

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	601	710

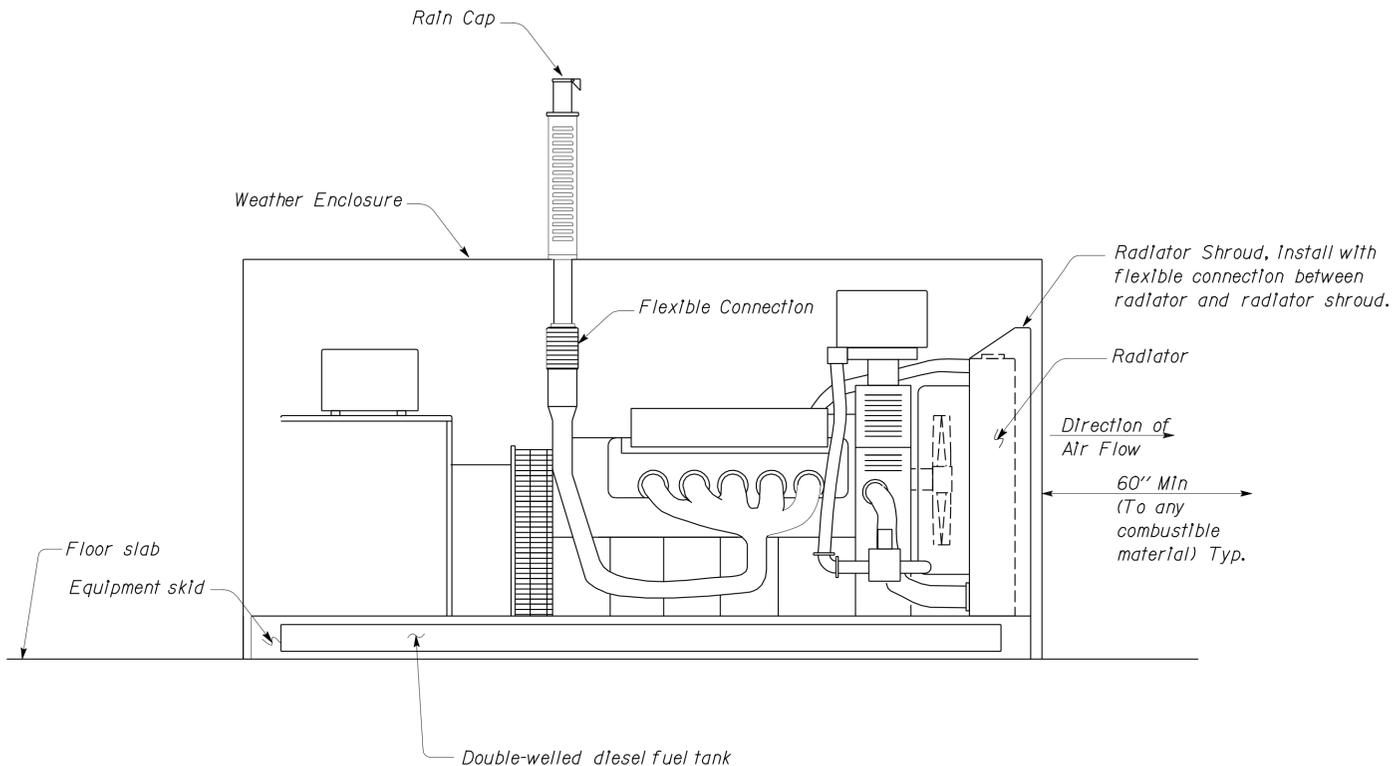
CALIFORNIA STATE FIRE MARSHAL APPROVED
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

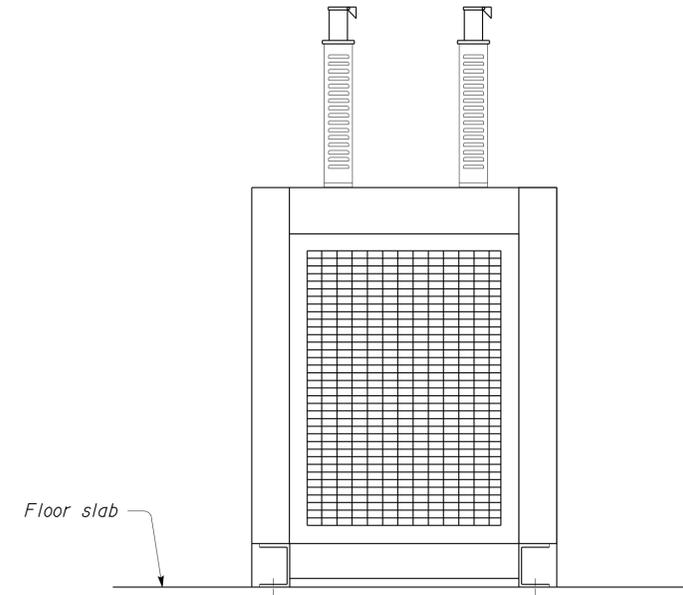
Claude Bylinski 11-30-12
 REGISTERED MECHANICAL ENGINEER DATE

2-25-13
 PLANS APPROVAL DATE

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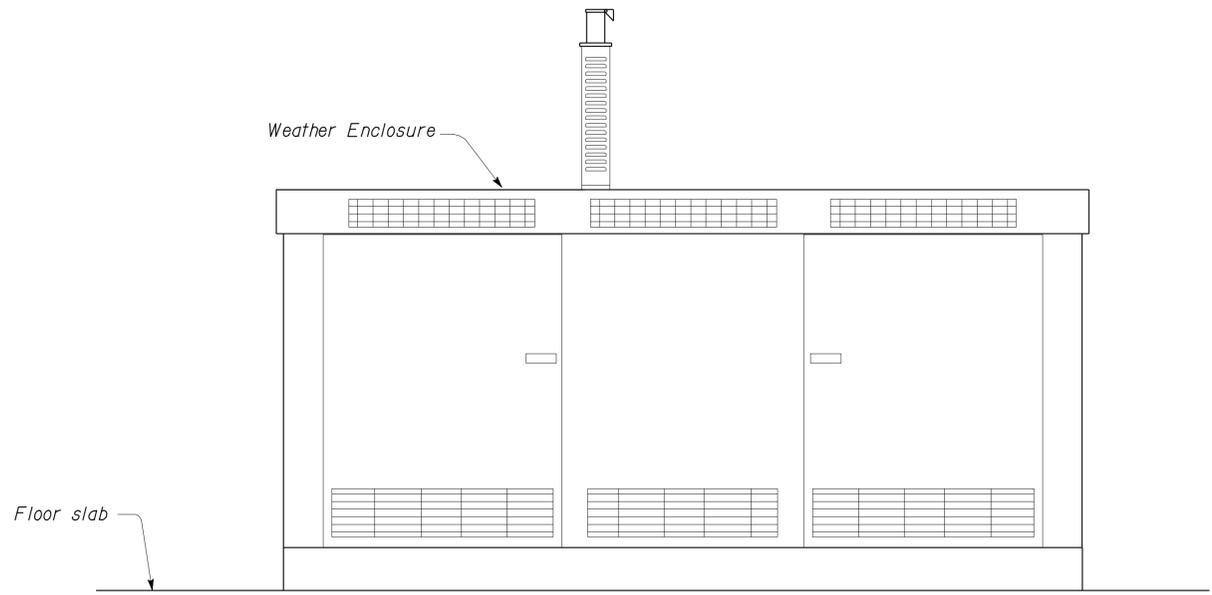


GENERATOR ENGINE PLAN



ELEVATION B

- NOTES:**
1. The exhaust piping shall be the same size or larger than the inside diameter of the exhaust manifold outlet or as recommended by the standby generator manufacturer.
 2. Generator shall be installed in accordance with 2007 California Fire Code and NFPA 37, 2002 edition.
 3. Generator shall be listed in accordance with UL 2200.
 4. Fire extinguisher to be 3A:40B:C



WEATHER ENCLOSURE PLAN

No Scale

THIS DRAWING ACCURATE FOR MECHANICAL WORK ONLY

DESIGN	BY	Claude Bylinski	CHECKED	Seve Gutierrez	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JPOE		SHEET M8-3.8	
	DETAILS	Kerry Geoffroy	CHECKED	Claude Bylinski			54-1216J	CVEF	GENERATOR DETAILS		
	QUANTITIES	Claude Bylinski	CHECKED	Seve Gutierrez			POST MILE 177.3/181.1		REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET
TAEMWW Imperial Rev. 7/10		FILE => m8_3_8.dgn DATE PLOTTED => 27-FEB-2013		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT PROJECT NUMBER & PHASE 3615 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES		08-11-10 11-30-12	EA 368501	

USERNAME => s109958 DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18

ABBREVIATIONS

A/C Air Conditioner
 Deg. Degrees
 FDC Fire Department Connection
 hp Horse Power
 OG Original Grade
 PIV Post Indicating Valve
 RH Radiant Heater
 V Voltage

LEGEND

(T) Thermostat
 (FE) Fire Extinguisher
 - - - - Cold Water
 - F - Fire Water
 - FDC - Fire Department Connection Line



NOTE:

Hatched area indicates structure requiring fire sprinkler protection. CVEF building office area shall be protected by a dry pipe system. CVEF inspection area shall be protected by a wet pipe system or a dry pipe system.

The automatic fire sprinkler system shall conform to the requirements of the 2002 Edition of the National Fire Protection Association Standard #13.

Installation of the fire sprinkler system shall not be started until complete plans and specifications (including water supply information and type of existing system, (if any) have been approved by the State Fire Marshal.

At various stages and upon completion, the system shall be tested in the presence of the State Fire Marshal.

NOTE, con'd:

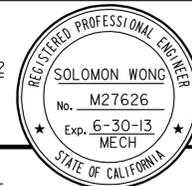
Sizing the fire pump required determining all system losses. The design of the fire sprinkler system is a contract item, so a reasonable value for system loss was selected. The maximum allowable pressure drop for the automatic fire sprinkler system (measured after the fire sprinkler riser) shall be 5 psi. Pipe sizes for the automatic fire sprinkler system shall be selected based upon this criterion.

SHEET NOTES

1. Signal from a closed supervisory switch shall be sent to annunciator panel located in CVEF Observation Room 007.

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08	Sbd	15	177.3/181.1	602	710

Solomon C. Wong
 REGISTERED MECHANICAL ENGINEER DATE 11-30-12



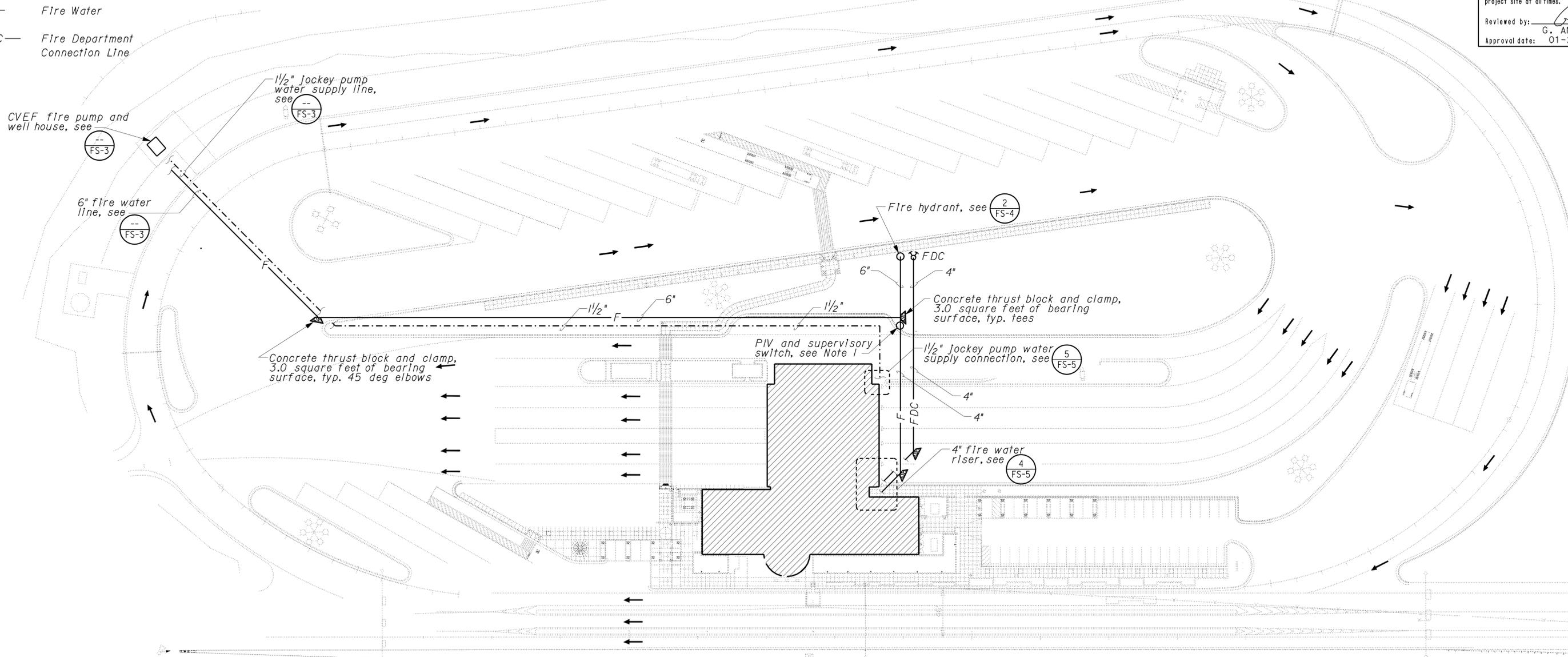
2-25-13
 PLANS APPROVAL DATE

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CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011



FIRE PROTECTION SITE PLAN
 1" = 50'-0"
 PLAN NORTH

THIS DRAWING ACCURATE FOR FIRE PROTECTION WORK ONLY

DESIGN SUPERVISOR <i>Paul Schreff</i> DESIGN ENGINEER <i>Paul W. White</i>	DESIGN	BY Thomas Dietsch	CHECKED Solomon Wong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE CVEF FIRE PROTECTION PLAN	SHEET FS-1
	DETAILS	BY Thomas Dietsch	CHECKED Solomon Wong			POST MILE	177.3/181.1		
QUANTITIES	BY Thomas Dietsch	CHECKED Solomon Wong	UNIT PROJECT NUMBER & PHASE			3615 08000006281			
TAEMWW Imperial Rev. 7/10 FILE => fs_1.dgn DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3				DISREGARD PRINTS BEARING EARLIER REVISION DATES 08-11-10 11-30-12	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF

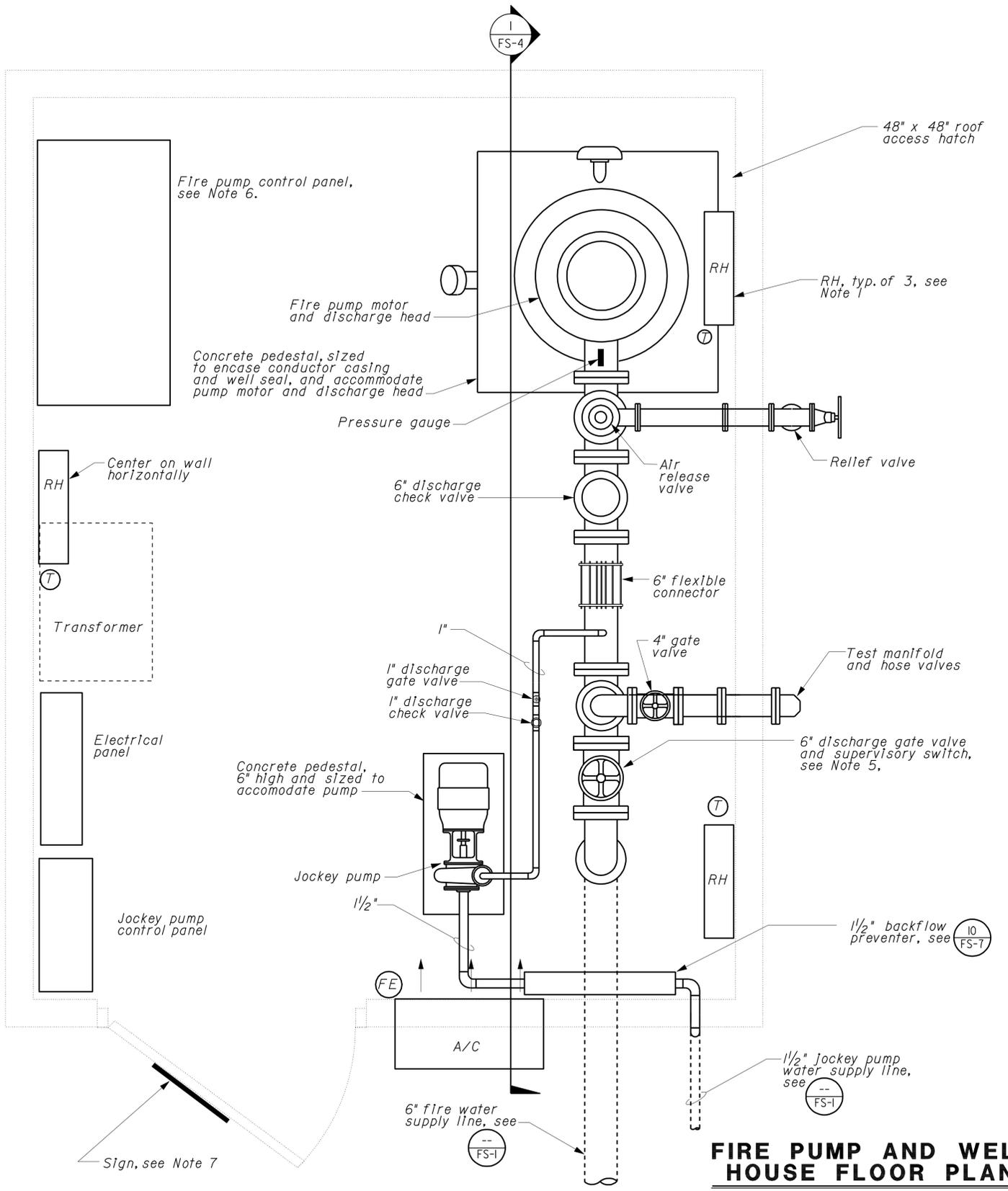
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	603	710

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 G. ANDERSEN
 Approval date: 01-20-2011

2-25-13
 PLANS APPROVAL DATE

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CVEF PUMP SCHEDULE					
EQUIPMENT	hp	V	PHASE	PUMPING RATE (GPM)	TOTAL DYNAMIC HEAD (ft)
Vertical turbine type fire pump	100	480	3	450	620
Jockey pump	0.5	120	1	5	125

EQUIPMENT

- RH Radiant Heater (electric, wall mount) - 1.5 kW, 208-V, 1-Phase
- A/C Air Conditioner (wall mounted) - 12,000 btuh cooling capacity, 120-V, 1-Phase

NOTES

1. Install radiant heaters at height of 8 ft and angle 45 deg. downward.
2. Fire extinguisher shall be 2A:10B:C and mounted 4 ft above floor.
3. Thermostat shall control all RH and be mounted 4 ft above floor.
4. Orientation of fire water supply and jockey pump supply may vary by site.
5. Signal from a closed supervisory switch shall be sent to annunciator panel located in CVEF Observation Room 007.
6. Signals for pump running, loss of phase, phase reversal and alternate power source connected shall be sent to annunciator panel located in CVEF Observation Room 007.
7. Sign to read, "FIRE PUMP HOUSE". Mount at 72", vertically centered on door.

FIRE PUMP AND WELL HOUSE FLOOR PLAN

No Scale

THIS DRAWING ACCURATE FOR FIRE PROTECTION WORK ONLY

DESIGN	BY Thomas Dietsch	CHECKED Solomon Wong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	MOUNTAIN PASS JPOE CVEF FIRE PUMP AND WELL HOUSE PLAN	SHEET	
DETAILS	BY Thomas Dietsch	CHECKED Solomon Wong		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	54-1216J		FIRE PUMP AND WELL HOUSE PLAN	FS-3
QUANTITIES	BY Thomas Dietsch	CHECKED Solomon Wong			POST MILE			
			UNIT PROJECT NUMBER & PHASE	3615 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

FILE => fs_3.dgn
 DATE PLOTTED => 27-FEB-2013
 TIME PLOTTED => 08:18

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

USERNAME => s109858 DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18

NOTES

1. Well construction, development, testing and inspection shall conform to all applicable sections on the latest edition of NFPA Std No. 20.

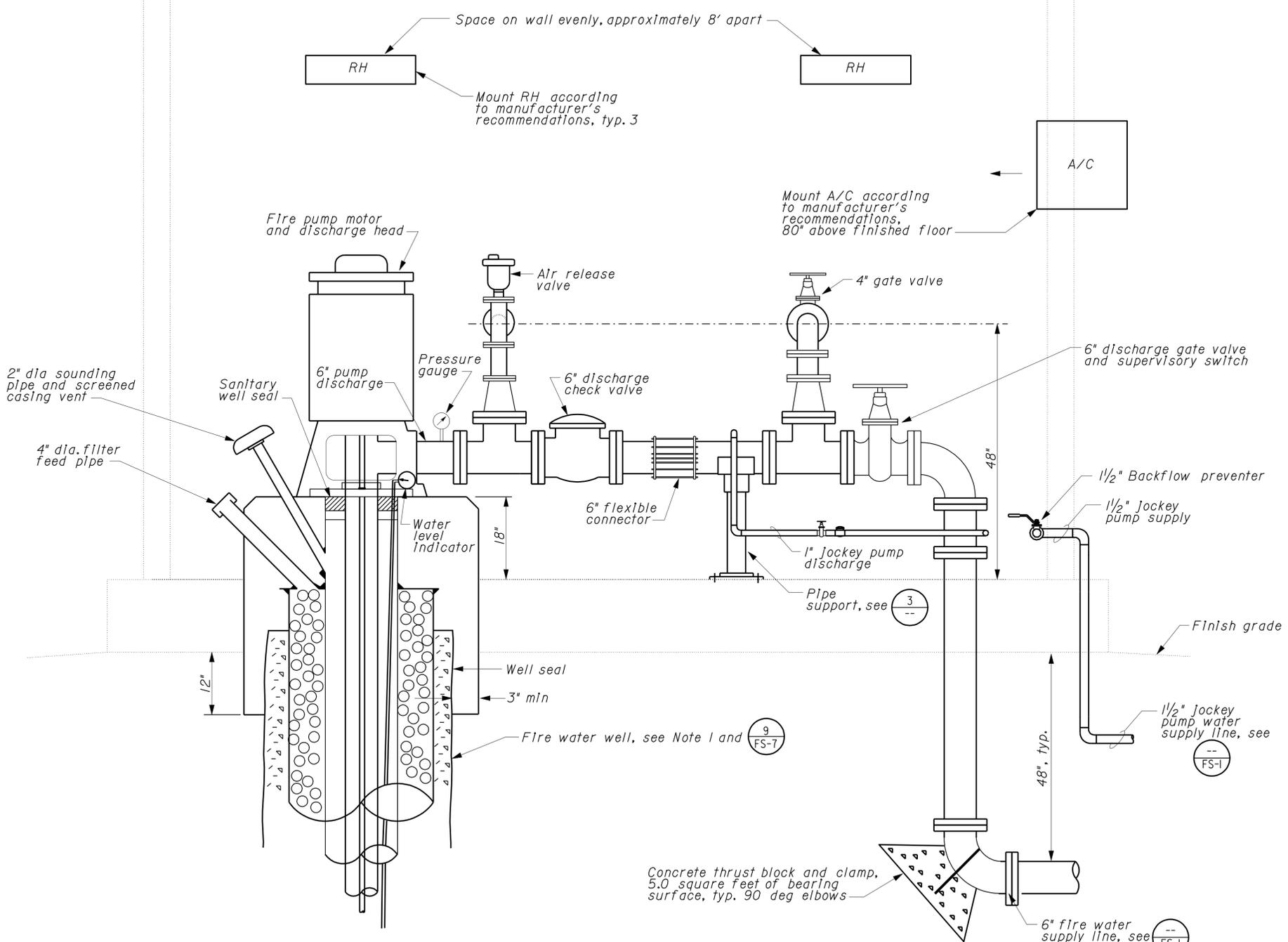
CALIFORNIA STATE FIRE MARSHAL APPROVED
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 Reviewed by: *G. Andersen*
G. ANDERSEN
 Approval date: 01-20-2011

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08	SBd	15	177.3/181.1	604	710

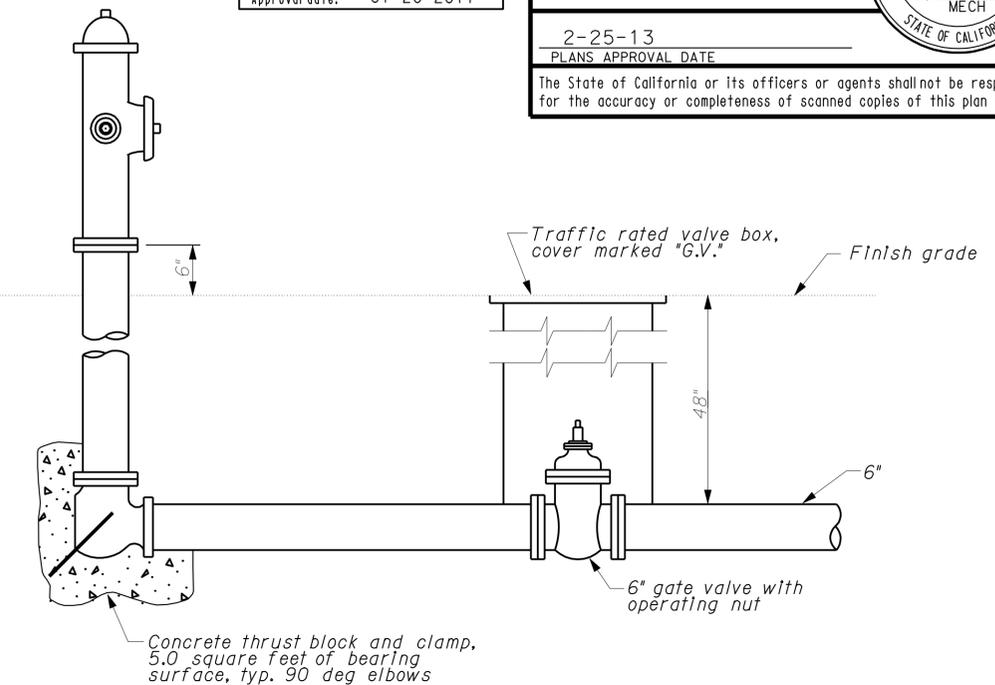
Solomon C. Wong 11-30-12
 REGISTERED MECHANICAL ENGINEER DATE

2-25-13
 PLANS APPROVAL DATE

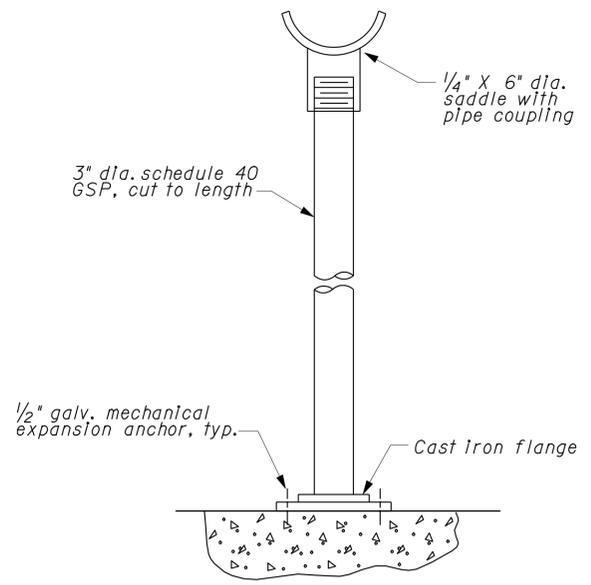
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1 FIRE PUMP AND WELL SECTION
 No Scale



2 FIRE HYDRANT DETAIL
 No Scale



3 PIPE SUPPORT DETAIL
 No Scale

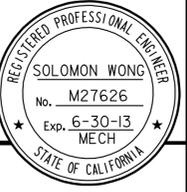
THIS DRAWING ACCURATE FOR FIRE PROTECTION WORK ONLY

DESIGN	BY <i>Thomas Dietsch</i>	CHECKED <i>Solomon Wong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	MOUNTAIN PASS JPOE DETAILS I	SHEET		
DETAILS	BY <i>Thomas Dietsch</i>	CHECKED <i>Solomon Wong</i>		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	54-1216J		PROJECT NUMBER & PHASE 08000006281	OF	
QUANTITIES	BY <i>Thomas Dietsch</i>	CHECKED <i>Solomon Wong</i>			177.3/181.1			EA 368501	FS-4
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USERNAME => s109858 DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Sbd	15	177.3/181.1	605	710

Solomon C. Wong
REGISTERED MECHANICAL ENGINEER DATE 11-30-12



2-25-13
PLANS APPROVAL DATE

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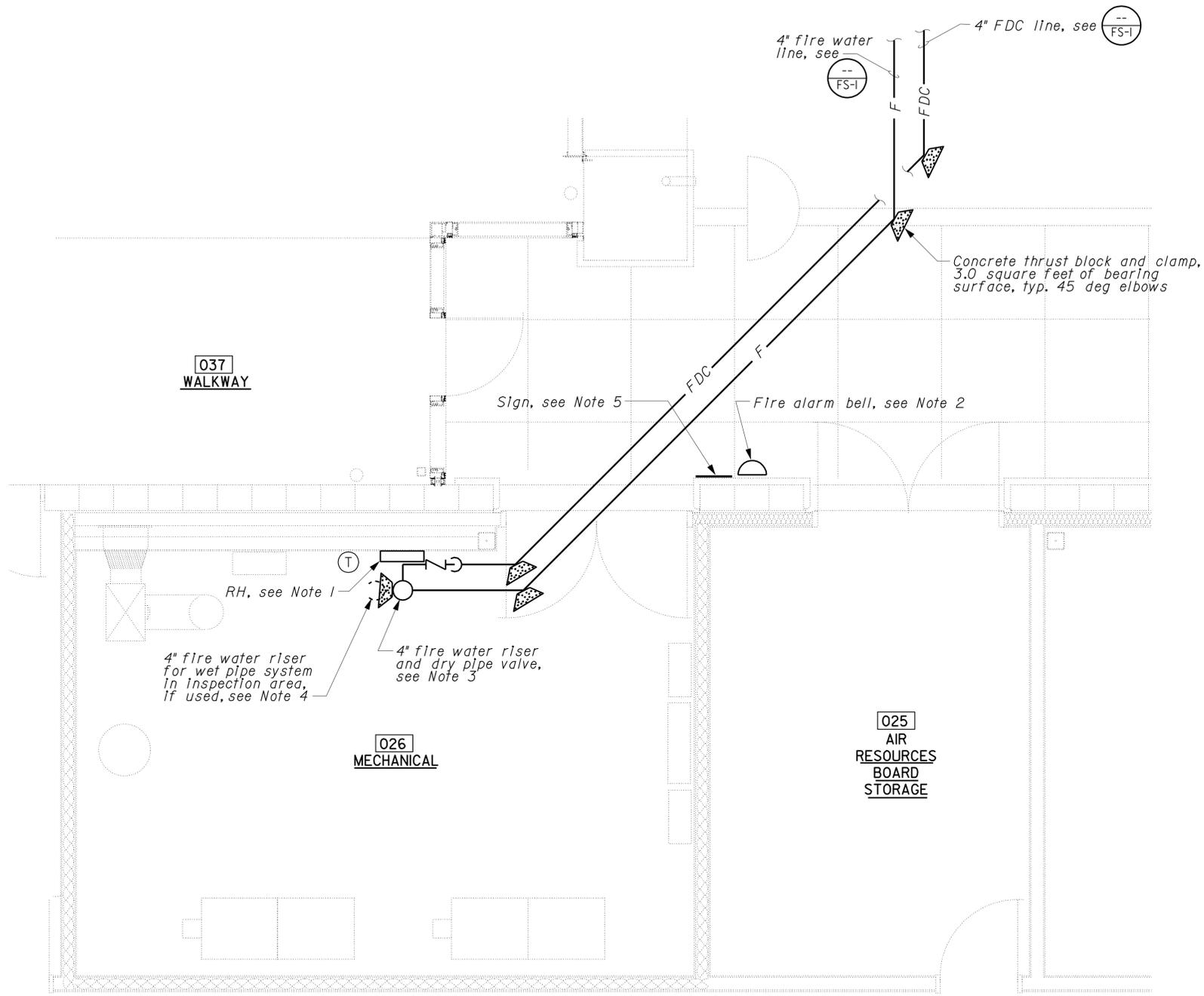
CALIFORNIA STATE FIRE MARSHAL APPROVED
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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

EQUIPMENT

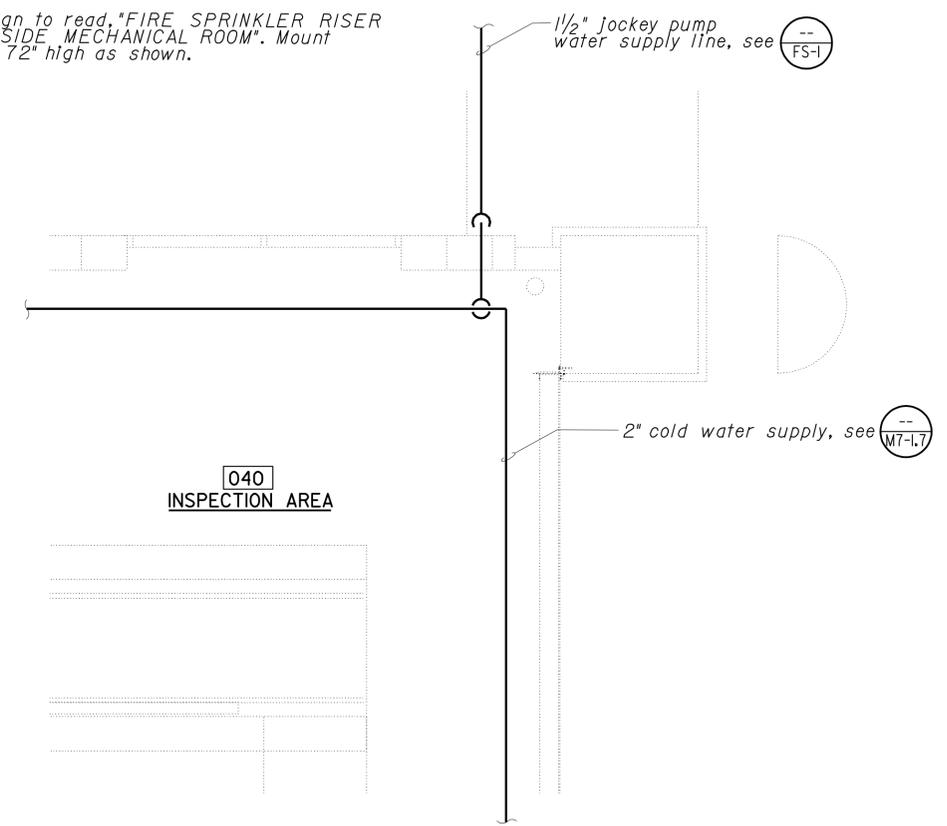
RH Radiant Heater (electric, wall mount) - 1.0 KW, 120-V, 1-Phase

NOTES

1. Install radiant heater on wall and angle toward riser and dry pipe valve. Thermostat shall be mounted 4 ft above floor and set for 40 deg F.
2. Fire alarm bell and building AV devices shall be activated by fire alarm control panel.
3. When opened, dry pipe valve shall signal fire pump control panel to start fire pump and signal fire alarm control panel.
4. Water flow indicator on wet pipe system riser, if used, shall signal fire alarm control panel.
5. Sign to read "FIRE SPRINKLER RISER INSIDE MECHANICAL ROOM". Mount at 72" high as shown.



4 PARTIAL PLAN - CVEF AUTOMATIC FIRE SPRINKLER RISER LOCATION
No Scale



5 PARTIAL PLAN - CVEF JOCKEY PUMP WATER SUPPLY CONNECTION LOCATION
No Scale

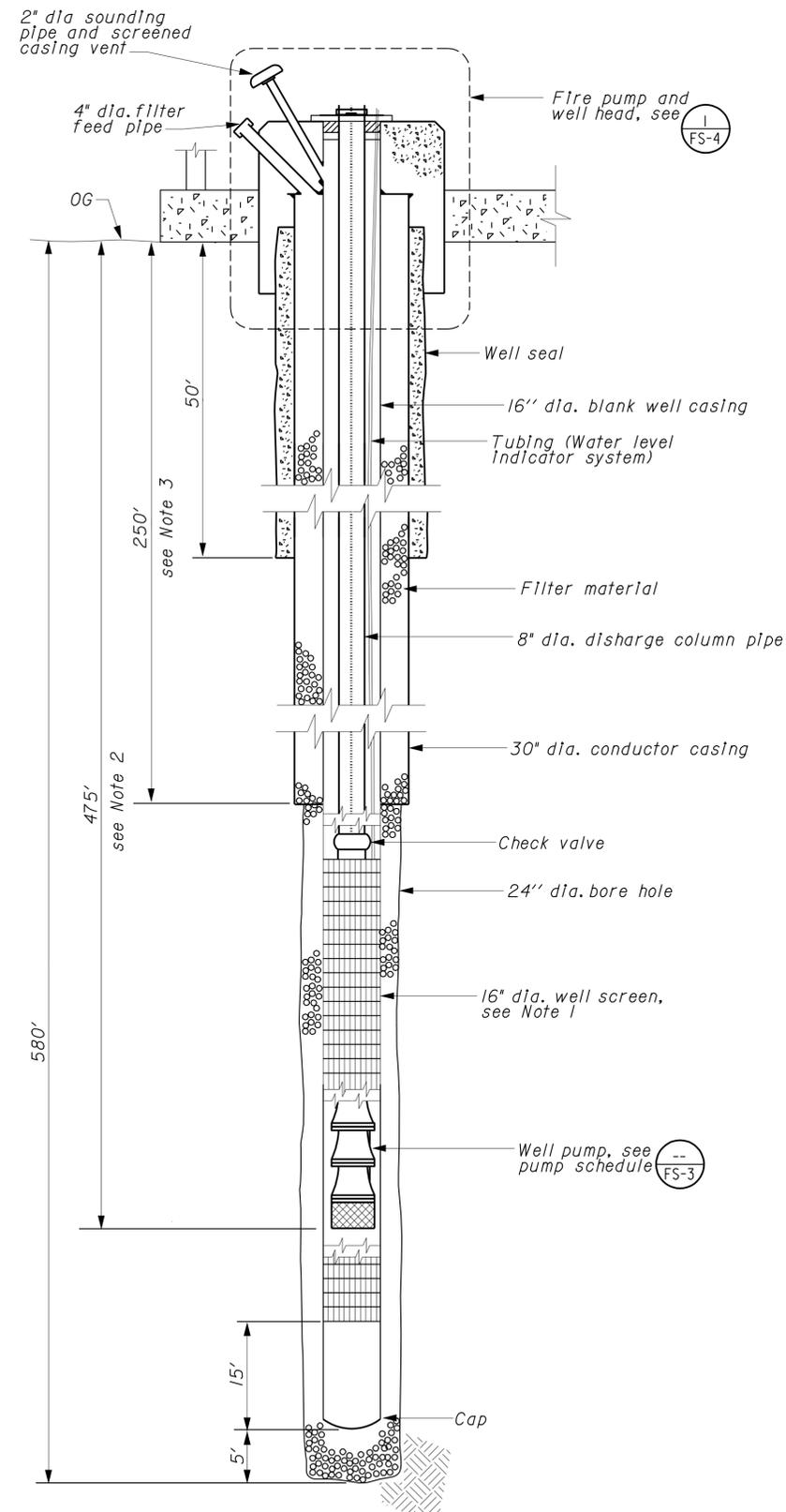
THIS DRAWING ACCURATE FOR FIRE PROTECTION WORK ONLY

DESIGN	BY <i>Thomas Dietsch</i>	CHECKED <i>Solomon Wong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOPE PARTIAL PLANS	SHEET FS-5			
	DETAILS	BY <i>Thomas Dietsch</i>			CHECKED <i>Solomon Wong</i>			POST MILE 177.3/181.1		
	QUANTITIES	BY <i>Thomas Dietsch</i>			CHECKED <i>Solomon Wong</i>					
TAEMWW Imper-Id Rev. 7/10	FILE => fs_5.dgn DATE PLOTTED => 27-FEB-2013	TIME PLOTTED => 08:18	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE 3615 08000006281	EA 368501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	08-11-10 11-30-12	SHEET OF

USERNAME => s109858 DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18

Notes:

1. Exact locations and lengths of well screen sections shall be determined from well testing data. For bidding purposes, use 125' screen length.
2. Actual depth of well pump shall be determined from well testing data.
3. Actual depth of conductor casing determined by water bearing formation, see NFPA Std. No. 20.



9 FIRE WATER WELL SECTION
No Scale

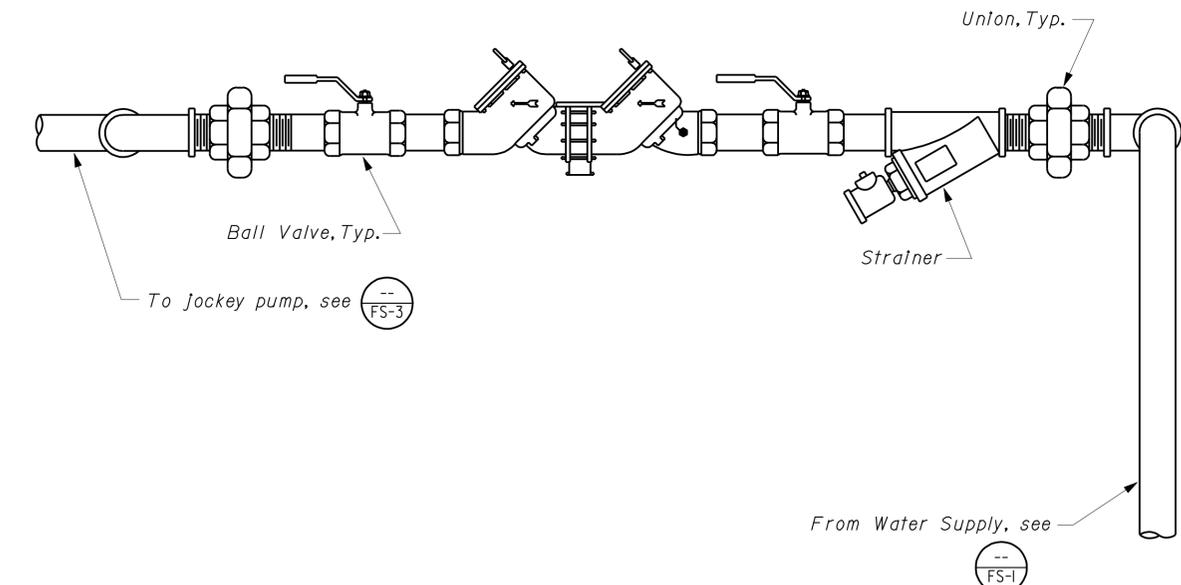
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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	606	710

Solomon C. Wong 11-30-12
 REGISTERED MECHANICAL ENGINEER DATE
 No. M27626
 Exp. 6-30-13
 MECH
 STATE OF CALIFORNIA

2-25-13
PLANS APPROVAL DATE

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10 BACKFLOW PREVENTER DETAIL
No Scale

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DETAILS	BY <i>Thomas Dietsch</i>	CHECKED <i>Solomon Wong</i>		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE 177.3/181.1		SHEET OF
QUANTITIES	BY <i>Thomas Dietsch</i>	CHECKED <i>Solomon Wong</i>		UNIT PROJECT NUMBER & PHASE 3615 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)

TAEMWW Imperial Rev. 7/10
 FILE => fs_7.dgn
 DATE PLOTTED => 27-FEB-2013
 TIME PLOTTED => 08:18
 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 0 1 2 3
 EA 368501
 USERNAME => s109858 DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18
 V=1

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	607	710

<i>Solomon C. Wong</i> REGISTERED MECHANICAL ENGINEER DATE 11-30-12		
PLANS APPROVAL DATE 2-25-13		

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 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

State of California
 DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

*Flex your power!
 Be energy efficient!*

REQUEST FOR ALTERNATE METHOD OF DESIGN

Mountain Pass Joint Port of Entry
 Route 15
 San Bernardino County, California

DATE: May 28, 2008

CODE SECTION: 2002 NFPA 24, Chapter 7, Section 7.2 (Number and Location of Hydrants)

CODE REQUIREMENT: Section 7.2 requires that hydrants be placed in accordance with the authority having jurisdiction.

CODE INTENT: To provide a sufficient number of hydrants in the required locations to ensure effective firefighting capability.

REQUEST: To allow the placement of two hydrants (250 gpm each) at the Mountain Pass Joint Point of Entry (JPOE): One hydrant at the Commercial Vehicle Inspection Facility (CVEF) and one hydrant at the Agricultural Inspection Station (AIS).

JUSTIFICATION: The proposed Mountain Pass JPOE will be a very remote facility located on Route 15 near Primm, Nevada, and will be approximately 45-60 minutes away by vehicle from the nearest fire department in Baker, California. Municipal water systems are not available. The three primary structures (one at the CVEF and two at the AIS) will be provided with automatic fire sprinkler systems, designed according to NFPA 13. Vertical shaft turbine-type pumps will be used to provide groundwater for the hydrants and the automatic fire sprinkler systems.

CONCLUSION: Based upon existing well data from the Primm Valley Golf Club, it seems likely that a well and vertical shaft turbine-type pump will be able to provide fire water for one hydrant (250 gpm) and one automatic fire sprinkler system (200 gpm). This system will be

"Caltrans improves mobility across California"

REQUEST FOR ALTERNATE METHOD OF DESIGN

Page 2
 May 28, 2008

provided at both the CVEF and AIS without risk of overlapping water table drawdown due to their one mile separation.

Prepared by:
 California Department of Transportation
 1801 30th Street
 Sacramento, CA 95816

J. Stephen Schöff 5/27/08
 J. Stephen Schöff, Office Chief, Office of Electrical, Mechanical, Water and Wastewater Engineering Date

Approved by:
 Office of the State Fire Marshal
 Code Enforcement Division

Vickie Sakamoto 6/23/2008
 Vickie Sakamoto, Division Chief, Code Enforcement North Date

"Caltrans improves mobility across California"

THIS DRAWING ACCURATE FOR FIRE PROTECTION WORK ONLY

DESIGN BY <i>Thomas Dietsch</i> CHECKED <i>Solomon Wong</i> DETAILS BY <i>Thomas Dietsch</i> CHECKED <i>Solomon Wong</i> QUANTITIES BY <i>Thomas Dietsch</i> CHECKED <i>Solomon Wong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN		BRIDGE NO. 54-1216J	MOUNTAIN PASS JPOE				SHEET FS-8
			PROJECT NUMBER & PHASE 3615 08000006281		POST MILE 177.3/181.1	SFM ALTERNATE METHOD OF DESIGN I				
			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)			

TAEMWW Imper-Id Rev. 7/10 FILE => fs_8.dgn DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18 USERNAME => s109958 DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18 EA 368501 V=1

CALIFORNIA STATE FIRE MARSHAL APPROVED
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 Reviewed by: G. Andersen
 G. ANDERSEN
 Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	608	710

<u>Solomon C. Wong</u> 11-30-12	
REGISTERED MECHANICAL ENGINEER	DATE

2-25-13	
PLANS APPROVAL DATE	

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State of California
 DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

*Flex your power!
 Be energy efficient!*

REQUEST FOR ALTERNATE METHOD OF DESIGN

Mountain Pass Joint Port of Entry
 Route 15
 San Bernardino County, California

DATE: May 28, 2008

CODE SECTION: 2003 NFPA 20, Chapter 7, Section 7.2 (Water Supply)

CODE REQUIREMENT: Section 7.2 states that the water supply for vertical shaft turbine-type pumps be acceptable to the authority having jurisdiction.

CODE INTENT: To ensure a sufficient and reliable source of water.

REQUEST: A determination per Section 7.2.1.1 of the acceptability of the groundwater aquifer as a fire water supply for the Mountain Pass Joint Point of Entry (JPOE). A vertical shaft turbine-type fire pump and related appurtenances will be provided at both the Commercial Vehicle Inspection Facility (CVEF) and the Agricultural Inspection Station (AIS) for the automatic fire sprinkler systems and hydrants. The pumps will provide 450 gpm: 200 gpm for the automatic fire sprinkler system and 250 gpm for a hydrant at both the CVEF and the AIS.

JUSTIFICATION: Municipal water systems are not available due to the remoteness of the proposed Mountain Pass JPOE. The nearby Primm Valley Golf Club has existing wells for irrigation and domestic use. An aquifer performance analysis is attached.

CONCLUSION: Based upon the production history of the wells at the Primm Valley Golf Club, the groundwater aquifer appears to be an adequate and reliable source of water for the fire protection needs of the Mountain Pass JPOE.

"Caltrans improves mobility across California"

REQUEST FOR ALTERNATE METHOD OF DESIGN

Page 2
 May 28, 2008

Prepared by:
 California Department of Transportation
 1801 30th Street
 Sacramento, CA 95816

J. Stephen Schoff 5/27/08
 J. Stephen Schoff, Office Chief, Office of Electrical, Mechanical, Water and Wastewater Engineering Date

Attachment: Aquifer Performance Analysis

Approved by:
 Office of the State Fire Marshal
 Code Enforcement Division

Stephen Dean for 6/25/2008
 Vickie Sakamoto, Division Chief, Code Enforcement North Date

"Caltrans improves mobility across California"

THIS DRAWING ACCURATE FOR FIRE PROTECTION WORK ONLY

DESIGN	BY	Thomas Dietsch	CHECKED	Solomon Wong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JPOE SFM ALTERNATE METHOD OF DESIGN 2	SHEET FS-9					
	DETAILS	BY	Thomas Dietsch	CHECKED			Solomon Wong	POST MILE			177.3/181.1				
	QUANTITIES	BY	Thomas Dietsch	CHECKED			Solomon Wong	UNIT PROJECT NUMBER & PHASE			3615 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
TAEMWW Imperial Rev. 7/10		FILE => fs_9.dgn		DATE PLOTTED => 27-FEB-2013		TIME PLOTTED => 08:18		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		EA 368501		V=1	

USERNAME => s109958 DATE PLOTTED => 27-FEB-2013 TIME PLOTTED => 08:18

GRAPHIC SYMBOLS FOR ELECTRICAL WIRING AND LAYOUT DIAGRAMS

GRAPHIC SYMBOLS FOR ELECTRICAL DIAGRAMS

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	609	710

H. Abdelsayed
 REGISTERED ELECTRICAL ENGINEER 11-30-12 DATE
 No. 16757
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

2-25-13
 PLANS APPROVAL DATE

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CALIFORNIA STATE FIRE MARSHAL
 APPROVED
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.
 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

SYMBOL	DESCRIPTION
(S) (S)	SURFACE FLUORESCENT, METAL HALIDE OR SODIUM VAPOR FIXTURE
(R) (R)	RECESSED FLUORESCENT, METAL HALIDE, OR SODIUM VAPOR FIXTURE
(P)	PENDANT MOUNTED FLUORESCENT OR METAL HALIDE FIXTURE
(X) (X)	EXIT LIGHT
[]	SURFACE OR PENDANT INDIVIDUAL FLUORESCENT FIXTURE
[OR]	RECESSED INDIVIDUAL FLUORESCENT FIXTURE
[] [] []	SURFACE OR PENDANT CONTINUOUS ROW FLUORESCENT FIXTURES
NOTE:	A LOWER CASE LETTER NEAR GRAPHIC LIGHTING FIXTURE SYMBOL DENOTES THAT FIXTURE IS CONTROLLED BY A SIMILARLY MARKED SWITCH, AN ALPHA-NUMERIC SYMBOL NEAR GRAPHIC LIGHTING FIXTURE SYMBOL DENOTES FIXTURE TYPE, (I=INCANDESCENT, F=FLUORESCENT, MH=METAL HALIDE, H=HIGH PRESSURE SODIUM VAPOR), LED-LIGHT EMITTING DIODE, DESIGN TYPE, NUMBER OF LAMPS AND WATTAGE. EXAMPLE : (4) F 2 - 2 x 32
[] [] [] []	32 WATT LAMPS 2 LAMPS DESIGN TYPE FLUORESCENT NUMBER OF FIXTURES
(B) (B)	BLANK OUTLET
(J) (J)	JUNCTION BOX
(D)	DROP CORD
⊕	SINGLE RECEPTACLE OUTLET
⊕	DUPLEX RECEPTACLE OUTLET
⊕(GFCI)	DUPLEX RECEPTACLE OUTLET (WITH GFCI)
⊕(GFCI) WP	DUPLEX RECEPTACLE OUTLET, WEATHERPROOF (WITH GFCI)
⊕	SINGLE, SPECIAL PURPOSE RECEPTACLE OUTLET
⊕	DUPLEX, SPECIAL PURPOSE RECEPTACLE OUTLET
⊕R	RANGE OUTLET
⊕C	CLOCK HANGER RECEPTACLE
⊕F	FAN HANGER RECEPTACLE
⊕	FLOOR SINGLE RECEPTACLE OUTLET
⊕	FLOOR DUPLEX RECEPTACLE OUTLET
⊕	FLOOR SPECIAL PURPOSE OUTLET
⊕	FLOOR COMMUNICATION OUTLET
[] [] [] []	MULTI-FLOOR OUTLET, 2 OR MORE GANG
[] [] [] []	MULTI-OUTLET ASSEMBLY
S	SINGLE POLE SWITCH
S ₂	DOUBLE POLE SWITCH
S ₃	THREE WAY SWITCH
S ₄	FOUR WAY SWITCH
S _D	DIMMING SWITCH
S _K	KEY OPERATED SWITCH
S _P	SWITCH AND PILOT LIGHT
S _{MC}	MOMENTARY CONTACT SWITCH
S _{WP}	WEATHERPROOF SWITCH
S _F	FAN SWITCH
S _L	LIGHT SWITCH
S _{VS}	VARIABLE SPEED MOTOR CONTROL SWITCH
S _{CHLF}	TWO SWITCHES, ONE SWITCH FOR LIGHT AND FAN AND TIMER SWITCH FOR HEAT LAMP
S _{QC1}	WALL SWITCH OCCUPANCY SENSOR, TYPE 1
S _{QC2}	WALL SWITCH OCCUPANCY SENSOR, TYPE 2

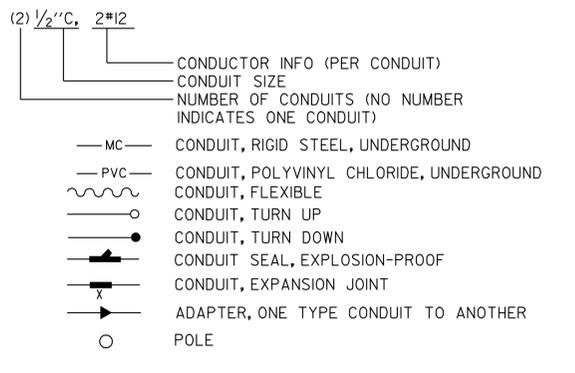
SYMBOL	DESCRIPTION
S _{DTS}	DIGITAL TIMER SWITCH
S _V	VOLUME CONTROL SWITCH
ST	MANUAL MOTOR STARTING SWITCH, THERMAL OVERLOAD TYPE
S _{HP}	MANUAL MOTOR STARTING SWITCH, WITHOUT OVERLOAD ELEMENT
T _S	TIMER SWITCH
⊕ _S	SWITCH AND SINGLE RECEPTACLE
⊕ _S	SWITCH AND DUPLEX RECEPTACLE
[] []	HAND DRYER (NOZZLE)
[H]	HAND DRYER
⊕	COMMUNICATION OUTLET
⊕	SOUND SYSTEM LOUD SPEAKER OUTLET
[]	PUSHBUTTON
[]	PUSHBUTTON STATION MOTOR CONTROL
[]	BUZZER
[]	BELL
[]	COMBINATION BELL-BUZZER
[T]	THERMOSTAT
[PS]	PRESSURE SWITCH
[H]	HORN OUTLET
[P]	PAGING SPEAKER OUTLET
[FS]	FLOW SWITCH
[PEU]	PHOTOELECTRIC UNIT
[R]	RADIO OUTLET
[UH]	UNIT HEATER
[]	FLUSH-MOUNTED PANELBOARD AND CABINET
[]	SURFACE-MOUNTED PANELBOARD AND CABINET
[]	LIGHTING PANEL
[]	POWER PANEL
[]	COMBINATION LIGHTING AND POWER
[MC]	MOTOR CONTROLLER
[]	DISCONNECT SWITCH
[]	CONDUIT CONCEALED IN CEILING OR WALL
[]	CONDUIT CONCEALED IN FLOOR
[]	CONDUIT EXPOSED
[]	CROSS-LINES INDICATE NUMBER OF #12 AWG CONDUCTORS. LONGER CROSS-LINE INDICATES #12 AWG (G) FOR EQUIPMENT GROUNDING CONDUCTOR. NO CROSS-LINE INDICATES 2#12 WITH 1#12 (G) UNLESS OTHERWISE NOTED. ALL CONDUIT 1/2" UNLESS OTHERWISE NOTED.
[A, A2]	HOMERUN TO PANELBOARD, ARROWS INDICATE NUMBER OF CIRCUITS, LETTER DENOTES PANELBOARD, NUMERAL DENOTES CIRCUIT.
[SM]	SURFACE METAL RACEWAY
[]	CONDUIT, RIGID STEEL, UNDERGROUND
[PVC]	CONDUIT, POLYVINYL CHLORIDE, UNDERGROUND
[]	CONDUIT, FLEXIBLE
[]	CONDUIT, TURN UP
[]	CONDUIT, TURN DOWN
[]	CONDUIT SEAL, EXPLOSION-PROOF
[]	CONDUIT, EXPANSION JOINT
[]	ADAPTER, ONE TYPE CONDUIT TO ANOTHER
○	POLE

SYMBOL	DESCRIPTION
⊕	CEILING MOUNTED OCCUPANCY SENSOR
⊕	WALL MOUNTED OCCUPANCY SENSOR
⊕	CORNER MOUNTED OCCUPANCY SENSOR
[PP]	POWER PACK UNIT
[AX]	AUXILIARY RELAY PACK
[H]	HEAT DETECTOR
[S]	SMOKE DETECTOR
[DS]	DUCT MOUNTED SMOKE DETECTOR
[P]	MANUAL PULL STATION
[AV]	AUDIO/VISUAL ALARM DEVICE
[V]	VISUAL ALARM DEVICE
[G]	GLASS BREAK DISCRIMINATOR
[C]	MAGNETIC CONTACT SWITCH-PEDESTRIAN DOOR
[C]	MAGNETIC CONTACT SWITCH-VEHICLE DOOR
[K]	KEYPAD FOR ALARM SYSTEM
[PH]	POWER TRANSFER HINGE OR POWER TRANSFER OFFSET PIVOT
[E]	ELECTRIC LOCKSET OR EXIT DEVICE WITH REQUEST TO EXIT FUNCTION OR PANIC EXIT DEVICE
[R]	CARD READER
[E]	ELECTRIC STRIKE
[RH]	RADIANT HEATER
[]	CAMERA ASSEMBLY
[]	PULL BOX-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
[] (T)	PULL BOX (TRAFFIC RATED)-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
[CHLF]	COMBINATION HEAT, LIGHT AND FAN UNIT
(I)	NOTE, NUMBER INSIDE INDICATES NOTE NUMBER
(N)	CONDUIT RUN - N CONDUIT RUN NUMBER
⊕	POLE-TOP ELECTROLIER
⊕	POLE-ARM ELECTROLIER
⊕	HIGH MAST LIGHT POLE
[A EE-2]	SECTION/ELEVATION LETTER SHEET NUMBER
[I EE-2]	DETAIL NUMBER SHEET NUMBER
S17	RSP ES-5A NSP ES-8A
S35	ES-5B NSP ES-8B
S48	ES-5D NSP ES-10A
S49	RSP ES-6E NSP ES-10B
RSP ES-1A	ES-6F ES-11
RSP ES-1B	ES-6J ES-13B
RSP ES-1C	RSP ES-7C ES-15A
RSP ES-2C	RSP ES-7E ES-15B
RSP ES-2D	RSP ES-7F
RSP ES-4D	ES-7M

SYMBOL	DESCRIPTION
[]	CIRCUIT BREAKER, SINGLE POLE
[]	CIRCUIT BREAKER, DOUBLE POLE
[]	CIRCUIT BREAKER, THREE POLE
GFCI []	CIRCUIT BREAKER WITH GROUND FAULT CIRCUIT INTERRUPTER (5 MA)
[]	CONTACT, NORMALLY OPEN
[]	CONTACT, NORMALLY CLOSED
[]	CONTACT, NORMALLY CLOSED, TIME DELAY CLOSING ON DE-ENERGIZING
[]	CONTACT, NORMALLY OPEN, TIME DELAY OPENING ON DE-ENERGIZING
[]	CONTACT, NORMALLY OPEN, TIME DELAY CLOSING ON ENERGIZING
[]	CONTACT, NORMALLY CLOSED, TIME DELAY OPENING ON ENERGIZING
[]	CONTACT, SINGLE POLE DOUBLE-THROW
[]	OPERATING COIL
[]	LIQUID LEVEL ACTUATED SWITCH, NORMALLY CLOSED
[]	LIQUID LEVEL ACTUATED SWITCH, NORMALLY OPEN
[]	PRESSURE ACTUATED SWITCH, NORMALLY CLOSED
[]	PRESSURE ACTUATED SWITCH, NORMALLY OPEN
[]	FLOW ACTUATED SWITCH, NORMALLY CLOSED
[]	FLOW ACTUATED SWITCH, NORMALLY OPEN
[]	TEMPERATURE ACTUATED SWITCH, NORMALLY CLOSED
[]	TEMPERATURE ACTUATED SWITCH, NORMALLY OPEN
[]	LIMIT SWITCH, NORMALLY CLOSED
[]	LIMIT SWITCH, NORMALLY OPEN
[]	PUSHBUTTON SWITCH, NORMALLY CLOSED
[]	PUSHBUTTON SWITCH, NORMALLY OPEN
[]	SWITCH, SINGLE-POLE
[]	SWITCH, SINGLE-POLE, DOUBLE-THROW
[]	SWITCH, DOUBLE-POLE
[]	SWITCH, DOUBLE-POLE, DOUBLE-THROW
[]	SWITCH, SINGLE-POLE, 3-POSITION
[]	THERMAL OVERLOAD
[]	FUSE
[]	RESISTOR
[]	VARIABLE RESISTOR
[]	TRANSFORMER WINDING
[]	GROUNDING ELECTRODE
[]	ENCLOSURE BOND
[]	OPERATING COIL
[A]	PILOT LIGHT (A=AMBER, G=GREEN, R=RED)
[G]	GENERATOR
[M]	MOTOR
[F]	FAN MOTOR
[TC]	TIME CLOCK
[TS]	TIMER SWITCH

STANDARD PLANS
 DATED MAY, 2006

S17	RSP ES-5A	NSP ES-8A
S35	ES-5B	NSP ES-8B
S48	ES-5D	NSP ES-10A
S49	RSP ES-6E	NSP ES-10B
RSP ES-1A	ES-6F	ES-11
RSP ES-1B	ES-6J	ES-13B
RSP ES-1C	RSP ES-7C	ES-15A
RSP ES-2C	RSP ES-7E	ES-15B
RSP ES-2D	RSP ES-7F	
RSP ES-4D	ES-7M	



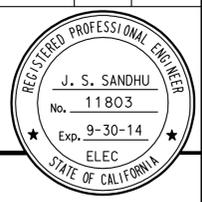
PROJECT NOTES

- SEPARATE GROUNDED (NEUTRAL) CONDUCTOR SHALL BE USED FOR EACH 120-VOLT CIRCUIT.
- HOMERUNS TO PANELBOARDS SHALL BE INSTALLED AS SHOWN ON THE PLANS. HOMERUNS SHALL NOT BE COMBINED
- A SINGLE INSULATED EQUIPMENT GROUNDING CONDUCTOR (SIZED AS REQUIRED). SHALL BE INSTALLED IN EACH CONDUIT RUN.
- PENETRATIONS OF WALLS AND MEMBRANES REQUIRED TO HAVE FIRE RESISTANCE RATING SHALL BE PROTECTED WITH A THRU-PENETRATION FIRE STOPS, SUITABLE FOR THE METHOD OF PENETRATION. THRU FIRE STOPS SHALL BE TESTED USING UBC STANDARD 7-5 (CBC SECTIONS 709.3 AND 714). SEE ARCHITECTURAL PLANS, FOR CONDUIT PENETRATION DETAILS.
- OUTLET BOXES ON OPPOSITE SIDES OF FIRE-RESISTIVE WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 3 INCHES (CBC SECTION 709.7).
- NUMERICAL CHARACTER BESIDE ALL CIRCUIT BREAKER SYMBOLS INDICATES AMPERE RATING AND NUMBER OF POLES. FOR EXAMPLE 20/3 INDICATES 20 AMPERES AND 3 POLE CIRCUIT BREAKER.

DESIGN	BY	<i>Helmy Abdelsayed</i>	CHECKED	<i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE LEGEND	SHEET	OF
	DETAILS	BY	<i>Ed D. Tapalla 10/12</i>	CHECKED			<i>Helmy Abdelsayed</i>	POST MILE		177.3/181.1	EE0-0.1
	QUANTITIES	BY	<i>Helmy Abdelsayed</i>	CHECKED			<i>Jesse Sandhu</i>	REVISION DATES (PRELIMINARY STAGE ONLY)			

DOES SD Imperial Rev. 9/02 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT PROJECT NUMBER & PHASE 3596 08000006281 DISREGARD PRINTS BEARING EARLIER REVISION DATES 4/28/11 11/30/12 SHEET OF 27-FEB-2013 08:19 ee0_0.1.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	611	710



Jasvinder S. Sandhu 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
 PLANS APPROVAL DATE

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CALIFORNIA STATE FIRE MARSHAL APPROVED
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 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

CERTIFICATE OF COMPLIANCE (Part 1 of 2) OLTG-1-C

PROJECT NAME MOUNTAIN PASS JOINT PORT OF ENTRY (JPOE)	DATE 3/24/2009
PROJECT ADDRESS ROUTE I 15, SAN BERNARDINO COUNTY (CLOSE TO NEVADA/CALIFORNIA BORDER)	Building Permit #
PRINCIPAL DESIGNER-LIGHTING JESSE S. SANDHU	TELEPHONE (916) 227-8342
DOCUMENTATION AUTHOR JESSE S. SANDHU	TELEPHONE (916) 227-8342

GENERAL INFORMATION

DATE OF PLANS _____ OUTDOOR LIGHTING ZONE (✓ One) LZ1 LZ2 LZ3 LZ4

FUNCTION TYPE OUTDOOR LIGHTING OUTDOOR SIGNS INDOOR SIGNS

PHASE OF CONSTRUCTION NEW CONSTRUCTION ADDITIONS ALTERATIONS

STATEMENT OF COMPLIANCE

This Certificate of Compliance lists outdoor lighting system specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to building lighting requirements.

The documentation preparer hereby certifies that the documentation is accurate and complete.

DOCUMENTATION AUTHOR JESSE S. SANDHU	SIGNATURE <i>Jasvinder S. Sandhu</i>	DATE 3/24/2009
---	---	-------------------

The Principal Lighting Designer hereby certifies that the proposed outdoor lighting and signs design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the lighting requirements contained in the applicable parts of Sections 110, 119, 130 through 132, 146, and 149 of Title 24, Part 6.

I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer or electrical engineer, or I am a licensed architect.

I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.

I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

(These sections of the Business and Professions Code are printed in full in the Nonresidential Manual.)

PRINCIPAL LIGHTING DESIGNER-NAME JESSE S. SANDHU	SIGNATURE <i>Jasvinder S. Sandhu</i>	DATE 3/24/2009	LIC.# E 11803
---	---	-------------------	------------------

INSTRUCTIONS TO APPLICANT OUTDOOR LIGHTING COMPLIANCE & WORKSHEETS (Check box if worksheet is included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, please refer to the Nonresidential Manual published by the California Energy Commission.

<input checked="" type="checkbox"/> OLTG-1-C	Certificate of Compliance. Required on plans for all submittals for outdoor lighting. Part 2 of 2 may be incorporated in schedules on the plans.
<input type="checkbox"/>	Either LTG-1-C or OLTG-1-C may be used for signs as follows: 1. Use LTG-1-C if the project consists solely of indoor signs. 2. Use LTG-1-C if the project consists of indoor lighting, and outdoor or indoor signs, but no other outdoor lighting. 3. Use OLTG-1-C if the project consists solely of outdoor signs. 4. Use OLTG-1-C if the project consists of outdoor lighting, and indoor or outdoor signs, but no other indoor lighting.
<input checked="" type="checkbox"/> OLTG-2-C	LIGHTING COMPLIANCE SUMMARY. Applicable Parts required for ALL outdoor lighting allowances (Except for Signs).
<input checked="" type="checkbox"/> OLTG-3-C	AREA CALCULATIONS WORKSHEETS. Applicable parts required for all outdoor area calculations.
<input type="checkbox"/> OLTG-4-C	SIGN LIGHTING COMPLIANCE. Required for all internally and externally illuminated signs, for both indoor and outdoor signs.

2005 Nonresidential Compliance Forms January 2006

CERTIFICATE OF COMPLIANCE (Part 2 of 2) OLTG-1-C

PROJECT NAME MOUNTAIN PASS JOINT PORT OF ENTRY (JPOE)

Lighting Schedules on Plans Show that Outdoor Lighting Meets Allowed Lighting Power

- Lighting power allowances for general site illumination on OLTG-2-C Part 1 of 4
- Not applicable
- Lighting power allowances for local ordinances or for security multipliers on OLTG-2-C Part 2 of 4
- Not applicable
- Lighting power allowances for specific applications, other than vehicle service stations with canopies on OLTG-2-C Part 3 of 4
- Not applicable
- Lighting power allowances for vehicle service station canopies on OLTG-2-C Part 4 of 4
- Not applicable
- Sign lighting compliance on OLTG-4-C
- Not applicable

Mandatory Measures on Plans Show that Outdoor Lighting Meets Outdoor Lighting Controls and Equipment

Indicate location on plans of Note Block for Mandatory Measure

- Installed lighting power has been determined in accordance with § 130(c)1
- Not applicable
- All permanently installed luminaires with lamps rated over 100 watts either have a lamp efficacy of at least 60 lumens per watt or are controlled by a motion sensor § 132(a)
- Not applicable
- All luminaires with lamps rated greater than 175 watts in hardscape areas, including parking lots, building entrances, canopies, and all outdoor sales areas meet the Cutoff Requirements of § 132(b)
- Not applicable
- All permanently installed outdoor lighting meets the Control Requirements of § 132(c)1
- Not applicable
- Building facades, parking lots, garages, canopies, and outdoor sales areas meet the Multi-Level Lighting Requirements of § 132(c)2
- Not applicable

MANDATORY AUTOMATIC CONTROLS

CONTROL LOCATION	CONTROL IDENTIFICATION	CONTROL TYPE Auto Time Switch/ Photosensor, etc	AREA CONTROLLED	NOTE TO FIELD
OUTDOOR	TC, PEC	TIMER CLOCK, PHOTOCCELL	INSPECTION, PARKING	

2005 Nonresidential Compliance Forms January 2006

GENERAL NOTE:
 Only forms OLTG-1-C, Parts 1 of 2 and 2 of 2 are shown on this sheet.
 Other checked forms are available upon request.

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY BY Ed D. Tapalla 10/12	CHECKED	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JPOE OUTDOOR LIGHTING CERTIFICATE OF COMPLIANCE FORMS	SHEET
	CHECKED			POST MILE 177.3/181.1		EEO-0.3
QUANTITIES BY	CHECKED	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	612	710

<i>H. Abdelsayed</i>	11-30-12
REGISTERED ELECTRICAL ENGINEER	DATE

2-25-13
PLANS APPROVAL DATE

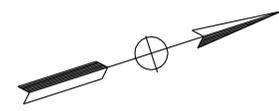
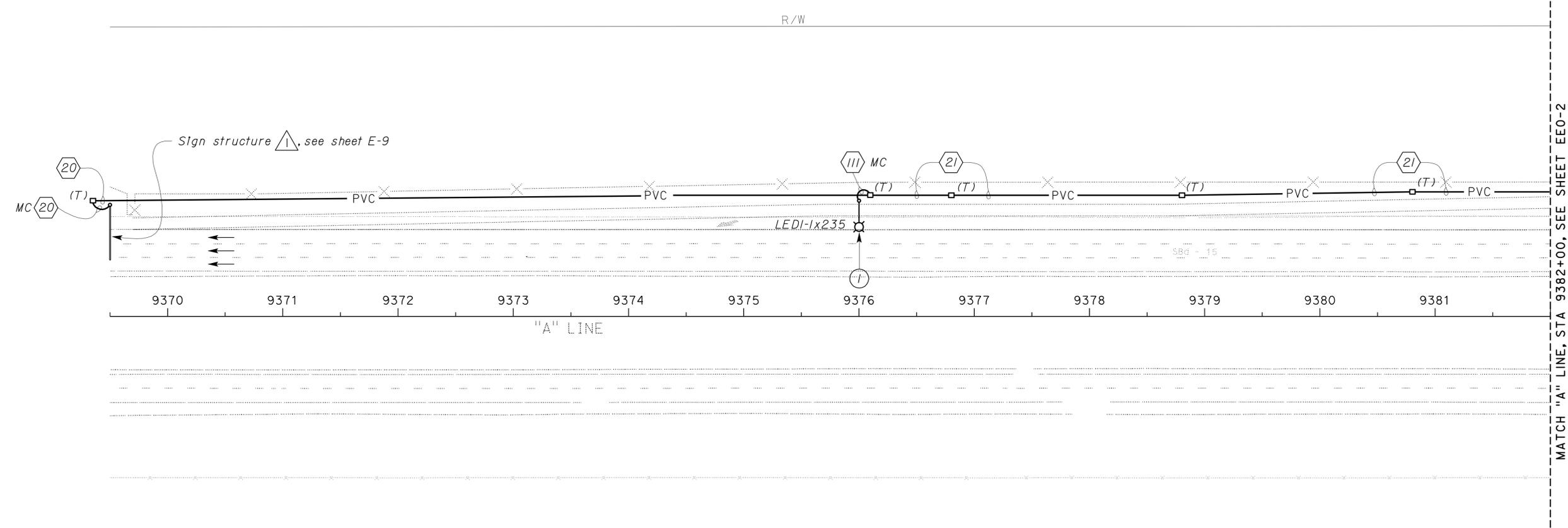
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Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011



Notes:
 ① Type 31 Lighting Standard with slip base as shown on sheet RSP ES-6E of the Standard Plans.



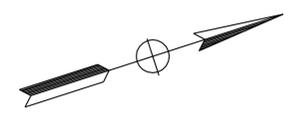
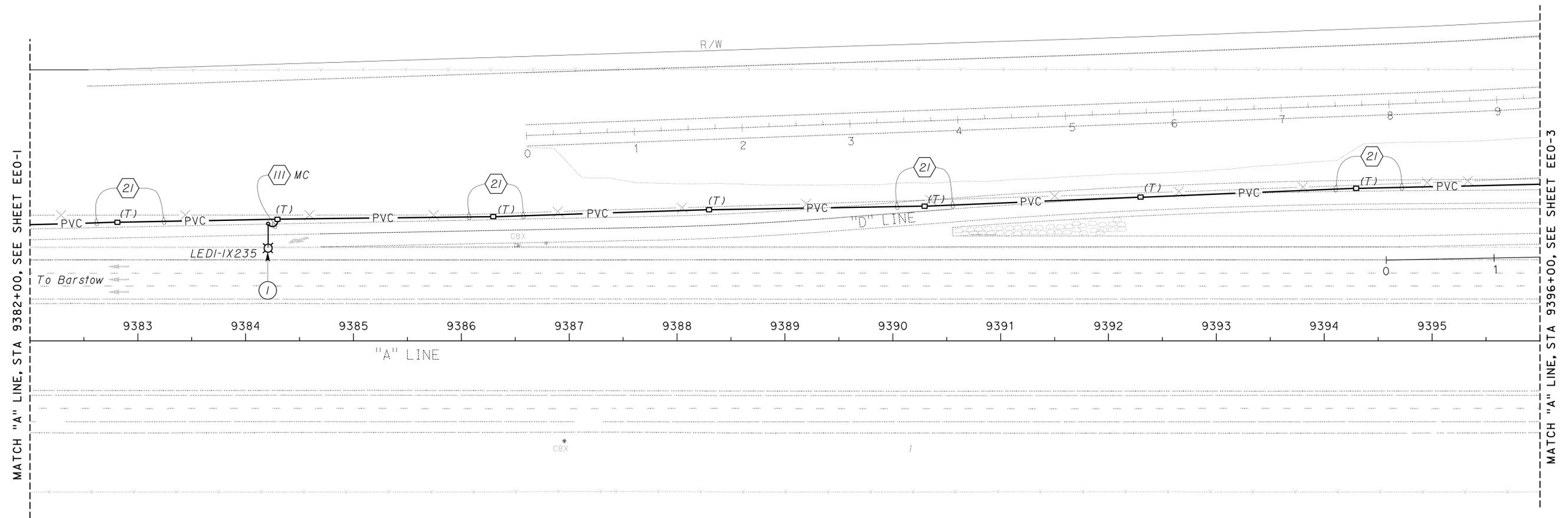
SITE PLAN
 SCALE 1" = 50'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN SUPERVISOR <i>J. Schreff</i> DESIGN ENGINEER <i>Jaswinder K. Sandhu</i>	DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE SITE PLAN I	SHEET
	DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE 177.3/181.1		EE0-1
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>		UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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			APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011		
			REGISTERED ELECTRICAL ENGINEER DATE <i>H. Abdelsayed</i> 11-30-12 H. ABDELSAYED No. 16757 Exp. 9-30-14 ELEC STATE OF CALIFORNIA		
			PLANS APPROVAL DATE 2-25-13		
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Notes:
 ① Type 31 Lighting Standard with slp base as shown on sheet RSP ES-6E of the Standard Plans.



