SPECTRUM
ENGINEERS

ADDENDUM #9

Project:	**Brighton Recovery Campus-Building A**	**From:**	Jason Worthen
Project No:	20160686	**Date:**	April 12, 2016

DISCIPLINES
Mechanical Engineering
Electrical Engineering
Technology Design
Acoustical Engineering
Lighting Design
Theatre Design
Fire Protection Engineering
Building Commissioning

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BUILDING A DRAWINGS

EP601 (see attached sheet)

1. Changed one-line diagram to shown the grounding electrode conductors for Building A as new.
2. Added grounding electrodes and grounding electrode conductors for the panels in buildings B, C, D, E and F.

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FAULT CURRENT TABLE

BUS	FAULT CURRENT
METER/CT	25,009 SCA
MDP	24,762 SCA
LA	23,147 SCA
LB	10,931 SCA
LC	7,729 SCA
LD	8,216 SCA
LE	7,572 SCA
LF	9,682 SCA

PROVIDE FULLY RATED CIRCUIT BREAKERS IN PANELBOARDS FOR THE FAULT CURRENT SHOWN. SERIES RATINGS WITH NEXT LEVEL UPSTREAM OVERCURRENT PROTECTIVE DEVICES ARE PERMITTED SUBJECT TO FACTORY UL DOCUMENTATION OF SERIES RATING SUBMITTED TO ENGINEER. IF DEVICE OR EQUIPMENT FAULT CURRENT RATING IS NOT SHOWN, ASSUME 100,000 AIC.

EQUIPMENT SCHEDULE

MARK	ITEM DESCRIPTION	LOAD DATA							WIRE AND CONDUIT SIZE	COND. AND CONDUIT SCHED.	OVERCURRENT PROTECTION			DISCONNECT			STARTER DATA													NOTES	MARK
		HP	kW	MCA	FLA	VOLT	PH	Hz			FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	LOCATION	FURN BY	DEVICE	LOCATION	SIZE	SPEED	CTRL VOLT	SELECTOR SWITCH	PUSH BUTTON	PILOT LAMP	NORMALLY OPEN CONTACTS	NORMALLY CLOSED CONTACTS	PHASE FAILURE RELAY	SCHEMATIC REFERENCE	REMOTE CTRL		
EUH-1	ELECTRIC UNIT HEATER WATER ENTRIES		3.3	20	15.85	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E														EUH-1
EUH-2	ELECTRIC UNIT HEATER EXIT DOORS		2.0	12	9.6	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E														EUH-2
EUH-3	ELECTRIC UNIT HEATER CUSTODIAN		1.5	9	7.2	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/2P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E														EUH-3
EF-1	EXHAUST FAN PRIVATE UNIT BATHROOMS		.06			120	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/1P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E														AC-1
EF-2	EXHAUST FAN PRIVATE UNIT BATHROOMS		.01			120	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/1P CB	PANEL	E	THERMAL SWITCH	ADJ TO EQUIP	E														AC-1
GEF-1	EXHAUST FAN	2		9.5	7.5	208	3	60	3 #12, #12 GR 0.75" CND	2	E	20A/3P CB	PANEL	E	30A/3P FRN 10	ADJ TO EQUIP	E	FVNR	ADJ TO EQUIP	0			HOA		R,G	2	2				GEF-1
RTU-1	ROOF TOP UNIT BUILDING ROOFS			19.1		208	3	60	4 #10, #10 GR 0.75" CND	6	E	30A/3P CB	PANEL	E	30A/3P NON-FUSED	ADJ TO EQUIP	E													1	RTU-1
RTU-2	ROOF TOP UNIT BUILDING ROOFS			28.9		208	3	60	4 #8, #10 GR 1" CND	9	E	40A/3P CB	PANEL	E	50A/3P NON-FUSED	ADJ TO EQUIP	E													1	RTU-2
MAU-1	MAKE UP AIR UNIT	1.5		10.2	8.6	208	3	60	3 #12, #12 GR 0.75" CND	2	E	20A/3P CB	PANEL	E	30A/3P FRN 9	ADJ TO EQUIP	E	FVNR	ADJ TO EQUIP	00			HOA								MAU-1
DSS-1	SPLIT SYSTEM INDOOR UNIT				0.25	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-2	ADJ TO EQUIP															DSS-1
CU-1	SPLIT SYSTEM OUTDOOR UNIT			16	12.8	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-20	ADJ TO EQUIP															CU-1
DSS-2	SPLIT SYSTEM INDOOR UNIT				0.4	208	1	60	2 #12, #12 GR 0.75" CND	1	E	20A/3P CB	PANEL	E	30A/3P FRN-2	ADJ TO EQUIP															DSS-2
CU-2	SPLIT SYSTEM OUTDOOR UNIT			20	16	208	1	60	2 #10, #10 GR 0.75" CND	4	E	30A/3P CB	PANEL	E	30A/3P FRN-25	ADJ TO EQUIP															CU-2

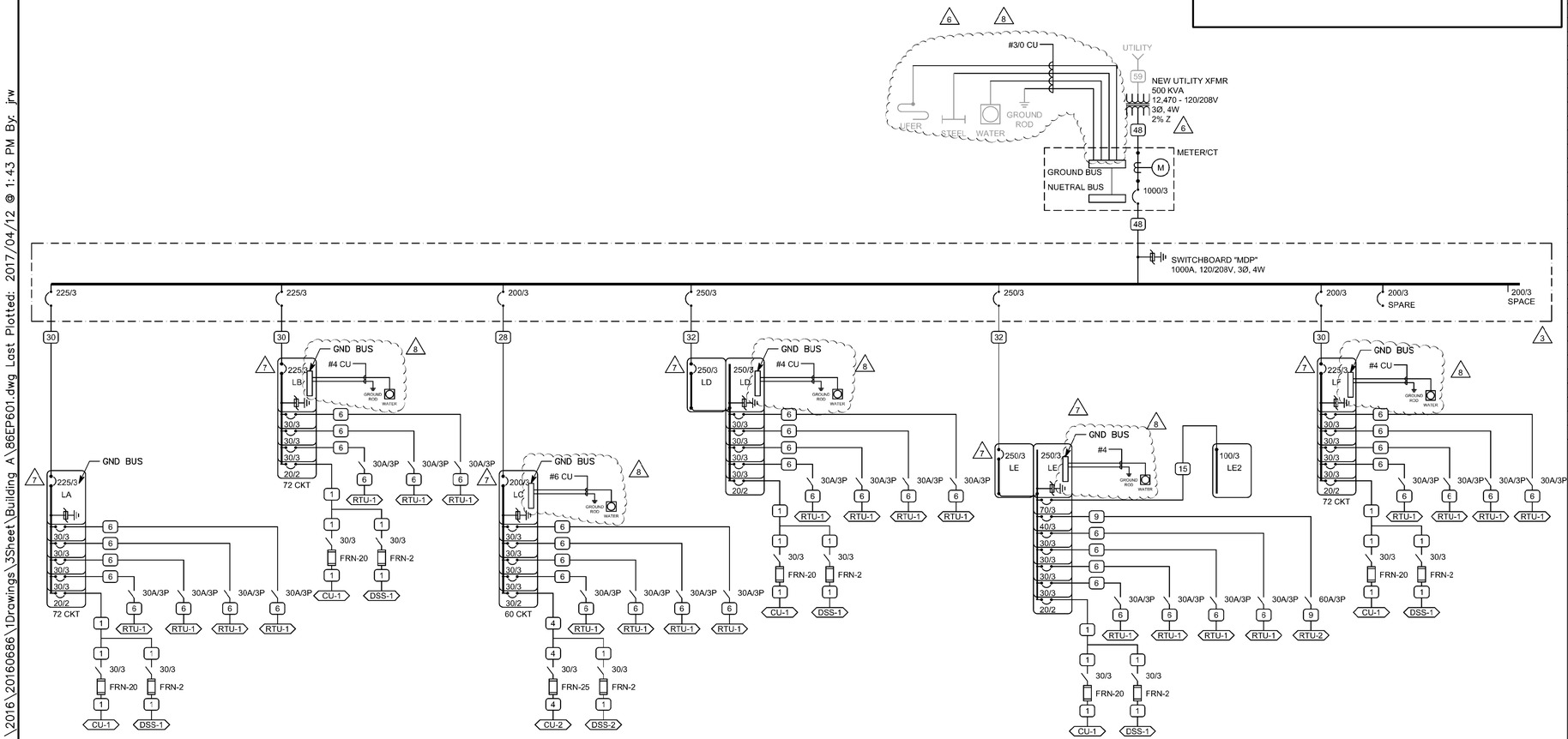
1 120V convenience outlet integral to unit.

EQUIPMENT SCHEDULE KEY

E	DIVISION 26
Q	FURNISHED WITH THE EQUIPMENT
*	COORDINATE WITH THE DIVISION 23 TEMPERATURE CONTROL INSTALLER
**	AUTOMATIC CONTROL WIRING BY DIVISION 23

GENERAL SHEET NOTES

1. ALL OVERCURRENT PROTECTIVE DEVICES SHALL HAVE THE SAME AIC RATING AS THE PANEL OR GEAR THEY ARE LOCATED WITHIN.
2. ALL ELECTRICAL EQUIPMENT SHALL BE FIELD MARKED WITH THE CALCULATED AVAILABLE FAULT CURRENT PER NEC 110.24(A).



1 ONE LINE DIAGRAM

SCALE: NTS

COPPER CONDUCTOR AND CONDUIT SCHEDULE

** SCHEDULE NUMBER
** SUBSCRIPT (NOTE 5)
(E.G.) 5 IG

SYM	AMP	CONDUIT SIZE	CONDUCTOR(NOTE 1) QTY	CONDUCTOR(NOTE 1) SIZE	CONDUCTOR(NOTE 1) G	IG/HH	SBJ	NOTES
1	20	.75	2	12	12	12	8	2
2	20	.75	3	12	12	12	8	2,3
3	20	.75	4	12	12	12	8	2,3
4	30	.75	2	10	10	10	8	2
5	30	.75	3	10	10	10	8	2
6	30	.75	4	10	10	10	8	2
7	40	1	2	8	10	8	6	2
8	40	1	3	8	10	8	6	2
9	40	1	4	8	10	8	6	2
10	55	1	2	6	10	8	4	2
11	55	1	3	6	10	8	4	2
12	55	1.25	4	6	10	8	4	2
13	70	1	2	4	8	4	2	2
14	70	1.25	3	4	8	4	2	2
15	70	1.25	4	4	8	4	2	2
16	85	1.25	2	3	8	3	2	2
17	85	1.25	3	3	8	3	2	2
18	85	1.25	4	3	8	3	2	2
19	95	1.25	3	2	8	2	2	2
20	95	1.50	4	2	8	2	2	2
21	130	1.50	3	1	6	2	2	2
22	130	1.50	4	1	6	2	2	2
23	150	2	3	1/0	6	2	1/0	2
24	150	2	4	1/0	6	2	1/0	2
25	175	2	3	2/0	6	2	2/0	2
26	175	2	4	2/0	6	2	2/0	2
27	200	2	3	3/0	6	2	2/0	2
28	200	2.50	4	3/0	6	2	2/0	2
29	230	2.50	3	4/0	4	2	2/0	2
30	230	2.50	4	4/0	4	2	2/0	2
31	255	2.50	3	250	4	1	2/0	2
32	255	2.50	4	250	4	1	2/0	2
33	310	3	3	350	3	1/0	3/0	2
34	310	3	4	350	3	1/0	3/0	2
35	380	3.50	3	500	3	3/0	3/0	2
36	380	4	4	500	3	3/0	3/0	2
37	400	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	2 EA 3	4	250	1	4/0	3/0	2
41	620	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	760	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	760	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	3 EA 3.50	3	400	2/0	4/0	3/0	4
48	1000	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	5 EA 4	4	400	4/0	4/0	4/0	4
54	2010	6 EA 4	4	400	250	250	250	4
55	2660	7 EA 4	4	500	350	350	350	4
56	3040	8 EA 4	4	500	500	500	500	4
57	4180	11 EA 4	4	500	500	500	500	4
58		5 EA 4						6
59		5						6
60		10 EA 4						6

CONDUCTOR AND CONDUIT SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND CONDUCTOR SHALL BE OMITTED BETWEEN THE UTILITY TRANSFORMER AND THE FIRST OVERCURRENT PROTECTIVE DEVICE.
5. SYMBOL SUBSCRIPTS:

   "2N": INCLUDE TWO NEUTRAL CONDUCTORS, SIZED AS SCHEDULED FOR PHASED AND NEUTRAL CONDUCTORS.

   "FG": FULL SIZE GROUND, SIZE EQUIPMENT GROUNDING CONDUCTOR TO BE THE SAME SIZE AS THE PHASE CONDUCTORS.

   "HH": NEUTRAL CURRENTS EXIST DUE TO HIGH HARMONIC "NONLINEAR" LOADS. CURRENT CARRYING CONDUCTORS DERATED ACCORDINGLY. PROVIDE THE IG/HH SIZE FOR THE EQUIPMENT GROUNDING CONDUCTOR.

   "IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH GROUND OF EQUIPMENT GROUND CONDUCTOR.

   "SBJ": SUBSTITUTE "SBJ" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE SYSTEM BONDING JUMPER OF THE SEPARATELY DERIVED SYSTEM.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

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STATE OF UTAH

project:

Tenant Finish for New Brighton Recovery Campus
4905, 4911, 4915, 4925, 4931, & 4953 South 900 East
Salt Lake County, Utah

date

January 04, 2017

revisions

PERMIT SET–December 28, 2016
3 ADDENDUM #3–January 11, 2017
4 ADDENDUM #4–January 17, 2017
5 ADDENDUM #5–January 19, 2017
7 ADDENDUM #7–February 24, 2017
8 ADDENDUM #8–March 20, 2017
9 ADDENDUM #9–April 12, 2017

data

project no:
drawn by:
checked by:

title

ONE LINE DIAGRAM

sheet

EP6.01

BUILDING 'A' 4915 South 900 East PARCEL #22081850100000

File Name: P:\2016\20160686\1Drawings\3Sheet\Building A\86EP601.dwg Last Plotted: 2017/04/12 @ 1:43 PM By: jrw