

P1														
400A-M.C.B.					VOLTAGE: 120/240V-3PH-4W					SURFACE				
NOTES	LOAD DESCRIPTION	LOAD	BKR AMP	BKR No	PH	BKR No	BKR AMP	LOAD	LOAD DESCRIPTION	NOTES				
	RTU-1	4,917	45	1	A	2	20		CBS1 - Ltg Inverter					
		4,917	-	5	C	6	20		CBS2 - Ltg Inverter					
	RTU-2	8,396	70	7	A	8	15	1,500						
		8,396	-	11	C	12	-	1,500	WH-1					
		4,917	45	13	A	14	25	3,000						
	RTU-3	4,917	3P	15	B	16	3P	3,000	WH-2					
		4,917	-	17	C	18	-	3,000						
	RTU-4	4,917	45	19	A	20								
		4,917	-	23	C	24								
		4,917	45	25	A	26								
	RTU-5	4,917	3P	27	B	28								
		4,917	-	29	C	30								
	Panel P2	10,950	100	31	A	32								
		10,630	-	35	C	36								
		11,220	100	37	A	38								
	Panel P3	11,040	-	41	C	42								
TOTAL CONNECTED LOAD:		141,532 W					340 AMPS			3/23/2020				

P2														
125A-M.L.O.					VOLTAGE: 120/240V-1PH-3W					SURFACE				
NOTES	USE	LOAD	BKR AMP	BKR No	PH	BKR No	BKR AMP	LOAD	USE	NOTES				
	Office 139	900	20	1	A	2	20	500	EWC					
	Roof/Top Rec	540	20	3	B	4	20	540	CL Rm 3					
	Office 147	1,080	20	5	A	6	20	540	Bathroom/Hall Rec					
	Office 145, Mech/Elec	900	20	7	B	8	20	720	Boutique					
	Roof/Top Rec	360	20	9	A	10	20	540	CL Rm 4					
	Mech/Elec Ded. Rec	180	20	11	B	12	20	900	Classroom					
	Extra Office/Storage	1,080	20	13	A	14	20	1,550	Ltg					
	Classroom	1,080	20	15	B	16	20	1,550	Ltg					
	Extra Office	1,080	20	17	A	18	20	1,700	Ltg					
	Prayer, Office 145	1,080	20	19	B	20	20	1,700	Ltg					
	Reception 143	720	20	21	A	22	20		Spare					
	CL Rm. #5,6	1,080	20	23	B	24	20	180	FAACP					
	CL Rm. #1,2	1,080	20	25	A	26			Spare					
	Reception 143	720	20	27	B	28			Spare					
	Spare		20	29	A	30			Spare					
	Spare		20	31	B	32			Spare					
	Spare		20	33	A	34			Spare					
	Spare		20	35	B	36			Spare					
	Spare		37	A	38				Spare					
	Spare		39	B	40				Spare					
	Spare		41	A	42				Spare					
TOTAL CONNECTED LOAD:		22,300 W					93 AMPS			3/23/2020				

P3														
125A-M.L.O.					VOLTAGE: 120/240V-1PH-3W					SURFACE				
NOTES	USE	LOAD	BKR AMP	BKR No	PH	BKR No	BKR AMP	LOAD	USE	NOTES				
	Rm 101, 102, 105 Rec	1,080	20	1	A	2	20	1,080	Ultrasound #1 Rec					
	Rm 104, 105 Rec	1,080	20	3	B	4	20	1,080	Ultrasound #2 Rec					
	Spare		20	5	A	6	20	540	Lab. Bathroom Rec					
	Exam Rm#4,5,6 Rec	1,080	20	7	B	8	20	540	Lab. Bathroom Rec					
	Rm 118, 119 Rec	900	20	9	A	10	20	900	Hall, Exam Rm 7,9 Rec					
	Rm 102, 118, 119 Rec	1,080	20	11	B	12	20	1,080	Exam Rm					
	Ex Office #1, Bkroom Rec	1,080	20	13	A	14	20	1,080	Exam #11, Office Rec					
	Ex Office #2, Hall, Bathroom Rec	1,080	20	15	B	16	20	500	Coffee Mkt					
	Conf Rm Rec	1,080	20	17	A	18	20	1,000	Micro					
	Refrigerator	600	20	19	B	20	20	1,000	Refrigerator					
	Lobby 142, Workroom 134 Rec	900	20	21	A	22	20	20	Dish					
	Lobby 132, Mtg Rm Rec	900	20	23	B	24	20	20	Refrigerator					
	Lobby 132, Ex Office#3	1,080	20	25	A	26	20	720	Refrigerator					
	Spare		20	27	B	28	20	140	Breakroom Counter Rm					
	Spare		20	29	A	30			Spare					
	Spare		20	31	B	32	20		Spare					
	Spare		20	33	A	34			Spare					
	Spare		20	35	B	36			Spare					
	Spare		37	A	38				Spare					
	Spare		39	B	40				Spare					
	Spare		41	A	42				Spare					
TOTAL CONNECTED LOAD:		22,780 W					95 AMPS			3/23/2020				

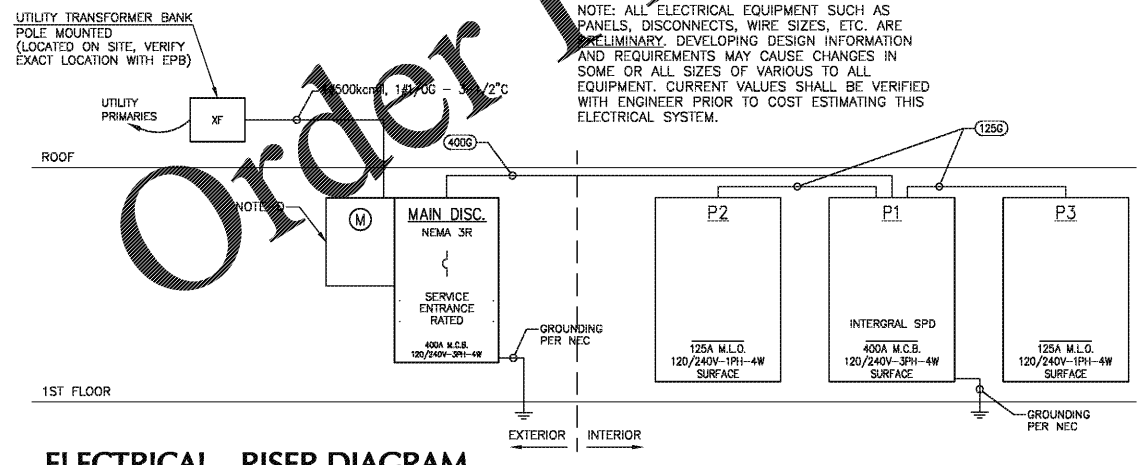
ELECTRICAL - PANEL SCHEDULES

SCALE: NONE

FEEDER SCHEDULE			
MARK	1PH - 2 WIRE W/ GROUND	MARK	1PH OR 3PH - 3 WIRE W/ GROUND
(25SD)	2#12, 1#12G - 1/2" C	(20SD)	3#12, 1#12G - 1/2" C
(35SD)	2#10, 1#10G - 1/2" C	(30SD)	3#10, 1#10G - 1/2" C
(55SD)	2#8, 1#10G - 1" C	(50SD)	3#8, 1#10G - 1" C
(65SD)	2#6, 1#10G - 1" C	(60SD)	3#6, 1#10G - 1" C
(85SD)	2#4, 1#8G - 1" C	(80SD)	3#4, 1#8G - 1" C
(105SD)	2#2, 1#8G - 1-1/4" C	(100SD)	3#2, 1#8G - 1-1/4" C
		(125SD)	3#1, 1#8G - 1-1/4" C
		(150SD)	3#1/0, 1#8G - 1-1/2" C
		(175SD)	3#2/0, 1#8G - 1-1/2" C
		(200SD)	3#3/0, 1#8G - 2" C
		(225SD)	3#4/0, 1#2G - 2" C
		(250SD)	3#250kcmil, 1#2G - 2-1/2" C
		(300SD)	3#350kcmil, 1#2G - 2-1/2" C
		(400SD)	3#500kcmil, 1#2G - 3" C
		(F400SD)	3#600kcmil, 1#2G - 3-1/2" C
		(500SD)	2(3#250kcmil), 1#2G - 2-1/2" C
		(600SD)	2(3#350kcmil), 1#1G - 2-1/2" C
		(800SD)	2(3#500kcmil), 1#1/0G - 3" C
		(F800SD)	2(3#600kcmil), 1#1/0G - 3-1/2" C
		(1000SD)	3(3#400kcmil), 1#2/0G - 3" C
		(1200SD)	4(3#350kcmil), 1#3/0G - 2-1/2" C
		(1600SD)	4(3#600kcmil), 1#4/0G - 3-1/2" C
		(2000SD)	5(3#600kcmil), 1#250kcmilG - 3-1/2" C
		(2000SD)	5(3#600kcmil), 1#250kcmilG - 4" C

* NOTE: ALL CONDUCTORS SHALL BE COPPER

- PANEL RISER DIAGRAM NOTES:
- ELECTRICAL CONTRACTOR SHALL PERFORM ALL SERVICE WORK IN ACCORDANCE WITH EPB (ELECTRIC UTILITY), TELEPHONE COMPANY, AND CABLE TELEVISION COMPANY SPECIFICATIONS AND PER APPROVED ELECTRIC UTILITY COMPANY ENGINEERED WORK ORDER. ELECTRIC UTILITY WORK ORDER(S) SHALL BE SUBMITTED TO CAMPBELL & ASSOCIATES FOR APPROVAL.
 - THE OWNER WILL PAY FOR ELECTRIC UTILITY COMPANY SERVICE EXTENSION CHARGES.
 - OVERHEAD POLE CONDUIT LATERALS ON STAND-OFFS WITH WEATHER HEAD OR BUSHING 6" FROM NEUTRAL PER UTILITY. COORDINATE WITH EPB. BELOW GRADE SERVICE ENTRANCE ROOMS SEAL IN AND AROUND CONDUITS, CONDUITS, TRENCHING, AND BACKFILL BY ELECTRICAL CONTRACTOR.
 - METER BASE SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR PER EPB UTILITY REQUIREMENTS. PROVIDE PEDESTAL AS REQUIRED. PROVIDE 1-1/2" CONDUIT FROM METER TO TELEPHONE DEMARK IN BUILDING PER UTILITY. METER SOCKETS AND CT CABINETS REQUIRE SLIP JOINTS AND BUSHINGS PER NEC 300.5(J)(1), NESC, AND UTILITY REQUIREMENTS.
 - MINIMUM CONDUIT SIZE SHALL BE 1" UNLESS NOTED OTHERWISE. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC, U.N.O. ALL UNDERGROUND CONDUITS SHALL BE A MINIMUM OF 36" BELOW GRADE TO TOP OF CONDUIT, AND IDENTIFIED WITH MARKER WIRE. CONDUIT VERTICAL RISERS EXPOSED ABOVE GRADE AND 90° BENDS SHALL BE RGS OR FIBERGLASS.
 - EXTEND CONDUITS TO SERVICE CONNECTION POINT. VERIFY EXACT LOCATION WITH ELECTRIC UTILITY AND TERMINATE AS DIRECTED.
 - PROVIDE ONE (1) 4" CONDUIT FOR TELEPHONE FROM TEL. BOARD (VERIFY EXACT LOCATION) TO TELEPHONE DEMARK LOCATION AS REQUIRED. PROVIDE PULL STRING IN CONDUIT.
 - THE CONTRACTOR SHALL CONTACT UTILITY PROTECTION SERVICE (811) THREE WORK DAYS PRIOR TO COMMENCING SITE WORK TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES.
 - ALL CONDUCTORS SHALL BE COPPER.
 - VERIFY WITH UTILITY (E.P.B.) CALCULATED A.I.C. VALUE AT SERVICE ENTRANCE EQUIPMENT. PROVIDE PANEL WITH APPROPRIATE REQUIRED A.I.C. RATING BASED ON INFORMATION FROM UTILITY AND COORDINATE REQUIREMENTS OF DOWNSTREAM DEVICES. PROVIDE LABELING TO EQUIPMENT AS PER LATEST APPLICABLE N.E.C.
 - PROVIDE LABEL INDICATING "MAXIMUM AVAILABLE FAULT CURRENT OF _____ AS PROVIDED BY EPB; CALCULATION OBTAINED ON _____, 2020, PER NEC 2017 ARTICLE 110.24". E.C. SHALL VERIFY WITH EPB OR ENGINEER AND PROVIDE RATED PANEL AS REQUIRED.
 - SPD = SURGE PROTECTION DEVICE, SEE SPECIFICATIONS
 - BASIS OF DESIGN UTILIZING SIEMENS "P2" DISTRIBUTION TYPE WALL MOUNTED 24" WIDE BY 7-3/4" DEPTH. ANY SUBSTITUTION SHALL MATCH AND BE PRE APPROVED BY ENGINEER.



ELECTRICAL - RISER DIAGRAM

SCALE: NONE

WIRE SIZING TABLE	
FOR 120V-20A BRANCH CIRCUITS ONLY, UNLESS OTHERWISE NOTED	
IF DISTANCE A+B IN FEET IS: (SEE DIAGRAM AT RIGHT)	USE COPPER WIRE IN METALLIC CONDUIT, AWG SIZE AS FOLLOWS ON ENTIRE CIRCUIT AND SIZE CONDUIT ACCORDINGLY:
0' TO 100'	#12 (MIN.)
100' TO 175'	#10
175' TO 300'	#8
300' TO 450'	#6 (MAX.)

THESE TABLES ARE BASED ON AN EVENLY DISTRIBUTED LOAD ALLOWING A 3% VOLTAGE DROP AT LAST OUTLET; APPLY ACCORDINGLY.

ACCEPTABLE SWITCHGEAR BRANDS ARE SIEMENS, GENERAL ELECTRIC, & SQUARE D. CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT ALL SWITCHGEAR FITS INTO THE ALLOTTED SPACE WITH THE REQUIRED WORKING CLEARANCES. WHERE CONFLICT IS FOUND TO EXIST, THE E.C. SHALL NOTIFY THE ENGINEER IMMEDIATELY, PRIOR TO INSTALLATION. NOTICE: EQUIPMENT DIMENSIONS MAY VARY AMONG MANUFACTURERS; FINAL EQUIPMENT SELECTIONS SHALL BE VERIFIED TO COMPLY PRIOR TO SUBMITTAL.

ALL PANELBOARD CONSTRUCTION SHALL INCLUDE OPTIONAL DOOR-IN-DOOR TRIM ASSEMBLIES WITH PIANO HINGE TYPE ON BOTH INNER AND OUTER DOORS. "EZ TRIM" - DOOR IN DOOR SHALL NOT BE ACCEPTED, NO EXCEPTIONS.



bloom architecture
400 E. Main Street, #215 Chattanooga, TN 37408
design@bloomco.com 1-423-503-1951

5700 BUILDING: INTERIOR RENOVATION
951 EASTGATE LOOP CHATTANOOGA, TN 37411

No.	Description	Date

PERMIT DOCUMENTS
Project # 19161
20 MAR 2020
ELECTRICAL PANELS, RISER DIAGRAM, & NOTES
E103