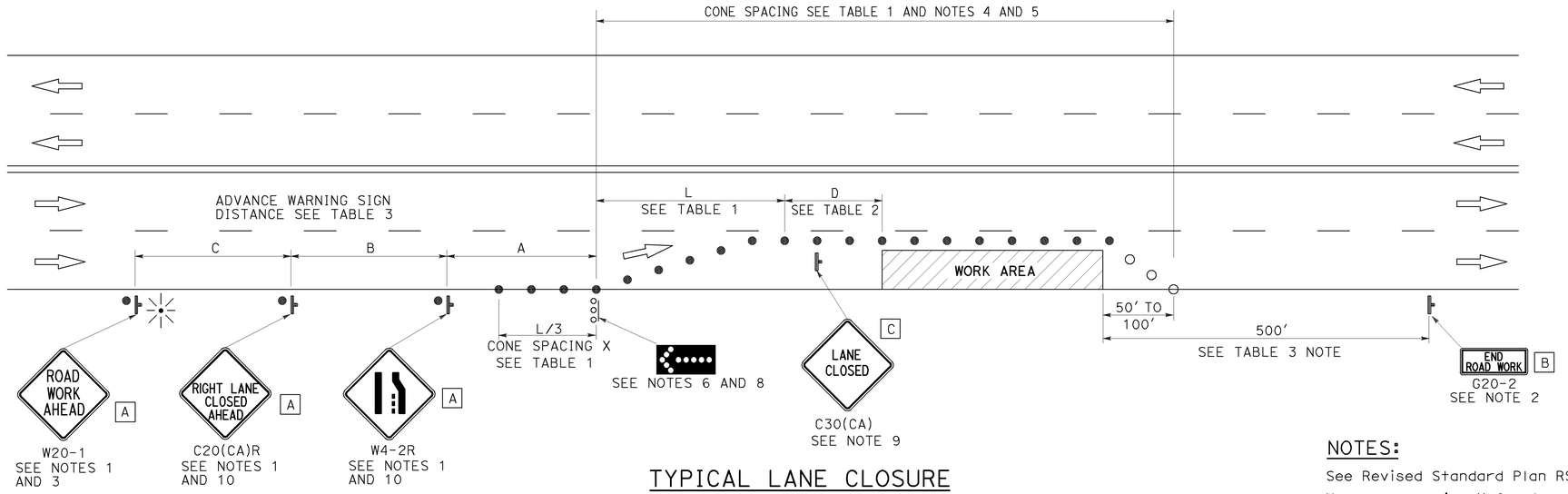
TO ACCOMPANY PLANS DATED 6-3-13



TYPICAL LANE CLOSURE

NOTES:

See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

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

NOTES:

1. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
3. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Flashing arrow sign shall be either Type I or Type II.
7. For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
8. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
9. Place a C30(CA) sign every 2000' throughout length of lane closure.
10. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
11. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

A	48" x 48"
B	36" x 18"
C	30" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T11 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T11 DATED MAY 20, 2011 - PAGE 239 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	48	50

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Gurinderpal Bhullar No. C48815 Exp. 9-30-14 CIVIL STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 6-3-13

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 24" x 24"
- C 36" x 18"

NOTES:

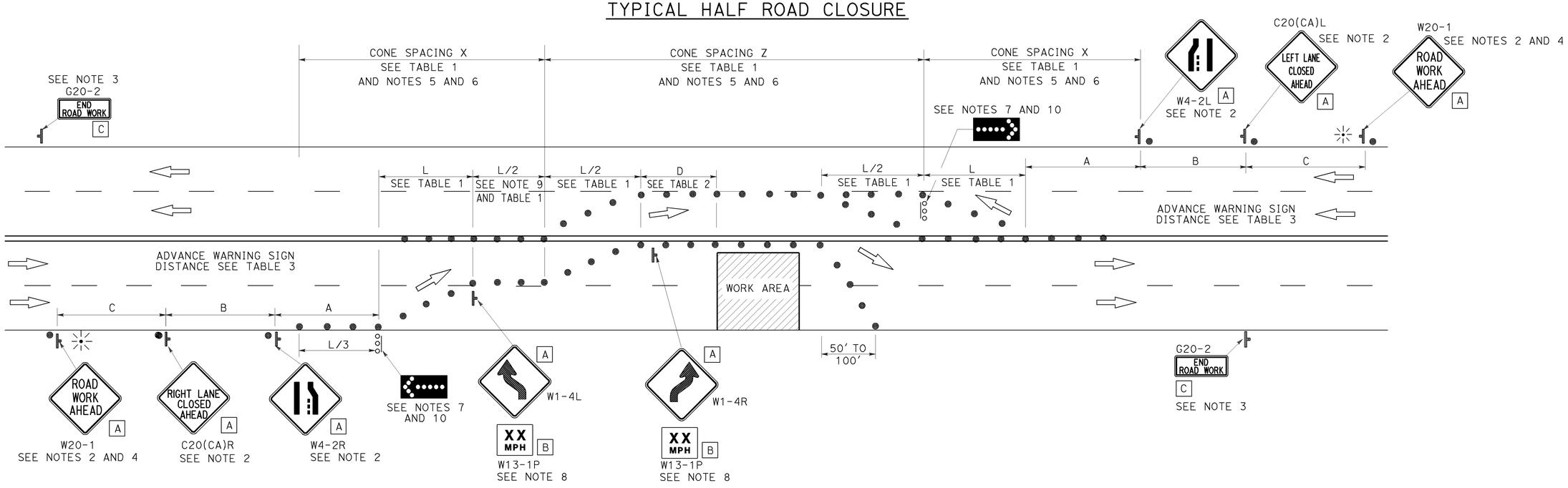
See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

