NO	REVISION / SUBMISSIONS	DATE

Switchboard: MSB

100% FULLY RATED BREAKER

Location:
Supply From:
Mounting:
Enclosure: NEMA 3R
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 65,000
Mains Rating: 2500 A
Mains Type: MCB

CKT	Circuit Description	# of Poles	Trip Rating	Load	Remarks
1	1-DP1	3	250 A	62714 VA	
2	2-DP1	3	250 A	96340 VA	
3	1-M1	3	400 A	88927 VA	
4	1-M2	3	600 A	125120 VA	
5	2-M1	3	600 A	142681 VA	
6	2-M2	3	600 A	129374 VA	
7	2-M3	3	400 A	48813 VA	
8	ELEVATOR PUMP	3	150 A	34560 VA	
9	WATER HEATER	3	60 A	16000 VA	
10	SPARE	3	200 A	0 VA	
11	SPARE	3	200 A	0 VA	
12	SPARE	3	100 A	0 VA	
13	SPARE	3	100 A	0 VA	
14	SPARE	3	100 A	0 VA	
				752065 VA	
				2088 A	

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
LIGHTS	17406 VA	125.00%	21758 VA		
RECEPTS.	131760 VA	53.79%	70880 VA	Total Conn. Load:	752065 VA
EXHAUST FAN	12822 VA	100.00%	12822 VA	Total Est. Demand:	719220 VA
WATER HEATER	16000 VA	125.00%	20000 VA	Total Conn. Current:	2088 A
A/C EQUIPMENT	236243 VA	100.00%	236243 VA	Total Est. Demand...	1996 A
A/C EQUIPMENT*	28800 VA	125.00%	36000 VA		
Motor	35426 VA	125.00%	44283 VA		
ELEC. HEATING EQUIP.	14508 VA	125.00%	18135 VA		

NOTE:A/C EQUIPMENT* REPRESENTS LARGEST MOTOR LOAD AT 125%.

Panel: 1-M1

Location: ELECT 137
Supply From: MSB
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 400 A
Mains Type: MCB

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
4	1	ELEVATOR SUMP PUMP	12	20	2	373			3525			2	50	6	UV-115A	2	4,5
	3						373			3525						4	
4,5	5	AHU/ACCU-138	12	20	2			750			3525	2	50	6	UV-115B	6	4,5
	7					750			3525							8	
4,5	9	UV-103A	6	50	2		3525			3525		2	50	6	UV-116A	10	4,5
	11							3525			3525					12	
4,5	13	UV-103B	6	50	2	3525			3525			2	50	6	UV-116B	14	4,5
	15						3525			3525						16	
4,5	17	UV-103C	6	50	2			3525			3525	2	50	6	UV-117	18	4,5
	19					3525			3525							20	
4,5	21	AHU/ACCU-114	12	20	2		750			3525		2	50	6	UV-118A	22	4,5
	23							750			3525					24	
4,5	25	AHU/ACCU-112	12	20	2	750			3525			2	50	6	UV-118B	26	4,5
	27						750			3525						28	
4,5	29							3200			2080					30	4,5
	31	RTU-103	4	70	3	3200			2080			3	35	8	RTU-113	32	
	33						3200			2080						34	
	35	SPARE	--	20	2			0			0	2	20	--	SPARE	36	
	37					0			0							38	
	39	SPARE	--	20	1		0			0		1	20	--	SPARE	40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				31828 W			31828 W			27930 W					
		Total Amps:				270 A			270 A			233 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 91586 VA
Total Est. Demand: 94173 VA
Total Conn.: 254 A
Total Est. Demand: 261 A

Panel: 1-M2

Location: MECH 301B
Supply From: MSB
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 600 A
Mains Type: MCB

