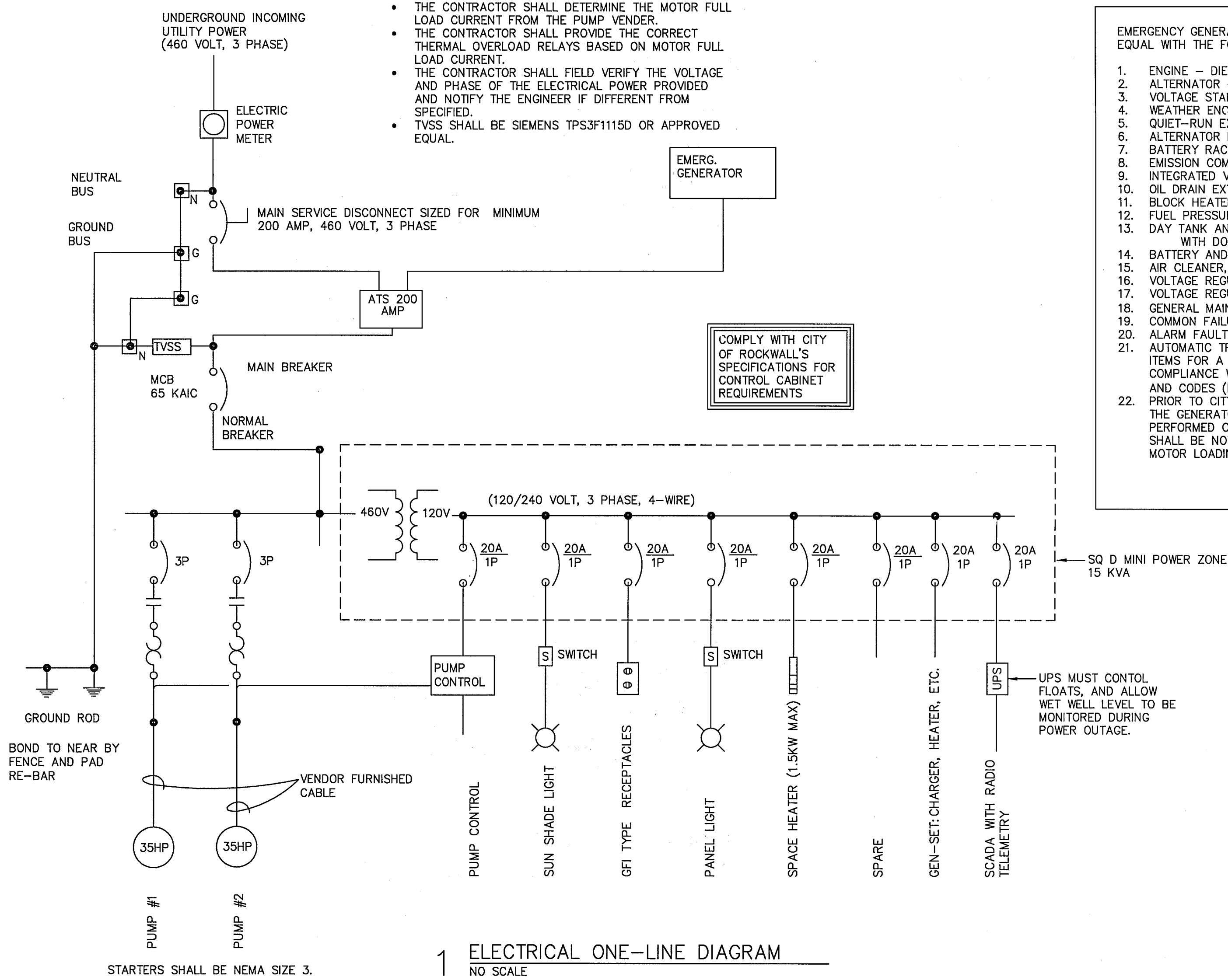


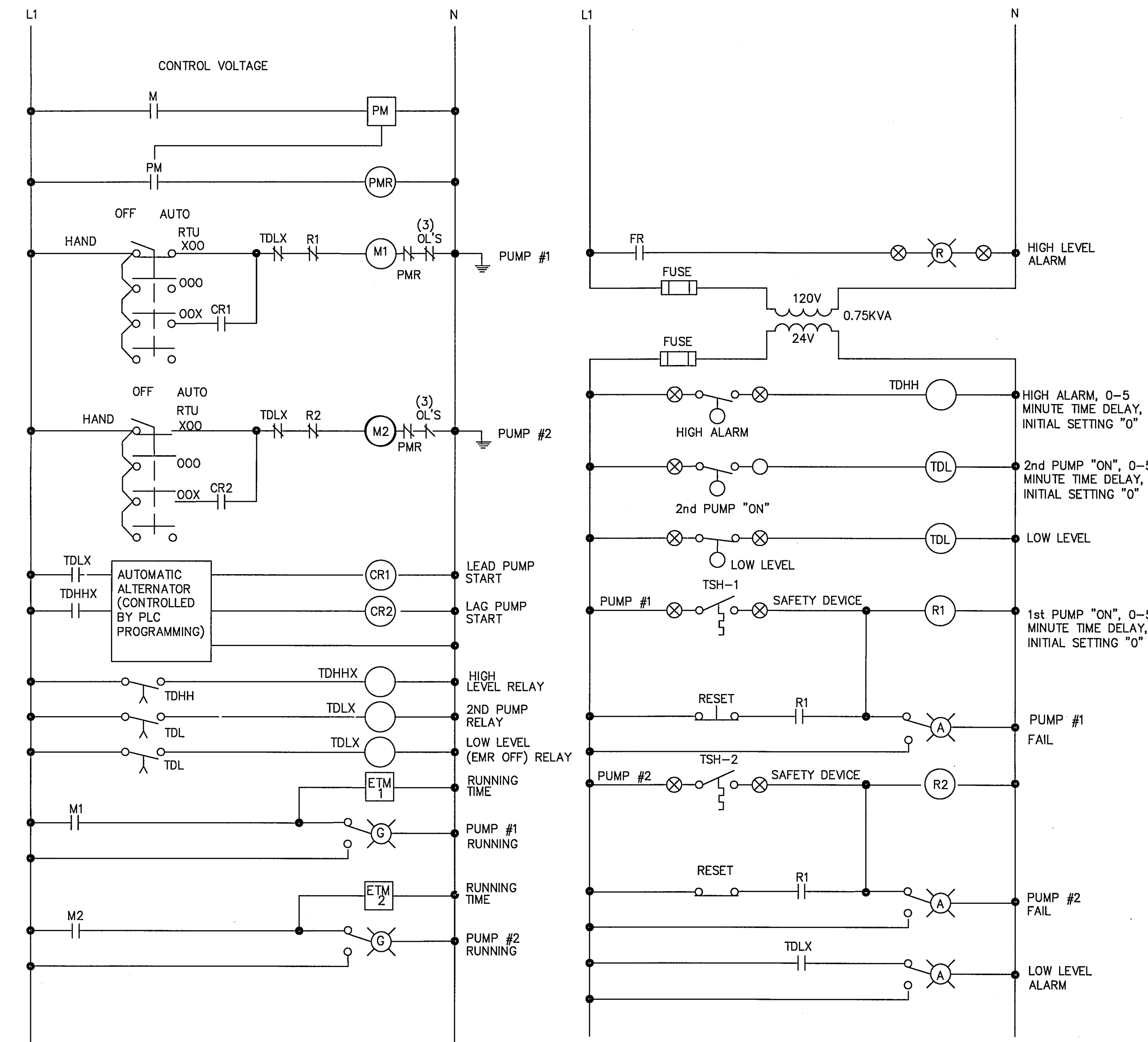
Y:\ACTIVE PROJECTS\ACTIVE-DATA\CURRENT-PROJECTS\Perkins-Rockwall-LS-Breezy-Hill-2012\CAD\Breezy-Hill-Lift-Station.dwg May 15, 2013 - 10:14am User: TommyT



- THE CONTRACTOR SHALL DETERMINE THE MOTOR FULL LOAD CURRENT FROM THE PUMP VENDOR.
- THE CONTRACTOR SHALL PROVIDE THE CORRECT THERMAL OVERLOAD RELAYS BASED ON MOTOR FULL LOAD CURRENT.
- THE CONTRACTOR SHALL FIELD VERIFY THE VOLTAGE AND PHASE OF THE ELECTRICAL POWER PROVIDED AND NOTIFY THE ENGINEER IF DIFFERENT FROM SPECIFIED.
- TVSS SHALL BE SIEMENS TPS3F1115D OR APPROVED EQUAL.

