STP-000C(342)E

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	1	81

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN PLACER AND EL DORADO COUNTIES AT VARIOUS LOCATIONS

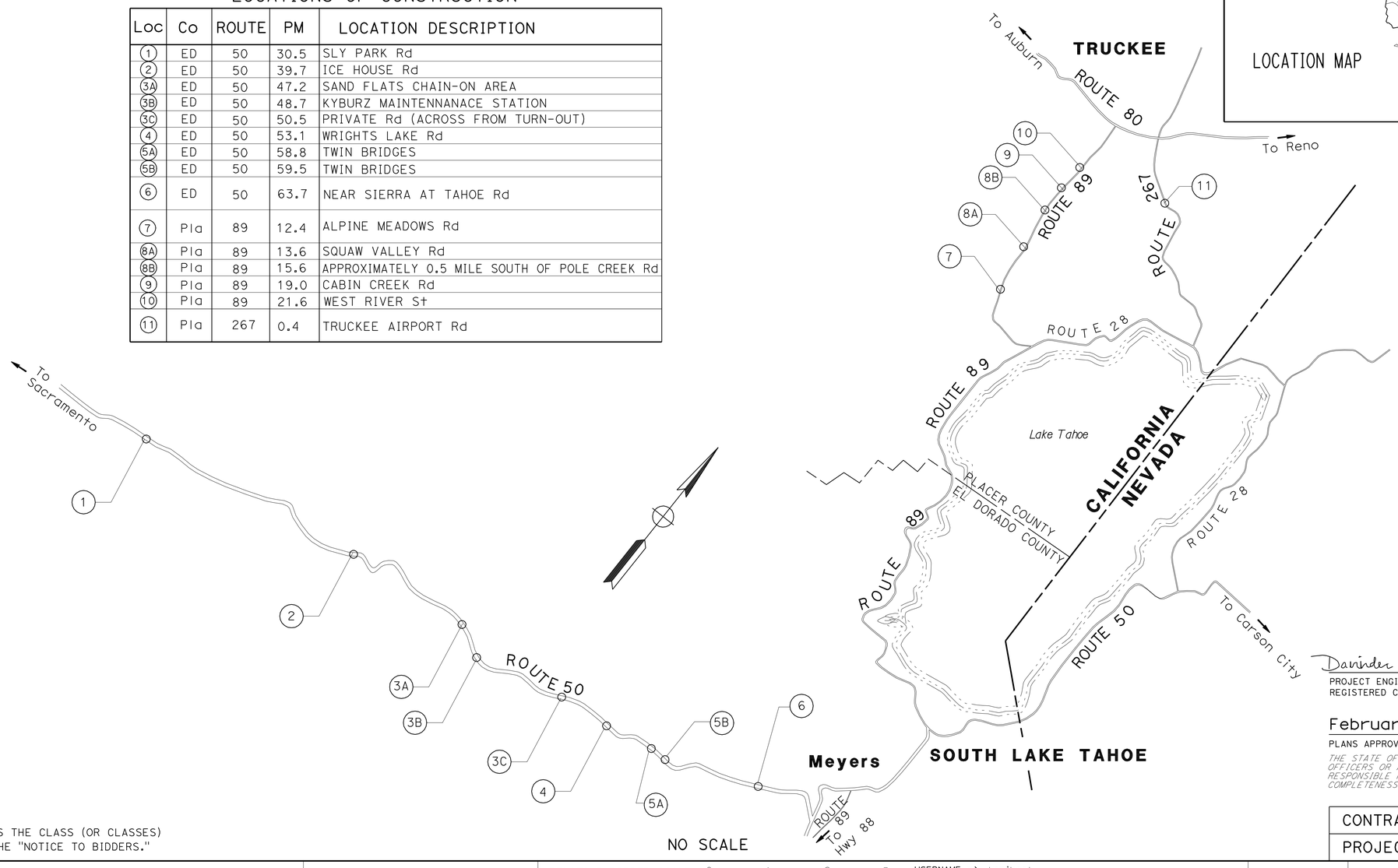
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

INDEX OF PLANS

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

LOCATIONS OF CONSTRUCTION

Loc	Co	ROUTE	PM	LOCATION DESCRIPTION
(1)	ED	50	30.5	SLY PARK Rd
(2)	ED	50	39.7	ICE HOUSE Rd
(3A)	ED	50	47.2	SAND FLATS CHAIN-ON AREA
(3B)	ED	50	48.7	KYBURZ MAINTENNANACE STATION
(3C)	ED	50	50.5	PRIVATE Rd (ACROSS FROM TURN-OUT)
(4)	ED	50	53.1	WRIGHTS LAKE Rd
(5A)	ED	50	58.8	TWIN BRIDGES
(5B)	ED	50	59.5	TWIN BRIDGES
(6)	ED	50	63.7	NEAR SIERRA AT TAHOE Rd
(7)	Pla	89	12.4	ALPINE MEADOWS Rd
(8A)	Pla	89	13.6	SQUAW VALLEY Rd
(8B)	Pla	89	15.6	APPROXIMATELY 0.5 MILE SOUTH OF POLE CREEK Rd
(9)	Pla	89	19.0	CABIN CREEK Rd
(10)	Pla	89	21.6	WEST RIVER St
(11)	Pla	267	0.4	TRUCKEE AIRPORT Rd



Davinder Minhas 8-23-10
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
CIVIL
STATE OF CALIFORNIA

February 28, 2011
PLANS APPROVAL DATE

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

CONTRACT No.	03-1C1124
PROJECT ID	0300000233

PROJECT MANAGER: C. PERI
DESIGN ENGINEER: C. HUI

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

LAST REVISION 00-00-00
DATE PLOTTED => 04-MAY-2011
TIME PLOTTED => 06:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	2	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
CIVIL
STATE OF CALIFORNIA

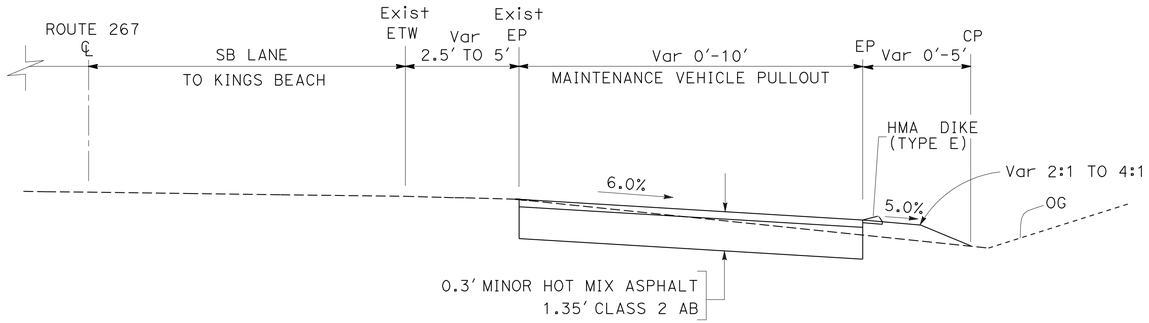
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

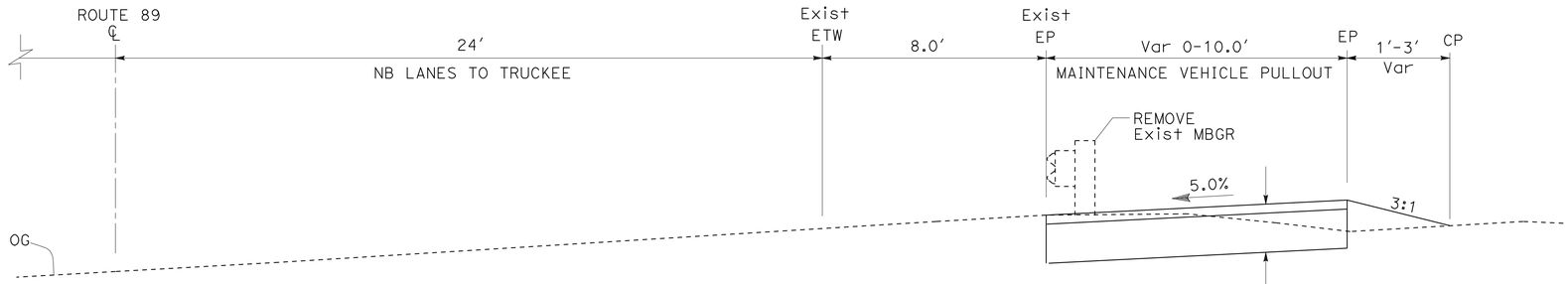
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.

ABBREVIATION:

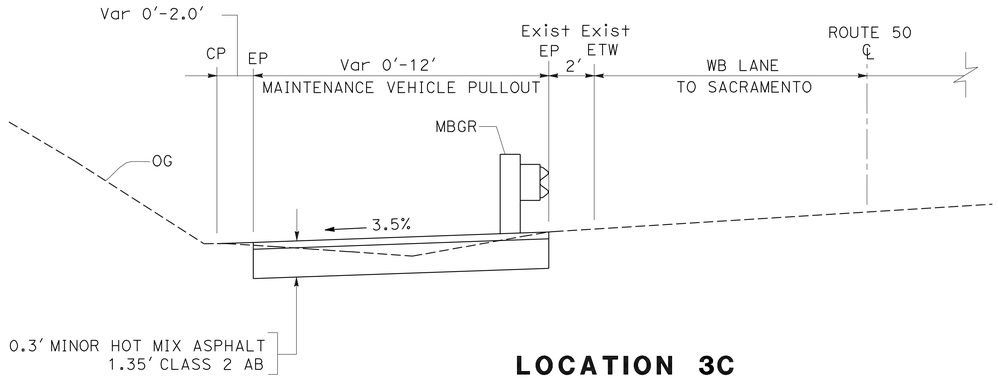
CP - CATCH POINT



LOCATION 11
TRUCKEE AIRPORT ROAD



LOCATION 7
ALPINE MEADOWS ROAD



LOCATION 3C
PRIVATE ROAD

TYPICAL CROSS SECTION
NO SCALE

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: D.MINHAS
CHECKED BY: C. HUI
FUNCTIONAL SUPERVISOR: CYRUS HUI

LAST REVISION DATE PLOTTED => 01-MAR-2011
00-00-00 TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ca001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	3	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
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.

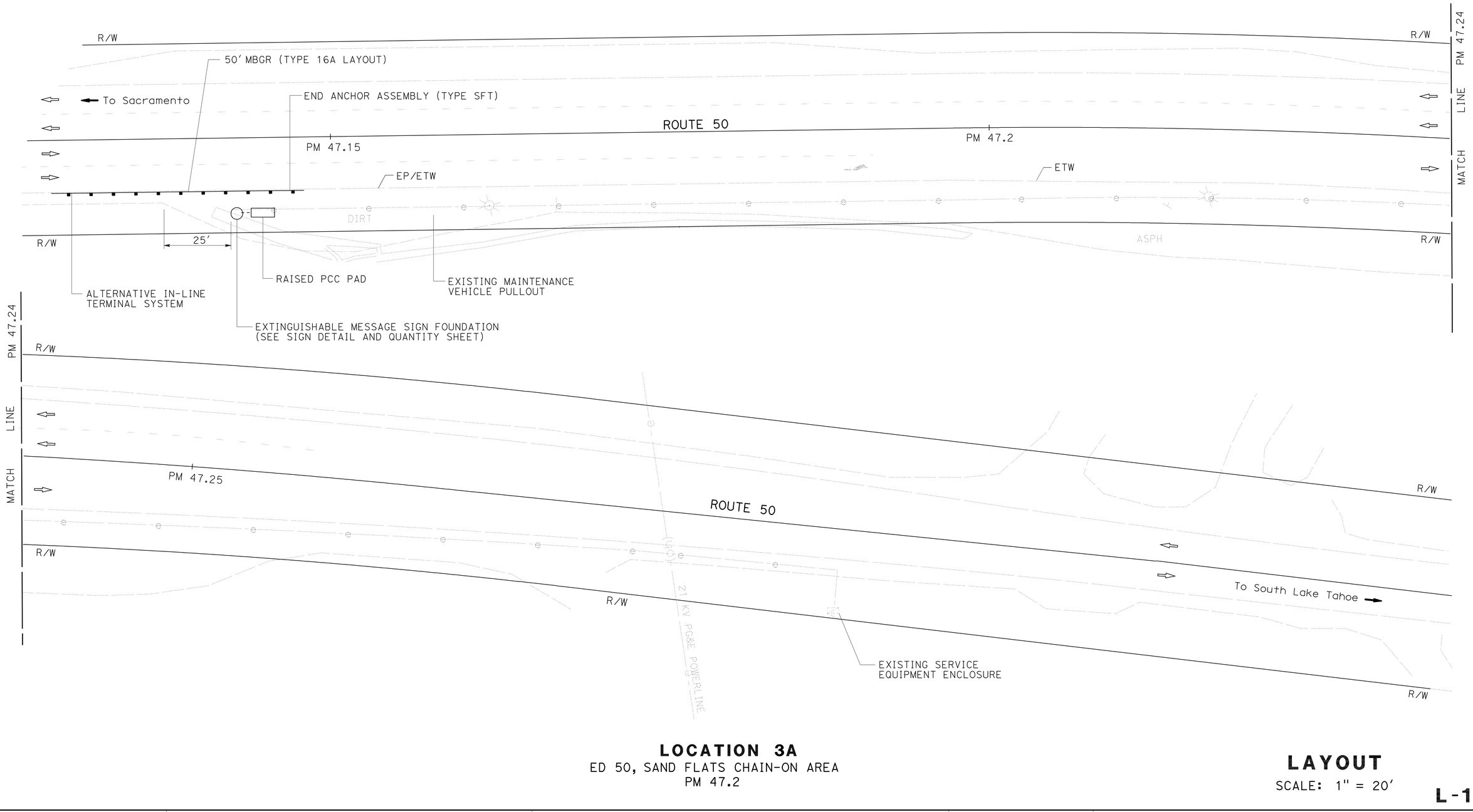
NOTES:

1. FOR ACCURATE RIGHT OF WAY, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE SHEET C-1 FOR DETAILS.
3. EXACT LOCATION OF MBGR, TRENCH/BORE, SIGN FOUNDATIONS, POLE FOUNDATIONS AND MAINTENANCE VEHICLE PULLOUTS TO BE DETERMINED BY THE ENGINEER.

LEGEND:

— - - - — TRENCHING/BORING

—●— TFESA TEMPORARY FENCE (TYPE ESA)



LOCATION 3A

ED 50, SAND FLATS CHAIN-ON AREA
PM 47.2

LAYOUT

SCALE: 1" = 20'

L-1

REVISED BY | DATE REVISED
D.MINHAS | C. HUI
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: CYRUS HUI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

LAST REVISION DATE PLOTTED => 01-MAR-2011
00-00-00 TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ea001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	4	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

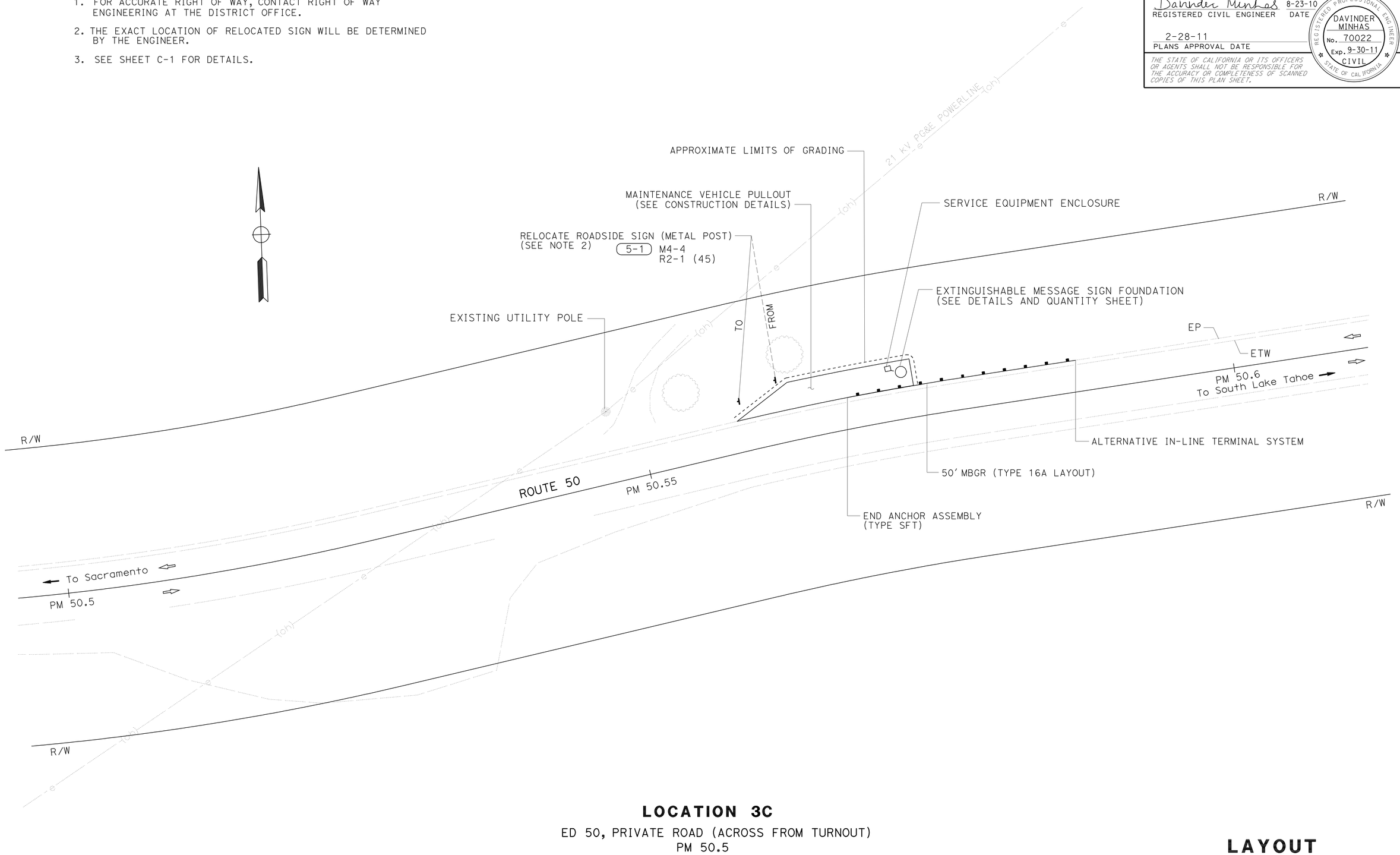
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVINDER MINHAS — No. 70022 — Exp. 9-30-11 — 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. FOR ACCURATE RIGHT OF WAY, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. THE EXACT LOCATION OF RELOCATED SIGN WILL BE DETERMINED BY THE ENGINEER.
3. SEE SHEET C-1 FOR DETAILS.



LOCATION 3C

ED 50, PRIVATE ROAD (ACROSS FROM TURNOUT)
PM 50.5

LAYOUT

SCALE: 1" = 20'

L-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

Caltrans

FUNCTIONAL SUPERVISOR: CYRUS HUI
CALCULATED-DESIGNED BY: D.MINHAS
CHECKED BY: C. HUI
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-MAR-2011
00-00-00 TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ea002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	5	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

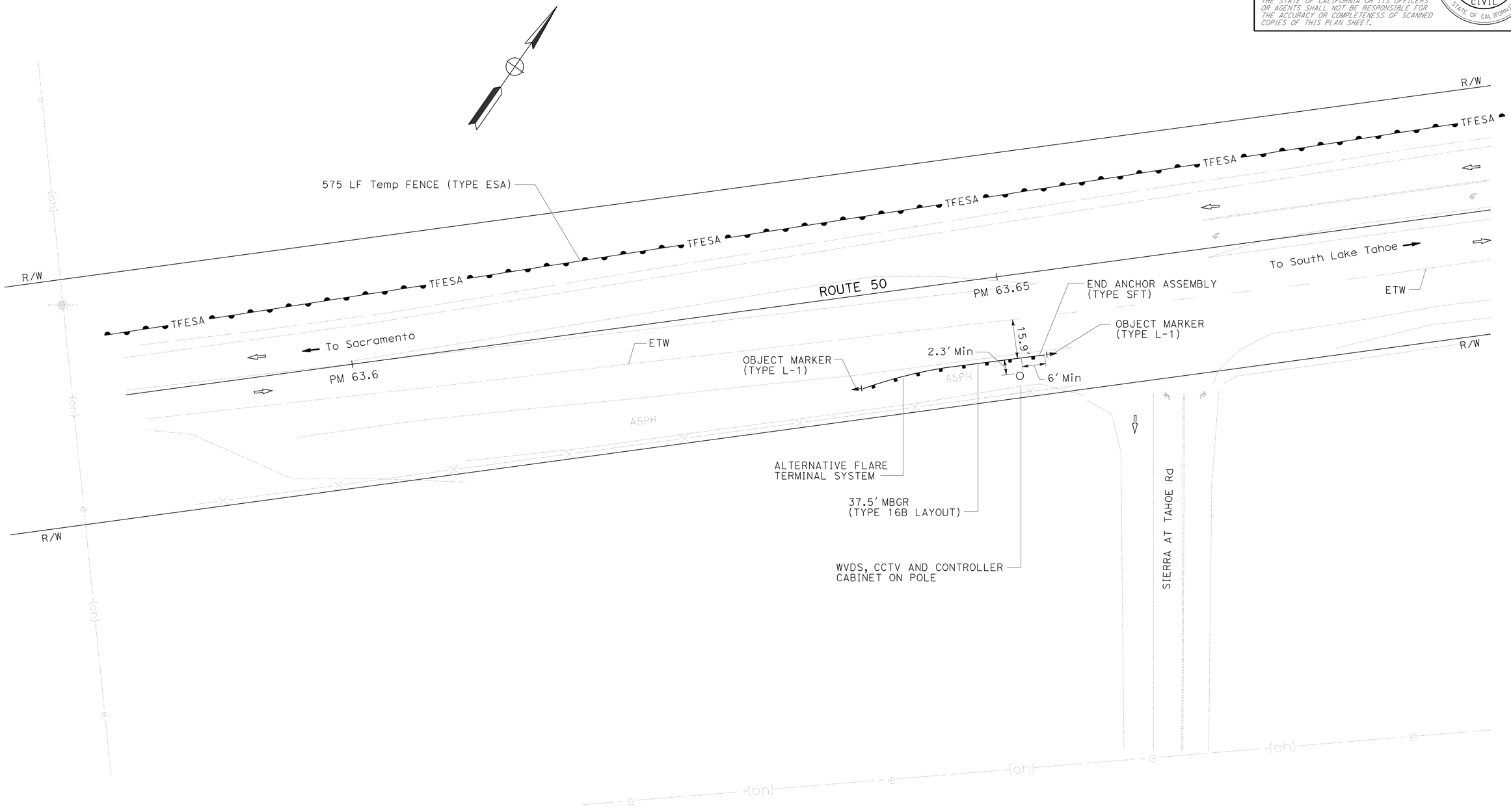
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
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.

NOTE:

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



LOCATION 6

ED 50, NEAR SIERRA AT TAHOE ROAD
PM 63.7

LAYOUT

SCALE: 1" = 20'

L-3

REVISED BY	D.MINHAS
DATE REVISED	
CALCULATED-DESIGNED BY	C. HUI
CHECKED BY	
FUNCTIONAL SUPERVISOR	CYRUS HUI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	NORTH REGION OFFICE OF DESIGN, WEST DESIGN BRANCH S7

LAST REVISION 00-00-00 | DATE PLOTTED => 01-MAR-2011 | TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ea003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	6	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

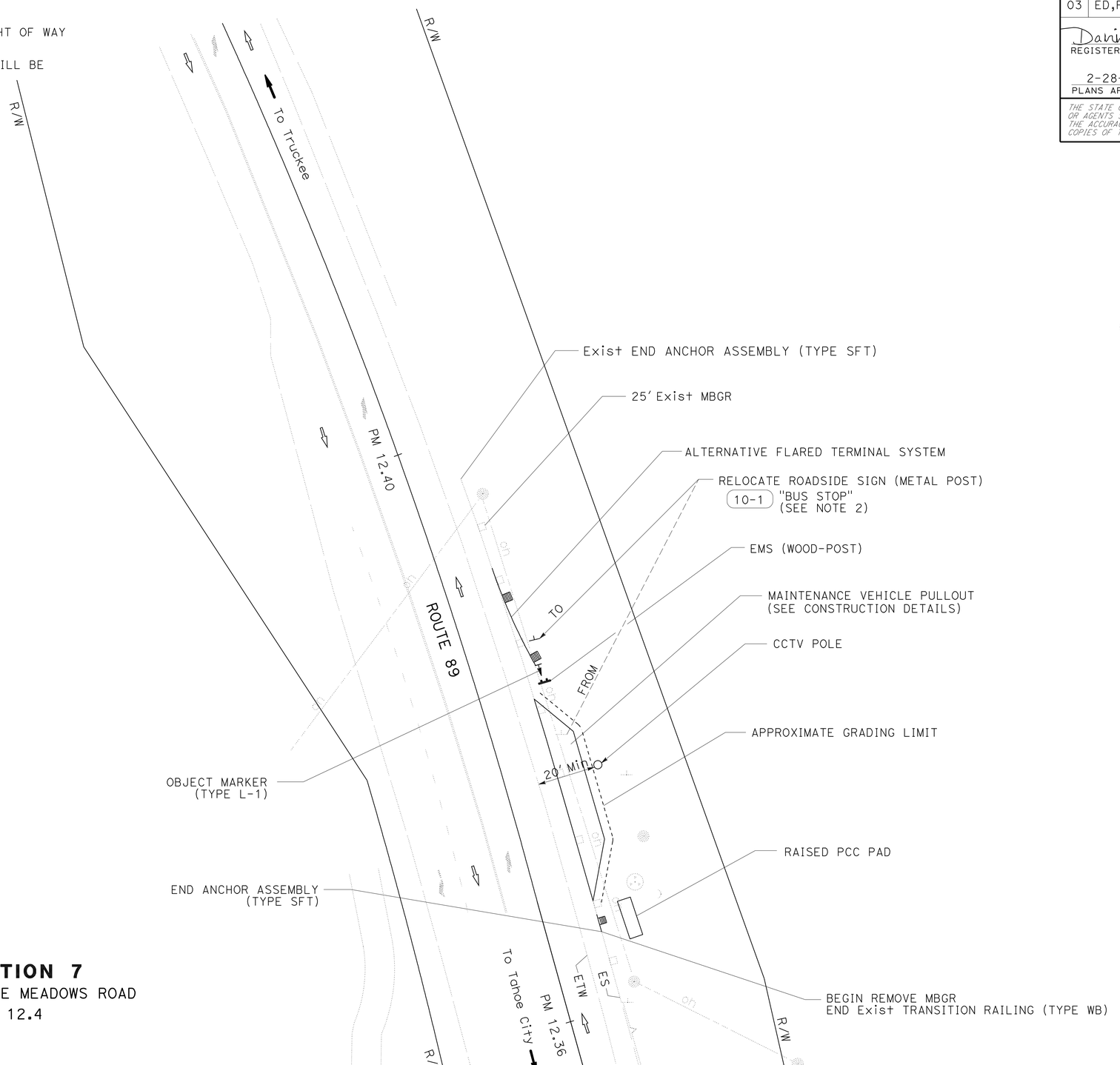
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVINDER MINHAS — No. 70022 — Exp. 9-30-11 — 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. FOR ACCURATE RIGHT OF WAY, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. THE EXACT LOCATION OF RELOCATED SIGN WILL BE DETERMINED BY THE ENGINEER.
3. SEE SHEET C-2 FOR DETAILS.



LOCATION 7
Pla 89, ALPINE MEADOWS ROAD
PM 12.4

LAYOUT
SCALE: 1" = 20'

L-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7
Caltrans

FUNCTIONAL SUPERVISOR: CYRUS HUI
CALCULATED-DESIGNED BY: D.MINHAS
CHECKED BY: C. HUI
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ea004.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	7	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

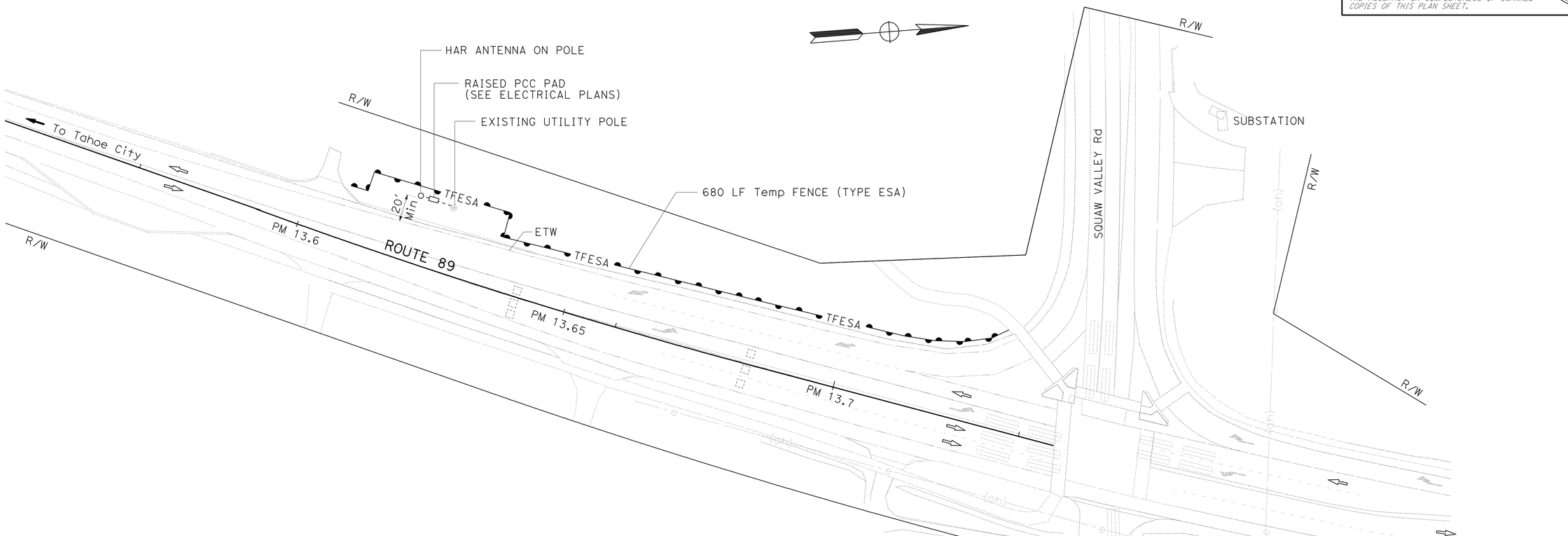
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
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.

NOTE:

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



LOCATION 8A
Pla 89, SQUAW VALLEY ROAD
PM 13.6

LAYOUT
SCALE: 1" = 50'

L-5

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: D.MINHAS
CHECKED BY: C. HUI
FUNCTIONAL SUPERVISOR: CYRUS HUI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

LAST REVISION 00-00-00
DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ea005.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	8	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

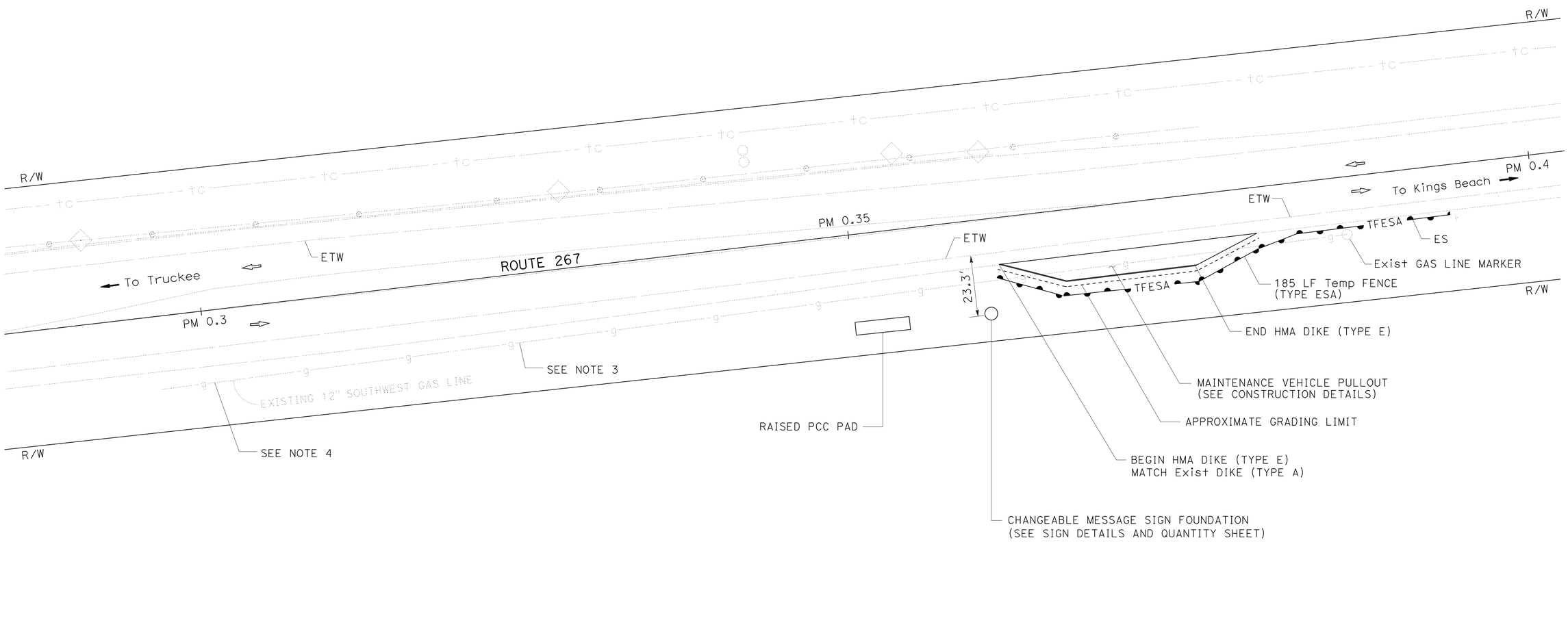
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
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. FOR ACCURATE RIGHT OF WAY, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE SHEET C-2 FOR DETAILS.
3. MAINTAIN A MINIMUM OF 2′ HORIZONTAL AND 1′ VERTICAL CLEARANCE BETWEEN EXISTING GAS LINE AND NEW UNDERGROUND ELECTRICAL LINE. THE FINAL LOCATION OF THE TRENCH TO BE DETERMINED BY THE ENGINEER.
4. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED.



LOCATION 11
Pla 267, TRUCKEE AIRPORT ROAD
PM 0.40

LAYOUT
SCALE: 1" = 20′

L-6

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: D.MINHAS
CHECKED BY: C. HUI
FUNCTIONAL SUPERVISOR: CYRUS HUI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

LAST REVISION | DATE PLOTTED => 01-MAR-2011
00-00-00 | TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ea006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	9	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

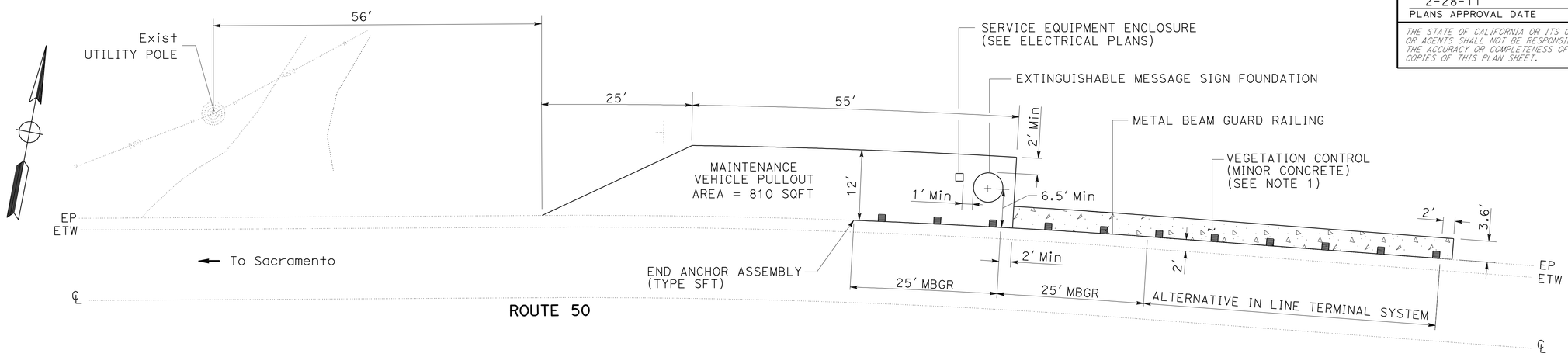
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
CIVIL
STATE OF CALIFORNIA

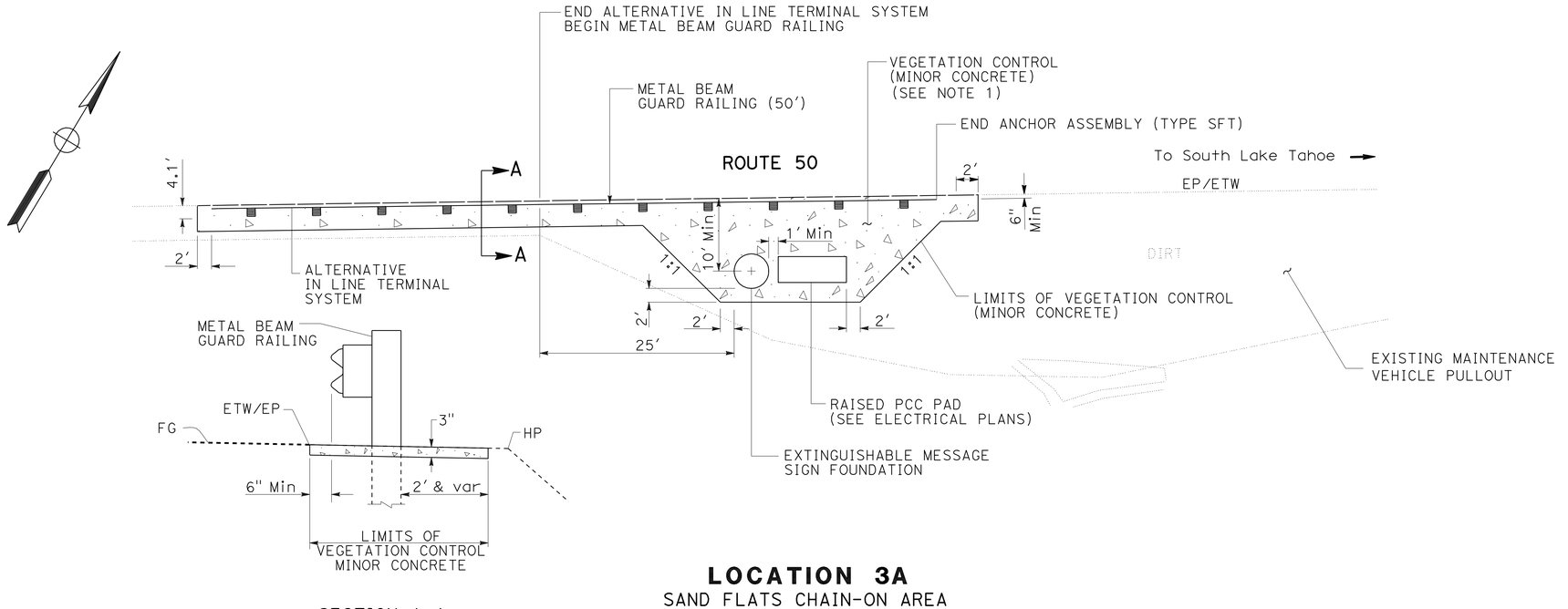
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. SEE NSP A77C5, NSP A77C6, AND NSP A77C8 FOR VEGETATION CONTROL (MINOR CONCRETE) DETAILS.



LOCATION 3C
PRIVATE ROAD (ACROSS FROM TURNOUT)



SECTION A-A

LOCATION 3A
SAND FLATS CHAIN-ON AREA

CONSTRUCTION DETAILS
NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7
Caltrans

FUNCTIONAL SUPERVISOR: CYRUS HUI
CALCULATED-DESIGNED BY: D.MinHAS
CHECKED BY: C. HUI
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-MAR-2011
00-00-00 TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ga001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

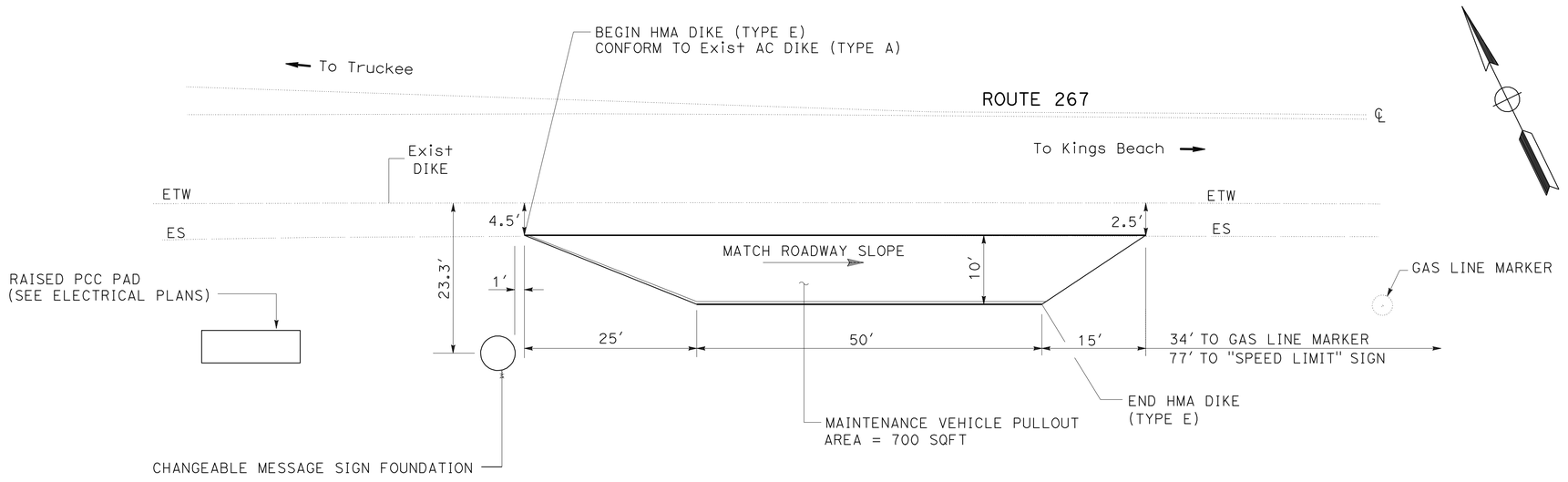
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	10	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

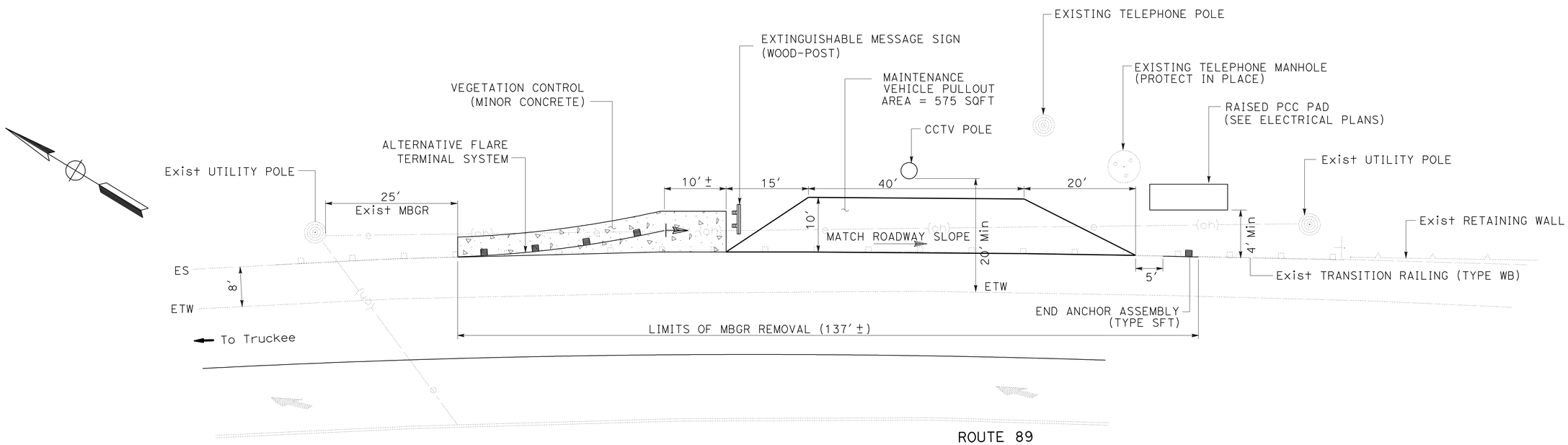
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVINDER MINHAS No. 70022 Exp. 9-30-11 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 11
TRUCKEE AIRPORT ROAD



LOCATION 7
ALPINE MEADOWS ROAD

CONSTRUCTION DETAILS
NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

FUNCTIONAL SUPERVISOR: CYRUS HUI
CALCULATED-DESIGNED BY: D.MINHAS
CHECKED BY: C. HUI
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 09:48
00-00-00

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ga002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

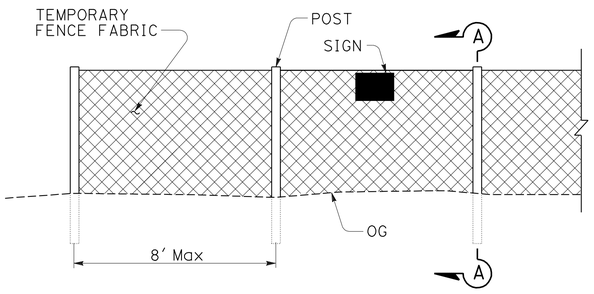
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	11	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

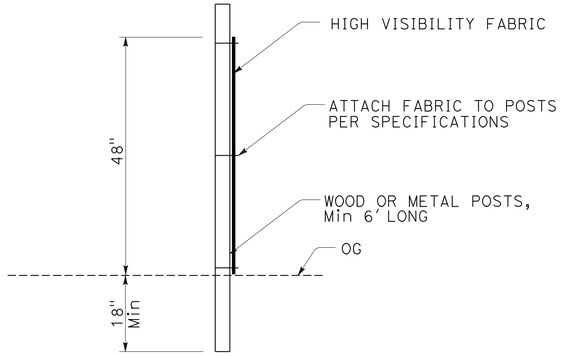
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVINDER MINHAS — No. 70022 — Exp. 9-30-11 — CIVIL — STATE OF CALIFORNIA

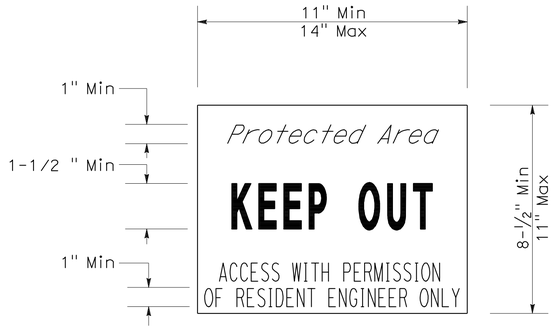
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



ELEVATION



SECTION A-A



ESA SIGN DETAIL

(SIGNS SHALL HAVE BLACK LETTERS ON WHITE BACKGROUND)

LOCATIONS AND DESCRIPTION OF WORK

Loc	Co	ROUTE	PM	LOCATION DESCRIPTION	DESCRIPTION OF WORK
1	ED	50	30.5	SLY PARK Rd	INSTALL ETR ON EXISTING CMS
2	ED	50	39.7	ICE HOUSE Rd	INSTALL WVDS WITH CONTROLLER CABINET ON NEW POLE, WVDS SENSOR NODES
3A	ED	50	47.2	SAND FLATS CHAIN-ON AREA	INSTALL ETR ON NEW EMS. INSTALL EMS CABINET, INSTALL MBGR
3B	ED	50	48.7	KYBURZ MAINTENNANACE STATION	INSTALL HAR CABINET AND POLE FOR ANTENNA
3C	ED	50	50.5	PRIVATE Rd (ACROSS FROM TURN-OUT)	INSTALL EMS, SERVICE CABINET, MBGR, CONSTRUCT MAINTENANCE VEHICLE PULLOUT
4	ED	50	53.1	WRIGHTS LAKE Rd	INSTALL WVDS ON NEW POLE WITH CONTROLLER CABINET, WVDS SENSOR NODES
5A	ED	50	58.8	TWIN BRIDGES	INSTALL ETR ON TYPE 15 STANDARD WITH CONTROLLER
5B	ED	50	59.5	TWIN BRIDGES	INSTALL CCTV ON NEW POLE, CCTV CABINET, BORING, TRENCH
6	ED	50	63.7	NEAR SIERRA AT TAHOE Rd	INSTALL WVDS AND CCTV ON NEW POLE WITH CONTROLLER CABINET INSTALL MBGR, WVDS SENSOR NODES
7	Pla	89	12.4	ALPINE MEADOWS Rd	INSTALL CCTV AND CAMERA ON NEW POLE, EMS, TMS LOOPS, TRENCH, CABINETS (SERVICE, TMS, CCTV, TELEPHONE) CONSTRUCT MAINTENANCE VEHICLE PULLOUT, MBGR
8A	Pla	89	13.6	SQUAW VALLEY Rd	INSTALL HAR ANTENNA ON NEW POLE, CABINETS (SERVICE, HAR)
8B	Pla	89	15.6	APROXIMATELY 0.5 MILE SOUTH OF POLE CREEK Rd	INSTALL EMS, TMS LOOPS, CABINETS (SERVICE, TMS)
9	Pla	89	19.0	CABIN CREEK Rd	INSTALL TMS LOOPS AND CONTROLLER CABINET, TRENCH
10	Pla	89	21.6	WEST RIVER St	INSTALL CCTV ON EXISTING SIGNAL POLE, CCTV CABINET, TRENCH
11	Pla	267	0.4	TRUCKEE AIRPORT Rd	INSTALL CMS, TMS LOOPS, CABINETS (SERVICE, TMS, CMS, TELEPHONE) CONSTRUCT MAINTENANCE VEHICLE PULLOUT

CONSTRUCTION DETAILS

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7
Caltrans
FUNCTIONAL SUPERVISOR: CYRUS HUI
CALCULATED-DESIGNED BY: D.MinHAS
CHECKED BY: C. HUI
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-MAR-2011
00-00-00 TIME PLOTTED => 09:48

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 03000000233ga003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	12	81

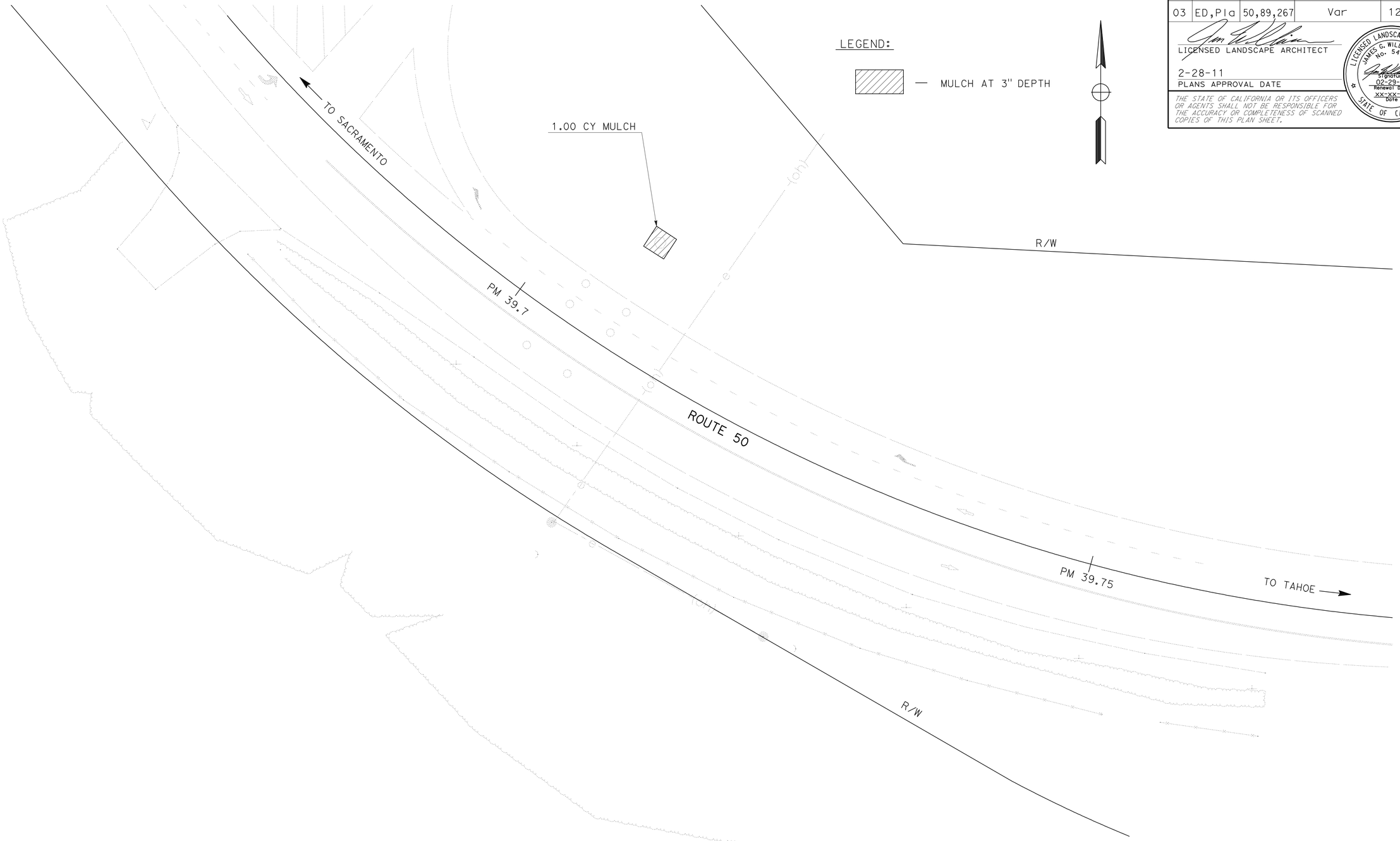
LICENSED LANDSCAPE ARCHITECT

2-28-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA

LEGEND:

MULCH AT 3" DEPTH



(LOCATION 2)

(ED 50, Ice House Rd)

(PM 39.7)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN

SCALE 1" = 20"

EC-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: J. WILLIAMSON
CHECKED BY: K. MURRAY

SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
LANDSCAPE ARCHITECTURE

LAST REVISION | DATE PLOTTED => 01-MAR-2011
07-21-10 | TIME PLOTTED => 09:49

BORDER LAST REVISED 7/2/2010

USERNAME => trlenard
DGN FILE => 0300000233ge001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0381

PROJECT NUMBER & PHASE 03000002322

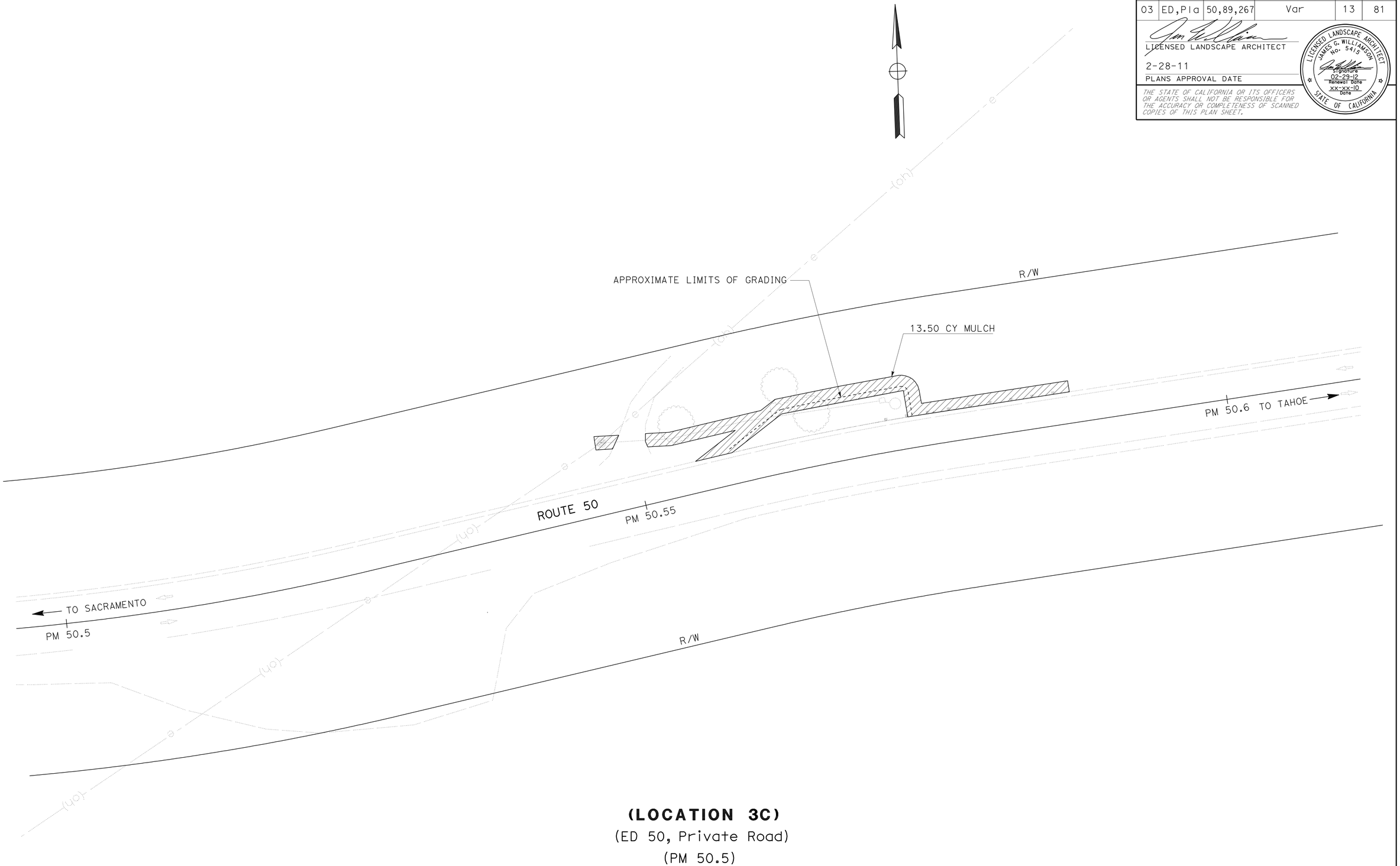
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	13	81

LICENSED LANDSCAPE ARCHITECT

2-28-11

PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA



(LOCATION 3C)

(ED 50, Private Road)

(PM 50.5)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN

SCALE 1" = 20"

EC-2

LAST REVISION | DATE PLOTTED => 01-MAR-2011 | TIME PLOTTED => 10:17 | 08-11-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY

CALCULATED-DESIGNED BY: J. WILLIAMSON
CHECKED BY: K. MURRAY

REVISED BY | DATE REVISED

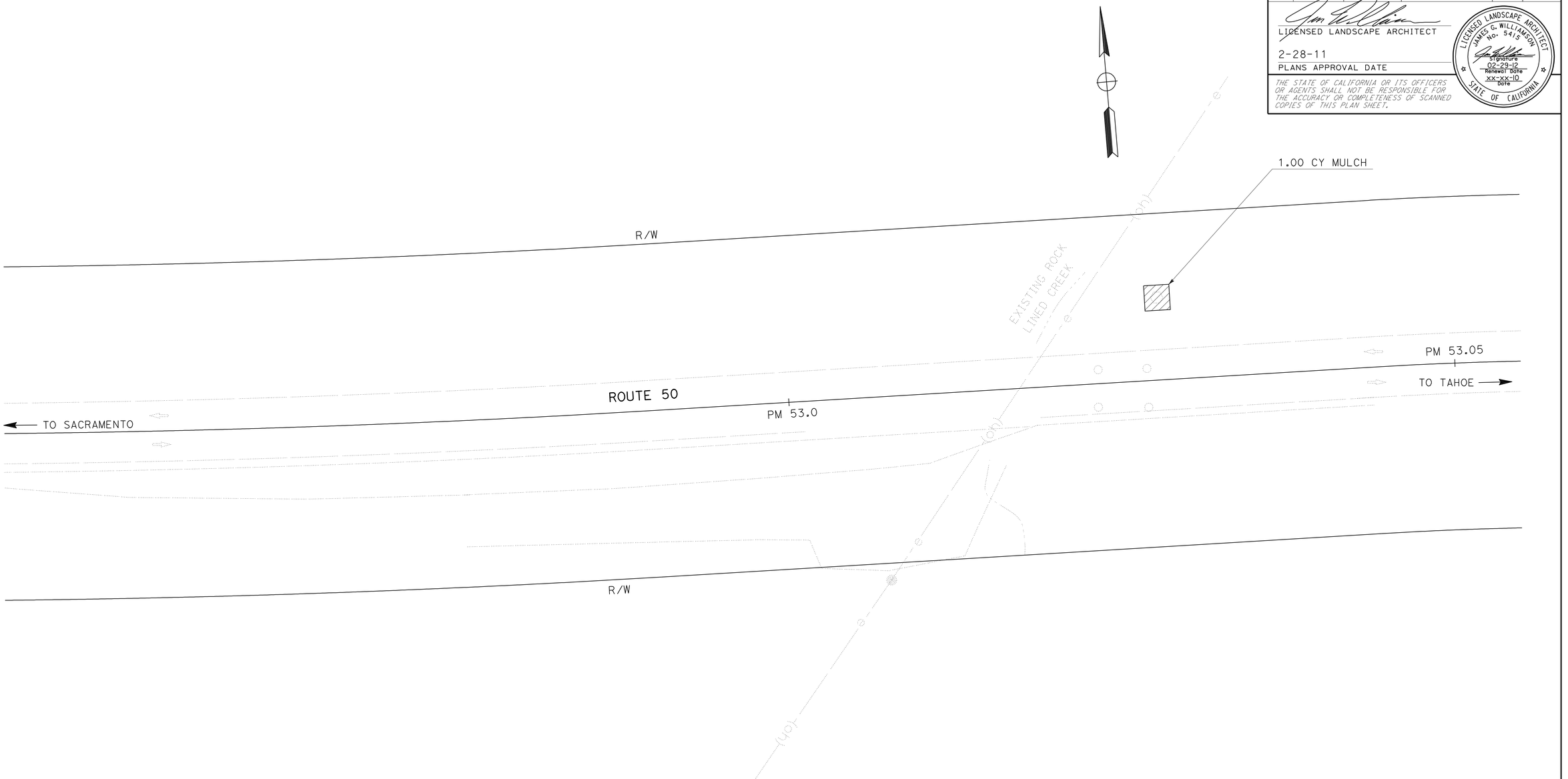
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	14	81

LICENSED LANDSCAPE ARCHITECT

2-28-11

PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA



(LOCATION 4)

(ED 50, Wrights Lake Rd)

(PM 53.1)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN

SCALE 1" = 20"

EC-3

CALCULATED-DESIGNED BY: J. WILLIAMSON

CHECKED BY: K. MURRAY

SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® LANDSCAPE ARCHITECTURE

REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 01-MAR-2011 | TIME PLOTTED => 09:49 | 07-21-10

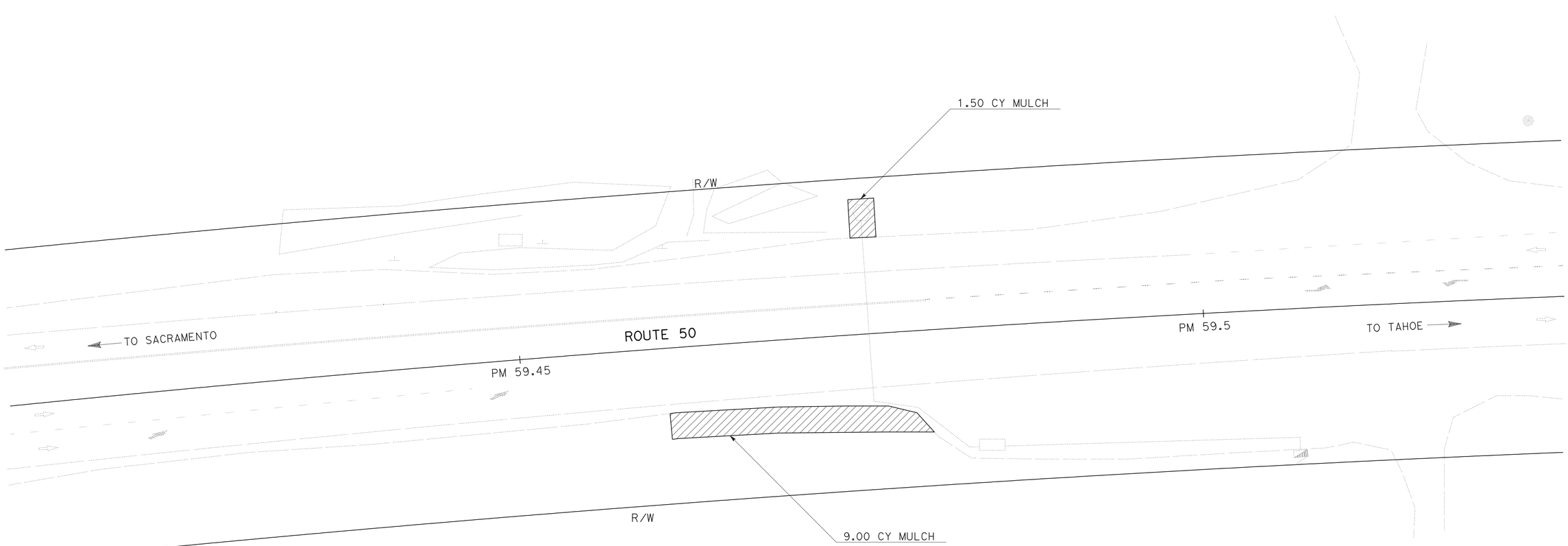
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	15	81

LICENSED LANDSCAPE ARCHITECT

2-28-11

PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA



(LOCATION 5B)

(ED 50, Twin Bridges EMS)

(PM 59.5)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN

SCALE 1" = 20"

EC-4

CALCULATED-DESIGNED BY: J. WILLIAMSON
CHECKED BY: K. MURRAY
REVISED BY
DATE REVISED

SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE

LAST REVISION | DATE PLOTTED => 01-MAR-2011 | TIME PLOTTED => 09:49 | 07-21-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	16	81

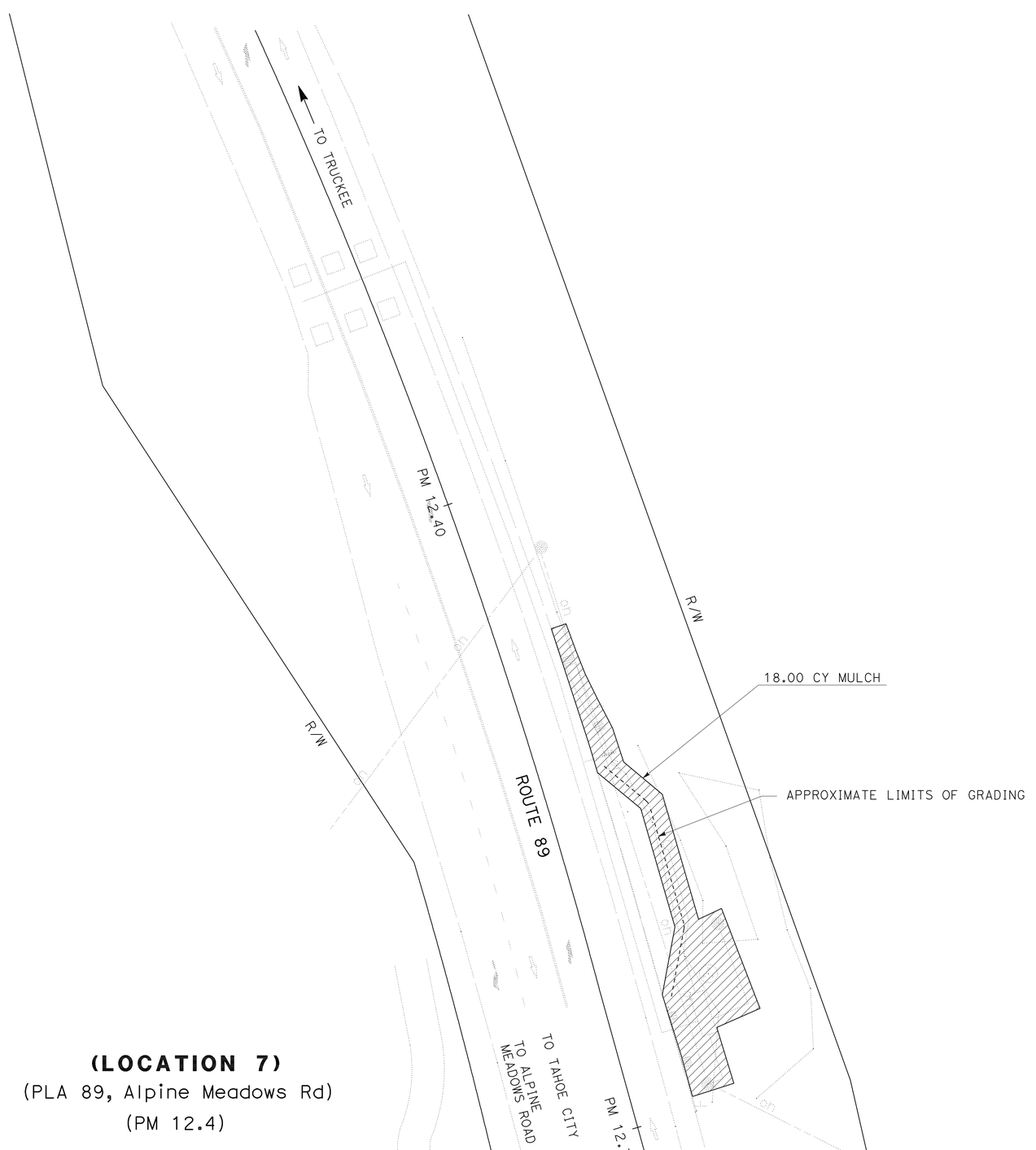
LICENSED LANDSCAPE ARCHITECT

2-28-11

PLANS APPROVAL DATE

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

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA



(LOCATION 7)

(PLA 89, Alpine Meadows Rd)

(PM 12.4)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN

SCALE 1" = 20"

EC-5

CALCULATED-DESIGNED BY	J. WILLIAMSON
CHECKED BY	K. MURRAY
REVISED BY	
DATE REVISED	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE
SENIOR LANDSCAPE ARCHITECT
KENNETH MURRAY

LAST REVISION | DATE PLOTTED => 01-MAR-2011
07-21-10 | TIME PLOTTED => 09:49

BORDER LAST REVISED 7/2/2010

USERNAME => trlenard
DGN FILE => 0300000233ge005.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0381

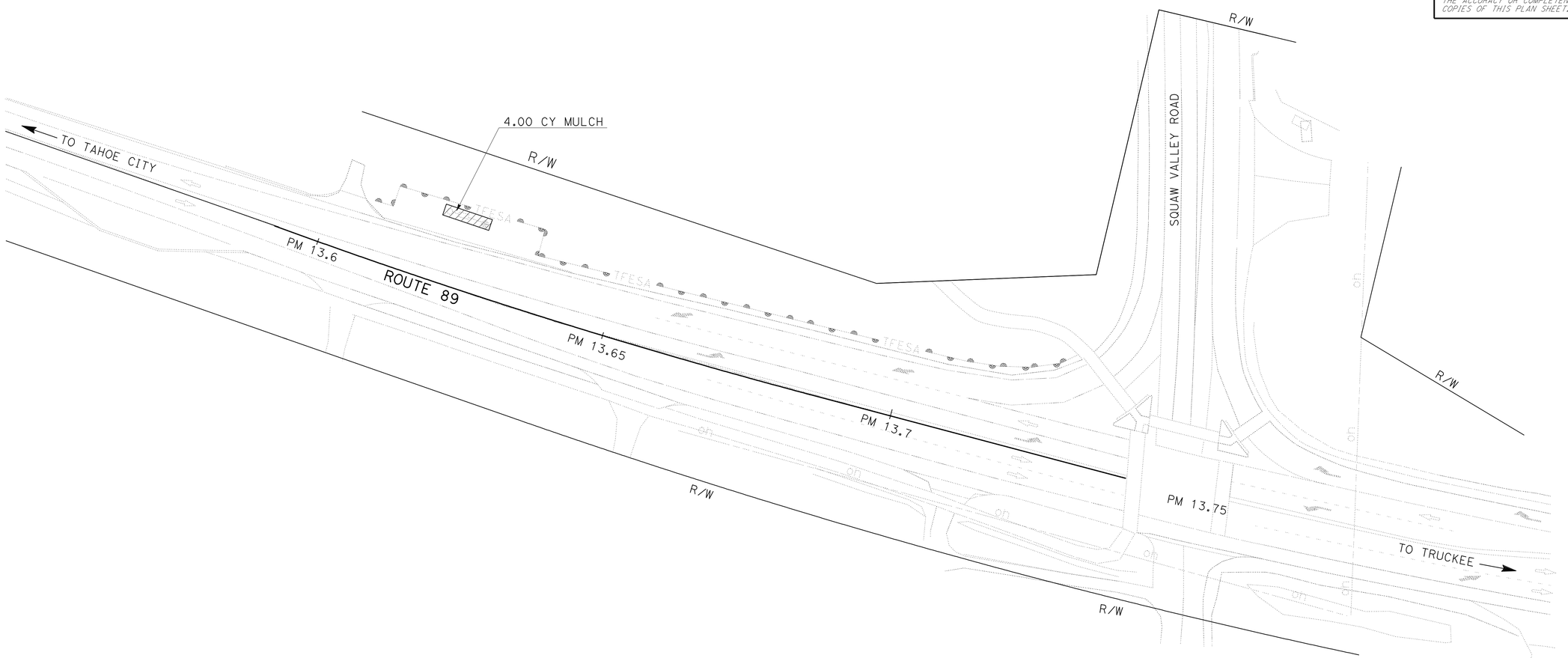
PROJECT NUMBER & PHASE 03000002322

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	17	81

LICENSED LANDSCAPE ARCHITECT

2-28-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA



(LOCATION 8A)

(PLA 89, Squaw Valley Rd)

(PM 13.6)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN

SCALE 1" = 50'

EC-6

REVISED BY			
DATE REVISED			
CALCULATED-DESIGNED BY	J. WILLIAMSON		
CHECKED BY	K. MURRAY		
SENIOR LANDSCAPE ARCHITECT	KENNETH MURRAY		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE

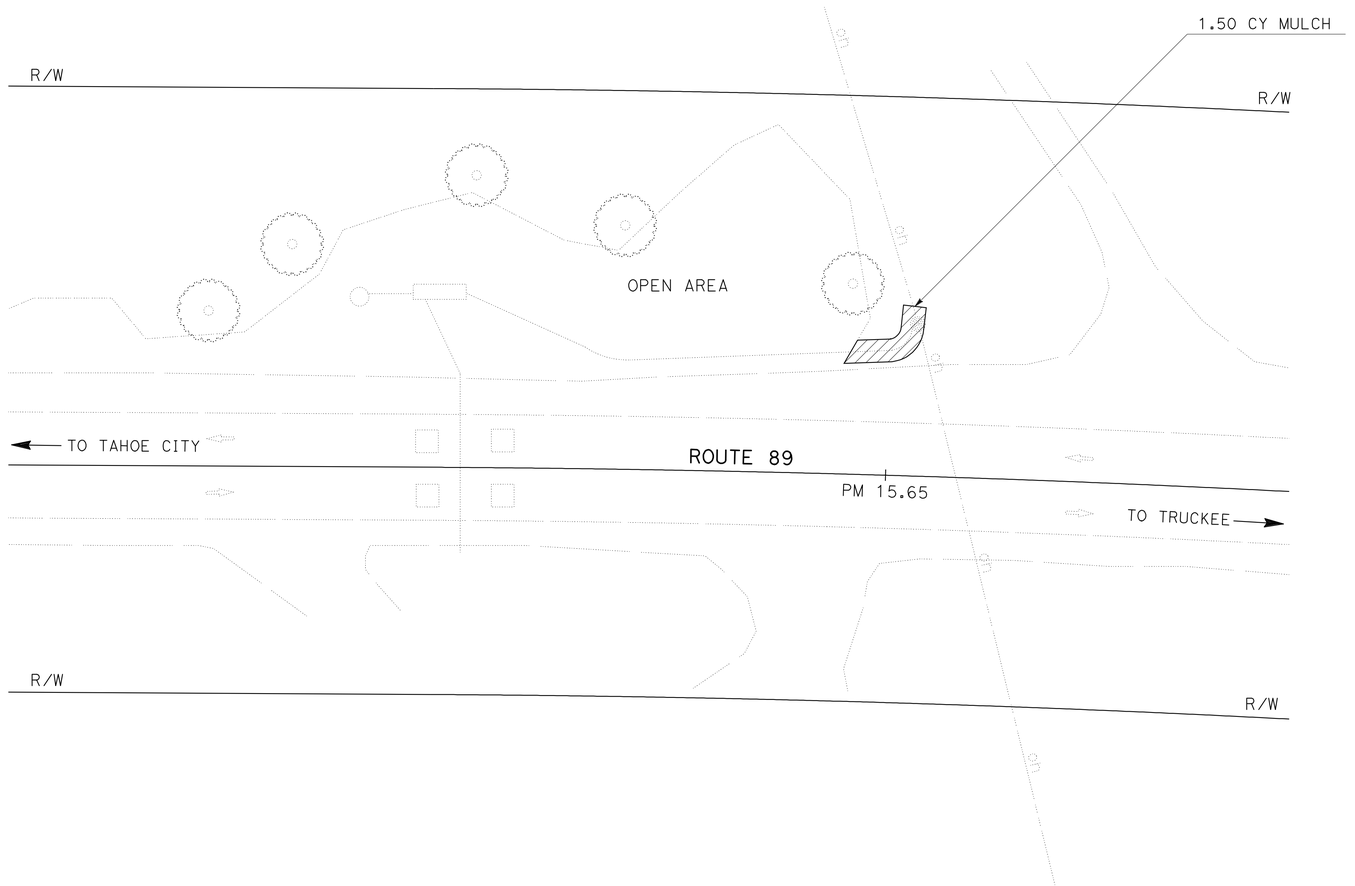
LAST REVISION | DATE PLOTTED => 01-MAR-2011
07-21-10 | TIME PLOTTED => 09:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	18	81

LICENSED LANDSCAPE ARCHITECT

2-28-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA



(LOCATION 8B)
(PLA 89)
(PM 15.6)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN
SCALE 1" = 20"

EC-7

CALCULATED-DESIGNED BY: J. WILLIAMSON
CHECKED BY: K. MURRAY
REVISED BY
DATE REVISED

SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE

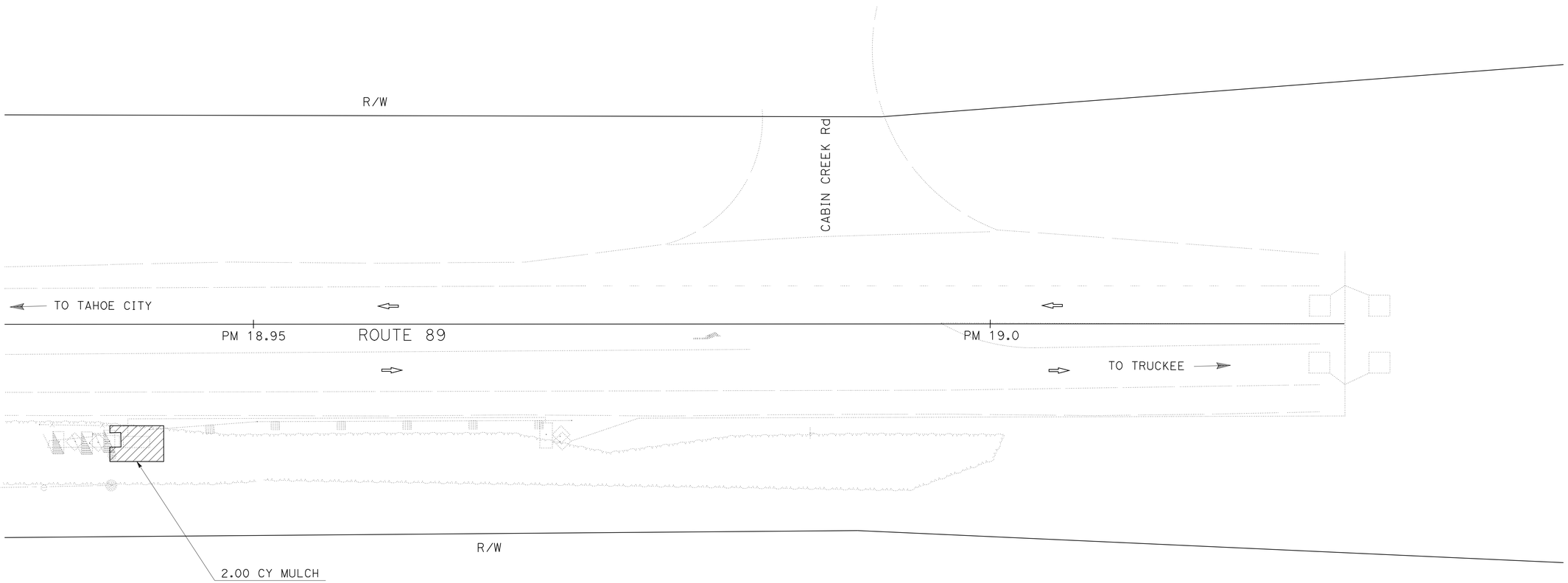
LAST REVISION | DATE PLOTTED => 01-MAR-2011
07-21-10 | TIME PLOTTED => 09:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	19	81

LICENSED LANDSCAPE ARCHITECT

2-28-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA



(LOCATION 9)
(PLA 89, Cabin Creek Road)
(PM 19.0)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN

SCALE 1" = 20"

EC-8

CALCULATED-DESIGNED BY: J. WILLIAMSON
CHECKED BY: K. MURRAY
REVISED BY
DATE REVISED

SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE

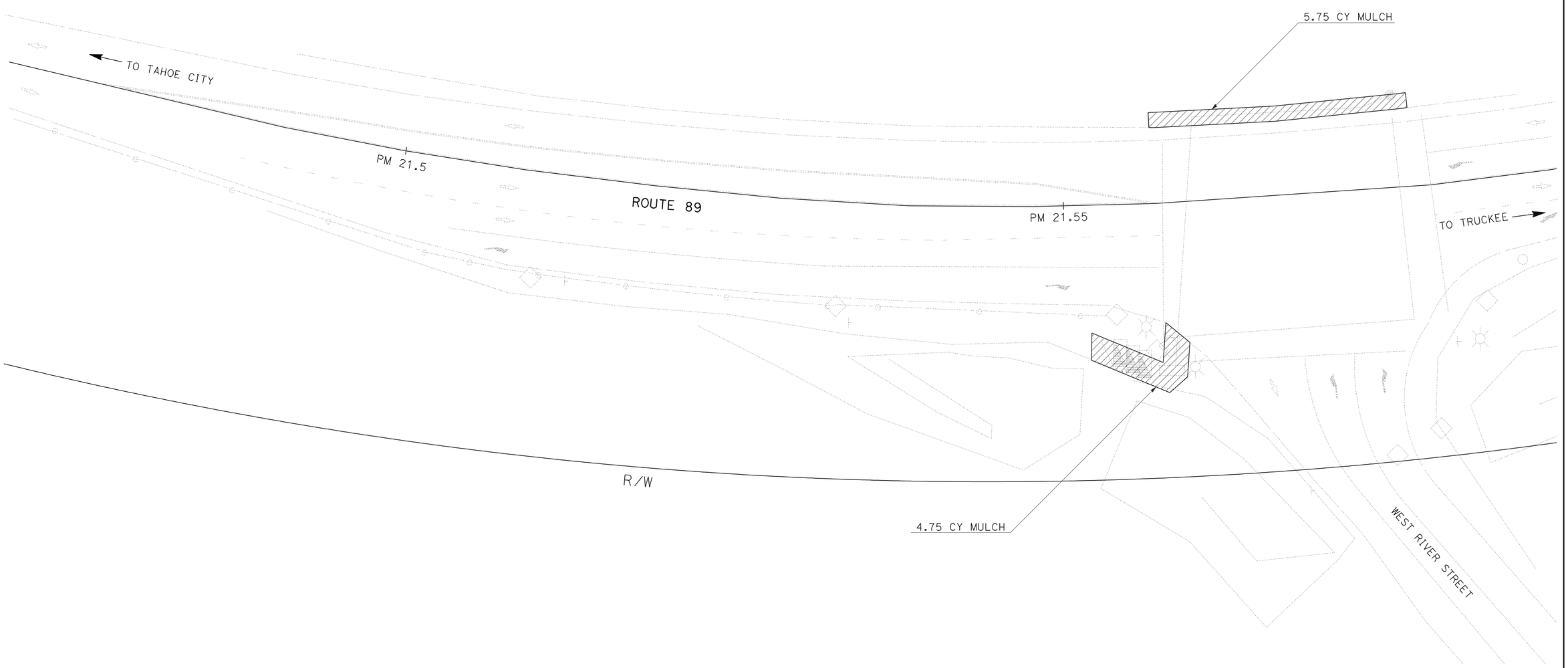
LAST REVISION: DATE PLOTTED => 01-MAR-2011
08-02-10 TIME PLOTTED => 09:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	20	81

LICENSED LANDSCAPE ARCHITECT

2-28-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA



(LOCATION 10)
(PLA 89, West River St)
(PM 21.6)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN
SCALE 1" = 20"

EC-9

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY: J. WILLIAMSON
CHECKED BY: K. MURRAY
SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE

LAST REVISION | DATE PLOTTED => 01-MAR-2011
07-21-10 | TIME PLOTTED => 09:49

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ge009.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0381 | PROJECT NUMBER & PHASE 03000002322

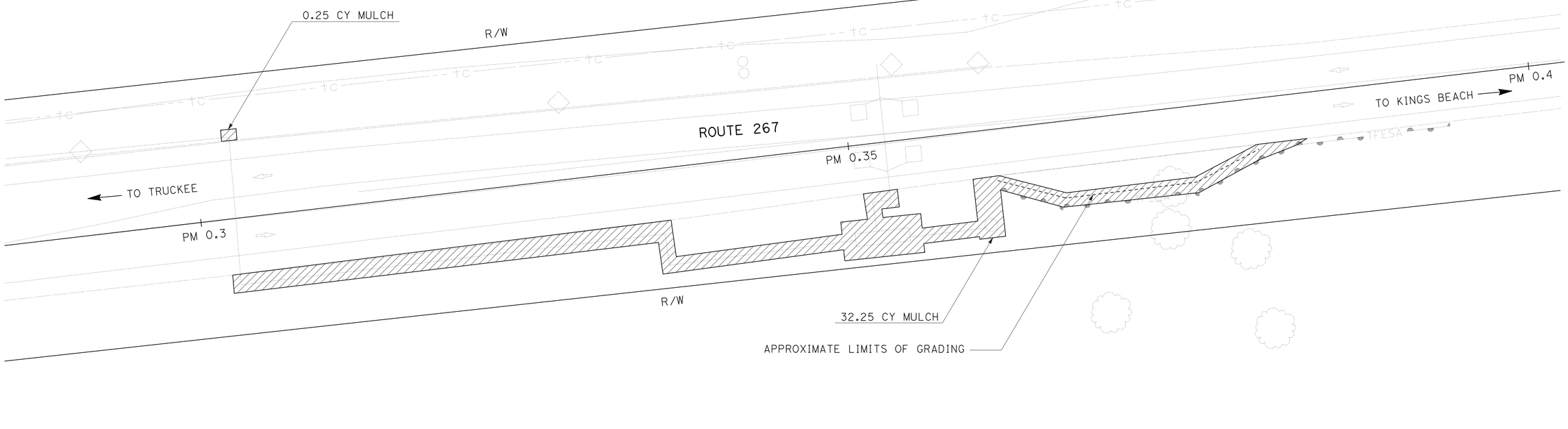
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	21	81

LICENSED LANDSCAPE ARCHITECT

2-28-11
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT JAMES G. WILLIAMSON No. 5415 Signature 02-29-12 Renewal Date xx-xx-10 Date 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 11B)

(PLA 267, Truckee Airport Rd)
(PM 0.40)

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

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL PLAN

SCALE 1" = 20"

EC-10

CALCULATED-DESIGNED BY: J. WILLIAMSON
CHECKED BY: K. MURRAY
REVISED BY
DATE REVISED

SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
LANDSCAPE ARCHITECTURE

LAST REVISION: DATE PLOTTED => 01-MAR-2011 08-11-10 TIME PLOTTED => 10:04

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 03000002233ge010.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0381 | PROJECT NUMBER & PHASE 03000002322

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	22	81

LICENSED LANDSCAPE ARCHITECT

2-28-11

PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
JAMES G. WILLIAMSON
No. 5415
Signature
02-29-12
Renewal Date
xx-xx-10
Date
STATE OF CALIFORNIA

EROSION CONTROL QUANTITIES

SHEET	LOCATION	COUNTY	ROUTE	POST MILE	MULCH CY
EC-1	2	ED	50	PM 39.706 Lt to PM 39.708 Lt	1.00
EC-2	3C	ED	50	PM 50.547 Lt to PM 50.587 Lt	13.50
EC-3	4	ED	50	PM 53.027 Lt to PM 53.029 Lt	1.00
EC-4	5B	ED	50	PM 59.461 Rt to PM 59.480 Rt	1.50
EC-4	5B	ED	50	PM 59.475 Lt to PM 59.477 Lt	9.00
EC-5	7	PLA	89	PM 12.361 Rt to PM 12.391 Rt	18.00
EC-6	8A	PLA	89	PM 13.618 Lt to PM 13.627 Lt	4.00
EC-7	8B	PLA	89	PM 15.648 Lt to PM 15.652 Lt	1.50
EC-8	9	PLA	89	PM 18.940 Rt to PM 18.944 Rt	2.00
EC-9	10	PLA	89	PM 21.552 Rt to PM 21.559 Rt	4.75
EC-9	10	PLA	89	PM 21.557 Lt to PM 21.576 Lt	5.75
EC-10	11B	PLA	267	PM 0.302 Lt to PM 0.303 Lt	0.25
EC-10	11B	PLA	267	PM 0.302 Rt to PM 0.381 Rt	32.25
				TOTAL	94.50

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY.

EROSION CONTROL QUANTITIES

ECQ-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: J. WILLIAMSON
CHECKED BY: K. MURRAY

SENIOR LANDSCAPE ARCHITECT: KENNETH MURRAY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® LANDSCAPE ARCHITECTURE

LAST REVISION: 08-11-10
DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:04

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	23	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
CIVIL
STATE OF CALIFORNIA

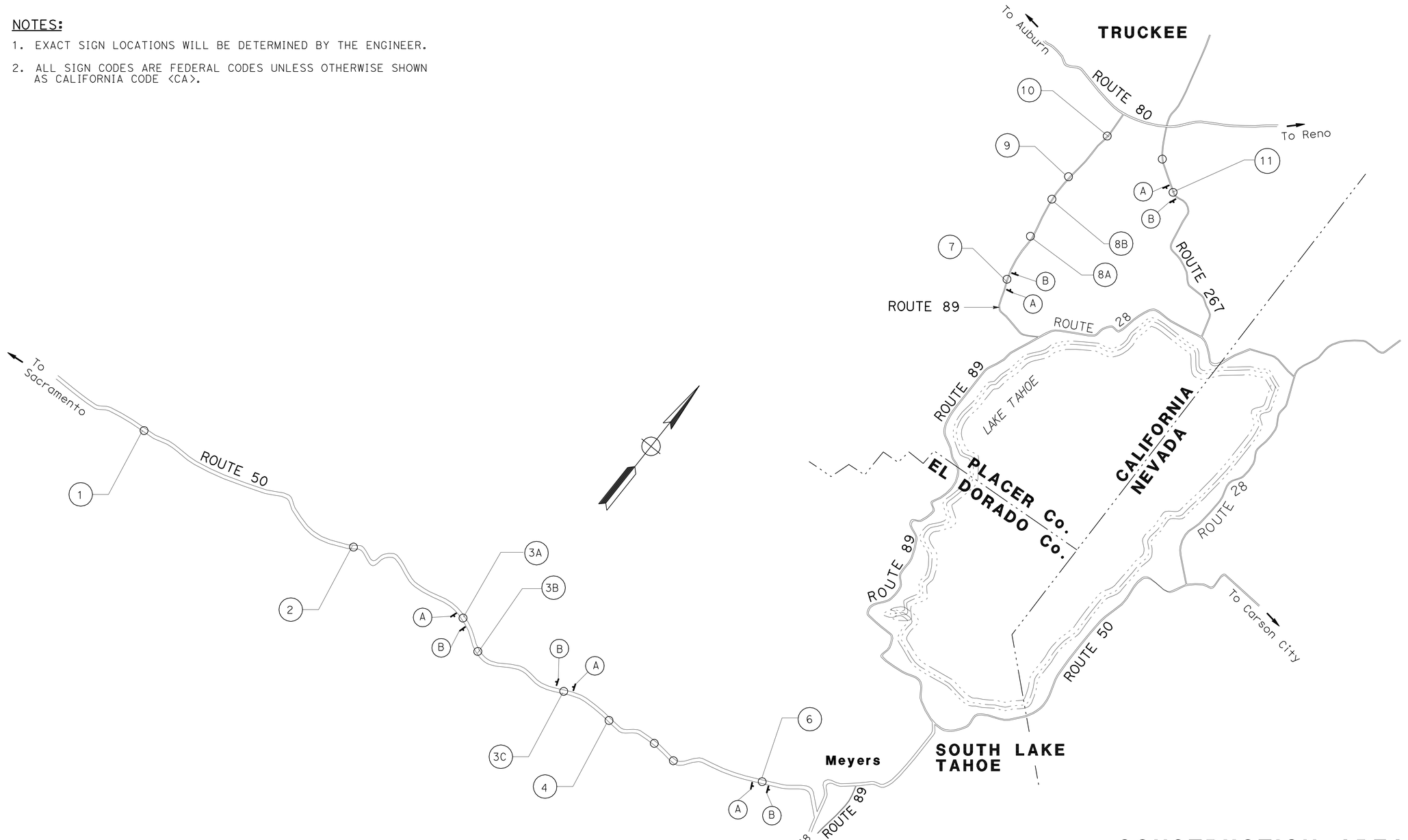
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST AND SIZE	No. OF SIGNS
(A)	C24 <CA>	48" x 48"	SHOULDER WORK AHEAD	2 - 6" x 6"	5
(B)	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	5

NOTES:

1. EXACT SIGN LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. ALL SIGN CODES ARE FEDERAL CODES UNLESS OTHERWISE SHOWN AS CALIFORNIA CODE <CA>.



CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

FUNCTIONAL SUPERVISOR: CYRUS HUI

CALCULATED-DESIGNED BY: D.MINHAS
CHECKED BY: C. HUI

REVISED BY | DATE REVISED

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:04
00-00-00

BORDER LAST REVISED 7/2/2010

USERNAME => trlenard
DGN FILE => 03000002331a001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0327

PROJECT NUMBER & PHASE 03000002331

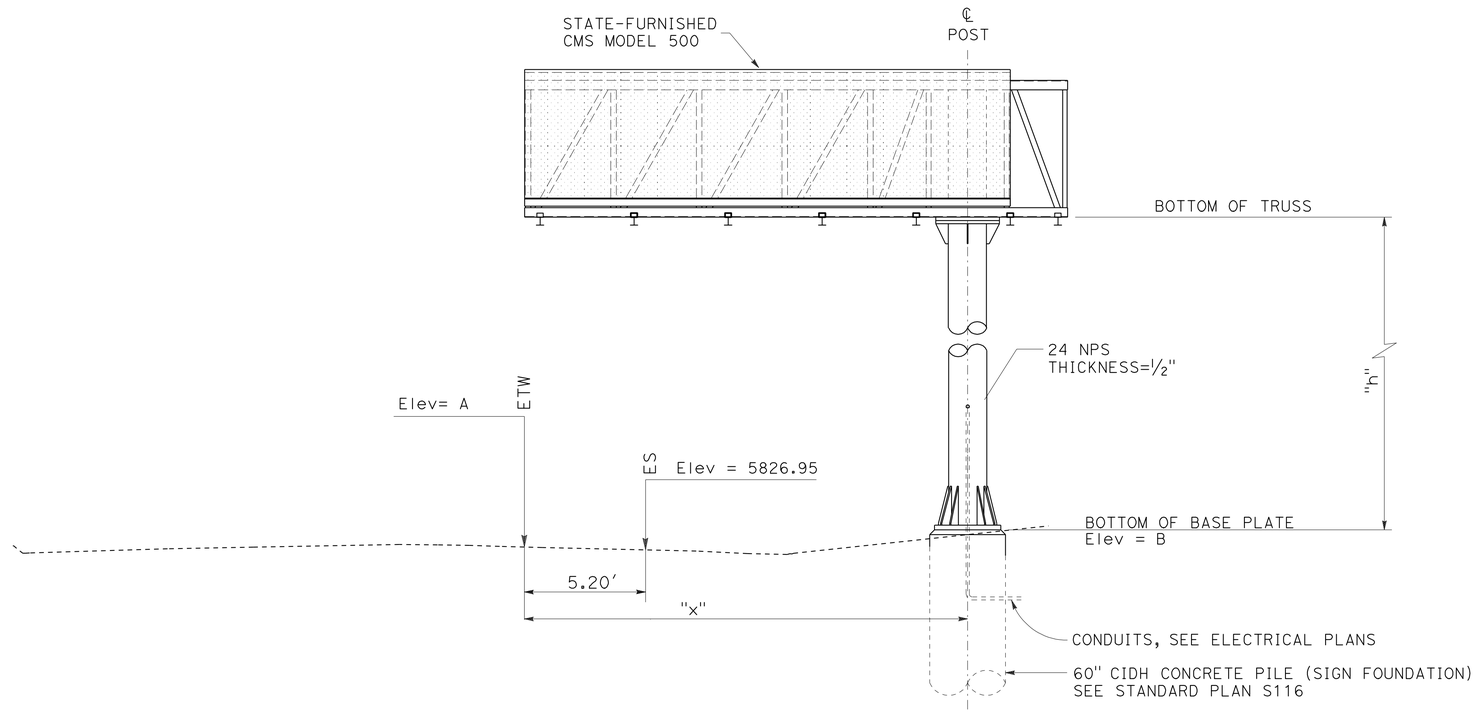
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	24	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DAVINDER MINHAS
No. 70022
Exp. 9-30-11
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.



CHANGEABLE MESSAGE SIGN

UNBALANCED BUTTERFLY - MODEL 500
Pla 267, PM 0.40-TRUCKEE AIRPORT ROAD
SEE STANDARD PLAN S101 FOR ADDITIONAL INFORMATION

TABLE 1

TYPE	LOCATION	ORIENTATION	"X" (FT)	"h" (FT)	Elev A (FT)	Elev B (FT)	FURNISH SIGN STRUCTURE (TRUSS)	INSTALL SIGN STRUCTURE (TRUSS)	60" CIDH CONCRETE PILE (SIGN FOUNDATION)
							LB	LB	LF
UNBALANCED BUTTERFLY MODEL 500	11	FSBT	24	16.5	5827.14	5829.5	14,324	14,324	22

HIGHWAY ADVISORY RADIO, ELECTRONIC TAG READER, WIRELESS VEHICLE DETECTION SYSTEM & CLOSED CIRCUIT TELEVISION (DATA & QUANTITIES)

Loc	COUNTY	ROUTE PM	POLE TYPE	"h" (ft)	24" CIDH Conc PILE (POLE FOUNDATION) (LF)	30" CIDH Conc PILE (POLE FOUNDATION) (LF)
2	ED	50	VDS 40	40	10	
3B	ED	50	*TYPE 15F	35		5
4	ED	50	VDS 40	40	10	
5A	ED	50	TYPE 15	30		5
5B	ED	50	CCTV 45	45	8	
6	ED	50	VDS 35	35	10	
7	Pla	89	CCTV 35	35	7	
8A	Pla	89	*TYPE 15F	35		5
TOTAL					45	15

* (F) FIBERGLASS

SIGN DETAILS AND QUANTITIES

NO SCALE

SD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

FUNCTIONAL SUPERVISOR: CYRUS HUI

CALCULATED-DESIGNED BY: D.MINHAS
CHECKED BY: C. HUI

REVISED BY | DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:04

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233oc001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	25	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVINDER MINHAS No. 70022 Exp. 9-30-11 CIVIL — STATE OF CALIFORNIA

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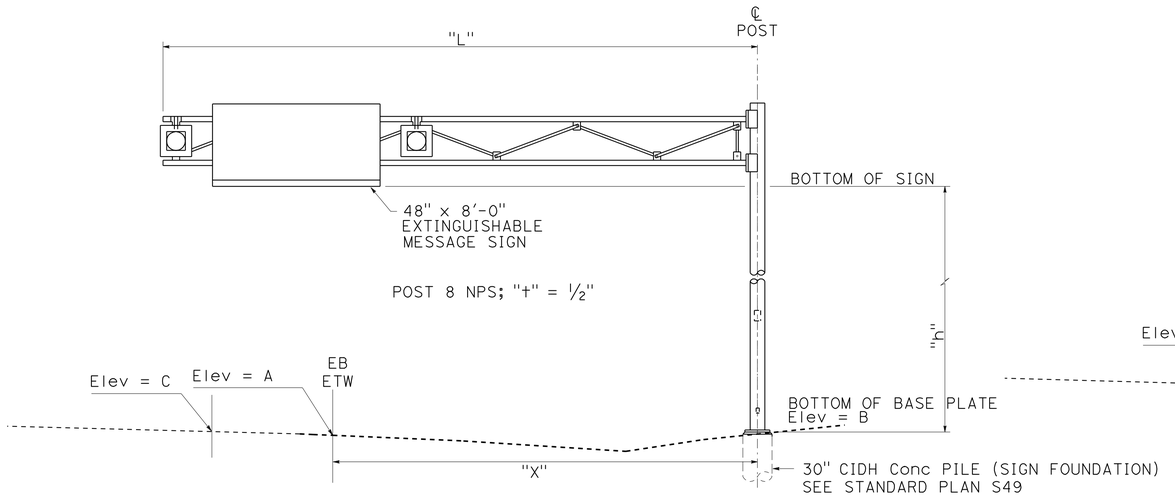
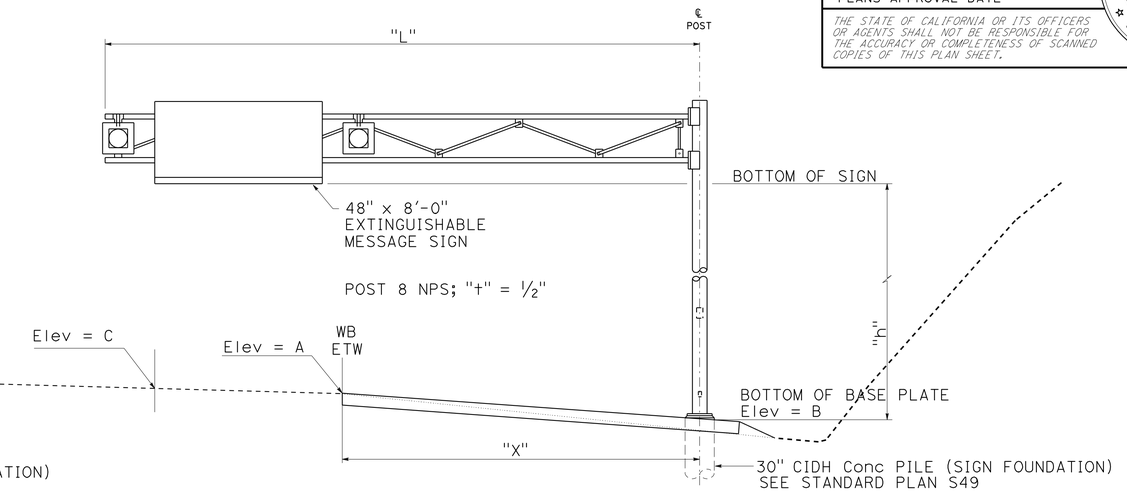


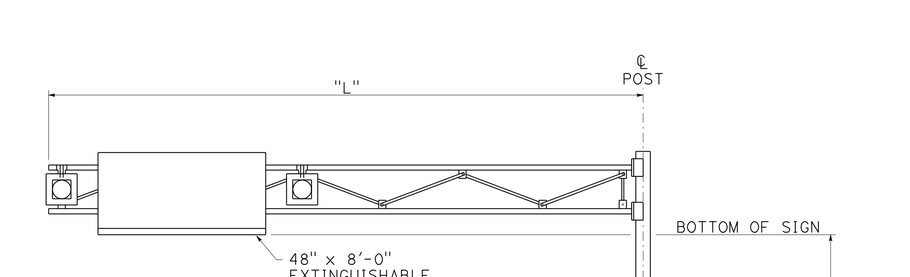
EXTINGUISHABLE MESSAGE SIGN

LOCATION 3A-ED 50
LIGHTWEIGHT - TYPE C-2
SEE STANDARD PLAN RSP ES-14C FOR ADDITIONAL INFORMATION



EXTINGUISHABLE MESSAGE SIGN

LOCATION 3C-ED 50
LIGHTWEIGHT - TYPE C-2
SEE STANDARD PLAN RSP ES-14C FOR ADDITIONAL INFORMATION



EXTINGUISHABLE MESSAGE SIGN

LOCATION 8B-Pla 89
LIGHTWEIGHT - TYPE C-2
SEE STANDARD PLAN RSP ES-14C FOR ADDITIONAL INFORMATION

TABLE 2

LOCATION NUMBER	COUNTY	ROUTE NUMBER	ORIENTATION	"X" (FT)	"h" (FT)	"L" (FT)	Elev A (FT)	Elev B (FT)	Elev C (FT)	FURNISH SIGN STRUCTURE (LIGHTWEIGHT)	INSTALL SIGN STRUCTURE (LIGHTWEIGHT)	30" CIDH CONCRETE PILE (SIGN FOUNDATION)
										LB	LB	LF
3A	ED	50	FEBT	10.0	17.55	14.0	111.29	111.82	111.37	2175	2175	11.0
3C	ED	50	FWBT	8.5	17.93	14.0	107.52	107.70	107.63	2192	2192	11.0
8B	Pla	89	FSBT	22.5	17.80	29'-8"	100.4	100.5	100.3	2492	2492	11.0
									TOTAL	6859 (F)	6859 (F)	33

(F) FINAL PAY

SIGN DETAILS AND QUANTITIES

NO SCALE

SD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
NORTH REGION
OFFICE OF DESIGN, WEST
DESIGN BRANCH S7

CALCULATED-DESIGNED BY	CHECKED BY	FUNCTIONAL SUPERVISOR	REVISED BY	DATE REVISED
D.MINHAS	C. HUI	CYRUS HUI		

LAST REVISION 00-00-00
DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:04

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	26	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DAVINDER MINHAS No. 70022 Exp. 9-30-11 CIVIL — STATE OF CALIFORNIA

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ROADWAY QUANTITIES

LOCATION	COUNTY	ROUTE	POSTMILE	DIRECTION	(N) MAINTENANCE PULLOUT AREA	ROADWAY EXCAVATION	(N) EMBANKMENT	MINOR HOT-MIX ASPHALT	CLASS 2 AGGREGATE BASE	(N) GUARD RAILING LAYOUT	METAL BEAM GUARD RAILING	ALTERNATIVE IN-LINE TERMINAL SYSTEM	ALTERNATIVE FLARE TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	OBJECT MARKER (TYPE L-1)	VEGETATION CONTROL (MINOR CONCRETE)	REMOVE METAL BEAM GUARD RAILING
					SF	CY	CY	TON	CY	TYPE	LF	EA	EA	EA	EA	SQYD	LF
3A	ED	50	47.15	EB						16A	50	1		1		80	
3C	ED	50	50.5	WB	810	50	2.5	18	41	16A	50	1		1		35 **	
6	ED	50	63.7	EB						16B	37.5		1	1	2	*	
7	Pla	89	12.4	NB	575	35	5	13	29	16B			1	1	1	35	137
11	Pla	267	0.25	SB	700	43	1	16	35								
FROM HMA DIKE TABLE								2.1									
TOTAL						125	8.5	49.1	105		137.5	2	2	4	3	150	137

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.
* MBGR CONSTRUCTED ON PAVED SURFACE, NO VEGETATION CONTROL REQUIRED
** VEGETATION CONTROL REQ'D FOR PARTIAL LENGTH OF MBGR. PART OF MBGR FALLS WITHIN MAINTENANCE VEHICLE PULLOUT BOUNDARY.