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
4,5	1	UV-119A	6	50	2	3525			3525			2	50	6	UV-112B	2	4,5
	3						3525			3525						4	
4,5	5	UV-119B	6	50	2			3525			3525	2	50	6	UV-125A	6	4,5
	7					3525			3525							8	
4,5	9	UV-120A	6	50	2		3525			3525		2	50	6	UV-125B	10	4,5
	11							3525			3525					12	
4,5	13	UV-120B	6	50	2	3525			3525			2	50	6	UV-129B	14	4,5
	15						3525			3525						16	
4,5	17	UV-121A	6	50	2			3525			3525	2	50	6	UV-129A	18	4,5
	19					3525			3525							20	
4,5	21	UV-121B	6	50	2		3525			3525		2	50	6	UV-130B	22	4,5
	23							3525			3525					24	
4,5	25	UV-112A	6	50	2	3525			3525			2	50	6	UV-130A	26	4,5
	27						3525			3525						28	
4,5	29	UV-104A	6	50	2			3525			3525	2	50	6	UV-104C	30	4,5
	31					3525			3525							32	
4,5	33	UV-104B	6	50	2		4600			1560		2	20	12	AHU/ACCU-105	34	4,5
	35							4600			1560					36	
	37	SPARE	--	20	2	0			0			2	20	--	SPARE	38	
	39						0			0						40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				42300 W			41410 W			41410 W					
		Total Amps:				353 A			345 A			345 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 12512[illegible] VA
Total Est. Demand: [illegible]2512[illegible] VA
Total Conn.: 347 A
Total Est. Demand: 347 A

Panel: 1-DP1

Location: ELECT 137
Supply From: MSB
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 250 A
Mains Type: MCB

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
	1					9900			8100							2	
	3	1-P1	1	100	3		9572			9180		3	100	1	2-P1	4	
	5							7000			7920					6	
	7					0			0							8	
	9	SPARE	--	20	3		0			0		3	20	--	SPARE	10	
	11							0			0					12	
	13					0			0							14	
	15	SPARE	--	20	3		0			0		3	20	--	SPARE	16	
	17							0			0					18	
	19					0			0							20	
	21	SPARE	--	20	3		0			0		3	20	--	SPARE	22	
	23							0			0					24	
2	25	EXTERIOR LIGHTS	12	20	1	600			1139			1	20	12	LIGHTS CORRIDOR 139	26	
	27	SPARE	--	20	1		0			1224		1	20	12	LIGHTS 115, 116, 118, 113, 114, 112	28	
	29	SPARE	--	20	1			0			816	1	20	12	LIGHTS LIBRARY 103	30	
	31	SPARE	--	20	1	0			1530			1	20	12	LIGHTS LIBRARY 103	32	
	33	SPARE	--	20	1		0			1632		1	20	12	LIGHTS 214, 213, 215, 219	34	
	35	SPARE	--	20	1			0			1224	1	20	12	LIGHTS 203, 204, 202	36	
	37	SPARE	--	20	1	0			1220			1	20	12	LIGHTS CORRIDOR 231	38	
	39	SPARE	--	20	1		0			60		1	20	12	DISPLAY CASE LIGHTS	40	
	41	SPARE	--	20	1			0			1600	1	20	12	CANOPY LIGHTS	42	3
		Total Load:				22489 W			21668 W			18560 W					
		Total Amps:				191 A			185 A			155 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 62722 VA
Total Est. Demand: 46273 VA
Total Conn.: 174 A
Total Est. Demand: 128 A

Panel: 1-P1

PROVIDE 200% NEUTRAL

Location: ELECT 137
Supply From: 1-DP1
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 100 A
Mains Type: MLO

