

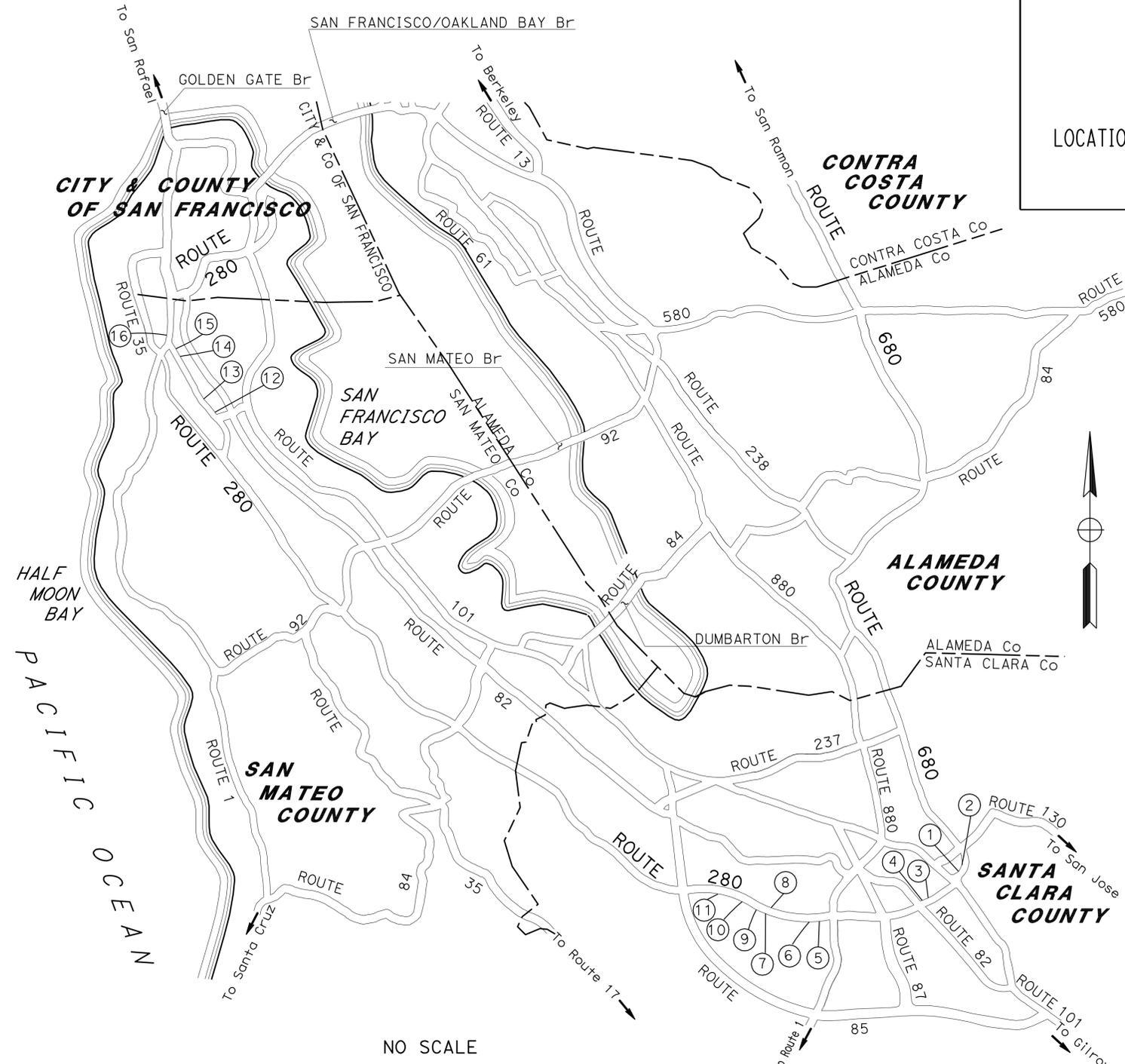
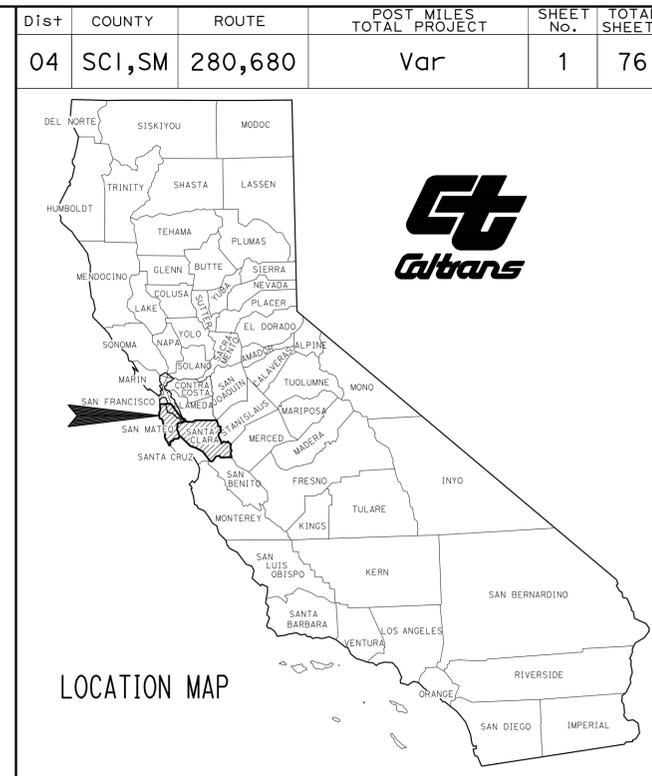
INDEX OF PLANS

SHEET NO.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	LAYOUTS
3-19	UTILITY PLANS
20-27	TRAFFIC HANDLING PLANS
28	TRAFFIC HANDLING QUANTITIES
29-32	CONSTRUCTION AREA SIGNS
33	SUMMARY OF QUANTITIES
34-59	ELECTRICAL PLANS
60-76	REVISED AND NEW STANDARD PLANS

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

STATE OF CALIFORNIA  
**DEPARTMENT OF TRANSPORTATION**  
**ACIM-000C(311)E**  
**PROJECT PLANS FOR CONSTRUCTION ON**  
**STATE HIGHWAY**  
**IN SANTA CLARA AND**  
**SAN MATEO COUNTIES**  
**AT VARIOUS LOCATIONS**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



LOCATIONS OF CONSTRUCTION (SCI ROUTE 680)

LOCATION	PM	DESCRIPTION		Dir
		INTERCHANGE	RAMP	
①	0.20	KING Rd	DIAGONAL ON	SB
②	0.98	JACKSON Ave	DIAGONAL ON	SB

LOCATIONS OF CONSTRUCTION (SCI ROUTE 280)

LOCATION	PM	DESCRIPTION		Dir
		INTERCHANGE	RAMP	
③	1.59	10th St	DIAGONAL ON	NB
④	1.85	4th St	HOOK ON	NB
⑤	4.76	WINCHESTER Blvd	DIAGONAL ON	NB
⑥	5.95	SARATOGA Ave	DIAGONAL ON	NB
⑦	7.0	LAWRENCE Expwy	DIAGONAL ON	SB
⑧	6.98	LAWRENCE Expwy	DIAGONAL OFF	NB
⑨	7.63	STEVENS CREEK Blvd	DIAGONAL ON	NB
⑩	8.45	WOLFE Rd	DIAGONAL ON	NB
⑪	9.27	DE ANZA Blvd	DIAGONAL ON	SB

LOCATIONS OF CONSTRUCTION (SM ROUTE 280)

LOCATION	PM	DESCRIPTION		Dir
		INTERCHANGE	RAMP	
⑫	R21.31	SNEATH LANE	LOOP ON	NB
⑬	R22.62	WESTBOROUGH Blvd	LOOP ON	NB
⑭	R24.20	HICKEY Blvd	LOOP ON	NB
⑮	R24.6	SERRAMONTE Blvd	DIAGONAL ON	NB
⑯	25.90	SULLIVAN Ave	DIAGONAL ON	SB

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

NO SCALE

PROJECT MANAGER  
**DINA EL-TAWANSY**  
 DESIGN ENGINEER  
**PETER AGUILERA**

*Peter Aguilera* 3-16-09  
 PROJECT ENGINEER DATE  
 REGISTERED CIVIL ENGINEER  
**May 26, 2009**  
 PLANS APPROVAL DATE



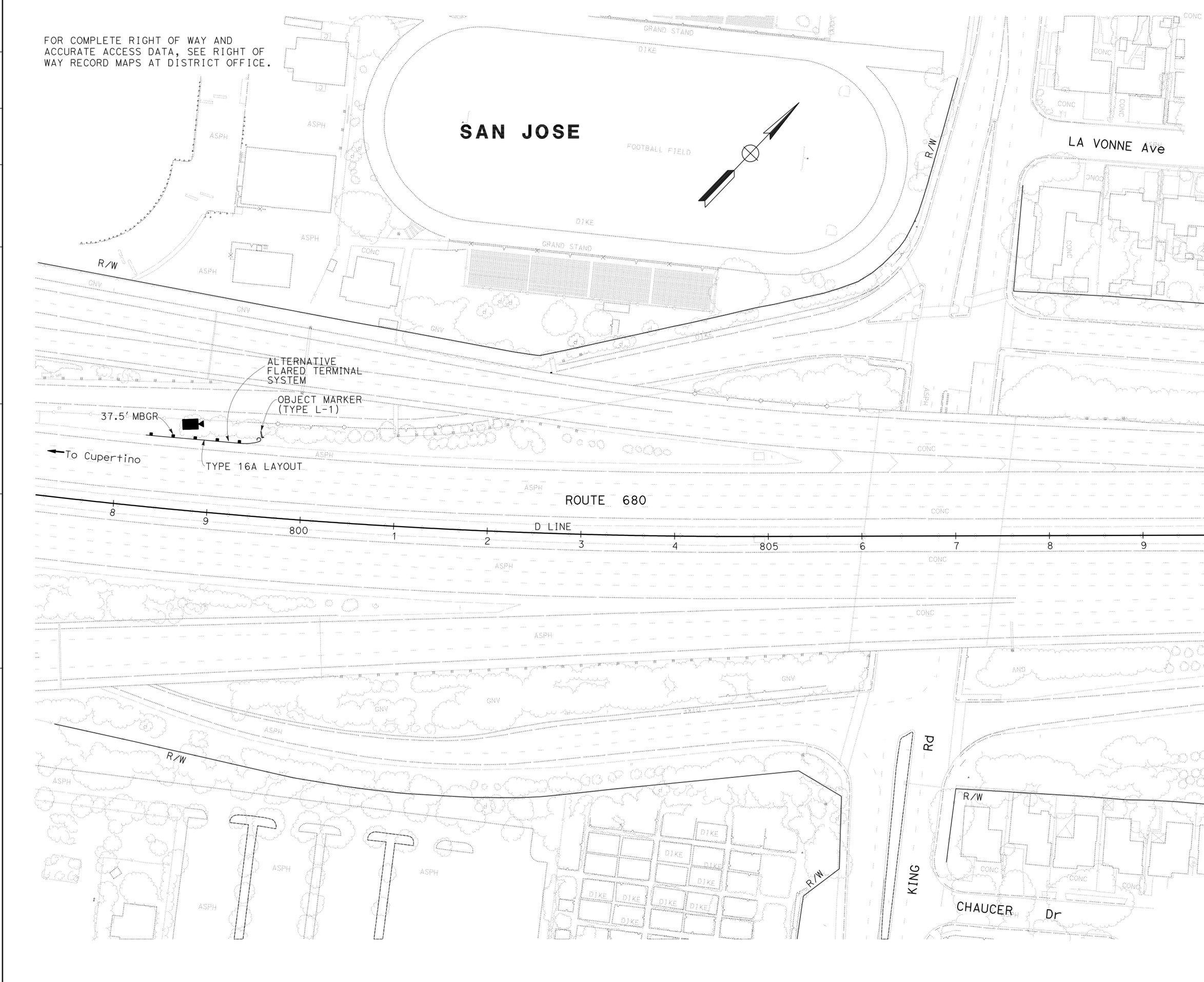
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CONTRACT No. **04-151384**



LAST REVISION  
 DATE PLOTTED => 05-NOV-2009  
 TIME PLOTTED => 06:43  
 01-09-09

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



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	2	76

*Peter Aguilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
**Peter Aguilera**  
 No. 55287  
 Exp. 2-31-10  
 CIVIL  
STATE OF CALIFORNIA

**LAYOUT (LOCATION 1)**  
 SCALE: 1" = 50'  
**L-1**

LAST REVISION: DATE PLOTTED => 05-NOV-2009  
 05-09-09 TIME PLOTTED => 08:45

**ABBREVIATIONS:**

CCCL	CEMENT COATED CEMENT LINE
CCP	CEMENT COATED PIPE
CF	CITY OF FREMONT
CIP	CAST IRON PIPE
CLA	CITY OF LOS ALTOS
CLG	CITY OF LOS GATOS
CM	CITY OF MILPITAS
CP	CONCRETE PIPE
CPA	CITY OF PALO ALTO
CS	CITY OF SUNNYVALE
CSC	CITY OF SANTA CLARA
CSD	CUPERTINO SANITATION DISTRICT
CSJ	CITY OF SAN JOSE
CSSF	CITY OF SOUTH SAN FRANCISCO
CWSC	CALIFORNIA WATER SERVICE COMPANY
DC	DALY CITY
DD	DOWN DRAIN
DICL	DUCTILE IRON CEMENT LINE
EBMUD	EAST BAY MUNICIPAL UTILITY DISTRICT
ESA	ENVIRONMENTAL SENSITIVE AREA
HP	HIGH PRESSURE
HPG	HIGH PRESSURE GAS
IC	IRRIGATION CROSSOVER
INFO	INFORMATION
IP	IRON PIPE
JB	JUNCTION BOX
JT	JOINT TRENCH
MCI	MCI WORLDCOM
PG&E	PACIFIC GAS & ELECTRIC COMPANY
PKWY	PARKWAY
PL	PLASTIC PIPE
PPWD	PLASTIC PIPE (WALL) DRAIN
PT&T	PACIFIC TELEPHONE AND TELEGRAPH
SCSP	SLOTTED CORRUGATED STEEL PIPE
SFWD	SAN FRANCISCO WATER DEPARTMENT
SJWC	SAN JOSE WATER COMPANY
STL	STEEL
TCI	TCI WEST, INCORPORATED
TP	TRANSMISSION PRESSURE OVER 60 PSIG
UGD	UNDERGROUND DUCT
VCD	VITRIFIED CLAY DUCT

**LEGEND:**

	DI	EXISTING DROP INLET
	JB	EXISTING JUNCTION
	MH	EXISTING MANHOLE
	W	EXISTING WATER LINE CROSSOVER
	-sI	STREET LIGHT
	///	ABANDONED

**NOTE:**

LOCATIONS OF EXISTING UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	3	76

*Peter Aguilera* 3-16-09  
REGISTERED CIVIL ENGINEER DATE

5-26-09  
PLANS APPROVAL DATE

**Peter Aguilera**  
No. 55287  
Exp. 12-31-10  
CIVIL  
STATE OF CALIFORNIA

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THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.



USERNAME => trstrk  
DGN FILE => 415138ka001.dgn

CU 04222

EA 151381

**UTILITY PLAN**

**U-1**

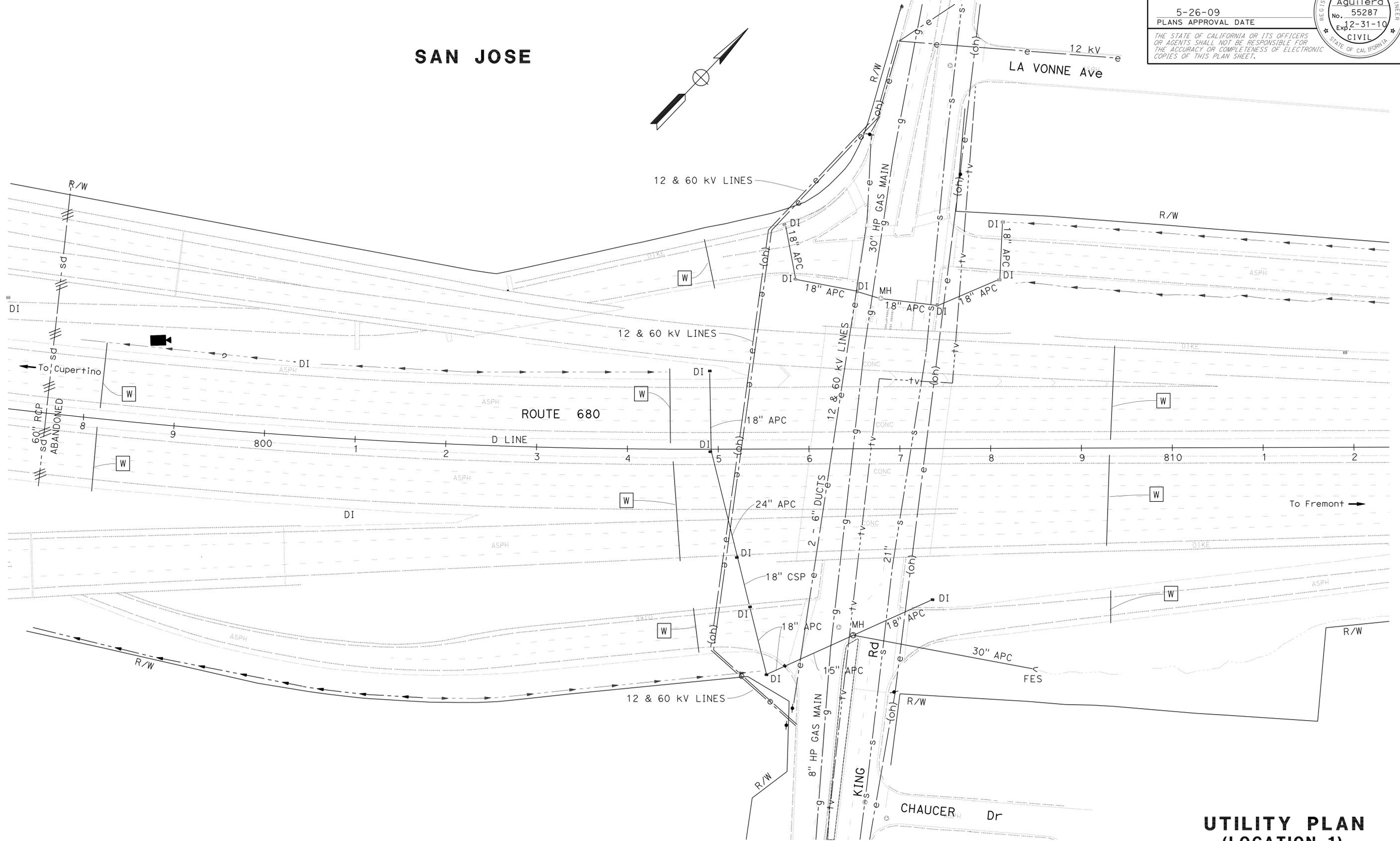
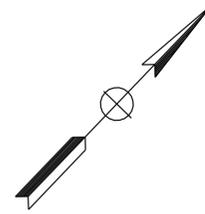
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	4	76

Peter Aquilera 3-16-09  
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 5-26-09  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 Peter Aquilera  
 No. 55287  
 Exp. 2-31-10  
 CIVIL  
 STATE OF CALIFORNIA

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

# SAN JOSE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
ULDARICO P. PEREZ	FUNCTIONAL SUPERVISOR
CHECKED BY	CALCULATED-DESIGNED BY
JIM LEM	SUSANA ONATE
DATE REVISED	REVISED BY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

## UTILITY PLAN (LOCATION 1)

SCALE: 1" = 50'

U-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	5	76

Peter Aguilera 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE

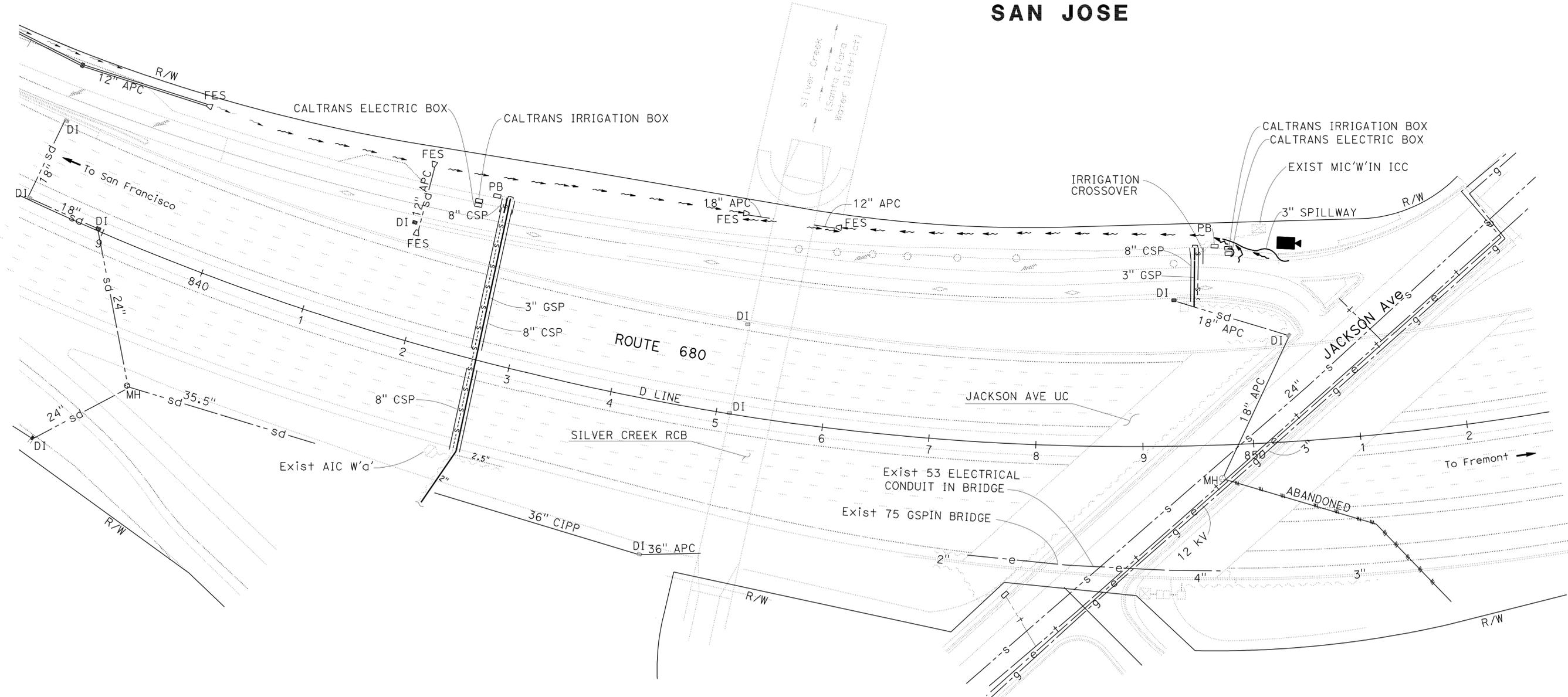
REGISTERED PROFESSIONAL ENGINEER  
 Peter Aguilera  
 No. 55287  
 Exp. 12-31-10  
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 STATE OF CALIFORNIA

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# SAN JOSE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
**DESIGN**  
 FUNCTIONAL SUPERVISOR: ULDARICO P. PEREZ  
 CHECKED BY: JIM LEM  
 SUSANA ONATE  
 REVISED BY: JIM LEM  
 DATE REVISED:

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

## UTILITY PLAN (LOCATION 2) SCALE: 1" = 50'

**U-3**

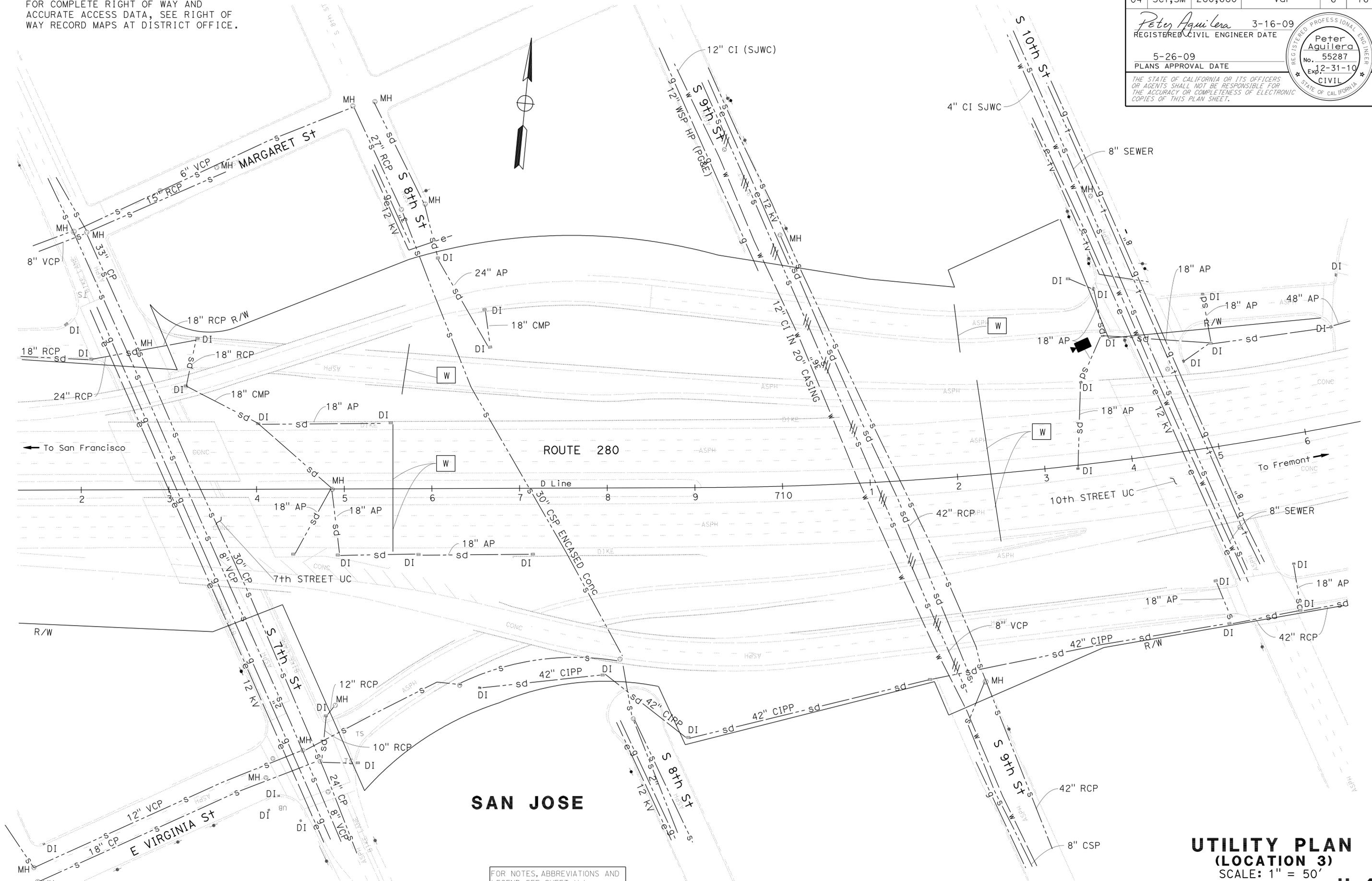
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	6	76

Peter Aquilera 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE  
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 Peter Aquilera  
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**Caltrans**  
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 CHECKED BY: JIM LEM  
 REVISED BY: SUSANA ONATE  
 DATE REVISED:



**SAN JOSE**

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

**UTILITY PLAN (LOCATION 3)**  
 SCALE: 1" = 50'  
**U-4**

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

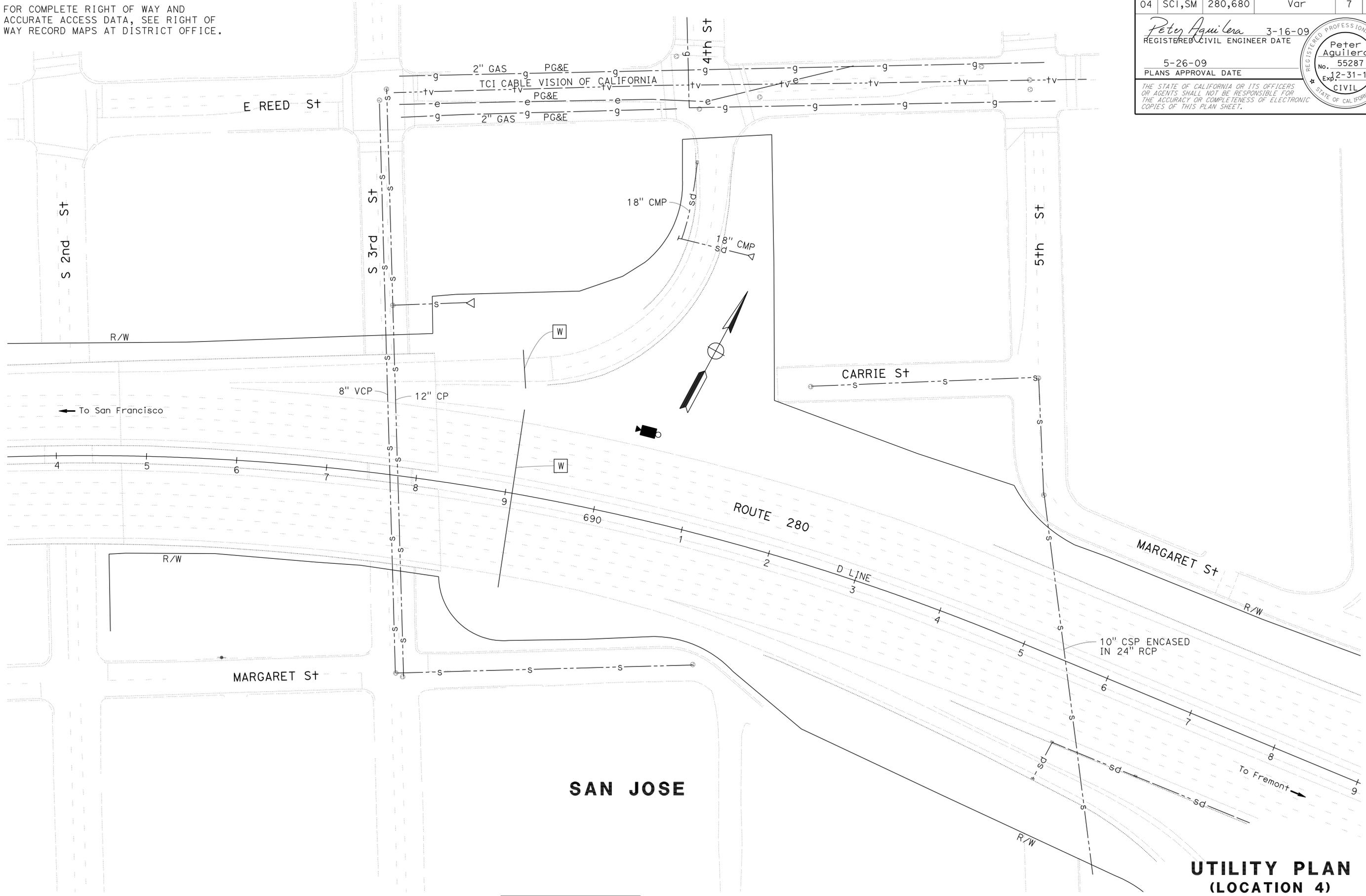
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI, SM	280,680	Var	7	76

*Peter Aquilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
**Peter Aquilera**  
 No. 55287  
 Exp. 12-31-10  
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STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
<b>Caltrans</b>	
FUNCTIONAL SUPERVISOR	ULDARICO P. PEREZ
CALCULATED-DESIGNED BY	CHECKED BY
SUSANA ONATE	JIM LEM
REVISED BY	DATE REVISED



**SAN JOSE**

**UTILITY PLAN  
(LOCATION 4)**  
SCALE: 1" = 50'

**U-5**

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

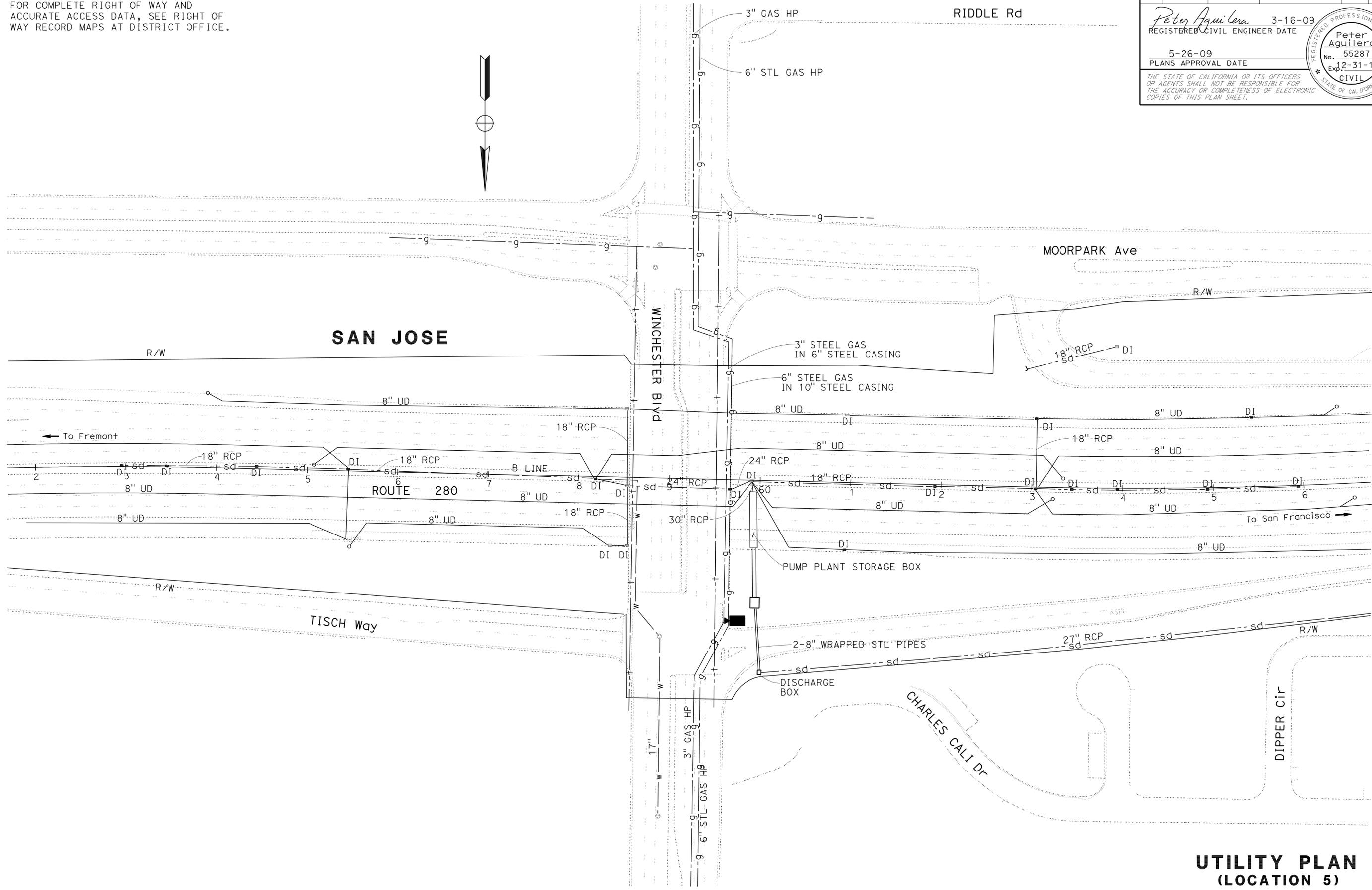
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	8	76

*Peter Aquilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
**Peter Aquilera**  
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STATE OF CALIFORNIA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
**DESIGN**  
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 CALCULATED-DESIGNED BY: SUSANA ONATE  
 CHECKED BY: JIM LEM  
 REVISED BY: SUSANA ONATE  
 DATE REVISED: JIM LEM



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN  
(LOCATION 5)**  
SCALE: 1" = 50'

**U-6**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	9	76

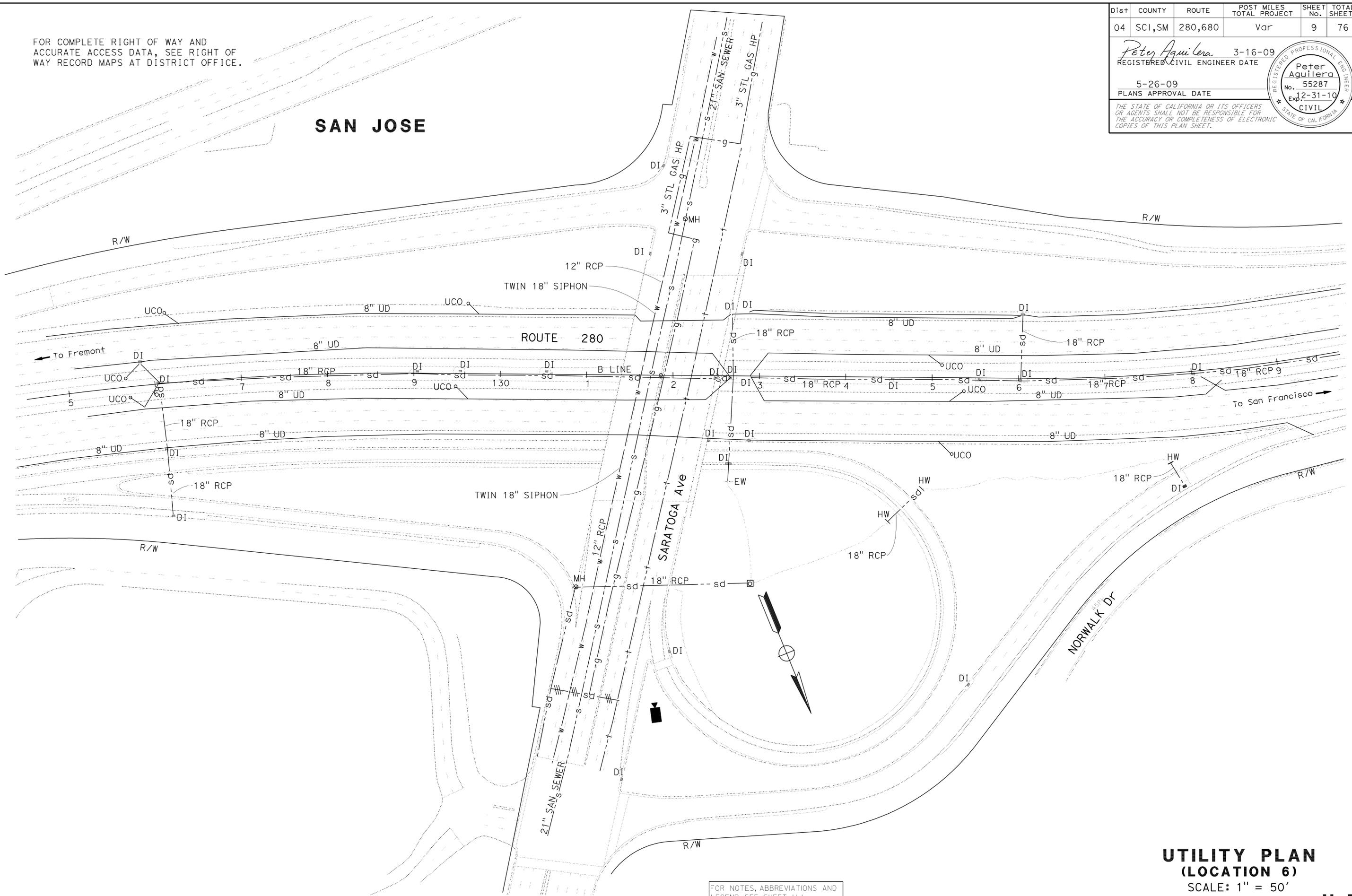
<i>Peter Aguilera</i>	3-16-09
REGISTERED CIVIL ENGINEER DATE	
5-26-09	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER  
**Peter Aguilera**  
 No. 55287  
 Exp. 2-31-10  
 CIVIL  
 STATE OF CALIFORNIA

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# SAN JOSE



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**Caltrans**  
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 ULDARICO P. PEREZ  
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 CHECKED BY  
 SUSANA ONATE  
 JIM LEM  
 REVISED BY  
 DATE REVISED

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

## UTILITY PLAN (LOCATION 6)

SCALE: 1" = 50'

**U-7**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	10	76

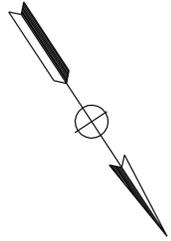
<i>Peter Aguilera</i>	3-16-09
REGISTERED CIVIL ENGINEER DATE	
5-26-09	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
<b>Peter Aguilera</b>
No. 55287
Exp. 12-31-10
CIVIL

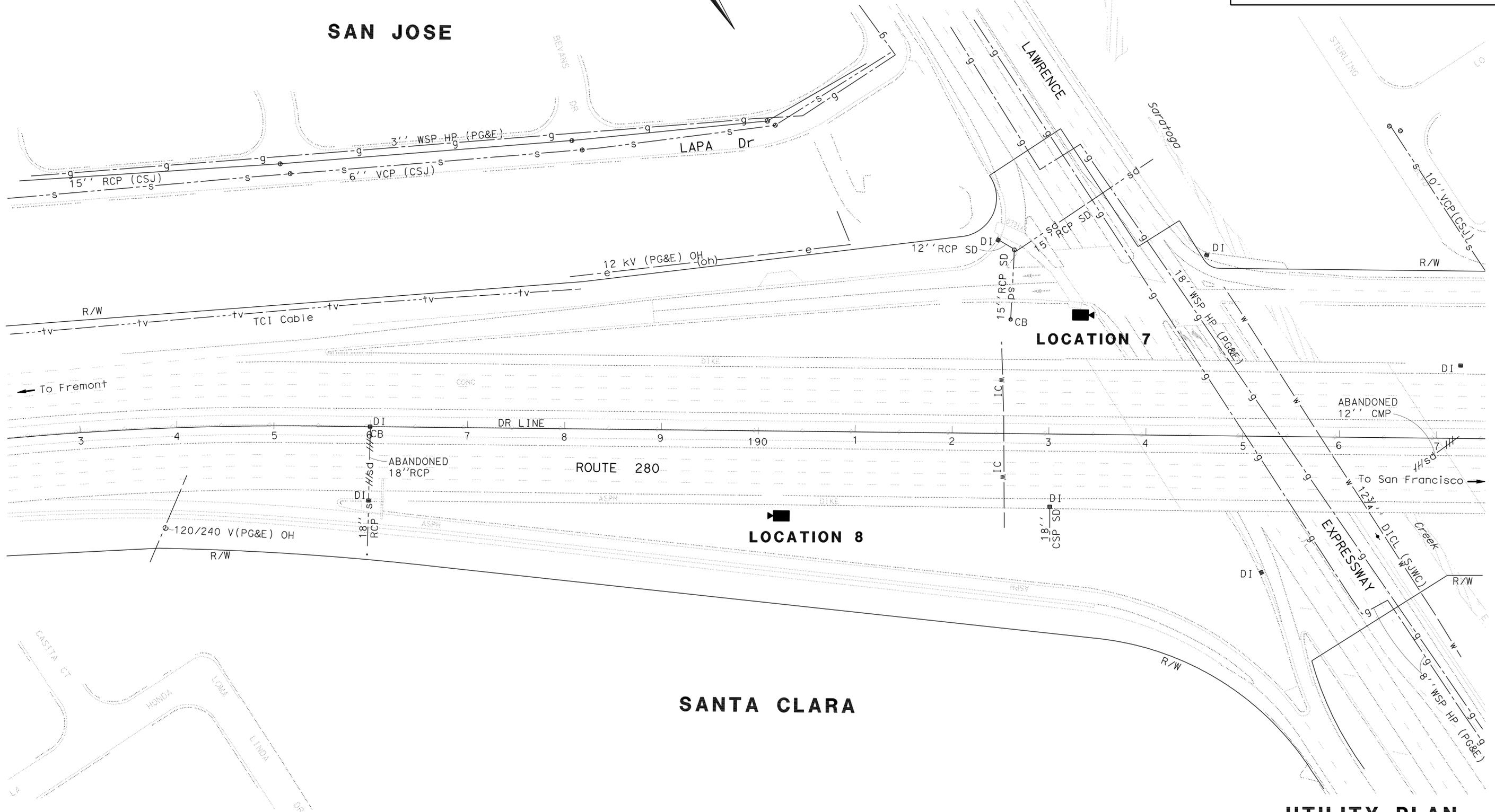
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**SAN JOSE**

**SANTA CLARA**



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

FUNCTIONAL SUPERVISOR  
 ULDARICO P. PEREZ

CALCULATED-DESIGNED BY  
 CHECKED BY

SUSANA ONATE  
 JIM LEM

REVISED BY  
 DATE REVISED

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
**(LOCATIONS 7 AND 8)**  
 SCALE: 1" = 50'

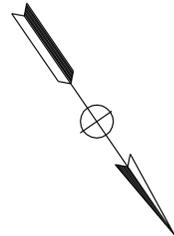
**U-8**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	11	76

*Peter Aguilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE  
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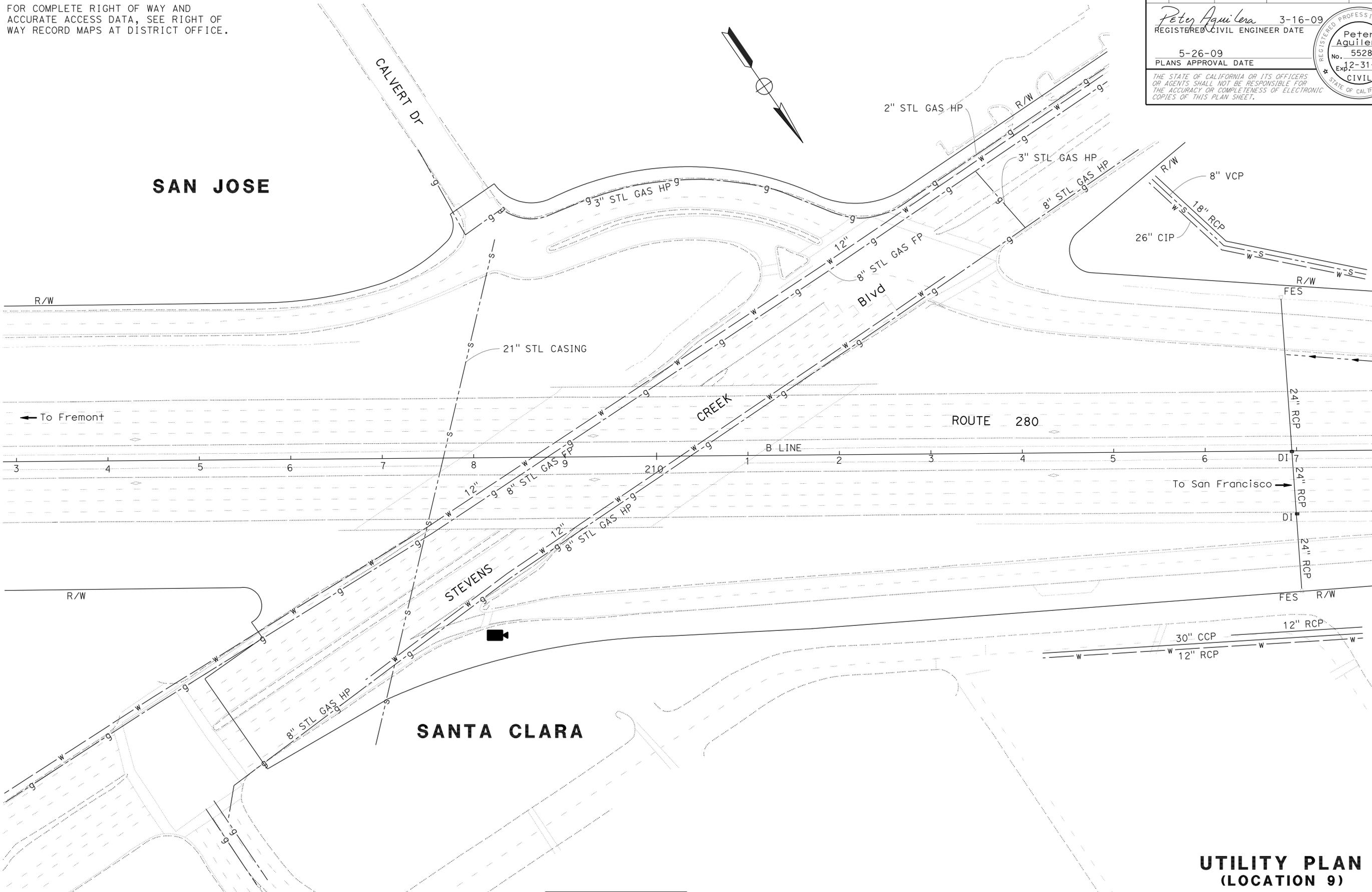
REGISTERED PROFESSIONAL ENGINEER  
**Peter Aguilera**  
 No. 55287  
 Exp. 12-31-10  
 CIVIL  
STATE OF CALIFORNIA