SITE PLAN
 SCALE 1" = 50'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DOES SD Imperial Rev. 9/02	DESIGN	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	MOUNTAIN PASS JOE SITE PLAN 2	SHEET OF EEO-2
	DETAILS	BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	54-1216J		
	QUANTITIES	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>		POST MILE			
					177.3/181.1			
			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)
							4/28/11 11/30/12	

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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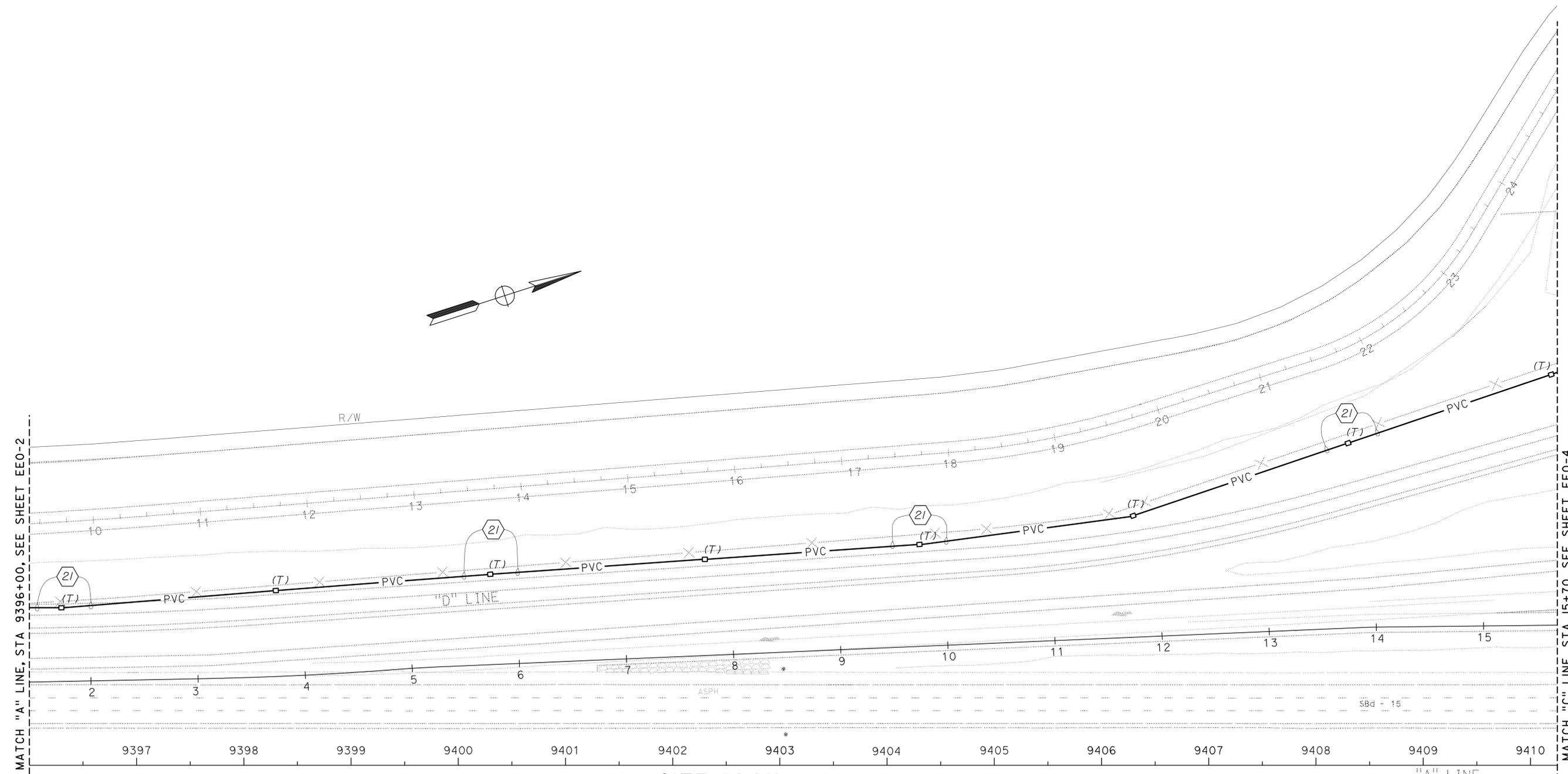
Reviewed by: *G. Andersen*
G. ANDERSEN
 Approval date: 01-20-2011

H. Abdelsayed
 REGISTERED ELECTRICAL ENGINEER DATE 11-30-12

2-25-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
H. ABDELSAYED
 No. 16757
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

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SITE PLAN
 SCALE 1" = 50'-0"

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DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JPOE	SHEET OF EEO-3		
				54-1216J				
				POST MILE 177.3/181.1				
DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)				SHEET OF
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			4/28/11	11/30/12			

Notes:

- ① High Mast Lighting Standard shall be Type HMI00 complete with foundation as shown on sheet ES-6J of Standard Plans with modified foundation to include additional 30" of foundation above ground. Standard shall have 4 Lighting Emitting Diode luminaires each rated at 480-Volt and 550 W.
- ② High Mast Lighting Standard shall be Type HMI00 complete with foundation as shown on sheet ES-6J of Standard Plans with modified foundation to include additional 30" of foundation above ground. Standard shall have 6 Lighting Emitting Diode luminaires each rated at 480-Volt and 550 W.
- ③ For more Details and Modifications, see Elevation "A" on sheet EEO-14.
- ④ Conduits with telephone cables to AT&T Service point. For continuation, size and number of conduits, see sheet E-6.
- ⑤ Planter light (30) MH9-1x35, see EE7-2.10, EE7-2.11, Planting sheets "PP", for exact location.
- ⑥ Planter light (22) MH9-1x35, see EE7-2.10, EE7-2.11, Planting sheets "PP", for exact location.
- ⑦ 3/4" C, PVC, 2*10, 1*10G to Canopy Light. See sheet EE7-2.11 for more details.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	615	710

H. Abdelsayed
 REGISTERED ELECTRICAL ENGINEER
 DATE 11-30-12

2-25-13
 PLANS APPROVAL DATE

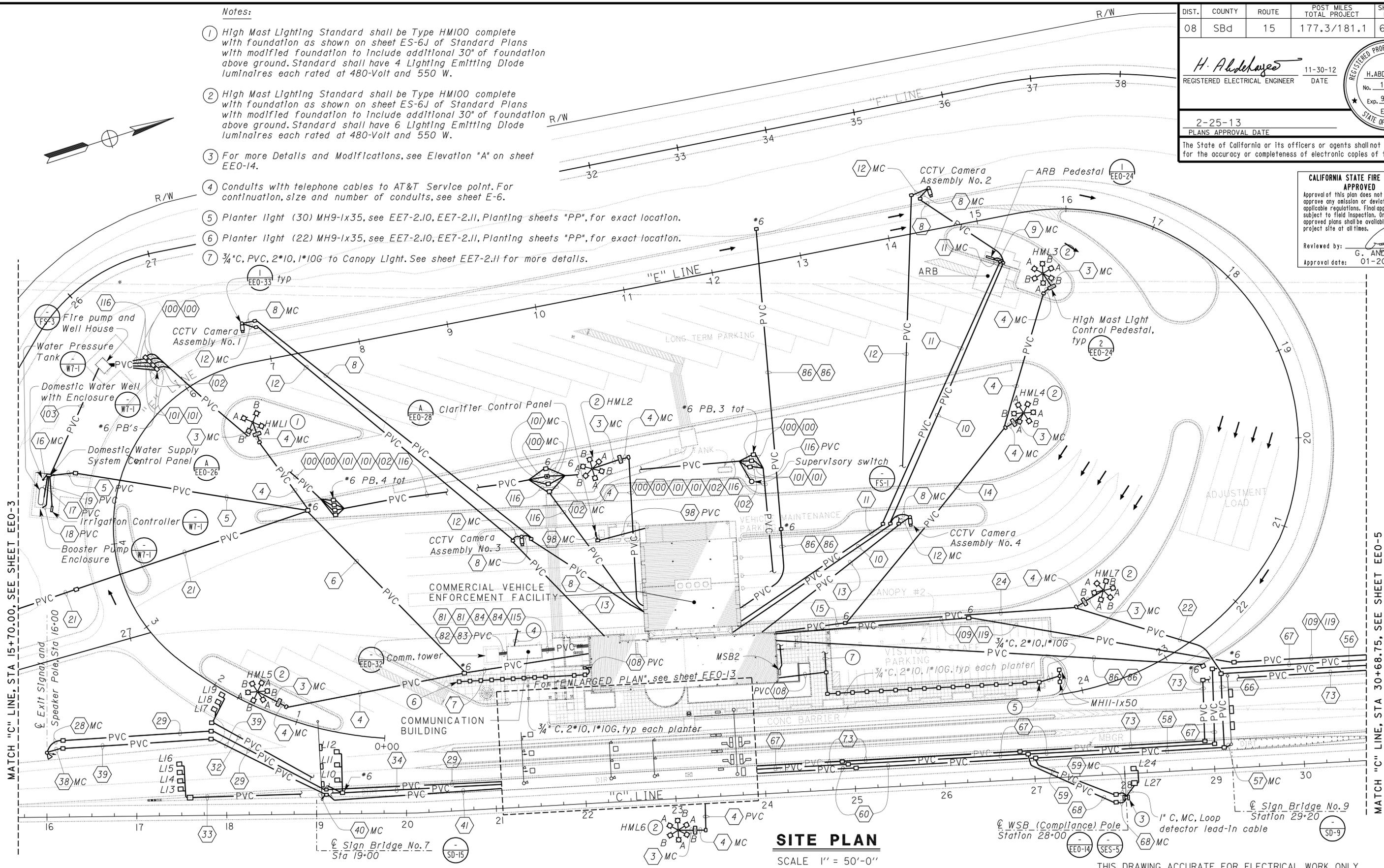
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CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011



SITE PLAN
 SCALE 1" = 50'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY Helmy Abdelsayed	CHECKED Jesse Sandhu
DETAILS	BY Ed D. Tapalla 10/12	CHECKED Helmy Abdelsayed
QUANTITIES	BY Helmy Abdelsayed	CHECKED Jesse Sandhu

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	SHEET EEO-4
POST MILE	177.3/181.1		
COMMERCIAL VEHICLE ENFORCEMENT FACILITY			

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	616	710

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 G. ANDERSEN
 Approval date: 01-20-2011

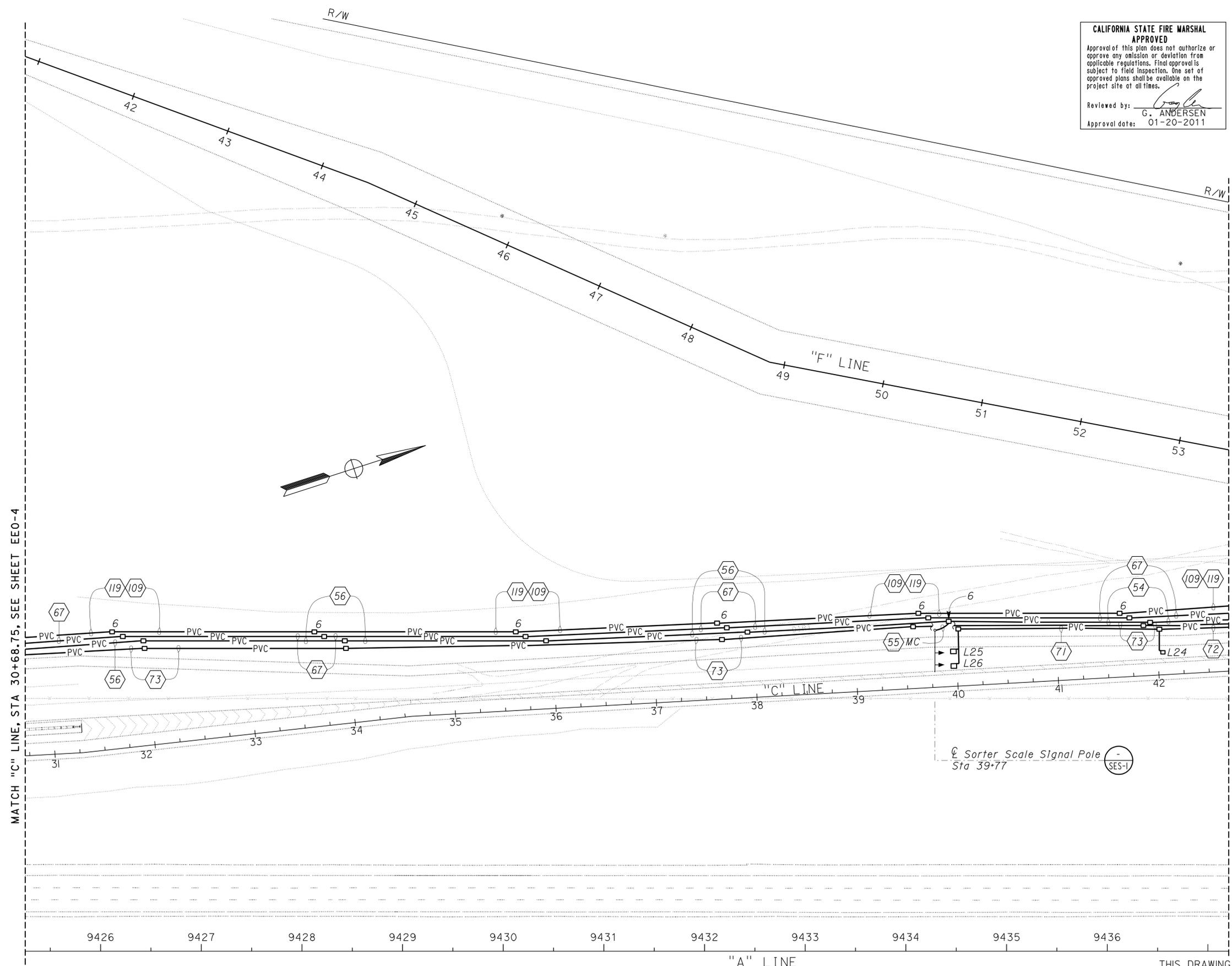
H. Abdelsayed
 H. ABDELSAYED
 No. 16757
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

11-30-12
 DATE

REGISTERED ELECTRICAL ENGINEER

2-25-13
 PLANS APPROVAL DATE

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SITE PLAN
 SCALE 1" = 50'-0"

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DESIGN	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>
DETAILS	BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>
QUANTITIES	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	SHEET EEO-5
POST MILE	177.3/181.1		
SITE PLAN 4			

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	617	710

H. Abdelsayed
REGISTERED ELECTRICAL ENGINEER DATE 11-30-12

2-25-13
PLANS APPROVAL DATE

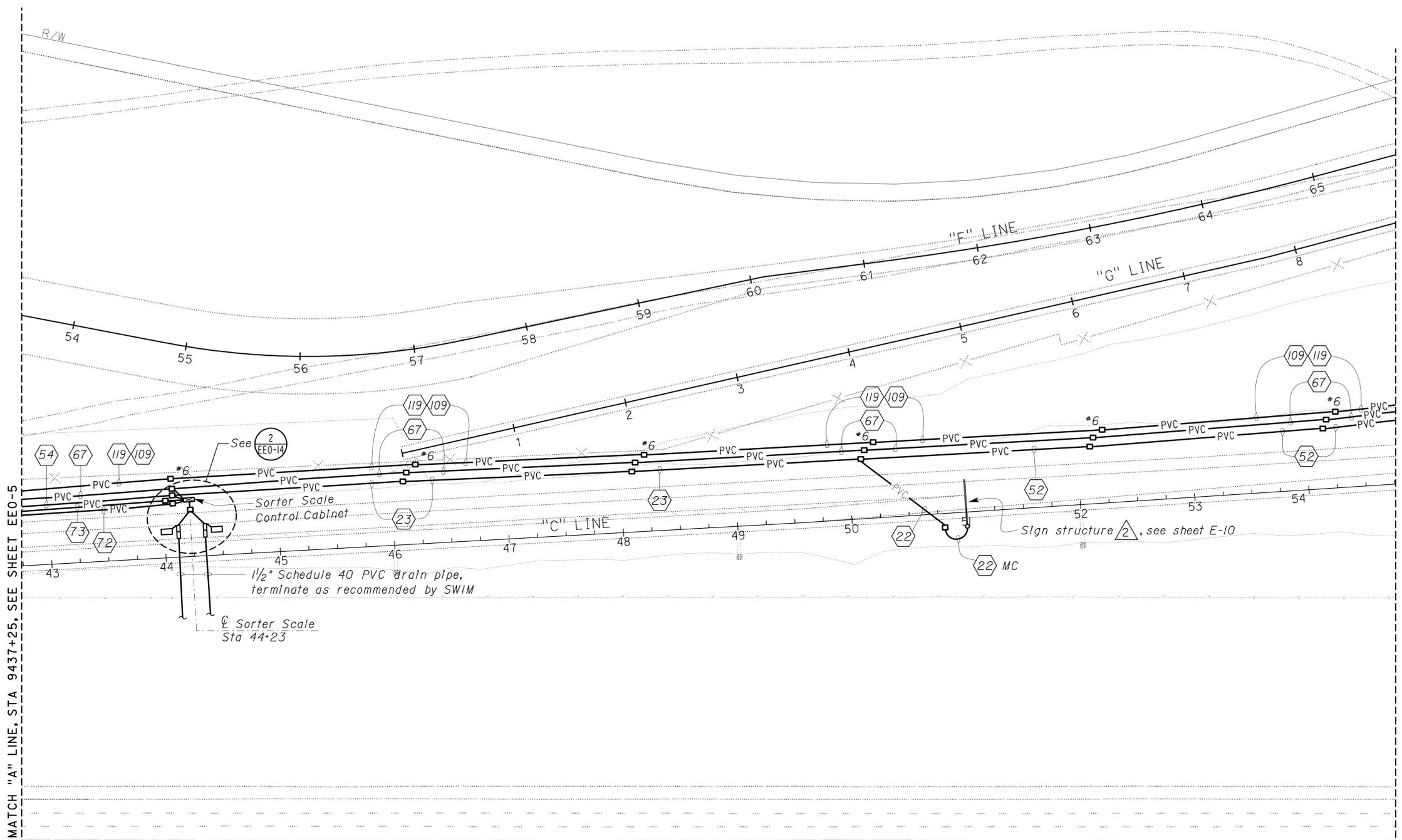
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G. ANDERSEN
Approval date: 01-20-2011

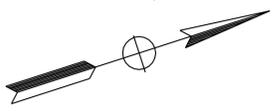


MATCH "A" LINE, STA 9437+25, SEE SHEET EEO-5

MATCH "A" LINE, STA 9449+25, SEE SHEET EEO-7

9438 9439 9440 9441 9442 9443 9444 9445 9446 9447 9448 9449

"A" LINE



SITE PLAN
SCALE 1" = 50'-0"

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DESIGN	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>
DETAILS	BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>
QUANTITIES	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	54-1216J
POST MILE	177.3/181.1

MOUNTAIN PASS JPOE

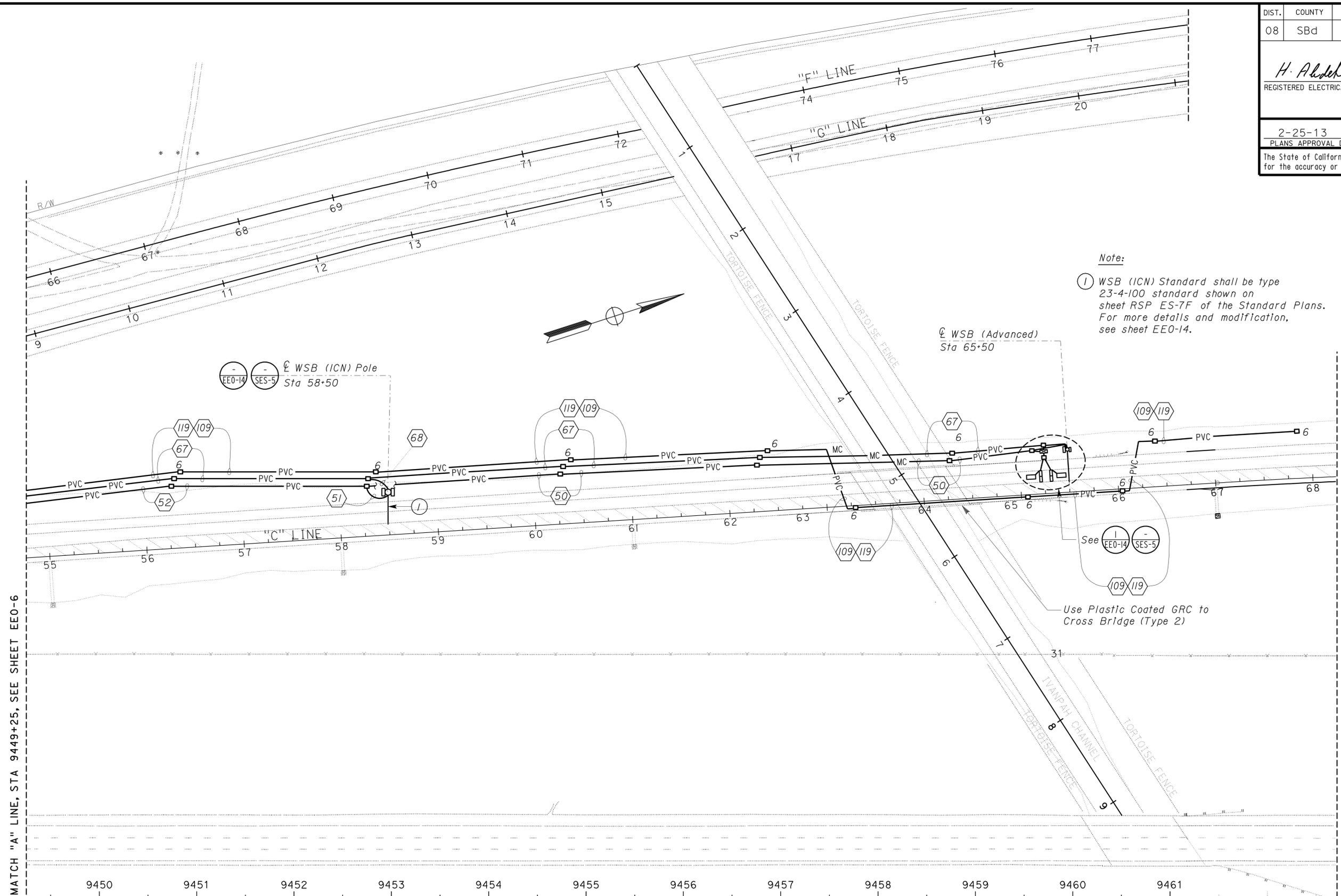
SITE PLAN 5

SHEET **EEO-6**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	618	710
<i>H. Abdelsayed</i> REGISTERED ELECTRICAL ENGINEER			11-30-12 DATE	REGISTERED PROFESSIONAL ENGINEER H. ABDELSAYED No. 16757 Exp. 9-30-14 ELEC STATE OF CALIFORNIA	
2-25-13 PLANS APPROVAL DATE					
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 G. ANDERSEN
 Approval date: 01-20-2011

Note:
 (1) WSB (ICN) Standard shall be type 23-4-100 standard shown on sheet RSP ES-7F of the Standard Plans. For more details and modification, see sheet EEO-14.



MATCH "A" LINE, STA 9449+25, SEE SHEET EEO-6

SITE PLAN "A" LINE
 SCALE 1" = 50'-0"

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DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE	SHEET EEO-7
				POST MILE 177.3/181.1		
DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			4/28/12 11/30/12		

Notes:

- ① SWIM Scales Schedule 40 drain pipe. Size and termination of the drain pipe shall be as recommended by the SWIM scales manufacturer.
- ② Distance between the scales shall be as recommended by the SWIM manufacturer.
- ③ Configuration, dimension and exact location of the loop shall be as required by the SWIM manufacturer.

**CALIFORNIA STATE FIRE MARSHAL
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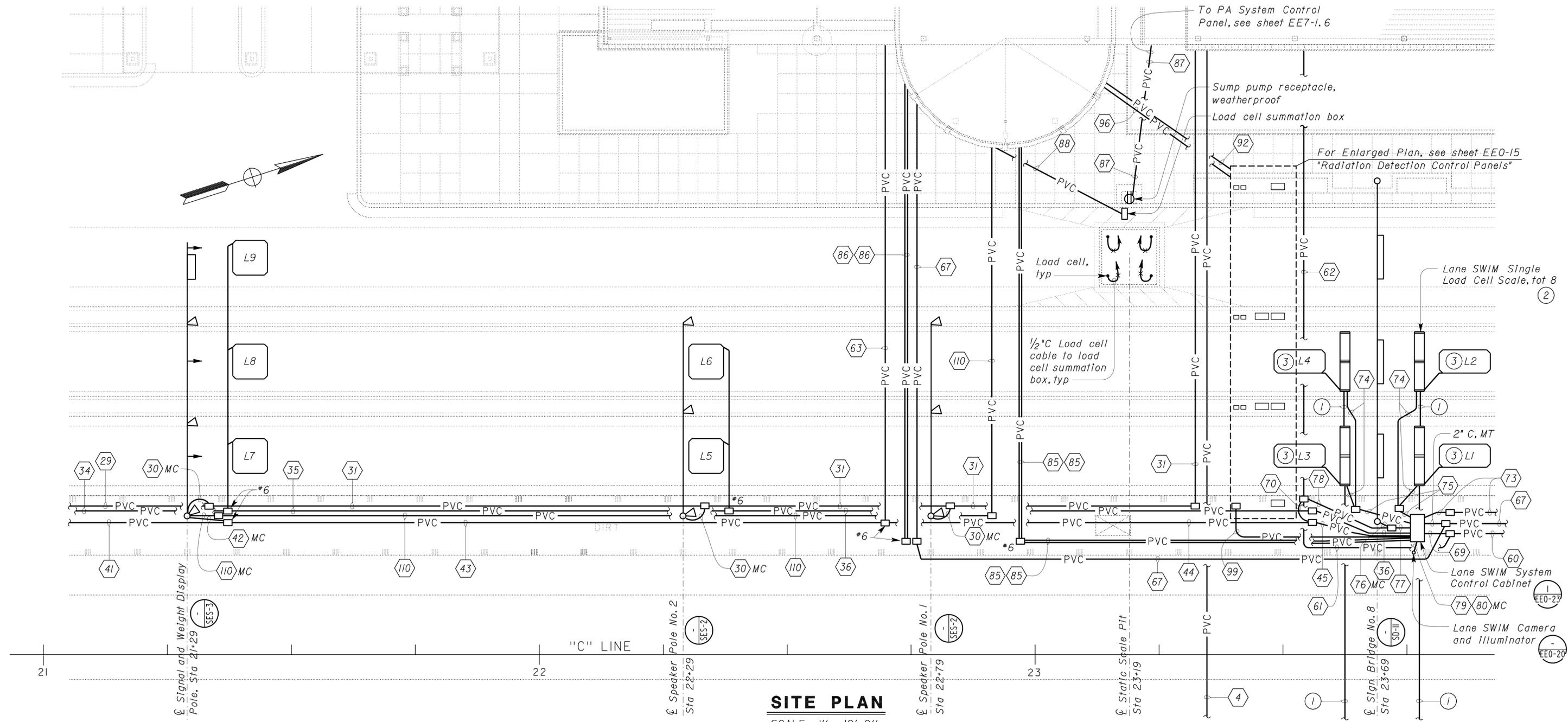
Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	619	710

H. Abdelsayed
REGISTERED ELECTRICAL ENGINEER
DATE 11-30-12

2-25-13
PLANS APPROVAL DATE

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DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE	SHEET EEO-13
				POST MILE 177.3/181.1		
DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			4/28/11 11/30/12		

DOES SD Imperial Rev. 9/02

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	620	710

<i>H. Abdelsayed</i>		11-30-12
REGISTERED ELECTRICAL ENGINEER	DATE	

2-25-13
PLANS APPROVAL DATE

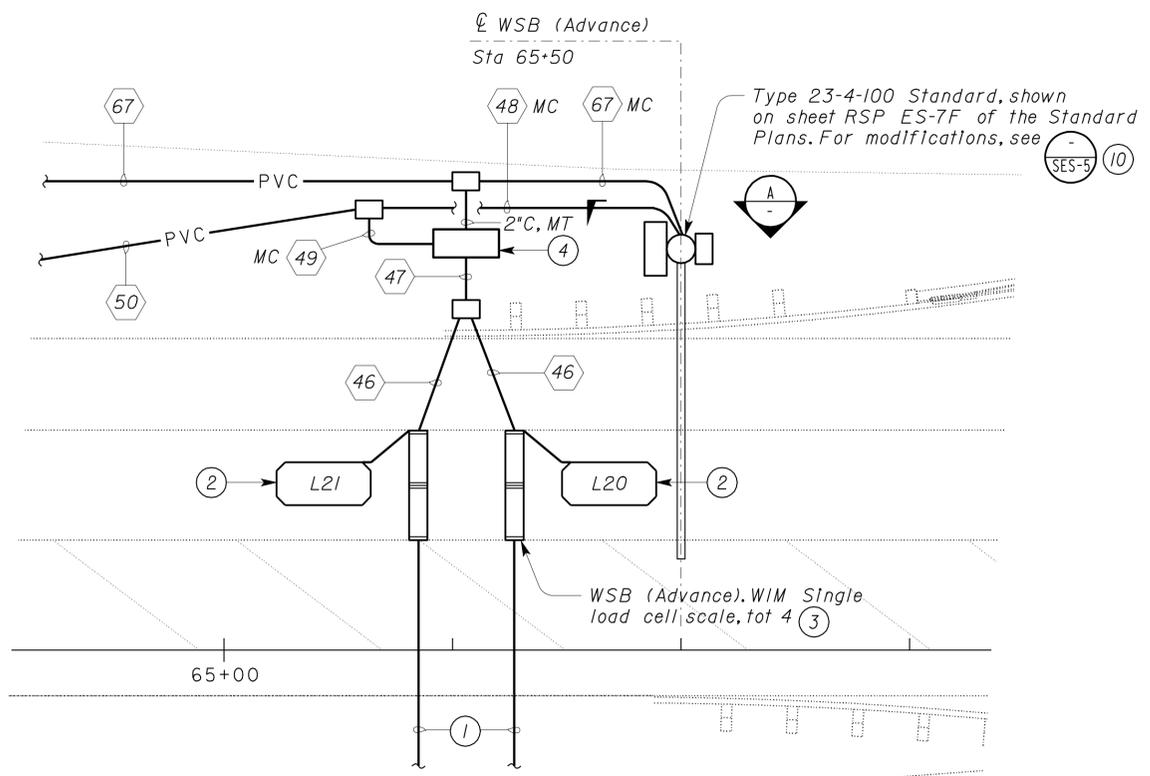
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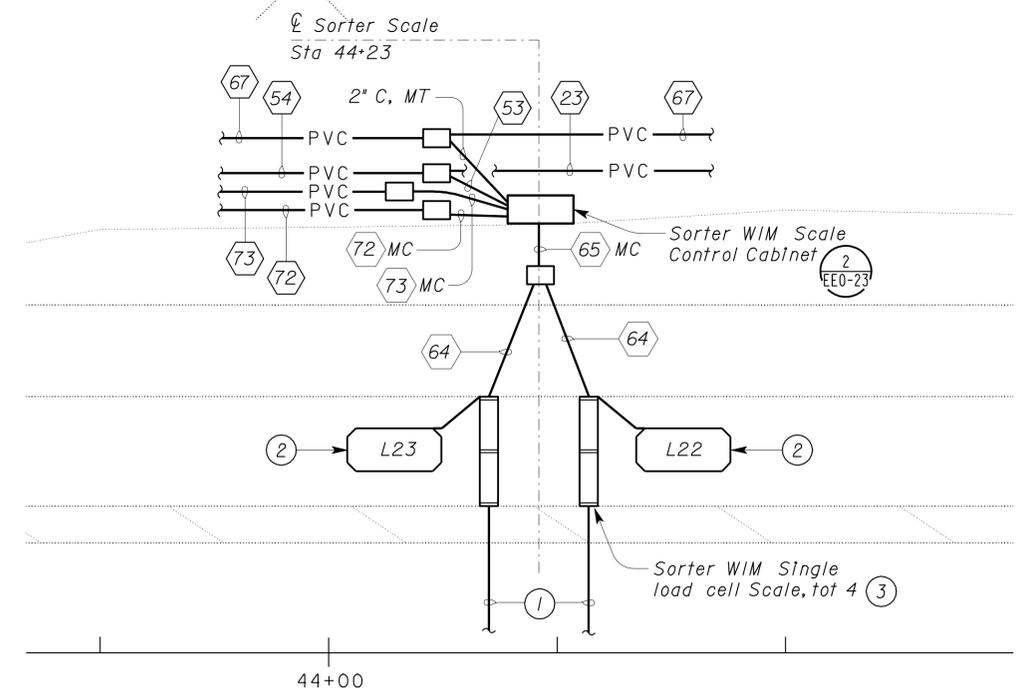
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Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011



1 ENLARGED PLAN

SCALE 1" = 10'-0"

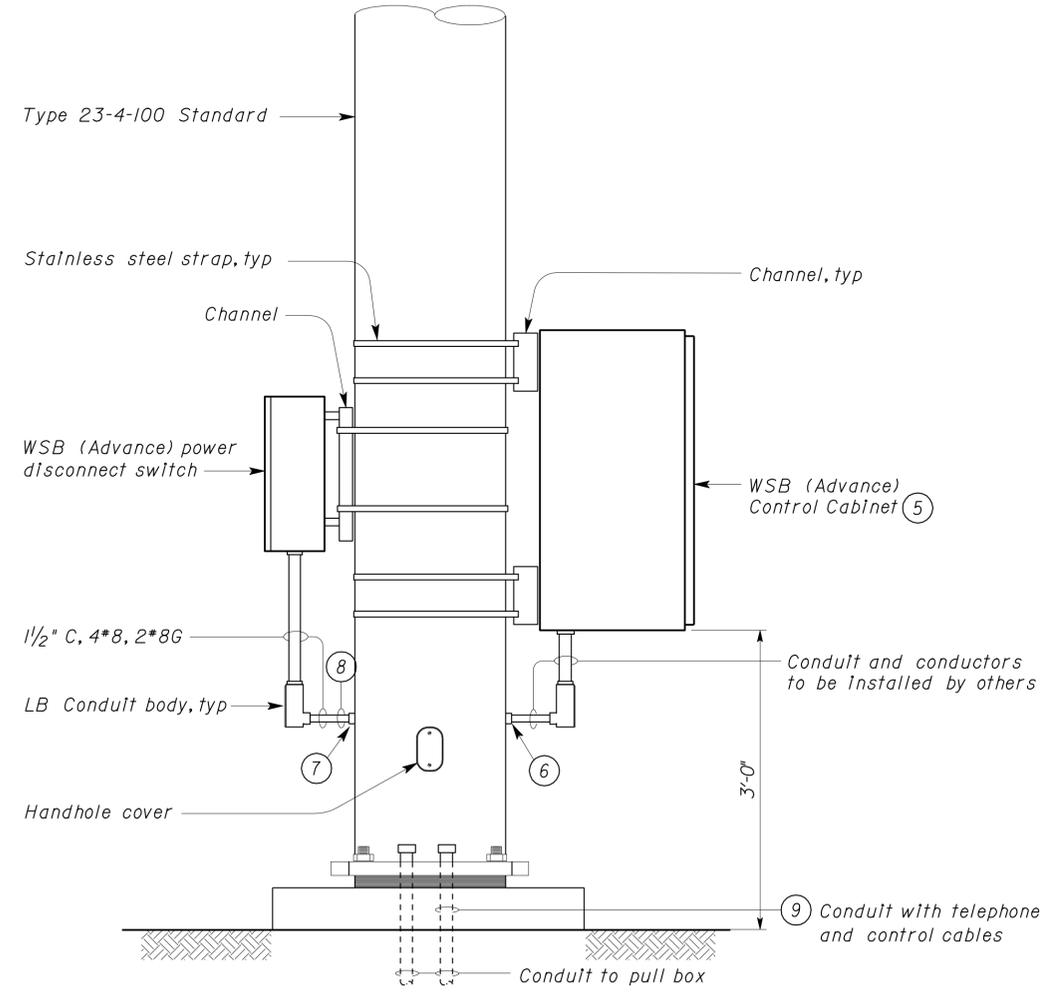


2 ENLARGED PLAN

SCALE 1" = 10'-0"

Notes:

- (1) WIM Scale Schedule 40 PVC drain pipe. Size and termination of the drain pipe shall be as recommended by the WIM scales manufacturer.
- (2) Configuration, dimensions and exact location of the loop shall be as recommended by the WIM manufacturer.
- (3) Distance between the Scales shall be as recommended by the WIM manufacturer.
- (4) WSB (Advance) WIM System Control Cabinet. For installation details, see Detail 2 on sheet EEO-23.
- (5) Furnished and installed by others.
- (6) Drill and weld 2" coupling suitable for pulling wires.
- (7) Drill and weld 1/2" coupling suitable for pulling wires.
- (8) Loop 10' of 2*8, 1*8G, from the load side of the disconnect switch, inside the pole.
- (9) Loop 10' of each cable inside the pole.
- (10) Pole and equipment for WSB (Advance) is shown, poles and equipment for WSB (ICN) and WSB (compliance) are similar.



A ELEVATION

NO SCALE

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DESIGN	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>
DETAILS	BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>
QUANTITIES	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

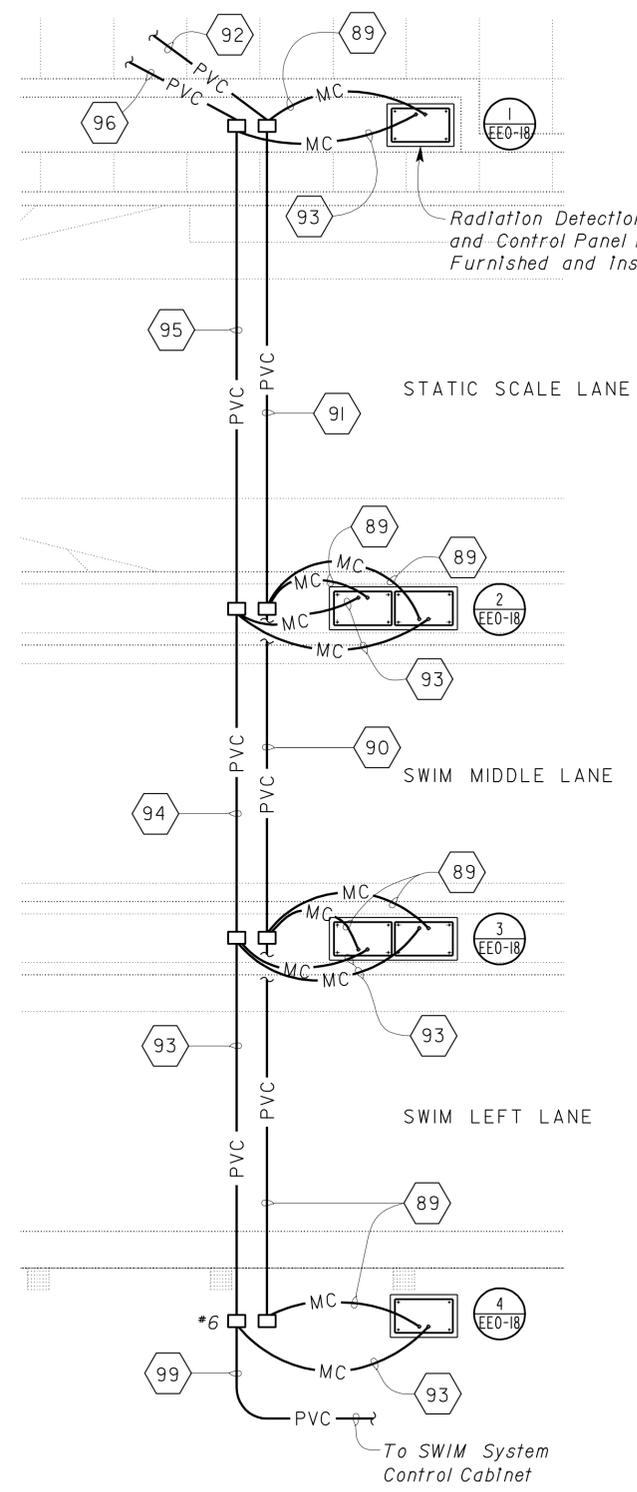
BRIDGE NO.	54-1216J
POST MILE	177.3/181.1

MOUNTAIN PASS JOE
WSB AND SORTER WIM SCALES ENLARGED PLAN

SHEET **EEO-14**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	621	710
			H. Abdelsayed REGISTERED ELECTRICAL ENGINEER DATE 11-30-12		
			2-25-13 PLANS APPROVAL DATE		
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 Approval date: 01-20-2011



ENLARGED PLAN
 SCALE 1" = 5'-0"

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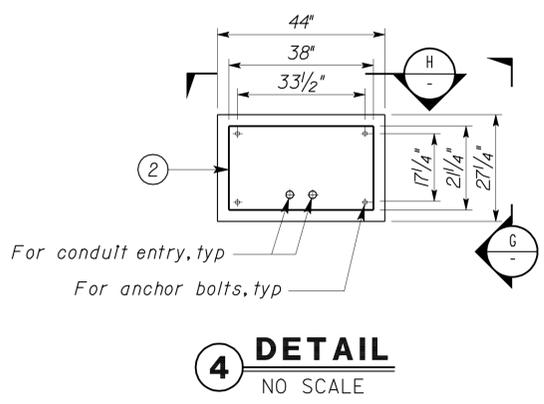
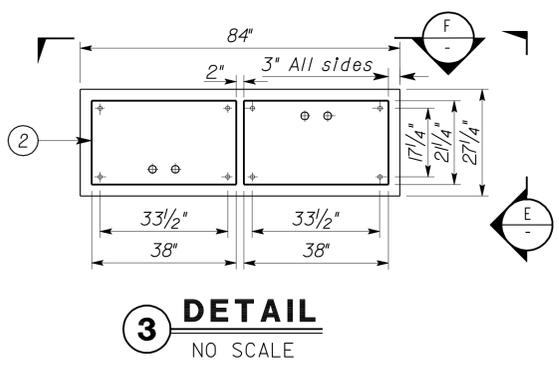
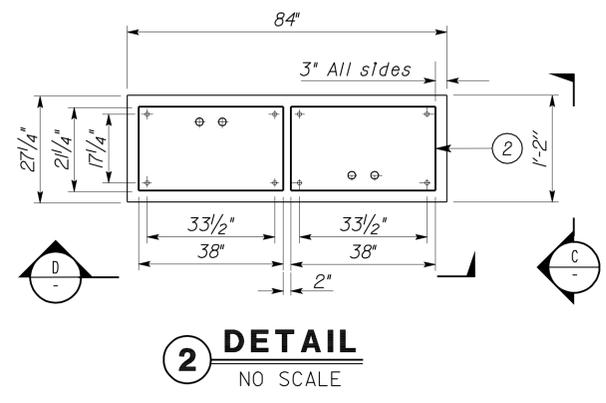
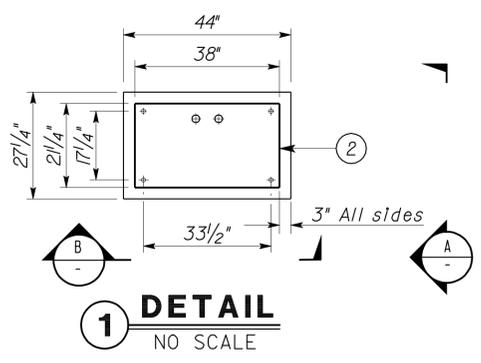
DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE	SHEET EE0-15
				POST MILE 177.3/181.1		
DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			4/28/11 11/30/12		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	624	710

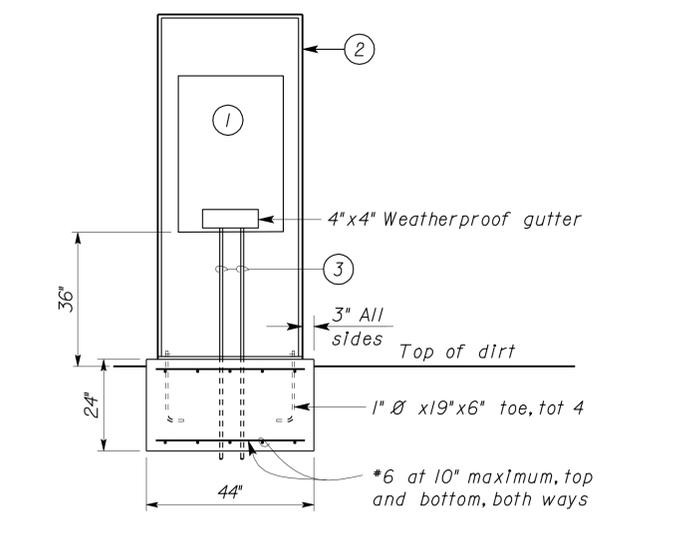
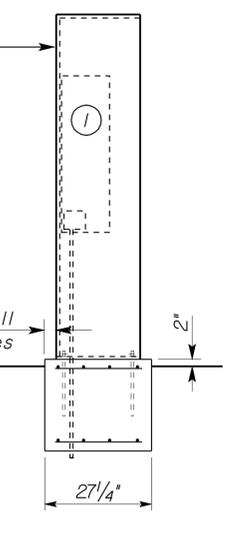
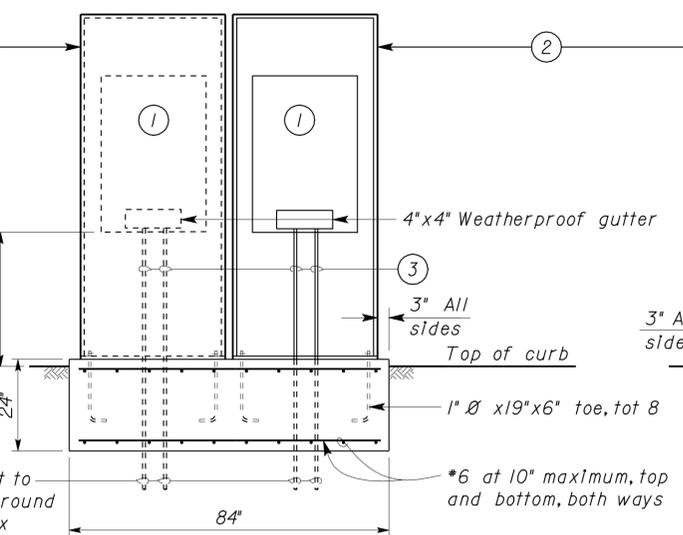
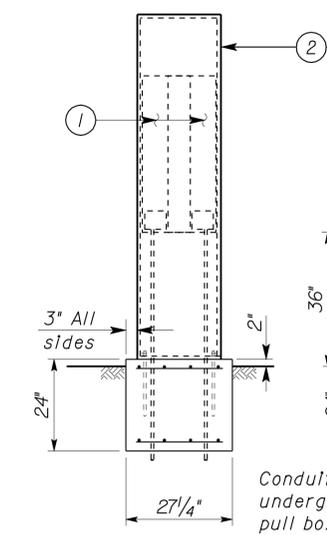
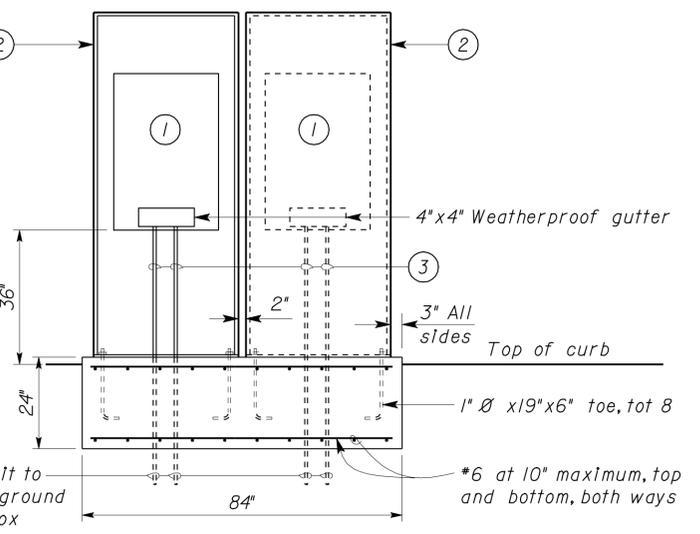
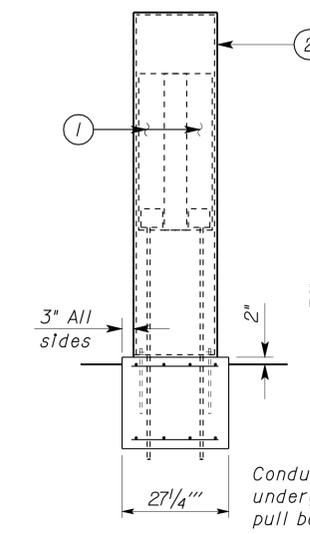
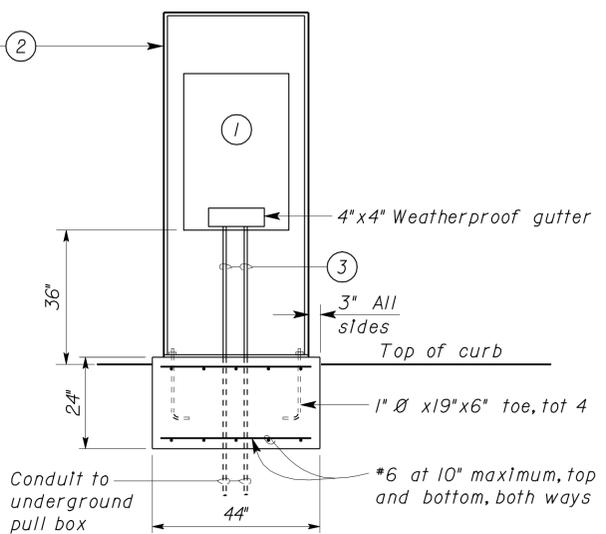
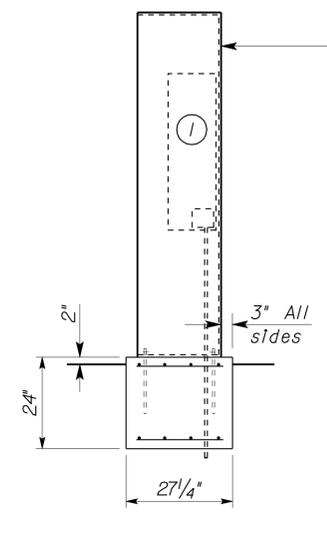
CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.	
Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011	11-30-12 DATE H. Abdelsayed REGISTERED ELECTRICAL ENGINEER No. 16757 Exp. 9-30-14 ELEC STATE OF CALIFORNIA

2-25-13 PLANS APPROVAL DATE

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- Notes:
- 1 Radiation Detection Control Panel to be furnished and installed by others.
 - 2 Radiation Detection Control Panel housing to be furnished and installed by others.
 - 3 Loop 5 feet of cables/conductors inside gutter.



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DESIGN	BY Helmy Abdelsayed	CHECKED Jesse Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	MOUNTAIN PASS JOE	SHEET	
DETAILS	BY Ed D. Tapalla 10/12	CHECKED Helmy Abdelsayed		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	54-1216J		RADIATION DETECTION CONTROL PANEL DETAILS	EE0-18
QUANTITIES	BY Helmy Abdelsayed	CHECKED Jesse Sandhu		POST MILE 177.3/181.1	DISREGARD PRINTS BEARING EARLIER REVISION DATES			REVISION DATES (PRELIMINARY STAGE ONLY)

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

UNIT PROJECT NUMBER & PHASE: 3596 08000006281

REVISION DATES (PRELIMINARY STAGE ONLY): 4/24/11, 11/30/12

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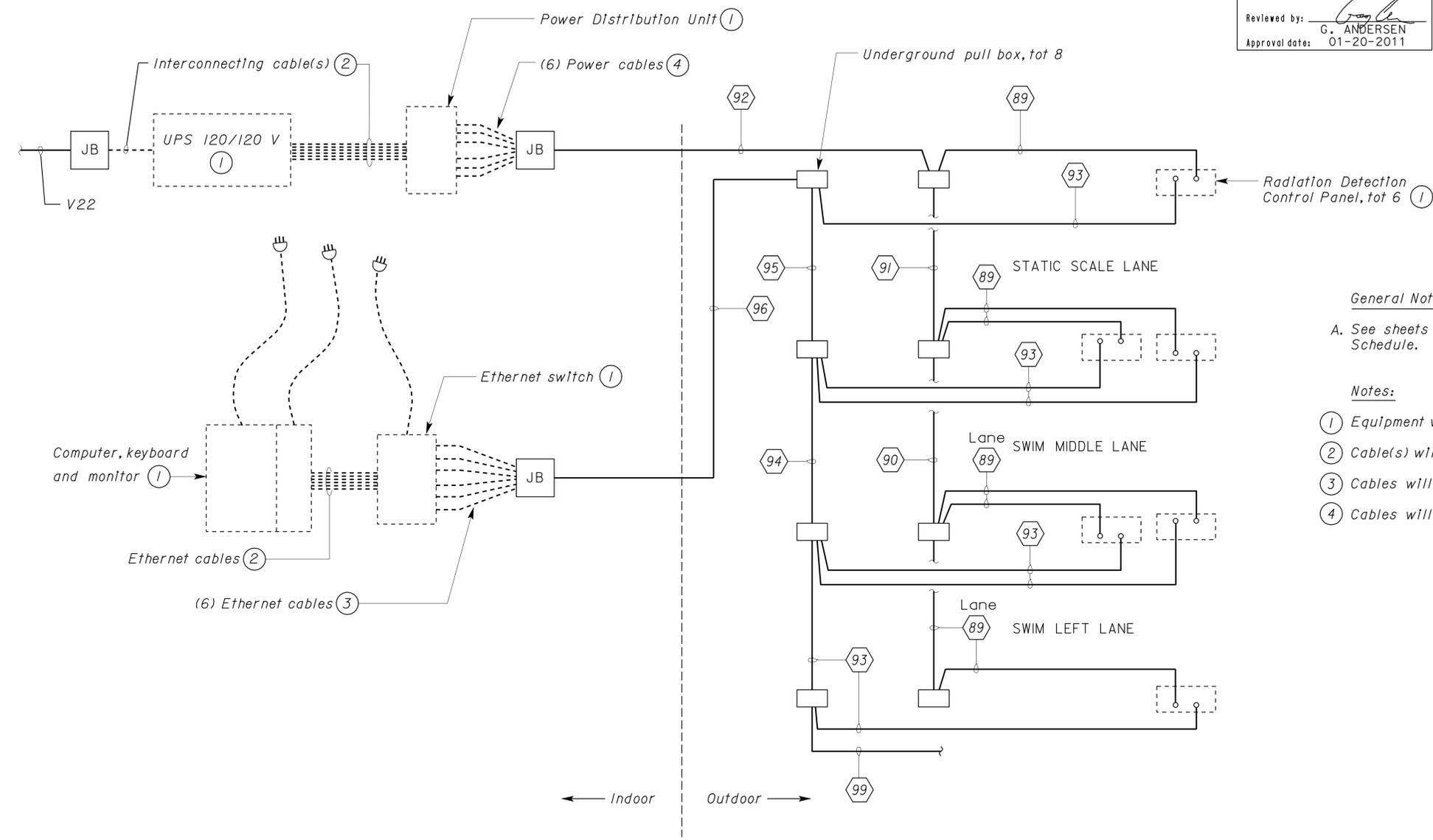
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	625	710

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 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

H. Abdelsayed 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE
 PLANS APPROVAL DATE
 2-25-13

REGISTERED PROFESSIONAL ENGINEER
 H. ABDELSAYED
 No. 16757
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA



- General Notes:**
- A. See sheets EEO-16 and EEO-17 for Conduit and Conductor Schedule.
- Notes:**
- ① Equipment will be furnished and installed by others.
 - ② Cable(s) will be furnished and installed by others.
 - ③ Cables will be connected to the ethernet switch by others.
 - ④ Cables will be connected to Power Distribution Unit by others.

INTERCONNECTION DIAGRAM

DOES SD Imperial Rev. 9/02	DESIGN	BY Helmy Abdelsayed	CHECKED Jesse Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE RADIATION DETECTION SYSTEM INTERCONNECTION DIAGRAM	SHEET	EEO-19			
	DETAILS	BY Ed D. Tapalla 10/12	CHECKED Helmy Abdelsayed			POST MILE	177.3/181.1		REVISION DATES (PRELIMINARY STAGE ONLY)	4/28/11	11/30/12	SHEET	OF
	QUANTITIES	BY Helmy Abdelsayed	CHECKED Jesse Sandhu			UNIT PROJECT NUMBER & PHASE	3596 08000006281		DISREGARD PRINTS BEARING EARLIER REVISION DATES	7/28/11	11/30/12		

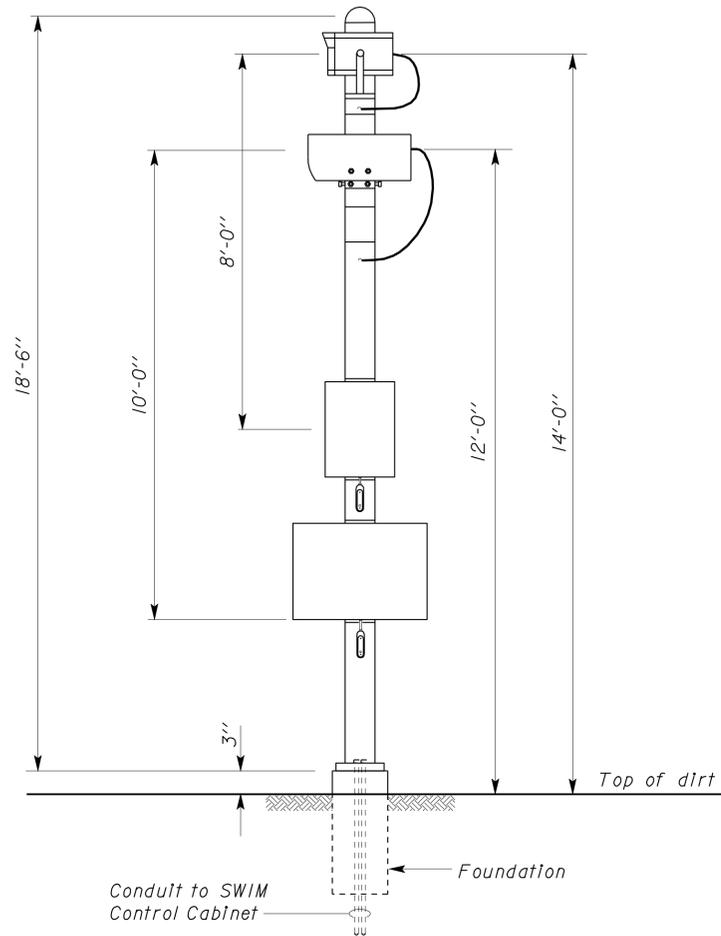
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

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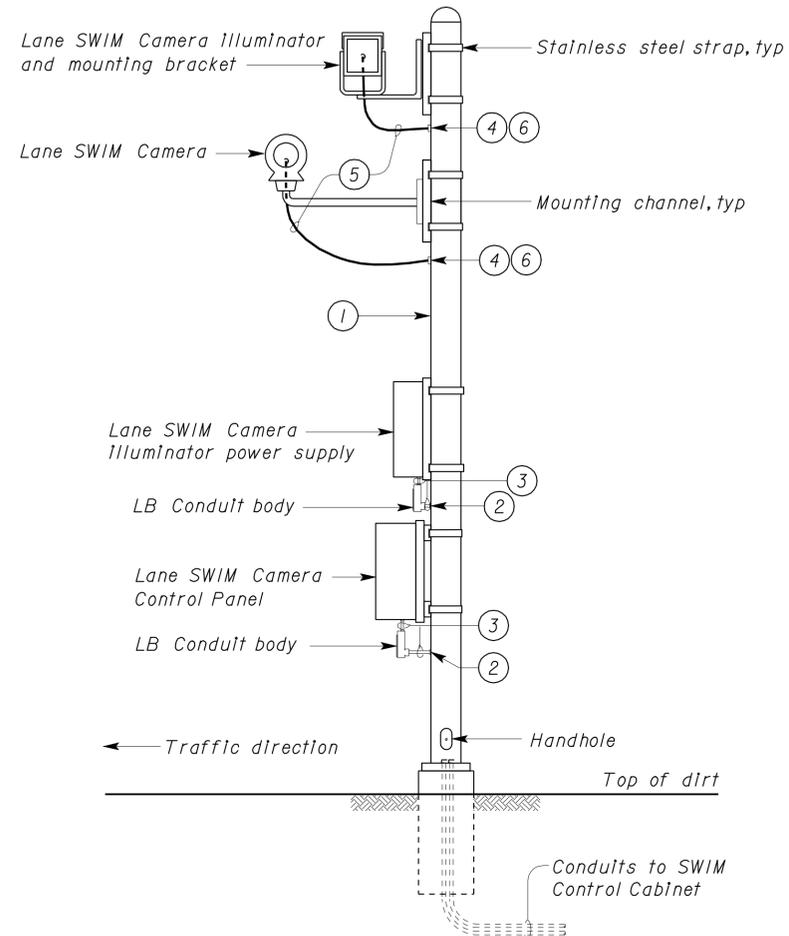
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	626	710

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G. ANDERSEN
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H. Abdelsayed
 REGISTERED ELECTRICAL ENGINEER
 DATE 11-30-12
 PLANS APPROVAL DATE
 2-25-13
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SIDE VIEW



ELEVATION FACING ROADWAY

- Notes:**
- ① Type 16-100 Modified Standard complete with foundation as shown on sheet RSP ES-7C of Standard Plans without arm and signals.
 - ② Drill and weld 1/2" nipple suitable for pulling conductors.
 - ③ 1/2" Conductors/Cables as required by the SWIM manufacturer.
 - ④ Drill and weld 1" nipple suitable for pulling conductors.
 - ⑤ Conductors/Cables as required by the SWIM manufacturer.
 - ⑥ CGB Type Connector.

SWIM CAMERA AND ILLUMINATOR

NO SCALE

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DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE	SHEET EE0-20	
				POST MILE 177.3/181.1			
				SWIM CAMERA AND ILLUMINATOR DETAILS			
DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			4/28/11	11/30/12		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	627	710

CALIFORNIA STATE FIRE MARSHAL APPROVED
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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

H. Abdelsayed 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE
H. ABDELSAYED
No. 16757
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA
2-25-13
PLANS APPROVAL DATE

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CIRCLE BUILDING TO	CIRCLE BUILDING TO	CIRCLE BUILDING TO ← 6" Letters, typ
STATIC SCALE LANE	INSPECTION BAY 1	INSPECTION BAY 2
MESSAGE No. 1	MESSAGE No. 2	MESSAGE No. 3
CIRCLE BUILDING TO	CIRCLE BUILDING TO	CIRCLE BUILDING TO
INSPECTION BAY 3	INSPECTION BAY 4	SMOKE INSPECTION
MESSAGE No. 4	MESSAGE No. 5	MESSAGE No. 6

STATIC SCALE, SWIM LEFT, SWIM MIDDLE LANE VMS MESSAGES

DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JPOE	SHEET	
				54-1216J			
				POST MILE			
DETAILS BY <i>Ed D. Tapalla 3/02</i>	CHECKED <i>Helmy Abdelsayed</i>			177.3/181.1	LANE VARIABLE MESSAGE SIGN MESSAGES	EEO-21	
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>						
DOES SD Imperial Rev. 9/02	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
					4/28/11 11/30/12		

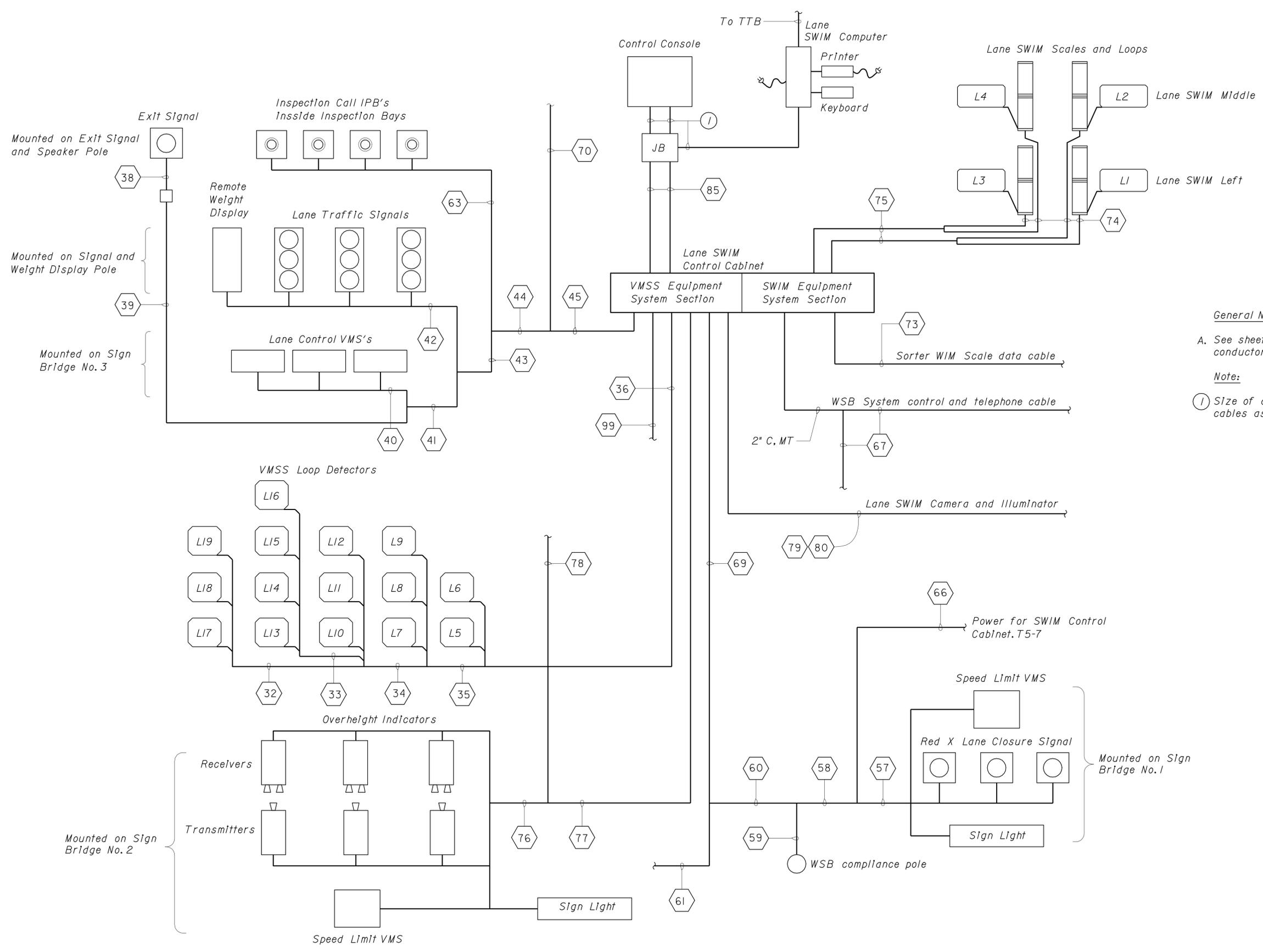
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	628	710

H. Abdelsayed
 REGISTERED ELECTRICAL ENGINEER
 No. 16757
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

11-30-12 DATE
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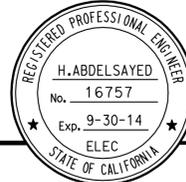
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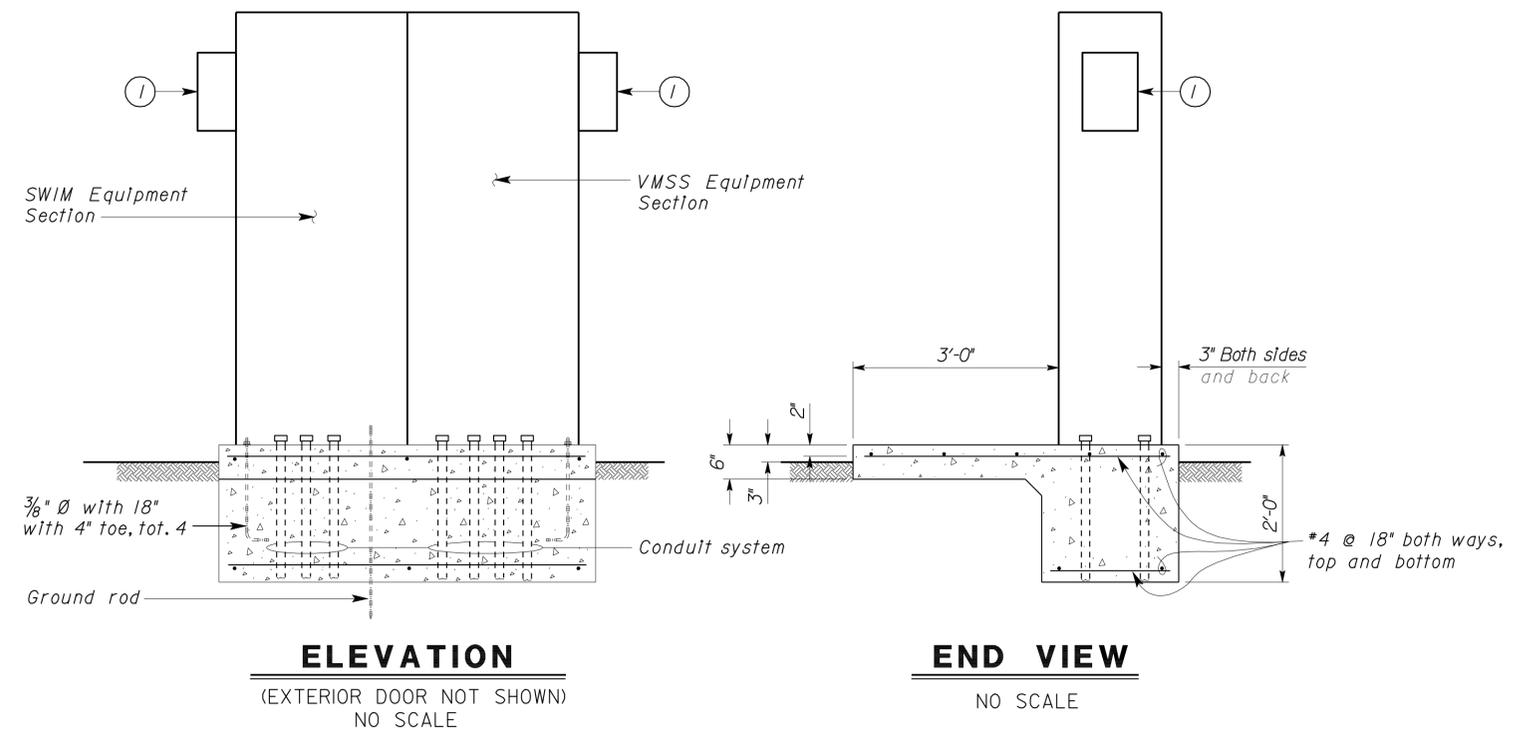
General Note:
 A. See sheets EEO-16 and EEO-17 for conduit and conductor schedule.

Note:
 ① Size of conduits and number and size of conductors/cables as required by the SWIM manufacturer.

DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE	SHEET	
				POST MILE 177.3/181.1		VMSS AND SWIM SYSTEMS INTERCONNECTION DIAGRAM	EEO-22
				UNIT PROJECT NUMBER & PHASE 3596 08000006281			
DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	4/28/12 11/30/12	27-FEB-2013 07:57	ee0_22.dgn		
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>						

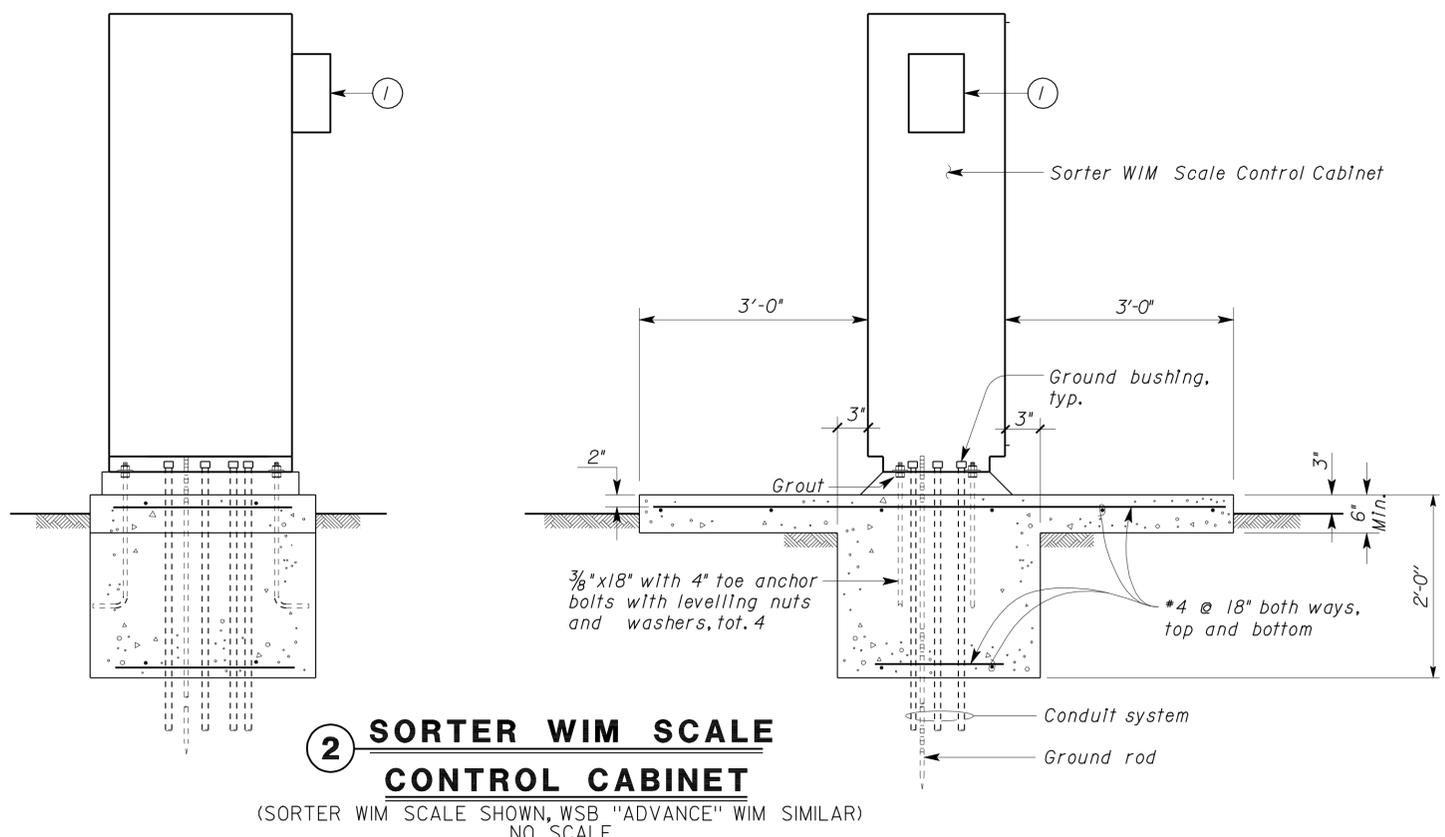
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	629	710
 REGISTERED ELECTRICAL ENGINEER DATE 11-30-12					
2-25-13 PLANS APPROVAL DATE					
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1 LANE SWIM CONTROL CABINET
 (EXTERIOR WEATHERPROOF ENCLOSURE NOT SHOWN)
 NO SCALE

Note:
 ① Furnish and install equipment cabinet mounted style thermo electric, type air conditioner with integral thermostat.



