Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Fre,Tul	99	Var	101	136

Daniel Thanh Vo 3-2-12
REGISTERED ELECTRICAL ENGINEER DATE

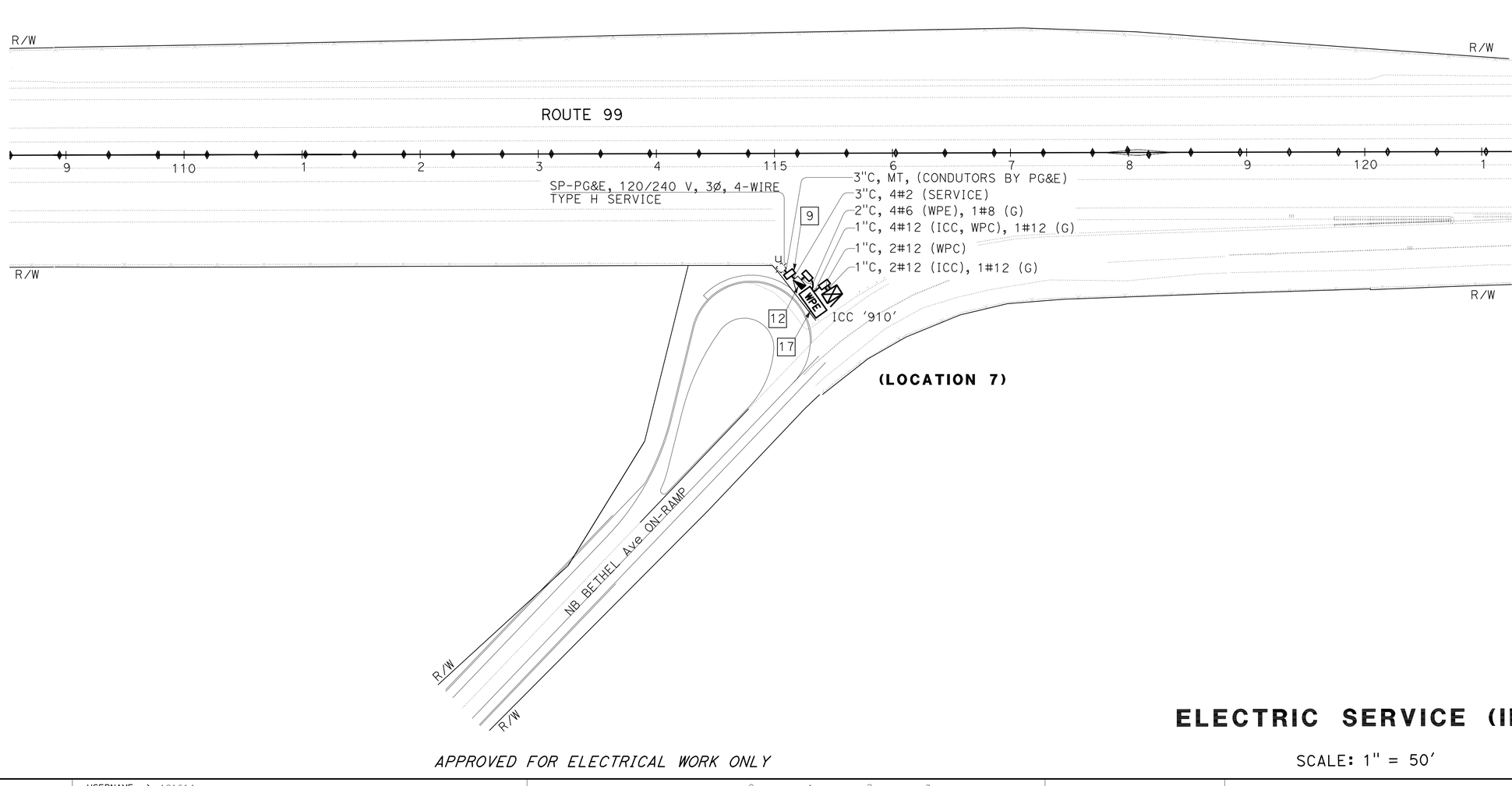
6-18-12
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DANIEL THANH VO
No. 17408
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.

NOTES:

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



(LOCATION 7)

ELECTRIC SERVICE (IRRIGATION)

SCALE: 1" = 50'

E-6

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD

CALCULATED-DESIGNED BY: DANIEL VO
CHECKED BY: MONA ATTALLAH

REVISED BY	DATE REVISED

LAST REVISION | DATE PLOTTED => 20-JUN-2012
04-02-12 | TIME PLOTTED => 06:36

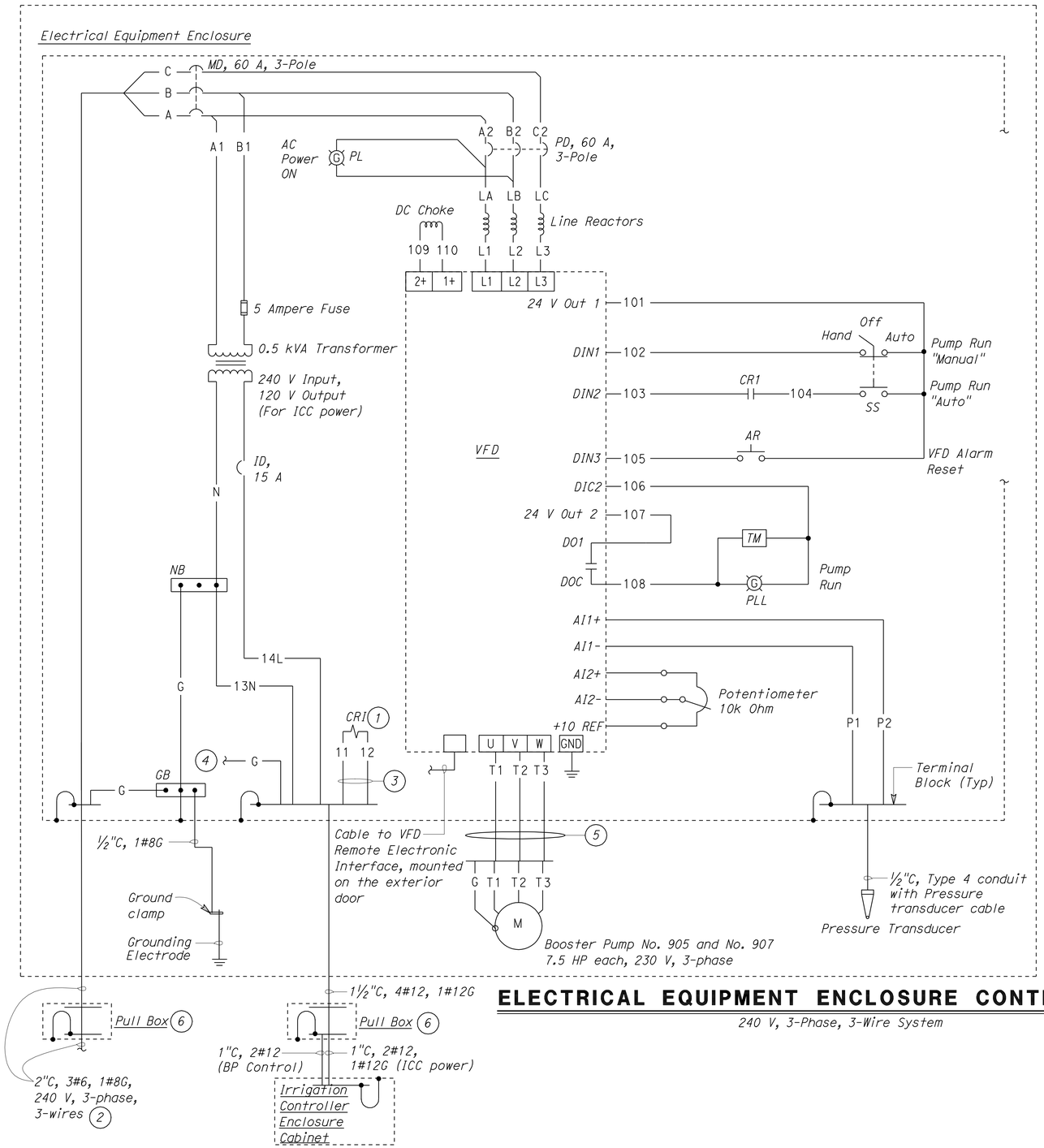
BORDER LAST REVISED 7/2/2010

USERNAME => s121614
DGN FILE => 06120000511tt006.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1515

PROJECT NUMBER & PHASE 06120000511



ELECTRICAL EQUIPMENT ENCLOSURE CONTROL SCHEMATIC

240 V, 3-Phase, 3-Wire System

General Notes:

A. For location of Electrical Equipment Enclosure, and irrigation controller enclosure cabinet, see Electrical "E" sheets for each booster pump location.

B. Install power distribution blocks on both sides of the Main Disconnect.

C. Not all pull boxes are shown here for clarity. For exact loaction, size and number of pull boxes, see Electrical sheets E-4 and E-5.

Notes:

(1) Control relay irrigation, 24 Volts AC coil.

(2) To existing Service Equipment Enclosure. For continuation, see Electrical "E" sheets for each booster pump location.

(3) To master valve/pump start terminals inside the irrigation controller cabinet.

(4) Connect to ground bus.

(5) 1"C, Type 4 conduit, with 3#8, 1#10G. Booster pump motor cables integrated with equipment grounding conductor.

(6) For size location of pull boxes, see Electrical "E" sheets for each booster pump location.

VFD I/O BOARD

TERMINAL		DESCRIPTION
1	24 V OUT 1	24 V CONTROL VOLTAGE 1
2	DIN1	DIGITAL INPUT 1-MANUAL OVERRIDE
3	DIN2	DIGITAL INPUT 2-START FORWARD
4	DIN3	DIGITAL INPUT 3-FAULT RESET
5	AI1+	ANALOG INPUT
6	AI1-	ANALOG INPUT, COMMON
7	AI2+	ANALOG INPUT, VOLTAGE
8	AI2-	ANALOG INPUT, COMMON
9	+10 REF	REFERENCE VOLTAGE
10	DO1	DIGITAL OUTPUT 1
11	DOC	COMMON
12	24 V OUT 2	24 V CONTROL VOLTAGE 2
13	DIC2	DIGITAL INPUT COMMON 2

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	102	136

REGISTERED ELECTRICAL ENGINEER — 3-9-12 DATE

REGISTERED PROFESSIONAL ENGINEER — IMRAN SAEED — No. E 18781 — Exp. 6-30-13 — ELEC — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE

LEGEND

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER, SINGLE-POLE
	CIRCUIT BREAKER, THREE-POLE
	FUSE
	CONTACT, NORMALLY OPEN
	CONTACT, NORMALLY CLOSED
	SWITCH, SINGLE-POLE, 3-POSITION
	SWITCH, DOUBLE-POLE, 3-POSITION
G	PILOT LIGHT
	OPERATING COIL
	THERMAL OVERLOAD
M	MOTOR
	GROUNDING ELECTRODE
MC	CONDUIT, RIGID STEEL, UNDERGROUND
	CONDUIT, FLEXIBLE
	CONDUIT, TURN UP
	CONDUIT, TURN DOWN
	PUSHBUTTON SWITCH, NORMALLY OPEN
	TRANSFORMER WINDING

ABBREVIATIONS

Ø	PHASE
A	AMPERES
AC	ALTERNATING CURRENT
AI	ANALOG INPUT
AR	ALARM RESET
BPE	BOOSTER PUMP ENCLOSURE
C	CONDUIT
CR	CONTROL RELAY
CRI	CONTROL RELAY IRRIGATION
DC	DIRECT CURRENT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
G	GROUND
GB	GROUND BUS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSEPOWER
ID	IRRIGATION CONTROLLER ENCLOSURE CABINET POWER DISCONNECT
ICC	IRRIGATION CONTROLLER CABINET
IRD	INDUCTION RELAY DISCONNECT
JB	JUNCTION BOX
MD	MAIN DISCONNECT
NB	NEUTRAL BAR
PD	PUMP DISCONNECT
PL	PILOT LIGHT
PLL	PILOT LIGHT LOW VOLTAGE
POT	POTENTIOMETER
SS	SELECTOR SWITCH
TB	TERMINAL BLOCK
TM	TIME METER LOW VOLTAGE
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
WPE	WELL PUMP ENCLOSURE

OPERATION SUPERVISOR

DESIGN ENGINEER

	BY	CHECKED
DESIGN	Inam U. Maher	Imran Saeed
DETAILS	Kathi Andreasen	Inam U. Maher
QUANTITIES	Inam U. Maher	Imran Saeed

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

UNIT 3618
PROJECT NUMBER & PHASE 06120000511
EA 324503

BRIDGE NO.
POST MILE Var

SR 99 KINGSBURG-GOSHEN REPLACEMENT PLANTING

BOOSTER PUMP No. 905 & No. 907 ENCLOSURE

SHEET EE-1

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF
12/20/11 | 3/9/12 | 3/19/12 | 3/26/12

19-JUN-2012 10:13

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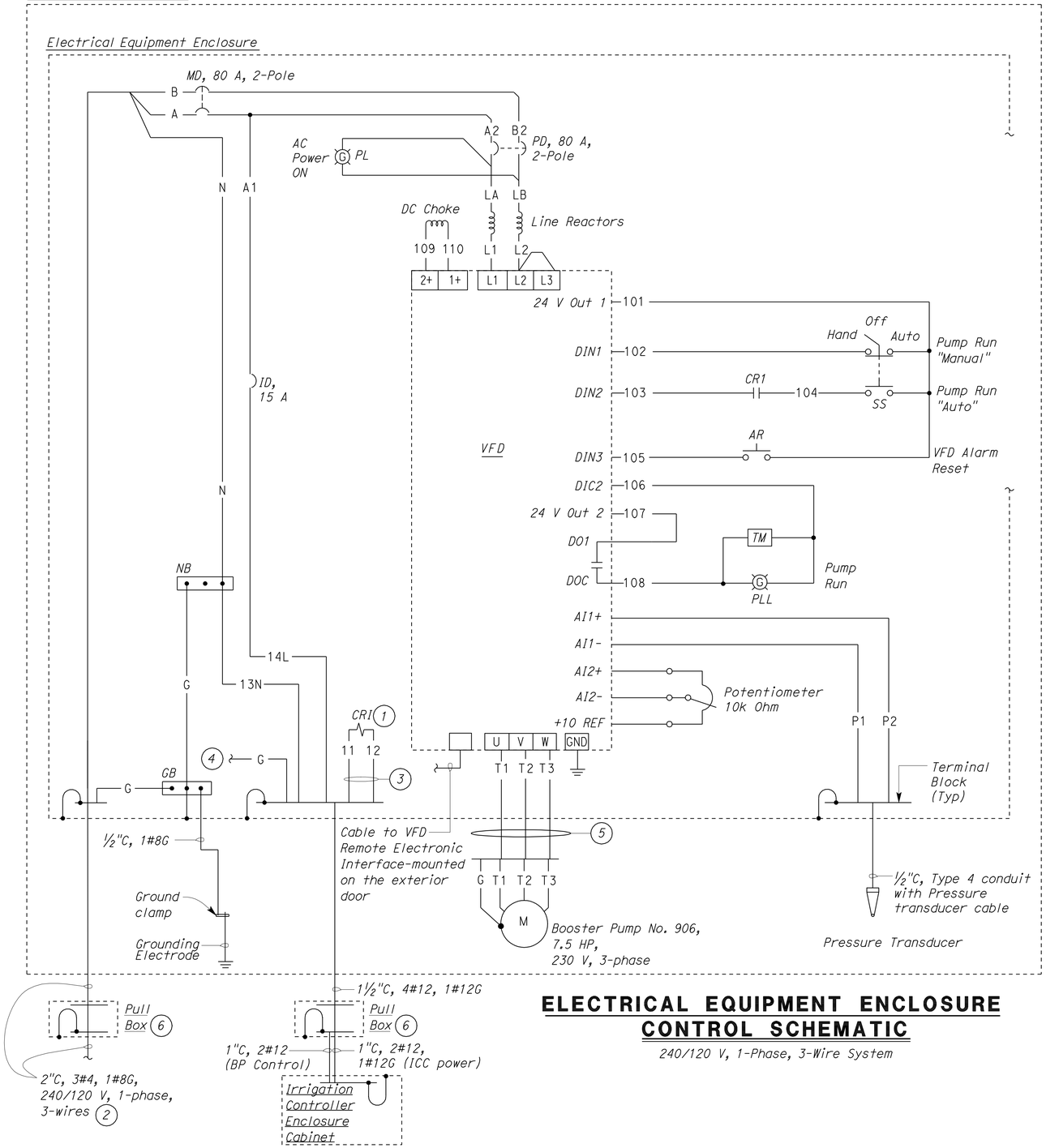

ELECTRICAL EQUIPMENT ENCLOSURE CONTROL SCHEMATIC

240/120 V, 1-Phase, 3-Wire System

General Notes:

A. For location of Electrical Equipment Enclosure, and irrigation controller enclosure cabinet, see Electrical sheet E-4.

B. Install power distribution blocks on both sides of the Main Disconnect.

C. Not all pull boxes are shown here for clarity. For exact loaction, size and number of pull boxes, see Electrical sheet E-4.

Notes:

(1) Control relay irrigation, 24 Volts AC coil.

(2) To existing Service Equipment Enclosure. For continuation, see Electrical sheet E-4.

(3) To master valve/pump start terminals inside the irrigation controller cabinet.

(4) Connect to ground bus.

(5) 1"C, Type 4 conduit, with 3#8, 1#10G. Booster pump motor cables integrated with equipment grounding conductor.

(6) For size and location of pull boxes, see Electrical sheet E-4.

VFD I/O BOARD		
TERMINAL		DESCRIPTION
1	24 V OUT 1	24 V CONTROL VOLTAGE 1
2	DIN1	DIGITAL INPUT 1-MANUAL OVERRIDE
3	DIN2	DIGITAL INPUT 2-START FORWARD
4	DIN3	DIGITAL INPUT 3-FAULT RESET
5	AI1+	ANALOG INPUT
6	AI1-	ANALOG INPUT, COMMON
7	AI2+	ANALOG INPUT, VOLTAGE
8	AI2-	ANALOG INPUT, COMMON
9	+10 REF	REFERENCE VOLTAGE
10	DO1	DIGITAL OUTPUT 1
11	DOC	COMMON
12	24 V OUT 2	24 V CONTROL VOLTAGE 2
13	DIC2	DIGITAL INPUT COMMON 2

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	103	136

REGISTERED ELECTRICAL ENGINEER — 3-9-12 DATE

REGISTERED PROFESSIONAL ENGINEER — IMRAN SAEED — No. E 18781 — Exp. 6-30-13 — ELEC — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE

DESIGN	BY Inam U. Maher	CHECKED Imran Saeed	
DETAILS	BY Kathi Andreasen	CHECKED Inam U. Maher	
QUANTITIES	BY Inam U. Maher	CHECKED Imran Saeed	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.
POST MILE Var

SR 99 KINGSBURG-GOSHEN REPLACEMENT PLANTING

BOOSTER PUMP No. 906 ENCLOSURE

SHEET EE-2

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT 3618
PROJECT NUMBER & PHASE 06120000511
EA 324503

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF
12/24/11 | 3/9/12 | 3/19/12

19-JUN-2012 10:13

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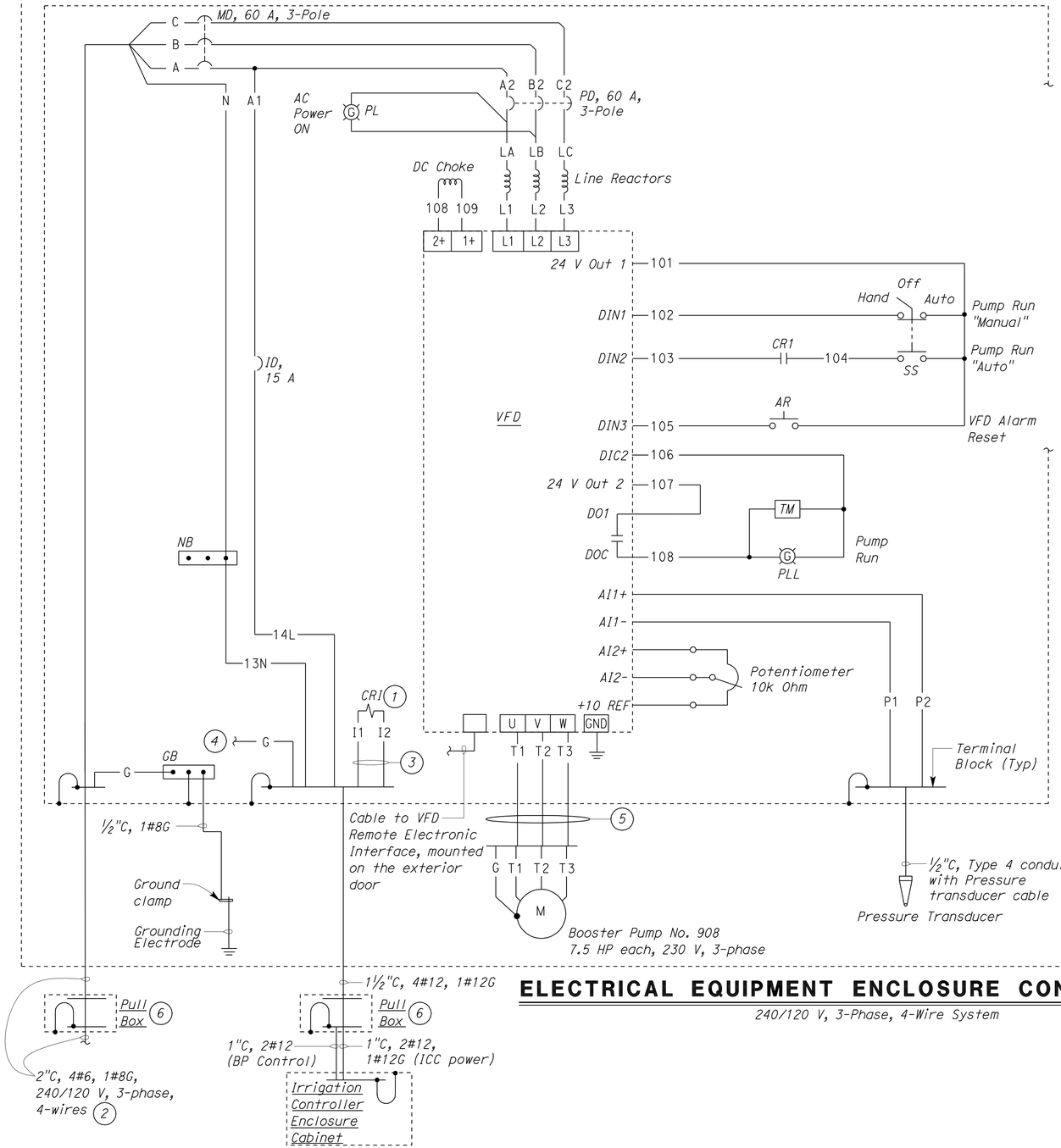
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	104	136

REGISTERED ELECTRICAL ENGINEER — 3-9-12 DATE

REGISTERED PROFESSIONAL ENGINEER — IMRAN SAEED — No. E 18781 — Exp. 6-30-13 — ELEC — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE



ELECTRICAL EQUIPMENT ENCLOSURE CONTROL SCHEMATIC

240/120 V, 3-Phase, 4-Wire System

General Notes:

A. For location of Electrical Equipment Enclosure, and irrigation controller enclosure cabinet, see Electrical sheet E-5.

B. Install power distribution blocks on both sides of the Main Disconnect.

C. Not all pull boxes are shown here for clarity. For exact loaction, size and number of pull boxes, see Electrical sheet E-5.

Notes:

(1) Control relay irrigation, 24 Volts AC coil.

(2) To existing Service Equipment Enclosure. For continuation, see Electrical sheet E-5.

(3) To master valve/pump start terminals inside the irrigation controller cabinet.

(4) Connect to ground bus.

(5) 1"C, Type 4 conduit, with 3#8, 1#10G. Booster pump motor cables integrated with equipment grounding conductor.

(6) For size and location of pull boxes, see Electrical sheet E-5.

