EQUIPMENT DESIGNATION	EQUIPMENT OR PANEL SERVED	VOLTAGE RATING	PHASE	WIRE CONFIGURATION	PROTECTION MODES	ENCLOSURE	CATEGORY	SHORT CIRCUIT RATING	CIRCUIT BREAKER	LOCATION	MOUNTING
SPD-XX-MDP	MAIN DISTRIBUTION PANEL BOARD "XX-"	277-480	3	5W	L-G, L-N, L-L, N-G	NEMA 1	TYPE 2	250,000	100/3	MOUNTED AT "XX-MDP"	SURFACE SIDE MOUNT TO DIST. PANEL
SPD-XX-EQH1	SURGE PROTECTION PANEL BOARD "XX-EQH1"	277-480	3	5W	L-G, L-N, L-L, N-G	NEMA 1	TYPE 2	250,000	100/3	MOUNTED EXTERNAL TO "XX-EQH1"	SURFACE SIDE MOUNT TO DIST. PANEL
SPD-XX-1	SURGE PROTECTION PANEL BOARD "XX-1"	120-208	3	5W	L-G, L-N, L-L, N-G	NEMA 1	TYPE 3	125,000	60/3	MOUNTED EXTERNAL TO "XX-1"	SURFACE BOTTOM OF PANEL BOAED
SPD-XX-ES1	SURGE PROTECTION PANEL BOARD "XX-ES1"	120-208	3	5W	L-G, L-N, L-L, N-G	NEMA 1	TYPE 3	125,000	60/3	MOUNTED EXTERNAL TO "XX-ES1"	SURFACE BOTTOM OF PANEL BOAED
SPD-XX-EC1	SURGE PROTECTION PANEL BOARD "XX-EC1"	120-208	3	5W	L-G, L-N, L-L, N-G	NEMA 1	TYPE 3	125,000	60/3	MOUNTED EXTERNAL TO "XX-EC1"	SURFACE BOTTOM OF PANEL BOAED
SPD-XX-EQL1	SURGE PROTECTION PANEL BOARD "XX-EQL1"	120-208	3	5W	L-G, L-N, L-L, N-G	NEMA 1	TYPE 3	125,000	60/3	MOUNTED EXTERNAL TO "XX-EQL1"	SURFACE BOTTOM OF PANEL BOAED

NOTES:
1. NIPPLE MOUNT TO BOTTOM OF PANEL BOARD.

B1 SURGE PROTECTIVE DEVICE (SPD) SCHEDULE
NO SCALE

ATS DESIGNATION	LOCATION	BRANCH	SWITCH RATING	NEMA	VOLTAGE	SHORT CIRCUIT WITHSTAND	BY PASS ISOLATION	CABLE ENTRY	SERVICE ACCESS	MOUNTING
ATS-ELS	EMERGENCY ELECTRICAL ROOM	LIFE SAFETY BRANCH	100	NEMA 1	480 VOLTS	65,000	NO	TOP OR BOTTOM	FRONT ONLY	SURFACE
ATS-EC1	EMERGENCY ELECTRICAL ROOM	CRITICAL BRANCH	100	NEMA 1	480 VOLTS	65,000	NO	TOP OR BOTTOM	FRONT ONLY	SURFACE
ATS-EQ1	EMERGENCY ELECTRICAL ROOM	EQUIPMENT BRANCH	800	NEMA 1	480 VOLTS	65,000	NO	TOP OR BOTTOM	FRONT ONLY	SURFACE

B1 AUTOMATIC TRANSFER SWITCH (ATS) SCHEDULE
NO SCALE

NORMAL ELECTRICAL LOAD CALCULATION						
LOAD DESCRIPTION	NEC CODE ARTICLE	TOTAL VA	SQUARE FEET	VA PER SQ./FT.	DIVERSITY FACTOR	TOTAL V/A
LIGHTING	220.12	–	17,000	2	1	34000
(FUTURE)	220.12	–	17,000	2	1	34000
RECEPTACLES	220.14	–	17,000	1	1	17000
(FUTURE)	220.14	–	17,000	1	1	17000
HVAC:	220.51	332,266	–	–	1	332266
(FUTURE)	220.51	332,266	–	–	1	332266
LARGEST MOTOR:	220.18.A	70,000	–	–	1.25	87500
MISCELLANEOUS	220.14	50,000	–	–	1	50000
(FUTURE)	220.14	50,000	–	–	1	50000
OVERALL LOAD CALCULATION TOTALS						
TOTAL VA:						954032
TOTAL AMPS: @480 VOLTS						1148.052948
SERVICE SIZE						1,600A.