2 SORTER WIM SCALE CONTROL CABINET
 (SORTER WIM SCALE SHOWN, WSB "ADVANCE" WIM SIMILAR)
 NO SCALE

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DOES SD Imperial Rev. 9/02	DESIGN	BY Helmy Abdelsayed	CHECKED Jesse Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	MOUNTAIN PASS JOE	SHEET	
	DETAILS	BY Dall Zhou/Ed Tapalla	CHECKED Helmy Abdelsayed		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	54-1216J		SWIM CONTROL CABINET	EEO-23
	QUANTITIES	BY Helmy Abdelsayed	CHECKED Jesse Sandhu		PROJECT NUMBER & PHASE	177.3/181.1			OF
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3			UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	4/28/11 11/30/12	

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	630	710

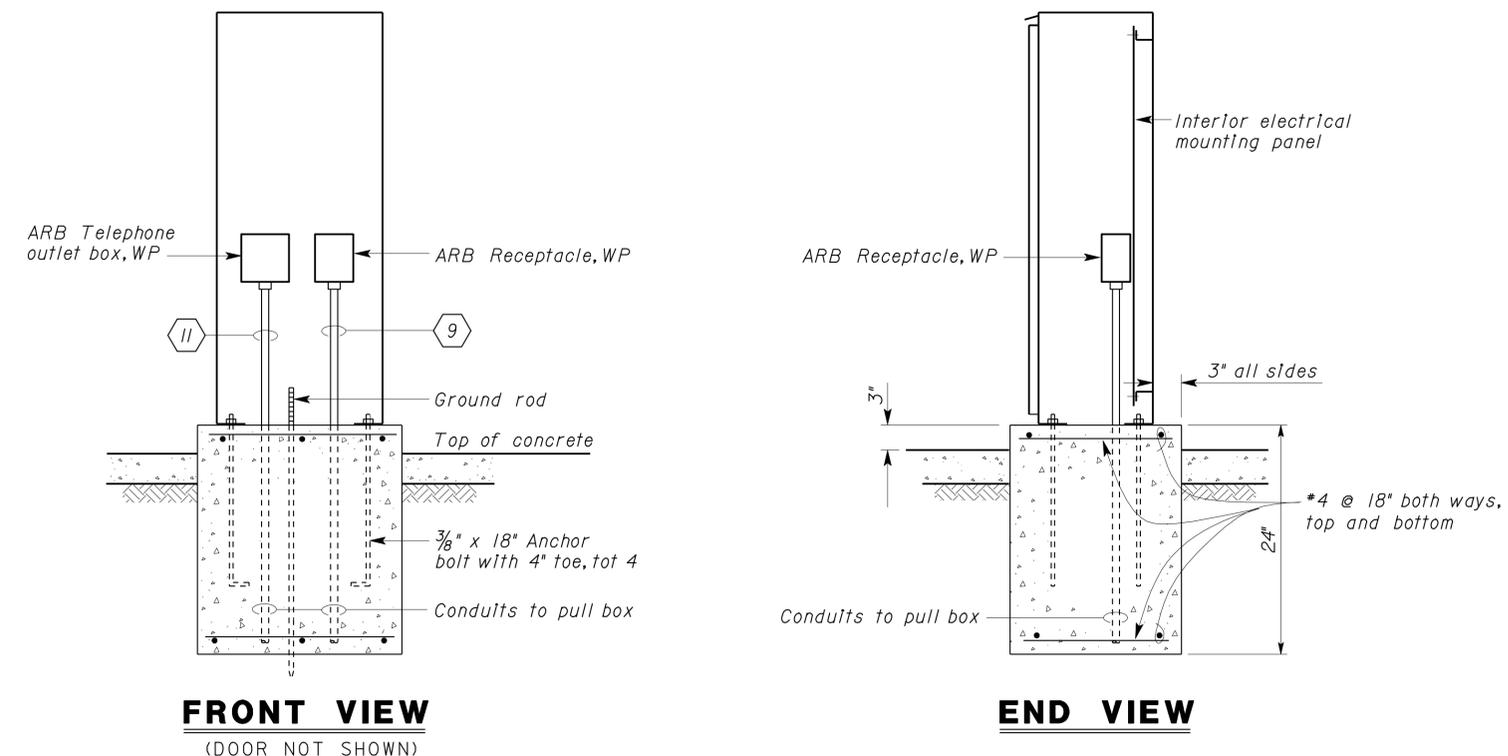
H. Abdelsayed
 REGISTERED ELECTRICAL ENGINEER
 DATE 11-30-12

H. ABDELSAYED
 No. 16757
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

2-25-13
 PLANS APPROVAL DATE

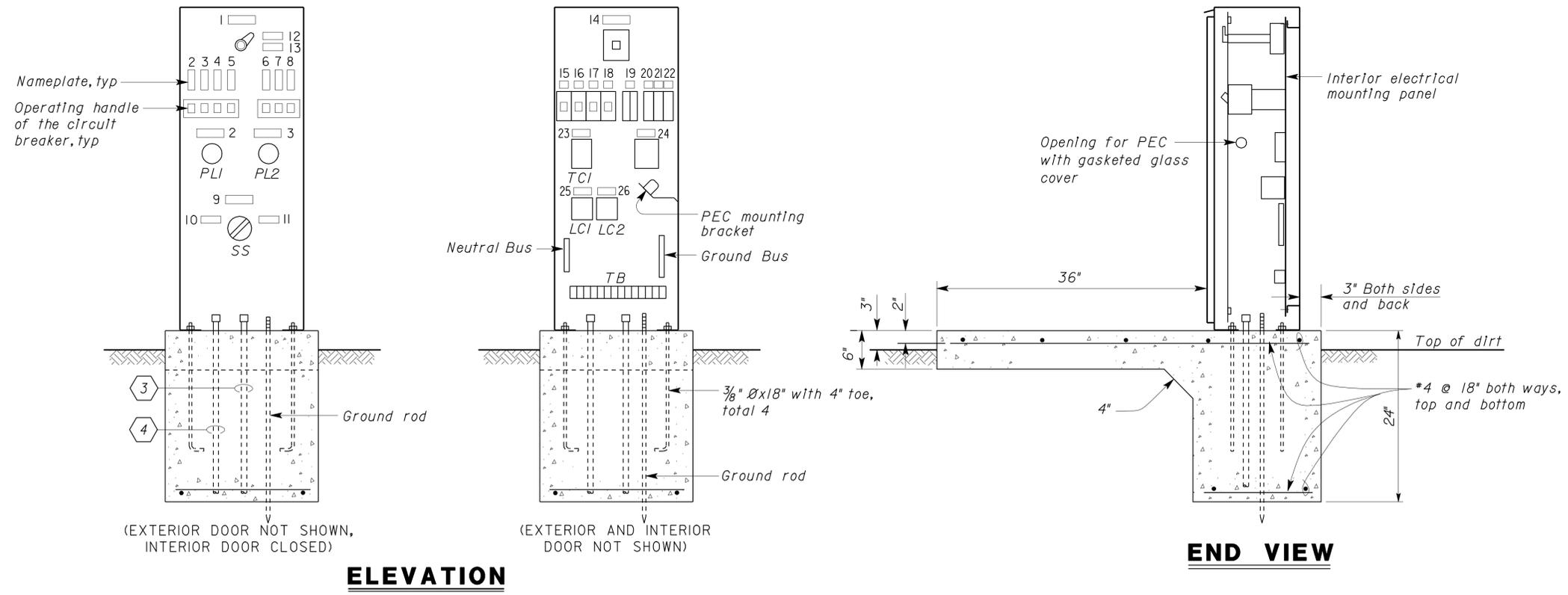
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1 AIR RESOURCES BOARD PEDESTAL
 NO SCALE

NAMEPLATE SCHEDULE		
ITEM NO.	INSCRIPTION	LETTER HEIGHT (INCHES)
1	MAIN	3/8
2	LIGHT/TIMER	3/16
3	LIGHT	3/16
4	WINCH	3/16
5	TRANSFORMER PRIMARY	3/16
6	TRANSFORMER SECONDARY	3/16
7	CONTROL	3/16
8	RECEPTACLE	3/16
9	PHOTOCELL	3/16
10	AUTO	3/16
11	HAND	3/16
12	ON	3/16
13	OFF	3/16
14	CB1	1/4
15	CB2	1/4
16	CB3	1/4
17	CB4	1/4
18	CB5	1/4
19	FI	1/4
20	CB6	1/4
21	CB7	1/4
22	CB8	1/4
23	TCI	1/4
24	CT	1/4
25	LC1	1/4
26	LC2	1/4



2 HIGH MAST LIGHT CONTROL PEDESTAL
 NO SCALE

General Note:
 A. See sheets EEO-16 and EEO-17 for Conduit and Conductor Schedule.

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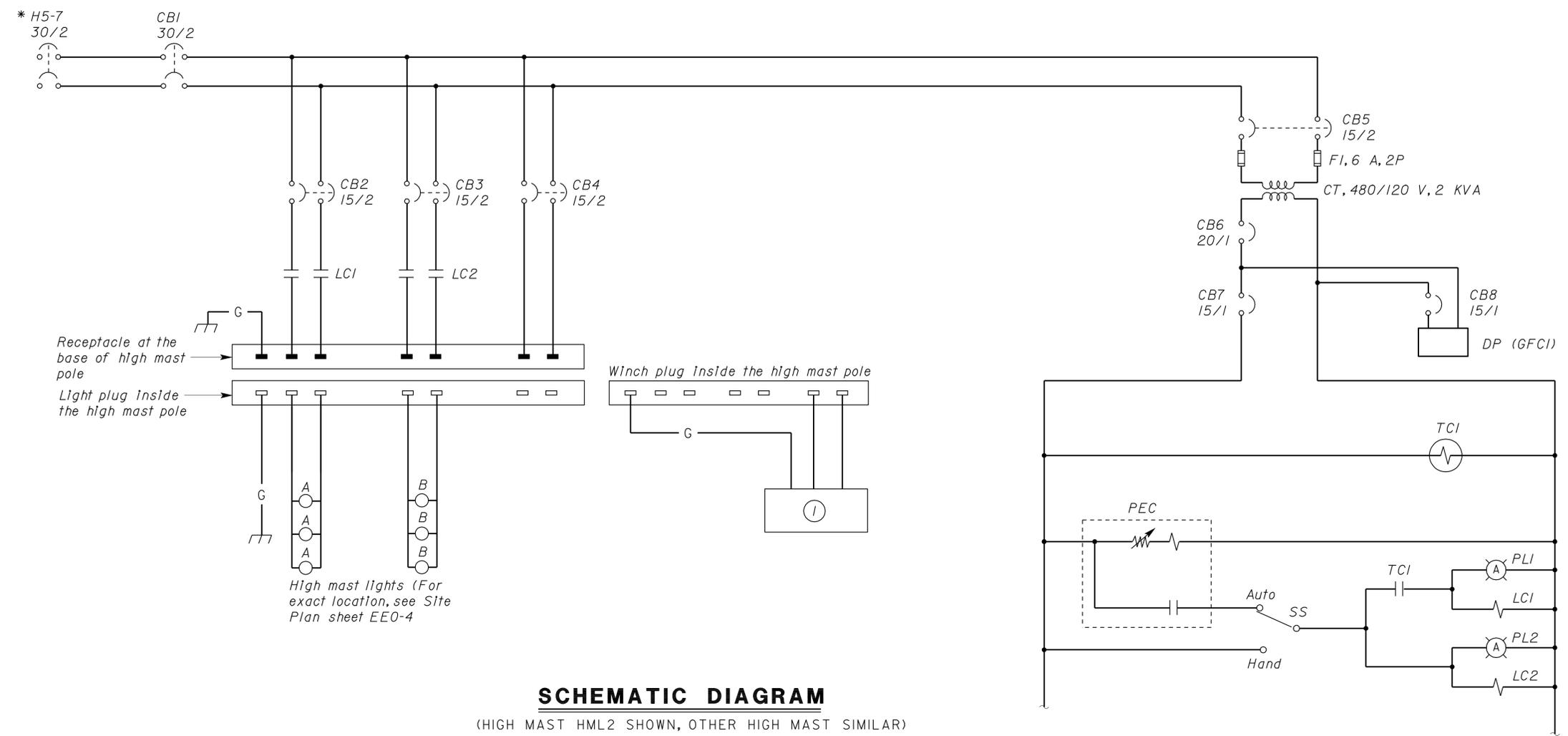
DESIGN	BY Helmy Abdelsayed	CHECKED Jesse Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE	SHEET		
	DETAILS BY Dall Zhou/Ed Tapalla	CHECKED Helmy Abdelsayed			54-1216J			ARB/HIGH MAST LIGHT CONTROL SERVICE PEDESTAL	EEO-24
	QUANTITIES BY Helmy Abdelsayed	CHECKED Jesse Sandhu			POST MILE 177.3/181.1				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF		

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 G. ANDERSEN
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SCHEMATIC DIAGRAM

(HIGH MAST HML2 SHOWN, OTHER HIGH MAST SIMILAR)
 * For circuit breakers feeding other high mast, see Schedule this sheet.

HIGH MAST SCHEDULE			
HIGH MAST	FEEDER CIRCUIT BREAKER (PANELBOARD AND CIRCUIT No.)	LOCATION	* NUMBER OF LUMINAIRES
HML1	H1-3	CHP FACILITY	4
HML2	H5-7	CHP FACILITY	6
HML3	H9-11	CHP FACILITY	6
HML4	H13-15	CHP FACILITY	6
HML5	H8-10	CHP FACILITY	6
HML6	H12-14	CHP FACILITY	6
HML7	H16-18	CHP FACILITY	6

* ALL LUMINAIRES ARE MHI-1x1000

Notes:

- ① 480 V/120 V Stepdown transformer for the winch with primary and secondary protection, Winch shall be complete with up/down and reversing switch inside the high mast pole. Transformer shall be sized to suit the winch motor furnished.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	632	710

H. Abdelsayed
 REGISTERED ELECTRICAL ENGINEER
 No. 16757
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

11-30-12
 DATE

2-25-13
 PLANS APPROVAL DATE

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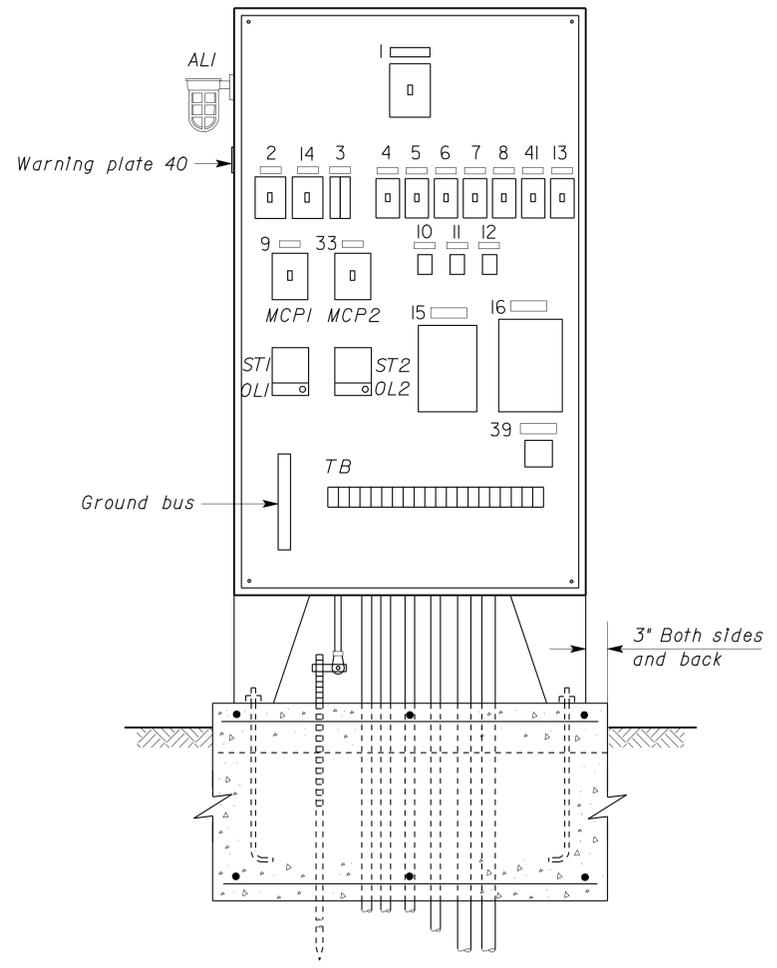
General Note:
 See sheets EEO-16 and EEO-17 for conduit and conductor schedule.

NAMEPLATE SCHEDULE					WARNING PLATE SCHEDULE			
ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)	ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)	ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)
1	WSD	1/4	18	MAIN	3/8	36	WARNING	1/4
2	CTPD	1/4	19	ON	1/4		PUMP DISCONNECTS DO NOT OPEN CONTROL CIRCUIT	
3	CTPF	1/4	20	OFF	1/4			
4	CTSD	1/4	21	TRANSFORMER PRIMARY	3/16			
5	CD	1/4	22	TRANSFORMER SECONDARY	3/16			
6	DPD	1/4	23	CONTROL	3/16	37	WARNING	1/4
7	ICD	1/4	24	RECEPTACLE	3/16		1. THIS SWITCH FOR BUILDING WATER CONTROL DISCONNECT (BPCDI) MUST BE ON ALL THE TIME 2. TURN OFF THE SWITCH AND MAIN DISCONNECT BEFORE OPENING THE ENCLOSURE	
8	AVCD	1/4	25	IRRIGATION CONTROLLER	3/16			
9	ST1	1/4	26	AIR VOLUME CONTROLLER	3/16			
10	CR1	1/4	27	WELL PUMP	3/16			
11	CR2	1/4	28	AUTO	3/16			
12	CR3	1/4	29	OFF	3/16			
13	SPARE	1/4	30	PUMP PROTECTOR TRIP	1/4			
14	WFHD	1/4	31	FIRE HOUSE	1/4			
15	PP	1/4	32	RESET	1/4			
16	CT	1/4	33	ST2	1/4			
17	WATER SYSTEM CONTROL PANEL	3/8	34	BOOSTER PUMP	1/4	38	480 VOLT	3/8
			35	HAND	3/16	39	CR4-24 VOLT	1/4
41	HTD	1/4	42	HEAT TAPE	3/16	40	PUMP PROTECTOR TRIP	3/8

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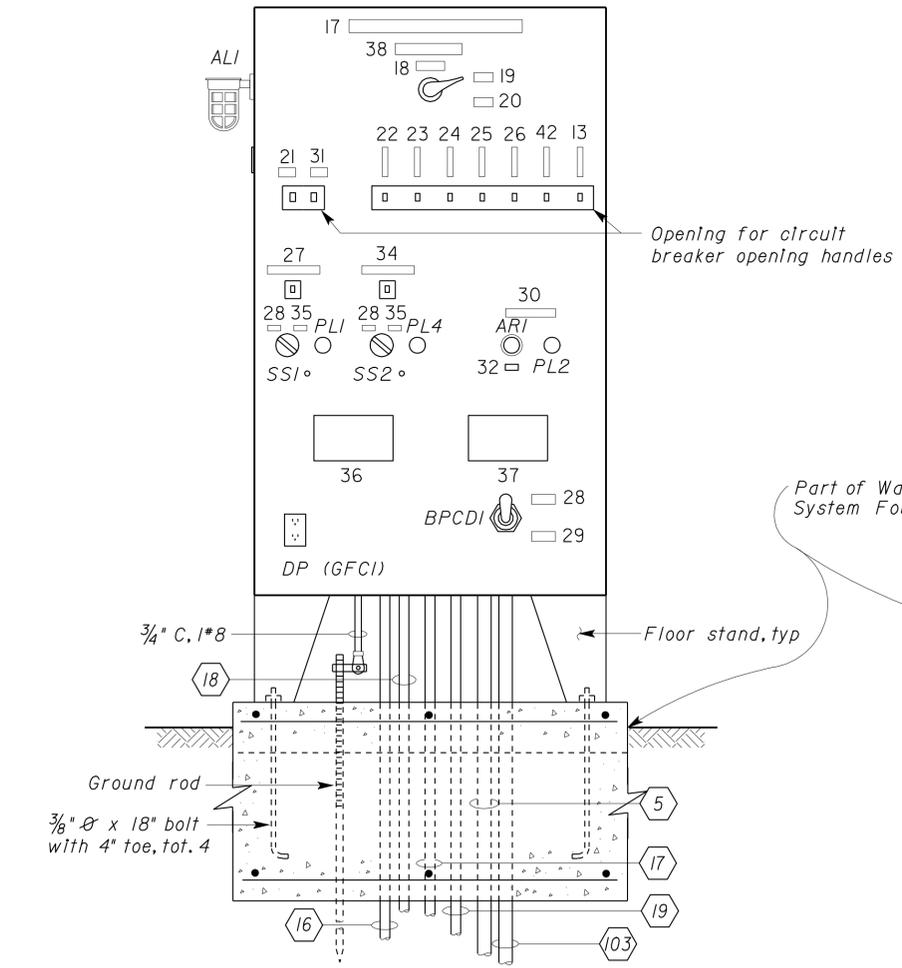
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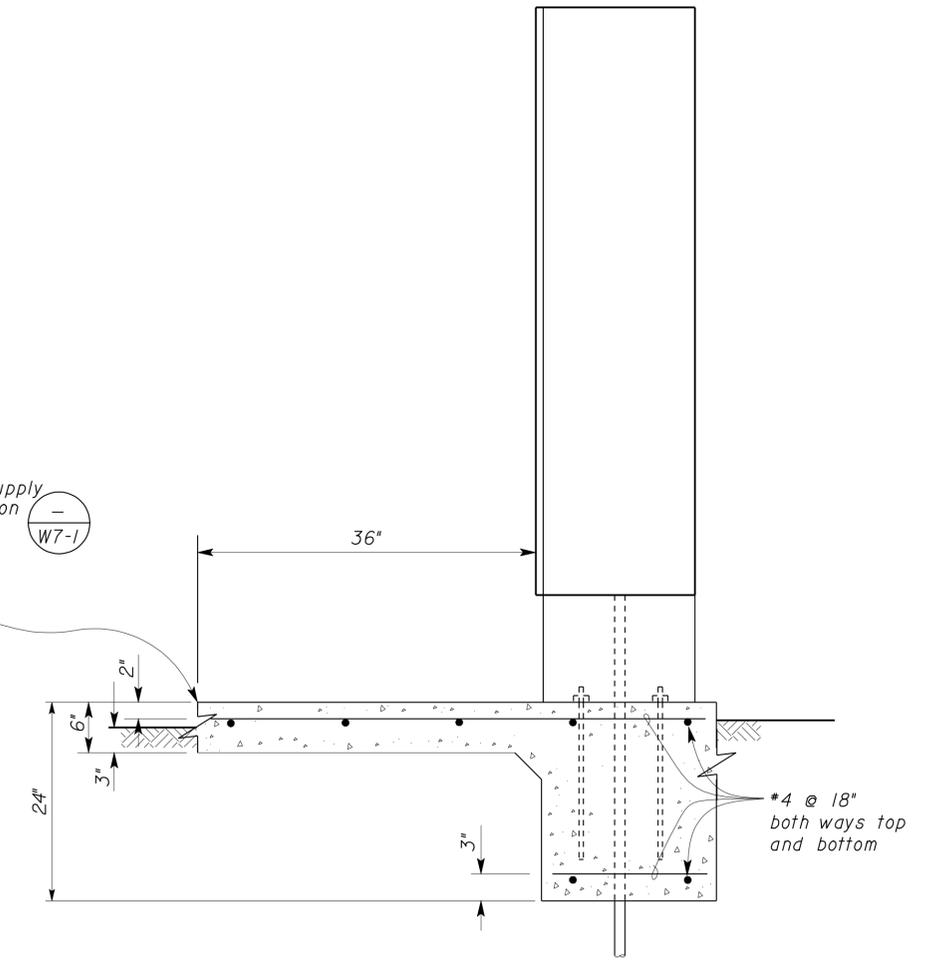


(EXTERIOR DOOR AND INTERIOR HINGED PANEL DOOR NOT SHOWN)

A ELEVATION
 NO SCALE



(EXTERIOR DOOR NOT SHOWN, INTERIOR HINGED PANEL DOOR CLOSED)



SIDE VIEW
 NO SCALE

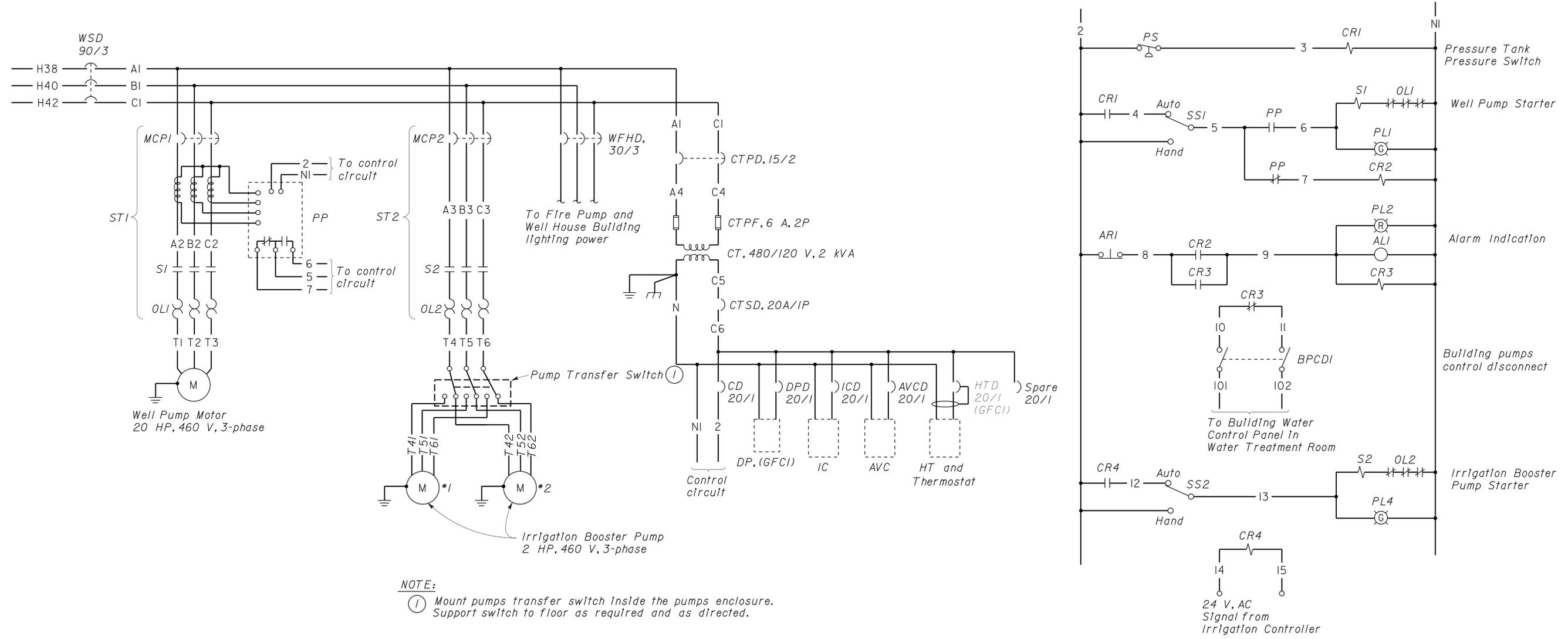
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DESIGN	BY	Helmy Abdelsayed	CHECKED	Jesse Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	SHEET			
	DETAILS	BY	Ed D. Tapalla 10/12	CHECKED			Helmy Abdelsayed	POST MILE			177.3/181.1	CVEF DOMESTIC WATER SYSTEM CONTROL PANEL	EEO-26
	QUANTITIES	BY	Helmy Abdelsayed	CHECKED			Jesse Sandhu	REVISION DATES (PRELIMINARY STAGE ONLY)			4/28/11 11/30/12		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES					

DOES SD Imperial Rev. 9/02
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	633	710
 REGISTERED ELECTRICAL ENGINEER			11-30-12	DATE	
2-25-13 PLANS APPROVAL DATE					
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NOTE:
 ① Mount pumps transfer switch inside the pumps enclosure. Support switch to floor as required and as directed.

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	DETAILS	BY Ed D. Tapalla 10/12	CHECKED Helmy Abdelsayed			POST MILE	177.3/181.1		DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES (PRELIMINARY STAGE ONLY)	4/28/11	11/30/12						
	QUANTITIES	BY Helmy Abdelsayed	CHECKED Jesse Sandhu			UNIT PROJECT NUMBER & PHASE	3596 08000006281			SHEET	OF							

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	634	710

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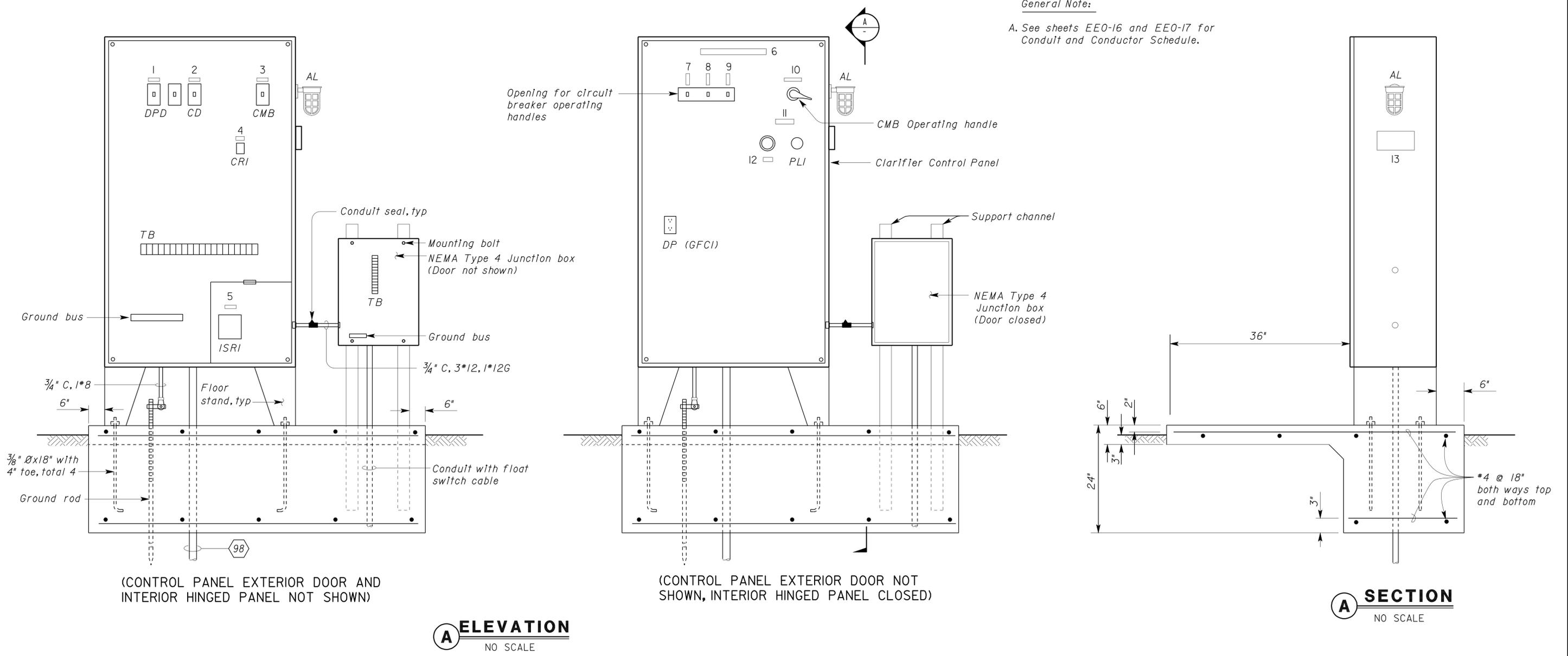
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NAMEPLATE SCHEDULE					
ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)	ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)
	DPD	1/4	7	RECEPTACLE	1/4
2	CD	1/4	8	SPARE	1/4
3	CMB	1/4	9	CONTROL	1/4
4	CRI	1/4	10	MAIN	3/8
5	ISRI	1/4	11	HIGH WATER ALARM	1/4
6	CLARIFIER CONTROL PANEL	1/4	12	RESET	1/4

WARNING PLATE SCHEDULE		
ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)
13	HIGH WATER	3/8

General Note:

A. See sheets EE0-16 and EE0-17 for Conduit and Conductor Schedule.



(CONTROL PANEL EXTERIOR DOOR AND INTERIOR HINGED PANEL NOT SHOWN)

(CONTROL PANEL EXTERIOR DOOR NOT SHOWN, INTERIOR HINGED PANEL CLOSED)

A SECTION
NO SCALE

A ELEVATION
NO SCALE

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				POST MILE 177.3/181.1		
DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET OF
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			REVISION DATES (PRELIMINARY STAGE ONLY) 4/28/11 11/30/12		SHEET OF

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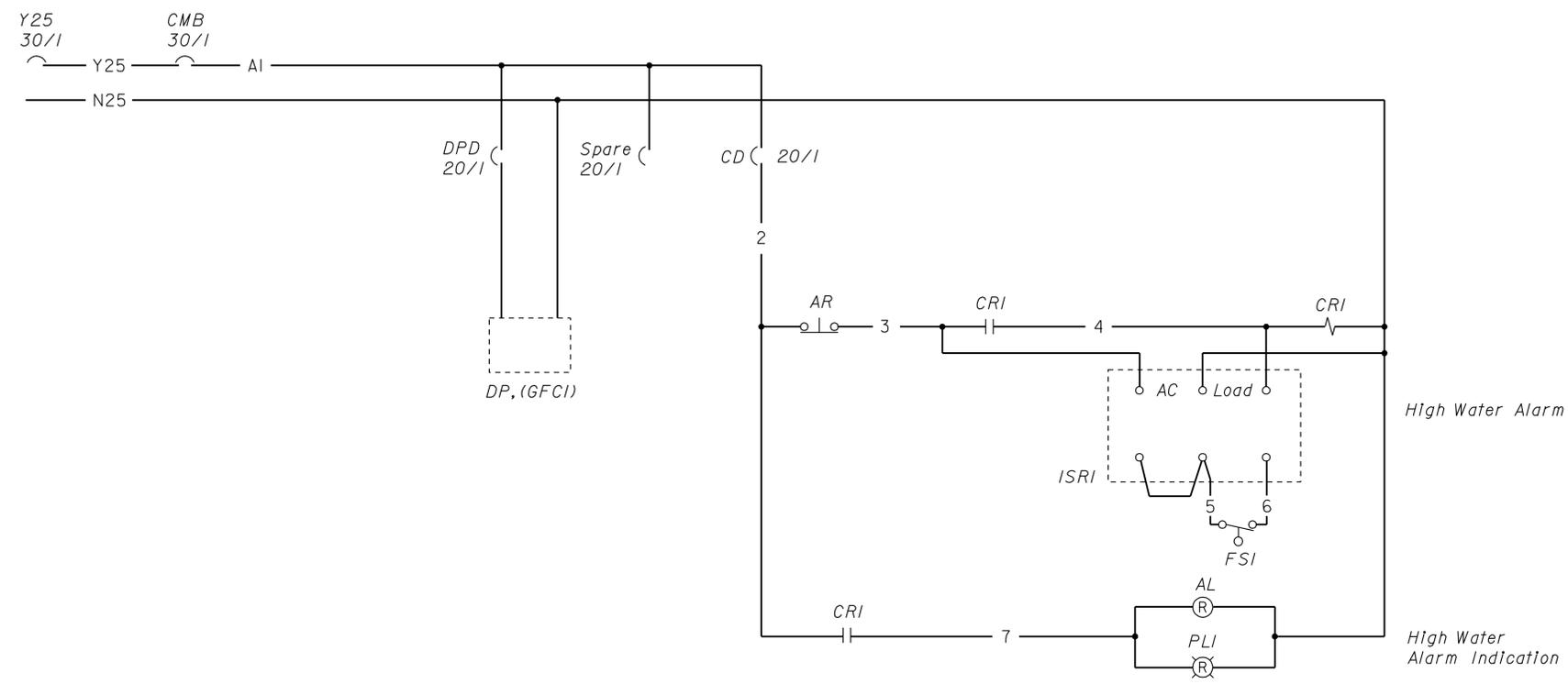
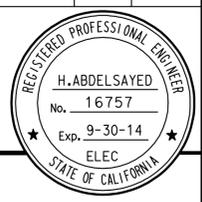
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H. Abdelsayed 11-30-12
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2-25-13
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SCHEMATIC DIAGRAM

DOES SD Imperial Rev. 9/02	DESIGN	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE CLARIFIER SCHEMATIC DIAGRAM	SHEET	OF
	DETAILS	BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>			POST MILE	177.3/181.1		EEO-29	
	QUANTITIES	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			REVISION DATES (PRELIMINARY STAGE ONLY)	4/28/11 11/30/12			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET	OF	

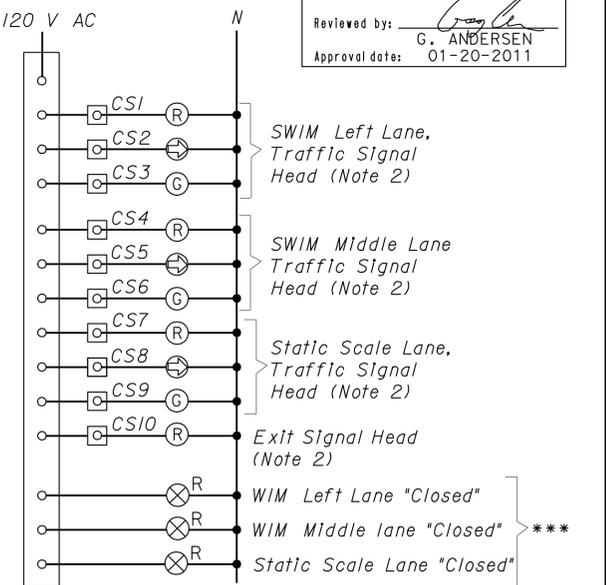
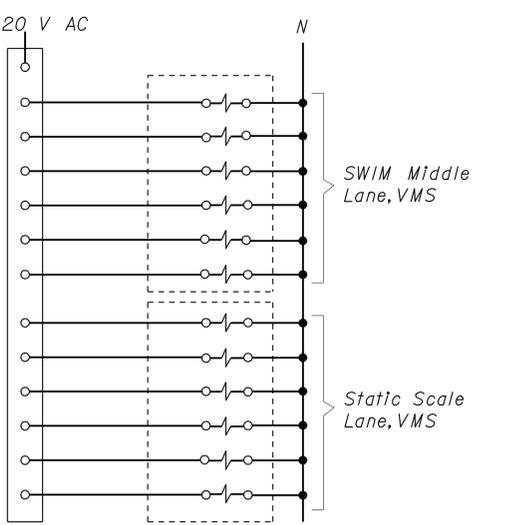
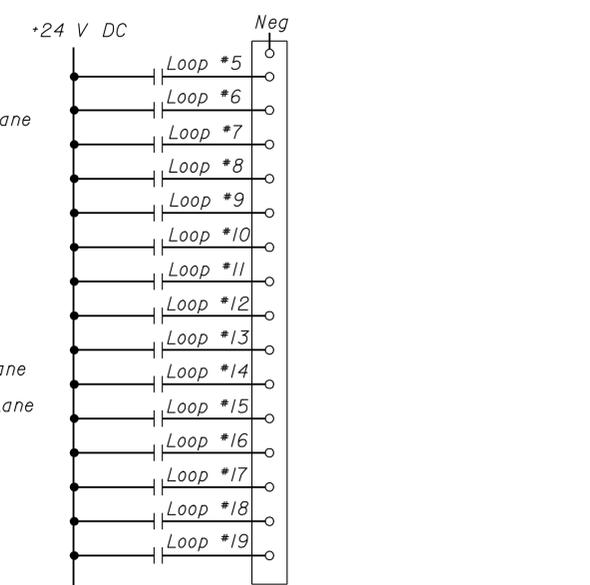
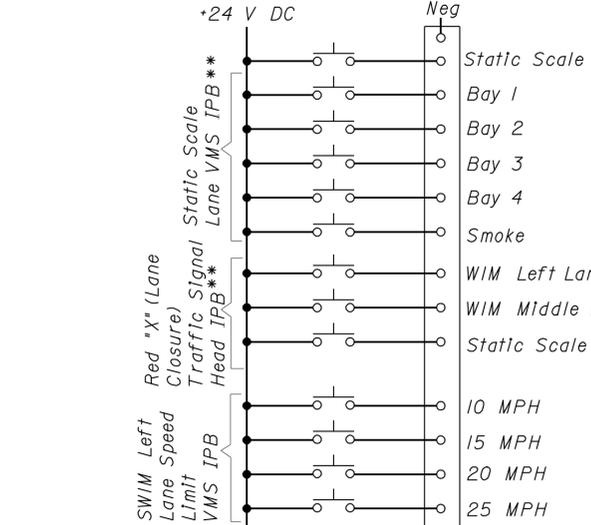
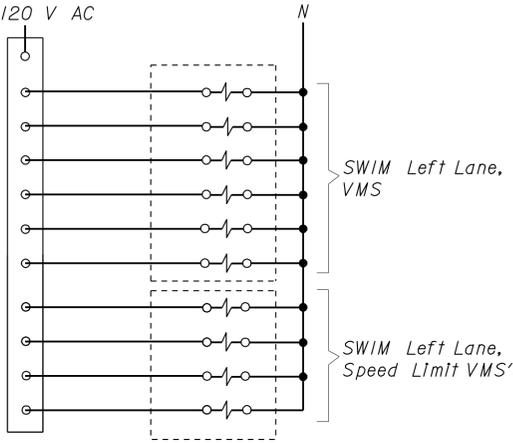
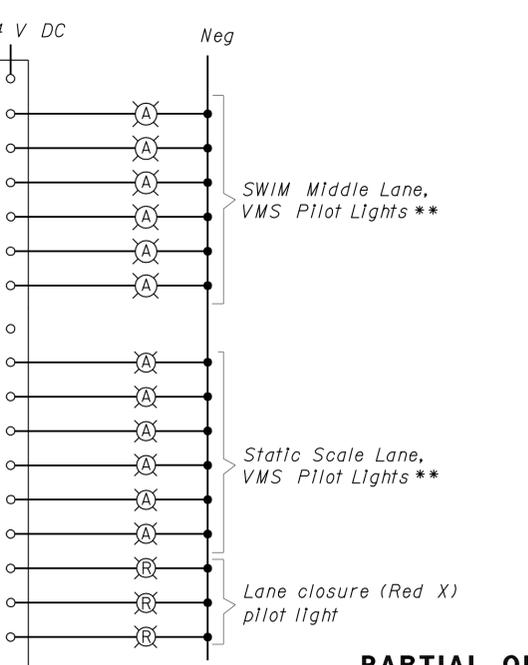
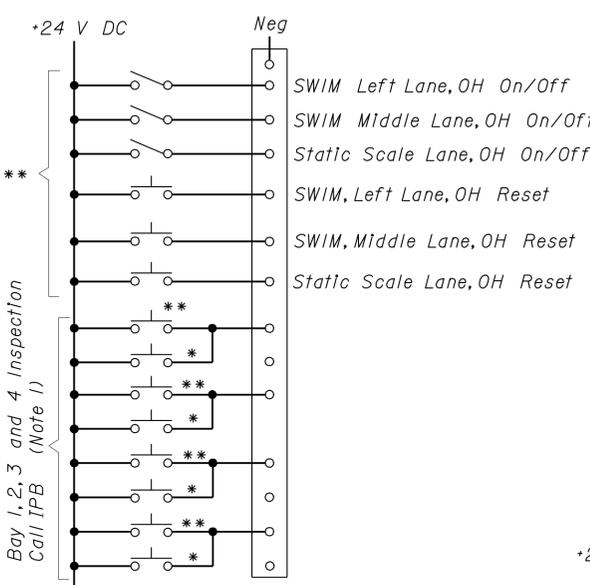
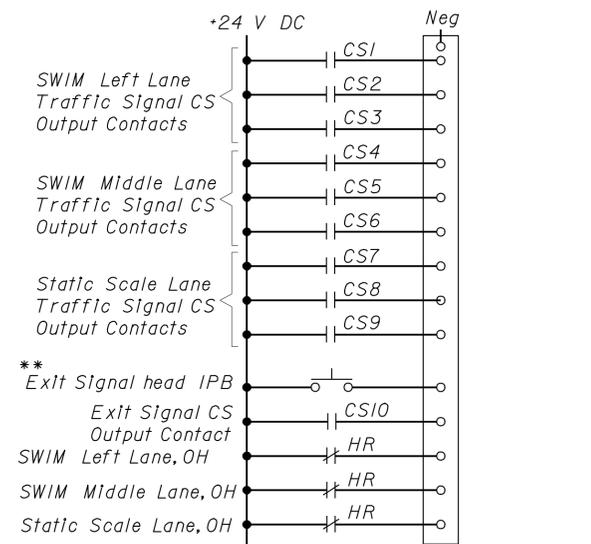
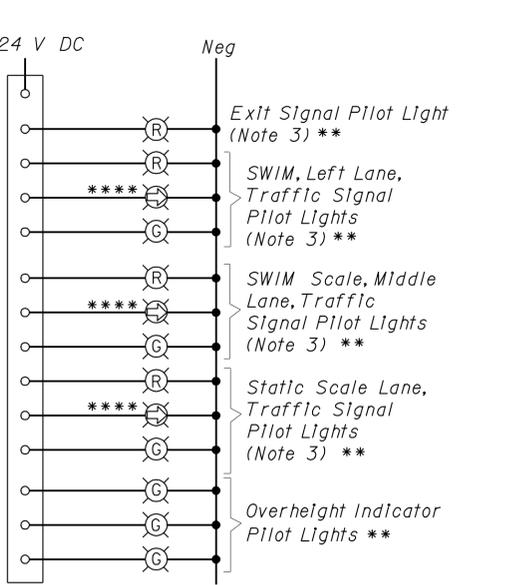
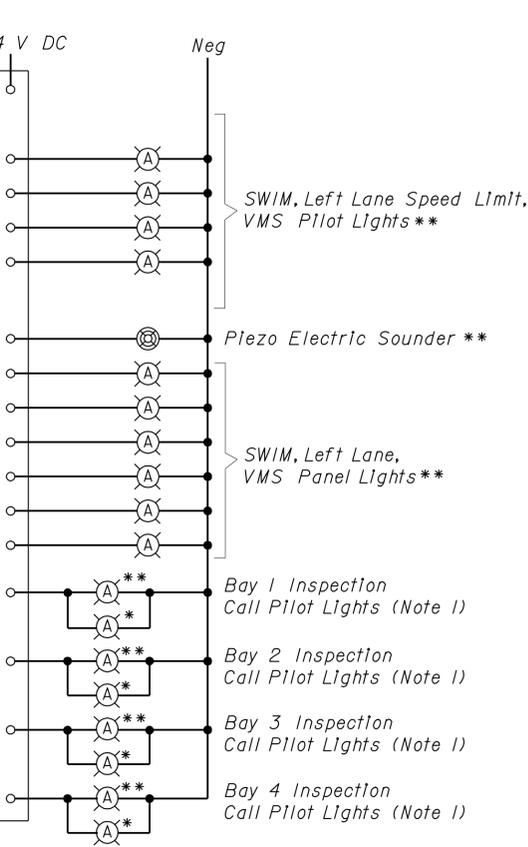
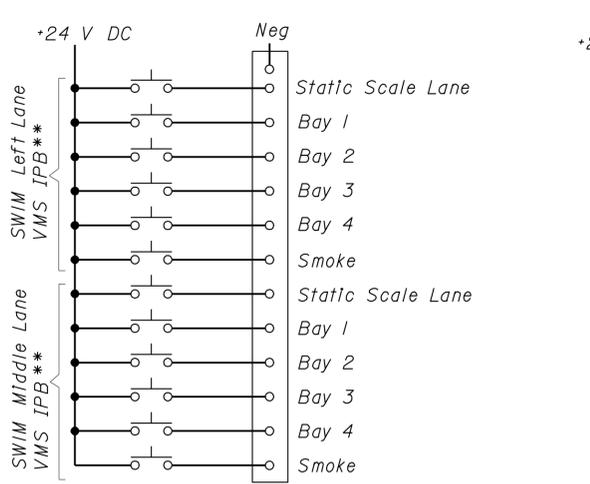
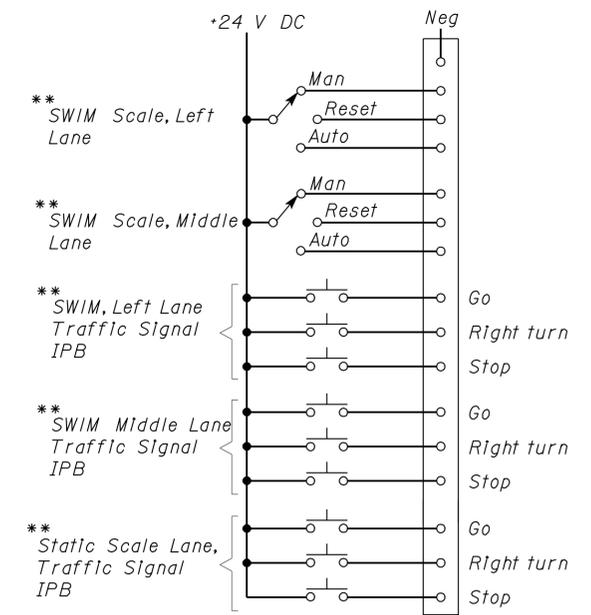
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	636	710

H. Abdelsayed
 REGISTERED ELECTRICAL ENGINEER 11-30-12 DATE
 No. 16757
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

2-25-13
 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.



- Notes:**
- Both pilot lights on the same output rung shall turn on and off at each sequential operation of either pushbutton.
 - Traffic signal interlock shall be accomplished by output of current switches. Current switches shall be installed in the SWIM system cabinet.
 - All control console traffic signal pilot lights shall be controlled thru the output of current switches.
- * Illuminated pushbutton located at the Inspector's control station at the inspection bays.
 ** Devices located at control console.
 *** Red "X" Traffic signal head.
 **** Green arrow pilot light.

CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

PARTIAL OUTPUT MODULE DIAGRAM

DESIGN	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>
DETAILS	BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>
QUANTITIES	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	PROGRAMMABLE LOGIC CONTROLLER	SHEET EEO-30
POST MILE	177.3/181.1			

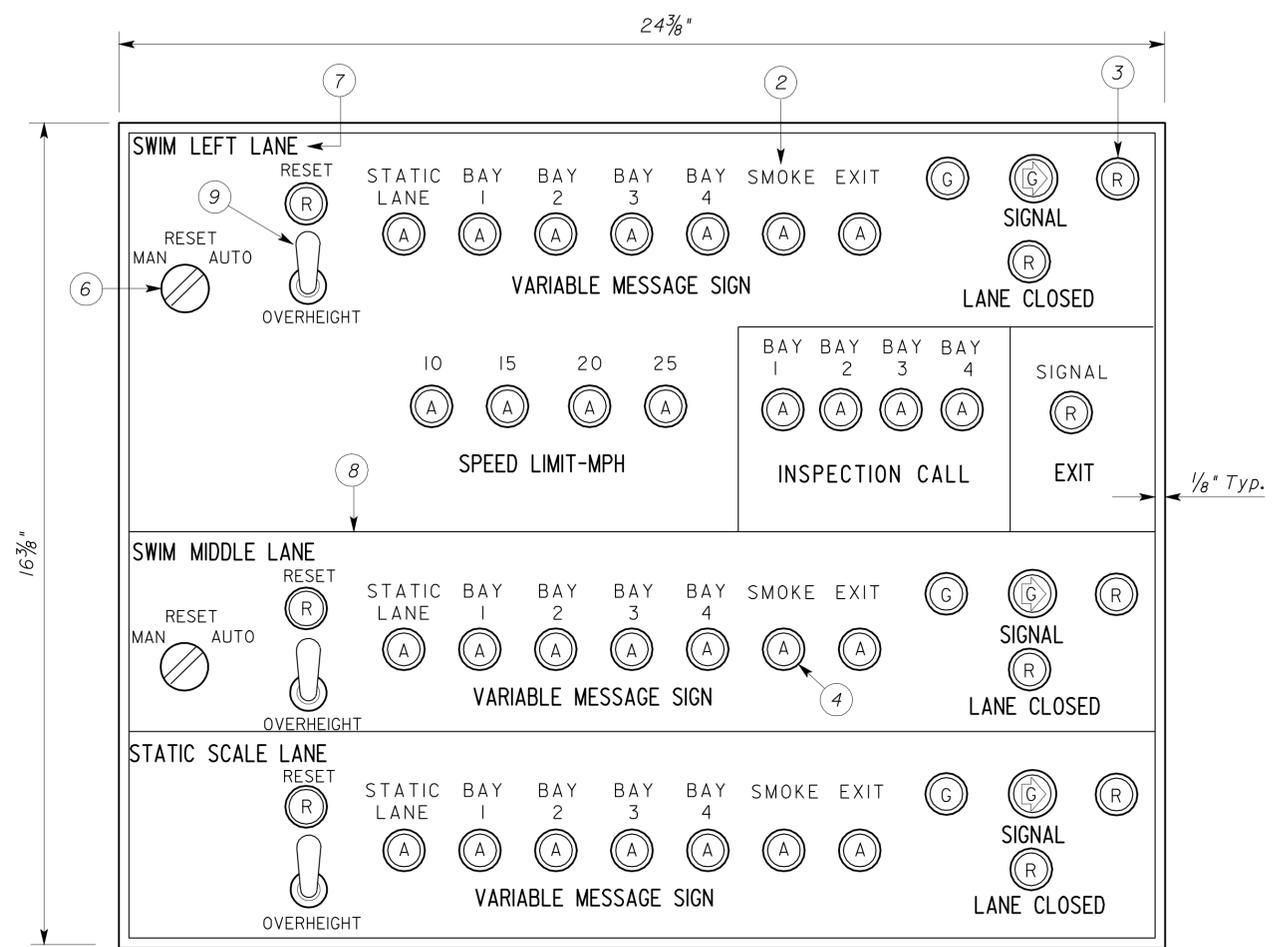
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	637	710

<i>H. Abdelsayed</i>		11-30-12
REGISTERED ELECTRICAL ENGINEER	DATE	

2-25-13
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.

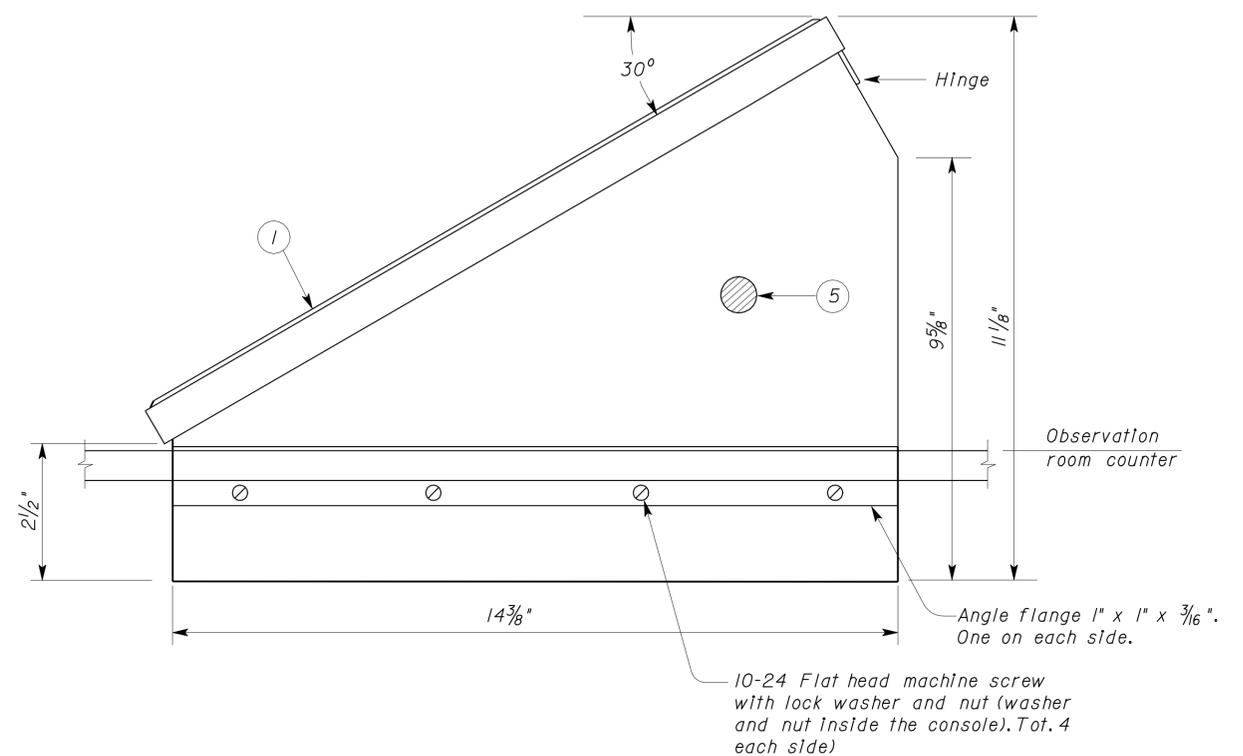
CALIFORNIA STATE FIRE MARSHAL APPROVED
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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011



PLAN

CONTROL CONSOLE

NO SCALE



SIDE VIEW

Notes:

- ① Two color beveled edge laminated phenolic plate glued on.
- ② Inscription, 3/16" high letters, typ.
- ③ Illuminated pushbutton-momentary contact, arrow on green lens when shown, other colors as shown, size 7/8", typ.
- ④ Illuminated pushbutton-momentary contact with amber lens, size 1/2", typ.
- ⑤ Buzzer, cut opening on the side of control console cabinet
- ⑥ Selector switch, typ.
- ⑦ Inscription (Bold letters only), 1/4" high letters, typ.
- ⑧ Line, inscription on plate, typ.
- ⑨ Toggle switch, typ. with ON/OFF legend plate.

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE	SHEET
	DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>			54-1216J		EEO-31
	QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			POST MILE 177.3/181.1		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	638	710

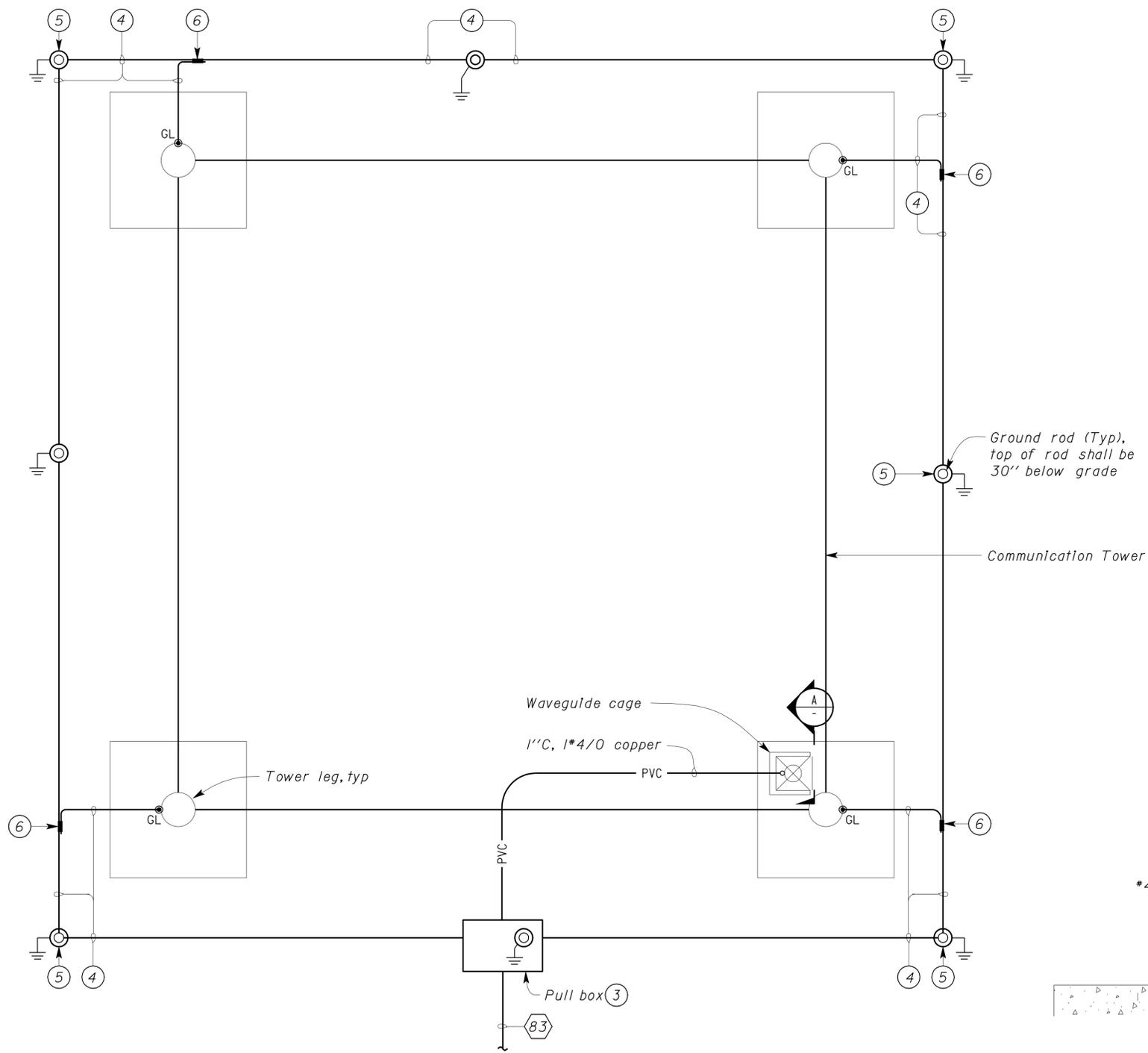
<i>H. Abdelsayed</i>		11-30-12
REGISTERED ELECTRICAL ENGINEER	DATE	

2-25-13	
PLANS APPROVAL DATE	

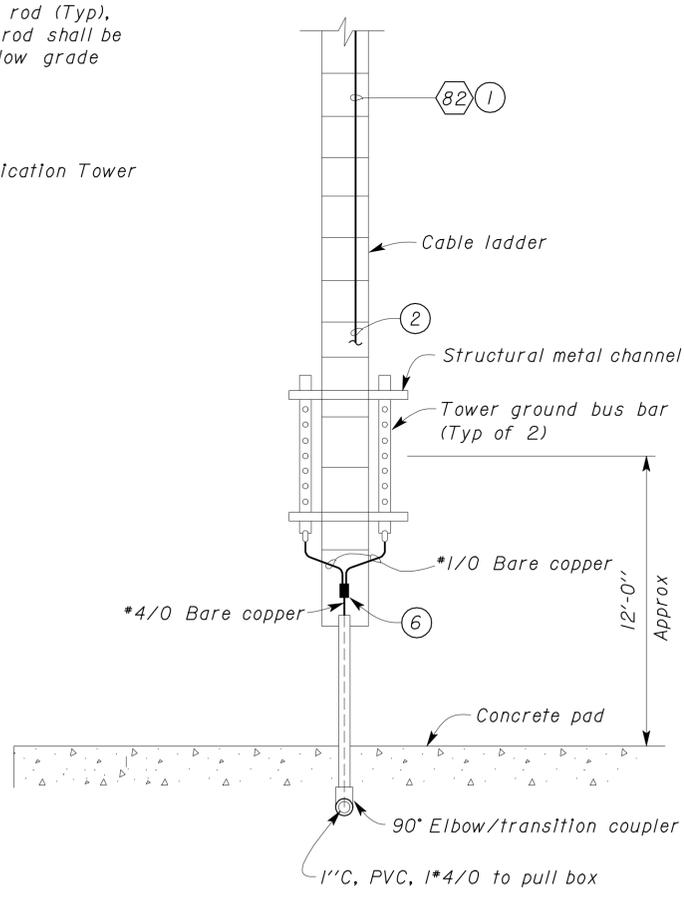
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

CALIFORNIA STATE FIRE MARSHAL APPROVED
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Reviewed by: *G. Andersen*
G. ANDERSEN
 Approval date: 01-20-2011



PLAN
NO SCALE



A ELEVATION
NO SCALE

- General Notes:
- A. See sheets EEO-16 and EEO-17 for conduit and conductor schedule.
- Notes:
- ① 1" C, 2*10, 1*10G, to weatherproof GFCI receptacles at the tower work platforms. Install one weatherproof, GFCI receptacle at each of the tower work platforms. The duplex outlets shall be mounted 1'-0" above their respective work platform deck.
 - ② Provide 90° elbow for continuation of conduit to Communication Room. Conduit shall run across waveguide bridge and enter the Room via the feed-thru plate. Waveguide bridge is not shown for clarity.
 - ③ Fasten all *4/0 copper to ground rod by exothermic weld in pull box.
 - ④ 1*4/0 Ground wire.
 - ⑤ Attach * 4/0 conductors to ground rod using exothermic weld.
 - ⑥ Splice conductors using exothermic weld.

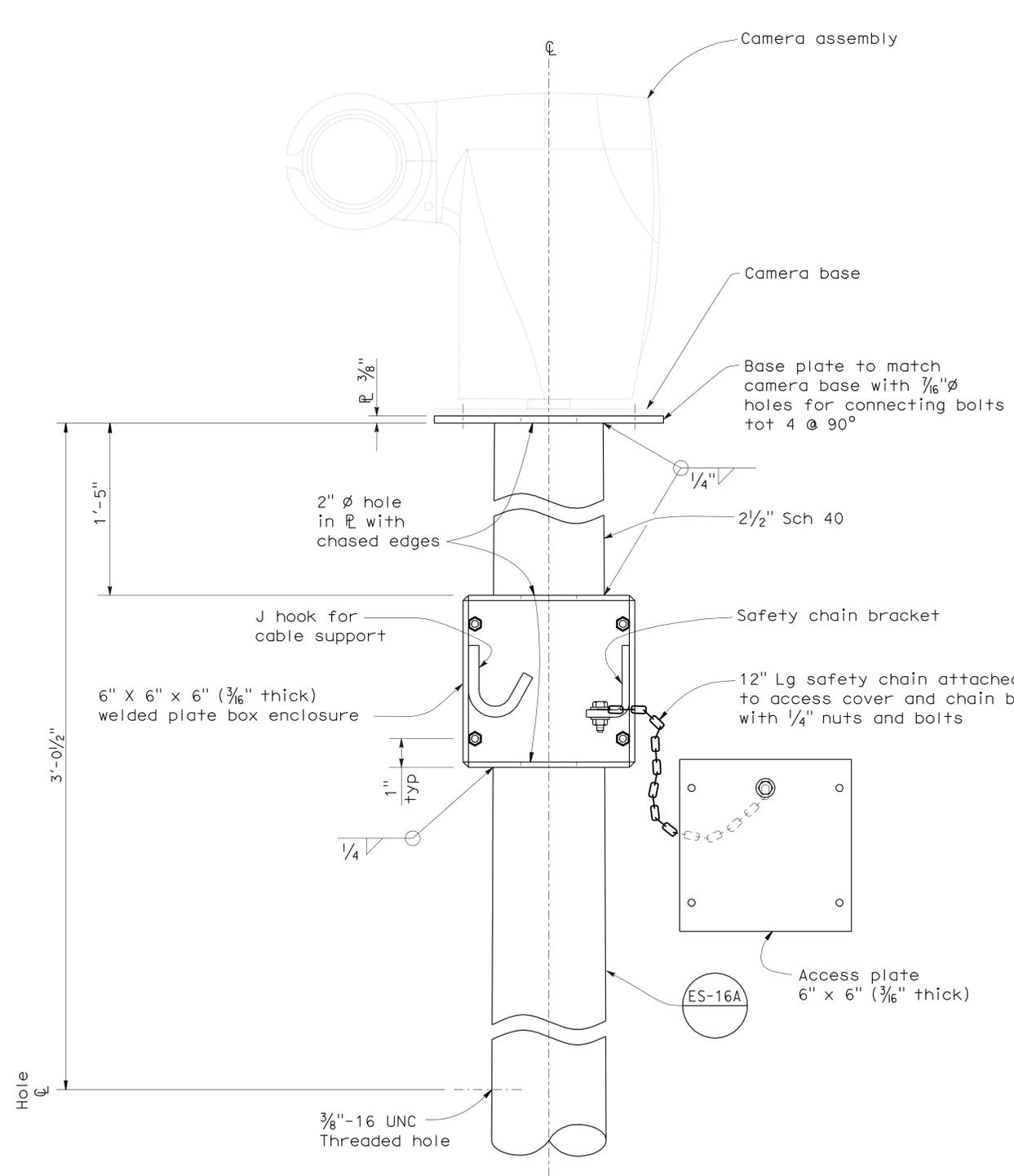
THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY	<i>Helmy Abdelsayed</i>	CHECKED	<i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	SHEET EEO-32		
	DETAILS	BY	<i>Ed D. Tapalla 10/12</i>	CHECKED			<i>Helmy Abdelsayed</i>	POST MILE			177.3/181.1	COMMUNICATIONS TOWER DETAILS
	QUANTITIES	BY	<i>Helmy Abdelsayed</i>	CHECKED			<i>Jesse Sandhu</i>	REVISION DATES (PRELIMINARY STAGE ONLY)				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	4/28/11 11/30/12	SHEET OF		

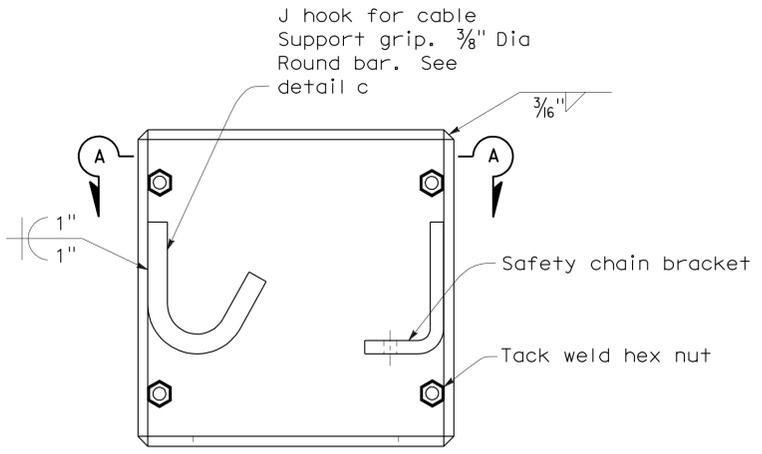
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	15	177.3/181.1	639	710

CALIFORNIA STATE FIRE MARSHAL APPROVED
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 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

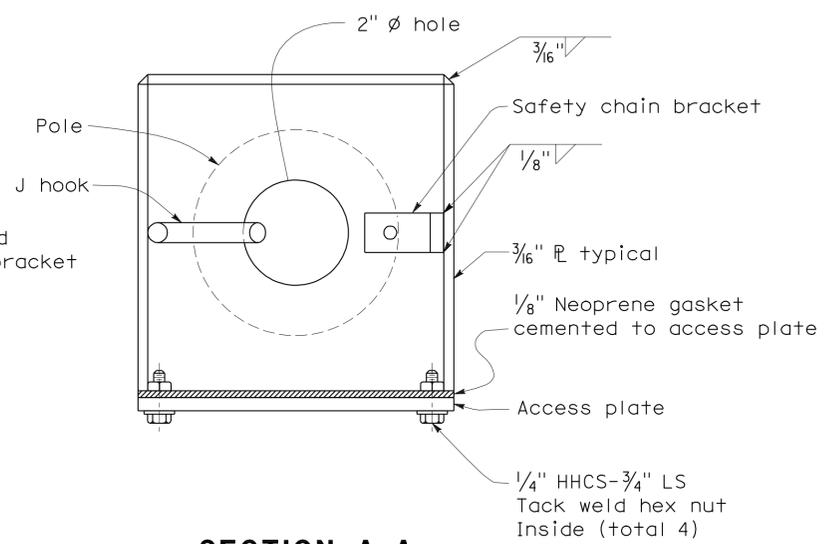
Lisa M. McCutcheon 11-30-12
 REGISTERED CIVIL ENGINEER DATE
 2-25-13
 PLANS APPROVAL DATE
 No. C70121
 Exp. 9/30/14
 CIVIL
 STATE OF CALIFORNIA
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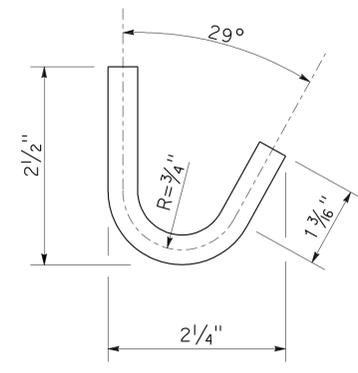
DETAIL A
CCTV POLE MOUNTING WITH ADAPTER
 (POLE TYPE TO BE CCTV 25)



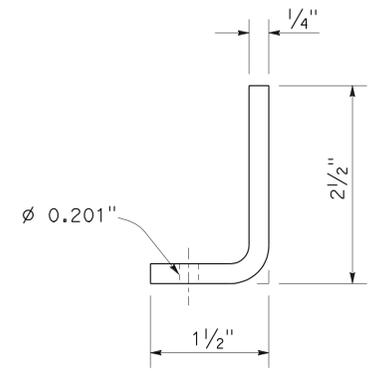
DETAIL B
BOX ENCLOSURE



SECTION A-A



DETAIL C
J HOOK



DETAIL D
SAFETY CHAIN BRACKET

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

BRANCH CHIEF *Jeff Woody*
 JEFF WOODY

DESIGN	BY L MCCUTCHEON	CHECKED
DETAILS	BY D W JUSTICE Jr	CHECKED L MCCUTCHEON
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	54-1216J
POST MILE	
177.3/181.1	

MOUNTAIN PASS JPOE
 CCTV CAMERA POLE DETAILS

EE0-33

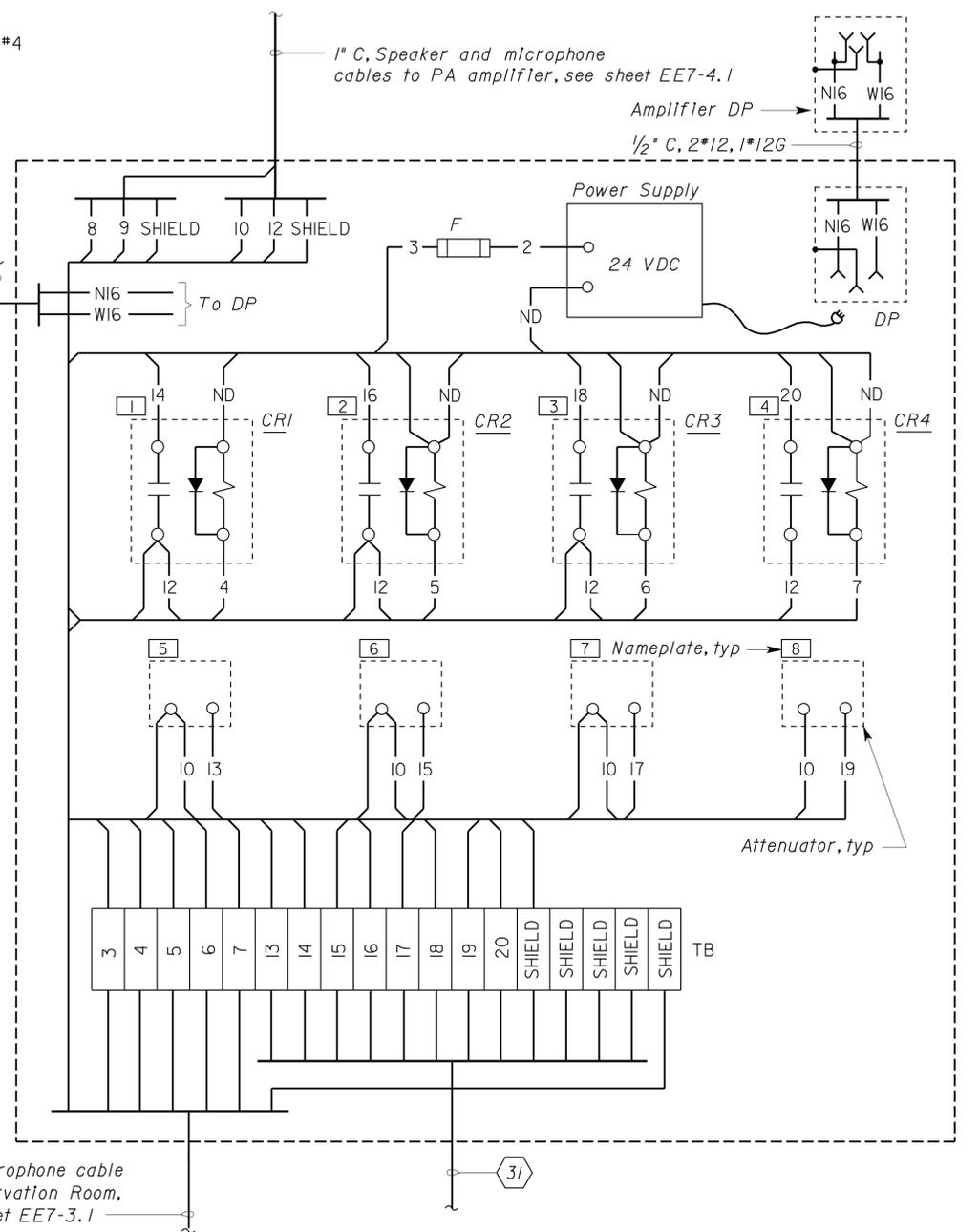
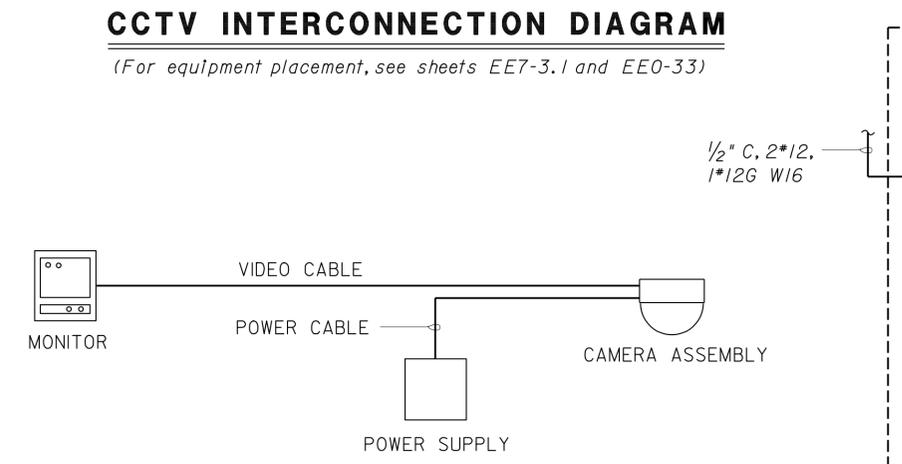
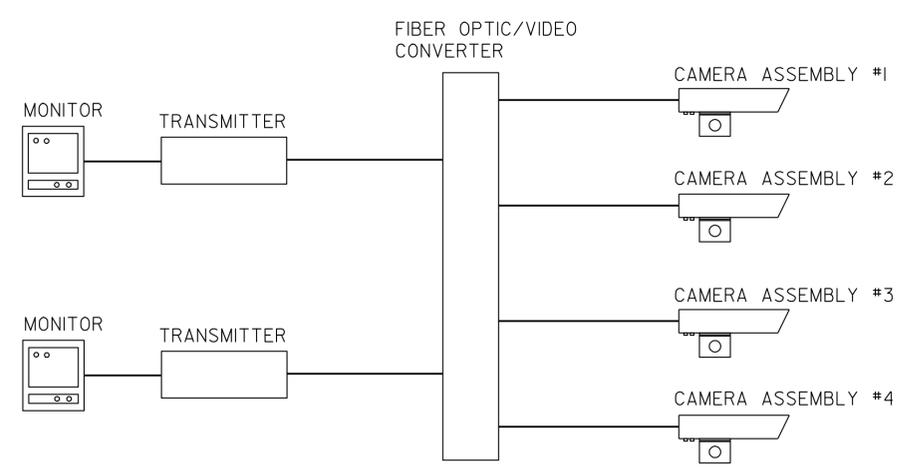
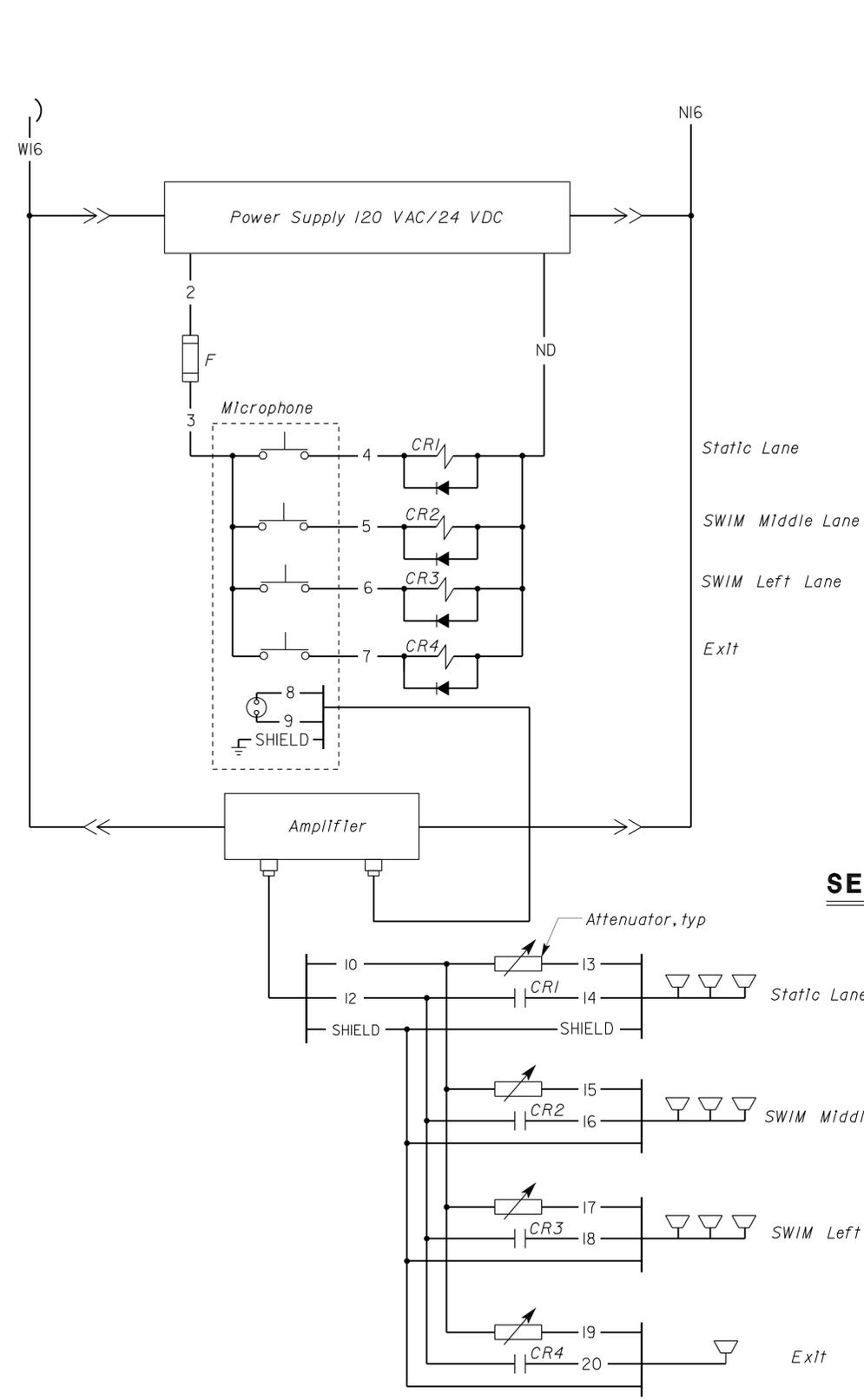
(ENGLISH) SPECIAL DESIGNS BRANCH BORDER SHEET (REV. 7-1-09)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
 PROJECT NUMBER & PHASE: 08000006281
 CONTRACT NO.: 08-368501

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
4-21-11 11-30-12		



General Note:
 See sheets EE0-16 and EE0-17 for Conduit and Conductor Schedule.

