Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7, 5.8/7.1	1	14

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS AND CONSTRUCTION DETAILS
3	CONSTRUCTION AREA SIGNS
4	SUMMARY OF QUANTITIES
5-7	ELECTRICAL PLANS
8-14	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

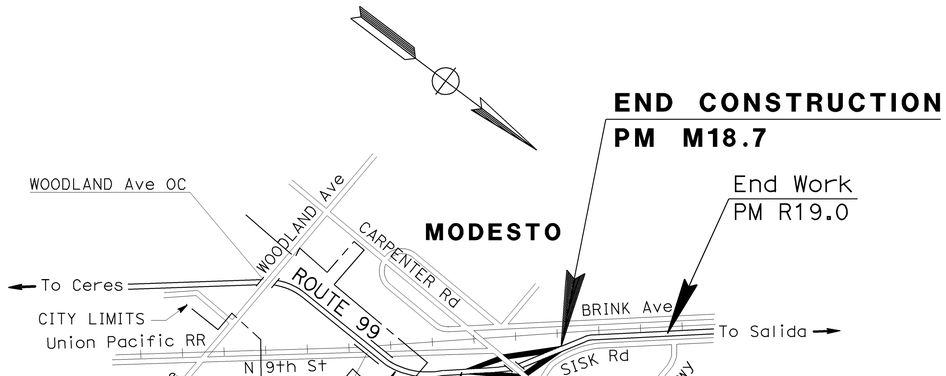
PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

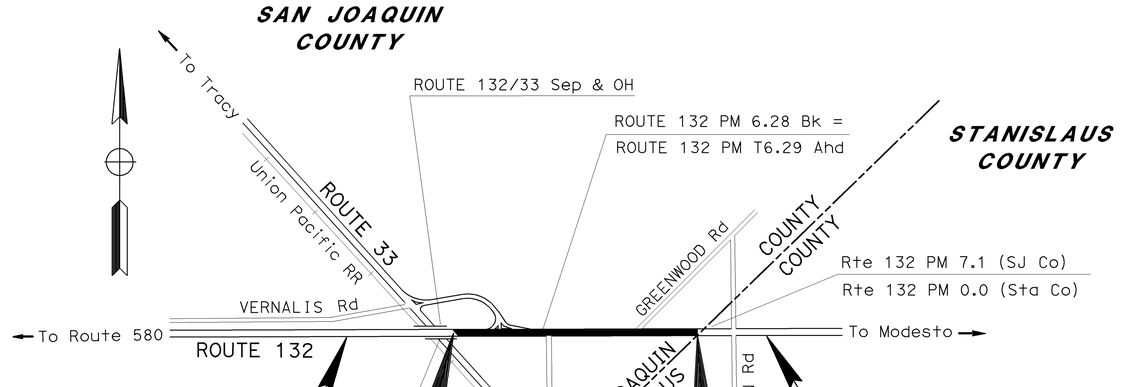
IN STANISLAUS AND SAN JOAQUIN COUNTIES ON ROUTE 99 FROM 0.2 MILE SOUTH OF CARPENTER ROAD/BRIGGSMORE AVENUE OVERCROSSING TO 0.2 MILE NORTH OF CARPENTER ROAD/BRIGGSMORE AVENUE OVERCROSSING AND ON ROUTE 132 FROM ROUTE 132/33 SEPARATION AND OVERHEAD TO STANISLAUS COUNTY LINE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

LOCATION MAP



LOCATION 1



LOCATION 2

PROJECT MANAGER: ALVIN MANGINDIN

DESIGN ENGINEER: ALVIN MANGINDIN

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

NO SCALE

1/19/10
PROJECT ENGINEER REGISTERED CIVIL ENGINEER — DATE

JOSE A. ALICEA II
No. 64817
Exp. 6/30/11
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

February 1, 2010
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.

LAST REVISION: DATE PLOTTED => 01-FEB-2010; TIME PLOTTED => 13:33; 00-00-00

CONTRACT No. 10-0U0004

BORDER LAST REVISED 8/1/2008 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s123936 DGN FILE => a0u000ab001.dgn | CU 10604 | EA 0U0001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7, 5.8/7.1	2	14

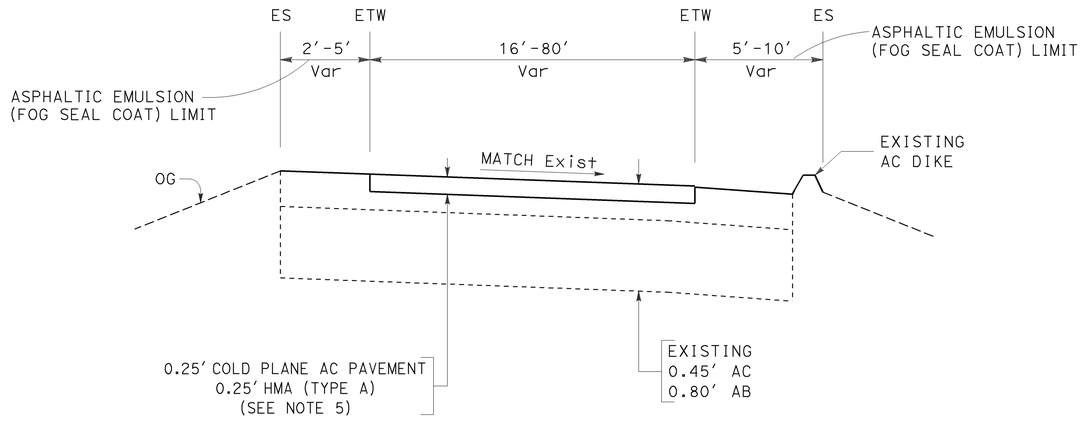
REGISTERED CIVIL ENGINEER — 1/19/10 DATE

2/1/10
PLANS APPROVAL DATE

JOSE A. ALICEA II — REGISTERED PROFESSIONAL ENGINEER — No. 64817 — Exp 6/30/11 — CIVIL — STATE OF CALIFORNIA

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

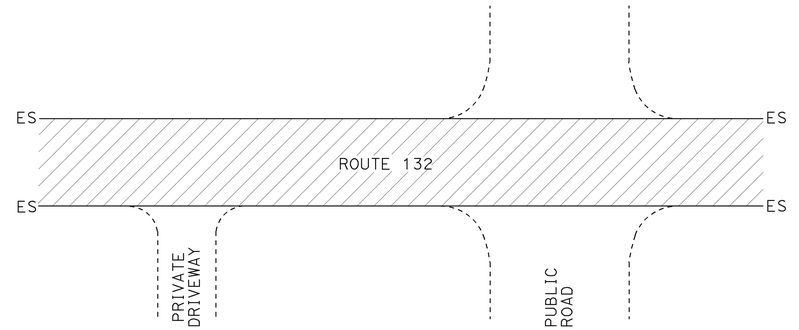
NOTES:
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEER AT THE DISTRICT OFFICE.
4. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
5. FOR COLD PLANE AC PAVEMENT DIMENSIONS AND LOCATIONS, SEE SUMMARY OF QUANTITIES.



