PANELBOARD MDP

480Y/277 3PH / 4W
WITH EQUIPMENT GROUND BUS

600A MLO
600A MAIN BUS
100% NEUTRAL BUS

LOCATIONS: ELECTRICAL 111
MOUNT: SURFACE
TYPE: NEMA 1
65k AIC BUS AND BRACING

L	R	M	O	C.B.	POLE	LOAD AREAS AND LOCATION	Ø A	Ø B	Ø C	LOAD AREAS AND LOCATION	POLE	C.B.	O	M	R	L
0	5790	2543	39844	200/3	1	PANEL LA VIA XFMR	50200			EF-6	2	15/3		2023		
1200	6710	426	45520	--	3	--		55879		--	4	--		2023		
1200	9300	3292	37320	--	5	--			53135	--	6	--		2023		
9655	0	0	3828	100/3	7	PANEL HA	15506			EF-7	8	15/3		2023		
8541	0	0	3828	--	9	--		14392		--	10	--		2023		
8065	0	0	3828	--	11	--			13916	--	12	--		2023		
		7731		40/3	13	SPRAY BOOTH	17430			PRIMARY COMPRESSOR	14	50/3		9699		
		7731		--	15	--		17430		--	16	--		9699		
		7731		--	17	--			17430	--	18	--		9699		
		7731		40/3	19	SPRAY BOOTH (FUTURE)	14158			RTU-2	20	30/3		6427		
		7731		--	21	--		14158		--	22	--		6427		
		7731		--	23	--			14158	--	24	--		6427		
		6427		30/3	25	RTU-1	13491			RTU-3	26	30/3		7064		
		6427		--	27	--		13491		--	28	--		7064		
		6427		--	29	--			13491	--	30	--		7064		
			5400	40/3	31	INVERTER WELDER	5400				32					
			5400	--	33	--		5400			34					
			5400	--	35	--			5400		36					
					37		0				38					
					39			0			40					
					41				0		42					

CONNECTED kVA 3Ø			DEMAND	AMPS
LIGHTING	28.7	35.8	125%	43.1
RECEPTACLE	21.8	15.9	73%	19.1
MOTOR	153.6	153.6	100%	184.8
OTHER	150.4	150.4	100%	180.9
SPARE	0.0	0.0	N/A	0.0
TOTAL	354.5	355.7		427.9
FEEDER AMPACITY ADJUSTMENTS				
LIGHT AMPS				10.8
MOTOR AMPS				10.2

PER NEC 220.42
PER NEC 220.44
PER NEC 220.51 - 220.60

CONNECTED 3Ø LOAD CALCULATIONS
TOTAL kVA (ØA): 116.2 419.2 AMPS
TOTAL kVA (ØB): 120.8 435.7 AMPS
TOTAL kVA (ØC): 117.5 424.1 AMPS
TOTAL CONNECTED 3Ø AMPS: 426.4
NEUTRAL AMPS: 14.7
IMBALANCE: 3%
MINIMUM FEEDER AMPS: 449

REMARKS: (GFCI) - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT BREAKER.
(TC) - CIRCUIT VIA 365-DAY PROGRAMMABLE TIMECLOCK.
(PC/TC) - PHOTOCELL ON, TIMECLOCK OFF.

