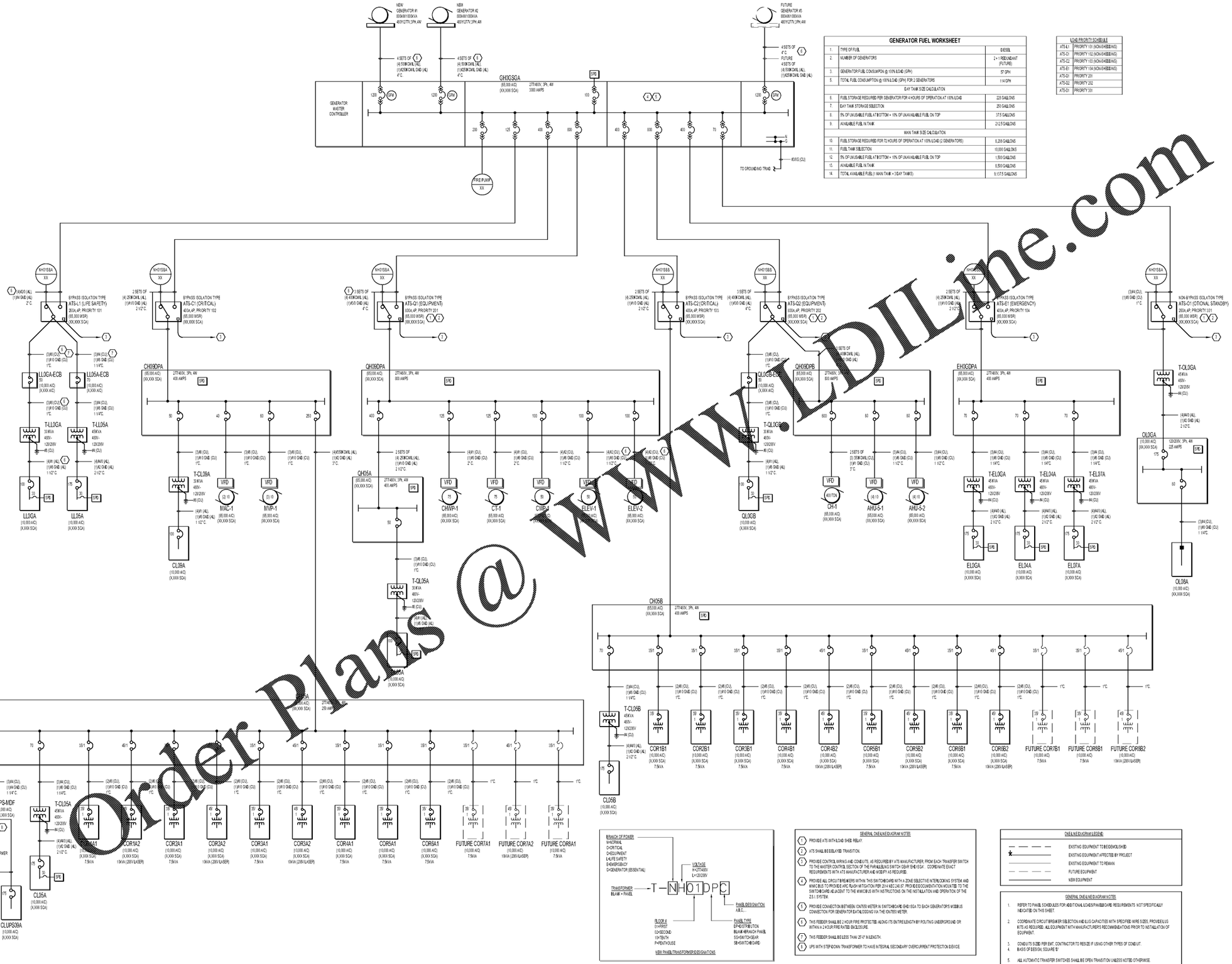

GENERATOR FUEL WORKSHEET		
1.	TYPE OF FUEL	DIESEL
2.	NUMBER OF GENERATORS	2 + 1 REDUNDANT (FUTURE)
3.	GENERATOR FUEL CONSUMPON @ 100% LOAD (GPH)	57 GPH
5.	TOTAL FUEL CONSUMPTION @ 100% LOAD (GPH) FOR 2 GENERATORS	114 GPH
	DAY TANK SIZE CALCULATION	
6.	FUEL STORAGE REQUIRED PER GENERATOR FOR 4 HOURS OF OPERATION AT 100% LOAD	228 GALLONS
7.	DAY TANK STORAGE SELECTION	250 GALLONS
8.	5% OF UNUSABLE FUEL AT BOTTOM + 10% OF UNAVAILABLE FUEL ON TOP	37.5 GALLONS
9.	AVAILABLE FUEL IN TANK	212.5 GALLONS
	MAIN TANK SIZE CALCULATION	
10.	FUEL STORAGE REQUIRED FOR 72 HOURS OF OPERATION AT 100% LOAD (2 GENERATORS)	8,208 GALLONS
11.	FUEL TANK SELECTION	10,000 GALLONS
12.	5% OF UNUSABLE FUEL AT BOTTOM + 10% OF UNAVAILABLE FUEL ON TOP	1,500 GALLONS
13.	AVAILABLE FUEL IN TANK	8,500 GALLONS
14.	TOTAL AVAILABLE FUEL (1 MAIN TANK + 3 DAY TANKS)	9,137.5 GALLONS

LOAD PRIORITY SCHEDULE	
ATS-E1	PRIORITY 101 (NON-SHEDDING)
ATS-C1	PRIORITY 102 (NON-SHEDDING)
ATS-C2	PRIORITY 103 (NON-SHEDDING)
ATS-E2	PRIORITY 104 (NON-SHEDDING)
ATS-O1	PRIORITY 201
ATS-Q2	PRIORITY 202
ATS-O1	PRIORITY 301

GENERAL ONE-LINE DIAGRAM NOTES

1. PROVIDE ATS WITH LOAD SHED RELAY.
2. ATS SHALL BE DELAYED TRANSITION.
3. PROVIDE CONTROL WIRING AND CONDUITS, AS REQUIRED BY ATS MANUFACTURER, FROM EACH TRANSFER SWITCH TO THE MASTER CONTROL SECTION OF THE PARALLELING SWITCH GEAR EH01SGA. COORDINATE EXACT REQUIREMENTS WITH ATS MANUFACTURER AND MODIFY AS REQUIRED.
4. PROVIDE ALL CIRCUIT BREAKERS WITHIN THIS SWITCHBOARD WITH A ZONE SELECTIVE INTERLOCKING SYSTEM AND MMC BUS TO PROVIDE ARC FLASH MITIGATION PER 2014 NEC 240.87. PROVIDE DOCUMENTATION MOUNTED TO THE SWITCHBOARD ADJACENT TO THE MMC BUS WITH INSTRUCTIONS ON THE INSTALLATION AND OPERATION OF THE 2.5:1 SYSTEM.
5. PROVIDE CONNECTION BETWEEN IONTED METER IN SWITCHBOARD EH01SGA TO EACH GENERATOR'S MODBUS CONNECTION FOR GENERATOR DATALOGGING VIA THE IONTED METER.
6. THIS FEEDER SHALL BE 2 HOUR FIRE PROTECTED ALONG ITS ENTIRE LENGTH BY ROUTING UNDERGROUND OR WITHIN A 2 HOUR FIRE RATED ENCLOSURE.
7. THIS FEEDER SHALL BE LESS THAN 25'-0" IN LENGTH.
8. UPS WITH STEP-DOWN TRANSFORMER TO HAVE INTEGRAL SECONDARY OVERCURRENT PROTECTION DEVICE.

ONE-LINE DIAGRAM LEGEND

- EXISTING EQUIPMENT TO BE DEMOLISHED
- EXISTING EQUIPMENT AFFECTED BY PROJECT
- EXISTING EQUIPMENT TO REMAIN
- FUTURE EQUIPMENT
- NEW EQUIPMENT

GENERAL ONE-LINE DIAGRAM NOTES

1. REFER TO PANEL SCHEDULES FOR ADDITIONAL LOADS/PANELBOARD REQUIREMENTS NOT SPECIFICALLY INDICATED ON THIS SHEET.
2. COORDINATE CIRCUIT BREAKER SELECTION AND LUG CAPACITIES WITH SPECIFIED WIRE SIZES. PROVIDE LUG KITS AS REQUIRED. ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT.
3. CONDUITS SIZED PER EMT. CONTRACTOR TO RESIZE IF USING OTHER TYPES OF CONDUIT.
4. BASIS OF DESIGN: SQUARE D
5. ALL AUTOMATIC TRANSFER SWITCHES SHALL BE OPEN TRANSITION UNLESS NOTED OTHERWISE.
6. REFER TO SPECIFICATION 26 05 12.1 FOR WIRE AND CONDUCTOR TYPE.
7. ALL BREAKERS 150 AMPS AND LARGER SHALL BE SOLID STATE TYPE.

Order Plans @ WWLDIline.com

C:\Revit Local\GRADY\CASS-TLC-ELEC_ACE.HILDEBNBRANDKG\JEY.rvt

6/27/2019 4:44:41 PM

Grady

Project
THE CENTER FOR ADVANCED SURGICAL SERVICES (CASS)
88 JESSE HILL DRIVE
ATLANTA, GA 30303

Prepared For
GRADY HEALTH SYSTEM
80 JESSE HILL DR. SE
ATLANTA, GA 30303

Hellmuth, Obata & Kassabaum, Inc.
191 Peachtree Street, NE, Suite 2250
Atlanta, GA 30303 USA
t +1 404 439 9000 f +1 404 439 9001

All reproduction & intellectual property rights reserved © 2019

In Association with

TLC ENGINEERING SOLUTIONS
©Copyright 2019
255 S. Orange Avenue
Suite 1600
Orlando, FL 32801
P 407.841.9050
COA PEF002660
www.tlc-engineers.com
TLC No.: 118548
TAMPA, ORLANDO, TALLAHASSEE

Key Plan

Professional Seals
Emory Neal Boothe, P.E.
Georgia License #PE039005

NOT FOR CONSTRUCTION

No.	Description	Date
1	DD - GMP	2019-07-03

Project No: 18.16013.00

Sheet Title
ONE-LINE POWER RISER DIAGRAM - ELECTRICAL

Original is 30 x 42. Do not scale contents of this drawing.

Sheet Number
E003