

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
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 REVISIONS
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 11 12/01 PG



DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
04	SF	80	13.2/13.9		105 R2	1204

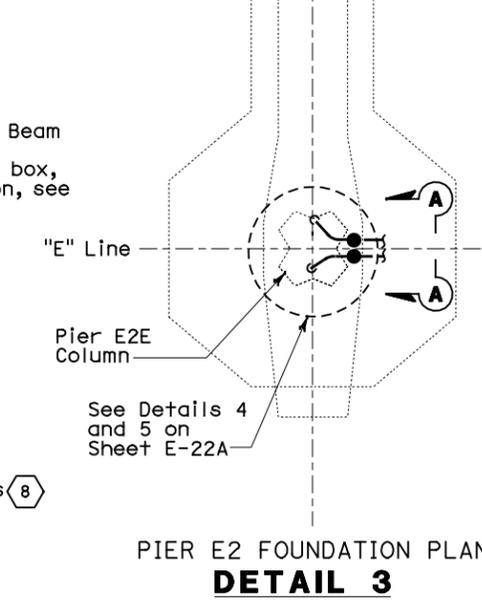
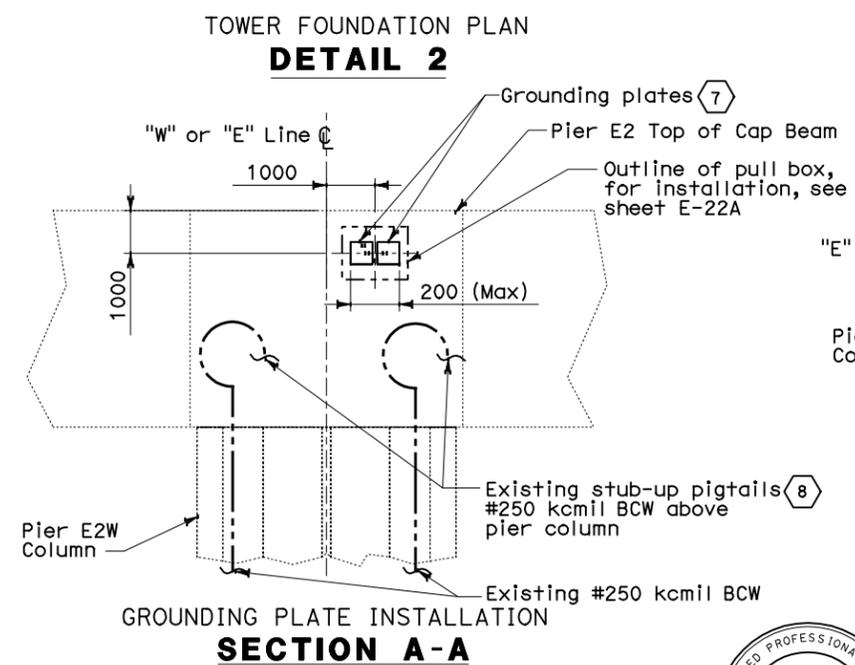
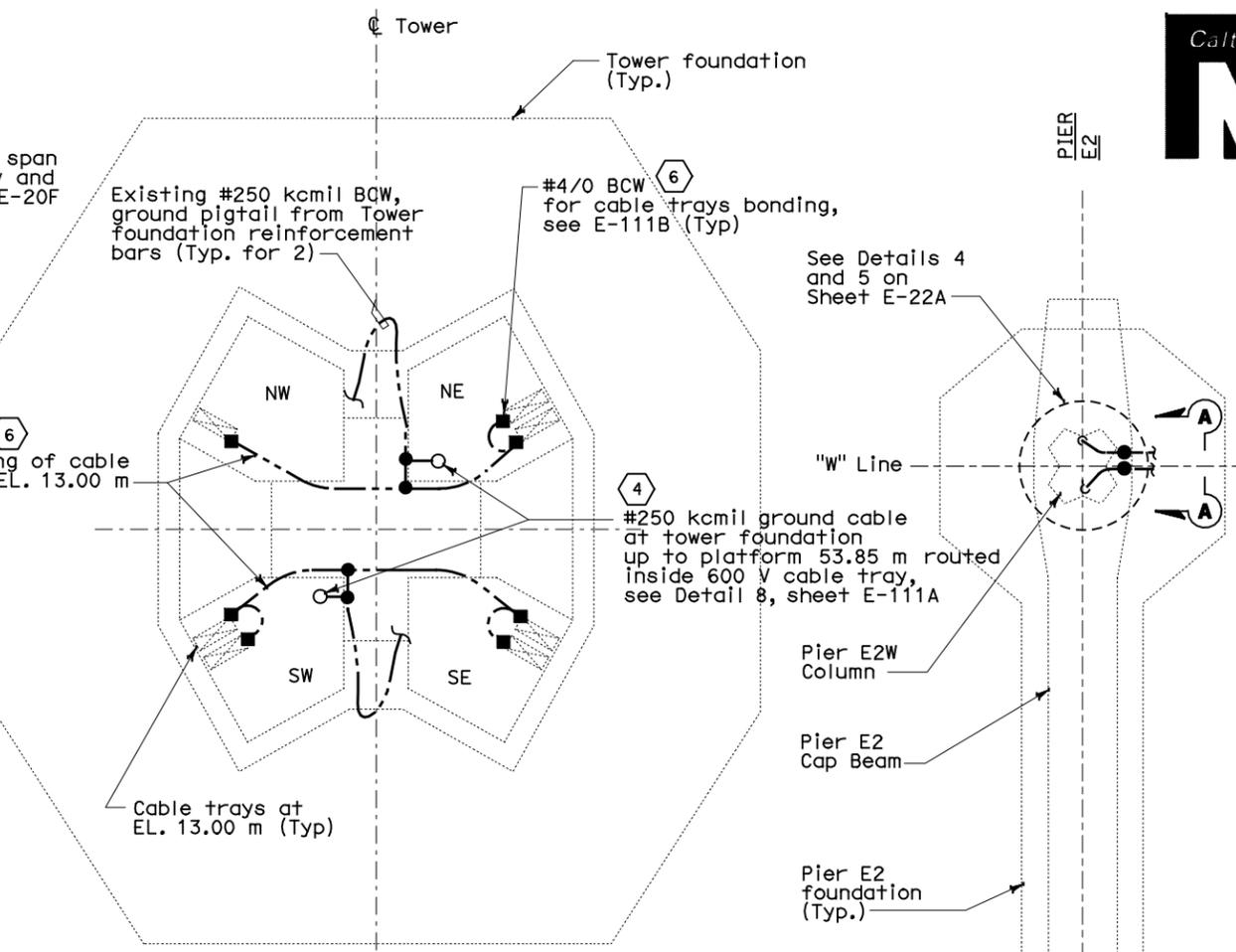
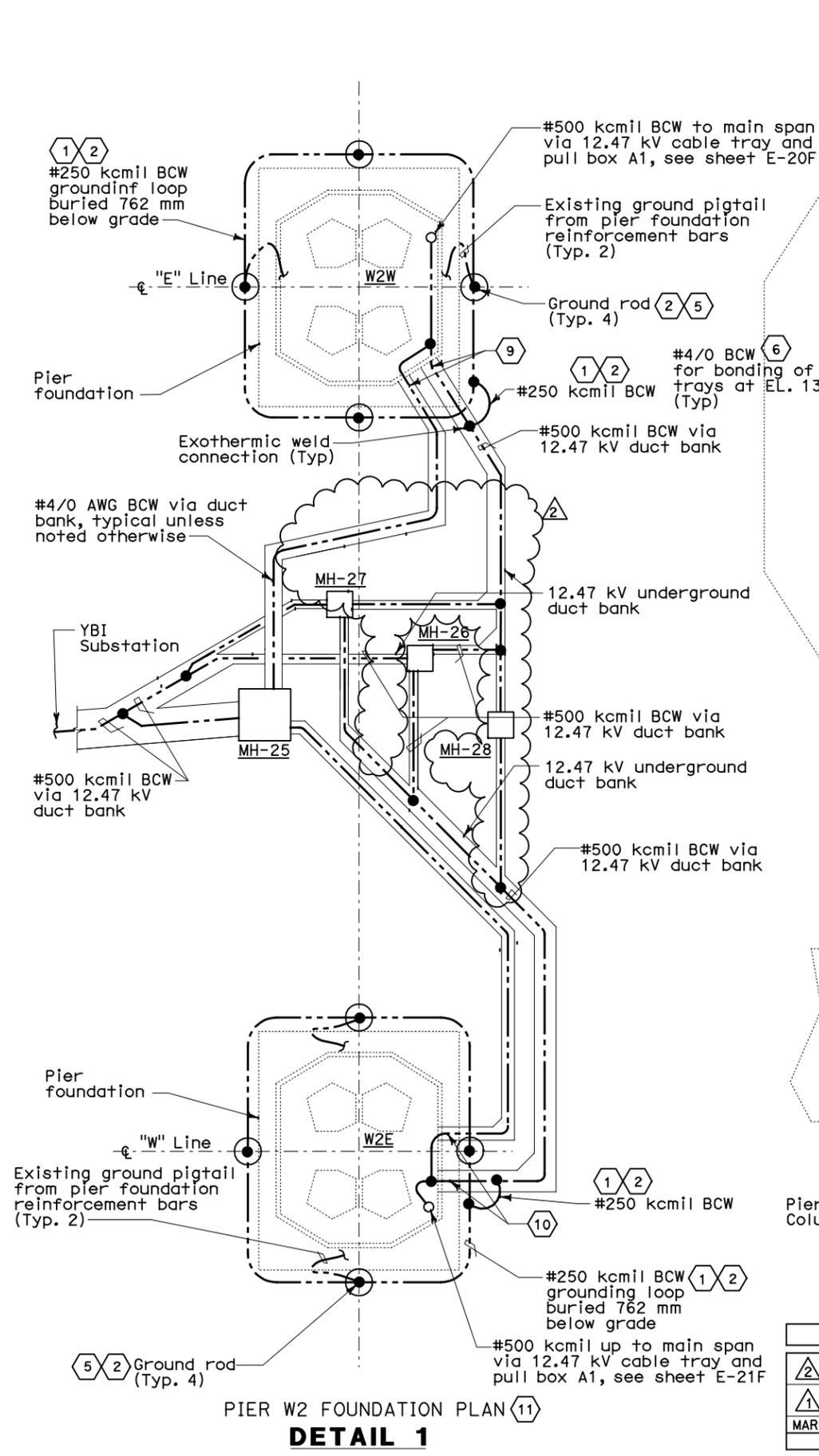
REGISTERED ELECTRICAL ENGINEER
 JENS ERLINGSSON
 No. 8249
 Exp. 9/30/06
 ELECTRICAL
 STATE OF CALIFORNIA