PANELBOARD HA

480Y/277 3PH / 4W
WITH EQUIPMENT GROUND BUS

100A MLO
100A MAIN BUS
100% NEUTRAL BUS

LOCATIONS: ELECTRICAL 111
MOUNT: SURFACE
TYPE: NEMA 1
35k AIC BUS AND BRACING

L	R	M	O	C.B.	POLE	LOAD AREAS AND LOCATION	Ø A	Ø B	Ø C	LOAD AREAS AND LOCATION	POLE	C.B.	O	M	R	L
			914	15/3	1	CF-1	2914			WH-1	2	20/3	2000			
			914	--	3	--		2914		--	4	--	2000			
			914	--	5	--			2914	--	6	--	2000			
			914	15/3	7	CF-2	2853			LTG-SPRAY BOOTH	8	20/1				1939
			914	--	9	--		2853		LTG-SPRAY BOOTH	10	20/1				1939
			914	--	11	--			2853	LTG-SPRAY BOOTH (FUTURE)	12	20/1				1939
				20/1	13	SPARE	1939			LTG-SPRAY BOOTH (FUTURE)	14	20/1				1939
				20/1	15	SPARE		672		LTG-EXTERIOR (PC/TC)	16	20/1				672
				20/1	17	SPARE			830	LTG-PARKING LOT (PC/TC)	18	20/1				830
				20/1	19	SPARE	689			LTG-OFFICES	20	20/1				689
				20/1	21	SPARE		714		LTG-LOBBY/CORRIDOR (TC)	22	20/1				714
				20/1	23	SPARE			336	LTG-CAR WASH/PARTS (TC)	24	20/1				336
				20/3	25	SPARE	4092			LTG-SHOP BAY (TC)	26	20/1				4092
				--	27	--		4216		LTG-SHOP BAY (TC)	28	20/1				4216
				--	29	--			3596	LTG-SHOP BAY (TC)	30	20/1				3596
					31		996			LTG-PARKING LOT (PC/TC)	32	20/1				996
					33			1000		MONUMENT SIGN (PC/TC)	34	20/1				1000
					35				1364	LTG-SHOP BAY (TC)	36	20/1				1364
					37		0				38					
					39			0			40					
					41				0		42					

CONNECTED kVA 3Ø			DEMAND	AMPS
LIGHTING	26.3	32.8	125%	39.5
RECEPTACLE	0.0	0.0	N/A	0.0
MOTOR	0.0	0.0	N/A	0.0
OTHER	11.5	11.5	100%	13.8
SPARE	0.0	0.0	N/A	0.0
TOTAL	37.7	44.3		53.3
FEEDER AMPACITY ADJUSTMENTS				
LIGHT AMPS				9.9
MOTOR AMPS				0.0

PER NEC 220.42
PER NEC 220.44
PER NEC 220.51 - 220.60

CONNECTED 3Ø LOAD CALCULATIONS
TOTAL kVA (ØA): 13.5 48.7 AMPS
TOTAL kVA (ØB): 12.4 44.6 AMPS
TOTAL kVA (ØC): 11.9 42.9 AMPS
TOTAL CONNECTED 3Ø AMPS: 45.4
NEUTRAL AMPS: 5.1
IMBALANCE: 11%
MINIMUM FEEDER AMPS: 63

REMARKS: (GFCI) - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT BREAKER.
(TC) - CIRCUIT VIA 365-DAY PROGRAMMABLE TIMECLOCK.
(PC/TC) - PHOTOCELL ON, TIMECLOCK OFF.

PANELBOARD LA

208Y/120 3PH / 4W
WITH EQUIPMENT GROUND BUS

400A MCB
400A MAIN BUS
100% NEUTRAL BUS
(2 SECTION)

