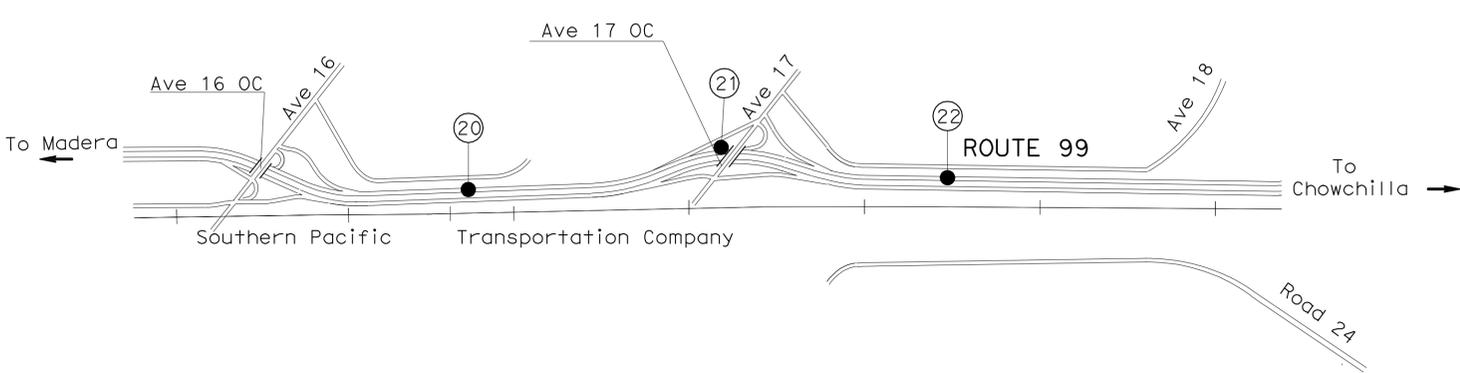
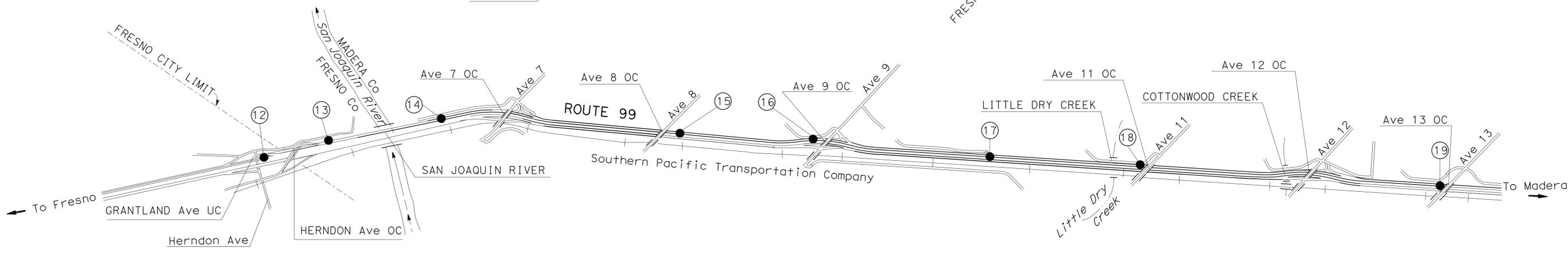
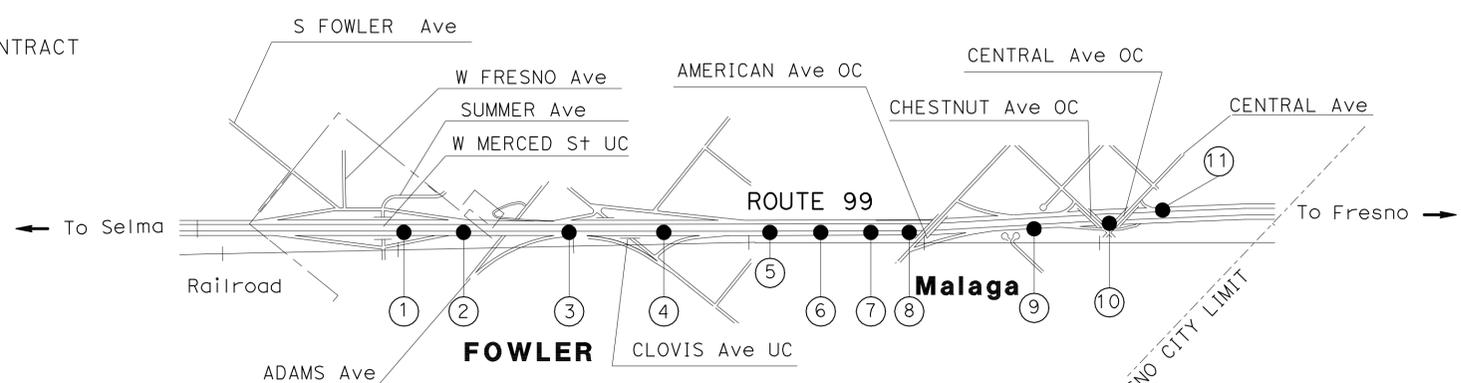
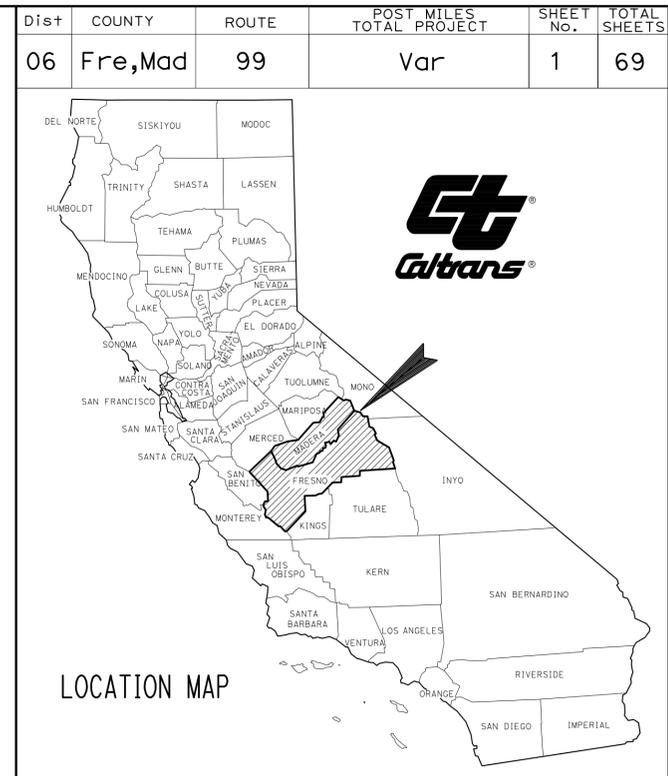
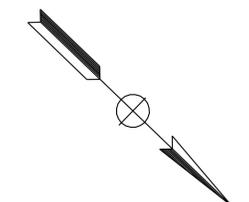


INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	CONSTRUCTION DETAILS
4	CONSTRUCTION AREA SIGNS
5	PLANT LIST
6-21	PLANTING PLANS
22-25	IRRIGATION PLANS
26	SPRINKLER SCHEDULE AND DETAILS
27-46	ELECTRICAL PLANS
47-48	STRUCTURE ELECTRICAL PLANS
49-69	REVISED AND NEW STANDARD PLANS

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

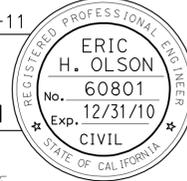
STATE OF CALIFORNIA ACNH-P099(554)E  
 DEPARTMENT OF TRANSPORTATION  
**PROJECT PLANS FOR CONSTRUCTION ON  
 STATE HIGHWAY  
 IN FRESNO AND MADERA COUNTIES  
 AT VARIOUS LOCATIONS**  
 TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



FRESNO COUNTY LOCATIONS OF CONSTRUCTION			
No.	PM	DIR	DESCRIPTION
①	10.95	NB	N/O Merced St
②	11.50	NB	N/O Merced St
③	12.00	NB	N/O Adams Ave
④	12.55	SB	N/O Clovis Ave
⑤	13.02	NB	N/O Clovis Ave
⑥	13.50	NB	S/O American Ave
⑦	14.00	NB	S/O American Ave
⑧	14.50	NB	S/O American Ave
⑨	15.00	NB	N/O American Ave
⑩	15.50	NB	N/O Chestnut Ave
⑪	16.20	SB	N/O Central Ave
⑫	30.50	SB	N/O Grantland Ave
⑬	31.43	SB	N/O Herndon Ave

MADERA COUNTY LOCATIONS OF CONSTRUCTION			
No.	PM	DIR	DESCRIPTION
⑭	0.47	SB	S/O Avenue 7
⑮	2.23	SB	N/O Avenue 8
⑯	3.56	SB	S/O Avenue 9
⑰	4.86	SB	N/O Avenue 9
⑱	6.13	SB	S/O Avenue 11
⑲	8.72	SB	S/O Avenue 13
⑳	13.50	SB	N/O Avenue 16
㉑	14.22	SB	S/O Avenue 17
㉒	14.95	SB	N/O Avenue 17

*Eric Olson* 06-30-11  
 PROJECT ENGINEER DATE  
 REGISTERED CIVIL ENGINEER  
**September 26, 2011**  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



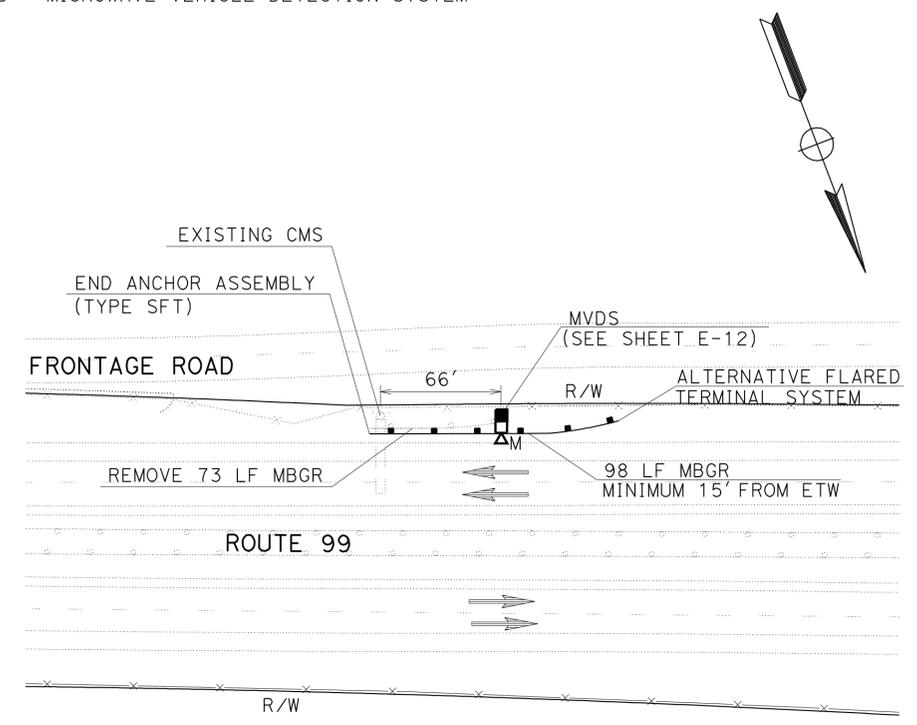
CONTRACT No. **06-0M7604**  
 PROJECT ID **0600020011**

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

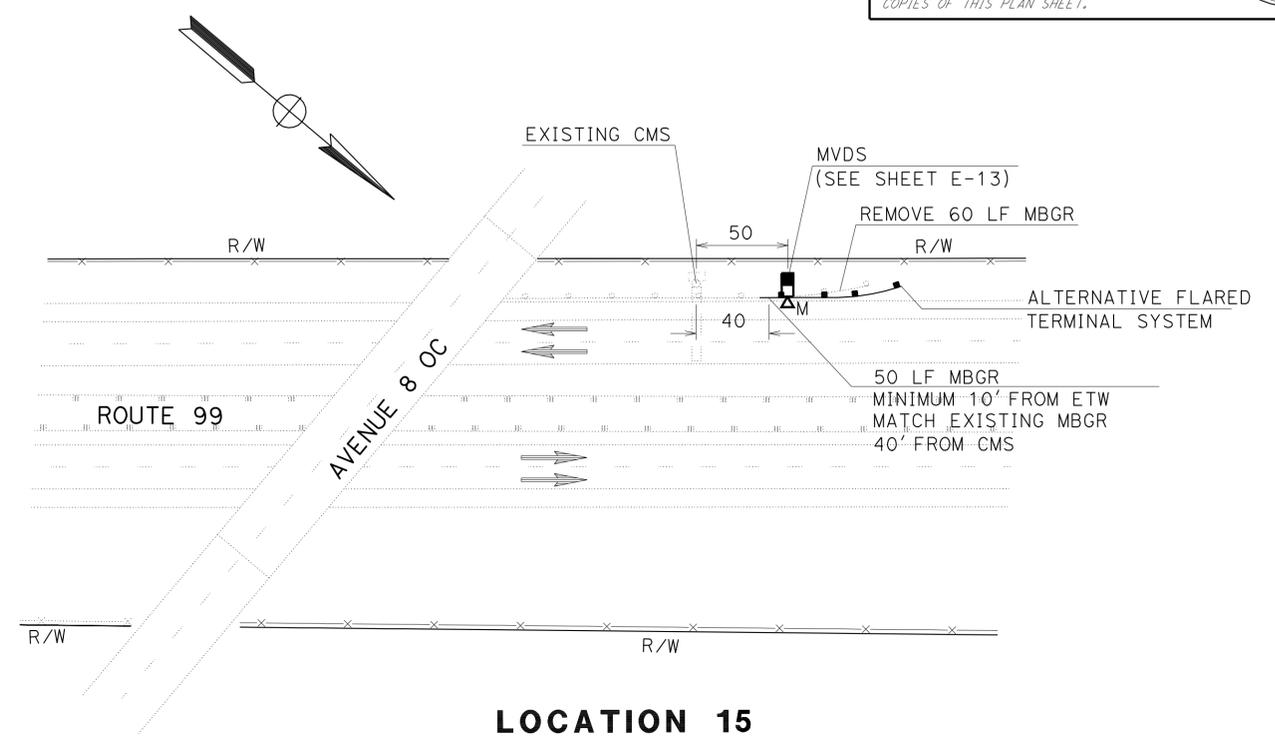
NO SCALE

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

**ABBREVIATION:**  
 MVDS - MICROWAVE VEHICLE DETECTION SYSTEM



**LOCATION 14**  
**Mad 99, PM 0.47**  
**SOUTH OF Ave 7**



**LOCATION 15**  
**Mad 99, PM 2.23**  
**NORTH OF Ave 8**

**MBGR QUANTITY TABLE**

LOCATION	Co	PM	REMOVE MBGR	MBGR (STEEL POST)	END ANCHOR ASSEMBLY (TYPE SFT)	ALTERNATIVE FLARED TERMINAL SYSTEM	LAYOUT TYPE
			LF	LF	EA	EA	
14	Mad	0.47	73	100	1	1	16B
15	Mad	2.23	60	50		1	16B
TOTAL			133	150	1	2	

**TEMPORARY WATER POLLUTION CONTROL**

LOCATION	Co	PM	TEMPORARY DRAINAGE INLET PROTECTION
			EA
LOCATION 1	Fre	10.95	1

**CONSTRUCTION DETAILS AND SUMMARY OF QUANTITIES**

SCALE: 1" = 50'

**C-1**

RANDON R. HOLLAND  
 ERIC OLSON  
 DAVID FRANKE  
 06-DESIGN

**NOTES: (THIS SHEET)**

1. SEE MANUFACTURER PLANS FOR ADDITIONAL DETAILS AND DIMENSIONS NOT SHOWN ON PLANS.
2. SYSTEM TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS.
3. ONLY TIGHTEN THE CABLE ASSEMBLIES USING THE NUTS AT THE CABLE BRACKET (SEE DETAIL D). DO NOT TIGHTEN THE CABLES AT THE FRONT OF THE GROUND ANCHOR.
4. WHEN DRIVING STEEL POST, ENSURE THAT A DRIVING CAP WITH TIMBER OR PLASTIC INSERT IS USED TO PREVENT DAMAGE TO THE GALVANIZING TO THE TOP OF THE STEEL POST.

**LEGEND**

- | ITEM | DESCRIPTION                         |
|------|-------------------------------------|
| ①    | X-TENSION TERMINAL COMPONENT KIT    |
| ②    | X-TENSION HARDWARE KIT              |
| ③    | X-TENSION SYSTEM HARDWARE KIT       |
| ④    | X-TENSION GUARDRAIL COMPONENT KIT 3 |
| ⑤    | I-BEAM POST, MIDDLE, X350           |

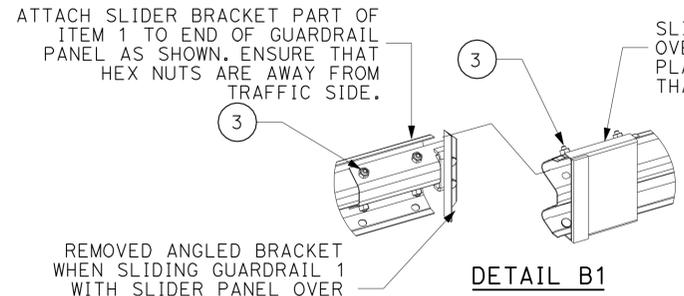
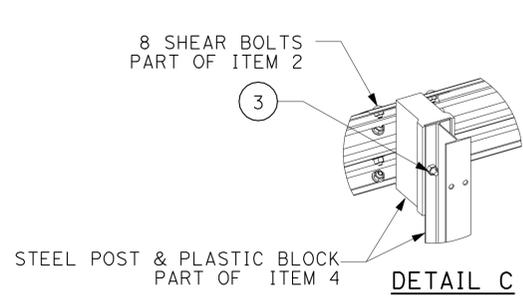
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	3	69

Eric Olson 08-30-11  
 REGISTERED CIVIL ENGINEER DATE

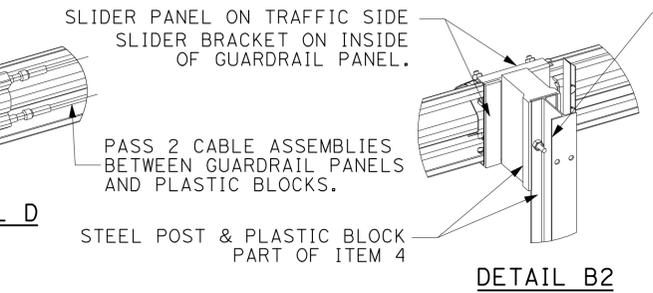
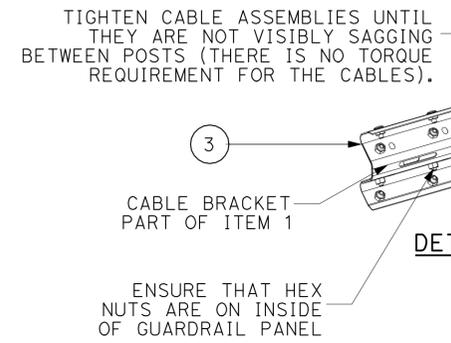
9-26-11  
 PLANS APPROVAL DATE

ERIC H. OLSON  
 No. 60801  
 Exp. 12/31/12  
 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.



SLIDE GUARDRAIL PANEL PART OF ITEM 1 OVER END OF GUARDRAIL 1 SECURE IN PLACE USING HARDWARE PROVIDED. ENSURE THAT HEX NUTS ARE ON TRAFFIC SIDE.



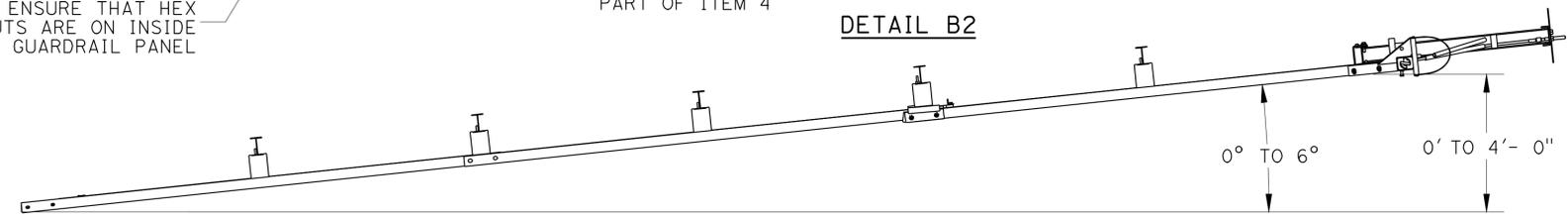
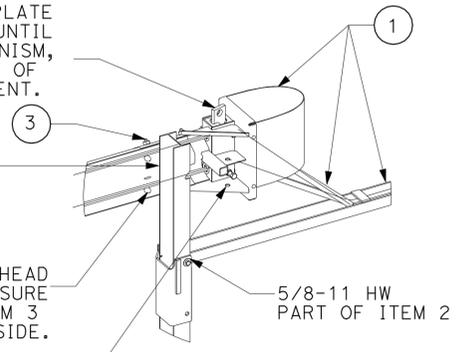
USE GUARDRAIL HARDWARE PROVIDED PART OF ITEM 3 TO SECURE PLASTIC BLOCK TO STEEL POST. GUARDRAIL IS NOT BOLTED TO THE PLASTIC BLOCK OR STEEL POST.

USING A PRY BAR TURN FRICTION PLATE PART OF ITEM 1 COUNTER CLOCKWISE UNTIL IS COMPLETELY AGAINST LOCKING MECHANISM, SECURE IN PLACE USING 4 BOLTS PART OF ITEM 2 ON SIDE OF IMPACT HEAD WELDMENT.

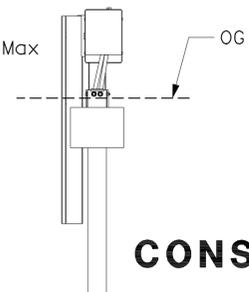
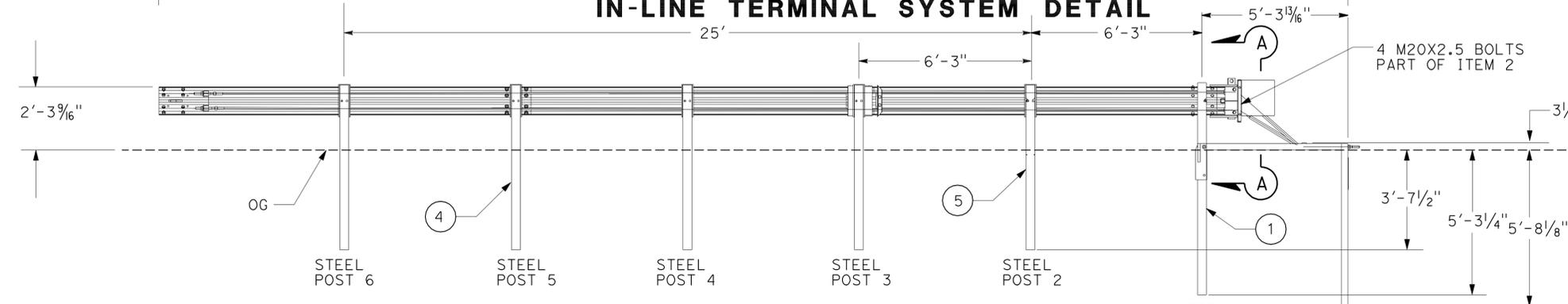
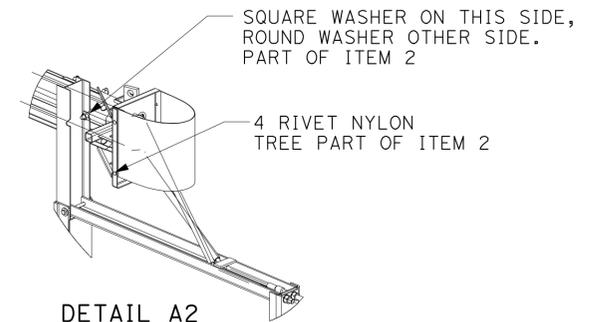
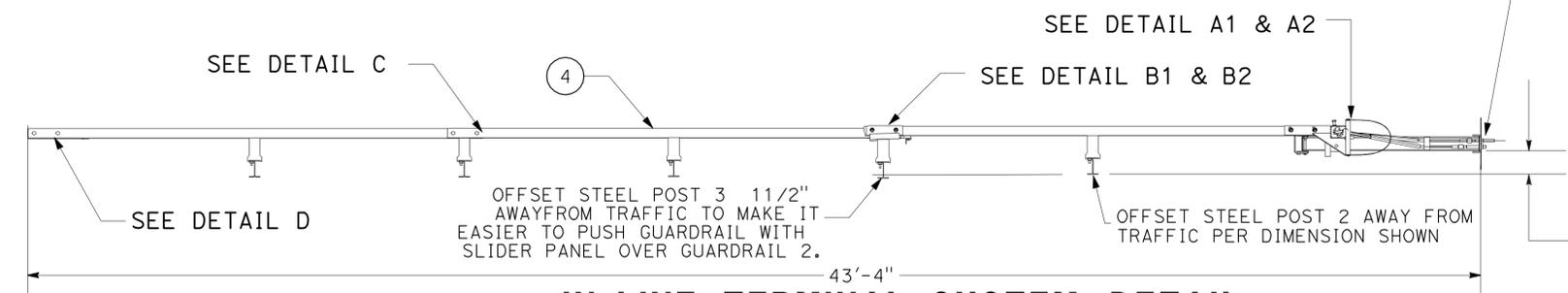
NO PLASTIC BLOCK AT STEEL POST 1

WHEN MOUNTING IMPACT HEAD WELDMENT TO GUARD RAIL ENSURE THAT HEX NUTS PART OF ITEM 3 ARE ON TRAFFIC SIDE.

USE PLASTIC BLOCKS TO HOLD HEAD WELDMENT UP WHILE BOLTING IT TO THE GUARD RAIL PANEL AND STEEL POST 1.



PASS CABLE ASSEMBLY UNDER THE STEEL STRAP ON THE GROUND STRUT AND FORWARD THROUGH THE HOLES AT FRONT END OF GROUND STRUT. THEN PASS CABLE ASSEMBLY THROUGH LOWER HOLE IN IMPACT HEAD WELDMENT AND THROUGH FRICTION PLATE AND OUT THE BACK SIDE OF THE IMPACT HEAD. (REPEAT FOR SECOND CABLE ASSEMBLY TO PASS THROUGH UPPER HOLE IN IMPACT HEAD WELDMENT).



**CONSTRUCTION DETAILS**

NO SCALE

**C-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION 06-DESIGN

FUNCTIONAL SUPERVISOR DAVID FRANKE

DESIGNED BY ERIC OLSON

REVISOR RANDON R. HOLLAND

REVISIONS

DATE

REVISIONS

DATE

LAST REVISION DATE PLOTTED => 28-SEP-2011 08-30-11 TIME PLOTTED => 14:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	4	69

Hassan Cohe 06-30-11  
 REGISTERED CIVIL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE

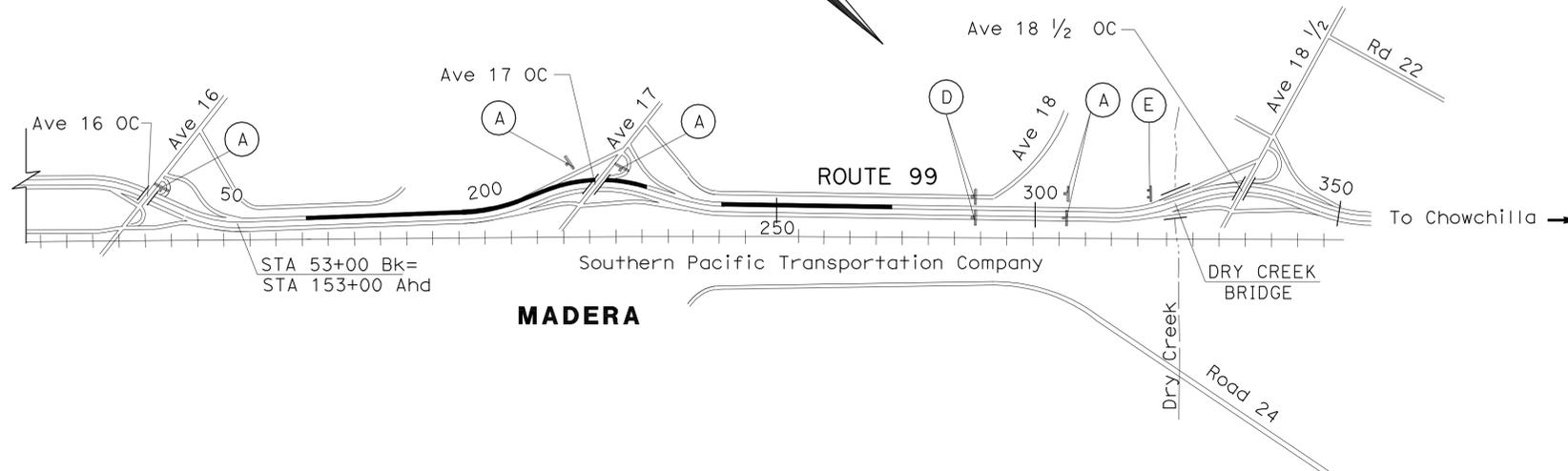
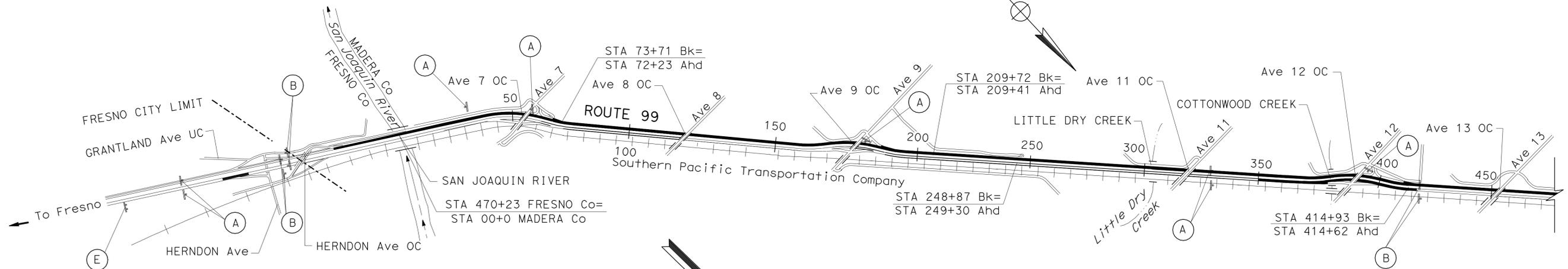
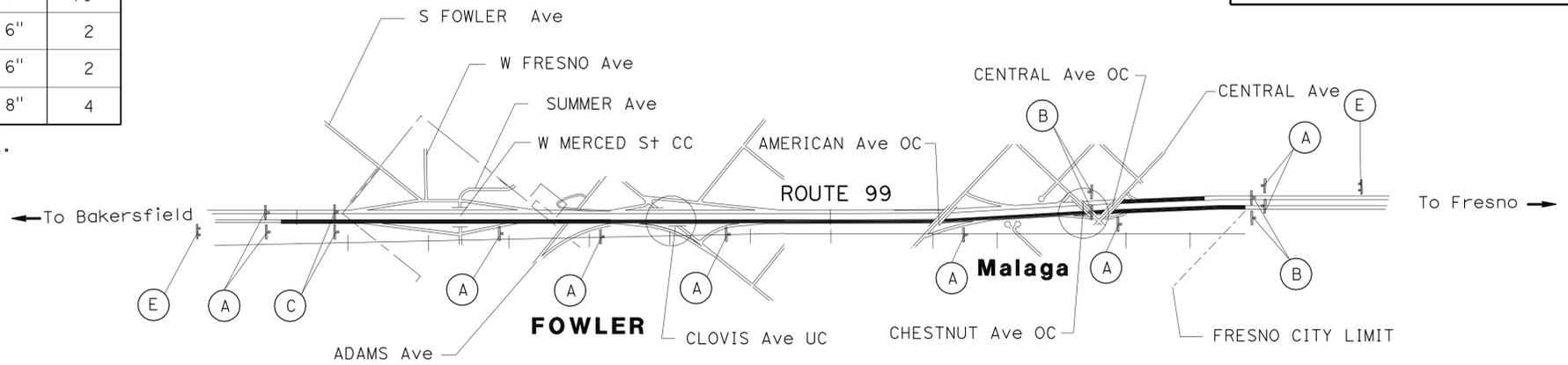
REGISTERED PROFESSIONAL ENGINEER  
 HASSAN M. TAHA  
 No. 60130  
 Exp. 06/30/12  
 CIVIL  
 STATE OF CALIFORNIA

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

### STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POSTS	POST SIZE	No. OF SIGNS
(A)	W20-1	48" x 48"	ROAD WORK AHEAD	1	6" x 6"	22
(B)	G20-2	48" x 24"	END ROAD WORK	1	4" x 6"	10
(C)	C11	90" x 48"	ROAD CONSTRUCTION NEXT 6 MILES	2	6" x 6"	2
(D)	C11	90" x 48"	ROAD CONSTRUCTION NEXT 15 MILES	2	6" x 6"	2
(E)	C40(CA)	144" x 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2	6" x 8"	4

NOTE: LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT SIGN LOCATIONS WILL BE DETERMINED BY THE ENGINEER.



### CONSTRUCTION AREA SIGNS

NO SCALE

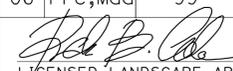
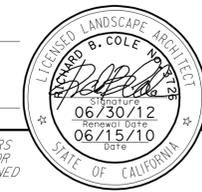
CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Caltrans  
 TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI  
 CALCULATED/DESIGNED BY: VANIK POGOSYAN  
 CHECKED BY: HASSAN TAHA  
 REVISED BY: DATE REVISOR  
 REVISIONS:

LAST REVISION: 08-24-11  
 DATE PLOTTED => 28-SEP-2011  
 TIME PLOTTED => 14:08

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	5	69

  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE  
  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**ABBREVIATIONS:**

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

**LEGEND**

 EXISTING VEGETATION TO REMAIN  
 AREA MULCH/ROADSIDE CLEARING LIMIT  
 MAINTAIN EXISTING PLANTS

**PLANT LIST AND PLANTING SPECIFICATIONS**

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (INCH)		BASIN TYPE	IRON SULFATE	SOIL AMEND ①	COMMERCIAL FERTILIZER ①		BASIN MULCH ①	STAKING	PLANTING LIMITS							REMARKS
							Dia	DEPTH				PLANTING	PLT ESTB			MINIMUM DISTANCE (Ft) FROM					ON CENTER (Ft)		
																TRVD WAY	Pvmt	FENCE	WALL	PAVED DITCH		EARTH DITCH	
A	1		<u>COTONEASTER</u> <u>LACTEUS</u>	PARNEY COTONEASTER	No. 1	17	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	10	10	10	10	10.5	13	SHRUB ⑫
	2		<u>CISTUS</u> 'SUNSET'	SUNSET ROCKROSE	No. 1	7	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	7	7	7	7	7	7	GROUND COVER ⑫
	3		<u>MYOPORUM</u> <u>PARVIFOLIUM</u> 'PUTAH CREEK'	MYOPORUM	No. 1	3	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	10	7	7	8.5	8.5	6	SHRUB ⑫
	4		<u>CHILOPSIS</u> <u>LINEARIS</u> 'BURGUNDY'	BURGUNDY DESERT WILLOW	No. 1	5	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	15	15	15	15	15	13	SHRUB ⑫
	5		<u>RHAPHIOLEPIS</u> <u>INDICA</u> 'CLARA PINK'	CLARA PINK INDIAN HAWTHORNE	No. 1	15	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	8.5	7	7	7	8.5	13	SHRUB ⑫
	6		<u>RHAMNUS</u> <u>ALATERNUS</u>	ITALIAN BUCKTHORN	No. 1	8	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	15	15	10	10	11.5	13	SHRUB ⑫
	7		<u>CERCIS</u> <u>OCCIDENTALIS</u>	WESTERN REDBUD	No. 1	5	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	15	15	15	15	15	13	SHRUB ⑫
	8		<u>HETEROMELES</u> <u>ARBUTIFOLIA</u>	TOYON	No. 1	3	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	15	15	10	10	11.5	13	SHRUB ⑫
	9		<u>PHOTINIA</u> X <u>FRASERI</u>	FRASIER'S PHOTINIA	No. 1	3	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	-	-	15	15	10	10	11.5	13	SHRUB ⑫
B	10		<u>QUERCUS</u> <u>LOBATA</u>	VALLEY OAK	No. 5	5	⑨	②	II	-	0.35 CF	1 Pkt	0.25 lb	2.0 CF	⑥	30	-	20	20	20	23.0	13	TREE ⑨

**APPLICABLE WHEN CIRCLED:**

- ① - QUANTITIES SHOWN ARE "PER PLANT" UNLESS SHOWN AS SQFT OR SQYD APPLICATION RATES.
- ② - SUFFICIENT TO RECEIVE ROOT BALL AND ROOT PROTECTOR WHERE SPECIFIED.
- 3 - DOES NOT APPLY TO MULCH AREAS.
- 4 - AS SHOWN ON PLANS.
- 5 - UNLESS OTHERWISE SHOWN ON PLANS.
- ⑥ - SEE DETAIL.
- 7 - SEE SPECIAL PROVISIONS.
- 8 - SEE STANDARD SPECIFICATIONS.
- ⑨ - TWICE THE ROOT BALL DIAMETER.
- ⑩ - ROOT PROTECTOR REQUIRED.
- ⑪ - REQUIRED.
- ⑫ - TRIANGULAR SPACING.

**NOTE:**

UNDERLINED PORTIONS OF BOTANICAL NAME INDICATE ABBREVIATIONS USED ON PLANTING PLANS

**MULCH**

DESCRIPTION	Qty (CY)
BASIN MULCH	12
AREA MULCH	328
<b>TOTAL</b>	<b>342</b>

**PLANT LIST PL-1**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
 ELBERT COX

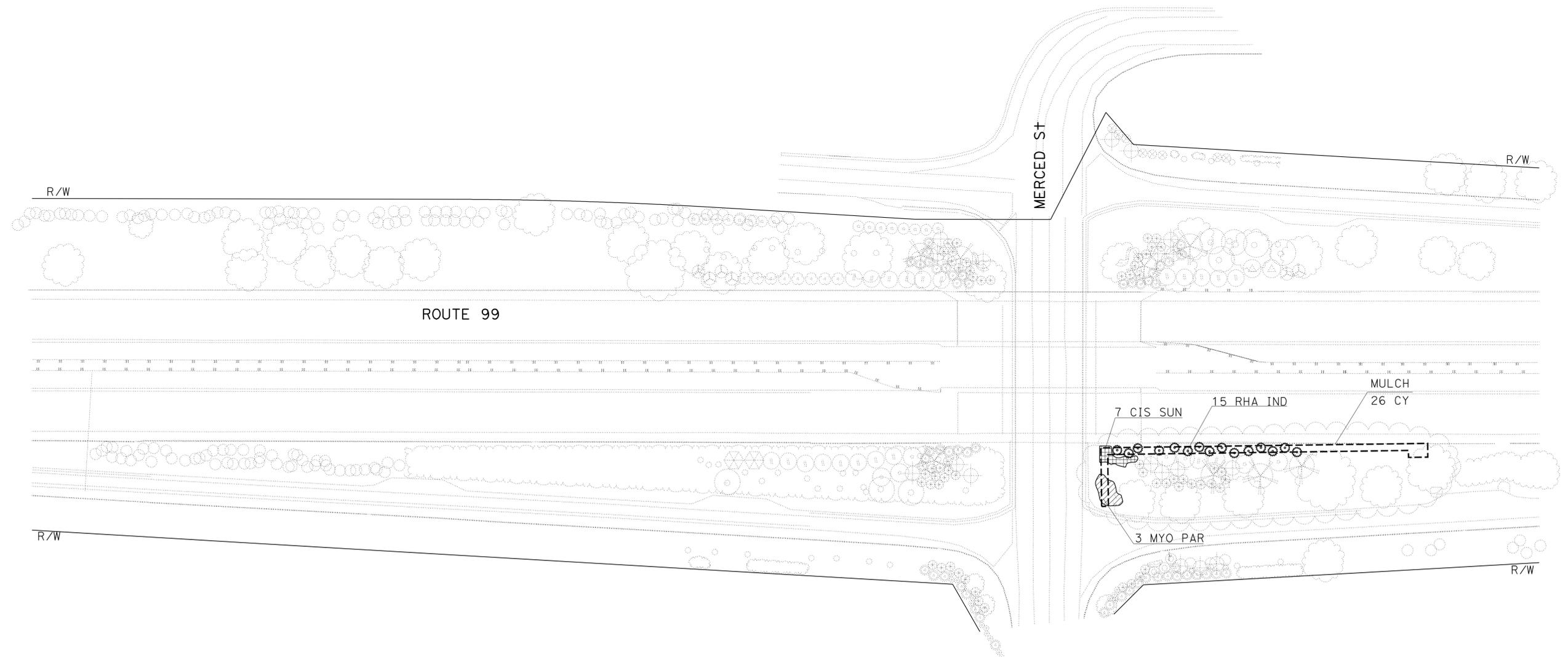
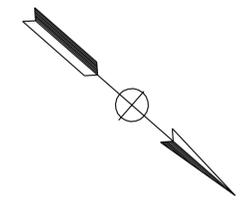
CALCULATED/DESIGNED BY  
 CHECKED BY

RAYMOND SEGURA  
 RICHARD COLE

REVISED BY  
 DATE REVISED

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

**LEGEND:**  
 [Dashed Box] AREA MULCH



**Fre 99, SOUTH OF MERCED St  
 LOCATION 1  
 PM 10.95**

**PLANTING PLAN  
 PP-1**

THIS PLAN IS ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	6	69

[Signature]  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LICENSED LANDSCAPE ARCHITECT  
 RICHARD B. COLE  
 06/30/12  
 06/15/10

**NOTE:**

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	7	69

  
 LICENSED LANDSCAPE ARCHITECT

9-26-11  
 PLANS APPROVAL DATE

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COPIES OF THIS PLAN SHEET.