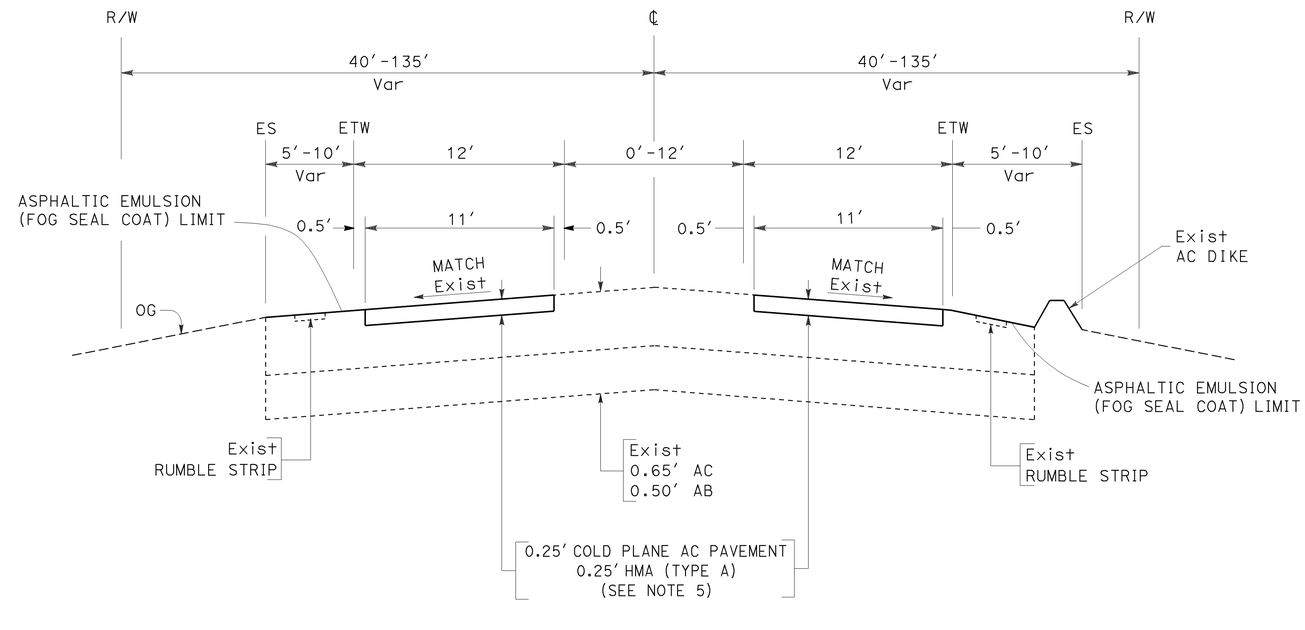
ROUTE 99
RAMPS (LOCATION 1)

TABLE OF BRIDGES

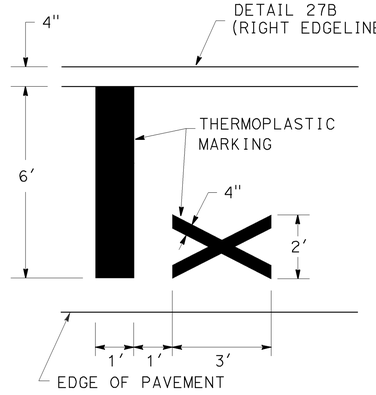
LOCATION	PM	BRIDGE NAME	BRIDGE No.
1	M18.52	CARPENTER Rd/BRIGGSMORE Ave OC	38-0085
2	5.81	ROUTE 132/33 Sep & OH	29-0167



PAVING AND SEAL COAT LIMITS AT PRIVATE DRIVEWAYS AND PUBLIC ROAD INTERSECTIONS

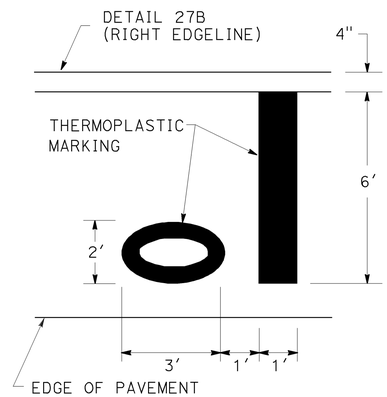


ROUTE 132
PM 5.8/7.1 (LOCATION 2)



AREA = 6 SQFT
AREA = 2.37 SQFT

Rte 132 EB-PM T6.1



AREA = 6 SQFT
AREA = 2.27 SQFT

Rte 132 EB-PM 7.1

AIRCRAFT PATROL THERMOPLASTIC PAVEMENT MARKING DETAILS

NOTE: ALL MARKINGS FOR THIS DETAIL SHALL BE WHITE.

TYPICAL CROSS SECTIONS AND CONSTRUCTION DETAILS

NO SCALE

X-1

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
THOA HUYNH	JOSE A ALICEA II	TH	12/17/09

FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE
Caltrans

LAST REVISION | DATE PLOTTED => 01-FEB-2010 | TIME PLOTTED => 13:37 | 00-00-00

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s123936
DGN FILE => a0u000ca001.dgn

CU 10604

EA 0U0001

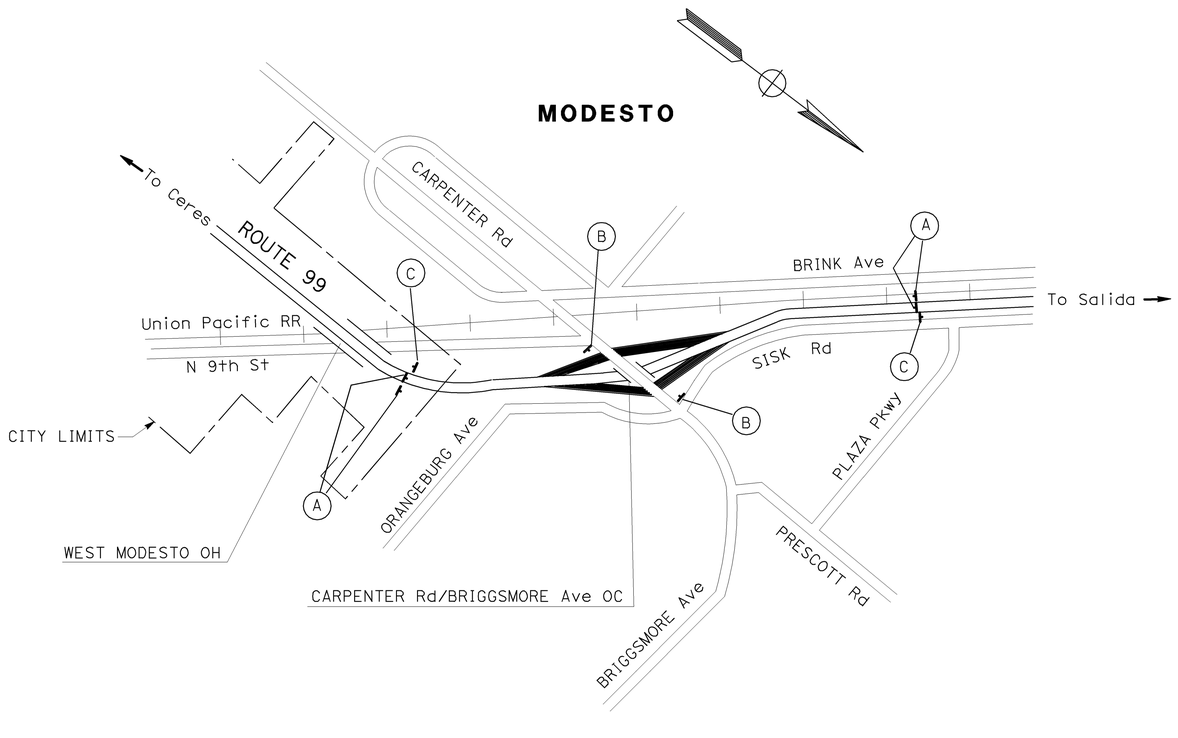
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7, 5.8/7.1	3	14

