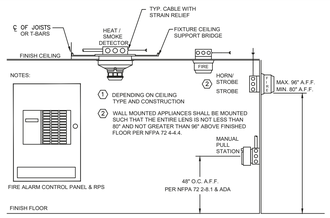
GENERAL NOTES

1. ALL WALL MOUNTED SPEAKER STROBES WILL BE MOUNTED 80" A.F.F. TO THE BOTTOM OF THE BOX.
2. ALL MANUAL PULL STATIONS WILL BE MOUNTED 48" A.F.F. TO THE CENTER OF THE BOX.
3. BUILDING WATERFLOW DEVICES WILL ANNUNCIATE AN ALARM AT THE FACP, NOTIFY AUTHORITIES AND ACTIVATE AN AUDIBLE ALARM IN EVERY UNIT.
4. BUILDING TAMPER SWITCHES WILL INDICATE A SUPERVISORY SIGNAL AT THE FACP, NOTIFY THE CENTRAL STATION AND ANNUNCIATE AT THE FACP.

DEVICE MOUNTING NOTES



SHEET INDEX

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FA-06	THIRD FLOOR DESIGN PLAN
FA-07	ROOF DESIGN PLAN
FA-08	WIRING DIAGRAM & DETAILS

EVENT \ ACTION	TROUBLE SIGNAL @ FIRE ALARM CONTROL PANEL	ALARM SIGNAL @ FIRE ALARM CONTROL PANEL	ACTIVATE NOTIFICATION DEVICES	GENERAL HVAC SHUTDOWN
SMOKE DETECTOR		●	●	●
MANUAL PULL STATION		●	●	●
FACP AC POWER FAILURE	●			
SYSTEM LOW BATTERY	●			
OPEN CIRCUIT	●			
GROUND FAULT	●			
NOTIFICATION APPLIANCE CIRCUIT SHORT	●			
CELLULAR DISCONNECT	●			
ETHERNET DISCONNECT	●			

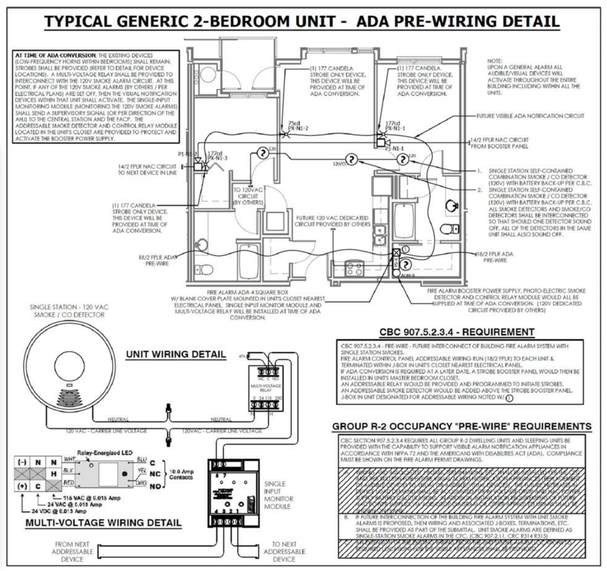
NOTE: ALL SIGNALS WILL BE SENT TO A CENTRAL STATION

EQUIPMENT LIST

SYMBOL	QTY	MANUFACTURER	PART NO	DESCRIPTION
FACP	1	POTTER	AFC-1000	FIRE ALARM CONTROL PANEL
NAC	3	POTTER	PSN-64	6A CONVENTIONAL POWER SUPPLY WITH 4 OUTPUTS
S	23	POTTER	PAD100-PD/PAD100-6B	PHOTOELECTRIC SMOKE DETECTOR WITH 6" STANDARD BASE
H	2	POTTER	PAD100-HD/PAD100-6B	HEAT DETECTOR WITH 6" STANDARD BASE
F	11	POTTER	PAD 100-PSDA	ADDRESSABLE PULL STATION DUAL ACTION
AIM	2	POTTER	RMS-1T-WP-LP	WEATHER PROOF ADDRESSABLE PULL STATION DUAL ACTION
F WP	2	POTTER	PAD100-MIM	MINI SINGLE INPUT MODULE
IM	5	POTTER	PAD100-IM	ISOLATOR MODULE
ACM	4	POTTER	PAD100-RM	RELAY MODULE
	5	POTTER	S-24WW	STROBE, 24 VDC, WHITE
	14	POTTER	HS-24WW	HORN/STROBE WALL MOUNT - WHITE
WP	2	POTTER	HS-24WW-WP	OUTDOOR 75 CD HORN/STROBE WALL MOUNT - WHITE
	4	POTTER	CHS-24W	HORN/STROBE CEILING MOUNT - WHITE
F LF	36	POTTER	LFH-24W	LF FREQUENCY AUDIBLE APPLIANCE 520HZ SQ WAVE - WHITE
DH	8	RSG	DH24120	ELECTROMAGNETIC DOOR HOLDER
-	8	INTERSTATE	FAS1075	12V - 7AH SEALED LEAD ACID BATTERY

CABLE AND WIRE LEGEND

CABLE	PART NO	AWG	RESISTANCE (Ω/KFT)	DESCRIPTION	TOTAL LENGTH
	14/2 FPLP	14	3.07	DOOR HOLDER - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED	290'
	14/2 FPLP	14	3.07	NAC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED	2291'
	18/2 FPLP	18	7.77	SLC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED	1298'



PROJECT

REVISION:
FIRST RELEASE

SHEET DESCRIPTION:
FIRE ALARM SYSTEM COVER SHEET

DRAWN BY: VITOR PAES
DATE: 04.07.2022
SCALE: N.T.S

SHEET:
FA-00
1 OF 9

PANEL FACP-1 (AFC-100) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 5A

TOTAL USED CAPACITY (IN ALARM) = 0.80485A (16.10 %)

PANEL COMPONENTS		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY CURRENT (AMPS) TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM CURRENT (AMPS) TOTAL
		1	AFC-100 MAIN BOARD	Main Board for AFC-100 Fire Alarm Control Panel	0.13	**0.13**	0.2	**0.2**
		1	UD-2000	PFC Series Digital Alarm Communicator Transmitter	0.016	**0.016**	0.023	**0.023**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
FACP-1•L1	F	11	PAD 100-PSDA	Addressable Pull Station Dual Action	0.0002	**0.0022**	0.0002	**0.0022**
	H	2	PAD100-HD/PAD100-6B	Heat Detector with 6" Standard Base	0.0003	**0.0006**	0.0003	**0.0006**
	IM	5	PAD100-IM	Isolator Module	0.00015	**0.00075**	0.00015	**0.00075**
	S	23	PAD100-PD/PAD100-6B	Photoelectric Smoke Detector with 6" Standard Base	0.0003	**0.0069**	0.0003	**0.0069**
	RM	4	PAD100-RM	Relay Module	0	**0**	0	**0**
	F WP	2	RMS-1T-WP-LP w/ PAD100-MIM	Weather Proof Addressable Pull Station Dual Action	0.0002	**0.0004**	0.0002	**0.0004**
FACP-1•N1	NAC	3	PSN-64	6A Conventional Power Supply with 4 Outputs	0	**0**	0.015	**0.045**
FACP-1•N2		1	CHS-24W	Horn/Strobe Ceiling Mount - White 15cd	0	**0**	0.12	**0.12**
		1	HS-24WW	Horn/Strobe Wall Mount - White 15cd	0	**0**	0.058	**0.058**
		1	HS-24WW	Horn/Strobe Wall Mount - White 30cd	0	**0**	0.07	**0.07**
		2	HS-24WW	Horn/Strobe Wall Mount - White 60cd	0	**0**	0.094	**0.188**
		3	S-24WW	Strobe, 24 VDC, White 15cd	0	**0**	0.03	**0.09**

TOTAL STANDBY (A)	**0.15685**	TOTAL ALARM (A)	**0.80485**
REQUIRED STANDBY TIME = 24 HOURS			
REQUIRED ALARM TIME = 5 MINUTES			
SECONDARY STANDBY LOAD (A)	**0.15685**	24	**3.7644**
SECONDARY ALARM LOAD (A)	**0.80485**	0.08333	**0.06707**
STANDBY AND ALARM SUBTOTAL (AMP HOURS)	**3.83147**		
DERATING FACTOR	1.2		
SECONDARY LOAD REQUIREMENTS (AMP HOURS)	**4.59777**		

PROVIDE (2) 12V 7AH BATTERIES @ 24VDC

PANEL BPS-1 (PSN-64) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A

TOTAL USED CAPACITY (IN ALARM) = 1.8282A (30.47 %)

PANEL COMPONENTS		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY CURRENT (AMPS) TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM CURRENT (AMPS) TOTAL
		1	PSN-64 MAIN BOARD	PSN-64 MAIN BOARD	0.075	**0.075**	0.075	**0.075**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-1•N3		3	CHS-24W	Horn/Strobe Ceiling Mount - White 150cd	0	**0**	0.228	**0.684**
BPS-1•N4		3	HS-24WW	Horn/Strobe Wall Mount - White 15cd	0	**0**	0.058	**0.174**
		1	S-24WW	Strobe, 24 VDC, White 15cd	0	**0**	0.03	**0.03**
BPS-1•N5	DH	2	DH24120	Electromagnetic Door Holder	0.02	**0.04**	0	**0**
BPS-1•N6	F LF	12	LFH-24W	LF Frequency Audible Appliance 520Hz Sq Wave - White	0	**0**	0.0721	**0.8652**

TOTAL STANDBY (A)	**0.115**	TOTAL ALARM (A)	**1.8282**
REQUIRED STANDBY TIME = 24 HOURS			
REQUIRED ALARM TIME = 5 MINUTES			
SECONDARY STANDBY LOAD (A)	**0.115**	24	**2.76**
SECONDARY ALARM LOAD (A)	**1.8282**	0.08333	**0.15235**
STANDBY AND ALARM SUBTOTAL (AMP HOURS)	**2.91235**		
DERATING FACTOR	1.2		
SECONDARY LOAD REQUIREMENTS (AMP HOURS)	**3.49482**		

PROVIDE (2) 12V 7AH BATTERIES @ 24VDC

PANEL BPS-2 (PSN-64) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A

TOTAL USED CAPACITY (IN ALARM) = 1.3182A (21.97 %)

PANEL COMPONENTS		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY CURRENT (AMPS) TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM CURRENT (AMPS) TOTAL
		1	PSN-64 MAIN BOARD	PSN-64 MAIN BOARD	0.075	**0.075**	0.075	**0.075**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-2•N10		3	HS-24WW	Horn/Strobe Wall Mount - White 15cd	0	**0**	0.058	**0.174**
		1	S-24WW	Strobe, 24 VDC, White 15cd	0	**0**	0.03	**0.03**
BPS-2•N7		3	HS-24WW	Horn/Strobe Wall Mount - White 15cd	0	**0**	0.058	**0.174**
BPS-2•N8	F LF	12	LFH-24W	LF Frequency Audible Appliance 520Hz Sq Wave - White	0	**0**	0.0721	**0.8652**
BPS-2•N9	DH	2	DH24120	Electromagnetic Door Holder	0.02	**0.04**	0	**0**

TOTAL STANDBY (A)	**0.115**	TOTAL ALARM (A)	**1.3182**
REQUIRED STANDBY TIME = 24 HOURS			
REQUIRED ALARM TIME = 5 MINUTES			
SECONDARY STANDBY LOAD (A)	**0.115**	24	**2.76**
SECONDARY ALARM LOAD (A)	**1.3182**	0.08333	**0.10985**
STANDBY AND ALARM SUBTOTAL (AMP HOURS)	**2.86985**		
DERATING FACTOR	1.2		
SECONDARY LOAD REQUIREMENTS (AMP HOURS)	**3.44382**		

PROVIDE (2) 12V 7AH BATTERIES @ 24VDC

PANEL BPS-3 (PSN-64) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A

TOTAL USED CAPACITY (IN ALARM) = 1.2602A (21.00 %)

PANEL COMPONENTS		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY CURRENT (AMPS) TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM CURRENT (AMPS) TOTAL
		1	PSN-64 MAIN BOARD	PSN-64 MAIN BOARD	0.075	**0.075**	0.075	**0.075**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-3•N11	F LF	12	LFH-24W	LF Frequency Audible Appliance 520Hz Sq Wave - White	0	**0**	0.0721	**0.8652**
BPS-3•N12	DH	2	DH24120	Electromagnetic Door Holder	0.02	**0.04**	0	**0**
BPS-3•N13	DH	2	DH24120	Electromagnetic Door Holder	0.02	**0.04**	0	**0**
BPS-3•N14		1	HS-24WW	Horn/Strobe Wall Mount - White 15cd	0	**0**	0.058	**0.058**
	WP	2	HS-24WW-WP	Outdoor 75 cd Horn/Strobe Wall Mount - White 110cd	0	**0**	0.131	**0.262**

TOTAL STANDBY (A)	**0.155**	TOTAL ALARM (A)	**1.2602**
REQUIRED STANDBY TIME = 24 HOURS			
REQUIRED ALARM TIME = 5 MINUTES			
SECONDARY STANDBY LOAD (A)	**0.155**	24	**3.72**
SECONDARY ALARM LOAD (A)	**1.2602**	0.08333	**0.10502**
STANDBY AND ALARM SUBTOTAL (AMP HOURS)	**3.82502**		
DERATING FACTOR	1.2		
SECONDARY LOAD REQUIREMENTS (AMP HOURS)	**4.59002**		

PROVIDE (2) 12V 7AH BATTERIES @ 24VDC

FACP-1 N1 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0.02449**
Min. Operational Voltage:	16	End Of Line Voltage:	**20.37551**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**0.12 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.045**
Total Circuit Length (Ft):	89	Spare Current (A):	**2.955**
Total Circuit Resistance (Ω):	0.54414	Spare Current (A) Percent:	**98.50 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
NAC	PSN-64	6A Conventional Power Supply with 4 Outputs	3	0.015	**0.045**

FACP-1 N2 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0.69003**
Min. Operational Voltage:	16	End Of Line Voltage:	**19.70997**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**3.38 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.526**
Total Circuit Length (Ft):	214	Spare Current (A):	**2.474**
Total Circuit Resistance (Ω):	1.311841	Spare Current (A) Percent:	**82.47 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	S-24WW	Strobe, 24 VDC, White 15cd	3	0.03	**0.09**
	HS-24WW	Horn/Strobe Wall Mount - White 15cd	1	0.058	**0.058**
	HS-24WW	Horn/Strobe Wall Mount - White 30cd	1	0.07	**0.07**
	HS-24WW	Horn/Strobe Wall Mount - White 60cd	2	0.094	**0.188**
	CHS-24W	Horn/Strobe Ceiling Mount - White 15cd	1	0.12	**0.12**

BPS-1 N3 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0.5323**
Min. Operational Voltage:	16	End Of Line Voltage:	**19.8677**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**2.61 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.684**
Total Circuit Length (Ft):	127	Spare Current (A):	**2.316**
Total Circuit Resistance (Ω):	0.778221	Spare Current (A) Percent:	**77.20 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CHS-24W	Horn/Strobe Ceiling Mount - White 150cd	3	0.228	**0.684**

BPS-1 N4 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0.2461**
Min. Operational Voltage:	16	End Of Line Voltage:	**20.1539**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**1.21 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.204**
Total Circuit Length (Ft):	196	Spare Current (A):	**2.796**
Total Circuit Resistance (Ω):	1.206362	Spare Current (A) Percent:	**93.20 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	S-24WW	Strobe, 24 VDC, White 15cd	1	0.03	**0.03**
	HS-24WW	Horn/Strobe Wall Mount - White 15cd	3	0.058	**0.174**

BPS-1 N5 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0**
Min. Operational Voltage:	16	End Of Line Voltage:	**20.4**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**0.00 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0**
Total Circuit Length (Ft):	71	Spare Current (A):	**3**
Total Circuit Resistance (Ω):	0.433273	Spare Current (A) Percent:	**100.00 %**

Circuit Wiring Properties: 'DH' 14/2 FPLP 14 AWG, DOOR HOLDER - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
DH	DH24120	Electromagnetic Door Holder	2	0	**0**

BPS-1 N6 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**1.88817**
Min. Operational Voltage:	16	End Of Line Voltage:	**18.51184**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**9.26 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.8652**
Total Circuit Length (Ft):	355	Spare Current (A):	**2.1348**
Total Circuit Resistance (Ω):	2.182345	Spare Current (A) Percent:	**71.16 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
F LF	LFH-24W	LF Frequency Audible Appliance 520Hz Sq Wave - White	12	0.0721	**0.8652**

Calculation Methods:

Total Resistance (Ω) = Wire Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)

Total Voltage Drop = Total Resistance (Ω) x Total Circuit Current (A)

BPS-2 N7 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0.18557**
Min. Operational Voltage:	16	End Of Line Voltage:	**20.21443**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**0.91 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.174**
Total Circuit Length (Ft):	174	Spare Current (A):	**2.826**
Total Circuit Resistance (Ω):	1.066488	Spare Current (A) Percent:	**94.20 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	HS-24WW	Horn/Strobe Wall Mount - White 15cd	3	0.058	**0.174**

BPS-2 N8 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**1.88852**
Min. Operational Voltage:	16	End Of Line Voltage:	**18.51149**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**9.26 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.8652**
Total Circuit Length (Ft):	355	Spare Current (A):	**2.1348**
Total Circuit Resistance (Ω):	2.18275	Spare Current (A) Percent:	**71.16 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
F LF	LFH-24W	LF Frequency Audible Appliance 520Hz Sq Wave - White	12	0.0721	**0.8652**

BPS-2 N9 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0**
Min. Operational Voltage:	16	End Of Line Voltage:	**20.4**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**0.00 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0**
Total Circuit Length (Ft):	70	Spare Current (A):	**3**
Total Circuit Resistance (Ω):	0.431247	Spare Current (A) Percent:	**100.00 %**

Circuit Wiring Properties: 'DH' 14/2 FPLP 14 AWG, DOOR HOLDER - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
DH	DH24120	Electromagnetic Door Holder	2	0	**0**

BPS-2 N10 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0.25473**
Min. Operational Voltage:	16	End Of Line Voltage:	**20.14527**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**1.25 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.204**
Total Circuit Length (Ft):	203	Spare Current (A):	**2.796**
Total Circuit Resistance (Ω):	1.248695	Spare Current (A) Percent:	**93.20 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	S-24WW	Strobe, 24 VDC, White 15cd	1	0.03	**0.03**
	HS-24WW	Horn/Strobe Wall Mount - White 15cd	3	0.058	**0.174**

BPS-3 N11 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**1.88831**
Min. Operational Voltage:	16	End Of Line Voltage:	**18.5117**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**9.26 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.8652**
Total Circuit Length (Ft):	355	Spare Current (A):	**2.1348**
Total Circuit Resistance (Ω):	2.182507	Spare Current (A) Percent:	**71.16 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
F LF	LFH-24W	LF Frequency Audible Appliance 520Hz Sq Wave - White	12	0.0721	**0.8652**

BPS-3 N12 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0**
Min. Operational Voltage:	16	End Of Line Voltage:	**20.4**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**0.00 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0**
Total Circuit Length (Ft):	71	Spare Current (A):	**3**
Total Circuit Resistance (Ω):	0.434407	Spare Current (A) Percent:	**100.00 %**

Circuit Wiring Properties: 'DH' 14/2 FPLP 14 AWG, DOOR HOLDER - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
DH	DH24120	Electromagnetic Door Holder	2	0	**0**

BPS-3 N13 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0**
Min. Operational Voltage:	16	End Of Line Voltage:	**20.4**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**0.00 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0**
Total Circuit Length (Ft):	78	Spare Current (A):	**3**
Total Circuit Resistance (Ω):	0.480766	Spare Current (A) Percent:	**100.00 %**

Circuit Wiring Properties: 'DH' 14/2 FPLP 14 AWG, DOOR HOLDER - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
DH	DH24120	Electromagnetic Door Holder	2	0	**0**

BPS-3 N14 LUMP SUM REPORT

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	**0.43414**
Min. Operational Voltage:	16	End Of Line Voltage:	**19.96587**
Max. Circuit Current (A):	3	Voltage Drop Percent:	**2.13 %**
Wire Resistance (Ω/kFt):	3.07	Total Circuit Current (A):	**0.32**
Total Circuit Length (Ft):	221	Spare Current (A):	**2.68**
Total Circuit Resistance (Ω):	1.356672	Spare Current (A) Percent:	**89.33 %**

Circuit Wiring Properties: 'NAC 14' 14/2 FPLP 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

DEVICE TOTALS

Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	HS-24WW	Horn/Strobe Wall Mount - White 15cd	1	0.058	**0.058**
WP	HS-24WW-WP	Outdoor 75 cd Horn/Strobe Wall Mount - White 110cd	2	0.131	**0.262**

Calculation Methods:

Total Resistance (Ω) = Wire Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)

Total Voltage Drop = Total Resistance (Ω) x Total Circuit Current (A)

PROJECT

REVISION:

FIRST RELEASE

SHEET DESCRIPTION:

FIRE ALARM SYSTEM CALCULATIONS

DRAWN BY: VITOR PAES

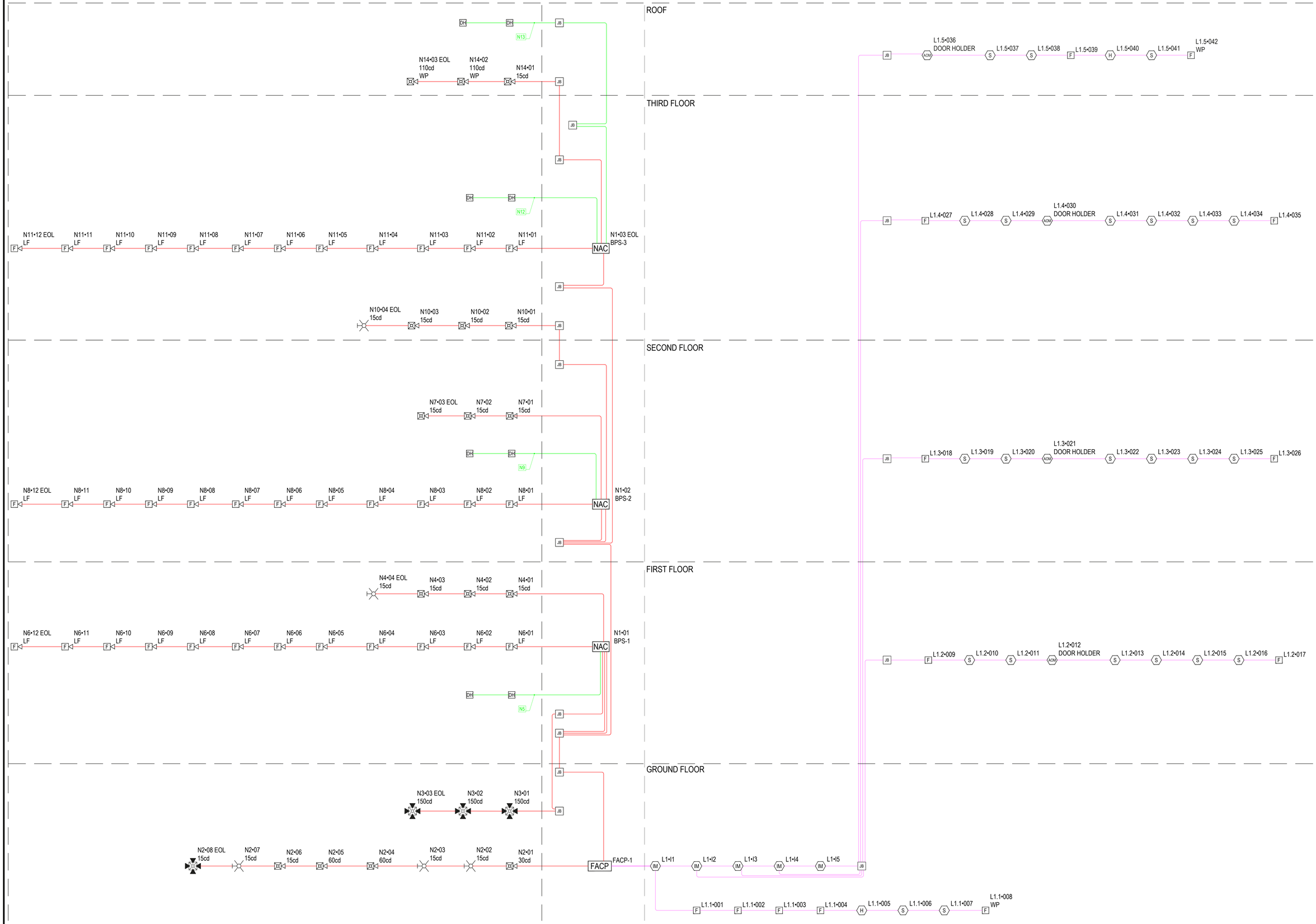
DATE: 04.07.2022

SCALE: N.T.S

SHEET:

FA-01

2 OF 9



PROJECT

REVISION:
FIRST RELEASE

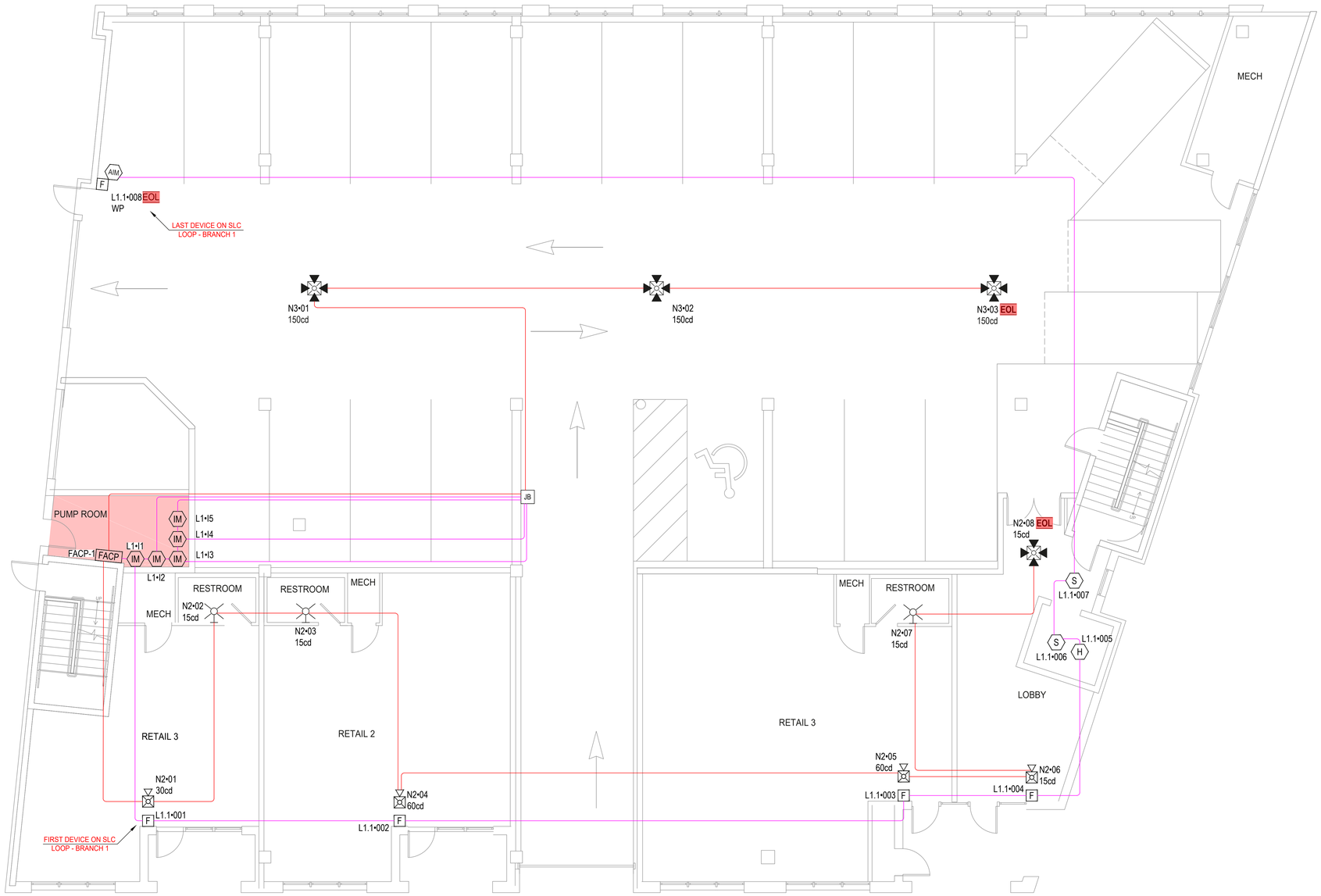
SHEET DESCRIPTION:
FIRE ALARM SYSTEM RISER DIAGRAM

DRAWN BY: VITOR PAES
DATE: 04.07.2022
SCALE: N.T.S

SHEET:
FA-02
3 OF 9

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
NAC	6A CONVENTIONAL POWER SUPPLY WITH 4 OUTPUTS
S	PHOTOELECTRIC SMOKE DETECTOR WITH 6" STANDARD BASE
H	HEAT DETECTOR WITH 6" STANDARD BASE
F	ADDRESSABLE PULL STATION DUAL ACTION
AIM F WP	WEATHER PROOF ADDRESSABLE PULL STATION DUAL ACTION
	MINI SINGLE INPUT MODULE
IM	ISOLATOR MODULE
AOM	RELAY MODULE
	STROBE, 24 VDC, WHITE
	HORN/STROBE WALL MOUNT - WHITE
WP	OUTDOOR 75 CD HORN/STROBE WALL MOUNT - WHITE
	HORN/STROBE CEILING MOUNT - WHITE
F LF	LF FREQUENCY AUDIBLE APPLIANCE 520HZ SQ WAVE - WHITE
DH	ELECTROMAGNETIC DOOR HOLDER
JB	STANDARD JUNCTION BOX

CABLE AND WIRE LEGEND		
CABLE	AWG	DESCRIPTION
	14	DOOR HOLDER - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	14	NAC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	18	SLC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED



GROUND FLOOR PLAN

PROJECT

REVISION:
FIRST RELEASE

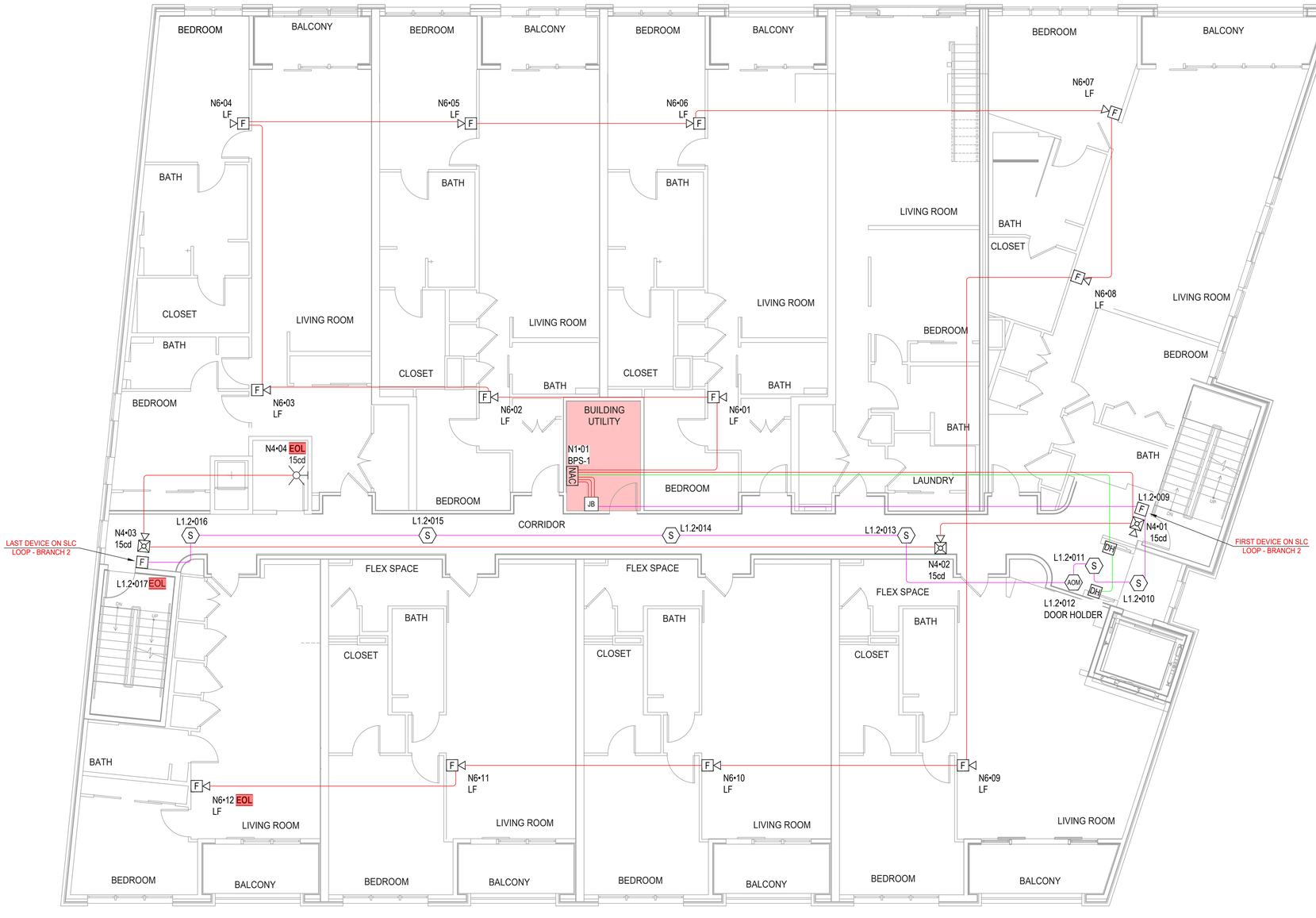
SHEET DESCRIPTION:
FIRE ALARM SYSTEM
GROUND FLOOR PLAN

DRAWN BY: VITOR PAES
DATE: 04.07.2022
SCALE: 3/16"=1'-0"

SHEET:
FA-03
4 OF 9

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
NAC	6A CONVENTIONAL POWER SUPPLY WITH 4 OUTPUTS
S	PHOTOELECTRIC SMOKE DETECTOR WITH 6" STANDARD BASE
H	HEAT DETECTOR WITH 6" STANDARD BASE
F	ADDRESSABLE PULL STATION DUAL ACTION
AIM F WP	WEATHER PROOF ADDRESSABLE PULL STATION DUAL ACTION
	MINI SINGLE INPUT MODULE
IM	ISOLATOR MODULE
AOM	RELAY MODULE
	STROBE, 24 VDC, WHITE
	HORN/STROBE WALL MOUNT - WHITE
WP	OUTDOOR 75 CD HORN/STROBE WALL MOUNT - WHITE
	HORN/STROBE CEILING MOUNT - WHITE
F LF	LF FREQUENCY AUDIBLE APPLIANCE 520HZ SQ WAVE - WHITE
DH	ELECTROMAGNETIC DOOR HOLDER
JB	STANDARD JUNCTION BOX

CABLE AND WIRE LEGEND		
CABLE	AWG	DESCRIPTION
	14	DOOR HOLDER - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	14	NAC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	18	SLC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED



FIRST FLOOR PLAN

PROJECT

REVISION:
FIRST RELEASE

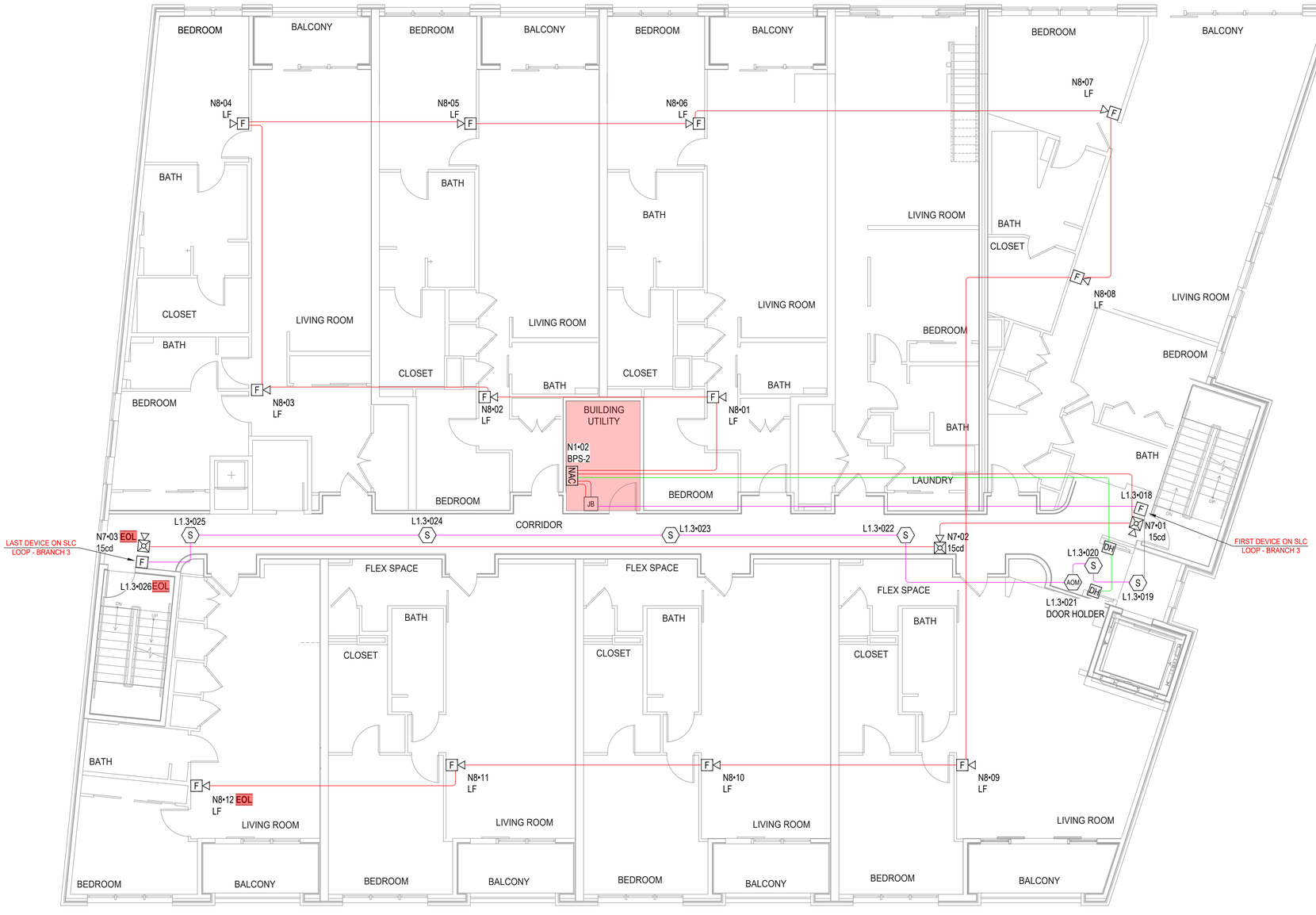
SHEET DESCRIPTION:
FIRE ALARM SYSTEM
FIRST FLOOR PLAN

DRAWN BY: VITOR PAES
DATE: 04.07.2022
SCALE: 3/16"=1'-0"

SHEET:
FA-04
5 OF 9

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
NAC	6A CONVENTIONAL POWER SUPPLY WITH 4 OUTPUTS
S	PHOTOELECTRIC SMOKE DETECTOR WITH 6" STANDARD BASE
H	HEAT DETECTOR WITH 6" STANDARD BASE
F	ADDRESSABLE PULL STATION DUAL ACTION
F WP	WEATHER PROOF ADDRESSABLE PULL STATION DUAL ACTION
AIM	MINI SINGLE INPUT MODULE
IM	ISOLATOR MODULE
AOM	RELAY MODULE
	STROBE, 24 VDC, WHITE
	HORN/STROBE WALL MOUNT - WHITE
WP	OUTDOOR 75 CD HORN/STROBE WALL MOUNT - WHITE
	HORN/STROBE CEILING MOUNT - WHITE
F LF	LF FREQUENCY AUDIBLE APPLIANCE 520HZ SQ WAVE - WHITE
DH	ELECTROMAGNETIC DOOR HOLDER
JB	STANDARD JUNCTION BOX

CABLE AND WIRE LEGEND		
CABLE	AWG	DESCRIPTION
	14	DOOR HOLDER - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	14	NAC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	18	SLC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED



SECOND FLOOR PLAN

PROJECT

REVISION:
FIRST RELEASE

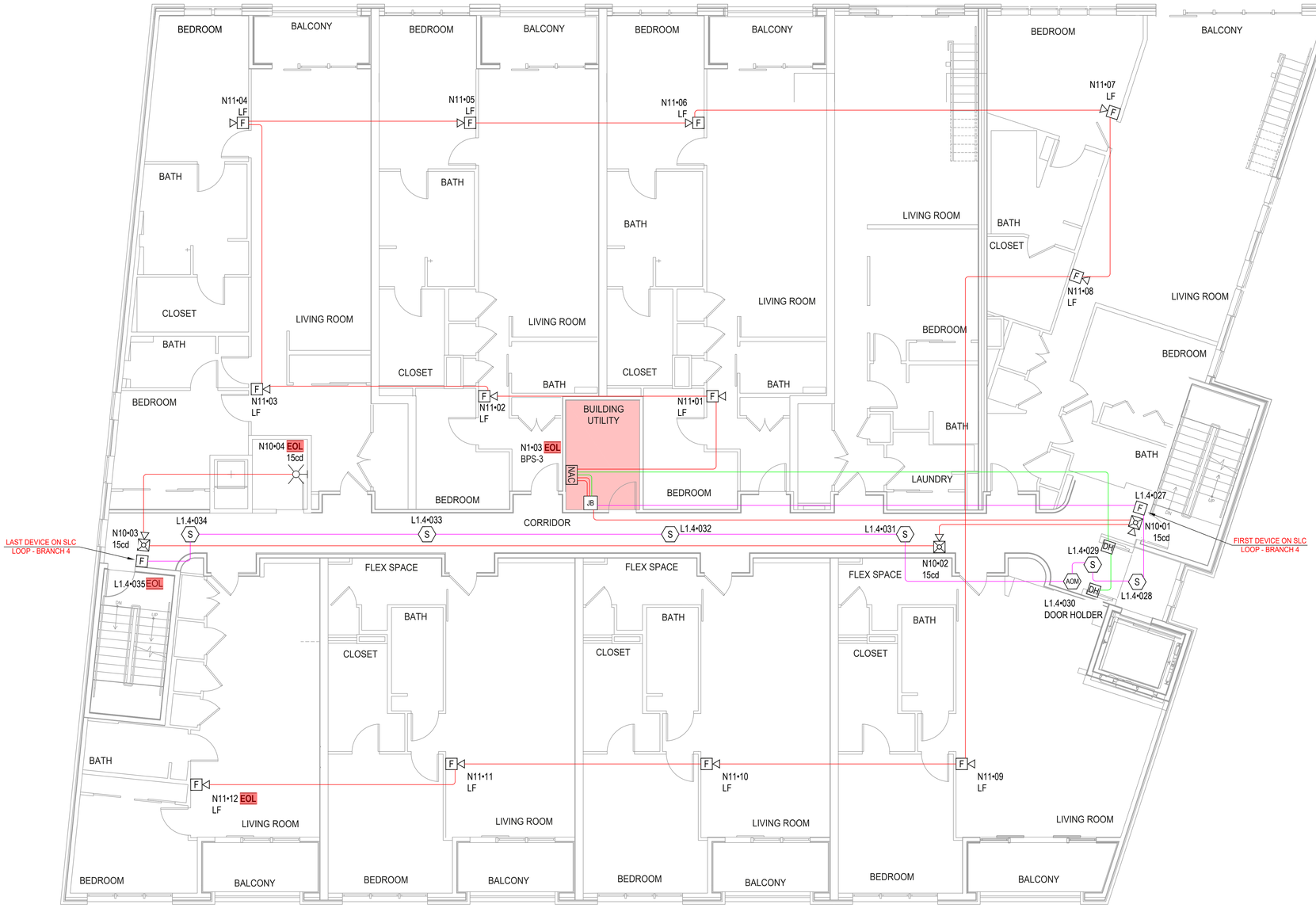
SHEET DESCRIPTION:
FIRE ALARM SYSTEM
SECOND FLOOR PLAN

DRAWN BY: VITOR PAES
DATE: 04.07.2022
SCALE: 3/16"=1'-0"

SHEET:
FA-05
6 OF 9

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
NAC	6A CONVENTIONAL POWER SUPPLY WITH 4 OUTPUTS
S	PHOTOELECTRIC SMOKE DETECTOR WITH 6" STANDARD BASE
H	HEAT DETECTOR WITH 6" STANDARD BASE
F	ADDRESSABLE PULL STATION DUAL ACTION
F WP	WEATHER PROOF ADDRESSABLE PULL STATION DUAL ACTION
AIM	MINI SINGLE INPUT MODULE
IM	ISOLATOR MODULE
AOM	RELAY MODULE
	STROBE, 24 VDC, WHITE
	HORN/STROBE WALL MOUNT - WHITE
WP	OUTDOOR 75 CD HORN/STROBE WALL MOUNT - WHITE
	HORN/STROBE CEILING MOUNT - WHITE
F LF	LF FREQUENCY AUDIBLE APPLIANCE 520HZ SQ WAVE - WHITE
DH	ELECTROMAGNETIC DOOR HOLDER
JB	STANDARD JUNCTION BOX

CABLE AND WIRE LEGEND		
CABLE	AWG	DESCRIPTION
	14	DOOR HOLDER - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	14	NAC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	18	SLC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED



THIRD FLOOR PLAN

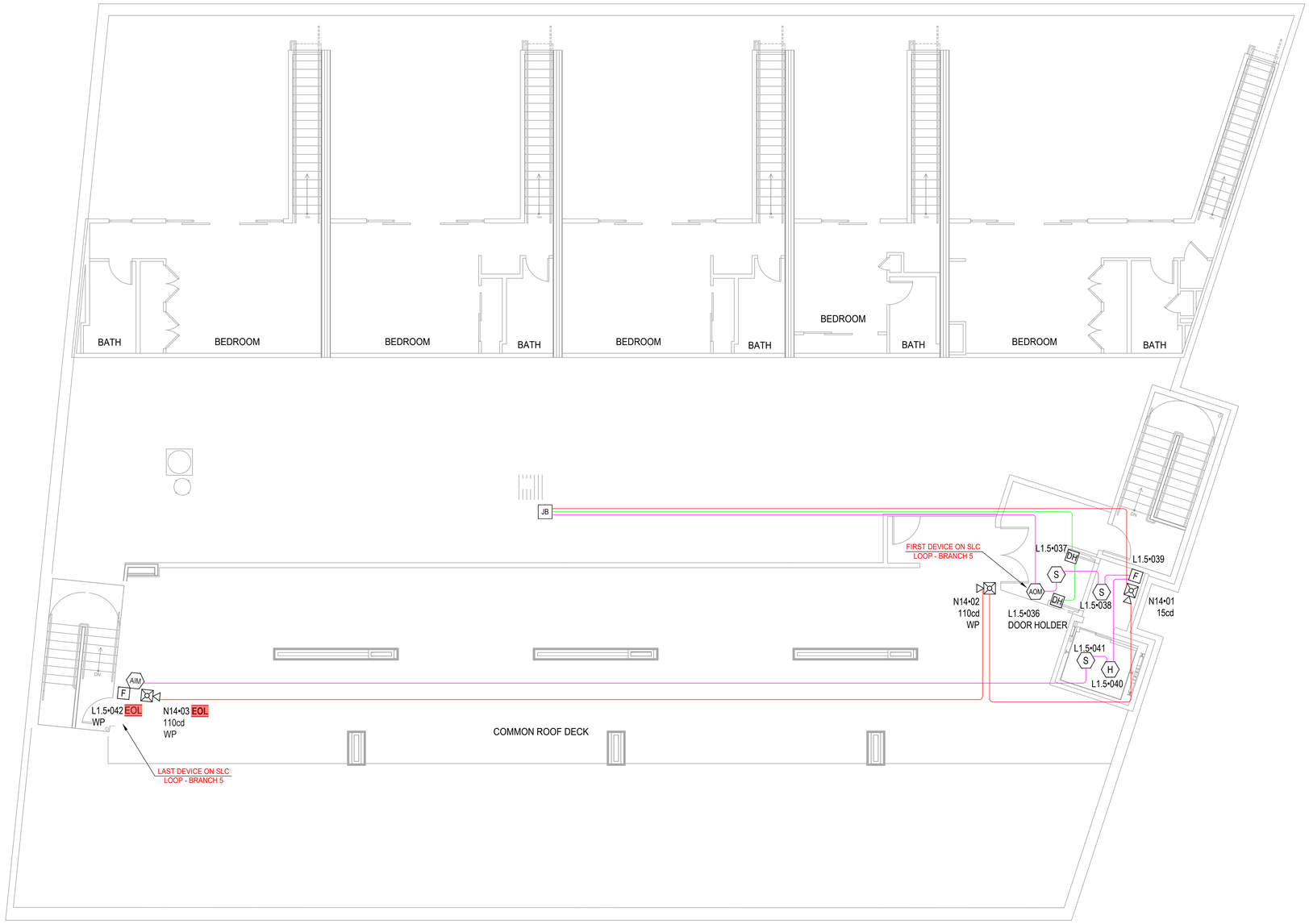
PROJECT

REVISION:
FIRST RELEASE

SHEET DESCRIPTION:
FIRE ALARM SYSTEM
THIRD FLOOR PLAN

DRAWN BY:	VITOR PAES
DATE:	04.07.2022
SCALE:	3/16"=1'-0"

SHEET:
FA-06
7 OF 9



ROOF PLAN

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
NAC	6A CONVENTIONAL POWER SUPPLY WITH 4 OUTPUTS
S	PHOTOELECTRIC SMOKE DETECTOR WITH 6" STANDARD BASE
H	HEAT DETECTOR WITH 6" STANDARD BASE
F	ADDRESSABLE PULL STATION DUAL ACTION
AIM F WP	WEATHER PROOF ADDRESSABLE PULL STATION DUAL ACTION
	MINI SINGLE INPUT MODULE
IM	ISOLATOR MODULE
AOM	RELAY MODULE
	STROBE, 24 VDC, WHITE
	HORN/STROBE WALL MOUNT - WHITE
WP	OUTDOOR 75 CD HORN/STROBE WALL MOUNT - WHITE
	HORN/STROBE CEILING MOUNT - WHITE
F LF	LF FREQUENCY AUDIBLE APPLIANCE 520HZ SQ WAVE - WHITE
DH	ELECTROMAGNETIC DOOR HOLDER
JB	STANDARD JUNCTION BOX

CABLE AND WIRE LEGEND		
CABLE	AWG	DESCRIPTION
	14	DOOR HOLDER - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	14	NAC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	18	SLC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED

PROJECT

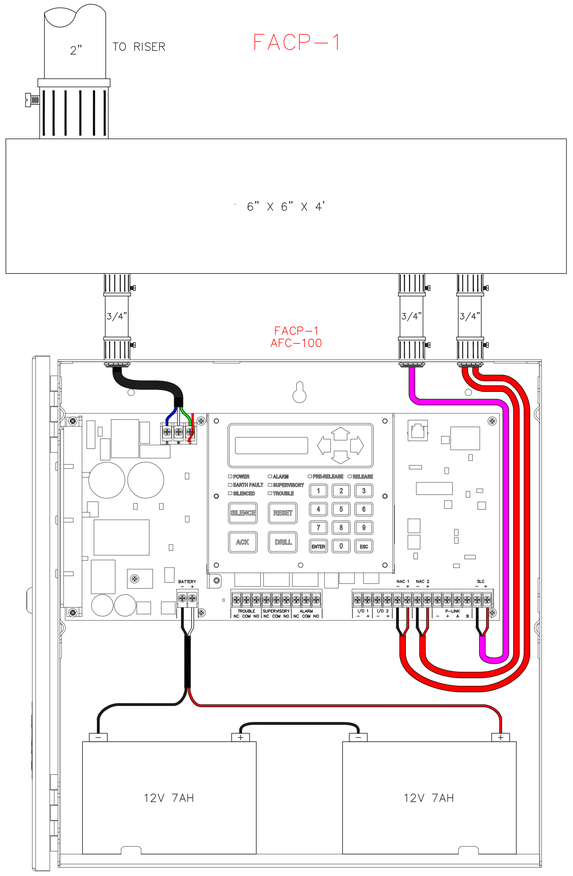
REVISION:
FIRST RELEASE

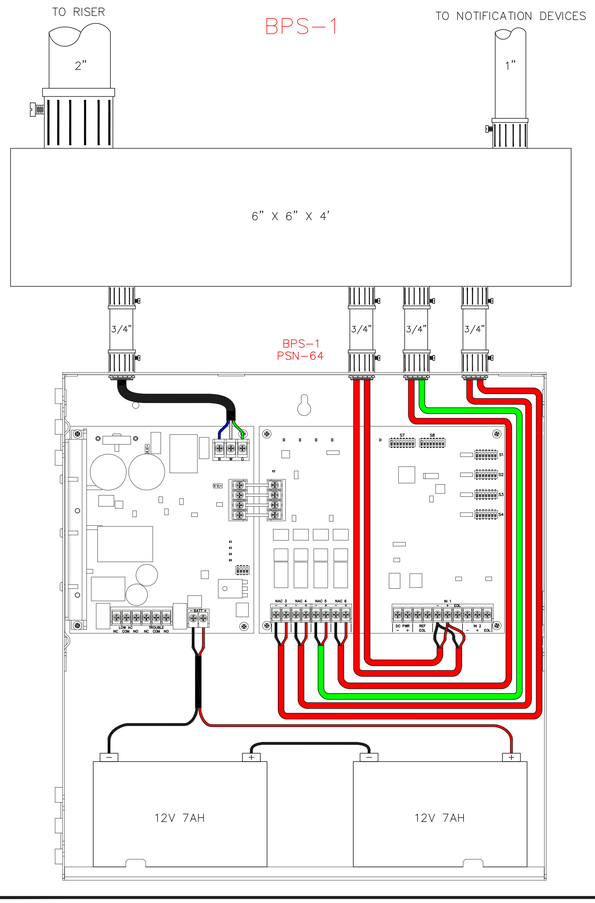
SHEET DESCRIPTION:
FIRE ALARM SYSTEM
ROOF PLAN

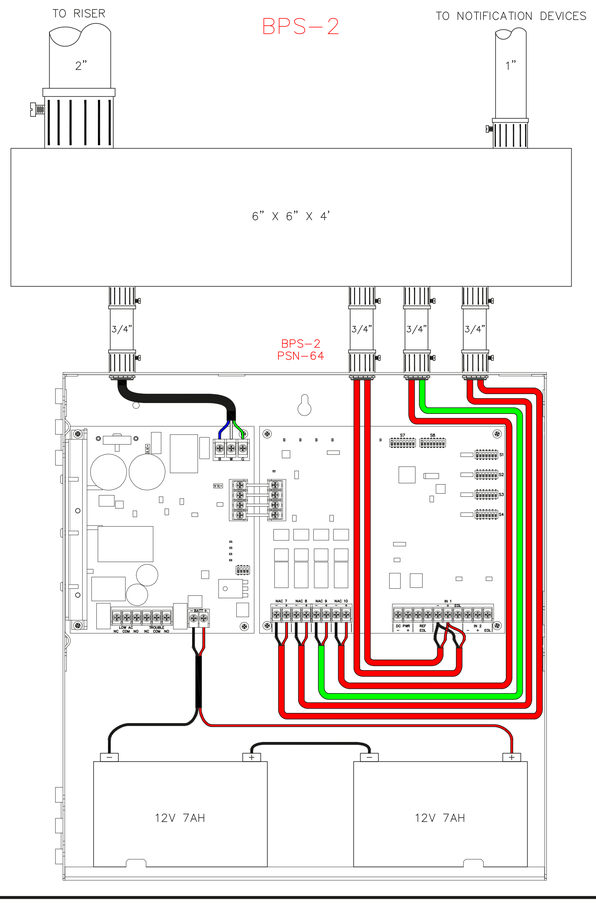
DRAWN BY: VITOR PAES
DATE: 04.07.2022
SCALE: 3/16"=1'-0"

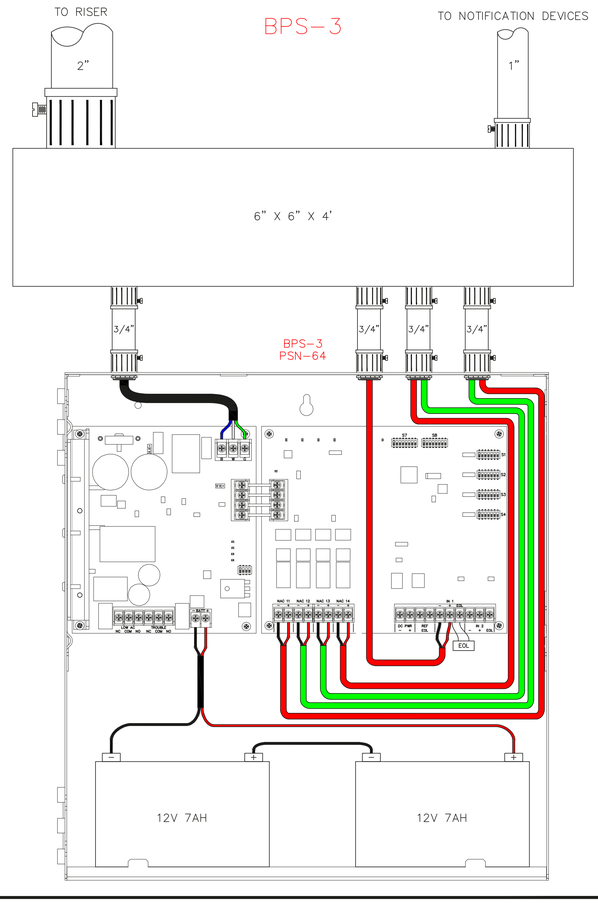
SHEET:
FA-07
8 OF 9

CABLE AND WIRE LEGEND		
CABLE	AWG	DESCRIPTION
	14	DOOR HOLDER - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	14	NAC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED
	18	SLC - 2 COND. SOLID COPPER FPLP ANALOG UNSHIELDED









PROJECT

REVISION:
FIRST RELEASE

SHEET DESCRIPTION:
FIRE ALARM SYSTEM
WIRING DIAGRAM
& DETAILS

DRAWN BY: VITOR PAES
DATE: 04.07.2022
SCALE: 6" = 1'-0"

SHEET:
FA-08
9 OF 9

GENERAL NOTES

1. THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS.
2. ALL FIRE ALARM SYSTEM WIRING SHALL BE CLEAR FROM SHORTS, OPENS AND GROUNDS.
3. SHOULD ANY CONDITIONS EXIST THAT DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS WHICH CAUSE MAJOR DEVIATIONS IN THE WORK SHOWN, THE CONTRACTOR SHALL CONTACT THE DESIGNER IN A TIMELY MANNER SO AS NOT TO IMPAIR THE CONSTRUCTION SCHEDULE.
4. CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE.
5. THE POWER CIRCUIT TO THE FACP AND TO THE FIRE ALARM POWER SUPPLIES SHALL BE ON A DEDICATED 120V, 20A BRANCH CIRCUIT BREAKER, AND SHALL HAVE A RED MARKING, LOCK-ON PROVISION AND SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL." THE LOCATION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAKER) SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
6. ANY SMOKE DETECTOR HEAD INSTALLED BEFORE THE BUILDING IS CLEANED AND ACCEPTED SHALL BE COVERED TO PROTECT FROM DUST.
7. INSTALLATION OF DEVICES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. POWER LIMITED AND NON-POWER LIMITED FIELD WIRING MUST BE INSTALLED WITHIN THE FACP ENCLOSURE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
8. ALL WIRING SHALL BE INSTALLED ACCORDING TO NFPA 70 (NEC).
9. FIRE ALARM CIRCUITS EXTENDING BEYOND ONE BUILDING AND RUN OUTDOORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70 ARTICLES 760, 770, 725 AND 800 WHERE APPLICABLE.
10. ALL WIRING, INCLUDING SHIELDS MUST BE DRY AND FREE OF SHORTS AND GROUNDS.
11. ALL SHIELDED WIRE MUST HAVE SHIELD CONTINUITY AT FULL LENGTH OF THE WIRE.
12. ONLY FIRE ALARM SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.
13. MAINTAIN 40 PERCENT MAXIMUM CONDUIT FILL RATIO AS PER NEC REQUIREMENTS.
14. EXISTING CONDUITS MAY BE USED BY THE INSTALLATION CONTRACTOR AS DEEMED NECESSARY, HOWEVER, ANY EXISTING CONDUIT WILL BE USED ONLY IF CONDUITS MEET CURRENT STANDARDS AND CODES.
15. THE FIRE ALARM SYSTEM SHALL BE MONITORED BY A CENTRAL UL LISTED MONITORING STATION.
16. ALL CEILINGS ARE ASSUMED TO BE 10' A.F.F., SMOOTH CONSTRUCTION UNLESS NOTED OTHERWISE.

SCOPE OF WORK

1. INSTALLATION OF NEW FIRE ALARM DEVICES AS SHOWN ON PLANS.
2. THE FIRE ALARM SYSTEM SHALL BE COMPLIANT TO CURRENT CODES.

APPLICABLE CODES

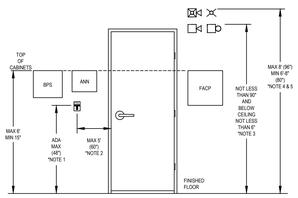
INTERNATIONAL BUILDING CODE - 2018 ED.
INTERNATIONAL MECHANICAL CODE - 2018 ED.
UNIFORM PLUMBING CODE - 2018 ED.
INTERNATIONAL FUEL GAS CODE - 2018 ED.
INTERNATIONAL ENERGY CONSERVATION CODE - 2018 ED.
NATIONAL ELECTRICAL CODE - 2017 ED.
INTERNATIONAL FIRE CODE - 2018 ED.
ADA STANDARDS FOR ACCESSIBLE DESIGN - 2010 ED.
NFPA 72 2019 EDITION

CONTRACTOR INFO

[illegible]

TYPICAL MOUNTING HEIGHTS

1. NFPA 72 2019 17.15.6 THE OPERABLE PART OF EACH MANUAL FIRE ALARM BOX SHALL BE NOT LESS THAN 42in AND NOT MORE THAN 48in FROM THE FINISHED FLOOR.
2. NFPA 72 2019 17.15.9.4 MANUAL FIRE ALARM BOXES SHALL BE LOCATED WITHIN 5ft OF EACH EXIT DOORWAY ON EACH FLOOR.
3. NFPA 72 2019 18.4.9.1 IF CEILING HEIGHTS ALLOW, AND UNLESS OTHERWISE PERMITTED BY 18.4.9.2 THROUGH 18.4.9.5, WALL-MOUNTED APPLIANCES SHALL HAVE THEIR TOPS ABOVE THE FINISHED FLOORS AT HEIGHTS OF NOT LESS THAN 90in AND BELOW THE FINISHED CEILINGS AT DISTANCES OF NOT LESS THAN 6in.
4. NFPA 72 2019 18.4.9.3 IF COMBINATION AUDIBLE/ VISIBLE APPLIANCES ARE INSTALLED, THE LOCATION OF THE INSTALLED APPLIANCE SHALL BE DETERMINED BY THE REQUIREMENTS OF 18.5.5. (SEE NOTE 5).
5. NFPA 72 2019 18.5.5.1 WALL-MOUNTED APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80in. AND NOT GREATER THAN 96in ABOVE THE FINISHED FLOOR OR AT THE MOUNTING HEIGHT SPECIFIED USING THE PERFORMANCE BASED ALTERNATIVE OF 18.5.5.7.