LOCATIONS: ELECTRICAL 111
MOUNT: SURFACE
TYPE: NEMA 1
22k AIC BUS AND BRACING

L	R	M	O	C.B.	POLE	LOAD AREAS AND LOCATION	Ø A	Ø B	Ø C	LOAD AREAS AND LOCATION	POLE	C.B.	O	M	R	L
	800			20/1	1	REFRIGERATOR (GFCI)	980			BREAK RECEPT	2	20/1			180	
	180			20/1	3	BREAK RECEPT		360		BREAK RECEPT	4	20/1			180	
	360			20/1	5	TELEPHONE BOARD			540	RISER RECEPT	6	20/1			180	
	180			20/1	7	IRRIGATION CONTROL	324			F/S DAMPERS	8	20/1	144			
	1440			20/1	9	OFFICE RECEPTS		1620		BULLPEN COPIER/PRINTER	10	20/1			[illegible]	
	720			20/1	11	OFFICE RECEPTS			1800	BULLPEN RECEPTS	12	20/1			1080	
	370			20/1	13	DRINKING FOUNTAIN (GFCI)	550			LOBBY COPIER/PRINTER	14	20/1			180	
	540			20/1	15	RECEPTION TV RECEPTS		900		LOBBY RECEPTS	16	20/1			360	
	720			20/1	17	RECEPTION RECEPTS			900	LOBBY POPCORN MACHINE	18	20/1			180	
	360			20/1	19	SERVER ROOM RECEPT	540			TIMECLOCK	20	20/1			180	
		180		20/1	21	RECIR PUMP		360		SOUTH EXTERIOR RECEPT	22	20/1			180	
		1500		20/2	23	UH-1			2700	GENERAL RECEPT	24	20/1	1200			
		1500			25	--	2220			RADIO FREQ REPEATER	26	20/1	720			
		27		20/1	27	EF-1 (TC)		747		RADIO FREQ REPEATER	28	20/1	720			
		27		20/1	29	EF-2 (TC)			1227	SIGNAGE (PC/TC)	30	20/1				1200
		27		20/1	31	EF-3 (TC)	527			FAC[illegible]ANN	32	20/1	500			
		27		20/1	33	EF-4 (TC)		[illegible]		RISER TRAP PRIMER	34	20/1			50	
		85		20/1	35	EF-5			[illegible]	TWIN POST LIFT	36	20/2	2000			
			1400	20/2	37	HEAT LAMP	3400			--	38		2000			
			1400		39	--		1760		BREAK RECEPTS	40	20/1			360	
	1260			20/1	41	MAINT RECEPTS			1620	LOBBY RECEPTS	42	20/1			360	
	900			20/1	43	WEST WALL GENERAL RECEPTS	[illegible]			BULLPEN SHREDDER	44	20/1			180	
	360			20/1	45	NORTH GENERAL RECEPTS		540		LOBBY SHREDDER	46	20/1			180	
	180			20/1	47	NORTH GENERAL RECEPTS			1620	BULL PEN RECEPTS	48	20/1			1440	
			4200	50/2	49	MIG WELDER	5000			DISPOSAL (GFCI)	50	20/1		800		
			4200		51	--		5400		LTG - PAINT MIX ROOM	52	20/1				1200
			1400	20/1	53	WELDER			2600	PAINT MIX ROOM	54	20/1		1200		
			4200	50/2	55	MIG WELDER	5400			PAINT MIX ROOM (FUTURE)	56	20/1			1200	
			4200		57	--		4560		TWIN POST LIFT RECEPTS	58	20/1			360	
			1400	20/1	59	WELDER			2600	PAINT MIX FAN	60	20/1			1200	
			[illegible]	20/1	61	WELDER	1616			GATE OPERATOR	62	20/1		216		
			4200	50/2	63	MIG WELDER		4200		SPARE	64	20/1				
			4200		65	--			4200	SPARE	66	20/1				
			1400	20/1	67	WELDER	5600			MIG WELDER	68	50/2	4200			
			4200	50/2	69	MIG WELDER		8400		--	70		4200			
			4200		71	--			5600	WELDER	72	20/1	1400			
				20/1	73	SPARE	1400			WELDER	74	20/1	1400			
				20/1	75	SPARE		4200		MIG WELDER	76	50/2	4200			
				20/1	77	SPARE			4200	--	78		4200			
				20/1	79	SPARE	19540			PANEL LB	80	225/3	18280	0	1260	0
				20/1	81	SPARE		20732		--	82		18200	192	2340	0
				20/1	83	SPARE			19420	--	84		17320	480	1620	0

CONNECTED kVA 3Ø			DEMAND	AMPS
LIGHTING	2.4	3.0	125%	8.3
RECEPTACLE	21.8	15.9	73%	44.1
MOTOR	6.3	6.3	100%	17.4
OTHER	122.7	122.7	100%	340.5
SPARE	0.0	0.0	N/A	0.0
TOTAL	153.1	147.8		410.4
FEEDER AMPACITY ADJUSTMENTS				
LIGHT AMPS				2.1
MOTOR AMPS				3.5

PER NEC 220.42
PER NEC 220.44
PER NEC 220.51 - 220.60

CONNECTED 3Ø LOAD CALCULATIONS
TOTAL kVA (ØA): 48.2 401.2 AMPS
TOTAL kVA (ØB): 53.9 448.5 AMPS
TOTAL kVA (ØC): 51.1 425.6 AMPS
TOTAL CONNECTED 3Ø AMPS: 425.1
NEUTRAL AMPS: 41.0
IMBALANCE: 10%
MINIMUM FEEDER AMPS: 416

REMARKS: (GFCI) - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT BREAKER.
(TC) - CIRCUIT VIA 365-DAY PROGRAMMABLE TIMECLOCK.
(PC/TC) - PHOTOCELL ON, TIMECLOCK OFF.

