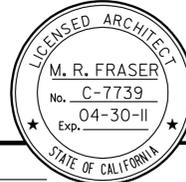


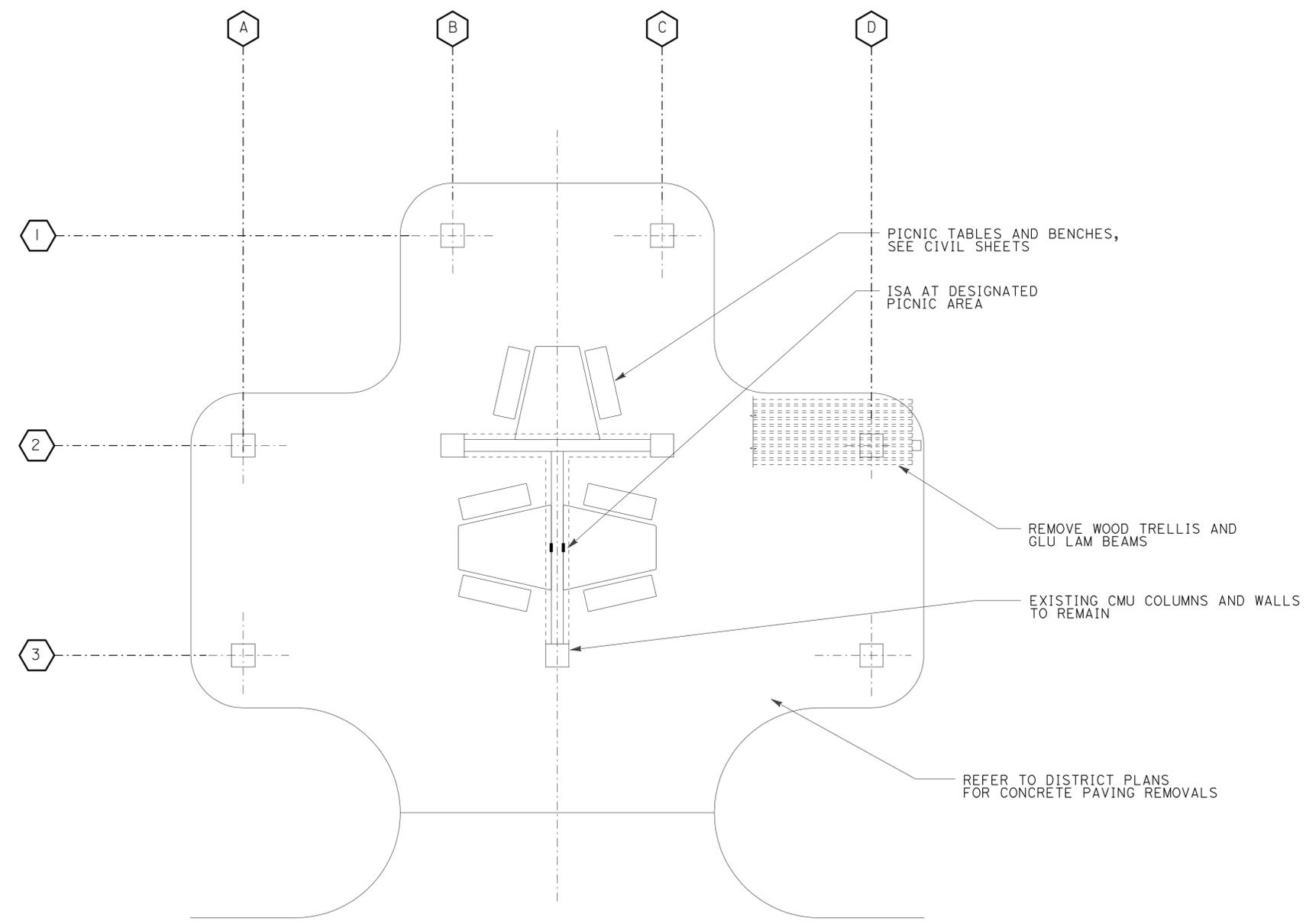
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	201	335

  
 LICENSED ARCHITECT DATE \_\_\_\_\_



8-9-10  
PLANS APPROVAL DATE

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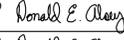
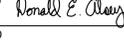


<b>ACCESSIBILITY DESIGN APPROVAL STAMP</b> DOT / DES / OTA <b>06-0A9701</b> DISTRICT - EA  Reviewed by:  Date: 12-21-09	<b>CALIFORNIA STATE FIRE MARSHAL APPROVED</b> Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.  Reviewed by:  SANDY MARGULLIS Approval date: 12-1-09
--	--

**PICNIC SHELTER REMOVAL PLAN**

1/4" = 1'-0"

NORTHBOUND SHOWN, SOUTHBOUND SIMILAR

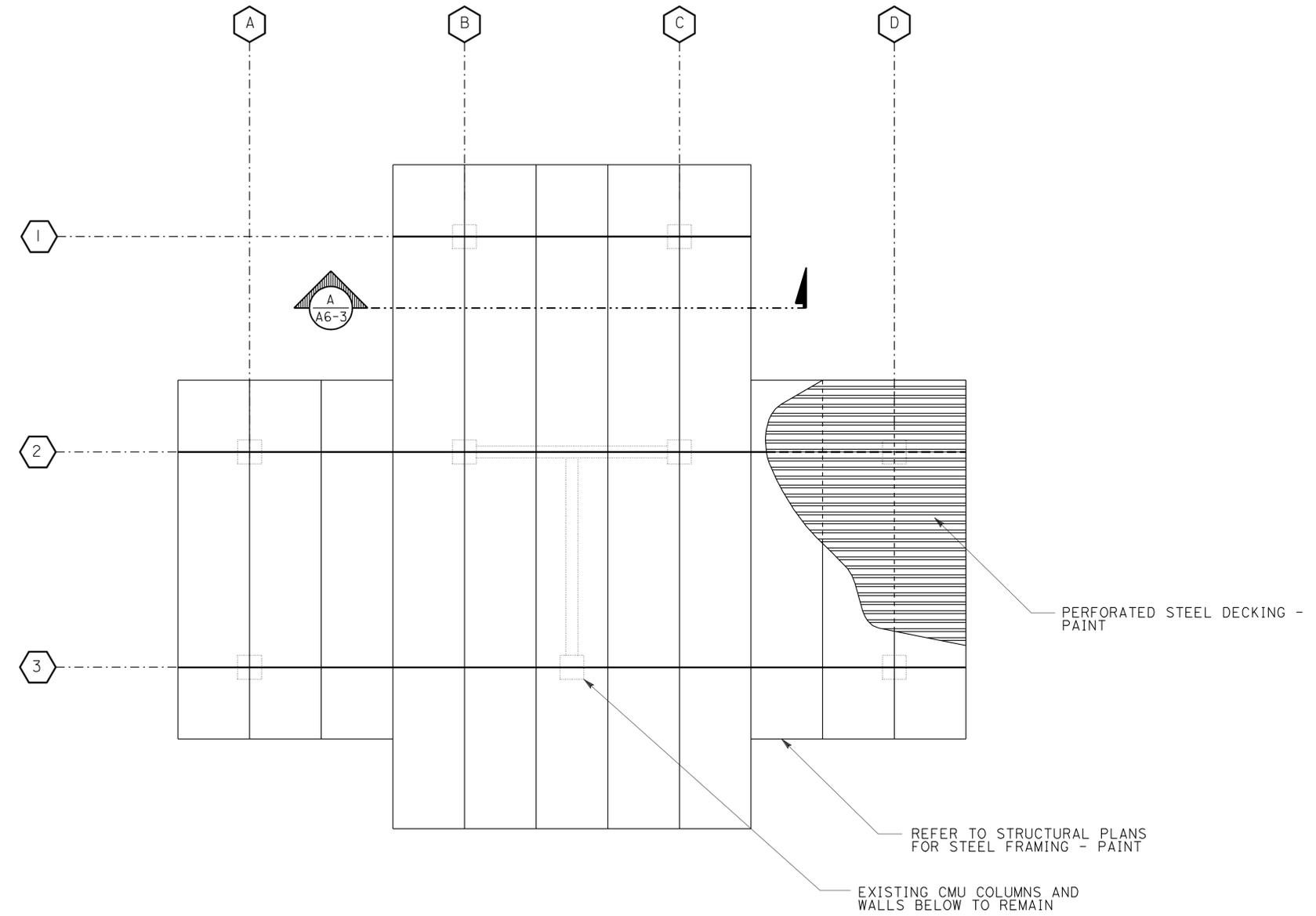
A6_1.dgn DS OSD Imperial Rev. 11/98 13-AUG-2010 16:22	DESIGN BY MARTIN R. FRASER CHECKED 	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R	<b>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</b>	SHEET OF <b>A6-1</b>
	DETAILS BY C. R. ZERIO CHECKED 			POST MILE 22.45/22.40		
	QUANTITIES BY _____ CHECKED _____	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 06 340 EA 06-0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES (PRELIMINARY STAGE ONLY) XX-XX-XX	SHEET OF X X

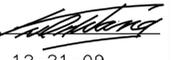
13-AUG-2010 16:22

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	202	335

  
 LICENSED ARCHITECT \_\_\_\_\_ DATE \_\_\_\_\_  
 8-9-10  
 PLANS APPROVAL DATE  
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LICENSED ARCHITECT  
 M. R. FRASER  
 No. C-7739  
 Exp. 04-30-11  
 STATE OF CALIFORNIA



ACCESSIBILITY DESIGN APPROVAL STAMP DOT / DES / OTA <b>06-0A9701</b> DISTRICT - EA  Reviewed by:  Date: 12-21-09	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:  SANDY MARGULLIS Approval date: 12-1-09
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**PICNIC SHELTER ROOF PLAN**

1/4" = 1'-0"

NORTHBOUND SHOWN, SOUTHBOUND SIMILAR

A6_2.dgn DS OSD Imperial Rev. 11/98 13-AUG-2010 16:22	DESIGN BY MARTIN R. FRASER CHECKED <i>Ronald E. Alvey</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R	<b>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</b>	SHEET <b>A6-2</b>
	DETAILS BY C. R. ZERIO CHECKED <i>Ronald E. Alvey</i>			POST MILE 22.45/22.40		
	QUANTITIES BY _____ CHECKED _____	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 06 340 EA 06-0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES (PRELIMINARY STAGE ONLY) XX-XX-XX	SHEET OF X X

13-AUG-2010 16:22

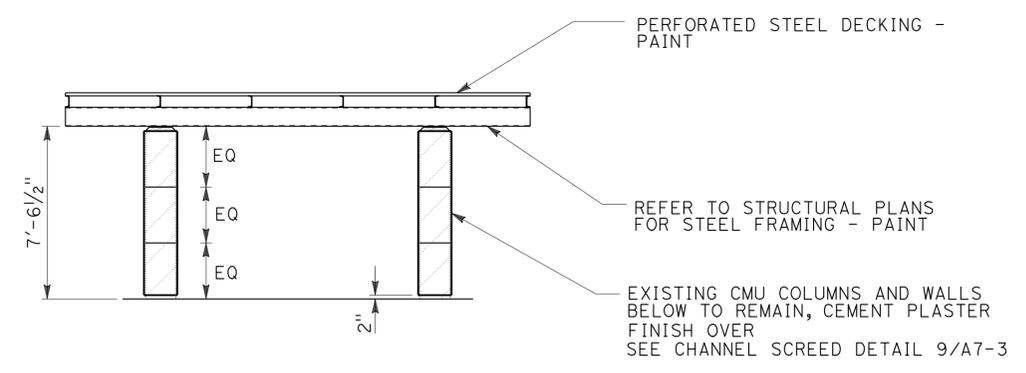
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	203	335

  
 LICENSED ARCHITECT \_\_\_\_\_ DATE \_\_\_\_\_  
 8-9-10  
 PLANS APPROVAL DATE



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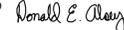
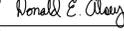
<b>ACCESSIBILITY DESIGN APPROVAL STAMP</b> DOT / DES / OTA <b>06-0A9701</b> DISTRICT - EA  Reviewed by:  Date: 12-21-09	<b>CALIFORNIA STATE FIRE MARSHAL APPROVED</b> Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.  Reviewed by:  SANDY MORGULLIS Approval date: 12-1-09
--	--



**A. PICNIC SHELTER SECTION**

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

NORTHBOUND SHOWN, SOUTHBOUND SIMILAR

A6_3.dgn DS OSD Imperial Rev. 11/98 04-OCT-2010 14:27	DESIGN	BY MARTIN R. FRASER	CHECKED 	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	<b>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</b>  PICNIC SHELTER SECTION	SHEET	
	DETAILS	BY C. R. ZERIO	CHECKED 			46R0001L 46R0001R		PHILIP S. RAINE SAFETY ROADSIDE REST AREA PICNIC SHELTER SECTION	OF
	QUANTITIES	BY	CHECKED			POST MILE 22.45/22.40			REVISION DATES (PRELIMINARY STAGE ONLY) XX-XX-XX
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	CU 06 340 EA 06-0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	XX-XX-XX	X X	

04-OCT-2010 14:27

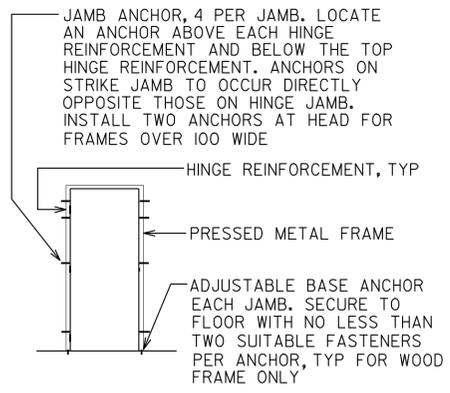
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	204	335

  
 LICENSED ARCHITECT DATE \_\_\_\_\_  
 8-9-10  
 PLANS APPROVAL DATE \_\_\_\_\_  
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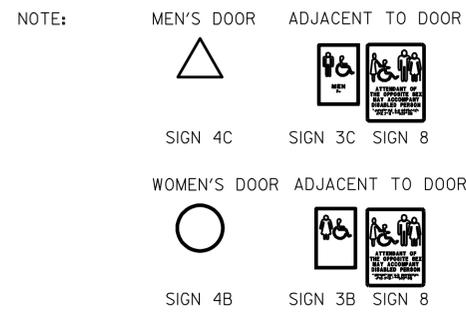


OPNG No.	NOMINAL DR OPNG SIZE		THICKNESS	DOOR TYPE	DOOR MATERIAL	HARDWARE GROUP	LOUVER	FRAME		DOOR DETAILS (SHEET A7-2)			SIGNS	TEXT
	WIDTH	HT						MTL	DIM	HEAD	JAMB	THLD		
1	3'-0"	8'-0"	1 3/4"	A	METAL	1	---	METAL	7 3/4"	1	1	5	SEE NOTE	SEE NOTE
2	3'-0"	8'-0"	1 3/4"	A	METAL	2	---	METAL	7 3/4"	1	1	5	1 & 6/A0-3.3	UTILITY
3	6'-0"	8'-0"	1 3/4"	B	METAL	4	---	METAL	7 3/4"	1 SIM	1 SIM	6	1 & 6/A0-3.3	UTILITY
4	3'-0"	7'-2"	1 3/4"	A	METAL	2	---	METAL	7 3/4"	3	3	6	1 & 6/A0-3.3	CHP
5	6'-0"	7'-2"	1 3/4"	B	METAL	4	---	METAL	7 3/4"	2	2	6	1 & 6/A0-3.3	UTILITY
6	3'-0"	7'-2"	1 3/4"	A	METAL	2	---	METAL	7 3/4"	3	3	6	1 & 6/A0-3.3	CREW ROOM
7	3'-0"	7'-2"	1 3/4"	C	WOOD	3	---	METAL	7 3/4"	4	4	8	SEE NOTE	SEE NOTE
8	3'-0"	6'-8"	1 3/4"	A	METAL	2	---	METAL	7 3/4"	3 *	3 *	7 *	1 & 6/A0-3.3	STORAGE

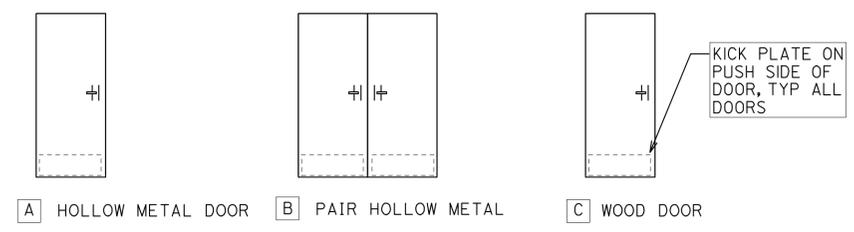
\* SIMILAR STEEL STUD FRAMING



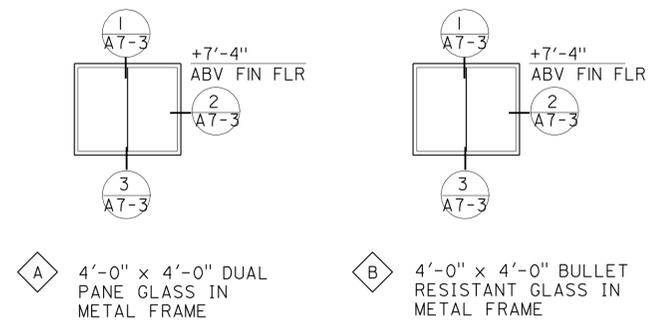
**1 TYPICAL DOOR FRAME ANCHORAGE**  
NO SCALE



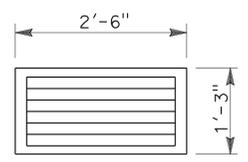
ALL ROOM IDENTIFICATION SIGNS SHALL BE LOCATED AND INSTALLED AS PER DETAIL 5 AND SIGNAGE NOTES ON SHEET A0-3.3.



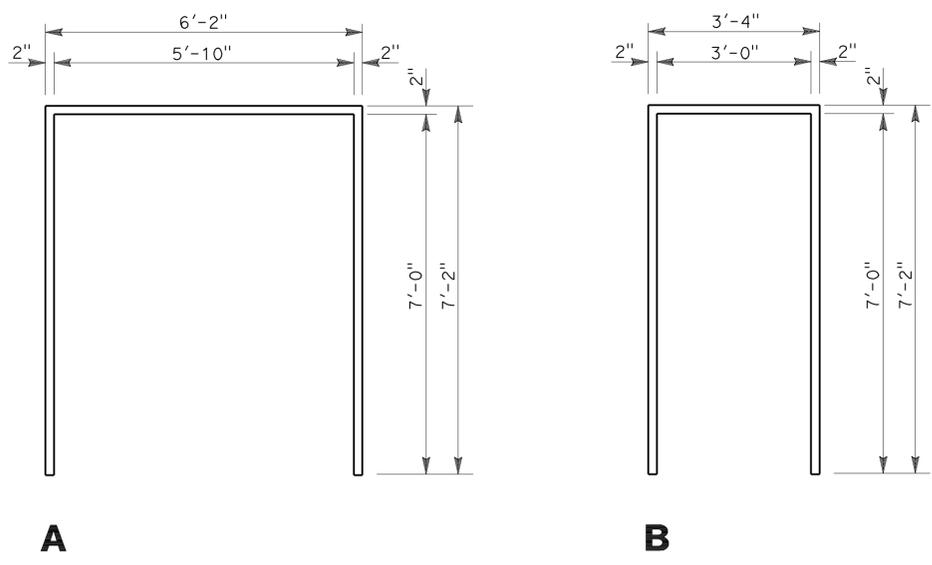
**DOOR TYPES**  
NO SCALE



**WINDOW TYPES**  
NO SCALE



**LOUVER**  
NO SCALE



**FRAME TYPES**  
NO SCALE

DESIGN	BY MARTIN R. FRASER	CHECKED <i>Donnell E. Alvey</i>
DETAILS	BY MARTIN R. FRASER	CHECKED <i>Donnell E. Alvey</i>
QUANTITIES	BY	CHECKED

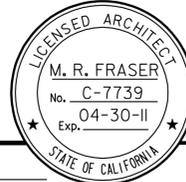
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

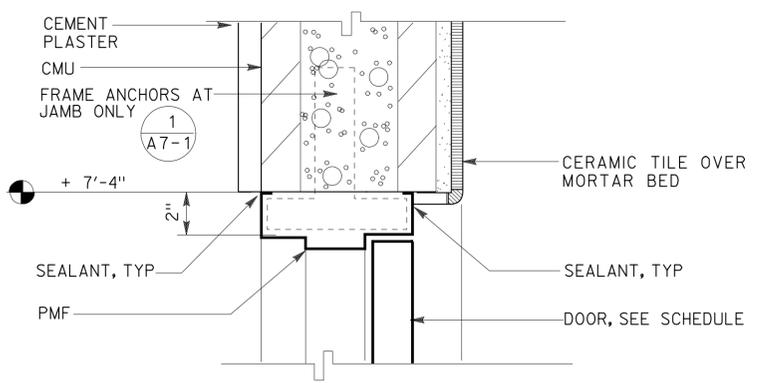
BRIDGE NO. 46R0001L  
46R0001R  
POST MILE 22.45/22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
DOOR, WINDOW AND LOUVER SCHEDULES

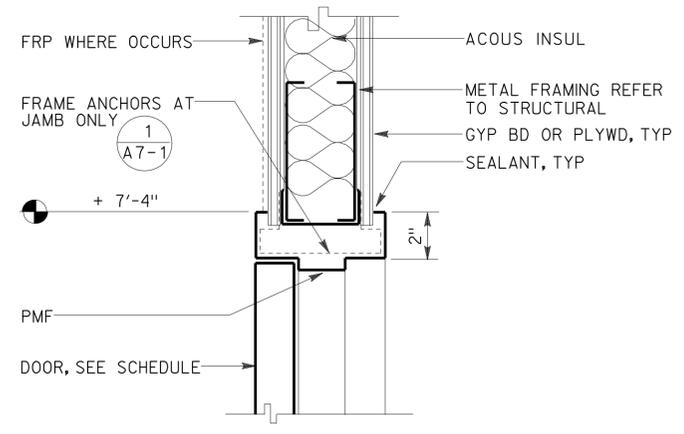
SHEET **A7-1**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	205	335
 LICENSED ARCHITECT DATE _____					
8-9-10 PLANS APPROVAL DATE					
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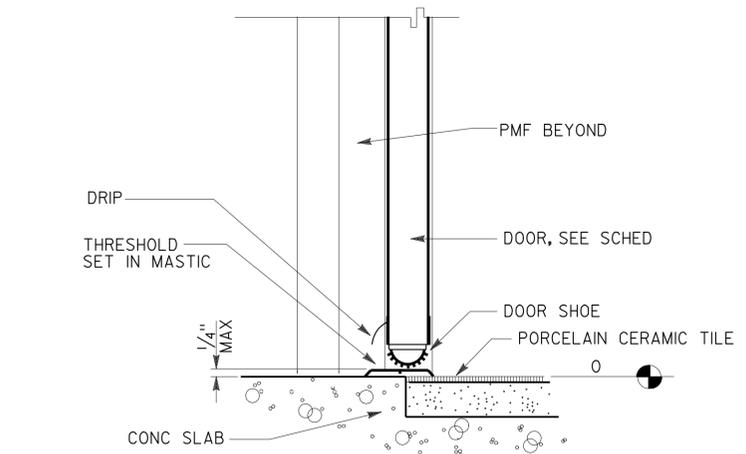
ACCESSIBILITY DESIGN APPROVAL STAMP DOT / DES / OTA <b>06-0A9701</b> DISTRICT - EA  Reviewed by:  Date: 12-21-09	CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approvals subject to field inspection. One set of approved plans shall be available on the project site at all times.  Reviewed by:  SANDY MARGULLIS Approval date: 12-1-09
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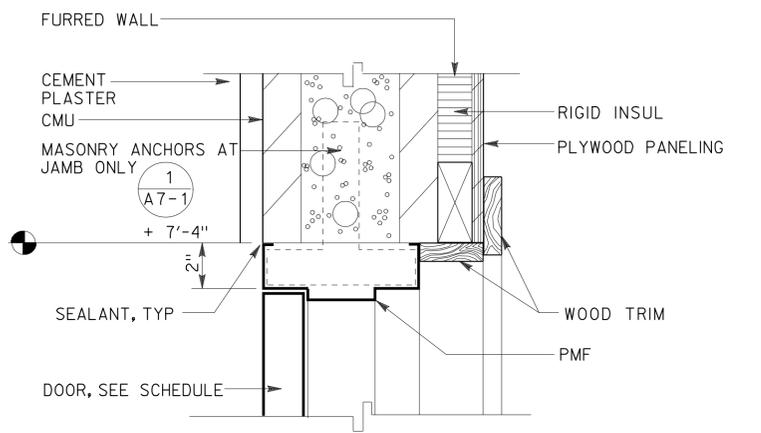
**1** **EXTERIOR DOOR HEAD** (JAMB SIMILAR)  
3" = 1'-0"



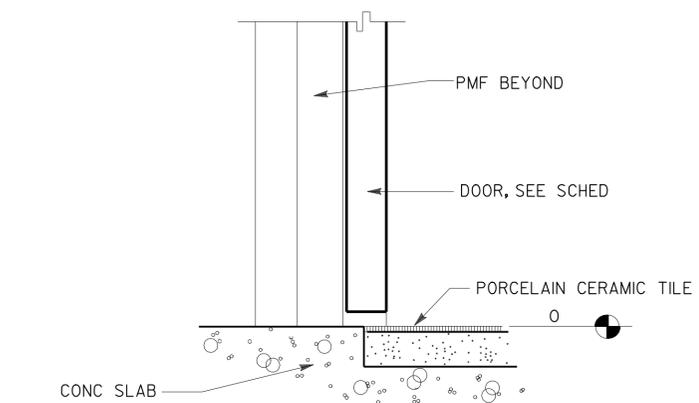
**4** **INTERIOR DOOR HEAD** (JAMB SIMILAR)  
3" = 1'-0"



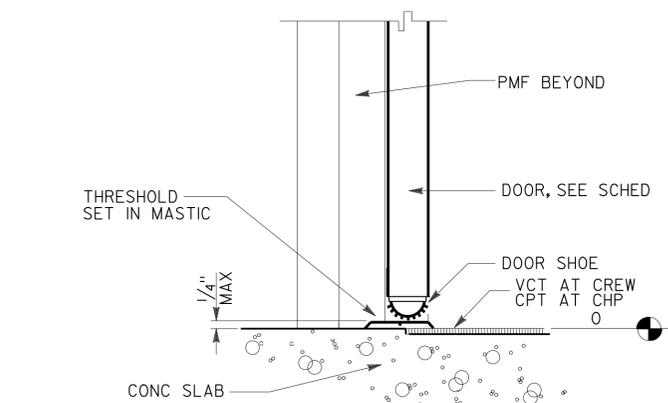
**7** **INTERIOR DOOR THRESHOLD**  
3" = 1'-0"



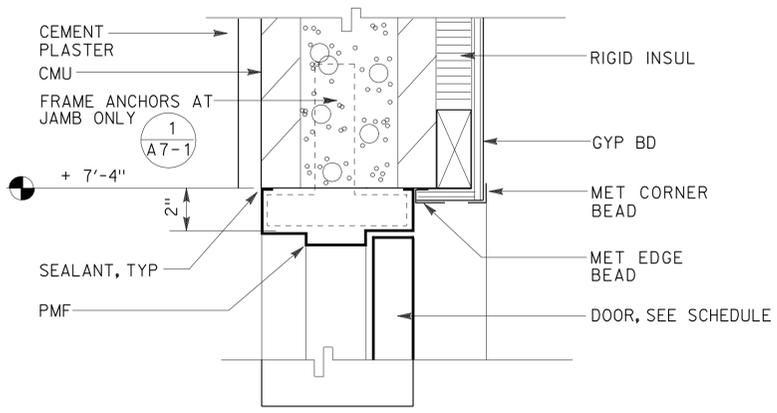
**2** **EXTERIOR DOOR HEAD** (JAMB SIMILAR)  
3" = 1'-0"



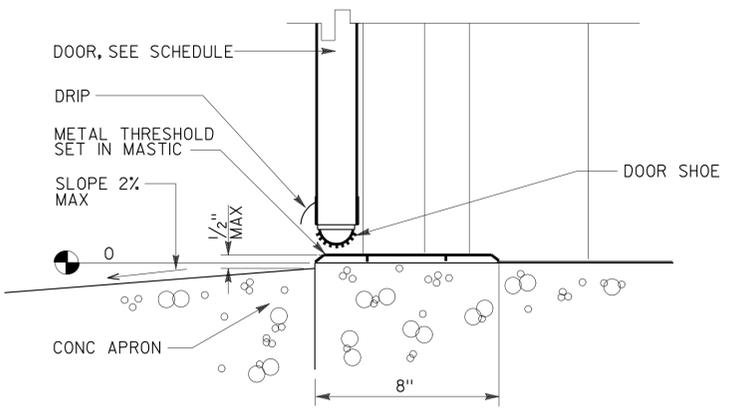
**5** **EXTERIOR DOOR THRESHOLD**  
3" = 1'-0"



**8** **INTERIOR DOOR THRESHOLD**  
3" = 1'-0"



**3** **EXTERIOR DOOR HEAD** (JAMB SIMILAR)  
3" = 1'-0"



**6** **EXTERIOR DOOR THRESHOLD**  
3" = 1'-0"

a7_2.dgn DS OSD Imperial Rev. 11/98 13-AUG-2010 16:23	DESIGN	BY MARTIN R. FRASER	CHECKED <i>Donnell E. Alvey</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45/22.40	PHILIP S. RAINE SAFETY ROADSIDE REST AREA DOOR AND WINDOW DETAILS	SHEET
	DETAILS	BY MARTIN R. FRASER	CHECKED <i>Donnell E. Alvey</i>			EA 06-0A9701		OF
QUANTITIES				CHECKED	CU 06 340 EA 06-0A9701	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES		OF	

13-AUG-2010 16:23 a7\_2.dgn

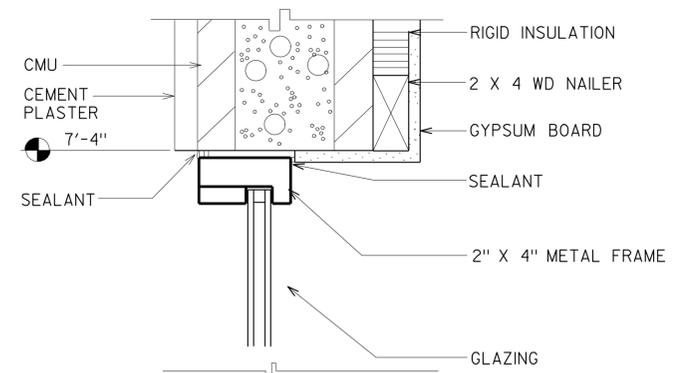
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	206	335

  
 LICENSED ARCHITECT DATE \_\_\_\_\_  
 8-9-10  
 PLANS APPROVAL DATE  
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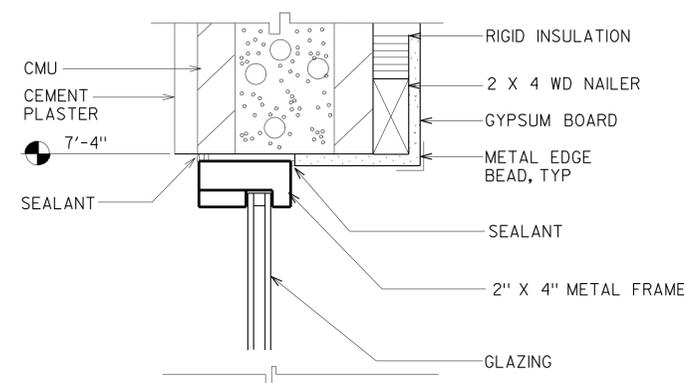


**ACCESSIBILITY DESIGN APPROVAL STAMP**  
 DOT / DES / OTA  
**06-0A9701**  
 DISTRICT - EA  
 Reviewed by:   
 Date: 12-21-09

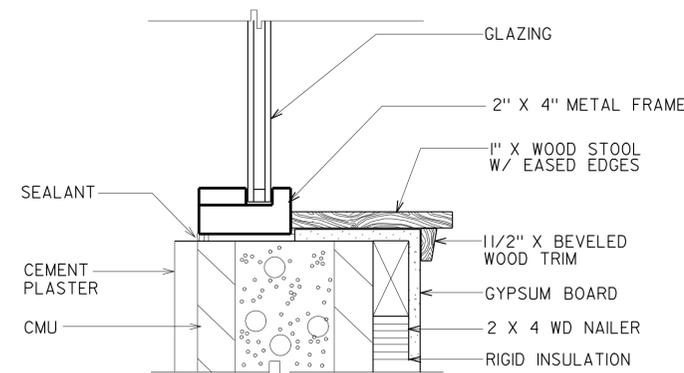
**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
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 Reviewed by:   
 SANDY MARGULLIS  
 Approval date: 12-1-09



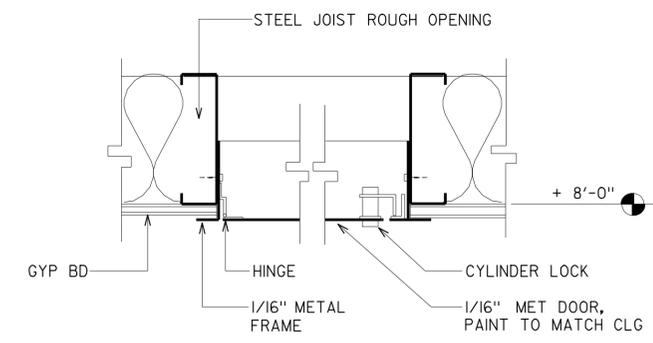
**1 WINDOW HEAD**  
3" = 1'-0"



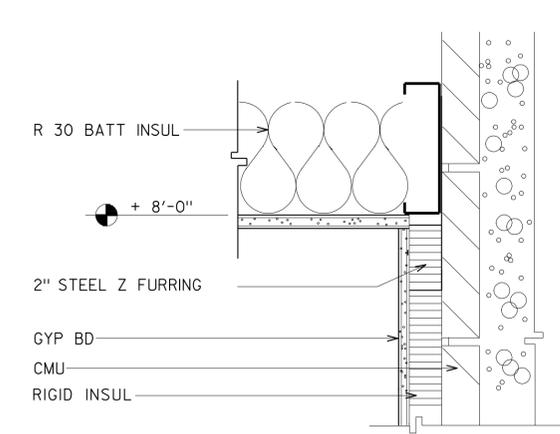
**2 WINDOW JAMB**  
3" = 1'-0"



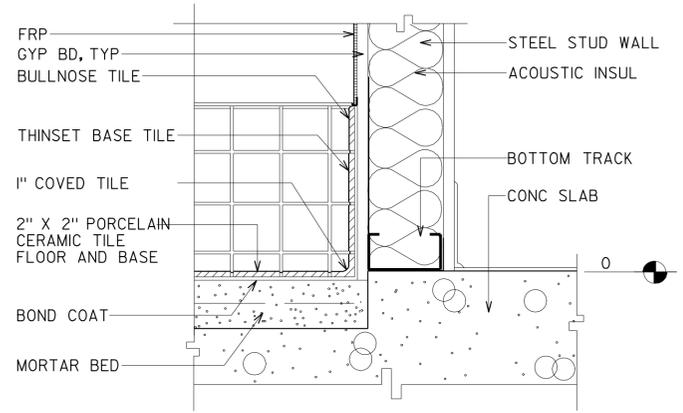
**3 WINDOW SILL**  
3" = 1'-0"



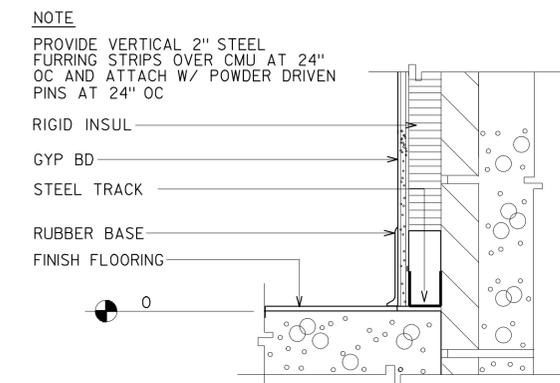
**4 ATTIC ACCESS**  
3" = 1'-0"



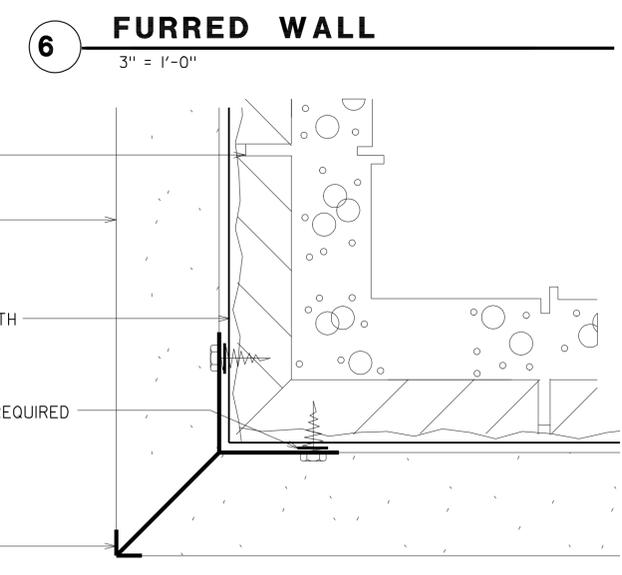
**CEILING**



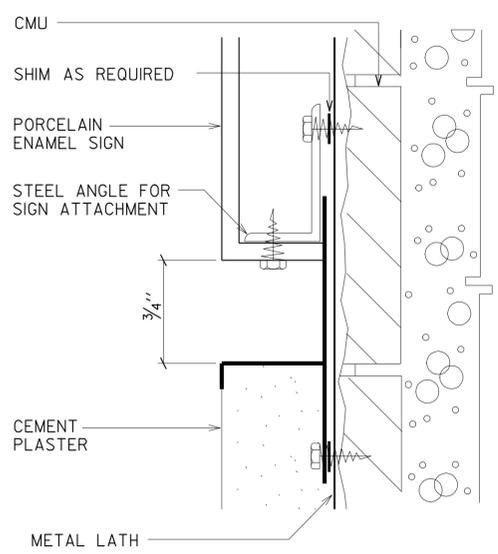
**5 CERAMIC TILE BASE**  
3" = 1'-0"



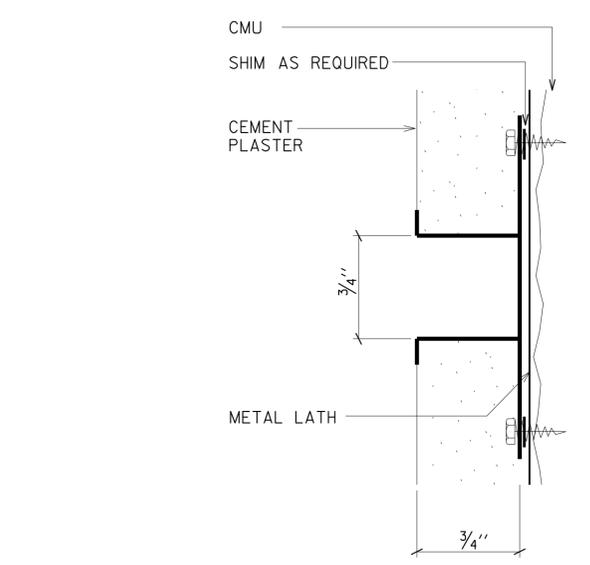
**FLOOR**



**6 FURRED WALL**  
3" = 1'-0"



**7 T REVEAL**  
1/2" = 1'-0"

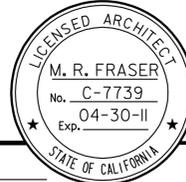


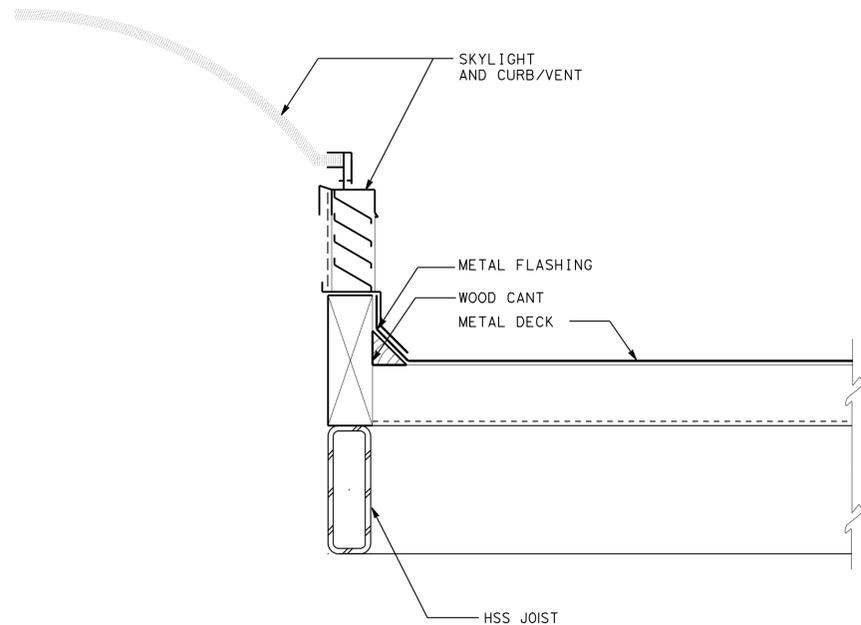
**9 CHANNEL SCREED**  
1/2" = 1'-0"

**8 CORNER KEY**  
1/2" = 1'-0"

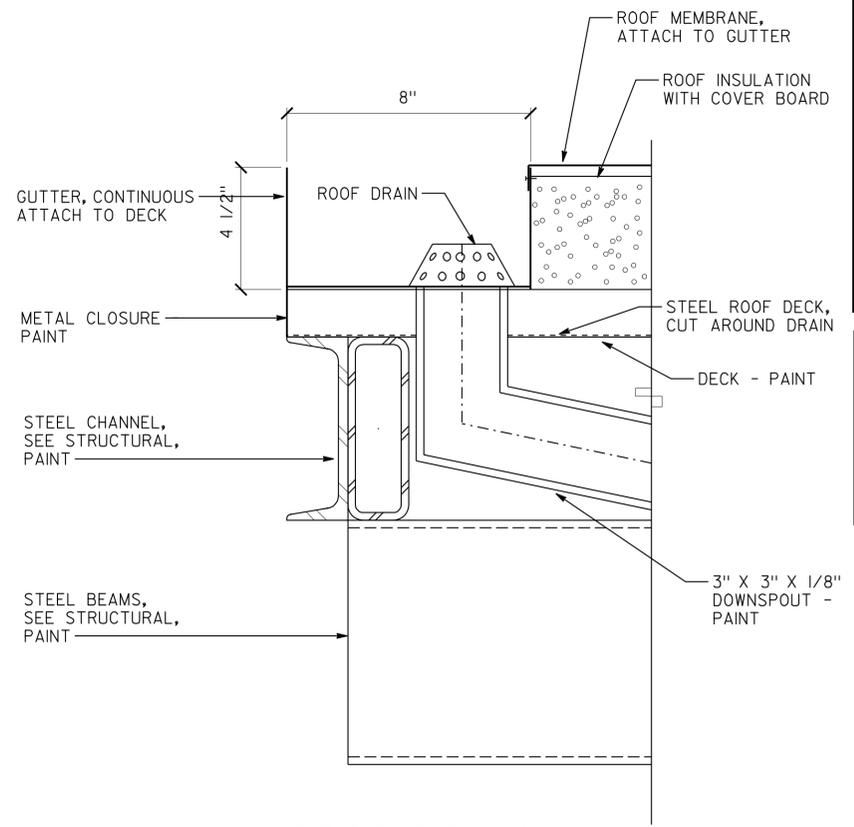
a7_3.dgn DS OSD Imperial Rev. 11/98 16-AUG-2010 05:42	DESIGN	BY MARTIN R. FRASER	CHECKED <i>Donnell E. Alvey</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET
	DETAILS	BY MARTIN R. FRASER	CHECKED <i>Donnell E. Alvey</i>			POST MILE 22.45/22.40		WINDOW AND MISCELLANEOUS DETAILS
	QUANTITIES	BY	CHECKED	CU 06 340 EA 06-0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF

16-AUG-2010 05:42 a7\_3.dgn

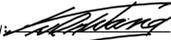
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	207	335
 LICENSED ARCHITECT DATE _____					
PLANS APPROVAL DATE 8-9-10 <i>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</i>					

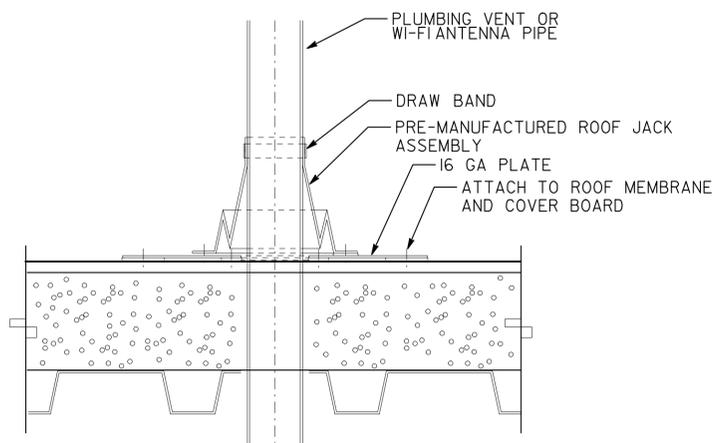


**1 SKYLIGHT**  
NO SCALE

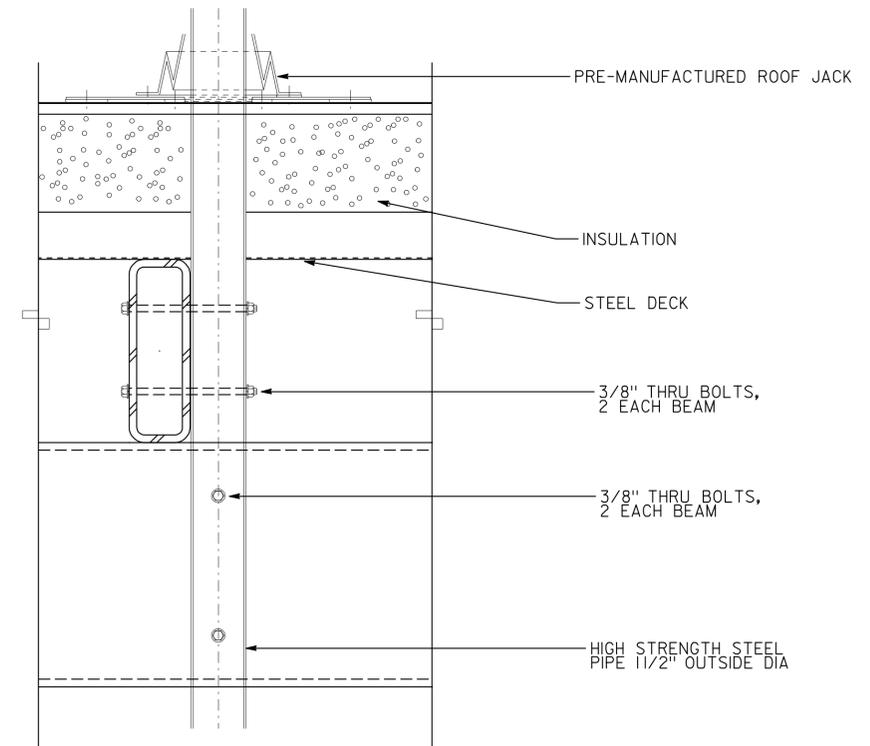


**2 ROOF DRAIN**  
3" = 1'-0"

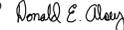
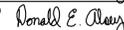
<b>ACCESSIBILITY DESIGN APPROVAL STAMP</b> DOT / DES / OTA <b>06-0A9701</b> DISTRICT - EA Reviewed by:  Date: 12-21-09	<b>CALIFORNIA STATE FIRE MARSHAL APPROVED</b> Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by:  SANDY MARGULLIS Approval date: 12-1-09
--	--



**3 PIPE PENETRATION THRU ROOF-SECTION**  
3" = 1'-0"



**4 WI-FI ANTENNA PIPE**  
3" = 1'-0"

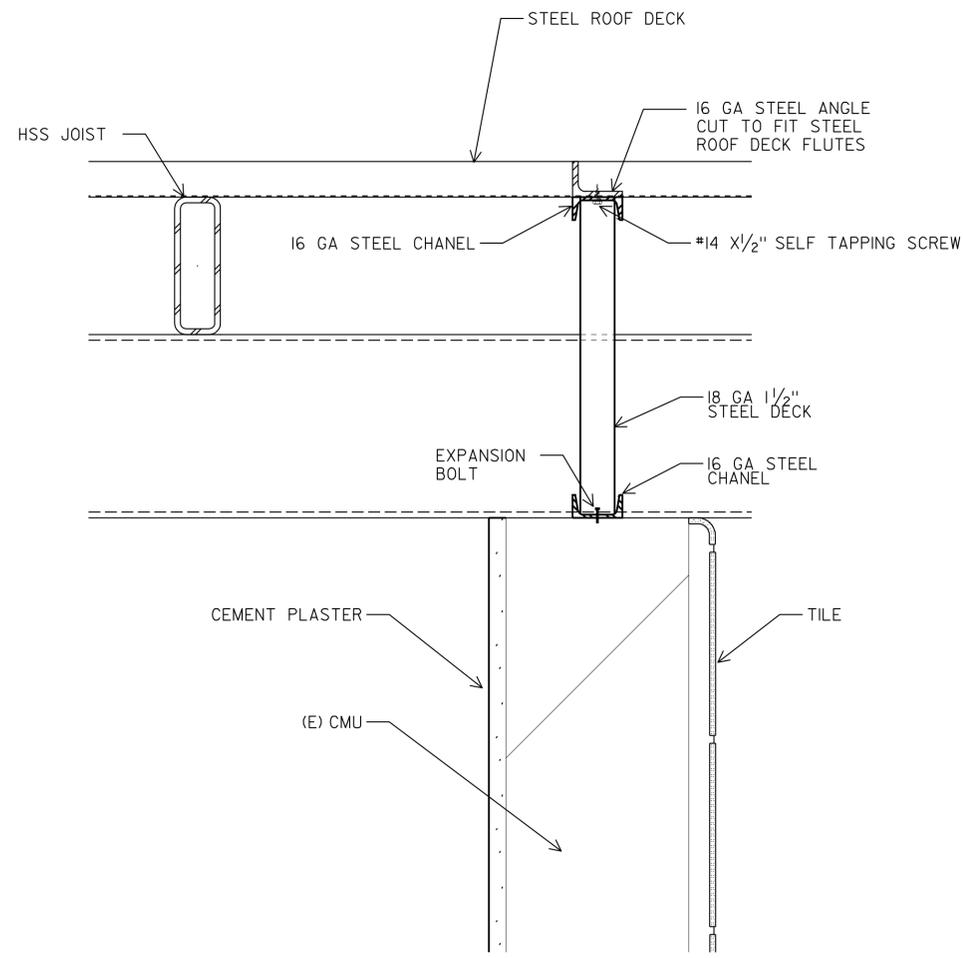
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	DETAILS	BY MARTIN R. FRASER	CHECKED 			POST MILE 22.45/22.40			
	QUANTITIES	BY	CHECKED				ROOF DETAILS		
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	CU 06 340 EA 06-0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

04-OCT-2010 14:46 a7\_4.dgn

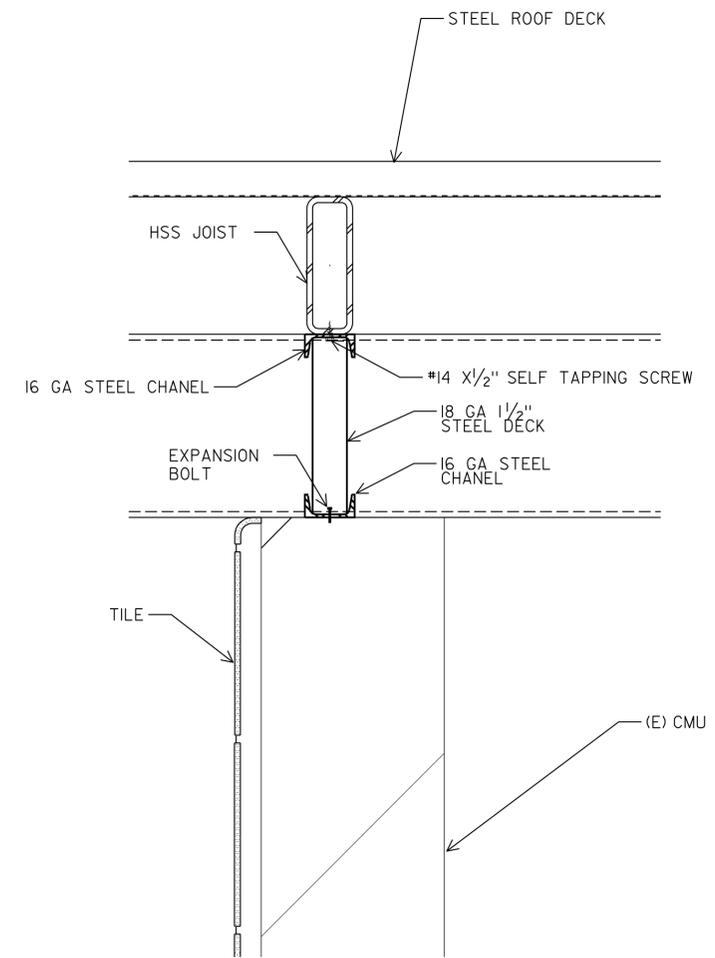
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	208	335

  
 LICENSED ARCHITECT DATE \_\_\_\_\_  
 LICENSED ARCHITECT No. C-7739 Exp. 04-30-11  
 STATE OF CALIFORNIA

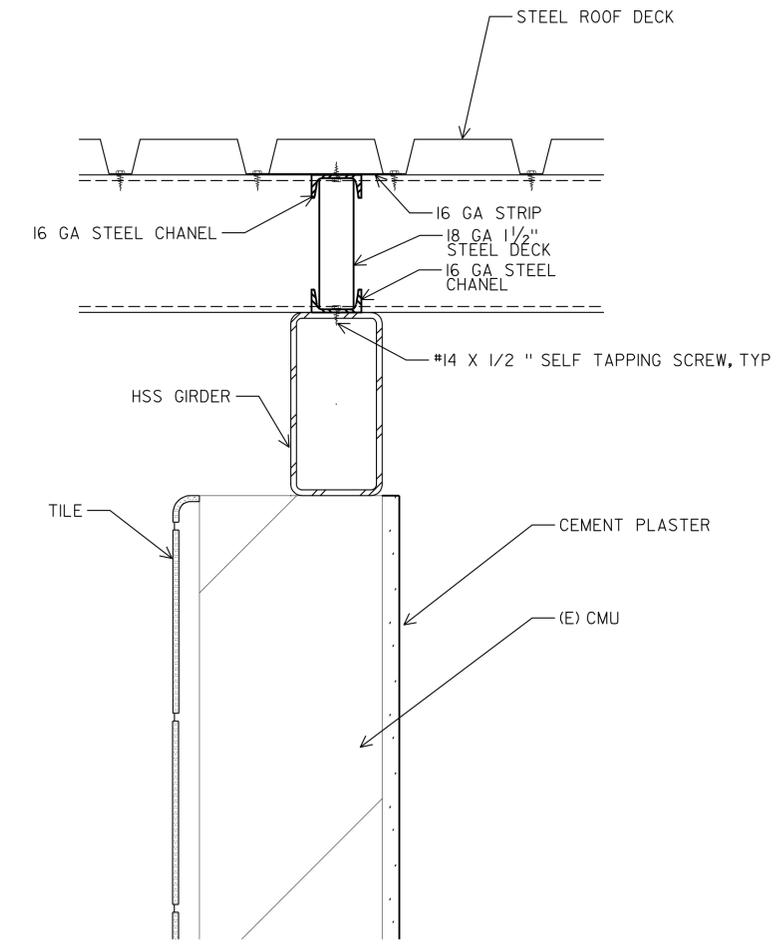
8-9-10  
 PLANS APPROVAL DATE  
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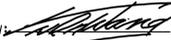
**A SECTION**  
3" = 1'-0"



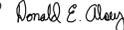
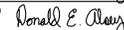
**B SECTION**  
3" = 1'-0"



**C SECTION**  
3" = 1'-0"

**ACCESSIBILITY DESIGN APPROVAL STAMP**  
 DOT / DES / OTA  
**06-0A9701**  
 DISTRICT - EA  
 Reviewed by:   
 Date: 12-21-09

**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:   
 SANDY MARGULLIS  
 Approval date: 12-1-09

A7_5.dgn DS OSD Imperial Rev. 11/98 16-AUG-2010 05:43	DESIGN BY	MARTIN R. FRASER	CHECKED		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	<b>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</b> DETAIL AT TOP OF WALLS	SHEET	OF	
	DETAILS BY	C. R. ZERIO	CHECKED				POST MILE	22.45/22.40		REVISION DATES (PRELIMINARY STAGE ONLY)		
QUANTITIES BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	CU 06 340 EA 06-0A9701		DISREGARD PRINTS BEARING EARLIER REVISION DATES		

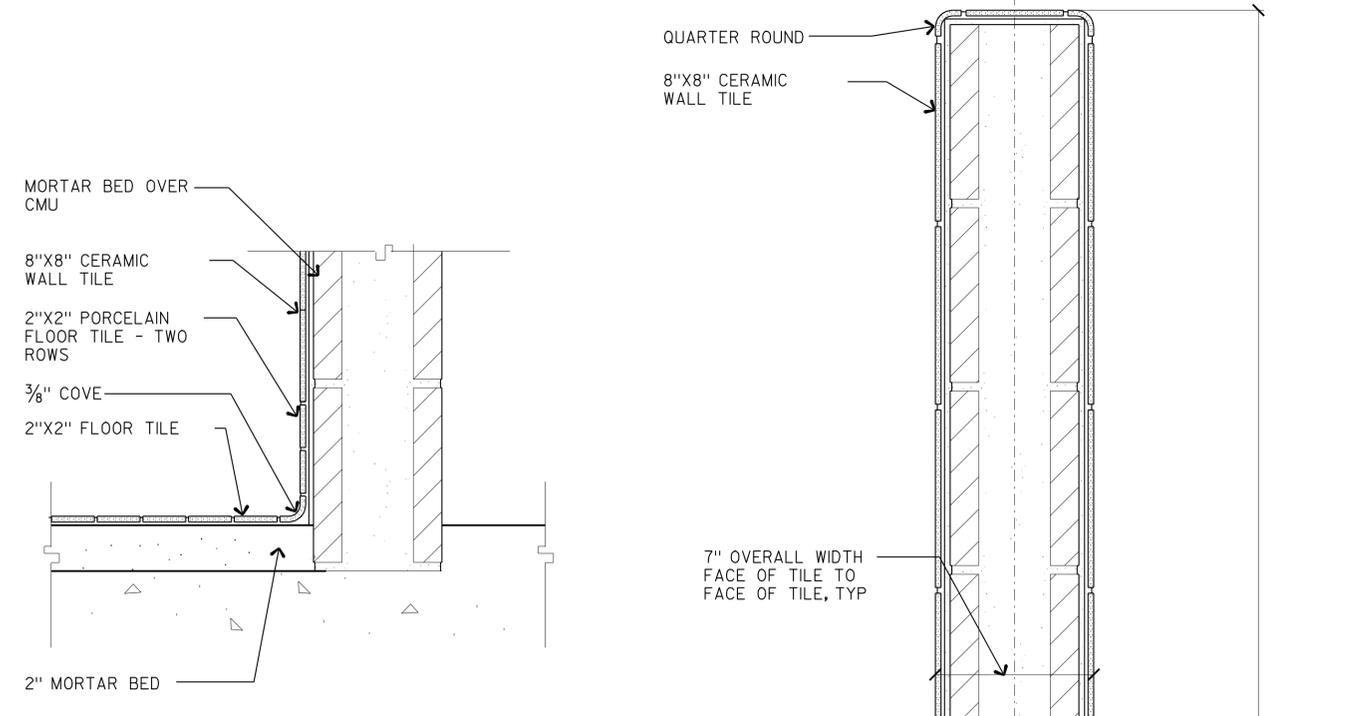
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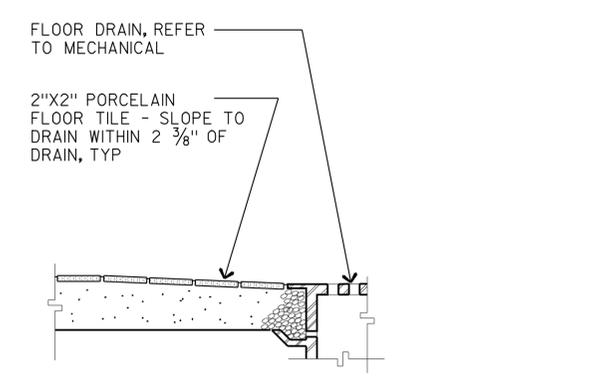
MRJ  
 LICENSED ARCHITECT DATE  
 8-9-10  
 PLANS APPROVAL DATE  
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LICENSED ARCHITECT  
 M. R. FRASER  
 No. C-7739  
 Exp. 04-30-11  
 STATE OF CALIFORNIA

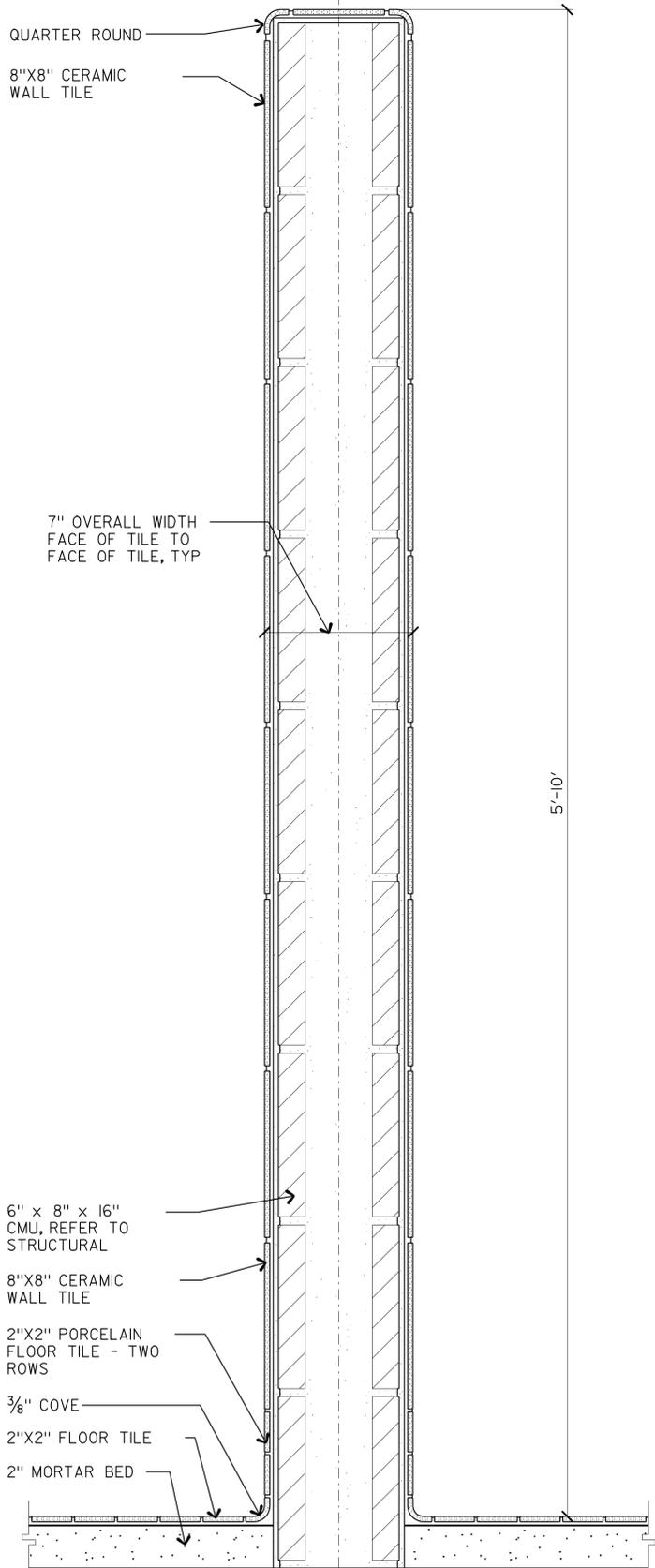
ACCESSIBILITY DESIGN APPROVAL STAMP DOT / DES / OTA <b>06-0A9701</b> DISTRICT - EA Reviewed by: <i>[Signature]</i> Date: 12-21-09	CALIFORNIA STATE FIRE MARSHAL APPROVED Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by: <i>[Signature]</i> SANDY MARGULLIS Approval date: 12-1-09
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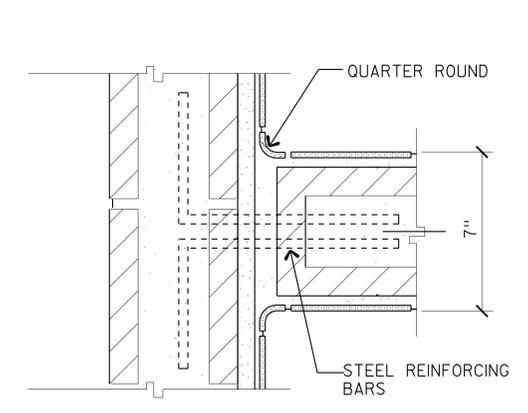
**1 CERAMIC TILE BASE**  
3" = 1'-0"



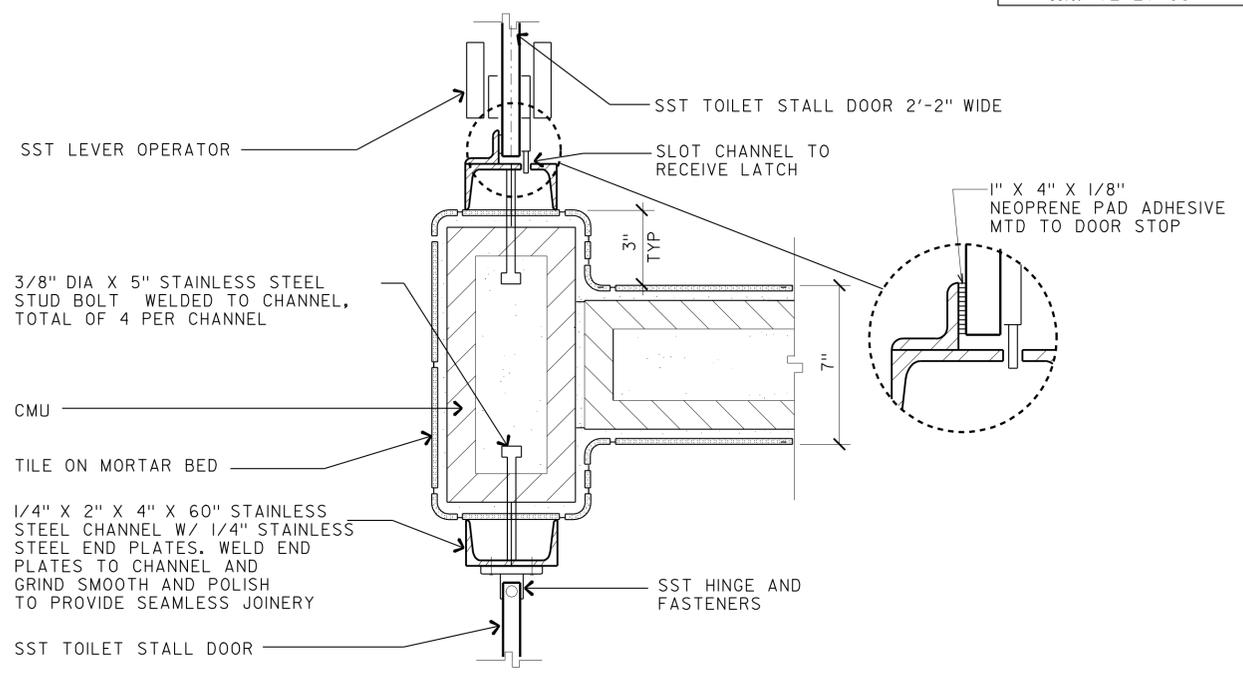
**2 FLOOR DRAIN AT TILE**  
3" = 1'-0"



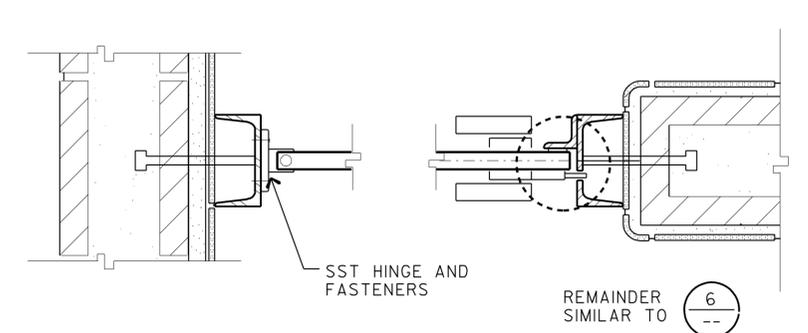
**3 CMU TOILET PARTITION**  
3' = 1'-0"



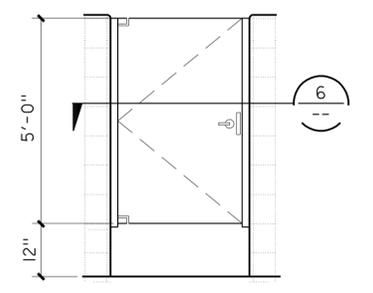
**4 WALL INTERSECTION**  
3" = 1'-0"



**5 TOILET DOOR - JAMB AT TYP TOILET STALL**  
3" = 1'-0"



**6 TOILET DOOR - JAMB AT ACCESSIBLE TOILET STALL**  
3" = 1'-0"



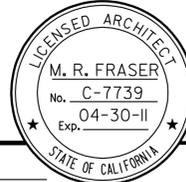
**7 TOILET DOOR**  
NO SCALE

a7_6.dgn DS OSD Imperial Rev. 11/98 16-AUG-2010 05:43	DESIGN BY MARTIN R. FRASER	CHECKED <i>Ronald E. Alvey</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET A7-6
	DETAILS BY MARTIN R. FRASER	CHECKED <i>Ronald E. Alvey</i>			POST MILE 22.45/22.40		
	QUANTITIES BY	CHECKED	CU 06 340	EA 06-0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

16-AUG-2010 05:43 a7\_6.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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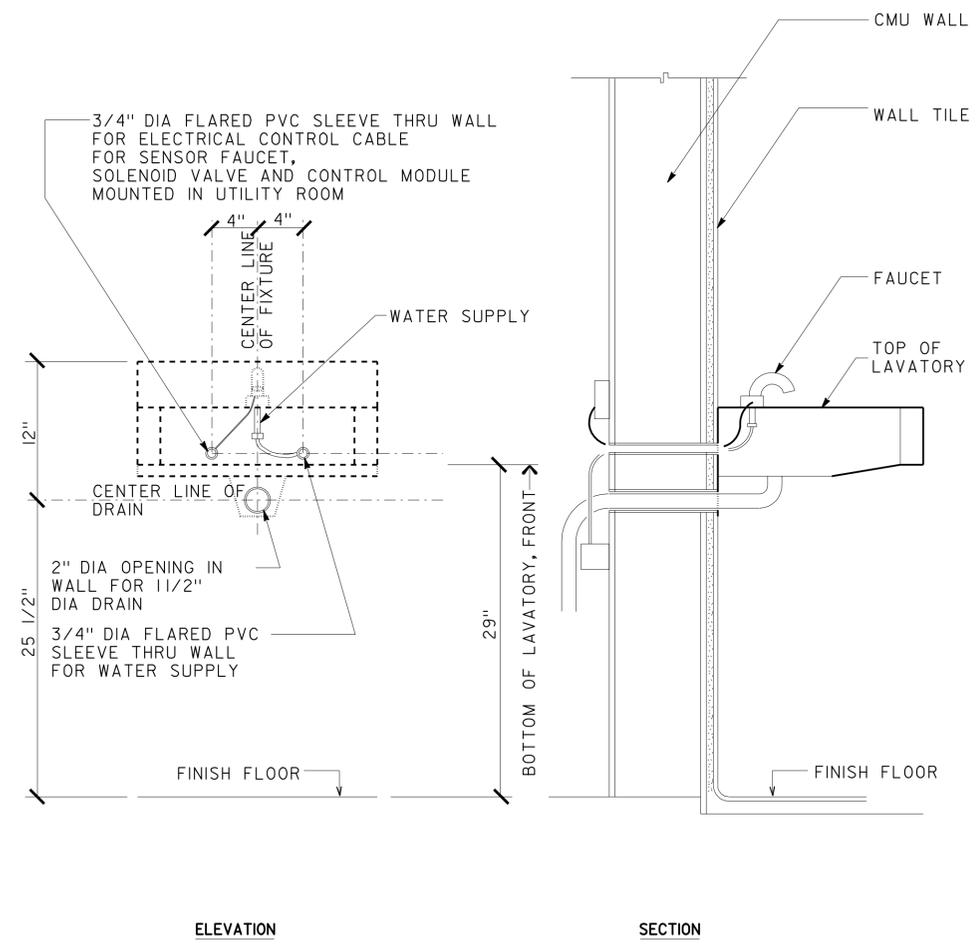
  
 LICENSED ARCHITECT DATE \_\_\_\_\_



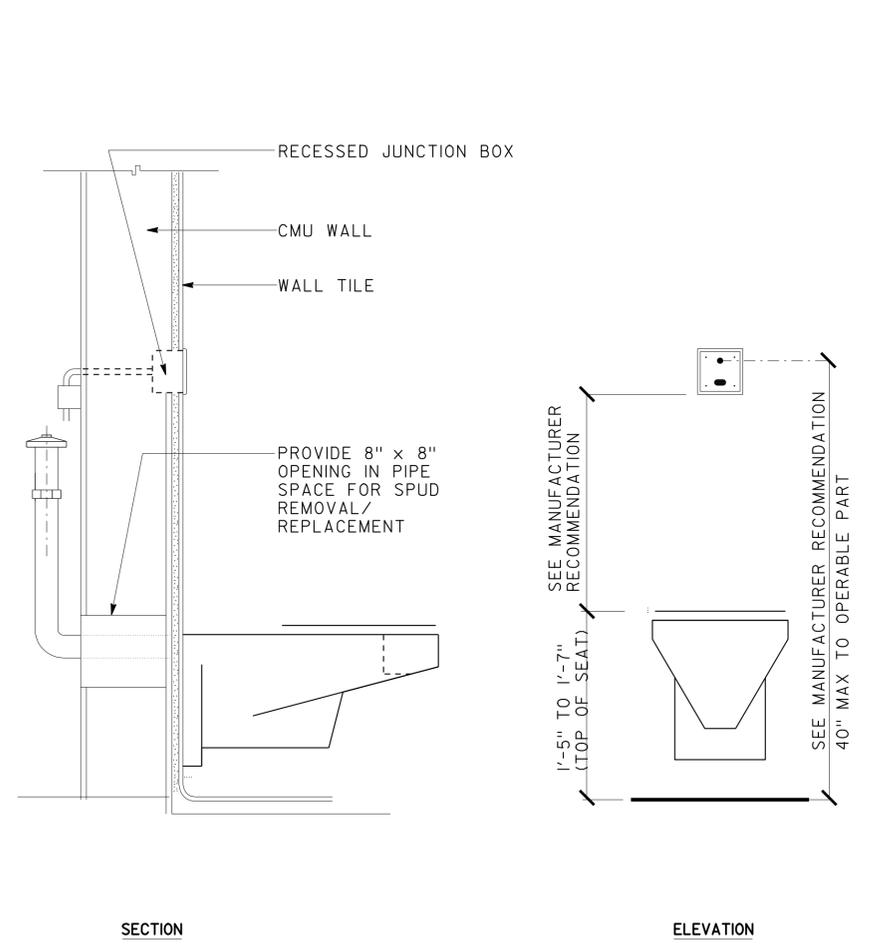
8-9-10  
 PLANS APPROVAL DATE

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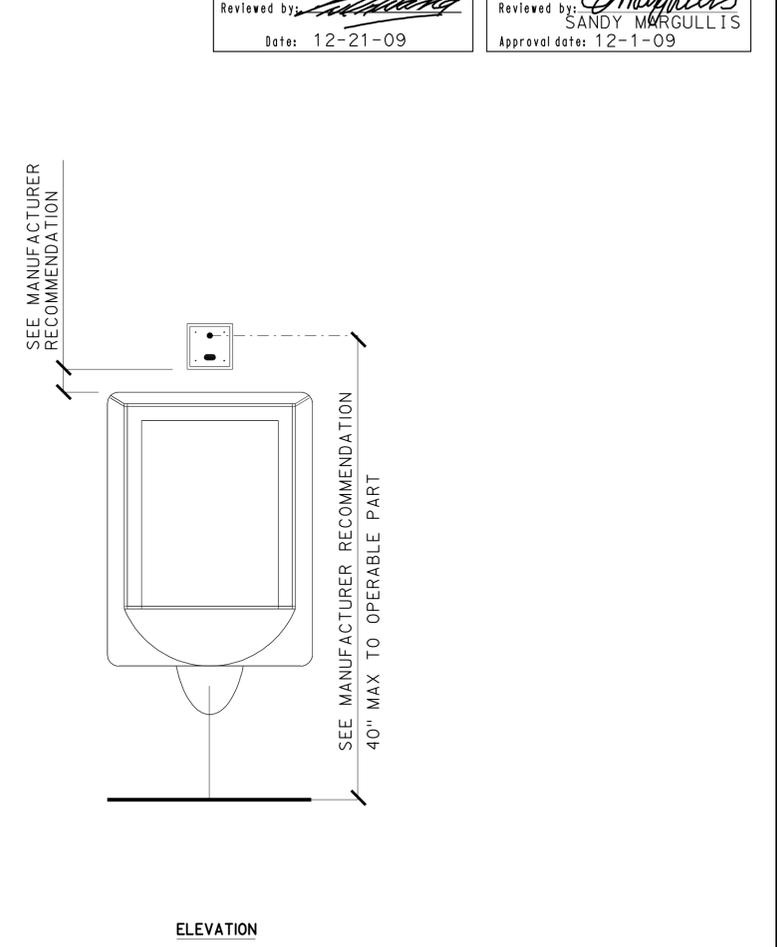
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**1 LAVATORY SENSOR FAUCET DETAIL**  
NOT TO SCALE



**2 WATER CLOSET SENSOR FLUSH DETAIL**  
NOT TO SCALE



**3 URINAL SENSOR FLUSH DETAIL**  
NOT TO SCALE

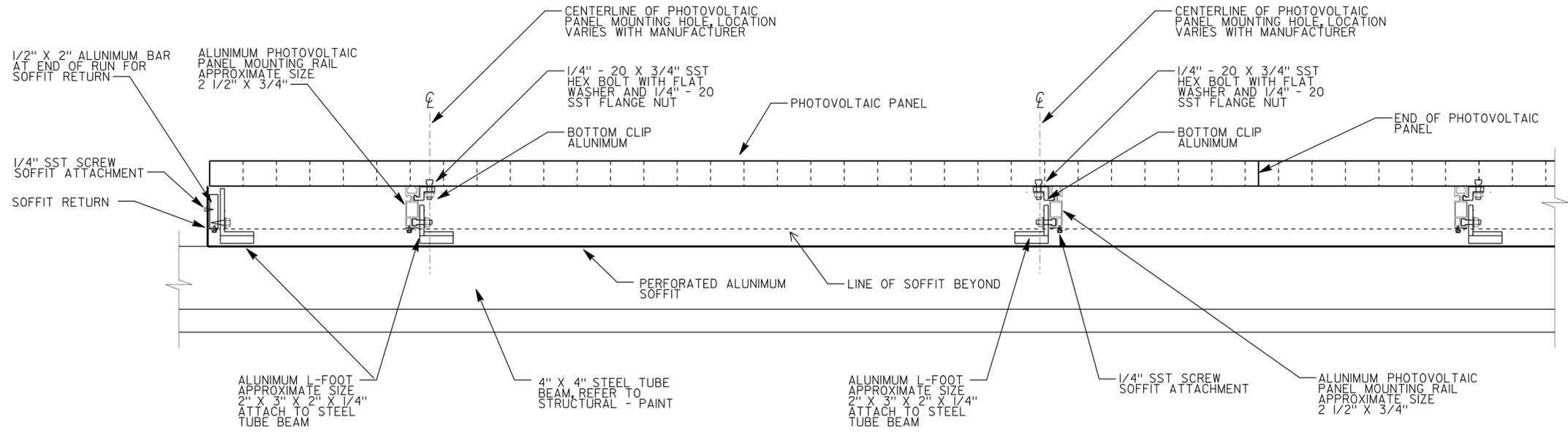
a7_7.dgn DS OSD Imperial Rev. 11/98 04-OCT-2010 14:47	DESIGN BY MARTIN R. FRASER CHECKED <i>Donnell E. Alvey</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45/22.40	<b>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</b>	SHEET OF <b>A7-7</b>
	DETAILS BY MARTIN R. FRASER CHECKED <i>Donnell E. Alvey</i>					

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	211	335

MRJ  
 LICENSED ARCHITECT DATE  
 8-9-10  
 PLANS APPROVAL DATE  
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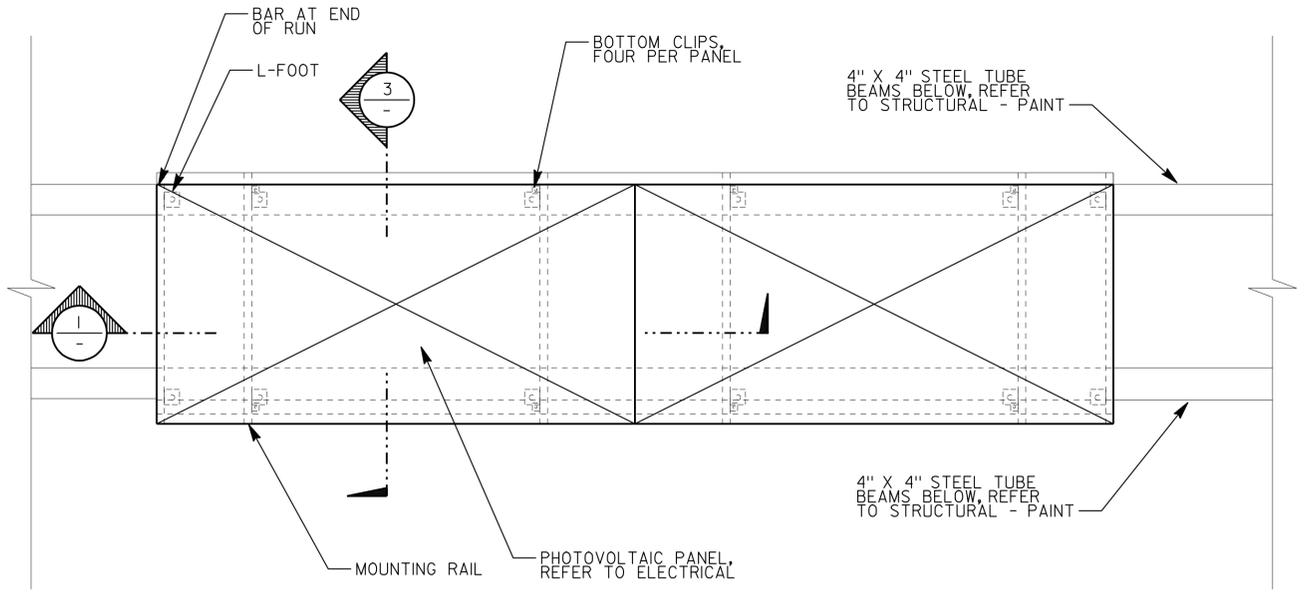


<b>ACCESSIBILITY DESIGN APPROVAL STAMP</b> DOT / DES / OTA <b>06-0A9701</b> DISTRICT - EA Reviewed by: <i>[Signature]</i> Date: 12-21-09	<b>CALIFORNIA STATE FIRE MARSHAL APPROVED</b> Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval 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> SANDY MARGULLIS Approval date: 12-1-09
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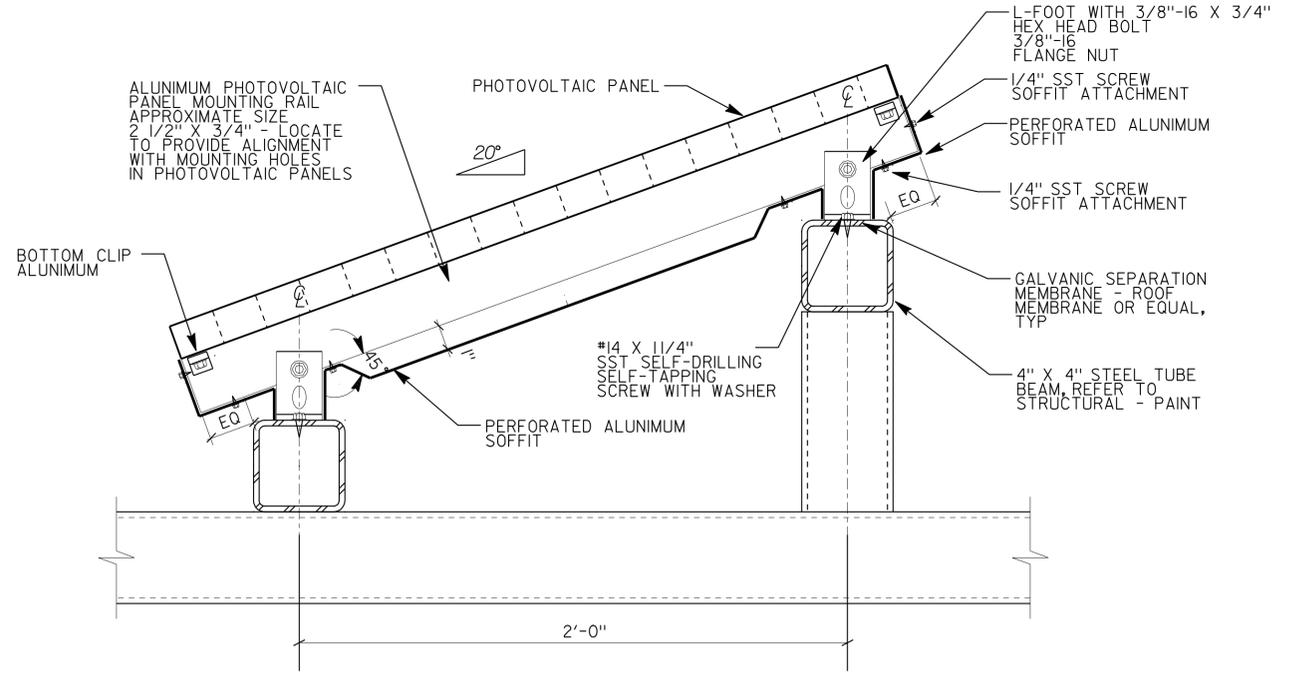


**1 PHOTOVOLTAIC MOUNTING SECTION**  
3" = 1'-0"

- KEY NOTES:**
- 1 PROVIDE COMPLETE MOUNTING SYSTEM.
  - 2 PROVIDE COMPLETE SOFFIT SYSTEM TO CONCEAL THE BOTTOM OF ALL PHOTOVOLTAIC PANELS.
  - 3 PERFORATED ALUMINUM SOFFIT PANELS TO BE .036" THICK WITH 1/8" PERFORATIONS AT 5/16" OC, OFFSET PATTERN ANODIZED FINISH.
  - 4 PANEL SUPPORTS TO BE ACCURATELY LOCATED TO MATCH MOUNTING HOLES IN PHOTOVOLTAIC PANELS.