NAMEPLATE SCHEDULE		
ITEM No.	INSCRIPTION	LETTER SIZE (inch)
1	CR1	1/4
2	CR2	1/4
3	CR3	1/4
4	CR4	1/4
5	STATIC LANE	1/4
6	SWIM MIDDLE	1/4
7	SWIM LEFT	1/4
8	EXIT	1/4
9 *	PA SYSTEM CONTROL PANEL	3/8

* Nameplate shall be mounted on the control panel exterior door

CERTIFICATE OF COMPLIANCE (Part 1 of 4) LTG-1-C

PROJECT NAME MOUNTAIN PASS COMMERCIAL VEHICLE ENFORCEMENT FACILITY	DATE 1/8/2009
PROJECT ADDRESS ROUTE 15, SAN BERNARDINO COUNTY	Building Permit #
PRINCIPAL DESIGNER-LIGHTING TOMMY F. LEE	
DOCUMENTATION AUTHOR TOMMY F. LEE	Checked by/Date Enforcement Agency Use

GENERAL INFORMATION			
DATE OF PLANS	1/8/2009	BUILDING CONDITIONED FLOOR AREA	26,500
CLIMATE ZONE	14		
BUILDING TYPE	<input checked="" type="checkbox"/> NONRESIDENTIAL	<input type="checkbox"/> HIGH RISE RESIDENTIAL	<input type="checkbox"/> HOTEL/MOTEL GUEST
<input checked="" type="checkbox"/> CONDITIONED SPACES	<input type="checkbox"/> UNCONDITIONED SPACES	<input type="checkbox"/> INDOOR / OUTDOOR SIGNS	
PHASE OF CONSTRUCTION	<input checked="" type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> ADDITION	<input type="checkbox"/> ALTERATION

METHOD OF COMPLIANCE

PERFORMANCE COMPLETE BUILDING AREA CATEGORY TAILORED COMMON LIGHTING

STATEMENT OF COMPLIANCE

This Certificate of Compliance lists the building features and performance specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to building lighting requirements.

The documentation preparer hereby certifies that the documentation is accurate and complete.

DOCUMENTATION AUTHOR TOMMY F. LEE	SIGNATURE <i>Tommy F. Lee</i>	DATE 1/8/2009
--------------------------------------	----------------------------------	------------------

The Principal Lighting Designer hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the lighting requirements contained in the applicable parts of Sections 110, 119, 130 through 132, 146, 148, and 149 of Title 24, Part 6.

- The plans & specifications meet the requirements of Part 6 (Sections 10-103a). The installation certificates meet the requirements of Part 6 (10-103a3).
- The operation & maintenance information meets the requirements of Part 6 (10-103c). Please check one: (These sections of the Business and Professions Code are printed in full in the Nonresidential Manual.)
- I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer or electrical engineer, or I am a licensed architect.
- I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
- I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

PRINCIPAL LIGHTING DESIGNER-NAME TOMMY F. LEE	SIGNATURE <i>Tommy F. Lee</i>	DATE 1/8/2009	LIC.# E12801
--	----------------------------------	------------------	-----------------

LIGHTING MANDATORY MEASURES

Indicate location on plans of Note Block for Mandatory Measures EE8-4

LIGHTING COMPLIANCE FORMS & WORKSHEETS (Check box if worksheet is included)

<input checked="" type="checkbox"/> LTG-1-C, Parts 1 of 4 and 2 of 4	Certificate of Compliance. Part 1 of 4 and 2 of 4 are required for all submittals.
<input checked="" type="checkbox"/> LTG-1-C, Part 3 of 4	Certificate of Compliance. Part 3 of 4 submittal is required only if Control Credits are claimed.
<input checked="" type="checkbox"/> LTG-1-C, Part 4 of 4	Certificate of Compliance. Part 4 of 4 submittal is required when lighting controls are installed.
<input checked="" type="checkbox"/> LTG-2-C	Indoor Lighting Schedule
<input type="checkbox"/> LTG-3-C	Portable Lighting Worksheet
<input checked="" type="checkbox"/> LTG-4-C	Lighting Controls Credit Worksheet
<input checked="" type="checkbox"/> LTG-5-C	Indoor Lighting Power Allowance
<input type="checkbox"/> LTG-6-C	Tailored Method Worksheet
<input type="checkbox"/> LTG-7-C	Room Cavity Ratio Worksheet
<input type="checkbox"/> LTG-8-C	Common Lighting Systems Method Worksheet
<input type="checkbox"/> LTG-9-C	Line Voltage Track Lighting Worksheet
<input type="checkbox"/> OLTG-4-C	Signs (See OLTG-4-C Sign Worksheet in Chapter 6, Outdoor Lighting and Signs Chapter)

2005 Nonresidential Compliance Forms

January 2006

GENERAL NOTE:

Only forms LTG-1-C, Parts 1 of 4 and 2 of 4 are shown on this sheet. Other checked forms are available upon request.

CERTIFICATE OF COMPLIANCE (Part 2 of 4) LTG-1-C

PROJECT NAME MOUNTAIN PASS COMMERCIAL VEHICLE ENFORCEMENT FACILITY	DATE 1/8/2009
INSTALLED INDOOR LIGHTING POWER FOR CONDITIONED AND UNCONDITIONED SPACES	

	INSTALLED WATTS
INSTALLED LIGHTING, CONDITIONED SPACES (From LTG-2-C)	21963
PORTABLE LIGHTING (From LTG-3-C)	+ 305
LIGHTING CONTROL CREDIT, CONDITIONED SPACES (From LTG-4-C)	- 114
CONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	= 22154
INSTALLED LIGHTING, UNCONDITIONED SPACES (From LTG-2-C)	0
LIGHTING CONTROL CREDIT, UNCONDITIONED SPACES (From LTG-4-C)	- 0
UNCONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	= 0

ALLOWED INTERIOR LIGHTING POWER FOR CONDITIONED SPACES

- COMPLETE BUILDING METHOD (From LTG-5-C)
- AREA CATEGORY METHOD (From LTG-5-C)
- TAILORED METHOD (From LTG-5-C)

ALLOWED LIGHTING POWER	26524
------------------------	-------

ALTERNATE COMPLIANCE

- PERFORMANCE METHOD
- COMMON LIGHTING SYSTEM (From LTG-8-C)

ALLOWED INTERIOR LIGHTING POWER FOR UNCONDITIONED SPACE (From LTG-5-C) _____ Watts

MANDATORY LIGHTING MEASURES FOR INDOOR AND DAYLIT AREAS

MANDATORY INDOOR AND DAYLIGHTING AUTOMATIC CONTROLS

CONTROL LOCATION (Room #, Area #, or Description)	CONTROL IDENTIFICATION	CONTROL TYPE (Auto Time Switch, Dimming, Photosensor, etc.)	SPACE CONTROLLED Lists the location of controlled lights	If Control is for Daylighting	NOTE TO FIELD
①	S _{OC1}	Single level -Occupancy sensor	①		
②	S _{OC2}	Bilevel -Occupancy Sensor	②		
③	S _{DTs} with S _b	Timer switch & switches (for bilevel)	③		
④	OC with S _D	Occupancy sensor with dimming switch	④		
⑤	S _D	Dimming switch	⑤		
⑥	OC	Occupancy sensor - corner mounted	⑥		
⑦	OC	Occupancy sensor - wall mounted	⑦		
⑧	OC with S	Occupancy sensor with switch	⑧		
⑨	S, S ₃	Switches (Single pole or 3-way)	⑨		

2005 Nonresidential Compliance Forms

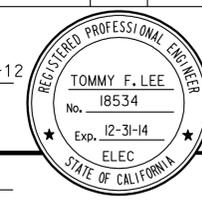
January 2006

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SbD	15	177.3/181.1	641	710

Tommy F. Lee 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
PLANS APPROVAL DATE

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CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

Notes:

- ① Storage 2, Vestibule 2, Vestibule 3 Armory, Janitor 1, Janitor 2, Entry Womens Entry Mens, Entry Multi-purpose Rm.
- ② Sergeant Office B, Uniform Rm, EMT Rm, Lieutenant Office, Clerical Storage and Work Area, Road Crew Area, Sergeant Office A, Evidence, Parts and Storage.
- ③ Electrical Rm, Mechanical Rm, Water Treatment Rm, Vehicle Maintenance Shop
- ④ Multi-purpose Rm, Break Rm
- ⑤ Lobby, Open Office, Observation Rm Clerical Rm
- ⑥ Mens, Womens (Public Rest Rooms)
- ⑦ Hallways
- ⑧ Womens, Womens Lockers, Mens, Mens Lockers
- ⑨ Inspection Area and Inspection Area Pits

DESIGN	BY <i>Tommy F. Lee</i>	CHECKED <i>J.S. Sandhu</i>
DETAILS	BY <i>Dall Zhou</i>	CHECKED <i>Tommy F. Lee</i>
QUANTITIES	BY <i>Tommy F. Lee</i>	CHECKED <i>J.S. Sandhu</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO. 54-1216J
POST MILE 177.3/181.1

MOUNTAIN PASS JPOE

CVEF

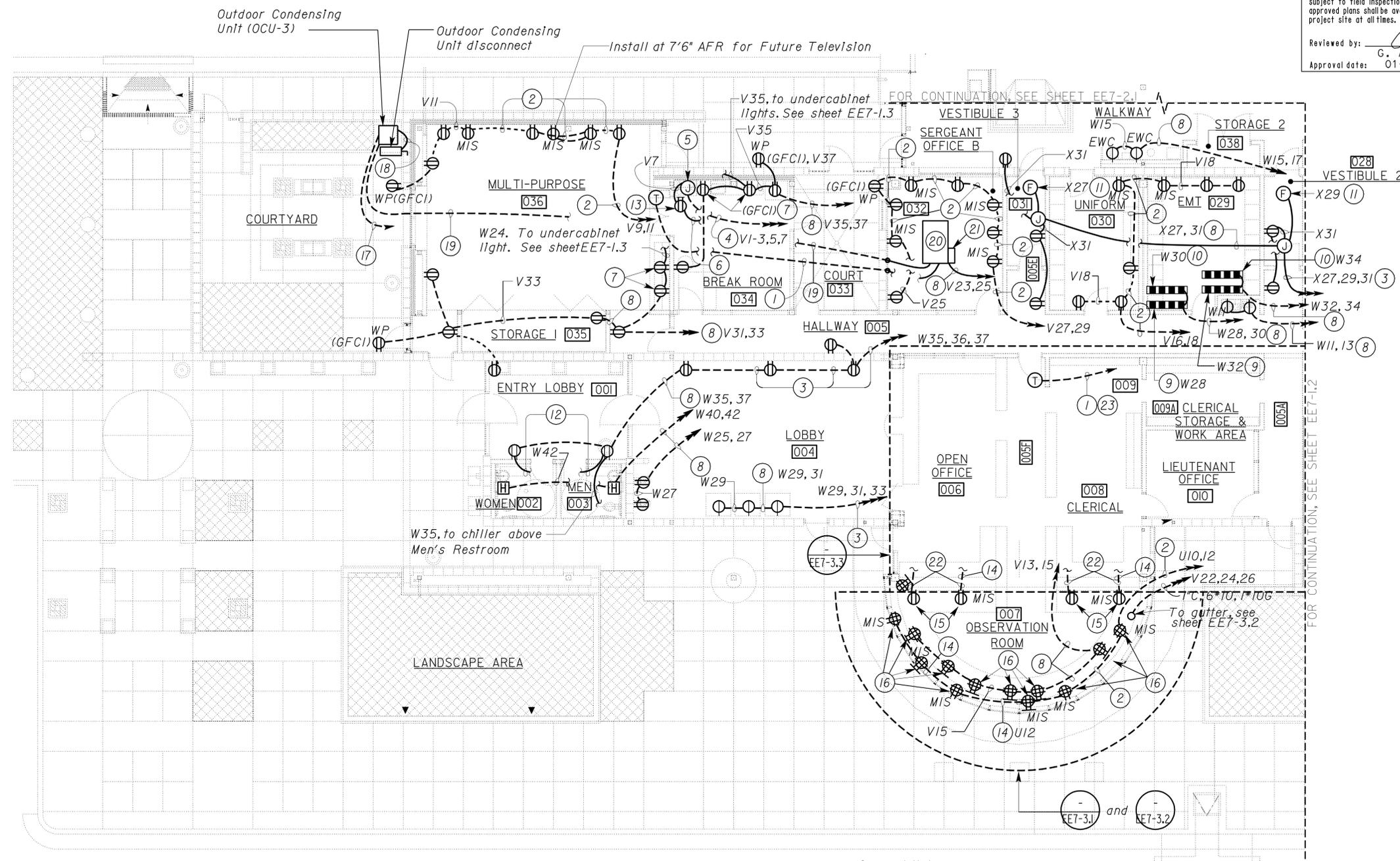
CERTIFICATE OF COMPLIANCE FORMS

SHEET EE7-0.1

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	642	710

REGISTERED PROFESSIONAL ENGINEER J. S. SANDHU No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA	
Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011	Approved by: <i>J. Sandhu</i> J. SANDHU Approval date: 11-30-12
2-25-13 PLANS APPROVAL DATE	
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General Notes:

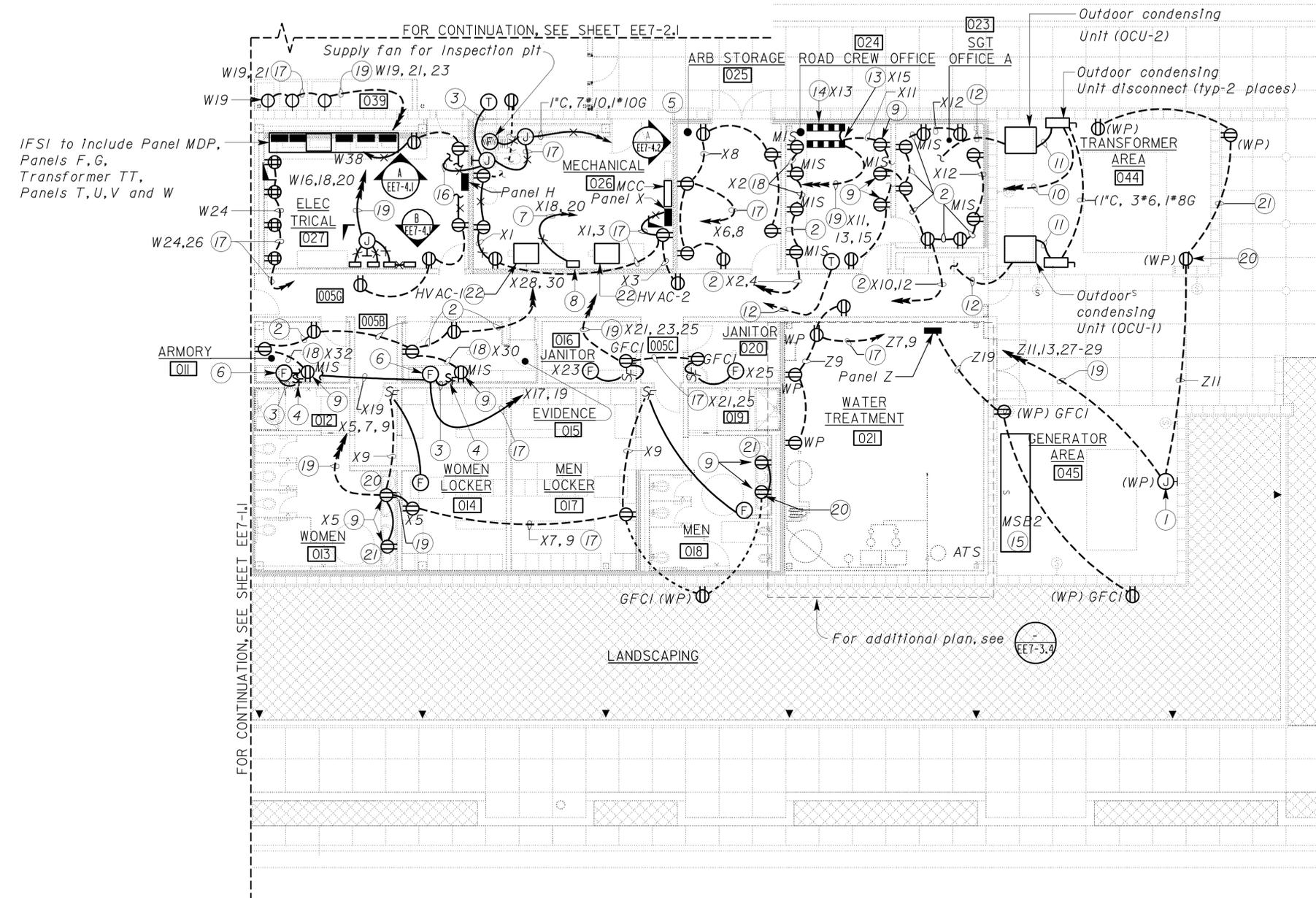
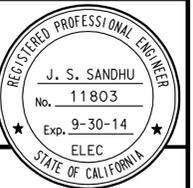
- A. For location of fans, duct heater, split air conditioning system with gas furnace units, thermostat and outdoor condensing units, see Mechanical plans.
- B. Connection for combination heat, light and fan units in restroom shower area are shown in the Lighting plan.
- C. Unless otherwise shown or noted, all conduits shown underfloor on this plan shall be 3/4"C, 2*12, 1*12G.
- D. For location of multi-outlet assemblies in Road Crew Office, see Architectural plans.
- E. For other power conduits, see sheet EE7-7.3.

CALIFORNIA STATE FIRE MARSHAL APPROVED
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 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	643	710

2-25-13
 PLANS APPROVAL DATE

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- Notes:
- ① Install 1/2"C, 2*12, 1*12G each to the battery charger and engine pre-heater.
 - ② 3/4"C, 4*12, 1*12G, 1*12 Isolated ground.
 - ③ 1/2"C, control conductors as required to suit unit furnished.
 - ④ Fan switch provided by exhaust fan manufacturer.
 - ⑤ To MCC. Connect to disconnect, HD, and starter, ST5. See sheet EE7-5.1.
 - ⑥ Exhaust hood fan (2-speed).
 - ⑦ 1"C, 4*10, 1*10G.
 - ⑧ Two manual motor starter. Install 3/4"C, 2*10, 1*12G from switch to each unit. The manual motor starter shall serve as local disconnect for the HVAC unit.
 - ⑨ Mount receptacle outlet at 6" above counter top.
 - ⑩ 1/2"C, 6*6, 1*8G, to Panel MDP. See sheet EE7-7.2
 - ⑪ 1"C (liquid tight flex), 3*6, 1*8G.
 - ⑫ 3/4"C, control conductors as required to suit unit furnished. Connect to split air conditioning system (HVAC-2).
 - ⑬ Mount multioutlet assembly at 3' above finished floor.
 - ⑭ Mount multioutlet assembly at 5' above finished floor.
 - ⑮ For conduit system in between MSB, ATSI, generator, utility transformer and panelboards, see sheets EE7-7.1, EE7-7.2 and EE7-7.3.
 - ⑯ 3/4"C, 4*12, 1*12G to duct heater with built-in control panel.
 - ⑰ 3/4"C, 4*12, 1*12G.
 - ⑱ 3/4"C, 2*12, 1*12G, 1*12 Isolated ground.
 - ⑲ 3/4"C, 6*12, 1*12G.
 - ⑳ GFCI feed through type.
 - ㉑ Connect to GFCI feed through type receptacle outlet.
 - ㉒ Split airconditioning unit with gas furnace.

PLAN
 SCALE 1/8" = 1'-0"

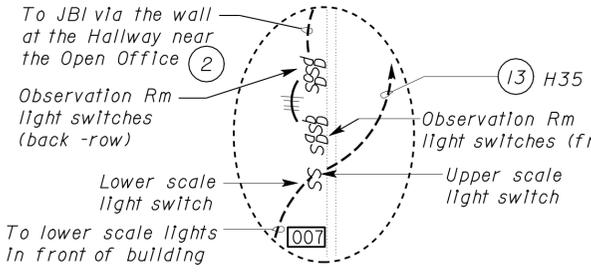
THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE		SHEET EE7-1.2
				POST MILE 177.3/181.1	CVEF	OFFICE AREA POWER PLAN 2	
DETAILS BY <i>Tommy Lee/Dall Zhou</i>	CHECKED <i>Christine Mamaril</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF
QUANTITIES BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>			4/28/11	11/30/12		

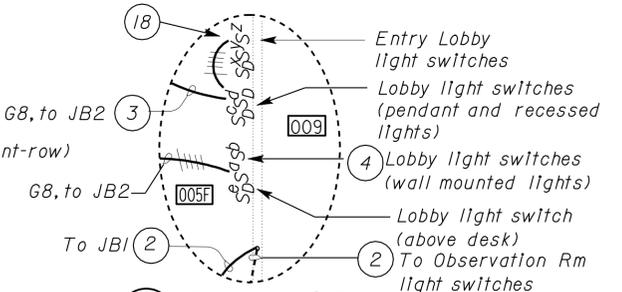
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	644	710

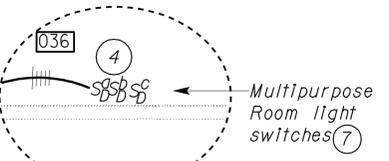
J. S. SANDHU REGISTERED ELECTRICAL ENGINEER No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA	
2-25-13 PLANS APPROVAL DATE	
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A ENLARGED PLAN
NO SCALE



B ENLARGED PLAN
NO SCALE



C ENLARGED PLAN
NO SCALE

General Notes:

- A. For exact location and mounting height of lights, see Architectural Plans.
- B. For location of fans, see Mechanical Plans.
- C. For location of Panels G, V and W and Lighting Control Station (LCS3), see sheet EE7-1.4
- D. For lighting schematic diagrams, see sheets EE7-5.2 and EE8-4.
- E. For lighting fixture schedules, see sheets EE8-1 and EE8-2.
- F. For wall or corner mounted occupancy sensor mounting details, see sheet EE7-6.4.
- G. For self luminous exit signs, see Architectural Plans.

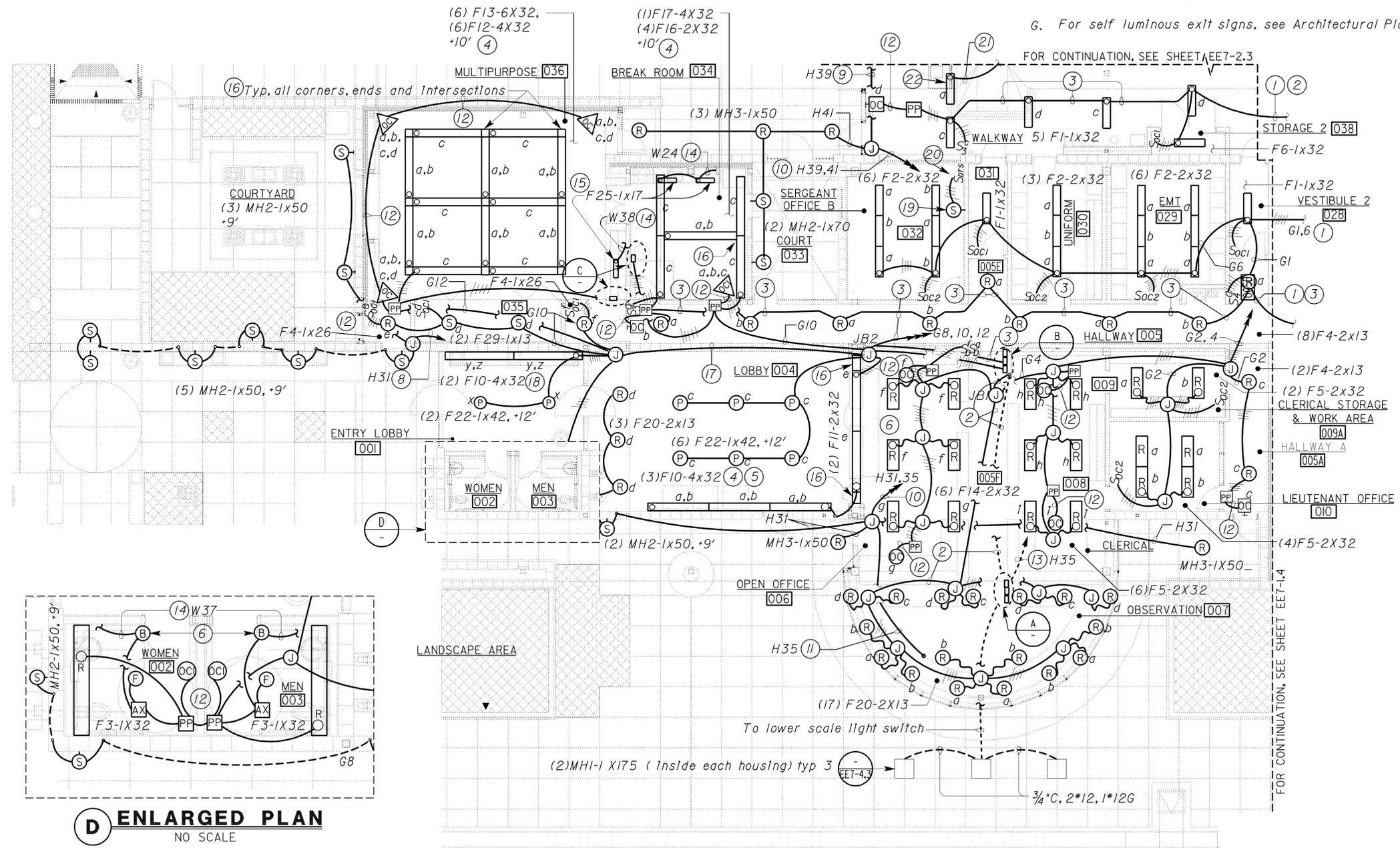
Notes:

- 1 To light fixture, see sheet EE7-1.4.
- 2 3/4"C, 5*12, 1*12G.
- 3 3/4"C, 6*12, 1*12G.
- 4 Connect uplight to switch "a" and downlight to switch "b".
- 5 Mounting height shall match the ceiling mounted light (Type F11) at the lobby desk area.
- 6 Mount blank outlet at switch height
- 7 Connect light switches to the load side of occupancy sensor switch via power pack unit. occupancy sensor shall control all lights and single pole light switch shall provide additional control to similarly marked light fixtures.
- 8 3/4"C, 2*10, 1*10G to Lighting Control Station (LCS3).
- 9 3/4"C, 2*10, 1*10G to junction box for exterior lights at bays, see sheet EE7-2.3.
- 10 3/4"C, 4*10, 1*10G to Lighting Control Station (LCS3).
- 11 1/2"C, 2*12, 1*12G to upper scale lights (total 3). See sheet EE7-4.3.
- 12 1/2"C, conductors as required for occupancy sensor.
- 13 3/4"C, 3*10, 1*10G to gutter below Lighting Control Station (LCS3). See Detail C on sheet EE7-4.1.
- 14 To DP. for continuation, see sheet EE7-1.1.
- 15 Mount switches at 6 inches above counter top.
- 16 Connectors, spacers or integrators (provided by fixture manufacturer).
- 17 1"C, 6*12 (G8,10,12), 4*12 (switched G8), 1*12G.
- 18 Connect uplight to switch "y" and downlight to switch "z"
- 19 Attic light. Light shall be similar to I1 except with clear globe. Mount in the attic. Location shall be as determined by Engineer.
- 20 Mount digital timer switch in attic, adjacent to the access area. install 1/2"C, 2*12, 1*12G to duplex receptacle outlet (circuit V25). See sheet EE7-1.1.
- 21 To wall mounted light in Inspection Bay. See sheet EE7-2.3.
- 22 Light is controlled by switch "a" at the Inspector's desk. This light is shown also on sheet EE7-2.3 for clarity.

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

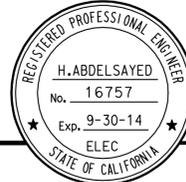


D ENLARGED PLAN
NO SCALE

PLAN
SCALE 1/8" = 1'-0"

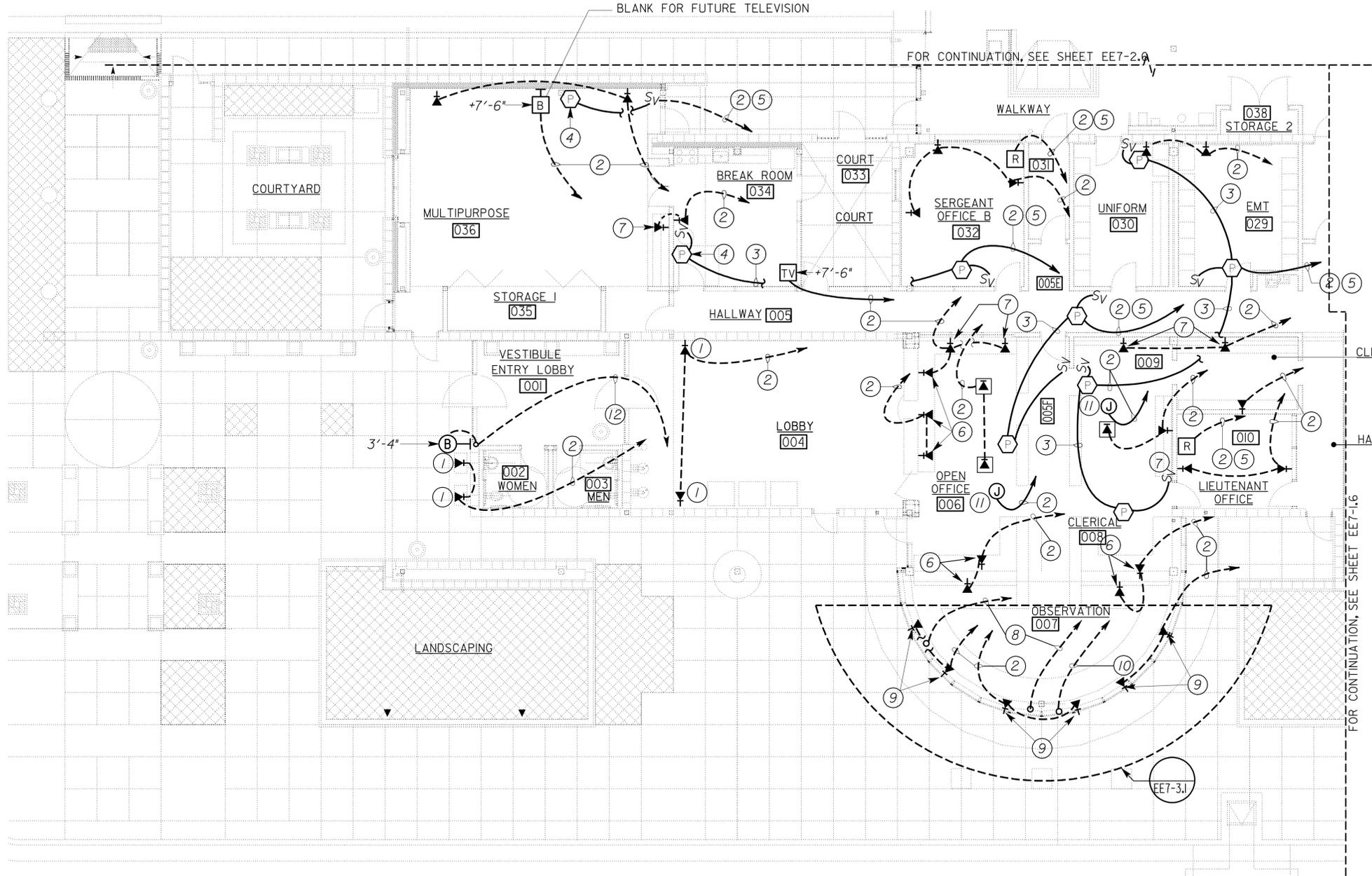
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DESIGN	By	Christine Mamaril	CHECKED	J.S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J POST MILE 177.3/181.1	MOUNTAIN PASS JPOE		SHEET EE7-1.3
	DETAILS	By	Tammy Lee/Dall Zhou	CHECKED				Christine Mamaril	CVEF	
QUANTITIES	By	Christine Mamaril	CHECKED	J.S. Sandhu	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	646	710
 REGISTERED ELECTRICAL ENGINEER DATE 11-30-12					
2-25-13 PLANS APPROVAL DATE					
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Reviewed by: 
 G. ANDERSEN
 Approval date: 01-20-2011



- General Notes:**
- Unless otherwise shown or noted, all conduits between speaker outlet and volume control switch shall be 1/2" C, pull rope.
 - Unless otherwise shown or noted, all homeruns are to TTB.
 - Unless otherwise shown or noted conduits under floor shall be 3/4" C, pull rope.
 - For location of TTB or RTB, see sheet EE7-1.6.
 - Install floor mounted telephone outlets adjacent to floor mounted receptacle outlets. See sheet EE7-3.3.
 - Coordinate location of outlets with the casework details. See Architectural plans.

- Notes:**
- Voice outlet only.
 - 1" C, pull rope.
 - 1/2" C, pull rope.
 - Wall mounted speaker outlet. +7'-6".
 - To RTB
 - Mount below the counter within the open front or open space areas of the casework.
 - Mount at 6 inches above the counter.
 - 1" C, pull rope, to gutter from TTB. For location of gutter, see sheet EE7-3.2.
 - Mount below the counter behind the electrical access panel.
 - 1" C, microphone cable from PA System Control Panel. See EE7-1.6. For location of conduit stub-up see sheet EE7-3.2.
 - Mount junction box in ceiling space.
 - 1" C, pull rope. Stub conduit below counter behind the electrical access panel at the Observation Room. See sheet EE7-3.2.

PLAN
 SCALE 1/8" = 1'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JPOE		SHEET EE7-1.5	
				POST MILE 177.3/181.1	CVEF	OFFICE AREA COMMUNICATION PLAN I		
DETAILS BY <i>Dall Zhou</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)				SHEET OF
QUANTITIES <i>Christine Mamaril</i>	CHECKED <i>Helmy Abdelsayed</i>			DISREGARD PRINTS BEARING EARLIER REVISION DATES	2/28/11	11/30/12		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	647	710

<i>H. Abdelsayed</i>		11-30-12
REGISTERED ELECTRICAL ENGINEER	DATE	

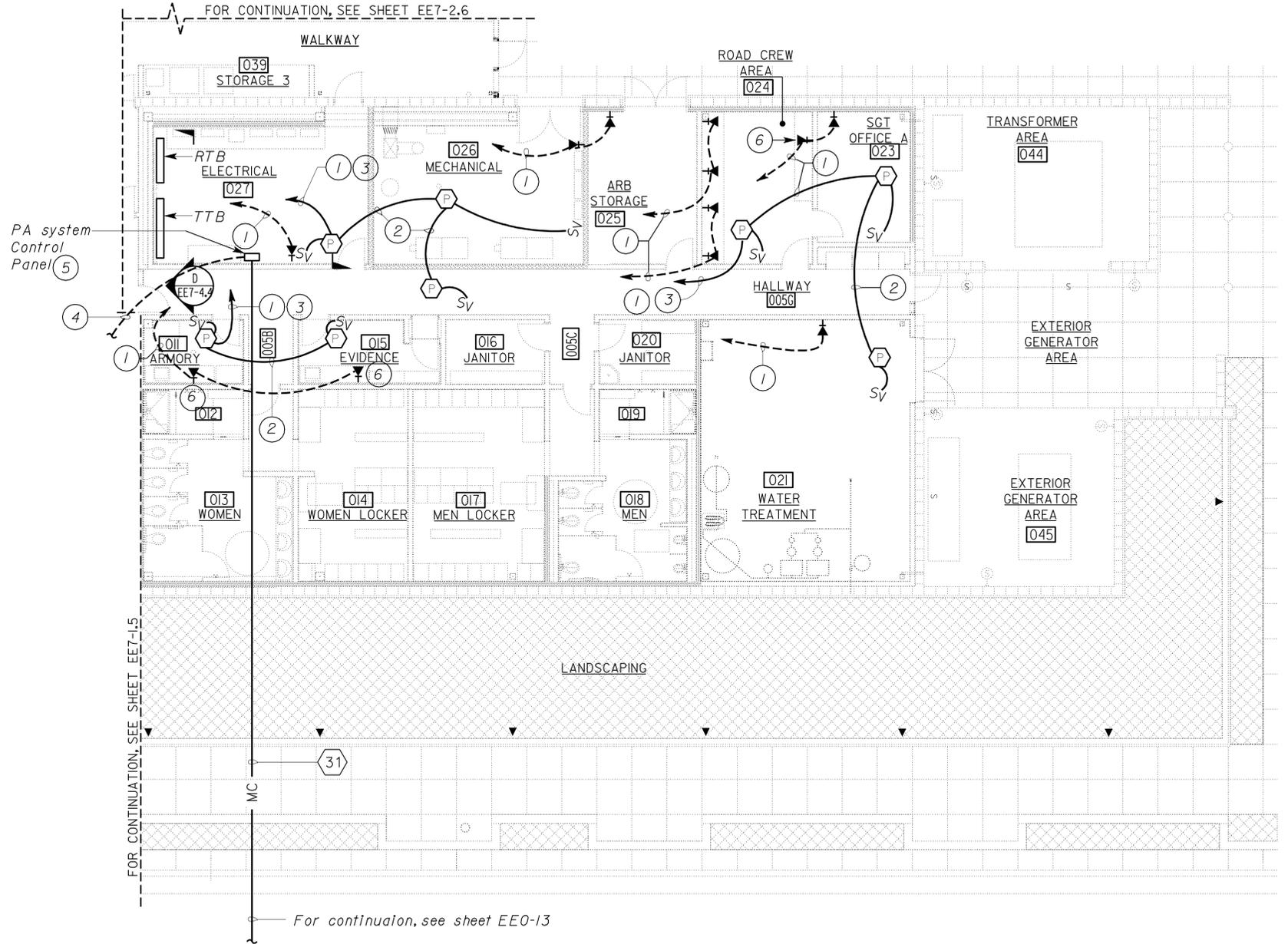
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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011



- General Notes:**
- A. Unless otherwise shown or noted, all conduits between speaker outlet and volume control switch shall be 1/2" C, pull rope.
 - B. Unless otherwise shown or noted, all homeruns are to TTB.
 - C. Unless otherwise shown or noted, all conduits under floor shall be 3/4" C, pull rope.
- Notes:**
- ① 1" C, pull rope.
 - ② 1/2" C, pull rope.
 - ③ To RTB
 - ④ 1" C, microphone cable to Observation Room. See sheet EE7-1.5.
 - ⑤ For power connection to PA system control panel, see sheet EE7-1.2.
 - ⑥ Mount at 6 Inches above the counter.

PLAN
SCALE 1/8" = 1'-0"

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DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE		SHEET EE7-1.6
				POST MILE 177.3/181.1	CVEF	OFFICE AREA COMMUNICATION PLAN 2	
DETAILS BY <i>Dall Zhou</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF
QUANTITIES <i>Christine Mamaril</i>	CHECKED <i>Helmy Abdelsayed</i>			4/24/11	11/30/12		

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	648	710

J. S. SANDHU 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE
 No. 11803
 Exp. 9-30-14
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 STATE OF CALIFORNIA

2-25-13
 PLANS APPROVAL DATE

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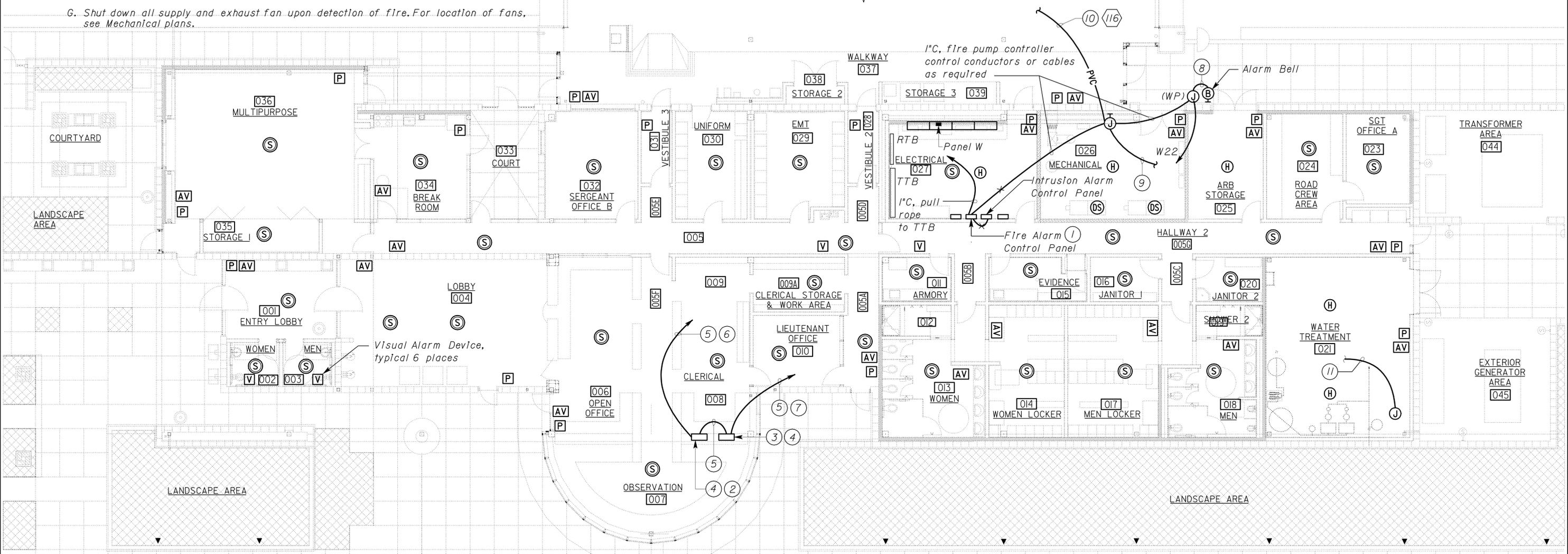
General Notes:

- A. Conduit and conductor system for Fire Alarm System is not shown, see Special provisions for requirements.
- B. The Fire Alarm System shall conform to the California Electrical Codes (CEC), Article 760 and the California Fire codes, Section 1007.
- C. Installation of the Fire Alarm System shall not start up until detailed Plans and Specifications, including California Fire Marshal listing numbers for each components of the system, have been Approved by the California State Fire Marshal.
- D. Upon completion of the installation of the Fire Alarm System, a satisfactory test of the entire system shall be made in the presence of the Enforcing Agency.
- E. For location of flow switches and bell, see "FS" plans.
- F. For location of ducts, for duct mounted smoke detectors, see Mechanical Plans.
- G. Shut down all supply and exhaust fan upon detection of fire. For location of fans, see Mechanical plans.

Notes:

- ① For power connection to Fire Alarm Control Panel, see sheet EE7-1.2 and EE7-4.1 (Elevation B).
- ② Annunciator (For Fire Pump Controller)
- ③ Annunciator (for Fire Alarm Control Panel in Building)
- ④ Flush mounted on back splash above counter.
- ⑤ 1" C, fire alarm cables as required.
- ⑥ To Junction box in mechanical room.
- ⑦ To fire alarm control panel in electrical room.
- ⑧ Connect to bell and flow switch.
- ⑨ Connect to flow switch (water flow Indicator).
- ⑩ For size an continuation, see site plans.
- ⑪ 1/2" C, control conductors as required to Fire Alarm Control Panel. (for automatic transfer switch connection).

FOR CONTINUATION, SEE SHEET EE7-2.7



General Notes (Continuation):

- G. Detectors shall not be installed until the clean-up of all trades is completed and final.
- H. Before requesting final approval of the installation, the installing contractor shall furnish a written statement to the State Fire Marshall to the effect that the system has been installed in accordance with the approved plans and completely tested in accordance with manufacturer's specifications and appropriate NFPA requirements.



PLAN
SCALE 1/8" = 1'-0"

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 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

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DESIGN	BY	Christine Mamaril	CHECKED	J.S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J POST MILE 177.3/181.1	MOUNTAIN PASS JOE		SHEET EE7-1.7
	DETAILS	BY	Dall Zhou	CHECKED				Christine Mamaril	CVEF	
QUANTITIES	BY	Christine Mamaril	CHECKED	J.S. Sandhu	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

DOES SD Imperial Rev. 9/02 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

7/28/11 11/30/12

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Notes:

- ① For power connection, see sheet EE7-1.2 and EE7-4.1.
- ② Electric lockset, and power transfer offset pivot shall be installed in the active leaf of the double doors. See "Door Hardware" specifications.
- ③ Route conduit to devices concealed in the gypsum wall above the glass panels. Terminate conduit in the metallic door frames. Install intrusion alarm cables inside the frames.
- ④ Intrusion alarm control panel.
- ⑤ Access system main control panel *1 and access system slave controller *1A.
- ⑥ Access system main control panel *2.
- ⑦ Pushbutton station for electric strike * 1A. Flush mount above counter. (Casework No. 4).

General Notes:

- A. Conduit and conductor system for intrusion alarm system is not shown. See special provisions for requirements.
- B. Submit conduit and conductor layout for approval prior to installation.
- C. Coordinate stub-ups for all conduits routed underfloor with the type of doors installed. See Architectural plans.
- D. Install flush mounted JB for routing conduit and cables for card readers that are mounted on concrete block walls.
- E. Power supplies for electric door hardware are not shown. Install a power supply adjacent to control panel or controller or slave controller or door as required. Install conductors per manufacturer's recommendation to suit electrified door hardware that are supplied. Install 1/2" C, 2*12, 1*12G to nearest receptacle outlet if power supply is required adjacent to a door.

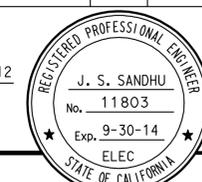
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 G. ANDERSEN
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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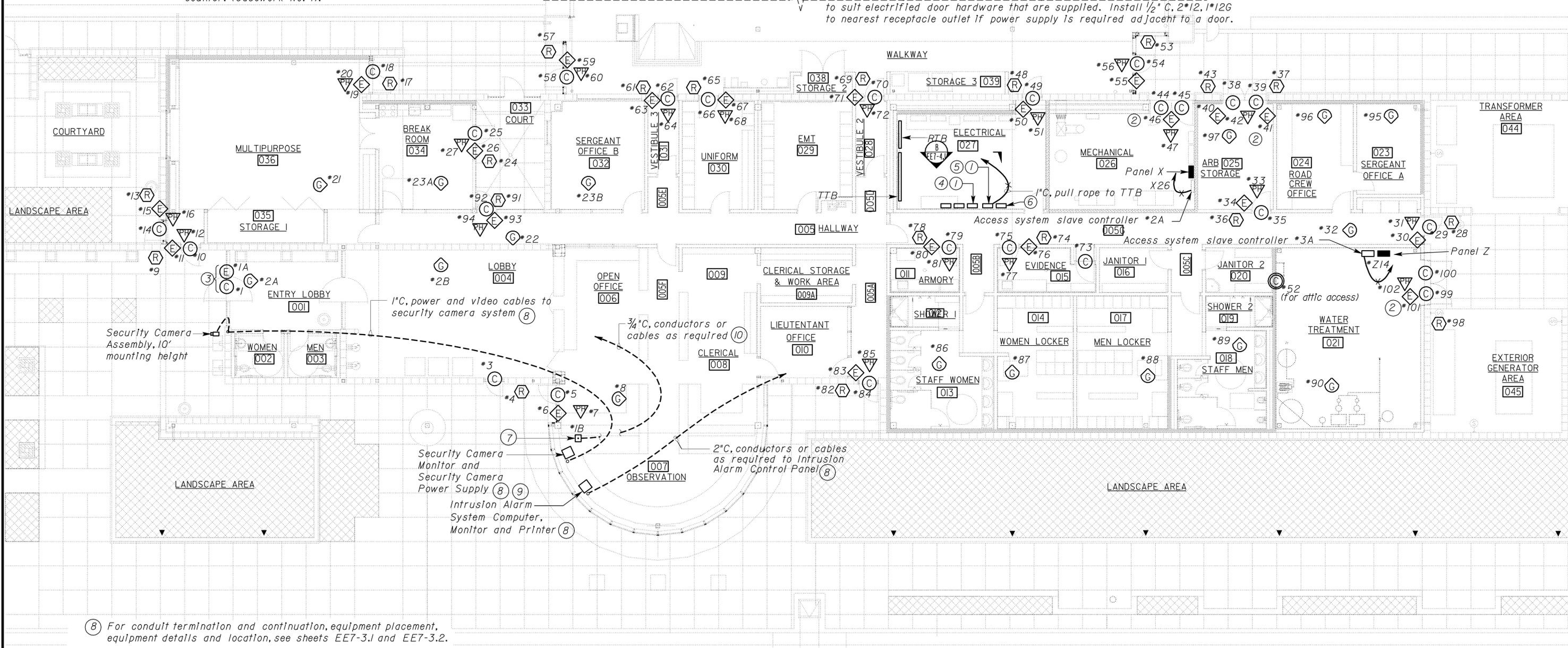
11-30-12
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2-25-13
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FOR CONTINUATION, SEE SHEET EE7-2.8



- ⑧ For conduit termination and continuation, equipment placement, equipment details and location, see sheets EE7-3.1 and EE7-3.2.
- ⑨ For Interconnection block diagram, see sheet EE0-34.
- ⑩ To electric strike *1A at exterior entry lobby door. Terminate conduit in the metallic frames of the curtain wall system as required. Install conductors and cables inside the frames. See Architectural plans for the curtain wall system.

PLAN
 SCALE 1/8" = 1'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY	Christine Mamaril	CHECKED	J.S. Sandhu	STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE		SHEET	EE7-1.8
DETAILS BY	Ed D. Tapalla/Dall Zhou	CHECKED	Christine Mamaril	DEPARTMENT OF TRANSPORTATION	ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE	177.3/181.1	CVEF	OFFICE AREA INTRUSION ALARM PLAN	OF	
QUANTITIES BY	Christine Mamaril	CHECKED	J.S. Sandhu							REVISION DATES (PRELIMINARY STAGE ONLY)	
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES		4/24/11	11/30/12

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	650	710

Jasvinder A Sandhu 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
PLANS APPROVAL DATE

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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

ZONE	LOCATION	DESCRIPTION	ITEM NUMBERS
1	ENTRY LOBBY	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#1
		ELECTRIC STRIKE	#1A
		PUSHBUTTON STATION	#1B
2	ENTRY LOBBY	GLASS BREAK DETECTORS	#2A, #2B
		MAGNETIC CONTACT SWITCH - PEDESTRIAN	#3
3	LOBBY	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#3
		DIGITAL CARD READER	#4
4	OPEN OFFICE AND LOBBY	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#5
		ELECTRIC LOCKSET WITH RX FUNCTION	#6
		POWER TRANSFER OFFSET PIVOT	#7
		GLASS BREAK DETECTOR	#8
5	OPEN OFFICE	GLASS BREAK DETECTOR	#8
		DIGITAL CARD READER	#9
6	MULTIPURPOSE	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#10
		ELECTRIC EXIT DEVICE WITH RX FUNCTION	#11
		POWER TRANSFER OFFSET PIVOT	#12
		DIGITAL CARD READER	#13
7	MULTIPURPOSE	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#14
		PANIC EXIT DEVICE	#15
		POWER TRANSFER OFFSET PIVOT	#16
		DIGITAL CARD READER	#17
8	MULTIPURPOSE	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#18
		PANIC EXIT DEVICE	#19
		POWER TRANSFER OFFSET PIVOT	#20
		GLASS BREAK DETECTOR	#21
9	MULTIPURPOSE	GLASS BREAK DETECTOR	#21
		GLASS BREAK DETECTOR	#22
10	HALLWAY -SOUTH	GLASS BREAK DETECTOR	#22
		GLASS BREAK DETECTOR	#23A, #23B
11	BREAK ROOM	GLASS BREAK DETECTOR	#23A, #23B
		DIGITAL CARD READER	#24
12	BREAK ROOM AND SGT OFFICE B	DIGITAL CARD READER	#24
		MAGNETIC CONTACT SWITCH - PEDESTRIAN	#25
		ELECTRIC EXIT DEVICE WITH RX FUNCTION	#26
		POWER TRANSFER OFFSET PIVOT	#27
13	HALLWAY -NORTH	DIGITAL CARD READER	#28
		MAGNETIC CONTACT SWITCH - PEDESTRIAN	#29
		ELECTRIC LOCKSET WITH RX FUNCTION	#30
		POWER TRANSFER OFFSET PIVOT	#31
14	HALLWAY -NORTH	GLASS BREAK DETECTOR	#32
		DIGITAL CARD READER	#33
15	ARB STORAGE	DIGITAL CARD READER	#33
		MAGNETIC CONTACT SWITCH - PEDESTRIAN	#34
		ELECTRIC LOCKSET WITH RX FUNCTION	#35
		POWER TRANSFER OFFSET PIVOT	#36
		DIGITAL CARD READER	#37
		MAGNETIC CONTACT SWITCHES - PEDESTRIAN	#38, #39
		ELECTRIC LOCKSET WITH RX FUNCTION	#40, #41
		POWER TRANSFER OFFSET PIVOT	#42
16	MECH. RM	DIGITAL CARD READER	#43
		MAGNETIC CONTACT SWITCHES - PEDESTRIAN	#44, #45
		ELECTRIC LOCKSET WITH RX FUNCTION	#46
		POWER TRANSFER OFFSET PIVOT	#47
17	ELECT RM	DIGITAL CARD READER	#48
		MAGNETIC CONTACT SWITCHES - PEDESTRIAN	#49

ZONE	LOCATION	DESCRIPTION	ITEM NUMBERS
		ELECTRIC LOCKSET WITH RX FUNCTION	#50
		POWER TRANSFER OFFSET PIVOT	#51
18	ATTIC AT WATER TREATMENT	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#52
		DIGITAL CARD READER	#53
19	WALKWAY - NORTH	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#54
		ELECTRIC LOCKSET WITH RX FUNCTION	#55
		POWER TRANSFER OFFSET PIVOT	#56
		DIGITAL CARD READER	#57
20	WALKWAY - SOUTH	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#58
		ELECTRIC LOCKSET WITH RX FUNCTION	#59
		POWER TRANSFER OFFSET PIVOT	#60
		DIGITAL CARD READER	#61
21	VESTIBULE 1 SOUTH	DIGITAL CARD READER	#61
		MAGNETIC CONTACT SWITCH - PEDESTRIAN	#62
		ELECTRIC LOCKSET WITH RX FUNCTION	#63
		POWER TRANSFER OFFSET PIVOT	#64
22	UNIFORM	DIGITAL CARD READER	#65
		MAGNETIC CONTACT SWITCH - PEDESTRIAN	#66
		ELECTRIC LOCKSET WITH RX FUNCTION	#67
		POWER TRANSFER HINGE	#68
23	VESTIBULE 2 NORTH	DIGITAL CARD READER	#69
		MAGNETIC CONTACT SWITCH - PEDESTRIAN	#70
		ELECTRIC LOCKSET WITH RX FUNCTION	#71
		POWER TRANSFER HINGE	#72
24	EVIDENCE-CLOSET	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#73
		DIGITAL CARD READER	#74
25	EVIDENCE	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#75
		ELECTRIC LOCKSET WITH RX FUNCTION	#76
		POWER TRANSFER HINGE	#77
		DIGITAL CARD READER	#78
26	ARMORY	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#79
		ELECTRIC LOCKSET WITH RX FUNCTION	#80
		POWER TRANSFER HINGE	#81
		DIGITAL CARD READER	#82
27	VESTIBULE-EAST (LT OFFICE)	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#83
		ELECTRIC LOCKSET WITH RX FUNCTION	#84
		POWER TRANSFER HINGE	#85
		GLASS BREAK DETECTORS	#86 thru 90
28	MENS, WOMENS & WATER TREATMENT	GLASS BREAK DETECTORS	#86 thru 90
		DIGITAL CARD READER	#91
29	HALLWAY (COURTYARD)	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#92
		ELECTRIC LOCKSET WITH RX FUNCTION	#93
		POWER TRANSFER OFFSET PIVOT	#94
		GLASS BREAK DETECTORS	#95 thru 97
30	ARB STORAGE, ROAD CREW & SGT A	GLASS BREAK DETECTORS	#95 thru 97
		DIGITAL CARD READER	#98
31	WATER TREATMENT	MAGNETIC CONTACT SWITCH - PEDESTRIAN	#99, 100
		ELECTRIC LOCKSET WITH RX FUNCTION	#101
		POWER TRANSFER OFFSET PIVOT	#102

- General Notes:**
- A. Items #103 thru 110 are not used. For Items 111 thru 137 and for zones 32 thru 39, see sheet EE7-2.9.
 - B. Access system main control panel #1 shall control the doors in the office area and access system main control panel #2 shall control the doors in the inspection areas. Access system slave controllers 1A, 2A and 3A shall be connected to the access system main control panel #1.
 - C. Contractor shall install expansion modules as required. Expansion modules are not shown on plans.
 - D. Electric locksets, exit devices, panic exit devices, power transfer hinges and power transfer offset pivots are part of finish door hardware and are shown on this plan and this schedule for clarity only. See "Door Hardware" specifications. Coordinate with door supplier for required power supply and number of conductors required for complete automatic operation of the doors.

DESIGN BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE OFFICE AREA INTRUSION ALARM SCHEDULE	SHEET EE7-1.9
	DETAILS BY <i>Dall Zhou</i>			CHECKED <i>Christine Mamaril</i>		
QUANTITIES BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 4/28/11 11/30/12	SHEET OF

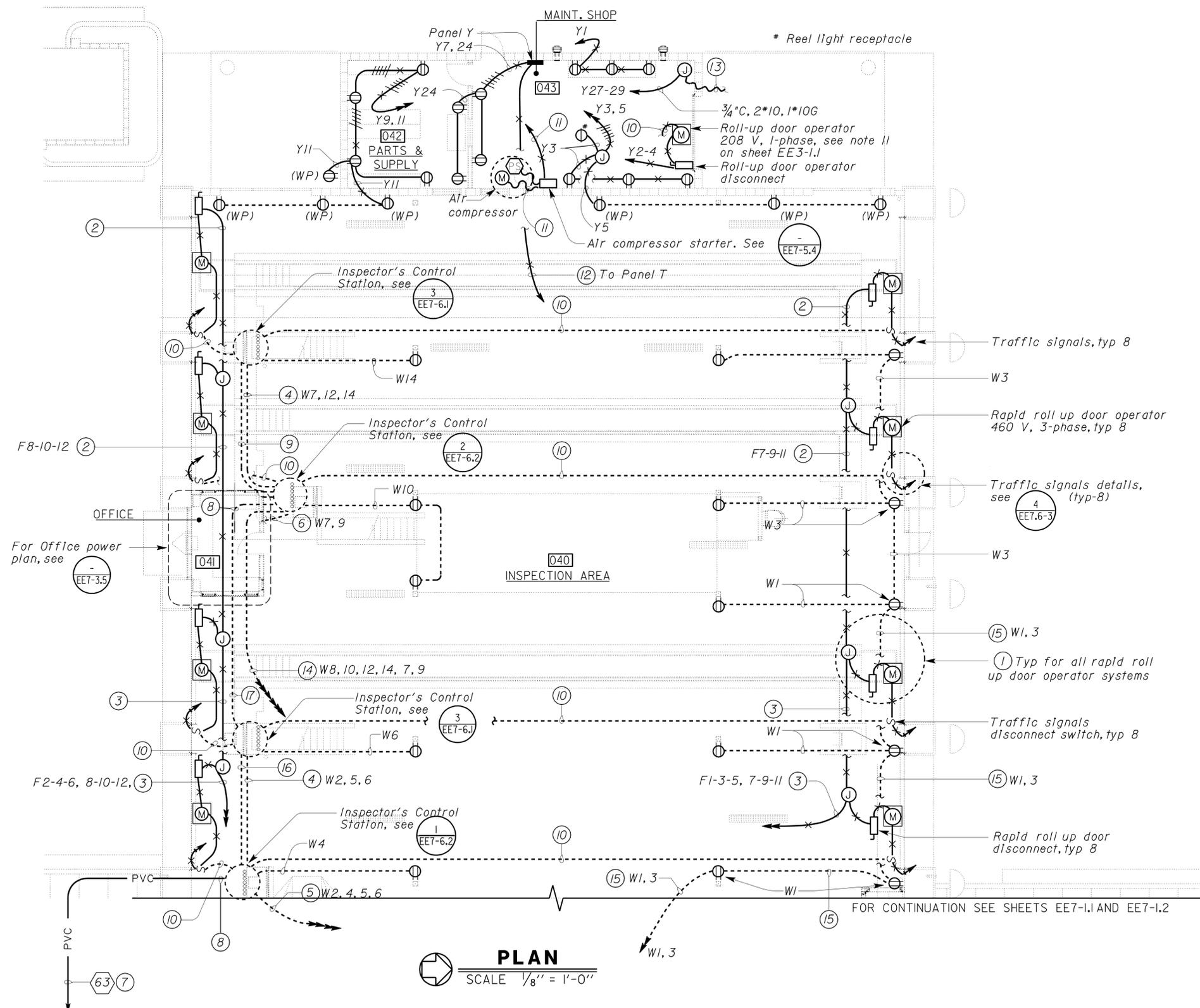
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	651	710

CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by: <i>[Signature]</i> G. ANDERSEN Approval date: 01-20-2011		11-30-12 REGISTERED ELECTRICAL ENGINEER DATE J. S. SANDHU No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA
2-25-13		PLANS APPROVAL DATE
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- General Notes:**
- A. All junction boxes below 12 ft in the Inspection Areas shall be weatherproof type.
 - B. Location of roll-up door and rapid roll up door operator shown are arbitrary only. Exact location depends upon unit furnished. Contractor shall provide any conduits, cables and conductors that are not shown but are necessary for the automatic operation of the door system. All cables and conductors shall be installed in conduits.
 - C. Unless otherwise shown, all conduits underfloor shall be 3/4" C, 2*12, 1*12G.
 - D. Panels V, W and MDP are located in Electrical Room. See EE7-1.2.
- Notes:**
1. Install the following conduits for the rapid roll up door operator system (See sheet EE7.5-4 for Schematic Diagram):
 1/2" C, 3*12, 1*12G in between the JB and rapid roll up door disconnect.
 1/2" C, 3*12, 1*12G in between the rapid roll up door disconnect and overhead door motor operator.
 3/4" C, 5*12, 6*14, 1*12G in between the rapid roll up door operator and traffic signals disconnect.
 1/2" C, 3*12, 1*12G in between the traffic signals disconnect and the traffic signals.
 3/4" C, 6*14, 1*12G in between the door pushbutton station at the Inspector's Control Station and the traffic signals disconnect.
 1/2" C, 3*12, 1*12G in between the rapid roll up door operator and upper limit switch.
 JB and flexible cables in between rapid roll up door operator and safety edge limit switch.
 Limit switches are not shown for clarity.
 2. 3/4" C, 3*12, 1*12G.
 3. 1" C, 6*10, 1*10G.
 4. 1" C, 6*12, 1*12G, 1*12 Isolated ground.
 5. 1" C, 10*10, 1*10G, 1*12 Isolated ground.
 6. 3/4" C, 4*12, 1*12G, 1*12 Isolated ground to Inspection Office.
 7. To SWIM control cabinet. For continuation, see site plans.
 8. Riser and elbow in the building shall be PVC coated RSC.
 9. 3/4" C, 4*10, 1*10G (Inspection call button).
 10. 3/4" C, 6*14, 1*12G (Door operator pushbutton station).
 11. 1" C, 3*10, 1*10G, Y38-40-42.
 12. For size, see sheet EE7-7.2.
 13. 1/2" C, 2*10, 1*10G, connect to Instant water heater.
 14. 1" C, 12*10, 1*12, 1*12 Isolated ground.
 15. 3/4" C, 4*12, 1*12G.
 16. 1" C, 12*10, 1*10G (Inspection call button).
 17. 1" C, 8*10, 1*10G (Inspection call button).

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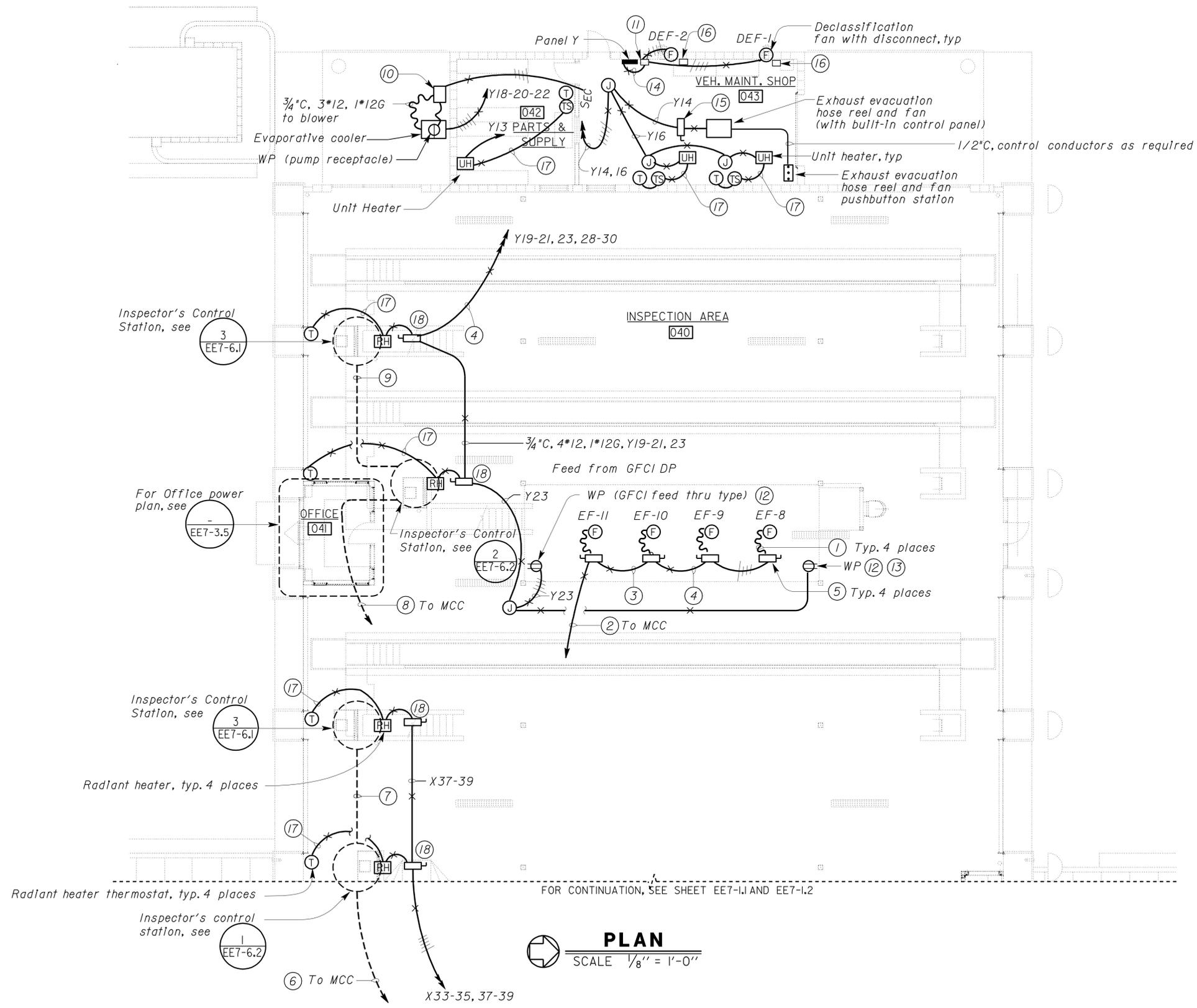
DESIGN	BY	Christine Mamaril	CHECKED	J. S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J POST MILE 177.3/181.1	MOUNTAIN PASS JPOE		SHEET EE7-2.1	
	DETAILS	BY	Dall Zhou	CHECKED				Christine Mamaril	CVEF		INSPECTION AREA POWER PLAN I
	QUANTITIES	BY	Christine Mamaril	CHECKED				J. S. Sandhu			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
DOES SD Imperial Rev. 9/02					UNIT PROJECT NUMBER & PHASE		3596 08000006281		4/28/11 11/30/12		ee7_2.1.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	652	710

APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.	
Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011	11-30-12 DATE REGISTERED ELECTRICAL ENGINEER

2-25-13 PLANS APPROVAL DATE	
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- General Notes:**
- A. All junction boxes below 12 feet in the Inspection Areas shall be weatherproof type.
 - B. For location of fans, heat pump condensing unit, evaporative coolers, exhaust evacuation hose reel and fan and heaters, see Mechanical Plans.
 - C. For Schematic Diagrams, see sheets EE7-5.1 and EE7-5.3. For reference to conductor numbers, see corresponding Schematic Diagram.
 - D. For location of MCC and Panel X, see sheet EE7-1.2 and EE7-7.3.
- Notes:**
- ① 1/2"C, 3*12, 1*12G
 - ② 1/2"C, 12*12, 1*12G (Conductors numbers S1, S2, S3, S21, S22, S23, S31, S32, S33, S41, S42 and S43).
 - ③ 1"C, 9*12, 1*12G.
 - ④ 3/4"C, 6*12, 1*12G.
 - ⑤ Exhaust fan disconnect. Mount adjacent to fan.
 - ⑥ 1"C, 5*10, 1*10G (Conductors number 100, 202, 203, 302 and 303).
 - ⑦ 1"C, 7*10, 1*10G (Conductors number 100, 201, 202, 203, 301, 302 and 303)
 - ⑧ 1"C, 5*10, 1*10G (Conductors number 100, 102, 103, 402 and 403)
 - ⑨ 1"C, 7*10, 1*10G (Conductors number 100, 101, 102, 103, 401, 402 and 403)
 - ⑩ Evaporative cooler combination starter.
 - ⑪ Declassification fans control panel.
 - ⑫ Mount DP Inside Mechanical Well area.
 - ⑬ Feed DP from load side of GFCI DP.
 - ⑭ 3/4"C, 4*8, 1*10G, Y8-10-12.
 - ⑮ Exhaust evacuation system disconnect.
 - ⑯ Declassification fans warning sign. Inscription shall read: "BEFORE REPAIRING GASOLINE POWERED VEHICLES, ENERGIZE DECLASSIFICATION FANS."
 - ⑰ 1/2"C, control conductors to suit unit furnished.
 - ⑱ Radiant heater disconnect. Mount adjacent to radiant heater.

