

REVISIONS:


**GOLDEN VALLEY**  
ENGINEERING & SURVEYING

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FLOOR PLAN FOR  
**BACKUP GENERATOR**  
INFORMATION SYSTEMS COMPUTER ROOM  
CITY OF MERCED  
CALIFORNIA

PREPARED FOR:  
CITY OF MERCED  
678 WEST 18TH STREET  
MERCED, CA 95340  
(209) 385-4762

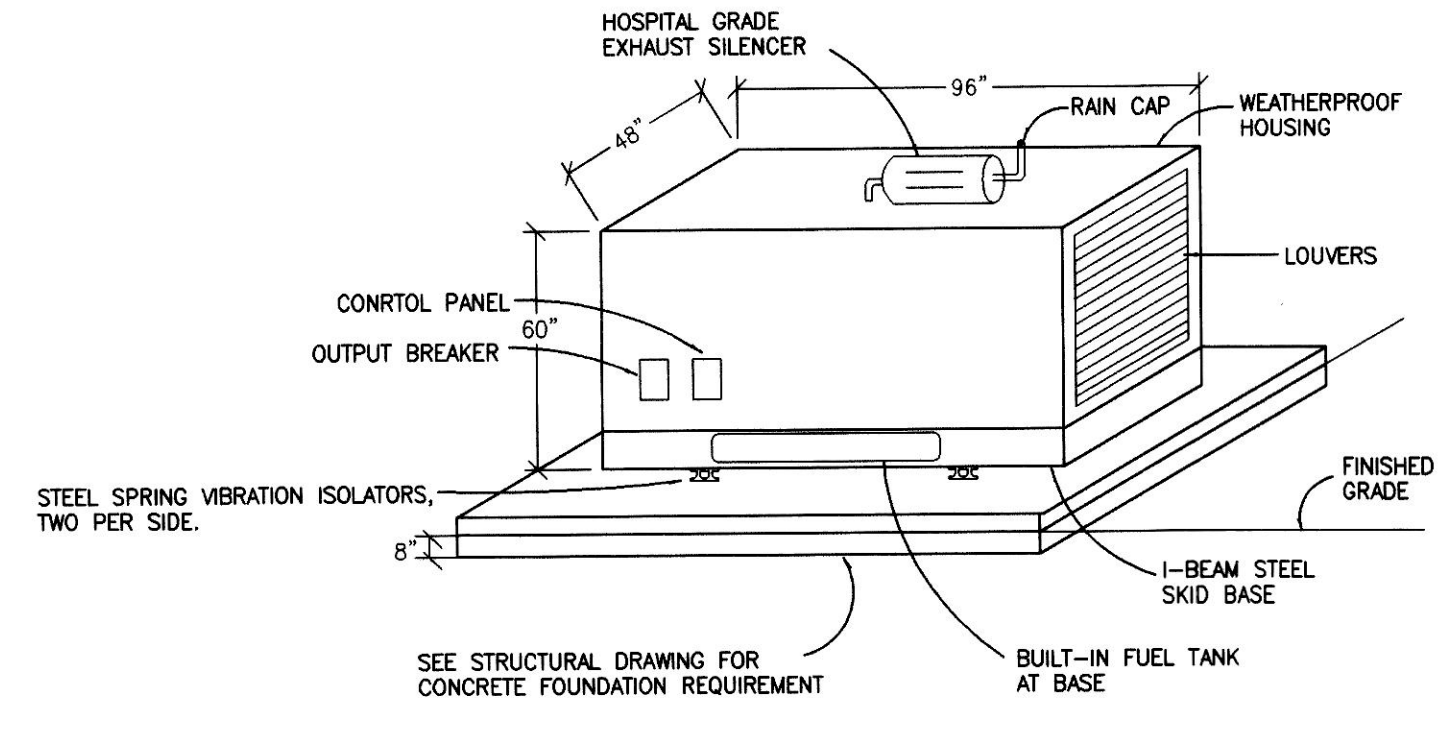
SHEET CONTENTS:  
**LINE DIAGRAM**  
**PANEL SCHEDULES**  
**SYMBOLS**  
**DETAILS**