SHEET INDEX

SHEET #	SHEET DESCRIPTION
FA-01	COVER SHEET
FA-02	LEVEL 1 & 1.5 FLOOR PLANS
FA-03	LEVEL 2 & 3 FLOOR PLANS
FA-04	LEVEL 4 & 5 FLOOR PLANS
FA-05	LEVEL 6 & 7 FLOOR PLANS
FA-06	LEVEL 8 & 9 FLOOR PLANS
FA-07	LEVEL 10 & 11 FLOOR PLANS
FA-08	LEVEL 12 & 13 FLOOR PLANS
FA-09	LEVEL 14 & 15 FLOOR PLANS
FA-10	LEVEL 16 & 17 FLOOR PLANS
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FA-23	BATTERY CALCULATIONS
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FA-29	SPEAKER SCHEDULE
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FA-31	SPEAKER SCHEDULE
FA-32	SPEAKER SCHEDULE
FA-33	RISER DIAGRAM
FA-34	RISER DIAGRAM
FA-35	NOTES & DETAILS

EVENT / ACTION

EVENT	TROUBLE SIGNAL @ FIRE ALARM CONTROL PANEL	SUPERVISORY SIGNAL @ FIRE ALARM CONTROL PANEL	ALARM SIGNAL @ FIRE ALARM CONTROL PANEL	ACTIVATE NOTIFICATION DEVICES	ELEVATOR RECALLED TO PRIMARY LEVEL (PRIMARY)	ELEVATOR RECALLED TO ALTERNATE LEVEL (ALTERNATE)	ELEVATOR SHUNT TRIP OFF (SHUNT)	ELEVATOR CAB SAFETY INDICATOR (HAT)	GENERAL HVAC SHUTDOWN	LOCAL HVAC SHUTDOWN
SMOKE/HEAT/CO DETECTOR			●	●					●	
MANUAL PULL STATION			●	●					●	
WATERFLOW SWITCH			●	●					●	
PRIMARY FLOOR ELEVATOR LOBBY SMOKE DETECTOR			●	●		●			●	
ALTERNATE FLOORS ELEVATOR LOBBY SMOKE DETECTOR			●	●	●				●	
ELEVATOR MACHINE ROOM HEAT DETECTOR			●	●			●		●	
ELEVATOR MACHINE ROOM SMOKE DETECTOR			●	●				●	●	
LOCAL DUCT DETECTOR		●								●
TAMPER SWITCH		●								
FIRE PUMP RUNNING		●								
FIRE PUMP PHASE REVERSAL		●								
FIRE PUMP AC FAILURE		●								
FIRE PUMP LOSS OF PHASE		●								
FACP AC POWER FAILURE	●									
SYSTEM LOW BATTERY	●									
OPEN CIRCUIT	●									
GROUND FAULT	●									
NOTIFICATION APPLIANCE CIRCUIT SHORT	●									
CELLULAR DISCONNECT	●									

NOTE: ALL SIGNALS WILL BE SENT TO A CENTRAL STATION

EQUIPMENT LIST

SYMBOL	QTY	MANUFACTURER	PART NO	DESCRIPTION
FACP	1	NOTIFIER	NFS2-3030D (DVC)	FIRE ALARM CONTROL PANEL
	1	NOTIFIER	NFN-GW-EM-3	NFN GATEWAY, EMBEDDED
	5	NOTIFIER	LCM-320	LOOP CONTROL MODULE
	1	NOTIFIER	AMPS-24	ADDRESSABLE POWER SUPPLY/BATTERY CHARGER
	1	NOTIFIER	DVC-KD	DIGITAL VOICE COMMAND, KEYPAD
	1	NOTIFIER	CA-1	CHASSIS, 2ND ROW
	1	NOTIFIER	SBB-C4	BACKBOX ASSEMBLY, THREE TIERS, BLACK, 32.60 LBS.
	4	NOTIFIER	AA-120	AUDIO AMPLIFIER, 120W @25 VRMS W/BUILT-IN TONE GENERATOR, 120 VAC
	1	NOTIFIER	DP-1B	BLANK DRESS PANEL, COVERS ONE CAB-4 TIER, BLACK.
	2	NOTIFIER	BMP-1	BLANK MODULE
	1	NOTIFIER	DR-C4	DOOR ASSEMBLY, WINDOW, THREE TIERS, BLACK, 20.75 LBS.
	1	NOTIFIER	UDACT-2	UNIVERSAL DIGITAL ALARM COMMUNICATOR TRANSMITTER-2
	1	NOTIFIER	DVC-EM	DIGITAL VOICE COMMAND, EXTENDED MEMORY
	1	NOTIFIER	DPA-1	DRESS PLATE, 2ND ROW
	1	NOTIFIER	DP-DISP	DRESS PANEL
	129	NOTIFIER	FPJ	FIREMAN'S PHONE JACK
NAC	10	NOTIFIER	PSE-6	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	1	NAPCO	SLE/4G-CDMA-FIRE	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	1	NOTIFIER	FDU-80	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	18	NOTIFIER	RTS151KEY	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	9	NOTIFIER	NBG-12LOB	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	85	NOTIFIER	NBG-12LX	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	29	NOTIFIER	FDM-1	ADDRESSABLE DUAL MONITOR MODULE W/ FLASHSCAN, 2 CLASS B
MM	443	NOTIFIER	FMM-1	ADDRESSABLE MONITOR MODULE W/ FLASHSCAN, SUPERVISES CLASS A OR CLASS B OF DRY CONTACT INPUT
MINI	13	NOTIFIER	FMM-101	ADDRESSABLE MINI MONITOR MODULE
CM	93	NOTIFIER	FCM-1	ADDRESSABLE CONTROL MODULE W/ FLASHSCAN, 1 CLASS A OR 1 CLASS B
RM	91	NOTIFIER	FRM-1	ADDRESSABLE RELAY MODULE W/ FLASHSCAN, 2 FORM-C DRY CONTACTS
	28	NOTIFIER	DNR W/FSP-951R	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR/ FSP-951R. FLASHSCAN AND CLIP MODE.
	2	NOTIFIER	FSCO-951 W/B300-6	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE W/ 6" FLANGED MOUNTING BASE, BRIGHT WHITE
WP	4	NOTIFIER	302-AW-135	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	8	NOTIFIER	FST-951 W/B300-6	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	182	NOTIFIER	FSP-951 W/B300-6	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	1	SYSTEM SENSOR	SSM24-8	ALARM BELL 8" 24VDC, RED
WP	44	SYSTEM SENSOR	SPSWK	OUTDOOR SPEAKER STROBE, STANDARD CD
	95	SYSTEM SENSOR	SPSWL	SPEAKER/STROBE WALL MOUNT, WHITE
	141	SYSTEM SENSOR	SPSCWL	SPEAKER/STROBE CEILING MOUNT, WHITE
	659	SYSTEM SENSOR	SPWL	SPEAKER WALL MOUNT, WHITE
	24	SYSTEM SENSOR	SCWL	STROBE, WHITE
SCP	1	GENERIC	SMOKE CONTROL PANEL	SCP PANEL

1 LEVEL 1 FLOOR PLAN

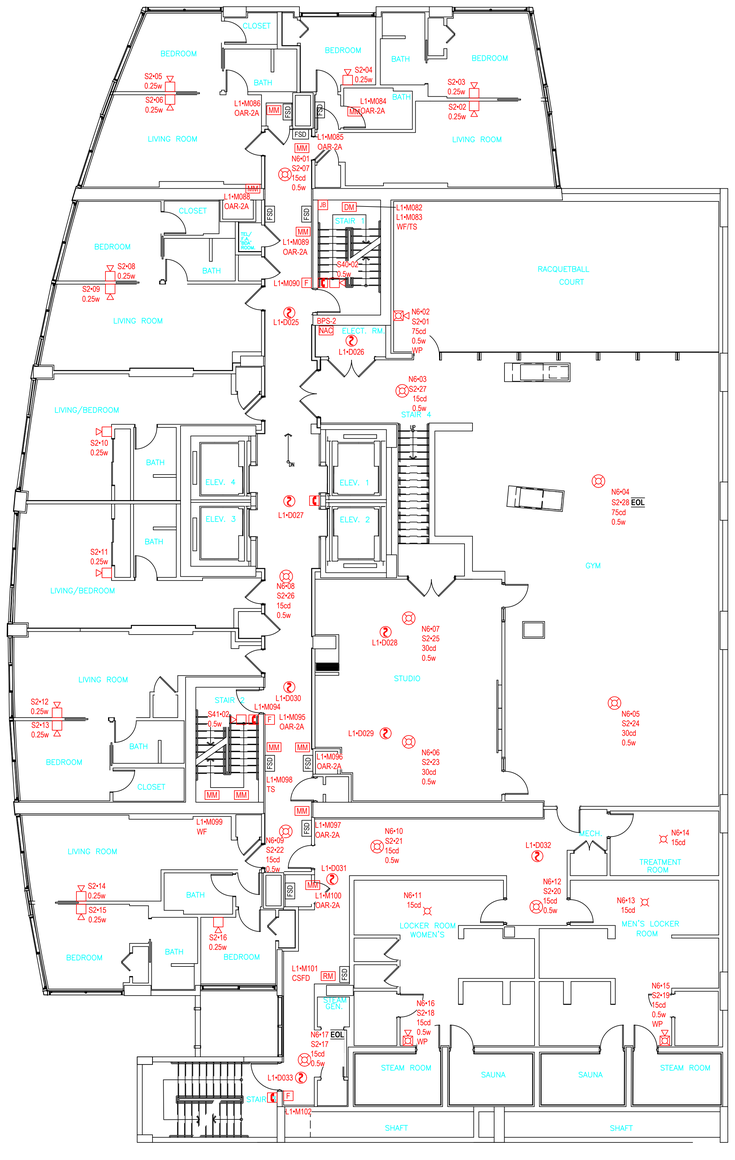
1 MEZZANINE LEVEL FLOOR PLAN

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

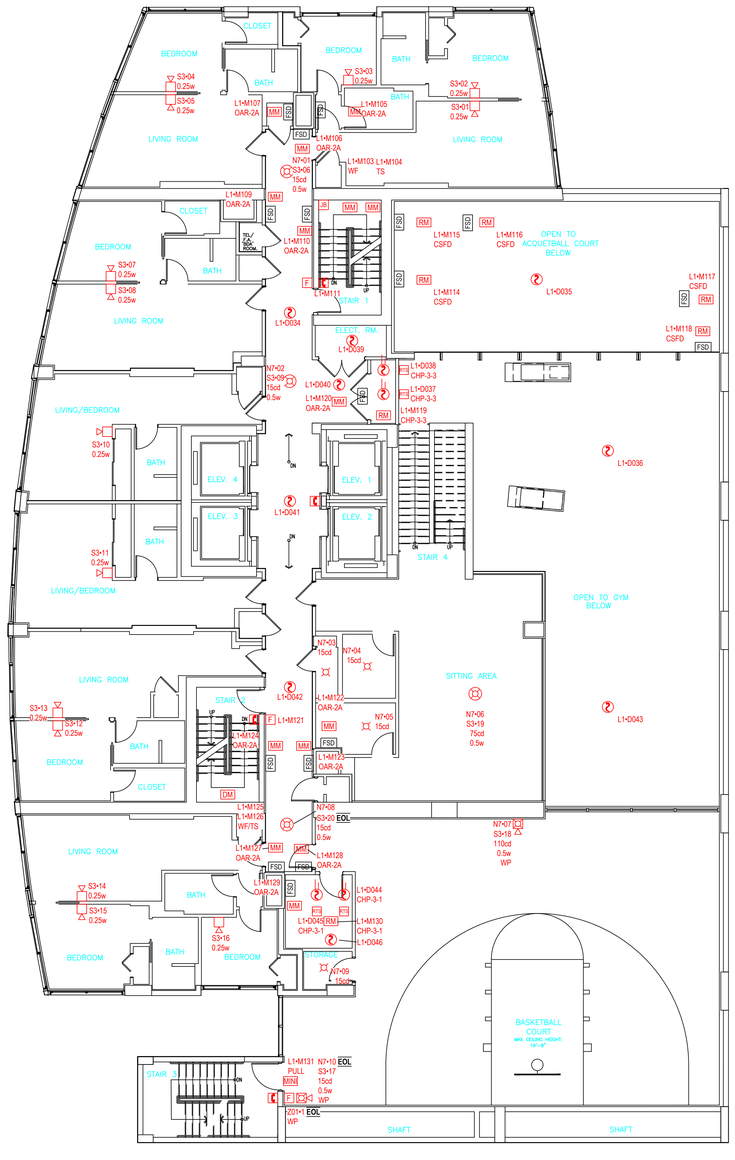
SLC LOOP NUMBER
"D" FOR DETECTOR / "M" FOR MODULE
DEVICE ADDRESS ON SLC LOOP
L1•D001

NOTIFICATION CIRCUIT NUMBER
DEVICE NUMBER ON CIRCUIT
N1•01



1 LEVEL 2 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 3 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

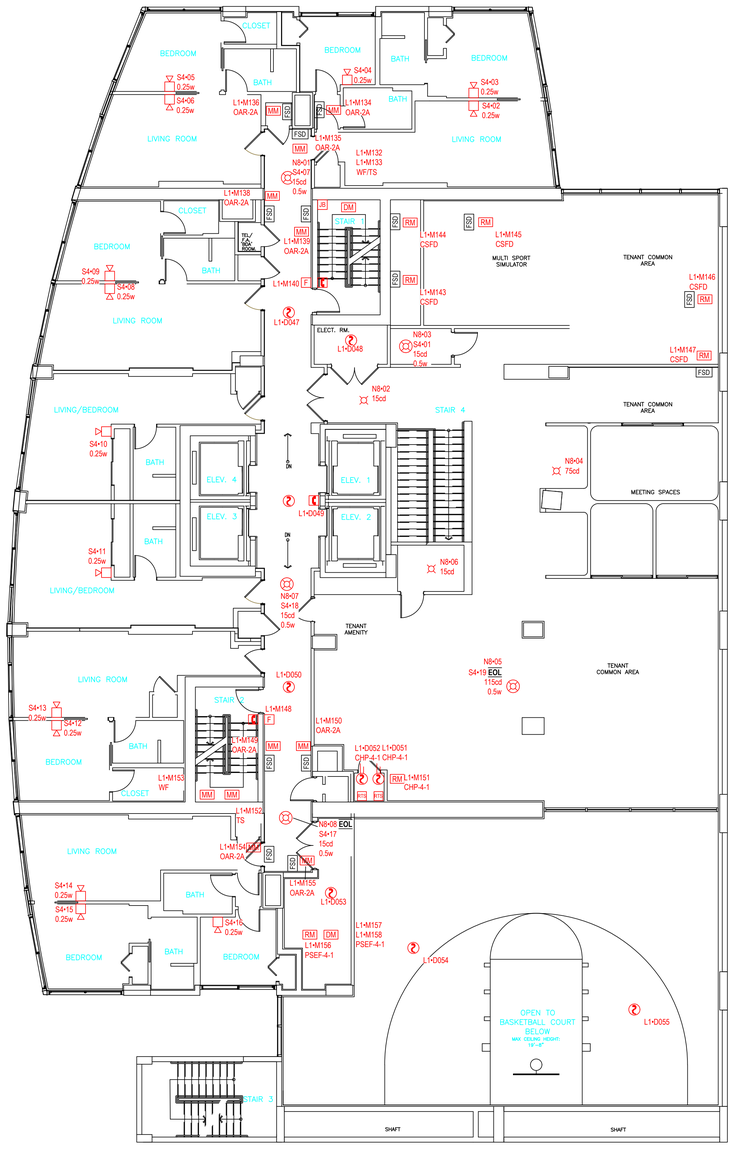
DEVICE LEGEND

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
CD WP	OUTDOOR SPEAKER STROBE. STANDARD CD
CD	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

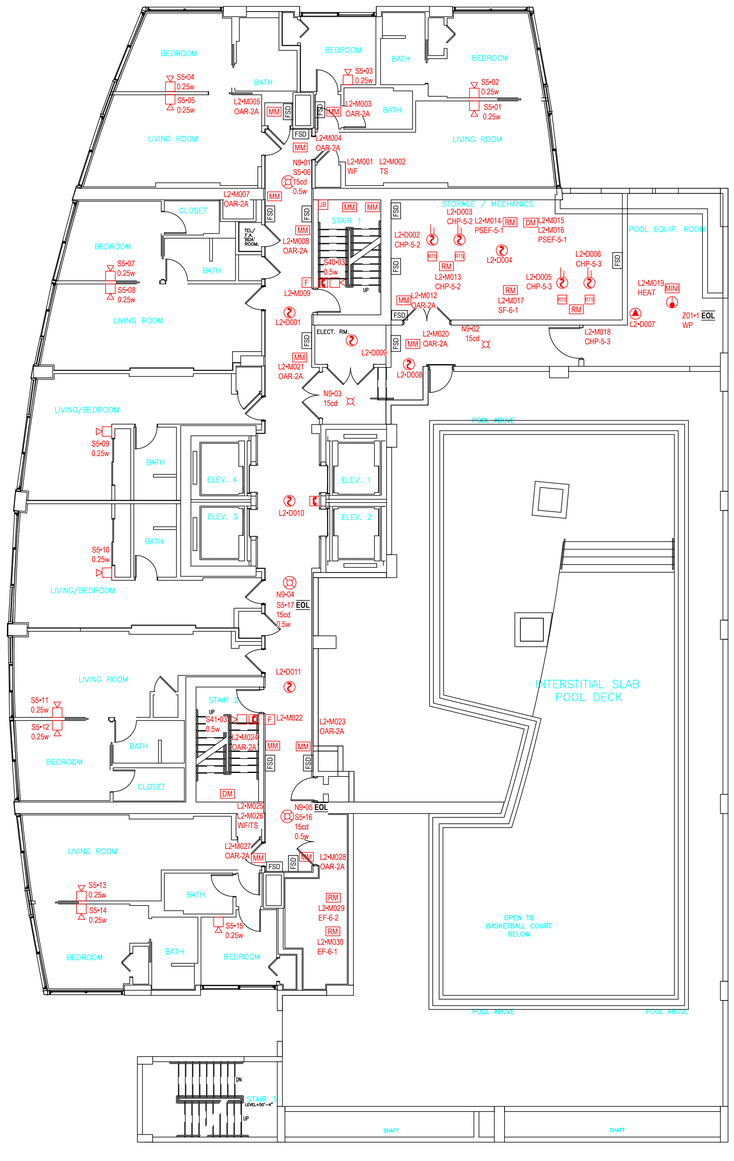
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 4 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 5 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

