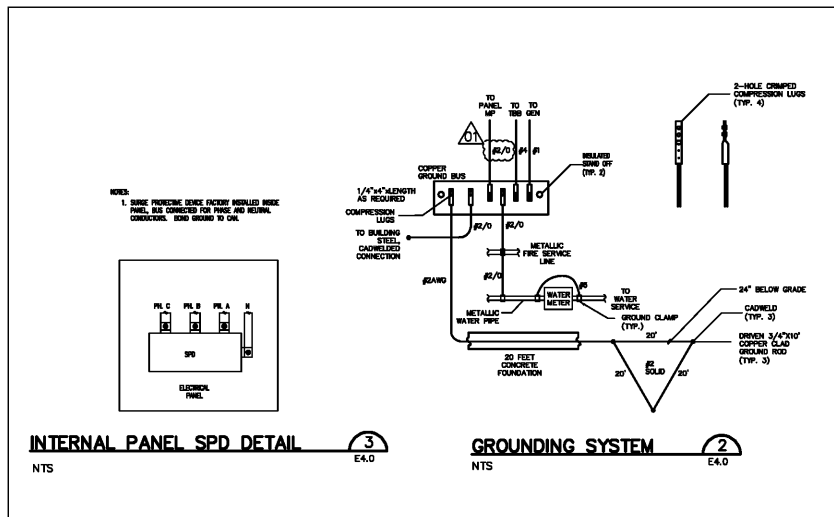


FILE Z:\Engineer\11MON01 PERRY COUNTY COMMUNITY SHELTERS\Drawings\PERRY COUNTY COMMUNITY SHELTER - MARION SHEETS\Electrical\E4.0 SINGLE LINE EMERGENCY/STANDBY POWER.dwg DATE: 04/30/2019 4:08 PM LAST SAVE: 04/30/2019 4:08 PM