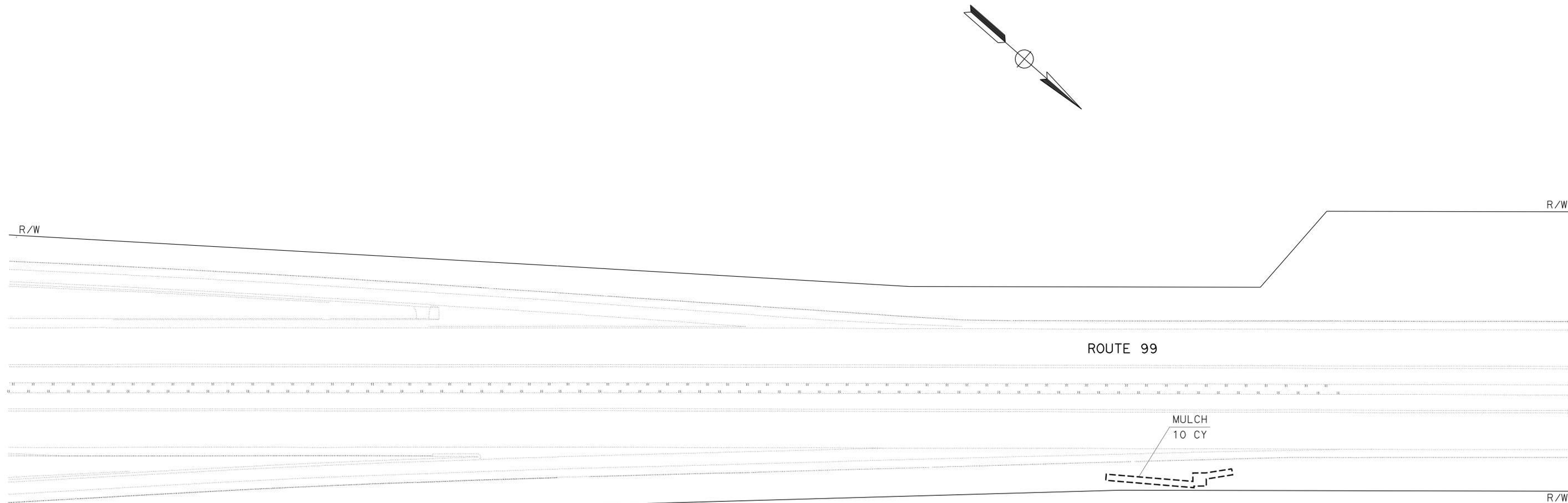
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
ELBERT COX

CALCULATED, DESIGNED BY  
CHECKED BY

RAYMOND SEGURA  
RICHARD COLE

REVISED BY  
DATE REVISED



**Fre 99, NORTH OF MERCED St  
 LOCATION 2  
 PM 11.50**

**PLANTING PLAN  
 PP-2**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

**NOTE:**

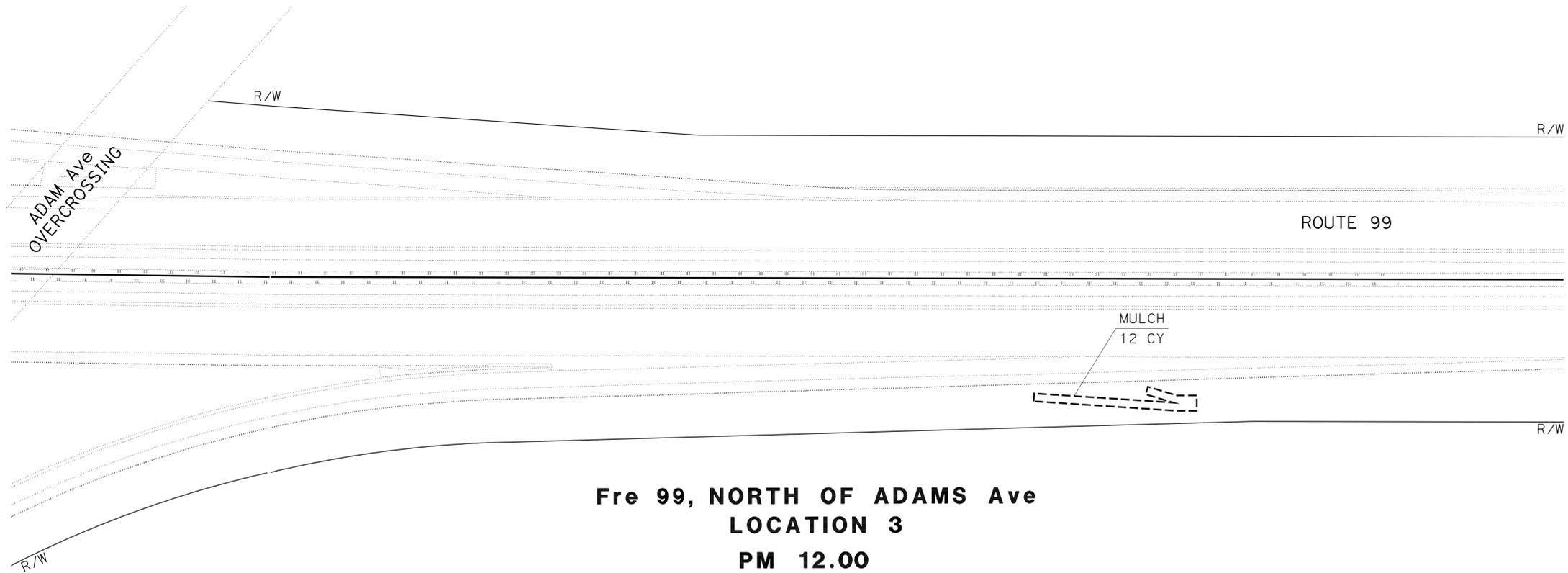
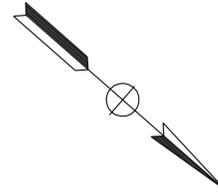
FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	8	69

  
 LICENSED LANDSCAPE ARCHITECT

9-26-11  
 PLANS APPROVAL DATE

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
ELBERT COX

CALCULATED, DESIGNED BY  
CHECKED BY

RAYMOND SEGURA  
RICHARD COLE

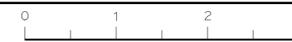
REVISED BY  
DATE REVISED

**Fre 99, NORTH OF ADAMS Ave  
LOCATION 3  
PM 12.00**

**PLANTING PLAN  
PP-3**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'



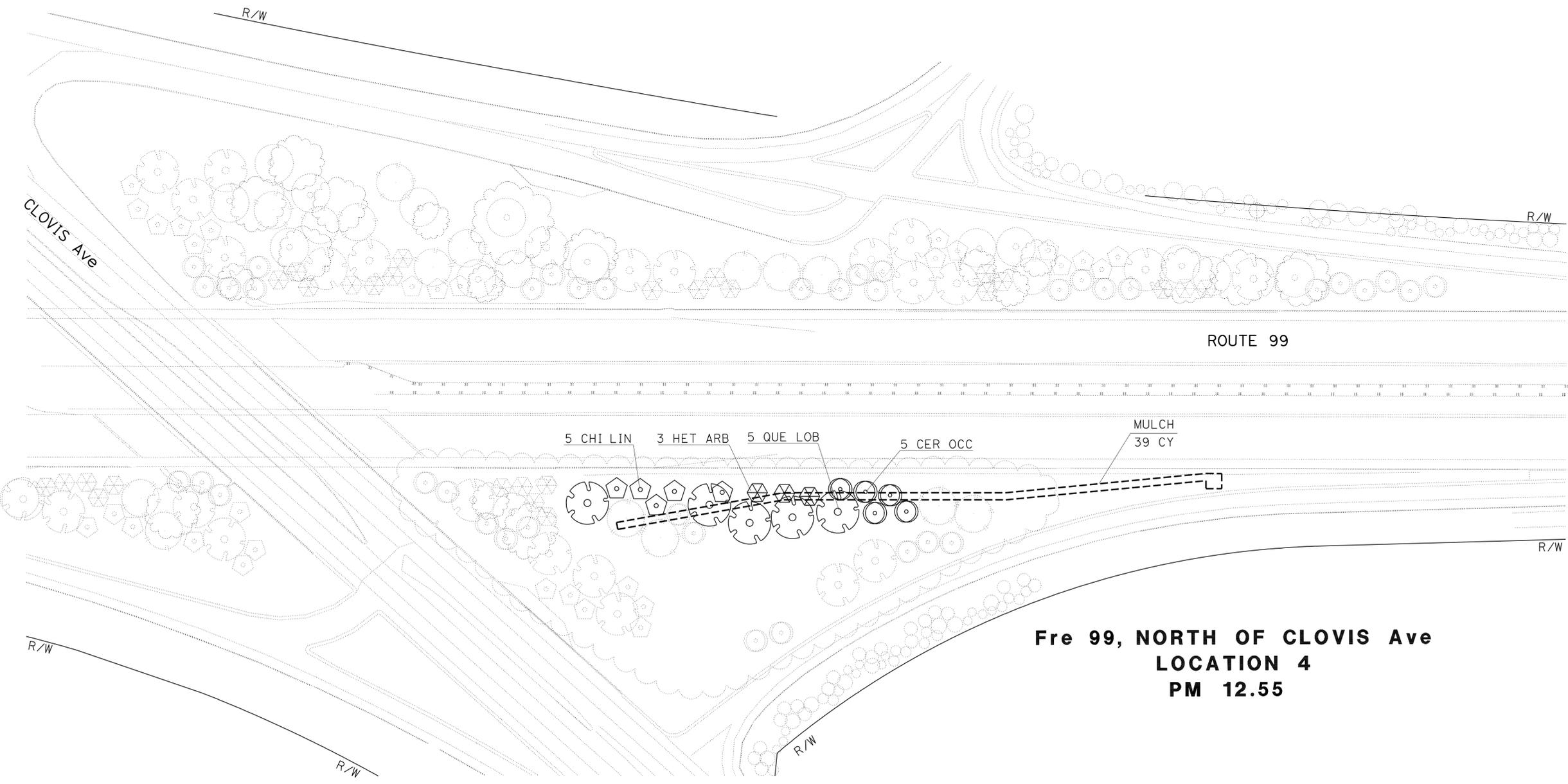
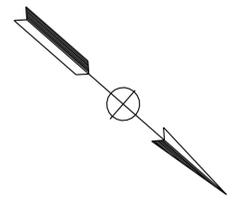
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	9	69

9-26-11  
 PLANS APPROVAL DATE

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



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



**Fre 99, NORTH OF CLOVIS Ave  
 LOCATION 4  
 PM 12.55**

**PLANTING PLAN  
 PP-4**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

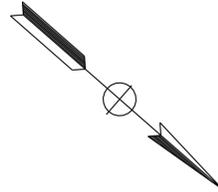
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT: ELBERT COX  
 CALCULATED/DESIGNED BY: ELBERT COX  
 CHECKED BY: RICHARD COLE  
 RAYMOND SEGURA  
 REVISED BY: RICHARD COLE  
 DATE REVISIED:

**NOTE:**

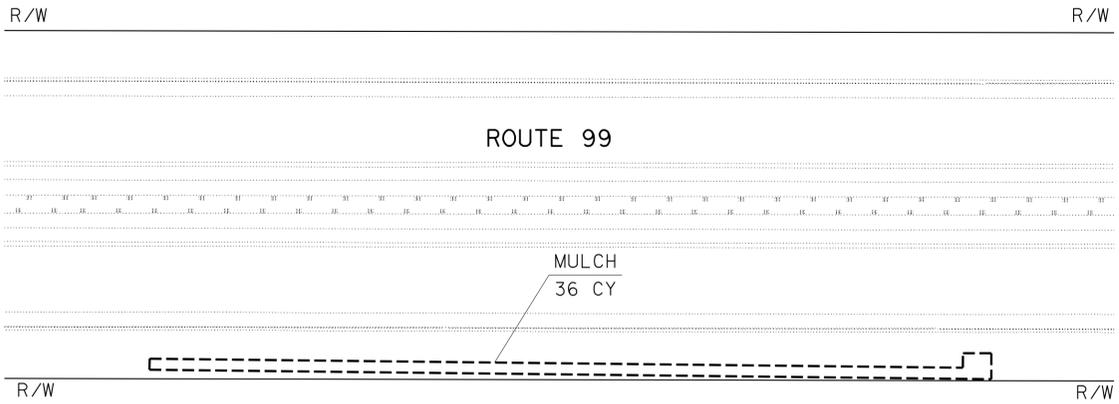
FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	10	69

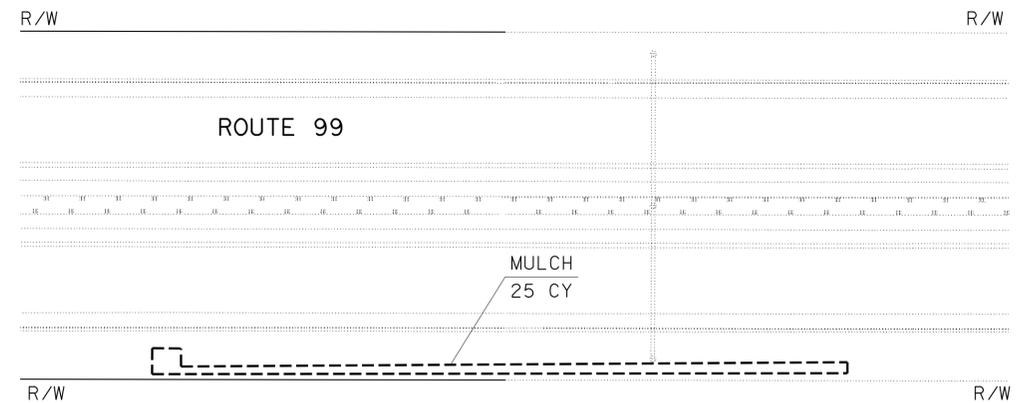
  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

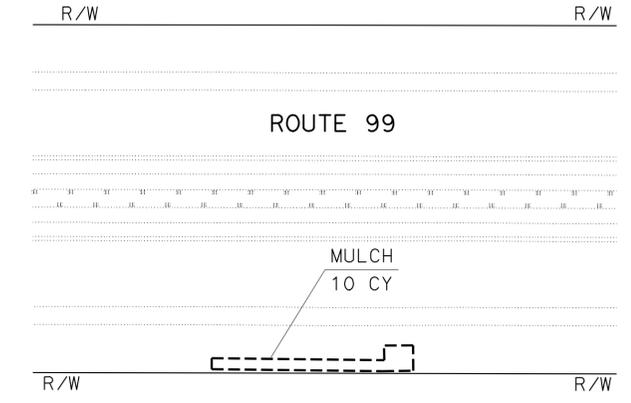
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT  
 ELBERT COX  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 RAYMOND SEGURA  
 RICHARD COLE  
 REVISED BY  
 DATE REVISED



**Fre 99, SOUTH OF AMERICAN Ave  
LOCATION 6  
PM 13.50**



**Fre 99, SOUTH OF AMERICAN Ave  
LOCATION 7  
PM 14.00**



**Fre 99, NORTH OF CLOVIS Ave  
LOCATION 5  
PM 13.02**

**PLANTING PLAN  
PP-5**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'



**NOTE:**

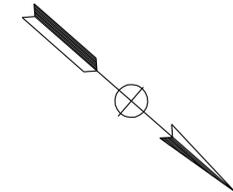
FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	11	69

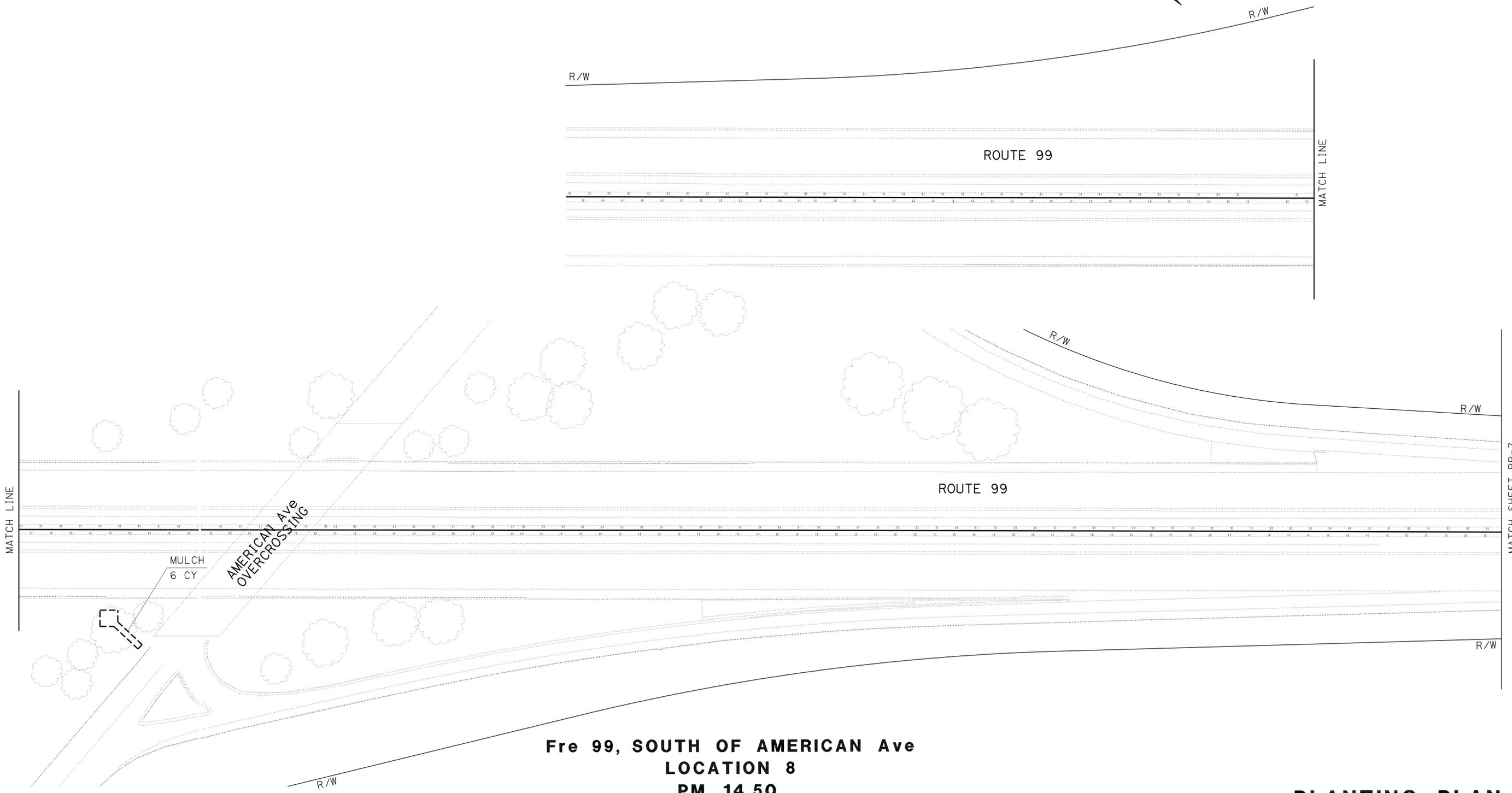
  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE



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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	REVISOR	DATE
<b>Caltrans</b>	RAYMOND SEGURA	
	RICHARD COLE	
<b>LANDSCAPE ARCHITECTURE</b>	CALCULATED / DESIGNED BY	DATE
	ELBERT COX	
	CHECKED BY	DATE



**Fre 99, SOUTH OF AMERICAN Ave  
LOCATION 8  
PM 14.50**

**PLANTING PLAN  
PP-6**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

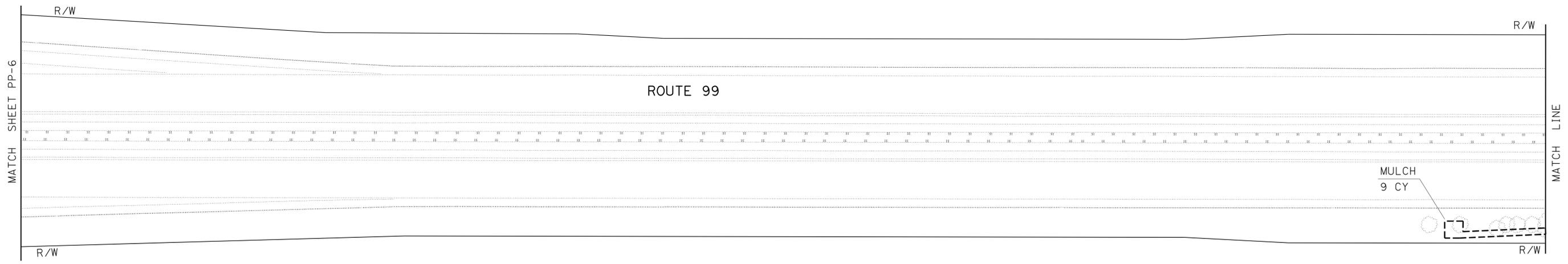
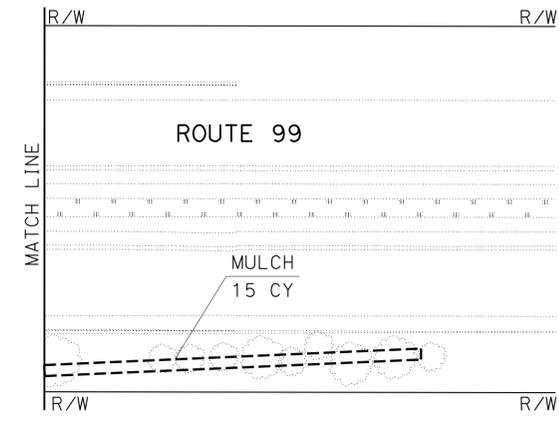
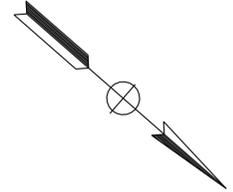
SCALE: 1" = 50'

**NOTE:**

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	12	69

  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**Fre 99, NORTH OF AMERICAN Ave**  
**LOCATION 9**  
**PM 15.00**

**PLANTING PLAN**  
**PP-7**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED, DESIGNED BY	RAYMOND SEGURA	REVISED BY	
<b>Caltrans</b>	ELBERT COX	CHECKED BY	RICHARD COLE	DATE REVISED	

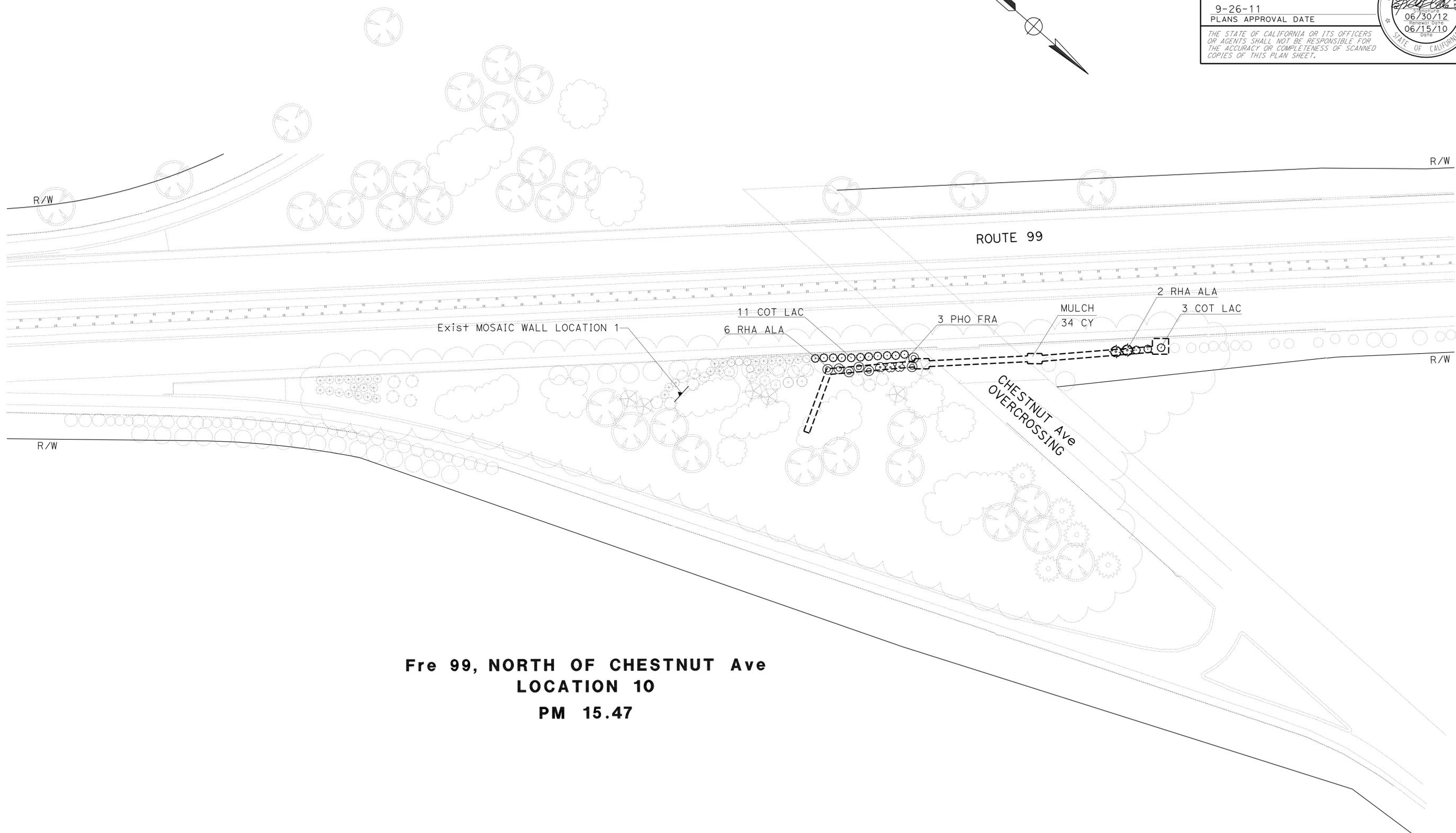
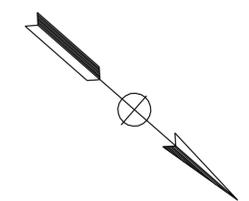
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	13	69

9-26-11  
 PLANS APPROVAL DATE

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



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



**Fre 99, NORTH OF CHESTNUT Ave  
 LOCATION 10  
 PM 15.47**

**PLANTING PLAN  
 PP-8**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
 ELBERT COX

CALCULATED/DESIGNED BY  
 CHECKED BY

RAYMOND SEGURA  
 RICHARD COLE

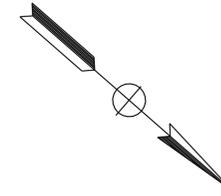
REVISED BY  
 DATE REVISED

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

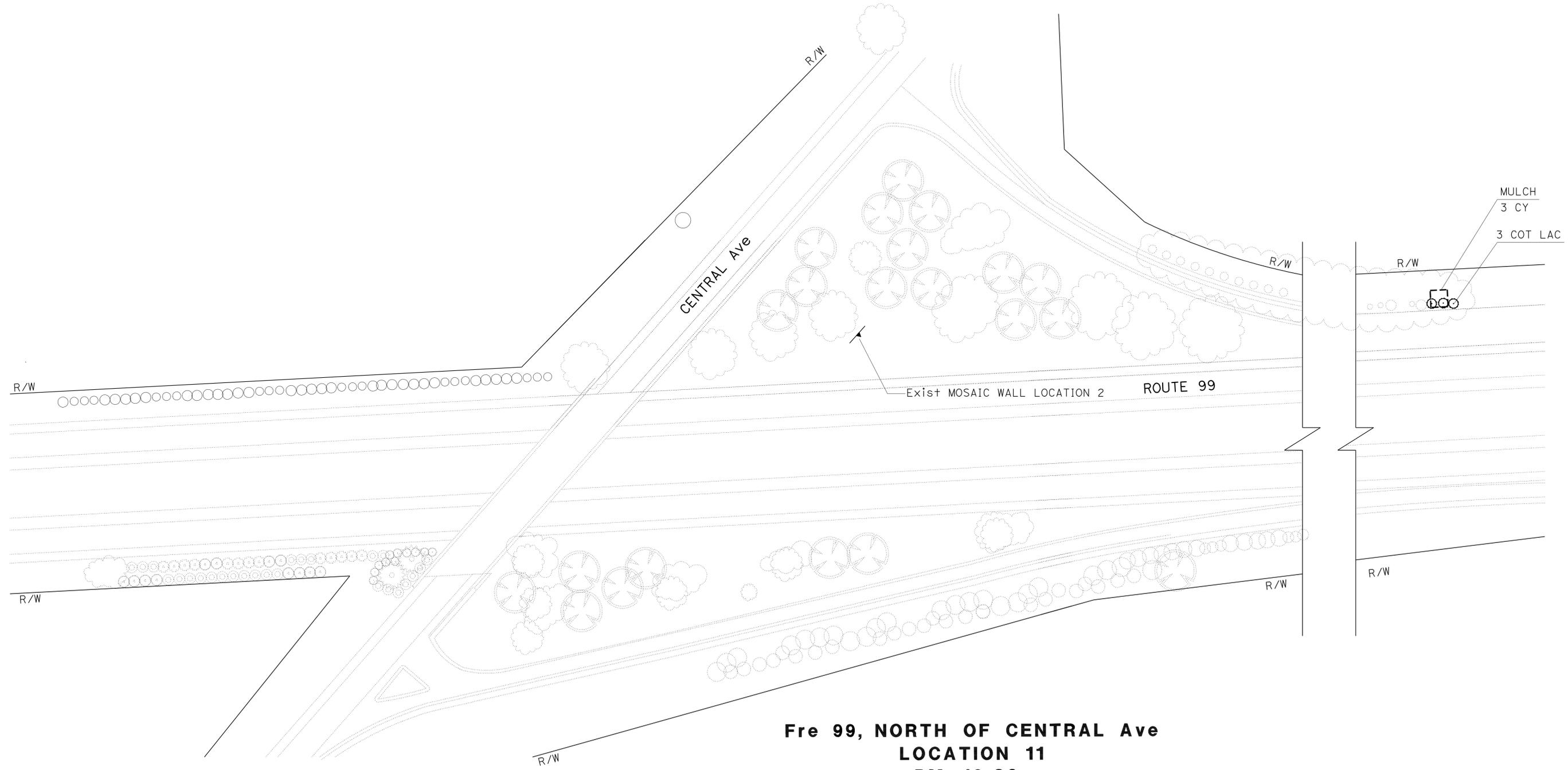
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	14	69

9-26-11  
 PLANS APPROVAL DATE

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



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	RAYMOND SEGURA	CALCULATED/DESIGNED BY	REVISOR
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	RICHARD COLE	CHECKED BY	DATE
SENIOR LANDSCAPE ARCHITECT			
ELBERT COX			

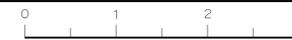


**Fre 99, NORTH OF CENTRAL Ave  
 LOCATION 11  
 PM 16.20**

**PLANTING PLAN  
 PP-9**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

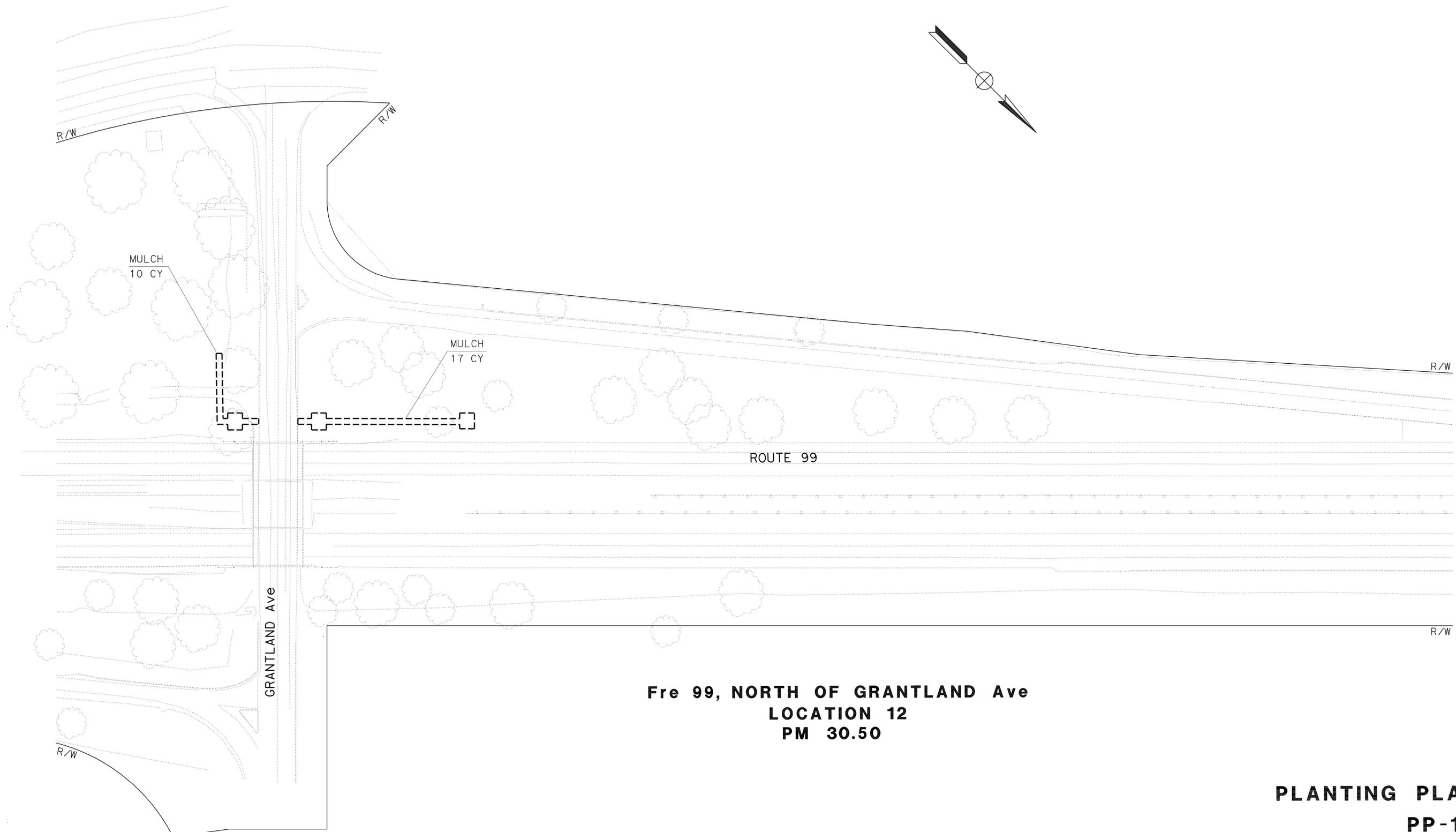


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	15	69

*Richard B. Cole*  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	RAYMOND SEGURA	REVISOR BY
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	RICHARD COLE	DATE REVISOR
SENIOR LANDSCAPE ARCHITECT	ELBERT COX	CHECKED BY
CALCULATED/DESIGNED BY		



**Fre 99, NORTH OF GRANTLAND Ave  
 LOCATION 12  
 PM 30.50**

**PLANTING PLAN  
 PP-10**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

LAST REVISION      DATE PLOTTED => 28-SEP-2011      TIME PLOTTED => 14:09  
 06-30-11

**NOTE:**

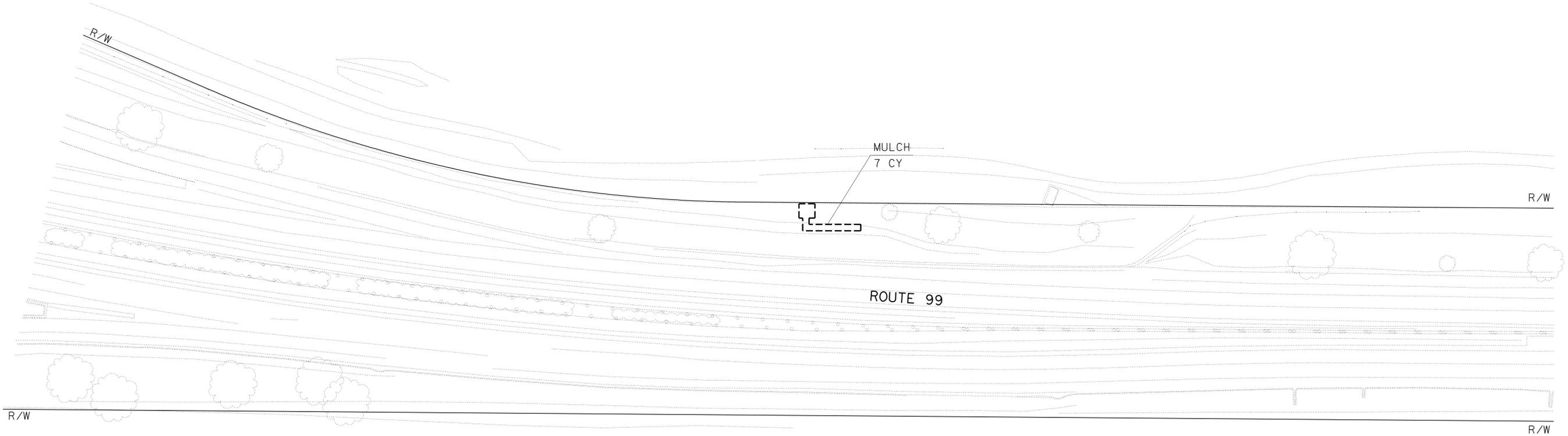
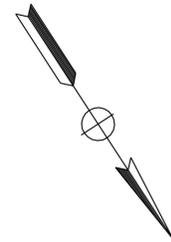
FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	16	69

  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE



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



**Fre 99, NORTH OF HERNDON Ave  
LOCATION 13  
PM 31.43**

**PLANTING PLAN  
PP-11**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT: ELBERT COX  
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]  
 RAYMOND SEGURA  
 REVISED BY: [blank] DATE REVISED: [blank]  
 RICHARD COLE

**NOTE:**

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

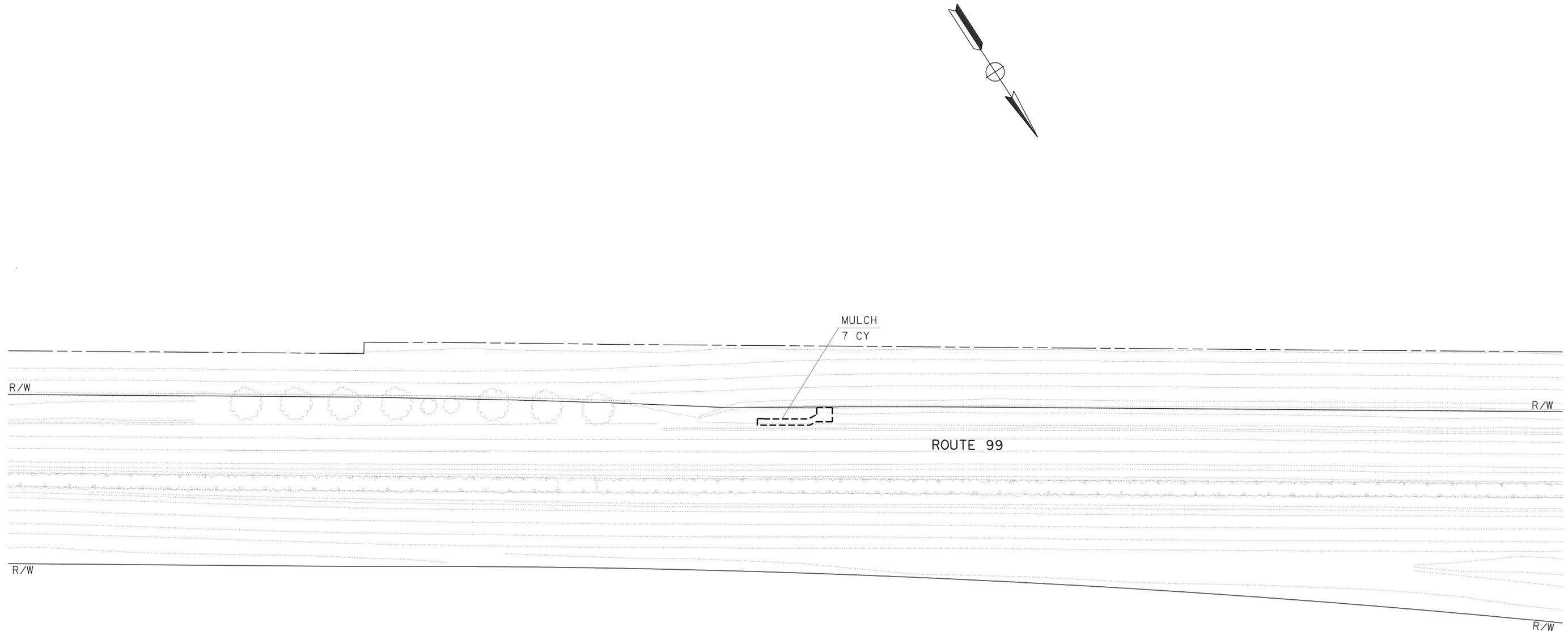
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	17	69

  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE



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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	RAYMOND SEGURA	REVISOR	DATE
<b>Caltrans</b> LANDSCAPE ARCHITECTURE	RICHARD COLE	DESIGNER	DATE
SENIOR LANDSCAPE ARCHITECT	ELBERT COX	CHECKED BY	DESIGNED BY



**Mad 99, SOUTH OF Ave 7  
LOCATION 14  
PM 0.47**

**PLANTING PLAN  
PP-12**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

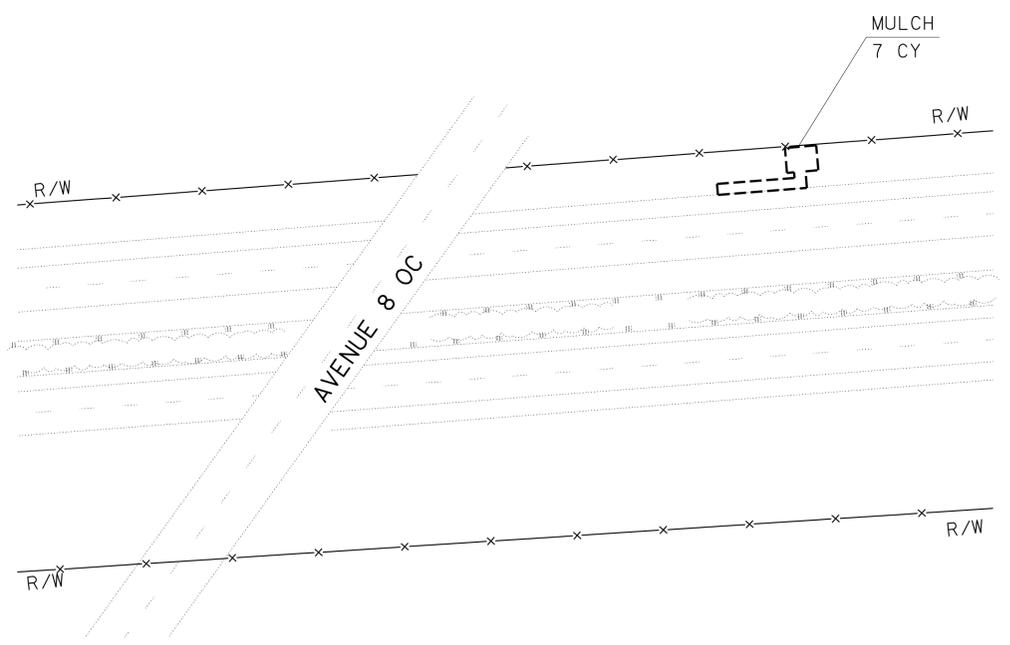
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	18	69

Signature: *Richard Cole*  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

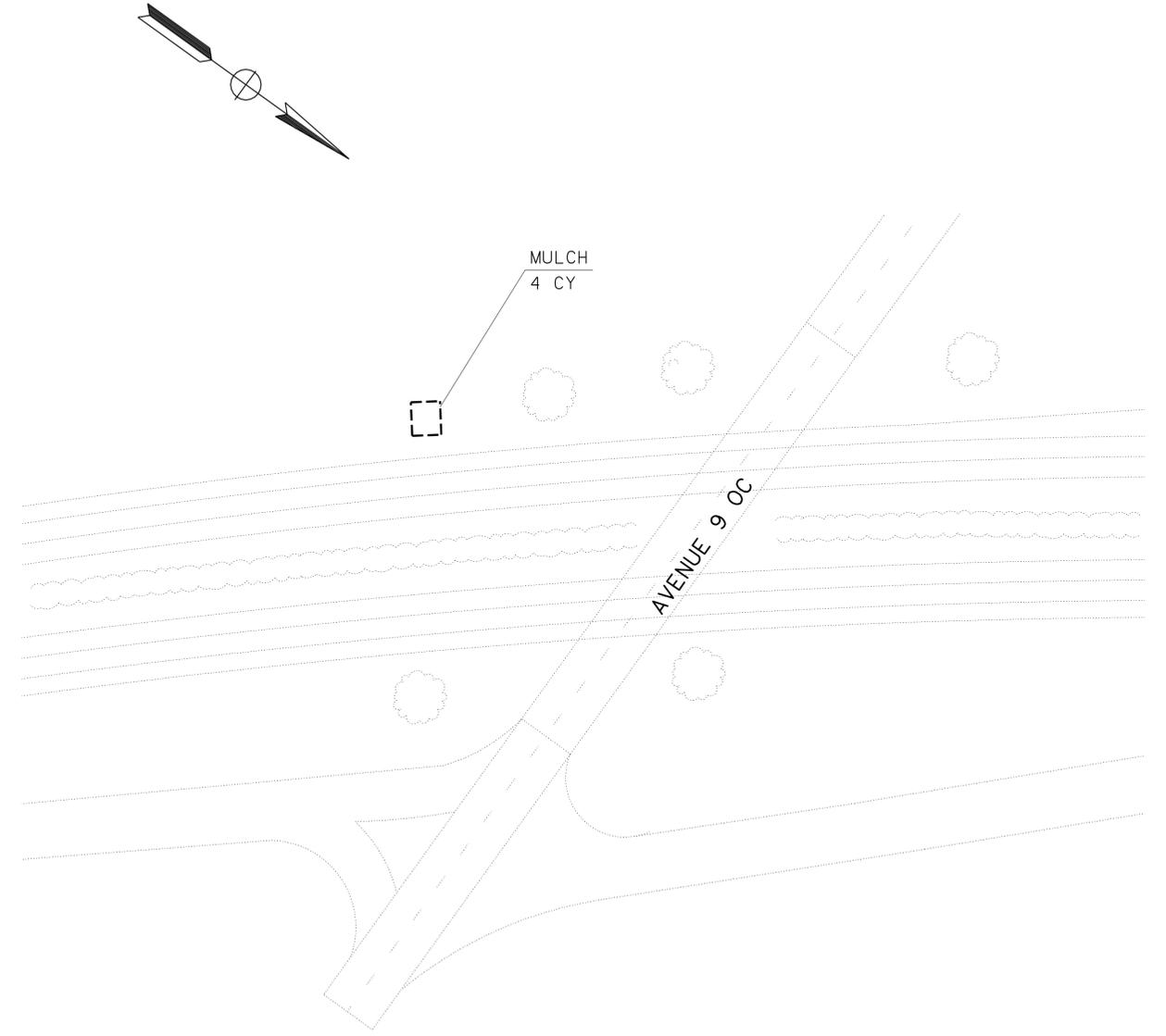
LICENSED LANDSCAPE ARCHITECT  
 RICHARD B. COLE  
 No. 10727  
 Signature: *Richard Cole*  
 06/30/12  
 Renewal Date: 06/15/10  
 Date: \_\_\_\_\_  
 STATE OF CALIFORNIA

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDSCAPE ARCHITECTURE	SENIOR LANDSCAPE ARCHITECT	CALCULATED, DESIGNED BY	RAYMOND SEGURA	REVISOR BY	DATE	REVISOR
<b>Caltrans</b>		ELBERT COX	CHECKED BY	RICHARD COLE			



**Mad 99, NORTH OF Ave 8  
LOCATION 15  
PM 2.23**



**Mad 99, SOUTH OF Ave 9  
LOCATION 16  
PM 3.56**

**PLANTING PLAN  
PP-13**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	19	69

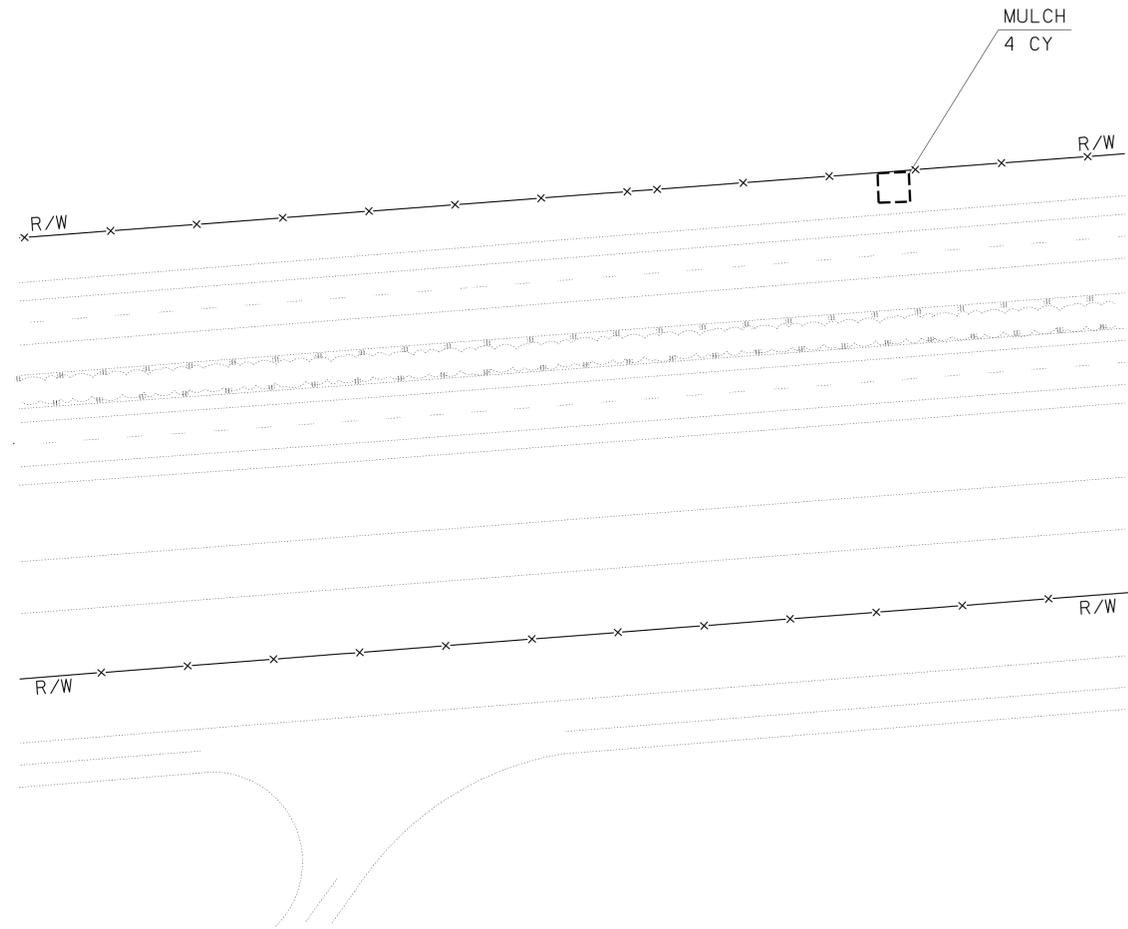
[Signature]  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LICENSED LANDSCAPE ARCHITECT  
 RICHARD B. COLE  
 06/30/12  
 06/15/10

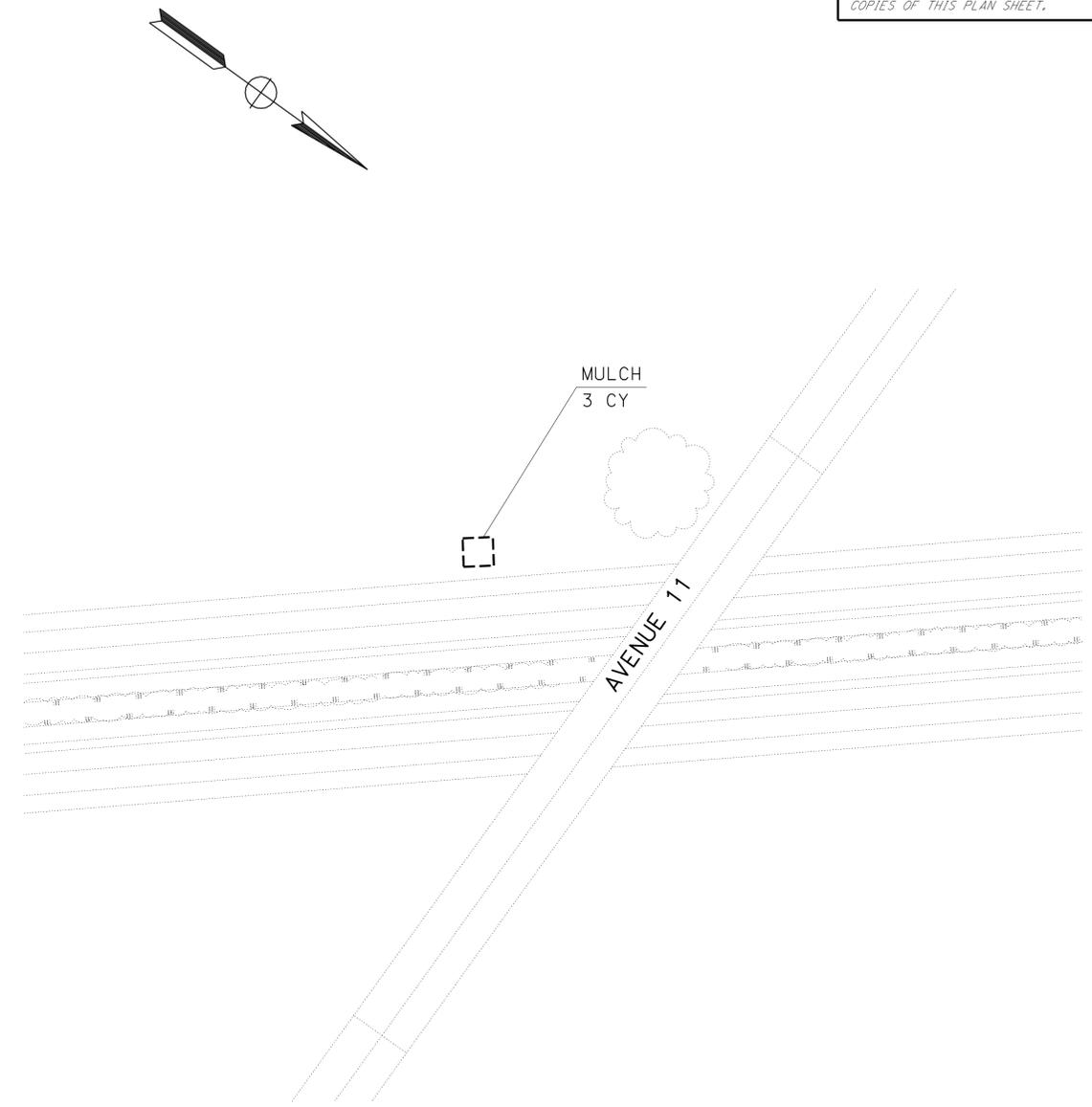
**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
 ELBERT COX  
 CALCULATED, DESIGNED BY  
 CHECKED BY  
 RAYMOND SEGURA  
 RICHARD COLE  
 REVISED BY  
 DATE REVISED



