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

STATE OF CALIFORNIA ACNHP-P198(064)E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN KINGS COUNTY
IN AND NEAR LEMOORE
FROM ROUTE 41/198 SEPARATION TO 18 1/2 AVENUE

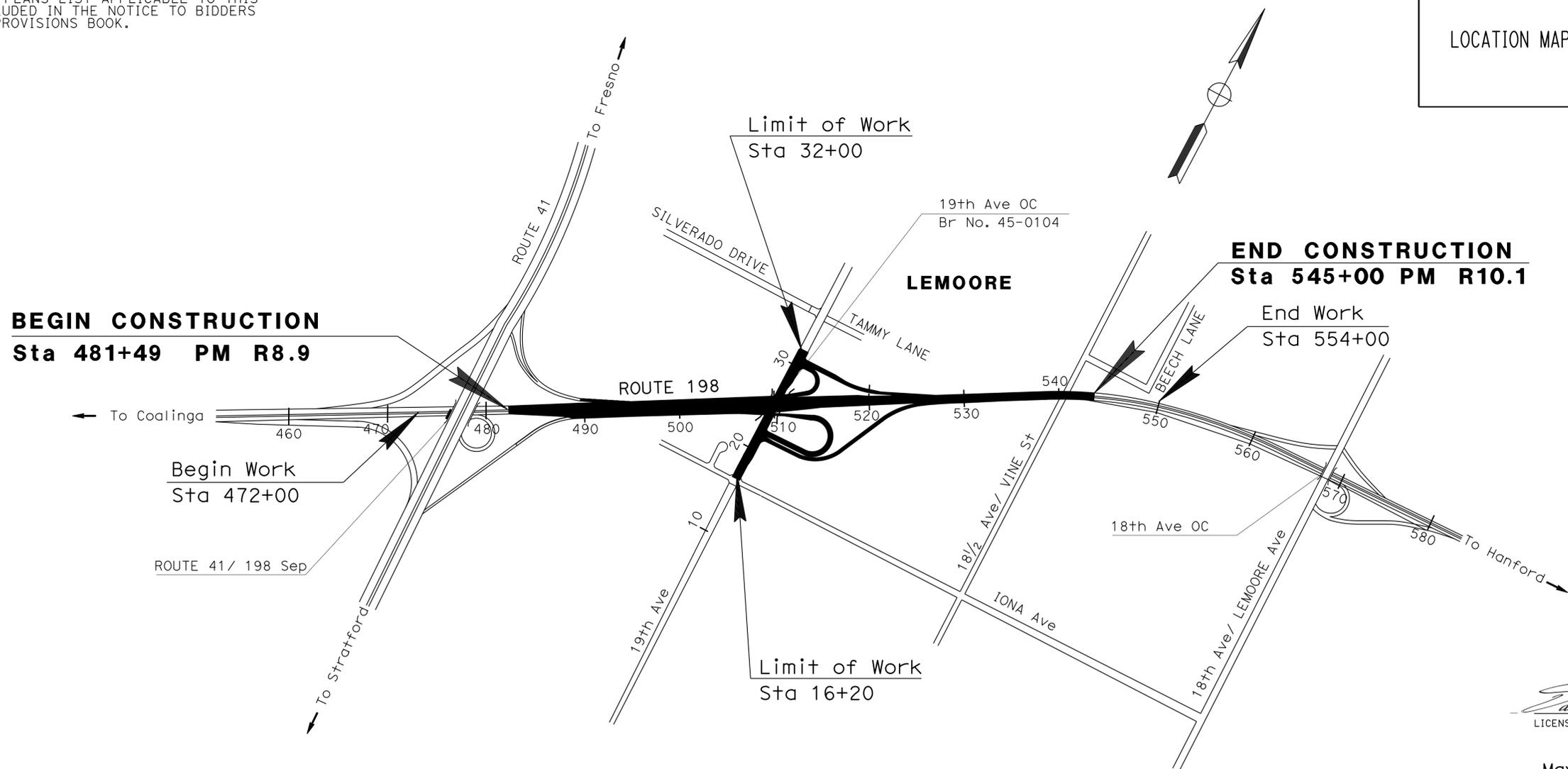
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	1	41





LOCATION MAP



PROJECT MANAGER
JIM HEINEN
 SENIOR LANDSCAPE ARCHITECT
BRAD COLE


 LICENSED LANDSCAPE ARCHITECT
 May 12, 2014
 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.	06-325514
PROJECT ID	0612000052

LAST REVISION: 04-23-14 TIME PLOTTED => 14:21 DATE PLOTTED => 22-OCT-2014

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	2	41

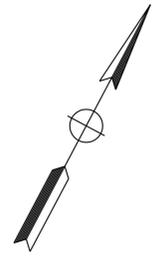
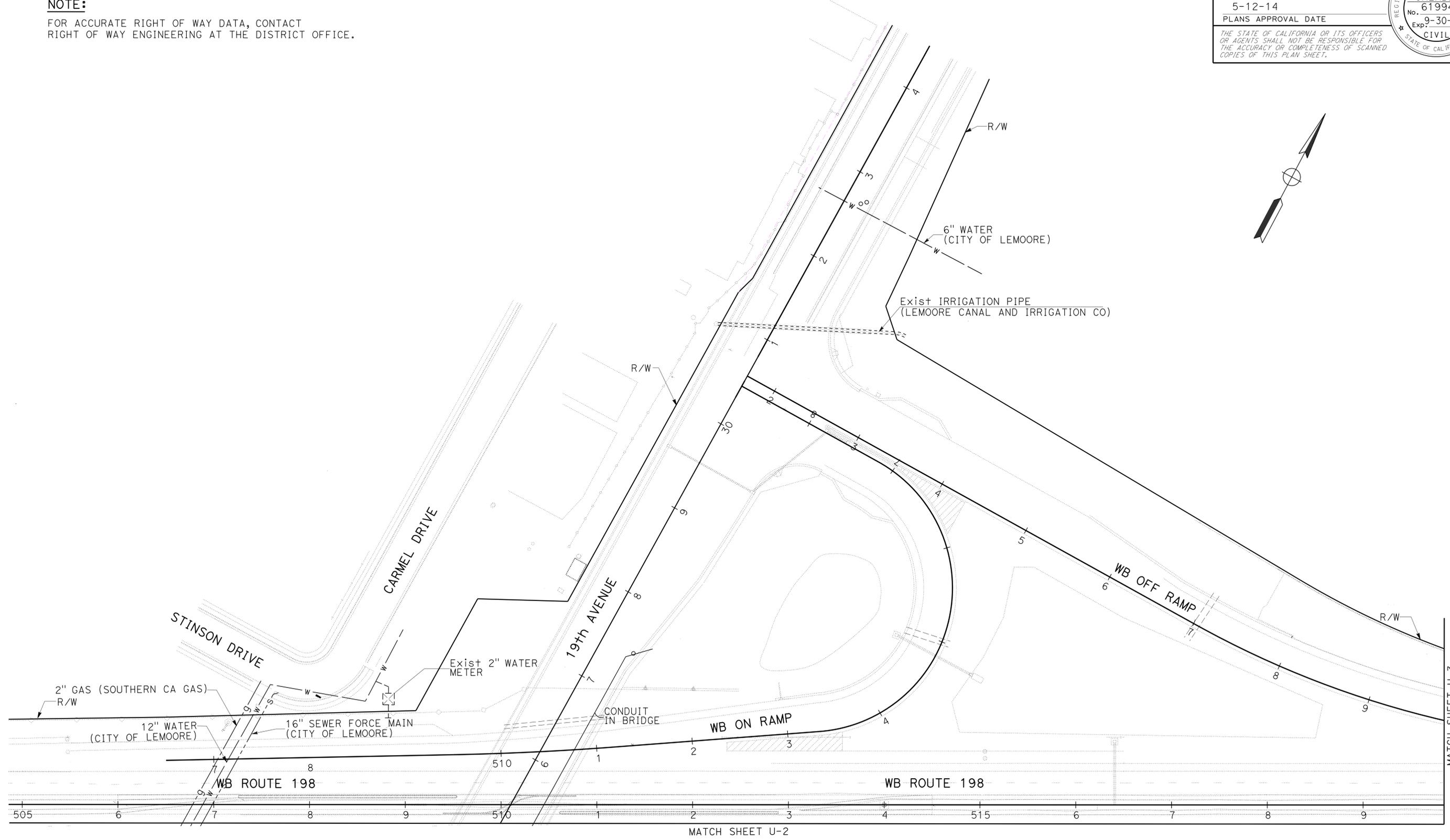
<i>Deo Calabio</i>	4-4-14
REGISTERED CIVIL ENGINEER	DATE
5-12-14	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
DEO CALABIO
No. 61994
Exp. 9-30-15
CIVIL
STATE OF CALIFORNIA

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Ernst & Young	
FUNCTIONAL SUPERVISOR	ERNIE PENUNA
CALCULATED/DESIGNED BY	CHECKED BY
DAVID MARTIN	DEO CALABIO
REVISED BY	DATE REVISED



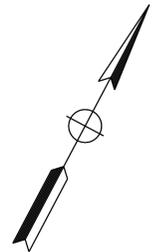
APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN
U-1

SCALE: 1"=50'

LAST REVISION: DATE PLOTTED => 12-SEP-2014 04-09-14 TIME PLOTTED => 14:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	3	41
			REGISTERED CIVIL ENGINEER	DATE	
			5-12-14	4-4-14	
			PLANS APPROVAL DATE		

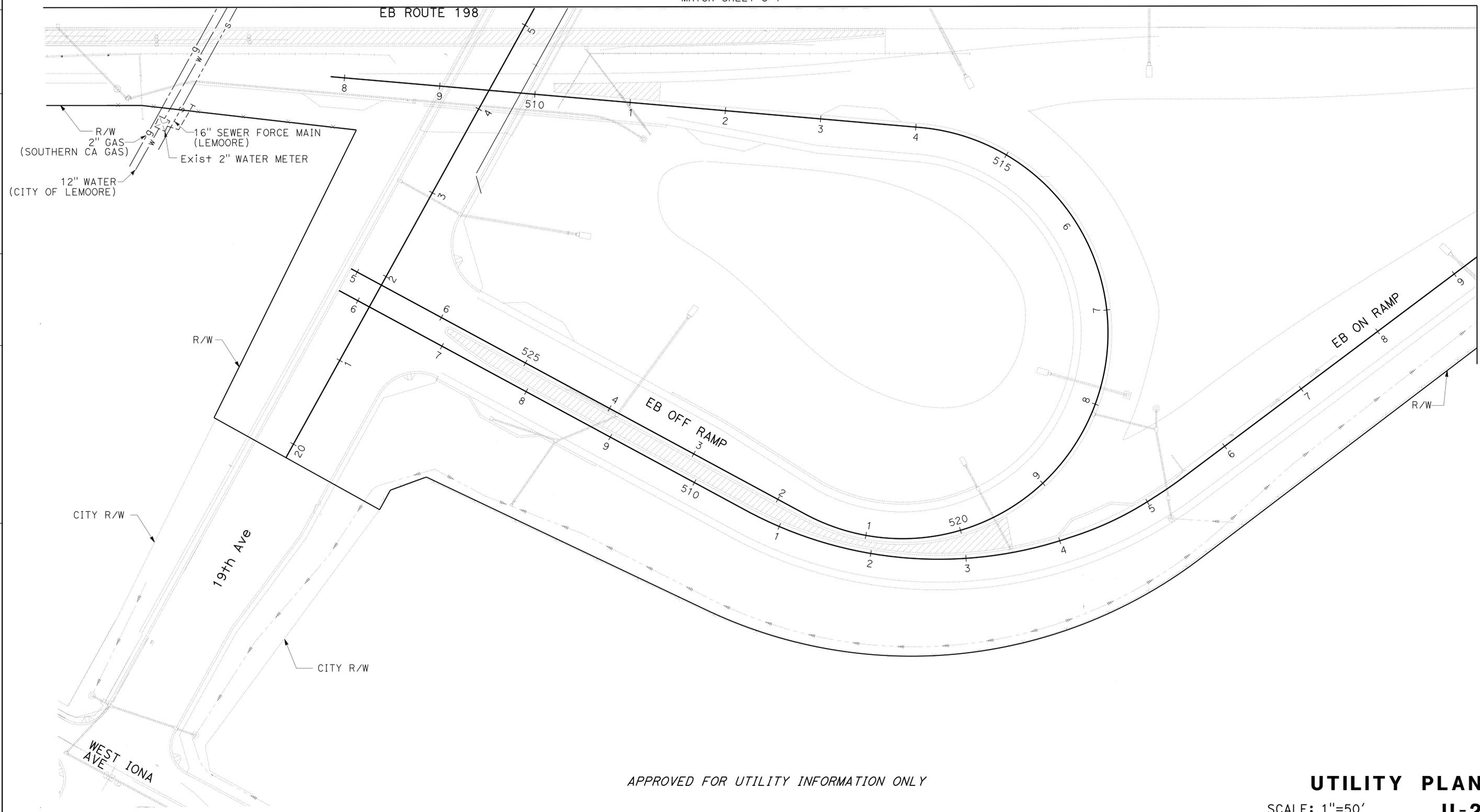




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MATCH SHEET U-1



MATCH SHEET U-3

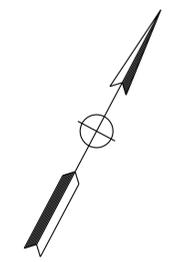
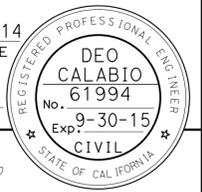
APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN
 SCALE: 1"=50'
U-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	ERNIE PENUNA
CALCULATED/DESIGNED BY	CHECKED BY
DAVID MARTIN	DEO CALABIO
REVISED BY	DATE REVISED

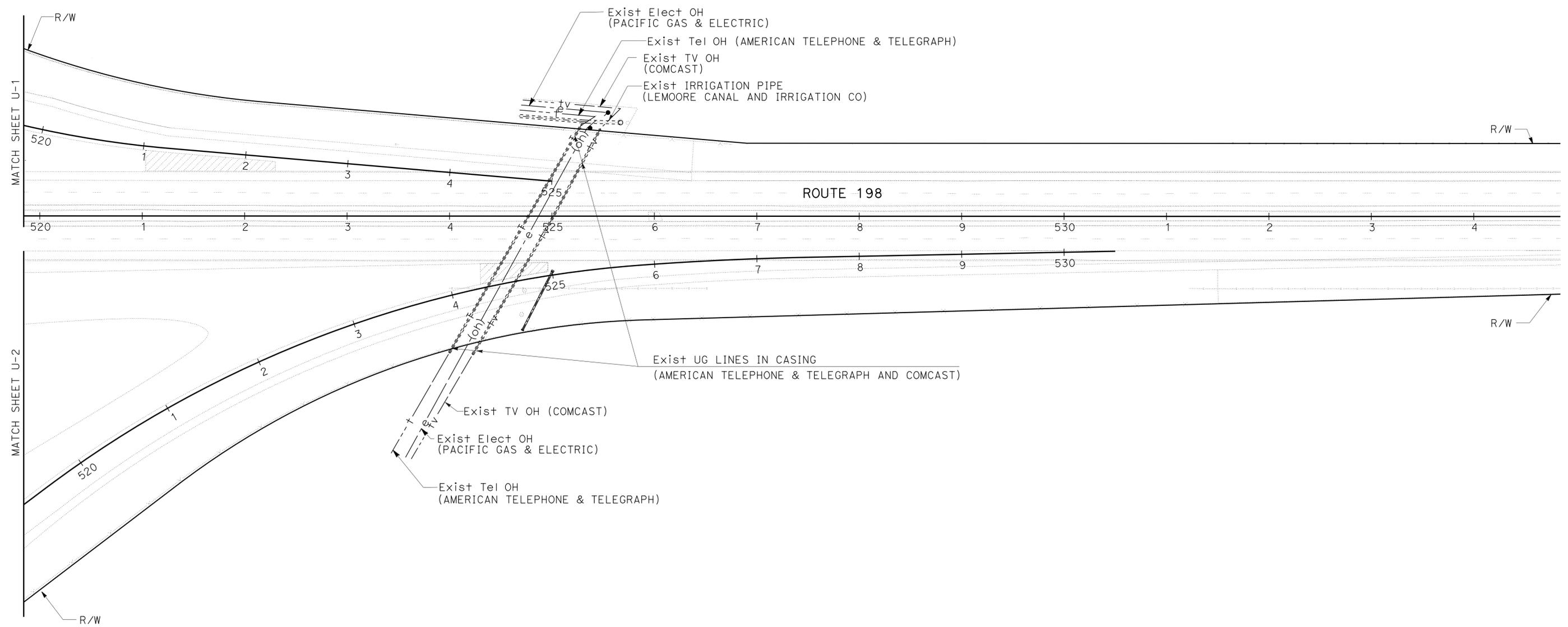
LAST REVISION DATE PLOTTED => 12-SEP-2014 04-17-14 TIME PLOTTED => 14:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	4	41
			REGISTERED CIVIL ENGINEER	DATE	
			5-12-14	4-4-14	
			PLANS APPROVAL DATE		



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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
Er-Caltrans	
FUNCTIONAL SUPERVISOR	ERNIE PENUNA
CALCULATED/DESIGNED BY	CHECKED BY
DAVID MARTIN	DEO CALABIO
REVISED BY	DATE REVISED



APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN
U-3
SCALE: 1"=50'

LAST REVISION DATE PLOTTED => 12-SEP-2014 04-09-14 TIME PLOTTED => 14:05

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	5	41

04-24-14
 REGISTERED CIVIL ENGINEER DATE
 5-12-14
 PLANS APPROVAL DATE

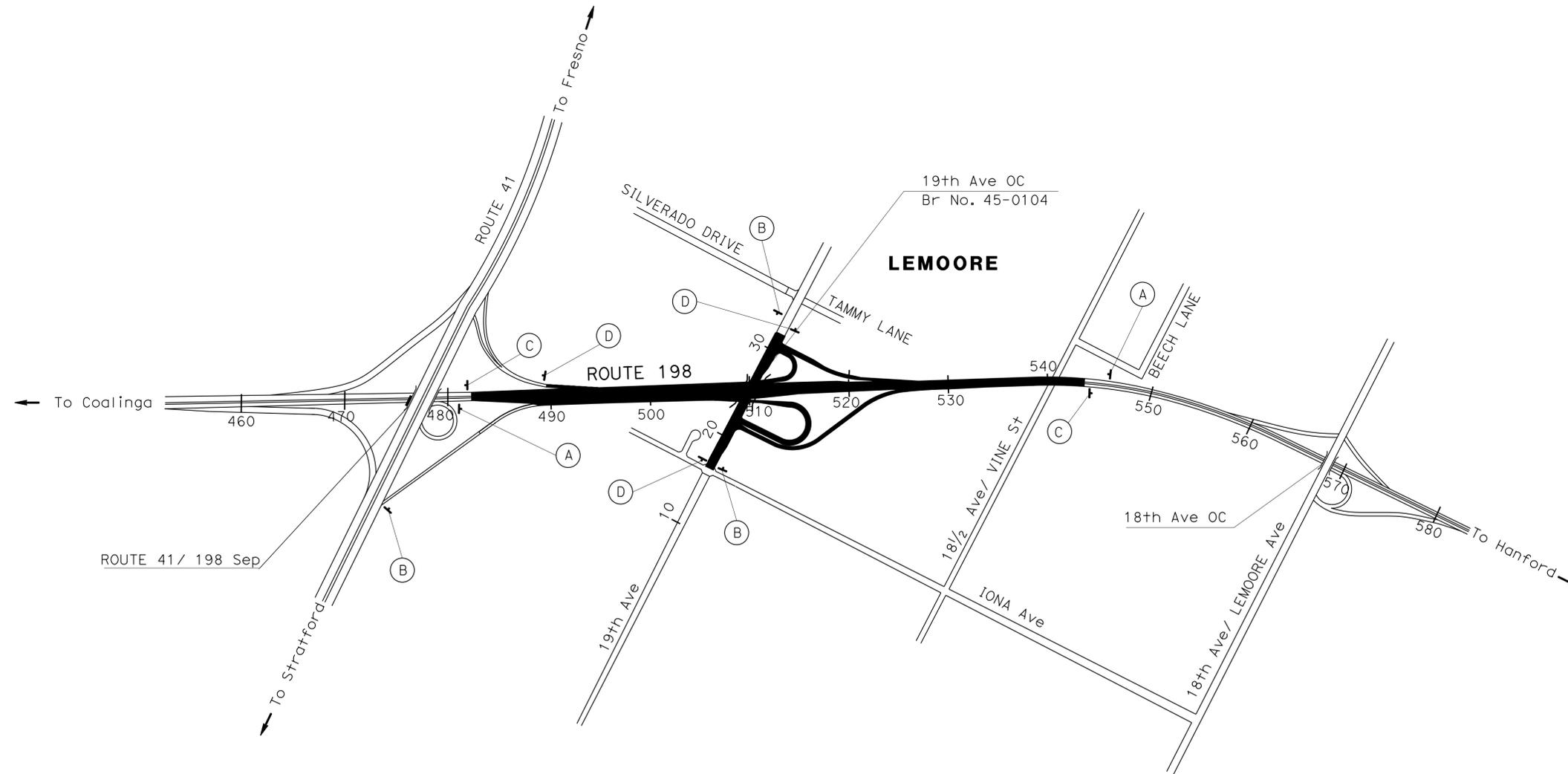
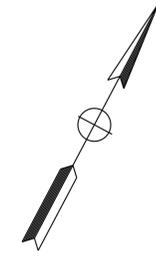
KAMRUL KHAN
 No. 74112
 Exp. 06/30/15
 CIVIL
 STATE OF CALIFORNIA

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SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND POST SIZE	No. OF SIGNS
(A)	W20-1	ROAD WORK AHEAD	48" x 48"	1 - 6" x 6"	2
(B)	W20-1	ROAD WORK AHEAD	36" x 36"	1 - 4" x 6"	3
(C)	G20-2	END ROAD WORK	48" x 24"	1 - 4" x 6"	2
(D)	G20-2	END ROAD WORK	36" x 18"	1 - 4" x 4"	3

NOTE

EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.



APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS
NO SCALE
CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI
 CALCULATED/DESIGNED BY: KAMRUL KHAN
 CHECKED BY: HASSAN TAHA
 REVISED BY: []
 DATE REVISED: []

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	6	41


 LICENSED LANDSCAPE ARCHITECT
 5-12-14
 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.



IRRIGATION SPRINKLER SCHEDULE

SYMBOL	DESCRIPTION	SPRAY PATTERN	OPERATING PRESSURE (psi)	PRESSURE COMPENSATING	PLUS/MINUS 5% ②				SPRINKLER ASSEMBLY							REMARKS				
					DISCHARGE		RADIUS (ft)	WIDTH x LENGTH (ft)	FLOW SHUTOFF DEVICE	RISER			POP-UP		TREE WELL					
					GALLONS PER MINUTE (GPM)	GALLONS PER HOUR (GPH)				TYPE	MATERIAL	SIZE (IPS INCH)	HEIGHT (INCH)	SWING JOINT (TYPE)			TYPE	INLET CONNECTION (NPT INCH)	SPRINKLER PROTECTOR (TYPE)	HEIGHT (INCH)
					PLASTIC	GALVANIZED	TYPE	HEIGHT (INCH)	SWING JOINT (TYPE)	TYPE	INLET CONNECTION (NPT INCH)	SPRINKLER PROTECTOR (TYPE)	HEIGHT (INCH)							
⊙	RISER SPRINKLER ASSEMBLY	Q	30	X	0.25	—	8	—	—	II	X	—	1/2	4	I	—	—	—	—	⑨

X IN BOX DENOTES REQUIREMENT

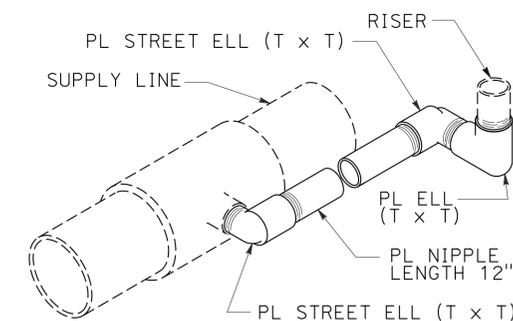
APPLICABLE WHEN CIRCLED BELOW:

- 1 - SEE SPECIAL PROVISIONS.
- ② - IF A PRESSURE COMPENSATING DEVICE IS SPECIFIED, THE DISCHARGE AND RADII SHOWN REFLECT ITS USE.
- 3 - VINYL-COATED CAST IRON HOUSING.
- 4 - SWING JOINTS REQUIRED ADJACENT TO SHOULDERS, CURBS, SIDEWALKS, AND DIKES.
- 5 - UNLESS OTHERWISE SHOWN ON PLANS.
- 6 - INTEGRATED CHECK VALVE.
- 7 - MATCHED PRECIPITATION RATE NOZZLES.
- 8 - SPRINKLER REQUIRES DRAIN CHECK VALVE.
- ⑨ - LOCATE SPRINKLER ON THE UPHILL SIDE 3' FROM CENTER OF ROOTBALL.

LATERAL PIPE SIZING CHART

GALLONS PER MINUTE	No. SPRINKLERS BY TYPE		PIPE SIZE (")
	RISER	SPRINKLER ASSEMBLY	
≤ 4	≤ 16		3/4"
≤ 9	≤ 36		1"
≤ 16	≤ 64		1 1/4"
≤ 24	≤ 96		1 1/2"
≤ 40	≤ 160		2"

(*) UNLESS DESIGNATED OTHERWISE ON PLANS



ISOMETRIC

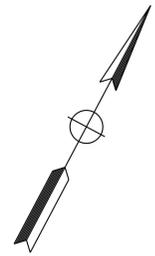
RISER SPRINKLER ASSEMBLY SWING JOINT TYPE I

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 BRAD COLE
 CALCULATED/DESIGNED BY
 KEVIN GALLO
 CHECKED BY
 KEVIN GALLO
 REVISOR BY
 KEVIN GALLO
 DATE REVISOR
 KEVIN GALLO

**IRRIGATION SPRINKLER SCHEDULE
ISS-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	7	41

<i>David R. Martin</i> LICENSED LANDSCAPE ARCHITECT	
5-12-14	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>	



- NOTES:**
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 - SEE UTILITY PLANS FOR EXISTING UTILITIES.