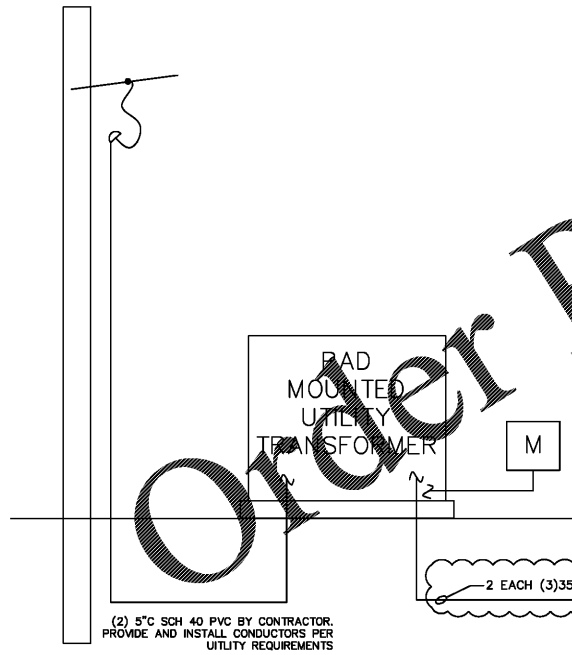
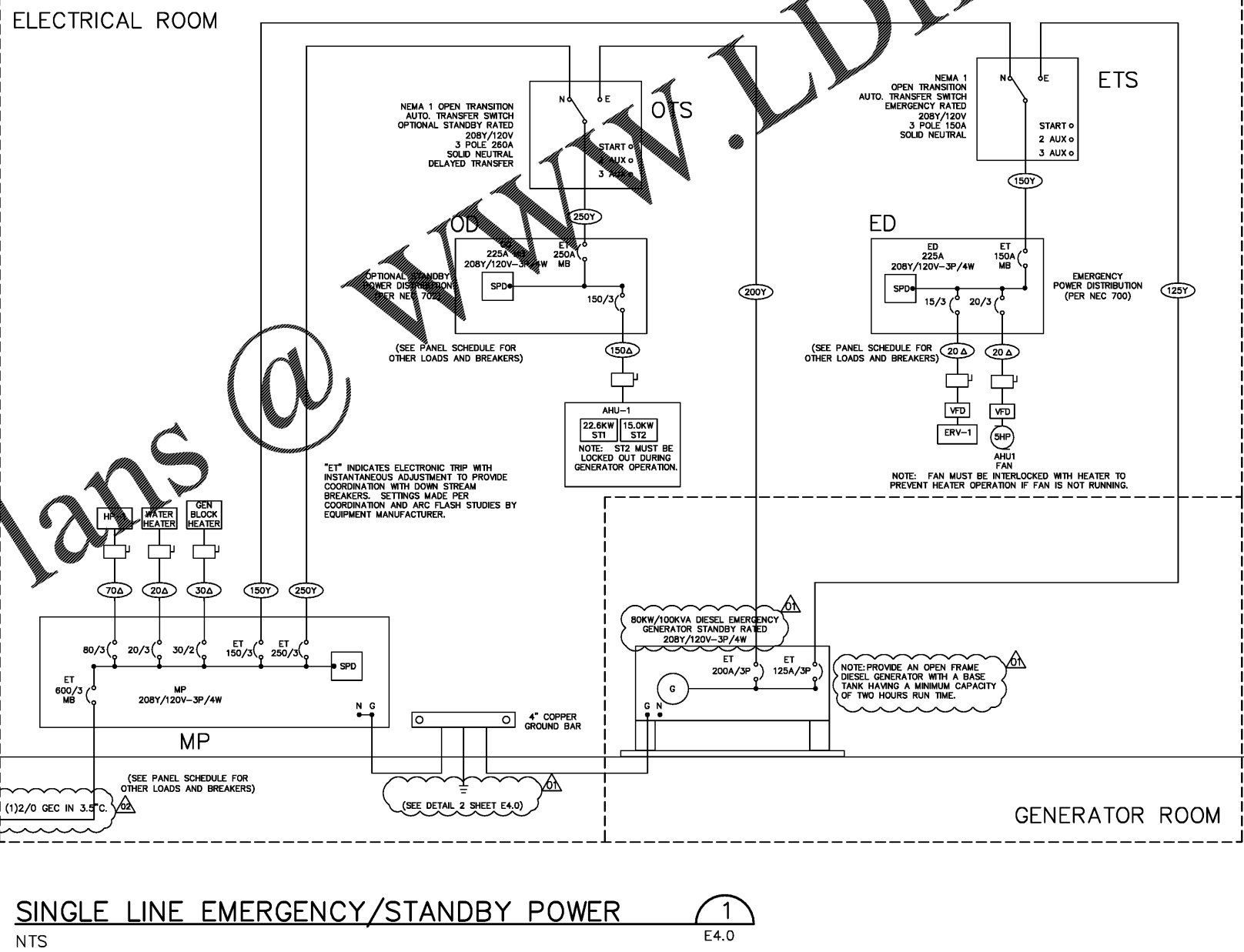
MP										
LOCATION	ELECTRICAL ROOM									
RATING	900A MCB									
VOLTAGE (L-L)	208									
VOLTAGE (L-N)	120									
PHASE	3									
WIRE	4									
MOUNTING	SURFACE MOUNTED									
CODE/CKT & BR. POLE	DESCRIPTION	LOAD (VA)	PHASE A	PHASE B	PHASE C	LOAD (VA)	DESCRIPTION	POLE	BR.	CKT. ADDRESS
R 1 20 1	14 SAFE ROOM RECEPTACLES	1400	24/0			1400	14 SAFE ROOM RECEPTACLES	1	20	2 R
R 2 20 1	8 SAFE ROOM RECEPTACLES	800		14/0		800	JANITOR RECEPTACLES	1	20	4 R
H 5 30 2	GENERATOR BLOCK HEATER	2250			3450	1200	GENERATOR BATTERY HEATER	1	20	6 H
N 7 20 1	ELECTRICAL RM RECEPTACLES	2250	24/0			400	IN OUTSIDE RECEPTACLES	1	20	8 R
S 9 20 1	SPARE	0			1000	0	SPARE	1	20	10 S
S 11 20 1	SPARE	0			800	0	SPARE	1	20	12 S
M 13 30 3	HP-1	9120	10/20			1500	ELECTRIC WATER HEATER (EWH)	3	20	14 H
M 15 30 3	HP-2	9120	10/20	10/20		1500	ELECTRIC WATER HEATER (EWH)	3	20	16 H
O 19 125 3	ATS ETS	8442	89/42			1500	PROVISION	3	225	20 S
O 21 30 3	ATS ETS	7396			89/66	1500	PROVISION	3	225	22 S
O 23 30 3	ATS ETS	6646			83/46	1500	PROVISION	3	225	24 S
O 25 225 3	ATS OTS	20660	22/160			1500	PROVISION	3	225	26 S
O 27 30 3	ATS OTS	20660			219/40	1500	PROVISION	3	225	28 S
O 29 30 3	ATS OTS	20660			219/40	1500	PROVISION	3	225	30 S
S 31 400 3	PROVISION	0			0	0	BLANK			32 C
S 33 30 3	PROVISION	0			0	0	BLANK			34 C
S 35 30 3	PROVISION	0			0	0	BLANK			36 C
O 37 30 3	PROVISION	0			0	0	BLANK			38 C
O 39 30 3	PROVISION	0			0	0	BLANK			40 C
O 41 30 3	PROVISION	0			0	0	BLANK			42 C
SURGE PROTECTION DEVICE BUS CONNECTED										

Load Type	Load Factor	Estimated Load (VA)			Demand Factor	Demanded Load (VA)			Total Demanded Load (VA)
		A	B	C		A	B	C	
Lighting (L)	1.00	0	0	0	1.00	0	0	0	0
Receptacles (R)	1.00	2800	2000	0	0.75	2100	1500	0	4900
Motor (M)	1.00	9120	9120	9120	1.00	9120	9120	9120	27360
Largest Motor	1	2100	2100	2100	1	2100	2100	2100	6300
Other (O)	1.00	29102	27906	28020	1.00	29102	27906	28020	85028
Spares (S)	1.00	3000	8400	8300	1.00	3000	8400	8300	25000
Blanks (B)	1.00	3750	5500	4850	1.00	3750	5500	4850	15000
Total Load (VA)	1.00	54872	50926	53490	1.00	54872	50926	53490	180863
Total Load (AMPS)	1.00	457	424	446	1.00	457	424	446	447