**2 PHOTOVOLTAIC PANEL LAYOUT PLAN**  
1/4" = 1'-0"



**3 PHOTOVOLTAIC MOUNTING SECTION**  
3" = 1'-0"

a7_9.dgn DS OSD Imperial Rev. 11/98 04-OCT-2010 14:47	DESIGN BY MARTIN R. FRASER CHECKED <i>Donnell E. Alvey</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R	<b>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</b>	SHEET <b>A7-9</b>	
	DETAILS BY MARTIN R. FRASER CHECKED <i>Donnell E. Alvey</i>			POST MILE 22.45/22.40			PHOTOVOLTAIC PANEL MOUNTING DETAILS
	QUANTITIES BY CHECKED			CU 06 340 EA 06-0A9701			REVISION DATES (PRELIMINARY STAGE ONLY)

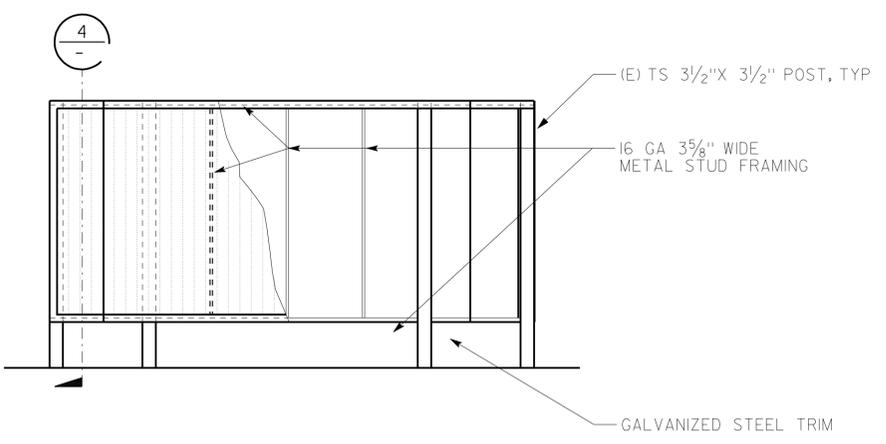
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3  
 DISREGARD PRINTS BEARING EARLIER REVISION DATES

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	TUL	99	22.4	212	335

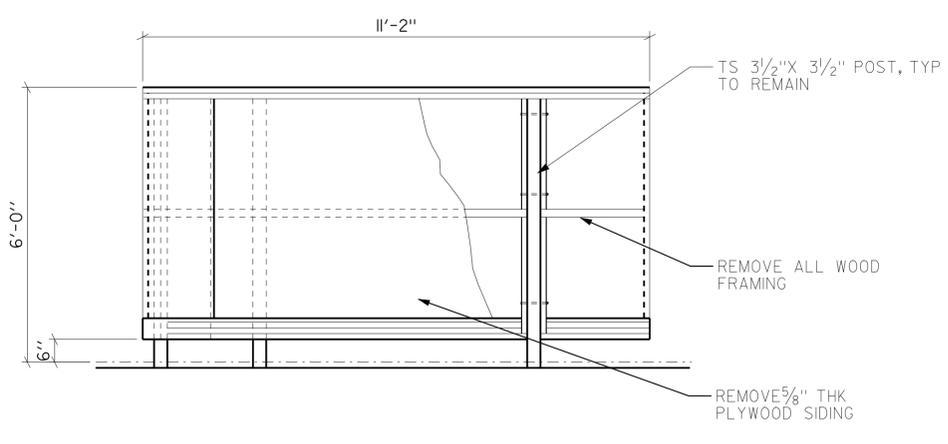
  
 LICENSED ARCHITECT DATE \_\_\_\_\_  
 No. C-7739  
 Exp. 04-30-11  
 STATE OF CALIFORNIA

8-9-10  
 PLANS APPROVAL DATE  
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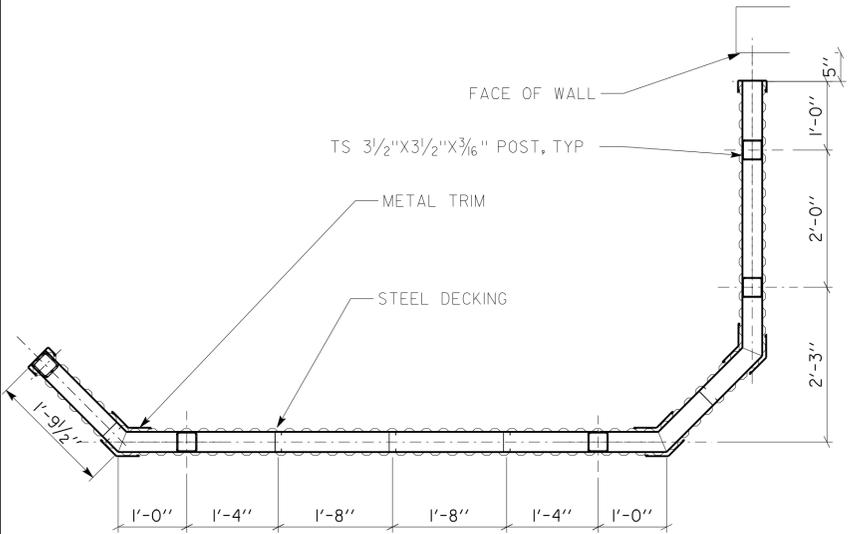
<b>ACCESSIBILITY DESIGN APPROVAL STAMP</b> DOT / DES / OTA <b>06-0A9701</b> DISTRICT - EA Reviewed by:  Date: 12-21-09	<b>CALIFORNIA STATE FIRE MARSHAL APPROVED</b> Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by:  SANDY MARGULLIS Approval date: 12-1-09
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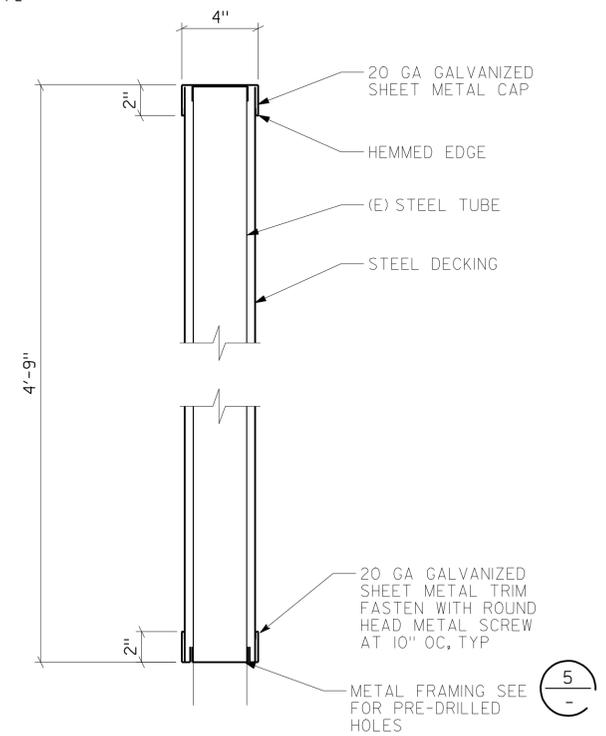
**2 VISION SCREEN ELEVATION**  
SCALE 1/2" = 1'-0"



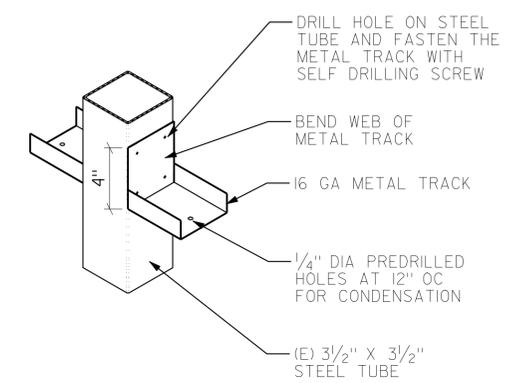
**1 (E) VISION SCREEN ELEVATION/FRAMING REMOVAL**  
SCALE 1/2" = 1'-0"



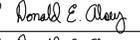
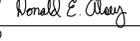
**3 PLAN**  
SCALE 3/4" = 1'-0"



**4 (E) VISION SCREEN ELEVATION/FRAMING REMOVAL**  
SCALE 2" = 1'-0"



**5 ISOMETRIC**  
SCALE 2" = 1'-0"

A7_10.dgn DS OSD Imperial Rev. 11/98 16-AUG-2010 07:30	DESIGN	BY MARTIN R. FRASER	CHECKED 	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R	<b>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</b>	SHEET
	DETAILS	BY C. R. ZERIO	CHECKED 			POST MILE 22.45/22.40		VISION SCREEN DETAILS
	QUANTITIES	BY	CHECKED			CU 06 340 EA 06-0A9701	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	XX-XX-XX	X X

16-AUG-2010 07:30

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	213	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

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**ABBREVIATIONS**

AAD	Adhesive Anchorage Device	HD	Holddown
AB	Anchor Bolt	Hex	Hexagon
AC	Asphalt Concrete	Horiz	Horizontal
Alt	Alternate	HSB	High Strength Bolt
APA	American Plywood Association	HSS	Hollow Structural Section
APC	Alternative Pipe Culvert	Jt	Joint
Bldg	Building	LOL	Layout Line
Blkg	Blocking	LVL	Laminated Veneer Lumber
BN	Boundary Nailing	m	Meter
Btm	Bottom	Max	Maximum
CB	Carriage Bolt	MEA	Mechanical Expansion Anchor
CIDH	Cast In Drilled Hole	Mech	Mechanical
CJ	Control Joint	Mfr	Manufacturer
Clr	Clear	mm	Millimeter
CMU	Concrete Masonry Unit	Min	Minimum
Conc	Concrete	MIW	Malleable Iron Washer
Const	Construction	OC	On Center
Cont	Continuous	OG	Original Grade
CP	Complete Penetration Weld	OH	Opposite Hand
Dbl	Double	Opt	Optional
DF	Douglas Fir	P	Pitch
Dia	Diameter	PDF	Powder Driven Fastener
DIP	Ductile Iron Pipe	Plwd	Plywood
DN	Diameter Nominal	PT	Pressure Treated
do	Ditto	PW	Puddle Weld
(E)	Existing	PWB	Prefabricated Wood I Beam
Ea	Each	RCP	Reinforced Concrete Pipe
EL	Elevation	Relnf	Reinforced, Reinforcing
Elec	Electrical	Req'd	Required
Embed	Embedment	SDSTS	Self Drill, Self Tap Screw
EN	Edge Nail	Sim	Similar
Eq	Equal	SPS	Structural Plywood Sheathing
Exp	Expansion	Sq	Square
FDGM	Free Draining Granular Material	Stagg	Staggered
FG	Finish Grade	Std	Standard
FL	Flow Line	SW	Stud Weld
Fir	Floor	Sym	Symmetrical
FN	Face (Field) Nail	T&G	Tongue-and-Groove
FOC	Face of Concrete	TN	Toe Nail
FOM	Face of Masonry	TS	Tube Steel
FOS	Face of Stud	Typ	Typical
Ftg	Footing	UON	Unless Otherwise Noted
Ga	Gage	Vert	Vertical
Galv	Galvanized		
GLM	Glue Laminated Member		
Gyp Bd	Gypsum Board		

**SYMBOLS**

	Blocking in Section or Elevation		CMU Wall on Plan Views
	Continuous Member in Section		Dropped Slab on Plan Views
	End of Member		Reinforced Concrete
	Bearing Wall		Sand
	Shear Wall		Structural Backfill
	Length Shearwall Schedule Symbol Reference		Structural Excavation
	Glue Laminated Member Section		Original Ground
	North Arrow		Limits of Structural Backfill (shown on plan view)
	Partial Section Cut		Free Draining Granular Material
	Full Section Cut		Bottom of Footing
	Revision Callout		Elevation or Working Point
	Grid Line Indicator		Existing Features
	Center Line		Holddown, Typ (Manufacturers are those noted in the order shown.)
	Station Line		Frame Connector (Manufacturers are those noted in the order shown.)
	Steel Plate		Detail Number or Note Number Additional Reference (if required) Sheet Number
	Diameter		
	Square		

NOTE: SPECIFIC DETAILS OR NOTES ON OTHER SHEETS SHALL PREVAIL OVER STANDARD DETAILS AND NOTES ON THIS SHEET

FILE NO. XS-25-0		DESIGN BY <i>Sean Samal</i>		CHECKED <i>George E. Rowe</i>		APPROVED <i>R.E. Travis</i>		BRIDGE NO. 46R0001L		PHILIP S. RAINE SAFETY ROADSIDE REST AREA		SHEET ST-1	
DRAWING DATE 1-04		SUBMITTED BY <i>Sean Samal</i>		DESIGN ENGINEER		DESIGN SUPERVISOR		POST MILE 22.45		LEGEND		OF	
DOES SD Imperial Rev. 9/02		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		CU 06340		EA 0A9701		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)		1-16-04	

16-AUG-2010 07:30

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FRAMING NOTES

- 1. Dimensions are typically shown to face of stud for exterior walls, to centerline of stud at interior walls, and to centerline of openings. Vertical dimensions are typically shown from rough floor or slab to top of plate or to underside of lintels. Dimensions shown as "clear" are from surface to surface.
2. Bearing, shear and exterior walls shall be sheathed with 3/8" structural plywood sheathing.
3. All roofs shall be sheathed with 5/8" structural plywood sheathing.
4. Plywood for floors and roofs shall be placed face grain perpendicular to supports. Where possible, plywood shall be placed in full sheets and staggered one-half sheet length. Any partial plywood sheet shall not be less than 2'-0" in length or width unless fully blocked. Plywood for wainscots, siding and wall sheathing may be placed parallel to framing and with the C-C plugged face exposed. See Detail 2, sheet ST-1B.
5. All wood members shall be Douglas Fir-Larch (DF) quality grade stamped. Grade stamps shall indicate compliance with the grading requirements of WWP, WCLIB or other approved lumber inspection agency.
6. Structural plywood sheathing shall be APA grade stamped plywood conforming to Voluntary Product Standard PSI, Grade C-D, Exposure 1. Thickness and span rating shall be as shown on the plans.
7. Wood grades (unless otherwise noted):
A. For horizontal members:
Joists & Rafters Grade #2
Beams & Stringers Grade #1
Ledgers Grade #1
B. For vertical members:
2"x4" Studs Construction Grade
2"x6" & larger studs Grade #2
Posts & Timbers Grade #1
C. Glue laminated beams:
Simple spans 24F-V4 DF/DF
Cantilevers & Continuous 24F-V8 DF/DF
8. Glue laminated members shall be engineered, stress rated and factory laminated with adhesive for wet use.
9. Exposed members shall be "architectural appearance" grade and non-exposed members shall be "industrial appearance" grade.
10. All wood in direct contact with concrete or masonry shall be pressure treated Douglas Fir-Larch.
11. Joists framed into the side of wood girders shall be supported by joist hangers.
12. Joists shall be supported laterally at the ends and at each support by solid blocking or other approved means except where the ends of joists are nailed to a header, band or rim joist or to an adjoining stud. Solid blocking shall not be less than 2"x in thickness and the full depth of the joist.
13. Joists and roof rafters 1'-0" or deeper shall have full depth 2"x thick solid blocking at 8'-0" maximum spacing.
14. Provide 2"x blocking to secure fixtures shown on the project plans.
15. Joists under and parallel to bearing walls shall be doubled.
16. When there are multiple holes and notches in one structural element or when there are holes and notches occurring in more than two consecutive structural elements, the Engineer's approval is required, unless the details are shown on plans.
17. Notches or cuts in bearing or shear wall studs may be to a depth not exceeding 25% of its width. Wood studs in non-bearing and non-shear walls supporting only their weight may be notched or cut to a depth not greater than 40% (See note 16 above).
18. Bored hole diameters shall not exceed 40% of the stud width in bearing walls and 60% in non-bearing walls. The top plates may not be bored or cut, without the Engineer's approval. Neither bearing nor shear wall top plates may be bored greater than 40%, unless detailed on the plans. Holes shall not be closer than 5/8" to the edge of the stud. (See note 16 above)
19. When it is necessary to cut the sole plate, sill plate or wood stud for plumbing, heating or other pipes, a 1/16" thick x 1/2" wide galvanized metal stud shoe plate shall be fastened w/6-16d to the plate across the opening.
20. Equivalent metal bridging or ties may be submitted to the Engineer for approval.

B

MINIMUM NAILING SCHEDULE

- 1. All structural nailing shall be common wire. Alternate fasteners may be substituted as approved by the Engineer.
2. For wood to wood joints, the spacing of nails shall not be less than the required nail penetration. Edge or end distances shall not be less than 1/2 the required nail penetration. Where pre-drilling is required to avoid splitting of the wood, the hole diameter shall not exceed three-fourths of the nail diameter.
3. Nailing not noted below or on the project plans shall be a minimum of 2 nails at each contact, 8d for 1"x members and 16d for 2"x members.
4. Joists or Rafters:
a. Bearing (sill, girder, top plate) Toe Nail 3-8d
b. Laps (parallel members over walls or beams) Face Nail 4-16d
For each additional 3" member depth beyond 6" member add 2-16d
c. Rim Joist to floor Joist, End Nail 2-16d
For each additional 4" member depth beyond 8" member add 1-16d
d. Rim Joist to top plate, Toe Nail 8d @ 6" OC
e. Double Joists under bearing walls, staggered Face Nail. 16d @ 1'-0" OC
5. Studs:
a. Double studs, Face Nail 16d @ 2'-0" OC
b. Top plate to stud, End Nail 2-16d
c. Stud to sole plate, Toe Nail 3-16d or 4-8d
d. Sole plate to stud, End Nail 2-16d
e. Stud to continuous header, Toe Nail 3-16d or 4-8d
f. Built-up corner studs, Face Nail 16d @ 2'-0" OC
6. Plates:
a. Top plate doubled, Face Nail 16d @ 1'-4" OC
b. Top plate intersection, Face Nail 2-16d
c. Sole plate to rim joist or blocking, Face Nail 16d @ 1'-4" OC
d. Sole plate to floor framing, Face Nail 16d @ 1'-4" OC
7. Blocking:
a. To studs, joists or rafters, Toe Nail 3-16d or 4-8d or End Nail 2-16d
For each additional 4" member depth beyond 8" member add, Toe Nail 2-8d or End Nail 1-16d
b. To plates, Toe Nail 16d @ 1'-0" OC
8. 2" Subfloor to each joist or girder one blind and one Face Nail. 2-16d
9. Structural Plywood Nailing:
a. Spacing at subflooring, decking, roof and wall structural plywood sheathing to framing:
LOCATION 3/8" Plwd 7/16" - 1" Plwd
At supported edges (edge nailing) & over bearing (beams, girders, walls, etc.) 8d @ 6" OC 10d @ 6" OC
At intermediate supports (field nailing) 8d @ 6" OC 10d @ 1'-0" OC
Where bearing is 4'-0" or greater 10d @ 6" OC
b. Structural plywood edge nailing shall be staggered at supports, Detail 2, Sheet ST-1B; at double plates, Detail 3, Sheet ST-1B; and at double studs located at wall intersections and corners, Details 9A and 9B, Sheet ST-1B.
c. Decking and Underlayment: Use deformed shank nail (see Sheet ST-1B for nail size and spacing)
d. Panel siding to framing: Use zinc coated nail (see Sheet ST-1B for nail size and spacing)
10. Finish Plywood Nailing (non-structural):
a. Finish plywood to framing where the thickness is 1/2" or less:
1) Finish nail at supported edges (edge nailing) 6d @ 6" OC
2) Finish nail at intermediate supports (field nailing) 6d @ 1'-0" OC
11. Gypsum Sheathing (Structural):
a. Wall structural gypsum board sheathing to framing where the thickness 5/8" or less:
1) Cooler nail, parker nail or wallboard nail with a flat or concave head and diamond point at all edges and intermediate supports (field nailing) 6d @ 4" OC

Table with 3 columns: LOCATION, 3/8" Plwd, 7/16" - 1" Plwd. Rows include supported edges, intermediate supports, and where bearing is 4'-0" or greater.

C

MECHANICAL FASTENER NOTES

- 1. The clearance holes for lag screw shanks shall be the same diameter and depth as the unthreaded shank. The lead hole for the threaded portion shall be of a diameter equal to 60% of the shank diameter for screws up to 1/2" diameter, and 75% of the shank diameter for larger lag screws. The lead hole shall be at least the length of the threaded portion.
2. Lag screws shall be turned into pre-drilled holes and not be driven.
3. All bolts and lag screws shall be tightened and retightened before closing in, or at completion of job.
4. All bolts and lag screws shall be provided with metal washers under heads and nuts which bear on wood.

Table titled 'MINIMUM WASHER FOR BOLTS & LAG SCREWS' with columns for Size, Malleable Iron Washer, and Steel Plate Washer. Rows include sizes from 1/2" to 1" diameter.

Place under Bolt Heads & Nuts bearing on Wood

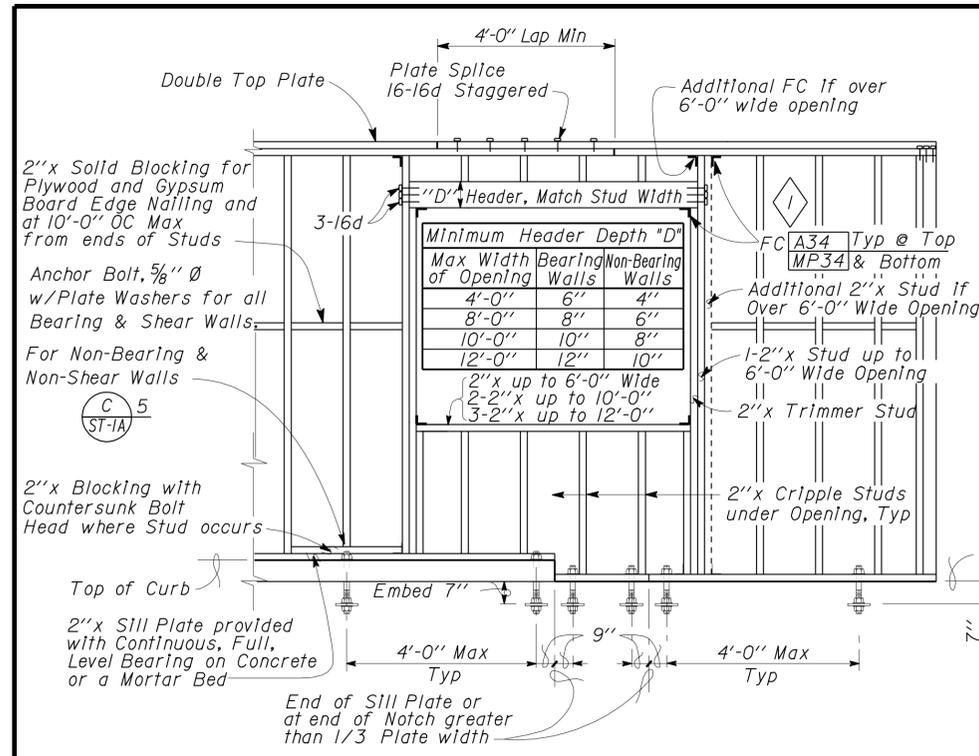
- 5. Fastener alternatives for non-bearing and non-shear walls: Two minimum per member and at 9" from ends.
a. 1/8" diameter Powder driven anchor with 1" penetration @ 2'-0" OC.
b. 1/4" diameter expansion anchorage device embedded 1 1/2" minimum at 2'-0" OC.
c. 1/2" diameter anchor bolt with 2 1/2" embedment @ 4'-0" OC.
6. Equivalent mechanical fasteners may be submitted to the Engineer for approval.

NOTE: SPECIFIC DETAILS OR NOTES ON OTHER SHEETS SHALL PREVAIL OVER STANDARD DETAILS AND NOTES ON THIS SHEET

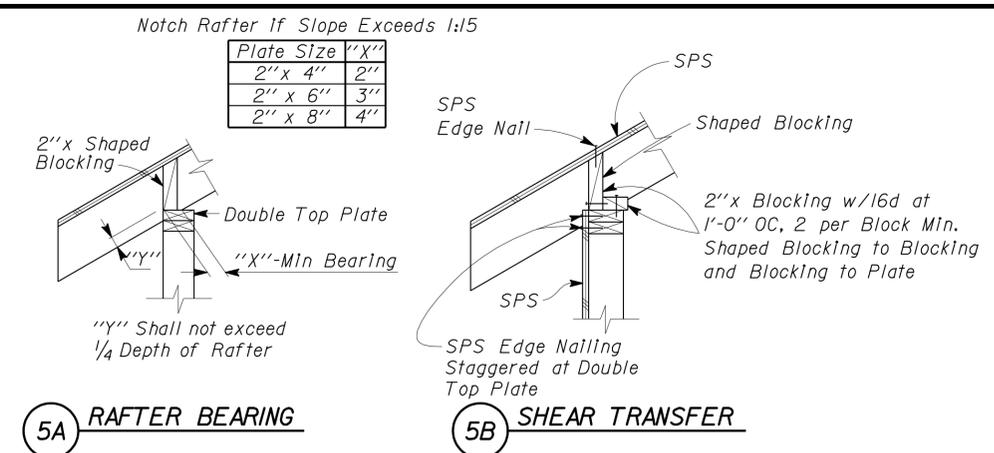
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16-AUG-2010 07:31

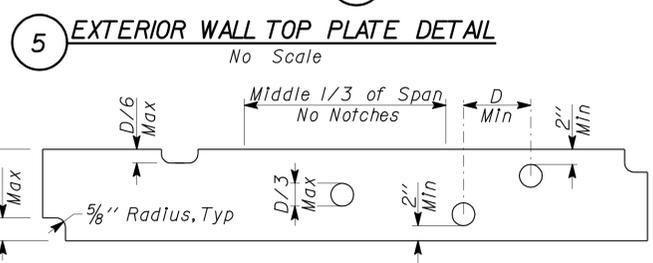
st\_01a.dgn



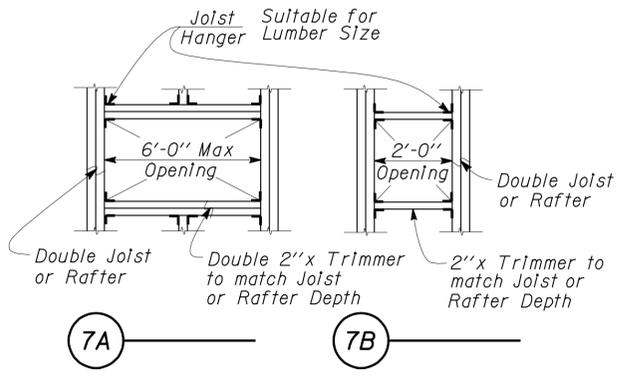
**1 TYPICAL WALL AND OPENING FRAMING**  
No Scale



**5A RAFTER BEARING**      **5B SHEAR TRANSFER**

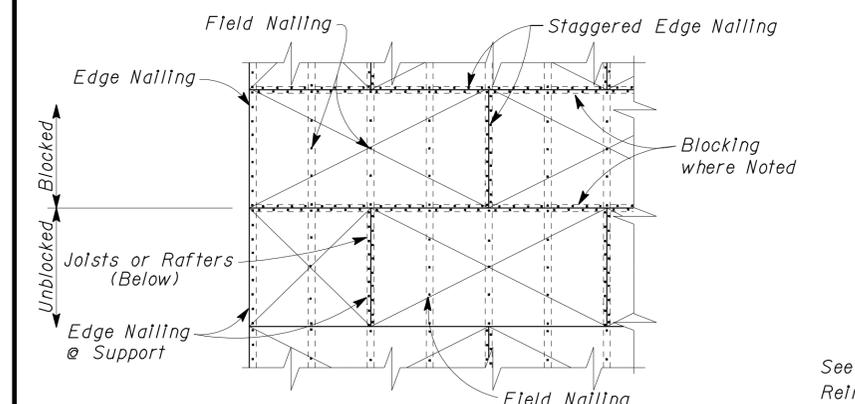


**5 EXTERIOR WALL TOP PLATE DETAIL**  
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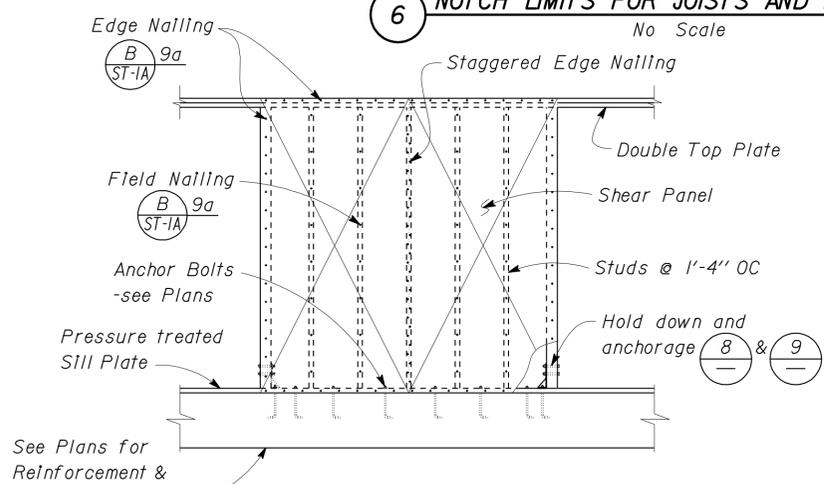


**7A**      **7B**

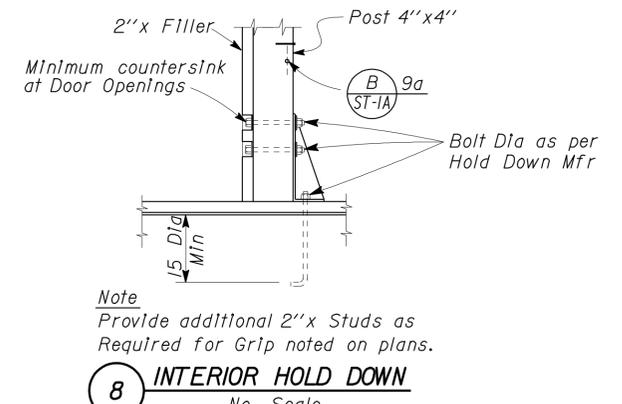
**7 FRAMING AT OPENINGS**  
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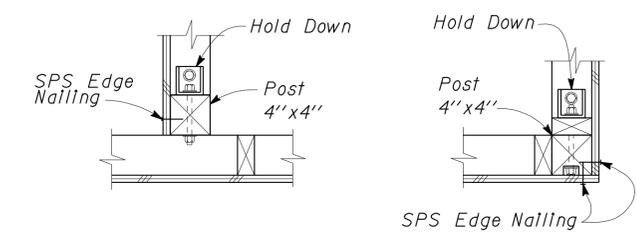
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**3 SHEAR WALL ELEVATION**  
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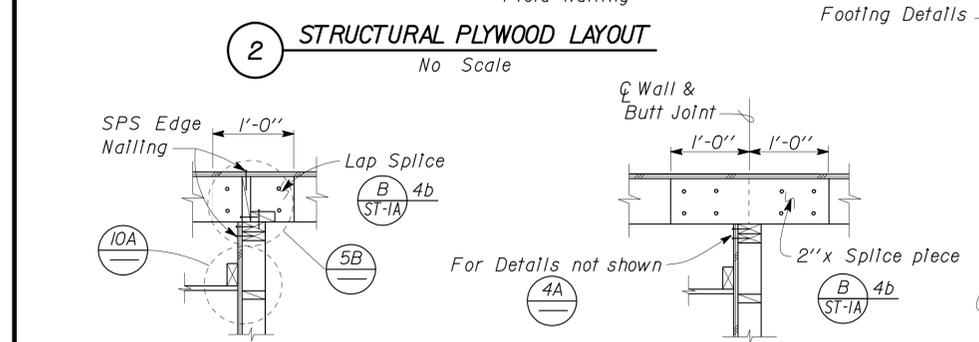


**8 INTERIOR HOLD DOWN**  
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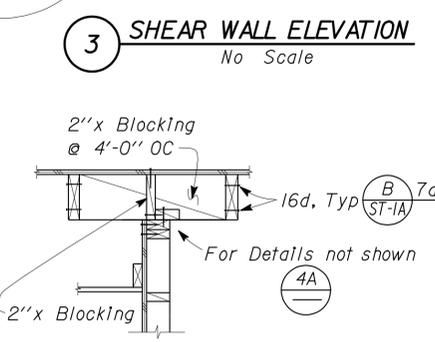


**9A INTERSECTION**      **9B CORNER**

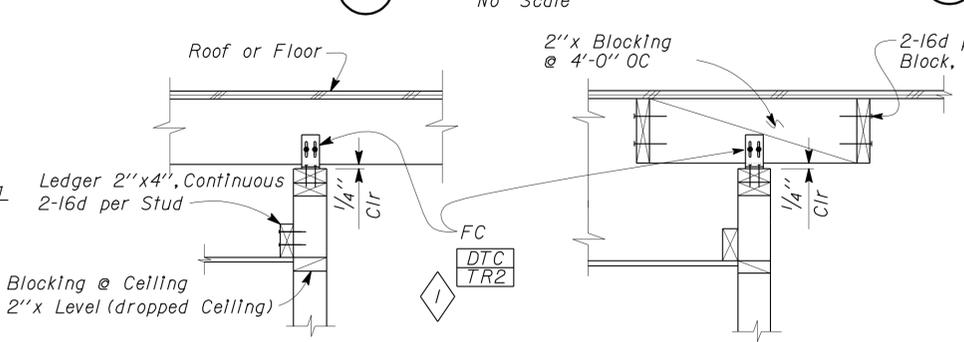
**9 INTERIOR AND CORNER WALL FRAMING DETAILS**  
No Scale



**4A LAP SPLICE ACROSS JOISTS**      **4B BUTT SPLICE ACROSS JOISTS**

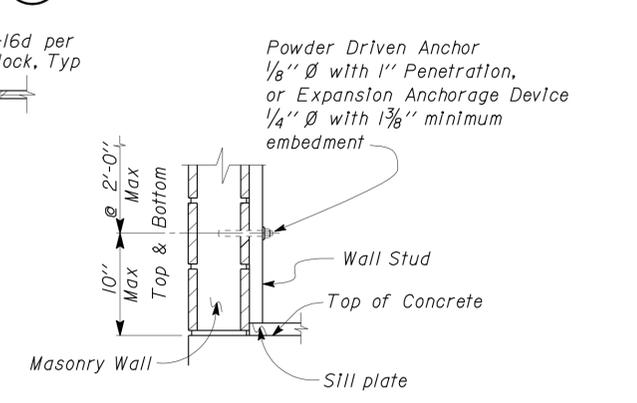


**4C JOISTS PARALLEL TO WALL**



**10A ACROSS JOISTS**      **10B PARALLEL TO JOISTS**

**10 NON-BEARING WALL TOP PLATE CONNECTION**  
No Scale



**11 STUD ANCHORAGE TO MASONRY**  
No Scale

NOTE: SPECIFIC DETAILS OR NOTES ON OTHER SHEETS SHALL PREVAIL OVER STANDARD DETAILS AND NOTES ON THIS SHEET

FILE NO. XS-25-5-I	DESIGN BY <i>Sean Seavel</i>	CHECKED BY <i>Joe Fender</i>	APPROVED BY <i>RE Travis</i>
DRAWING DATE <b>1-04</b>	DETAILS BY <i>Peter F. von Savoy</i>	CHECKED BY <i>Joe Fender</i>	DESIGN SUPERVISOR
SUBMITTED BY <i>Sean Seavel</i>		DESIGN ENGINEER	

Revision - 11-02-2006  
Updated USP connector ID.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L  
46R0001R  
POST MILE 22.45  
22.40

CU 06340  
EA 0A9701

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**

WOOD FRAMING STANDARD - DETAILS

SHEET **ST-1B**

REVISION DATES (PRELIMINARY STAGE ONLY)

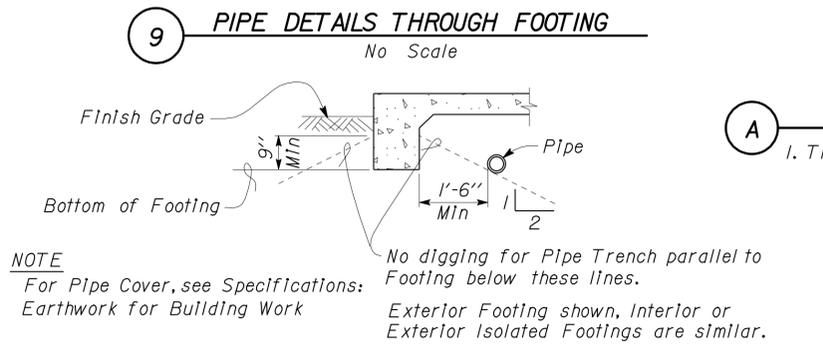
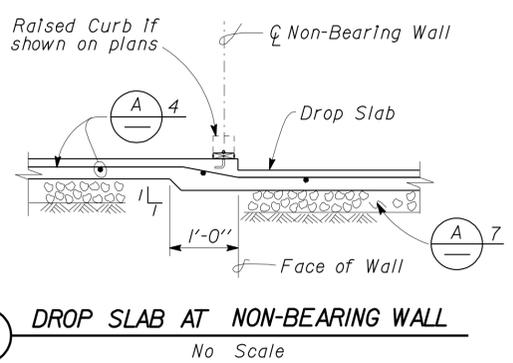
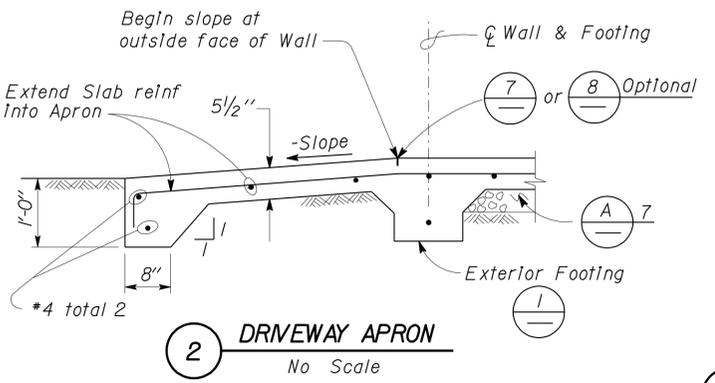
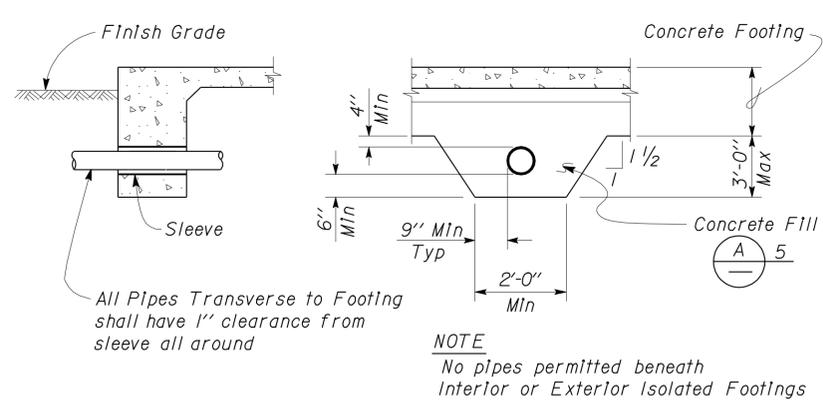
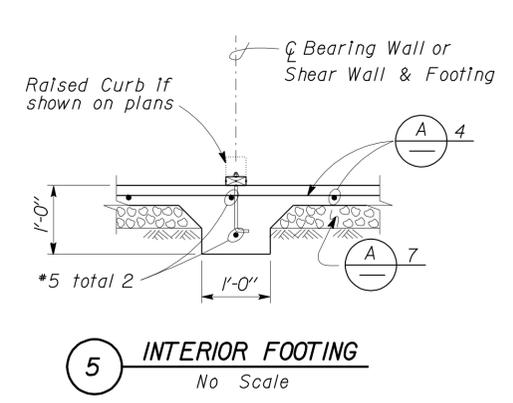
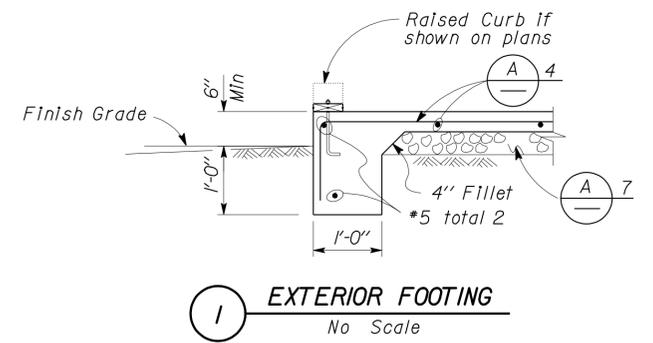
10-16-03	11-14-05	11-02-06
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SHEET OF

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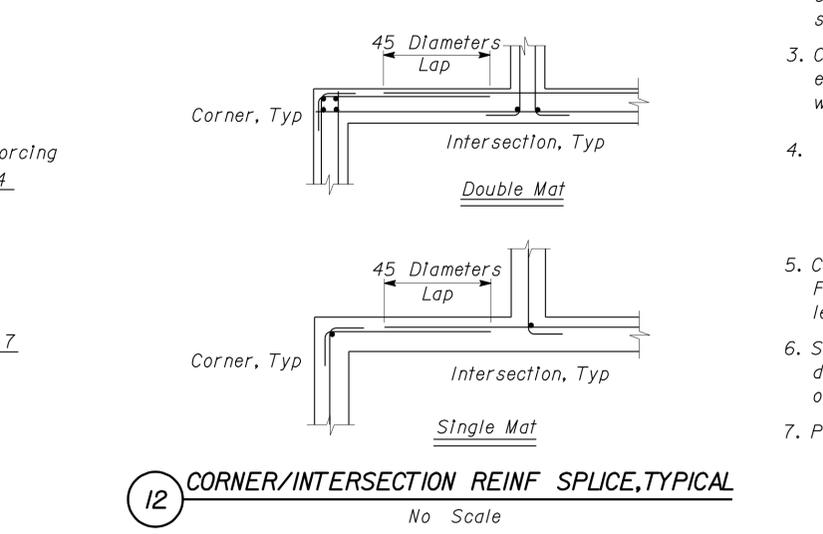
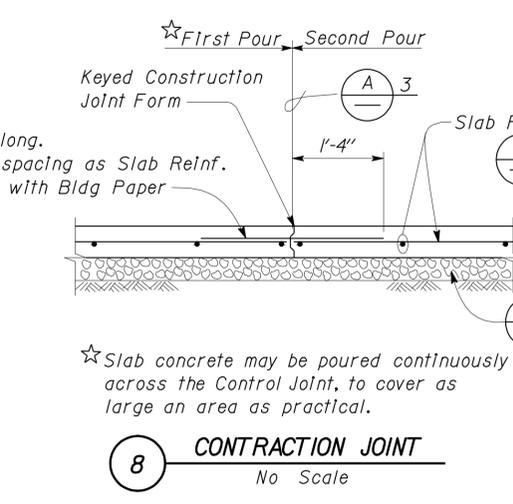
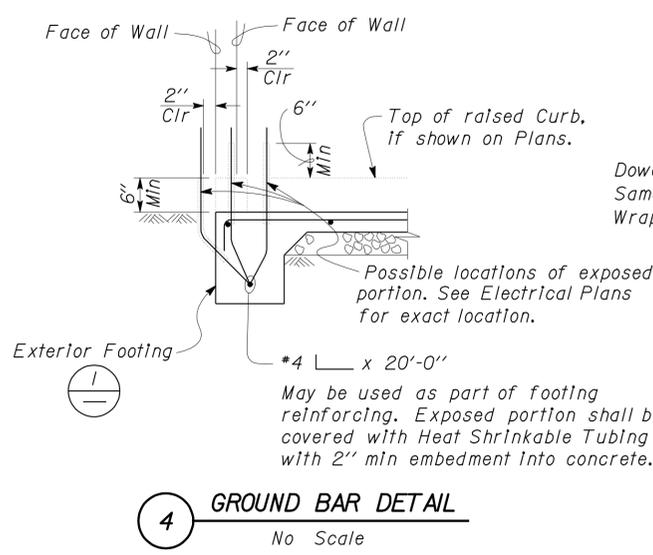
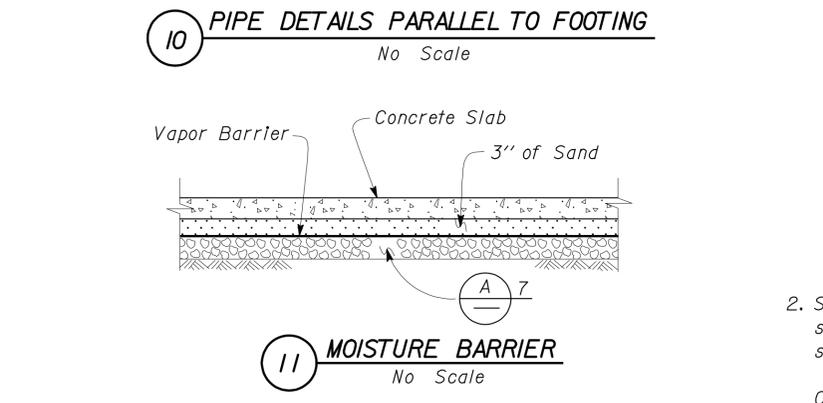
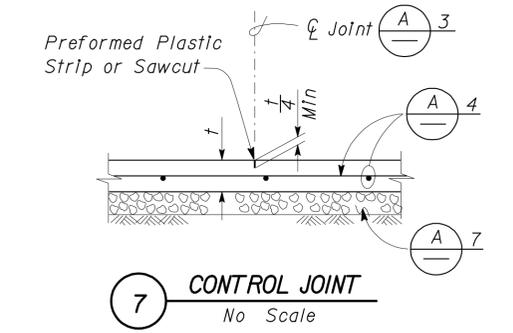
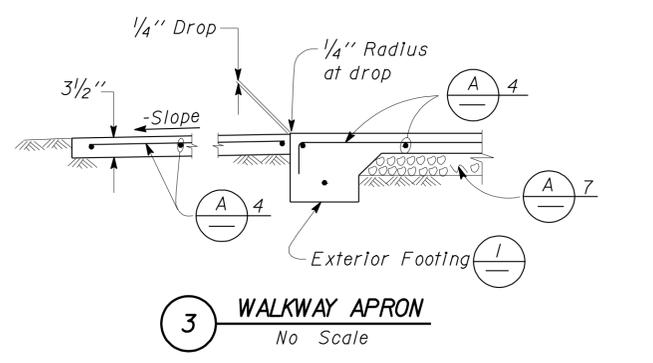
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8-9-10 PLANS APPROVAL DATE	
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**A CONCRETE NOTES**

- The following minimum concrete cover shall be provided for reinforcement.
 

	Minimum Cover
a. Concrete cast against and permanently exposed to earth	3"
b. Concrete exposed to earth or weather but cast in forms:	
*6 thru *18 bars	2"
*5 bar and smaller, W31 or D31 Wire, and smaller	1 1/2"
c. Concrete not exposed to weather or in contact with ground:	
Slabs, Walls and Joists:	
*14 and *18 Bar	1 1/2"
*11 Bar and smaller	3/4"
Beams and Columns:	
Primary Reinforcement, Ties, Stirrups and Spirals	1 1/2"



NOTE: SPECIFIC DETAILS OR NOTES ON OTHER SHEETS SHALL PREVAIL OVER STANDARD DETAILS AND NOTES ON THIS SHEET

FILE NO. XS-25-1	DESIGN BY Sean Seavel	CHECKED BY [Signature]	APPROVED BY [Signature]	STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST-2
DRAWING DATE 1-04	DETAILS BY [Signature]	CHECKED BY [Signature]	DESIGN SUPERVISOR [Signature]	DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL AND STRUCTURAL DESIGN	POST MILE 22.45	CONCRETE STANDARD	
DOES SD Imperial Rev. 9/02	SCALE: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

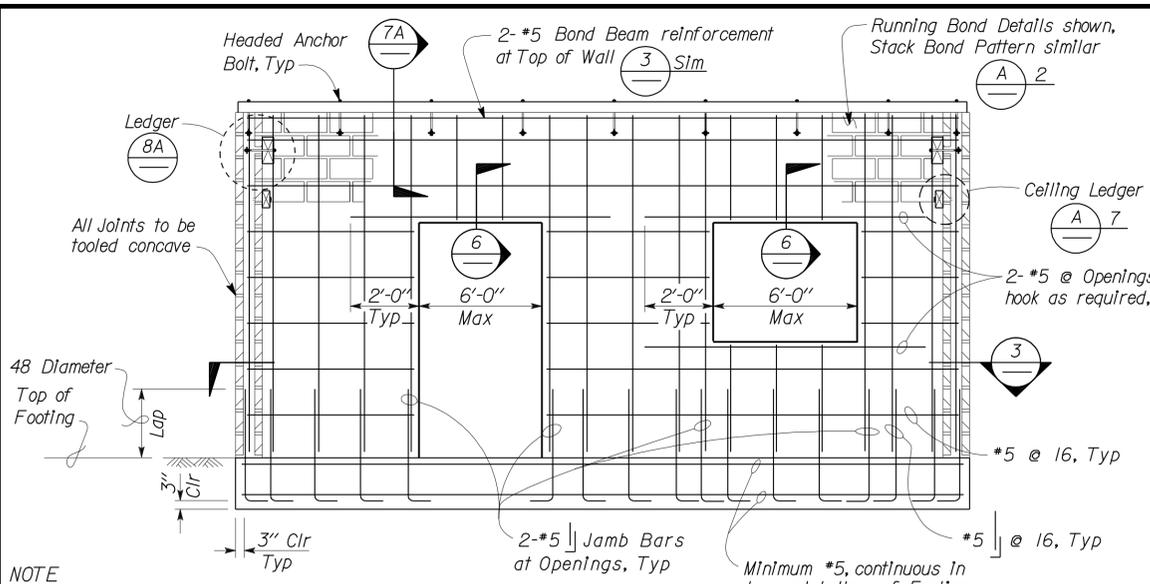
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	217	335

*Tahir Rashid* 12-22-09  
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No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

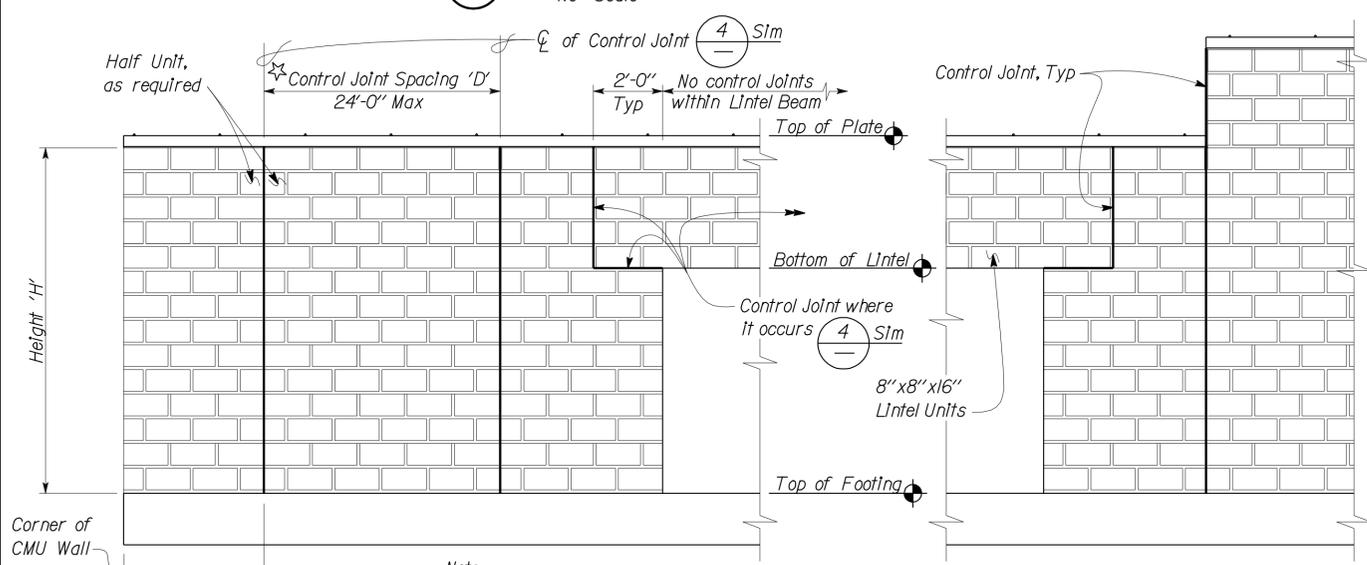
8-9-10  
PLANS APPROVAL DATE

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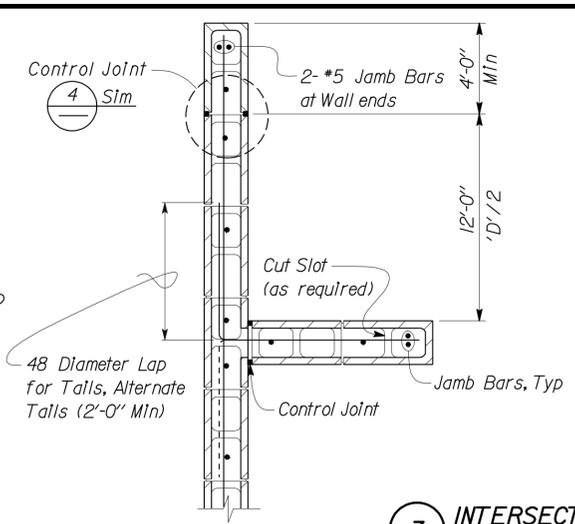
**1 WALL ELEVATION**  
No Scale

**NOTE**  
See Architectural Plans for Concrete Masonry Unit size and pattern, 8"x8"x16" Unit shown.

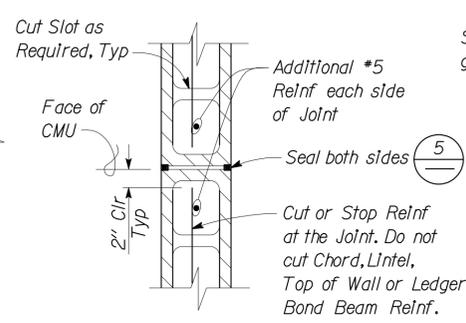


**2 WALL ELEVATION**  
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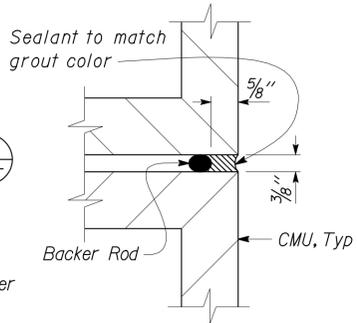
**Note**  
1. Control Joint spacing; 'D' ≤ 1.5H  
2. Minimum one Control Joint per each Wall Line.  
3. Location of the Control Joints to be approved by the Engineer.



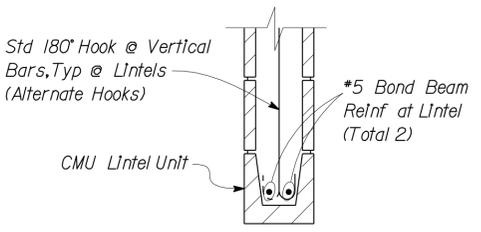
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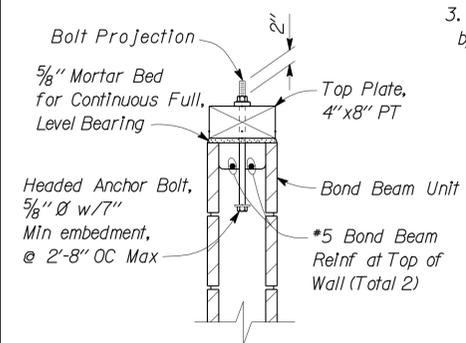
**4 CONTROL JOINT DETAIL**  
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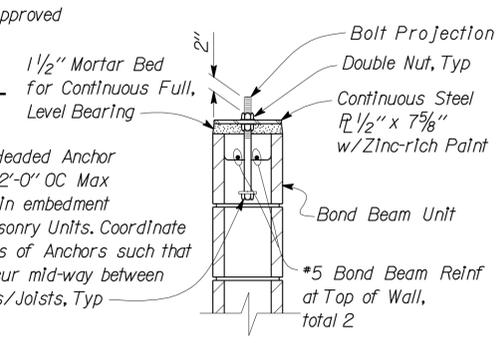
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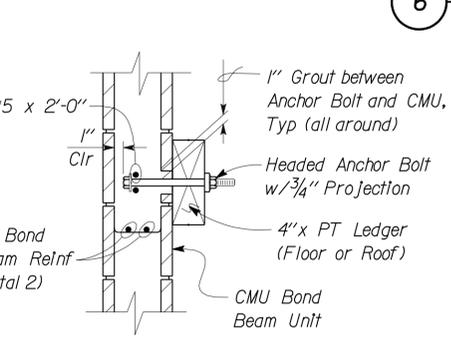
**6 LINTEL DETAIL**  
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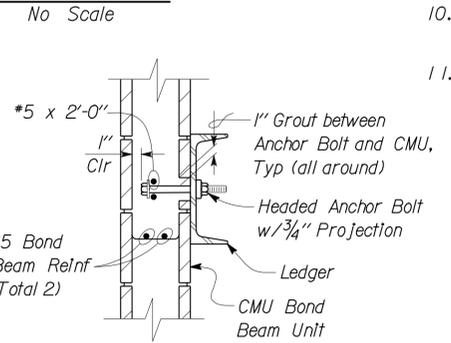
**7A WOOD TOP PLATE DETAIL**  
No Scale



**7B STEEL TOP PLATE DETAIL**  
No Scale



**8A WOOD LEDGER DETAIL**  
No Scale



**8B STEEL LEDGER DETAIL**  
No Scale

**A REINFORCED CONCRETE MASONRY UNIT NOTES**

- All Walls shown on plans shall be solid grout, open end units, UON.
- Stack Bond requires open end Bond Beam Units throughout.
- All vertical reinforcement shall be centered in cell, UON. The minimum coverage of other reinforcement from the exposed surface of Concrete Masonry Unit shall be 2".
- Reinforcement splices shall be as follows:
  - Length of lap splice for a #7 or smaller bar shall be 48 diameters.
  - Lintel lap splices, if necessary, shall be at midspan for top bars and beyond support for bottom bars.
- There shall be a minimum 8" return at any Jamb adjacent to corner.
- Dowels shall be at least the same size and spacing as wall reinforcement.
- Ceiling Ledger shall be anchored with 1/4" Ø Expansion Anchors installed at 2'-8" OC maximum spacing. Expansion Anchors shall have 1/2" minimum distance to any edge of the masonry unit. Minimum embedment measured from the outside face of the unit shall be 2".
- Pipes shall not be embedded in any Masonry Wall except when shown on plans or as approved by the Engineer.
- Electrical Conduit, Panels or Fixtures may be placed in cells with the following restrictions:
  - The Conduits shall not interfere with or displace the reinforcing steel.
  - Conduits shall not be placed in such a congested manner as to prevent the complete filling of the cells with grout.
  - Horizontal run of 3/4" maximum size conduit may be placed in a bond beam unit course that does not have horizontal reinforcing steel.
  - Recesses more than 1" deep for Electrical Panels or Fixtures shall be framed and have similar reinforcement as doors and windows.
- Steel washers shall be provided for all anchor bolts, over-sized holes and high strength bolts.
- See Architectural and Mechanical Plans for offsets, sizes and locations of ducts, wall openings, vents and other details not shown on Structural sheets.

**8" CMU**

**NOTE: SPECIFIC DETAILS OR NOTES ON OTHER SHEETS SHALL PREVAIL OVER STANDARD DETAILS AND NOTES ON THIS SHEET**

FILE NO. XS-25-2	DESIGN BY <i>Sean Sennel</i>	CHECKED BY <i>Joe Sennel</i>	APPROVED BY <i>R.E. Travis</i>
DRAWING DATE <b>1-04</b>	DETAILS BY <i>Peter von Davy</i>	CHECKED BY <i>Joe Sennel</i>	DESIGN SUPERVISOR
SUBMITTED BY <i>Sean Sennel</i> , DESIGN ENGINEER			

STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST-3
DEPARTMENT OF TRANSPORTATION	ARCHITECTURAL AND STRUCTURAL DESIGN	POST MILE 22.45	CONCRETE MASONRY UNIT STANDARD	

CU 06340	EA 0A9701
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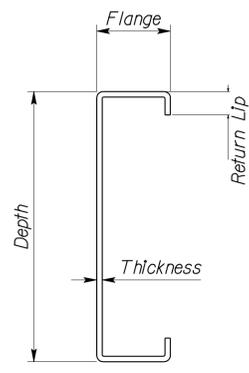
DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	1-18-04 11-14-05 8-3-06	

### Cold-Formed Steel Shape Designation

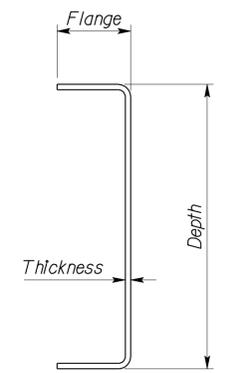
Depth of Member — 600 S 200 -54  
 Type of Member — Minimum Metal Thickness (mils)  
 Flange Width

Design Thickness	
Mils	Gauge
27	22
33	20
43	18
54	16
68	14
97	12

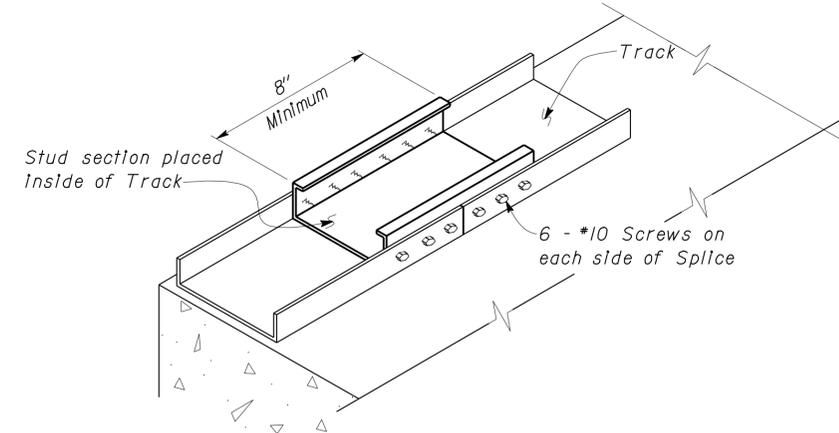
Example designation is for:  
 6.00" x 2.00" x 54 mils thick "C" member  
 Web Depth — Depth of member in inches, to two (2) decimal places  
 Member Type — Only four types are used.  
 S = "C" member  
 T = Track member  
 F = Furring member  
 U = Channel member  
 Flange Width — Width of member in inches, to two (2) decimal places  
 Metal Thickness — Minimum uncoated thickness in mils (0.001 in).



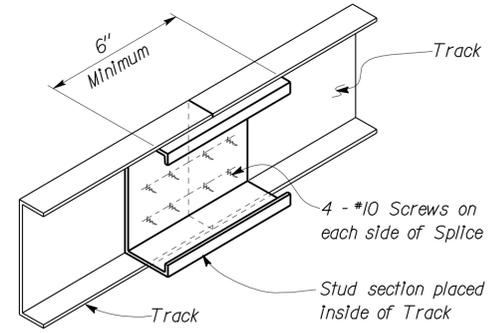
**'C' (Stud) MEMBER**  
Member Type



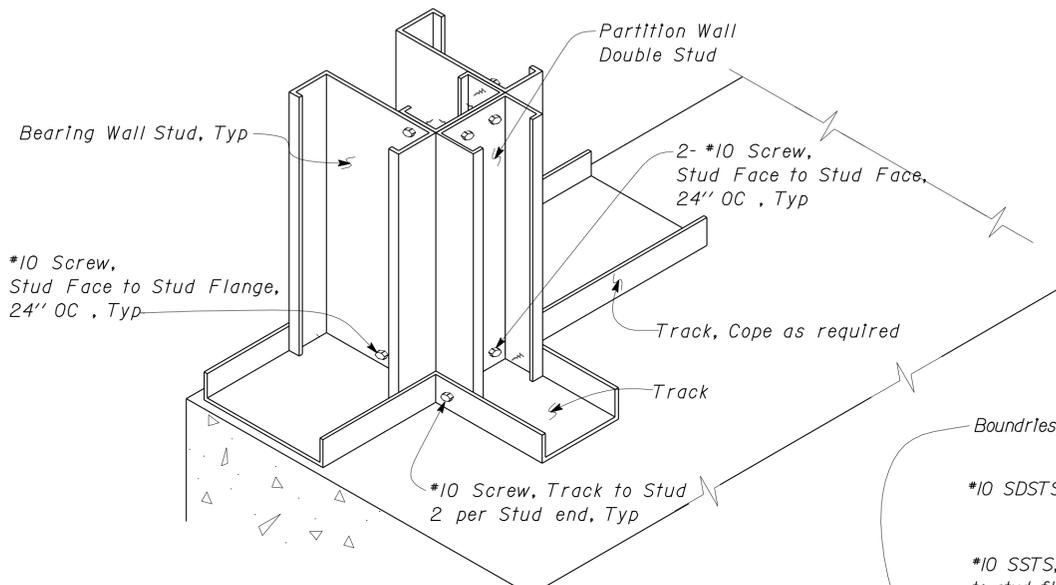
**'T' (Track) MEMBER**  
Member Type



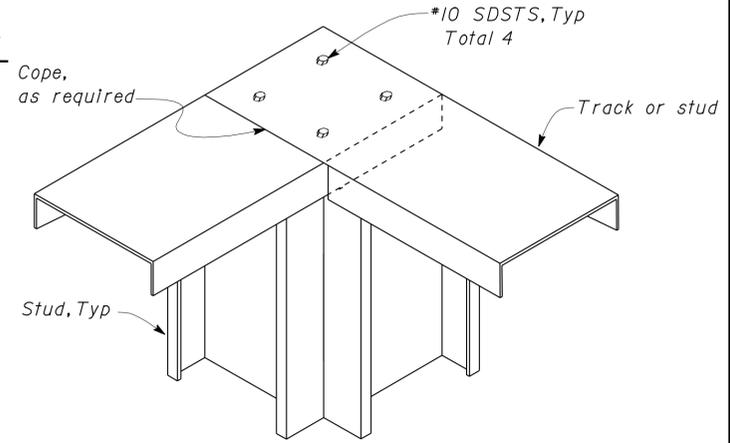
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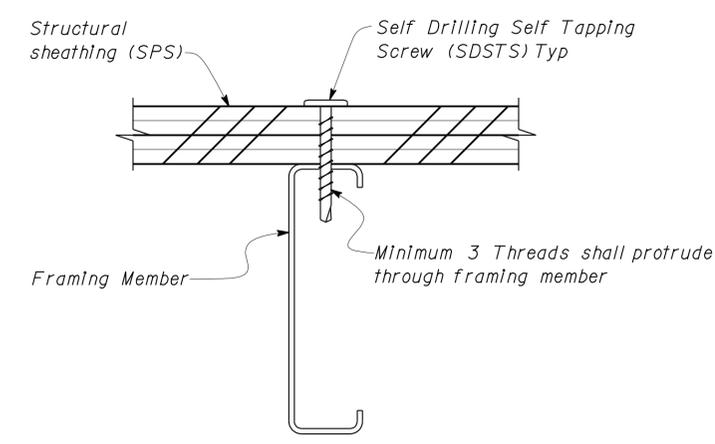
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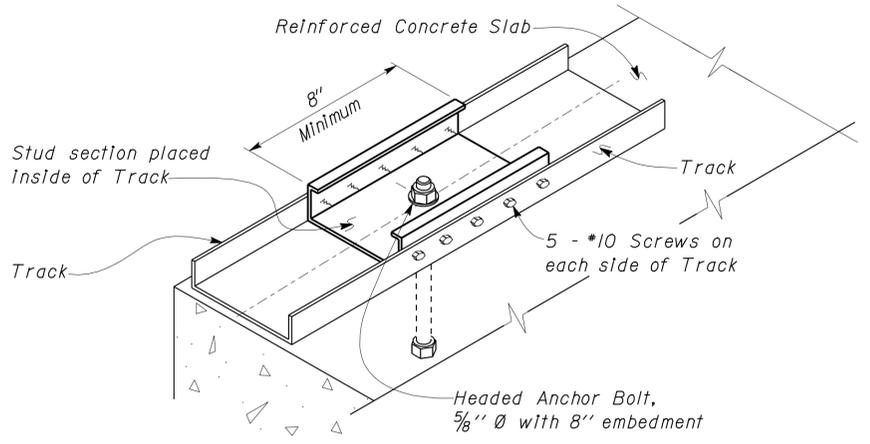
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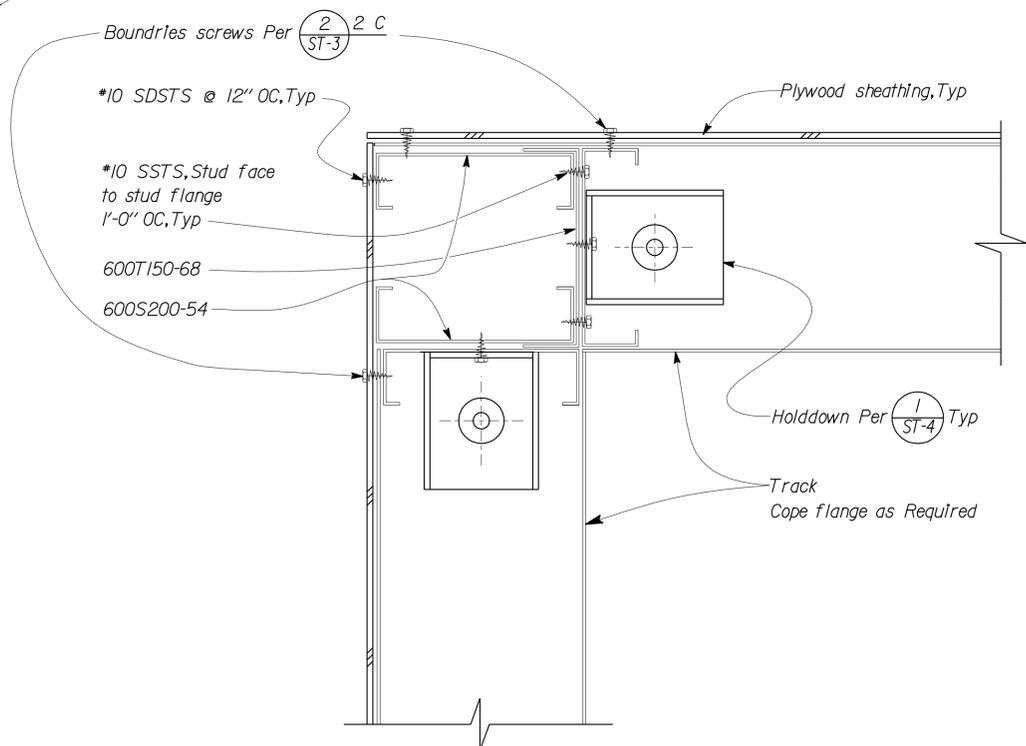
**5 TOP TRACK CONNECTION**  
No Scale



**1 SCREW DETAIL**  
No Scale



**7 EXTERIOR WALL TRACK ANCHORAGE**  
No Scale



**6 WALL CORNER CONNECTION**  
No Scale

DESIGN	BY Tahir Rashid	CHECKED Thomas Tong
DETAILS	BY Aleksey Serin/Daniel Harakh	CHECKED Tahir Rashid
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

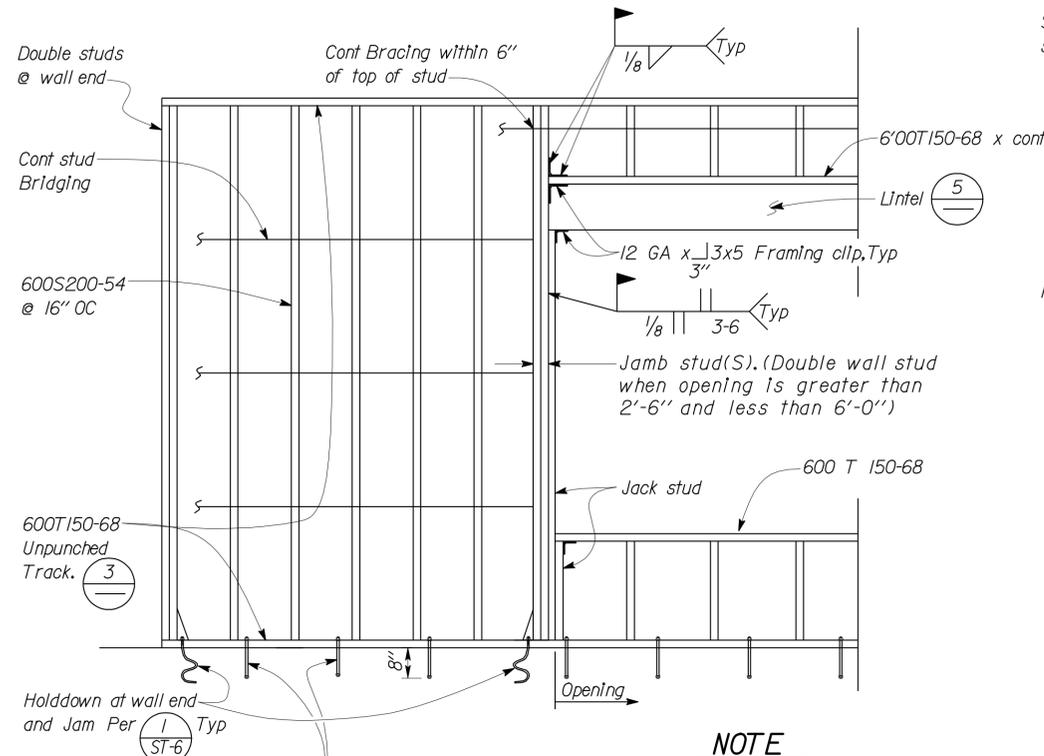
DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L  
 46R0001R  
 POST MILE 22.45  
 22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
 TRACK AND STUD STANDARD DETAILS

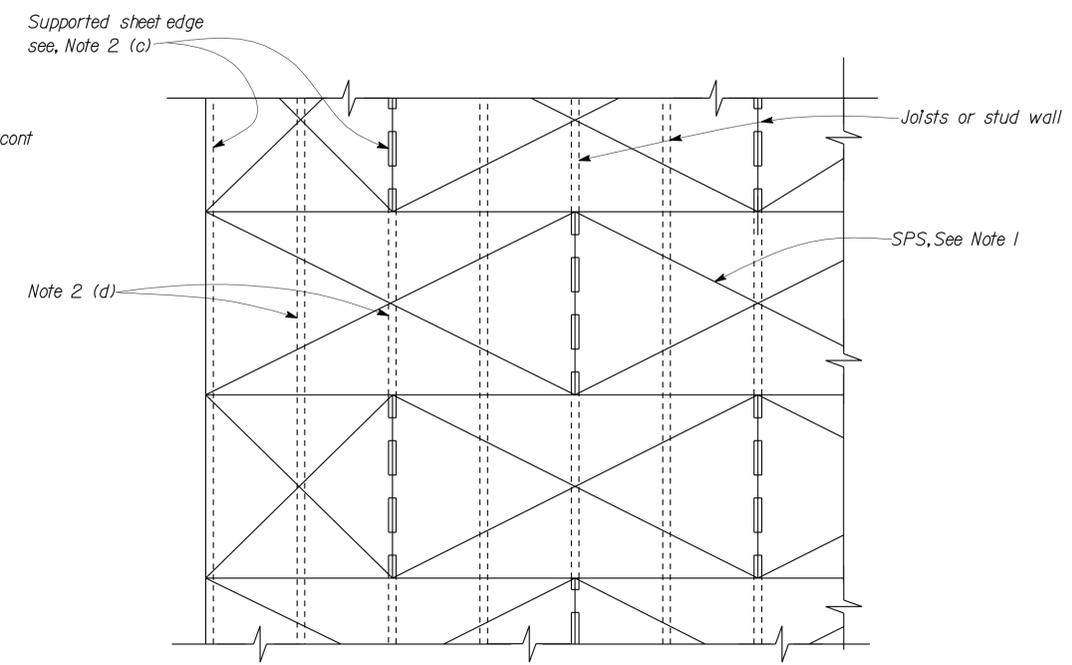
SHEET **ST-4**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	219	335
			Tahir Rashid REGISTERED CIVIL ENGINEER DATE 12-22-09		
8-9-10 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.					