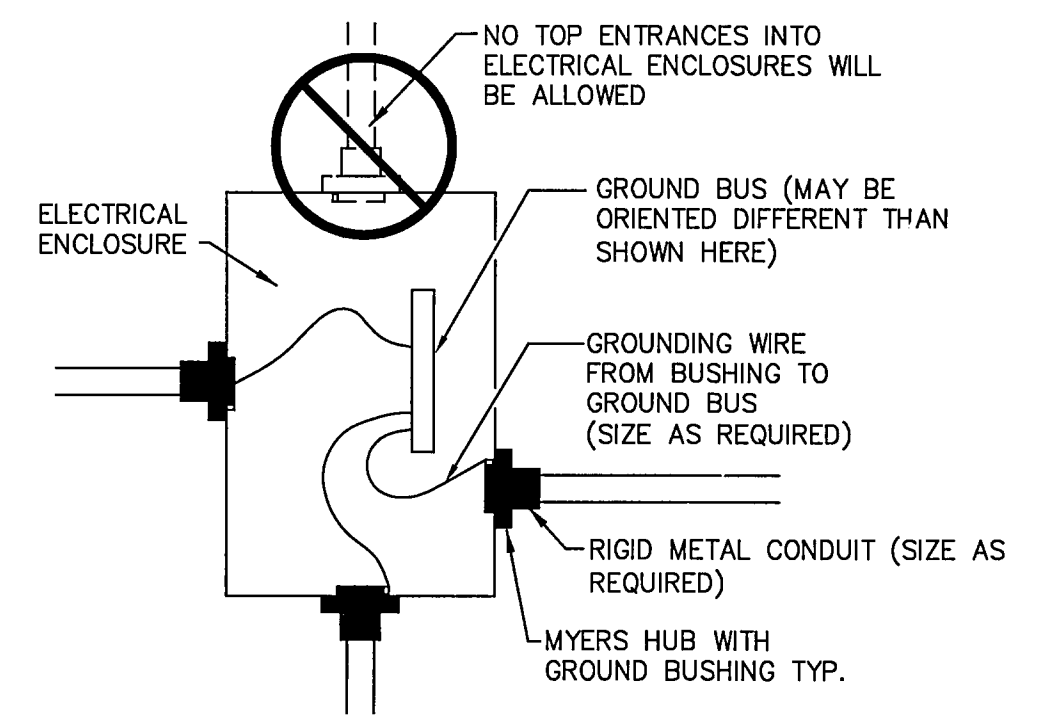
EMERGENCY GENERATOR SHALL BE KOHLER 150RE0ZJ OR EQUAL WITH THE FOLLOWING:

1. ENGINE - DIESEL OR EQUAL
2. ALTERNATOR
3. VOLTAGE STARTERS
4. WEATHER ENCLOSURE
5. QUIET-RUN EXHAUST SYSTEM
6. ALTERNATOR PROTECTION
7. BATTERY RACK & CABLES
8. EMISSION COMPLIANT ENGINE
9. INTEGRATED VIBRATION ISOLATION
10. OIL DRAIN EXTENSION
11. BLOCK HEATER
12. FUEL PRESSURE GAGE
13. DAY TANK AND MINIMUM 500 GAL FUEL TANKS WITH DOUBLE CONTAINMENT SYSTEM
14. BATTERY AND BATTERY CHARGER
15. AIR CLEANER, HEAVY DUTY
16. VOLTAGE REGULATION 1%
17. VOLTAGE REGULATOR SENSING, 3-PHASE
18. GENERAL MAINTENANCE KIT (FILTER SET)
19. COMMON FAILURE RELAY KIT
20. ALARM FAULT SYSTEM CONNECTED TO SCADA AUTOMATIC TRANSFER SWITCH AND RELATED ITEMS FOR A COMPLETE OPERATING SYSTEM IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND CODES (KOHLER OR APPROVED EQUAL) PRIOR TO CITY OF ROCKWELL ACCEPTANCE OF THE GENERATOR, A LOAD BANK TEST SHALL BE PERFORMED ON THE GENERATOR SYSTEM. LOAD SHALL BE NOT LESS THAN PROJECTED PUMP MOTOR LOADINGS.