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



**SAN JOSE**

**SANTA CLARA**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
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 ULDARICO P. PEREZ  
 CALCULATED-DESIGNED BY  
 CHECKED BY  
 SUSANA ONATE  
 JIM LEM  
 REVISED BY  
 DATE REVISED

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
**(LOCATION 9)**  
 SCALE: 1" = 50'

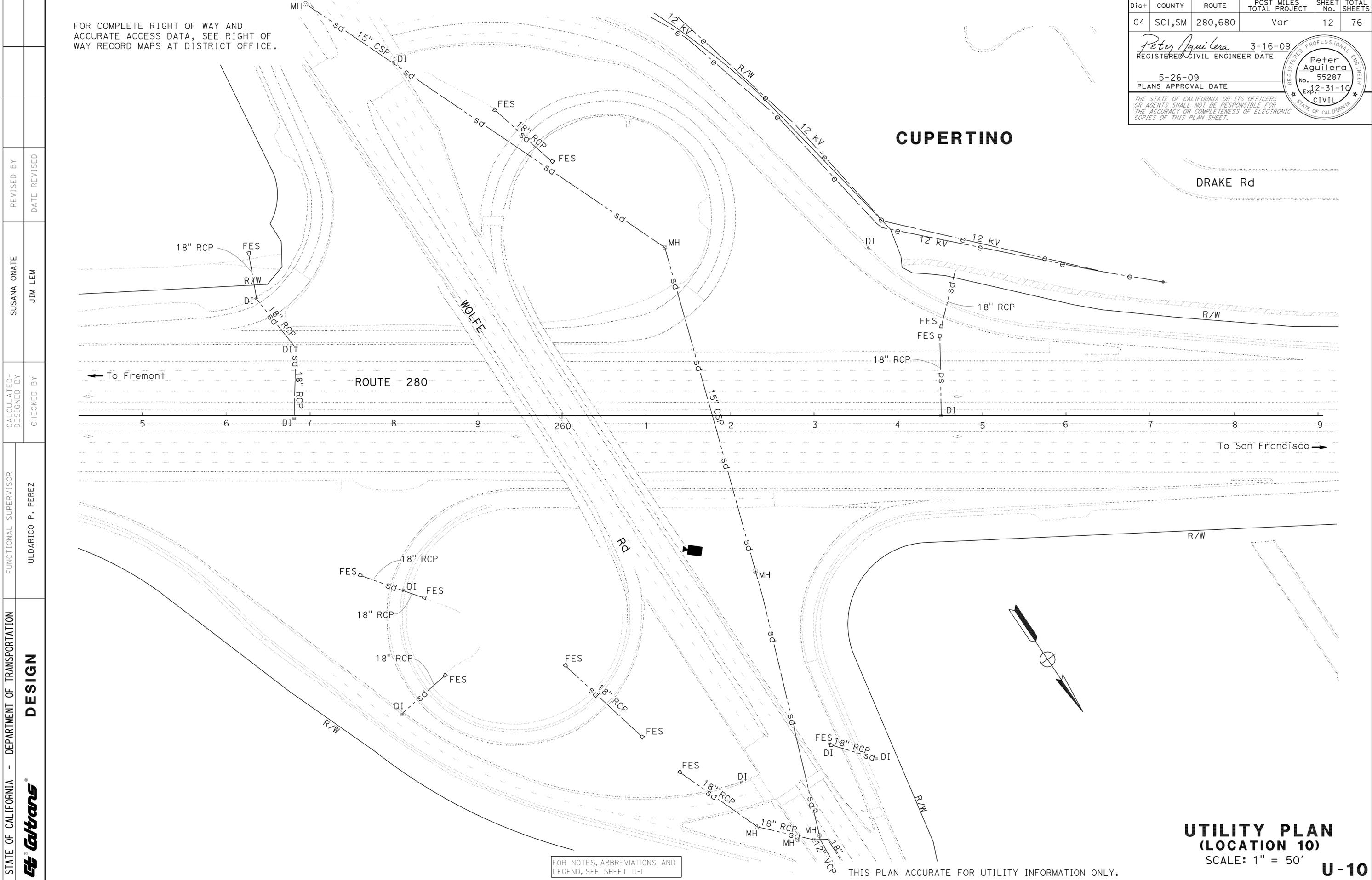
**U-9**

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	12	76

*Peter Aguilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
**Peter Aguilera**  
 No. 55287  
 Exp. 12-31-10  
 CIVIL  
STATE OF CALIFORNIA



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
ULDARICO P. PEREZ	FUNCTIONAL SUPERVISOR
CHECKED BY	CALCULATED-DESIGNED BY
JIM LEM	SUSANA ONATE
DATE REVISED	REVISED BY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
 (LOCATION 10)  
 SCALE: 1" = 50'

**U-10**

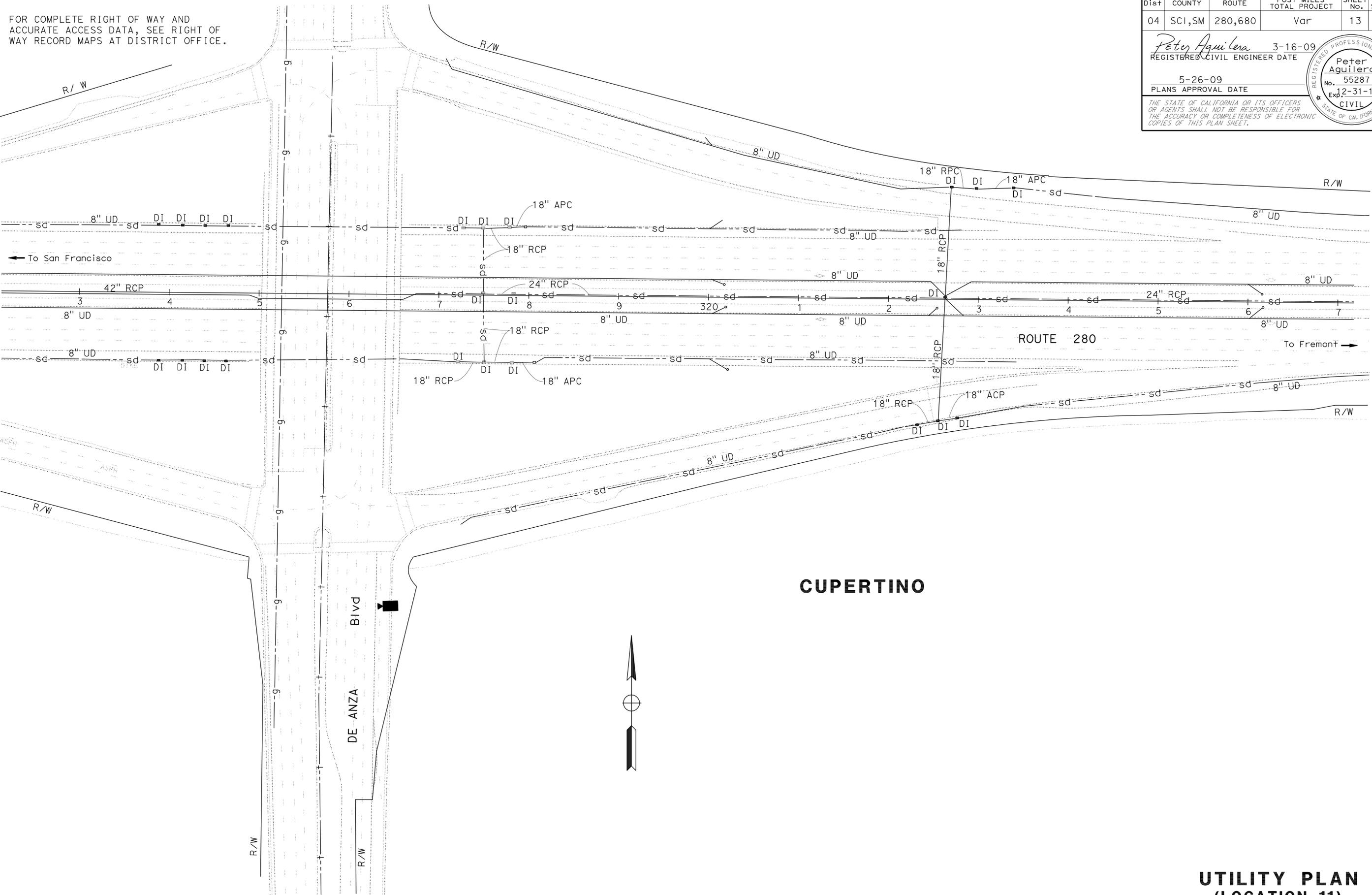
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	13	76

*Peter Aguilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 Peter Aguilera  
 No. 55287  
 Exp. 2-31-10  
 CIVIL  
 STATE OF CALIFORNIA

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FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 ULDARICO P. PEREZ  
 FUNCTIONAL SUPERVISOR  
 CHECKED BY  
 SUSANA ONATE  
 JIM LEM  
 REVISED BY  
 DATE REVISED

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

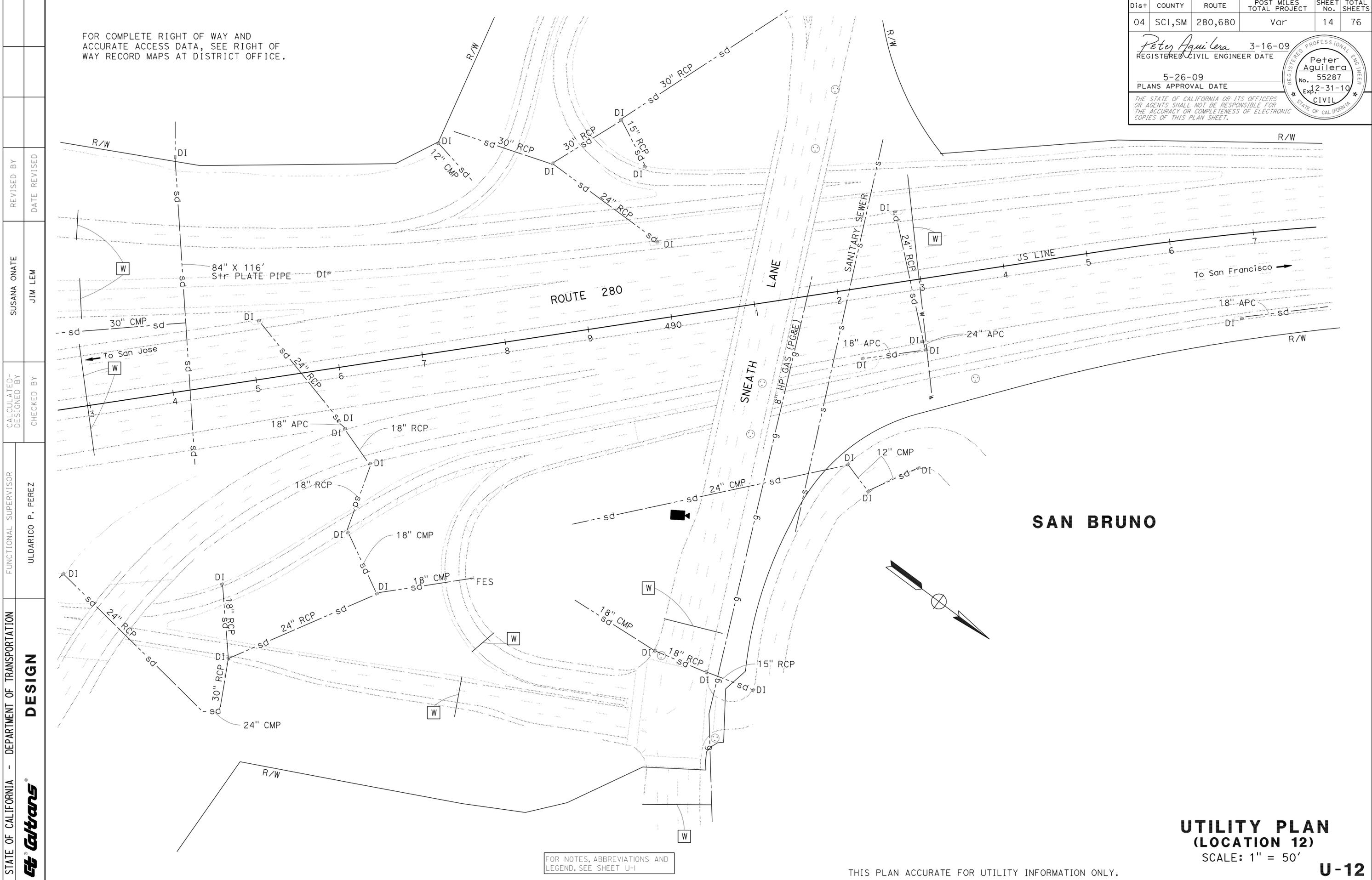
THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
**(LOCATION 11)**  
 SCALE: 1" = 50'

**U-11**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	14	76
<i>Peter Aguilera</i> 3-16-09 REGISTERED CIVIL ENGINEER DATE			Peter Aguilera No. 55287 Exp. 2-31-10 CIVIL		
5-26-09			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.</small>					

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
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FUNCTIONAL SUPERVISOR: ULDARICO P. PEREZ  
 CALCULATED/DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]  
 SUSANA ONATE  
 JIM LEM  
 REVISED BY: [Blank]  
 DATE REVISED: [Blank]

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
**(LOCATION 12)**  
 SCALE: 1" = 50'

**U-12**

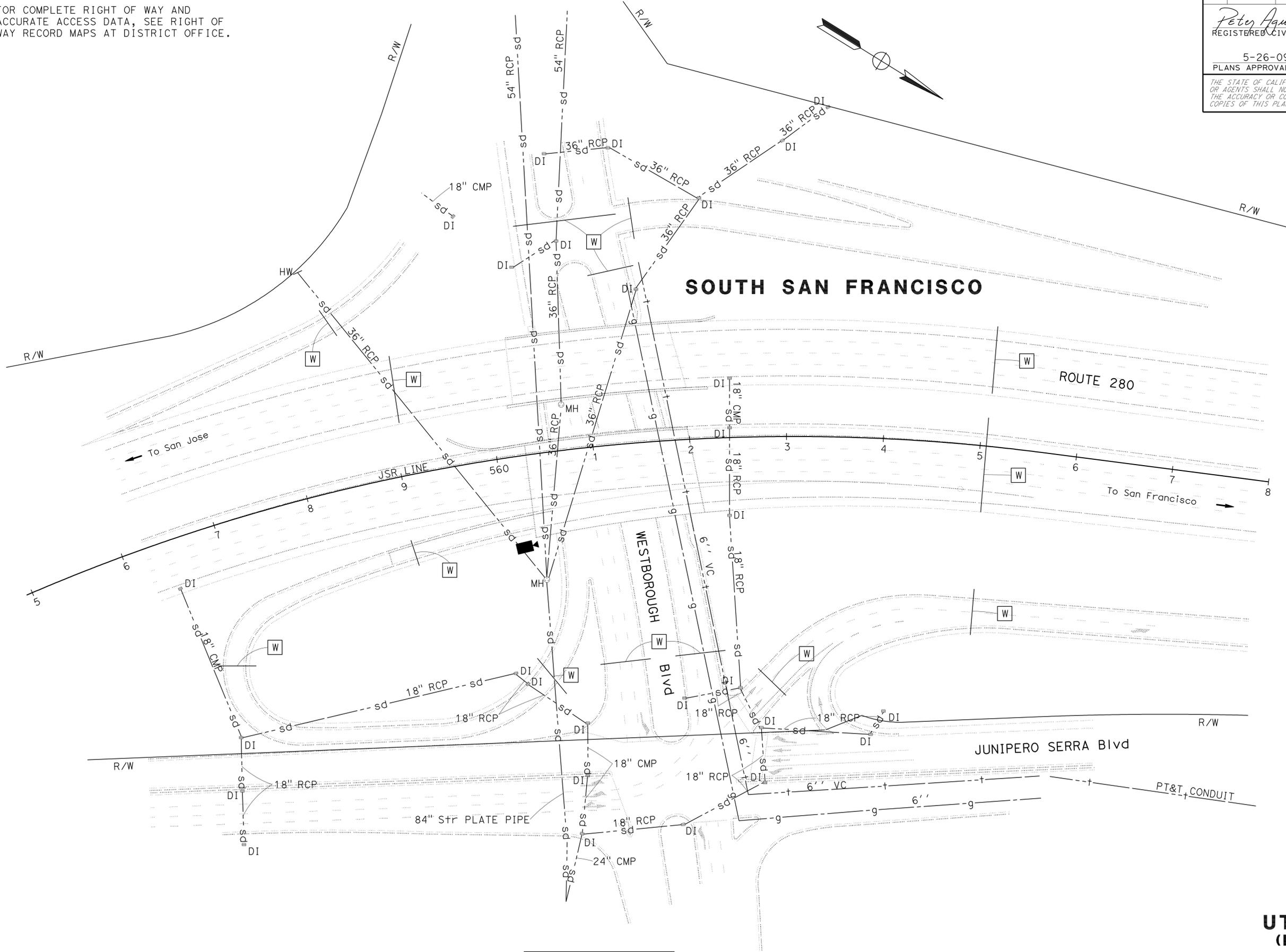
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	15	76

Peter Aguilera 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE  
 Peter Aguilera  
 No. 55287  
 Exp. 12-31-10  
 CIVIL  
 REGISTERED PROFESSIONAL ENGINEER  
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
ULDARICO P. PEREZ	FUNCTIONAL SUPERVISOR
CHECKED BY	CALCULATED-DESIGNED BY
JIM LEM	SUSANA ONATE
DATE REVISED	REVISED BY



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
**(LOCATION 13)**  
 SCALE 1" = 50'

**U-13**

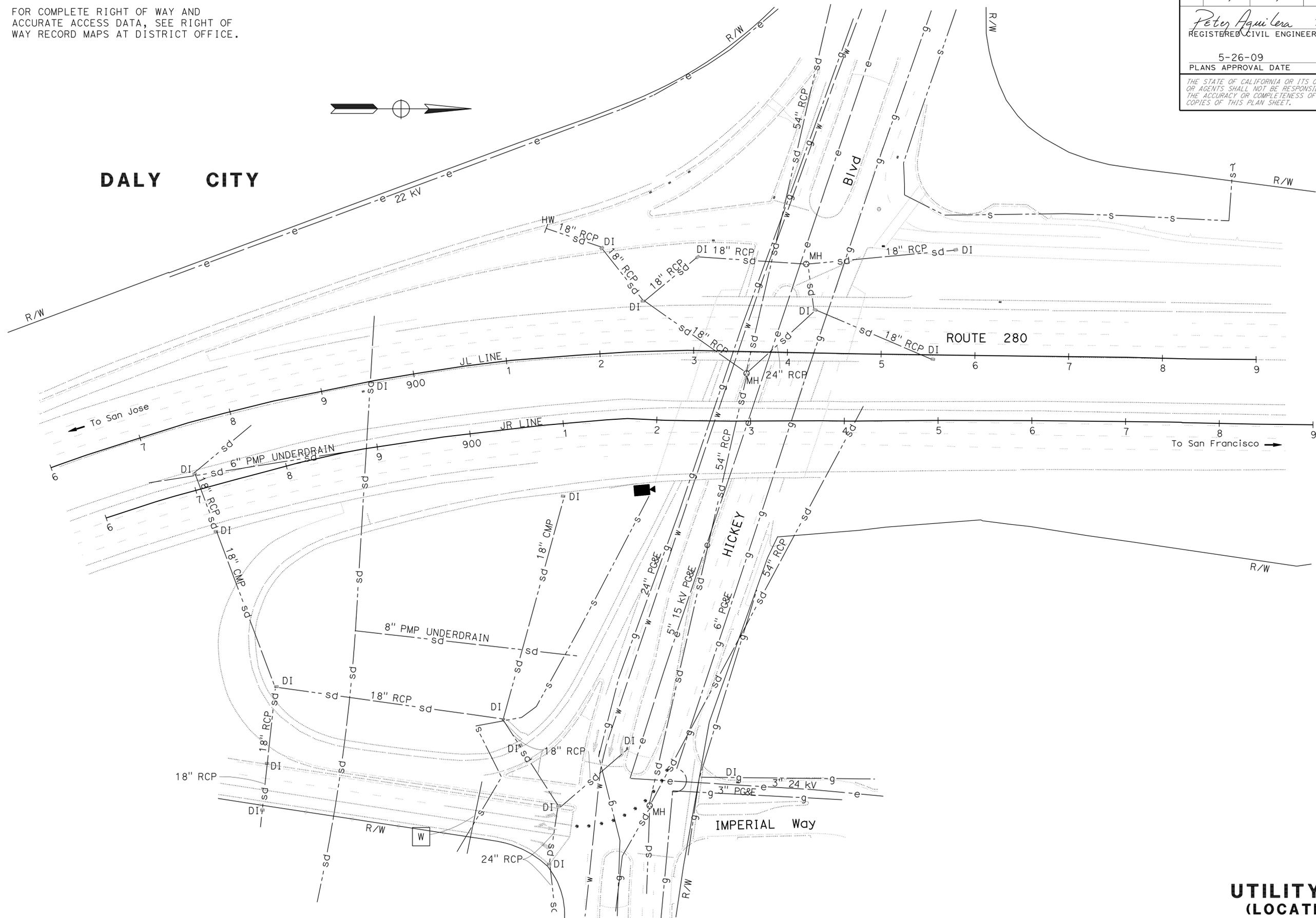
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	16	76

Peter Aquilera 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE  
 Peter Aquilera No. 55287 Exp. 2-31-10 CIVIL  
 REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



# DALY CITY



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
ULDARICO P. PEREZ	FUNCTIONAL SUPERVISOR
CHECKED BY	CALCULATED-DESIGNED BY
JIM LEM	SUSANA ONATE
DATE REVISED	REVISED BY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

## UTILITY PLAN (LOCATION 14)

SCALE: 1" = 50'

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

U-14

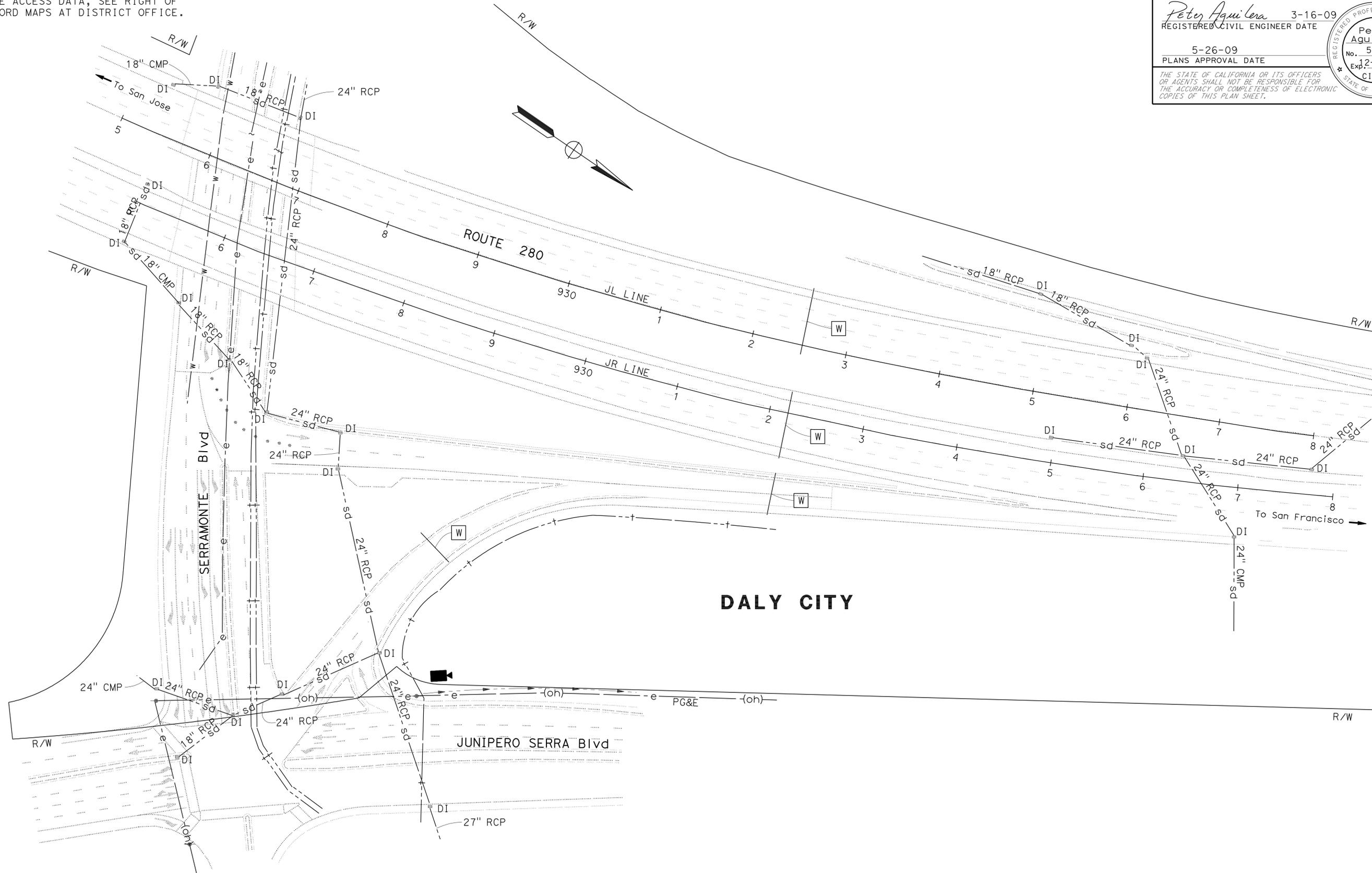
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	17	76

*Peter Aquilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 Peter Aquilera  
 No. 55287  
 Exp. 2-31-10  
 CIVIL  
 STATE OF CALIFORNIA

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



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

FUNCTIONAL SUPERVISOR: ULDARICO P. PEREZ  
 CALCULATED-DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]  
 SUSANA ONATE  
 JIM LEM  
 REVISED BY: [Blank]  
 DATE REVISED: [Blank]

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
**(LOCATION 15)**  
 SCALE: 1" = 50'

**U-15**

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

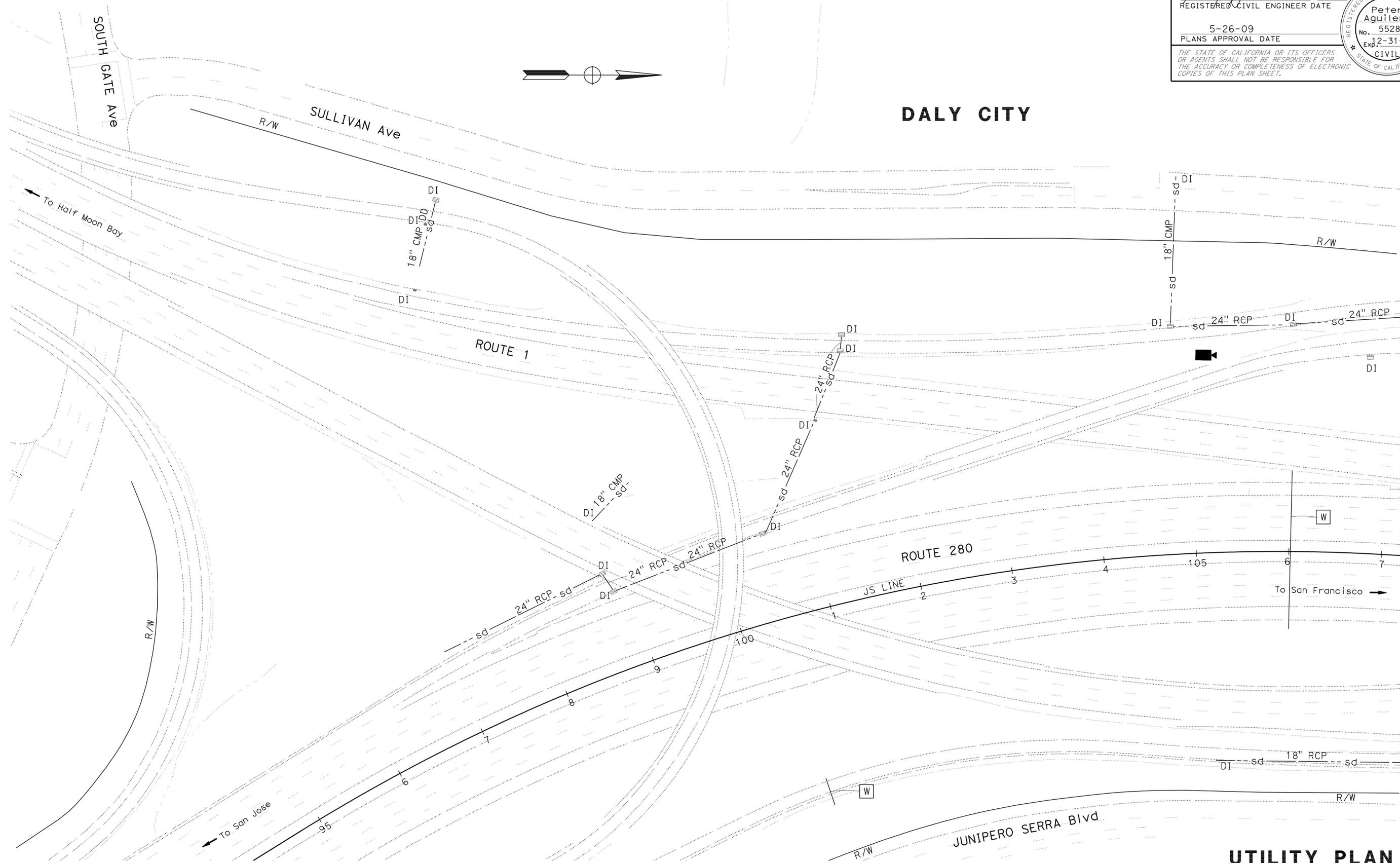
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	18	76

*Peter Aguilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 Peter Aguilera  
 No. 55287  
 Exp. 2-31-10  
 CIVIL  
 STATE OF CALIFORNIA

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
ULDARICO P. PEREZ	FUNCTIONAL SUPERVISOR
CHECKED BY	CALCULATED-DESIGNED BY
JIM LEM	SUSANA ONATE
DATE REVISED	REVISED BY



**DALY CITY**

SEE SHEET U-17

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
 (LOCATION 16)  
 SCALE: 1" = 50'

**U-16**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	19	76

<i>Peter Aquilera</i>	3-16-09
REGISTERED CIVIL ENGINEER DATE	
5-26-09	
PLANS APPROVAL DATE	

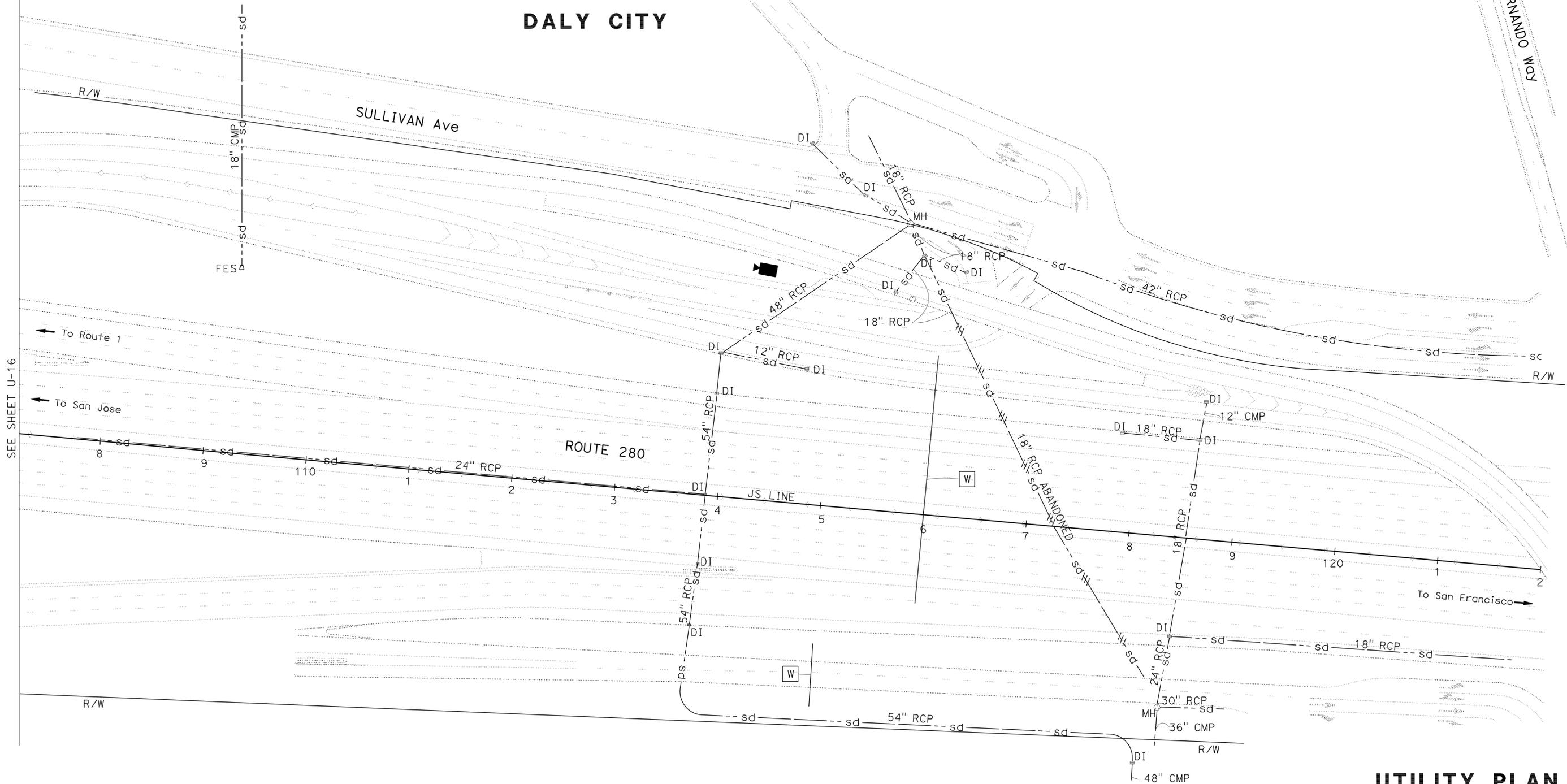
REGISTERED PROFESSIONAL ENGINEER
Peter Aquilera
No. 55287
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



# DALY CITY



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

FUNCTIONAL SUPERVISOR  
 ULDARICO P. PEREZ

CALCULATED-DESIGNED BY  
 CHECKED BY

SUSANA ONATE  
 JIM LEM

REVISED BY  
 DATE REVISED

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET U-1

THIS PLAN ACCURATE FOR UTILITY INFORMATION ONLY.

**UTILITY PLAN**  
**(LOCATION 16)**  
 SCALE: 1" = 50'  
**U-17**

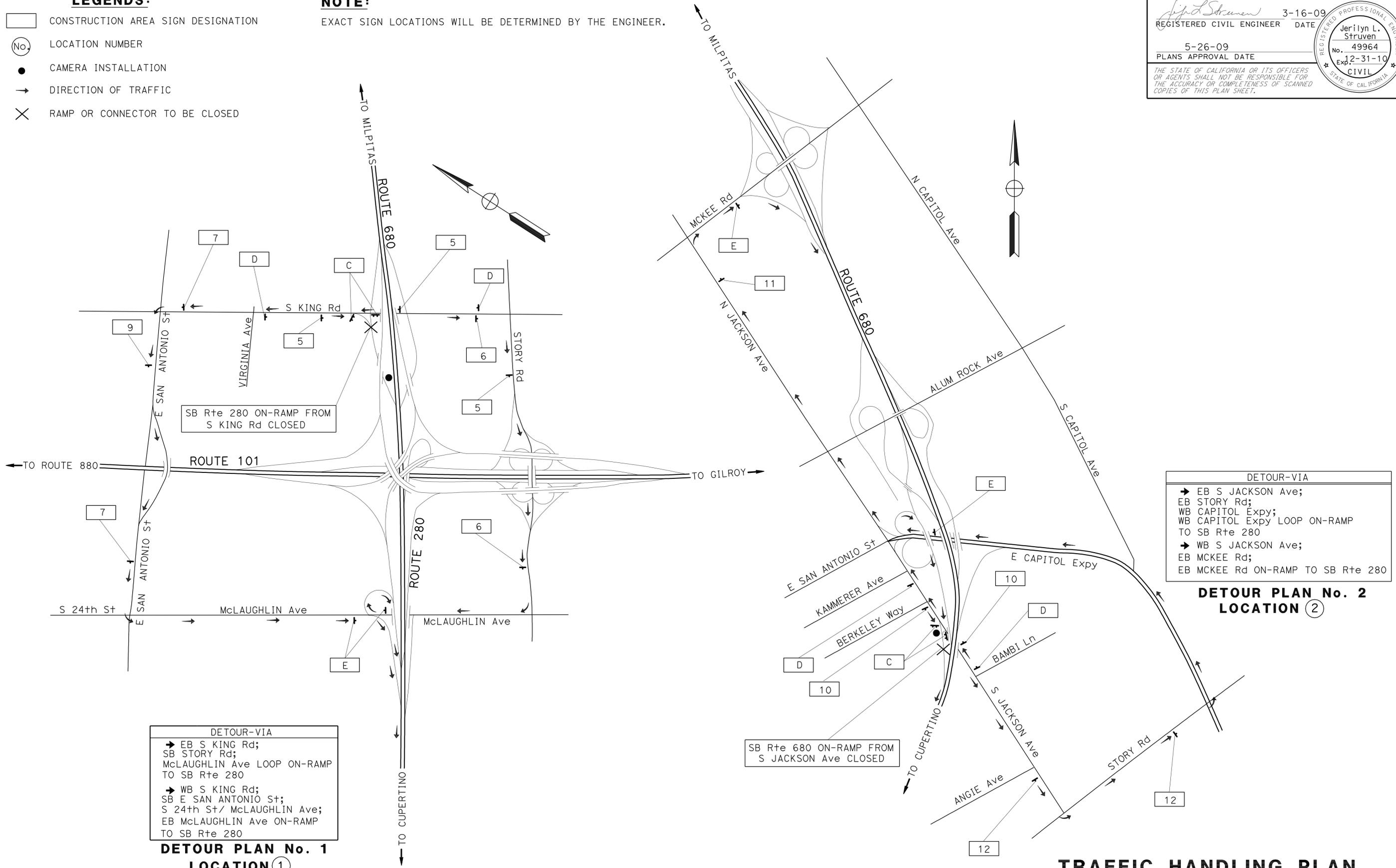
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	20	76
 REGISTERED CIVIL ENGINEER			DATE	3-16-09	
PLANS APPROVAL DATE			DATE	5-26-09	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
					

**LEGENDS:**

- CONSTRUCTION AREA SIGN DESIGNATION
- LOCATION NUMBER
- CAMERA INSTALLATION
- DIRECTION OF TRAFFIC
- X RAMP OR CONNECTOR TO BE CLOSED

**NOTE:**

EXACT SIGN LOCATIONS WILL BE DETERMINED BY THE ENGINEER.



DETOUR-VIA

- EB S KING Rd;
- SB STORY Rd;
- McLAUGHLIN Ave LOOP ON-RAMP TO SB Rte 280
- WB S KING Rd;
- SB E SAN ANTONIO St;
- S 24th St/ McLAUGHLIN Ave;
- EB McLAUGHLIN Ave ON-RAMP TO SB Rte 280

**DETOUR PLAN No. 1  
LOCATION ①**

DETOUR-VIA

- EB S JACKSON Ave;
- EB STORY Rd;
- WB CAPITOL Expy;
- WB CAPITOL Expy LOOP ON-RAMP TO SB Rte 280
- WB S JACKSON Ave;
- EB MCKEE Rd;
- EB MCKEE Rd ON-RAMP TO SB Rte 280

**DETOUR PLAN No. 2  
LOCATION ②**

**TRAFFIC HANDLING PLAN**

NO SCALE

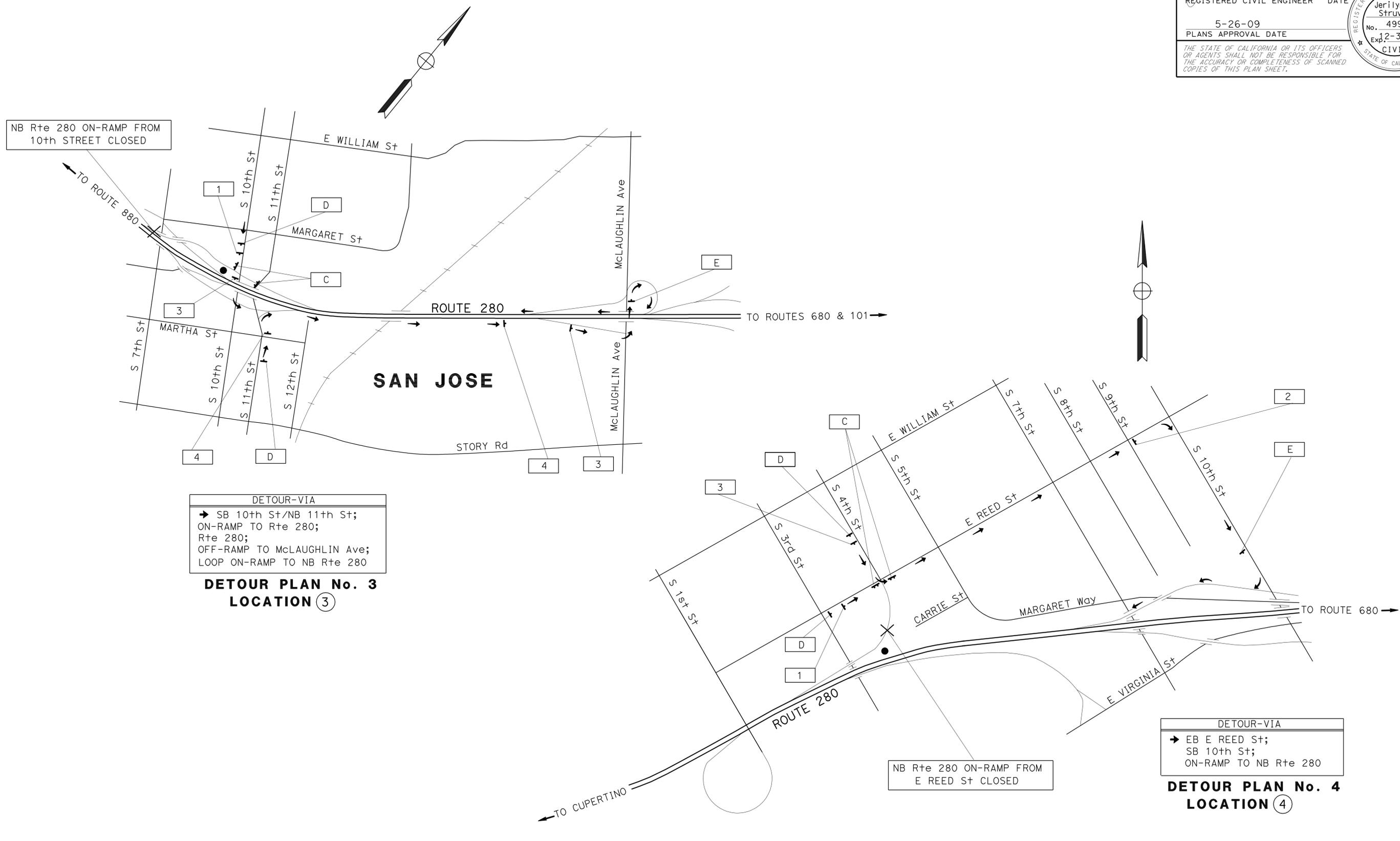
THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

**TH-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
	
FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG
CALCULATED-DESIGNED BY	CHECKED BY
DUC VO	JERILYN STRUVEN
REVISED BY	DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	21	76
 REGISTERED CIVIL ENGINEER			DATE	3-16-09	
PLANS APPROVAL DATE			DATE	5-26-09	
			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.		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG
CALCULATED-DESIGNED BY	CHECKED BY
DUC VO	JERILYN STRUVEN
REVISED BY	DATE REVISED



**DETOUR-VIA**  
 → SB 10th St/NB 11th St;  
 ON-RAMP TO Rte 280;  
 Rte 280;  
 OFF-RAMP TO McLAUGHLIN Ave;  
 LOOP ON-RAMP TO NB Rte 280

**DETOUR PLAN No. 3**  
**LOCATION ③**

**DETOUR-VIA**  
 → EB E REED St;  
 SB 10th St;  
 ON-RAMP TO NB Rte 280

**DETOUR PLAN No. 4**  
**LOCATION ④**

FOR NOTE AND LEGENDS,  
 SEE SHEET TH-1

THIS PLAN ACCURATE FOR  
 TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN**  
 NO SCALE

**TH-2**

LAST REVISION | DATE PLOTTED => 05-NOV-2009  
 05-26-09 | TIME PLOTTED => 08:47

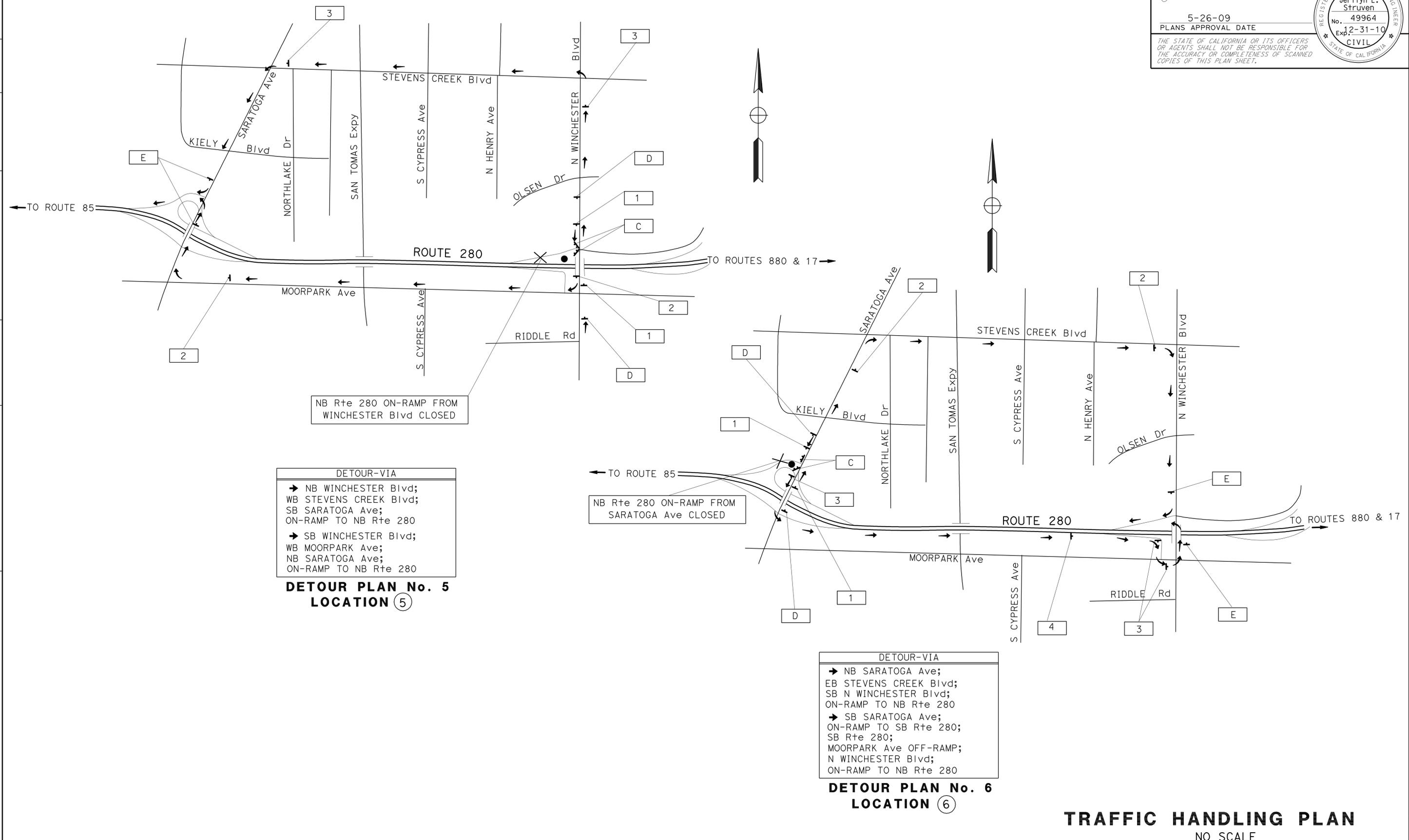
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	22	76

*Jerilyn L. Struven* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE

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

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 DUC VO: JERILYN STRUVEN  
 REVISIONS: REVISED BY, DATE, REVISED  
 CALCULATED/DESIGNED BY, CHECKED BY