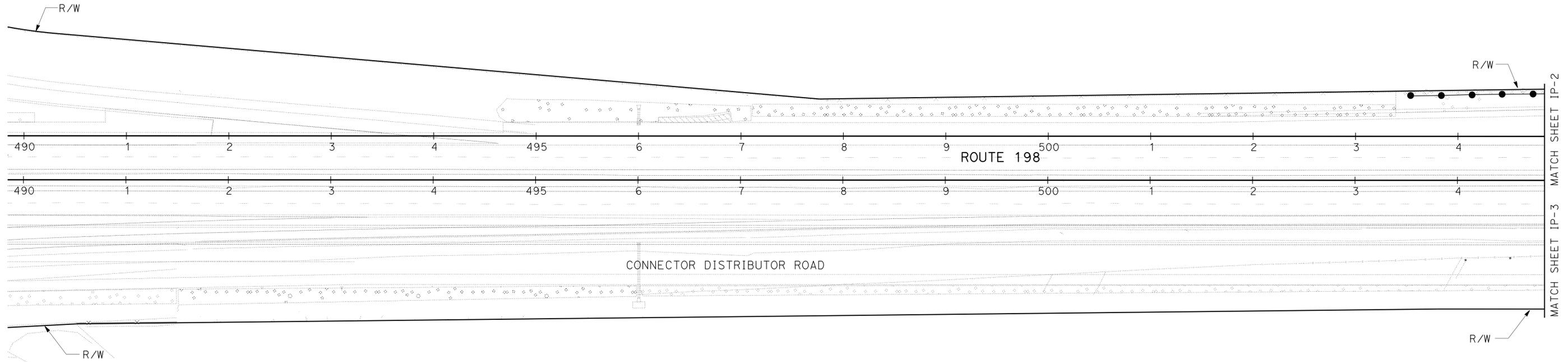
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT
 BRAD COLE

CALCULATED-DESIGNED BY
 CHECKED BY

DAVID MARTIN
 KEVIN GALLO

REVISED BY
 DATE REVISED



APPROVED FOR IRRIGATION WORK ONLY

IRRIGATION PLAN
 SCALE: 1"=50'
IP-1

LAST REVISION DATE PLOTTED => 12-SEP-2014 TIME PLOTTED => 14:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	8	41

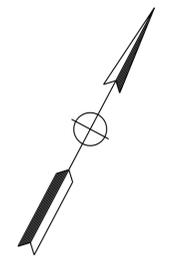
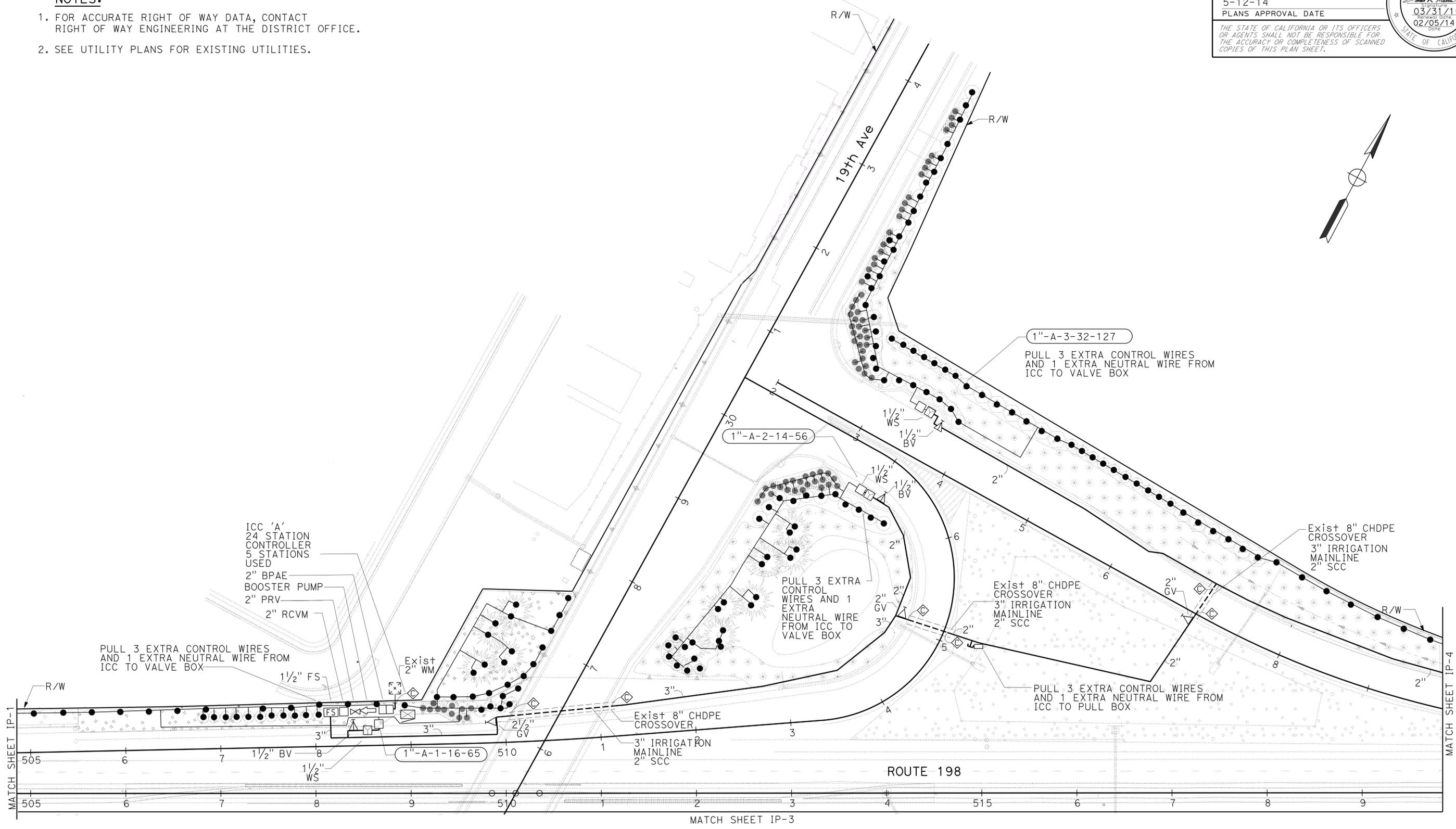

 LICENSED LANDSCAPE ARCHITECT
 5-12-14
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



NOTES:

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- SEE UTILITY PLANS FOR EXISTING UTILITIES.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDSCAPE ARCHITECTURE	SENIOR LANDSCAPE ARCHITECT	REVISOR	DATE
DAVID MARTIN	KEVIN GALLO	BRAD COLE		
CALCULATED/DESIGNED BY	CHECKED BY			



APPROVED FOR IRRIGATION WORK ONLY

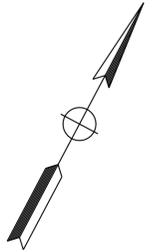
IRRIGATION PLAN
SCALE: 1"=50'
IP-2

LAST REVISION: DATE PLOTTED => 12-SEP-2014
 05-02-14 TIME PLOTTED => 14:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	9	41

David R. Martin
 LICENSED LANDSCAPE ARCHITECT
 5-12-14
 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.

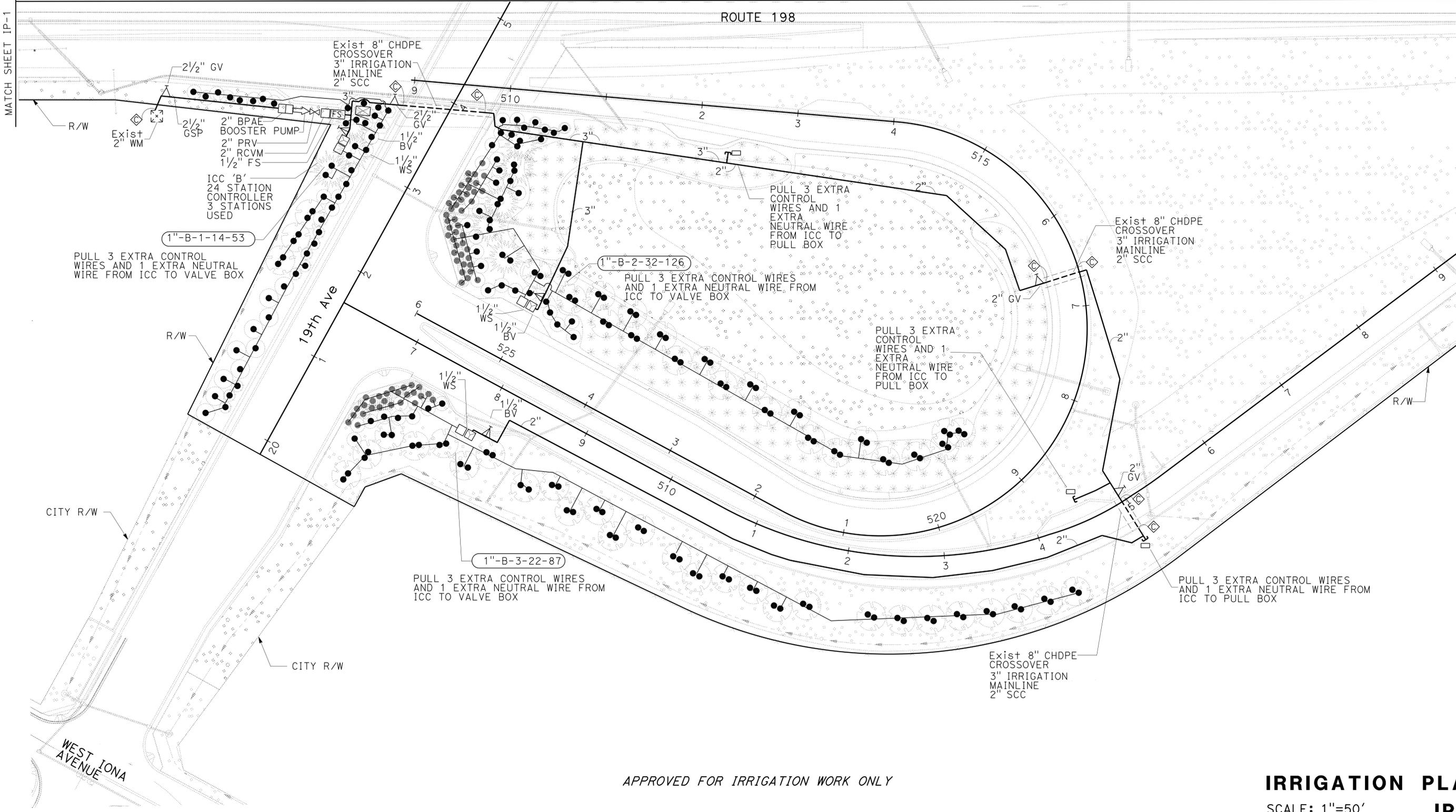
David R. Martin #0039
 LICENSED LANDSCAPE ARCHITECT
 03/31/15
 02/05/14
 STATE OF CALIFORNIA



- NOTES:**
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 - SEE UTILITY PLANS FOR EXISTING UTILITIES.

MATCH SHEET IP-2

ROUTE 198



APPROVED FOR IRRIGATION WORK ONLY

IRRIGATION PLAN
SCALE: 1"=50'
IP-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT: BRAD COLE
 CALCULATED/DESIGNED BY: DAVID MARTIN
 CHECKED BY: KEVIN GALLO
 REVISED BY: DAVID MARTIN
 DATE REVISED:

USERNAME => s115755
 DGN FILE => 0612000052sp003.dgn



UNIT 1501

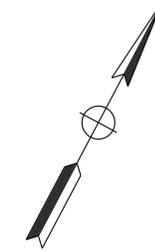
PROJECT NUMBER & PHASE

06120000521

LAST REVISION: 05-02-14
 DATE PLOTTED => 12-SEP-2014
 TIME PLOTTED => 14:05

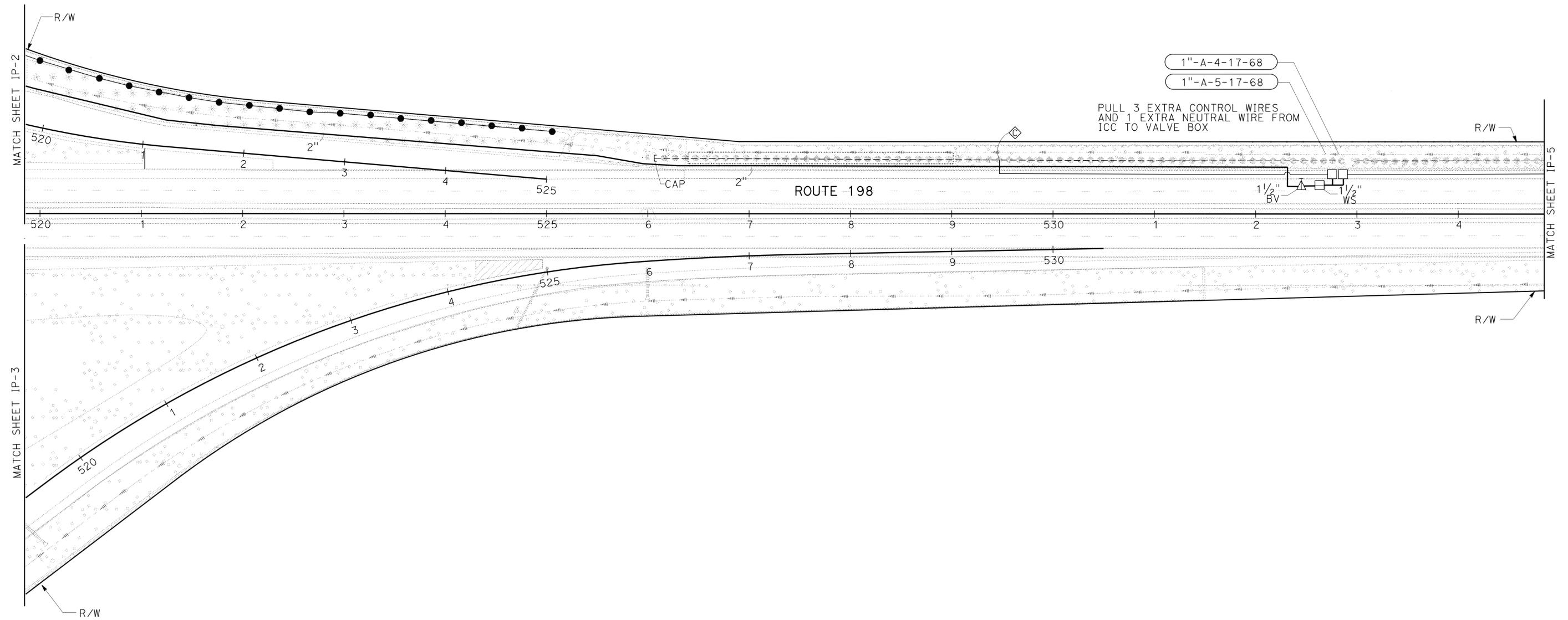
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	10	41


 LICENSED LANDSCAPE ARCHITECT
 5-12-14
 PLANS APPROVAL DATE
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- NOTES:**
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 BRAD COLE
 CALCULATED/DESIGNED BY
 CHECKED BY
 DAVID MARTIN
 KEVIN GALLO
 REVISED BY
 DATE REVISED



APPROVED FOR IRRIGATION WORK ONLY

IRRIGATION PLAN
 SCALE: 1"=50'
IP - 4

LAST REVISION: DATE PLOTTED => 12-SEP-2014
 04-09-14 TIME PLOTTED => 14:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	11	41

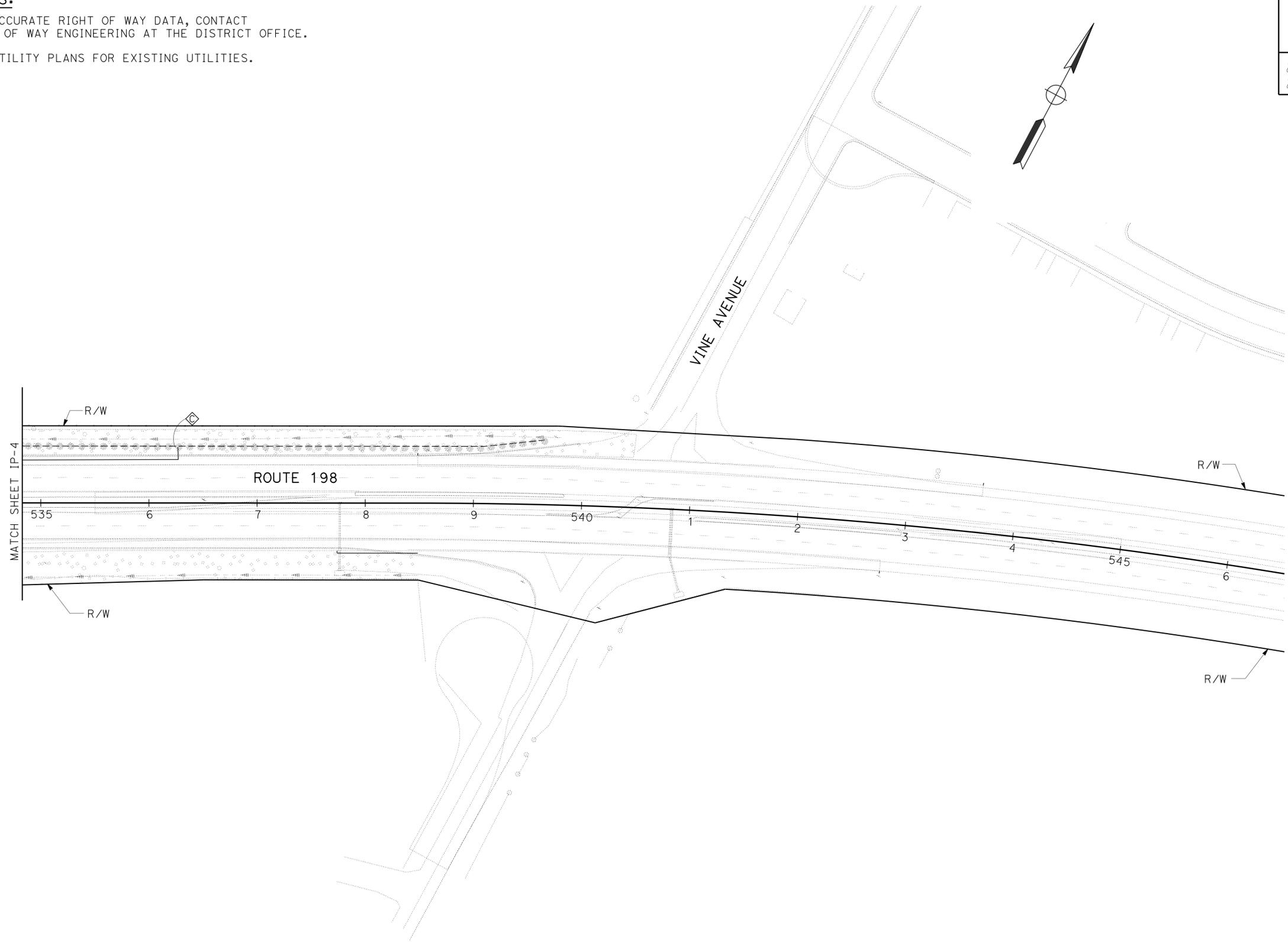
David R. Martin
 LICENSED LANDSCAPE ARCHITECT

5-12-14
 PLANS APPROVAL DATE

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NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE UTILITY PLANS FOR EXISTING UTILITIES.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DAVID MARTIN	REVISOR	DATE
Et Gtrans LANDSCAPE ARCHITECTURE	KEVIN GALLO	DESIGNER	DATE
SENIOR LANDSCAPE ARCHITECT	BRAD COLE	CHECKED BY	DATE

APPROVED FOR IRRIGATION WORK ONLY

IRRIGATION PLAN
IP-5

SCALE: 1"=50'

LAST REVISION DATE PLOTTED => 12-SEP-2014
 04-17-14 TIME PLOTTED => 14:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	12	41

David R. Martin
 LICENSED LANDSCAPE ARCHITECT

5-12-14
 PLANS APPROVAL DATE

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SUBTOTALS PER VALVE ON LATERAL SUPPLY SIDE OF CONTROL VALVE

DESCRIPTION	UNIT	VALVE "A"					SUBTOTALS	UNIT	DESCRIPTION	
		1	2	3	4	5				
PLASTIC PIPE SUPPLY LINE SCHEDULE 40	3/4 INCH	LF	1230	650	995	—	—	2875	LF	3/4 INCH
	1 INCH	LF	290	170	620	—	—	1080	LF	1 INCH
	1 1/4 INCH	LF	105	35	700	—	—	840	LF	1 1/4 INCH
	1 1/2 INCH	LF	—	—	40	360	355	755	LF	1 1/2 INCH
	2 INCH	LF	—	—	25	—	—	25	LF	2 INCH
DIP	GSP									
SPRINKLER TYPE	RSA	EA	65	56	127			248	EA	RSA

DESCRIPTION	UNIT	VALVE "B"			SUBTOTALS	UNIT	DESCRIPTION	
		1	2	3				
PLASTIC PIPE SUPPLY LINE SCHEDULE 40	3/4 INCH	LF	570	830	900	2300	LF	3/4 INCH
	1 INCH	LF	130	260	360	750	LF	1 INCH
	1 1/4 INCH	LF	—	135	—	135	LF	1 1/4 INCH
	1 1/2 INCH	LF	20	80	5	105	LF	1 1/2 INCH
	2 INCH	LF	—	20	—	20	LF	2 INCH
DIP	GSP							
SPRINKLER TYPE	RSA	EA	53	126	87	266	EA	RSA

SPRINKLER TYPE ABBREVIATIONS:
 RSA — RISER SPRINKLER ASSEMBLY

**IRRIGATION QUANTITIES
 IQ-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	14	41


 LICENSED LANDSCAPE ARCHITECT
 5-12-14
 PLANS APPROVAL DATE
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LEGEND:

-  AREA MULCH SHREDDED BARK (403 CY PER ACRE/3" THICK)
-  MAINTAIN EXISTING PLANTED AREAS (EXISTING EROSION CONTROL)
-  ROADSIDE CLEARING

PLANT LIST

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (INCH)		BASIN TYPE	SOIL AMENDMENT ① (CF)		FERTILIZER ①				BASIN MULCH		STAKING	PLANTING LIMITS							REMARKS
							Dia	DEPTH		TYPE	RATE	PLANTING		PLT ESTB		TYPE	CY		MINIMUM DISTANCE (ft) FROM					ON CENTER (ft)		
												TYPE	RATE	TYPE	RATE				ETW	Pvmt	FENCE	WALL	PAVED DITCH		EARTH DITCH	
A	1		<u>ACACIA REDOLENS</u> 'DESERT CARPET'	DESERT CARPET ACACIA	No. 1	98	⑧	②	I	N	0.25	PKT	1	SL	1/4 LB	SB	.04	—	40	20	20	20	20	22	④	GROUNDCOVER ⑩
	2		<u>CERCIS OCCIDENTALIS</u>	WESTERN REDBUD	No. 1	20	⑧	②	I	N	0.25	PKT	1	SL	1/4 LB	SB	.04	—	—	15	15	15	15	15	④	SHRUB ⑩
	3		<u>CHILOPSIS LINEARIS</u> 'BUBBA'	DESERT WILLOW	No. 1	10	⑧	②	I	N	0.25	PKT	1	SL	1/4 LB	SB	.04	—	—	15	8	8	8	8	④	SHRUB ⑩
	4		<u>CISTUS</u> 'SUNSET'	SUNSET ROCKROSE	No. 1	48	⑧	②	I	N	0.25	PKT	1	SL	1/4 LB	SB	.04	—	—	6	6	6	6	6	8'	GROUNDCOVER ⑩
	5		<u>LANTANA MONTEVIDENSIS</u> <u>YELLOW</u>	SUNBURST LANTANA	No. 1	42	⑧	②	I	N	0.25	PKT	1	SL	1/4 LB	SB	.04	—	—	6	6	6	6	6	8'	GROUNDCOVER ⑩
	6		<u>MACFADEYA UNGUIS-CATI</u>	CAT'S CLAW	No. 1	57	⑧	②	I	N	0.25	PKT	1	SL	1/4 LB	SB	.04	—	—	—	—	—	—	—	④	VINE ⑩
	7		<u>ROSAMARINUS OFFICINALIS</u> 'IRENE'	ROSEMARY IRENE	No. 1	42	⑧	②	I	N	0.25	PKT	1	SL	1/4 LB	SB	.04	—	—	6	6	6	6	6	8'	GROUNDCOVER ⑩
B	8		<u>HETEROMELES ARBUTIFOLIA</u>	TOYON	No. 5	21	⑧	②	I	N	1.0	PKT	3	SL	3/8 LB	SB	.06	—	—	15	15	10	10	12	④	SHRUB ⑩
	9		<u>VITEX AGNUS-CASTUS</u>	CHASTE TREE	No. 5	43	⑧	②	I	N	1.0	PKT	3	SL	3/8 LB	SB	.06	—	—	15	10	10	10	12	④	SHRUB ⑩
	10		<u>CEDRUS ATLANTICA</u>	ATLAS CEDAR	No. 5	19	⑧	②	I	N	1.0	PKT	3	SL	3/8 LB	SB	.06	—	40	—	30	30	30	32	④	TREE ⑩
	11		<u>QUERCUS LOBATA</u>	VALLEY OAK	No. 5	52	⑧	②	I	N	1.0	PKT	3	SL	3/8 LB	SB	.06	⑥	40	20	20	20	20	22	④	TREE ⑩
M	12		<u>ERIOGONUM FASCICULATUM FOLIOLOSUM</u>	CALIFORNIA BUCKWHEAT	LINER	7,494	⑧	②	I	N	0.25	—	—	SL	1/8 LB	SB	.04	—	—	6	6	6	6	6	4'	GROUNDCOVER (LINER) (2 1/4" X 2 1/4" X3")

APPLICABLE WHEN CIRCLED:

- ① - QUANTITIES SHOWN ARE "PER PLANT" UNLESS SHOWN AS SQFT OR SOYD APPLICATION RATES
- ② - SUFFICIENT TO RECEIVE ROOT BALL AND AMENDMENTS IF REQUIRED
- 3 - SEE DETAIL
- ④ - AS SHOWN ON PLANS
- 5 - SEE STANDARD SPECIFICATIONS

- ⑥ - SEE STANDARD PLANS
- 7 - SEE SPECIAL PROVISIONS
- ⑧ - TWICE THE ROOTBALL DIAMETER
- 9 - UNLESS OTHERWISE SHOWN ON PLANS
- ⑩ - ROOT PROTECTOR REQUIRED

ABBREVIATIONS:

SOIL AMENDMENT TYPE:	WOOD MULCH TYPE:	FERTILIZER TYPE:
S - SPHAGNUM PEAT MOSS	TB - TREE BARK	O - ORGANIC
N - NITROLIZED FIR BARK	WC - WOOD CHIP	SL - SLOW RELEASE
V - VERMICULITE	SB - SHREDDED BARK	PK+ - PACKET
P - PERLITE	TT - TREE TRIMMING	IS - IRON SULFATE

NOTE:

UNDERLINED PORTIONS OF BOTANICAL NAME INDICATE ABBREVIATIONS USED ON PLANTING PLANS.