REGISTERED CIVIL ENGINEER 1/19/10 DATE

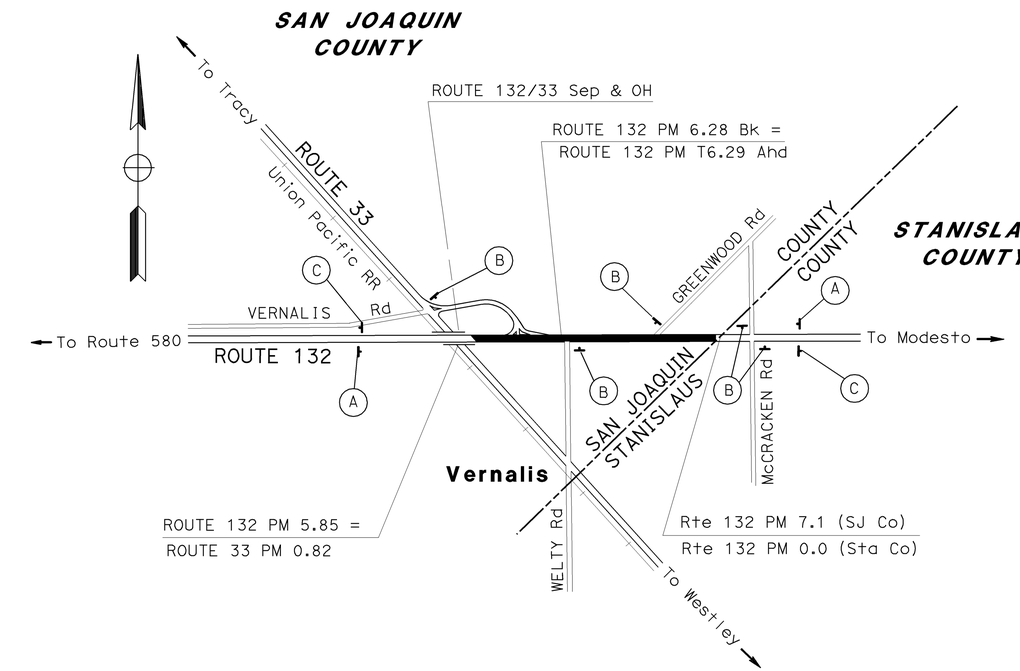
2/1/10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSE A. ALICEA II No. 64817 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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



LOCATION 1



LOCATION 2

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. #	SIGN CODE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS	SIGN MESSAGE
A	W20-1	48" x 48"	1 - 4" x 6"	6	ROAD WORK AHEAD
B	W20-1	36" x 36"	1 - 4" x 6"	7	ROAD WORK AHEAD
C	G20-2	36" x 18"	1 - 4" x 4"	4	END ROAD WORK

NOTE: EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
CALCULATED-DESIGNED BY: THOA HUYNH
CHECKED BY: JOSE A ALICEA
REVISED BY: TH
DATE REVISED: 12/17/09

LAST REVISION 00-00-00
DATE PLOTTED => 01-FEB-2010
TIME PLOTTED => 13:40

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => s123936
DGN FILE => a0u0001a001.dgn
CU 10604
EA 0U0001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7, 5.8/7.1	4	14

REGISTERED CIVIL ENGINEER — 1/19/10 DATE

2/1/10
PLANS APPROVAL DATE

JOSE A. ALICEA II No. 64817 Exp. 6/30/11 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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

NOTES:

1. (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY
2. TRAFFIC MANAGEMENT SYSTEM ELEMENTS LOCATIONS ARE APPROX.

TRAFFIC MANAGEMENT SYSTEM ELEMENTS (EXISTING)

Loc	COUNTY	ROUTE	PM	DESCRIPTION	TYPE	DESCRIPTION
1	Sta	99	M18.36	SB ON-RAMP FROM CARPENTER Rd/BRIGGSMORE ve	SIGNAL	SIGNAL
	Sta	99	M18.67	SB OFF-RAMP TO CARPENTER Rd/BRIGGSMORE Ave	SIGNAL	SIGNAL
	Sta	99	M18.38	NB OFF-RAMP TO CARPENTER Rd/BRIGGSMORE Ave	SIGNAL	SIGNAL
	Sta	99	M18.65	NB ON-RAMP FROM CARPENTER Rd/BRIGGSMORE Ave	SIGNAL	SIGNAL
	Sta	99	M18.56	INTERSECTION OF ORANGEBURG Ave/SISK Rd & CARPENTER d/BRIGGSMORE Ave	SIGNAL	SIGNAL
2	SJ	132	T6.06	EAST OF ROUTE 33/132 SEPARATION	TMS	TRAFFIC MONITORING STATION

ROADWAY ITEMS

Loc	PM	DESCRIPTION	LENGTH (N)	WIDTH (N)	DEPTH (N)	COLD PLANE AC Pvmt	HMA (TYPE A)	TACK COAT	ASPHALTIC EMULSION (FOG SEAL)
						SQYD	TON	TON	TON
1	M18.36	SB ON-RAMP FROM CARPENTER Rd/BRIGGSMORE Ave	1287′	20′-75′	0.25′	2683	453	8	4
	M18.38	NB OFF-RAMP TO CARPENTER Rd/BRIGGSMORE Ave	1320′	16′-54′	0.25′	3218	544		
	M18.65	NB ON-RAMP FROM CARPENTER Rd/BRIGGSMORE Ave	1630′	16′-71′	0.25′	3484	588		
	M18.67	SB OFF-RAMP TO CARPENTER Rd/BRIGGSMORE Ave	1300′	16′-80′	0.25′	3834	648		
2	5.8/7.11	TRAVEL WAY	6494′	11′	0.25′	15,876	2680	8	6
				TOTAL		29,095	4913	16	10

PAVEMENT DELINEATION ITEMS

LOCATION	REMOVE THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)									REMOVE PAVEMENT MARKERS (N)	PAVEMENT MARKERS (RETROREFLECTIVE)			REMOVE THERMOPLASTIC PAVEMENT MARKINGS (N)		THERMOPLASTIC PAVEMENT MARKINGS								
		4" WHITE				8" WHITE	4" YELLOW					4" WHITE	8" WHITE	4" YELLOW			AIRCRAFT PATROL	SIGNAL	AHEAD	LIMIT LINE	TYPE I 24′-0" ARROW	TYPE III (L) ARROW	TYPE III (B) ARROW	TYPE V ARROW	TYPE VI ARROW
	DETAIL 38	DETAIL 8	DETAIL 9	DETAIL 27B	DETAIL 27C	DETAIL 38	DETAIL 19	DETAIL 22	DETAIL 25A	DETAIL 32		TYPE G	TYPE G	TYPE H	SIGNAL AHEAD LIMIT LINE ARROWS	AIRCRAFT PATROL								
												DETAIL 9	DETAIL 38	DETAIL 25A										
	LF	LF									EA	EA			SQFT		SQFT							
1	3160	350	975	5857		1580			2861			25	72	125	1211			64	62	448	93	168	292		84
2				12,199	395	698	238	4980		2228	222					24	24					126		99	
SUBTOTAL	3160	350	975	18,056	395	2278	238	4980	2861	2228		25	72	125			24	64	62	448	93	294	292	99	84
TOTAL	3160	32,361										222					1460							

SUMMARY OF QUANTITIES
Q-1

CALCULATED-DESIGNED BY	THOA HUYNH		
CHECKED BY	JOSE A ALICEA II	1/19/10	TH
FUNCTIONAL SUPERVISOR	ALVIN MANGINDIN	DATE REVISED	REVISED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — MAINTENANCE — Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 08-FEB-2010 | TIME PLOTTED => 12:14

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s123936 | DGN FILE => a0u000pa001.dgn | CU 10604 | EA 0U0001

NOTES: (FOR SHEETS E-1, E-2 AND E-3)