PLACE HOT MIX ASPHALT DIKE

Loc	COUNTY	ROUTE	PLACE HOT MIX ASPHALT DIKE TYPE E	MINOR HOT MIX ASPHALT
			LF	TON
11	ED	50	80	2.1
SUBTOTAL				2.1 *
TOTAL			80	

* SEE ROADWAY QUANTITIES TABLE FOR TOTAL HOT MIX ASPHALT QUANTITY.

ROADSIDE SIGN QUANTITIES

LAYOUT SHEET	SIGN NUMBER (Sht-No.)	SIGN CODE	RELOCATE ROADSIDE SIGN (METAL POST) EA	REMARKS
L-4	10-1		1	BUS STOP
L-2	5-1	M4-4 R2-1 (45)	1	TRUCK SPEED LIMIT 45 Min
		TOTAL	2	

TEMPORARY EROSION CONTROL

STREET SWEEPING	PORTABLE CONCRETE WASHOUTS	TEMPORARY FIBER ROLLS
LUMPSUM	LUMPSUM	LF
1	1	930

TEMPORARY FENCE (TYPE ESA)

SHEET No.	TEMPORARY FENCE (TYPE ESA)
	LF
L-3	575
L-5	680
L-6	185
TOTAL	1440

SUMMARY OF QUANTITIES

Q-1

REVISED BY | DATE REVISED
D.MINHAS | C. HUI
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: CYRUS HUI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
NORTH REGION
OFFICE OF DESIGN, WEST
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DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:04

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233pa001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

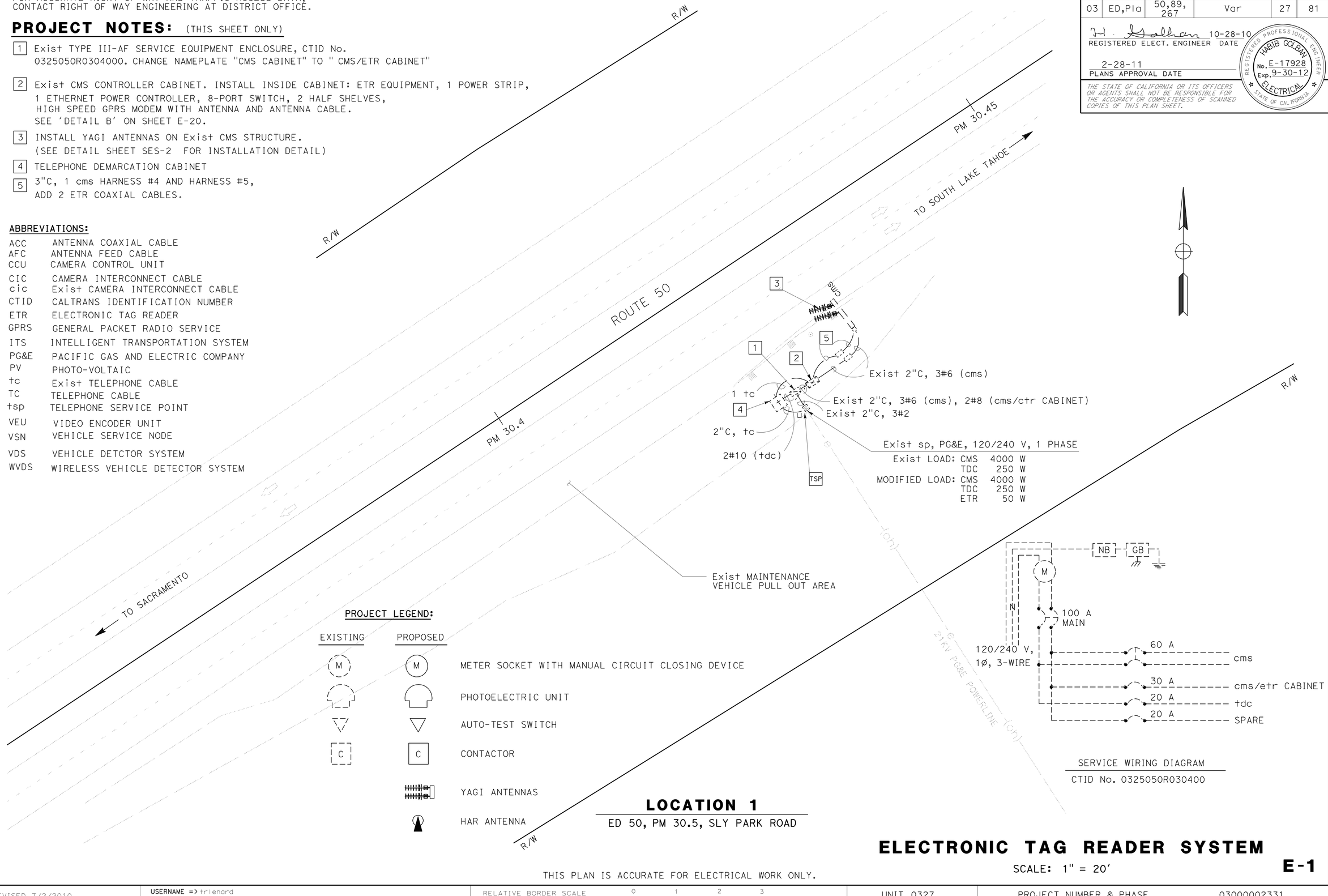
FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

1. Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, CTID No. 0325050R0304000. CHANGE NAMEPLATE "CMS CABINET" TO " CMS/ETR CABINET"
2. Exist CMS CONTROLLER CABINET. INSTALL INSIDE CABINET: ETR EQUIPMENT, 1 POWER STRIP, 1 ETHERNET POWER CONTROLLER, 8-PORT SWITCH, 2 HALF SHELVES, HIGH SPEED GPRS MODEM WITH ANTENNA AND ANTENNA CABLE. SEE 'DETAIL B' ON SHEET E-20.
3. INSTALL YAGI ANTENNAS ON Exist CMS STRUCTURE. (SEE DETAIL SHEET SES-2 FOR INSTALLATION DETAIL)
4. TELEPHONE DEMARCATION CABINET
5. 3"C, 1 cms HARNESS #4 AND HARNESS #5, ADD 2 ETR COAXIAL CABLES.

ABBREVIATIONS:

ACC	ANTENNA COAXIAL CABLE
AFC	ANTENNA FEED CABLE
CCU	CAMERA CONTROL UNIT
CIC	CAMERA INTERCONNECT CABLE
cic	Exist CAMERA INTERCONNECT CABLE
CTID	CALTRANS IDENTIFICATION NUMBER
ETR	ELECTRONIC TAG READER
GPRS	GENERAL PACKET RADIO SERVICE
ITS	INTELLIGENT TRANSPORTATION SYSTEM
PG&E	PACIFIC GAS AND ELECTRIC COMPANY
PV	PHOTO-VOLTAIC
tc	Exist TELEPHONE CABLE
TC	TELEPHONE CABLE
tsp	TELEPHONE SERVICE POINT
VEU	VIDEO ENCODER UNIT
VSN	VEHICLE SERVICE NODE
VDS	VEHICLE DETCTOR SYSTEM
WVDS	WIRELESS VEHICLE DETECTOR SYSTEM



SERVICE WIRING DIAGRAM

CTID No. 0325050R030400

PROJECT LEGEND:

EXISTING	PROPOSED	
M	M	METER SOCKET WITH MANUAL CIRCUIT CLOSING DEVICE
		PHOTOELECTRIC UNIT
		AUTO-TEST SWITCH
C	C	CONTACTOR
		YAGI ANTENNAS
		HAR ANTENNA

LOCATION 1

ED 50, PM 30.5, SLY PARK ROAD

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

ELECTRONIC TAG READER SYSTEM

SCALE: 1" = 20'

E-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	27	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HABIB GOLBAN — No. E-17928 Exp. 9-30-12 — 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.

REVISED BY	DATE REVISED

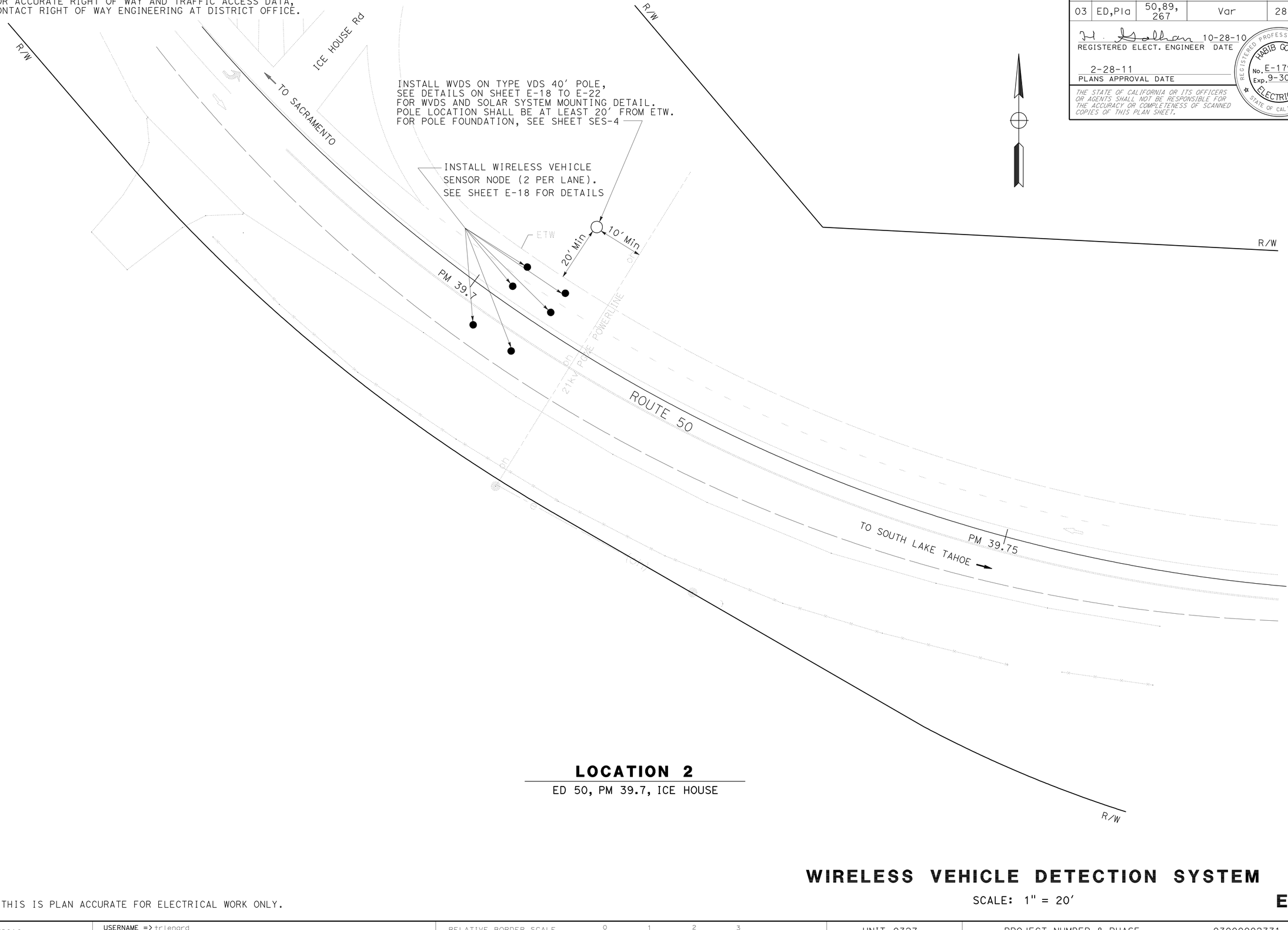
CALCULATED-DESIGNED BY: BRIAN CHOW
CHECKED BY: HABIB GOLBAN
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:04
10-25-10

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ua001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	28	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
ELECTRICAL
STATE OF CALIFORNIA

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LOCATION 2

ED 50, PM 39.7, ICE HOUSE

WIRELESS VEHICLE DETECTION SYSTEM

SCALE: 1" = 20'

E-2

THIS IS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

CALCULATED-DESIGNED BY: BRIAN CHOW
CHECKED BY: HABIB GOLBAN
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:04
10-25-10

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ua002.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

1. Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, CTID No. 03250500047500. FOR SERVICE WIRING DIAGRAM, SEE THIS SHEET. ADD METER SECTION TO SERVICE EQUIPMENT ENCLOSURE.
2. INSTALL YAGI ANTENNAS ON EMS SIGN STRUCTURE.
3. Exist 2#14 (CONTROL), 2#10 (RECEPTACLE), 2#10 (1+g), ADD 2#8 (EMS), 2#8 (ETR)
4. Exist 2#10 (1+g), ADD 2#8 (EMS), 2#8(ETR)
5. INSTALL SINGLE POLE 15 A BREAKER IN SERVICE EQUIPMENT ENCLOSURE LABELED 'ETR'
   INSTALL SINGLE POLE 15 A BREAKER IN SERVICE EQUIPMENT ENCLOSURE LABELED 'EMS'
6. INSTALL 334 CONTROLLER CABINET. INSTALL INSIDE CABINET: ETR EQUIPMENT, 1 POWER STRIP, 8-PORT SWITCH, 2 HALF SHELVES, AND 2 HIGH SPEED GPRS MODEM. SEE 'DETAIL A' ON SHEET E-20.
7. INSTALL EMS CONTROL UNIT ON EMS. INSTALL A BLACK NEMA 5-15 P, 120 V(ac), 15 A 2-POLE, 3-WIRE GROUNDING, UL 62 STANDARD CORDED PLUG WITH 15 A EMS CONTROL. INSTALLATION ANGLE OF THE ANTENNA TO BE DETERMINED BY THE ENGINEER. FOR DETAILS, SEE SHEET SES-8.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	29	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HABIB GOLBAN — No. E-17928 Exp. 9-30-12 — ELECTRICAL — STATE OF CALIFORNIA

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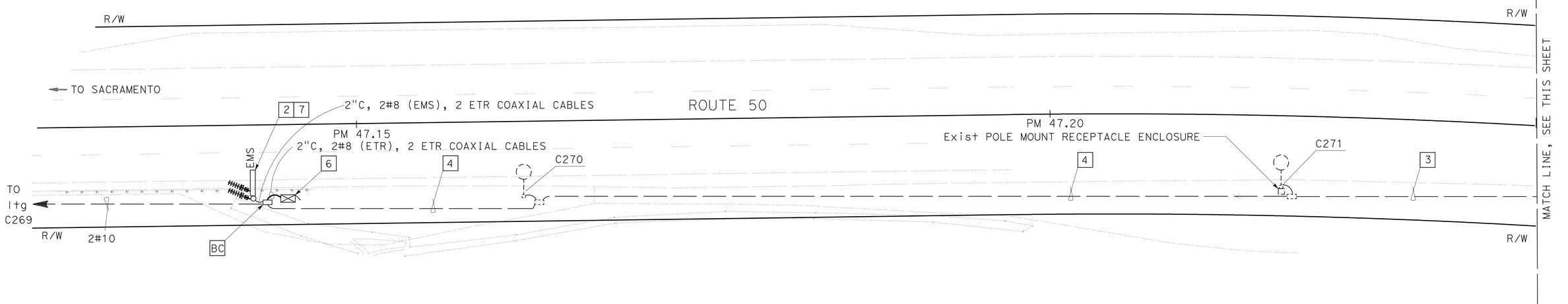

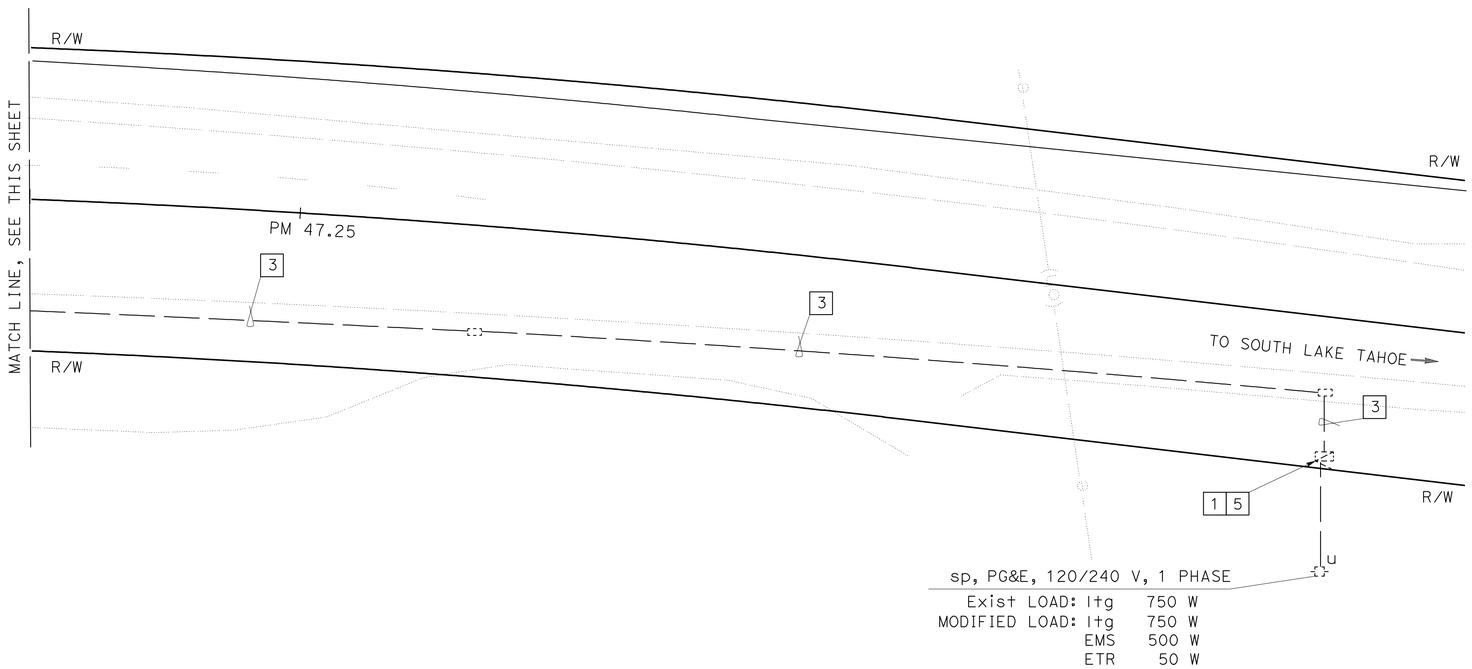

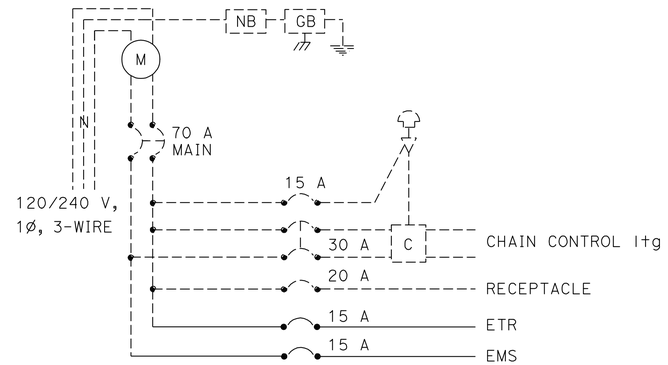

SERVICE WIRING DIAGRAM
CTID No. 03250500047500

LOCATION 3A

ED 50, PM 47.2, SAND FLATS CHAIN-ON AREA
PM 47.2

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

EXTINGUISHABLE MESSAGE SIGN SYSTEM
ELECTRONIC TAG READER SYSTEM

SCALE: 1" = 20'

E-3

REVISED BY | DATE REVISED
BRIAN CHOW | HABIB GOLBAN
CALCULATED-DESIGNED BY | CHECKED BY
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION | DATE PLOTTED => 01-MAR-2011
10-25-10 | TIME PLOTTED => 10:04

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ua003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

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03	ED,Pla	50,89, 267	Var	30	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER HABIB GOLBAN No. E-17928 Exp. 9-30-12 ELECTRICAL STATE OF CALIFORNIA

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FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

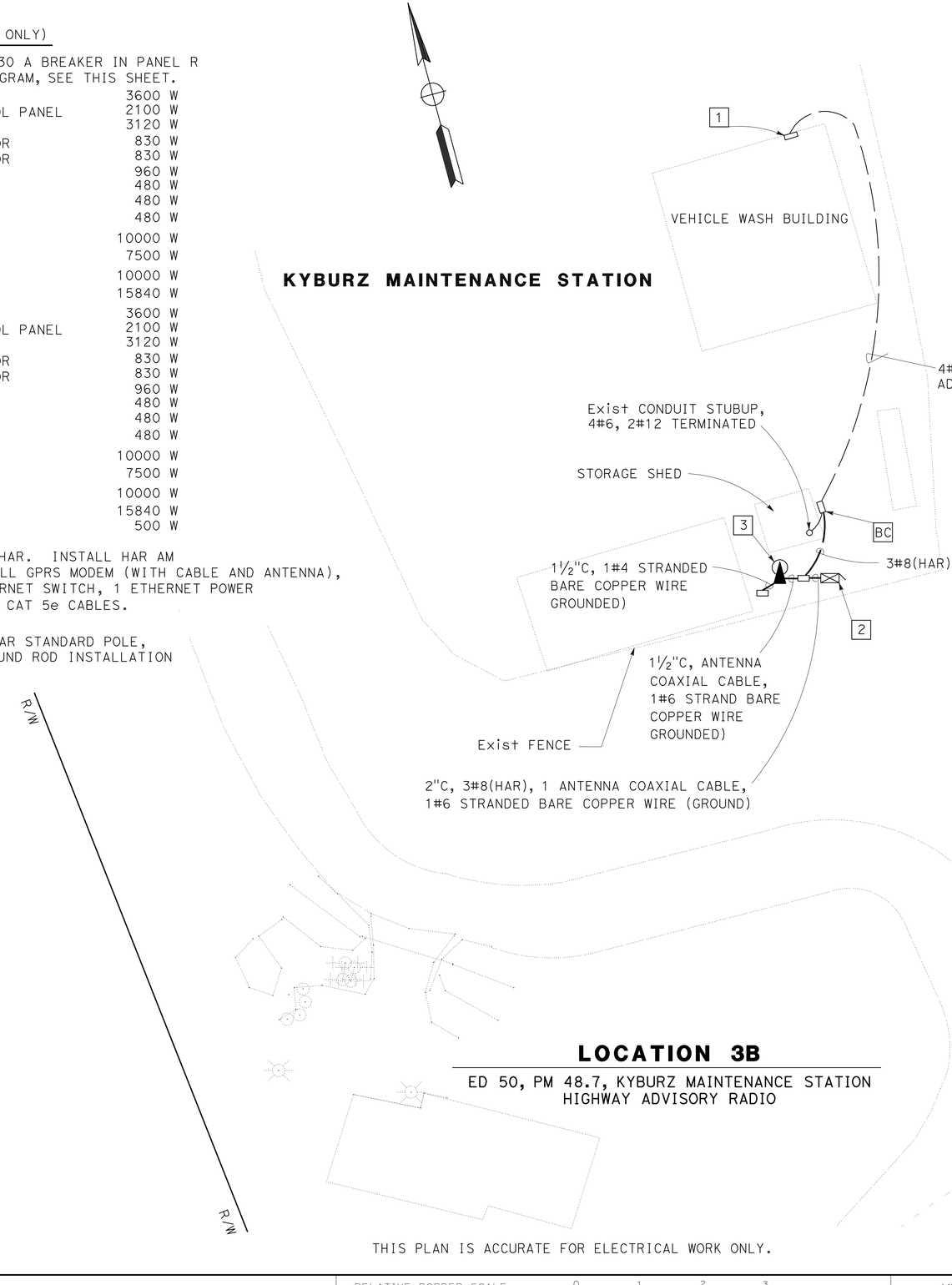
1 Exist PANEL R. INSTALL SINGLE POLE 30 A BREAKER IN PANEL R LABELED 'HAR'. FOR SERVICE WIRING DIAGRAM, SEE THIS SHEET.

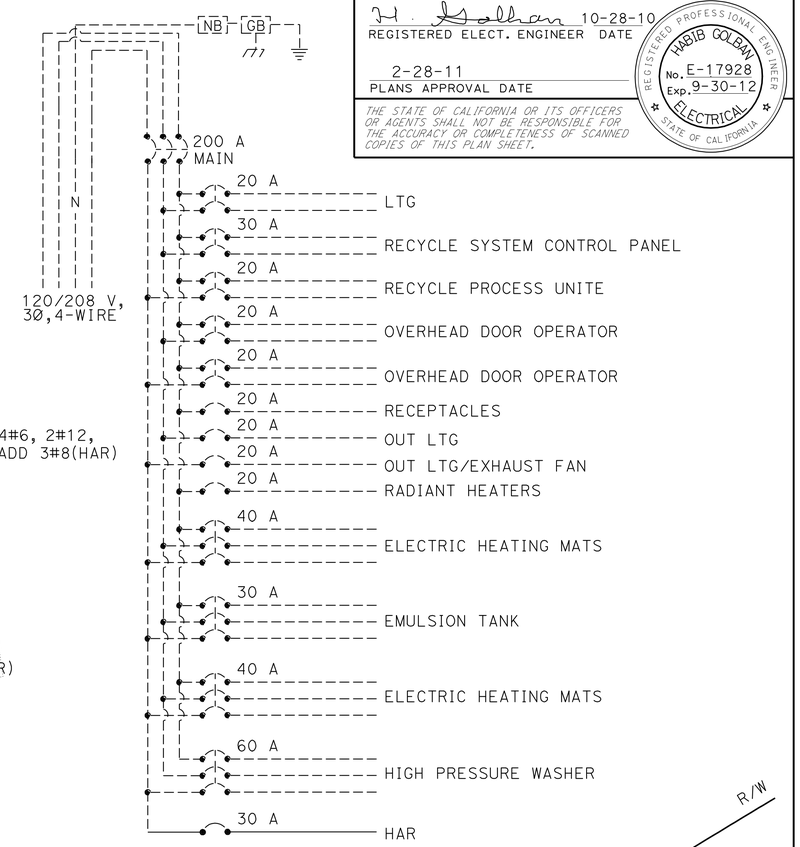
Exist LOAD:	LTG	3600 W
	RECYCLE SYSTEM CONTROL PANEL	2100 W
	RECYCLE PROCESS UNITE	3120 W
	OVERHEAD DOOR OPERATOR	830 W
	OVERHEAD DOOR OPERATOR	830 W
	RECEPTACLES	960 W
	OUT LTG	480 W
	OUT LTG/EXHAUST FAN	480 W
	RADIANT HEATERS	480 W
	ELECTRIC HEATING MATS	10000 W
	EMULSION TANK	7500 W
	ELECTRIC HEATING MATS	10000 W
	HIGH PRESSURE WASHER	15840 W
MODIFIED LOAD:	LTG	3600 W
	RECYCLE SYSTEM CONTROL PANEL	2100 W
	RECYCLE PROCESS UNITE	3120 W
	OVERHEAD DOOR OPERATOR	830 W
	OVERHEAD DOOR OPERATOR	830 W
	RECEPTACLES	960 W
	OUT LTG	480 W
	OUT LTG/EXHAUST FAN	480 W
	RADIANT HEATERS	480 W
	ELECTRIC HEATING MATS	10000 W
	EMULSION TANK	7500 W
	ELECTRIC HEATING MATS	10000 W
	HIGH PRESSURE WASHER	15840 W
	HAR	500 W

2 INSTALL 334 CONTROLLER CABINET FOR HAR. INSTALL HAR AM BROADCAST SYSTEM IN CABINET. INSTALL GPRS MODEM (WITH CABLE AND ANTENNA), 2 ETHERNET EXTENDERS, 1 8-PORT ETHERNET SWITCH, 1 ETHERNET POWER CONTROLLER, 1 POWER STRIP, AND 5-3' CAT 5e CABLES.

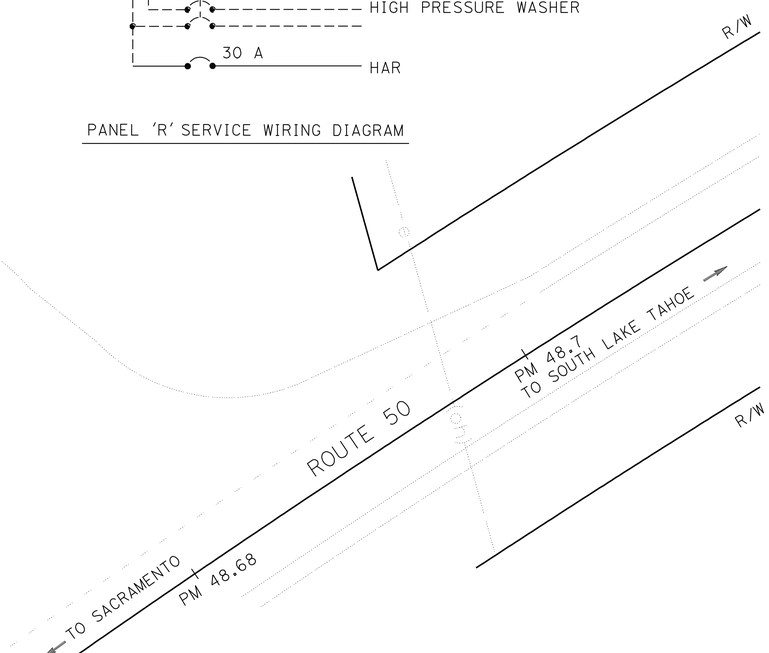
3 INSTALL HAR ANTENNA ON FIBERGLASS HAR STANDARD POLE, AND GROUND ROD. SEE ANTENNA AND GROUND ROD INSTALLATION DETAIL ON SHEET E-23 AND SES-3.

KYBURZ MAINTENANCE STATION





PANEL 'R' SERVICE WIRING DIAGRAM



LOCATION 3B

ED 50, PM 48.7, KYBURZ MAINTENANCE STATION
HIGHWAY ADVISORY RADIO

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

HIGHWAY ADVISORY RADIO SYSTEM

SCALE: 1" = 20'

E-4

BRIAN CHOW | HABIB GOLBAN | NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans

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

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10-25-10

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ua004.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

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H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
ELECTRICAL
STATE OF CALIFORNIA

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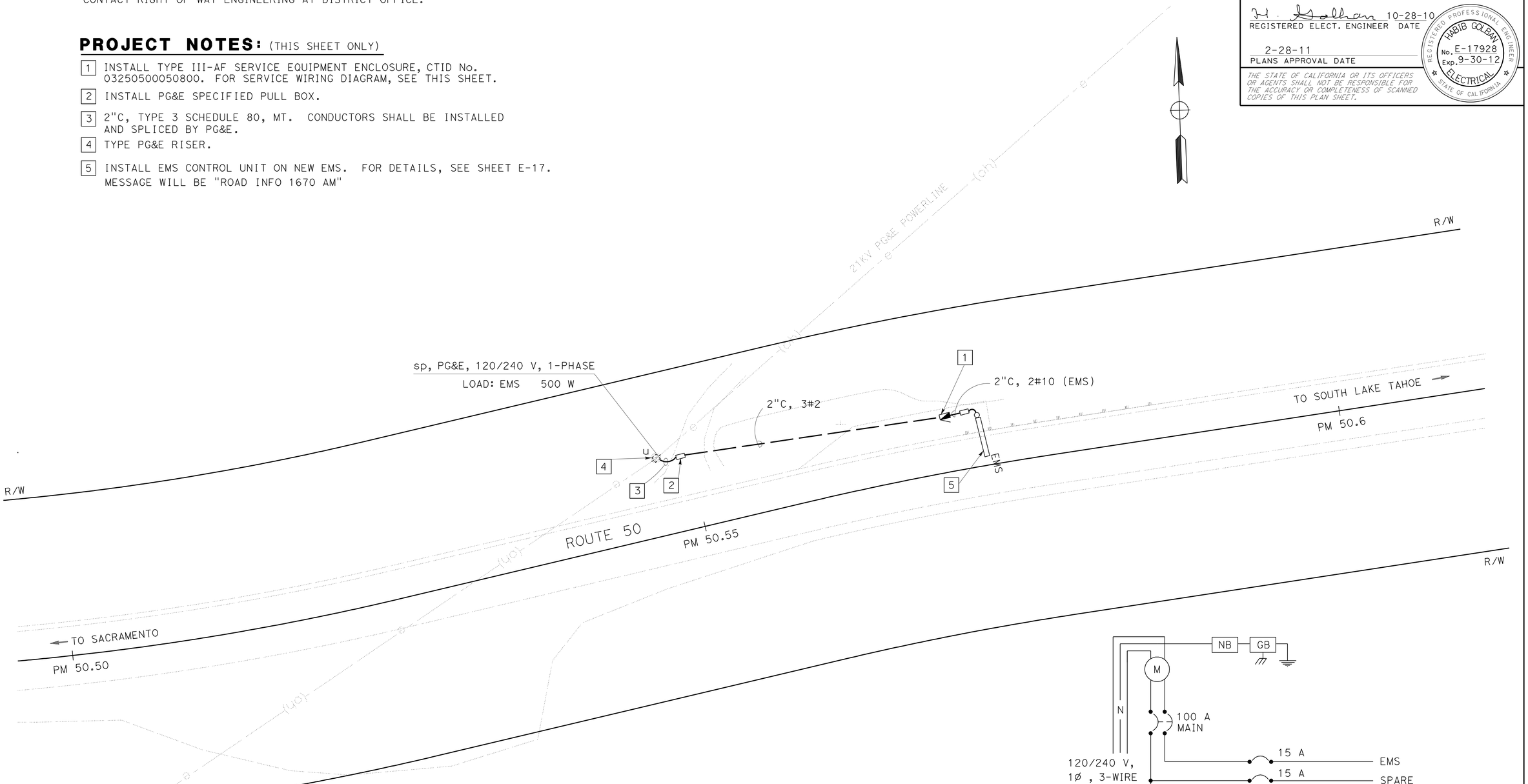
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, CTID No. 03250500050800. FOR SERVICE WIRING DIAGRAM, SEE THIS SHEET.
2. INSTALL PG&E SPECIFIED PULL BOX.
3. 2"C, TYPE 3 SCHEDULE 80, MT. CONDUCTORS SHALL BE INSTALLED AND SPLICED BY PG&E.
4. TYPE PG&E RISER.
5. INSTALL EMS CONTROL UNIT ON NEW EMS. FOR DETAILS, SEE SHEET E-17. MESSAGE WILL BE "ROAD INFO 1670 AM"



SERVICE WIRING DIAGRAM
CTID No. 03250500050800

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LOCATION 3C

ED 50, PM 50.5, PRIVATE ROAD
PM 50.5

EXTINGUISHABLE MESSAGE SIGN SYSTEM

SCALE: 1" = 20'

E-5

	REVISED BY	DATE REVISED
	9-13-10	9-13-10

CALCULATED-DESIGNED BY: YOUNG TON
CHECKED BY: HABIB GOLBAN
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION: DATE PLOTTED => 01-MAR-2011
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

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ELECTRICAL
STATE OF CALIFORNIA

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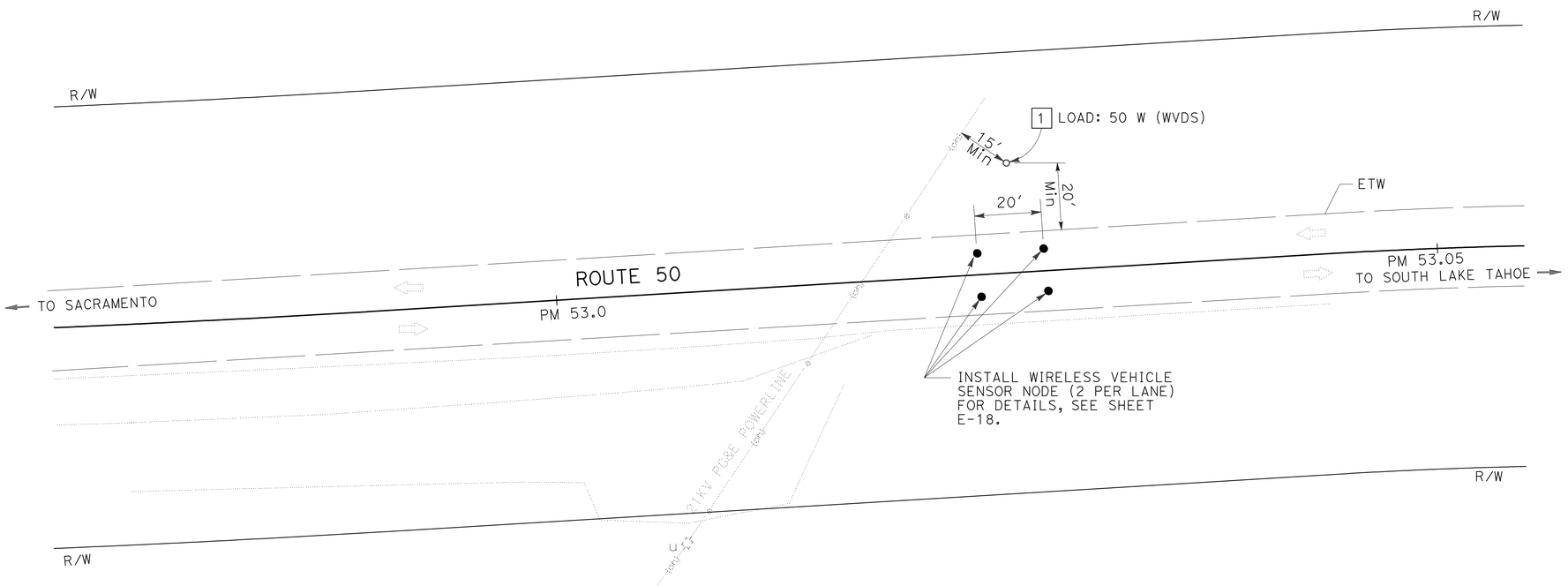
FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

1 INSTALL WVDS ON TYPE VDS 35′ POLE, SEE DETAILS ON SHEET E-18 TO E-22 AND SES-4 AND SES-5. POLE LOCATION SHALL BE AT LEAST 20′ FROM ETW.



LOCATION 4

ED 50, WRIGHTS LAKE ROAD
PM 53.1

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

WIRELESS VEHICLE DETECTION SYSTEM

SCALE: 1" = 20′

E-6

CALCULATED-DESIGNED BY
CHECKED BY

REVISED BY: 9-13-10
DATE REVISED: 9-13-10

YOUNG TON
HABIB GOLBAN

FUNCTIONAL SUPERVISOR
NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION
DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:04
10-25-10

BORDER LAST REVISED 7/2/2010

USERNAME => trlenard
DGN FILE => 0300000233ua006.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0327

PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	33	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
ELECTRICAL
STATE OF CALIFORNIA

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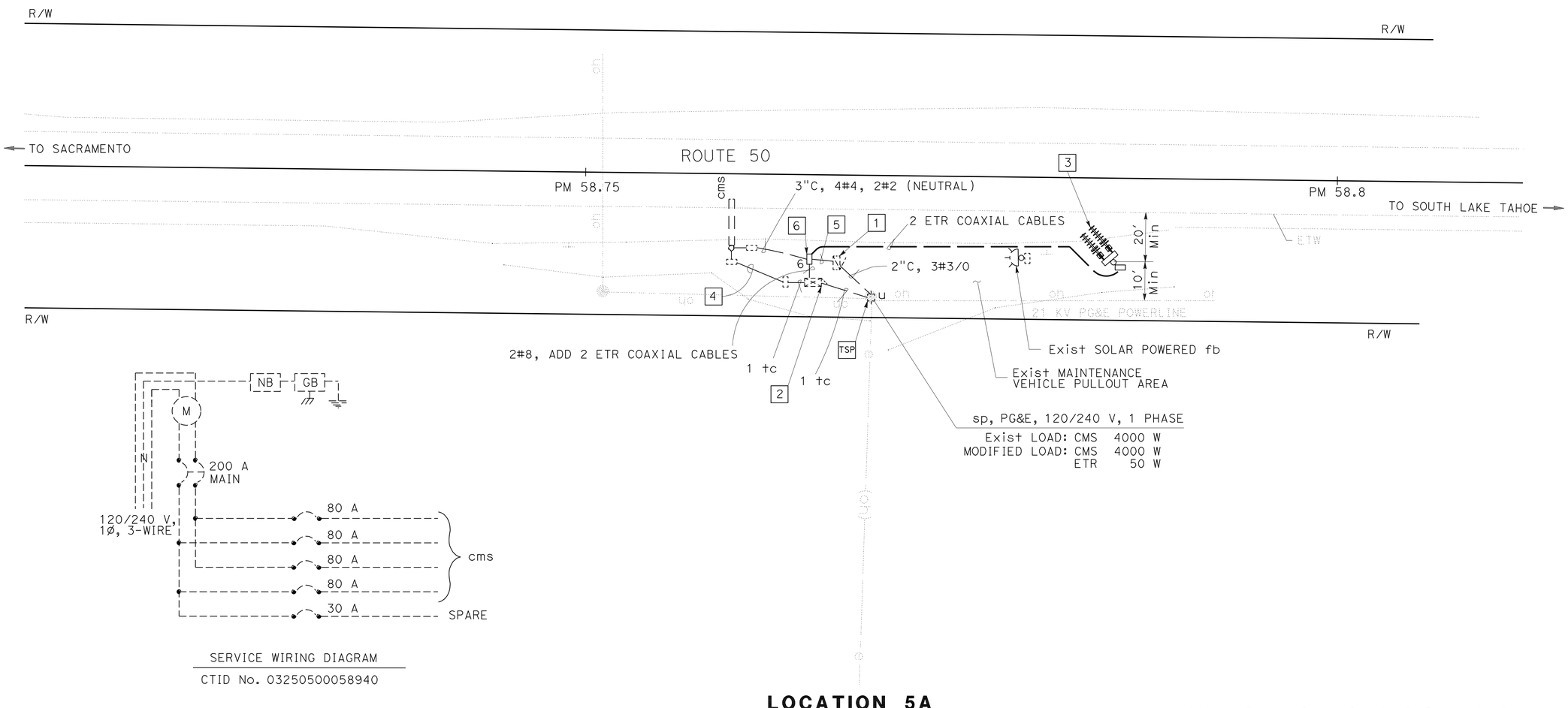
FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

1. Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, CTID No. 03250500058940. CHANGE NAMEPLATE FROM 'CMS CONTROLLER' TO 'CMS/ETR CONTROLLER'. FOR SERVICE WIRING DIAGRAM, SEE THIS SHEET.
2. Exist CMS CONTROLLER CABINET. INSTALL INSIDE CABINET, ETR EQUIPMENT, 1 ETHERNET POWER CONTROLLER, 8-PORT ETHERNET SWITCH, 2 ETHERNET EXTENDERS, TELEPHONE/DATA SURGE SUPPRESSOR, AND 2 HIGH SPEED GPRS MODEMS (FOR ETR AND CMS). SEE 'DETAIL B' ON SHEET E-20.
3. INSTALL YAGI ANTENNAS SEE SHEET SES-6 FOR DETAILS.
4. 3"C, 1 cms HARNESS #4 AND HARNESS #5
5. 3"C, 4#4 (CMS), 2#2 (NEUTRAL), 2#8 (CMS CABINET)
6. RC PULL BOX AND INSTALL NEW PULL BOX AS SHOWN.



SERVICE WIRING DIAGRAM
CTID No. 03250500058940

LOCATION 5A

ED 50, PM 58.8, TWIN BRIDGES

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

ELECTRONIC TAG READER SYSTEM

SCALE: 1" = 20'

E-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans

FUNCTIONAL SUPERVISOR: NELSON LEE
CALCULATED-DESIGNED BY: BRIAN CHOW
CHECKED BY: HABIB GOLBAN
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:05

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ua007.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	34	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER HABIB GOLBAN No. E-17928 Exp. 9-30-12 ELECTRICAL STATE OF CALIFORNIA

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

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

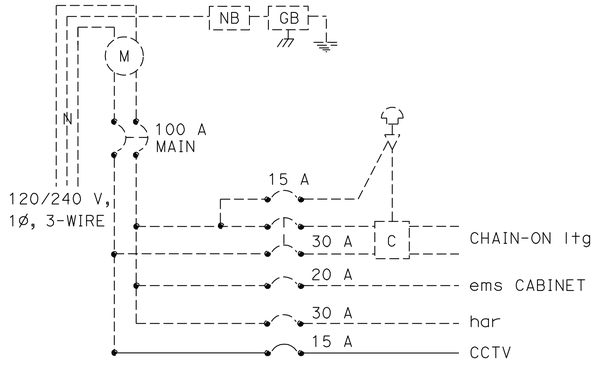
1 Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, CTID No. 03250500059700. CHANGE NAMEPLATE "SPARE" TO "CCTV".
FOR SERVICE WIRING DIAGRAM, SEE THIS SHEET.
sp, PG&E, 120/240 V, 1 PHASE

Exist LOAD:	LTG	1050 W
	EMS	500 W
	HAR	500 W
MODIFIED LOAD:	LTG	1050 W
	EMS	500 W
	HAR	500 W
	CCTV	200 W

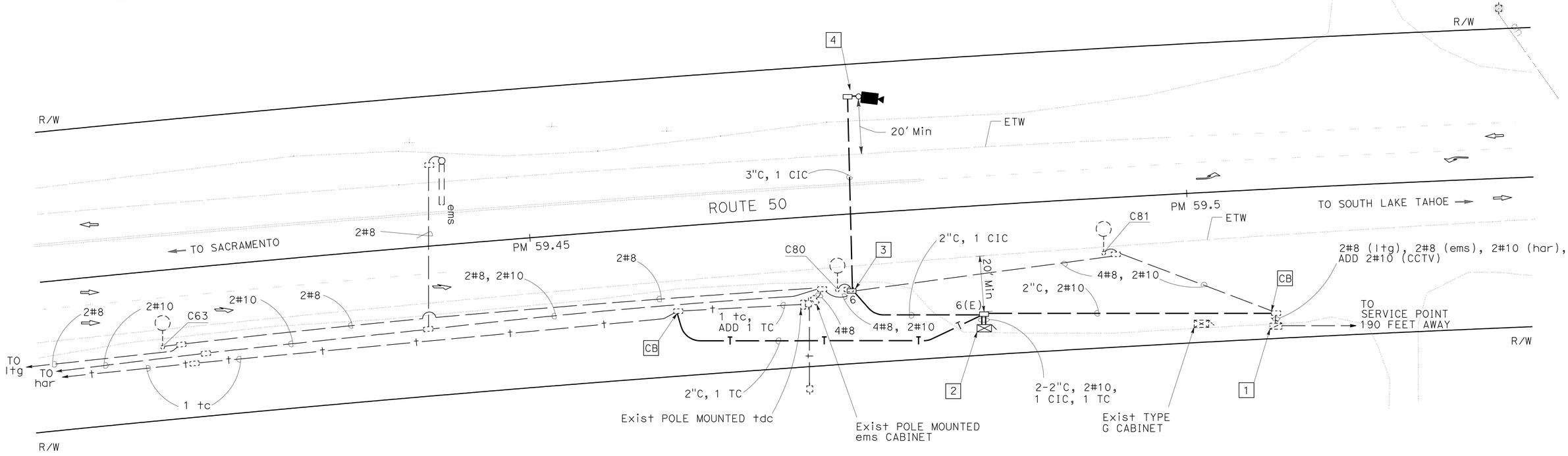
2 INSTALL 334 CABINET FOR CCTV. INSTALL
1 HIGH SPEED GPRS MODEM WITH ANTENNA, ANTENNA CABLE,
1 8-PORT ETHERNET SWITCH, 2 ETHERNET EXTENDERS, 2 HALF SHELVES,
1 VIDEO ENCODER UNIT,1 ETHERNET POWER CONTROLLER, 5-3' LONG CAT 5e PATCH CABLES,
1 TELEPHONE/DATA SURGE SUPPRESSOR, 1 CAMERA CONTROL UNIT, AND 1 POWER STRIP.
(SEE SHEET E-25 FOR ITS CABINET LAYOUT)

3 RC PULL BOX AND INSTALL NEW PULL BOX AS SHOWN.

4 INSTALL CCTV/CAMERA, 45 POLE TYPE.



SERVICE WIRING DIAGRAM
CTID No. 03250500059700



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LOCATION 5B
ED 50, PM 59.5, TWIN BRIDGES

CLOSED CIRCUIT TELEVISION SYSTEM
SCALE: 1" = 20'

E-8

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY
CHECKED BY
BRIAN CHOW
HABIB GOLBAN
FUNCTIONAL SUPERVISOR
NELSON LEE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:05
10-25-10

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ua008.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

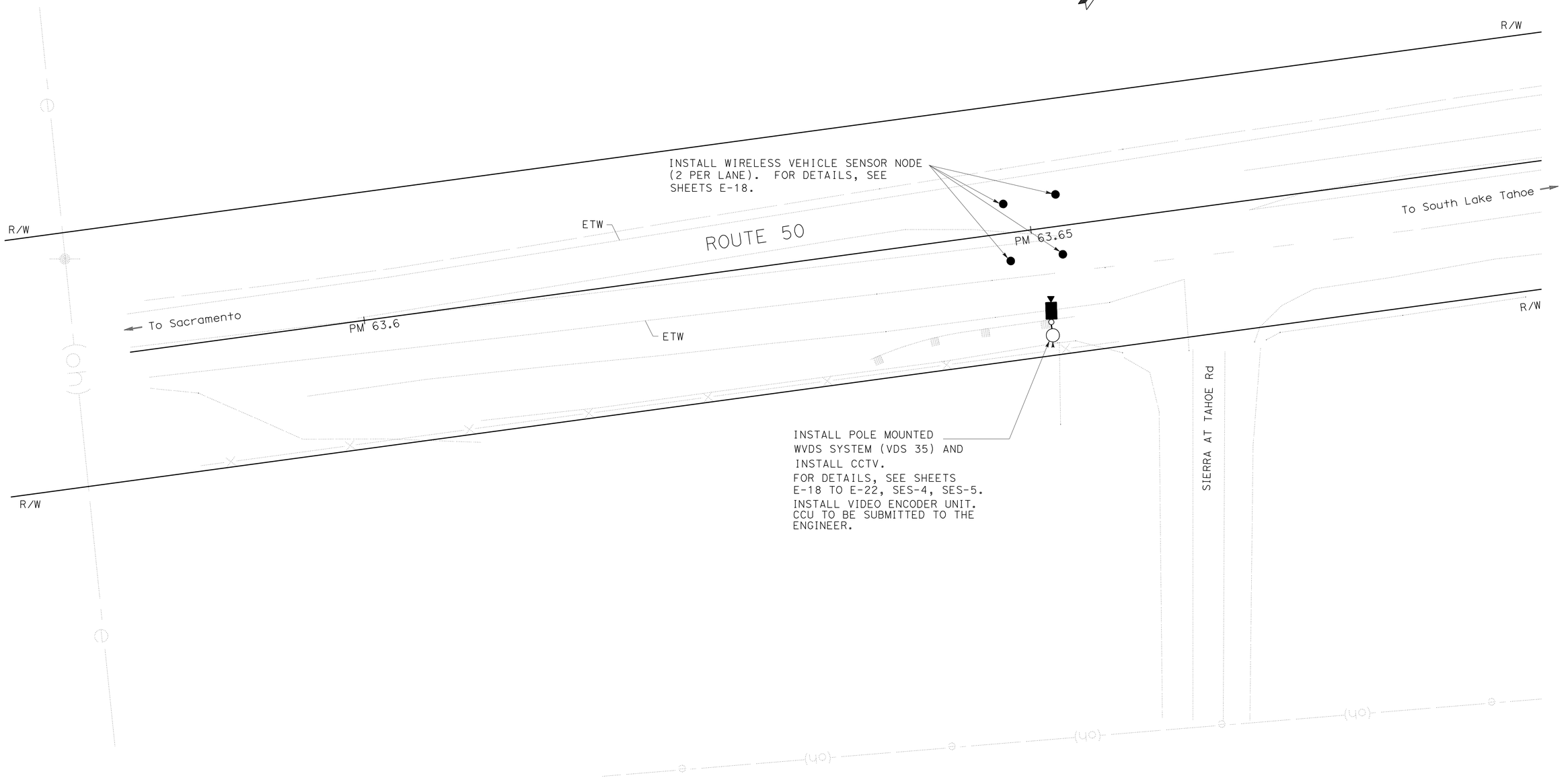
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	35	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
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.