**DETOUR-VIA**

- NB WINCHESTER Blvd;
- WB STEVENS CREEK Blvd;
- SB SARATOGA Ave;
- ON-RAMP TO NB Rte 280
- SB WINCHESTER Blvd;
- WB MOORPARK Ave;
- NB SARATOGA Ave;
- ON-RAMP TO NB Rte 280

**DETOUR PLAN No. 5**  
**LOCATION 5**

**DETOUR-VIA**

- NB SARATOGA Ave;
- EB STEVENS CREEK Blvd;
- SB N WINCHESTER Blvd;
- ON-RAMP TO NB Rte 280
- SB SARATOGA Ave;
- ON-RAMP TO SB Rte 280;
- SB Rte 280;
- MOORPARK Ave OFF-RAMP;
- N WINCHESTER Blvd;
- ON-RAMP TO NB Rte 280

**DETOUR PLAN No. 6**  
**LOCATION 6**

FOR NOTE AND LEGENDS,  
SEE SHEET TH-1

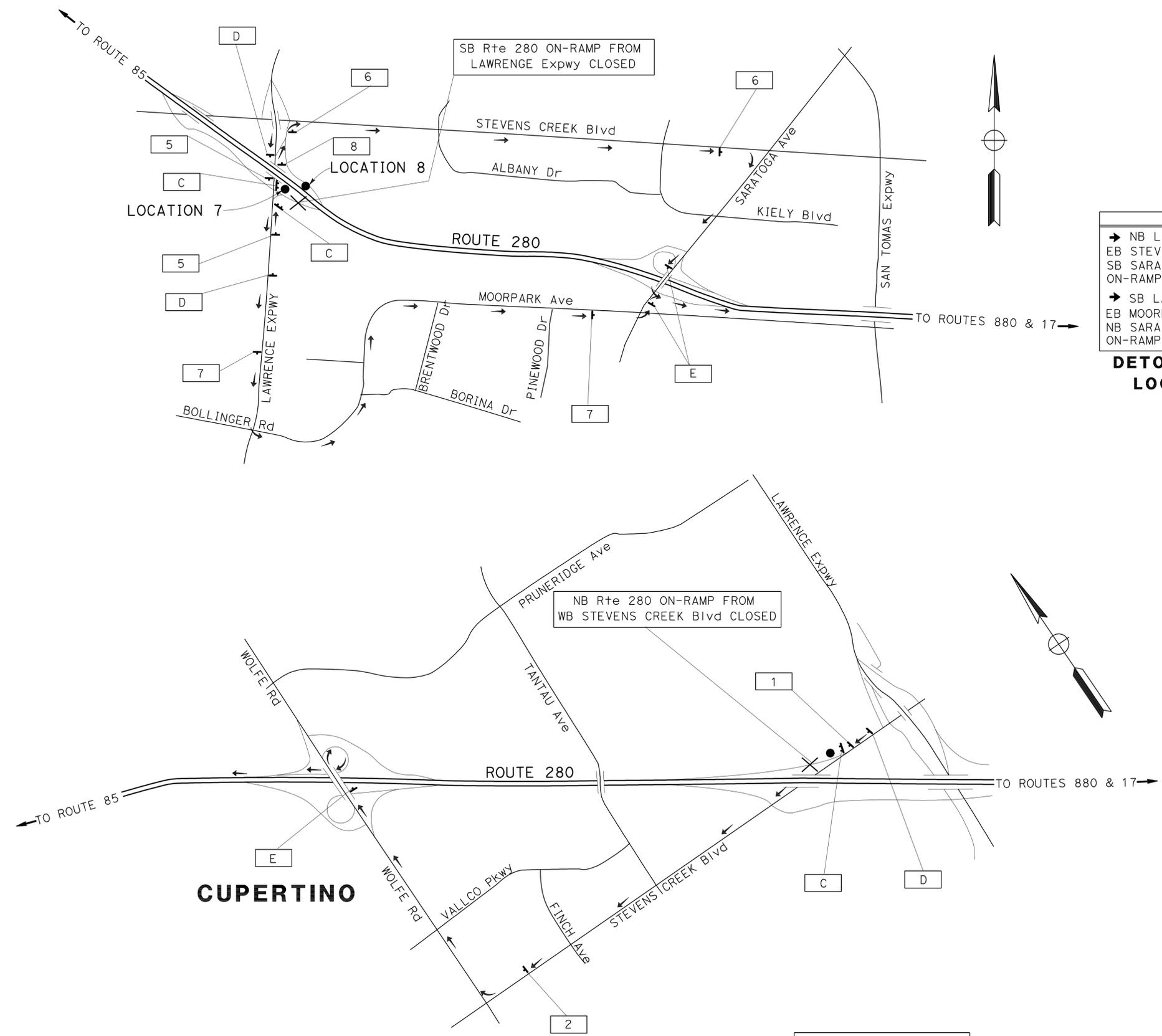
THIS PLAN ACCURATE FOR  
TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN**  
NO SCALE

**TH-3**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	23	76
			3-16-09	DATE	
REGISTERED CIVIL ENGINEER			No. 49964		
5-26-09			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG
CALCULATED-DESIGNED BY	CHECKED BY
DUC VO	JERILYN STRUVEN
REVISED BY	DATE REVISED



**DETOUR-VIA**

- ➔ NB LAWRENCE Expwy;
- EB STEVENS CREEK Blvd;
- SB SARATOGA Ave;
- ON-RAMP TO SB Rte 280
- ➔ SB LAWRENCE Expwy;
- EB MOORPARK Ave;
- NB SARATOGA Ave;
- ON-RAMP TO SB Rte 280

**DETOUR PLAN No. 7**  
**LOCATION 7**

**DETOUR-VIA**

- ➔ WB STEVENS CREEK Blvd;
- NB WOLFE Rd TO NB Rte 280
- TO LOOP ON-RAMP

**DETOUR PLAN No. 8**  
**LOCATION 8**

FOR NOTE AND LEGENDS, SEE SHEET TH-1

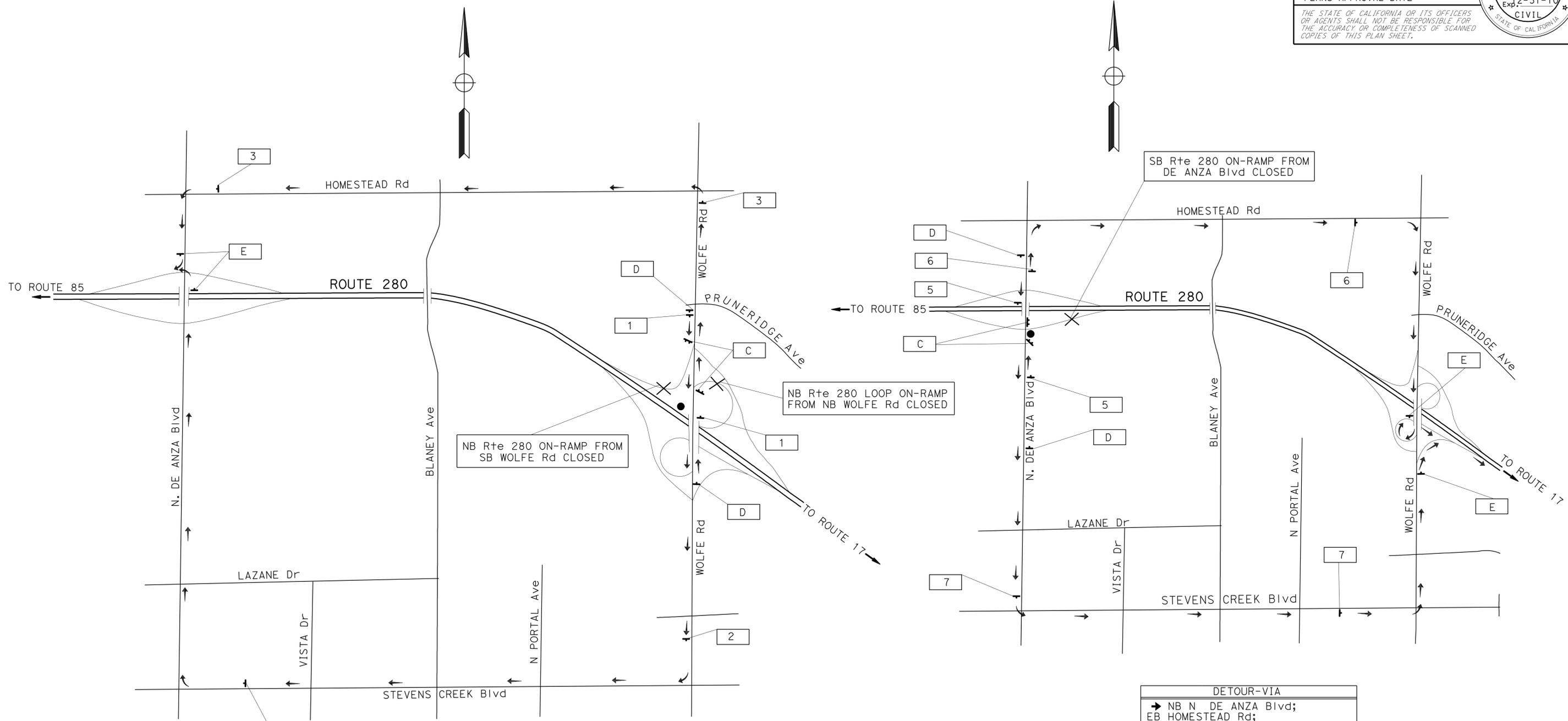
THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN**  
NO SCALE

**TH-4**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	24	76
<i>Jerilyn L. Struven</i> REGISTERED CIVIL ENGINEER			DATE	3-16-09 5-26-09 PLANS APPROVAL DATE	
No. 49964 Exp. 12-31-10 CIVIL			REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG
CALCULATED-DESIGNED BY	CHECKED BY
DUC VO	JERILYN STRUVEN
REVISED BY	DATE REVISED



**DETOUR-VIA**  
 → SB WOLFE Rd;  
 WB STEVENS CREEK Blvd;  
 NB N. DE ANZA Blvd;  
 ON-RAMP TO NB Rte 280

**DETOUR PLAN No. 9**

**LOCATION 9**

**DETOUR-VIA**  
 → NB WOLFE Rd;  
 WB HOMESTEAD Rd;  
 SB N. DE ANZA Blvd  
 TO NB Rte 280 ON-RAMP

**DETOUR PLAN No. 10**

**LOCATION 10**

**DETOUR-VIA**  
 → NB N. DE ANZA Blvd;  
 EB HOMESTEAD Rd;  
 SB WOLFE Rd;  
 LOOP ON-RAMP TO SB Rte 280  
 → SB N. DE ANZA Blvd;  
 EB STEVENS CREEK Blvd;  
 NB WOLFE Rd;  
 ON-RAMP TO SB Rte 280

**DETOUR PLAN No. 11**

**LOCATION 11**

FOR NOTE AND LEGENDS,  
 SEE SHEET TH-1

THIS PLAN ACCURATE FOR  
 TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN**

NO SCALE

**TH-5**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	25	76

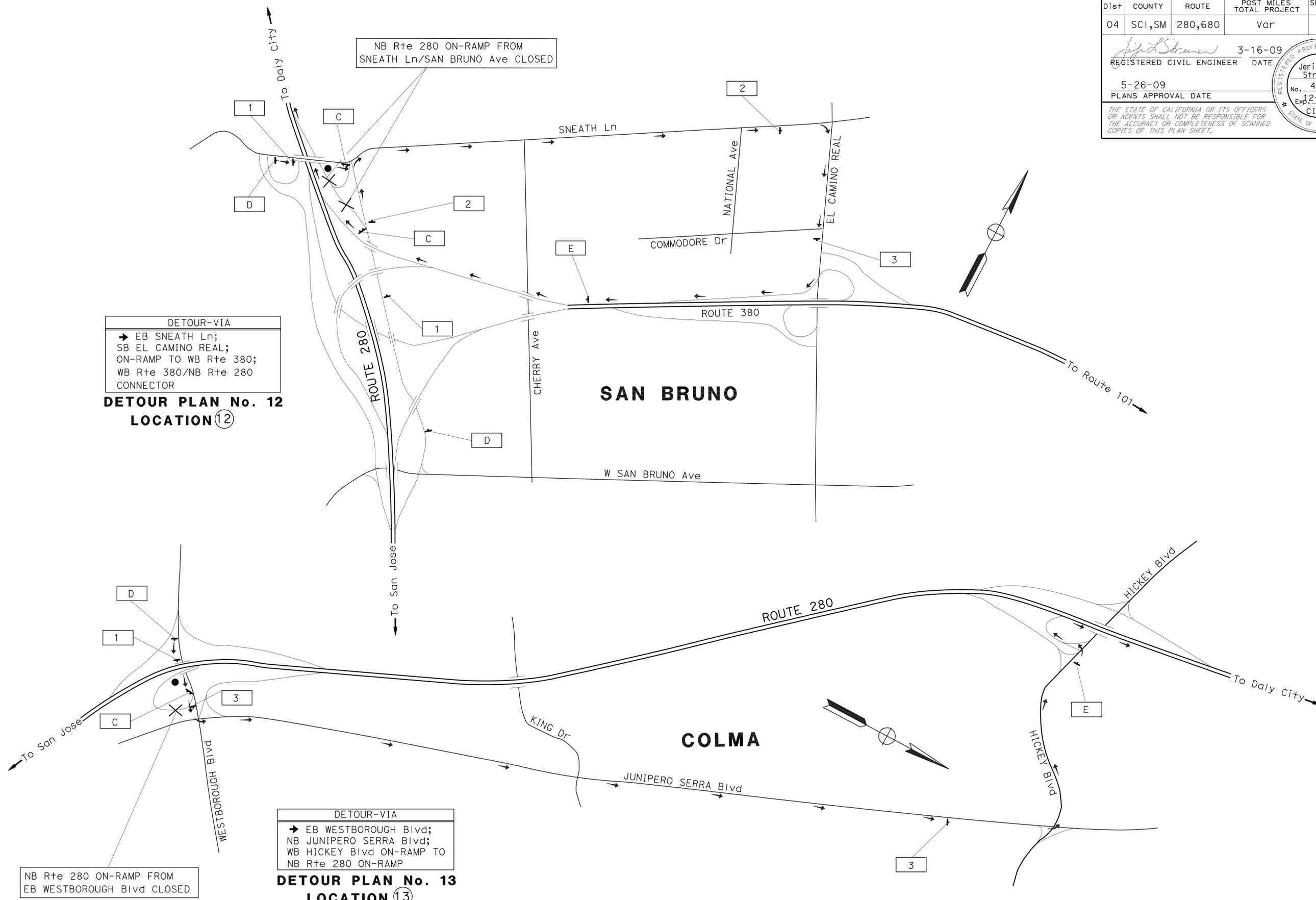
<i>Jerilyn L. Struven</i>	3-16-09
REGISTERED CIVIL ENGINEER	DATE
5-26-09	
PLANS APPROVAL DATE	

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG
CALCULATED-DESIGNED BY	CHECKED BY
DUC VO	JERILYN STRUVEN
REVISED BY	DATE REVISED



**DETOUR-VIA**  
 → EB SNEATH Ln;  
 SB EL CAMINO REAL;  
 ON-RAMP TO WB Rte 380;  
 WB Rte 380/NB Rte 280  
 CONNECTOR

**DETOUR PLAN No. 12**  
**LOCATION 12**

**DETOUR-VIA**  
 → EB WESTBOROUGH Blvd;  
 NB JUNIPERO SERRA Blvd;  
 WB HICKEY Blvd ON-RAMP TO  
 NB Rte 280 ON-RAMP

**DETOUR PLAN No. 13**  
**LOCATION 13**

NB Rte 280 ON-RAMP FROM  
 EB WESTBOROUGH Blvd CLOSED

NB Rte 280 ON-RAMP FROM  
 SNEATH Ln/SAN BRUNO Ave CLOSED

**TRAFFIC HANDLING PLAN**  
 NO SCALE

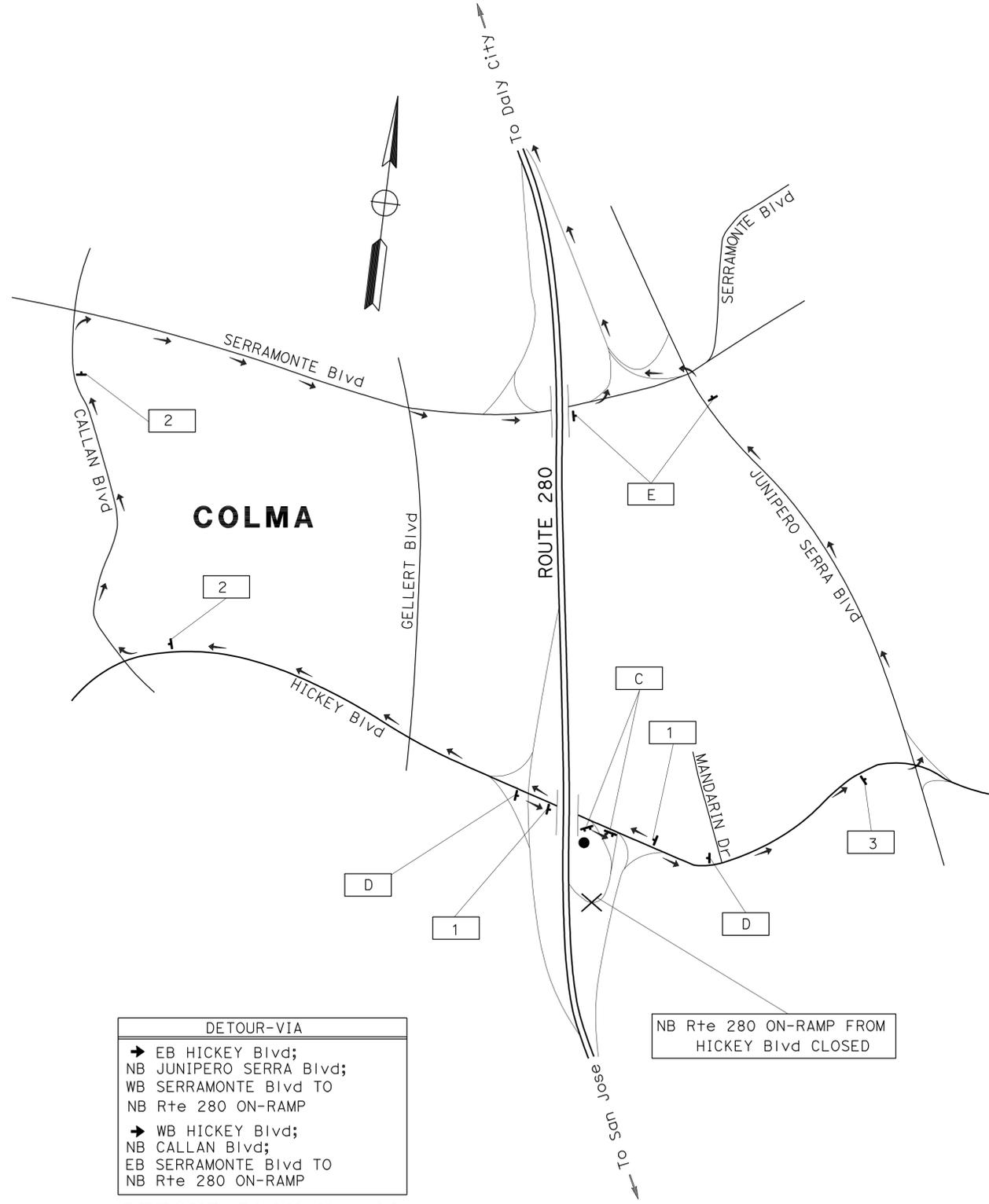
**TH-6**

FOR NOTE AND LEGENDS,  
 SEE SHEET TH-1

THIS PLAN ACCURATE FOR  
 TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	26	76
<i>Jerilyn L. Struven</i> REGISTERED CIVIL ENGINEER			DATE	3-16-09	
PLANS APPROVAL DATE			5-26-09		
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.			REGISTERED PROFESSIONAL ENGINEER No. 49964 Exp. 12-31-10 CIVIL STATE OF CALIFORNIA		

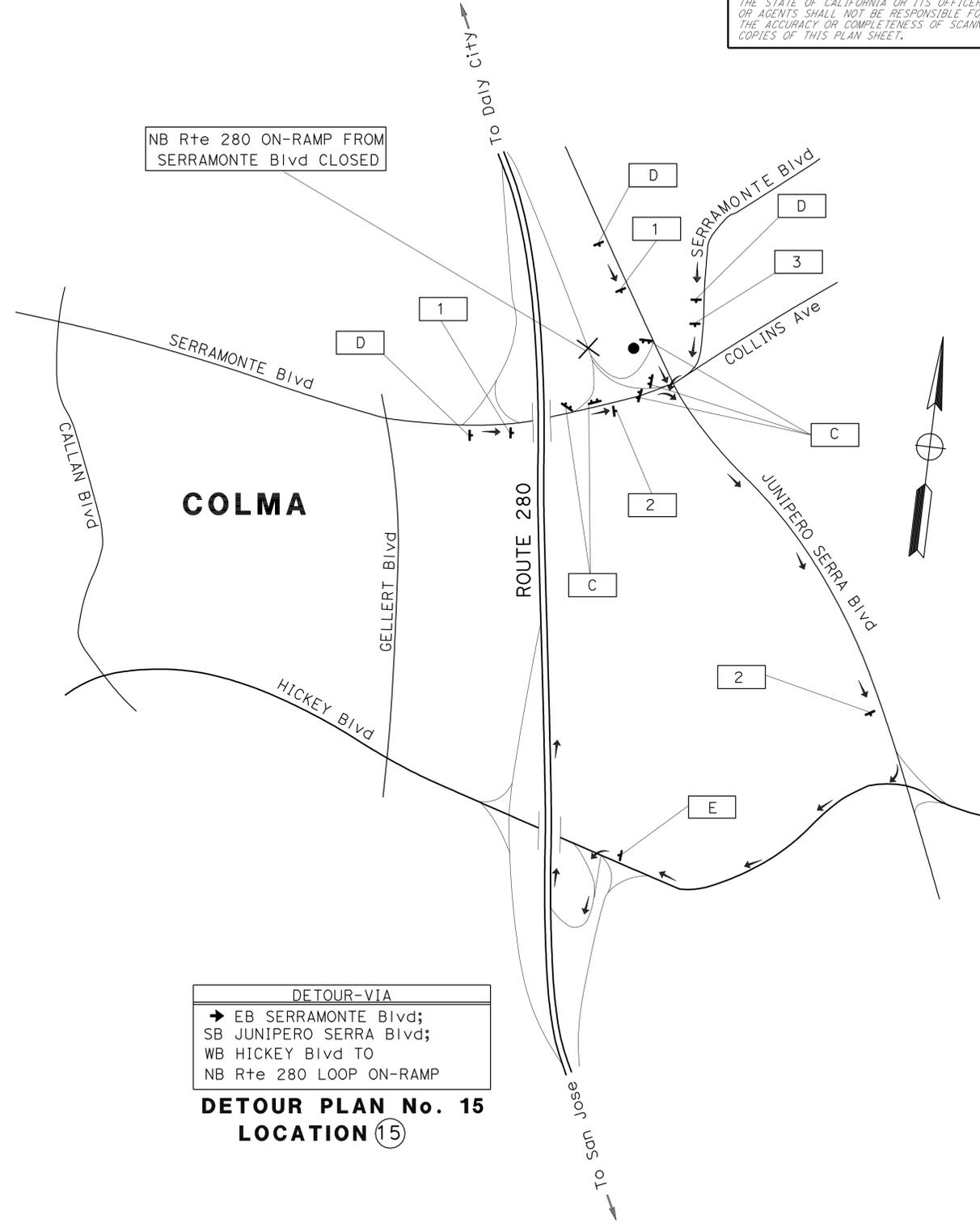
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG
CALCULATED-DESIGNED BY	CHECKED BY
DUC VO	JERILYN STRUVEN
REVISED BY	DATE REVISED



DETOUR-VIA

- ➔ EB HICKEY Blvd;  
NB JUNIPERO SERRA Blvd;  
WB SERRAMONTE Blvd TO  
NB Rte 280 ON-RAMP
- ➔ WB HICKEY Blvd;  
NB CALLAN Blvd;  
EB SERRAMONTE Blvd TO  
NB Rte 280 ON-RAMP

**DETOUR PLAN No. 14**  
**LOCATION 14**



DETOUR-VIA

- ➔ EB SERRAMONTE Blvd;  
SB JUNIPERO SERRA Blvd;  
WB HICKEY Blvd TO  
NB Rte 280 LOOP ON-RAMP

**DETOUR PLAN No. 15**  
**LOCATION 15**

**TRAFFIC HANDLING PLAN**  
NO SCALE

FOR NOTE AND LEGENDS,  
SEE SHEET TH-1

THIS PLAN ACCURATE FOR  
TRAFFIC HANDLING WORK ONLY

**TH-7**

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

FUNCTIONAL SUPERVISOR  
 ROLAND AU-YEUNG

CALCULATED-DESIGNED BY  
 CHECKED BY

DUC VO  
 JERILYN STRUVEN

REVISED BY  
 DATE REVISED

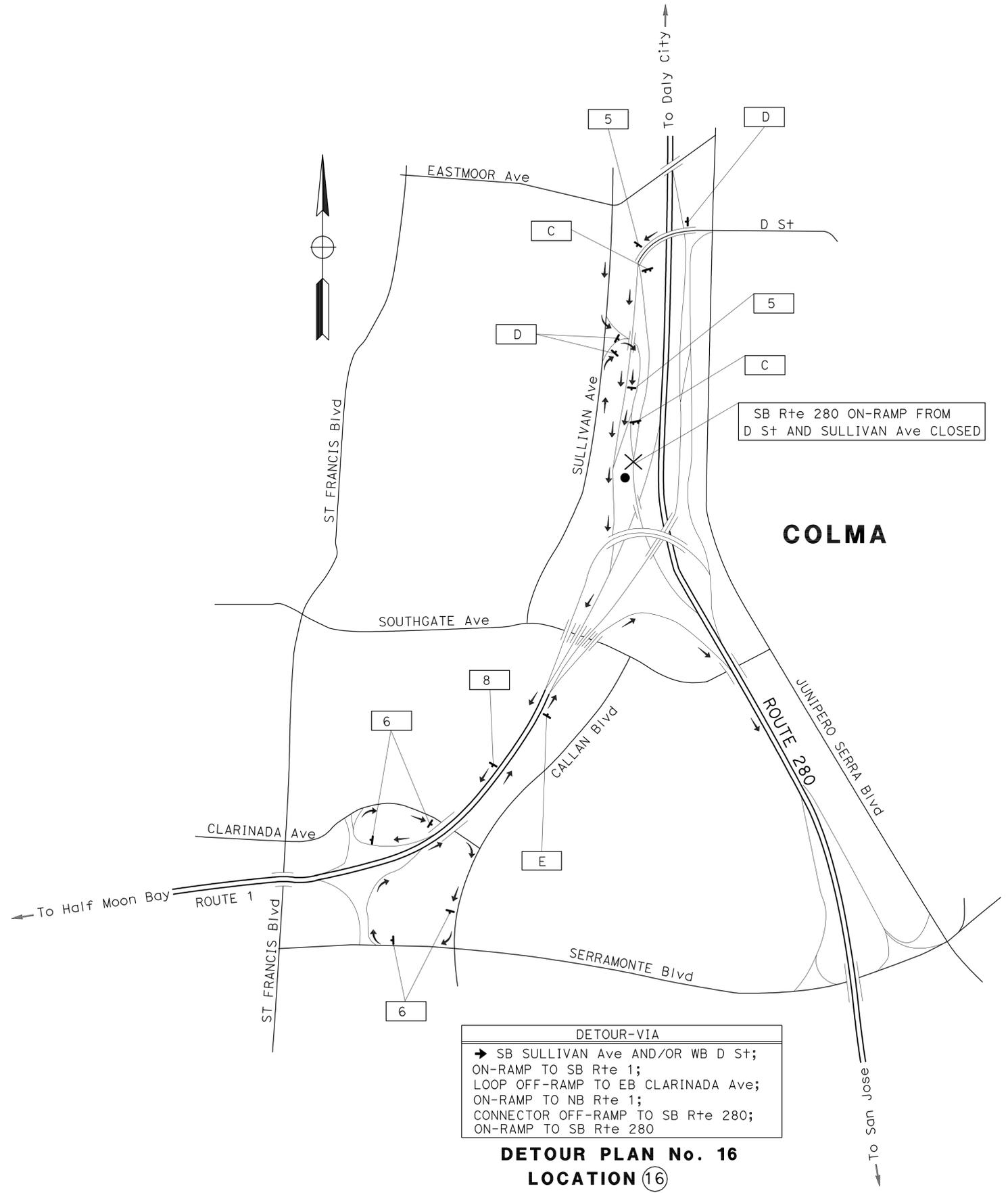
REVISIONS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	27	76

*Jerilyn L. Struven* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE

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

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



DETOUR-VIA  
 → SB SULLIVAN Ave AND/OR WB D St;  
 ON-RAMP TO SB Rte 1;  
 LOOP OFF-RAMP TO EB CLARINADA Ave;  
 ON-RAMP TO NB Rte 1;  
 CONNECTOR OFF-RAMP TO SB Rte 280;  
 ON-RAMP TO SB Rte 280

**DETOUR PLAN No. 16**  
**LOCATION 16**

FOR NOTE AND LEGENDS,  
 SEE SHEET TH-1

THIS PLAN ACCURATE FOR  
 TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN**  
 NO SCALE

**TH-8**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	28	76

*Jerilyn L. Struven* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE

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

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

**TRAFFIC HANDLING QUANTITIES**

SIGN No.	CODE	MESSAGE	PANEL SIZE	No. OF WOOD POST AND SIZE	QUANTITY	REMARKS
					EA	
C	SC6-4(CA)	RAMP CLOSED (WITH DATE AND TIME)	60" x 48"	2-4" x 6"	31	(S)
D	W20-2	DETOUR AHEAD	36" x 36"	1-4" x 6"	30	(S)
E	M4-8A	END DETOUR	24" x 18"	1-4" x 4"	23	(S)
1	SC3(CA)	DETOUR (STRAIGHT AHEAD ARROW)	48" x 18"	1-4" x 6"	16	(S)
	G47(CA)	NORTH	21" x 9"			
	G27-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
2	M4-8	DETOUR	24" x 12"	1-4" x 6"	14	(S)
	G47(CA)	NORTH	21" x 9"			
	G28-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
	G34(R+)(CA)	RIGHT ARROW	21" x 15"			
3	M4-8	DETOUR	24" x 12"	1-4" x 6"	15	(S)
	G47(CA)	NORTH	21" x 9"			
	G28-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
	G34(L+)(CA)	LEFT ARROW	21" x 15"			
4	M4-8	DETOUR	24" x 12"	1-4" x 6"	3	(S)
	G47(CA)	NORTH	21" x 9"			
	G28-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
	G44( / )(CA)	UPRIGHT DIAGONAL ARROW	21" x 15"			
5	SC3(CA)	DETOUR (STRAIGHT AHEAD ARROW)	48" x 18"	1-4" x 6"	9	(S)
	G48(CA)	SOUTH	21" x 9"			
	G27-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
6	M4-8	DETOUR	24" x 12"	1-4" x 6"	10	(S)
	G48(CA)	SOUTH	21" x 9"			
	G28-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
	G34(R+)(CA)	RIGHT ARROW	21" x 15"			
7	M4-8	DETOUR	24" x 12"	1-4" x 6"	6	(S)
	G48(CA)	SOUTH	21" x 9"			
	G28-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
	G34(L+)(CA)	LEFT ARROW	21" x 15"			
8	M4-8	DETOUR	24" x 12"	1-4" x 6"	2	(S)
	G48(CA)	SOUTH	21" x 9"			
	G28-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
	G44( / )(CA)	UPRIGHT DIAGONAL ARROW	21" x 15"			
9	M4-8	DETOUR	24" x 12"	1-4" x 6"	1	(S)
	G48(CA)	SOUTH	21" x 9"			
	G28-2(CA)(280)	ROUTE SHIELD (280)	30" x 25"			
	G44( \ )(CA)	UPLEFT DIAGONAL ARROW	21" x 15"			
10	SC3(CA)	DETOUR (STRAIGHT AHEAD ARROW)	48" x 18"	1-4" x 6"	2	(S)
	G48(CA)	SOUTH	21" x 9"			
	G27-2(CA)(680)	ROUTE SHIELD (680)	30" x 25"			
11	M4-8	DETOUR	24" x 12"	1-4" x 6"	1	(S)
	G48(CA)	SOUTH	21" x 9"			
	G28-2(CA)(680)	ROUTE SHIELD (680)	30" x 25"			
	G34(R+)(CA)	RIGHT ARROW	21" x 15"			
12	M4-8	DETOUR	24" x 12"	1-4" x 6"	2	(S)
	G48(CA)	SOUTH	21" x 9"			
	G28-2(CA)(680)	ROUTE SHIELD (680)	30" x 25"			
	G34(L+)(CA)	LEFT ARROW	21" x 15"			
TOTAL					165	

(S) DENOTES STATIONARY MOUNTED SIGN.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 DUC VO: JERILYN STRUVEN  
 CALCULATED-DESIGNED BY: CHECKED BY:

**TRAFFIC HANDLING QUANTITIES**

**THQ-1**

LAST REVISION: DATE PLOTTED => 05-NOV-2009  
 05-26-09 TIME PLOTTED => 08:48

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	29	76

REGISTERED CIVIL ENGINEER: *Jerilyn L. Struven* 3-16-09  
 DATE: 3-16-09  
 PLANS APPROVAL DATE: 5-26-09  
 No. 49964  
 Exp. 12-31-10  
 CIVIL  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**LEGEND:**

- CONSTRUCTION AREA SIGN DESIGNATION
- LOCATION NUMBER
- CAMERA INSTALLATION

**NOTE:**

EXACT SIGN LOCATIONS WILL BE DETERMINED BY THE ENGINEER.



**CONSTRUCTION AREA SIGNS**

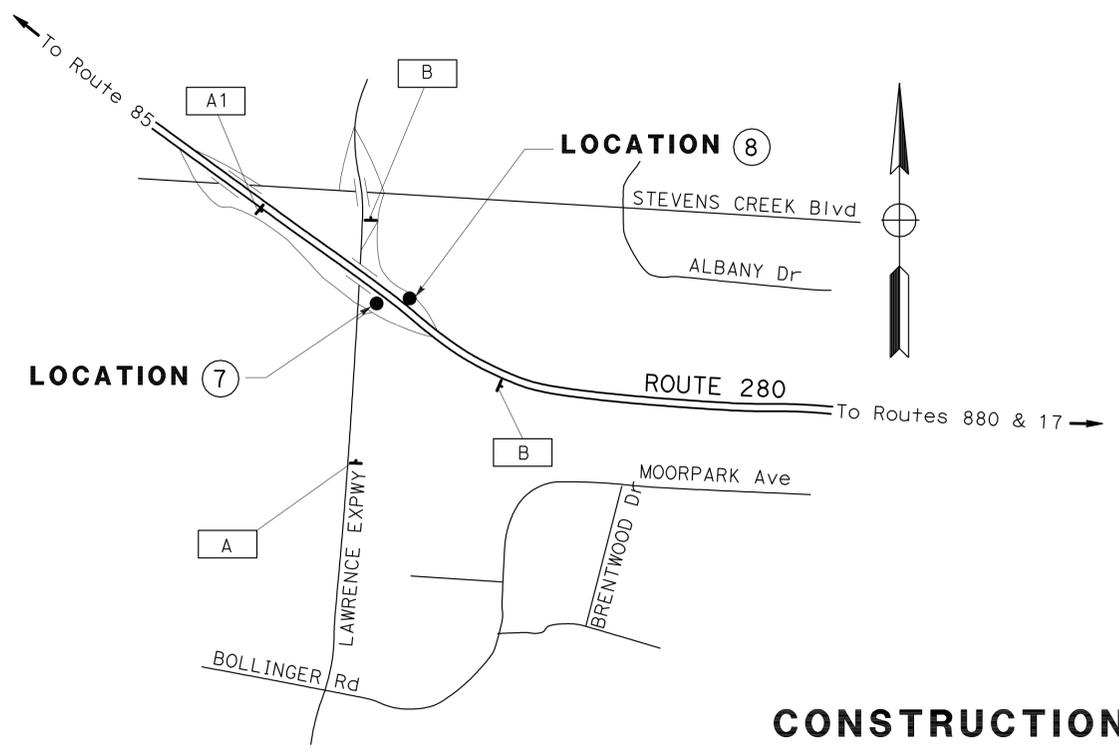
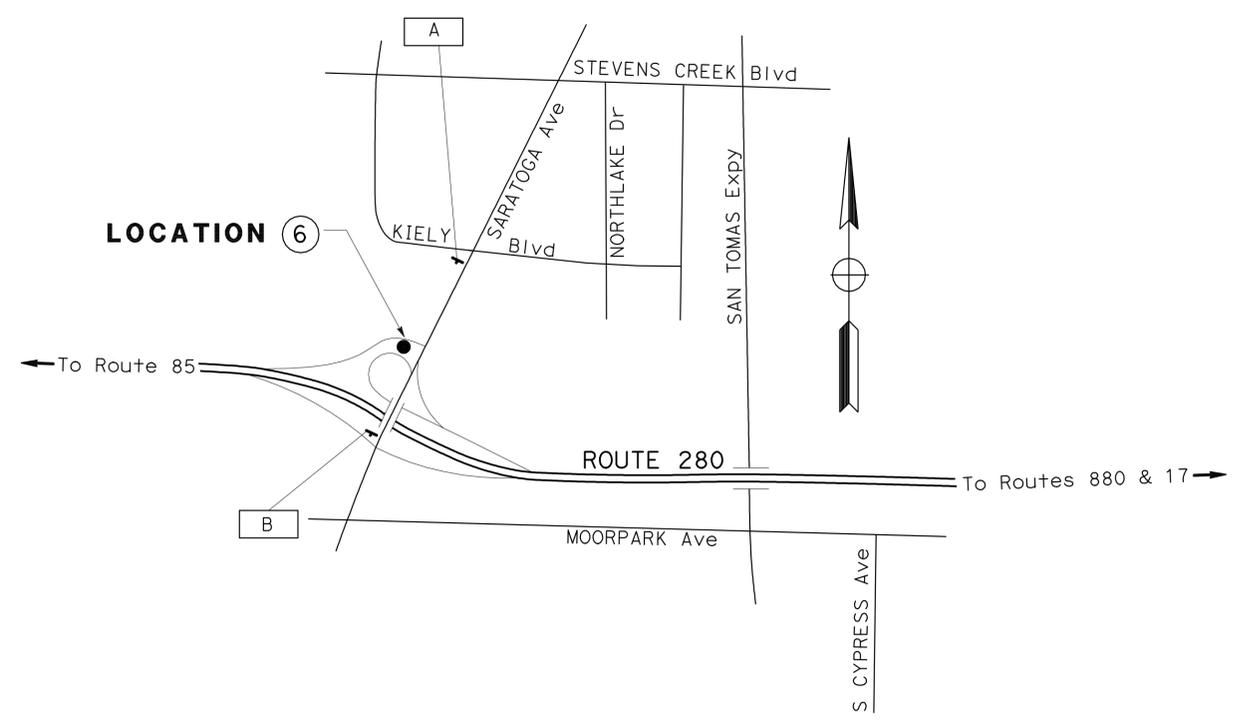
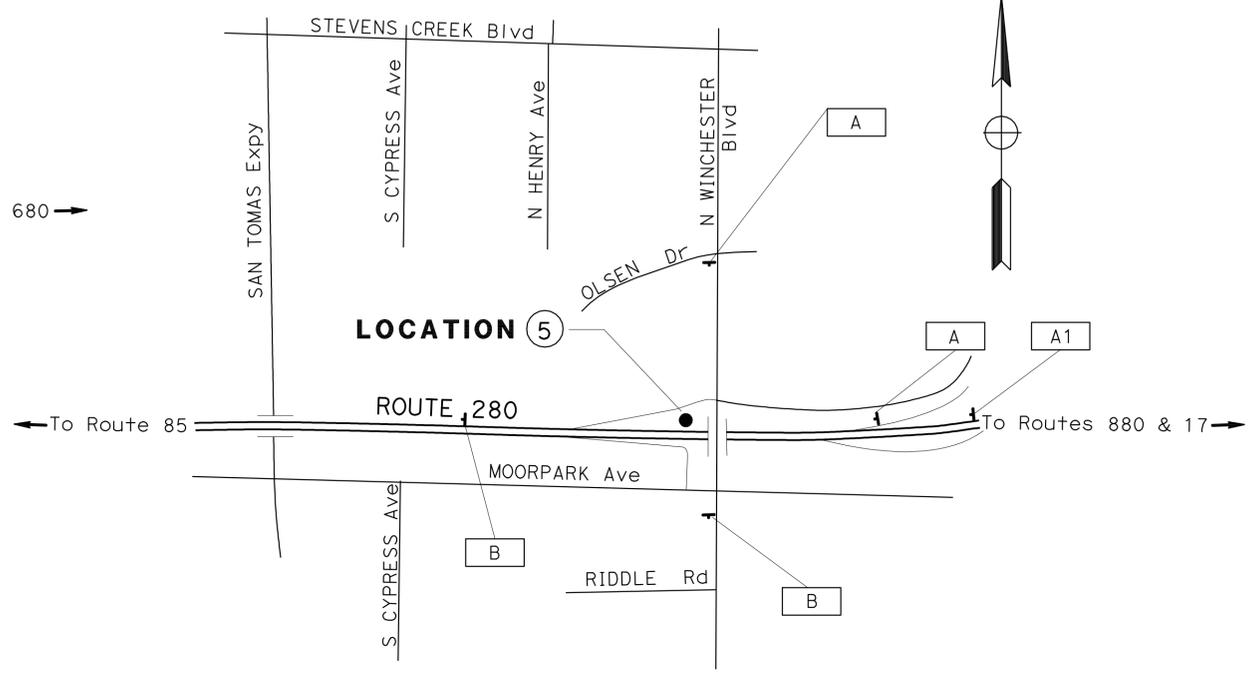
NO SCALE

**CS-1**

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	30	76
<i>Jerilyn L. Struven</i> REGISTERED CIVIL ENGINEER			DATE	3-16-09 5-26-09 PLANS APPROVAL DATE	
No. 49964 Exp. 2-31-10 CIVIL			REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	DUC VO	REVISED BY
<b>Caltrans</b>	ROLAND AU-YEUNG	CHECKED BY	JERILYN STRUVEN	DATE REVISED
<b>TRAFFIC</b>				



FOR NOTE AND LEGENDS, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

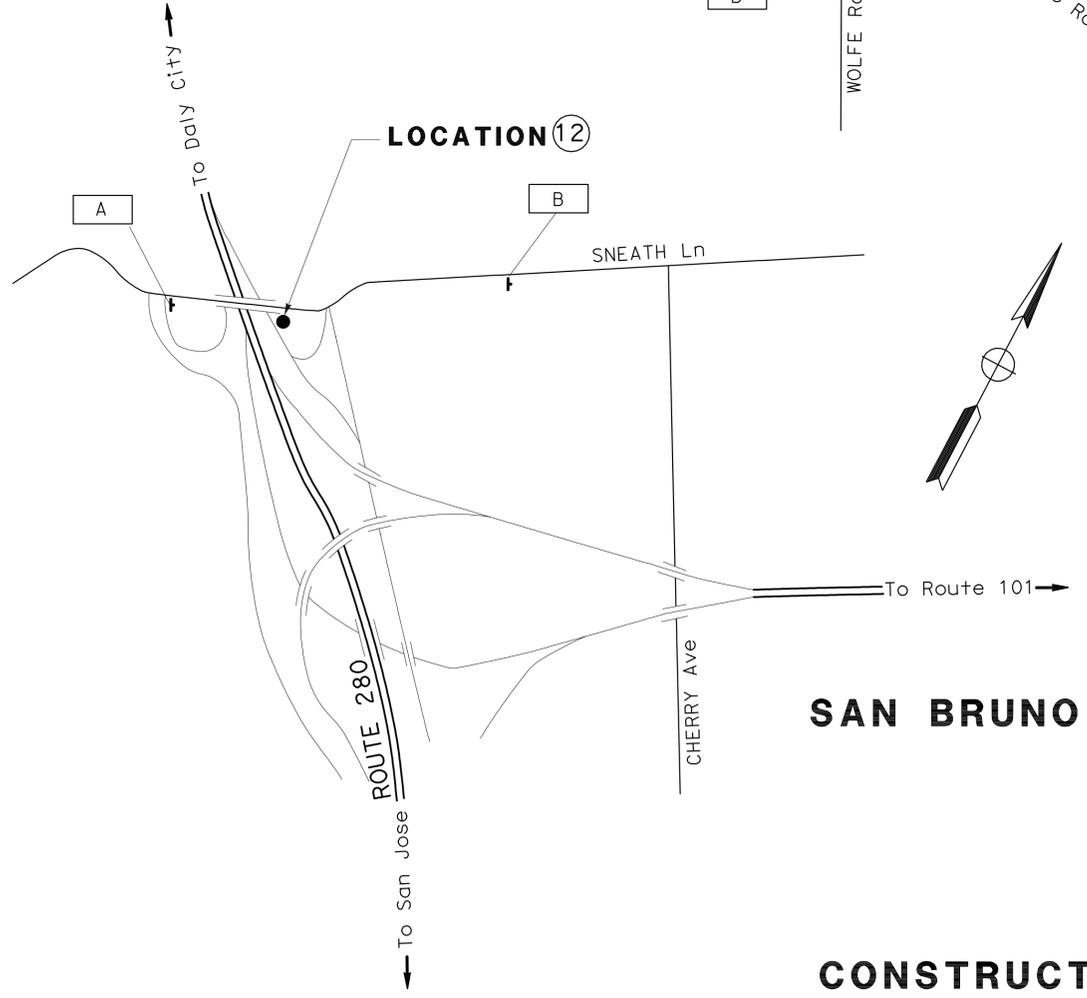
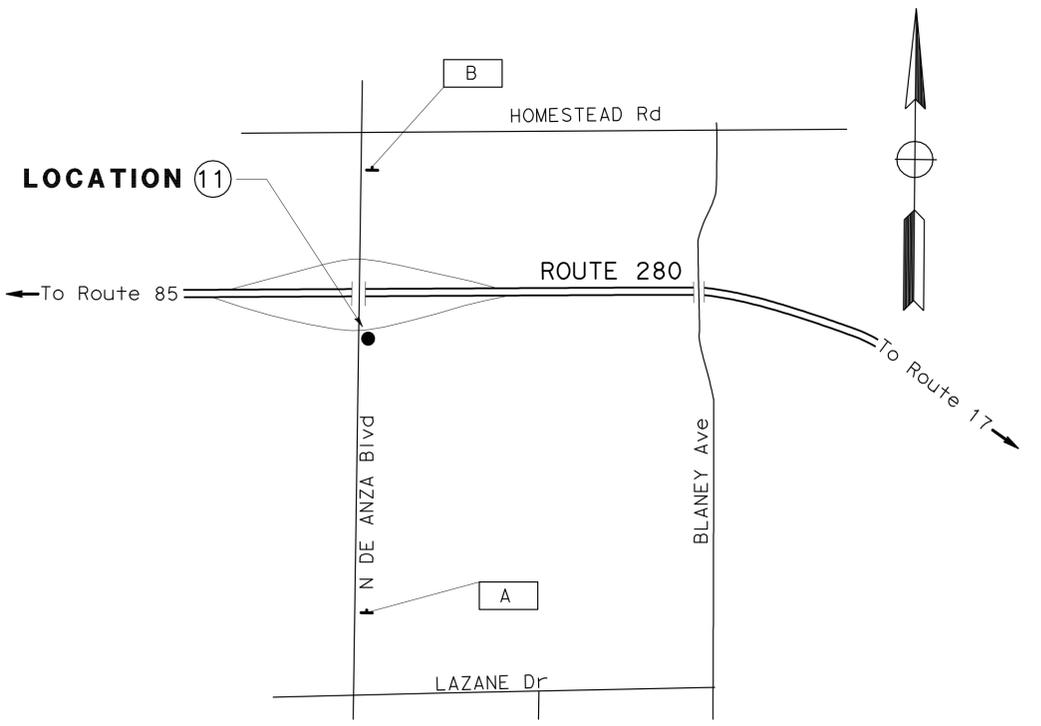
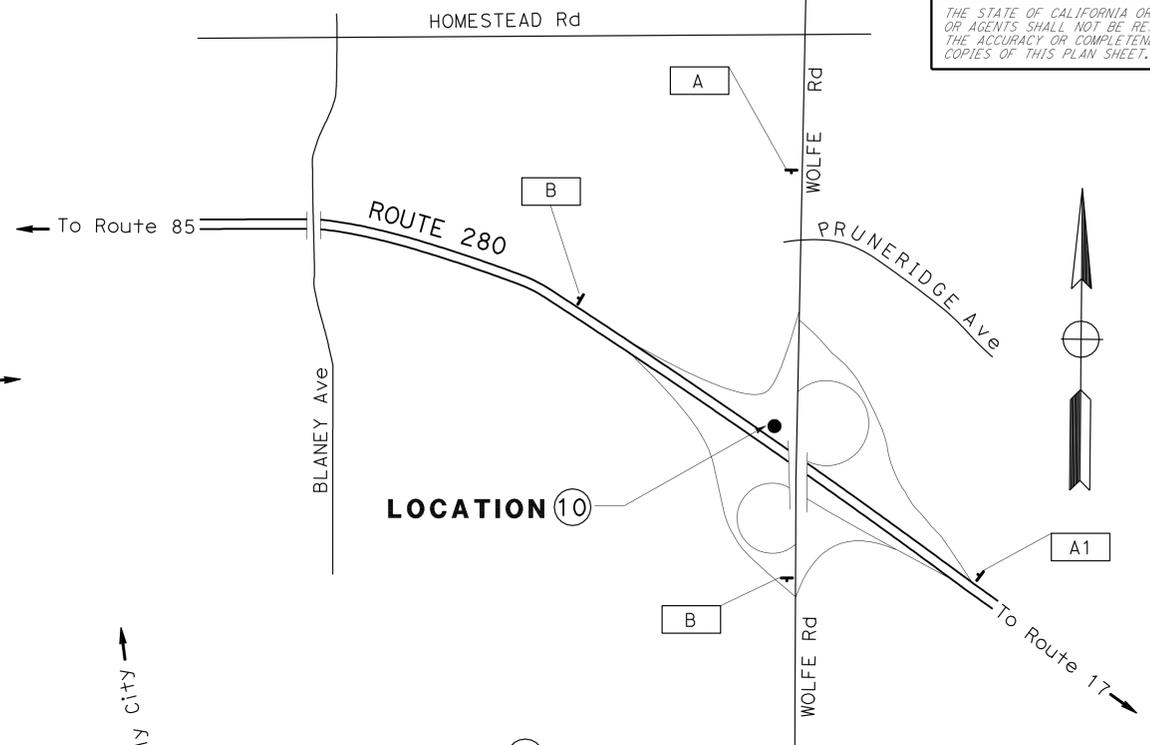
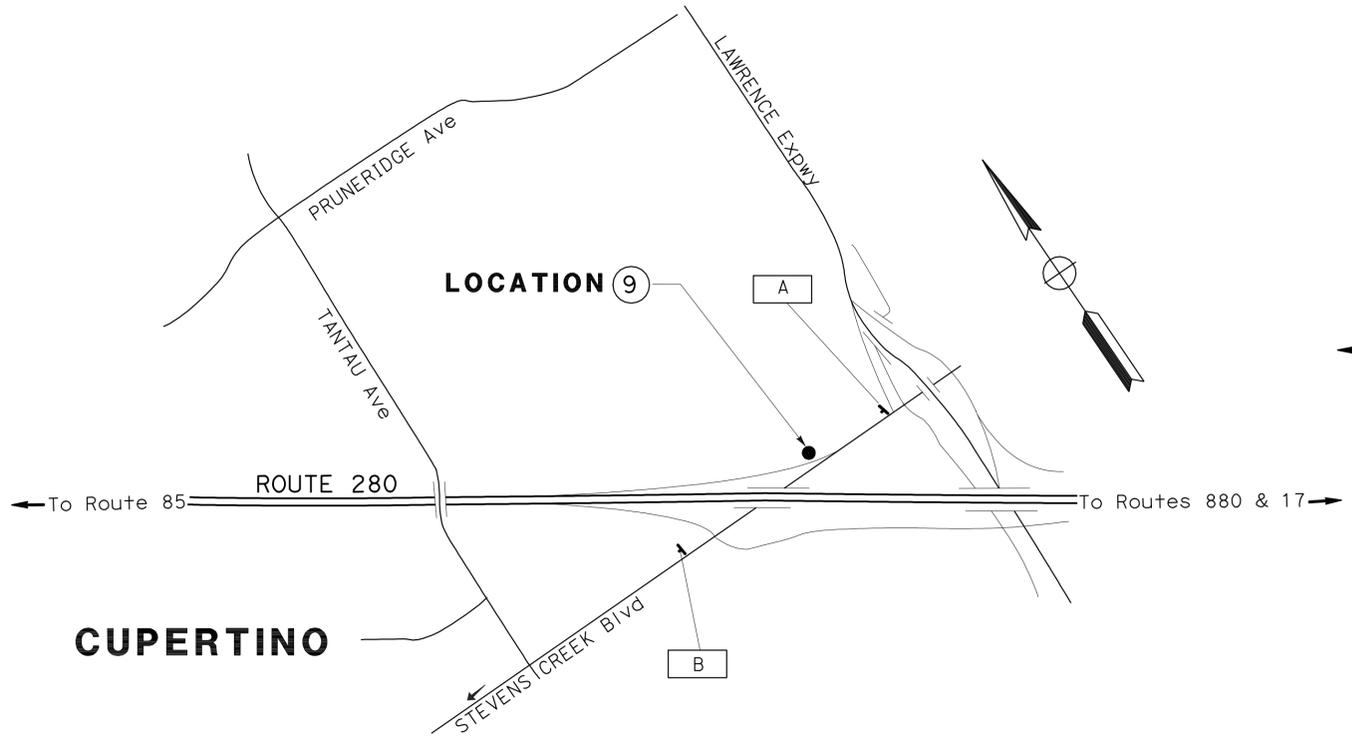
# CONSTRUCTION AREA SIGNS

