

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY WILLIAM H. ROBERTS, P.E. USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

11/2/2018 4:35:08 PM

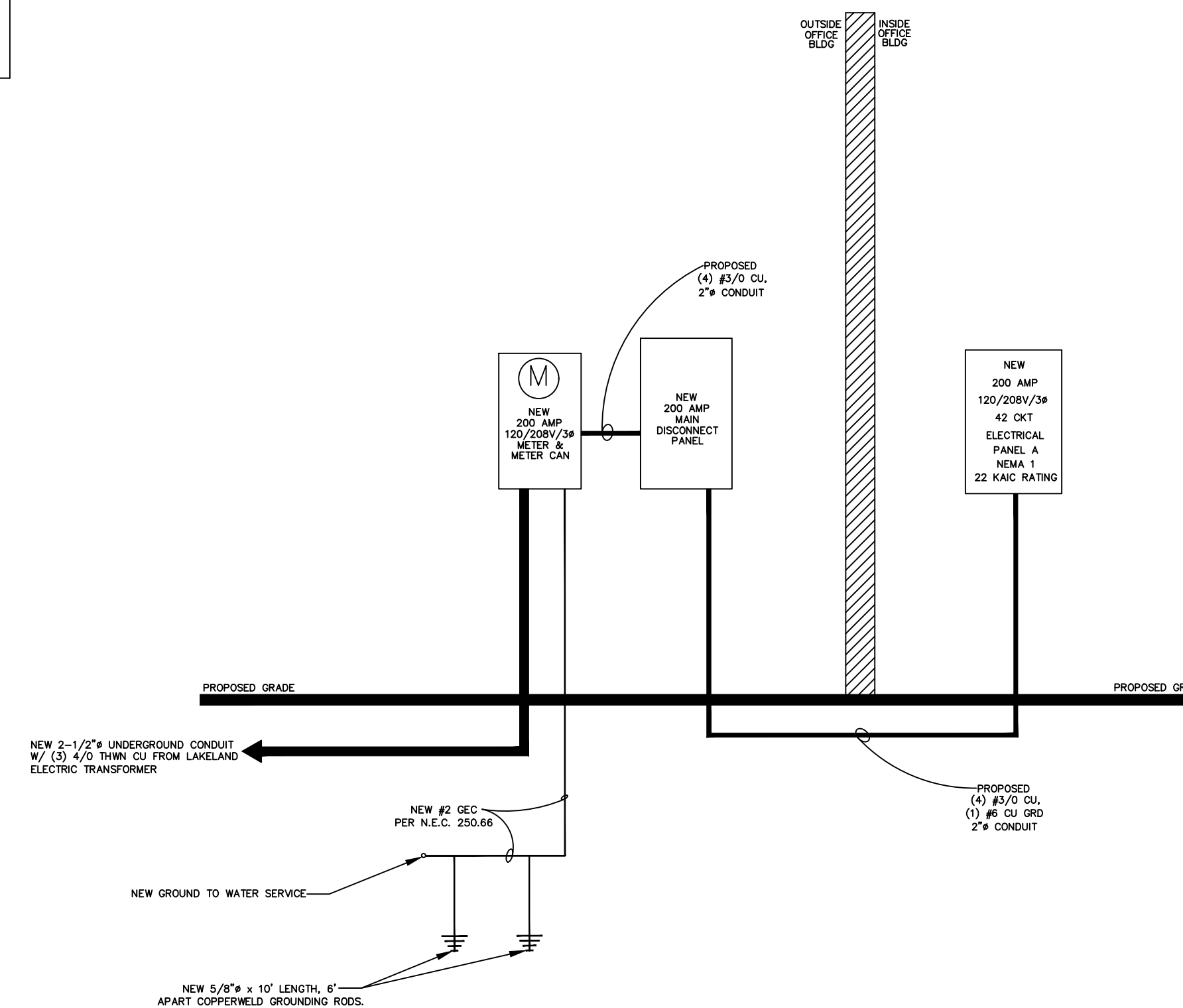
WILLIAM H. ROBERTS
 P.E. #42712
 ENGINEER OF RECORD

I HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE 6TH EDITION, 2017 FBC AND 2014 NEC.