NOTES:
 1 MINIMUM ARC RATING SHALL BE 65K
 2 PANEL TO BE PROVIDED WITH MANUFACTURER'S STANDARD INTERNAL SURGE SUPPRESSION
 3 FULLY RATED, NOT SERIES RATED
 4 SERVICE ENTRANCE RATED
 5 BASIS OF DESIGN IS IEEE 80-2013
 6 BOND GROUND AND NEUTRAL



FEEDER SIZES FOR SINGLE LINE DIAGRAM			
3 WIRE FEEDERS		4 WIRE FEEDERS	
20A	3#12 & 1#12GD, 3/4"C	250A	3#250MCM & 1#4GD, 3"C
30A	3#10 & 1#10GD, 3/4"C	300A	3#350MCM & 1#4GD, 3"C
40A	3#8 & 1#10GD, 1"C	350A	3#500MCM & 1#2GD, 3 1/2"C
50A	3#6 & 1#10GD, 1 1/4"C	400A	3#500MCM & 1#2GD, 3 1/2"C
60A	3#4 & 1#10GD, 1 1/4"C	500A	2 RUNS EACH WITH 3#250MCM & 1#2GD, 3"C
70A	3#4 & 1#8GD, 1 1/2"C	600A	2 RUNS EACH WITH 3#500MCM & 1#1GD, 3"C
80A	3#4 & 1#8GD, 1 1/2"C	800A	2 RUNS EACH WITH 3#500MCM & 1#1GD, 3"C
90A	3#2 & 1#8GD, 1 1/2"C	1000A	3 RUNS EACH WITH 3#500MCM & 1#2GD, 3 1/2"C
100A	3#4 & 1#8GD, 1 1/2"C	1100A	4 RUNS EACH WITH 3#500MCM & 1#3GD, 3"C
125A	3#2 & 1#8GD, 2"C	1500A	4 RUNS EACH WITH 3#500MCM & 1#4GD, 3 1/2"C
150A	3#2 & 1#8GD, 2"C	1900A	5 RUNS EACH WITH 3#500MCM & 1#250MCM GD, 3 1/2"C
175A	3#2 & 1#6GD, 2 1/2"C	2500A	7 RUNS EACH WITH 3#500MCM & 1#350MCM GD, 3 1/2"C
200A	3#3 & 1#6GD, 2 1/2"C	3000A	8 RUNS EACH WITH 3#500MCM & 1#500MCM GD, 3 1/2"C
225A	3#4 & 1#4GD, 2 1/2"C	4000A	12 RUNS EACH WITH 3#500MCM & 1#500MCM GD, 3 1/2"C



SINGLE LINE EMERGENCY/STANDBY POWER 1
 NTS E4.0

THIS SET OF CONSTRUCTION DOCUMENTS ARE IN CONFORMITY WITH THE ICC/NSA-500 2014 "STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS" REQUIREMENTS.

STRUCTURAL DRAWINGS ARE BASED ON ICC 500 "ICC/NSA STANDAND FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS." BASED ON THE "DESIGN WIND SPEED MAP FOR STORM SHELTERS," THE STRUCTURAL SYSTEMS FOR THE BUILDING WAS DESIGNED FOR ZONE IV (250 MILES PER HOUR) LOADS.

KHAFRA

STATE OF ALABAMA
 REGISTERED ARCHITECT
 CHARLES W. RAINE
 NO. 1945
 BIRMINGHAM ALABAMA

APR 30 2019
 PROFESSIONAL
 No. 14839

REVISION	DATE	DESCRIPTION
1	04-25-2018	REVISED FINAL ABC'S COMMENTS AND REPLY
2	06-13-2018	PEER REVIEW REPLY TO OMC COMMENTS
3	04-08-2019	SECOND REVISIONS FINAL ABC'S COMMENTS AND REPLY

REUSE OF DOCUMENTS
 THIS DOCUMENT WITH THE IDEAS AND DESIGNS INCORPORATED HEREIN ARE AN INSTRUMENT OF SERVICE AND MUST NOT BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KHAFRA

PROJECT: COMMUNITY STORM SHELTER
 B.C. NO. 2018-0346
 FOR THE PERRY COUNTY COMMISSION
 300 Washington Street, Monticello, Alabama 36176
 Perry County, Alabama 36176

DATE: APRIL 30, 2019
 DRWN. BY: DKBS
 DSN. BY: JRJT
 CHKD. BY: WDBD
 APVD. BY: JRJT
 SCALE: NONE

SHEET TITLE: MARION STORM SHELTER SINGLE LINE DIAGRAM DETAILS AND SCHEDULES

PROJECT No. 11MON01
 DRAWING No. E4.0
 B.C. Project No. 2014346