DESIGNED: PK  
DRAWN BY: RC/LS  
CHECKED: \*  
DATE: 04/23/99  
JOB NO.: 98-718

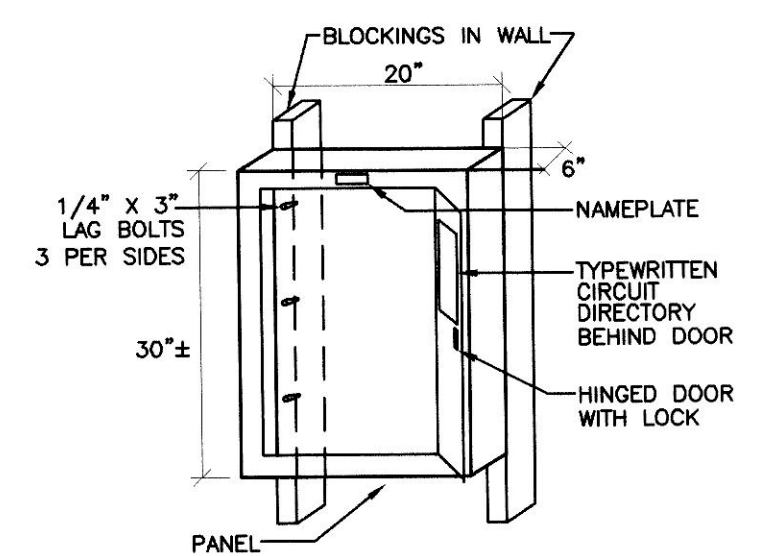
SHEET  
**E2**  
OF 2 SHEETS

**ELECTRICAL SYMBOLS**  
(ALL DIMENSIONS TO CENTER OF BOX, U.O.N.)

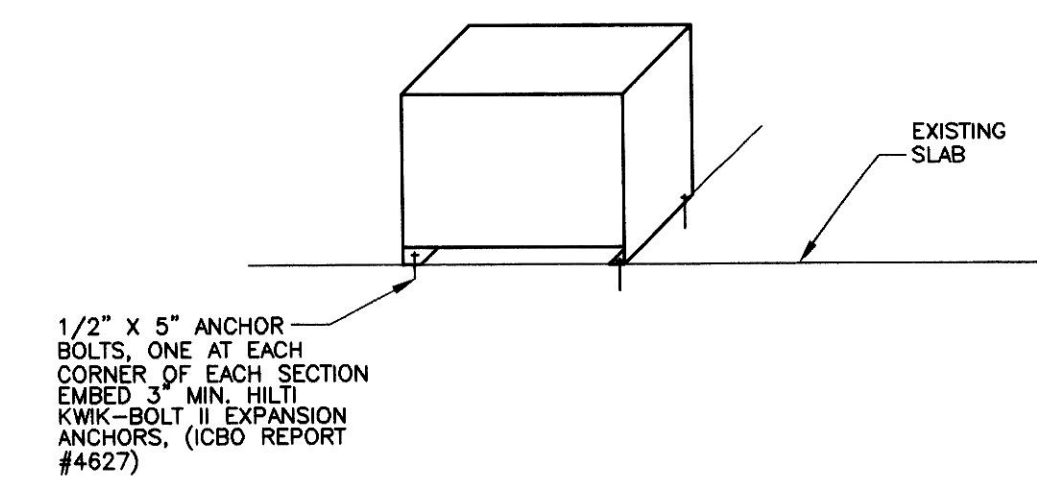
⊞	EXISTING SWITCH
⊞	EXISTING LIGHT
⊞	EXISTING FIRE ALARM PULL STATION
⊞	EXISTING CONDUIT AND WIRING
⊞	CONDUIT RUN IN WALL / ATTIC (1/2" C - 2#12 + 1#12 GND, THHN/THWN-CU)
⊞	CONDUIT RUN IN FLOOR OR U.G. (1/2" C - 2#12 + 1#12 GND, THHN/THWN-CU)
⊞	ELECTRICAL PANEL
⊞	DUPLEX RECEPTACLE, EMG (+15" U.O.N)
⊞	DUPLEX RECEPTACLE IN WALL (+15" U.O.N.)
⊞	JUNCTION BOX
⊞	MOTOR OUTLET
⊞	ELECTRICAL NOTE #1 (REFER TO ELECT NOTES ON SAME SHEET)
WP	WEATHERPROOF
GFI	GROUND FAULT CIRCUIT INTERRUPTER
U.O.N.	UNLESS OTHERWISE NOTED
(E)	EXISTING
PF	POWER FACTOR
EMG	EMERGENCY



