

PROJECT DETAILS

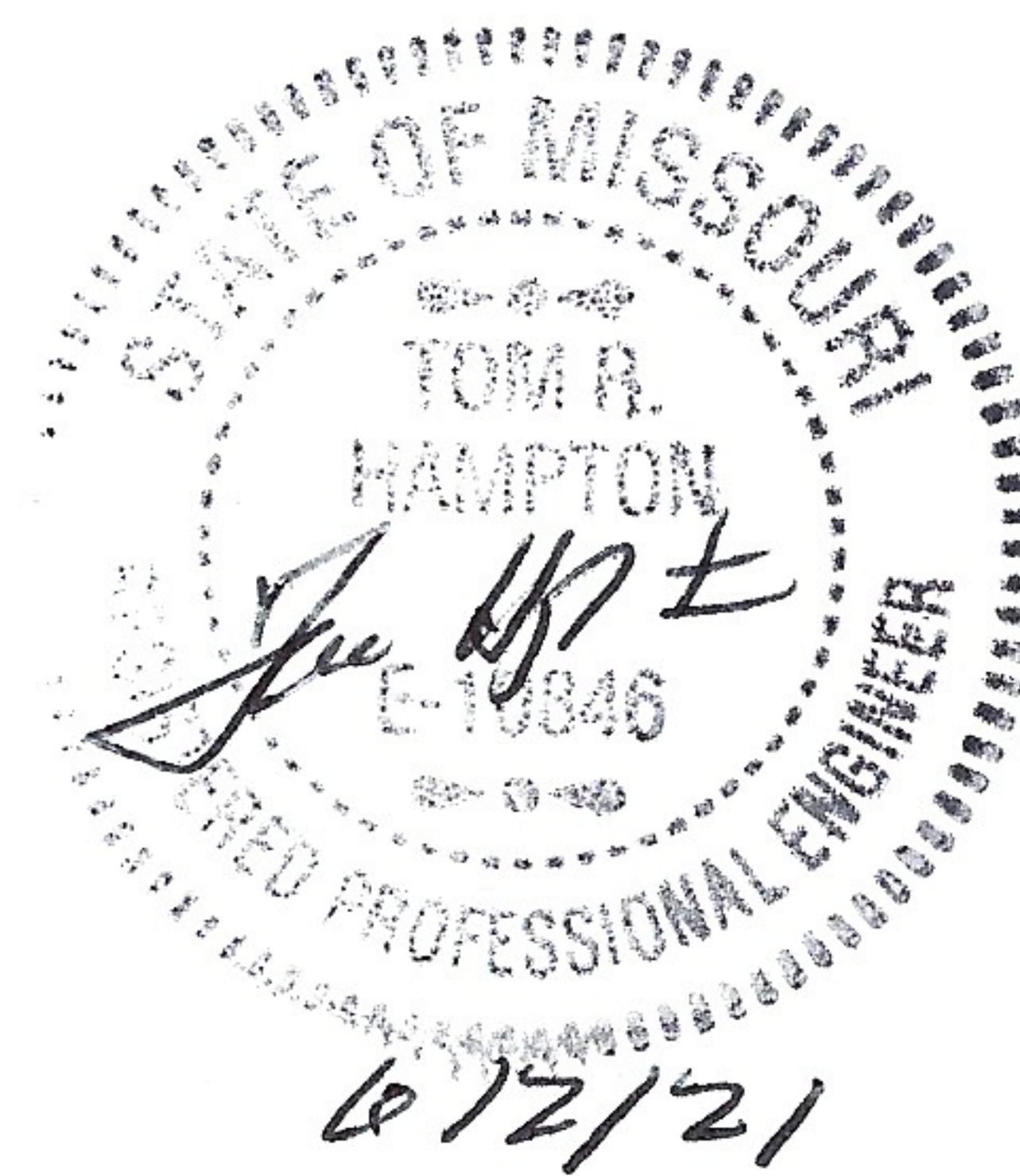
Project Name : Power Life

Project Code :

Project Location :
, Kansas

PREPARED BY

Ryan Stacy



Voltage Drop Calculations

POWER SOURCE : NAC 1 MODEL NUMBER : HPF24S6 BRAND : HPP CLASS B 20.4 VOLTS DC POWER

CIRCUIT: NAC Circuit 1 3 Amps 14 AWG 9 DEVICES 25.6 % (0.768) AMPS USED 2.25 % (0.458) VOLTAGE DROP

#	MODEL	CANDELA	PATTERN	VOLUME	TONE	CURRENT (amps)	DISTANCE FROM PREVIOUS DEVICE (Ft)	12 AWG	14 AWG	16 AWG	18 AWG
1	SCRL	15				0.041	15	20.354	20.327	20.283	20.214
2	PC2RL	15	Temporal	High	Electromechanical	0.071	10	20.325	20.281	20.209	20.097
3	PC2RL	15	Temporal	High	Electromechanical	0.071	15	20.285	20.218	20.109	19.938
4	PC2RL	15	Temporal	High	Electromechanical	0.071	15	20.250	20.162	20.020	19.796
5	SCRL	15				0.041	10	20.229	20.129	19.968	19.713
6	SCRL	15				0.000	6	20.218	20.111	19.939	19.667
7	PC2RL	95	Temporal	High	Electromechanical	0.165	35	20.151	20.005	19.771	19.399
8	PC2RL	75	Temporal	High	Electromechanical	0.143	20	20.126	19.966	19.708	19.299
9	PC2RL	95	Temporal	High	Electromechanical	0.165	23	20.111	19.942	19.669	19.238
Voltage Drop								0.289	0.458	0.731	1.162