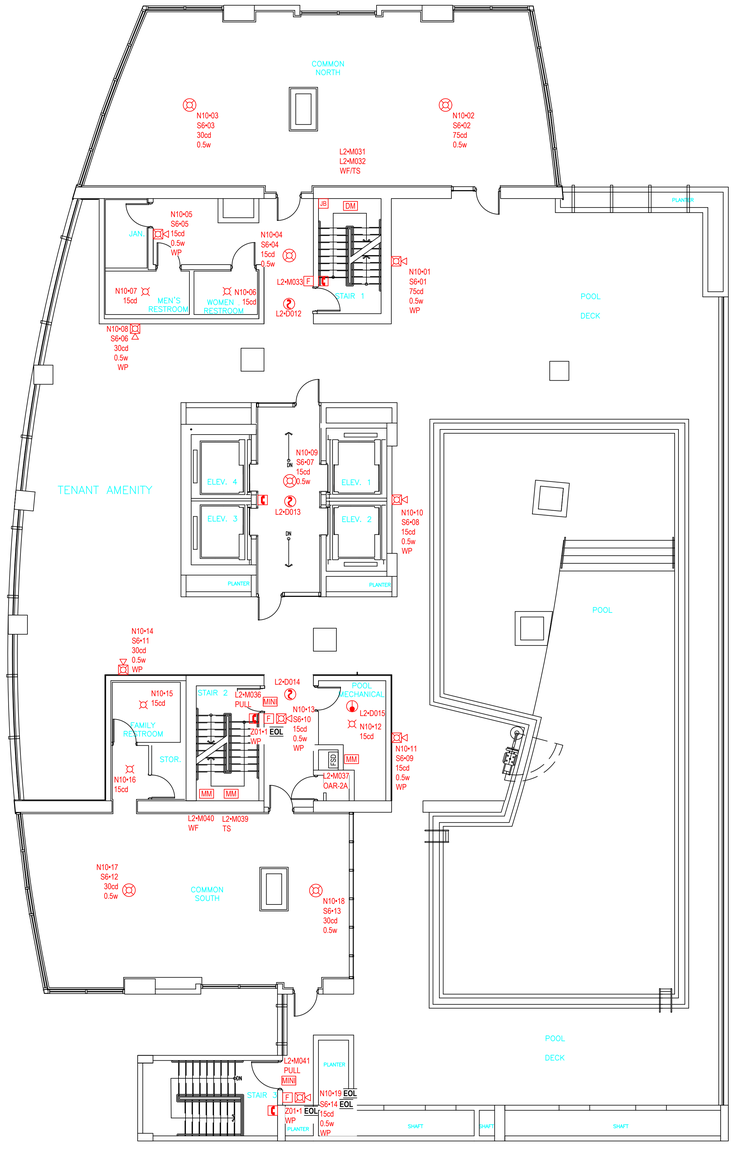
ADDRESS LABEL CLARIFICATION

SLC LOOP NUMBER
"D" FOR DETECTOR / "M" FOR MODULE
DEVICE ADDRESS ON SLC LOOP

L1•D001

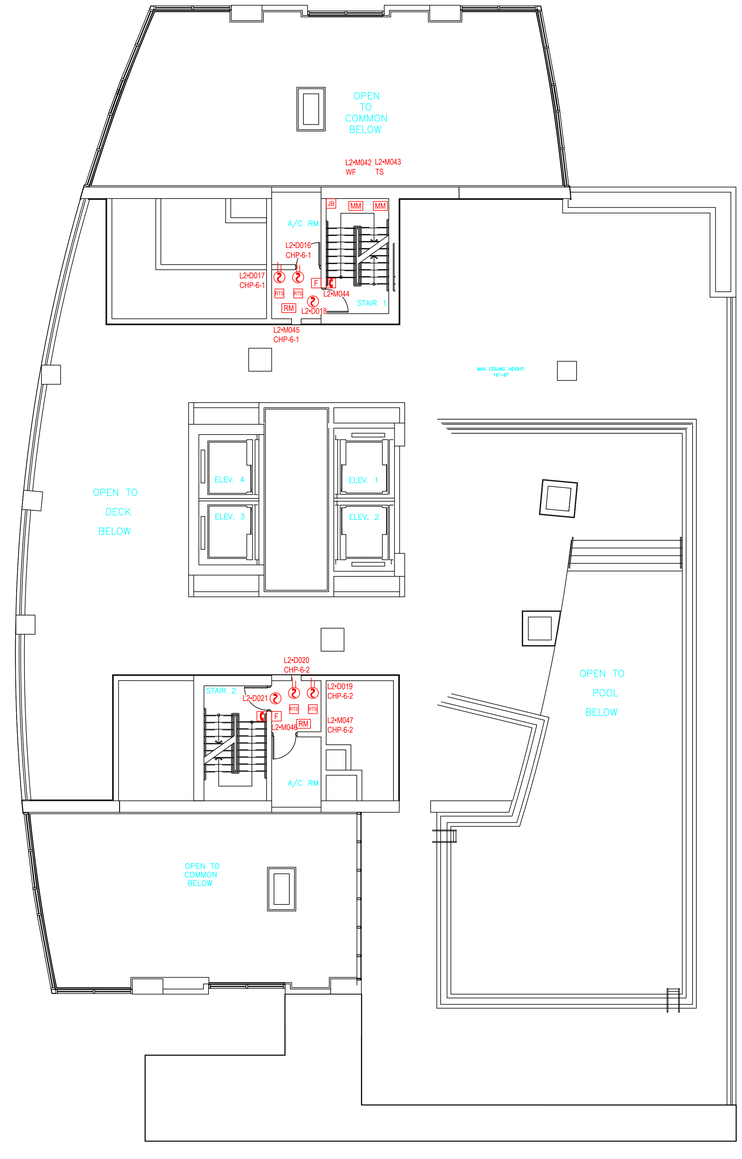
NOTIFICATION CIRCUIT NUMBER
DEVICE NUMBER ON CIRCUIT

N1•01



1 LEVEL 6 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 7 FLOOR PLAN

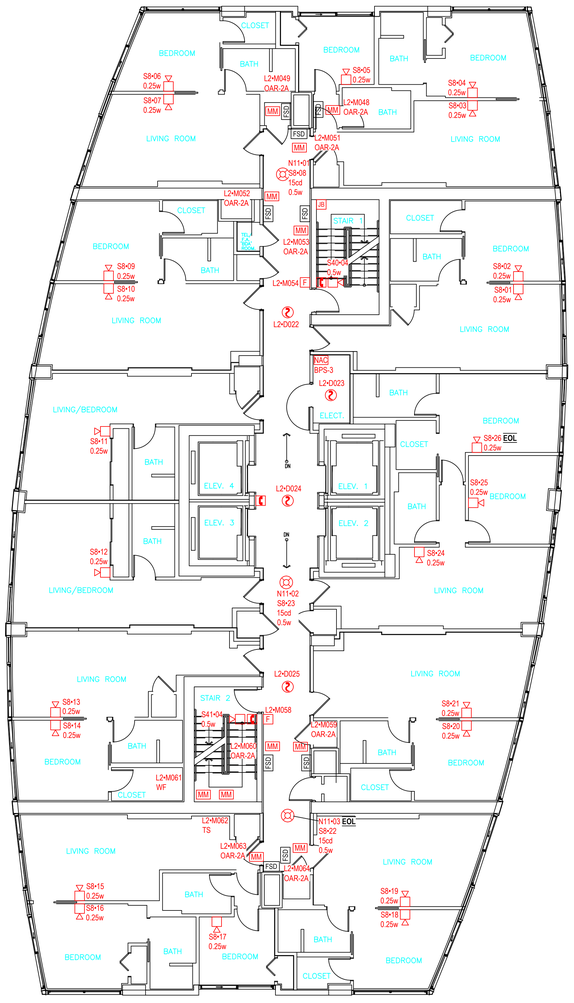
0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

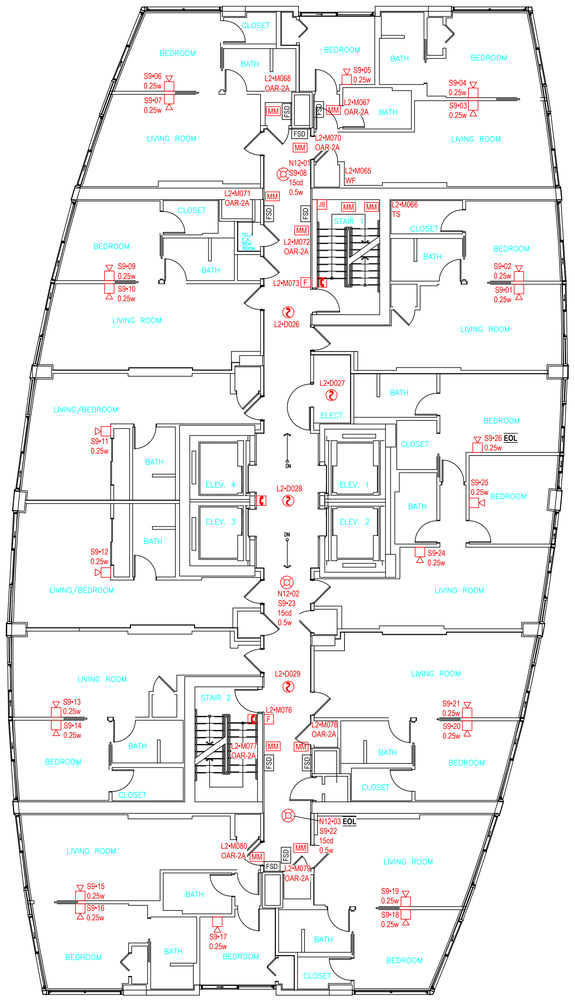
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 8 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 9 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

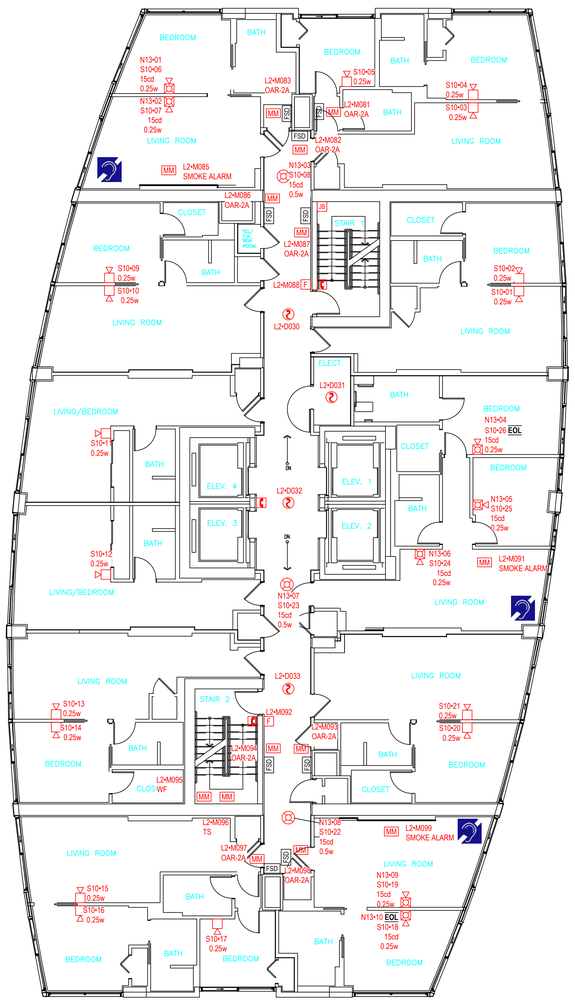
N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
CD WP	OUTDOOR SPEAKER STROBE. STANDARD CD
CD	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

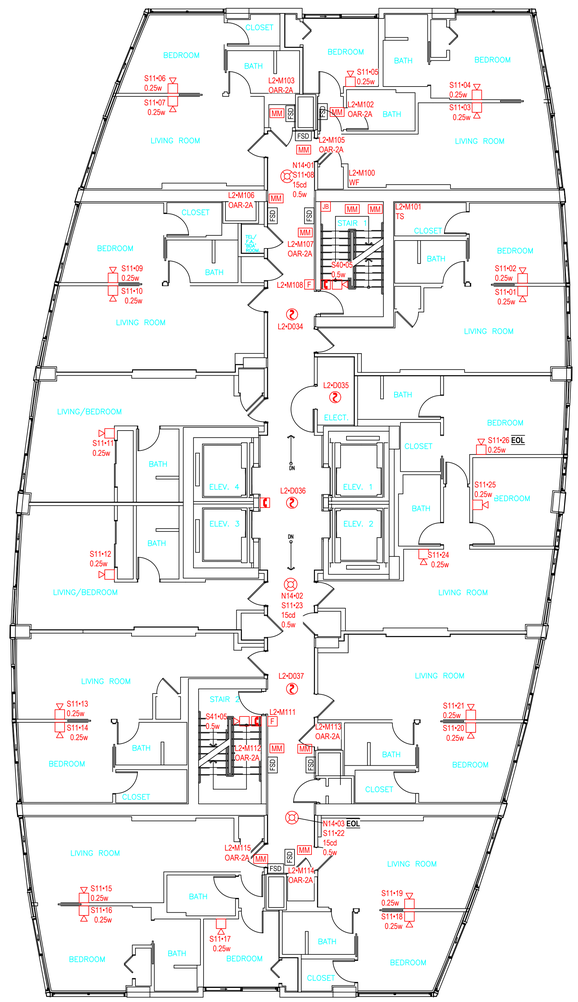
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



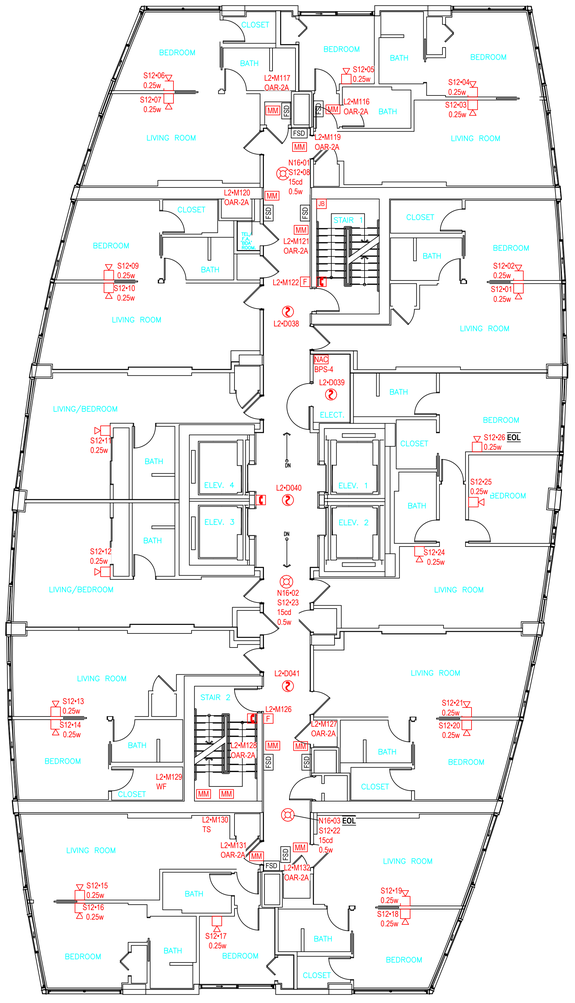
1 LEVEL 10 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



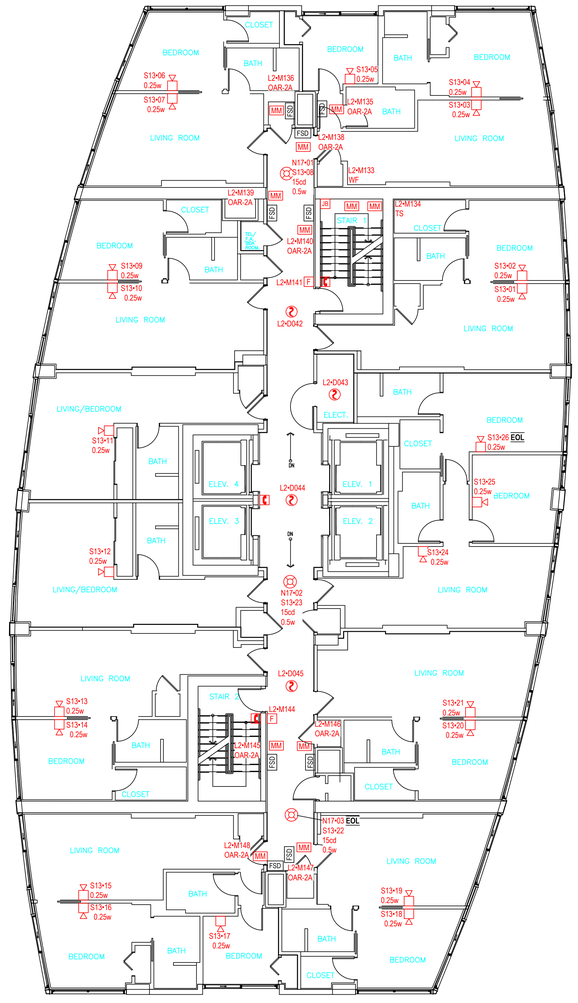
1 LEVEL 11 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 12 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 13 FLOOR PLAN

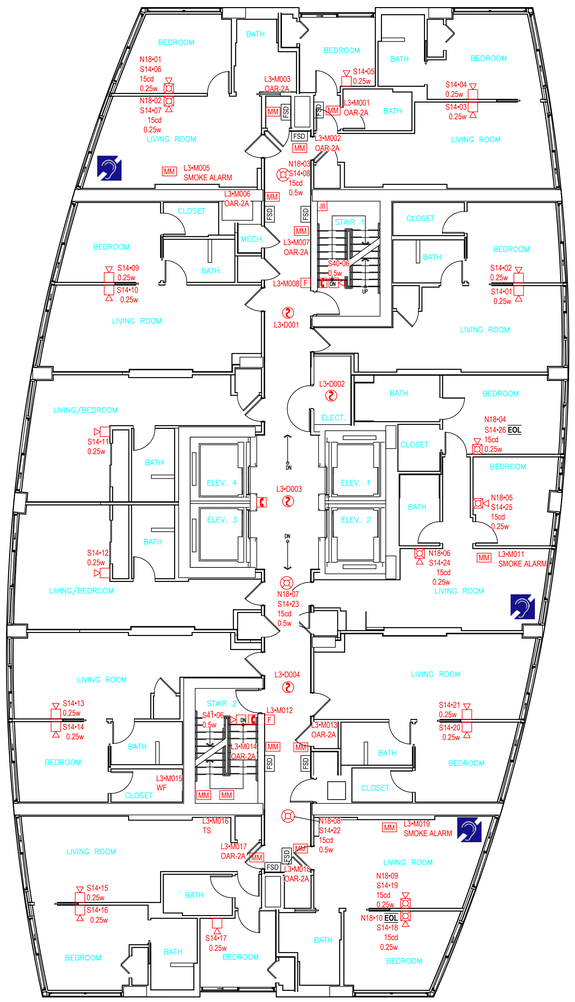
0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

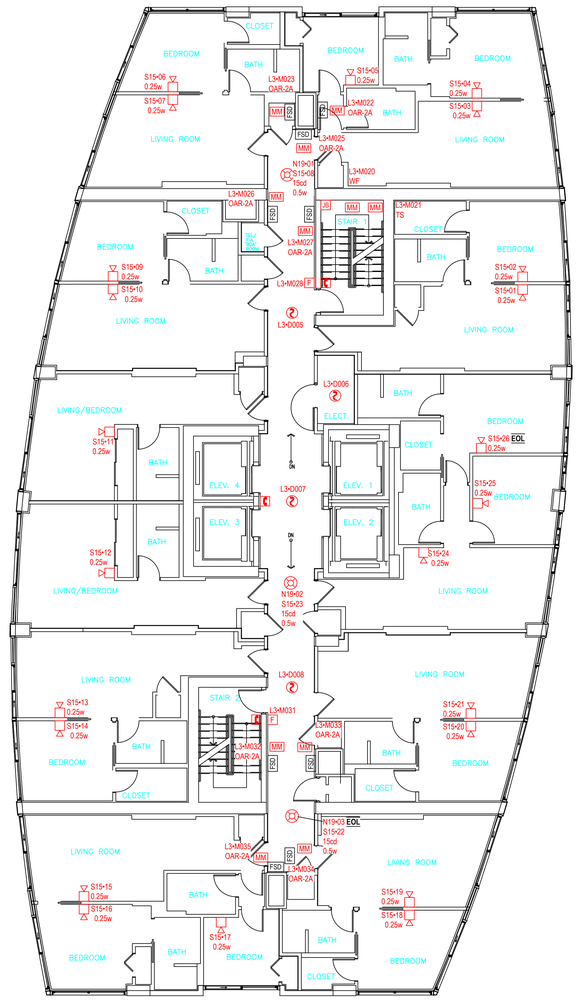
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 14 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 15 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

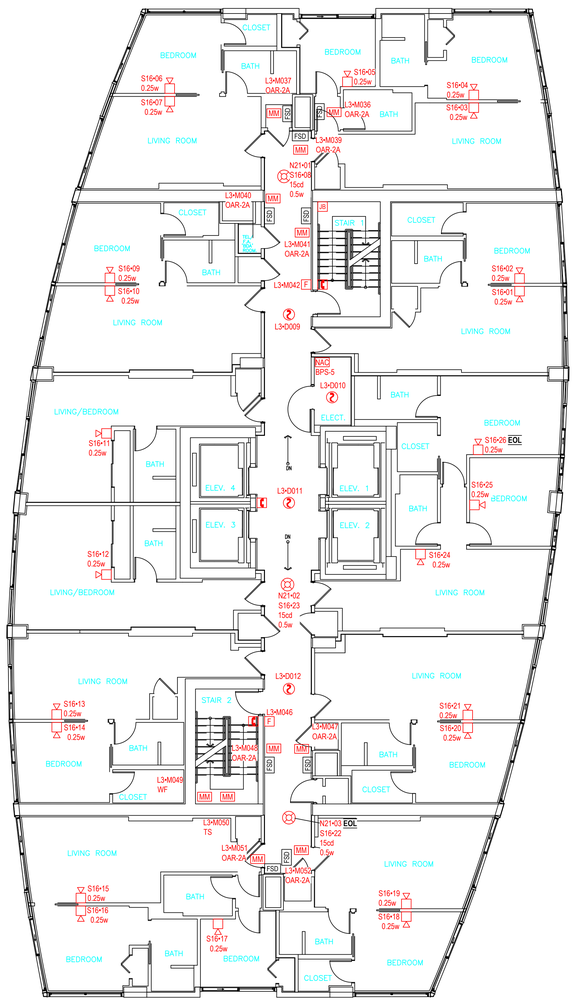
ADDRESS LABEL CLARIFICATION

SLC LOOP NUMBER
"D" FOR DETECTOR / "M" FOR MODULE
DEVICE ADDRESS ON SLC LOOP

L1•D001

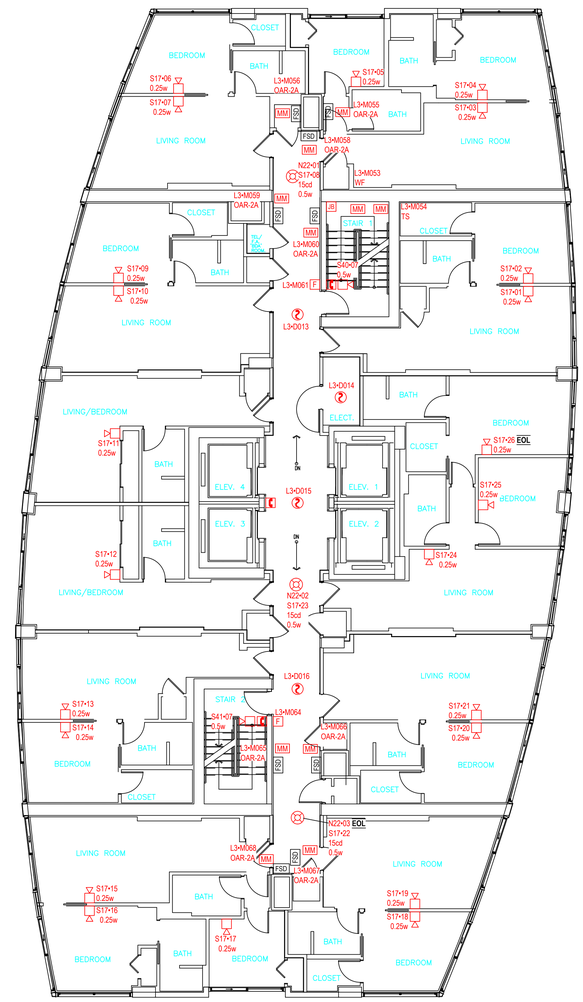
NOTIFICATION CIRCUIT NUMBER
DEVICE NUMBER ON CIRCUIT

N1•01



1 LEVEL 16 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 17 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