EMERGENCY ELECTRICAL LOAD CALCULATION						
LOAD DESCRIPTION	NEC CODE ARTICLE	TOTAL VA	SQUARE FEET	VA PER SQ./FT.	DIVERSITY FACTOR	TOTAL V/A
LIGHTING	220.12	–	17,000	.67	1	11390
(FUTURE)	220.12	–	17,000	.67	1	11390
RECEPTACLES	220.14	–	17,000	0.5	1	8500
(FUTURE)	220.14	–	17,000	0.5	1	8500
HVAC:	220.51	332,266	–	–	1	332266
(FUTURE)	220.51	332,266	–	–	1	332266
LARGEST MOTOR:	220.18.A	70,000	–	–	1.25	87500
MISCELLANEOUS:	220.14	50,000	–	–	1	50000
(FUTURE)	220.14	50,000	–	–	1	50000
OVERALL LOAD CALCULATION TOTALS						
TOTAL VA:	CONNECT TO EXISTING 2,500 AMP EMERGENCY					891812
TOTAL AMPS: @480 VOLTS	BUSS IN BUILDING NO. 117.					1073.179302
SERVICE SIZE						1,200A.

MOUNTING: SURFACE
480/277 VOLT
3 PHASE /4 WIRE

PANEL "XX-MDP"

65,000 AIC
1,600A MAIN CIRCUIT BREAKER

CKT NO.	TRIP RATING	NO. OF POLES	INTERRUPTING AMPS	LOAD SERVED	WIRE SIZE	REMARKS
1	70	3	65,000	XMFR: "T-XX-1" (45KVA)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
2	100	3	65,000	ATS-XX-ES1	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
3	100	3	65,000	ATS-XX-EC1	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
4	800	3	65,000	ATS-XX-EQ1	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
5	–	3	65,000	SPACE	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
6	–	3	65,000	SPACE	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
7	–	3	65,000	SPACE	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
8	–	3	65,000	SPACE	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
9	100	3	65,000	SPD-MDP1 (250KA)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM

NOTES:
1. "XX-MDP" SHALL BE SERVICE ENTRANCE RATED.

MOUNTING: SURFACE
480/277 VOLT
3 PHASE /4 WIRE

PANEL "XX-EQH1"

65,000 AIC
800 AMP MAIN CIRCUIT BREAKER

CKT NO.	TRIP RATING	NO. OF POLES	INTERRUPTING AMPS	LOAD SERVED	WIRE SIZE	REMARKS
1	50	3	65,000	XFMR: "T-EQL1" (30)KVA	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
2	125	3	65,000	ACH-1 (CHILLER)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
3	15	3	65,000	HWP-1 (HOT WATER PUMP)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
4	15	3	65,000	HWP-2 (HOT WATER PUMP)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
5	15	3	65,000	CHP-1 (CHILLED WATER PUMP)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
6	15	3	65,000	CHP-2 (CHILLED WATER PUMP)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
7	80	3	65,000	SF-1 (SUPPLY FAN)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
8	35	3	65,000	RF-1 (RETURN FAN)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
9	15	3	65,000	CDP-1 (CONDENSATE PUMP)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
10	60	3	65,000	ELEV. NO. 1 (FUTURE)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
11	60	3	65,000	ELEV NO. 2 (FUTURE)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM
12	100	3	65,000	SPD-XX-EQH1 (250KA)	SEE ONE-LINE	SEE ONE-LINE DIAGRAM

NOTES:
1. PROVIDE SPARE CIRCUIT BREAKERS FOR FUTURE ELEAVTORS.