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DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i> DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i> QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JPOE		SHEET
			54-1216J	INSPECTION AREA POWER PLAN 2		EE7-2.2
			POST MILE 177.3/181.1			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	653	710

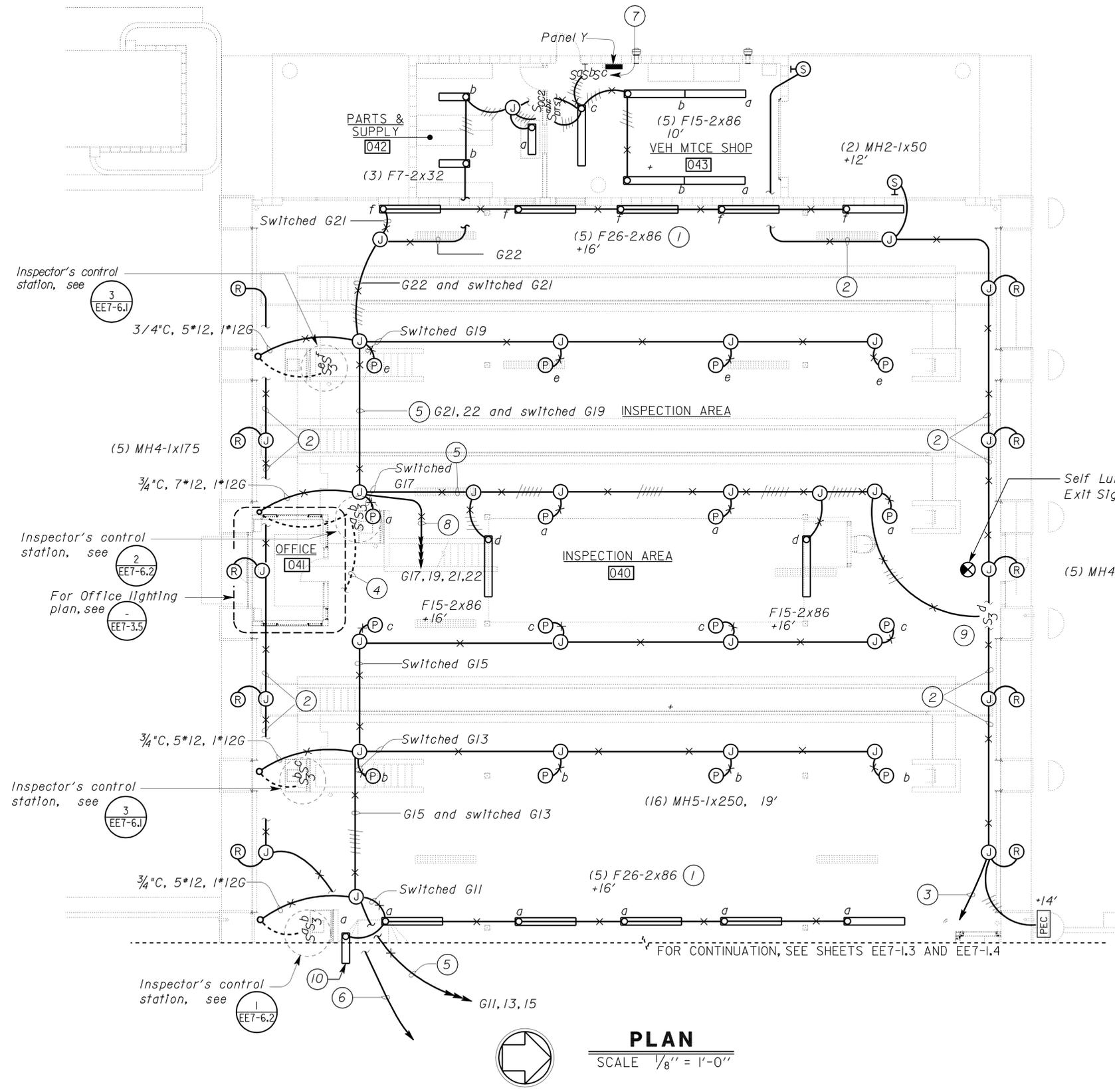
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 Reviewed by: *G. Andersen*
G. ANDERSEN
 Approval date: 01-20-2011

Jasvirinder K. Sandhu 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE

J. S. SANDHU
 No. 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

2-25-13
 PLANS APPROVAL DATE

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General Notes:

- A. All junction boxes below 12 ft in the Inspection Areas shall be weatherproof type.
- B. For exact location of lights, see Architectural Plans.
- C. For lighting fixture schedules, see sheets EE8-1 thru EE8-2.
- D. For lights in pit and for pit light switches, see sheet EE7-2.5.
- E. For location of Panel G, see sheet EE7-7.3.
- F. For self luminous exit signs, see Architectural Plans and Specifications.

Notes:

- 1 For mounting details, see **B** EE7-6.4.
- 2 3/4"C, 2*10, 1*0G.
- 3 3/4"C 2*10, 3*12, 1*10G to Building Exterior and Sign Lighting Control Station via JB. For continuation, see sheet EE7-1.4.
- 4 3/4"C, 4*12, 1*12G to 3-way switch (circuit "d"). See sheet EE7-3.3.
- 5 3/4"C, 6*12, 1*12G.
- 6 3/4"C, 2*10, 1*10G to Building Exterior and Sign Lighting Control Station, LCS3, via JB. for continuation, see sheet EE7-1.3.
- 7 Connect switches to load side of digital timer switch.
- 8 1"C, 8*10, 1*10G.
- 9 For the other 3-way switch for circuit "d", see **-** EE7-3.5.
- 10 FI-1X32. For location, see sheet EE7-1.3.

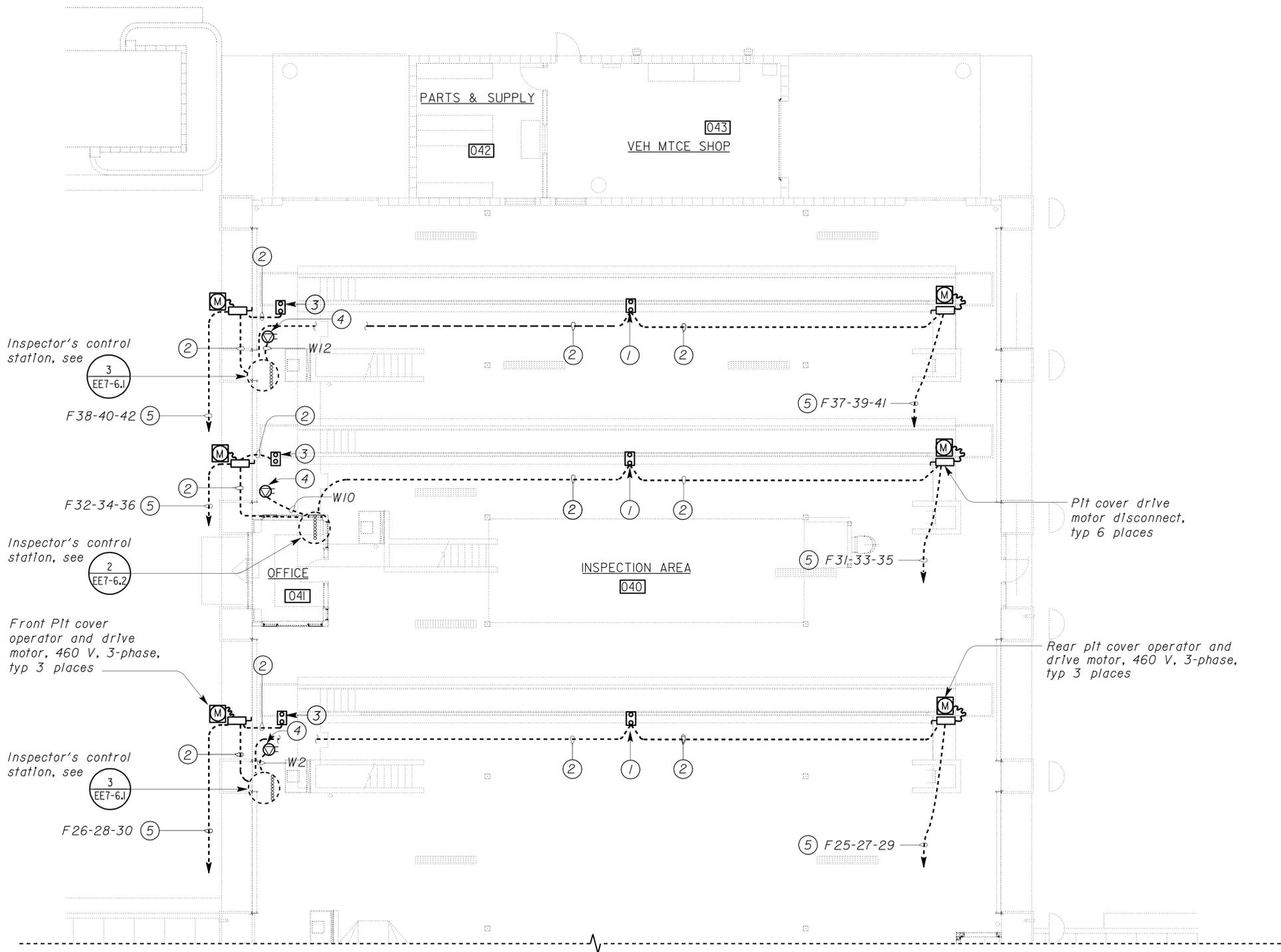
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DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE		SHEET
			POST MILE 177.3/181.1	CVEF	INSPECTION AREA LIGHTING PLAN	EE7-2.3
			REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET
DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i>	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	4/28/11	11/30/12		
QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3					

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	654	710
<p><i>Jasvirinder K Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE</p> <p>2-25-13 PLANS APPROVAL DATE</p> <p>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.</p>					

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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011



- General Notes:**
- A. All junction boxes below 12 feet in the inspection areas shall be weatherproof type.
 - B. Unless otherwise noted, all conduits under floor shall be 3/4" C, 2*12, 1*12G.
 - C. Homerun for sump pump receptacle outlet circuits W2, 10 and 12 are shown on sheet EE7-2.I.
 - D. Install 1/2" C liquidtight flexible conduit with 3*12, 1*12G to all pit cover operator and drive motors.
 - E. For location of sump pump, see Mechanical and Architectural plans.

- Notes:**
- 1 Rear pit cover controller station (Furnished by pit cover operator and drive motor manufacturer) mount at 3'-4" above pit floor.
 - 2 3/4" C, conductors or cables as required by the pit cover operator and drive motor manufacturer.
 - 3 Front pit cover controller station (Furnished by the pit cover operator and drive motor manufacturer), mount at 3'-4" above pit floor.
 - 4 Sump pump weatherproof receptacle. Mount above sump.
 - 5 3/4" C, 3*10, 1*12G.

PLAN
SCALE 1/8" = 1'-0"

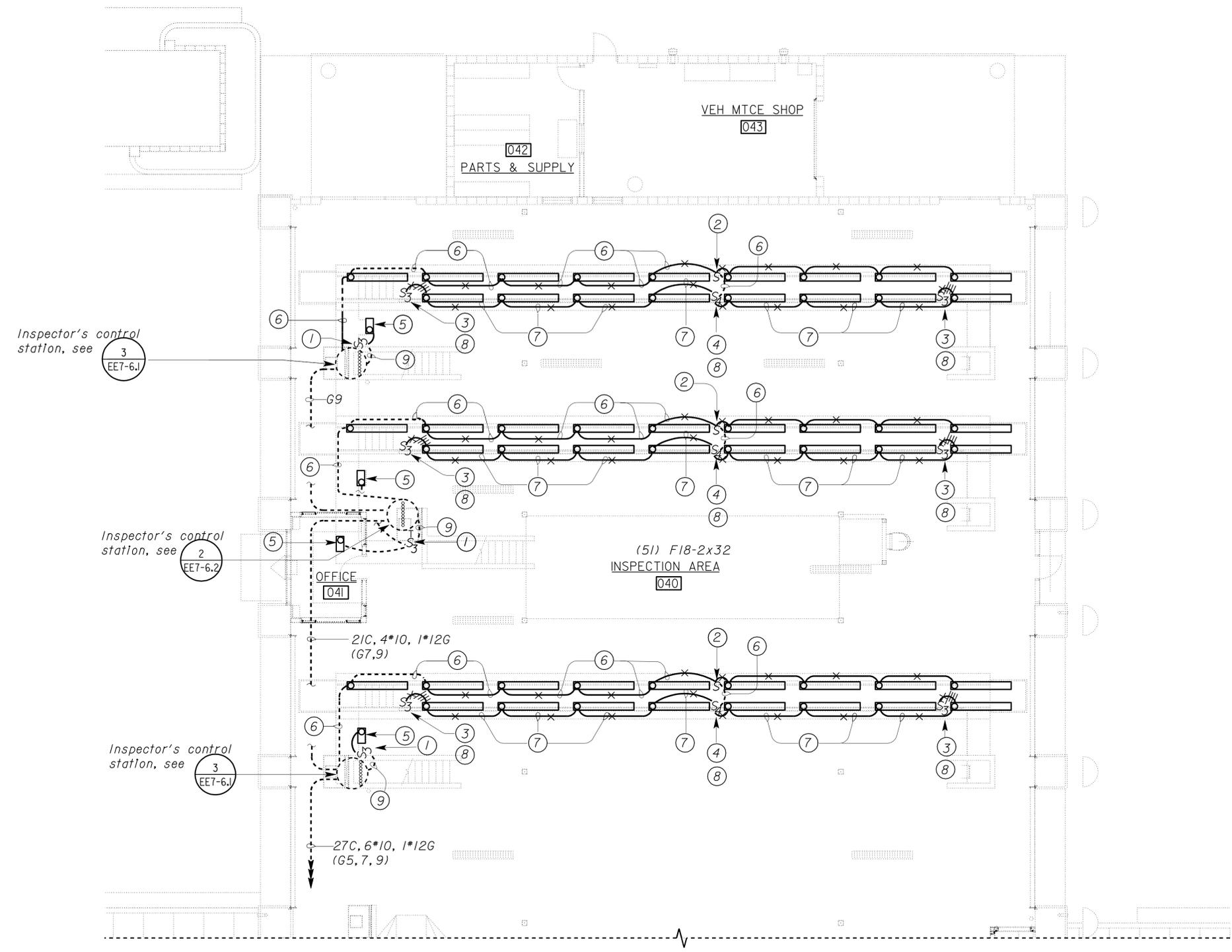
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DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JPOE		SHEET EE7-2.4
			54-1216J	INSPECTION PIT POWER PLAN		
DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3596 08000006281	POST MILE	CVEF	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>			177.3/181.1		4/28/12 11/30/12	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	655	710
<p><i>J. Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE</p> <p>2-25-13 PLANS APPROVAL DATE</p> <p>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.</p>					

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G. ANDERSEN
Approval date: 01-20-2011



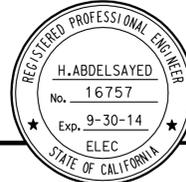
- General Notes:**
- A. All junction boxes below 12 feet in the Inspection Areas shall be weatherproof type.
 - B. Unless otherwise noted, all conduits underfloor shall be 3/4" C, 2*12, 1*12G.
 - C. For exact location of light fixtures, see Architectural plans.
 - D. For lighting fixture schedules, see sheets EE8-1 thru EE8-2.
 - E. Brake release indicating light (II-IX60) and other 3-way lights switch for inspection front pit lights are mounted on the Inspector's Control Station. See sheets EE7-6.1 and EE7-6.2. Brake release indicating light's 3-way and 4-way switches are all located on the west wall of the Inspection Pit. Brake release indicating lights are fed from the 120 V circuit that feeds the DP at the Inspector's station. For schematic diagrams for brake release light and pit lights, see sheet EE7-5.4.

- Notes:**
- 1 Three-way lights switch for inspection front pit lights and sump light in a 4" high x 2" wide x 3 1/2" deep flush mounted masonry box.
 - 2 Inspection rear pit lights switch. Mount at 3'-4" above pit floor.
 - 3 Three-way light switch for brake release indicating light. Mount at 3'-4" above pit floor.
 - 4 Four-way light switch for brake release indicating light. Mount at 3'-4" above pit floor.
 - 5 Sump light, F19-2x13. Mount at +/- 5'-6" above sump.
 - 6 3/4" C, 2*12 (Brake release indicating light), 3*12 (Pit lights), 1*12G.
 - 7 3/4" C, 3*12 (Brake release indicating light), 2*12 (Pit lights), 1*12G.
 - 8 Install a device plate adjacent to switch. Device plate shall read "BRAKE RELEASE INDICATING LIGHT SWITCH".
 - 9 3/4" C, 4*12 (Front pit lights and sump light 3-way switch), 1*12G.

PLAN
SCALE 1/8" = 1'-0"

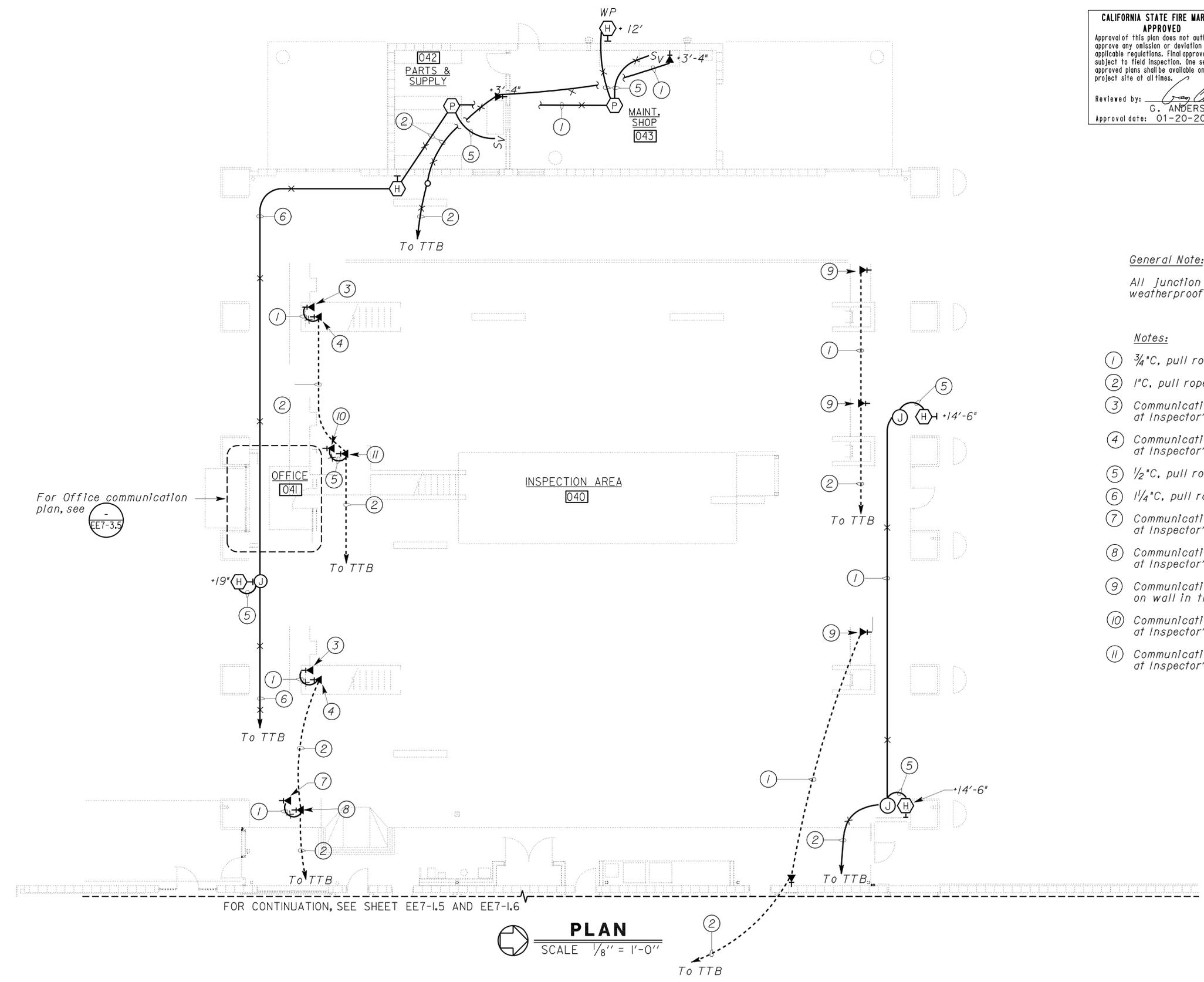
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DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE		SHEET EE7-2.5
			54-1216J	CVEF	INSPECTION PIT LIGHTING PLAN	
DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3596 08000006281	POST MILE	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>			177.3/181.1	4/28/11	11/30/12	
DOES SD Imperial Rev. 9/02	0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES			ee7_2.5.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	656	710
 REGISTERED ELECTRICAL ENGINEER			11-30-12 DATE		
2-25-13 PLANS APPROVAL DATE					
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Reviewed by: 
 G. ANDERSEN
 Approval date: 01-20-2011



General Note:

All junction boxes below 12 ft in the Inspection Areas shall be weatherproof type.

Notes:

- ① 3/4" C, pull rope.
- ② 1" C, pull rope.
- ③ Communication outlet (Voice Jack only) mounted at Inspector's Control Station. For location see .
- ④ Communication outlet (Data Jack only) mounted at Inspector's Control Station. For location, see .
- ⑤ 1/2" C, pull rope.
- ⑥ 1 1/4" C, pull rope.
- ⑦ Communication outlet (Voice Jack only) mounted at Inspector's Control Station. For location, see .
- ⑧ Communication outlet (Data Jack only) mounted at Inspector's Control Station. For location see .
- ⑨ Communication outlet (Voice Jack only) mounted on wall in the Inspection Tunnel @ 3'-4" mounting height.
- ⑩ Communication outlet (Voice Jack only) mounted at Inspector's Control Station. For location, see .
- ⑪ Communication outlet (Data Jack only) mounted at Inspector's Control Station. For location, see .

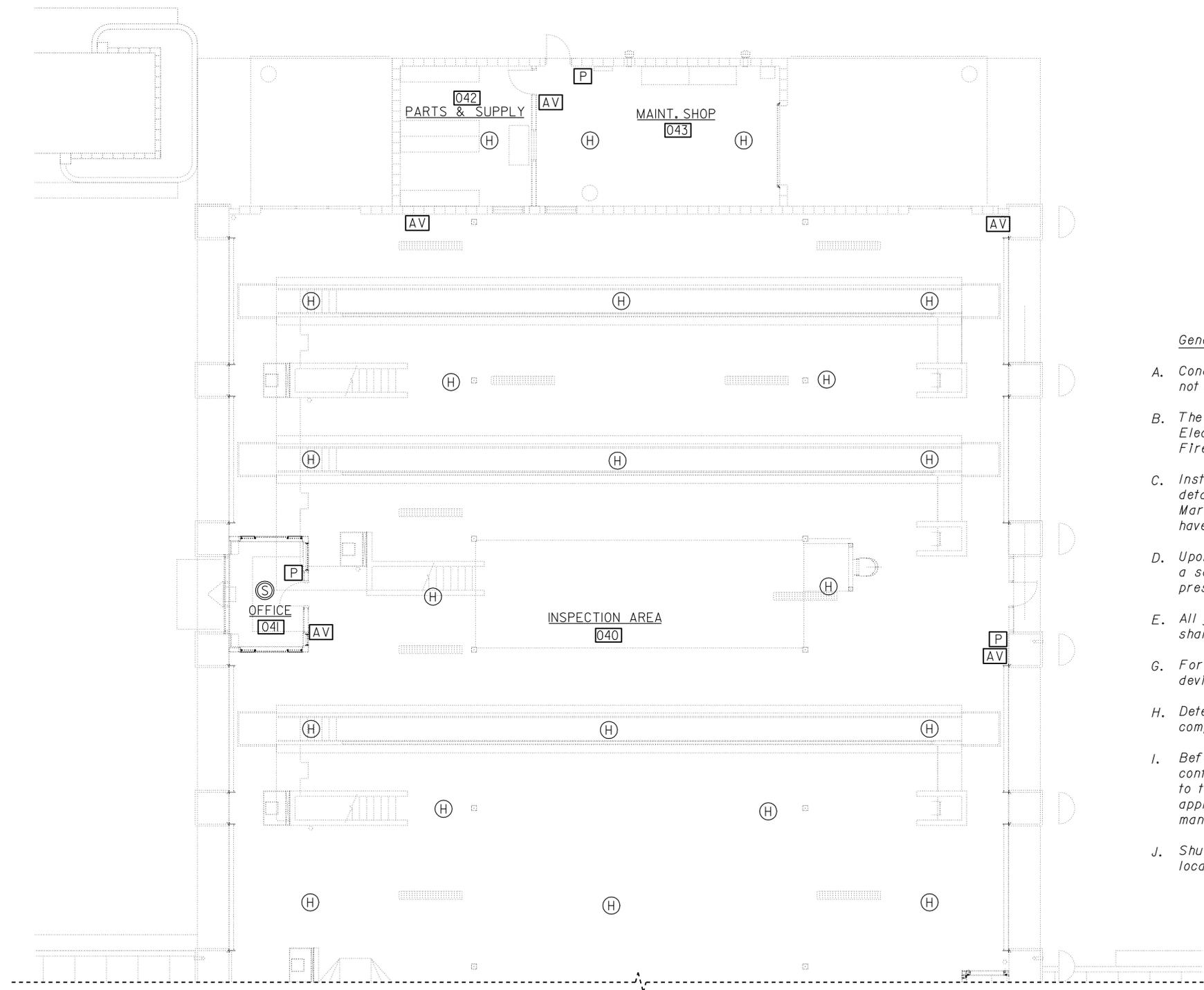
For Office communication plan, see .

FOR CONTINUATION, SEE SHEET EE7-1.5 AND EE7-1.6

PLAN
 SCALE 1/8" = 1'-0"

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DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JPOE		SHEET EE7-2.6
				POST MILE 177.3/181.1	CVEF	INSPECTION AREA COMMUNICATION PLAN	
DETAILS BY <i>Dall Zhou</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	
QUANTITIES <i>Christine Mamaril</i>	CHECKED <i>Jesse Sandhu</i>			4/28/11	11/30/12		



FOR CONTINUATION, SEE SHEET EE7-1.7



PLAN
SCALE 1/8" = 1'-0"

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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	657	710

Jasvirinder K Sandhu 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE
 2-25-13
 PLANS APPROVAL DATE
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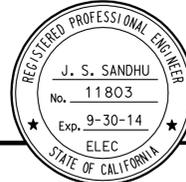
REGISTERED PROFESSIONAL ENGINEER
 J. S. SANDHU
 No. 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

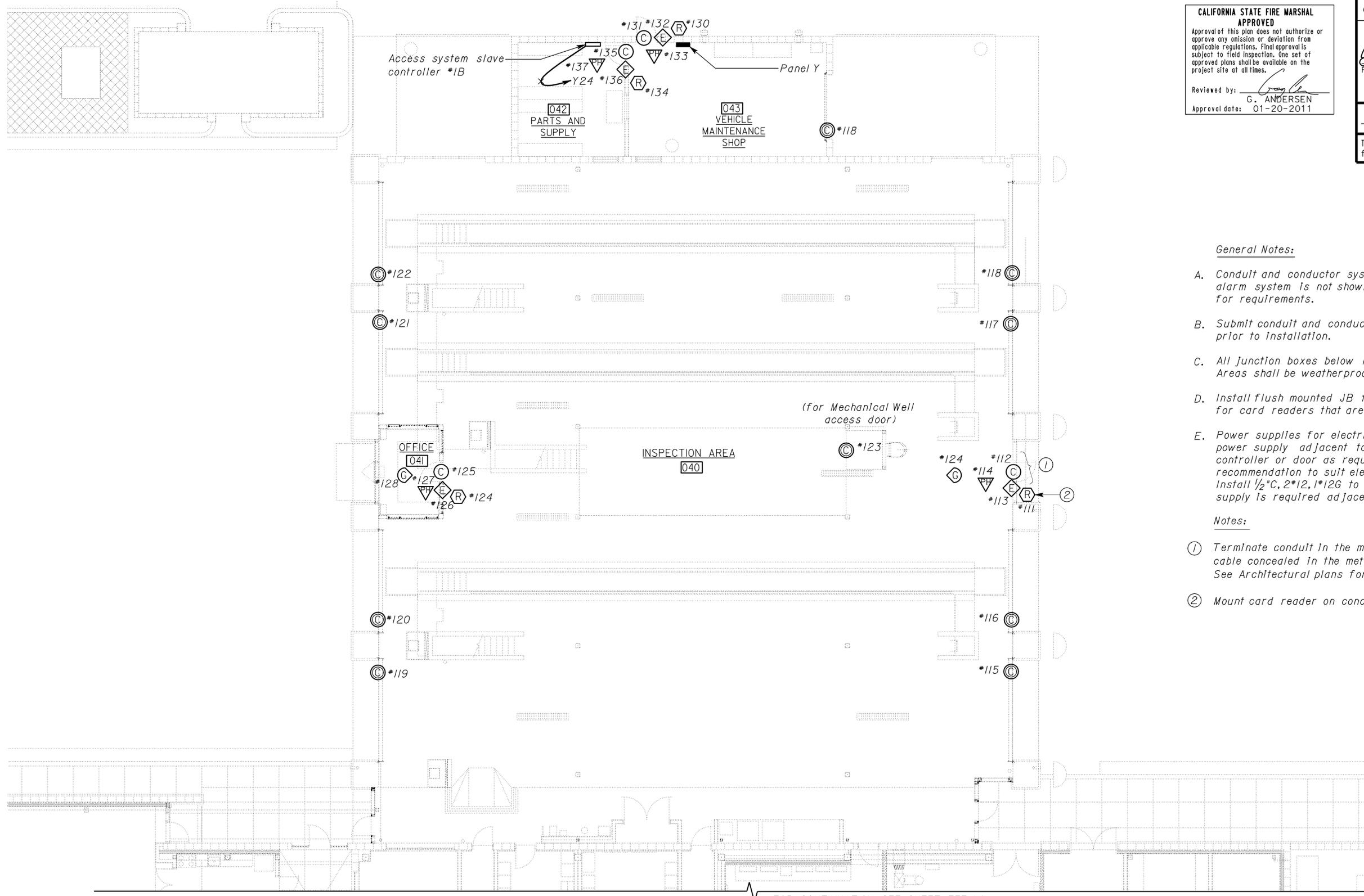
General Notes:

- A. Conduit and conductor system for Fire Alarm System is not shown, see Special provisions for requirements.
- B. The Fire Alarm System shall conform to the California Electrical Codes (CEC), Article 760 and the California Fire codes, Section 1007.
- C. Installation of the Fire Alarm System shall not start up until detailed Plans and Specifications, including California Fire Marshal listing numbers for each components of the system, have been Approved by the California State Fire Marshal.
- D. Upon completion of the Installation of the Fire Alarm System, a satisfactory test of the entire system shall be made in the presence of the Enforcing Agency.
- E. All junction boxes below 12 feet in the Inspection Areas shall be weatherproof type.
- G. For additional manual pull station and audio/visual alarm device at the east side of the Inspection Area, see sheet EE7-1.7.
- H. Detectors shall not be installed until the clean-up of all trades is completed and final.
- I. Before requesting final approval of the installation, the installing contractor shall furnish a written statement to the State Fire Marshal to the effect that the system has been installed in accordance with the approved plans and completely tested in accordance with manufacturer's specifications and appropriate NFPA requirements.
- J. Shut down all supply and exhaust fans upon detection of fire. For location of fans, see Mechanical plans.

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i> DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i> QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J POST MILE 177.3/181.1	MOUNTAIN PASS JPOE INSPECTION AREA FIRE ALARM PLAN	SHEET EE7-2.7
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 4/28/11 11/30/12	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	658	710
CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011					
<i>Jasvirinder A Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE 2-25-13 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.					
					



- General Notes:**
- Conduit and conductor system for intrusion alarm system is not shown. See special provisions for requirements.
 - Submit conduit and conductor layout for approval prior to installation.
 - All junction boxes below 12 feet in the inspection areas shall be weatherproof type.
 - Install flush mounted JB for routing conduit and cables for card readers that are mounted on concrete block walls.
 - Power supplies for electric door hardware are not shown. Install a power supply adjacent to control panel or controller or slave controller or door as required. Install conductors per manufacturer's recommendation to suit electrified door hardware that are supplied. Install 1/2" C, 2*12, 1*12G to the nearest receptacle outlet if power supply is required adjacent to the door.
- Notes:**
- Terminate conduit in the metallic frame. Install intrusion alarm cable concealed in the metallic frames of the curtain wall system. See Architectural plans for details of the curtain wall system.
 - Mount card reader on concrete column.

FOR CONTINUATION, SEE SHEET EE7-1.8

PLAN
SCALE 1/8" = 1'-0"

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DOES SD Imperial Rev. 9/02	DESIGN BY	Christine Mamaril	CHECKED	J.S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	MOUNTAIN PASS JPOE		SHEET EE7-2.8
	DETAILS BY	Ed D. Tapalla/Dall Zhou	CHECKED	Christine Mamaril		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	54-1216J	CVEF	INSPECTION AREA INTRUSION ALARM PLAN	
	QUANTITIES BY	Christine Mamaril	CHECKED	J.S. Sandhu		POST MILE	177.3/181.1		REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE	3596 08000006281		4/28/11 11/30/12	

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 Reviewed by: G. Andersen
 G. ANDERSEN
 Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	659	710
<u>Jasvirinder A Sandhu</u> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE					
2-25-13 PLANS APPROVAL DATE					
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ZONE	LOCATION	DESCRIPTION	ITEM NUMBERS
32	INSPECTION AREA	DIGITAL CARD READER *	#111 *
		MAGNETIC CONTACT SWITCH -PEDESTIAN	#112
		ELECTRIC LOCKSET WITH RX FUNCTION	#113
		POWER TRANSFER OFFSET PIVOT	#114
33	INSPECTION AREA	MAGNETIC CONTACT SWITCHES -VEHICLES *	#115 THRU 122
34	MECHANICAL WELL	MAGNETIC CONTACT SWITCHES -PEDESTRIAN	#123
35	OFFICE	DIGITAL CARD READER	#124
		MAGNETIC CONTACT SWITCH-PEDESTRIAN	#125
		ELECTRIC LOCKSET WITH RX FUNCTION	#126
		POWER TRANSFER OFFSET PIVOT	#127
36	OFFICE	GLASS BREAK DETECTOR	#128
37	INSPECTION AREA	GLASS BREAK DETECTOR	#129
38	VEHICLE MAINTENANCE SHOP	DIGITAL CARD READER	#130
		MAGNETIC CONTACT SWITCH-PEDESTRIAN	#131
		ELECTRIC LOCKSET WITH RX FUNCTION	#132
		POWER TRANSFER OFFSET PIVOT	#133
39	PARTS AND SUPPLY	DIGITAL CARD READER	#134
		MAGNETIC CONTACT SWITCH-PEDESTRIAN	#135
		ELECTRIC LOCKSET WITH RX FUNCTION	#136
		POWER TRANSFER OFFSET PIVOT	#137

General Notes:

- A. Access System Main Control Panel #2 that is located in Electrical Room shall be connected to Access Slave Controller #1B.
- B. Contractor shall install expansion modules as required. Expansion modules are not shown on plans.
- C. Electric locksets, power transfer offset pivots and power transfer hinges are part of door finish hardware and are shown on this plan and this schedule for clarity only. See "Door Hardware" specifications. Coordinate with door supplier for required power supply and number of conductors that are required for complete automatic operation of the doors.

NOTE:

* DIGITAL CARD READER SHALL CONTROL THE MAGNETIC CONTACT SWITCH # 112 AND ALL THE MAGNETIC CONTACT SWITCHES FOR THE TELESCOPING DOORS #115 THRU 122.

DESIGN	BY	Christine Mamaril	CHECKED	J. S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JPOE INSPECTION AREA INTRUSION ALARM SCHEDULE	SHEET EE7- 2.9	
	DETAILS	BY	Dall Zhou	CHECKED			Christine Mamaril	POST MILE			177.3/181.1
	QUANTITIES	BY	Christine Mamaril	CHECKED			J. S. Sandhu				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES		
UNIT PROJECT NUMBER & PHASE					3596 08000006281			REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF	
DOES SD Imperial Rev. 9/02								4/24/11 11/30/12		ee7_2.9.dgn	

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	660	710

Tommy F. Lee		11-30-12
REGISTERED ELECTRICAL ENGINEER	DATE	

2-25-13
PLANS APPROVAL DATE

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LIGHTING FIXTURE SCHEDULE			
TYPE	MANUFACTURER	LAMPS	DESCRIPTION
F31	LITHONIA LIGHTING, DMW-SL SERIES, COLUMBIA LIGHTING, LUN SERIES, OR EQUAL	ONE-59 W T8, 277V	CEILING MOUNTED ENCLOSED AND GASKETED INDUSTRIAL FLUORESCENT FIXTURE WITH ONE 59-WATT, T8 LAMPS, 8-FOOT LONG, ZERO DEGREE ELECTRONIC BALLAST AND ONE PIECE, CLEAR ACRYLIC DIFFUSER. THE FIXTURE SHALL BE SUITABLE FOR WET LOCATION.
MH10	BRONZELITE, G8000 SERIES, GREENLEE, RDB/RDS SERIES, OR EQUAL	ONE-150 W 277V, METAL HALIDE	IN GROUND TYPE FLAG POLE LUMINAIRE WITH A FIBERGLASS COMPOSITE, SINGLE PIECE HOUSING, HIGH TEMPERATURE RATED TEMPERED GLASS LENS WITH GUARD, SILICON GASKET FOR WATERTIGHT SEAL, AND SPECULAR SPUN ALUMINUM REFLECTOR WITH 15 DEGREE BEAM FOR AIMING AT THE FLAG. LUMINAIRE SHALL BE SUITABLE FOR INSTALLATION IN CONCRETE.
MH11	HYDREL, 7000 SERIES, DORAL SERIES, OR EQUAL	ONE-50 W 277V, METAL HALIDE	OUTDOOR, KNUCKLE MOUNTED, GALRE SHIELD, FLOOD LUMINAIRE WITH INTEGRAL BALLAST RATED FOR LOW TEMPERATURES AND BLACK FINISH. THE FIXTURE SHALL BE STANCHION MOUNTED, WIRING AND INTERNAL GROUND LUG ACCESSIBLE THROUGH HAND HOLE.

General Notes:

A. For conduit and conductor sizes for conduit identified with a number inside a hexagon, see sheet EEO-16 and EEO-17

B. Exact location of Planter lights (Total 22), see Planting sheets "PP".

C. For additional lighting fixture schedules, see sheets EE8-1 and EE8-2.

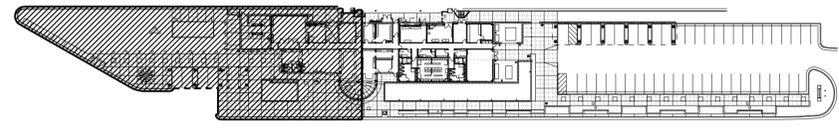
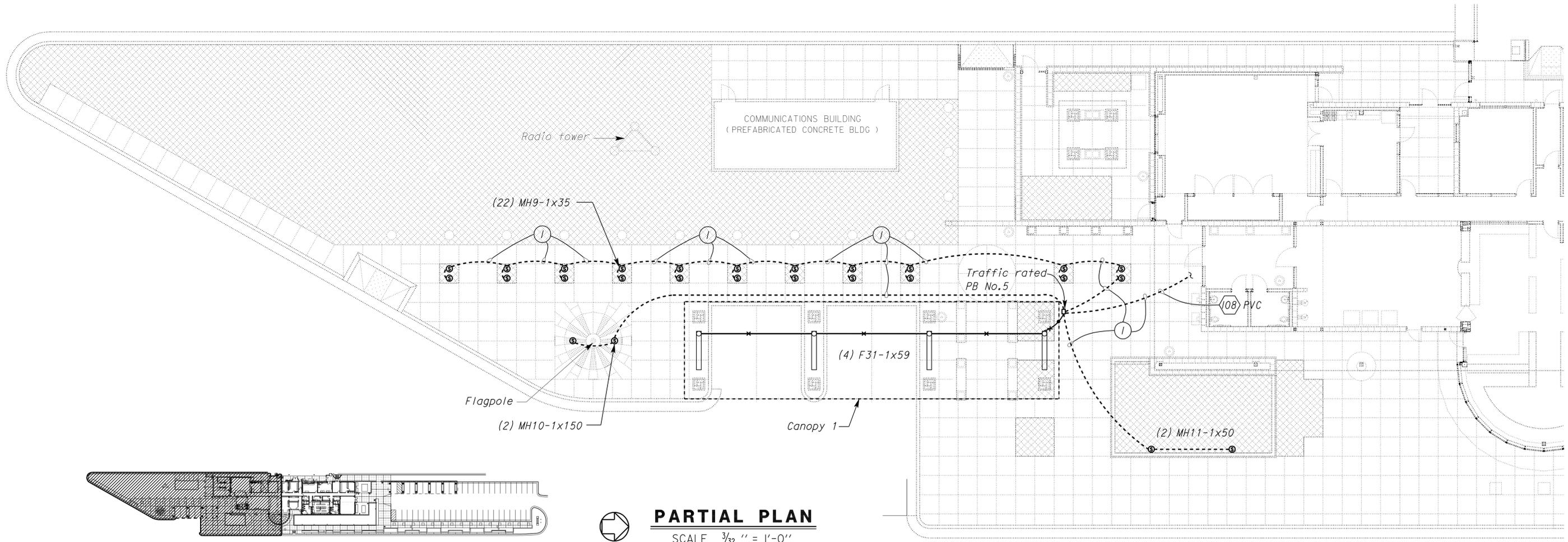
Note:

① 3/4" C, PVC, 2#10, 1#10G.

CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011



KEY PLAN
NO SCALE

PARTIAL PLAN
SCALE 3/32" = 1'-0"

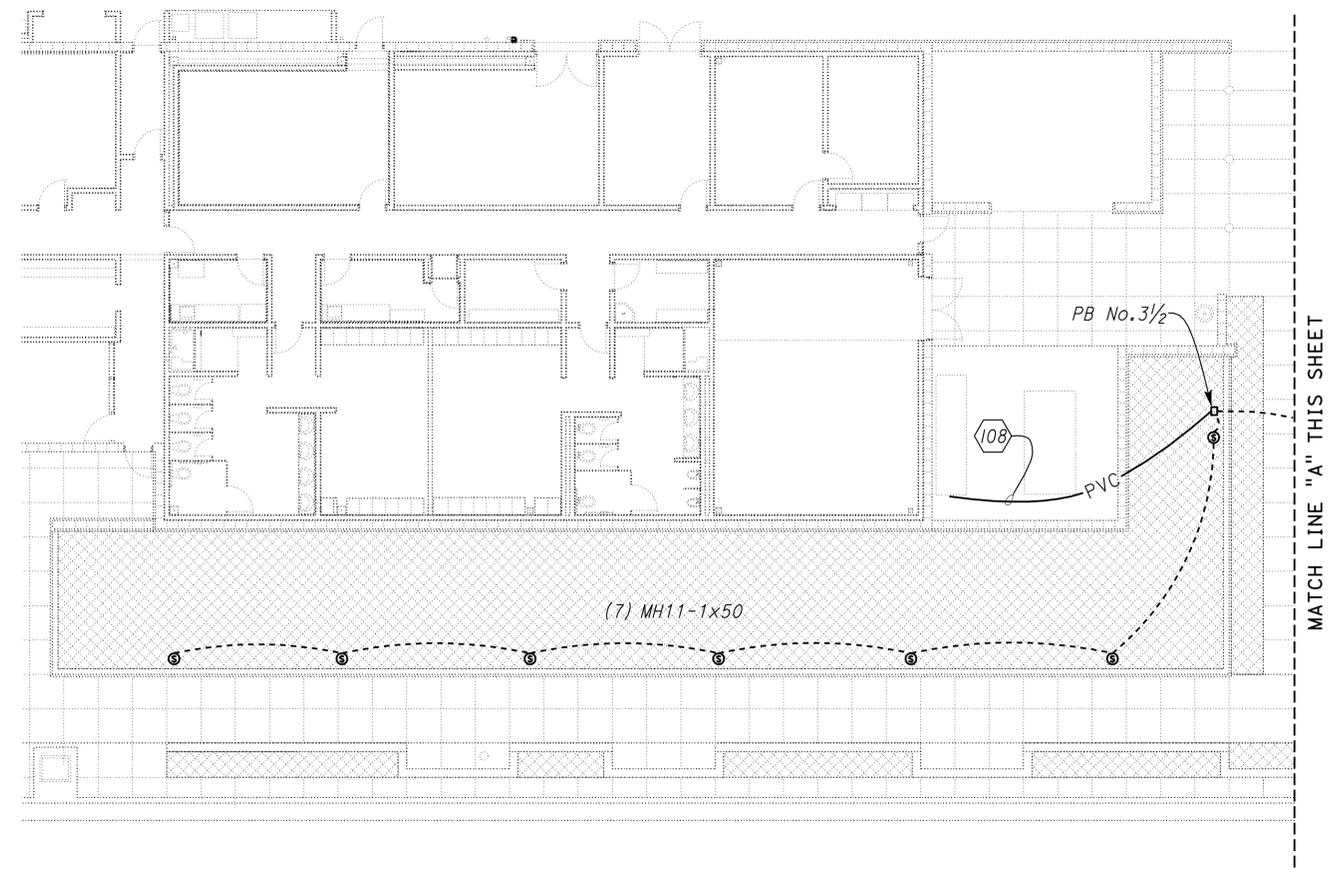
THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY Tommy F. Lee CHECKED J. S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE	SHEET EE7-2.10
			54-1216J		
DETAILS BY Tommy F. Lee CHECKED J. S. Sandhu			POST MILE	CVEF	CANOPY 1, FLAG POLE, PLANTERS, LANDSCAPING LIGHTING PLAN
QUANTITIES BY Tommy F. Lee CHECKED J. S. Sandhu			177.3/181.1		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)
DOES SD Imperial Rev. 9/02					4/27/11 11/30/12

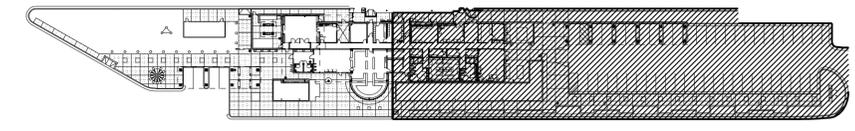
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	661	710

 REGISTERED ELECTRICAL ENGINEER		11-30-12 DATE
2-25-13 PLANS APPROVAL DATE		
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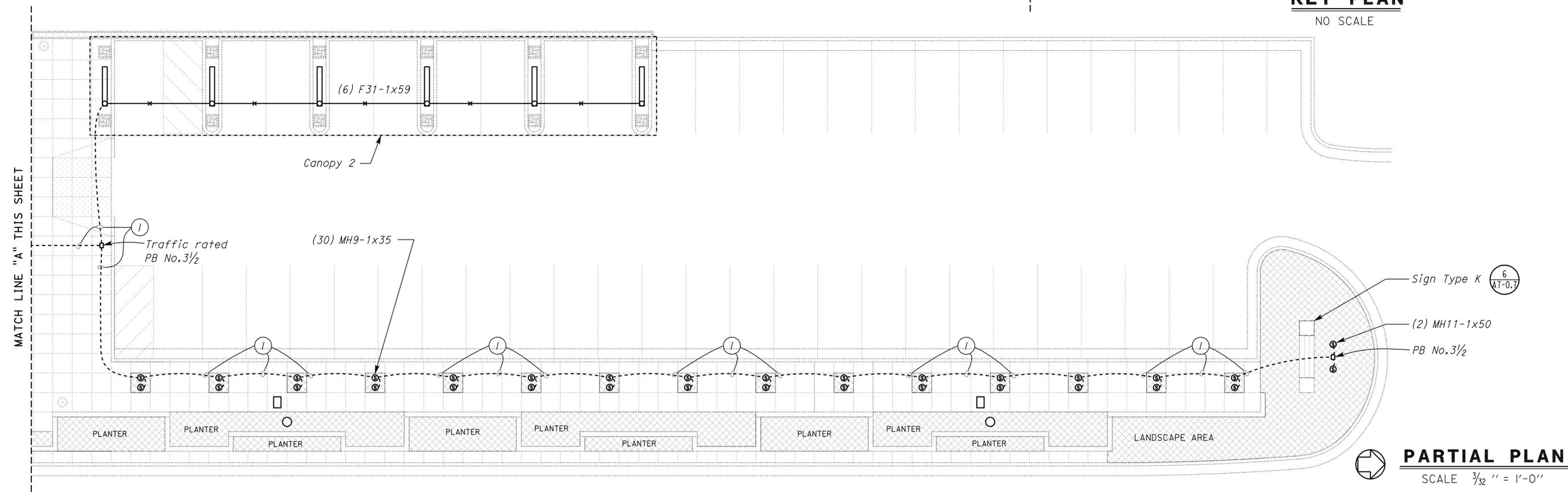
CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.	
Reviewed by:  G. ANDERSEN	Approval date: 01-20-2011



- General Notes:**
- A. For conduit and conductor sizes for conduit identified with a number inside a hexagon, see sheet EEO-16 and EEO-17
 - B. Exact location of Planter lights (Total 30), see Planting sheets "PP".
 - C. For lighting fixture schedules, see sheets EE8-1, EE8-2, and EE7-2.10.
- Note:**
- ① 3/4" C, PVC, 2#10, 1#10G.



KEY PLAN
NO SCALE



PARTIAL PLAN
SCALE 3/32" = 1'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Tommy F. Lee</i> CHECKED <i>J. S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE		SHEET EE7-2.11	
			POST MILE 177.3/181.1	CVEF	CANOPY 2, SIGN, PLANTERS, LANDSCAPING LIGHTING PLAN		
DETAILS BY <i>Tommy F. Lee</i> CHECKED <i>J. S. Sandhu</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY) 11/30/12		SHEET OF
QUANTITIES BY <i>Tommy F. Lee</i> CHECKED <i>J. S. Sandhu</i>			ee7_2.11.dgn				

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	662	710

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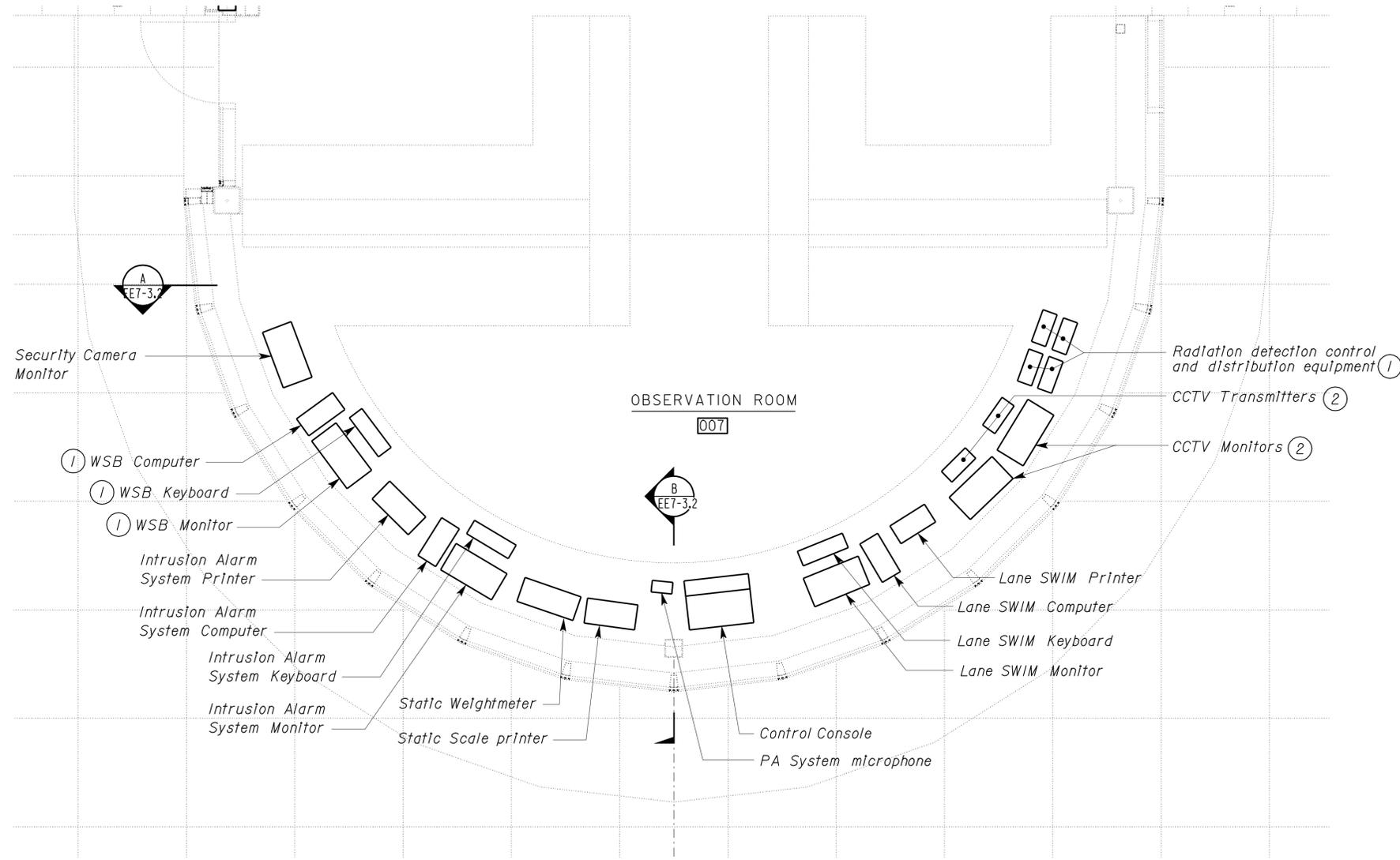
Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

H. Abdelsayed
H. ABDELSAYED
REGISTERED ELECTRICAL ENGINEER
DATE: 11-30-12



2-25-13
PLANS APPROVAL DATE

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- Notes:
- ① Equipment will be furnished and wired by others (NIC).
 - ② For CCTV Interconnection Diagram, see sheet EE0-34.

PLAN
SCALE 3/8" = 1'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE	SHEET EE7-3.1	
				POST MILE 177.3/181.1			CVEF
DETAILS BY <i>Ed D. Tapalla 10/12</i>	CHECKED <i>Helmy Abdelsayed</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF
QUANTITIES BY <i>Helmy Abdelsayed</i>	CHECKED <i>Jesse Sandhu</i>			4/24/11 11/30/12			

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	663	710

<i>H. Abdelsayed</i>		11-30-12
REGISTERED ELECTRICAL ENGINEER	DATE	

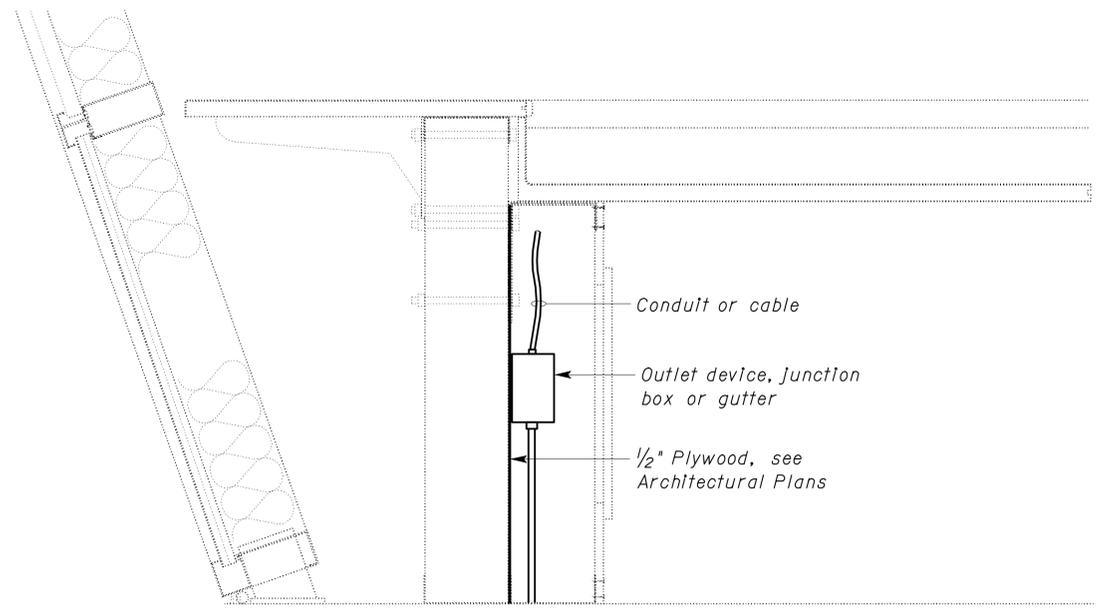
2-25-13	
PLANS APPROVAL DATE	

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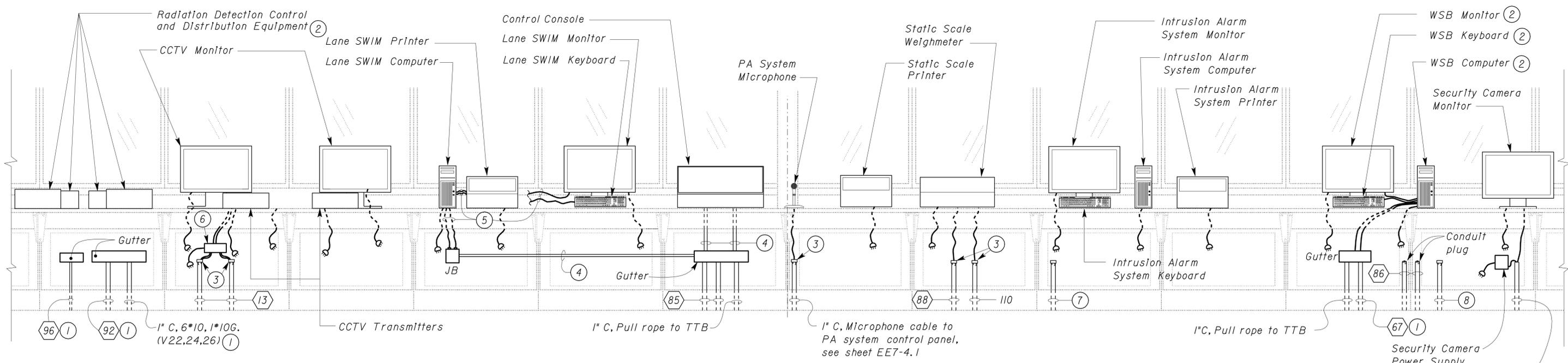
Reviewed by: *G. Andersen*
G. ANDERSEN
 Approval date: 01-20-2011



B TYPICAL SECTION
NO SCALE

- General Notes:**
- See sheets EEO-16 and EEO-17 for Conduit and Conductor Schedule.
 - All duplex receptacle outlets and telephone outlets below counter are not shown for clarity. See Power and Communication plan sheets for details.

- Notes:**
- Loop 10' of cable inside junction box/gutter.
 - Equipment will be furnished and wired by others. (NIC).
 - Cable grip fitting. Size to suit cable diameter.
 - Size of conduit, type and number of cables shall be as required by the SWIM equipment manufacturer.
 - Type and number of cables shall be as required by the SWIM equipment manufacturer.
 - Install fiber optic/video converter on the plywood as required. Supply power to the converter from neighboring duplex receptacle.
 - 2" C, conductors and cables to Intrusion Alarm System. See sheet EE7-1.8.
 - 1" C, pull rope to blank outlet near the public telephone enclosure location. See sheet EE7-1.5.



A ELEVATION
NO SCALE

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY	Helmy Abdelsayed	CHECKED	Jesse Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE		SHEET EE7-3.2
	DETAILS	BY Ed D. Tapalla 10/12	CHECKED	Helmy Abdelsayed			54-1216J	CVEF	OBSERVATION ROOM ELEVATION	
	QUANTITIES	Christine Mamaril	CHECKED	Helmy Abdelsayed			POST MILE 177.3/181.1			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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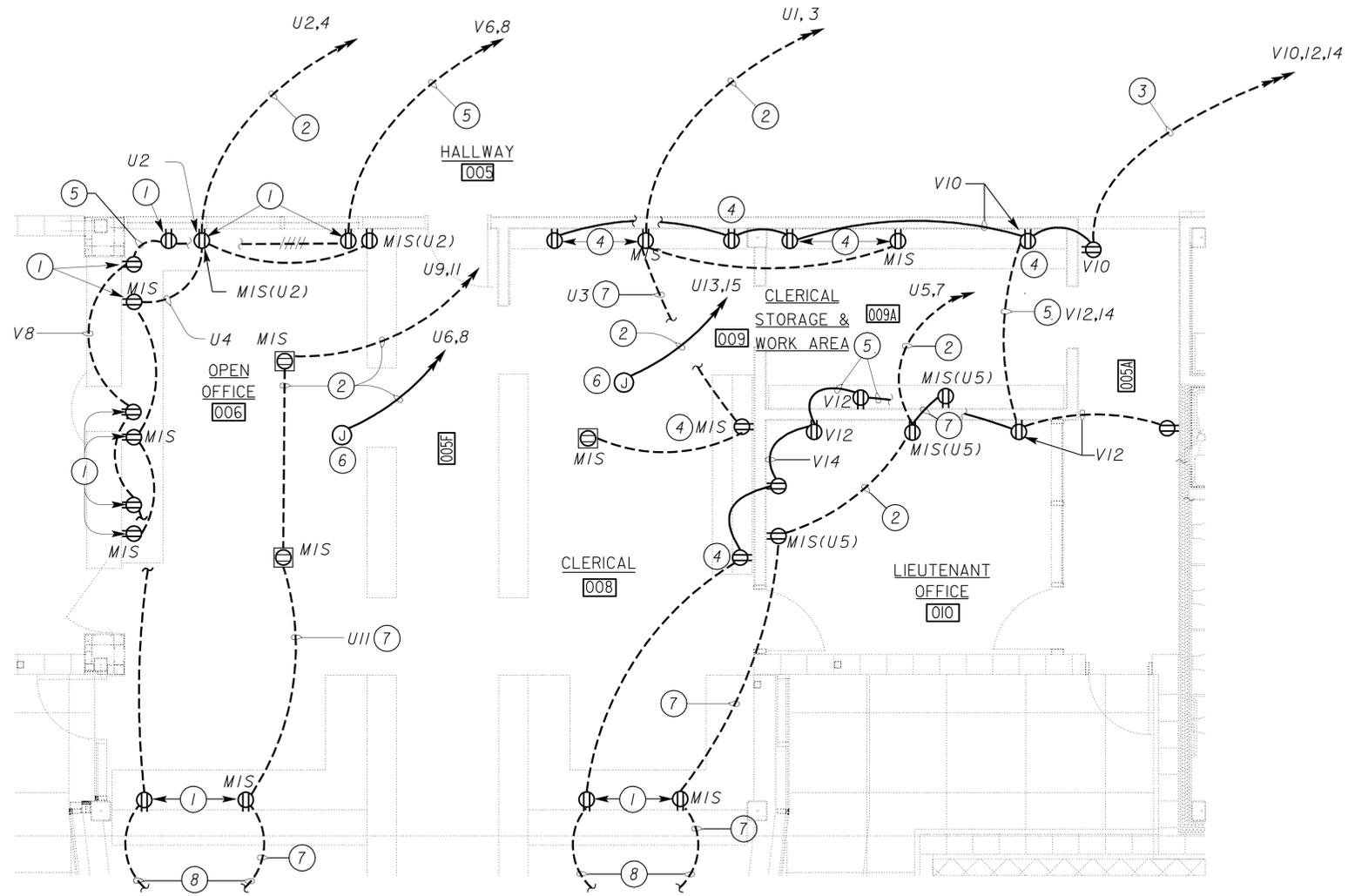
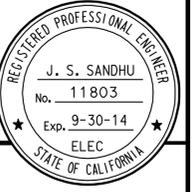
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G. ANDERSEN
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Jasvirinder A Sandhu 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
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- General Notes:**
- A. For location of Panels U and V, see sheet EE7-1.2.
 - B. Unless otherwise shown or noted on this plan, all conduits shown underfloor shall be 3/4"C, 2*12, 1*12G.
 - C. Coordinate location of receptacle outlets with casework details. See Architectural plans.
 - D. Install floor mounted receptacle outlets adjacent to floor mounted telephone outlets. See sheet EE7-1.5.

- Notes:**
- ① Mount receptacle below counter in the open space or open front area of the casework.
 - ② 3/4"C, 4*12, 1*12 Isolated ground, 1*12G.
 - ③ 1"C, 6*12, 1*12G.
 - ④ Mount receptacle outlet at 6" above counter.
 - ⑤ 3/4"C, 4*12, 1*12G.
 - ⑥ Provide 12" of additional length for each conductor inside the junction box and coil inside the junction box. Tape ends.
 - ⑦ 3/4"C, 2*12, 1*12 Isolated ground, 1*12G.
 - ⑧ To outlet on the other side of the casework. For continuation, see sheet EE7-1.1.

PLAN
 SCALE 1/4" = 1'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Christine Mamaril</i>	CHECKED <i>J. S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JPOE	SHEET EE7-3.3
				54-1216J		
DETAILS BY <i>Dall Zhou</i>	CHECKED <i>Christine Mamaril</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE 3596 08000006281	POST MILE	CVEF	OPEN OFFICES ENLARGED PLAN
QUANTITIES BY <i>Christine Mamaril</i>	CHECKED <i>J. S. Sandhu</i>			177.3/181.1		
DOES SD Imperial Rev. 9/02				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)
				4/28/11 11/30/12		SHEET OF

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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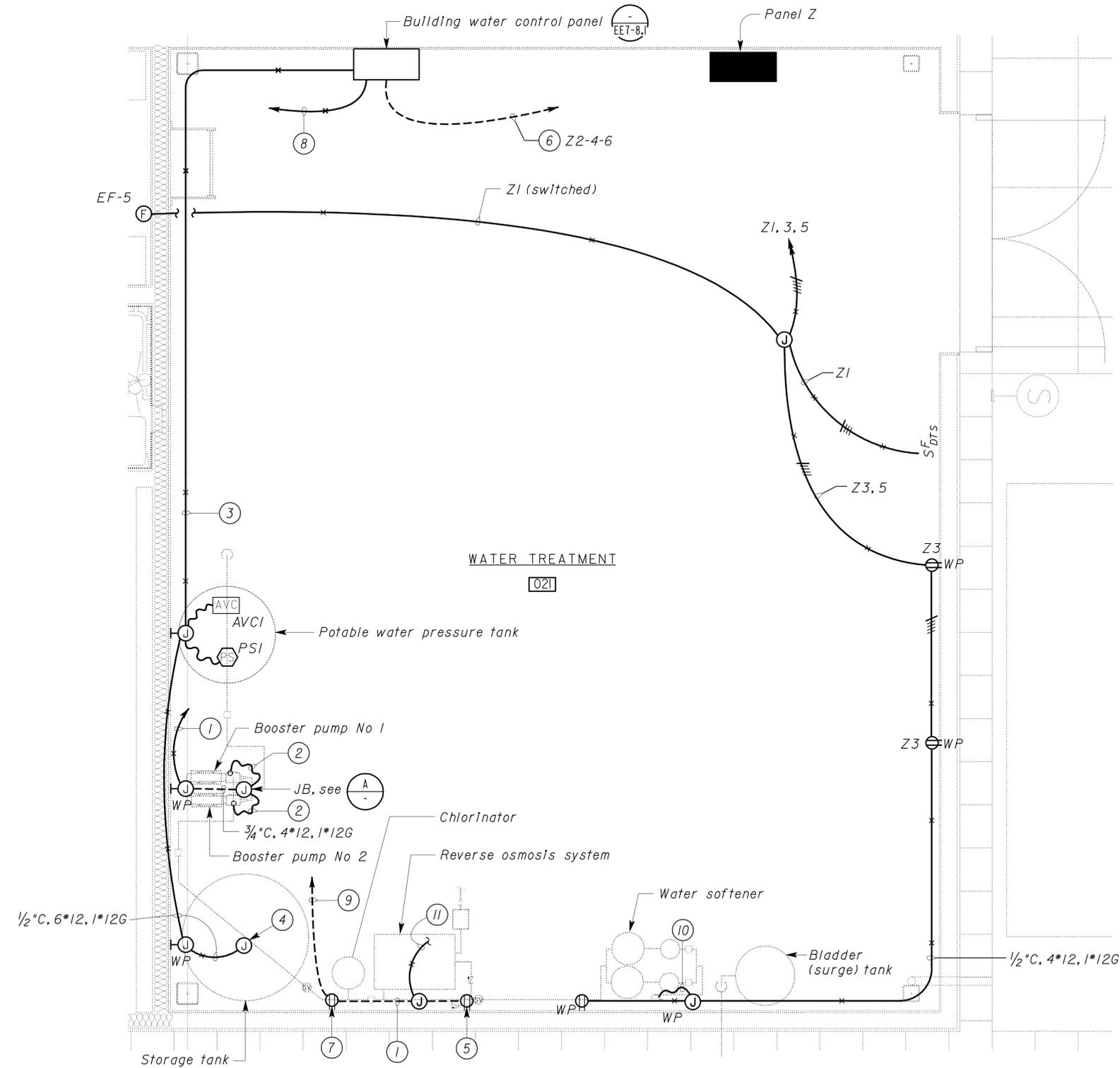
CALIFORNIA STATE FIRE MARSHAL APPROVED
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 Reviewed by: *G. Andersen*
G. ANDERSEN
 Approval date: 01-20-2011

J. Sandhu 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE

J. S. SANDHU
 No. 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

2-25-13
 PLANS APPROVAL DATE

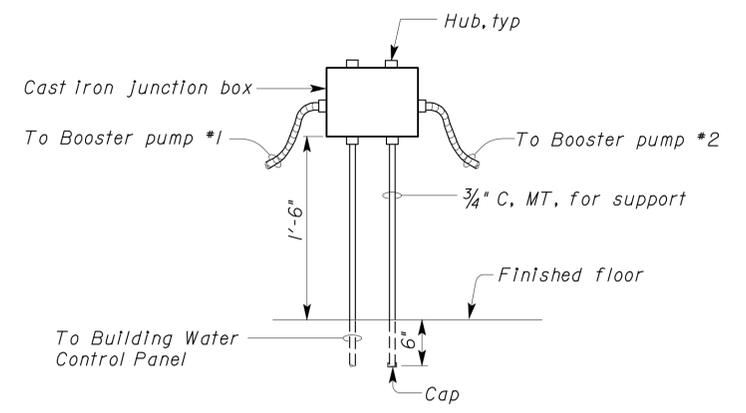
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PLAN
 SCALE 1/2" = 1'-0"

- General Notes:**
- For location of tanks, pumps, float switches, pressure switches, air volume controller, softeners and chlorinator, see Water Plans.
 - For location of fan, see Mechanical Plans.
 - Unless otherwise shown or noted, all conduits shown under floor should be 3/4" C, 2*12, 1*12G.
 - For Building Water Control Panel Schematic Diagrams and Details, see sheet EE7-8.1 and EE7-8.2.

- Notes:**
- 3/4" C, 4*12, 1*12G to Building Water Control Panel.
 - 3/4" C, 2*12, 1*12G to pump motor.
 - 1" C, 10*12, 1*12G (ACVI, PSI, FSI, FS2 and FS3).
 - Mount cast Iron junction box above the storage tank. Provide CGB connectors for float switch cable. Splice cable to conductors inside the junction box.
 - Weatherproof, duplex receptacle for reverse osmosis unit.
 - 1" C, 4*6, 1*8G.
 - Weatherproof, duplex receptacle for chlorinator.
 - 3/4" C, 2*10, 1*10G for remote control signal from domestic water supply system (well) to auxiliary gutter, see EE7-4.1. Conductors will continue to conduit 7 after the gutter.
 - 3/4" C, 6*12, 1*12G to Building Water control Panel.
 - 3/4" C, 2*12, 1*12G to Water softener, see Water and Waste Water sheets for exact location.
 - 3/4" C, 2*12, 1*12G. Connect to Reverse Osmosis Control Panel.



A ELEVATION
 NO SCALE

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>
DETAILS	BY <i>Dall Zhou</i>	CHECKED <i>Christine Mamaril</i>
QUANTITIES	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	SHEET EE7-3.4
POST MILE	177.3/181.1		
CVEF		WATER TREATMENT ROOM ENLARGED PLAN	SHEET OF

General Notes:

- A. For location of lights, see Architectural Plans.
- B. For location of heat pump outdoor condensing unit and heat pump Indoor fan/coil unit, see Mechanical Plans and Architectural plans.
- C. For location of Panel W, see sheet EE7-1.2. For location of Panel Y, see sheet EE7-2.1. For location of TTB, see sheet EE7-1.6
- D. Unless otherwise shown or noted on this plan, all conduits shown underfloor shall be 3/4"C, 2*12, 1*12G

Notes:

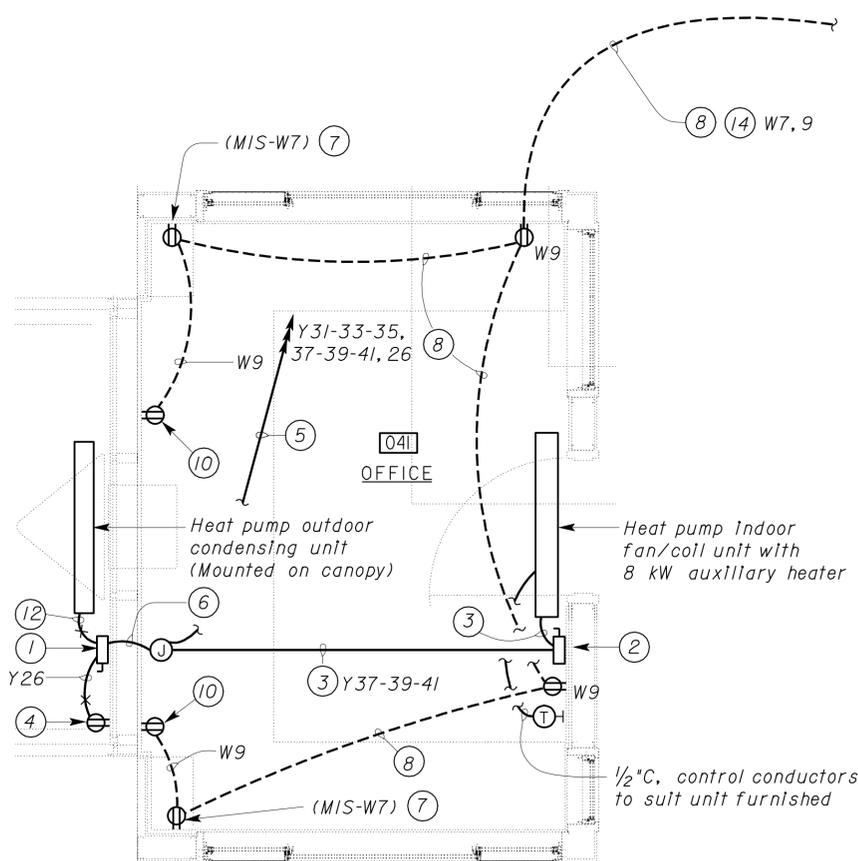
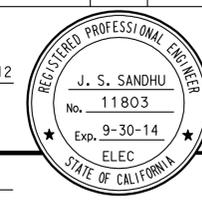
- ① Heat pump outdoor unit disconnect. Mount above canopy adjacent to unit.
- ② Heat pump indoor disconnect.
- ③ 3/4"C, 3*8, 1*10G and control conductors as required.
- ④ WP (GFCI) mount above canopy adjacent to disconnect.
- ⑤ 1/2"C, 3*8 (Y31-33-35), 3*6 (Y37-39-41) and 2*10 (Y26), 1*10G. Install conduit above Office.
- ⑥ 1"C, 3*10, 1*12G (Y31-33-35) and 2*12 (Y26).
- ⑦ Mount at 6" above counter.
- ⑧ 3/4"C, 4*12, 1*12G, 1*12G (Isolated ground for W7).
- ⑨ 3/4"C, 4*12, 1*12G.
- ⑩ Mount below counter.
- ⑪ To gutter at Inspector's Station, see sheet EE7-2.3 and EE7-6.2.
- ⑫ 3/4"C, 3*10, 1*12G.
- ⑬ 3/4"C, conductors as required for dimming system.
- ⑭ To gutter at Inspector's Station, see sheet EE7-2.1 and EE7-6.2.

