GENERAL NOTES

1. ALL PANELS SHOWN 84 CIRCUIT SHALL CONSIST OF THE FOLLOWING: FIRST SECTION WITH 42 POLES, MAIN BREAKER AND FEED THROUGH LUGS; SECOND SECTION WITH 42 POLES AND MAIN LUGS ONLY OF SAME AMPACITY OF FIRST SECTION.

Branch Panel: 1N-PH1

Location: LER L001E1 **Volts:** 480/277 Wye **A.I.C. Rating:** 14,000
Supply From: 1N-DH1 **Phases:** 3 **Mains Type:** Copper
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1 **MCB Rating:** 100 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting Room L006E - L029-4	20 A	1	1536	2304					1	20 A	Lighting Rooms L007E - L030-4	2
3	Lighting Rooms 191-2 - 196E	20 A	1			1920	746 W			1	20 A	Lighting Rooms 173-4 - 175-3	4
5	UPS-600C	20 A	3					200 W	1216	1	20 A	Lighting	6
7	--	--	--	200 W	896 W					1	20 A	Lighting Room L001E2	8
9	--	--	--			200 W	768 W			1	20 A	Lighting Rooms C103-4 - C105-4	10
11	Lighting CORRIDOR-2 C101-2	20 A	1					232 W	1008	1	20 A	Lighting Room L042-4	12
13	UPS-600A	20 A	3	200 W	896 W					1	20 A	Lighting Rooms L042-4 - 177-3	14
15	--	--	--			200 W	378 W			1	20 A	Lighting STAIR-1 179-1	16
17	--	--	--					200 W	256 W	1	20 A	Lighting ELEVATOR 201	18
19	Spare	20 A	1	0 W	0 W					1	20 A	Spare	20
21	Spare	20 A	1			0 W	0 W			1	20 A	Spare	22
23	Spare	20 A	1					0 W	0 W	1	20 A	Spare	24
25	Space	--	--	0 W	0 W					--	--	Space	26
27	Space	--	--			0 W	0 W			--	--	Space	28
29	Space	--	--					0 W	0 W	--	--	Space	30
			Total Load:	6032 W		4212 W		3112 W					
			Total Amps:	22 A		16 A		11 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	12092 W	100.00%	12092 W		
Motor	64 W	125.00%	80 W	Total Conn. Load:	12156 W
Other	0 W	0.00%	0 W	Total Est. Demand:	12172 W
				Total Conn. Current:	15 A
				Total Est. Demand Current:	15 A

Notes:

Branch Panel: 1N-PH2

Location: LER L002A **Volts:** 480/277 Wye **A.I.C. Rating:** 18,000
Supply From: 1N-DH1 **Phases:** 3 **Mains Type:** Copper
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1 **MCB Rating:** 100 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting Rooms L014-4 - L027-4	20 A	1	1664	2304					1	20 A	Lighting Rooms L016-4 - L028-4	2
3	Lighting Rooms L008-4, L012-4	20 A	1			560 W	896 W			1	20 A	Lighting Rooms L007-4 - L013-4	4
5	UPS-1000A	20 A	1					1000	261 W	1	20 A	Lighting LER-1 L002A-1	6
7	Spare	20 A	1	0 W	0 W					--	--	Space	8
9	Spare	20 A	1			0 W	0 W			--	--	Space	10
11	Motor LER-1 L002B-1	20 A	3					665 W	640 W	1	20 A	Lighting Room L002A-2	12
13	--	--	--	665 W	936 W					1	20 A	Lighting	14
15	--	--	--			665 W	2496			1	20 A	Lighting Rooms 185-4 - 187-4	16
17	Lighting Rooms C107-4 - L00B-4	20 A	1					704 W	1656	1	20 A	Lighting	18
19	Lighting CONFERENCE-1 O114-1	20 A	1	1818	322 W					1	20 A	Lighting	20
21	Spare	20 A	1			0 W	0 W			1	20 A	Spare	22
23	Spare	20 A	1					0 W	0 W	1	20 A	Spare	24
25	Spare	20 A	1	0 W	0 W					1	20 A	Spare	26
27	Space	--	--			0 W	0 W			--	--	Space	28
29	Space	--	--					0 W	0 W	--	--	Space	30
			Total Load:	7709 W		4617 W		4926 W					
			Total Amps:	28 A		17 A		18 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	14257 W	100.00%	14257 W		
Motor	1995 W	125.00%	2494 W	Total Conn. Load:	16252 W
				Total Est. Demand:	16751 W
				Total Conn. Current:	20 A
				Total Est. Demand Current:	20 A