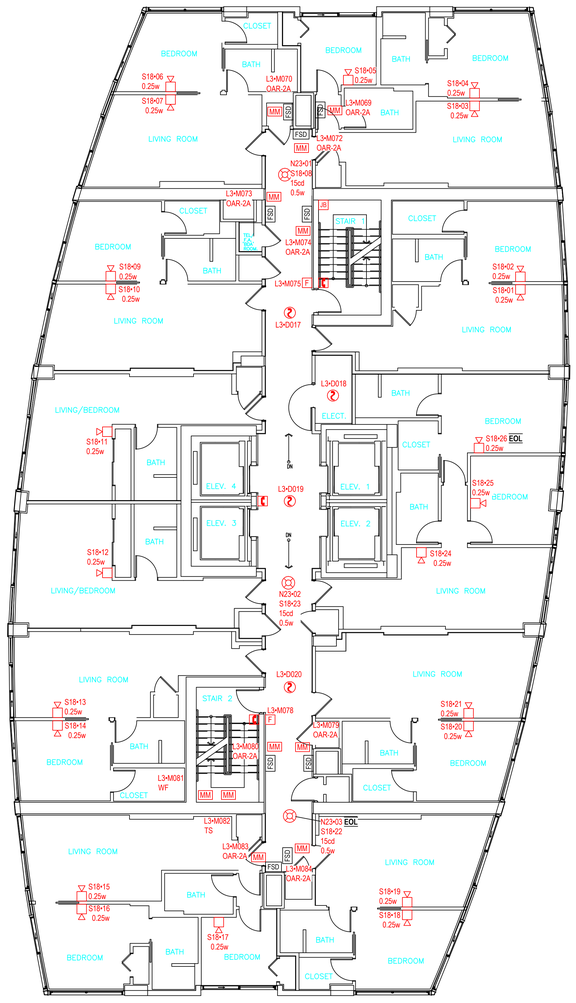
DEVICE LEGEND

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

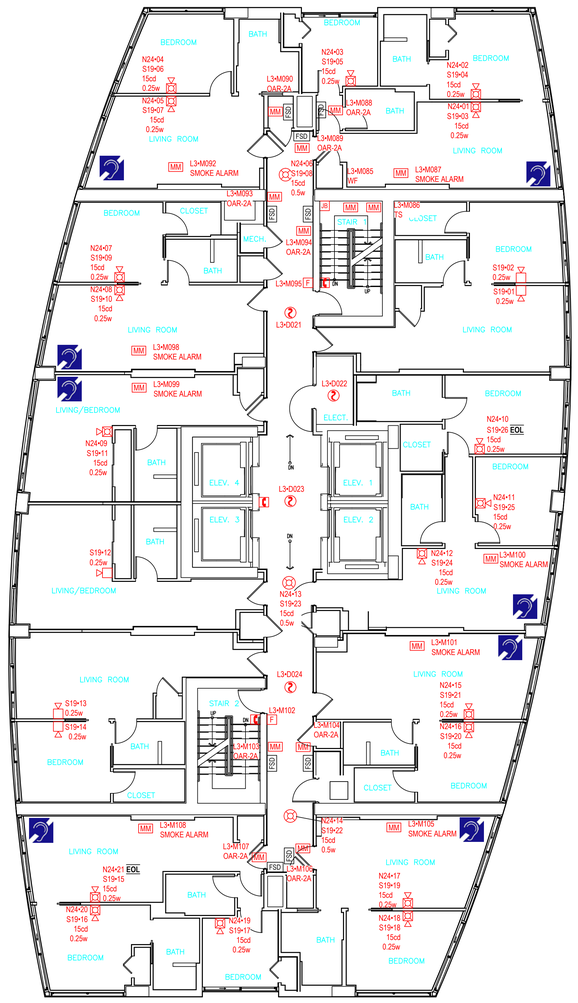
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 18 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 19 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE, STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

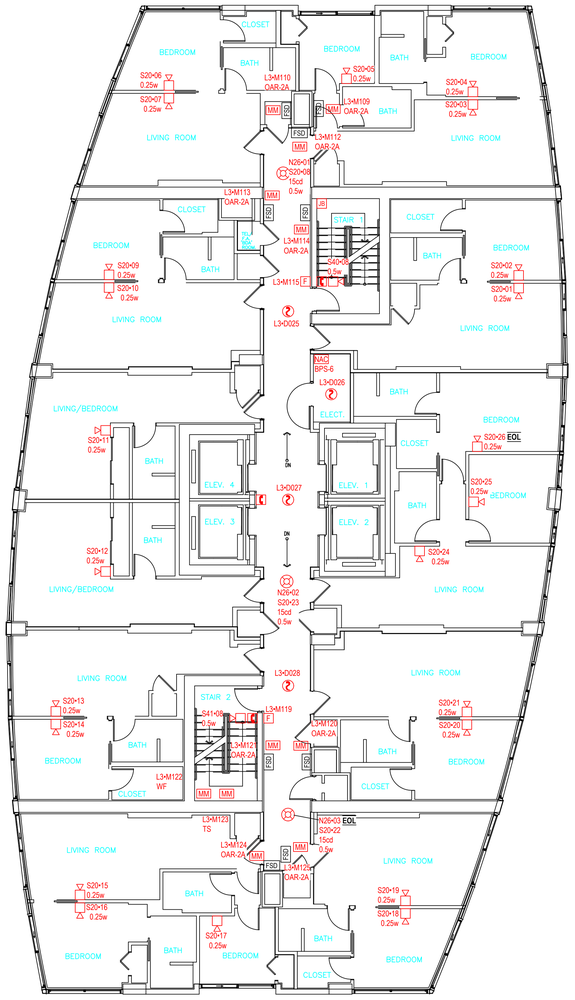
ADDRESS LABEL CLARIFICATION

SLC LOOP NUMBER
"D" FOR DETECTOR / "M" FOR MODULE
DEVICE ADDRESS ON SLC LOOP

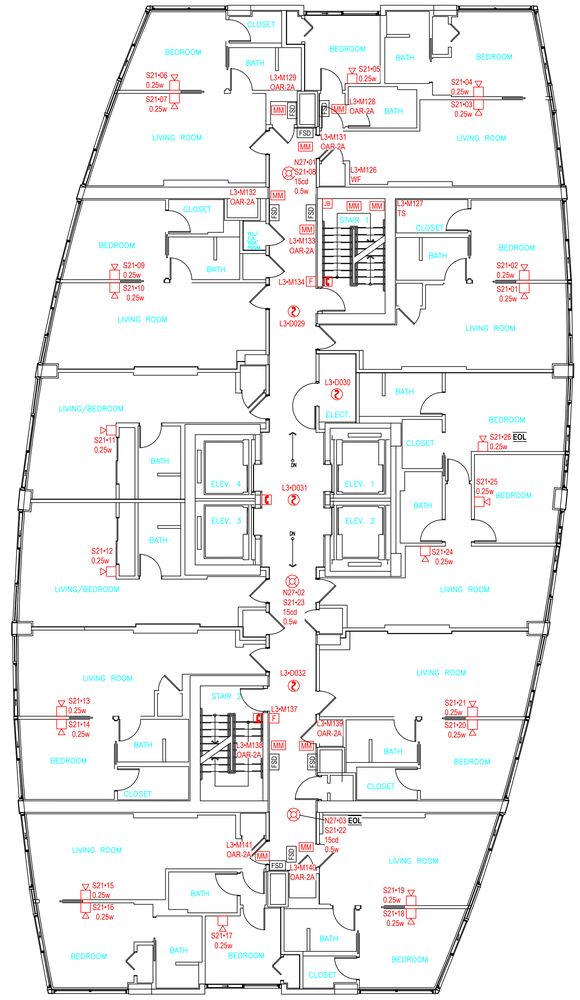
L1•D001

NOTIFICATION CIRCUIT NUMBER
DEVICE NUMBER ON CIRCUIT

N1•01



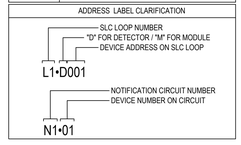
1 LEVEL 20 FLOOR PLAN

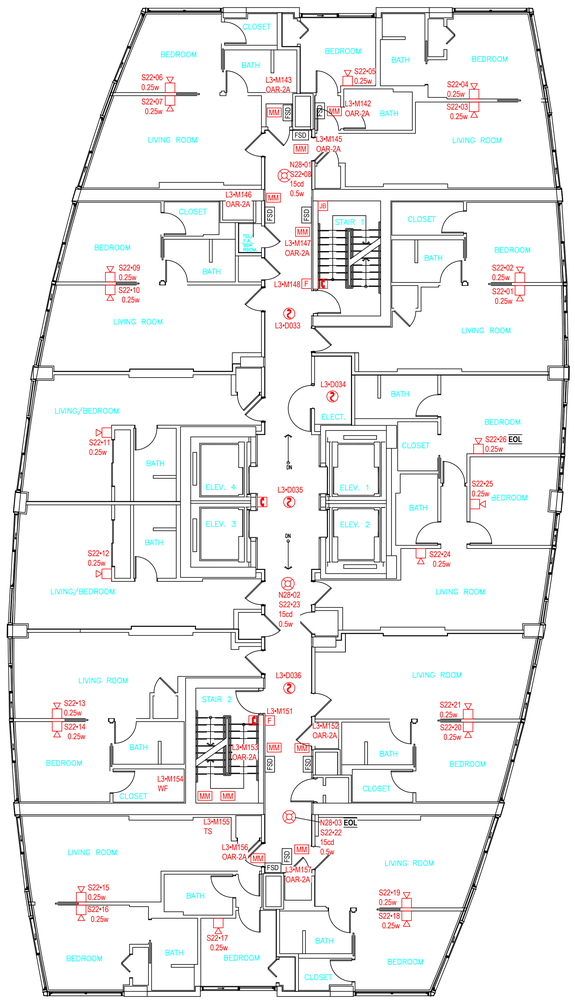


1 LEVEL 21 FLOOR PLAN

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

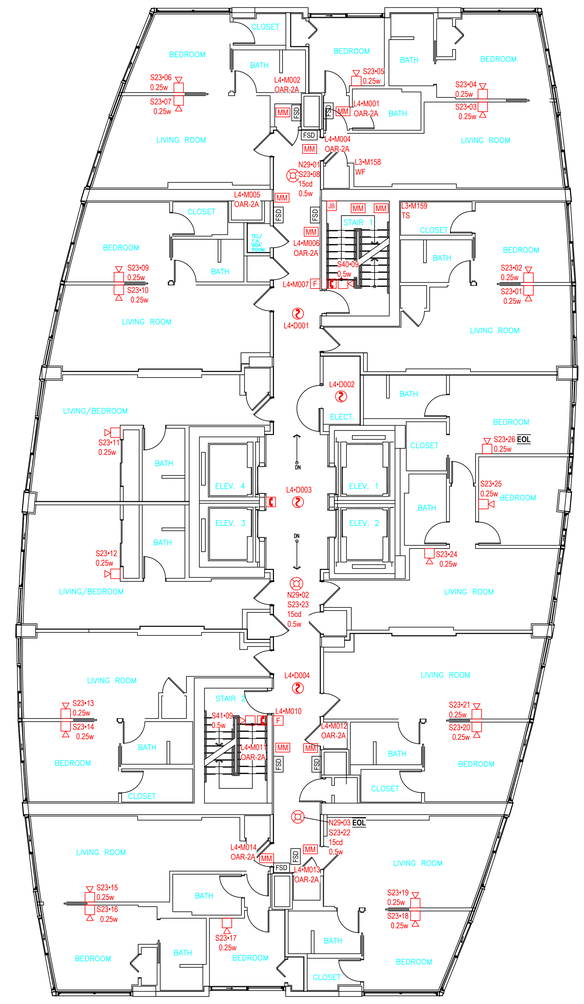
ADDRESS LABEL CLARIFICATION





1 LEVEL 22 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 23 FLOOR PLAN

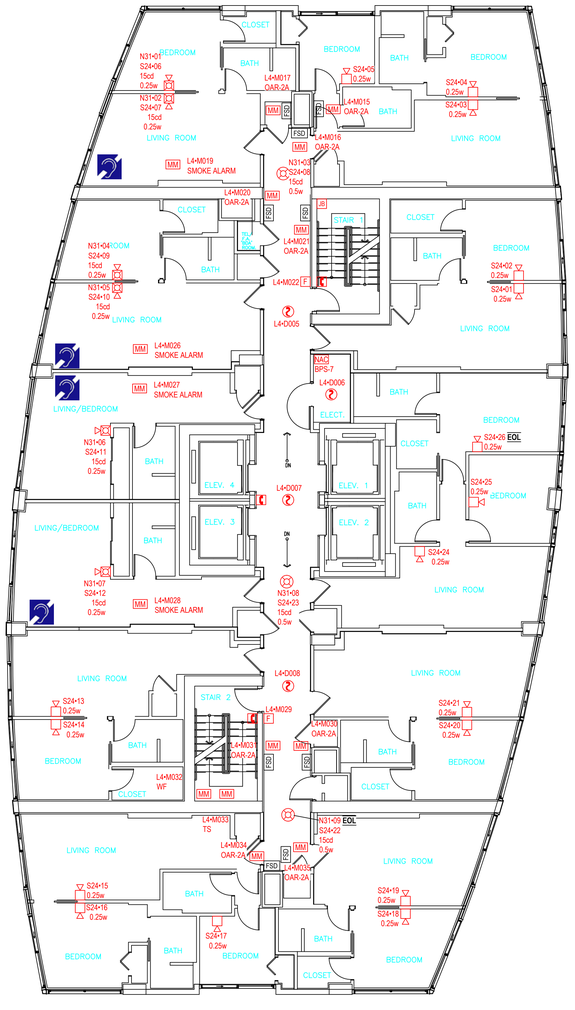
0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
CD WP	OUTDOOR SPEAKER STROBE. STANDARD CD
CD	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

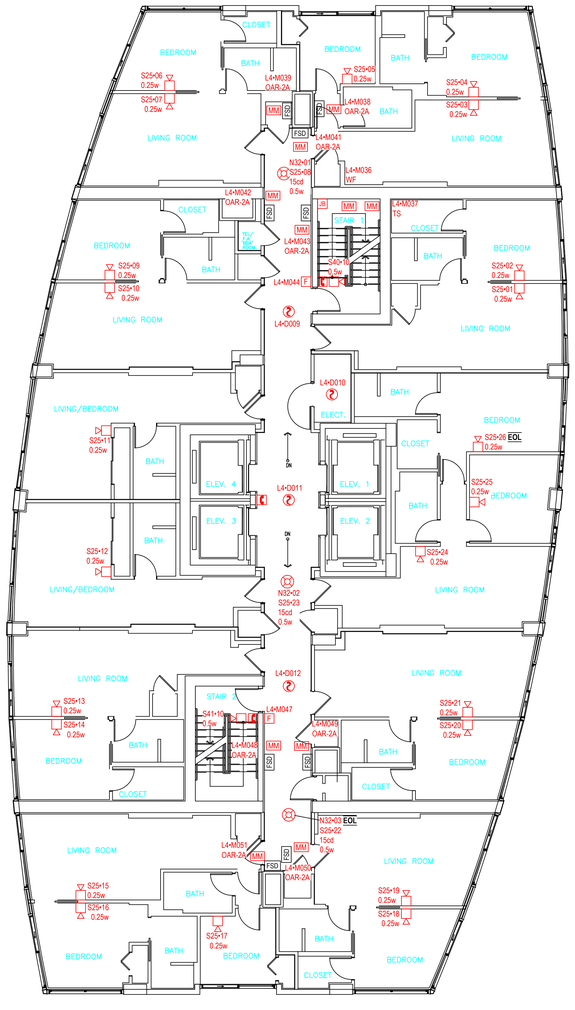
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 24 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 25 FLOOR PLAN

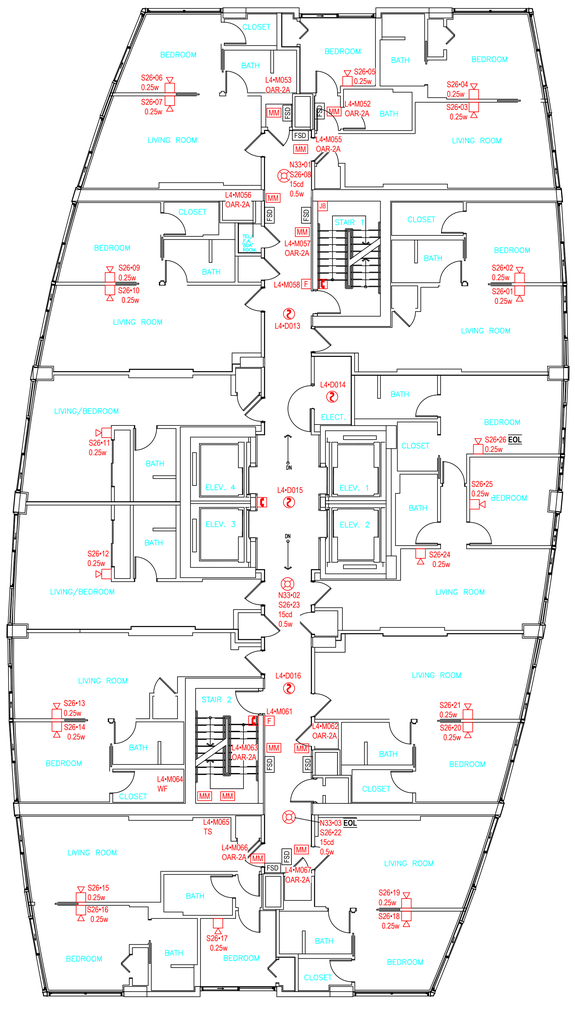
0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

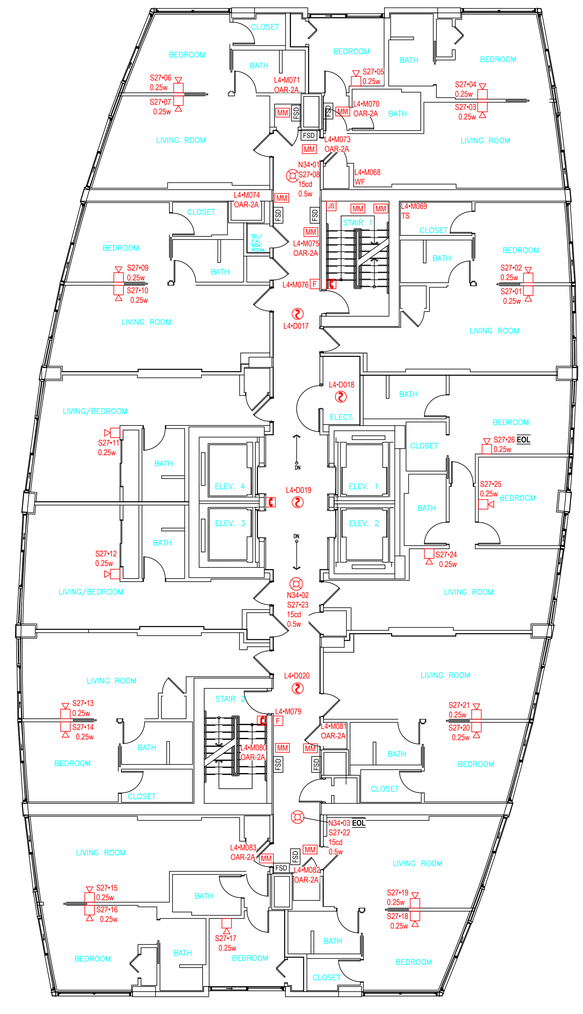
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 26 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 27 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