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 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

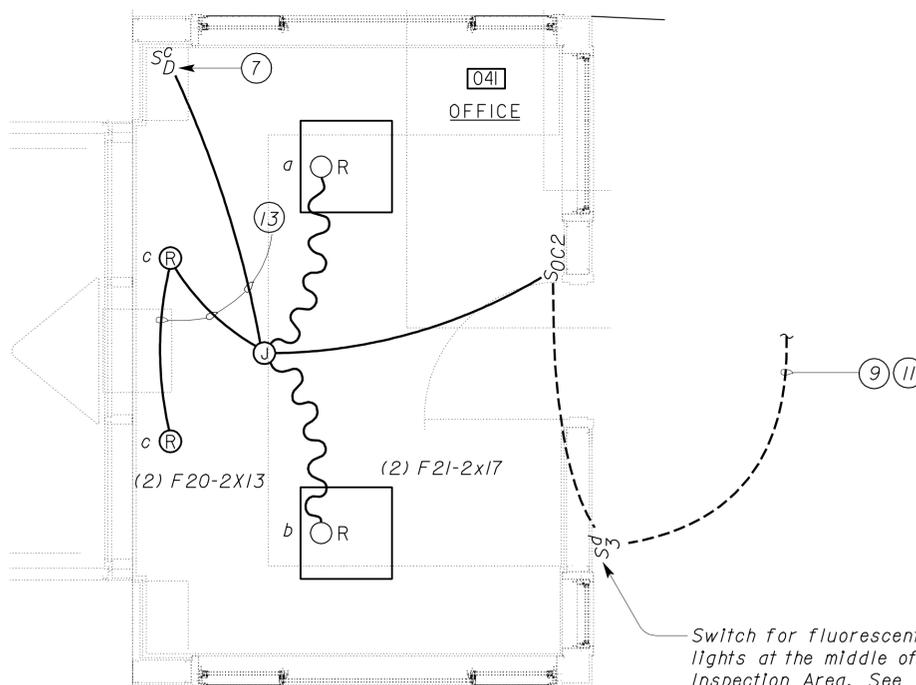
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	666	710

2-25-13
 PLANS APPROVAL DATE

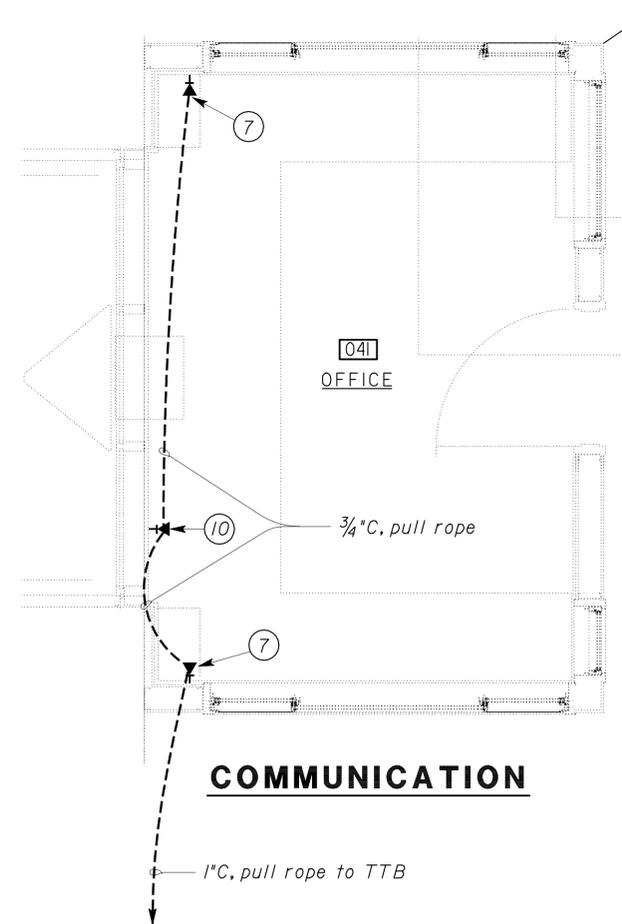
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POWER



LIGHTING



COMMUNICATION

PLAN
 SCALE 1/2" = 1'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY Christine Mamaril	CHECKED J.S. Sandhu
DETAILS	BY Tommy Lee/Dall Zhou	CHECKED Christine Mamaril
QUANTITIES	BY Christine Mamaril	CHECKED J.S. Sandhu

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

BRIDGE NO.	54-1216J
POST MILE	177.3/181.1

MOUNTAIN PASS JOE		SHEET
CVEF	INSPECTION OFFICE ENLARGED PLAN	EE7-3.5

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	667	710

Jasvinder S. Sandhu 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
PLANS APPROVAL DATE

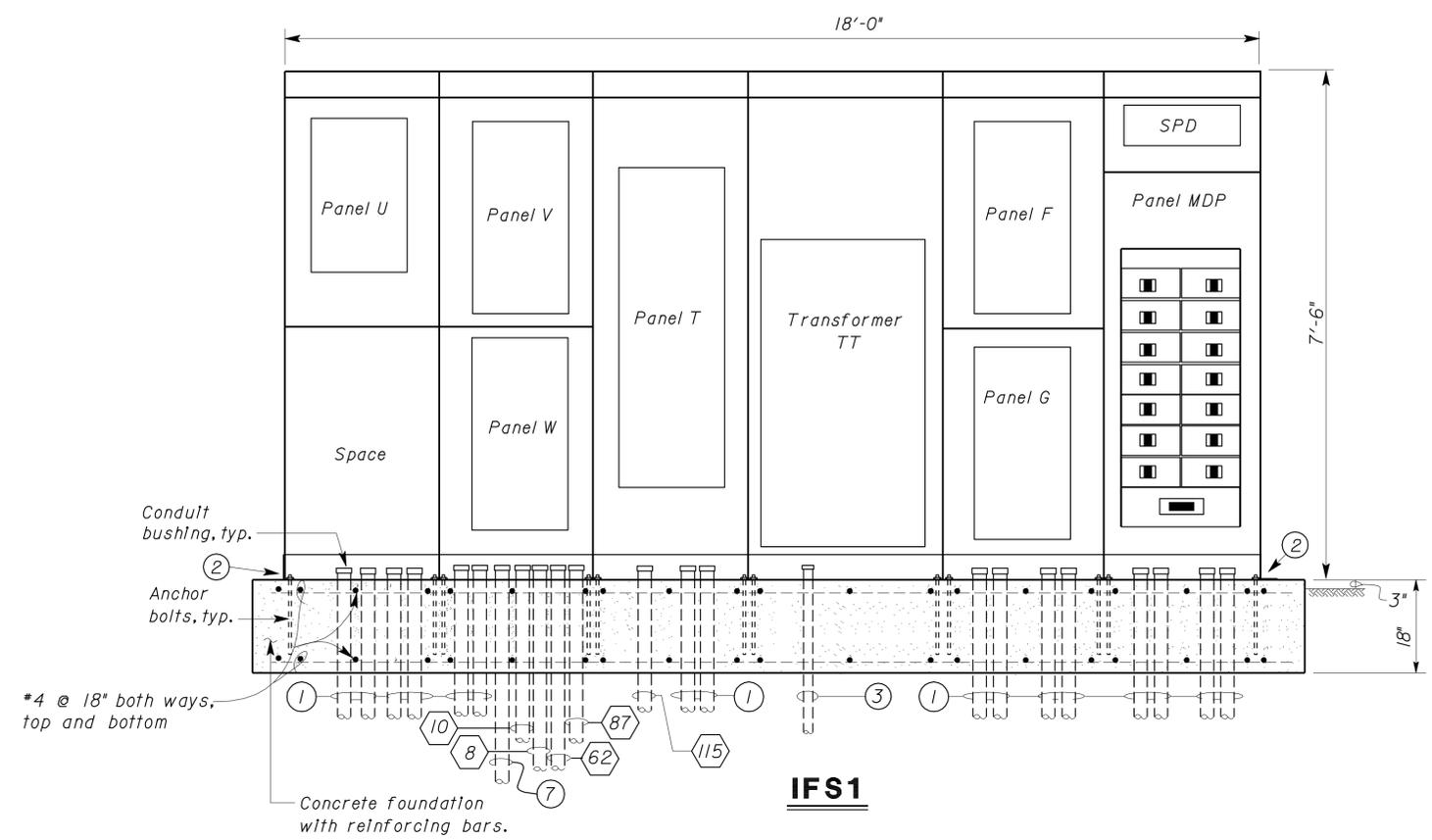
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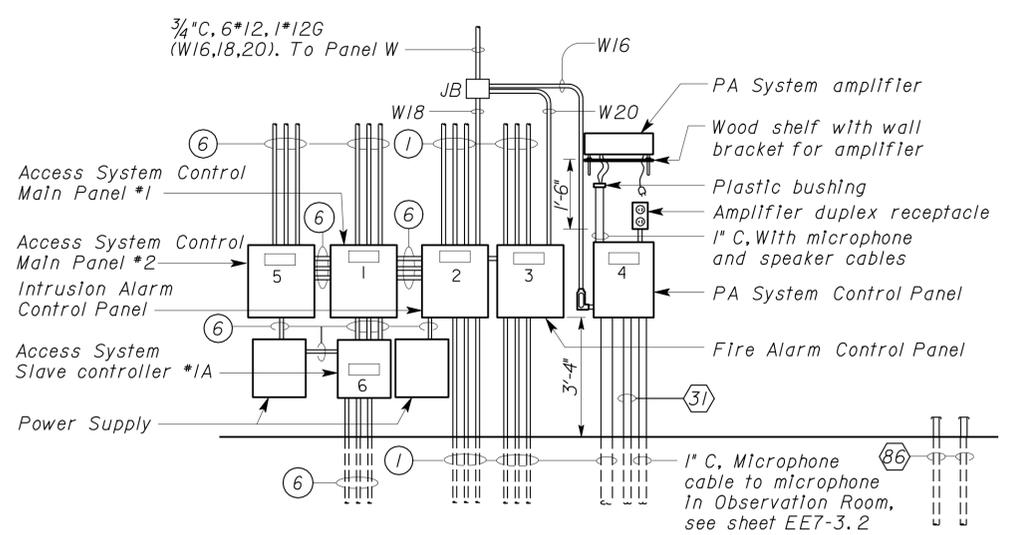
Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011



A ELEVATION
NO SCALE

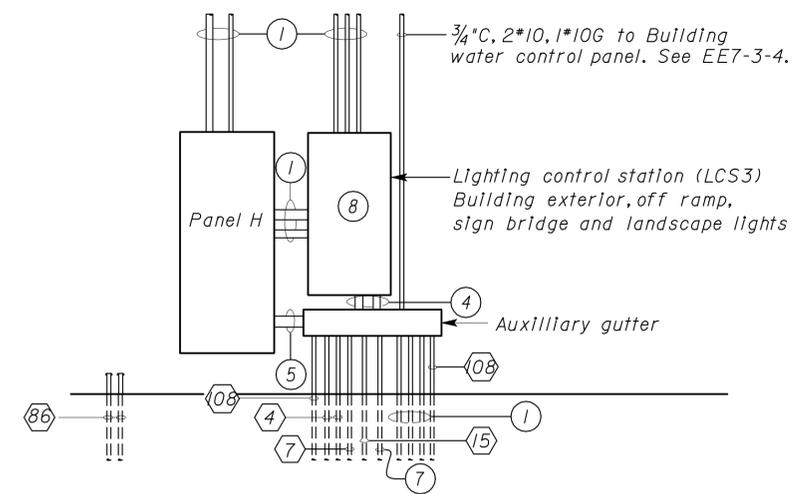
- General Note:**
- For nameplates of other devices, see Specifications.
 - For continuation of conduits identified with a number inside a hexagon, see sheet EE0-16 and EE0-17.
 - Dimensions shown are nominal and are for reference only. Dimensions shown are maximum allowable.

- Notes:**
- Conduit system as required, see plans and details.
 - End seismic bracing per IFS manufacturer's recommendation to meet or exceed the CBC 2007 seismic requirements.
 - 1" C, 1#2/0 to Ground Plate adjacent to TTB.
 - 2" C, conductors from lighting circuits connected to the lighting control station as required. Terminate at terminal block of lighting control station.
 - 3" C, 1#8, 1#8G (H1-3, 5-7, 9-11, 13-15, 8-10, 12-14, 16-18), 2#4, 1#8G (H20-22, 24-26), 2#10 (Building Water Control) and 3#2, 1#2G (H38-40-42).
 - Conduit system to suit intrusion and access system furnished.
 - 3/4" C, 2#10, 1#10G (325 and N25-neutral for H25).
 - Install a warning sign on exterior door. Inscription shall read "DE-ENERGIZE CIRCUITS H25, 27-29, 31-33-35 37-39-41 TO DISCONNECT POWER TO THE PANEL".



B ELEVATION
NO SCALE

NAMEPLATE SCHEDULE		
NO.	INSCRIPTION	LETTER HEIGHT (INCHES)
1	ACCESS SYSTEM MAIN PANEL 1	1/2
2	INTRUSION ALARM PANEL	1/2
3	FIRE ALARM PANEL	1/2
4	PA SYSTEM CONTROL PANEL	1/2
5	ACCESS SYSTEM MAIN PANEL 2	1/2
6	ACCESS SYSTEM SLAVE IA	1/2



C ELEVATION
NO SCALE

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE		SHEET
			POST MILE 177.3/181.1	CVEF	ELECTRICAL ROOM DETAILS	EE7-4.1
DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i>				REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>				4/28/11	11/30/12	OF

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

UNIT PROJECT NUMBER & PHASE: 3596 08000006281

DISREGARD PRINTS BEARING EARLIER REVISION DATES

DOES SD Imperial Rev. 9/02

27-FEB-2013 08:11 ee7_4.1.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	668	710

J. S. SANDHU
 REGISTERED ELECTRICAL ENGINEER
 No. 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

Reviewed by: *G. Andersen*
 Approval date: 01-20-2011

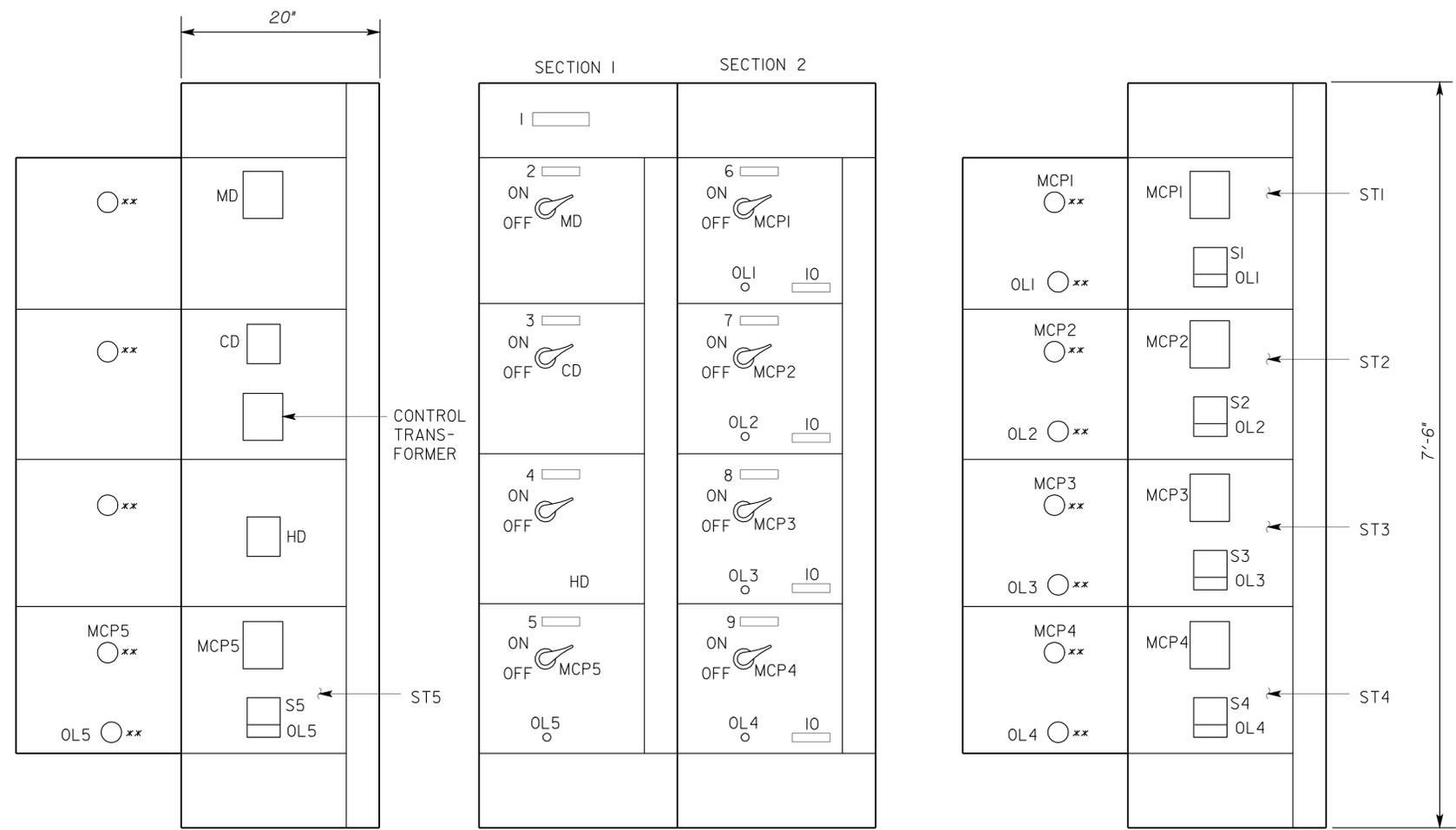
2-25-13
 PLANS APPROVAL DATE

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.

- General Notes:**
- A. For nameplates of other devices, see Specifications.
 - B. For Schematic Diagram, see sheet EE7-5.I.
 - C. Dimensions shown are nominal and are for reference only. Dimensions shown are maximum allowable.
 - D. Provide anchor bolts as required by MCC manufacturer to meet or exceed the 2007 CBC seismic requirements.
 - E. Provide concrete foundation similar to IFSI on sheet EE7-4.I.

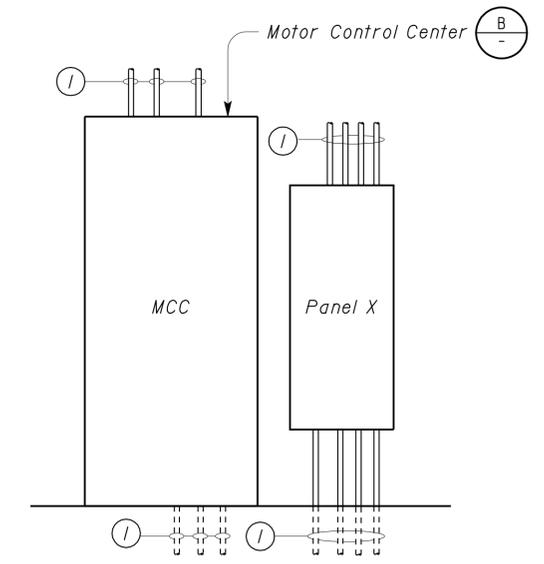
Note:

① Conduit system as required, see Plans.



NO.	INSCRIPTION	LETTER HEIGHT (INCHES)
1	MOTOR CONTROL CENTER INSPECTION LANES FANS AND DUCT HEATER	1
2	MAIN DISCONNECT	1/2
3	EXHAUST FANS CONTROL	1/2
4	DUCT HEATER DISCONNECT	1/2
5	SUPPLY FAN	1/2
6	EXHAUST FAN 8 (ENTRANCE LANES 3 & 4)	1/2
7	EXHAUST FAN 9 (ENTRANCE LANES 1 & 2)	1/2
8	EXHAUST FAN 10 (EXIT LANES 3 & 4)	1/2
9	EXHAUST FAN 11 (EXIT LANES 1 & 2)	1/2
10*	WARNING: MOTOR DISCONNECT DOES NOT DE-ENERGIZE CONTROL CIRCUIT	1/2

* WHITE LETTERS AGAINST RED BACKGROUND



DOOR OPEN
(SECTION 1)

DOOR CLOSED
(SECTION 1 AND 2)

DOOR OPEN
(SECTION 2)

B MOTOR CONTROL CENTER ELEVATION
NO SCALE

A ELEVATION
NO SCALE

** Opening or operating handle of device

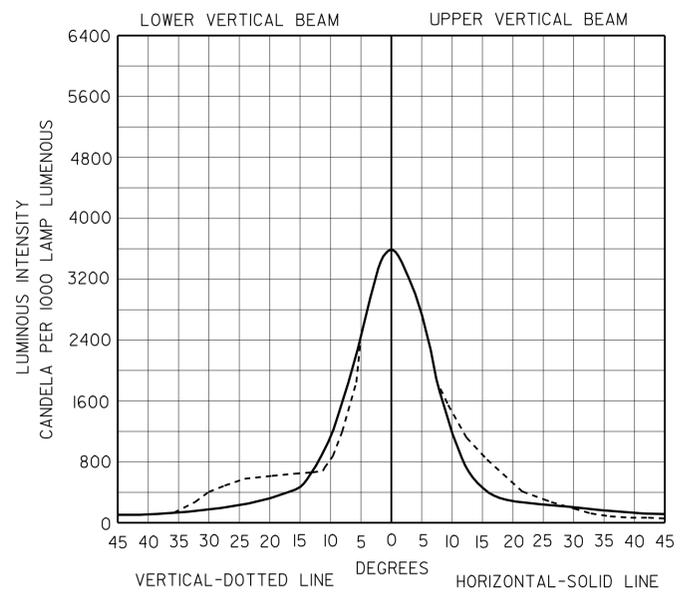
THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE	SHEET EE7-4.2
				POST MILE		
DETAILS BY <i>Dall Zhou</i>	CHECKED <i>Christine Mamaril</i>			54-1216J		
QUANTITIES BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>			177.3/181.1	CVEF	MECHANICAL ROOM DETAILS
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)
DOES SD Imperial Rev. 9/02						4/28/11 11/30/12

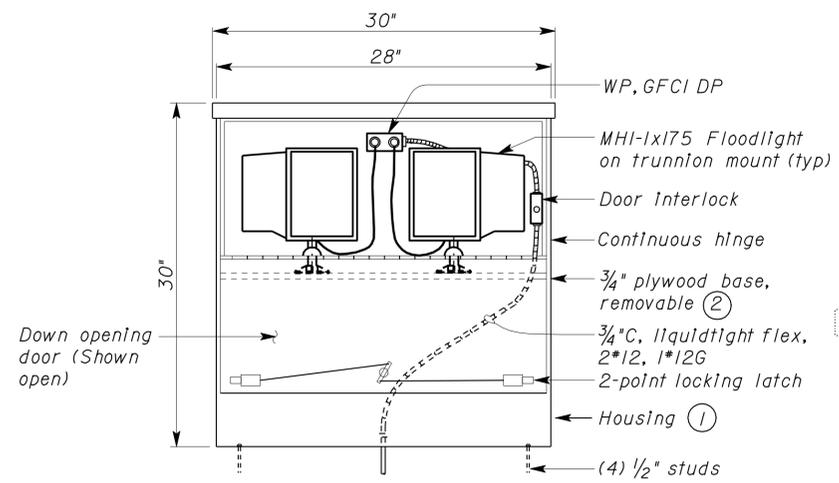
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	669	710

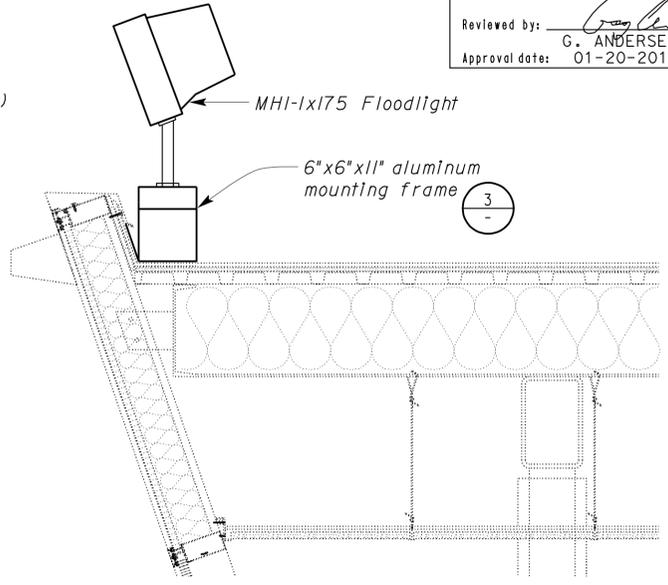
Approved by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011		CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.
Reviewed by: <i>J. S. Sandhu</i> J. S. SANDHU No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA		REGISTERED PROFESSIONAL ENGINEER 11-30-12 DATE
2-25-13 PLANS APPROVAL DATE		
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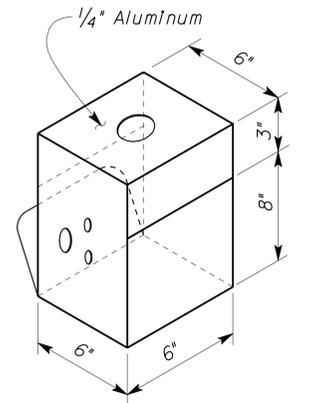
(MH1) FLOODLIGHT PHOTOMETRY



1 FLOODLIGHT HOUSING
NO SCALE



2 ROOF MOUNTED FLOODLIGHT
NO SCALE



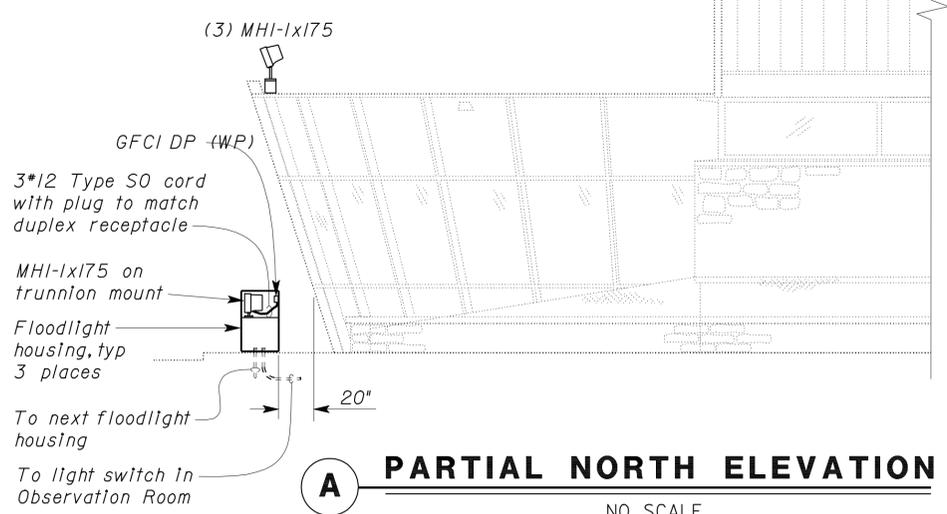
3 DETAIL
NO SCALE

General Notes:

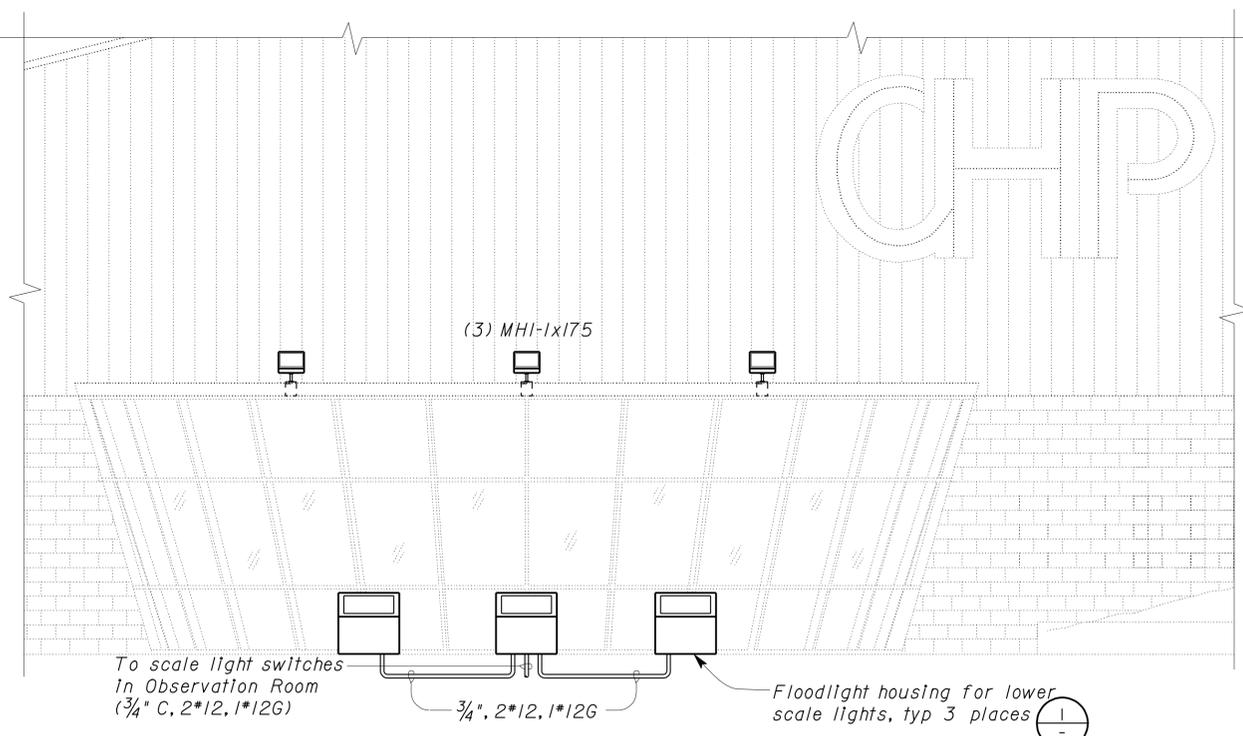
- A. Dimensions shown are nominal.
- B. Provide anchor bolts (total 4 for each housing) to secure housing on floor.
- C. For exact location of light fixtures, see Architectural plans.

Note:

- 1 The floodlight housing shall be a low profile NEMA Type 3R enclosure with dimensions as shown. Enclosure shall protect the floodlights when not in use. Housing shall be galvanized 12 gauge steel continuously welded to form a seamless exterior, reinforced to form a rigid box. The door shall have a high quality two-point locking mechanism to allow easy opening and closing with one hand. The lock shall be recessed and the door face shall be smooth except for (3) 1/2-inch thick rubber bumpers mounted near the lock and two latches. The door interlock shall be 10-ampere 480-Volt, NEMA 4 limit switches mounted on a flange welded to the housing, adjusted to open the circuit when the door is four inches from fully closed. Finish shall be polyester dry powder electrostatically applied and baked on at 302 degrees fahrenheit. Color shall be black interior and exterior shall match the cement plaster color. The painting process shall include five stages of metal preparation using dip tanks as follows: alkaline cleaner, clear water rinse, zinc phosphate application, clear water rinse and inhibitor seal phosphated surfaces.
- 2 Paint top, bottom and sides of plywood with color of match interior of the housing.



A PARTIAL NORTH ELEVATION
NO SCALE

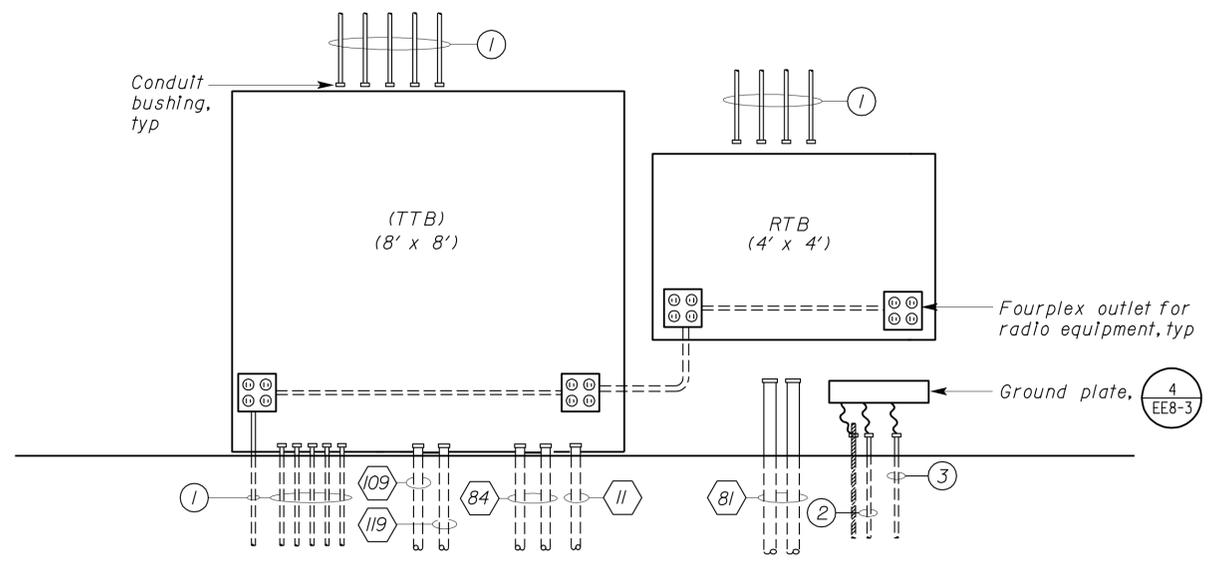


B PARTIAL EAST ELEVATION
NO SCALE

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DESIGN	BY	Christine Mamaril	CHECKED	J. S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE		SHEET EE7-4.3
	DETAILS	BY	Ed D. Tapalla 10/12	CHECKED				Christine Mamaril	POST MILE 177.3/181.1	
QUANTITIES	BY	Christine Mamaril	CHECKED	J. S. Sandhu	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	4/22/11	11/30/12	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	670	710
Approved by: <i>J. Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE					
Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011					
2-25-13 PLANS APPROVAL DATE					
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D ELEVATION
NO SCALE

Notes:

- ① Conduit system as required, see plans and details.
- ② 1" C, 1#2/0 to MSB2.
- ③ 1" C, 1#2/0 to IFS.

General Note:

For continuation of conduits identified by a number inside a hexagon, see sheet EEO-16 and EEO-17.

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY	<i>Christine Mamaril</i>	CHECKED	<i>J. S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JPOE COMMUNICATION DETAILS	SHEET EE7- 4.4	
	DETAILS	BY	<i>Dall Zhou</i>	CHECKED			<i>Christine Mamaril</i>	POST MILE			177.3/181.1
	QUANTITIES	BY	<i>Christine Mamaril</i>	CHECKED			<i>J. S. Sandhu</i>	CVEF			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
DOES SD Imperial Rev. 9/02								4/28/11 11/30/12		ee7_4.4.dgn	

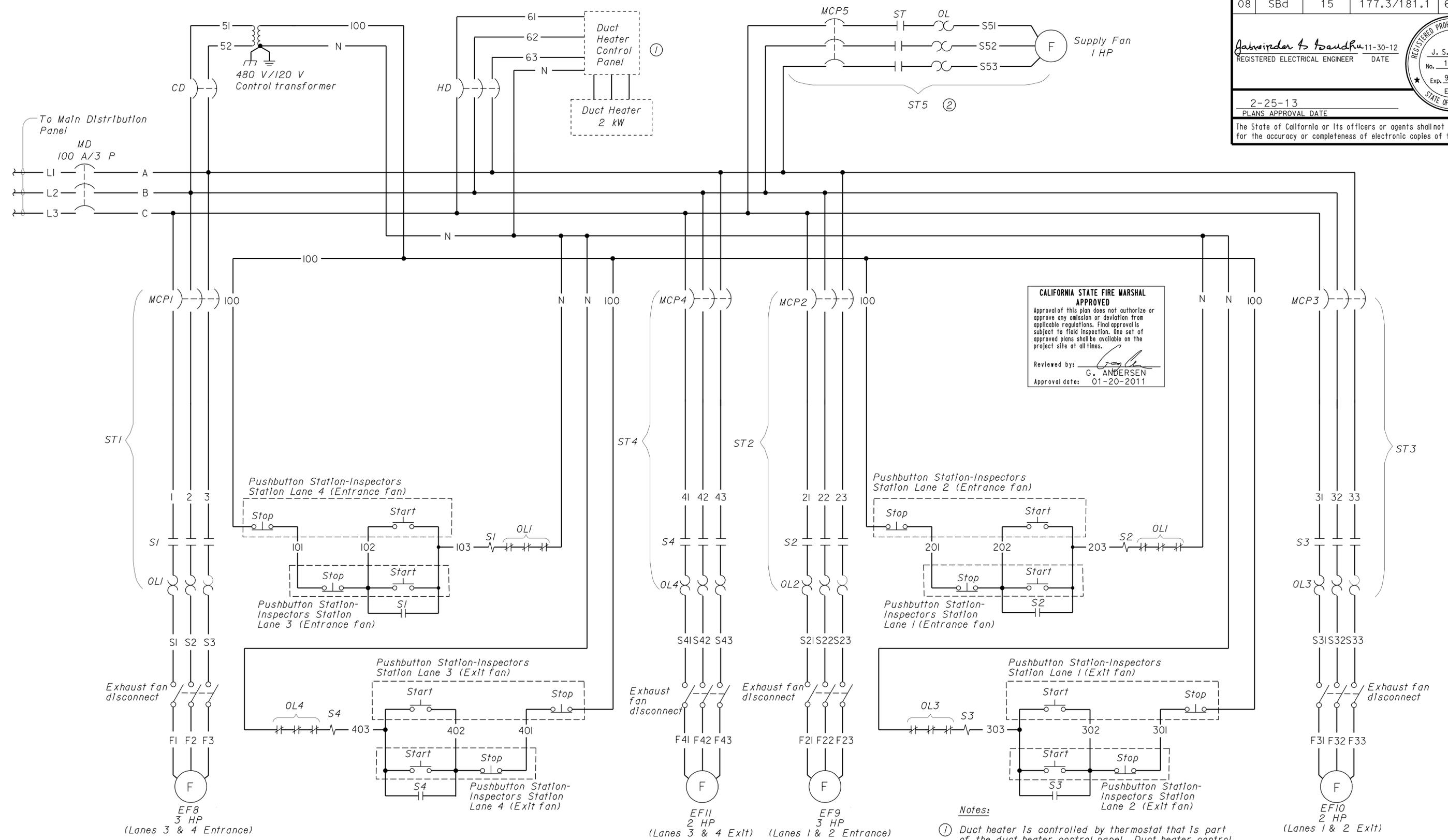
27-FEB-2013 08:12

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	671	710

J. S. SANDHU 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE
 No. 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

2-25-13
 PLANS APPROVAL DATE

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 Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011

- Notes:**
- ① Duct heater is controlled by thermostat that is part of the duct heater control panel. Duct heater control panel is provided by duct heater supplier.
 - ② Supply fan shall be controlled by the starter, ST5 only. Fan shall continuously supply fresh air to the Inspection Lanes.

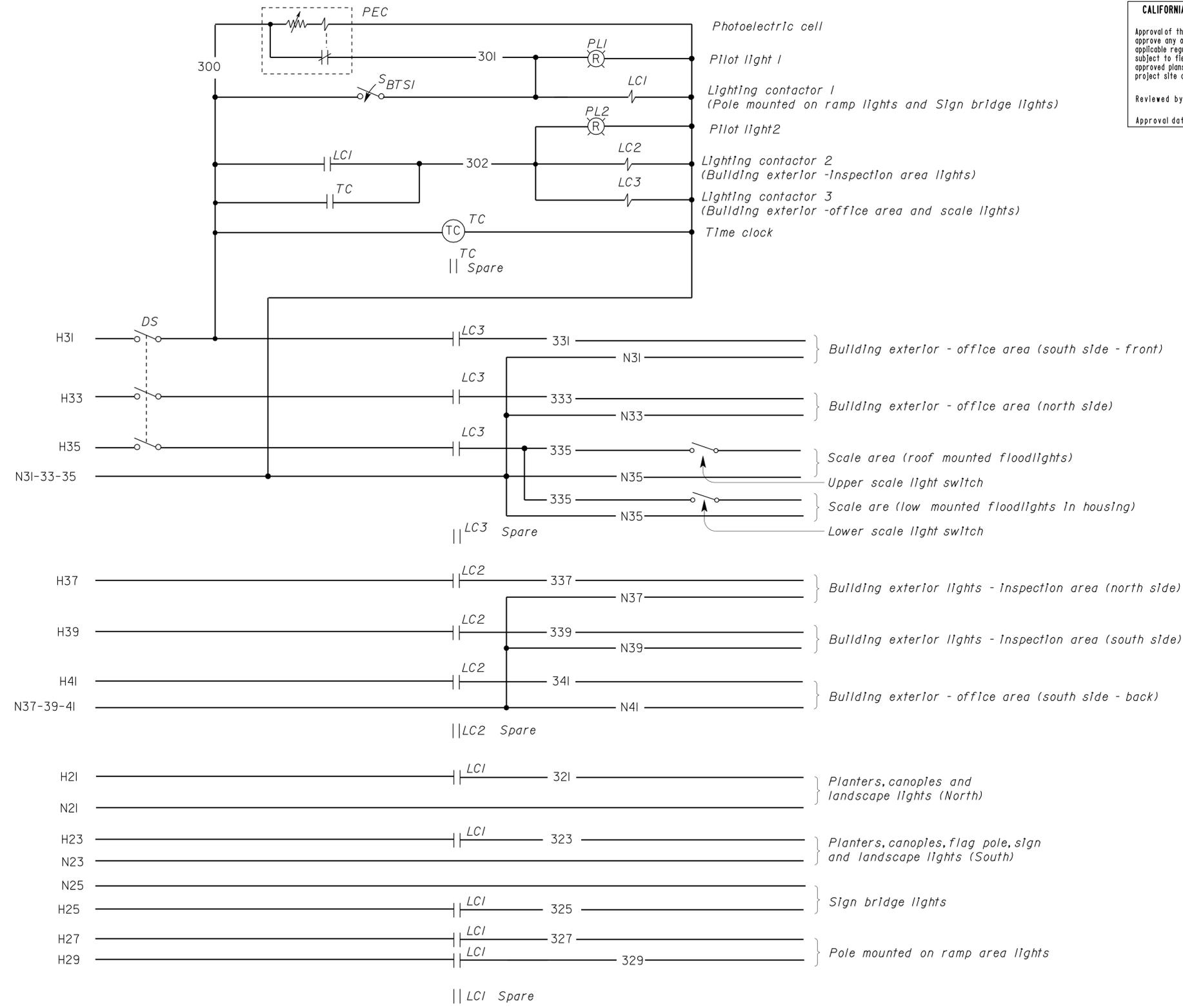
MCC SCHEMATIC DIAGRAM

DESIGN	BY Christine Mamaril	CHECKED J.S. Sandhu
DETAILS	BY Dall Zhou/Ed Tapalla	CHECKED Christine Mamaril
QUANTITIES	BY Christine Mamaril	CHECKED J.S. Sandhu

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

BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	SHEET EE7-5.1
POST MILE	177.3/181.1		
CVEF		SCHEMATIC DIAGRAM I	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	672	710
CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011					
<i>Jasvirinder K. Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE J. S. SANDHU No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA					
2-25-13 PLANS APPROVAL DATE					
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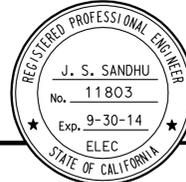


- General Notes:**
- A. Pole mounted on ramp lights are automatically controlled by PEC only (dusk to dawn).
 - B. Building exterior lights and scale are automatically controlled by PEC and timeclock (Initially set at 2 hours before dusk and 2 hours after dawn).
 - C. Single pole switches provide additional manual control for the upper and lower scale lights
 - D. Bypass timer switch shall only bypass the PEC.
 - E. Outdoor lights at the generator area and transformer area at the north side have single pole switches mounted near the lights to provide additional control. See EE7-1.4.
 - F. For quantity of lights see plans.

LIGHTING CONTROL STATION (LCS3) SCHEMATIC DIAGRAM

DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i> DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i> QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE		SHEET EE7-5.2
			POST MILE	SCHEMATIC DIAGRAM 2		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT PROJECT NUMBER & PHASE	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
0 1 2 3			3596 08000006281	4/28/11 11/30/12	SHEET OF	OF

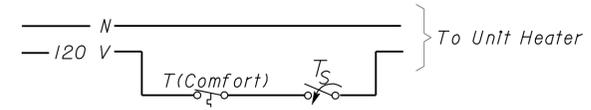
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	673	710

<i>Jaswinder A Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE		
2-25-13 PLANS APPROVAL DATE		
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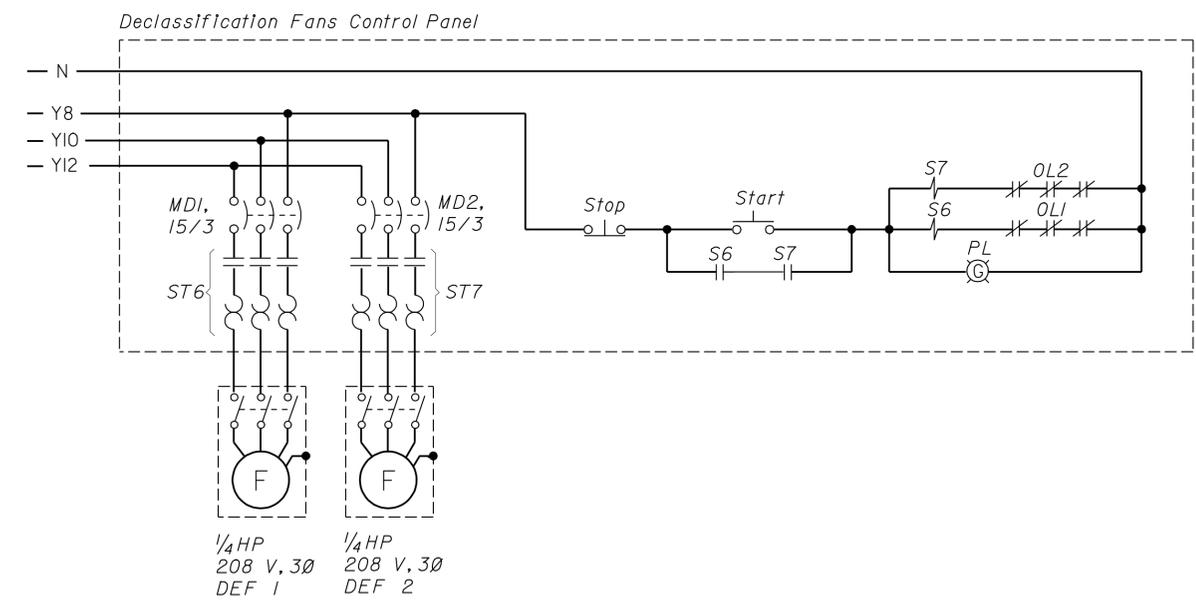
CALIFORNIA STATE FIRE MARSHAL APPROVED

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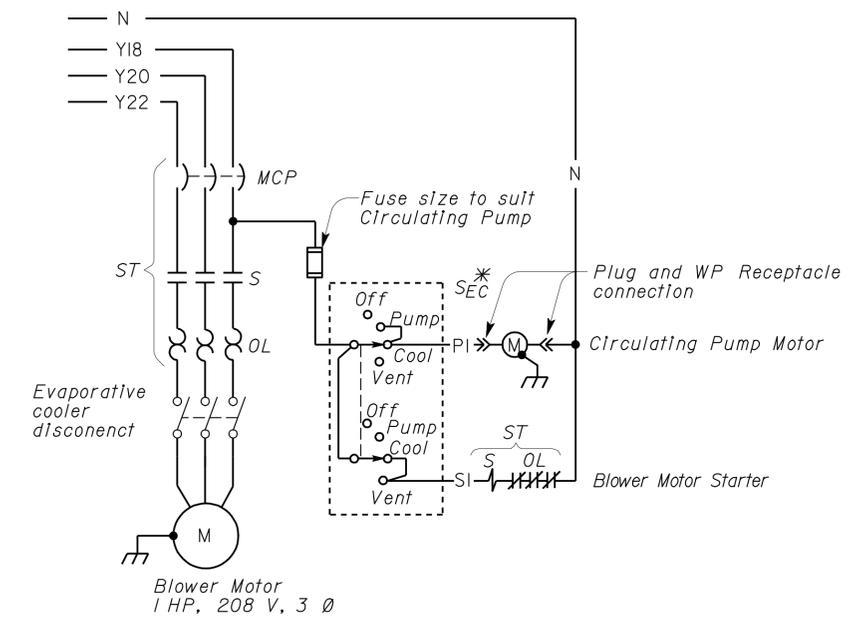
Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011



1 UNIT HEATER- SCHEMATIC DIAGRAM



2 VEHICLE MAINTENANCE SHOP DECLASSIFICATION FANS SCHEMATIC DIAGRAM

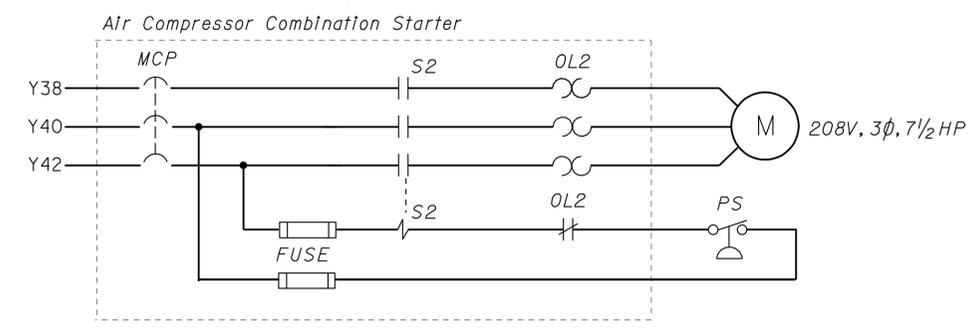


3 EVAPORATIVE COOLER SCHEMATIC DIAGRAM

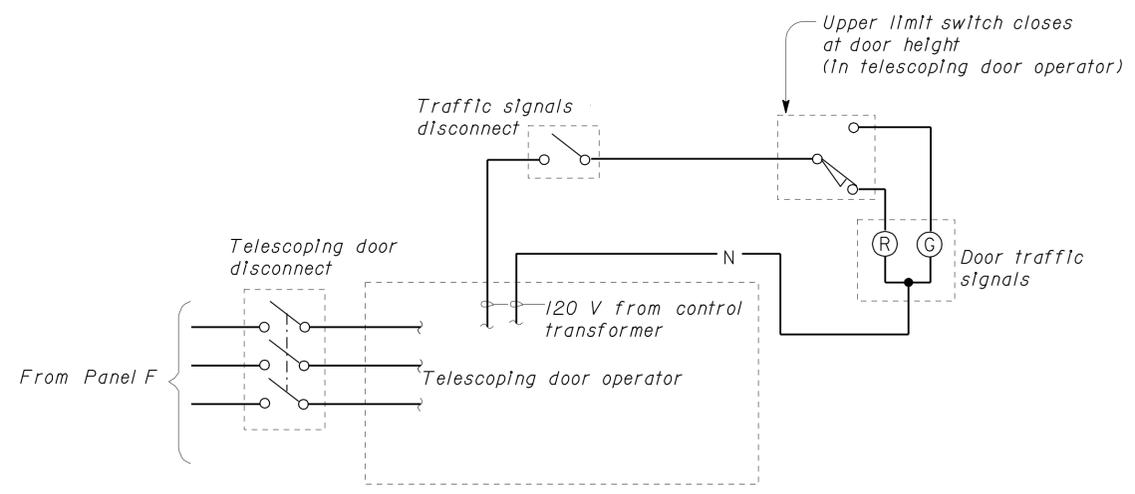
DESIGN	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE		SHEET EE7-5.3
	DETAILS	BY <i>Dall Zhou</i>			CHECKED <i>Christine Mamaril</i>	54-1216J	SCHEMATIC DIAGRAM 3	
QUANTITIES	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE	POST MILE	CVEF	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
			0 1 2 3	3596 08000006281	177.3/181.1		4/28/11 11/30/12	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	674	710
<p><i>Jasvirinder K Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE</p> <p>2-25-13 PLANS APPROVAL DATE</p> <p>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.</p>					

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Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.
Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

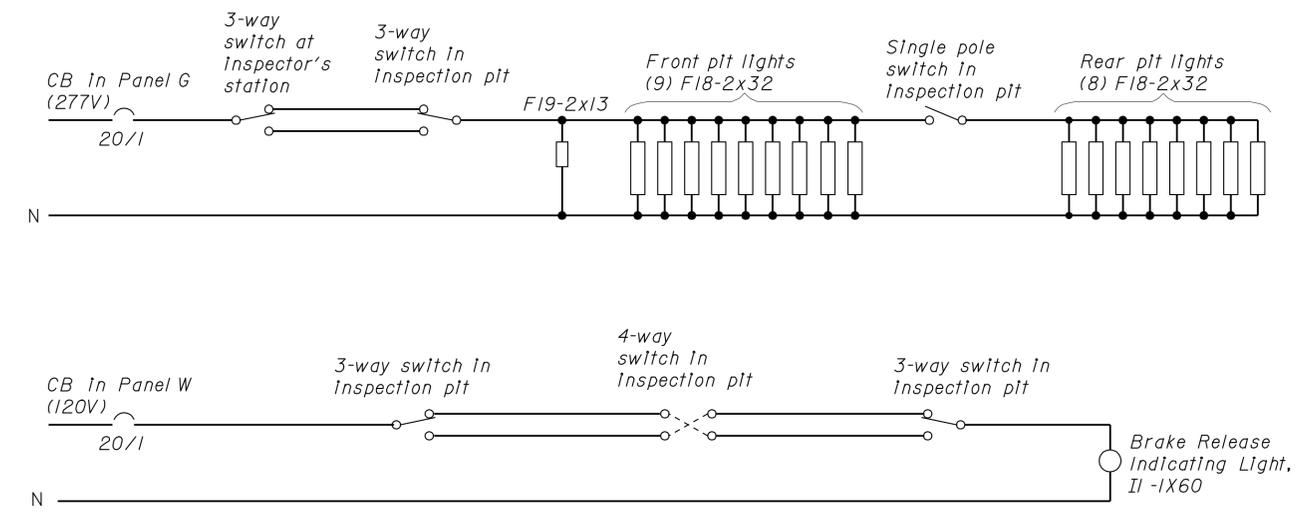


AIR COMPRESSOR SCHEMATIC



INSPECTION LANE DOOR TRAFFIC SIGNAL SCHEMATIC

Typical for 8 places
Note: Red light "ON" at all times except when door is fully open.



TYPICAL INSPECTION PIT LIGHT SCHEMATIC DIAGRAM

DOES SD Imperial Rev. 9/02	DESIGN	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	SHEET EE7-5.4	
	DETAILS	BY <i>Dall Zhou</i>	CHECKED <i>Christine Mamaril</i>			POST MILE	177.3/181.1			SCHEMATIC DIAGRAM 4
	QUANTITIES	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>			UNIT PROJECT NUMBER & PHASE	3596 08000006281			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET OF		ee7_5.4.dgn		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	675	710

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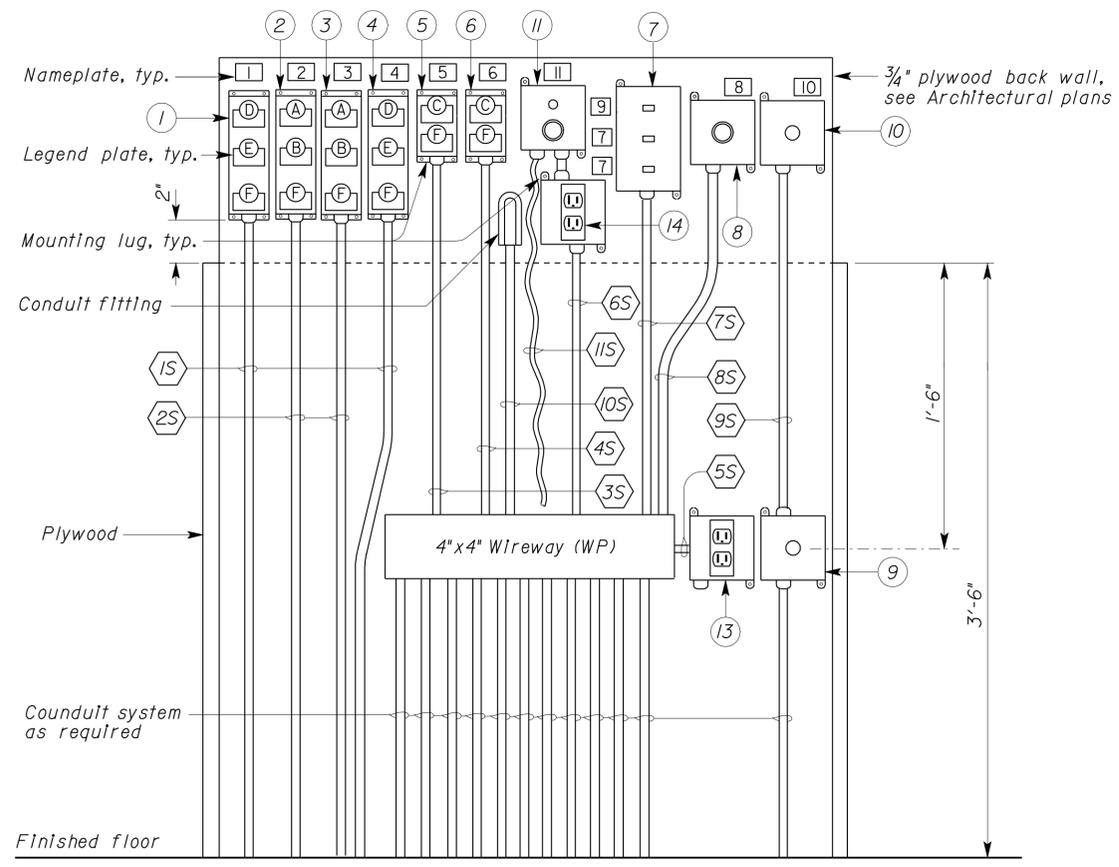
Reviewed by: *G. Andersen*
G. ANDERSEN
 Approval date: 01-20-2011

Jasvirinder K. Sandhu 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE

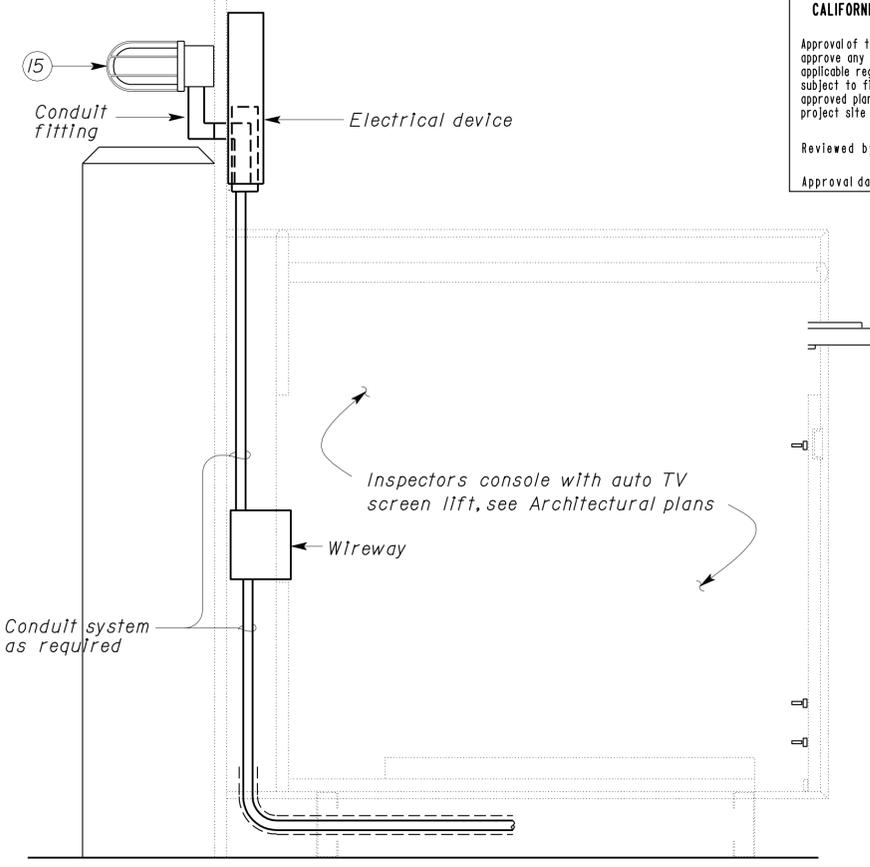
J. S. SANDHU
 No. 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

2-25-13
 PLANS APPROVAL DATE

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A ELEVATION
 NO SCALE



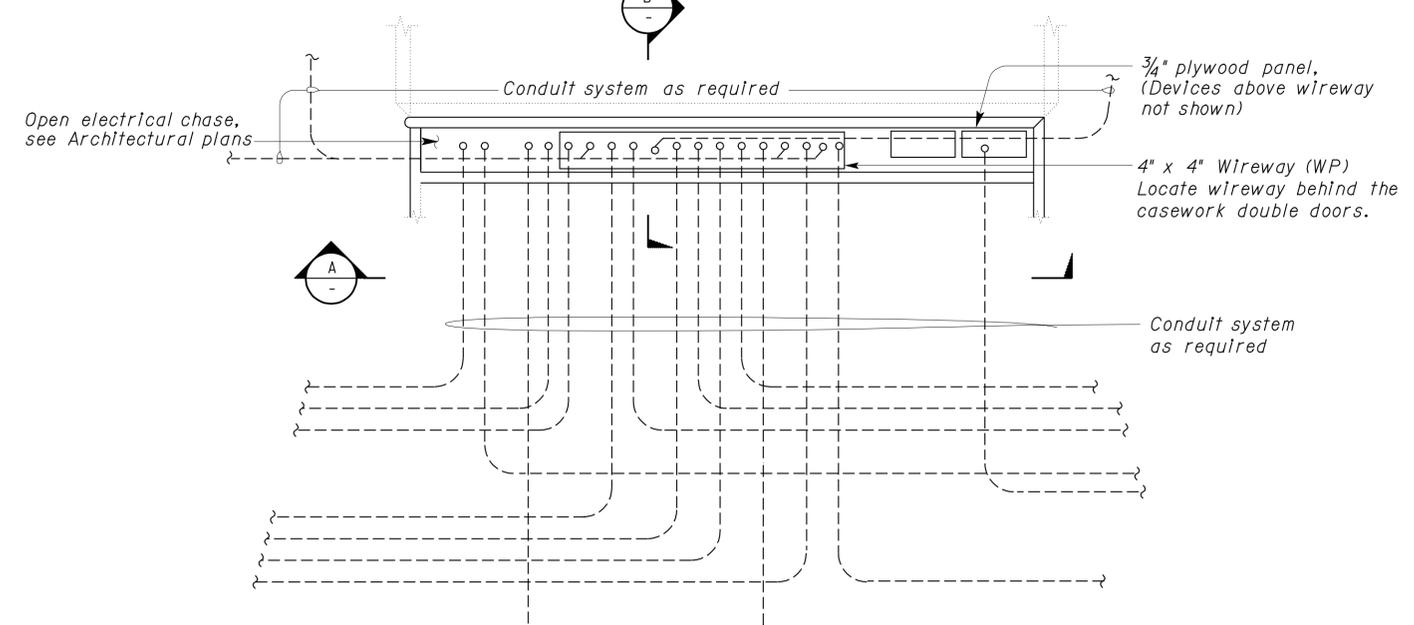
B SECTION
 NO SCALE

NAMEPLATE SCHEDULE

ITEM NO.	INSCRIPTION	LETTER HEIGHT (INCHES)
1	ENTRANCE	1/2
2	REAR PIT	1/2
3	FRONT PIT	1/2
4	EXIT	1/2
5	ENTRANCE FAN	1/2
6	EXIT FAN	1/2
7	BAY LIGHTS	1/2
8	CALL	1/2
9	PIT LIGHTS	1/2
10	PHONE/DATA	1/2
11	TV LIFT	1/2

LEGEND PLATE SCHEDULE

ITEM NO.	INSCRIPTION	LETTER HEIGHT (INCHES)
A	OPEN	1/4
B	CLOSE	1/4
C	START	1/4
D	UP	1/4
E	DOWN	1/4
F	STOP	1/4



3 PLAN
 NO SCALE

INSPECTOR'S CONTROL STATION (LANES 2 AND 4)

- Notes:**
- Entrance door pushbutton station.
 - Rear pit cover pushbutton station.
 - Front pit cover pushbutton station.
 - Exit door pushbutton station.
 - Entrance exhaust fan pushbutton station.
 - Exit exhaust fan pushbutton station.
 - Light switches.
 - Inspection call illuminated pushbutton.
 - Communication outlet (Data).
 - Communication outlet (Voice).
 - TV lift rocker switch controller.
 - Bay lights switch (Middle fluorescent).
 - MIS type duplex receptacle outlet.
 - Duplex receptacle outlet.
 - Brake release indicating light, II-IX60

- Conduit Schedule (This sheet only):**
- 1S 3/4"C, 6*14, 1*12G (Control conductors for overhead door pushbutton station).
 - 2S 3/4"C, Conductors or cables as required by the pit cover operator and drive motor manufacturer.
 - 3S 3/4"C, 4*12, 1*12G (Control conductors for pushbutton station for entrance slide exhaust fan). See EE7-5.1 for schematic diagram.
 - 4S 3/4"C, 3*12, 1*12G (Control conductors for pushbutton station for exit slide exhaust fan). See EE7-5.1 for schematic diagram.
 - 5S 3/4"C, 2*12, 1*12G (Power conductors for MIS receptacle).
 - 6S 3/4"C, 2*12, 1*12G (Power for duplex receptacle outlet).
 - 7S 3/4"C, 8*12, 1*12G (Conductors for overhead bay lights) and inspection pit lights.
 - 8S 3/4"C, 4*10, 1*10G (Control conductors for inspection call illuminated pushbutton).
 - 9S 3/4"C, pull rope.
 - 10S 3/4"C, 2*12, 1*12G (Brake release indicating light).
 - 11S Cable with CGB connector to TV lift movable platform.

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE		SHEET EE7-6.1
DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i>		POST MILE 177.3/181.1	CVEF	INSPECTOR'S CONTROL STATION DETAILS I		
QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>		UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	OF

DOES SD Imperial Rev. 9/02 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	676	710

J. S. SANDHU 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE
 No. 11803
 Exp. 9-30-14
 ELEC
 STATE OF CALIFORNIA

2-25-13
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NAMEPLATE SCHEDULE		
ITEM NO.	INSCRIPTION	LETTER HEIGHT (INCHES)
1	ENTRANCE	1/2
2	REAR PIT	1/2
3	FRONT PIT	1/2
4	EXIT	1/2
5	ENTRANCE FAN	1/2
6	EXIT FAN	1/2
7	BAY LIGHTS	1/2
8	CALL	1/2
9	PIT LIGHTS	1/2
10	PHONE	1/2
11	TV LIFT	1/2

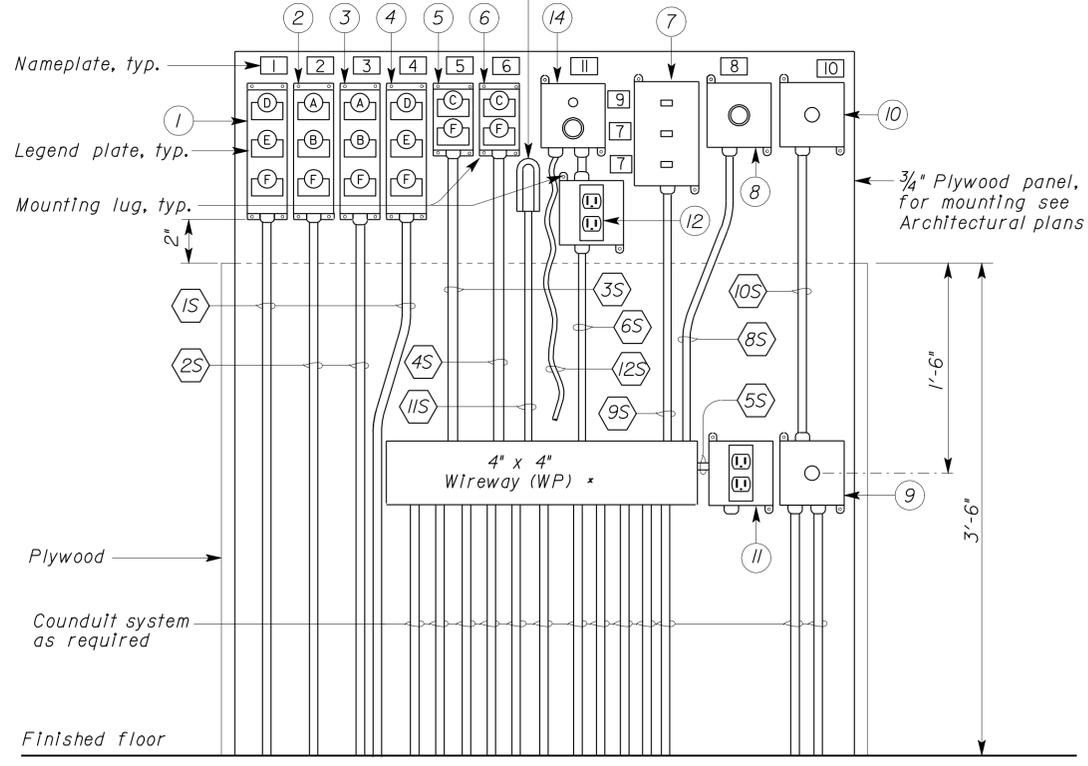
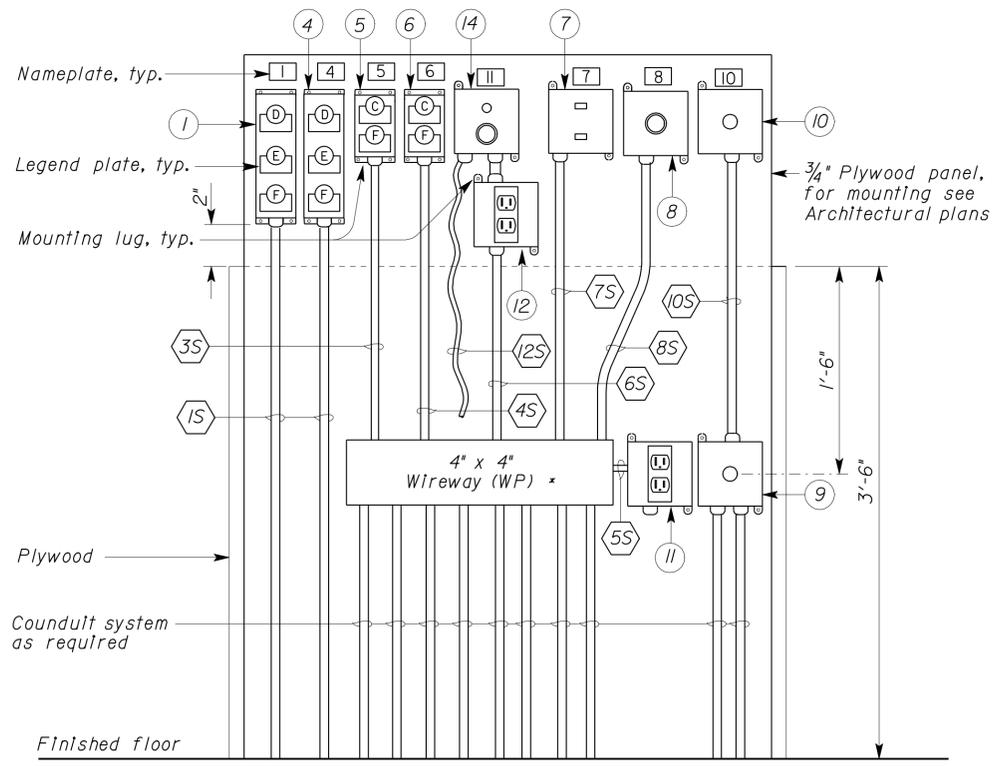
LEGEND PLATE SCHEDULE		
ITEM NO.	INSCRIPTION	LETTER HEIGHT (INCHES)
A	OPEN	1/4
B	CLOSE	1/4
C	START	1/4
D	UP	1/4
E	DOWN	1/4
F	STOP	1/4

- Conduit Schedule (This sheet only):
- 1S 3/4"C, 6*14, 1*12G (Control conductors for overhead door pushbutton station).
 - 2S 3/4"C, Conductors or cables as required by the pit cover operator and drive motor manufacturer.
 - 3S 3/4"C, 4*12, 1*12G (Control conductors for pushbutton station for entrance side exhaust fan). See EE7-5.1 for schematic diagram.
 - 4S 3/4"C, 4*12 (Control conductors for pushbutton station for exit side exhaust fan). See EE7-5.1 for schematic diagram.
 - 5S 3/4"C, 2*12, 1*12G (Power conductors for MIS receptacle).
 - 6S 3/4"C, 2*12, 1*12G (Power for duplex receptacle outlet).
 - 7S 3/4"C, 5*12, 1*12G (Conductors for overhead bay lights).
 - 8S 3/4"C, 4*10, 1*10G (Control conductors for Inspection call illuminated pushbutton).
 - 9S 3/4"C, 8*12, 1*12G (3*12, Conductors for Inspection pit lights 5*12, conductors for Inspection overhead bay lights, 5*12 (Brake release Indicator light).
 - 10S 3/4"C, pull rope.
 - 11S 3/4"C, 2*12, 1*12G (Brake release Indicating light).
 - 12S Cable with CGB connector to TV lift movable platform.

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Reviewed by: *G. Andersen*
 G. ANDERSEN
 Approval date: 01-20-2011



- Notes:
- 1 Entrance door pushbutton station.
 - 2 Rear pit cover pushbutton station.
 - 3 Front pit cover pushbutton station.
 - 4 Exit door pushbutton station.
 - 5 Entrance exhaust fan pushbutton station.
 - 6 Exit exhaust fan pushbutton station.
 - 7 Light switches.
 - 8 Inspection call illuminated pushbutton.
 - 9 Communication outlet (Data).
 - 10 Communication outlet (Voice).
 - 11 MIS type duplex receptacle outlet.
 - 12 Duplex receptacle outlet.
 - 13 Brake release Indicating light (II-IX60) mounted behind plywood not shown. See EEI-6.1 for similar detail.
 - 14 TV lift rocker switch controller.

1 INSPECTOR'S CONTROL STATION (LANE 1)
NO SCALE

2 INSPECTOR'S CONTROL STATION (LANE 3)
NO SCALE

* Locate the wireway behind the casework double doors.