VFD I/O BOARD		
TERMINAL		**DESCRIPTION**
1	24 V OUT 1	24 V CONTROL VOLTAGE 1
2	DIN1	DIGITAL INPUT 1-MANUAL OVERRIDE
3	DIN2	DIGITAL INPUT 2-START FORWARD
4	DIN3	DIGITAL INPUT 3-FAULT RESET
5	AI1+	ANALOG INPUT
6	AI1-	ANALOG INPUT, COMMON
7	AI2+	ANALOG INPUT, VOLTAGE
8	AI2-	ANALOG INPUT, COMMON
9	+10 REF	REFERENCE VOLTAGE
10	DO1	DIGITAL OUTPUT 1
11	DOC	COMMON
12	24 V OUT 2	24 V CONTROL VOLTAGE 2
13	DIC2	DIGITAL INPUT COMMON 2

	BY	CHECKED
DESIGN	Inam U. Maher	Imran Saeed
DETAILS	Kathi Andreasen	Inam U. Maher
QUANTITIES	Inam U. Maher	Imran Saeed

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.

POST MILE Var

SR 99 KINGSBURG-GOSHEN REPLACEMENT PLANTING

BOOSTER PUMP No. 908 ENCLOSURE

SHEET **EE-3**

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT 3618
PROJECT NUMBER & PHASE 06120000511
EA 324503

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF
12/20/11 | 3/9/12 | 3/19/12

19-JUN-2012 10:13

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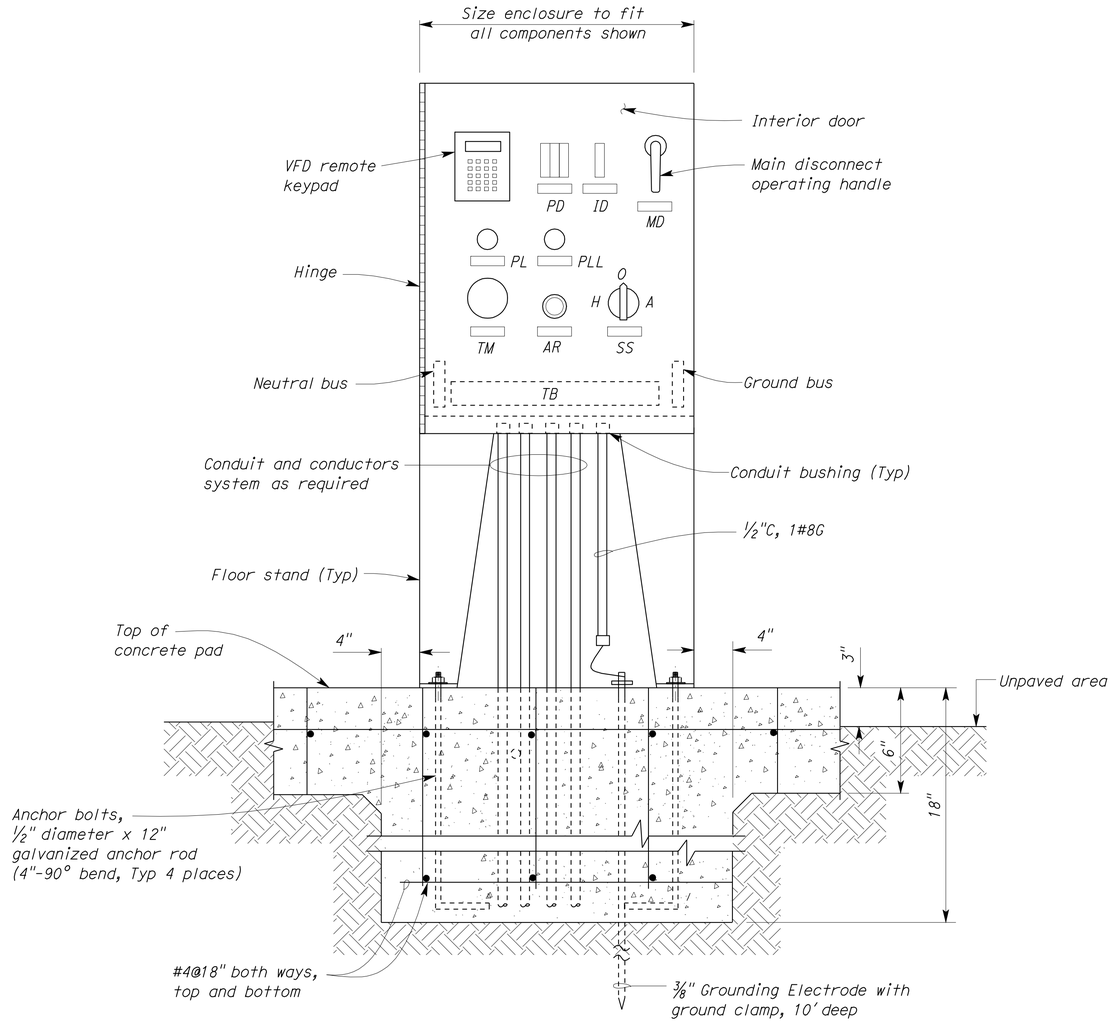
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	105	136

IMRAN SAEED
REGISTERED ELECTRICAL ENGINEER — 3-9-12 DATE

REGISTERED PROFESSIONAL ENGINEER — IMRAN SAEED — No. E 18781 — Exp. 6-30-13 — ELEC — STATE OF CALIFORNIA

6-18-12
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.



ELEVATION

NO SCALE

(Exterior weatherproof door not shown)

BOOSTER PUMP No. 905 & No. 907 INFORMATION AND EQUIPMENT SCHEDULE

BOOSTER PUMP				ELECTRICAL EQUIPMENT ENCLOSURE									REFERENCE SHEET
LOCATION	ICC HD	HP	VOLTS	MAIN DISCONNECT	PUMP DISCONNECT	TYPE	VFD RATING	3% IMPEDANCE LINE REACTOR RATING	INPUT VOLTS	OUTPUT VOLTS	CONTROLS	OPTION	
Per E-4	905	7.5	230/3Ø	60/3	60/3	VFD	10 HP	10 HP	230/3Ø	230/3Ø	4-20 M A	External Readout	E-4
Per E-5	907	7.5	230/3Ø	60/3	60/3	VFD	10 HP	10 HP	230/3Ø	230/3Ø	4-20 M A	External Readout	E-5

BOOSTER PUMP No. 906 INFORMATION AND EQUIPMENT SCHEDULE

BOOSTER PUMP				ELECTRICAL EQUIPMENT ENCLOSURE									REFERENCE SHEET
LOCATION	ICC HD	HP	VOLTS	MAIN DISCONNECT	PUMP DISCONNECT	TYPE	VFD RATING	3% IMPEDANCE LINE REACTOR RATING	INPUT VOLTS	OUTPUT VOLTS	CONTROLS	OPTION	
Per E-4	906	7.5	230/3Ø	80/2	80/2	VFD	10 HP	10 HP	230/1Ø	230/3Ø	4-20 M A	External Readout	E-4

BOOSTER PUMP No. 908 INFORMATION AND EQUIPMENT SCHEDULE

BOOSTER PUMP				ELECTRICAL EQUIPMENT ENCLOSURE									REFERENCE SHEET
LOCATION	ICC HD	HP	VOLTS	MAIN DISCONNECT	PUMP DISCONNECT	TYPE	VFD RATING	3% IMPEDANCE LINE REACTOR RATING	INPUT VOLTS	OUTPUT VOLTS	CONTROLS	OPTION	
Per E-5	908	7.5	230/3Ø	60/3	60/3	VFD	10 HP	10 HP	230/3Ø	230/3Ø	4-20 M A	External Readout	E-5

THIS DRAWING APPROVED FOR ELECTRICAL WORK ONLY.

DESIGN	BY Inam U. Maher	CHECKED Imran Saeed	
DETAILS	BY Kathi Andreasen	CHECKED Inam U. Maher	
QUANTITIES	BY Inam U. Maher	CHECKED Imran Saeed	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.
POST MILE Var

SR 99 KINGSBURG-GOSHEN REPLACEMENT PLANTING
BOOSTER PUMP ENCLOSURE ELECTRICAL DETAILS

SHEET **EE-4**

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT 3618
PROJECT NUMBER & PHASE 06120000511
EA 324511

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)								SHEET	OF
3/7/12	3/8/12	3/9/12	3/19/12						

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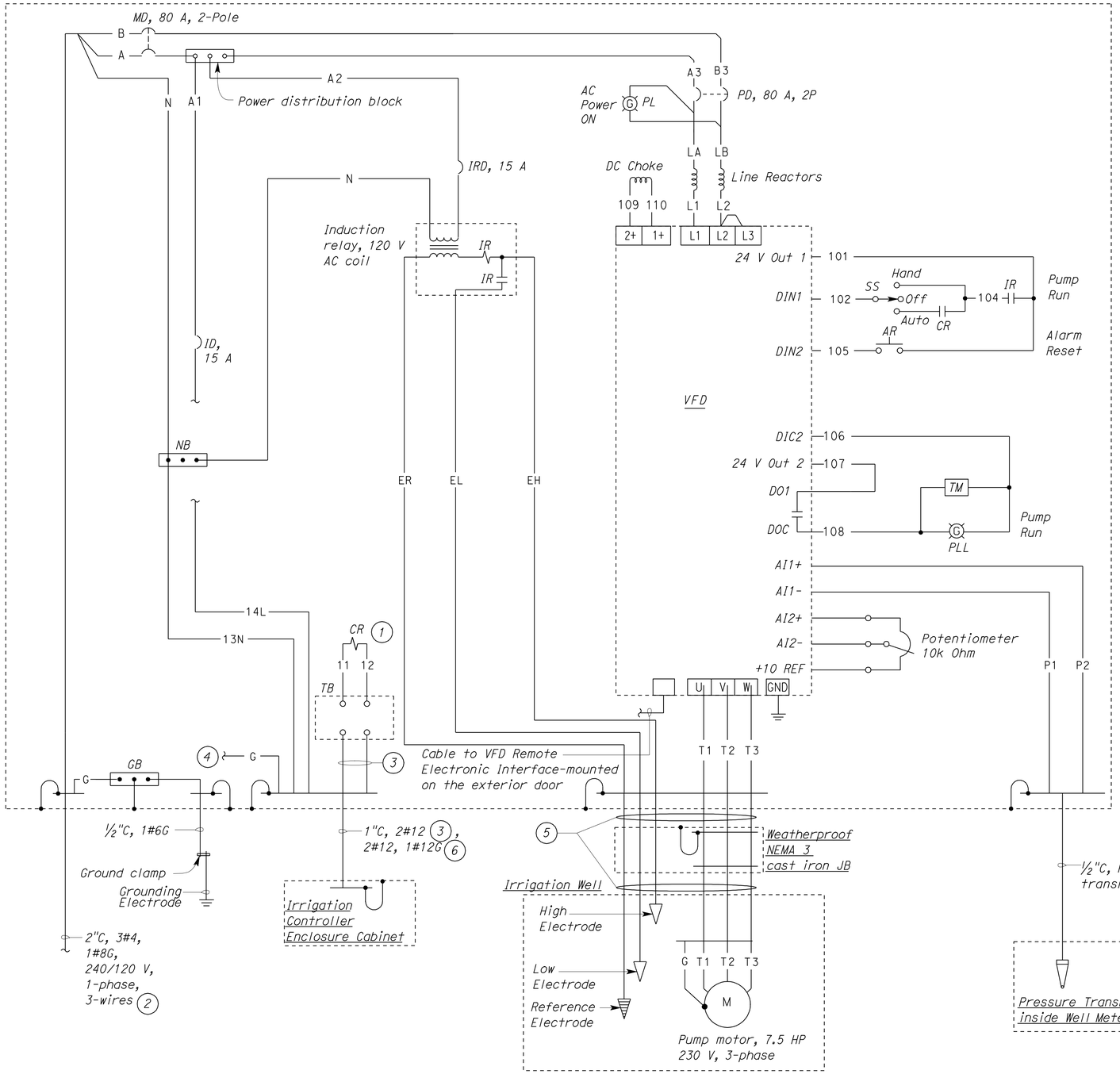
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	106	136

REGISTERED ELECTRICAL ENGINEER — 3-9-12 DATE

REGISTERED PROFESSIONAL ENGINEER — IMRAN SAEED — No. E 18781 — Exp. 6-30-13 — ELEC — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE



CONTROL SCHEMATIC

THIS DRAWING APPROVED FOR ELECTRICAL WORK ONLY.

General Notes:

A. For location of irrigation well pump, irrigation well and pump control enclosure and Irrigation Controller Enclosure Cabinet, see Irrigation plans and Water plans.

B. Pull boxes in between irrigation well and pump control enclosure and irrigation controller, if any, are not shown.

Notes:

(1) Pump control relay, 24 Volts AC coil.

(2) To Service Equipment Enclosure. For continuation, see Electrical sheets E-1 and E-2.

(3) To master valve/pump start terminals inside the Irrigation Controller Enclosure Cabinet.

(4) Connect to ground bus.

(5) Well pump motor cables integrated with equipment grounding and 3#12 for electrodes.

(6) 120 V AC power for the Irrigation Controller Enclosure Cabinet.

VFD I/O BOARD		
TERMINAL		DESCRIPTION
1	24 V OUT 1	24 V CONTROL VOLTAGE 1
2	DIN1	DIGITAL INPUT 1-START/STOP
3	DIN2	DIGITAL INPUT 2-FAULT RESET
4		
5	AI1+	ANALOG INPUT
6	AI1-	ANALOG INPUT, COMMON
7	AI2+	ANALOG INPUT, VOLTAGE
8	AI2-	ANALOG INPUT, COMMON
9	+10 REF	REFERENCE VOLTAGE
10	DO1	DIGITAL OUTPUT 1
11	DOC	COMMON
12	24 V OUT 2	24 V CONTROL VOLTAGE 2
13	DIC2	DIGITAL INPUT COMMON 2

	BY	CHECKED
DESIGN	Inam U. Maher	Imran Saeed
DETAILS	Kathi Andreasen	Inam U. Maher
QUANTITIES	Inam U. Maher	Imran Saeed

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.
POST MILE: Var

SR 99 KINGSBURG-GOSHEN REPLACEMENT PLANTING
IRRIGATION WELL LOCATION 1
PUMP CONTROL DETAILS

SHEET EE-5

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT 3618
PROJECT NUMBER & PHASE 06120000511
EA 324511

DISREGARD PRINTS BEARING EARLIER REVISION DATES →
REVISION DATES (PRELIMINARY STAGE ONLY) 3/7/12 3/8/12 3/9/12 3/19/12 — SHEET — OF

19-JUN-2012 10:13

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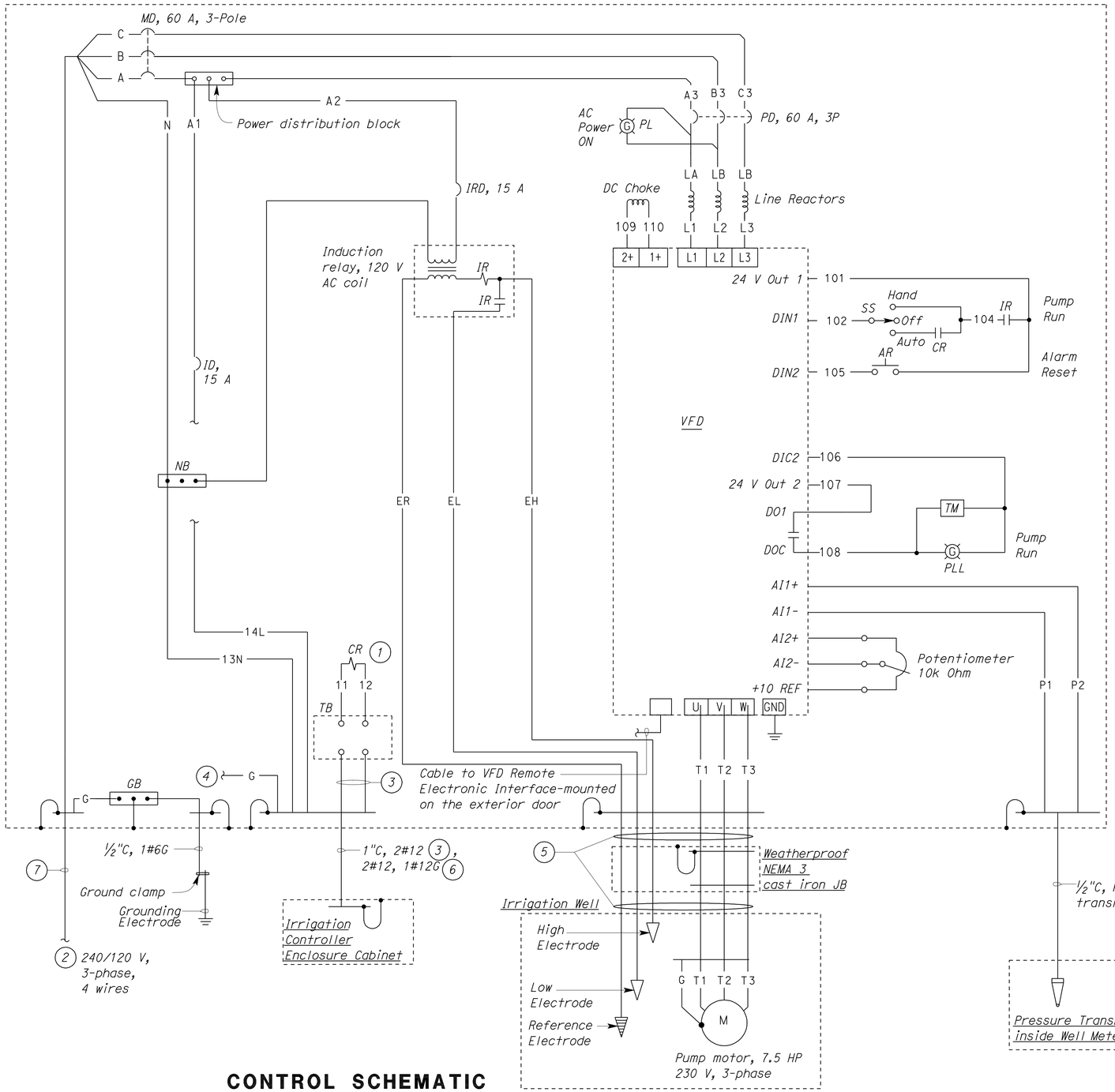

CONTROL SCHEMATIC

THIS DRAWING APPROVED FOR ELECTRICAL WORK ONLY.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	107	136

REGISTERED ELECTRICAL ENGINEER — 3-9-12 DATE

REGISTERED PROFESSIONAL ENGINEER — IMRAN SAEED — No. E 18781 — Exp. 6-30-13 — ELEC — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE

General Notes:

A. *For location of irrigation well pump, irrigation well and pump control enclosure and Irrigation Controller Enclosure Cabinet, see Irrigation plans and Water plans.*

B. *Pull boxes in between irrigation well and pump control enclosure and irrigation controller, if any, are not shown.*

Notes:

(1) *Pump control relay, 24 Volts AC coil.*

(2) *To Service Equipment Enclosure. For continuation, see Electrical sheets E-1, E-3, and E-6.*

(3) *To master valve/pump start terminals inside the Irrigation Controller Enclosure Cabinet.*

(4) *Connect to ground bus.*

(5) *Well pump motor cables integrated with equipment grounding and 3#12 for electrodes.*

(6) *120 V AC power for the Irrigation Controller Enclosure Cabinet.*

(7) *2"C, 4#4, 1#8G (For Location 2).*
2"C, 4#6, 1#8G (For Location 7).

VFD I/O BOARD		
TERMINAL		DESCRIPTION
1	24 V OUT 1	24 V CONTROL VOLTAGE 1
2	DIN1	DIGITAL INPUT 1-START/STOP
3	DIN2	DIGITAL INPUT 2-FAULT RESET
4		
5	AI1+	ANALOG INPUT
6	AI1-	ANALOG INPUT, COMMON
7	AI2+	ANALOG INPUT, VOLTAGE
8	AI2-	ANALOG INPUT, COMMON
9	+10 REF	REFERENCE VOLTAGE
10	DO1	DIGITAL OUTPUT 1
11	DOC	COMMON
12	24 V OUT 2	24 V CONTROL VOLTAGE 2
13	DIC2	DIGITAL INPUT COMMON 2

DESIGN	BY Inam U. Maher	CHECKED Imran Saeed	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Kathi Andreasen	CHECKED Inam U. Maher	
QUANTITIES	BY Inam U. Maher	CHECKED Imran Saeed	

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

UNIT 3618
PROJECT NUMBER & PHASE 06120000511
EA 324511

BRIDGE NO.
POST MILE Var

SR 99 KINGSBURG-GOSHEN REPLACEMENT PLANTING
IRRIGATION WELL LOCATIONS 2 AND 7 PUMP CONTROL DETAILS

SHEET EE-6

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY) | SHEET | OF
3/7/12 | 3/8/12 | 3/9/12 | 3/19/12

19-JUN-2012 10:13

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	108	136

REGISTERED ELECTRICAL ENGINEER — 3-9-12 DATE

REGISTERED PROFESSIONAL ENGINEER — IMRAN SAEED — No. E 18781 — Exp. 6-30-13 — ELEC — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE

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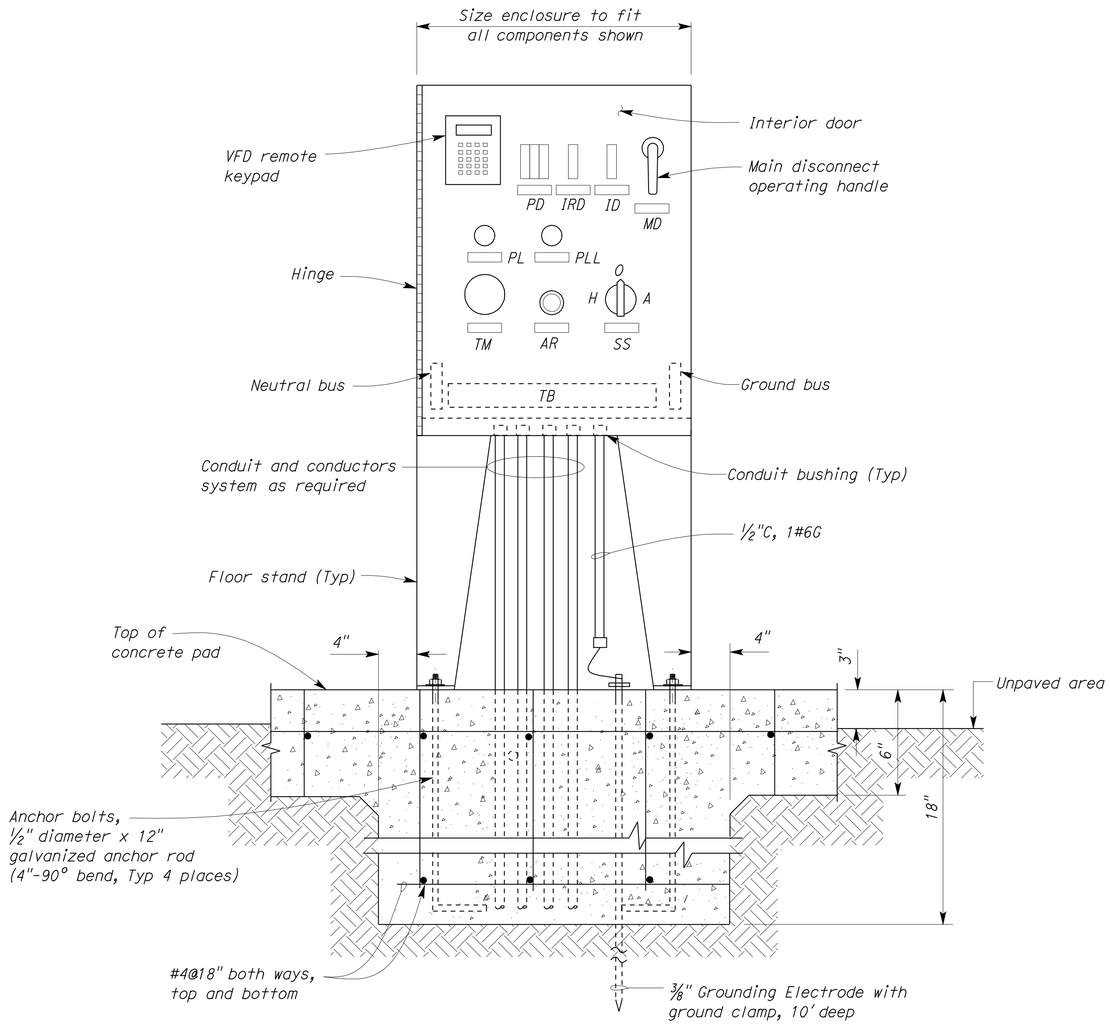


ELEVATION

NO SCALE

(Exterior weatherproof door not shown)

IRRIGATION WELL INFORMATION AND EQUIPMENT SCHEDULE

IRRIGATION WELL PUMP					IRRIGATION WELL PUMP ENCLOSURE							REFERENCE SHEET
LOCATION	EQUIPMENT	SPEED (RPM)	HP	VOLTS	MAIN DISCONNECT	TYPE	RATING (HP)	INPUT VOLTS	OUTPUT VOLTS	CONTROLS	OPTION	
Location 1 Traver OC/ Merit Dr	Submersible Well Pump	3,450	7.5	230/3Ø	80/2	VFD	10	240/1Ø	230/3Ø	4-20 mA	External Readout	E-1, E-2
Location 2 Warlow Rest Area	Submersible Well Pump	3,450	7.5	230/3Ø	60/3	VFD	10	240/3Ø	230/3Ø	4-20 mA	External Readout	E-1, E-3
Location 7 Kam/Bethel	Submersible Well Pump	3,450	7.5	230/3Ø	60/3	VFD	10	240/3Ø	230/3Ø	4-20 mA	External Readout	E-1, E-6

THIS DRAWING APPROVED FOR ELECTRICAL WORK ONLY.