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LOCATION 6

ED 50, PM 63.7, NEAR SIERRA AT TAHOE ROAD

WIRELESS VEHICLE DETECTION SYSTEM
CLOSED CIRCUIT TELEVISION SYSTEM

SCALE: 1" = 20'

E-9

LAST REVISION | DATE PLOTTED => 01-MAR-2011
10-25-10 | TIME PLOTTED => 10:05

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

FUNCTIONAL SUPERVISOR: NELSON LEE

CALCULATED-DESIGNED BY: BRIAN CHOW
CHECKED BY: HABIB GOLBAN

REVISED BY | DATE REVISED

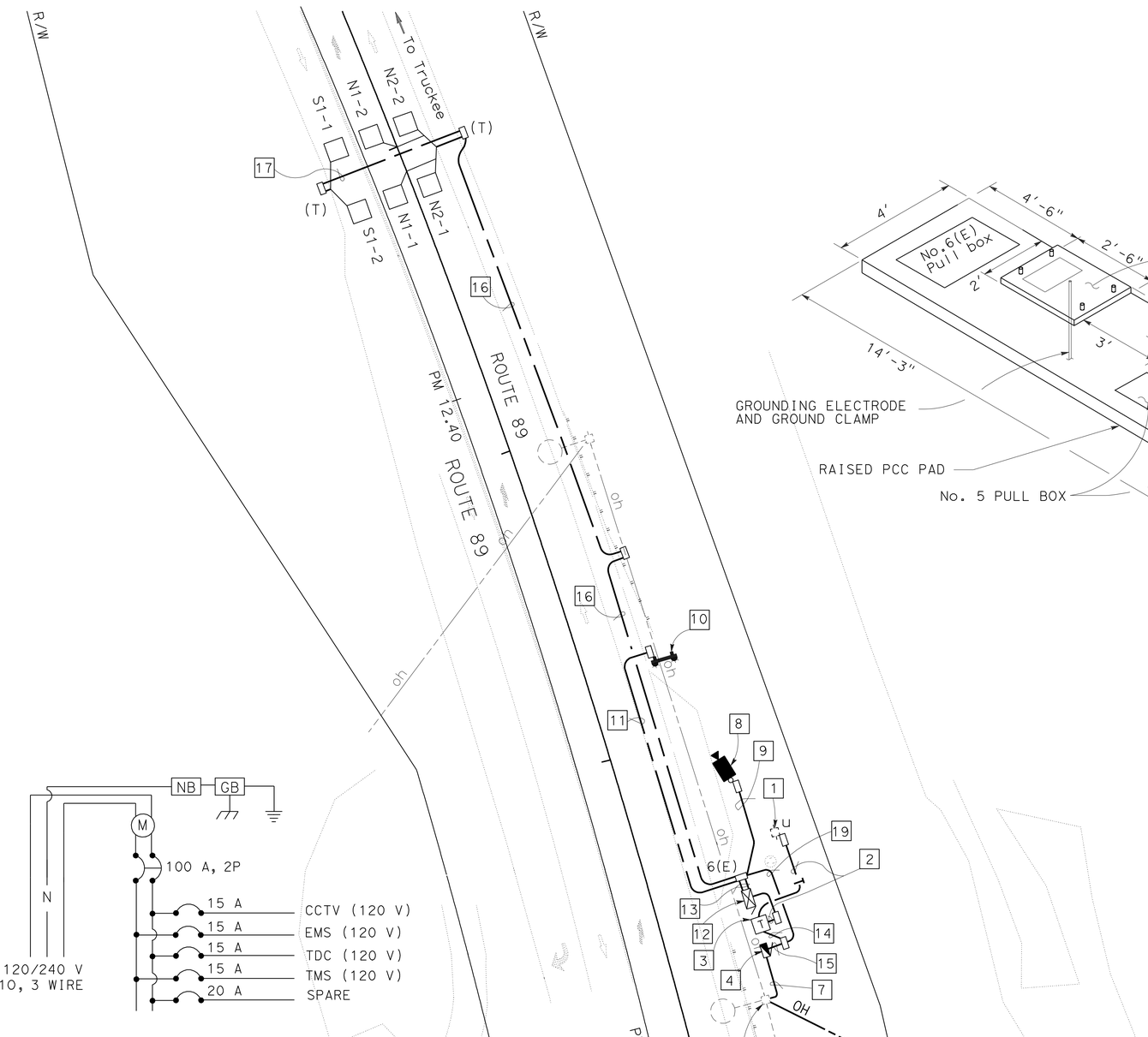
BORDER LAST REVISED 7/2/2010

USERNAME => trlenard
DGN FILE => 0300000233ua009.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

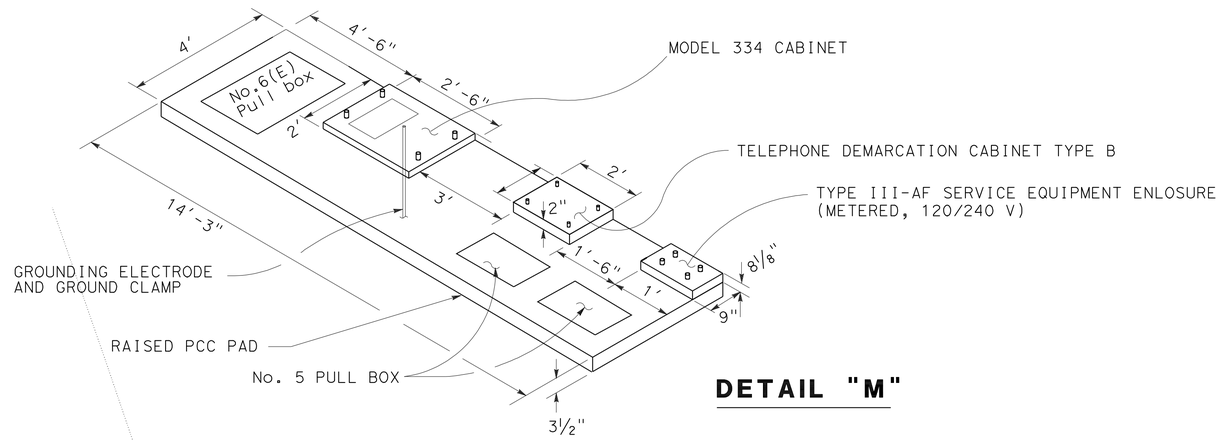
UNIT 0327 | PROJECT NUMBER & PHASE | 03000002331

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.



120/ 240 V
SERVICE WIRING DIAGRAM

CTID No. 031900890012341



DETAIL "M"

PROJECT NOTE: (THIS SHEET ONLY)

1 Exist AT&T UTILITY POLE. INSTALL TYPE "H" SERVCIE RISER FOR AT&T.

2 1½"C, 1 TC.

3 INSTALL TDC, TC No. 504, TYPE B FOR FOUNDATION DETAILS, SEE DETAIL "M" THIS SHEET.

4 INSTALL TYPE III-A SERVICE EQUIPMENT ENCLOSURE (120/240 V, 1 PHASE, 3-WIRE). SEE SERVICE WIRING DIAGRAM THIS SHEET.
LOAD: 250 W TDC
200 W CCTV
500 W EMS
500 W TMS

5 Exist SPPC SERVICE POLE.

6 SERVICE DROP OVERHEAD WILL BE INSTALLED BY SPPC.

7 2"C, 3#2, 48" TRENCH W/Min 36" COVER.

8 INSTALL CCTV 35' POLE AND CAMERA WITH PAN AND TILT.
CCTV POLE SHALL HAVE 10' MINIMUM HORIZONTAL CLEARANCE FROM OVERHEAD LINE.

9 1½"C, 1 CIC.

10 INSTALL EMS SIGN ON TWO WOOD POSTS. FOR DETAILS SEE DETAIL ON SHEET E-24. MESSAGE WILL BE "ROAD INFO 1610 AM".

11 1½"C, 3#8 (120 V, EMS)

12 INSTALL 334 CABINET AND STATE FURNISHED MODEL 2070 CONTROLLER ASSEMBLIES, AND INSTALL, 1 HIGH SPEED GPRS MODEM (WITH ANTENNA, ANTENNA CABLE), 1 8-PORT ETHERNET SWITCH, 4 ETHERNET EXTENDERS, 2 HALF SHELVES, 1 VIDEO ENCODER UNIT,1 ETHERNET POWER CONTROLLER, 5-3' LONG CAT 5e PATCH CABLES, 1 TELEPHONE/DATA SURGE SUPPRESSOR, 1 CAMERA CONTROL UNIT, AND 1 POWER STRIP. FOR FOUNDATION DETAILS, SEE DETAIL "M" THIS SHEET. (SEE SHEET E-25 FOR ITS CABINET LAYOUT)

13 2-3"C, 1 CIC, 2#8 (120 V, CCTV), 2#8 (120 V, TMS), 3#8 (120 V, EMS), 6 DLC.

14 1½"C, 2#8 (120 V, TDC).

15 2"C, 2#8 (120 V, EMS), 2#8 (120 V, CCTV), 2#8 (120 V, TDC), 2#8 (120 V, TMS).

16 1½"C, 6 DLC.

17 2"C, 2 DLC.

18 Exist SPPC POLE. INSTALL SERVICE RISER AS REQUIRED BY SPPC.

19 2"C, 2#8 (120 V, EMS), 2#8 (120 V, CCTV), 2#8 (120 V, TMS).

LOCATION 7

Pla 89, ALPINE MEADOWS ROAD
PM 12.4

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

CLOSED CIRCUIT TELEVISION SYSTEM
EXTINGUISHABLE MESSAGE SIGN
TRAFFIC MONITORING STATION

SCALE: 1" = 20'

E-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	36	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
ELECTRICAL
STATE OF CALIFORNIA

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REVISED BY	DATE REVISED
9-13-10	9-13-10

CALCULATED-DESIGNED BY: YOUNG TON
CHECKED BY: HABIB GOLBAN
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

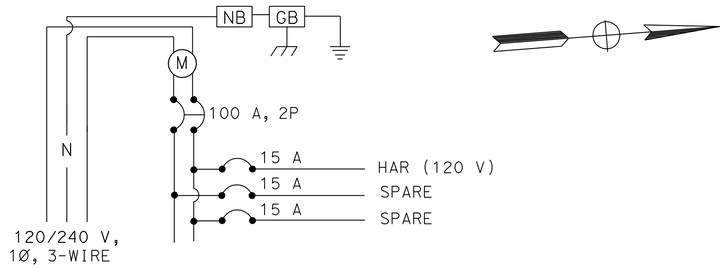
LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:05
10-25-10

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ua010.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

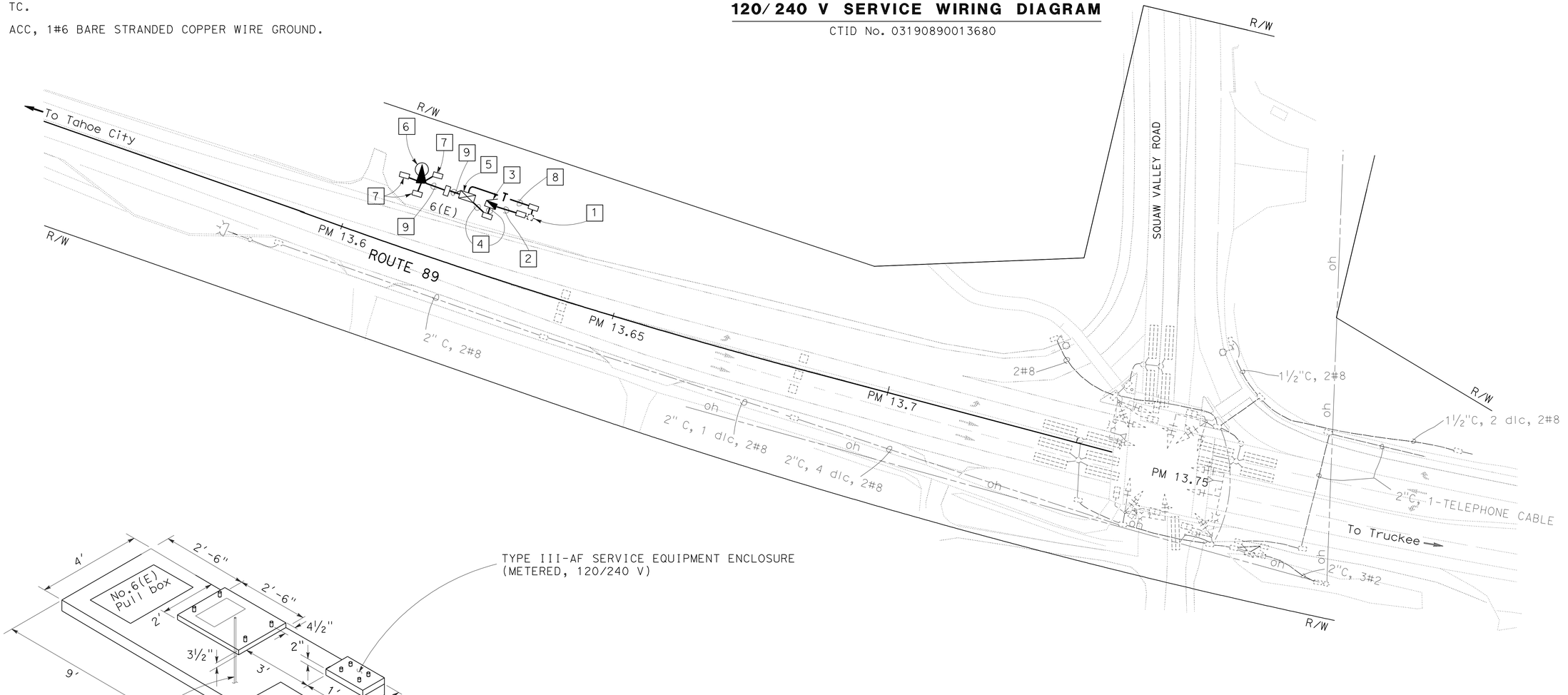
PROJECT NOTES: (THIS SHEET ONLY)

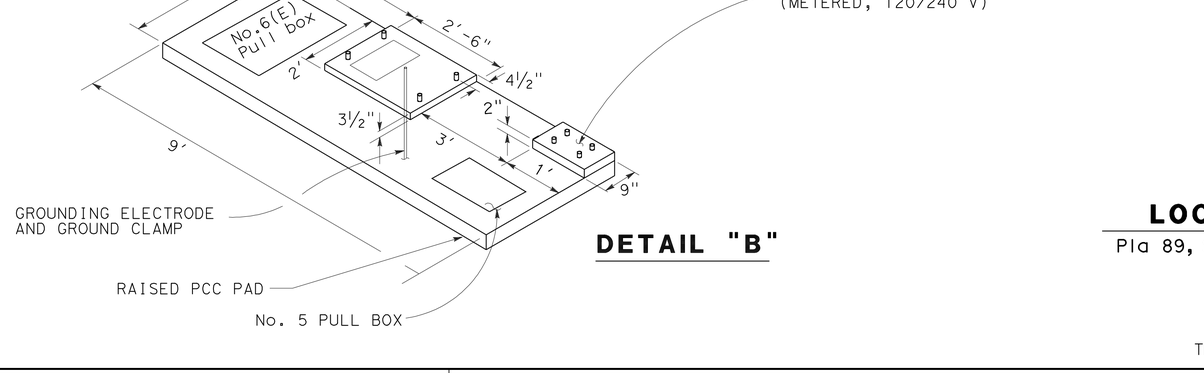
1. INSTALL TYPE "H" SERVICE RISERS AS REQUIRED BY ULTILITY COMPANIES (TELEPHONE AND POWER).
2. 2"C, MT CONDUCTORS TO BE INSTALLED AND SPLICED BY UTILITY COMPANY.
3. INSTALL TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, 1 PHASE, 3 WIRE, (120/240 V). CTID No. 03190890013680, FOR SERVICE WIRING DIAGRAM AND FOUNDATION DETAILS, SEE DETAIL THIS SHEET.
   LOAD: HAR - 500 W
4. 1½"C, 2#10 (120 V, HAR).
5. INSTALL HAR AM BROADCAST SYSTEM IN 334 CABINET AND INSTALL GPRS MODEM (WITH CABLE AND ANTENNA), TWO ETHERNET EXTENDERS, 8-PORT ETHERNET SWITCH, ETHERNET POWER CONTROLLER, AND 1 POWER STRIP. FOR FOUNDATION DETAIL SEE THIS SHEET.
6. INSTALL HAR ANTENNA ON FIBERGLASS HAR STANDARD POLE AND GROUND ROD, SEE ANTENNA AND GROUND ROD INSTALLATION DETAIL ON SHEET E-23 AND SES-3.
7. INSTALL No. 5 PULL BOX FOR GROUND ROD. PULL BOXES ARE TO BE PLACED 6" BELOW OG.
8. 2"C, 1 TC.
9. 2"C, 1 ACC, 1#6 BARE STRANDED COPPER WIRE GROUND.



120/240 V SERVICE WIRING DIAGRAM

CTID No. 03190890013680





DETAIL "B"

LOCATION 8A

Pla 89, SQUAW VALLEY ROAD
PM 13.6

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

HIGHWAY ADVISORY RADIO SYSTEM

SCALE: 1" = 50'

E-11

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	37	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
ELECTRICAL
STATE OF CALIFORNIA

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REVISED BY	DATE REVISED
YOUNG TON	9-13-10

CALCULATED-DESIGNED BY: HABIB GOLBAN
CHECKED BY: YOUNG TON
SUPERVISING ENGINEER: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans

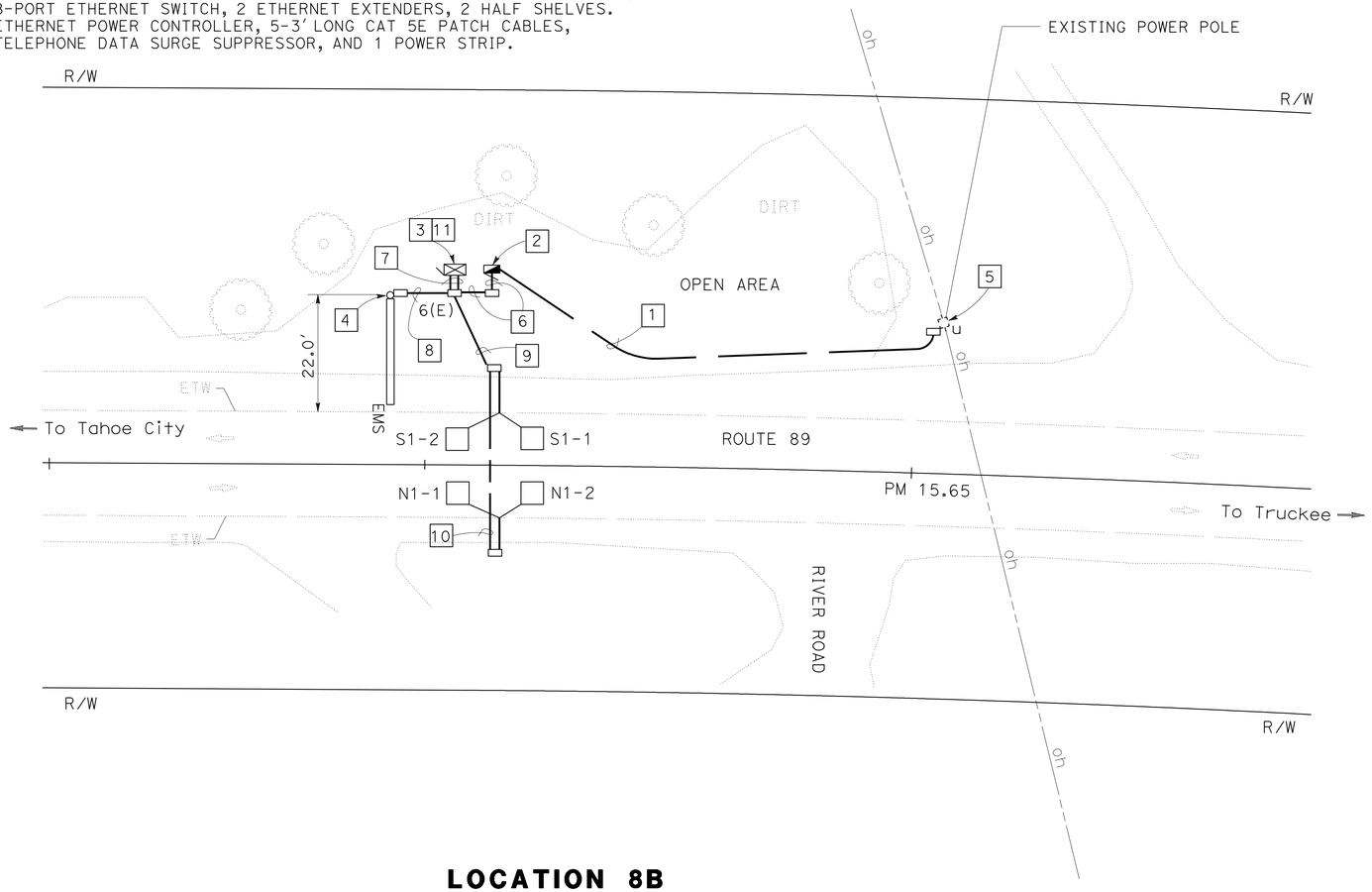
LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:05
10-25-10

BORDER LAST REVISED 11/1/2006
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlenard
DGN FILE => 0300000233ua011.dgn
CU 03391
EA 1C1121

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

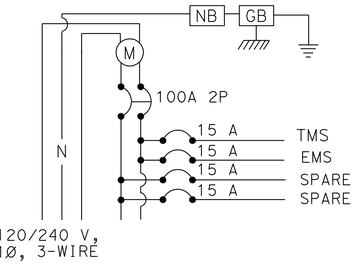
PROJECT NOTES: (THIS SHEET ONLY)

1. 2"C, MT, CONDUCTORS TO BE INSTALLED AND SPLICED BY UTILITY COMPANY
2. INSTALL TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, 1-PHASE, 3-WIRE, (120/240 V).
   CTID No. 03190890015600. FOR FOUNDATION DETAILS, SEE DETAIL "B" SHEET E-11.
   FOR SERVICE WIRING DIAGRAM, SEE DETAILS THIS SHEET.
   LOAD: EMS 500 W
   TMS 400 W
3. INSTALL 334 ENCLOSURE AND STATE-FURNISHED MODEL 2070 CONTROLLER ASSEMBLEY FOR TMS. (SEE SHEET E-25 FOR TMS CABINET LAYOUT)
   CABINET SHALL BE AT LEAST 20′ FROM ETW. SEE DETAIL "B" SHEET E-11 FOR FOUNDATION DETAILS.
4. INSTALL EXTINGUISHABLE MESSAGE SIGN AND FLASHING BEACONS (CANTILIVER IS 29′-8" LENGTH), AND
   A BLACK NEMA 5-15 P, 120 V(ac), 15 A 2-POLE, 3-WIRE GROUNDING, UL 62 STANDARD CORDED PLUG WITH 15 A EMS CONTROL.
   SEE SHEET E-17 AND ES-14C. EMS SIGN SHALL BE AT LEAST 20′ FROM ETW. MESSAGE WILL BE "ROAD INFO 1670 AM".
5. INSTALL TYPE "H" SERVICE RISER FOR UTILITY CONNECTION.
6. 1½"C, 2#8 (120 V, EMS), 2#8 (120 V, TMS).
7. 2-2"C, 2#8 (120 V, TMS), 4 DLC.
8. 1½"C, 2#8 (120 V, EMS).
9. 1½"C, 4 DLC.
10. 2"C, 2 DLC.
11. INSTALL 1 HIGH SPEED GPRS MODEM (WITH ANTENNA AND ANTENNA CABLE),
    1 8-PORT ETHERNET SWITCH, 2 ETHERNET EXTENDERS, 2 HALF SHELVES.
    1 ETHERNET POWER CONTROLLER, 5-3′ LONG CAT 5E PATCH CABLES,
    1 TELEPHONE DATA SURGE SUPPRESSOR, AND 1 POWER STRIP.



LOCATION 8B

Pla 89, APPROXIMATELY 0.5 MILE
SOUTH OF POLE CREEK ROAD
PM 15.6



SERVICE WIRING DIAGRAM

TYPE III-AF, CTID No. 03190890015600

TRAFFIC MONITORING STATION
EXTINGUISHABLE MESSAGE SIGN SYSTEM

SCALE: 1" = 20′

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	38	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
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.

REVISED BY	DATE REVISED
YOUNG TON	9-13-10

CALCULATED-DESIGNED BY: HABIB GOLBAN
CHECKED BY:

FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION: DATE PLOTTED => 01-MAR-2011
10-25-10 TIME PLOTTED => 10:05

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 0300000233ua012.dgn

CU 03391

EA 1C1121

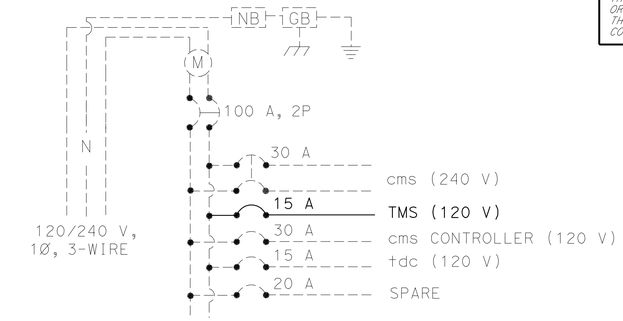
FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (FOR THIS SHEET ONLY)

1. Exist UTILITY POLE.
2. Exist 1½"C, 3#2.
3. Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, CTID No. 0317008900028000.
   ADD 15 A BREAKER FOR TMS. SEE DETAILS THIS SHEET FOR SERVICE WIRING DIAGRAM.

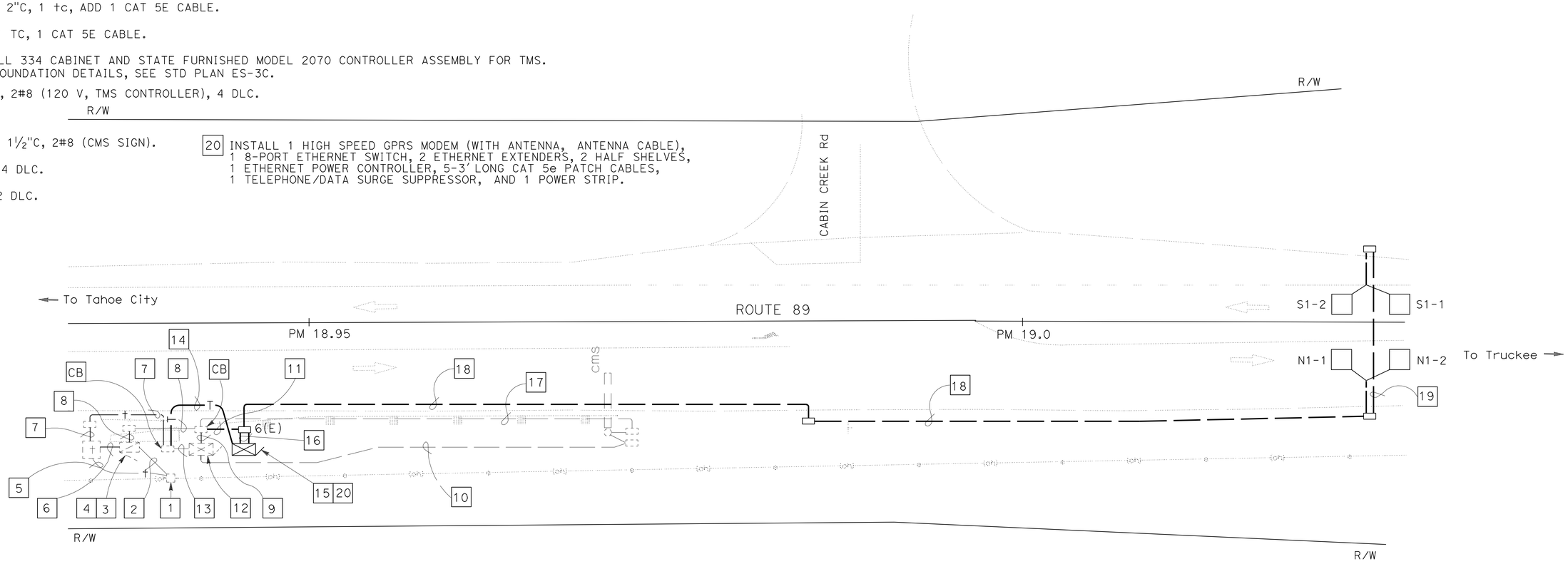
   Exist LOAD: 1- 250 W TDC
   1-3200 W CMS

   LOAD AFTER MODIFICATION: 1- 250 W TDC
   1-3200 W CMS
   1- 400 W TMS
4. INSTALL 15 A BREAKER AND A NAMEPLATE LABELED "TMS", SCREW MOUNTED, LETTER SIZE ¼", BLACK-WHITE-BLACK PHENOIC.
5. Exist 1½"C, tc.
6. Exist 1½"C, 2#8.
7. Exist 2"C, 1 tc. ADD 1 TC.
8. Exist 1½"C, 2#8 (CMS SIGN), 2#8 (CMS CONTROLLER), ADD 2#10 (TMS).
9. Exist 1½"C, 2#8 (CMS CONTROLLER).
10. Exist 2"C,1 CMS HARNESS #4, 1 CMS HARNESS #5.
11. 1½"C, 2#8 (120 V, TMS CONTROLLER).
12. Exist TYPE 334 CABINET AND MODEL 170 CONTROLLER ASSEMBLEY FOR CMS.
13. Exist 2"C, 1 tc, ADD 1 CAT 5E CABLE.
14. 2"C, 1 TC, 1 CAT 5E CABLE.
15. INSTALL 334 CABINET AND STATE FURNISHED MODEL 2070 CONTROLLER ASSEMBLY FOR TMS.
    FOR FOUNDATION DETAILS, SEE STD PLAN ES-3C.
16. 2-2"C, 2#8 (120 V, TMS CONTROLLER), 4 DLC.
17. Exist 1½"C, 2#8 (CMS SIGN).
18. ½"C, 4 DLC.
19. 2"C, 2 DLC.
20. INSTALL 1 HIGH SPEED GPRS MODEM (WITH ANTENNA, ANTENNA CABLE), 1 8-PORT ETHERNET SWITCH, 2 ETHERNET EXTENDERS, 2 HALF SHELVES, 1 ETHERNET POWER CONTROLLER, 5-3' LONG CAT 5e PATCH CABLES, 1 TELEPHONE/DATA SURGE SUPPRESSOR, AND 1 POWER STRIP.



MODIFIED 120/240 V SERVICE WIRING DIAGRAM

CTID No. 03170089000280



LOCATION 9

Pla 89, CABIN CREEK ROAD
PM 19.0

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TRAFFIC MONITORING STATION

SCALE: 1" = 20'

E-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	39	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER

2-28-11
PLANS APPROVAL DATE

HABIB GOLBAN No. E-17928 Exp. 9-30-12 REGISTERED PROFESSIONAL ENGINEER 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.

REVISED BY	DATE REVISED
YOUNG TON	9-13-10

CALCULATED-DESIGNED BY: HABIB GOLBAN
CHECKED BY:
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans

LAST REVISION DATE PLOTTED => 01-MAR-2011
10-25-10 TIME PLOTTED => 10:05

BORDER LAST REVISED 3/1/2007 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trienard | DGN FILE => 0300000233ua013.dgn | CU 03391 | EA 1C1121

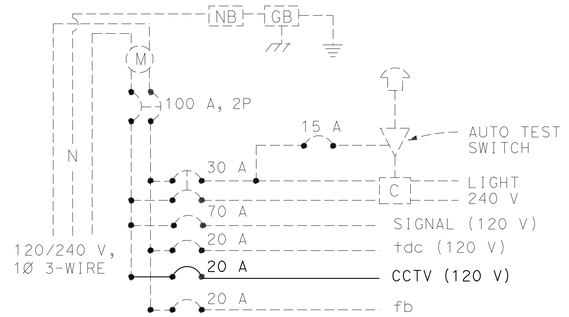
FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

1. Exist 1½"C, 2#10(fb), 2 dlc.
2. Exist 1½"C, 2#10(fb), 4 dlc.
3. Exist TYPE A tdc SHALL REMAIN.
4. Exist 1½"C, 1 tc. RC 1 tc. ADD 2 TC.
5. Exist 1½"C, 2#10.
6. Exist TYPE III-AF SERVICE EQUIPMENT ENCLOSURE, No. 03-SP-D-158, 120/240 V.
   FOR SERVICE WIRING DIAGRAM, SEE DETAILS THIS SHEET.
   REMOVE EXISTING NAMEPLATE "SPARE". INSTALL A NEW NAMEPLATE LABELED "CCTV".
   SCREW MOUNTED, LETTER SIZE ¼", BLACK-WHITE-BLACK PHENOIC.

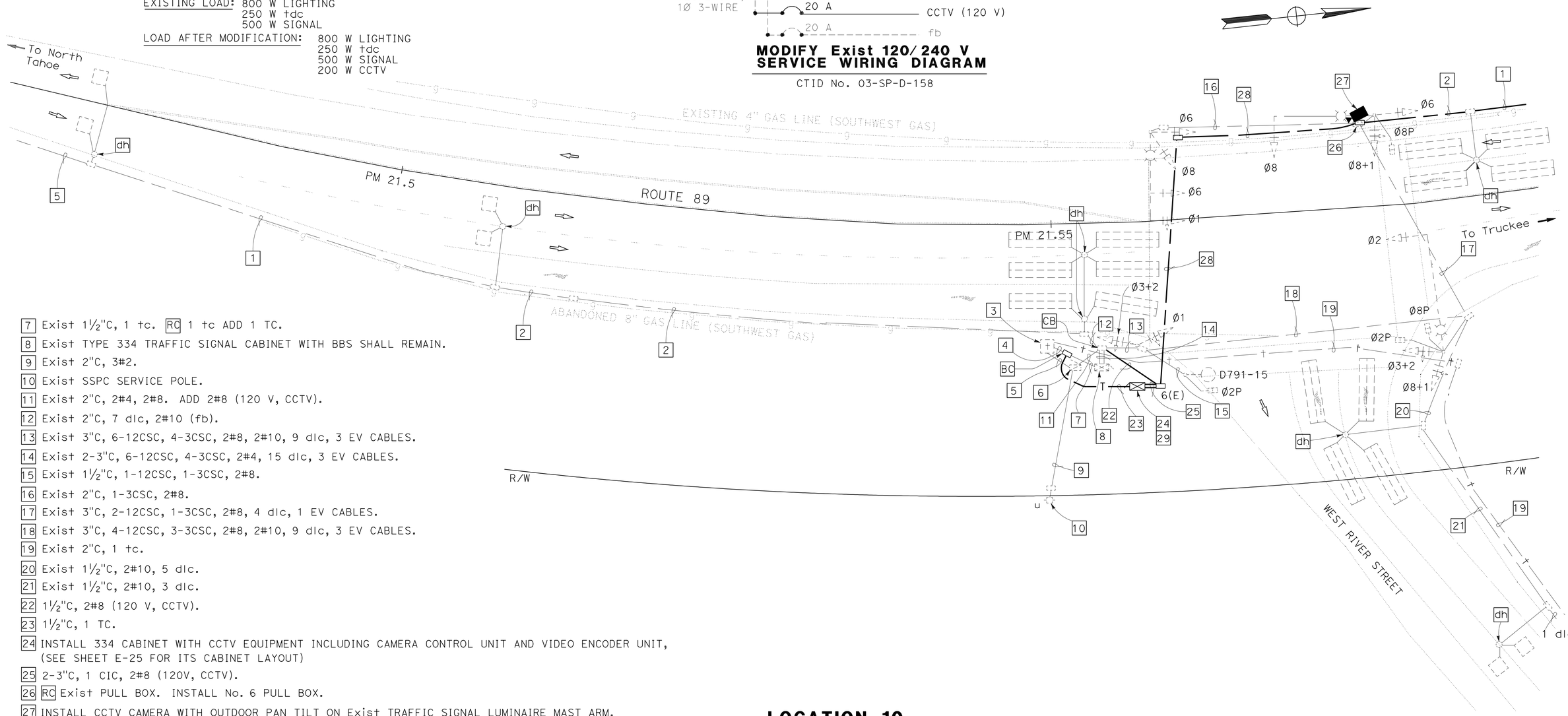
EXISTING LOAD: 800 W LIGHTING
250 W tdc
500 W SIGNAL

LOAD AFTER MODIFICATION: 800 W LIGHTING
250 W tdc
500 W SIGNAL
200 W CCTV



MODIFY Exist 120/240 V SERVICE WIRING DIAGRAM

CTID No. 03-SP-D-158



7. Exist 1½"C, 1 tc. RC 1 tc ADD 1 TC.
8. Exist TYPE 334 TRAFFIC SIGNAL CABINET WITH BBS SHALL REMAIN.
9. Exist 2"C, 3#2.
10. Exist SSPC SERVICE POLE.
11. Exist 2"C, 2#4, 2#8. ADD 2#8 (120 V, CCTV).
12. Exist 2"C, 7 dlc, 2#10 (fb).
13. Exist 3"C, 6-12CSC, 4-3CSC, 2#8, 2#10, 9 dlc, 3 EV CABLES.
14. Exist 2-3"C, 6-12CSC, 4-3CSC, 2#4, 15 dlc, 3 EV CABLES.
15. Exist 1½"C, 1-12CSC, 1-3CSC, 2#8.
16. Exist 2"C, 1-3CSC, 2#8.
17. Exist 3"C, 2-12CSC, 1-3CSC, 2#8, 4 dlc, 1 EV CABLES.
18. Exist 3"C, 4-12CSC, 3-3CSC, 2#8, 2#10, 9 dlc, 3 EV CABLES.
19. Exist 2"C, 1 tc.
20. Exist 1½"C, 2#10, 5 dlc.
21. Exist 1½"C, 2#10, 3 dlc.
22. 1½"C, 2#8 (120 V, CCTV).
23. 1½"C, 1 TC.
24. INSTALL 334 CABINET WITH CCTV EQUIPMENT INCLUDING CAMERA CONTROL UNIT AND VIDEO ENCODER UNIT, (SEE SHEET E-25 FOR ITS CABINET LAYOUT)
25. 2-3"C, 1 CIC, 2#8 (120V, CCTV).
26. RC Exist PULL BOX. INSTALL No. 6 PULL BOX.
27. INSTALL CCTV CAMERA WITH OUTDOOR PAN TILT ON Exist TRAFFIC SIGNAL LUMINAIRE MAST ARM. FOR CAMERA MOUNTING DETAILS, SEE DETAILS ON STRUCTURE SHEET, SES-1.
28. 2"C, 1 CIC.
29. INSTALL 1 HIGH SPEED GPRS MODEM WITH ANTENNA, ANTENNA CABLE, 1 8-PORT ETHERNET SWITCH, 4 ETHERNET EXTENDERS, 2 HALF SHELVES, 1 VIDEO ENCODER UNIT,1 ETHERNET POWER CONTROLLER, 5-3' LONG CAT 5e PATCH CABLES, 1 TELEPHONE DATA SURGE SUPPRESSOR, 1 CAMERA CONTROL UNIT, AND 1 POWER STRIP.

LOCATION 10

Pla 89, WEST RIVER STREET
PM 21.5

CLOSED CIRCUIT TELEVISION SYSTEM

SCALE: 1" = 20'

E-14

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	40	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HABIB GOLBAN — No. E-17928 — Exp. 9-30-12 — 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.

REVISED BY	DATE REVISED
YOUNG TON	9-13-10

CALCULATED-DESIGNED BY: HABIB GOLBAN
CHECKED BY:
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION: DATE PLOTTED => 01-MAR-2011, TIME PLOTTED => 10:05
10-25-10

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 0300000233ua014.dgn

CU 03391

EA 1C1121

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

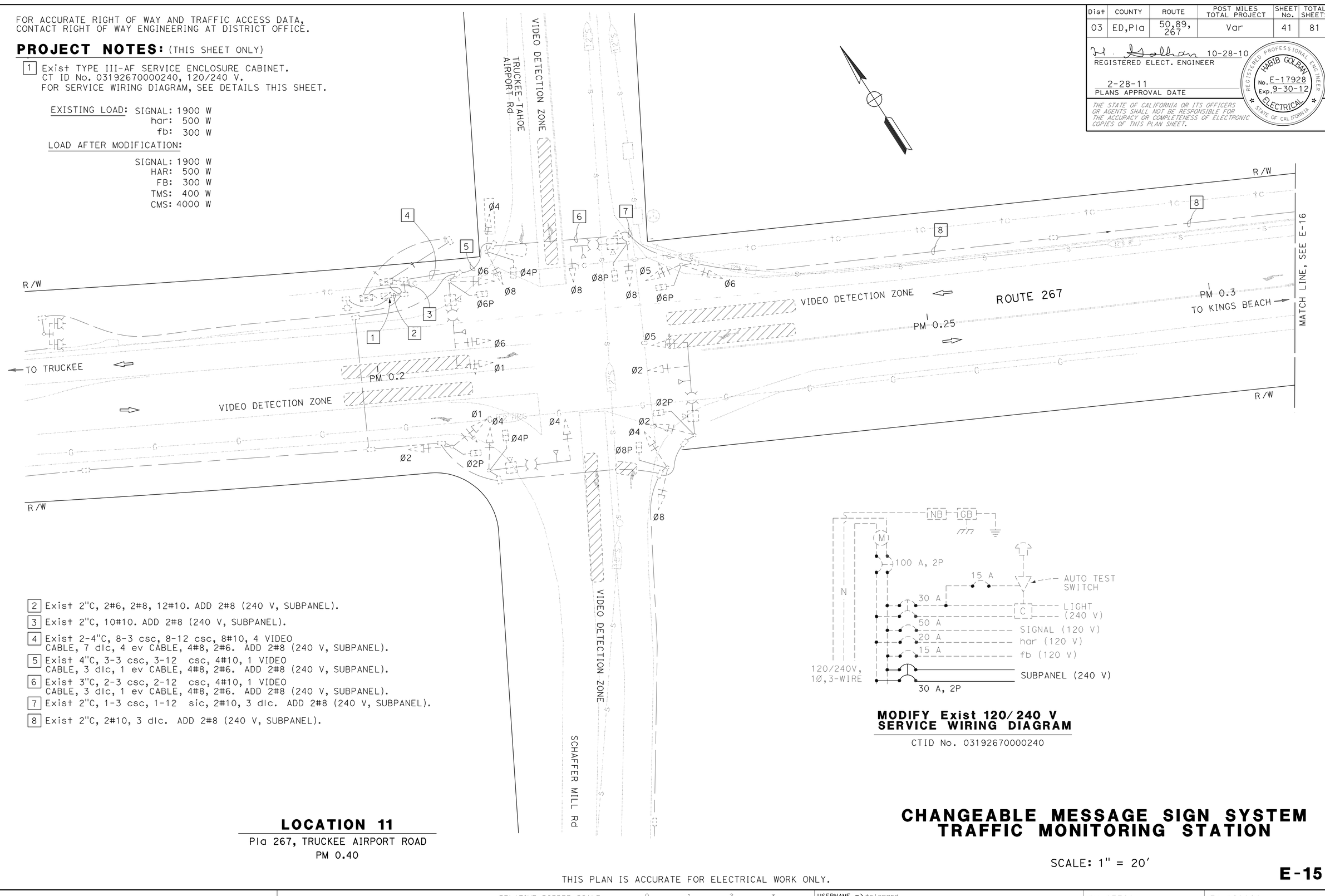
PROJECT NOTES: (THIS SHEET ONLY)

1 Exist TYPE III-AF SERVICE ENCLOSURE CABINET.
CT ID No. 03192670000240, 120/240 V.
FOR SERVICE WIRING DIAGRAM, SEE DETAILS THIS SHEET.

EXISTING LOAD: SIGNAL: 1900 W
har: 500 W
fb: 300 W

LOAD AFTER MODIFICATION:

SIGNAL: 1900 W
HAR: 500 W
FB: 300 W
TMS: 400 W
CMS: 4000 W



2 Exist 2"C, 2#6, 2#8, 12#10. ADD 2#8 (240 V, SUBPANEL).

3 Exist 2"C, 10#10. ADD 2#8 (240 V, SUBPANEL).

4 Exist 2-4"C, 8-3 csc, 8-12 csc, 8#10, 4 VIDEO CABLE, 7 dlc, 4 ev CABLE, 4#8, 2#6. ADD 2#8 (240 V, SUBPANEL).

5 Exist 4"C, 3-3 csc, 3-12 csc, 4#10, 1 VIDEO CABLE, 3 dlc, 1 ev CABLE, 4#8, 2#6. ADD 2#8 (240 V, SUBPANEL).

6 Exist 3"C, 2-3 csc, 2-12 csc, 4#10, 1 VIDEO CABLE, 3 dlc, 1 ev CABLE, 4#8, 2#6. ADD 2#8 (240 V, SUBPANEL).

7 Exist 2"C, 1-3 csc, 1-12 sic, 2#10, 3 dlc. ADD 2#8 (240 V, SUBPANEL).

8 Exist 2"C, 2#10, 3 dlc. ADD 2#8 (240 V, SUBPANEL).

MODIFY Exist 120/240 V SERVICE WIRING DIAGRAM

CTID No. 03192670000240

LOCATION 11

Pla 267, TRUCKEE AIRPORT ROAD
PM 0.40

CHANGEABLE MESSAGE SIGN SYSTEM TRAFFIC MONITORING STATION

SCALE: 1" = 20'

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	41	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HABIB GOLBAN — No. E-17928 — Exp. 9-30-12 — 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.

REVISED BY	DATE REVISED
YOUNG TON	9-13-10

CALCULATED-DESIGNED BY: HABIB GOLBAN
CHECKED BY:
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION: DATE PLOTTED => 01-MAR-2011, TIME PLOTTED => 10:12
10-25-10

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 0300000233ua015.dgn

CU 03391

EA 1C1121

FOR ACCURATE RIGHT OF WAY AND TRAFFIC ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.

PROJECT NOTES: (THIS SHEET ONLY)

1. Exist 2"C, 2#10, 3 DLC. ADD 2#8 (240 V).
2. Exist 2"C, 2#10, 1 DLC. ADD 2#8 (240 V).
3. Exist AT&T VAULT.
4. 2 "C, 1 TC, 1 CAT5E CABLE.
5. 2"C, 1 TC, 1-CAT 5E CABLE
6. 2"C, 2#8 (240 V).
7. 1½"C, 2#8 (240 V).
8. 2"C, 2 DLC.
9. INSTALL TDC, TC#507, TYPE B. FOR FOUNDATION DETAILS, SEE DETAIL "I" THIS SHEET.
10. INSTALL TYPE III-AF (NO-METERED SECTION, SUBPANEL) WITH 5 kVA STEP DOWN TRANSFORMER, 240/120 V. FOR FOUNDATION DETAILS SEE DETAIL "I" THIS SHEET. INSTALL 15/1P CB FOR CMS CABINET, 30/2 CB FOR CMS SIGN, 15/1P CB FOR TDC, AND 15/1P CB FOR TMS RESPECTIVELY. INSTALL NAME PLATE LABELED " CMS SIGN", CMS CABINET", "TDC" AND "TMS" RESPECTIVELY. SCREW MOUNTED, LETTER SIZE ¼" BLACK-WHITE-BLACK PHENOIC. SEE DETAIL "K" THIS SHEET.
11. 2"C, 2#8 (120 V, CMS CONTROLLER), 2#8 (120 V, TDC), 2#8 (120 V, TMS), 2#8 (240 V, CMS).
12. 1½"C, 2#8 (240 V, TDC).
13. 2"C, 4 DLC.
14. 1½"C, 2#8 (120 V, CMS CONTROLLER), 2#8 (240 V, CMS).
15. 1½"C, 2#8 (240 V, CMS).
16. 2"C, 1 CMS HARDNESS #4, 1 CMS HARDNESS #5.

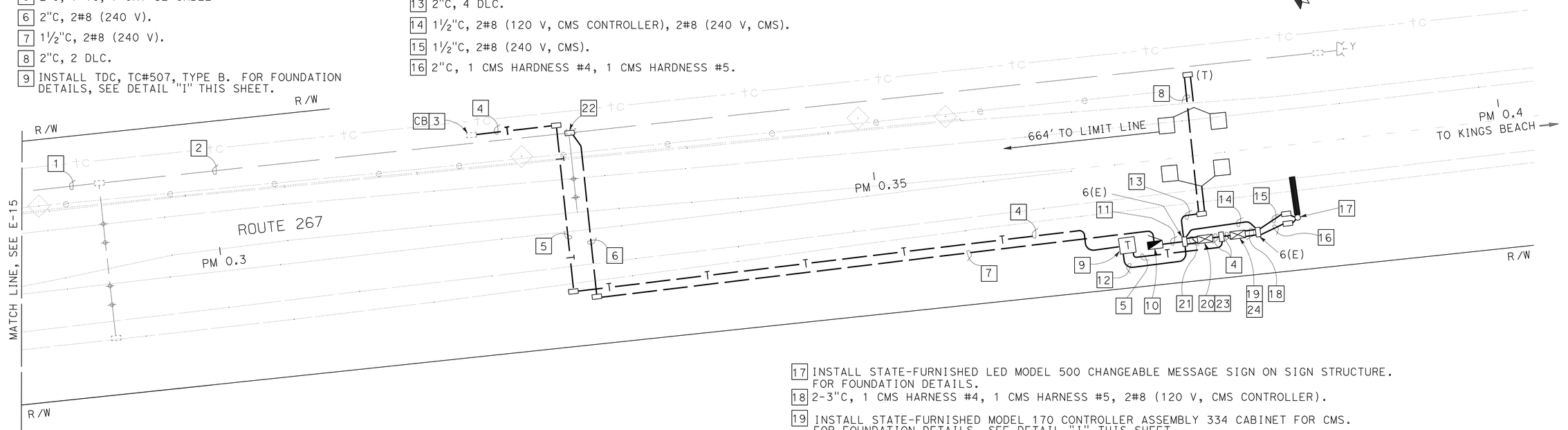
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	42	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

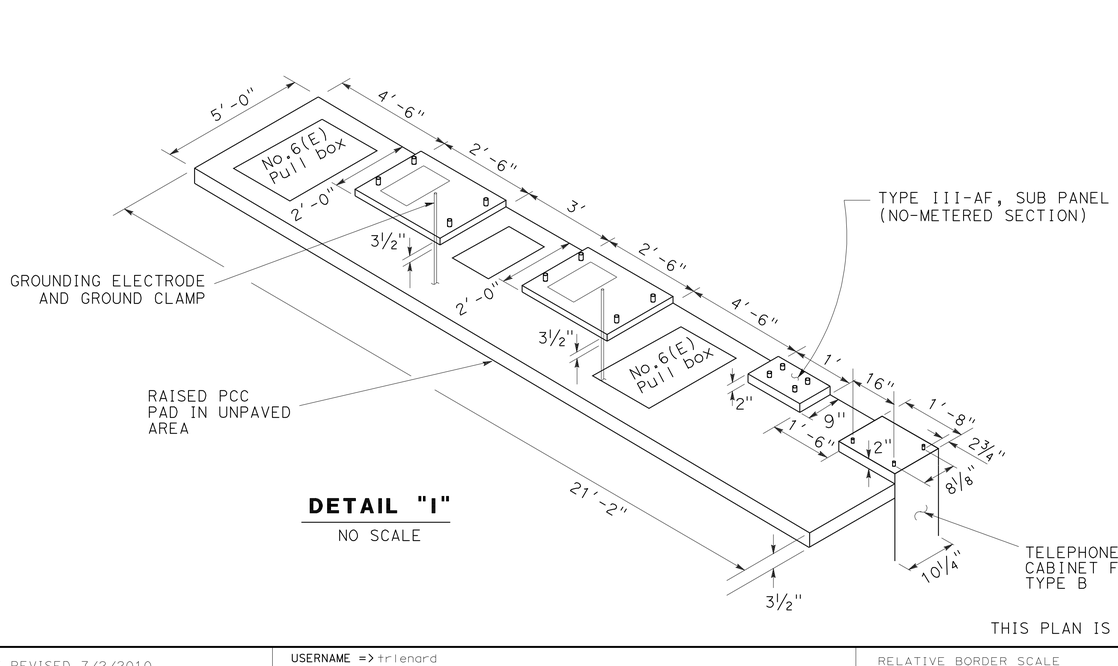
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HABIB GOLBAN — No. E-17928 Exp. 9-30-12 — ELECTRICAL — STATE OF CALIFORNIA

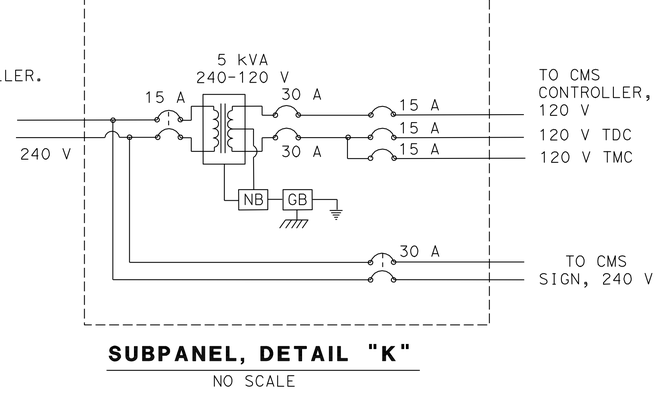
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



17. INSTALL STATE-FURNISHED LED MODEL 500 CHANGEABLE MESSAGE SIGN ON SIGN STRUCTURE. FOR FOUNDATION DETAILS.
18. 2-3"C, 1 CMS HARNESS #4, 1 CMS HARNESS #5, 2#8 (120 V, CMS CONTROLLER).
19. INSTALL STATE-FURNISHED MODEL 170 CONTROLLER ASSEMBLY 334 CABINET FOR CMS. FOR FOUNDATION DETAILS, SEE DETAIL "I" THIS SHEET.
20. INSTALL 334 CABINET AND STATE-FURNISHED MODEL 2070 CONTROLLER ASSEMBLY FOR TMS. FOR FOUNDATION DETAILS, SEE DETAIL "I" THIS SHEET. SEE SHEET E-25 FOR TMS CABINET LAYOUT)
21. 2-3"C, 2#8 (120 V, TMS), 4 DLC.
22. RC Exist PULL BOX AND REPLACE WITH No. 6 PULL BOX.
23. INSTALL GPRS MODEM, ANTENNA, ANTENNA CABLE, 1 8-PORT ETHERNET SWITCH, 2 ETHERNET EXTENDERS, 2 HALF SHELVES, 5-3' LONG CAT 5E PATCH CABLES, 1 TELEPHONE DATA SURGE SUPPRESSOR, 1 POWER STRIP, AND 1 ETHERNET POWER CONTROLLER.
24. INSTALL 1 ETHERNET POWER CONTROLLER, GDI-SM 2400 MODEM,1 POWER STRIP, 1 ETHERNET POWER CONTROLLER.