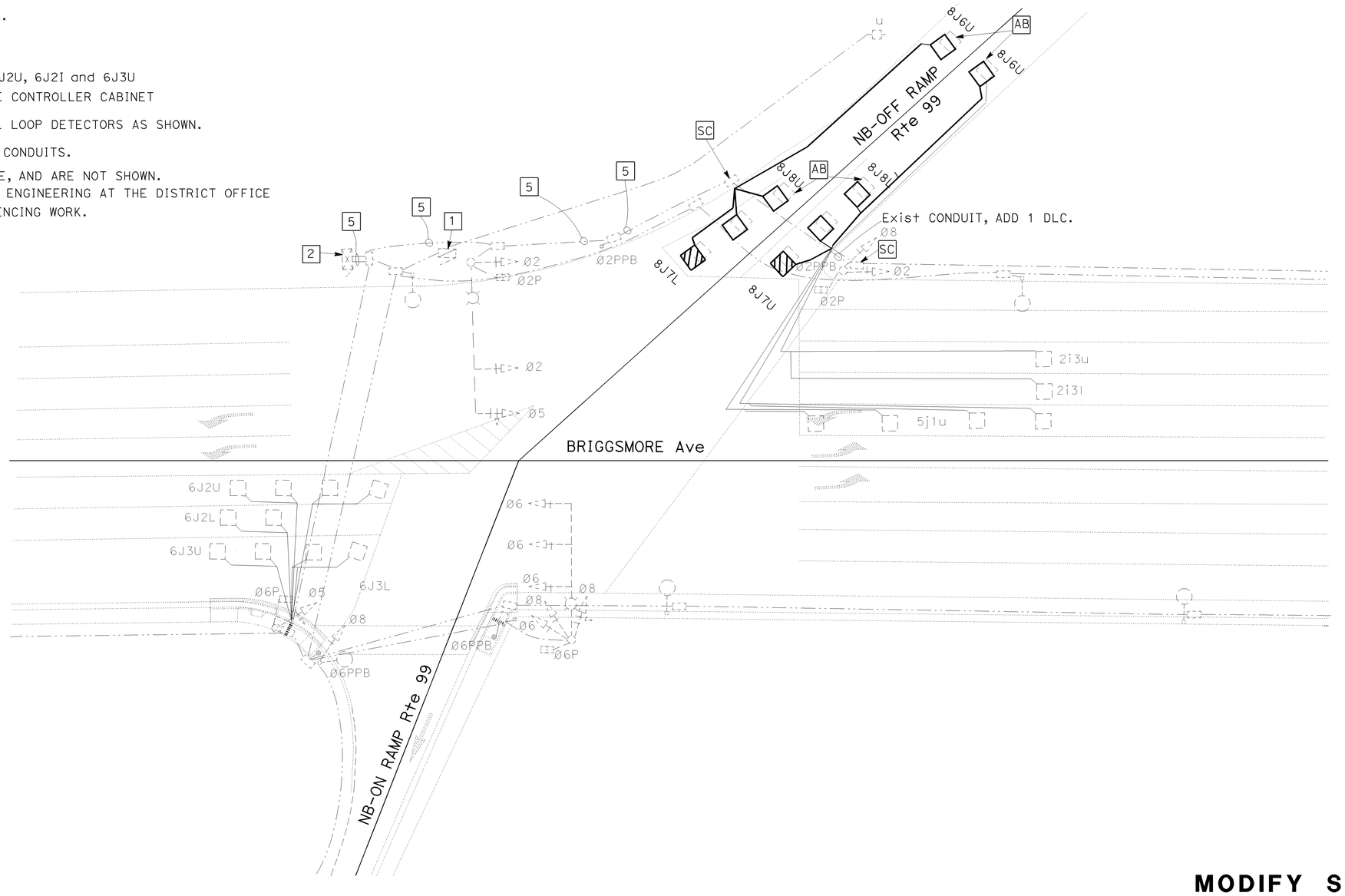
1. Exist 120/240 V, 1Ø, 3-WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE.
2. Exist MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
3. 120/240 V, 1Ø, 3-WIRE, TYPE A SERVICE WITH FOLLOWING CIRCUITS :

AMPERES	VOLTS	POLES	NAME PLATE	METER	PEC TYPE
60	240	2	MAIN BREAKER	YES	—
30	240	2	LTG	YES	IV
15	120	1	TMS	YES	—
15	120	1	SPARE	YES	—

4. RC Exist TYPE A SERVICE INSTALLATION.
5. Exist CONDUIT, ADD 3 DLC.
6. SC IN SERIES Exist LOOP DETECTORS 6J2U, 6J2l and 6J3U AND TERMINATE dlc ACOORDINGLY IN THE CONTROLLER CABINET
7. AB Exist LOOP DETECTORS AND INSTALL LOOP DETECTORS AS SHOWN.
8. PREVENT DAMAGE TO Exist TERMINATION CONDUITS.
9. RIGHT OF WAY LIMITS ARE INDETERMINATE, AND ARE NOT SHOWN. THE CONTACTOR MUST CONTACT RIGHT OF ENGINEERING AT THE DISTRICT OFFICE FOR CONDITIONS OF USE PRIOR TO COMMENCING WORK.

ABBREVIATIONS

PG&E - PACIFIC GAS AND ELECTRIC



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

MODIFY SIGNAL
(LOCATION 1)

NO SCALE

E-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta, SJ	99, 132	M18.3/M18.7, 5.8/7.1	5	14

REGISTERED ELECTRICAL ENGINEER — 1/19/10

PLANS APPROVAL DATE — 2/1/10

REGISTERED PROFESSIONAL ENGINEER — JASPAL SINGH — No. 16657 — Exp.6/30/10 — ELECTRICAL — STATE OF CALIFORNIA

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

CALCULATED-DESIGNED BY	JS	1/19/10
CHECKED BY	JASPAL SINGH	
REVISED BY		
DATE REVISED		
FUNCTIONAL SUPERVISOR	ALI BAKHDOUD	
QUALITY ASSURANCE BY	FRED IYASERE	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 01-FEB-2010 | TIME PLOTTED => 14:19

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s123936 | DGN FILE => a0u000ua001.dgn | CU06391 | EA 0U0001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta, SJ	99, 132	M18.3/M18.7, 5.8/7.1	6	14