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
	1	COMP OFFICE 113	12	20	1	720			900			1	20	12	RECEPTS. 137, 109, 103, 139	2	
	3	COMP OFFICE 114	12	20	1		720			540		1	20	12	RECEPTS. Room 135, 136, 134	4	
	5	COMP OFFICE 112	12	20	1			720			400	1	20	12	EWC	6	1
	7	RECEPTS. 114, 113, 101	12	20	1	900			1200			1	20	12	HAND DRYER	8	4
	9	RECEPTS. 110, 111, 112	12	20	1		720			1200		1	20	12	HAND DRYER	10	4
	11	TWS CR 115	12	20	1			540			1200	1	20	12	HAND DRYER	12	4
	13	RECEPTS. CR 115	12	20	1	1080			800			1	20	12	LIBRARY TABLE QUADS	14	
	15	COMP CR 115	12	20	1		1080			800		1	20	12	LIBRARY TABLE QUADS	16	
	17	TWS CR 116	12	20	1			540			800	1	20	12	LIBRARY TABLE QUADS	18	
	19	RECEPTS. CR 116	12	20	1	1080			800			1	20	12	LIBRARY TABLE QUADS	20	
	21	COMP CR 116	12	20	1		1080			800		1	20	12	LIBRARY TABLE QUADS	22	
	23	TWS CR 118	12	20	1			540			800	1	20	12	LIBRARY TABLE QUADS	24	
	25	RECEPTS. CR 118	12	20	1	1080			800			1	20	12	LIBRARY TABLE QUADS	26	
	27	COMP CR 118	12	20	1		1080			800		1	20	12	LIBRARY TABLE QUADS	28	
	29	RECEPTS. LOUNGE 117	12	20	1			720			380	1	20	12	DISC. CAR. LIGHTS/ALARM	30	
	31	LIBRARY CIRC DESK	12	20	1	360			180			1	20	12	ELEVATOR CONTROLLER	32	
	33	LIBRARY CIRC DESK	12	20	1		360			392		1	20	12	ELEVATOR RECEPT/LIGHT	34	
	35	LIBRARY CIRC DESK	12	20	1			360			0	1	20	--	SPARE	36	
	37	SPARE	--	20	1	0			0			1	20	--	SPARE	38	
	39	SPARE	--	20	1		0			0		1	20	--	SPARE	40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				9900 W			9572 W			7000 W					
		Total Amps:				86 A			83 A			58 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 26474 VA
Total Est. Demand: 21063 VA
Total Conn.: [illegible] A
Total Est. Demand: [illegible] A

Panel: 1-P2

PROVIDE 200% NEUTRAL

Location: MECH 301B
Supply From: 2-DP1
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 2[illegible]00
Mains Rating: 10[illegible] A
Mains Type: ML[illegible]

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
	1	TWS CR 119	12	20	1	540			540			1	[illegible]	12	[illegible]	2	
	3	RECEPTS. CR 119	12	20	1		1080			10[illegible]		1	[illegible]	12	RE[illegible] 130	4	
	5	COMP CR 119	12	20	1			1080			[illegible]	[illegible]	20	12	COMP C[illegible]	6	
	7	TWS CR 120	12	20	1	540			540			[illegible]	20	12	TWS CR 129	8	
	9	RECEPTS. CR 120	[illegible]	[illegible]	[illegible]		1080			1080		[illegible]	[illegible]	12	RECEPTS. CR 129	10	
	11	COMP CR 120	12	20	1			1080			1080	1	[illegible]	12	COMP CR 129	12	
	13	TWS CR 121	12	20	1	540			540			1	20	12	TWS CR 125	14	
	15	RECEPTS. CR 121	12	20	1		1080			1080		1	20	12	RECEPTS. CR 125	16	
	17	COMP CR 121	12	[illegible]	1			1080			1080	1	20	12	COMP CR 125	18	
	19	TWS CR 122	[illegible]	[illegible]	[illegible]	540			0			1	20	--	SPARE	20	
	21	RECEPTS. C[illegible]22	12	20	[illegible]		10[illegible]			0		1	20	--	SPARE	22	
	23	COMP CR 1[illegible]	12	20	[illegible]			108[illegible]			0	1	20	--	SPARE	24	
	25	SPARE	--	20	1	0			0			1	20	--	SPARE	26	
	27	SPARE	--	20	1		[illegible]			0		1	20	--	SPARE	28	
	29	SPARE	--	20	1			0			0	1	20	--	SPARE	30	
	31	SPARE	--	20	1	[illegible]			0			1	20	--	SPARE	32	
	33	SPARE	[illegible]	20	1		0			0		1	20	--	SPARE	34	
	35	SPARE	[illegible]	[illegible]	1			[illegible]			0	1	20	--	SPARE	36	
	37	SPARE	--	20	1	0			0			1	20	--	SPARE	38	
	39	SPARE	--	20	1		[illegible]			0		1	20	--	SPARE	40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				3780 W			7560 W			7560 W					
		Total Amps:				32 A			68 A			68 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 18900 VA
Total Est. Demand: 14450 VA
Total Conn.: 52 A
Total Est. Demand: 40 A