**Mad 99, NORTH OF Ave 10  
 LOCATION 17  
 PM 4.86**



**Mad 99, SOUTH OF Ave 11  
 LOCATION 18  
 PM 6.13**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'

**PLANTING PLAN  
 PP-14**



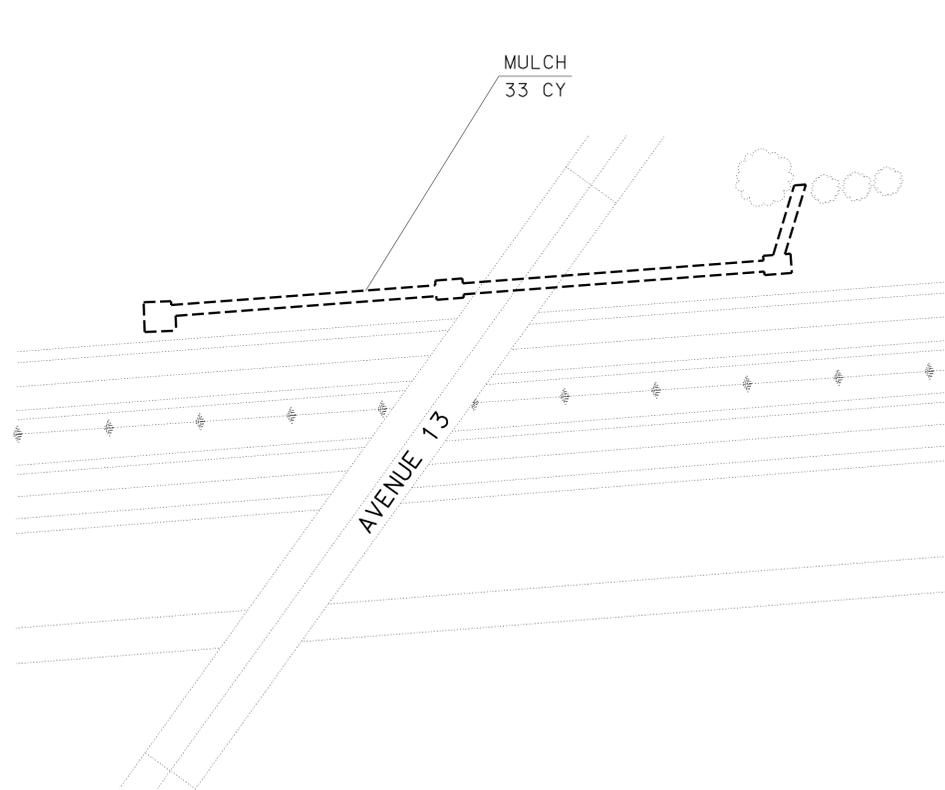
**NOTE:**

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

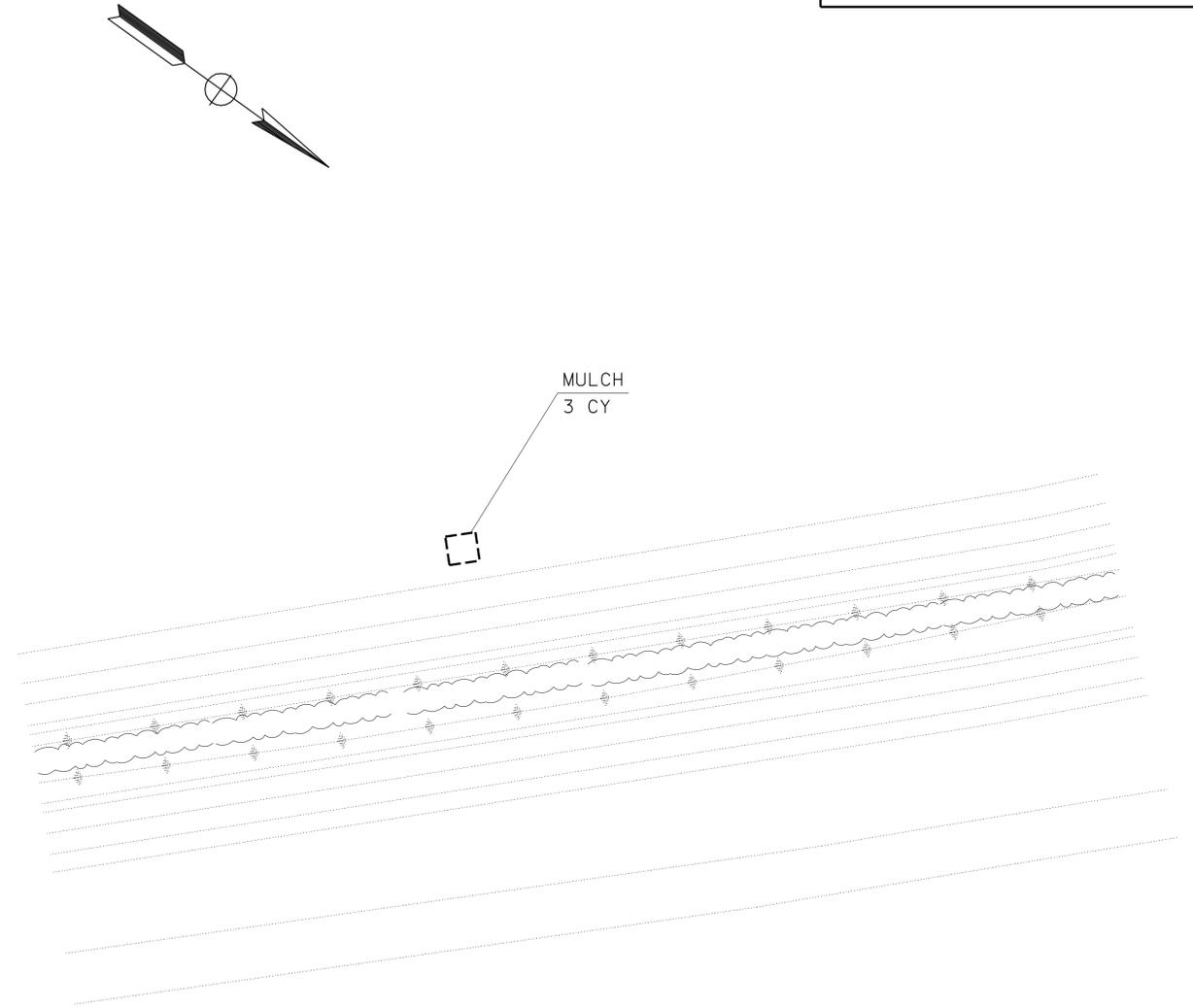
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	20	69

  
 LICENSED LANDSCAPE ARCHITECT  
 9-26-11  
 PLANS APPROVAL DATE  
  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED/DESIGNED BY	RAYMOND SEGURA	REVISOR BY	
<b>Caltrans</b>	ELBERT COX	CHECKED BY	RICHARD COLE	DATE REVISOR	
<b>LANDSCAPE ARCHITECTURE</b>					



**Mad 99, SOUTH OF Ave 13  
LOCATION 19  
PM 8.72**



**Mad 99, SOUTH OF Ave 17  
LOCATION 20  
PM 13.50**

**PLANTING PLAN  
PP-15**

THIS PLAN ACCURATE FOR PLANTING WORK ONLY

SCALE: 1" = 50'







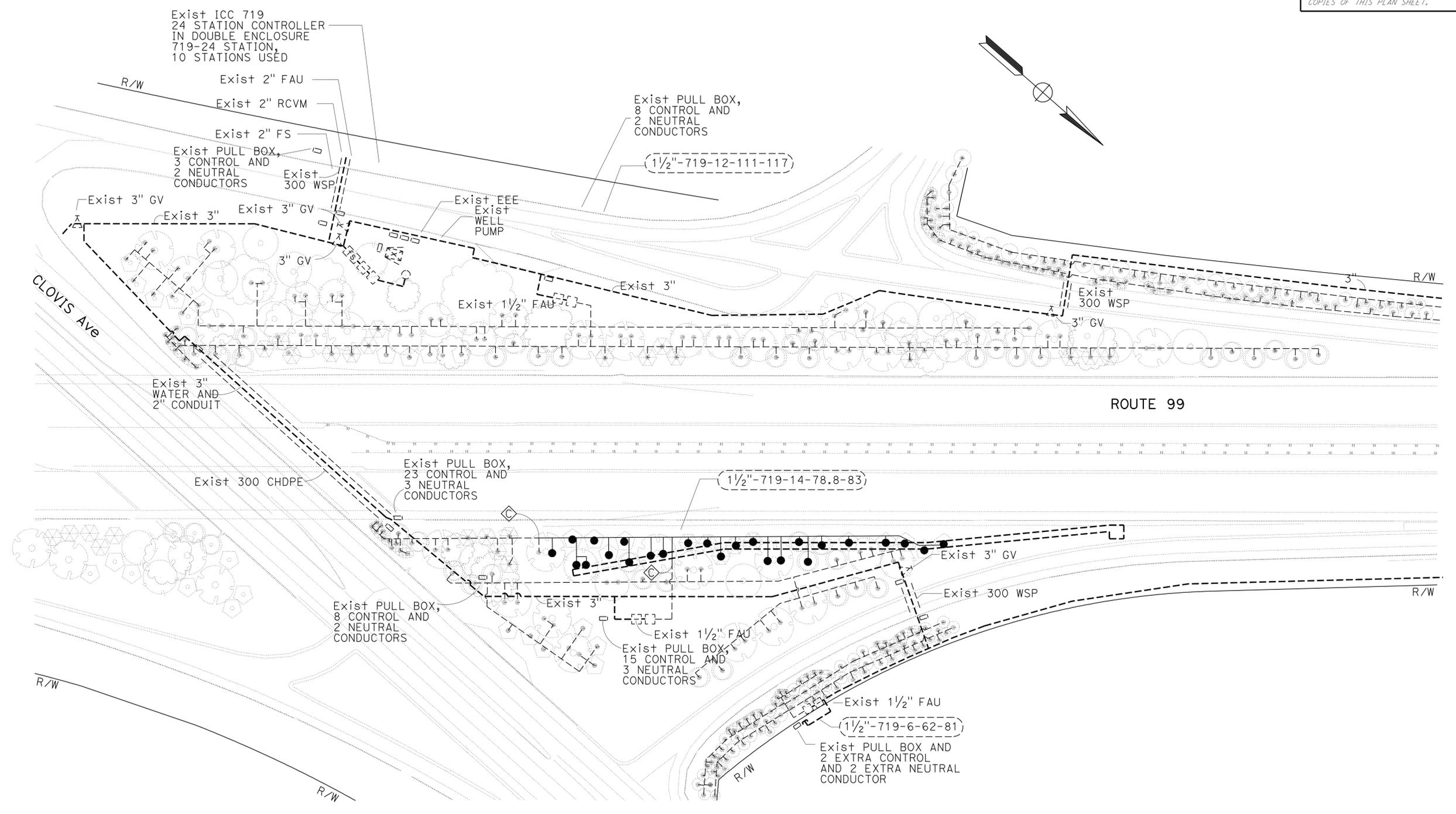
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	23	69

9-26-11  
 PLANS APPROVAL DATE

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



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



**Fre 99, NORTH OF CLOVIS Ave  
 LOCATION 4  
 PM 12.55**

**IRRIGATION PLAN  
 IP-2**

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 SENIOR LANDSCAPE ARCHITECT  
 ELBERT COX  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 RAYMOND SEGURA  
 RICHARD COLE  
 REVISED BY  
 DATE REVISED

USERNAME => s113946  
 DGN FILE => 60M7601002.dgn



UNIT 1501

PROJECT NUMBER & PHASE

0600020011

LAST REVISION: 06-30-11  
 DATE PLOTTED => 28-SEP-2011  
 TIME PLOTTED => 14:29

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	24	69

9-26-11  
 PLANS APPROVAL DATE

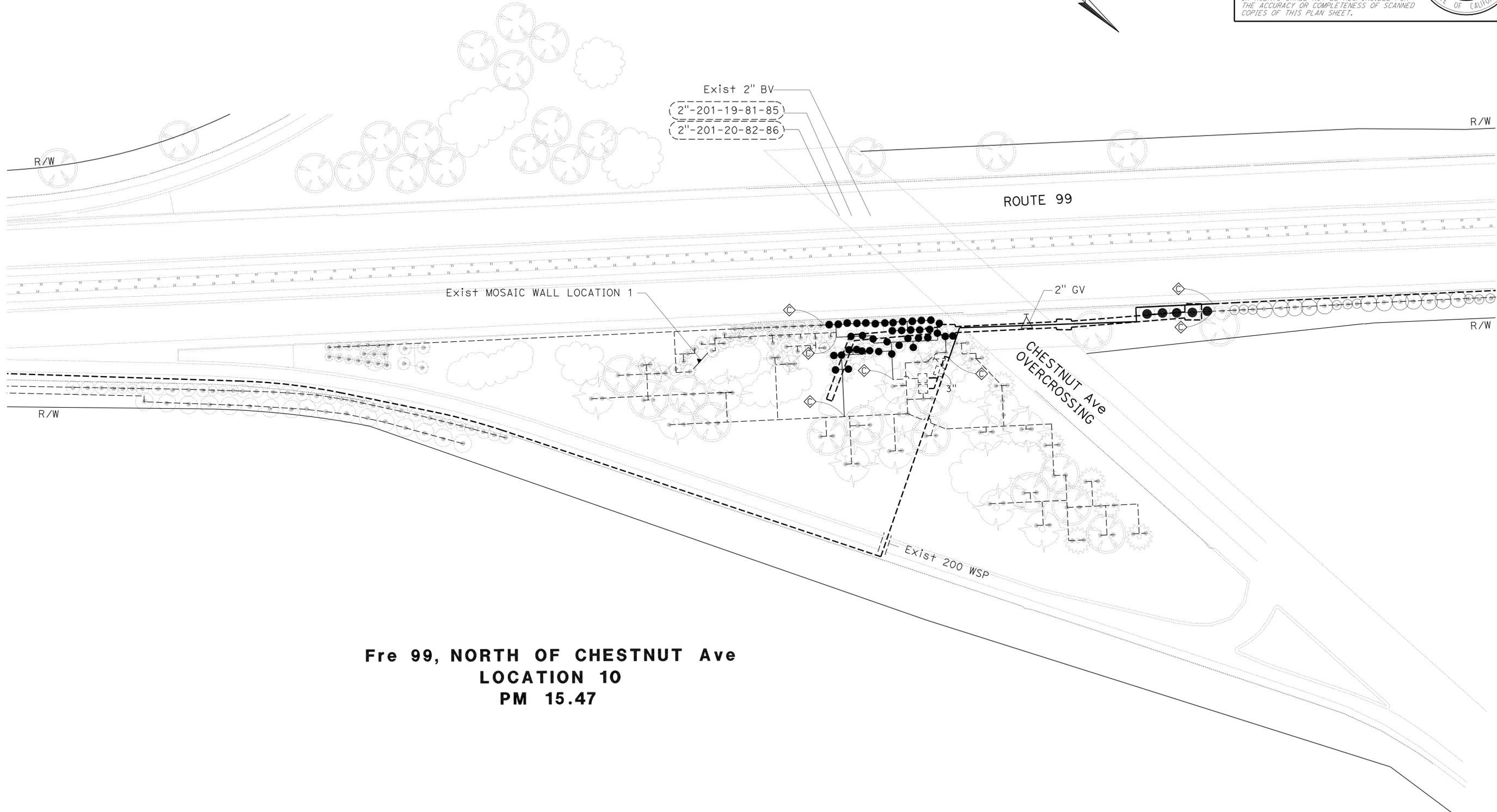
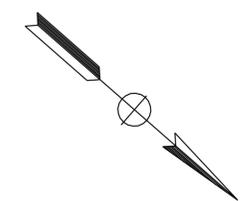
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**NOTES:**

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

EXISTING 2" WATER METER ON 3" SERVICE LOCATED AT SOUTH EAST CORNER OF CENTRAL Ave



**Fre 99, NORTH OF CHESTNUT Ave  
LOCATION 10  
PM 15.47**

**IRRIGATION PLAN  
IP-3**

THIS PLAN ACCURATE FOR IRRIGATION WORK ONLY

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT  
ELBERT COX

CALCULATED/DESIGNED BY  
CHECKED BY

RAYMOND SEGURA  
RICHARD COLE

REVISED BY  
DATE REVISED



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	26	69

9-26-11  
 PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT  
 B. COLE  
 06/30/12  
 06/15/10

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

### SPRINKLER SCHEDULE

SYMBOL	TYPE	DESCRIPTION	SPRAY PATTERN	OPERATING PRESSURE (PSI)	PRESSURE COMPENSATING	PLUS/MINUS 5% ②				MATERIAL	INLET CONNECTION (NPT INCH)	POSITIVE-LOCKING ADJ ARC STOP	BACKSPASH PREVENTER	DIFFUSER PIN	DISTANCE CONTROL FLAP	ADJ DISCHARGE	RISER				SWING JOINT (TYPE) ⑤	RISER SUPPORT	SPRINKLER PROTECTOR (TYPE)	REMARKS		
						DISCHARGE		RADIUS (F+)	WIDTH X LENGTH (F+)								MATERIAL		SIZE (IPS INCH)	HEIGHT (INCH)					FLOW SHUTOFF DEVICE	
						GALLONS PER MINUTE (GPM)	GALLONS PER HOUR (GPH)										PLASTIC	GALVANIZED								
①	A-1	SIDE IMPACT	P	50	-	5.0	-	41	-	B/B	1/2	X	X	X	X	X	IV	-	X	1/2	30	X	II	-	-	
③	A-3	ROTOR	H	40	-	1.3	-	24	-	PL	1/2	-	-	-	-	X	I	X	-	1/2	-	-	I	-	-	4" POP-UP
⑤	A-5	ROTOR	ADJ	35	X	1.3	-	32	-	PL	1/2	-	-	-	-	X	II	X	-	1/2	36	-	I	X	-	SHRUB MODEL
⑥	A-6	ROTOR	ADJ	35	X	1.3	-	32	-	PL	1/2	-	-	-	-	X	-	-	-	-	-	-	I	-	-	12" POP-UP
⑦	A-7	ROTOR	ADJ	35	X	6.8	-	47	-	PL	1/2	-	-	-	-	X	II	X	-	1/2	36	-	I	X	-	SHRUB MODEL
⑧	A-8	ROTOR	ADJ	35	X	6.8	-	47	-	PL	1/2	-	-	-	-	X	-	-	-	-	-	-	I	-	-	12" POP-UP
△	B-1	SHRUB SPRAY	H/Q	30	X	1.8 0.9	-	15	-	PL	1/2	-	-	-	-	X	II	X	-	1/2	12	-	I	-	-	
▲	B-2	SHRUB SPRAY	H	30	X	1.3	-	12	-	PL	1/2	-	-	-	-	-	VI	X	-	1/2	-	-	-	-	-	
●	C-3	SHRUB SPRAY	Q	30	X	0.2	-	8	-	PL	1/2	-	-	-	-	-	V	-	-	1/2	-	-	-	-	-	

X IN BOX DENOTES REQUIREMENT

**APPLICABLE WHEN CIRCLED BELOW:**

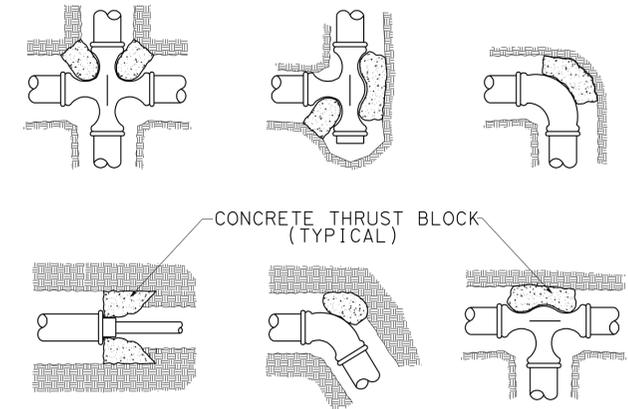
- 1 - See Special Provisions.
- ② - If a pressure compensating device is specified, the discharge and radii shown reflect its use.
- 3 - Arc Stop shall be fitted with a nut and bolt.
- 4 - Vinyl-coated cast iron housing.
- ⑤ - Swing Joints required adjacent to shoulders, curbs, sidewalks, and dikes.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

**ABBREVIATIONS:**

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

**LATERAL SUPPLY SIDE PIPE SIZING CHART**

No. OF HEADS BY TYPE							PIPE SIZE (INCH)
A-1	B-2 (15' R) F	B-2 (15' R) P	B-2 (12' R) F	B-2 (12' R) P	C-3		
1	1-2	1-4	1-5	1-11	1-16	3/4	
2	3-4	5-7	6-8	12-17	17-36	1	
3-4	5-6	8-12	9-15	18-30	37-64	1 1/4	
5-6	7-8	13-16	16-19	31-38	65-96	1 1/2	
7-9	9-13	17-26	20-31	39-63	97-160	2	
	14-19	27-37				2 1/2	



TYPICAL THRUST BLOCK

## SPRINKLER SCHEDULE AND DETAILS LD-1



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

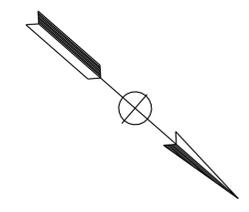
- 1 120/240 V, 1Ø, 3-WIRE, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:
- CTID No. 06420990011302L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	—
15	120	1	LIGHTING CONTROL	YES	—
40	240	2	HIGHWAY LIGHTING	YES	V
30	240	2	SIGN LIGHTING	YES	LC3
15	120	1	MVDS	YES	—
30	240	2	SPARE	YES	—
20	120	1	SPARE	YES	—
—	—	6	SPACE	—	—

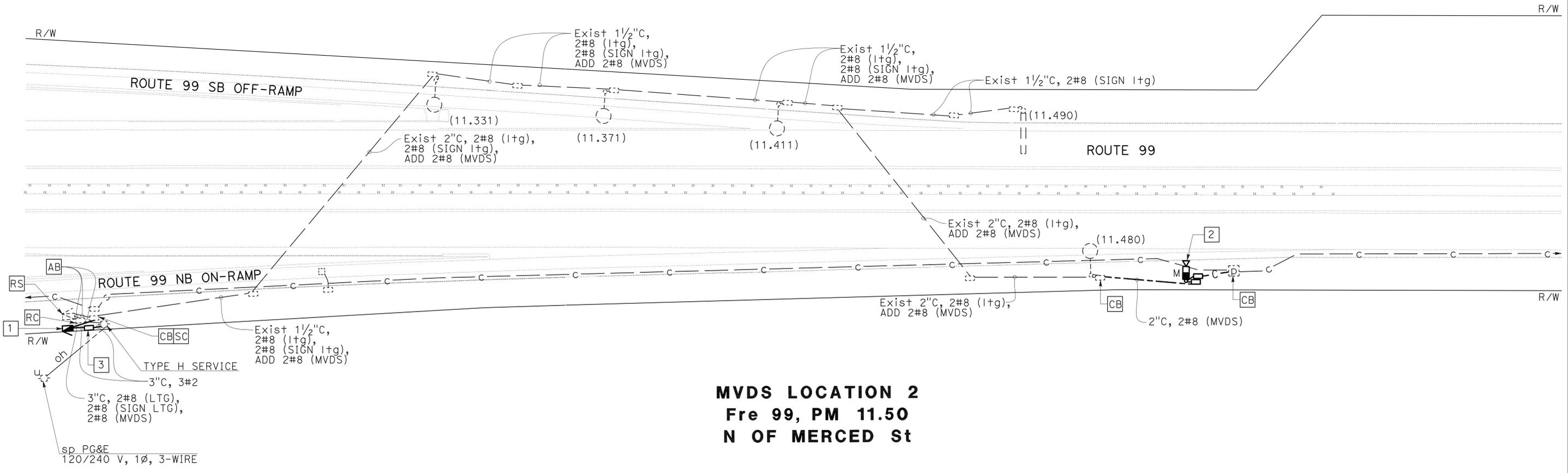
- 2 VDS POLE. SEE SHEETS E-17 AND E-20 FOR ADDITIONAL REQUIREMENTS.
- 3 PULL BOX PER PG&E REQUIREMENTS.

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

1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD  
 CALCULATED/DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]  
 REVISIONS: [Blank]  
 DESIGNED BY: [Blank]  
 DATE REVISION: [Blank]  
 REVISOR: [Blank]  
 DATE: [Blank]  
 DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]



**MVDS LOCATION 2  
 Fre 99, PM 11.50  
 N OF MERCED St**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 2)**

**E-2**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'

LAST REVISION: [Blank]  
 DATE PLOTTED => 28-SEP-2011  
 TIME PLOTTED => 14:29

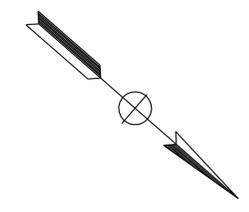
**LEGEND: (FOR THIS SHEET ONLY)**

- 1 120/240 V, 1Ø, 3-WIRE, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:
- CTID No. 06420990011891L

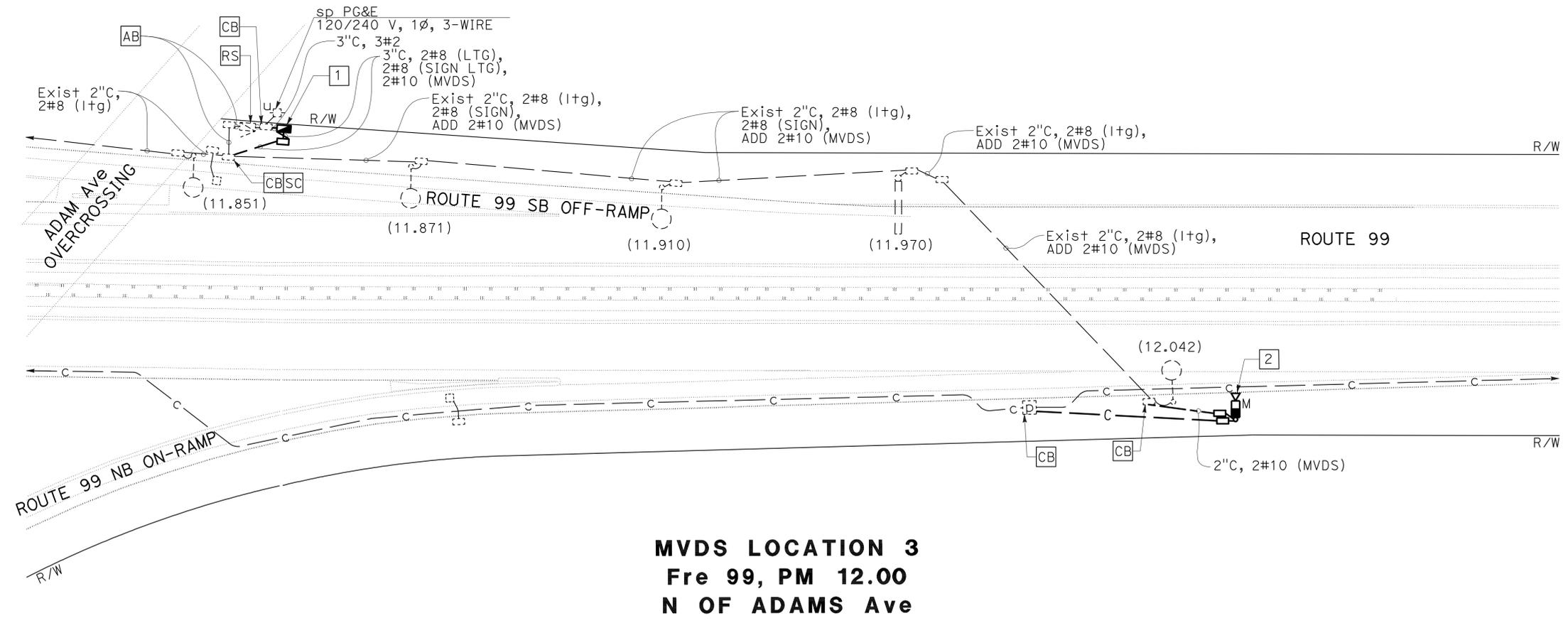
AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	—
40	240	2	HIGHWAY LIGHTING	YES	V
30	240	2	SIGN LIGHTING	YES	LC3
15	120	1	LIGHTING CONTROL	YES	—
15	120	1	MVDS	YES	—
30	240	2	SPARE	YES	—
20	120	1	SPARE	YES	—
—	—	6	SPACE	—	—

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

- ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



- 2 VDS POLE. SEE SHEETS E-17 AND E-20 FOR ADDITIONAL REQUIREMENTS.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Caltrans® ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD  
 CALCULATED/DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]  
 REVISIONS: [Blank]  
 REVISOR: [Blank]  
 DATE: [Blank]  
 DESIGNED BY: [Blank]  
 DATE: [Blank]  
 CHECKED BY: [Blank]  
 DATE: [Blank]

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 3)**

**E-3**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

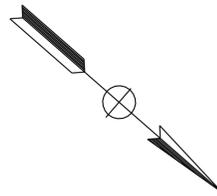
SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	30	69

Norma M. Gallegos 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER  
 NORMA M. GALLEGOS  
 No. 19105  
 Exp. 6-30-12  
 ELECTRICAL  
 STATE OF CALIFORNIA



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

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

CTID No. 06420990012531T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	—
40	120	1	CCTV AND MVDS	YES	
20	120	1	TDC	YES	

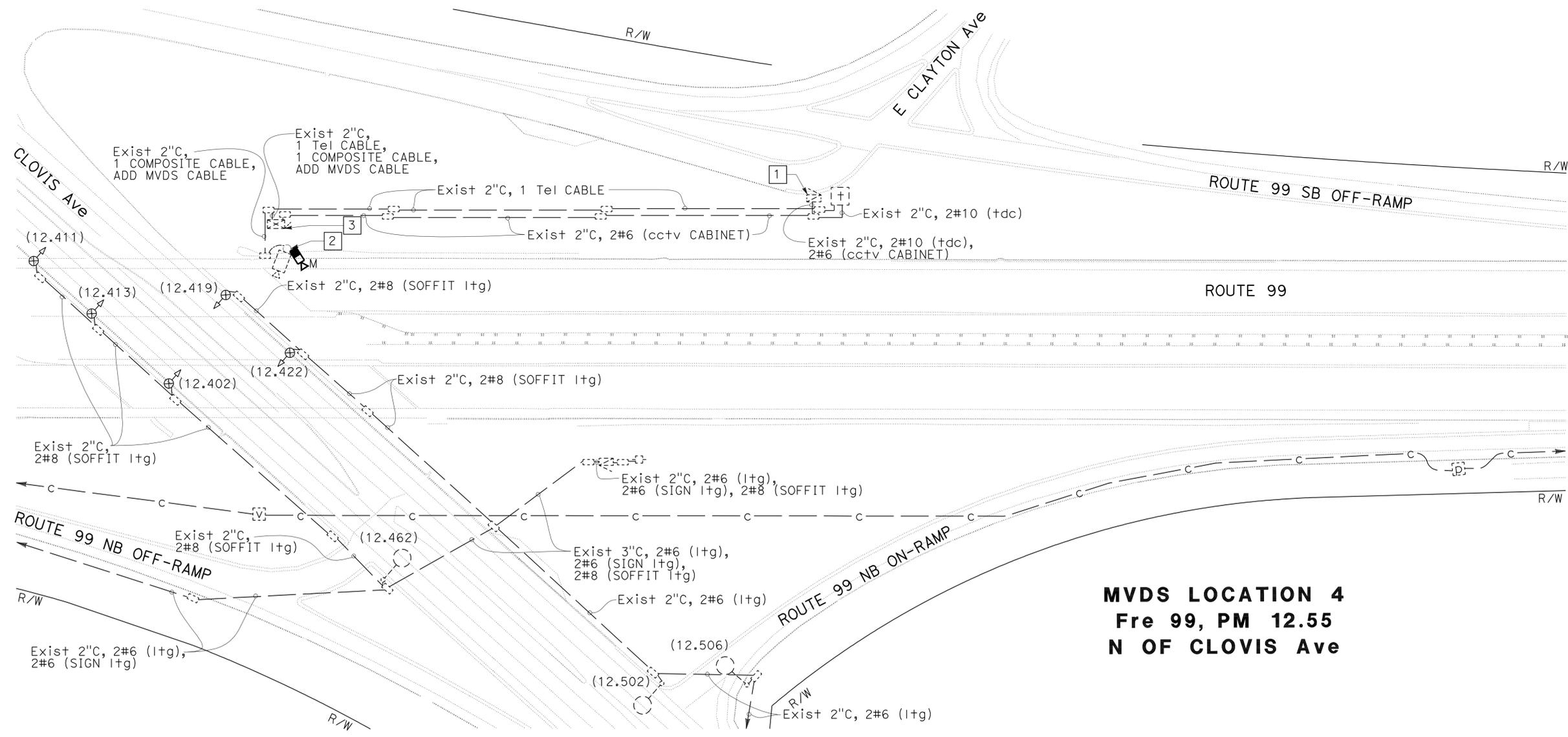
- 2 INSTALL MVDS SENSOR TO Exist CCTV 35 POLE. SEE SHEETS E-17 AND E-19 FOR ADDITIONAL REQUIREMENTS.
- 3 Exist CCTV CABINET. INSTALL EQUIPMENT AS SHOWN ON SHEET E-19, DETAIL A.

CTID No. 06420990012531L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	—
40	240	2	HIGHWAY LIGHTING	YES	IV
30	240	2	SIGN LIGHTING	YES	LC3
15	120	1	SPARE	YES	—

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

- 1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
- 2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**MVDS LOCATION 4  
Fre 99, PM 12.55  
N OF CLOVIS Ave**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 4)  
E-4**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Alttrans® ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD  
 CALCULATED/DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]  
 REVISIONS: [Blank]  
 REVISOR: [Blank]  
 DATE: [Blank]  
 DESIGNED BY: [Blank]  
 DATE: [Blank]  
 REVISOR: [Blank]  
 DATE: [Blank]

LAST REVISION: [Blank]      DATE PLOTTED => 28-SEP-2011      TIME PLOTTED => 13:27

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

FUNCTIONAL SUPERVISOR  
 ALI BAKHDOUN

CALCULATED/DESIGNED BY  
 CHECKED BY

NORMA M. GALLEGOS  
 OMAR MENDOZA

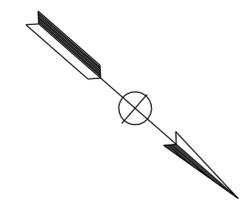
REVISED BY  
 DATE REVISED

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

1 VDS POLE. SEE SHEETS E-17, E-18 AND E-20 FOR ADDITIONAL REQUIREMENTS.

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

1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



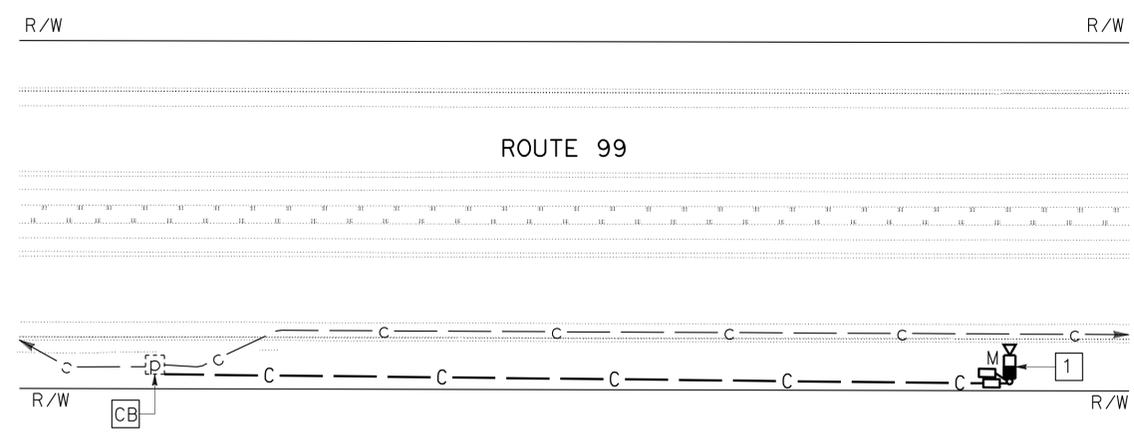
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	31	69

Norma M. Gallegos 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE

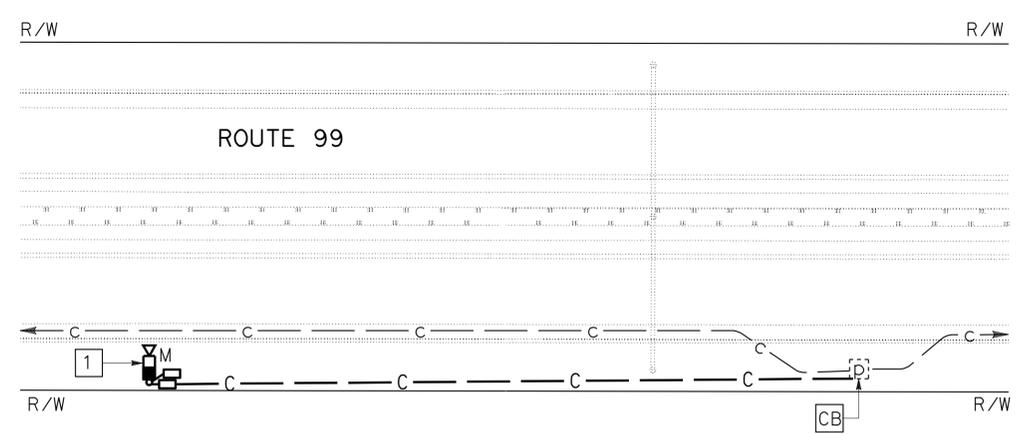
9-26-11  
 PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER  
 NORMA M. GALLEGOS  
 No. 19105  
 Exp. 6-30-12  
 ELECTRICAL  
 STATE OF CALIFORNIA



**MVDS LOCATION 6**  
**Fre 99, PM 13.50**  
**S OF AMERICAN Ave**



**MVDS LOCATION 7**  
**Fre 99, PM 14.00**  
**S OF AMERICAN Ave**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATIONS 5, 6 AND 7)**  
**E-5**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY. SCALE: 1" = 50'

LAST REVISION DATE PLOTTED => 28-SEP-2011 07-01-11 TIME PLOTTED => 13:27

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	32	69

Norma M. Gallegos 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

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

CTID No. 06420990014722L

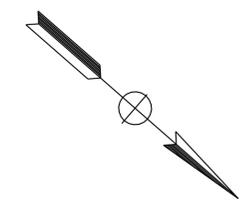
AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	3	MAIN BREAKER	YES-1P NO-2P	—
40	240	2	HIGHWAY LIGHTING	NO	V
40	240	2	SIGN LIGHTING	NO	LC3
15	120	1	PEC	YES	—
30	240	2	EMS	YES	—
20	120	1	MVDS *	YES	—
20	120	1	SPARE	YES	—
—	—	3	SPACE	—	—

\* REPLACE NAMEPLATE

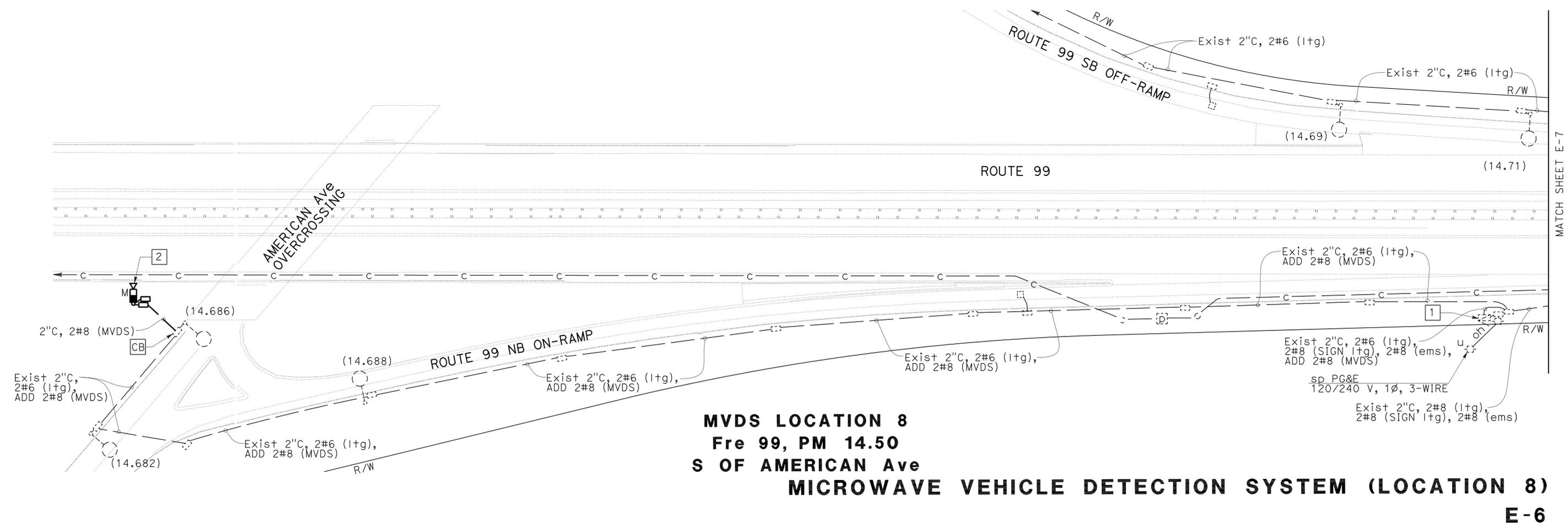
2 VDS POLE. SEE SHEETS E-17 AND E-20 FOR ADDITIONAL REQUIREMENTS.

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

1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICAL DESIGN  
 ALT BAKHDOUD  
 NORMA M. GALLEGOS  
 OMAR MENDOZA



**MVDS LOCATION 8**  
**Fre 99, PM 14.50**  
**S OF AMERICAN Ave**  
**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 8)**  
**E-6**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'

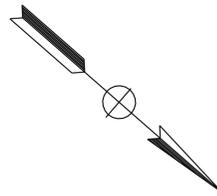
LAST REVISION | DATE PLOTTED => 28-SEP-2011  
 07-01-11 | TIME PLOTTED => 13:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	33	69

Norma M. Gallegos 6-30-11	
REGISTERED ELECTRICAL ENGINEER	DATE
9-26-11	
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>	

REGISTERED PROFESSIONAL ENGINEER  
 NORMA M. GALLEGOS  
 No. 19105  
 Exp. 6-30-12  
 ELECTRICAL  
 STATE OF CALIFORNIA

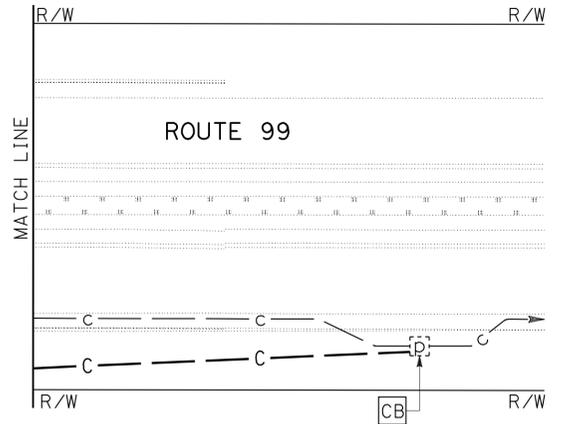
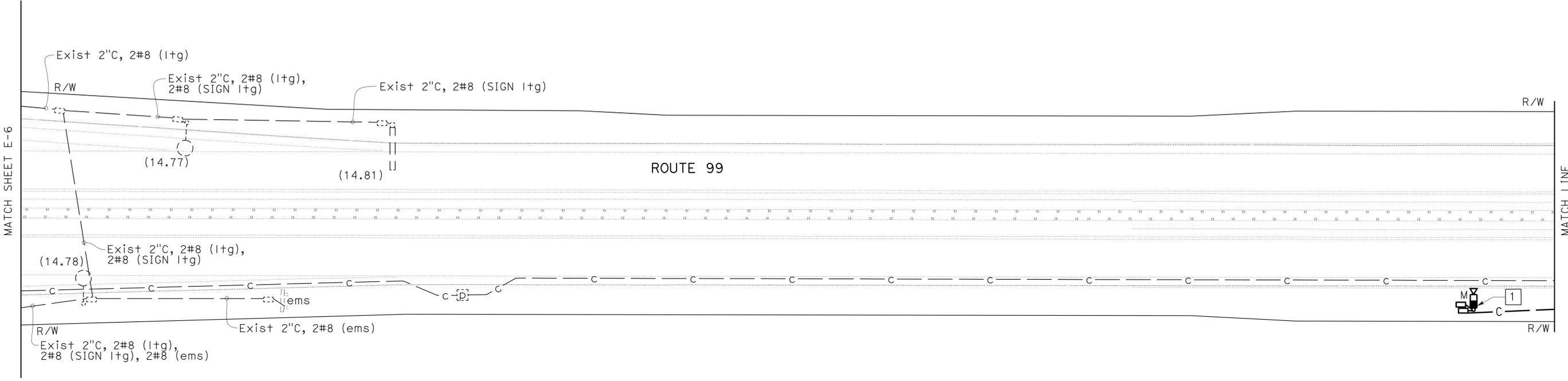


**LEGEND:** (FOR THIS SHEET ONLY)

1 VDS POLE. SEE SHEETS E-17, E-18 AND E-20 FOR ADDITIONAL REQUIREMENTS.

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

1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**MVDS LOCATION 9**  
**Fre 99, PM 15.00**  
**N OF AMERICAN Ave**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 9)**  
**E-7**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD  
 CALCULATED/DESIGNED BY: [blank]  
 CHECKED BY: [blank]  
 NORMA M. GALLEGOS  
 OMAR MENDOZA  
 REVISED BY: [blank]  
 DATE REVISED: [blank]

USERNAME => s123631  
 DGN FILE => 60M760ua007.dgn

RELATIVE BORDER SCALE IS IN INCHES



UNIT 1515

PROJECT NUMBER & PHASE

06000200111

LAST REVISION: 07-01-11  
 DATE PLOTTED => 28-SEP-2011  
 TIME PLOTTED => 13:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	34	69

Norma M. Gallegos 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

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

CTID No. 06420990015492T

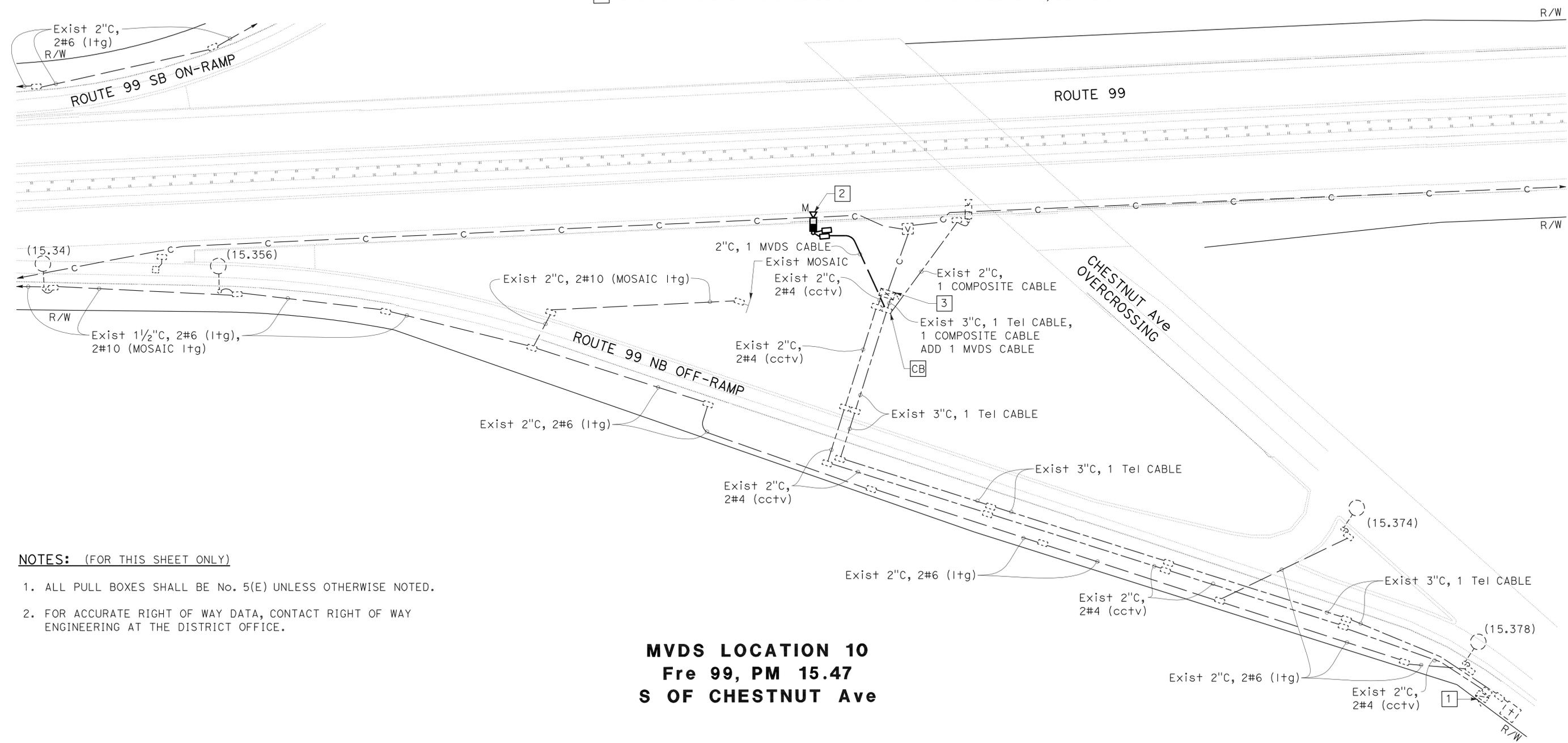
AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	—
40	120	1	CCTV AND MVDS	YES	—
20	120	1	TDC	YES	—
60	120	1	SIGNAL	YES	—
—	—	6	SPACE	—	—

CTID No. 06420990015492L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	—
40	240	2	HIGHWAY LIGHTING	YES	IV
30	240	2	SIGN LIGHTING	YES	LC3
20	240	2	SPARE	YES	—
—	—	4	SPACE	—	—

- 2 VDS POLE. SEE SHEETS E-17 AND E-19 FOR ADDITIONAL REQUIREMENTS.
- 3 Exist CCTV CABINET. INSTALL EQUIPMENT AS SHOWN ON SHEET E-19, DETAIL B.