PLANT LIST PL-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - LANDSCAPE ARCHITECTURE
 DAVID MARTIN
 KEVIN GALLO
 BRAD COLE
 SENIOR LANDSCAPE ARCHITECT
 CALCULATED/DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED

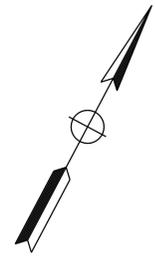
LAST REVISION DATE PLOTTED => 12-SEP-2014 05-02-14 TIME PLOTTED => 14:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	15	41

David R. Martin
 LICENSED LANDSCAPE ARCHITECT

5-12-14
 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.
 - SEE UTILITY PLANS FOR EXISTING UTILITIES.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE

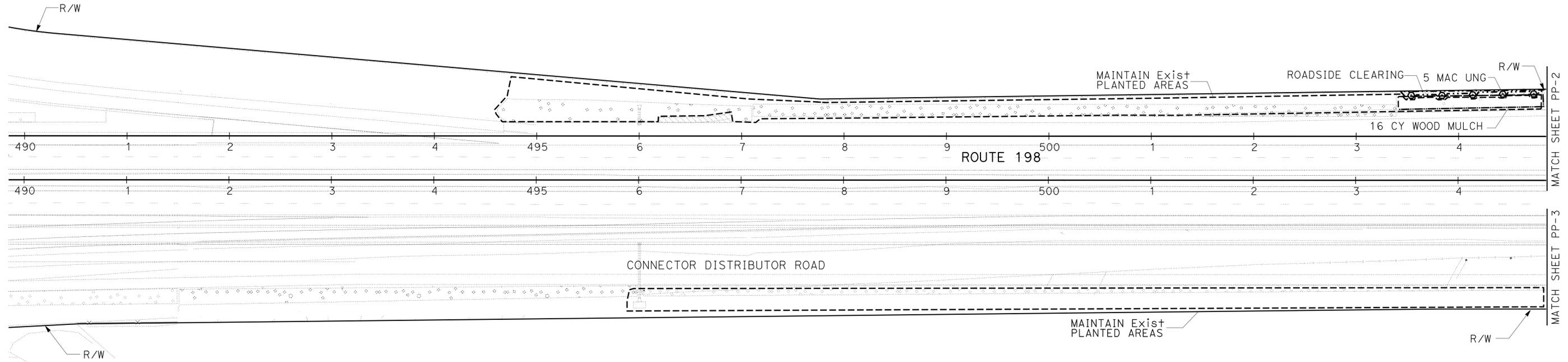
SENIOR LANDSCAPE ARCHITECT
 BRAD COLE

CHECKED BY

DAVID MARTIN
 KEVIN GALLO

REVISED BY

DATE REVISED

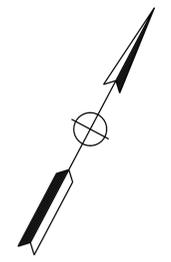


APPROVED FOR PLANTING AND MAINTAIN *Exist* PLANTED AREAS WORK ONLY

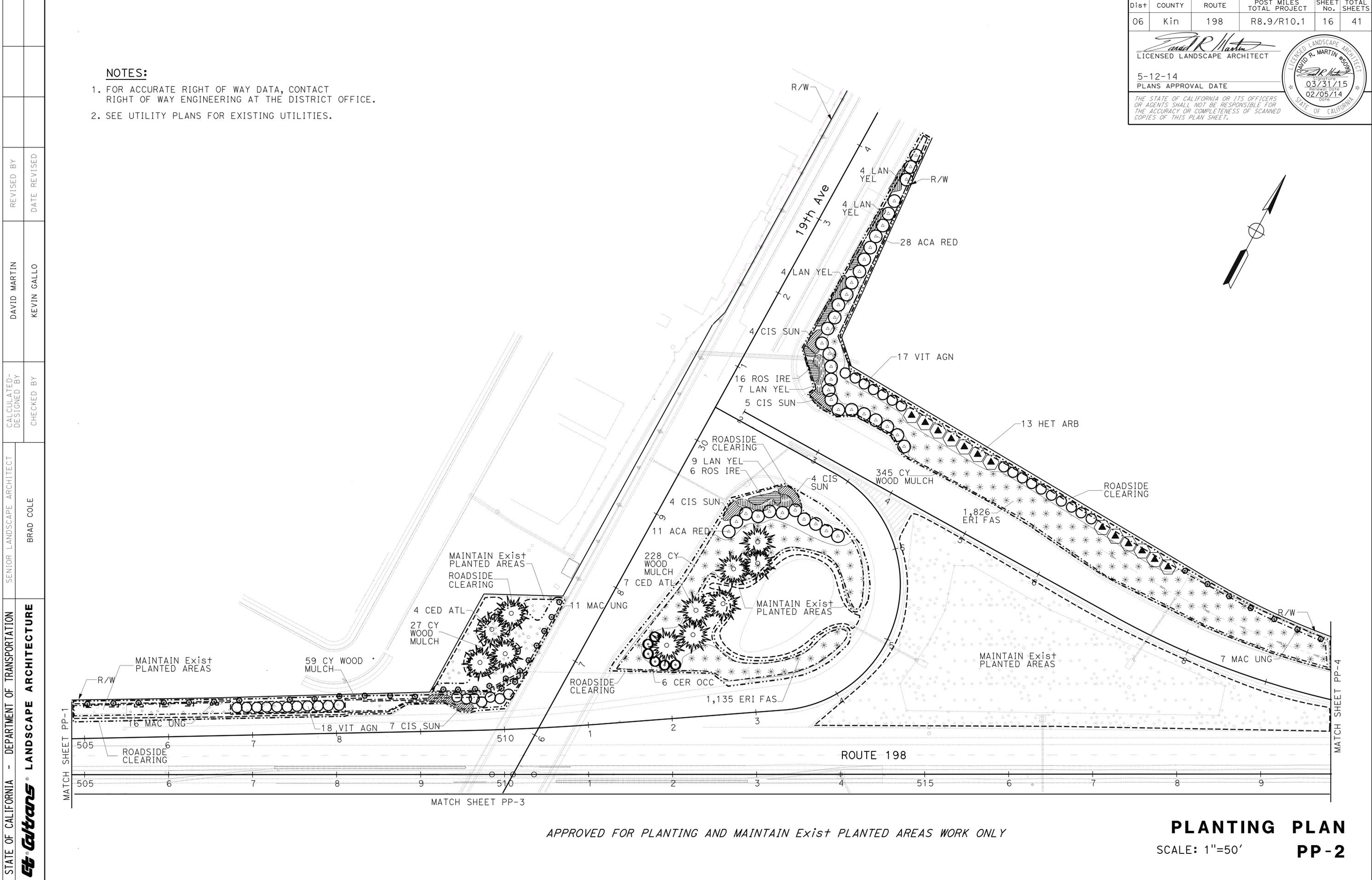
PLANTING PLAN
 SCALE: 1"=50'
PP-1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	16	41


 LICENSED LANDSCAPE ARCHITECT
 5-12-14
 PLANS APPROVAL DATE
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	REVISOR	DATE
BRAD COLE	DAVID MARTIN	KEVIN GALLO	
LANDSCAPE ARCHITECTURE	CALCULATED/DESIGNED BY	CHECKED BY	
	BRAD COLE	DAVID MARTIN	

APPROVED FOR PLANTING AND MAINTAIN Exist PLANTED AREAS WORK ONLY

PLANTING PLAN
SCALE: 1"=50'
PP-2

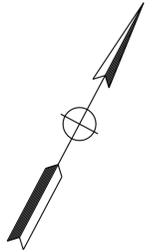
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	17	41

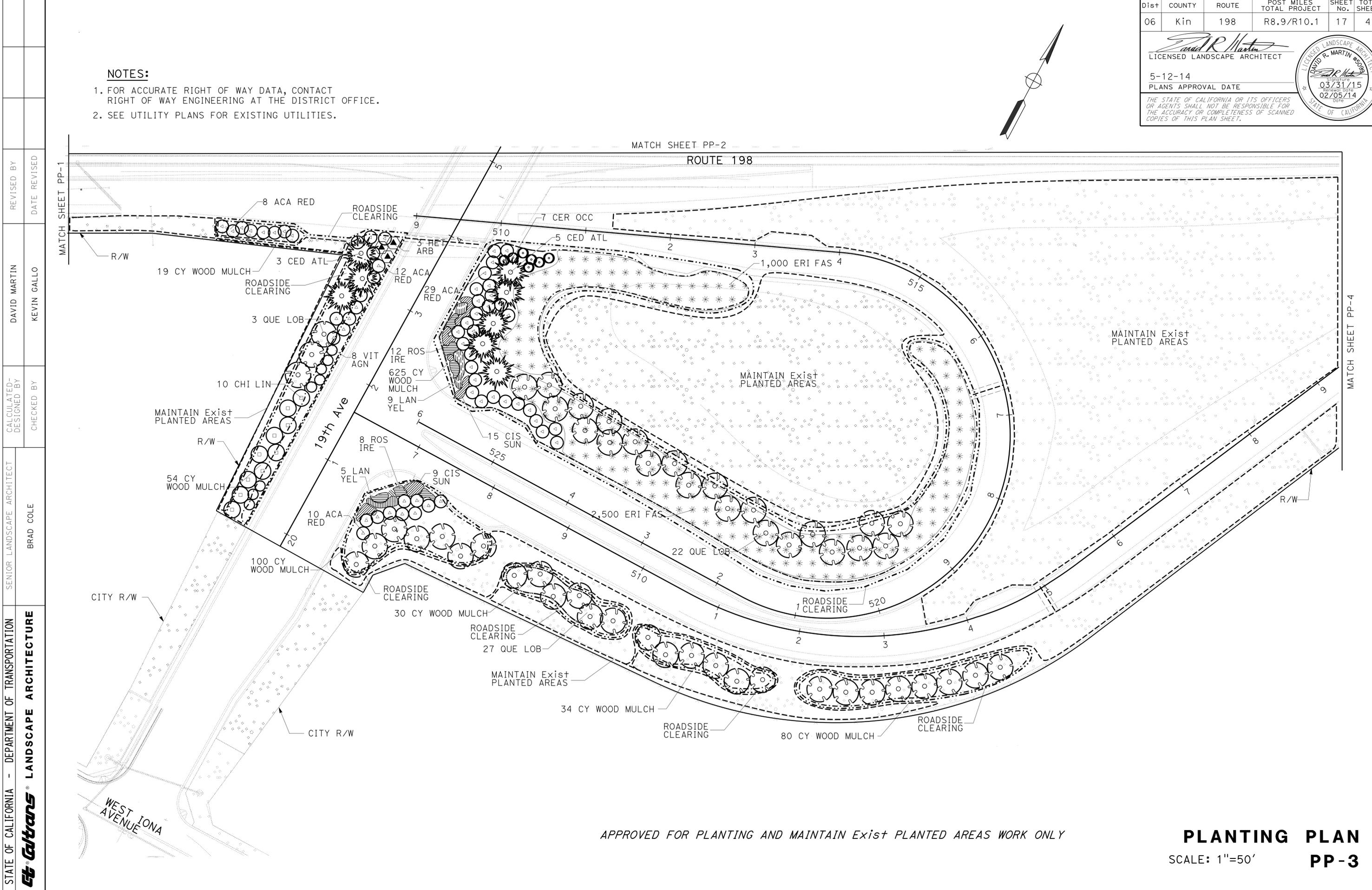

 LICENSED LANDSCAPE ARCHITECT
 5-12-14
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LICENSED LANDSCAPE ARCHITECT

DAVID R. MARTIN #0039
03/31/15
02/05/14
DATE



- NOTES:**
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 - SEE UTILITY PLANS FOR EXISTING UTILITIES.



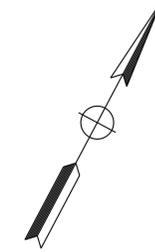
APPROVED FOR PLANTING AND MAINTAIN Exist PLANTED AREAS WORK ONLY

PLANTING PLAN
PP-3
 SCALE: 1"=50'

LAST REVISION: 05-02-14
 DATE PLOTTED => 12-SEP-2014
 TIME PLOTTED => 14:05

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	18	41

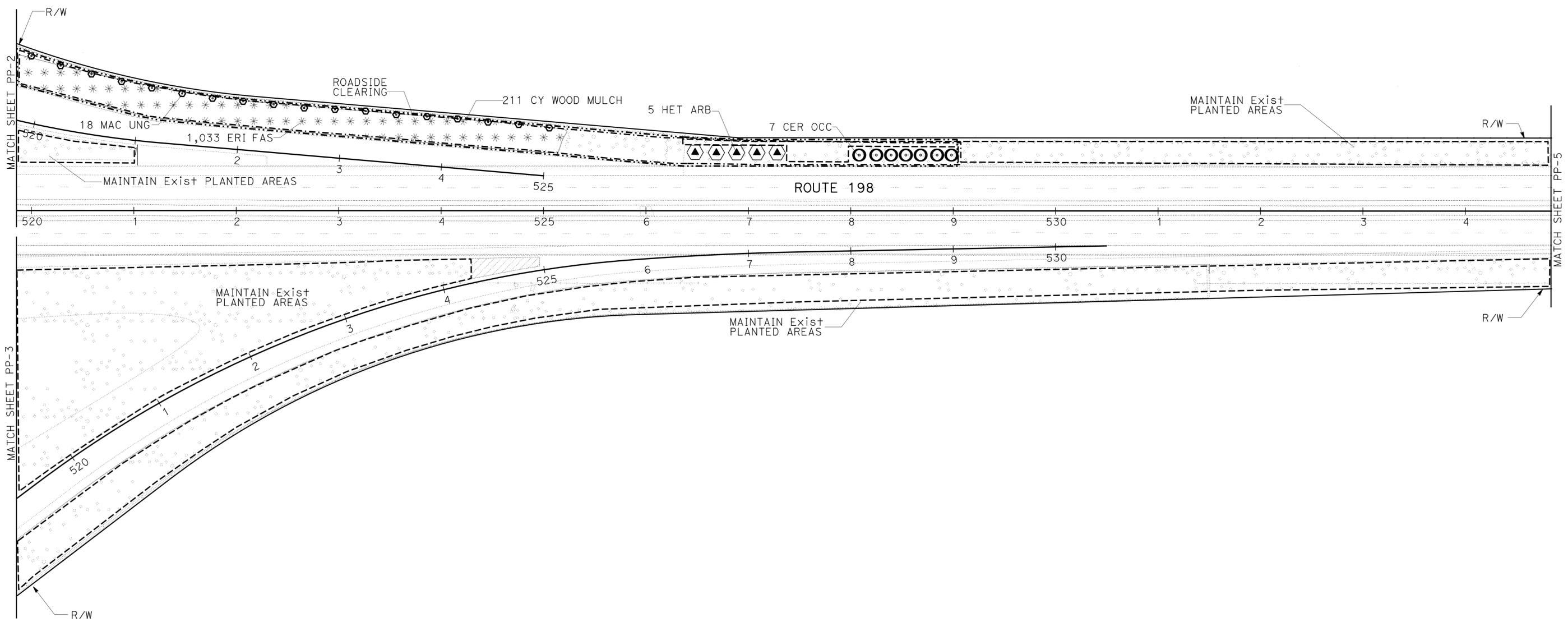
 LICENSED LANDSCAPE ARCHITECT		
5-12-14 PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>		



NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- SEE UTILITY PLANS FOR EXISTING UTILITIES.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	LANDSCAPE ARCHITECTURE	SENIOR LANDSCAPE ARCHITECT	DAVID MARTIN	REVISOR	DATE
BRAD COLE			KEVIN GALLO		



APPROVED FOR PLANTING AND MAINTAIN Exist PLANTED AREAS WORK ONLY

PLANTING PLAN
PP-4
 SCALE: 1"=50'

LAST REVISION DATE PLOTTED => 12-SEP-2014 TIME PLOTTED => 14:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	20	41


 LICENSED LANDSCAPE ARCHITECT

5-12-14
 PLANS APPROVAL DATE



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HIGHWAY PLANTING QUANTITIES

SHEET	PLANT (GROUP A)	PLANT (GROUP B)	PLANT (GROUP M)	SOIL AMENDMENT	PACKET FERTILIZER	WOOD MULCH		ROOT PROTECTORS
						BASIN CY	AREA CY	
PL-1	5			0.1	5	0.2	16	5
PP-2	153	59	2,961	31	331	128.0	659	212
PP-3	134	71	3,500	36	347	150.0	942	205
PP-4	25	5	1,033	10	40	43.0	211	30
SUBTOTAL						321.2	1828	
TOTAL	317	135	7,494	77.1	723	2149.2		452

TEMPORARY DRAINAGE INLET PROTECTION

SHEET No.	LINE	SIDE		STATION	EA
		R	L		
IP-2	Rte 198		X	506+84.23	1
IP-2	19TH Ave		X	29+53.72	1
IP-2	19TH Ave	X		29+53.72	1
IP-2	19TH Ave WBE		X	517+51.63	1
IP-2	19TH Ave WBO		X	514+83.84	1
IP-3	Rte 198 WB	X		505+75.00	1
IP-3	19TH Ave	X		22+94.41	1
IP-3	19TH Ave		X	22+94.41	1
IP-3	19TH Ave EBE		X	524+48.40	1
IP-3	19TH Ave EBE		X	524+30.00	1
IP-3	19TH Ave EBE	X		519+62.80	1
IP-3	19TH Ave EBE		X	517+81.84	1
				TOTAL	12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 BRAD COLE
 CALCULATED-DESIGNED BY
 CHECKED BY
 DAVID MARTIN
 KEVIN GALLO
 REVISED BY
 DATE REVISED

LANDSCAPE QUANTITIES LQ-1

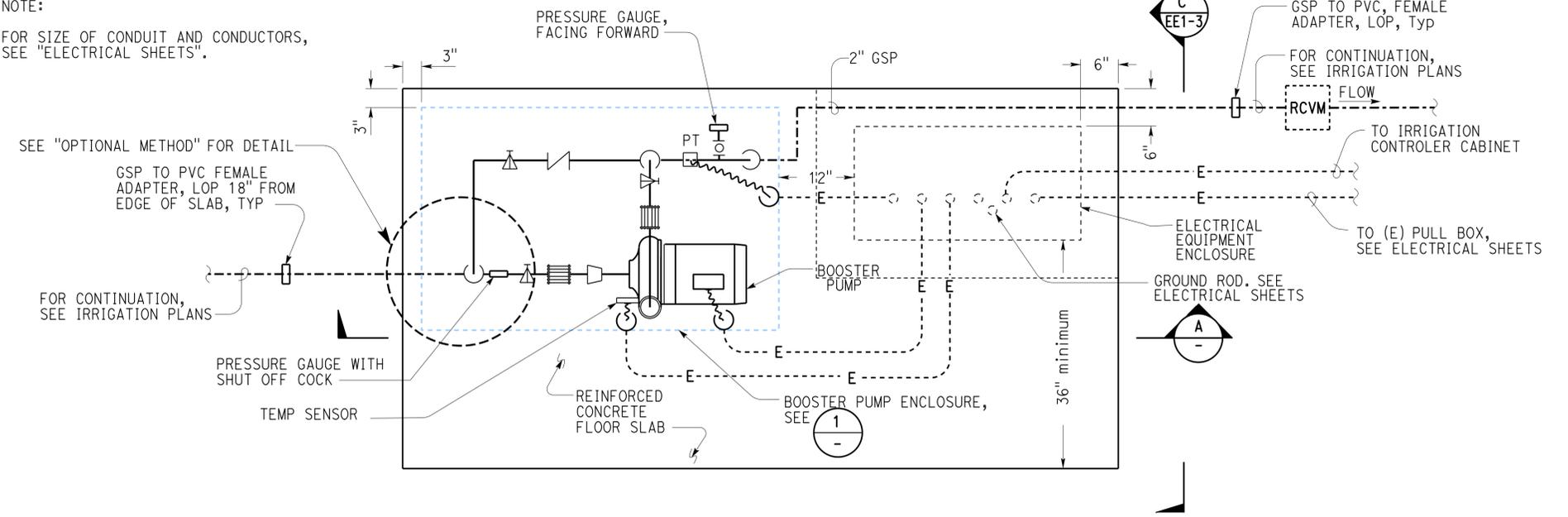


DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	21	41

REGISTERED MECHANICAL ENGINEER 05-07-14 DATE	5-12-14 PLANS APPROVAL DATE

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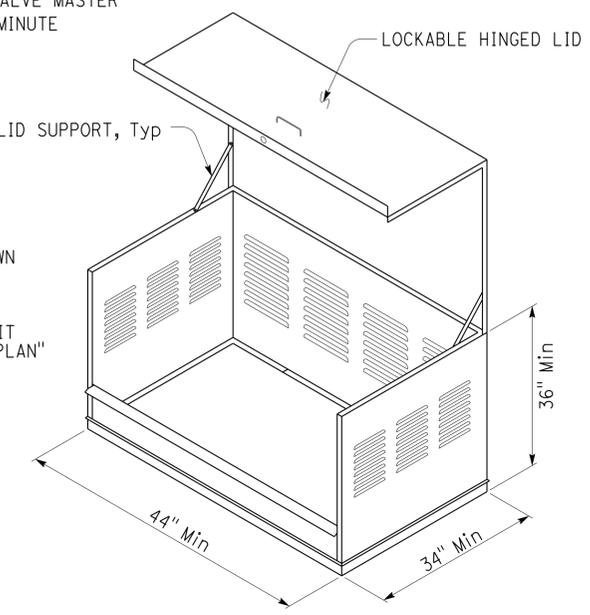
NOTE:
FOR SIZE OF CONDUIT AND CONDUCTORS,
SEE "ELECTRICAL SHEETS".



PLAN
NO SCALE

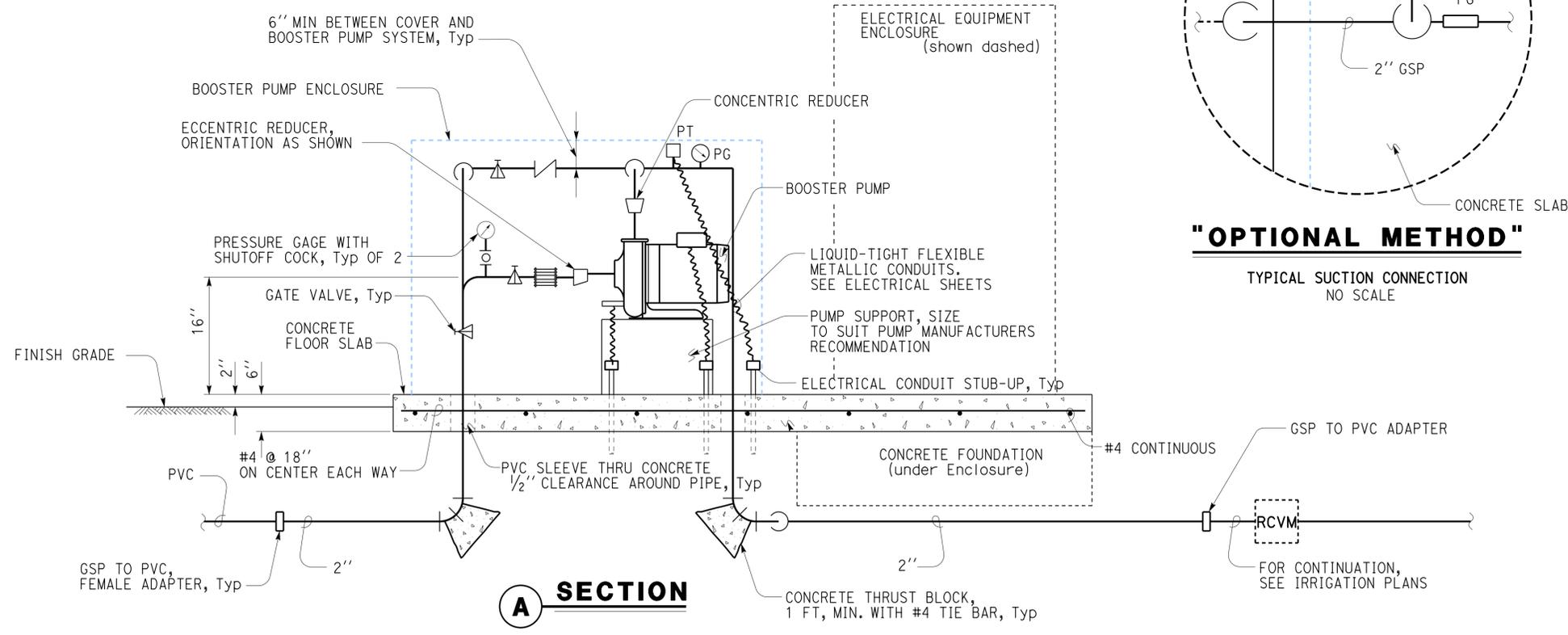
- ABBREVIATIONS:**
- FT FEET
 - GSP GALVANIZED STEEL PIPE
 - GPM GALLON PER MINUTE
 - HP HORSEPOWER
 - IN INCHES
 - LOP LIMIT OF PAYMENT
 - MIN MINIMUM
 - OC ON CENTER
 - PG PRESSURE GAUGE
 - PT PRESSURE TRANSDUCER
 - PVC POLYVINYL CHLORIDE
 - RCVM REMOTE CONTROL VALVE MASTER
 - RPM REVOLUTIONS PER MINUTE
 - Typ TYPICAL
 - W WATTS

- LEGEND:**
- GATE VALVE
 - CHECK VALVE
 - ELBOW, TURNED DOWN
 - FLEX CONNECTOR
 - ELECTRICAL CONDUIT SEE "ELECTRICAL PLAN"

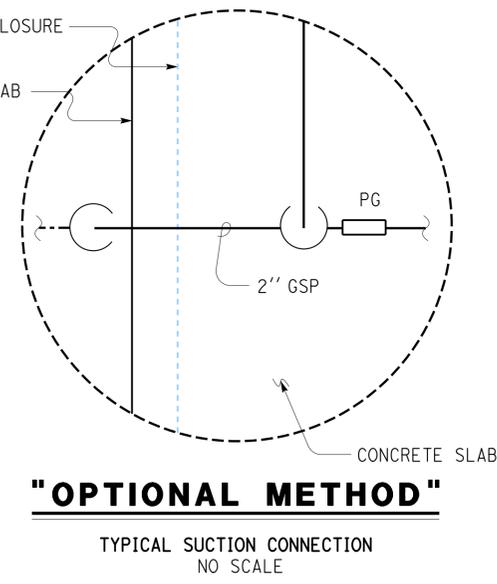


1 BOOSTER PUMP ENCLOSURE
NO SCALE

- NOTES :**
- INSTALL 4 SQUARE FEET OF LOUVERS ON ENCLOSURE.
 - STUB UP CONDUITS AS REQUIRED BY BOOSTER PUMP ENCLOSURE MANUFACTURER



