Electrical Air Handler Schedule

Load Name	Wire Size	Breaker Rating	Voltage	# Poles	Panel	Circuit Number	Load Classification	Apparent Load	Length
AIR HANDLER AHU-1 HVAC	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	20,22,24	HVAC	2910 VA	94' - 2 1/2"
AIR HANDLER AHU-2 HVAC	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	2,4,6	HVAC	2910 VA	69' - 7 21/32"
AIR HANDLER AHU-3 HVAC	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	7,9,11	HVAC	2910 VA	54' - 4 19/32"
AIR HANDLER AHU-4 HVAC	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	8,10,12	HVAC	2910 VA	66' - 3 31/32"
AIR HANDLER AHU-5 HVAC	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	13,15,17	HVAC	2910 VA	109' - 2 3/4"
AIR HANDLER AHU-6 HVAC	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	14,16,18	HVAC	2910 VA	79' - 2 3/4"
AIR HANDLER AHU-7 HVAC	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	19,21,23	HVAC	2910 VA	132' - 3 7/8"
AIR HANDLER AHU-8 HVAC	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	31,33,35	HVAC	2910 VA	153' - 6 13/16"

Electrical Chiller Schedule

Load Name	Wire Size	Breaker Rating	Voltage	# Poles	Panel	Circuit Number	Load Classification	Apparent Load	Length
CHILLER CH-1	3-#1, 1-#1, 1-#8	100 A	480 V	3	H2M	1,3,5	HVAC	71582 VA	57' - 3 19/32"

Electrical Rooftop Unit

Load Name	Wire Size	Breaker Rating	Voltage	# Poles	Panel	Circuit Number	Load Classification	Apparent Load	Length
RTU-1 ROOFTOP UNIT	3-#10, 1-#10, 1-#10	30 A	480 V	3	HHP	26,28,30	HVAC	15796 VA	70' - 3 1/16"
RTU-2 ROOFTOP UNIT	3-#12, 1-#12, 1-#12	20 A	480 V	3	H1M	31,33,35	HVAC	13718 VA	149' - 9 17/32"

Electrical Exhaust Fan Schedule

Load Name	Wire Size	Breaker Rating	Voltage	# Poles	Panel	Circuit Number	Load Classification	Apparent Load	Length
EF-1 & EF-2 EHAUST FANS MEN'S 222 & WOMEN'S 221	1-#8, 1-#8, 1-#8	15 A	120 V	1	L2A	39	HVAC	851 VA	144' - 4 1/16"
EF-3 EHAUST FAN	1-#12, 1-#12, 1-#12	20 A	120 V	1	L2A	37	HVAC	232 VA	87' - 4 1/16"
POWER RELIEF HOOD EF-	3-#12, 1-#12, 1-#12	20 A	480 V	3	H2M	25,27,29	HVAC	1746 VA	94' - 9 19/32"
Receptacle Room 227C, 227D, EXHAUST FAN EF-4	1-#12, 1-#12, 1-#12	20 A	120 V	1	L2B	8	HVAC; Receptacle	1063 VA	30' - 9 7/8"

Electrical Energy Recovery Ventilator Schedule

Load Name	Wire Size	Breaker Rating	Voltage	# Poles	Panel	Circuit Number	Load Classification	Apparent Load	Length