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, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.



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

- 1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
- 2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

**MVDS LOCATION 10**  
**Fre 99, PM 15.47**  
**S OF CHESTNUT Ave**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 10)**

**E-8**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY. SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	35	69

Norma M. Gallegos 6-30-11  
REGISTERED ELECTRICAL ENGINEER DATE

9-26-11  
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER  
NORMA M. GALLEGOS  
No. 19105  
Exp. 6-30-12  
ELECTRICAL  
STATE OF CALIFORNIA

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

1 Exist 120/240 V, 1 $\phi$ , 3-WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

CTID No. 06420990015951L

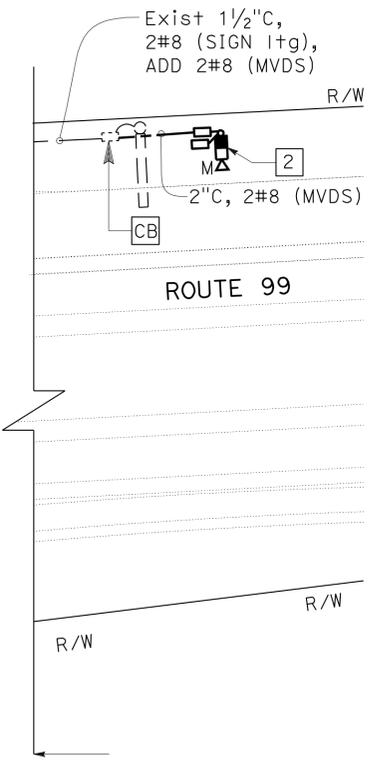
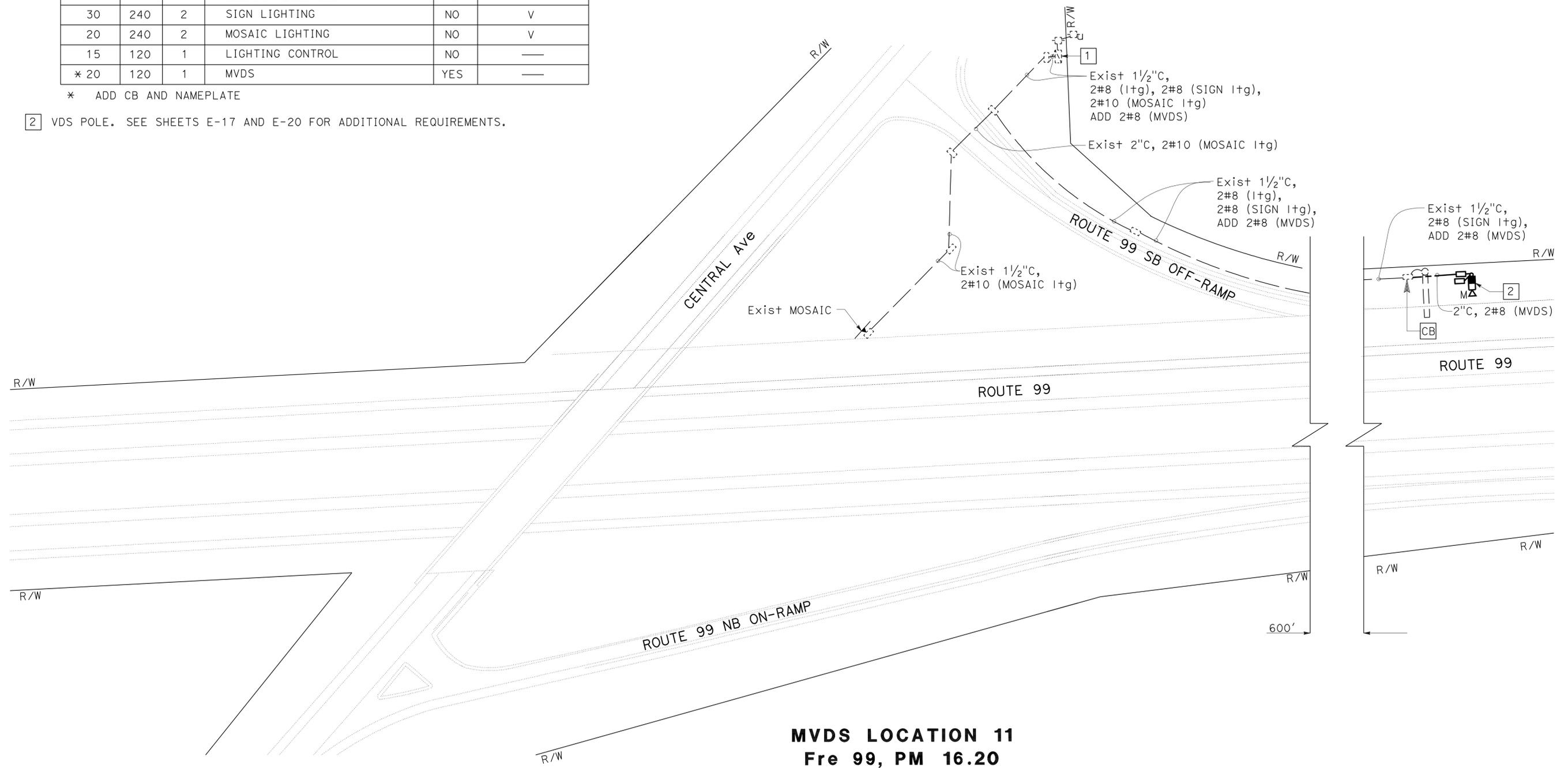
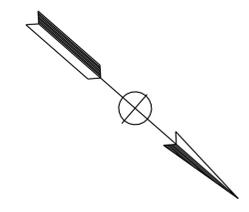
AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	3	MAIN BREAKER	YES-1P NO-2P	—
40	240	2	HIGHWAY LIGHTING	NO	V
30	240	2	SIGN LIGHTING	NO	V
20	240	2	MOSAIC LIGHTING	NO	V
15	120	1	LIGHTING CONTROL	NO	—
* 20	120	1	MVDS	YES	—

\* ADD CB AND NAMEPLATE

2 VDS POLE. SEE SHEETS E-17 AND E-20 FOR ADDITIONAL REQUIREMENTS.

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

1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**MVDS LOCATION 11**  
**Fre 99, PM 16.20**  
**N OF CENTRAL Ave**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 11)**

**E-9**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'

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

REVISOR BY: NORMA M. GALLEGOS  
DATE: 6-30-11

DESIGNER BY: OMAR MENDOZA

CHECKED BY:

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	37	69

Norma M. Gallegos 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER  
 NORMA M. GALLEGOS  
 No. 19105  
 Exp. 6-30-12  
 ELECTRICAL  
 STATE OF CALIFORNIA

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

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

CTID No. 06420990031331T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	3	MAIN BREAKER	YES-1P NO-2P	_____
40	240	2	HIGHWAY LIGHTING	NO	IV
40	120	1	TRAFFIC MONITORING STATION	YES	_____
15	120	1	TDC	YES	_____
40	120	1	TRAFFIC COUNT STATION	YES	_____
15	120	1	VISIBILITY SENSOR	YES	_____
15	120	1	SCAN SYSTEM	YES	_____
15	120	1	MVDS *	YES	_____
_____	_____	5	SPACE	_____	_____

\* REPLACE NAMEPLATE

- 2 VDS POLE. SEE SHEETS E-17 AND E-20 FOR ADDITIONAL REQUIREMENTS.  
 3 Exist TRAFFIC CENSUS CABINET.

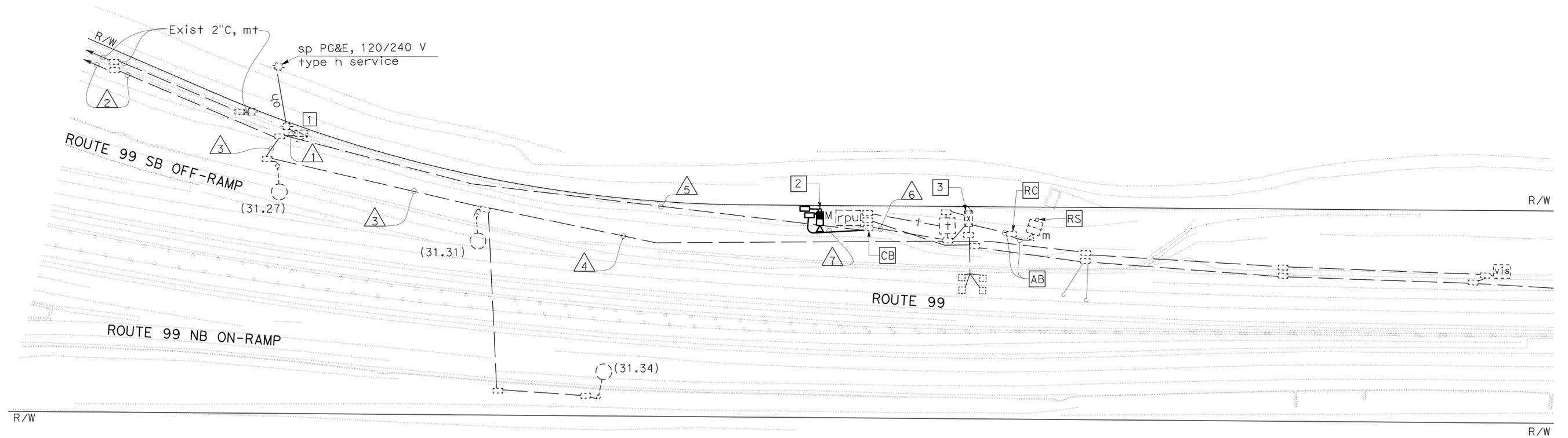
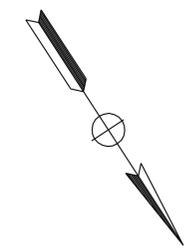
**NOTES: (FOR THIS SHEET ONLY)**

1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.  
 2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

**CONDUIT AND CONDUCTOR SCHEDULE**

CONDUCTOR DESIGNATION	CIRCUIT	CONDUIT RUN NUMBER AND SIZE						
		1	2	3	4	5	6	7
#8	TRAFFIC STATION	*2"	*3"	*1 1/2"	*1 1/2"	*1 1/2"	*1 1/2"	2"
#8	LIGHTING	*2	*2					
#8	COUNT STATION	*2		*2	*2			
#8	SCAN SYSTEM	*2				*2		
#8	VISIBILITY SENSOR	*2				*2		
#8	TDC	*2				*2	*2	
#8	MVDS	2				2		2

\* EXISTING



**MVDS LOCATION 13**  
**Fre 99, PM 31.43**  
**N OF HERNDON Ave OC**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 13)**  
**E-11**

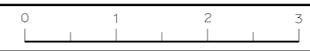
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICAL DESIGN  
 ALT BAKHDOUD  
 NORMA M. GALLEGOS  
 OMAR MENDOZA

USERNAME => s114937  
 DGN FILE => 60M760ua011.dgn

RELATIVE BORDER SCALE  
 IS IN INCHES



UNIT 1515

PROJECT NUMBER & PHASE

06000200111

BORDER LAST REVISED 7/2/2010

LAST REVISION DATE PLOTTED => 28-SEP-2011  
 07-01-11 TIME PLOTTED => 14:06

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

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

CTID No. 06410990000471T

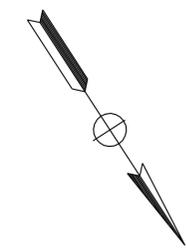
AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
200	240	2	MAIN BREAKER	YES	—
70	120	1	CMS CABINET	YES	—
80	120	1	CHANGEABLE MESSAGE SIGN	YES	—
80	120	1	CHANGEABLE MESSAGE SIGN	YES	—
80	120	1	CHANGEABLE MESSAGE SIGN	YES	—
80	120	1	CHANGEABLE MESSAGE SIGN	YES	—
* 15	120	1	MVDS	YES	—
—	—	2	SPACE	—	—

\* ADD CB AND NAMEPLATE

- 2 Exist MODEL 334 CABINET FOR CMS.  
 3 VDS POLE. SEE SHEETS E-17 AND E-20 FOR ADDITIONAL REQUIREMENTS.

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

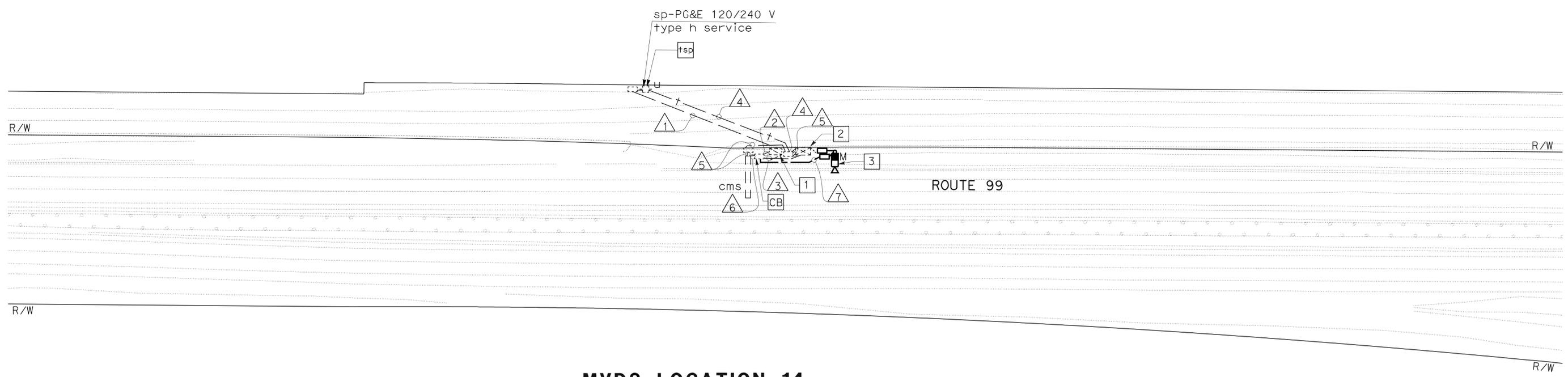
1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.  
 2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**CONDUIT AND CONDUCTOR SCHEDULE**

CONDUCTOR DESIGNATION	CIRCUIT	CONDUIT RUN NUMBER AND SIZE						
		1	2	3	4	5	6	7
AWG		*3"	*3"	*2"	*2"	*3"	*3"	2"
#4/0	SERVICE	*3						
#4	CMS CABINET		*2	*2				
#2	CMS		*4				*4	
#2	CMS NEUTRAL		*2				*2	
#6	CMS EQG						*1	
	HARNESS #5						*1	
	HARNESS #4						*1	
12C-#20	TELEPHONE				*1			
#10	MVDS		2					2

\* EXISTING



**MVDS LOCATION 14**  
**Mad 99, PM 0.47**  
**S OF Ave 7**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATION 14)**  
**E-12**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICAL DESIGN  
 NORMA M. GALLEGOS  
 OMAR MENDOZA  
 REVISED BY DATE REVISION  
 CALCULATED/DESIGNED BY CHECKED BY  
 FUNCTIONAL SUPERVISOR  
 ALT BAKHDOUD

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	39	69

Norma M. Gallegos 6-30-11  
REGISTERED ELECTRICAL ENGINEER DATE

9-26-11  
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER  
NORMA M. GALLEGOS  
No. 19105  
Exp. 6-30-12  
ELECTRICAL  
STATE OF CALIFORNIA

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

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

CTID No. 06410990002231T

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
200	240	2	MAIN BREAKER	YES	—
80	120	1	CHANGEABLE MESSAGE SIGN	YES	—
80	120	1	CHANGEABLE MESSAGE SIGN	YES	—
80	120	1	CHANGEABLE MESSAGE SIGN	YES	—
80	120	1	CHANGEABLE MESSAGE SIGN	YES	—
40	120	1	CMS CABINET	YES	—
40	120	1	TMS	YES	—
*15	120	1	MVDS	YES	—

\* ADD CB, MOUNTING FRAME AND NAMEPLATE. MODIFY DEAD FRONT PANEL FOR ADDITIONAL BREAKER.

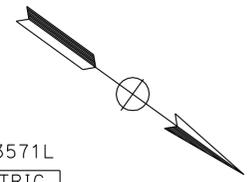
2 VDS POLE. SEE SHEETS E-17 AND E-20 FOR ADDITIONAL REQUIREMENTS.

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

\*\*\* CTID No. 06410990003571L

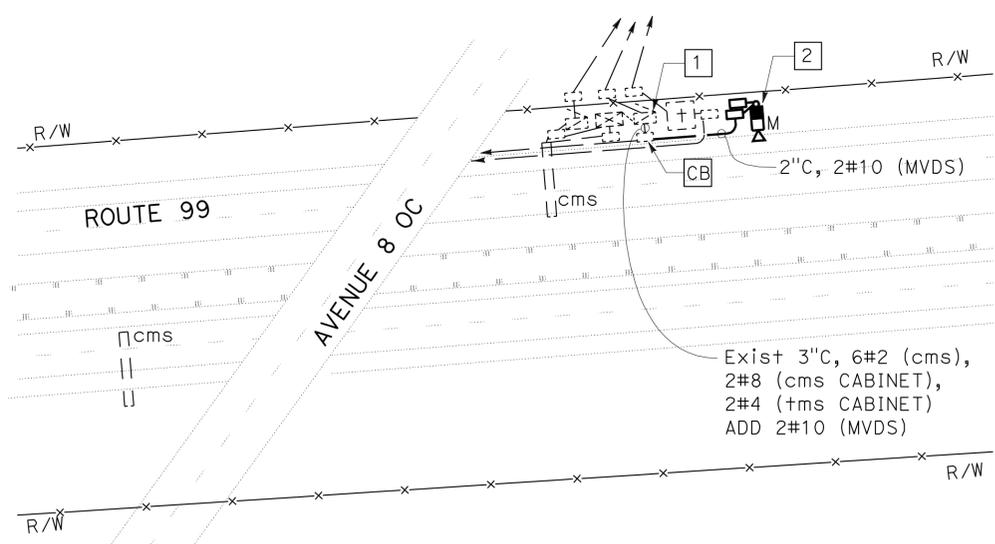
AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	*2	MAIN BREAKER	YES*	—
40	240	2	SOFFIT LIGHTING	YES	V
40	240	2	HIGHWAY LIGHTING	YES	IV
40	240	2	HIGHWAY LIGHTING	YES	IV
15	120	1	CONTROLS	YES	—
40	120	1	SPARE	YES	—
**15	120	1	MVDS	YES	—
—	—	3	SPACE	—	—

\* Exist 3-POLE MAIN CB WITH 2 POLE UNMETERED AND 1 POLE METERED.  
 RS 3-POLE MAIN CB. ADD 2 POLE MAIN CB TO METER ALL CIRCUITS.  
 PROVIDE INSULATED BARS TO JUMPER CLIPS IN METER SOCKET  
 \*\* ADD CB AND NAMEPLATE.  
 \*\*\* ADD ENGRAVED PHENOLIC NAMEPLATE ON THE EXTERIOR DOOR PANEL.

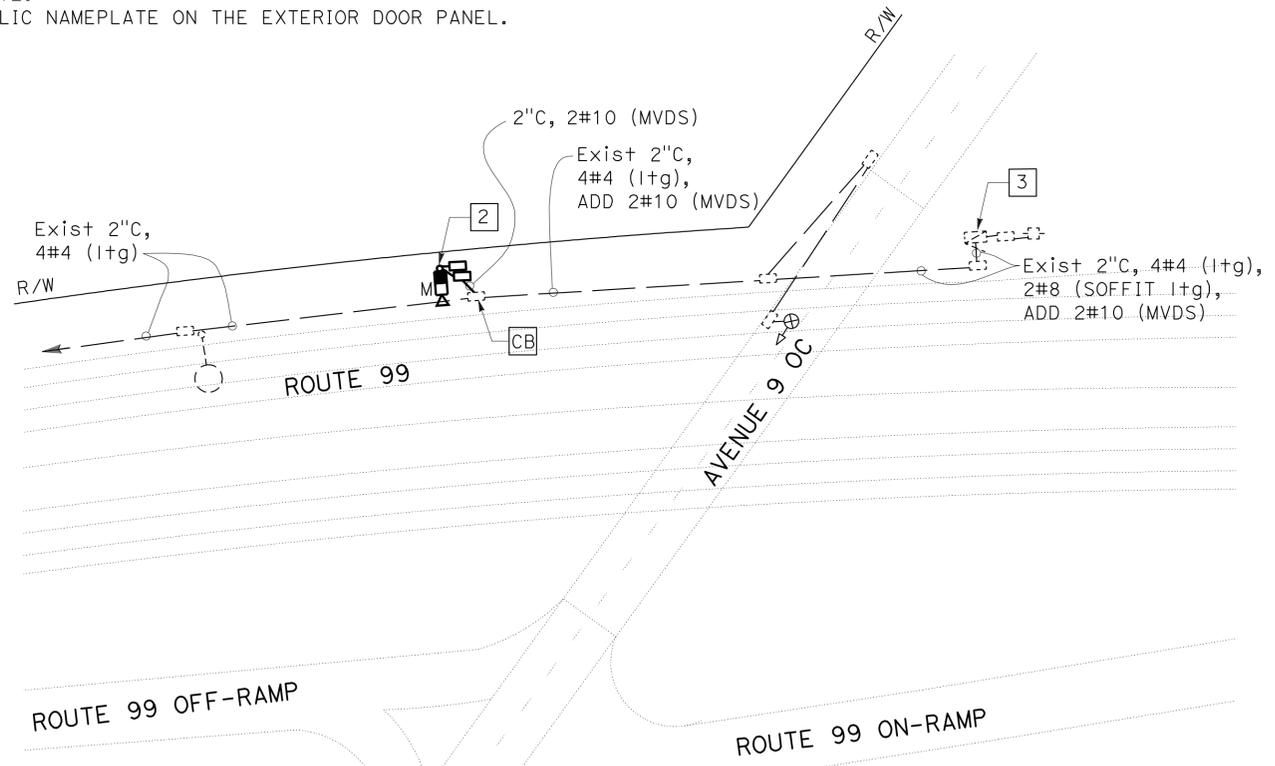


**NOTES: (FOR THIS SHEET ONLY)**

- ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**MVDS LOCATION 15**  
**Mad 99, PM 2.23**  
**N OF Ave 8 OC**



**MVDS LOCATION 16**  
**Mad 99, PM 3.56**  
**S OF Ave 9**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATIONS 15 AND 16)**

**E-13**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 ELECTRICAL DESIGN  
 ALT BAKHDOUD  
 NORMA M. GALLEGOS  
 OMAR MENDOZA

LAST REVISION DATE PLOTTED => 29-SEP-2011 07-01-11 TIME PLOTTED => 06:13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	40	69

Norma M. Gallegos 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE

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

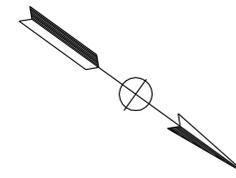
REGISTERED PROFESSIONAL ENGINEER  
 NORMA M. GALLEGOS  
 No. 19105  
 Exp. 6-30-12  
 ELECTRICAL  
 STATE OF CALIFORNIA

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

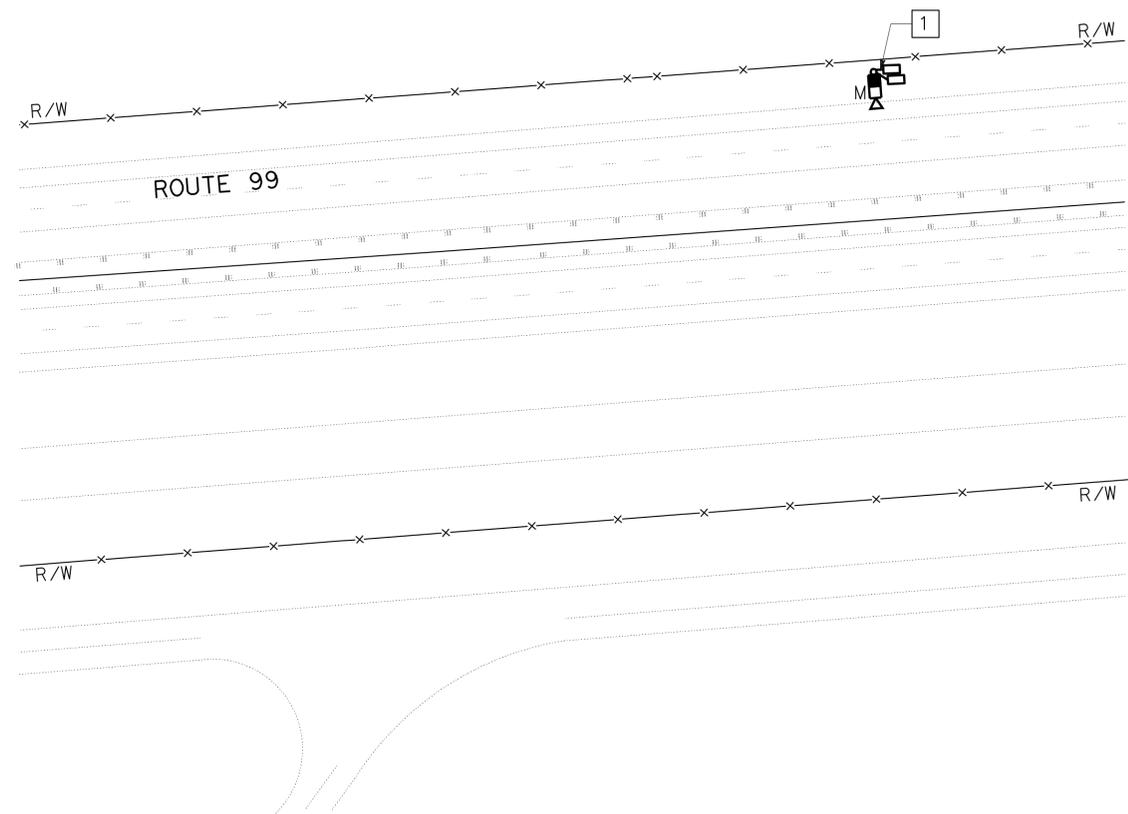
1 VDS POLE. SEE SHEETS E-17, E-18 AND E-20 FOR ADDITIONAL REQUIREMENTS.

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

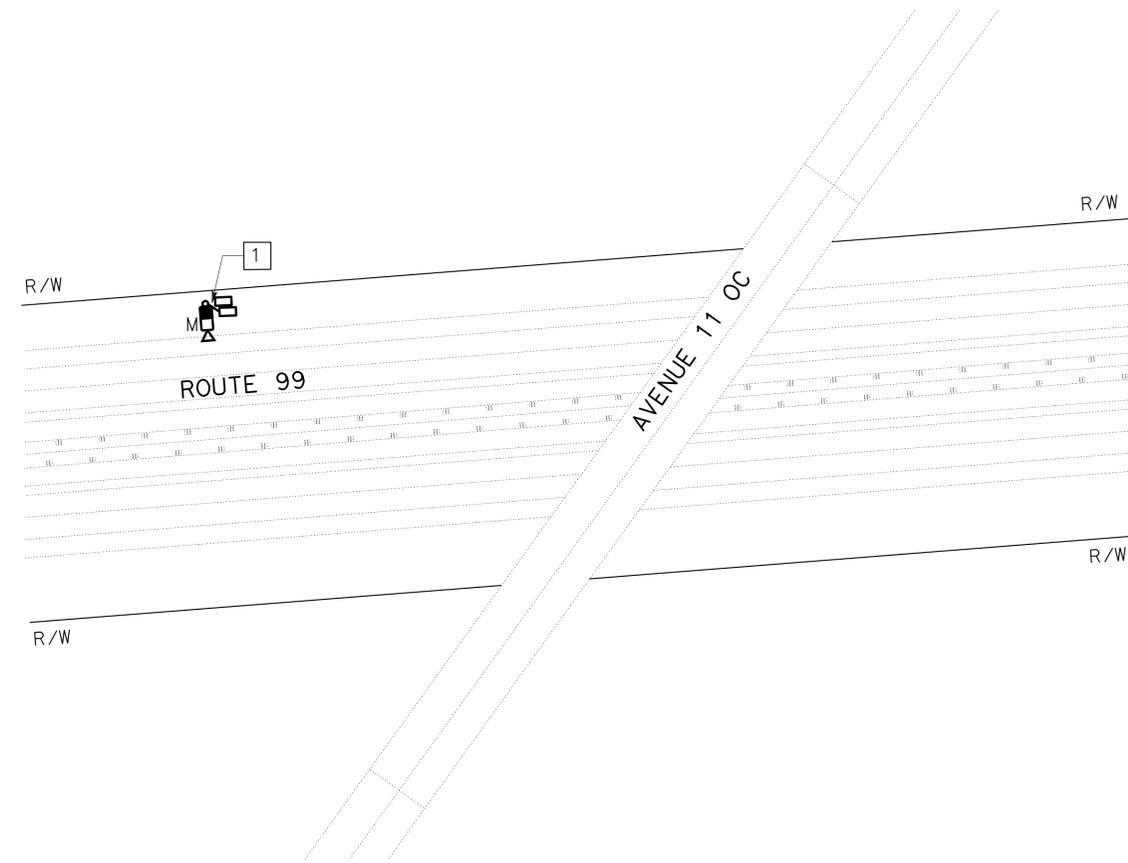
1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**® ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR  
 ALT BAKHDOUD  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 NORMA M. GALLEGOS  
 OMAR MENDOZA  
 REVISED BY  
 DATE REVISED



**MVDS LOCATION 17**  
 Mad 99, PM 4.86  
 N OF Ave 9



**MVDS LOCATION 18**  
 Mad 99, PM 6.13  
 S OF Ave 11 OC

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATIONS 17 AND 18)**  
**E-14**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

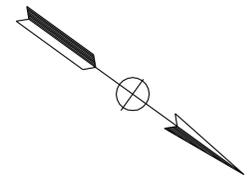
SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	41	69

*Norma M. Gallegos* 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE

9-26-11  
 PLANS APPROVAL DATE

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



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

- 1 VDS POLE. SEE SHEETS E-17 AND E-20 FOR ADDITIONAL REQUIREMENTS.
- 2 VDS POLE. SEE SHEETS E-17, E-18 AND E-20 FOR ADDITIONAL REQUIREMENTS.
- 3 RC Exist SERVICE AND PEU FROM EXISTING STATE OWNED WOOD POLE.
- 4 120/240 V, 1Ø, 3-WIRE, TYPE A SERVICE WITH THE FOLLOWING CIRCUIT BREAKERS:

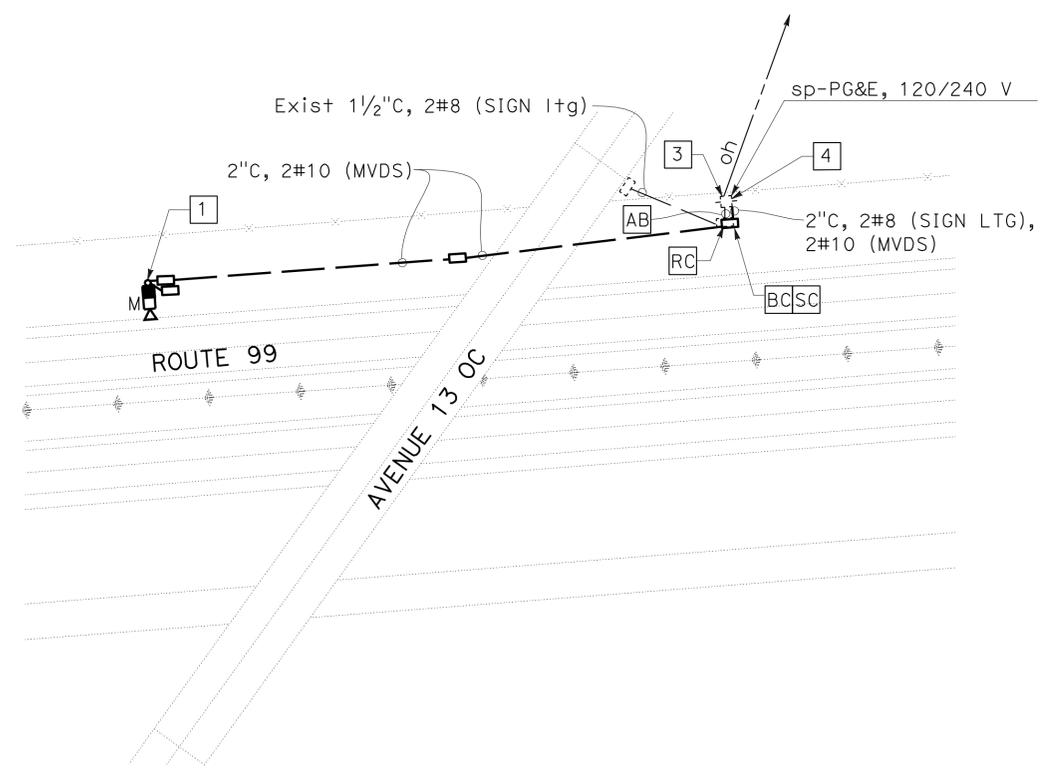
**NOTES:** (FOR THIS SHEET ONLY)

- 1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
- 2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

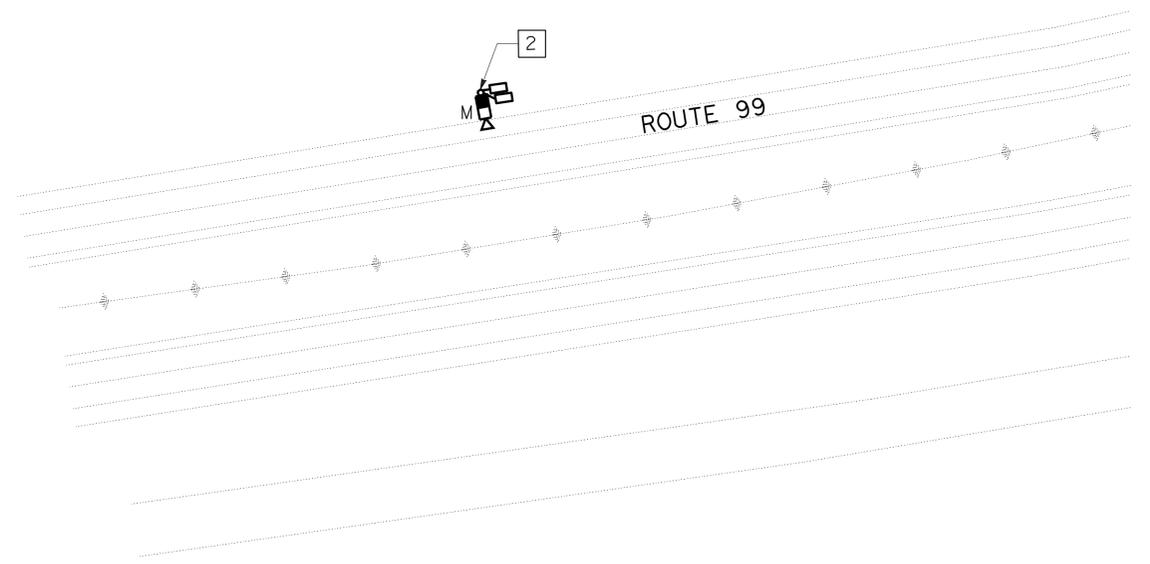
\* CTID No. 06410990008731L

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN BREAKER	YES	—
30	120	1	SIGN ILLUMINATION	YES	V
15	120	1	LIGHTING CONTROL	YES	—
15	120	1	MVDS	YES	—
30	240	2	SPARE	YES	—
20	120	1	SPARE	YES	—
—	—	6	SPACE	—	—

\* STATE OWNED WOOD POLE MOUNTED



**MVDS LOCATION 19**  
**Mad 99, PM 8.72**  
**S OF Ave 13 OC**



**MVDS LOCATION 20**  
**Mad 99, PM 13.50**  
**S OF Ave 17**

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATIONS 19 AND 20)**  
**E-15**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Alttrans® ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR: ALT BAKHDOUD  
 CALCULATED/DESIGNED BY: [Blank]  
 CHECKED BY: [Blank]  
 NORMA M. GALLEGOS  
 OMAR MENDOZA  
 REVISED BY: [Blank]  
 DATE REVISED: [Blank]

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

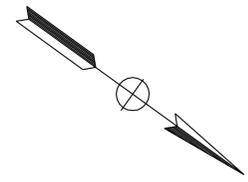
FUNCTIONAL SUPERVISOR	ALY BAKHDOUD
CALCULATED/DESIGNED BY	CHECKED BY
NORMA M. GALLEGOS	OMAR MENDOZA
REVISED BY	DATE REVISED

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

1 VDS POLE. SEE SHEETS E-17, E-18 AND E-20 FOR ADDITIONAL REQUIREMENTS.

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

1. ALL PULL BOXES SHALL BE No. 5(E) UNLESS OTHERWISE NOTED.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	42	69

*Norma M. Gallegos* 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**MVDS LOCATION 21**  
 Mad 99, PM 14.22  
 S OF Ave 17

**MVDS LOCATION 22**  
 MAD 99, PM 14.95  
 N OF Ave 17

**MICROWAVE VEHICLE DETECTION SYSTEM (LOCATIONS 21 AND 22)**  
**E-16**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

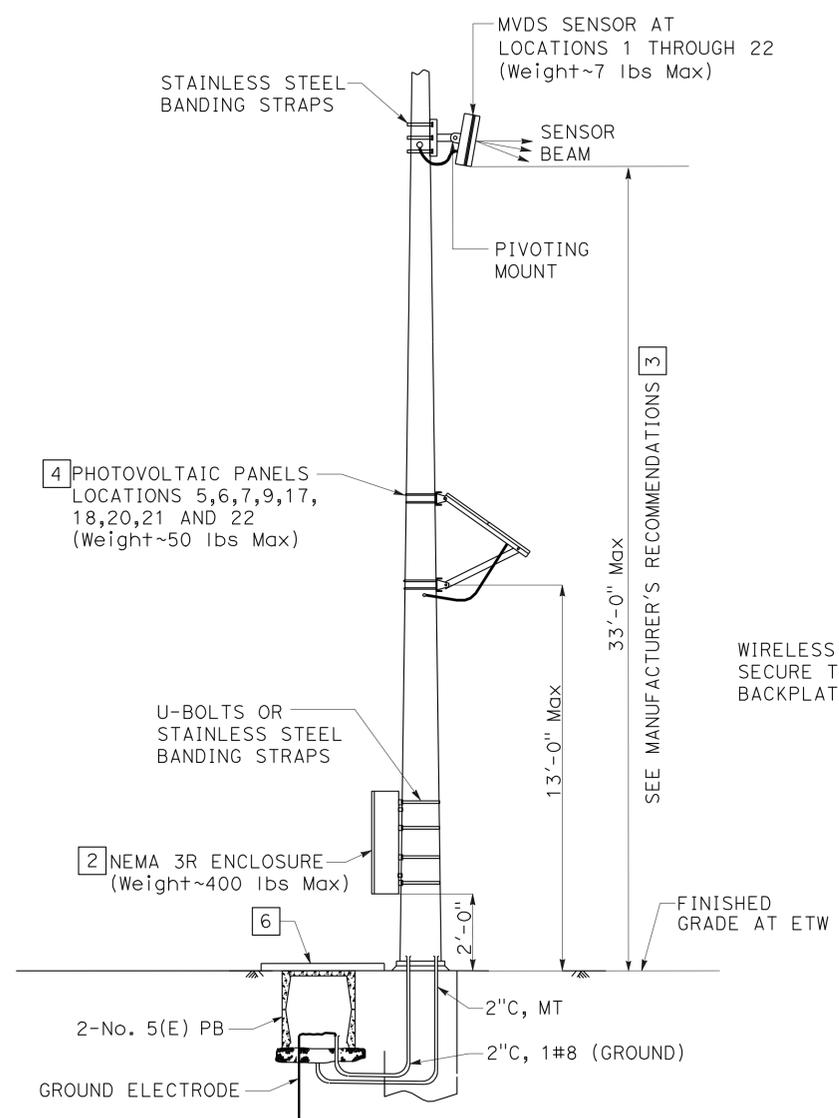
SCALE: 1" = 50'

**LEGEND: (FOR SHEETS E-17, E-18 AND E-19)**

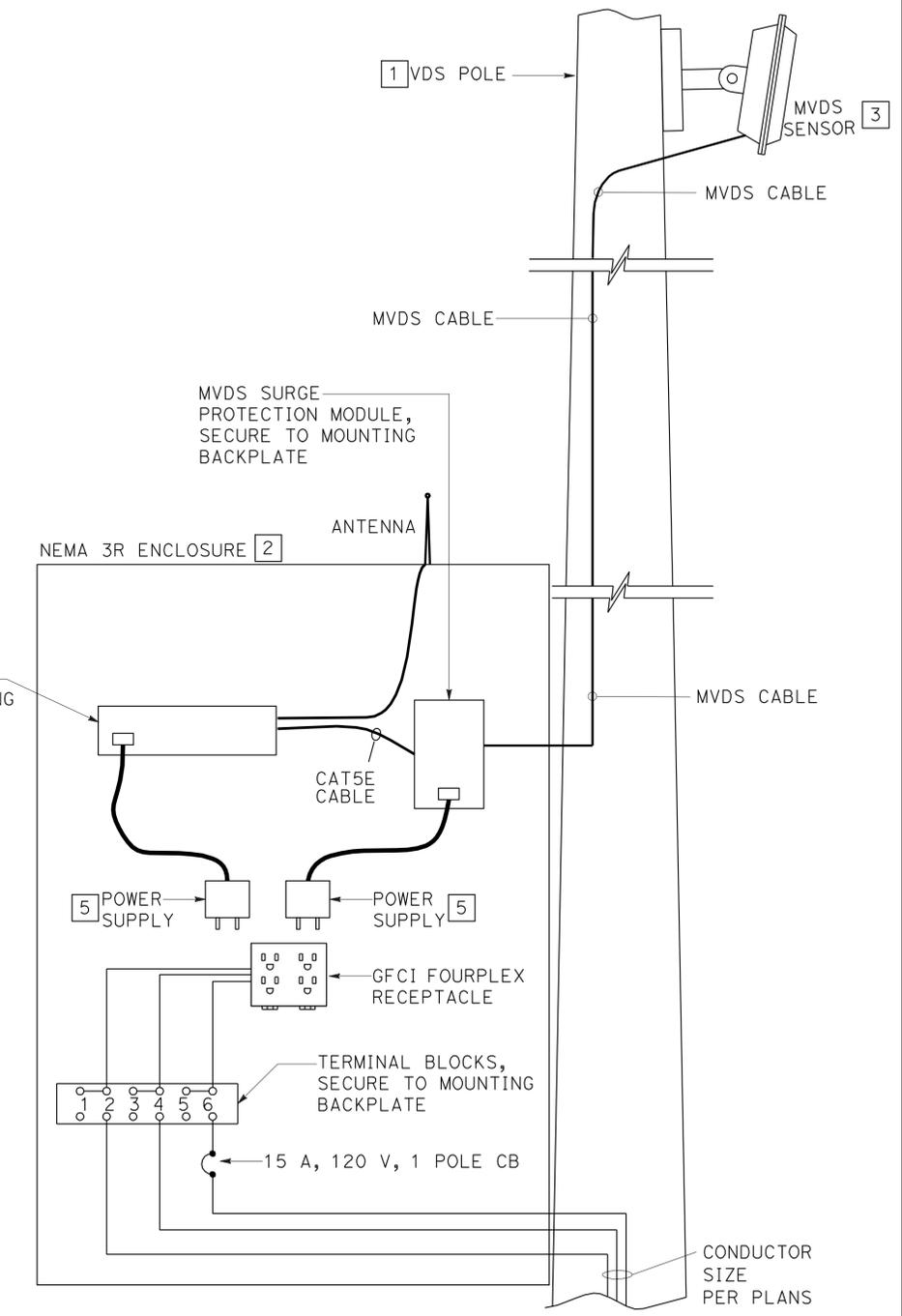
- 1 REFER TO SHEETS SES-1 AND SES-2 FOR POLE REQUIREMENTS.
- 2 56"H x 26"W x 12"D NEMA 3R ENCLOSURE WITH HINGED DOOR AND PADLOCK HASP. SEE DETAILS ON SHEET E-20.
- 3 MOUNTING HEIGHT FOR MVDS SENSOR SHALL BE PER MANUFACTURER'S RECOMMENDATION.
- 4 PHOTOVOLTAIC PANEL ARRAY WITH GALVANIZED STEEL MOUNTING BRACKET ORIENTED WITH PANELS FACING DIRECTLY SOUTH.
- 5 POWER SUPPLY PER MANUFACTURER'S RECOMMENDATIONS.
- 6 48" x 48" x 4" DEEP CONCRETE PAD SHALL BE PLACED IN FRONT OF CABINET.