Panel: 1-P3

PROVIDE 200% NEUTRAL

Location: MECH 301B
Supply From: 2-DP1
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 100 A
Mains Type: MLO

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
	1	TWS COMP. SCIENCE 104	12	20	1	540			900			1	20	12	RECEPTS. 105, 106	2	
	3	RECEPTS. COMP. SCIENCE 104	12	20	1		1260			720		1	20	12	COMP CONF 106	4	
	5	RECEPTS. COMP. SCIENCE 104	12	20	1			800			720	1	20	12	COMP CONF 106	6	
	7	RECEPTS. COMP. SCIENCE 104	12	20	1	800			400			1	20	12	PROJECTOR CONF 106	8	4
	9	COMP STATIONS 104	12	20	1		800			400		1	20	12	TV MONITOR CONF 106	10	
	11	COMP STATIONS 104	12	20	1			800			1080	1	20	12	RECEPTS. 106, 107	12	
	13	COMP STATIONS 104	12	20	1	800			720			1	20	12	COMP OFFICE 106	14	
	15	COMP STATIONS 104	12	20	1		800			1080		1	20	12	RECEPTS. 131, 107	16	
	17	COMP STATIONS 104	12	20	1			800			720	1	20	12	COMP TECH 131	18	
	19	COMP STATIONS 104	12	20	1	800			400			1	20	12	EWC	20	1
	21	COMP STATIONS 104	12	20	1		800			1200		1	20	12	HAND DRYER	22	4
	23	COMP STATIONS 104	12	20	1			800			0	1	20	--	SPARE	24	
	25	SPARE	--	20	1	0			0			1	20	--	SPARE	26	
	27	SPARE	--	20	1		0			0		1	20	--	SPARE	28	
	29	SPARE	--	20	1			0			0	1	20	--	SPARE	30	
	31	SPARE	--	20	1	0			0			1	20	--	SPARE	32	
	33	SPARE	--	20	1		0			0		1	20	--	SPARE	34	
	35	SPARE	--	20	1			0			0	1	20	--	SPARE	36	
	37	SPARE	--	20	1	0			0			1	20	--	SPARE	38	
	39	SPARE	--	20	1		0			0		1	20	--	SPARE	40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				5360 W			7060 W			5720 W					
		Total Amps:				45 A			59 A			48 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 18140 VA
Total Est. Demand: 14970 VA
Total Conn.: 50 A
Total Est. Demand: 42 A

Panel: 2-M1

Location: ELECT 137
Supply From: MSB
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 600 A
Mains Type: MCB

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
4,5	1	UV-202A	2	80	2	5675			5675			2	50	6	UV-213B	2	4,5
	3						5675			5675						4	
4,5	5	UV-202B	2	80	2			5675			5675	2	50	6	UV-214A	6	4,5
	7					5675			5675							8	
4,5	9	UV-203A	2	80	2		5675			5675		2	50	6	UV-214B	10	4,5
	11							5675			5675					12	
4,5	13	UV-203B	2	80	2	5675			5675			2	80	2	UV-215A	14	4,5
	15						5675			5675						16	
4,5	17	UV-204A	2	80	2			5675			5675	2	80	2	UV-215B	18	4,5
	19					5675			5675							20	
4,5	21	UV-204B	2	80	2		5675			2667						22	4,5
	23							5675			2667	3	50	6	RTU-216	24	
4,5	25	UV-213A	6	50	2	5675			2667							26	
	27						5675			0		2	20	--	SPARE	28	
	29	SPARE	--	20	2			0			0					30	
	31					0			0			1	20	--	SPARE	32	
	33	SPARE	--	20	1		0			0		1	20	--	SPARE	34	
	35	SPARE	--	20	1			0			0	1	20	--	SPARE	36	
	37	SPARE	--	20	1	0			0			1	20	--	SPARE	38	
	39	SPARE	--	20	1		0			0		1	20	--	SPARE	40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				53742 W			48067 W			42392 W					
		Total Amps:				455 A			408 A			353 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 144200 VA
Total Est. Demand: 144200 VA
Total Conn.: 400 A
Total Est. Demand: 400 A