PANELBOARD LB

208Y/120 3PH / 4W
WITH EQUIPMENT GROUND BUS

225A MLO
225A MAIN BUS
100% NEUTRAL BUS

LOCATIONS: ELECTRICAL 111
MOUNT: SURFACE
TYPE: NEMA 1
10k AIC BUS AND BRACING

L	R	M	O	C.B.	POLE	LOAD AREAS AND LOCATION	Ø A	Ø B	Ø C	LOAD AREAS AND LOCATION	POLE	C.B.	O	M	R	L
	180			20/1	1	SOUTH WALL RECEPT	360			SOUTH WALL RECEPT	2	20/1			180	
	180			20/1	3	SOUTH WALL RECEPT		1260		NORTH WALL RECEPT	4	20/1			1080	
		240		20/1	5	WALL LOUVER #1			420	NORTH WALL RECEPT	6	20/1			180	
	180			20/1	7	SOUTH WALL RECEPT	360			NORTH WALL RECEPT	8	20/1			180	
	180			20/1	9	SOUTH WALL RECEPT		360		NORTH WALL RECEPT	10	20/1			180	
	180			20/1	11	SOUTH WALL RECEPT			420	WALL LOUVER #2	12	20/1		240		
			1400	20/1	13	WELDER	2800			WELDER	14	20/1	1400			
			4200	50/2	15	MIG WELDER		8400		MIG WELDER	16	50/2	4200			
			4200	--	17	--			8400	--	18	--	4200			
			4200	50/2	19	MIG WELDER	4560			WEST WALL RECEPT	20	20/1			360	
			4200	--	21	--		4560		WEST WALL RECEPT	22	20/1			360	
			1400	20/1	23	WELDER			3320	AIR DRYER	24	20/1	1920			
			4200	50/2	25	MIG WELDER	7060			VEHICLE LIFT	26	30/1	2880			
			4200	--	27	--		4392		RH-1 AND RH-2	28	20/1		192		
			4200	50/2	29	MIG WELDER			5280	SOUTH WALL RECEPT	30	20/1			1080	
			4200	--	31	--	4200			SPARE	32	20/1				
			1400	20/1	33	WELDER		1400		SPARE	34	20/1				
			1400	20/1	35	WELDER			1400	SPARE	36	20/1				
	180			20/1	37	DETAIL RECEPT	180			SPARE	38	20/1				
	360			20/1	39	DETAIL RECEPT		360		SPARE	40	20/1				
	180			20/1	41	FRAMERACK RECEPT			180	SPARE	42	20/1				

CONNECTED kVA 3Ø			DEMAND	AMPS
LIGHTING	0.0	0.0	N/A	0.0
RECEPTACLE	5.2	5.2	100%	14.5
MOTOR	0.7	0.7	100%	1.9
OTHER	53.8	53.8	100%	149.3
SPARE	0.0	0.0	N/A	0.0
TOTAL	59.7	59.7		165.7
FEEDER AMPACITY ADJUSTMENTS				
LIGHT AMPS				0.0
MOTOR AMPS				0.5

PER NEC 220.42
PER NEC 220.44
PER NEC 220.51 - 220.60

CONNECTED 3Ø LOAD CALCULATIONS
TOTAL kVA (ØA): 19.5 162.7 AMPS
TOTAL kVA (ØB): 20.7 172.6 AMPS
TOTAL kVA (ØC): 19.4 161.7 AMPS
TOTAL CONNECTED 3Ø AMPS: 165.7
NEUTRAL AMPS: 10.5
IMBALANCE: 6%
MINIMUM FEEDER AMPS: 166

REMARKS: (GFCI) - GROUND FAULT CIRCUIT INTERRUPTING TYPE CIRCUIT BREAKER.
(TC) - CIRCUIT VIA 365-DAY PROGRAMMABLE TIMECLOCK.
(PC/TC) - PHOTOCELL ON, TIMECLOCK OFF.

CONTRACTOR SHALL COORDINATE AIC RATINGS WITH UTILITY.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY DUSTIN M. VOGT, PE ON 09-18-2020 USING A DIGITAL SIGNATURE. PRINTED COPIES ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

DUSTIN M. VOGT
LICENSE No. PE86998
STATE OF FLORIDA
PROFESSIONAL ENGINEER
9/18/20

CALIBER COLLISION

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NO.	DATE	BY	DESCRIPTION
1	09.18.20	JRR	BUILDING DEPARTMENT CORRECTIONS

REVISIONS

PANEL SCHEDULES

CALIBER COLLISION
2300 GRIFFIN RD
LAKELAND, FL
PROJECT NO. 202002

FILE NAME: 192006
DRAWN BY: SZK
DATE: 08/19/2020
REVIEWED BY: DMV

E4.0

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