DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Ala,CC	24,260	R5.9/R6.2,R0.0/R0.5, R0.9/R1.9	27	100

REGISTERED ELECTRICAL ENGINEER — 02-26-08 DATE

REGISTERED PROFESSIONAL ENGINEER ROBERT J. FEE No. E-13014 Exp. 6/30/09 ELEC STATE OF CALIFORNIA

11-24-08
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.

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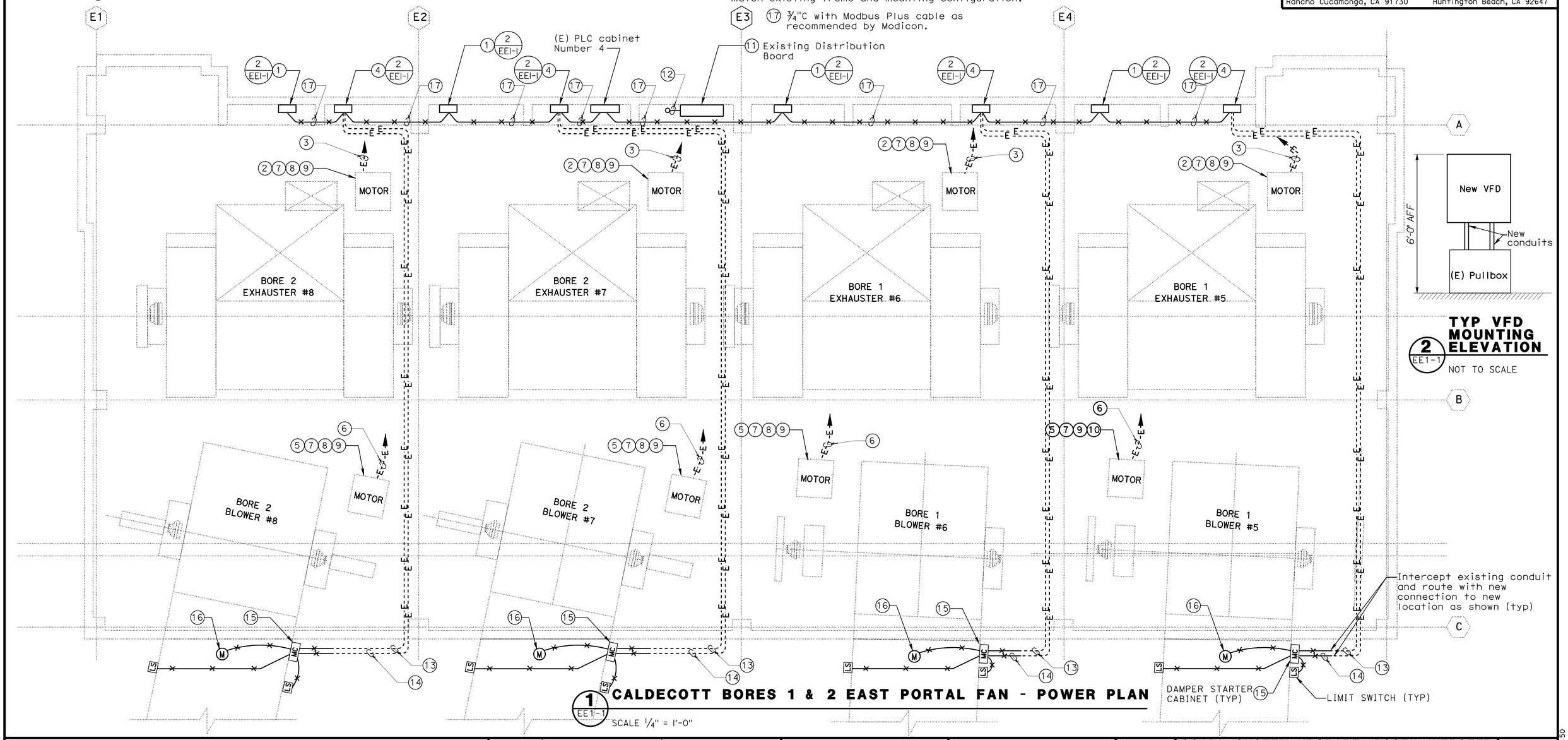
CALDECOTT 1 & 2 - SHEET NOTES:

1. Replace the existing 60 Hp, 2-speed Exhaust Fan Starter with VFD.
2. Replace the existing 60 Hp, 2-speed Exhaust Fan Motor with new 404 frame, 60 Hp, 460 V, 3 Phase, 1800 RPM base, inverter rated motor.
3. Replace existing feeder with new 3 #1 and 1 #6 Ground in existing conduit.
4. Replace the existing 40 Hp, 2-speed Blower Fan Motor with new 324 frame, 40 Hp, 460 V, 3 Phase, 1800 RPM base, inverter rated motor.
5. Replace the existing 40 Hp, 2-speed Blower Fan Starter with VFD.
6. Replace existing feeder with new 3 #2 and 1 #6 Ground in existing conduit.
7. Provide new couplings for all new motors.
8. Align new motors in existing bases to coupling manufacturer's specification.
9. Provide new liquid tight flex for final connection to new motor.
10. Provide adjustable base similar to Detail No.2 Drawing EE2-2 for new 324 frame motor, except with C5x9 Channel and 2½" adjustment base. Align motor per Note 8.
11. Existing 480 volt, 3 phase distribution board. Disconnect and remove feeder to existing capacitors, replace breaker with new 40 A, 3 pole unit to feed panel board, see note 12 and sheet EE1-3.
12. New 1" conduit with 4 #8 up to new MPZEX1 on roof.
13. Run new 4 #12 conductors in existing conduit to feed new starter from 20 A, 3 pole breaker in VFD for damper power.
14. Run 10 #14 (includes spares) in existing conduits to PLC cabinet via VFD for damper control and limit switch connections.
15. Replace existing damper starter cabinet with new NEMA size 0, 460 V, 3 Phase, reversing combination starter in NEMA 12 enclosure.
16. Replace existing motor with new 2 Hp, 1200 RPM, 480 volt, 3 phase brake motor, match existing frame and mounting configuration.
17. ¾"C with Modbus Plus cable as recommended by Modicon.



2 EE1-1 **TYP VFD MOUNTING ELEVATION**
NOT TO SCALE

1 EE1-1 **CALDECOTT BORES 1 & 2 EAST PORTAL FAN - POWER PLAN**
SCALE ¼" = 1'-0"

	BY	CHECKED
DESIGN	G. MARAVILLA	R. FEE
DETAILS	G. MARAVILLA	R. FEE
QUANTITIES	G. MARAVILLA	R. FEE

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

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

CU 04220
EA 1A4604

BRIDGE NO. VARIES
POST MILE VARIES

SCADA SYSTEM UPGRADE: POSEY/WEBSTER STREET TUBES AND CALDECOTT TUNNEL
CALDECOTT BORES 1 & 2
EAST PORTAL FAN ROOM - POWER PLAN

SHEET **EE1-1**

DOES SD Imperial Rev. 1/07

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 22 OF 95

26-NOV-2008 10:50

ee1-1.dgn