NO SCALE

**CS-2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	31	76
<i>Jerilyn L. Struven</i> REGISTERED CIVIL ENGINEER			DATE	3-16-09 5-26-09 PLANS APPROVAL DATE	
No. 49964 Exp. 12-31-10 CIVIL			REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	DUC VO	REVISED BY
<b>Caltrans</b>	ROLAND AU-YEUNG	CHECKED BY	JERILYN STRUVEN	DATE REVISED
<b>TRAFFIC</b>				



**SAN BRUNO**

**CONSTRUCTION AREA SIGNS**

NO SCALE

**CS-3**

FOR NOTE AND LEGENDS, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY



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DGN FILE => 4151381a003.dgn

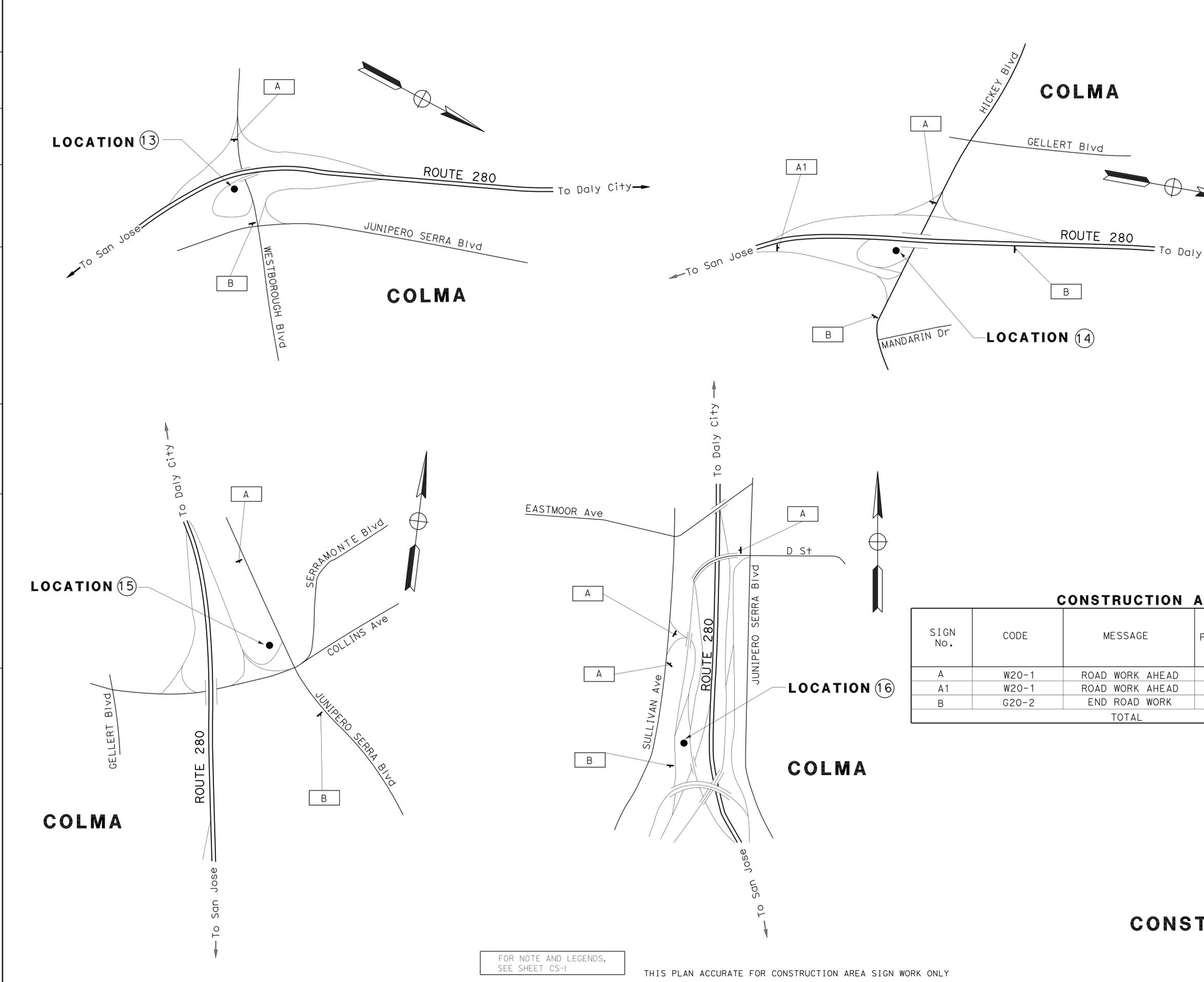
CU 04222

EA 151381

BORDER LAST REVISED 4/11/2008

LAST REVISION DATE PLOTTED => 05-NOV-2009  
05-23-09 TIME PLOTTED => 08:49

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 TRAFFIC



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	32	76

3-16-09 DATE  
 REGISTERED CIVIL ENGINEER  
 5-26-09 PLANS APPROVAL DATE  
 No. 49964  
 Exp. 12-31-10  
 CIVIL  
 STATE OF CALIFORNIA

**CONSTRUCTION AREA SIGNS**

SIGN No.	CODE	MESSAGE	PANEL SIZE	No. OF WOOD POST AND SIZE	QUANTITY	REMARKS
					EA	
A	W20-1	ROAD WORK AHEAD	36" x 36"	1-4" x 6"	18	(S)
A1	W20-1	ROAD WORK AHEAD	48" x 48"	1-4" x 6"	7	(S)
B	G20-2	END ROAD WORK	36" x 18"	1-4" x 4"	22	(S)
TOTAL					47	

**CONSTRUCTION AREA SIGNS**

NO SCALE

**CS-4**

FOR NOTE AND LEGENDS, SEE SHEET CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY



USERNAME => trstrk  
 DGN FILE => 4151381a004.dgn

CU 04222

EA 151381

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

BORDER LAST REVISED 3/1/2007

FUNCTIONAL SUPERVISOR  
 ULDARICO P. PEREZ

CALCULATED-DESIGNED BY  
 CHECKED BY

SUSANA ONATE  
 JIM LEM

REVISED BY  
 DATE REVISED

**ROADWAY QUANTITIES**

LOCATION	SHEET No.	OBJECT MARKER (TYPE L-1)	MBGR	END ANCHOR ASSEMBLY (TYPE SFT)	ALTERNATIVE FLARED TERMINAL SYSTEM
		EA	FT	EA	EA
LOCATION 1	L-1	1	37.5	1	1
TOTAL		1	37.5	1	1

**SUMMARY OF QUANTITIES**

**Q-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	33	76

*Peter Aquilera* 3-16-09  
 REGISTERED CIVIL ENGINEER DATE

5-26-09  
 PLANS APPROVAL DATE

**Peter Aquilera**  
 No. 55287  
 Exp. 12-31-10  
 CIVIL

REGISTERED PROFESSIONAL ENGINEER  
 STATE OF CALIFORNIA

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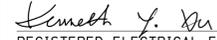
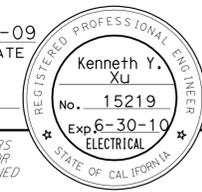
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CU 04222

EA 151381

LAST REVISION | DATE PLOTTED => 05-NOV-2009  
 01-12-09 TIME PLOTTED => 08:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	34	76
			3-16-09	DATE	
REGISTERED ELECTRICAL ENGINEER					
5-26-09			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
					

**INDEX OF ELECTRICAL PLANS:**

SHEET No.	TITLE
E-1	MODIFY TRAFFIC OPERATIONS SYSTEM (ABBREVIATIONS, PROJECT NOTES, INDEX, AND LEGENDS)
E-2 THROUGH E-17	MODIFY TRAFFIC OPERATIONS SYSTEM (LOCATION 1 TO LOCATION 16)
E-18	MODIFY TRAFFIC OPERATIONS SYSTEM (TYPE III-AF SERVICE EQUIPMENT ENCLOSURE)
E-19 AND E-20	ELECTRICAL DETAILS (TDC WIRING)
E-21	ELECTRICAL DETAILS (CCTV WITH TELEPHONE SERVICE)
E-22 AND E-23	ELECTRICAL DETAILS (CCTV MOUNTING DETAILS)
E-24 AND E-25	ELECTRICAL DETAILS (HIGH MAST CCTV)
E-26	ELECTRICAL DETAILS (CCTV REPLACEMENT DETAILS)

**GENERAL NOTES:**

- PARTIAL EXISTING ELECTRICAL SYSTEM RELATED TO PROPOSED WORK IS SHOWN ON THE PLANS FOR INFORMATION. LOCATIONS OF EXISTING EQUIPMENT ARE APPROXIMATE.
- NEW POLES AND CABINETS NOT PROTECTED BY EXISTING OR PROPOSED METAL BEAM GUARD RAIL SHALL BE PLACED A MINIMUM OF 30' FROM EDGE OF TRAVELED WAY, UNLESS OTHERWISE NOTED.

**ABBREVIATIONS AND EQUIPMENT DESIGNATIONS:**

(SEE ALSO RSP ES-1A, RSP ES-1B AND RSP ES-1C FOR OTHER SYMBOLS AND ABBREVIATIONS)

PROPOSED	EXISTING	DESCRIPTION
TC	tc	TELEPHONE CABLE
TVL	tvI	TELEVISION VIDEO
TVC	tvC	TELEVISION CONTROL CABLE
TVP	tvP	TELEVISION POWER CONDUCTORS
TVCP	tvCP	TELEVISION CONTROL POWER CONDUCTORS
HCC		HYBRID CAMERA CABLE
TOU		TIME-OF-USE
CT ID		CALTRANS IDENTIFICATION NUMBER
DIAG		DIAGONAL
	mvdS	MICRO VIDEO DETECTION SYSTEM

**LEGEND:**

 EXISTING TELEPHONE SERVICE POINT

**PROJECT NOTES:**

- INSTALL INTEGRATED CAMERA UNIT WITH TYPE 80 POLE.
-  Exist SERVICE EQUIPMENT ENCLOSURE, INSTALL NEW SERVICE EQUIPMENT ENCLOSURE ON Exist FOUNDATION WITH TOU METER. SEE SERVICE WIRING DIAGRAM ON SHEET E-18 (FOR 120/240 V SERVICES).
- Exist 1 1/2"C, 1 tc.
- INSTALL INTEGRATED CAMERA UNIT WITH TYPE CCTV 25 POLE.
- INSTALL 2"C, 1 HCC.
- INSTALL CAMERA CONTROL UNIT AND ALL ASSOCIATED EQUIPMENT IN Exist MODEL 334 CONTROLLER CABINET.
- INSTALL INTEGRATED CAMERA UNIT WITH TYPE CCTV 40 POLE.
- INSTALL 2"C, 1 TC.
- INSTALL ONE SET OF CAMERA CONTROL UNIT AND ALL ASSOCIATED EQUIPMENT IN MODEL 334 CABINET.
- INSTALL 2-3"C, 1 HCC, 2#6.
- INSTALL 3 KVA 240/120 V STEP-DOWN TRANSFORMER IN No. 5 PULL BOX WITH EXTENSION.
- Exist 480/120 V TRANSFORMER IN Exist PULL BOX.
- INSTALL 1 1/2"C, 2#6 (CCTV CONTROLLER).
- Exist 1 1/2"C, 1 tc. ADD 1 TC.
- Exist tdc. ADD 1 TC.
-  Exist PULL BOX. INSTALL NEW No. 6 PULL BOX WITH EXTENSION AT SAME LOCATION.
-  Exist PULL BOX. INSTALL NEW No. 5 TRAFFIC PULL BOX AT SAME LOCATION.
- Exist 2"C, 2#6 (120 V, RAMP METERING), 2#8 (240 V, LIGHTING), 3#14 (peu), 2#10 (120 V, tdc). ADD 2#6 (120 V, CCTV CONTROLLER).
- Exist ELECTRICAL EQUIPMENT TO REMAIN IN PLACE.
- ADD 1 HCC.
- Exist 1 1/2"C, 3#2.
- INSTALL TYPE III-A SERVICE EQUIPMENT ENCLOSURE WITHOUT METER SECTION. PROVIDE 1-30 A, 240 V, 1P CIRCUIT BREAKER. NAMEPLATE MARKED AS "RM MAIN"; 1-30 A, 240 V, 1P CIRCUIT BREAKER FOR rm CONTROLLER, NAMEPLATE MARKED AS "RM CONTROLLER E37V7/DT731"; 1-15 A, 240 V, 1P CIRCUIT BREAKER FOR CCTV WINCH, NAMEPLATE MARKED AS "CCTV WINCH". SEE DETAIL A FOR WIRING DIAGRAM IN SHEET E-10.
- INSTALL 1 1/2"C, 2#6 (240 V, rm CONTROLLER SUB-PANEL).
- Exist 1 1/2"C, 2#6 (240 V, rm CONTROLLER SUB-PANEL), 2#6 ( 240 V, ems CONTROLLER), 2#10 (tdc).
- INSTALL 1 1/2"C, 2#6 (240 V, rm CONTROLLER), 2#8 (240 V, CCTV WINCH).
- Exist CONDUIT. ADD ONE PULL ROPE.
- Exist TELEPHONE SERVICE CABLE IN Exist CONDUIT.

**MODIFY TRAFFIC OPERATIONS SYSTEM (ABBREVIATIONS, PROJECT NOTES, INDEX AND LEGEND)**

**E-1**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 HENRY HOANG  
 DORIS YANG  
 KENNETH XU  
 ELECTRICIAL







Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	38	76

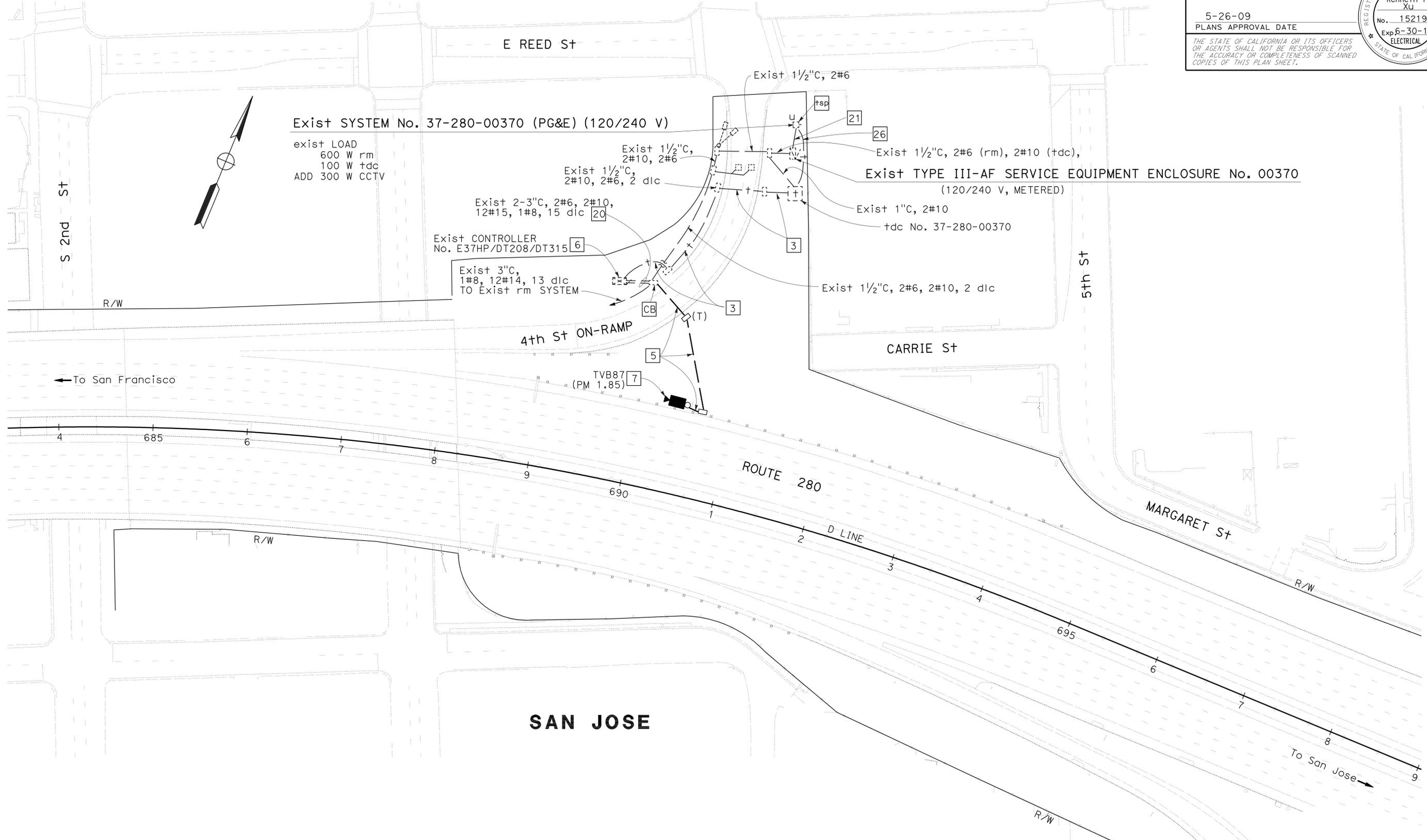
  

<i>Kenneth Y. Xu</i>	3-16-09
REGISTERED ELECTRICAL ENGINEER	DATE
5-26-09	
PLANS APPROVAL DATE	

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

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

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
**ELECTRICAL**  
 FUNCTIONAL SUPERVISOR: KENNETH XU  
 CALCULATED/DESIGNED BY: HENRY HOANG  
 CHECKED BY: DORIS YANG  
 REVISED BY: HENRY HOANG  
 DATE REVISED:

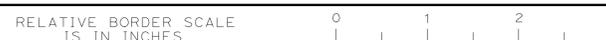
**MODIFY TRAFFIC OPERATIONS SYSTEM (LOCATION 4)**

SCALE: 1" = 50'

**E-5**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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

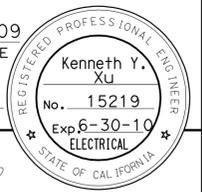


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	39	76

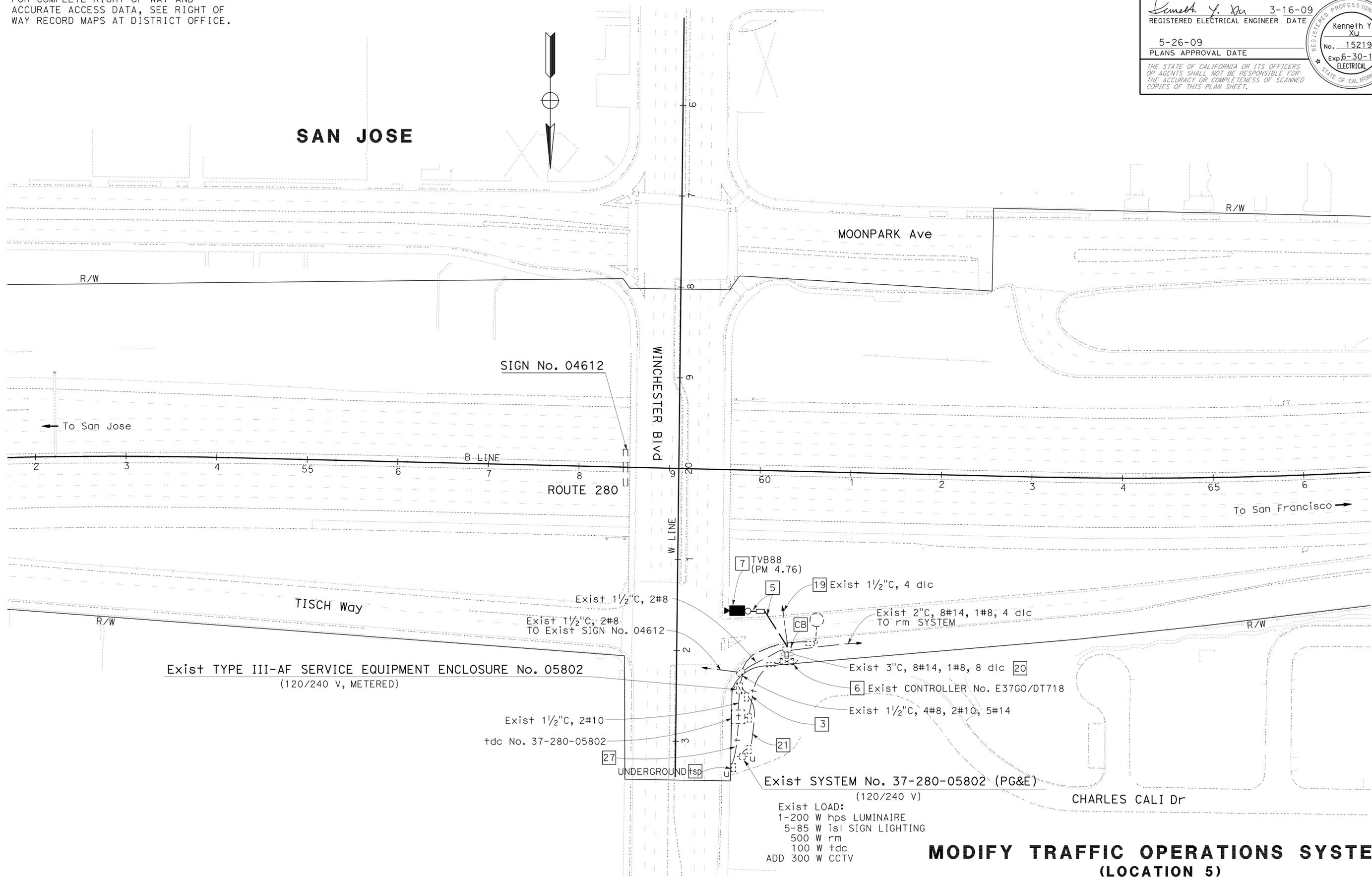
<i>Kenneth Y. Xu</i>	3-16-09
REGISTERED ELECTRICAL ENGINEER	DATE
5-26-09	
PLANS APPROVAL DATE	

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



FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

SAN JOSE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	ELECTRICAL
FUNCTIONAL SUPERVISOR	KENNETH XU
CALCULATED-DESIGNED BY	CHECKED BY
HENRY HOANG	DORIS YANG
REVISOR	DATE REVISED

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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

**MODIFY TRAFFIC OPERATIONS SYSTEM (LOCATION 5)**  
 SCALE: 1" = 50'

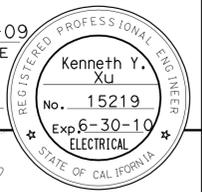
E-6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	40	76

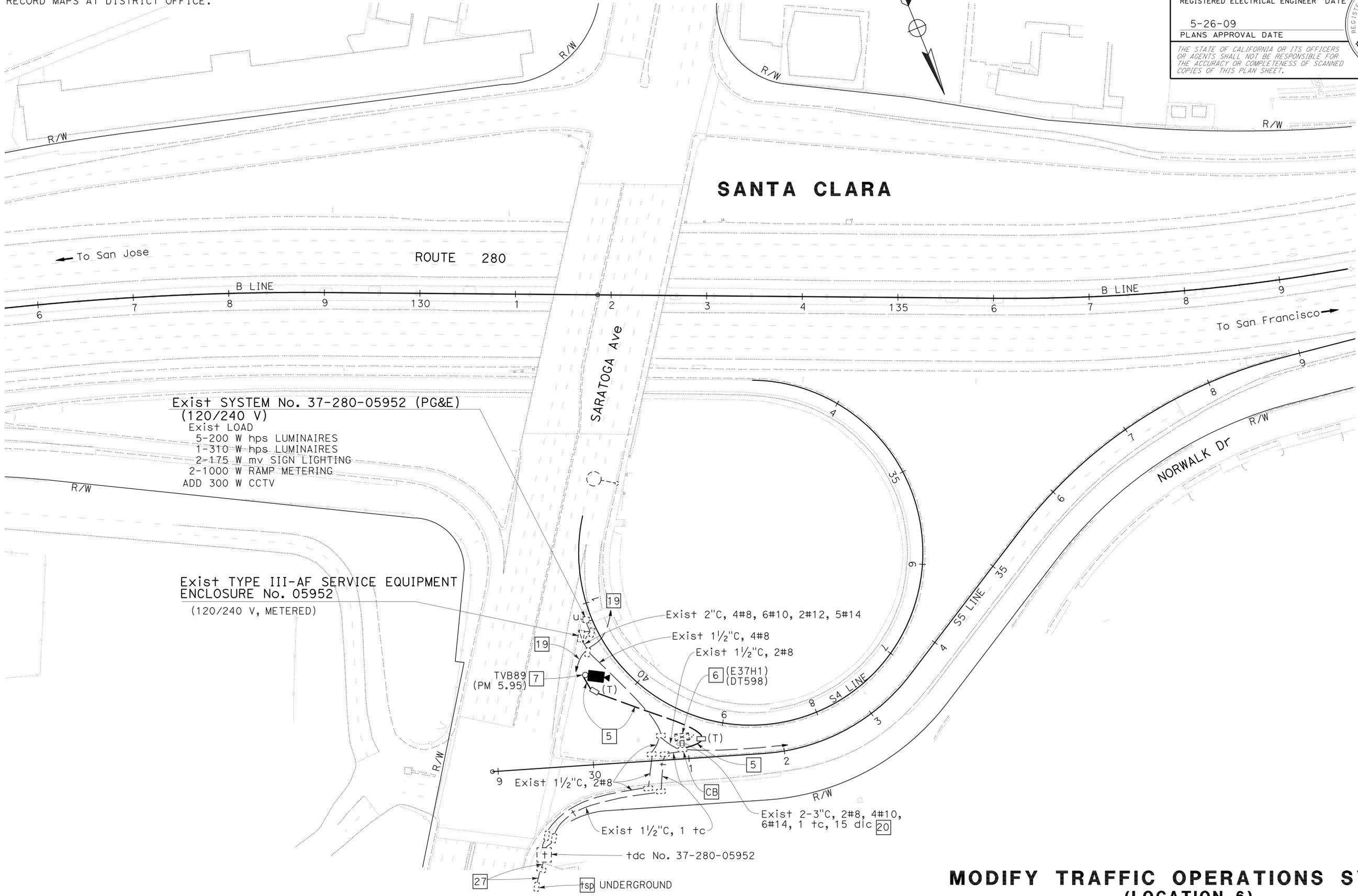
<i>Kenneth Y. Xu</i>	3-16-09
REGISTERED ELECTRICAL ENGINEER	DATE
5-26-09	
PLANS APPROVAL DATE	

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FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
<b>ELECTRICAL</b>	KENNETH XU	CHECKED BY	HENRY HOANG
<b>Caltrans</b>			DORIS YANG



**MODIFY TRAFFIC OPERATIONS SYSTEM (LOCATION 6)**

SCALE: 1" = 50'

**E-7**

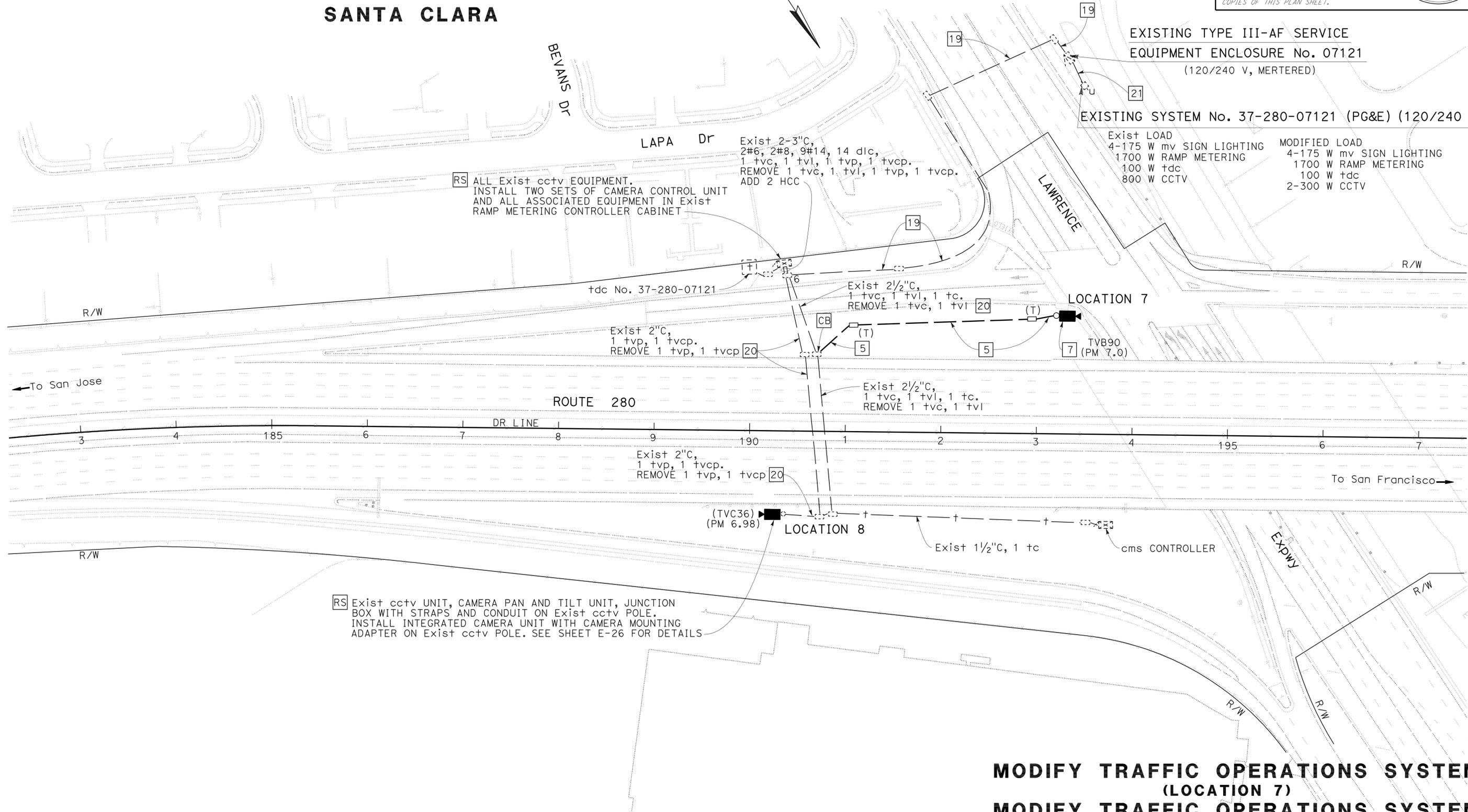
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	41	76
Kenneth Y. Xu REGISTERED ELECTRICAL ENGINEER DATE			3-16-09 DATE		
5-26-09 PLANS APPROVAL DATE			Kenneth Y. Xu No. 15219 Exp. 6-30-10 ELECTRICAL		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

# SANTA CLARA



EXISTING TYPE III-AF SERVICE  
EQUIPMENT ENCLOSURE No. 07121  
(120/240 V, MERTERED)

EXISTING SYSTEM No. 37-280-07121 (PG&E) (120/240 V)

Exist LOAD	MODIFIED LOAD
4-175 W mv SIGN LIGHTING	4-175 W mv SIGN LIGHTING
1700 W RAMP METERING	1700 W RAMP METERING
100 W tdc	100 W tdc
800 W CCTV	2-300 W CCTV

RS ALL Exist cctv EQUIPMENT.  
INSTALL TWO SETS OF CAMERA CONTROL UNIT  
AND ALL ASSOCIATED EQUIPMENT IN Exist  
RAMP METERING CONTROLLER CABINET

Exist 2-3"C,  
2#6, 2#8, 9#14, 14 dlc,  
1 +vc, 1 +vl, 1 +vp, 1 +vcp.  
REMOVE 1 +vc, 1 +vl, 1 +vp, 1 +vcp.  
ADD 2 HCC

tdc No. 37-280-07121

Exist 2"C,  
1 +vp, 1 +vcp.  
REMOVE 1 +vp, 1 +vcp

Exist 2 1/2"C,  
1 +vc, 1 +vl, 1 +tc.  
REMOVE 1 +vc, 1 +vl

Exist 2 1/2"C,  
1 +vc, 1 +vl, 1 +tc.  
REMOVE 1 +vc, 1 +vl

Exist 2"C,  
1 +vp, 1 +vcp.  
REMOVE 1 +vp, 1 +vcp

Exist 1 1/2"C, 1 tc

RS Exist cctv UNIT, CAMERA PAN AND TILT UNIT, JUNCTION  
BOX WITH STRAPS AND CONDUIT ON Exist cctv POLE.  
INSTALL INTEGRATED CAMERA UNIT WITH CAMERA MOUNTING  
ADAPTER ON Exist cctv POLE. SEE SHEET E-26 FOR DETAILS

**MODIFY TRAFFIC OPERATIONS SYSTEM  
(LOCATION 7)**  
**MODIFY TRAFFIC OPERATIONS SYSTEM  
(LOCATION 8)**  
SCALE: 1" = 50'

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

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	ELECTRICAL
Et Caltrans	
FUNCTIONAL SUPERVISOR	KENNETH XU
CALCULATED-DESIGNED BY	CHECKED BY
HENRY HOANG	DORIS YANG
REVISED BY	DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	42	76

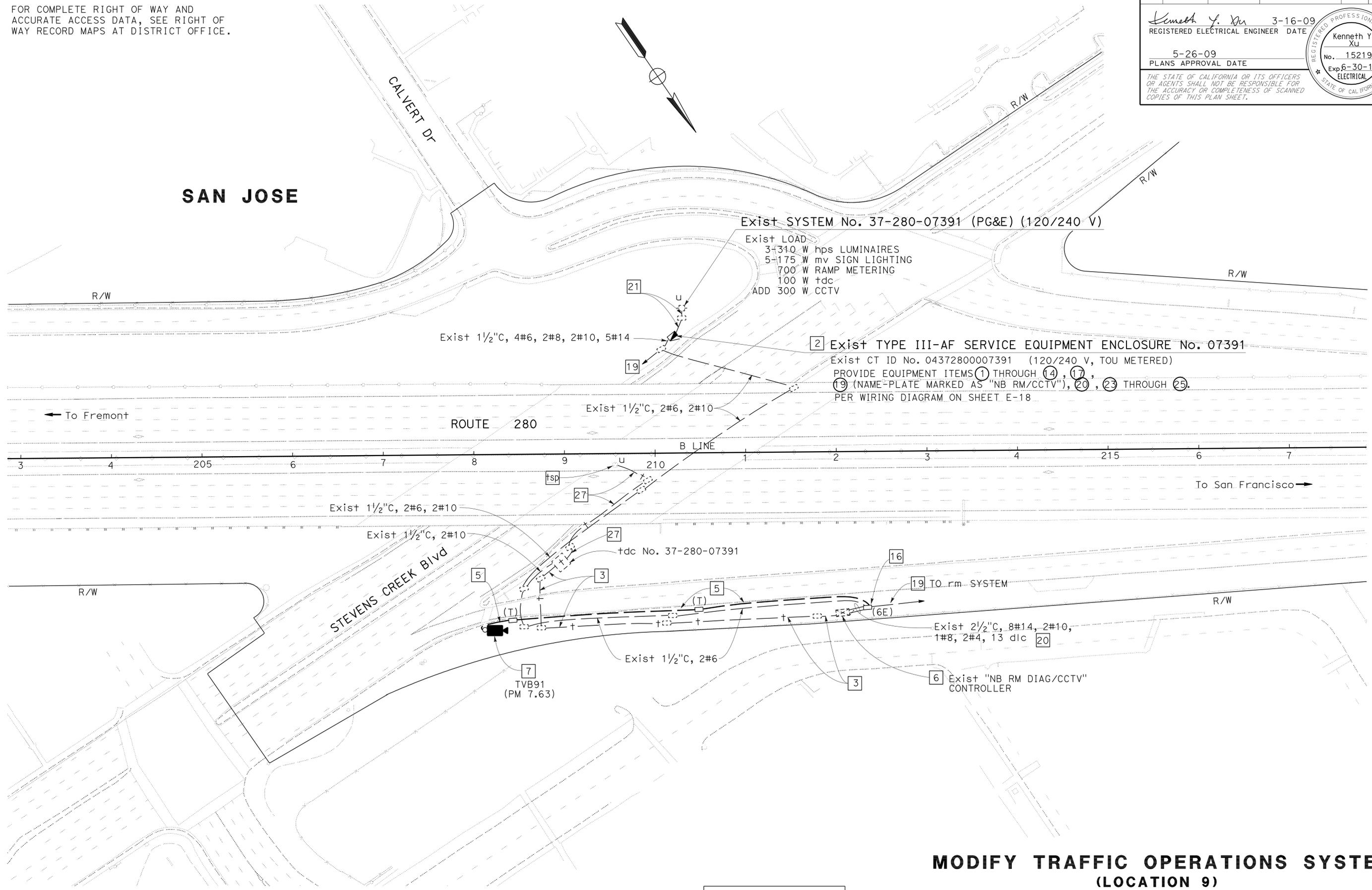
Kenneth Y. Xu 3-16-09  
 REGISTERED ELECTRICAL ENGINEER DATE  
 5-26-09  
 PLANS APPROVAL DATE

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

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

**SAN JOSE**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL**  
 FUNCTIONAL SUPERVISOR: KENNETH XU  
 CALCULATED/DESIGNED BY: HENRY HOANG  
 CHECKED BY: DORIS YANG  
 REVISED BY: HENRY HOANG  
 DATE REVISED: DORIS YANG

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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

**MODIFY TRAFFIC OPERATIONS SYSTEM  
(LOCATION 9)**  
SCALE: 1" = 50'

**E-9**





Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	45	76
<i>Kenneth Y. Xu</i> 3-16-09 REGISTERED ELECTRICAL ENGINEER DATE			Kenneth Y. Xu No. 15219 Exp. 6-30-10 ELECTRICAL STATE OF CALIFORNIA		
5-26-09			PLANS APPROVAL DATE		
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FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

**SAN BRUNO**

**ROUTE 280**

**SNEATH LANE**

**JS LINE**

To San Francisco →

← To San Jose

Exist 2-3"C, 2#6, 18 dlc [20]

Exist 1/2"C, 9#14, 1#10, 4 dlc [20]

TO rm SYSTEM [19]

Exist 1/2"C, 2#1/0, 1 dlc

E35DA DT305 [6] [3]

TVB81 (PM 21.31) [7]

Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE No. 21718 (120/240 V, METERED)

Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE No. 21312 (120/240 V, METERED)

Exist PG&E UNDERGROUND SERVICE

Exist 1/2"C, 2#1/0, 2#10, 2#6, 1 dlc [3]

**MODIFY TRAFFIC OPERATIONS SYSTEM (LOCATION 12)**

SCALE: 1" = 50'

**E-12**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL**  
 Kenneth Xu  
 HENRY HOANG  
 DORIS YANG  
 REVISOR BY DATE  
 CHECKED BY  
 DESIGNED BY  
 SUPERVISOR



USERNAME => trstrk  
 DGN FILE => 415138u0012.dgn

CU 04222

EA 151381

BORDER LAST REVISED 4/11/2008

05-19-09 08:51  
 DATE PLOTTED => 05-NOV-2009  
 TIME PLOTTED => 08:51



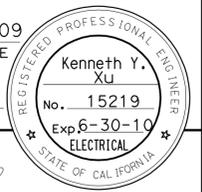
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	47	76

<i>Kenneth Y. Xu</i>	3-16-09
REGISTERED ELECTRICAL ENGINEER	DATE
5-26-09	
PLANS APPROVAL DATE	

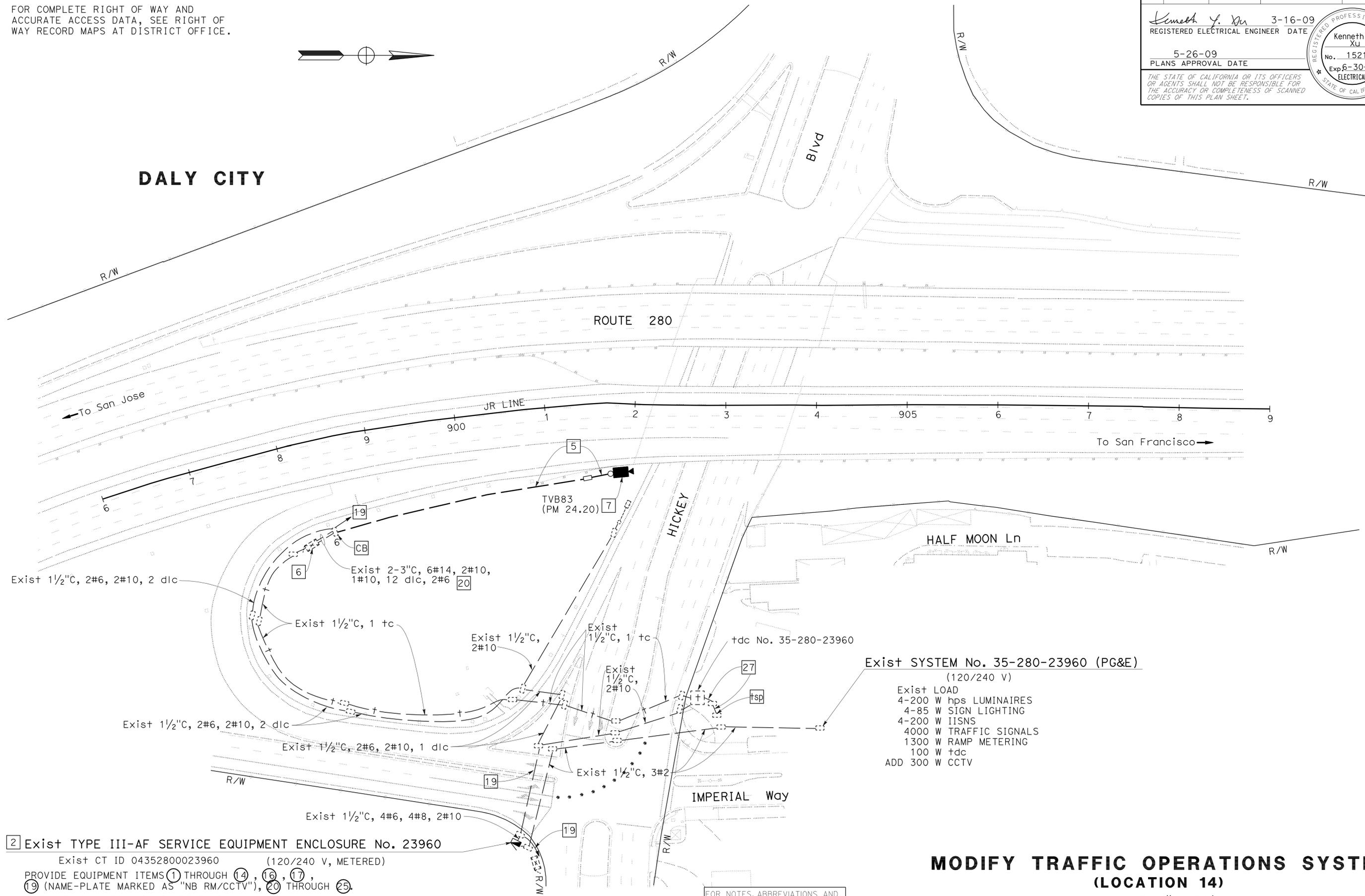
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FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



# DALY CITY



- Exist SYSTEM No. 35-280-23960 (PG&E)  
(120/240 V)
- Exist LOAD
  - 4-200 W hps LUMINAIRES
  - 4-85 W SIGN LIGHTING
  - 4-200 W IISNS
  - 4000 W TRAFFIC SIGNALS
  - 1300 W RAMP METERING
  - 100 W tdc
  - ADD 300 W CCTV

**2** Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE No. 23960  
Exist CT ID 04352800023960 (120/240 V, METERED)  
PROVIDE EQUIPMENT ITEMS **1** THROUGH **14**, **16**, **17**, **19** (NAME-PLATE MARKED AS "NB RM/CCTV"), **20** THROUGH **25**.  
PER WIRING DIAGRAM ON SHEET E-18

## MODIFY TRAFFIC OPERATIONS SYSTEM (LOCATION 14)

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>ELECTRICAL</b>	KENNETH XU	HENRY HOANG	
		DORIS YANG	