Estimated Voltage Drop Calculator

Input

Load Voltage	480V 3Ø
Conductor Size	1
Conductor Type	Cu ◉ Al ○
Number of Sets	1
Distance (one way)	550 Feet
Load (A)	18.34 A

Output

Unity Power Factor		85% PF	
Voltage Drop (V)	2.7 V		2.8 V
Voltage Drop (%)	0.6 %		0.6 %
Voltage at Load	477.3 V		477.2 V
Minimum Conductor Size for 3% VD	8		
Minimum Conductor Size for 5% VD	10		

SIEMENS

D1 LIFE SAFETY VOLTAGE DROP CALCULATION
NO SCALE

Estimated Voltage Drop Calculator

Input

Load Voltage	480V 3Ø
Conductor Size	3/0
Conductor Type	Cu ◉ Al ○
Number of Sets	1
Distance (one way)	550 Feet
Load (A)	25.32 A

Output

Unity Power Factor		85% PF	
Voltage Drop (V)	1.9 V		2.3 V
Voltage Drop (%)	0.4 %		0.5 %
Voltage at Load	478.1 V		477.7 V
Minimum Conductor Size for 3% VD	6		
Minimum Conductor Size for 5% VD	8		

SIEMENS

D2 CRITICAL VOLTAGE DROP CALCULATION
NO SCALE

Estimated Voltage Drop Calculator

Input

Load Voltage	480V 3Ø
Conductor Size	600
Conductor Type	Cu ◉ Al ○
Number of Sets	4
Distance (one way)	350 Feet
Load (A)	1148 A

Output

Unity Power Factor		85% PF	
Voltage Drop (V)	4.4 V		8.2 V
Voltage Drop (%)	0.9 %		1.7 %
Voltage at Load	475.6 V		471.8 V
Minimum Conductor Size for 3% VD	4/0		
Minimum Conductor Size for 5% VD	2/0		

SIEMENS

D3 NORMAL POWER VOLTAGE DROP CALCULATION
NO SCALE

TRANSFORMER SCHEDULE

ITEM	KVA	PHASE	WIRE	TYPE	NEMA	MOUNTING	PRIMARY	SECONDARY	GROUND
T-XX-1	45	3	4	DRY	1	SUSPENDED	480	120-208	1#4
T-ES1	30	3	4	DRY	1	SUSPENDED	480	120-208	1#8
T-EC1	30	3	4	DRY	1	SUSPENDED	480	120-208	1#8
T-EQL1	30	3	4	DRY	1	SUSPENDED	480	120-208	1#8

NOTES:
1. IMPEDANCE VALUES FOR TRANSFORMERS SHALL BE 4.5%

F3 TRANSFORMER SCHEDULE
NO SCALE

XX-EQH1 LOAD CALCULATION

ITEM	DESCRIPTION	CONNECTED LOAD IN VA	DEMAND FACTOR	DEMAND LOAD IN VA
"T-EQL1"	30 KVA TRANSFORMER	30,000	1	30000
ACH-1	CHILLER	87,836	1.25	109795
HWP-1	HOT WATER PUMP	9,141	1	9141
HWP-2	HOT WATER PUMP	9,141	1	9141
CHP-1	CHILLED WATER PUMP	6,315	1	6315
CHP-2	CHILLED WATER PUMP	6,315	1	6315
SF-1	SUPPLY FAN	39,472	1	39472
RF-1	RETURN FAN	16,538	1	16538
ELEV #1	ELEVATOR NO. 1	22,437	1	22437
ELEV #2	ELEVATOR NO. 2	22,437	1	22437
CDP-1	CONDENSATE PUMP (FUTURE HVAC)	1,329	1	1329
		270,000	1	270000
			TOTAL IN VA	542920
			TOTAL IN A.	653.3333333

F5 PANEL "XX-EQH1" LOAD CALCULATION
NO SCALE

FULLY SPRINKLED
BID DOCUMENTS
FOR CONSTRUCTION

Revisions	Date
⚠1 ADDENDUM 1 – BID AND CONSTRUCTION DOCUMENTS	05/29/20

CONSULTANTS:

ARCHITECT/ENGINEERS:
paradigm
Architecture | Engineering | Design-Build
200 Envoy Circle #201, Louisville KY 40299 – PH: 502.339.8511 – www.paradigmusa.com