**MICROWAVE VEHICLE DETECTION SYSTEMS**

MVDS LOCATION No.	COUNTY	PM	POLE TYPE	RECOMMENDED OFFSET FROM ETW	NOTES
1	Fre	10.95	VDS 35	17'	1 2 3
2	Fre	11.50	VDS 35	32'	1 2 3
3	Fre	12.00	VDS 35	32'	1 2 3
4	Fre	12.55	Exist CCTV 35	14'	3
5	Fre	13.02	VDS 35	32'	1 2 3 4
6	Fre	13.50	VDS 35	32'	1 2 3 4
7	Fre	14.00	VDS 35	32'	1 2 3 4
8	Fre	14.50	VDS 35	35'	1 2 3
9	Fre	15.00	VDS 35	32'	1 2 3 4
10	Fre	15.47	VDS 35	32'	1 3
11	Fre	16.20	VDS 35	32'	1 2 3
12	Fre	30.50	Exist CCTV 35	14'	3
13	Fre	31.43	VDS 35	32'	1 2 3
14	Mad	0.47	VDS 35	25'	1 2 3
15	Mad	2.23	VDS 35	25'	1 2 3
16	Mad	3.56	VDS 35	32'	1 2 3
17	Mad	4.86	VDS 35	32'	1 2 3 4
18	Mad	6.13	VDS 35	32'	1 2 3 4
19	Mad	8.72	VDS 35	35'	1 2 3
20	Mad	13.50	VDS 35	32'	1 2 3 4
21	Mad	14.22	VDS 35	35'	1 2 3 4
22	Mad	14.95	VDS 35	32'	1 2 3 4



**DETAIL A**  
**MVDS INSTALLED ON TYPE VDS 35 POLE LOCATIONS 1 THROUGH 3, 5 THROUGH 11, AND 13 THROUGH 22**



**DETAIL B**  
**MVDS LOCATIONS 1, 2, 3, 8, 11, 13, 14, 15, 16 AND 19**

**MICROWAVE VEHICLE DETECTION SYSTEM**  
**E-17**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

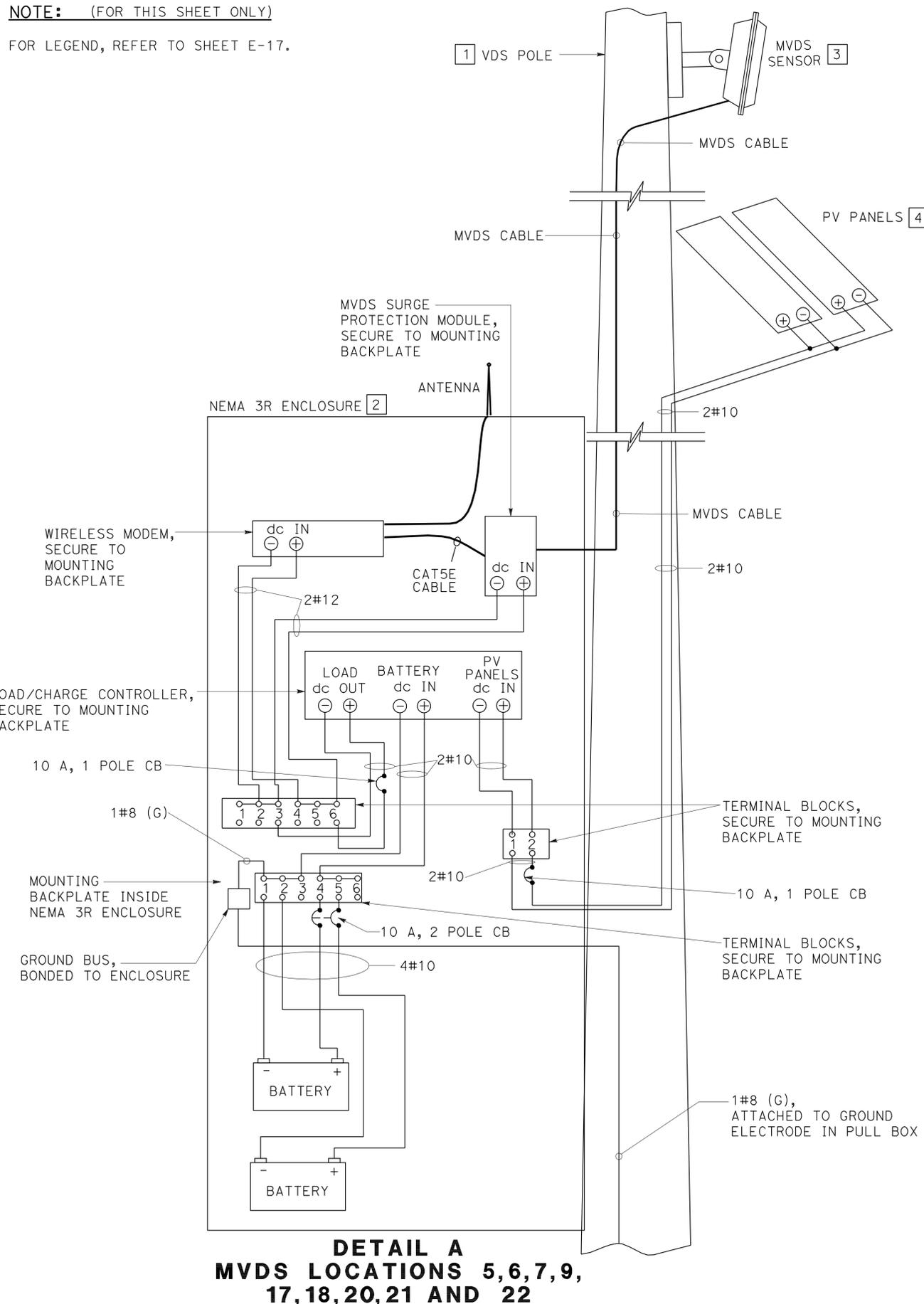
**NOTE:** (FOR THIS SHEET ONLY)

FOR LEGEND, REFER TO SHEET E-17.

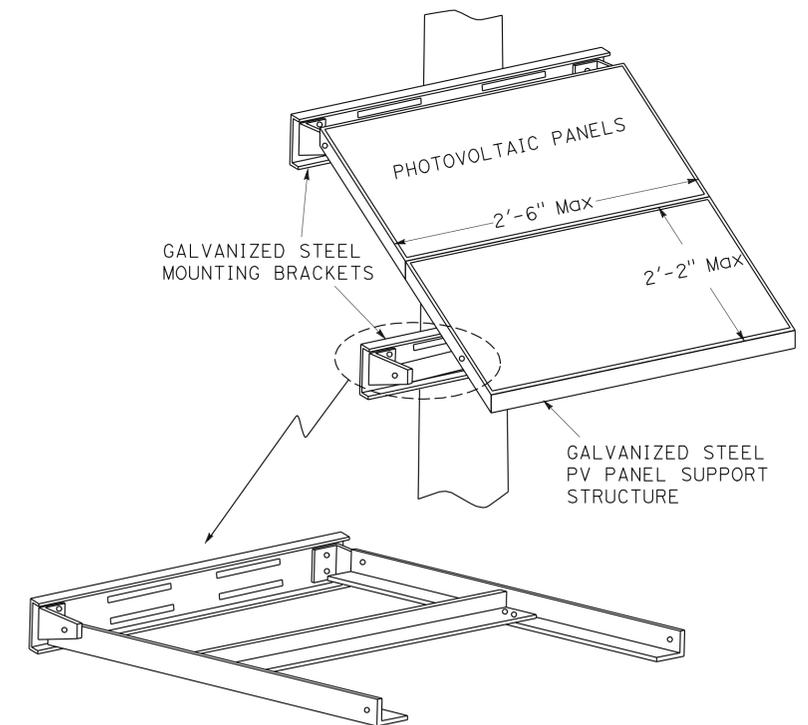
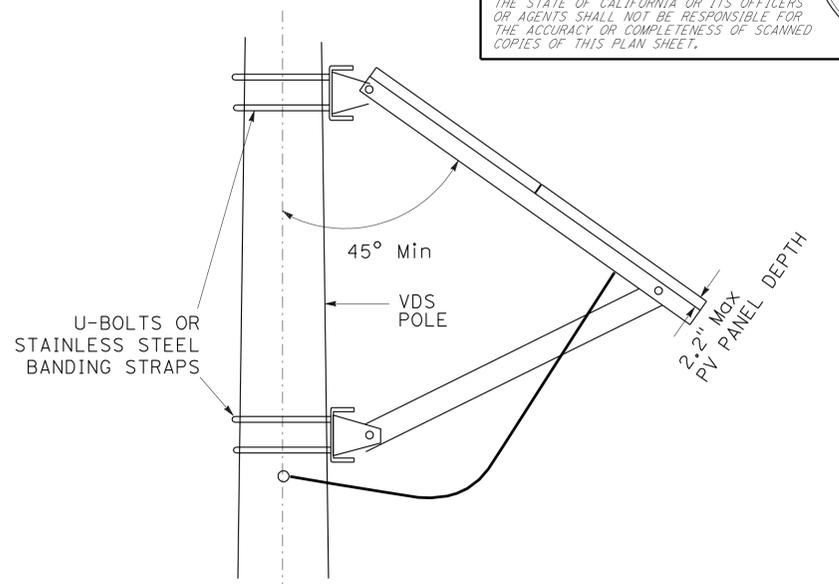
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	44	69

*Norma M. Gallegos* 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
**NORMA M. GALLEGOS**  
 No. 19105  
 Exp. 6-30-12  
 ELECTRICAL  
 STATE OF CALIFORNIA



**DETAIL A**  
**MVDS LOCATIONS 5, 6, 7, 9,**  
**17, 18, 20, 21 AND 22**



**DETAIL B**

**MICROWAVE VEHICLE DETECTION SYSTEM**  
**E-18**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD  
 CALCULATED/DESIGNED BY: NORMA M. GALLEGOS  
 CHECKED BY: OMAR MENDOZA  
 REVISED BY: [ ] DATE: [ ]  
 REVISIONS: [ ]

USERNAME => s123631  
 DGN FILE => 60M760u018.dgn

RELATIVE BORDER SCALE  
 IS IN INCHES



UNIT 1515

PROJECT NUMBER & PHASE

06000200111

LAST REVISION: [ ]  
 DATE PLOTTED => 28-SEP-2011  
 TIME PLOTTED => 13:39

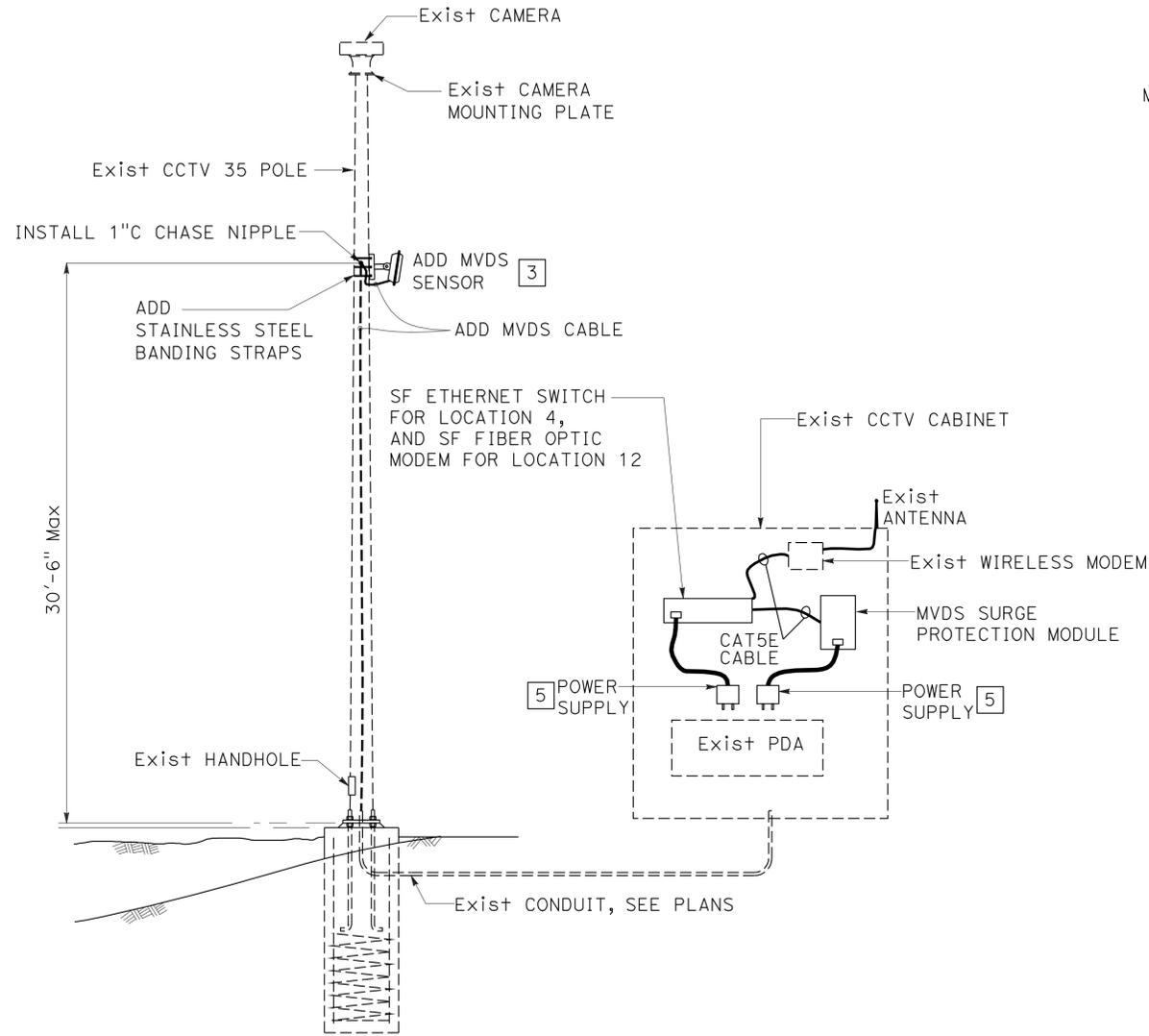
**NOTE:** (FOR THIS SHEET ONLY)

FOR LEGEND, REFER TO SHEET E-17.

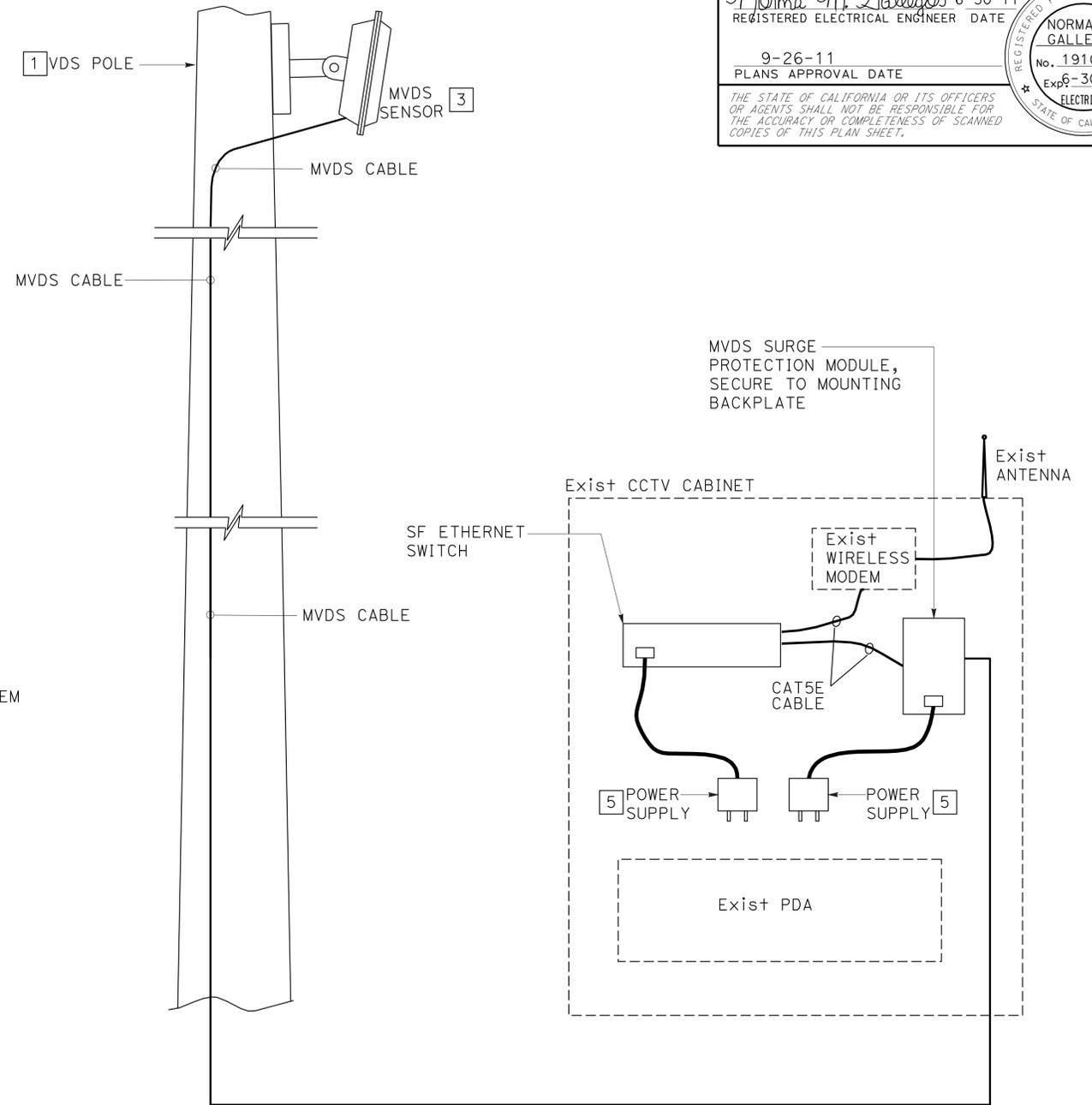
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	45	69

*Norma M. Gallegos* 6-30-11  
 REGISTERED ELECTRICAL ENGINEER DATE  
 9-26-11  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
 NORMA M. GALLEGOS  
 No. 19105  
 Exp. 3-30-12  
 ELECTRICAL  
 STATE OF CALIFORNIA



**DETAIL A**  
**MVDS INSTALLED ON Exist CCTV 35 POLE**  
**LOCATIONS 4 AND 12**



**DETAIL B**  
**MVDS INSTALLED ON TYPE VDS 35 POLE**  
**LOCATIONS 10**

**MICROWAVE VEHICLE DETECTION SYSTEM**  
**E-19**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** ELECTRICAL DESIGN  
 FUNCTIONAL SUPERVISOR: ALI BAKHDOUD  
 CALCULATED/DESIGNED BY: NORMA M. GALLEGOS  
 CHECKED BY: OMAR MENDOZA  
 REVISED BY: [ ] DATE: [ ]  
 REVISIONS: [ ]

USERNAME => s123631  
 DGN FILE => 60M760u019.dgn

RELATIVE BORDER SCALE  
 IS IN INCHES



UNIT 1515

PROJECT NUMBER & PHASE

06000200111

LAST REVISION: 07-01-11  
 DATE PLOTTED => 28-SEP-2011  
 TIME PLOTTED => 13:39

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	46	69

Norma M. Gallegos 6-30-11	
REGISTERED ELECTRICAL ENGINEER	DATE
NORMA M. GALLEGOS	
No. 19105	
Exp 6-30-12	
ELECTRICAL	
STATE OF CALIFORNIA	

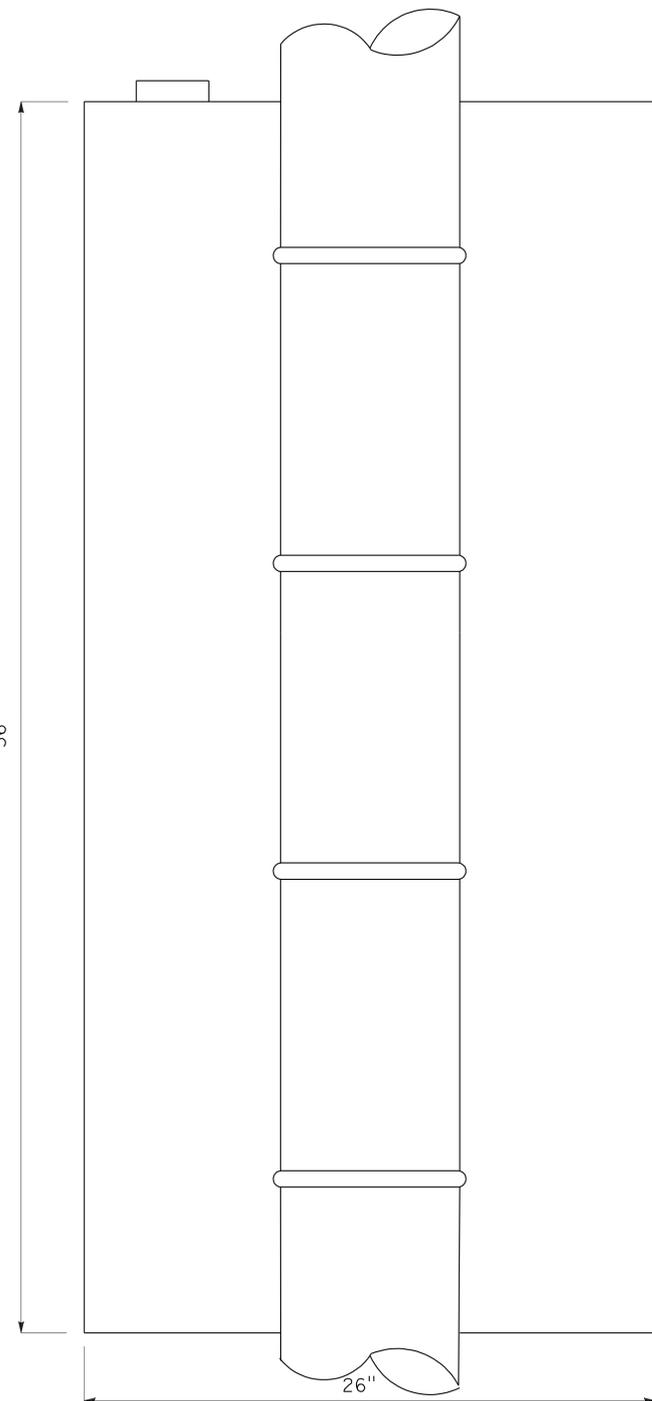
  

9-26-11  
PLANS APPROVAL DATE

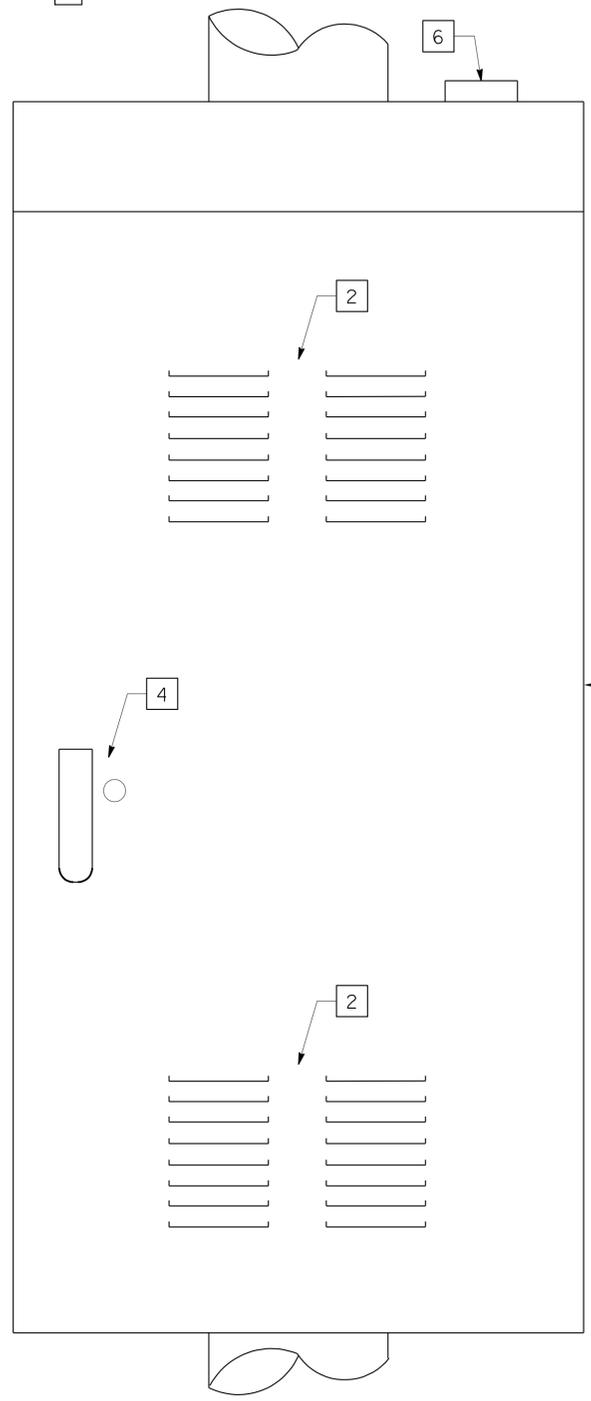
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

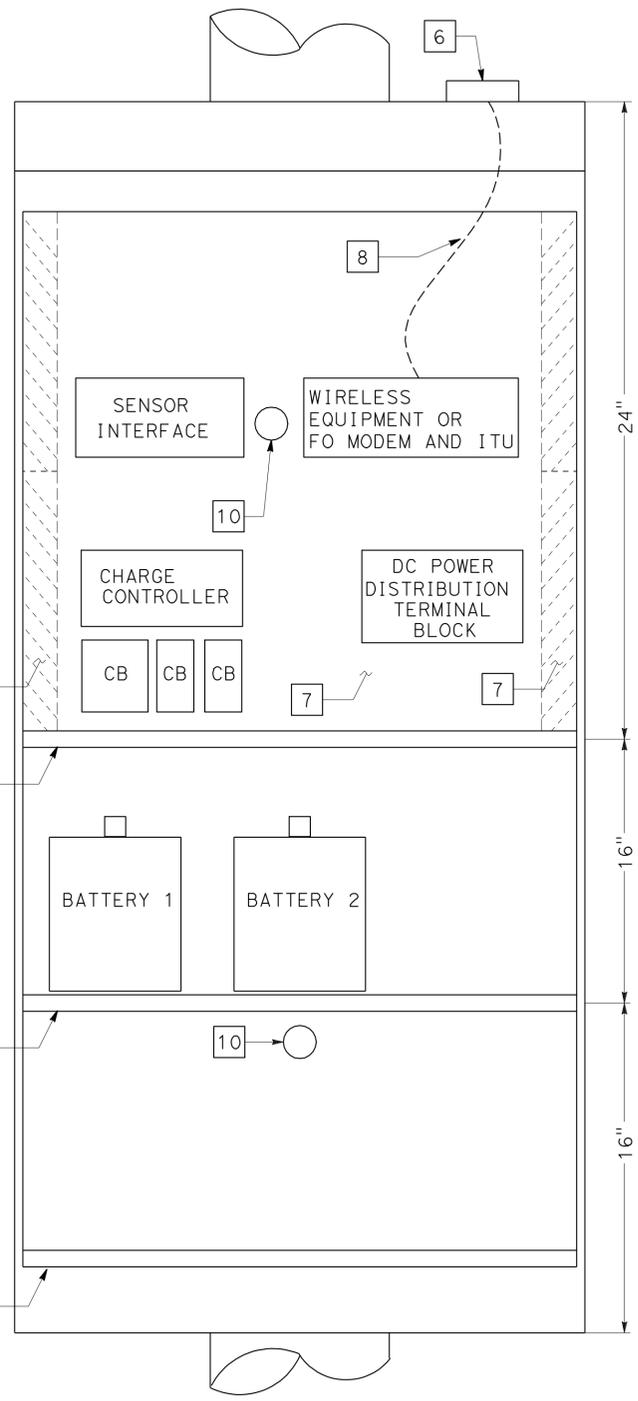
- 1 ALUMINUM SHELF REQUIRED TO PROVIDE SEPARATION OF THE EQUIPMENT AND BATTERY COMPARTS. THE SHELF EDGE SHALL EXTEND TO ALL FOUR ENCLOSURE WALLS. SPACES BETWEEN THE SHELF AND ENCLOSURE WALLS SHALL BE SEALED.
- 2 FILTERED VENTILATION LOUVERS.
- 3 ALUMINUM SHELF REQUIRED FOR EQUIPMENT. 2" SPACE BETWEEN SHELF AND ENCLOSURE BACK WALL REQUIRED.
- 4 THREE POINT LOCKING SYSTEM SHALL BE INTEGRATED WITH DOOR HANDLE. ROLLERS SHALL BE USED IN CONJUNCTION WITH THE THREE POINT LOCKING SYSTEM.
- 5 DOOR HINGE.
- 6 INSTALL ANTENNA (FOR LOCATIONS NOT HAVING FIBER ).
- 7 BACK MOUNTING PLATE
- 8 INSTALL ANTENNA CABLE (FOR LOCATIONS NOT HAVING FIBER)
- 9 DOOR HANDLE TO ENCLOSURE PADLOCK LATCH.
- 10 SEAL OPENING AROUND CONDUCTORS.
11. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIAL.



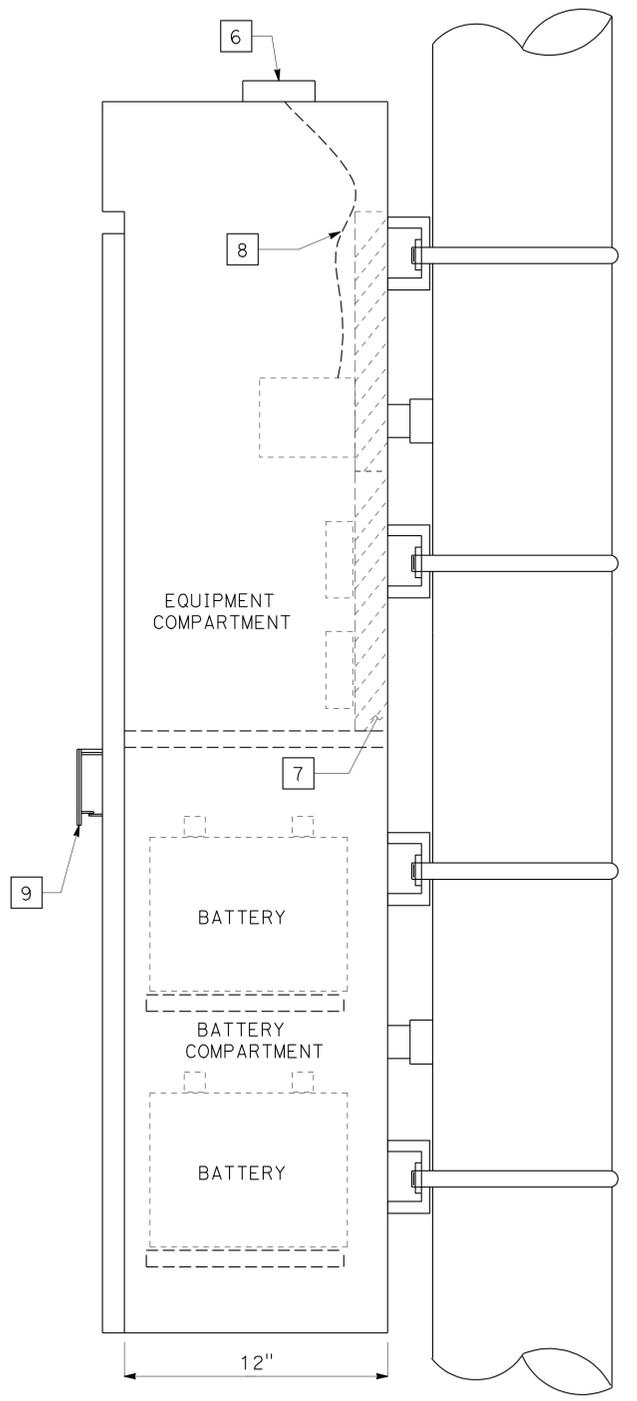
**BACK VIEW**



**FRONT VIEW**  
**NEMA 3R ENCLOSURE**  
**LOCATIONS 1, 2, 3, 5, 6, 7, 8, 9, 11**  
**AND 13 THROUGH 22**



**FRONT VIEW (INTERIOR)**



**SIDE VIEW**

**MICROWAVE VEHICLE DETECTION SYSTEM**  
**E-20**

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** ELECTRICAL DESIGN  
FUNCTIONAL SUPERVISOR: ALT BAKHDOUD  
CALCULATED/DESIGNED BY: [blank]  
CHECKED BY: [blank]  
REVISOR: NORMA M. GALLEGOS  
OMAR MENDOZA  
DATE: [blank]  
REVISED: [blank]

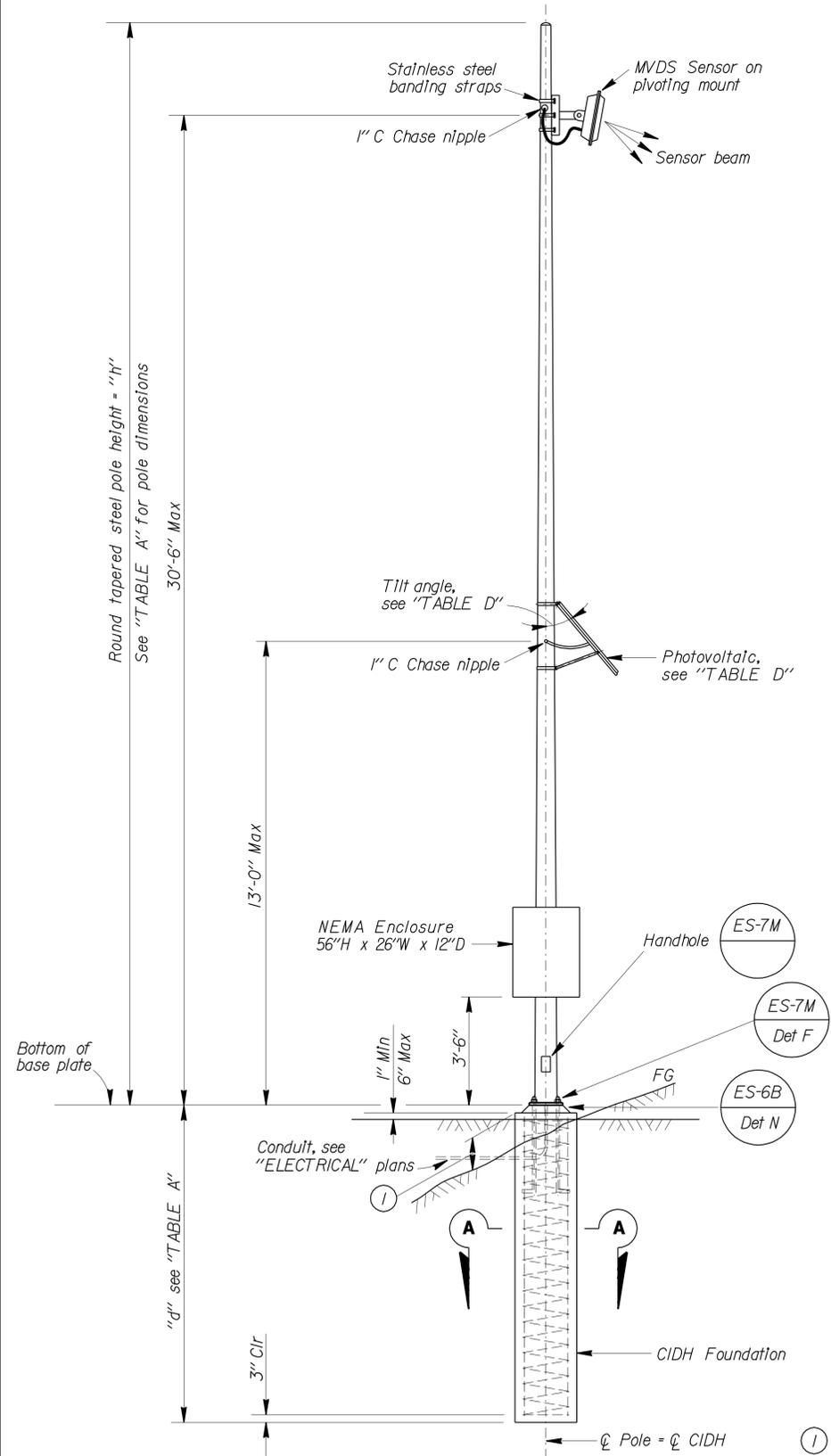
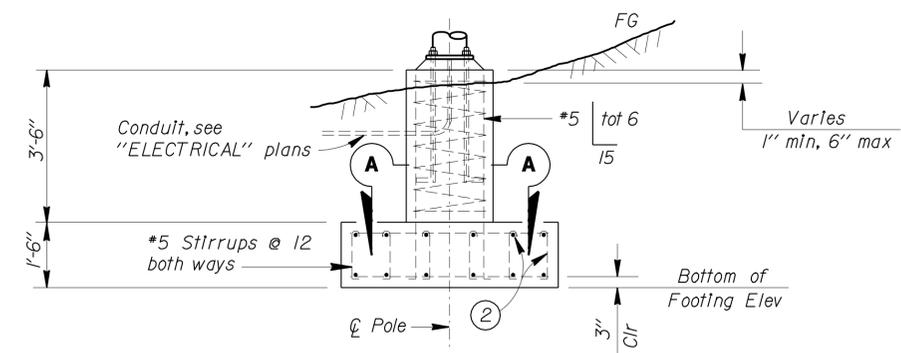
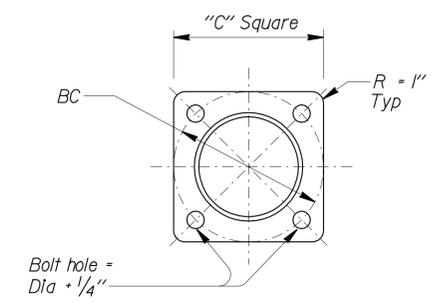
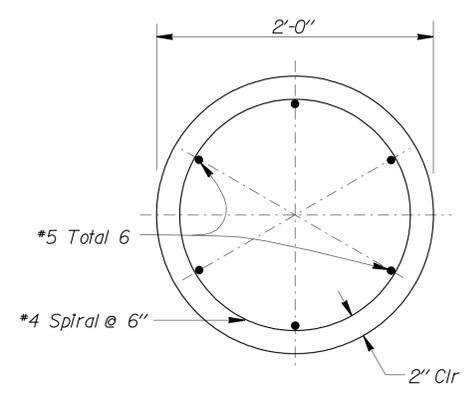
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Fre, Mad	99	Var	47	69
<i>Eliseo Lopez</i> REGISTERED CIVIL ENGINEER DATE 2/18/11			No. C72910 Exp. 12/31/12 CIVIL		
9-26-11 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

POLE TYPE	POLE DATA				BASE PLATE DATA				"d" 2'-0" Ø CIDH Pile		STRUCTURAL STEEL LBS PLUS 3.5% GALVANIZING
	HEIGHT "H"	Min OD		THICKNESS	"C"	THICKNESS	ANCHOR BOLTS		LEVEL GROUND	SLOPING GROUND	
		BASE	TOP				SIZE	BC = BOLT CIRCLE			
VDS 35	35'	8 5/8"	3 7/8"	0.1793"	1'-0"	1"	1" x 3'-0" x 4"	1'-0"	9'-0"	11'-0"	550

ATTACHMENT	MOUNTING HEIGHT	WEIGHT LIMITS (MAX)
Enclosure	3'-6" Max bottom Clr	400 lbs
Photovoltaic	13'-0" Max	50 lbs
MVDS	30'-6" Max	7 lbs

GROUND	SPREAD FOOTING	
	FOOTING SIZE LENGTH x WIDTH x DEPTH	REINFORCEMENT TOP & BOTTOM
Level	6'-0" x 6'-0" x 1'-6"	7 - #4
Sloping	7'-0" x 7'-0" x 1'-6"	8 - #4

PHOTOVOLTAIC PANEL LIMITS	
PANEL SIZE	TILT ANGLE
11 ft <sup>2</sup> max	45° Min



**ABBREVIATIONS:**  
 MVDS = Microwave Vehicle Detection System  
 VDS = Vehicle Detection System

**DESIGN NOTES:**

**SPECIFICATIONS**  
 Design : AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals dated 2001.

**LOADING**  
 Wind Loadings: 100 mph

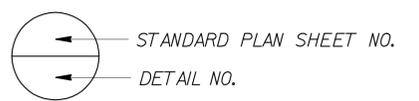
**UNIT STRESSES**  
 Structural steel: fy = 48,000 psi tapered steel pole  
 fy = 36,000 psi unless otherwise noted.  
 Anchor bolts = A307  
 Reinforced concrete: f'c = 3,600 psi  
 fy = 60,000 psi

- NOTES:**
- For pole locations, see "ELECTRICAL" plans.
  - All steel shall be galvanized after fabrication.
  - During pole erection the pole shall be raked as necessary with the use of leveling nuts to provide a plumb pole axis.
  - The foundation shall be treated as level ground condition if the slope inclination is flatter than 4H:1V.
  - Foundation design is based on AASHTO 2001 article 13.6 Broms' approximate procedure assuming a cohesionless material. The angle of internal friction used is 30 degrees and unit weight of soil used is 120 lbs/ft<sup>3</sup>.
  - For details not shown, see 2006 "STANDARD PLANS" and 2006 "REVISED STANDARD PLANS".

NOTE:  
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

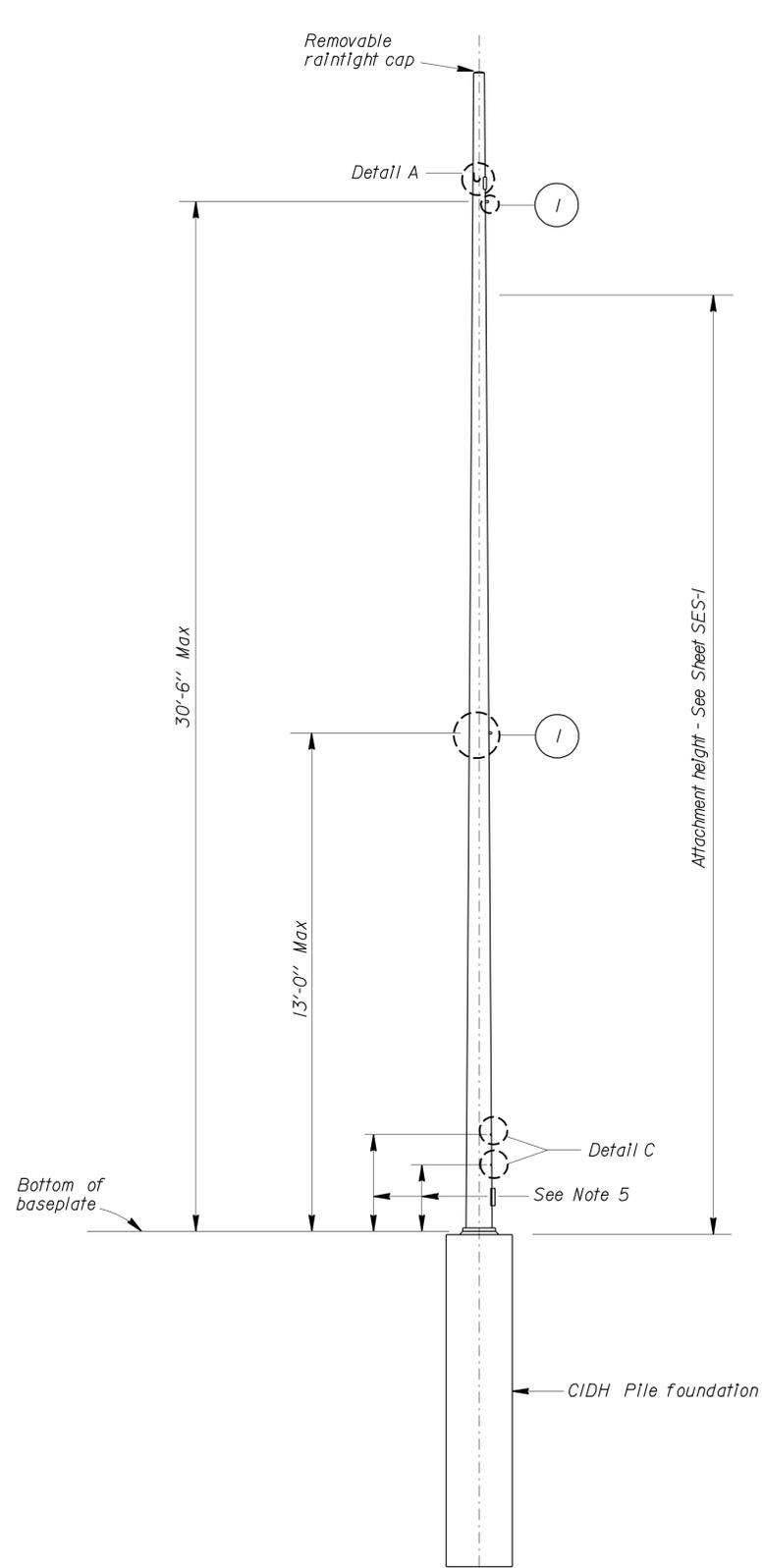
**ELEVATION**  
 VDS 35

- 1'-3" Max for sloped finished grade.
- \*5 Bars and \*5 stirrups (Top and bottom) to run both longitudinal and transverse directions.

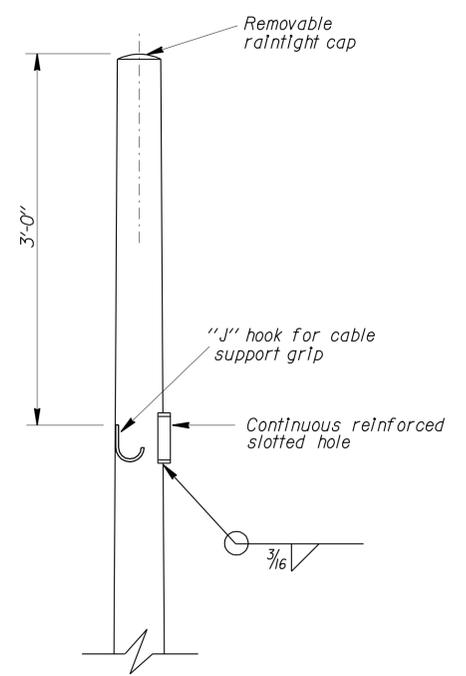


BRANCH CHIEF <i>Jeffrey B. Woody</i>	DESIGN BY	ELISEO LOPEZ	CHECKED	ARLENA GUTIERREZ	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH	BRIDGE NO.	MICROWAVE VEHICLE DETECTION SYSTEM POLE DETAILS	SHEET 47 OF 69 SES-1
	DETAILS BY	R. YEE	CHECKED	ELISEO LOPEZ			POST MILE		

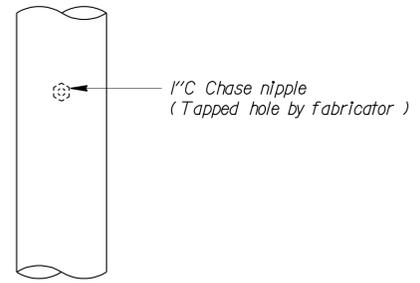
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	Fre, Mad	99	Var	48	69
<i>Eliseo Lopez</i> REGISTERED CIVIL ENGINEER DATE			2/18/11		
PLANS APPROVAL DATE			9-26-11		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



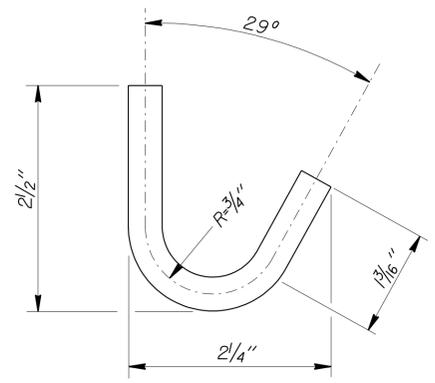
1 Drill and tap for 1" chase nipple and plug with raintight plugs. 1" chase nipple per attachment per pole. See "DETAIL B".



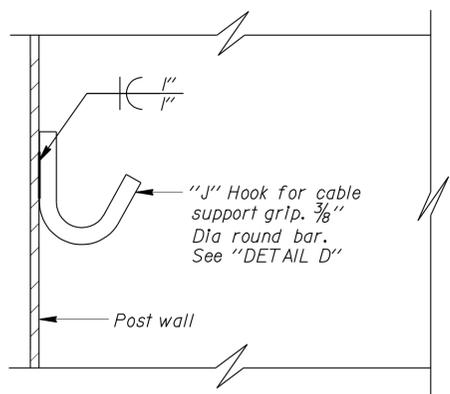
**DETAIL A**



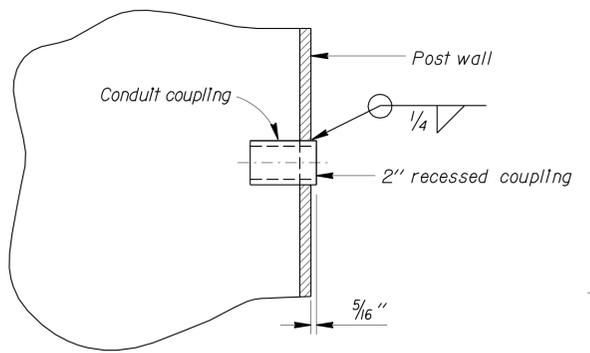
**DETAIL B  
TYPICAL ELECTRICAL ACCESS DETAIL**



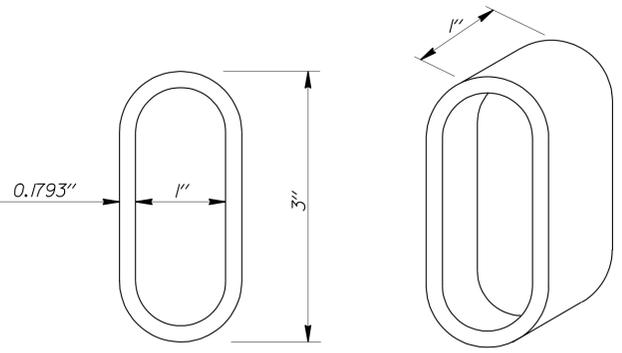
**DETAIL D**



**J HOOK DETAIL**



**2" RECESSED COUPLING DETAIL C (TYPICAL)**

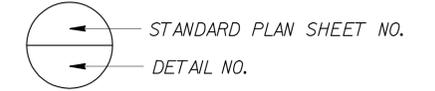


**SLOTTED HOLE**

- NOTES:**
- Place all couplings on the same side of pole.
  - Chase nipples and slotted hole have a raintight plug. Plug should only be removed if chase nipple or slotted hole is used.
  - The chase nipples shall be 1'-0" min vertical clearance from the slotted hole and not on the same side as the slotted hole.
  - For attachment details, see sheet SES-1.
  - Coupling location above ground and spacing shall be verified to match choice of enclosure, prior to fabrication.
  - All attachments, unless otherwise noted, shall be mounted to pole with stainless steel straps or other method without drilling holes in pole. Enclosure may require drilling through post for mounting. Method of mounting enclosure will require Engineer's approval.

NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

**ELEVATION**  
VDS 35



BRANCH CHIEF <i>Jeffrey B. Woody</i>	DESIGN BY	ELISEO LOPEZ	CHECKED	ARLENA GUTIERREZ	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH	BRIDGE NO.	<b>MICROWAVE VEHICLE DETECTION SYSTEM</b>	<b>SES-2</b>
	DETAILS BY	R. YEE	CHECKED	ELISEO LOPEZ			POST MILE		
QUANTITIES BY			CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		NO SCALE		UNIT: 3620 PROJECT NUMBER & PHASE: 0600020011 - 1 CONTRACT NO.: 06-0M7601
(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)					DISREGARD PRINTS BEARING EARLIER REVISION DATES			REVISION DATES 2/18/11 2/18/11	SHEET OF

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	49	69

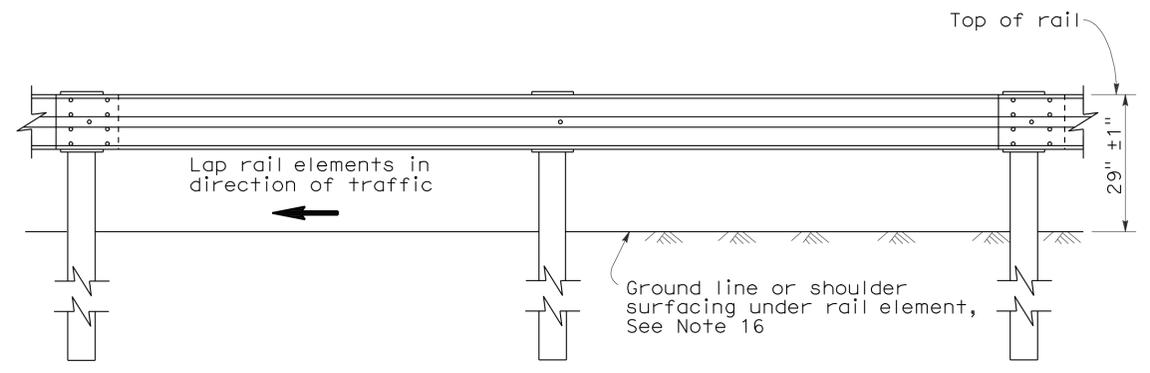
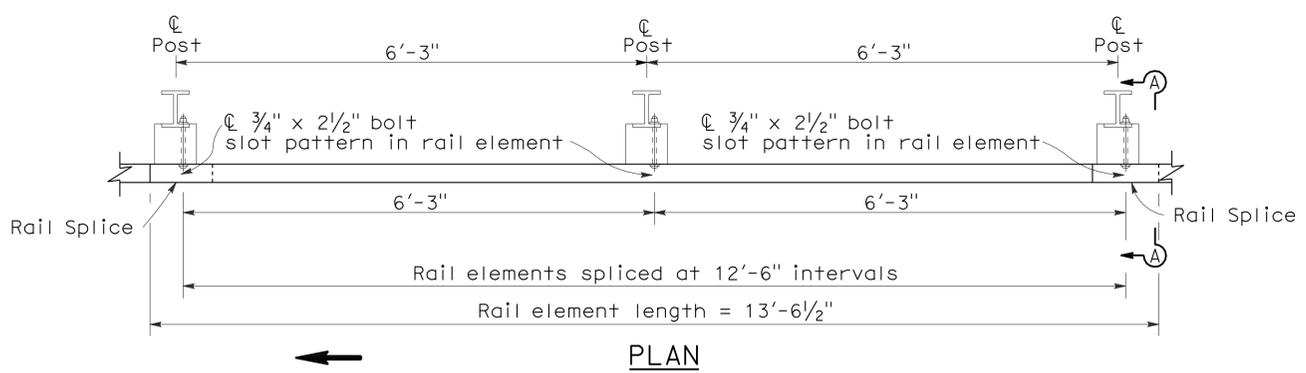
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

May 20, 2011  
PLANS APPROVAL DATE

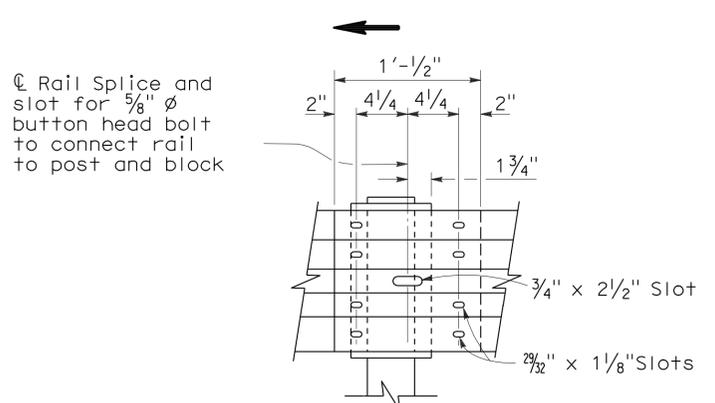
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To accompany plans dated 9-26-11

REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-11  
CIVIL  
STATE OF CALIFORNIA

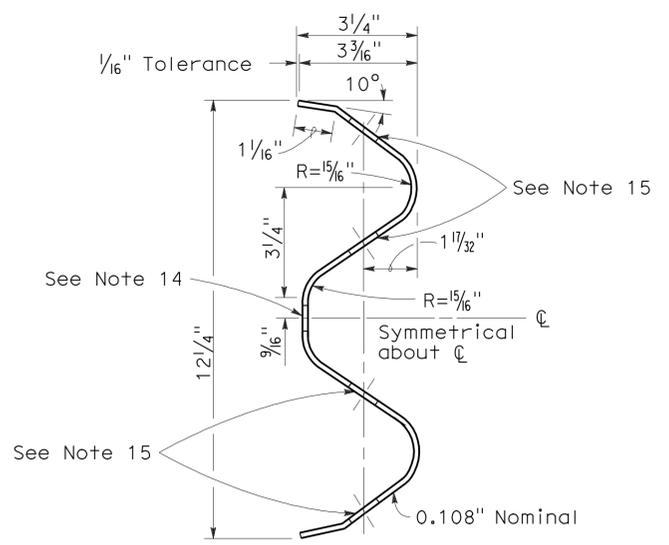


**METAL BEAM GUARD RAILING WITH STEEL POSTS AND NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCKS**

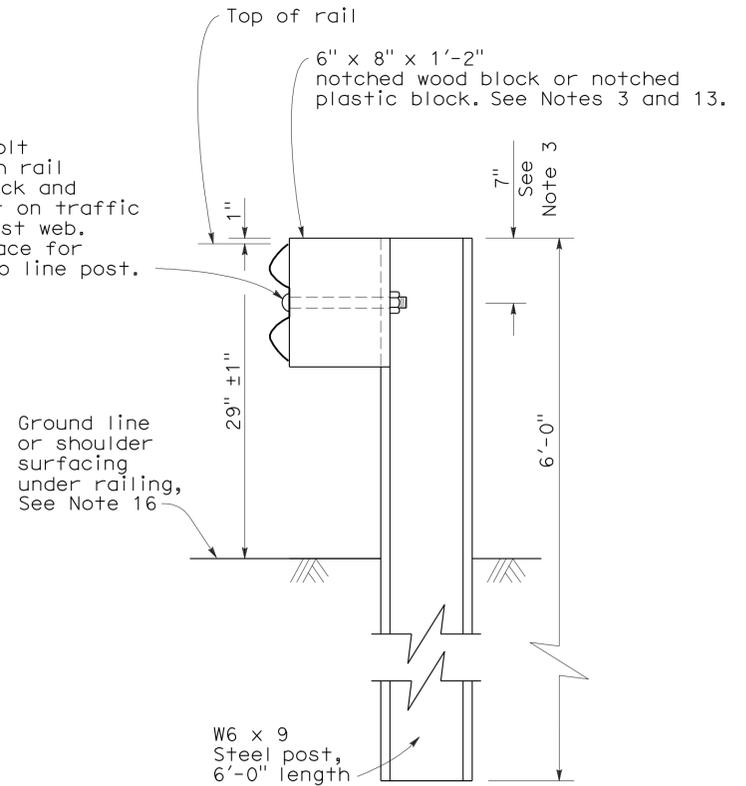


**RAIL ELEMENT SPLICE DETAIL**

- Connect the overlapped end of the rail elements with  $\frac{5}{8}$ "  $\phi$  x  $1\frac{3}{8}$ " button head oval shoulder splice bolts inserted into the  $\frac{2}{32}$ " x  $1\frac{1}{8}$ " slots and bolted together with  $\frac{5}{8}$ "  $\phi$  recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



**SECTION THRU RAIL ELEMENT**



**SECTION A-A TYPICAL STEEL LINE POST INSTALLATION**

See Note 4

**NOTES:**

- For details of wood post installations, see Standard Plan A77A1.
- For details of standard hardware used to construct guard railing, see Standard Plan A77B1.
- For details of steel posts and notched wood blocks used to construct guard railing, see Standard Plan A77C2.
- For additional installation details, see Standard Plan A77C3.
- Guard railing post spacing to be 6'-3" center to center, except as otherwise noted.
- For guard railing typical layouts, see the A77E, A77F and A77G Series of Standard Plans.
- For terminal system end treatment details, see the A77L Series of Standard Plans. To connect railing to terminal system end treatment, transition the top of railing height at a ratio of 120:1 to terminal system end treatment height plus one 12'-6" standard railing section at the transitioned height for a horizontal connection to the end treatment.
- For guard railing end anchor details, see Standard Plans A77H1 and A77I2.
- For details of guard railing transition to bridge railing, see Standard Plan A77J4.
- For additional details of guard railing connection to bridge railings, see Standard Plans A77J1, A77J2 and A77K1.
- For dike positioning and guard railing delineation details, see Standard Plan A77C4.
- Direction of adjacent traffic indicated by  $\rightarrow$ .
- Notched face of block faces steel post.
- Slotted hole for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".
- Install posts in soil.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING STANDARD RAILING SECTION (STEEL POST WITH NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCK)**

NO SCALE

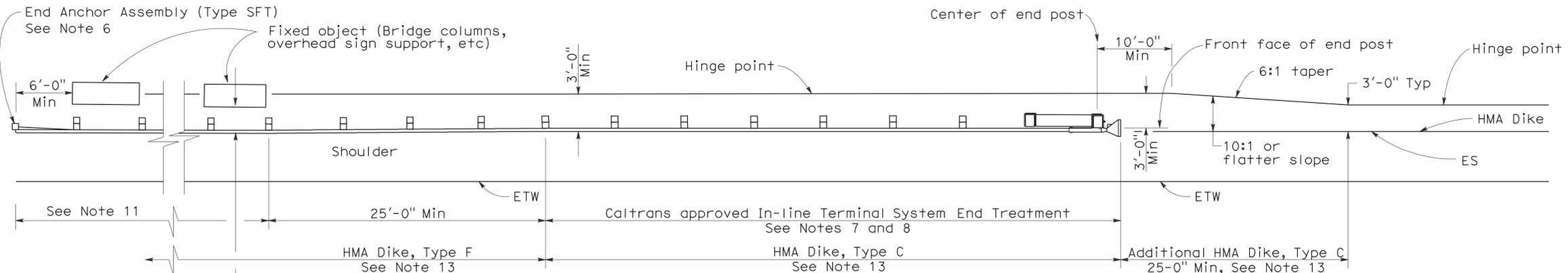
2006 REVISED STANDARD PLAN RSP A77A2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	50	69

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

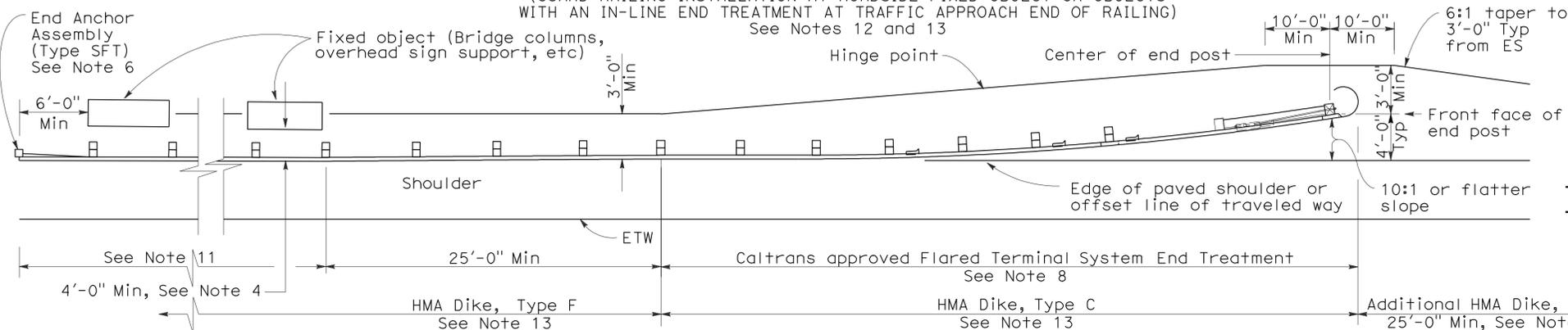
June 6, 2008  
 PLANS APPROVAL DATE

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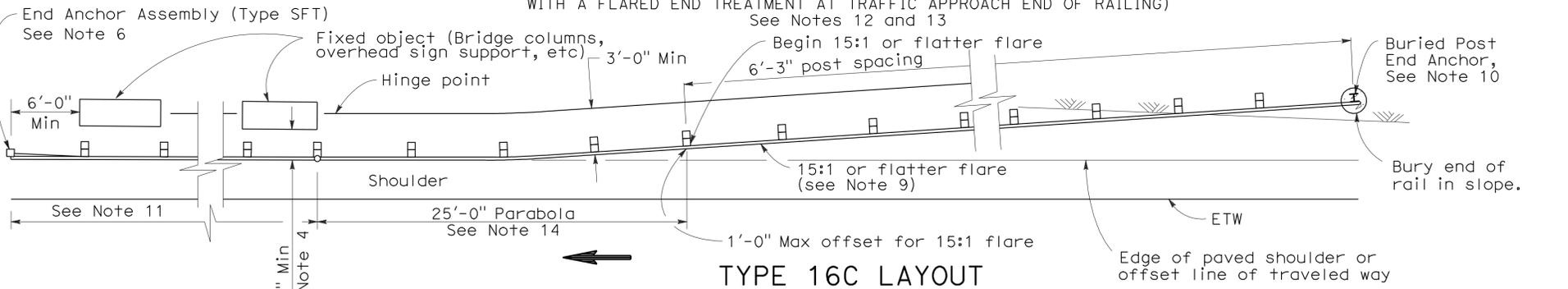
**TYPE 16A LAYOUT**

(GUARD RAILING INSTALLATION AT ROADSIDE FIXED OBJECT OR OBJECTS WITH AN IN-LINE END TREATMENT AT TRAFFIC APPROACH END OF RAILING)  
See Notes 12 and 13



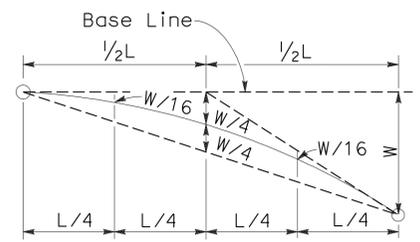
**TYPE 16B LAYOUT**

(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

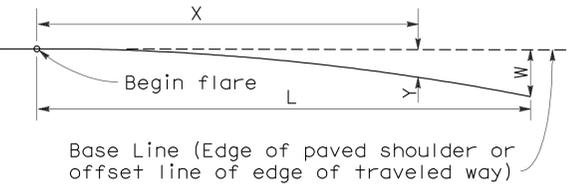


**TYPE 16C LAYOUT**

(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**

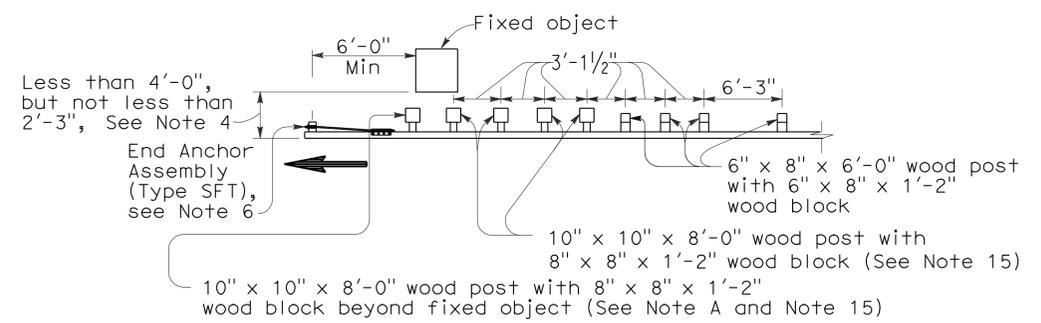


Base Line (Edge of paved shoulder or offset line of edge of traveled way)  
 $Y = \frac{WX^2}{L^2}$   
 Y = Offset from base line  
 W = Maximum offset  
 X = Distance along base line  
 L = Length of flare

**PARABOLIC FLARE OFFSETS**

**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
06	Fre, Mad	99	Var	51	69

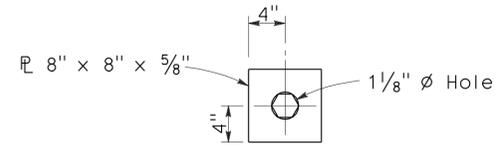
Randell D. Hiatt  
REGISTERED CIVIL ENGINEER

May 20, 2011  
PLANS APPROVAL DATE

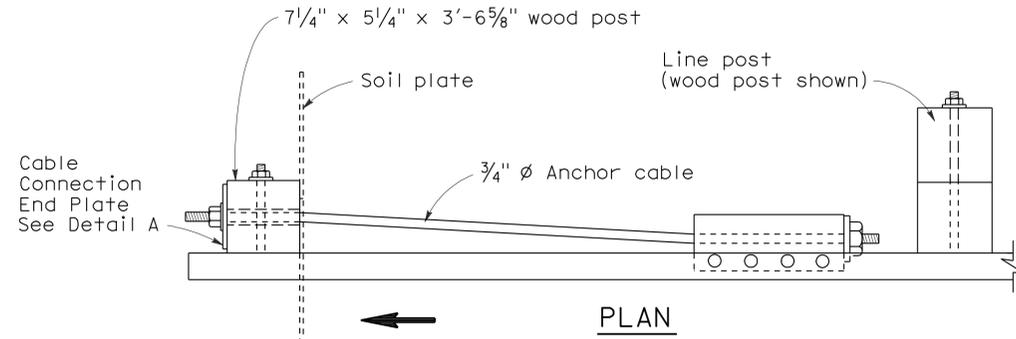
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REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-11  
CIVIL  
STATE OF CALIFORNIA

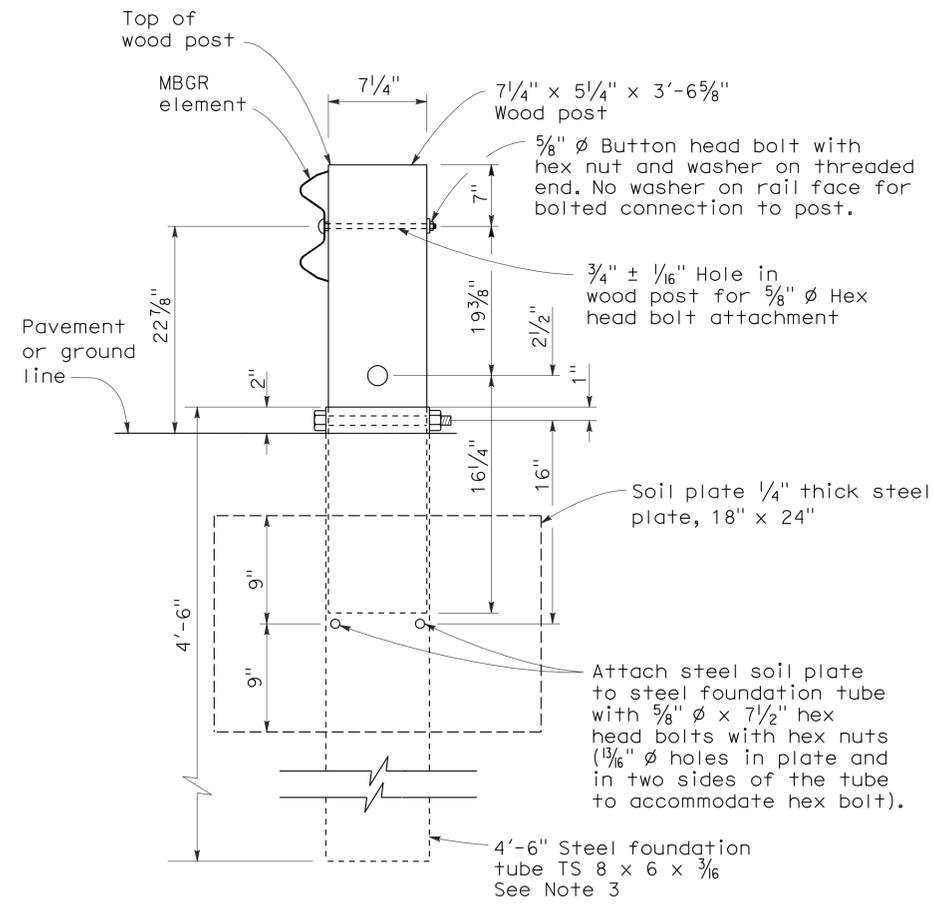
To accompany plans dated 9-26-11



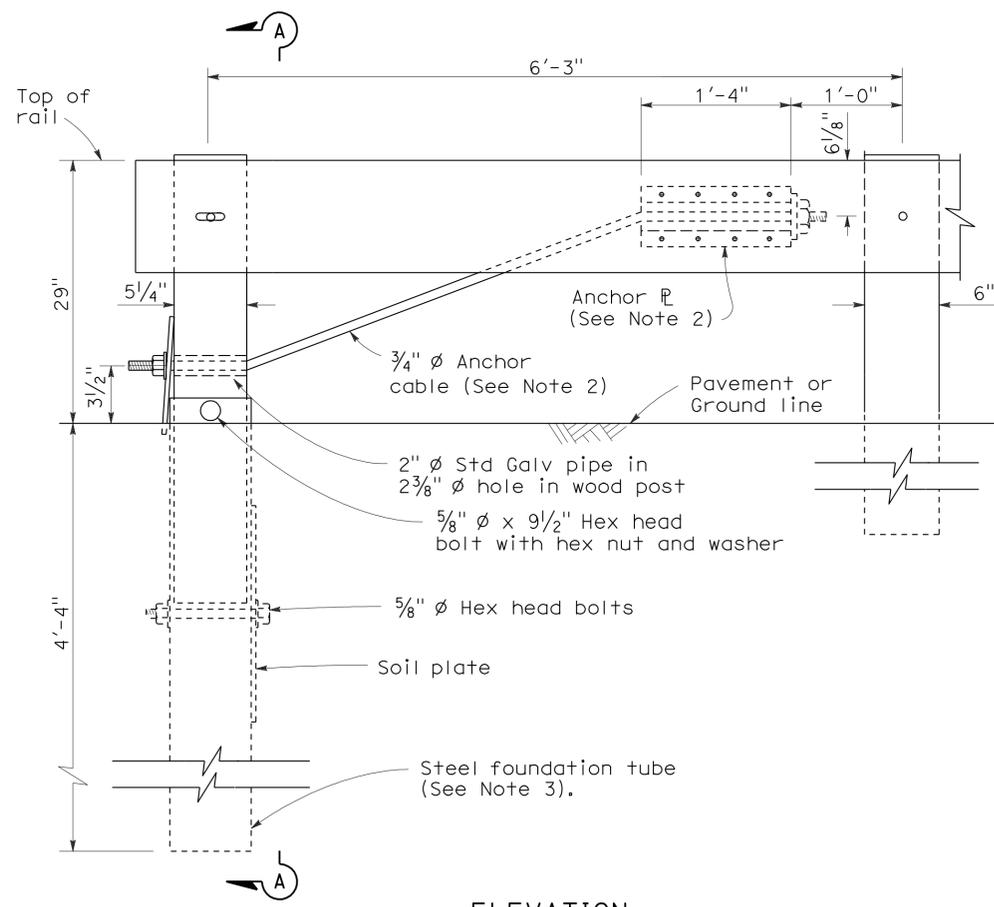
**DETAIL A**  
**CABLE CONNECTION**  
**END PLATE**



**PLAN**



**SECTION A-A**



**ELEVATION**  
**END ANCHOR**  
**ASSEMBLY (TYPE SFT)**  
See Note 1

**NOTES:**

1. See the A77E, A77F and A77G series of Standard Plans for typical use of End Anchor Assembly (Type SFT).
2. For details of the anchor plate and 3/4" cable, see Standard Plan A77H3.
3. A 6'-0" length steel foundation tube, TS 8 x 6 x 3/16, without a soil plate, may be furnished and installed in place of the 4'-6" length steel foundation tube and soil plate shown. Minimum embedment of the 6'-0" length tube shall be 5'-9". A 5/8" diameter hex head bolt and nut shall be installed in the hole in the 6'-0" length tube to keep the wood post from dropping into the tube.
4. Direction of traffic indicated by →.
5. Install line post, steel foundation tube and soil plate in soil.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL RAILING**  
**END ANCHOR ASSEMBLY**  
**(TYPE SFT)**

NO SCALE

RSP A77H1 DATED MAY 20, 2011 SUPERSEDES STANDARD PLAN A77H1  
DATED MAY 1, 2006 - PAGE 67 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP A77H1**

2006 REVISED STANDARD PLAN RSP A77H1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	52	69

*Gregory A. Balzer*  
 LICENSED LANDSCAPE ARCHITECT  
 June 5, 2009  
 PLANS APPROVAL DATE  
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To accompany plans dated 9-26-11

2006 REVISED STANDARD PLAN RSP H1

**A**

AB aggregate base  
 ABS acrylonitrile-butadiene-styrene  
 AC asphalt concrete  
 Adj adjacent/adjustable  
 AIC auxiliary irrigation controller  
 Alt alternative  
 AMEND amendment  
 ARV air release valve  
 AUTO automatic  
 AUX auxiliary  
 AVB atmospheric vacuum breaker

**B**

B&B balled and burlapped  
 B/B brass/bronze  
 B/B/PL brass/bronze/plastic  
 B/PL brass/plastic  
 BFM bonded fiber matrix  
 Bit Ctd bituminous coated  
 BP booster pump  
 BPA backflow preventer assembly  
 BPAE backflow preventer assembly in enclosure  
 BPE backflow preventer enclosure  
 BV ball valve

**C**

CAP corrugated aluminum pipe  
 CARV combination air release valve  
 CCA cam coupler assembly  
 CEC controller enclosure cabinet  
 CHDPE corrugated high density polyethylene  
 CL chain link  
 CNC control and neutral conductors  
 Conc concrete  
 Cond conduit  
 CSP corrugated steel pipe  
 CST center strip  
 CV check valve

**D**

Dia diameter  
 DIP ductile iron pipe  
 DN diameter nominal

**E**

EA each  
 Elect electric/electrical  
 Elev elevation  
 ENCL enclosure  
 EP edge of pavement  
 ES edge of shoulder  
 EST end strip  
 ESTB establishment  
 ETW edge of traveled way

**F**

F full circle  
 F/P full/part circle  
 FAU filter assembly unit  
 FCV flow control valve  
 FERT fertilizer  
 FG finished grade  
 FIPT female iron pipe thread  
 FIS fertilizer injector system  
 FL flow line  
 FM flow monitor  
 FS flow sensor  
 Ft foot/feet  
 FV flush valve

**G**

GAL Gallon(s)  
 Galv galvanized  
 GARV garden valve  
 GPH gallons per hour  
 GPM gallons per minute  
 GSP galvanized steel pipe  
 GV gate valve

**H**

H half circle  
 HB hose bib  
 HDPE high density polyethylene  
 HP horsepower/hinge point  
 HPL high pressure line  
 Hwy highway

**I**

IC irrigation controller  
 ICC irrigation controller(s) in controller enclosure cabinet  
 ID inside diameter  
 In inches  
 IFS irrigation filtration system  
 IPS iron pipe size  
 IPT iron pipe thread  
 Irr irrigation

**L**

L length  
 LF linear foot

**M**

Max maximum  
 MBGR metal beam guard railing  
 MCV manual control valve  
 MIC master irrigation controller  
 Min minimum  
 MIPT male iron pipe thread  
 Misc miscellaneous  
 Mtl material  
 MVP maintenance vehicle pullout

**N**

NCN no common name  
 NL nozzle line  
 No. number  
 NPT national pipe thread

**O**

O/C on center  
 OD outside diameter  
 Oz ounce

**P**

P part circle  
 PB pull box  
 PCC portland cement concrete  
 PE polyethylene  
 Pkt packet  
 PL plastic  
 PLT plant/planting  
 PLT ESTB plant establishment  
 PM post mile  
 PR pressure rated  
 PRLV pressure relief valve  
 PSFM polymer stabilized fiber matrix  
 PSI pounds per square inch  
 PRV pressure reducing valve  
 PVC polyvinyl chloride  
 Pvmt pavement

**Q**

Q quarter circle  
 QCV quick coupling valve

**R**

R radius  
 RCP reinforced concrete pipe  
 RCV remote control valve  
 RCVM remote control valve (master)  
 RCVMF remote control valve (master) w/ flow meter  
 RCW recycled/reclaimed water  
 RECP rolled erosion control product  
 REQ required  
 R/W right of way

**S**

S slip  
 SCC sprinkler control conduit  
 SCH schedule  
 SF state-furnished  
 Shld shoulder  
 SQFT square foot/feet  
 SQYD square yard(s)  
 SST side strip  
 Sta station  
 Std standard  
 SW sidewalk/sound wall

**T**

T third circle/thread  
 TLS truck loading standpipe  
 TQ three quarter circle  
 TRM turf reinforcement mat  
 TRVD traveled  
 TT two third circle  
 Typ typical

**U**

UG underground

**V**

VAU valve assembly unit

**W**

W width  
 W/ with  
 WM water meter  
 WS wye strainer  
 WSP welded steel pipe  
 WWM welded wire mesh

**NOTE:**  
 FOR ADDITIONAL ABBREVIATIONS,  
 SEE STANDARD PLANS A10A AND A10B.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PLANTING AND IRRIGATION  
 ABBREVIATIONS**

NO SCALE

RSP H1 DATED JUNE 5, 2009 SUPERSEDES STANDARD PLAN H1  
 DATED MAY 1, 2006 - PAGE 201 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP H1**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	53	69

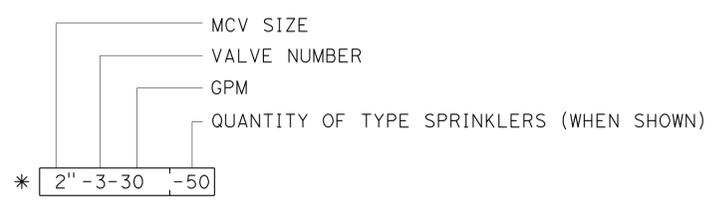
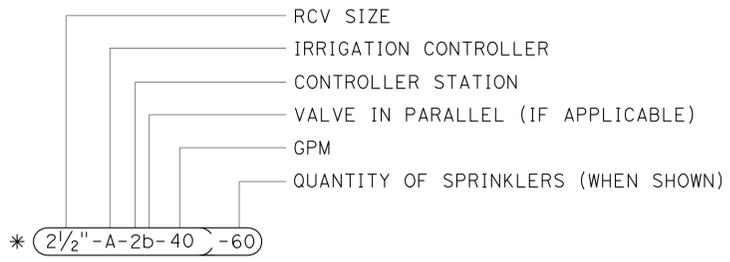
*Gregory A. Balzer*  
 LICENSED LANDSCAPE ARCHITECT  
 June 5, 2009  
 PLANS APPROVAL DATE  
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 9-26-11

EXISTING	PROPOSED	ITEM DESCRIPTION
		WATER METER (WM)
		BACKFLOW PREVENTER ASSEMBLY (BPA)
		BACKFLOW PREVENTER ASSEMBLY IN ENCLOSURE (BPAE)
		BACKFLOW PREVENTER ENCLOSURE (BPE)
		BOOSTER PUMP (BP)
		TRUCK LOADING STANDPIPE (TLS)
		FLOW SENSOR (FS)
		MASTER IRRIGATION CONTROLLER (MIC)
		AUXILIARY IRRIGATION CONTROLLER (AIC)
		IRRIGATION CONTROLLER (IC)/ IRRIGATION CONTROLLER (IC) (BATTERY) IRRIGATION CONTROLLER (IC) (SOLAR)
		IRRIGATION CONTROLLER(S) IN CONTROLLER ENCLOSURE CABINET (ICC)
		CONTROL AND NEUTRAL CONDUCTORS (CNC)
		SPRINKLER CONTROL CONDUIT (SCC)
		IRRIGATION CROSSOVER
		EXTEND IRRIGATION CROSSOVER
		IRRIGATION SLEEVE
		DUCTILE IRON PIPE (SUPPLY LINE) (MAIN) (DIP)
		GALVANIZED STEEL PIPE (SUPPLY LINE) (MAIN) (GSP)
		GALVANIZED STEEL PIPE (SUPPLY LINE) (LATERAL) (GSP)
		PLASTIC PIPE (PR 200) (SUPPLY LINE) (MAIN)
		PLASTIC PIPE (PR 200) (SUPPLY LINE) (LATERAL)
		PLASTIC PIPE (IRRIGATION LINE)
		REMOTE CONTROL VALVE (RCV) REMOTE CONTROL VALVE (MASTER) (RCVM) REMOTE CONTROL VALVE (MASTER) W/FLOW METER (RCVMF)
		MANUAL CONTROL VALVE (MCV)
		VALVE ASSEMBLY UNIT (VAU)
		WYE STRAINER (WS)
		FILTER ASSEMBLY UNIT (FAU)
		GATE VALVE (GV)
		BALL VALVE (BV)

EXISTING	PROPOSED	ITEM DESCRIPTION
		QUICK COUPLING VALVE (QCV)
		CAM COUPLER ASSEMBLY (CCA)
		PRESSURE REDUCING VALVE (PRV)
		PRESSURE RELIEF VALVE (PRLV)
		FLOW CONTROL VALVE (FCV)
		COMBINATION AIR RELEASE VALVE (CARV)
		CHECK VALVE (CV)
		FLUSH VALVE (FV)
		NOZZLE LINE W/TURNING UNION
		IRRIGATION SYSTEM
		IRRIGATION SYSTEM TO BE REMOVED
		CHAIN LINK GATE
		QUICK COUPLING VALVE W/SPRINKLER PROTECTOR
		SPRINKLER W/SPRINKLER PROTECTOR
		CONNECT TO EXISTING SYSTEM
		CAP
		CAP EXISTING

**VALVE CODE**



\* VALVE CODES FOR EXISTING VALVES ARE SHOWN IN A DASHED ENCLOSURE.

**PLANTING AND IRRIGATION SYMBOLS**

NO SCALE

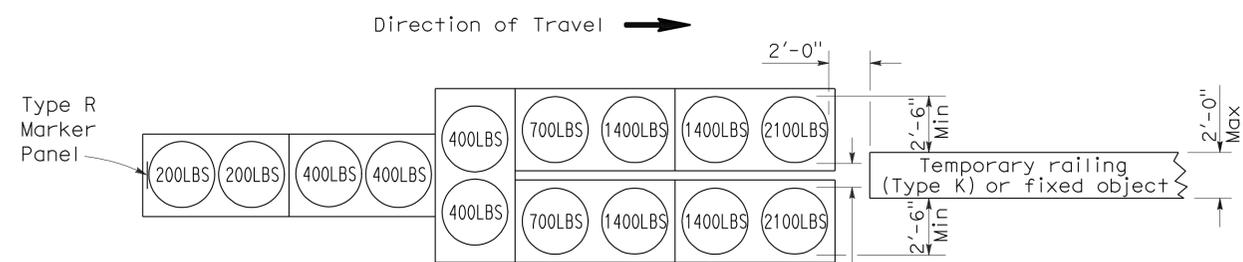
RSP H2 DATED JUNE 5, 2009 SUPERSEDES RSP H2 DATED MARCH 7, 2008 AND STANDARD PLAN H2 DATED MAY 1, 2006 - PAGE 202 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP H2**

2006 REVISED STANDARD PLAN RSP H2

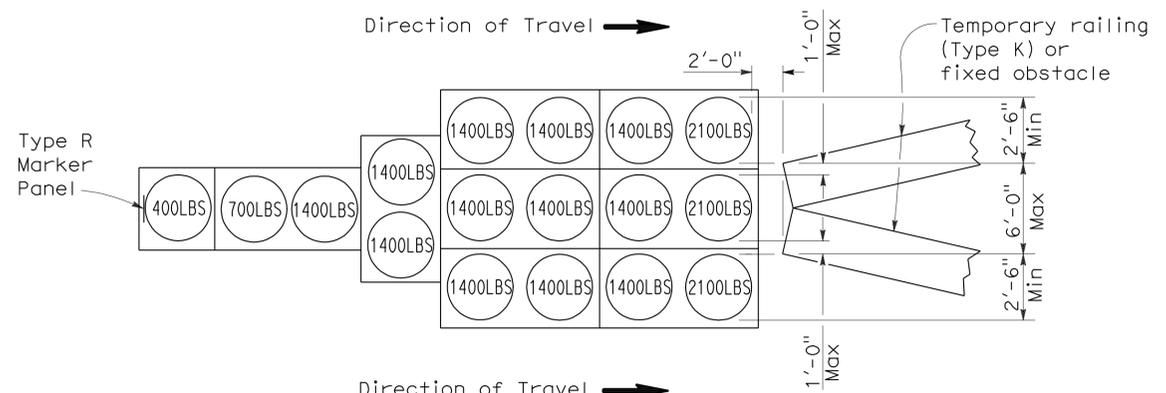
To accompany plans dated 9-26-11

2006 REVISED STANDARD PLAN RSP T1A



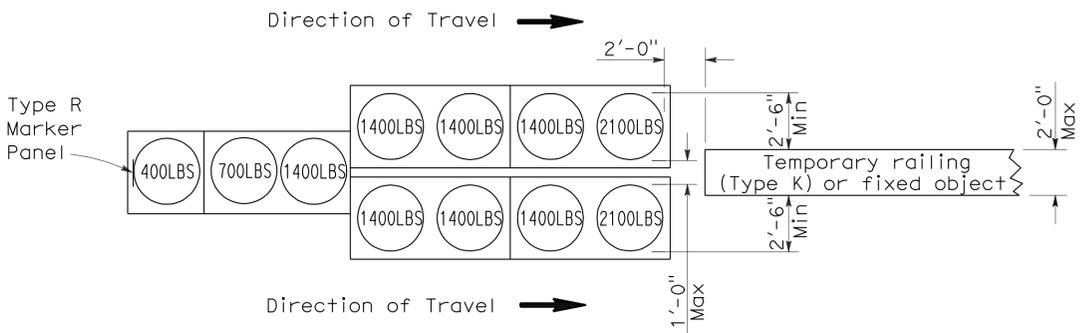
**ARRAY 'TU14'**

Approach speed 45 mph or more



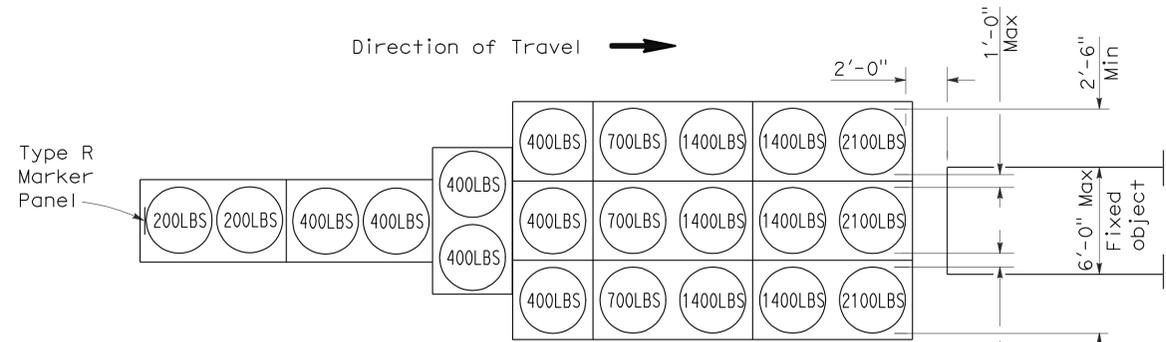
**ARRAY 'TU17'**

Approach speed less than 45 mph



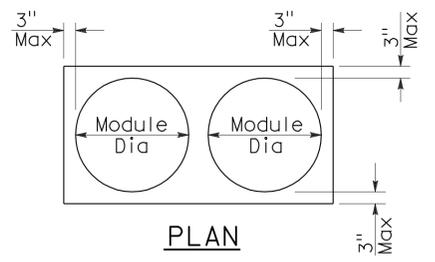
**ARRAY 'TU11'**

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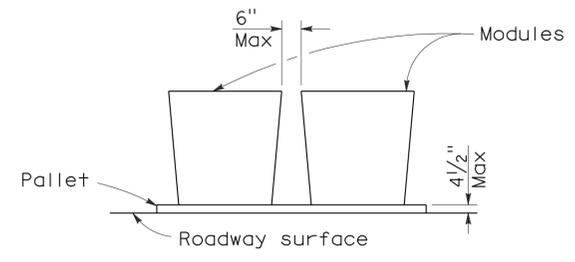


**ARRAY 'TU21'**

Approach speed 45 mph or more



**PLAN**



**ELEVATION**

**CRASH CUSHION PALLET DETAIL**

See Note 7

**NOTES:**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

**REVISED STANDARD PLAN RSP T1A**

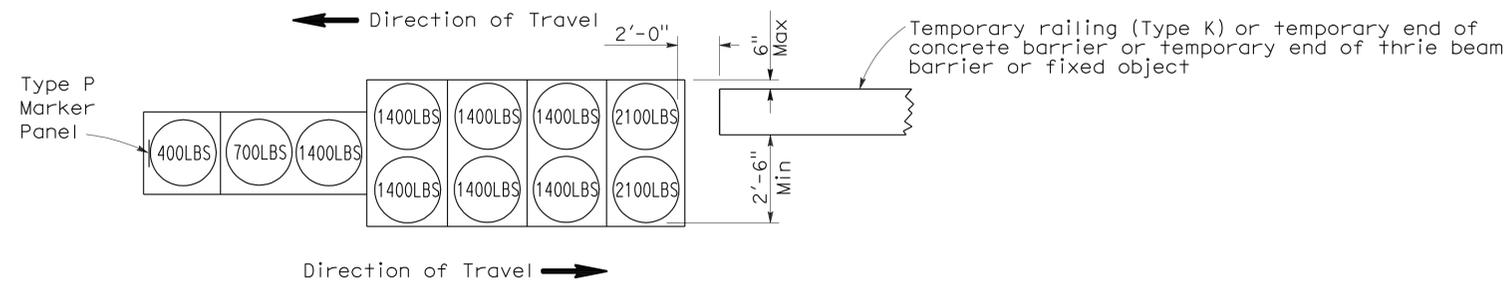
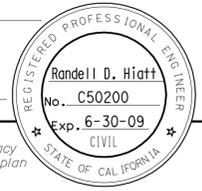
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	55	69

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

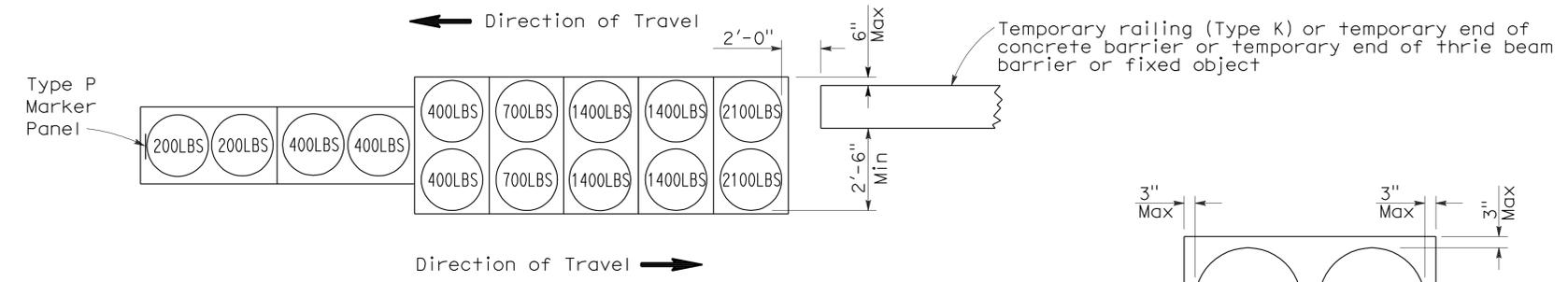
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To accompany plans dated 9-26-11



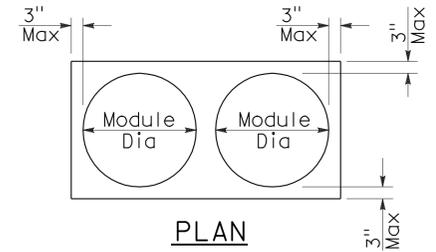
**ARRAY 'TB11'**

Approach speed less than 45 mph

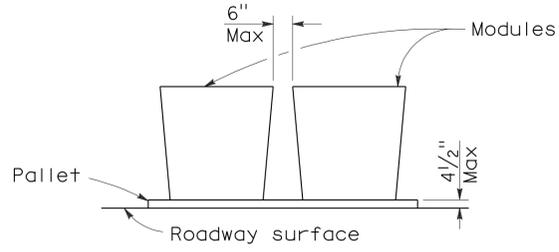


**ARRAY 'TB14'**

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
06	Fre, Mad	99	Var	56	69

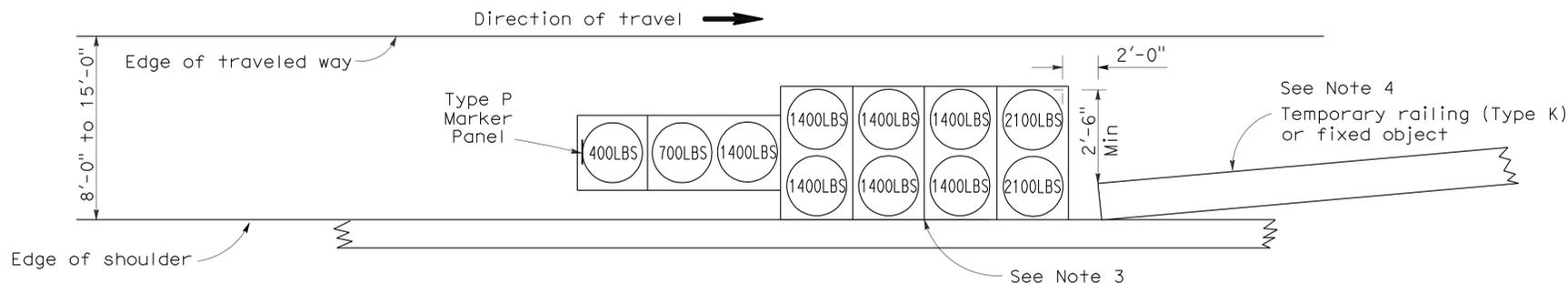
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

