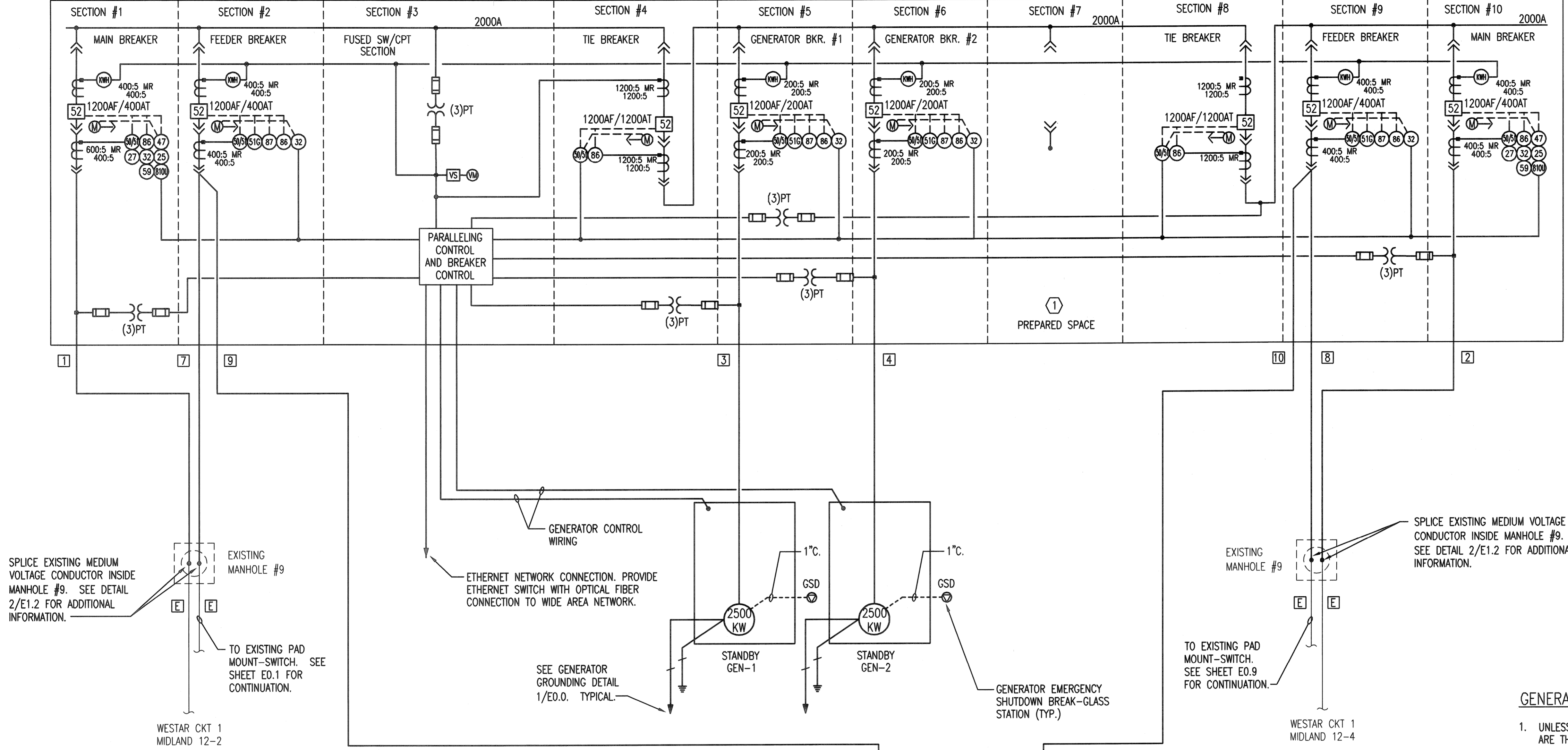


PARALLELING MAIN SWITCHGEAR 'PMSG'
12470V, 3ø 3W, 2000A, 95KV BIL, 50KA/1000MVA RMS SYM BRACING



- ANSI SYMBOLS LEGEND**
- (25) SYNCHRONIZATION CHECK
 - (27) UNDERVOLTAGE
 - (32) REVERSE POWER
 - (47) UNBALANCE-VOLTAGE PROTECTION AND/OR PHASE SEQUENCE MONITORING
 - (50) DEFINITE-TIME PHASE OVERCURRENT PROTECTION
 - (51) INVERSE PHASE OVERCURRENT PROTECTION
 - (59) OVERVOLTAGE
 - (810) OVER/UNDER FREQUENCY
 - (86) LOCKOUT

SPlice EXISTING MEdIUM VOLTAGE CONDUCTOR INSIDE MANHOLE #9. SEE DETAIL 2/E1.2 FOR ADDITIONAL INFORMATION.

EXISTING MANHOLE #9

TO EXISTING PAD MOUNT-SWITCH. SEE SHEET E0.1 FOR CONTINUATION.