12-6-04
 PLANS APPROVAL DATE

PB AMERICAS, Inc.
 A Parsons Brinckerhoff Company
 303 Second St., Suite 700N
 San Francisco, CA 94107-1317

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- SHEET NOTES:**
- 1 Tie the underground duct bank #500 kcmil Bare Copper Wire (BCW) system grounding conductor to the W2E and W2W pier foundations. See W2 contract 04-0120C4 for limited scope of work.
 - 2 Route the #250 kcmil grounding conductors around the W2W and connect to the new grounding rods. This grounding loop shall be exothermically connected to the #500 kcmil main ground conductor at the pier. This is typical for pier W2E.
 - 3 Not used.
 - 4 Main tower foundation ground conductors shall be routed vertically up to platform 53.85 m via 600V cable trays inside SW and NE tower quadrants and tied exothermically to the #500 kcmil main ground conductor.
 - 5 Ground rod shall be copper clad, 19 mm diameter and 3048 mm long.
 - 6 Bond all the cable trays to the ground loop at Tower elevation 13 m.
 - 7 Install two grounding plates, Thermoweld Type CR-27 Cat. #38-4533-6B or equal (sized for #250 kcmil BCW with 305mm pigtail). Grounding plates shall be embedded at east face side of the pier E2 cap beam.
 - 8 For connection of stub-up #250 kcmil BCW to grounding plates, see sheet E-22A.
 - 9 See Detail 1, sheet E-22B for grounding installation through pier pit wall.
 - 10 See Detail 2, sheet E-22B for grounding installation through pier pit wall.
 - 11 Pier grounding system must be verified and tested for ground resistance prior to tie-in to #500 kcmil main ground conductor. Perform tests, by the fall-of-potential method according to IEEE-81. Contractor shall submit a test plan and procedure for Engineer's approval. Test results shall be submitted to the Engineer for evaluation and approval.

REQUEST FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D CCO#
2	07/20/11	W2 DUCT BANKS REINFORCEMENT	TW	RG 205
1	11/20/09	ELECTRICAL GROUNDING	RR AWG	RG FE 75

CONTRACT CHANGE ORDER NO. _____
 SHEET _____ OF _____

REGISTERED PROFESSIONAL ENGINEER
 FADI WALIEDDINE
 No. 11465
 Exp. 12/31/2009
 ELECTRICAL
 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
 DAVID H. OTO
 No. 10699
 Exp. 06/30/2013
 ELECTRICAL
 STATE OF CALIFORNIA

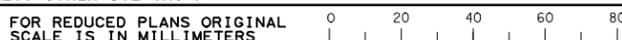
FOR REVISION ONLY FOR REVISION ONLY

ORIGINAL SHEET SUPERCEDED

DETAILS UNDERGROUND FOUNDATION GROUNDING
 NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN



DGN FILE => 04-0120f1_0105R02.dgn
 USERNAME => ilorico

DATE PLOTTED => 21-JUL-2011
 TIME PLOTTED => 16:49
 LAST REVISION 00-00-00