STATE OF KENTUCKY · BLAINE CAMIEL VAN GANSBEKE · 24,788 · LICENSED PROFESSIONAL ENGINEER · 2020

Drawing Title: ELECTRICAL PANEL SCHEDULES
Approved Project Director:
Project Title: ST CLOUD ADH AND EC SUPPORT
Location: ST CLOUD VA HEALTH CARE SYSTEM, 4801 VETERANS DRIVE, ST. CLOUD MN 56303
Date: 12-27-2019 | Checked: WLM | Drawn: MMF
Project Number: 656-343
Building Number: ---
Drawing Number: EP601
Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

PANEL "XX-1"

NORMAL POWER

NEW PANEL

PANEL INFORMATION

MAIN TYPE	175A MCB		
VOLTAGE	120/ 208	VOLTS	3PH-4W
MOUNTING	SURFACE	MOUNT	
AIC RATING	10000	AIC	
ENCLOSURE TYPE	NEMA-1		

PANEL RATING & FEEDER

PANEL AMPACITY:		225 AMPS
PHASE CONDUCTORS:	(3)	#4/0 THWN
NEUTRAL	(1)	#4 THWN
# OF SETS		(1 SET)
SOURCE	SEE RISER	

			LOAD IN VOLT AMPS (VA)						LOAD IN VOLT AMPS (VA)							
CKT	DESCRIPTION	CB AMPS	WIRE SIZE	LTG (125%)	RECEPT.	KITCHEN	HVAC	MISC	PHASE	MISC	HVAC	KITCHEN	RECEPT.	LTG (125%)	WIRE SIZE	CB AMPS	DESCRIPTON	CKT
1	SPARE	20	#12						A					1268	#12	20	GENERAL LIGHTING	2
3	CRAWL SPACE LIGHTING	20	#12	352					B					1228	#12	20	GENERAL LIGHTING	4
5	TUNNEL LIGHTING	20	#12	550					C					1382	#12	20	GENERAL LIGHTING	6
7	GENERAL RECEPTACLES	20	#12		900				A					925	#12	20	GENERAL LIGHTING	8
9	GENERAL RECEPTACLES	20	#12		900				B					1071	#12	20	GENERAL LIGHTING	10
11	GENERAL RECEPTACLES	20	#12		720				C					336	#12	20	EXTERIOR LIGHTING - INVERTERS **	12
13	GENERAL RECEPTACLES	20	#12		720				A					1233	#12	20	GENERAL LIGHTING	14
15	GENERAL RECEPTACLES	20	#12		720				B					1440	#12	20	POWER BOOSTER NO. 1	16
17	GENERAL RECEPTACLES	20	#12		720				C					880	#12	20	POWER BOOSTER NO. 2	18
19	GENERAL RECEPTACLES	20	#12		1080				A					80	#12	20	POWER BOOSTER NO. 3	20
21	GENERAL RECEPTACLES	20	#12		1080				B					728	#12	20	POWER BOOSTER NO. 4	22
23	GENERAL RECEPTACLES	20	#12		900				C					324	#12	20	POWER BOOSTER NO. 5	24
25	GENERAL RECEPTACLES	20	#12		1080				A				900		#12	20	GENERAL RECEPTACLES	26
27	GENERAL RECEPTACLES	20	#12		720				B	900					#12	20	E.W.C.	28
29	GENERAL RECEPTACLES	20	#12		900				C				1080		#12	20	GENERAL RECEPTACLES	30
31	GENERAL RECEPTACLES	20	#12		720				A				900		#12	20	GENERAL RECEPTACLES	32
33	DISHWASHER	20	#12					900	B				540		#12	20	GENERAL RECEPTACLES	34
35	MICROWAVE	20	#12		180			900	C				720		#12	20	GENERAL RECEPTACLES	36
37	COFFEE MAKER	20	#12		200			900	A				1080		#12	20	GENERAL RECEPTACLES	38
39	REFRIGERATOR	20	#12		1000			900	B				1080		#12	20	GENERAL RECEPTACLES	40
41	GENERAL RECEPTACLES	20	#12		1080				C				720		#12	20	GENERAL RECEPTACLES	42
43	WASHER	20	#12					1200	C				720		#12	20	GENERAL RECEPTACLES	44
45	DRYER	30	#10					2500	C				720		#12	20	GENERAL RECEPTACLES	46
47								2500	C				720		#12	20	GENERAL RECEPTACLES	48
49	GENERAL RECEPTACLES	20	#12		720				A				720		#12	20	GENERAL RECEPTACLES	50
51	COFFEE MAKER	20	#12					900	B				1080		#12	20	GENERAL RECEPTACLES	52
53	MICROWAVE	20	#12					900	C				800		#12	20	DISHWASHER	54
55	GENERAL RECEPTACLES	20	#12		1080			900	A	1200			180		#12	20	DEFIBULATOR	56
57	GENERAL RECEPTACLES	20	#12		1080				B	600			360		#12	20	GENERAL RECEPTACLES	58
59	GENERAL RECEPTACLES	20	#12		720				C				1080		#12	20	GENERAL RECEPTACLES	60
61	GENERAL RECEPTACLES	20	#12		900				A				1080		#12	20	GENERAL RECEPTACLES	62
63	GENERAL RECEPTACLES	20	#12		900				B				1080		#12	20	GENERAL RECEPTACLES	64
65	GENERAL RECEPTACLES	20	#12		360				C	1800					#10	30	DATA ROOM RACK SYSTEM	66
67	GENERAL RECEPTACLES	20	#12		360				A				180		#12	20	DATA ROOM RECEPTACLES	68
69	GENARAL RECEPTACLES	20	#12		1080				B	1200					#12	20	ICE MACHINE	70
71	GENERAL RECEPTACLES	20	#12		360				C	600			360		#12	20	TOWEL WARMER	72
73	GENARAL RECEPTACLES	20	#12		900				A	600			720		#12	20	TOWEL WARMER	74
75	GENERAL RECEPTACLES	20	#12		360				B				720		#12	20	BASEMENT RECEPTACLES	76
77	REFRIGERATOR	20	#12					900	C						#12	20	SPARE	78
79	UNDER COUNTER OVEN	20	#12					900	A									80
81	UNDER COUNTER DISH WASHER	20	#12					900	B						#6	60	SPD-XX-1 (125KA)	82
83	UNDER COUNTER ICE MAKER	20	#12					900	C									84
TOTAL LOADS				902	22440	0	0	16100		6900	0	0	17540	10895			TOTAL LOADS	