A SECTION



"OPTIONAL METHOD"
TYPICAL SUCTION CONNECTION
NO SCALE

PUMP SCHEDULE					
#	PUMP LOCATION	PUMPING RATE (GPM)	TOTAL DYNAMIC HEAD (FEET)	Hp	VOLT/ PHASE
1	198 EB 19th Ave	20	80	5	230/3
2	198 WB 19th Ave	20	80	5	230/3

THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

DESIGN SUPERVISOR 	DESIGN	BY Alvin Kwan	CHECKED Jack Wheeler	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	BOOSTER PUMP SYSTEM BOOSTER PUMP DETAILS	SHEET
	DETAILS	BY Alvin Kwan	CHECKED Jack Wheeler			POST MILE		REVISION DATES (PRELIMINARY STAGE ONLY) 02-14-14 04-18-14 04-24-14 05-07-14
DESIGN ENGINEER	QUANTITIES	BY Alvin Kwan	CHECKED Jack Wheeler	UNIT: 3615 Contract No.: 06-325514 PROJECT NUMBER & PHASE: 06120000521	DISREGARD PRINTS BEARING EARLIER REVISION DATES			

TAEMWW Imperial Rev. 7/10 FILE => 0612000052wg001.dgn DATE PLOTTED => 12-SEP-2014 TIME PLOTTED => 14:05 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 USERNAME => s115755 DATE PLOTTED => 12-SEP-2014 TIME PLOTTED => 14:05 V=I

GRAPHIC SYMBOLS FOR ELECTRICAL WIRING AND LAYOUT DIAGRAMS

SYMBOL	DESCRIPTION
	POLE-TOP ELECTROLIER
	POLE-ARM ELECTROLIER
CEILING	WALL
	SURFACE FLUORESCENT, METAL HALIDE, LED, OR SODIUM VAPOR FIXTURE
	RECESSED FLUORESCENT, METAL HALIDE, LED, OR SODIUM VAPOR FIXTURE
	EXIT LIGHT
	SURFACE OR PENDANT INDIVIDUAL FLUORESCENT OR LED FIXTURE
	RECESSED INDIVIDUAL FLUORESCENT OR LED FIXTURE
	SURFACE OR PENDANT CONTINUOUS ROW FLUORESCENT OR LED FIXTURES
NOTE: A LOWER CASE LETTER NEAR GRAPHIC LIGHTING FIXTURE SYMBOL DENOTES THAT FIXTURE IS CONTROLLED BY A SIMILARLY MARKED SWITCH, AN ALPHA-NUMERIC SYMBOL NEAR GRAPHIC LIGHTING FIXTURE SYMBOL DENOTES FIXTURE TYPE, (I=INCANDESCENT, F=FLUORESCENT, MH=METAL HALIDE, H=HIGH PRESSURE SODIUM VAPOR, L=LED), DESIGN TYPE, NUMBER OF LAMPS AND WATTAGE.	
EXAMPLE : (4) F2-2x32 32 WATT LAMPS 2 LAMPS DESIGN TYPE FLUORESCENT NUMBER OF FIXTURES	
	BLANK OUTLET
	JUNCTION BOX
	DROP CORD
	SINGLE RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET (WITH GFCI)
	DUPLEX RECEPTACLE OUTLET, WEATHERPROOF (WITH GFCI)
	SINGLE, SPECIAL PURPOSE RECEPTACLE OUTLET
	DUPLEX, SPECIAL PURPOSE RECEPTACLE OUTLET
	RANGE OUTLET
	CLOCK HANGER RECEPTACLE
	FAN HANGER RECEPTACLE
	FLOOR SINGLE RECEPTACLE OUTLET
	FLOOR DUPLEX RECEPTACLE OUTLET
	FLOOR SPECIAL PURPOSE OUTLET
	FLOOR RADIO OUTLET
	FLOOR TELEPHONE OUTLET
	MULTI-FLOOR OUTLET, 2 OR MORE GANG
	MULTI-OUTLET ASSEMBLY
	SWITCH AND SINGLE RECEPTACLE
	SWITCH AND DUPLEX RECEPTACLE
	RADIO OUTLET
	COMMUNICATION OUTLET
	SOUND SYSTEM LOUD SPEAKER OUTLET
	RADIO OUTLET
	TELEVISION OUTLET
	MICROPHONE OUTLET
	THERMOSTAT

SYMBOL	DESCRIPTION
S	SINGLE-POLE SWITCH
S ₂	DOUBLE-POLE SWITCH
S ₃	THREE-WAY SWITCH
S ₄	FOUR-WAY SWITCH
SCHLF	TWO TIMER SWITCHES, ONE SWITCH FOR LIGHT AND FAN AND ONE SWITCH FOR HEAT LAMP
SD	AUTOMATIC DOOR
SDTS	DIGITAL TIMER SWITCH
SF	FAN SWITCH
SH	HEATER SWITCH
SHP	MANUAL MOTOR STARTING SWITCH, WITHOUT OVERLOAD ELEMENT
SK	KEY OPERATED SWITCH
SL	LIGHT SWITCH
SM	MOTION SENSOR SWITCH
SMC	MOMENTARY CONTACT SWITCH
S ₁ ⁰	OCCUPANCY SENSOR WALL SWITCH, SINGLE LEVEL
S ₂ ⁰	OCCUPANCY SENSOR WALL SWITCH, BILEVEL
SRc	REMOTE CONTROL SWITCH
ST	MANUAL MOTOR STARTING SWITCH, THERMAL OVERLOAD TYPE
Svs	VARIABLE SPEED MOTOR CONTROL SWITCH
SWP	WEATHERPROOF SWITCH
Ts	TIMER SWITCH
	PUSHBUTTON
	PUSHBUTTON STATION, NC, WITH LOCKING DEVICE FOR OPEN
	PUSHBUTTON STATION MOTOR CONTROL
	BUZZER
	BELL
	COMBINATION BELL-BUZZER
	PRESSURE SWITCH
	CONTROL RELAY
	FLOW SWITCH
	PHOTOELECTRIC UNIT
	HAND DRYER NOZZLE
	HAND DRYER
	FLUSH-MOUNTED PANELBOARD AND CABINET
	SURFACE-MOUNTED PANELBOARD AND CABINET
	LIGHTING PANEL
	POWER PANEL
	COMBINATION LIGHTING AND POWER
	MOTOR CONTROLLER
	DISCONNECT SWITCH
—	CONDUIT CONCEALED IN CEILING OR WALL
-----	CONDUIT CONCEALED IN FLOOR
-x-x-	CONDUIT EXPOSED
---#---	CROSS-LINES INDICATE NUMBER OF #12 AWG CONDUCTORS. LONGER CROSS-LINE INDICATES 1#12 AWG (G) FOR EQUIPMENT GROUNDING CONDUCTOR. NO CROSS-LINE INDICATES 2#12 WITH 1#12 (G) UNLESS OTHERWISE NOTED. ALL CONDUIT 1/2" UNLESS OTHERWISE NOTED.
A1,2	HOMERUN TO PANELBOARD, ARROWS INDICATE NUMBER OF CIRCUITS, LETTER DENOTES PANELBOARD, NUMERAL DENOTES CIRCUIT

SYMBOL	DESCRIPTION
—SM—	SURFACE METAL RACEWAY
(2) 1/2" C, PVC, 2#12	CONDUCTOR INFO (PER CONDUIT)
	CONDUIT TYPE
	CONDUIT SIZE
	NUMBER OF CONDUITS (NO NUMBER INDICATES ONE CONDUIT)
—MC—	CONDUIT, RIGID STEEL, UNDERGROUND
—PVC—	CONDUIT, POLYVINYL CHLORIDE, UNDERGROUND
	CONDUIT, FLEXIBLE
	CONDUIT, TURN UP
	CONDUIT, TURN DOWN
	CONDUIT SEAL, EXPLOSION-PROOF
	CONDUIT, EXPANSION JOINT
	ADAPTER, ONE TYPE CONDUIT TO ANOTHER
○	POLE
	OCCUPANCY SENSOR
	OCCUPANCY SENSOR POWER PACK
	MANUAL PULL STATION
	AUDIO/VISUAL ALARM DEVICE
	HEAT DETECTOR
	SMOKE DETECTOR
	GLASS BREAK DISCRIMINATOR
	MAGNETIC CONTACT SWITCH-PEDESTRIAN DOOR
	MAGNETIC CONTACT SWITCH-VEHICLE DOOR
	KEYPAD FOR ALARM SYSTEM
	COMBINATION DETECTOR (MICROWAVE/PASSIVE INFRARED)
	PULL BOX-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	PULL BOX (TRAFFIC-RATED)-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	COMBINATION HEAT, LIGHT, AND FAN UNIT
	SECTION/ELEVATION LETTER
	SHEET NUMBER
	DETAIL NUMBER
	SHEET NUMBER

REMODEL WORK

SYMBOL	DESCRIPTION
	EXISTING FLUORESCENT FIXTURE-TO REMAIN
	EXISTING FLUORESCENT FIXTURE-REMOVE
	EXISTING INCANDESCENT FIXTURE-TO REMAIN
	EXISTING INCANDESCENT FIXTURE-REMOVE
	EXISTING OUTLET-TO REMAIN
	EXISTING RECEPTACLE OUTLET-TO REMAIN
	EXISTING RECEPTACLE OUTLET-REMOVE
-E---E-	EXISTING CONDUIT AND CONDUCTORS-TO REMAIN UNLESS OTHERWISE NOTED
-x---x-	EXISTING CONDUIT AND CONDUCTORS-REMOVE
S	EXISTING SWITCH-TO REMAIN
X	EXISTING SWITCH-REMOVE
	EXISTING JUNCTION BOX-TO REMAIN
	EXISTING JUNCTION BOX-REMOVE

APPROVED FOR ELECTRICAL WORK ONLY

GRAPHIC SYMBOLS FOR ELECTRICAL DIAGRAMS

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER, SINGLE-POLE
	CIRCUIT BREAKER, DOUBLE-POLE
	CIRCUIT BREAKER, THREE-POLE
GFCI	CIRCUIT BREAKER, WITH GROUND FAULT CIRCUIT INTERRUPTER
	CIRCUIT BREAKER, SINGLE-POLE, SWITCHED NEUTRAL
	CONTACT, NORMALLY OPEN
	CONTACT, NORMALLY CLOSED
	CONTACT, NORMALLY CLOSED, TIME DELAY CLOSING ON DE-ENERGIZING
	CONTACT, NORMALLY OPEN, TIME DELAY OPENING ON DE-ENERGIZING
	CONTACT, NORMALLY OPEN, TIME DELAY CLOSING ON ENERGIZING
	CONTACT, NORMALLY CLOSED, TIME DELAY OPENING ON ENERGIZING
	CONTACT, SINGLE-POLE, DOUBLE-THROW
	OPERATING COIL
	LIQUID LEVEL ACTUATED SWITCH, NORMALLY CLOSED
	LIQUID LEVEL ACTUATED SWITCH, NORMALLY OPEN
	PRESSURE ACTUATED SWITCH, NORMALLY CLOSED
	PRESSURE ACTUATED SWITCH, NORMALLY OPEN
	FLOW ACTUATED SWITCH, NORMALLY CLOSED
	FLOW ACTUATED SWITCH, NORMALLY OPEN
	TEMPERATURE ACTUATED SWITCH, NORMALLY CLOSED
	TEMPERATURE ACTUATED SWITCH, NORMALLY OPEN
	LIMIT SWITCH, NORMALLY CLOSED
	LIMIT SWITCH, NORMALLY OPEN
	PUSHBUTTON SWITCH, NORMALLY CLOSED
	PUSHBUTTON SWITCH, NORMALLY OPEN
	2-WAY SWITCH WITH 3 CONTACTS (2-NORMALLY CLOSED, 1-NORMALLY OPEN)
	SWITCH, DOUBLE-POLE
	SWITCH, DOUBLE-POLE, DOUBLE-THROW
	SWITCH, SINGLE-POLE, 3-POSITION
	THERMAL OVERLOAD
	FUSE
	RESISTOR
	TRANSFORMER WINDING
	GROUNDING ELECTRODE
	ENCLOSURE BOND
	PILOT LIGHT (A=AMBER, G=GREEN, R=RED)
	INDICATING LIGHT (A=AMBER, G=GREEN, R=RED)
	GENERATOR
	MOTOR
	FAN MOTOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	22	41
			5-7-2014	DATE	
REGISTERED ELECTRICAL ENGINEER					
5-12-14					
PLANS APPROVAL DATE					
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DESIGN BY Steven Roy	CHECKED Javid Amirazodi	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE No. POST MILE R8.9/R10.1	BOOSTER PUMP SYSTEM LEGEND	SHEET EE0-0 OF		
						DETAILS BY Dali Zhou	CHECKED Steven Roy
						QUANTITIES BY Steven Roy	CHECKED Javid Amirazodi
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3	UNIT: 3597 CONTRACT No.: 06-325514 PROJECT NUMBER & PHASE: 06120000521	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		
TAEWW Imperial - CCSC Rev. 01/13		J:\NPSE_AADD\Npse_2014_AADD\DISTRICT_06\06-325511\0612000052\j001.dgn		12-SEP-2014 14:06			

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	23	41

Javid Amirazodi 5-7-2014
REGISTERED ELECTRICAL ENGINEER DATE

5-12-14
PLANS APPROVAL DATE

Javid Amirazodi
No. E 17509
Exp. 6-30-15
ELEC
STATE OF CALIFORNIA

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ABBREVIATIONS

A

A AMPERES
AC ALTERNATING CURRENT or ASPHALT CONCRETE
A/C AIR CONDITIONING UNIT
ACS AIR COMPRESSOR STARTER
AFCI ARC FAULT CIRCUIT INTERRUPTER
AI ANALOG INPUT
AL ALARM LIGHT
AO ANALOG OUTPUT
Approx APPROXIMATE
AR ALARM RESET
ATS AUTOMATIC TRANSFER SWITCH
AUTO AUTOMATIC
AVC AIR VOLUME CONTROLLER

B

BC BARE COPPER
BD BUILDING DISCONNECT
Bldg BUILDING
BP BOOSTER PUMP
Brk BREAKER

C

C CONDUIT
Cat CATEGORY
CB CIRCUIT BREAKER
CC CENTER CHANNEL LIGHT
CCTV CLOSED CIRCUIT TELEVISION
CD CONTROL DISCONNECT
Ckt CIRCUIT
CL CHAIN LINK
CL CENTER LINE
Clr CLEAR or CLEARANCE
CM CENTER MARGIN LIGHT
CMP CORRUGATED METAL PIPE
CMS CHANGEABLE MESSAGE SIGN
COMM COMMUNICATION
Conc CONCRETE
Cont CONTINUED or CONTINUOUS
CPU CENTRAL PROCESSING UNIT
CR CONTROL RELAY
CRF CONTROL RELAY FAN
CRI CONTROL RELAY
CS CONTROL RELAY IRRIGATION
CT CURRENT TRANSFORMER

D

D DEPTH
DC DIRECT CURRENT
DI DIGITAL INPUT
Dia DIAMETER
DLC LOOP DETECTOR LEAD-IN CABLE
DO DIGITAL OUTPUT
DP DUPLEX PLUG RECEPTACLE
DS DOOR SWITCH

E

Exist EXISTING
EB EASTBOUND
EF EXHAUST FAN
Elev ELEVATION
EMS EXTINGUISHABLE MESSAGE SIGN
ENET ETHERNET NETWORK

F

F FUSE
FA AC FUSE
FD DC FUSE
FG FINISH GRADE
FL FAILURE LIGHT
FLA FLASHER
Flex FLEXIBLE CONDUIT
FLS FLOW SWITCH
FO FIBER OPTIC
FR FAILURE RESET or FLAME RESISTANT
FS FLOAT SWITCH

G

G GROUND
Ga GAUGE
GB GROUND BUS
Galv GALVANIZED
GFCI GROUND FAULT CIRCUIT INTERRUPTER
GND GROUND
GRS GALVANIZED RIGID STEEL

H

hp HORSEPOWER
HPS HIGH PRESSURE SODIUM

I

IC IRRIGATION CONTROLLER
ICC IRRIGATION CONTROLLER CABINET
ICCD IRRIGATION CONTROLLER CABINET DISCONNECT
IL INDICATING LIGHT
I/O INPUT/OUTPUT
IR INDUCTION RELAY
ISR INTRINSICALLY SAFE RELAY

J

JB JUNCTION BOX

K

k-Ohm KILO OHMS
kV KILOVOLT
kVA KILOVOLT AMPERES
kW KILOWATT

L

L LIGHT or LENGTH
LC LIGHTING CONTACTOR
LCD LIQUID CRYSTAL DISPLAY
LCP LIGHTING CONTROL PANEL
LD LIGHT DISCONNECT
LDCI LEAK DETECTOR CIRCUIT INTERRUPTER
LED LIGHT EMITTING DIODE
LL LIQUID LEVEL RELAY
LLC LIQUID LEVEL CONTROLLER
LP LIGHT PANEL
LPS LOW PRESSURE SODIUM
LS LIGHT SWITCH
LT LIGHT TRANSFORMER
LTO LIGHT TRANSFORMER OVERLOAD
LTPD LIGHT TRANSFORMER PRIMARY DISCONNECT
LTSO LIGHT TRANSFORMER SECONDARY DISCONNECT

M

Max MAXIMUM
MB MAIN BREAKER
MC METALLIC CONDUIT
MCP MOTOR CIRCUIT PROTECTOR
MCC MOTOR CONTROL CENTER
MD MAIN DISCONNECT
MH MOUNTING HEIGHT
Min MINIMUM
Misc MISCELLANEOUS
MR MASTER RELAY/STARTER
MS MOTOR SAVER
MSB MAIN SWITCHBOARD
MT EMPTY CONDUIT
MTS MANUAL TRANSFER SWITCH

N

(N) NEW
Nav NAVIGATIONAL LIGHTS
NB NEUTRAL BUS or NORTHBOUND
NC NORMALLY CLOSED
No. NUMBER
Nos. NUMBERS
NO NORMALLY OPEN
NSW NEUTRAL SWITCHING BREAKER

O

O/C ON CENTER
OG ORIGINAL GROUND
OH OVERHEIGHT or OVERHEAD
OIT OPERATOR INTERFACE TERMINAL
OL OVERLOAD

P

P POLE (CIRCUIT BREAKER)
PB PULL BOX or PUSHBUTTON
PCC PORTLAND CONCRETE CEMENT
PCP PUMP CONTROL PANEL
PD PUMP DISCONNECT
PEC PHOTOELECTRIC CONTROL
PEU PHOTOELECTRIC UNIT
PFR PHASE FAILURE RELAY
PFRD PHASE FAILURE RELAY DISCONNECT
PL PLATE
PL PILOT LIGHT
PLC PROGRAMMABLE LOGIC CONTROLLER
PS POWER SUPPLY or PRESSURE SWITCH
PSD POWER SUPPLY DISCONNECT
PTS POWER TRANSFER SWITCH
PV PHOTOVOLTAIC
PVC POLYVINYL CHLORIDE

R

R RELAY
RD RECEPTACLE DISCONNECT
RECEPT RECEPTACLE
REF REFERENCE
Req'd REQUIRED
RES RESISTOR
RIO REMOTE INPUT/OUTPUT
RLM REDUNDANCY LINK MODULE
Rm ROOM
RTB RADIO TERMINAL BOARD
R/W RIGHT OF WAY

S

S STARTER COIL
Sch SCHEDULE
SD SERVICE DISCONNECT
Sec SECONDS
SFR SEAL FAILURE RELAY
SL SUMP LIGHT
SPR STANDBY POWER RECEPTACLE
Sq SQUARE
SS SELECTOR SWITCH
ST STARTER
SST STAINLESS STEEL
Sta STATION
Std STANDARD
SV SOLENOID VALVE
SWIM SLOW WEIGH-IN-MOTION

T

TB TERMINAL BLOCK
TBD TO BE DETERMINED
TC TELEPHONE CABLE
TDR TIME DELAY RELAY
TGLS TOGGLE SWITCH
TM TIME METER
Tot TOTAL
TS TIMER SWITCH or TEMPERATURE SWITCH
TSW TEST SWITCH
TTB TELEPHONE TERMINAL BOARD
Typ TYPICAL

U

UPS UNINTERRUPTIBLE POWER SUPPLY

V

V VOLT(S)
Var VARIABLE or VARIES
VFD VARIABLE FREQUENCY DRIVE

W

W WATT or WIDTH
WB WESTBOUND
WIM WEIGH-IN-MOTION
WLS WATER LEVEL SWITCH
WP WEATHERPROOF
WSMS WEIGH STATION MESSAGE SIGN

X

XFMR TRANSFORMER

PROJECT NOTES

1. Separate grounded (Neutral) conductor must be used for each 120-volt circuit.
2. Homeruns to Panelboards must be installed as shown on the plans. Homeruns must not be combined.
3. A single insulated equipment grounding conductor, sized as required, must be installed in each conduit run.

STANDARD NOTES

- [AB] Abandon. If applied to conduit, remove conductors.
- [BC] Install pull box in existing conduit run.
- [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 rope and plug.
- [FA] Remove foundation above grade and abandon foundation below grade.
- [RL] Relocate equipment.
- [RLD] Relocated equipment.
- [SC] Splice new to existing conductors.

SYMBOLS

- ∠ ANGLE
- @ AT
- ° DEGREES
- Δ DELTA
- Ω OHM(S)
- ∅ PHASE
- ± PLUS OR MINUS

APPROVED FOR ELECTRICAL WORK ONLY

DESIGN	BY	Steven Roy	CHECKED	Javid Amirazodi	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	BOOSTER PUMP SYSTEM	SHEET EE0-1	
	DETAILS	BY	Dali Zhou	CHECKED			Steven Roy			POST MILE
	QUANTITIES	BY	Steven Roy	CHECKED			Javid Amirazodi			R8.9/R10.1

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

UNIT: 3597 CONTRACT No.: 06-325514 PROJECT NUMBER & PHASE: 06120000521

DISREGARD PRINTS BEARING EARLIER REVISION DATES

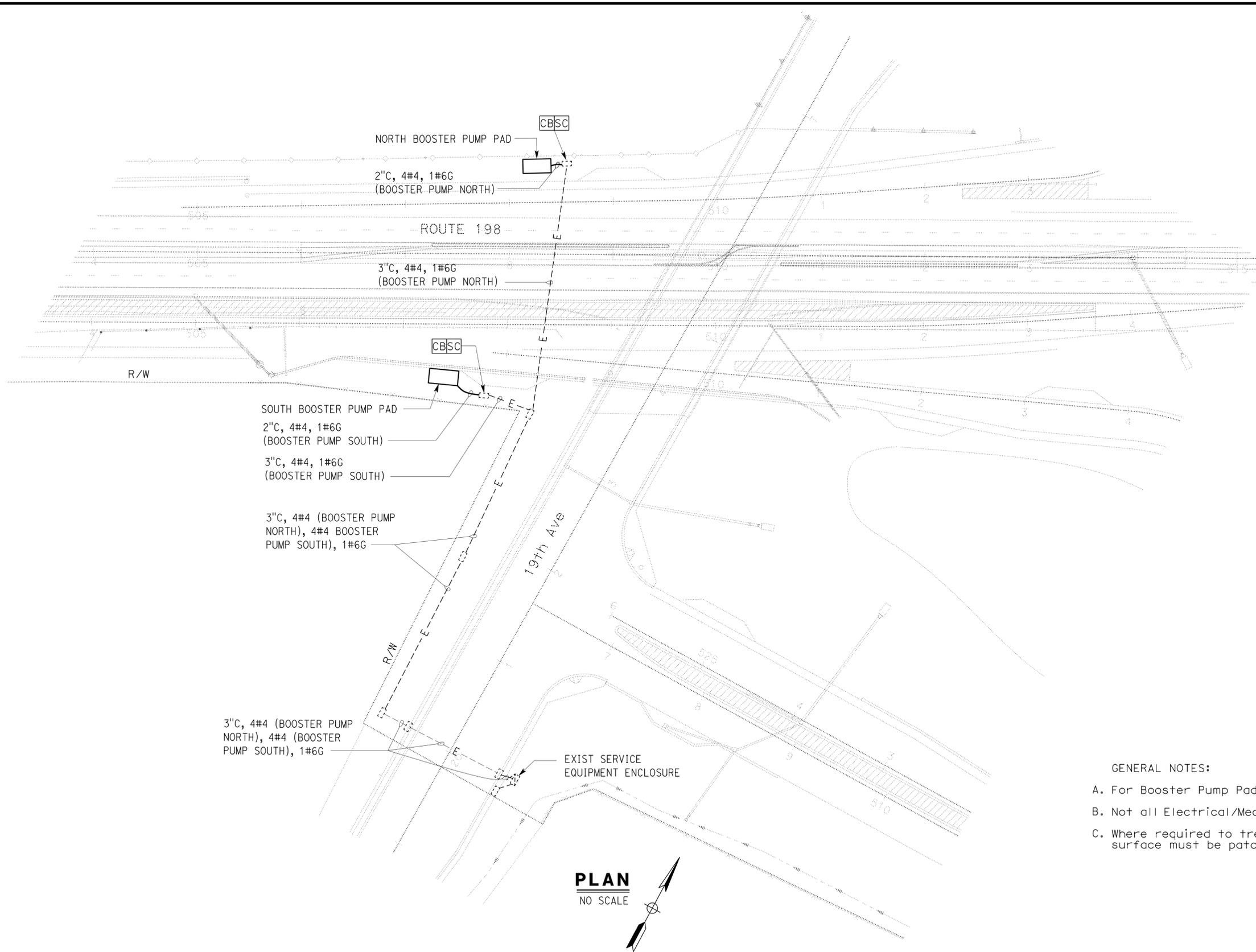
REVISION DATES (PRELIMINARY STAGE ONLY)

3-18-14	4-14	5-7-14			
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SHEET OF

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	24	41
<i>Javid Amirazodi</i> REGISTERED ELECTRICAL ENGINEER			5-7-2014 DATE	REGISTERED PROFESSIONAL ENGINEER Javid Amirazodi No. E 17509 Exp. 6-30-15 ELEC STATE OF CALIFORNIA	
5-12-14 PLANS APPROVAL DATE					
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PLAN
NO SCALE

GENERAL NOTES:

- A. For Booster Pump Pad details, see Mechanical sheet.
- B. Not all Electrical/Mechanical equipment and conduit systems are shown.
- C. Where required to trench and saw cut, disturbed and damaged surface must be patched to match surrounding surface.