Panel: 2-M2

Location: MECH 301B
Supply From: MSB
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: [illegible]
Mains Type: MCB

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
4,5	1	UV-205A	2	80	2	5675			5675			2	80	[illegible]	[illegible]211A	[illegible]	4,5
	3						5675			5675						[illegible]	
4,5	5	UV-205B	2	80	2			5675			5675	2	80	2	[illegible]	[illegible]	[illegible]
	7					5675			5675							[illegible]	
4,5	9	UV-206A	2	80	2		5675			[illegible]		2	80	2	UV-2[illegible]	[illegible]	4,5
	11							5675			5675					[illegible]	
4,5	13	UV-206B	2	80	2	5675			[illegible]							14	
	15						5675			[illegible]		3	70	4	RTU-219	16	4,5
4,5	17	UV-210B	2	80	2			5675			3200					18	
	19					5675			3200							20	
4,5	21	UV-210A	2	[illegible]	[illegible]		5675			[illegible]		3	70	4	R[illegible]-222	22	4,5
	23							5675			[illegible]					24	
4,5	25	UV-211B	2	80	[illegible]	5675			0			2	20	[illegible]	SPARE	26	
	27						5675			0						28	
	29	SPARE	--	20	[illegible]			0			[illegible]	[illegible]	[illegible]	--	SPARE	30	
	31					0			0			[illegible]	[illegible]	--	SPARE	32	
	33	SPARE	[illegible]	20	1		0			0		[illegible]	20	--	SPARE	34	
	35	SP[illegible]	[illegible]	20	1			0			[illegible]	1	20	--	SPARE	36	
	37	[illegible]	[illegible]	[illegible]	1	[illegible]			[illegible]			1	20	--	SPARE	38	
	39	S[illegible]	[illegible]	[illegible]	[illegible]		0			0		1	20	--	SPARE	40	
	41	SPARE	[illegible]	[illegible]	[illegible]			0			0	1	20	--	SPARE	42	
		Total Load:				[illegible]25 W			46125 W			40450 W					
		Total Amps:				[illegible] A			392 A			337 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 132700 VA
Total Est. Demand: 137500 VA
Total Conn.: 368 A
Total Est. Demand: 382 A

Panel: 2-M3

Location: MECH 301B
Supply From: MSB
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 250 A
Mains Type: MCB

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
4,5	1	AHU/ACCU-226	12	15	2	2444			700			1	20	12	EF-202	2	4
	3						2444			530		1	20	12	EF-221	4	4
4,5	5	AHU/ACCU-131	10	30	2			2704			700	1	20	12	EF-212	6	4
	7					2704			700			1	20	12	EF-211	8	4
4,5	9	AHU/ACCU-106	12	15	2		2444			530		1	20	12	EF-132	10	4
	11							2444			700	1	20	12	EF-216	12	4
4,5	13	AHU/ACCU-107	10	30	2	2704			700			1	20	12	EF-206	14	4
	15						2704			700		1	20	12	EF-210	16	4
4,5	17	AHU/ACCU-223	12	20	2			750			700	1	20	12	EF-215	18	4
	19					750			528			1	15	12	EF-211A	20	4
4,5	21	AHU/ACCU-233	6	45	2		6950			528		1	15	12	EF-212A	22	4
	23							6950			530	1	15	12	EF-208A	24	4
4	25	EF-213	10	20	1	700			20			1	20	12	EF-226	26	4
4	27	EF-220	10	20	1		530			530		1	20	12	EF-216	28	4
4	29	EF-214	10	20	1			700			696	1	20	12	EF-208	30	4
4	31	EF-203	10	20	1	700			0			1	20	--	SPARE	32	
4	33	EF-204	10	20	1		700			0		1	20	--	SPARE	34	
4	35	EF-133	10	20	1			700			0	1	20	--	SPARE	36	
	37	SPARE	--	20	1	0			0			1	20	--	SPARE	38	
	39	SPARE	--	20	1		0			0		1	20	--	SPARE	40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				12650 W			18590 W			17574 W					
		Total Amps:				105 A			161 A			153 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 48813 VA
Total Est. Demand: 50040 VA
Total Conn.: 135 A
Total Est. Demand: 139 A