DESIGN	BY Inam U. Maher	CHECKED Imran Saeed	
DETAILS	BY Kathi Andreasen	CHECKED Inam U. Maher	
QUANTITIES	BY Inam U. Maher	CHECKED Imran Saeed	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.
POST MILE Var

SR 99 KINGSBURG-GOSHEN REPLACEMENT PLANTING

IRRIGATION WELL ELECTRICAL DETAILS

SHEET **EE-7**

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT 3618
PROJECT NUMBER & PHASE 06120000511
EA 324511

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)									SHEET	OF
3/7/12	3/8/12	3/14/12	3/19/12							

20-JUN-2012 06:41

0612000051tu007.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	109	136

Jerome R. Marcotte 3/7/2012
REGISTERED CIVIL ENGINEER — DATE

REGISTERED PROFESSIONAL ENGINEER — JEROME R. MARCOTTE — No. C 36844 — Exp. 06/30/12 — CIVIL — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ACP	ASBESTOS CONCRETE PIPE
AVC	AIR VOLUME CONTROLLER
B	BUNG
Bldg	BUILDING
C	CONDUIT
C-C	CENTER TO CENTER
CI	CAST-IRON
CL	CHAIN LINK
Conc	CONCRETE
DI	DRAINAGE INLET
Dia	DIAMETER
DP	DRAIN PIPE
E	ELECTRICAL
(E)	EXISTING
EG	EXISTING GRADE
EL	ELEVATION
EP	EDGE OF PAVEMENT
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
ft	FEET
Galv	GALVANIZED
gpm	GALLONS PER MINUTE
GSP	GALVANIZED STEEL PIPE
HF	HOSE FAUCET
H	HEIGHT
HP	HORSEPOWER
Hz	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
in	INCHES
JB	JUNCTION BOX
lbs	POUNDS
L/S	LANDSCAPE
Max	MAXIMUM
MBV	MOTORIZED BALL VALVE
MH	MANHOLE
Min	MINIMUM
OD	OUTSIDE DIAMETER
OG	ORIGINAL GROUND
P/L	PROPERTY LINE
PCC	PORTLAND CEMENT CONCRETE
psi	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PW	POTABLE WATER
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RPM	REVOLUTIONS PER MINUTE
R/W	RIGHT-OF-WAY
RW	RAW WATER
S	SLOPE
Sch	SCHEDULE
SD	STORM DRAIN
SP	SEWAGE PIPE
sq	SQUARE
Sta	STATION
Tot	TOTAL
Typ	TYPICAL
U/G	UNDERGROUND
V	VOLT
W	WATER
W/O	WITHOUT
WP	WATER PIPE

LEGEND

S	SANITARY SEWER
D	DRAIN
RD	RETURN DRAIN
W	WATER
G	GAS LINES

1 / W-2	DETAIL / SHEET NUMBER
99.00	NEW GRADE IN FEET
X (100.00)	EXISTING SPOT GRADE IN FEET
	SURFACE DRAINAGE
[	ABANDON (E)
	BENCHMARK ELEVATION
℄	CENTERLINE
ø	DIAMETER
	SECTION / ELEVATION LETTER / SHEET NUMBER

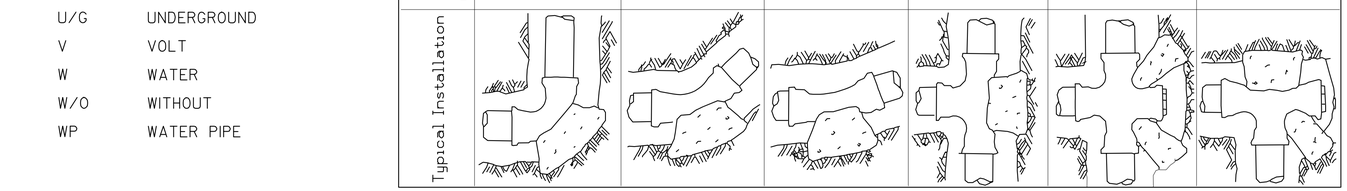
GENERAL WORK NOTES

The Contractor shall verify all controlling field dimensions and conditions before ordering or fabricating any materials.

The Contractor shall verify exact location of all underground facilities and utilities prior to start of construction.

PIPE FITTINGS AND VALVES

- CAP, THREADED
- ELBOW, TURNED DOWN
- FLEXIBLE CONNECTOR
- REDUCED PRESSURE BACKFLOW PREVENTER
- REDUCER, CONCENTRIC
- REDUCER, ECCENTRIC
- PRESSURE GAUGE (WITH VALVE AND SNUBBER)
- UNION
- VALVE, BALL (INSIDE VALVE BOX)
- VALVE, CHECK
- VALVE, GATE
- VALVE, PRESSURE REDUCING
- WATER / FLOW METER

Type of Fitting	90° Bend	45° Bend	11 1/4° or 22 1/2° Bend	Tee or Dead end	Cross w/plug	Tee w/plug
Typical Installation						

THRUST BLOCK BEARING AREA (SQ. FT.)

Type of Fitting / Size of Pipe	90° Bend	45° Bend	11 1/4° or 22 1/2° Bend	Tee or Dead End	Tee w/ Plug	Cross w/ Plug
4"	2	1	1	2	2	2
6"	4	4	2	4	4	4
8"	7	4	2	5	7	7
10"	12	6	3	8	12	12
12"	16	10	5	12	16	16
14"	20	12	6	14	20	20
16"	27	15	8	18	27	27
18"	45	25	13	32	45	45
24"	65	35	18	46	65	65

DESIGN	BY Andy Quan	CHECKED J. Marcotte	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Andy Quan	CHECKED J. Marcotte	
QUANTITIES	BY Andy Quan	CHECKED J. Marcotte	

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

BRIDGE NO.	SR99 KINGSBURG - GOSHEN REPLACEMENT PLANTING	SHEET
X	NOTES, LEGENDS & ABBREVIATIONS	W-0
POST MILE X		

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT 3616
PROJECT NUMBER & PHASE 06120000511
EA 06-324511

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES (PRELIMINARY STAGE ONLY) 02-08-12 | SHEET | OF

19-JUN-2012 10:13

0612000051wd001.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	110	136

REGISTERED CIVIL ENGINEER — 3/7/2012 DATE

REGISTERED PROFESSIONAL ENGINEER — JEROME R. MARCOTTE — No. C 36844 — Exp. 06/30/12 — CIVIL — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE

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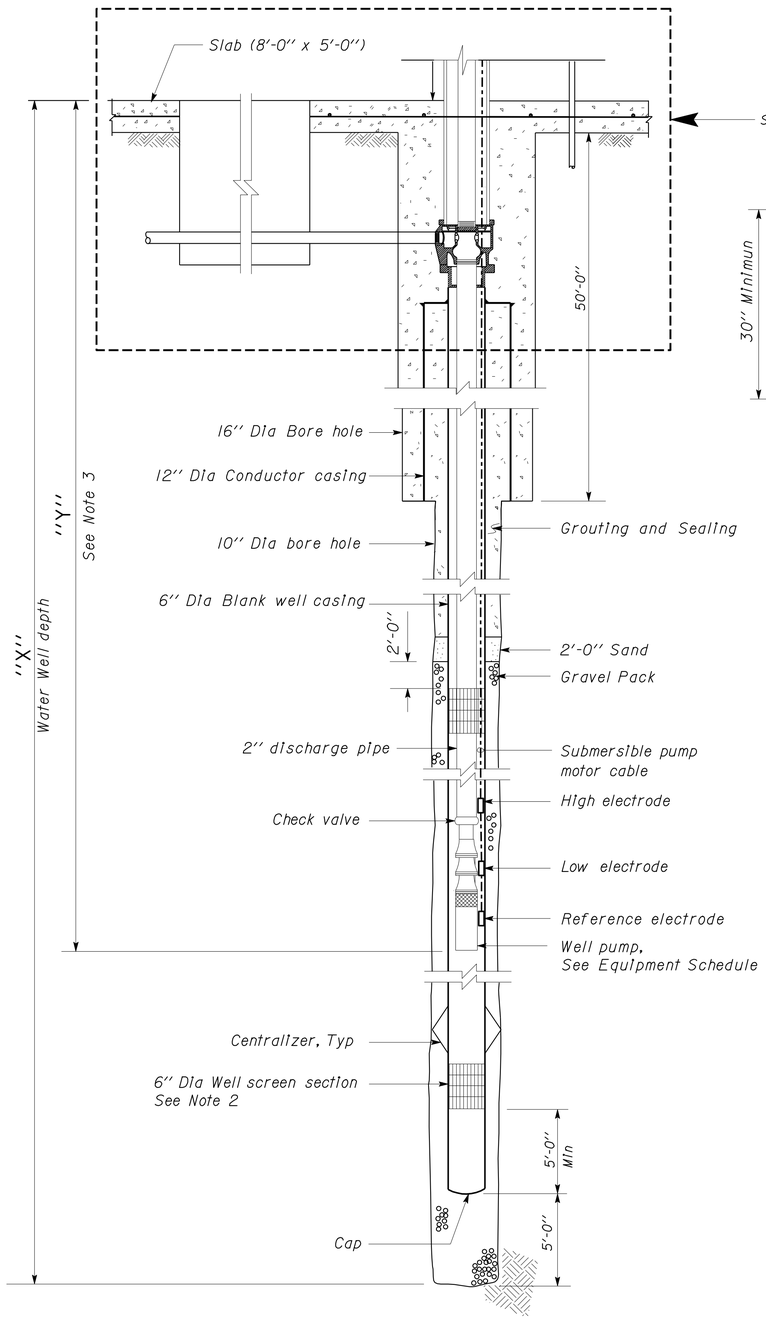
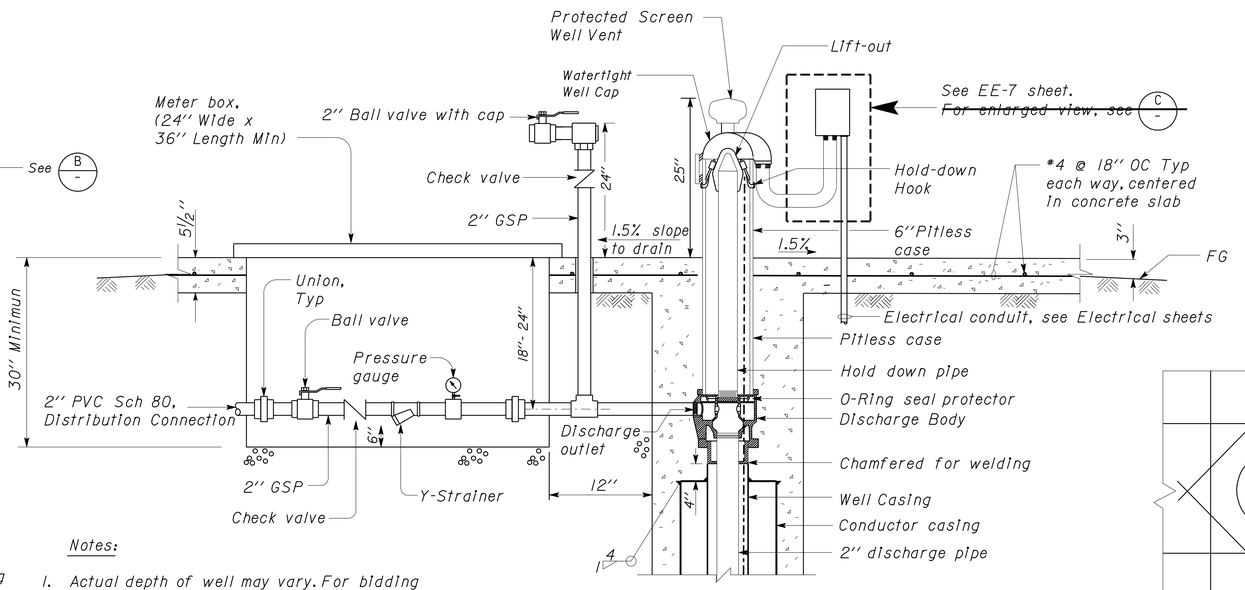


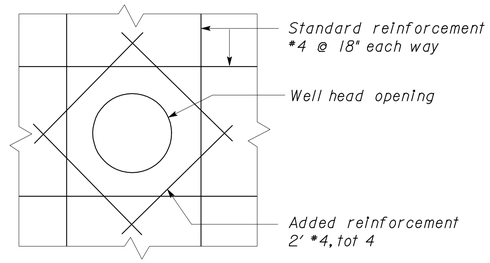
A WATER WELL - SECTION

NO SCALE



B WELL HEAD

NO SCALE

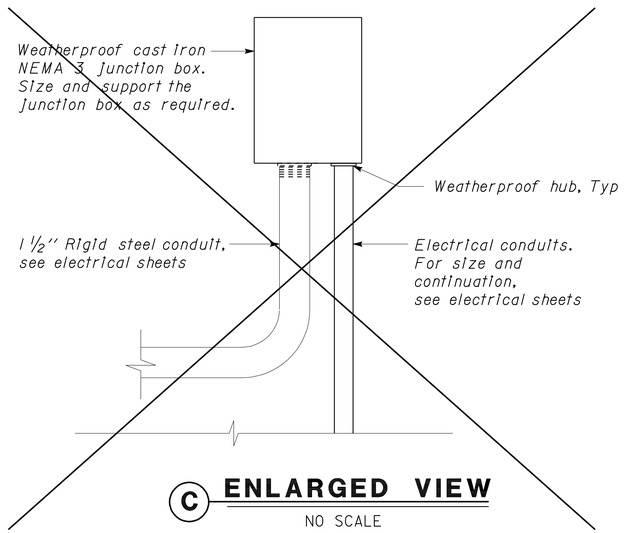


WELL OPENING REINFORCEMENT

NO SCALE

Notes:

1. Actual depth of well may vary. For bidding purposes, use depth shown on table.
2. Exact locations and lengths of well screen sections must be field determined. For bidding purposes use 40'-0".
3. Actual depth of well pump must be determined from well testing data. For bidding purposes, use depth shown on table.
4. Electrodes shown are arbitrary only. Exact locations to be determined by well pump installer and the Engineer.



C ENLARGED VIEW

NO SCALE

WATER WELL INFORMATION AND EQUIPMENT SCHEDULE

LOCATION	WATER WELL DEPTH "X"	DEPTH OF WELL PUMP "Y"	EQUIPMENT	SPEED (RPM)	HP	VOLTS	PHASE	PUMPING RATE (GPM)	TOTAL DYNAMIC HEAD (FT)
Merritt Drive	185'	170'	Submersible Well Pump	3450	7.5	230	3	30 40 50	500 400 300
Warlow SRRA	250'	235'	Submersible Well Pump	3450	7.5	230	3	30 40 50	500 400 280
Bethel/ Kamm Ave.	135'	120'	Submersible Well Pump	3450	7.5	230	3	30 40 50	500 400 290

DESIGN SUPERVISOR — DESIGN ENGINEER

	BY	CHECKED
DESIGN	Andy Quan	J. Marcotte
DETAILS	Andy Quan	J. Marcotte
QUANTITIES	Andy Quan	J. Marcotte

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

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

UNIT 3616
PROJECT NUMBER & PHASE 06120000511
EA 06-324511

BRIDGE NO. X
POST MILE X

SR99 KINGSBURG - GOSHEN REPLACEMENT PLANTING
WATER WELL DETAILS

SHEET W-1

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY) — SHEET — OF
02-08-12 02-28-12 03-07-12

20-JUN-2012 10:22

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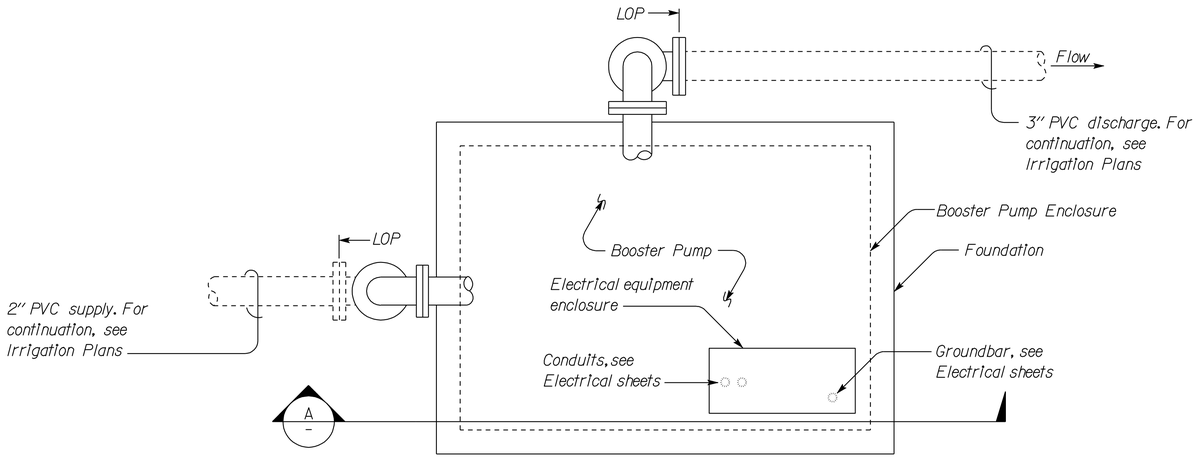
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	111	136

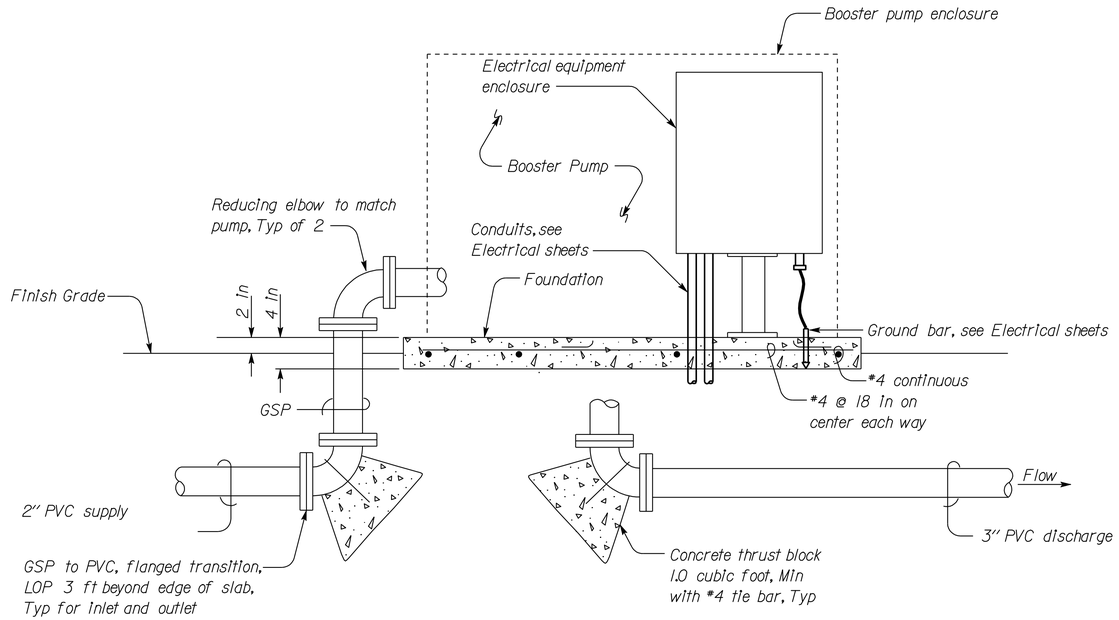
REGISTERED MECHANICAL ENGINEER — 03/07/12 DATE

REGISTERED PROFESSIONAL ENGINEER — Jack Wheeler — No. 21648 — Exp. 06-30-13 MECH — STATE OF CALIFORNIA

6-18-12
PLANS APPROVAL DATE



PLAN
No Scale



A **SECTION**
No Scale

ABBREVIATIONS:

Ft	Feet
GPM	Gallons per Minute
GSP	Galvanized Steel Pipe
HP	Horsepower
In	Inches
LOP	Limit of Payment
Min	Minimum
PVC	Polyvinyl Chloride
Typ	Typical

BOOSTER PUMP SCHEDULE

#	PUMP LOCATION	PUMPING RATE (gpm)	BOOST PRESSURE (psi)	hp	VOLT/ PHASE
1	NB Earl Street #905	55	70	7.5	240/3
2	SB Kern Street #906	60	80	7.5	240/3
3	Plumas/8th St #907	75	75	7.5	240/3
4	Sierra/NB On-Ramp#908	50	70	7.5	240/3

THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

DESIGN SUPERVISOR
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Alvin Kwan	Jack Wheeler
DETAILS	Alvin Kwan	Jack Wheeler
QUANTITIES	Alvin Kwan	Jack Wheeler

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

UNIT 3615
PROJECT NUMBER & PHASE 0612000051
EA 324511

BRIDGE NO.
POST MILE

SR99 Kingsburg - Goshen Replacement Planting

Booster Pump Details

SHEET **M-1**

DISREGARD PRINTS BEARING EARLIER REVISION DATES →
REVISION DATES (PRELIMINARY STAGE ONLY) 02/06/12 03/06/12
SHEET OF

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

TAEMWW Imperial Rev. 7/10
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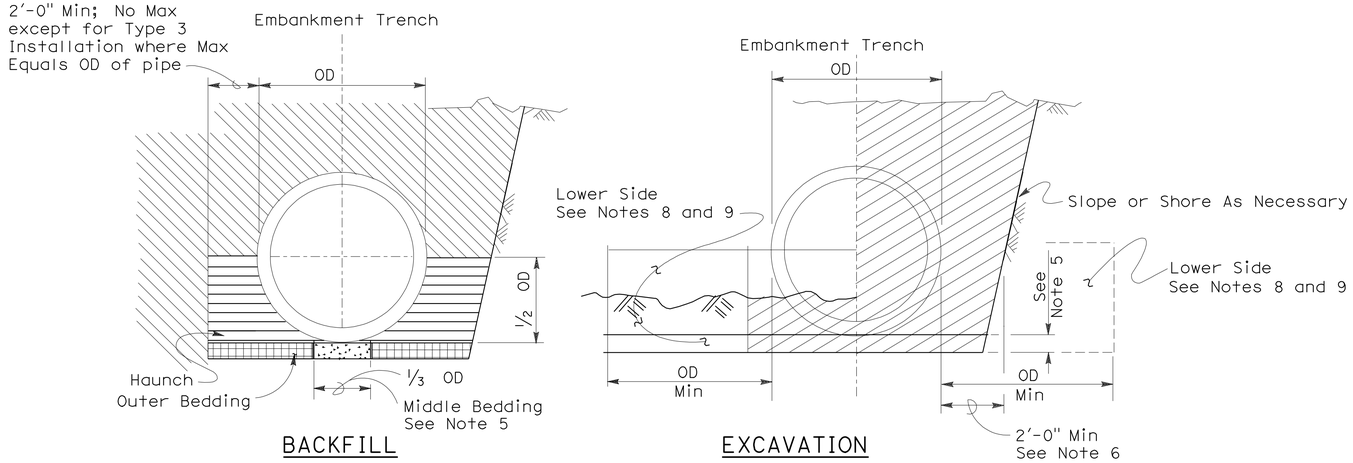

TYPE 1 INSTALLATION:

The haunch and outer bedding shall be compacted to a minimum 90 percent relative compaction. In addition, the minimum sand equivalent in these areas shall be 30 and the maximum percentage passing the 75 μm sieve size shall be 12.