REGISTERED ELECTRICAL ENGINEER — 1/19/10

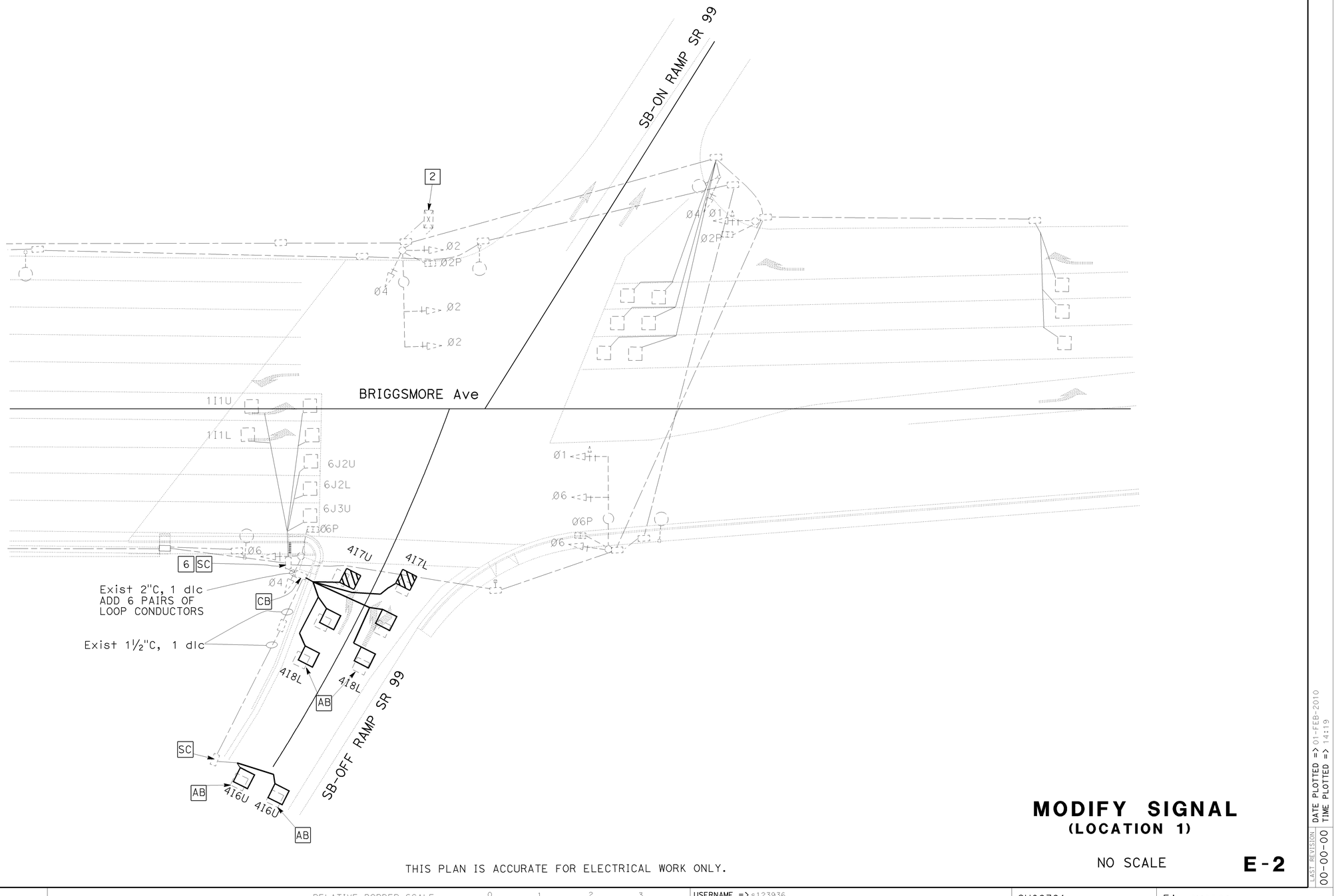
PLANS APPROVAL DATE — 2/1/10

JASPAL SINGH No. 16657 Exp.6/30/10 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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

NOTES:

1. FOR ADDITIONAL NOTES SEE SHEET E-1.
2. RIGHT OF WAY LIMITS ARE INDETERMINATE, AND ARE NOT SHOWN. THE CONTACTOR MUST CONTACT RIGHT OF ENGINEERING AT THE DISTRICT OFFICE FOR CONDITIONS OF USE PRIOR TO COMMENCING WORK.



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

MODIFY SIGNAL
(LOCATION 1)

NO SCALE

E-2

CALCULATED-DESIGNED BY	REVISED BY	JS	1/19/10
CHECKED BY	DATE REVISED		
JASPAL SINGH			
FRED IYASERE			

FUNCTIONAL SUPERVISOR: ALI BAKHOUD

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 01-FEB-2010 | TIME PLOTTED => 14:19

BORDER LAST REVISED 4/11/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s123936 | DGN FILE => a0u000ua002.dgn | CU06391 | EA 0U0001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta, SJ	99, 132	M18.3/M18.7, 5.8/7.1	7	14

1/19/10
REGISTERED ELECTRICAL ENGINEER

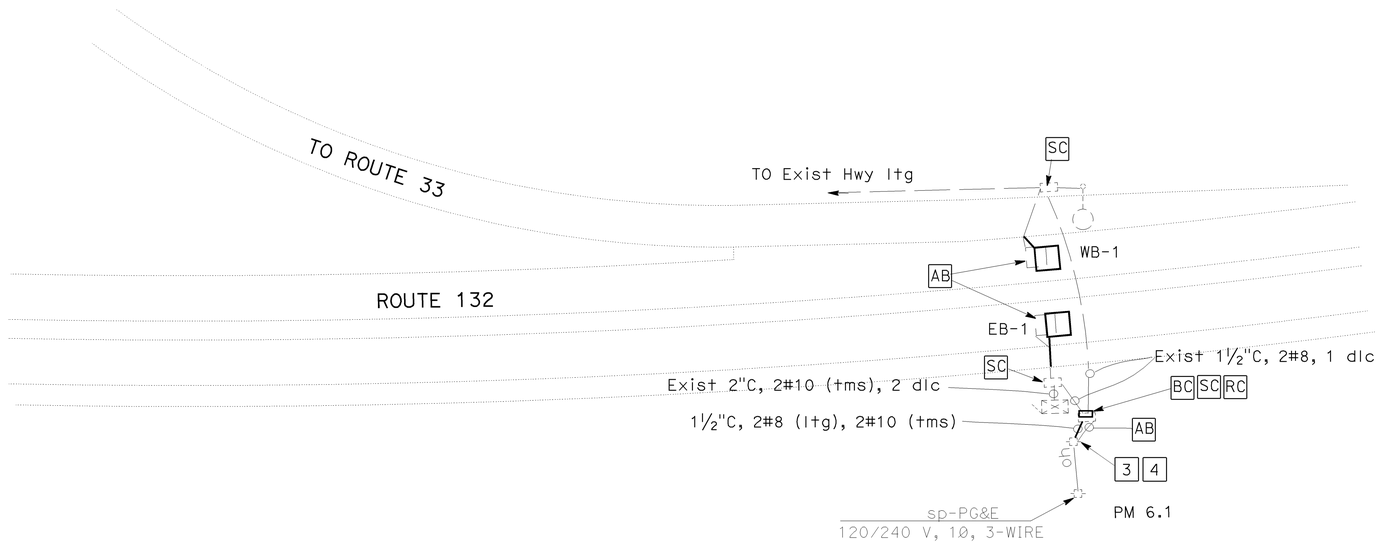
2/1/10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
No. 16657
Exp.6/30/10
ELECTRICAL
STATE OF CALIFORNIA

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

NOTES:

1. FOR ADDITIONAL NOTES SEE SHEET E-1.
2. RIGHT OF WAY LIMITS ARE INDETERMINATE, AND ARE NOT SHOWN. THE CONTACTOR MUST CONTACT RIGHT OF ENGINEERING AT THE DISTRICT OFFICE FOR CONDITIONS OF USE PRIOR TO COMMENCING WORK.



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

MODIFY COUNT STATION

NO SCALE

E-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD

CALCULATED-DESIGNED BY: JASPAL SINGH
CHECKED BY: FRED IYASERE

REVISED BY: JS
DATE REVISED: 1/19/10

LAST REVISION | DATE PLOTTED => 03-FEB-2010
00-00-00 | TIME PLOTTED => 14:55

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s123936
DGN FILE => a0u000ua003.dgn

CU06391

EA 0U0001

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7, 5.8/7.1	8	14

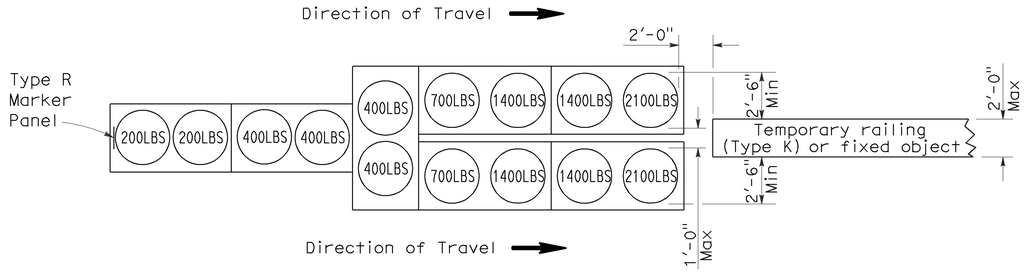
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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