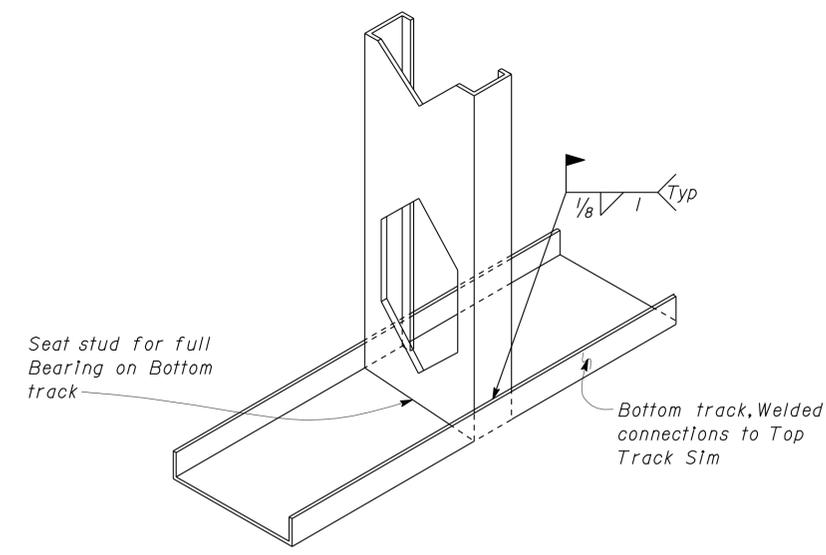
**1 ELEVATION**  
Scale 1/2" = 1' - 0"

**NOTE**  
Screws shall be #10 SDSTS w/min 3 threads protruding through Base framing

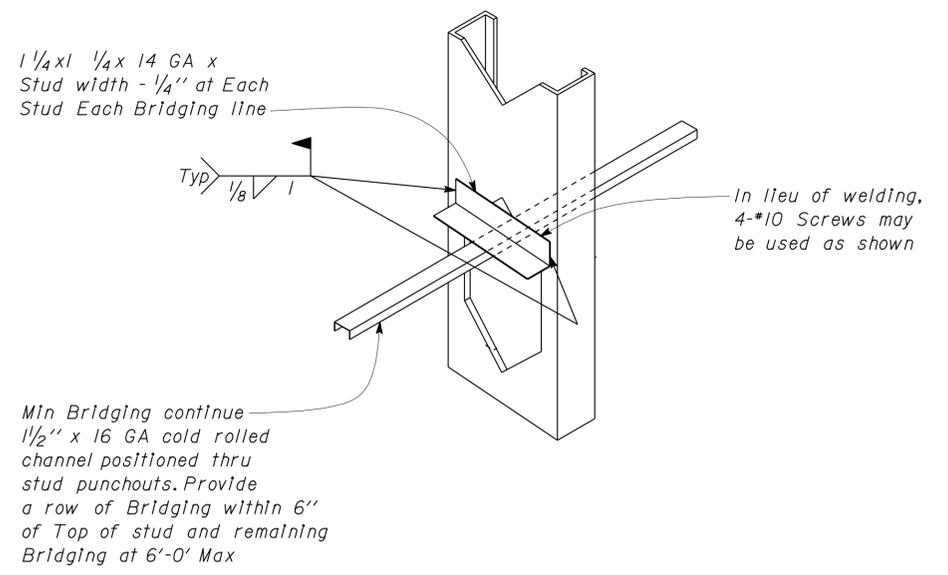


**2 STRUCTURAL PLYWOOD SHEATHING (SPS)**  
Scale 1/2" = 1' - 0"

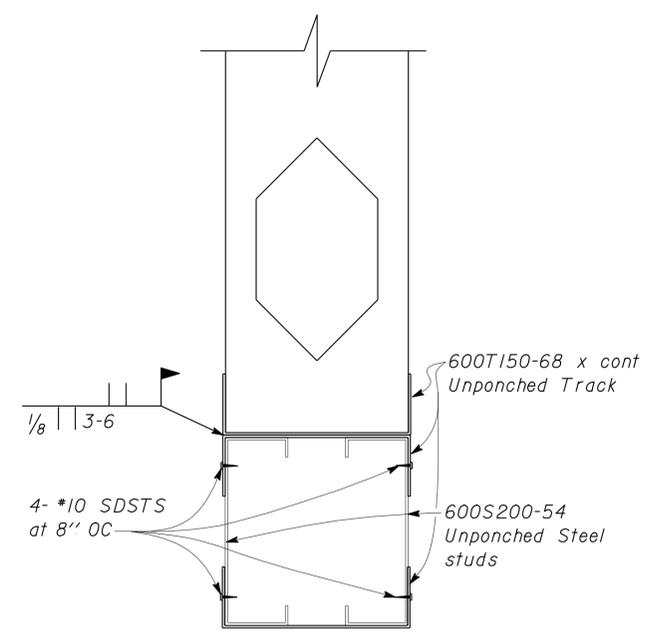
- NOTES:**
- Structural Plywood Sheathing (SPS)**
    - 1/2" Plywood, Panel grade structural I.
    - Stagger SPS as shown
    - Run face grain perpendicular to supports
    - Minimum sheet size shall be 2'-0" x 4'-0"
  - Attachments**
    - Screws shall be #10 SDSTS w/min 3 threads protruding through Base framing
    - Minimum edge distance shall be 3/8" and screws shall stagger at adjacent plywood sheet, and shall not be overdriven through outer ply.
    - Sheet edges: Screw at 4" OC  
Boundary Screw at 4" OC  
Edges of openings: Screws at 4" OC
    - Intermediate support: Screw at 12" OC



**3 TYPICAL STUD TO TRACK CONNECTION**  
NO SCALE



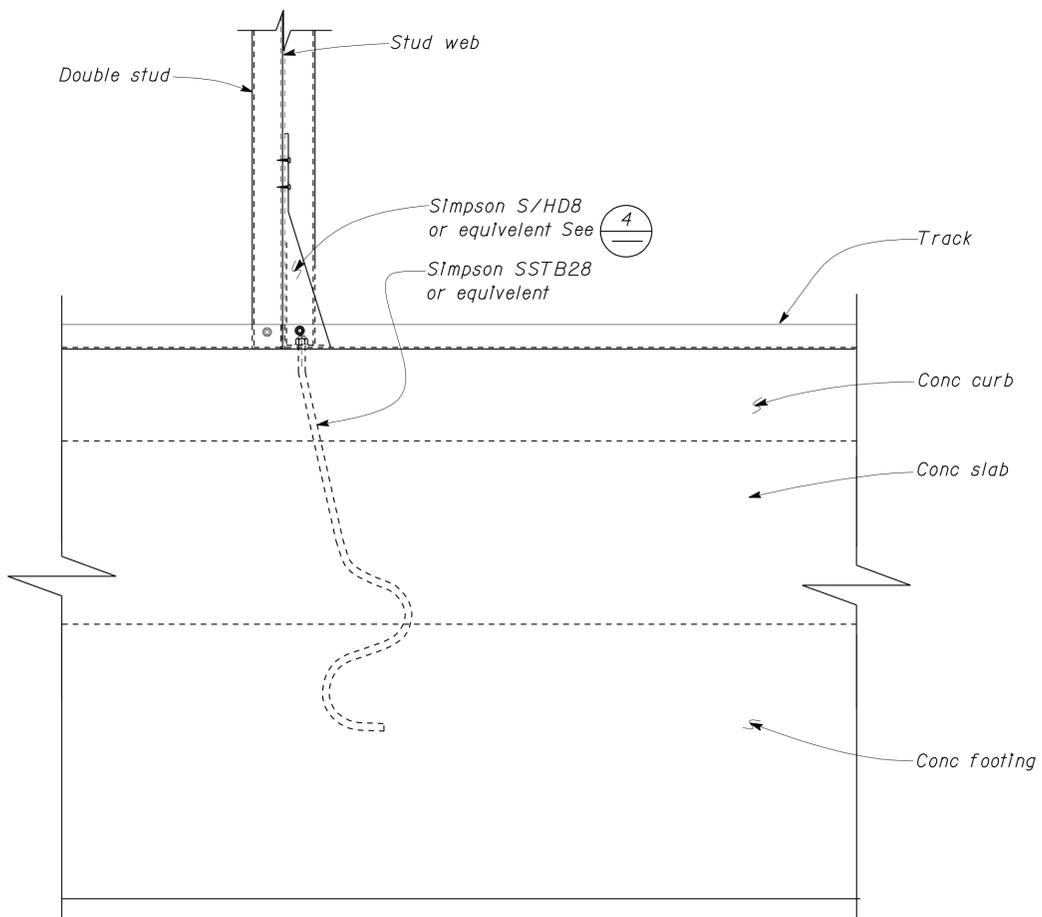
**4 TYPICAL STUD BRACING**  
NO SCALE



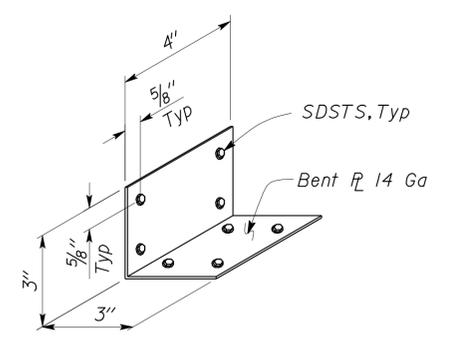
**5 LINTELS AT OPENINGS UP TO 6'-0"**  
NO SCALE

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45 22.40	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	TRACK AND STUD STANDARD DETAILS 2	SHEET ST-5
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED						
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

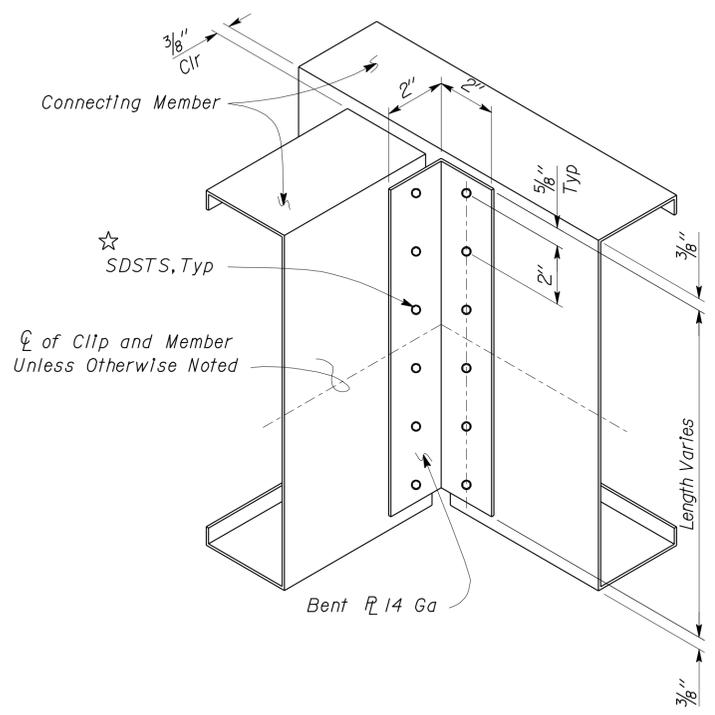
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	220	335
 REGISTERED CIVIL ENGINEER			12-22-09 DATE		
8-9-10 PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



**1 FOOTING HOLDDOWN DETAIL**  
Scale 2" = 1' - 0"



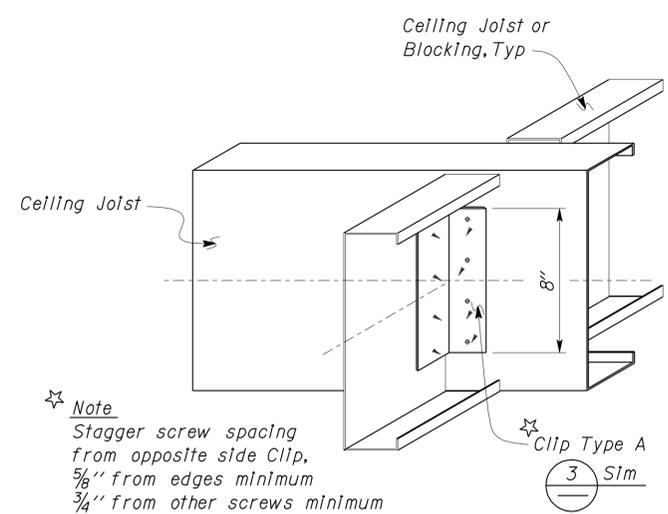
**CLIP TYPE B**



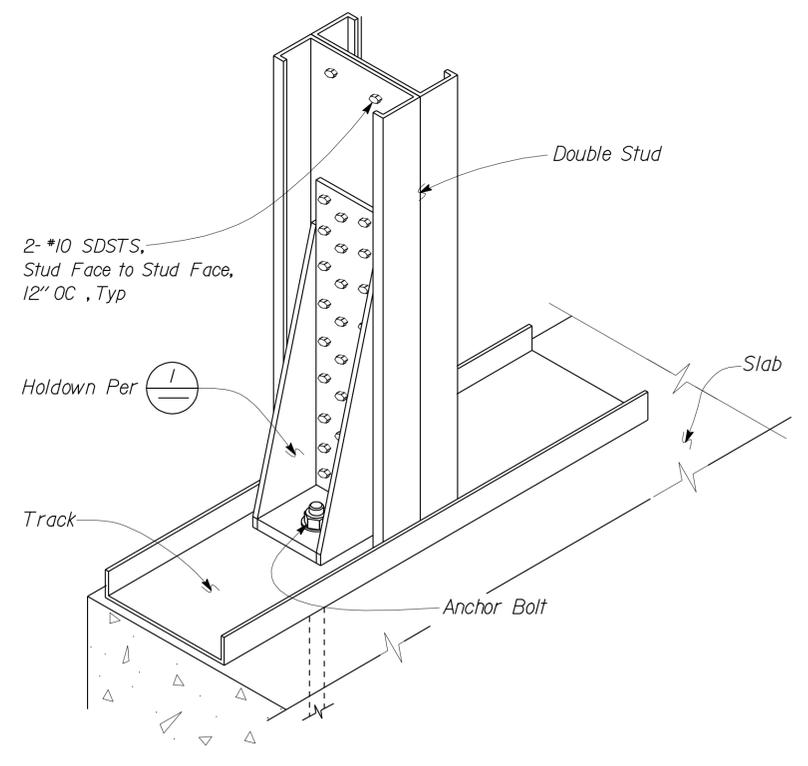
**CLIP TYPE A**

- Notes**
1. All Clips shall be 14 ga hot dipped galvanized Steel.
  2. All Clips shall use #10 SDSTS as fasteners.
  3. Screws shall be centered in flanges, 5/8" minimum from ends, equally spaced, three SDSTS per flange minimum, unless otherwise shown.

**3 ANGLE CLIP TYPES**  
No Scale



**2 CEILING CONNECTION DETAIL**  
No Scale



**4 HOLDOWN DETAIL**  
No Scale

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45 22.40	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	TRACK AND STUD STANDARD DETAILS 3	SHEET ST-6
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED						
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	

**PROJECT DESIGN CRITERIA**

The building work on this project has been designed to conform to the 2007 California Building Code (2006 IBC).

**LOADS**

**SEISMIC:** Occupancy Category = II  
 Importance Factor = 1.0  
 Site Soil Class = D  
 $S_S = 0.650$        $S_{DS} = 0.555$   
 $S_I = 0.250$        $S_{DI} = 0.317$   
 Seismic Design Category = D  
**Seismic Force-Resisting System:**  
 Bearing Wall System  
North - South  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$   
 Bearing Wall System  
East - West  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$

**WIND:** Importance Factor = 1.0  
 Basic Wind Speed = 85 mph  
 Exposure C  
 Wind Pressure on Components and Cladding = 25 psf

**LIVE LOAD:** Roof = 20 psf

**MATERIALS**

**REINFORCED CONCRETE:** (Ultimate Strength Design) :  
 $f'_c = 3,000$  psi  
 $f_y = 60,000$  psi

**FOUNDATION:**  
 Soils report dated : Mar 14, 2008  
 Allowable Soil Pressure (DL + LL) : = 2,000 psf

**REINFORCED CONCRETE MASONRY UNITS:**  
 (Allowable Stress Design) :  
 $f'_m = 1,500$  psi  
 $f_y = 60,000$  psi  
 SPECIAL INSPECTION NOT REQUIRED

**STRUCTURAL STEEL:** (Allowable Strength Design) :  
 Channels, Angles & Misc. Shapes  $F_y = 36$  ksi  
 Plates  $F_y = 36$  ksi  
 Hollow Structural Steel (HSS)  $F_y = 46$  ksi

**DETAIL NOTES**

- For Concrete see: "Concrete Standard"
- For Masonry see: "Concrete Masonry Unit Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	221	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER      12-22-09 DATE

8-9-10  
 PLANS APPROVAL DATE

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**STEEL DECK MINIMUM SECTION PROPERTIES**

Deck Type	Depth & Gage	Moment of Inertia	Positive Section Modulus	Negative Section Modulus	Minimum Yield Strength
HSB36 Type Steel Decking	1/2" x 20 Ga	0.216 in <sup>4</sup> /ft	0.235 in <sup>3</sup> /ft	0.248 in <sup>3</sup> /ft	38 Ksi

Note  
 Minimum 3 Span Condition

**WELDING SCHEDULE and STEEL DECK PROFILE**

Steel Deck Profile	1/2" Diameter Puddle Weld			Diaphragm Shear Capacity
	Perpendicular Supports and Panel Ends	Parallel Supports	Side Laps	
	5 - Puddle Welds Per Support	12" OC	Button Punch 12" OC	450 lb/ft

**A STEEL DECK NOTES**

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L  
 46R0001R  
 POST MILE 22.45  
 22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
 COMFORT STATION A  
 DESIGN CRITERIA AND DETAIL NOTES

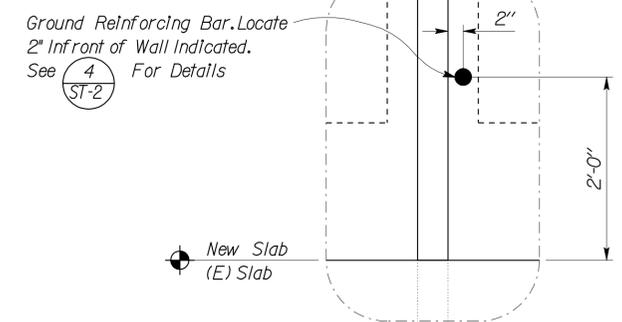
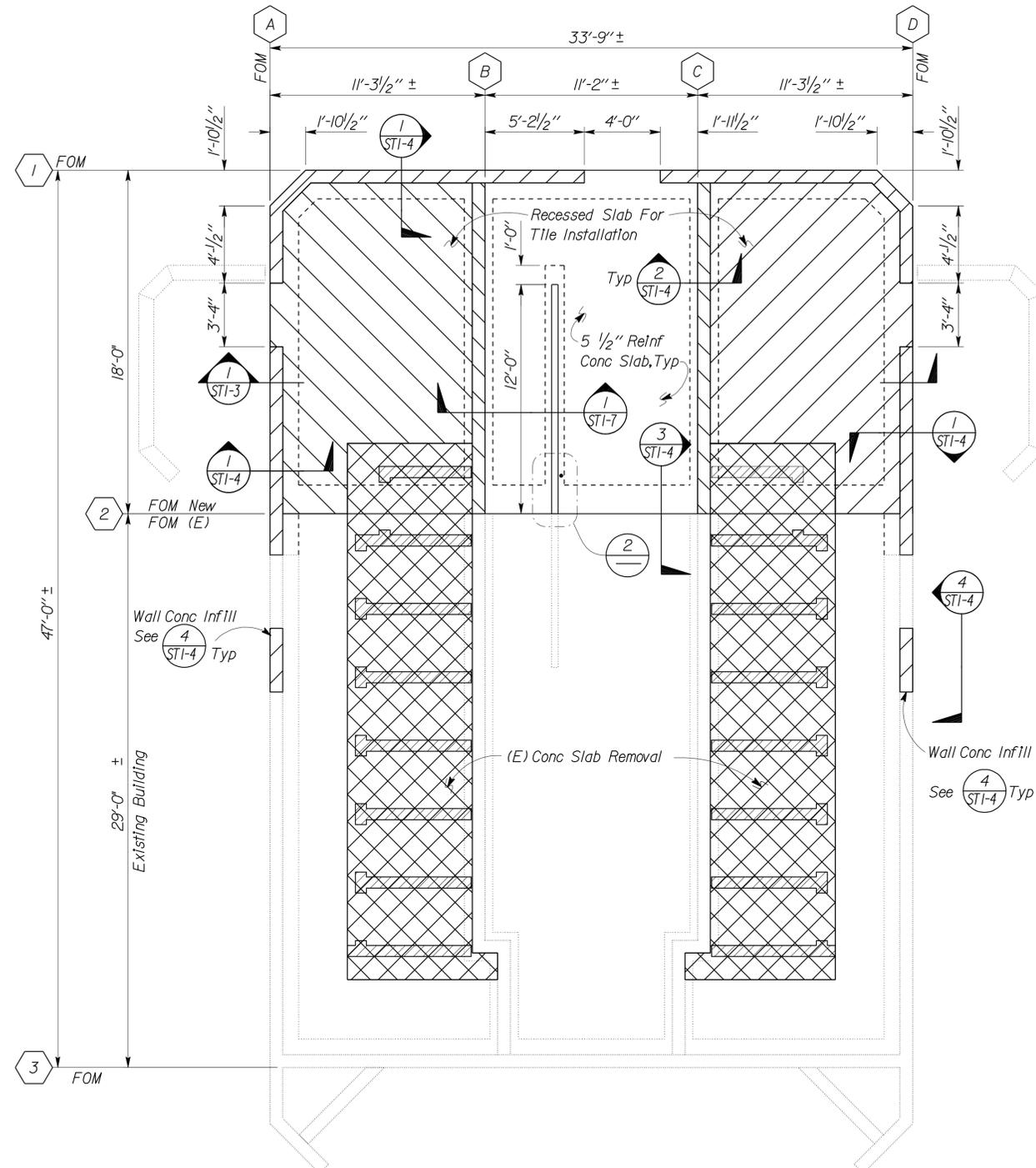
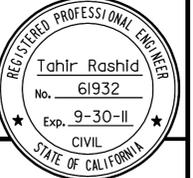
SHEET **ST1-0**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	222	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

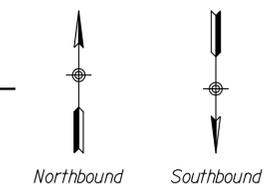
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



**2 GROUND BAR**  
Scale 1" = 1'-0"

Note:  
Match All Wall Height, Footing Size and Slab

**1 FOUNDATION PLAN**  
Scale 1/4" = 1'-0"



**NOTE**  
The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

*Joe Spindler*  
DESIGN ENGINEER

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	46R0001L
POST MILE	22.45
COMFORT STATION A	22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
FOUNDATION PLAN

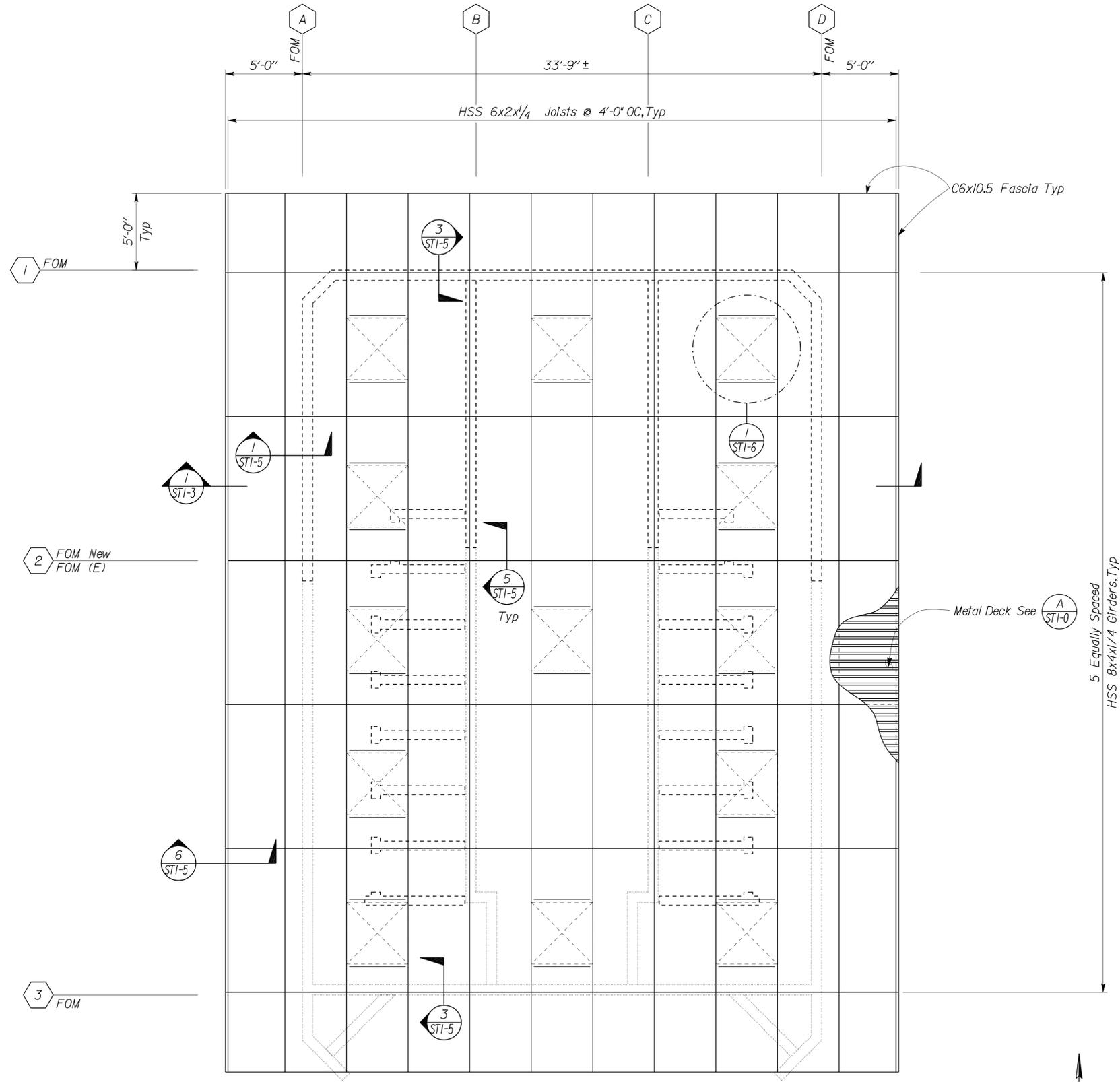
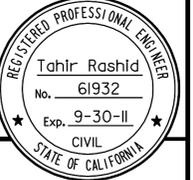
SHEET **ST1-1**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	223	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

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**NOTE**  
The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

**1 ROOF PLAN**  
Scale 1/4" = 1'-0"  
Northbound Southbound

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L 46R0001R	COMFORT STATION A	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	ROOF FRAMING PLAN	SHEET <b>ST1-2</b>
POST MILE 22.45 22.40				

DOES SD Imperial Rev. 9/02

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

CU 06340  
EA 0A9701

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	05-22-08   10-15-08   01-13-09   03-03-09	

16-AUG-2010 07:15

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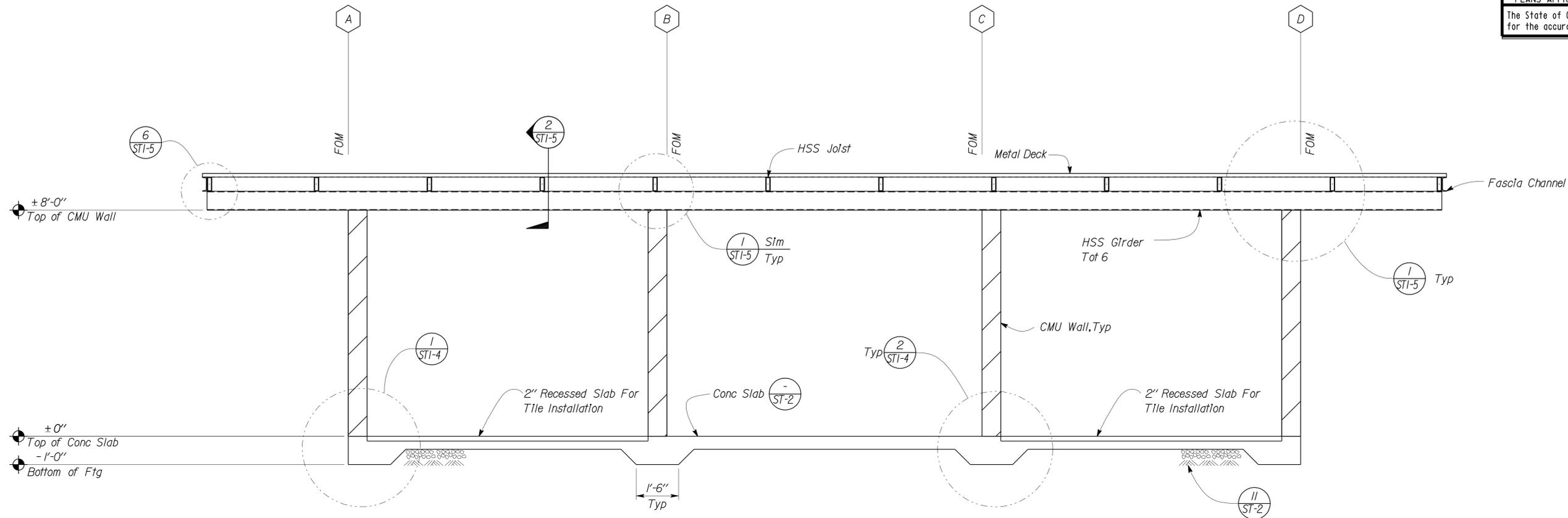
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	224	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

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**1 MAIN SECTION**  
Scale 1/2" = 1'-0"

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	46R0001L
POST MILE	22.45
	22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
COMFORT STATION A  
**MAIN SECTION**

SHEET **ST1-3**



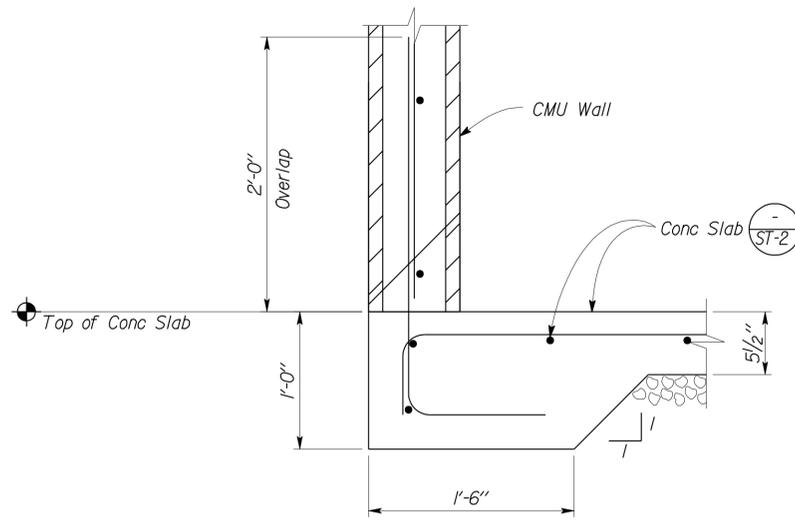
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	225	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

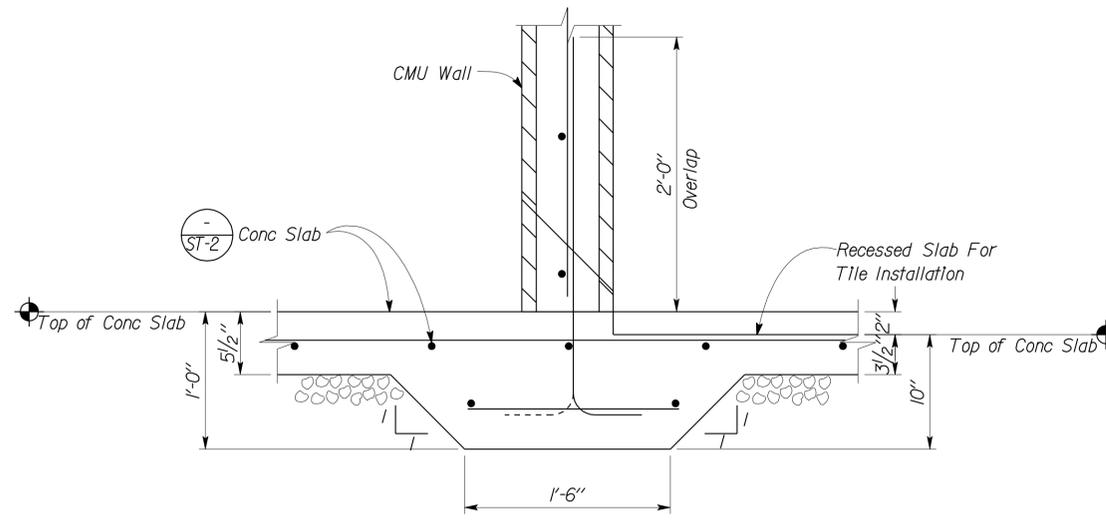
12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

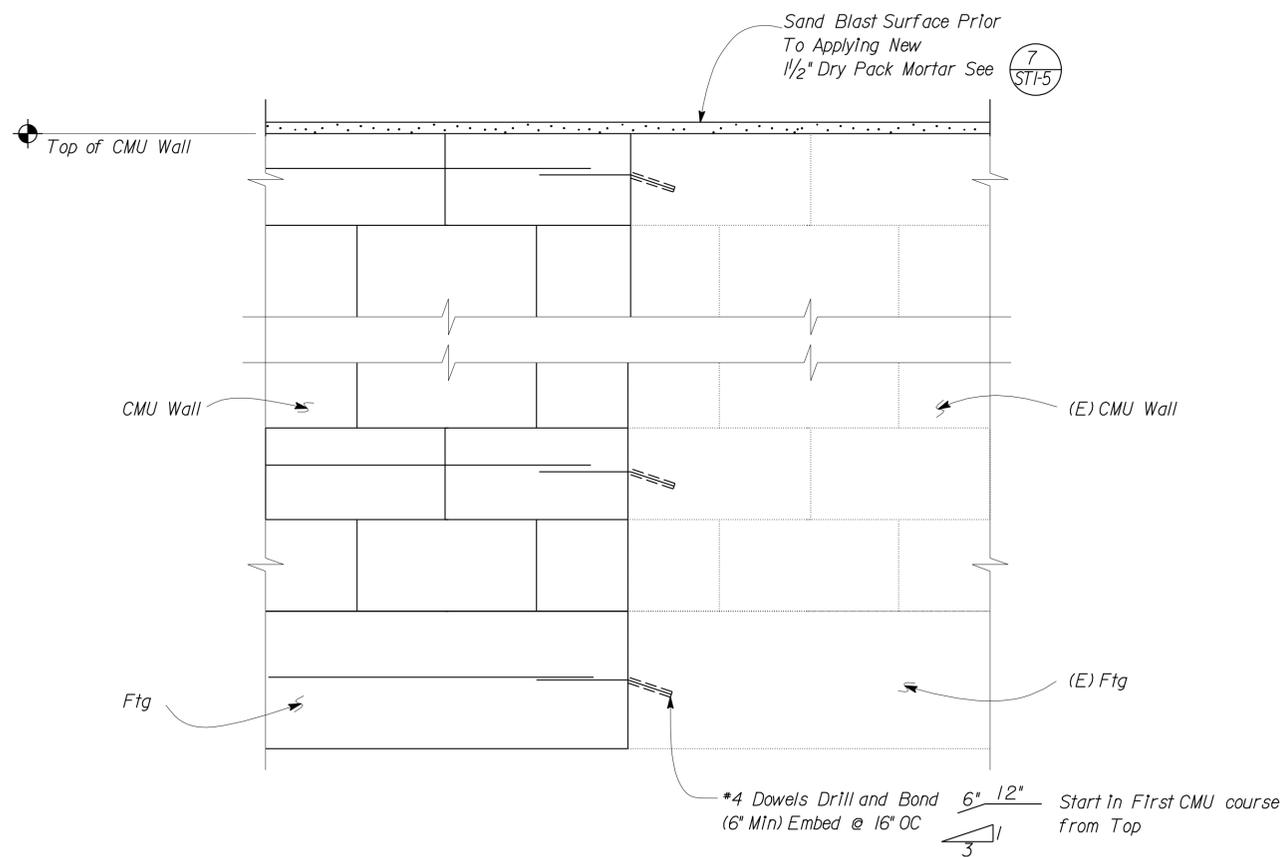
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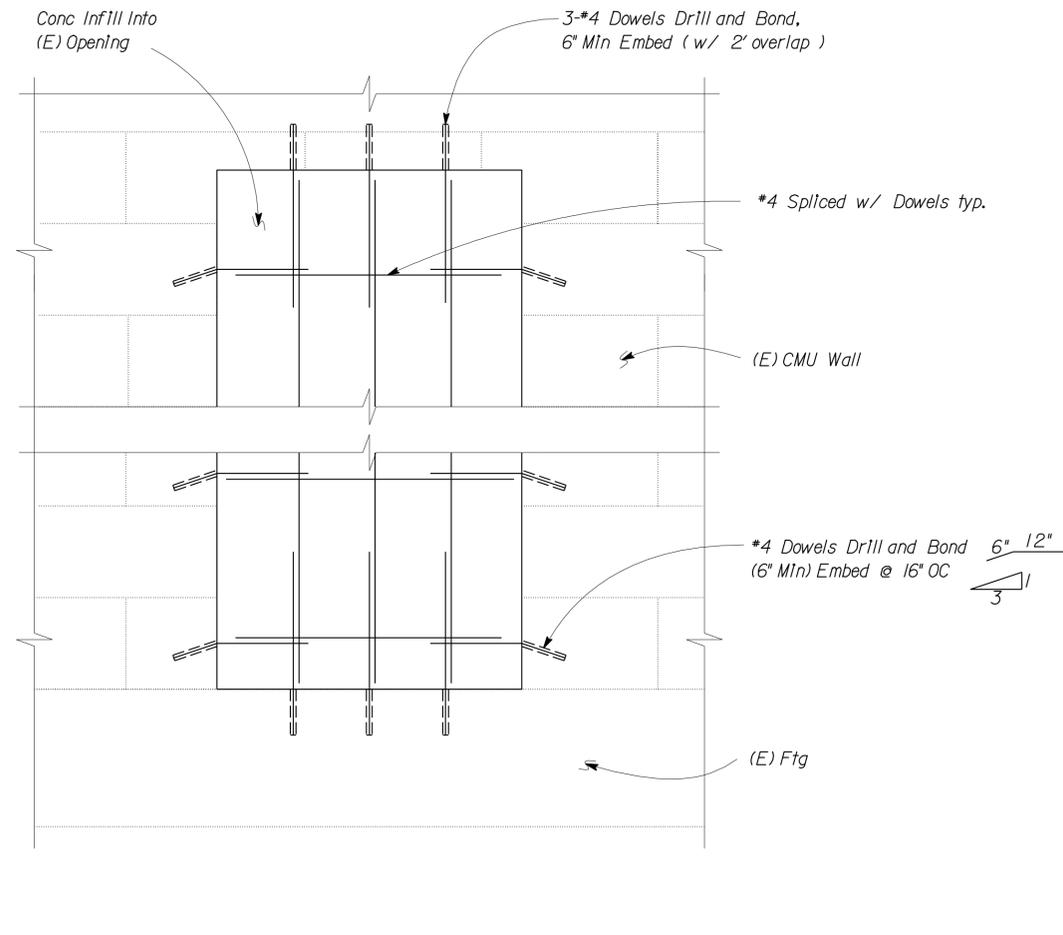
**1 FOOTING DETAIL**  
Scale 1 1/2" = 1' - 0"



**2 FOOTING DETAIL**  
Scale 1 1/2" = 1' - 0"



**3 CMU WALL CONNECTIONS**  
Scale 1 1/2" = 1' - 0"



**4 CONCRETE INFILL**  
Scale 1 1/2" = 1' - 0"

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	COMFORT STATION A	FOUNDATION DETAILS	SHEET OF ST1-4
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE				
QUANTITIES	BY		CHECKED		CU 06340 EA 0A9701							

DOES SD Imperial Rev. 9/02

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

16-AUG-2010 07:15

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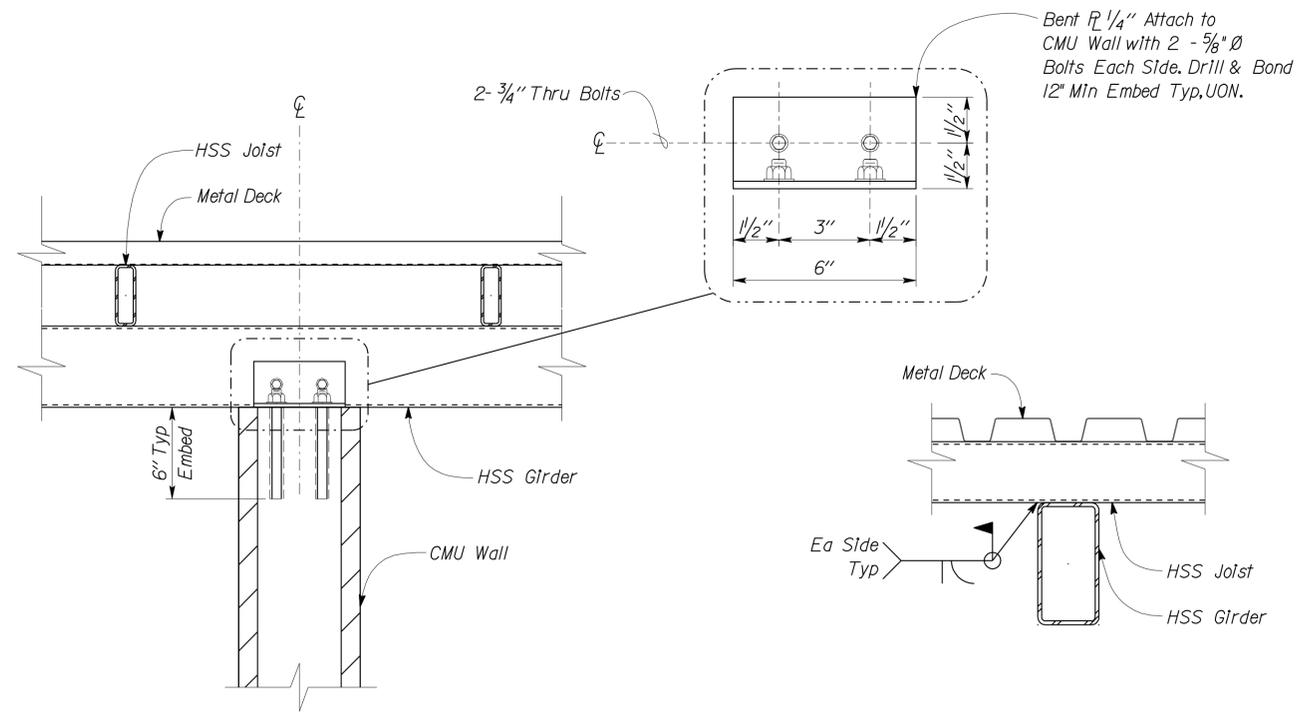
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	226	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

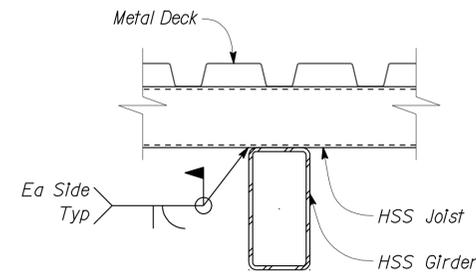
12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

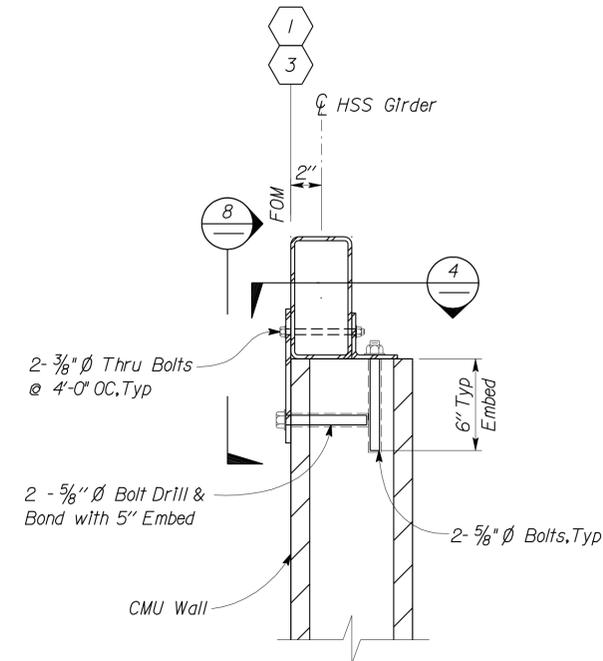
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



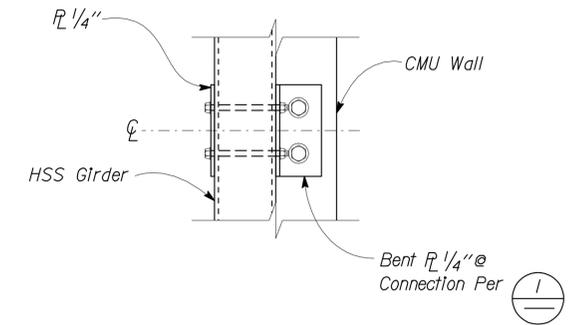
1 GIRDER TO WALL CONNECTION  
Scale 2" = 1' - 0"



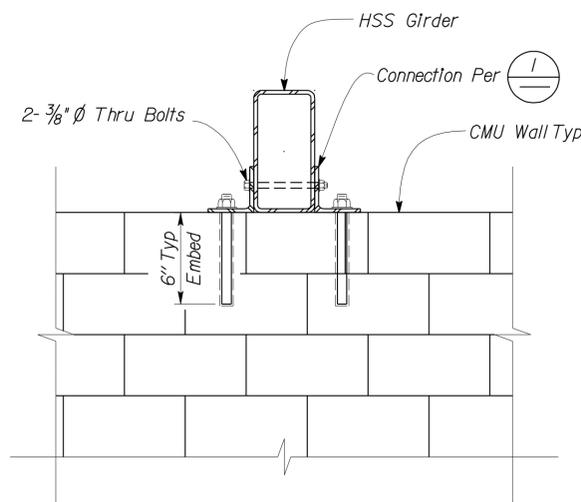
2 JOIST TO GIRDER CONNECTION  
Scale 2" = 1' - 0"



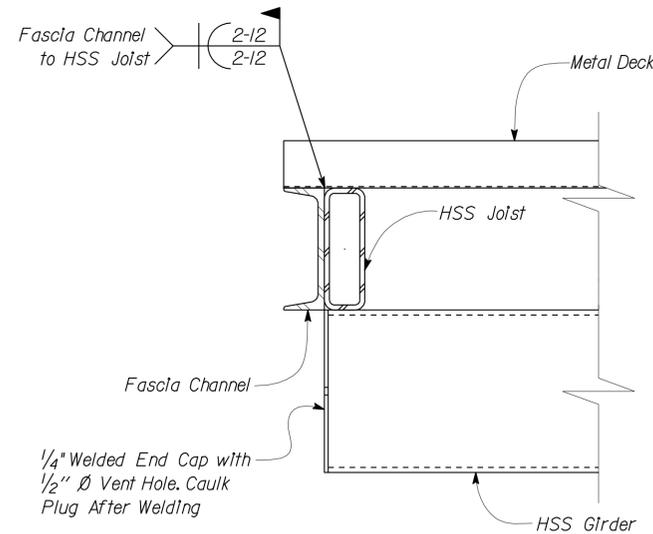
3 GIRDER TO WALL CONNECTION  
Scale 2" = 1' - 0"



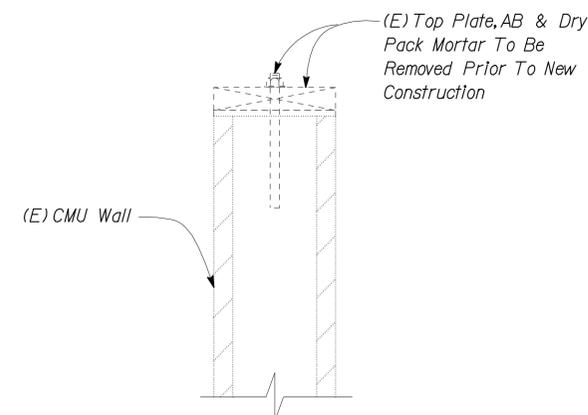
4 GIRDER TO WALL CONNECTION  
Scale 2" = 1' - 0"



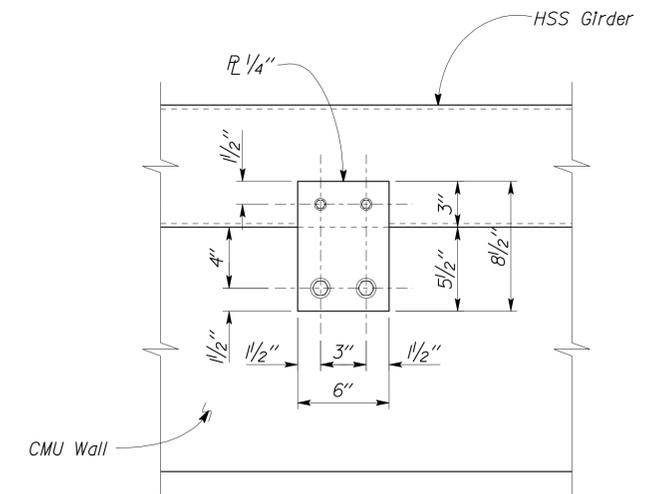
5 GIRDER TO (E)/NEW WALL  
Scale 2" = 1' - 0"



6 FASCIA CONNECTION  
Scale 2" = 1' - 0"



7 TOP OF (E) WALL  
Scale 2" = 1' - 0"



8 PLATE CONNECTION  
Scale 2" = 1' - 0"

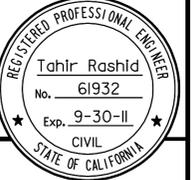
DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST1-5
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		
QUANTITIES	BY		CHECKED		CU 06340	EA 0A9701	POST MILE	22.40	ROOF FRAMING DETAILS	SHEET OF
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	REVISION DATES (PRELIMINARY STAGE ONLY)	
DOES SD Imperial Rev. 9/02								DISREGARD PRINTS BEARING EARLIER REVISION DATES		10-15-08 01-13-09 03-05-10 06-05-09

16-AUG-2010 07:51

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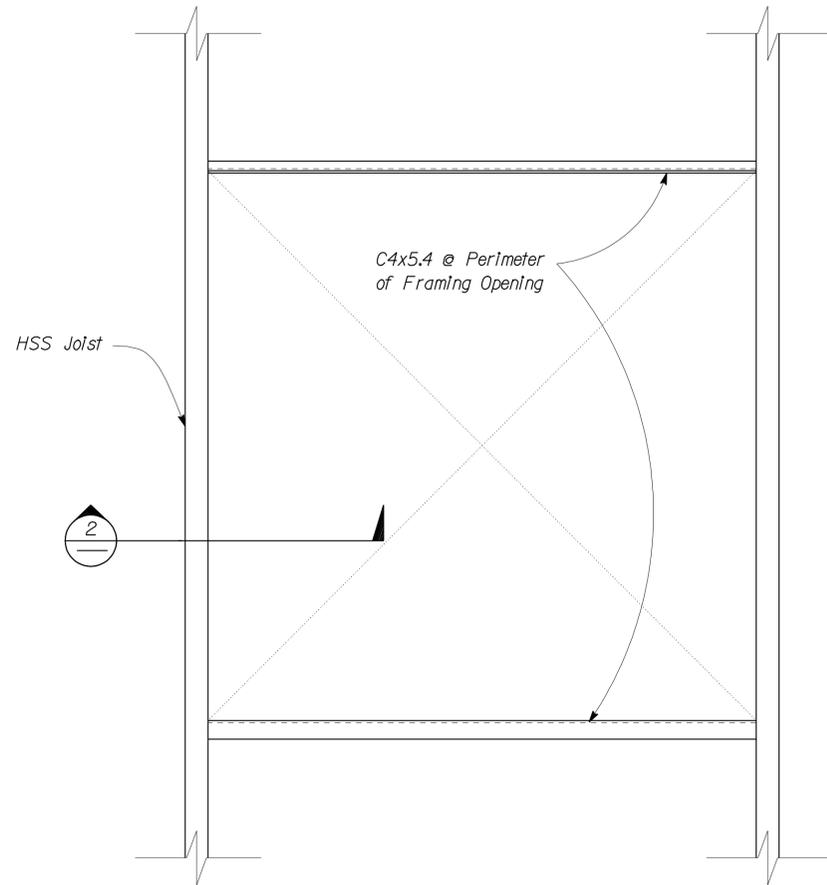
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	227	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
DATE 12-22-09



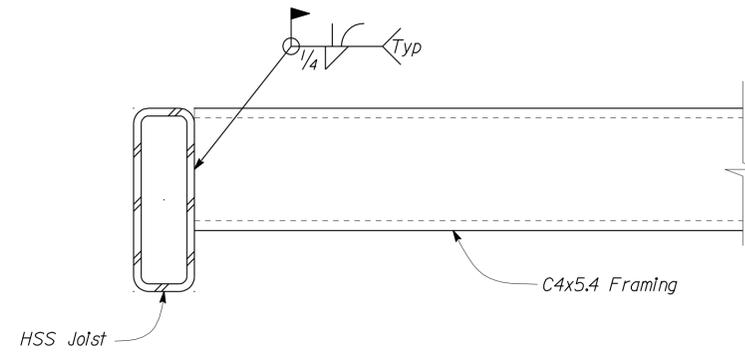
8-9-10  
PLANS APPROVAL DATE

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**1 ROOF OPENING**  
Scale 1 1/2" = 1' - 0"

NOTE:  
For Roof Opening size and Location see Arch. sheets



**2 FRAMING CONNECTION**  
Scale 4" = 1' - 0"

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	46R0001L
POST MILE	22.45
	22.40

PHILIP S. RAINE SAFETY ROADSIDE REST AREA  
COMFORT STATION A  
ROOF FRAMING DETAILS

SHEET ST1-6 OF

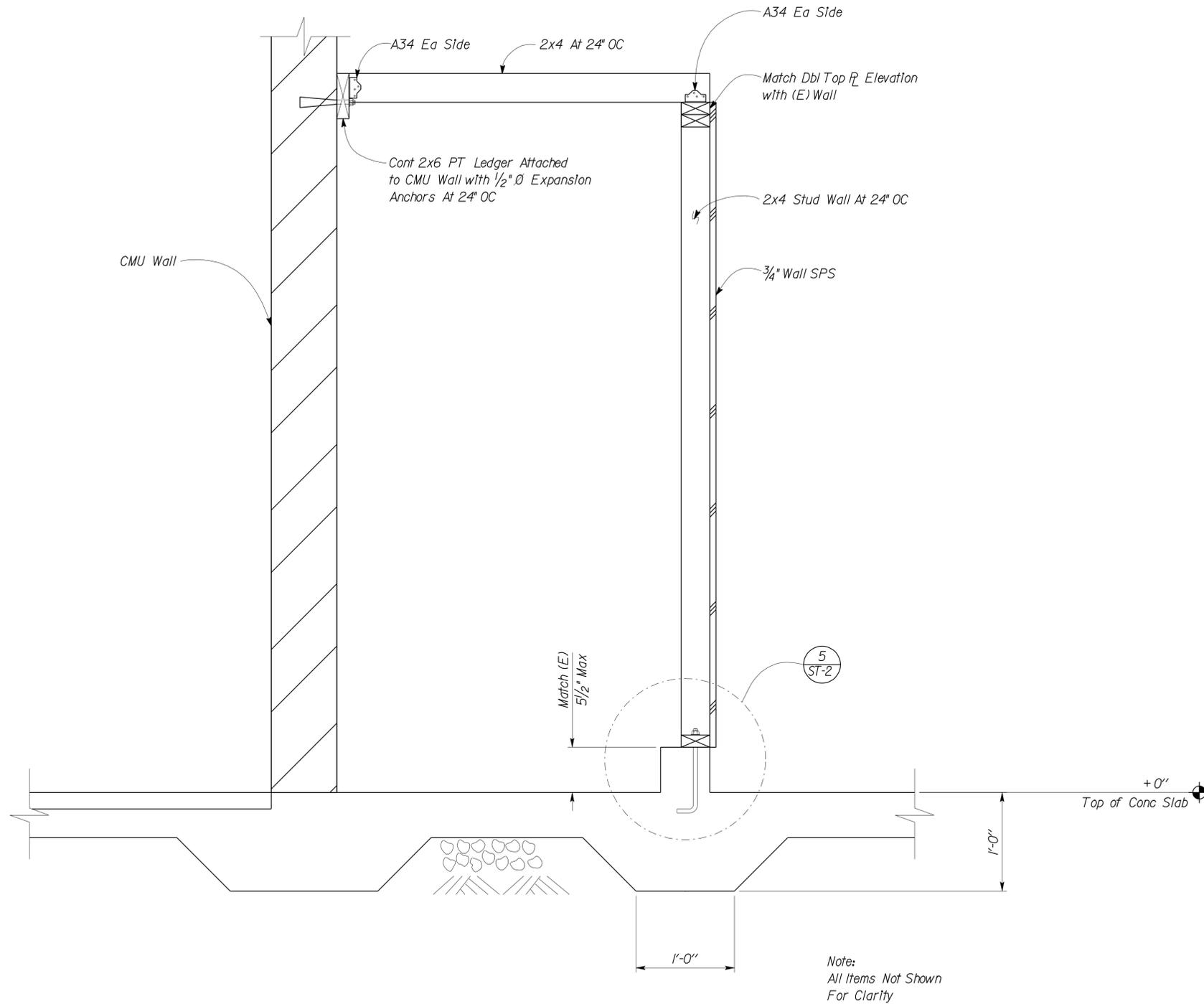
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	228	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

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**1 ELECTRICAL WALL SECTION**  
 Scale 1/2" = 1'-0"

Note:  
 All Items Not Shown  
 For Clarity

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	46R0001L
POST MILE	22.45
	22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
 COMFORT STATION A  
 SECTION

SHEET **ST1-7**

**PROJECT DESIGN CRITERIA**

The building work on this project has been designed to conform to the 2007 California Building Code (2006 IBC).

**LOADS**

**SEISMIC:** Occupancy Category = II  
 Importance Factor = 1.0  
 Site Soil Class = D  
 $S_S = 0.650$        $S_{DS} = 0.555$   
 $S_I = 0.250$        $S_{DI} = 0.317$   
 Seismic Design Category = D  
**Seismic Force-Resisting System:**  
 Bearing Wall System  
North - South  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$   
 Bearing Wall System  
East - West  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$

**WIND:** Importance Factor = 1.0  
 Basic Wind Speed = 85 mph  
 Exposure C  
 Wind Pressure on Components and Cladding = 25 psf

**LIVE LOAD:** Roof = 20 psf

**MATERIALS**

**REINFORCED CONCRETE:** (Ultimate Strength Design) :  
 $f'_c = 3,000$  psi  
 $f_y = 60,000$  psi

**FOUNDATION:**  
 Soils report dated : Mar 14, 2008  
 Allowable Soil Pressure (DL + LL) : = 2,000 psf

**REINFORCED CONCRETE MASONRY UNITS:**  
 (Allowable Stress Design) :  
 $f'_m = 1,500$  psi  
 $f_y = 60,000$  psi  
 SPECIAL INSPECTION NOT REQUIRED

**STRUCTURAL STEEL:** (Allowable Strength Design) :  
 Channels, Angles & Misc. Shapes  $F_y = 36$  ksi  
 Plates  $F_y = 36$  ksi  
 Hollow Structural Steel (HSS)  $F_y = 46$  ksi

**DETAIL NOTES**

- For Concrete see: "Concrete Standard"
- For Masonry see: "Concrete Masonry Unit Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	229	335

*Tahir Rashid* 12-22-09  
 REGISTERED CIVIL ENGINEER DATE

8-9-10  
 PLANS APPROVAL DATE

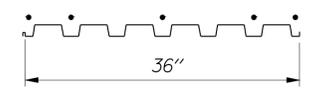
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

**STEEL DECK MINIMUM SECTION PROPERTIES**

Deck Type	Depth & Gage	Moment of Inertia	Positive Section Modulus	Negative Section Modulus	Minimum Yield Strength
HSB36 Type Steel Decking	1/2" x 20 Ga	0.216 in <sup>4</sup> /ft	0.235 in <sup>3</sup> /ft	0.248 in <sup>3</sup> /ft	38 Ksi

Note  
 Minimum 3 Span Condition

**WELDING SCHEDULE and STEEL DECK PROFILE**

Steel Deck Profile	1/2" Diameter Puddle Weld			Diaphragm Shear Capacity
	Perpendicular Supports and Panel Ends	Parallel Supports	Side Laps	
	5 - Puddle Welds Per Support	12" OC	Button Punch 12" OC	450 lb/ft

**A STEEL DECK NOTES**

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L
POST MILE 22.45
22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
 COMFORT STATION B  
 DESIGN CRITERIA AND DETAIL NOTES

SHEET **ST2-0**

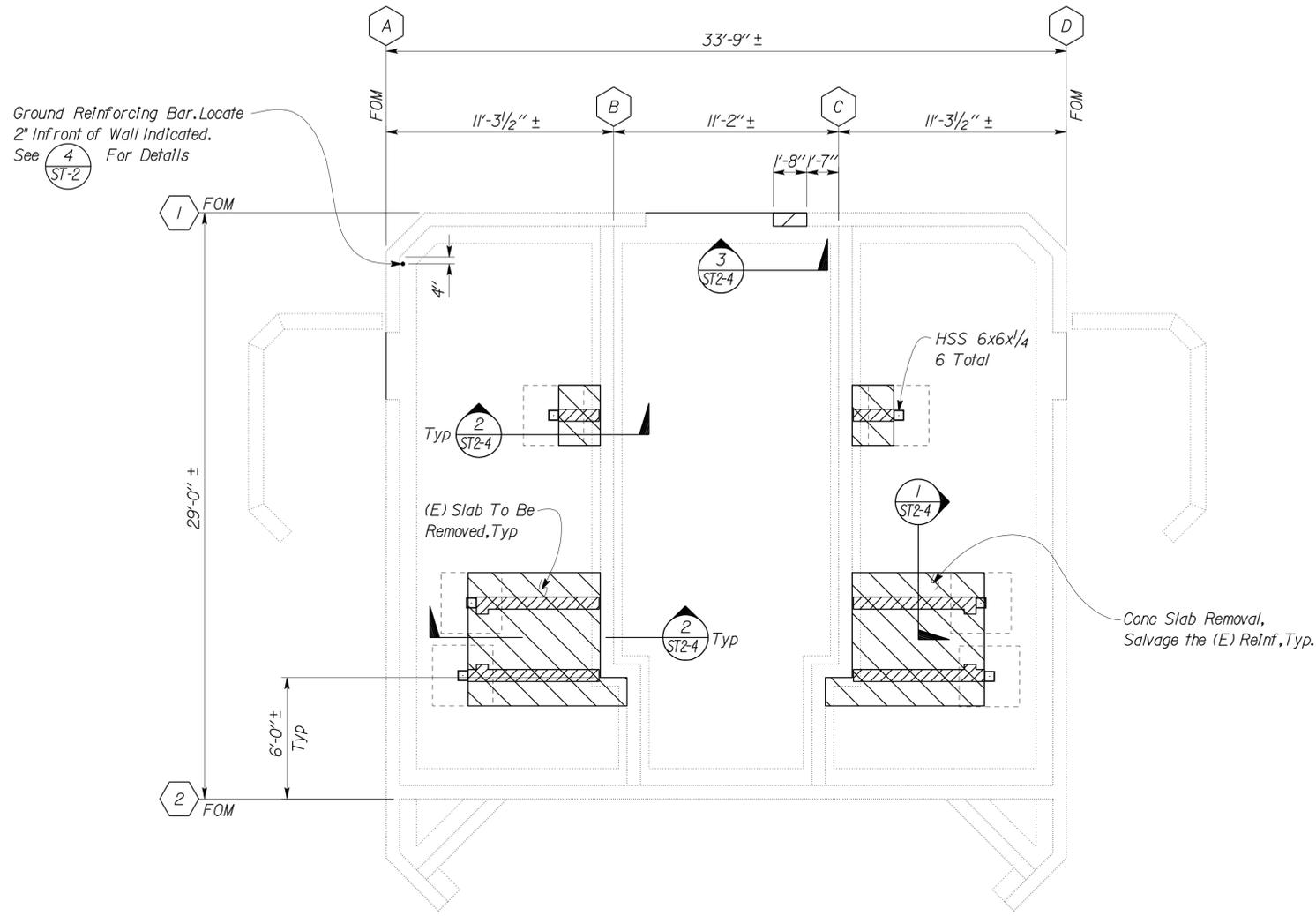
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	230	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

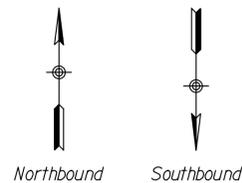
12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

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(1) FOUNDATION PLAN  
 Scale 1/4" = 1'-0"



DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	BRIDGE NO. 46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST2-1	
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED				Tahir Rashid
QUANTITIES	BY		CHECKED		POST MILE 22.45	COMFORT STATION B	FOUNDATION PLAN	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3
DOES SD Imperial Rev. 9/02					CU 06340	EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)
					03-12-08	12-21-09		

16-AUG-2010 07:51

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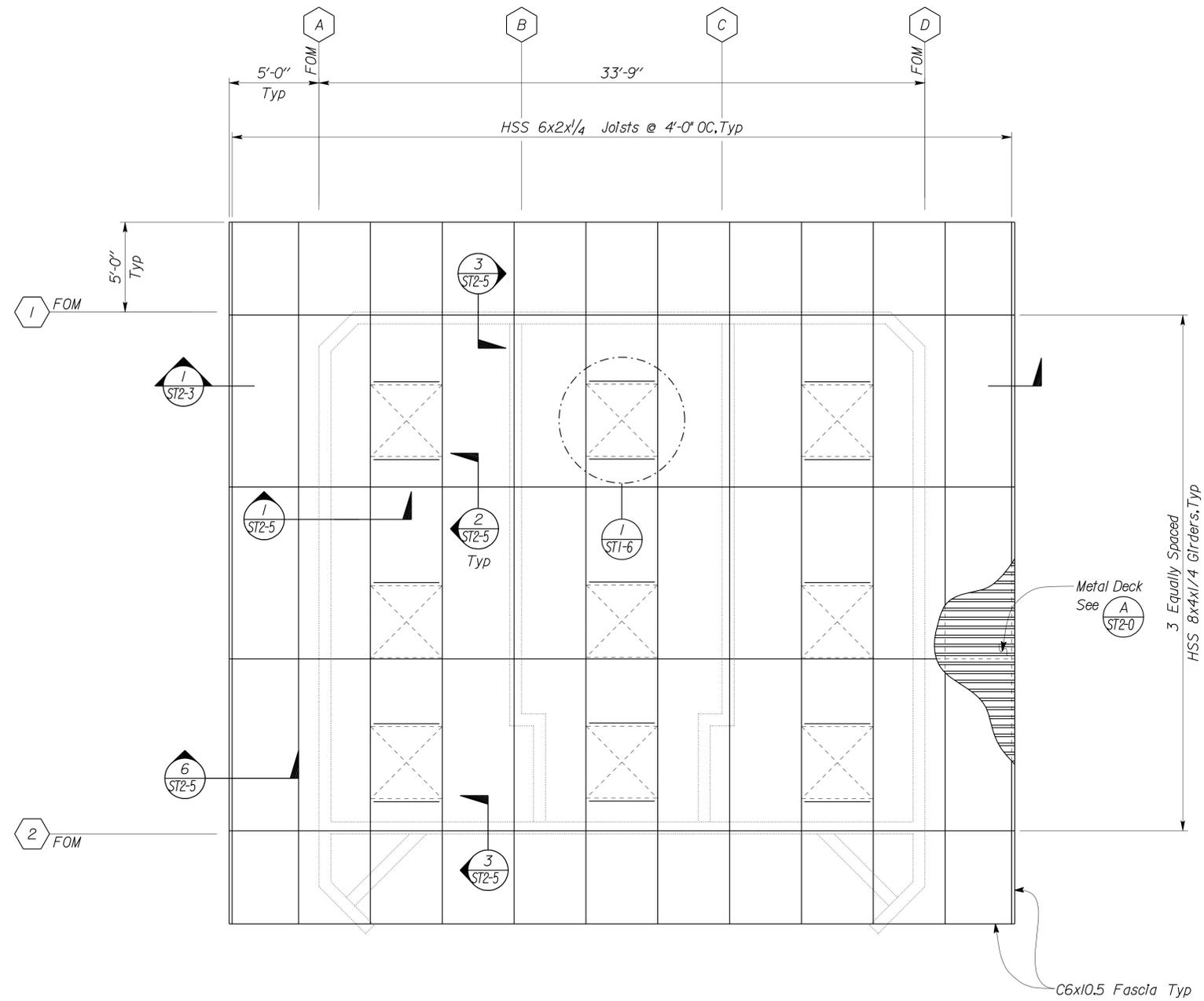
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	231	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

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**1 ROOF PLAN**  
Scale 1/4" = 1'-0"

Northbound Southbound

**NOTE**  
The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L	COMFORT STATION B	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET <b>ST2-2</b>
POST MILE 22.45			
POST MILE 22.40	ROOF FRAMING PLAN		OF

DOES SD Imperial Rev. 9/02

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

CU 06340  
EA 0A9701

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 10-22-08

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET OF

16-AUG-2010 08:02

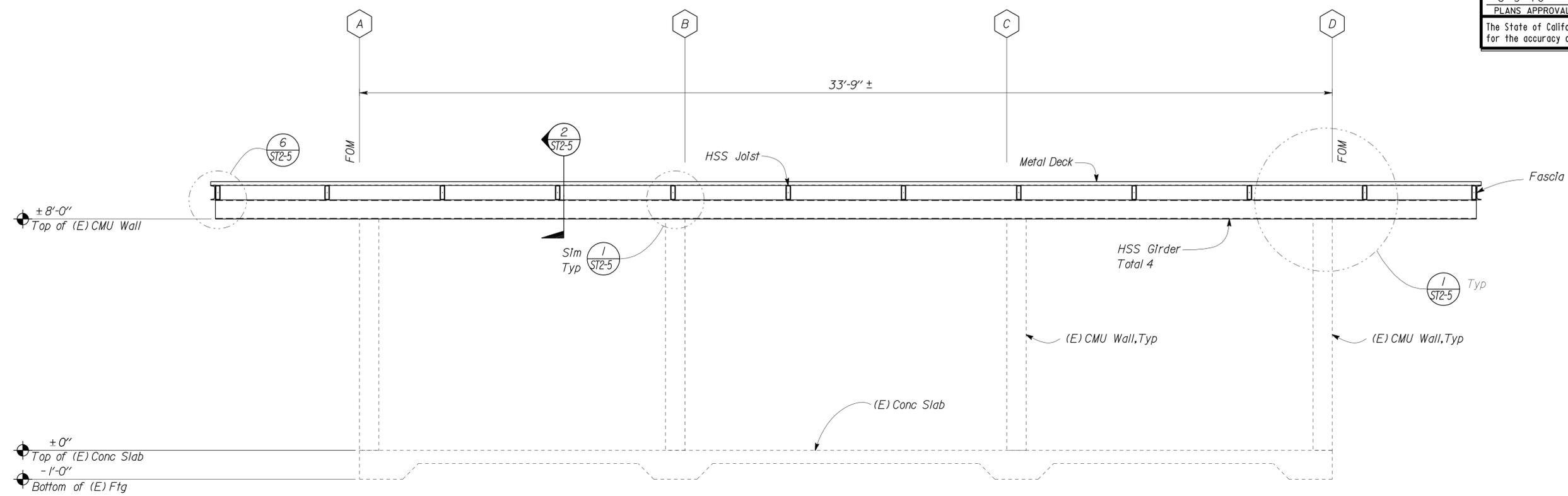
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	232	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

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**1** MAIN SECTION  
Scale 1/2" = 1'-0"

DESIGN	BY	<i>Tahir Rashid</i>	CHECKED	<i>Thomas Tong</i>	BRIDGE NO. 46R0001L 46R0001R	COMFORT STATION B	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST2-3
	DETAILS	BY	<i>Aleksey Serin/Daniel Harakh</i>	CHECKED				
QUANTITIES	BY		CHECKED		POST MILE 22.45 22.40	MAIN SECTION		REVISION DATES (PRELIMINARY STAGE ONLY)
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION					DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	DISREGARD PRINTS BEARING EARLIER REVISION DATES		05-21-08   10-14-08   01-13-09   03-05-09
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					CU 06340 EA 0A9701	SHEET OF		16-AUG-2010 08:02

DOES SD Imperial Rev. 9/02

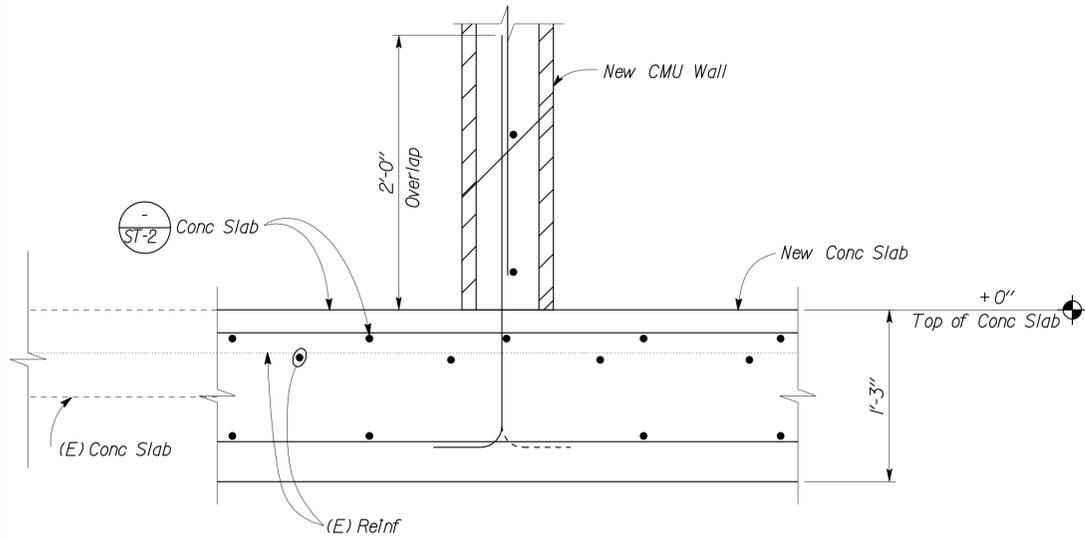
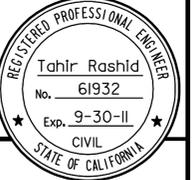
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	233	335

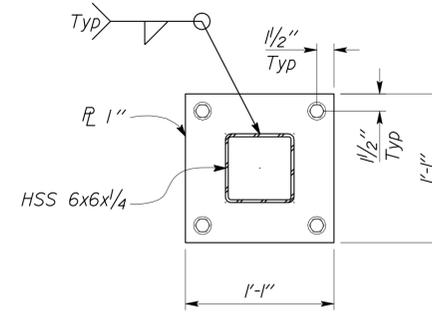
*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