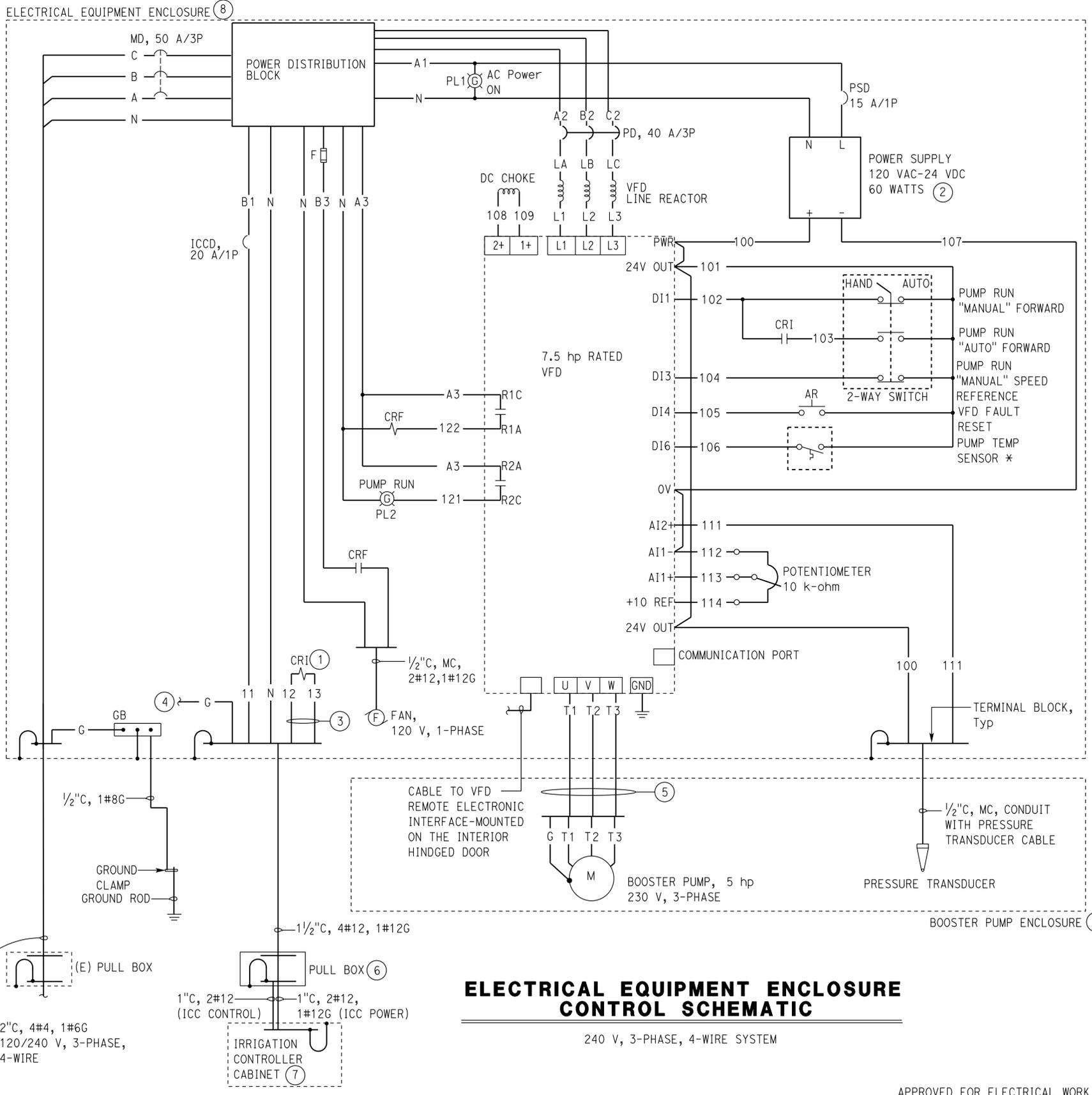
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DESIGN SUPERVISOR <i>Paul Schreff</i> DESIGN ENGINEER <i>Mark Chapp</i>	DESIGN BY Steven Roy	CHECKED Javid Amirazodi	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	BOOSTER PUMP SYSTEM ELECTRICAL SITE PLAN	SHEET EE1-1 OF
	DETAILS BY Dali Zhou	CHECKED Steven Roy			POST MILE R8.9/R10.1		
	QUANTITIES BY Steven Roy	CHECKED Javid Amirazodi			DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 3-18-14 4-14 5-7-14	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			UNIT: 3597 CONTRACT No.: 06-325514 PROJECT NUMBER & PHASE: 06120000521		SHEET OF		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	25	41

Javid Amirazodi 5-7-2014
 REGISTERED ELECTRICAL ENGINEER DATE
 5-12-14
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Javid Amirazodi
 No. E 17509
 Exp. 6-30-15
 ELEC
 STATE OF CALIFORNIA



* PUMP TEMP SENSOR IS LOCATED INSIDE BOOSTER PUMP ENCLOSURE

VFD I/O BOARD		
TERMINAL		DESCRIPTION
1	24V OUT	24V CONTROL VOLTAGE
2	DI1	DIGITAL INPUT 1-PUMP RUN FORWARD
3	DI3	DIGITAL INPUT 3-SWITCHING SPEED REFERENCE
4	DI4	DIGITAL INPUT 4-VFD FAULT RESET
5	DI6	DIGITAL INPUT 6-TEMPERATURE SENSOR SIGNAL
6	AI2	ANALOG INPUT-PRESSURE TRANSDUCER INPUT
7	AI1-	ANALOG INPUT-POTENTIOMETER
8	AI1+	ANALOG INPUT-POTENTIOMETER
9	+10 REF	ANALOG INPUT-COMMON
10	R1A	RELAY LOGIC OUTPUT, NO CONTACT
11	R1C	COMMON
12	R2A,	RELAY LOGIC OUTPUT, NO CONTACT
13	R2C	COMMON

- NOTES:
- Control relay irrigation, 24 Volts AC coil.
 - 60 Watt, 120VAC - 24VDC, din rail mounted, aluminum housing and UL listed power supply.
 - To master valve/pump start terminals inside the irrigation controller cabinet.
 - Connect to ground bus.
 - 1" C, 3#8, 1#10G. Booster pump motor cables integrated with equipment grounding conductor.
 - No. 5 (T) Pull Box exact location to be determined by the engineer.
 - For exact location of Irrigation Controller Cabinet, see District plan sheets.
 - See sheet EE1-2 for electrical equipment enclosure details and see sheet M-1 for exact location.
 - See sheet M-1 for Booster Pump Enclosure details.

ELECTRICAL EQUIPMENT ENCLOSURE CONTROL SCHEMATIC

240 V, 3-PHASE, 4-WIRE SYSTEM

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DESIGN SUPERVISOR <i>Paul Schreff</i> DESIGN ENGINEER <i>Mark Chapp</i>	DESIGN BY	Steven Roy	CHECKED	Javid Amirazodi
	DETAILS BY	Dali Zhou	CHECKED	Steven Roy
	QUANTITIES BY	Steven Roy	CHECKED	Javid Amirazodi

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE No.		BOOSTER PUMP SYSTEM SCHEMATIC DIAGRAM	SHEET OF
POST MILE	R8.9/R10.1		

SHEET EE1-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	26	41

Javid Amirazodi
 REGISTERED ELECTRICAL ENGINEER DATE 5-7-2014
 5-12-14
 PLANS APPROVAL DATE
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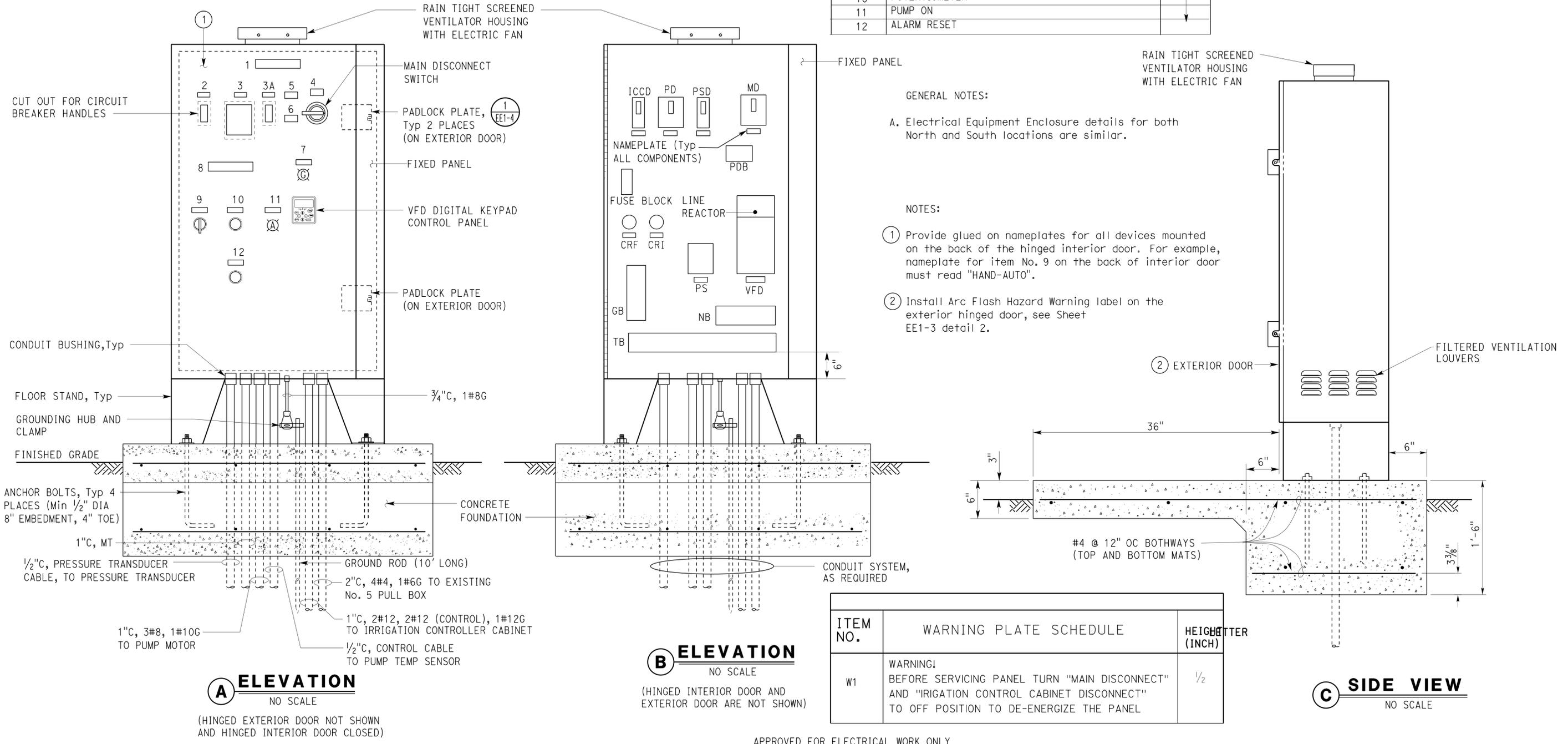
REGISTERED PROFESSIONAL ENGINEER
 Javid Amirazodi
 No. E 17509
 Exp. 6-30-15
 ELEC
 STATE OF CALIFORNIA

BOOSTER PUMP CONTROL INFORMATION AND EQUIPMENT SCHEDULE

BOOSTER PUMP				BOOSTER PUMP CONTROL STATION ENCLOSURE						REFERENCE SHEET	
LOCATION	SPEED (RPM)	HP	VOLT/PHASE	PUMP DISCONNECT	TYPE	VFD RATING (HP)	VFD INPUT REACTOR RATING (HP)	VFD INPUT VOLT	VFD OUTPUT VOLT	CONTROLS (mA)	
198 EB 19th Ave.	3500	5	230/3Ø	40A/3P	VFD	7.5	7.5	230/3Ø	230/3Ø	4-20	E-1
198 WB 19th Ave.	3500	5	230/3Ø	40A/3P	VFD	7.5	7.5	230/3Ø	230/3Ø	4-20	E-1

NAMEPLATE SCHEDULE

ITEM NO.	INSCRIPTION	LETTER HEIGHT (INCH)
1	BOOSTER PUMP ELECTRICAL EQUIPMENT ENCLOSURE	1/2
2	IRRIGATION CONTROL CABINET DISCONNECT	1/4
3	PUMP DISCONNECT	
3A	POWER SUPPLY DISCONNECT	
4	MAIN DISCONNECT	
5	ON	
6	OFF	
7	POWER ON	
8	BOOSTER PUMP	
9	HAND-AUTO	
10	POTENTIOMETER	
11	PUMP ON	
12	ALARM RESET	



GENERAL NOTES:

A. Electrical Equipment Enclosure details for both North and South locations are similar.

NOTES:

1 Provide glued on nameplates for all devices mounted on the back of the hinged interior door. For example, nameplate for item No. 9 on the back of interior door must read "HAND-AUTO".

2 Install Arc Flash Hazard Warning label on the exterior hinged door, see Sheet EE1-3 detail 2.

WARNING PLATE SCHEDULE

ITEM NO.	WARNING	HEIGHT (INCH)
W1	WARNING! BEFORE SERVICING PANEL TURN "MAIN DISCONNECT" AND "IRRIGATION CONTROL CABINET DISCONNECT" TO OFF POSITION TO DE-ENERGIZE THE PANEL	1/2

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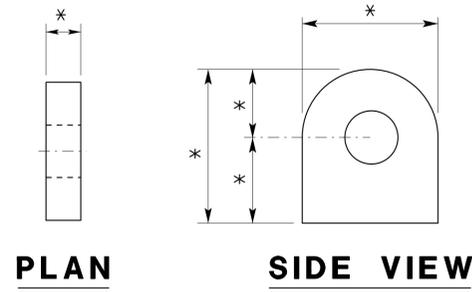
DESIGN	BY Steven Roy	CHECKED Javid Amirazodi
DETAILS	BY Dali Zhou	CHECKED Steven Roy
QUANTITIES	BY Steven Roy	CHECKED Javid Amirazodi

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
 ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BOOSTER PUMP SYSTEM
 ELECTRICAL EQUIPMENT ENCLOSURE

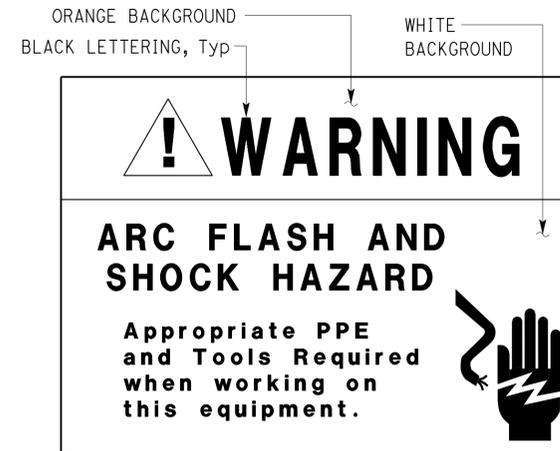
SHEET
EE1-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	27	41
Javid Amirazodi		5-7-2014		DATE	
REGISTERED ELECTRICAL ENGINEER		DATE			
5-12-14		PLANS APPROVAL DATE			
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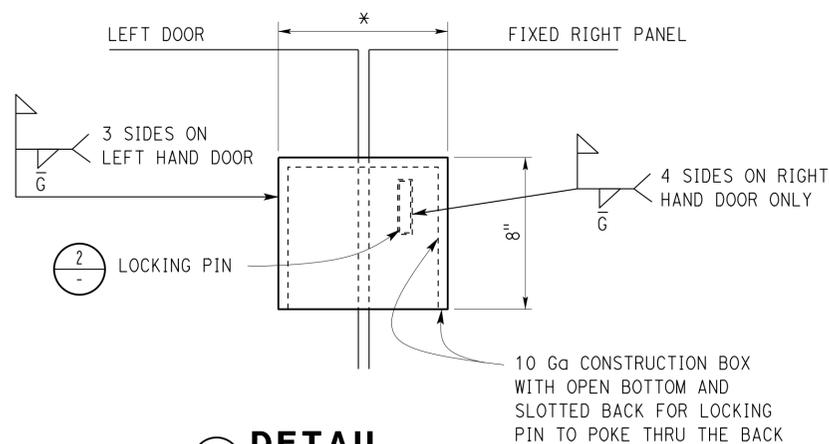
2 LOCKING PIN
NO SCALE

* DIMENSION TO SUIT STATE
FURNISHED AMERICAN 2500
"HOCKEY PUCK" LOCK



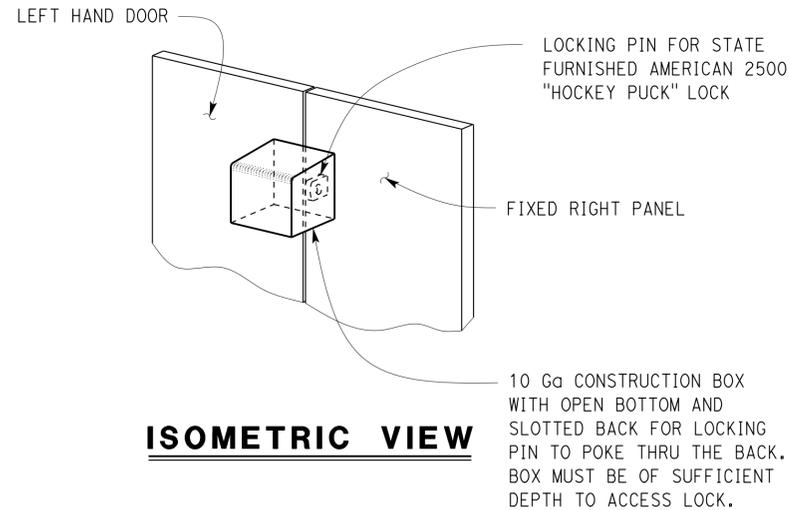
2 ARC FLASH HAZARD WARNING LABEL *

* Warning label must be constructed with high degree of chemical abrasion, heat resistance and UL recognized material.



1 DETAIL
NO SCALE

(TYPICAL TOP AND BOTTOM)
* DIMENSION TO SUIT STATE
FURNISHED AMERICAN 2500
"HOCKEY PUCK" LOCK



ISOMETRIC VIEW

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DESIGN	BY Steven Roy	CHECKED Javid Amirazodi
DETAILS	BY Dali Zhou	CHECKED Steven Roy
QUANTITIES	BY Steven Roy	CHECKED Javid Amirazodi

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE No.
POST MILE
R8.9/R10.1

BOOSTER PUMP SYSTEM
DETAILS

SHEET
EE1-4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	28	41

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 5-12-14

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
∅	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

M

Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED, MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD RAILING
MR	MOVEMENT RATING
MSE	MECHANICALLY STABILIZED EMBANKMENT
Mt	MOUNTAIN, MOUNT
MtI	MATERIAL
MVP	MAINTENANCE VEHICLE PULLOUT

N

N	NORTH
NB	NORTHBOUND
No.	NUMBER (MUST HAVE PERIOD)
Nos.	NUMBERS (MUST HAVE PERIOD)
NPS	NOMINAL PIPE SIZE
NS	NEAR SIDE
NSP	NEW STANDARD PLAN
NTS	NOT TO SCALE

O

Obir	OBLITERATE
OC	OVERCROSSING
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OGAC	OPEN GRADED ASPHALT CONCRETE
OGFC	OPEN GRADED FRICTION COURSE
OH	OVERHEAD
OHWM	ORDINARY HIGH WATER MARK
O-O	OUT TO OUT
Opp	OPPOSITE
OSD	OVERSIDE DRAIN

P

p	PAGE
PAP	PERFORATED ALUMINUM PIPE
PB	PULL BOX
PC	POINT OF CURVATURE, PRECAST
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PEC	PERMIT TO ENTER AND CONSTRUCT
Ped	PEDESTRIAN
Ped OC	PEDESTRIAN OVERCROSSING
Ped UC	PEDESTRIAN UNDERCROSSING
Perm MtI	PERMEABLE MATERIAL

P continued

PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
Pkwy	PARKWAY
PL, PL	PLATE
P/L	PROPERTY LINE
PM	POST MILE, TIME FROM NOON TO MIDNIGHT
PN	PAVING NOTCH
POC	POINT OF HORIZONTAL CURVE
POT	POINT OF TANGENT
POVC	POINT OF VERTICAL CURVE
PP	PIPE PILE, PLASTIC PIPE, POWER POLE
PPL	PREFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PRC	POINT OF REVERSE CURVE
PRF	PAVEMENT REINFORCING FABRIC
PRVC	POINT OF REVERSE VERTICAL CURVE
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES
PS, P/S	PRESTRESSED
PSP	PERFORATED STEEL PIPE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
Pvmt	PAVEMENT

Q

Qty	QUANTITY
-----	----------

R

R	RADIUS
R & D	REMOVE AND DISPOSE
R & S	REMOVE AND SALVAGE
R/C	RATE OF CHANGE
RCA	REINFORCED CONCRETE ARCH
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
Rd	ROAD
Reinf	REINFORCED, REINFORCEMENT, REINFORCING
Rel	RELOCATE
Repl	REPLACEMENT
Ret	RETAINING
Rev	REVISED, REVISION
Rdwy	ROADWAY
RHMA	RUBBERIZED HOT MIX ASPHALT
Riv	RIVER
RM	ROAD-MIXED
RP	RADIUS POINT, REFERENCE POINT
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN
Rt	RIGHT
Rte	ROUTE
RW	REDWOOD, RETAINING WALL
R/W	RIGHT OF WAY
Rwy	RAILWAY

S

S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND, SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
SL	STATION LINE
SM	SELECTED MATERIAL
Spec	SPECIAL, SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE
SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
St	STREET
Sta	STATION
STBB	SINGLE THRIE BEAM BARRIER
Std	STANDARD
Str	STRUCTURE
Surf	SURFACING
SW	SIDEWALK, SOUND WALL
Swr	SEWER
Sym	SYMMETRICAL
S4S	SURFACE 4 SIDES

T

T	SEMI-TANGENT
Tan	TANGENT
TBB	THRIE BEAM BARRIER
Tbr	TIMBER
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TCE	TEMPORARY CONSTRUCTION EASEMENT
Tel	TELEPHONE
Temp	TEMPORARY
TG	TOP OF GRADE
Tot	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

T continued

TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL
Typ	TYPICAL
UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME
W	WEST, WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE
X Sec	CROSS SECTION
Xing	CROSSING
Yr	YEAR
Yrs	YEARS

U

V

W

X

Y

Gregory A. Balzer
LICENSED LANDSCAPE ARCHITECT

July 19, 2013
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.

TO ACCOMPANY PLANS DATED 5-12-14

A

AB AGGREGATE BASE
 ABS ACRYLONITRILE-BUTADIENE-STYRENE
 AC ASPHALT CONCRETE
 ACC ARMOR-CLAD CONDUCTORS
 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
 BPE BACKFLOW PREVENTER ENCLOSURE
 BV BALL VALVE

C

C CONDUIT
 CAP CORRUGATED ALUMINUM PIPE
 CARV COMBINATION AIR RELEASE VALVE
 CB COUPLING BAND
 CCA CAM COUPLER ASSEMBLY
 CEC CONTROLLER ENCLOSURE CABINET
 CHDPE CORRUGATED HIGH DENSITY POLYETHYLENE
 CL CHAIN LINK
 CNC CONTROL AND NEUTRAL CONDUCTORS
 Conc CONCRETE
 CP COPPER PIPE
 CS COMPOST SOCK
 CSP CORRUGATED STEEL PIPE
 CST CENTER STRIP
 CV CHECK VALVE

D

Dia DIAMETER
 DIP DUCTILE IRON PIPE
 DIT DRIP IRRIGATION TUBING
 DG DECOMPOSED GRANITE
 DN DIAMETER NOMINAL
 DVA DRIP VALVE ASSEMBLY

E

EC EROSION CONTROL
 ECTC EROSION CONTROL TECHNOLOGY COUNCIL
 Elect ELECTRIC/ELECTRICAL
 Elev ELEVATION
 ELL ELBOW
 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
 FCV FLOW CONTROL VALVE
 FERT FERTILIZER
 FG FINISHED GRADE
 FH FLEXIBLE HOSE
 FIPT FEMALE IRON PIPE THREAD
 FIS FERTILIZER INJECTOR SYSTEM
 FL FLOW LINE
 FR FIBER ROLL
 FS FLOW SENSOR
 FSC FLOW SENSOR CABLE
 FV FLUSH VALVE

G

Galv GALVANIZED
 GARV GARDEN VALVE
 GARVA GARDEN VALVE ASSEMBLY
 GM GRAVEL MULCH
 GPH GALLONS PER HOUR
 GPM GALLONS PER MINUTE
 GSP GALVANIZED STEEL PIPE
 GV GATE VALVE

H

H HALF CIRCLE
 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
 IFS IRRIGATION FILTRATION SYSTEM
 IPS IRON PIPE SIZE
 IPT IRON PIPE THREAD
 Irr IRRIGATION

L

L LENGTH

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
 MtI 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
 OL OVERLAP

P

P PART CIRCLE
 PB PULL BOX
 PCC PORTLAND CEMENT CONCRETE
 PE POLYETHYLENE
 Pkt+ PACKET
 PL PLASTIC
 PLS PURE LIVE SEED
 PLT PLANT/PLANTING
 PLT ESTB PLANT ESTABLISHMENT
 PM POST MILE
 PR PRESSURE RATED
 PRLV PRESSURE RELIEF VALVE
 PRV PRESSURE REGULATING VALVE
 PVC POLYVINYL CHLORIDE
 Pvm+ PAVEMENT

Q

Q QUARTER CIRCLE
 QCV QUICK COUPLING VALVE

NOTE:
 For additional abbreviations, see Standard Plans A10A and A10B.

