PANEL "XD" — TYPE NEHB

CIRCUIT WATTAGE ØA	ØB	ØC	USE	LOAD-TYPE LT	RC	HT	MO	CB	CB	LOAD-TYPE LT	RC	HT	MO	USE	CIRCUIT WATTAGE ØA	ØB	ØC
3650			AC-1					30/3	1	30/3				AC-1	3650		
	3650								3							3650	
		3650							5								3650
3650			AC-1					30/3	7	30/3				AC-1	3650		
	3650								9							3650	
		3650							11								3650
3650			AC-1					30/3	13	30/3				SPARE	3000		
	3650								15							3000	
		3650							17								3000
			SPACE						19					SPACE			
									21								
									23								
									25								
									27								
									29								
									31								
									33								
									35								
21250			SUB FEED PANEL "XF"					100/3	37	225/3				SUB FEED PANEL "XE"	41850		
	21250								39							41850	
		21250							41								41850
32200	32200	32200	SUB-TOTAL											SUB-TOTAL	52150	52150	52150
															32200	32200	32200

VOLTS 480/277V, 3Ø, 4W MAIN 400/3
FEEDER 4"C - 4 #500 MCM CU MTG SURFACE
BUS 400A CU NEMA 3R
SYSTEM SHORT CIRCUIT RATING (SYM)

LOAD SUMMARY
LIGHTING
RECEPTACLE
HEATING
MOTOR
TOTAL

TOTAL			84350
AMPS			304.5

PANEL "XH" — TYPE NEHB

CIRCUIT WATTAGE ØA	ØB	ØC	USE	LOAD-TYPE LT	RC	HT	MO	CB	CB	LOAD-TYPE LT	RC	HT	MO	USE	CIRCUIT WATTAGE ØA	ØB	ØC
3650			AC-1					30/3	1	30/3				AC-1	3650		
	3650								3							3650	
		3650							5								3650
3000			SPARE					30/3	7	30/3				SPACE			
	3000								9								
		3000							11								
			SPACE						13								
									15								
									17								
									19								
									21								
									23								
									25								
									27								
									29								
									31								
									33								
									35								
									37								
									39								
									41								
6650	6650	6650	SUB-TOTAL											SUB-TOTAL	3650	3650	3650
															6650	6650	6650

VOLTS 480/277V, 3Ø, 4W MAIN 60/3
FEEDER 1-1/2"C, 4#4 AWG CU MTG SURFACE
BUS 100A - CU NEMA 3R
SYSTEM SHORT CIRCUIT RATING (SYM)

LOAD SUMMARY
LIGHTING
RECEPTACLE
HEATING
MOTOR
TOTAL

TOTAL	10300	10300	10300
AMPS	37		

PANEL "XMP" — TYPE NEHB

CIRCUIT WATTAGE ØA	ØB	ØC	USE	LOAD-TYPE LT	RC	HT	MO	CB	CB	LOAD-TYPE LT	RC	HT	MO	USE	CIRCUIT WATTAGE ØA	ØB	ØC
12200			AC-4A					20/3	1	30/3				AC-3	4200		
	12200								3							4200	
		12200							5								4200
3400			AC-5A					20/3	7	20/3				AC-4B	12200		
	3400								9							12200	
		3400							11								12200
3100			AC-2					30/3	13	30/3				SPARE	3000		
	3100								15							3000	
		3100							17								3000
			SPACE						19					SPARE			
									21								
									23								
									25								
									27								
									29								
									31								
									33								
									35								
									37								
									39								
									41								
18700	18700	18700	SUB-TOTAL											SUB-TOTAL	19400	19400	19400
															18700	18700	18700

VOLTS 480/277V, 3Ø, 4W MAIN 225/3
FEEDER 2-1/2"C - 4 #4/0AWG MTG SURFACE
BUS 225A CU NEMA 3R
SYSTEM SHORT CIRCUIT RATING (SYM)

LOAD SUMMARY
LIGHTING
RECEPTACLE
HEATING
MOTOR
TOTAL

TOTAL	38100		
AMPS	137		

PANEL "XE" — TYPE NEHB

CIRCUIT WATTAGE ØA	ØB	ØC	USE	LOAD-TYPE LT	RC	HT	MO	CB	CB	LOAD-TYPE LT	RC	HT	MO	USE	CIRCUIT WATTAGE ØA	ØB	ØC
3650			AC-1					30/3	1	30/3				AC-1	3650		
	3650								3							3650	
		3650							5								3650
3650			AC-1					30/3	7	30/3				AC-1	3650		
	3650								9							3650	
		3650							11								3650
3650			AC-1					30/3	13	30/3				SPARE	3000		
	3650								15							3000	
		3650							17								3000
			SPACE						19					SPACE			
									21								
									23								
									25								
									27	100/3				SUB FEED PANEL "XG"	20600		
									29							20600	
									31								20600
									33								
									35								
									37								
									39								
									41								
10950	10950	10950	SUB-TOTAL											SUB-TOTAL	30900	30900	30900
															10950	10950	10950