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

TYPICAL HALF ROAD CLOSURE



NOTES:

1. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
2. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
4. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. Flashing arrow signs shall be either Type I or Type II.
8. Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
9. Unless otherwise specified in the special provisions, the tangent (L/2) shall be used.
10. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR HALF ROAD CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS AND EXPRESSWAYS

NO SCALE

RSP T12 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T12
DATED MAY 20, 2011 - PAGE 240 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T12

2010 REVISED STANDARD PLAN RSP T12

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	49	50

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gurinderpal Bhullar
No. C48815
Exp. 9-30-14
CIVIL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 6-3-13

NOTES:

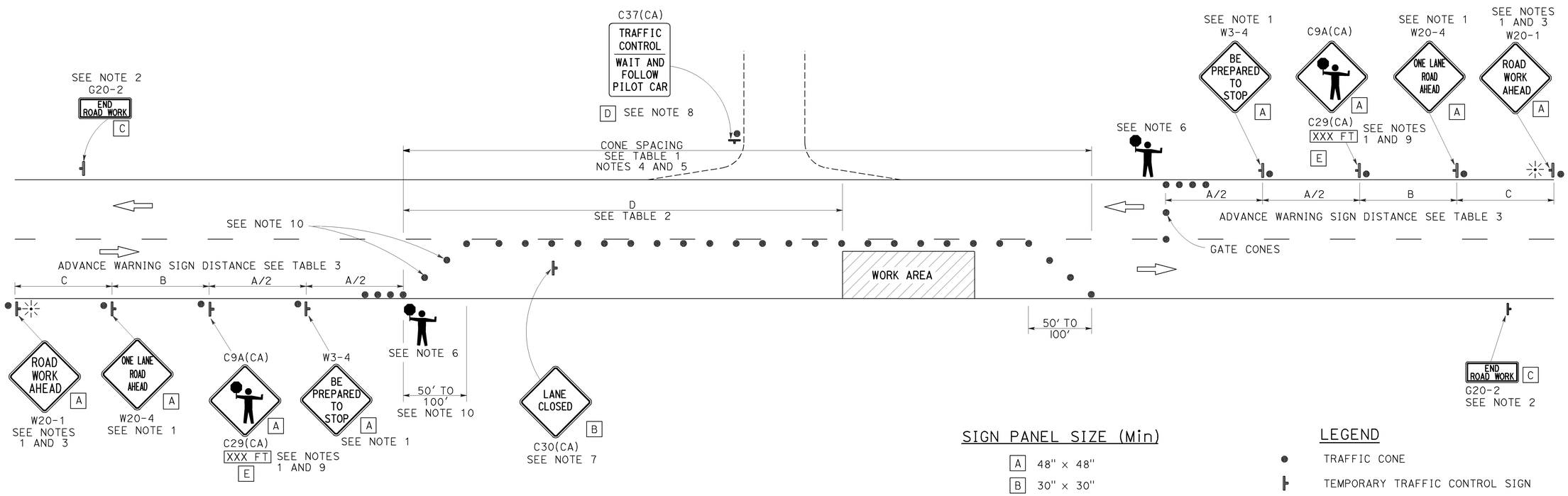
See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

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

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



SIGN PANEL SIZE (Min)

A	48" x 48"
B	30" x 30"
C	36" x 18"
D	36" x 42"
E	20" x 7"