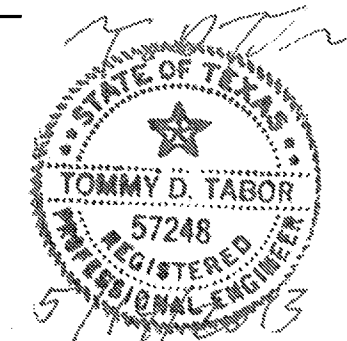


CITY REQUIRE INSTRUCTIONS TO CONTRACTOR
SCADA CONNECTION TO OWNER'S SYSTEM. ALL PROGRAMMING SHALL COMPLY WITH OWNER'S REQUIREMENTS. SEE CITY SPECIFICATIONS FOR SCADA REQUIREMENTS, PLC & RADIO EQUIPMENT PURCHASED THROUGH KIMARK AND INSTALLED IN CONTROL CABINET.

QuickSize Generator Set Sizing			QuickSize Generator Load Profile		
Project Customer	Rockwall Breezy Hill LS		Project Customer	Rockwall Breezy Hill LS	
Generator Set			Generator Set		
Model No.	150RE0ZJB	Gensets	1	Model No.	150RE0ZJB
Engine	6068HF150 (Diesel)			Engine	6068HF150 (Diesel)
Alternator	4S15			Alternator	4S15
Performance Summary			Load Profile		
LN / LL Voltage	277/480	volts	Altitude	500	feet
Frequency	60	hertz	Ambient Temp.	105	F
Phase(s)	3	phase			
Genset Rating @ 130C Rise	160.00	kW			
Genset Derated Rating	157.51	kW			
Total Running Power	59.00	kW			
Percent of Available kW Used	37.46	%			
Alternator Starting kVA	354.29	kVA @ 20% dip			
Peak Starting kVA	293.57	kVA			
Maximum Voltage Dip	19.71	%			
Maximum Frequency Dip	11.57	% (20% allowed)			
Voltage THD	0.00	% (10% allowed)			
			Load Profile		
			Qty	Run kW	Run kVA
			Run pF	Start kW	Start kVA
			Volt Dip	Freq Dip	Volt (L-N) THD
			Step #1 Load Step #1		
			Pump #1 (35.00 HP, 3 phase, code J, loaded motor, w/ A.T.L. starting)		
			Rated motor torque from full voltage starting = 64.7%		
			1	29.50	34.65
				0.85	108.34
				264.25	
			Step Totals	29.50	34.65
			Cum. Totals	29.50	34.65
				0.85	108.34
				264.25	
				19.54	11.57
				0.0%	0.0%/0.0%
			Step #2 Load Step #2		
			Pump #2 (35.00 HP, 3 phase, code J, loaded motor, w/ A.T.L. starting)		
			Rated motor torque from full voltage starting = 64.5%		
			1	29.50	34.65
				0.85	108.34
				264.25	
			Step Totals	29.50	34.65
			Cum. Totals	59.00	69.30
				0.85	108.34
				264.25	19.71
				11.57	0.0%
				0.0%	0.0%/0.0%



AS-BUILT APRIL 2014
INFORMATION PROVIDED BY CONTRACTORS
(NOT FIELD VERIFIED)



PERKINS ENGINEERING CONSULTANTS, INC.
T. TABOR CONSULTING, PLLC (5279)
1301 DEBBIE LANE, SUITE 102-152
MANSFIELD, TEXAS 76063
972-896-6989

DEVELOPMENT PLANS FOR
BREEZY HILL PHASE I
ROCKWALL, TEXAS

ELECTRICAL ONE-LINE & DETAILS

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
MLH / KF	TDT	TDT	LSE - 2
JOB NUMBER	DATE	SCALE	
COR 12-001	MAY 2013	NOTED	

NO AIR BUBBLE, PROVIDE PRESSURE TRANSDUCER WITH FLOAT BACK-UP OPTION
BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK SCALE AND ADJUST ACCORDINGLY.
ONE INCH