VOLTS 480/277V, 3Ø, 4W MAIN 225/3
FEEDER 2-1/2"C, 4#4/0AWG CU MTG SURFACE
BUS 225A - CU NEMA 3R
SYSTEM SHORT CIRCUIT RATING (SYM)

LOAD SUMMARY
LIGHTING
RECEPTACLE
HEATING
MOTOR
TOTAL

TOTAL	41850	41850	41850
AMPS	151		

PANEL "XF" — TYPE NEHB

CIRCUIT WATTAGE ØA	ØB	ØC	USE	LOAD-TYPE LT	RC	HT	MO	CB	CB	LOAD-TYPE LT	RC	HT	MO	USE	CIRCUIT WATTAGE ØA	ØB	ØC
3650			AC-1					30/3	1	30/3				AC-1	3650		
	3650								3							3650	
		3650							5								3650
3650			AC-1					30/3	7	30/3				AC-1	3650		
	3650								9							3650	
		3650							11								3650
3650			AC-1					30/3	13	30/3				SPARE	3000		
	3650								15							3000	
		3650							17								3000
			SPACE						19					SPACE			
									21								
									23								
									25								
									27								
									29								
									31								
									33								
									35								
									37								
									39								
									41								
10950	10950	10950	SUB-TOTAL											SUB-TOTAL	10300	10300	10300
															10950	10950	10950

VOLTS 480/277V, 3Ø, 4W MAIN 100/3
FEEDER 1-1/2"C, 4#1 AWG CU MTG SURFACE
BUS 100A - CU NEMA 3R
SYSTEM SHORT CIRCUIT RATING (SYM)