To accompany plans dated 2/1/10

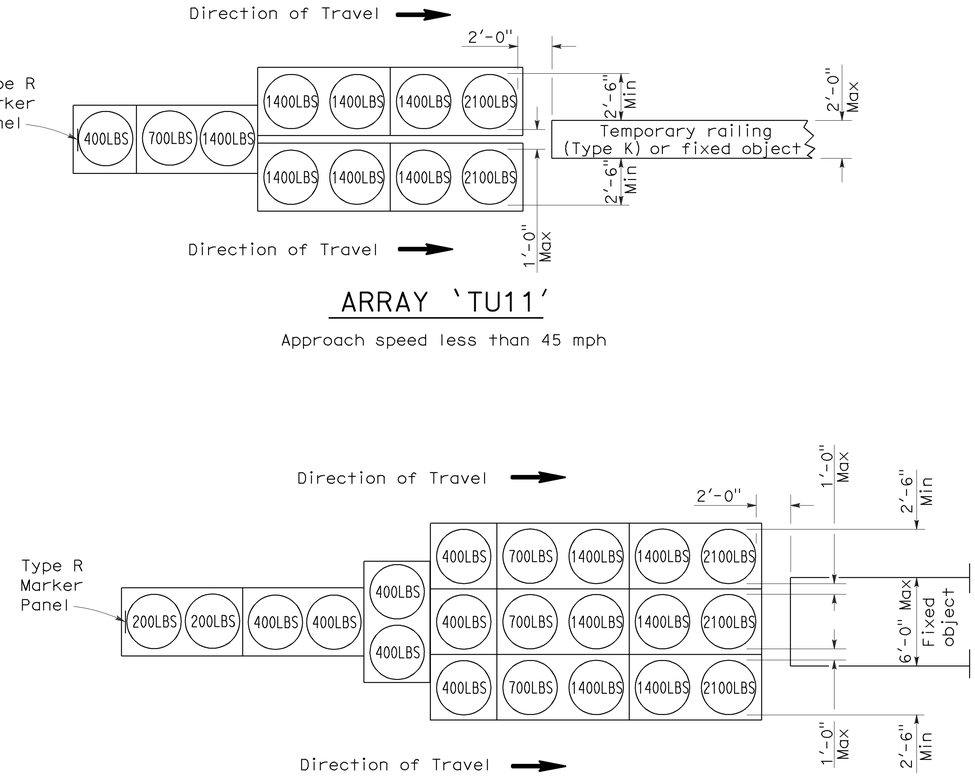


ARRAY 'TU14'

Approach speed 45 mph or more

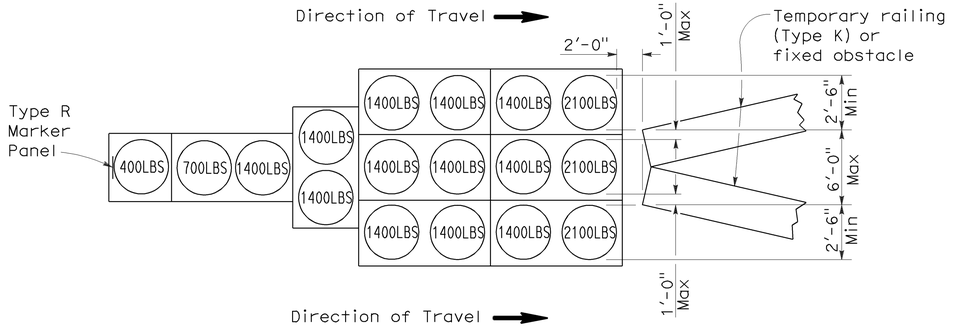
ARRAY 'TU11'

Approach speed less than 45 mph



ARRAY 'TU21'

Approach speed 45 mph or more

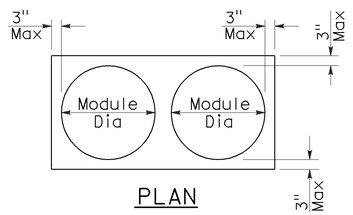


ARRAY 'TU17'

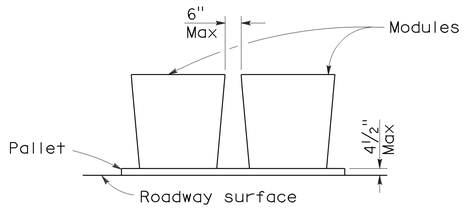
Approach speed less than 45 mph

NOTES:

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



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7, 5.8/7.1	9	14

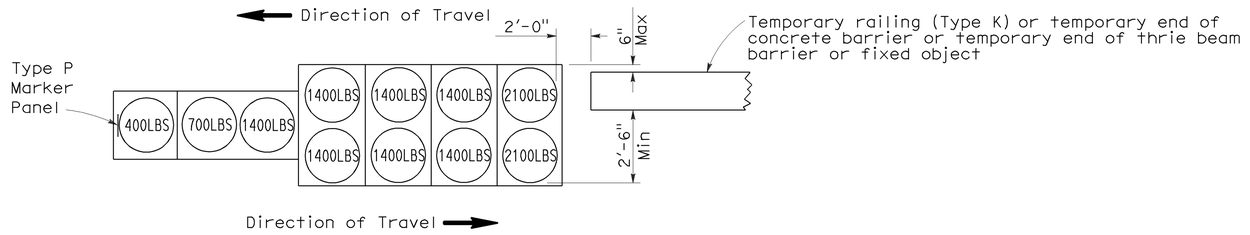
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

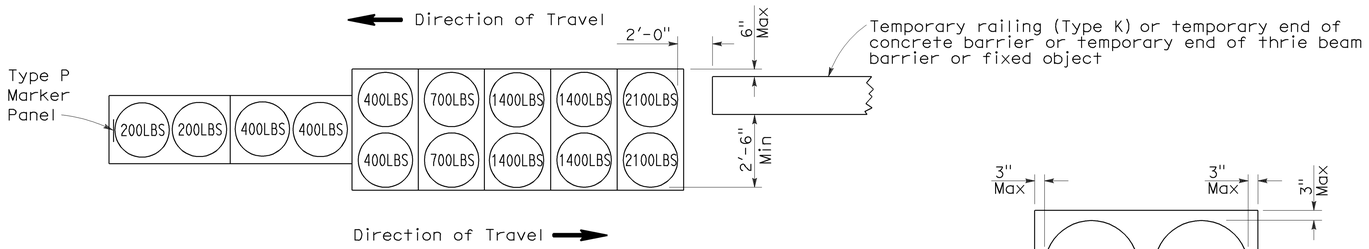
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 2/1/10



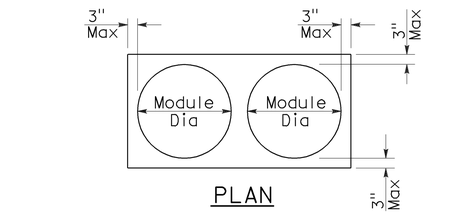
ARRAY 'TB11'

Approach speed less than 45 mph



ARRAY 'TB14'