Electrical Pump Schedule

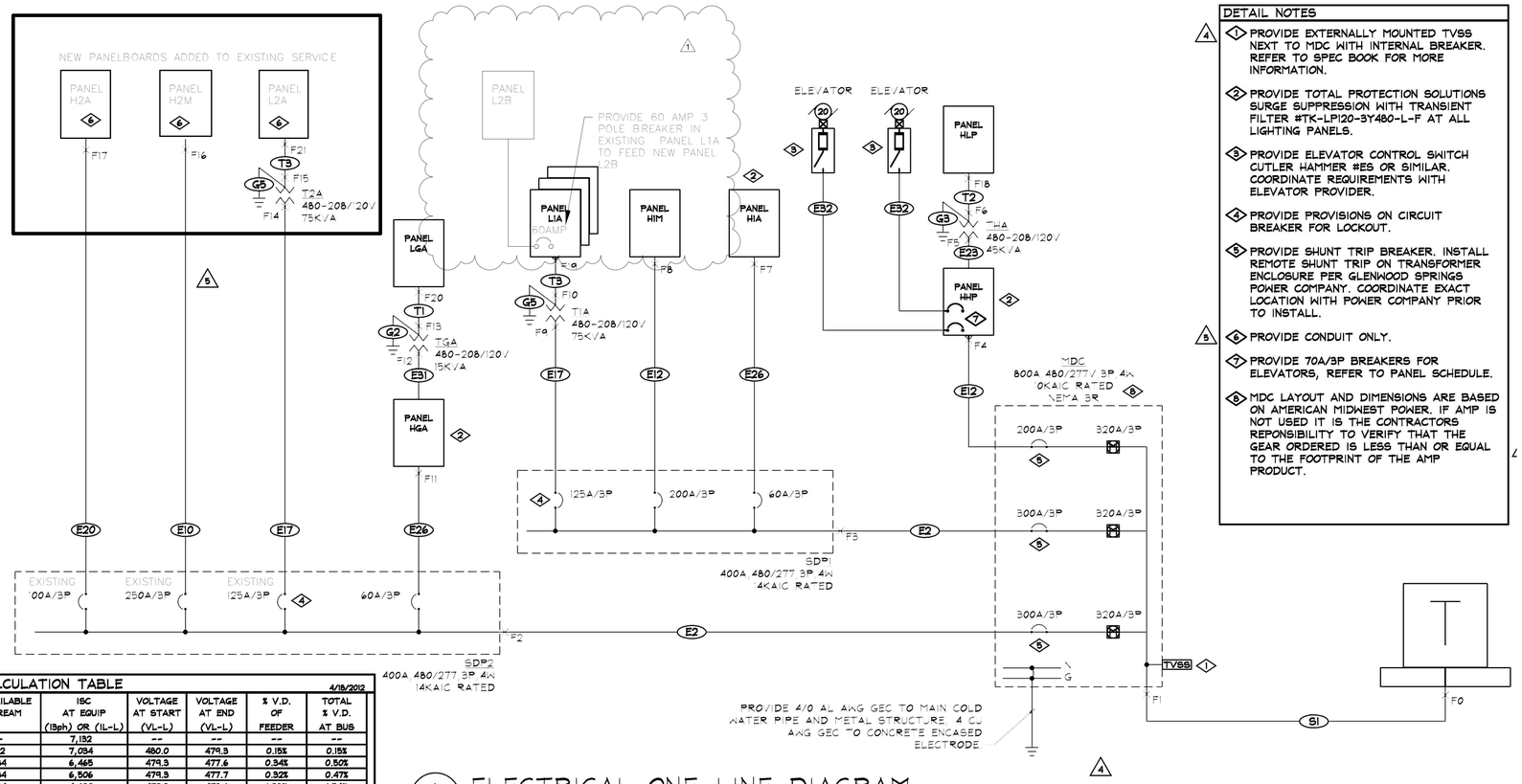
Load Name	Wire Size	Breaker Rating	Voltage	# Poles	Panel	Circuit Number	Load Classification	Apparent Load	Length
CP-1 & CP-2 BOILER PUMPS DUPLEX	2-#12, 1-#12, 1-#12	15 A	208 V	2	L2A	40,42	HVAC	458 VA	49' - 3 1/8"
CP-3 DOM HEATING	2-#12, 1-#12, 1-#12	15 A	208 V	2	L2A	50,52	HVAC	458 VA	48' - 0 5/8"
CP-4 DOM. PUMP	1-#12, 1-#12, 1-#12	15 A	120 V	1	L2A	49	HVAC	458 VA	46' - 3 5/8"

Electrical Cabinet Fan Coil Schedule

Load Name	Wire Size	Breaker Rating	Voltage	# Poles	Panel	Circuit Number	Load Classification	Apparent Load
CFC-1 CABINET FAN COIL	1-#12, 1-#12, 1-#12	15 A	120 V	1	L2A	44	Motor	372 VA

Electrical Gas Fired Boiler Schedule

Load Name	Wire Size	Breaker Rating	Voltage	# Poles	Panel	Circuit Number	Load Classification	Apparent Load	Length
BL-1 & BL-2 BOILERS MECH. 214	1-#10, 1-#10, 1-#10	30 A	120 V	1	L2A	25	Receptacle	2200 VA	39' - 11 5/16"



1 E100 ELECTRICAL ONE-LINE DIAGRAM

NO SCALE

FAULT CURRENT CALCULATION TABLE

4/18/2012

POINT	LENGTH (FT)	ISC AVAILABLE UPSTREAM	ISC AT EQUIP (3ph) OR (1L-L)	VOLTAGE AT START (VL-L)	VOLTAGE AT END (VL-L)	% V.D. OF FEEDER	TOTAL % V.D. AT BUS
F0	-	--	7,132	--	--	--	--
F1	30	7,132	7,034	480.0	479.3	0.15%	0.15%
F2	65	7,034	6,465	479.3	477.6	0.34%	0.50%
F3	60	7,034	6,506	479.3	477.7	0.32%	0.47%
F4	240	7,034	4,652	479.3	472.6	1.38%	1.54%
F5	10	4,652	4,478	472.6	472.4	0.05%	1.59%
F6	0	4,478	2,968	208.0	208.0	0.00%	0.00%
F7	10	6,506	6,026	477.7	477.4	0.07%	0.54%
F8	8	6,506	6,407	477.7	477.5	0.05%	0.52%
F9	17	6,506	6,164	477.7	477.4	0.07%	0.54%
F10	0	6,164	4,664	208.0	208.0	0.00%	0.00%
F11	127	6,465	3,225	477.6	473.4	0.88%	1.38%
F12	7	3,225	2,970	473.4	473.2	0.05%	1.43%
F13	0	2,970	1,597	208.0	208.0	0.00%	0.00%
F14	16	6,465	6,146	477.6	477.3	0.07%	0.37%
F15	0	6,146	4,660	208.0	208.0	0.00%	0.00%
F16	23	6,465	6,249	477.6	477.0	0.13%	0.63%
F17	22	6,465	5,822	477.6	476.9	0.16%	0.65%
F18	10	2,968	2,887	208.0	207.8	0.12%	0.12%
F19	8	4,664	4,572	208.0	207.8	0.08%	0.08%
F20	5	1,597	1,562	208.0	207.9	0.05%	0.05%
F21	7	4,660	4,580	208.0	207.8	0.07%	0.07%