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- PORTABLE FLASHING BEACON
- FLAGGER

NOTES:

1. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
3. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
7. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
8. When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
9. An optional C29(CA) sign may be placed below the C9A(CA) sign.
10. Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T13 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	95	57.0/R57.3	50	50

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gurinderpal Bhullar
No. C48815
Exp. 9-30-14
CIVIL
STATE OF CALIFORNIA

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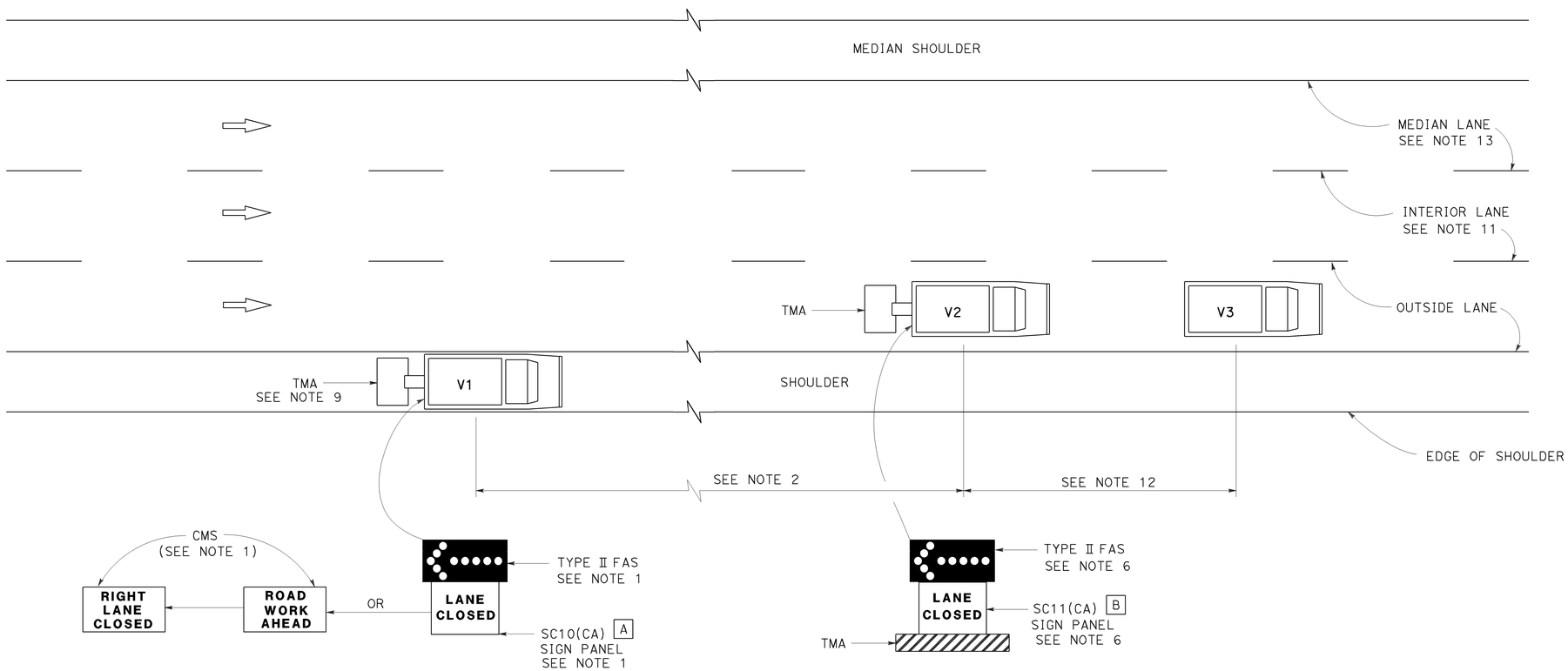
TO ACCOMPANY PLANS DATED 6-3-13



MOVING LANE CLOSURE ON MEDIAN LANE OR OUTSIDE LANE OF MULTILANE HIGHWAYS

SIGN PANEL SIZE (Min)

A 66" × 36"

B 54" × 42"

LEGEND

V1	SIGN VEHICLE
V2	SHADOW VEHICLE
V3	WORK/APPLICATION VEHICLE
	FLASHING ARROW SIGN (FAS)
CMS	CHANGEABLE MESSAGE SIGN
TMA	TRUCK-MOUNTED ATTENUATOR

NOTES:

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500′ should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500′.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE

RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15
DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T15

2010 REVISED STANDARD PLAN RSP T15

12-18-12