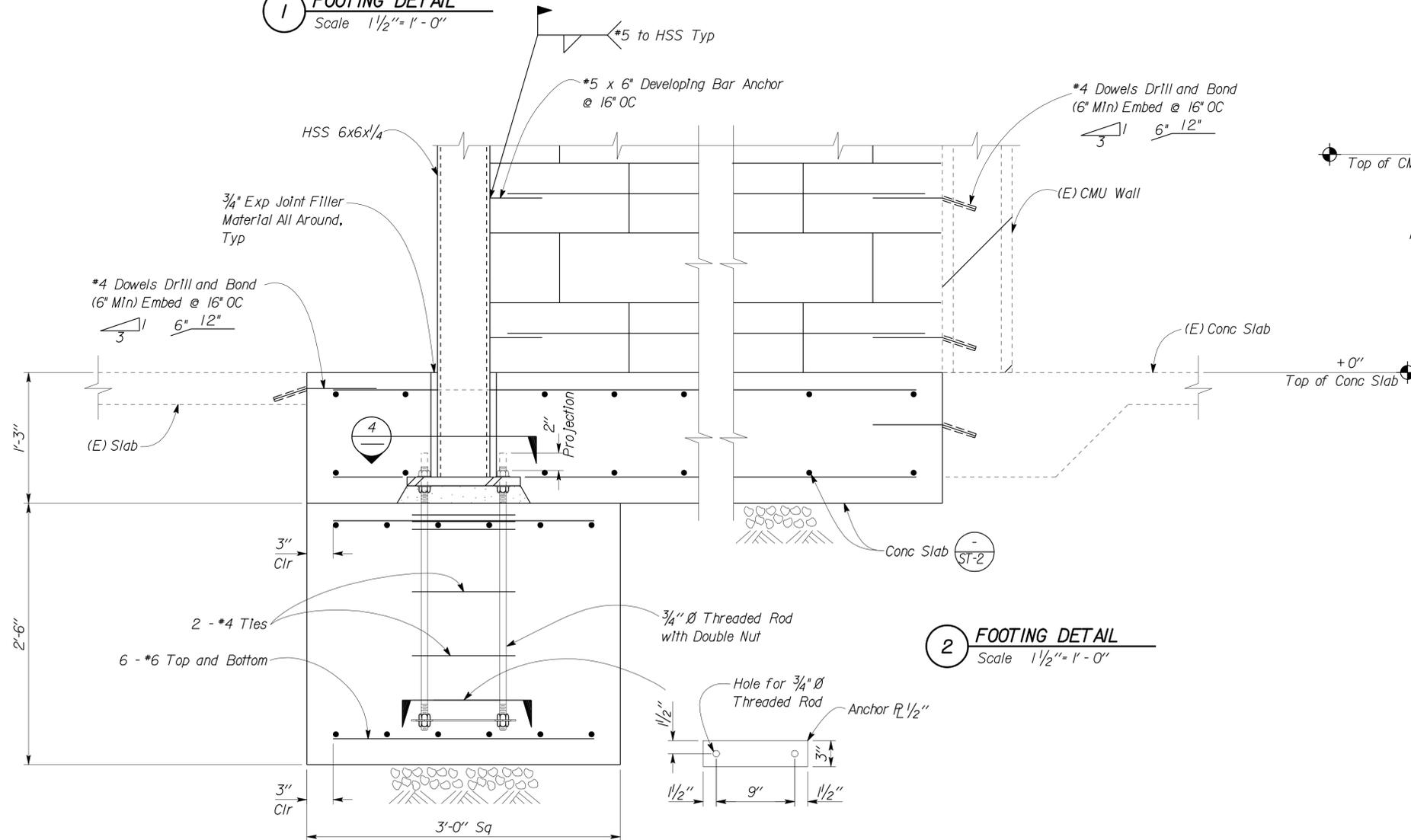
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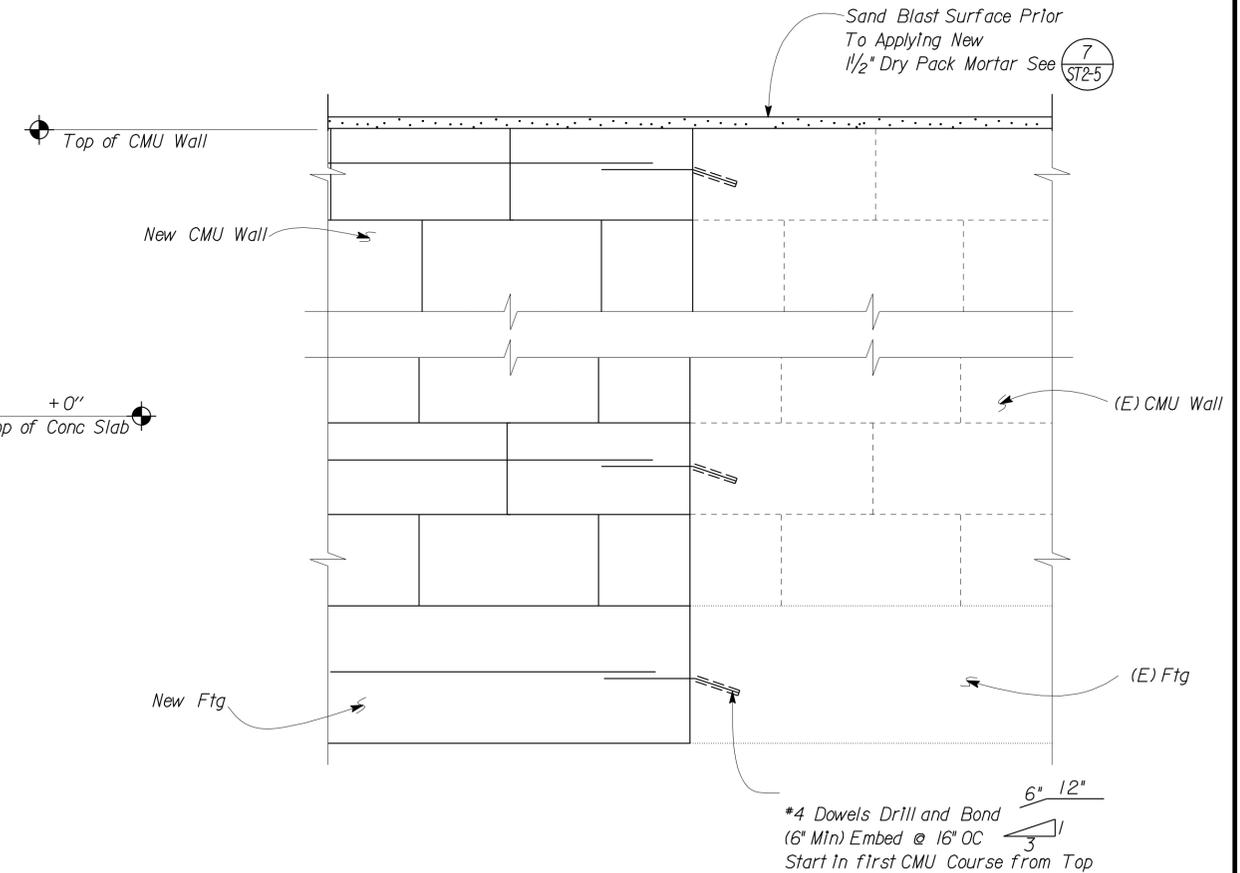
**1 FOOTING DETAIL**  
Scale 1 1/2" = 1' - 0"



**4 BASE PLATE DETAIL**  
Scale 1 1/2" = 1' - 0"



**2 FOOTING DETAIL**  
Scale 1 1/2" = 1' - 0"



**3 CMU WALL CONNECTIONS**  
Scale 1 1/2" = 1' - 0"

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET	ST2-4			
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		22.45	COMFORT STATION B	FOUNDATION DETAILS	OF	
	QUANTITIES	BY		CHECKED				POST MILE		22.40				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES		10-15-08 01-13-09 08-05-09	SHEET	OF	

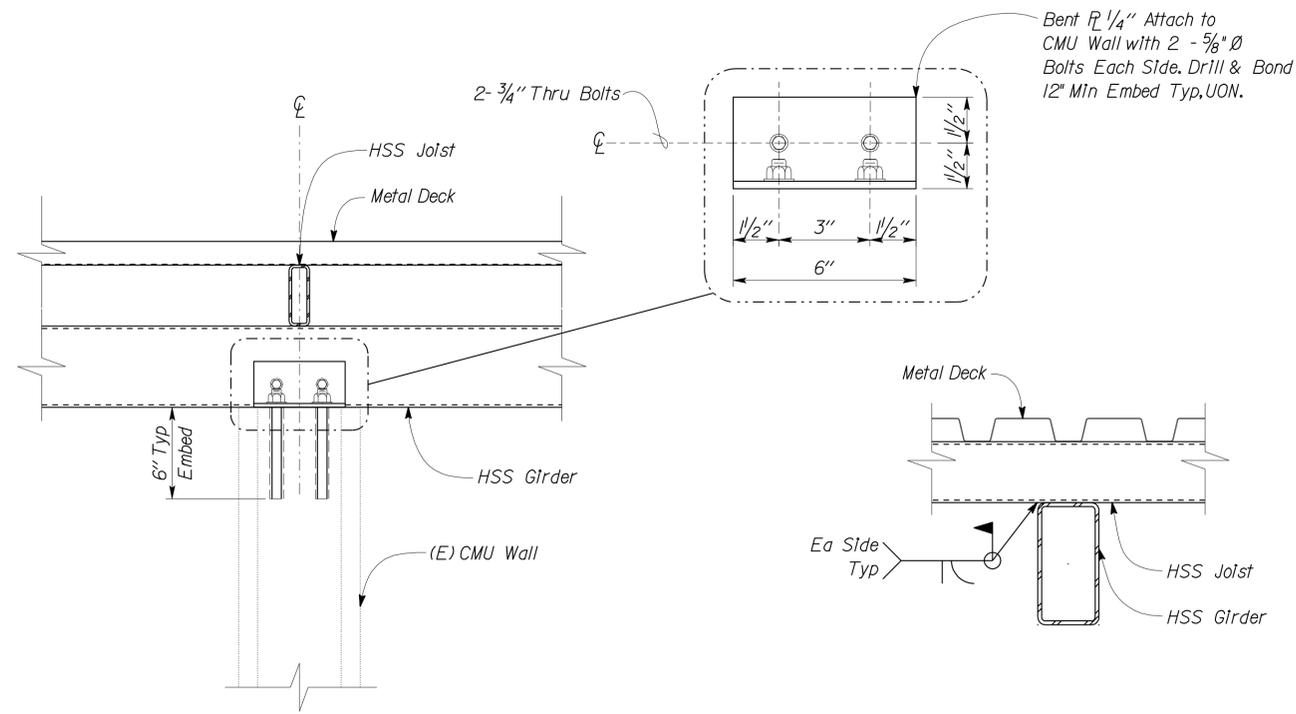
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	234	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

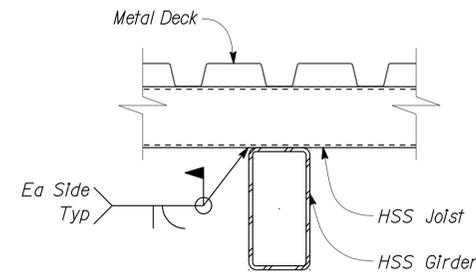
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DATE

8-9-10  
PLANS APPROVAL DATE

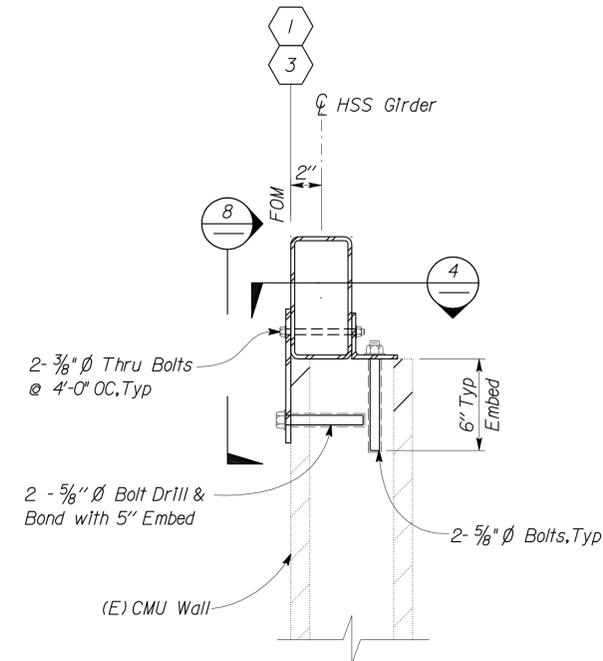
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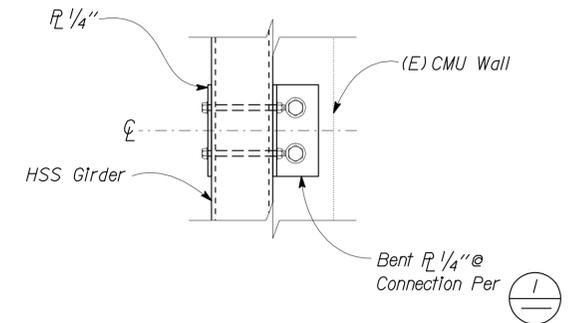
1 GIRDER TO WALL CONNECTION  
Scale 2" = 1'-0"



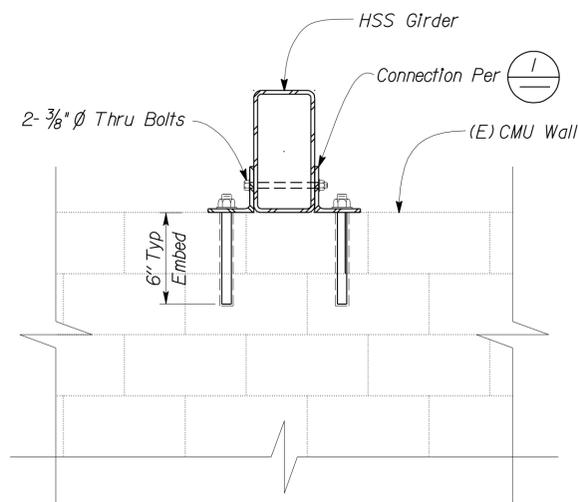
2 JOIST TO GIRDER CONNECTION  
Scale 2" = 1'-0"



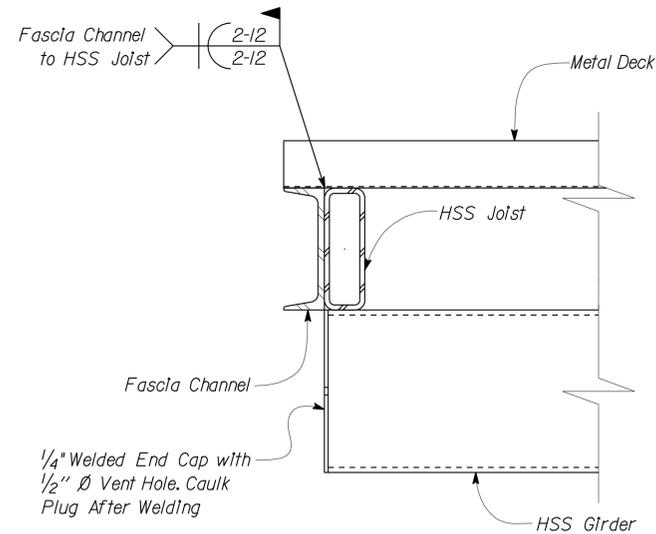
3 GIRDER TO WALL CONNECTION  
Scale 2" = 1'-0"



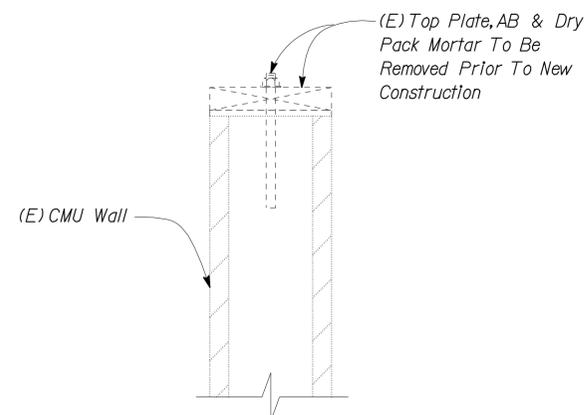
4 GIRDER TO WALL CONNECTION  
Scale 2" = 1'-0"



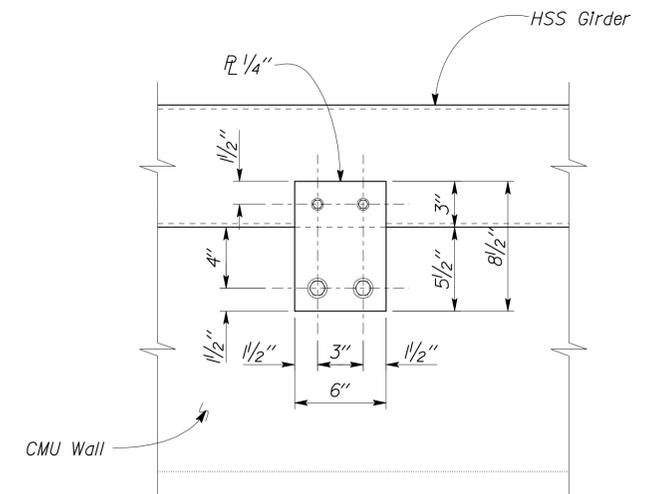
5 GIRDER TO (E) WALL  
Scale 2" = 1'-0"



6 FASCIA CONNECTION  
Scale 2" = 1'-0"



7 TOP OF (E) WALL  
Scale 2" = 1'-0"



8 PLATE CONNECTION  
Scale 2" = 1'-0"

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET	ST2-5
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		22.45	COMFORT STATION B
QUANTITIES	BY		CHECKED		CU 06340 EA 0A9701		22.40		10-15-0801-12-09-03-05-09-08-05-09		

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

DISREGARD PRINTS BEARING EARLIER REVISION DATES

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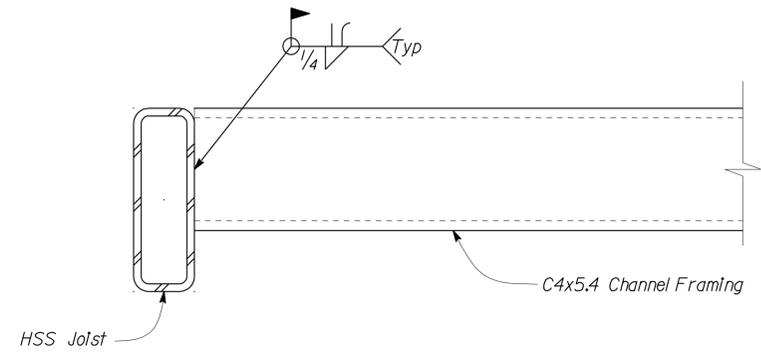
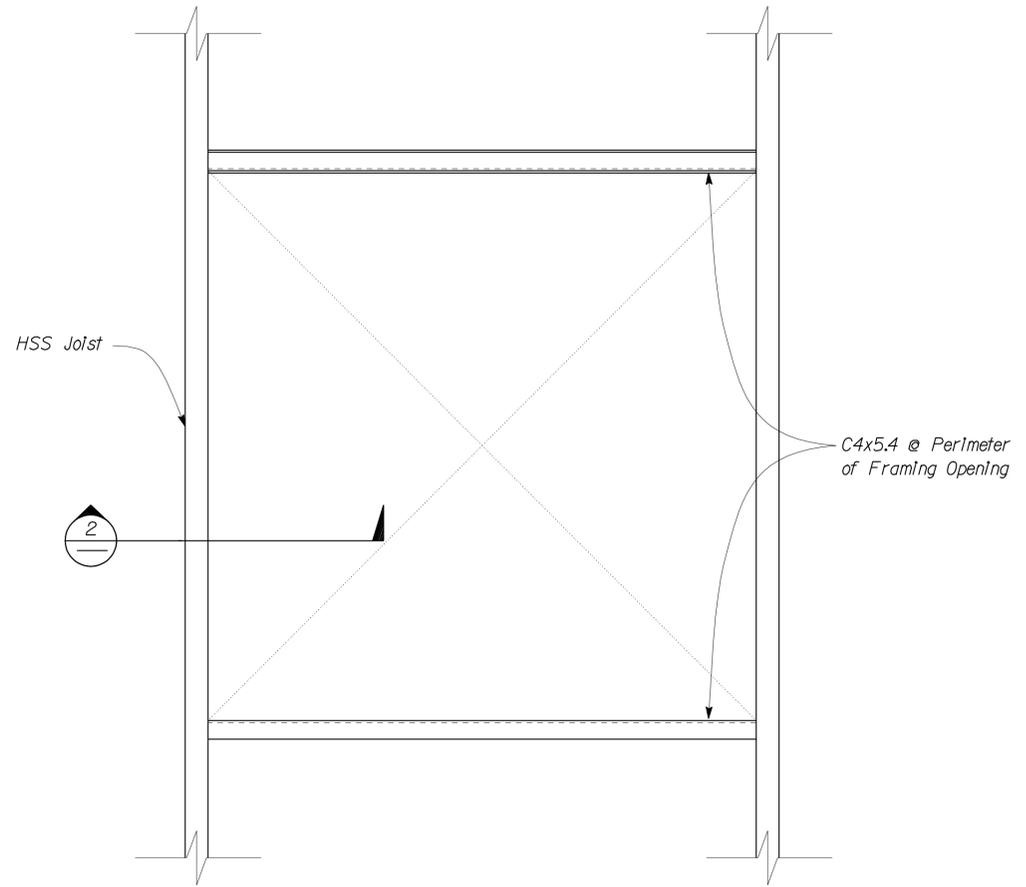
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	235	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
DATE 12-22-09



8-9-10  
PLANS APPROVAL DATE

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**1 ROOF OPENING**  
Scale 1 1/2" = 1' - 0"

**2 FRAMING CONNECTION**  
Scale 4" = 1' - 0"

NOTE:  
For Roof Opening Size & Location  
see Arch. Sheets

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET	ST2-6
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		22.45	COMFORT STATION B
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 06340 EA 0A9701	22.40	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	01-14-09	03-05-09

**PROJECT DESIGN CRITERIA**

The building work on this project has been designed to conform to the 2007 California Building Code (2006 IBC).

**LOADS**

**SEISMIC:** Occupancy Category = II  
 Importance Factor = 1.0  
 Site Soil Class = D  
 $S_S = 0.650$        $S_{DS} = 0.555$   
 $S_I = 0.250$        $S_{DI} = 0.317$   
 Seismic Design Category = D  
**Seismic Force-Resisting System:**  
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North - South  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$   
 Bearing Wall System  
East - West  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$

**WIND:** Importance Factor = 1.0  
 Basic Wind Speed = 85 mph  
 Exposure C  
 Wind Pressure on Components and Cladding = 25 psf

**LIVE LOAD:** Roof = 20 psf

**MATERIALS**

**REINFORCED CONCRETE:** (Ultimate Strength Design) :  
 $f'_c = 3,000$  psi  
 $f_y = 60,000$  psi

**FOUNDATION:**  
 Soils report dated : Mar 14, 2008  
 Allowable Soil Pressure (DL + LL) : = 2,000 psf

**REINFORCED CONCRETE MASONRY UNITS:**  
 (Allowable Stress Design) :  
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 Hollow Structural Steel (HSS)  $F_y = 46$  ksi

**DETAIL NOTES**

- For Concrete see: "Concrete Standard"
- For Masonry see: "Concrete Masonry Unit Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	236	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER      12-22-09 DATE

8-9-10  
 PLANS APPROVAL DATE

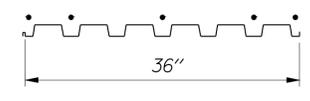
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**STEEL DECK MINIMUM SECTION PROPERTIES**

Deck Type	Depth & Gage	Moment of Inertia	Positive Section Modulus	Negative Section Modulus	Minimum Yield Strength
HSB36 Type Steel Decking	1/2" x 20 Ga	0.216 in <sup>4</sup> /ft	0.235 in <sup>3</sup> /ft	0.248 in <sup>3</sup> /ft	38 Ksi

Note  
 Minimum 3 Span Condition

**WELDING SCHEDULE and STEEL DECK PROFILE**

Steel Deck Profile	1/2" Diameter Puddle Weld			Diaphragm Shear Capacity
	Perpendicular Supports and Panel Ends	Parallel Supports	Side Laps	
	5 - Puddle Welds Per Support	12" OC	Button Punch 12" OC	450 lb/ft

**A STEEL DECK NOTES**

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST3-0	
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE			22.45
	QUANTITIES	BY		CHECKED				POST MILE			22.40

DOES SD Imperial Rev. 9/02      ORIGINAL SCALE IN INCHES FOR REDUCED PLANS      0      1      2      3      CU 063400 EA 0A9701      DISREGARD PRINTS BEARING EARLIER REVISION DATES      01-06-09      REVISION DATES (PRELIMINARY STAGE ONLY)      SHEET OF

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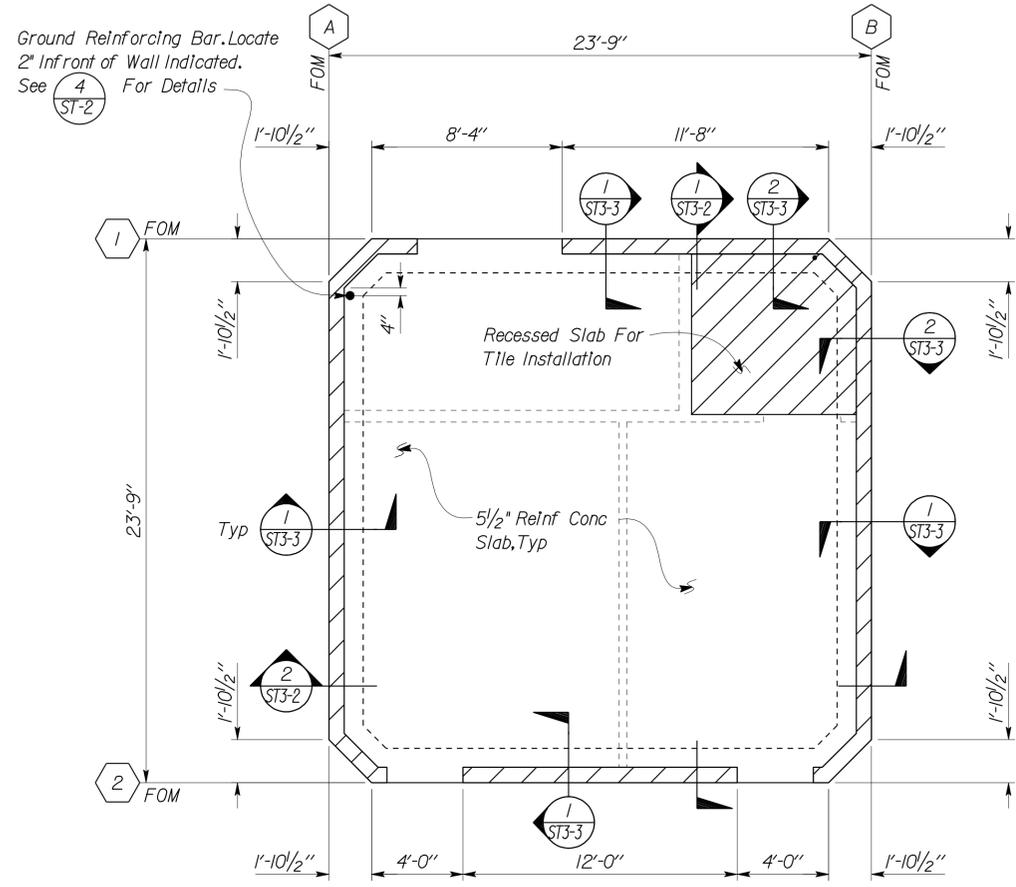
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	237	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

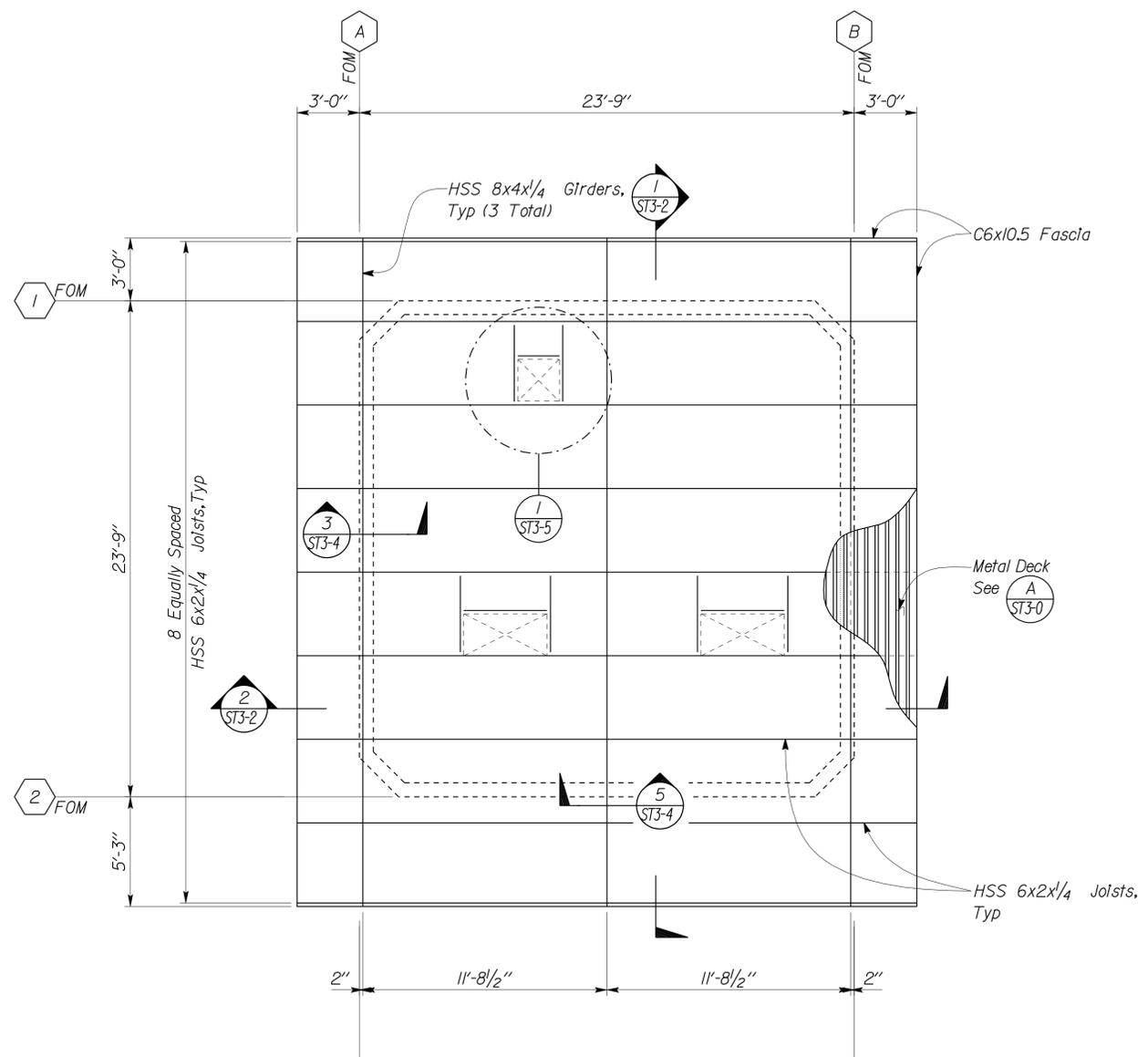
12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

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**1 FOUNDATION PLAN**  
 Scale 1/4" = 1'-0"



**2 ROOF FRAMING PLAN**  
 Scale 1/4" = 1'-0"

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET <b>ST3-1</b>
POST MILE 22.45		
22.40	CHP/CREW BUILDING	FOUNDATION & ROOF FRAMING PLAN

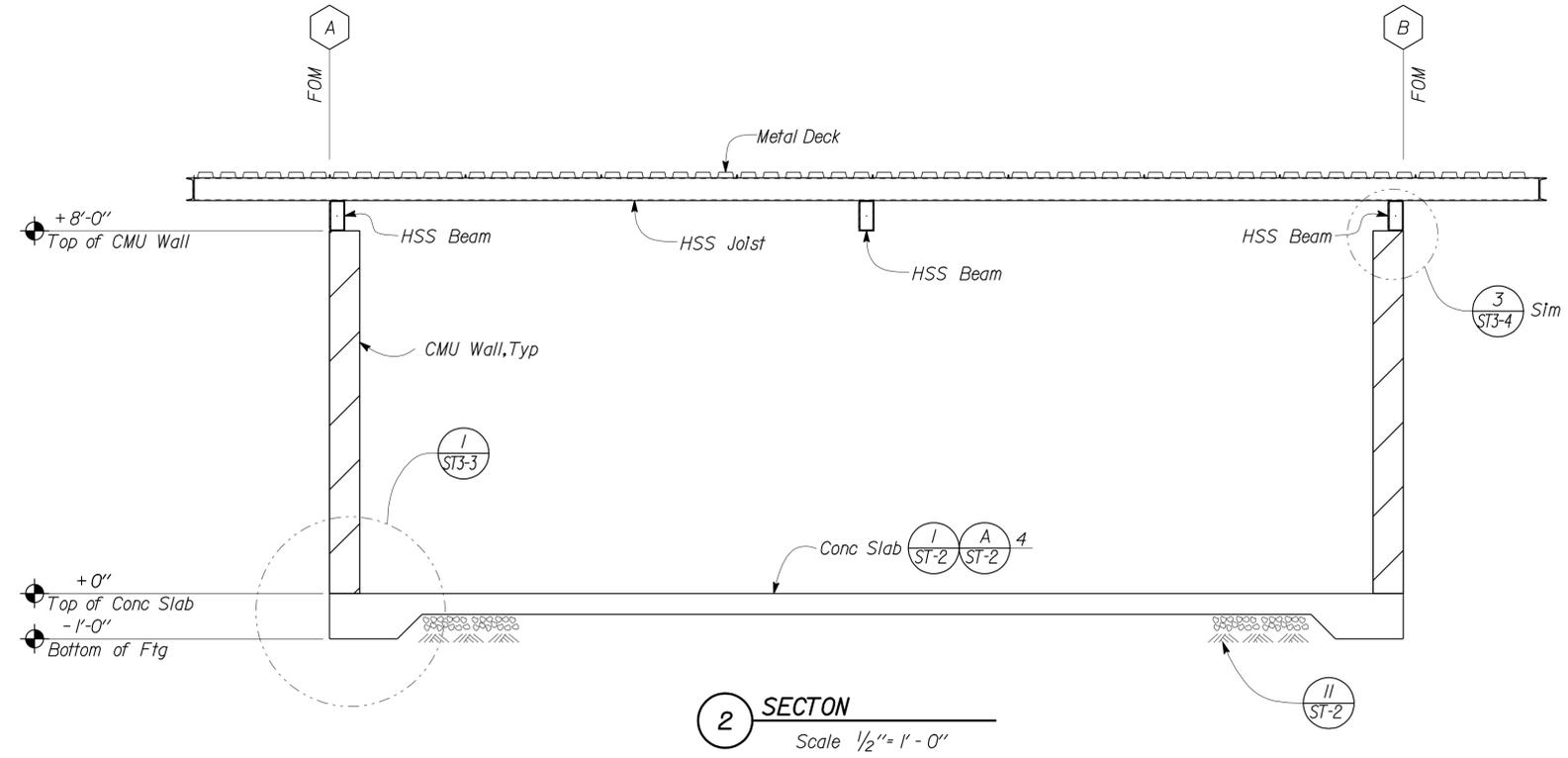
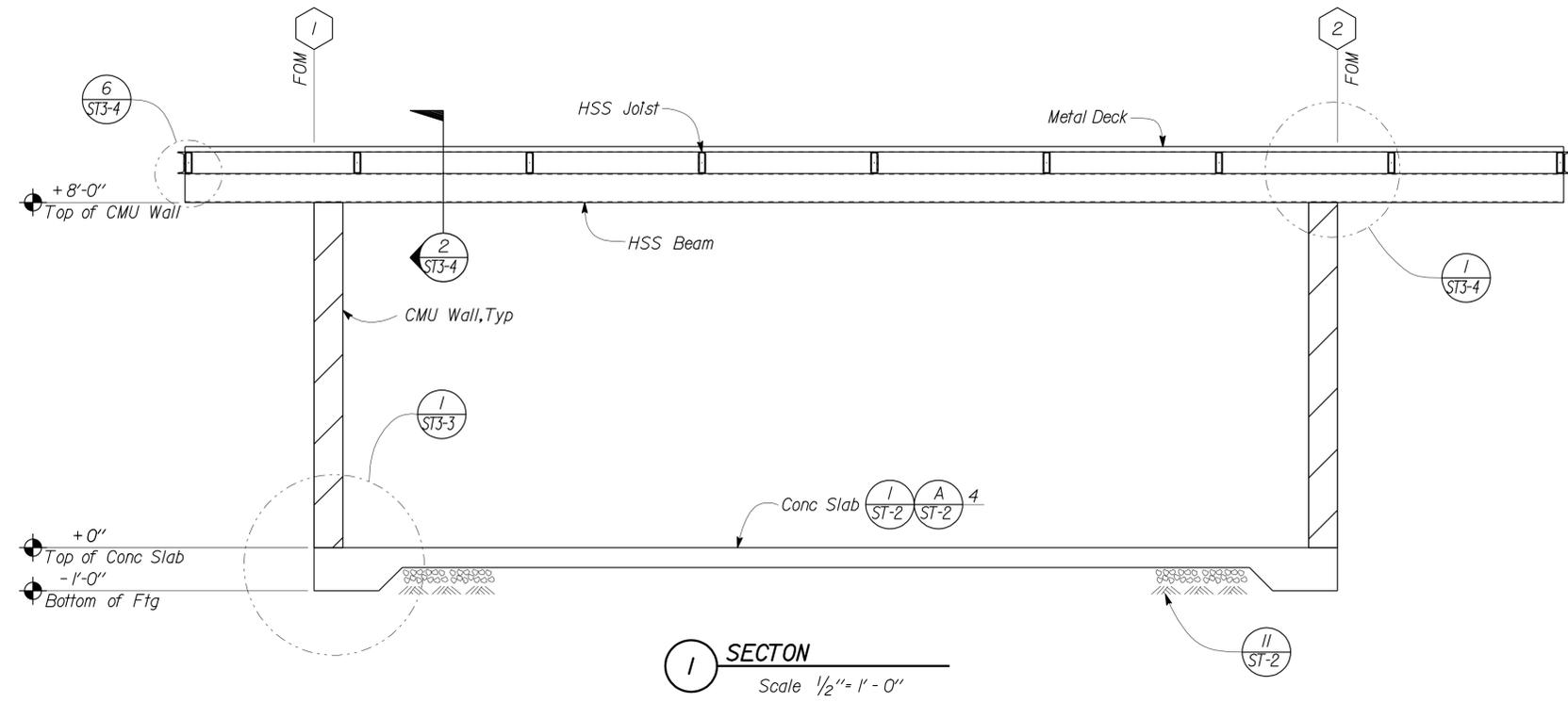
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	238	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

12-22-09  
 DATE

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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.



DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey SerIn/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

BRIDGE NO.	46R0001L
POST MILE	22.45
	22.40

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

CU 063400  
 EA 0A9701

PHILIP S. RAINE SAFETY ROADSIDE REST AREA		SHEET <b>ST3-2</b>
BUILDING SECTIONS		
REVISION DATES (PRELIMINARY STAGE ONLY)		
05-20-08	10-23-08	01-14-09
03-09-09		



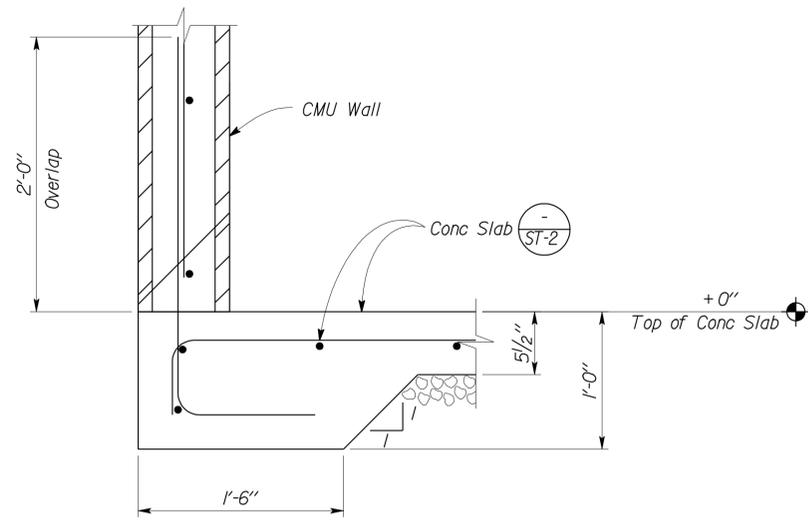
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06	Tul	99	22.4	239	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

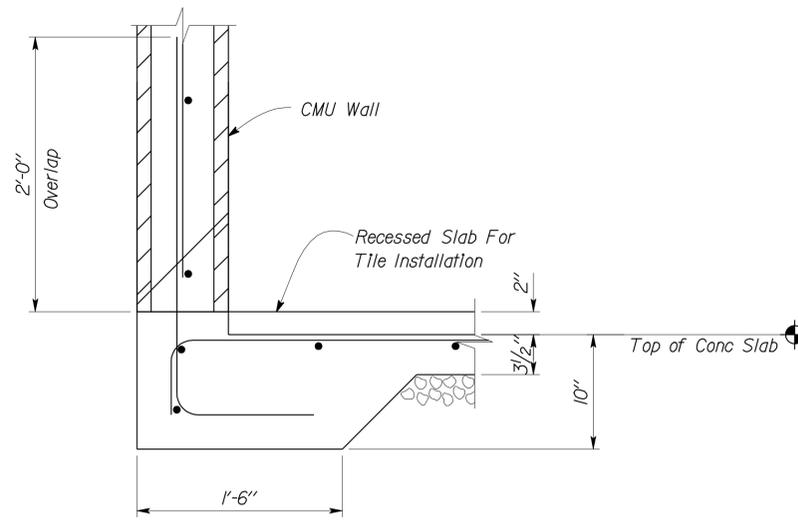
12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

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1 FOOTING DETAIL  
 Scale 1/2" = 1'-0"



2 FOOTING DETAIL  
 Scale 1/2" = 1'-0"

DOES SD Imperial Rev. 9/02

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L  
 46R0001R  
 POST MILE 22.45  
 22.40

CU 063400  
 EA 0A9701

PHILIP S. RAINE SAFETY ROADSIDE REST AREA		SHEET ST3-3
CHP/CREW BUILDING	FOUNDATION DETAILS	
REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
DISREGARD PRINTS BEARING EARLIER REVISION DATES → 10-15-08 01-13-09 08-05-09		

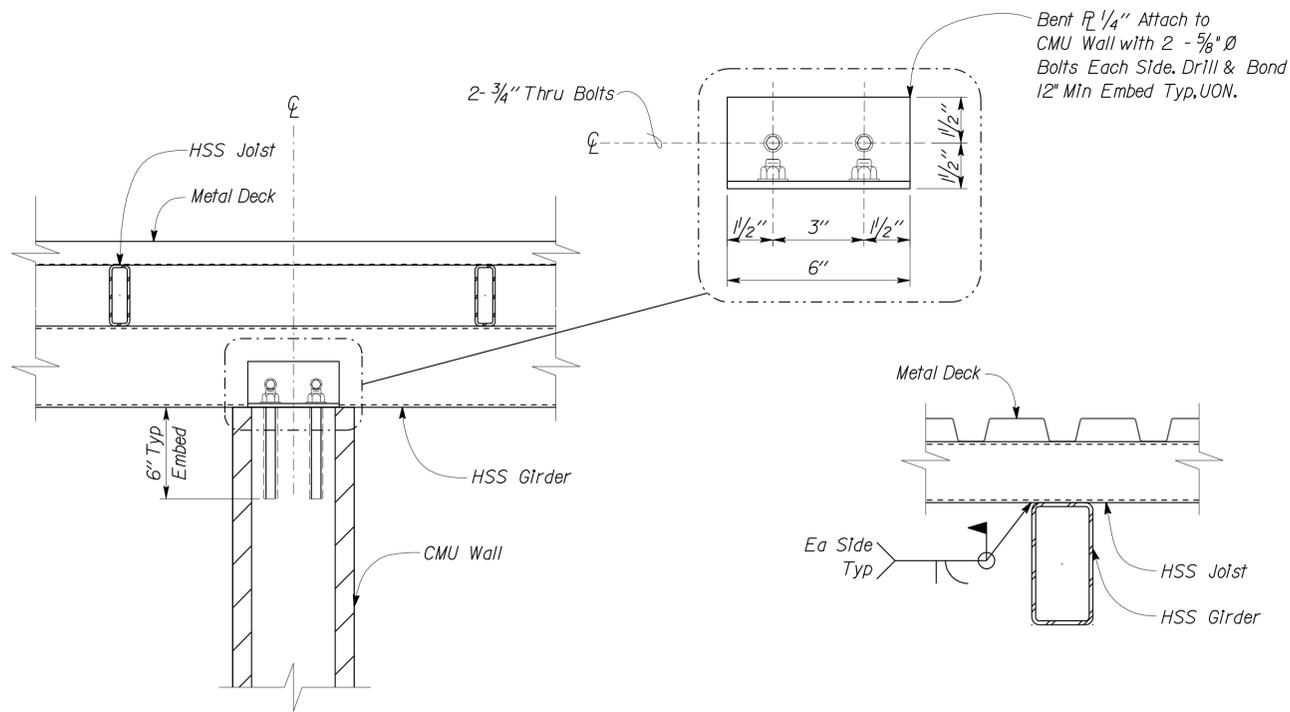
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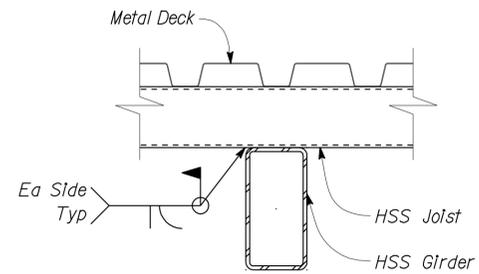
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06	Tul	99	22.4	240	335

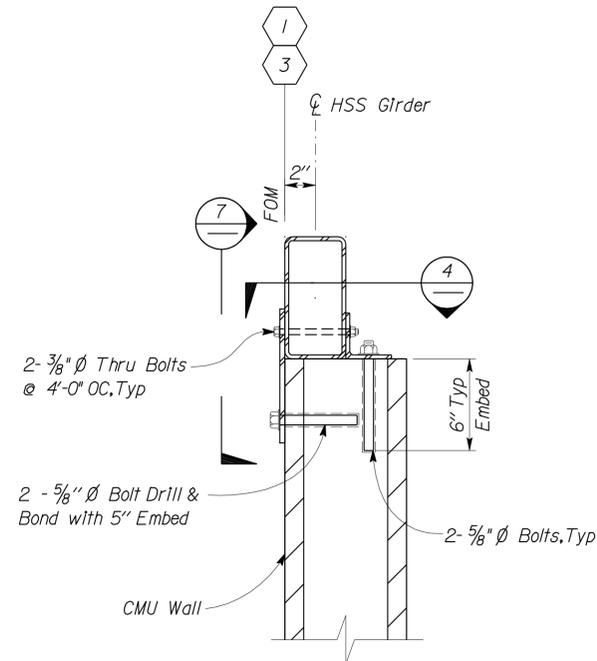
<i>Tahir Rashid</i>		12-22-09
REGISTERED CIVIL ENGINEER	DATE	
REGISTERED PROFESSIONAL ENGINEER Tahir Rashid No. 61932 Exp. 9-30-11 CIVIL STATE OF CALIFORNIA		
8-9-10		
PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.		



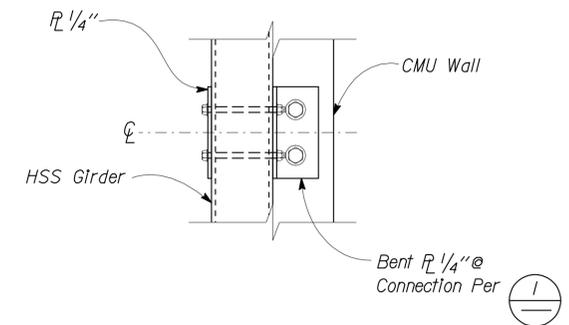
1 GIRDER TO WALL CONNECTION  
Scale 2" = 1' - 0"



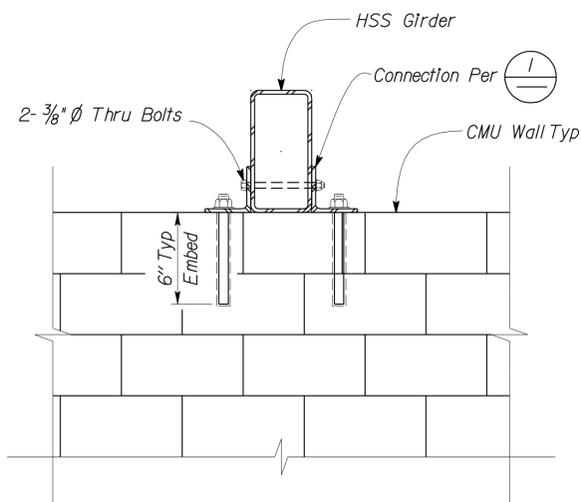
2 JOIST TO GIRDER CONNECTION  
Scale 2" = 1' - 0"



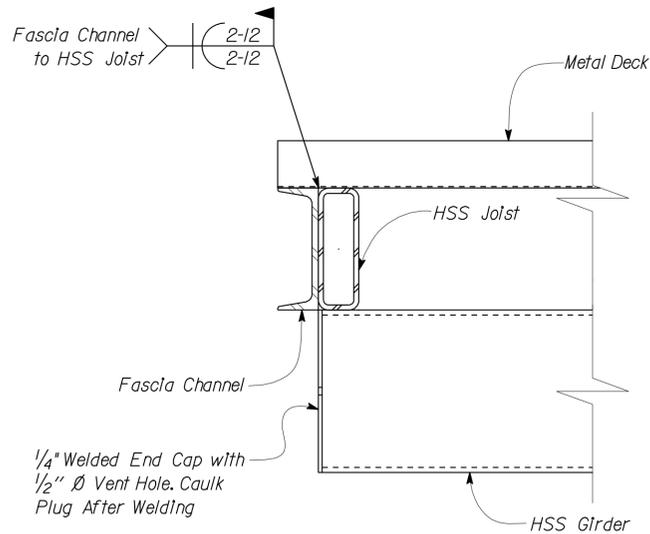
3 GIRDER TO WALL CONNECTION  
Scale 2" = 1' - 0"



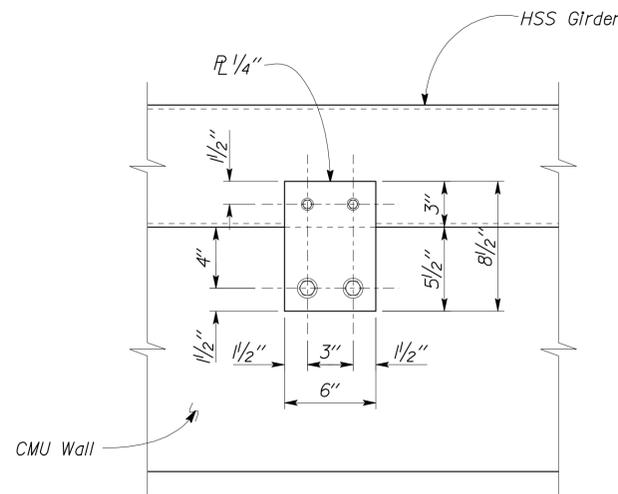
4 GIRDER TO WALL CONNECTION  
Scale 2" = 1' - 0"



5 GIRDER TO (E)/NEW WALL  
Scale 2" = 1' - 0"



6 FASCIA CONNECTION  
Scale 2" = 1' - 0"



7 PLATE CONNECTION  
Scale 2" = 1' - 0"

DESIGN	BY Tahir Rashid	CHECKED Thomas Tong
DETAILS	BY Aleksey SerIn/Daniel Harakh	CHECKED Tahir Rashid
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	46R0001L
POST MILE	22.45
	22.40

PHILIP S. RAINE SAFETY ROADSIDE REST AREA  
CHP/CREW BUILDING  
ROOF FRAMING DETAILS

SHEET OF  
ST3-4

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0	1	2	3
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CU 063400  
EA 0A9701

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	10-15-08 01-13-09 08-05-09	

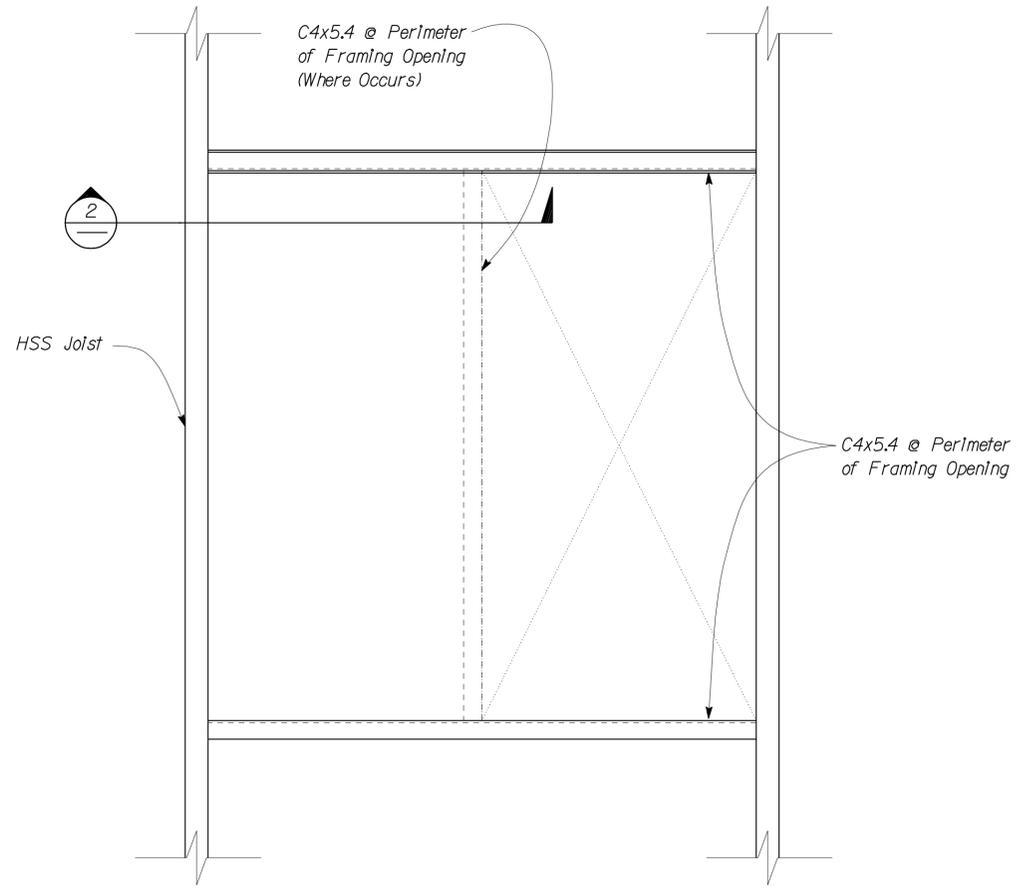
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	241	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
DATE 12-22-09

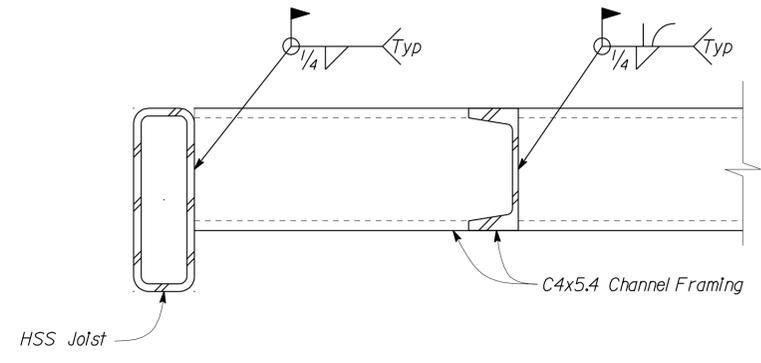


8-9-10  
PLANS APPROVAL DATE

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**1 ROOF OPENING**  
Scale 1 1/2" = 1' - 0"



**2 FRAMING CONNECTION**  
Scale 4" = 1' - 0"

For Roof Opening size & Location see Arch. sheets

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST3-5
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 063400 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	01-14-09	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

**PROJECT DESIGN CRITERIA**

The building work on this project has been designed to conform to the 2007 California Building Code (2006 IBC).

**LOADS**

**SEISMIC:** Occupancy Category = II  
 Importance Factor = 1.0  
 Site Soil Class = D  
 $S_S = 0.650$        $S_{DS} = 0.555$   
 $S_I = 0.250$        $S_{DI} = 0.317$   
 Seismic Design Category = D  
**Seismic Force-Resisting System:**  
 Bearing Wall System  
North - South  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$   
 Bearing Wall System  
East - West  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$

**WIND:** Importance Factor = 1.0  
 Basic Wind Speed = 85 mph  
 Exposure C  
 Wind Pressure on Components and Cladding = 25 psf

**LIVE LOAD:** Roof = 20 psf

**MATERIALS**

**REINFORCED CONCRETE:** (Ultimate Strength Design) :  
 $f'_c = 3,000$  psi  
 $f_y = 60,000$  psi

**FOUNDATION:**  
 Soils report dated : Mar 14, 2008  
 Allowable Soil Pressure (DL + LL) : = 2,000 psf

**REINFORCED CONCRETE MASONRY UNITS:**  
 (Allowable Stress Design) :  
 $f'_m = 1,500$  psi  
 $f_y = 60,000$  psi  
 SPECIAL INSPECTION NOT REQUIRED

**STRUCTURAL STEEL:** (Allowable Strength Design) :  
 Channels, Angles & Misc. Shapes  $F_y = 36$  ksi  
 Plates  $F_y = 36$  ksi  
 Hollow Structural Steel (HSS)  $F_y = 46$  ksi

**DETAIL NOTES**

- For Concrete see: "Concrete Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	242	335

*Tahir Rashid* 12-22-09  
 REGISTERED CIVIL ENGINEER DATE

8-9-10  
 PLANS APPROVAL DATE

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**STEEL DECK MINIMUM SECTION PROPERTIES**

Deck Type	Depth & Gage	Moment of Inertia	Positive Section Modulus	Negative Section Modulus	Minimum Yield Strength
HSB36 Type Steel Decking	1 1/2" x 20 Ga	0.216 in <sup>4</sup> /ft	0.235 in <sup>3</sup> /ft	0.248 in <sup>3</sup> /ft	38 Ksi

Note  
 Minimum 3 Span Condition

**WELDING SCHEDULE and STEEL DECK PROFILE**

Steel Deck Profile	1/2" Diameter Puddle Weld			Diaphragm Shear Capacity
	Perpendicular Supports and Panel Ends	Parallel Supports	Side Laps	
	5 - Puddle Welds Per Support	12" OC	Button Punch 12" OC	450 lb/ft

**A STEEL DECK NOTES**

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST4-0	
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE			22.45
	QUANTITIES	BY		CHECKED				POST MILE			22.40

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

CU 063400 EA 0A9701

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 01-06-09

REVISION DATES (PRELIMINARY STAGE ONLY)

DOES SD Imperial Rev. 9/02

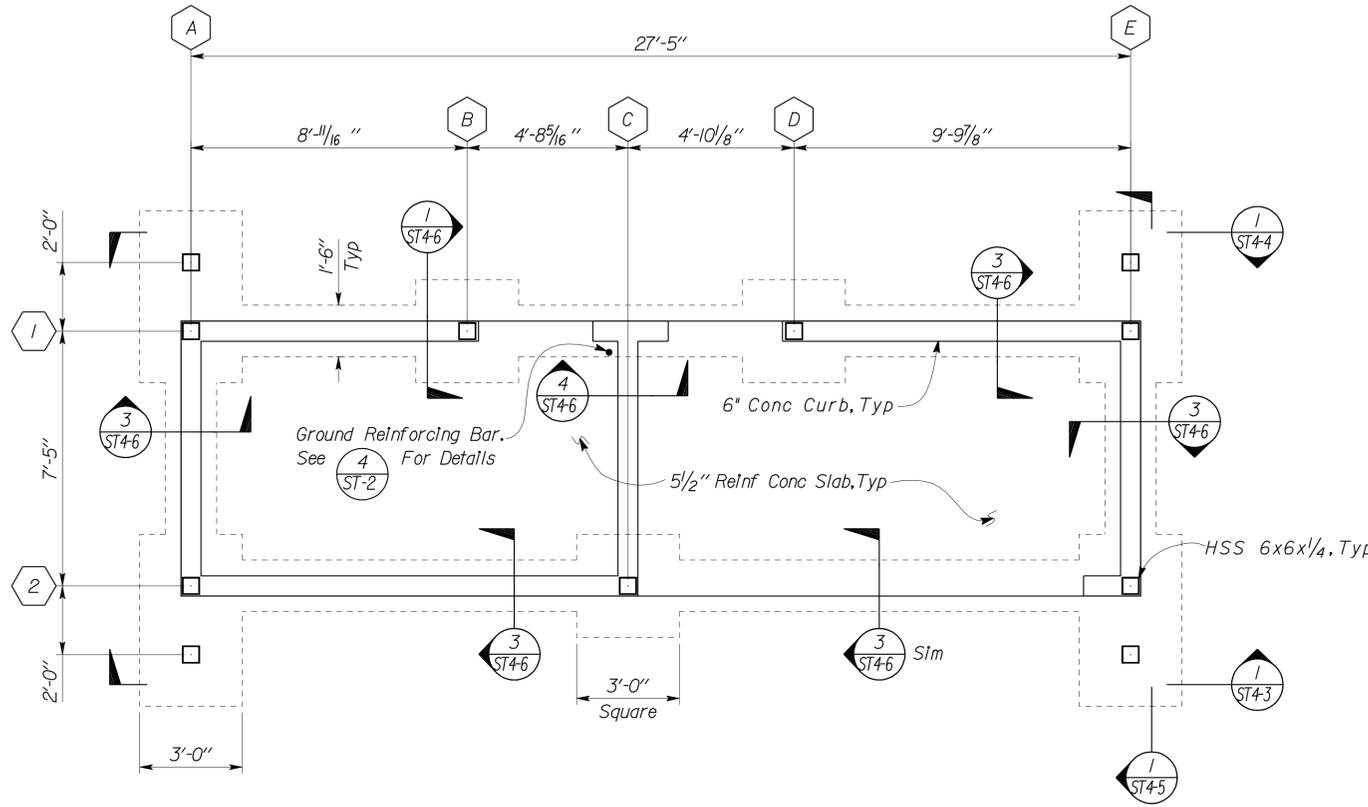
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	243	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
DATE 12-22-09  
PLANS APPROVAL DATE 8-9-10

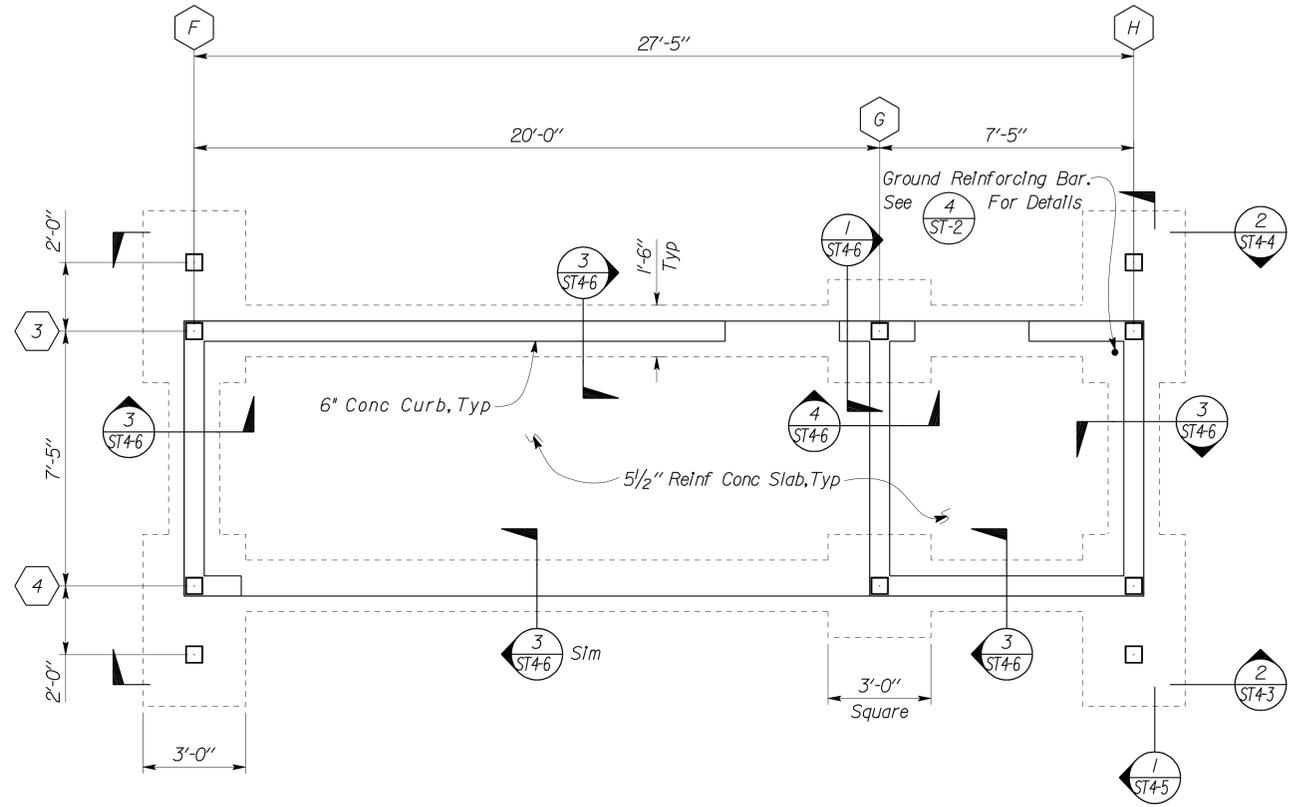
REGISTERED PROFESSIONAL ENGINEER  
Tahir Rashid  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

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**1 FOUNDATION PLAN**  
Scale  $\frac{3}{8}'' = 1' - 0''$

→ Southbound  
← Northbound



**2 FOUNDATION PLAN**  
Scale  $\frac{3}{8}'' = 1' - 0''$

→ Southbound  
← Northbound

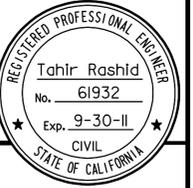
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	DETAILS	BY	Aleksey SerIn/Daniel Harakh	CHECKED							
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 063400 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)			

DOES SD Imperial Rev. 9/02

16-AUG-2010 08:11  
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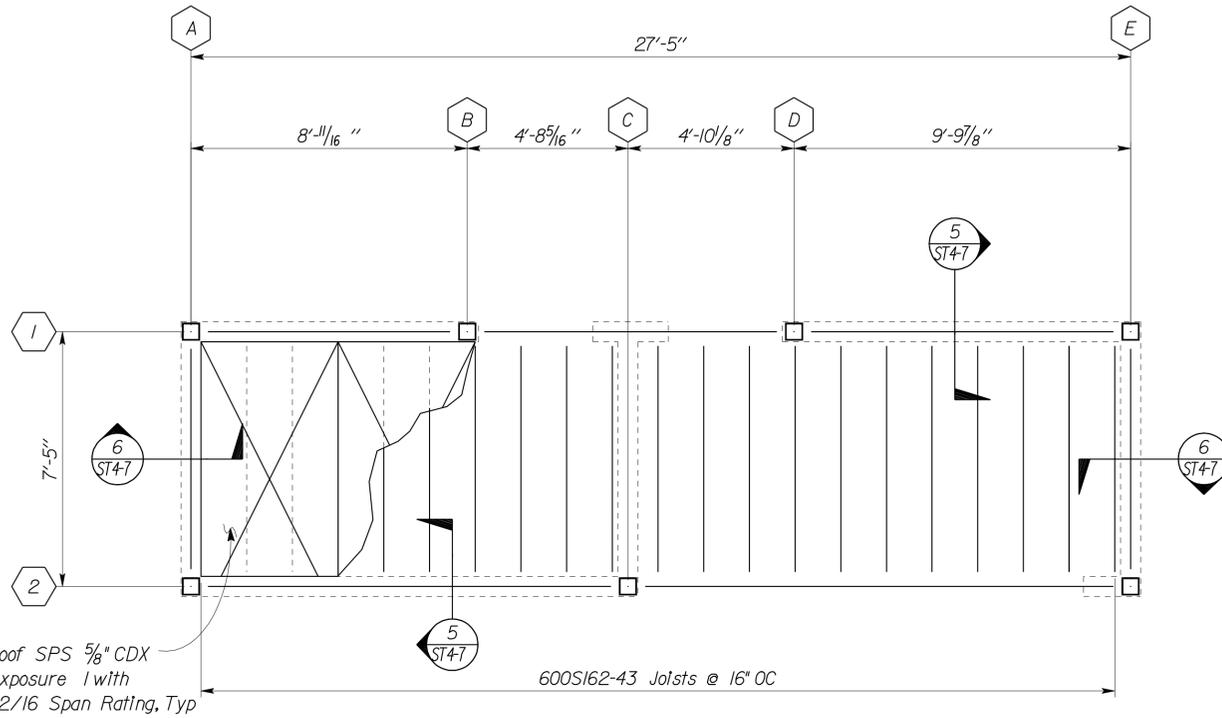
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	244	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
DATE 12-22-09

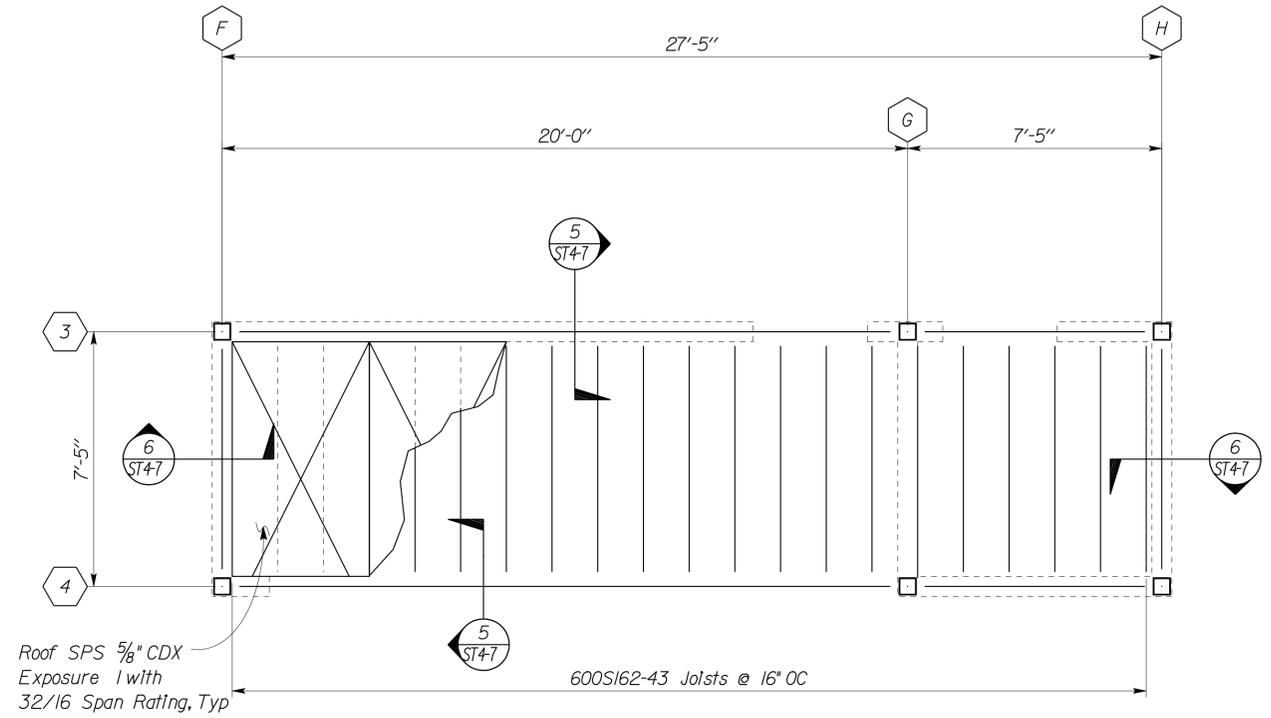
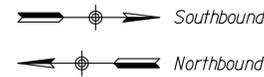


8-9-10  
PLANS APPROVAL DATE

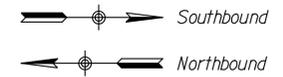
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**1 ROOF FRAMING PLAN**  
Scale 3/8" = 1' - 0"



**2 ROOF FRAMING PLAN**  
Scale 3/8" = 1' - 0"



DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST4-2
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		
QUANTITIES	BY		CHECKED		CU 063400	EA 0A9701	POST MILE	22.40	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
DOES SD Imperial Rev. 9/02		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES		09-23-09			

16-AUG-2010 08:11 s14\_02.dgn

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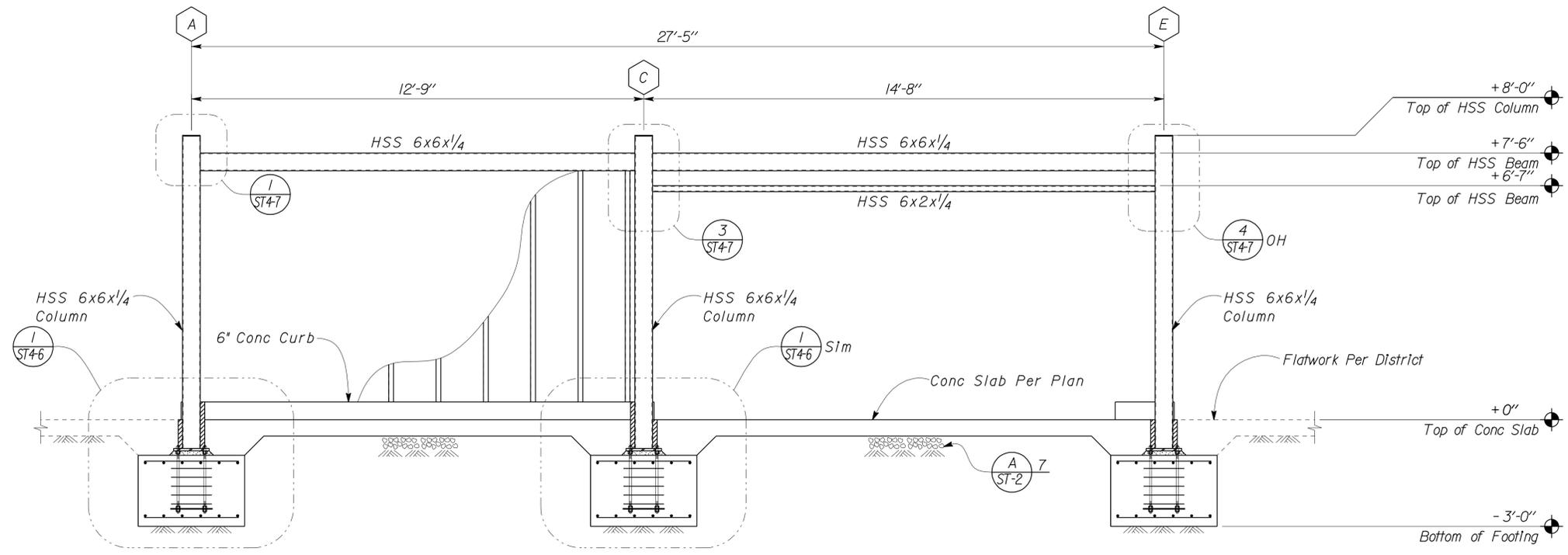
*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

12-22-09  
 DATE

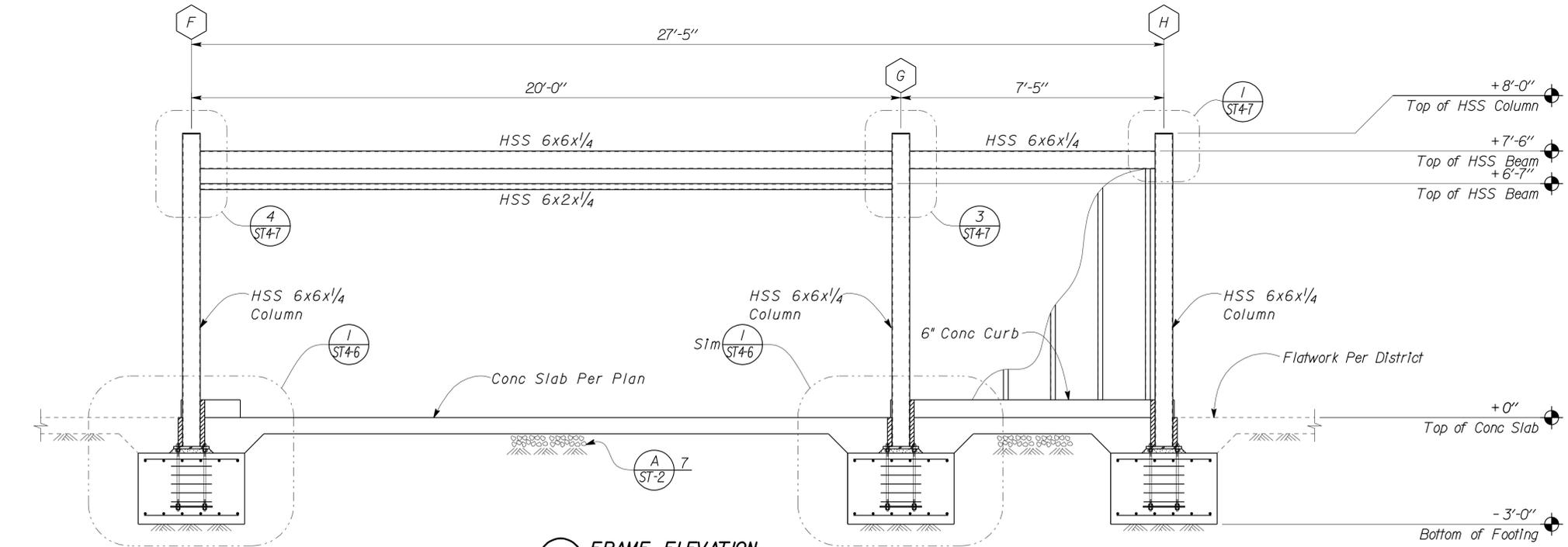
8-9-10  
 PLANS APPROVAL DATE

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Note:  
 For Light Gage Framing  
 Details & Sizes,  
 See 



**1** FRAME ELEVATION  
 Scale 1/2" = 1' - 0"



**2** FRAME ELEVATION  
 Scale 1/2" = 1' - 0"

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey SerIn/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L 46R0001R	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET <b>ST4-3</b>
POST MILE 22.45 22.40		
VENDING BUILDINGS	FRAME ELEVATIONS	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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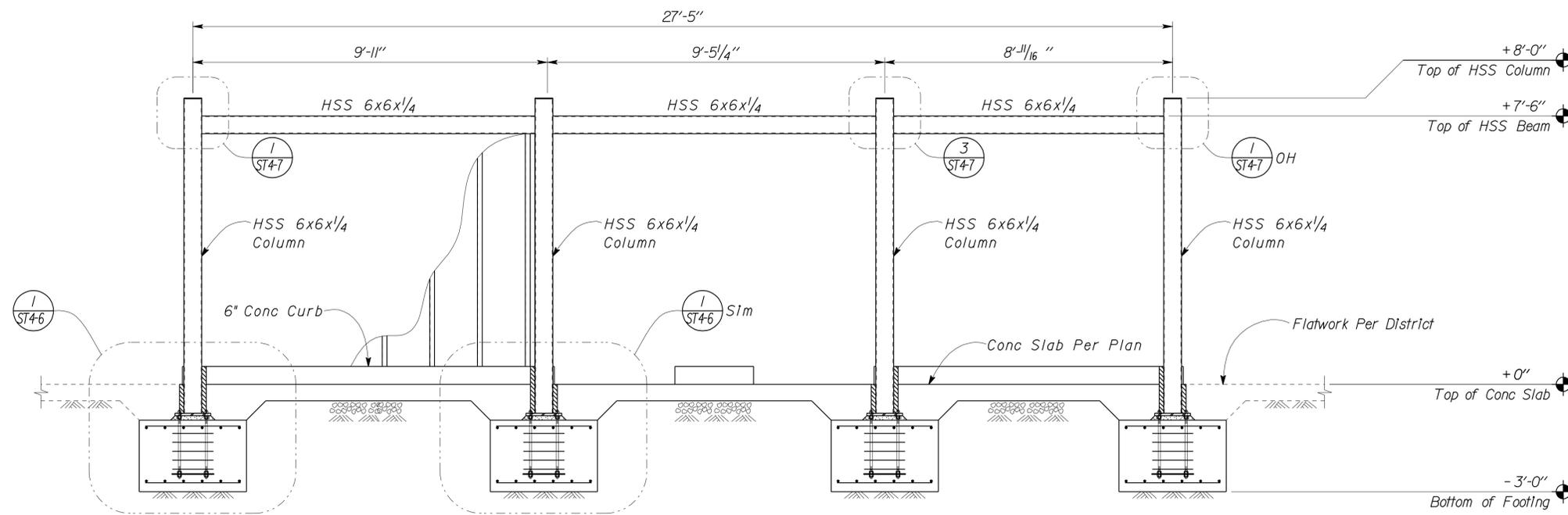
*Tahir Rashid*  
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 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