Approach speed 45 mph or more



CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7, 5.8/7.1	10	14

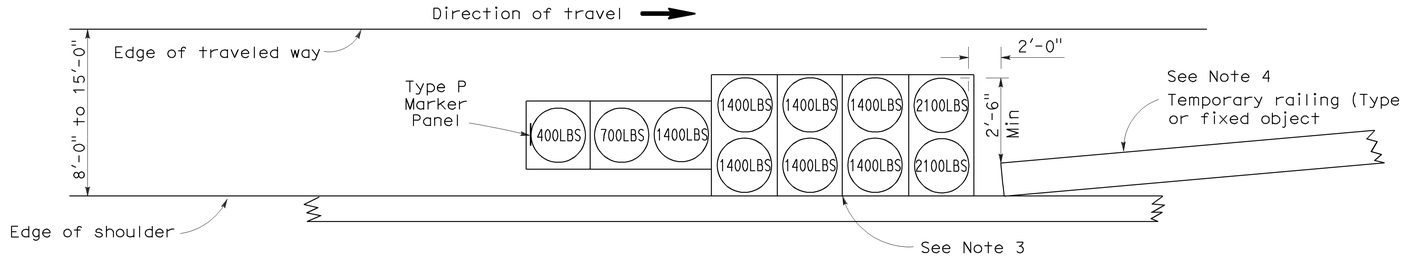
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

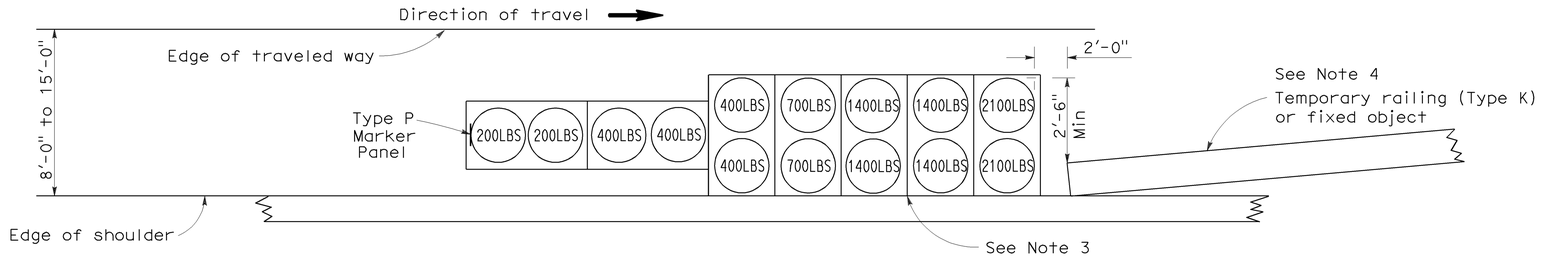
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 2/1/10



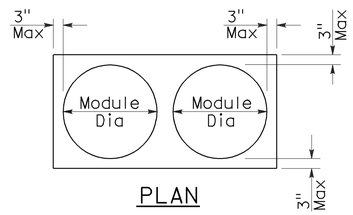
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

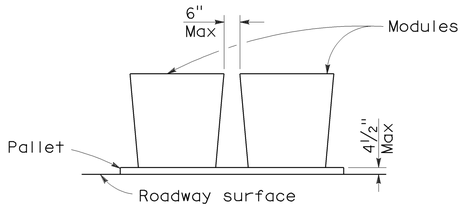


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7 5.8/7.1	11	14

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

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

October 5, 2007
PLANS APPROVAL DATE

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

To accompany plans dated 2/1/10

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

NOTES:

1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
3. Variations noted adjacent to symbol on project plans.

Electrolier (see project notes or project plans)

Luminaire on wood pole

STANDARD NOTES:

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

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

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

SOFFIT AND WALL MOUNTED LUMINAIRES

Pendant, 70 W HPS unless otherwise specified.

Flush, 70 W HPS unless otherwise specified.

Wall surface, 70 W HPS unless otherwise specified.

Existing soffit or wall luminaire to remain unmodified.

Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M19.7, 5.8/7.1	12	14

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

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

October 5, 2007
PLANS APPROVAL DATE

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

To accompany plans dated 2/1/10

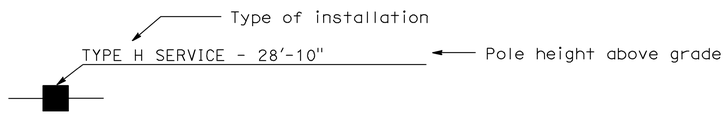
CONDUIT

PROPOSED	EXISTING	
— — —	— — —	Lighting Conduit, unless otherwise indicated or noted
— - — - —	— - — - —	Traffic signal conduit
—C— —	—c— —	Communication conduit
—T— —	—t— —	Telephone conduit
—F— —	—f— —	Fire alarm conduit
—FO— —	—fo— —	Fiber optic conduit
— — —]	— — —]	Conduit termination (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

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

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

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

SIGNAL EQUIPMENT

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

SIGNAL EQUIPMENT Cont

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1B

2006 REVISED STANDARD PLAN RSP ES-1B

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7 5.8/7.1	13	14

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

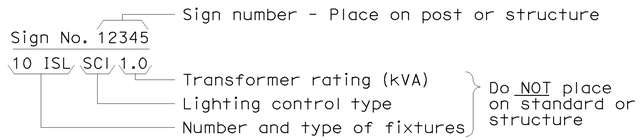
REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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

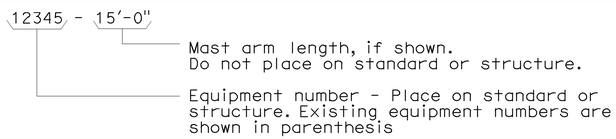
To accompany plans dated 2/1/10

EQUIPMENT IDENTIFICATION

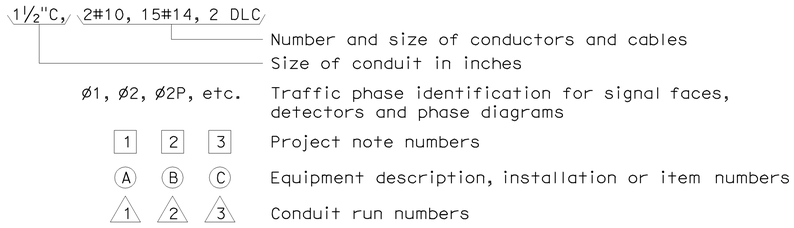
ILLUMINATED SIGN IDENTIFICATION NUMBER:



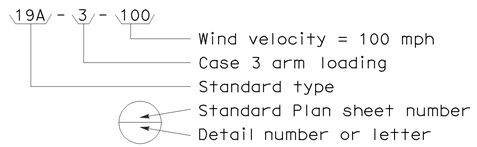
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



CONDUIT AND CONDUCTOR IDENTIFICATION:

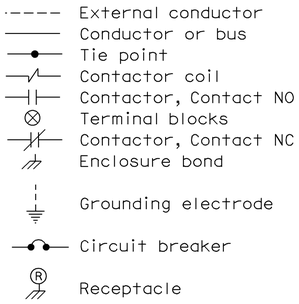


SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)



PULL BOXES

PROPOSED EXISTING

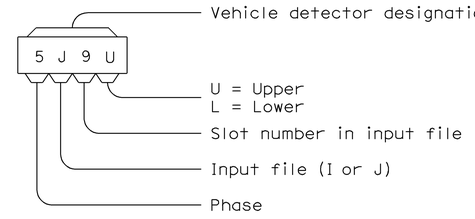
Pull box-No. 5 unless otherwise indicated or noted.