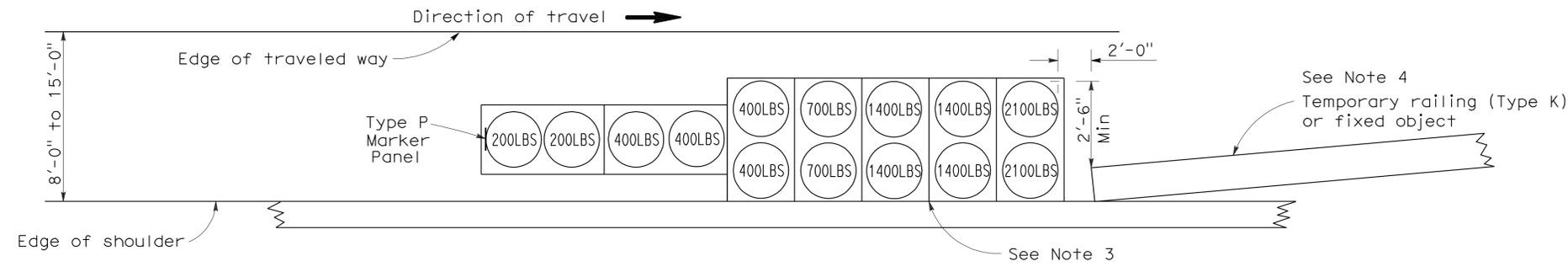
*Randell D. Hiatt*  
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

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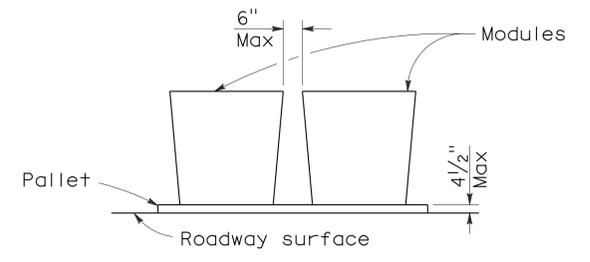
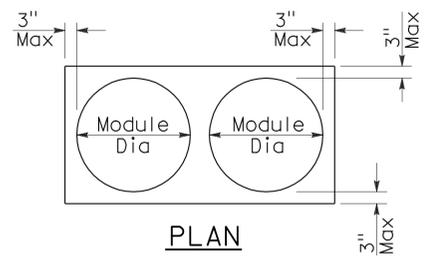
To accompany plans dated 9-26-11



**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.

2006 REVISED STANDARD PLAN RSP T2

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**

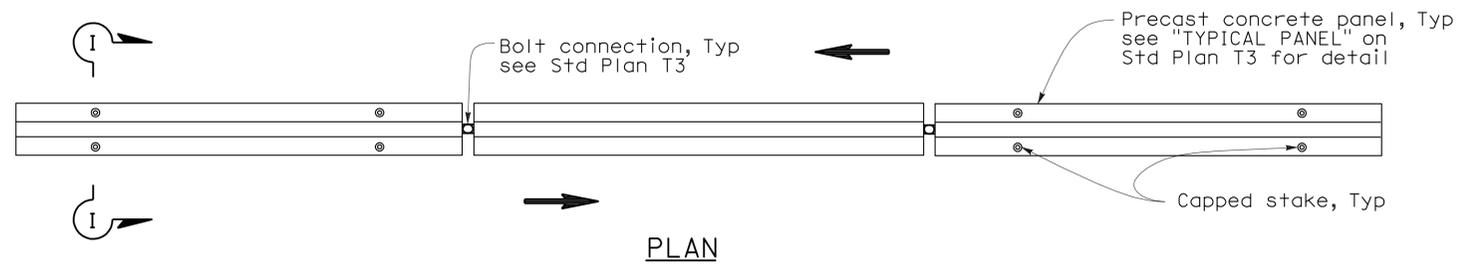
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre, Mad	99	Var	57	69

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

May 20, 2011  
PLANS APPROVAL DATE

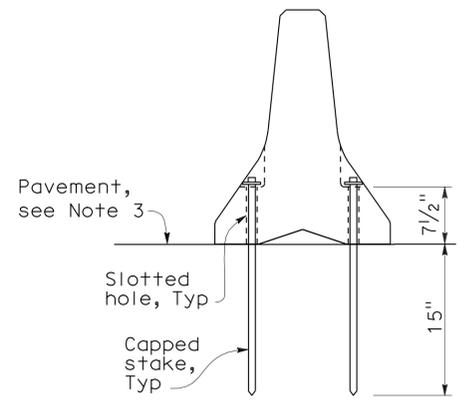
*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

To accompany plans dated 9-26-11



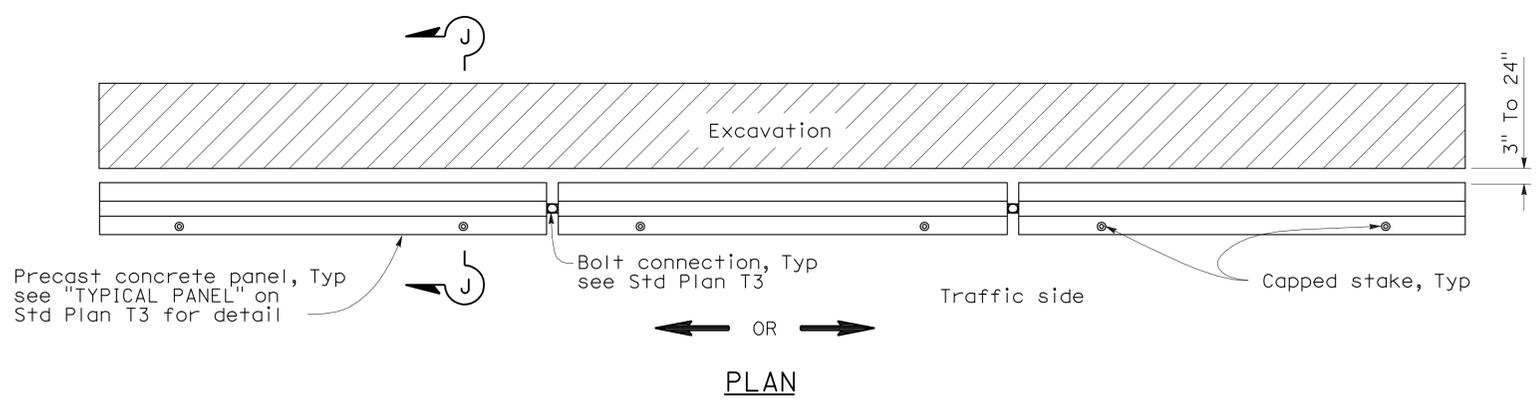
**RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC**

See Note 1



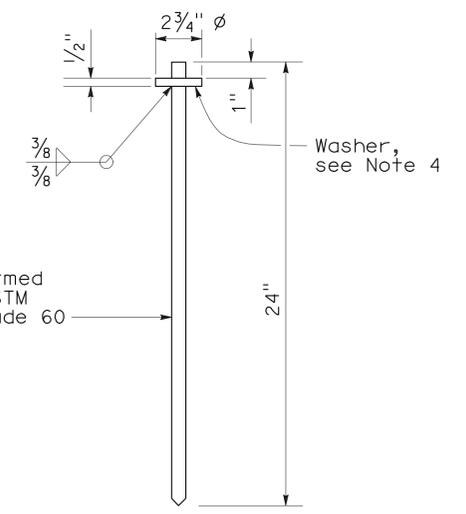
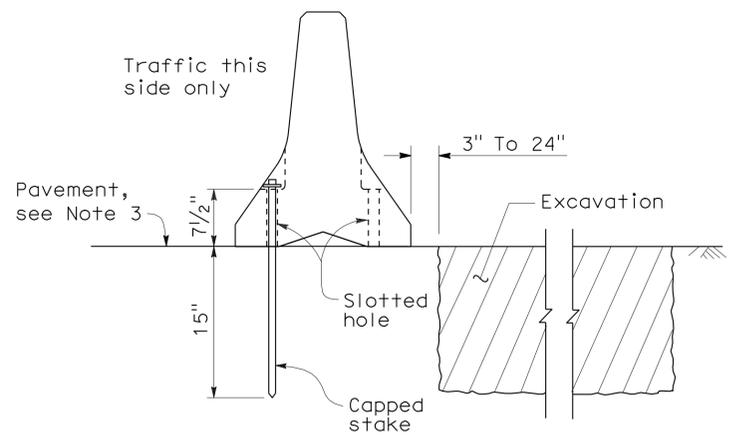
**NOTES:**

1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by  $\Rightarrow$ .



**RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION**

See Note 2



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY RAILING  
(TYPE K)**

NO SCALE

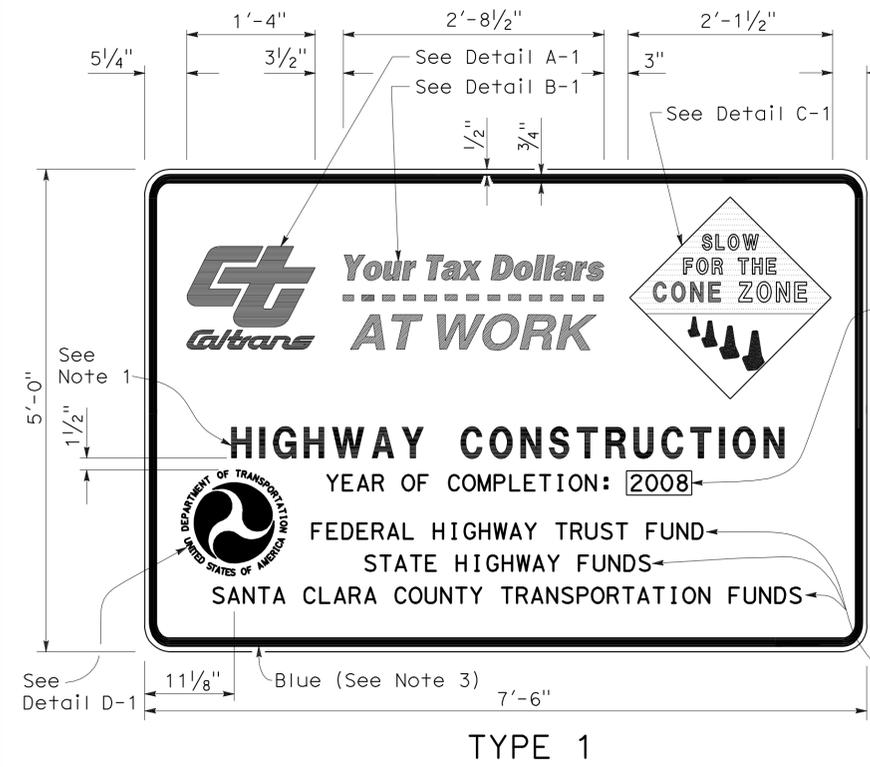
NSP T3A DATED MAY 20, 2011 SUPPLEMENTS  
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A

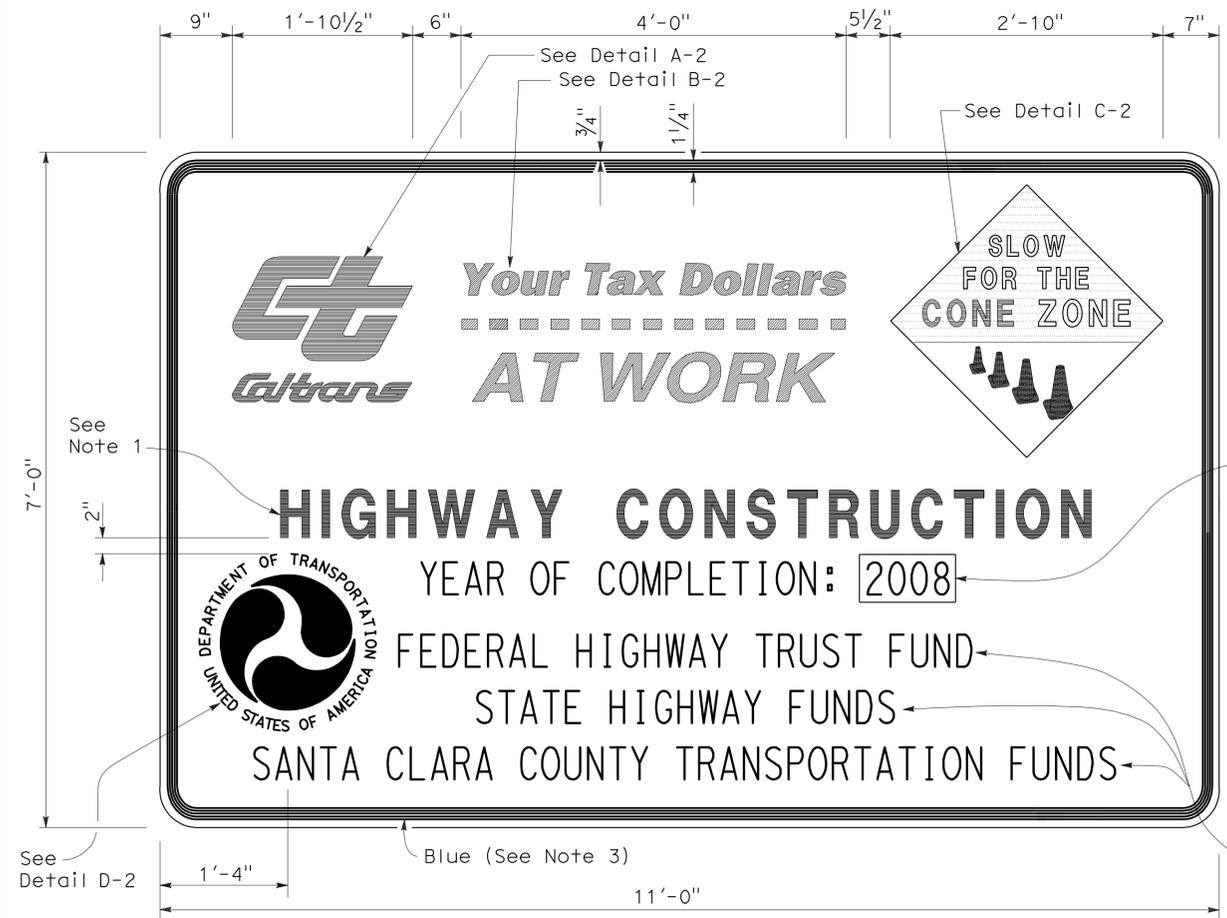
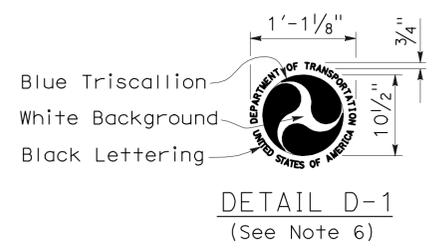
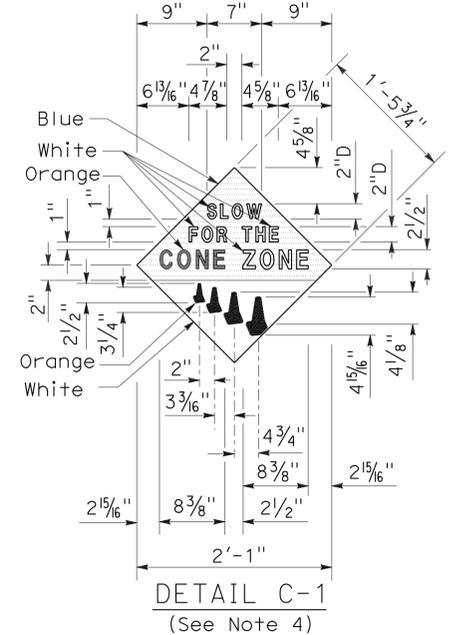
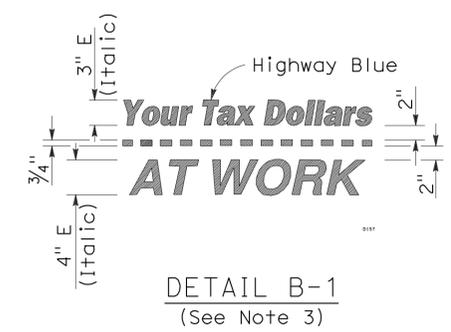
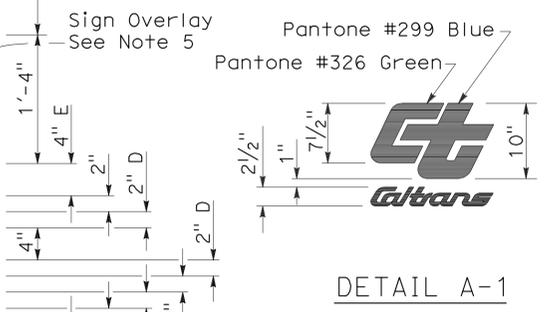
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	58	69

*Craig W. Edwards*  
 REGISTERED CIVIL ENGINEER  
 November 17, 2006  
 PLANS APPROVAL DATE  
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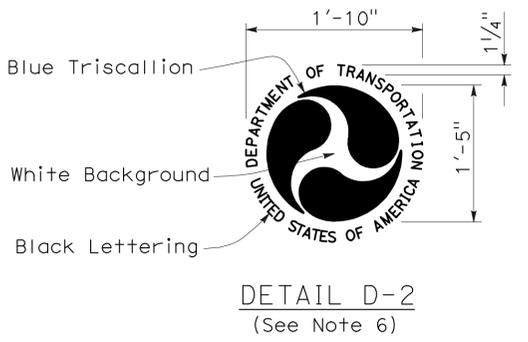
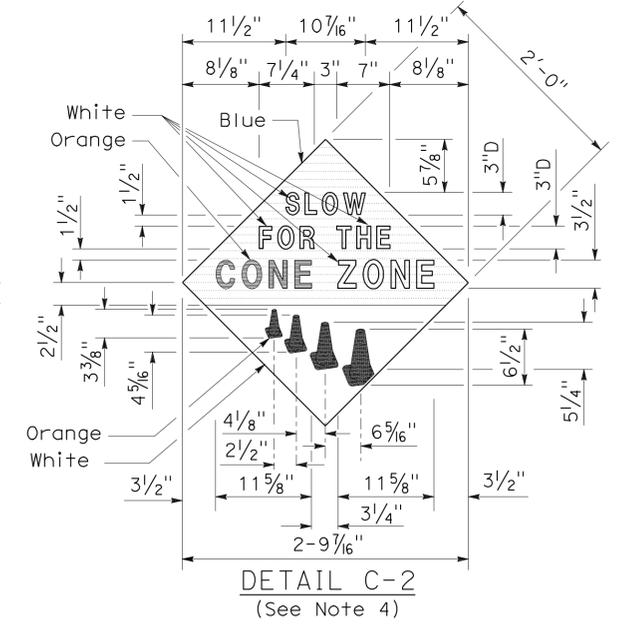
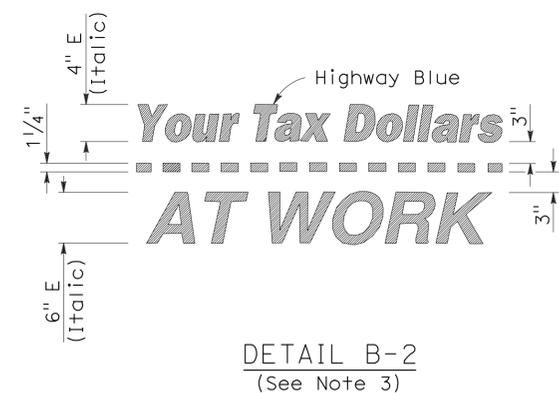
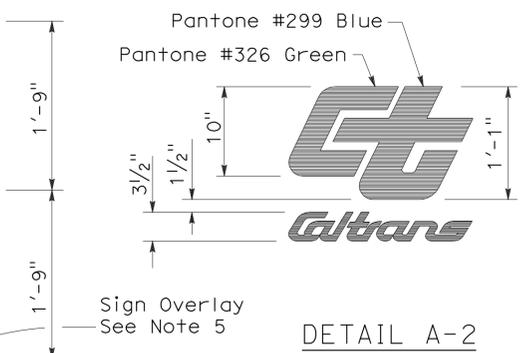
To accompany plans dated 9-26-11



**TYPE 1**



**TYPE 2**



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS**

NO SCALE

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

**REVISED STANDARD PLAN RSP T7**

2006 REVISED STANDARD PLAN RSP T7

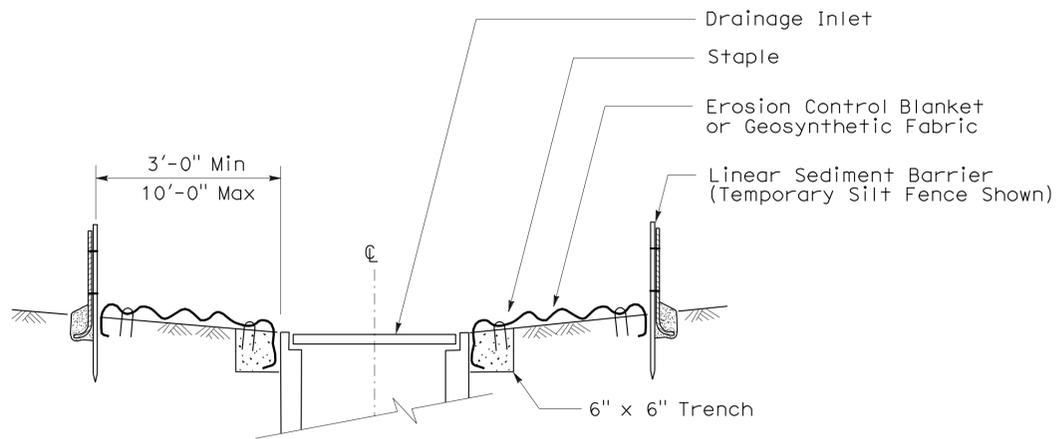
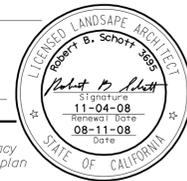
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	59	69

*Robert B. Schott*  
 LICENSED LANDSCAPE ARCHITECT

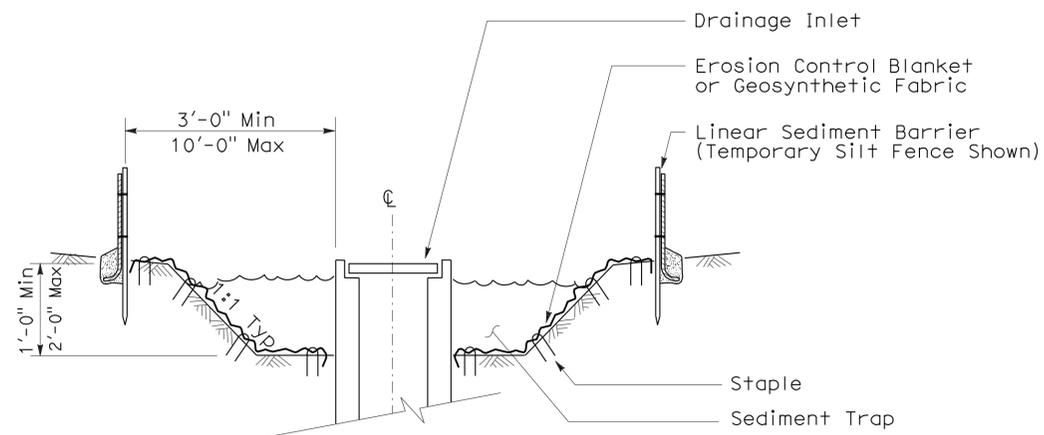
August 15, 2008  
 PLANS Approval DATE

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To accompany plans dated 9-26-11



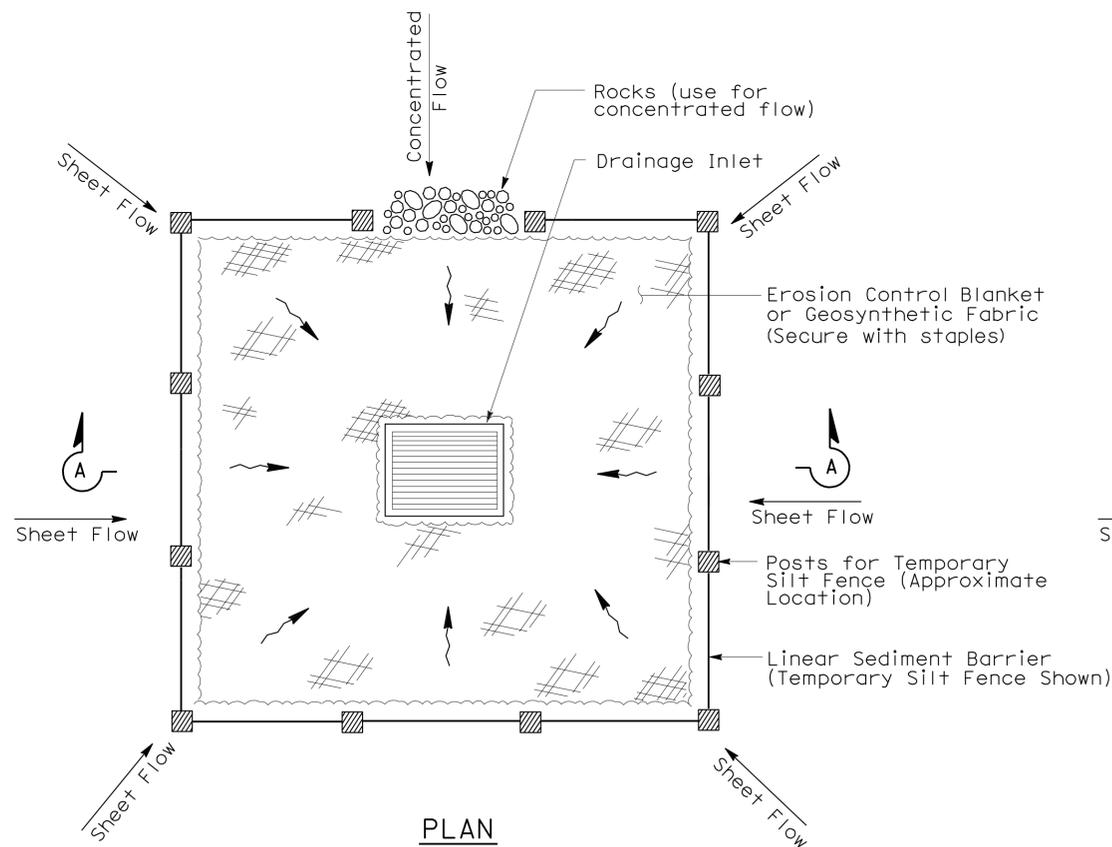
SECTION A-A



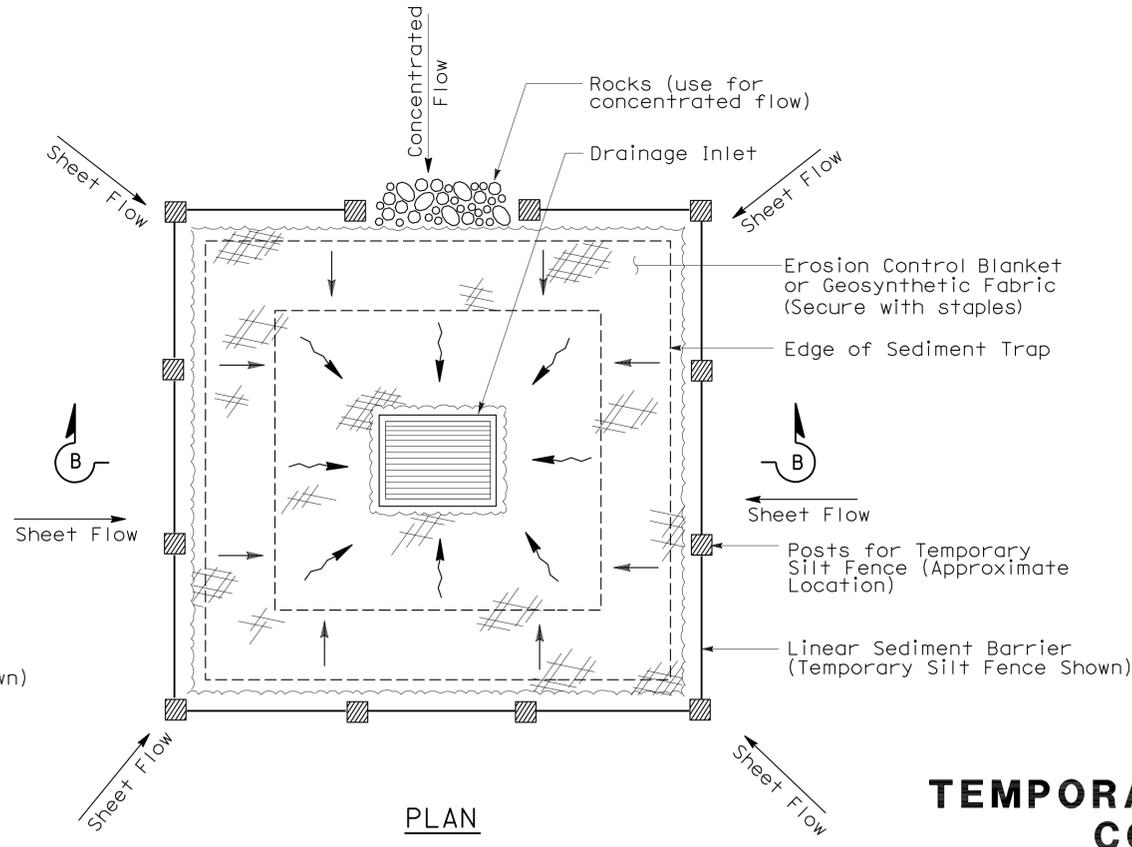
SECTION B-B

**NOTES:**

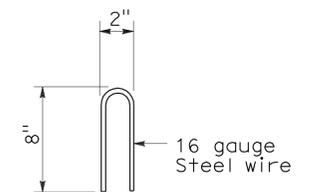
1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



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



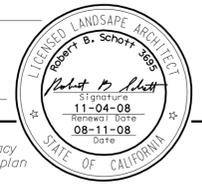
STAPLE DETAIL

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.

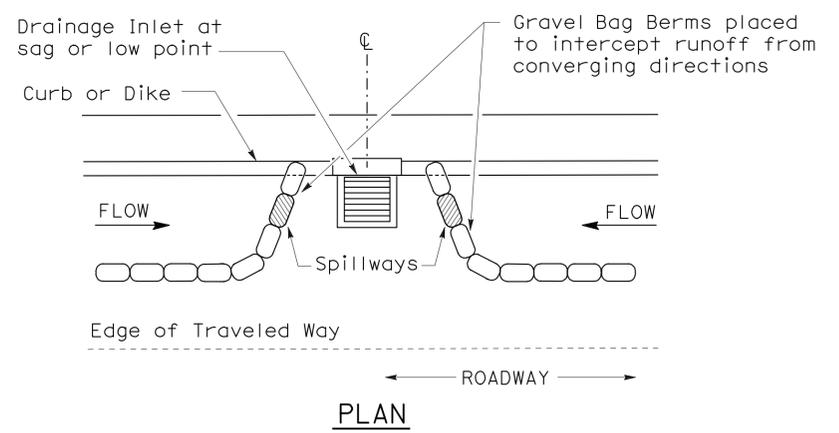


To accompany plans dated 9-26-11

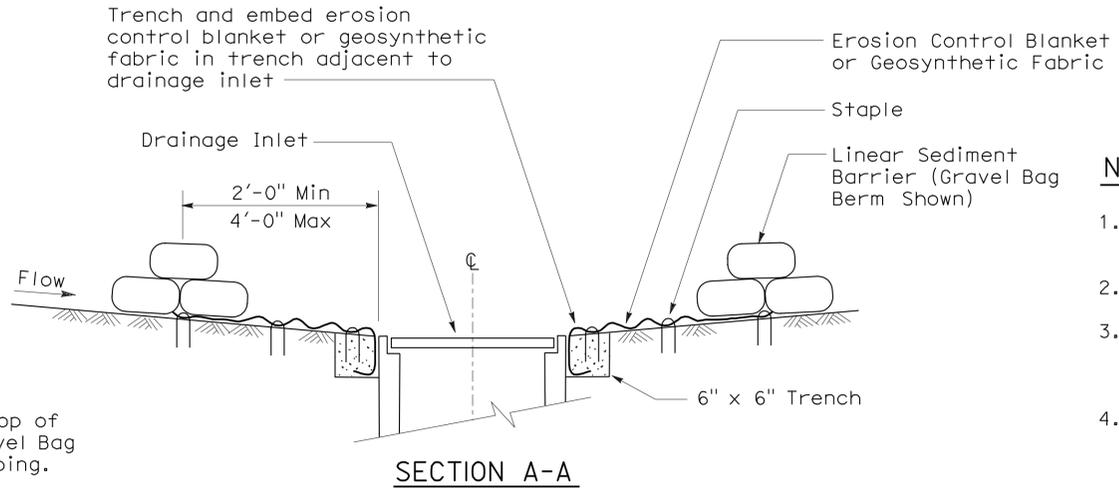
### GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

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



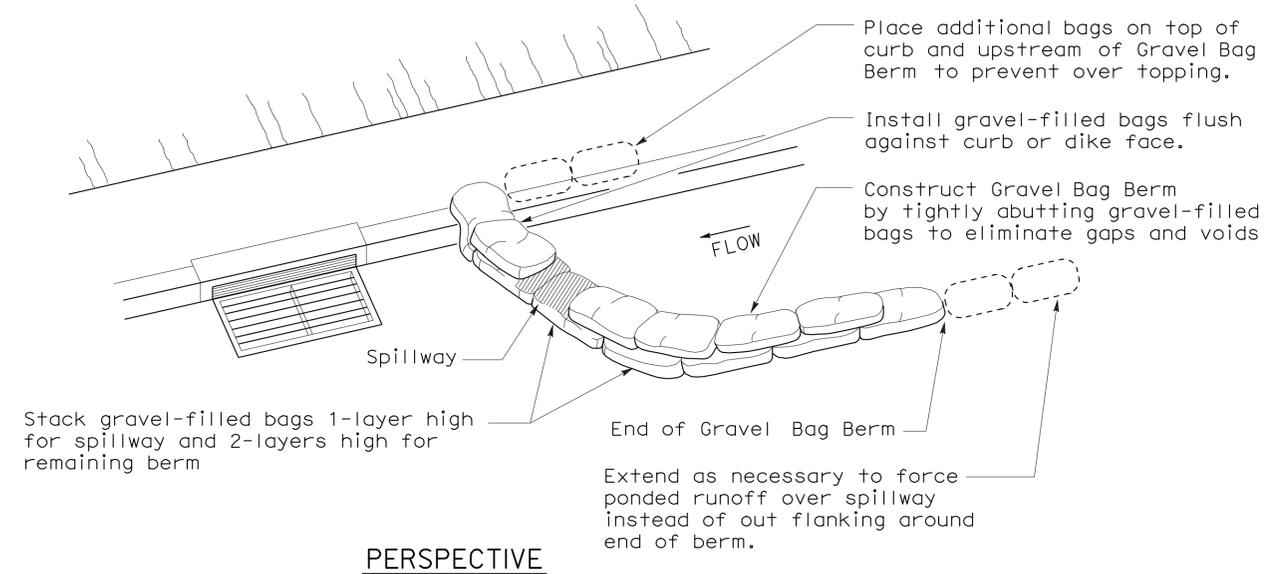
**PLAN**  
**CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)**



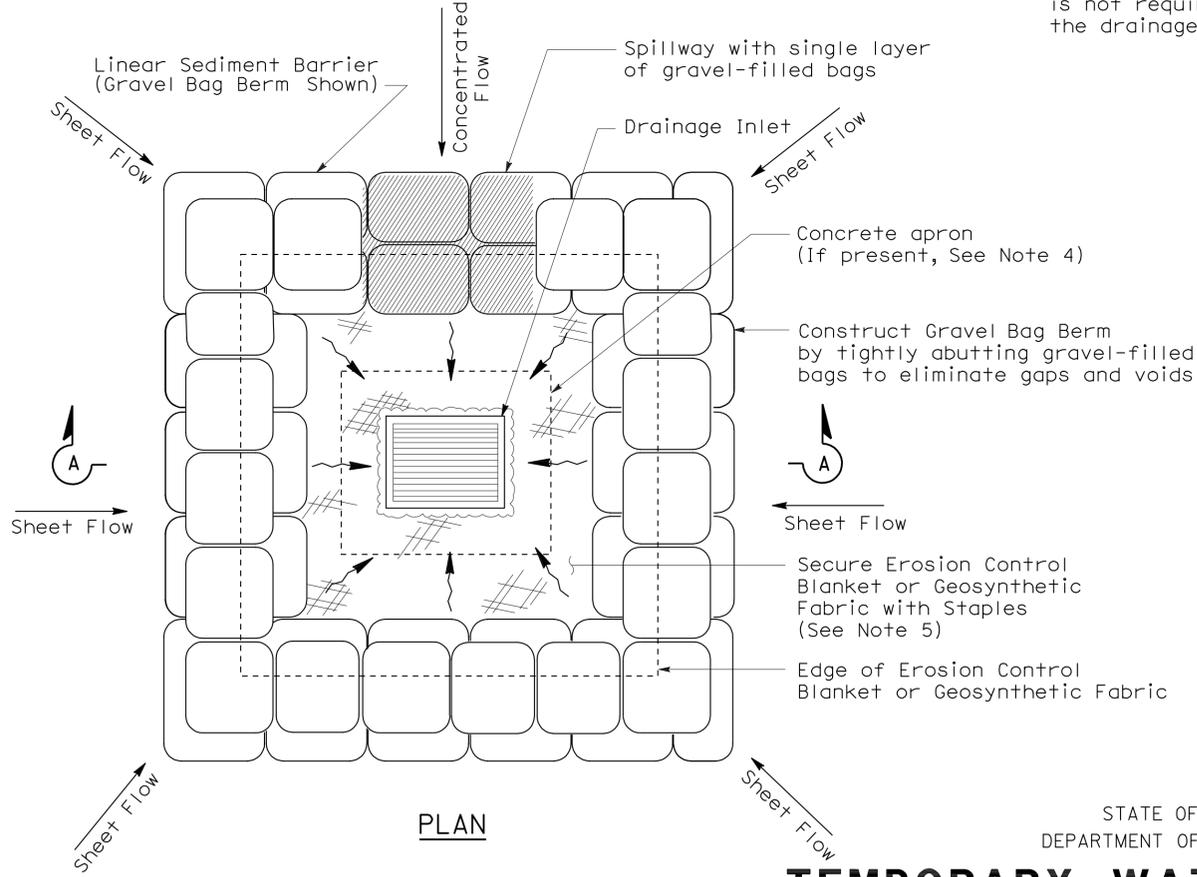
**SECTION A-A**

**NOTES:**

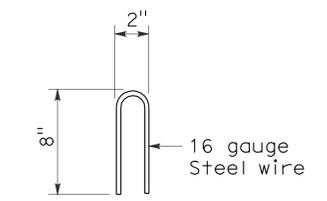
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.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



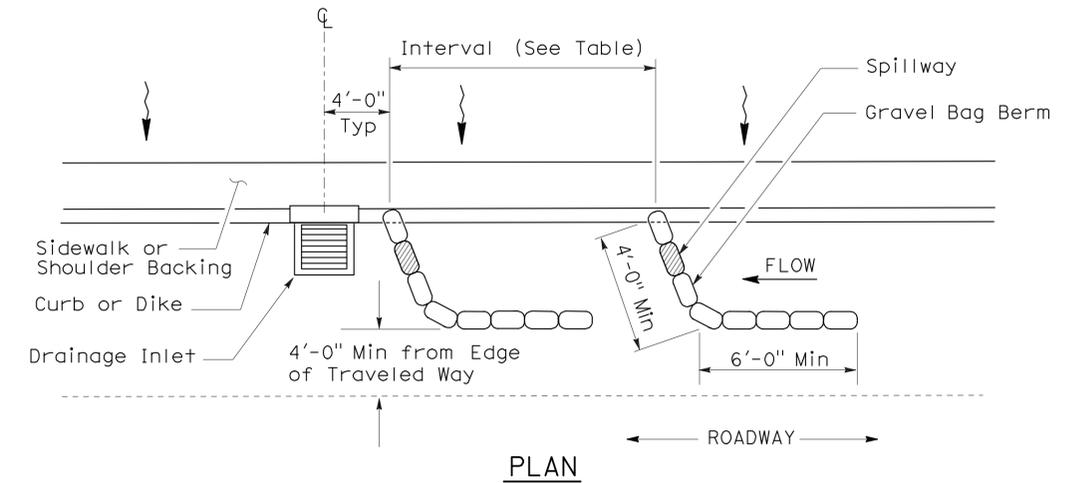
**PERSPECTIVE**



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



**STAPLE DETAIL**



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

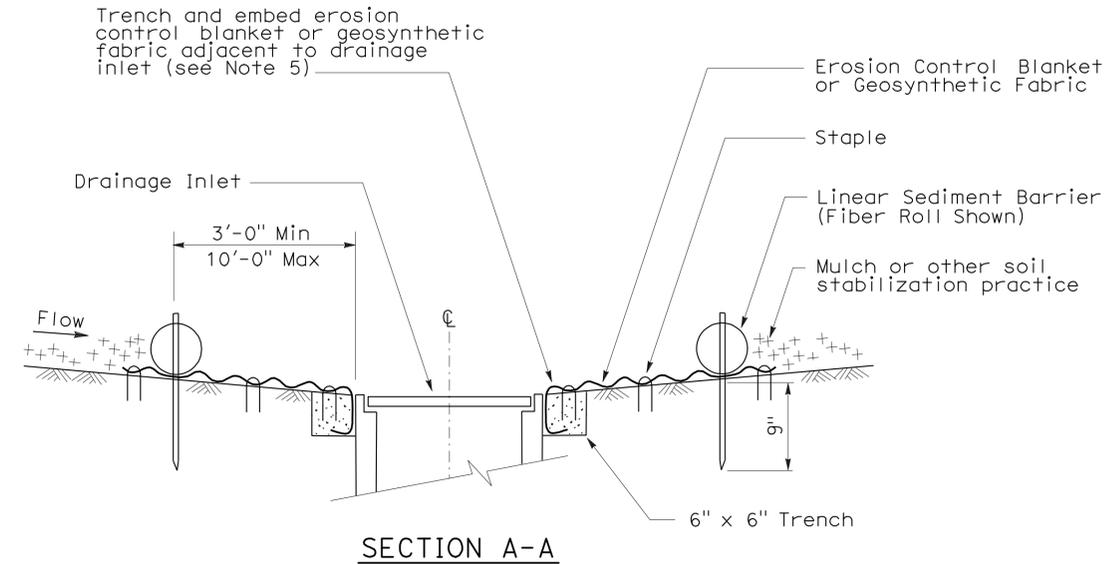
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)**

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

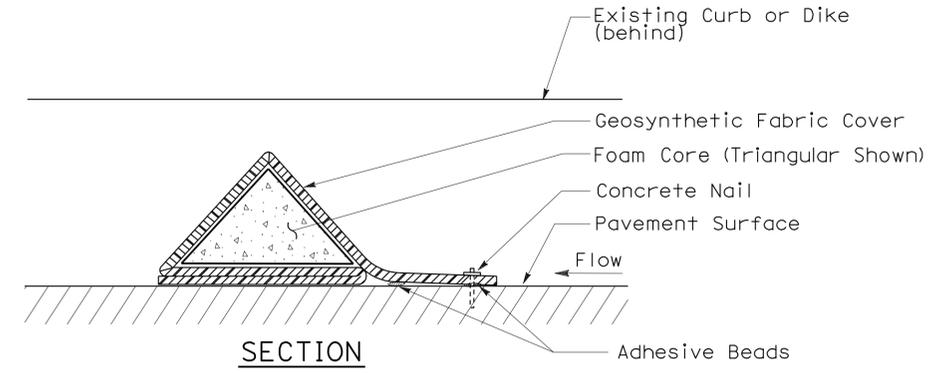
2006 NEW STANDARD PLAN NSP T62

**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**

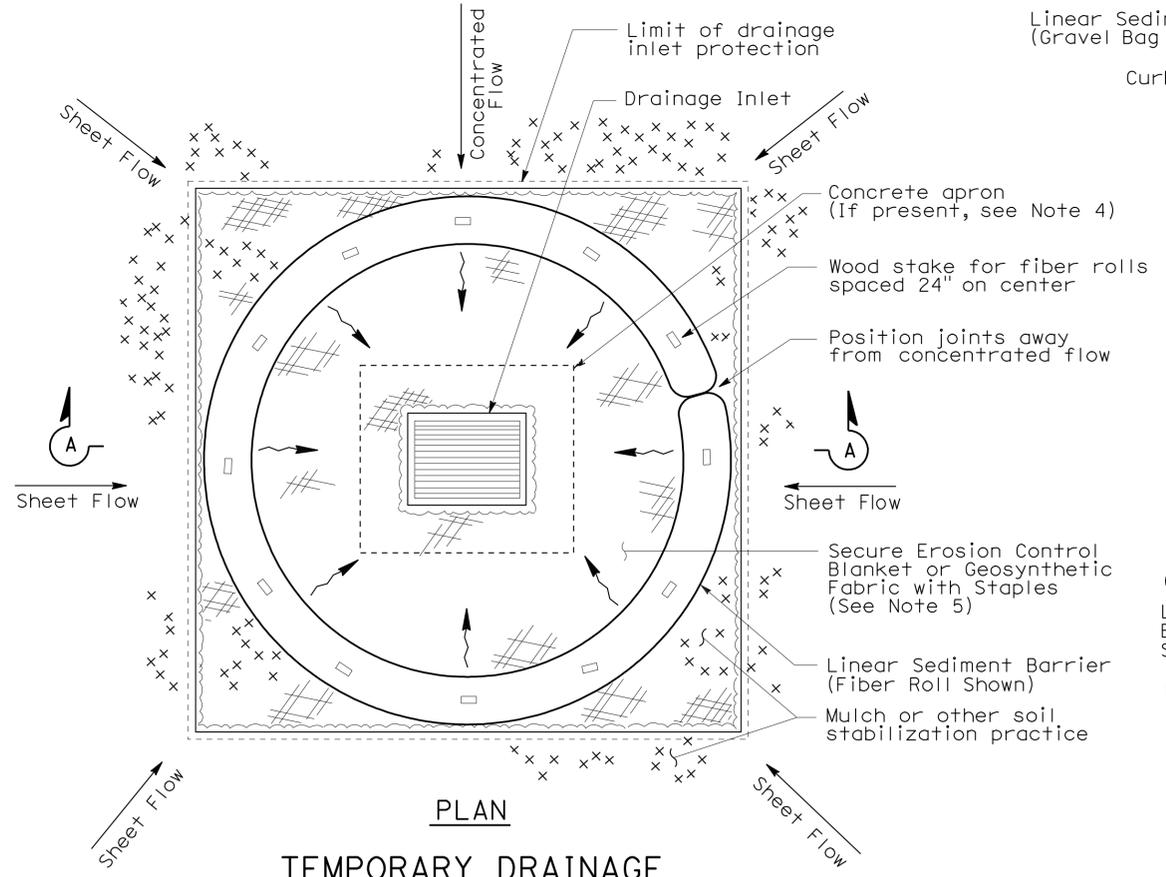


**SECTION FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)**

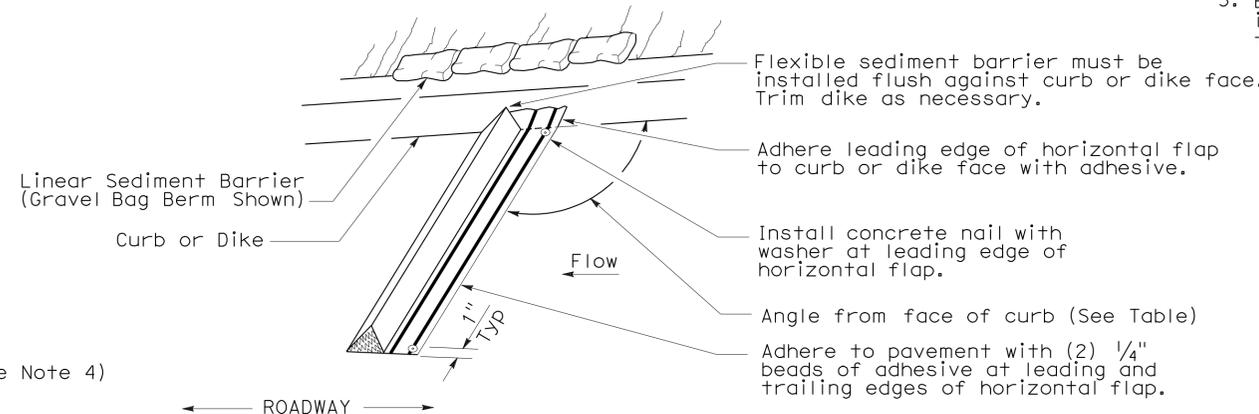
**NOTES:**

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers 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.