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	49	76

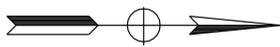
  

<i>Kenneth Y. Xu</i>	3-16-09
REGISTERED ELECTRICAL ENGINEER	DATE
5-26-09	
PLANS APPROVAL DATE	

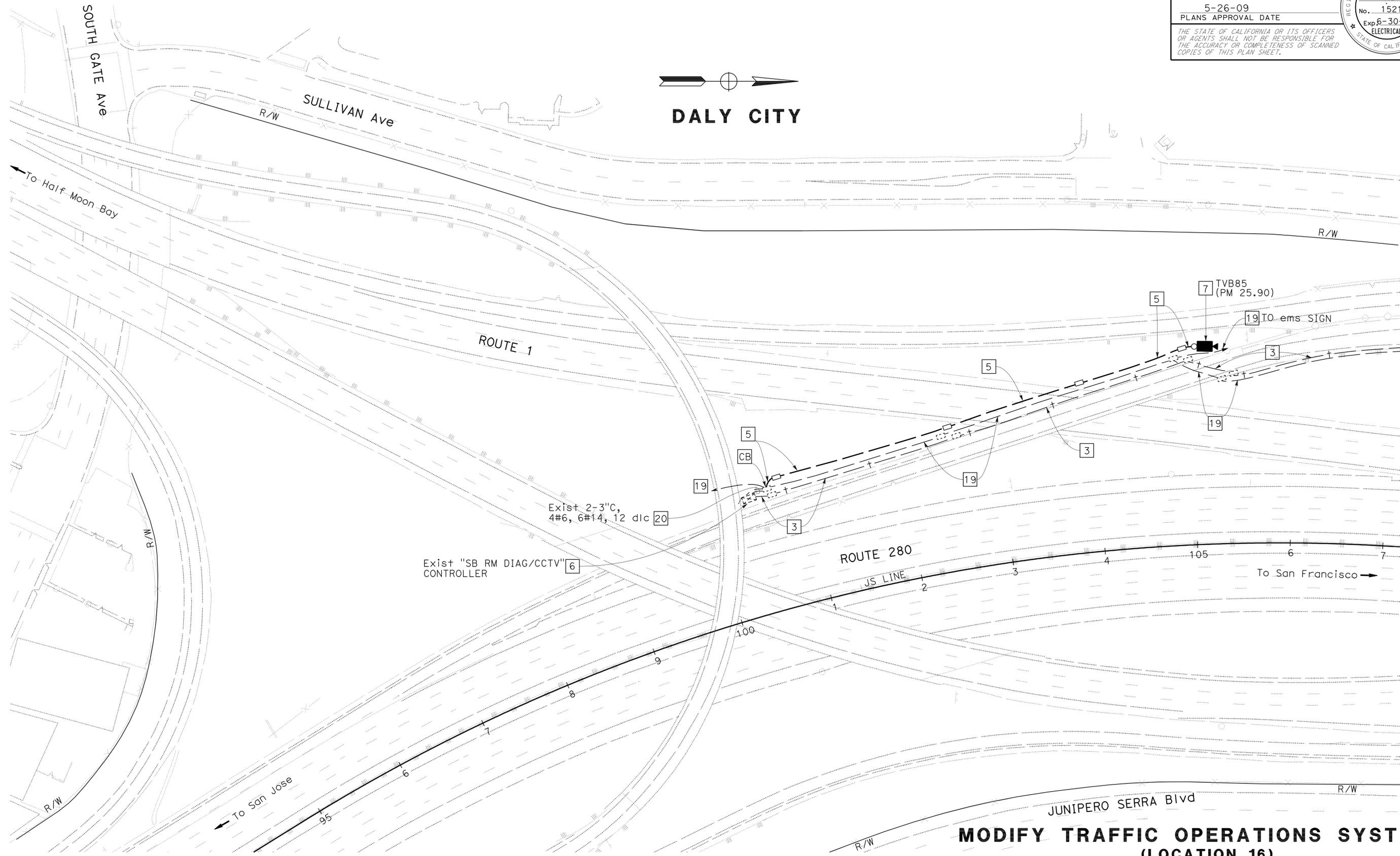
REGISTERED PROFESSIONAL ENGINEER  
 Kenneth Y. Xu  
 No. 15219  
 Exp. 6-30-10  
 ELECTRICAL  
 STATE OF CALIFORNIA

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FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



# DALY CITY



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>Caltrans</b>	KENNETH XU	HENRY HOANG	
<b>ELECTRICAL</b>		DORIS YANG	
		CALCULATED-DESIGNED BY	CHECKED BY

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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

## MODIFY TRAFFIC OPERATIONS SYSTEM (LOCATION 16)

SCALE: 1" = 50'

**E-16**



SEE SHEET E-17

LAST REVISION DATE PLOTTED => 05-NOV-2009  
05-19-09 TIME PLOTTED => 08:52

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	50	76

<i>Kenneth Y. Xu</i>	3-16-09
REGISTERED ELECTRICAL ENGINEER	DATE
5-26-09	
PLANS APPROVAL DATE	

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

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

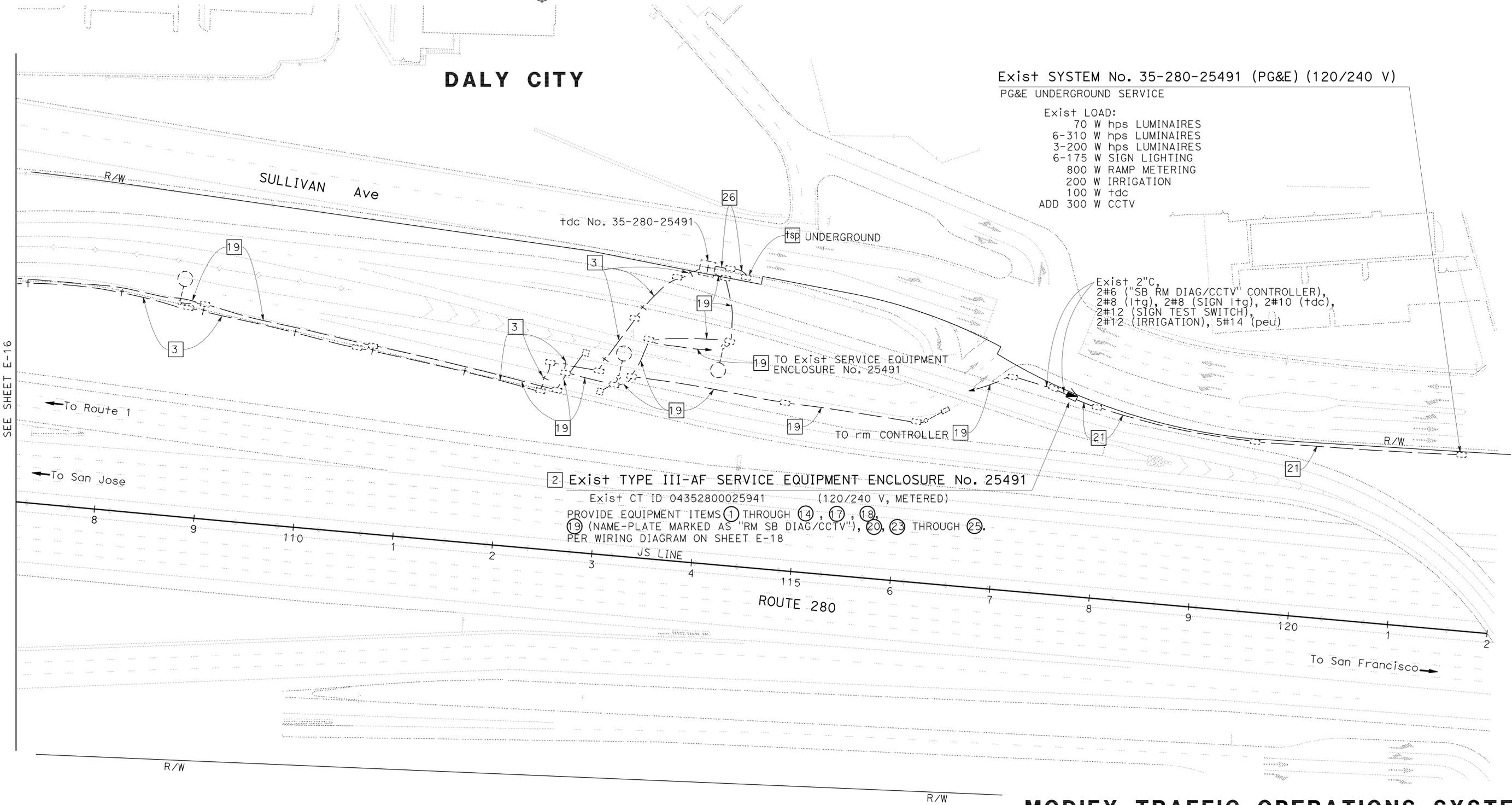
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

# DALY CITY

Exist SYSTEM No. 35-280-25491 (PG&E) (120/240 V)  
PG&E UNDERGROUND SERVICE

- Exist LOAD:
- 70 W hps LUMINAIRES
  - 6-310 W hps LUMINAIRES
  - 3-200 W hps LUMINAIRES
  - 6-175 W SIGN LIGHTING
  - 800 W RAMP METERING
  - 200 W IRRIGATION
  - 100 W tdc
  - ADD 300 W CCTV

Exist 2" C,  
2#6 ("SB RM DIAG/CCTV" CONTROLLER),  
2#8 (ltg), 2#8 (SIGN ltg), 2#10 (tdc),  
2#12 (SIGN TEST SWITCH),  
2#12 (IRRIGATION), 5#14 (peu)



2 Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE No. 25491  
Exist CT ID 04352800025941 (120/240 V, METERED)  
PROVIDE EQUIPMENT ITEMS 1 THROUGH 14, 17, 18,  
19 (NAME-PLATE MARKED AS "RM SB DIAG/CCTV"), 20, 23 THROUGH 25.  
PER WIRING DIAGRAM ON SHEET E-18

SEE SHEET E-16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	ELECTRICAL
Henry Hoang	Doris Yang
Functional Supervisor	Checked By
Kenneth Xu	Checked By
Revised By	Date Revised
Henry Hoang	Doris Yang

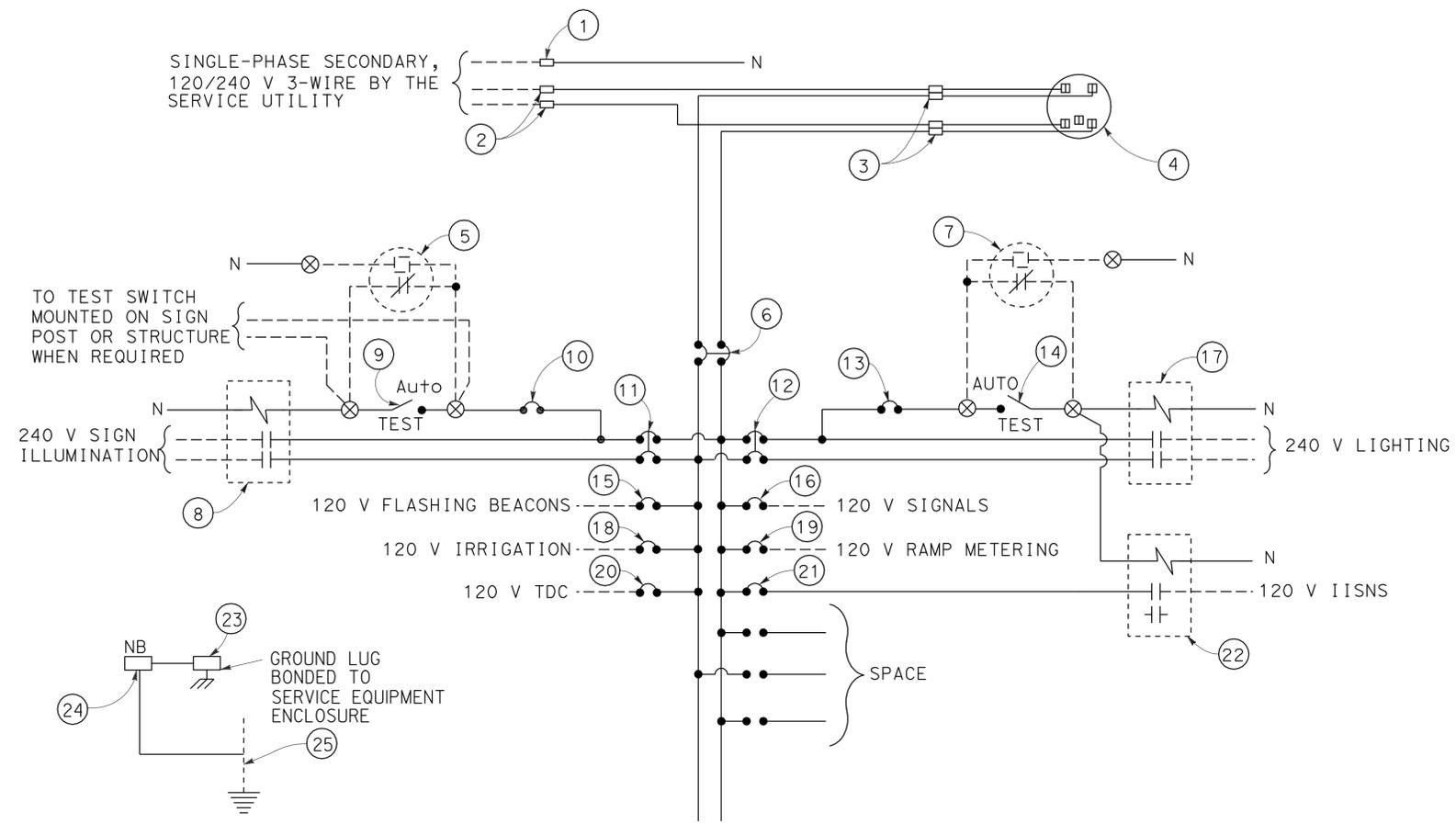
## MODIFY TRAFFIC OPERATIONS SYSTEM (LOCATION 16)

SCALE: 1" = 50'

E-17

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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



**120/240 V SERVICE WIRING DIAGRAM (TYPICAL)**

- NOTES: (FOR SERVICE EQUIPMENT)**
- ITEM No. (1) AND (24) SHALL BE ISOLATED FROM THE CABINET.
  - PHOTOELECTRIC CONTROL SHALL BE TYPE II.

**TYPE III-A SERVICE (120/240 V) EQUIPMENT LEGEND**

ITEM No.	COMPONENT	NAMEPLATE DESCRIPTION	ITEM No.	COMPONENT	NAMEPLATE DESCRIPTION
(1)	NEUTRAL LUG		(14)	15 A, 1P, TEST SWITCH	LIGHTING CONTROL TEST SWITCH
(2)	LANDING LUG		(15)	15 A, 120 V, 1P, CB	FLASHING BEACON
(3)	TEST BYPASS FACILITY		(16)	50 A, 120 V, 1P, CB	SIGNALS
(4)	METER SOCKET AND SUPPORT		(17)	30 A, 2PNO, CONTACTOR	LIGHTING
(5)	PHOTOELECTRIC UNIT		(18)	20 A, 120 V, 1P, CB	IRRIGATION
(6)	100 A, 240 V, 2P, CB	MAIN BREAKER	(19)	30 A, 120 V, 1P, CB	RAMP METERING
(7)	PHOTOELECTRIC UNIT		(20)	15 A, 120 V, 1P, CB	TELEPHONE DEMARCATION CABINET
(8)	30 A, 2PNO, CONTACTOR	SIGN ILLUMINATION	(21)	15 A, 120 V, 1P, CB	IISNS
(9)	15 A, 1P, TEST SWITCH	SIGN ILLUMINATION TEST SWITCH	(22)	30 A, 2PNO, CONTACTOR	IISNS
(10)	15 A, 120 V, 1P, CB	SIGN ILLUMINATION CONTROL	(23)	GROUND LUG	
(11)	30 A, 240 V, 2P, CB	SIGN ILLUMINATION	(24)	SOLID NEUTRAL TERMINAL STRIP	
(12)	30 A, 240 V, 2P, CB	LIGHTING	(25)	GROUNDING ELECTRODE	
(13)	15 A, 120 V, 1P, CB	LIGHTING CONTROL			

**MODIFY TRAFFIC OPERATIONS SYSTEM  
(SERVICE EQUIPMENT AND TYPICAL  
WIRING DIAGRAM TYPE III-A SERIES)**

NO SCALE

**E-18**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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



USERNAME => trstrk  
DGN FILE => 415138u0018.dgn

CU 04222

EA 151381

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 ELECTRICAL  
 FUNCTIONAL SUPERVISOR  
 KENNETH XU  
 CALCULATED-DESIGNED BY  
 CHECKED BY  
 HENRY HOANG  
 DORIS YANG  
 REVISED BY  
 DATE REVISED

LAST REVISION | DATE PLOTTED => 05-NOV-2009  
 05-19-09 | TIME PLOTTED => 08:52

**ABBREVIATIONS (FOR THIS SHEET ONLY)**

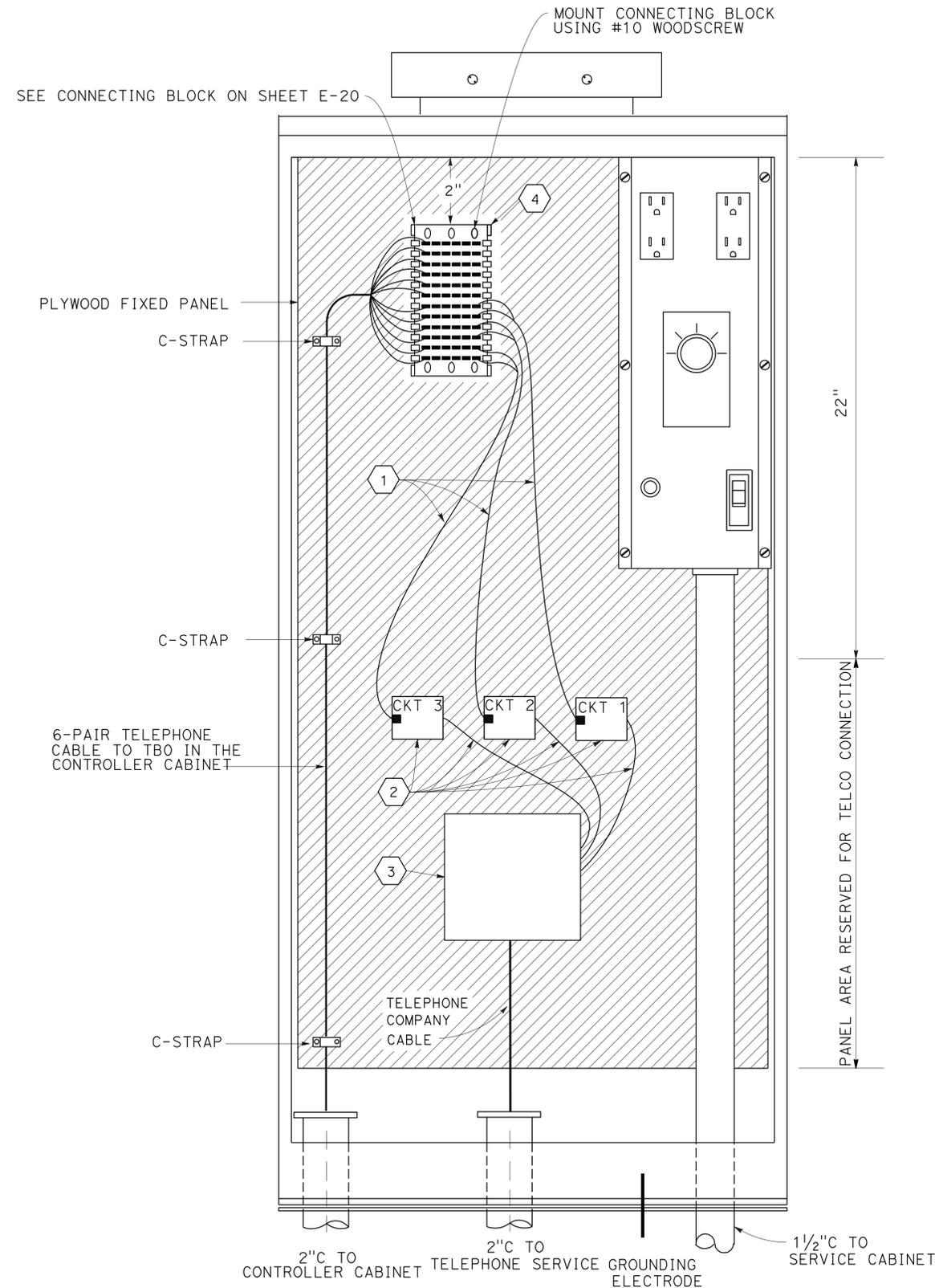
N/C NO CONNECTION  
 TBO TERMINAL BLOCK OUTPUT  
 TC TELEPHONE CABLE

**CONDUCTOR LIST FOR DEMARCATON CABINET**

CABLE TYPE	FUNCTION	PAIR COLORS	12 ROW PUNCH BLOCK
TC	SPARE	WHITE & BLUE	ROW 1, ROW 2
TC	SPARE	WHITE & ORANGE	ROW 3, ROW 4
TC	SPARE	WHITE & GREEN	ROW 5, ROW 6
TC	CIRCUIT 1	WHITE & BROWN	ROW 7, ROW 8
TC	CIRCUIT 2	WHITE & GRAY	ROW 9, ROW 10
TC	CIRCUIT 3 (DIAL-UP: T/R PAIR)	RED & BLUE	ROW 11, ROW 12

**NOTES: (FOR THIS SHEET ONLY)**

- 1 3' SINGLE ENDED 2-PAIR MODULAR CORD WITH RJ11 PLUG CONNECTOR. CONDUCTORS SHALL BE 22 AWG, SOLID.
- 2 SERVICE CORD AND CONNECTION BLOCK FURNISHED AND INSTALLED BY TELEPHONE COMPANY.
- 3 TELEPHONE COMPANY STANDARD PROTECTOR EQUIPMENT FURNISHED AND INSTALLED BY TELEPHONE COMPANY.
- 4 CONNECTING BLOCK SHALL BE TYPE SIEMON S66B1-6 OR EQUIVALENT.



**TELEPHONE DEMARCATON CABINET, TYPE B WIRING DETAIL**  
SEE RSP ES-3E

**ELECTRICAL DETAILS  
(TDC WIRING)  
NO SCALE**

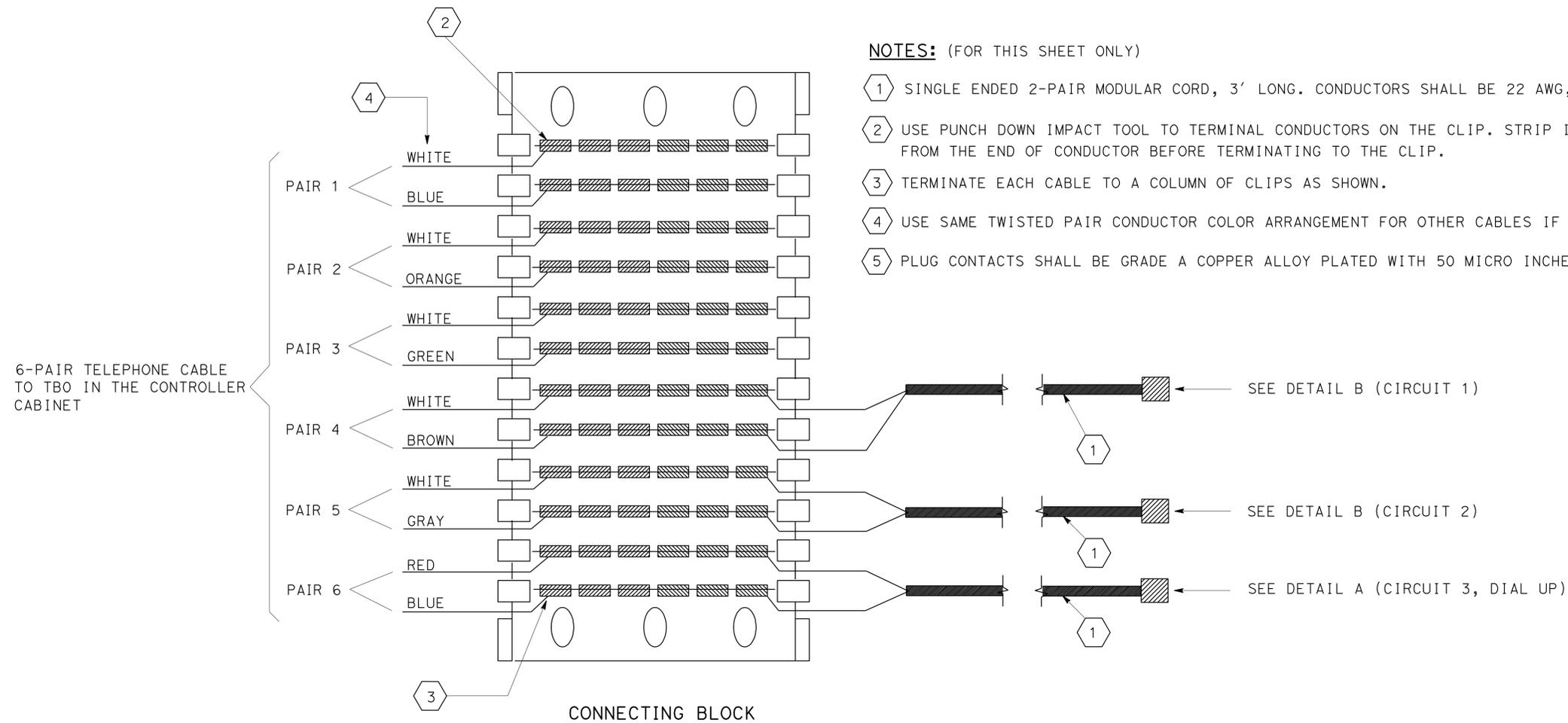
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** ELECTRICAL  
 FUNCTIONAL SUPERVISOR: KENNETH XU  
 CALCULATED-DESIGNED BY: HENRY HOANG  
 CHECKED BY: DORIS YANG  
 REVISED BY: HENRY HOANG  
 DATE REVISED:

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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

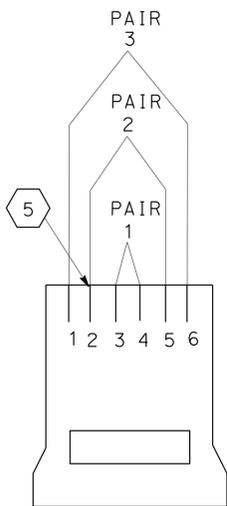
**NOTES:** (FOR THIS SHEET ONLY)

- ① SINGLE ENDED 2-PAIR MODULAR CORD, 3' LONG. CONDUCTORS SHALL BE 22 AWG, SOLID.
- ② USE PUNCH DOWN IMPACT TOOL TO TERMINAL CONDUCTORS ON THE CLIP. STRIP INSULATION 1/4" FROM THE END OF CONDUCTOR BEFORE TERMINATING TO THE CLIP.
- ③ TERMINATE EACH CABLE TO A COLUMN OF CLIPS AS SHOWN.
- ④ USE SAME TWISTED PAIR CONDUCTOR COLOR ARRANGEMENT FOR OTHER CABLES IF REQUIRED.
- ⑤ PLUG CONTACTS SHALL BE GRADE A COPPER ALLOY PLATED WITH 50 MICRO INCHES GOLD OVER NICKEL.



**ABBREVIATIONS (FOR THIS SHEET ONLY)**

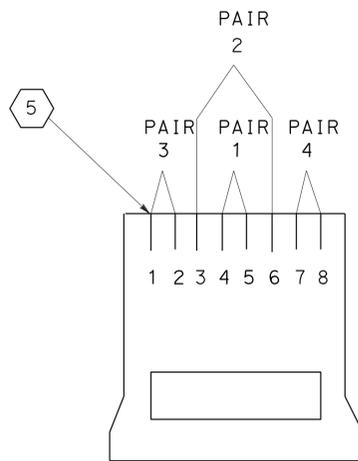
- N/C NO CONNECTION
- TBO TERMINAL BLOCK OUTPUT
- TC TELEPHONE CABLE



DETAIL A

RJ-11 6P-4C MODULAR PLUG

PAIR ID	PIN #	FUNCTION
T1	4	TRANSMIT AND RECEIVE PAIR FOR DIAL-UP CIRCUIT
R1	3	
T2	2	N/C
R2	5	N/C
T3	6	N/C
R3	1	N/C



DETAIL B

RJ-45 8P-8C MODULAR PLUG

PAIR ID	PIN #	FUNCTION
T1	5	TRANSMIT AND RECEIVE PAIR
R1	4	
T2	3	N/C
R2	6	N/C
T3	1	N/C
R3	2	N/C
T4	7	N/C
R4	8	N/C

**TELEPHONE DEMARCATION CABINET, TYPE B WIRING DETAIL**

SEE RSP ES-3E

**ELECTRICAL DETAILS**

(TDC WIRING)

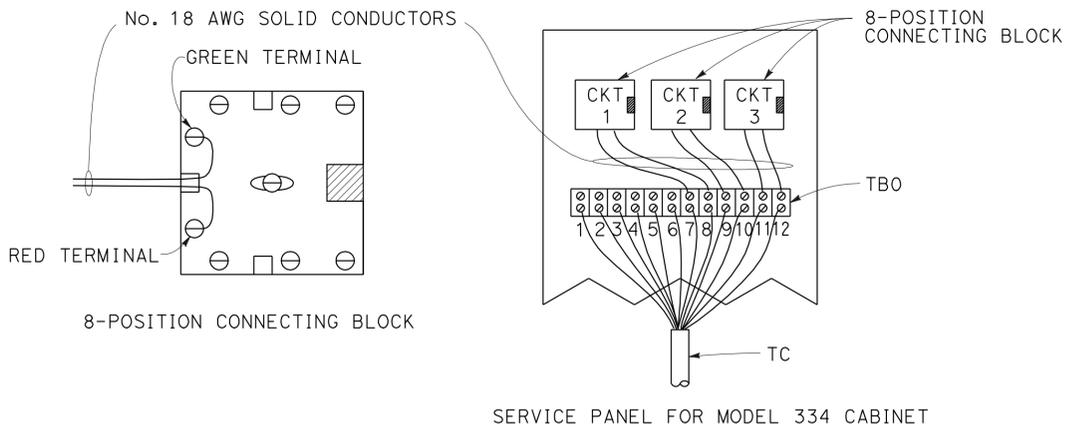
NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

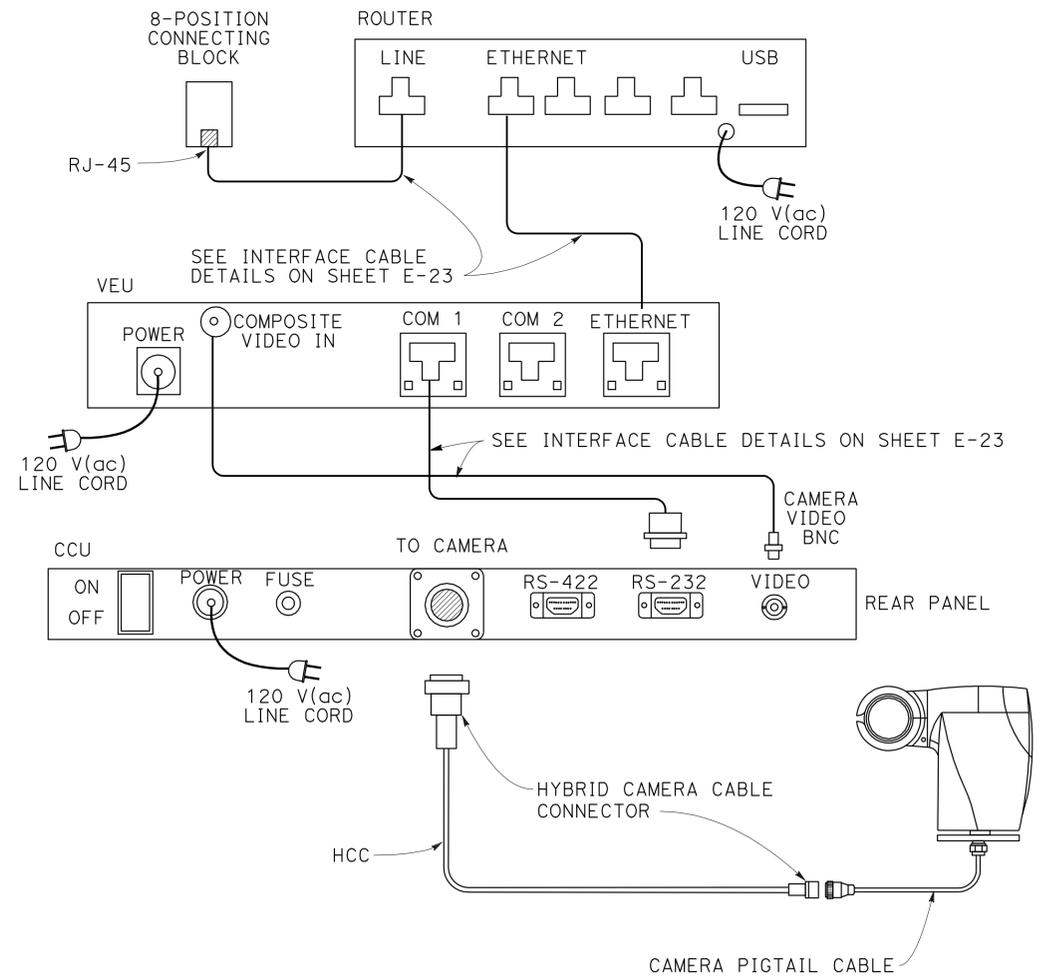
FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET E-1

8-POSITION CONNECTING BLOCK	No. 18 AWG SOLID CONDUCTOR COLOR	TBO POSITION ASSIGNMENT
CIRCUIT 1	GREEN TERMINAL	7
	RED TERMINAL	8
CIRCUIT 2	GREEN TERMINAL	9
	RED TERMINAL	10
CIRCUIT 3	GREEN TERMINAL	11
	RED TERMINAL	12

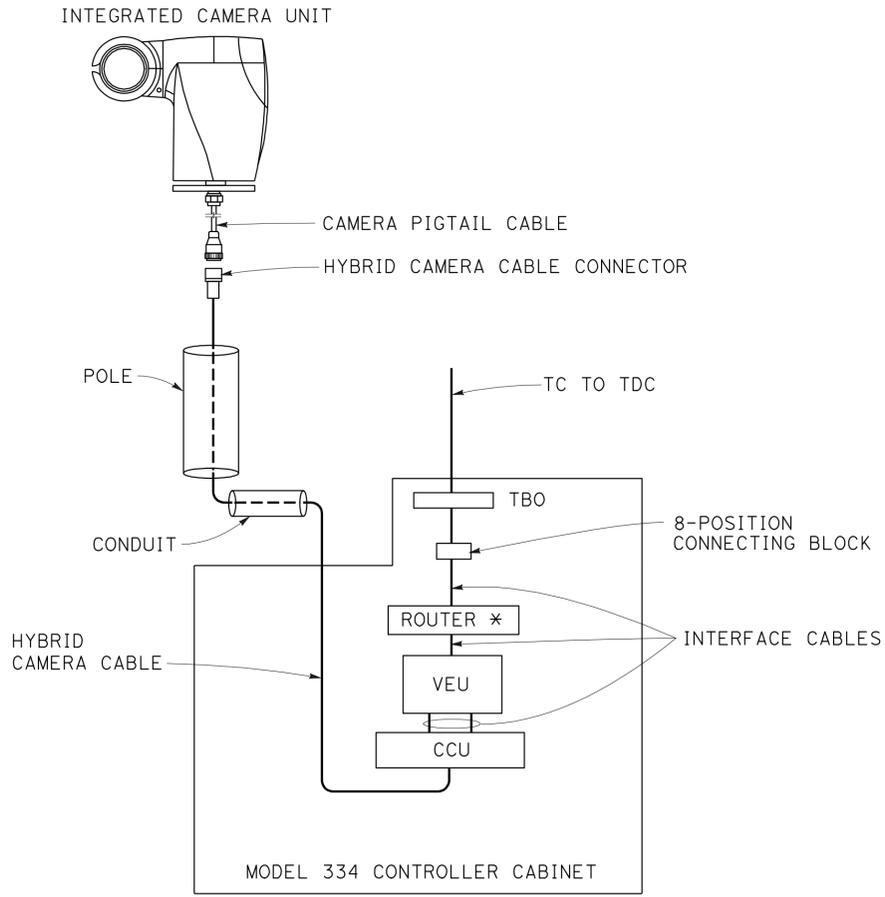
**NOTES:**  
 1. USE ONE CONNECTING BLOCK FOR EACH REQUIRED CIRCUIT FOR EACH LOCATION.



**WIRING DETAIL FOR TELEPHONE CABLE INSIDE CONTROLLER CABINET**

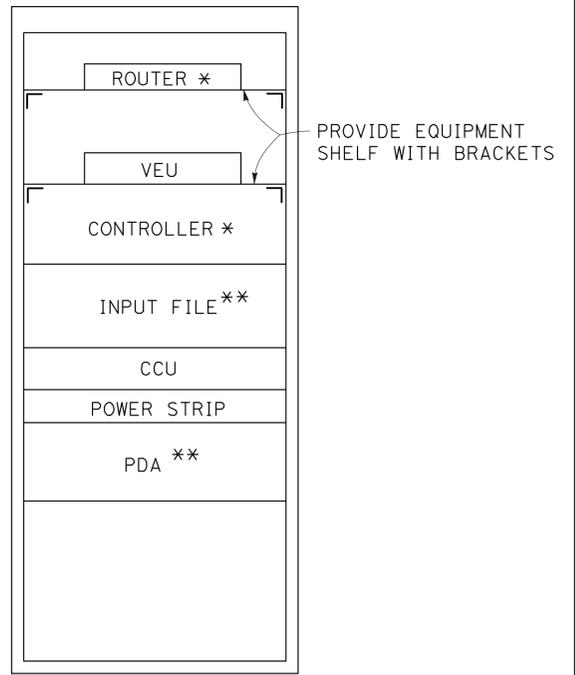


**CCTV SYSTEM LAYOUT**



**CCTV SYSTEM BLOCK DIAGRAM**

- TC - TELEPHONE CABLE
- HCC - HYBRID CAMERA CABLE
- TBO - TERMINAL BLOCK OUTPUT
- PDA - POWER DISTRIBUTION ASSEMBLY
- CCU - CAMERA CONTROL UNIT
- VEU - VIDEO ENCODER UNIT



**MODEL 334 CONTROLLER CABINET LAYOUT (FRONT VIEW)**

\* STATE-FURNISHED  
 \*\* PDA AND INPUT FILE WILL BE INCLUDED ONLY WITH STATE-FURNISHED CONTROLLER CABINET.

**ELECTRICAL DETAILS (CCTV WITH TELEPHONE SERVICE)**  
NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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



USERNAME => trstrk  
 DGN FILE => 415138uo021.dgn

CU 04222

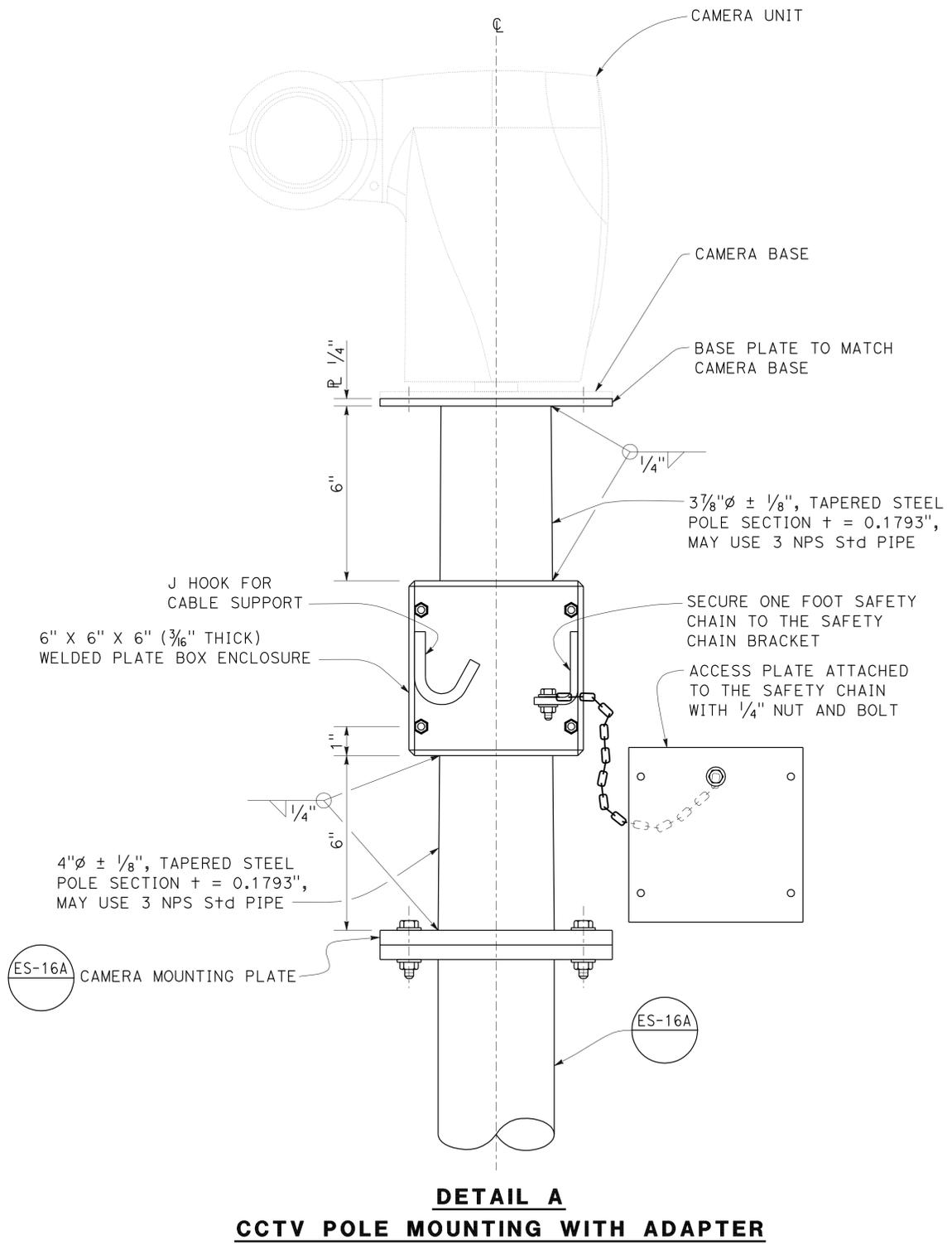
EA 151381

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICAL  
 FUNCTIONAL SUPERVISOR: KENNETH XU  
 CHECKED BY: DORIS YANG  
 DESIGNED BY: HENRY HOANG  
 REVISIONS: (None listed)

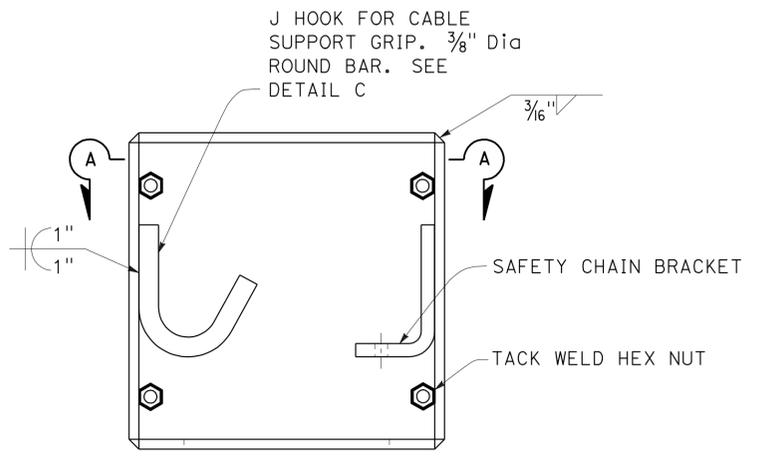
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 DATE PLOTTED: 05-NOV-2009  
 TIME PLOTTED: 08:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI, SM	280,680	Var	55	76
<i>Jeffrey B. Woody</i> 5-29-09 REGISTERED CIVIL ENGINEER					
5-26-09 PLANS APPROVAL DATE					
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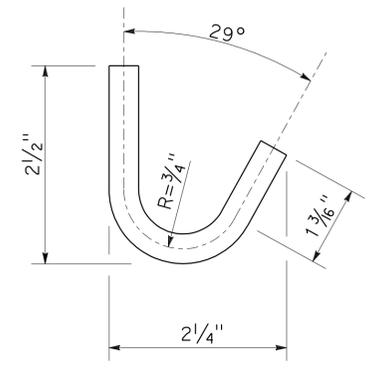
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Electrical**  
 FUNCTIONAL SUPERVISOR: KENNETH XU  
 CALCULATED-DRAWN BY: JEFF WOODY  
 CHECKED BY: DORIS YANG  
 REVISED BY: JEFF WOODY  
 DATE REVISION: DORIS YANG



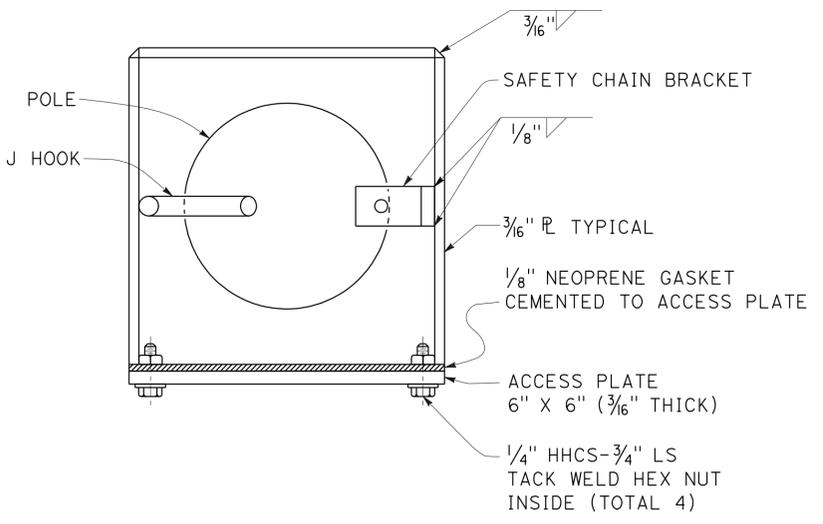
**DETAIL A**  
**CCTV POLE MOUNTING WITH ADAPTER**