TYPE 2 INSTALLATION:

The haunch and outer bedding shall be compacted to a minimum 90 percent relative compaction. In addition, the minimum sand equivalent in these areas shall be 25.

TYPE 3 INSTALLATION:

The haunch and outer bedding shall be compacted to a minimum 85 percent relative compaction. 90 percent relative compaction will be required where the fill over the pipe is less than 4′-0" or ½ OD.

INSTALLATION TYPE 1

MINIMUM CLASS AND D-LOAD	COVER	
	108" Dia AND SMALLER	OVER 108" Dia
Class II 1000D	14.9′	12.9′
Class III 1350D	15.0′ - 20.9′	13.0′ - 18.9′
Class III Special 1700D	21.0′ - 26.9′	19.0′ - 24.9′
Class IV 2000D	27.0′ - 31.9′	25.0′ - 29.9′
Class IV Special 2500D	32.0′ - 40.9′	30.0′ - 38.9′
Class V 3000D	41.0′ - 49.9′	39.0′ - 46.9′
Class V Special 3600D	50.0′ - 59.0′	47.0′ - 58.0′

INSTALLATION TYPE 2

MINIMUM CLASS AND D-LOAD	COVER
Class II 1000D	9.9′
Class III 1350D	10.0′- 14.9′
Class III Special 1700D	15.0′ - 19.9′
Class IV 2000D	20.0′ - 24.9′
Class IV Special 2500D	25.0′ - 31.9′
Class V 3000D	32.0′ - 38.9′
Class V Special 3600D	39.0′ - 47.0′

INSTALLATION TYPE 3

MINIMUM CLASS AND D-LOAD	COVER	
	48" Dia AND SMALLER	OVER 48" Dia
Class II 1000D	7.9′	5.9′
Class III 1350D	8.0′ - 10.9′	6.0′ - 8.9′
Class III Special 1700D	11.0′ - 14.9′	9.0′ - 12.9′
Class IV 2000D	15.0′ - 17.9′	13.0′ - 15.9′
Class IV Special 2500D	18.0′ - 21.9′	16.0′ - 19.9′
Class V 3000D	22.0′ - 26.9′	20.0′ - 24.9′
Class V Special 3600D	30.0′ - 33.0′	25.0′ - 31.0′

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	112	136

REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Dallas Forester — No. C37765 — Exp.12-31-06 — 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 6-18-12

NOTES:

1. Unless otherwise shown on the plans or specified in the special provision, the Contractor shall have the option of selecting the class of RCP and the type of installation to be used, provided the height of cover does not exceed the value shown for the RCP selected.
   Example: 24" RCP culvert with maximum cover of 19′-0"′ the options are:
   a) Class III or stronger with Installation Type 1.
   b) Class III Special or stronger with Installation Type 2.
   c) Class IV Special or stronger with Installation Type 3.
   Cover is defined as the maximum vertical distance from top of the pipe to finished grade within the length of any given culvert.
2. The class of RCP and Installation Type selected shall be the same throughout the length of any given culvert.
3. The "length of any culvert" is defined as the culvert between:
   a) Successive drainage structure (inlets, junction boxes, headwalls, etc.).
   b) A drainage structure and the inlet or outlet end of the culvert.
   c) The inlet and outlet end of the culvert when there are no intervening drainage structures.
4. Oval and arch shaped RCP shall not be used.
5. 1/25 OD Min, not less than 3".
6. Slurry cement backfill may be substituted for backfill in the outer bedding and haunch areas. If slurry is used the outer and middle beddings shall be omitted. Prior to installation the soil under the middle 1/3 of the outside diameter of the pipe shall be softened by scarifying or other means to a minimum depth of 1/25 OD, but not less than 3". Where slurry cement backfill is used clear distance to trench wall may be reduced as set forth in Section 19-3.062 of the Standard Specifications.
7. Backfill shall be placed full width of excavation except where dimensions are shown for backfill width or thickness. Dimensions shown are minimums.
8. Lower side shall be suitable material as determined by the Engineer. Otherwise it shall be considered unsuitable as set forth in Section 19-2.02 of the Standard Specifications. See Note 9.
9. Where the pipe is placed in a trench, if the trench walls are sloped at 5 vertical to 1 horizontal or steeper for at least 90 percent of the trench height or up to not less than 12" from the grading plane, the firmness of the soil in the lower side need not be considered.
10. Non-reinforced precast concrete pipe sizes 3′-0" or smaller may be placed under installation Types 1, 2 or 3.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EXCAVATION AND BACKFILL CONCRETE PIPE CULVERTS

NO SCALE

RSP A62DA DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN A62DA DATED MAY 1, 2006 - PAGE 20 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A62DA

2006 REVISED STANDARD PLAN RSP A62DA

10-26-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	113	136

Gregory A. Balzer
LICENSED LANDSCAPE ARCHITECT

June 5, 2009
PLANS APPROVAL DATE

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LICENSED LANDSCAPE ARCHITECT — Gregory A. Balzer — 2576 — Renewal Date 2-28-11 — Renewal Date 5-14-09 — Date — STATE OF CALIFORNIA

To accompany plans dated 6-18-12

A

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

B

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

C

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

D

Dia	diameter
DIP	ductile iron pipe
DN	diameter nominal

E

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

F

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

G

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

H

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

I

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

L

L	length
LF	linear foot

M

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

N

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

O

O/C	on center
OD	outside diameter
Oz	ounce

P

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

Q

Q	quarter circle
QCV	quick coupling valve

R

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

S

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

T

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

U

UG	underground

V

VAU	valve assembly unit

W

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

NOTE:

FOR ADDITIONAL ABBREVIATIONS, SEE STANDARD PLANS A10A AND A10B.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PLANTING AND IRRIGATION ABBREVIATIONS

NO SCALE

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

REVISED STANDARD PLAN RSP H1

2006 REVISED STANDARD PLAN RSP H1

5-28-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	114	136

Gregory A. Balzer
LICENSED LANDSCAPE ARCHITECT

June 5, 2009
PLANS APPROVAL DATE

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

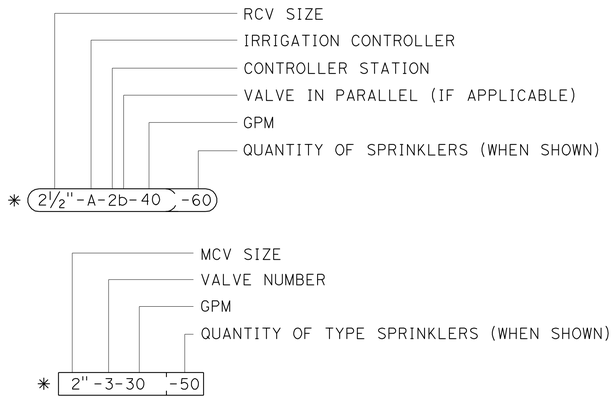
LICENSED LANDSCAPE ARCHITECT — Gregory A. Balzer — 2576 — Signature — 2-28-11 — Renewal Date — 5-14-09 — Date — STATE OF CALIFORNIA

To accompany plans dated 6-18-12

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

EXISTING	PROPOSED	ITEM DESCRIPTION
		QUICK COUPLING VALVE (QCV)
		CAM COUPLER ASSEMBLY (CCA)
		PRESSURE REDUCING VALVE (PRV)
		PRESSURE RELIEF VALVE (PRLV)
		FLOW CONTROL VALVE (FCV)
		COMBINATION AIR RELEASE VALVE (CARV)
		CHECK VALVE (CV)
		FLUSH VALVE (FV)
		NOZZLE LINE W/TURNING UNION
		IRRIGATION SYSTEM
		IRRIGATION SYSTEM TO BE REMOVED
		CHAIN LINK GATE
		QUICK COUPLING VALVE W/SPRINKLER PROTECTOR
3	3	SPRINKLER W/SPRINKLER PROTECTOR
		CONNECT TO EXISTING SYSTEM
		CAP
		CAP EXISTING

VALVE CODE



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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PLANTING AND IRRIGATION SYMBOLS

NO SCALE

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

REVISED STANDARD PLAN RSP H2

2006 REVISED STANDARD PLAN RSP H2

5-11-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	115	136

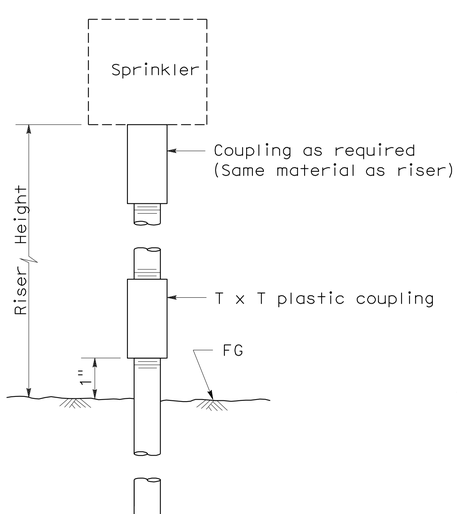
Gregory A Balzer
LICENSED LANDSCAPE ARCHITECT

June 5, 2009
PLANS APPROVAL DATE

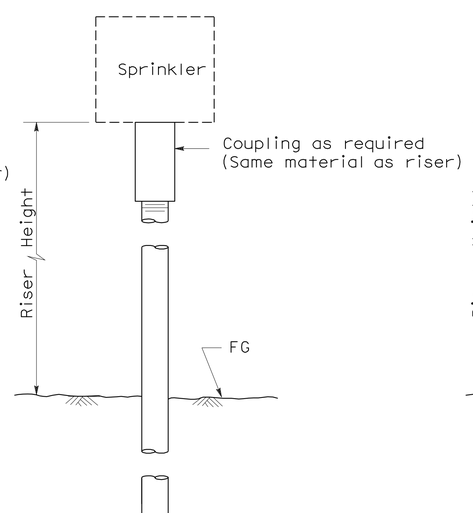
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LICENSED LANDSCAPE ARCHITECT
Gregory A. Balzer 2576
Signature
2-28-11
Renewal Date
5-14-09
Date
STATE OF CALIFORNIA

To accompany plans dated 6-18-12



ELEVATION
RISER TYPE I



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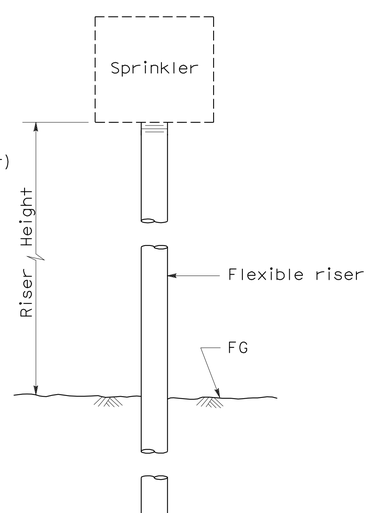
RISER TYPE II



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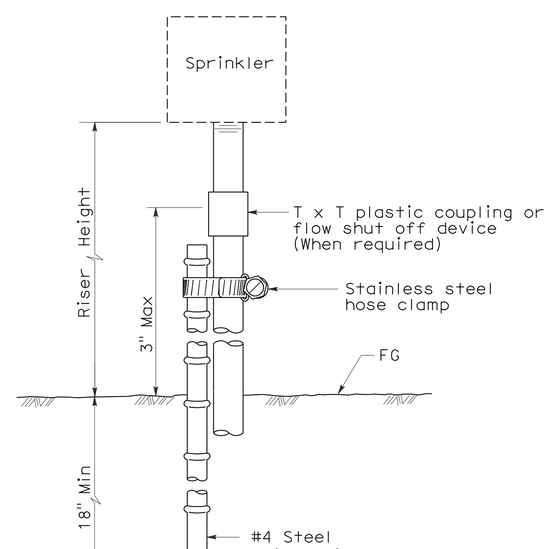
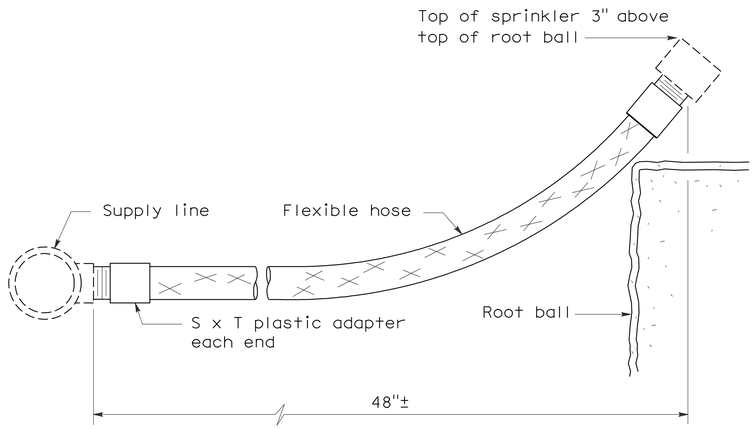
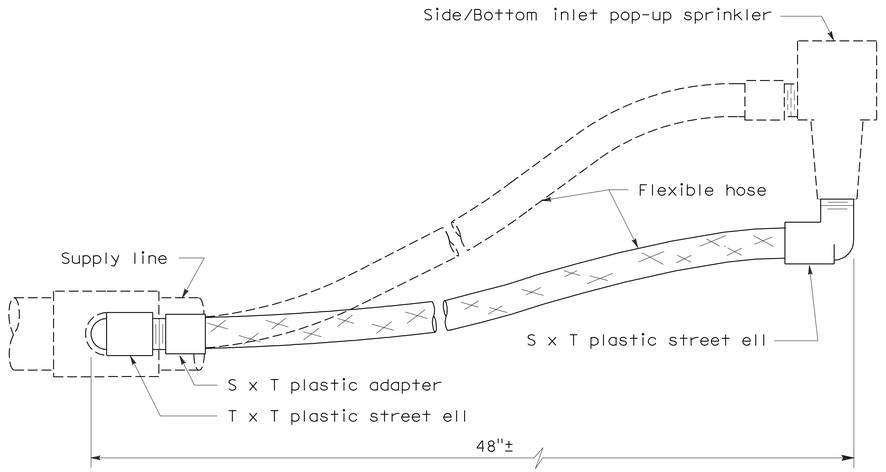
RISER TYPE III



ELEVATION
RISER TYPE IV



ELEVATION
RISER TYPE V



ELEVATION
RISER TYPE VI

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PLANTING AND IRRIGATION DETAILS

NO SCALE

RSP H5 DATED JUNE 5, 2009 SUPERSEDES STANDARD PLAN H5
DATED MAY 1, 2006 - PAGE 205 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP H5

2006 REVISED STANDARD PLAN RSP H5

5-28-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	116	136

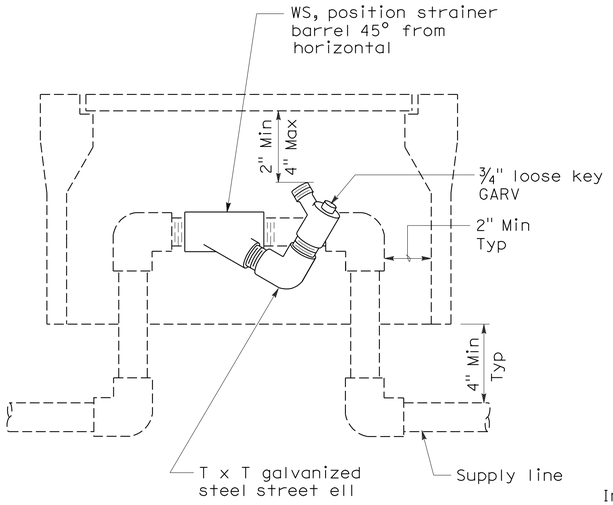
LICENSED LANDSCAPE ARCHITECT

June 5, 2009
PLANS APPROVAL DATE

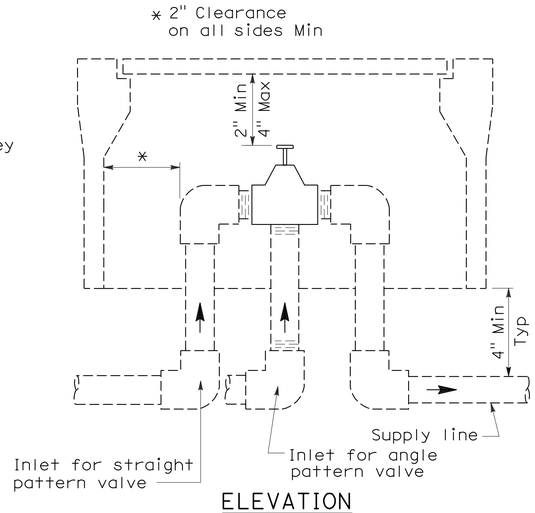
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Gregory A. Balzer 2576 — Registered Licensed Landscape Architect — 2-28-11 Renewal Date — 5-14-09 Date — State of California

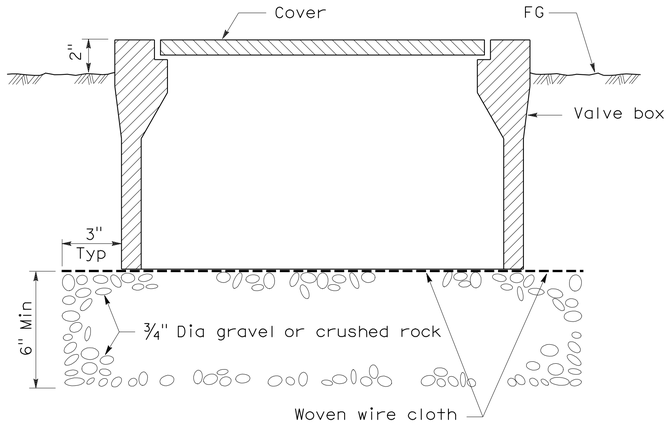
To accompany plans dated 6-18-12



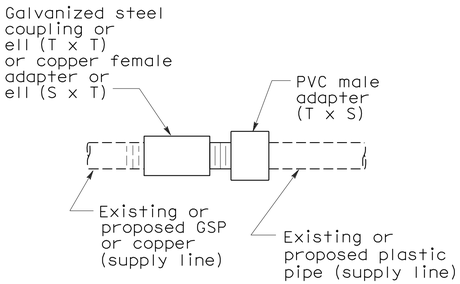
ELEVATION
WYE STRAINER



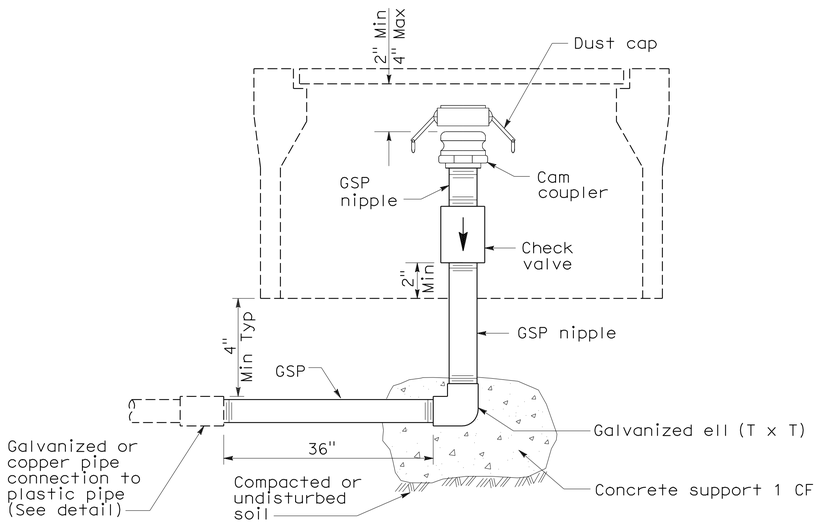
ELEVATION
VALVE



SECTION
VALVE BOX

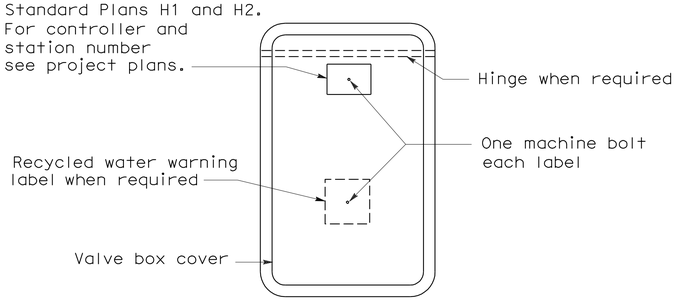


PLAN
GALVANIZED OR COPPER PIPE CONNECTION TO PLASTIC PIPE

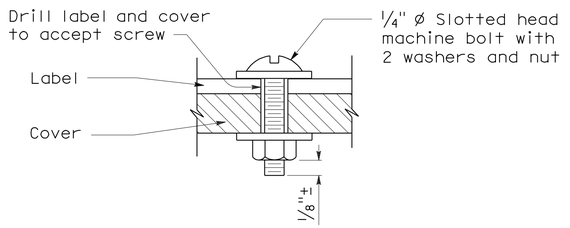


ELEVATION
CAM COUPLER ASSEMBLY

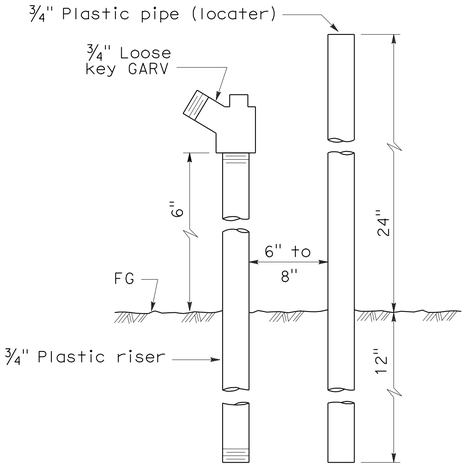
Identification label:
For abbreviations see Revised Standard Plans H1 and H2.
For controller and station number see project plans.