PANEL NOTES

** - LOCKED HANDLE CIRCUIT BREAKER.
THE LISTED PANEL SHALL BE ONE SINGLE BUSS, TWO TUB SUBSTITUTIONS SHALL NOT BE PERMITTED.

LOAD CALCULATION (NEC 2008 - ARTICLE 220)

LOAD TYPE	LOAD (kVA)	DEMAND %	DEMAND LOAD	kW
LIGHTING	11.80	1.25	14.7	kW
RECEPTACLES	10.00	1.00	25.0	kW
RECEPTACLES > 10000	29.98	0.50		
KITCHEN EQUIPMENT	0.00	0.65	0.0	kW
MISC.	23.00	1.00	23.0	kW
HVAC	0.00	1.00	0.0	kW
TOTAL kW DEMAND			62.7	kW
TOTAL DEMAND AMPS	@ 100%		174.14	AMPS

FULLY SPRINKLED
BID DOCUMENTS
FOR CONSTRUCTION

Revisions:	Date
1 ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS	05/29/20

CONSULTANTS:

ARCHITECT/ENGINEERS:

paradigm
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200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com

STATE OF KENTUCKY
BLAINE CAMIEL VAN GANSBEKE
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5/29/2020

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Approved Project Director:
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Date: 12-27-2019
Checked: WLM
Drawn: MMF
Project Number: 656-343
Building Number: ---
Drawing Number: EP602

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

PANEL INFORMATION
MAIN TYPE 100A MCB
VOLTAGE 120/ 208 VOLTS 3PH-4W
MOUNTING SURFACE MOUNT
AIC RATING 10000 AIC
ENCLOSURE TYPE NEMA-1