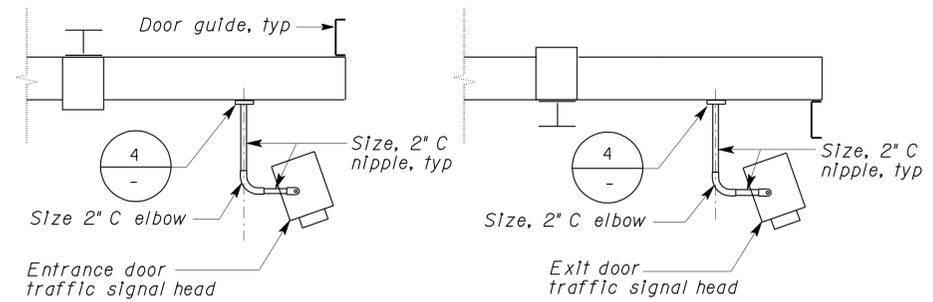
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DESIGN	BY Christine Mamaril	CHECKED J.S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JOE	SHEET EE7-6.2
	DETAILS	BY Dall Zhou			CHECKED Christine Mamaril		
QUANTITIES	BY Christine Mamaril	CHECKED J.S. Sandhu			POST MILE 177.3/181.1	CVEF	INSPECTOR'S CONTROL STATION DETAILS 2
DOES SD Imperial Rev. 9/02		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

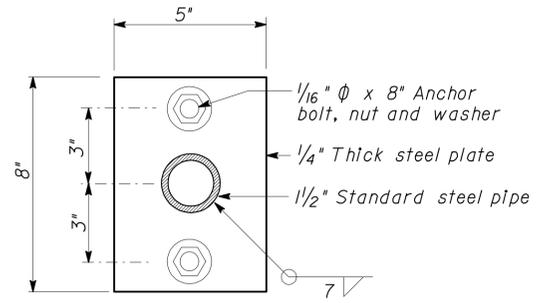
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	677	710

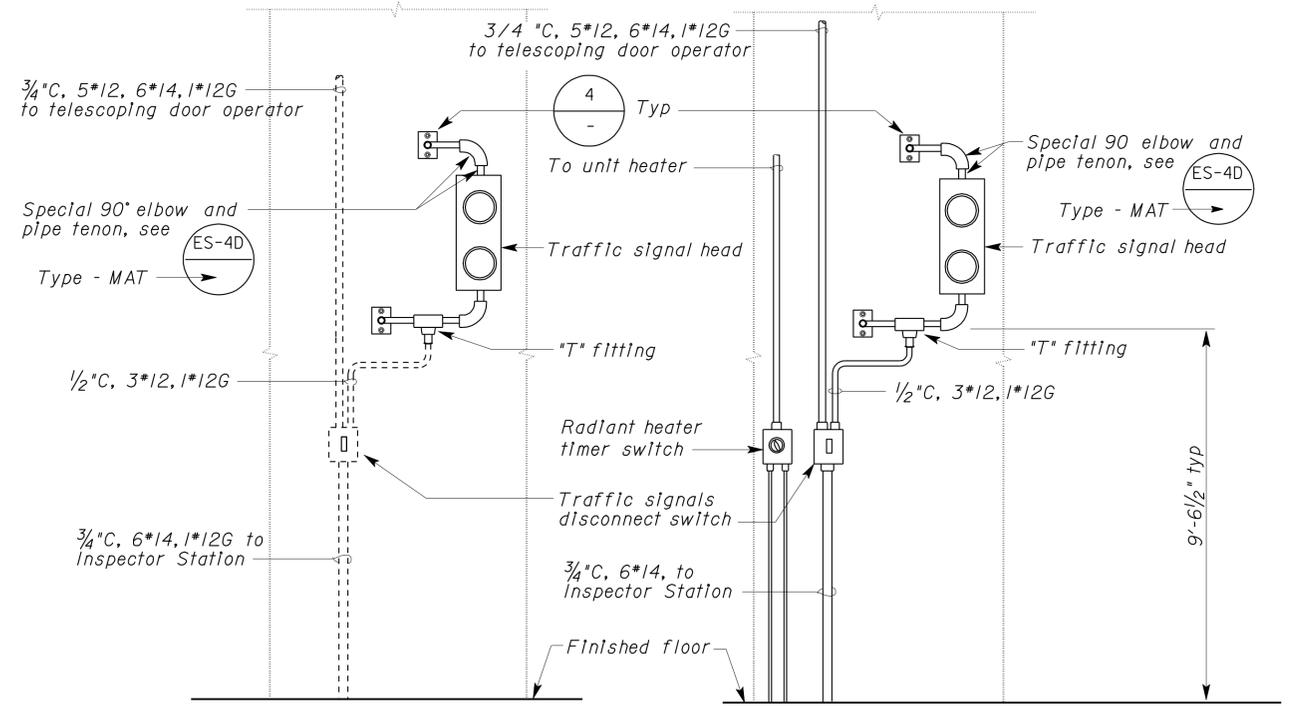
CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011		11-30-12 DATE REGISTERED ELECTRICAL ENGINEER
J. S. SANDHU No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA		
2-25-13 PLANS APPROVAL DATE		
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ENTRANCE DOOR **EXIT DOOR**
PLAN



4 **DETAIL**
 NO SCALE



ENTRANCE DOOR **EXIT DOOR**
ELEVATION

3 **INSPECTION BAYS SIGNAL DETAILS**
 NO SCALE

General Note:
 For location of signal lights, see Interior Elevation of Architectural Plans.

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	DETAILS	BY	Dall Zhou	CHECKED			Christine Mamaril	54-1216J	INSPECTION AREAS MISCELLANEOUS DETAILS I	
QUANTITIES	BY	Christine Mamaril	CHECKED	J.S. Sandhu			POST MILE	CVEF	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
					ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	177.3/181.1		4/21/11 11/30/12	
DOES SD Imperial Rev. 9/02						UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES		

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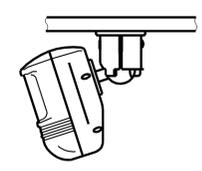
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	678	710

<i>Jasvirinder K Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE		
2-25-13 PLANS APPROVAL DATE		

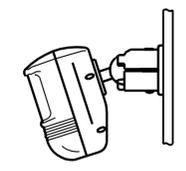
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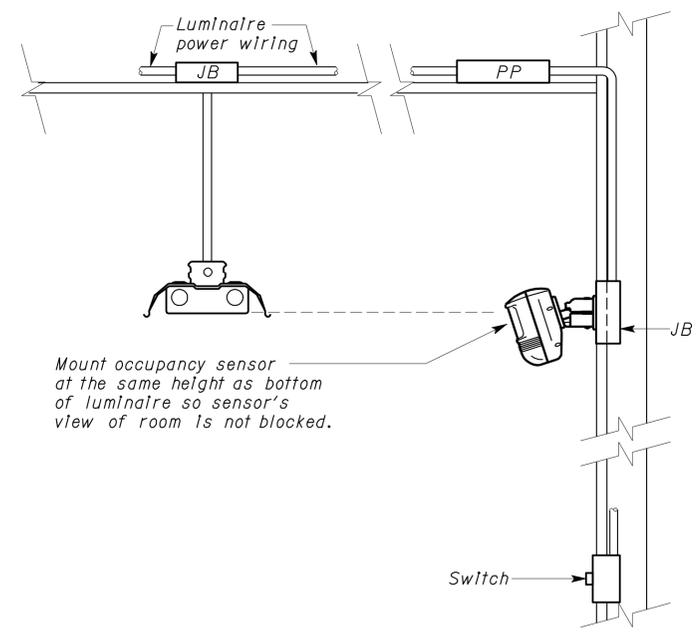
CEILING MOUNTING



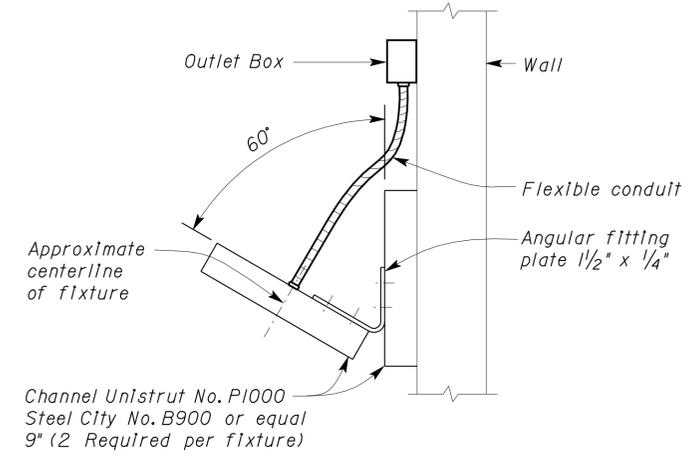
WALL MOUNTING

C OCCUPANCY SENSOR MOUNTING DETAIL
 NO SCALE

A swivel mounting bracket attached to the sensor, allows the sensor to be angled for wall or ceiling mounting. Grooves on the bracket help to achieve desired angle for coverage.



A OCCUPANCY SENSOR INSTALLATION DETAILS
 NO SCALE



B TYPE F26 FIXTURE MOUNTING DETAIL
 NO SCALE

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	DETAILS	BY	Dall Zhou	CHECKED			Christine Mamaril	POST MILE		
QUANTITIES	BY	Christine Mamaril	CHECKED	J.S. Sandhu	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	7/28/11 11/30/12	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

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

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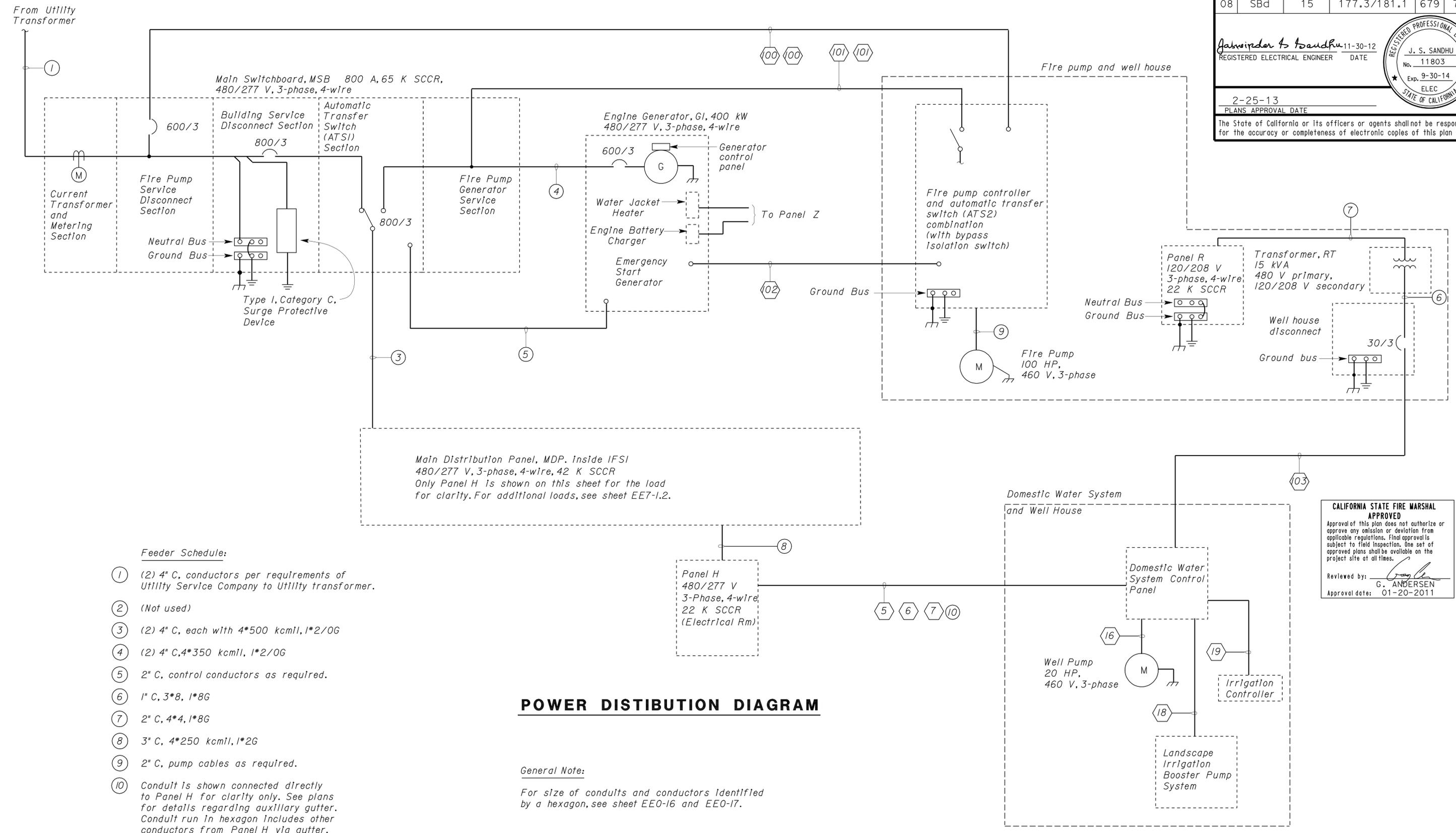
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	679	710

J. S. SANDHU 11-30-12
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 No. 11803
 Exp. 9-30-14
 ELEC
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2-25-13
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- Feeder Schedule:**
- ① (2) 4" C, conductors per requirements of Utility Service Company to Utility transformer.
 - ② (Not used)
 - ③ (2) 4" C, each with 4*500 kcmil, 1*2/0G
 - ④ (2) 4" C, 4*350 kcmil, 1*2/0G
 - ⑤ 2" C, control conductors as required.
 - ⑥ 1" C, 3*8, 1*8G
 - ⑦ 2" C, 4*4, 1*8G
 - ⑧ 3" C, 4*250 kcmil, 1*2G
 - ⑨ 2" C, pump cables as required.
 - ⑩ Conduit is shown connected directly to Panel H for clarity only. See plans for details regarding auxiliary gutter. Conduit run in hexagon includes other conductors from Panel H via gutter.

POWER DISTRIBUTION DIAGRAM

General Note:
 For size of conduits and conductors identified by a hexagon, see sheet EE0-16 and EE0-17.

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DESIGN	BY Christine Mamaril	CHECKED J.S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JPOE		SHEET EE7-7.1
	DETAILS	BY Dall Zhou			CHECKED Christine Mamaril	54-1216J	POWER DISTRIBUTION DIAGRAM I	
QUANTITIES	BY Christine Mamaril	CHECKED J.S. Sandhu	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT PROJECT NUMBER & PHASE	POST MILE	CVEF	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
			0 1 2 3	3596 08000006281	177.3/181.1		4/28/11 11/30/12	

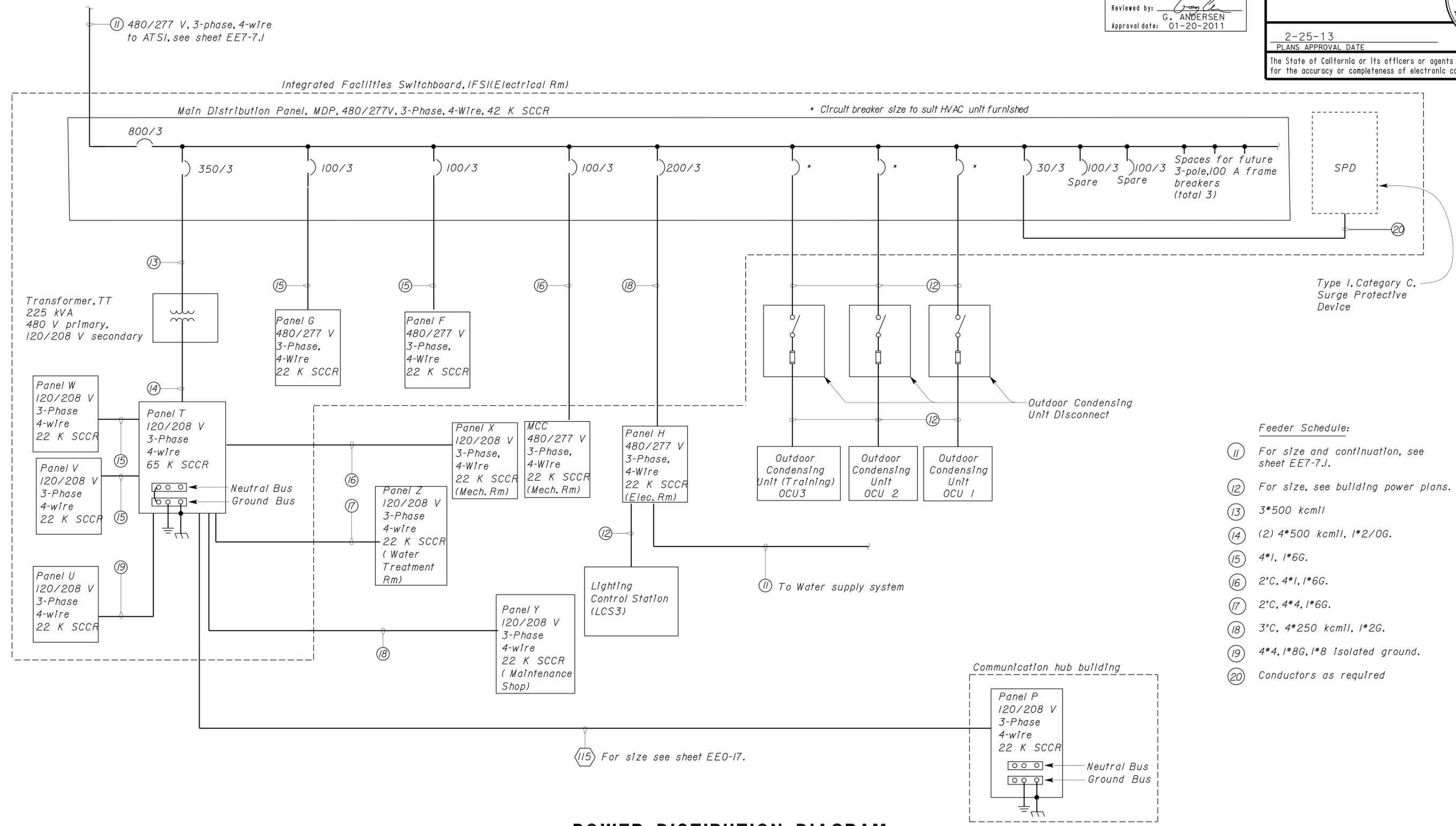
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Sbd	15	177.3/181.1	680	710

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2-25-13 PLANS APPROVAL DATE		11-30-12 DATE

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- Feeder Schedule:**
- 11 For size and continuation, see sheet EE7-7.1.
 - 12 For size, see building power plans.
 - 13 3*500 kcmil
 - 14 (2) 4*500 kcmil, 1*2/0G.
 - 15 4*1, 1*6G.
 - 16 2°C, 4*1, 1*6G.
 - 17 2°C, 4*4, 1*6G.
 - 18 3°C, 4*250 kcmil, 1*2G.
 - 19 4*4, 1*8G, 1*8 Isolated ground.
 - 20 Conductors as required

POWER DISTRIBUTION DIAGRAM

DESIGN	BY	Christine Mamaril	CHECKED	J.S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J POST MILE 177.3/181.1	MOUNTAIN PASS JPOE		SHEET EE7-7.2	
	DETAILS	BY	Dall Zhou	CHECKED				Christine Mamaril	CVEF		POWER DISTRIBUTION DIAGRAM 2
	QUANTITIES	BY	Christine Mamaril	CHECKED				J.S. Sandhu			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	4/24/11	11/30/12					SHEET OF
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DOES SD Imperial Rev. 9/02

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MAIN: 700 A / 3-POLE CIRCUIT BREAKER
VOLTS: 120/208 VOLT, 3-PHASE, 4-WIRE

PANEL: T
(BOTTOM FEED, 65 K SCCR)

FEEDER SIZE: (2) 4*500 KCMIL, 1#2/0G
LOCATION: INSIDE IFSI IN ELECTRICAL ROOM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION	
	A	B	C								A	B	C		
SPARE	-	-	-	40/2	1	•			2	100/3	79			PANEL V (IN IFSI IN ELECTRICAL RM)	
					3	•			4			75			
SWIM CONTROL CABINET			25	50/2	5	•			6				81	PANEL U (IN IFSI IN ELECTRICAL ROOM)	
	25				7	•			8		14				
SPARE				50/2	9	•			10	60/3		18		PANEL W (IN IFSI IN ELECTRICAL ROOM)	
					11	•			12				18		
PANEL Z (WATER TREATMENT ROOM)	46			60/3	13	•			14	100/3	98			PANEL Y (VEHICLE MAINTENANCE SHOP)	
		44			15	•			16			80			
			45		17	•			18				83		
PANEL X (MECHANICAL ROOM)	67			100/3	19	•			20	150/3	110			PANEL Y (VEHICLE MAINTENANCE SHOP)	
		62			21	•			22			129			
			63	100/3	23	•			24				122	SPACE	
	74				25	•			26						
PANEL P - COMMUNICATION HUB BLDG		64		100/3	27	•			28					SPACE	
			68		29	•			30						

SPACES 31 THRU 42 FOR PANEL T ARE NOT SHOWN FOR CLARITY.
THESE SPACES SHALL BE FOR FUTURE CIRCUIT BREAKERS.

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
513	472	505	

MAIN: 100 A LUGS ONLY
VOLTS: 120/208 VOLT, 3-PHASE, 4-WIRE

PANEL: V
(22 K SCCR)

FEEDER SIZE: 4*1, 1#6G
LOCATION: INSIDE IFSI IN ELECTRICAL ROOM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
KITCHEN UNIT - BREAK ROOM	24			40/2	1	•			2	20/1	4.5			MIS RECEPTACLE - SERGEANT OFFICE "B"
		24			3	•			4	20/1		6		RECEPTACLE - SERGEANT OFFICE "B" & COURT
SINK GRINDER - BREAK ROOM			7.5	20/1	5	•			6	20/1		4.5		RECEPTACLE - OPEN OFFICE AND HALLWAY
MICROWAVE & HOOD FAN WITH SWITCH	6			20/1	7	•			8	20/1	4.5			RECEPTACLE - OPEN OFFICE & OBSERVATION
MIS RECEPTACLE - MULTIPURPOSE		3		20/1	9	•			10	20/1		7.5		RECEPTACLE - CLERICAL STORAGE & WORK AREA
RECEPTACLES - MULTIPURPOSE & LANDSCAPING			6	20/1	11	•			12	20/1			7.5	RECEPTACLE - LIEUTENANT & HALLWAY
FOURPLEX RECEPTACLES - OBSERVATION RM	7.5			20/1	13	•			14	20/1	6			RECEPTACLE - CLERICAL & OBSERVATION
FOURPLEX RECEPTACLES - OBSERVATION RM		7.5		20/1	15	•			16	20/1		3		MIS RECEPTACLE - UNIFORM & EMT
SUMP PUMP STATIC SCALE			6	20/1	17	•			18	20/1			7.5	RECEPTACLE - UNIFORM AND EMT
CCTV CAMERA NO. 2 & 4	2			20/1	19	•			20	20/1	6			SUMP PUMP STATIC LANE
CCTV CAMERA NO. 1 & 3		2		20/1	21	•			22	20/1		2		WIM LEFT LANE RADIATION DETECTION
FAN COIL UNIT - ATTIC MOUNTED			12	20/1	23	•			24	20/1			2	WIM MIDDLE LANE RADIATION DETECTION
DP AND LIGHT BY FAN COIL UNIT	3			20/1	25	•			26	20/1	2			STATIC SCALE LANE RADIATION DETECTION
MIS RECEPTACLES - SERGEANT OFFICE B		4.5		20/1	27	•			28	20/1		2		WSB ADVANCE CONTROL CABINET
RECEPTACLES - SERGEANT OFFICE B AND COURT			6	20/1	29	•			30	20/1		2		WSB WIM ADVANCE CONTROL CABINET
RECEPTACLES - TRAINING, STORAGE & HALLWAY	6			20/1	31	•			32	20/1	2			WSB ICN CONTROL CABINET
RECEPTACLES - TRAINING, LOBBY & LANDSCAPING		6		20/1	33	•			34	20/1		2		WSB COMPLIANCE CONTROL CABINET
SPARE			5	20/1	35	•			36	20/1		2		SORTER WIM CONTROL CABINET
RECEPT. - BREAK RM & CABINET LTS	3			20/1	37	•			38	20/1	2			REMOTE WEIGHT DISPLAY
RECEPT. - BREAK RM (REF) AND WALKWAY		5		20/1	39	•			40	20/1				SPARE
AIR RESOURCES BOARD PEDESTAL			12	30/1	41	•			42	20/1				SPARE

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
79	75	81	

MAIN: 100 A LUGS
VOLTS: 120/208 V, 3-PHASE, 4-WIRE

PANEL: W
(22 K SCCR)

FEEDER SIZE: 4*1, 1#6G
LOCATION: INSIDE IFSI IN ELECTRICAL ROOM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
RECEPT. - LANES 1, 2 & MIDDLE (NORTH)	9			20/1*	1	•			2	20/1*	7.5			SUMP PUMP - PIT NO. 1 (LANE 2)
RECEPT. - LANES 3 & 4 (NORTH)		6		20/1*	3	•			4	20/1*		6		REC, BRAKE LT & TV LIFT. - LANE 1
MIS RECEPT.-INSPECTION LANES 1 & 2			3	20/1*	5	•			6	20/1*			6	REC, BRAKE LT & TV LIFT. - LANE 2
MIS RECEPT.-INSPECTION LANES 3, 4 & OFF.	6			20/1*	7	•			8	20/1*	6			REC, BRAKE LT & TV LIFT. - LANE 3
RECEPTACLE - INSPECTION OFFICE		3		20/1*	9	•			10	20/1*		7.5		SUMP PUMP - PIT NO. 2 (LANE 3)
RECEPT. ELECT WATER COOLER - HALLWAY			6	20/1	11	•			12	20/1*			7.5	SUMP PUMP - PIT NO. 3 (LANE 4)
RECEPT. ELECT WATER COOLER - HALLWAY	6			20/1	13	•			14	20/1*	6			REC, BRAKE LT & TV LIFT. - LANE 4
RECEPT. ELECT WATER COOLER - WALKWAY		6		20/1	15	•			16	20/1		2		PA SYSTEM CONTROL PANEL
RECEPT. ELECT WATER COOLER - WALKWAY			6	20/1	17	•			18	20/1			2	INTRUSION ALARM CONTROL PANEL
RECEPT. VENDING MACHINE - WALKWAY	12			20/1	19	•			20	20/1	2			FIRE ALARM CONTROL PANEL
RECEPT. VENDING MACHINE - WALKWAY		12		20/1	21	•			22	20/1		1		FIRE ALARM BELL
RECEPT. VENDING MACHINE - WALKWAY			6	20/1	23	•			24	20/1			6	FOURPLEX RECEPTACLES - RTB
RECEPT. ELECTRIC WATER COOLER - LOBBY	6			20/1	25	•			26	20/1	6			FOURPLEX RECEPTACLES - ITB
RECEPT. ELECTRIC WATER COOLER - LOBBY		6		20/1	27	•			28	20/1		6		MULTI OUTLET - EMT (SOUTH)
RECEPT. VENDING MACHINE - LOBBY			12	20/1	29	•			30	20/1			6	MULTI OUTLET - EMT (SOUTH)
RECEPT. VENDING MACHINE - LOBBY	12			20/1	31	•			32	20/1	6			MULTI OUTLET - EMT (NORTH)
RECEPT. VENDING MACHINE - LOBBY		12		20/1	33	•			34	20/1		6		MULTI OUTLET - EMT (NORTH)
CHILLER - ABOVE MENS & WOMENS IN LOBBY			12	20/1	35	•			36	20/1			4.5	RECEPT. - LOBBY & HALLWAY
RECEPT-ENTRY & FANS - MENS/WOMENS	7			20/1	37	•			38	20/1	6			RECEPTACLES-ELECTRICAL RM & HALLWAY
SPARE				20/1	39	•			40	20/1		6		HANDRYER - MENS
SPARE				20/1	41	•			42	20/1			6	HANDRYER - WOMENS

TOTAL DEMAND LOAD FOR PANEL W IS CALCULATED USING
50% DEMAND FACTOR FOR THE RECEPTACLE LOADS OVER
10 KVA PER NEC TABLE 220.3.

* GFCI TYPE CIRCUIT BREAKER (6 MILLIAMPERE)

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
98	80	83	
69	66	69	TOTAL DEMAND LOAD (AMPS PER PHASE)

MAIN: 100 A LUGS ONLY
VOLTS: 120/208 VOLT, 3-PHASE, 4-WIRE

PANEL: U ***
(22 K SCCR)

FEEDER SIZE: 4*4, 1#8G, 1#8 ISOLATED GROUND
LOCATION: INSIDE IFSI IN ELECTRICAL ROOM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
MIS RECEPT.-CLERICAL & WORK AREA	4.5			20/1	1	•			2	20/1	3			MIS RECEPT. - OPEN OFFICE
MIS RECEPT.-CLERICAL		4.5		20/1	3	•			4	20/1		3		MIS RECEPT. - OPEN OFFICE
MIS RECEPT.-LIEUTENANT OFF. & WORK AREA			4.5	20/1	5	•			6	20/1			3	JB FOR FUTURE MIS RECEPT- OPEN OFFICE
MIS RECEPT.-CLERICAL & OBSERVATION	3			20/1	7	•			8	20/1	3			JB FOR FUTURE MIS RECEPT- OPEN OFFICE
FLOOR MOUNTED MIS RECEPT. - OPEN OFFICE		3		20/1	9	•			10	20/1		7.5		MIS FOURPLEX RECEPT.- OBSERVATION RM
MIS RECEPT. - OPEN OFFICE & OBSERVATION			3	20/1	11	•			12	20/1			7.5	MIS FOURPLEX RECEPT.- OBSERVATION RM
SPARE				20/1	13	•			14	20/1				SPARE
SPARE				20/1	15	•			16	20/1				SPARE
SPARE				20/1	17	•			18	20/1				SPARE

*** SPACES 19 THRU 30 FOR PANEL U ARE NOT SHOWN
FOR CLARITY. THESE SHALL BE SPACES SHALL BE FOR
FUTURE CIRCUIT BREAKERS.

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
14	18	18	

CALIFORNIA STATE FIRE MARSHAL APPROVED
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.
Reviewed by: *[Signature]*
G. ANDERSEN
Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	682	710

Jaswinder K. Sandhu 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

REGISTERED PROFESSIONAL ENGINEER
J. S. SANDHU
No. 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA

2-25-13
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.

MAIN: 100 A LUGS
VOLTS: 277/480 V, 3-PHASE, 4-WIRE

PANEL: F
(22 K SCRR)

FEEDER SIZE: 4#, 1#6G
LOCATION: INSIDE IFSIN ELECTRICAL ROOM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
RAPID ROLL UP DOOR & TRAFFIC SIGNAL -ENTRANCE (INSPECTION LANES 1 & 2)	7			15/3	1	•			2	15/3	7			RAPID ROLL UP DOOR & TRAFFIC SIGNAL -EXIT (INSPECTION LANES 1 & 2)
		7			3	•			4		7			
			7		5	•			6			7		
RAPID ROLL UP DOOR & TRAFFIC SIGNAL -ENTRANCE (INSPECTION LANES 3 & 4)	7			15/3	7	•			8	15/3	7			RAPID ROLL UP DOOR & TRAFFIC SIGNAL -EXIT (INSPECTION LANES 3 & 4)
		7			9	•			10		7			
			7		11	•			12			7		
SPARE	-			15/3	13	•			14	15/3	-			SPARE
		-			15	•			16		-			
			-		17	•			18			-		
SPARE	-			15/3	19	•			20	15/3	-			SPARE
		-			21	•			22		-			
			-		23	•			24			-		
REAR PITCOVER OPERATOR -ENTRANCE (PIT 1- INSPECTION LANE 2)	5			15/3	25	•			26	15/3	5			FRONT PITCOVER OPERATOR -EXIT (PIT 1- INSPECTION LANE 2)
		5			27	•			28		5			
			5		29	•			30			5		
REAR PITCOVER OPERATOR -ENTRANCE (PIT 2-INSPECTION LANE 3)	5			15/3	31	•			32	15/3	5			FRONT PITCOVER OPERATOR -EXIT (PIT 2- INSPECTION LANE 3)
		5			33	•			34		5			
			5		35	•			36			5		
REAR PITCOVER OPERATOR -ENTRANCE (PIT 3- INSPECTION LANE 4)	5			15/3	37	•			38	15/3	5			FRONT PITCOVER OPERATOR -EXIT (PIT 3- INSPECTION LANE 4)
		5			39	•			40		5			
			5		41	•			42			5		

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
58	58	58	

MAIN: 200 A 3 P CIRCUIT BREAKER
VOLTS: 277/480 VOLT, 3-PHASE, 4-WIRE

PANEL: H
(TOP FEED, 22 K SCRR)

FEEDER SIZE: 4#250 kcmil, 1#2G
LOCATION: ELECTRICAL RM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
HIGH MAST LIGHTING - HML1	12			30/2	1	•			2	30/3	-			SPARE
		12			3	•			4		-			
HIGH MAST LIGHTING - HML2			16	30/2	5	•			6	30/2				HIGH MAST LIGHTING - HML5
	16				7	•			8		16			
HIGH MAST LIGHTING - HML3		16		30/2	9	•			10	30/2		16		HIGH MAST LIGHTING - HML6
			16		11	•			12			16		
HIGH MAST LIGHTING - HML4	16			30/2	13	•			14	30/2	16			HIGH MAST LIGHTING - HML7
		16			15	•			16			16		
SPARE	-			30/2	17	•			18	30/2			16	SPARE
			-		19	•			20			16		
PLANTERS, CANOPIES & LANDSCAPE (NORTH)		15		20/1	21	•			22	20/2		2		SIGN STRUCTURE #1
PLANTERS, CANOPIES, FLAG POLE, SIGN (SOUTH)			15	20/1	23	•			24	20/2			2	SIGN STRUCTURE #2
SIGN BRIDGE LTS VIA LCS3	4			20/1	25	•			26	20/2	2			
ON RAMP LIGHTS VIA LCS3		5		20/2	27	•			28	30/2				SPARE
			5		29	•			30					
BUILDING EXTERIOR LIGHTS VIA LIGHTING CONTROL STATION (LCS3)	6			20/3	31	•			32	-				SPACE
		6			33	•			34					
			6		35	•			36					
BUILDING EXTERIOR LIGHTS VIA LIGHTING CONTROL STATION (LCS3)	6			20/3	37	•			38	100/3	40			WATER SUPPLY SYSTEM
		6			39	•			40			40		
			6		41	•			42			40		

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
136	150	138	

**CALIFORNIA STATE FIRE MARSHAL
APPROVED**
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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	683	710

Jasvirinder K. Sandhu 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

J. S. SANDHU
No. 11803
Exp. 9-30-14
ELEC
STATE OF CALIFORNIA

2-25-13
PLANS APPROVAL DATE

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MAIN: 100 A LUGS
VOLTS: 277/480 V, 3-PHASE, 4-WIRE

PANEL: G
(22 K SCRR)

FEEDER SIZE: 4#, 1#6G
LOCATION: INSIDE IFSIN ELECTRICAL ROOM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
LIGHTS - HALLWAYS & ELECTRICAL RM	5			20/1	1	•			2	20/1	8			LIGHTS - CLERICAL WRK AREA, LT'S & HALL BY LT'S
SPARE				20/1	3	•			4	20/1		12		LIGHTS - OBSERVATION & OPEN OFFICE
PIT LIGHTS & SUMP LT. - PIT NO. 1 (LANE 2)			7	20/1	5	•			6	20/1			8	LIGHTS - EMT, UNIFORM & SGT 'B' & VESTIBULE
PIT LIGHTS & SUMP LT. - PIT NO. 2 (LANE 3)	7			20/1	7	•			8	20/1	14			LIGHTS - LOBBY, ENTRY LOBBY & RESTROOMS
PIT LIGHTS & SUMP LT- PIT NO. 3 (LANE 4)		7		20/1	9	•			10	20/1		10		LIGHTS - BREAKRM, CLSTS & ENT AT MULTIPURPOSE
LIGHTS- INSPECTION AREA LANE 1 EAST WALL			7	20/1	11	•			12	20/1			14	LIGHTS - MULTIPURPOSE
LIGHTS- INSPECTION AREA LANE 1	5			20/1	13	•			14	20/1	7			LIGHTS - MECH RM, WALKWAY, STORGE & ROAD CREW
LIGHTS- INSPECTION AREA LANE 2		5		20/1	15	•			16	20/1		7		LIGHTS - SGT "A", MUD, ARB STOR & TRANS AREA
LIGHTS- INSPECTION AREA MIDDLE BAY			7	20/1	17	•			18	20/1			7	LIGHTS - ARMORY, EVIDNCE, LOCKR RMS & REST RMS
LIGHTS- INSPECTION AREA LANE 3	5			20/1	19	•			20	20/1	9			LIGHTS - WATER TREAT., CLOSET, JAN RMS & GENER.
LIGHTS- INSPECTION AREA LANE 4 WEST WALL		7		20/1	21	•			22	20/1		6		LIGHTS - PARTS & SUPPLY AND MAINTENANCE SHOP
SPARE			5	20/2	23	•			24	20/1			-	SPARE
	5			20/2	25	•			26	20/1	-			SPARE
SPARE		5		20/2	27	•			28	20/1		-		SPARE
			5	20/2	29	•			30	20/1		-		SPARE
SPARE	6			20/3	31	•			32	20/1	-			SPARE
		6			33	•			34	20/1		-		SPARE
			6		35	•			36	20/1			-	
SPARE	6			20/3	37	•			38	20/1	-			SPARE
		6			39	•			40	20/1		-		SPARE
			6		41	•			42	20/1			-	

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
77	71	72	

DESIGN	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>
DETAILS	BY <i>Dall Zhou</i>	CHECKED <i>Christine Mamaril</i>
QUANTITIES	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.
54-1216J
POST MILE
177.3/181.1

MOUNTAIN PASS JOE

CVEF

PANEL SCHEDULE 2

SHEET
EE7-
7.5

MAIN: 100 A / 3-POLE CIRCUIT BREAKER
VOLTS: 120/208 VOLT, 3-PHASE, 4-WIRE

PANEL: X
(BOTTOM FEED, 22 K SCCR)

FEEDER SIZE: 4*1/0, 1*4G
LOCATION: SURFACE MOUNTED IN MECHANICAL ROOM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
RECEPT. - MECHANICAL ROOM & WALKWAY	6			20/1	1	●			2	20/1	4.5			MIS RECEPT.-ROAD CREW
RECEPT.- MECHANICAL ROOM & HALLWAY		4.5		20/1	3	●			4	20/1		3		MIS RECEPT.-ROAD CREW
RECEPT. - WOMENS RESTROOM & LOCKER			4.5	20/1	5	●			6	20/1			4.5	RECEPT. - ARB STORAGE
RECEPT. - MENS RESTROOM, LOCKER & OUTDOOR	6			20/1	7	●			8	20/1	4.5			RECEPT. - ARB STORAGE
FANS - MENS & WOMENS BY LOCKER RMS		6		20/1	9	●			10	20/1		4.5		MIS RECEPT.- SGT OFFICE "A" & ROAD CREW
RECEPTACLES - ROAD CREW OFFICE (NORTH) & OUT			3	20/1	11	●			12	20/1			4.5	RECEPT.- SERGEANT OFFICE "A"
MULTIOUTLET - ROAD CREW OFFICE	6			20/1	13	●			14	20/1	-			SPARE
MULTIOUTLET - ROAD CREW OFFICE		6		20/1	15	●			16	20/1		1		ACCESS SYSTEM SLAVE CONTROLLER #1A
EXHAUST HOOD - ARMORY			6	20/1	17	●			18	20/1			13	SPLIT AC UNIT WITH GAS FURNACE (HVAC-1)
EXHAUST HOOD - EVIDENCE	6			20/1	19	●			20	20/1	13			SPLIT AC UNIT WITH GAS FURNACE (HVAC-2)
RECEPT. - JANITORS		3		20/1	21	●			22	20/1		6		COMBINATION HEAT FAN LIGHT- WOMENS
FAN - JANITOR RM			4.5	20/1	23	●			24	20/1			6	COMBINATION HEAT FAN LIGHT- MENS
FAN - JANITOR RM	4.5			20/1	25	●			26	20/1	1			ACCESS SYSTEM SLAVE CONTROLLER 2A
SUPPLY FAN - VESTIBULE 3		6		20/1	27	●			28	20/1		6		RECEPT. -EVIDENCE AND ARMORY
SUPPLY FAN -VESTIBULE 2			6	20/1	29	●			30	20/1			3	MIS RECEPT. -EVIDENCE AND ARMORY
RECEPTACLES- VESTIBULE 2 & 3	7.5			20/1	31	●			32					
RADIANT HEATER -INSPECTION LANE 1		8		20/2	33	●			34	20/3		-		SPARE
			8		35	●			36				-	
RADIANT HEATER - INSPECTION LANE 2	8			20/2	37	●			38	20/3		-		SPARE
		8			39	●			40	20/3			-	
SPARE				20/1	41	●			42					

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
6.7	6.2	6.3	

MAIN: 60 A / 3-POLE CIRCUIT BREAKER
VOLTS: 120/208 VOLT, 3-PHASE, 4-WIRE

PANEL: Z
(BOTTOM FEED, 22 K SCCR)

FEEDER SIZE: 4*4, 1*6G
LOCATION: SURFACE MOUNTED IN WATER TREATMENT ROOM

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
FAN -WATER TREATMENT	6			20/1	1	●			2		2.5			BUILDING WATER CONTROL PANEL
RECEPT. - WATER TREATMENT (NORTH)		2		20/1	3	●			4	50/3		2.5		
WATER SOFTENER			3	20/1	5	●			6			2.5		
RECEPT. - WATER TREAT & HALLWAY	3			20/1	7	●			8					SPARE
RECEPT. - WATER TREAT -SOUTH		4.5		20/1	9	●			10	40/3				
RECEPT. - BY OUTDOOR HVAC UNIT & OUT.			5	20/1	11	●			12					ACCESS SYSTEM SLAVE CONTROLLER # 3A
BATTERY CHARGER -GENERATOR	8			20/1	13	●			14	20/1	1			
SPARE		-		20/1	15	●			16	20/1		-		SPARE
SPARE			-	20/1	17	●			18	20/1			-	SPARE
RECEPT. - GENERATOR AREA OUTSIDE	3			20/1	19	●			20	20/1		-		SPARE
SPARE		-		20/1	21	●			22	20/1		-		SPARE
SPARE			-	20/1	23	●			24	20/1			-	SPARE
SPARE			-	30/1	25	●			26	-	-			SPACE
ENGINE PRE-HEATER - GENERATOR		12		20/2	27	●			28	-	-			SPACE
			12		29	●			30	-			-	

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
4.6	4.4	4.5	

CALIFORNIA STATE FIRE MARSHAL APPROVED
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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	684	710

Jabiripeder to Sandhu 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
PLANS APPROVAL DATE

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MAIN: 150 A / 3P CIRCUIT BREAKER
VOLTS: 120/208 VOLT, 3-PHASE, 4-WIRE

PANEL: Y
(TOP FEED, 22 K SCCR)

FEEDER SIZE: 4*250 KCMIL, 1*2G
LOCATION: SURFACE MOUNTED IN VEHICLE MAINTENANCE SHOP

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION	
	A	B	C								A	B	C		
RECEPT. - MAINTENANCE SHOP (WEST WALL)	4.5			20/1	1	●			2	20/2	6			ROLL-UP DOOR - MAINTENANCE SHOP	
RECEPT. - MAINT. SHOP (EAST WALL & REEL LIGHT)		6		20/1	3	●			4	20/2		6			
RECEPT. - INSPECTION LANE 4 (NORTH SIDE)			4.5	20/1	5	●			6	20/1			4	LIGHTS - MAINTENANCE SHOP	
RECEPT. - MAINTENANCE SHOP (SOUTH WALL)	3			20/1	7	●			8		4			DECLASSIFICATION FANS - VEHICLE MAINTENANCE SHOP	
RECEPT. - PARTS & SUPPLY		6		20/1	9	●			10	20/3		4			
RECEPT. - INSPECTION LANE & OUTSIDE			6	20/1	11	●			12				4		
UNIT HEATER- PARTS & SUPPLY	2			20/1	13	●			14	20/1	9			EXHAUST EVAC. SYSTEM - MAINT. SHOP	
CCTV CAMERA NO.1		2		20/1	15	●			16	20/1		1		UNIT HEATERS - MAINTENANCE SHOP	
CCTV CAMERA NO.3			2	20/1	17	●			18				5	EVAP. COOLER-MAINTENANCE SHOP AREA	
RADIANT HEATER -INSPECTION LANE 3	8			20/2	19	●			20	15/3	5				
		8			21	●			22			5			
RECEPT. - INPSECTION LANES BY EXHAUST FANS			3	20/1	23	●			24	20/1			3	RECEPT. - PARTS & SUPPLY - NORTH WALL	
CLARIFIER	2			30/1	25	●			26	20/1	3			RECEPT.- INSPECT LANES BY EXHAUST FANS	
INSTANT FLOW WATER HEATER		19		30/2	27	●			28	20/2		8		RADIANT HEATER -INSPECTION LANE 4	
			19		29	●			30				8		
HEAT PUMP OUTDOOR CONDENSING UNIT BY INSPECTION OFFICE		17		**	31	●			32	20/1		-		SPARE	
		17			33	●			34	20/1			-		SPARE
			17		35	●			36	20/1				-	SPARE
HEAT PUMP INDOOR FAN COIL UNIT BY INSPECTION OFFICE	22			**	37	●			38	60/3	2.4			AIR COMPRESSOR	
		2.2			39	●			40		2.4				
			2.2		41	●			42			2.4			

A	B	C	TOTAL CONNECTED LOAD (AMPS PER PHASE)
11.0	12.9	12.2	

- * GFCI TYPE CIRCUIT BREAKER (6 MILLIAMPERE)
- ** CIRCUIT BEAKER SIZE TO SUIT HEAT PUMP UNIT FURNISHED.

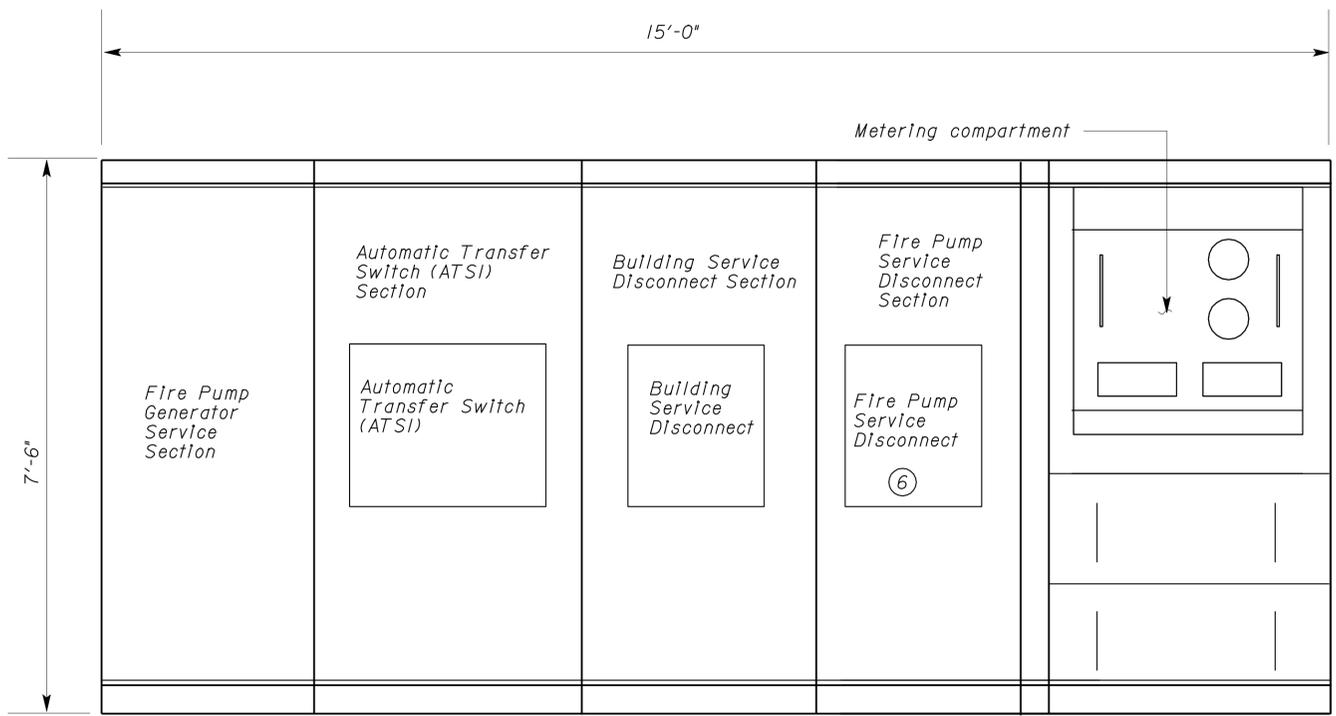
DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 54-1216J	MOUNTAIN PASS JPOE	SHEET EE7-7.6
DETAILS BY <i>Dali Zhou</i> CHECKED <i>Christine Mamaril</i>		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE 177.3/181.1		
QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>					
DOES SD Imperial Rev. 9/02	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	685	710

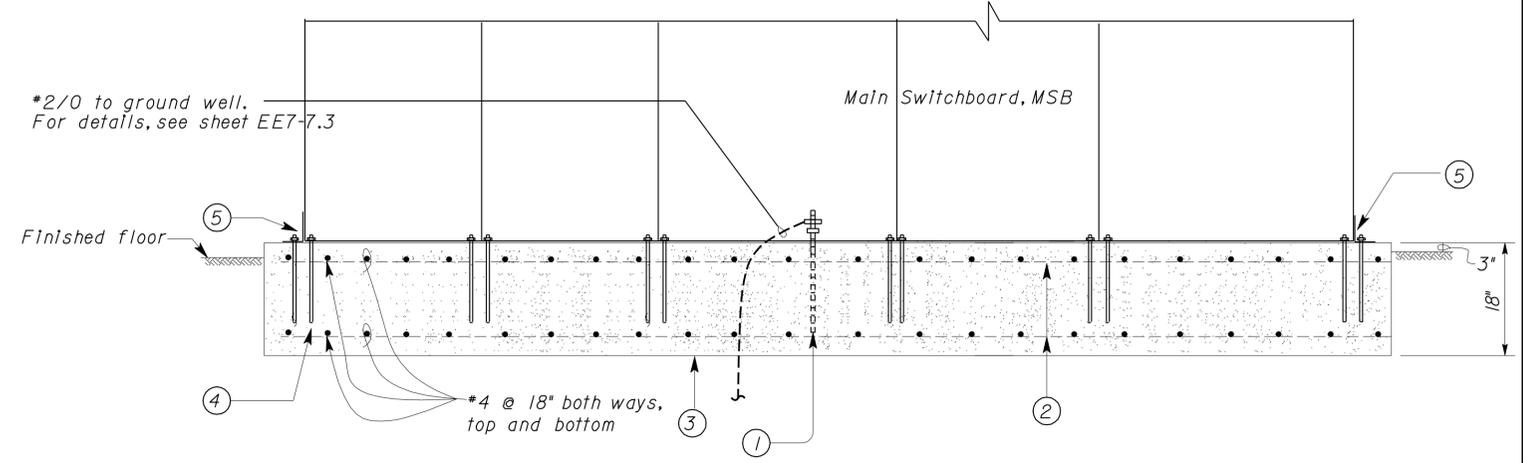
J. S. SANDHU REGISTERED ELECTRICAL ENGINEER No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA	
J. S. SANDHU REGISTERED ELECTRICAL ENGINEER No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA	11-30-12 DATE
2-25-13 PLANS APPROVAL DATE	
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 Reviewed by: *G. Andersen*
G. ANDERSEN
 Approval date: 01-20-2011



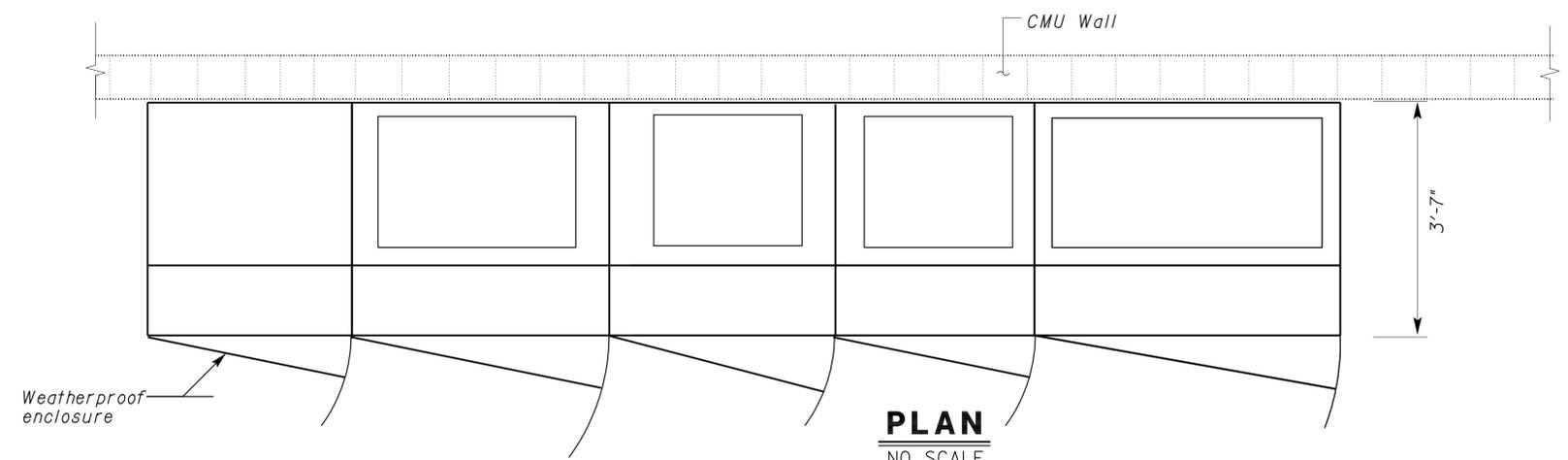
ELEVATION

NO SCALE
 WEATHERPROOF ENCLOSURE - NOT SHOWN



FRONT VIEW

A FOUNDATION DETAILS
 NO SCALE



A MAIN SWITCHBOARD, MSB
 NO SCALE

- General Notes:**
- A. Dimensions shown are nominal and are for reference only. Dimensions shown are maximum allowable.
 - B. Main switchboard shall be provided with a heater kit package complete with fused disconnect, heater and thermostat.

Notes:

- ① * 4 ground bar. Ground bar shall be minimum 20 feet of continuous length buried in concrete no more than 2-inches above the bottom of the foundation. Exposed portion shall be covered with heat shrinkable tubing with 2 inches (minimum) embedment in concrete. Ground bar can be part of foundation reinforcement. See note ② on this sheet.
- ② Reinforced bars, top and bottom.
- ③ Foundation, provide reinforcing bars.
- ④ Size, type and number of anchor bolt as required by the switchboard manufacturer to meet or exceed the 2007 CBC seismic requirements.
- ⑤ Provide end seismic bracing per main switchboard manufacturer's recommendations to meet 2007 CBC seismic requirements.
- ⑥ Fire pump service disconnect shall be locked with a state padlock in the "ON" position. Provide a warning sign with the inscription "FIRE PUMP - DO NOT DE-ENERGIZE".

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY	Christine Mamaril	CHECKED	J. S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JPOE	SHEET EE7-7.7
	DETAILS	BY	Dall Zhou	CHECKED			Christine Mamaril	POST MILE		
QUANTITIES	BY	Christine Mamaril	CHECKED	J. S. Sandhu	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	4/28/11	11/30/12	SHEET OF

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

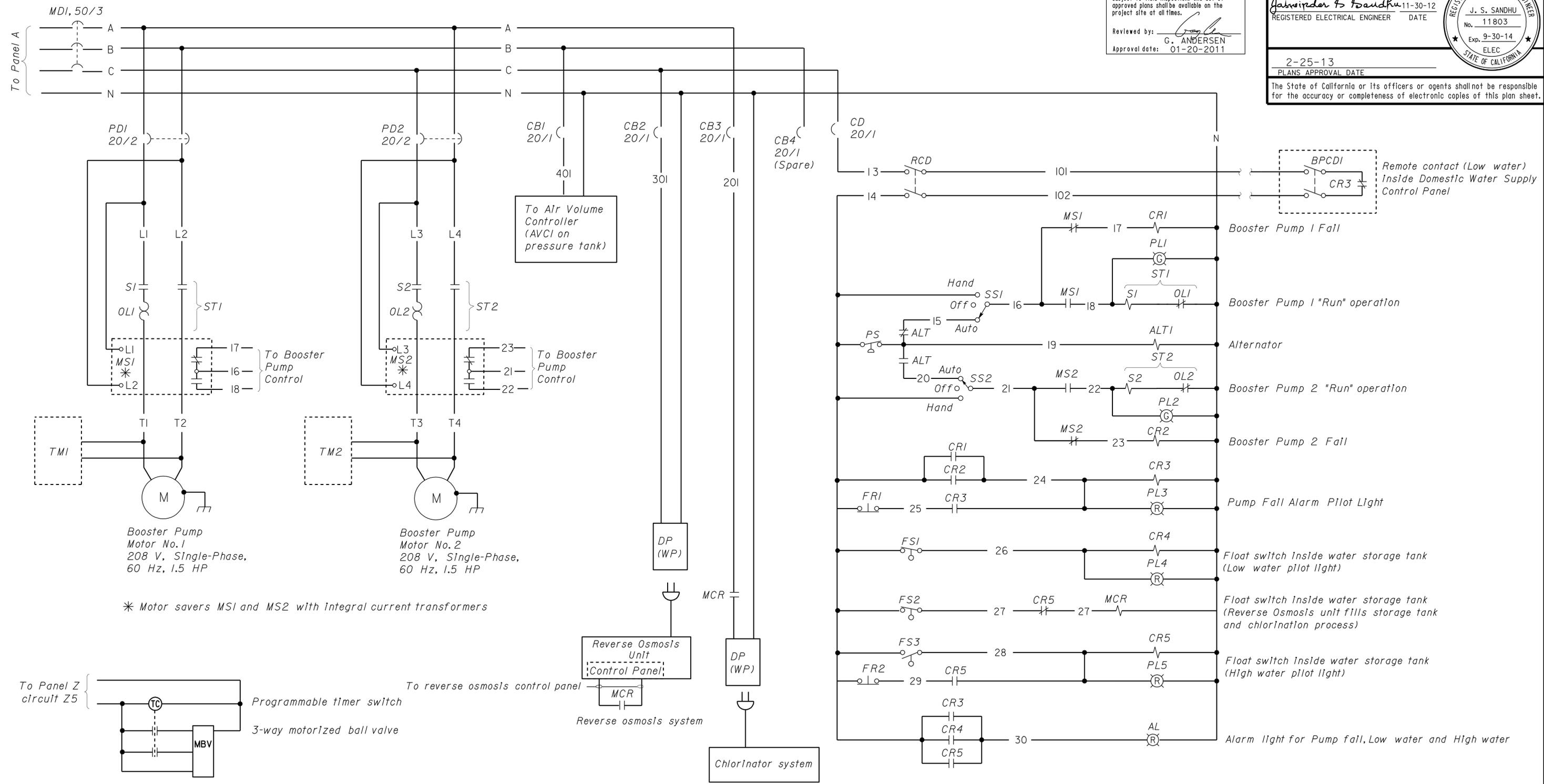
DOES SD Imperial Rev. 9/02

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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Reviewed by:	<i>G. Andersen</i> G. ANDERSEN
Approval date:	01-20-2011

<i>Jasvirinder K. Sandhu</i> 11-30-12 REGISTERED ELECTRICAL ENGINEER DATE	
2-25-13 PLANS APPROVAL DATE	
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CONTROL SCHEMATIC DIAGRAM

DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i> DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i> QUANTITIES BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	MOUNTAIN PASS JPOE		SHEET EE7-8.1 OF
			54-1216J	BUILDING WATER CONTROL SYSTEM		
			POST MILE 177.3/181.1	CVEF	REVISION DATES (PRELIMINARY STAGE ONLY)	

DOES SD Imperial Rev. 9/02	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	4/28/11 11/30/12	SHEET OF
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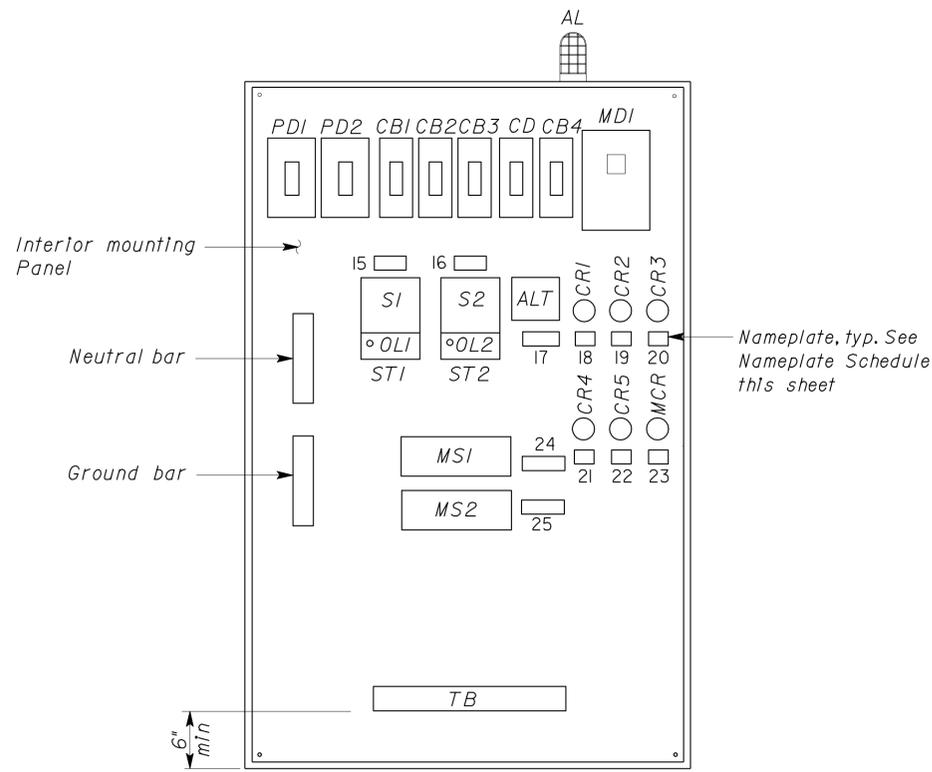
J. Sandhu 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE

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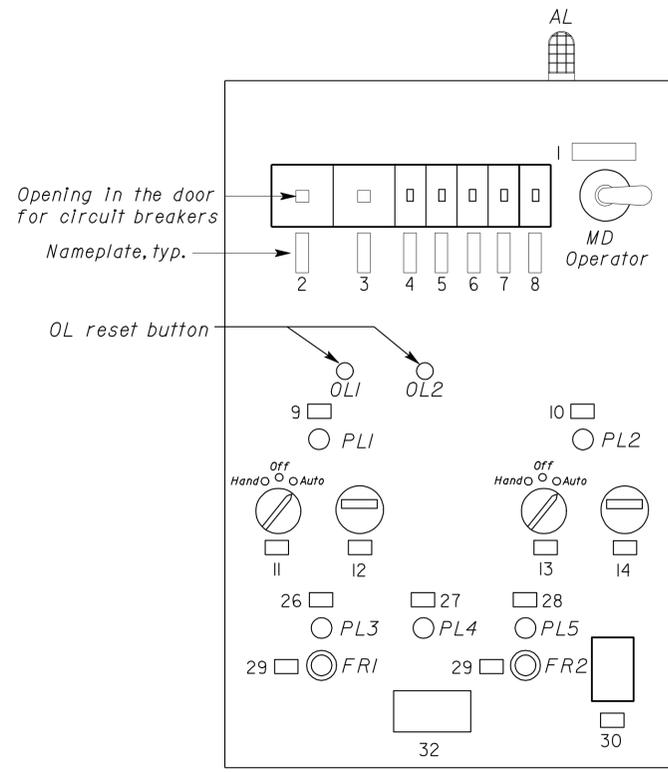
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(CONTROL PANEL EXTERIOR DOOR AND INTERIOR HINGED PANEL NOT SHOWN)



(CONTROL PANEL EXTERIOR DOOR NOT SHOWN, INTERIOR HINGED PANEL CLOSED)

ELEVATION
NO SCALE

NAMEPLATE SCHEDULE					
ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)	ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)
1	MAIN DISCONNECT	1/4	18	CR1	1/4
2	PUMP #1		19	CR2	
3	PUMP #2		20	CR3	
4	AVC DISCONNECT		21	CR4	
5	REVERSE OSMOSIS		22	CR5	
6	CHLORINATOR		23	MCR	
7	CONTROL DISCONNECT		24	MOTOR SAVER #1	
8	SPARE		25	MOTOR SAVER #2	
9	PUMP #1 RUN		26	PUMP FAIL	
10	PUMP #2 RUN		27	LOW WATER-STORAGE	
11	SELECTOR SWITCH #1		28	HIGH WATER-STORAGE	
12	TIME METER #1		29	ALARM RESET	
13	SELECTOR SWITCH #2		30	REMOTE CONTROL FROM CR3 AT WELL	
14	TIME METER #2				
15	ST1				
16	ST2		** 31	BUILDING WATER CONTROL PANEL	1/2
17	ALTERNATOR				

** Nameplate #31 shall be mounted on the exterior door.

WARNING PLATE		
ITEM NO.	INSCRIPTION	LETTER SIZE (Inch)
32	PUMP DISCONNECT DOES NOT OPEN CONTROL CIRCUIT	1/2

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DESIGN BY <i>Christine Mamaril</i> CHECKED <i>J.S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE	SHEET EE7-8.2
			POST MILE 177.3/181.1		
			CVEF		
DETAILS BY <i>Dall Zhou</i> CHECKED <i>Christine Mamaril</i>	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 4/28/11 11/30/12	SHEET OF	
QUANTITIES BY <i>Christine Mamaril</i> CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3				

DOES SD Imperial Rev. 9/02

27-FEB-2013 08:07

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Jasvirinder A. Sandhu 11-30-12
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G. ANDERSEN
Approval date: 01-20-2011

- GENERAL NOTES:**
- A. UNLESS OTHERWISE NOTED, LAMPS SHALL BE RATED FOR 277 V.
 - B. SEE EE7-2.10 FOR ADDITIONAL FIXTURE TYPES.

LIGHTING FIXTURE SCHEDULE			
TYPE	MANUFACTURER	LAMPS	DESCRIPTION
F1	PRECISION ARCHITECTURAL LIGHTING AS DIRECT SQUARE, LINEAR SQUARELIGHT 66 SERIES, OR EQUAL	ONE-32 W T8	CEILING MOUNTED FLUORESCENT FIXTURE WITH ONE 32-WATT, T8 LAMPS, ELECTRONIC BALLAST AND ONE PIECE, CLEAR LINEAR PRISMATIC LENS WITH HEAVY GAGE EXTRUDED ALUMINUM HOUSING. END PLATES SHALL BE SECURED WITH NO VISIBLE FASTENERS
F2	PRECISION ARCHITETURAL LIGHTING AS DIRECT SQUARE, LINEAR SQUARELIGHT 66 SERIES, OR EQUAL	2-32 W T8	SIMILAR TO F1 EXCEPT F2 SHALL HAVE TWO 32-WATT, T8 LAMPS.
F3	LITHONIA RP SERIES, NEO RAY SERIES 75, OR EQUAL	1-32 W T8	RECESSED FLUORESCENT FIXTURE WITH ONE 32-WATT T8 LAMP, ELECTRONIC BALLAST, WITH PARABOLIC LOUVERS AND INTERNAL REFLECTOR. FIXTURE SHALL BE CONTINUOUS RECESSED FOR THE WHOLE LENGTH OF THE RESTROOM AS SHOWN ON THE PLANS.
F4	PRESCOLITE COMPACT CFR 8" SERIES, CAPRIL COMPACT C8-F213-H85 SERIES, OR EQUAL	2-13 W CFL (DTT)	RECESSED COMPACT, 8-INCH APERTURE, DOWNLIGHT FLUORESCENT FIXTURE WITH 2 VERTICALLY MOUNTED 13-WATT, COMPACT FLUORESCENT TT LAMPS, ELECTRONIC BALLAST, CLEAR ALZAK REFLECTOR .
F5	COLUMBIA PARABOLIC P424 SERIES, LITHONIA PARAMAX PM3 SERIES, OR EQUAL	2-32 W T8	LAY-IN 2-FT X 4-FT PARABOLIC TROFFER FLUORESCENT FIXTURE WITH TWO 32-WATT, T8 LAMPS, ELECTRONIC BALLAST AND I6-CELL 3-INCH LOUVERS.
F6	COLUMBIA APOLLO R04 SERIES, LITHONIA WRAPAROUND CB SERIES, OR EQUAL	ONE-32 W T8	CEILING MOUNTED FLUORESCENT FIXTURE WITH ONE 32-WATT, T8 LAMP, ELECTRONIC BALLAST AND CLEAR ACRYLIC WRAPAROUND DIFFUSER.
F7	COLUMBIA APOLLO R04 SERIES, LITHONIA WRAPAROUND LB SERIES, OR EQUAL	2-32W T8	CEILING MOUNTED OR PENDANT MOUNTED FLUORESCENT FIXTURE WITH TWO 32-WATT, T8 LAMPS, ELECTRONIC BALLAST AND CLEAR ACRYLIC WRAPAROUND DIFFUSER.
F8	LEDALITE RLS SERIES, LINEAR LIGHTING QUIETLITE SERIES, OR EQUAL	ONE-32 W T8	WALL MOUNTED FLUORESCENT FIXTURE WITH ONE 32-WATT, T8 LAMP, ELECTRONIC BALLAST WITH PARABLADE LOUVERS.
F9	LEDALITE RLS SERIES, LIENAR LIGHTING QUIETLITE SERIES, OR EQUAL	2- 32 W T8	SIMILAR TO F8 EXCEPT F9 SHALL BE 8-FT LONG AND SHALL HAVE TWO 32-WATT, T-8 LAMPS.
F10	LEDALITE RLS SERIES, LINEAR LIGHTING QUIETLITE SERIES, OR EQUAL	4-32W T8	WALL MOUNTED FLUORESCENT FIXTURE WITH FOUR 32-WATT, T8 LAMPS, ELECTRONIC BALLAST AND PARABLADE LOUVERS. EACH 8-FT SECTION SHALL HAVE 2 LAMPS AT THE BOTTOM FOR DIRECT LIGHTING AND 2 LAMPS AT THE TOP FOR INDIRECT LIGHTING.

LIGHTING FIXTURE SCHEDULE			
TYPE	MANUFACTURER	LAMPS	DESCRIPTION
F11	LEDALITE RLS SERIES, LINEAR LIGHTING QUIETLITE SERIES, OR EQUAL	2-32 W T8	CEILING MOUNTED FLUORESCENT FIXTURE WITH TWO 32-WATT, T8 LAMPS, ELECTRONIC DIMMING BALLAST AND PARABLADE LOUVERS. EACH 8-FT SECTION SHALL HAVE 2 BOTTOM LAMPS FOR DIRECT LIGHTING. THE FIXTURE SHALL HAVE CONNECTORS, SPACERS OR INTEGRATORS TO PRODUCE AN UNBROKEN CONTINUOUS UNIT PER PLANS.
F12	LEDALITE RSL SERIES, LINER LIGHTING QUIETLITE SERIES, OR EQUAL	4-32 W T8	CABLE MOUNTED FLUORESCENT FIXTURE WITH FOUR 32-WATT T8 LAMPS, ELECTRONIC DIMMING BALLAST AND PARABLADE LOUERS. EACH 8-FT SECTION SHALL HAVE 4 BOTTOM LAMPS FOR DIRECT LIGHTING. THE FIXTURE SHALL HAVE CONNECTORS, SPACERS OR INTEGRATORS TO PRODUCE AN UNBROKEN CONTINUOUS UNIT WITH F13 AS SHOWN ON THE PLANS.
F13	LEDALITE RSL SERIES, LINEAR LIGHTING QUIETLITE SERIES, OR EQUAL	6-32 W T8	SIMILAR TO F12 EXCEPT F13 SHALL HAVE SIX 32-WATT T8 LAMPS AND DIMMING BALLAST. EACH 8-FT SECTION SHALL HAVE 2 UPPER LAMPS FOR INDIRECT LIGHTING AND 4 BOTTOM LAMPS FOR DIRECT LIGHTING
F14	COLUMBIA PARABOLIC P424 SERIES, LITHONIA PARAMAX SERIES, OR EQUAL	2-32 W T8	LAY-IN 2-FT X 4-FT PARABOLIC TROFFER FLUORESCENT FIXTURE WITH TWO 32-WATT, T8 LAMPS, ELECTRONIC DIMMING BALLAST AND I6-CELL 3-INCH LOUVERS.
F15	COLUMBIA DYNAMO KL SERIES, LITHONIA AF SERIES, OR EQUAL	2-86 W HIGH OUTPUT T8	PENDANT MOUNTED FLUORESCENT FIXTURE WITH TWO 86- WATT, HIGH OUTPUT T8 LAMPS ELECTRONIC BALLAST AND WHITE BAKED ENAMEL RIBBED REFLECTOR COMPLETE WITH END PLATES.
F16	LEDALITE RSL SERIES, LINEAR LIGHTING QUIETLITE SERIES, OR EQUAL	2-32 W T8	SIMILAR TO F12 EXCEPT F16 SHALL HAVE TWO 32-WATT, T8 LAMPS. EACH 8-FT SECTION SHALL HAVE 2 BOTTOM LAMPS FOR DIRECT LIGHTING.
F17	LEDALITE RSL SERIES, LINEAR LIGHTING QUIETLITE SERIES, OR EQUAL	4-32W T8	SIMILAR TO F13 EXCEPT F17 SHALL HAVE FOUR 32- WATT T8 LAMPS. EACH 8-FT SECTION SHALL HAVE 2 UPPER LAMPS FOR INDIRECT LIGHTING AND 2 BOTTOM LAMPS FOR DIRECT LIGHTING.
F18	KURTZON WETLOCK SERIES, COOPER CUSTOM LIGHTING AFS-8TSS (WET LOCATION) SERIES, OR EQUAL	2-32 W T8	HEAVY DUTY, 8 FT LONG, STAINLESS STEEL WET LOCATION FIXTURE WITH DOUBLE BODY CONSTRUCTION, 0.125-INCH VIRGIN ACRYLIC, INTERNALLY RIBBED LENS, PERMANENTLY. CLOSED CELL NEOPRENE GASKET, WALL MOUNTED, MODIFIED WITH TWO 32-WATT T8 LAMPS MOUNTED IN UPPER LAMP HOLDER, THE LOWER LAMP HOLDER REMOVED, AN INTERNAL REFLECTOR INSTALLED TO DELIVER 50 PERCENT OF RATED LAMP OUTPUT UPWARD IN THE 20 TO 70 DEGREE ZONE.
F19	KENNAL 2700 SERIES, LIGHTOLIER LUMIQUAD SERIES, OR EQUAL	2-13 W CFL (DTT)	CELING MOUNTED 3.5 INCHES DEEP MAXIMUM, SUITABLE FOR DAMP LOCATION FIXTURE WITH CLEAR POLYCARBONATE LENS AND TWO 13-WATT COMPACT FLUORESCENT TT LAMPS AND ELECTRONIC BALLAST.
F20	PRESCOLITE 8" CFR CROSS BAFFLE SERIES, LITHONIA COMPACT CROSS BAFFLE SERIES, OR EQUAL	2-13W CFL (DTT)	RECESSED COMPACT DOWNLIGHT, 8-INCH APERTURE, CROSS BAFFLE , FLUORESCENT FIXTURE WITH 2 HORIZONTALLY MOUNTED 13-WATT COMPACT FLUORESCENT TT LAMPS. CLEAR ALZAK REFLECTOR AND ELECTRONIC DIMMING BALLAST.