**GENERATOR MOUNTED DETAIL**  
NTS

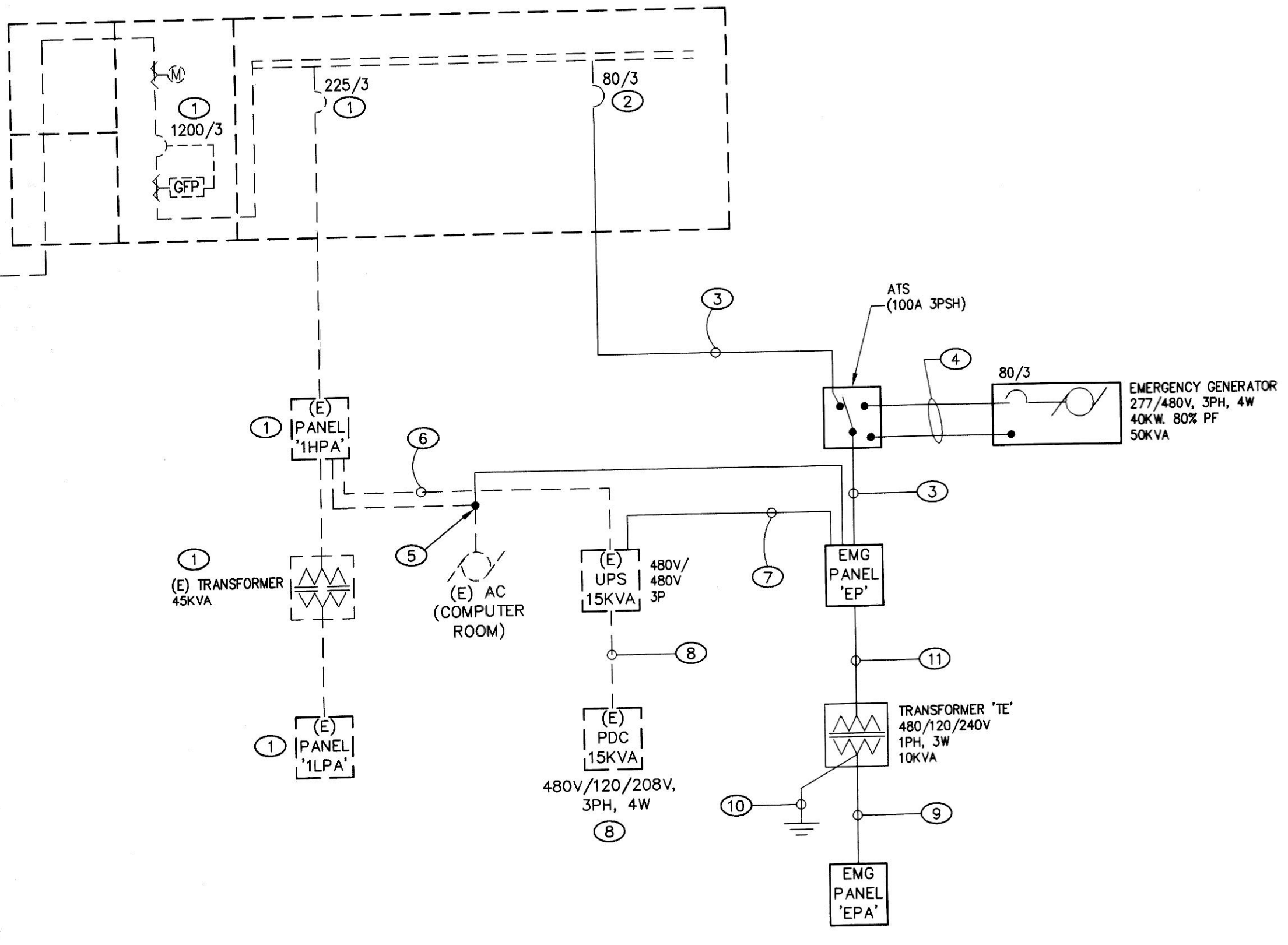


**SURFACE PANEL MTG**  
NTS



**TRANSFORMER MTG DETAIL**  
(REFER TO NOTES ON PLAN FOR GROUNDING AND BONDING OF TRANSFORMER.)  
NTS

**(E) MAIN SWITCHBOARD**  
(277/480V, 3PH, 4W, 1200A) ①



**LINE DIAGRAM**  
NTS

- LINE DIAGRAM NOTES:**
- ① EXISTING TO REMAIN.
  - ② PROVIDE NEW BREAKER IN EXISTING SPACE. MATCH EXISTING BREAKERS' AIC RATING.
  - ③ 1-1/4" C - 4#4 + 1#8 GROUND.
  - ④ 1-1/4" C - 4#4 + 1#8 GROUND FOR POWER AND 2#12 FOR GENERATOR START/STOP CONTROL FROM ATS. SEE ELECTRICAL PLAN ON E1 FOR ROUTING.
  - ⑤ EXISTING 1" C WITH 3#10 FROM EXISTING PANEL "HPA" FOR EXISTING COMPUTER ROOM AC UNIT. INTERCEPT EXISTING CONDUIT AT PANEL WITH JUNCTION BOX. RUN NEW 1" C WITH 3#10 + 1#10 GROUND FROM NEW EMG PANEL "EP" TO RECONNECT EXISTING WIRING.
  - ⑥ EXISTING FEEDER FOR EXISTING UPS. REMOVE EXISTING WIRING. ABANDON EXISTING CONDUIT IN PLACE.
  - ⑦ 1" C - 4#8 + 1#10 GROUND TO RECONNECT EXISTING UPS TO NEW EMG PANEL "EP".
  - ⑧ EXISTING PDC AND FEEDER TO REMAIN.