Panel: 2-DP1

Location: MECH 301B
Supply From: MSB
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 250 A
Mains Type: MCB

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
	1					3780			8740							2	
	3	1-P2	1	100	3		7560			8740		3	100	1	2-P2	4	
	5							7560			6940					6	
	7					5360			10660							8	
	9	1-P3	1	100	3		7060			8380		3	100	1	2-P3	[illegible]	
	11							5720			7940					12	
	13					0			0							14	
	15	SPARE	--	20	3		0			0		3	20	--	SPARE	16	
	17							0			0					18	
	19					0			0							[illegible]	
	21	SPARE	--	20	3		0			0		3	20	--	SPA[illegible]	[illegible]	
	23							0			0					[illegible]	
	25	SPARE	--	20	1	0			1326			1	20	12	LIG[illegible] 129, 130, 125, 104	26	
	27	SPARE	--	20	1		0			1224		1	20	12	LIG[illegible], 120, 121, 122	28	
	29	SPARE	--	20	1			0			748	1	20	12	LIGHT[illegible]5, 131, 106, 107	30	
	31	SPARE	--	20	1	0			841			1	20	12	LIGHTS [illegible]	32	
	33	SPARE	--	20	1		0			[illegible]		[illegible]	20	12	LIGHTS 212, [illegible]	34	
	35	SPARE	--	20	1			0			122[illegible]	[illegible]	20	12	LIGHTS Room 205, 206, 222	36	
	37	SPARE	--	20	1	0			92[illegible]			1	20	12	[illegible]TS CORRIDOR 233	38	
	39	SPARE	--	20	1		0			[illegible]		1	2[illegible]	12	[illegible] PENTHOUSE	40	
	41	SPARE	--	20	1			[illegible]			0	1	2[illegible]	--	SPARE	42	
		Total Load:				31[illegible] W			[illegible]596 W			[illegible]132 W					
		Total Amps:				[illegible]6 A			[illegible] A			[illegible]					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 96364 VA
Total Est. Demand: 63715 VA
Total Conn.: 267 A
Total Est. Demand: 177 A

Panel: 2-P1

PROVIDE 200% NEUTRAL

Location: ELECT 137
Supply From: [illegible]
Mounting: [illegible]
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 100 A
Mains Type: MLO