PLAN



SECTION
VALVE BOX IDENTIFICATION



ELEVATION
FLUSH VALVE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PLANTING AND IRRIGATION DETAILS

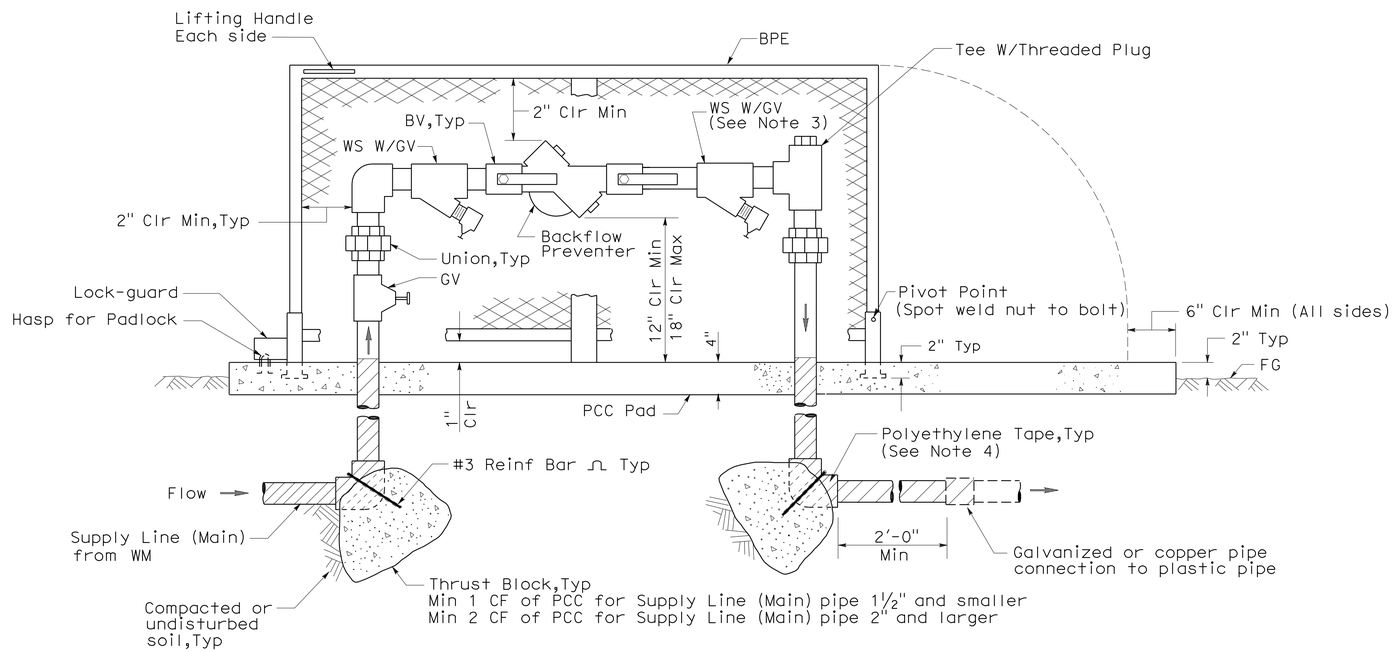
NO SCALE

RSP H7 DATED JUNE 5, 2009 SUPERSEDES STANDARD PLAN H7
DATED MAY 1, 2006 - PAGE 207 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP H7

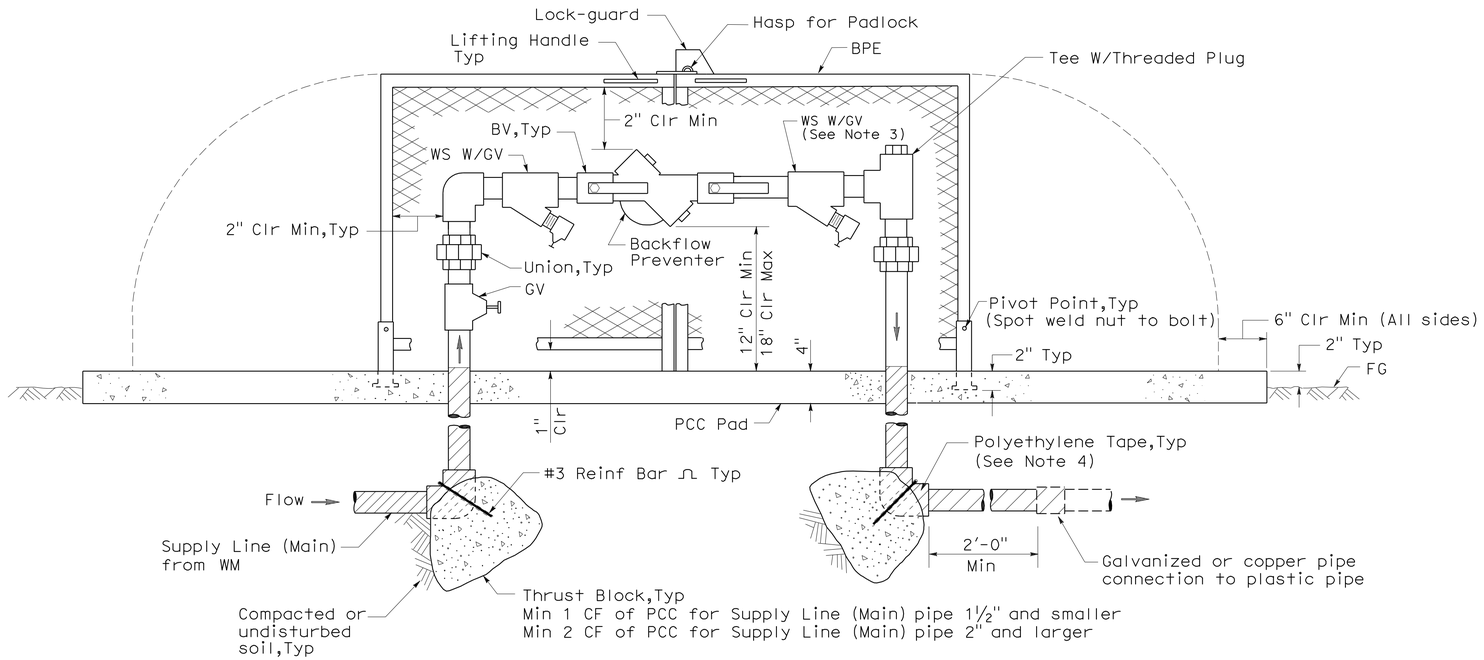
2006 REVISED STANDARD PLAN RSP H7

5-28-09



ELEVATION

BACKFLOW PREVENTER ASSEMBLY IN ENCLOSURE (ONE PIECE)



ELEVATION

BACKFLOW PREVENTER ASSEMBLY IN ENCLOSURE (TWO PIECE)

NOTES:

1. Wye strainer and fittings must be the same size as the backflow preventer shown on the plans.
2. Backflow preventer assembly manifold pipe must be the same pipe as the supply line (main) pipe to be installed from the water meter to the backflow preventer assembly.
3. Wye strainer location shown downstream of the backflow preventer is for District 11 projects only.
4. All metal in contact with soil and Portland Cement Concrete must be polyethylene wrapped using 2" wide plastic backed adhesive tape 20 mil thick with ½" overlap.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	117	136

Gregory A. Balzer
LICENSED LANDSCAPE ARCHITECT

June 5, 2009
PLANS APPROVAL DATE

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

LICENSED LANDSCAPE ARCHITECT
Gregory A. Balzer 2576
Signature
2-28-11
Renewal Date
5-14-09
Date
STATE OF CALIFORNIA

To accompany plans dated 6-18-12

2006 REVISED STANDARD PLAN RSP H8

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PLANTING AND IRRIGATION DETAILS

NO SCALE

RSP H8 DATED JUNE 5, 2009 SUPERSEDES STANDARD PLAN H8
DATED MAY 1, 2006 - PAGE 208 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP H8

5-28-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	118	136

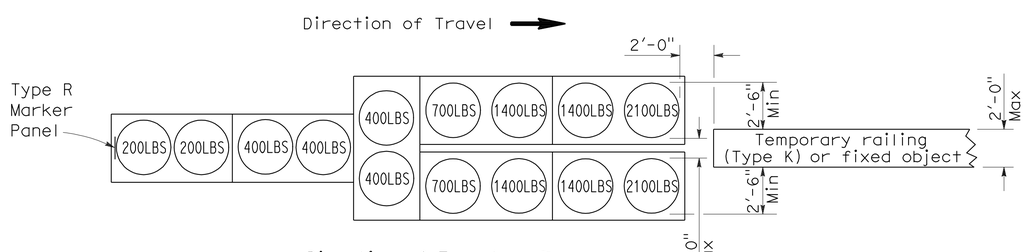
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

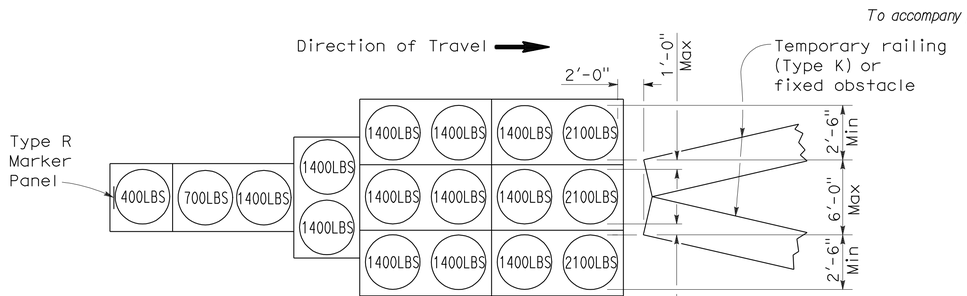
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 6-18-12



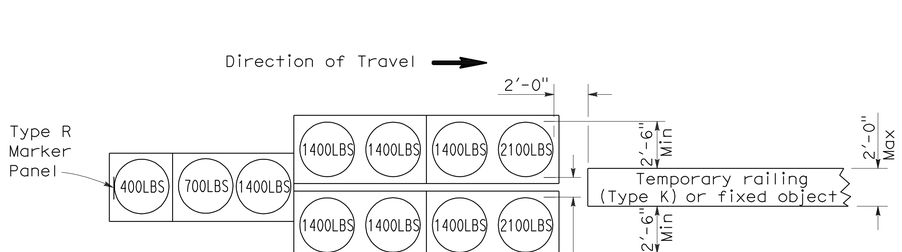
ARRAY 'TU14'

Approach speed 45 mph or more



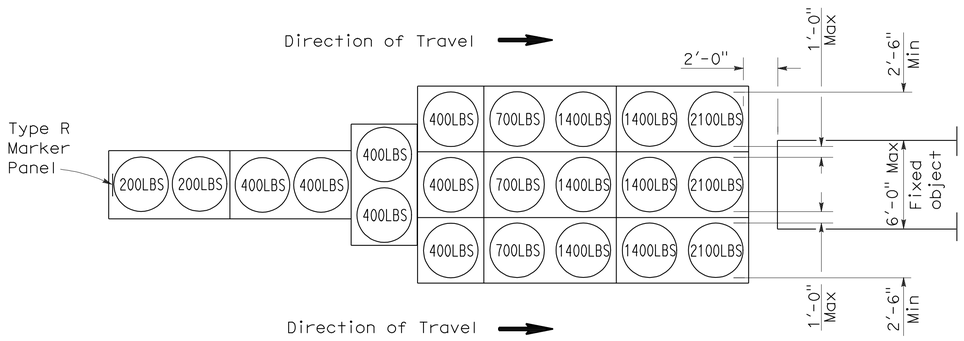
ARRAY 'TU17'

Approach speed less than 45 mph



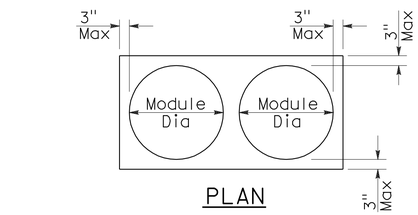
ARRAY 'TU11'

Approach speed less than 45 mph

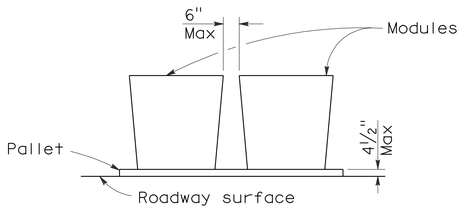


ARRAY 'TU21'

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
06	Fre,Tul	99	Var	119	136

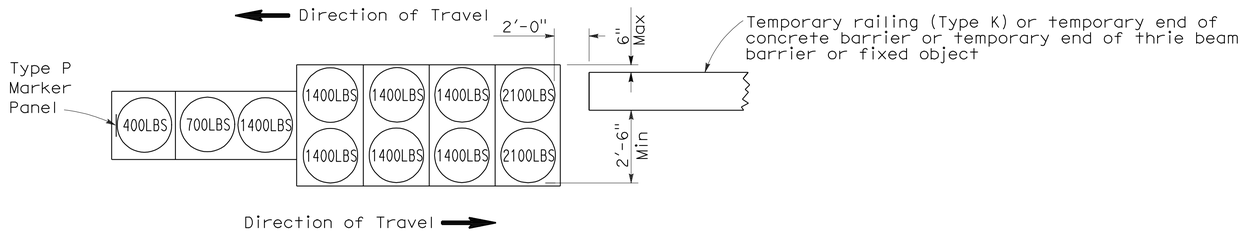
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

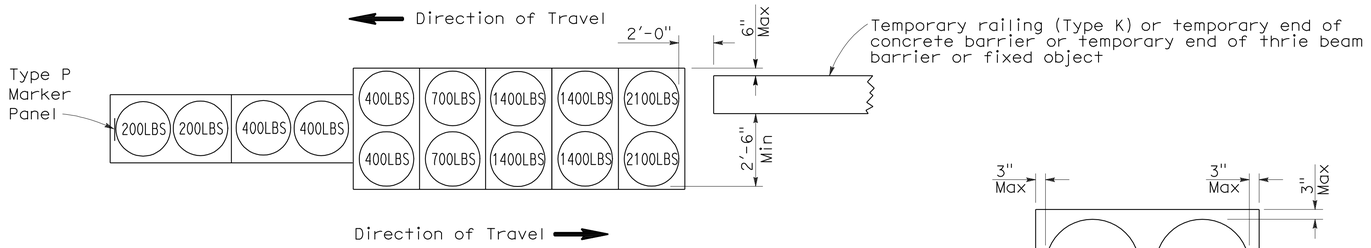
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 6-18-12



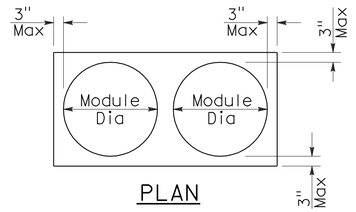
ARRAY 'TB11'

Approach speed less than 45 mph

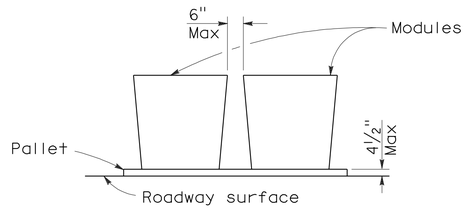


ARRAY 'TB14'

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
06	Fre,Tul	99	Var	120	136

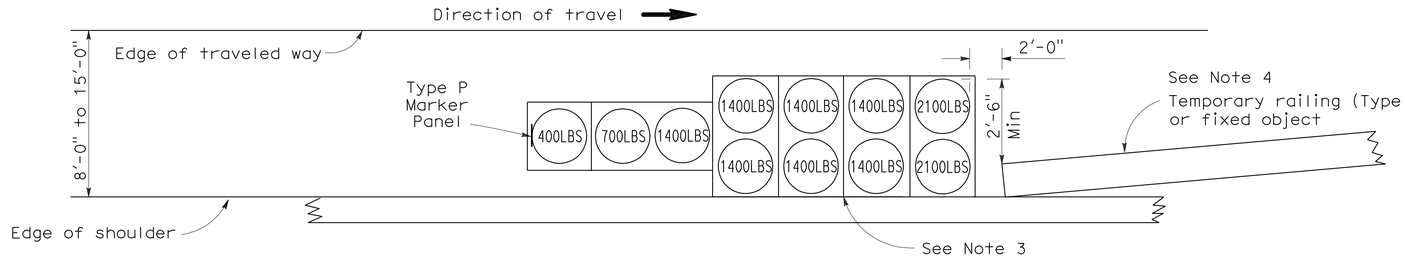
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

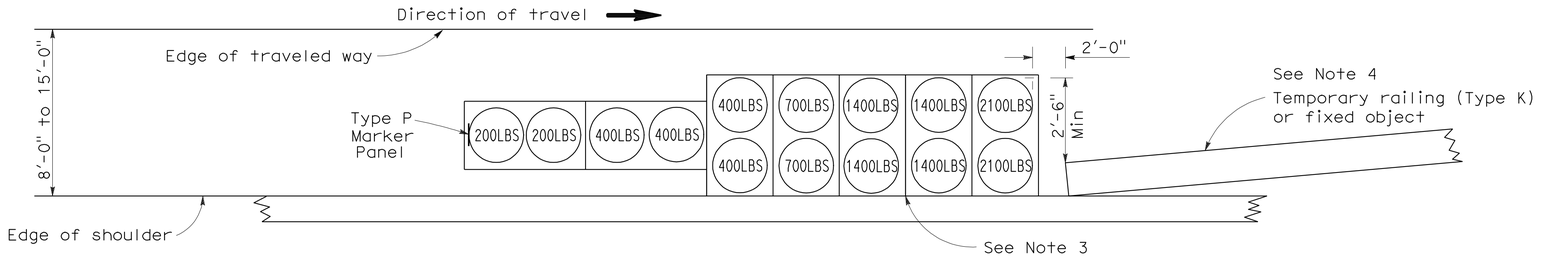
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 6-18-12



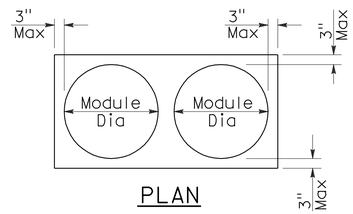
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

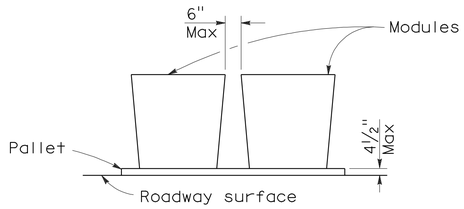


ARRAY 'TS14'

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
06	Fre,Tul	99	Var	121	136

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

May 20, 2011
PLANS APPROVAL DATE

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

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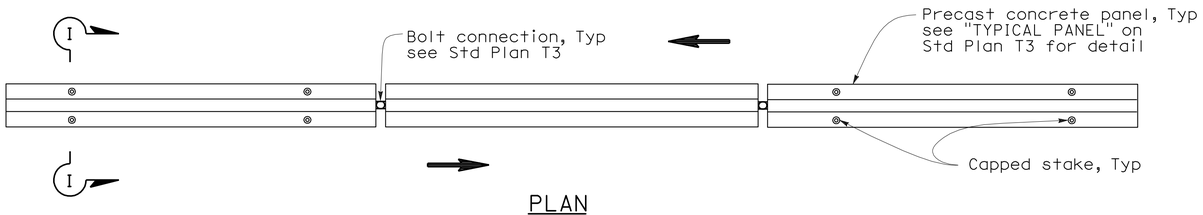
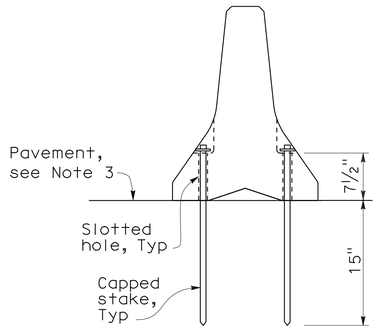
To accompany plans dated 6-18-12



PLAN

RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC

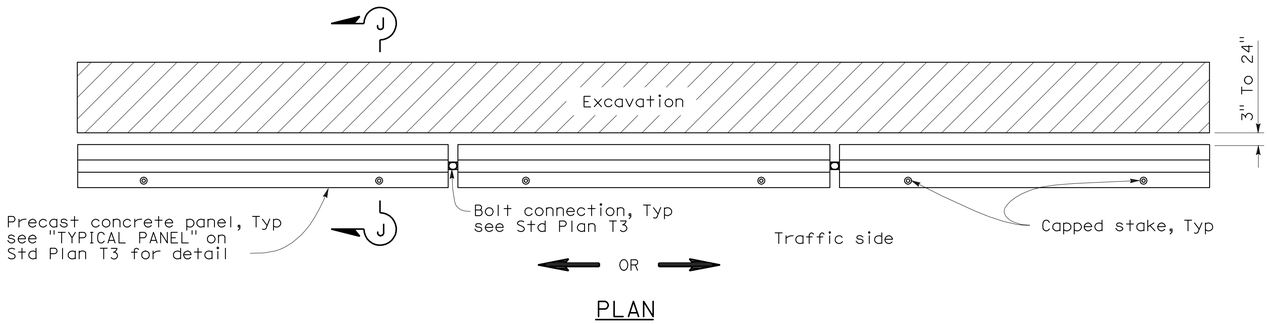
See Note 1



SECTION I-I

NOTES:

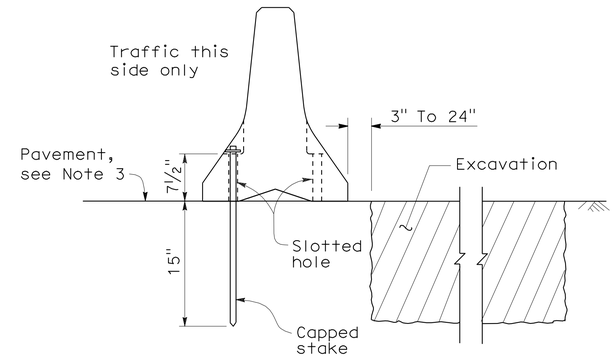
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of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



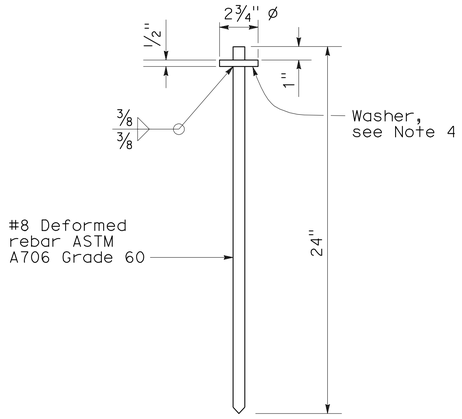
PLAN

RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION

See Note 2



SECTION J-J



CAPPED STAKE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY RAILING (TYPE K)

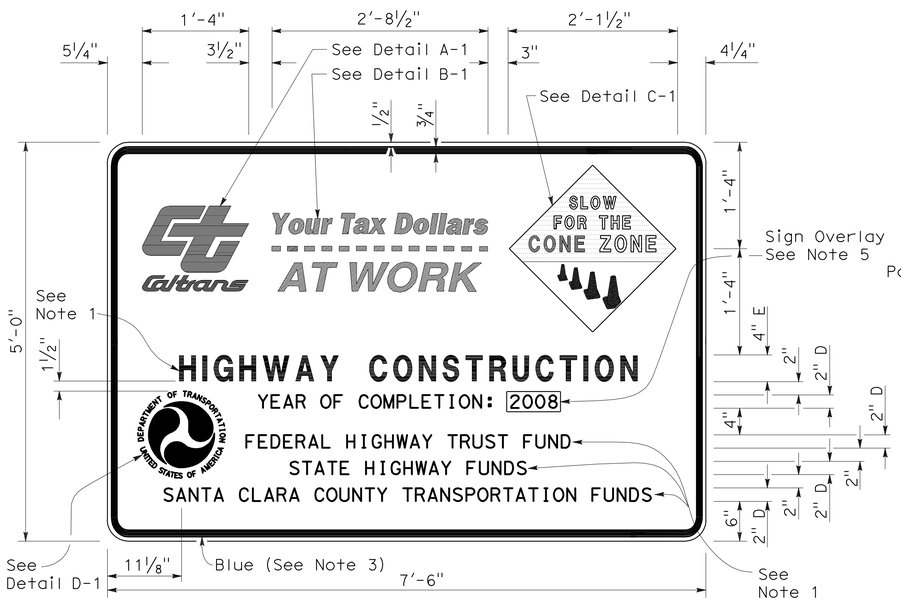
NO SCALE

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

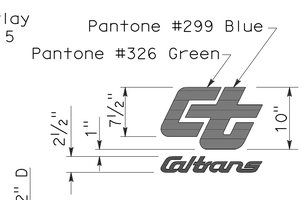
NEW STANDARD PLAN NSP T3A

2006 NEW STANDARD PLAN NSP T3A

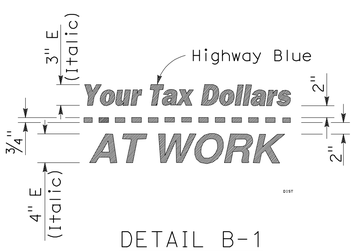
8-31-10



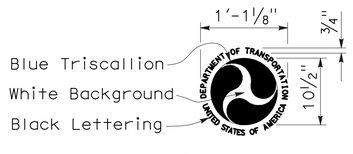
TYPE 1



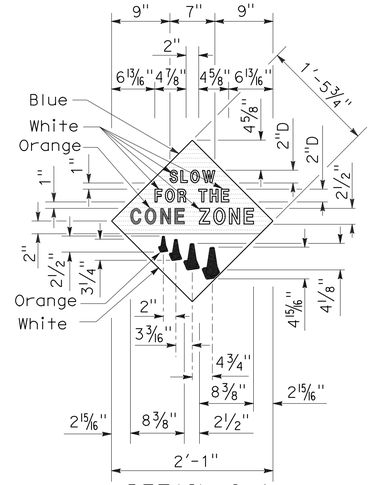
DETAIL A-1



DETAIL B-1
(See Note 3)