12-22-09  
 DATE

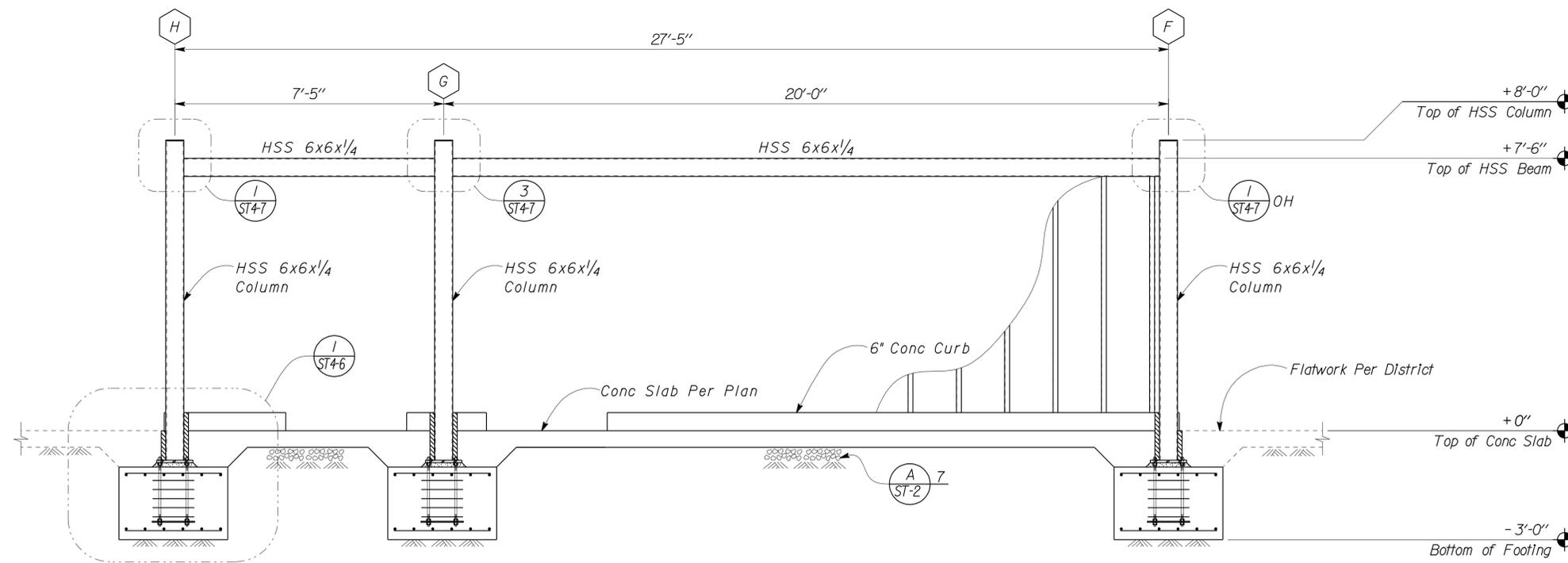
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 PLANS APPROVAL DATE

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Note:  
 For Light Gage Framing  
 Details & Sizes,  
 See ST-4 ST-5 ST-6



**1** FRAME ELEVATION  
 Scale 1/2" = 1' - 0"



**2** FRAME ELEVATION  
 Scale 1/2" = 1' - 0"

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey SerIn/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L  
 46R0001R  
 POST MILE 22.45  
 22.40

PHILIP S. RAINE SAFETY ROADSIDE REST AREA

VENDING BUILDINGS

FRAME ELEVATIONS

SHEET ST4-4

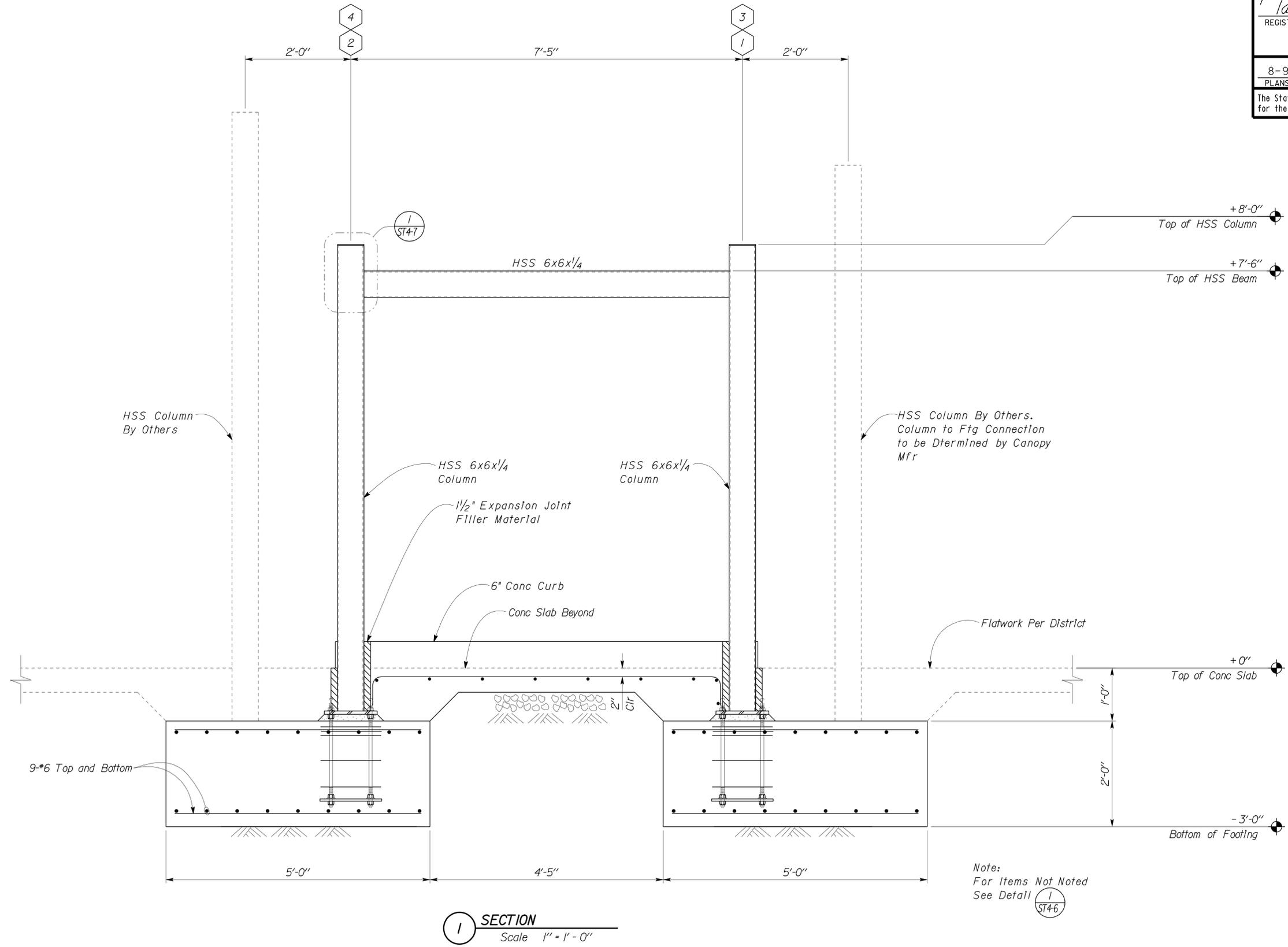
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	247	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

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**SECTION 1**  
 Scale 1" = 1'-0"

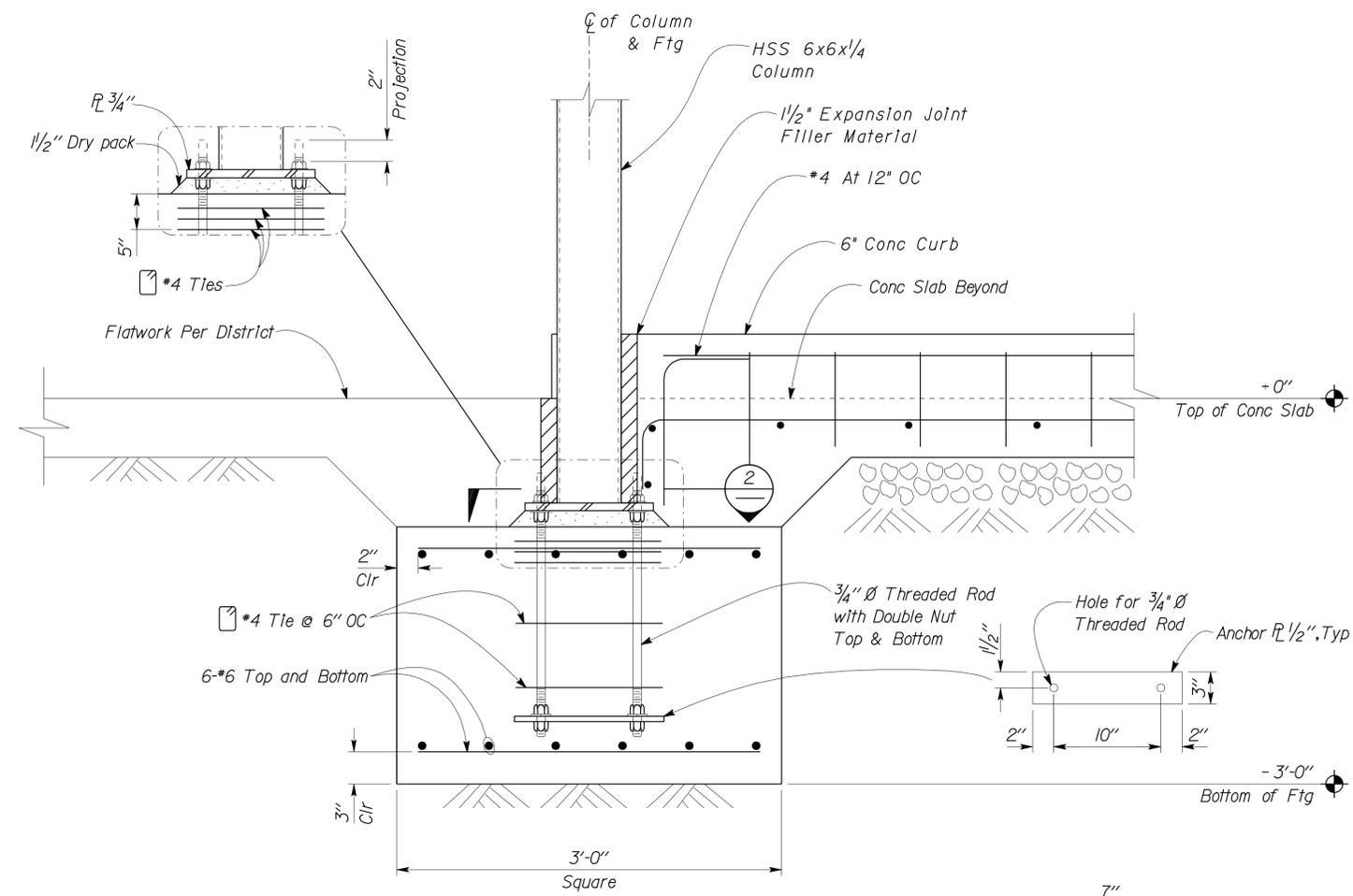
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DETAILS	BY <i>Aleksey SerIn/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

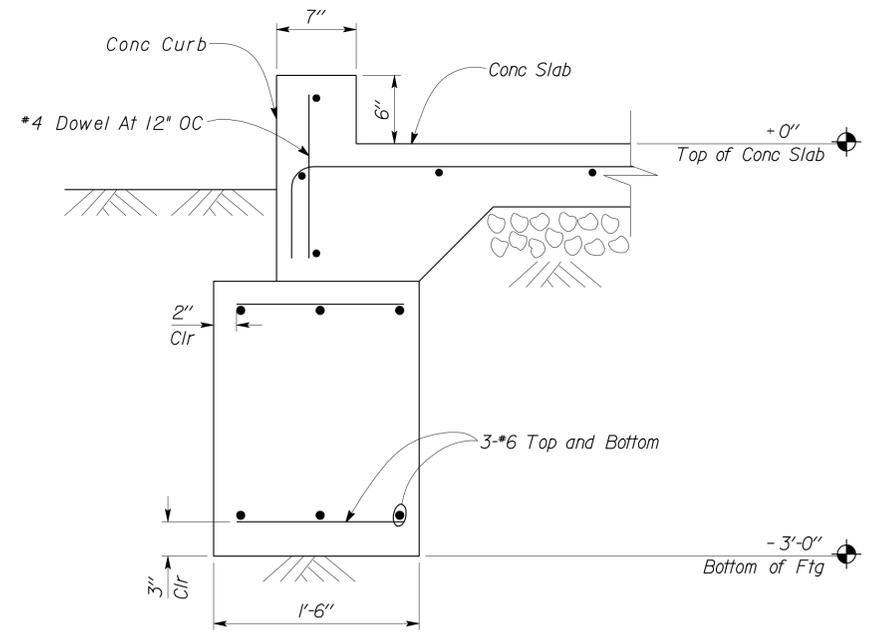
DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L 46R0001R	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SECTION	SHEET ST4-5
POST MILE 22.45 22.40			
VENDING BUILDINGS	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF

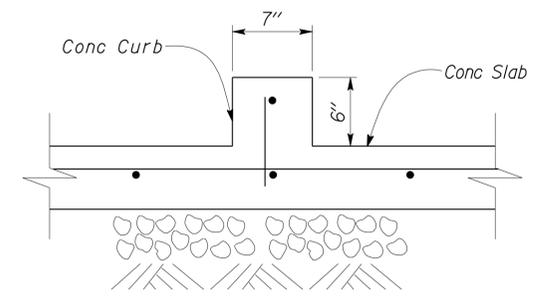
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06	Tul	99	22.4	248	335
			REGISTERED CIVIL ENGINEER DATE 12-22-09 PLANS APPROVAL DATE 8-9-10		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



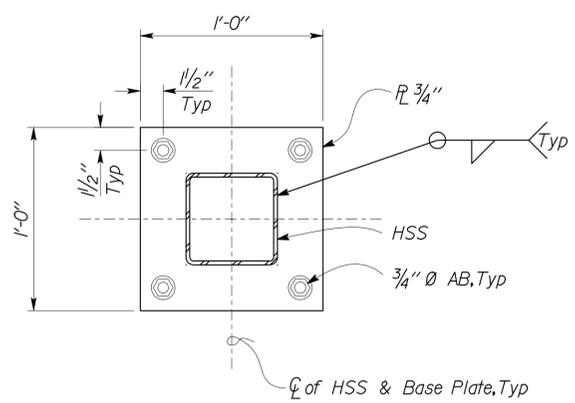
**1 FOUNDATION DETAIL**  
Scale 1 1/2" = 1' - 0"



**3 TYPICAL FOUNDATION DETAIL**  
Scale 1 1/2" = 1' - 0"



**4 TYPICAL INTERIOR CURB DETAIL**  
Scale 1 1/2" = 1' - 0"



**2 BASE PLATE**  
Scale 2" = 1' - 0"

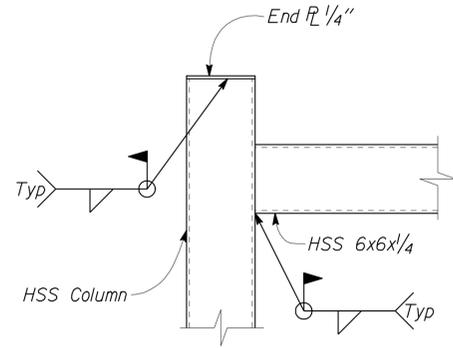
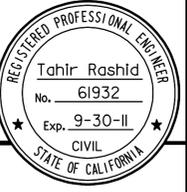
DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST4-6	
	DETAILS	BY	Aleksey SerIn/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE			22.45
QUANTITIES	BY		CHECKED		CU 063400	EA 0A9701	POST MILE	22.40	FOUNDATION DETAILS	SHEET OF	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
DOES SD Imperial Rev. 9/02								DISREGARD PRINTS BEARING EARLIER REVISION DATES		08-23-09 12-21-09	16-AUG-2010 08:11

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	249	335

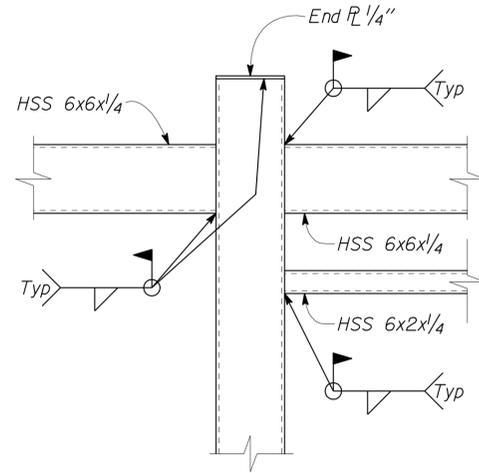
*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
12-22-09  
DATE

8-9-10  
PLANS APPROVAL DATE

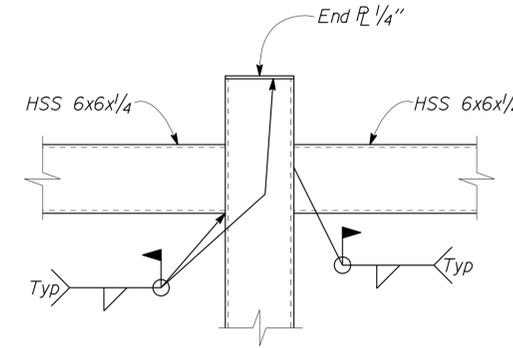
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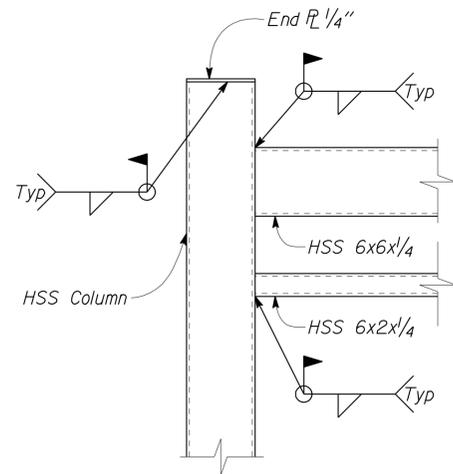
1 **TYPICAL BEAM TO COLUMN CONNECTION**  
Scale 1/2" = 1' - 0"



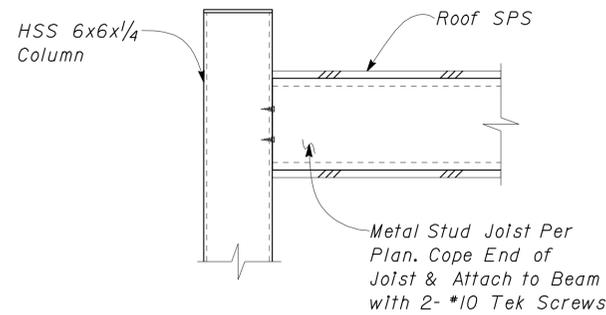
2 **BEAM TO COLUMN CONNECTION**  
Scale 1/2" = 1' - 0"



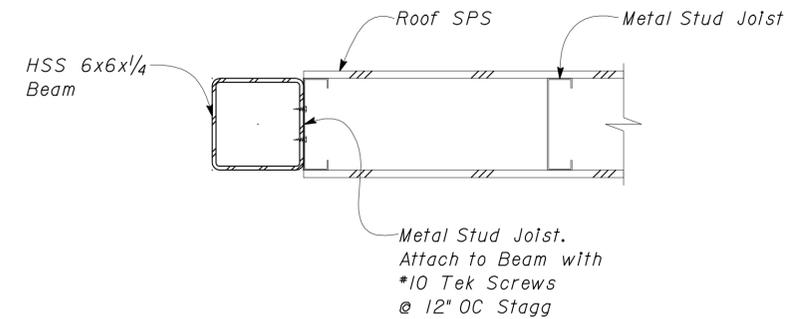
3 **BEAM TO COLUMN CONNECTION**  
Scale 1/2" = 1' - 0"



4 **BEAM TO COLUMN CONNECTION**  
Scale 1/2" = 1' - 0"



5 **JOIST TO BEAM CONNECTION**  
Scale 2" = 1' - 0"



6 **JOIST TO BEAM CONNECTION**  
Scale 2" = 1' - 0"

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	PHILIP S. RAINE SAFETY ROADSIDE REST AREA		SHEET
	DETAILS	BY	Aleksey SerIn/Daniel Harakh	CHECKED			Tahir Rashid	46R0001L 46R0001R	VENDING BUILDINGS	ROOF FRAMING DETAILS
QUANTITIES	BY		CHECKED		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 063400 EA 0A9701	POST MILE	22.45 22.40	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
							DISREGARD PRINTS BEARING EARLIER REVISION DATES	09-29-09		

**PROJECT DESIGN CRITERIA**

The building work on this project has been designed to conform to the 2007 California Building Code (2006 IBC).

**LOADS**

**SEISMIC:** Occupancy Category = II  
 Importance Factor = 1.0  
 Site Soil Class = D  
 $S_S = 0.650$        $S_{DS} = 0.555$   
 $S_I = 0.250$        $S_{DI} = 0.317$   
 Seismic Design Category = D  
**Seismic Force-Resisting System:**  
 Bearing Wall System  
North - South  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$   
 Bearing Wall System  
East - West  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$

**WIND:** Importance Factor = 1.0  
 Basic Wind Speed = 85 mph  
 Exposure C  
 Wind Pressure on Components and Cladding = 25 psf

**LIVE LOAD:** Roof = 20 psf

**MATERIALS**

**REINFORCED CONCRETE:** (Ultimate Strength Design) :  
 $f'_c = 3,000$  psi  
 $f_y = 60,000$  psi

**FOUNDATION:**  
 Soils report dated : Mar 14, 2008  
 Allowable Soil Pressure (DL + LL) : = 2,000 psf

**REINFORCED CONCRETE MASONRY UNITS:**  
 (Allowable Stress Design) :  
 $f'_m = 1,500$  psi  
 $f_y = 60,000$  psi  
 SPECIAL INSPECTION NOT REQUIRED

**STRUCTURAL STEEL:** (Allowable Strength Design) :  
 Channels, Angles & Misc. Shapes  $F_y = 36$  ksi  
 Plates  $F_y = 36$  ksi  
 Hollow Structural Steel (HSS)  $F_y = 46$  ksi

**DETAIL NOTES**

- For Concrete see: "Concrete Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	250	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER      12-22-09 DATE

8-9-10  
 PLANS APPROVAL DATE

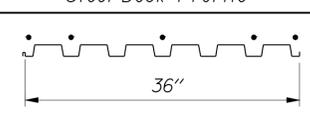
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**STEEL DECK MINIMUM SECTION PROPERTIES**

Deck Type	Depth & Gage	Moment of Inertia	Positive Section Modulus	Negative Section Modulus	Minimum Yield Strength
HSB36 Type Steel Decking	1 1/2" x 20 Ga	0.216 in <sup>4</sup> /ft	0.235 in <sup>3</sup> /ft	0.248 in <sup>3</sup> /ft	38 Ksi

Note  
 Minimum 3 Span Condition

**WELDING SCHEDULE and STEEL DECK PROFILE**

Steel Deck Profile	1/2" Diameter Puddle Weld			Diaphragm Shear Capacity
	Perpendicular Supports and Panel Ends	Parallel Supports	Side Laps	
	5 - Puddle Welds Per Support	12" OC	Button Punch 12" OC	450 lb/ft

**A STEEL DECK NOTES**

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L
POST MILE 22.45
22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
 CANOPY SOUTH/NORTH BOUND  
 DESIGN CRITERIA AND DETAIL NOTES

SHEET **ST5-0**

16-AUG-2010 08:11

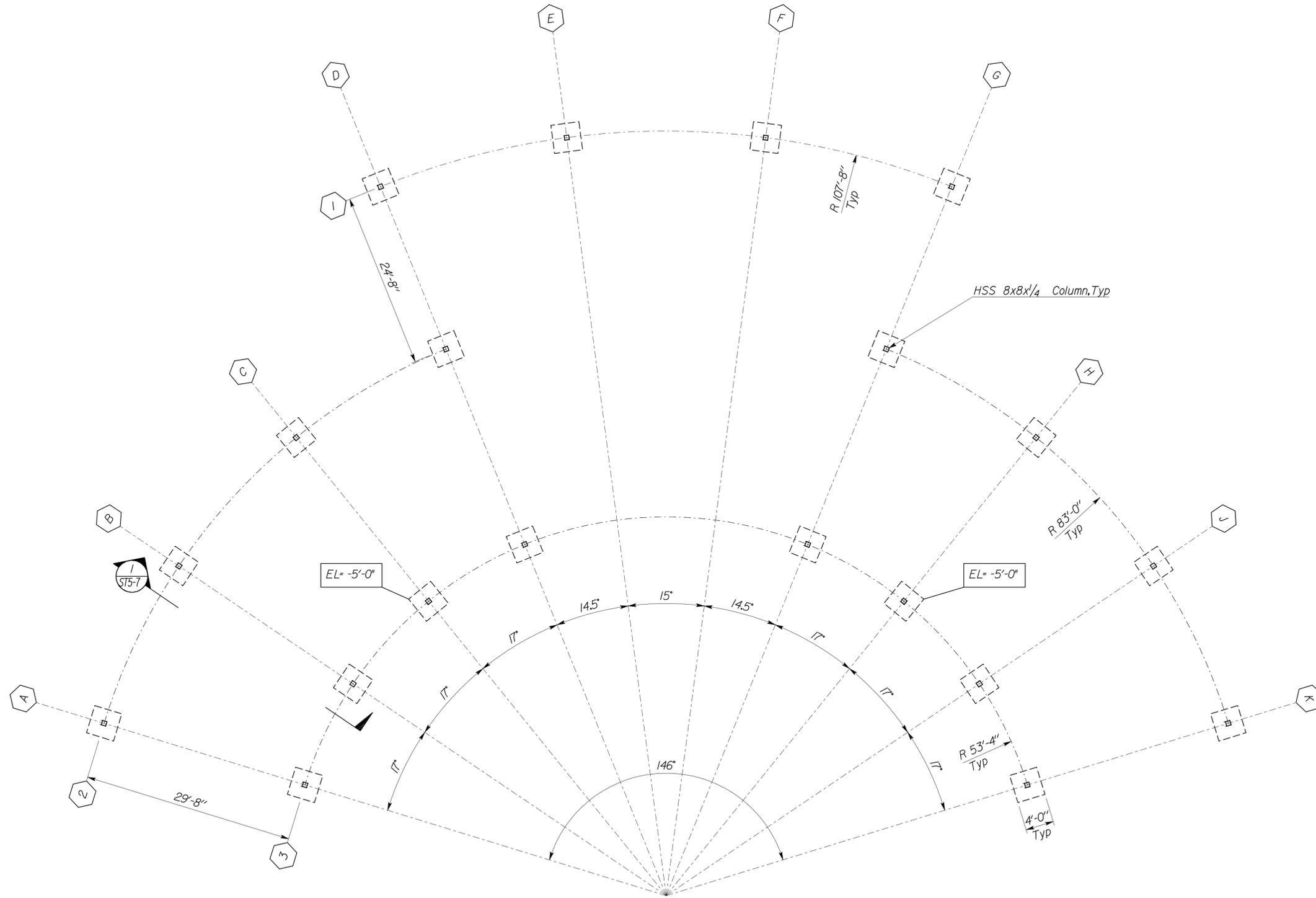
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*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
12-22-09  
DATE



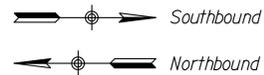
8-9-10  
PLANS APPROVAL DATE

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- A NOTES:**
- For Ground Box & Ground Reinforcing Bars, See Electrical Plans For All Locations.
  - All Bottom of Footing Elevations Are - 3'-0" UON.

**1 FOUNDATION PLAN**  
Scale 1/8" = 1' - 0"



DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	PHILIP S. RAINE SAFETY ROADSIDE REST AREA		SHEET ST5-1
	DETAILS	BY	Aleksey Serin/Daniel Horakh	CHECKED			Tahir Rashid	POST MILE	CANOPY SOUTH/NORTH BOUND	
QUANTITIES	BY		CHECKED		CU 063400 EA 0A9701	POST MILE	22.45 22.40	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
DOES SD Imperial Rev. 9/02						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		DISREGARD PRINTS BEARING EARLIER REVISION DATES		16-AUG-2010 08:25

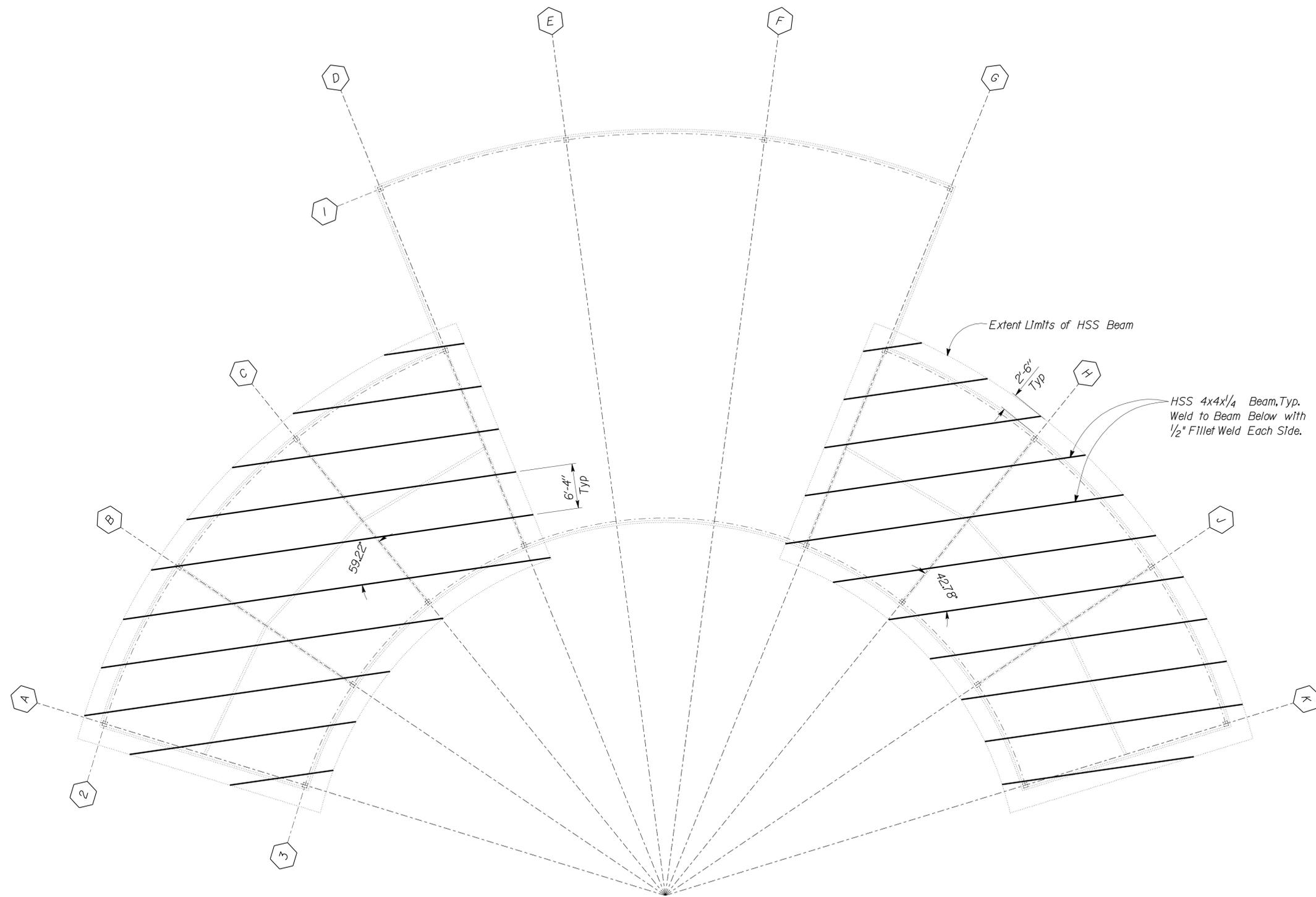


DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	253	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
DATE 12-22-09  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

8-9-10  
PLANS APPROVAL DATE

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**1 NOTES**

Length & Location of All HSS 4x4x1/4 Beams Per Electrical Plans

**1 SUPPORT PANEL FRAMING PLAN SOUTHBOUND**  
Scale 1/8" = 1' - 0"  
Southbound

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L	CANOPY SOUTH/NORTH BOUND
POST MILE 22.45	
22.40	

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
SUPPORT PANEL FRAMING PLAN

SHEET **ST5-3** OF

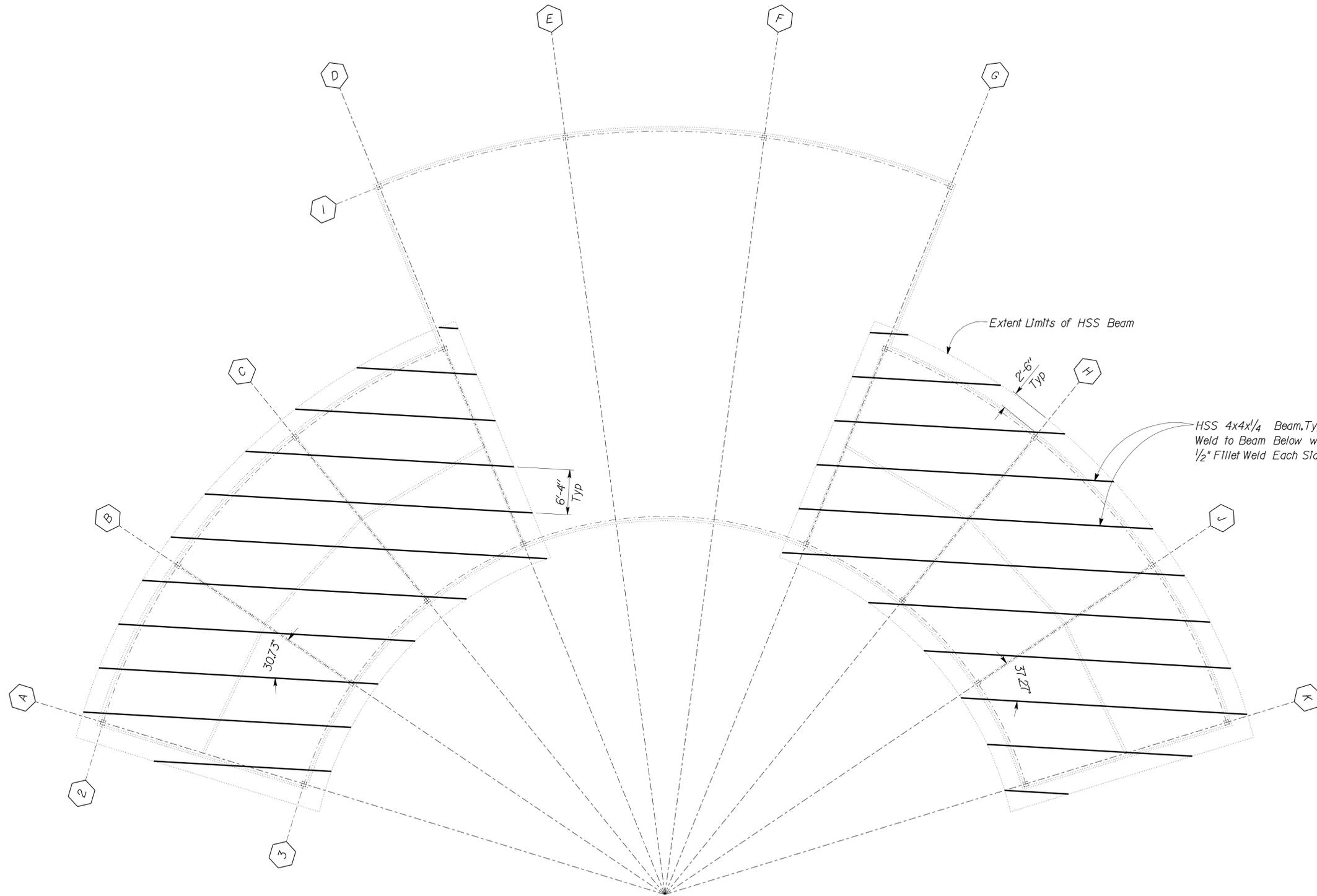
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06	Tul	99	22.4	254	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 DATE 12-22-09



8-9-10  
 PLANS APPROVAL DATE

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**1 NOTES**

Length & Location of All HSS 4x4x1/4 Beams Per Electrical Plans

**1 SUPPORT PANEL FRAMING PLAN NORTHBOUND**  
 Scale 1/8" = 1' - 0"



DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	46R0001L
POST MILE	22.45
	22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
 CANOPY SOUTH/NORTH BOUND  
 SUPPORT PANEL FRAMING PLAN

SHEET **ST5-4**

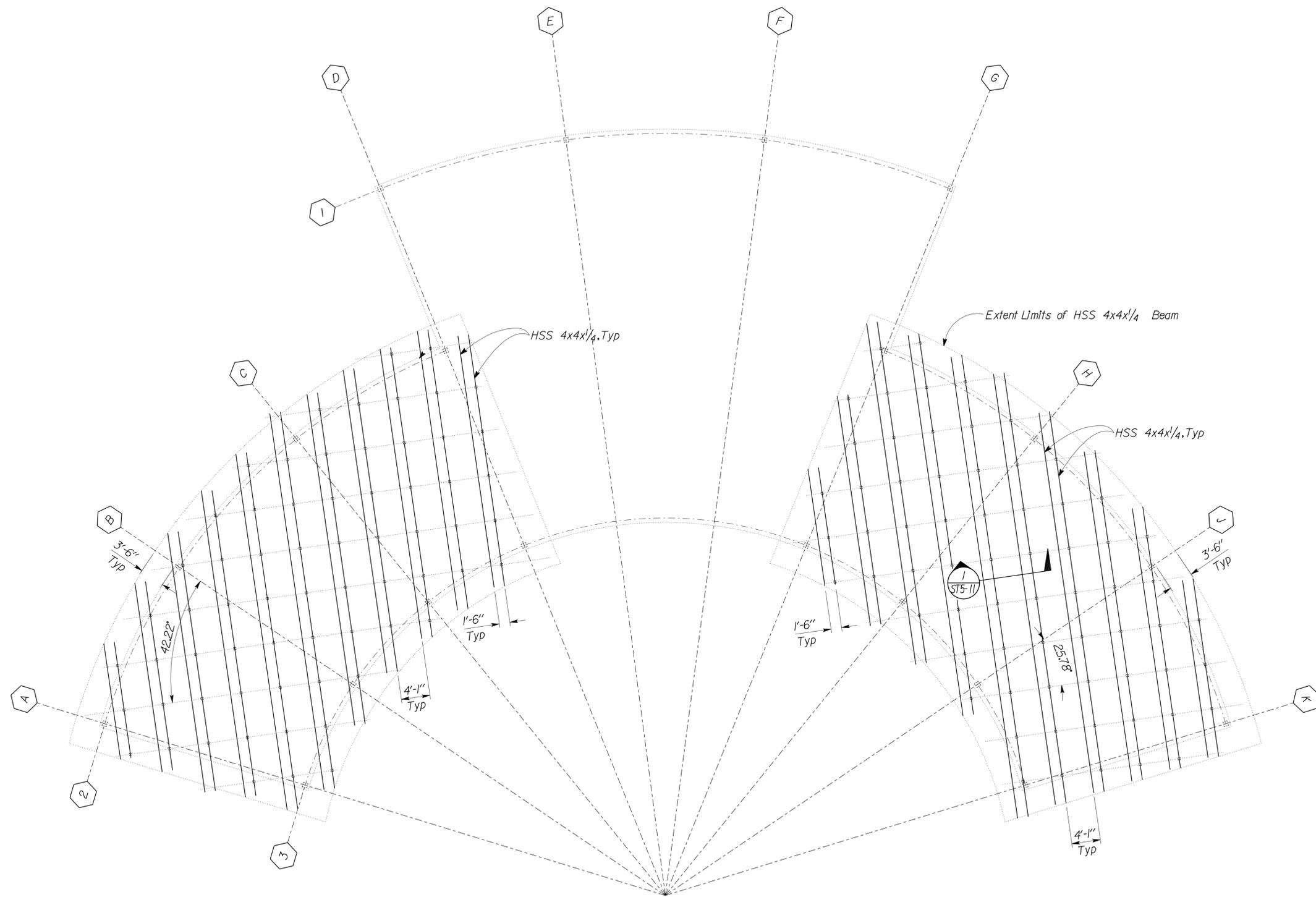
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	255	335

*Tahir Rashid*  
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 No. 61932  
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8-9-10  
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**1** SOLAR PANEL RISER FRAMING PLAN SOUTHBOUND  
 Scale 1/8" = 1'-0"  
 Southbound

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

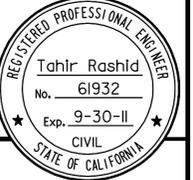
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POST MILE	22.45
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**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
 SOUTH/NORTH BOUND  
 SOLAR PANEL RISER FRAMING PLAN

SHEET **ST5-5** OF

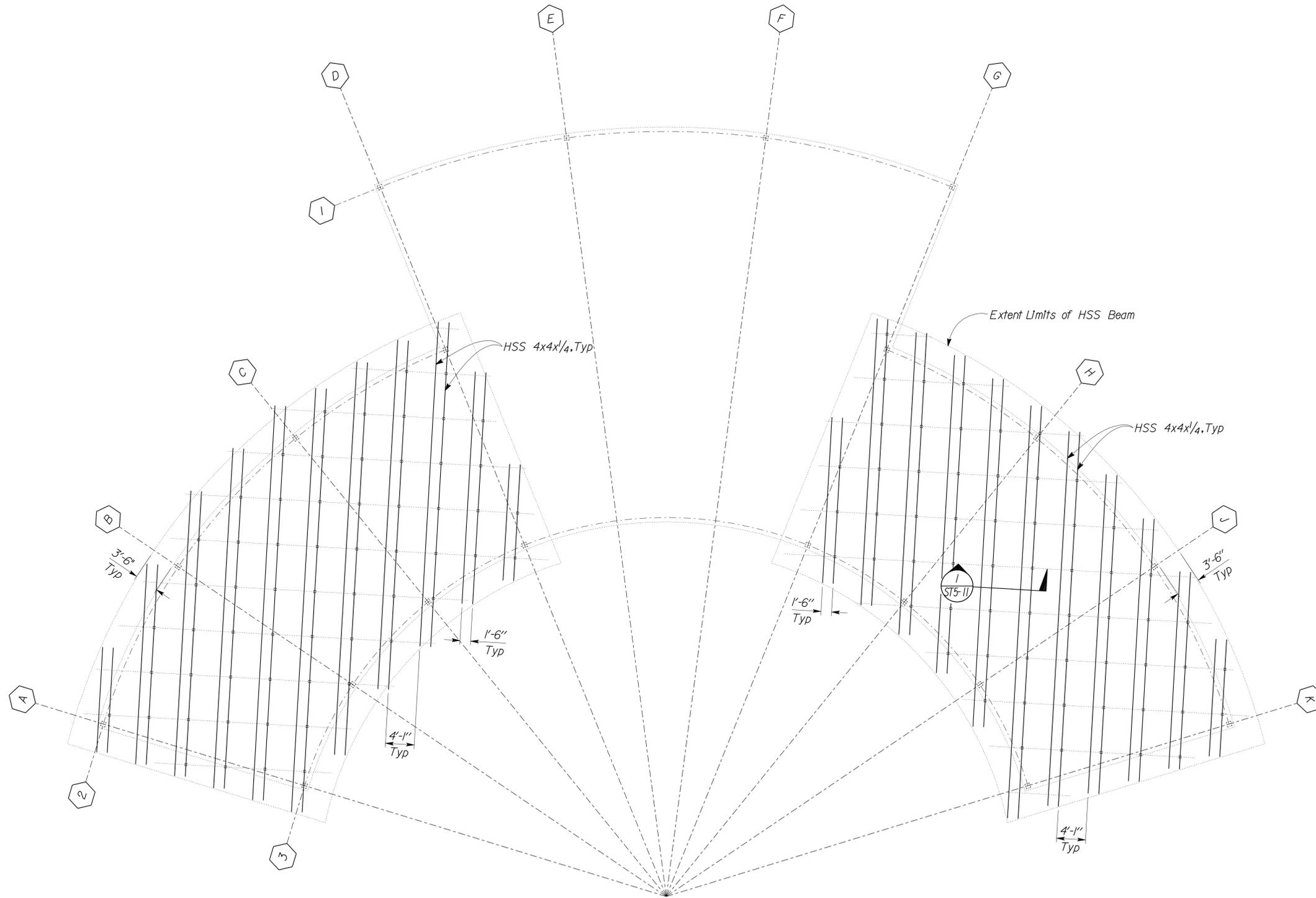
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06	Tul	99	22.4	256	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 12-22-09  
 DATE



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 PLANS APPROVAL DATE

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**1** SOLAR PANEL RISER FRAMING PLAN NORTHBOUND  
 Scale 1/8" = 1'-0"  
 ← Northbound

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Horakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF ENGINEERING SERVICES  
 ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO.	46R0001L
POST MILE	22.45
	22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
 CANOPY SOUTH/NORTH BOUND  
 SOLAR PANEL RISER FRAMING PLAN

SHEET **ST5-6** OF

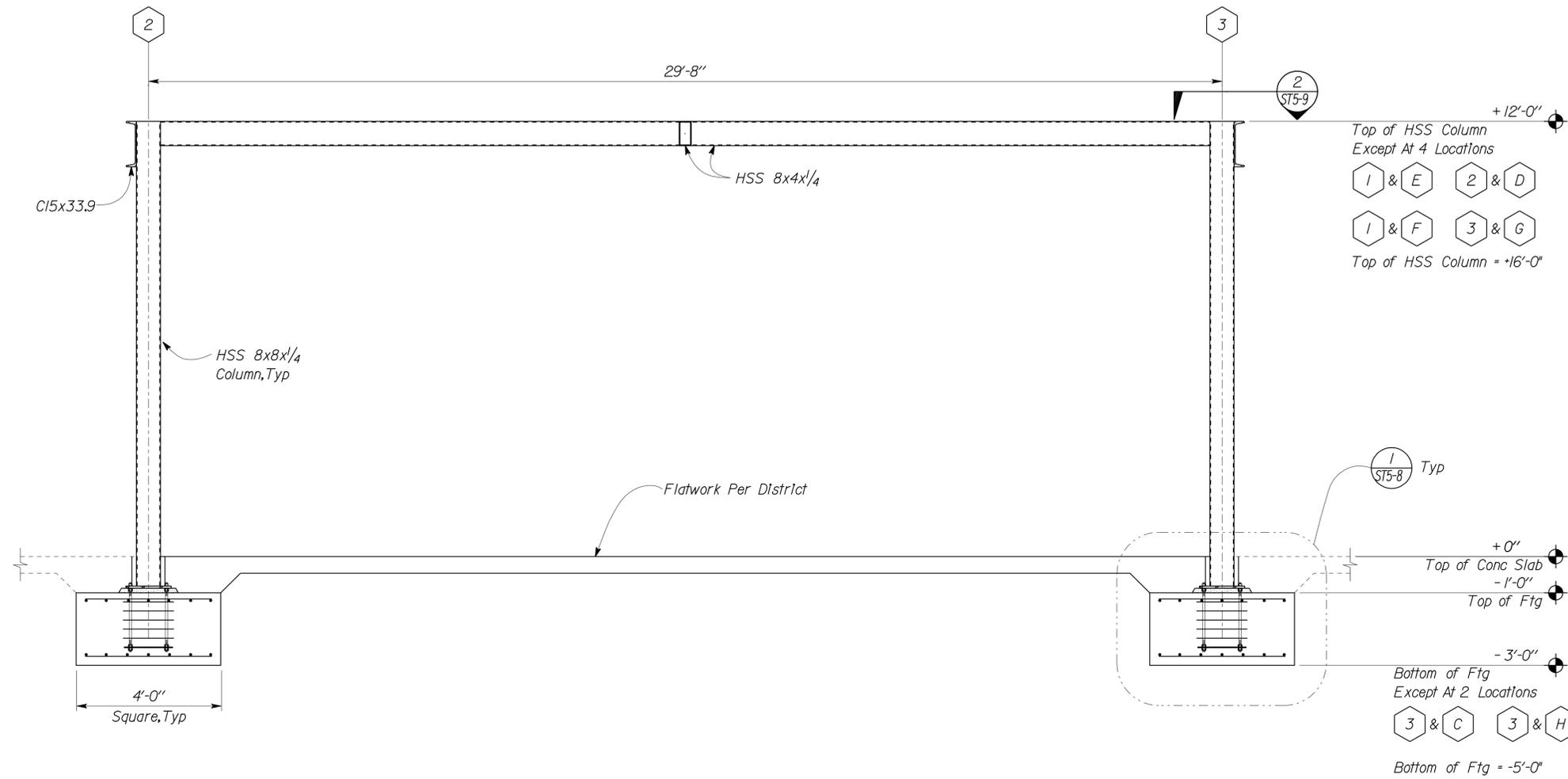
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	257	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
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12-22-09  
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**2** NOTES  
 1. Top of HSS Column +16'-0" At 4 Columns:

**1** FRAME SECTION  
 Scale 1/2" = 1'-0"

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET	ST5-7				
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		22.45	CANOPY SOUTH/NORTH BOUND	FRAME SECTION	OF		
QUANTITIES	BY		CHECKED		CU 063400 EA 0A9701	BRIDGE NO.	46R0001R		REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	05-19-09	01-14-09	08-12-09	12-21-09		

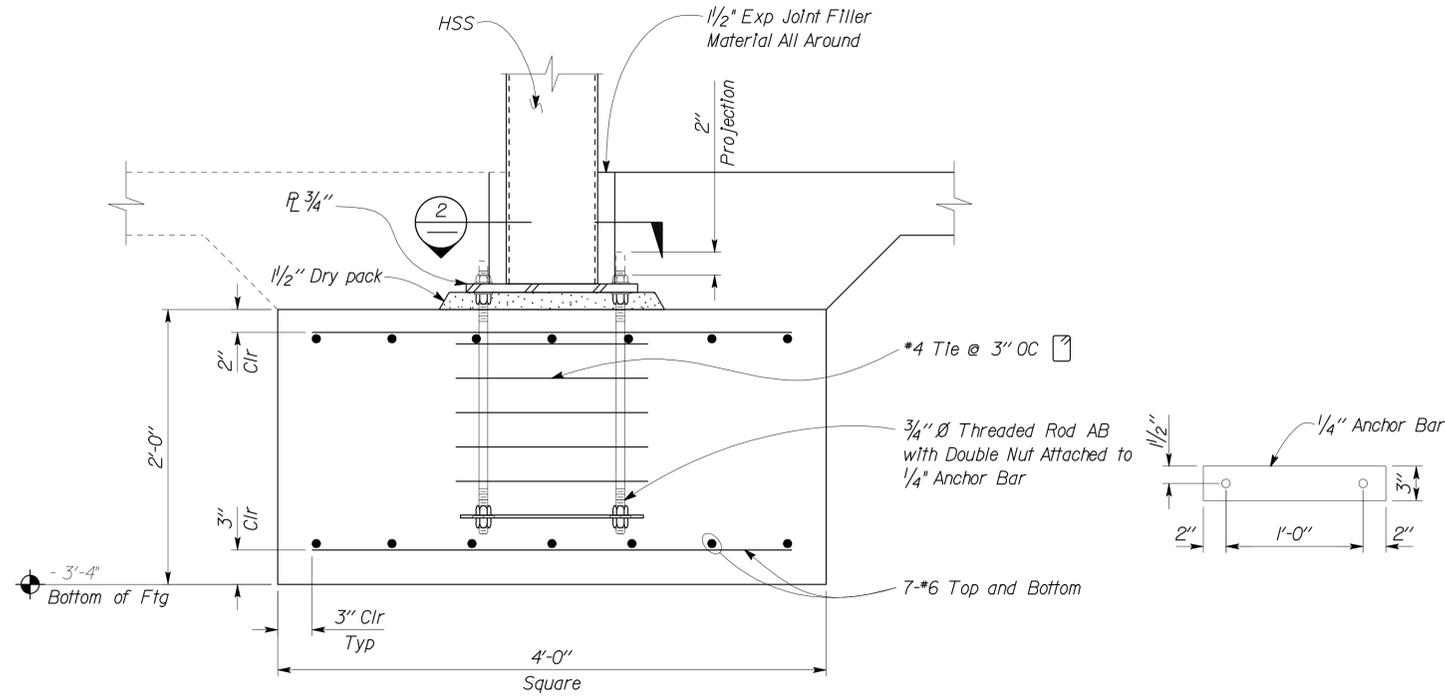
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	258	335

*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

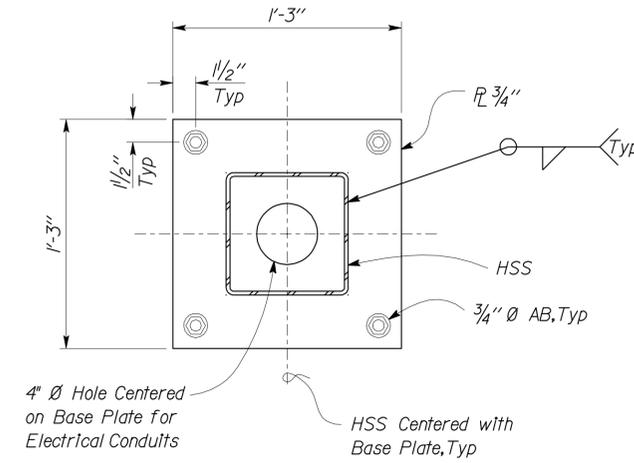
12-22-09  
DATE

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**1** FOOTING SECTION  
Scale 1/2" = 1'-0"



**2** BASE PLATE  
Scale 2" = 1'-0"

DESIGN	BY <i>Tahir Rashid</i>	CHECKED <i>Thomas Tong</i>
DETAILS	BY <i>Aleksey Serin/Daniel Harakh</i>	CHECKED <i>Tahir Rashid</i>
QUANTITIES	BY	CHECKED

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES  
ARCHITECTURAL AND STRUCTURAL DESIGN

BRIDGE NO. 46R0001L
POST MILE 22.45
22.40

**PHILIP S. RAINE SAFETY ROADSIDE REST AREA**  
FOUNDATION DETAILS

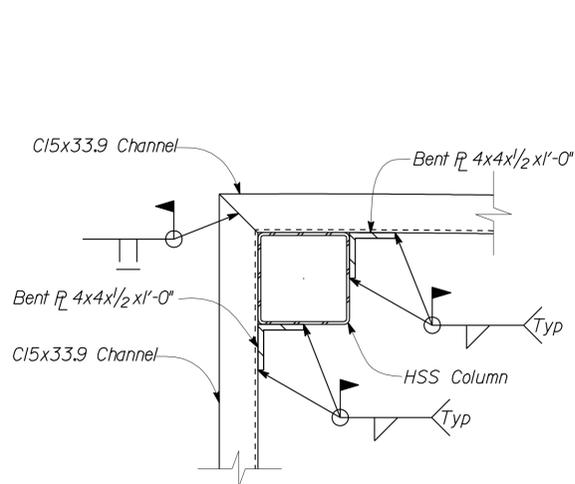
SHEET **ST5-8**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	259	335

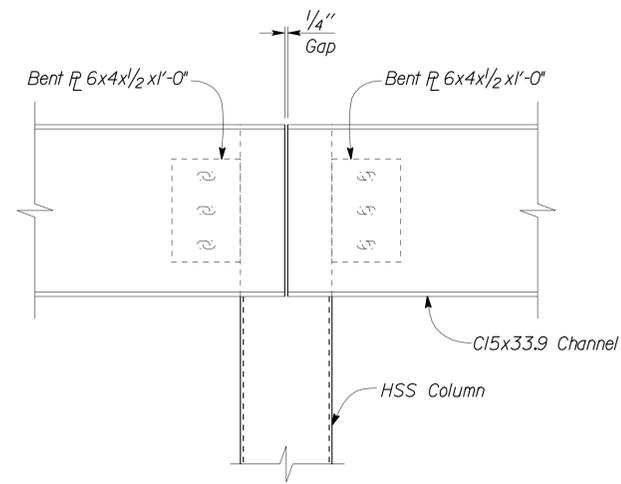
*Tahir Rashid*  
REGISTERED CIVIL ENGINEER  
DATE 12-22-09  
No. 61932  
Exp. 9-30-11  
CIVIL  
STATE OF CALIFORNIA

8-9-10  
PLANS APPROVAL DATE

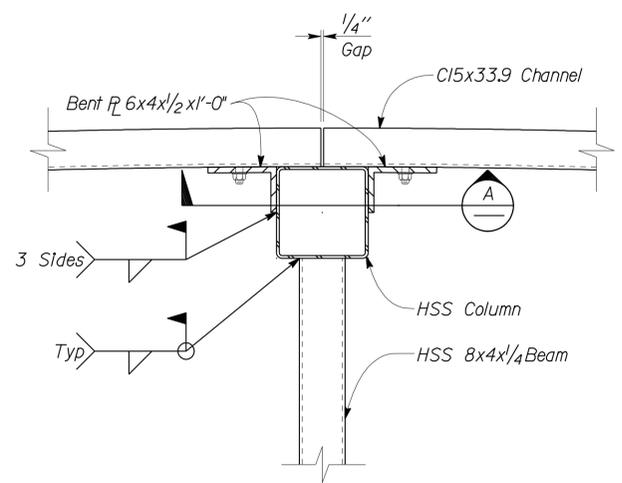
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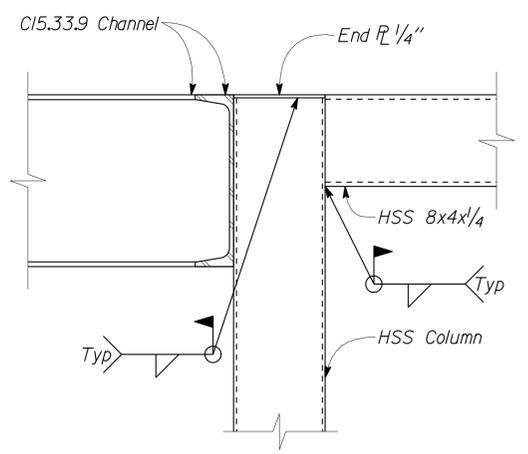
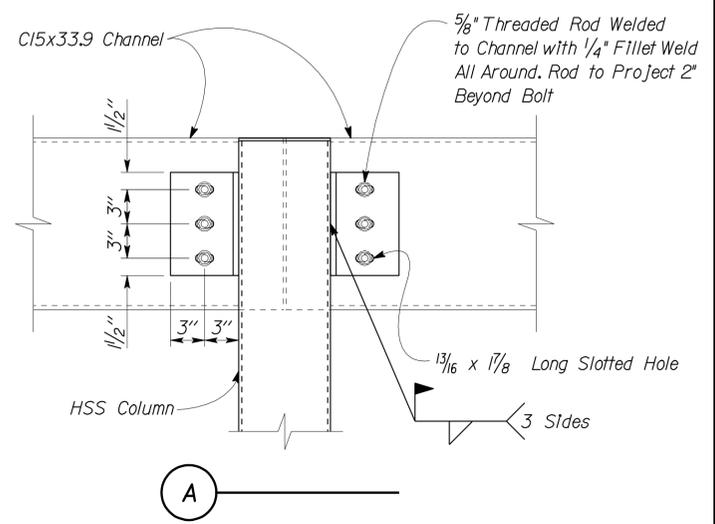
**1** CHANNEL TO COLUMN CONNECTION  
Scale 1 1/2" = 1' - 0"



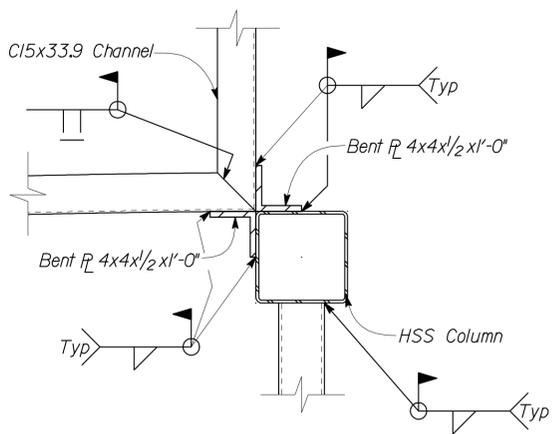
**2** CHANNEL TO COLUMN CONNECTION  
Scale 1 1/2" = 1' - 0"



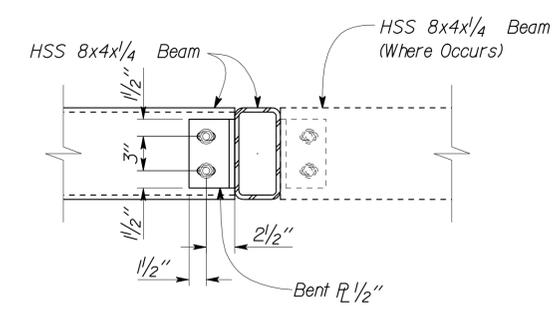
**3** BEAM TO COLUMN CONNECTION  
Scale 1 1/2" = 1' - 0"



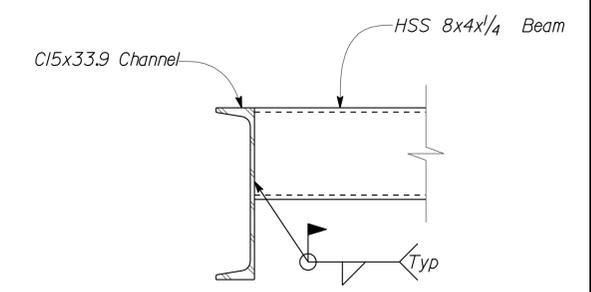
**4** BEAM TO BEAM CONNECTION  
Scale 1 1/2" = 1' - 0"



**5** CHANNEL TO COLUMN CONNECTION  
Scale 1 1/2" = 1' - 0"



**6** BEAM TO BEAM CONNECTION  
Scale 1 1/2" = 1' - 0"



**7** BEAM TO CHANNEL CONNECTION  
Scale 1 1/2" = 1' - 0"

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET	ST5-9	
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		22.45	CANOPY	SOUTH/NORTH BOUND
QUANTITIES	BY		CHECKED		CU 063400	EA 0A9701	POST MILE	22.40		REVISION DATES (PRELIMINARY STAGE ONLY)		
DOES SD Imperial Rev. 9/02						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES		01-14-09 07-31-09 08-12-09

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	260	335

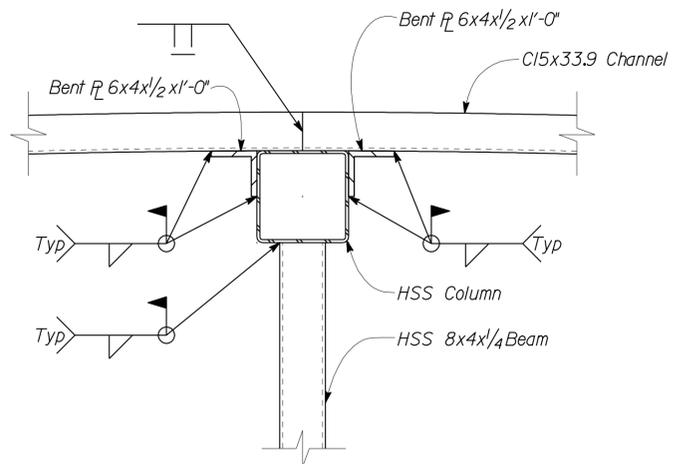
<i>Tahir Rashid</i>	12-22-09
REGISTERED CIVIL ENGINEER	DATE

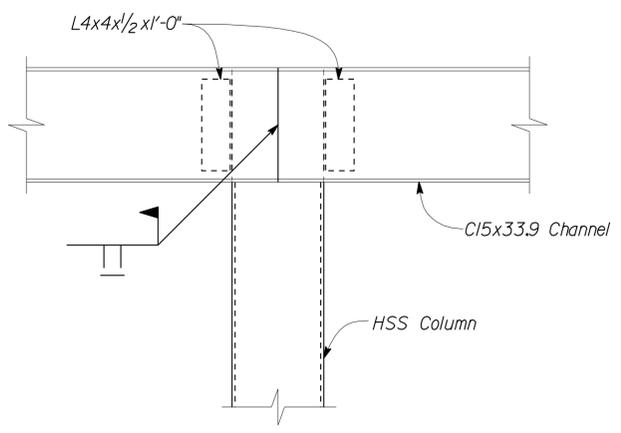
8-9-10
PLANS APPROVAL DATE

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**1 BEAM TO COLUMN CONNECTION**  
Scale 1/2" = 1'-0"



**2 CHANNEL TO COLUMN CONNECTION**  
Scale 1/2" = 1'-0"

DESIGN	BY	<i>Tahir Rashid</i>	CHECKED	<i>Thomas Tong</i>	BRIDGE NO. 46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST5-10	
	DETAILS	BY	<i>Aleksey Serin/Daniel Harakh</i>	CHECKED				<i>Tahir Rashid</i>
QUANTITIES	BY		CHECKED		POST MILE 22.45	CANOPY SOUTH/NORTH BOUND	ROOF FRAMING DETAILS	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION					DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN		REVISION DATES (PRELIMINARY STAGE ONLY)	
DOES SD Imperial Rev. 9/02					CU 063400 EA 0A9701		DISREGARD PRINTS BEARING EARLIER REVISION DATES → 01-14-09 07-31-09 08-12-09	

16-AUG-2010 08:25 s15\_10.dgn

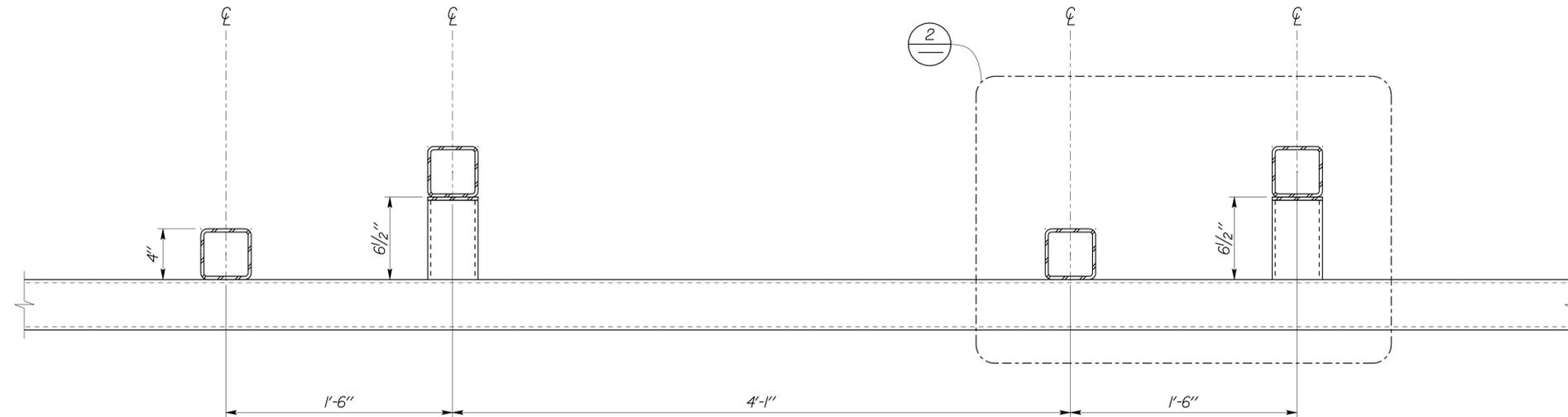
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	261	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

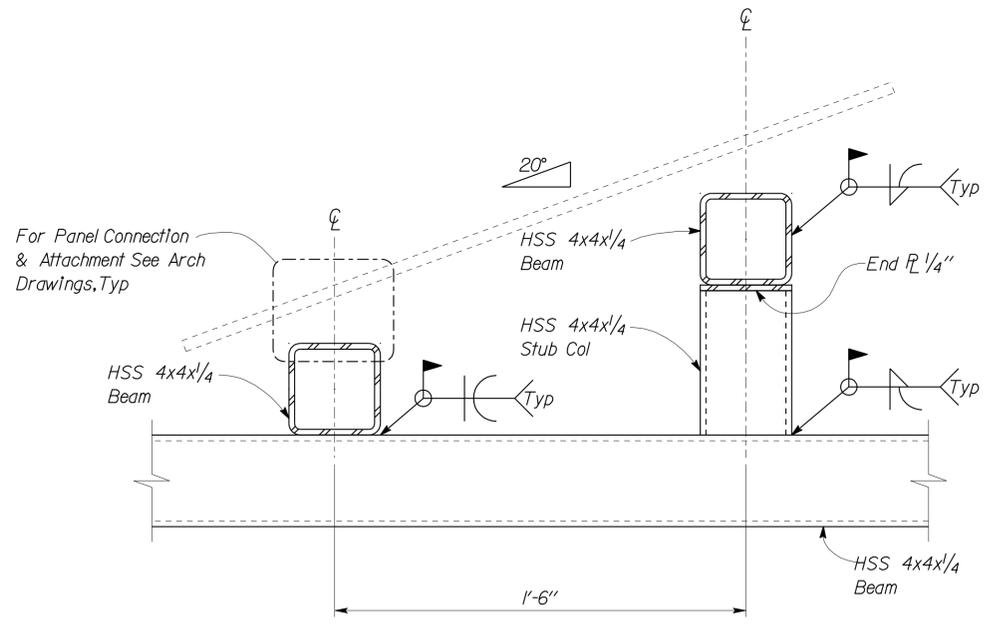
12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

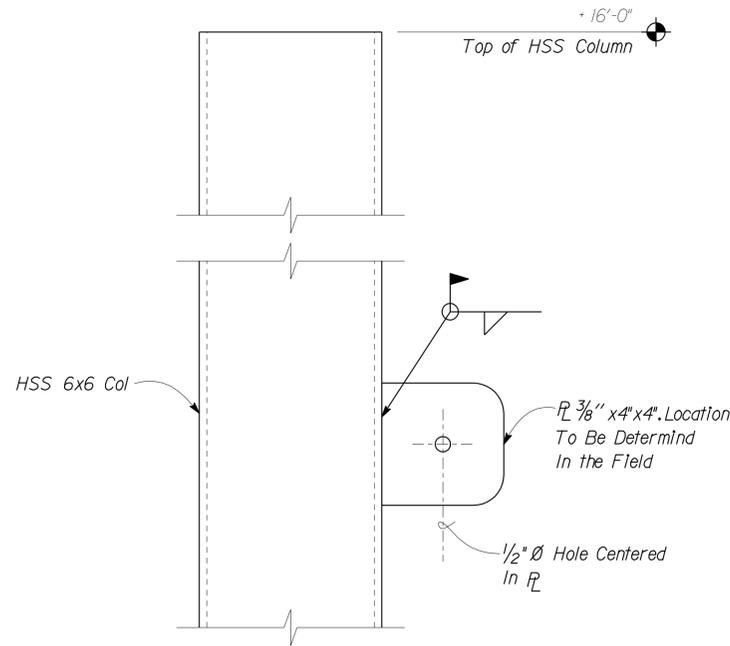
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**1 COLUMN SUPPORT LAYOUT**  
 Scale 2" = 1' - 0"



**2 PANEL SUPPORT CONNECTION**  
 Scale 3" = 1' - 0"



**3 CANOPY ANCHORAGE PLATE**  
 Scale 4" = 1' - 0"

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET	OF	
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		22.45	CANOPY SOUTH/NORTH BOUND	ST5-11
QUANTITIES	BY		CHECKED		CU 063400	EA 0A9701	POST MILE	22.40	ROOF FRAMING DETAILS			
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								01-14-09	08-12-09	12-21-09		

16-AUG-2010 08:33 s15\_11.dgn

**PROJECT DESIGN CRITERIA**

The building work on this project has been designed to conform to the 2007 California Building Code (2006 IBC).