DETAIL "I"
NO SCALE



SUBPANEL, DETAIL "K"
NO SCALE

CHANGEABLE MESSAGE SIGN SYSTEM TRAFFIC MONITORING STATION

SCALE: 1" = 20'

E-16

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY

REVISED BY	DATE REVISED
YOUNG TON	9-13-10

CALCULATED-DESIGNED BY: HABIB GOLBAN
CHECKED BY:
FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans

LAST REVISION 10-25-10 | DATE PLOTTED => 01-MAR-2011 | TIME PLOTTED => 10:13

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ua016.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	43	81

H. Golban 10-28-10
REGISTERED ELECTRICAL ENGINEER

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — HABIB GOLBAN — No. E-17928 — Exp. 9-30-10 — ELECTRICAL — STATE OF CALIFORNIA

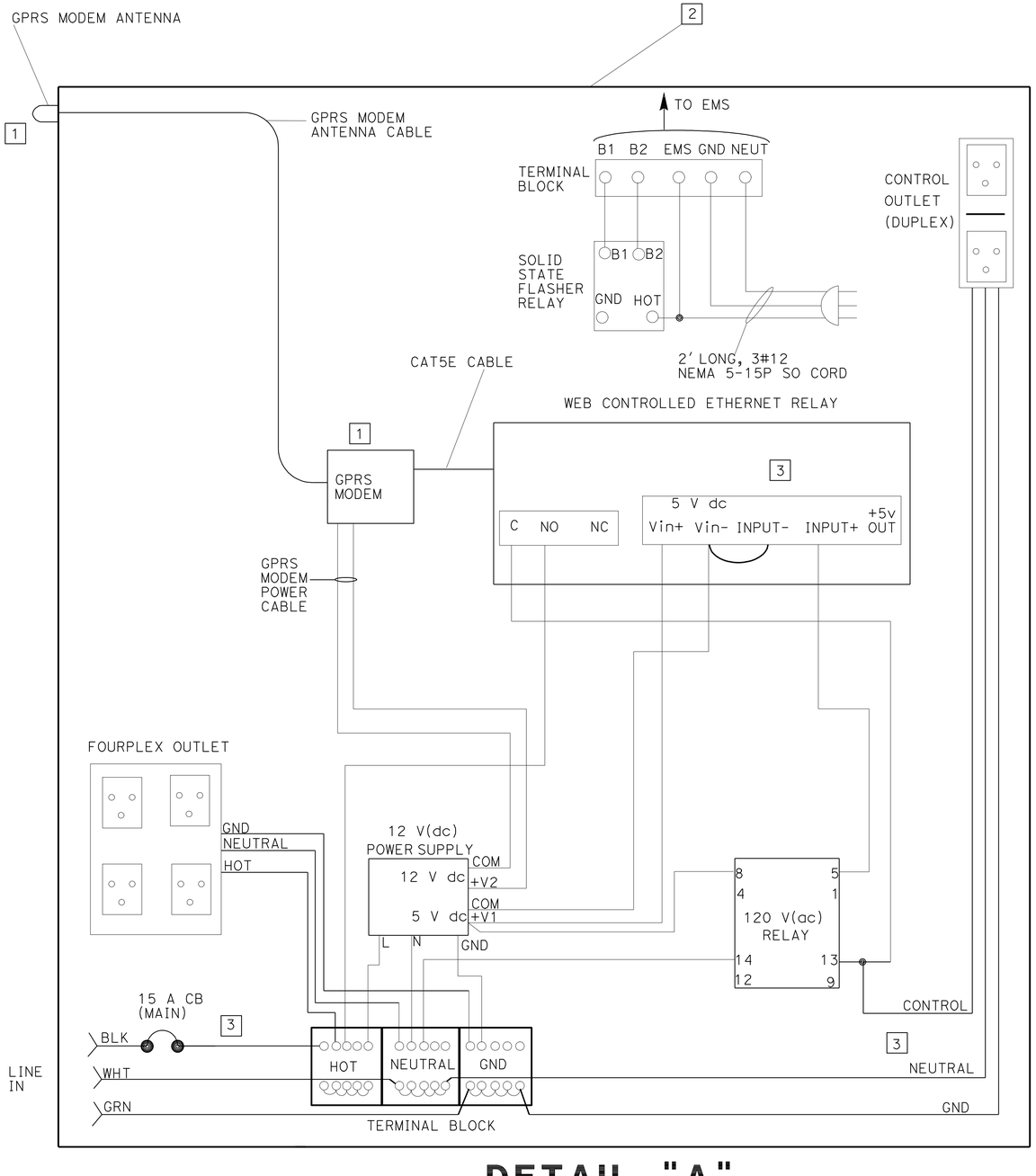
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

DATE	REVISED BY
	DATE REVISED

CALCULATED/ DESIGNED BY	CHECKED BY
BRIAN CHOW	HABIB GOLBAN

FUNCTIONAL SUPERVISOR: NELSON LEE

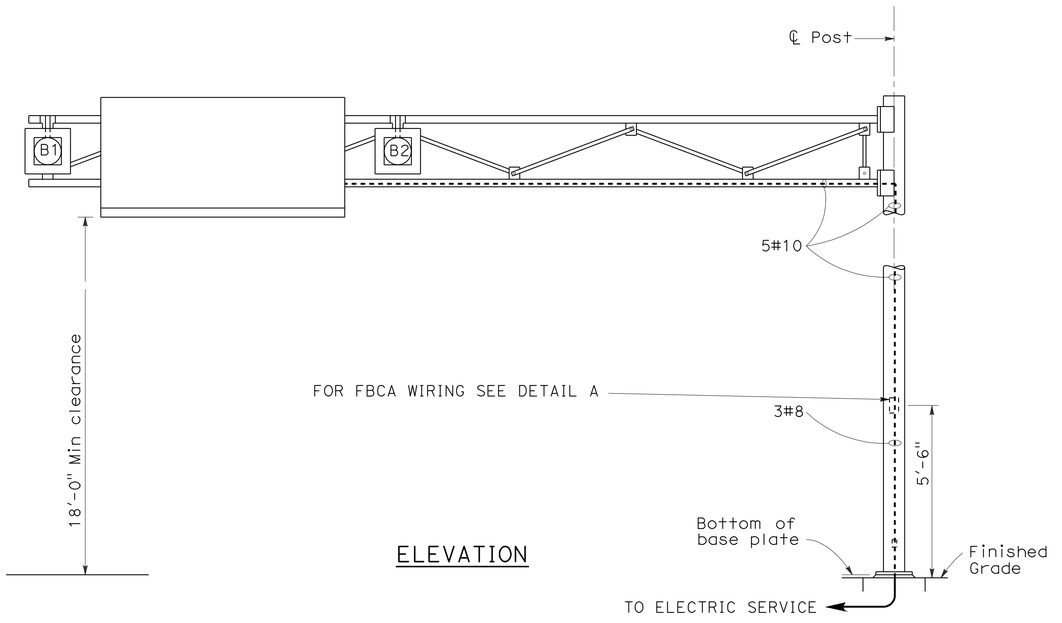
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans



DETAIL "A"

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL ANTENNA AND ANTENNA CABLE.
2. ENCLOSURE SHALL BE NEMA-3R, 18"L X 12"W X 8"D WITH ¾" PLYWOOD BACKING, CONTINUOUSLY HINGED AND HASP PADLOCKABLE DOORS. EXACT MOUNTING DETAILS TO BE SUBMITTED BY CONTRACTOR FOR ENGINEER'S APPROVAL.
3. USE THE FOLLOWING WIRE SIZES AND COLORS: HOT (BLACK), NEUTRAL (WHITE), GROUN (GREEN), CONTROL WIRE (RED), +5VDC WIRE (RED #16) AND -5VDC WIRE (BLACK #16).
4. FOR YAGI ANTENNA MOUTING DETAILS, SEE SES-8.



ELEVATION

EXTINGUISHABLE MESSAGE SIGN SYSTEM (DETAILS)

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-17

LAST REVISION DATE PLOTTED => 01-MAR-2011
12-14-10 TIME PLOTTED => 10:13

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 0300000233ua017.dgn

CU 03391

EA 1C1121

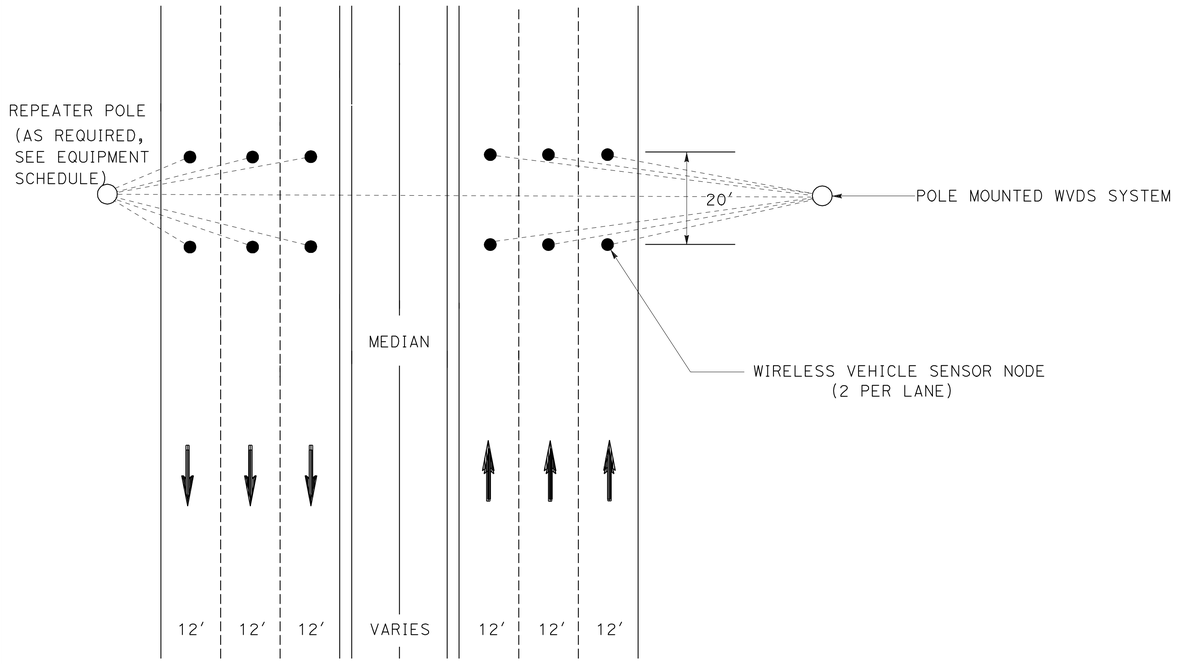
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	44	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

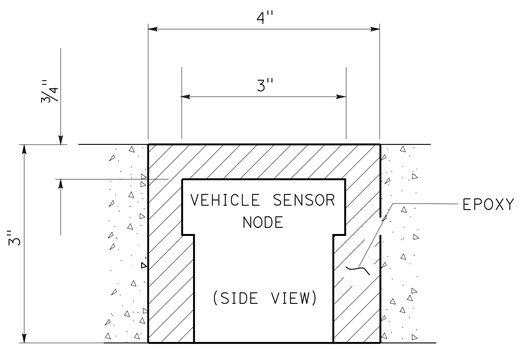
REGISTERED PROFESSIONAL ENGINEER — HABIB GOLBAN — No. E-17928 Exp. 9-30-12 — ELECTRICAL — STATE OF CALIFORNIA

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.



DETAIL 'D'

VEHICLE SENSOR NODE PLACEMENT DETAIL



DETAIL 'E'

VEHICLE SENSOR NODE
INSTALLED IN ROADWAY

WIRELESS VEHICLE DETECTOR SENSOR NODE INSTALLATION PROCEDURE

1. PRIOR TO INSTALLATION, IDENTIFY SENSOR'S ID, LANE NUMBER, AND LOCATION IN LANE.
2. CORE A HOLE AT LEAST 3" DEEP SO THAT WHEN INSTALLED THE TOP OF THE SENSOR IS AT LEAST 3/4" BELOW THE SURFACE.
3. MAKE SURE THE SENSOR INSTALLS FLAT IN THE CORED HOLED AND IS NOT TILTED.
4. USE THE HEAT-GUN OR HOT COMPRESSED AIR TO DRY THE INSIDE OF THE CORED HOLE. THERE MUST BE ABSOLUTELY NO MOISTURE ON THE APPLIED SURFACE.
5. FILL THE HOLE ABOUT 1/4 FULL OF THE SENSOR EPOXY/ADHESIVE.
6. PLACE SENSOR IN THE HOLE WITH ARROW POINTING IN THE DIRECTION OF TRAFFIC. THE EPOXY SHOULD STILL HAVE WORK TIME, SO THE SENSOR CAN BE ROTATED TO THE RIGHT POSITION. PUSH SENSOR DOWN SO IT LAYS FLAT ON THE BOTTOM OF THE HOLE. THIS ASSURES THAT THERE IS A BOND UNDERNEATH THE SENSOR WITH THE EPOXY.
7. FILL THE HOLE WITH THE REMAINING EPOXY TO COVER THE SENSOR. LEVEL EPOXY WITH THE SURFACE OF THE ROAD.
8. AFTER THE FIRST APPLICATION, DO NOT LET THE EPOXY SIT FOR MORE THAN 30 SECONDS BEFORE THE NEXT APPLICATION.
9. THE INSTALLATION PAVEMENT TEMPERATURE SHOULD BE GREATER THAN -35°F.
10. DEPENDING ON AMBIENT TEMPERATURE AND HUMIDITY, ADHESIVE DRYING TIME WILL VARY FROM 5 MINUTES TO 15 MINUTES. VERIFY HARDNESS OF EPOXY BEFORE REOPENING THE LANE FOR TRAFFIC.
11. RECORD DISTANCES BETWEEN EACH SENSOR PAIR.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

WIRELESS VEHICLE DETECTION SYSTEM (VEHICLE SENSOR NODE INSTALLATION DETAILS)

NO SCALE

E-18

CALCULATED-DESIGNED BY: BRIAN CHOW
CHECKED BY: HABIB GOLBAN
FUNCTIONAL SUPERVISOR: NELSON LEE
REVISED BY / DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans

LAST REVISION | DATE PLOTTED => 01-MAR-2011 | 10-25-10 | TIME PLOTTED => 10:13

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ua018.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	45	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

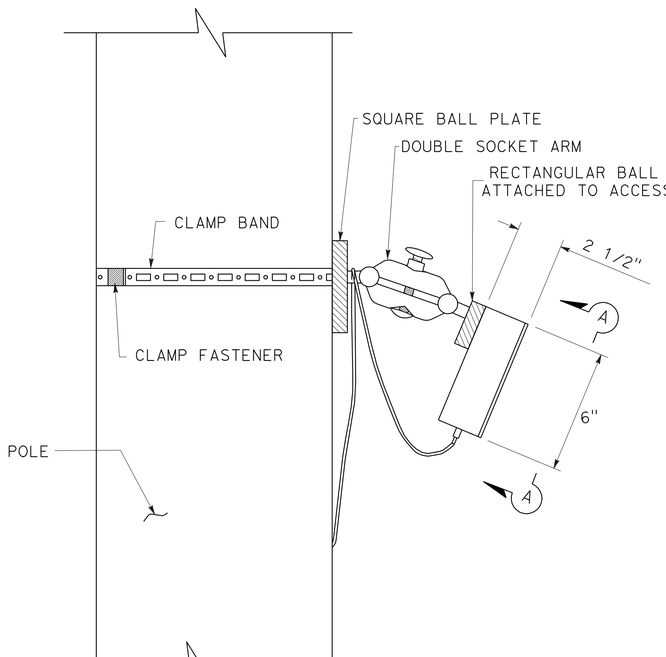
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER HABIB GOLBAN No. E-17928 Exp. 9-30-12 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.

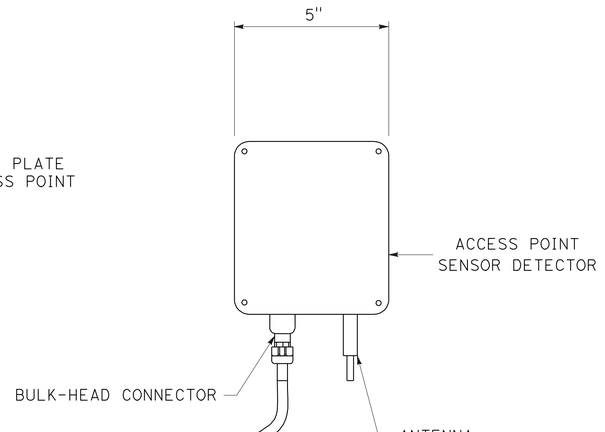
PROJECT NOTE: (THIS SHEET ONLY)

1. DETECTOR AND CAMERA MOUNTING SHOWN FOR Typ. ONLY. EXACT MOUNTING DETAILS TO BE SUBMITTED BY THE CONTRACTOR FOR ENGINEER'S APPROVAL.

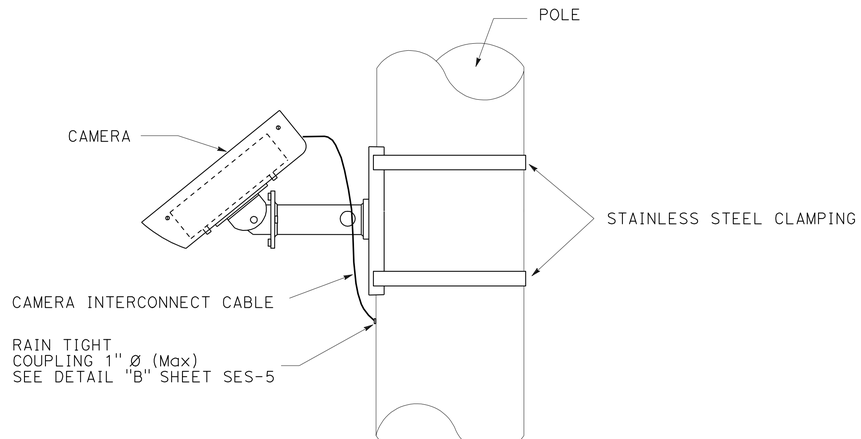


DETAIL 'L'

ACCESS POINT WITH GPRS ANTENNA MOUNTING DETAIL



SECTION A-A



CAMERA MOUNTING DETAIL

CLOSED CIRCUIT TELEVISION SYSTEM
WIRELESS VEHICLE DETECTION SYSTEM
(DETECTOR MOUNTING DETAILS)
(CAMERA MOUNTING DETAILS)

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

NO SCALE

E-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans
FUNCTIONAL SUPERVISOR: NELSON LEE
CALCULATED-DESIGNED BY: BRIAN CHOW
CHECKED BY: HABIB GOLBAN
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 01-MAR-2011 | TIME PLOTTED => 10:13
10-25-10

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ua019.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	46	81

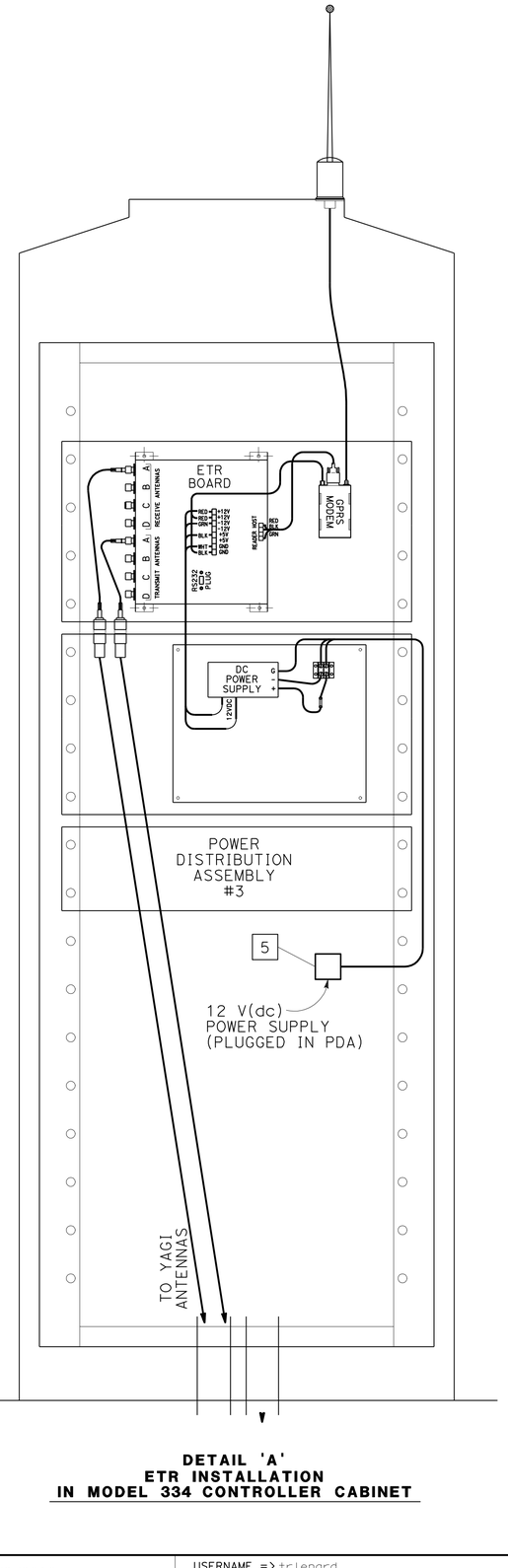
H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

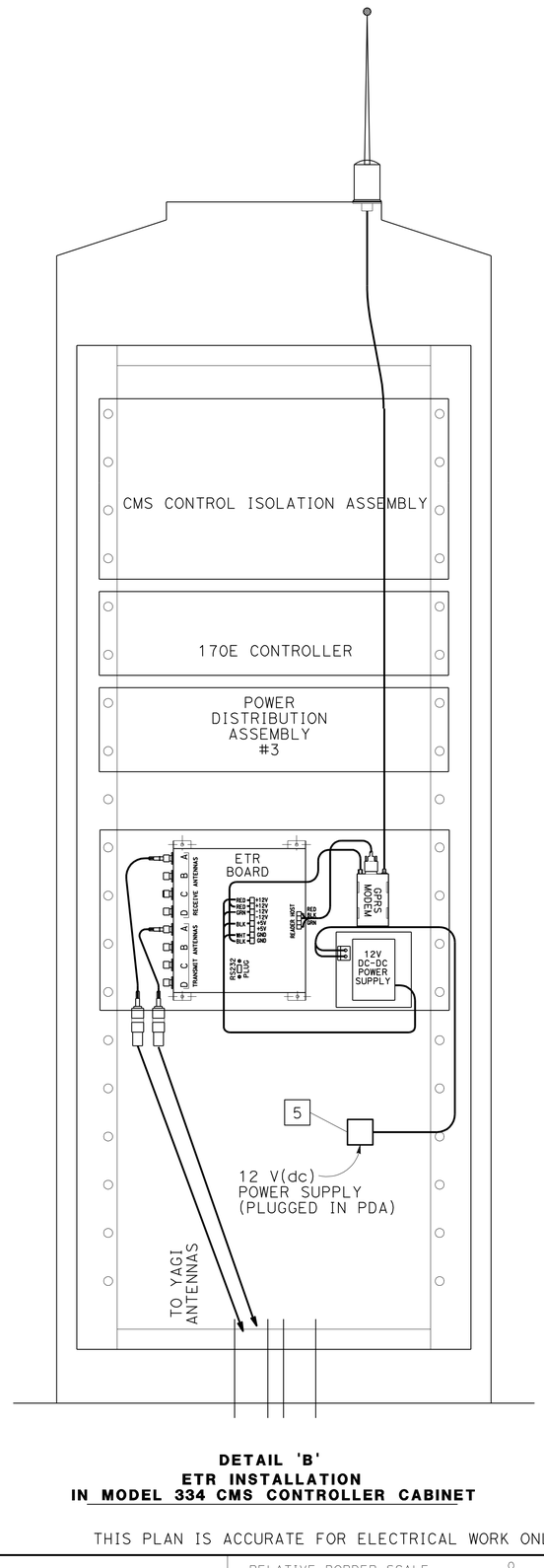
REGISTERED PROFESSIONAL ENGINEER HABIB GOLBAN No. E-17928 Exp. 9-30-12 ELECTRICAL STATE OF CALIFORNIA

PROJECT NOTES: (THIS SHEET ONLY)

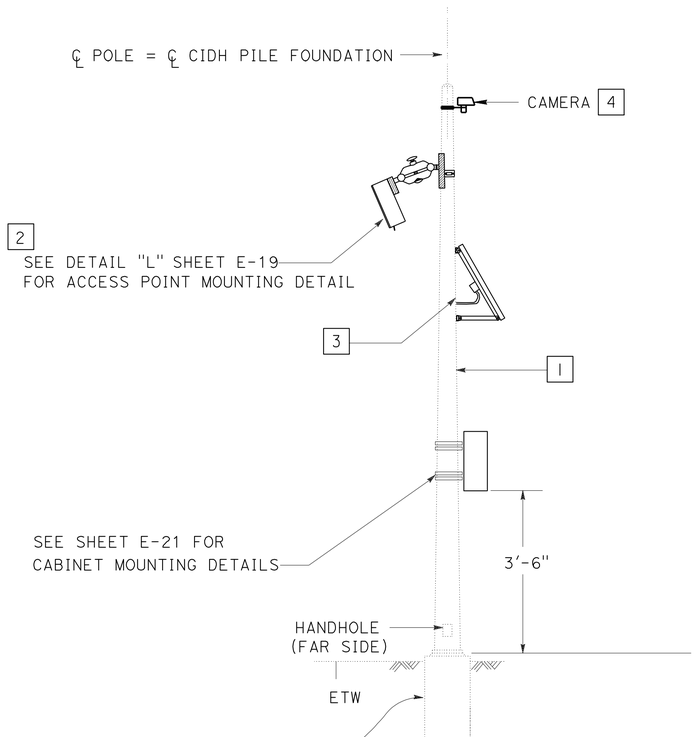
1. SEE SHEET E-24 AND E-25 FOR POLE DATA.
2. SENSOR DIRECTED TOWARD TRAFFIC LANES PER MANUFACTURER'S RECOMMENDATION.
3. ADJUST PANEL MOUNTING ANGLE FOR MAXIMUM SUN EXPOSURE (35° NOMINAL). PV PANELS SHALL BE PLACED WHERE OBSTRUCTIONS TO SUNLIGHT ARE AVOIDED. ATTACH HARDWARE TO PV PANEL PER MANUFACTURER'S RECOMMENDATIONS.
4. CCTV CAMERA FOR LOCATION 6 ONLY. SEE SHEET E-19 FOR INSTALLATION DETAILS.
5. AC INPUT (FULL RANGE) OVERLOAD AND OVERVOLTAGE PROTECTED. DIN RAIL MOUINTED. 12V(dc)POWER SUPPLY. THE POWER SUPPLY MUST BE PLUGGED INTO PDA#3 OUTLETS.



DETAIL 'A'
ETR INSTALLATION
IN MODEL 334 CONTROLLER CABINET



DETAIL 'B'
ETR INSTALLATION
IN MODEL 334 CMS CONTROLLER CABINET



ELEVATION
WVDS POLE

ELECTRONIC TAG READER (CABINET DETAILS) WIRELESS VEHICLE DETECTION SYSTEM (MOUNTING DETAIL)

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-20

LAST REVISION DATE PLOTTED => 01-MAR-2011
10-25-10 TIME PLOTTED => 10:13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans
FUNCTIONAL SUPERVISOR: NELSON LEE
CALCULATED-DESIGNED BY: BRIAN CHOW
CHECKED BY: HABIB GOLBAN
REVISED BY
DATE REVISED

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ua020.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	47	81

Davinder Minhas 8-23-10
REGISTERED CIVIL ENGINEER DATE

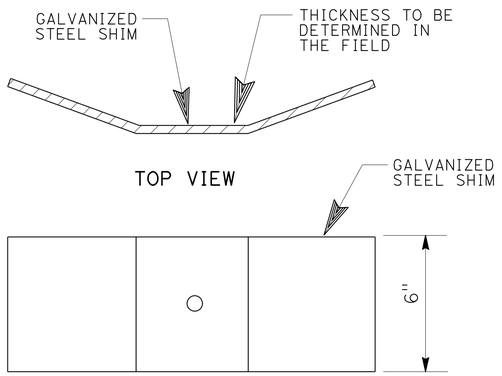
2-28-11
PLANS APPROVAL DATE

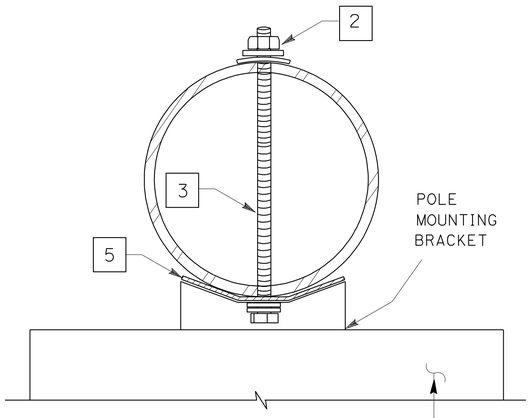
REGISTERED PROFESSIONAL ENGINEER — DAVINDER MINHAS — No. 70022 — Exp. 9-30-11 — CIVIL — STATE OF CALIFORNIA

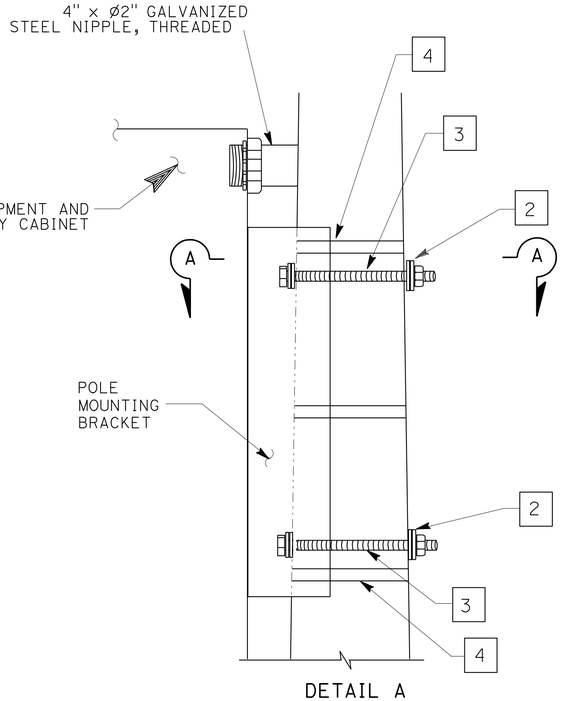
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

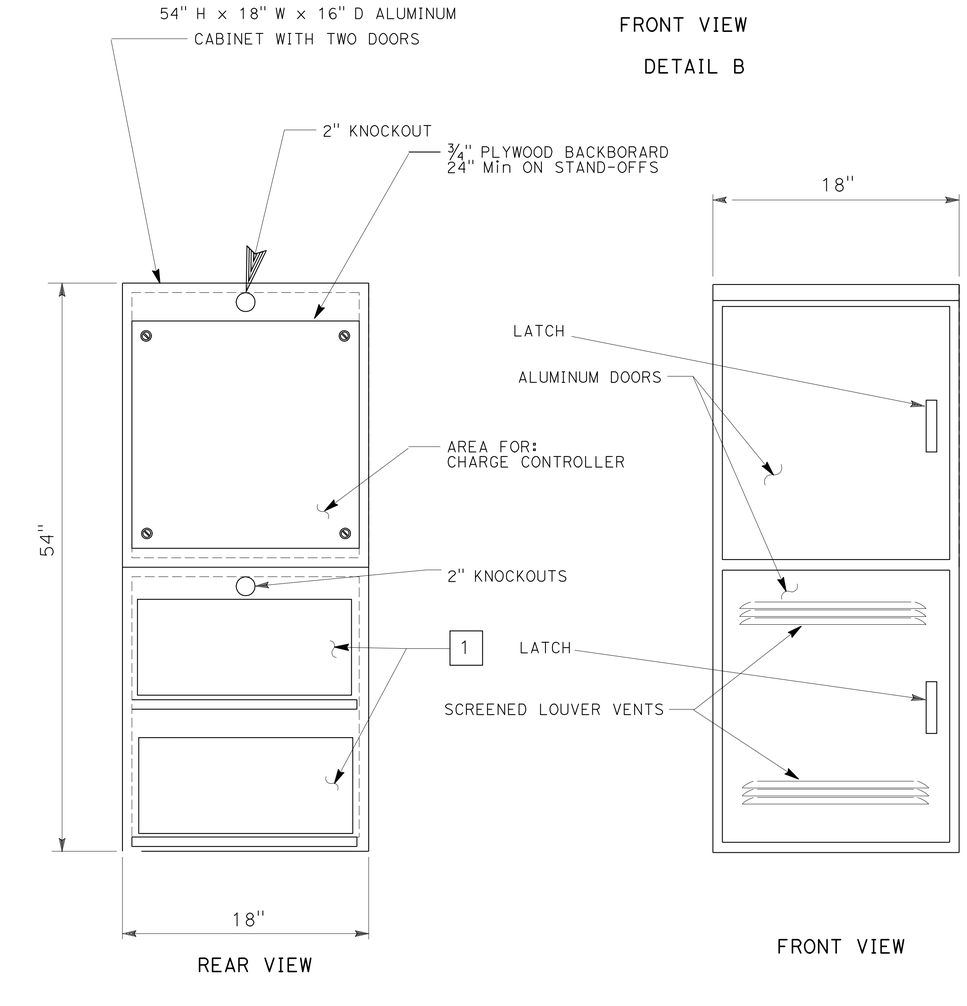
PROJECT NOTES: (THIS SHEET ONLY)

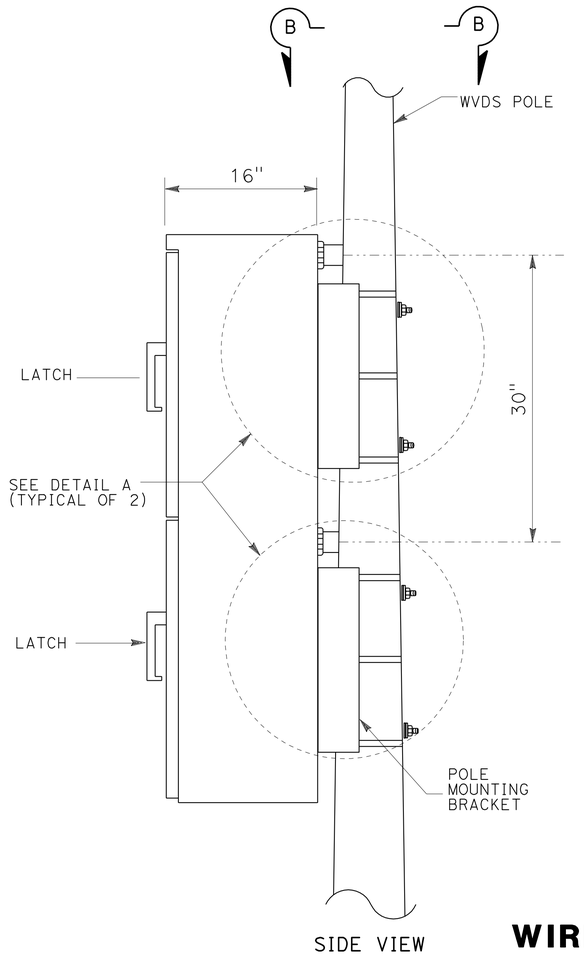
1. BATTERIES ARE CONTRACTOR-FURNISHED
2. CURVED WASHER, LOCK WASHER, AND NUT
3. ½" ø STANDARD BOLT GALVANIZED
4. STAINLESS STEEL STRAP
5. SHIM AS REQUIRED TO LEVEL CABINET SEE DETAIL B

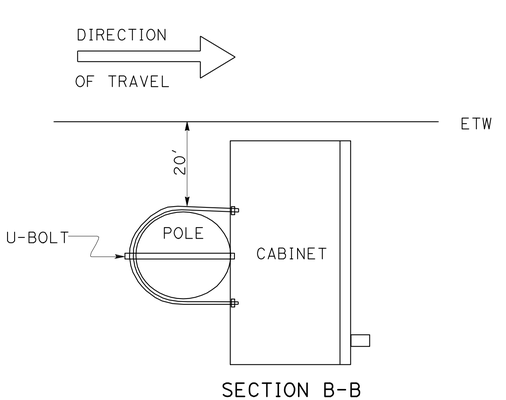












THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

WIRELESS VEHICLE DETECTION SYSTEM (CABINET MOUNTING DETAIL)

NO SCALE

E-21

CALCULATED-DESIGNED BY	BRIAN CHOW	
CHECKED BY	HABIB GOLBAN	
FUNCTIONAL SUPERVISOR	NELSON LEE	
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	OFFICE OF ELECTRICAL DESIGN SACRAMENTO	
Caltrans		

REVISED BY / DATE REVISED

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:13

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ua021.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	48	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
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.

PROJECT NOTES: (THIS SHEET ONLY)

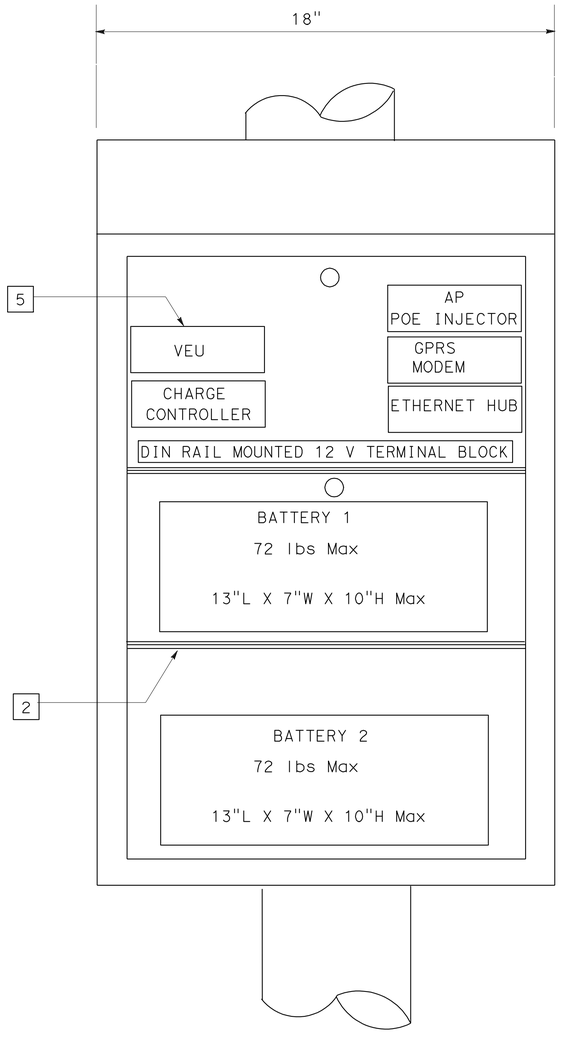
1 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIAL.

2 REMOVABLE BATTERY SHELF.

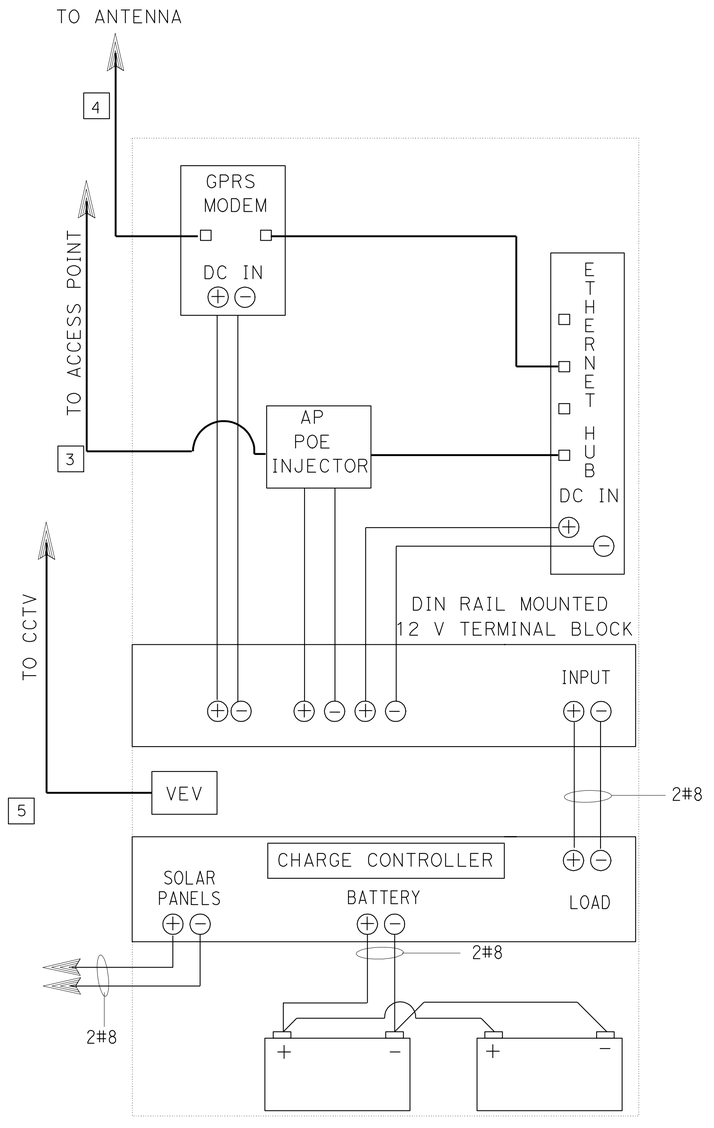
3 OUTDOOR RATED CAT 5E CABLE.

4 LOW LOSS FLEXIBLE ANTENNA CABLE.

5 LOCATION 6 ONLY.



FRONT
(INTERIOR)



DETAIL 'G'

TYPICAL EQUIPMENT LAYOUT

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

WIRELESS VEHICLE DETECTION SYSTEM (CABINET DETAILS)

NO SCALE

E-22

BRIAN CHOW — CALCULATED-DESIGNED BY
HABIB GOLBAN — CHECKED BY
NELSON LEE — FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans

REVISED BY | DATE REVISED

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:13
10-25-10

BORDER LAST REVISED 7/2/2010
USERNAME => trlenard
DGN FILE => 0300000233ua022.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0327
PROJECT NUMBER & PHASE 03000002331

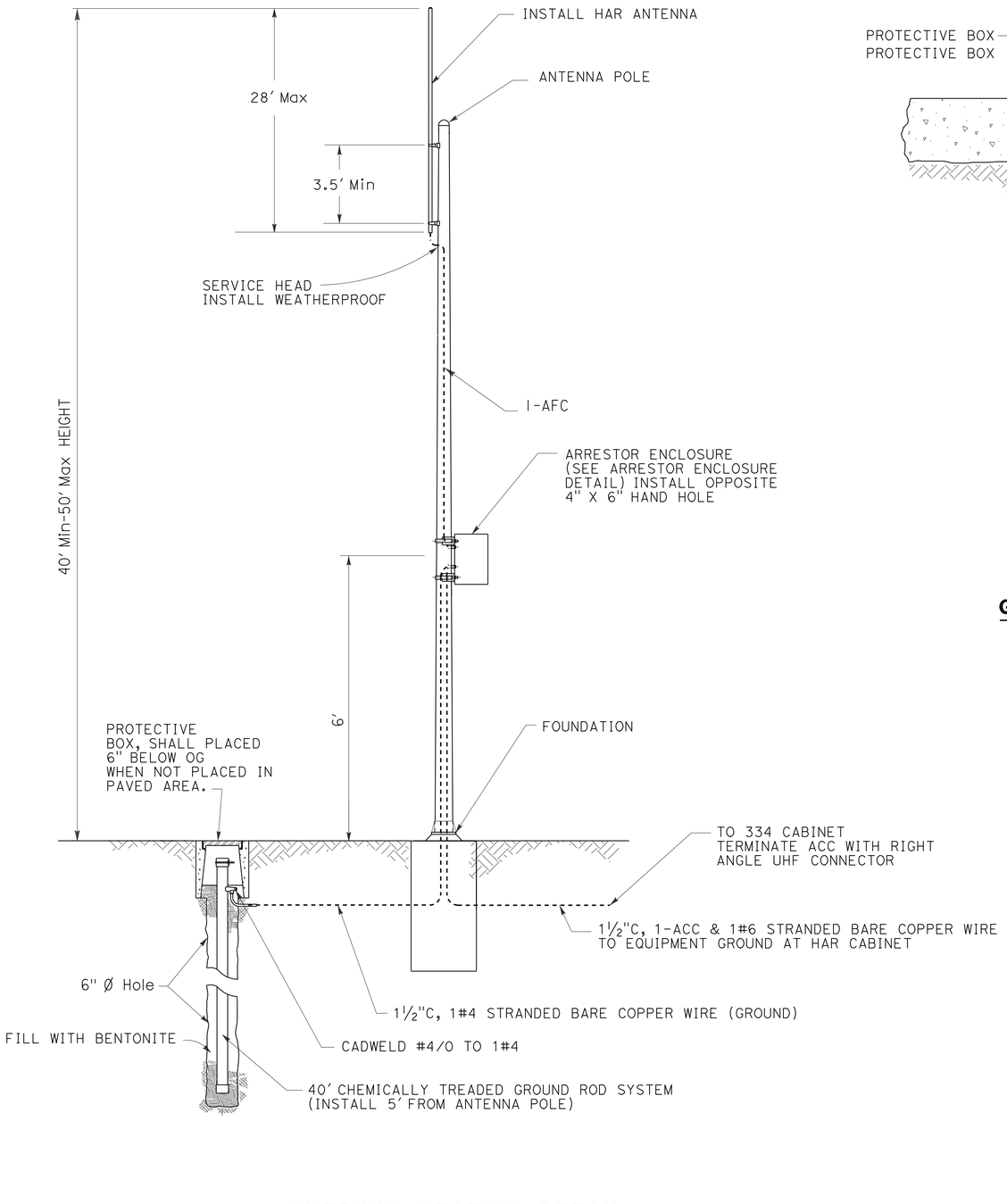
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	49	81

H. Golban 10-28-10
REGISTERED ELECT. ENGINEER DATE

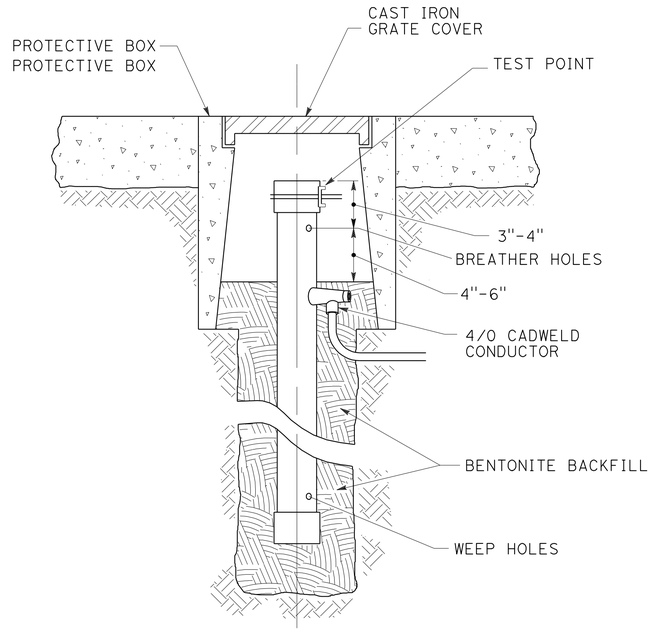
2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HABIB GOLBAN
No. E-17928
Exp. 9-30-12
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.



ANTENNA STATION DETAIL



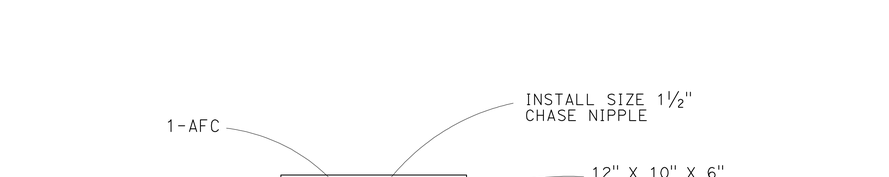
GROUND ROD DETAIL

NOTE:

1. SEE HIGHWAY ADVISORY RADIO POLE SHEET FOR POLE DETAILS.

ABBREVIATIONS:

AFC - ANTENNA FEED CABLE
ACC - ANTENNA COAXIAL CABLE



ARRESTOR ENCLOSURE DETAIL

HIGHWAY ADVISORY RADIO SYSTEM
(ANTENNA AND GROUND ROD INSTALLATION DETAILS)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-23

CALCULATED-DESIGNED BY: BRIAN CHOW
CHECKED BY: HABIB GOLBAN
FUNCTIONAL SUPERVISOR: NELSON LEE
REVISED BY | DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
OFFICE OF ELECTRICAL DESIGN SACRAMENTO
Caltrans

LAST REVISION | DATE PLOTTED => 01-MAR-2011
10-25-10 | TIME PLOTTED => 10:13

BORDER LAST REVISED 7/2/2010 | USERNAME => trlenard | DGN FILE => 0300000233ua023.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0327 | PROJECT NUMBER & PHASE 03000002331

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	50	81

Steven S Lee 02-09-11
REGISTERED ELECTRICAL ENGINEER

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — STEVEN S. LEE No. 14170 Exp. 6-30-11 ELECTRICAL — STATE OF CALIFORNIA

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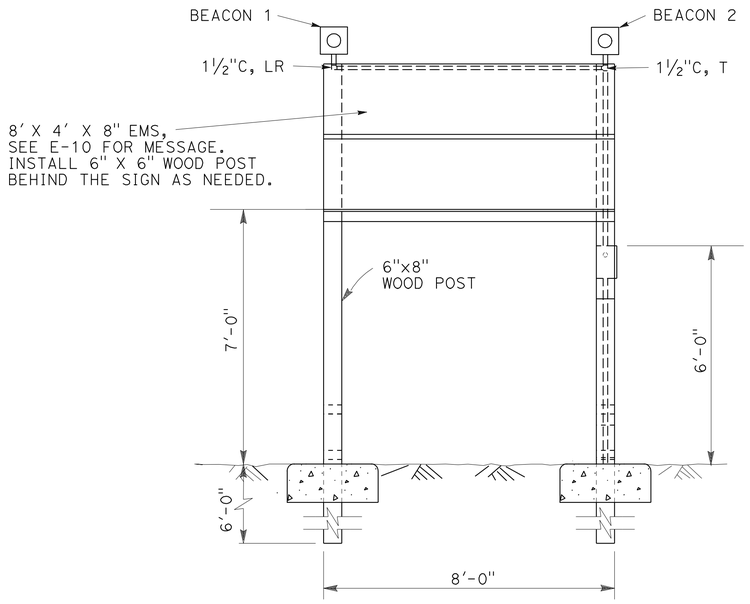
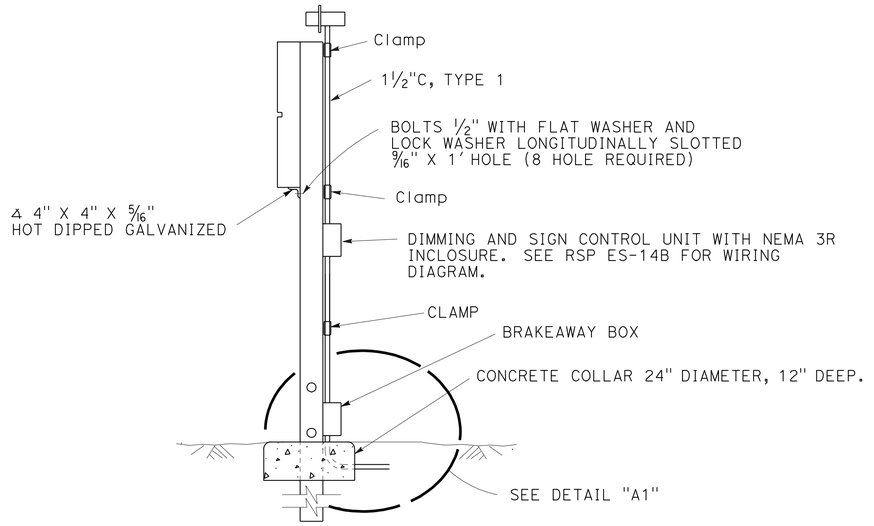
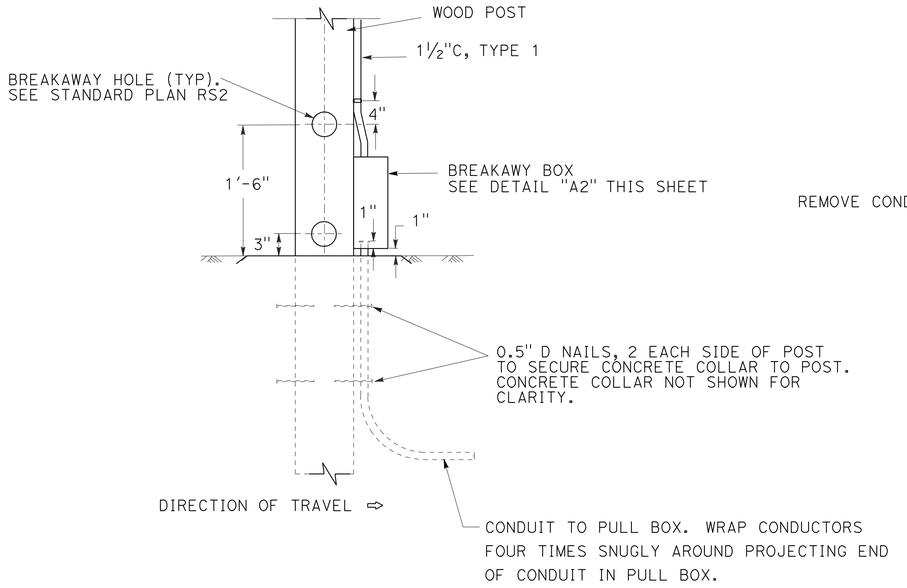


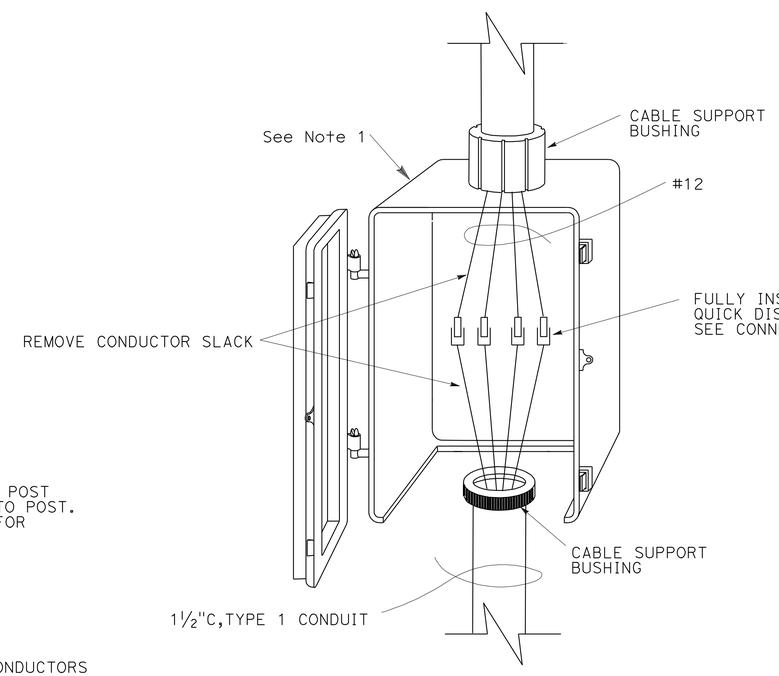
FRONT



SIDE

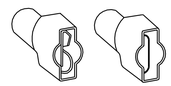


DETAIL "A1"



BREAKAWAY BOX
8"(L) X 12"(H) X 5"(D)
DETAIL "A2"

NOTE 1:
WEATHER RESISTANT BOX:
-HEAVY-DUTY PLASTIC
-LOCKABLE ATTACHMENT
-WEATHER STRIP GASKET
-HINGED LIP
-REMOVE BOTTOM OF ENCLOSURE AS SHOWN
-ENCLOSURE SHALL NOT BE BOLTED TO THE WOOD POST



QUICK DISCONNECT
DETAIL "A3"

EXTINQUISHABLE MESSAGE SIGN SYSTEM
(EMS INSTALLATION DETAILS)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-24

	DATE REVISED	REVISED BY
	2-9-11	2-9-11

CALCULATED/DESIGNED BY: YOUNG TON
CHECKED BY: STEVEN LEE

FUNCTIONAL SUPERVISOR: NELSON LEE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL
DESIGN SACRAMENTO

LAST REVISION DATE PLOTTED => 01-MAR-2011
TIME PLOTTED => 10:13
2-9-11

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => 0300000233ua024.dgn

CU 03391

EA 1C1121

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	51	81

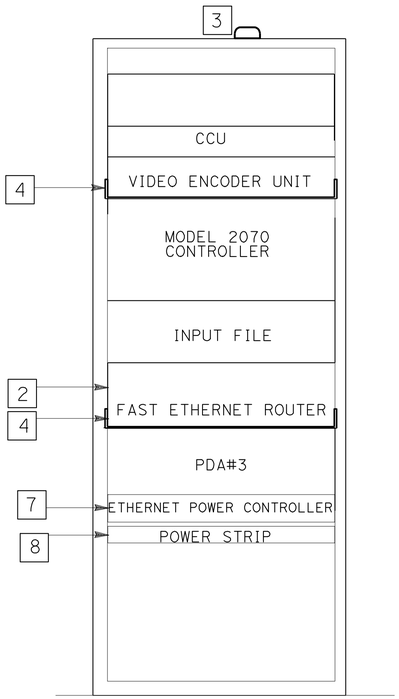
Brian R. Simi
REGISTERED ELECT. ENGINEER — DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — BRIAN R.SIMI No. E14553 Exp. 6-30-12 — STATE OF CALIFORNIA

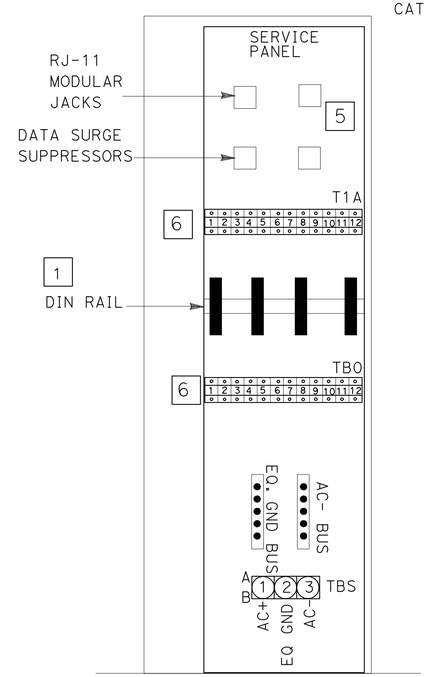
PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL GPRS MODEM, 8-PORT ETHERNET SWITCH, AND 2 ETHERNET EXTENDERS ON DIN RAIL AS SHOWN IN DETAILS "B" AND "D".
2. REMOVE BLANK PLATE.
3. INSTALL GPRS ANTENNA ON TOP OF CABINET AND RUN ANTENNA CABLE PER MANUFACTURER RECOMMENDATION.
4. INSTALL HALF SHELVES AS SHOWN.
5. INSTALL SURGE SUPPRESSORS AND RJ-11 MODULAR JACKS AS SHOWN.
6. REMOVE EXISTING TERMINAL BLOCK TBO. INSTALL 2-12 POSITION TERMINAL BLOCKS ON DIN RAIL. LABEL TERMINAL BLOCKS AS SHOWN ON A PERMANENT LABEL.
7. INSTALL ETHERNET POWER CONTROLLER.
8. INSTALL POWER STRIP.
9. CONNECT SOLID #10 GROUND WIRE TO EQUIPMENT GROUND.
10. USE 2 PAIR, 22 AWG, STRANDED AND TINNED COPPER WIRES WITH PVC JACKET TYPE INSULATION AS SPECIFIED IN THE SPECIAL PROVISIONS.
11. PROVIDE 6-5' LONG CAT5E CABLES, AND 2-3' LONG RJ-11 4-WIRE TELEPHONE PATCH CABLES IN EACH CABINET.