Pull box-Additional designations or descriptions

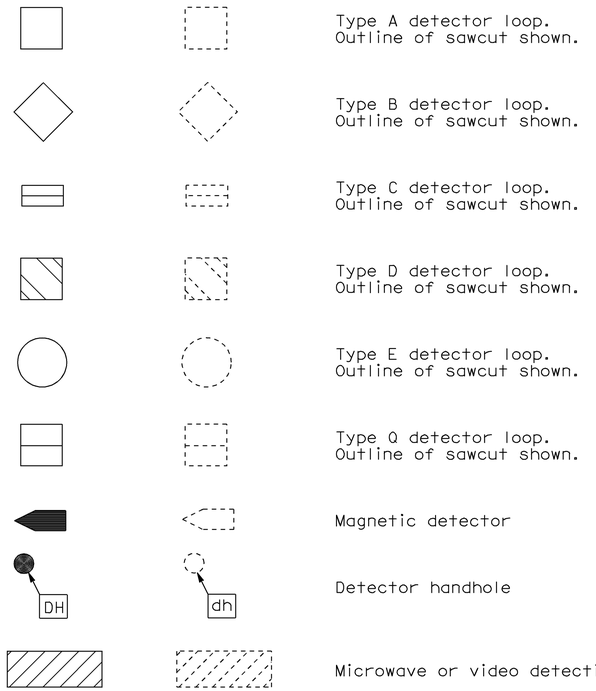
- (C) = Communications pull box
- (E) = Pull box with extension
- (S) = Sprinkler control pull box
- (21) = Anchor bolts and conduit for future installation of Type 21 Standard
- (T) = Traffic pull box

- 3 = No. 3½ pull box
- 5 = No. 5 pull box
- 6 = No. 6 pull box
- 7 = No. 7 (Ceiling pull box)
- 8 = No. 8 (Pendant soffit pull box)
- 9 = No. 9 pull box
- 9A = No. 9A pull box

VEHICLE DETECTORS

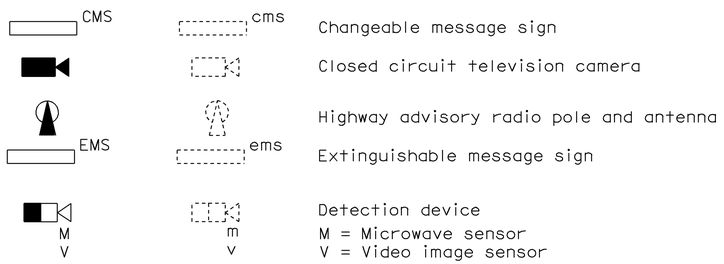


PROPOSED EXISTING



MISCELLANEOUS EQUIPMENT

PROPOSED EXISTING



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ, Sta	99, 132	M18.3/M18.7, 5.8/7.1	14	14

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

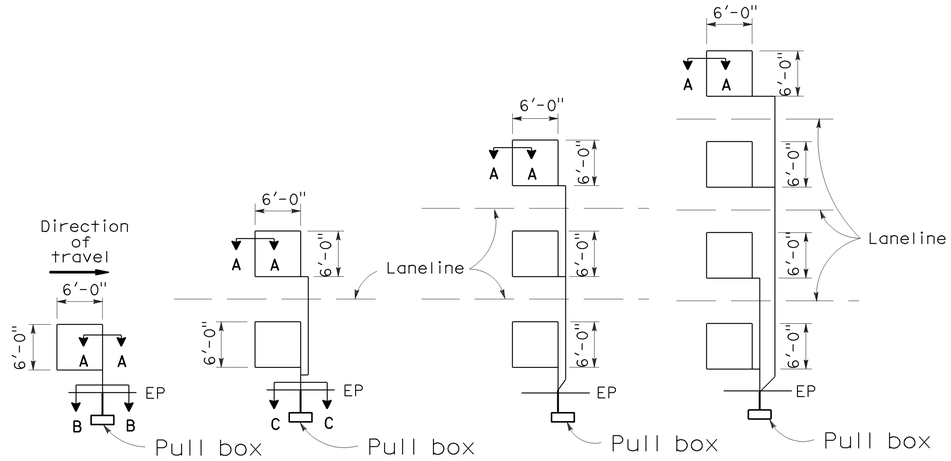
REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

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

To accompany plans dated 2/1/10

LOOP INSTALLATION PROCEDURE

1. Loops shall be centered in lanes.
2. Saw slots in pavement for loop conductors as shown in details.
3. Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
4. Bottom of saw slot shall be smooth with no sharp edges.
5. Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
6. Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
7. Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
8. Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
9. No more than 2 twisted pairs shall be installed in one sawed slot.
10. Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
11. The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
12. Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
13. Fill slots as shown in details.
14. Splice loop conductors to lead-in-cable. Splices shall be soldered.
15. End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
16. Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
17. Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
18. Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.

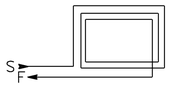


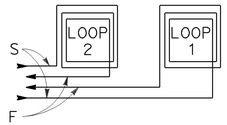
TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

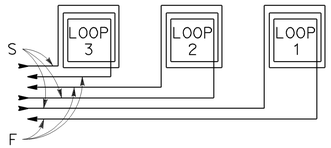
SAWCUT DETAILS

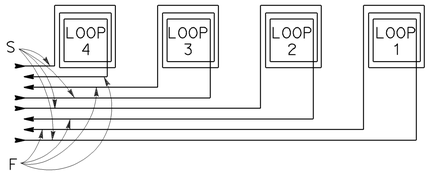
(Type A loop detector configurations illustrated)

1. 1A thru 4A = 1 Type A loop configuration in each lane.
2. 1B thru 4B = 1 Type B loop configuration in each lane.
3. 1C = 1 Type C loop configuration entering lanes as required.
4. 1D thru 4D = 1 Type D loop configuration in each lane.
5. 1E thru 4E = 1 Type E loop configuration in each lane.
6. 1Q thru 4Q = 1 Type Q loop configuration in each lane. (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



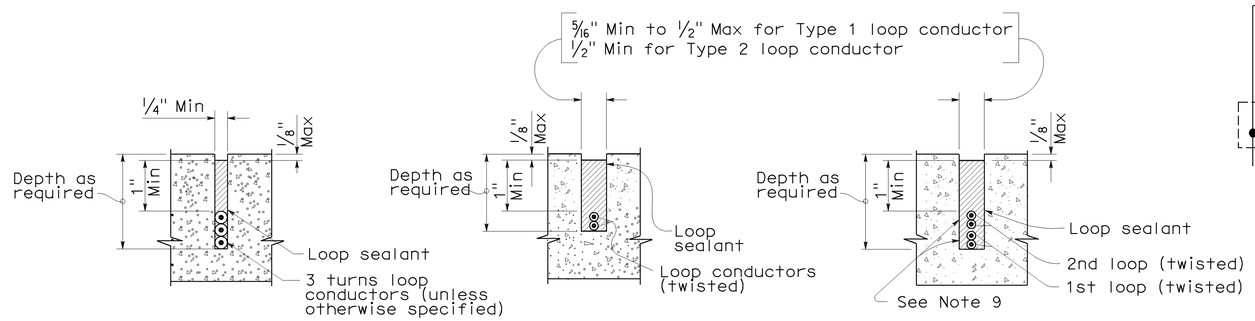






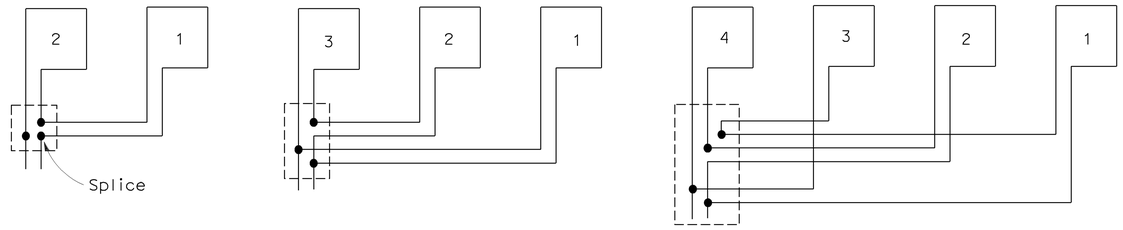
WINDING DETAILS

See Notes 6 and 7



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

SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A
DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A

8-17-07