**LOADS**

**SEISMIC:** Occupancy Category = II  
 Importance Factor = 1.0  
 Site Soil Class = D  
 $S_S = 0.650$        $S_{DS} = 0.555$   
 $S_I = 0.250$        $S_{DI} = 0.317$   
 Seismic Design Category = D  
**Seismic Force-Resisting System:**  
 Bearing Wall System  
North - South  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$   
 Bearing Wall System  
East - West  
 Ordinary reinforced masonry shear walls.  
 $R = 4.00$      $C_S = 0.1387$

**WIND:** Importance Factor = 1.0  
 Basic Wind Speed = 85 mph  
 Exposure C  
 Wind Pressure on Components and Cladding = 25 psf

**LIVE LOAD:** Roof = 20 psf

**MATERIALS**

**REINFORCED CONCRETE:** (Ultimate Strength Design) :  
 $f'_c = 3,000$  psi  
 $f_y = 60,000$  psi

**FOUNDATION:**  
 Soils report dated : Mar 14, 2008  
 Allowable Soil Pressure (DL + LL) : = 2,000 psf

**REINFORCED CONCRETE MASONRY UNITS:**  
 (Allowable Stress Design) :  
 $f'_m = 1,500$  psi  
 $f_y = 60,000$  psi  
 SPECIAL INSPECTION NOT REQUIRED

**STRUCTURAL STEEL:** (Allowable Strength Design) :  
 Channels, Angles & Misc. Shapes  $F_y = 36$  ksi  
 Plates  $F_y = 36$  ksi  
 Hollow Structural Steel (HSS)  $F_y = 46$  ksi

**DETAIL NOTES**

- For Concrete see: "Concrete Standard"
- For Masonry see: "Concrete Masonry Unit Standard"
- All bolts shall be hex head machine bolts, with hex head nuts; unless otherwise noted.
- All lock washers shall be helical spring lock washers.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	262	335

*Tahir Rashid* 12-22-09  
 REGISTERED CIVIL ENGINEER DATE

8-9-10  
 PLANS APPROVAL DATE

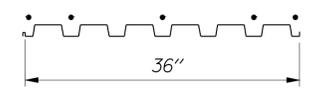
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

**STEEL DECK MINIMUM SECTION PROPERTIES**

Deck Type	Depth & Gage	Moment of Inertia	Positive Section Modulus	Negative Section Modulus	Minimum Yield Strength
HSB36 Type Steel Decking	1 1/2" x 20 Ga	0.216 in <sup>4</sup> /ft	0.235 in <sup>3</sup> /ft	0.248 in <sup>3</sup> /ft	38 Ksi

Note  
 Minimum 3 Span Condition

**WELDING SCHEDULE and STEEL DECK PROFILE**

Steel Deck Profile	1/2" Diameter Puddle Weld			Diaphragm Shear Capacity
	Perpendicular Supports and Panel Ends	Parallel Supports	Side Laps	
	5 - Puddle Welds Per Support	12" OC	Button Punch 12" OC	450 lb/ft

**A STEEL DECK NOTES**

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	PICNIC SHELTER	DESIGN CRITERIA AND DETAIL NOTES	SHEET OF	ST6-0	
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE						22.45
	QUANTITIES	BY		CHECKED				POST MILE						22.40

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

CU 063400 EA 0A9701

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 01-06-09

REVISION DATES (PRELIMINARY STAGE ONLY)

DOES SD Imperial Rev. 9/02

16-AUG-2010 08:33 s16\_00.dgn

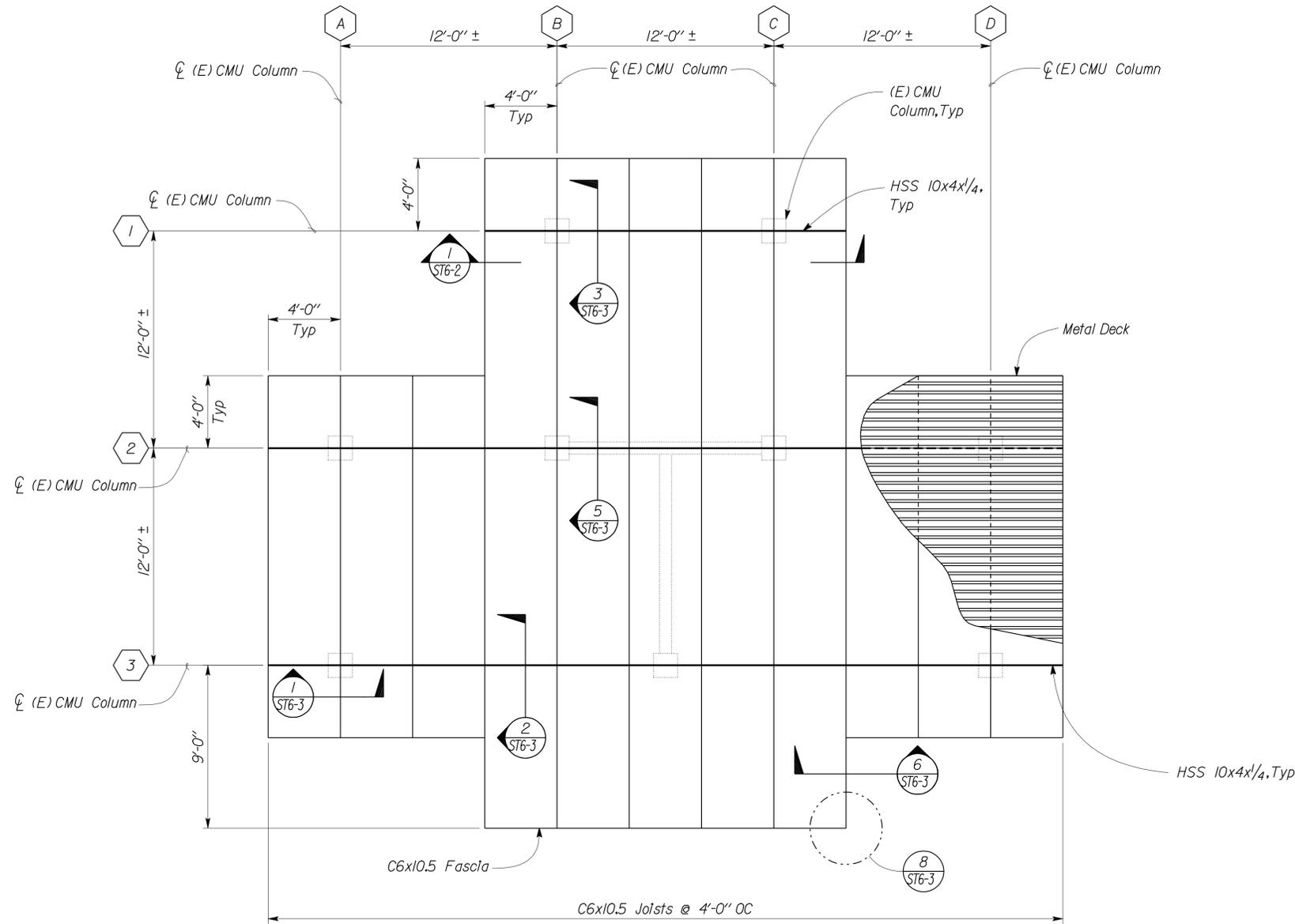
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	263	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

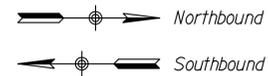
12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

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**1 ROOF FRAMING PLAN**  
 Scale 1/4" = 1'-0"



**NOTE**  
 The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO.	46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST6-1
	DETAILS	BY	Aleksey Serin/Daniel Harakh	CHECKED			Tahir Rashid	POST MILE		
QUANTITIES	BY		CHECKED		CU 063400 EA 0A9701	POST MILE	22.40	REVISION DATES (PRELIMINARY STAGE ONLY)	05-13-08 01-18-09 08-05-08	SHEET OF

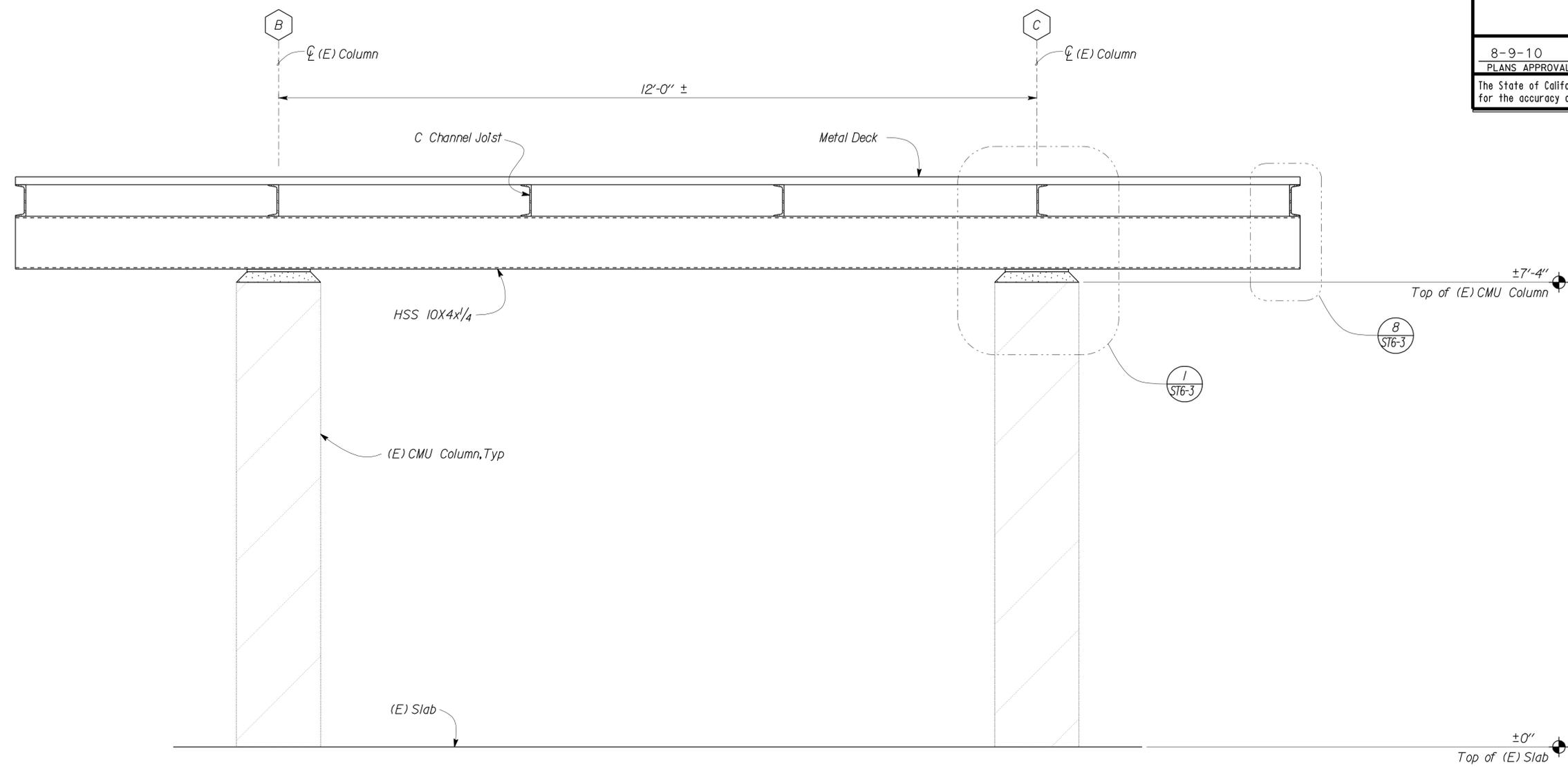
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	264	335

*Tahir Rashid*  
 REGISTERED CIVIL ENGINEER  
 No. 61932  
 Exp. 9-30-11  
 CIVIL  
 STATE OF CALIFORNIA

12-22-09  
 DATE

8-9-10  
 PLANS APPROVAL DATE

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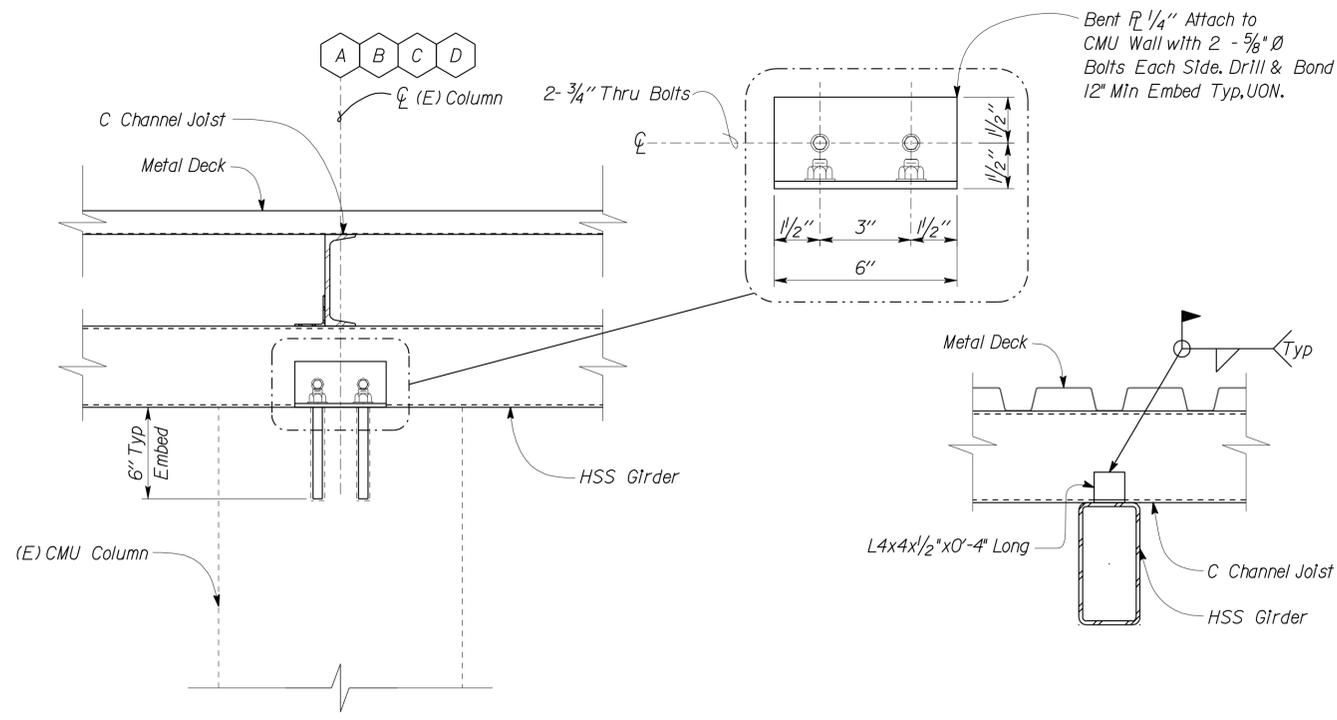
**1 SECTION**  
 Scale 1" = 1' - 0"

DESIGN BY <i>Tahir Rashid</i> CHECKED <i>Thomas Tong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	SHEET ST6-2
			POST MILE 22.45 22.40		
DETAILS BY <i>Aleksey Serin/Daniel Harakh</i> CHECKED <i>Tahir Rashid</i>	CU 063400 EA 0A9701		REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY CHECKED	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	05-21-08 01-15-09		

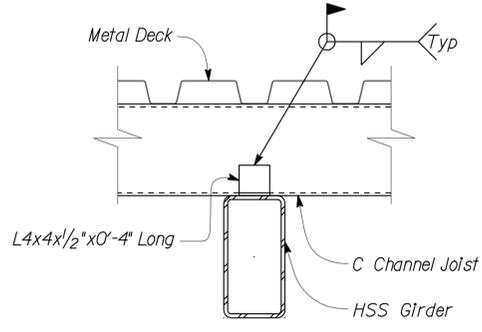
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	265	335

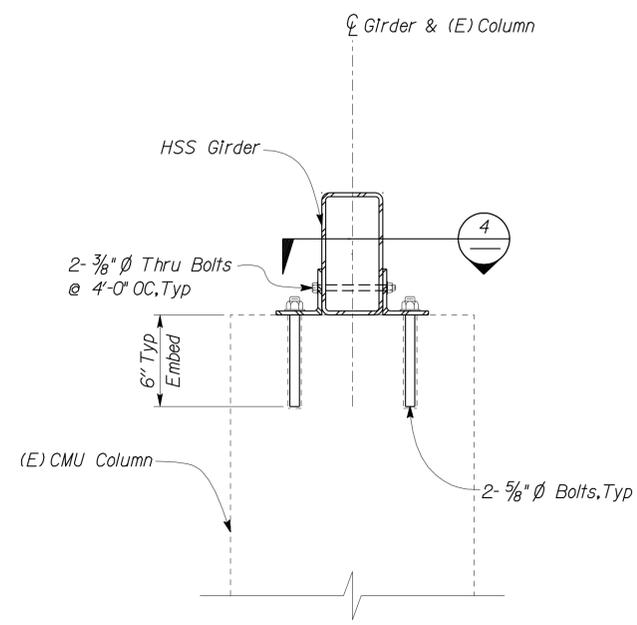
<i>Tahir Rashid</i>		12-22-09
REGISTERED CIVIL ENGINEER	DATE	
Tahir Rashid No. 61932 Exp. 9-30-11 CIVIL STATE OF CALIFORNIA		
8-9-10		
PLANS APPROVAL DATE		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.		



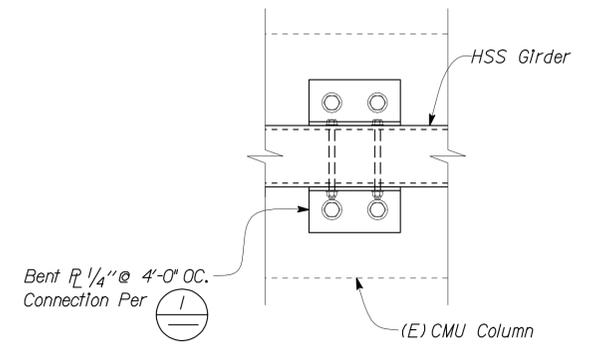
**1 BEAM TO WALL CONNECTION**  
Scale 2" = 1' - 0"



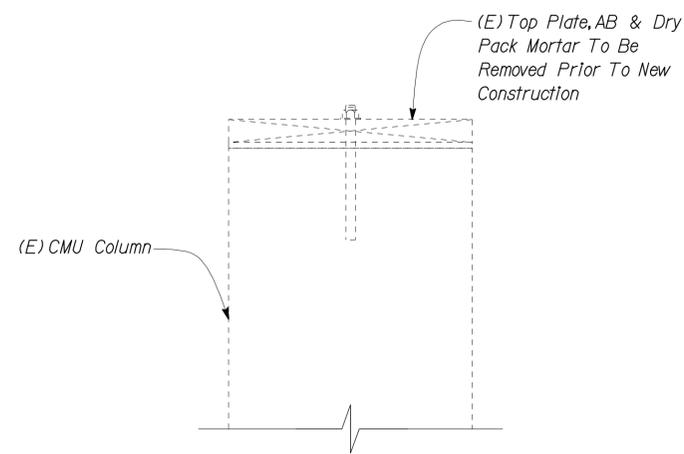
**2 BEAM TO JOIST CONNECTION**  
Scale 2" = 1' - 0"



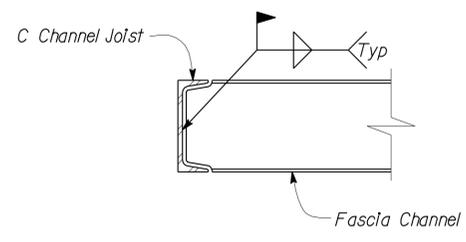
**3 BEAM TO WALL CONNECTION**  
Scale 2" = 1' - 0"



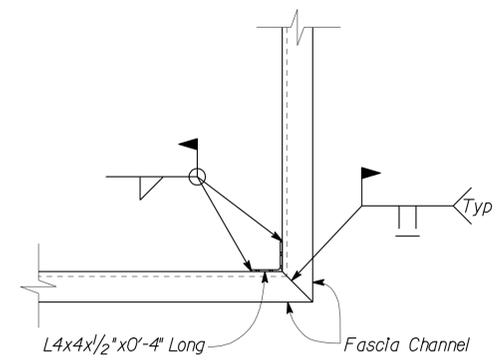
**4 BEAM TO CMU COLUMN CONNECTION**  
Scale 2" = 1' - 0"



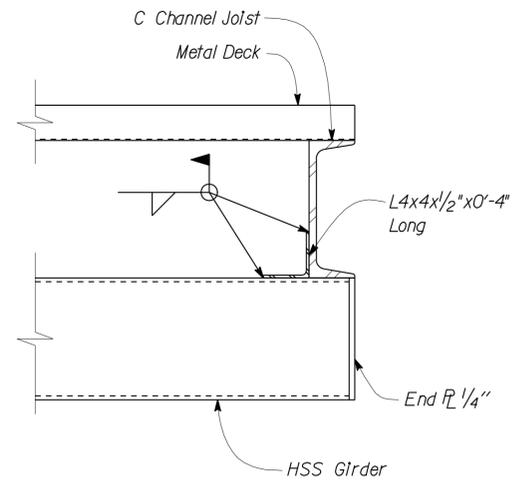
**5 TOP OF (E) CMU COLUMN DEMO**  
Scale 2" = 1' - 0"



**6 CHANNEL TO CHANNEL CONNECTION**  
Scale 2" = 1' - 0"



**7 CHANNEL TO CHANNEL CONNECTION**  
Scale 2" = 1' - 0"



**8 CHANNEL TO BEAM CONNECTION**  
Scale 3" = 1' - 0"

DESIGN	BY	Tahir Rashid	CHECKED	Thomas Tong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ARCHITECTURAL AND STRUCTURAL DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45 22.40	PHILIP S. RAINE SAFETY ROADSIDE REST AREA	PICNIC SHELTER	ROOF FRAMING DETAILS	SHEET
	DETAILS	BY	Aleksey SerIn/Daniel Harakh	CHECKED							Tahir Rashid
QUANTITIES	BY		CHECKED		CU 063400 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	10-15-0801-12-09-08-05-08	SHEET	OF	

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

16-AUG-2010 08:34 s16\_03.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	266	335

*Solomon C. Wong* 12/22/09  
REGISTERED MECHANICAL ENGINEER DATE

8-9-10  
PLANS APPROVAL DATE

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### CERTIFICATE OF COMPLIANCE (Part 1 of 3) MECH-1-C

PROJECT NAME <i>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</i>	DATE <i>11/23/2009</i>
PROJECT ADDRESS <i>Highway 99 2.5 Miles North of Tipton</i>	Building Permit #
PRINCIPAL DESIGNER-MECHANICAL <i>SOLOMON WONG</i>	
DOCUMENTATION AUTHOR <i>SOLOMON WONG</i>	TELEPHONE <i>(916) 227-8330</i>
Checked by/Date Enforcement Agency Use	

**GENERAL INFORMATION**

DATE OF PLANS *11/23/2009* BUILDING CONDITIONED FLOOR AREA \* CLIMATE ZONE *13*

BUILDING TYPE  NONRESIDENTIAL  HIGH RISE RESIDENTIAL  HOTEL/MOTEL GUEST ROOM

PHASE OF CONSTRUCTION  NEW CONSTRUCTION  ADDITION  ALTERATION  UNCONDITIONED (File affidavit)

#### 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 mechanical requirements.

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

DOCUMENTATION AUTHOR <i>SOLOMON WONG</i>	SIGNATURE <i>Solomon C. Wong</i>	DATE <i>11/23/2009</i>
---	-------------------------------------	---------------------------

- The Principal Mechanical 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 mechanical requirements contained in the applicable parts of Sections 100, 101, 102, 110 through 115, 120 through 125, 144 and 145.
- The plans & specifications meet the requirements of Part 1 (Sections 10-103a).
  - The installation certificates meet the requirements of Part 1 (10-103a 3).
  - The operation & maintenance information meets the requirements of Part 1 (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 mechanical 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 MECHANICAL DESIGNER-NAME <i>SOLOMON WONG</i>	SIGNATURE <i>Solomon C. Wong</i>	DATE <i>11/23/2009</i>	LIC.# <i>M27626</i>
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#### MECHANICAL MANDATORY MEASURES

INSTRUCTIONS TO APPLICANT MECHANICAL COMPLIANCE & WORKSHEETS (Check box if worksheet is included)	
<input checked="" type="checkbox"/> MECH-1-C	Certificate of Compliance. Part 1 of 3, 2 of 3, 3 of 3 are required on plans for all submittals. See note.
<input type="checkbox"/> MECH-2-C	Air/Water/Service/Water Pools Requirements. Part 1 of 3, 2 of 3, 3 of 3 are required for all submittals, but may be on plans.
<input type="checkbox"/> MECH-3-C	Mechanical Ventilation and Reheat is required for all submittals with mechanical ventilation, but may be on plans.
<input type="checkbox"/> MECH-4-C	HVAC Misc. Prescriptive Requirements is required for all prescriptive submittals, but may be on plans.

2005 Nonresidential Compliance Forms January 2006

### CERTIFICATE OF COMPLIANCE (Part 1 of 2) ENV-1-C

PROJECT NAME <i>PHILIP S. RAINE SAFETY ROADSIDE REST AREA</i>	DATE <i>11/23/2009</i>
PROJECT ADDRESS <i>Highway 99 2.5 Miles North of Tipton</i>	Building Permit #
PRINCIPAL DESIGNER-ENVELOPE <i>MARTIN R. FRASER</i>	
DOCUMENTATION AUTHOR <i>SOLOMON WONG</i>	TELEPHONE <i>(916) 227-8330</i>
Checked by/Date Enforcement Agency Use	

**GENERAL INFORMATION**

DATE OF PLANS *11/23/2009* BUILDING CONDITIONED FLOOR AREA \* CLIMATE ZONE *13*

BUILDING TYPE  NONRESIDENTIAL  HIGH RISE RESIDENTIAL  HOTEL/MOTEL GUEST ROOM

RELOCATABLE - Indicate:  Specific climate - list \_\_\_\_\_, or  all climates

PHASE OF CONSTRUCTION  NEW CONSTRUCTION  ADDITION  ALTERATION  UNCONDITIONED (File affidavit)

METHOD OF ENVELOPE COMPLIANCE  COMPONENT  OVERALL ENVELOPE

SUPPORTING FORMS SUBMITTED  ENV-2-C (Component)  ENV-3-C (Overall Envelope)  ENV-4-C (Skylight Worksheet)

#### 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 envelope requirements.

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

DOCUMENTATION AUTHOR <i>SOLOMON WONG</i>	SIGNATURE <i>Solomon C. Wong</i>	DATE <i>11/23/2009</i>
---	-------------------------------------	---------------------------

- The Principal Envelope 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 envelope requirements contained in Sections 110, 116 through 118, and 140, 142, 143 or 149 of Title 24, Part 6. **Please check one:**
- 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 mechanical 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 ENVELOPE DESIGNER-NAME <i>MARTIN R. FRASER</i>	SIGNATURE <i>MR</i>	DATE <i>11/23/2009</i>	LIC.# <i>C-7739</i>
---	------------------------	---------------------------	------------------------

#### ENVELOPE MANDATORY MEASURES

Indicate location on plans of Note Block for Mandatory Measures  X

#### INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (Check box if worksheet is included)

<input checked="" type="checkbox"/> ENV-1-C	Certificate of Compliance. Required on plans for all submittals. Part 2 may be incorporated in schedules on plans.
<input type="checkbox"/> ENV-2-C	Use with the Envelope Component compliance method.
<input type="checkbox"/> ENV-3-C	Use with the Overall Envelope compliance method.
<input type="checkbox"/> ENV-4-C	Optional. Use for the minimum skylight requirements for large enclosed spaces.

2005 Nonresidential Compliance Forms January 2006

**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: *Sandy Margullis*  
SANDY MARGULLIS  
Approval date: 12-1-09

Note:  
Only part of 1 of 3 is included on this sheet. Other checked forms are available upon request.

#### \* BUILDING CONDITIONED FLOOR AREAS

SOUTH BOUND

CHP / CREW - 392 S.F.  
VENDING BLDG 2- 80 S.F.

NORTH BOUND

CHP / CREW - 392 S.F.  
VENDING BLDG 2- 80 S.F.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	267	335

Solomon C. Wong REGISTERED MECHANICAL ENGINEER	12/22/09 DATE
8-9-10 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**  
 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: *Sandy Margullis*  
**SANDY MARGULLIS**  
 Approval date: 12-1-09

**PLUMBING**

- — — — Cold Water
- A — — Compressed Air
- LPG — — Liquefied Petroleum Gas
- D — — Equipment Drain
- RD — — Roof Drain
- OD — — Overflow Drain
- RW — — Non Potable Water
- FW — — Fire Water
- — — — Hot Water
- — — — Hot Water Return
- R — — Relief Valve Discharge Pipe
- S — — Sewer Line
- — — — Sanitary Sewer (above grade)
- — — — Sanitary Sewer (below grade)
- — — — Sanitary Sewer Vent

- — — — Cap, Threaded
- — — — Elbow, Turned Down
- — — — Elbow, Turned Up
- — — — Reducer, Concentric
- — — — Pressure Gauge (with gage cock and Snubber)
- — — — Strainer
- — — — Union
- — — — Union, Insulating
- — — — Valve, Ball
- — — — Valve, Check
- — — — Valve, Gas
- — — — Valve, Gate
- — — — Valve, Safety Relief
- — — — Valve, Faucet Assembly
- — — — Valve, Pressure/Temperature Relief
- — — — Water Hammer Arrestor

**HEATING, VENTILATING AND AIR CONDITIONING**

- — — — Balance Damper
- — — — Flexible Duct
- EA — — Exhaust Air
- RA — — Return Air
- SA — — Supply Air
- ☐ cfm Exhaust Register
- ☐ or ☐ cfm Return Register
- ← ☐ or ☐ cfm Supply Diffuser
- Ⓣ Thermostat
- ⓉⓈ Time Switch
- ▲ Anode Test Station
- ▲ Three Wire Test Station
- Ⓣ Exhaust Fan
- ⓉⓈ Fire Extinguisher

**MISCELLANEOUS**

- L Angle
- Ⓢ Centerline
- ∅ Diameter
- RE — (E) Duct to be Removed
- Section / Elevation Letter
- Sheet Number
- Detail Number
- Sheet Number
- 12x12 " ← NECK SIZE
- 190 cfm ← FLOW RATE

**MECHANICAL ABBREVIATIONS:**

A/C	Air Conditioning	GA	Gauge	RE	Refrigerator
ABS	Acrylonitrile Butadiene Styrene	GALV	Galvanized	REG	Register
AC	Asphalt Concrete	GH	Ground Hydrant	RA	Return Air
AD	Air Drop	GLV	Globe Valve	RCP	Reinforced Concrete Pipe
AP	Alternative Pipe	GSP	Galvanized Steel Pipe	RD	Roof Drain
ATF	Automatic Transmission Fluid	GV	Gate Valve	REQ	Required
AWG	American Wire Gauge	GWH	Gas Water Heater	RH	Radiant Heater
BFP	Backflow Preventer	GYP	Gypsum	RV	Relief Valve
BH	Box Hydrant	H	Height	RWL	Rain Water Leader
BLDG	Building	HB	Hose Bibb	RW	Raw Water
BV	Balancing Valve	H/C	Hot Water, High Pressure Cleaner	S	Switch
°C	Celsius Temperature	HF	Hose Faucet	SF	Fan, Switch
C	Conduit	HVAC	Heating, Ventilating And Air Conditioning	S/S	Service Sink
Cap.	Capacity	HW	Hot Water	SA	Supply Air
CD	Ceiling Diffuser	HZ	Hertz	SCH	Schedule
CI	Cast-Iron	ID	Inside Diameter	SDS	Sanitary Dump Station
CO	Cleanout	IE	Invert Elevation	SF	Supply Fan
COTF	Cleanout Through Floor	IPS	International Pipe Standard	SHR	Shower
COTG	Cleanout Through Grade	KS	Kitchen Sink	SP	Static Pressure
COTW	Cleanout To Wall	KW	Kilowatt	SS	Sanitary Sewer Station
CV	Check Valve	LAV	Lavatory	STA	Station
CW	Cold Water	L/s	Liters per Second	STD	Standard
D	Depth	m	Meter	TCV	Temperature Control Valve
DB	Dry Bulb	MAX	Maximum	TSPV	Trap Seal Primer Valve
DF	Drinking Fountain	MAN	Manhole	TPRV	Temp., Pressure, Relief Valve
DH	Duct Heater	MIN	Minimum	TS	Time Switch
DI	Drain Inlet	mm	millimeter	Typ.	Typical
Dia	Diameter	MS	Map Sink	UH	Unit Heater
(E)	Existing	NIC	Not In Contract	UR	Urinal
EA	Exhaust Air	NO	Number	V	Vent
EC	Evaporative Cooler	NPS	Nominal Pipe Size	VAC	Voltage, Alternating Current
ESEW	Emergency Shower And Eye Wash	NPT	National Pipe Thread	VB	Valve Box
EF	Exhaust Fan	NST	National Standard Thread	VR	Vent Riser
EL	Elevation	OA	Outside Air	VM	Vending Machine
Elect.	Electrical	OC	On Center	VTR	Vent Thru Roof
ES	Evaporative Cooler Switch	OD	Outside Diameter	W	Width
ESP	External Static Pressure	OG	Original Ground	W/	With
EWC	Electric Water Cooler	PBEF	Push-Button Exhaust Fan	W/O	Without
EWL	Electric Water Heater	PCC	Portland Cement Concrete	WB	Wet Bulb
FC	Flexible Connection	PH	Phase	WC	Water Closet
FD	Floor Drain	PRV	Pressure Reducing Valve	W.C.	Water Column
FDC	Fire Department Connection	PSI	Pounds Per Square Inch	WH	Water Heater
FE	Fire Extinguisher	PVC	Polyvinyl Chloride	W.H.	Wall Hydrant
FG	Finish Grade			WHA	Water Hammer Arrestor
FH	Fire Hydrant			WLS	Water Level Switch
FL	Flow Line			WP	Weatherproof
FS	Floor Sink			WS	Wash Sink
FTR	Flue through roof			WSP	Welded Steel Pipe

DESIGN	BY	Alvin Kwan	CHECKED	Solomon Wong	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.457 22.40	PHILIP RAINE SRRA UPGRADE	SHEET M-0
	DETAILS	BY	Alvin Kwan	CHECKED					
QUANTITIES	BY	Alvin Kwan	CHECKED	Solomon Wong	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 06 340 EA 0A9701	LEGEND	SHEET OF
DOES SD Imperial Rev. 1/07		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)		01/22/09   04/22/09   11/22/09   12/22/09		m0.dgn	

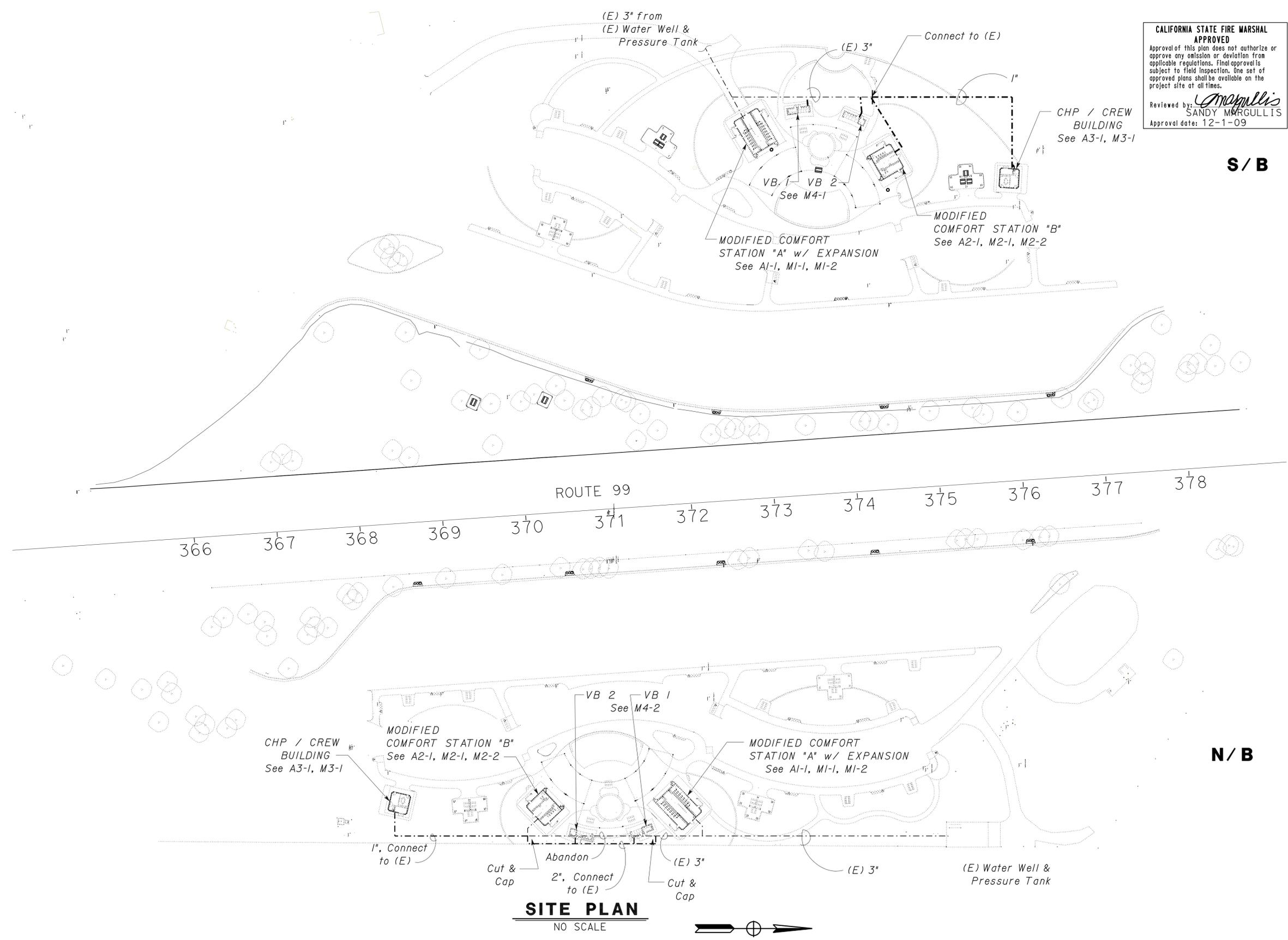
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	268	335

<i>Solomon C. Wong</i> 12/22/09 REGISTERED MECHANICAL ENGINEER DATE		
8-9-10 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**  
 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: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09



Notes:  
 Install new water lines for new or modified buildings and connect to existing water lines.

DESIGN SUPERVISOR <i>Paul Schopf</i> DESIGN ENGINEER <i>Alvin Kwan</i>	DESIGN	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45 / 22.40	PHILIP RAINE SRRA UPGRADE SITE PLAN	SHEET <b>M0-0</b>
	DETAILS	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>					
QUANTITIES	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>						

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

CU 06 340  
EA 0A9701

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)									
08/22/04	01/16/09	04/27/09	07/08/09	07/28/09	08/05/09	11/11/09	12/22/09		

SHEET OF

16-AUG-2010 08:34  
 m0-0.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	269	335

<i>Solomon C. Wong</i> 12/22/09 REGISTERED MECHANICAL ENGINEER DATE		
8-9-10 PLANS APPROVAL DATE		

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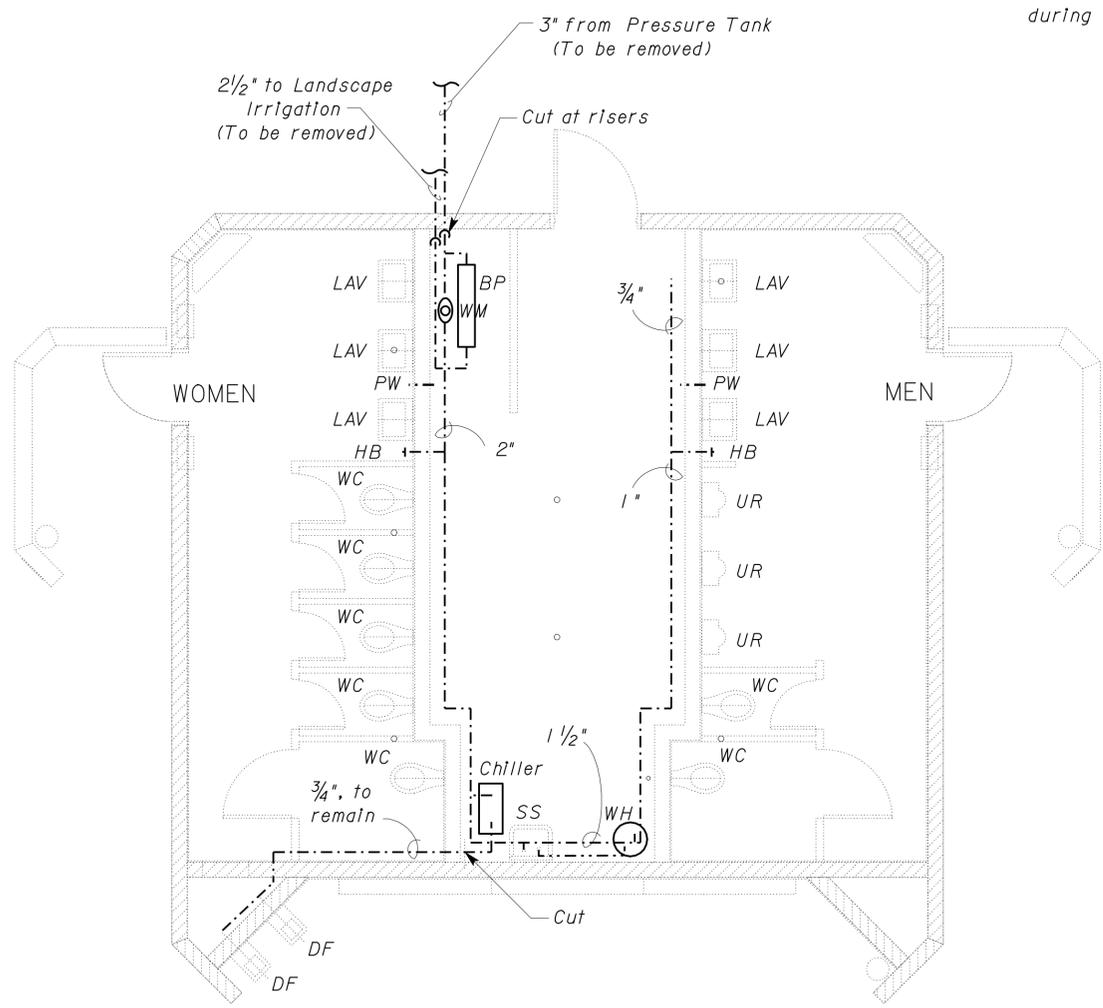
**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approvals subject to field inspection. One set of approved plans shall be available on the project site at all times.  
 Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

**Notes:**

1. Remove all lavatory faucets and lavatories with their associated carriers and hardware.
2. Remove all flush valves and plumbing fixtures with their associated carriers and hardware.
3. Remove the service sink (SS) and faucet with the associated hardware.
4. All plumbing fixtures and hardware are to be replaced.
5. Remove all hose bibs (HB).

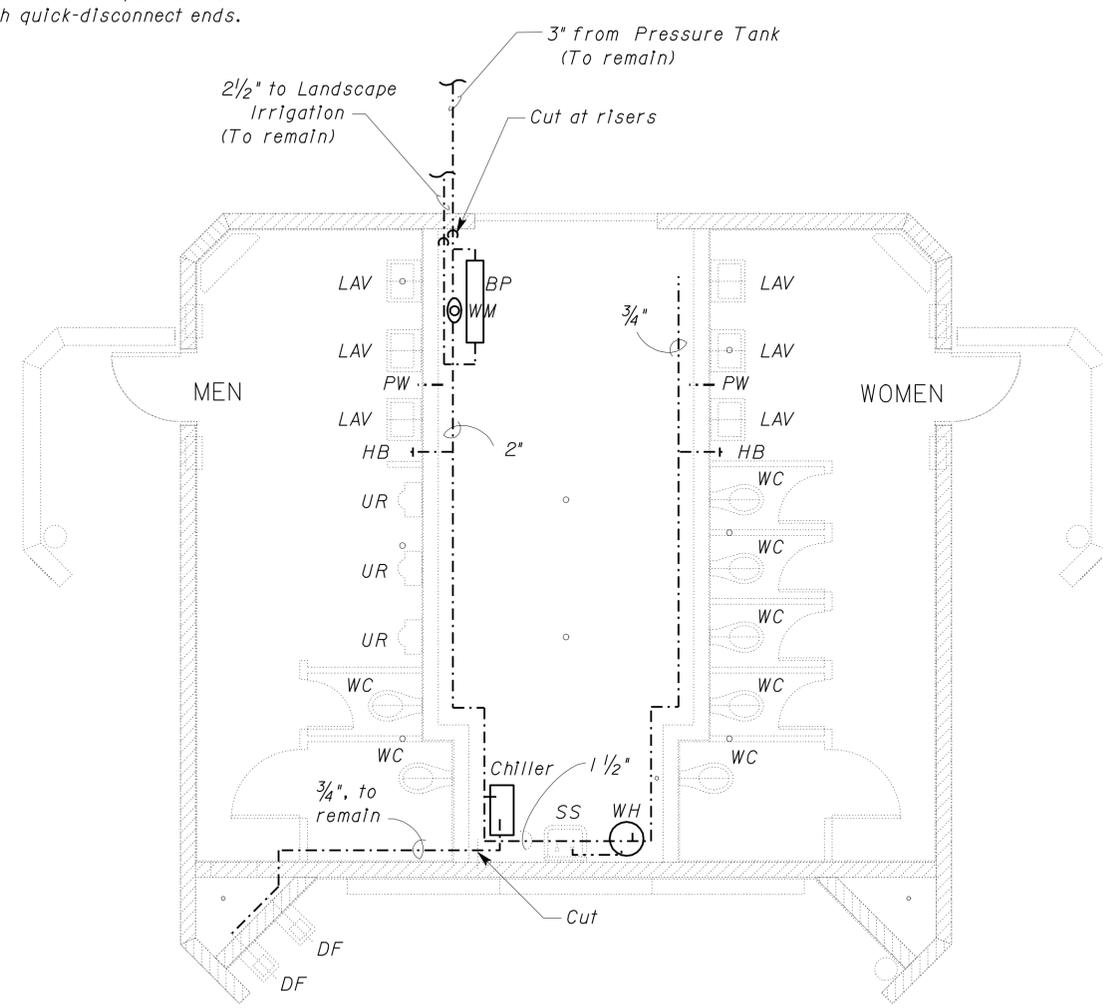
**Notes:**

6. Remove all exposed water piping in the plumbing galley.
7. Fill and patch all holes in walls per A1-1 and A2-1.
8. The water chiller, the two drinking fountains (DF), and the electric water heater (WH) for each building are to be replaced.
9. The Backflow Preventer (BP) for landscape irrigation and the water meter (WM) for each building are to be replaced.
10. The pressure washer fittings (PW) allow for the pressure washer to remain in the plumbing galley while only the hose and nozzle need to be taken to the public areas during cleaning. Replace with quick-disconnect ends.



**(E) COMFORT STATION "A"**

1/4" = 1'



**(E) COMFORT STATION "B"**

1/4" = 1'

This sheet applied to both NORTHBOUND and SOUTHBOUND locations

DOES SD Imperial Rev. 1/07	DESIGN BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L POST MILE 22.45 / 22.40	<b>PHILIP RAINE SRRA UPGRADE</b> (E) PLUMBING PLAN NORTHBOUND AND SOUTHBOUND	SHEET <b>M0-1</b> OF
	DETAILS BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>					

16-AUG-2010 08:34  
 m0\_1.dgn



DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	271	335

*Solomon C. Wong* 12/22/09  
REGISTERED MECHANICAL ENGINEER DATE

12/22/09  
PLANS APPROVAL DATE

8-9-10  
PLANS APPROVAL DATE

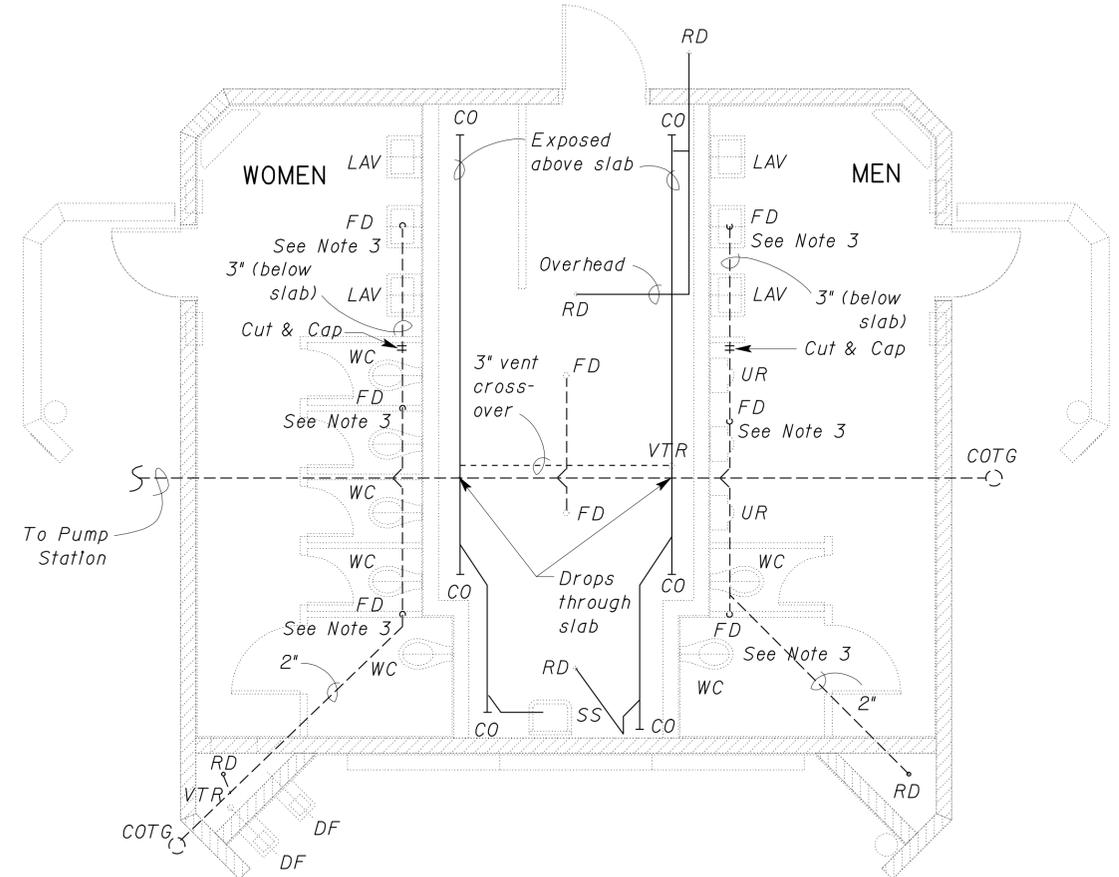
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**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
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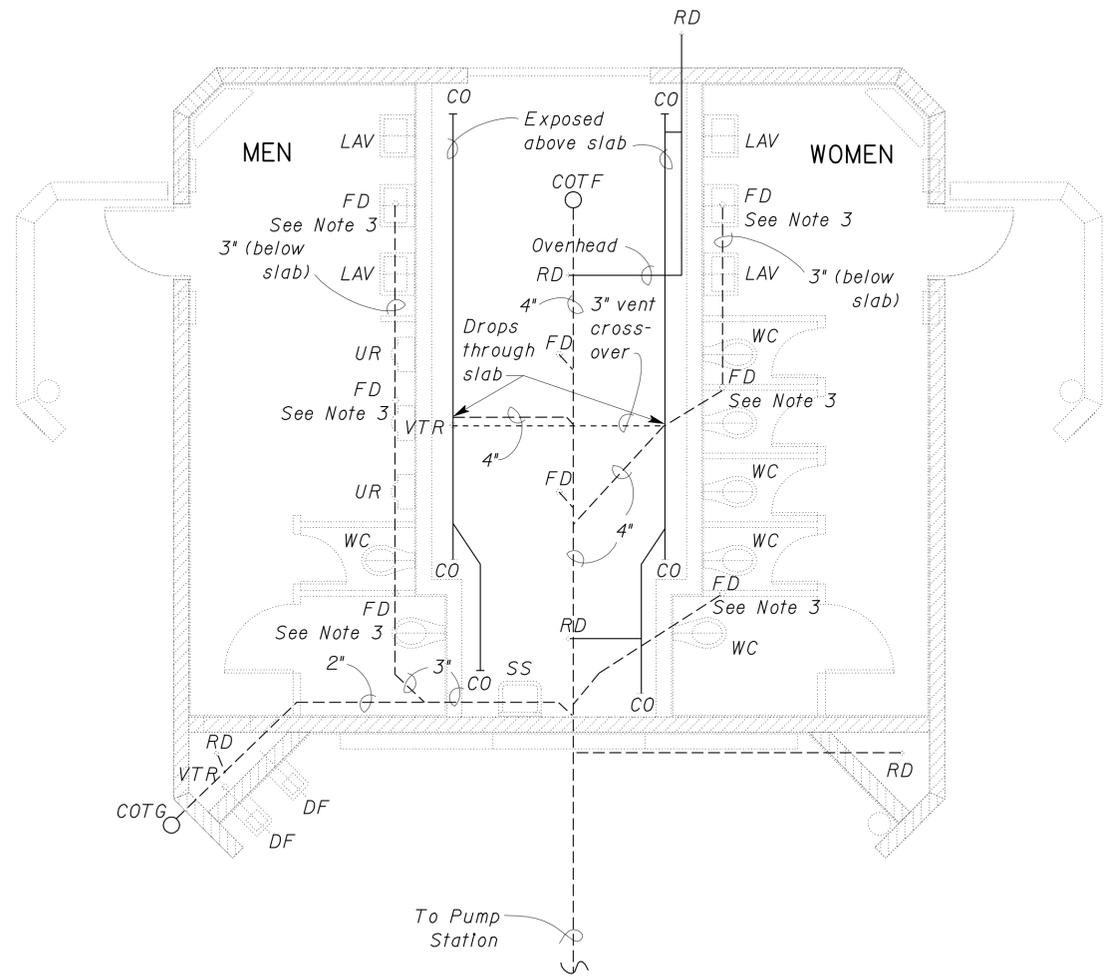
Reviewed by: *Sandy Margullis*  
**SANDY MARGULLIS**  
Approval date: 12-1-09

- Notes
1. Remove all exposed sewer and vent piping above slab.
  2. Saw cut and remove sewer fittings that connect above slab pipes to below slab pipes. Remove fitting and pipe down to connection below.
  3. Saw cut and remove FD. Cap below slab. Fill and patch per A1-1 and A2-1.



**(E) COMFORT STATION "A"**

1/4" = 1'



**(E) COMFORT STATION "B"**

1/4" = 1'



DESIGN	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
DETAILS	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
QUANTITIES	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO. 46R0001L  
46R0001R  
POST MILE 22.457  
22.40

**PHILIP RAINE SRRA UPGRADE**  
(E) SEWER PLAN SOUTHBOUND

SHEET **M0-3** OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	272	335

<i>Solomon C. Wong</i> 12/22/09 REGISTERED MECHANICAL ENGINEER DATE		
8-9-10 PLANS APPROVAL DATE		

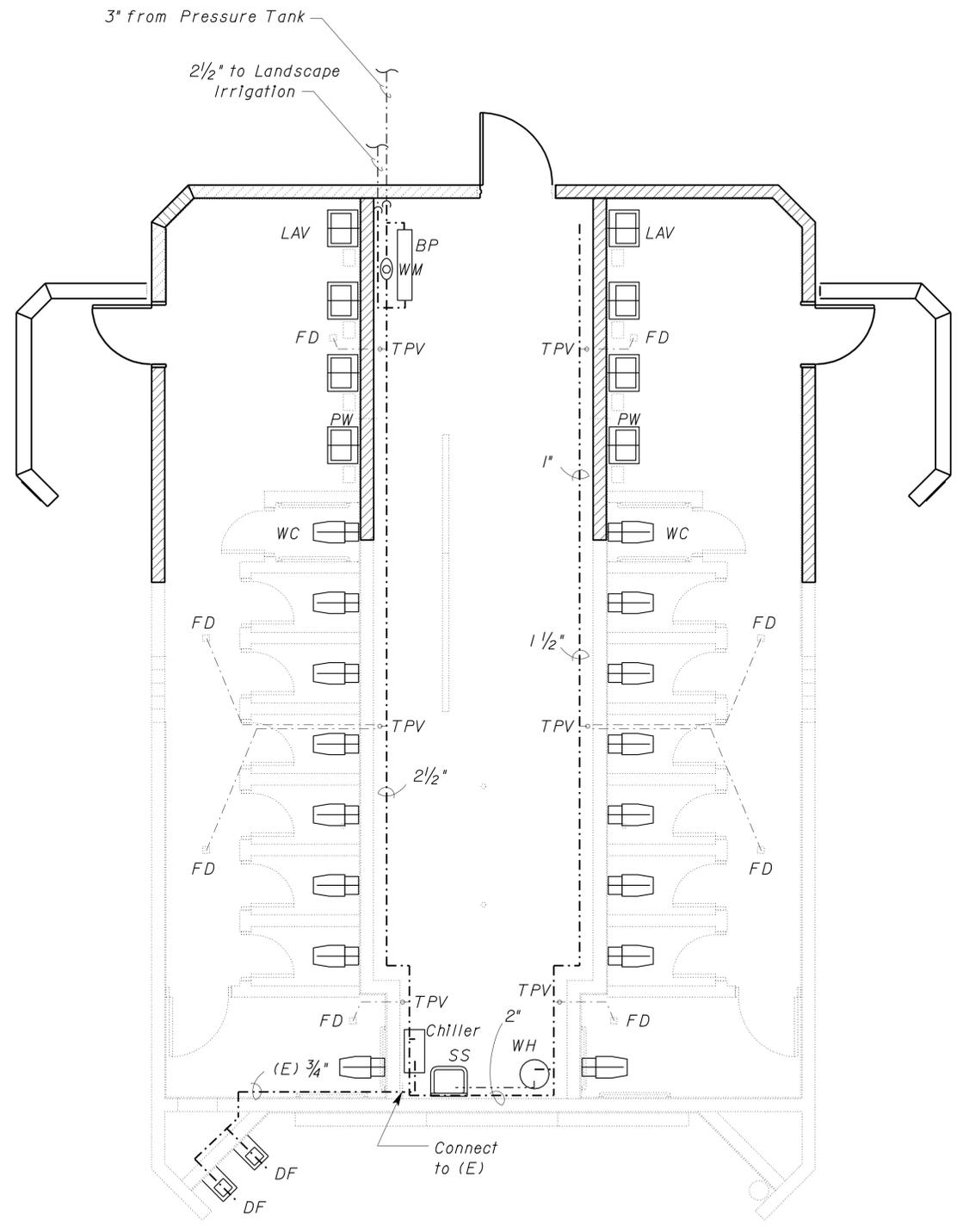
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**CALIFORNIA STATE FIRE MARSHAL APPROVED**

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Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

- Notes
1. Install new 3" water line and 2 1/2" irrigation line outside building and stub up inside galley.
  2. Install new backflow preventer and water meter. Connect meter to new water piping in plumbing galley and connect backflow preventer to irrigation piping.
  3. Install trap primer valves (TPV) for new Floor Drains (FD). Install pressure washer fittings (PW) between lavatories.
  4. Install all new plumbing fixtures with carriers and hardware. Flush valves and faucets for fixtures are to be auto-sensor type.
  5. Install new chiller for drinking fountains (DF). Install new electric water heater (WH) for service sink (SS).



**COMFORT STATION "A"**  
**with EXPANSION**  
 1:50

EQUIPMENT SCHEDULE

- Chiller Water Chiller,  
 300 cfm @ 0.25" SP, 0.2 HP,  
 120 V - 1 Ph,
- WH Electric Water Heater,  
 50 Gallon capacity, 2500 Watt,  
 208 V - 1 Ph

DESIGN	BY Alvin Kwan	CHECKED Solomon Wong
DETAILS	BY Alvin Kwan	CHECKED Solomon Wong
QUANTITIES	BY Alvin Kwan	CHECKED Solomon Wong

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO. 46R0001L 46R0001R	NORTHBOUND & SOUTHBOUND	PHILIP RAINE SRRA UPGRADE MODIFIED PLUMBING PLAN COMFORT STATION "A"	SHEET OF M1-1
POST MILE 22.45/ 22.40			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

CU 06 340  
 EA 0A9701

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
	08/28/04 01/16/05 02/28/05 04/28/05 11/12/05 12/22/05	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	273	335

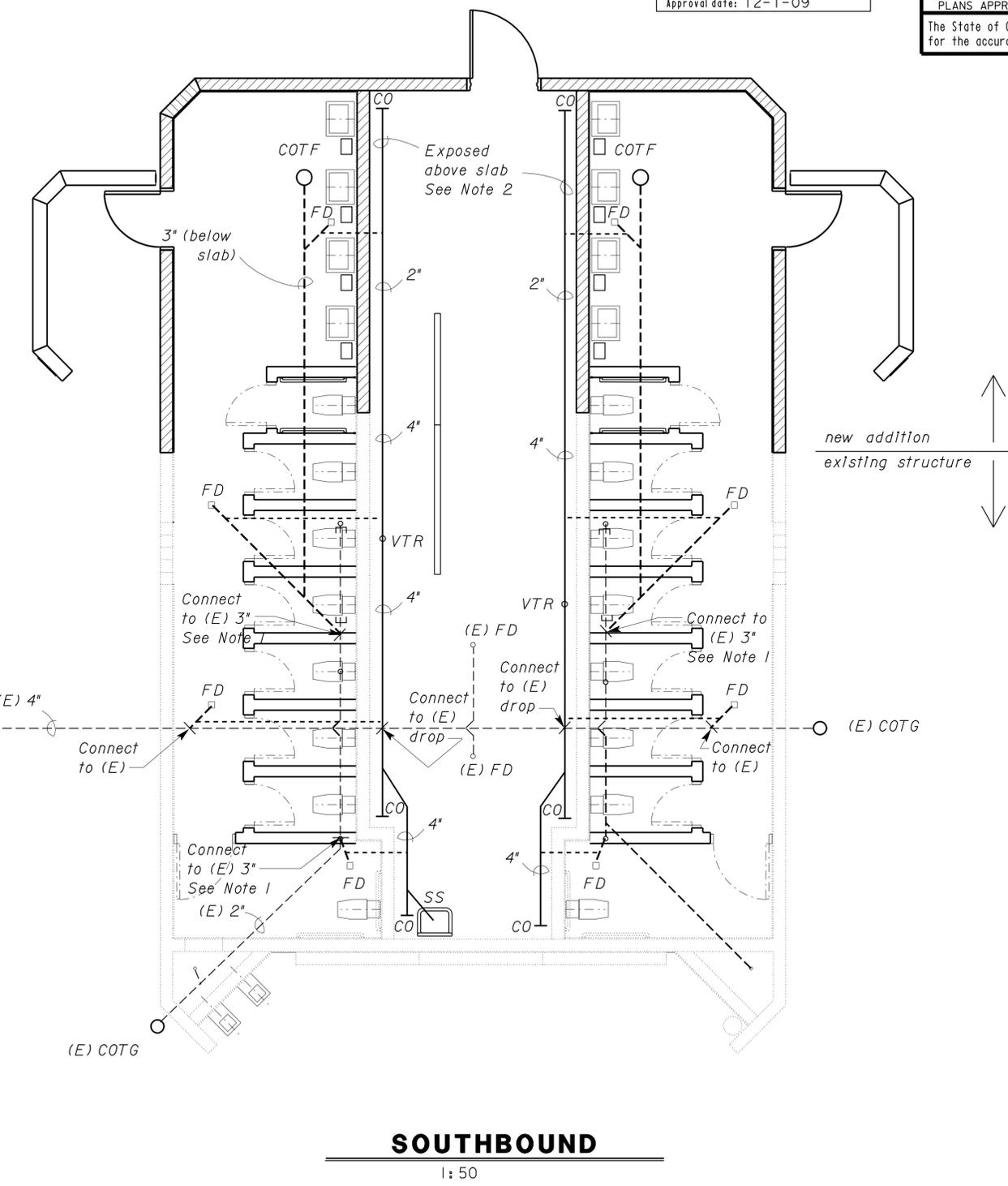
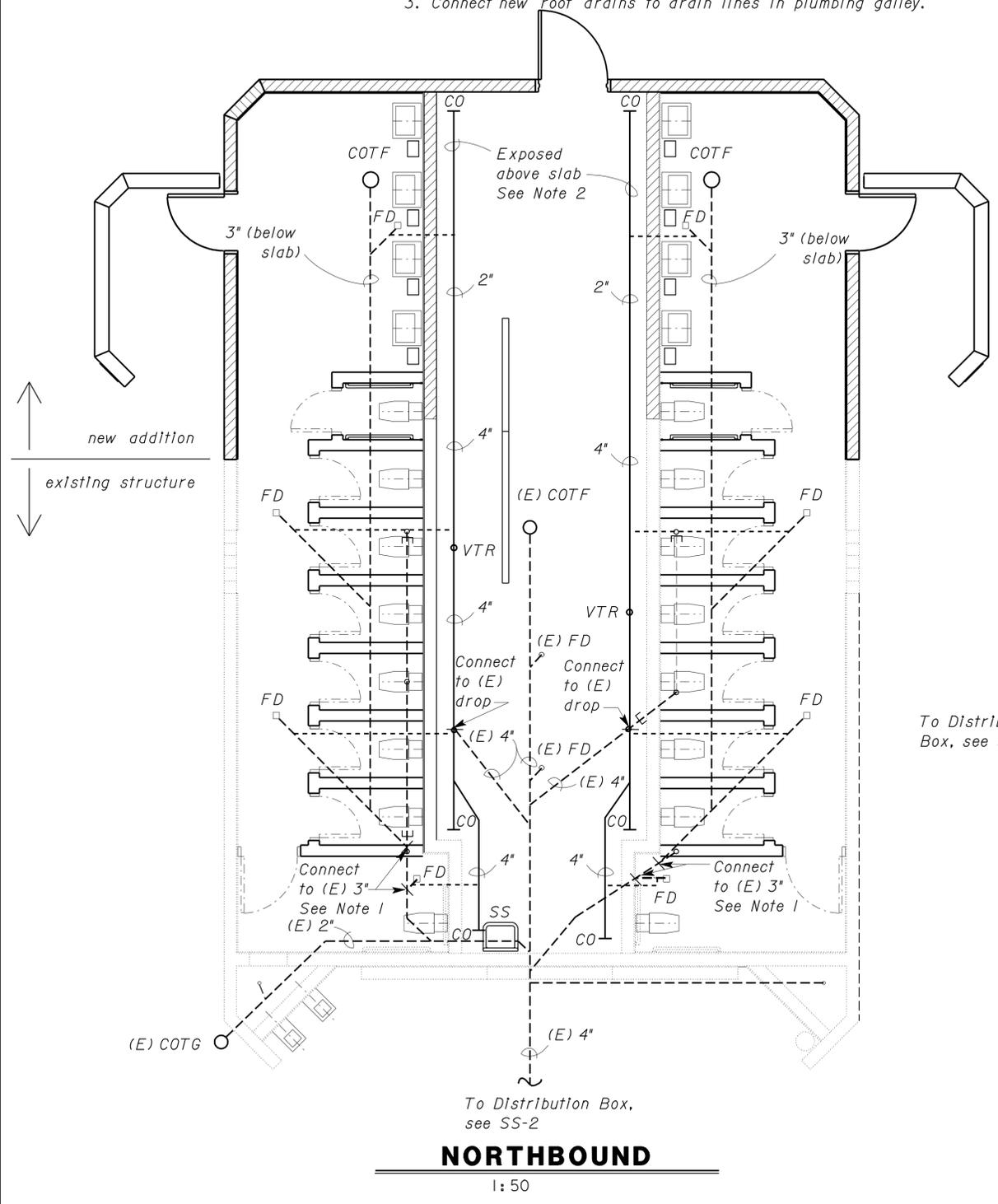
  

<i>Solomon C. Wong</i> 12/22/09 REGISTERED MECHANICAL ENGINEER DATE		
8-9-10 PLANS APPROVAL DATE		

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**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
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 Reviewed by: *Sandy Margullis*  
**SANDY MARGULLIS**  
 Approval date: 12-1-09

- Notes
1. Saw cut in (E) slab to add new Floor Drains with vents in the public areas and connect to existing drain lines. Install new cleanouts and FDs in new slab and connect.
  2. Install new (exposed) fixture drain and vent lines in the plumbing galley and connect to existing fitting below slab.
  3. Connect new roof drains to drain lines in plumbing galley.



DESIGN BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45/ 22.40	PHILIP RAINE SRRA UPGRADE		SHEET <b>M1-2</b>
				NORTHBOUND & SOUTHBOUND MODIFIED SEWER PLAN COMFORT STATION "A"		
DETAILS BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 06 340 EA 0A9701	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
QUANTITIES BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>	0 1 2 3		DISREGARD PRINTS BEARING EARLIER REVISION DATES	08/28/04 02/11/05 04/28/05 11/12/05 12/22/09		

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### PLUMBING SCHEDULE

FIXTURE	MINIMUM CONNECTIONS	
	COLD WATER	HOT WATER
LAVATORY	1/2"	-
WATER CLOSET	1"	-
URINAL	1"	-
DRINKING FOUNTAIN	1/2"	-
SERVICE SINK	1/2"	1/2"

**CALIFORNIA STATE FIRE MARSHAL**  
**APPROVED**  
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 Reviewed by: *Sandy Mergullis*  
**SANDY MERGULLIS**  
 Approval date: 12-1-09

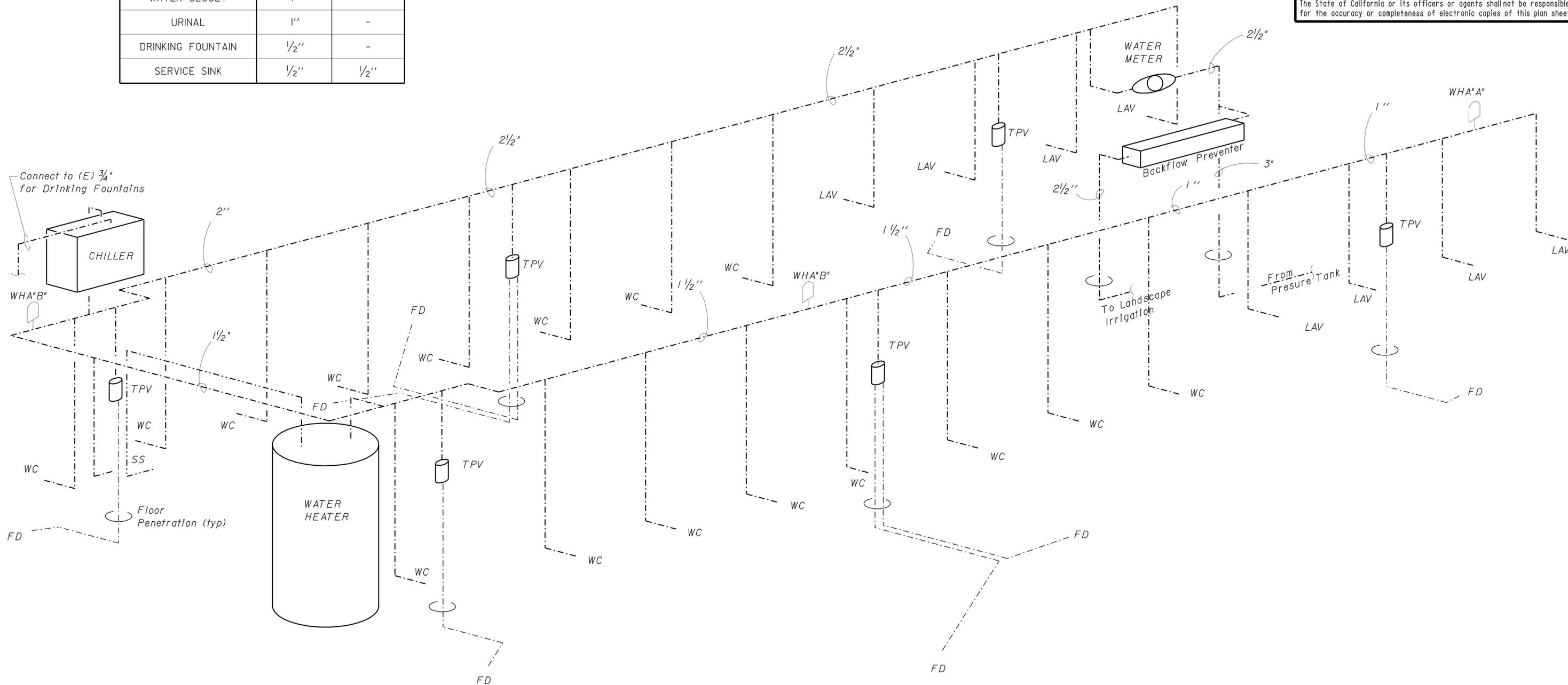
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	274	335

*Solomon C. Wong* 12/22/09  
 REGISTERED MECHANICAL ENGINEER DATE

**Solomon Wong**  
 No. M27626  
 Exp. 6-30-11  
 MECH  
 STATE OF CALIFORNIA

8-9-10  
 PLANS APPROVAL DATE

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DESIGN	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
DETAILS	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
QUANTITIES	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	46R0001L
POST MILE	22.45 / 22.40

**PHILIP RAINE SRRA UPGRADE**  
 PLUMBING ISOMETRICS - CS "A"

SHEET **M1-3**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	275	335

**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
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Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

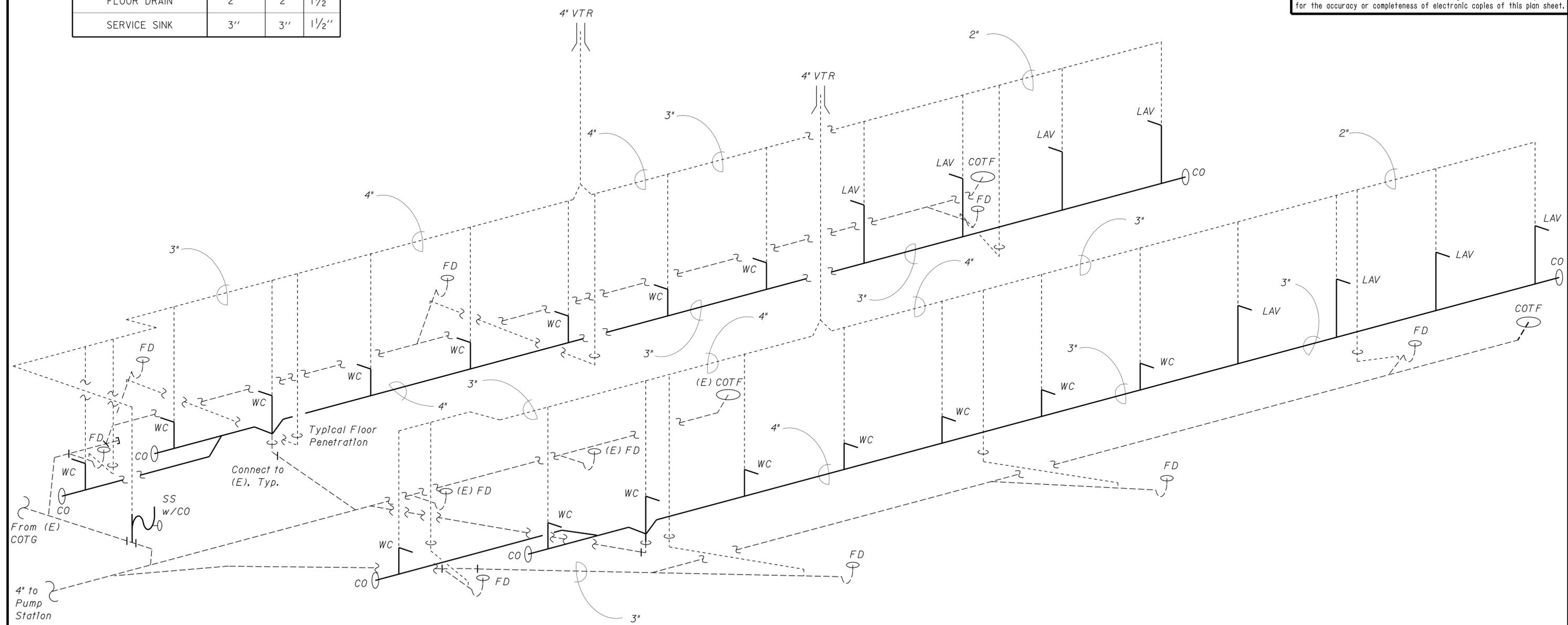
*Solomon C. Wong* 12/22/09  
 REGISTERED MECHANICAL ENGINEER DATE  
 No. M27626  
 Exp. 6-30-11  
 MECH  
 STATE OF CALIFORNIA

8-9-10  
 PLANS APPROVAL DATE

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### DRAINAGE SCHEDULE

FIXTURE	DRAINAGE ROUGH-IN	TRAP SIZE	VENT SIZE
LAVATORY	2"	1 1/2"	1 1/4"
WATER CLOSET	3"	-	2"
FLOOR DRAIN	2"	2"	1 1/2"
SERVICE SINK	3"	3"	1 1/2"



DESIGN	BY	Alvin Kwan	CHECKED	Solomon Wong	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45 / 22.40	<b>PHILIP RAINE SRRA UPGRADE</b> SEWER ISOMETRICS - CS "A" North	SHEET <b>M1-4</b>	
	DETAILS	BY	Alvin Kwan	CHECKED						Solomon Wong
	QUANTITIES	BY	Alvin Kwan	CHECKED						Solomon Wong
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	CU 06 340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 04/08/09 04/26/09 04/28/09 11/12/09 12/22/09	SHEET OF	

DOES SD Imperial Rev.1/07

16-AUG-2010 08:48

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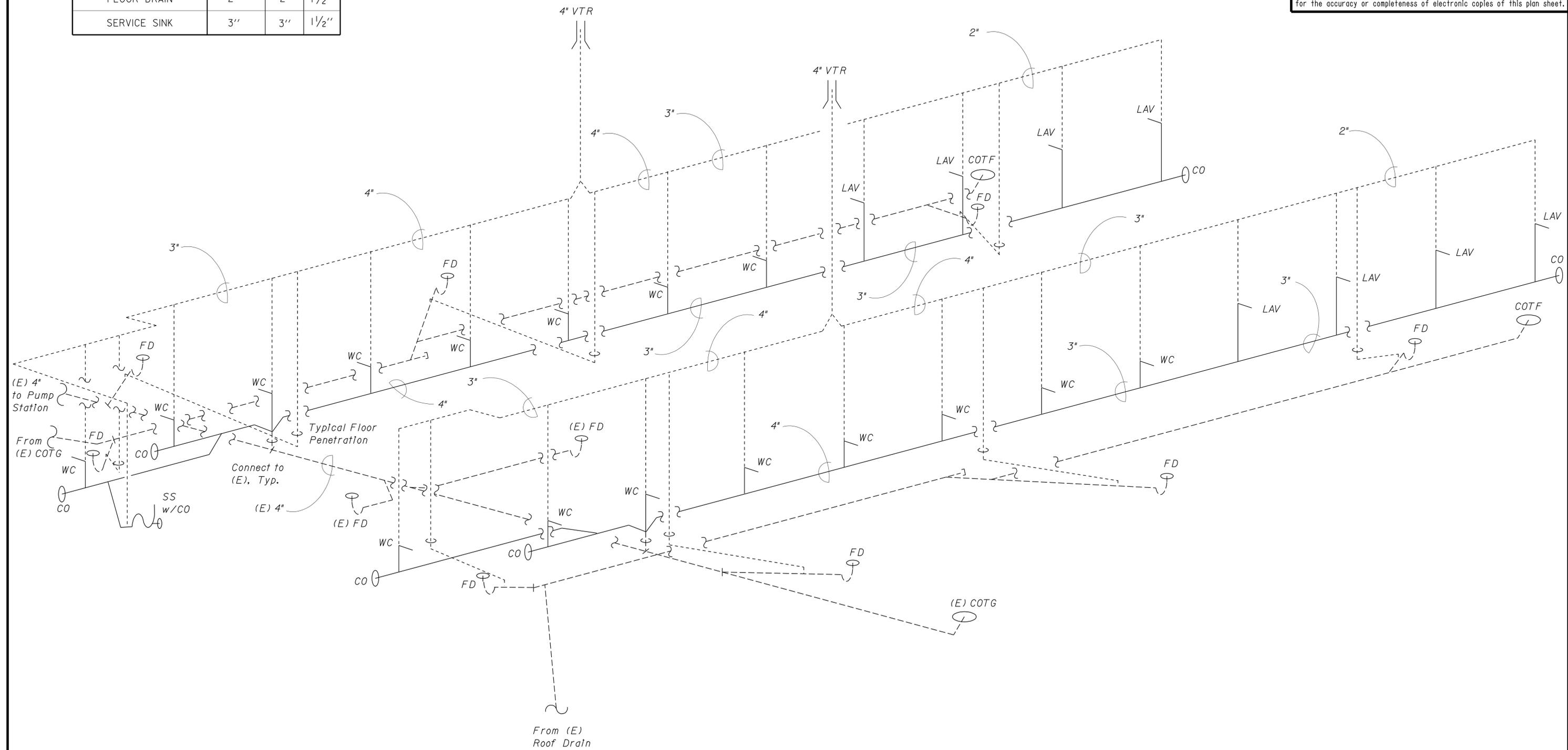
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	276	335

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>Sandy Margullis</i> SANDY MARGULLIS Approval date: 12-1-09		12/22/09 DATE
REGISTERED MECHANICAL ENGINEER No. M27626 Exp. 6-30-11 MECH STATE OF CALIFORNIA		
8-9-10 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.		

### DRAINAGE SCHEDULE

FIXTURE	DRAINAGE ROUGH-IN	TRAP SIZE	VENT SIZE
LAVATORY	2"	1 1/2"	1 1/4"
WATER CLOSET	3"	-	2"
FLOOR DRAIN	2"	2"	1 1/2"
SERVICE SINK	3"	3"	1 1/2"



DESIGN BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i> DETAILS BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i> QUANTITIES BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45 / 22.40	<b>PHILIP RAINE SRRA UPGRADE</b> SEWER ISOMETRICS - CS "A" South	SHEET <b>M1-5</b> OF	
			CU 06 340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES (PRELIMINARY STAGE ONLY) 04/08/09, 04/26/09, 05/14/09, 11/17/09, 12/22/09	SHEET OF
			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3	DOES SD Imperial Rev. 1/07	16-AUG-2010 08:48 m1_5.dgn	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	277	335

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Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

*Solomon C. Wong* 12/22/09  
 REGISTERED MECHANICAL ENGINEER DATE

8-9-10  
 PLANS APPROVAL DATE

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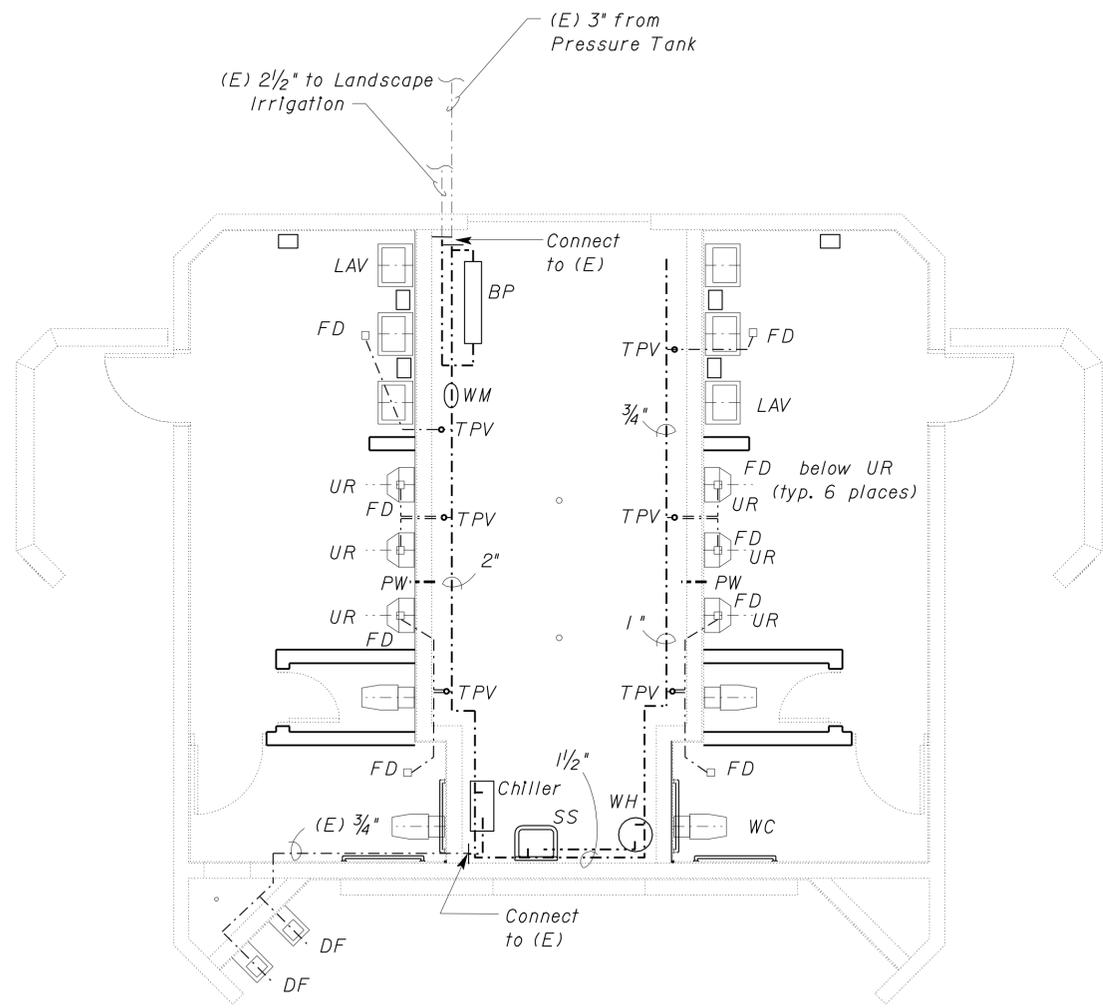


- Notes
1. Install new water piping in plumbing galley and connect to (E) riser.
  2. Install new backflow preventer and water meter. Connect meter to new water piping and connect backflow preventer to riser for Landscape Irrigation piping.
  3. Install trap primer valves (TPV) for new Floor Drains (FD). Install pressure washer fittings (PW) between urinals.
  4. Install all new plumbing fixtures with carriers and hardware. Flush valves and faucets for fixtures are to be auto-sensor type.
  5. Install new chiller for drinking fountain (DF). Install new electric water heater (WH) for service sink (SS).