EXISTING ELECTRICAL PANEL W											
MOUNTING: SURFACE MOUNT, INTERIOR		VOLTS: 120/208V/3Ø		AIC: 22,000							
FED FROM: EXISTING MAIN DISTRIBUTION PANEL IN INTERIOR ELECTRICAL ROOM OF BUILDING		BUS AMPS: 150 AMP		MAIN BKR: MLO							
		NEUTRAL: 100%		LUGS: STANDARD							
CKT #	BKR	CIRCUIT DESCRIPTION	KVA LOAD			CKT #	BKR	CIRCUIT DESCRIPTION	KVA LOAD		
			A	B	C				A	B	C
1	20/1	MEETING ROOM LIGHTS	0.79	1.14		2	20/1	SENIOR CITIZEN RECREATION LIGHTS	1.17		
3	20/1	REST & MECH/ELEC LIGHTS & EXHAUST FANS				4	20/1	RESTROOM LIGHTS & EXHAUST FANS	0.96	1.80	
5	20/1	CLASSROOM 1 & 2 LIGHTS	0.54	0.67		6	20/1	CLASSROOM 1 & 2 RECEPTACLES	1.62		
7	20/1	RECEPTACLES				8	20/1	SENIOR CITIZEN RECREATION RECEPTACLES		1.08	
9	20/1	SENIOR CITIZEN RECREATION RECEPTACLES	1.26			10	20/1	RECEPTACLES			
11	20/1	MEETING ROOM RECEPTACLES		0.90		12	20/1	SPARE	1.00		0.00
13	20/1	WASHER RECEPTACLE	1.00			14	20/1	REFRIGERATOR RECEPTACLE		0.72	
15	20/1	GFI RECEPTACLES		0.36		16	20/1	EXTERIOR WP RECEPTACLES			
17	60/3	20 TON A/H UNIT	5.00		5.00	18	50/3	20 TON A/C CONDENSER UNIT	3.75		3.75
19						20					
21				5.00		22				3.75	
23	30/2	DRYER 220V RECEPTACLE		2.25		24	30/2	HOT WATER HEATER			2.25
25			2.25			26			2.25		0.00
27	20/1	SPARE		0.00		28	20/1	SPARE			
29	20/1	SPARE				30	20/1	SPARE			
31	20/1	SPARE	0.00		0.00	32	20/1	SPARE	0.00		0.00
33	---	BLANK				34	---	BLANK			
35	---	BLANK				36	---	BLANK			
37	---	BLANK				38	---	BLANK			
39	---	BLANK				40	---	BLANK			
41	---	BLANK				42	---	BLANK			
TOTAL CONNECTED KVA BY PHASE									19.37	14.27	16.62
			CONN. KVA	7.71	CALC. KVA	9.64	(125%)				
LIGHTING			7.71		9.64		(125%)	CONTINUOUS			
LARGEST MOTOR			15.00		18.75		(125%)	HEATING			
OTHER MOTOR			12.77		12.77		(100%)	NON-CONTINUOUS			
RECEPTACLES			10.28		10.28		(100%)	TOTAL KVA			
			50.26		55.94		(100%)				
PANEL W TOTAL SERVICE LOAD AMPS = 55,940 / 208V / 1.732 = 155.28 AMPS											

WIRE & CONDUIT TABLE			
	SINGLE POLE	TWO POLE	THREE POLE
20 AMP	2 #12, 1 #12 GRD, 3/4" C	3 #12, 1 #12 GRD, 3/4" C	4 #12, 1 #12 GRD, 3/4" C
30 AMP	2 #10, 1 #10 GRD, 3/4" C	3 #10, 1 #10 GRD, 3/4" C	4 #10, 1 #10 GRD, 3/4" C
40 AMP	2 #8, 1 #10 GRD, 3/4" C	3 #8, 1 #10 GRD, 3/4" C	4 #8, 1 #10 GRD, 3/4" C
50 AMP	2 #8, 1 #10 GRD, 3/4" C	3 #6, 1 #10 GRD, 1" C	4 #6, 1 #10 GRD, 1" C
60 AMP	2 #6, 1 #10 GRD, 1" C	3 #6, 1 #10 GRD, 1" C	4 #6, 1 #10 GRD, 1" C

NOTE: THE ELECTRICAL CONTRACTOR SHALL HAVE THE OPTION OF UTILIZING EQUIVALENT (I.E., PER NEC 2014 CRITERIA) ALUMINUM WIRE FOR ALL SECONDARIES AND SUB FEEDS.



PROPOSED RISER DIAGRAM
 SCALE: N.T.S.