NOTES:
1. CALCULATIONS WERE PERFORMED USING BUSSMANN "POINT-TO-POINT" METHOD.
2. CALCULATIONS WERE BASED ON A 150KVA TRANSFORMER WITH AN IMPEDANCE OF 2.53%.

FEEDER SCHEDULE

18-Apr-12

FEEDER NO.	FEEDER CONDUCTORS	PHASE	AMPS
SERVICE ENTRANCE FEEDERS			
S1	5(4)#400KCMIL, 3" SCHED 40 PVC)	3-4W	800
EQUIPMENT FEEDERS			
E2	4-500KCMIL, 1#2G, 3-1/2" SCHED 40 PVC)	3-4W+G	300
E10	4-350KCMIL, 1#2G, 3"C	3-4W+G	250
E12	4-250KCMIL, 1#4G, 2-1/2"C	3-4W+G	200
E17	3-2/0, 1#4G, 2"C	3-3W+G	155
E20	4-1/0, 1#4G, 2"C	3-4W+G	120
E23	3#2, 1#6G, 1-1/4"C	3-3W+G	75
E26	4#3, 1#6G, 1-1/4"C	3-4W+G	65
E31	3#8, 1#8G, 3/4"C	3-3W+G	30
E32	4#8 COPPER, 1#8G COPPER, 3/4"C	3-4W+G	40
TRANSFORMER SECONDARY			
T1	4#3, 1#6G, 1-1/4"C	3-4W+G	65
T2	4-3/0, 1#4G, 2"C	3-4W+G	155
T3	4-350KCMIL, 1-1/0G, 3"C	3-4W+G	250
GROUNDING ELECTRODE CONDUCTORS			
G2	1#6, 1/2"C	G	
G3	1#4, 3/4"C	G	
G5	1-1/0, 3/4"C	G	

DETAIL NOTES

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1. PROVIDE EXTERNALLY MOUNTED TVSS NEXT TO MDC WITH INTERNAL BREAKER. REFER TO SPEC BOOK FOR MORE INFORMATION.
2. PROVIDE TOTAL PROTECTION SOLUTIONS SURGE SUPPRESSION WITH TRANSIENT FILTER #TK-LP120-3Y480-L-F AT ALL LIGHTING PANELS.
3. PROVIDE ELEVATOR CONTROL SWITCH CUTLER HAMMER #E5 OR SIMILAR. COORDINATE REQUIREMENTS WITH ELEVATOR PROVIDER.
4. PROVIDE PROVISIONS ON CIRCUIT BREAKER FOR LOCKOUT.
5. PROVIDE SHUNT TRIP BREAKER. INSTALL REMOTE SHUNT TRIP ON TRANSFORMER ENCLOSURE PER GLENWOOD SPRINGS POWER COMPANY. COORDINATE EXACT LOCATION WITH POWER COMPANY PRIOR TO INSTALL.

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6. PROVIDE CONDUIT ONLY.
7. PROVIDE 70A/3P BREAKERS FOR ELEVATORS, REFER TO PANEL SCHEDULE.
8. MDC LAYOUT AND DIMENSIONS ARE BASED ON AMERICAN MIDWEST POWER. IF AMP IS NOT USED IT IS THE CONTRACTORS REPONSIBILITY TO VERIFY THAT THE GEAR ORDERED IS LESS THAN OR EQUAL TO THE FOOTPRINT OF THE AMP PRODUCT.

Colorado Mountain College

PROJECT DESCRIPTION

Delta	Description	Date Issued
1	ADDENDUM #002	9/8/16

HUMPHRIES POLI ARCHITECTS

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by the Architect as instruments of service shall remain the property of the Architect. The Architect shall retain all common law, statutory and other reserved rights, including copyright thereto.

EXISITING & REVISED ONE LINE

BIDDING/PERMIT SET
8/01/2016

PROJECT No.	PROJECT ARCH	PROJECT MNGR	CHECKED BY
16-001	Approver	Designer	Checker

SHEET No.

E3-1

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