DETAIL "A"
ITS CABINET LAYOUT DETAIL (TYPICAL)

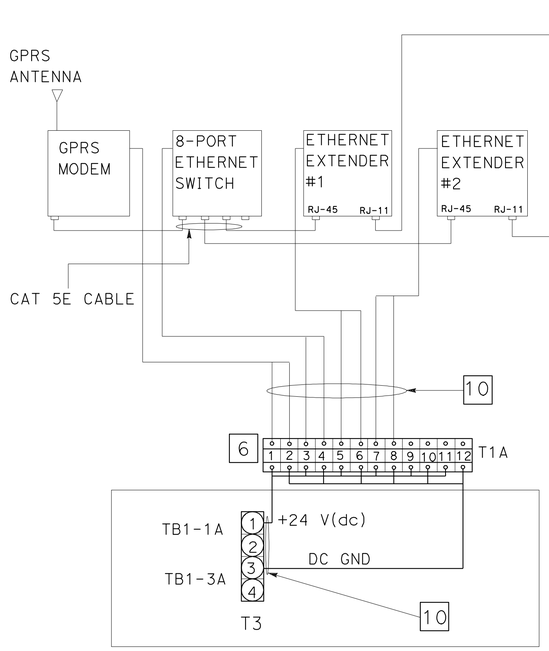
(FRONT VIEW)
334 CONTROLLER CABINET



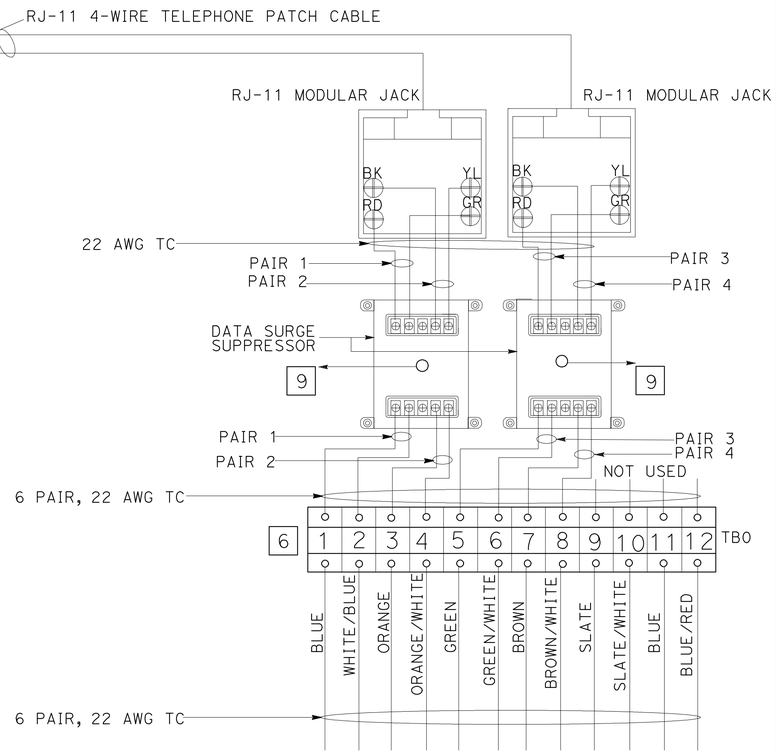
DETAIL "B"
ITS CABINET ASSEMBLY LAYOUT (TYPICAL)

RIGHT SIDE (REAR VIEW)
334 CONTROLLER CABINET

EQUIPMENT INSTALLATION ON DIN RAIL (TYPICAL)
DETAIL "D"



BACK OF PDA #3



TO TDC

EQUIPMENT INTERCONNECTION (TYPICAL)
DETAIL "C"

CLOSED CIRCUIT TELEVISION SYSTEM (ITS CABINET LAYOUT AND INTERCONNECT DETAILS)

NO SCALE

E-25

CALCULATED-DESIGNED BY	CHECKED BY	FUNCTIONAL SUPERVISOR	REVISED BY	DATE REVISED
BERHANU ZERGAW	BRIAN R. SIMI	BRIAN R. SIMI		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
OFFICE OF ELECTRICAL DESIGN SACRAMENTO

LAST REVISION | DATE PLOTTED => 01-MAR-2011
12-13-10 | TIME PLOTTED => 10:13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	52	81

Jeffrey B Woody 9-21-10
REGISTERED CIVIL ENGINEER DATE

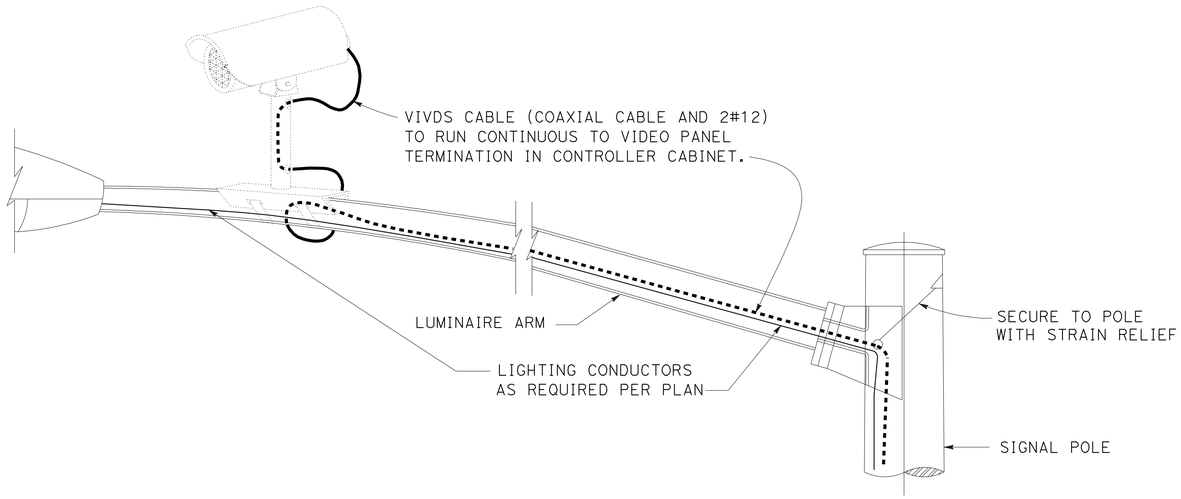
2-28-11
PLANS APPROVAL DATE

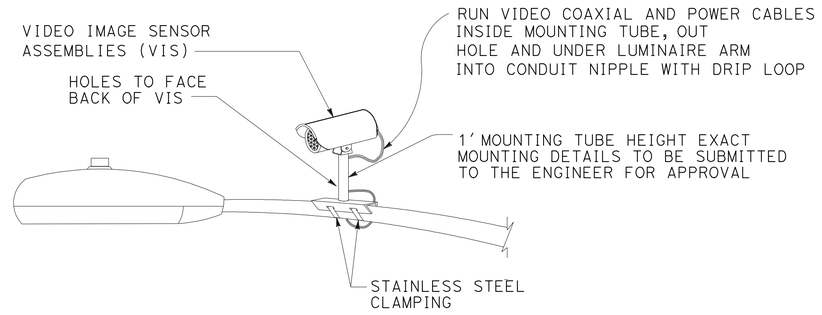
REGISTERED PROFESSIONAL ENGINEER JEFFREY B. WOODY No. C41260 Exp. 3/31/11 CIVIL STATE OF CALIFORNIA

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.

NOTES:

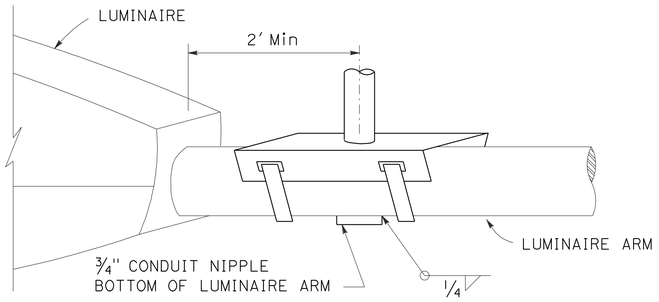
1. ALL METALLIC CONDUITS, BOLTS STRAPS AND Misc HARDWARE SHALL BE GALVANIZED.
2. BACKPLATES ARE REQUIRED ON ALL SIGNAL FACES.
3. ELEMENTS (TOTAL VIVDS ASSEMBLY) SHALL HAVE A MAXIMUM WEIGHT OF 10 LBS AND A MAXIMUM EFFECTIVE PRESSURE AREA OF 1 SQUARE FOOT.
4. MAXIMUM OF 2 VIVDS ELEMENTS ADDED PER TRAFFIC SIGNAL STRUCTURE. MAXIMUM OF 1 ELEMENT PER ARM (LIGHTING ARM OR TRAFFIC SIGNAL ARM).





CAMERA MOUNTING DETAILS

NO SCALE



DETAIL A

NO SCALE

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

BRANCH CHIEF Jeffrey B Woody

	BY	CHECKED
DESIGN	J WOODY	A GUTIRREZ
DETAILS	D W JUSTICE Jr	A GUTIRREZ
QUANTITIES	J WOODY	A GUTIRREZ

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGNS BRANCH A

BRIDGE NO. N/A
POST MILE

CAMERA MOUNTING DETAILS
SIGNAL AND LIGHTING, RAMP METERING SYSTEM

SES-1

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03
EA 1C1121

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
9-21-10											

FILE => spec_des_br_prj/2010-sd/03-1C1121/03-1c1121_ses1.dgn

USERNAME => trlenord DATE PLOTTED => 01-MAR-2011 TIME PLOTTED => 10:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	53	81

Mahfoud A. Licha 2-22-11
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MAHFOUD A. LICHA — No. C62816 — Exp. 6/30/12 — CIVIL — STATE OF CALIFORNIA

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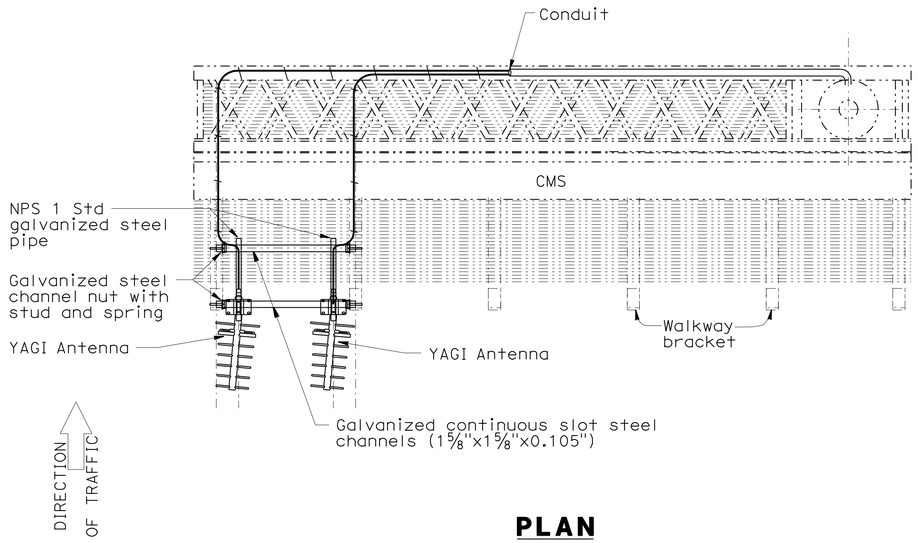
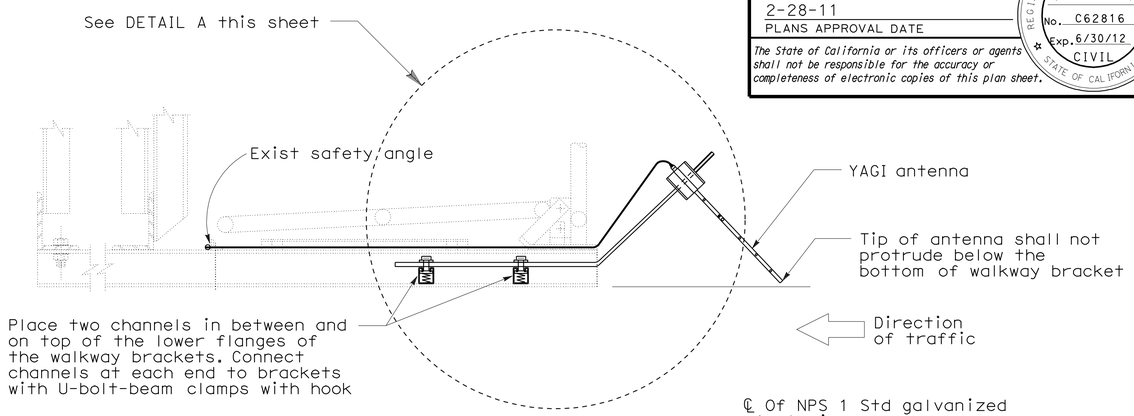
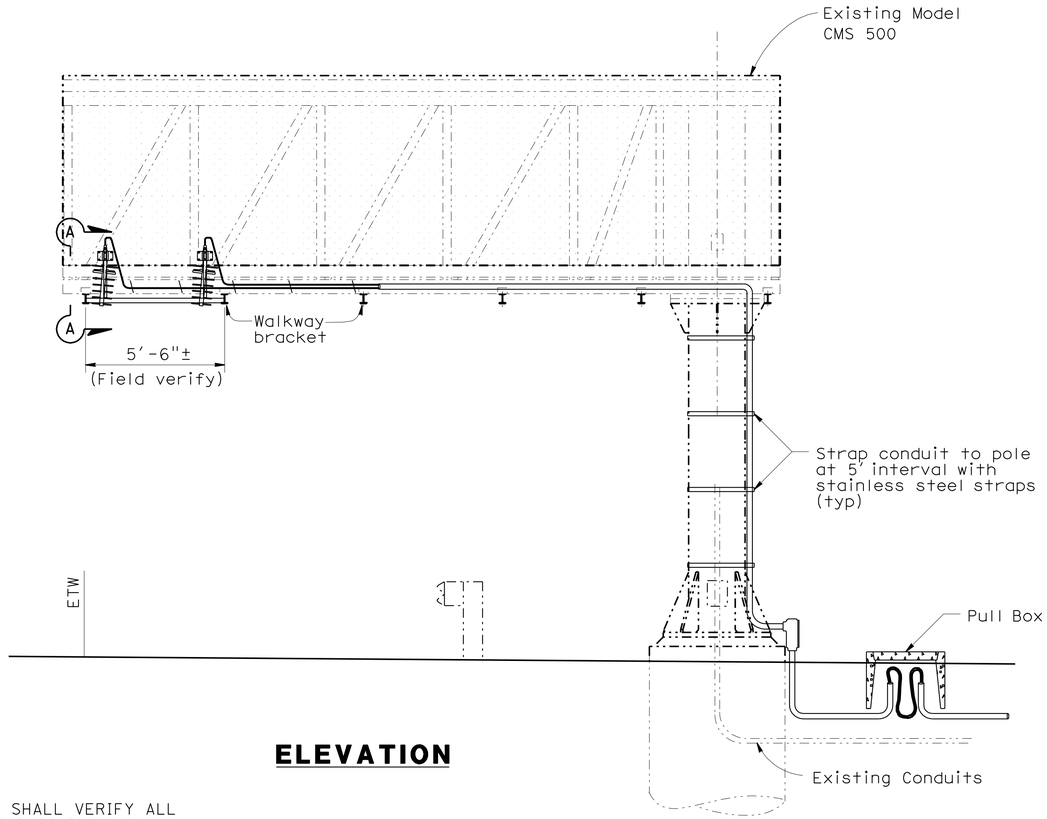
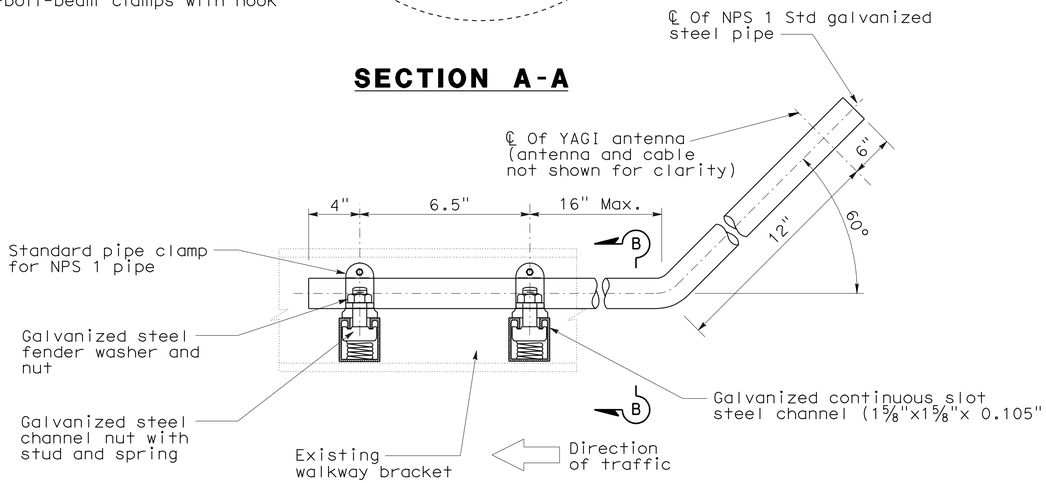


PLAN



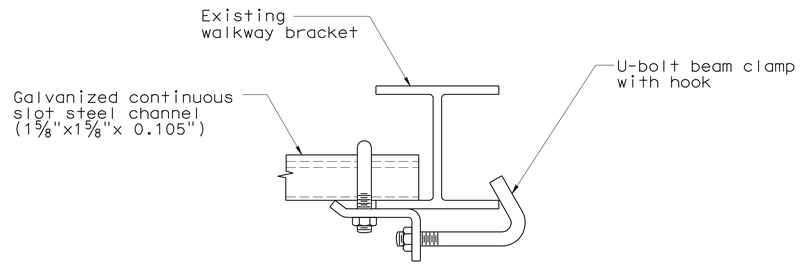


ELEVATION



SECTION A-A

DETAIL A



SECTION B-B

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

NO SCALE

DESIGN	BY M LICHA	CHECKED K. C. LIU	
DETAILS	BY D W JUSTICE Jr	CHECKED M LICHA	
QUANTITIES	BY M LICHA	CHECKED	

BRANCH CHIEF Jeffrey B Woody

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGNS BRANCH A

BRIDGE NO. N/A
POST MILE Var

ELECTRICAL SYSTEMS
ETR MOUNTING DETAILS ON EXIST MODEL 500 CMS

SES-2

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3620
PROJECT NUMBER & PHASE: 0300000233-1
CONTRACT NO.: 03-1C1121

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES			SHEET	OF
1-22-11	2-16-11	2-22-11		

FILE => spec_des_br_prj/2011sd/03-1c1121/03-1c1121_ses2.dgn

USERNAME => trrietord DATE PLOTTED => 01-MAR-2011 TIME PLOTTED => 10:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	54	81

Mahfoud A. Licha 2-16-11
REGISTERED CIVIL ENGINEER DATE

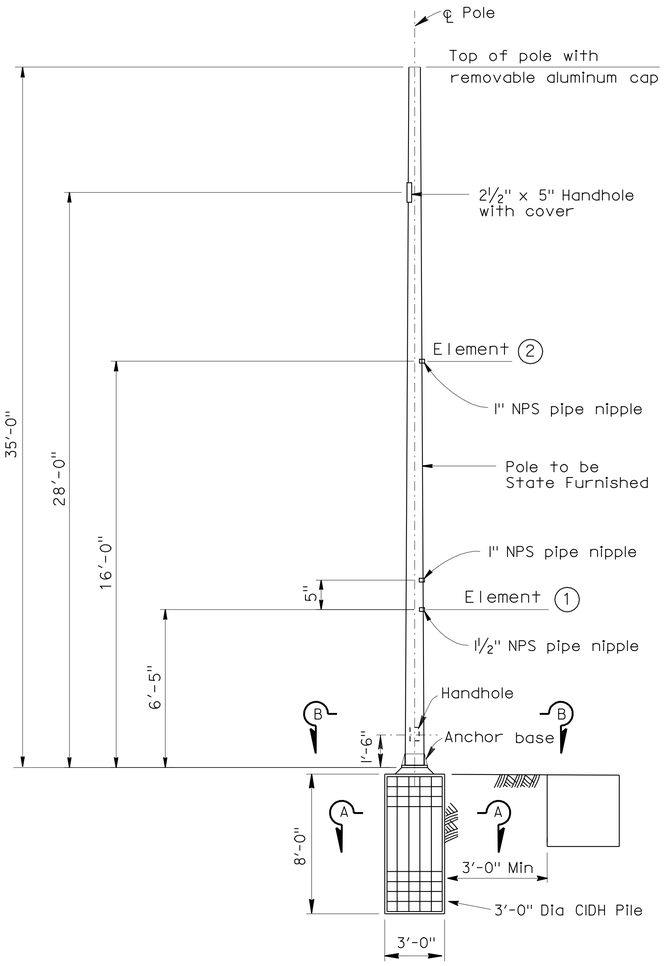
2-28-11
PLANS APPROVAL DATE

MAHFOUD A. LICHA No. C62816 Exp. 6/30/12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

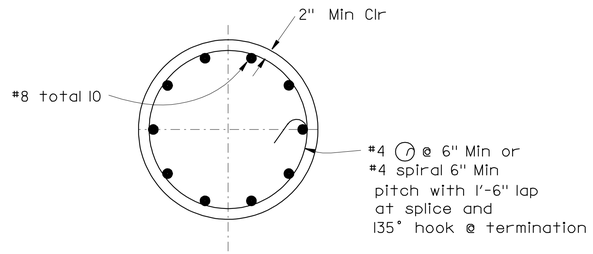
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Fiberglass Pole Type	Pole Data					Anchor Base		
	"A" Height (ft)	Min. OD (in)		Thick -ness (in)	Weight (lbs)	Thickness "t" (in)	Anchor Bolts	
		Base	Top				Size	Bolt Circle
35AF	35′	11½"	7¼"	0.43	380	1¾	1¼" x 3′-0" x 6"	1′-3"

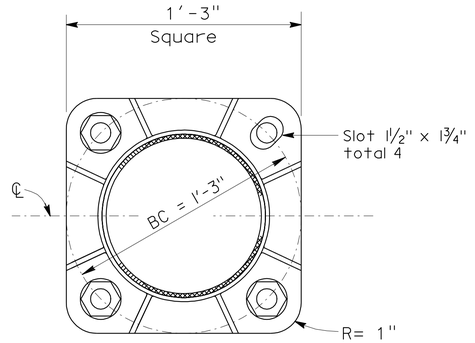
Element No.	Height above base plate	Element Type	Total	Area per Element ft²
①	6′-5"	Arrestor Enclosure	1	1.3
②	16′-0"	1½" ø HAR Antenna	1	



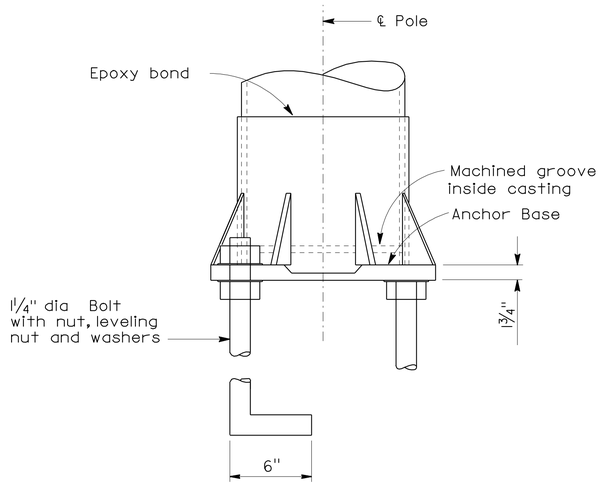
ELEVATION



SECTION A-A



SECTION B-B



ALUMINUM ANCHOR BASE ELEVATION

GENERAL NOTES:

SPECIFICATIONS

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

LOADING

Wind Loadings: 85 MPH

UNIT STRESSES

Structural Steel: fy = 36,000 psi unless otherwise noted.

Anchor bolts = A307

Reinforced Concrete: f′c = 3,600 psi
fy = 60,000 psi

NOTES:

1. During pole erection, the post shall be raked as necessary with the use of leveling nuts to provide a plumb pole.
2. For locations, see "Electrical Plans."
3. All connections to fiberglass pole to be epoxy bond except when noted otherwise.
4. Bolt and connections to fiberglass pole to be specified for wind loading of 85 MPH in conformance with AASHTO.
5. Foundation design is based on AASHTO 2001 article 13.6 Broms′ approximate procedure assuming a cohessionless material. The angle of internal friction used is 30 degrees and unit weight of soil used is 120 lbs/ft³.
6. Height of 1" NPS pipe nipple based on maximum 28′-0" 1½" ø HAR Antenna. For shorter HAR Antennas, height of 1" NPS pipe nipple may be adjusted. Top of antenna shall not exceed 45′-0" above base plate elevation.

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

NO SCALE

BRANCH CHIEF Jeffrey B Woody

	BY	CHECKED
DESIGN	M LICHA	K. C. LIU
DETAILS	D W JUSTICE Jr	M LICHA
QUANTITIES	M LICHA	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGNS BRANCH A

BRIDGE NO. N/A
POST MILE Var

ELECTRICAL SYSTEMS
FIBERGLASS POLE DETAILS

SES-3

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3620
PROJECT NUMBER & PHASE: 0300000233-1 CONTRACT NO.: 03-1C1121

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
1-27-11	2-7-11				

FILE => spec_des_br_prj/2011sd/03-1c1121/03-1c1121_ses3.dgn

USERNAME => rlreford DATE PLOTTED => 01-MAR-2011 TIME PLOTTED => 10:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Pla	50,89,267	Var	55	81

Mahfoud A. Licha 2-22-11
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

MAHFOUD A. LICHA No. C62816 Exp. 6/30/12 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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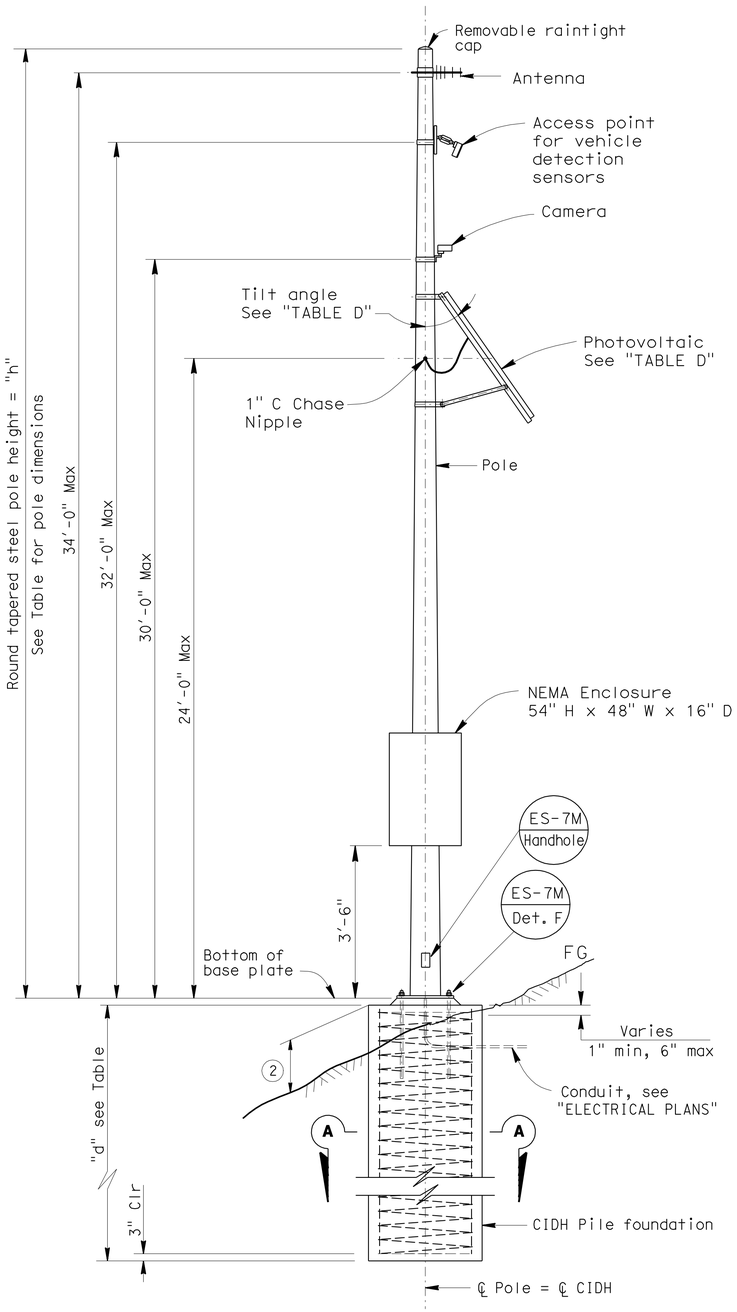


ELEVATION

TABLE A

Pole Type	Pole Data: Height "h"	Min OD: BASE	Min OD: TOP	Thickness	Base Plate Data: "C"	Thickness	Anchor Bolts: SIZE	Anchor Bolts: BC = BOLT CIRCLE	"d" 2'-0" Ø CIDH Pile: LEVEL GROUND	"d" 2'-0" Ø CIDH Pile: SLOPING GROUND	Structural Steel LBS plus 3.5% Galvanizing
VDS 35	35'	8⅝"	3⅞"	0.1793"	1'-1"	1"	1¼" x 3'-0 x 4"	1'-1"	9'-0"	11'-0"	550

TABLE B

Attachment	Mounting Height	Weight Limits (lbs)
Enclosure	3'-6" Max. bottom Clr.	450 Lbs - Max
Photovoltaic	18' - 24'	55 Lbs - Max
Access Point	17' - 32'	4 Lbs - Max
Camera	28' - 30'	20 Lbs - Max
Antenna	Within top 3' of pole	3 Lbs - Max

TABLE C

Spread Footing

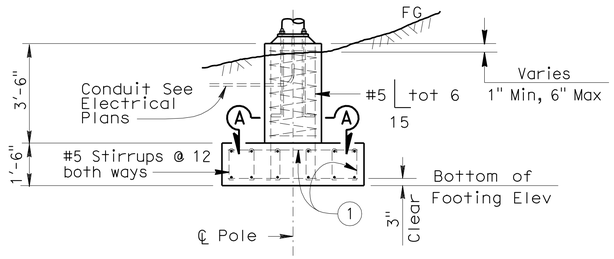
Ground	Footing Size Length x Width x Depth	Reinforcement Top & Bottom
Level	6'-0" x 6'-0" x 1'-6"	7 - #4
Sloping	7'-0" x 7'-0" x 1'-6"	8 - #4

TABLE D

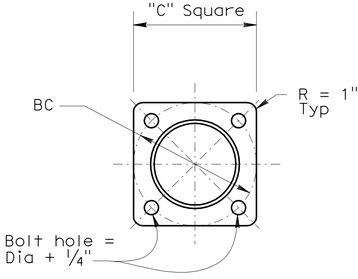
Photovoltaic Panel Limits

Panel Size	Tilt Angle
10 ft² max	30° min
16 ft² max	40° min

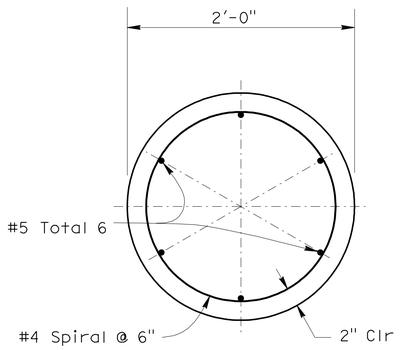
Choose only 1 alternative



ALTERNATIVE FOOTING ELEVATION



BASE PLATE



SECTION A-A

ABBREVIATIONS:

WVDS - Wireless Vehicle Detection System

GENERAL NOTES:

SPECIFICATIONS

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

LOADING

Wind Loadings: 100 MPH

UNIT STRESSES

Structural Steel: fy = 48,000 psi tapered steel tube
fy = 36,000 psi unless otherwise noted.

Anchor bolts = A307

Reinforced Concrete: f'c = 3,600 psi
fy = 60,000 psi

NOTES:

1. All steel shall be galvanized after fabrication.
2. During pole erection the post shall be raked as necessary with the use of leveling nuts to provide a plumb pole axis.
3. The foundation shall be treated as level ground condition if the slope inclination is flatter than 4H:1V.
4. Foundation design is based on AASHTO 2001 article 13.6 Broms' approximate procedure assuming a cohessionless material. The angle of Internal friction used is 30 degrees and unit weight of soil used is 120 lbs/ft³.
5. For details not shown, see "2006 STANDARD PLANS" and "2006 REVISED STANDARD PLANS".

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

(1) #5 bars and #5 stirrups (top & bottom) to run both longitudinal and tranverse direction.

(2) 1'-3" Max for sloped finished grade.

NO SCALE

BRANCH CHIEF Jeffrey B Woody

	BY	CHECKED
DESIGN	M LICHA	K. C. LIU
DETAILS	D W JUSTICE Jr	M LICHA
QUANTITIES	M LICHA	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGNS BRANCH A

BRIDGE NO. N/A
POST MILE Var

WIRELESS VEHICLE DETECTION SYSTEM
POLE DETAILS

SES-4

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3620
PROJECT NUMBER & PHASE: 0300000233-1
CONTRACT NO.: 03-1C1121

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
1-27-11	2-7-11	2-16-11	2-22-11		

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	56	81

Mahfoud A. Licha 2-16-11
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

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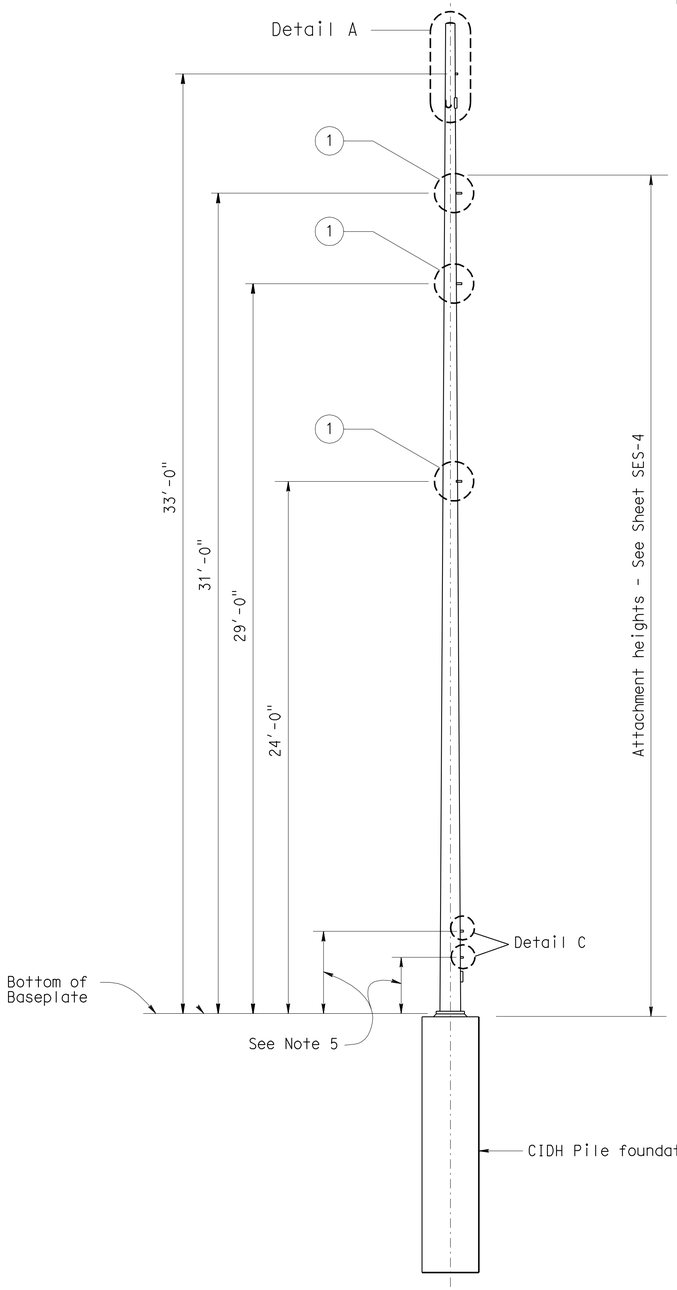
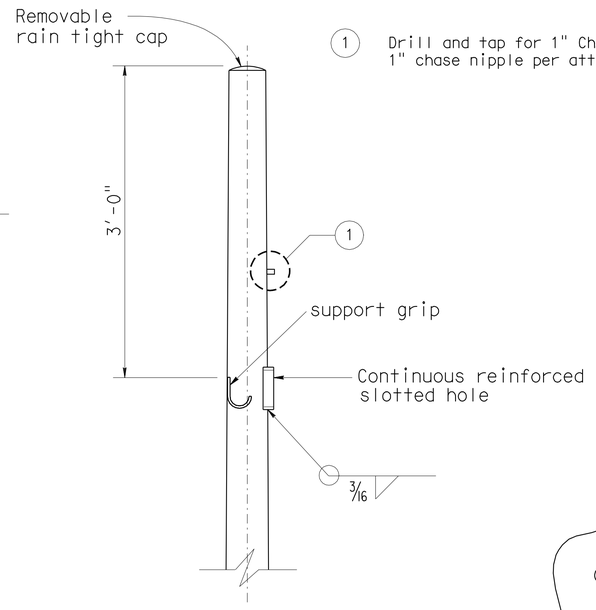
REGISTERED PROFESSIONAL ENGINEER
MAHFOUD A. LICHA
No. C62816
Exp. 6/30/12
CIVIL
STATE OF CALIFORNIA



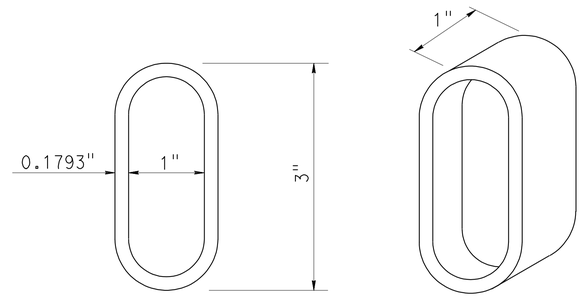
ELEVATION

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

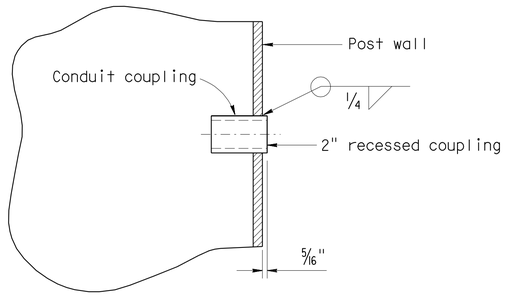


DETAIL A

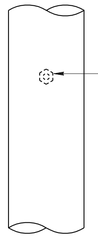
(1) Drill and tap for 1" Chase nipple and plug with raintight plugs. 1" chase nipple per attachment per pole. (See Detail "B")



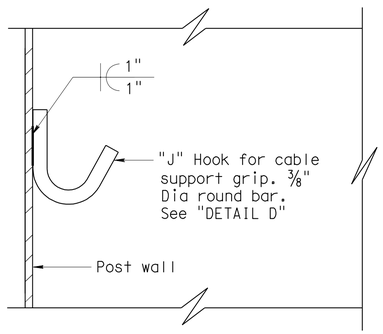
SLOTTED HOLE



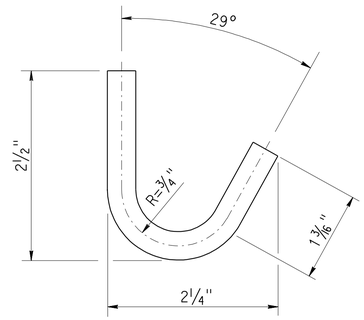
2" RECESSED COUPLING DETAIL C (TYPICAL)



DETAIL B
TYPICAL ELECTRICAL ACCESS DETAIL



J HOOK DETAIL



DETAIL D

NOTES:

1. Place all couplings on the same side of pole.
2. Chase nipples and slotted hole shall have a rain tight plug. Plug should only be removed if chase nipple or slotted hole is used.
3. The chase nipples shall be 1'-0" min vertical clearance from the slotted hole and not on the same side as the slotted hole.
4. For attachment details, see sheet SES-4.
5. Coupling location above ground and spacing shall be verified to match choice of enclosure, prior to fabrication.
6. All attachments, unless otherwise noted, shall be mounted to pole with stainless steel straps or other method without drilling holes in pole. Enclosure may require drilling through post for mounting. Method of mounting enclosure will require Engineer approval.

NO SCALE

BRANCH CHIEF Jeffrey B Woody

	BY	CHECKED
DESIGN	M LICHA	K. C. LIU
DETAILS	D W JUSTICE Jr	M LICHA
QUANTITIES	M LICHA	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGNS BRANCH
A

BRIDGE NO. N/A
POST MILE Var

WIRELESS VEHICLE DETECTION SYSTEM
POLE DETAILS

SES-5

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3620
PROJECT NUMBER & PHASE: 0300000233-1
CONTRACT NO.: 03-1C1121

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
2-2-11	2-16-11				

FILE => spec_des_br_prj/2011sd/03-1c1121/03-1c1121_ses5.dgn

USERNAME => ?ttlenord DATE PLOTTED => 01-MAR-2011 TIME PLOTTED => 10:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	57	81

Mahfoud A. Licha 2-16-11
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER · MAHFOUD A. LICHA · No. C62816 · Exp. 6/30/12 · CIVIL · STATE OF CALIFORNIA

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

TABLE A

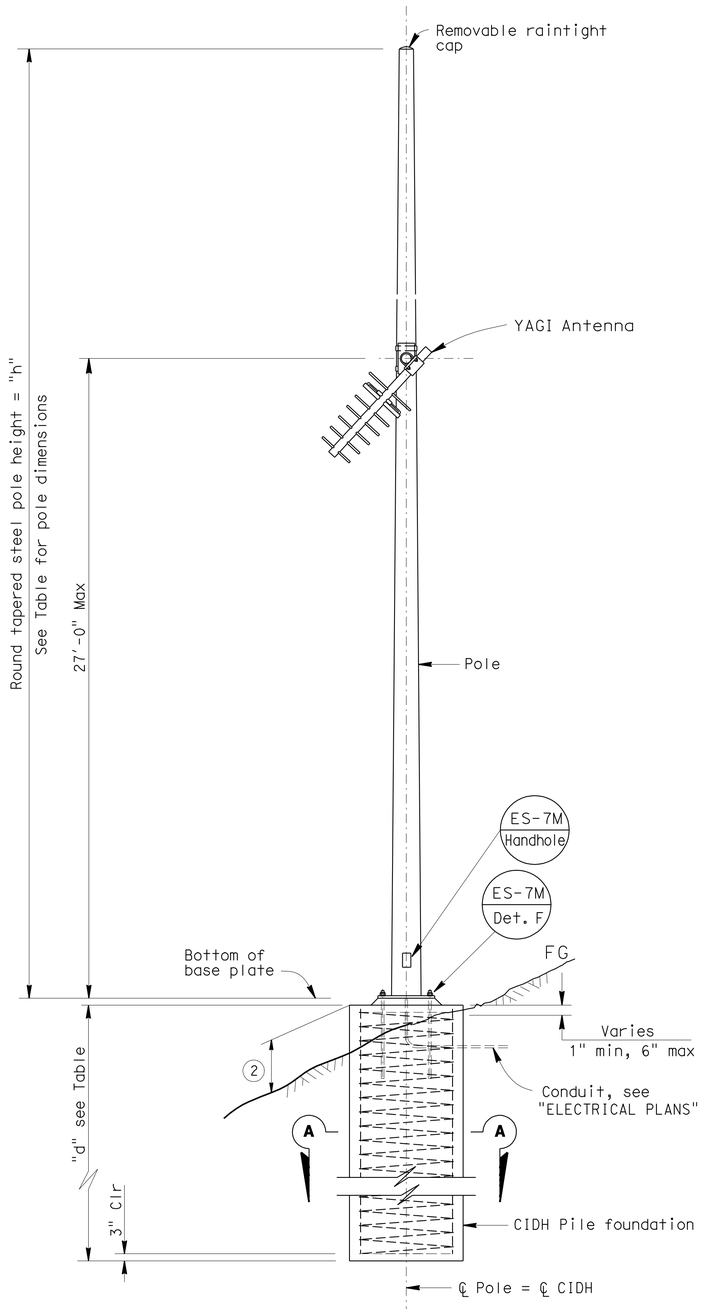
Pole Type	Pole Data: Height "h"	Pole Data: Min OD BASE	Pole Data: Min OD TOP	Pole Data: Thickness	Base Plate Data: "C"	Base Plate Data: Thickness	Base Plate Data: Anchor Bolts SIZE	Base Plate Data: Anchor Bolts BC = BOLT CIRCLE	"d" 2'-0" Ø CIDH Pile: LEVEL GROUND	"d" 2'-0" Ø CIDH Pile: SLOPING GROUND	Structural Steel LBS plus 3.5% Galvanizing
ETR 35	35'	8⅝"	3⅞"	0.1793"	1'-1"	1"	1¼" x 3'-0 x 4"	1'-1"	9'-0"	11'-0"	550

TABLE B

Attachment	Mounting Height
Antenna	27'-0" max

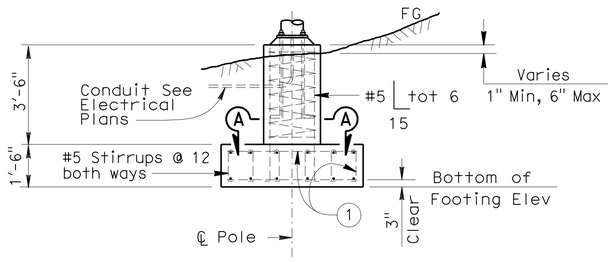
TABLE C

Spread Footing		
Ground	Footing Size Length x Width x Depth	Reinforcement Top & Bottom
Level	6'-0" x 6'-0" x 1'-6"	7 - #4
Sloping	7'-0" x 7'-0" x 1'-6"	8 - #4



ELEVATION

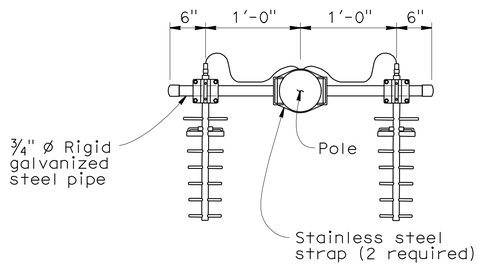
NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



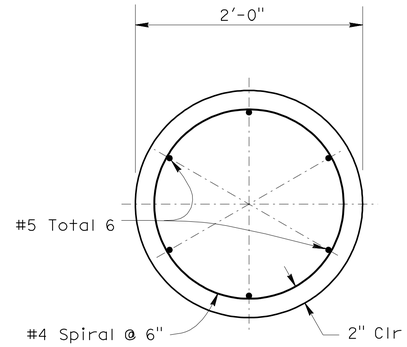
ALTERNATIVE FOOTING ELEVATION

(1) #5 bars and #5 stirrups (top & bottom) to run both longitudinal and tranverse direction.

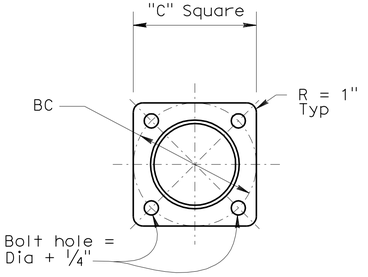
(2) 1'-3" Max for sloped finished grade.



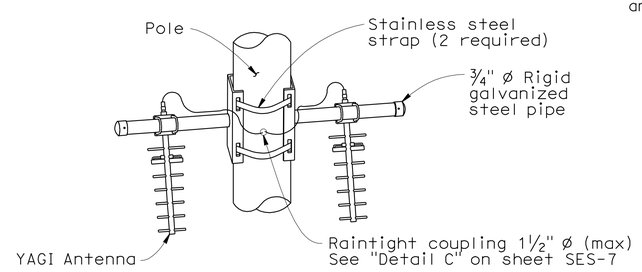
TOP VIEW



SECTION A-A



BASE PLATE



SIDE VIEW

ABBREVIATIONS:

ETR - Electronic Tag Reader

GENERAL NOTES:

SPECIFICATIONS

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

LOADING

Wind Loadings: 100 MPH

UNIT STRESSES

Structural Steel: fy = 48,000 psi tapered steel tube
fy = 36,000 psi unless otherwise noted.

Anchor bolts = A307

Reinforced Concrete: f'c = 3,600 psi
fy = 60,000 psi

NOTES:

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

NO SCALE

BRANCH CHIEF Jeffrey B Woody

	BY	CHECKED
DESIGN	M LICHA	K. C. LIU
DETAILS	D W JUSTICE Jr	M LICHA
QUANTITIES	M LICHA	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGNS BRANCH A

BRIDGE NO. N/A
POST MILE Var

ELECTRONIC TAG READER SYSTEM
POLE DETAILS

SES-6

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3620
PROJECT NUMBER & PHASE: 0300000233-1
CONTRACT NO.: 03-1C1121

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
2-2-11	2-16-11				

FILE => spec_des_br_prj/2011sd/03-1c1121/03-1c1121_ses6.dgn

USERNAME => ttrenord DATE PLOTTED => 01-MAR-2011 TIME PLOTTED => 10:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	58	81

Mahfoud A. Licha 2-16-11
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — MAHFOUD A. LICHA — No. C62816 — Exp. 6/30/12 — CIVIL — STATE OF CALIFORNIA

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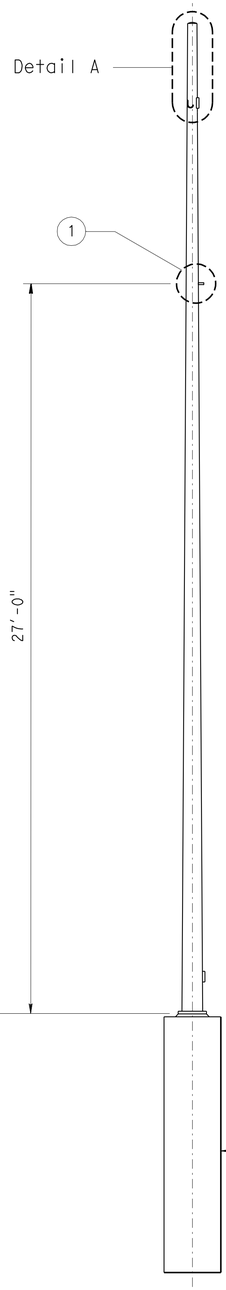
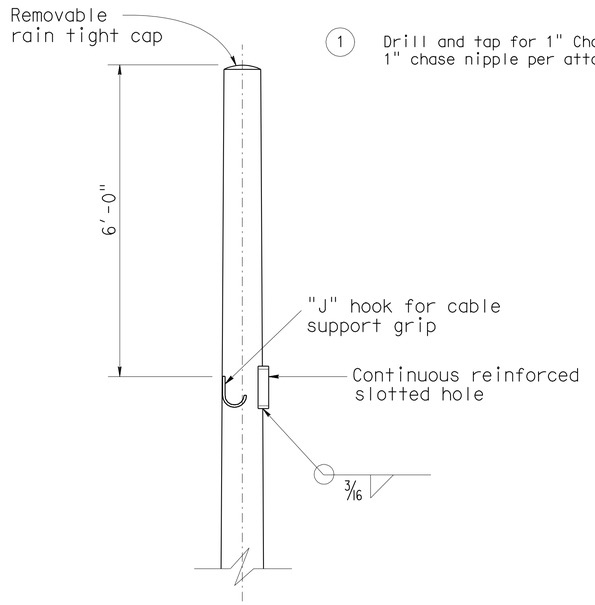
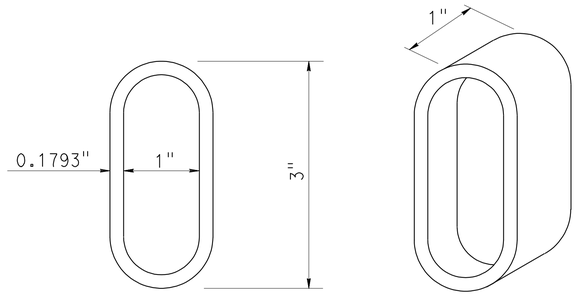


ELEVATION



DETAIL A

(1) Drill and tap for 1" Chase nipple and plug with raintight plugs. 1" chase nipple per attachment per pole.