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
	1	TWS LAB 213	12	20	1	540			720			1	20	12	LAB DESK 215	2	
	[illegible]	RECEPTS. LAB 213	12	20	1		1260			900		1	20	12	RECEPTS. 215, 202	4	
	5	LAB DESK 213	12	20	1			720			540	1	20	12	TWS LAB 202	6	
	7	LAB DESK 213	12	20	1	720			1080			1	20	12	RECEPTS. LAB 202	8	
	9	LAB DESK 213	12	20	1		720			720		1	20	12	LAB DESK 202	10	
	11	RECEPTS. 213, 214	12	20	1			720			720	1	20	12	LAB DESK 202	12	
	13	TWS LAB 214	12	20	1	540			720			1	20	12	LAB DESK 202	14	
	15	RECEPTS. LAB 214	12	20	1		1080			540		1	20	12	TWS LAB 203	16	
	17	LAB DESK 214	12	20	1			720			1080	1	20	12	RECEPTS. LAB 203	18	
	19	LAB DESK 214	12	20	1	720			720			1	20	12	LAB DESK 203	20	
	21	LAB DESK 214	12	20	1		720			720		1	20	12	LAB DESK 203	22	
	23	TWS LAB 215	12	20	1			540			720	1	20	12	LAB DESK 203	24	
	25	RECEPTS. LAB 215	12	20	1	1080			540			1	20	12	TWS LAB 204	26	
	27	LAB DESK 215	12	20	1		720			1080		1	20	12	RECEPTS. LAB 204	28	
	29	LAB DESK 215	12	20	1			720			720	1	20	12	LAB DESK 204	30	
	31	SPARE	--	20	1	0			720			1	20	12	LAB DESK 204	32	
	33	SPARE	--	20	1		0			720		1	20	12	LAB DESK 204	34	
	35	SPARE	--	20	1			0			720	1	20	12	RECEPTS. 204, 203	36	
	37	SPARE	--	20	1	0			0			1	20	--	SPARE	38	
	39	SPARE	--	20	1		0			0		1	20	--	SPARE	40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				8100 W			9180 W			7920 W					
		Total Amps:				68 A			77 A			66 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 25200 VA
Total Est. Demand: 17600 VA
Total Conn.: 70 A
Total Est. Demand: 49 A

Panel: 2-P2

PROVIDE 200% NEUTRAL

Location: MECH 301B
Supply From: 2-DP1
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 100 A
Mains Type: MLO

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
	1	TWS LAB 205	12	20	1	540			1080			1	20	12	RECEPTS. CHEM LAB 211	2	
	3	RECEPTS. LAB 205	12	20	1		1080			720		1	20	12	LAB DESK 211	4	
	5	LAB DESK 205	12	20	1			720			720	1	20	12	LAB DESK 211	6	
	7	LAB DESK 205	12	20	1	720			720			1	20	12	LAB DESK 211	8	
	9	LAB DESK 205	12	20	1		720			720		1	20	12	RECEPTS. 211, 212	10	
	11	RECEPTS. 206, 205	12	20	1			720			540	1	20	12	TWS CHEM LAB 212	12	
	13	TWS CHEM LAB 206	12	20	1	540			1080			1	20	12	RECEPTS. CHEM LAB 212	14	
	15	RECEPTS. CHEM LAB 206	12	20	1		1080			720		1	20	12	LAB DESK 212	16	
	17	LAB DESK 206	12	20	1			720			720	1	20	12	LAB DESK 212	18	
	19	LAB DESK 206	12	20	1	720			720			1	20	12	LAB DESK 212	20	
	21	LAB DESK 206	12	20	1		720			1000		1	20	12	FUME HOOD CHEM LAB 206	22	4
	23	TWS LAB 210	12	20	1			540			1000	1	20	12	FUME HOOD CHEM LAB 211	24	4
	25	RECEPTS. LAB 210	12	20	1	900			1000			1	20	12	FUME HOOD CHEM LAB 212	26	4
	27	LAB DESK 210	12	20	1		720			0		1	20	--	SPARE	28	
	29	LAB DESK 210	12	20	1			720			0	1	20	--	SPARE	30	
	31	LAB DESK 210	12	20	1	720			0			1	20	--	SPARE	32	
	33	RECEPTS. LAB 210	12	20	1		1260			0		1	20	--	SPARE	34	
	35	TWS CHEM LAB 211	12	20	1			540			0	1	20	--	SPARE	36	
	37	SPARE	--	20	1	0			0			1	20	--	SPARE	38	
	39	SPARE	--	20	1		0			0		1	20	--	SPARE	40	
	41	SPARE	--	20	1			0			0	1	20	--	SPARE	42	
		Total Load:				8740 W			8740 W			6940 W					
		Total Amps:				75 A			75 A			58 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 24420 VA
Total Est. Demand: 17210 VA
Total Conn.: 68 A
Total Est. Demand: 48 A