WESTAR CKT 1 MIDLAND 12-2

GENERATOR CONTROL WIRING

ETHERNET NETWORK CONNECTION. PROVIDE ETHERNET SWITCH WITH OPTICAL FIBER CONNECTION TO WIDE AREA NETWORK.

2500 KW STANDBY GEN-1

2500 KW STANDBY GEN-2

GENERATOR EMERGENCY SHUTDOWN BREAK-GLASS STATION (TYP.)

SEE GENERATOR GROUNDING DETAIL 1/E0.0. TYPICAL.

SPlice EXISTING MEdIUM VOLTAGE CONDUCTOR INSIDE MANHOLE #9. SEE DETAIL 2/E1.2 FOR ADDITIONAL INFORMATION.

EXISTING MANHOLE #9

TO EXISTING PAD MOUNT-SWITCH. SEE SHEET E0.9 FOR CONTINUATION.

WESTAR CKT 1 MIDLAND 12-4

- GENERAL ONE-LINE DIAGRAM NOTES:**
- UNLESS OTHERWISE NOTED, ALL CIRCUIT BREAKERS AND/OR SWITCHES ARE THREE POLE.
 - ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A LIGHT LINE, IS EXISTING TO REMAIN.
 - ALL ELECTRICAL EQUIPMENT AND WIRING SHOWN IN A DARK LINE, IS NEW WORK UNDER THIS CONTRACT.

- KEYED NOTES:**
- PROVIDE QUOTE AS OPTIONAL ADDER TO PROVIDE 3RD GENERATOR CIRCUIT BREAKER AND RELAYS EQUIVALENT TO GENERATOR BREAKER #1 AND #2.
 - PROVIDE WITH PRIMARY FUSES.

FEEDER SCHEDULE

DESIG.	EQUIPMENT SERVED	CONDUCTORS		GROUND SIZE PER SET	CONDUIT SIZE PER SET
		SETS	NO.		
1	MAIN SWITCHGEAR PMSG	1	3	#500 KMCIL CU MV-105	#3 5"
2	MAIN SWITCHGEAR PMSG	1	3	#500 KMCIL CU MV-105	#3 5"
3	STANDBY GEN-1	1	3	#2/0 AWG CU MV-105	#6 5"
4	STANDBY GEN-2	1	3	#2/0 AWG CU MV-105	#6 5"
5	NOT USED	-	-	-	-
6	NOT USED	-	-	-	-
7	EXISTING MANHOLE #9	1	4	#500 KMCIL CU MV-105	#1 5"
8	EXISTING MANHOLE #9	1	4	#500 KMCIL CU MV-105	#1 5"
9	TRANSFORMER T-LV1	1	2	#8 AWG CU MV-105	#8 4"
10	TRANSFORMER T-LV2	1	2	#8 AWG CU MV-105	#8 4"
11	ATS-LV	1	3	#350 KCMIL CU	#4 4"
12	ATS-LV	1	3	#350 KCMIL CU	#4 4"
13	PANEL PG-LV	1	3	#350 KCMIL CU	#4 4"
E	EXISTING TO REMAIN	-	-	-	-

TRANSFORMER SCHEDULE

TRANSF. DESIG.	KVA RATING	PRIMARY VOLTAGE			SECONDARY VOLTAGE			OIL FILLED PAD MOUNTED	DRY TYPE	PRIMARY FEEDER (SEE FEEDER SCHEDULE)	SECONDARY FEEDER (SEE FEEDER SCHEDULE)	GROUND WIRE TO NEAREST GROUNDING SOURCE PER NEC SECTION 250.30(A)(7)	REMARKS
		480 3ø, 3W.	12470 3ø, 4W.	7200 1ø, 2W.	120/240 1ø, 3W.	277/480 3ø, 4W.							
T-LV1	75			●	●			●	9	11	#2		
T-LV2	75			●	●			●	10	12	#2		

1 PROPOSED ONE-LINE DIAGRAM
NOT TO SCALE

Sheet 00-13-2015 09:59:05 PM by CHRIS VAN...
 Plot Scale 1:1 100'-0"=1" 10'-0"=1" 1'-0"=1"
 U:\Wichita-Facility\2014\14229\001\Drawings\EO.13-PROPOSED ONE-LINE DIAGRAM

- 15KV/TS 133% INSULATION.
- PROVIDE (1) SPARE 5" WITH PULL ROPE.
- PROVIDE (1) SPARE 4" WITH PULL ROPE.

RICHARD W. WHITE
LICENSED PROFESSIONAL ENGINEER
KANSAS
2-27-15

Revision By Date

CITY OF WICHITA, KANSAS

PROPOSED ONE-LINE DIAGRAM

WTP #2 EMERGENCY POWER PROJECT
C.O.W. PROJECT NO. 468-84956

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
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Designed by RWW Job No. 34-14229-001-0042
Drawn by CJV Date 2/23/15 Sht.E0.13 of 36