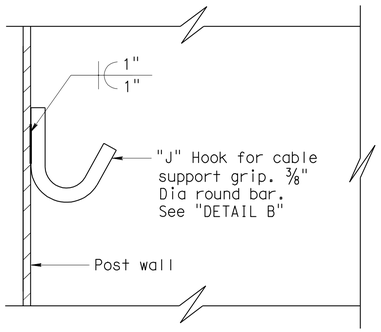


SLOTTED HOLE

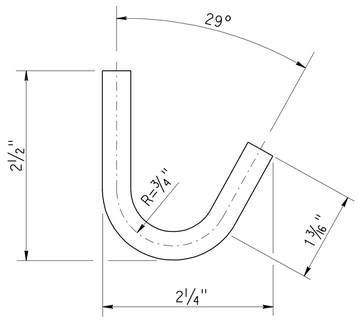
NOTES:

1. Place all couplings on the same side of pole.
2. Chase nipples and slotted hole shall have a rain tight plug. Plug should only be removed if chase nipple or slotted hole is used.
3. The chase nipples shall be 1'-0" min vertical clearance from the slotted hole and not on the same side as the slotted hole.
4. For attachment details, see sheet SES-6.
5. Coupling location above ground and spacing shall be verified to match choice of enclosure, prior to fabrication.
6. All attachments, unless otherwise noted, shall be mounted to pole with stainless steel straps or other method without drilling holes in pole. Enclosure may require drilling through post for mounting. Method of mounting enclosure will require Engineer approval.

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



J HOOK DETAIL



DETAIL B

NO SCALE

BRANCH CHIEF Jeffrey B Woody	DESIGN	BY M LICHA	CHECKED K. C. LIU	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES DESIGN AND TECHNICAL SERVICES SPECIAL DESIGNS BRANCH A	BRIDGE NO. N/A	ELECTRONIC TAG READER SYSTEM POLE DETAILS	SES-7
	DETAILS	BY D W JUSTICE Jr	CHECKED M LICHA			POST MILE Var		
	QUANTITIES	BY M LICHA	CHECKED					

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3620 PROJECT NUMBER & PHASE: 0300000233-1 CONTRACT NO.: 03-1C1121

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
2-2-11	2-16-11				

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USERNAME => trlenard DATE PLOTTED => 01-MAR-2011 TIME PLOTTED => 10:14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	59	81

Mahfoud A. Licha 2-16-11
REGISTERED CIVIL ENGINEER DATE

2-28-11
PLANS APPROVAL DATE

MAHFOUD A. LICHA REGISTERED PROFESSIONAL ENGINEER No. C62816 Exp. 6/30/12 CIVIL STATE OF CALIFORNIA

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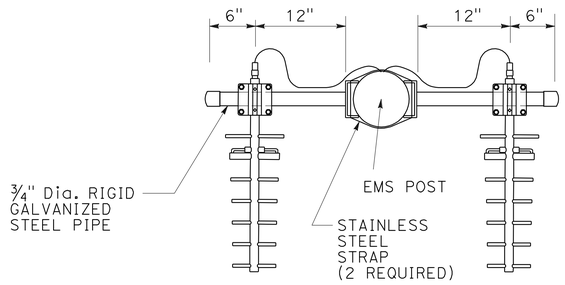
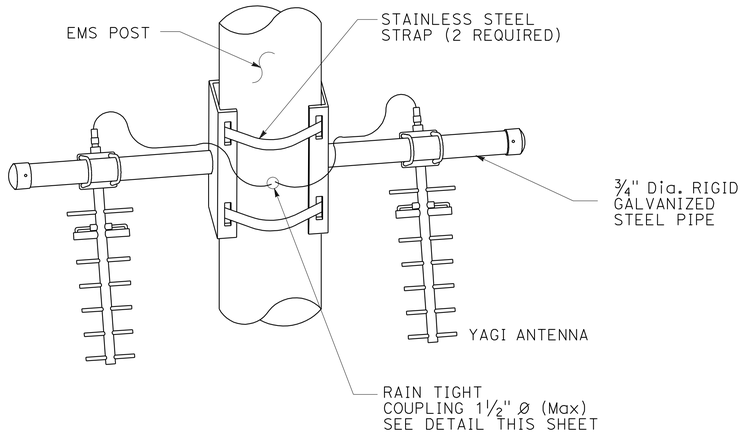


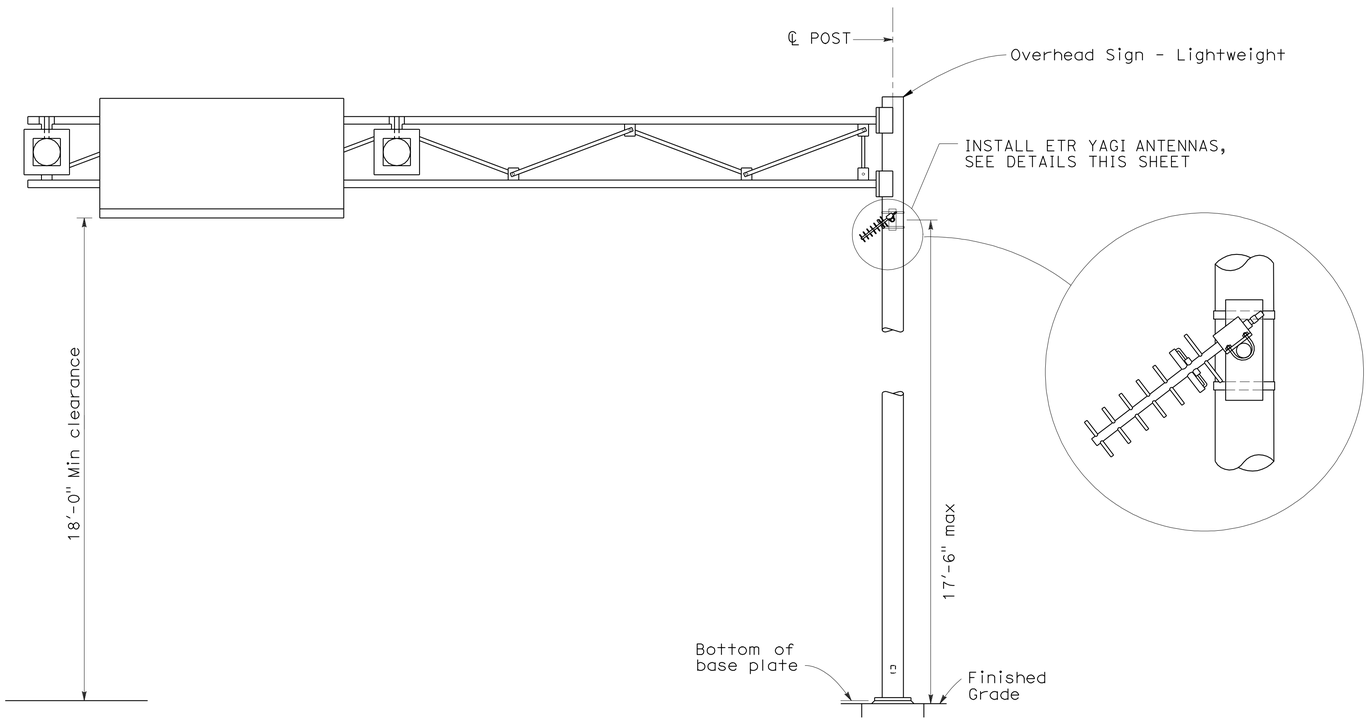
TOP VIEW



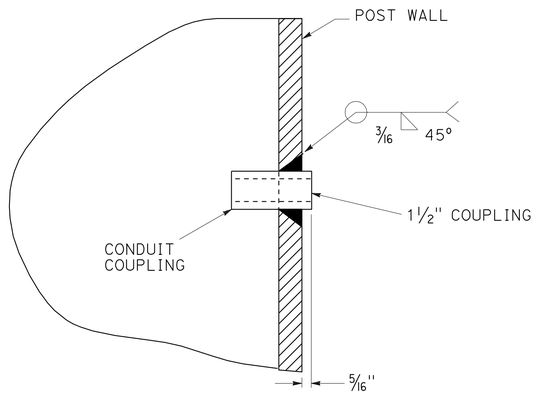
SIDE VIEW

NOTES:

1. For details not shown, see "2006 STANDARD PLANS" and "2006 REVISED STANDARD PLANS".
2. ETR mounting shown for typical only. Exact mounting details to be submitted by the Contractor for Engineer's approval.



ELEVATION



1 1/2" COUPLING DETAIL

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

NO SCALE

BRANCH CHIEF Jeffrey B Woody	DESIGN	BY M LICHA	CHECKED K. C. LIU
	DETAILS	BY D W JUSTICE Jr	CHECKED M LICHA
	QUANTITIES	BY M LICHA	CHECKED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGNS BRANCH

A

BRIDGE NO. N/A
POST MILE Var

EXTINGUISHABLE MESSAGE SIGN
ETR YAGI ANTENNA MOUNTING DETAILS

SES-8

(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3620
PROJECT NUMBER & PHASE: 0300000233-1
CONTRACT NO.: 03-1C1121

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
2-28-11	2-16-11				

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	60	81

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

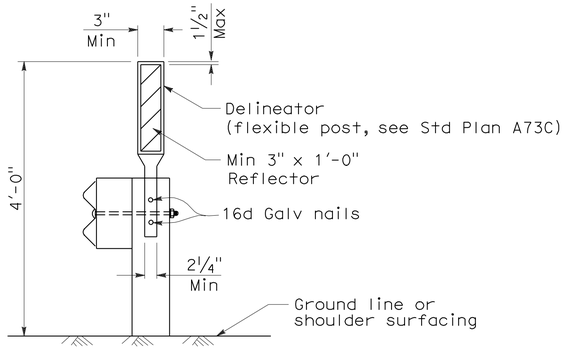
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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.

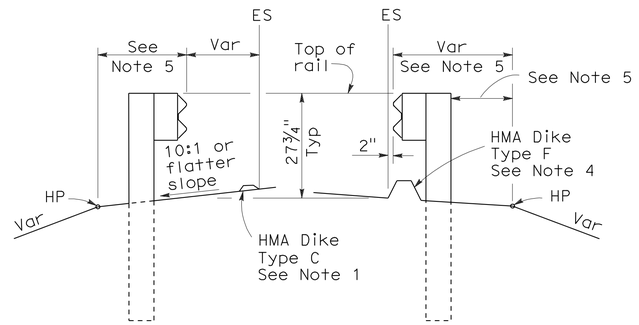
To accompany plans dated 2-28-11

NOTES:

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



GUARD RAILING DELINEATION
See Note 3



DIKE POSITIONING
See Note 1

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL RAILING DELINEATION AND DIKE POSITIONING DETAILS

NO SCALE

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

REVISED STANDARD PLAN RSP A77C4

2006 REVISED STANDARD PLAN RSP A77C4

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	61	81

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Randell D. Hiatt — No. C50200 — Exp. 6-30-07 — CIVIL — STATE OF CALIFORNIA

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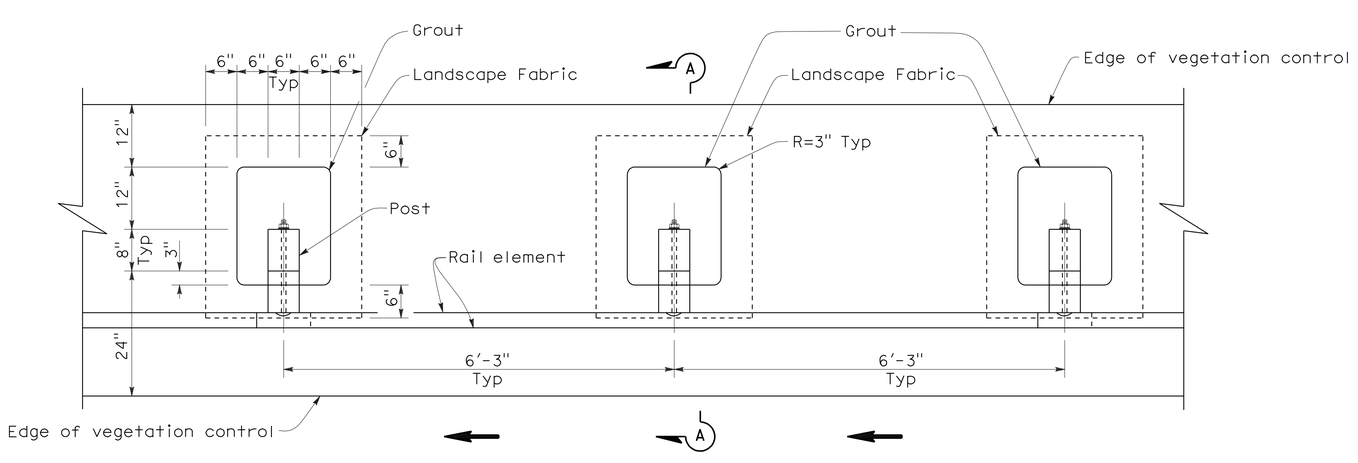
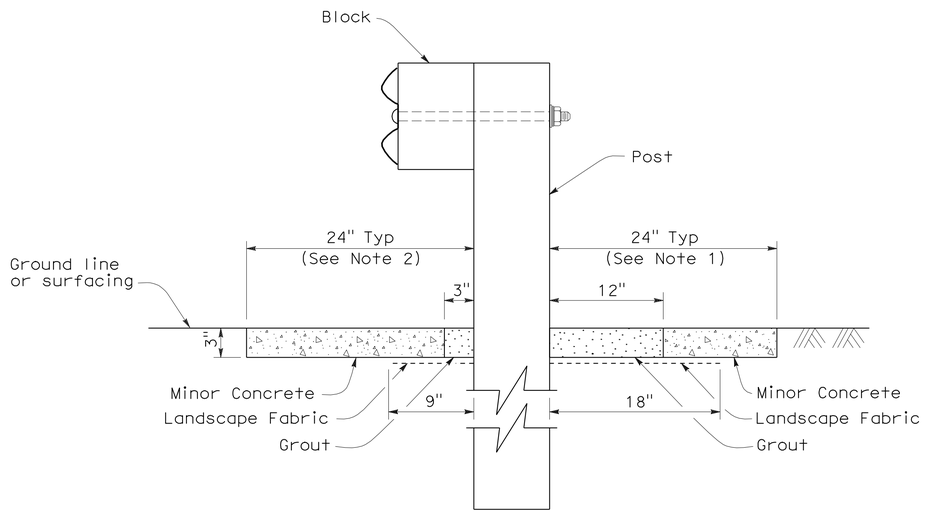
To accompany plans dated 2-28-11



PLAN

NOTES:

1. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
3. Direction of adjacent traffic indicated by ← .



SECTION A-A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL
STANDARD RAILING SECTION

NO SCALE

NSP A77C5 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C5

2006 NEW STANDARD PLAN NSP A77C5

7-17-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	62	81

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-07
CIVIL
STATE OF CALIFORNIA

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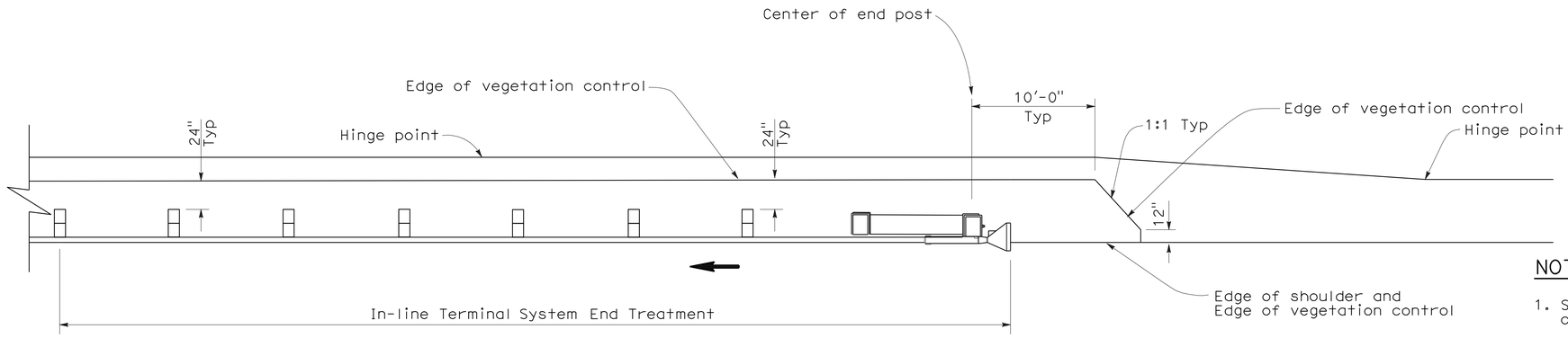
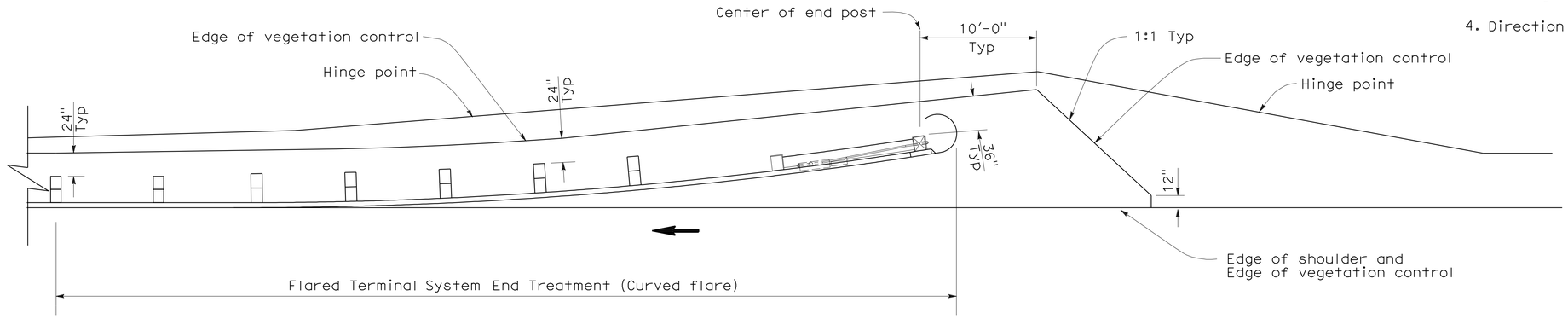
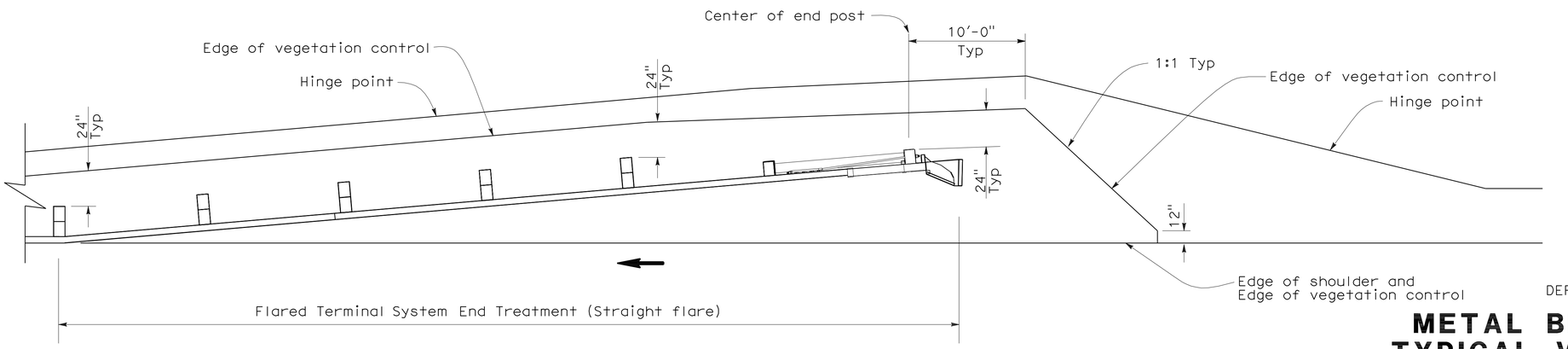
To accompany plans dated 2-28-11



PLAN



PLAN



PLAN

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL
FOR TERMINAL SYSTEM END TREATMENTS

NO SCALE

NSP A77C6 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C6

2006 NEW STANDARD PLAN NSP A77C6

7-17-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	63	81

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

October 20, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-07
CIVIL
STATE OF CALIFORNIA

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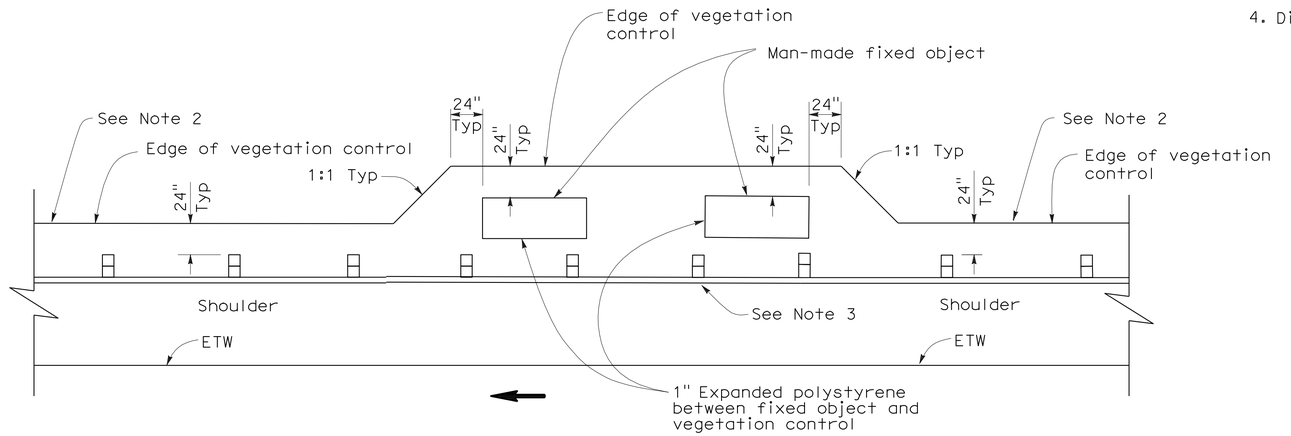
To accompany plans dated 2-28-11

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.



PLAN

FIXED OBJECT(S) ON SHOULDER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING
TYPICAL VEGETATION CONTROL AT FIXED OBJECT

NO SCALE

NSP A77C8 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A77C8

2006 NEW STANDARD PLAN NSP A77C8

7-17-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	64	81

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

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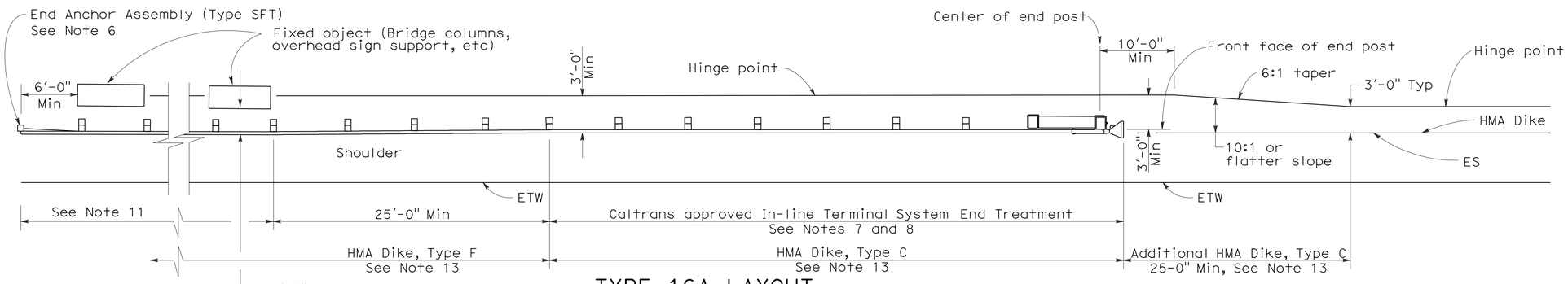
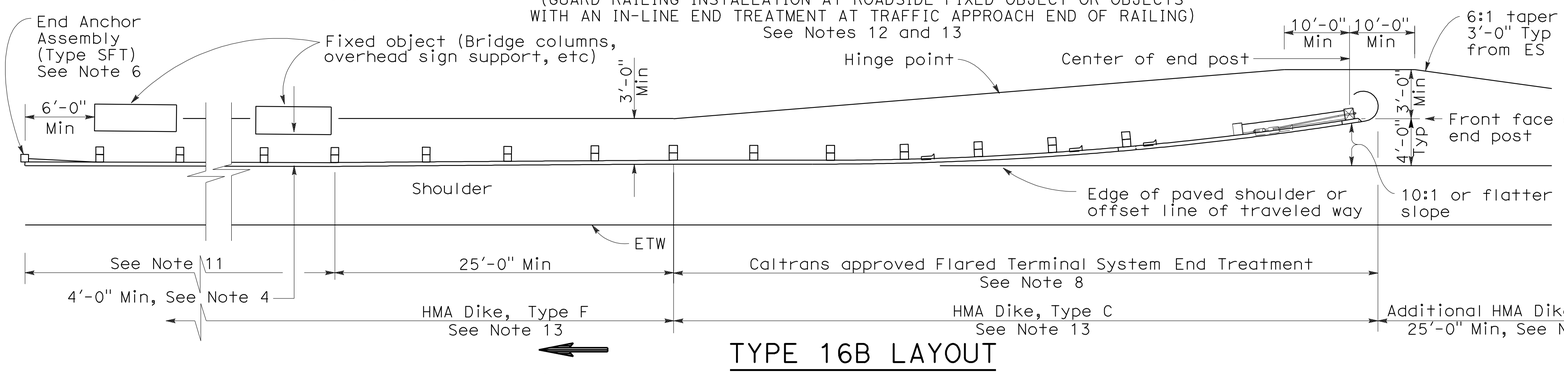
To accompany plans dated 2-28-11



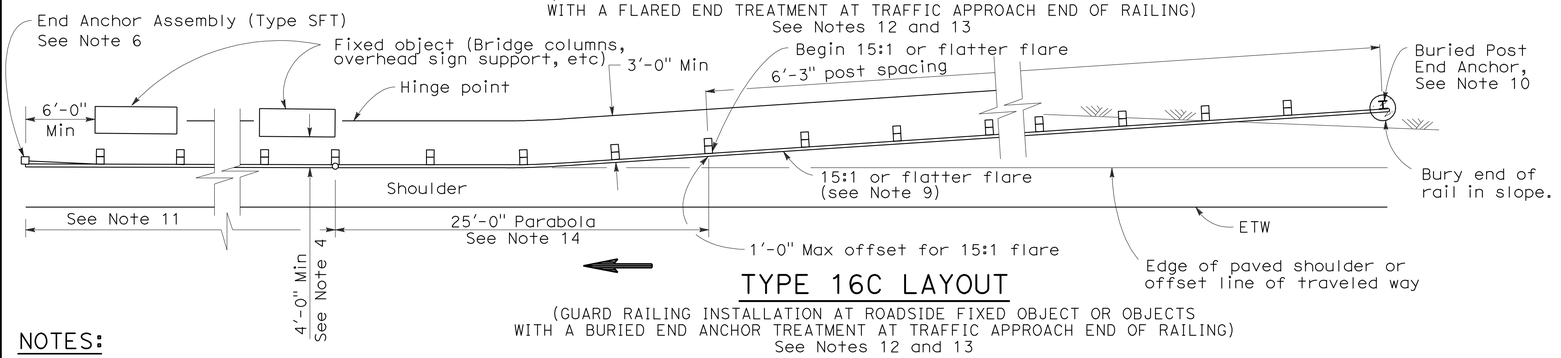
TYPE 16A LAYOUT

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



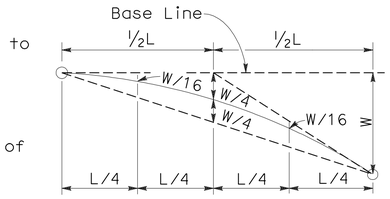
TYPE 16B LAYOUT

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

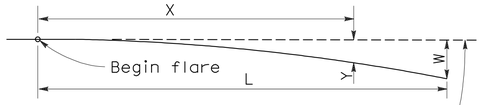


TYPE 16C LAYOUT

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



TYPICAL PARABOLIC LAYOUT

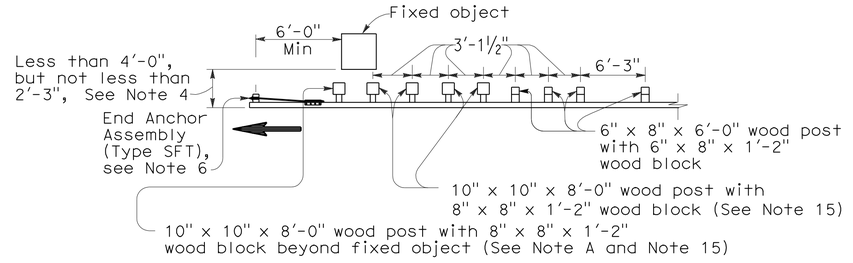


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

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

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

PARABOLIC FLARE OFFSETS



NOTE A: For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 10" x 10" x 8'-0" wood post with 8" x 8" x 1'-2" wood blocks at 3'-1½" center to center spacing are to be used between fixed objects.

STRENGTHENED RAILING SECTIONS FOR FIXED OBJECT

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS

NO SCALE

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

REVISED STANDARD PLAN RSP A77G3

2006 REVISED STANDARD PLAN RSP A77G3

12-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	65	81

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

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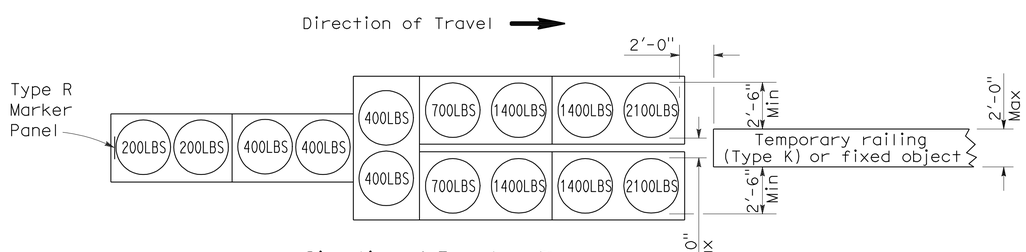
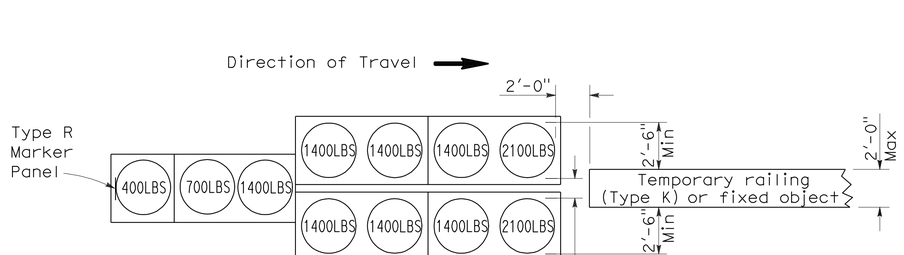
To accompany plans dated 2-28-11



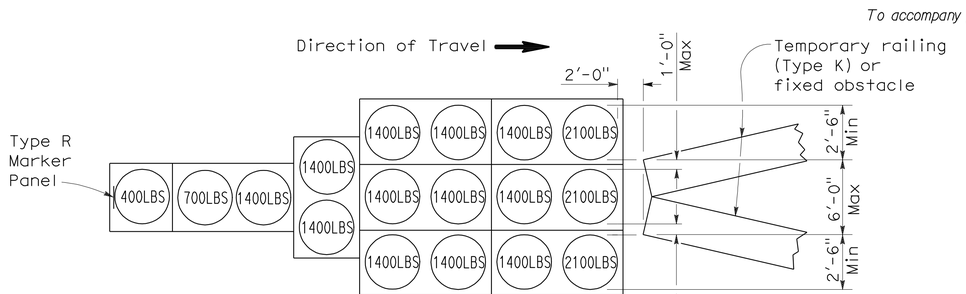
ARRAY 'TU14'

Approach speed 45 mph or more



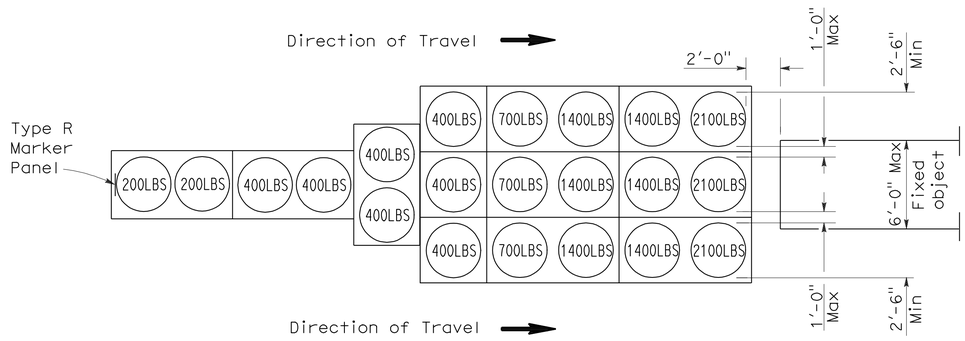
ARRAY 'TU11'

Approach speed less than 45 mph



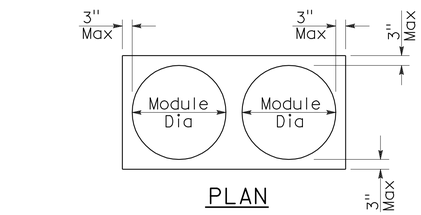
ARRAY 'TU17'

Approach speed less than 45 mph

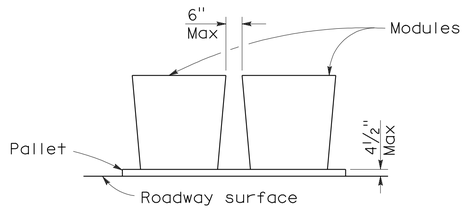


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	66	81

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

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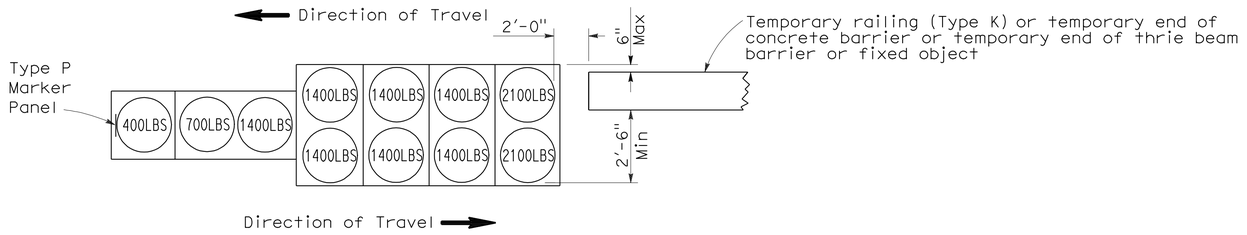
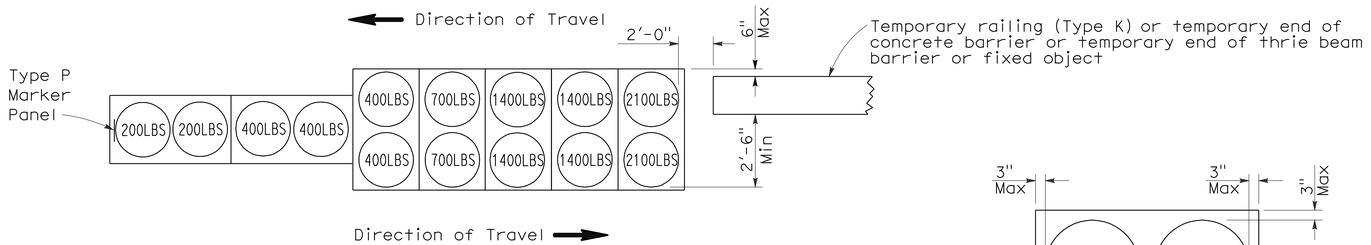
To accompany plans dated 2-28-11



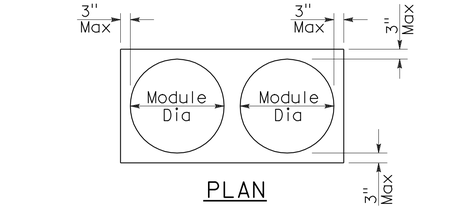
ARRAY 'TB11'

Approach speed less than 45 mph

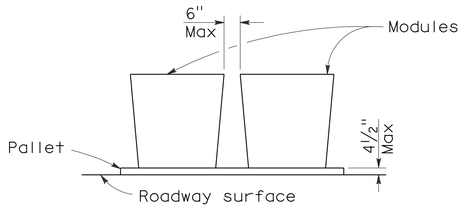


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	67	81

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

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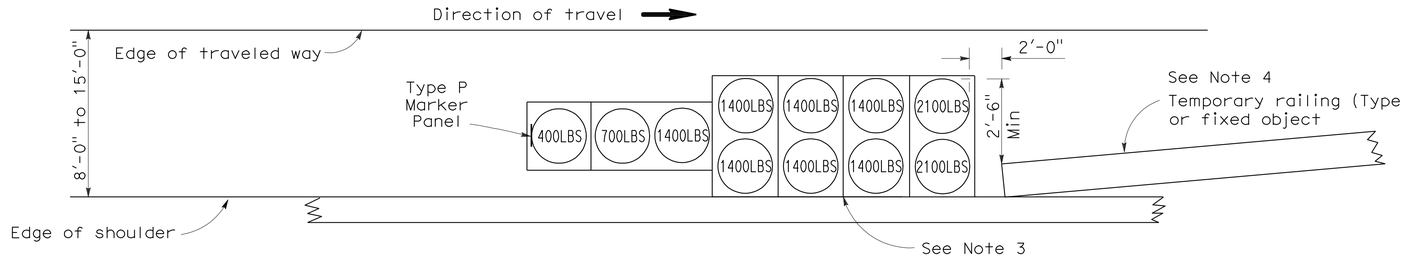
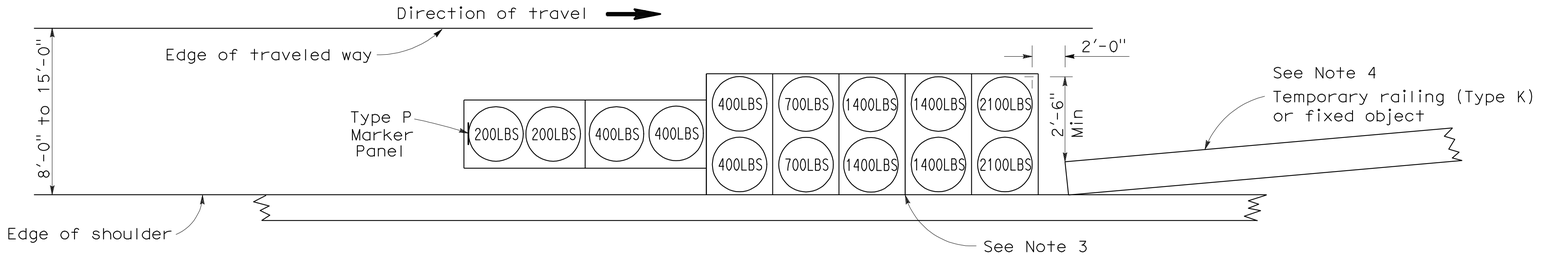
To accompany plans dated 2-28-11



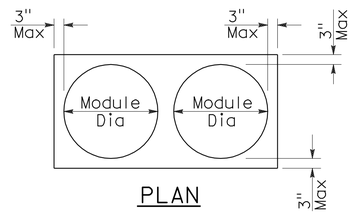
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

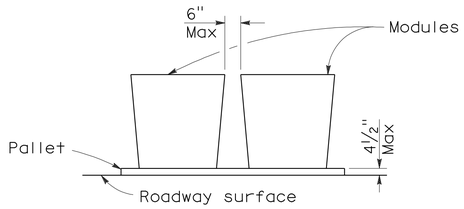


ARRAY 'TS14'

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
03	ED,Pla	50,89, 267	Var	68	81

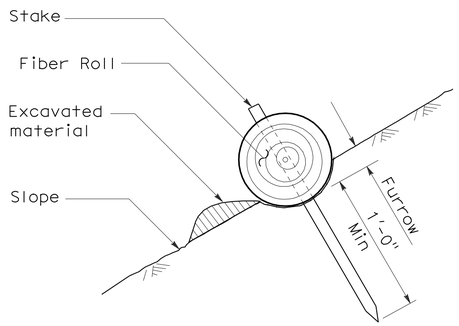
Robert B Schott
LICENSED LANDSCAPE ARCHITECT

April 3, 2009
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3035 — Registration — 11-30-10 Renewal Date — 2-25-09 Date — STATE OF CALIFORNIA

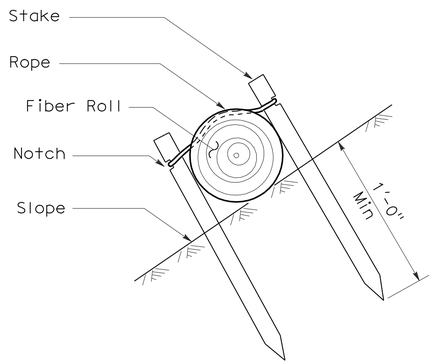
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 2-28-11

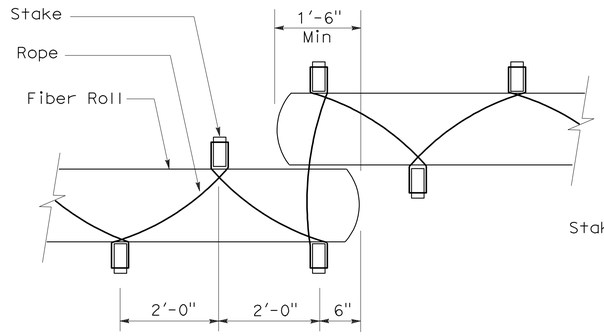


SECTION

TEMPORARY FIBER ROLL (TYPE 1)

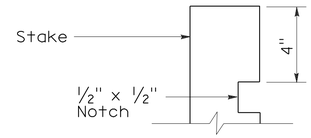


SECTION



PLAN

TEMPORARY FIBER ROLL (TYPE 2)

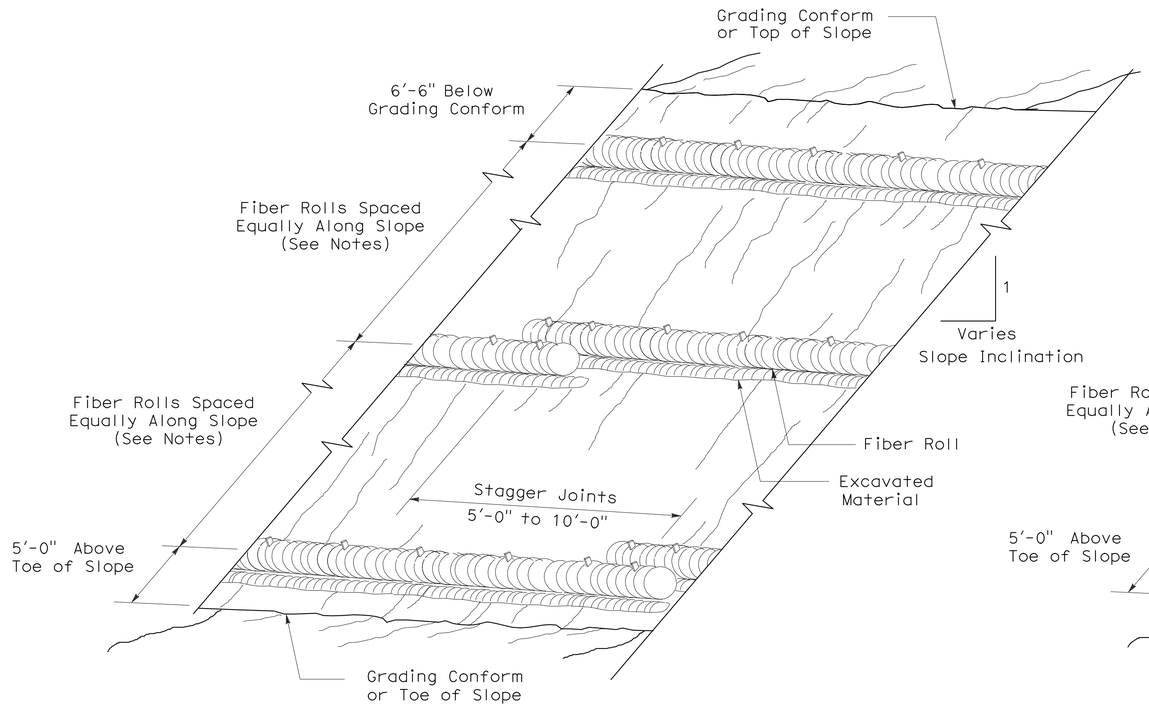


ELEVATION

STAKE NOTCH DETAIL

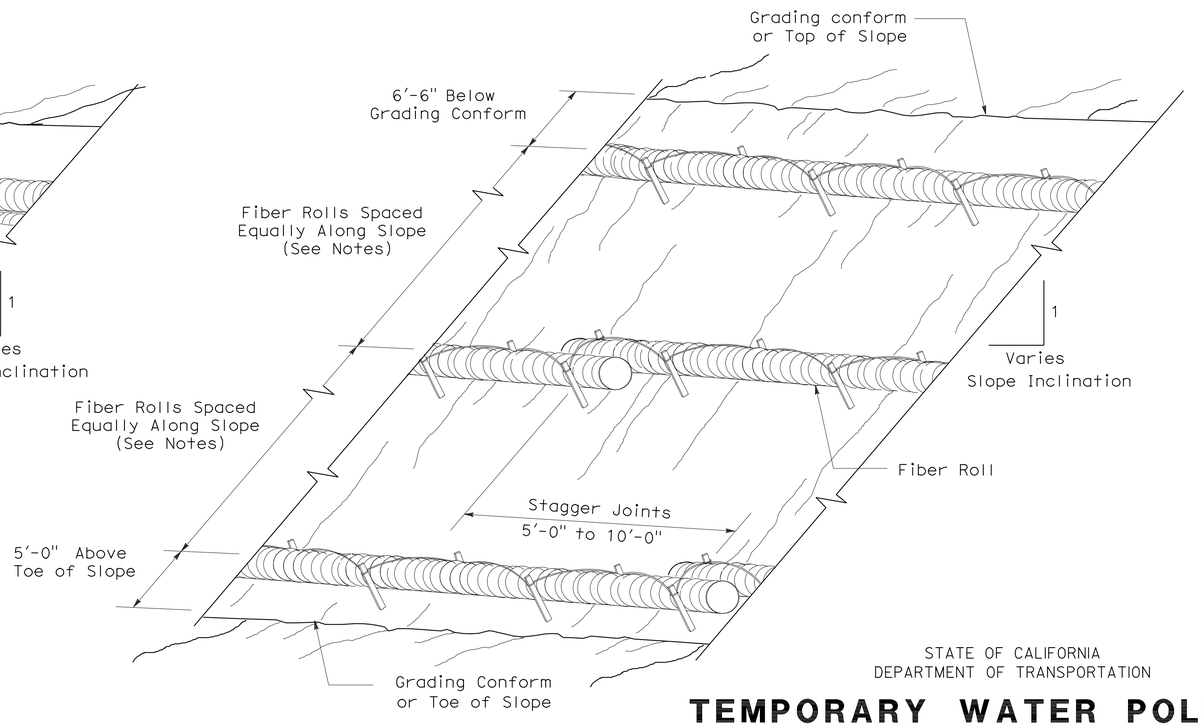
NOTES:

1. Temporary fiber roll spacing varies depending upon slope inclination.
2. Installations shown in the perspectives are for slope inclination of 10:1 and steeper.



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 1)



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 2)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY FIBER ROLL)

NO SCALE

RSP T56 DATED APRIL 3, 2009 SUPERSEDES STANDARD PLAN T56
DATED MAY 1, 2006 - PAGE 232 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T56

2006 REVISED STANDARD PLAN RSP T56

2-23-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	69	81

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 2-28-11

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
03	ED,Pla	50,89, 267	Var	70	81

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 2-28-11

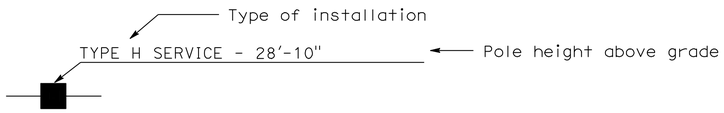
CONDUIT

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
03	ED,Pla	50,89, 267	Var	71	81

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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To accompany plans dated 2-28-11

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345
10 ISL SCI 1.0

- Sign number - Place on post or structure
- Transformer rating (kVA)
- Lighting control type
- Number and type of fixtures

Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"

- Mast arm length, if shown. Do not place on standard or structure.
- Equipment number - Place on standard or structure. Existing equipment numbers are shown in parenthesis

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC

- Number and size of conductors and cables
- Size of conduit in inches

Ø1, Ø2, Ø2P, etc.	Traffic phase identification for signal faces, detectors and phase diagrams
1 2 3	Project note numbers
A B C	Equipment description, installation or item numbers
1 2 3	Conduit run numbers

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100

- Wind velocity = 100 mph
- Case 3 arm loading
- Standard type
- Standard Plan sheet number
- Detail number or letter

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)

- External conductor
- Conductor or bus
- Tie point
- Contactor coil
- Contactor, Contact NO
- Terminal blocks
- Contactor, Contact NC
- Enclosure bond
- Grounding electrode
- Circuit breaker
- Receptacle

PULL BOXES

PROPOSED EXISTING

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

3 9A(21)

Pull box-Additional designations or descriptions

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

(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

MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
CMS	cms	Changeable message sign
		Closed circuit television camera
		Highway advisory radio pole and antenna
EMS	ems	Extinguishable message sign
M V	m v	Detection device M = Microwave sensor V = Video image sensor

VEHICLE DETECTORS

5 J 9 U

- Vehicle detector designation
- U = Upper, L = Lower
- Slot number in input file
- Input file (I or J)
- Phase

PROPOSED EXISTING

	Type A detector loop. Outline of sawcut shown.
	Type B detector loop. Outline of sawcut shown.
	Type C detector loop. Outline of sawcut shown.
	Type D detector loop. Outline of sawcut shown.
	Type E detector loop. Outline of sawcut shown.
	Type Q detector loop. Outline of sawcut shown.
	Magnetic detector
DH dh	Detector handhole
	Microwave or video detection zone

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
03	ED,Pla	50,89, 267	Var	72	81

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

To accompany plans dated 2-28-11

NOTES-TYPE III SERVICE EQUIPMENT ENCLOSURES:

1. Service equipment enclosure and metering equipment shall meet the requirements of the service utility. The meter area shall have a sealable, lockable, weathertight cover that can be removed without the use of tools.

2. Service equipment enclosures shall be factory wired and conform to NEMA standards.

3. Dimensions of service equipment enclosures shall meet the requirements of the service utility.

4. The dead front panels on Type III service equipment enclosures shall have a continuous stainless steel or aluminum piano hinge. The panel in front of the breakers shall be secured with a latch or captive screws. No live parts shall be mounted on the dead front panel.

5. The exterior door shall have provisions for padlocking. The padlock hole shall be a minimum diameter of 7/16".

6. Enclosures housing transformers of more than one kVA shall have effective screened ventilation louver of not less than 50 square inches. Screen shall be stainless steel No. 304, with a No. 10 size mesh. Framed screen shall be secured with at least four bolts.

7. Fasteners on the exterior of the enclosure shall be vandal-resistant and shall not be removable from the exterior. Exterior screws, nuts, bolts and washers shall be stainless steel.

8. Landing lugs for incoming service conductors shall be compatible with either copper or aluminum conductors sized to suit the conductors shown on the plan. Landing lugs shall be copper or tin-plated aluminum. Neutral bus shall be rated for 125 A and be suitable for copper or aluminum conductors unless otherwise specified. The terminal shall include but not be limited to:

   a) Incoming terminals (landing lugs)
   b) Neutral lugs
   c) Solid neutral terminal strip

9. At least 6 standard single pole circuit breaker spaces, 3/4" nominal, shall be provided for branch circuits. Circuit breaker interiors shall be copper. Interiors of enclosure shall accept plug-in or cable-in/cable-out circuit breakers.

10. Control wiring shall be 600 V, 14 stranded machine tool wire. Where subject to flexing, 19 strand wire shall be used.

11. Main bus shall be rated for 125 A and shall be tin-plated copper.

12. A plastic laminated wiring diagram shall be provided with brass mounting eyelets and attached to the inside of the enclosure and the wiring diagram shall be affixed to the interior with a UL or ETL approved method.

13. An engraved phenolic nameplate on the dead front panel indicating the function of each circuit or device shall be installed with stainless steel rivets or stainless steel screws:

    a) Adjacent to the breaker or device with character size a minimum of 1/8".

    b) At the top of the exterior door panel indicating State system number, voltage level and number of phases with character size a minimum of 3/16".

14. The plan shows the approximate location of devices within the enclosure. Components may be rearranged, however, the "working" clearances within the service equipment enclosure shall be maintained.

15. In unpaved areas a raised portland cement concrete pad 2'-0" x 4" x width of foundation shall be constructed in front of new service equipment enclosure installation. Pad shall be set to elevation of foundation.

16. Foundation shall extend 2" minimum beyond edge of service equipment enclosure.

17. Internal bus, where shown, is typical only. Alternative design of proposed service equipment enclosure shall be submitted to the Engineer for approval.

18. Plug-in circuit breakers may be mounted in the vertical or horizontal position. Cable-in/cable-out circuit breakers shall be mounted in the vertical position.

19. Type III-AF and Type III-BF service equipment enclosures shall have the meter viewing windows located on the front side of the service equipment enclosures.