DESIGN	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>
DETAILS	BY <i>Tommy F. Lee</i>	CHECKED <i>Christine Mamaril</i>
QUANTITIES	BY <i>Christine Mamaril</i>	CHECKED <i>J.S. Sandhu</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO. 54-1216J
POST MILE 177.3/181.1

MOUNTAIN PASS JOE

LIGHTING FIXTURES SCHEDULE I

SHEET **EE8-1** OF

LIGHTING FIXTURE SCHEDULE			
TYPE	MANUFACTURER	LAMPS	DESCRIPTION
F21	LITHONIA PM4 SERIES, COLUMBIA PARABOLIC P422 SERIES, OR EQUAL	TWO-17 W T8	LAY-IN 2' X 2' PARABOLIC TROFFER FLUORESCENT FIXTURE WITH TWO 17-WATT, T8 LAMPS, ELECTRONIC BALLAST AND I6-CELL 3-INCH LOUVERS.
F22	LITHONIA CYLINDER CFV SERIES, PRESCOLITE COMPACT FLUORESCENT CYLINDERS, OR EQUAL	ONE-42 W CFL (TRT)	PENDANT MOUNTED, DOWNLIGHT FLUORESCENT WITH ONE 42-WATT COMPACT FLOURESCENT TRT LAMP AND DIMMING BALLAST. FIXTURE SHALL HAVE MAXIMUM 8-INCH DIAMETER AND MAXIMUM 16-INCH HEIGHT
F23	LITHONIA I1967 SCONES SERIES, HALO LIGHTING CONE H2587P SERIES, OR EQUAL	2-13 W CFL (DTT)	SCONCES, DECORATIVE WALL MOUNTED FLUORESCENT FIXTURE WITH TWO 13-WATT COMPACT FLUORESCENT TT LAMP AND ELECTRONIC BALLAST. FIXTURE SHALL BE MAXIMUM 10.5-INCH IN HEIGHT AND TRIANGULAR IN SHAPE.
F24	LITHONIA TF SERIES, COLUMBIA 4PSI4 SERIES WITH FK, OR EQUAL	2-32W T8	FLANGED, RECESSED 1' X 4', LENSED FLUORESCENT FIXTURE WITH TWO 32-WATT, T8 LAMP AND ELECTRONIC BALLAST. FIXTURE SHALL BE SUITABLE FOR DRYWALL CEILINGS.
F25	DAYBRITE UNDERCABINET UC SERIES, LITHONIA UNDERCABINET 2UC SERIES, OR EQUAL	ONE-17 W T8 120 V	UNDERCABINET 2-FT, FLUORESCENT FIXTURE WITH ONE 17-WATT, T8 LAMP AND ELECTRONIC BALLAST. FIXTURE SHALL BE MAXIMUM 1 3/4 INCHES DEEP.
F26	COLUMBIA DYNAMO KL SERIES, LITHONIA AF SERIES, OR EQUAL	TWO 86-WATT HIGH OUTPUT T8	BRACKET MOUNTED INDUSTRIAL FLUORESCENT FIXTURE WITH TWO 86-WATT HIGH OUTPUT LAMPS, ELECTRONIC BALLAST AND WHITE BAKED ENAMEL RIBBED REFLECTOR COMPLETE WITH END PLATES.
F27	COLUMBIA WINTHROP SERIES, LITHONIA WC SERIES, OR EQUAL	ONE-32W T8	WALL MOUNTED, SLIM DESIGN FLUORESCENT FIXTURE WITH ONE 32-WATT, T8 LAMP AND ELECTRONIC BALLAST. FIXTURE SHALL NOT EXCEED 4.5 -INCHES IN DEPTH AND 5-INCHES IN HEIGHT.
F28	COLUMBIA WINTHROP SERIES, LITHONIA WC SERIES, OR EQUAL	TWO-32 W T8	WALL MOUNTED, SLIM DESIGN FLUORESCENT FIXTURE WITH TWO 32-WATT, T8 LAMPS, ELECTRONIC BALLAST. FIXTURE SHALL NOT EXCEED 4.5 INCHES IN DEPTH AND 5-INCHES IN HEIGHT.
F29	LITHONIA MOLDED ACRYLIC SERIES, DAYBRITE PL LOW PROFILE SERIES, OR EQUAL	ONE- 13 W (TT)	CEILING MOUNTED CLOSET LIGHT WITH WHITE ACRYLIC LENS, ONE 13 WATT CFL LAMP AND ELECTRONIC BALLAST. DEPTH SHALL NOT EXCEED 3 1/2 INCHES.
F30	KILLARK VFC 100, COLUMBIA APOLLO R04 SERIES, LITHONIA WRAPAROUND LB SERIES, OR EQUAL	TWO-32 W T8, 120 V	CEILING MOUNTED FLUORESCENT FIXTURE WITH TWO 32-WATT T8 LAMPS, ELECTRONIC BALLAST AND CLEAR ACRYLIC WRAPAROUND DIFFUSER.

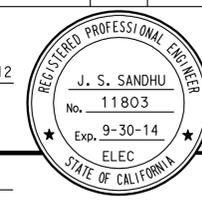
LIGHTING FIXTURE SCHEDULE			
TYPE	MANUFACTURER	LAMPS	DESCRIPTION
MH1	GENERAL ELECTRIC POWER FLOODLIGHT SBN SERIES, OR EQUAL	ONE 175 W MH	NARROW BEAM FLOODLIGHT, 175-WATT METAL HALIDE LUMINAIRE WITH INTEGRAL BALLAST, HEAVY DUTY DIE CAST ALUMINUM HOUSING, DARK BRONZE ELECTROCOAT PAINT FINISH, ENCLOSED AND GASKETED WITH ALZAK ALUMINUM REFLECTOR, TEMPERED GLASS LENS, CORROSION RESISTANT EXTERNAL HARDWARE AND ADJUSTABLE AIMING WITH 1/2-INCH THREADED SWIVEL MOUNT. PHOTOMETRICS SHOWN ON PLANS. WIDTH AND HEIGHT SHALL NOT EXCEED 9 INCHES. LUMINAIRE MOUNTED IN FRONT OF THE SCALE HOUSE SHALL HAVE HOUSING AS SHOWN ON EE7-4.3.
MH2	SHAPER LIGHTING 682-HID WEDGE DOWNLIGHT SERIES, LUMARK IMPACT IP-W SERIES, OR EQUAL	ONE 50 W MH	OUTDOOR, SURFACE MOUNTED WEDGE DOWNLIGHT WITH 50-WATT METAL HALIDE LAMP, INTEGRAL BALLAST AND CLEAR REFRACTIVE GLASS LENS.
MH3	RUUD LIGHTING 12" RECESSED CANOPY LIGHT RC SERIES, LITHONIA SQUARE LAH SERIES, OR EQUAL	ONE 50 W MH	OUTDOOR, RECESSED MOUNTED, TOTALLY ENCLOSED 12-INCH, SQUARE, MAXIMUM 6 INCHES DEEP, 50-WATT METAL HALIDE LUMINAIRE WITH INTEGRAL BALLAST AND CLEAR TEMPERED LENS. FIXTURE SHALL BE SEAMLESS DIE CAST ALUMINUM WITH PREFINISHED SPECULAR ALUMINUM REFLECTOR
MH4	RUUD LIGHTING 12" RECESSED CANOPY LIGHT RC SERIES, LITHONIA SQUARE LAH SERIES, OR EQUAL	ONE 175 W MH	SIMILAR TO MH3 EXCEPT MH5 SHALL HAVE 175-WATT METAL HALIDE LAMP.
MH5	LITHONIA THR SERIES, STINGRAY 250 MH SERIES, OR EQUAL	ONE 250 W MH	PREMIUM ENCLOSED REFRACTOR, ACRYLIC REFLECTOR, INDUSTRIAL TYPE, PENDANT MOUNTED 250--WATT METAL HALIDE LAMP, INTERGAL BALLAST AND PULSE START SYSTEM. ENCLOSED OPTICAL SHALL BE CLEAR. TEMPERED GLASS LENS AND SHALL BE HINGED AND LATCHED FOR EASY MAINTENANCE
MH6	HOLOPHANE H910 SERIES, LITHONIA HYDREL 9100 SERIES, OR EQUAL	ONE-50W MH	OUTDOOR, RECESSED, IN GROUND HID FIXTURE WITH ONE 50-WATT, METAL HALIDE LAMP AND INTEGRAL BALLAST WITH CAST ALUMINUM HOUSING AND TAMPER PROOF STAINLESS. STEEL FASTENERS
MH7	HUBBELL NRG SERIES, DAYBRITE CLISERIES, OR EQUAL	ONE-175 W MH	OUTDOOR, CEILING MOUNTED, CANOPY HID FIXTURE WITH ONE 175-WATT LAMP AND INTEGRAL BALLAS. FIXTURE SHALL HAVE PRISMATIC POLYCARBONATE LEN AND TAMPERPROOF SCREWS.
MH8	SHAPER LIGHTING 682-HID-WEDGE DOWNLIGHT SERIES, LUMARK IMPACT IP-W SERIES, OR EQUAL	ONE 50 W 120 V-	OUTDOOR, SURFACE MOUNTED, WEDGE, DOWNLIGHT 50-WATT METAL HALIDE LAMP, INTEGRAL BALLAST, BUILT-IN PHOTO ELECTRIC CELL UNIT AND CLEAR REFRACTIVE GLASS LENS.
MH9	HYDREL M9420 BBP MH35 NSP 34B GS, OR EQUAL	ONE-35 W MH	IN-GRADE FLOOD LIGHT WITH ONE 35-WATT METAL HALIDE, 9-INCH DIAMETER WITH ROUGH-IN SECTION CONTAINING POLYMERIC MATERIAL COMPLETE WITH INTEGRAL BALLAST. FIXTURE SHALL HAVE A FACTORY SEALED THERMALLY PROTECTED LAMP MODULE AND AN EPOXY ENCAPSULATED POWER MODULE. LUMINAIRE SHALL HAVE TWO CONDUIT ENTRIES.
II	KILLARK VFC 100, APPLETON V SERIES, OR EQUAL	ONE -60 W INCANDESCENT 120 V	CAST METAL, VAPOR TIGHT, INCANDESCENT LIGHTING FIXTURE WITH RED, SHATTERPROOF POLYCARBONATE GLOBE AND A 60-WATT, 120 V INCANDESCENT LAMP. FIXTURE SHALL BE MOUNTED IN ATTIC SPACE AT A LOCATION DIRECTED BY ENGINEER.
LEDI		ONE 235 W LED 480 V	TYPE 3LIGHTING STANDARD WITH SLIP BASE AS SHOWN ON ES-6A OF THE STANDARD PLANS WITH ROADWAY 2 LUMINAIRE, SEE ROADWAY ELECTRICAL PLANS.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	689	710

Jasvirinder S. Sandhu 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
PLANS APPROVAL DATE

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CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

- GENERAL NOTES:
- A. UNLESS OTHERWISE NOTED, LAMPS SHALL BE RATED FOR 277 V.
 - B. ALL METAL HALIDE LAMPS SHALL BE PULSE START TYPE.
 - C. ALL CANOPY, WALL MOUNTED EXTERIOR, AND RECESSED EXTERIOR LUMINAIRES SHALL HAVE CUT-OFF TYPE LIGHT DISTRIBUTION.
 - D. SEE SHEET EE7-2.10 FOR ADDITIONAL FIXTURE TYPES.

DESIGN	BY <i>Christine Mamaril</i>	CHECKED <i>J. S. Sandhu</i>
DETAILS	BY <i>Tommy F. Lee</i>	CHECKED <i>Christine Mamaril</i>
QUANTITIES	BY <i>Christine Mamaril</i>	CHECKED <i>J. S. Sandhu</i>

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO. 54-1216J
POST MILE 177.3/181.1

MOUNTAIN PASS JOE
LIGHTING FIXTURES SCHEDULE 2

SHEET OF **EE8-2**

REVISION DATES (PRELIMINARY STAGE ONLY)

4/22/11	11/30/12								
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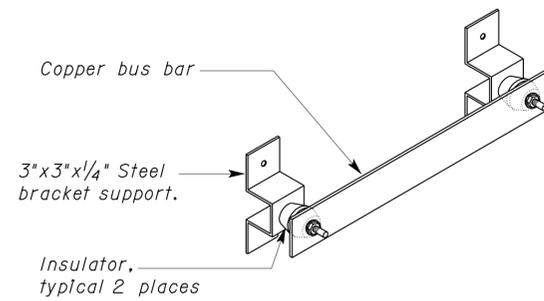
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	690	710

J. S. SANDHU REGISTERED ELECTRICAL ENGINEER No. 11803 Exp. 9-30-14 ELEC STATE OF CALIFORNIA	
GABRIEL A. SANDHU REGISTERED ELECTRICAL ENGINEER DATE 11-30-12	APPROVAL DATE 01-20-2011

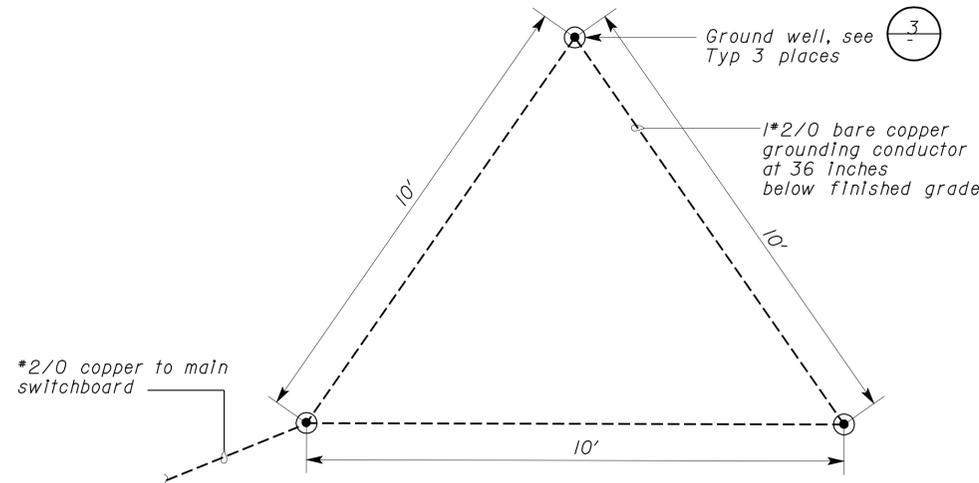
2-25-13 PLANS APPROVAL DATE

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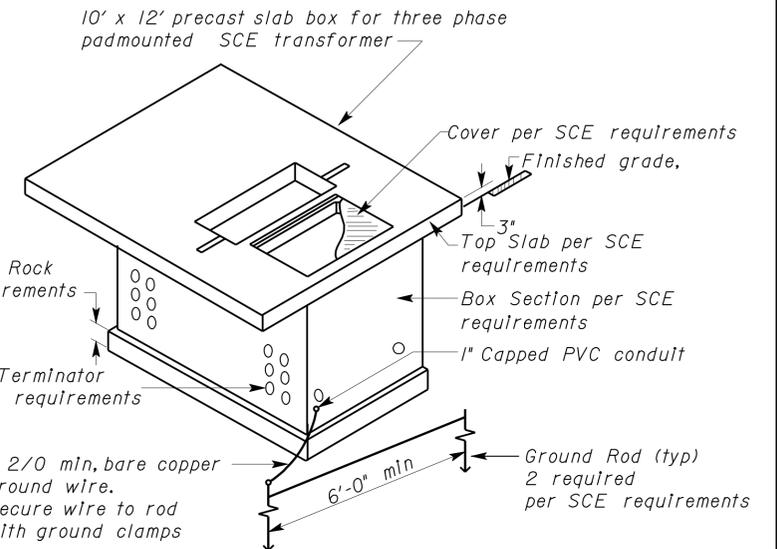
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 G. ANDERSEN
 Approval date: 01-20-2011



5 DETAIL
 NO SCALE

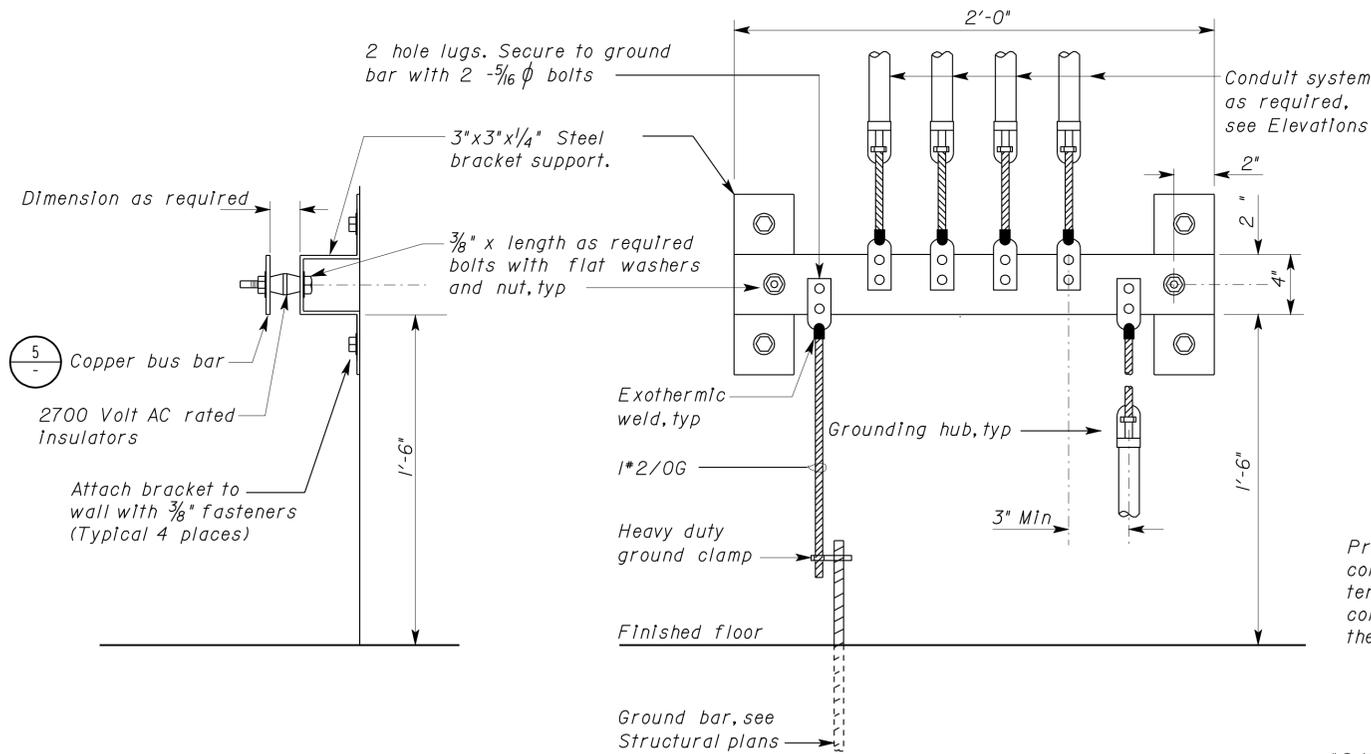


2 GROUNDING DETAIL
 NO SCALE

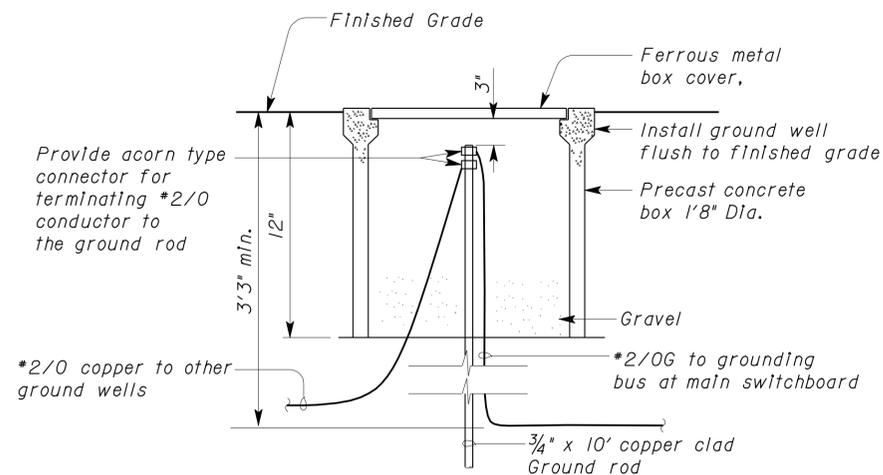


1 SLAB BOX DETAIL
 NO SCALE

General Note:
 Detail 1 is a drawing derived from Southern California Edison Company (SCE) standards for information only. Contact SCE for most recent standards and additional requirements for electrical service connection.



4 GROUNDING PLATE DETAIL
 NO SCALE



3 GROUND WELL DETAIL
 NO SCALE

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY	Christine Mamaril	CHECKED	J.S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE SERVICE AND GROUNDING DETAILS	SHEET	OF	
	DETAILS	BY	Dall Zhou	CHECKED			Christine Mamaril	POST MILE		177.3/181.1	EE8-3	
	QUANTITIES	BY	Christine Mamaril	CHECKED			J.S. Sandhu	UNIT PROJECT NUMBER & PHASE		3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	4/28/11 11/30/12

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

REVISION DATES (PRELIMINARY STAGE ONLY):

DOES SD Imperial Rev. 9/02

27-FEB-2013 08:08 ee8_3.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	691	710

J. S. SANDHU 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
PLANS APPROVAL DATE

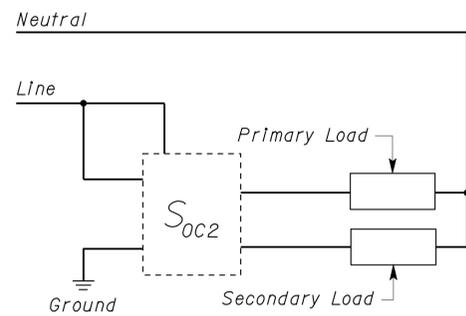
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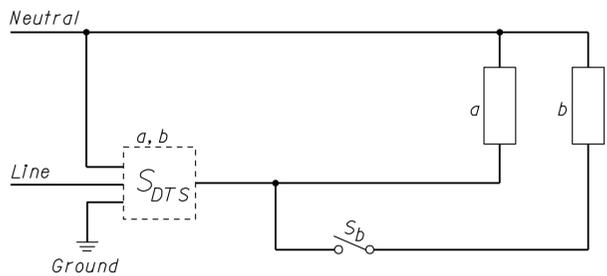
CALIFORNIA STATE FIRE MARSHAL APPROVED

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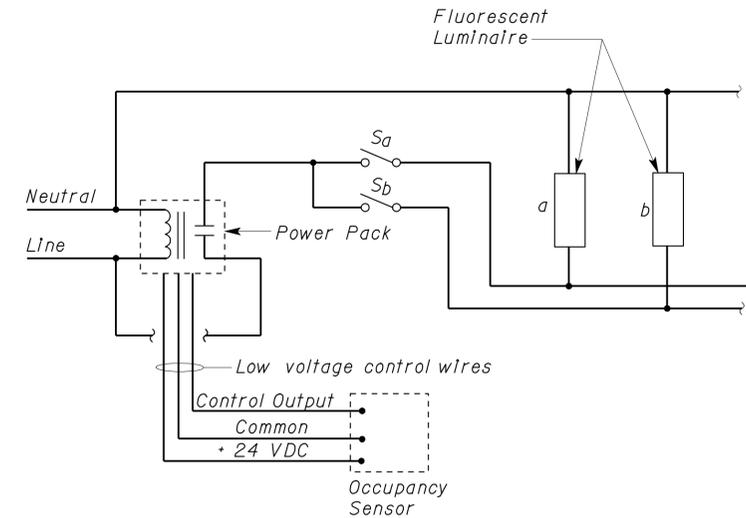
Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011



1 WALL SWITCH OCCUPANCY SENSOR (BI-LEVEL)

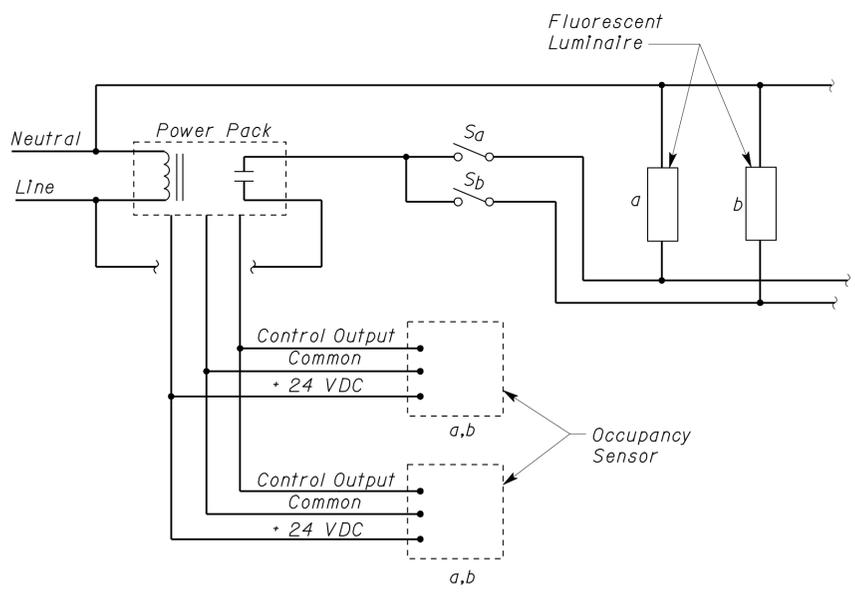


2 WALL MOUNTED DIGITAL TIMER SWITCH WIRING DIAGRAM

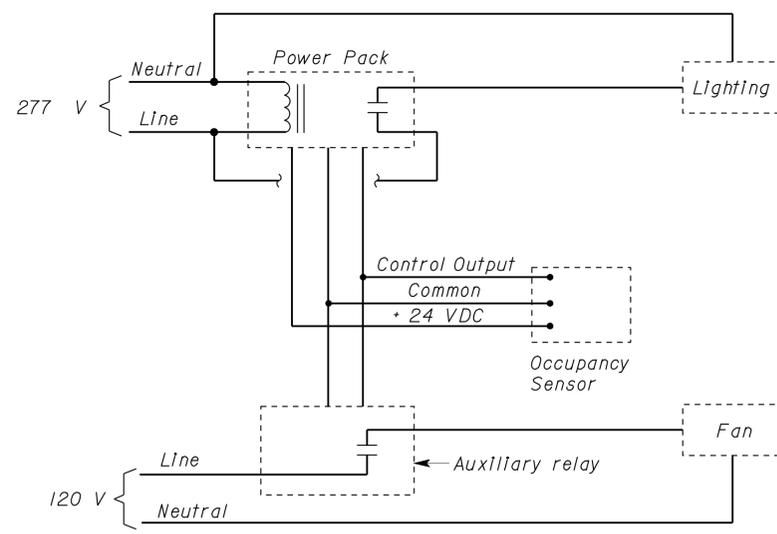


3 CEILING MOUNTED OCCUPANCY SENSOR WIRING DIAGRAM

General Note:
Diagrams shown are for reference only. Final connection of occupancy sensors and/or motion sensor wall switches shall be per manufacturer's recommendation. Contractor shall provide at no cost to the State any additional conductors that are not shown but are required for the proper operation of the selected system.



4 MULTIPLE OCCUPANCY SENSOR USING ONE POWER PACK



5 CEILING MOUNTED OCCUPANCY SENSORS WITH MULTIPLE CIRCUITS

- CALIFORNIA ENERGY COMMISSION MANDATORY MEASURES:
- BUILDING LIGHTING SHUT-OFF
- CVEF facility is designated as 24-hours facility. Therefore the mandatory building shut-off is not required. However, the following are provided for automatic shut-off:
- Occupancy sensor for Offices and Locker Rooms, Rest Rooms, Multipurpose Room, Storage Rooms, Supply Rooms and other similar rooms.
 - Digital timer switches for Electrical Rooms, Communication Rooms, Mechanical Rooms, Water treatment Rooms and Vehicle Maintenance Room.
- INDOOR MULTI-LEVEL LIGHTING CONTROL
- Bi-level occupancy sensor wall switches for Offices greater than 100 square feet.
 - Multiple switches for Inspection Lanes and Storages.
 - Dimming switches and dimming ballasts for Multi-purpose Room and Open Offices.
- DAYLIT AREA CONTROL
- Dimming switches and dimming ballast for Observation Room, Lobbies and Open Offices.
- BUILDING EXTERIOR LIGHTING CONTROL
- Photoelectric cell unit, bypass timer switch, astronomical time clock and multiple switches.

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

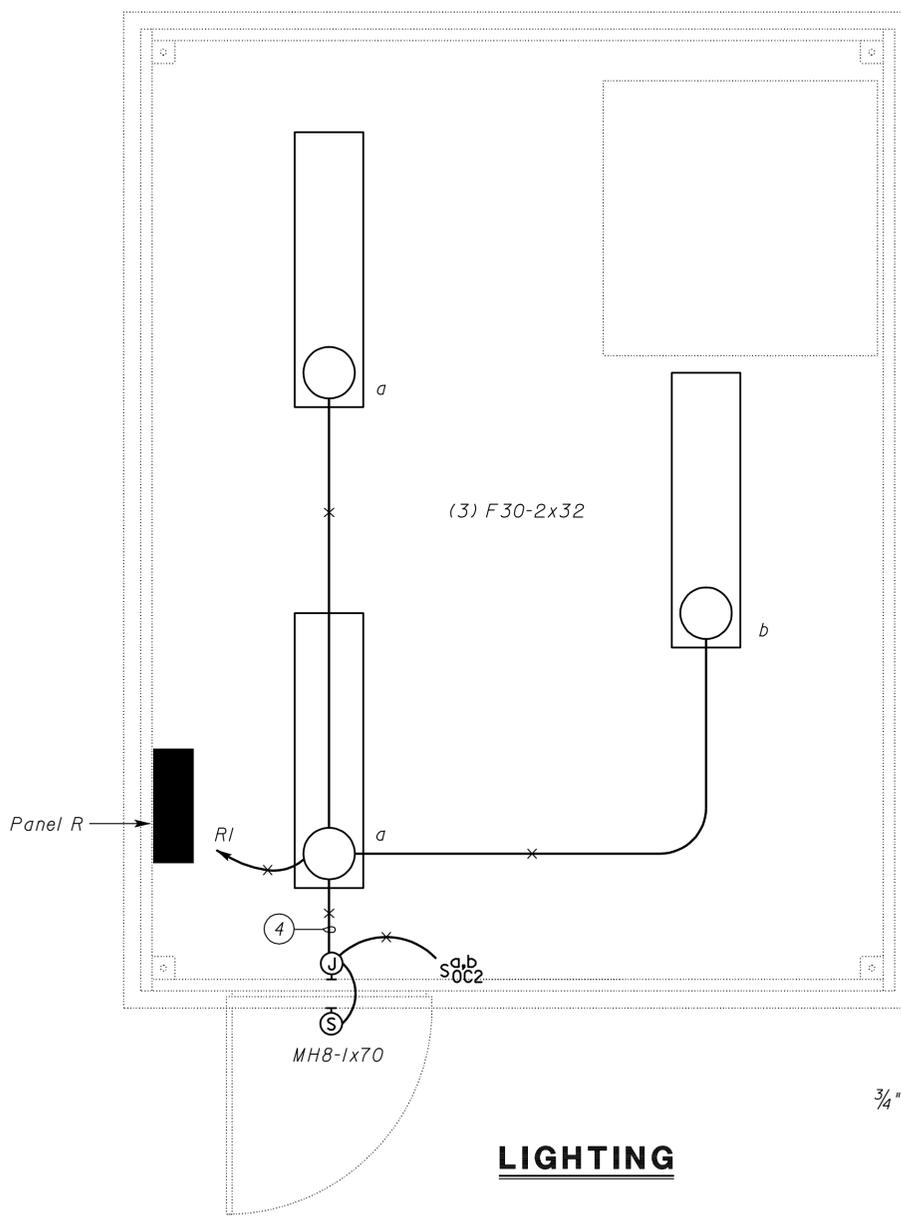
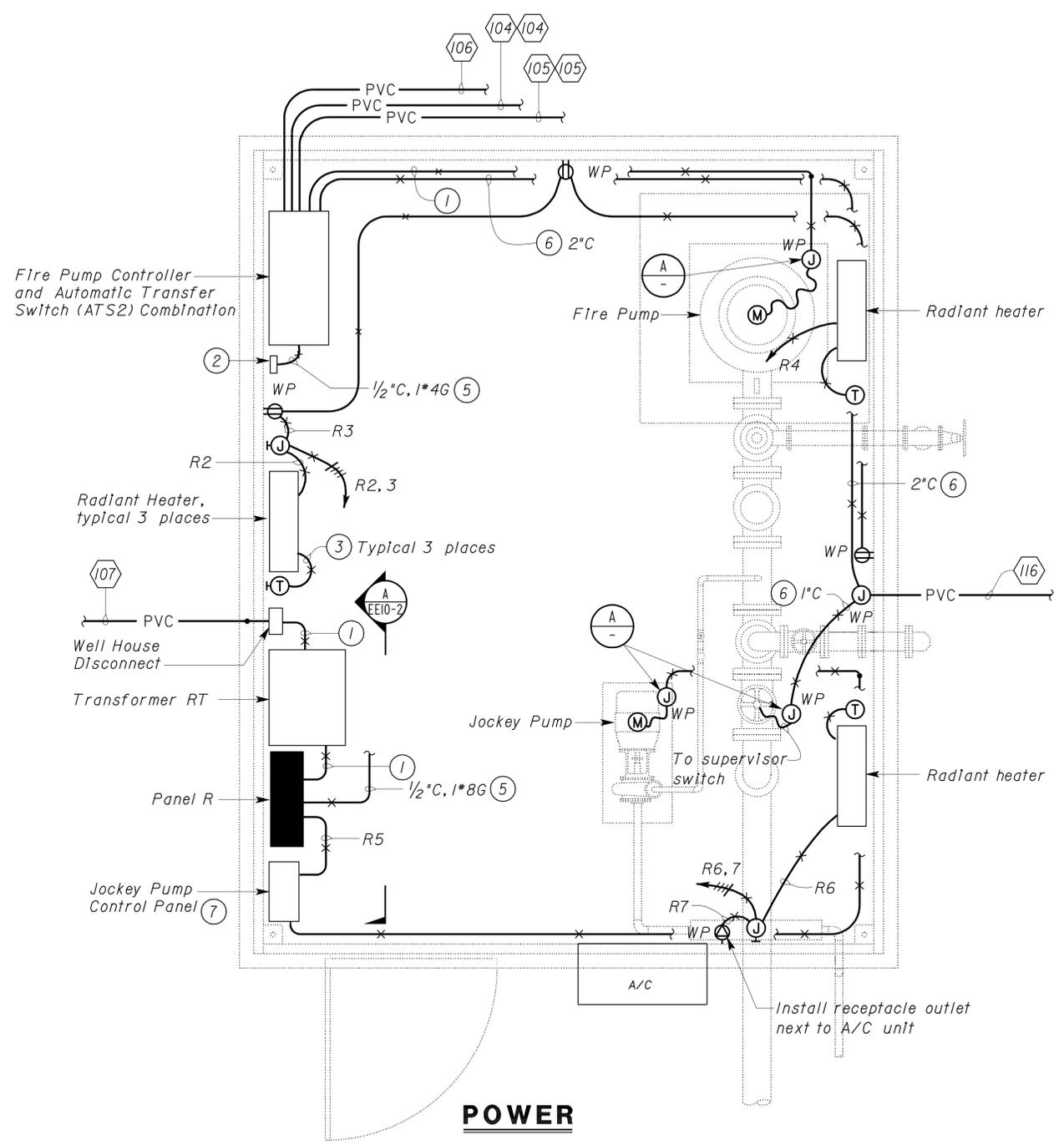
DESIGN	BY	Christine Mamaril	CHECKED	J. S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JOE	SHEET	OF			
	DETAILS	BY	Dall Zhou	CHECKED			Christine Mamaril	POST MILE				177.3/181.1	INDOOR LIGHTING SCHEMATIC DIAGRAMS	EE8-4
	QUANTITIES	BY	Christine Mamaril	CHECKED			J. S. Sandhu	REVISION DATES (PRELIMINARY STAGE ONLY)				4/28/11 11/30/12		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET	OF	27-FEB-2013 08:08			

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	692	710

CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.	
Reviewed by: <i>G. Andersen</i> G. ANDERSEN Approval date: 01-20-2011	11-30-12 DATE 2-25-13 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER TOMMY F. LEE No. 18534 Exp. 12-31-14 ELEC STATE OF CALIFORNIA
--

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General Notes:

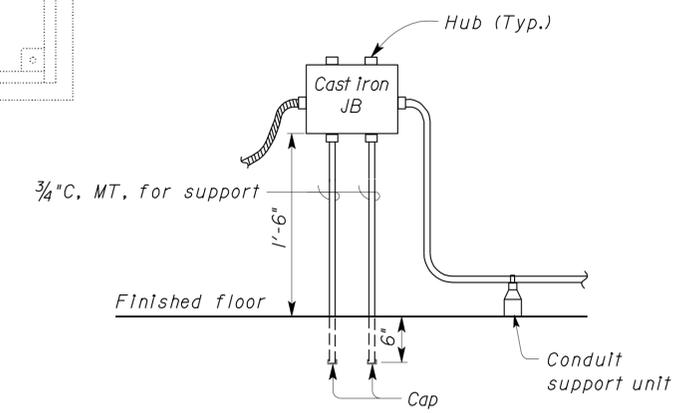
A. All risers and elbows inside building shall be PVC coated RSC. Wrap joints in touch with soil with 2 layers of wrapping tape.

B. For conduit identified by a number inside a hexagon, see sheet EE0-16 and EE0-17. Numbers shall be changed from 104, 105, 106, 107 to 100, 101, 102, 103 accordingly for CVEF.

C. For continuation of conduits in hexagon, see Site Plan sheets.

D. Remote monitoring and all alarms to be monitored shall meet State Fire Marshal requirements.

- Notes:**
- For conduit and conductors size, see "Power Distribution diagram" sheet.
 - Grounding plate, see Detail 4 on sheet EE8-3.
 - 1/2" C. control cable as required.
 - 1/2" C. 4#12, 1#12G.
 - To Grounding plate.
 - Install conductors as required.
 - Provided by Jockey pump supplier.



PLAN
SCALE 3/4" = 1'-0"

A ELEVATION
NO SCALE

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY <i>Tommy F. Lee</i> CHECKED <i>J. S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JPOE		SHEET EE10-1
			POST MILE 177.3/181.1	FIRE PUMP AND WELL HOUSE	POWER AND LIGHTING PLAN	
DETAILS BY <i>Dall Zhou</i> CHECKED <i>Tommy F. Lee</i>	UNIT PROJECT NUMBER & PHASE 3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)			SHEET OF
QUANTITIES BY <i>Tommy F. Lee</i> CHECKED <i>J. S. Sandhu</i>			4/28/11	11/30/12		

DOES SD Imperial Rev. 9/02 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	693	710

Approved by: Tommy F. Lee 11-30-12
 REGISTERED ELECTRICAL ENGINEER DATE

Reviewed by: G. Andersen
 Approval date: 01-20-2011

2-25-13
 PLANS APPROVAL DATE

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MAIN: 60 A/ 3-POLE CIRCUIT BREAKER
 VOLTS: 120/208, 3-PHASE, 4-WIRE
 FEEDER SIZE: 4*4, 1*8G
 PANEL R (BOTTOM FEED, 22 K SCCR)
 LOCATION: SURFACE MOUNTED IN FIRE PUMP AND WELL HOUSE

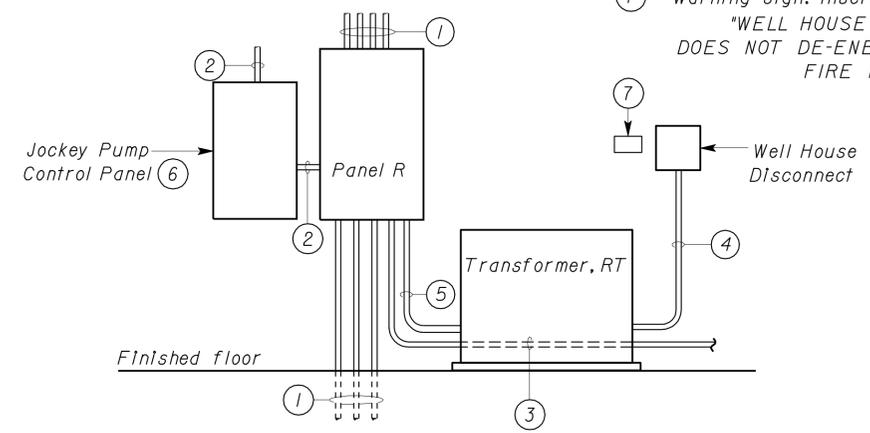
DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
INTERIOR AND EXTERIOR LIGHTING	4			20/1	1	•			2	20/1	12.5			RADIANT HEATER 1
RECPTACLES		4.5		*	3	•			4		12.5			RADIANT HEATER 2
JOCKEY PUMP CONTROL PANEL			10		5	•			6			12.5		RADIANT HEATER 3
AIR CONDITION	10				7	•			8		-			SPARE
SPARE		-			9	•			10		-			SPARE
SPARE			-		11	•			12		-			SPARE
SPACE					13	•			14					SPACE
					15	•			16					
					17	•			18					
					19	•			20					

* GFCI TYPE CIRCUIT BREAKER (6 MILLIAMPERE)

A	B	C	TOTAL CONNECTED LOAD (AMPERES PER PHASE)
26.5	17	22.5	

Notes:

- Conduit system as required, see plans.
- 1/2"C, 2*12, 1*12G.
- 1/2"C, 1*8G to grounding plate.
- 1"C, 3*8, 1*8G.
- 2"C, 4*4, 1*8G.
- Provided by Jockey pump supplier.
- Warning sign. Inscription shall be read: "WELL HOUSE DISCONNECT DOES NOT DE-ENERGIZE POWER TO FIRE PUMP".



A ELEVATION
NO SCALE

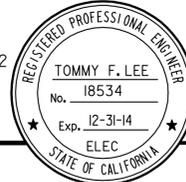
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DESIGN	BY	Tommy F. Lee	CHECKED	Jesse Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JPOE FIRE PUMP AND WELL HOUSE	PANEL SCHEDULE AND DETAILS	SHEET EE10-2	
	DETAILS	BY	Tommy F. Lee	CHECKED			Jesse Sandhu	POST MILE				177.3/181.1
	QUANTITIES	BY	Tommy F. Lee	CHECKED			Jesse Sandhu	REVISION DATES (PRELIMINARY STAGE ONLY)				

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3
 UNIT PROJECT NUMBER & PHASE: 3596 08000006281
 DISREGARD PRINTS BEARING EARLIER REVISION DATES: 4/24/11, 11/30/12

DOES SD Imperial Rev. 9/02
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	694	710

	
Tommy F. Lee REGISTERED ELECTRICAL ENGINEER	11-30-12 DATE
2-25-13 PLANS APPROVAL DATE	
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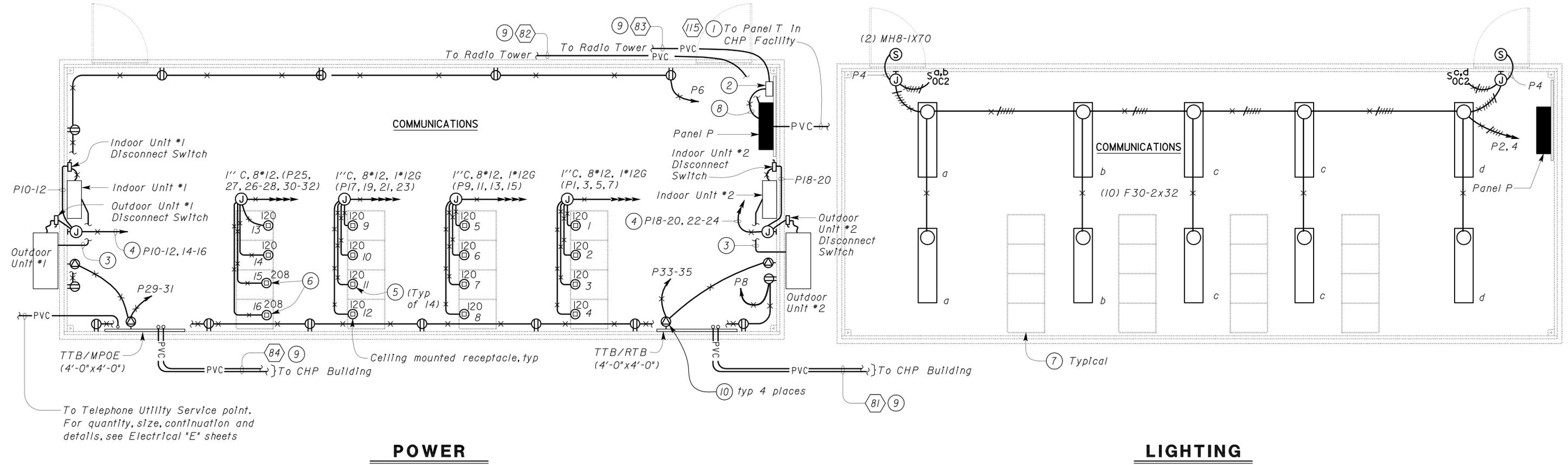
Notes:

- ① For conduit and conductors sizes, see sheet EE7-7.2.
- ② Grounding Plate, see Detail 4 on sheet EE8-3.
- ③ 1/2" C, Control cable as required.
- ④ 1/2" C, 4*12, 1*12G.
- ⑤ Install junction box with one NEMA L5-20R receptacle. Provide 9'-0" of 3-conductor, #12 AWG portable cordage (UL type SO), with NEMA L5-20R male plug secured to one end of portable cordage.
- ⑥ Install junction box with one NEMA L6-20R receptacle. Provide 9'-0" of 3-conductor, #12 AWG portable cordage (UL type SO), with NEMA L6-20R male plug secured to one end of portable cordage.
- ⑦ Future equipment rack (Not In Contract).
- ⑧ 1/2" C, 1*6G.
- ⑨ For continuation, see sheet EE0-4.
- ⑩ Special receptacle outlet, 250V, NEMA L6-20R.

General Notes:

- A. All risers and elbows inside the building shall be PVC coated RSC. Wrap joints in touch with soil with 2 layers of wrapping tape.
- B. For conduits identified by a hexagon, see sheet EE0-16 and EE0-17.
- C. Number adjacent to ceiling mounted receptacle indicates voltage rating and outlet number. For example 120 V and outlet number 1.

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 Reviewed by: 
 G. ANDERSEN
 Approval date: 01-20-2011



PLAN
 SCALE 3/8" = 1'-0"

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN	BY	Tommy F. Lee	CHECKED	Jesse Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	54-1216J	MOUNTAIN PASS JPOE	SHEET EE11-1
	DETAILS	BY	Tommy F. Lee	CHECKED			Jesse Sandhu	POST MILE		
QUANTITIES	BY	Tommy F. Lee	CHECKED	Jesse Sandhu	UNIT PROJECT NUMBER & PHASE	3596 08000006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	4/28/11 11/30/12	POWER AND LIGHTING PLAN	SHEET OF

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

REVISION DATES (PRELIMINARY STAGE ONLY):

MAIN: 100 A / 3- POLE CIRCUIT BREAKER
VOLTS: 120/208 V, 3-PHASE, 4-WIRE

PANEL P
(BOTTOM FEED, 22 KSCCR)

FEEDER SIZE: 4#1, 1#IG
LOCATION: SURFACE MOUNTED IN COMMUNICATION HUB BUILDING

DESCRIPTION	AMPERES			BRK	CKT	A	B	C	CKT	BRK	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
CEILING OUTLET #1	2			20/1	1	•			2	20/1	3.5			INTERIOR LIGHTS
CEILING OUTLET #2		2			3		•		4			1.5		EXTERIOR LIGHTS
CEILING OUTLET #3			2		5			•	6				9	RECEPTACLES- NORTH AND WEST SIDE
CEILING OUTLET #4	2				7	•			8	↓	13.5			RECEPTACLES- SOUTH AND EAST SIDE
CEILING OUTLET #5		2			9		•		10	15/2		12		INDOOR UNIT #1
CEILING OUTLET #6			2		11			•	12				12	
CEILING OUTLET #7	2				13	•			14	20/2	16			OUTDOOR UNIT #2
CEILING OUTLET #8		2			15		•		16			16		
CEILING OUTLET #9			2		17			•	18	15/2			12	INDOOR UNIT #2
CEILING OUTLET #10	2				19	•			20	15/2	12			
CEILING OUTLET #11		2			21		•		22	20/2		16		OUTDOOR UNIT #2
CEILING OUTLET #12			2		23			•	24				16	
CEILING OUTLET #13	2				25	•			26	15/2	5			CEILING OUTLET #15
CEILING OUTLET #14		2			27		•		28			5		
TTB/MPOE OUTLET	3		3	20/2	29			•	30				5	CEILING OUTLET #16
					31	•	32		5					
TTB/RTB OUTLET		3		20/2	33			•	34		-			SPARE
					35		36		-					
COMMUNICATION TOWER OUTLETS	6			20/1	37	•			38		-			SPARE
SPARE		-			39		•		40		-			SPARE
SPARE			-		41			•	42	20/1			-	SPARE

A	B	C	TOTAL CONNECTED LOAD (AMPERES PER PHASE)
74	63.5	68	

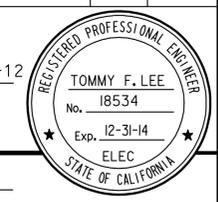
CALIFORNIA STATE FIRE MARSHAL
APPROVED
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.
Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	695	710

Tommy F. Lee 11-30-12
REGISTERED ELECTRICAL ENGINEER DATE

2-25-13
PLANS APPROVAL DATE

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DESIGN BY <i>Tommy F. Lee</i>	CHECKED <i>Jesse Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JPOE COMMUNICATION HUB	PANEL SCHEDULE AND DETAILS	SHEET EE11-2
				POST MILE 177.3/181.1			
				UNIT PROJECT NUMBER & PHASE 3596 08000006281			
DETAILS BY <i>Tommy F. Lee</i>	CHECKED <i>Tommy F. Lee</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 4/28/11 11/30/12	SHEET OF		

ABBREVIATIONS

AB	AGGREGATE BASE	IN	INCH
AC	ASPHALT CONCRETE	JB	JUNCTION BOX
AIS	AGRICULTURAL INSPECTION STATION	LB	POUND
B	BUNG	LT	LEFT
BLDG	BUILDING	MAX	MAXIMUM
C	CONDUIT	MBV	MOTORIZED BALL VALVE
C-C	CENTER TO CENTER	MH	MANHOLE
CFS	CUBIC FEET PER SECOND	MIN	MINIMUM
CI	CAST IRON	N	NORTH
CL	CHAIN LINK	NB	NORTHBOUND
CMP	CORRUGATED METAL PIPE	NIC	NOT IN CONTRACT
CONC	CONCRETE	NO	NUMBER
COTF	CLEANOUT TO FLOOR	OAL	OVERALL LENGTH
COTG	CLEANOUT TO GRADE	OC	ON CENTER
CPLG	COUPLING	OD	OUTSIDE DIAMETER
CVEF	CALIFORNIA VEHICLE ENFORCEMENT FACILITY	OG	ORIGINAL GROUND
CW	COLD WATER PIPE	P	PITCH
D	DRAIN	PCC	PORTLAND CEMENT CONCRETE
DBH	DIAMETER AT BREAST HEIGHT	PH	PHASE
DI	DRAIN INLET	PRV	PRESSURE REDUCING VALVE
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE
DP	DRAIN PIPE	R	RADIUS
E	ELECTRICAL	RCP	REINFORCED CONCRETE PIPE
(E)	EXISTING	REQ	REQUIRED
EA	EACH	rpm	REVOLUTIONS PER MINUTE
EL	ELEVATION	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
EP	EDGE OF PAVEMENT	RPU	RECYCLE PROCESS UNIT
EQ	EQUAL	RT	RIGHT
FD	FLOOR DRAIN	RW	RAW WATER
FF	FINISH FLOOR	R/W	RIGHT-OF-WAY
FG	FINISH GRADE	S	SLOPE
FL	FLOW LINE	SB	SOUTHBOUND
FM	FORCE MAIN	SCH	SCHEDULE
FOB	FACE OF BUILDING	SD	STORM DRAIN
FOC	FACE OF CONCRETE	SP	SEWAGE PIPE
FS	FLOW SWITCH	SQ	SQUARE
FT	FEET	STA	STATION
FTR	FLUE THROUGH ROOF	STD	STANDARD
GA	GAUGE	SV	SAMPLING VALVE
GAC	GRANULAR ACTIVATED CARBON	TBM	TEMPORARY BENCH MARK
GAL	GALLON	TOC	TOP OF CONCRETE
GPM	GALLONS PER MINUTE	TOT	TOTAL
GALV	GALVANIZED	TW	TREATED WATER
GSP	GALVANIZED STEEL PIPE	TYP	TYPICAL
GV	GATE VALVE	VAC	VOLTS AC
GS	GOVERNMENT SERVICE LINE	VCP	VITRIFIED CLAY PIPE
H	HEIGHT	W	WATER
HF	HOSE FAUCET	W/O	WITHOUT
HP	HORSEPOWER	WP	WATER PIPE
HZ	HERTZ	WSP	WELDED STEEL PIPE
ID	INSIDE DIAMETER		
IE	INVERT ELEVATION		

LEGEND

	FENCE		DETAIL SHEET NUMBER
	SURFACE DRAINAGE	99.00	NEW GRADE IN FEET
	ABANDON	X (100.00)	EXISTING SPOT GRADE IN FEET
	SANITARY SEWER		SURFACE DRAINAGE
	DRAIN		ABANDON
	RETURN DRAIN		BENCHMARK ELEVATION
	VENT		CENTERLINE
	WATER		DIAMETER
	FORCE MAIN		SECTION / ELEVATION LETTER SHEET NUMBER
	LEACH LINES		TREE
			DIRECTION OF TRAFFIC

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	696	710

Jerome R. Marcotte 11/30/12
REGISTERED CIVIL ENGINEER DATE



2-25-13
PLANS APPROVAL DATE
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CALIFORNIA STATE FIRE MARSHAL APPROVED
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Reviewed by: *G. Andersen*
G. ANDERSEN
Approval date: 01-20-2011

PIPE FITTINGS AND VALVES

	CAP
	ELBOW, TURNED DOWN
	FLEXIBLE CONNECTOR
	REDUCER, CONCENTRIC
	REDUCER, ECCENTRIC
	PRESSURE GAUGE (WITH VALVE AND SNUBBER)
	UNION
	UNION, INSULATING
	VALVE, BALL
	VALVE, CHECK
	VALVE, GATE
	VALVE, SAFETY RELIEF
	VALVE, PRESSURE REDUCING
	HOSE FAUCET
	SAMPLE VALVE

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.

DESIGN	BY Laurie Vasquez	CHECKED Don Hansen	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 54-1216J	MOUNTAIN PASS JOE	SHEET W0-0		
	DETAILS	BY Laurie Vasquez			CHECKED Don Hansen			POST MILE 87.1/87.5	
	QUANTITIES	BY Laurie Vasquez			CHECKED Don Hansen			NOTES, LEGENDS & ABBREVIATIONS	
DOES SD Imperial Rev. 1/8			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	CU 08224 EA 0800006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	11-01-10 11-30-12	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	15	177.3/181.1	697	710

Jerome R. Marcotte
REGISTERED CIVIL ENGINEER
DATE 11/30/12



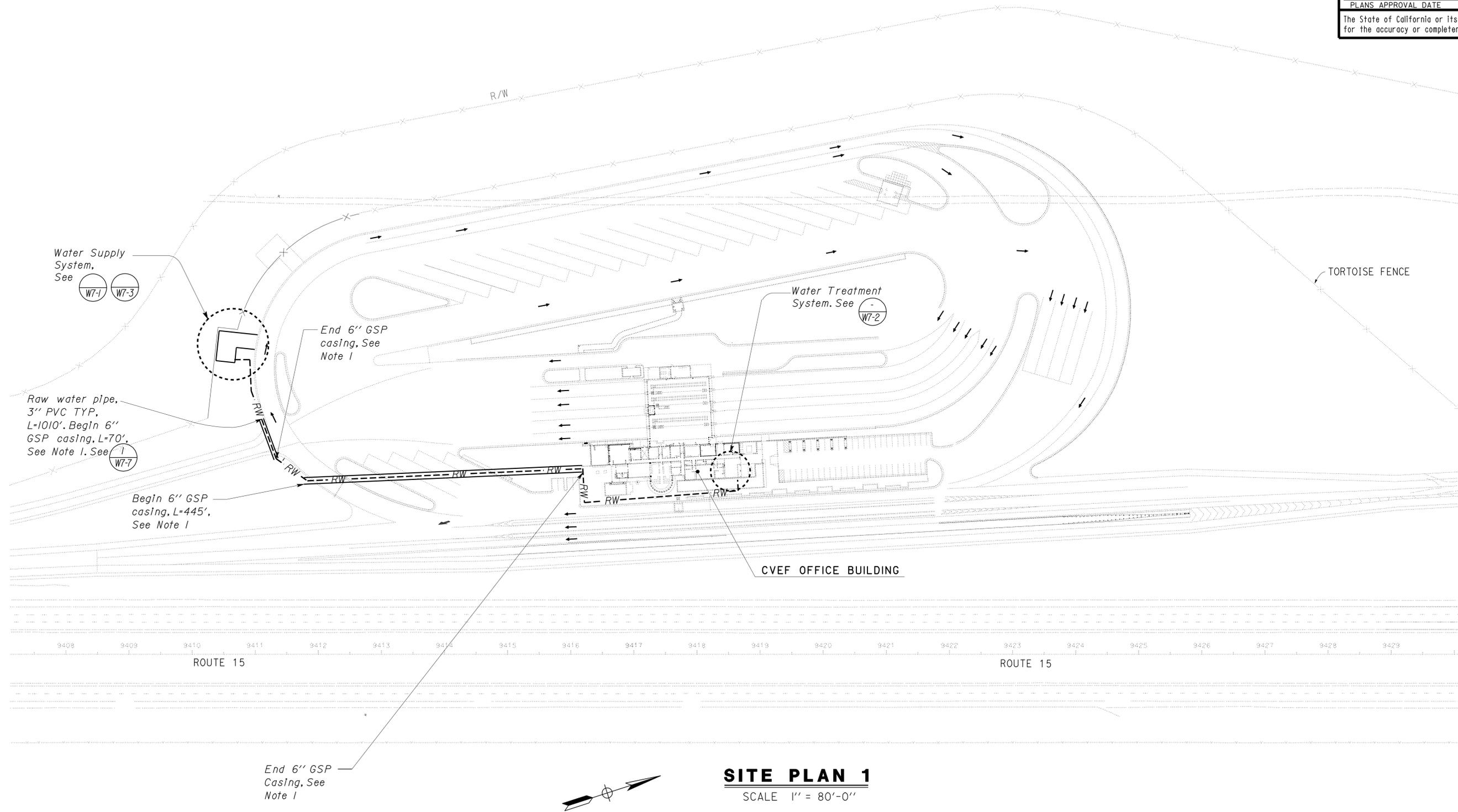
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G. ANDERSEN
Approval date: 01-20-2011



Note:

1. Locate water pipe 5 ft. minimum from EP. 6" GSP casing. Install under roadway and parking areas. Begin and end casing 5' from EP.

SITE PLAN 1

SCALE 1" = 80'-0"



Paul Schreff
DESIGN SUPERVISOR
Jerome R. Marcotte
DESIGN ENGINEER

DESIGN	BY Laurie Vasquez	CHECKED Don Hansen
DETAILS	BY Laurie Vasquez	CHECKED Don Hansen
QUANTITIES	BY Laurie Vasquez	CHECKED Don Hansen

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	54-1216J
POST MILE	87.1/87.5

MOUNTAIN PASS JOE
CVEF WATER SYSTEM SITE PLAN

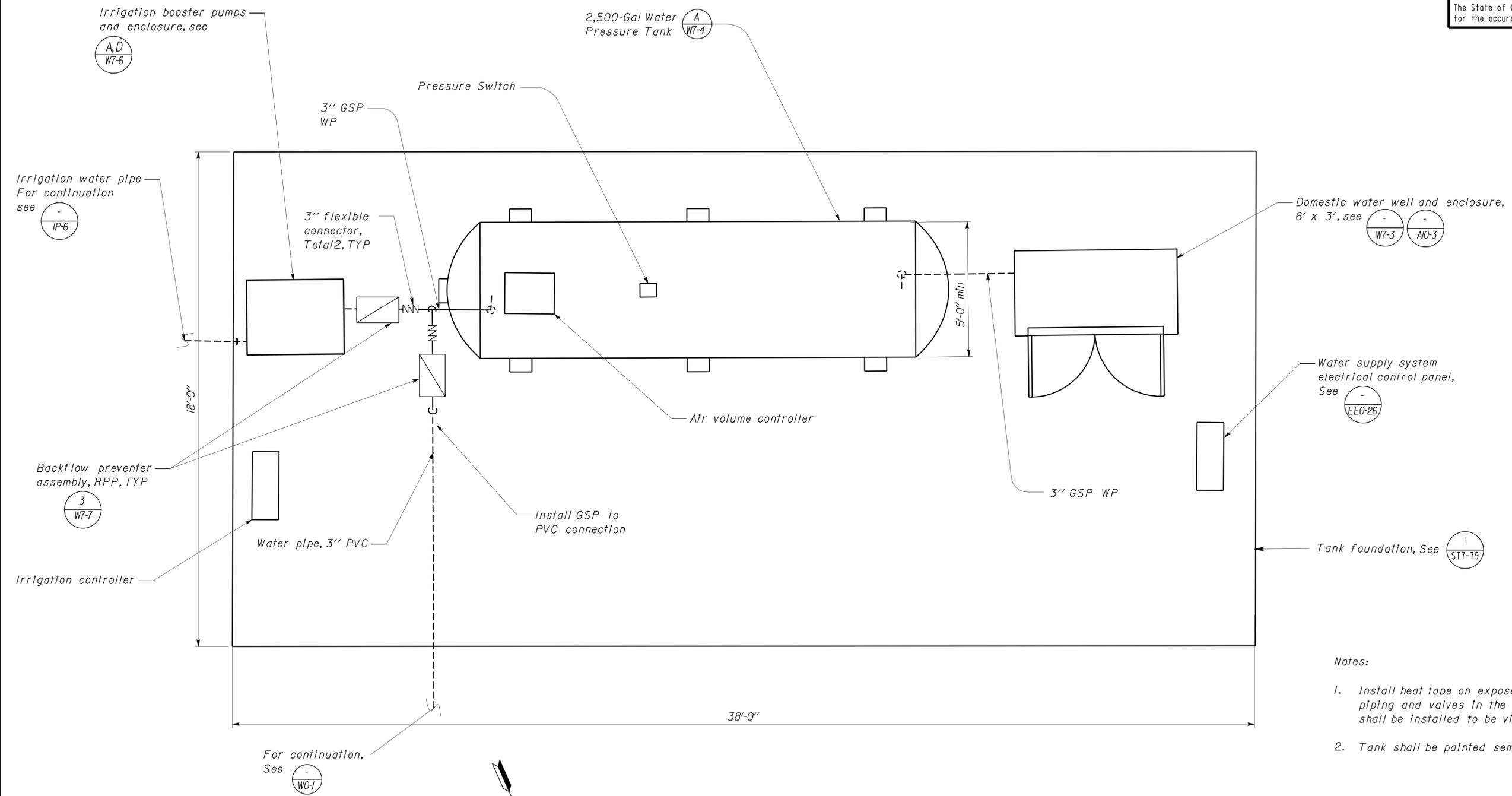
SHEET **W0-1**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Sbd	15	177.3/181.1	698	710

<i>Jerome R. Marcotte</i> REGISTERED CIVIL ENGINEER		11/30/12 DATE
2-25-13 PLANS APPROVAL DATE		
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EQUIPMENT SCHEDULE						
EQUIPMENT	SPEED (RPM)	HP	VOLTS	PHASE	PUMPING RATE (GPM)	TOTAL DYNAMIC HEAD (FT)
IRRIGATION BOOSTER PUMPS 1,2	3500	2	460	3	15	62
					20	84
					25	107



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 G. ANDERSEN
 Approval date: 01-20-2011

- Notes:
1. Install heat tape on exposed piping and valves. Include the piping and valves in the well enclosure. All meters and gauges shall be installed to be viewed from a standing position.
 2. Tank shall be painted semi-gloss off-white color.

CVEF WATER SUPPLY SYSTEM PLAN

SCALE 1/2" = 1'-0"

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	DETAILS BY Laurie Vasquez	CHECKED Don Hansen			POST MILE 87.1/87.5			
	QUANTITIES BY Laurie Vasquez	CHECKED Don Hansen						
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	CU 08224 EA 0800006281	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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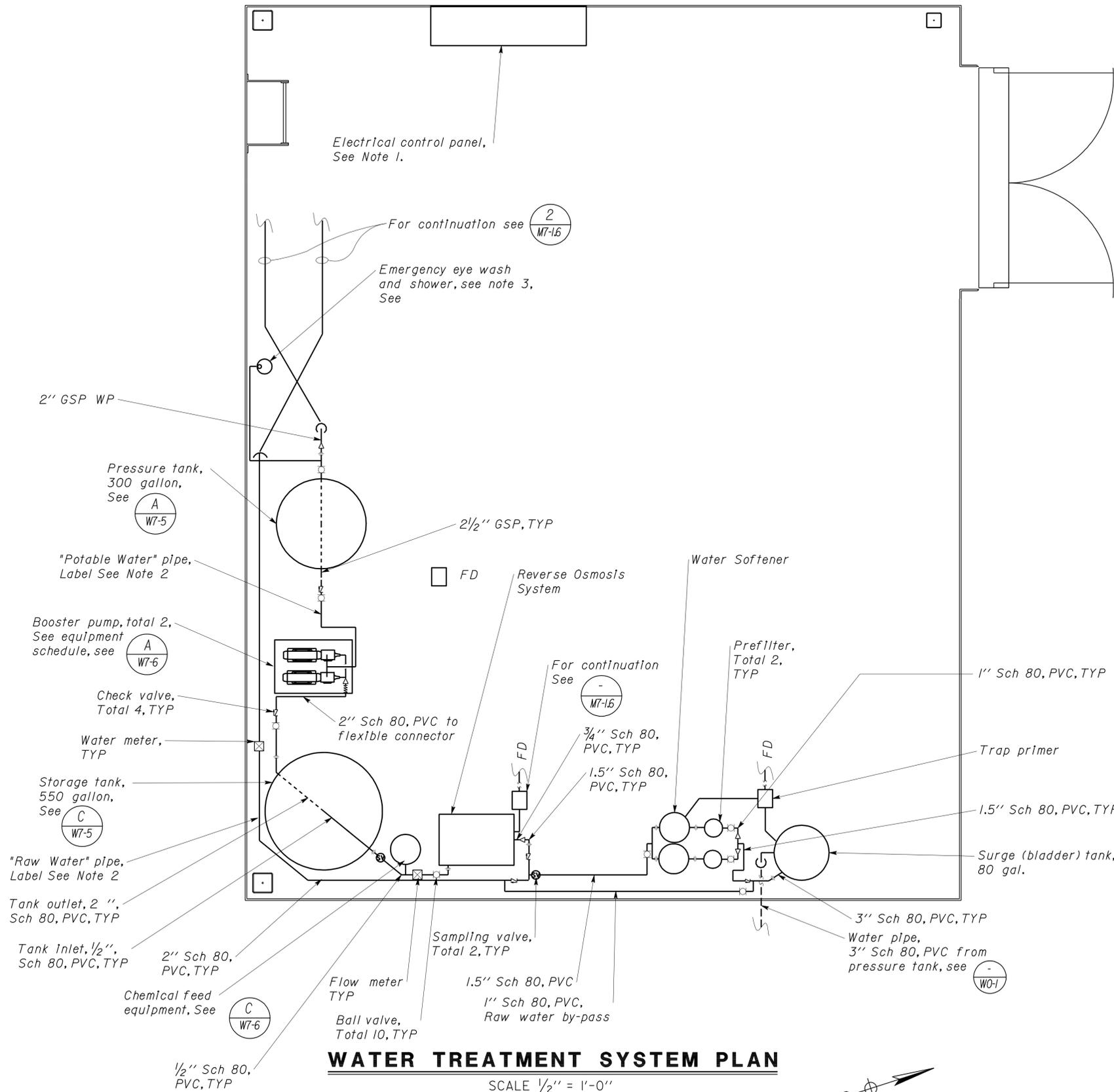
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 G. ANDERSEN
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EQUIPMENT SCHEDULE						
EQUIPMENT	SPEED (RPM)	HP	VOLTS	PHASE	PUMPING RATE (GPM)	TOTAL DYNAMIC HEAD (FT)
BOOSTER PUMPS	3500	1 1/2	208	1	15	92
1 & 2					20	115
					25	139

Notes:

- For all electrical see (EET-3A)
- Label water pipes "Potable Water" or "Raw Water" and direction of flow using adhesive backed, commercially available black lettering, 1" height. Label must applied to pipe and be visible.
- Emergency eye wash and shower detail shows penetration through wall, modify layout to run pipe along wall.



WATER TREATMENT SYSTEM PLAN

SCALE 1/2" = 1'-0"



DESIGN	BY Laurie Vasquez	CHECKED Don Hansen
DETAILS	BY Laurie Vasquez	CHECKED Don Hansen
QUANTITIES	BY Laurie Vasquez	CHECKED Don Hansen

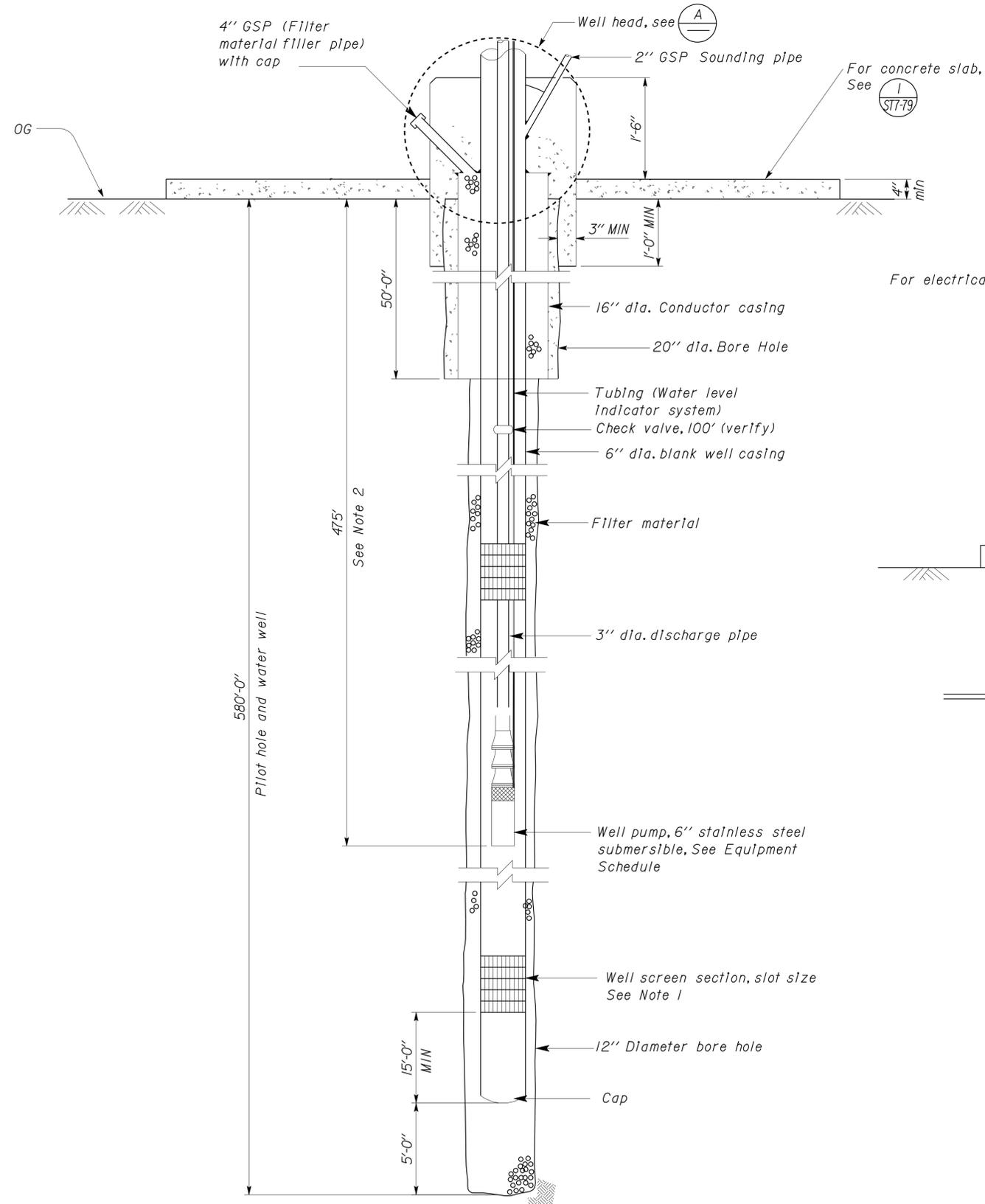
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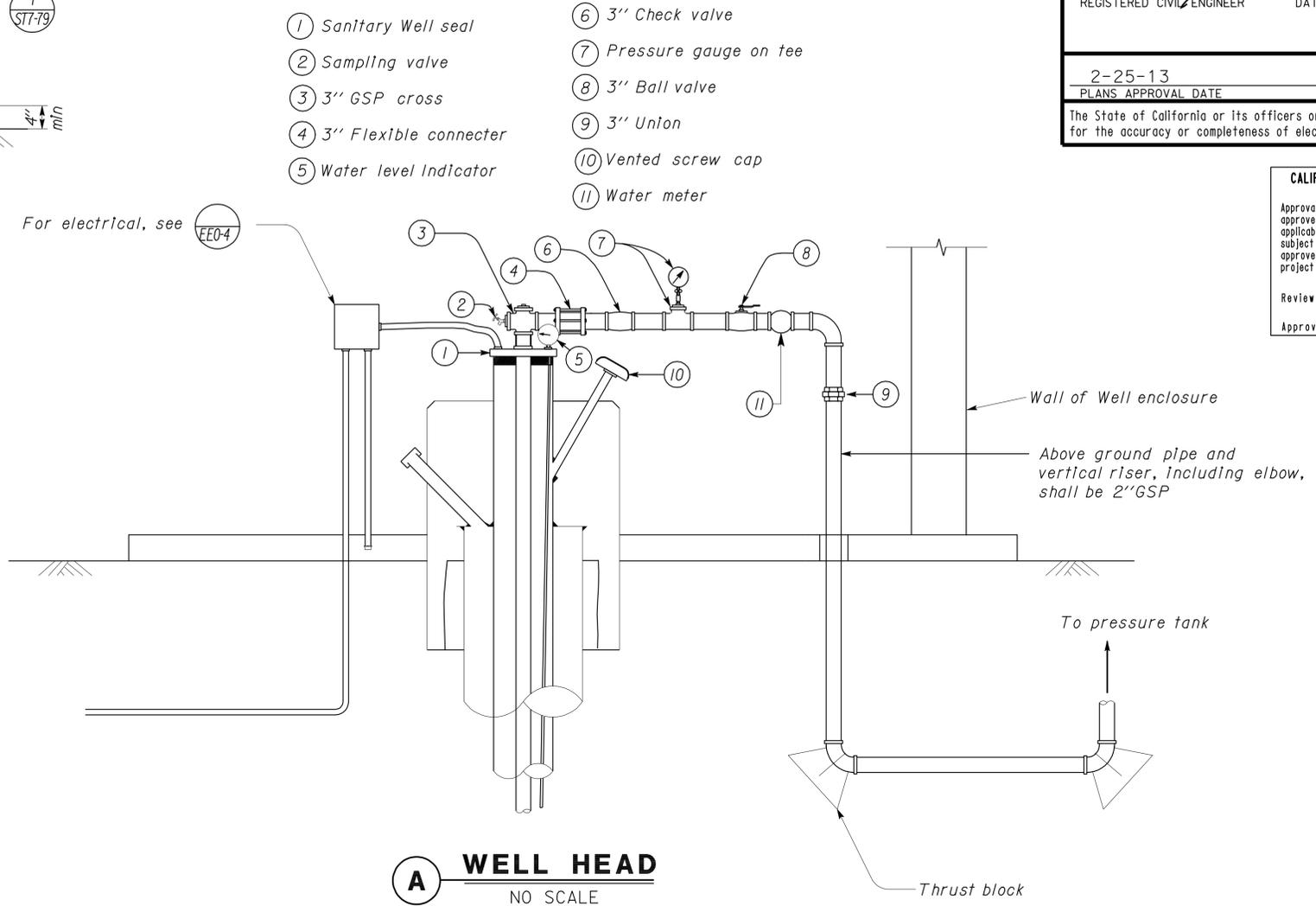
BRIDGE NO.	54-1216J
POST MILE	87.1/87.5

MOUNTAIN PASS JPOE
 CVEF WATER TREATMENT SYSTEM PLAN

SHEET W7-2 OF



1 WATER WELL-SECTION
NO SCALE



A WELL HEAD
NO SCALE

EQUIPMENT SCHEDULE						
EQUIPMENT	SPEED (RPM)	HP	VOLTS	PHASE	PUMPING RATE (GPM)	TOTAL DYNAMIC HEAD (FT)
WELL PUMP	3450	20	460	3	60	520
					80	540
					100	560

- Notes:**
- Exact locations and lengths of well screen sections shall be determined from well testing data. For bidding purposes, use 75' screen length.
 - Actual depth of well pump shall be determined from well testing data. For bidding purposes, use depth 475'.
 - Enclosure for well, 6'-0" x min 3'-0". See Architect plans.
 - Apply heat tape to all exposed piping.

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