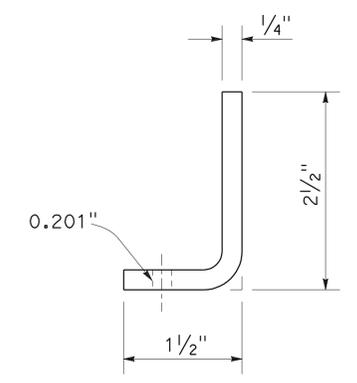
**DETAIL B**  
**BOX ENCLOSURE**



**DETAIL C**  
**J HOOK**



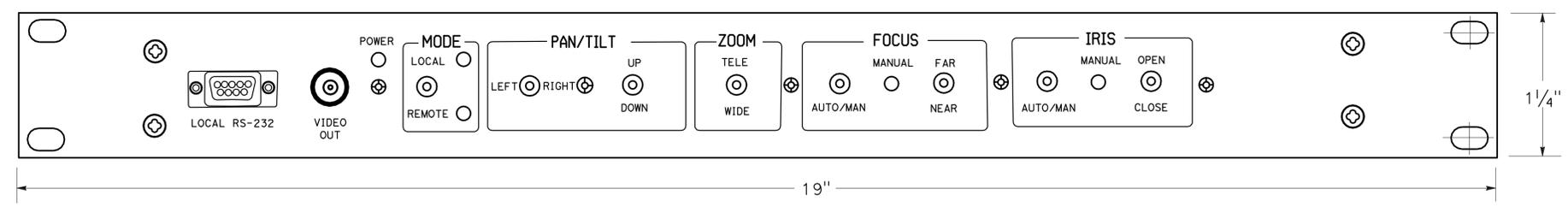
**SECTION A-A**



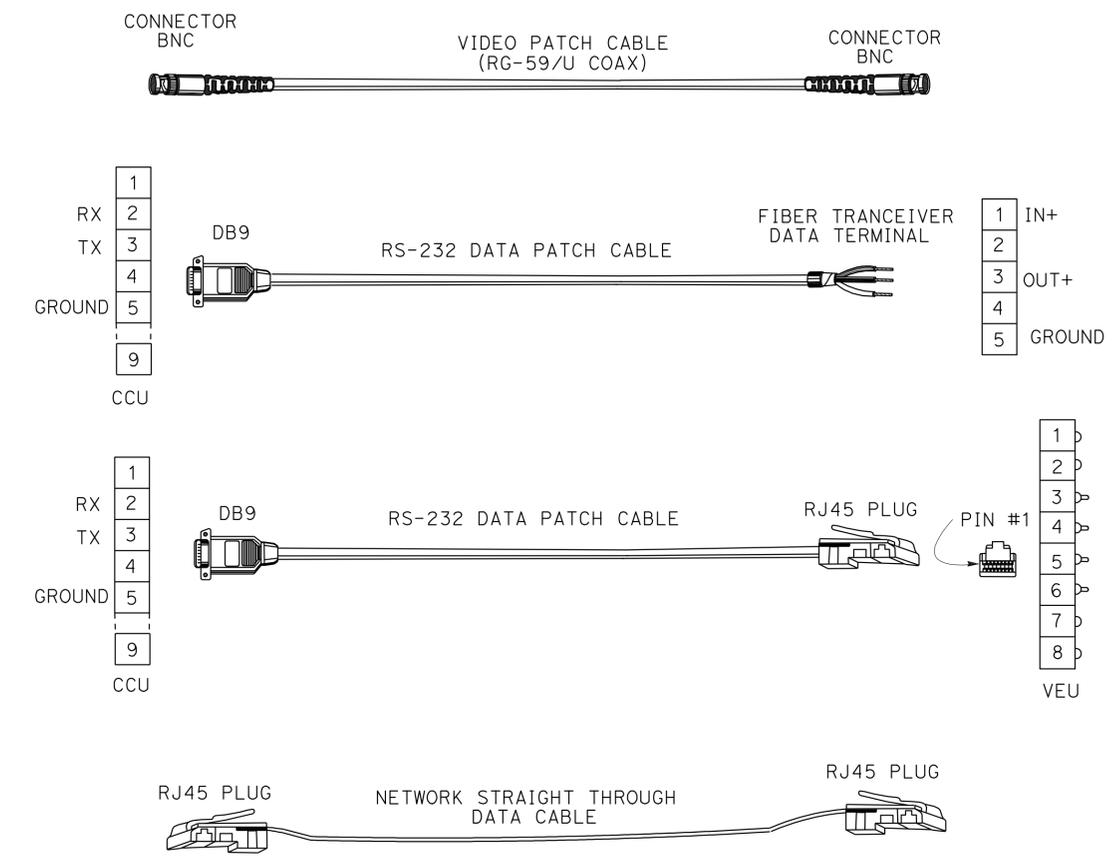
**DETAIL D**  
**SAFETY CHAIN BRACKET**

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

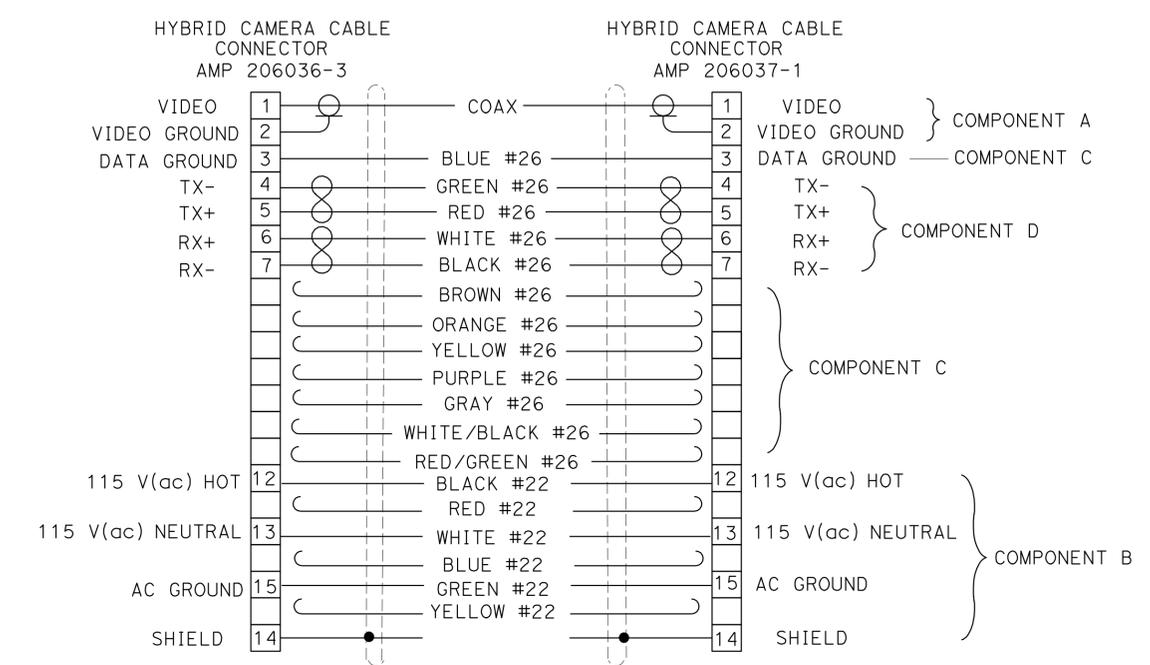
**ELECTRICAL DETAILS**  
**(CAMERA MOUNTING DETAILS)**  
NO SCALE



**CCU FRONT PANEL LAYOUT**

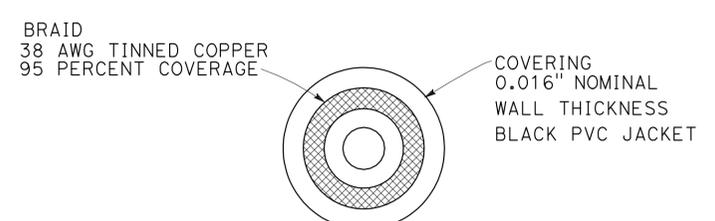


**INTERFACE CABLE DETAILS**

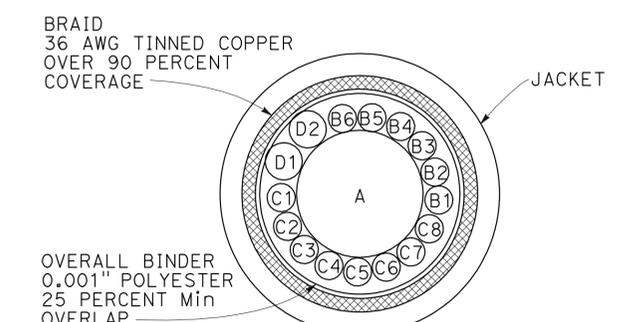


COMPONENT	CONDUCTOR	DESCRIPTION
A	COAX	75 OHM, RG-59/U TYPE, STANDARD ANALOG VIDEO CABLE, 0.242" NOMINAL DIAMETER
B	6 CONDUCTOR	22 AWG, COPPER INSULATED CONDUCTOR, 0.048" NOMINAL DIAMETER, COLOR CODED: B1-BLACK, B2-RED, B3-GREEN, B4-WHITE, B5-BLUE, B6-YELLOW
C	8 CONDUCTOR	26 AWG, COPPER INSULATED CONDUCTOR, 0.037" NOMINAL DIAMETER, COLOR CODED: C1-BROWN, C2-BLUE, C3-ORANGE, C4-YELLOW, C5-PURPLE, C6-GRAY, C7-WHITE/BLACK, C8-RED/GREEN
D	4 CONDUCTOR	26 AWG, COPPER INSULATED CONDUCTOR, 0.037" NOMINAL DIAMETER, COLOR CODED: D1-BLACK & WHITE, D2-RED & GREEN

**HYBRID CAMERA CABLE AND CONNECTORS DETAIL**



**COMPONENT A**



**HYBRID CAMERA CABLE CROSS SECTION**

**ELECTRICAL DETAILS  
(CCTV MOUNTING DETAILS)**  
NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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



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DGN FILE => 415138u023.dgn

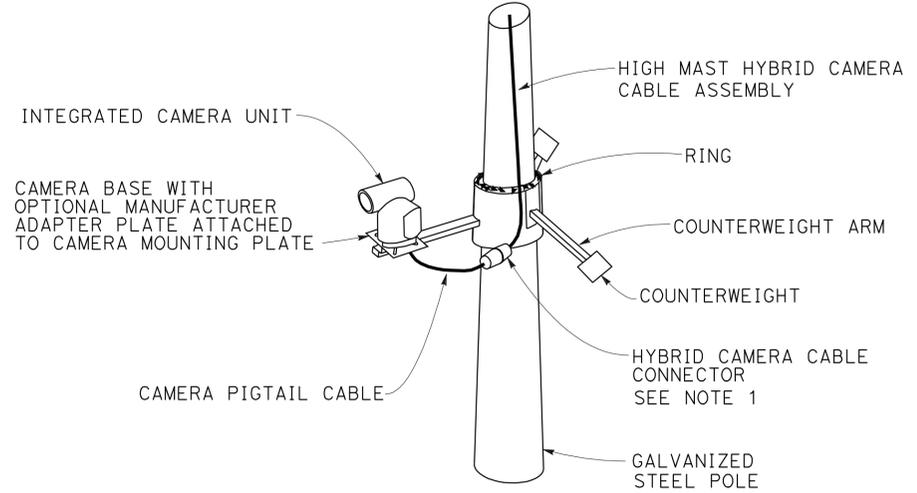
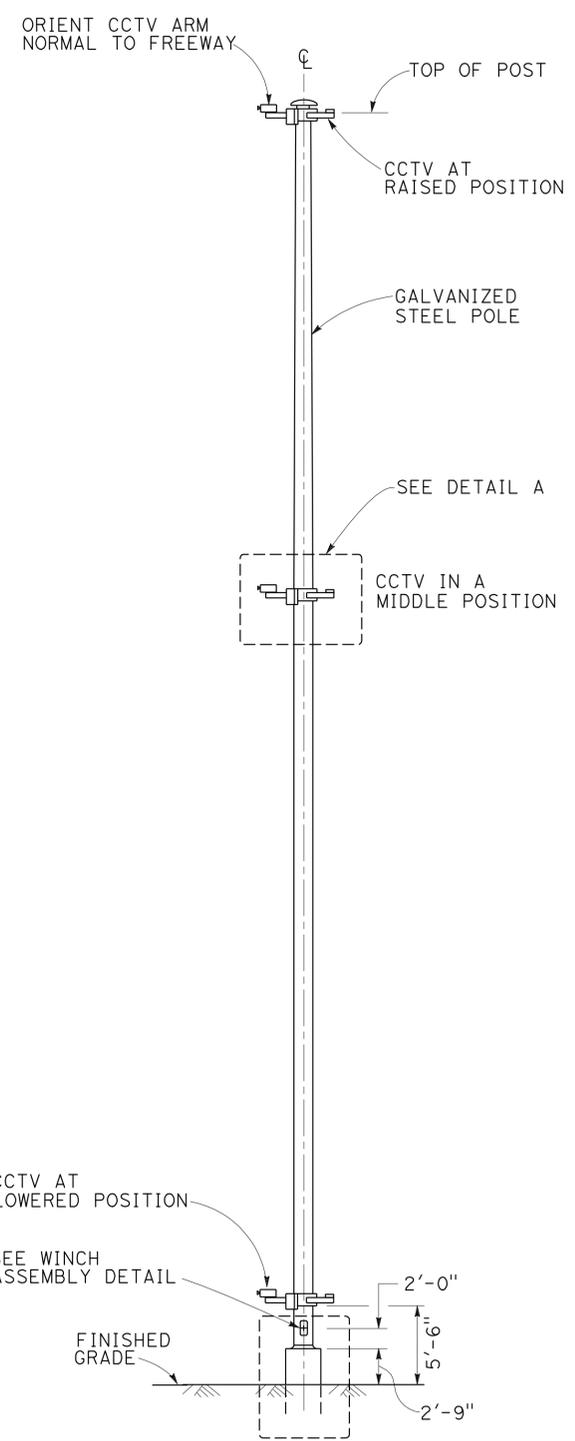
CU 04222

EA 151381

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICAL  
 Kenneth Xu  
 Functional Supervisor  
 Henry Hoang  
 Doris Yang  
 Revised By  
 Date Revised  
 Calculated/Designed By  
 Checked By  
 05-19-09  
 DATE PLOTTED => 05-NOV-2009  
 TIME PLOTTED => 08:53

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI,SM	280,680	Var	57	76
<i>Michael P. Lee</i> REGISTERED ELECTRICAL ENGINEER DATE 3-16-09			No. 13435 Exp. 9-30-10 ELECTRICAL		
5-26-09			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

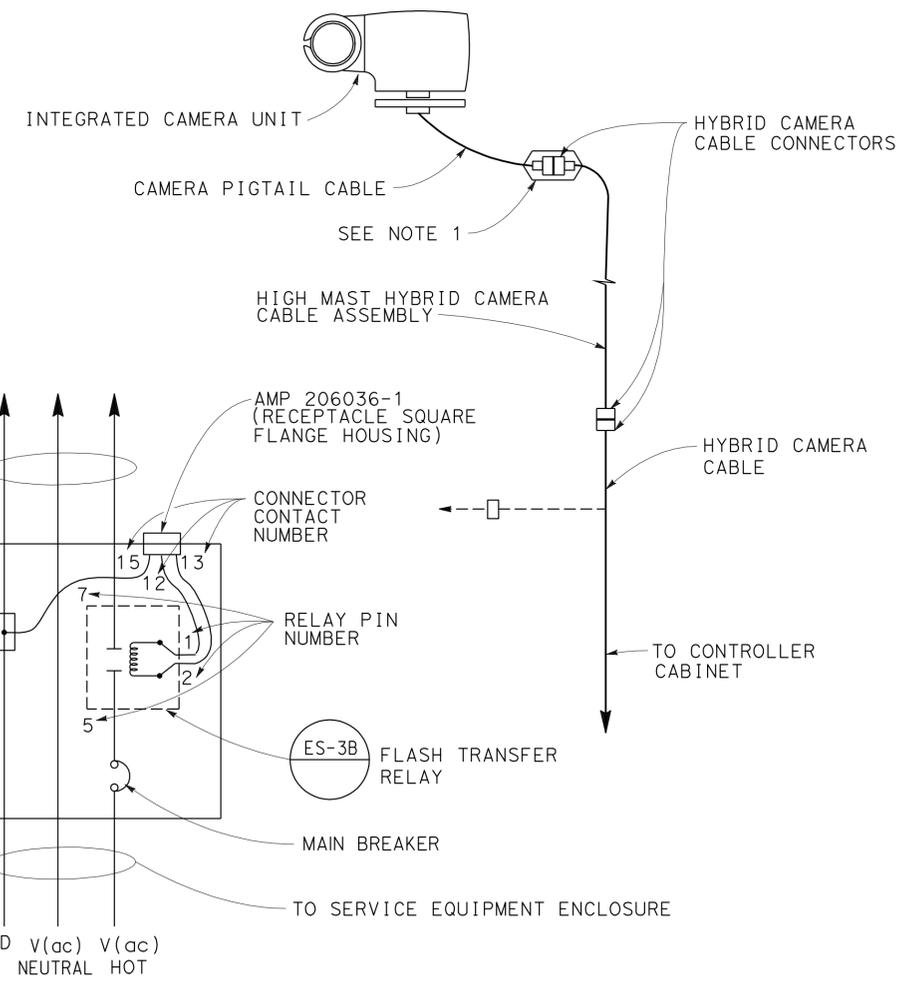
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 ELECTRICAL  
 FUNCTIONAL SUPERVISOR: KENNETH XU  
 DESIGNED BY: HENRY HOANG  
 CHECKED BY: DORIS YANG  
 REVISED BY: [ ] DATE: [ ]



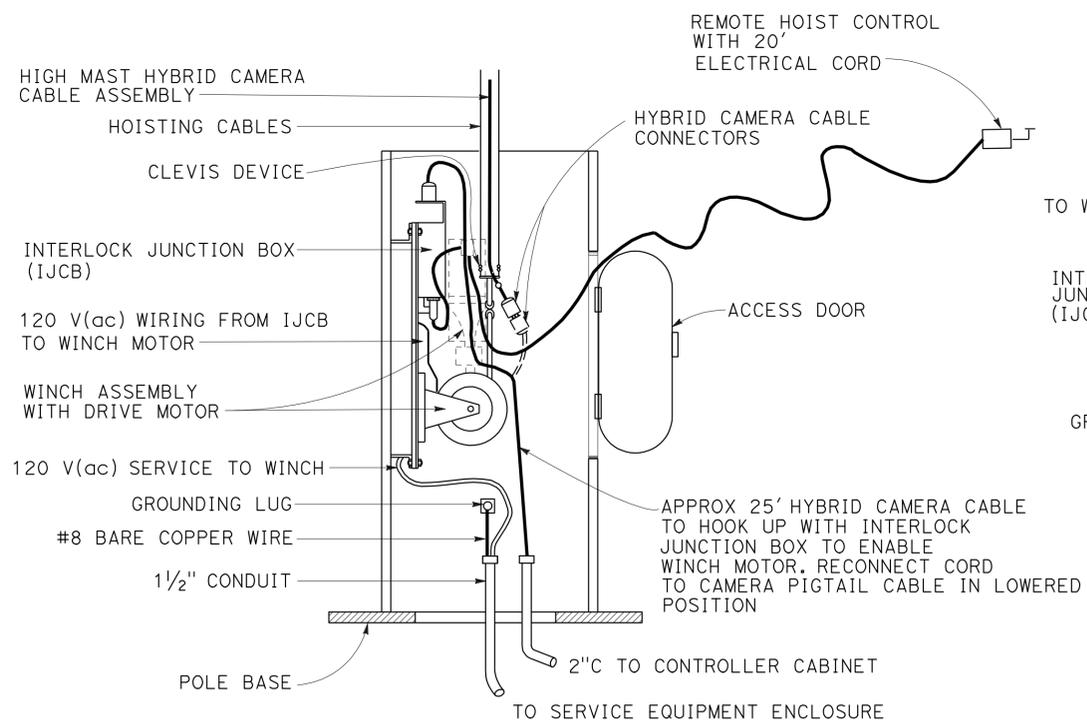
**DETAIL A**

**NOTES:**

1. PROVIDE WEATHER PROOF ENCLOSURE TO PROTECT HYBRID CAMERA CABLE CONNECTION.
2. SEE STANDARD PLANS ES-16C FOR OTHER DETAILS.
3. PROVIDE PULL ROPE WITH LENGTH EQUAL TO POLE HEIGHT PLUS 35 FEET. TIE ONE END OF PULL ROPE TO HYBRID CAMERA CABLE CONNECTOR. COIL PULL ROPE INSIDE THE POLE WHEN CAMERA RING IS AT RAISED POSITION.



**ONE-LINE DIAGRAM**

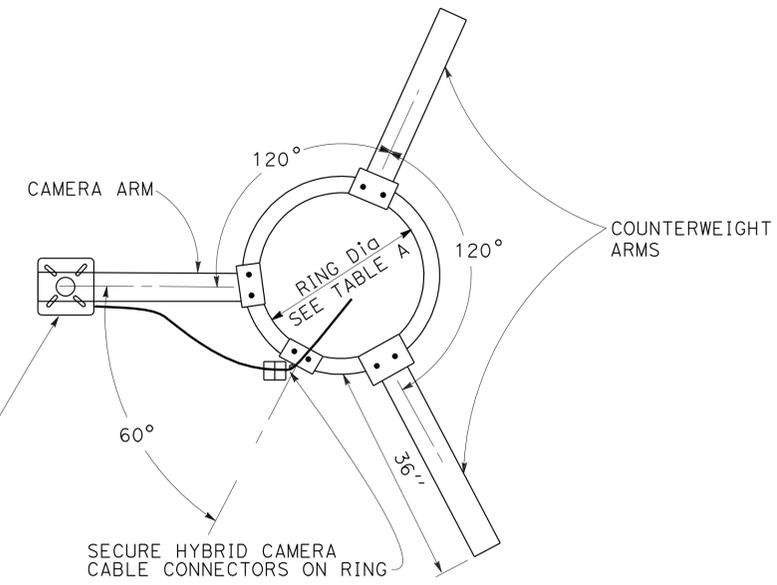


**WINCH ASSEMBLY DETAIL**

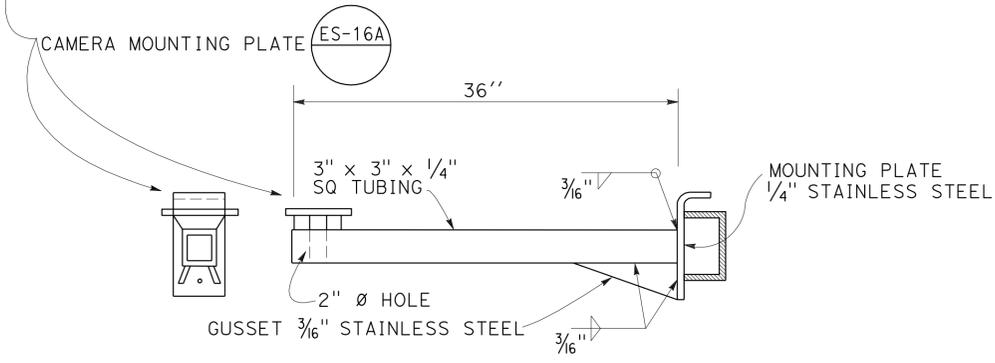
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

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

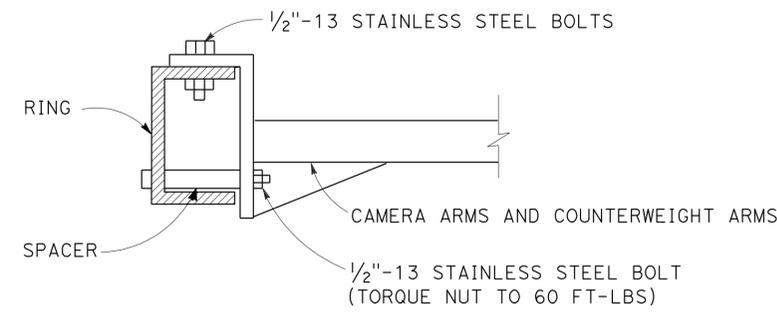
**ELECTRICAL DETAILS  
 (HIGH MAST CCTV)  
 NO SCALE**



**TOP VIEW OF RING AND ARM ASSEMBLIES**



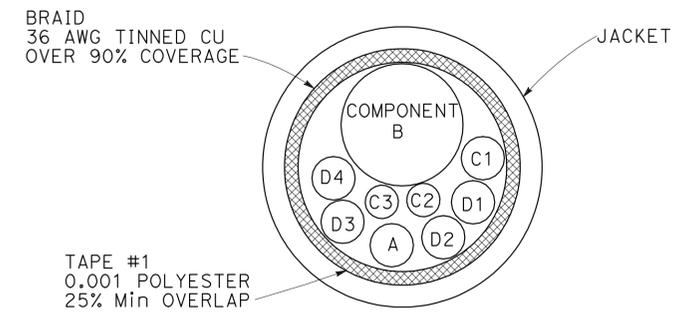
**CAMERA ARM**



**RING-ARM MOUNTING DETAIL**

**TABLE A**

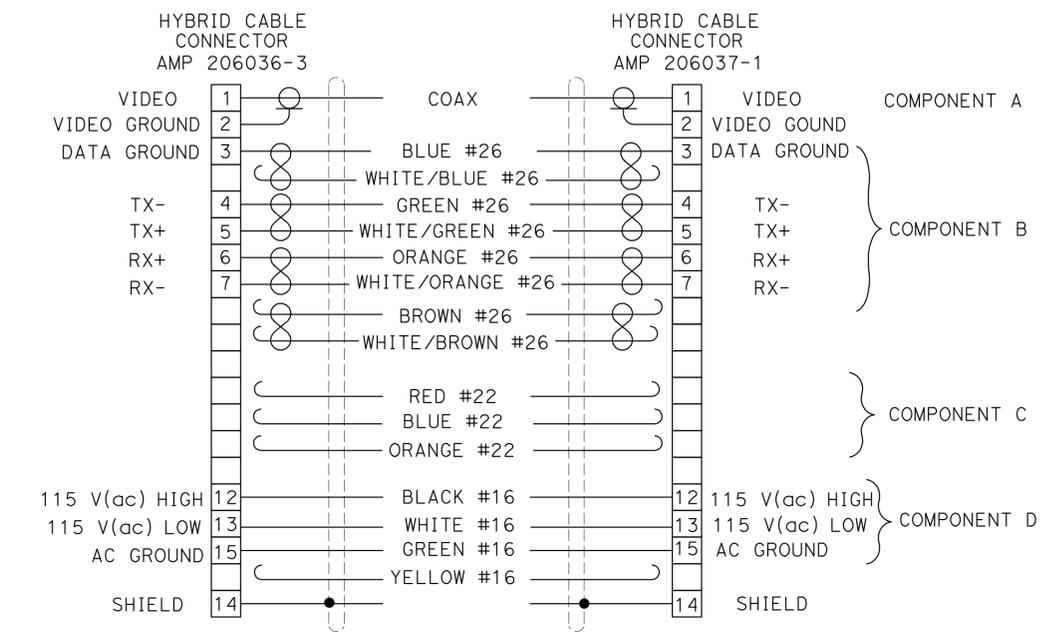
POLE HEIGHT	RING INSIDE DIAMETER (NOMINAL)
60' - 70'	30"
80' - 90'	36"



**HIGH MAST HYBRID CAMERA CABLE ASSEMBLY CROSS SECTION**

- COMPONENT A RG-59/U TYPE STANDARD ANALOG VIDEO CABLE 0.242" NOMINAL DIAMETER
- COMPONENT B SHIELDED CAT 5E 0.260" NOMINAL DIAMETER 4 PAIR CAT 5E
- COMPONENT C 22 AWG COPPER INSULATED CONDUCTOR 0.062" NOMINAL DIAMETER COLOR CODED: C1-RED, C2-BLUE, C3-ORANGE
- COMPONENT D 16 AWG COPPER INSULATED CONDUCTOR 0.088" NOMINAL DIAMETER COLOR CODED: D1-BLACK, D2-WHITE, D3-YELLOW, D4-GREEN

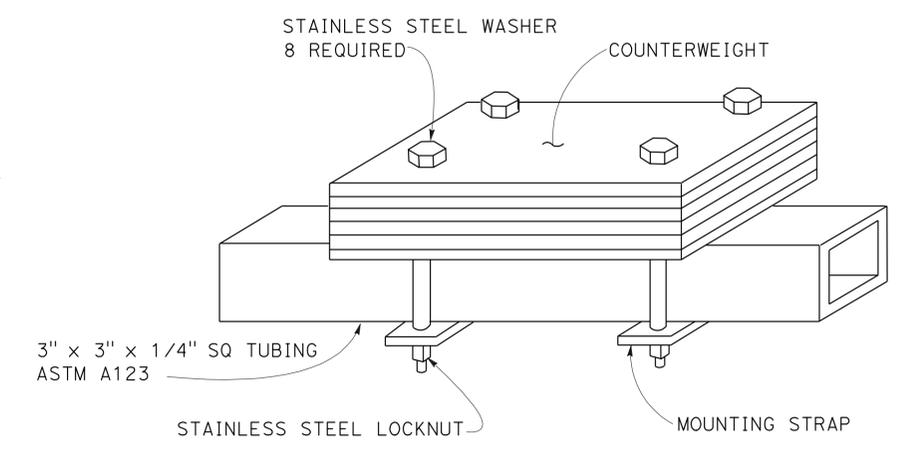
**COMPONENT A COAX**



**HIGH MAST HYBRID CAMERA CABLE ASSEMBLY DETAIL**

**NOTES: (FOR THIS SHEET ONLY)**

- ALL MOUNTING PLATE WELDS AND CONNECTIONS BETWEEN RING AND ARMS, ARE SHOWN FOR EXAMPLE. THE CONTRACTOR SHALL SUBMIT ACTUAL MOUNTING DETAILS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
- COUNTERWEIGHT AND CAMERA ARMS SHALL HAVE IDENTICAL MOUNTING ATTACHMENT TO RING.
- COUNTERWEIGHT DETAIL IS SHOWN FOR EXAMPLE. MODIFY DETAIL TO BALANCE CCTV/RING/ARMS ASSEMBLY ABOUT THE CENTER OF THE RING.
- EACH COUNTERWEIGHT SHALL HAVE ITS WEIGHT EQUAL TO THE WEIGHT OF INTEGRATED CAMERA UNIT.
- ALL WELDS ARE METAL-ARC WITH E 6011 ROD WITH 72000 PSI TENSILE STRENGTH AS WELDED.
- COUNTERWEIGHT AND RELATED HARDWARE SHALL BE GALVANIZED PER ASTM 123.



**COUNTERWEIGHT DETAIL**

**ELECTRICAL DETAILS (HIGH MAST CCTV)**  
NO SCALE

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

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY



USERNAME => trstrk  
DGN FILE => 415138uo025.dgn

CU 04222

EA 151381

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICIAN  
 FUNCTIONAL SUPERVISOR  
 KENNETH XU  
 CHECKED BY  
 HENRY HOANG  
 DORIS YANG  
 REVISED BY  
 DATE  
 REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

LAST REVISION: 05-15-08  
 DATE PLOTTED => 05-NOV-2009  
 TIME PLOTTED => 08:54



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	60	76

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

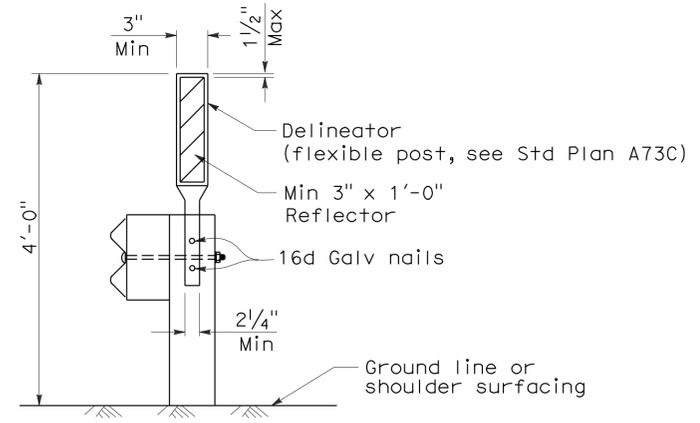
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Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

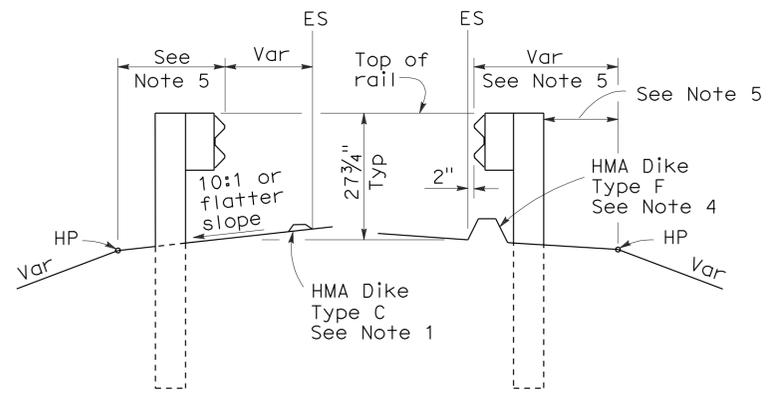
To accompany plans dated 5-26-09

**NOTES:**

1. When necessary to place dike in front of face of guard railing, only Type C dike may be used. For dike details, see Standard Plan A87B.
2. For standard railing post embedment, see Standard Plans A77C3.
3. Guard railing delineation to be used where shown on the Project Plans.
4. When dike or curb is placed under guard railing, the maximum height of the dike or curb shall be 4". Mountable dike should not be used. For dike and curb details, see Revised Standard Plans RSP A87A and Standard Plan A87B.
5. For details of typical distance between the face of rail and hinge point, see Standard Plan A77C3.



**GUARD RAILING DELINEATION**  
See Note 3



**DIKE POSITIONING**  
See Note 1

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL RAILING DELINEATION  
AND DIKE POSITIONING DETAILS**

NO SCALE

RSP A77C4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77C4  
DATED MAY 1, 2006 - PAGE 47 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77C4**

2006 REVISED STANDARD PLAN RSP A77C4

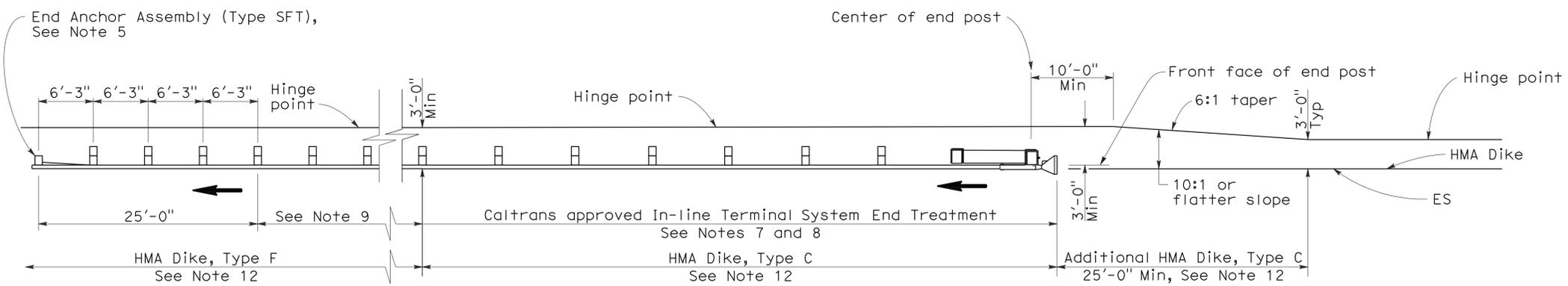
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI, SM	280,680	Var	61	76

RANDALL D. HIATT  
 REGISTERED CIVIL ENGINEER  
 No. C50200  
 Exp. 6-30-09  
 CIVIL  
 STATE OF CALIFORNIA

June 6, 2008  
 PLANS APPROVAL DATE

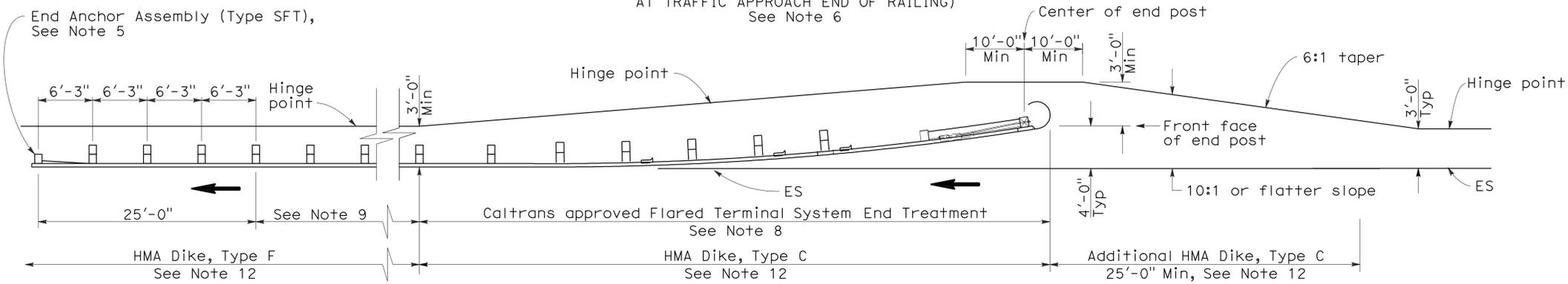
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To accompany plans dated 5-26-09



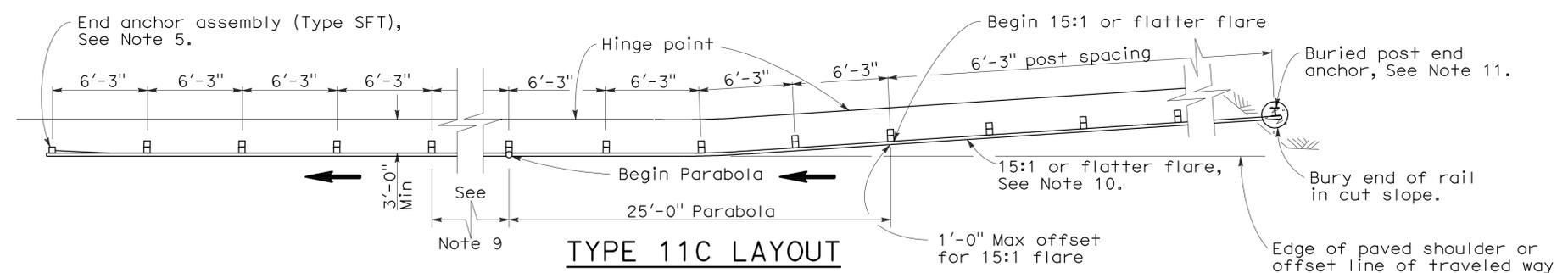
**TYPE 11A LAYOUT**

(EMBANKMENT GUARD INSTALLATION WITH IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Note 6



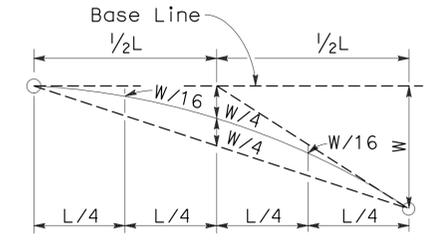
**TYPE 11B LAYOUT**

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Note 6

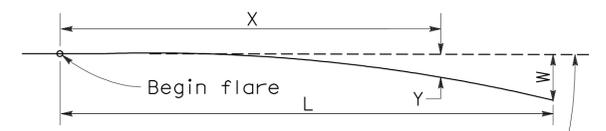


**TYPE 11C LAYOUT**

(EMBANKMENT GUARD RAILING INSTALLATION WITH BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 6 and 12



**TYPICAL PARABOLIC LAYOUT**

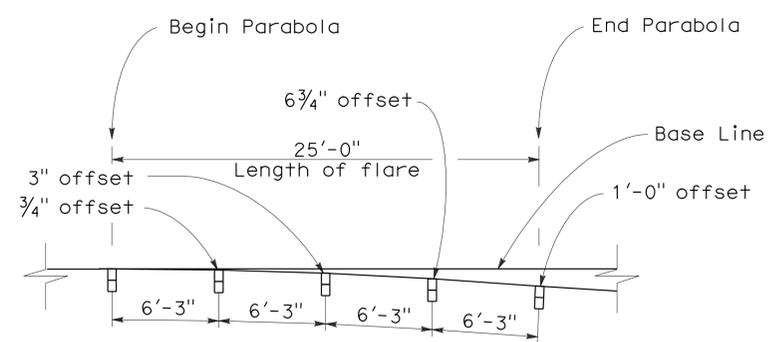


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

$$Y = \frac{WX^2}{L^2}$$

Y = Offset from base line  
 W = Maximum offset  
 X = Distance along base line  
 L = Length of flare

**PARABOLIC FLARE OFFSETS**



**TYPICAL FLARE OFFSETS FOR 1 FOOT MAX END OFFSET**

**NOTES:**

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1, and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or recycled plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
- Layout Types 11A, 11B or 11C are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for only one direction of traffic.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 11C Layout, see Standard Plan A77I2.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**METAL BEAM GUARD RAILING**  
**TYPICAL LAYOUTS FOR EMBANKMENTS**  
NO SCALE

RSP A77E1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E1  
DATED MAY 1, 2006 - PAGE 48 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77E1**

2006 REVISED STANDARD PLAN RSP A77E1

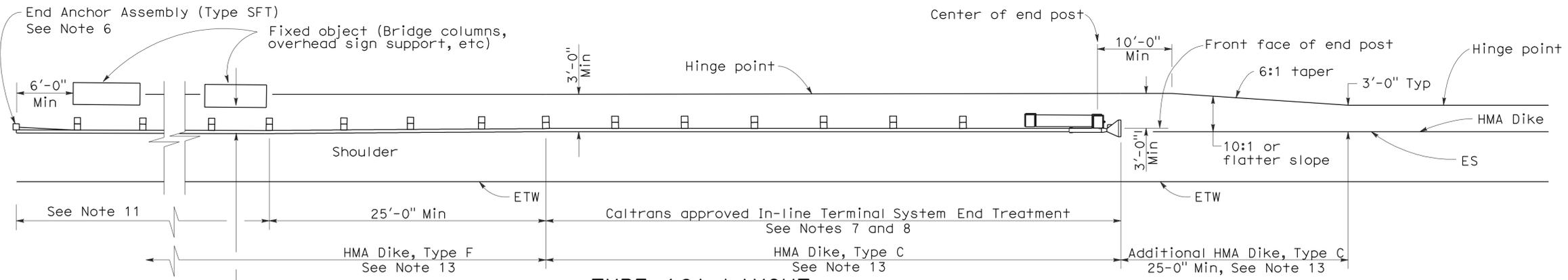
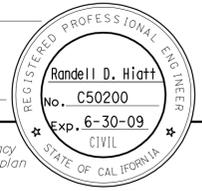
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI, SM	280,680	Var	62	76

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

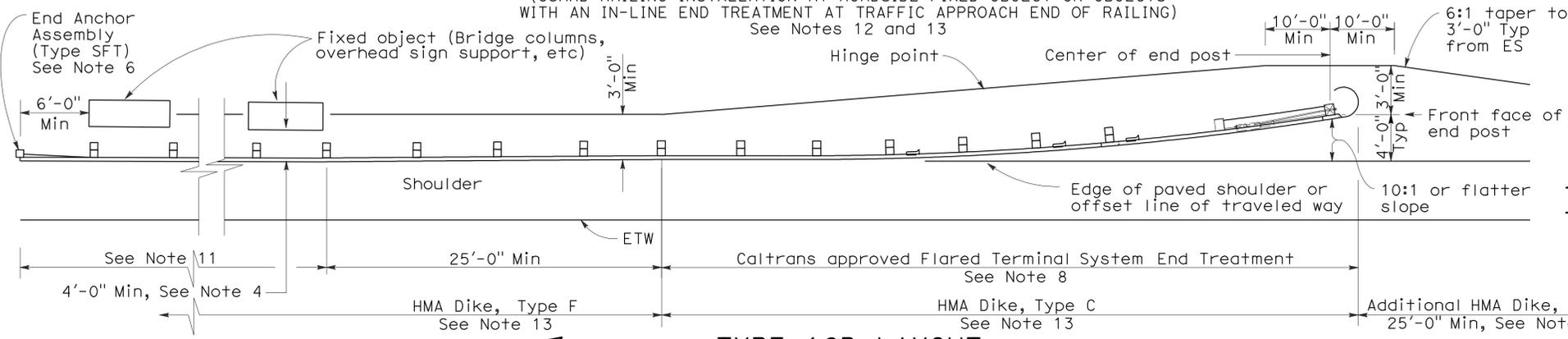
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To accompany plans dated 5-26-09



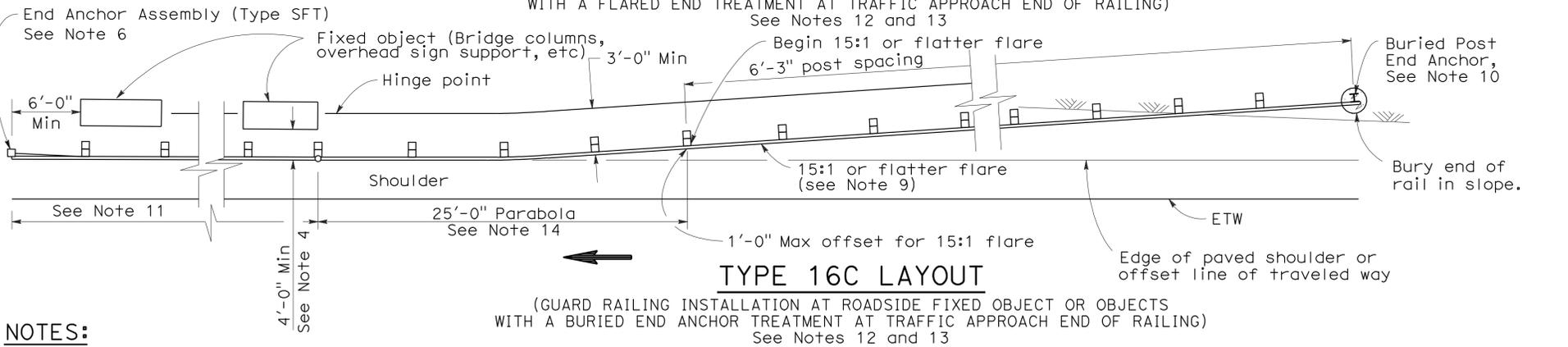
**TYPE 16A LAYOUT**

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 7 and 8



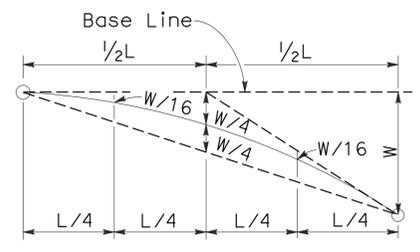
**TYPE 16B LAYOUT**

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A FLARED END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 12 and 13

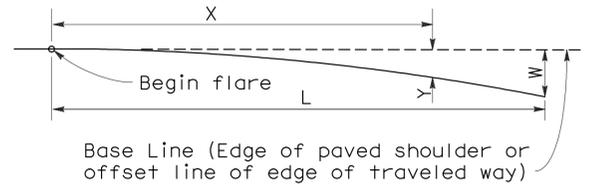


**TYPE 16C LAYOUT**

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH A BURIED END ANCHOR TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 12 and 13



**TYPICAL PARABOLIC LAYOUT**

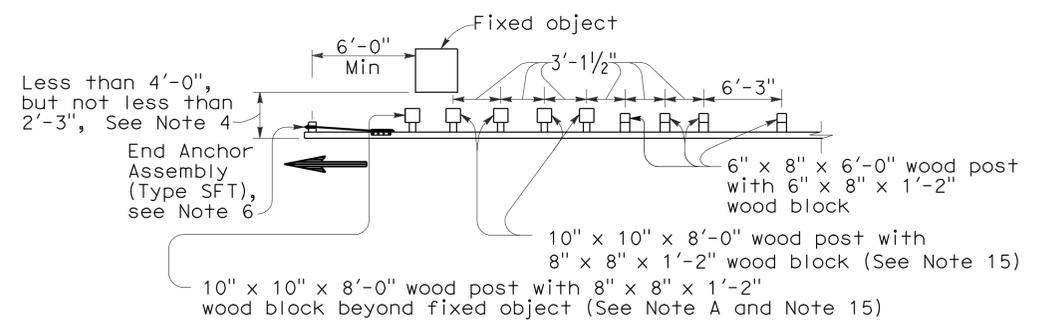


Base Line (Edge of paved shoulder or offset line of edge of traveled way)  
Y = Offset from base line  
W = Maximum offset  
X = Distance along base line  
L = Length of flare

**PARABOLIC FLARE OFFSETS**

**NOTES:**

- Line post, blocks and hardware to be used are shown on Revised Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood line posts with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- A 4'-0" minimum clearance is required between the face of the railing and the face of a fixed object located directly behind standard guard railing sections with post spacing of 6'-3". Construct guard railing as shown in the detail "Strengthened Railing Sections for Fixed Objects" on this plan, where the clearance between the face of the railing and the face of a fixed object is less than 4'-0", but not less than 2'-3". Where the clearance is less than 2'-3", a concrete wall or barrier should be constructed to shield the fixed object(s).
- Direction of adjacent traffic indicated by  $\rightarrow$ .
- For End Anchor Assembly (Type SFT) details, see Standard Plan A77H1.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system to be used will be shown on the Project Plans.
- The 15:1 or flatter flare used with Type 16C Layout is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the Buried Post End Anchor used with Type 16C Layout, see Standard Plan A77I2.
- As site conditions dictate, construct additional guard railing to shield fixed object(s). Additional guard railing length equal to multiples of 12'-6". Post spacing at 6'-3" except as specified in Note 4.
- Layout Types 16A, 16B or 16C are typically used where guard railing is recommended to shield roadside fixed object(s) and a crashworthy end treatment is required for only one direction of traffic.
- Where placement of dike is required with guard railing, see Revised Standard Plan RSP A77C4 for dike positioning details.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.
- W6 x 15 steel post, 8'-0" in length, with 8" x 8" x 1'-2" notched wood block or notched recycled plastic blocks may be used in place of the 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood block shown in the "Strengthened Railing Sections Detail".



**NOTE A:**

For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1/2" center to center spacing are to be used between fixed objects.

**STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT**

Use strengthened railing sections with Types 16A, 16B or 16C Layouts where minimum clearance between the face of the guard railing and fixed object(s) is less than 4'-0", but not less than 2'-3". See Note 4

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS**

NO SCALE

RSP A77G3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77G3 DATED MAY 1, 2006 - PAGE 61 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77G3**

2006 REVISED STANDARD PLAN RSP A77G3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	63	76

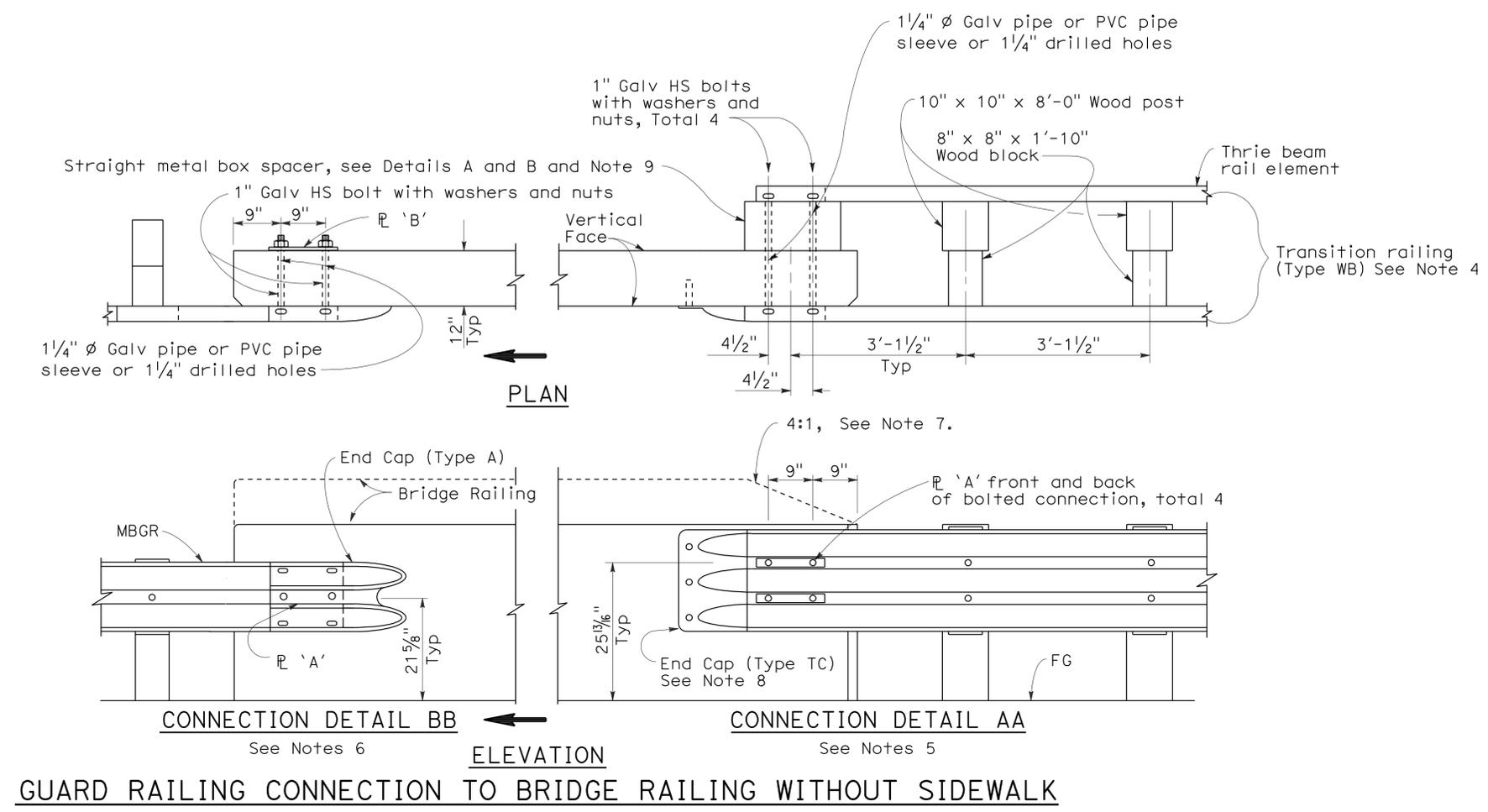
Randell D. Hiatt  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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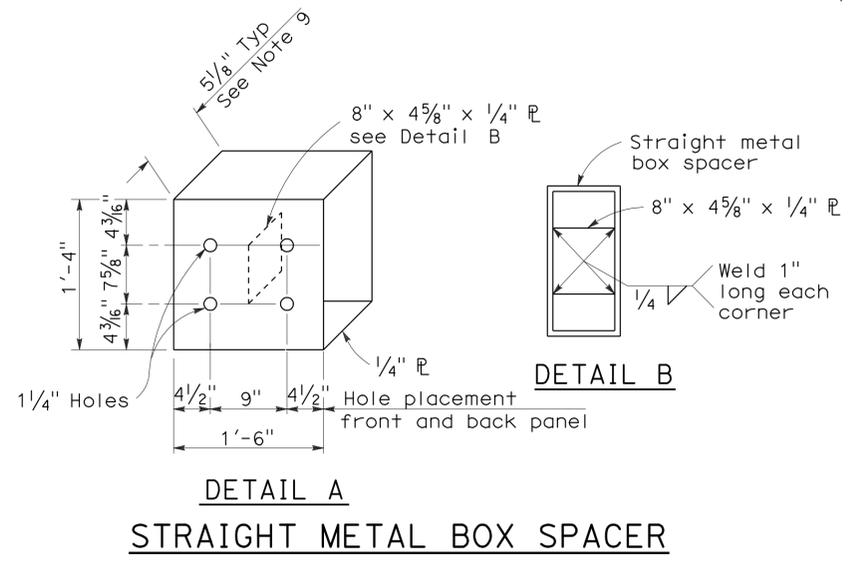
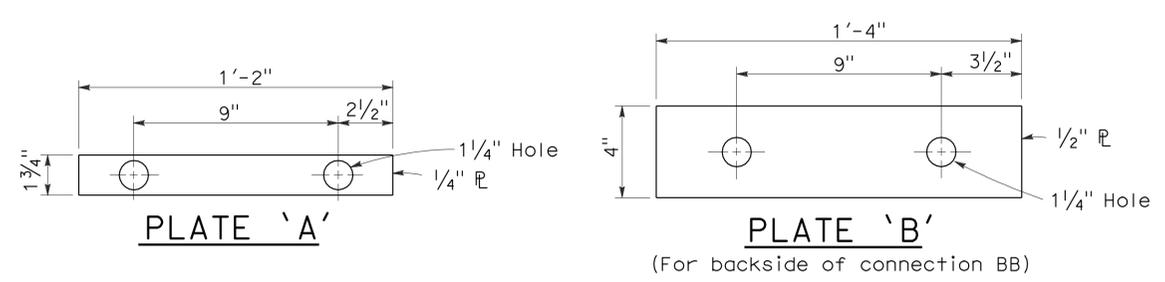
REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

To accompany plans dated 5-26-09



**NOTES:**

1. See Revised Standard Plan RSP A77J2 for additional connection details to bridges without sidewalks.
2. Additional details of posts, blocks and hardware are shown on Standard Plan A77B1, A77C1 and A77C2.
3. Direction of adjacent traffic indicated by  $\rightarrow$ .
4. For additional details of Transition Railing (Type WB), see Standard Plan A77J4. Transition Railing (Type WB) transitions the 12 gage w-beam standard railing section of guard railing to a heavier gage nested thrie beam railing section which is connected to the concrete bridge railing.
5. For typical use of Connection Detail AA, see Layout Types 12A and 12B on Revised Standard Plan RSP A77F1, Layout Types 12C and 12D on Standard Plan A77F2, and Layout Type 12E on Revised Standard Plan RSP A77F3.
6. For typical use of Connection Detail BB, see Layout Type 12D (structure departure railing connection) on Standard Plan A77F2 and Layout Type 12DD on Standard Plan A77F5.
7. Where the height of the bridge railing exceeds the height of the thrie beam railing by more than 1" at Connection Detail AA, taper the top of the end of the bridge railing at 4:1 to match the top elevation of the thrie beam rail.
8. For details of End Cap (Type TC), see Standard Plan A77J4.
9. See Standard Plan A77J4 for additional details regarding depth dimension for straight metal box spacer.



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
CONNECTIONS TO  
BRIDGE RAILINGS  
WITHOUT SIDEWALKS  
DETAILS No.1**

NO SCALE

RSP A77J1 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77J1  
DATED MAY 1, 2006 - PAGE 72 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77J1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	64	76

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

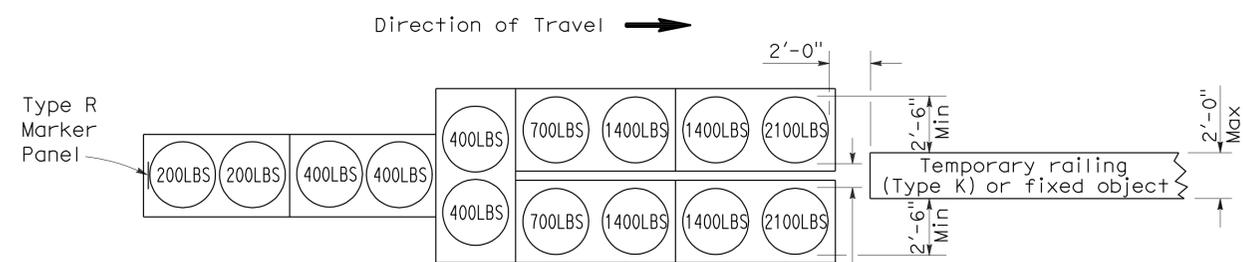
June 6, 2008  
PLANS APPROVAL DATE

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

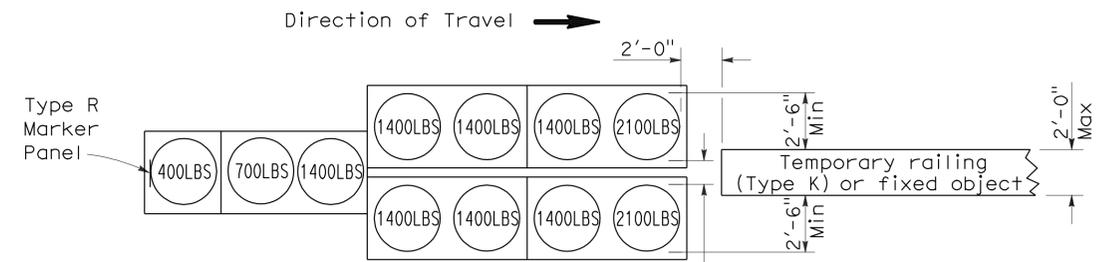
To accompany plans dated 5-26-09

2006 REVISED STANDARD PLAN RSP T1A



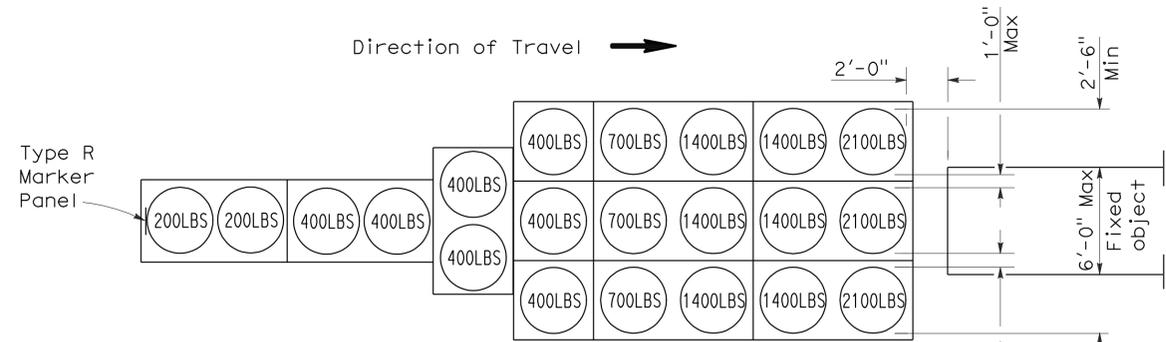
**ARRAY 'TU14'**

Approach speed 45 mph or more



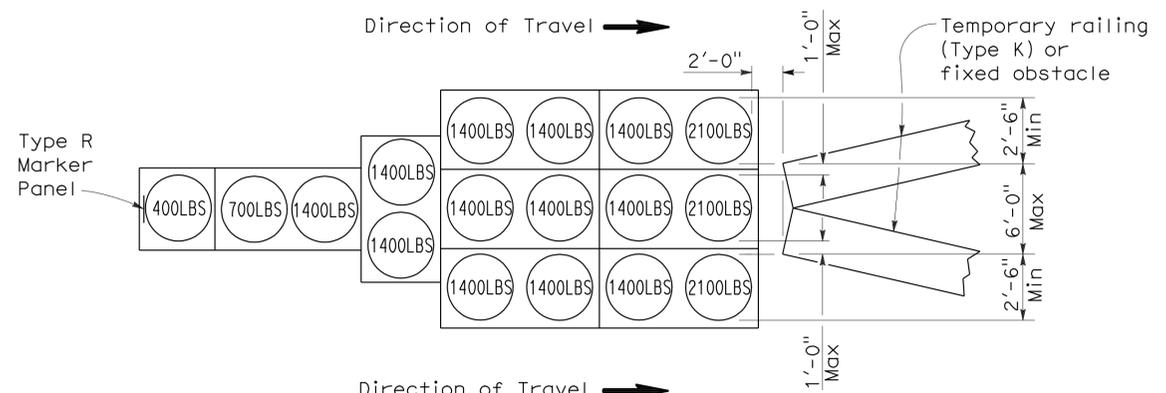
**ARRAY 'TU11'**

Approach speed less than 45 mph



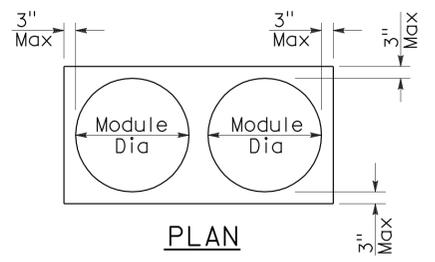
**ARRAY 'TU21'**

Approach speed 45 mph or more

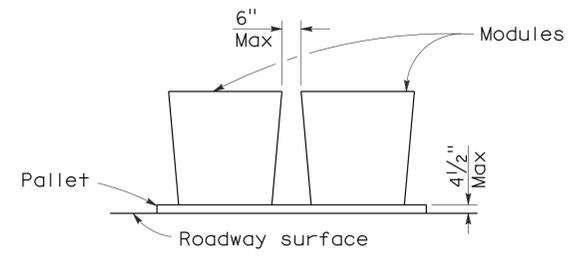


**ARRAY 'TU17'**

Approach speed less than 45 mph



**PLAN**



**ELEVATION**

**CRASH CUSHION PALLET DETAIL**

See Note 7

**NOTES:**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(UNIDIRECTIONAL)**

NO SCALE

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

**REVISED STANDARD PLAN RSP T1A**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	65	76

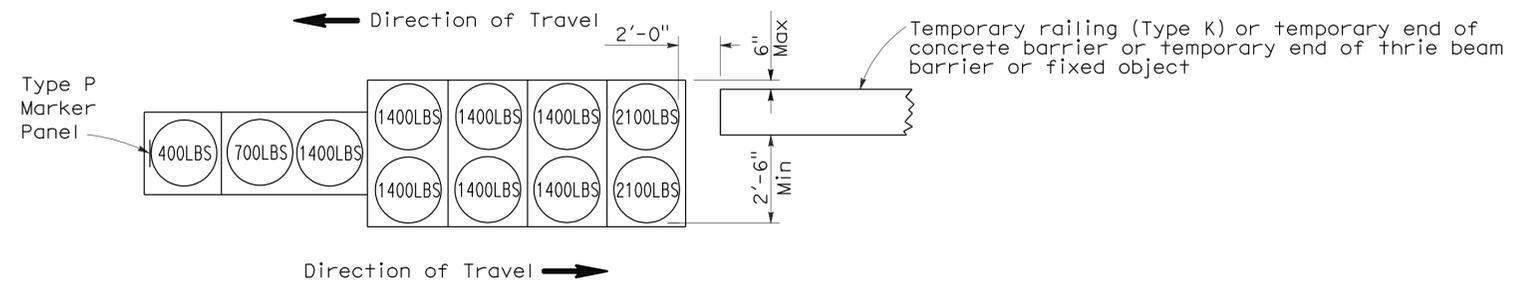
*Randell D. Hiatt*  
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June 6, 2008  
PLANS APPROVAL DATE

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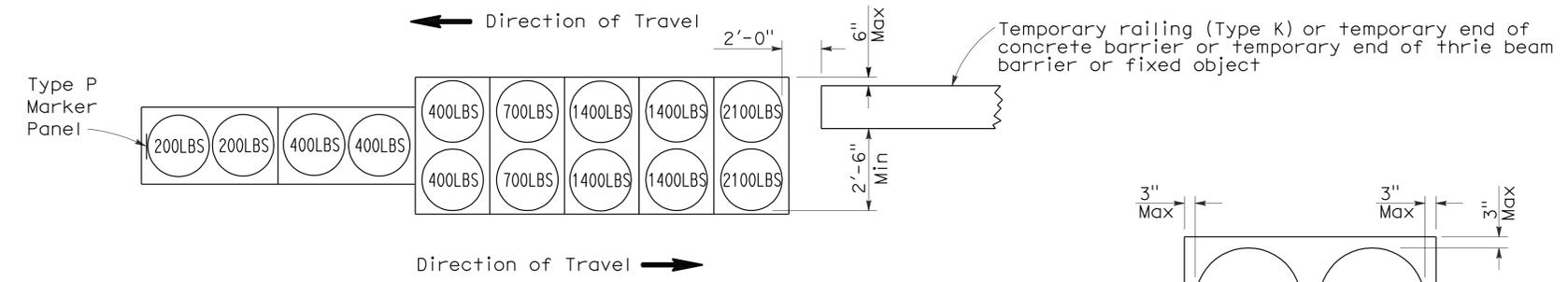
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

To accompany plans dated 5-26-09



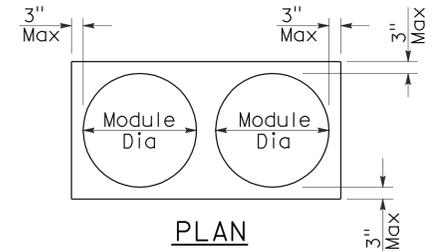
**ARRAY 'TB11'**

Approach speed less than 45 mph

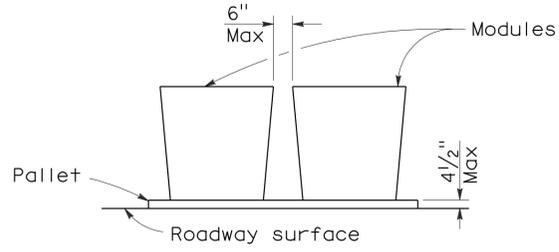


**ARRAY 'TB14'**

Approach speed 45 mph or more



PLAN



ELEVATION

**CRASH CUSHION PALLET DETAIL**

See Note 7

**NOTES:**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(BIDIRECTIONAL)**

NO SCALE

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

**REVISED STANDARD PLAN RSP T1B**

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI, SM	280,680	Var	66	76

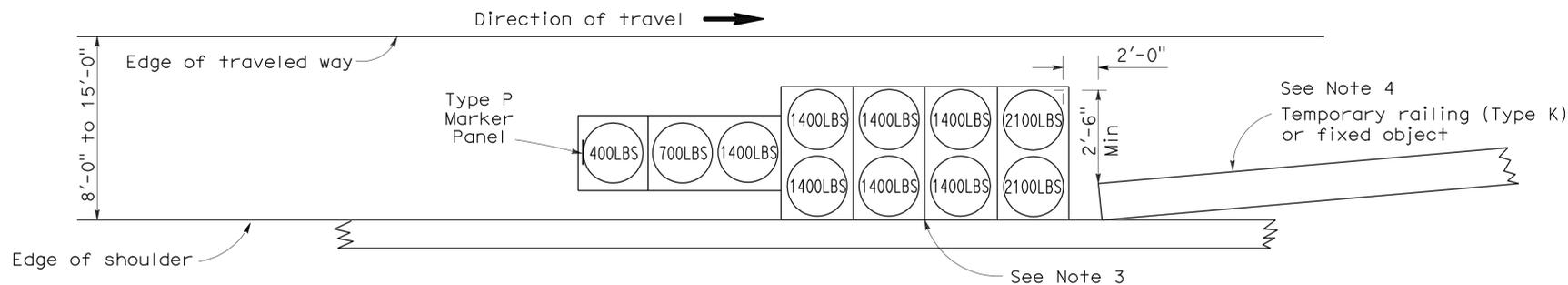
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

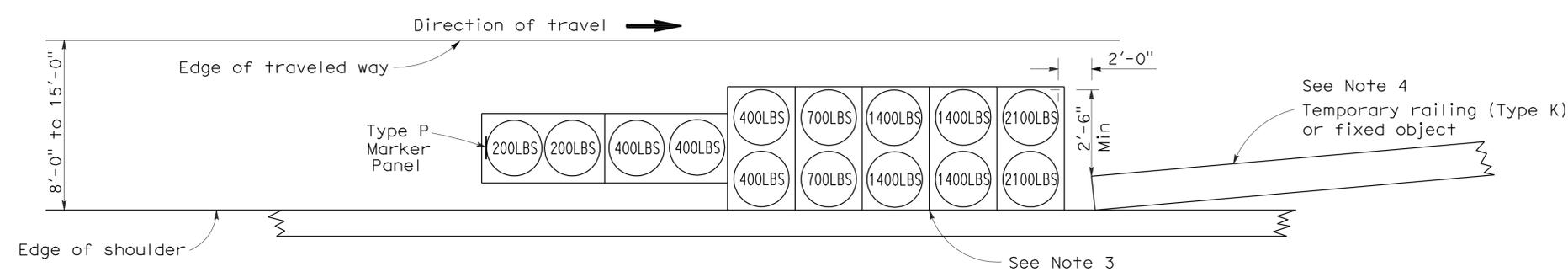
*Randell D. Hiatt*  
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

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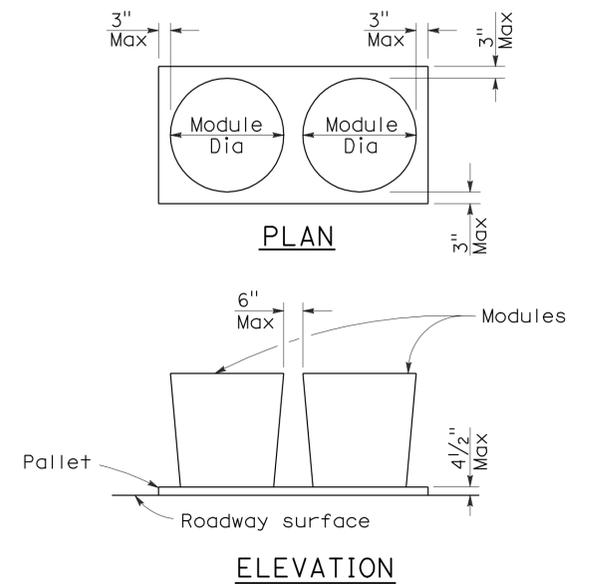
To accompany plans dated 5-26-09



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



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



**CRASH CUSHION PALLET DETAIL**  
See Note 11

**NOTES:**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY CRASH CUSHION,  
SAND FILLED  
(SHOULDER INSTALLATIONS)**

NO SCALE  
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2  
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP T2**

2006 REVISED STANDARD PLAN RSP T2

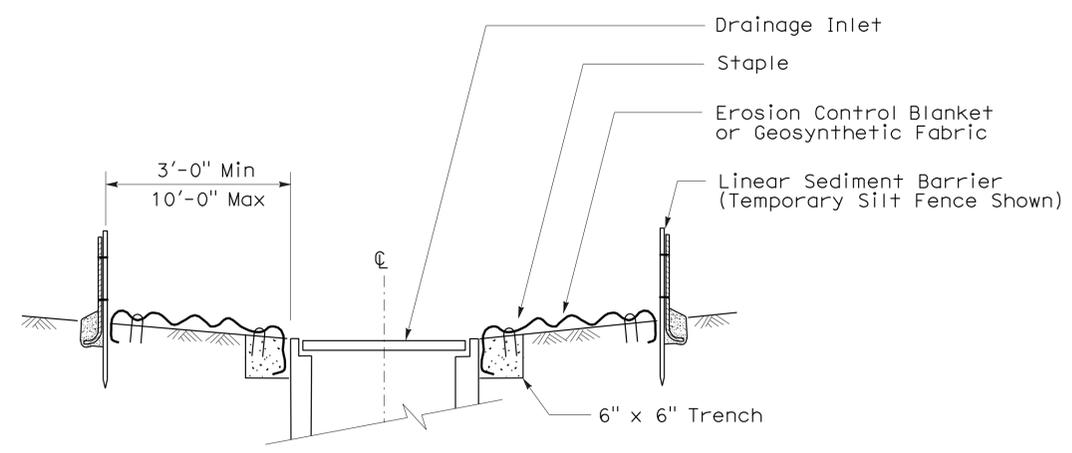
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	67	76

Robert B. Schott  
 LICENSED LANDSCAPE ARCHITECT  
 August 15, 2008  
 PLANS Approval DATE  
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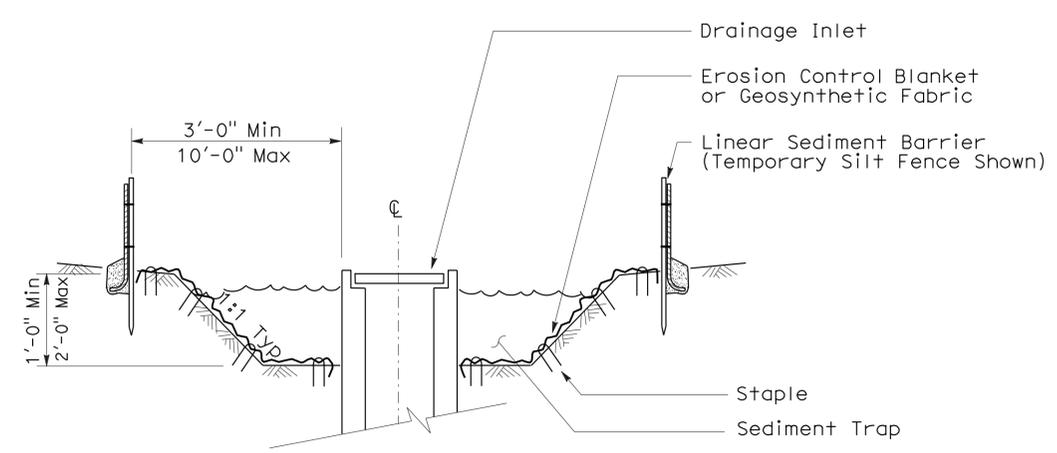


To accompany plans dated 5-26-09

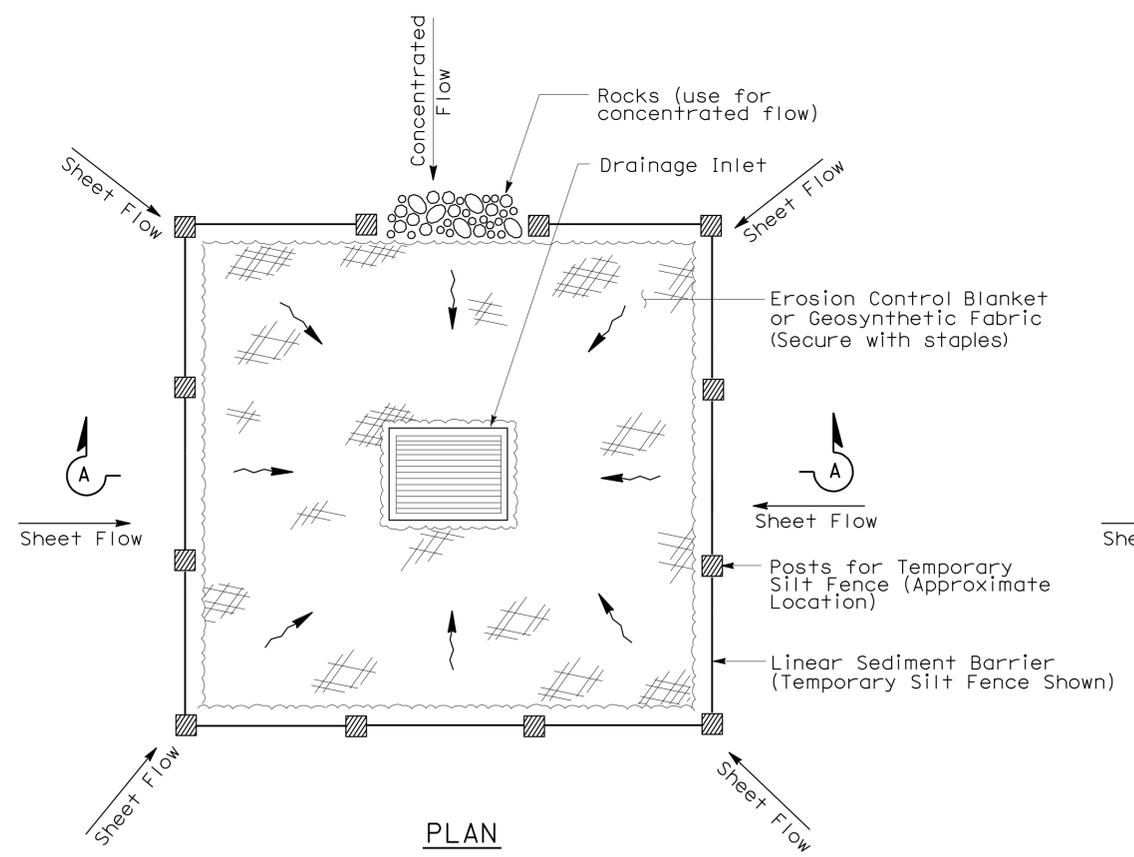
- NOTES:**
- See Standard Plan T51 for Temporary Silt Fence.
  - Dimensions may vary to fit field conditions.



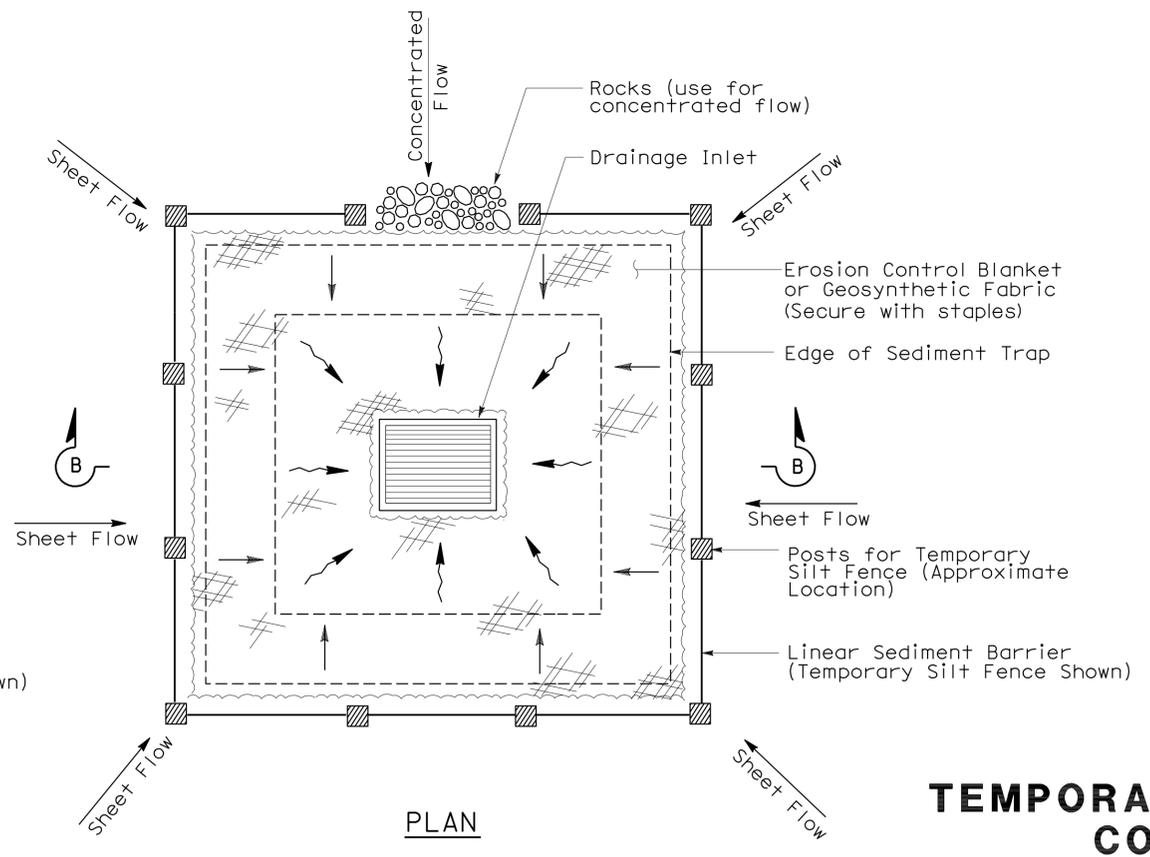
SECTION A-A



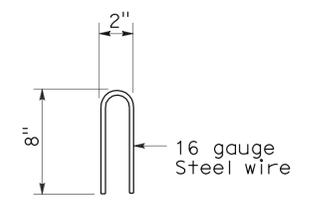
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)



STAPLE DETAIL

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T61 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T61

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	68	76

Robert B. Schott  
LICENSED LANDSCAPE ARCHITECT

August 15, 2008  
PLANS APPROVAL DATE

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

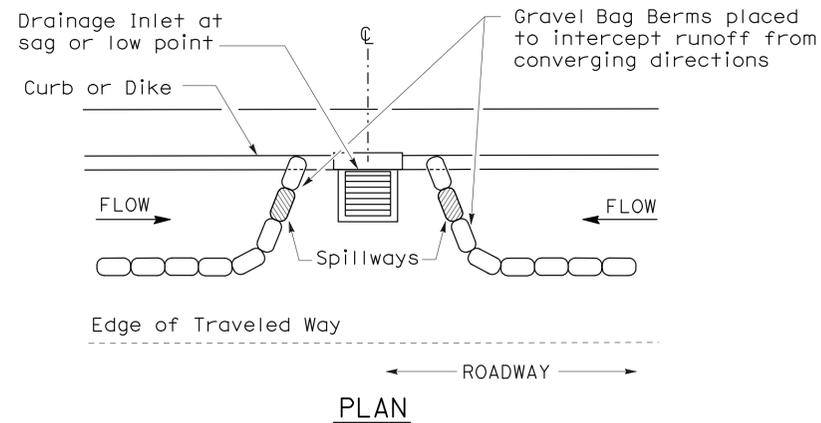
To accompany plans dated 5-26-09

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

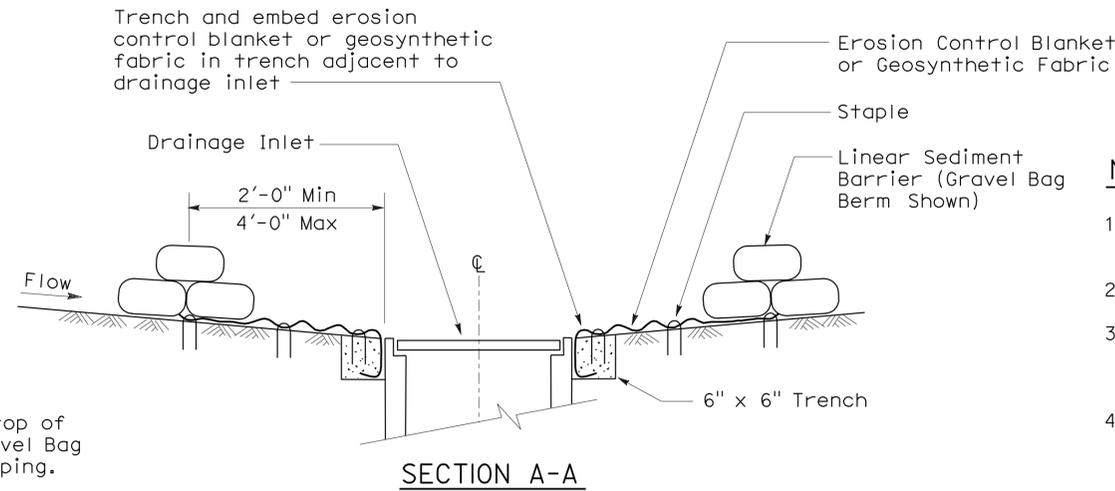
**GRAVEL BAG BERM (TYPE 3A) SPACING TABLE**

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

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



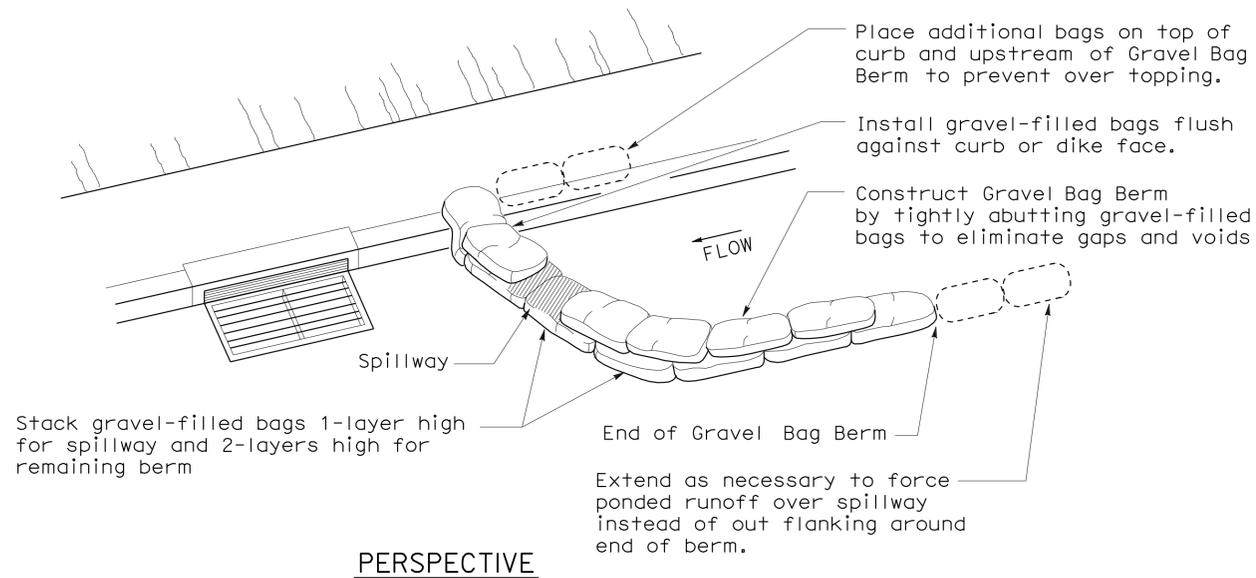
**PLAN**  
**CONFIGURATION FOR SAG POINT INLET**  
**(GRAVEL BAG BERM)**



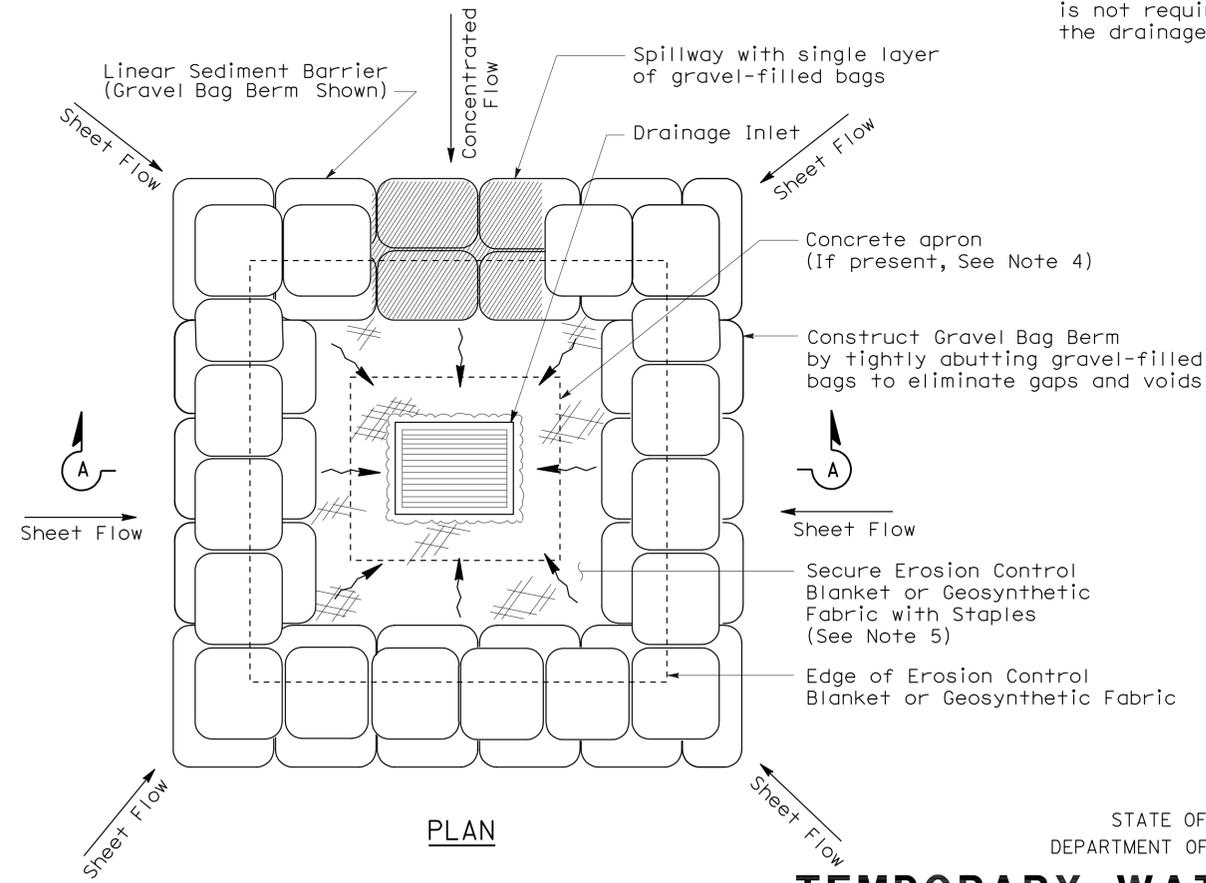
**SECTION A-A**

**NOTES:**

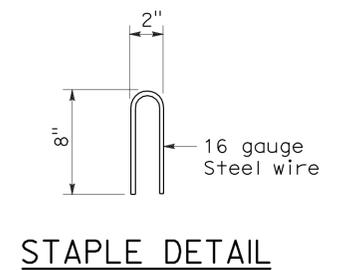
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



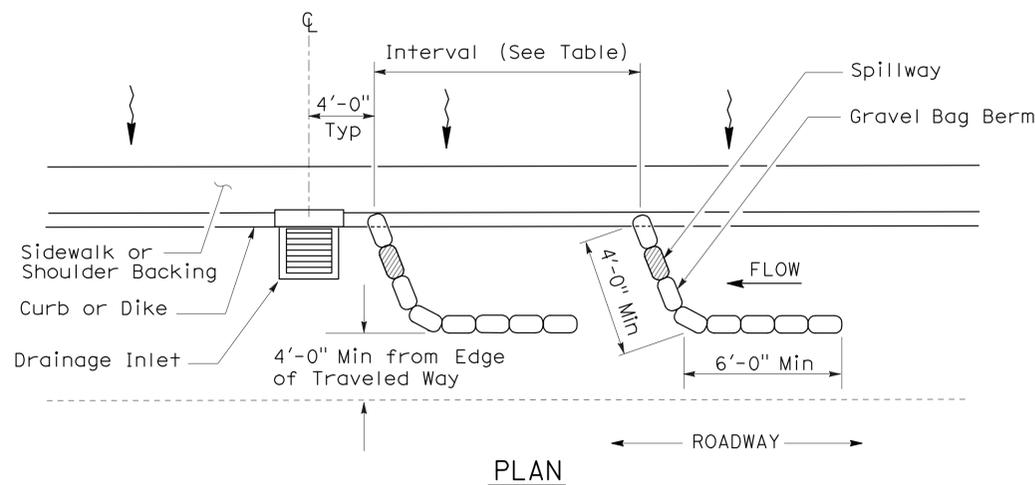
**PERSPECTIVE**



**PLAN**  
**TEMPORARY DRAINAGE**  
**INLET PROTECTION (TYPE 3B)**



**STAPLE DETAIL**



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

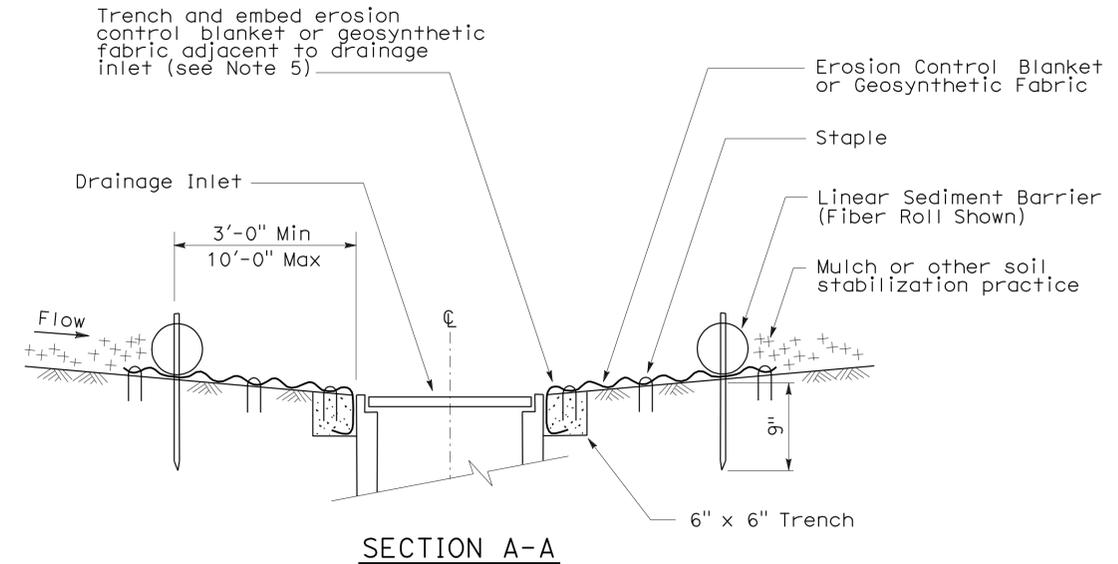
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY WATER POLLUTION**  
**CONTROL DETAILS**  
**(TEMPORARY DRAINAGE**  
**INLET PROTECTION)**

NO SCALE  
NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS  
THE STANDARD PLANS BOOK DATED MAY 2006.