20. Type III-AR and Type III-BR service equipment enclosures shall be similarly constructed as Type III-AF and Type III-BF respectively, except the meter viewing windows shall be located on the back side of the service equipment enclosures.

21. Minimum clearance shall be required for front and back of service equipment enclosure per National Electrical Code, Article 110.26, "Spaces About Electric Equipment (600 Volts, Nominal, or Less)."

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SERVICE EQUIPMENT NOTES TYPE III SERIES)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-2C

2006 REVISED STANDARD PLAN RSP ES-2C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	73	81

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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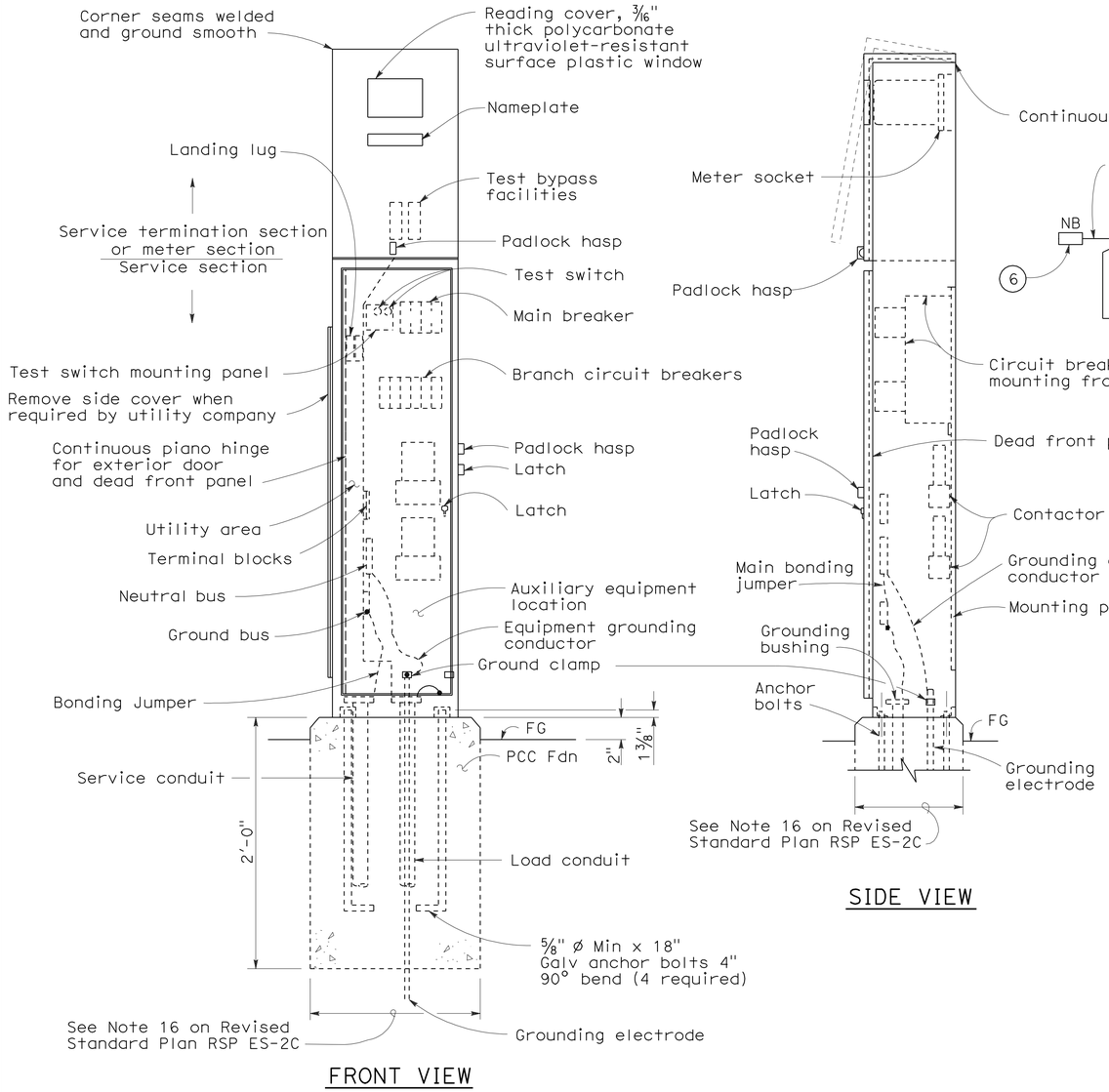
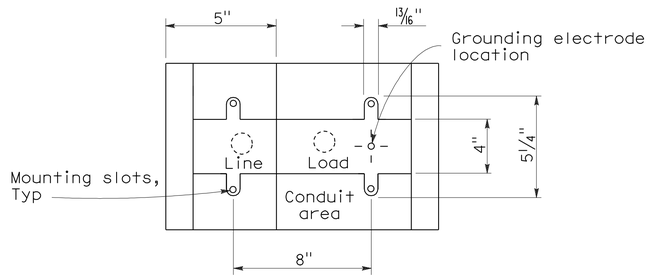
To accompany plans dated 2-28-11



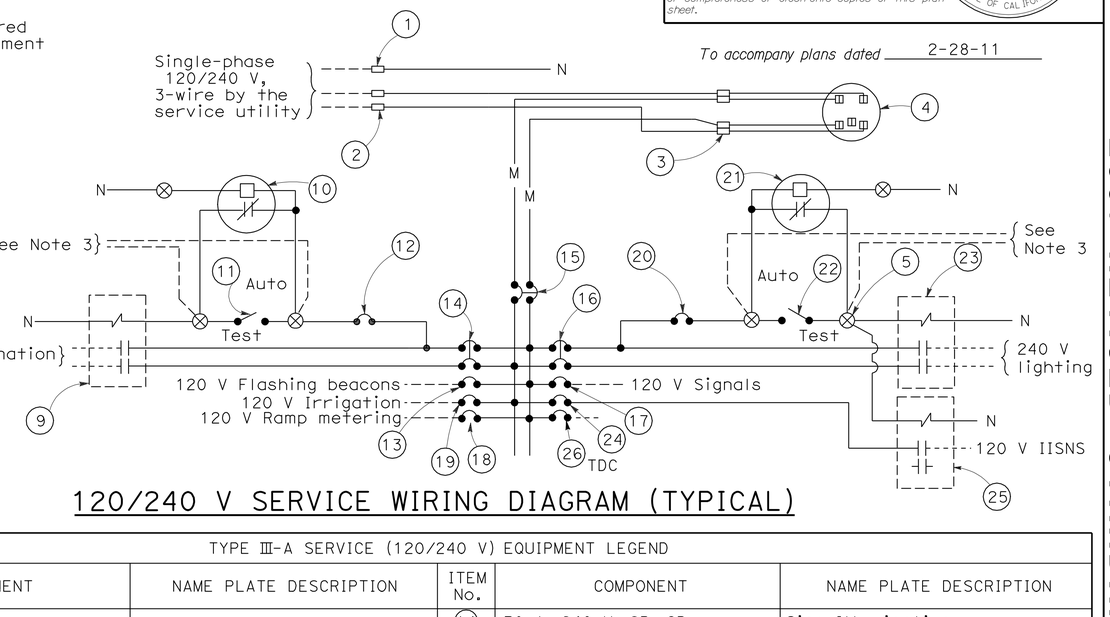
FRONT VIEW

SIDE VIEW

TYPE Ⅲ-AF SERVICE EQUIPMENT ENCLOSURE (TYPICAL)



BASE FOR TYPE Ⅲ-A SERVICE EQUIPMENT ENCLOSURE



120/240 V SERVICE WIRING DIAGRAM (TYPICAL)

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

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

NOTES: (FOR SERVICE EQUIPMENT ENCLOSURE)

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP ES-2D

2006 REVISED STANDARD PLAN RSP ES-2D

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	74	81

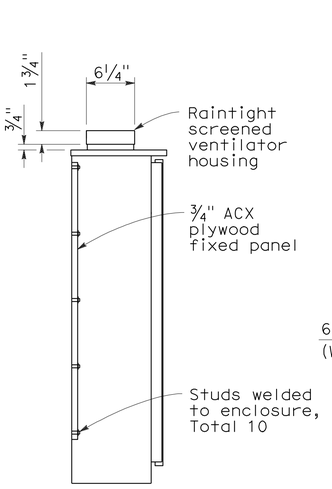
Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

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

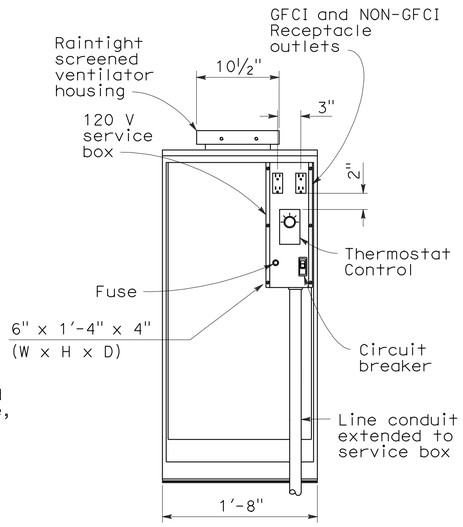
October 5, 2007
PLANS APPROVAL DATE

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 2-28-11

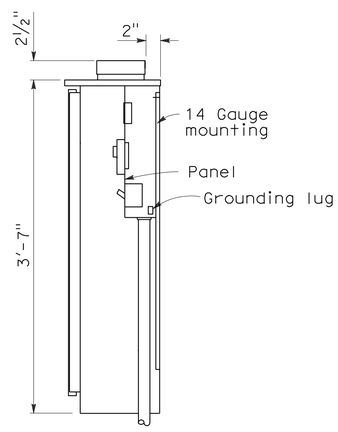


SECTION A-A

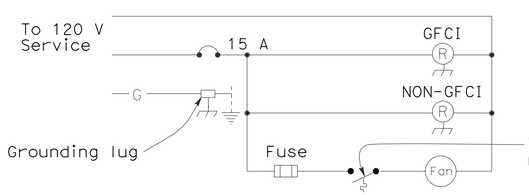


FRONT VIEW

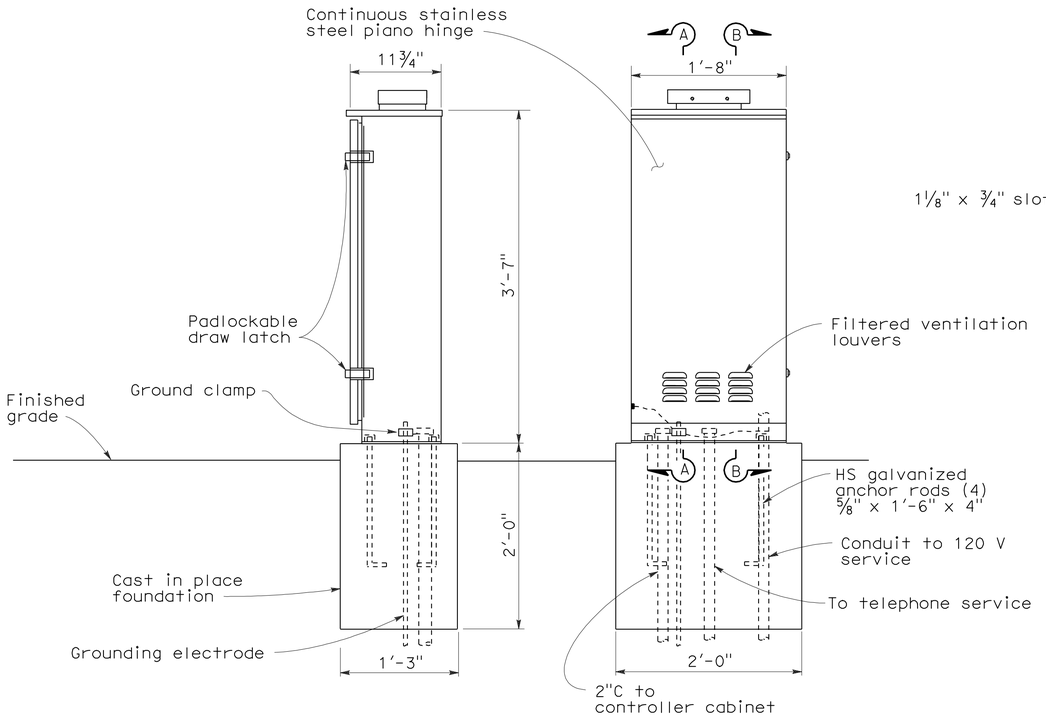
(Exterior door removed for clarity)



SECTION B-B

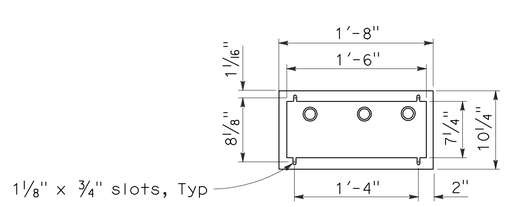


WIRING DIAGRAM



SIDE VIEW

FRONT VIEW



BASE PLAN

NOTES:

1. Telephone demarcation cabinet shall be furnished with a mounting panel, outlets, circuit breaker and deadfront plates in place. Dimensions are nominal.
2. An approved mastic or caulking compound shall be placed on the foundation prior to placing the cabinet to seal openings between the bottom of the cabinet and the foundation.
3. In unpaved areas, a raised PCC pad shall be placed in front of the telephone demarcation cabinet. Pad shall be 2'-0" x 1'-10" x 4" thick, with 2" above the finished grade.
4. All conduits shall be bonded to the enclosure.
5. Telephone demarcation cabinet:
   a) Material shall be anodized aluminum (⅛" thick).
   b) Fabrication shall conform to the requirements of the Standard Specifications.
   c) The exterior door shall be side hung and secured with a padlockable draw latch, the padlock hole shall be a minimum diameter of 7/16" to receive a padlock.
   d) Ventilation louvers shall be located on the door.
   e) Fan shall be mounted in a ventilator housing.
   f) Fan shall be thermostatically controlled and adjustable to turn on between 80°F and 130°F.
   g) Fan circuit shall be fused at 175 percent of the fan motor capacity.
   h) Fan capacity shall be at least 25 cubic feet per minute.
   i) Fasten fixed mounting panels with nuts, lock and flat washers to 3/16" ø x 1" studs welded to enclosure.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (TELEPHONE DEMARCATION CABINET, TYPE B)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-3E

2006 REVISED STANDARD PLAN RSP ES-3E

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	75	81

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

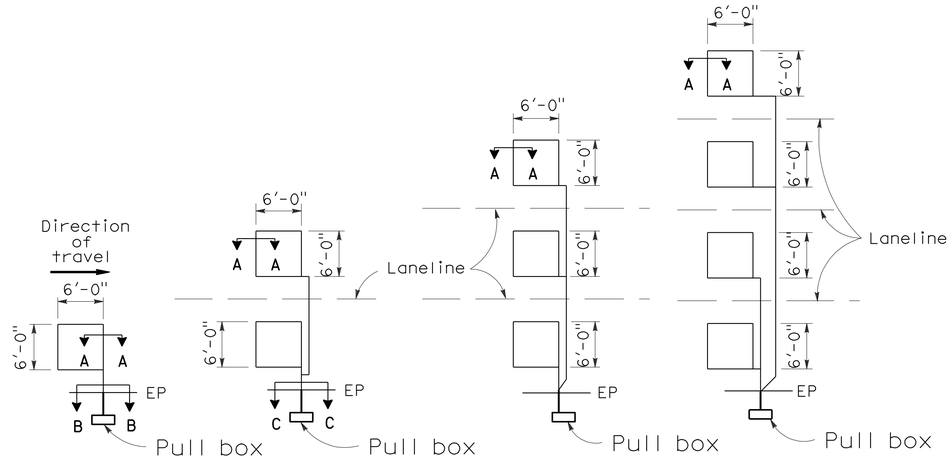
REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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 2-28-11

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.

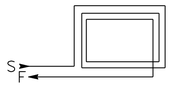


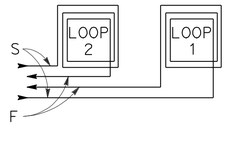
TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

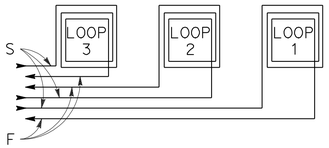
SAWCUT DETAILS

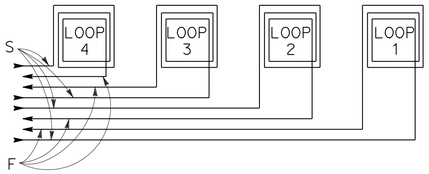
(Type A loop detector configurations illustrated)

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)



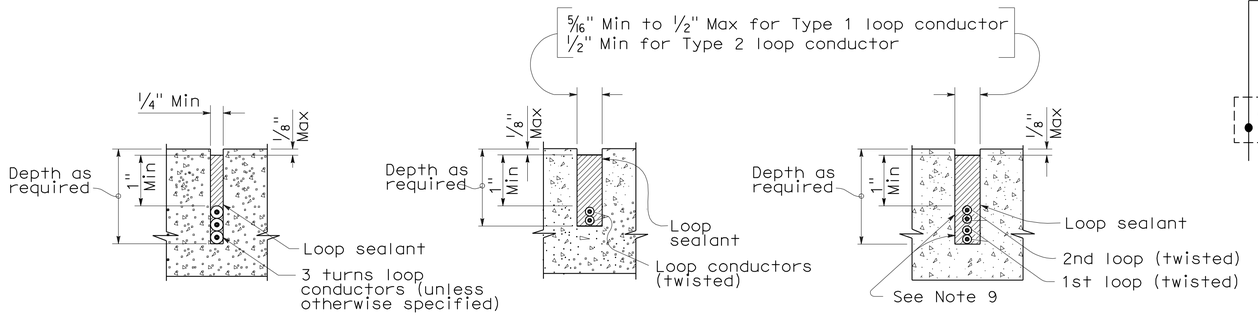






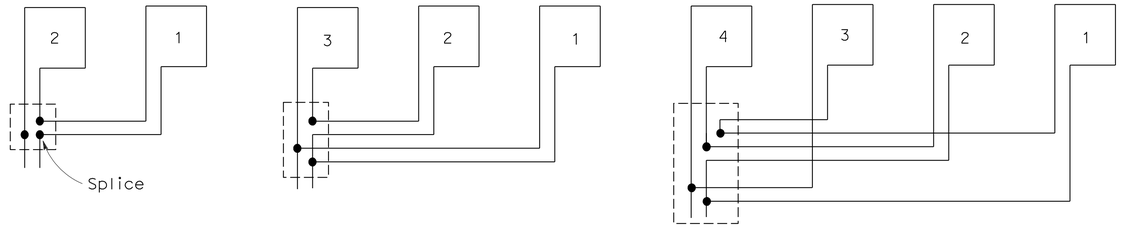
WINDING DETAILS

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	76	81

REGISTERED CIVIL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Stanley P. Johnson
No. C57793
Exp. 3-31-08
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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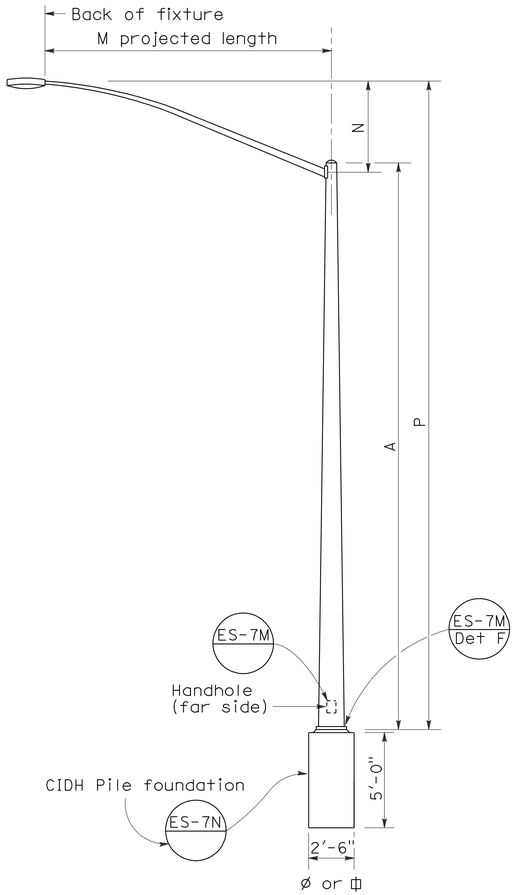
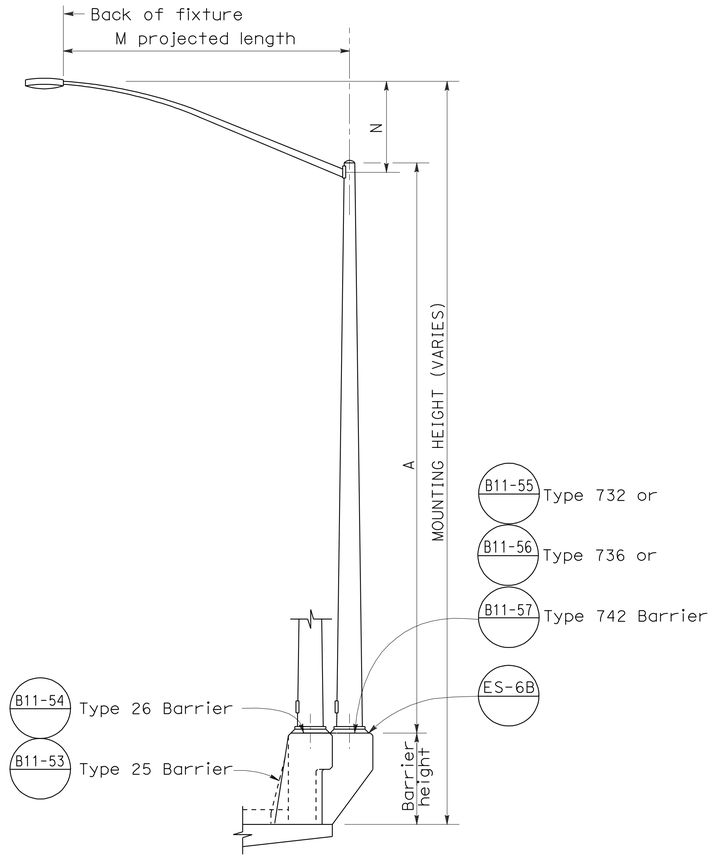
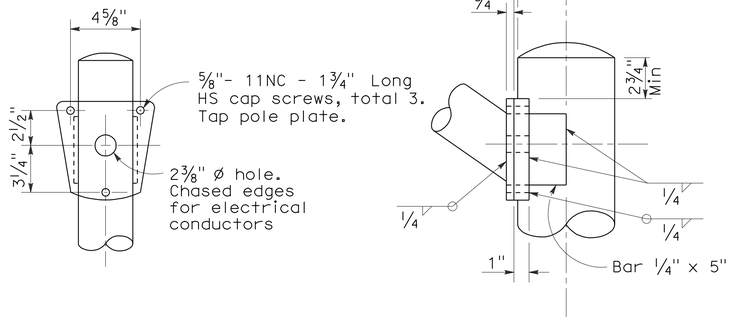
To accompany plans dated 2-28-11



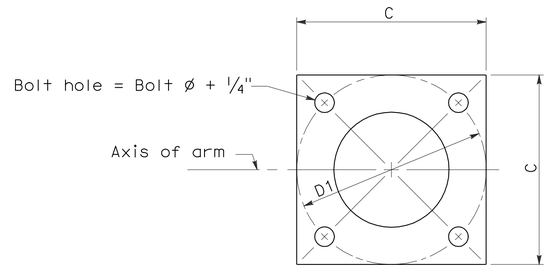
ELEVATION
TYPE 15 AND TYPE 21



ELEVATION
TYPE 15 AND TYPE 21 BARRIER RAIL MOUNTED



DETAIL R
LUMINAIRE ARM CONNECTION



BASE PLATE

POLE TYPE	POLE DATA				BASE PLATE DATA				LUMINAIRE ARM
	A Height	Min OD		Wall Thickness	C	D1 Bolt Circle	Thick-ness	Anchor Bolts Size	
		Base	Top						
15	30'	8"	3 7/8"	0.1196"	1'-0"	1'-0"	1"	1" ø x 3'-0" x 4"*	6' - 15' [12']
21	35'	8 5/8"	3 7/8"	0.1196"	1'-0"	1'-0"	1"	1 1/4"ø x 3'-0" x 4"*	6' - 15' [12']

* For barrier rail bolts, see Standard Plan ES-6B.

LUMINAIRE ARM DATA					
M Projected Length	N Rise	Min OD At Pole	Nominal Thickness	P	
				Type 15	Type 21
6'-0"	2'-0"±	3 1/4"	0.1196"	31'-6"±	36'-6"±
8'-0"	2'-6"±	3 1/2"	0.1196"	32'-0"±	37'-0"±
10'-0"	3'-3"±	3 7/8"	0.1196"	32'-9"±	37'-9"±
12'-0"	4'-3"±	3 7/8"	0.1196"	33'-9"±	38'-9"±
15'-0"	4'-9"±	4 1/4"	0.1196"	34'-3"±	39'-3"±

NOTES:

1. ☐ Indicates arm length to be used unless otherwise noted on the plans.
2. For Type 15-SB, use Type 15 standard with Type 30 slip base plate details, see Standard Plan ES-6F.
3. For additional notes, see Standard Plan ES-7M and ES-7N.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LIGHTING STANDARD TYPES 15 AND 21)

NO SCALE

RSP ES-6A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-6A
DATED MAY 1, 2006 - PAGE 427 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-6A

2006 REVISED STANDARD PLAN RSP ES-6A

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	77	81

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

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

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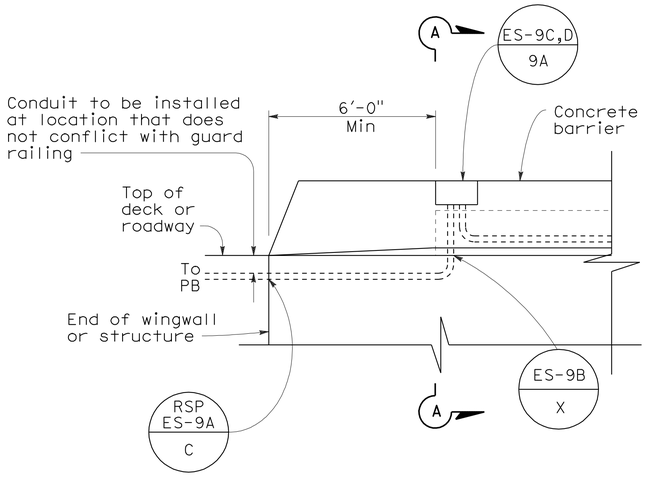
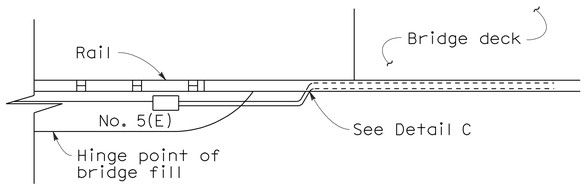
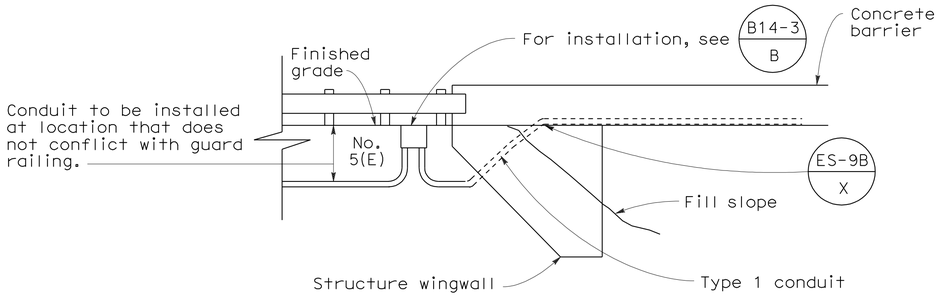
To accompany plans dated 2-28-11



SIDEVIEW

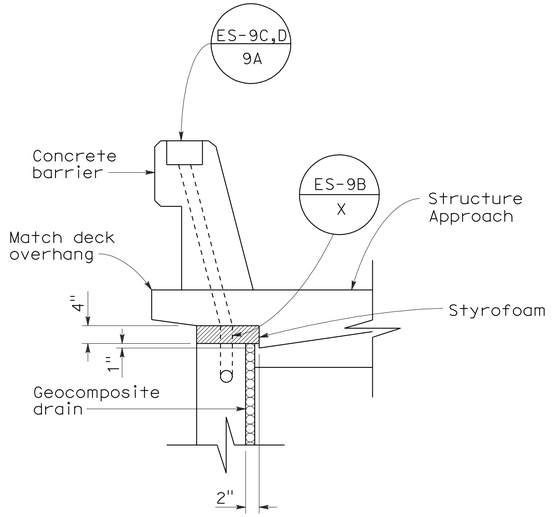


TOP VIEW



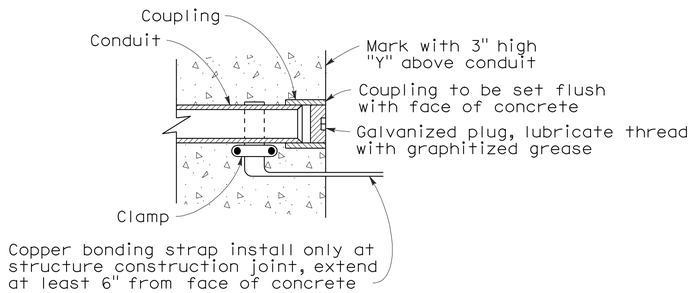
SIDE VIEW

SIDE VIEW
DETAIL I
CONDUIT TERMINATION



SECTION A-A

DETAIL A
CONDUIT TERMINATION



DETAIL C
CONDUIT TERMINATION

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (ELECTRICAL DETAILS STRUCTURE INSTALLATIONS)

NO SCALE

RSP ES-9A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-9A
DATED MAY 1, 2006 - PAGE 454 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-9A

2006 REVISED STANDARD PLAN RSP ES-9A

7-11-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	78	81

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

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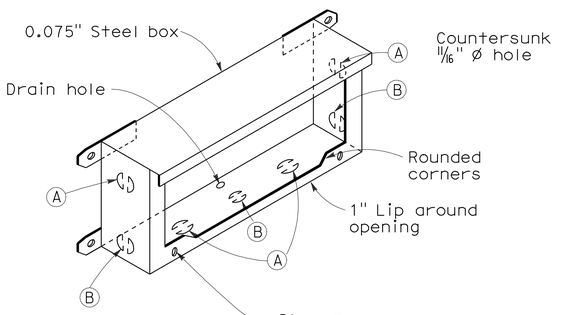
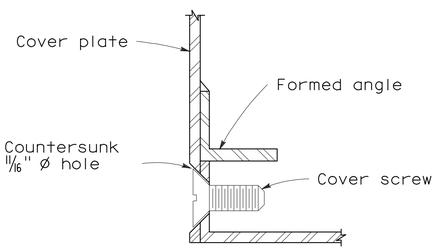
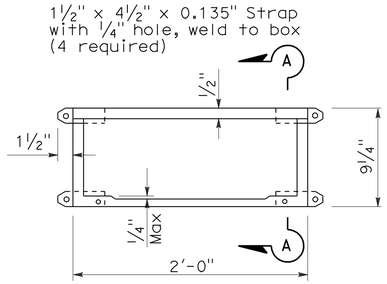
To accompany plans dated 2-28-11

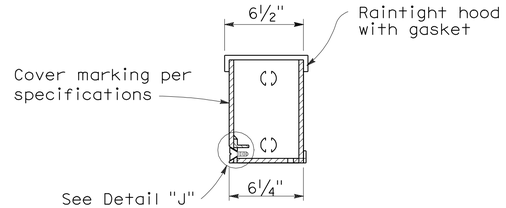




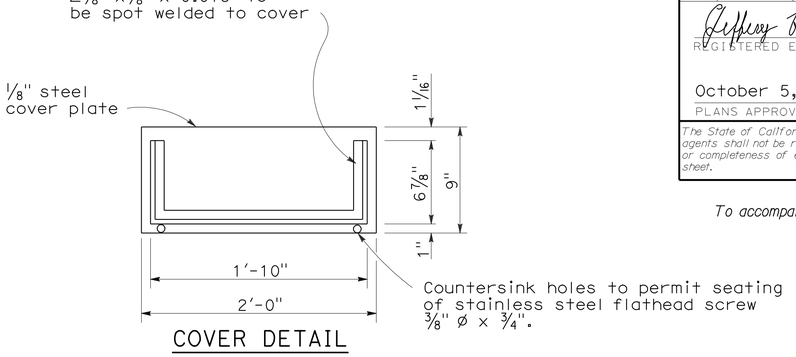
DETAIL J



PLAN



SECTION A-A

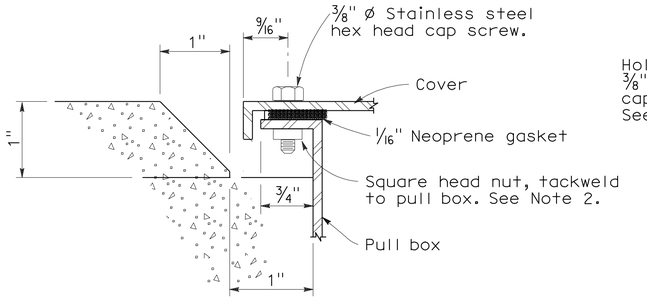


COVER DETAIL

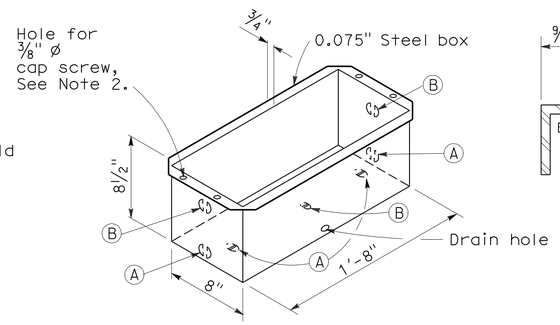
INSTALLATION NOTE:

Box shall be parallel to top of railing. Close cover box during pouring with 1/4" plywood of sufficient size to provide 1:1 chamfer on 3 sides of cover. Upper edge of plywood shall fit against lower edge of raintight hood.

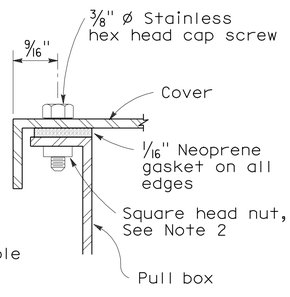
No. 9 STRUCTURE PULL BOX

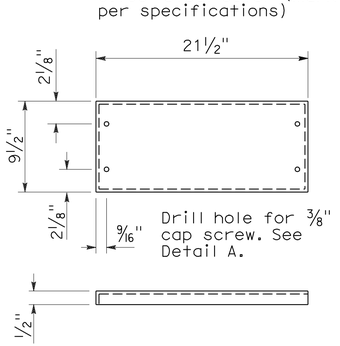


SECTION C-C



DETAIL A



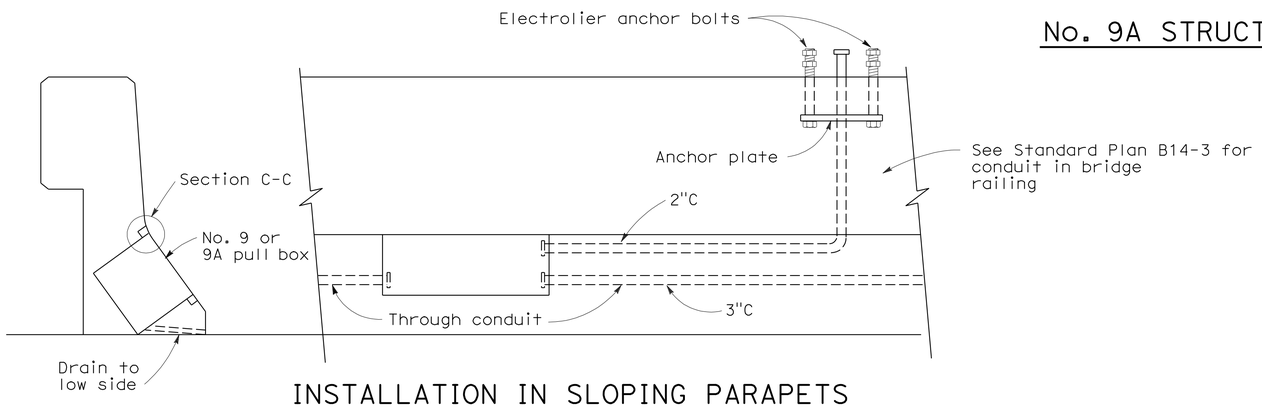


COVER DETAIL

NOTES: No. 9 and 9A Pull Box

1. Corner joints shall be lapped and secured by spot welding or riveting.
2. Where cap screws are used to attach cover to box, either of the following methods of providing adequate threading may be used:
   a. Tack weld square nut to bottom of flange (Total 4), or
   b. Tack weld a 1/4" x 5/8" x 8" bar beneath flange (Total 2).
3. Pound knockouts flat after punching.
4. Multiple size knockouts shall not be permitted.
5. Pull box covers shall be marked as shown on Standard Plan ES-8.

No. 9A STRUCTURE PULL BOX



INSTALLATION IN SLOPING PARAPETS

For reinforcement in area of electrolier, see railing sheets. For electrolier anchor bolts, see Standard Plan ES-6B.

KNOCKOUT SCHEDULE
No. 9 AND 9A PULL BOX

(A) 2"C, 1 each end, 2 on bottom.

(B) 3"C, 1 each end, 1 on bottom.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (ELECTRICAL DETAILS STRUCTURE INSTALLATIONS)

NO SCALE

RSP ES-9C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-9C DATED MAY 1, 2006 - PAGE 456 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-9C

2006 REVISED STANDARD PLAN RSP ES-9C

7-26-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	79	81

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

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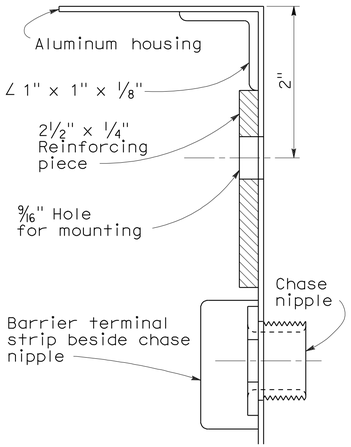
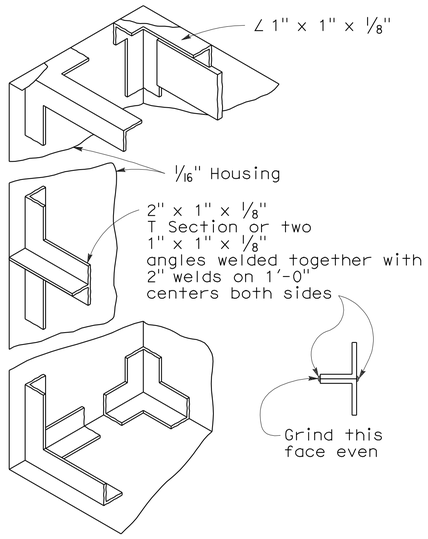
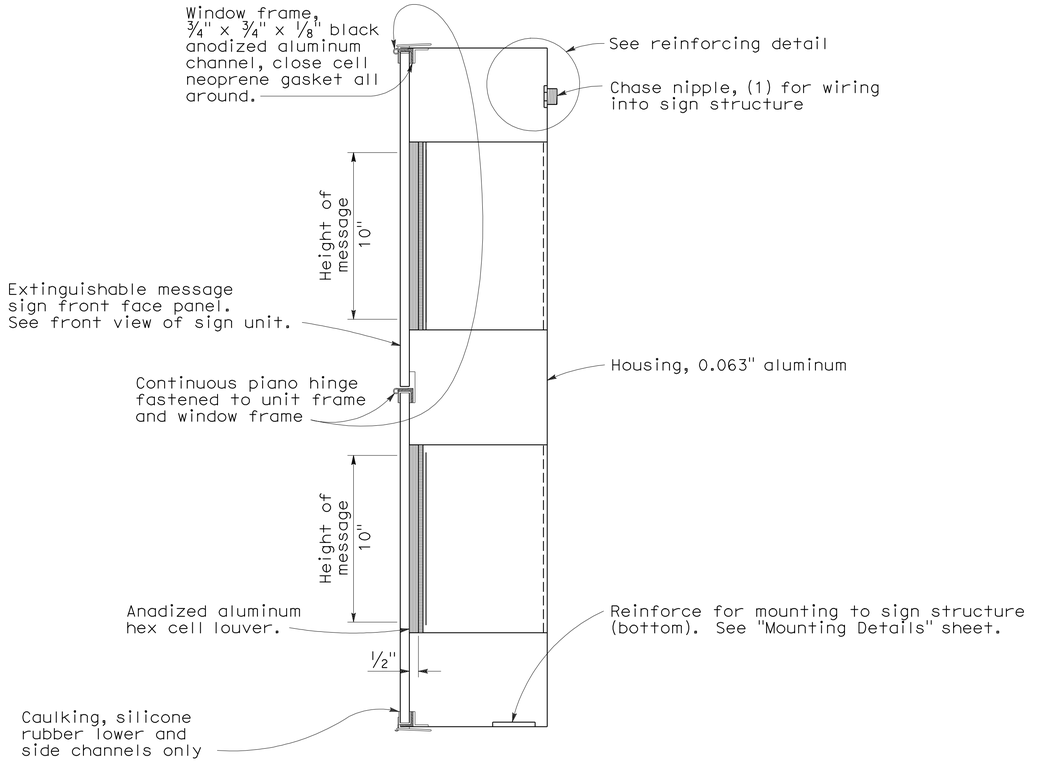
To accompany plans dated 2-28-11



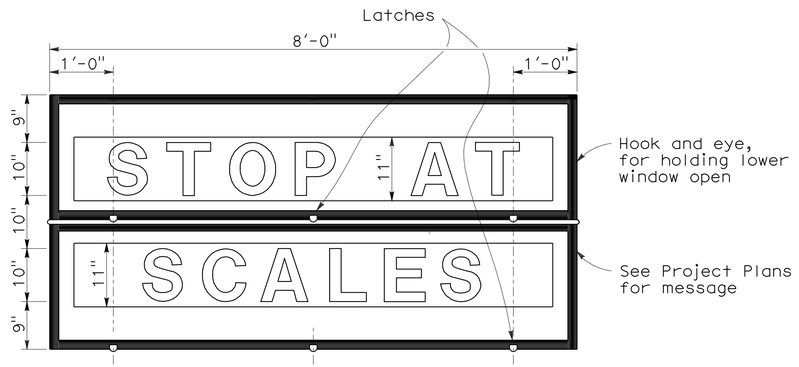
REINFORCING DETAIL



FRAMING DETAILS



CROSS-SECTION OF SIGN



FRONT VIEW OF SIGN

Note:

See Wiring Notes and Symbols on Revised Standard Plan RSP ES-14B.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LED EXTINGUISHABLE MESSAGE SIGN 10" LETTERS)

NO SCALE

RSP ES-14A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-14A DATED MAY 1, 2006 - PAGE 466 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-14A

2006 REVISED STANDARD PLAN RSP ES-14A

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	80	81

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

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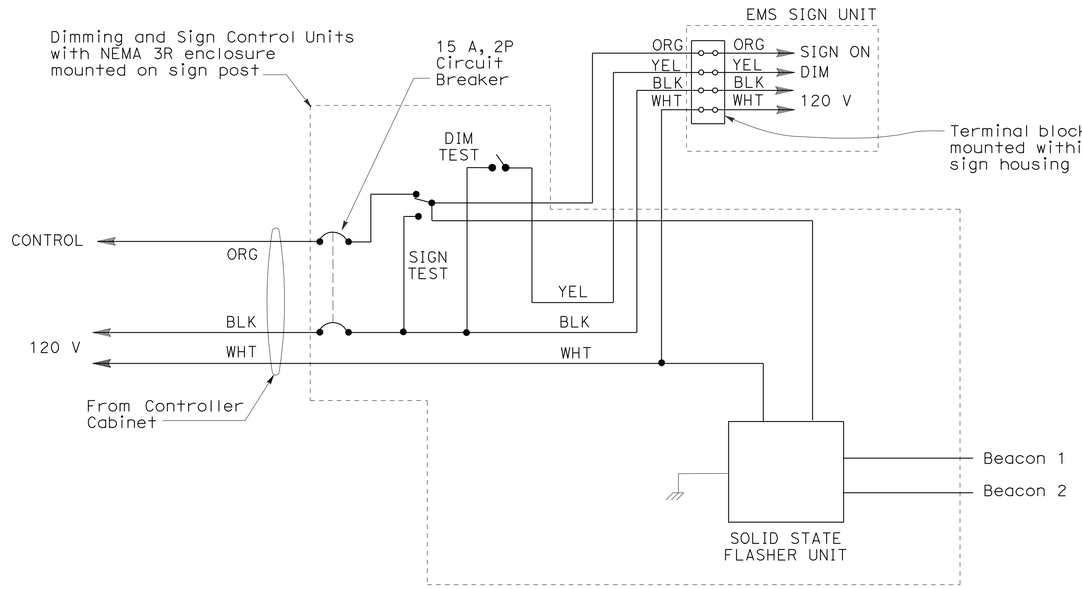
To accompany plans dated 2-28-11



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LED EXTINGUISHABLE MESSAGE SIGN WIRING DIAGRAM)

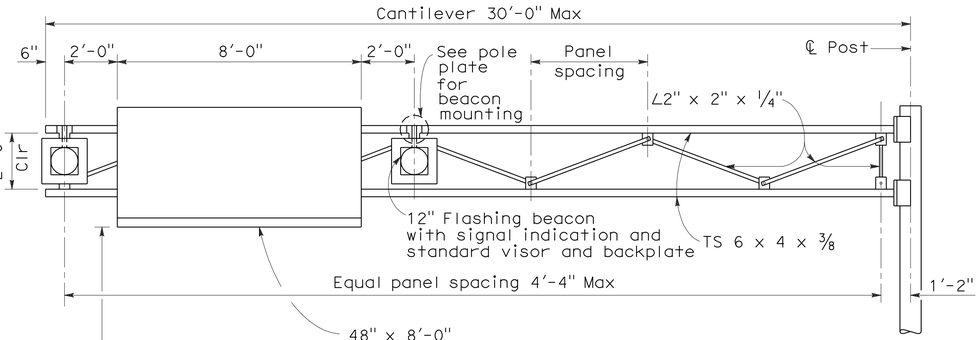
NO SCALE

RSP ES-14B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-14B DATED MAY 1, 2006 - PAGE 467 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-14B

2006 REVISED STANDARD PLAN RSP ES-14B

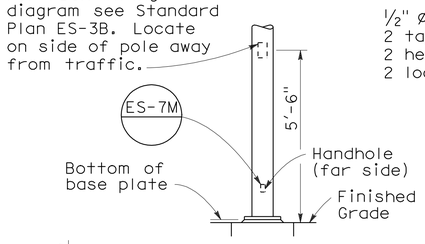
7-10-07

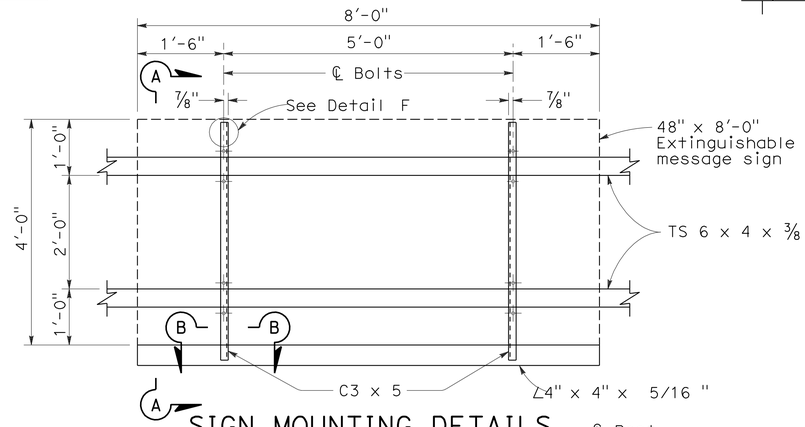


Post 8 NPS; "t" = ½" for cantilever 24'-0" or less.

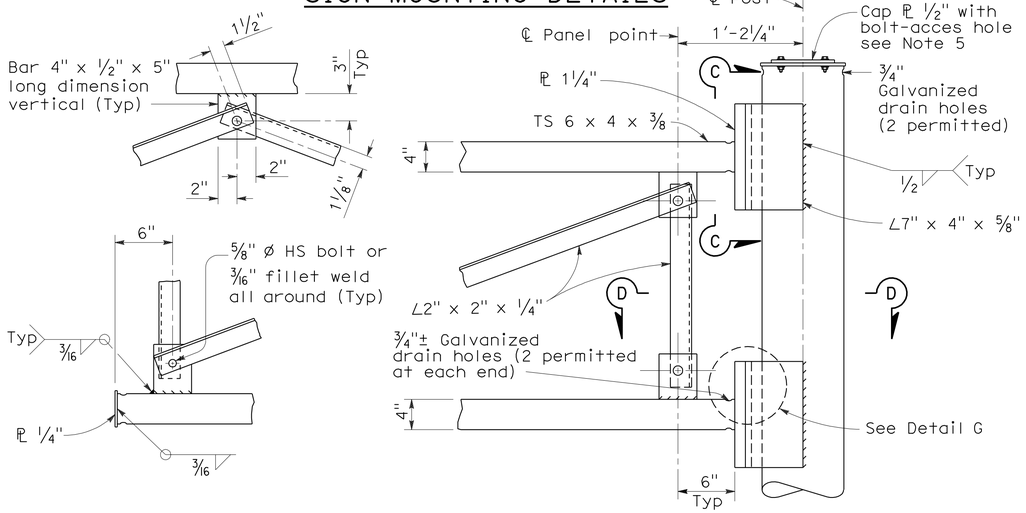
Post 10 NPS; "t" = ½" for cantilever over 24'-0".

ELEVATION

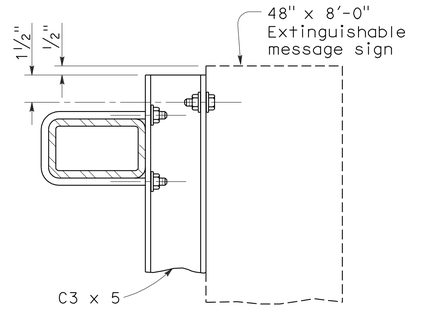




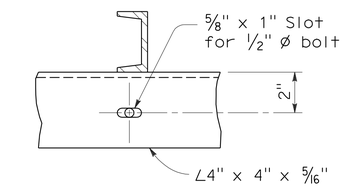
SIGN MOUNTING DETAILS



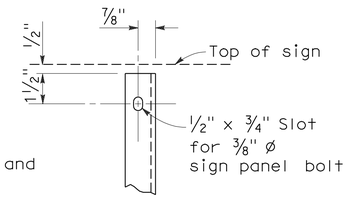
TRUSS FRAME CONNECTION DETAILS



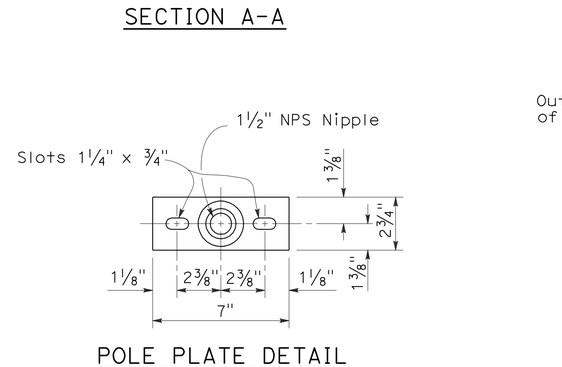
SECTION A-A



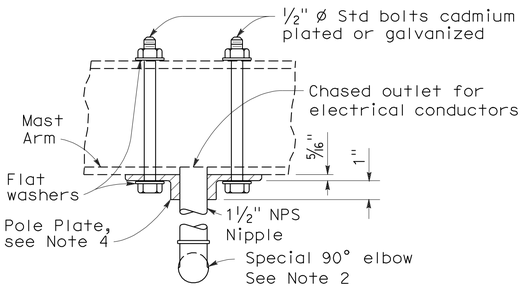
SECTION B-B



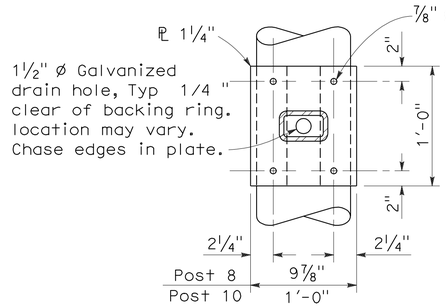
DETAIL F



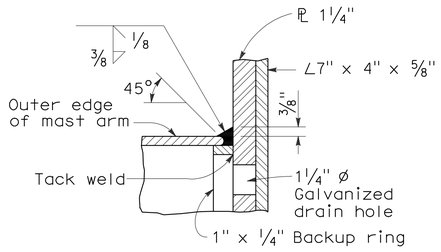
POLE PLATE DETAIL



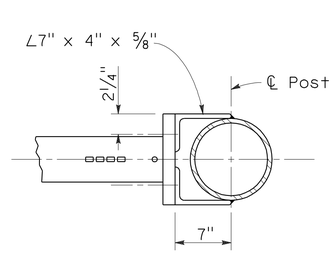
POLE PLATE FOR BEACON MOUNTING



SECTION C-C



DETAIL G



SECTION D-D

∠2" x 2" x ¼" not shown for clarity

NOTES:

1. For general notes, base plates, anchor bolts and foundations refer to Lightweight Signs, Post Details and Foundation Details sheets of the Standard Plans.
2. For details of special 90° elbow, see Standard Plans ES-4D.
3. For sign structure dimensions, see Project Plans.
4. Pole plate shall be bronze, aluminum or ductile iron as specified in the Standard Specifications.
5. For Bolt-Access Hole Details, see Overhead Signs-Truss Frame Juncture Details.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED,Pla	50,89, 267	Var	81	81

Stanley P. Johnson
REGISTERED CIVIL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Stanley P. Johnson
No. C57793
Exp. 3-31-08
CIVIL
STATE OF CALIFORNIA

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To accompany plans dated 2-28-11

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (EXTINGUISHABLE MESSAGE SIGN AND FLASHING BEACONS)

NO SCALE

RSP ES-14C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-14C DATED MAY 1, 2006 - PAGE 468 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-14C

2006 REVISED STANDARD PLAN RSP ES-14C

8-17-07