Notes:

Branch Panel: 1N-PH3

Location: MAIN MECHANICAL 187 **Volts:** 480/277 Wye **A.I.C. Rating:** 18,000
Supply From: 1N-DH1 **Phases:** 3 **Mains Type:** Copper
Mounting: Surface **Wires:** 4 **Mains Rating:** 225 A
Enclosure: Type 1 **MCB Rating:** 200 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	FCU-0114A	15 A	3	748 W	748 W					3	15 A	FCU-0114B	2
3	--	--	--			748 W	748 W			--	--	--	4
5	--	--	--					748 W	748 W	--	--	--	6
7	FCU-186	15 A	3	355 W	1596					3	20 A	VP-1A	8
9	--	--	--			355 W	1596			--	--	--	10
11	--	--	--					355 W	1596	--	--	--	12
13	VP-1B	20 A	3	1596	5986					3	70 A	AC-1B	14
15	--	--	--			1596	5986			--	--	--	16
17	--	--	--					1596	5986	--	--	--	18
19	AC-1A	70 A	3	5986	754 W					3	15 A	PP-3	20
21	--	--	--			5986	754 W			--	--	--	22
23	--	--	--					5986	754 W	--	--	--	24
25	PP-4	15 A	3	754 W	355 W					3	15 A	FCU-185	26
27	--	--	--			754 W	355 W			--	--	--	28
29	--	--	--					754 W	355 W	--	--	--	30
31	FCU-187	15 A	3	355 W	355 W					3	15 A	FCU-C100	32
33	--	--	--			355 W	355 W			--	--	--	34
35	--	--	--					355 W	355 W	--	--	--	36
37	FCU-C101A	15 A	3	665 W	665 W					3	15 A	FCU-C101B	38
39	--	--	--			665 W	665 W			--	--	--	40
41	--	--	--					665 W	665 W	--	--	--	42
43	FCU-C101C	15 A	3	665 W	665 W					3	15 A	FCU-C102	44
45	--	--	--			665 W	665 W			--	--	--	46
47	--	--	--					665 W	665 W	--	--	--	48
49	FCU-L002A	15 A	3	466 W	466 W					3	15 A	FCU-L002B	50
51	--	--	--			466 W	466 W			--	--	--	52
53	--	--	--					466 W	466 W	--	--	--	54
55	UPS-1000B	20 A	1	1000	0 W					1	20 A	Spare	56
57	Motor STORAGE-4 O115-4	20 A	3			748 W	748 W			3	20 A	Motor CLOSET O119	58
59	--	--	--					748 W	748 W	--	--	--	60
61	--	--	--	748 W	748 W					--	--	--	62
63	Spare	20 A	1			0 W	0 W			1	20 A	Spare	64
65	Spare	20 A	1					0 W	0 W	1	20 A	Spare	66
67	Spare	20 A	1	0 W	0 W					1	20 A	Spare	68
69	Spare	20 A	1			0 W	0 W			1	20 A	Spare	70
71	Spare	20 A	1					0 W	0 W	1	20 A	Spare	72
73	Spare	20 A	1	0 W	0 W					1	20 A	Spare	74
75	Spare	20 A	1			0 W	0 W			1	20 A	Spare	76
77	Space	--	--					0 W	0 W	--	--	Space	78
79	Space	--	--	0 W	0 W					--	--	Space	80
81	Space	--	--			0 W	0 W			--	--	Space	82
83	Space	--	--					0 W	0 W	--	--	Space	84
			Total Load:	25674 W		24674 W		24674 W					
			Total Amps:	93 A		89 A		89 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	74022 W	106.07%	78512 W		
				Total Conn. Load:	74022 W
				Total Est. Demand:	78512 W
				Total Conn. Current:	89 A
				Total Est. Demand Current:	94 A

Notes:

Branch Panel: 1N-PH4

Location: LER L001E1 **Volts:** 480/277 Wye **A.I.C. Rating:** 14,000
Supply From: 1N-DH1 **Phases:** 3 **Mains Type:** Copper
Mounting: Surface **Wires:** 4 **Mains Rating:** 225 A
Enclosure: Type 1 **MCB Rating:** 200 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting RESTROOM-1 A103-1	20 A	1	48 W	355 W					3	15 A	FCU-0170	2
3	Lighting	20 A	1			840 W	355 W			--	--	--	4
5	FCU-178B	15 A	3					355 W	355 W	--	--	--	6
7	--	--	--	355 W	355 W					3	15 A	FCU-191	8
9	--	--	--			355 W	355 W			--	--	--	10
11	FCU-C101E	15 A	3					466 W	355 W	--	--	--	12
13	--	--	--	466 W	466 W					3	15 A	FCU-C101D	14
15	--	--	--			466 W	466 W			--	--	--	16
17	Space	--	--					0 W	466 W	--	--	--	18
19	Space	--	--	0 W	466 W					3	15 A	FCU-C101F	20
21	Space	--	--			0 W	466 W			--	--	--	22
23	FCU-L001A	15 A	3					466 W	466 W	--	--	--	24
25	--	--	--	466 W	466 W					3	15 A	FCU-C105	26
27	--	--	--			466 W	466 W			--	--	--	28
29	Receptacle CL001-2 L046-2	20 A	3					16667	466 W	--	--	--	30
31	--	--	--	16667	466 W					3	15 A	FCU-L001B	32
33	--	--	--			16667	466 W			--	--	--	34
35	Receptacle CL001-2 L046-2	20 A	3					5833	466 W	--	--	--	36
37	--	--	--	5833	16667					3	20 A	Receptacle CL001-2 L046-2	38
39	--	--	--			5833	16667			--	--	--	40
41	Motor ELEVATOR MACHINE ROOM-2 178B-2	20 A	3					2837	16667	--	--	--	42
43	--	--	--	2837	5833					3	20 A	Receptacle CL001-2 L046-2	44
45	--	--	--			2837	5833			--	--	--	46
47	Spare	20 A	3					0 W	5833	--	--	--	48
49	--	--	--	0 W	0 W					3	20 A	Spare	50
51	--	--	--			0 W	0 W			--	--	--	52
53	Spare	20 A	1					0 W	0 W	--	--	--	54
55	Spare	20 A	1	0 W	0 W					1	20 A	Spare	56
57	Spare	20 A	1			0 W	0 W			1	20 A	Spare	58
59	Spare	20 A	1					0 W	0 W	1	20 A	Spare	60
61	Spare	20 A	1	0 W	0 W					1	20 A	Spare	62
63	Space	--	--			0 W	0 W			--	--	Space	64
65	Space	--	--					0 W	0 W	--	--	Space	66
67	Space	--	--	0 W	0 W					--	--	Space	68
69	Space	--	--			0 W	0 W			--	--	Space	70
71	Space	--	--					0 W	0 W	--	--	Space	72
73	Space	--	--	0 W	0 W					--	--	Space	74
75	Space	--	--			0 W	0 W			--	--	Space	76
77	Space	--	--					0 W	0 W	--	--	Space	78
79	Space	--	--	0 W	0 W					--	--	Space	80
81	Space	--	--			0 W	0 W			--	--	Space	82
83	Space	--	--					0 W	0 W	--	--	Space	84
			Total Load:	51743 W		52535 W		51695 W					
			Total Amps:	187 A		190 A		187 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	888 W	100.00%	888 W		
Motor	20084 W	110.59%	22212 W	Total Conn. Load:	155972 W
Receptacle	135000 W	53.70%	72500 W	Total Est. Demand:	95600 W
				Total Conn. Current:	188 A
				Total Est. Demand Current:	115 A

Notes:

Branch Panel: 1N-PH5

Location: CORRIDOR C101E1 **Volts:** 480/277 Wye **A.I.C. Rating:** 14,000
Supply From: 1N-DH1 **Phases:** 3 **Mains Type:** Copper
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1 **MCB Rating:**