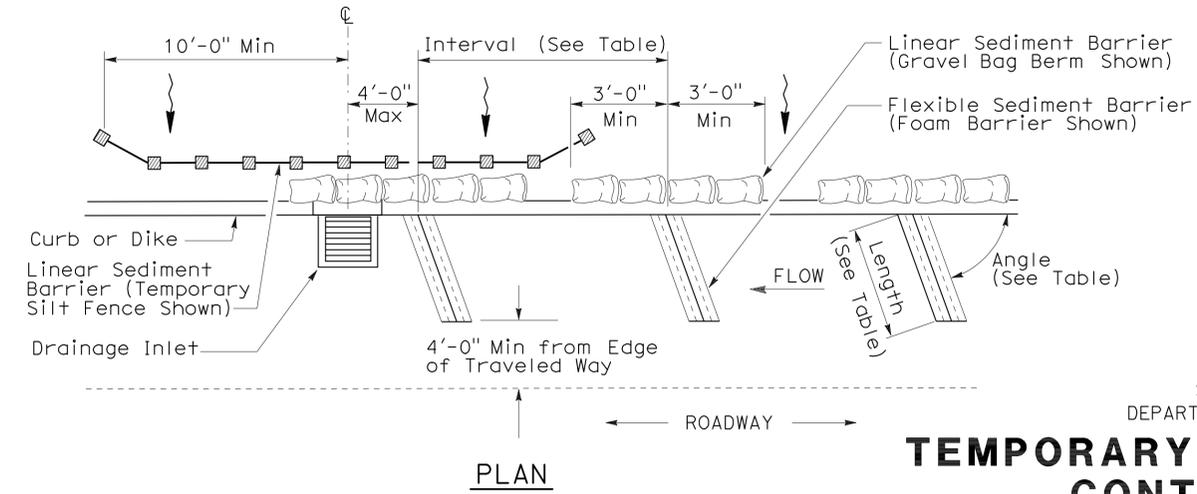
To accompany plans dated 9-26-11



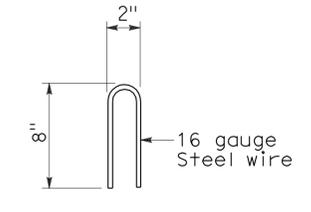
**PLAN TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)**



**PERSPECTIVE**



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



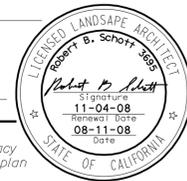
**STAPLE DETAIL**

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

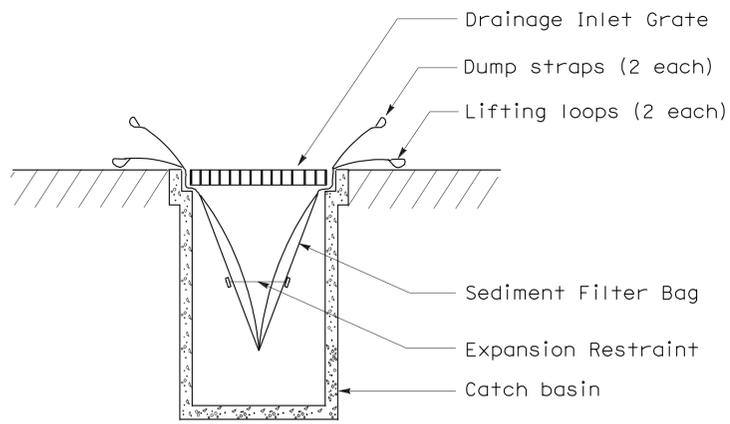
NO SCALE  
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	62	69

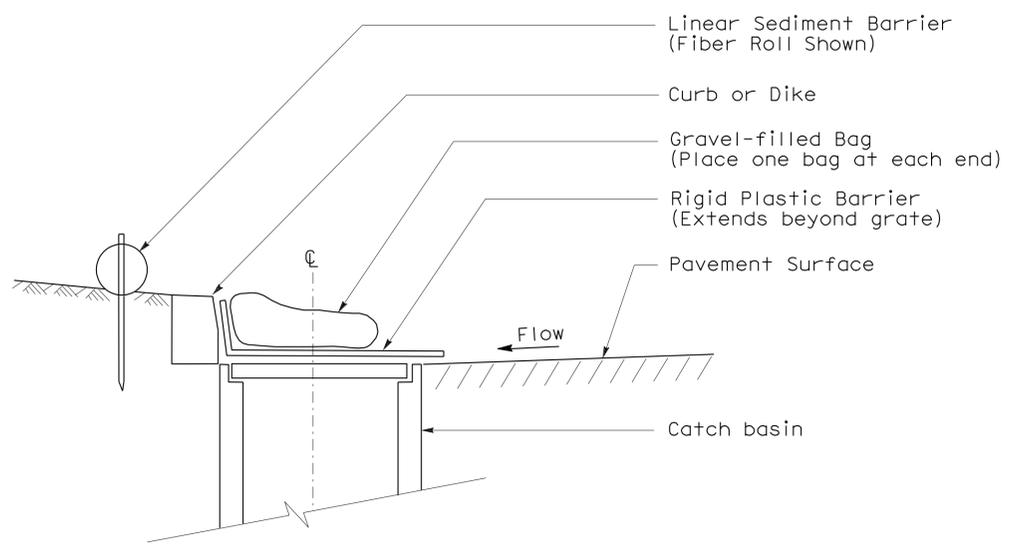
*Robert B. Schott*  
 LICENSED LANDSCAPE ARCHITECT  
 August 15, 2008  
 PLANS APPROVAL DATE  
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



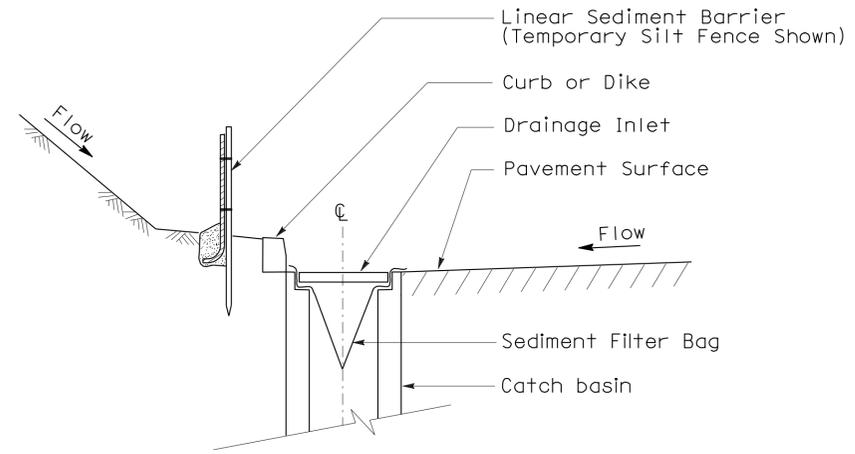
To accompany plans dated 9-26-11



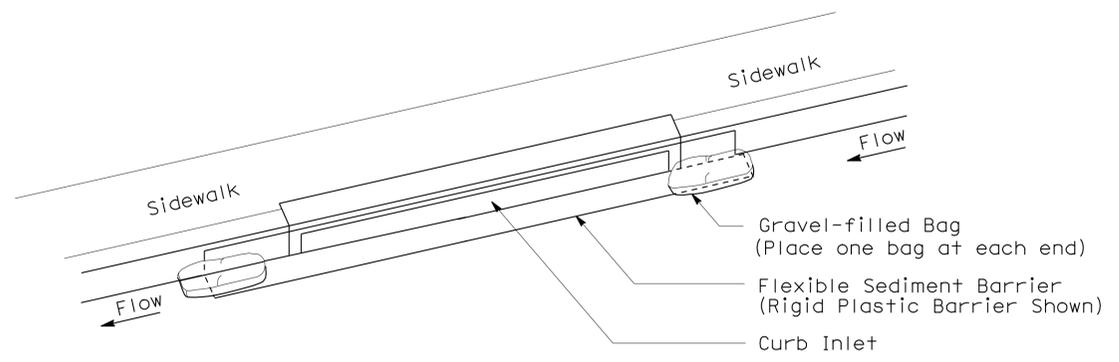
**SECTION B-B**  
**SEDIMENT FILTER BAG DETAIL**



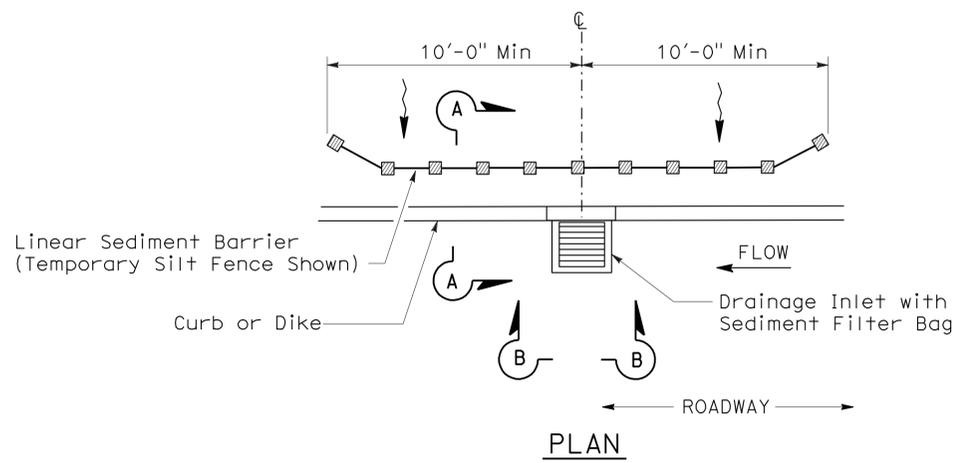
**SECTION**  
**TEMPORARY DRAINAGE**  
**INLET PROTECTION (TYPE 6A)**  
**(CATCH BASIN WITH GRATE)**



**SECTION A-A**



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



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

**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 TYPES		
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31	<b>NOTES:</b>	
32	1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.	
35	2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.	
36-20A	3. Variations noted adjacent to symbol on project plans.	

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

## STANDARD NOTES:

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

# ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

## PROPOSED EXISTING

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	63	69

*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

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 9-26-11

## SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

### NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

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

2006 REVISED STANDARD PLAN RSP ES-1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	64	69

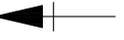
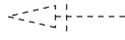
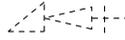
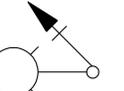
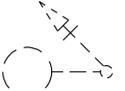
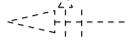
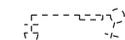
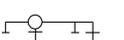
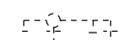
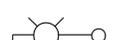
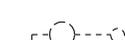
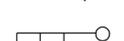
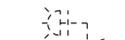
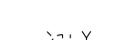
REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
 Jeffrey G. McRae  
 No. E14512  
 Exp. 6-30-08  
 ELECTRICAL  
 STATE OF CALIFORNIA

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

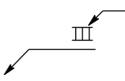
### CONDUIT

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

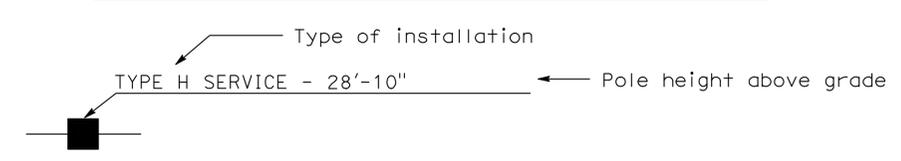
### SIGNAL EQUIPMENT

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

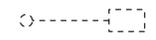
### POLE-MOUNTED SERVICE DESIGNATION



### 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

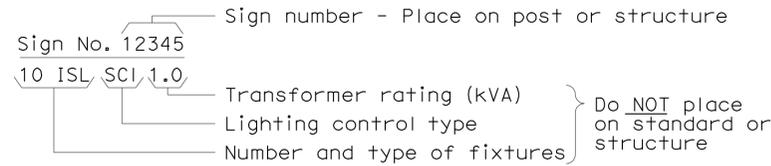
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

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

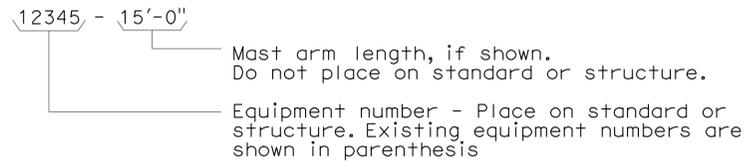
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

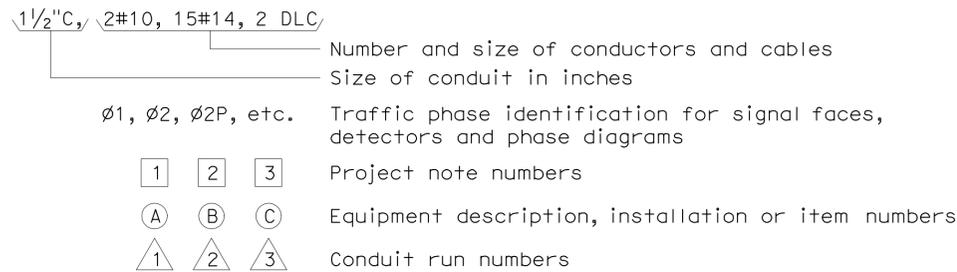
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



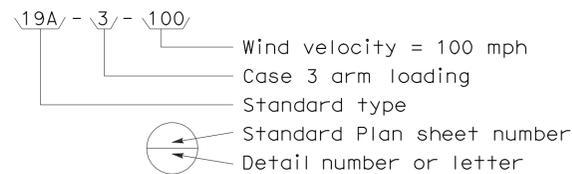
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



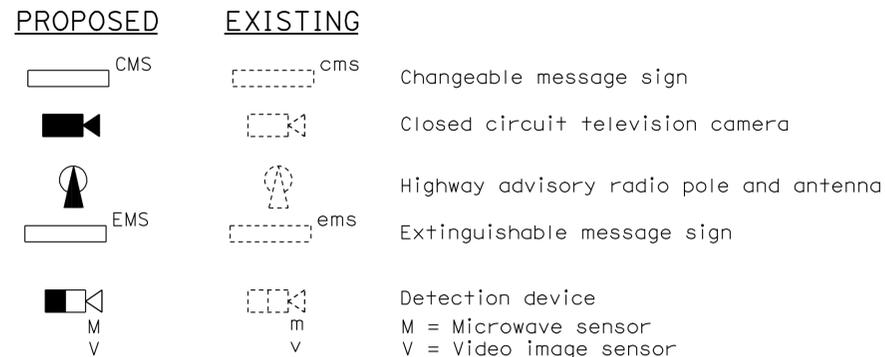
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



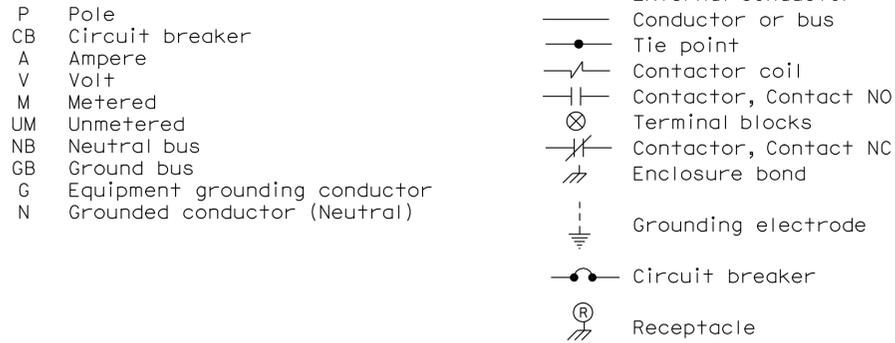
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



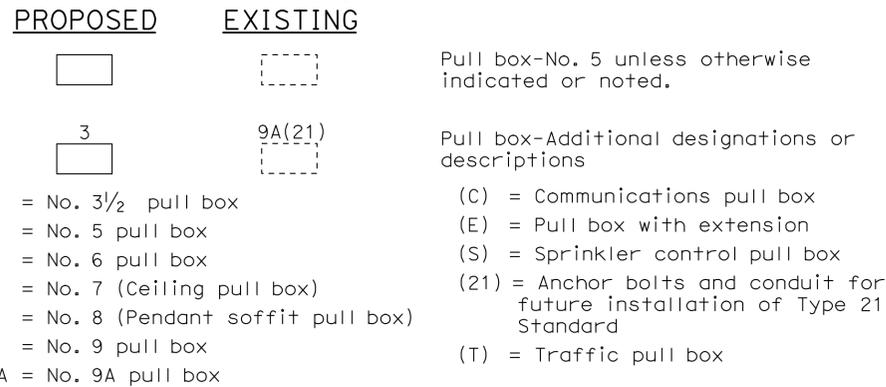
### MISCELLANEOUS EQUIPMENT



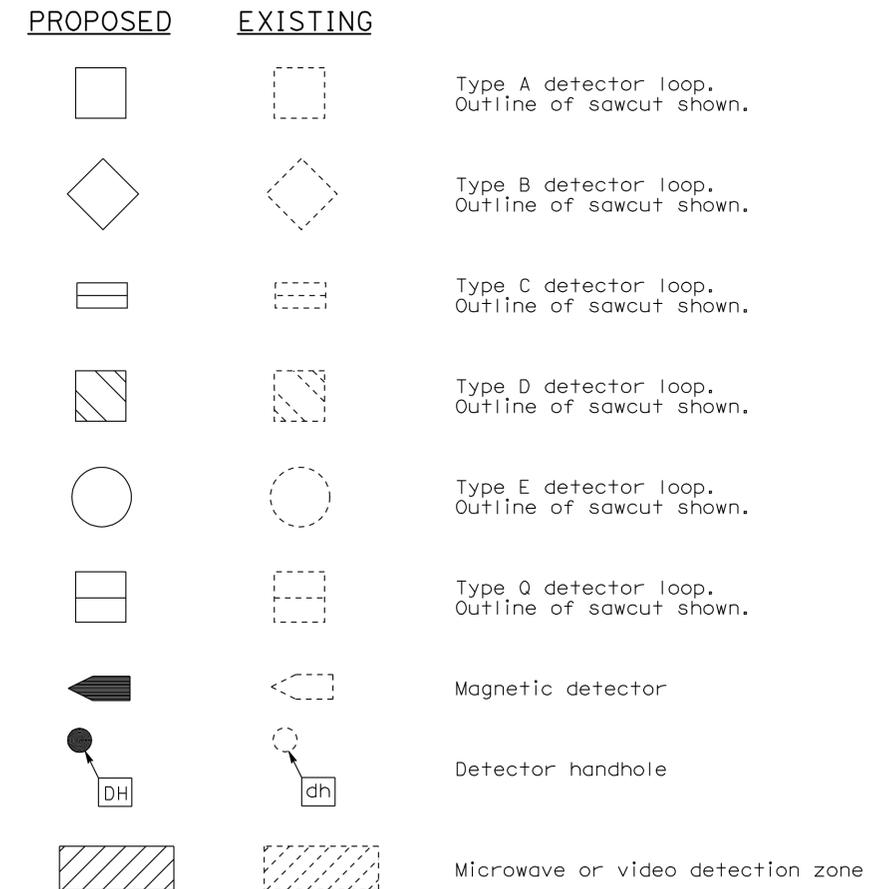
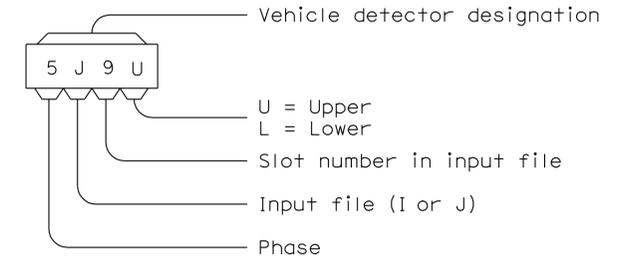
### WIRING DIAGRAM LEGEND



### 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.

2006 REVISED STANDARD PLAN RSP ES-1C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre, Mad	99	Var	66	69

*Jeffery G. McRae*  
 REGISTERED ELECTRICAL ENGINEER

October 5, 2007  
 PLANS APPROVAL DATE

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

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To accompany plans dated 9-26-11

**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 7/16".
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, 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 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 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)."

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

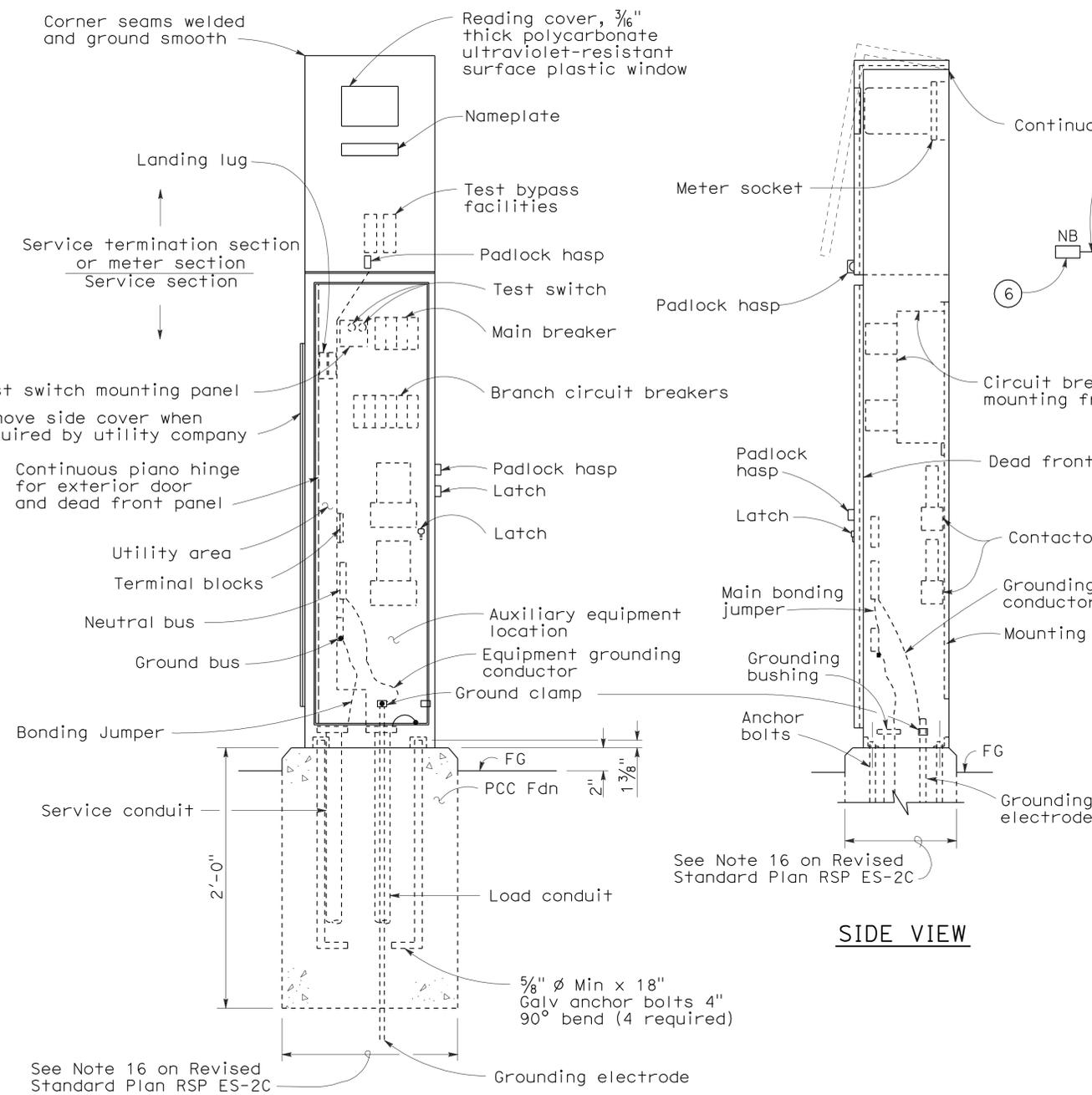
NO SCALE

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

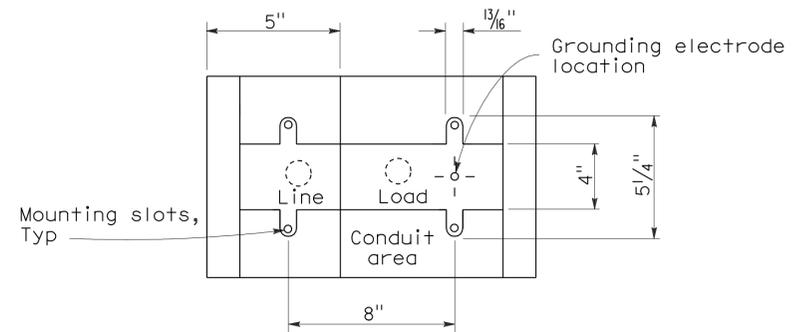
2006 REVISED STANDARD PLAN RSP ES-2D



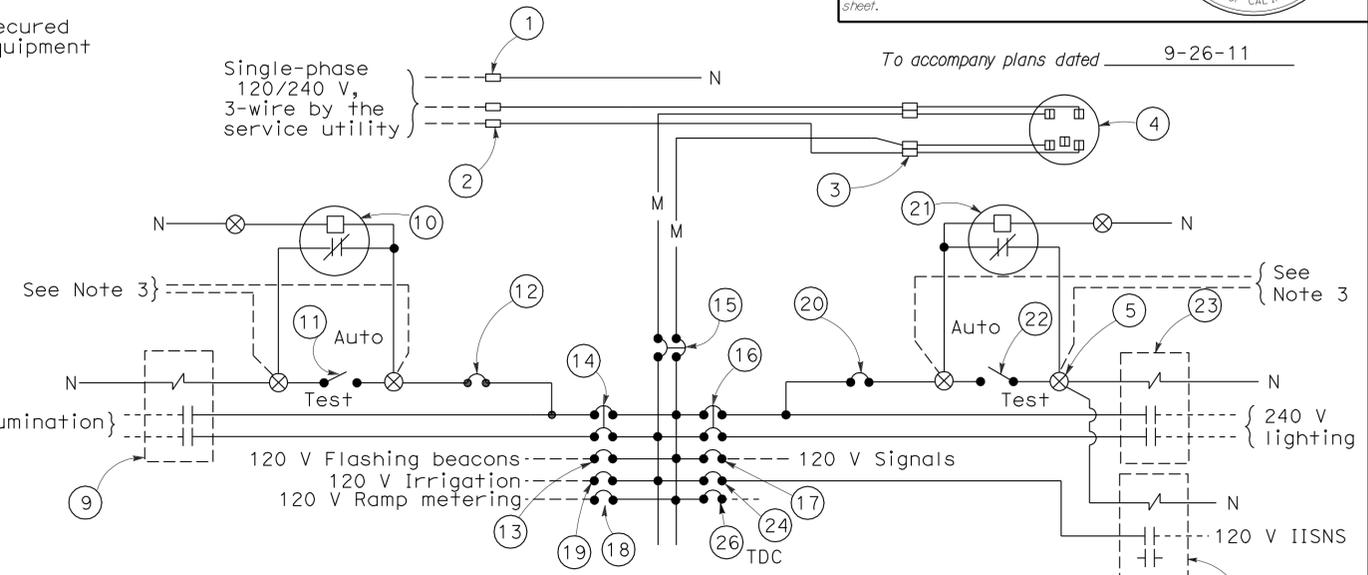
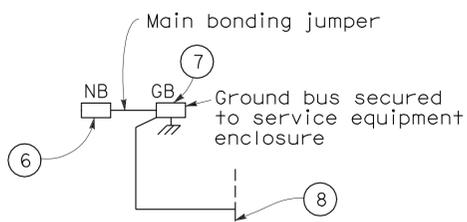
**TYPE III-AF SERVICE EQUIPMENT ENCLOSURE (TYPICAL)**

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)**

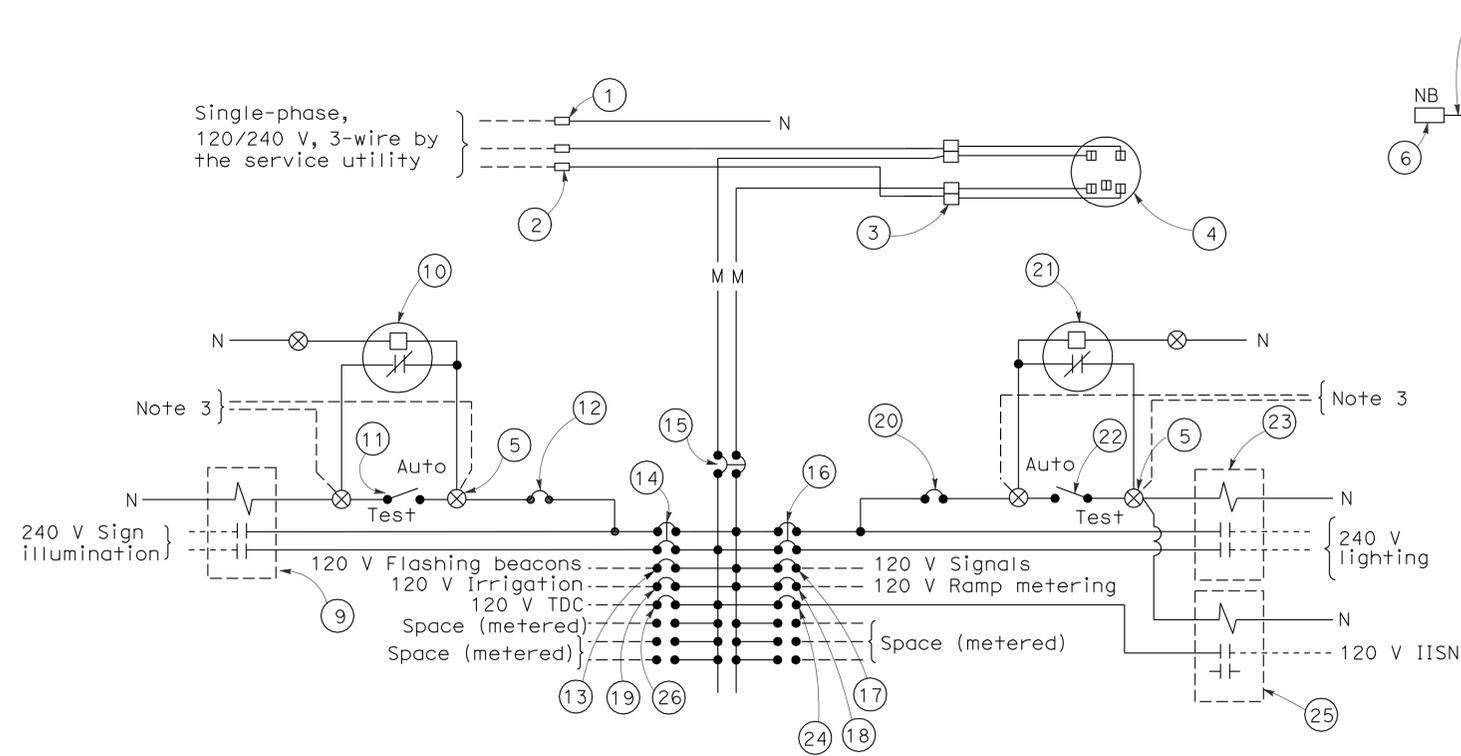
- Voltage ratings of service equipment shall conform to the service voltages indicated on the plans.
- Unless otherwise indicated on the plans, service equipment items shall be provided for each service equipment enclosure as shown.
- Connect to remote test switch mounted on lighting standards, sign 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

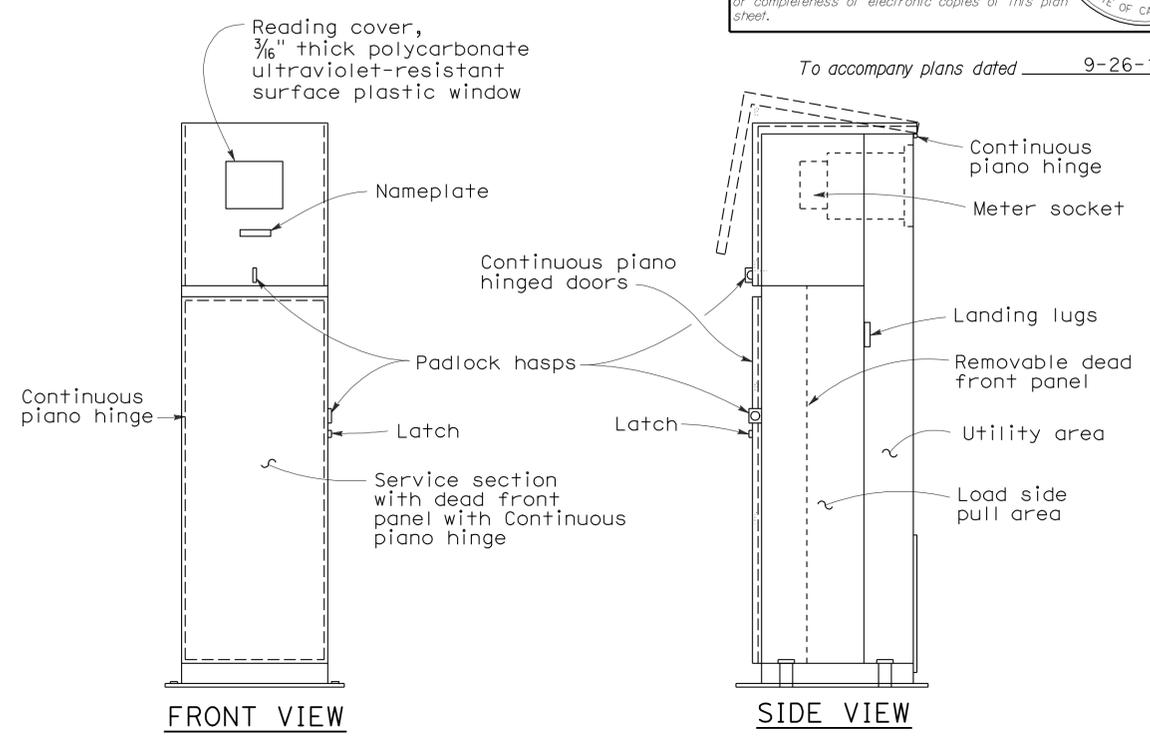
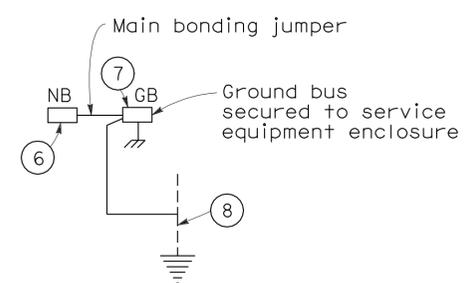
**ELECTRICAL SYSTEMS  
(SERVICE EQUIPMENT AND  
TYPICAL WIRING DIAGRAM,  
TYPE III - A SERIES)**

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.



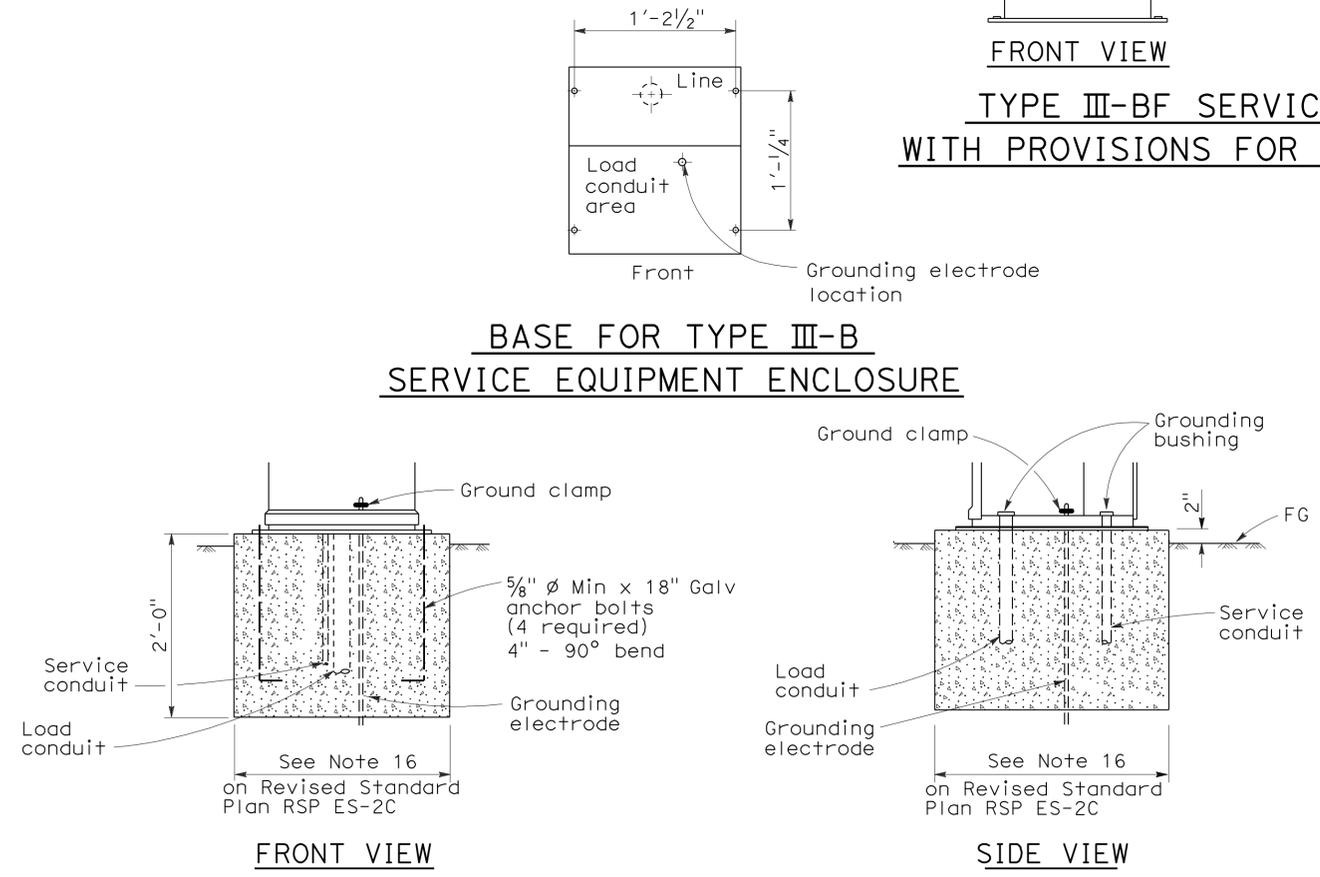
**120/240 V SERVICE WIRING DIAGRAM (TYPICAL)**



**TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH PROVISIONS FOR ONE 100 A METER (TYPICAL)**

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

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



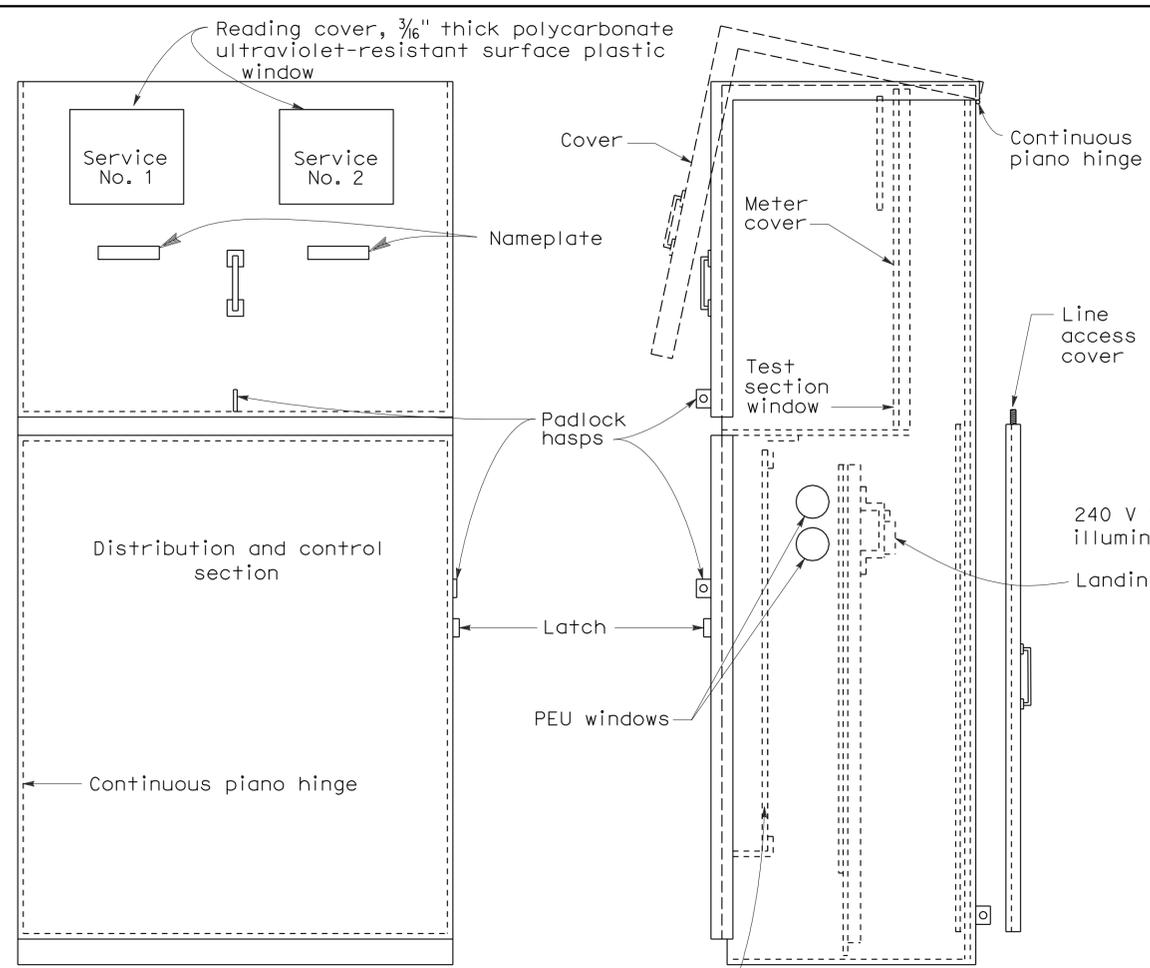
**TYPE III-B SERVICE EQUIPMENT ENCLOSURE FOUNDATION DETAILS**

- 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-B SERIES)**  
 NO SCALE

RSP ES-2E DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2E  
 DATED MAY 1, 2006 - PAGE 407 OF THE STANDARD PLANS BOOK DATED MAY 2006.

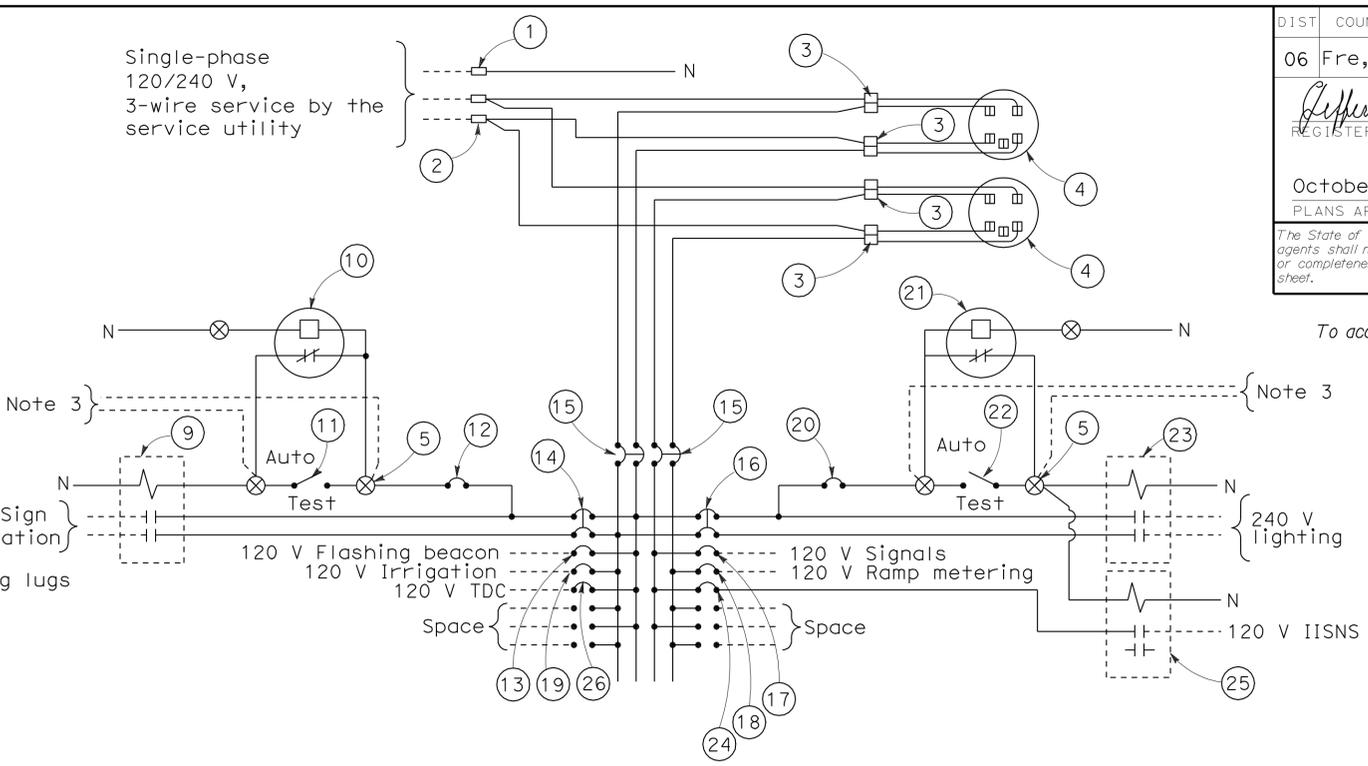
2006 REVISED STANDARD PLAN RSP ES-2E



**FRONT VIEW**      **SIDE VIEW**

Continuous piano hinge dead front panel latch

**TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH PROVISIONS FOR TWO 100 A METERS (TYPICAL)**

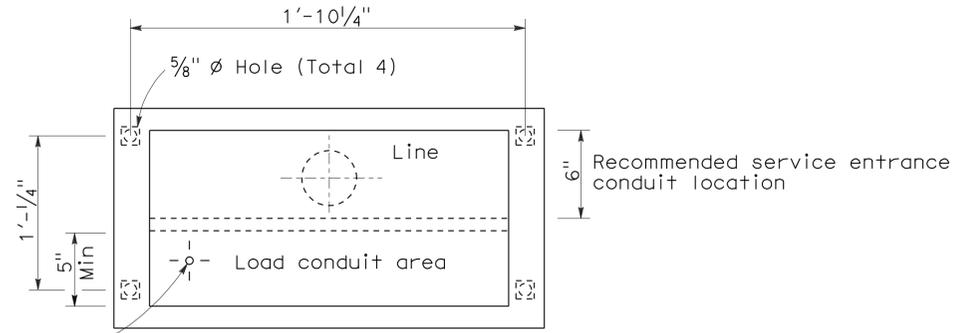


**120/240 V SERVICE WIRING DIAGRAM (TYPICAL)**

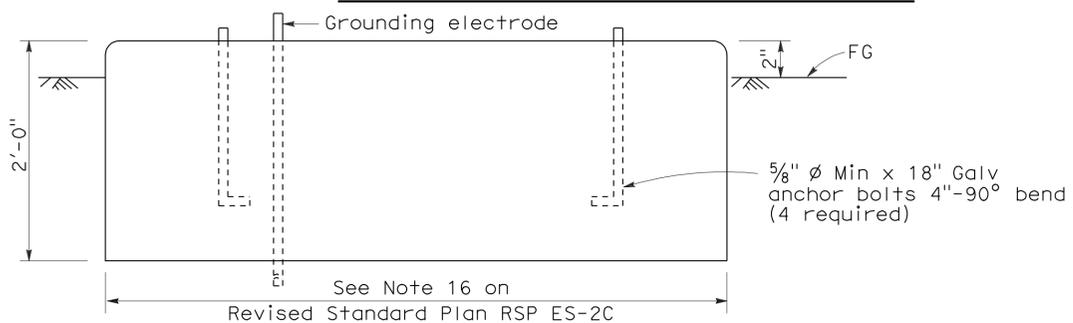
TYPE III-C SERVICE (120/240 V) EQUIPMENT LEGEND					
ITEM No.	COMPONENT	NAME PLATE DESCRIPTION	ITEM No.	COMPONENT	NAME PLATE DESCRIPTION
1	Neutral lug		14	30 A, 240 V, 2P, CB	Sign Illumination
2	Landing lug (Note 6)		15	100 A, 240 V, 2P, CB	Main Breaker
3	Test bypass facility		16	30 A, 240 V, 2P, CB	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 Control
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.



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



**FOUNDATION DETAIL**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

RSP ES-2F DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2F DATED MAY 1, 2006 - PAGE 408 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP ES-2F