Panel: 2-P3

PROVIDE 200% NEUTRAL

Location: MECH 301B
Supply From: 2-DP1
Mounting: Surface
Volts: 120/208 Wye
Phase... 3
Wires: 4
A.I.C. Rating: 22,000
Mains Rating: 100 A
Mains Type: MLO

NO...	C...	CIRCUIT DESCRIPTION	WIRE	BRKR	#	A	B	C	A	B	C	#	BRKR	WIRE	CIRCUIT DESCRIPTION	C...	NO...
	1	RECEPTS. 224, 223, 226	12	20	1	1260			1200			1	20	12	HAND DRYER	2	4
	3	TWS SCIENCE LECTURE 222	12	20	1		540			400		1	20	12	EWC	4	1
	5	RECEPTS. 232A, 222	12	20	1			1440			1080	1	20	12	RECEPTS. 217, 218, 216	6	
	7	RECEPTS. COMP SCIENCE 219	12	20	1	800			1200			1	20	12	HAND DRYER	8	
	9	RECEPTS. COMP SCIENCE 219	12	20	1		800			1200		1	20	12	HAND DRYER	10	
	11	RECEPTS. COMP SCIENCE 219	12	20	1			800			400	1	20	12	EWC	12	1
	13	RECEPTS. COMP SCIENCE 219	12	20	1	800			1200			1	20	12	HAND DRYER	14	
	15	COMP STATION 222	12	20	1		800			720		1	20	12	PENTHOUSE/ROOF SERVICE...	16	
	17	COMP STATION 222	12	20	1			800			120	1	20	12	CIRC PUMP	18	4
	19	COMP STATION 222	12	20	1	800			360			1	20	12	DATA/MDF RECEPT	20	
	21	COMP STATION 222	12	20	1		800			360		1	20	12	DATA/MDF RECEPT	22	
	23	TWS COMP SCIENCE 219	12	20	1			540			360	1	20	12	DATA/MDF RECEPT	24	
	25	RECEPTS. COMP SCIENCE 219	12	20	1	1080			360			1	20	12	DATA/IDF RECEPT	26	
	27	RECEPTS. SCIENCE LECTURE...	12	20	1		800			360		1	20	12	DATA/IDF RECEPT	28	
	29	RECEPTS. SCIENCE LECTURE...	12	20	1			800			0	1	20	--	SPARE	30	
	31	RECEPTS. SCIENCE LECTURE...	12	20	1	800			0			1	20	--	SPARE	32	
	33	RECEPTS. SCIENCE LECTURE...	12	20	1		800			0		1	20	--	SPARE	34	
	35	COMP STATION 219	12	20	1			800			0	1	20	--	SPARE	36	
	37	COMP STATION 219	12	20	1	800			0			1	20	--	SPARE	38	
	39	COMP STATION 219	12	20	1		800			0		1	20	--	SPARE	40	
	41	COMP STATION 219	12	20	1			800			0	1	20	--	SPARE	42	
		Total Load:				10660 W			8380 W			7940 W					
		Total Amps:				89 A			70 A			66 A					

NOTES:
1. Provide GFCI Breaker
2. Circuit Via Energy Management System
3. Circuit Via Photo Cell Operation / DDC Controller
4. Provide Breaker and Fuses Per Manufacturers Recommendation
5. Provide H.A.C.R. Breaker
6. Provide a Lock on Breaker

PANEL TOTALS
Total Conn. Load: 26980 VA
Total Est. Demand: 22180 VA
Total Conn.: 75 A
Total Est. Demand: 62 A

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CAPITAL OUTLAY
PROJECT # TBD
SYSTEM CODE: 663
SCHOOL CODE: 4752
FTE: 1793

ELECTRICAL PANEL SCHEDULES

GEORGIA REGISTERED No. 23205 PROFESSIONAL ENGINEER D. J. PENN

ISSUED FOR:
BID SET

JV, MP
DRAWN BY
DPCE
CHECKED BY
DJP
APPROVED BY
01/18/19
PROJECT DATE
1802
PROJECT NUMBER

SHEET NUMBER:
E7.02

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