R

R RADIUS
 RCP REINFORCED CONCRETE PIPE
 RCV REMOTE CONTROL VALVE
 RCVM REMOTE CONTROL VALVE (MASTER)
 RCVMF REMOTE CONTROL VALVE (MASTER) W/FLOW SENSOR
 RCVP REMOTE CONTROL VALVE W/PRESSURE REGULATOR
 RCW RECYCLED WATER
 RECP ROLLED EROSION CONTROL PRODUCT
 REQ REQUIRED
 RICS REMOTE IRRIGATION CONTROL SYSTEM
 R/W RIGHT OF WAY

S

S SLIP
 SCH SCHEDULE
 SF STATE-FURNISHED
 Shld SHOULDER
 Sq SQUARE
 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
 TT TWO-THIRDS CIRCLE
 TWSA TREE WELL SPRINKLER ASSEMBLY
 Typ TYPICAL

U

UG UNDERGROUND

W

W WIDTH
 W/ WITH
 WM WATER METER
 WS WYE STRAINER
 WSA WYE STRAINER ASSEMBLY
 WSP WELDED STEEL PIPE
 WWM WELDED WIRE MESH

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LANDSCAPE AND EROSION CONTROL ABBREVIATIONS
 NO SCALE

RSP H1 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H1 DATED MAY 20, 2011 - PAGE 218 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H1

2010 REVISED STANDARD PLAN RSP H1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	30	41

Gregory A. Balzer
LICENSED LANDSCAPE ARCHITECT

November 15, 2013
PLANS APPROVAL DATE

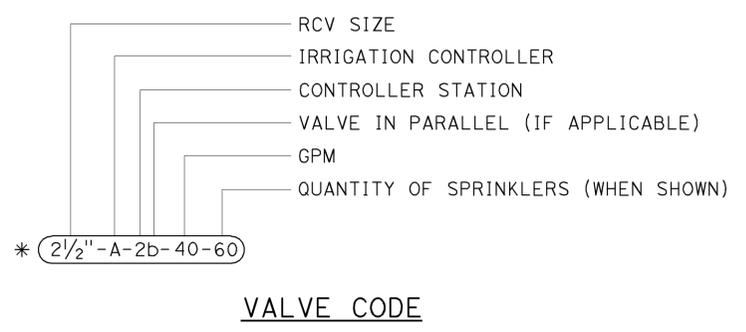
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TO ACCOMPANY PLANS DATED 5-12-14

2010 REVISED STANDARD PLAN RSP H2

EXISTING	NEW	ITEM DESCRIPTION
		WATER METER (WM)
		BACKFLOW PREVENTER ASSEMBLY (BPA)
		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 (IC) (TWO WIRE) IRRIGATION CONTROLLER(S) IN CONTROLLER ENCLOSURE CABINET (ICC)
		IRRIGATION CONTROLLER (IC) (TWO WIRE)
		ARMOR-CLAD CONDUCTORS (ACC)
		CONTROL AND NEUTRAL CONDUCTORS (CNC)
		IRRIGATION CONDUIT
		EXTEND IRRIGATION CONDUIT
		DUCTILE IRON PIPE (SUPPLY LINE) (MAIN) (DIP)
		GALVANIZED STEEL PIPE (SUPPLY LINE) (MAIN) (GSP)
		GALVANIZED STEEL PIPE (SUPPLY LINE) (LATERAL) (GSP)
		PLASTIC PIPE (SUPPLY LINE) (MAIN)
		PLASTIC PIPE (SUPPLY LINE) (LATERAL)
		COPPER PIPE (SUPPLY LINE)
		DRIP IRRIGATION TUBING
		REMOTE CONTROL VALVE (RCV) REMOTE CONTROL VALVE (MASTER) (RCVM) REMOTE CONTROL VALVE (MASTER) W/FLOW METER (RCVMF)
		REMOTE CONTROL VALVE W/PRESSURE REGULATOR (RCVP)
		EXISTING MANUAL CONTROL VALVE (MCV)
		DRIP VALVE ASSEMBLY (DVA)
		WYE STRAINER ASSEMBLY (WSA)

EXISTING	NEW	ITEM DESCRIPTION
		GATE VALVE (GV)
		BALL VALVE (BV)
		QUICK COUPLING VALVE (QCV)
		CAM COUPLER ASSEMBLY (CCA)
		GARDEN VALVE ASSEMBLY (GARVA)
		PRESSURE REGULATING VALVE (PRV)
		PRESSURE RELIEF VALVE (PRLV)
		FLOW CONTROL VALVE (FCV)
		COMBINATION AIR RELEASE VALVE (CARV)
		CHECK VALVE (CV)
		FLUSH VALVE (FV)
		EXISTING NOZZLE LINE W/TURNING UNION
		EXISTING IRRIGATION SYSTEM
		EXISTING 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
		FIBER ROLL
		COMPOST SOCK



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

RSP H2 DATED NOVEMBER 15, 2013 SUPERSEDES RSP H2 DATED JULY 19, 2013 AND STANDARD PLAN H2 DATED MAY 20, 2011 - PAGE 219 OF THE STANDARD PLANS BOOK DATED 2010.

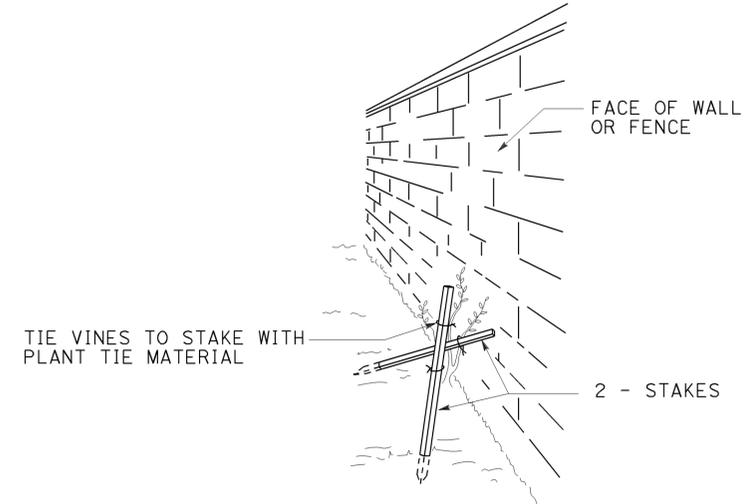
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**LANDSCAPE AND EROSION
CONTROL SYMBOLS**
NO SCALE

REVISED STANDARD PLAN RSP H2

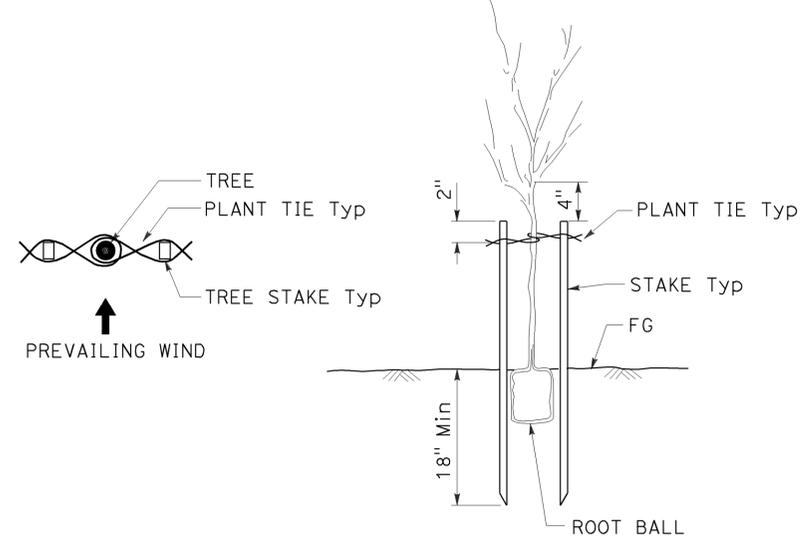
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	31	41

Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 July 19, 2013
 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.

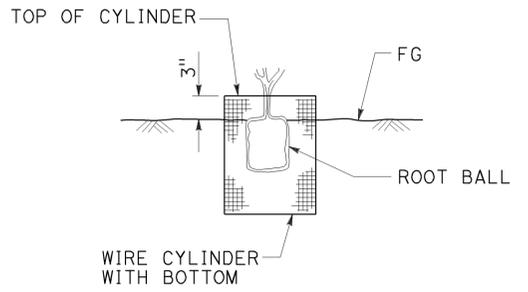
TO ACCOMPANY PLANS DATED 5-12-14



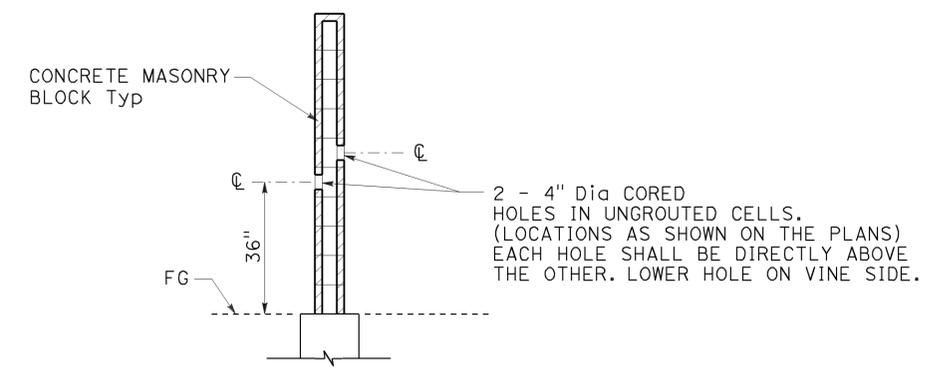
PERSPECTIVE VINE STAKING



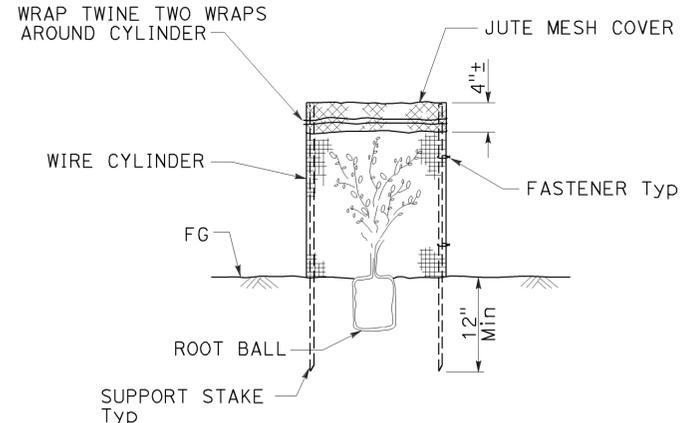
TREE STAKING



SECTION ROOT PROTECTOR



SECTION CORE HOLE (VINE)



SECTION FOLIAGE PROTECTOR

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS
 NO SCALE

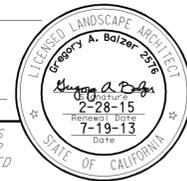
RSP H4 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H4 DATED MAY 20, 2011 - PAGE 221 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H4

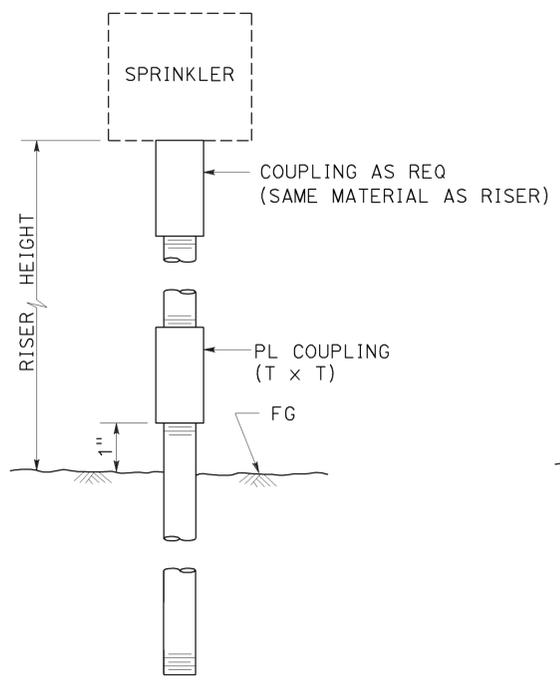
2010 REVISED STANDARD PLAN RSP H4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	32	41

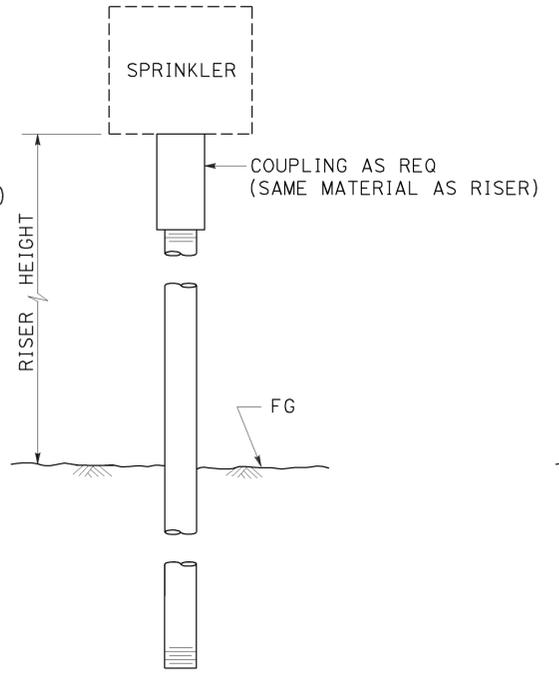
Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



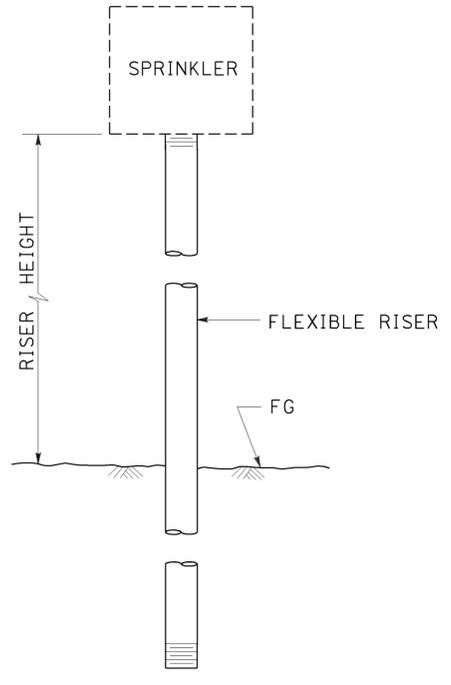
TO ACCOMPANY PLANS DATED 5-12-14



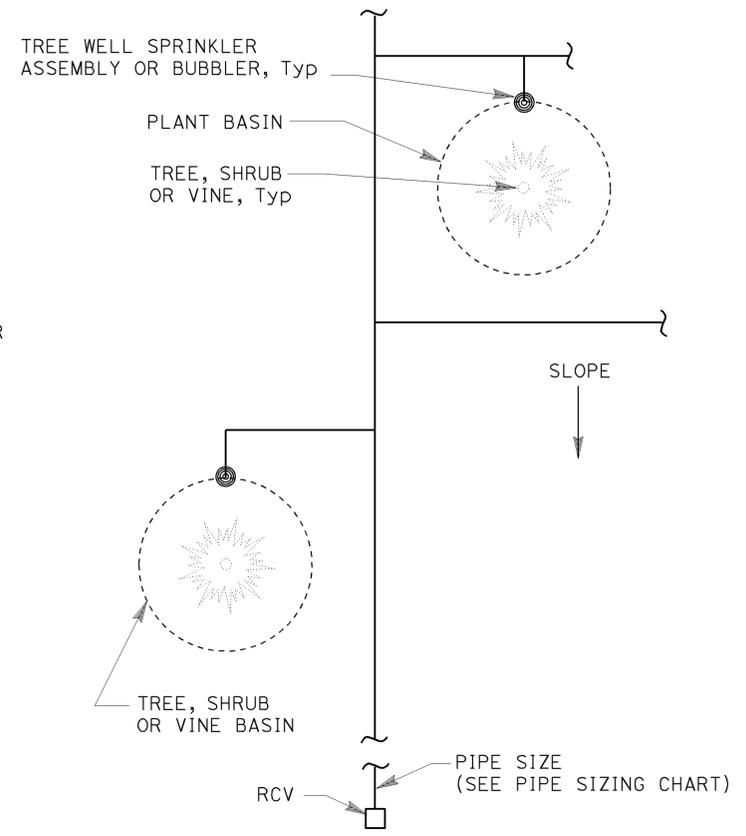
ELEVATION
RISER SPRINKLER ASSEMBLY TYPE I



ELEVATION
RISER SPRINKLER ASSEMBLY TYPE II



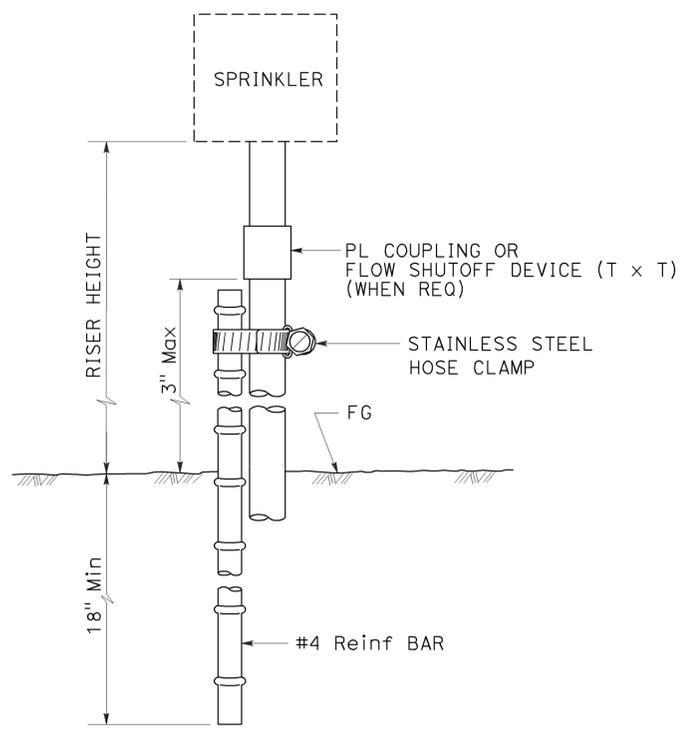
ELEVATION
RISER SPRINKLER ASSEMBLY TYPE III



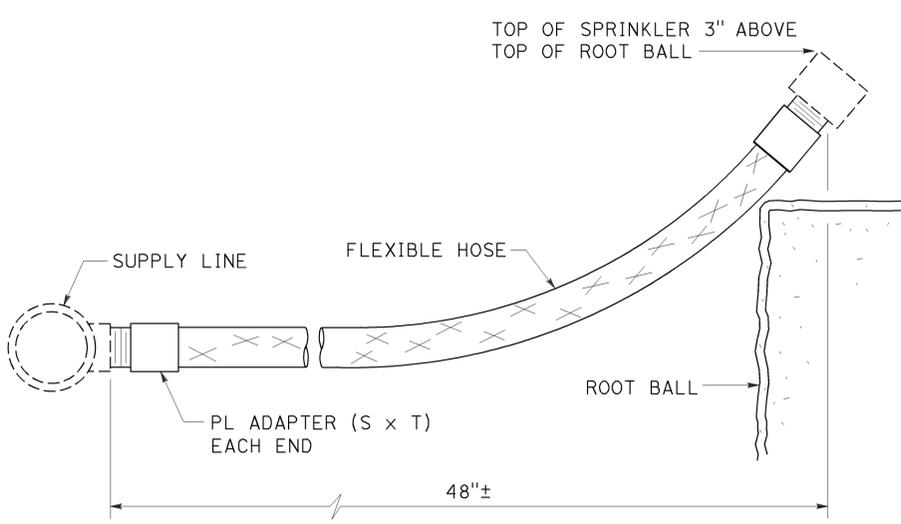
PLAN

NOTES:

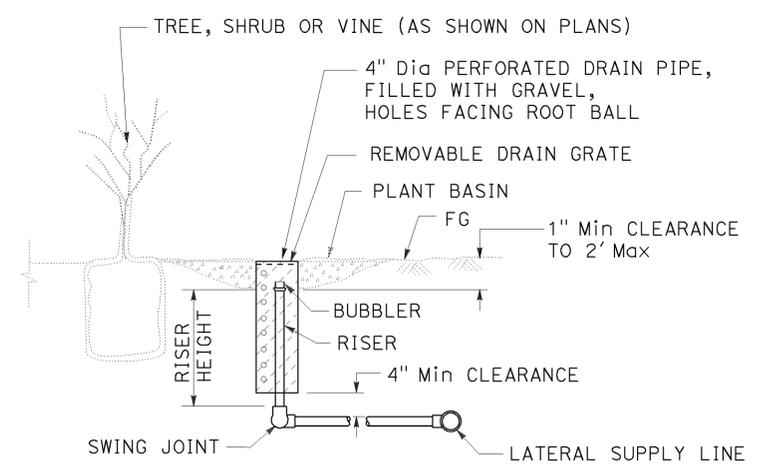
1. Install tree well sprinkler assembly on up-hill side of plant when on slope.
2. Install bubbler within basin.



ELEVATION
RISER SPRINKLER ASSEMBLY TYPE IV



ELEVATION
RISER SPRINKLER ASSEMBLY TYPE V



SECTION
TREE WELL SPRINKLER ASSEMBLY

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS
 NO SCALE

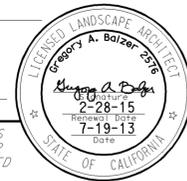
RSP H5 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H5
 DATED MAY 20, 2011 - PAGE 222 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H5

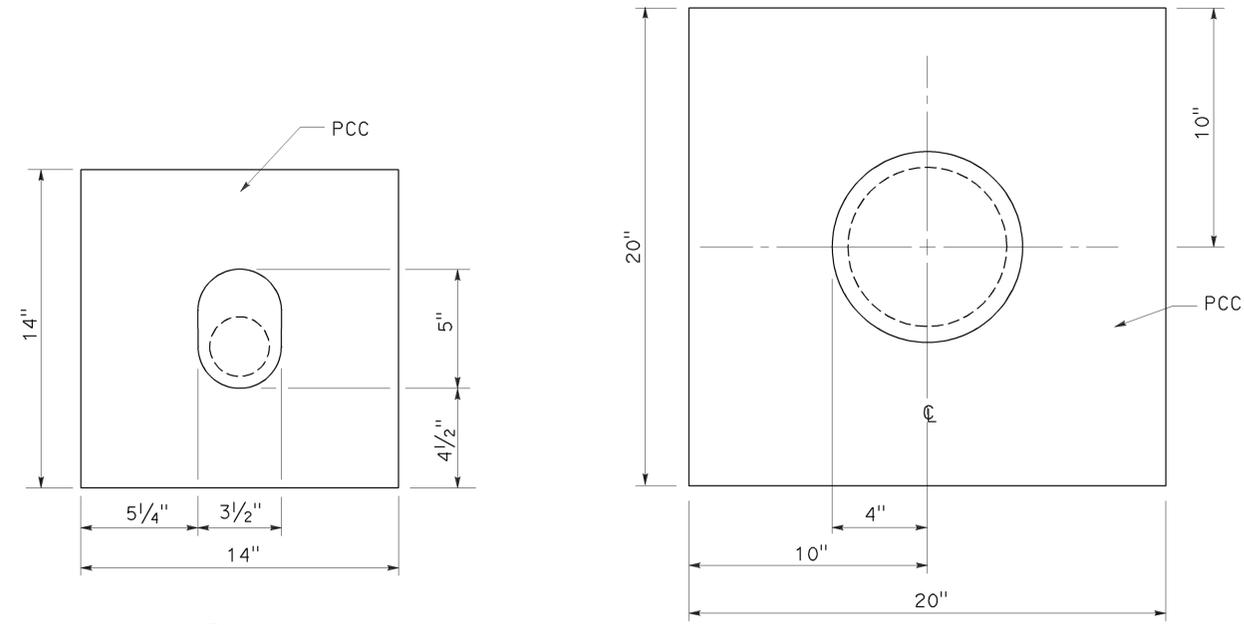
2010 REVISED STANDARD PLAN RSP H5

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	33	41

Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 July 19, 2013
 PLANS APPROVAL DATE
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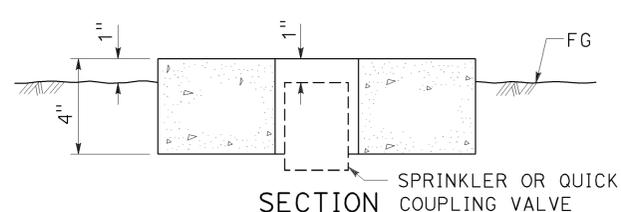


TO ACCOMPANY PLANS DATED 5-12-14



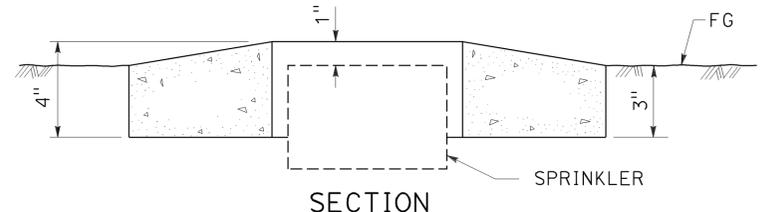
PLAN

PLAN



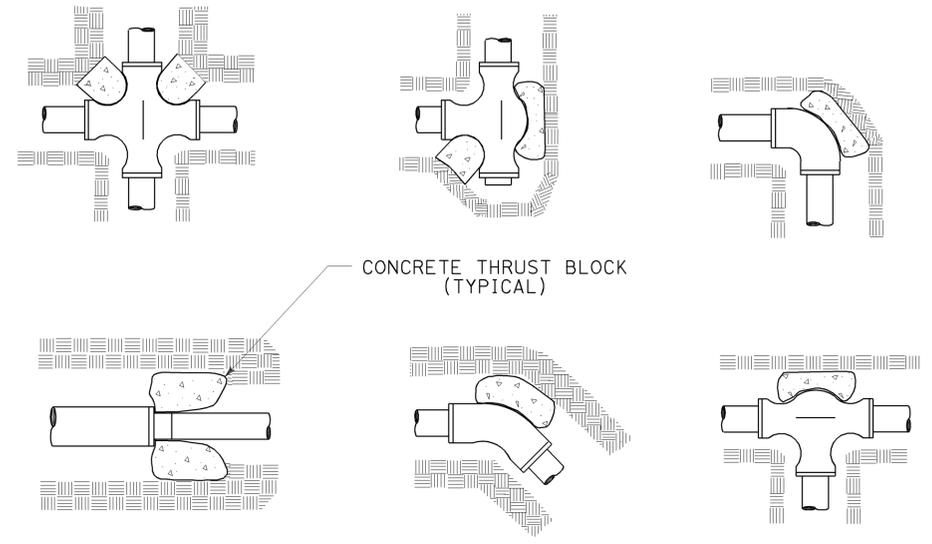
SECTION SPRINKLER OR QUICK COUPLING VALVE