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting Room 0166-3	20 A	1	1856	1280					1	20 A	Lighting Rooms O170E2 - 0166-2	2
3	Lighting Room 0159-3	20 A	1			1856	1920			1	20 A	Lighting Rooms O150-4 - O161-3	4
5	Space	--	--					0 W	512 W	1	20 A	Lighting	6
7	Lighting OPEN OFFICE O166	20 A	1	27 W	0 W					1	20 A	Spare	8
9	Spare	20 A	1			0 W	0 W			1	20 A	Spare	10
11	Spare	20 A	1					0 W	0 W	1	20 A	Spare	12
13	Spare	20 A	1	0 W	0 W					1	20 A	Spare	14
15	Spare	20 A	1			0 W	0 W			1	20 A	Spare	16
17	Spare	20 A	1					0 W	0 W	1	20 A	Spare	18
19	Spare	20 A	1	0 W	0 W					1	20 A	Spare	20
21	Spare	20 A	1			0 W	0 W			1	20 A	Spare	22
23	Space	--	--					0 W	0 W	--	--	Space	24
25	Space	--	--	0 W	0 W					--	--	Space	26
27	Space	--	--			0 W	0 W			--	--	Space	28
29	Space	--	--					0 W	0 W	--	--	Space	30
			Total Load:	3163 W		3776 W		512 W					
			Total Amps:	13 A		15 A		2 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	7451 W	100.00%	7451 W		
				Total Conn. Load:	7451 W
				Total Est. Demand:	7451 W
				Total Conn. Current:	9 A
				Total Est. Demand Current:	9 A

Notes:

Branch Panel: 1N-PH6

Location: CORRIDOR C101E1 **Volts:** 480/277 Wye **A.I.C. Rating:** 14,000
Supply From: 1N-DH1 **Phases:** 3 **Mains Type:** Copper
Mounting: Surface **Wires:** 4 **Mains Rating:** 100 A
Enclosure: Type 1 **MCB Rating:** 100 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Lighting Rooms O120-4 - O140-4	20 A	1	1792	1024					1	20 A	Lighting Room O130-3	2
3	Lighting Rooms O101-4 - O113-4	20 A	1			2304	859 W			1	20 A	Lighting OPEN OFFICE-1 O111-1	4
5	Lighting	20 A	1					70 W	0 W	--	--	Space	6
7	Space	--	--	0 W	0 W					--	--	Space	8
9	Space	--	--			0 W	0 W			--	--	Space	10
11	Lighting	20 A	1					500 W	500 W	1	20 A	Lighting	12
13	Spare	20 A	1	0 W	0 W					1	20 A	Spare	14
15	Spare	20 A	1			0 W	0 W			1	20 A	Spare	16
17	Spare	20 A	1					0 W	0 W	1	20 A	Spare	18
19	Spare	20 A	1	0 W	0 W					1	20 A	Spare	20
21	Space	--	--			0 W	0 W			--	--	SPACE	22
23	Space	--	--					0 W	0 W	--	--	SPACE	24
25	Space	--	--	0 W	0 W					--	--	SPACE	26
27	Space	--	--			0 W	0 W			--	--	SPACE	28
29	Space	--	--					0 W	0 W	--	--	SPACE	30
			Total Load:	2816 W		3163 W		1070 W					
			Total Amps:	11 A		12 A		4 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	7049 W	100.00%	7049 W		
				Total Conn. Load:	7049 W
				Total Est. Demand:	7049 W
				Total Conn. Current:	8 A
				Total Est. Demand Current:	8 A

Notes:

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SEALS AND SIGNATURES

REV. NO.	DESCRIPTION	BY	APVD	DATE
	ISSUED FOR CONSTRUCTION			*07/03/12*

Argonne NATIONAL LABORATORY

FMS
Facilities Management Services

PROJECT TITLE ADVANCED PROTEIN CRYSTALLIZATION FACILITY, ARGONNE NATIONAL LABORATORY

PROJECT NO 08541-00

DRAWING TITLE

POWER PANEL SCHEDULES

DESIGNED DLW	A/E CADD FILE E7.0.1	FACILITY NO(S)
DRAWN DLW	A/E DWG. NO. E7.0.1	
CHECKED BRB	CAD NO:	
PROJECT MANAGER ANL - JESSE ADAMS DATE - 04/26/11	DWG STATE / BIND ORDER	
FACILITY DOCUMENT NUMBER J446-101-W- E7.0.1		REV. NO.

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