PANEL "XX-EC1"
CRITICAL POWER
NEW PANEL

PANEL RATING & FEEDER
PANEL AMPACITY: 100 AMPS
PHASE CONDUCTORS: (3) #3 THWN
NEUTRAL (1) #8 THWN
OF SETS (1 SET)
SOURCE SEE RISER

			LOAD IN VOLT AMPS (VA)						LOAD IN VOLT AMPS (VA)							
CKT	DESCRIPTION	CB AMPS	WIRE SIZE	LTG (125%)	RECEPT.	KITCHEN	HVAC	MISC	PHASE	MISC	HVAC	KITCHEN	RECEPT.	LTG (125%)	WIRE SIZE	CB AMPS	DESCRIPTON	CKT
1	FIRST FLOOR LIGHTING (ELECTRICAL ROOMS)	20	#12	644					A					252	#12	20	BASEMENT LIGHTING	2
3	NURSE STATION RECEPTACLES	20	#12		720				B					58	#12	20	UNDERCOUNTER LIGHTS	4
5	PATIENT LIFT	20	#12		180			1000	C	1800					#10	30	UPS SYSTEM IN SERVER RACK	6
7	PATIENT LIFT	20	#12		180			1000	A				540		#12	20	ELECTRICAL ROOM RECEPTACLES	8
9	PATIENT LIFT	20	#12					1000	B				180		#12	20	DATA ROOM RECEPTACLE	10
11	SPARE	20	#12						C	300					#12	20	PATIENT WANDERING SYSTEM PANEL **	12
13	SPARE	20	#12						A	300					#12	20	NURSE CALL SYSTEM PANEL **	14
15	SPARE	20	#12						B	300					#12	20	SECURITY SYSTEM PANEL **	16
17	SPARE	20	#12						C	300					#12	20	PUBLIC ADDRESS PANEL **	18
19	SPARE	20	#12						A						#12	20	SPARE	20
21	SPARE	20	#12						B						#12	20	SPARE	22
23	SPARE	20	#12						C						#12	20	SPARE	24
25	SPARE	20	#12						A						#12	20	SPARE	26
27	SPARE	20	#12						B						#12	20	SPARE	28
29	SPARE	20	#12						C				720		#12	20	SPARE	30
31	SPARE	20	#12						A						#12	20	SPARE	32
33	SPARE	20	#12						B						#12	20	SPARE	34
35	SPARE	20	#12						C						#12	20	SPARE	36
37	SPARE	20	#12						A									38
39	SPARE	20	#12						B						#6	60	SPD-XX-EC1 (125KA)	40
41	SPARE	20	#12						C									42
TOTAL LOADS				644	1080	0	0	3000		3000	0	0	1440	310			TOTAL LOADS	

PANEL NOTES

** = LOCKED HANDLE CIRCUIT BREAKER.

LOAD CALCULATION (NEC 2008 - ARTICLE 220)

LOAD TYPE	LOAD (kVA)	DEMAND %	DEMAND LOAD	
LIGHTING	0.95	1.25	1.2	kW
RECEPTACLES	2.52	1.00	2.5	kW
RECEPTACLES > 10000	0.00	0.50		
KITCHEN EQUIPMENT	0.00	0.65	0.0	kW
MISC.	6.00	1.00	6.0	kW
HVAC	0.00	1.00	0.0	kW
TOTAL kW DEMAND			9.7	kW
TOTAL DEMAND AMPS	@ 100%		26.96	AMPS

PANEL INFORMATION
MAIN TYPE 100A MCB
VOLTAGE 120/ 208 VOLTS 3PH-4W
MOUNTING SURFACE MOUNT
AIC RATING 10000 AIC
ENCLOSURE TYPE NEMA-1

PANEL "XX-ES1"
LIFE SAFETY BRANCH
NEW PANEL

PANEL RATING & FEEDER
PANEL AMPACITY: 100 AMPS
PHASE CONDUCTORS: (3) #3 THWN
NEUTRAL (1) #8 THWN
OF SETS (1 SET)
SOURCE SEE RISER