  - ⑨ 1" C - 3#8 + 1#10 GROUND.
  - ⑩ 1/2" C WITH 1#8 GROUND TO EXISTING NEARBY METALLIC COLD WATER PIPING AND BUILDING STEEL.
  - ⑪ 1" C - 2#10 + 1#10 GROUND.

**PANEL EP**

CIR NO.	BKR	LOAD (VA)			DESCRIPTION	DESCRIPTION	LOAD (VA)			BKR	CIR NO.
		PHASE A	PHASE B	PHASE C			PHASE A	PHASE B	PHASE C		
1	40	6800			COMPUTER ROOM AC UNIT	UPS, 15KVA			2000	30	2
3		6800						2000			4
5		6800						2000			6
7	20	496			COMPUTER ROOM LIGHTS	TRANSFORMER 'TE'			1100	30	8
9	1				SPARE			1500			10

PHASE A = 10396 VA, PHASE B = 10300 VA, PHASE C = 8784 VA  
TOTAL CONNECTED ( 29496 VA) + 25% LCL ( 124 VA) = 29620 VA ( 37 AMP) MAX.

**PANEL EPA**

CIR NO.	BKR	LOAD (VA)			DESCRIPTION	DESCRIPTION	LOAD (VA)			BKR	CIR NO.
		PHASE A	PHASE B	PHASE C			PHASE A	PHASE B	PHASE C		
1	20	360			ELECTRICAL ROOM RECEPTACLES	COMPUTER ROOM RECEPTACLES			360	20	2
3					SPARE	GEN. WATER JACKET HEATER			1500		4
5						GEN. BATTERY CHARGER, RECEPT.			380		6
7						SPARE					8

PHASE A = 1100 VA, PHASE B = 1500 VA  
TOTAL CONNECTED ( 2600 VA) + 25% LCL ( - VA) = 2600 VA ( 12 AMP)