SPRINKLER PROTECTOR TYPE I

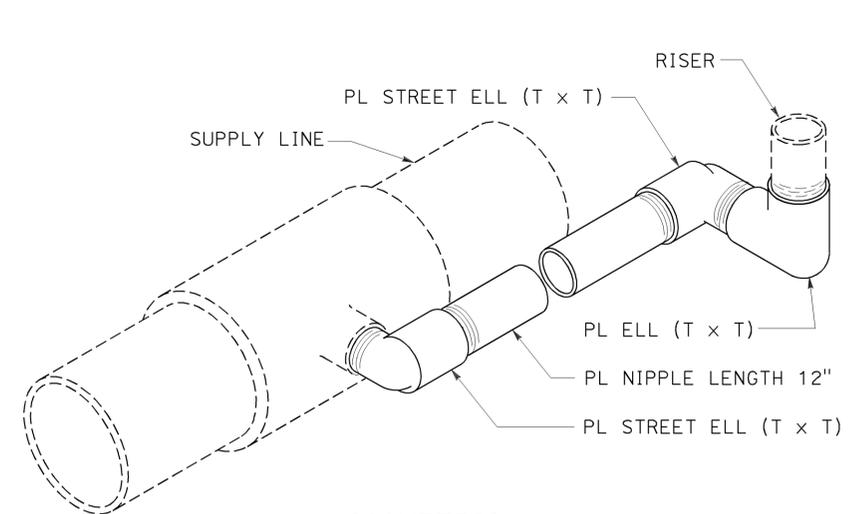


SECTION SPRINKLER

SPRINKLER PROTECTOR TYPE II

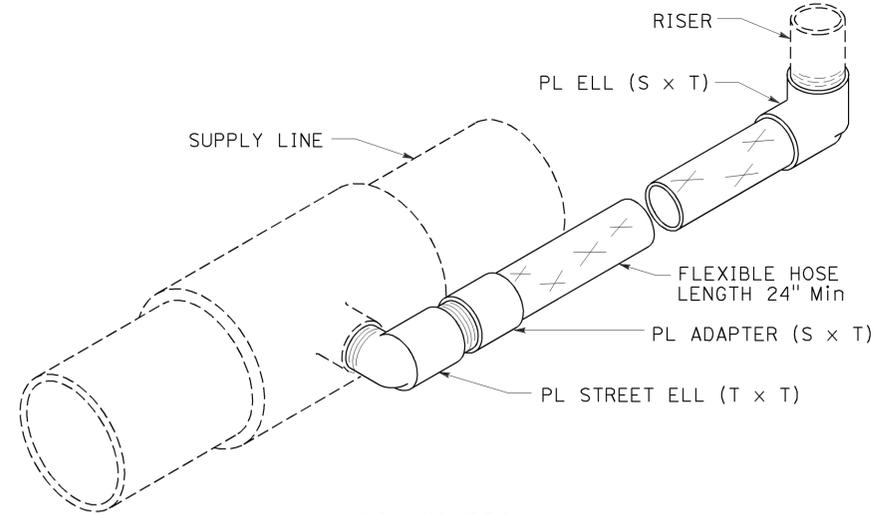


TYPICAL THRUST BLOCKS



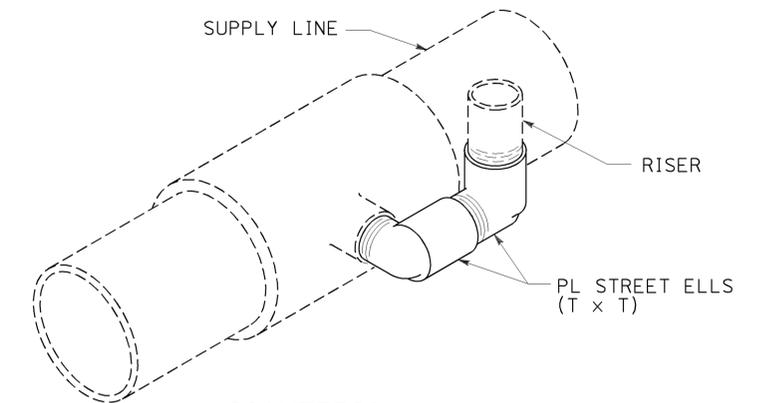
ISOMETRIC

POP-UP SPRINKLER ASSEMBLY TYPE I



ISOMETRIC

POP-UP SPRINKLER ASSEMBLY TYPE II



ISOMETRIC

POP-UP SPRINKLER ASSEMBLY TYPE III

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS

NO SCALE

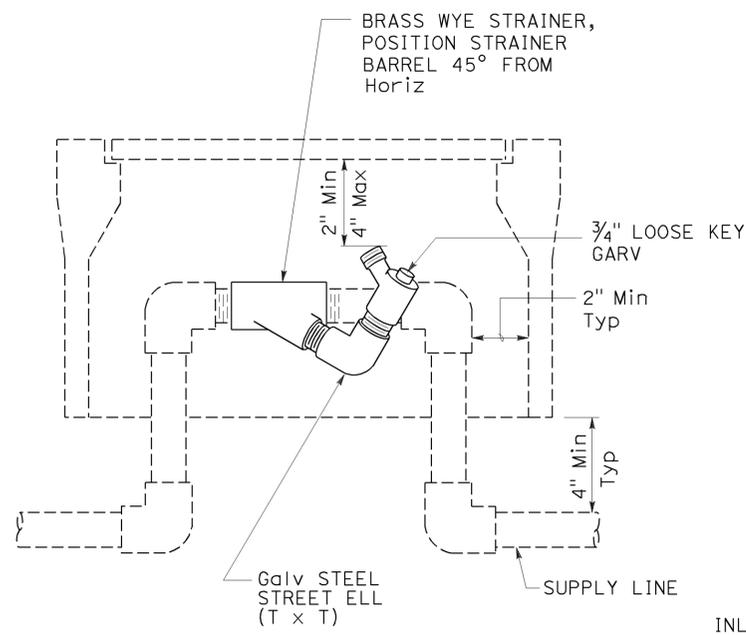
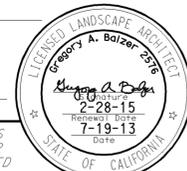
RSP H6 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H6 DATED MAY 20, 2011 - PAGE 223 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H6

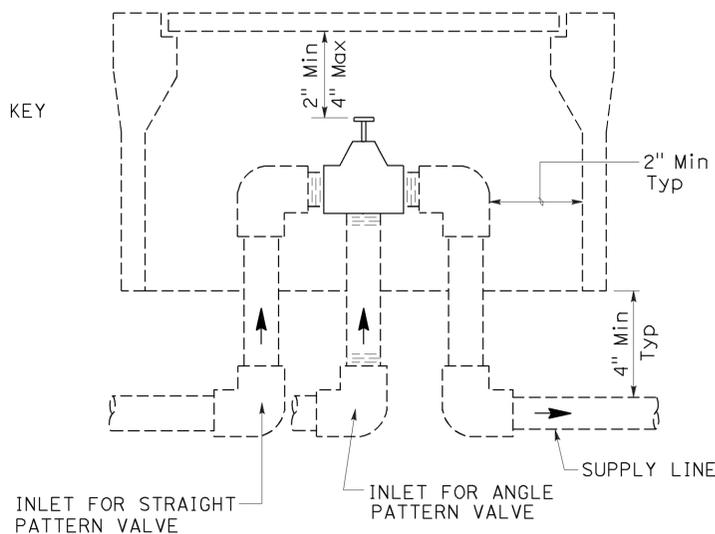
2010 REVISED STANDARD PLAN RSP H6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	34	41

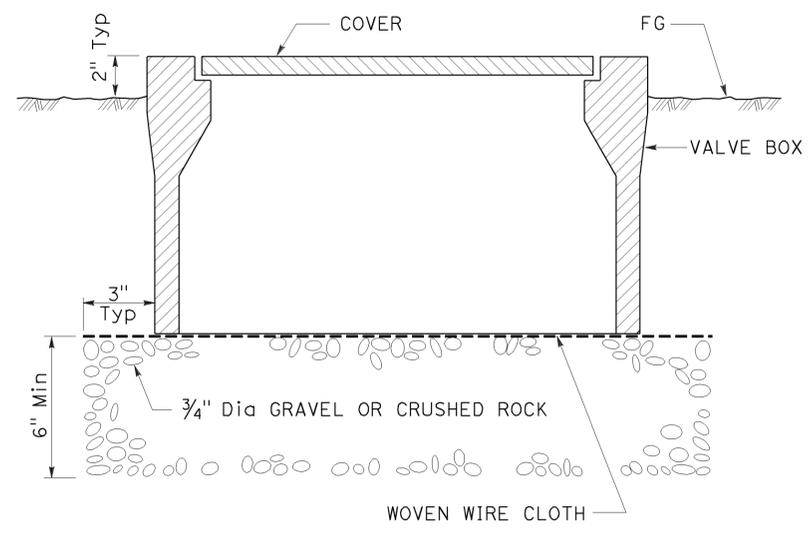
Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



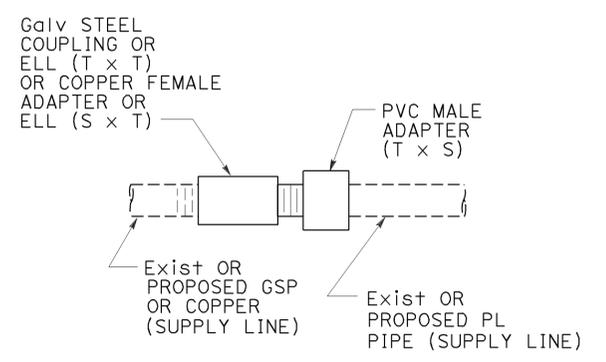
ELEVATION
WYE STRAINER ASSEMBLY



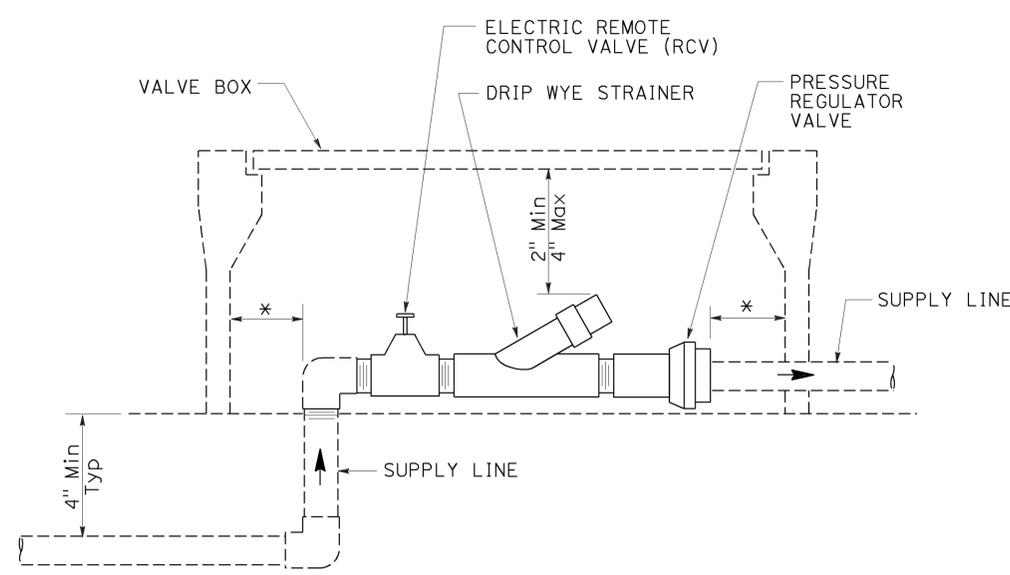
ELEVATION
VALVE



SECTION
VALVE BOX



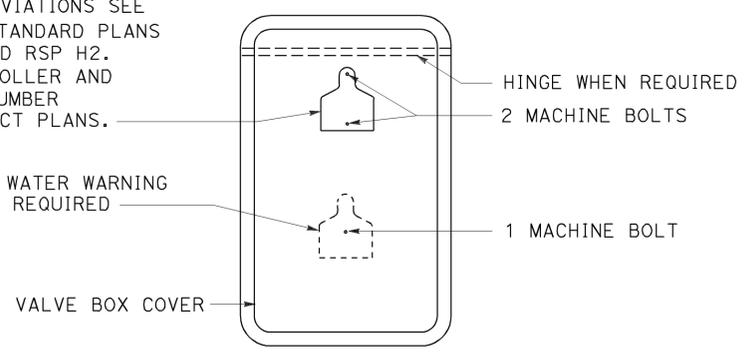
GALVANIZED OR COPPER PIPE CONNECTION TO PLASTIC PIPE



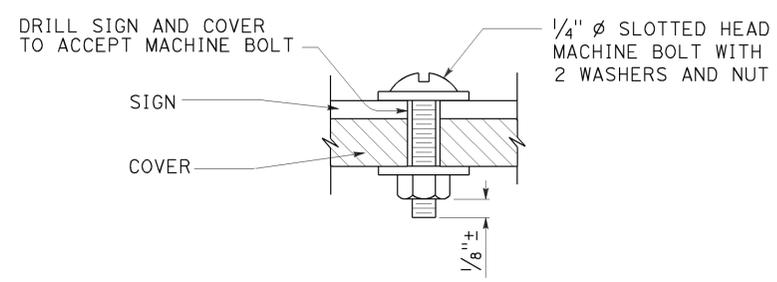
ELEVATION
DRIP VALVE ASSEMBLY

IDENTIFICATION LABEL:
FOR ABBREVIATIONS SEE
REVISED STANDARD PLANS
RSP H1 AND RSP H2.
FOR CONTROLLER AND
STATION NUMBER
SEE PROJECT PLANS.

RECYCLED WATER WARNING
SIGN WHEN REQUIRED

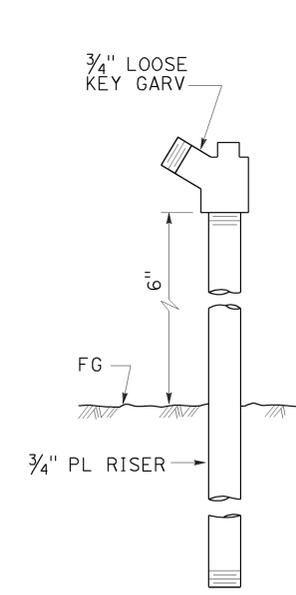


PLAN

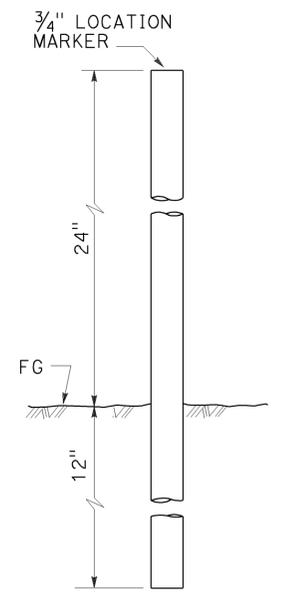


SECTION

VALVE BOX IDENTIFICATION



ELEVATION
GARDEN VALVE ASSEMBLY



ELEVATION
LOCATION MARKER

GARDEN VALVE ASSEMBLY

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

LANDSCAPE DETAILS

NO SCALE

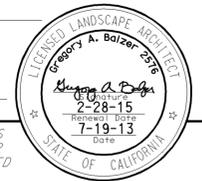
RSP H7 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H7
DATED MAY 20, 2011 - PAGE 224 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H7

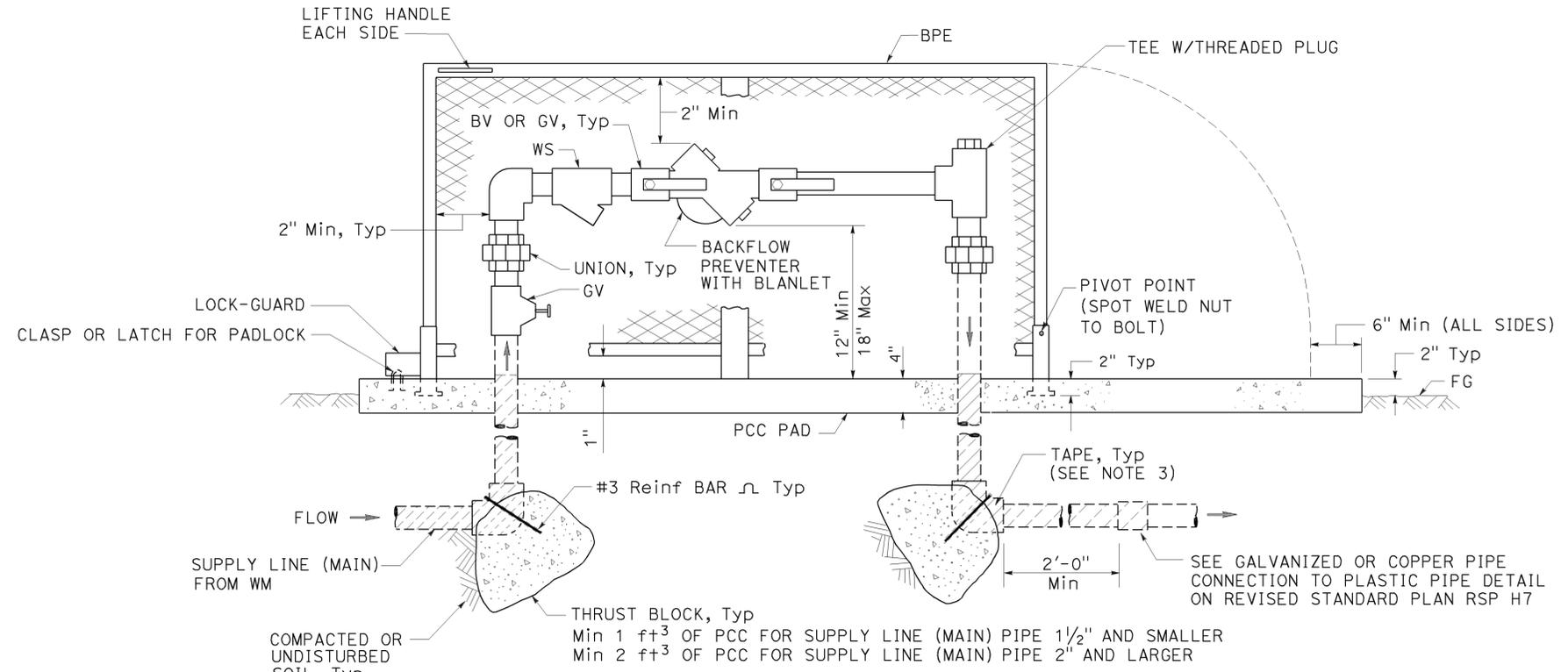
2010 REVISED STANDARD PLAN RSP H7

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	35	41

Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 July 19, 2013
 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.



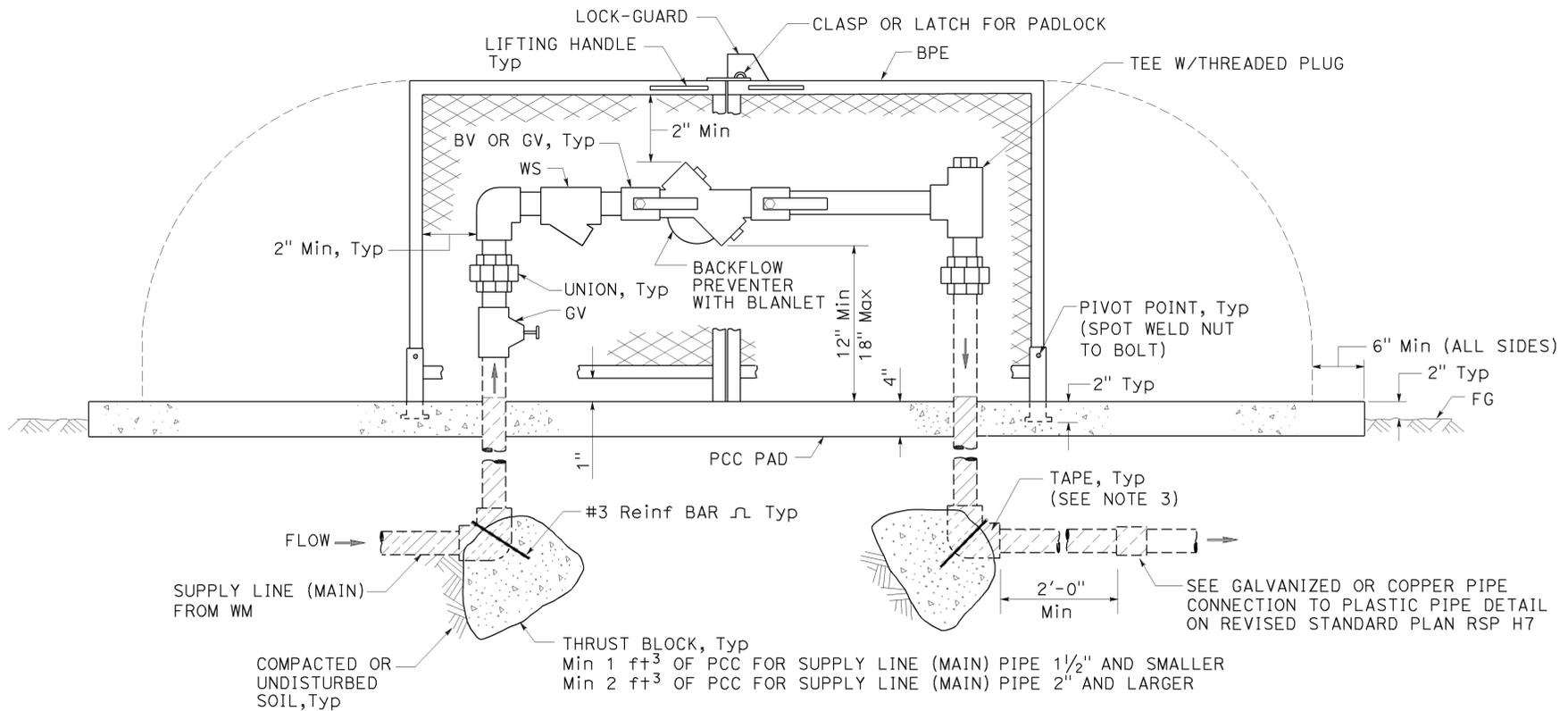
TO ACCOMPANY PLANS DATED 5-12-14



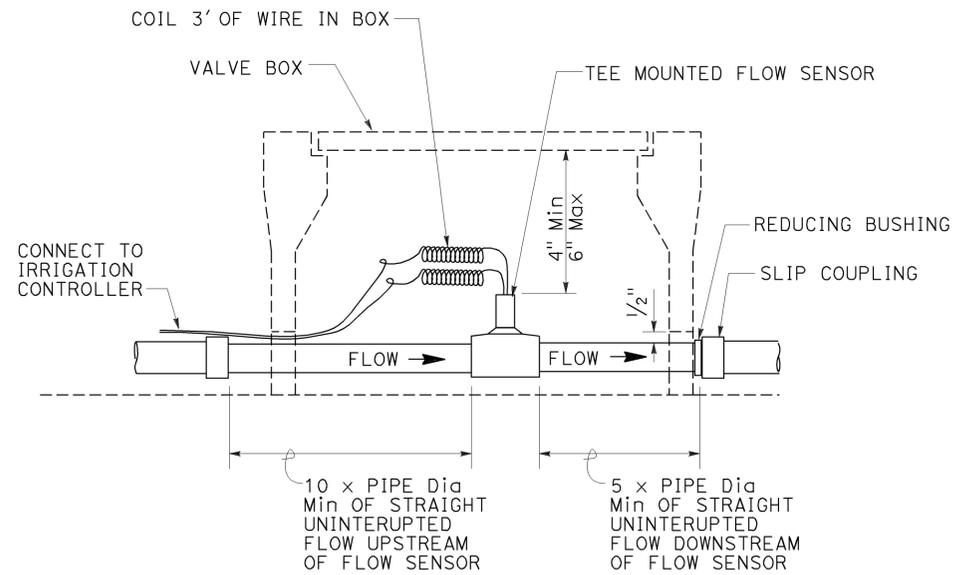
ELEVATION
BACKFLOW PREVENTER ASSEMBLY
 IN ONE PIECE ENCLOSURE

NOTES:

1. Wye strainer and fittings must be the same size as the backflow preventer shown on the plans.
2. Backflow preventer assembly manifold pipe must be the same pipe as the supply line (main) pipe to be installed from the water meter to the backflow preventer assembly.
3. All metal in contact with soil and Portland Cement Concrete must be wrapped with 2" wide plastic backed adhesive polyethylene tape 20 mil thick with 1/2" overlap.