			LOAD IN VOLT AMPS (VA)						LOAD IN VOLT AMPS (VA)							
CKT	DESCRIPTION	CB AMPS	WIRE SIZE	LTG (125%)	RECEPT.	KITCHEN	HVAC	MISC	PHASE	MISC	HVAC	KITCHEN	RECEPT.	LTG (125%)	WIRE SIZE	CB AMPS	DESCRIPTON	CKT
1	EGRESS LIGHTING	20	#12	1261					A					396	#12	20	BASEMENT AND CRAWL SPACE LIGHTING	2
3	EGRESS LIGHTING	20	#12	723					B	600				51	#12	20	DOOR OPERATOR MOTOR	4
5	EGRESS LIGHTING	20	#12	800					C	600					#12	20	DOOR OPERATOR MOTOR	6
7	EXIT AND NIGHT LIGHTS	20	#12	928					A	300					#12	20	FIRE ALARM CONTROL PANEL **	8
9	SPACE AND BUSS	-	-						B						-	-	SPACE AND BUSS	10
11	SPACE AND BUSS	-	-						C						-	-	SPACE AND BUSS	12
13	SPACE AND BUSS	-	-						A						-	-	SPACE AND BUSS	14
15	SPACE AND BUSS	-	-						B						-	-	SPACE AND BUSS	16
17	SPACE AND BUSS	-	-						C						-	-	SPACE AND BUSS	18
19	SPACE AND BUSS	-	-						A						-	-	SPACE AND BUSS	20
21	SPACE AND BUSS	-	-						B						-	-	SPACE AND BUSS	22
23	SPACE AND BUSS	-	-						C						-	-	SPACE AND BUSS	24
25	SPACE AND BUSS	-	-						A						-	-	SPACE AND BUSS	26
27	SPACE AND BUSS	-	-						B						-	-	SPACE AND BUSS	28
29	SPACE AND BUSS	-	-						C						-	-	SPACE AND BUSS	30
31	SPACE AND BUSS	-	-						A						-	-	SPACE AND BUSS	32
33	SPACE AND BUSS	-	-						B						-	-	SPACE AND BUSS	34
35	SPACE AND BUSS	-	-						C						-	-	SPACE AND BUSS	36
37	SPACE AND BUSS	-	-						A									38
39	SPACE AND BUSS	-	-						B						#6	60	SPD-XX-ES1 (125KA)	40
41	SPACE AND BUSS	-	-						C									42
TOTAL LOADS				3712	0	0	0	0		1500	0	0	0	447			TOTAL LOADS	

PANEL NOTES

** = INDICATES LOCKED HANDLE CIRCUIT BREAKER.

LOAD CALCULATION (NEC 2008 - ARTICLE 220)

LOAD TYPE	LOAD (kVA)	DEMAND %	DEMAND LOAD	
LIGHTING	4.16	1.25	5.2	kW
RECEPTACLES	0.00	1.00	0.0	kW
RECEPTACLES > 10000	0.00	0.50		
KITCHEN EQUIPMENT	0.00	0.65	0.0	kW
MISC.	1.50	1.00	1.5	kW
HVAC	0.00	1.00	0.0	kW
TOTAL kW DEMAND			6.7	kW
TOTAL DEMAND AMPS	@ 100%		18.59	AMPS

FULLY SPRINKLED
BID DOCUMENTS
FOR CONSTRUCTION

Revisions:	Date
⚠ ADDENDUM 1 - BID AND CONSTRUCTION DOCUMENTS	05/29/20

CONSULTANTS:

ARCHITECT/ENGINEERS:
paradigm
Architecture | Engineering | Design-Build
200 Envoy Circle #201, Louisville KY 40299 - PH: 502.339.8511 - www.paradigmusa.com

STATE OF KENTUCKY
ELAINE CAMIEL VAN GANSBEKE
24,798
LICENSED PROFESSIONAL ENGINEER
27 MAY 2020

Drawing Title: ELECTRICAL PANEL SCHEDULES
Approved Project Director
Project Title: ST CLOUD ADH AND EC SUPPORT
Location: ST CLOUD VA HEALTH CARE SYSTEM, 4801 VETERANS DRIVE, ST. CLOUD MN 56303
Date: 12-27-2019
Checked: WLM
Drawn: MMF
Project Number: 656-343
Building Number: ---
Drawing Number: EP603

Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231