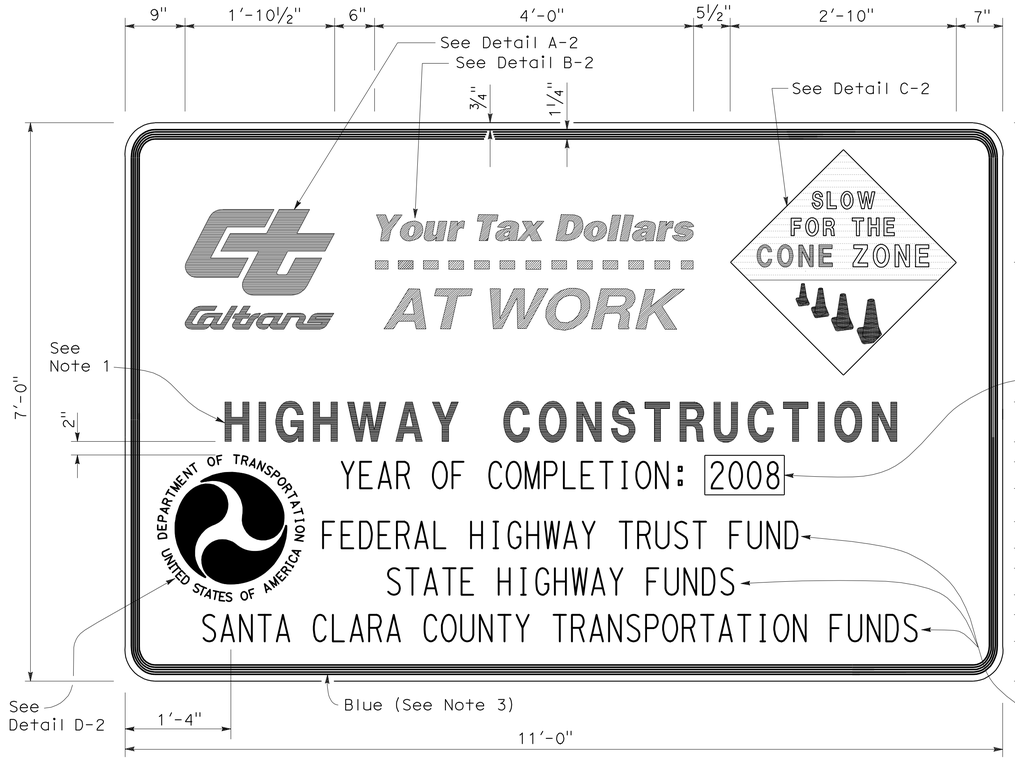
DETAIL D-1
(See Note 6)



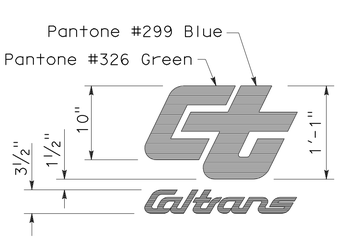
DETAIL C-1
(See Note 4)

NOTES:

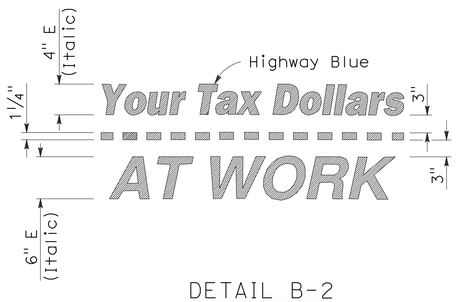
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



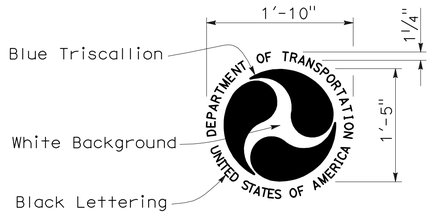
TYPE 2



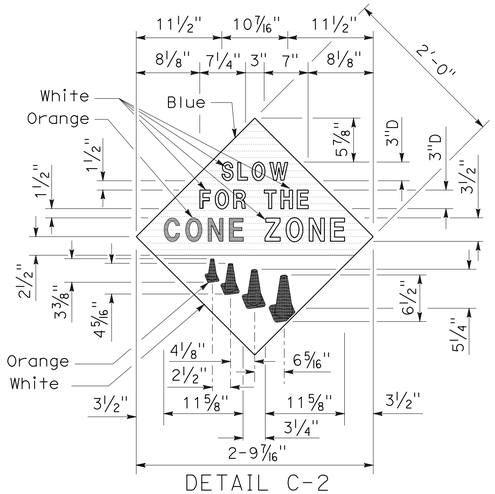
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL D-2
(See Note 6)



DETAIL C-2
(See Note 4)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

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

REVISED STANDARD PLAN RSP T7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	122	136

Greg W. Edwards
REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Greg W. Edwards
No. C36386
Exp. 6-30-08
CIVIL
STATE OF CALIFORNIA

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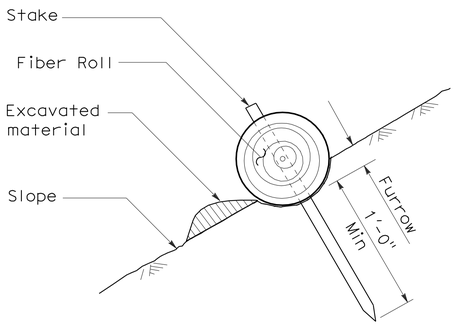
To accompany plans dated 6-18-12

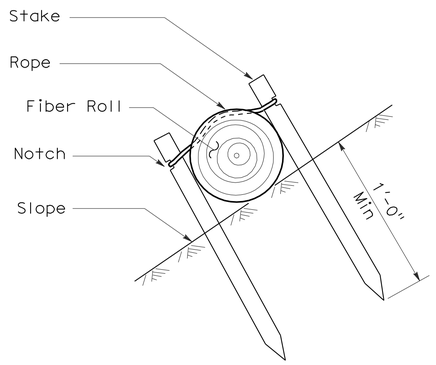
2006 REVISED STANDARD PLAN RSP T7

9-7-06

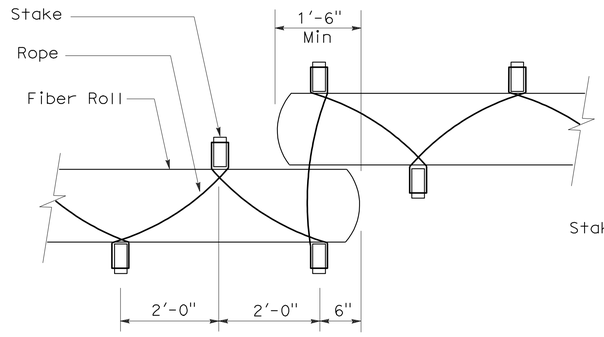


SECTION

TEMPORARY FIBER ROLL (TYPE 1)

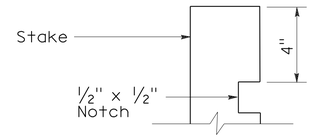


SECTION



PLAN

TEMPORARY FIBER ROLL (TYPE 2)



ELEVATION

STAKE NOTCH DETAIL

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	123	136

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

April 3, 2009
PLANS APPROVAL DATE

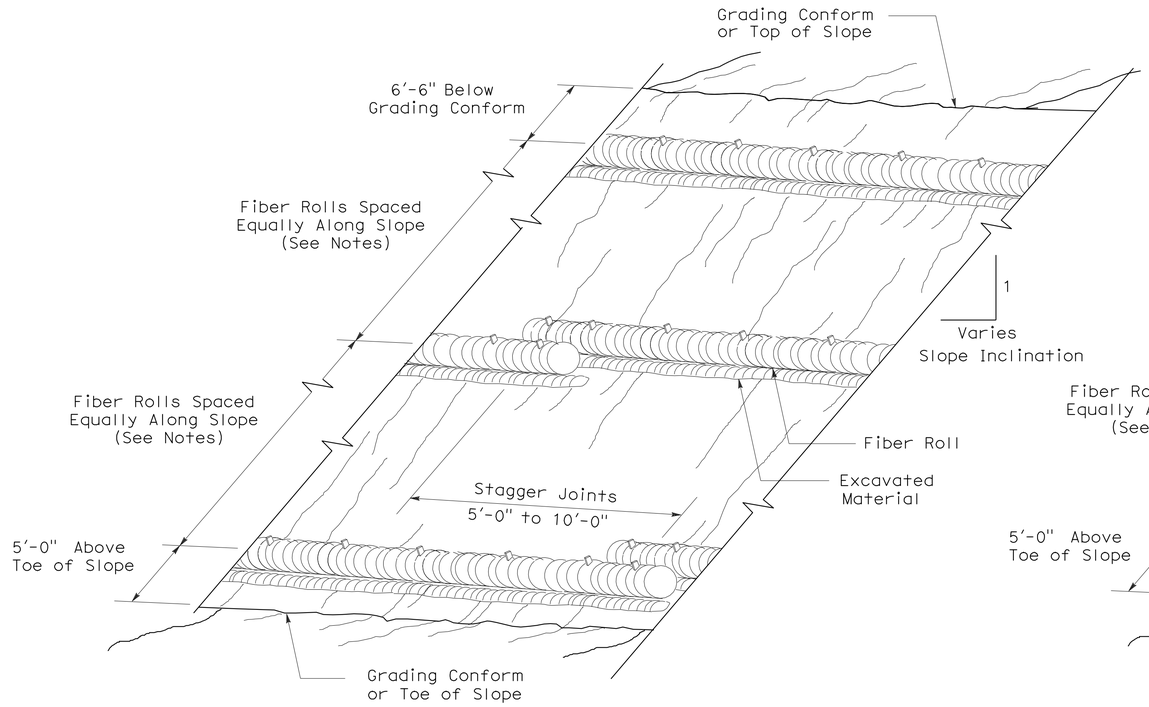
LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3035 — 11-30-10 Renewal Date — 2-25-09 Date — STATE OF CALIFORNIA

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 6-18-12

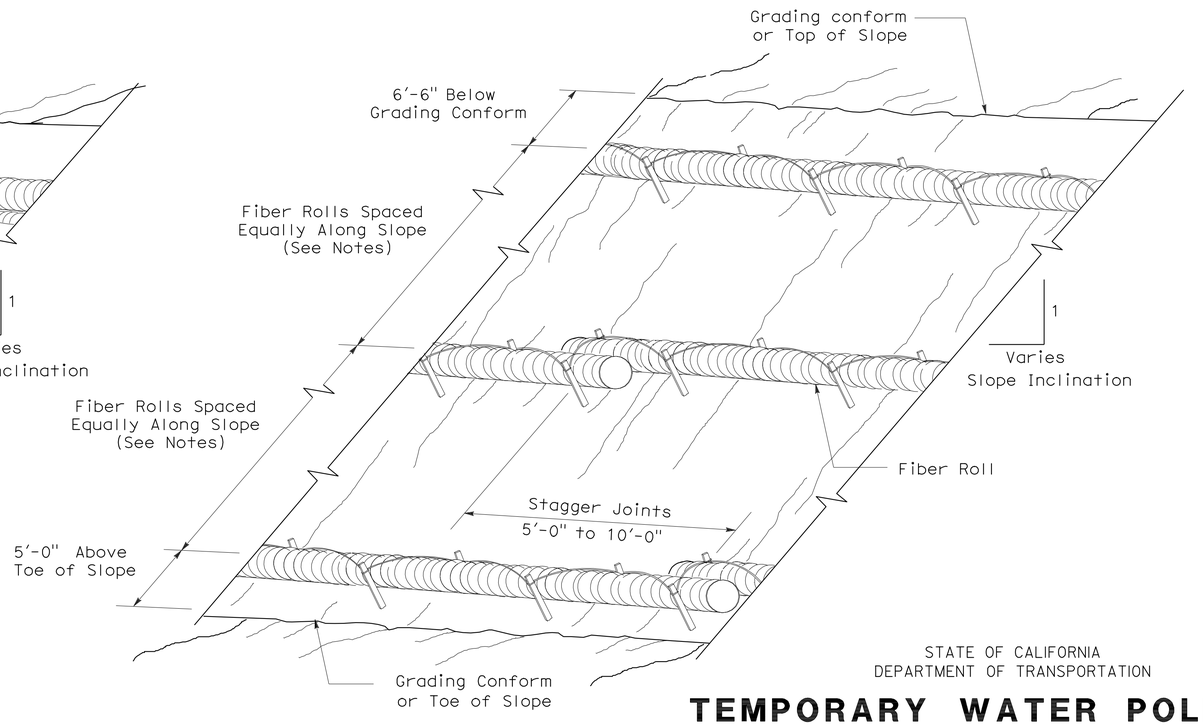
NOTES:

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
06	Fre,Tul	99	Var	124	136

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS Approval DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3035 — Signature — 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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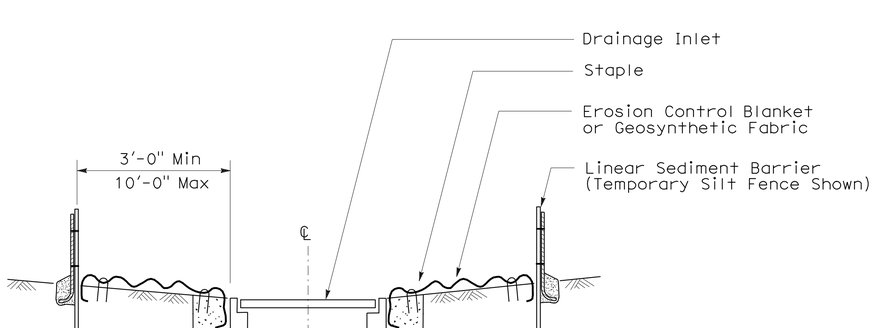
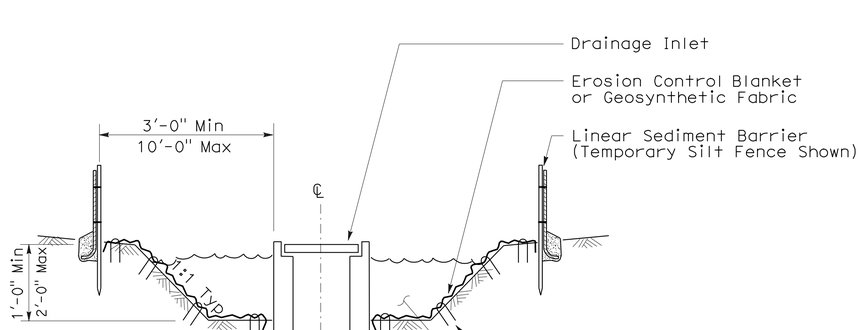
To accompany plans dated 6-18-12



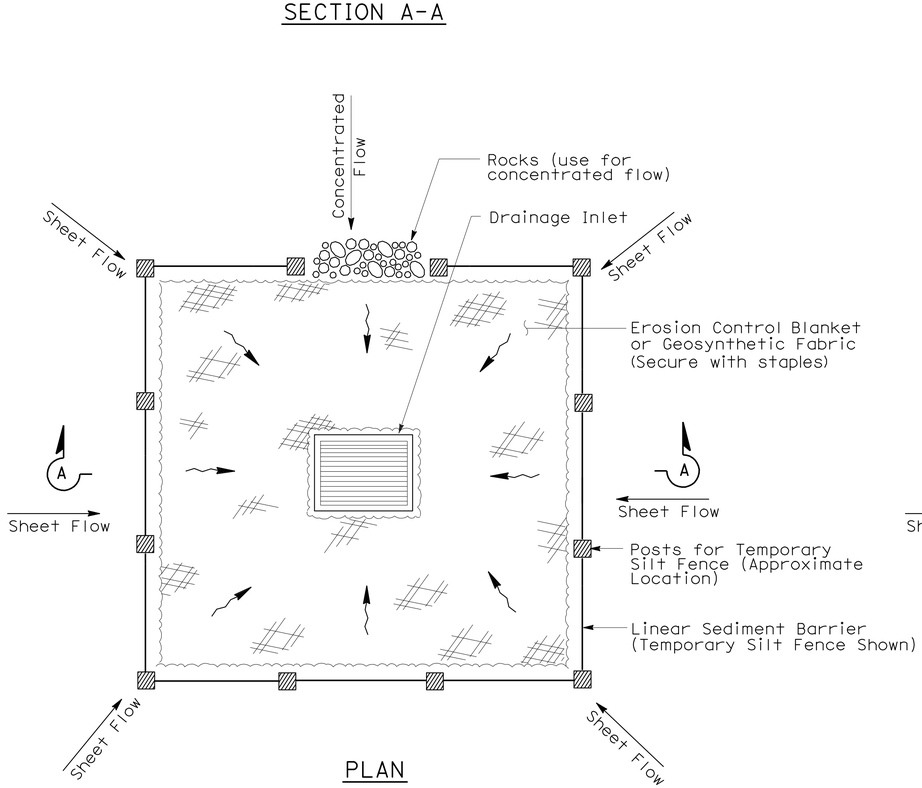
SECTION A-A



SECTION B-B

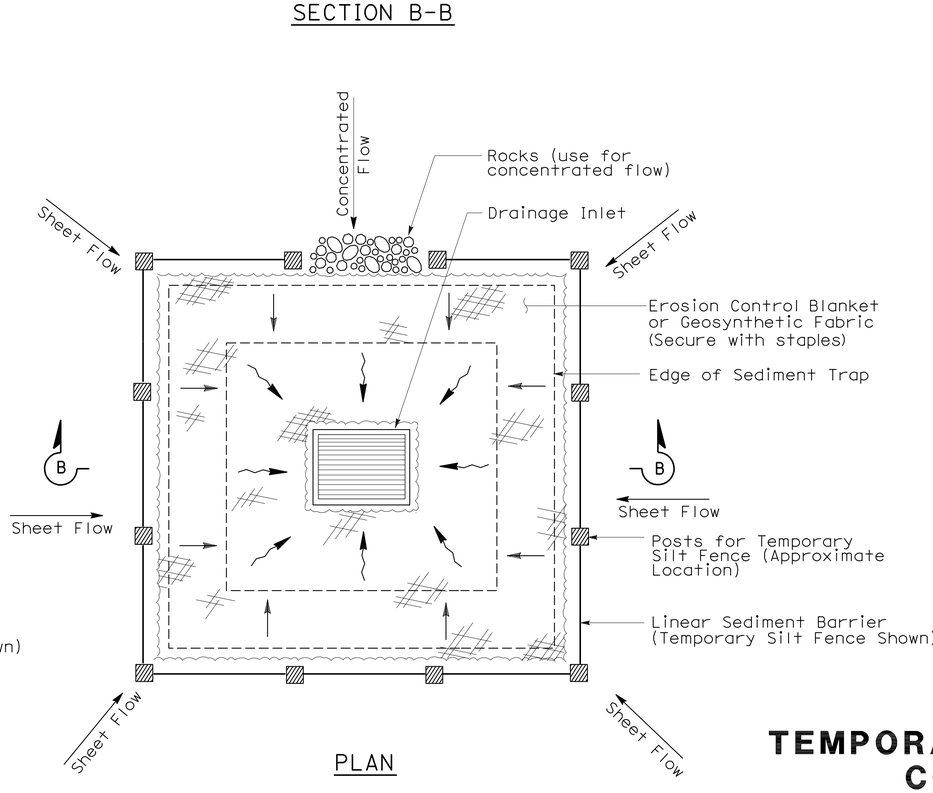
NOTES:

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



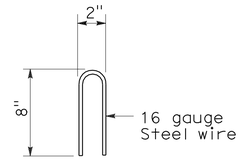
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



PLAN

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



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

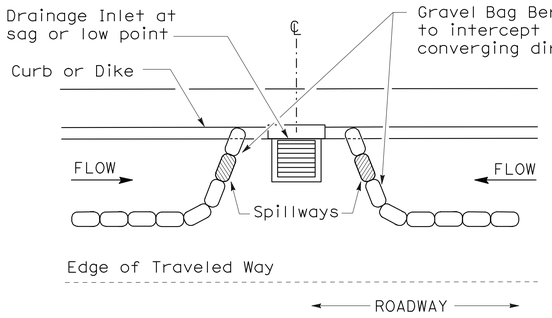
NO SCALE

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

NEW STANDARD PLAN NSP T61

2006 NEW STANDARD PLAN NSP T61

7-11-08



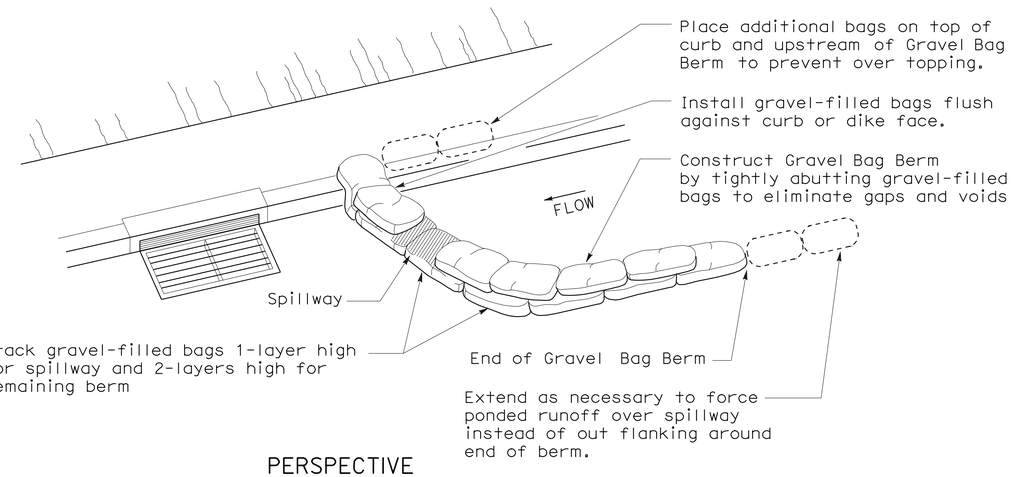
PLAN

CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)

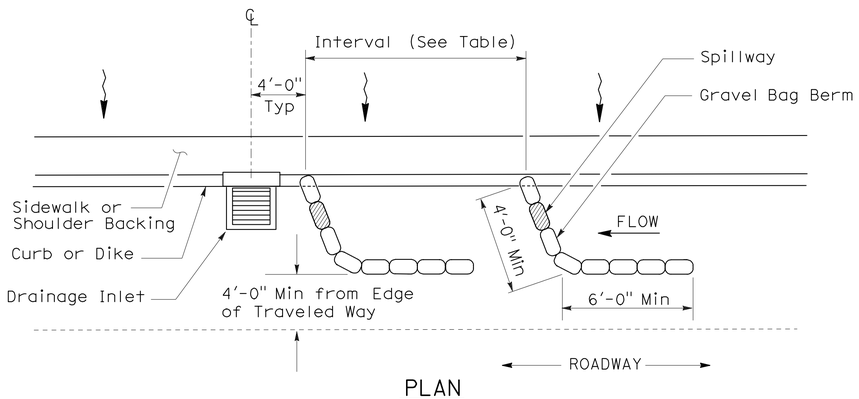
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

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

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

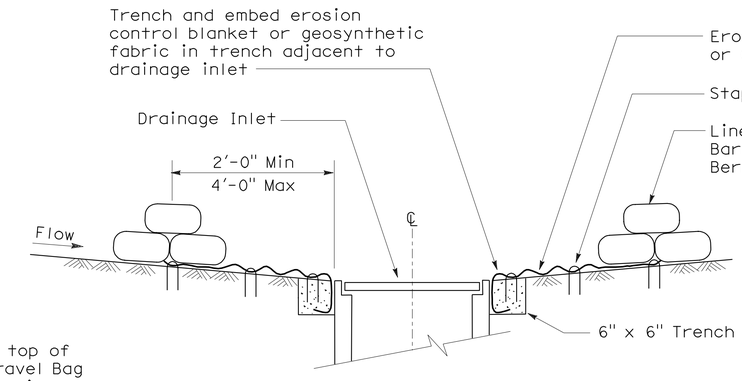


PERSPECTIVE

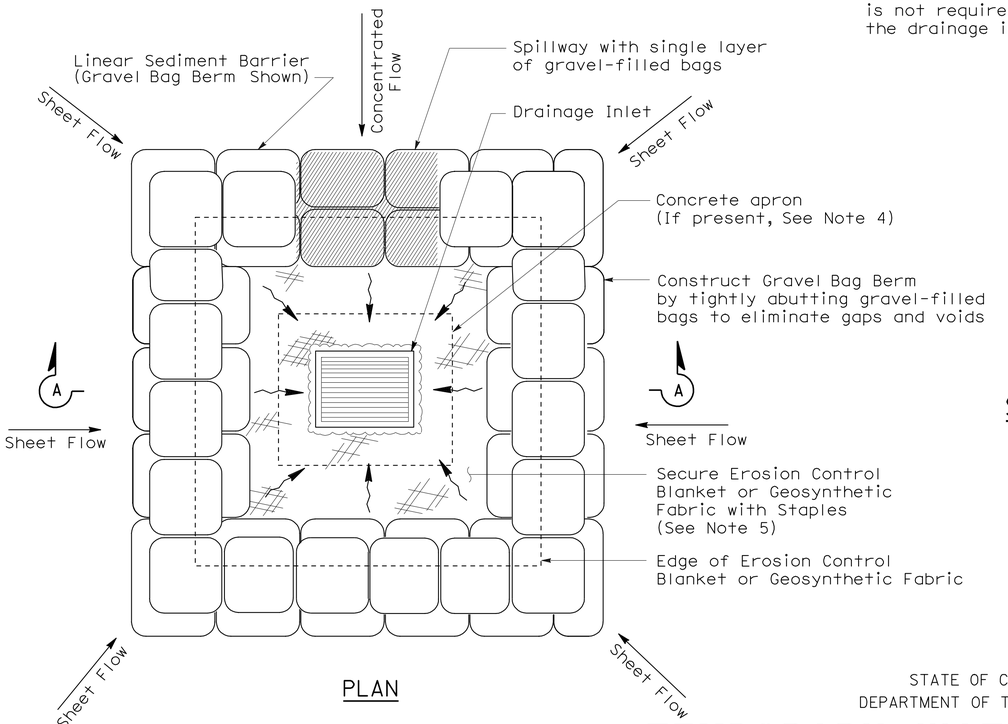


PLAN

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

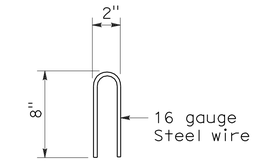


SECTION A-A



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



STAPLE DETAIL

NOTES:

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	125	136

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3025 — Signature — 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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To accompany plans dated 6-18-12

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T62

2006 NEW STANDARD PLAN NSP T62

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	126	136

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT Robert B. Schott 3035 Signature Date 11-04-08 Renewal Date 08-11-08 Date STATE OF CALIFORNIA

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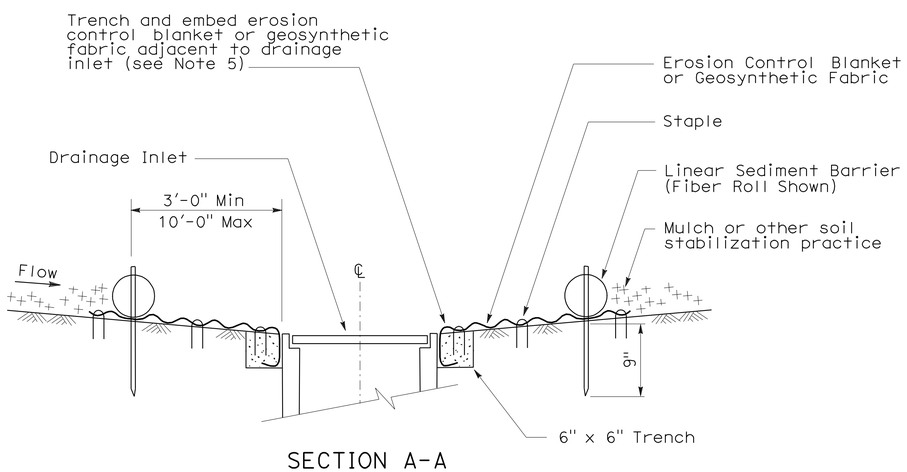
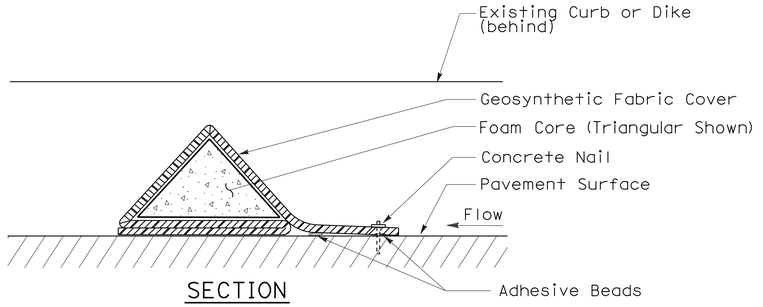
To accompany plans dated 6-18-12

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

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

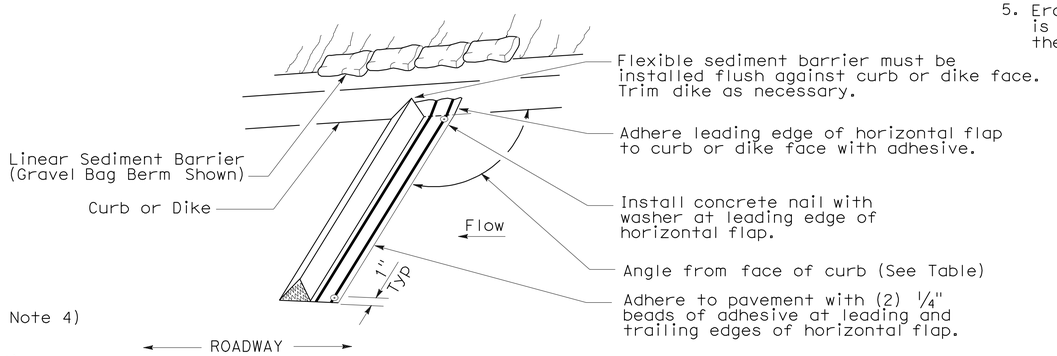


SECTION A-A



SECTION

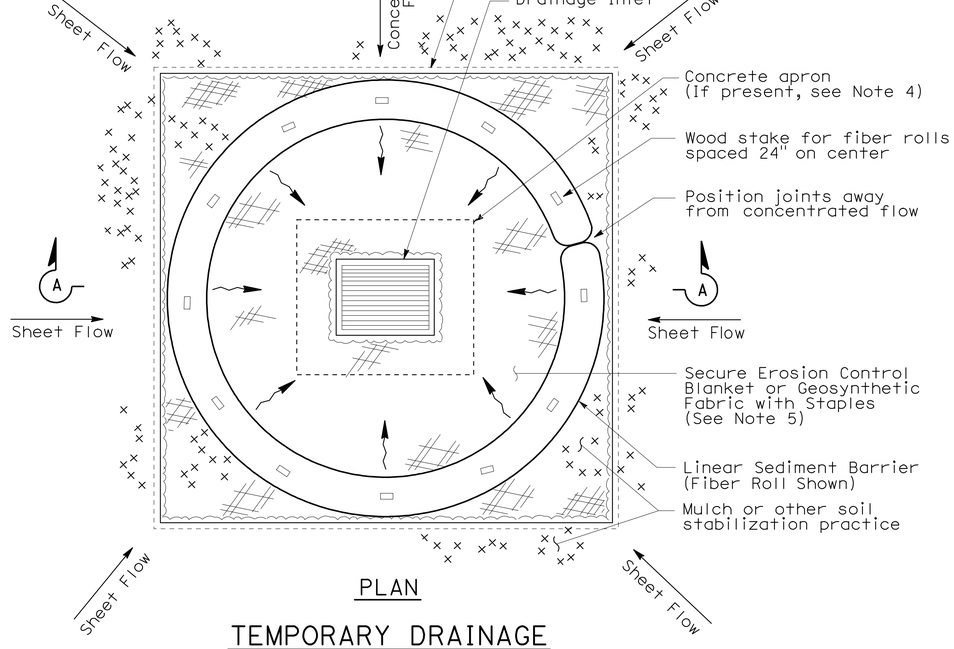
FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)



PERSPECTIVE

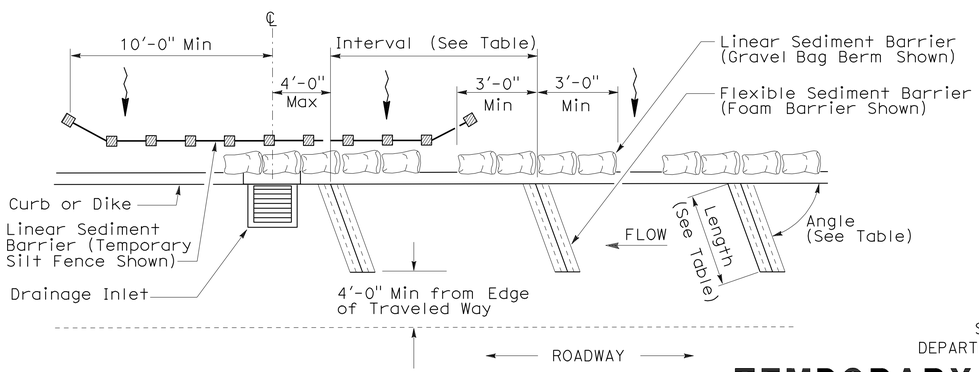
NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.



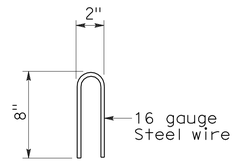
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PLAN

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



STAPLE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T63

2006 NEW STANDARD PLAN NSP T63

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	127	136

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3035 — Signature Date 11-04-08 — Renewal Date 08-11-08 — Date — STATE OF CALIFORNIA

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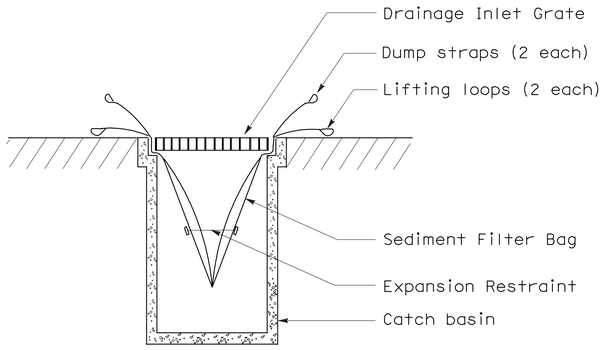
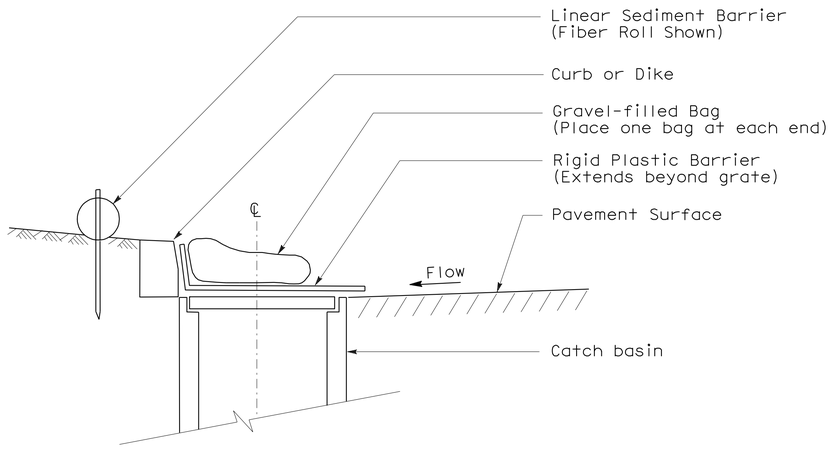
To accompany plans dated 6-18-12



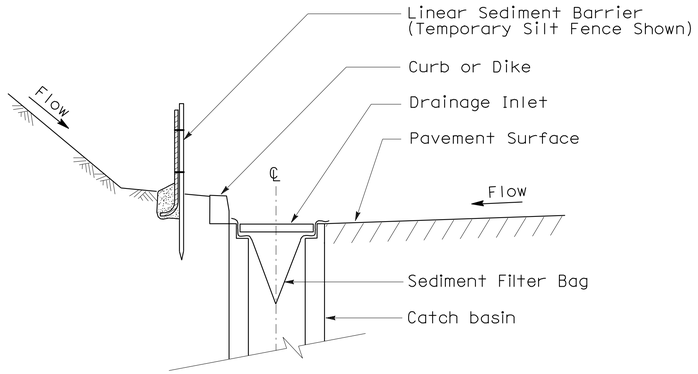
SECTION B-B

SEDIMENT FILTER BAG DETAIL

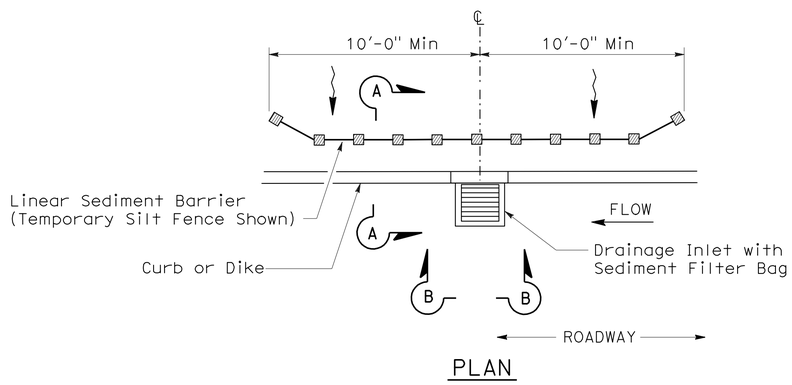


SECTION

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

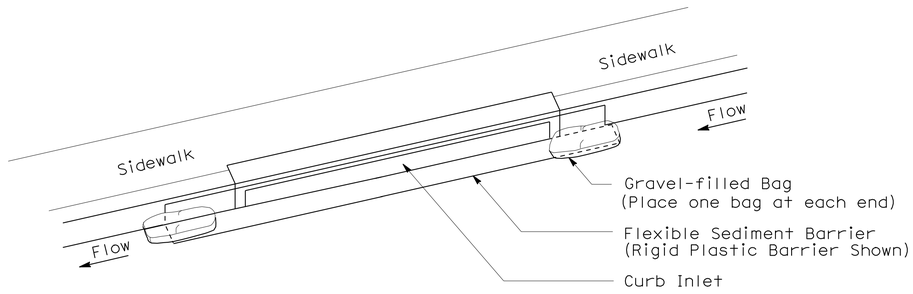


SECTION A-A



PLAN

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



PERSPECTIVE

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

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

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	128	136

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

April 3, 2009
PLANS APPROVAL DATE

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

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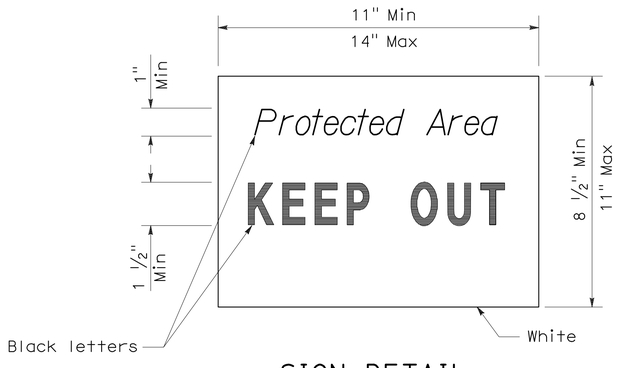
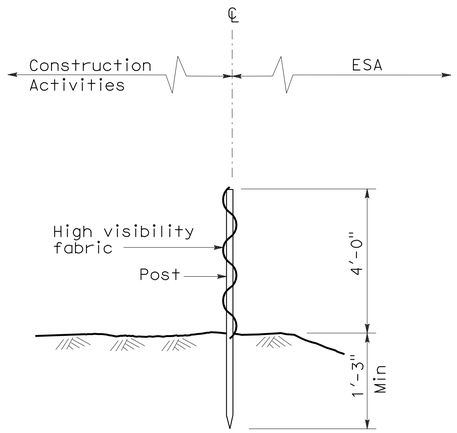
To accompany plans dated 6-18-12



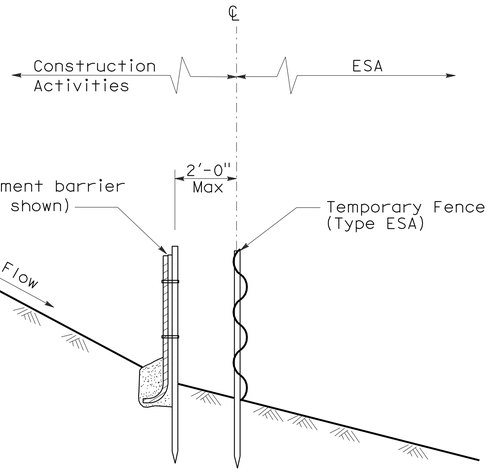
SIGN DETAIL

NOTE:

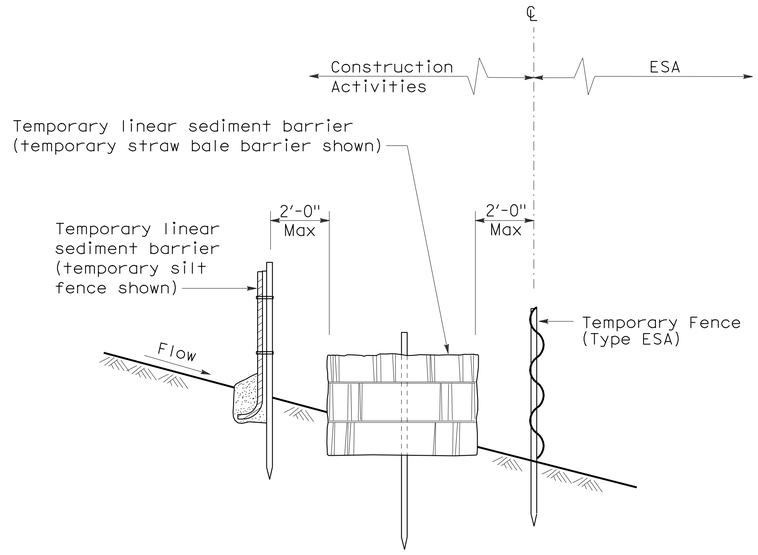
1. Temporary silt fence and temporary straw bale barrier shown for reference purposes only.



SECTION
TEMPORARY FENCE (TYPE ESA)



SECTION
PLACEMENT DETAIL
FOR TEMPORARY LINEAR SEDIMENT BARRIER
USED WITH TEMPORARY
FENCE (TYPE ESA)
(See Note 1)



SECTION
PLACEMENT DETAIL
FOR TEMPORARY SILT FENCE
AND TEMPORARY STRAW BALE BARRIER
USED WITH TEMPORARY FENCE (TYPE ESA)
(See Note 1)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS [TEMPORARY FENCE (TYPE ESA)]

NO SCALE

NSP T65 DATED APRIL 3, 2009 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T65

2006 NEW STANDARD PLAN NSP T65

1-7-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	129	136

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 6-18-12

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.
- (M) 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
06	Fre,Tul	99	Var	130	136

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 6-18-12

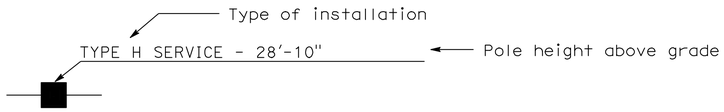
CONDUIT

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
06	Fre,Tul	99	Var	131	136

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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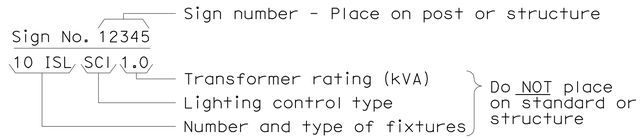
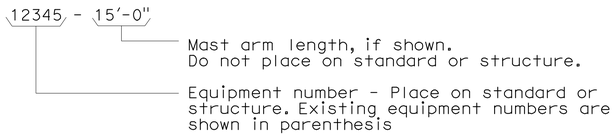
To accompany plans dated 6-18-12

EQUIPMENT IDENTIFICATION

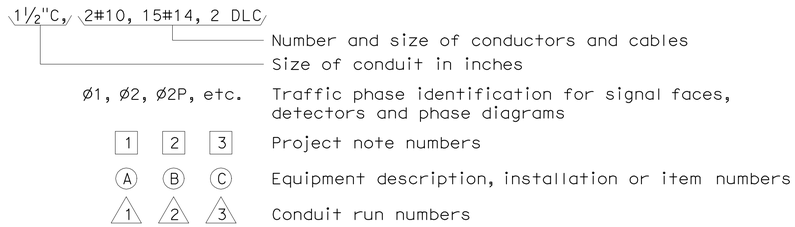
ILLUMINATED SIGN IDENTIFICATION NUMBER:



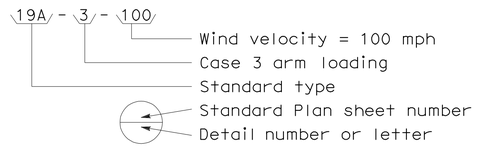
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



CONDUIT AND CONDUCTOR IDENTIFICATION:

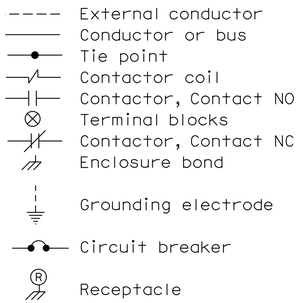


SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



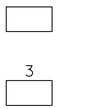
WIRING DIAGRAM LEGEND

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



PULL BOXES

PROPOSED EXISTING



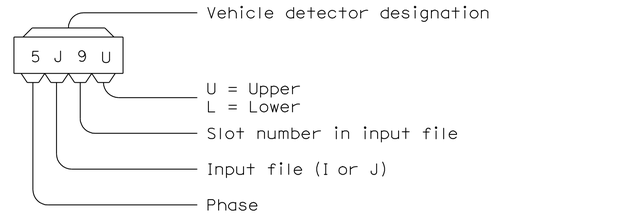
Pull box-No. 5 unless otherwise indicated or noted.