ELEVATION
BACKFLOW PREVENTER ASSEMBLY
 IN TWO PIECE ENCLOSURE



SECTION
FLOW SENSOR

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS

NO SCALE

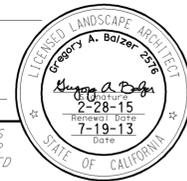
RSP H8 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN H8 DATED MAY 20, 2011 - PAGE 225 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H8

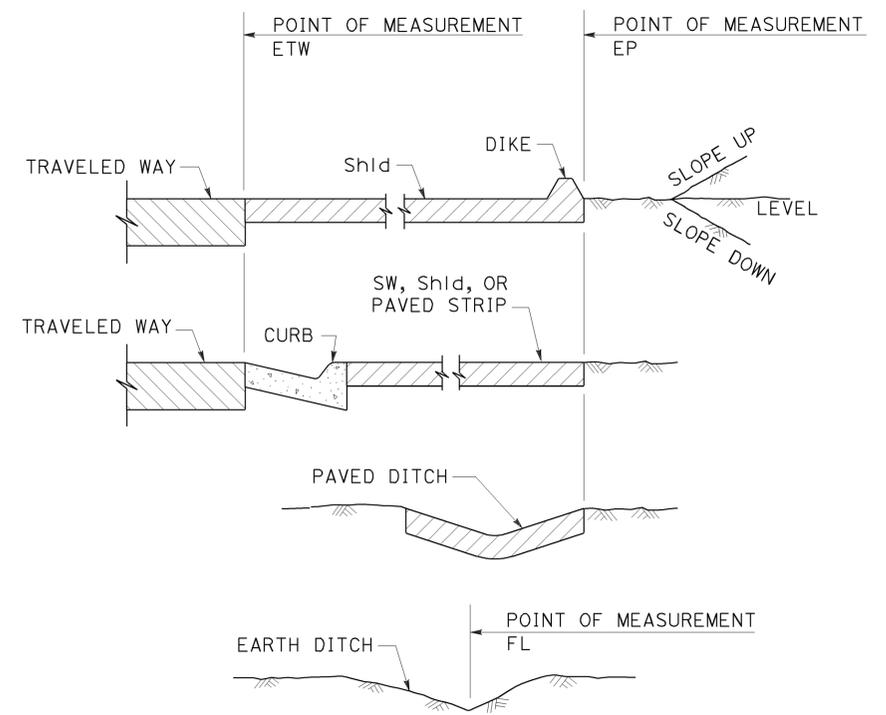
2010 REVISED STANDARD PLAN RSP H8

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	36	41

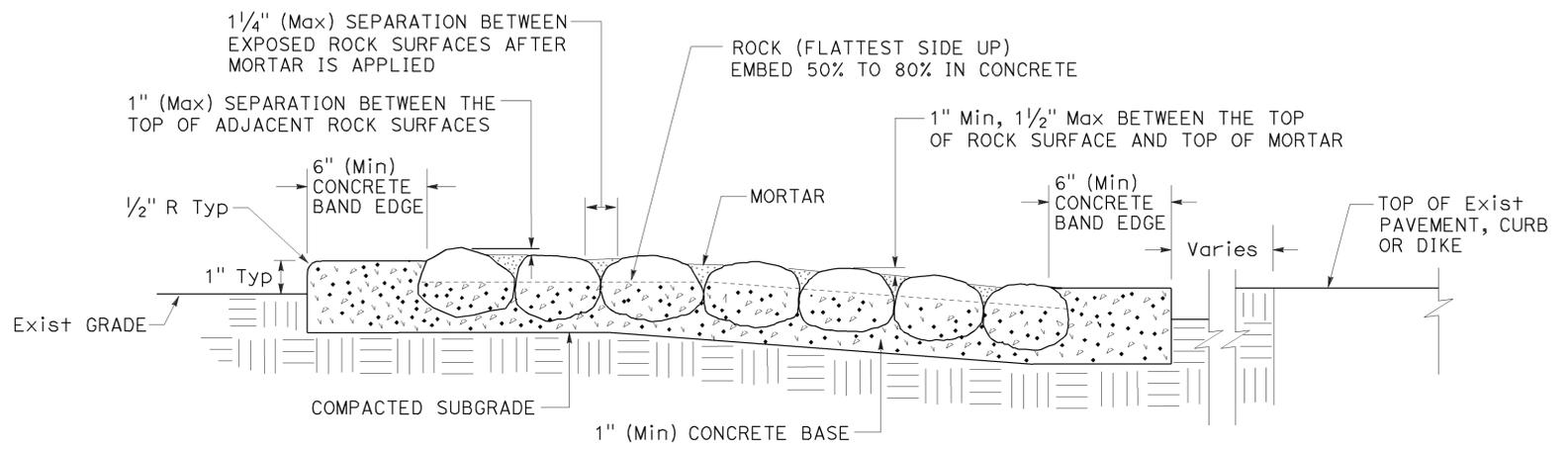
Gregory A. Balzer
 LICENSED LANDSCAPE ARCHITECT
 July 19, 2013
 PLANS APPROVAL DATE
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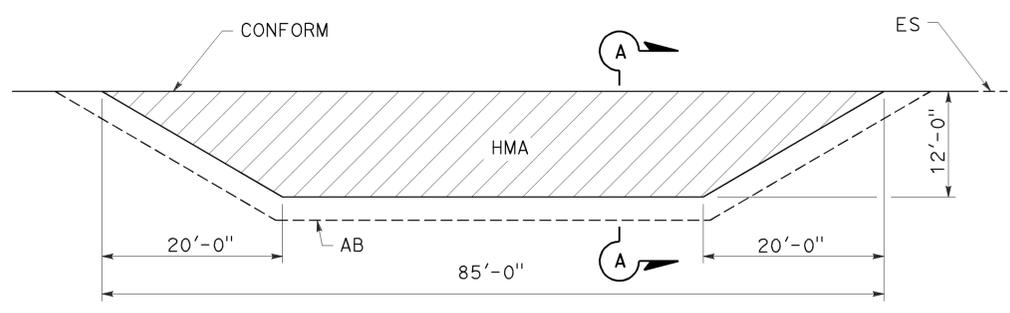
TO ACCOMPANY PLANS DATED 5-12-14



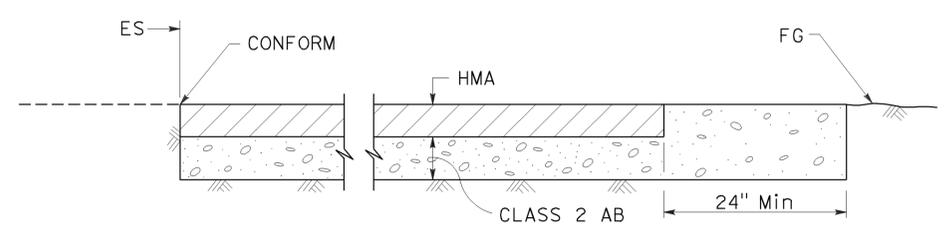
**SECTION
POINTS OF MEASUREMENT**



**SECTION
ROCK BLANKET**



PLAN



**SECTION A-A
MAINTENANCE VEHICLE PULLOUT**

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
LANDSCAPE DETAILS
 NO SCALE

RSP H9A DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP H9A

2010 REVISED STANDARD PLAN RSP H9A

TO ACCOMPANY PLANS DATED 5-12-14

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2/60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
 W = Width of offset in feet
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**

NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013
 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T9

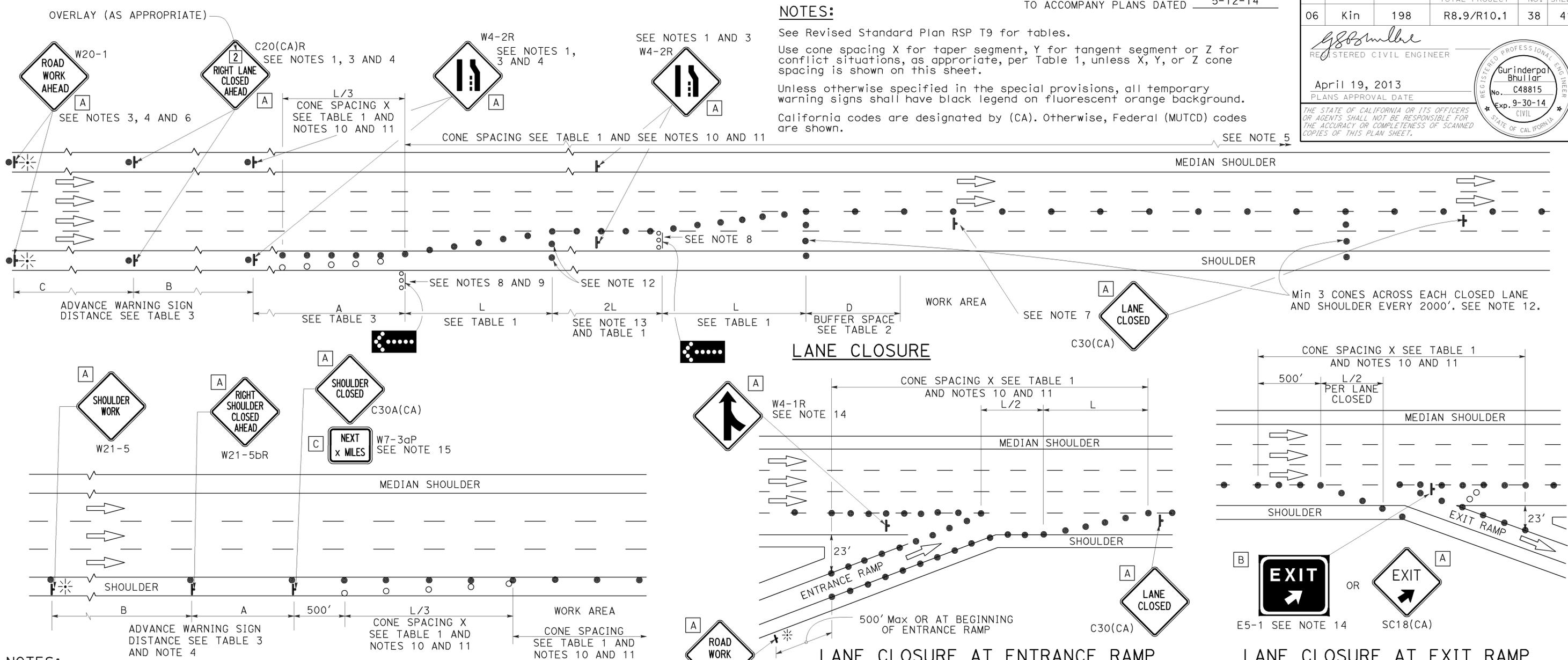
2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	38	41

REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

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

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- NOTES:**
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
 - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
 - Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
 - Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT x MILES", use a C20(CA) sign for the first advance warning sign.
 - Place a C30(CA) sign every 2000' throughout length of lane closure.
 - One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
 - A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
 - All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
 - Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
- A W7-3aP "NEXT x MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

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

SIGN PANEL SIZE (Min)

A	48" x 48"
B	72" x 60"
C	36" x 30"

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

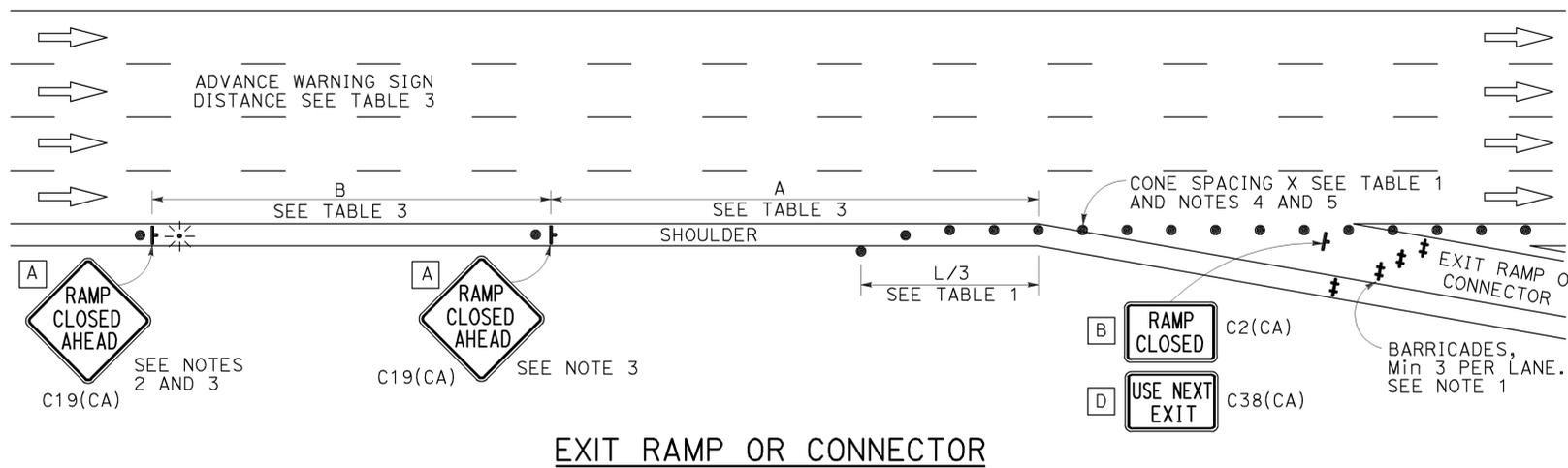
- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⚡ PORTABLE FLASHING BEACON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	39	41

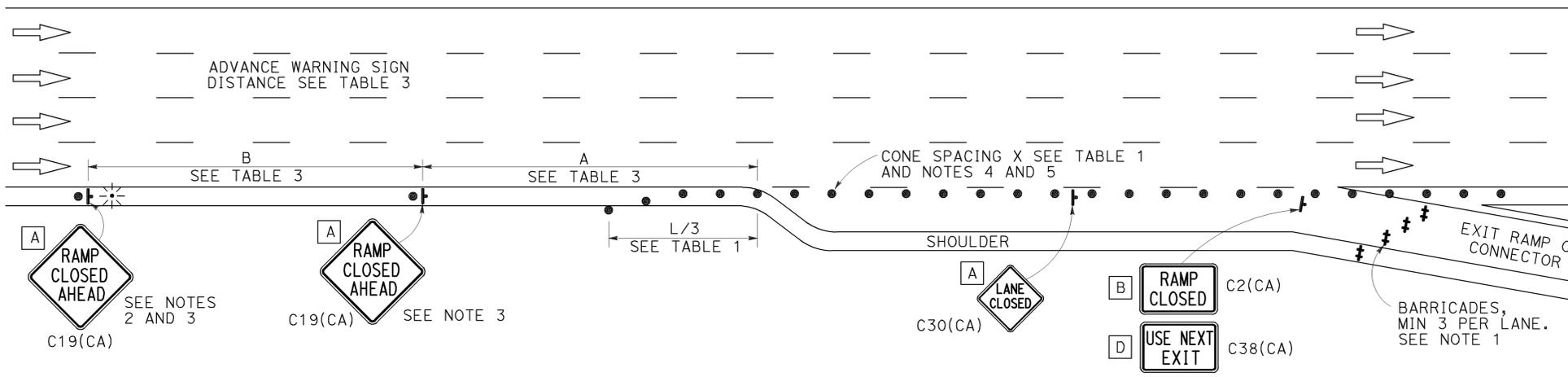
Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

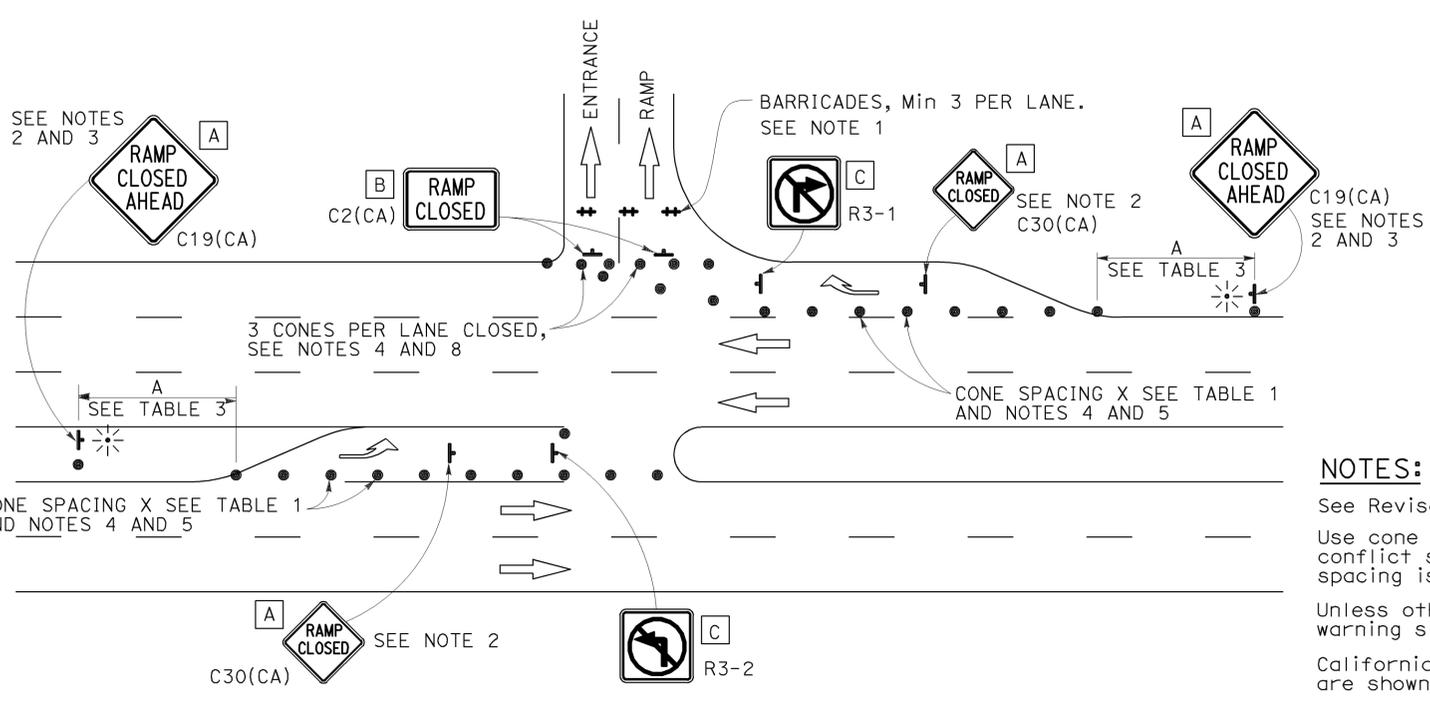
TO ACCOMPANY PLANS DATED 5-12-14



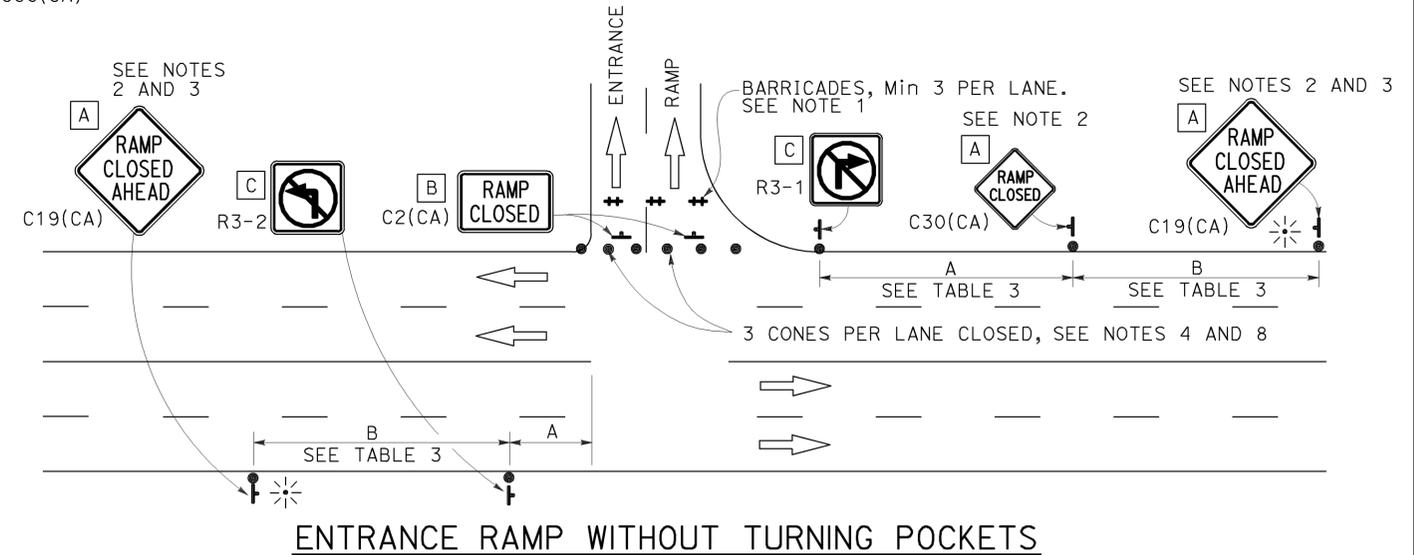
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

1. See Revised Standard Plan RSP T9 for tables.
2. Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
3. Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
4. California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

NOTES:

1. Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
2. In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
3. Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
4. All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
6. At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
7. The existing "EXIT" signs shall be covered during ramp closures.
8. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURE**
 NO SCALE

RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14
 DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T14

2010 REVISED STANDARD PLAN RSP T14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Kin	198	R8.9/R10.1	40	41

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa
Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 5-12-14

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CONDUIT

NEW	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 ATTACHED TO THE STRUCTURE OR SERVICE POLE

SIGNAL EQUIPMENT

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)
		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

SERVICE EQUIPMENT

NEW	EXISTING	
---OH---	---oh---	OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

POLE-MOUNTED SERVICE DESIGNATION

	TYPE H SERVICE, 28'-10"	TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE
--	-------------------------	--

FLASHING BEACON

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

SIGNAL EQUIPMENT Cont

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

NOTES:

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

ILLUMINATED OVERHEAD SIGN

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

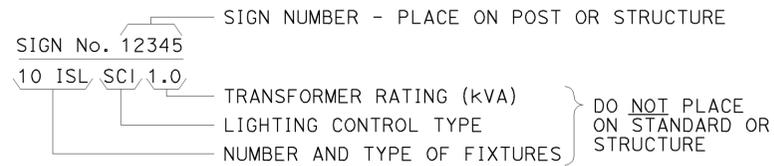
REVISED STANDARD PLAN RSP ES-1B

2010 REVISED STANDARD PLAN RSP ES-1B

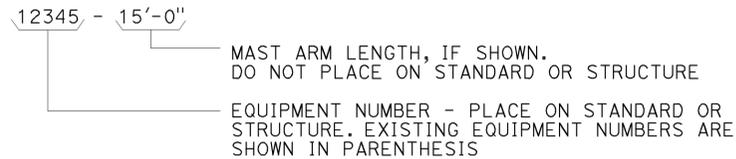
TO ACCOMPANY PLANS DATED 5-12-14

EQUIPMENT IDENTIFICATION

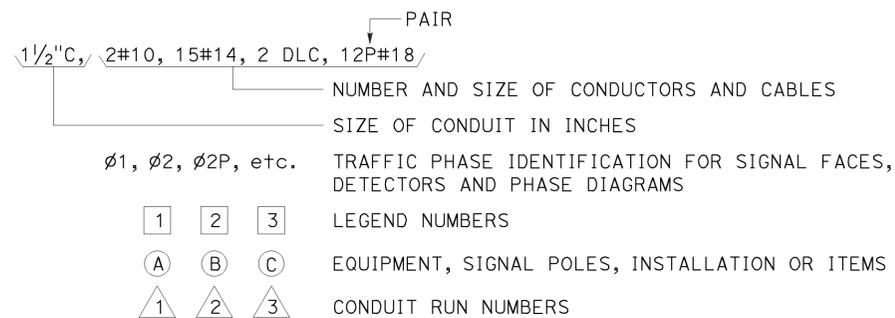
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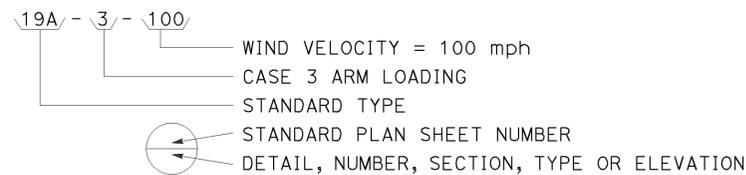
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



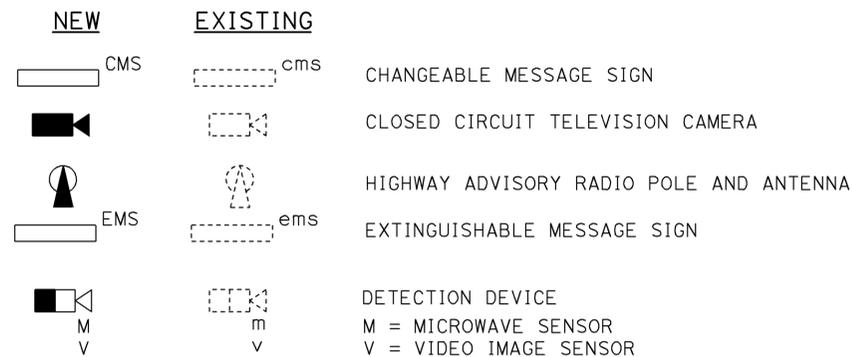
CONDUIT AND CONDUCTOR IDENTIFICATION:



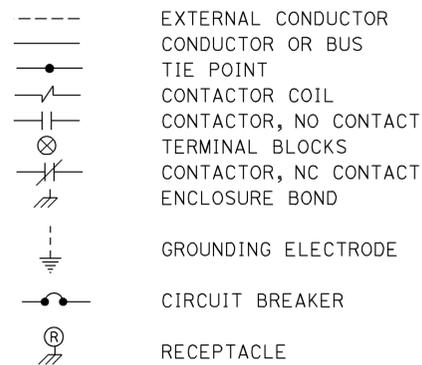
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



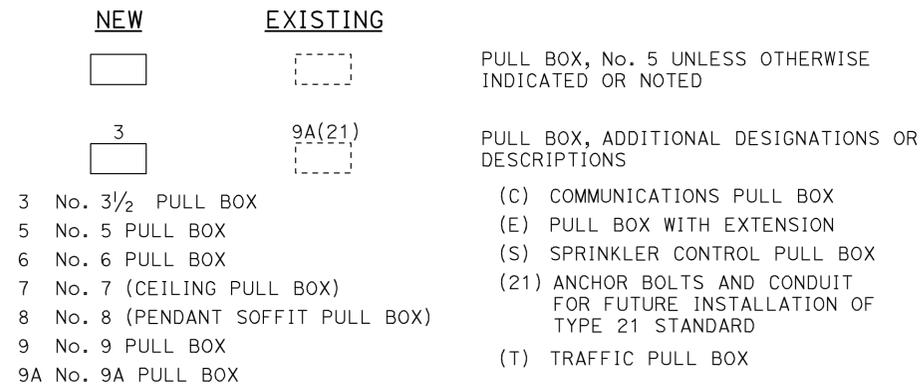
MISCELLANEOUS EQUIPMENT



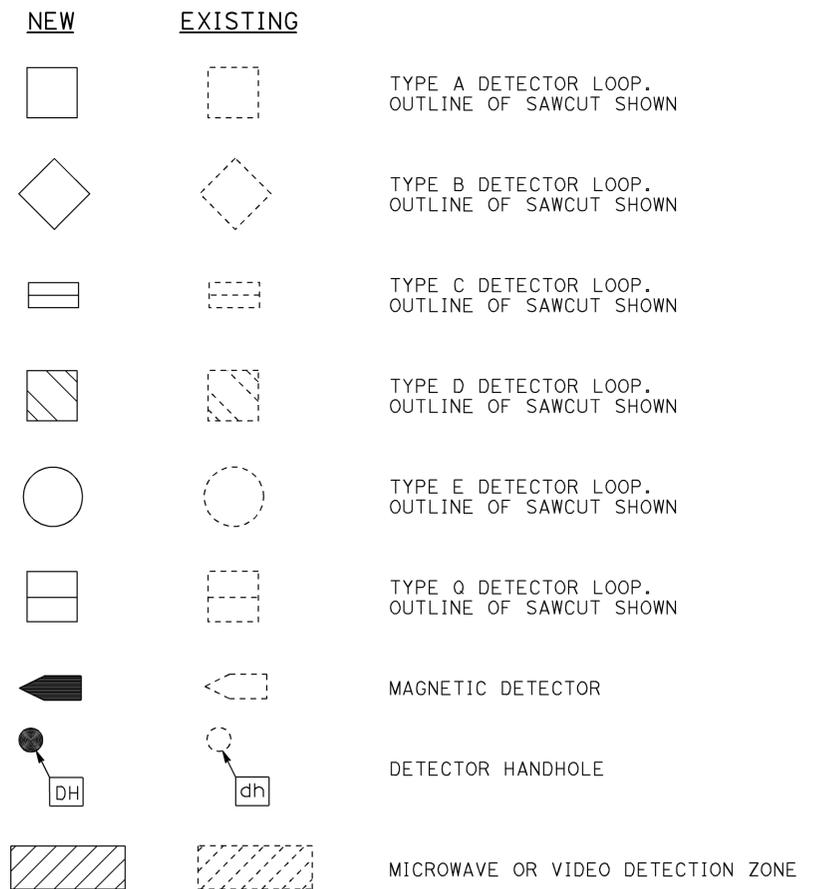
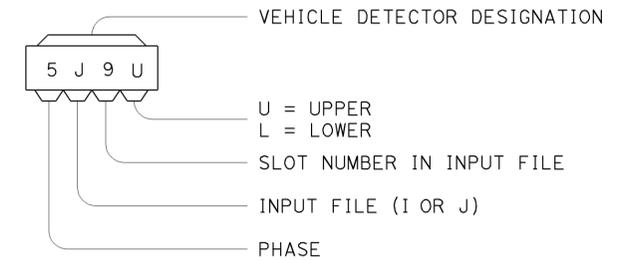
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1C

2010 REVISED STANDARD PLAN RSP ES-1C