Battery/Power Calculation Form

Project: Power Life
 Location: NAC

Standby: 24 Hours (1440) Minutes

Device	Quantity		Current - Amp/Hr.		Total
HPF24S6	1	X	0.0750000	X24	1.8000
A/V 95cd	2	X	0	X24	
A/V 75cd	1	X	0	X24	
A/V 30cd	0	X	0	X24	
A/V 15cd	3	X	0	X24	
Strobe only 95cd	0	X	0	X24	
Strobe only 75cd	0	X	0	X24	
Strobe only 30cd	0	X	0	X24	
Strobe only 15cd	3	X	0	X24	
Strobe only 185cd	0	X	0	X24	
.		X		X24	
Subtotal:					1.8000
Add 30% for battery depletion:					0.5400
Standby Subtotal:					2.3400

Alarm Mode: 10 Minutes

Device	Quantity		Current - Amp/Hr.		Total
HPF24S6	1	X	0.1750	÷6	0.0292
A/V 95cd	2	X	0.162	÷6	0.0540
A/V 75cd	1	X	0.121	÷6	0.0202
A/V 30cd	0	X	0.074	÷6	
A/V 15cd	3	X	0.054	÷6	0.0270
Strobe only 95cd	0	X	0.148	÷6	
Strobe only 75cd	0	X	0.107	÷6	
Strobe only 30cd	0	X	0.063	÷6	
Strobe only 15cd	3	X	0.043	÷6	0.0108
Strobe only 185cd	0	X	0.222	÷6	
.	0	X		÷6	
Subtotal:					0.1411
Add 30% for battery depletion:					0.0423
Alarm Mode Subtotal:					0.1834

Standby Subtotal: 2.3400
 Plus Alarm Mode Subtotal: 0.1834
 System Current Demand: 2.5234

Battery Size: 12vdc 7AH
 Battery Quantity: 2
 Battery Total: 24vdc 7AH

Battery/Power Calculation Form

Project: Summit at West Pryor

Location: FACP

Notes: Power Life Tenant Finish

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Standby: 24 Hours (1440) Minutes

Device	Quantity		Current - Amp/Hr.		Total
FACP (S3)	1	X	0.1110	X24	2.6640
Smoke Detector	43	X	0.0003	X24	0.3096
Heat Detector	3	X	0.0003	X24	0.0216
Duct Detector	0	X	0.0003	X24	
CO Detector	1	X	0.0003	X24	0.0072
Pull Station	2	X	0.0003	X24	0.0144
Monitor Module	17	X	0.000375	X24	0.1530
Control Module	26	X	0.000375	X24	0.2340
Remote Annunciator	1	X	0.05	X24	1.2000
110cd Horn/Strobe	1	X	0	X24	
75cd Horn/Strobe	3	X	0	X24	
30cd Horn/Strobe	3	X	0	X24	
15cd Horn/Strobe	12	X	0	X24	
110cd Strobe Only	0	X	0	X24	
75cd Strobe Only	0	X	0	X24	
30cd Strobe Only	1	X	0	X24	
15cd Strobe Only	7	X	0	X24	
Subtotal:					4.6038
Add 30% for battery depletion:					1.3811
Standby Subtotal:					5.9849

*1 add

*1 add

*1 add

Alarm Mode: 10 Minutes

Device	Quantity		Current - Amp/Hr.		Total
FACP (S3)	1	X	0.2430	÷6	0.0405
Smoke Detector	43	X	0.0065	÷6	0.0466
Heat Detector	3	X	0.0065	÷6	0.0033
Duct Detector	0	X	0.0065	÷6	
CO Detector	1	X	0.0072	÷6	0.0012
Pull Station	2	X	0.003	÷6	0.0010
Monitor Module	17	X	0.0006	÷6	0.0017
Control Module	26	X	0.0065	÷6	0.0282
Remote Annunciator	1	X	0.075	÷6	0.0125
110cd Horn/Strobe	1	X	0.162	÷6	0.0270
75cd Horn/Strobe	3	X	0.121	÷6	0.0605
30cd Horn/Strobe	3	X	0.074	÷6	0.0370
15cd Horn/Strobe	12	X	0.054	÷6	0.1080
110cd Strobe Only	0	X	0.148	÷6	
75cd Strobe Only	0	X	0.107	÷6	
30cd Strobe Only	1	X	0.063	÷6	0.0105
15cd Strobe Only	7	X	0.043	÷6	0.0502
Subtotal:					0.4281
Add 30% for battery depletion:					0.1284
Alarm Mode Subtotal:					0.5565

*1 add

*1 add

*1 add

Standby Subtotal: 5.9849
 Plus Alarm Mode Subtotal: 0.5565
 System Current Demand: 6.5414

Battery Size: 12vdc 10AH
 Battery Quantity: 2
 Battery Total: 24vdc 10AH