Pull box-Additional designations or descriptions

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

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

VEHICLE DETECTORS



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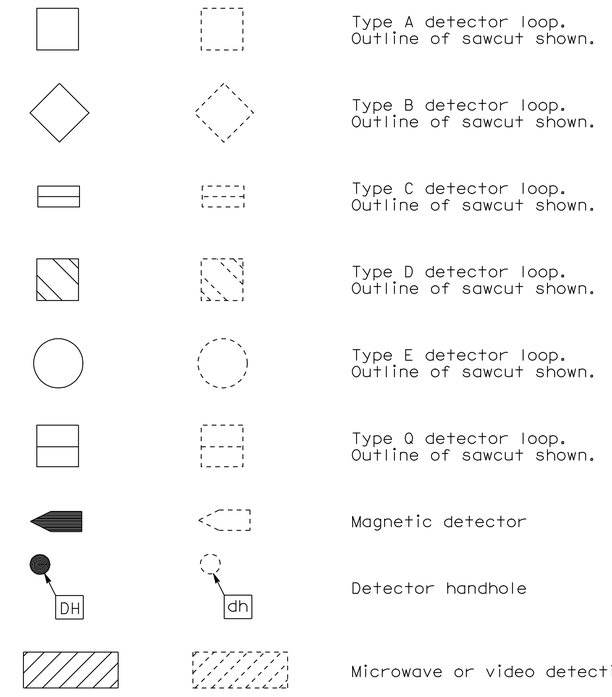
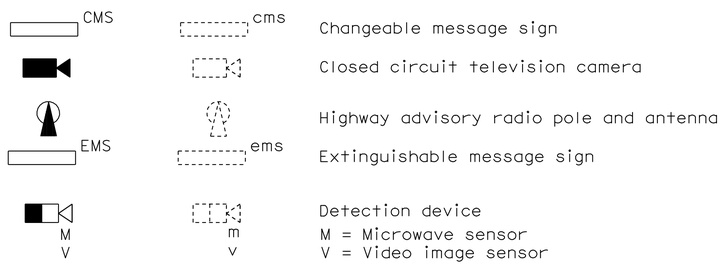


MISCELLANEOUS EQUIPMENT

PROPOSED EXISTING



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

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

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	132	136

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 6-18-12

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
06	Fre,Tul	99	Var	133	136

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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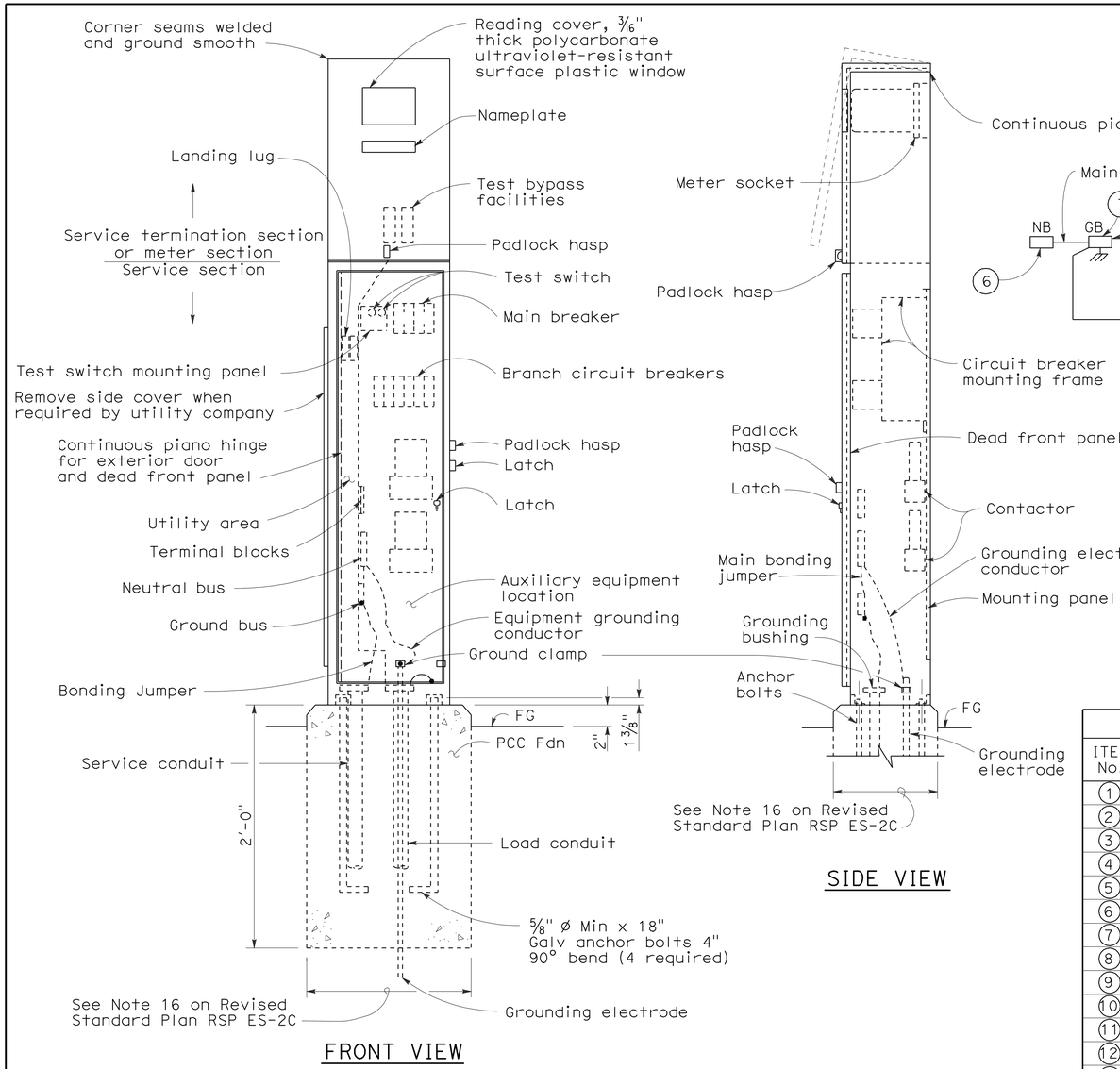
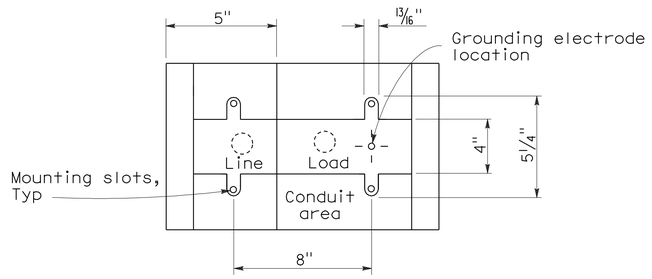
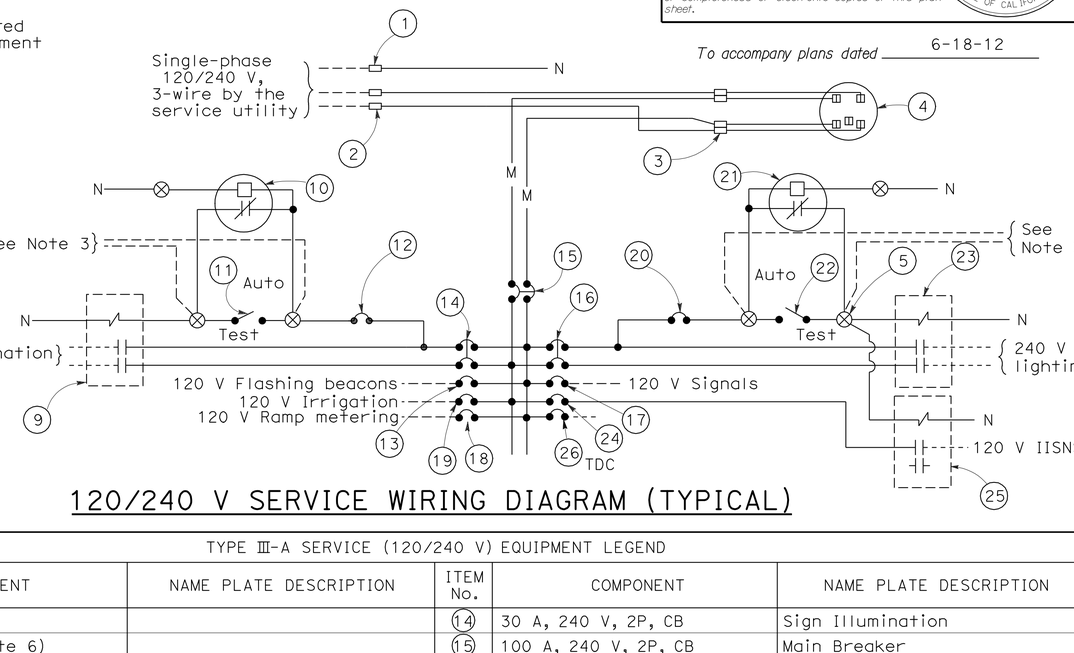
To accompany plans dated 6-18-12



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)

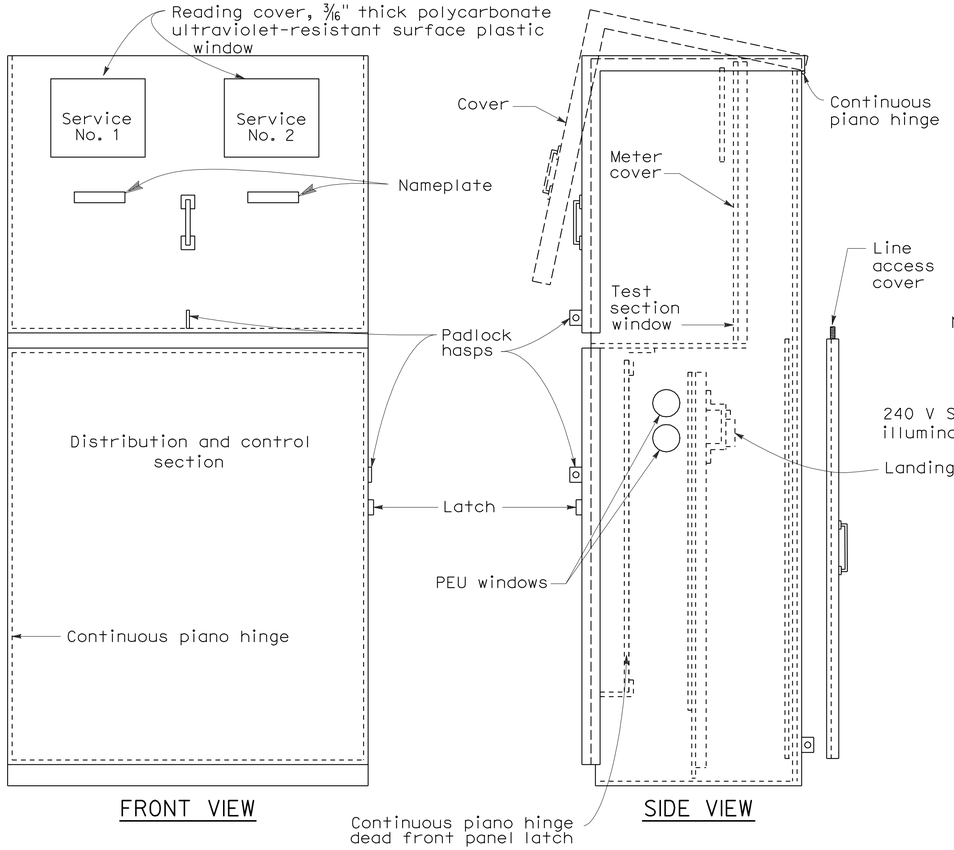
NO SCALE

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.

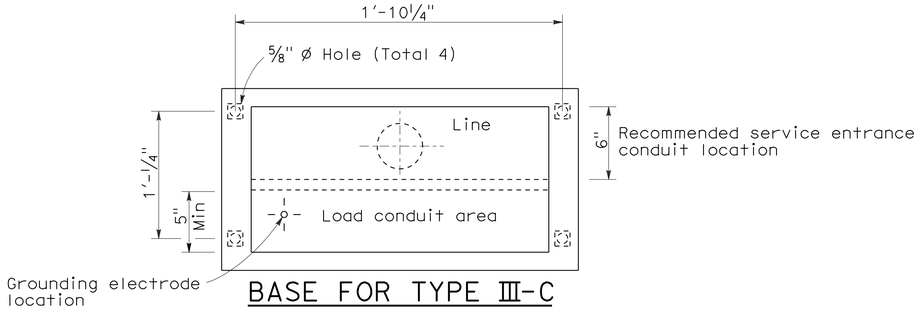
REVISED STANDARD PLAN RSP ES-2D

2006 REVISED STANDARD PLAN RSP ES-2D

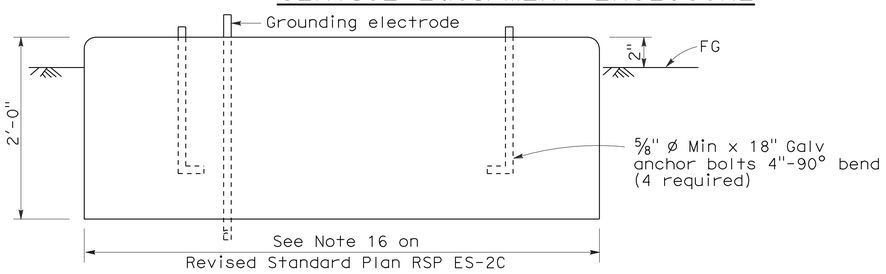
7-10-07



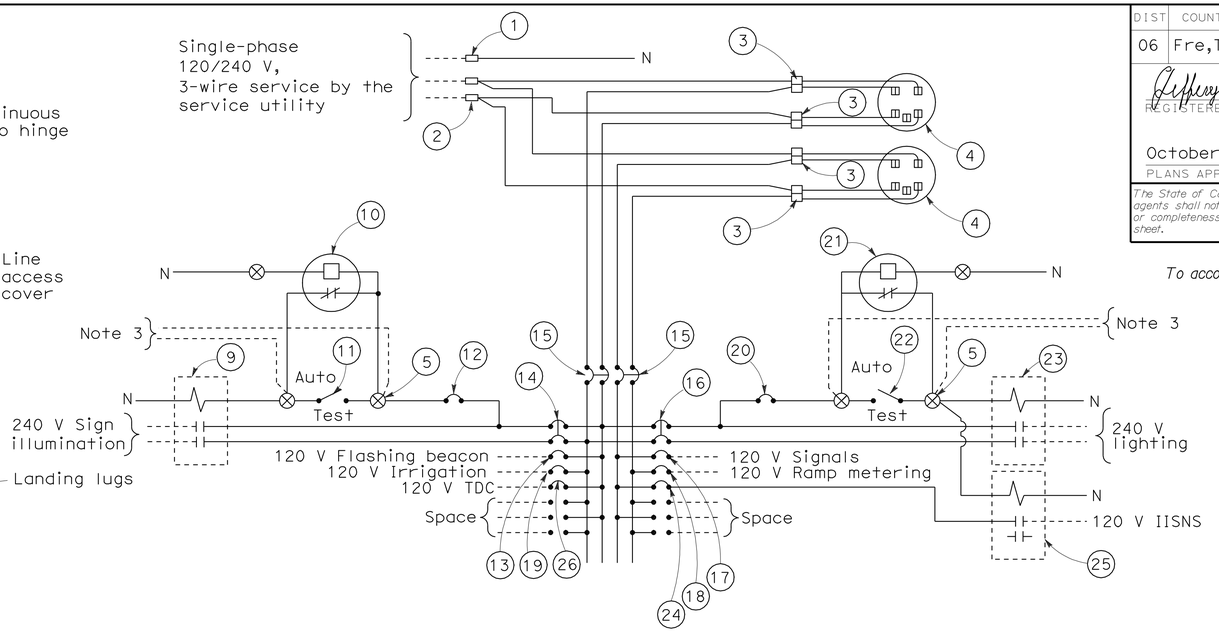
TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH PROVISIONS FOR TWO 100 A METERS (TYPICAL)



BASE FOR TYPE III-C SERVICE EQUIPMENT ENCLOSURE



FOUNDATION DETAIL



120/240 V SERVICE WIRING DIAGRAM (TYPICAL)

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

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

NOTES: (FOR SERVICE EQUIPMENT ENCLOSURE)

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.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	134	136

Jeffrey 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

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 6-18-12

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP ES-2F

2006 REVISED STANDARD PLAN RSP ES-2F

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	135	136

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

January 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-12 — ELECTRICAL — STATE OF CALIFORNIA

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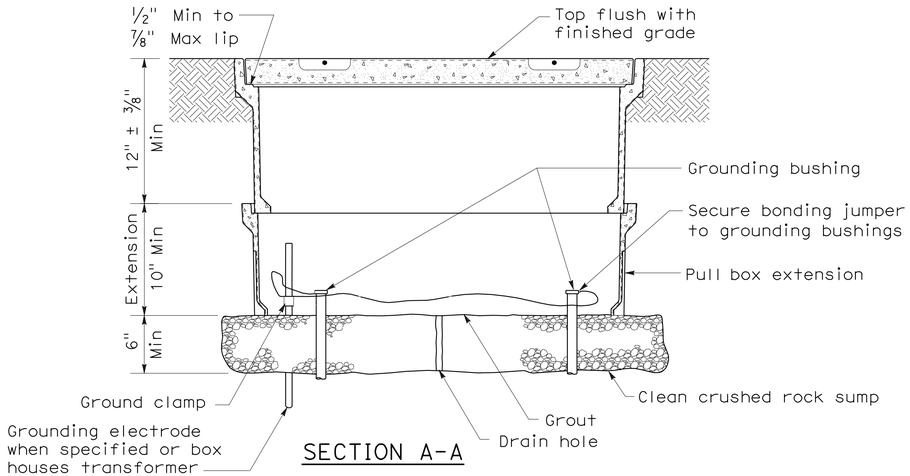
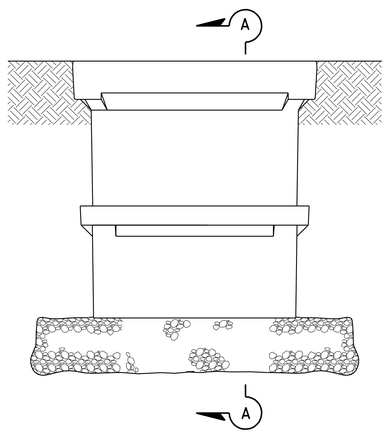
To accompany plans dated 6-18-12



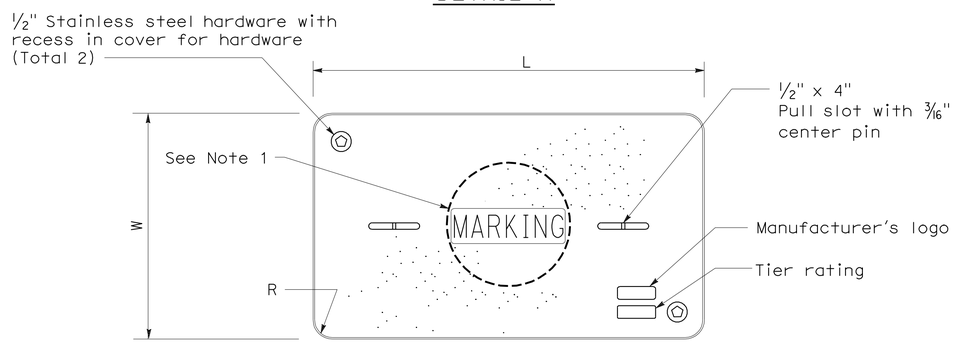
SECTION A-A



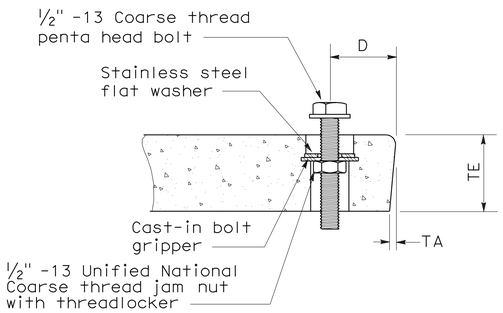
SIDE VIEW

INSTALLATION DETAILS

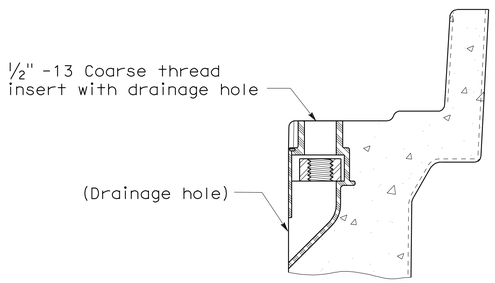
DETAIL A



COVER TOP VIEW



TYPICAL COVER CAPTIVE BOLT
(Or similar)



TYPICAL THREADED INSERT
(Or similar)

DIMENSION TABLE										
PULL BOX	PULL BOX			COVER						
	Minimum Depth Box	Minimum Depth Extension	Maximum Weight	L	W	R	TE	TA	D	Maximum Weight
No. 3½	12"	N/A	40 lb	1′ - 3⅜"	10⅛"	1⅜"	2"	⅛"	1¾"	30 lb
No. 5	12"	10"	55 lb	1′ - 11¼"	1′ - 1¾"	1⅜"	2"	⅛"	1¾"	60 lb
No. 6	12"	10"	70 lb	2′ - 6½"	1′ - 5½"	1⅜"	2"	⅛"	2"	85 lb

NOTES ON PULL BOXES:

1. Pull box covers must be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;

   A) No. 3½ pull box.
   1) "SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
   2) "ST LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.

   B) No. 5, 6, 9 or 9A pull box.
   1) "TRAFFIC SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
   2) "STREET LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
   3) "STREET LIGHTING-HIGH VOLTAGE" - Street or sign lighting circuits where voltage is above 600 V.
   4) "IRRIGATION" - Circuits to irrigation controller 120 V or more.
   5) "RAMP METER" - Ramp meter circuits.
   6) "COUNT STATION" - Count or speed monitor circuits.
   7) "COMMUNICATIONS" - Communication circuits.
   8) "TOS COMMUNICATIONS" - TOS communication line.
   9) "TOS POWER" -TOS power.
   10) "TDC POWER" - Telephone demarcation cabinet power.
   11) "CCTV" - Closed circuit television circuits.
   12) "TMS" - Traffic monitoring station circuits.
   13) "CMS" - Changeable message sign circuits.
   14) "HAR" - Highway advisory radio circuits.

2. The nominal dimensions of the opening in which the cover sets must be the same as the cover dimensions (L and W) plus ⅛" or greater.
3. Covers and boxes must be interchangeable with California Standard. When interchanged with a standard, the top surfaces must be flush within ⅛". Top outside radius of covers and pull boxes must have a ⅛" radius.
4. Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (PULL BOX)

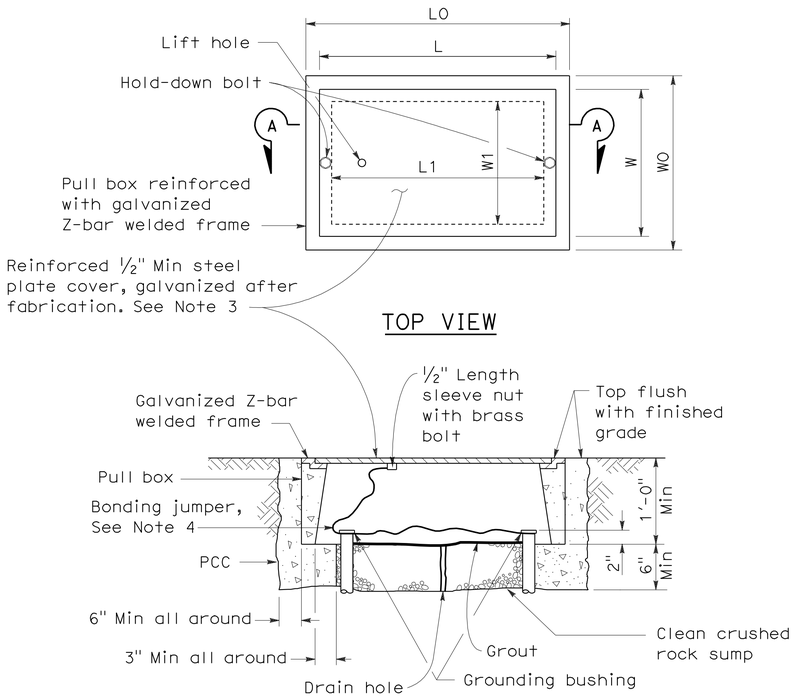
NO SCALE

NSP ES-8A DATED JANUARY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP ES-8A

2006 NEW STANDARD PLAN NSP ES-8A

9-28-11



TOP VIEW

SECTION A-A

No. 3½(T), No. 5(T) AND No. 6(T) TRAFFIC PULL BOX

DIMENSION TABLE											
PULL BOX	BOX						COVER				
	Minimum * Thickness	Minimum Depth Box and Extension	WO	LO	L1	W1	L **	W **	R	Edge Thickness	Edge Taper
No. 3½(T)	1½"	1'-0"	1'-5"± 1"	1'-8⅜"±	1'-2½"±	10⅝"± 1"	1'-8"±	1'-1¾"±	0"	½"	None
No. 5(T)	1¾"	1'-0"	1'-11½"± 1"	2'-5½"±	1'-7"±	1'-1"± 1"	2'-3"±	1'-4"±	0"	½"	None
No. 6(T)	2"	1'-0"	2'-6"± 1"	2'-11½"±	1'-11½"±	1'-5"± 1"	2'-9"±	1'-8"±	0"	½"	None

* Excluding conduit web ** Top dimension

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Fre,Tul	99	Var	136	136

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

January 20, 2012
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-12 — 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.

To accompany plans dated 6-18-12

NOTES ON PULL BOXES:

1. Traffic pull box shall be provided with steel cover and special concrete footing. Steel cover shall have embossed non-skid pattern.
2. Steel reinforcing shall be as regularly used in the standard products of the respective manufacturer.
3. Pull box covers must be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" Sprinkler control circuits, 50 V or less; "CALTRANS" On all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service.
   A) No. 3½(T) pull box.
      1) "SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
      2) "ST LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
   B) No. 5(T) or 6(T) pull box.
      1) "TRAFFIC SIGNAL" - Traffic signal circuits with or without street or sign lighting circuits.
      2) "STREET LIGHTING" - Street or sign lighting circuits where voltage is under 600 V.
      3) "STREET LIGHTING-HIGH VOLTAGE" - Street or sign lighting circuits where voltage is above 600 V.
      4) "IRRIGATION" - Circuits to irrigation controller 120 V or more.
      5) "RAMP METER" - Ramp meter circuits.
      6) "COUNT STATION" - Count or speed monitor circuits.
      7) "COMMUNICATION" - Communication circuits.
      8) "TOS COMMUNICATIONS" - TOS communications line.
      9) "TOS POWER" - TOS power.
      10) "TDC POWER" - Telephone demarcation cabinet power.
      11) "CCTV" - Closed circuit television circuits.
      12) "TMS" - Traffic monitoring station circuits.
      13) "CMS" - Changeable message sign circuits.
      14) "HAR" - Highway advisory radio circuits.
4. Bonding jumper for metal covers shall be 3' long, minimum.
5. The nominal dimensions of the opening in which the cover sets must be the same as the cover dimensions except the length and width dimensions shall be ⅛" greater.
6. Covers and boxes must be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces must be flush within ⅛".

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (TRAFFIC RATED PULL BOX)

NO SCALE

NSP ES-8B DATED JANUARY 20, 2012 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP ES-8B

2006 NEW STANDARD PLAN NSP ES-8B

9-28-11