LOAD SUMMARY
LIGHTING
RECEPTACLE
HEATING
MOTOR
TOTAL

TOTAL	21250	21250	21250
AMPS	77		

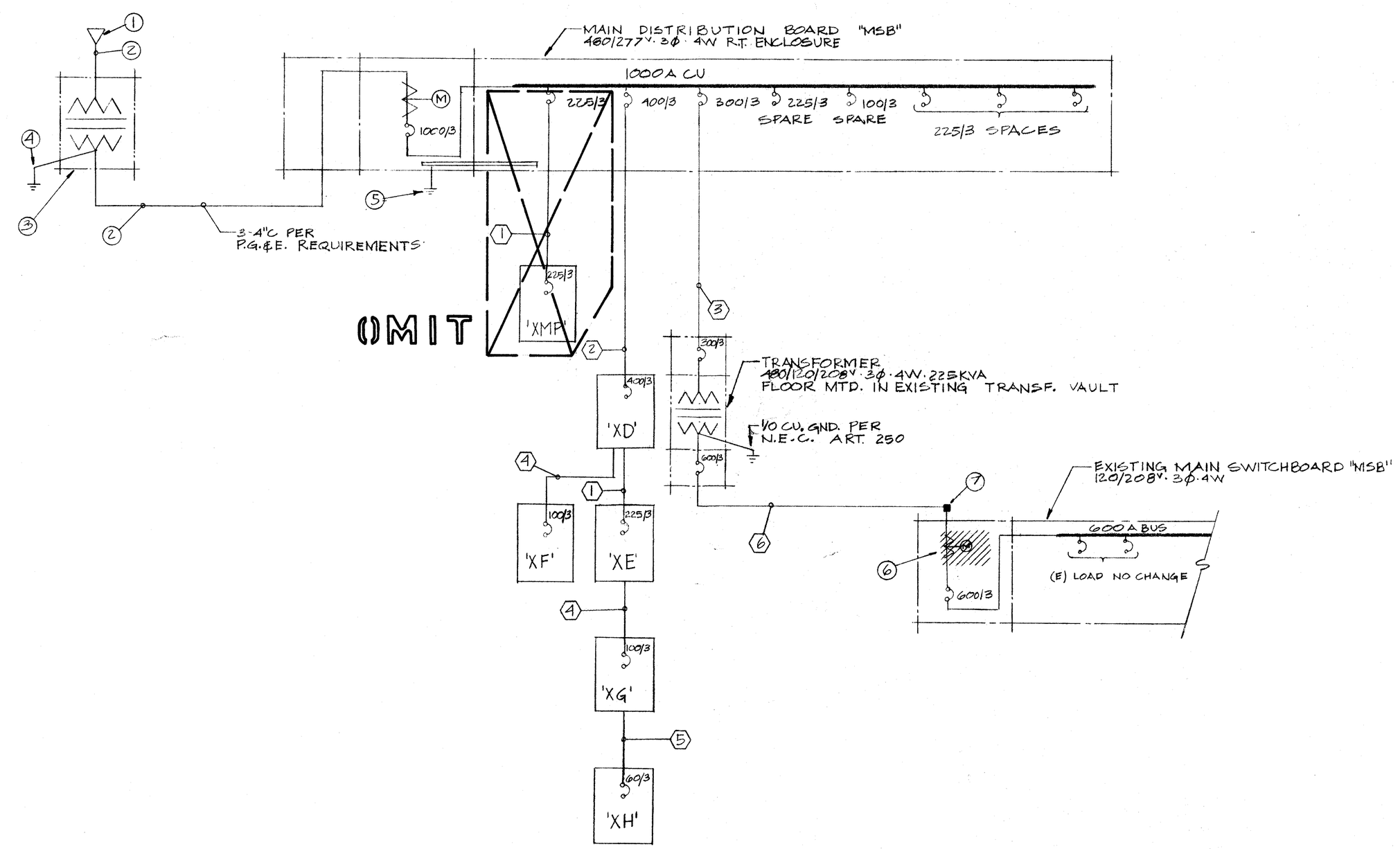
PANEL "XG" — TYPE NEHB

CIRCUIT WATTAGE ØA	ØB	ØC	USE	LOAD-TYPE LT	RC	HT	MO	CB	CB	LOAD-TYPE LT	RC	HT	MO	USE	CIRCUIT WATTAGE ØA	ØB	ØC
3650			AC-1					30/3	1	30/3				AC-1	3650		
	3650								3							3650	
		3650							5								3650
3000			SPARE					30/3	7					SPACE			
	3000								9								
		3000							11								
			SPACE						13								
									15								
									17								
									19	70/3				SUBFEED PANEL "XH"	10300		
									21							10300	
									23								10300
									25								
									27								
									29								
									31								
									33								
									35								
									37								
									39								
									41								
6650	6650	6650	SUB-TOTAL											SUB-TOTAL	13950	13950	13950
															6650	6650	6650

VOLTS 480/277V, 3Ø, 4W MAIN 100/3
FEEDER 1-1/2"C, 4#1 AWG CU MTG SURFACE
BUS 100A - CU NEMA 3R
SYSTEM SHORT CIRCUIT RATING (SYM)

LOAD SUMMARY
LIGHTING
RECEPTACLE
HEATING
MOTOR
TOTAL

TOTAL	20600	20600	20600
AMPS	74		



SINGLE LINE DIAGRAM

N.T.S.

REFERENCE NOTES THIS SHEET ONLY:

1. NEW UTILITY COMPANY INCOMING PRIMARY DEFRAY ALL UTILITY CHARGES.
2. VERIFY CONDUIT AND CONDUCTOR SIZES WITH UTILITY COMPANY PRIOR TO BID.
3. PROVIDE CONCRETE PAD FOR UTILITY COMPANY TRANSFORMER, VERIFY ALL DIMENSIONS.
4. GROUND PER UTILITY COMPANY REQUIREMENTS.
5. GROUND ROD (1/2" X 10') PER N.E.C. ARTICLE 250.
6. REMOVE EXISTING CURRENT TRANSFORMERS AND METERING. INSTALL BUSSING AS REQUIRED TO MAINTAIN EXISTING SWITCHBOARD ENERGIZED.
7. INTERCEPT EXISTING BUS DUCTS INSIDE TRANSFORMER VAULT AND CONNECT TO NEW TRANSFORMER.

FEEDER SCHEDULE THIS SHEET ONLY:

1. 2-1/2" CONDUIT, FOUR #4/0 AWG THWN CU AND ONE #2 COPPER GROUND
2. 4" CONDUIT, FOUR #500 MCM THWN CU AND ONE #1/0 COPPER GROUND
3. 3" CONDUIT, THREE #350 MCM THWN CU AND ONE #1/0 COPPER GROUND
4. 1-1/2" CONDUIT, FOUR #4 THWN CU AND ONE #6 COPPER GROUND
5. 1-1/2" CONDUIT, FOUR #4 AWG THWN CU AND ONE #8 COPPER GROUND
6. TWO 3" CONDUIT, FOUR #350 MCM THWN CU AND ONE #1/0 COPPER GROUND IN EACH

PROFESSIONAL ARCHITECT — JAMES E. HARTZELL — C-10298 — STATE OF CALIFORNIA
Glenn Hartzell Assoc.
26 'H' STREET, 93304
P.O. BOX 2344, 93303, BAKERSFIELD, CALIFORNIA
(805) 324-4416
ARCHITECT C-10298

DATE

ELECTRICAL ENGINEERING, INC.
127 East Belmont Ave.
Fresno, CA 93701
(209) 486-1181

BAKERSFIELD CITY SCHOOL DISTRICT
BY RESOLUTION OF THE BOARD OF TRUSTEES
APPROVED
DATE

DATE 1-15-90
DRAWN

SINGLE LINE DIAGRAM - NOTES - PANEL SCHEDULES

(AIR CONDITIONING)
RUTH HARDING SCHOOL
BAKERSFIELD CITY SCHOOL DISTRICT
3201 PICO STREET, BAKERSFIELD, KERN COUNTY, CALIFORNIA

JOB NO. 98

SHEET NO. E4

SHEET 4 OF 4

PROFESSIONAL ENGINEER — JAMES W. GRAHAM — Electrical Engineer — STATE OF CALIFORNIA — EXP. 3-31-91

APPROVED FIRE MARSHAL ONLY — MAY 9 1990 — STATE FIRE MARSHAL

TITLE 24 & 1988 UBC IDENTIFICATION STAMP — Department of General Services — Office of the State Architect — MAY 9 1990 — Structural Safety Section — Appl. # 1-5-98-3

FIRE MARSHAL

O.S.A.