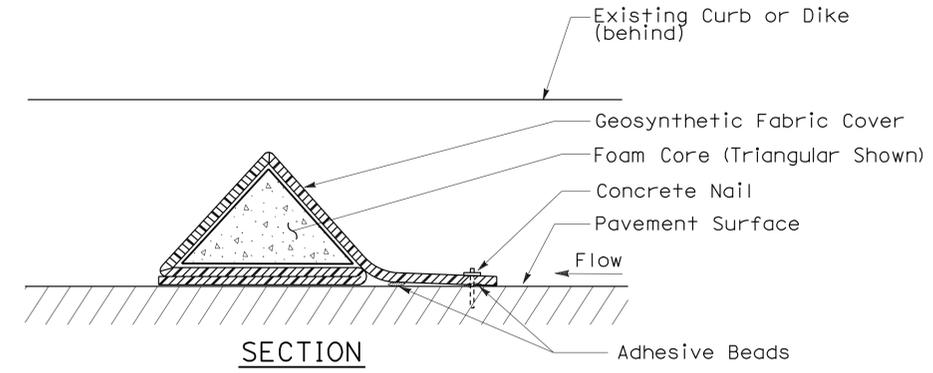
2006 NEW STANDARD PLAN NSP T62

**FLEXIBLE SEDIMENT BARRIER SPACING TABLE**

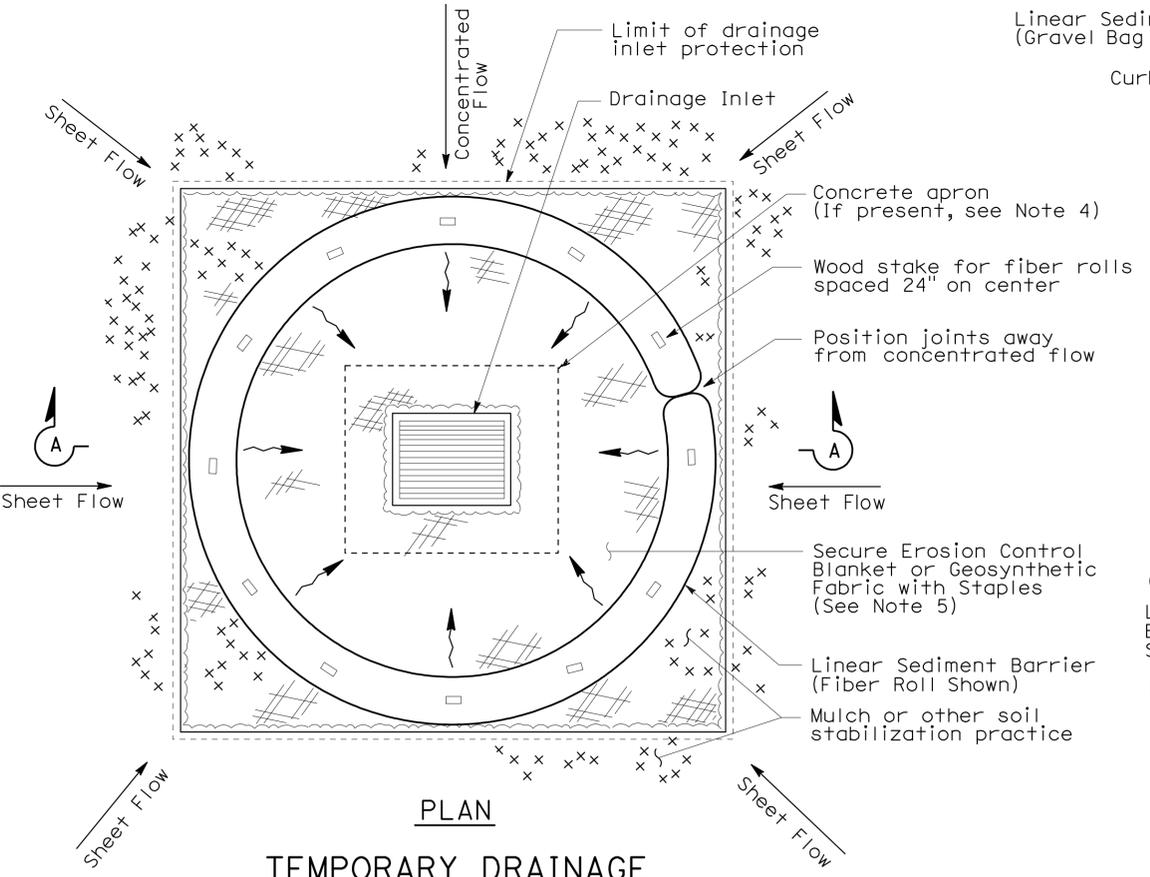
SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'



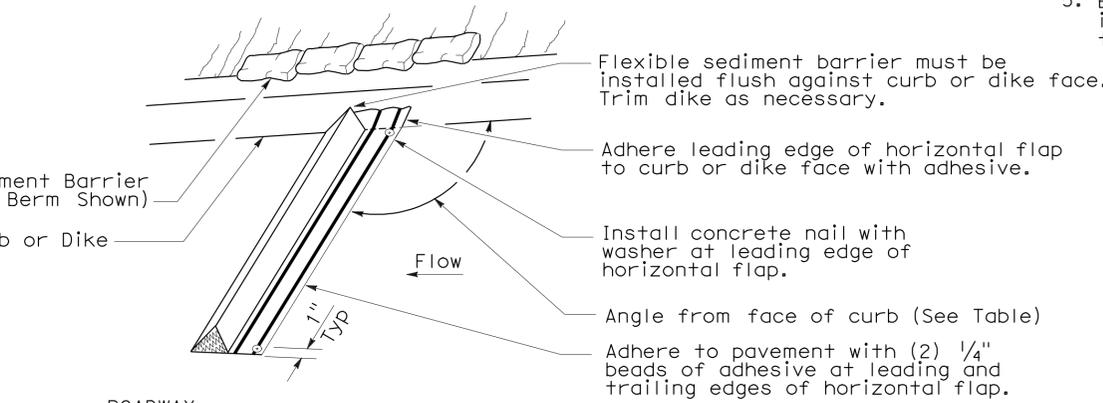
**SECTION A-A**



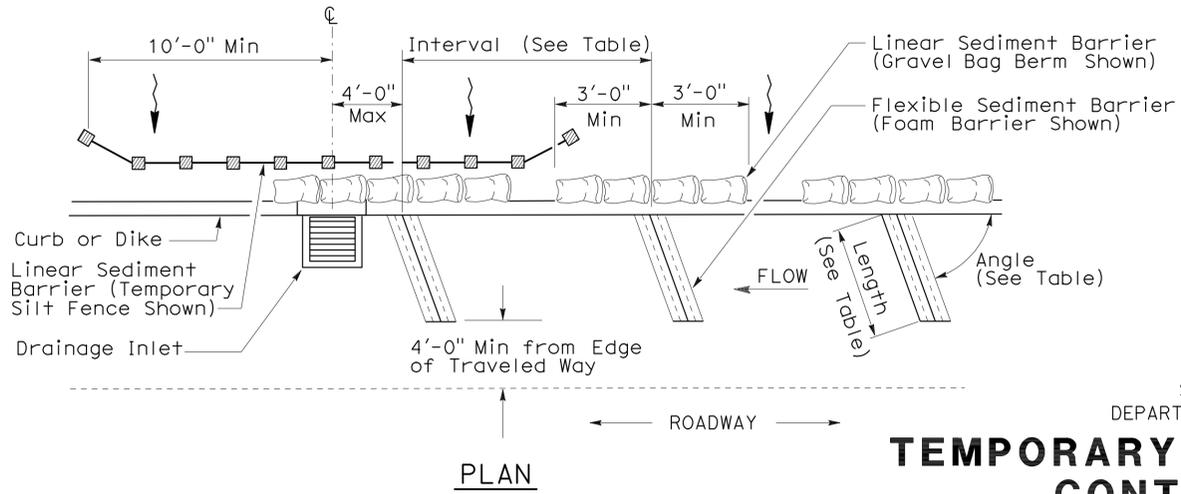
**FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)**



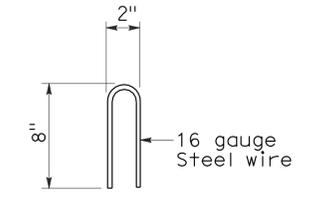
**TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)**



**PERSPECTIVE**



**TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4B) FLEXIBLE SEDIMENT BARRIER**



**STAPLE DETAIL**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)**

NO SCALE  
NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

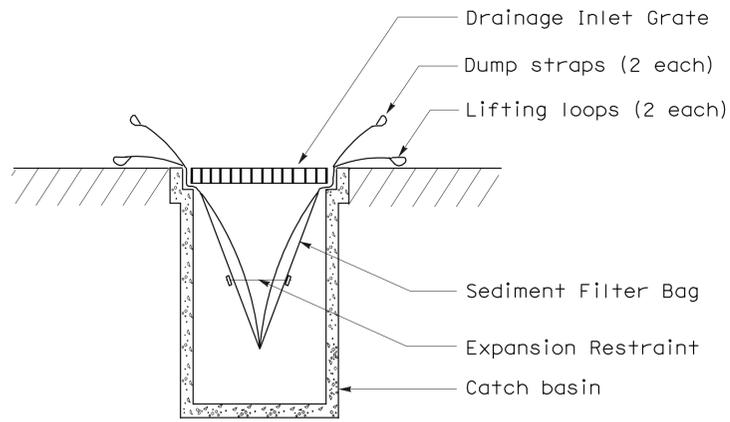
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	70	76

*Robert B. Schott*  
 LICENSED LANDSCAPE ARCHITECT

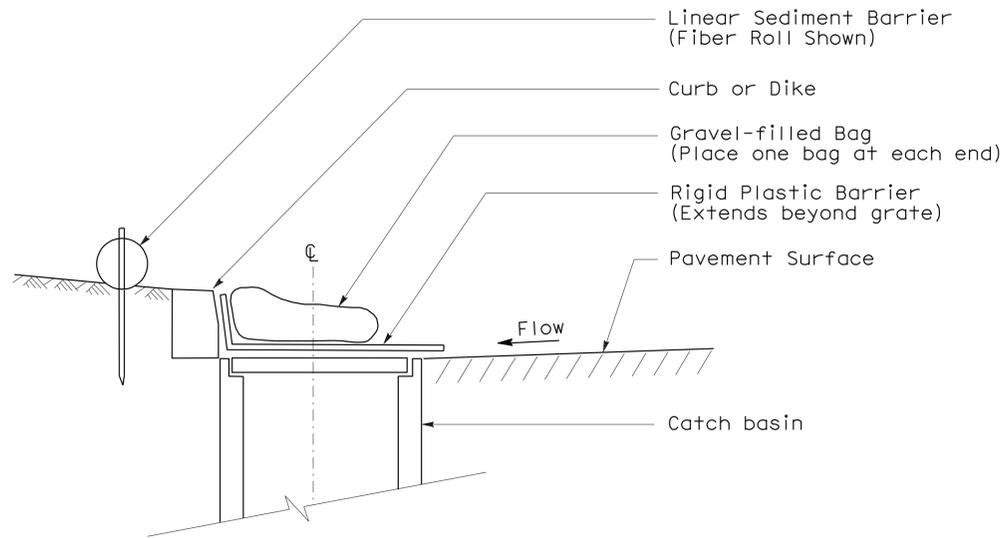
August 15, 2008  
 PLANS APPROVAL DATE

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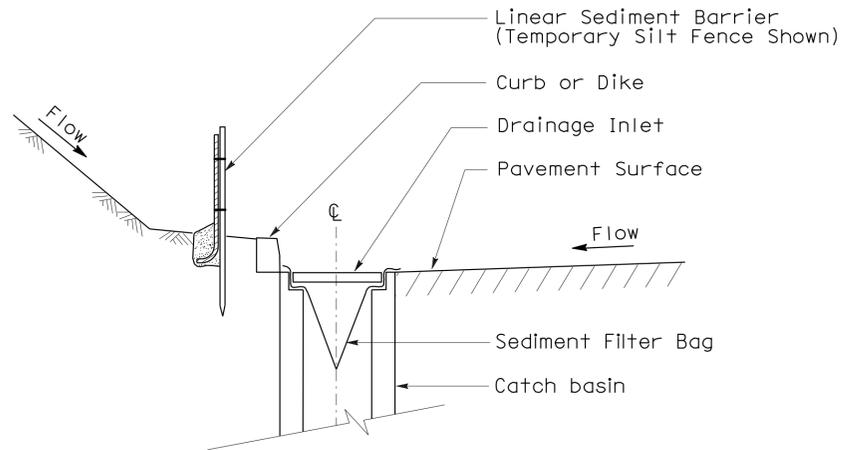
To accompany plans dated 5-26-09



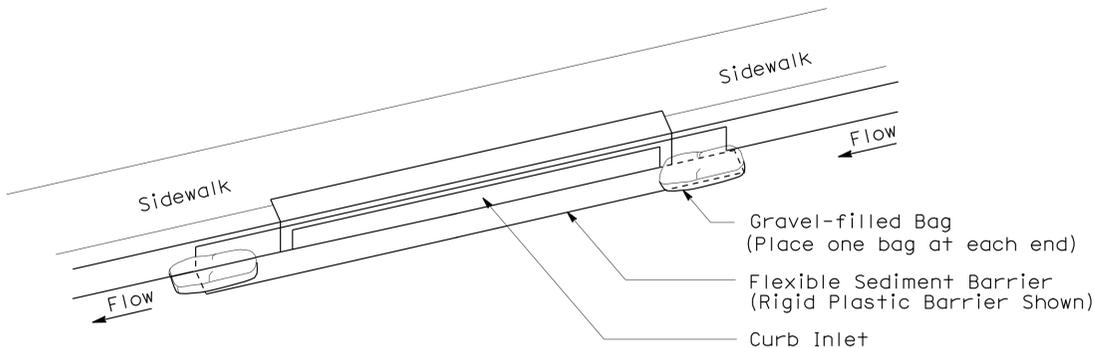
SECTION B-B  
SEDIMENT FILTER BAG DETAIL



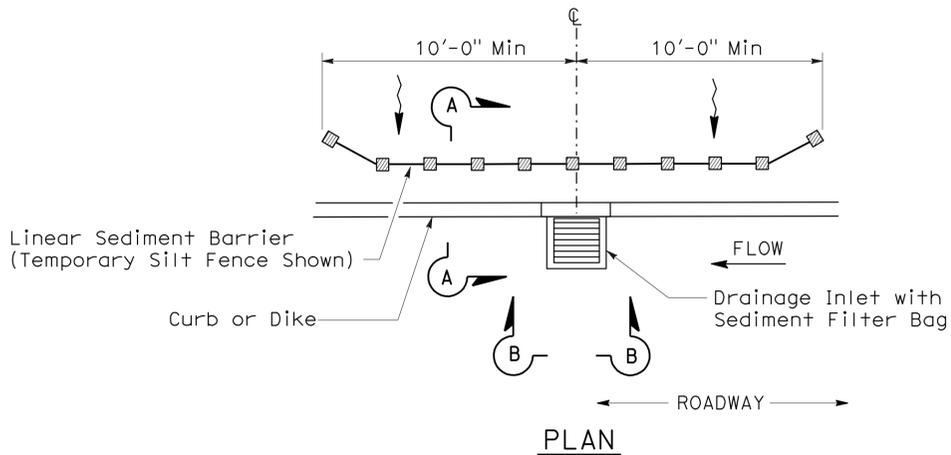
SECTION  
TEMPORARY DRAINAGE  
INLET PROTECTION (TYPE 6A)  
(CATCH BASIN WITH GRATE)



SECTION A-A



PERSPECTIVE



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

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

**NOTES:**

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**TEMPORARY WATER POLLUTION  
 CONTROL DETAILS  
 (TEMPORARY DRAINAGE  
 INLET PROTECTION)**

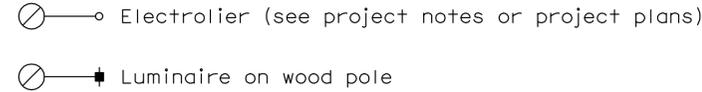
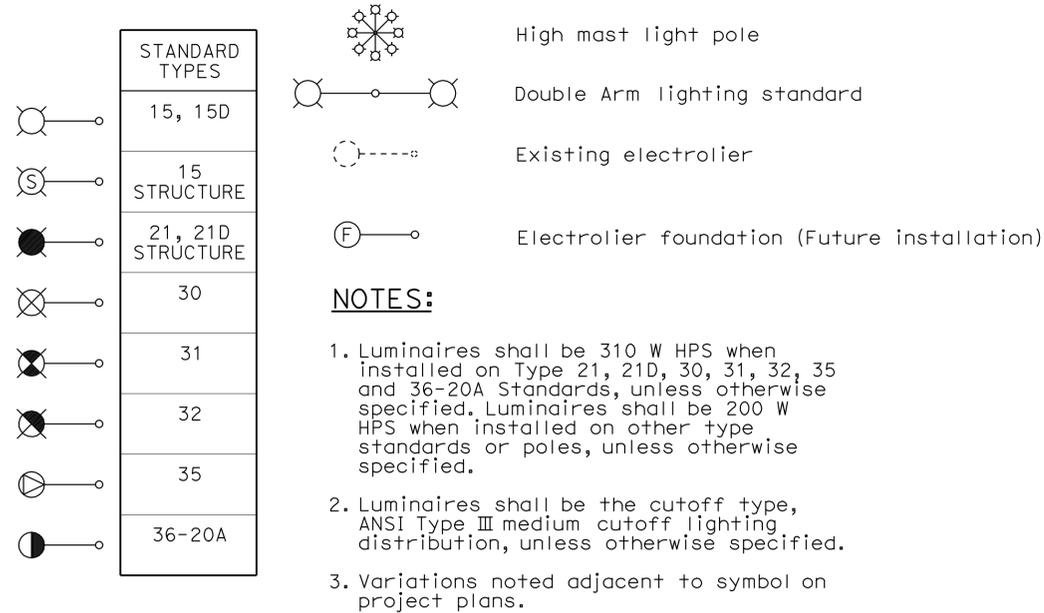
NO SCALE

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

**NEW STANDARD PLAN NSP T64**

2006 NEW STANDARD PLAN NSP T64

# ELECTROLIERS



## STANDARD NOTES:

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

# ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

## PROPOSED EXISTING

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI, SM	280,680	Var	71	76

*Jeffery G. McRae*  
REGISTERED ELECTRICAL ENGINEER

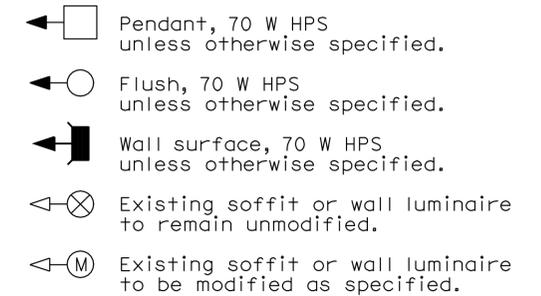
October 5, 2007  
PLANS APPROVAL DATE

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

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To accompany plans dated 5-26-09

## SOFFIT AND WALL MOUNTED LUMINAIRES



### NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

**REVISED STANDARD PLAN RSP ES-1A**

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	72	76

Jeffrey G. McRae  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 5-26-09

### CONDUIT

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

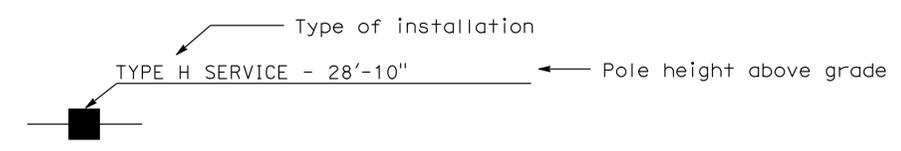
### SIGNAL EQUIPMENT

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

### SERVICE EQUIPMENT

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

### POLE-MOUNTED SERVICE DESIGNATION



### ILLUMINATED OVERHEAD SIGN

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

### SIGNAL EQUIPMENT Cont

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

### NOTES:

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

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

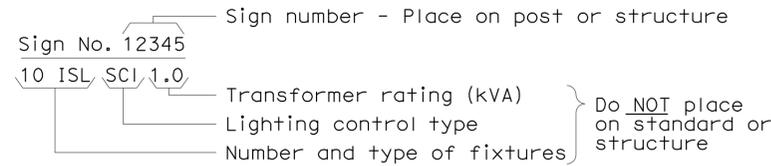
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1B**

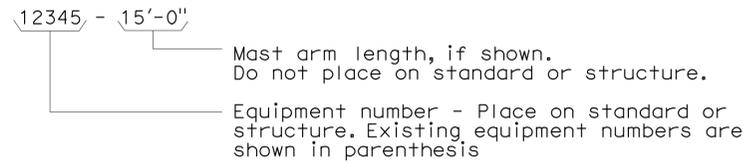
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

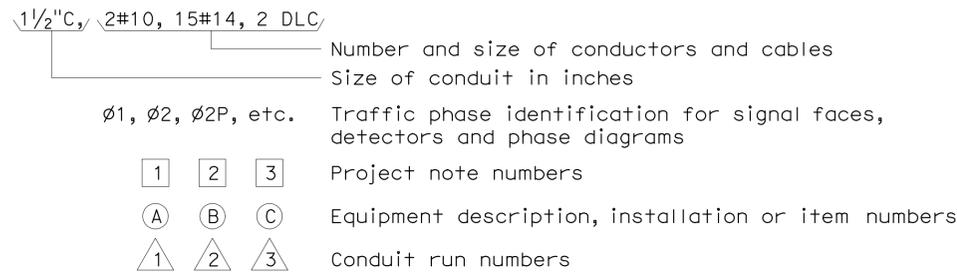
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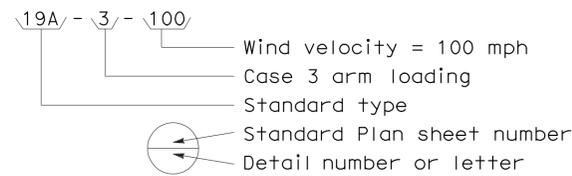
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



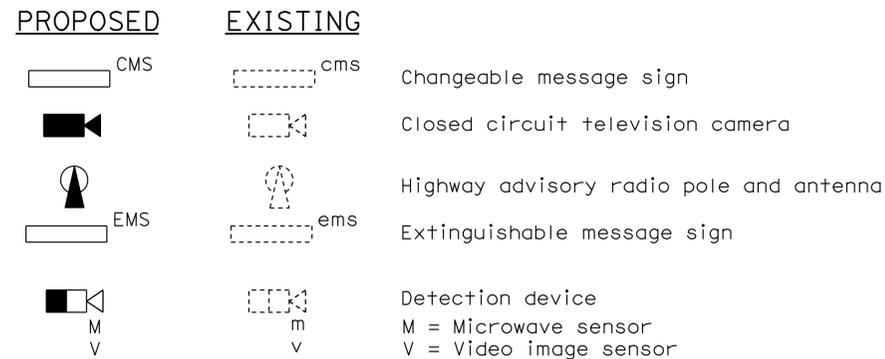
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



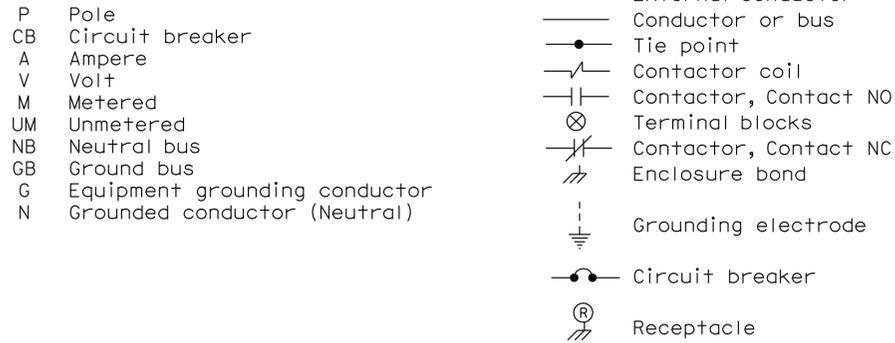
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



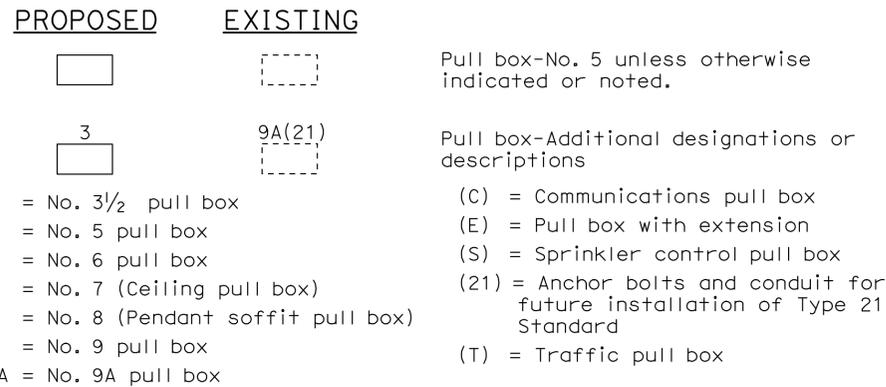
### MISCELLANEOUS EQUIPMENT



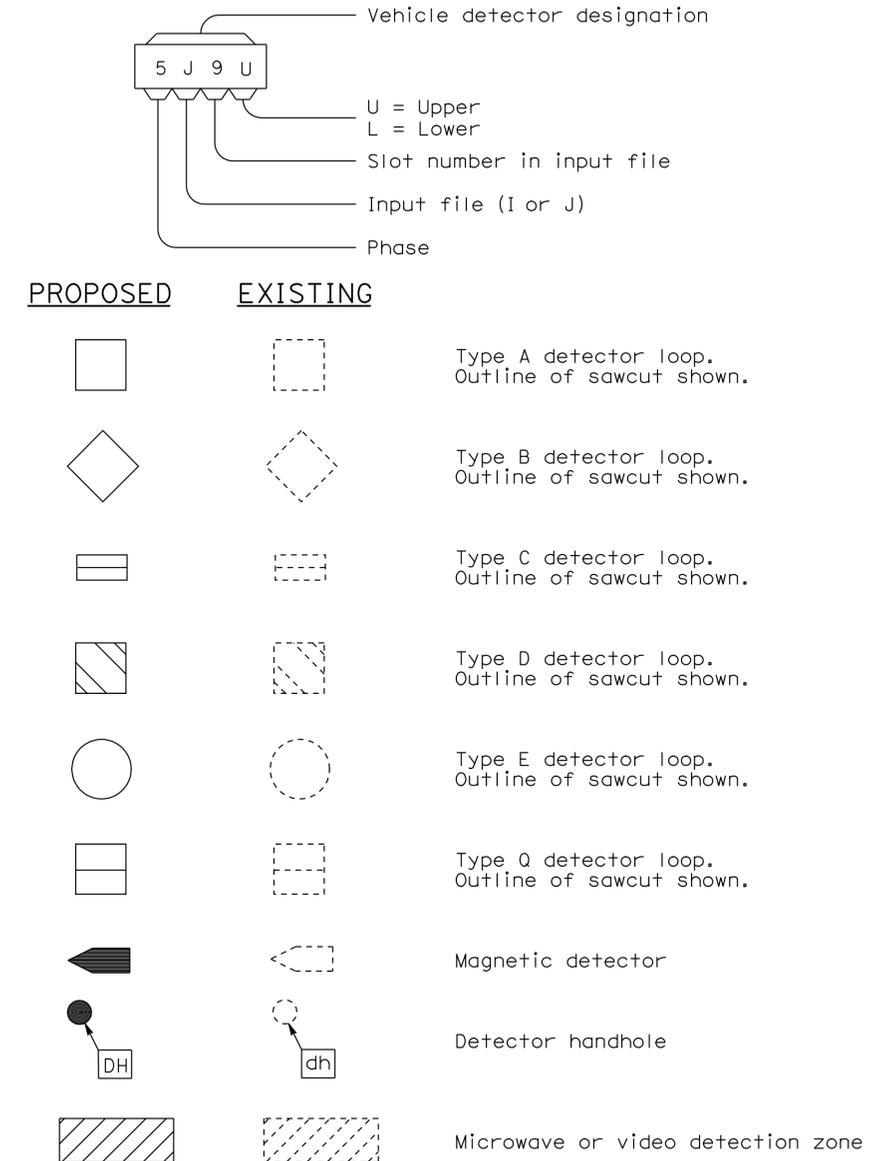
### WIRING DIAGRAM LEGEND



### PULL BOXES



### VEHICLE DETECTORS



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

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

**REVISED STANDARD PLAN RSP ES-1C**

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	74	76

*Jeffery G. McRae*  
 REGISTERED ELECTRICAL ENGINEER

October 5, 2007  
 PLANS APPROVAL DATE

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

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**NOTES-TYPE III SERVICE EQUIPMENT ENCLOSURES:**

1. Service equipment enclosure and metering equipment shall meet the requirements of the service utility. The meter area shall have a sealable, lockable, weathertight cover that can be removed without the use of tools.
2. Service equipment enclosures shall be factory wired and conform to NEMA standards.
3. Dimensions of service equipment enclosures shall meet the requirements of the service utility.
4. The dead front panels on Type III service equipment enclosures shall have a continuous stainless steel or aluminum piano hinge. The panel in front of the breakers shall be secured with a latch or captive screws. No live parts shall be mounted on the dead front panel.
5. The exterior door shall have provisions for padlocking. The padlock hole shall be a minimum diameter of  $\frac{1}{16}$ ".
6. Enclosures housing transformers of more than one kVA shall have effective screened ventilation louver of not less than 50 square inches. Screen shall be stainless steel No. 304, with a No. 10 size mesh. Framed screen shall be secured with at least four bolts.
7. Fasteners on the exterior of the enclosure shall be vandal-resistant and shall not be removable from the exterior. Exterior screws, nuts, bolts and washers shall be stainless steel.
8. Landing lugs for incoming service conductors shall be compatible with either copper or aluminum conductors sized to suit the conductors shown on the plan. Landing lugs shall be copper or tin-plated aluminum. Neutral bus shall be rated for 125 A and be suitable for copper or aluminum conductors unless otherwise specified. The terminal shall include but not be limited to:
  - a) Incoming terminals (landing lugs)
  - b) Neutral lugs
  - c) Solid neutral terminal strip
9. At least 6 standard single pole circuit breaker spaces,  $\frac{3}{4}$ " nominal, shall be provided for branch circuits. Circuit breaker interiors shall be copper. Interiors of enclosure shall accept plug-in or cable-in/cable-out circuit breakers.
10. Control wiring shall be 600 V, 14 stranded machine tool wire. Where subject to flexing, 19 strand wire shall be used.
11. Main bus shall be rated for 125 A and shall be tin-plated copper.
12. A plastic laminated wiring diagram shall be provided with brass mounting eyelets and attached to the inside of the enclosure and the wiring diagram shall be affixed to the interior with a UL or ETL approved method.

13. An engraved phenolic nameplate on the dead front panel indicating the function of each circuit or device shall be installed with stainless steel rivets or stainless steel screws:
  - a) Adjacent to the breaker or device with character size a minimum of  $\frac{1}{8}$ ".
  - b) At the top of the exterior door panel indicating State system number, voltage level and number of phases with character size a minimum of  $\frac{3}{16}$ ".
14. The plan shows the approximate location of devices within the enclosure. Components may be rearranged, however, the "working" clearances within the service equipment enclosure shall be maintained.
15. In unpaved areas a raised portland cement concrete pad 2'-0" x 4" x width of foundation shall be constructed in front of new service equipment enclosure installation. Pad shall be set to elevation of foundation.
16. Foundation shall extend 2" minimum beyond edge of service equipment enclosure.
17. Internal bus, where shown, is typical only. Alternative design of proposed service equipment enclosure shall be submitted to the Engineer for approval.
18. Plug-in circuit breakers may be mounted in the vertical or horizontal position. Cable-in/cable-out circuit breakers shall be mounted in the vertical position.
19. Type III-AF and Type III-BF service equipment enclosures shall have the meter viewing windows located on the front side of the service equipment enclosures.
20. Type III-AR and Type III-BR service equipment enclosures shall be similarly constructed as Type III-AF and Type III-BF respectively, except the meter viewing windows shall be located on the back side of the service equipment enclosures.
21. Minimum clearance shall be required for front and back of service equipment enclosure per National Electrical Code, Article 110.26, "Spaces About Electric Equipment (600 Volts, Nominal, or Less)."

To accompany plans dated 5-26-09

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS  
 (SERVICE EQUIPMENT NOTES  
 TYPE III SERIES)**

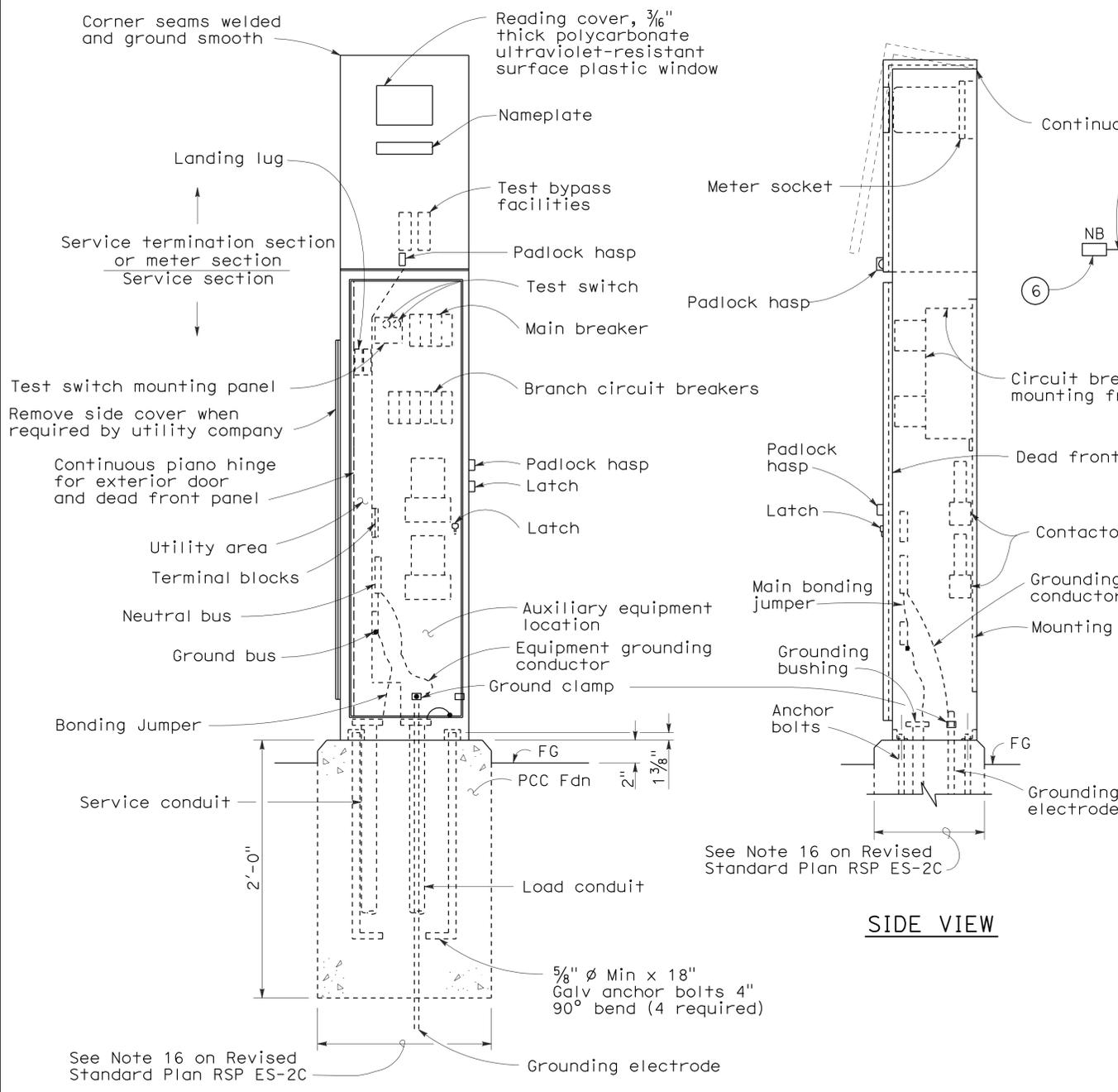
NO SCALE

RSP ES-2C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2C  
 DATED MAY 1, 2006 - PAGE 405 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-2C**

2006 REVISED STANDARD PLAN RSP ES-2C

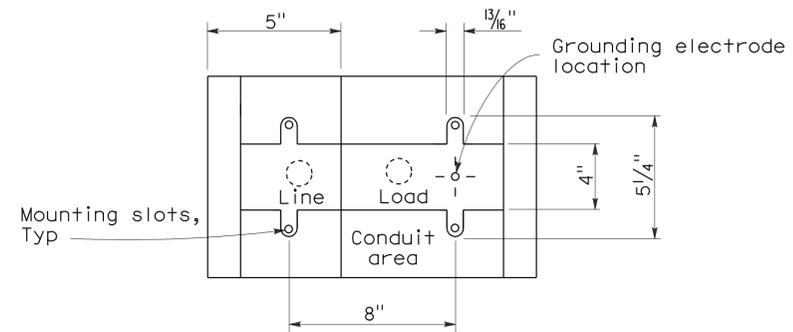
2006 REVISED STANDARD PLAN RSP ES-2D



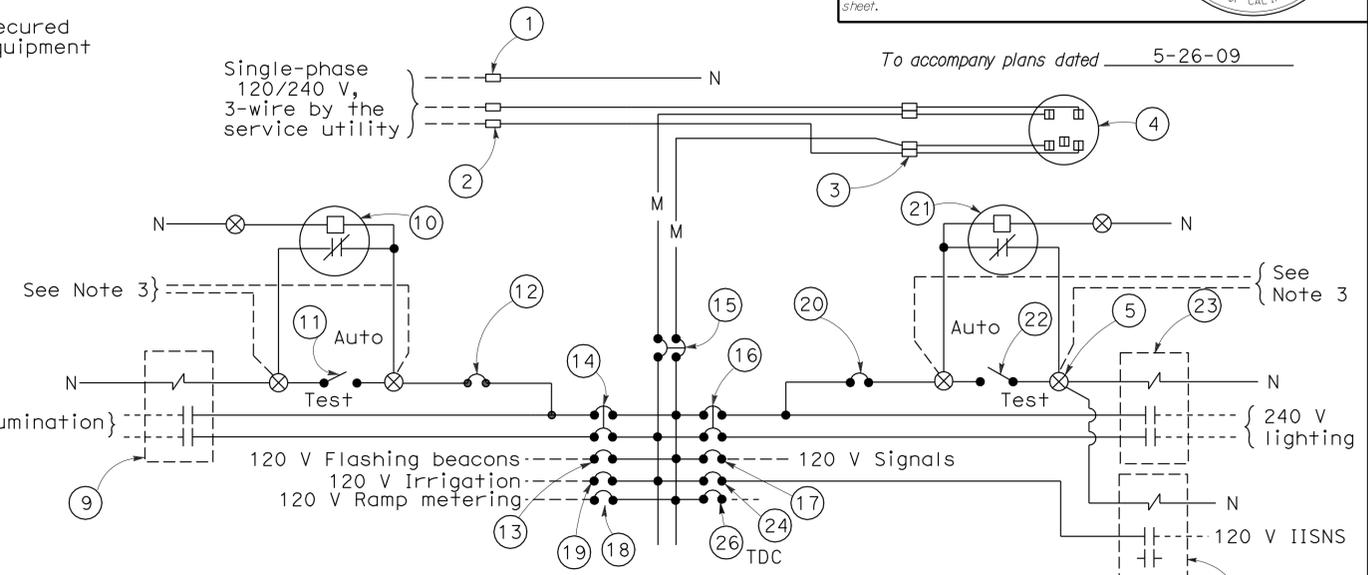
**TYPE III-AF SERVICE EQUIPMENT ENCLOSURE (TYPICAL)**

**FRONT VIEW**

**SIDE VIEW**



**BASE FOR TYPE III-A SERVICE EQUIPMENT ENCLOSURE**



**120/240 V SERVICE WIRING DIAGRAM (TYPICAL)**

TYPE III-A SERVICE (120/240 V) EQUIPMENT LEGEND					
ITEM No.	COMPONENT	NAME PLATE DESCRIPTION	ITEM No.	COMPONENT	NAME PLATE DESCRIPTION
1	Neutral lug		14	30 A, 240 V, 2P, CB	Sign Illumination
2	Landing lug (Note 6)		15	100 A, 240 V, 2P, CB	Main Breaker
3	Test bypass facility		16	30 A, 240 V, 2P, CB	Lighting
4	Meter socket and support		17	50 A, 120 V, 1P, CB	Signals
5	Terminal blocks		18	30 A, 120 V, 1P, CB	Ramp Metering
6	Neutral bus		19	20 A, 120 V, 1P, CB	Irrigation
7	Ground bus		20	15 A, 120 V, 1P, CB	Lighting Control
8	Grounding electrode		21	Photoelectric unit (Note 7)	
9	30 A, 2PNO Contactor	Sign Illumination	22	15 A, 1P, Test switch	Lighting Test Switch
10	Photoelectric unit (Note 7)		23	60 A, 2PNO Contactor	Lighting
11	15 A, 1P, Test switch	Sign Illumination Test Switch	24	15 A, 120 V, 1P, CB	IISNS
12	15 A, 120 V, 1P, CB	Sign Illumination Control	25	30 A, 2PNO Contactor	IISNS
13	15 A, 120 V, 1P, CB	Flashing Beacon	26	20 A, 120 V, 1P, CB	Telephone Demarcation Cabinet

**NOTES: (FOR SERVICE EQUIPMENT ENCLOSURE)**

- Voltage ratings of service equipment shall conform to the service voltages indicated on the plans.
- Unless otherwise indicated on the plans, service equipment items shall be provided for each service equipment enclosure as shown.
- Connect to remote test switch mounted on lighting standards, sign post or structure when required.
- Items No. 1 and 6 shall be isolated from the service equipment enclosure.
- Meter sockets shall be 5 clip type.
- The landing lug shall be suitable for multiple conductors.
- Type I photoelectric control shall be used unless otherwise indicated on the plans.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS  
(SERVICE EQUIPMENT AND  
TYPICAL WIRING DIAGRAM,  
TYPE III-A SERIES)**

NO SCALE

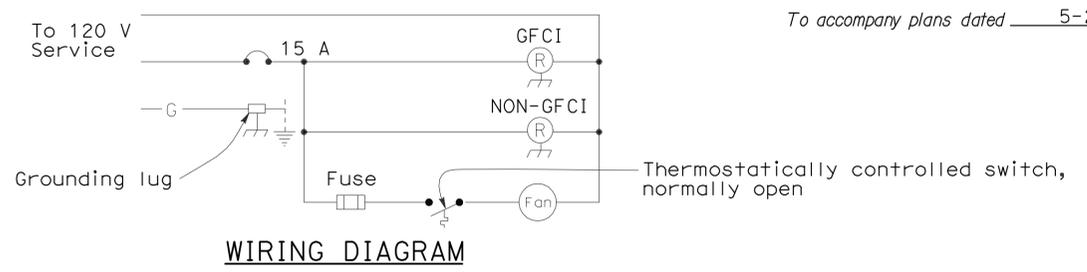
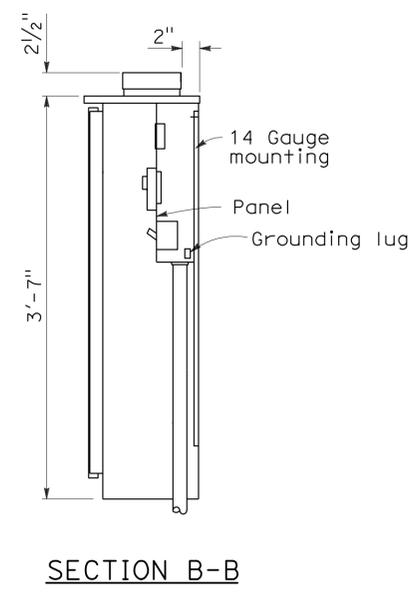
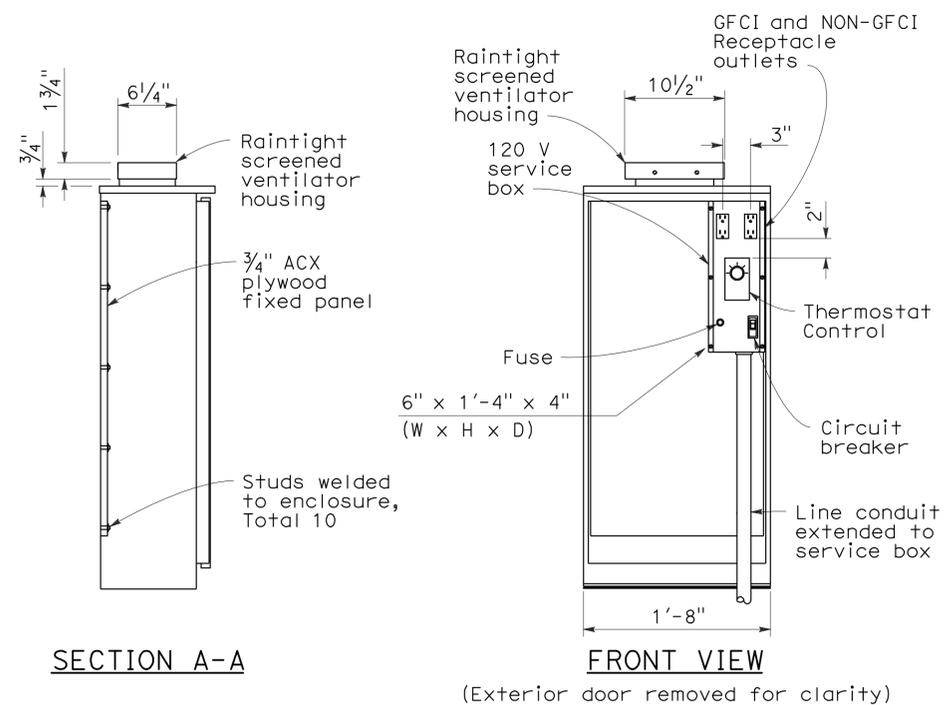
RSP ES-2D DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2D DATED MAY 1, 2006 - PAGE 406 OF THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SCI,SM	280,680	Var	76	76

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

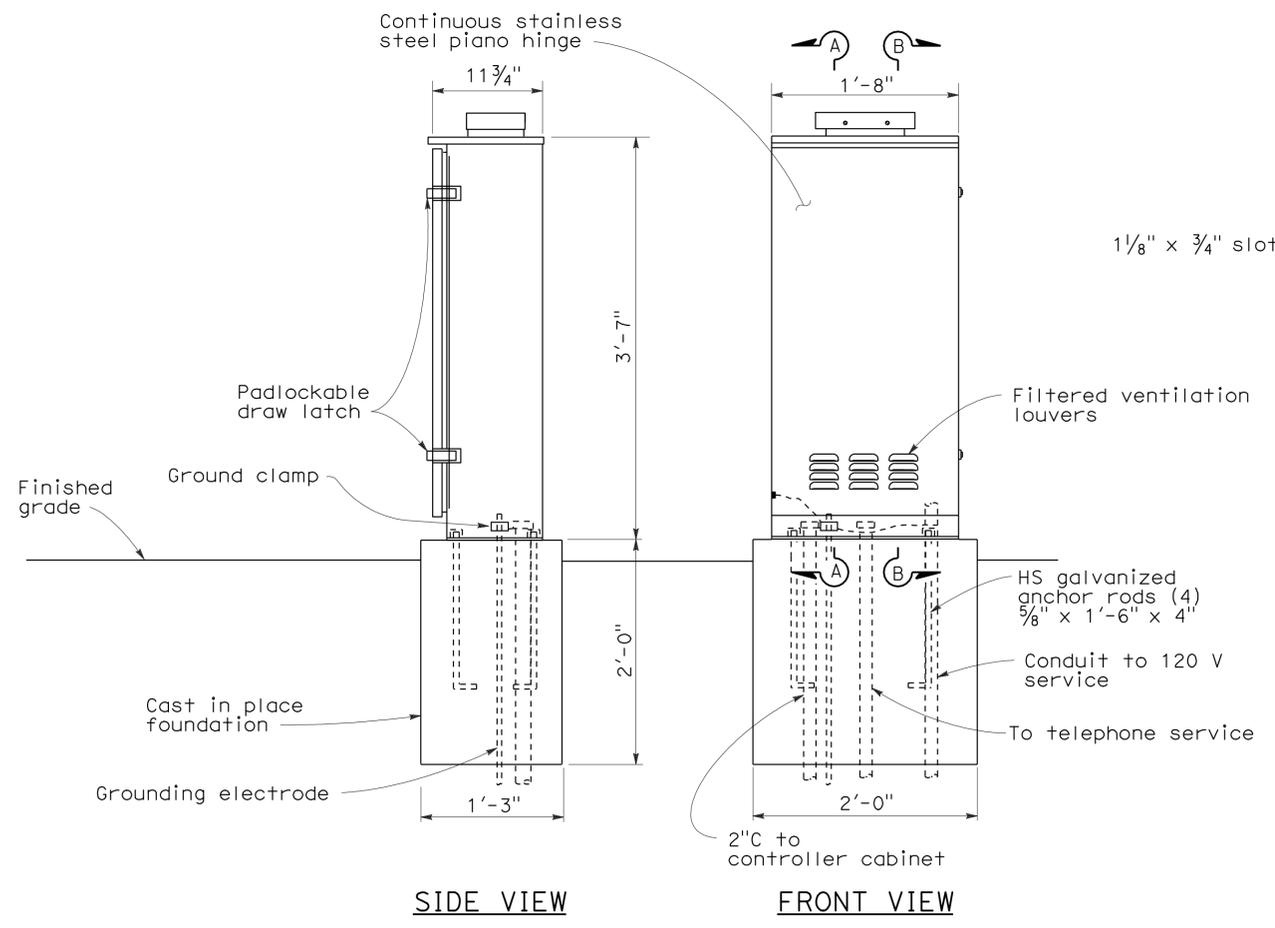
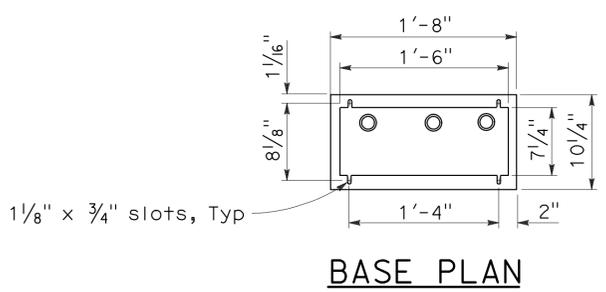
October 5, 2007  
 PLANS APPROVAL DATE

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**NOTES:**

- Telephone demarcation cabinet shall be furnished with a mounting panel, outlets, circuit breaker and deadfront plates in place. Dimensions are nominal.
- An approved mastic or caulking compound shall be placed on the foundation prior to placing the cabinet to seal openings between the bottom of the cabinet and the foundation.
- In unpaved areas, a raised PCC pad shall be placed in front of the telephone demarcation cabinet. Pad shall be 2'-0" x 1'-10" x 4" thick, with 2" above the finished grade.
- All conduits shall be bonded to the enclosure.
- Telephone demarcation cabinet:
  - Material shall be anodized aluminum (1/8" thick).
  - Fabrication shall conform to the requirements of the Standard Specifications.
  - The exterior door shall be side hung and secured with a padlockable draw latch, the padlock hole shall be a minimum diameter of 7/16" to receive a padlock.
  - Ventilation louvers shall be located on the door.
  - Fan shall be mounted in a ventilator housing.
  - Fan shall be thermostatically controlled and adjustable to turn on between 80°F and 130°F.
  - Fan circuit shall be fused at 175 percent of the fan motor capacity.
  - Fan capacity shall be at least 25 cubic feet per minute.
  - Fasten fixed mounting panels with nuts, lock and flat washers to 3/16" ø x 1" studs welded to enclosure.



STATE OF CALIFORNIA  
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**ELECTRICAL SYSTEMS  
(TELEPHONE DEMARCATION  
CABINET, TYPE B)**

NO SCALE

RSP ES-3E DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-3E  
DATED MAY 1, 2006 - PAGE 414 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-3E