- ELECTRICAL NOTES:**
- ALL ELECTRICAL CONSTRUCTION AND/OR MODIFICATIONS SHALL CONFORM WITH THE 6TH EDITION, 2017 FLORIDA BUILDING CODE AS WELL AS THE 2014 EDITION OF THE NATIONAL ELECTRIC CODE [N.E.C.].
 - MINIMUM WIRE SIZE SHALL BE NO. 14 THW CU.
 - ALL COMMERCIAL INSTALLATIONS SHALL BE WITH EMT CONDUIT OR MC CABLE. CHECK WITH LOCAL CODE REQUIREMENTS.
 - VERIFY EXACT LOCATIONS OF RECEPTACLES, SWITCHES, ETC., WITH OWNER AND/OR GENERAL CONTRACTOR.
 - ALL EMERGENCY LIGHTING SHALL BE EQUIPPED WITH BATTERY BACKUPS, WITH INTERNAL BATTERIES. ALL EXIT SIGN ARROWS SHALL POINT TOWARDS CLOSEST EXIT OF BUILDING.
 - ALL LIGHTING EQUIPMENT SHALL BE U.L. APPROVED. ALL WIRING SHALL BE IN ACCORDANCE WITH MANUFACTURER SPECIFICATION. ALL WIRING SHALL BE RATED A MINIMUM 150C. ELECTRICAL CONTRACTOR TO PROVIDE TEMPORARY LIGHTING AND POWER AS REQUIRED DURING CONSTRUCTION. ELECTRICAL SUB CONTRACTOR IS RESPONSIBLE FOR SECURING ELECTRICAL PERMITS AND INSPECTIONS AS REQUIRED BY THE LOCAL BUILDING DEPARTMENT.
 - EMERGENCY LIGHTING SHALL BE DESIGNED TO AUTOMATICALLY ILLUMINATE EXIT ROUTES. IN THE EVENT OF AN EMERGENCY PER NFPA 101 SECTION 7.9.2.2, AN EMERGENCY IS DEFINED AS FAILURE OF THE MAIN POWER SUPPLY OR OPENING OF A FUSE ON THE ELECTRICAL PANEL. IT MAY ALSO BE DEFINED AS ANY MANUAL ACT WHICH DIRECTLY OR INDIRECTLY EFFECTS NORMAL LIGHT LEVELS. EMERGENCY LIGHTING MUST BE IN CONTINUOUS OPERATION OR SHOULD BE ABLE TO OPERATE AUTOMATICALLY IN SEPARATE OCCURENCES WITH NO NEED FOR A MANUAL RESET.
 - ELECTRICAL SUB CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL ELECTRICAL INFORMATION SHOWN ON THESE ELECTRICAL PLANS AND HE SHALL ALSO BE RESPONSIBLE FOR MAKING ANY NECESSARY CORRECTIONS TO BREAKER SIZES IN THE FIELD TO ENSURE THAT THE PROPOSED PROJECT HAS SUFFICIENT POWER AVAILABLE. ANY MAJOR CHANGES TO THESE ELECTRICAL PLANS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO ISSUANCE OF THE CITY OF PLANT CITY BUILDING PERMIT AND PRIOR TO ORDERING OF MATERIALS/SUPPLIES SO THAT THE PLANS CAN BE MODIFIED PRIOR TO ISSUANCE OF THE BUILDING PERMIT.
 - THE ELECTRICAL SUBCONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING LOW VOLTAGE PLANS TO THE CITY OF PLANT CITY FOR PERMITTING AND NO LOW VOLTAGE WORK SHALL BE PERFORMED UNTIL PERMITS HAVE BEEN OBTAINED FROM THE CITY OF PLANT CITY BY THE ELECTRICAL SUBCONTRACTOR.
 - FBC 1008 , NFPA 101 REQUIRES THAT EMERGENCY EGRESS LIGHTING BE PROVIDED IN ALL AISLES, CORRIDORS & PASSAGEWAYS LEADING TO AN EXIT PROVIDING NOT LESS THAN 1.5 HOURS OF BACKUP LIGHTING & AN AVERAGE OF 1 FOOT CANDLE AT ANY POINT & NOT LESS THAN A MINIMUM OF 0.10 FOOT CANDLE ALONG THE PATH OF EGRESS.

PERMIT DRAWINGS FOR:

PALMETTO UMC ANNEX BUILDING

5601 16TH AVE EAST CHURCH
 PALMETTO, FL 34221

OWNER: FAMILY OF GOD UNITED METHODIST

ADDRESS: 5601 16TH AVE EAST PALMETTO, FL 34221

TELEPHONE: (352) 729-6055

EMAIL: PALMETTOUMC@HOTMAIL.COM

OWNER'S REPRESENTATIVE:
 FRANK COSEGLIA, CHAIRMAN LEADERSHIP COUNCIL

REVISIONS

NO	DATE	DESCRIPTION

PROJECT NO: Project Number

FILE:

DRAWN BY: Author CHKD BY: Checker

© 2018 ENGINEERING GREAT IDEAS, INC.

SHEET TITLE:

RISER DIAGRAM & PANEL SCHEDULE

SHEET COUNT: OF

SHEET IDENTIFICATION: