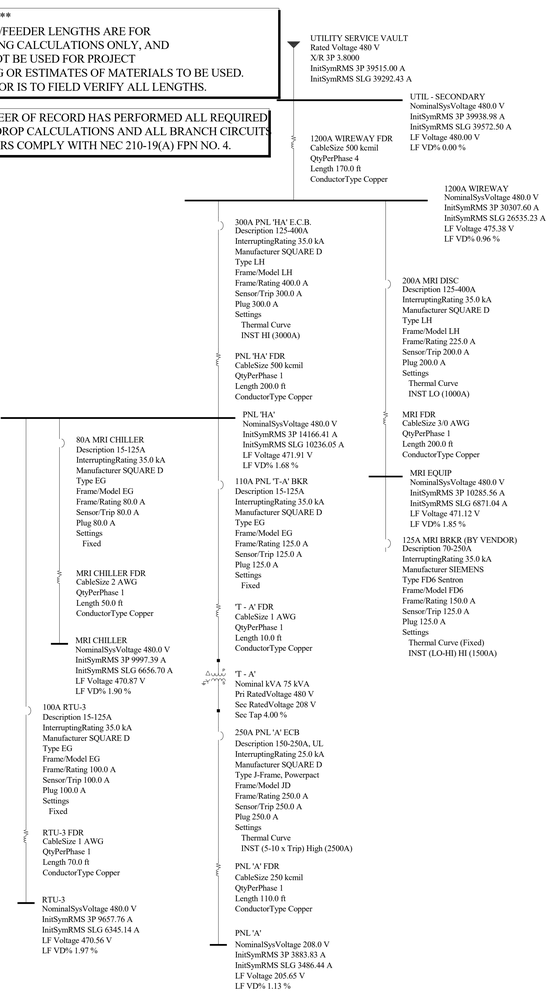
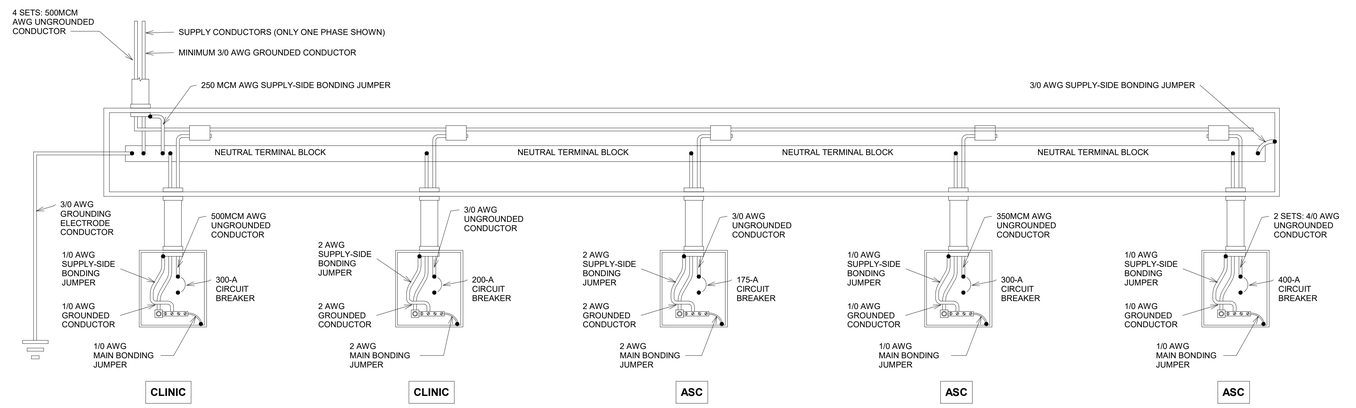
CAUTION
ALL CABLE/FEEDER LENGTHS ARE FOR ENGINEERING CALCULATIONS ONLY, AND SHOULD NOT BE USED FOR PROJECT BUDGETING OR ESTIMATES OF MATERIALS TO BE USED. CONTRACTOR IS TO FIELD VERIFY ALL LENGTHS.

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUITS AND FEEDERS COMPLY WITH NEC 210-19(A) FPN NO. 4.





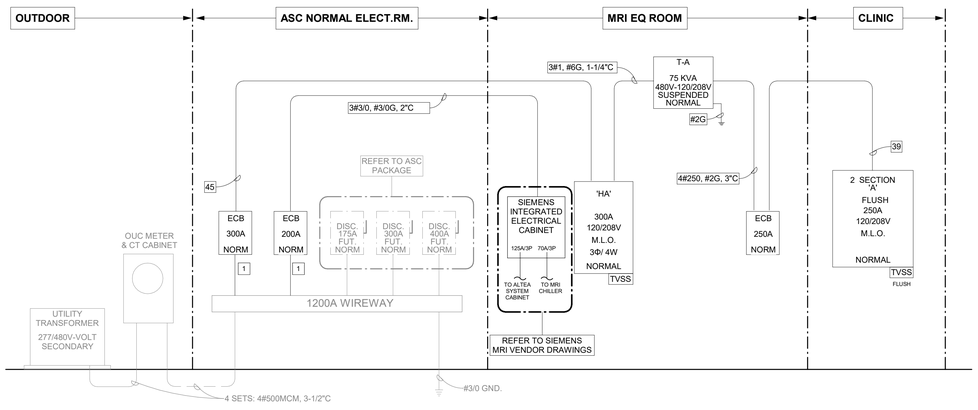
BONDING REQUIREMENTS FOR SERVICE EQUIPMENT DETAIL

No Scale

1

CODED NOTES:

1. REFER TO BONDING REQUIREMENTS FOR SERVICE EQUIPMENT DETAIL FOR WIRE SIZES TO BE USED.



CONDUIT AND WIRE DESIGNATION SCHEDULE

COPPER						ALUMINUM ALLOY		
WIRE/BKR MAX AMPS	DESIG. #	DESCRIPTION	WIRE/BKR MAX AMPS	DESIG. #	DESCRIPTION	WIRE/BKR MAX AMPS	DESIG. #	DESCRIPTION
20	1	2#12, 1/2"C	200	32	2#3/0, 1#6G,2"C	205	32	2#250MCM, 1#2G, 2-1/2"C
20	2	2#12, 1#12G, 1/2"C	200	33	3#3/0, 1#6G, 2"C	205	33	3#250MCM, 1#2G, 2-1/2"C
20	3	3#12,1#12G, 1/2"C	200	34	4#3/0, 1#6G, 2"C	205	34	4#250MCM 1#1G, 2-1/2"C
20	4	4#12, 1#12G, 1/2"C	230	35	2#4/0, 1#4G,2"C	230	35	2#300MCM, 1#2G, 2-1/2"C
30	5	2#10, 1#10G, 3/4"C	230	36	3#4/0, 1#4G, 2"C	230	36	3#300MCM, 1#2G, 2-1/2"C
30	6	3#10, 1#10G, 3/4"C	230	37	4#4/0, 1#4G,2-1/2"C	230	37	4#300 MCM 1#2G, 3"C
30	7	4#10, 1#10G, 3/4"C	255	38	3#250MCM,1#4G, 2-1/2"C	250	38	3#350MCM, 1#2G, 2-1/2"C
40	8	2#8, 1#10G, 3/4"C	255	39	4#250MCM, 1#4G,2-1/2"C	250	39	4#350MC, 1#2G, 3"C
40	9	3#8, 1#10G, 3/4"C	285	40	3#300MCM, 1#4G,2-1/2"C	270	40	3#400MCM, 1#1G, 3"C
40	10	4#8, 1#10G, 3/4"C	285	41	4#300MCM,1#4G,3"C	270	41	4#400MCM, 1#1G, 3"C.
55	11	2#6, 1#8G, 3/4"C ⚠2	310	42	3#350MCM,1#3G, 2-1/2"C	310	42	3#500MCM, 1#1G, 3"C
55	12	3#6, 1#8G, 3/4"C	310	43	4#350MCM, 1#3G, 3"C	310	43	4#500MCM, 1#1G, 3-1/2"C
55	13	4#6, 1#8G, 1"C	380	44	3#500MCM, 1#3G, 3"C	385	44	3#750MCM, 1#1G, 3-1/2"C
70	14	2#4, 1#8G, 1"C	380	45	4#500MCM,1#3G,3-1/2"C	385	45	4#750MCM, 1#1G, 3-1/2"C
70	15	3#4, 1#8G, 1"C	460	46	2 SETS,EA:4#4/0,1#2G..2-1/2"C	460	46	2 SETS, EA: 4#300MCM, 1#1/0G, 3"C.
70	16	4#4, 1#8G, 1-1/4"C	510	47	2 SETS,EA:4#250MCM, 1#1G,2-1/2"C	540	47	2 SETS, EA: 4#400MCM, 1#2/0G, 3"C
85	17	2#3, 1#8G, 1-1/4"C	620	48	2 SETS,EA: 4#350MCM,1#1/0G,3"C	620	48	2 SETS, EA: 4#500MCM, 1#3/0G, 3-1/2"C
85	18	3#3, 1#8G, 1-1/4"C	760	49	2 SETS,EA: 4#500MCM, 1#1/0G,3-1/2"C	770	49	2 SETS, EA: 4#750MCM, 1#3/0G, 4"C
85	19	4#3, 1#8G, 1-1/4"C	855	50	3 SETS, EA: 4#300MCM,1#2/0G,3"C	930	50	3 SETS, EA: 4#500MCM, 1#4/0G, 3-1/2"C.
95	20	2#2, 1#8G, 1-1/4"C ⚠2	930	51	3 SETS, EA: 4#350MCM,1#2/0G,3"C	930	51	3 SETS, EA: 4#500MCM, 1#4/0G, 3-1/2"C.
95	21	3#2, 1#6G, 1-1/4"C	1005	52	3 SETS, EA: 4#400MCM,1#3/0G,3"C	1000	52	4 SETS, EA: 4#350MCM, 1#4/0G, 3"C.
95	22	4#2, 1#6G, 1-1/4"C	1140	53	3 SETS,EA:4#500MCM,1#3/0G,3-1/2"C	1240	53	4 SETS, EA: 4#500MCM, 1#250MCMG, 3-1/2"C
130	23	2#1, 1#6G, 1-1/2"C	1240	54	4 SETS,EA: 4#350MCM,1#4/0G,3"C	1240	54	4 SETS, EA: 4#500MCM, 1#250MCMG, 3-1/2"C
130	24	3#1, 1#6G, 1-1/4"C	1675	55	5 SETS,EA:4#400MCM,1#250MCMG,3"C	1700	55	5 SETS, EA: 4#600MCM, 1#400MCMG, 3-1/2"C
130	25	4#1, 1#6G, 1-1/2"C	1900	56	5 SETS,EA:4#500MCM,1#250MCMG,3-1/2"C	1860	56	6 SETS, EA: 4#500MCM, 1#400MCMG, 3-1/2"C
150	26	2#1/0, 1#6G, 1-1/2"C	2010	57	6 SETS,EA:4#400MCM,1#350MCMG,3-1/2"C	2040	57	6 SETS, EA: 4#600MCM, 1#600MCMG, 3-1/2"C
150	27	3#1/0, 1#6G,1-1/2"C	2280	58	6 SETS,EA:4#500MCM,1#350MCMG,3-1/2"C	2310	58	6 SETS, EA: 4#750MCM, 1#600MCMG, 4"C
150	28	4#1/0, 1#6G, 2"C	2660	59	7 SETS,EA:4#500MCM,1#400MCMG,3-1/2"C	2695	59	7 SETS, EA: 4#750MCM, 1#600MCMG, 4"C
175	29	2#2/0, 1#6G, 1-1/2"C	3040	60	8 SETS, EA:4#500MCM,1#500MCMG,3-1/2"C	3080	60	8 SETS, EA: 4#750MCM, 1#750MCMG, 4"C
175	30	3#2/0, 1#6G,1-1/ 2"C	4180	61	11 SETS,EA: 4#500MCM,1#600MCMG,3 1/2"C	4235	61	11 SETS, EA: 4#750 MCM, 1#750MCMG, 4"C
175	31	4#2/0, 1#6G, 2"C						

⚠1 CONDUIT SIZE BASED ON THWN/THWN 40% FILL CALCULATION WIRE SIZE BASED ON NEC 310-15 (B)(16) WITH 75°C AMPACITY TABLES

CONDUIT SIZE BASED ON 40% FILL CALCULATION FOR TYPE XHHW INSULATION

NOTE!
IN GENERAL, THE ACTUAL BREAKER AMPERAGE SHALL BE EQUAL TO OR NEXT STANDARD SIZE SMALLER THAN THE MAXIMUM WIRE AMPS. EXCEPTIONS SHALL BE MOTOR AND SPECIAL EQUIPMENT BREAKERS WHICH SHALL BE SIZED PER N.E.C. AND VENDOR REQUIREMENTS. OMIT GROUND CONDUCTORS ON SERVICE ENTRANCE FEEDERS (TYPICAL). USE #12 WIRE U.O.N. PRIOR TO ROUGH-IN, CONTRACTOR SHALL COORDINATE BREAKER AND WIRING WITH ACTUAL REQUIREMENTS OF EQUIPMENT BEING FURNISHED FOR THIS SPECIFIC PROJECT.

UNLESS NOTED OTHERWISE ALL 20A., 1P. BREAKERS TO UTILIZE #12 CONDUCTORS. EXCEPT WHERE BRANCH CIRCUIT IS IN EXCESS OF 90 LINEAR FEET CONDUCTORS TO BE #10 AND OVER 175 FEET LINEAR FEET CONDUCTORS TO BE #8.

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SEAL



DEUK SPINE INSTITUTE

Surgery Center at Millenia, LLC

Hunton Brady ARCHITECTS

DATE	SUBMISSION	NO
12.12.2023	CONSTRUCTION DOCUMENTS	
05.19.2026	CCD NO. 1	1
08.07.2026	CCD #2R	2

ELECTRICAL RISER DIAGRAM & ONE LINE

PROJ. NO. H-23016.00 SHEET
DRAWN RC

E600B

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