**EQUIPMENT SCHEDULE**

Chiller Water Chiller,  
 300 cfm @ 0.25" SP, 0.2 HP,  
 120 V - 1 Ph,

WH Electric Water Heater,  
 50 Gallon capacity, 2500 Watt,  
 208 V - 1 Ph



**COMFORT STATION "B"**  
 1:50

DESIGN BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L	PHILIP RAINE SRRA UPGRADE	SHEET M2-1
			POST MILE 22.45 / 22.40		
DETAILS BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 06 340 EA 0A9701	MODIFIED PLUMBING PLAN COMFORT STATION "B"	
QUANTITIES BY <i>Alvin Kwan</i> CHECKED <i>Solomon Wong</i>	0 1 2 3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	278	335

**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
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 Reviewed by: *Sandy Margullis*  
**SANDY MARGULLIS**  
 Approval date: 12-1-09

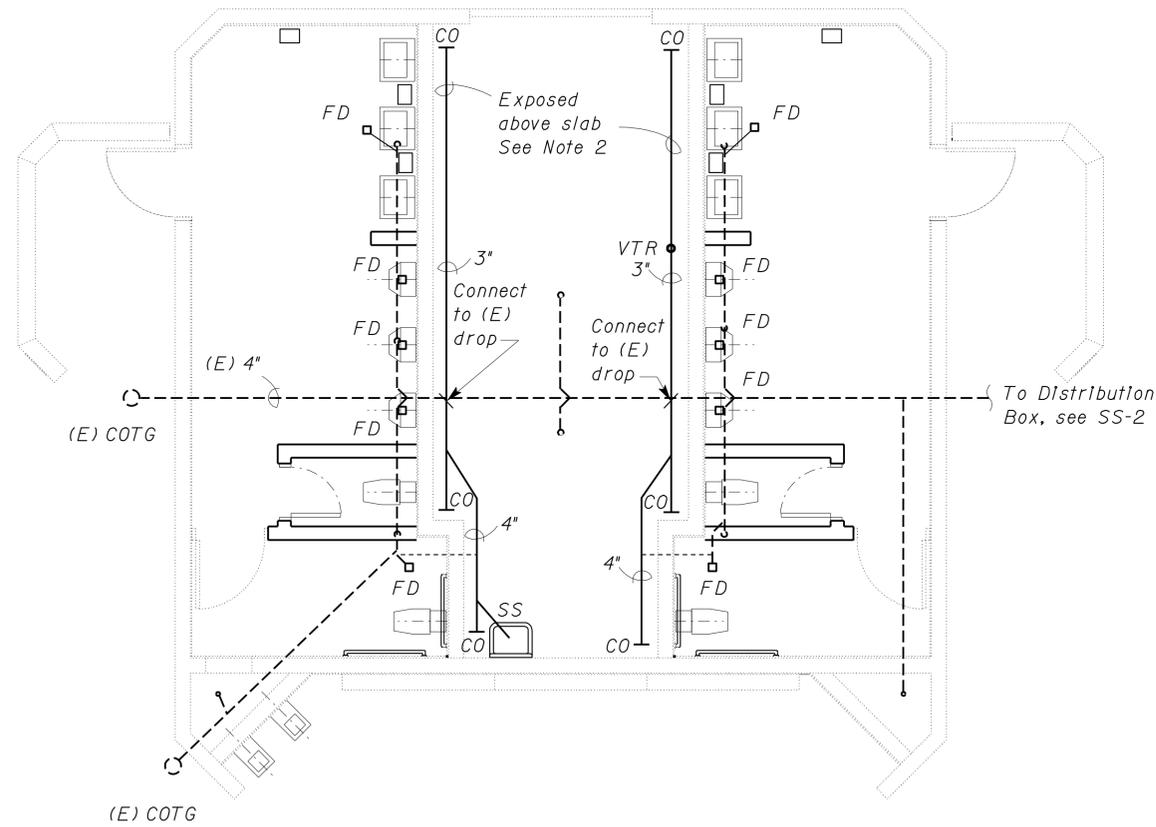
*Solomon C. Wong* 12/22/09  
 REGISTERED MECHANICAL ENGINEER DATE



8-9-10  
 PLANS APPROVAL DATE  
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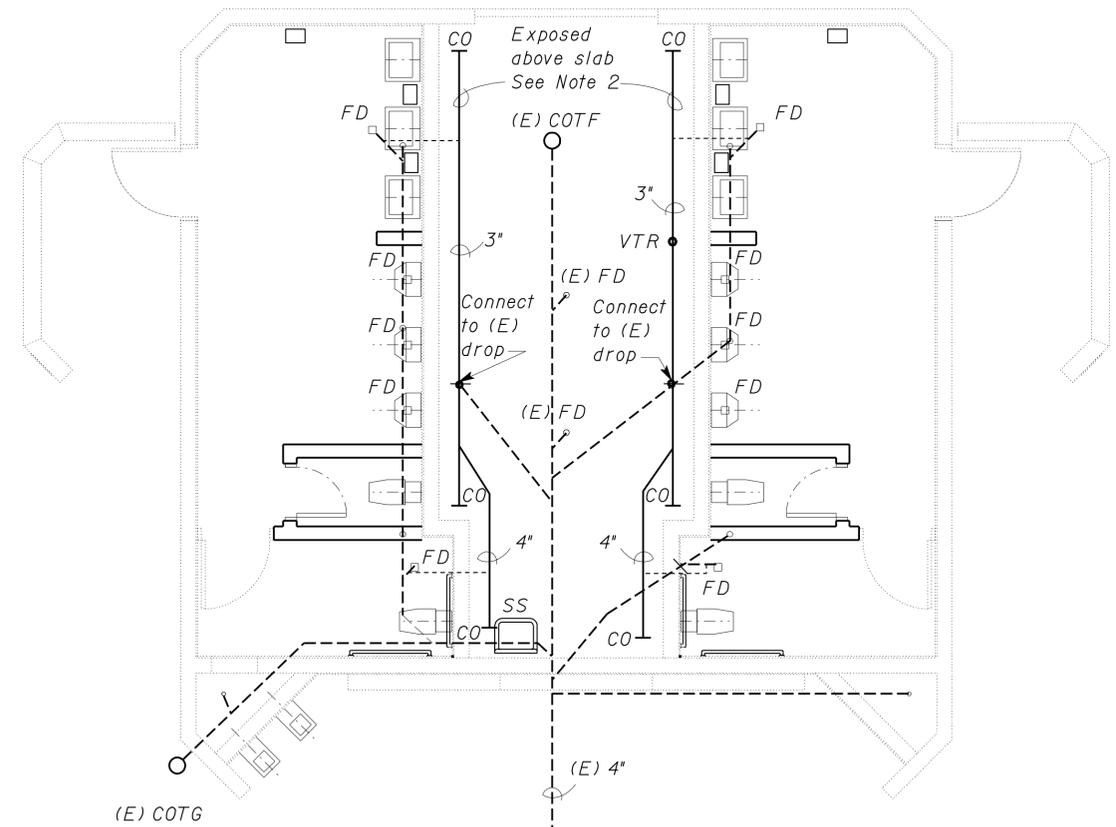
**Notes**

1. Saw cut in (E) slab to install new Floor Drains (FD) with vent and trap primer connections and connect to (E) drain lines.
2. Install new (exposed) fixture drain and vent lines in the plumbing galley and connect to existing fitting below slab.
3. Connect new roof drains to drain lines in plumbing galley.



**NORTHBOUND**

1:50



**SOUTHBOUND**

1:50

DESIGN	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
DETAILS	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
QUANTITIES	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	46R0001L
POST MILE	22.45 / 22.40

**PHILIP RAINE SRRA UPGRADE**

NORTHBOUND & SOUTHBOUND  
 MODIFIED SEWER PLAN COMFORT STATION "B"

SHEET **M2-2**



REVISION DATES (PRELIMINARY STAGE ONLY)	
08/28/04	02/13/09
04/28/09	11/2/09
12/22/09	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	279	335

### PLUMBING SCHEDULE

FIXTURE	MINIMUM CONNECTIONS	
	COLD WATER	HOT WATER
LAVATORY	1/2"	-
WATER CLOSET	1"	-
URINAL	1"	-
DRINKING FOUNTAIN	1/2"	-
SERVICE SINK	1/2"	1/2"

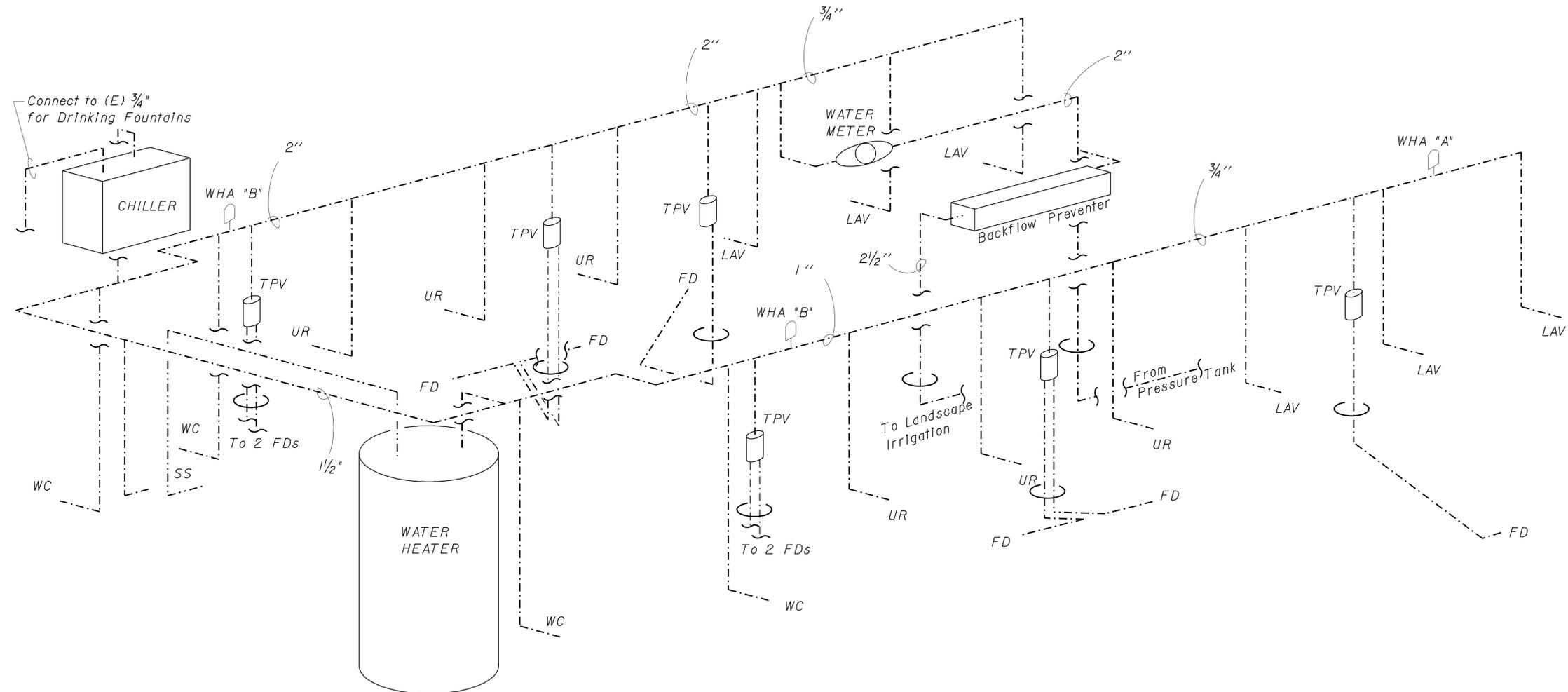
**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approvals subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by: *Sandy Mergullis*  
**SANDY MERGULLIS**  
 Approval date: 12-1-09

*Solomon C. Wong* 12/22/09  
 REGISTERED MECHANICAL ENGINEER DATE

8-9-10  
 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.



DESIGN	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
DETAILS	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
QUANTITIES	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO. 46R0001L  
 46R0001R  
 POST MILE 22.45 / 22.40

**PHILIP RAINE SRRA UPGRADE**

PLUMBING ISOMETRICS - CS "B"

SHEET **M2-3**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	280	335

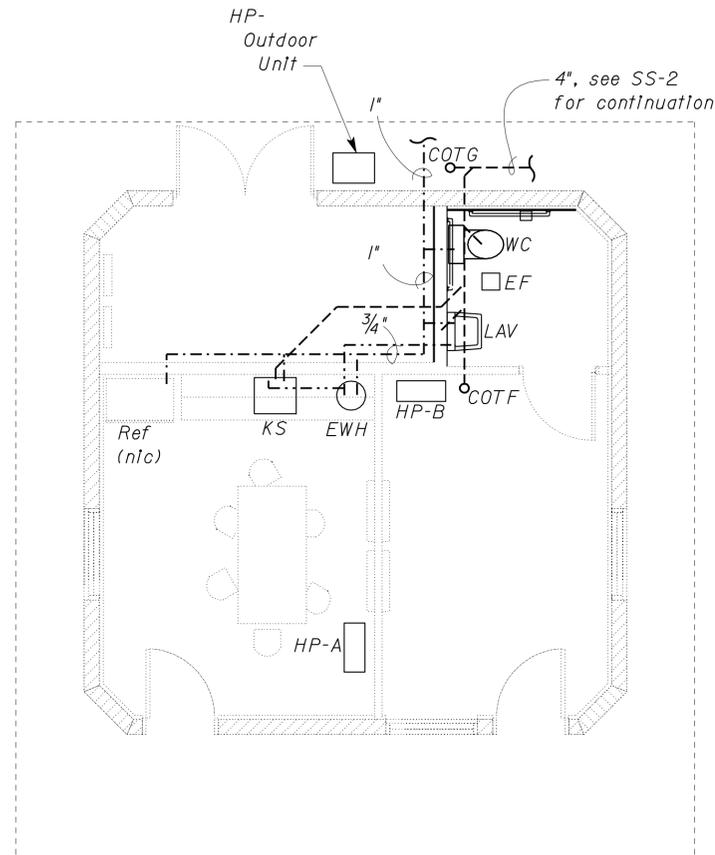
**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approvals subject to field inspection. One set of approved plans shall be available on the project site at all times.  
 Reviewed by: *Sandy Margullis*  
**SANDY MARGULLIS**  
 Approval date: 12-1-09

*Solomon C. Wong* 12/22/09  
 REGISTERED MECHANICAL ENGINEER DATE  
 No. M27626  
 Exp. 6-30-11  
 MECH  
 STATE OF CALIFORNIA  
 8-9-10  
 PLANS APPROVAL DATE

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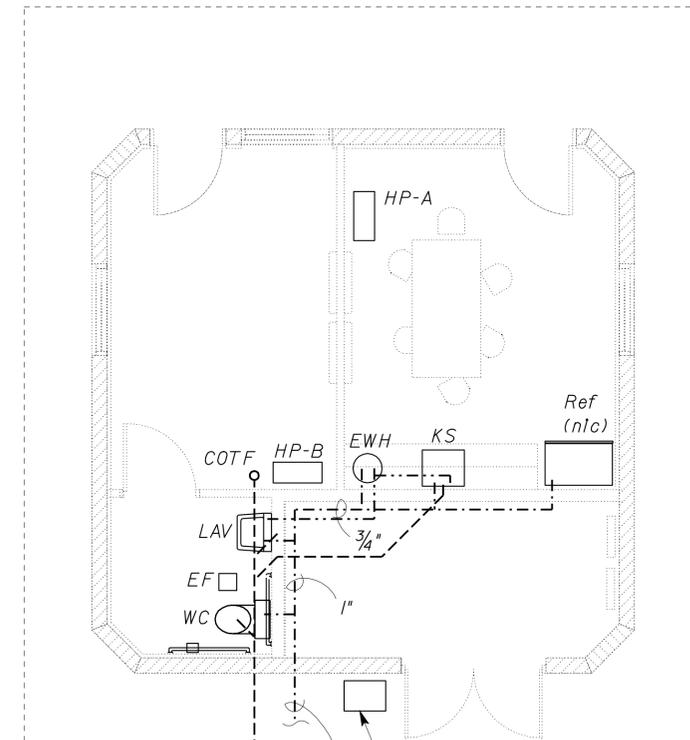
**EQUIPMENT SCHEDULE**

- EF Ceiling Exhaust Fan,  
150 cfm @ 0.25" SP, 0.2 HP, 4 Sones max. 120 V - 1 Ph,  
Route 8" diameter duct to roof cap.
- HP- Dual Zone Ductless Heat Pump,  
A, B : Nom 9000 BTUH Cooling, 12,000 BTUH Heating (each)  
LCD Wireless Remote Controllers, 230 V - 1 Ph  
Outdoor Unit : DC Twin Rotary Compressor, R-410a Refrigerant  
16 SEER minimum, 208 V - 1 Ph
- EWH Electric Water Heater,  
10 Gallon capacity, 1500 Watt, 120 V - 1 Ph



**SOUTHBOUND  
 CHP/CREW BUILDING**

1/4" = 1'



**NORTHBOUND  
 CHP/CREW BUILDING**

1/4" = 1'



DESIGN	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
DETAILS	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
QUANTITIES	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	46R0001L
POST MILE	22.45 / 22.40

**PHILIP RAINE SRRA UPGRADE**  
 CHP/CREW BUILDING MECHANICAL PLAN

SHEET **M3-1** OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	281	335

**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: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

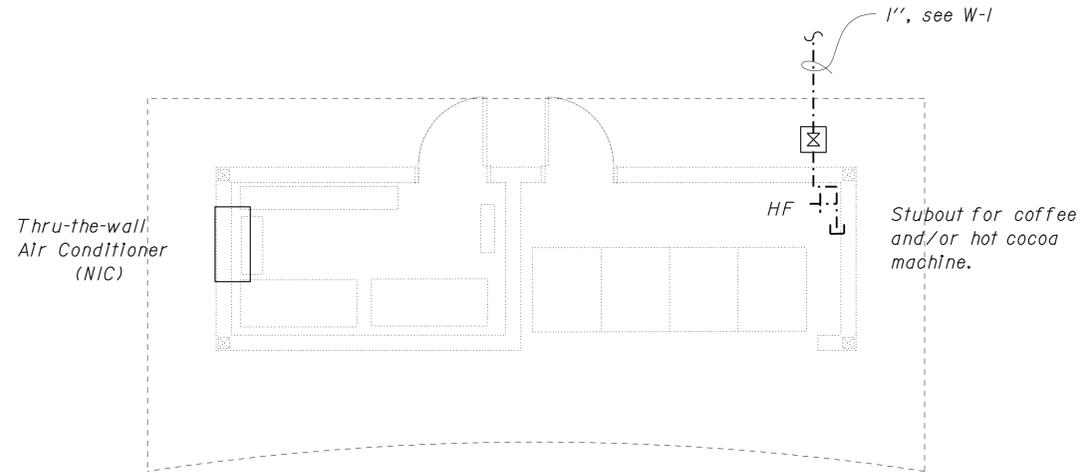
*Solomon C. Wong* 12/22/09  
 REGISTERED MECHANICAL ENGINEER DATE

8-9-10  
 PLANS APPROVAL DATE

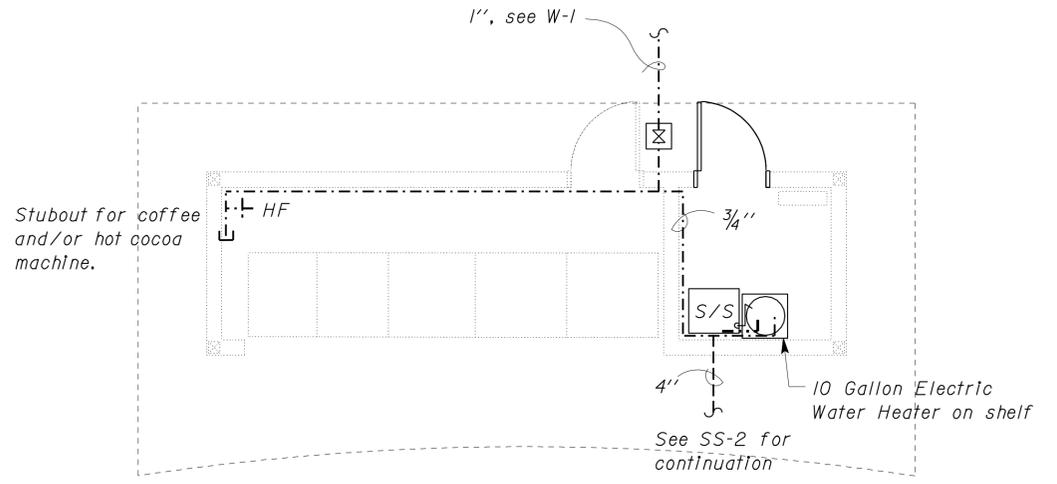
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



- Notes:
1. Thru-the-wall Air Conditioner to be provided by others.
  2. Hose Faucets (HF) to have vacuum breaker connections.
  3. Install caps on stubouts, vendor to provide connections.
  4. Service Sink (S/S) and Electric Water Heater to be provided by others. Route TPR valve discharge into S/S.



**VENDING BUILDING 1 - PLAN**  
 1/2" = 1'



**VENDING BUILDING 2 - PLAN**  
 1/2" = 1'



DESIGN	BY Alvin Kwan	CHECKED Solomon Wong
DETAILS	BY Alvin Kwan	CHECKED Solomon Wong
QUANTITIES	BY Alvin Kwan	CHECKED Solomon Wong

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	46R0001L
POST MILE	22.45 / 22.40

**PHILIP RAINE SRRA UPGRADE**  
 VENDING BUILDINGS - MECHANICAL  
 SOUTHBOUND

SHEET M4-1

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	282	335

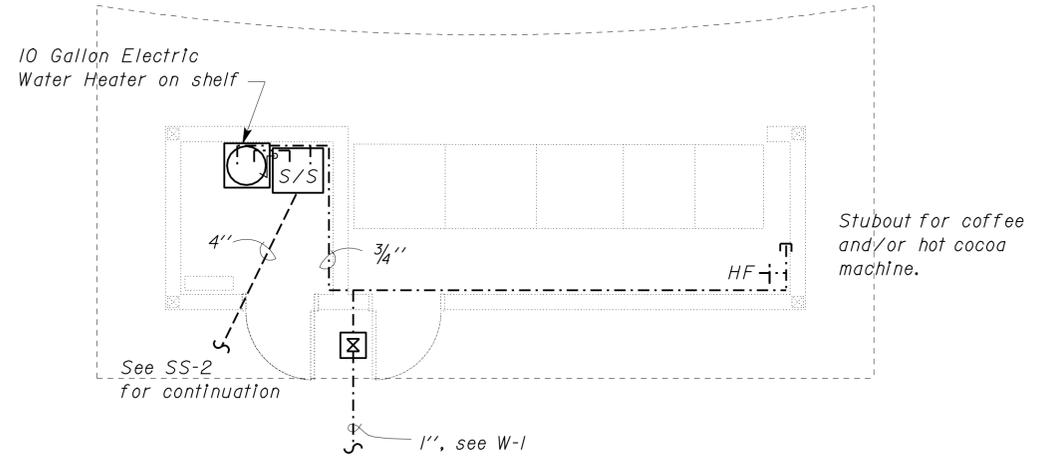
**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.  
 Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

*Solomon C. Wong* 12/22/09  
 REGISTERED MECHANICAL ENGINEER DATE  
 8-9-10  
 PLANS APPROVAL DATE

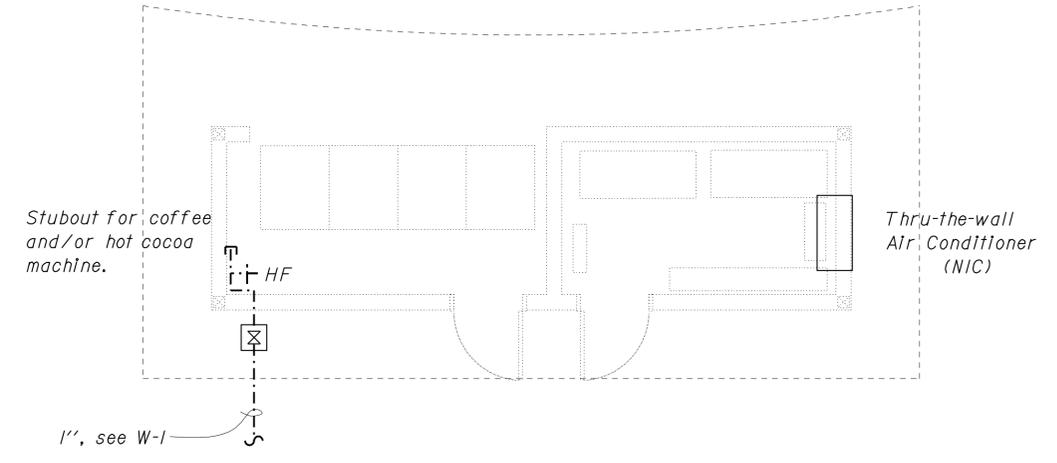
REGISTERED PROFESSIONAL ENGINEER  
 Solomon Wong  
 No. M27626  
 Exp. 6-30-11  
 MECH  
 STATE OF CALIFORNIA

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

- Notes:
1. Service Sink (S/S) and Electric Water Heater to be provided by others. Route TPR valve discharge into S/S.
  2. Hose Faucets (HF) to have vacuum breaker connections.
  3. Install caps on stubouts, vendor to provide connections.
  4. Thru-the-wall Air Conditioner to be provided by others.



**VENDING BUILDING 2 - PLAN**  
 1/2" = 1'



**VENDING BUILDING 1 - PLAN**  
 1/2" = 1'



DESIGN	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
DETAILS	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>
QUANTITIES	BY <i>Alvin Kwan</i>	CHECKED <i>Solomon Wong</i>

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.	46R0001L
POST MILE	22.457
	22.40

**PHILIP RAINE SRRA UPGRADE**  
 VENDING BUILDINGS - MECHANICAL  
 NORTHBOUND

SHEET **M4-2**

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	283	335

Tommy F. Lee 06-03-10  
 REGISTERED ELECTRICAL ENGINEER DATE

8-9-10  
 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: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

Abbreviations (this Sheet)

OC OCCUPANCY SENSOR  
 TC TIME CLOCK  
 DL DAYLIGHTING CONTROLS  
 PS PHOTOSENSOR  
 SM MOTION SENSOR SWITCH  
 BLCS BUILDING LIGHTING CONTROL STATION

\* BUILDING CONDITIONED FLOOR AREAS

SOUTH BOUND  
 CHP/CREW - 392 S.F.  
 VENDING BLDG 2 - 80 S.F.  
 NORTH BOUND  
 CHP/CHEW - 392 S.F.  
 VENDING BLDG 2 - 80 S.F.

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

PROJECT NAME Philip Raine Safety Roadside Rest Area DATE 11/23/09

PROJECT ADDRESS 2.5 Miles North of Tipton on Route 99

PRINCIPAL DESIGNER-LIGHTING James R. Lacy TELEPHONE (916) 227-8668 Building Permit #

DOCUMENTATION AUTHOR James R. Lacy TELEPHONE same Checked by/Date Enforcement Agency Use

**GENERAL INFORMATION**

DATE OF PLANS 11/23/09 BUILDING CONDITIONED FLOOR AREA 944 \* CLIMATE ZONE 13

BUILDING TYPE  NONRESIDENTIAL  HIGH RISE RESIDENTIAL  HOTEL/MOTEL GUEST

CONDITIONED SPACES  UNCONDITIONED SPACES  INDOOR / OUTDOOR SIGNS

PHASE OF CONSTRUCTION  NEW CONSTRUCTION  ADDITION  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 James R. Lacy SIGNATURE *James R. Lacy* DATE 11/23/09

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 James R. Lacy SIGNATURE *James R. Lacy* DATE 11/23/09 LIC.# E 13770

**LIGHTING MANDATORY MEASURES**

Indicate location on plans of Note Block for Mandatory Measures

**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 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 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 type="checkbox"/> LTG-2-C	Indoor Lighting Schedule
<input type="checkbox"/> LTG-3-C	Portable Lighting Worksheet
<input type="checkbox"/> LTG-4-C	Lighting Controls Credit Worksheet
<input 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

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

PROJECT NAME Philip Raine Safety Roadside Rest Area DATE 11/23/09

**INSTALLED INDOOR LIGHTING POWER FOR CONDITIONED AND UNCONDITIONED SPACES**

	INSTALLED WATTS
INSTALLED LIGHTING, CONDITIONED SPACES (From LTG-2-C)	540
PORTABLE LIGHTING (From LTG-3-C)	+ N/A
LIGHTING CONTROL CREDIT, CONDITIONED SPACES (From LTG-4-C)	- 86
CONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	= 454
INSTALLED LIGHTING, UNCONDITIONED SPACES (From LTG-2-C)	4506
LIGHTING CONTROL CREDIT, UNCONDITIONED SPACES (From LTG-4-C)	- 2860
UNCONDITIONED SPACE ADJUSTED INSTALLED LIGHTING POWER	= 1970

**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 694

**ALTERNATE COMPLIANCE**

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

ALLOWED INTERIOR LIGHTING POWER FOR UNCONDITIONED SPACE (From LTG-5-C) 5610 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
Utility Room 103	BLCS	OC, TC, DL, PS	Room 101,102,103	✓	
Utility Room 203	BLCS	OC, TC, DL, PS	Room 201,202,203	✓	
Crew Room 301	S OC2	2 Step OC Switch	Room 301		
CHP Room 301	S OC2	2 Step OC Switch	Room 302		
Utility Room 303	S OC	OC Switch	Room 303		
Vending Storage RMS	S M	Motion Sensor	Vending Storage		
Vending Machine RMS	S M	Motion Sensor	Vending Machine		

2005 Nonresidential Compliance Forms January 2006

DESIGN BY Tommy Lee	CHECKED Jesse S. Sandhu	STATE OF CALIFORNIA	DIVISION OF ENGINEERING SERVICES	BRIDGE NO.	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-1.1
				56R0003R		
DETAILS BY James Lacy	CHECKED Jesse S. Sandhu	DEPARTMENT OF TRANSPORTATION	ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE 22.4	TITLE 24 - SHEET I	
QUANTITIES BY Tommy Lee	CHECKED Jesse S. Sandhu	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

DOES SD Imperial Rev. 1/07 16-AUG-2010 09:01 ee0\_1.1.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	284	335

Tommy F. Lee 06-03-10  
REGISTERED ELECTRICAL ENGINEER DATE

8-9-10  
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**

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: *Sandy Margullis*  
SANDY MARGULLIS  
Approval date: 12-1-09

Abbreviations (this Sheet)

TC TIME CLOCK  
LC LIGHTING CONTACTOR  
PEC PHOTO ELECTRIC CELL

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

PROJECT NAME Philip Raine Safety Roadside Rest Area	DATE 11/23/09
PROJECT ADDRESS 2.5 Miles North of Tipton on Route 99	
PRINCIPAL DESIGNER-LIGHTING James R. Lacy	TELEPHONE (916) 227-8668
DOCUMENTATION AUTHOR James R. Lacy	TELEPHONE same
	Building Permit #
	Checked by/Date Enforcement Agency Use

**GENERAL INFORMATION**

DATE OF PLANS 11/23/09

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 James R. Lacy	SIGNATURE <i>James R. Lacy</i>	DATE 11/23/09
------------------------------------	--------------------------------	---------------

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 James R. Lacy	SIGNATURE <i>James R. Lacy</i>	DATE 11/23/09	LIC.# E 13770
--	--------------------------------	---------------	---------------

**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. 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 type="checkbox"/> OLTG-2-C	LIGHTING COMPLIANCE SUMMARY. Applicable Parts required for ALL outdoor lighting allowances (Except for Signs).
<input 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 Philip Raine Safety Roadside Rest Area
---

**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 without 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 S§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
Utility Rm 103	OLCS	TC, PEC, LC	ALL EXTERIOR LIGHTS	X

2005 Nonresidential Compliance Forms January 2006

DESIGN BY Tommy Lee	CHECKED Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. 56R0003R	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-1.2
DETAILS BY James Lacy	CHECKED Jesse S. Sandhu		ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	POST MILE 22.4		
QUANTITIES BY Tommy Lee	CHECKED Jesse S. Sandhu					
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			CU 06340 EA 0A9701	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF

## GRAPHIC SYMBOLS FOR ELECTRICAL WIRING AND LAYOUT DIAGRAMS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CEILING		CEILING
	WALL		WALL
	SURFACE INCANDESCENT, METAL HALIDE OR SODIUM VAPOR FIXTURE		MOTION SENSOR SWITCH
	RECESSED INCANDESCENT, METAL HALIDE, OR SODIUM VAPOR FIXTURE		MANUAL MOTOR STARTING SWITCH, THERMAL OVERLOAD TYPE
	BLANK OUTLET		MANUAL MOTOR STARTING SWITCH, WITHOUT OVERLOAD ELEMENT
	DROP CORD		TIMER SWITCH
	JUNCTION BOX		SWITCH AND SINGLE RECEPTACLE
	EXIT LIGHT		SWITCH AND DUPLEX RECEPTACLE
	SURFACE OR PENDANT INDIVIDUAL FLUORESCENT FIXTURE		HAND DRYER NOZZLE
	RECESSED INDIVIDUAL FLUORESCENT FIXTURE		HAND DRYER
	SURFACE OR PENDANT CONTINUOUS ROW FLUORESCENT FIXTURES		RADIO OUTLET
	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), DESIGN TYPE, NUMBER OF LAMPS AND WATTAGE.		TELEPHONE OUTLET
	EXAMPLE : (4) F 2 - 2 x 32		SOUND SYSTEM LOUD SPEAKER OUTLET
			PUSHBUTTON
	SINGLE RECEPTACLE OUTLET		PUSHBUTTON STATION, NC, WITH LOCKING DEVICE FOR OPEN
	DUPLEX RECEPTACLE OUTLET		PUSHBUTTON STATION MOTOR CONTROL
	DUPLEX RECEPTACLE OUTLET (WITH GFCI)		BUZZER
	DUPLEX RECEPTACLE OUTLET, WEATHERPROOF (WITH GFCI)		BELL
	SINGLE, SPECIAL PURPOSE RECEPTACLE OUTLET		COMBINATION BELL-BUZZER
	DUPLEX, SPECIAL PURPOSE RECEPTACLE OUTLET		THERMOSTAT
	RANGE OUTLET		PRESSURE SWITCH
	CLOCK HANGER RECEPTACLE		CONTROL RELAY
	FAN HANGER RECEPTACLE		FLOW SWITCH
	FLOOR SINGLE RECEPTACLE OUTLET		PHOTOELECTRIC CELL
	FLOOR DUPLEX RECEPTACLE OUTLET		RADIO OUTLET
	FLOOR SPECIAL PURPOSE OUTLET		TELEVISION OUTLET
	FLOOR RADIO OUTLET		MICROPHONE OUTLET
	FLOOR TELEPHONE OUTLET		FLUSH-MOUNTED PANELBOARD AND CABINET
	MULTI-FLOOR OUTLET, 2 OR MORE GANG		SURFACE-MOUNTED PANELBOARD AND CABINET
	MULTI-OUTLET ASSEMBLY		LIGHTING PANEL
	SINGLE POLE SWITCH		POWER PANEL
	DOUBLE POLE SWITCH		COMBINATION LIGHTING AND POWER
	THREE WAY SWITCH		MOTOR CONTROLLER
	FOUR WAY SWITCH		DISCONNECT SWITCH
	AUTOMATIC DOOR		CONDUIT CONCEALED IN CEILING OR WALL
	KEY OPERATED SWITCH		CONDUIT CONCEALED IN FLOOR
	SWITCH AND PILOT LIGHT		CONDUIT EXPOSED
	MOMENTARY CONTACT SWITCH		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 #12 (G) UNLESS OTHERWISE NOTED. ALL CONDUIT SHALL BE 1/2" UNLESS OTHERWISE NOTED.
	REMOTE CONTROL SWITCH		HOMERUN TO PANELBOARD, ARROWS INDICATE NUMBER OF CIRCUITS, LETTER DENOTES PANELBOARD, NUMERAL DENOTES CIRCUIT.
	WEATHERPROOF SWITCH		SURFACE METAL RACEWAY
	FAN SWITCH		
	LIGHT SWITCH		CONDUCTOR INFO (PER CONDUIT)
	HEATER SWITCH		CONDUIT TYPE
	VARIABLE SPEED MOTOR CONTROL SWITCH		CONDUIT SIZE
	TWO SWITCHES, ONE SWITCH FOR LIGHT AND FAN AND TIMER SWITCH FOR HEAT LAMP		NUMBER OF CONDUITS (NO NUMBER INDICATES ONE CONDUIT)
			CONDUIT, METALLIC UNDERGROUND
			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
			POLE-TOP LUMINAIRE
			POLE-ARM LUMINAIRE

## GRAPHIC SYMBOLS FOR ELECTRICAL DIAGRAMS

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER, SINGLE POLE
	CIRCUIT BREAKER, DOUBLE POLE
	CIRCUIT BREAKER, THREE POLE
	CIRCUIT BREAKER, WITH GROUND FAULT CIRCUIT INTERRUPTER
	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, SINGLE-POLE, 3-POSITION
	THERMAL OVERLOAD
	FUSE
	RESISTOR
	VARIABLE RESISTOR
	TRANSFORMER WINDING
	GROUNDING ELECTRODE
	ENCLOSURE BOND
	PILOT LIGHT (A=AMBER, G=GREEN, R=RED)
	GENERATOR
	MOTOR
	FAN MOTOR

### REMODEL WORK

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

### STANDARD NOTES

	ABANDON, IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.
	INSTALL PULL BOX IN EXISTING CONDUIT RUN.
	INSTALL CONDUIT INTO EXISTING PULL BOX.
	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED.
	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS, INSTALL PULL ROPE AND PLUG.
	REMOVE FOUNDATION ABOVE GRADE AND ABANDON FOUNDATION BELOW GRADE.
	RELOCATE EQUIPMENT.
	RELOCATED EQUIPMENT.
	SPLICE NEW TO EXISTING CONDUCTORS.

### PROJECT NOTES

- A. SEPARATE GROUNDED (NEUTRAL) CONDUCTOR SHALL BE USED FOR EACH 120-VOLT CIRCUIT.
- B. HOMERUNS TO PANELBOARDS SHALL BE INSTALLED AS SHOWN ON THE PLANS. HOMERUNS SHALL NOT BE COMBINED.
- C. A SINGLE INSULATED EQUIPMENT GROUNDING CONDUCTOR (SIZED AS REQUIRED) SHALL BE INSTALLED IN EACH CONDUIT RUN.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	285	335

Tommy F. Lee  
REGISTERED ELECTRICAL ENGINEER  
DATE 06-03-10

8-9-10  
PLANS APPROVAL DATE

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### ABBREVIATIONS

CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: *Sandy Margullis*  
SANDY MARGULLIS

Approval date: 12-1-09

A	AMPERES
A/C	AIR CONDITIONING UNIT
ACS	AIR COMPRESSOR STARTER
AI	ANALOG INPUT
AL	ALARM LIGHT
AO	ANALOG OUTPUT
AVC	AIR VOLUME CONTROLLER
BLD	BUILDING
BRK	BREAKER
C	CONDUIT
Ca+	CATEGORY
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CR	CONTROL RELAY
CSW	CURRENT SWITCH
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DP	DUPLEX PLUG RECEPTACLE
(E)	EXISTING
EF	EXHAUST FAN
F	FUSE
FL	FAILURE LIGHT
FLA	FLASHER
FLEX	FLEXIBLE CONDUIT
FLS	FLOW SWITCH
FR	FAILURE RESET
FS	FLOAT SWITCH
G	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GRS	GALVANIZED RIGID STEEL
IR	INDUCTION RELAY
JB	JUNCTION BOX
L	LIGHT
LC	LIGHTING CONTACTOR
LCP	LIGHTING CONTROL PANEL
LD	LIGHT DISCONNECT
LL	LIQUID LEVEL RELAY
LLC	LIQUID LEVEL CONTROLLER
LP	LIGHT PANEL
LS	LIGHT SWITCH
LT	LIGHT TRANSFORMER
LTO	LIGHT TRANSFORMER OVERLOAD
MB	MAIN BREAKER
MC	METALLIC CONDUIT
MCP	MOTOR CIRCUIT PROTECTOR
MCC	MOTOR CONTROL CENTER
MSB	MAIN SWITCHBOARD
MT	EMPTY CONDUIT
(N)	NEW
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NSW	NEUTRAL SWITCHING BREAKER
OL	OVERLOAD
P	POLE
PB	PULL BOX
PB	PUSHBUTTON
PFR	PHASE FAILURE RELAY
PEC	PHOTOELECTRIC CELL
PL	PILOT LIGHT
PS	PRESSURE SWITCH
PTS	POWER TRANSFER SWITCH
PV	PHOTOVOLTAIC
PVC	POLYVINYL CHLORIDE
RES	RESISTOR
RTB	RADIO TERMINAL BOARD
S	STARTER COIL
SD	SERVICE DISCONNECT
SFR	SEAL FAILURE RELAY
SL	SUMP LIGHT
SPR	STANDBY POWER RECEPTACLE
SS	SELECTOR SWITCH
ST	STARTER
SV	SOLENOID VALVE
T	TRANSFORMER
TB	TERMINAL BLOCK
TDR	TIME DELAY RELAY
TGLS	TOGGLE SWITCH
TM	TIME METER
TOT	TOTAL
TS	TIMER SWITCH
TSW	TEST SWITCH
TTB	TELEPHONE TERMINAL BOARD
Typ	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
WLS	WATER LEVEL SWITCH
WP	WEATHERPROOF

DESIGN	BY Tommy Lee	CHECKED Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 56R0003R 56R0003L POST MILE 22.4	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-1	
DETAILS	BY Tommy Lee	CHECKED Jesse S. Sandhu		LEGEND				
QUANTITIES	BY Tommy Lee	CHECKED Jesse S. Sandhu		REVISION DATES (PRELIMINARY STAGE ONLY)				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES			SHEET OF

**GENERAL NOTES:**

For Single Line Diagram, see sheet EEO-12.

**CALIFORNIA STATE FIRE MARSHAL  
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Reviewed by: *Sandy Margullis*  
SANDY MARGULLIS  
Approval date: 12-1-09

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	286	335

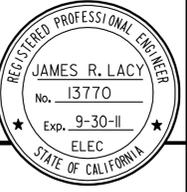
  

<i>James R. Lacy</i>		06-03-10
REGISTERED ELECTRICAL ENGINEER	DATE	

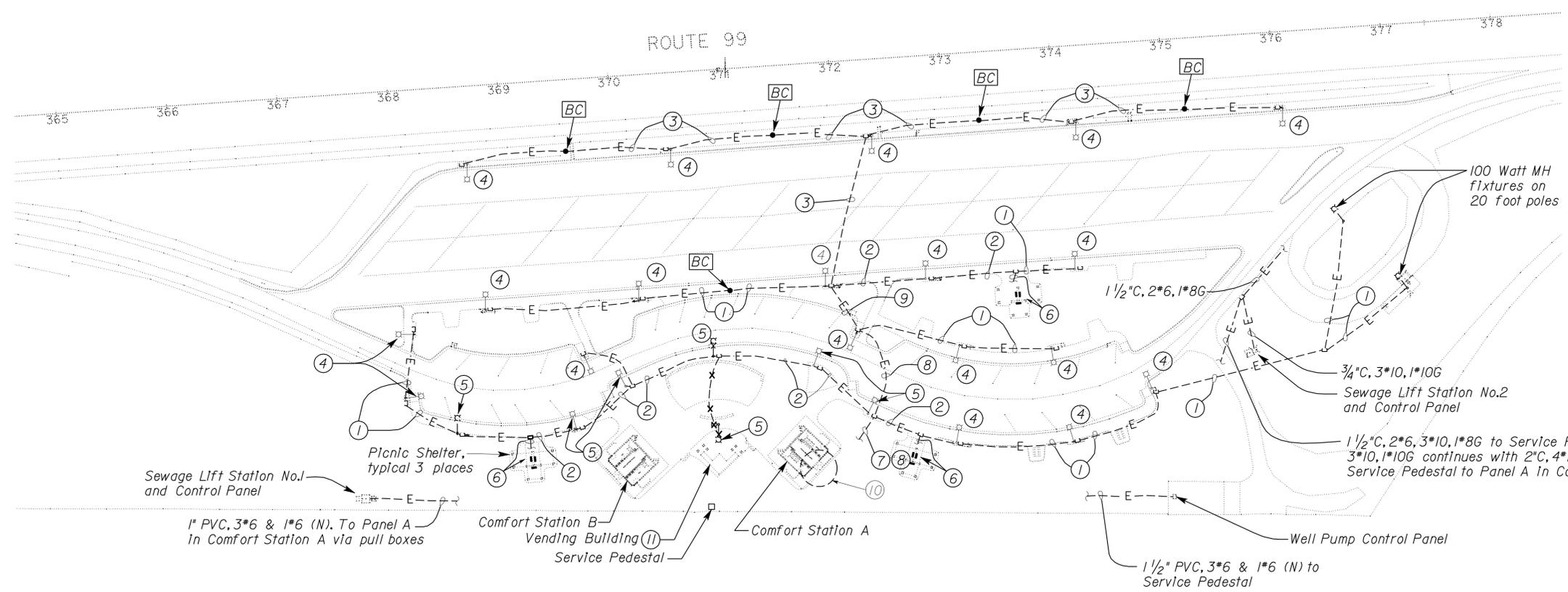
8-9-10	
PLANS APPROVAL DATE	

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**NOTES:**

- ① 1" C, PVC, 3\*10.
- ② 1" C, PVC, 4\*10.
- ③ 1" C, PVC, 3\*8.
- ④ Replace existing pole mounted light fixture with new light fixture as indicated on sheet EEO-4.
- ⑤ Remove existing light fixture, pole and foundation. Retain pull box, conduit and conductors for reconnection. Resplice conductors as required for operation.
- ⑥ 3/4" C, 2\*10, 1\*10G to Picnic Shelter. Label conductors in pull box as required for reconnection and remove conductors and conduit. For Picnic Shelter plan, see sheet EEO-8.
- ⑦ To Area Lighting Control Panel via pull boxes. See Sheet EEO-6 for continuation.
- ⑧ 1" C, PVC, 5\*8.
- ⑨ 1" C, PVC, 4\*8.
- ⑩ For modifications see sheet EEO-6.
- ⑪ Remove all electrical equipment, conduits and conductors inside the building.



**SITE PLAN**

1'-0" = 60'-0"



DESIGN SUPERVISOR  
*J. Subhoff*  
DESIGN ENGINEER  
*Jaswinder K Sandhu*

DESIGN	BY James R. Lacy	CHECKED Jesse S. Sandhu
DETAILS	BY Dall Zhou	CHECKED James R. Lacy
QUANTITIES	BY James R. Lacy	CHECKED Tommy F. Lee

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.  
46R0001L  
46R0001R  
POST MILE  
22.45/22.40

**PHILIP RAINE SAFETY ROADSIDE REST AREA**  
EXISTING SITE PLAN - NORTHBOUND

SHEET **EEO-2** OF

**GENERAL NOTE:**

For Single Line Diagram, see sheet EE0-13.

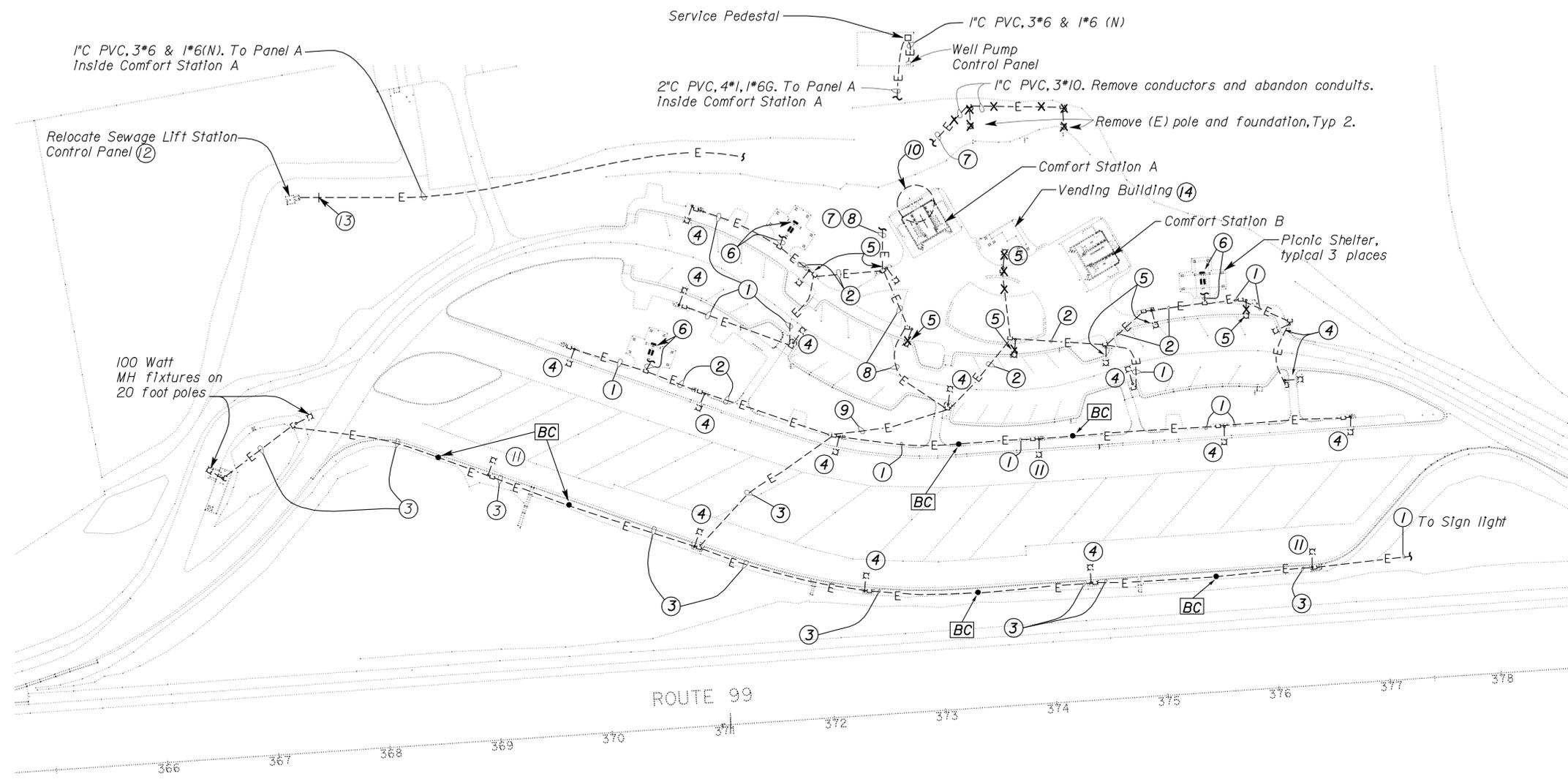
**CALIFORNIA STATE FIRE MARSHAL**  
**APPROVED**  
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.  
 Reviewed by: *Sandy Margullis*  
**SANDY MARGULLIS**  
 Approval date: 12-1-09

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	287	335

*James R. Lacy* 06-03-10  
 REGISTERED ELECTRICAL ENGINEER DATE  
 No. 13770  
 Exp. 9-30-11  
 ELEC  
 STATE OF CALIFORNIA

8-9-10  
 PLANS APPROVAL DATE

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- NOTES:**
- ① 1" PVC, 3\*10.
  - ② 1" PVC, 4\*10.
  - ③ 1" PVC, 3\*8.
  - ④ Replace existing pole mounted light fixture with new light fixture as indicated on sheet EE0-5.
  - ⑤ Remove existing light fixture, pole and foundation. Retain pull box, conduit and conductors for reconnection. Resplice conductors as required for operation.
  - ⑥ 3/4" C, 2\*10, 1\*10G to Picnic Shelter. Label conductors in pull box as required for reconnection and remove conductors. For Picnic Shelter plan, see sheet EE0-8.
  - ⑦ To Outside Lighting Control Panel via pull boxes. See Sheet EE0-7 for continuation.
  - ⑧ 1" PVC, 5\*8.
  - ⑨ 1" PVC, 4\*8.
  - ⑩ For modifications see sheet EE0-7.
  - ⑪ Remove light fixture and foundation and relocate pole to new location. For new locations, see sheet EE0-5.
  - ⑫ Prior to any modifications to the Sewage Lift Station Control Panel or conduits the Contractor shall witness in the presence of the Engineer that the Lift Station is fully operational. The contractor shall check pumps rotation direction, as they shall be the same once relocated and reconnected. Relocate Sewage Lift Station control panel to new location. For new foundation and details, see sheet EE5-1. Modify conduits and conductors as required for the Lift Station to be fully operational. Cover un-used holes on the control panel. For new location, see Water and Wastewater sheet SS-2.
  - ⑬ Intercept (E) conduit and conductors and install No. 5 pullbox. Modify (E) conduit and conductors as required and terminate inside the pullbox.
  - ⑭ Remove all electrical equipment, conduits and conductors inside the building.

**SITE PLAN**  
 1'-0" = 60'-0"

DOES SD Imperial Rev. 1/07	DESIGN	BY <i>James R. Lacy</i>	CHECKED <i>Jesse S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L 46R0001R	<b>PHILIP RAINE SAFETY ROADSIDE REST AREA</b>	SHEET <b>EE0-3</b>
	DETAILS	BY <i>Dall Zhou</i>	CHECKED <i>James R. Lacy</i>			POST MILE 22.45/22.40		
	QUANTITIES	BY <i>James R. Lacy</i>	CHECKED <i>Tommy F. Lee</i>			REVISION DATES (PRELIMINARY STAGE ONLY)		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	2/12/08 9/18/08 11/18/08 1/13/09 4/24/09 11/18/09 12/22/09 6/3/10	SHEET OF

General notes:

- A. For Lighting Fixture Schedule see sheet EEO-10.
- B. For Single Line Diagram, see sheet EEO-12.

**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
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 Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	288	335

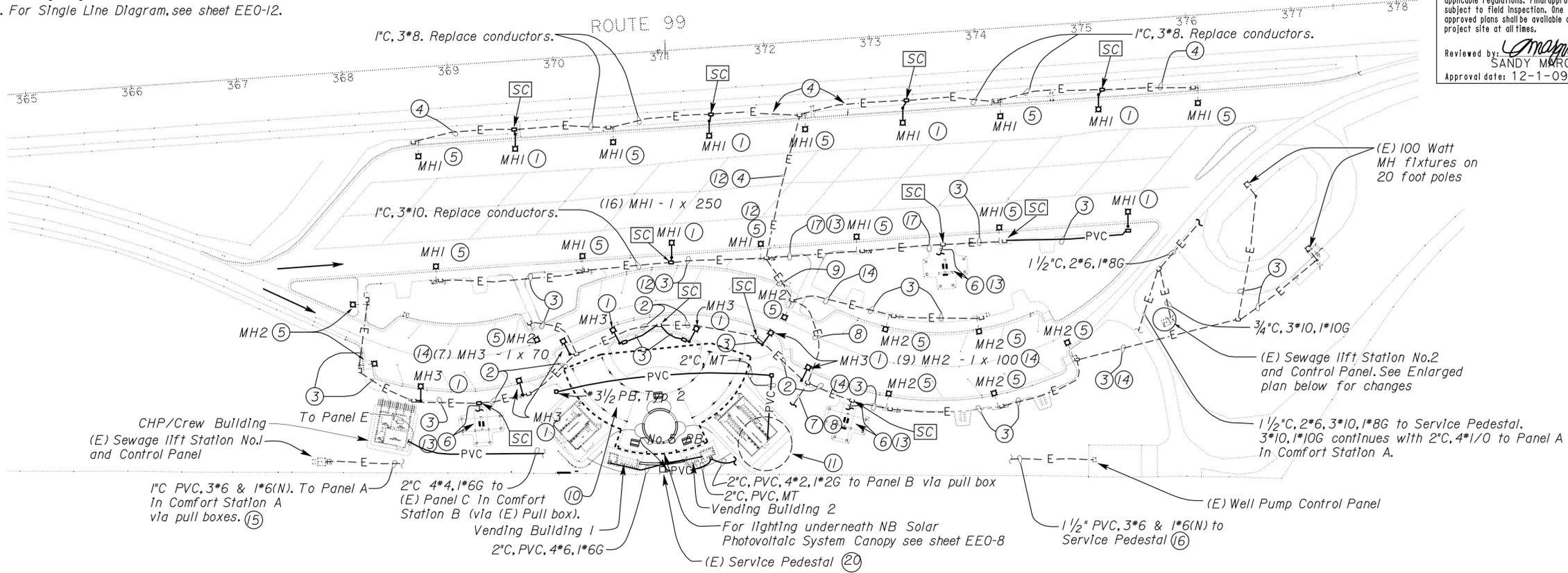
  

<i>James R. Lacy</i>		06-03-10
REGISTERED ELECTRICAL ENGINEER	DATE	

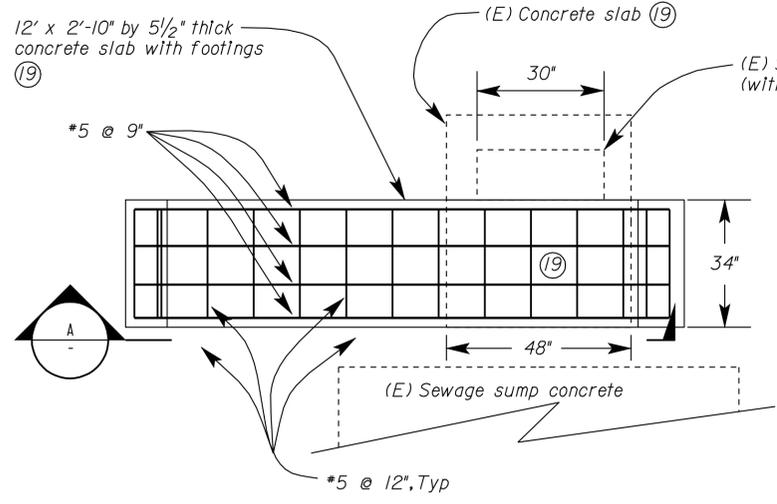
  

8-9-10
PLANS APPROVAL DATE

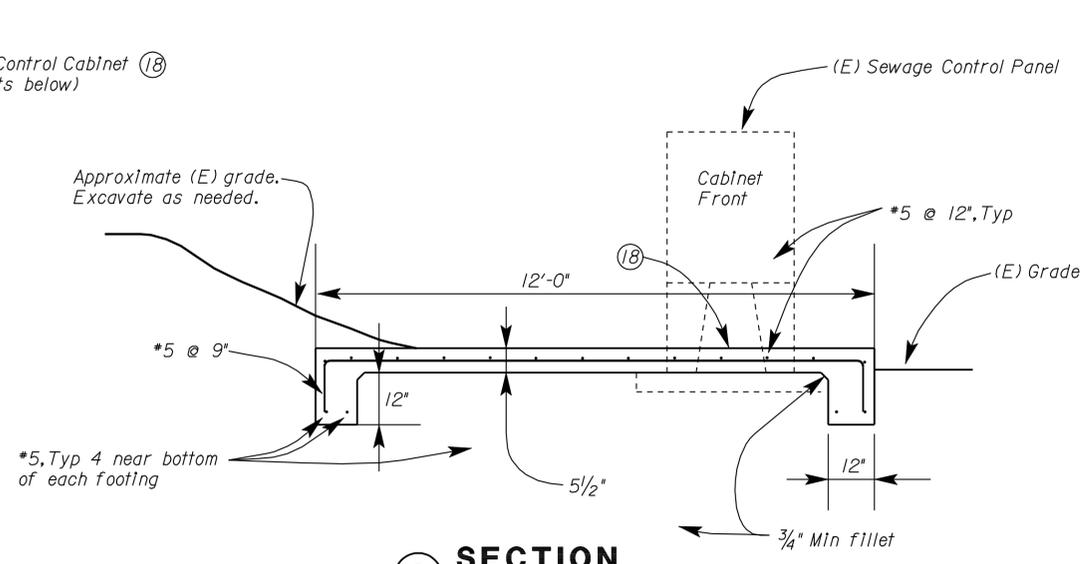
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**SITE PLAN**  
 1"=60'-0"



**ENLARGED PLAN**  
 NO SCALE



**A SECTION**  
 NO SCALE

- Notes:
- 1 Install light fixture of the type indicated, pole, reinforced concrete foundation, \*3/2 pull box and 1" PVC, 2\*10, 1\*10G from pull box to pole. Connect wiring as required for operation. For pole foundation see Detail 1 on Sheet EEO-9. For MH3 pole and fixture see Detail 6 on sheet EEO-9.
  - 2 1" C, PVC, 3\*10 & 1\*10G.
  - 3 1" C, PVC, 2\*10 & 1\*10G.
  - 4 1" C, PVC, 2\*8 & 1\*8G.
  - 5 Install new pole mounted light fixture of the type indicated. Connect wiring as required for operation.
  - 6 1/2" C, 2\*10 and 1\*10G between pull box and new Picnic Shelter. For continuation see Sheet EEO-8.
  - 7 To Outside Lighting Control Panel via pull boxes. See Sheet EEO-6 for continuation.
  - 8 1" C, PVC, 5\*8.
  - 9 1" C, PVC, 4\*8.
  - 10 For Solar Photovoltaic System layout on top of Canopy see Sheets EE4-1 thru EE4-4.
  - 11 For modifications, see sheet EEO-6.
  - 12 Circuit A5 via the Outside Lighting Control Station.
  - 13 Circuit A1 via the Outside Lighting Control Station.
  - 14 Supply the MH2, MH3 and (E) RV Dump Station Light fixtures from circuit A3 via the Outside Lighting Control Station.
  - 15 Replace (E) 1\*6(N) conductor with 1\*6G conductor. Terminate 1\*6G on ground bus inside (E) Sewage Lift Control Station No.1 Control Panel.
  - 16 Replace (E) 1\*6(N) conductor with 1\*6G conductor inside (E) Well Pump Control Panel and (E) Service Pedestal. Provide and install ground bus/lug where required.
  - 17 Supply lighting fixtures MHI and Picnic shelter lighting fixtures from circuit A1. Remove spare conductor created by this rearrangement of the circuitry.
  - 18 Place blocking under control cabinet to prevent concrete from encasing electrical conduits.
  - 19 New concrete slab shall be level and on top of existing concrete slab. Sheet ST0-3 shall apply to concrete and reinforcing except as noted on this sheet.
  - 20 Existing Service Pedestal. Install screw on type nameplate with letter height of 1/2 inch to read "THIS PANEL FED BY MULTIPLE SOURCES, UTILITY AND SOLAR (via PANEL A)".

DESIGN	BY James R. Lacy	CHECKED Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45/22.40	PHILIP RAINE SAFETY ROADSIDE REST AREA MODIFIED SITE PLAN - NORTHBOUND	SHEET <b>EEO-4</b>
	DETAILS BY James R. Lacy	CHECKED James R. Lacy					
	QUANTITIES BY James R. Lacy	CHECKED Tommy F. Lee					
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	289	335

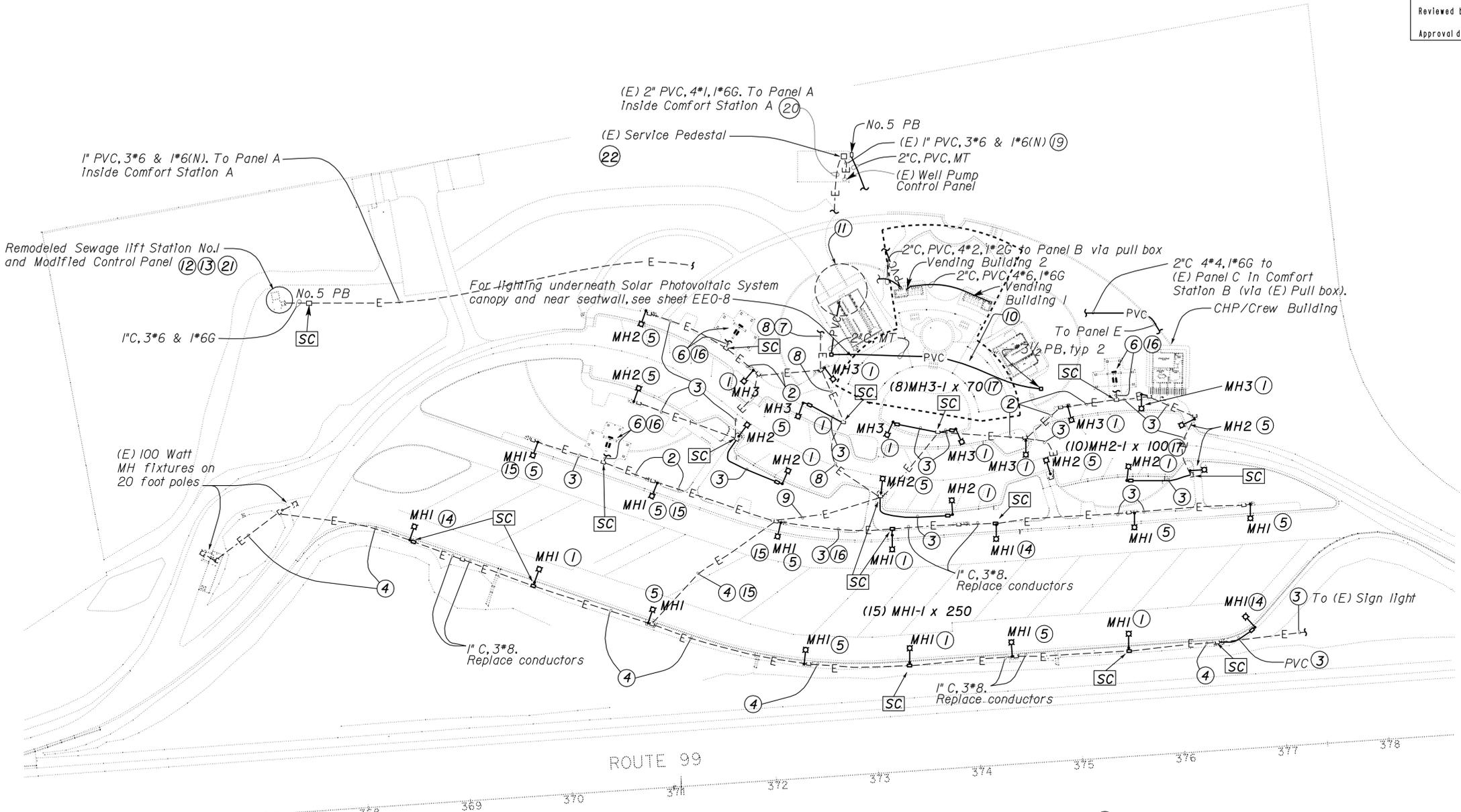
  

REGISTERED ELECTRICAL ENGINEER <i>James R. Lacy</i> No. 13770 Exp. 9-30-11 STATE OF CALIFORNIA		06-03-10 DATE
8-9-10 PLANS APPROVAL DATE		
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Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

General notes:  
 A. For Lighting Fixture Schedule see sheet EE0-10.  
 B. For Single Line Diagram, see sheet EE0-13.



**SITE PLAN**  
 1"=0" = 60'-0"  
 [North Arrow]

- NOTES:**
- Install light fixture of the type indicated, pole, reinforced concrete foundation, \*3/2 pull box and 1" PVC, 2\*10, 1\*10G from pull box to pole. Install and connect wiring as required for operation. For pole foundation see Detail 1 on sheet EE0-9. For MH3 pole and fixture see Detail 6 on sheet EE0-9.
  - 1" C, PVC, 4\*10.
  - 1" C, PVC, 3\*10.
  - 1" C, PVC, 3\*8.
  - Install new pole mounted light fixture of the type indicated. Connect wiring as required for operation.
  - 1/2" C, 2\*10 and 1\*10G between pull box and new Picnic Table Canopy. For continuation see Sheet EE0-8.
  - To Area Lighting Control Panel via pull boxes. See Sheet EE0-7 for continuation.
  - 1" C, PVC, 5\*8.
  - 1" C, PVC, 4\*8.
  - For Solar Photovoltaic System layout on top of Canopy see Sheets EE4-1 and EE4-2.
  - For modifications, see sheet EE0-7.
  - For exact location and additional details, see Sheet SS-3.
  - Relocated Sewage Control Panel. Modify (E) neutral conductor inside (E) Sewage Control Panel. For detail see sheet EE5-1.
  - Relocated pole. Install light fixture of the type indicated, reinforced concrete foundation, \*3/2 pull box and 1" PVC, 2\*10, 1\*10G from pull box to pole. Install and connect wiring as required for operation. For pole foundation, see sheet EE0-9.
  - Feed these conductors/fixtures from circuit A5 via the Outside Lighting Control Station.
  - Feed these conductors/fixtures from circuit A1 via the Outside Lighting Control Station.
  - Feed the MH2 and MH3 fixtures from circuit A3 via the Outside Lighting Control Station.
  - Replace (E) 1\*6 (N) conductor with 1\*6G conductor.
  - Replace (E) 1\*6(N) conductor with 1\*6G conductor inside (E) Well Pump Control Panel and (E) Service Pedestal. Provide and install ground bus/lug where required.
  - To new pullbox outside Comfort Station A. For continuation see sheet EE0-7.

- Lift station controls and associated equipment shall be located within 20 feet of the Sewage Lift station sump in a location as directed by the engineer in the field. The contractor shall provide all conduit, cables, conductors and associated equipment and make connections as required to make the Sewage lift station operational. See Sheet EE5-1 for more information.
- Existing Service Pedestal. Install screw on type nameplate with letter height of 1/2 inch to read "THIS PANEL FED BY MULTIPLE SOURCES, UTILITY AND SOLAR (via PANEL A)".

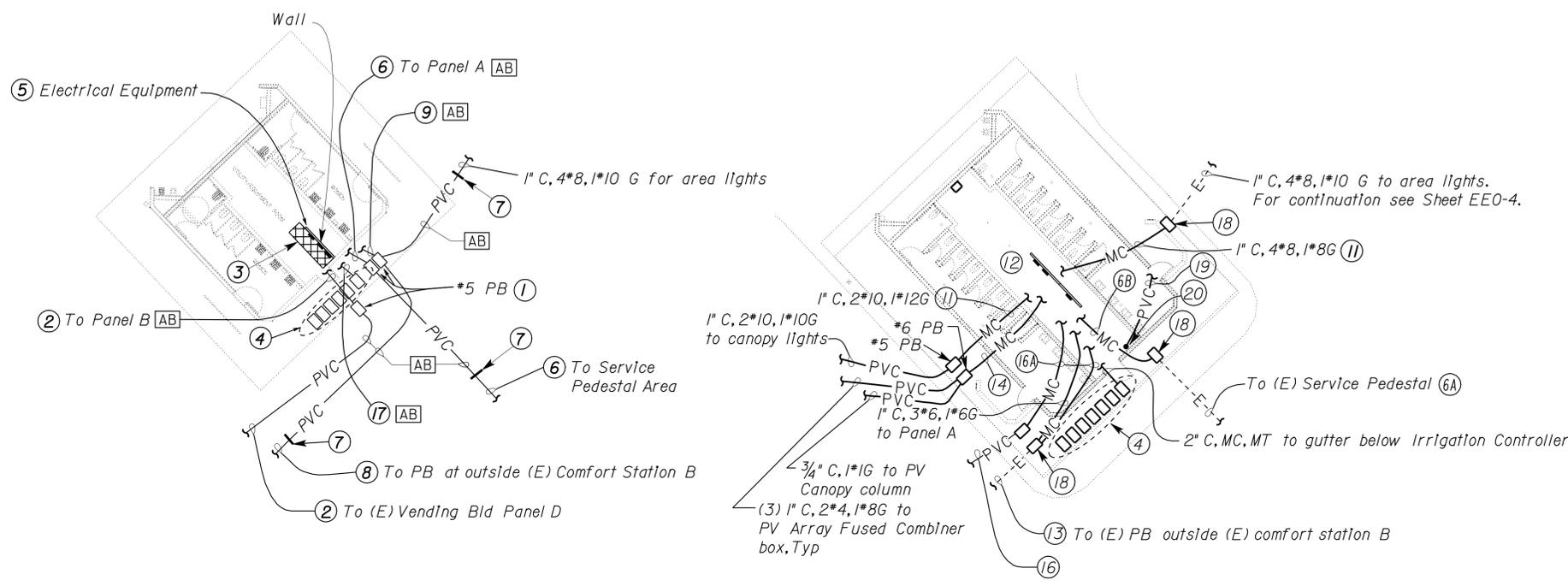
DESIGN	BY James R. Lacy	CHECKED Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-5
	DETAILS	BY James R. Lacy			CHECKED James R. Lacy		
QUANTITIES	BY James R. Lacy	CHECKED Tommy F. Lee	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	290	335

Approved by: <i>James R. Lacy</i> REGISTERED ELECTRICAL ENGINEER	DATE: 06-03-10
PLANS APPROVAL DATE: 8-9-10	
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 Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09



**EXISTING**

**NORTHBOUND ENLARGED COMFORT STATION A PLAN**

**MODIFIED**



**GENERAL NOTE:**  
 Terminate conductors from new and existing loads on Electrical equipment as required for operation and to maintain the same circuit phasing as existing.

- NOTES:**
- 1 Remove pull box. Label conductors prior to removal of the pull box. Make certain that the existing phase sequence, circuit description to various panelboards, sewage lift stations, and well pump control panels is correctly noted for facilitating reconnection.
  - 2 1 1/4" C, 4\*2.
  - 3 Saw cut and remove concrete in front of the wall in crosshatched area for conduit installation.
  - 4 Pull box for Irrigation/water. See District Irrigation sheets for more information.
  - 5 For removal and modification, see electrical plan sheet EE2-9 and EE2-11.
  - 6 2" C, 4\*1/0, 1\*6G, 3\*10, 1\*10G.
  - 6A 2" C, 4\*1/0, 1\*6G, 3\*10 & 1\*10G from the (E) Service Pedestal.
  - 6B 2" C, 4\*1/0, 1\*6G, 3\*10, 1\*10G to Panel A.
  - 7 Intercept conduit outside the new building addition and install #5 Electrical pull box.
  - 8 2" C, 3\*6, 1\*8G, 4\*2, 1\*6G
  - 9 - 1" C, 4\*8, 1\*10G to area light controller.  
 - 2" C, 4\*2 to Panel B.  
 - 1" C, 3\*6, 1\*8 neutral, 1\*6G to Panel A.
  - 10 Not used
  - 11 Conduit and conductors to Outside Light Controls Station.
  - 12 For conduits, continuation inside the building, see sheet EE2-11. After installation of new underslab conduit system, patch concrete floor to match existing floor.
  - 13 Existing 2" C, 3\*6 & 1\*8G and 4\*2 & 1\*6G. Replace 1\*6G with 1\*2G and terminate on equipment grounding bus inside (E) Panel C at (E) Comfort Station B. Investigate and if needed isolate (E) neutral bus. Install ground bus if required.
  - 14 - 2" C, 6\*4, 1\*8 G to PV Power Source Disconnect.  
 - 3/4" C, 1\*6G to the ground bar.
  - 15 Not used
  - 16 2" C, PVC, 4\*2 & 1\*2G to Panel DB at Vending Building Plan "B" via pull box and Energy monitoring meter.
  - 16A 2" C, 4\*2 & 1\*2G to Panel B.
  - 17 2" C, Irrigation conductors.
  - 18 No.5 Pull box. Splice new conductors to existing conductors inside the pull box.
  - 19 2" C, PVC, MT. For continuation, see sheet EE0-4.
  - 20 Cap empty conduit with pull rope 12" above finished floor.

DESIGN	BY	James R. Lacy	CHECKED	Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-6									
	DETAILS	BY	James R. Lacy	CHECKED			James R. Lacy			46R0001L 46R0001R								
QUANTITIES	BY	James R. Lacy	CHECKED	Tommy F. Lee	ENLARGED COMFORT STATION A PLAN - NORTHBOUND		POST MILE	REVISION DATES (PRELIMINARY STAGE ONLY)										
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	11/27/08	12/18/08	1/22/09	3/24/09	4/24/09	12/22/09	6/3/10	SHEET OF

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	291	335

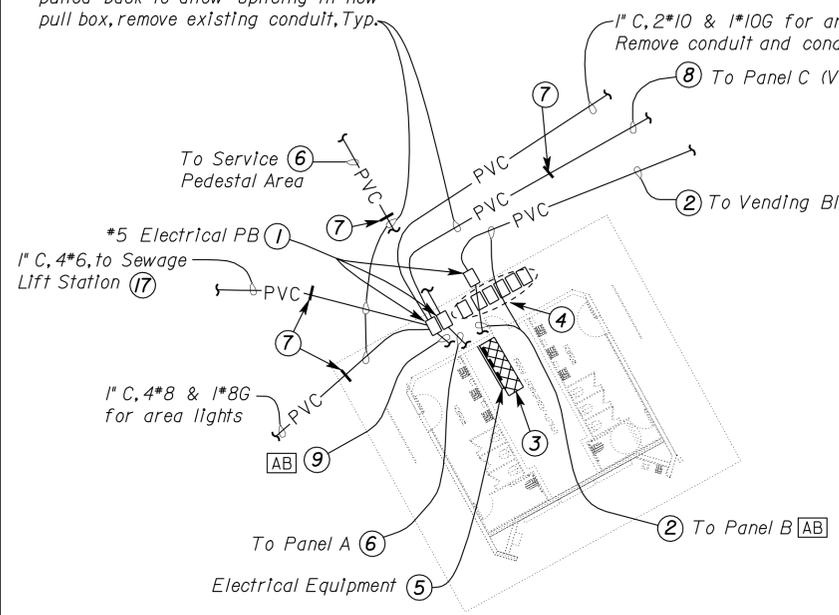
 REGISTERED ELECTRICAL ENGINEER		06-03-10 DATE
8-9-10 PLANS APPROVAL DATE		
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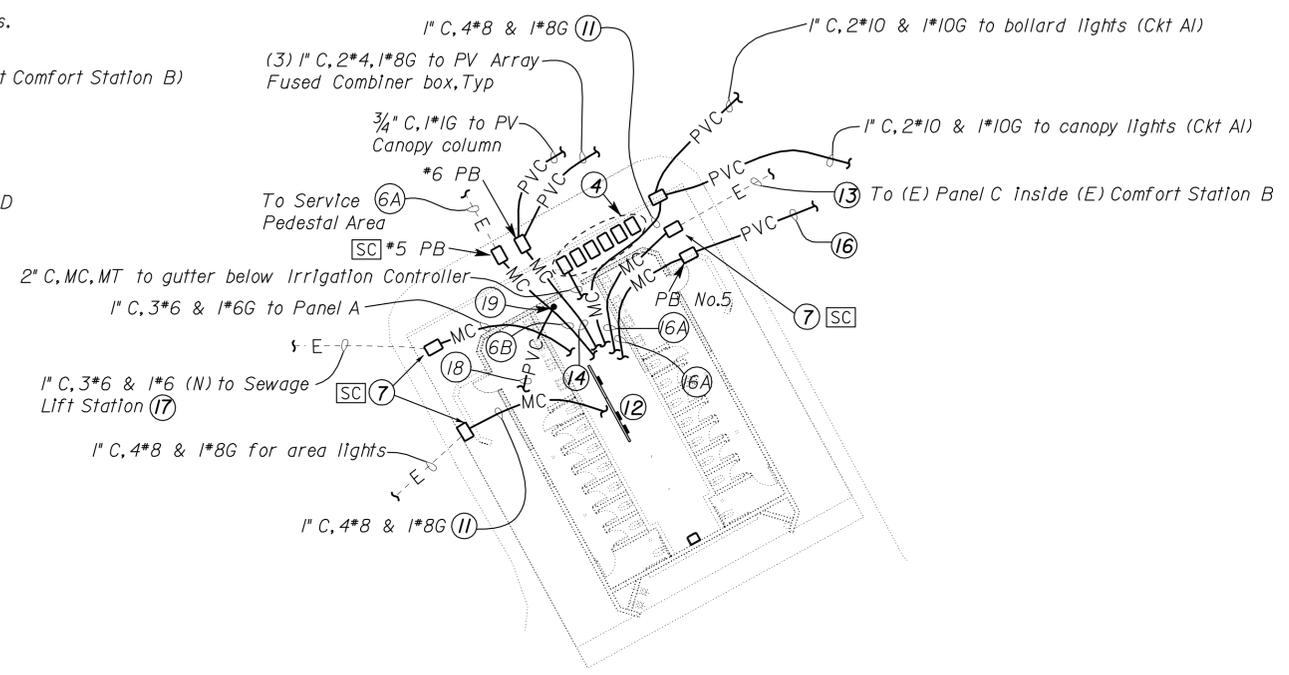
Reviewed by:   
**SANDY MURGULLIS**  
 Approval date: 12-1-09



After conductors labelled, and pulled back to allow splicing in new pull box, remove existing conduit, Typ.



**EXISTING**



**MODIFIED**



**PLAN**  
 SCALE 1" = 30'-0"

**GENERAL NOTE:**  
 Terminate conductors from new and existing loads on Electrical equipment as required for operation and to maintain the same circuit phasing as existing.

- NOTES:**
- Remove pull box. Label conductors prior to removal of the pull box. Make certain that the existing phase sequence, circuit description to various panelboards, sewage lift stations, and well pump control panels is correctly noted for facilitating reconnection.
  - 1 1/4" C, 4\*2.
  - Saw cut and remove concrete in front of the wall in crosshatched area for conduit installation.
  - Pull box for Irrigation/water. See District Irrigation sheets for more information.
  - For removal and modification, see electrical plan sheet EE2-10 and EE2-12.
  - 2" C, 4\*1, 1\*6G.
  - 2" C, 4\*1, 1\*6G from the (E) Service Pedestal.
  - 2" C, 4\*1 & 1\*6G to Panel A.
  - Intercept conduit outside of new building addition and install \*5 Electrical pull box.
  - 1 1/2" C, 4\*2.
  - 1" C, 4\*8, 1\*8G to Outside Lighting Control Station.  
 - 2" C, 4\*2 to Panel B.  
 - 1" C, 3\*6, 1\*6 (N) to Panel A.
  - Not used.
  - Conduit and conductors to Outside Lighting Control Station.
  - For conduits continuation inside the building see EE2-12. After installation of new underslab conduit system, patch concrete floor to match existing floor.
  - Existing 1 1/2" C, 4\*2. Add 1\*2G and terminate on equipment grounding bus inside (E) Panel C at (E) Comfort Station B. Investigate and if needed isolate (E) neutral bus. Install ground bus if required.
  - 2" C, 6\*4, 1\*8 G to PV Power Source Disconnect.  
 - 3/4" C, 1\*6G to the ground bar.
  - Not used.
  - 2" C, 4\*2 & 1\*2G to Panel DB at Vending Building Plan "B".
  - 2" C, 4\*2 & 1\*2G to Panel B.
  - Replace 1\*6 (N) with 1\*6G and terminate on ground lug inside sewage Lift Control Panel.
  - 2" C, PVC, MT. For continuation, see sheet EE0-5.
  - Cap empty conduit with pull rope 12" above finished floor.

DOES SD Imperial Rev. 1/07	DESIGN	BY James R. Lacy	CHECKED Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-7
	DETAILS	BY James R. Lacy	CHECKED James R. Lacy			POST MILE 22.45/22.40		
	QUANTITIES	BY James R. Lacy	CHECKED Tommy F. Lee			CU 06340 EA 0A9701	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3		11/28/08 12/18/08 3/24/09 4/24/09 12/22/09 6/3/10	

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	292	335

<i>James R. Lacy</i>		06-03-10
REGISTERED ELECTRICAL ENGINEER	DATE	

8-9-10
PLANS APPROVAL DATE

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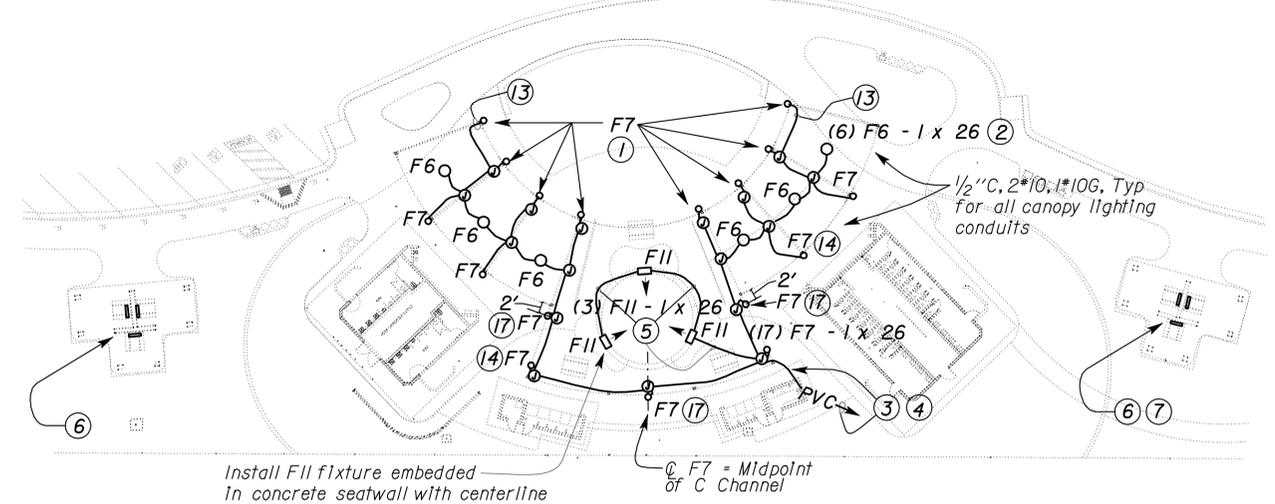


**CALIFORNIA STATE FIRE MARSHAL APPROVED**

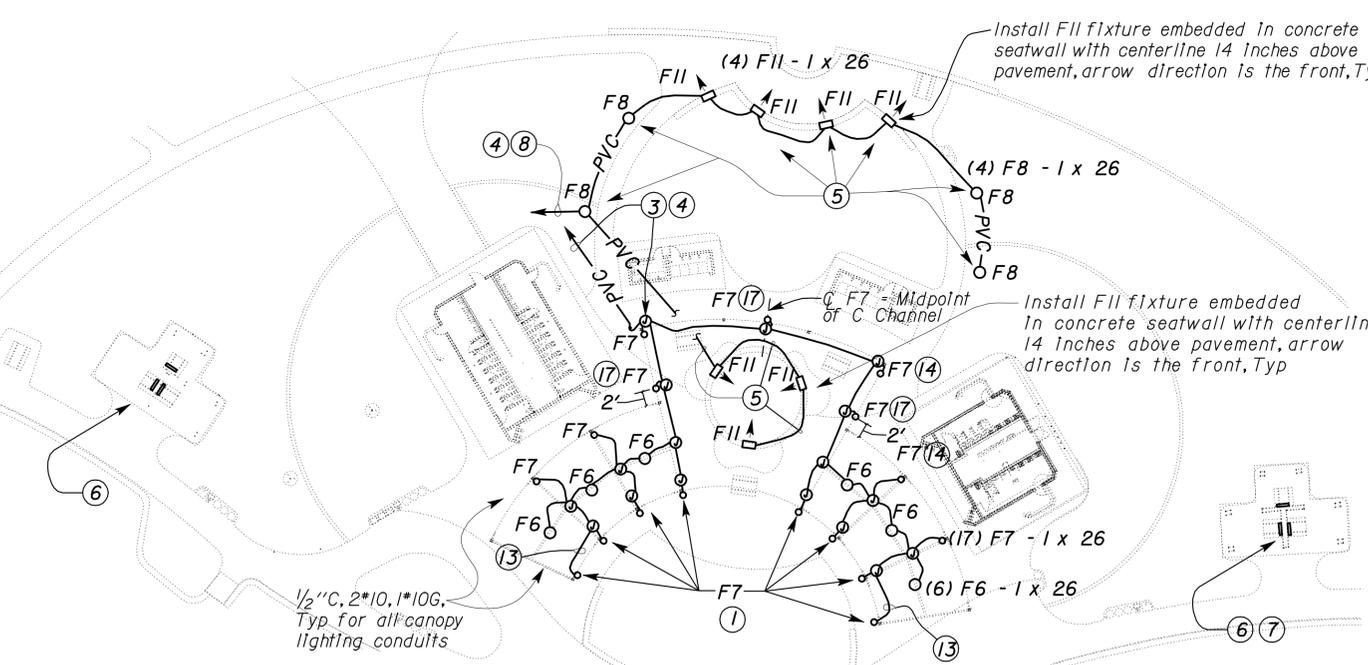
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by: *Sandy Margullis*  
SANDY MARGULLIS  
Approval date: 12-1-09

- NOTES:**
- Lighting fixture mounted on to Photovoltaic Canopy frame, Typ 8 places. For mounting details, see detail 3 on Sheet EE0-9.
  - Lighting fixture mounted to Photovoltaic Canopy soffit. For mounting detail, see detail 2 on Sheet EE0-9.
  - 3/4" C, 2\*10, 1\*10G. Stub conduit inside canopy column. For more information see detail 1 this Sheet.
  - Conduit and conductors to Area Lighting Control Panel via pull box. For continuation see Sheet EE0-6 (SB) or EE0-7 (NB).
  - 1" C, 2\*10, 1\*10G. Stub conduit inside fixture as recommended by the manufacturer.
  - For lighting system modifications see Picnic Shelter Plan this sheet, Typ 3 places (only 2 shown on the Enlarged Plan, all are shown on Modified Site Plan).
  - For location of the Third Picnic Shelter see Site Plans EE0-4 and EE0-5.
  - 1" C, 2\*10, 1\*10G.
  - Remove conduit and conductors on top of the canopy.
  - Remove LB fitting and exposed conduit above the column. Remove conductors between canopy and nearest underground pull box and abandon conduit.
  - Notch the (E) CMU column as required to conceal RSC conduit riser inside new stucco around the column. Extend conduit thru new canopy and transition to horizontal with WP LB fitting.
  - Light fixtures shall be mounted at 8 feet on 2 x blocking secured to the CMU wall. Blocking shall be sloped so fixtures aim down 45 degrees below horizontal.
  - 1/2" C, 2\*10, 1\*10G. Conduit shall be installed behind the C Channel and painted to match the canopy.
  - Lighting fixture mounted on to Photovoltaic Canopy frame, Typ 6. For mounting detail, see detail 4 on Sheet EE0-9.
  - Route conduit to nearest area lighting pull box. Split conductors in pull box as required for operation.
  - Conduit on top of canopy. Paint conduit to match canopy.
  - Lighting fixture mounted on Photovoltaic Canopy Frame, Typ 3. For mounting detail see detail 5 on sheet EE0-9.



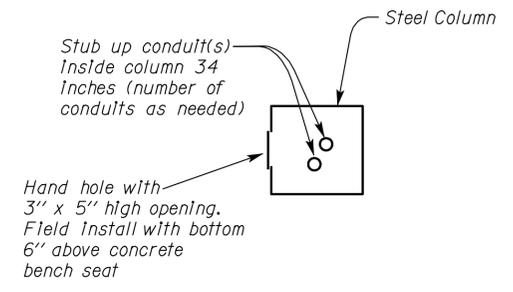
**NORTHBOUND**



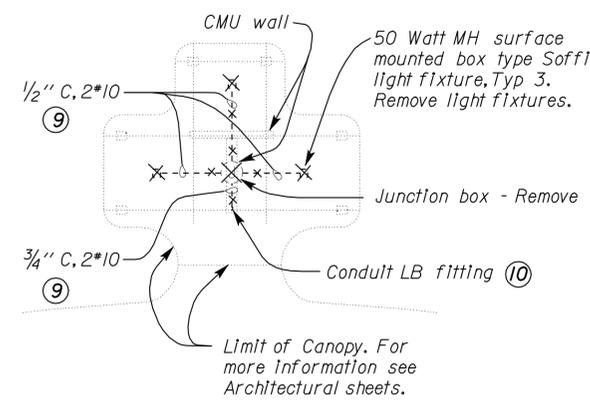
**SOUTHBOUND**

**ENLARGED PLAN**  
1" = 30'-0"

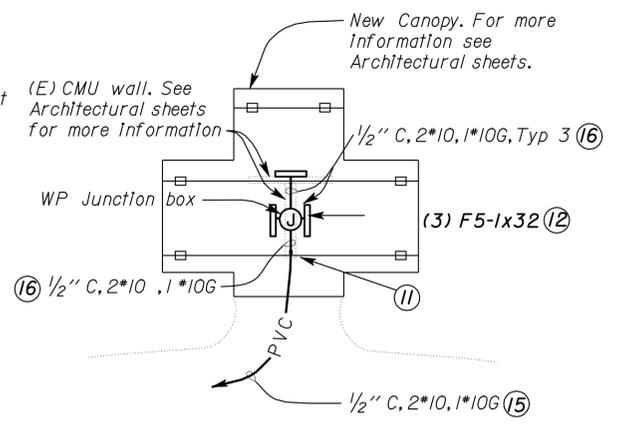
**GENERAL NOTES:**  
A. For Lighting Fixture Schedule see Sheet EE6-3.



**1 COLUMN DETAIL**  
NO SCALE



**EXISTING**



**MODIFIED**

**PLAN PICNIC SHELTER**

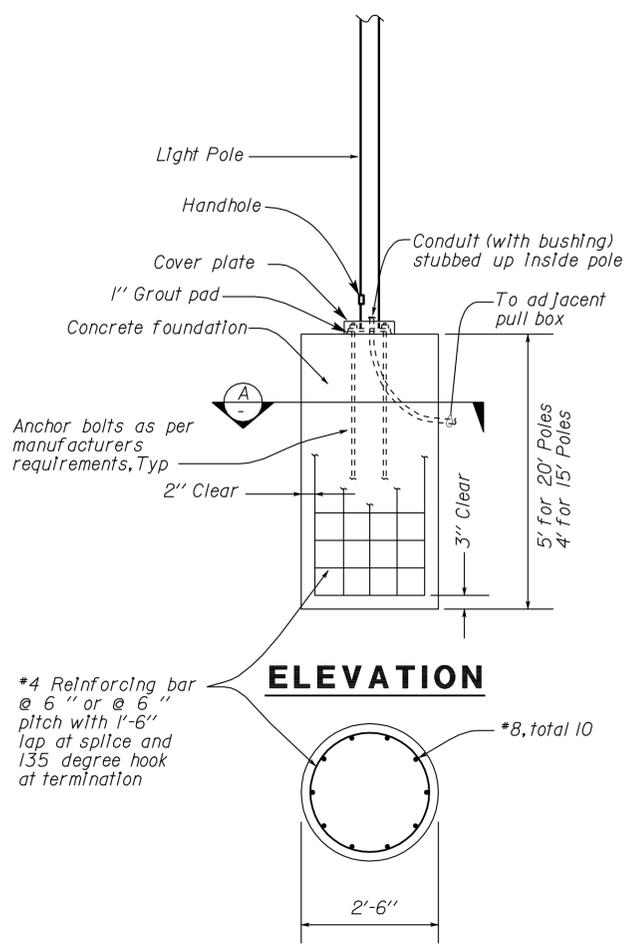
DESIGN	BY	James R. Lacy	CHECKED	Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L 46R0001R POST MILE 22.45/22.40	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-8
	DETAILS	BY	James R. Lacy	CHECKED					
QUANTITIES	BY	James R. Lacy	CHECKED	Tommy F. Lee	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		CU 06340 EA 0A9701	ENLARGED PARTIAL SITE PLANS	REVISION DATES (PRELIMINARY STAGE ONLY)
					0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES
									2/12/08 9/18/08 11/18/08 1/08/09 4/24/09 6/23/09 8/12/09 9/08/09 9/17/09 6/3/10

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	293	335

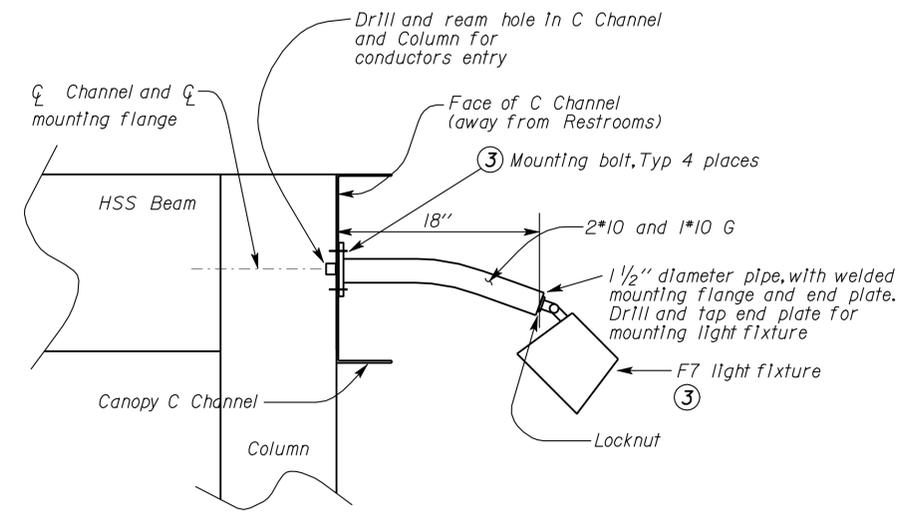
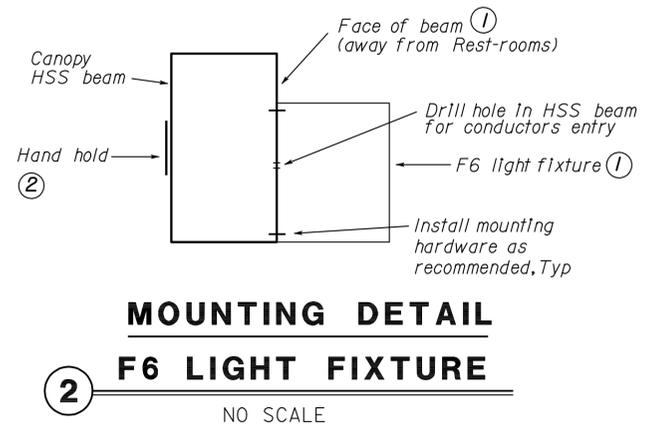
  

CALIFORNIA STATE FIRE MARSHAL <b>APPROVED</b> Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times. Reviewed by: <i>Sandy Margullis</i> SANDY MARGULLIS Approval date: 12-1-09		06-03-10 DATE
REGISTERED ELECTRICAL ENGINEER JAMES R. LACY No. 13770 Exp. 9-30-11 ELEC STATE OF CALIFORNIA		
8-9-10 PLANS APPROVAL DATE		
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- General notes:
- A. Each handhole shall be provided with steel cover with gasket and vandal resistance screws.
  - B. Paint all handholes and hardware to match surrounding structural members.
  - C. See Sheets EE4-4 and EE4-5 for additional handhole information.

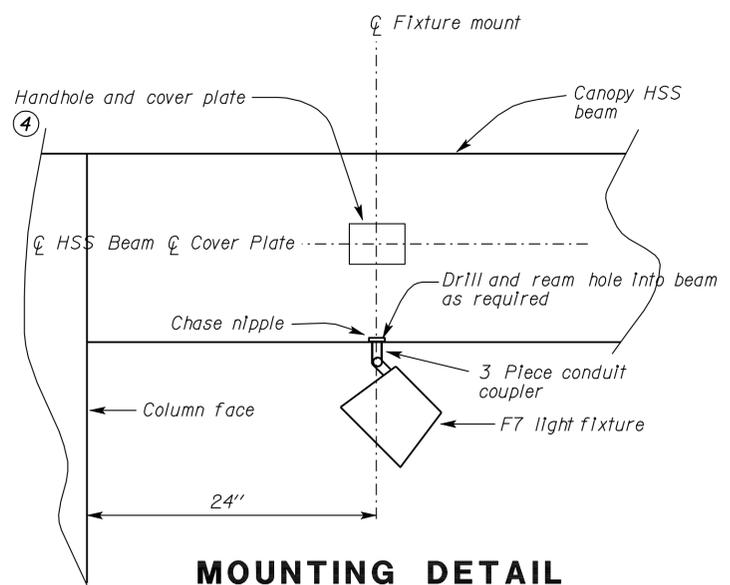


**SECTION A**  
**LIGHT POLE**  
**FOUNDATION DETAIL**  
 1 NO SCALE

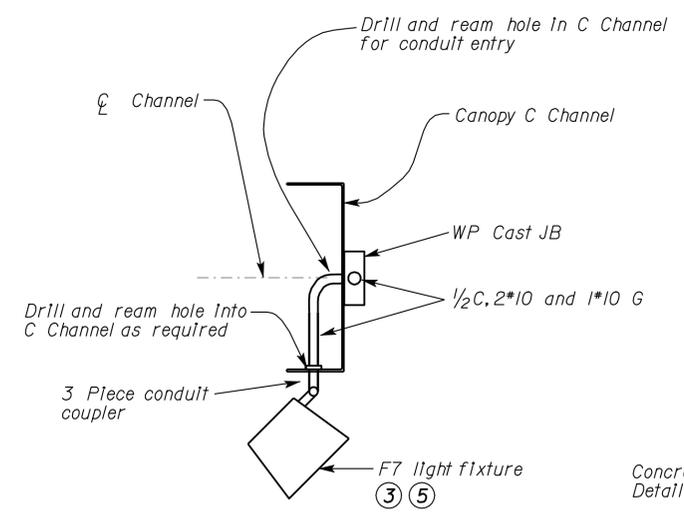


**MOUNTING DETAIL**  
**F7 LIGHT FIXTURE**  
 3 NO SCALE

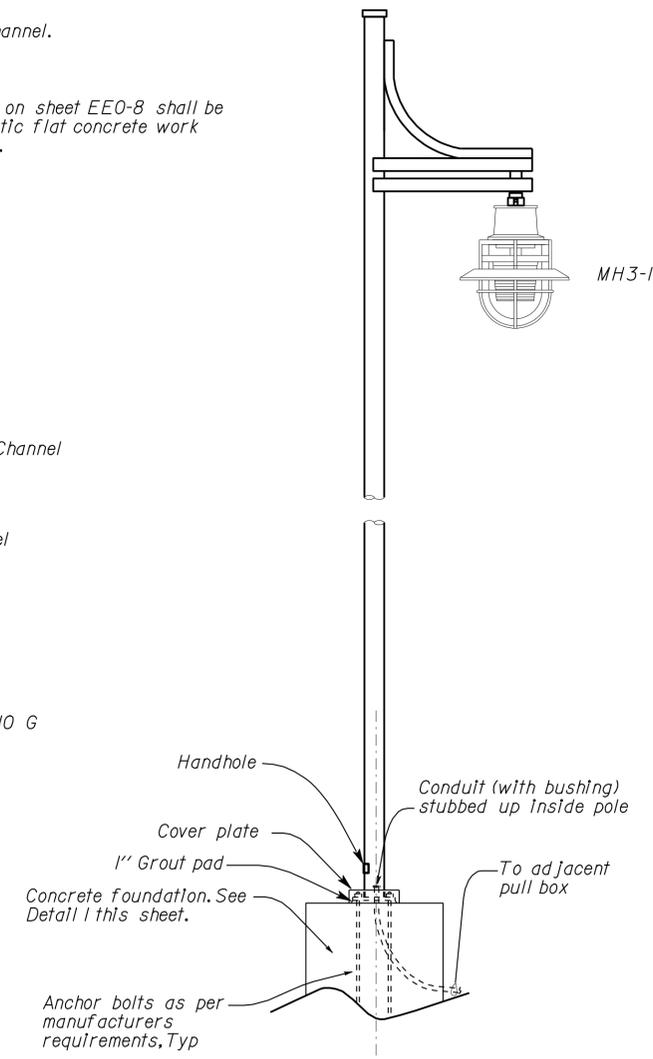
- NOTES:
- 1 Light fixture shall be mounted at the midpoint of the canopy beam. Drill and tap hole required for fixture installation. Seal around fixture as required.
  - 2 5" wide x 3" high hand hole.
  - 3 Secure fixture mounting bracket to C Channel.
  - 4 5" wide x 3" high hand hole.
  - 5 Three F7 fixtures (with note number 17) on sheet EEO-8 shall be aimed at the circular seat wall and artistic flat concrete work as directed by the Engineer in the field.



**MOUNTING DETAIL**  
**F7 LIGHT FIXTURE**  
 4 NO SCALE



**MOUNTING DETAIL**  
**F7 LIGHT FIXTURE**  
 5 NO SCALE



**ELECTROLIER (MH3) - DETAIL**  
 6

DESIGN	BY James R. Lacy	CHECKED Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 46R0001L	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EEO-9
	DETAILS	BY James R. Lacy			CHECKED James R. Lacy		
QUANTITIES	BY James R. Lacy	CHECKED Tommy F. Lee	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	11/27/08 12/18/08 1/13/09 4/24/09 5/10/09 8/12/09 12/22/09 6/3/10			

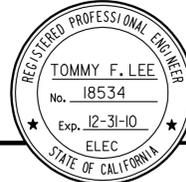
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	294	335

Tommy F. Lee 06-03-10  
REGISTERED ELECTRICAL ENGINEER DATE

8-9-10  
PLANS APPROVAL DATE

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**LIGHTING FIXTURE SCHEDULE**

TYPE	MANUFACTURER	LAMPS	DESCRIPTION
F1	LITHONIA, VDC SERIES; ECLIPSE, 545 SERIES OR EQUAL	2- 32 W T8	WALL CORNER MOUNTED FLUORESCENT FIXTURE 4' LONG WITH TWO 32-WATT T8 LAMPS, I20-VOLT COLD WEATHER ELECTRONIC BALLAST, VANDAL-RESISTANT AND LISTED FOR WET LOCATIONS. HOUSING SHALL BE STAINLESS STEEL, ONE-PIECE. HOUSING AND REINFORCING MEMBERS SHALL BE WELDED TOGETHER FOR STRENGTH. LENS SHALL BE CLEAR, INTERNALLY FROSTED, UV-STABILIZED, POLYCARBONATE DIFFUSER SECURED WITH STAINLESS STEEL TAMPERPROOF SCREWS. TWO SCREWDRIVERS FOR THE TAMPERPROOF SCREWS SHALL BE FURNISHED AND DELIVERED TO THE ENGINEER..
F2	LITHONIA, AF SERIES; DAYBRITE, IF SERIES OR EQUAL.	1- 32 W T8	CEILING MOUNTED FLUORESCENT FIXTURE 4' LONG WITH TWO 32-WATT T8 LAMPS, I20-VOLT COLD WEATHER ELECTRONIC BALLAST AND WHITE ENAMEL RIBBED REFLECTOR, COMPLETE WITH END PLATES.
F3	LITHONIA, AF SERIES; DAYBRITE, IF SERIES OREQUAL.	2- 32 W T8	CEILING MOUNTED FLUORESCENT FIXTURE 4' LONG WITH TWO 32-WATT T8 LAMPS, I20-VOLT COLD WEATHER ELECTRONIC BALLAST AND WHITE ENAMEL RIBBED REFLECTOR, COMPLETE WITH END PLATES.
F4	LITHONIA, AVSM SERIES; LAMAR LIGHTING COMPANY, VG SERIES; OR EQUAL.	2- 32 W T8	CEILING MOUNTED ARCHITECTURAL, DIRECT/INDIRECT WIDE BEAM DIFFUSER, FLUORESCENT FIXTURE 4' LONG WITH TWO 32-WATT T8 LAMPS, I20-VOLT COLD WEATHER ELECTRONIC BALLAST, LOW-PROFILE CONSTRUCTION, AND SUITABLE FOR TASK LIGHTING. HOUSING SHALL BE RUGGED STEEL HOUSING, AND REFLECTORS SHALL BE FINISHED WITH HIGH-REFLECTANCE WHITE PAINT
F5	LITHONIA LIGHTING, VSLC SERIES; LAMAR LIGHTING, SLP SERIES; OR EQUAL.	F32 WATT T8 LAMP, CRI 85+, RATED AT 3,100 INITIAL LUMENS	SURFACE MOUNTED FLUORESCENT EXTERIOR WET LOCATION FIXTURE WITH ONE, 32WATT T8 LAMP, ELECTRONIC COLD TEMPERATURE RATED BALLAST (STARTING LAMP TO 0 DEGREE F), HEAVY DUTY COLD ROLLED STEEL HOUSING, 277 VOLT, AC OPERATION, AND INJECTION MOLDED UV-STABILIZED CLEAR PRISMATIC POLYCARBONATE LENS SECURED WITH TAMPER RESISTANT SCREWS.
F6	MCGRAW-EDISON, CWS SERIES; TERON LIGHTING INC, TALON W SERIES; OR EQUAL.	26 WATT CFL, RATED AT 1,800 INITIAL LUMENS	SURFACE MOUNTED FLOURESCENT EXTERIOR, WET LOCATION WALL SCONCE DOWNLIGHT FIXTURE WITH ONE, 26 WATT CFL LAMP, ELECTRONIC BALLAST, DIE CAST ALUMINUM HOUSING, TEMPERED GLASS LENS, 277 VOLT, AC OPERATION AND DARK BRONZE POWDER COAT FINISH.
F7	HUBBELL OUTDOOR LIGHTING, LFS SERIES; TRACE-LITE, TL201 SERIES; OR EQUAL.	26 WATT CFL, RATED AT 1,800 INITIAL LUMENS	SURFACE MOUNTED FLOURESCENT EXTERIOR, WET LOCATION FULLY SEALED, COMPACT FLOOD LIGHT FIXTURE WITH ONE, 26 WATT CFL LAMP, ELECTRONIC BALLAST, WIDE FLOOD LIGHT DISTRIBUTION, DIE CAST ALUMINUM HOUSING, 1/2" NPT ADJUSTABLE KNUCKLE MOUNT, GLASS LENS, 277 VOLT, AC OPERATION AND DARK BRONZE POWDER COAT FINISH.
F8	MCGRAW-EDISON, BSL SERIES; SPJ LIGHTING, SPJ-SQ12 SERIES; ARCHITECTURAL AREA LIGHTING, TPS-OL; OR EQUAL.	26 WATT CFL, RATED AT 1,800 INITIAL LUMENS	42 INCH HIGH, SQUARE (8 INCH MINIMUM) CONCRETE BOLLARD WITH PYRAMDAL TOP, ONE 26 WATT CFL LAMP, ELECTRONIC BALLAST, FUSED, 277 VOLT, AC OPERATION, ACRYLIC LENS, AND NATURAL GREY CONCRETE FINISH. BOLLARD SHALL COME WITH ALL MOUNTING BOLTS AND FOUNDATION AS REQUIRED FOR OPERATION.
F9	LITHONIA, SM SERIES; DAYBRITE, N SERIES OR EQUAL.	1- 32 W T8	STRIP FLUORESCENT FIXTURE 4' LONG WITH ONE 32-WATT T8 LAMP, I20-VOLT COLD WEATHER ELECTRONIC BALLAST AND WHITE BODY FINISH AND ONE-PIECE, ACRYLIC DIFFUSER.
F10	LITHONIA, AERIS FAMILY, ASW SERIES; LSI INDUSTRIES, GREENBRIAR FAMILY, GBWM SERIES; WILLIAMS OUTDOOR LIGHTING, WPCV SERIES; OR EQUAL.	42 WATT CFL	WALL MOUNTED FLOURESCENT EXTERIOR, WET LOCATION FULLY SEALED, COMPACT FLOOD LIGHT FIXTURE WITH ONE, 42 WATT CFL LAMP, ELECTRONIC HIGH FREQUENCY BALLAST, DIE CAST ALUMINUM HOUSING, TEMPERED GLASS LENS, I20 VOLT, AC OPERATION AND DARK BRONZE POWDER COAT FINISH.
F11	REBELLE, I572 SERIES; WILLIAMS OUTDOOR LIGHTING, SWJ SERIES OR EQUAL.	26 WATT QUAD CFL RATED AT A MINIMUM OF 1700 INITIAL LUMENS	OUTDOOR RECESSED STEP LIGHT, SUITABLE FOR EMBEDDING IN CONCRETE, WITH ONE 26 WATT CFL LAMP, ELECTRONIC BALLAST, CAST ALUMINUM BOX, ALUMINUM REFLECTOR, TEMPERED AND SEALED GLASS LENS, GASGETTED FACE PLATE, WITH JUNCTION BOX. SHALL COME WITH ALL MOUNTING HARDWARE NEEDED FOR EMBEDDED IN CONCRETE WALL INSTALLATION.
MH1	KIM LIGHTING, AR5 SERIES; US ARCHITECTURAL LIGHTING, AEROLUME SERIES; OR EQUAL.	250 WATT CLEAR, PULSE START MH ED 28 LAMP IN THE HORIZONTAL POSITION, RATED AT 22,000 INITIAL LUMENS	ARCHITECTURAL CUTOFF LUMINAIRE WITH HIGH EFFICIENCY REFLECTOR SYSTEM, TYPE II LIGHT DISTRIBUTION, DIE CAST ALUMINUM HOUSING, LENS FRAME AND GLASS LENS. FIXTURE SHALL COME WITH HARDWARE TO MOUNT TO SQUARE POLE, BE VANDAL RESISTANT, HAVE A DARK BRONZE POWDER COAT FINISH, AND OPERATE AT 277 VOLT, AC. FIXTURE POLES SHALL BE 20 FOOT HIGH, SQUARE TAPERED HIGH TENSILE STRENGTH CARBON STEEL WITH ANCHOR BASE. POLE SHALL COME WITH HANDHOLE AND COVER, GROUNDING NUT, ANCHOR BOLTS AND HAVE A POLYESTER POWDER COAT FINISH.
MH2	KIM LIGHTING, SAR5 SERIES; US ARCHITECTURAL LIGHTING, MINI-AEROLUME SERIES; OR EQUAL.	100 WATT CLEAR, MH ED 17 MEDIUM BASE LAMP, HORIZONTAL POSITION, RATED AT 8,800 INITIAL LUMENS	SMALL ARCHITECTURAL CUTOFF LUMINAIRE WITH DIE CAST ALUMINUM REFLECTOR SYSTEM WITH HIGH SPECULAR PANELS, TYPE V LIGHT DISTRIBUTION, DIE CAST ALUMINUM HOUSING, LENS FRAME, AND GLASS LENS. FIXTURE SHALL COME WITH HARDWARE TO MOUNT TO SQUARE POLE, BE VANDAL RESISTANT, HAVE A DARK BRONZE POWDER COAT FINISH, AND OPERATE AT 277 VOLT, AC. FIXTURE POLES SHALL BE 15 FOOT HIGH, SQUARE HIGH TENSILE STRENGTH CARBON STEEL WITH ANCHOR BASE. POLE SHALL COME WITH HANDHOLE AND COVER, GROUNDING NUT, ANCHOR BOLTS AND HAVE A POLYESTER POWDER COAT FINISH.
MH3	US ARCHITECTURAL LIGHTING, CAT # OV2-PG-V-70MH; ARCHITECTURAL AREA LIGHTING, CAT # UCM-SR-STR-GR5-70MH-DBZ; OR EQUAL. *	70 WATT CLEAR, MH ED 17 MEDIUM BASE LAMP, VERTICAL POSITION, RATED AT 5,600 INITIAL LUMENS	ARCHITECTURAL LANTERN TYPE PENDANT MOUNT FIXTURE WITH 8 INCH DIAMETER MAIN BODY OF DIE CAST ALUMINUM WITH GASKETED SEALED TYPE 5 GLASS REFRACTOR LENS, SOLID RINGS AROUND THE MAIN BODY, 16" DIAMETER (MINIMUM) STRAIGHT HOOD WITH WHITE INTERIOR REFLECTOR. THE FIXTURE SHALL HAVE A DARK BRONZE POWDER COAT FINISH AND OPERATE AT 277 VOLT, AC. FIXTURE POLE SHALL BE 15 FOOT HIGH, SQUARE HIGH TENSILE STRENGTH CARBON STEEL POLE WITH HAND HOLE AND COVER, GROUNDING NUT, ANCHORS BOLTS ANCHOR BASE. POLE SHALL COME WITH MOUNTING ARM, SUPPORT, AND ALL NECESSARY HARDWARE FOR MOUNTING ON THE POLE. ALL POLE, ARM AND ASSOCIATED MATERIALS SHALL HAVE A DARK BRONZE POLYESTER POWDER COAT FINISH. SEE DETAIL 6 ON SHEET EEO-9 FOR MORE INFORMATION.

\* SHALL COME WITH POLE, MOUNTING ARM AND ALL ASSOCIATED HARDWARE FOR INSTALLATION.

**CALIFORNIA STATE FIRE MARSHAL APPROVED**

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Reviewed by: *Sandy Margullis*  
SANDY MARGULLIS  
Approval date: 12-1-09

*General note:*  
Lighting fixtures shall be tandemly wired at location as shown on the lighting plan sheets.

DESIGN	BY	Tommy Lee	CHECKED	Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	56R0003R	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EEO-10			
	DETAILS	BY	Dall Zhou	CHECKED			Jesse S. Sandhu	POST MILE			22.4		
	QUANTITIES	BY	Tommy Lee	CHECKED			Jesse S. Sandhu	LIGHTING FIXTURE SCHEDULE					
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF

DOES SD Imperial Rev. 1/07

16-AUG-2010 09:02

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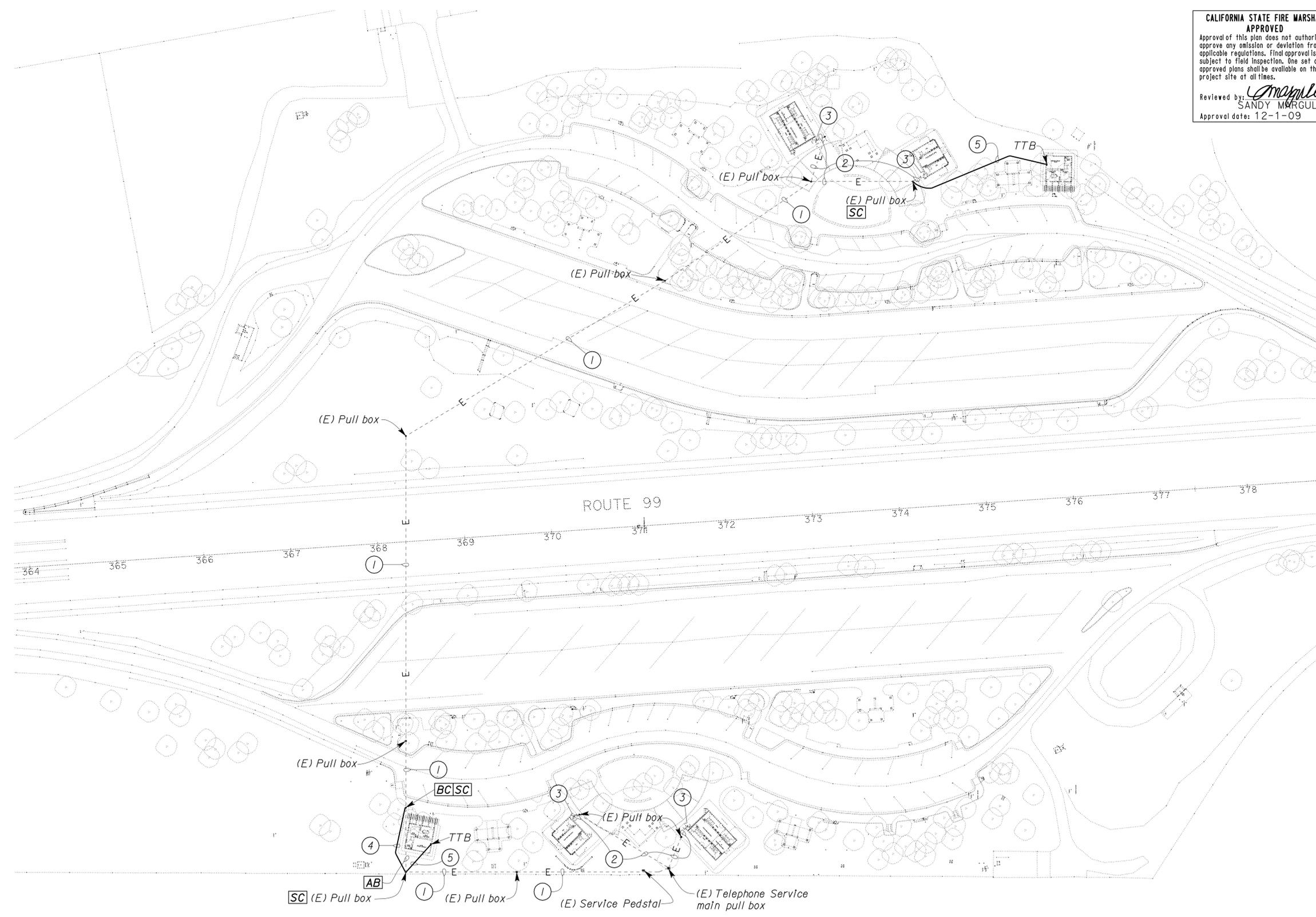
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	295	335

**CALIFORNIA STATE FIRE MARSHAL APPROVED**  
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 Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

*Tommy F. Lee* 12-22-09  
 REGISTERED ELECTRICAL ENGINEER DATE  
 8-9-10  
 PLANS APPROVAL DATE



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- Notes:**
- ① (E) 2" PVC, telephone cable.
  - ② (E) 1" PVC, telephone cable.
  - ③ (E) Public telephone station
  - ④ 2" PVC, Install telephone cable
  - ⑤ 1" PVC, telephone cable

**SITE PLAN**  
 SCALE 1" = 60'-0"

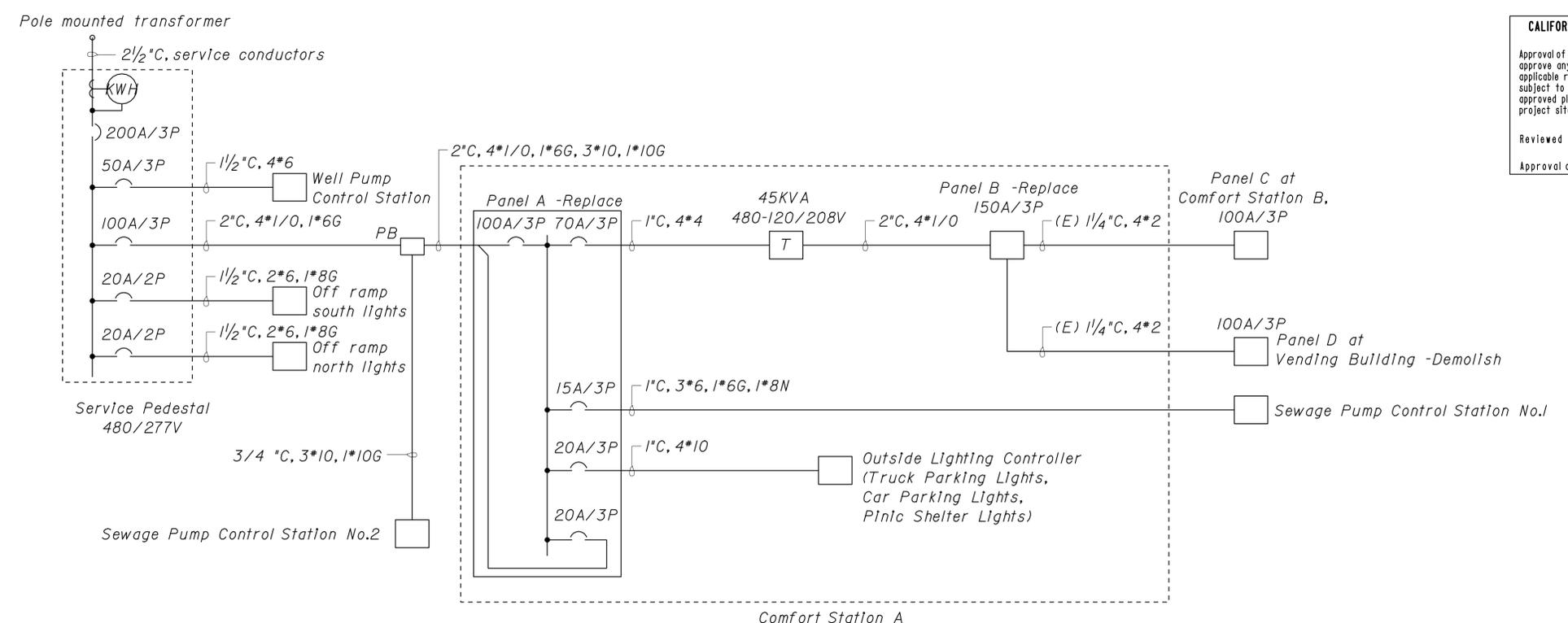
DOES SD Imperial Rev. 1/07	DESIGN	BY <i>Tommy Lee</i>	CHECKED <i>Jesse S. Sandhu</i>	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 56R0003R 56R0003L	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-11
	DETAILS	BY <i>X</i>	CHECKED <i>Jesse S. Sandhu</i>			POST MILE 22.4		
	QUANTITIES	BY <i>Tommy Lee</i>	CHECKED <i>Jesse S. Sandhu</i>	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF

16-AUG-2010 09:02 ee0\_11.dgn

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 Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

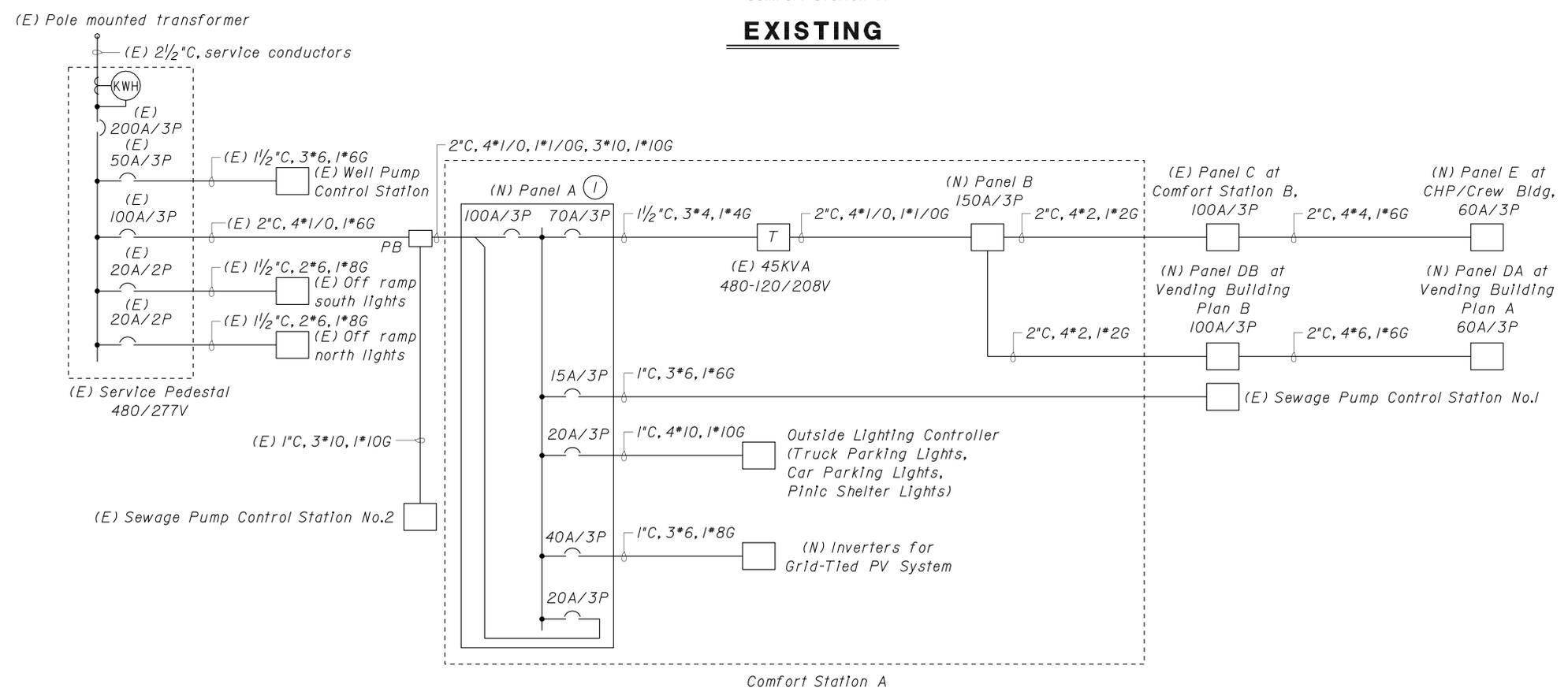
*Tommy F. Lee* 06-03-10  
 REGISTERED ELECTRICAL ENGINEER DATE  
 No. 18534  
 Exp. 12-31-10  
 ELEC  
 STATE OF CALIFORNIA



Comfort Station A  
**EXISTING**

Note:  
 (1) Connect existing conduit and conductors as required for operation.

General Note:  
 A. Identify and label all existing panel and motor feeder conductors prior to any electrical work. Phase sequence of each Panel and rotation direction of all motors shall be the same after work as prior to work.



Comfort Station A  
**MODIFIED**

DESIGN	BY Tommy Lee	CHECKED Jesse S. Sandhu
DETAILS	BY Dall Zhou/TFL	CHECKED Jesse S. Sandhu
QUANTITIES	BY Tommy Lee	CHECKED Jesse S. Sandhu

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

BRIDGE NO. 56R0003R 56R0003L  
 POST MILE 22.4  
**PHILIP RAINE SAFETY ROADSIDE REST AREA**  
 SINGLE LINE DIAGRAM - NORTHBOUND

SHEET **EE0-12** OF

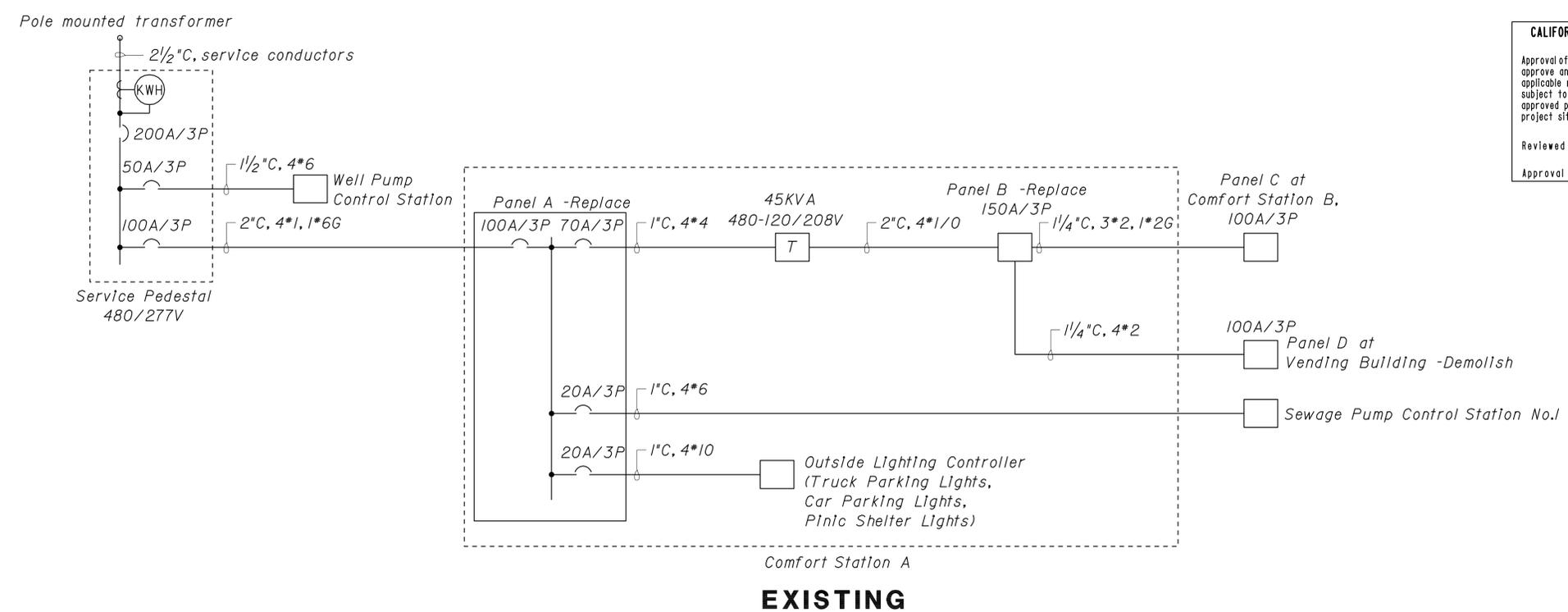
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	297	335

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 Reviewed by: *Sandy Morgullis*  
 SANDY MORGULLIS  
 Approval date: 12-1-09

*Tommy F. Lee* 06-03-10  
 REGISTERED ELECTRICAL ENGINEER DATE  
 8-9-10  
 PLANS APPROVAL DATE

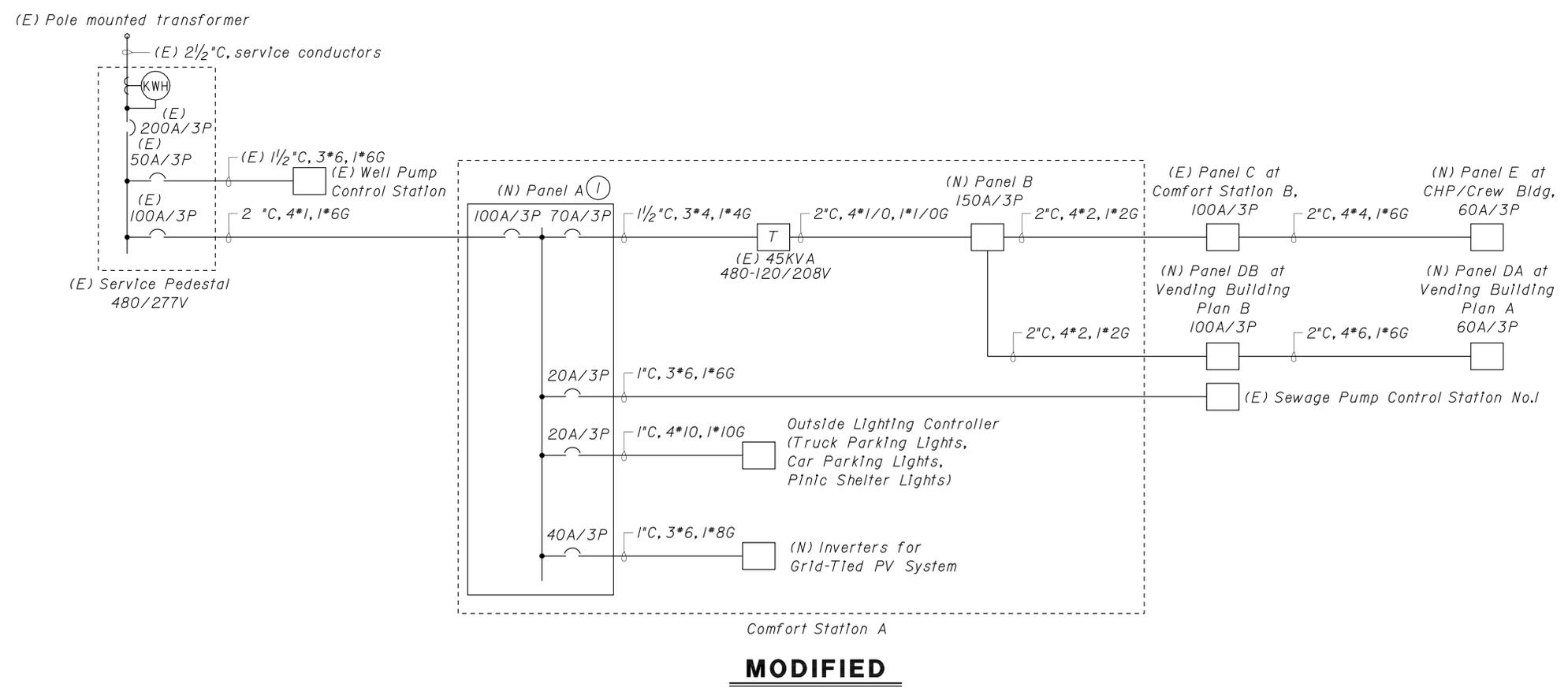


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Note:  
 ① Connect existing conduit and conductors as required for operation.

General Note:  
 A. Identify and label all existing panel and motor feeder conductors prior to any electrical work. Phase sequence of each Panel and rotation direction of all motors shall be the same after work as prior to work.



DESIGN	BY	Tommy Lee	CHECKED	Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO. 56R0003R 56R0003L POST MILE 22.4	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE0-13	
	DETAILS	BY	Dall Zhou/TFL	CHECKED						Jesse S. Sandhu
	QUANTITIES	BY	Tommy Lee	CHECKED						Jesse S. Sandhu
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	CU 06340 EA 0A9701	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
									1/22/09 4/22/09 4/24/09 12/22/09 6/3/10	

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	298	335

Tommy F. Lee  
 REGISTERED ELECTRICAL ENGINEER  
 No. 18534  
 Exp. 12-31-10  
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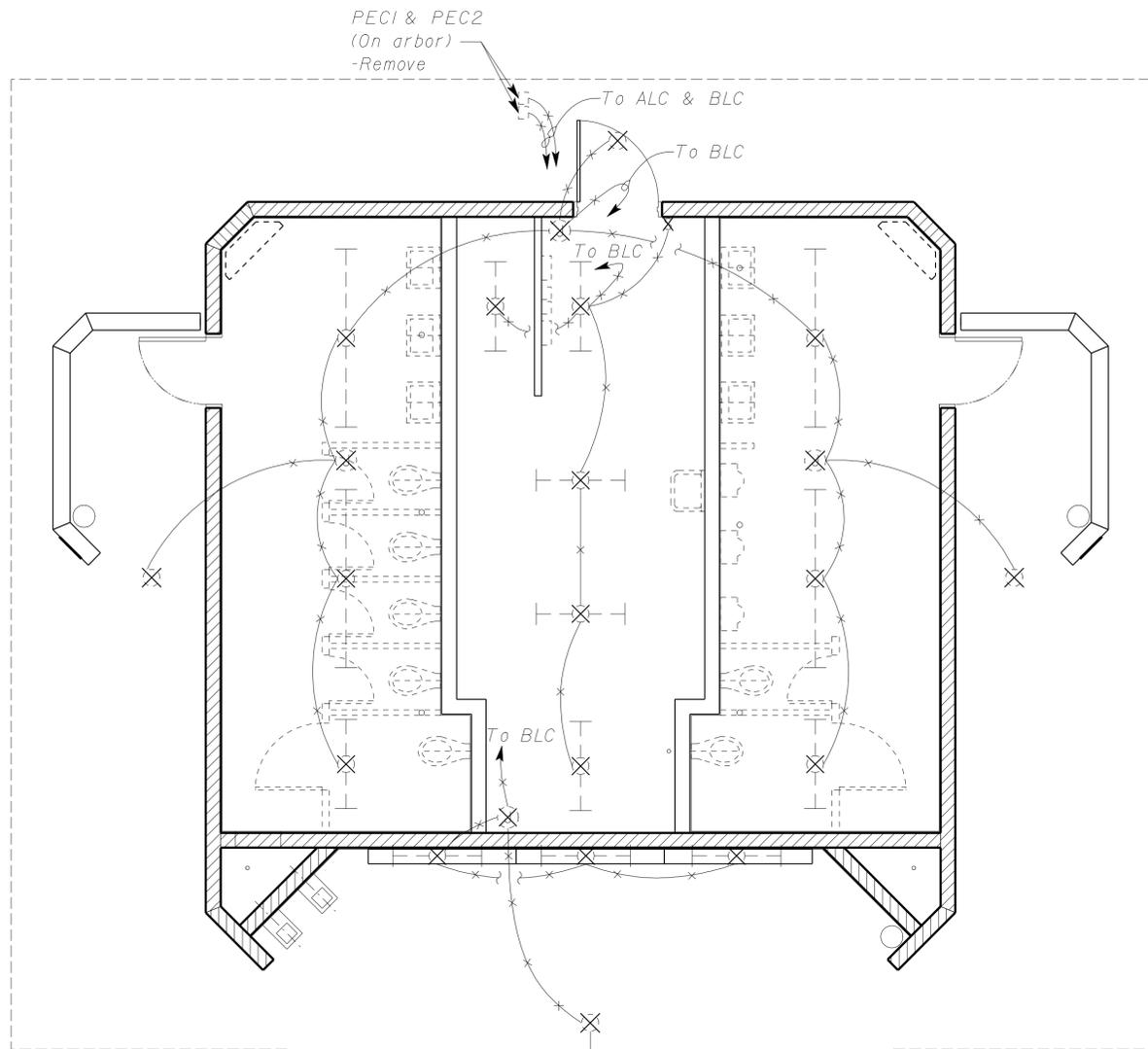
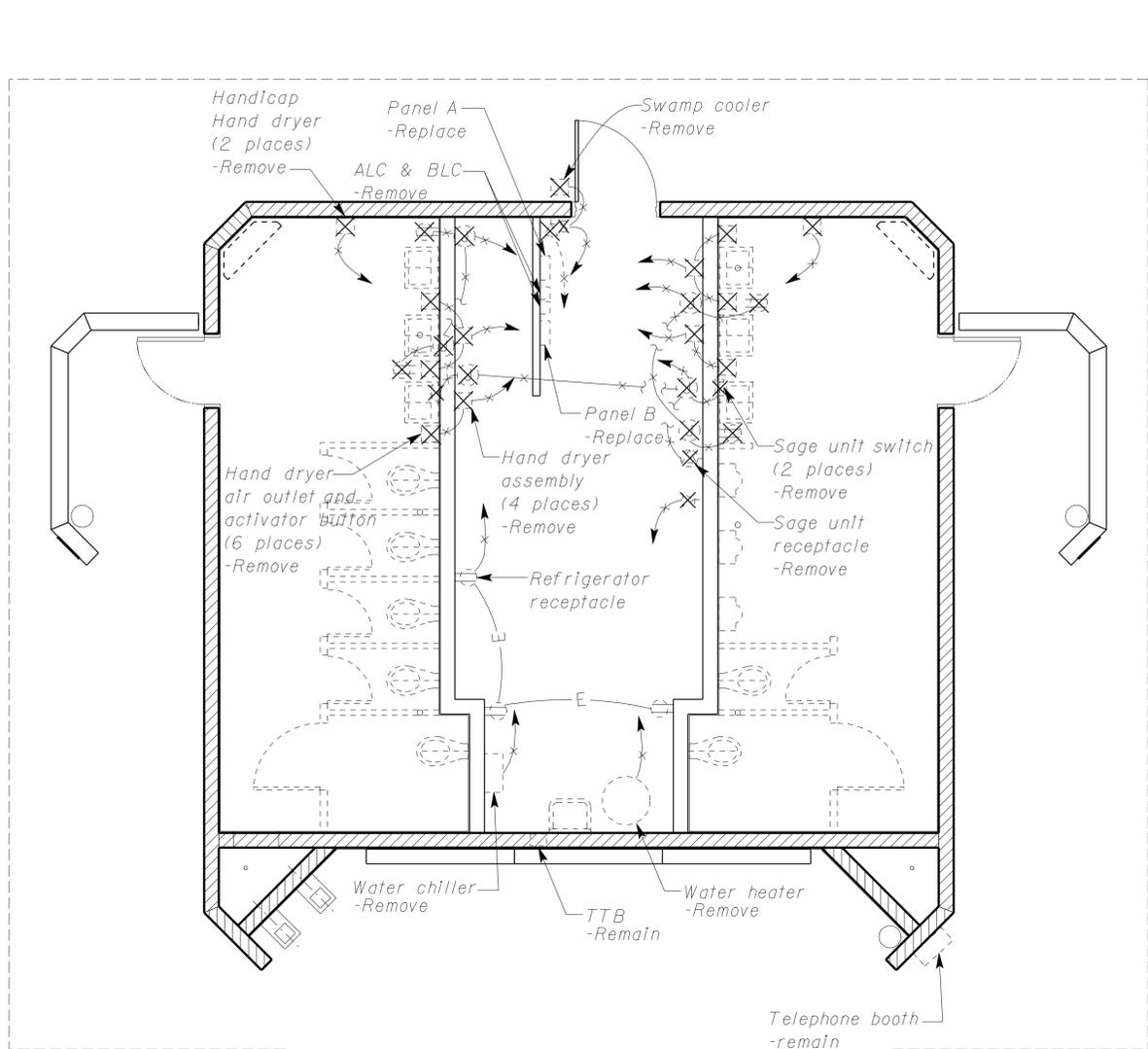
12-22-09  
 DATE

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**APPROVED**  
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Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09



**POWER**



**PLAN**

1/4" = 1'-0"

**LIGHTING**

General notes:  
 A. Remove existing infrared sensors and transformers from existing lavatory faucets.

DOES SD Imperial Rev. 1/07	DESIGN	BY Tommy Lee	CHECKED Jesse S. Sandhu	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE NO.	PHILIP RAINE SAFETY ROADSIDE REST AREA	SHEET EE1-1
	DETAILS	BY X	CHECKED Jesse S. Sandhu			56R0003R		
QUANTITIES	BY Tommy Lee	CHECKED Jesse S. Sandhu	56R0003L			POST MILE 22.4		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	CU 06340 EA 0A9701	REVISION DATES (PRELIMINARY STAGE ONLY)		SHEET OF
						12/18/08 1/15/09 4/24/09 12/22/09		

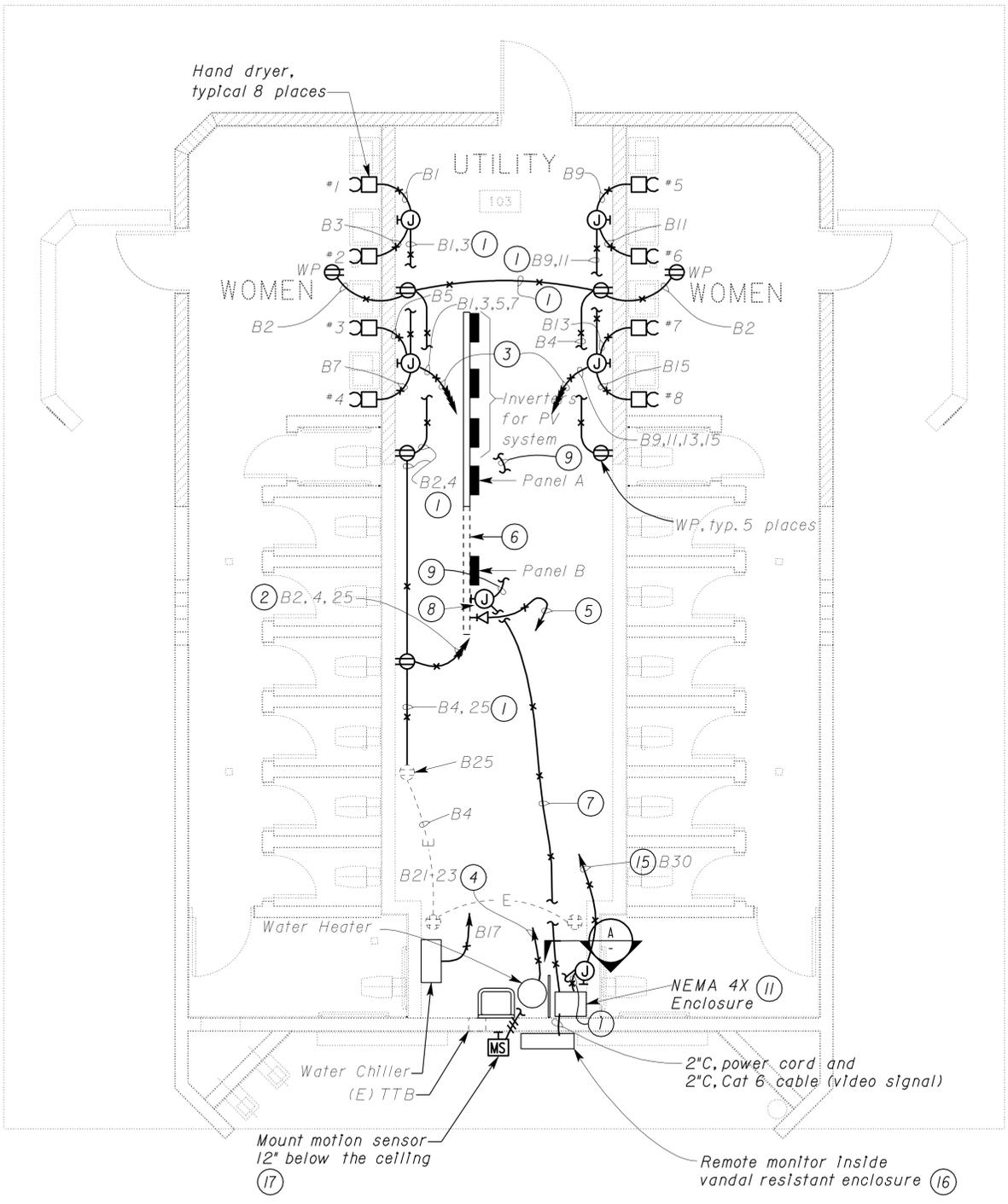
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	299	335

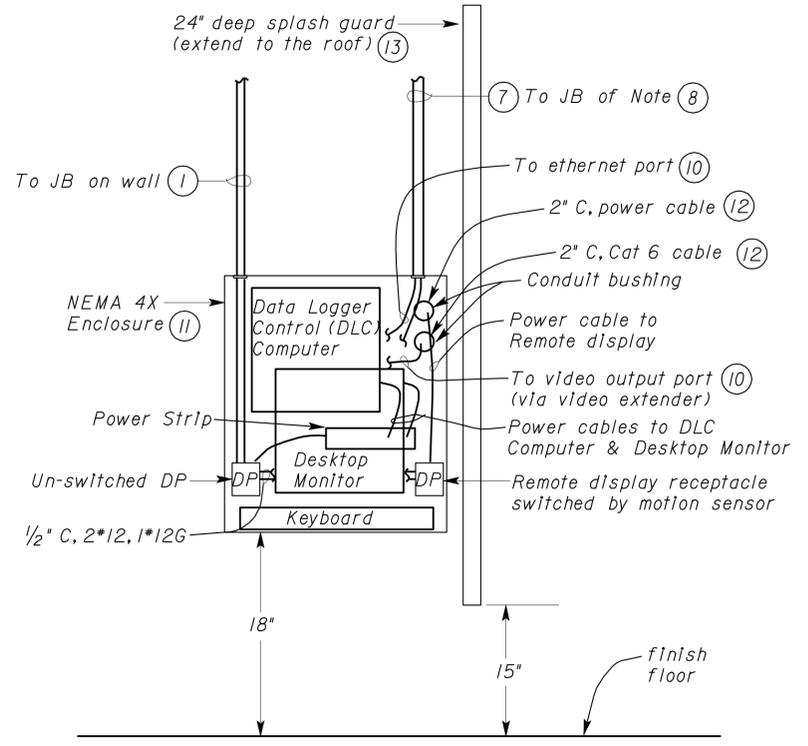
  

<b>Tommy F. Lee</b> REGISTERED ELECTRICAL ENGINEER No. 18534 Exp. 12-31-10 ELEC STATE OF CALIFORNIA		12-22-09 DATE
8-9-10 PLANS APPROVAL DATE		
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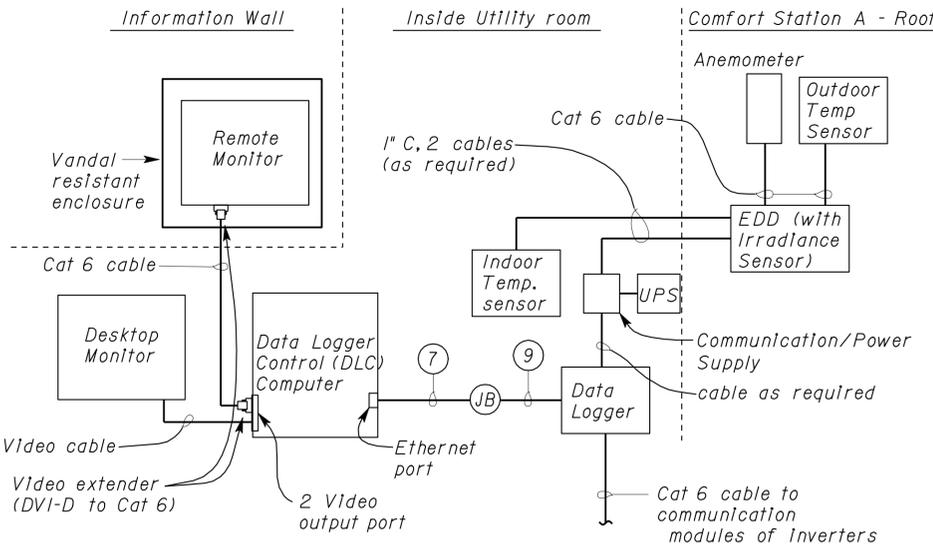
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 Reviewed by: *Sandy Margullis*  
**SANDY MARGULLIS**  
 Approval date: 12-1-09



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



**A ELEVATION**  
 NO SCALE



**DATA LOGGER BLOCK DIAGRAM**

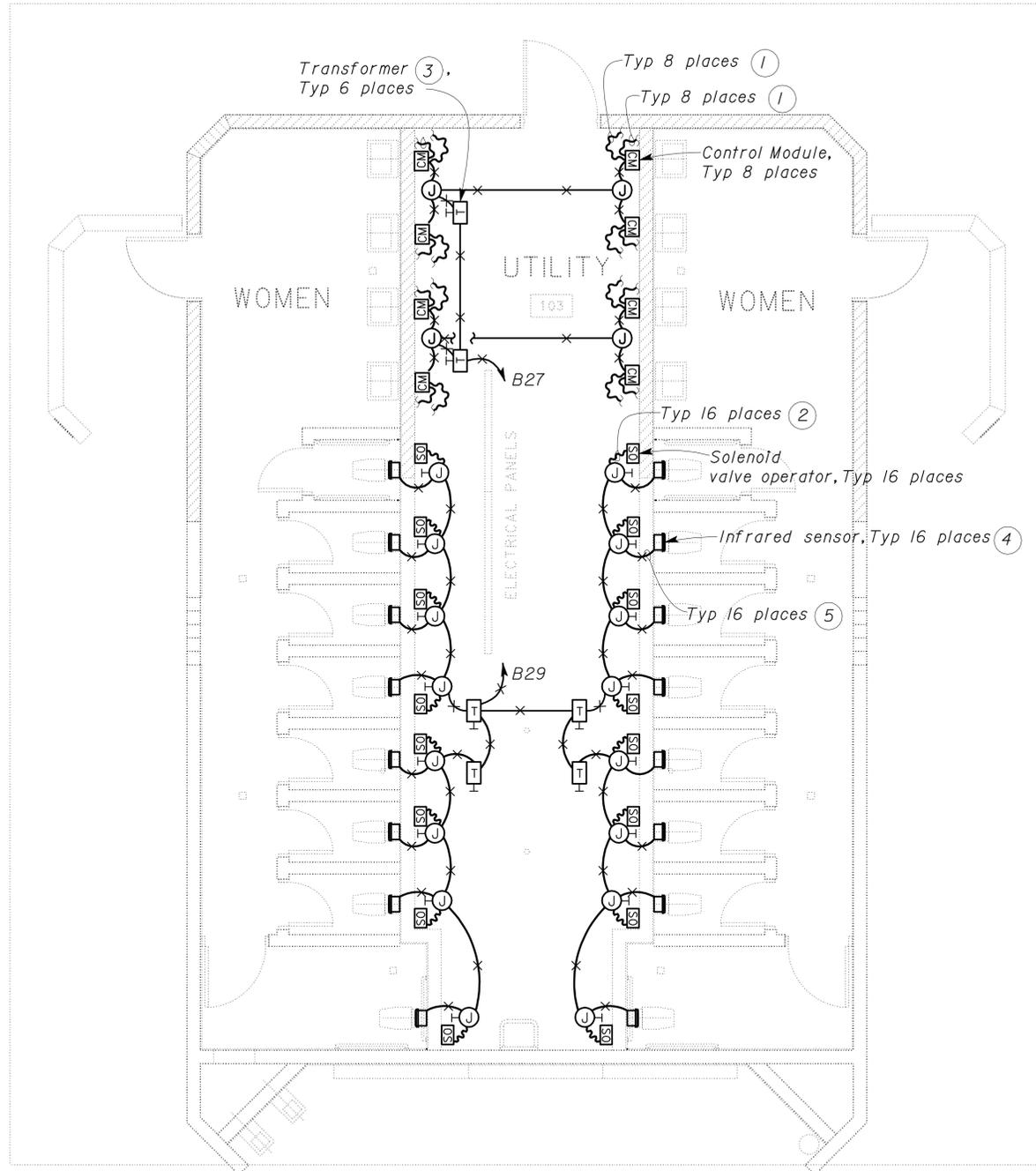
- Notes:**
- 1/2" C, 4\*12, 1\*12G.
  - 1/2" C, 6\*12, 1\*12G.
  - 3/4" C, 8\*12, 1\*12G.
  - 1/2" C, 2\*10, 1\*10G.
  - 1/2" C with Ethernet Category 6 cable to (E) TTB.
  - See modified elevation on sheet EE2-11 for changes to equipment on the wall.
  - 1 1/2" C, Cat 6 cable (future communications) and cable as required for data logger (RS-485 communications).
  - 8 x 8 x 4 JB. Exact location of JB on the wall will be as directed by the Engineer. There shall be 10 feet excess Cat 6 cable coiled up inside the JB for future connection.
  - 1" C, cable to data logger.
  - Provide 5 feet additional of each cable inside the enclosure, install cable connectors, and connect as required for operation.
  - Enclosure shall be 24" x 36" x 18" deep wall mounted. Data logger control computer shall be mounted on a partial shelf and power strip shall be secured to the back of the enclosure as indicated.
  - Drill hole for conduit through this enclosure, the wall and the back of the remote monitor enclosure. Cables connect to remote monitor. Cat 6 cable connects to the monitor via the video extender connector.
  - 24" deep guard shall be mounted to the wall with stainless steel hardware.
  - See Block diagram for connection details of the Data logger, Computer, and associated equipment.
  - 1/2" C, 2\*12, 1\*12G.
  - Install enclosure so the bottom of the viewing window is at 40 inches above finish grade.
  - Motion sensor shall be a 120 volt, AC, line voltage dual (PIR and Ultrasonic) technology, rated for exterior installation device. The device shall be rated to switch a 800 watt load, and not be affected by the lighting level (to switch the load on during the day if motion is detected). The device shall have an adjustable time off setting. The device shall be installed to the cover of a recessed JB on the wall, and commissioned to ensure it turns the outlet on when someone approaches the wall it is mounted on. The sensor shall come with a wire enclosure for protection and all screws used to secure the sensor, junction box cover, and wire gaurd shall be vandal resistant. The contractor shall provide the engineer with 2 tools specific to each type of vandal resistant screw used in the installation.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Tul	99	22.4	300	335

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 Reviewed by: *Sandy Margullis*  
 SANDY MARGULLIS  
 Approval date: 12-1-09

*Tommy F. Lee* 06-03-10  
 REGISTERED ELECTRICAL ENGINEER DATE  
 8-9-10  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 TOMMY F. LEE  
 No. 18534  
 Exp. 12-31-10  
 ELEC  
 STATE OF CALIFORNIA



General Notes:

- A. Install and connect automatic flush system as recommended by the manufacturer.
- B. All devices and accessories for automatic flush system are supplied by water closet, urinal and faucet manufacturers.
- C. Provide and install support systems for supporting armored cable as required.
- D. Transformer supplied by the manufacturer shall be sized adequately to supply all units shown. (Example, 4 water closets powered by one transformer). Contractor has the option of installing one transformer per unit at no extra cost to the State.
- E. Conduits and conductor system as shown is diagrammatic only. Exact system layout shall depend upon the particular automatic flush system installed.
- F. Solenoid valve operators for the lavatory faucets and built-in infrared sensors at the lavatory faucets are not shown for clarity.

Notes:

- ① Armored cable to infrared sensor at the faucet. Install armored cable thru the PVC sleeve. For detail of PVC sleeve, see Architectural sheet, A7-7.
- ② Armored cable to solenoid valve operator.
- ③ Provide and install all hardwares as required for the installation of the low voltage transformer as recommended by the manufacturer. Mount transformer in a surface mounted junction box.
- ④ Mount infrared sensor in a flush mounted junction box at a location recommended by the manufacturer. For details, see Architectural sheet, A7-7.
- ⑤ 1/2" C. conductors as required for operation of infrared sensor and solenoid valve operator.



**PLAN**

1/4" = 1'-0"

DESIGN	BY <i>Tommy Lee</i>	CHECKED <i>Jesse S. Sandhu</i>
DETAILS	BY <i>Tommy Lee</i>	CHECKED <i>Jesse S. Sandhu</i>
QUANTITIES	BY <i>Tommy Lee</i>	CHECKED <i>Jesse S. Sandhu</i>

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

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

BRIDGE NO.  
 56R0003R  
 56R0003L  
 POST MILE  
 22.4

**PHILIP RAINE SAFETY ROADSIDE REST AREA**  
 MODIFIED COMFORT STATION A - POWER 2

SHEET  
**EE1-3**