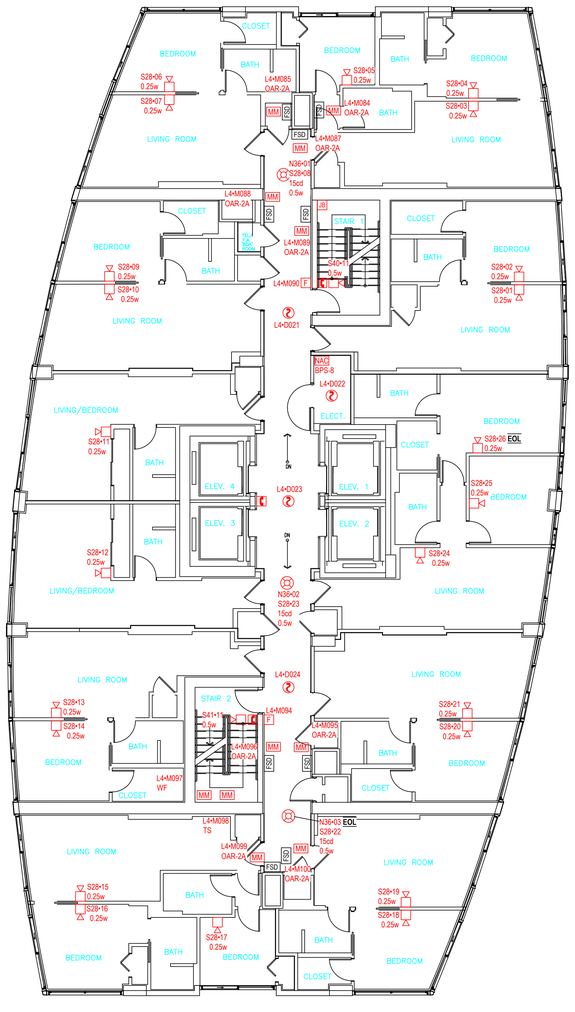
DEVICE LEGEND

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE, STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

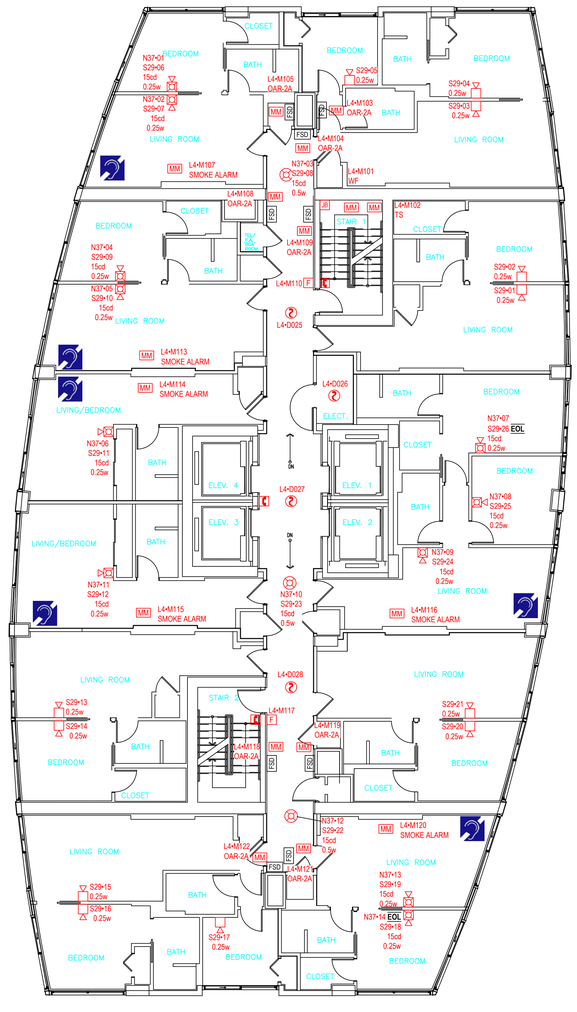
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 28 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 29 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

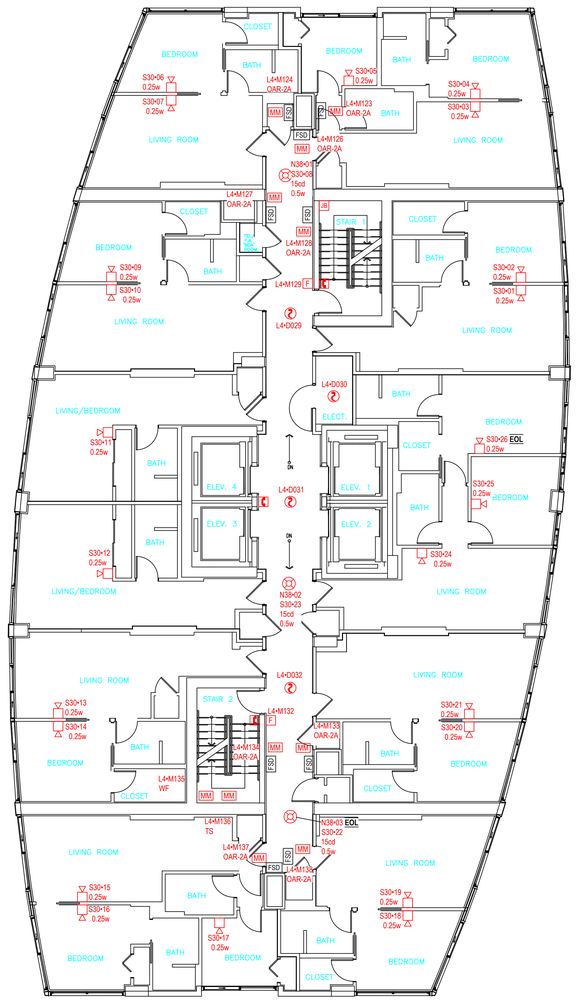
N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

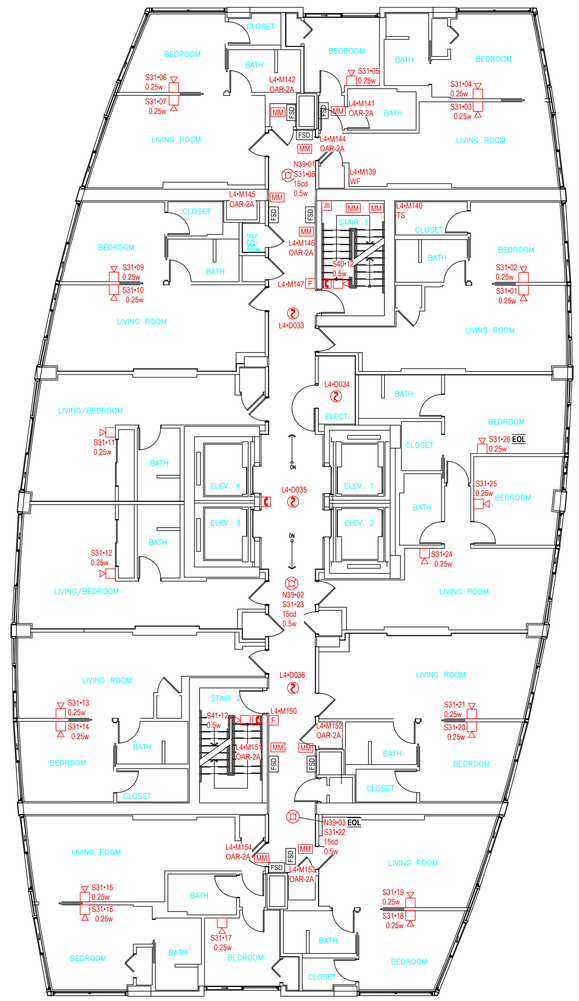
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



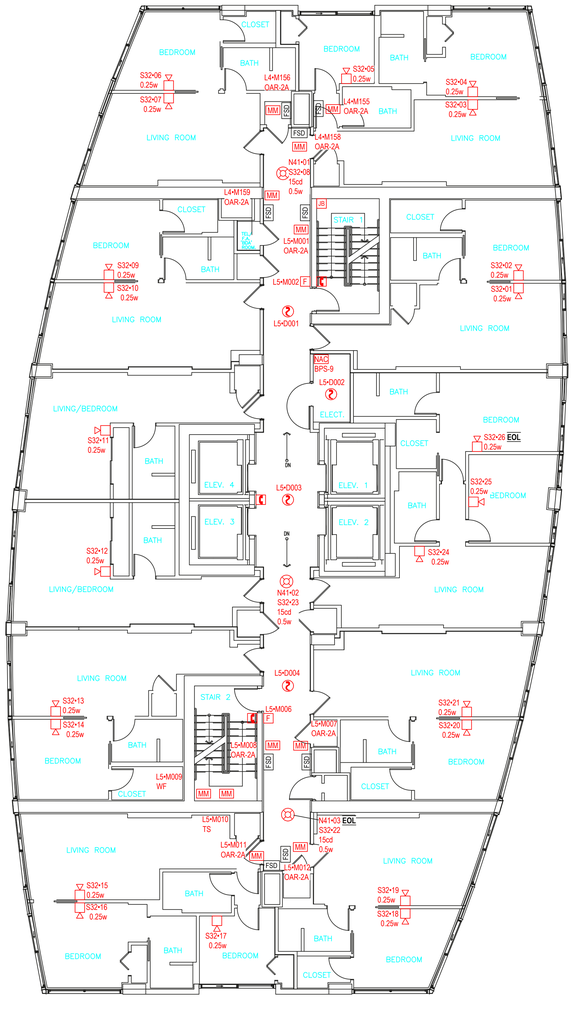
1 LEVEL 30 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



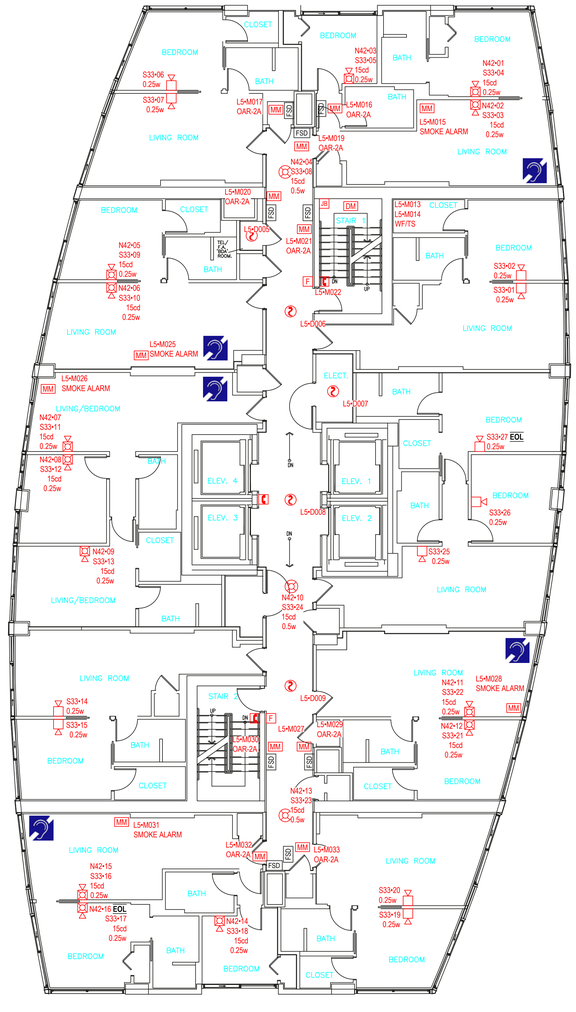
1 LEVEL 31 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 32 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 33 FLOOR PLAN

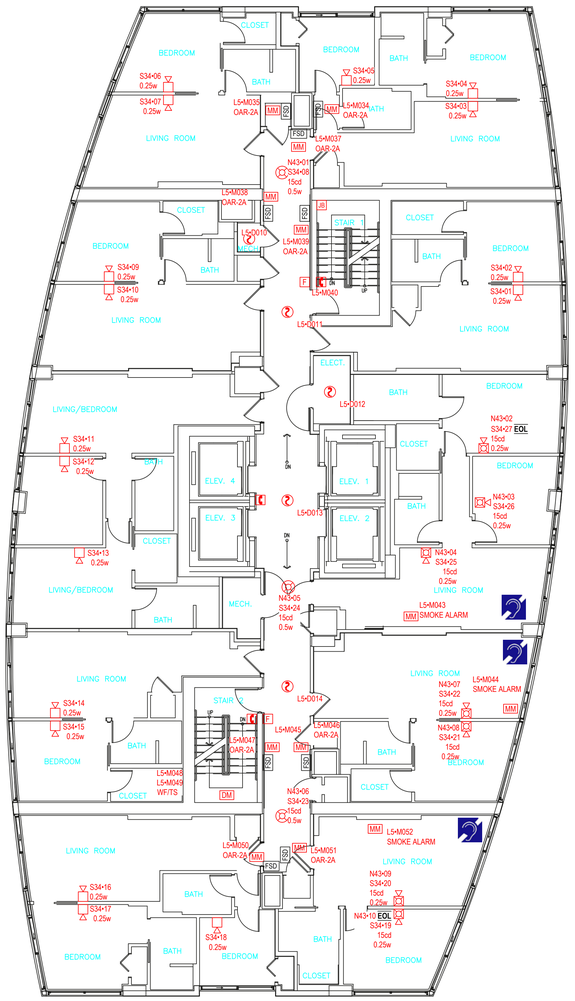
0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE, STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

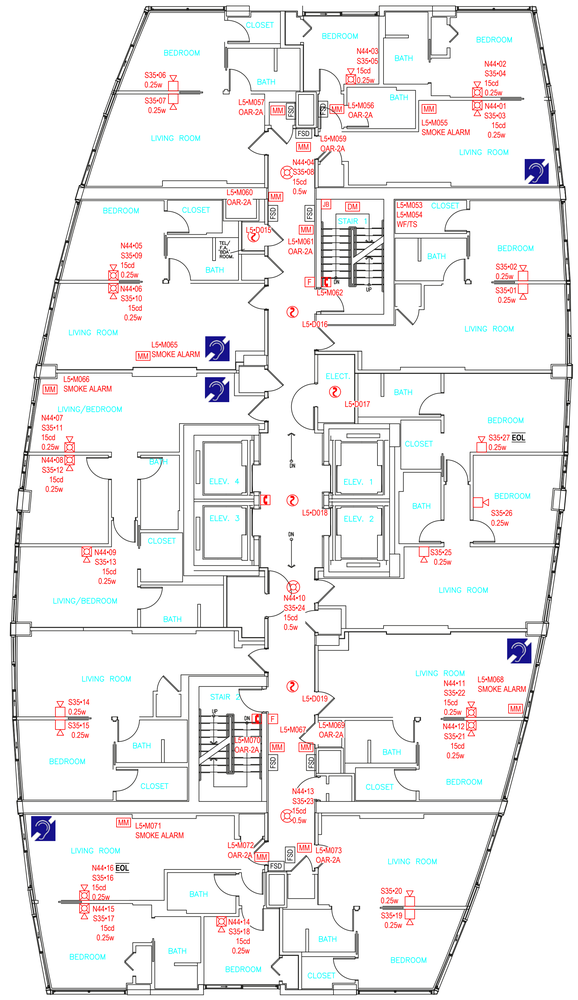
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 34 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 35 FLOOR PLAN

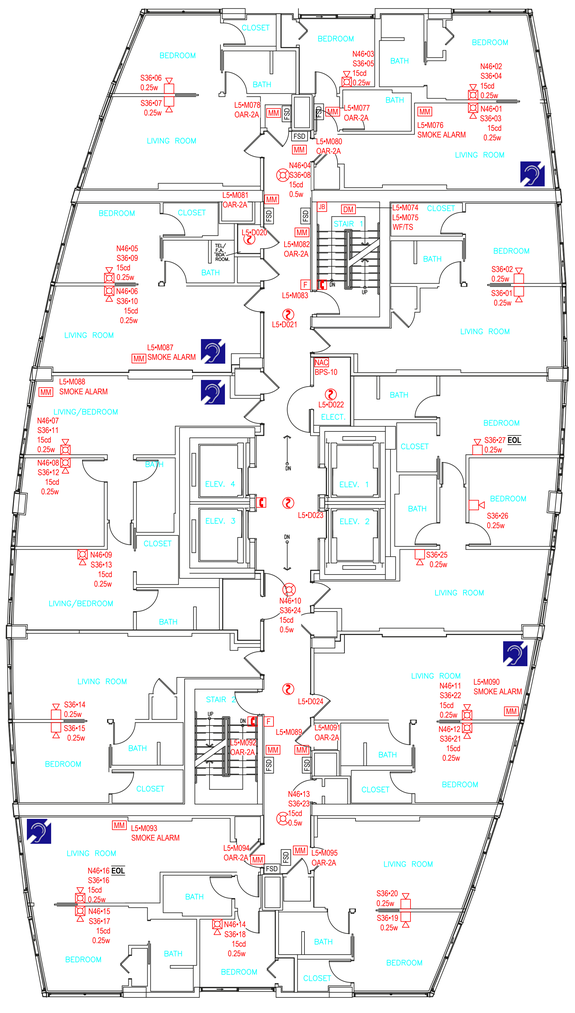
0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

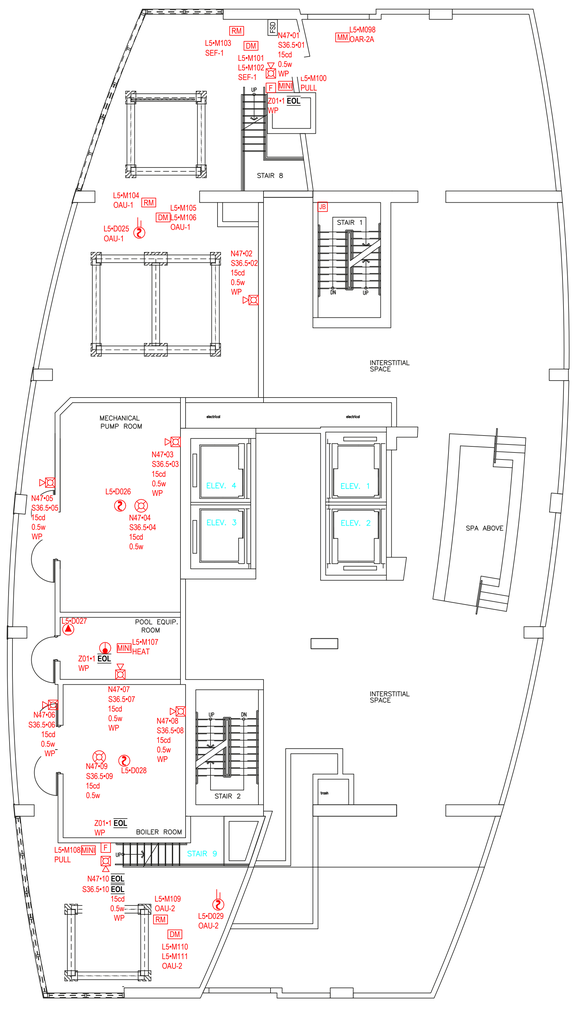
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 36 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 36.5 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

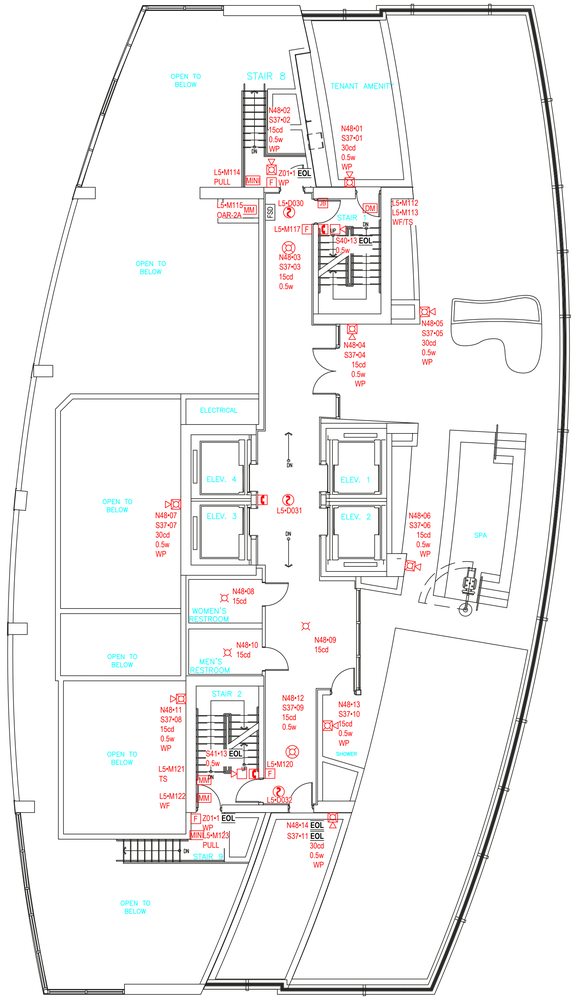
DEVICE LEGEND

SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

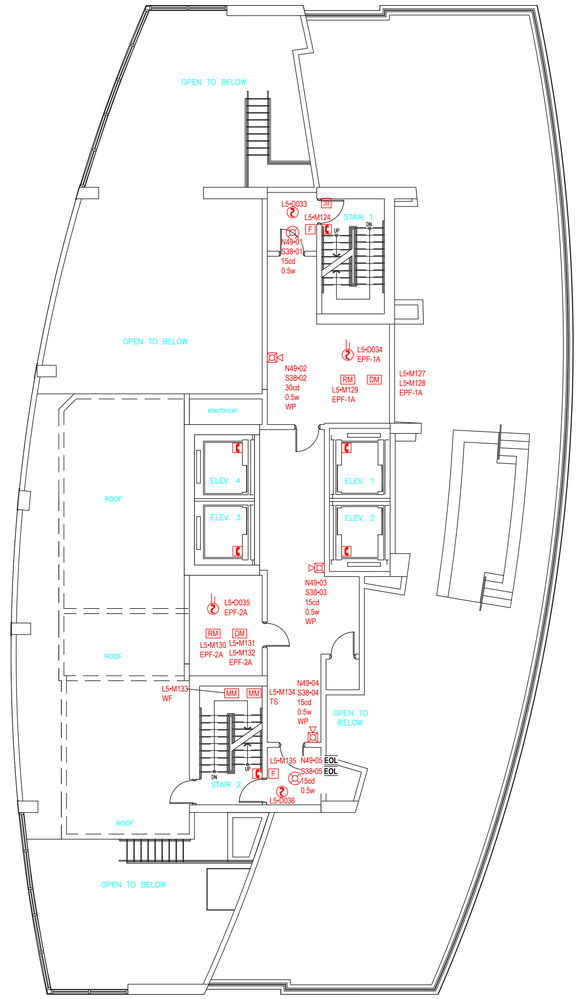
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 37 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 38 FLOOR PLAN

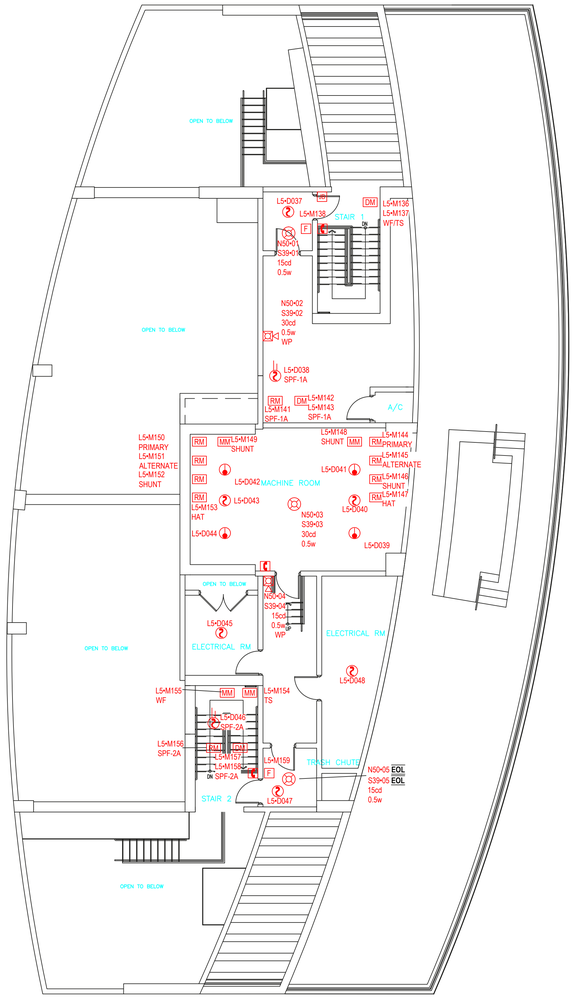
0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

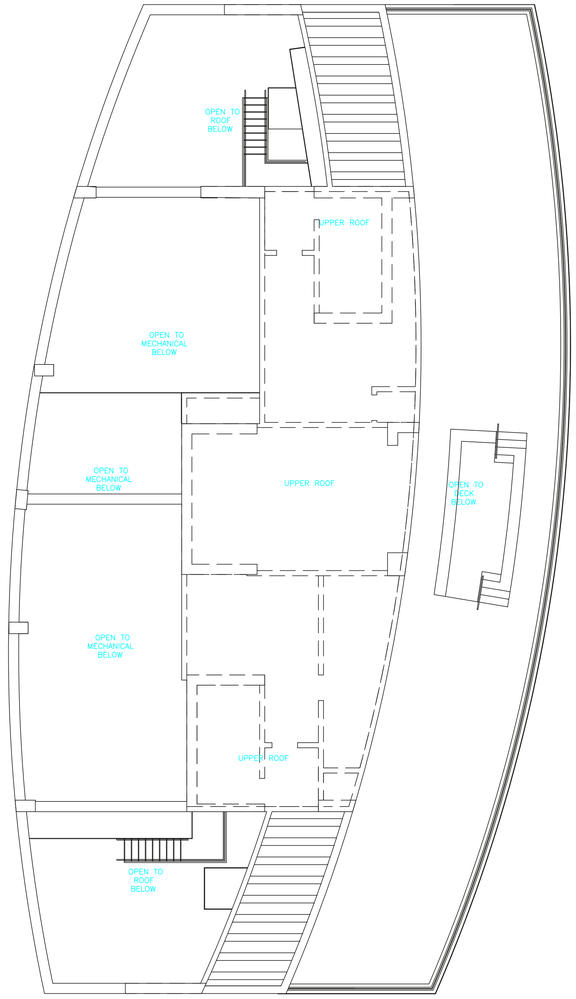
L1•D001
- SLC LOOP NUMBER
- "D" FOR DETECTOR / "M" FOR MODULE
- DEVICE ADDRESS ON SLC LOOP

N1•01
- NOTIFICATION CIRCUIT NUMBER
- DEVICE NUMBER ON CIRCUIT



1 LEVEL 39 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"



1 LEVEL 40 FLOOR PLAN

0 1' 5' 10' 15'
1/8" = 1'-0"

DEVICE LEGEND	
SYMBOL	DESCRIPTION
FACP	FIRE ALARM CONTROL PANEL
	FIREMAN'S PHONE JACK
NAC	6.0 A, 120 VAC REMOTE CHARGER POWER SUPPLY IN A LOCKABLE,METAL ENCLOSURE
DACT	WIRELESS COMMERCIAL FIRE ALARM COMMUNICATOR
FAA	ANNUNCIATOR, TERMINAL MODE. 80-CHARACTER, BACKLIT LCD DISPLAY
RTS	REMOTE TEST STATION W/ SWITCH, ALARM & POWER LEDS, KEY RESET
F WP	DUAL ACTION LEXAN STATION, OUTDOOR APPLICATIONS
F	DUAL-ACTION ADDRESSABLE PULL STATION. INCLUDES KEY LOCKING FEATURE.
DM	ADDRESSABLE DUAL MONITOR MODULE
MM	ADDRESSABLE MONITOR MODULE
MINI	ADDRESSABLE MINI MONITOR MODULE
CM	ADDRESSABLE CONTROL MODULE
RM	ADDRESSABLE RELAY MODULE
	INTELLIGENT NON-RELAY PHOTOELECTRIC DUCT DETECTOR.
	INTELLIGENT ADDRESSABLE CARBON MONOXIDE DETECTOR, WHITE
WP	HEAT DETECTOR, WEATHERPROOF, 135°F (57°C)
	LOW-PROFILE 135°F FIXED THERMAL SENSOR. FLASHSCAN ONLY.
	ADDRESSABLE LOW-PROFILE PHOTOELECTRIC SMOKE DETECTOR. FLASHSCAN ONLY.
	ALARM BELL 8" 24VDC, RED
WP	OUTDOOR SPEAKER STROBE. STANDARD CD
	SPEAKER/STROBE WALL MOUNT, WHITE
	SPEAKER/STROBE CEILING MOUNT, WHITE
	SPEAKER WALL MOUNT, WHITE
	STROBE, WHITE
SCP	SCP PANEL

ADDRESS LABEL CLARIFICATION

SLC LOOP NUMBER
"D" FOR DETECTOR / "M" FOR MODULE
DEVICE ADDRESS ON SLC LOOP

L1•D001

NOTIFICATION CIRCUIT NUMBER
DEVICE NUMBER ON CIRCUIT

N1•01

PANEL FACU-1 (NFS2-3030D (DVC)) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		4	AA-120	Audio Amplifier, 120W @25 VRMS w/built-in tone generator, 120 VAC	0.051	**0.204**	7.3	**29.2**
		1	AMPS-24	Addressable Power Supply/Battery Charger	0.13	**0.13**	0	**0**
		1	CPU2-3030D	NFS2-3030 Fire Alarm Control Panel Main Board (Central Processing Unit), 120V Power, Includes Chassis, Display Option	0.34	**0.34**	0.34	**0.34**
		1	DVC-EM	Digital Voice Command, Extended Memory	0.3	**0.3**	0.3	**0.3**
		1	DVC-KD	Digital Voice Command, Keypad	0.06	**0.06**	0.06	**0.06**
		5	LCM-320	Loop Control Module	0.13	**0.65**	0.13	**0.65**
		1	NFN-GW-EM-3	NFN Gateway, embedded	0.45	**0.45**	0.45	**0.45**
		1	UDACT-2	Universal Digital Alarm Communicator Transmitter-2	0.04	**0.04**	0.1	**0.1**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
FACU-1•A1	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0022**
	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0022**
	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0022**
	CM	3	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0066**
	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0022**
	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0022**
FACU-1•A2	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0022**
	CM	10	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.022**
FACU-1•A3	CM	11	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0242**
FACU-1•A4	CM	2	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0044**
	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0022**
	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0022**
	CM	4	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0088**
	CM	4	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0022	**0.0088**
FACU-1•AUX 1	CM	5	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0017	**0.0085**
FACU-1•AUX 2	CM	5	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.0017	**0.0085**
FACU-1•DACT	DACT	1	SLE/4G-CDMA-FIRE	Wireless Commercial Fire Alarm Communicator	0	**0**	0	**0**
FACU-1•FFT RISER		129	FPJ	Fireman's Phone Jack	0	**0**	0.02	**2.58**
FACU-1•L1		14	DNR w/FSP-951R	Intelligent Non-Relay Photoelectric Duct Detector/ FSP-951R. FlashScan and CLIP mode.	0.0002	**0.0028**	0.0045	**0.063**
	CM	15	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0.000485	**0.007275**	0.0065	**0.0975**
	DM	13	FDM-1	Addressable Dual Monitor Module W/ FlashScan, 2 Class B	0.00075	**0.00975**	0.064	**0.832**
	MM	61	FMM-1	Addressable Monitor Module W/ FlashScan, Supervises Class A or Class B of Dry Contact Input	0.000375	**0.022875**	0.005	**0.305**
	MINI	5	FMM-101	Addressable Mini Monitor Module	0.000375	**0.001875**	0.005	**0.025**
	RM	35	FRM-1	Addressable Relay Module W/ FlashScan, 2 Form-C Dry Contacts	0.000255	**0.008925**	0.0065	**0.2275**
		38	FSP-951 w/B300-6	Addressable low-profile photoelectric smoke detector. FlashScan only.	0.0002	**0.0076**	0.0045	**0.171**
		3	FST-951 w/B300-6	Low-profile 135°F fixed thermal sensor. FlashScan only.	0.0002	**0.0006**	0.0045	**0.0135**
	F	16	NBG-12LX	Dual-action addressable pull station. Includes key locking feature.	0.0003	**0.0048**	0.0003	**0.0048**
FACU-1•L2		8	DNR w/FSP-951R	Intelligent Non-Relay Photoelectric Duct Detector/ FSP-951R. FlashScan and CLIP mode.	0.0002	**0.0016**	0.0045	**0.036**
	CM	18	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0.000485	**0.00873**	0.0065	**0.117**
	DM	3	FDM-1	Addressable Dual Monitor Module W/ FlashScan, 2 Class B	0.00075	**0.00225**	0.064	**0.192**
	MM	88	FMM-1	Addressable Monitor Module W/ FlashScan, Supervises Class A or Class B of Dry Contact Input	0.000375	**0.033**	0.005	**0.44**
	MINI	3	FMM-101	Addressable Mini Monitor Module	0.000375	**0.001125**	0.005	**0.015**
	RM	16	FRM-1	Addressable Relay Module W/ FlashScan, 2 Form-C Dry Contacts	0.000255	**0.00408**	0.0065	**0.104**
		1	FSCO-951 w/B300-6	Intelligent addressable carbon monoxide detector, white w/ 6" Flanged mounting base, bright white	0.0002	**0.0002**	0.0045	**0.0045**
		35	FSP-951 w/B300-6	Addressable low-profile photoelectric smoke detector. FlashScan only.	0.0002	**0.007**	0.0045	**0.1575**
		1	FST-951 w/B300-6	Low-profile 135°F fixed thermal sensor. FlashScan only.	0.0002	**0.0002**	0.0045	**0.0045**
	F	17	NBG-12LX	Dual-action addressable pull station. Includes key locking feature.	0.0003	**0.0051**	0.0003	**0.0051**
FACU-1•L3	CM	20	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0.000485	**0.0097**	0.0065	**0.13**
	MM	112	FMM-1	Addressable Monitor Module W/ FlashScan, Supervises Class A or Class B of Dry Contact Input	0.000375	**0.042**	0.005	**0.56**
	RM	9	FRM-1	Addressable Relay Module W/ FlashScan, 2 Form-C Dry Contacts	0.000255	**0.002295**	0.0065	**0.0585**
		36	FSP-951 w/B300-6	Addressable low-profile photoelectric smoke detector. FlashScan only.	0.0002	**0.0072**	0.0045	**0.162**
	F	18	NBG-12LX	Dual-action addressable pull station. Includes key locking feature.	0.0003	**0.0054**	0.0003	**0.0054**
FACU-1•L4	CM	20	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0.000485	**0.0097**	0.0065	**0.13**
	MM	111	FMM-1	Addressable Monitor Module W/ FlashScan, Supervises Class A or Class B of Dry Contact Input	0.000375	**0.041625**	0.005	**0.555**
	RM	10	FRM-1	Addressable Relay Module W/ FlashScan, 2 Form-C Dry Contacts	0.000255	**0.00255**	0.0065	**0.065**
		36	FSP-951 w/B300-6	Addressable low-profile photoelectric smoke detector. FlashScan only.	0.0002	**0.0072**	0.0045	**0.162**
	F	18	NBG-12LX	Dual-action addressable pull station. Includes key locking feature.	0.0003	**0.0054**	0.0003	**0.0054**
FACU-1•L5		6	DNR w/FSP-951R	Intelligent Non-Relay Photoelectric Duct Detector/ FSP-951R. FlashScan and CLIP mode.	0.0002	**0.0012**	0.0045	**0.027**
	CM	20	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0.000485	**0.0097**	0.0065	**0.13**
	DM	13	FDM-1	Addressable Dual Monitor Module W/ FlashScan, 2 Class B	0.00075	**0.00975**	0.064	**0.832**
	MM	71	FMM-1	Addressable Monitor Module W/ FlashScan, Supervises Class A or Class B of Dry Contact Input	0.000375	**0.026625**	0.005	**0.355**
	MINI	5	FMM-101	Addressable Mini Monitor Module	0.000375	**0.001875**	0.005	**0.025**
	RM	21	FRM-1	Addressable Relay Module W/ FlashScan, 2 Form-C Dry Contacts	0.000255	**0.005355**	0.0065	**0.1365**
		1	FSCO-951 w/B300-6	Intelligent addressable carbon monoxide detector, white w/ 6" Flanged mounting base, bright white	0.0002	**0.0002**	0.0045	**0.0045**
		37	FSP-951 w/B300-6	Addressable low-profile photoelectric smoke detector. FlashScan only.	0.0002	**0.0074**	0.0045	**0.1665**
		4	FST-951 w/B300-6	Low-profile 135°F fixed thermal sensor. FlashScan only.	0.0002	**0.0008**	0.0045	**0.018**
	F	16	NBG-12LX	Dual-action addressable pull station. Includes key locking feature.	0.0003	**0.0048**	0.0003	**0.0048**
FACU-1•RDP	FAA	1	FDU-80	Annunciator, Terminal mode. 80-character, backlit LCD display	0	**0**	0	**0**
					TOTAL STANDBY (A)	**2.50456**	TOTAL ALARM (A)	**40.1369**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**2.50456**	24		**60.10944**	
SECONDARY ALARM LOAD (A)				**40.1369**	0.25		**10.03423**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**70.14367**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**84.1724**			
PROVIDE (2) 12V 100AH BATTERIES								

PANEL BPS-1 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 2.4336A (40.56 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-1•N1	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	1.1157	**1.1157**
BPS-1•N2	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.8157	**0.8157**
BPS-1•N3		1	SSM24-8	Alarm Bell 8" 24VDC, red	0	**0**	0.0535	**0.0535**
BPS-1•N4	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.2917	**0.2917**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**2.4336**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**2.4336**	0.25		**0.6084**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**3.9444**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.73328**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-2 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 3.8145A (63.58 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-2•N10	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	1.2647	**1.2647**
BPS-2•N6	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	1.0017	**1.0017**
BPS-2•N7	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.6677	**0.6677**
BPS-2•N8	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.5167	**0.5167**
BPS-2•N9	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.2067	**0.2067**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**3.8145**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**3.8145**	0.25		**0.95363**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**4.28963**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**5.14755**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-3 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 0.9568A (15.95 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-3•N11	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-3•N12	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-3•N13	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.4257	**0.4257**
BPS-3•N14	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**0.9568**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**0.9568**	0.25		**0.2392**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**3.5752**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.29024**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-4 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 0.9568A (15.95 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-4•N16	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-4•N17	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-4•N18	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.4257	**0.4257**
BPS-4•N19	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**0.9568**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**0.9568**	0.25		**0.2392**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**3.5752**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.29024**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-5 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 1.4298A (23.83 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-5•N21	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-5•N22	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-5•N23	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-5•N24	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.8987	**0.8987**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**1.4298**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**1.4298**	0.25		**0.35745**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**3.69345**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.43214**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-6 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 0.6558A (10.93 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-6•N26	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-6•N27	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-6•N28	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-6•N29	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**0.6558**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**0.6558**	0.25		**0.16395**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**3.49995**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.19994**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-7 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 0.9138A (15.23 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-7•N31	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.3827	**0.3827**
BPS-7•N32	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-7•N33	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-7•N34	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**0.9138**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**0.9138**	0.25		**0.22845**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**3.56445**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.27734**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-8 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 1.1288A (18.81 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-8•N36	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-8•N37	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.5977	**0.5977**
BPS-8•N38	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-8•N39	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**1.1288**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**1.1288**	0.25		**0.2822**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**3.6182**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.34184**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-9 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 2.0748A (34.58 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-9•N41	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.1247	**0.1247**
BPS-9•N42	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.6837	**0.6837**
BPS-9•N43	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.4257	**0.4257**
BPS-9•N44	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.6837	**0.6837**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**2.0748**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**2.0748**	0.25		**0.5187**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**3.8547**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.62564**			
PROVIDE (2) 12V 7AH BATTERIES								

PANEL BPS-10 (PSE-6) BATTERY CALCULATION

(SECONDARY POWER SOURCE REQUIREMENTS)

PANEL POWER SUPPLY MAX CURRENT = 6A — TOTAL USED CAPACITY (IN ALARM) = 2.9815A (49.69 %)

		QTY	PART NO.	DESCRIPTION	STANDBY CURRENT (AMPS) CURRENT DRAW (A)	STANDBY TOTAL (A)	SECONDARY ALARM CURRENT (AMPS) CURRENT DRAW (A)	SECONDARY ALARM TOTAL
PANEL COMPONENTS		1	PSE-6 MAIN BOARD	Fire Alarm Power Supply Main Board	0.139	**0.139**	0.157	**0.157**
CIRCUIT	**SYMBOL**	**QTY**	**PART NO**	**DESCRIPTION**	**CURRENT DRAW (A)**	**TOTAL (A)**	**CURRENT DRAW (A)**	**TOTAL (A)**
BPS-10•N46	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.6837	**0.6837**
BPS-10•N47	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.6117	**0.6117**
BPS-10•N48	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.9127	**0.9127**
BPS-10•N49	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.3097	**0.3097**
BPS-10•N50	CM	1	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	0	**0**	0.3067	**0.3067**
					TOTAL STANDBY (A)	**0.139**	TOTAL ALARM (A)	**2.9815**
					REQUIRED STANDBY TIME = 24 HOURS			
					REQUIRED ALARM TIME = 15 MINUTES			
SECONDARY STANDBY LOAD (A)				**0.139**	24		**3.336**	
SECONDARY ALARM LOAD (A)				**2.9815**	0.25		**0.74538**	
STANDBY AND ALARM SUBTOTAL (AMP HOURS)					**4.08138**			
DERATING FACTOR					1.2			
SECONDARY LOAD REQUIREMENTS (AMP HOURS)					**4.89765**			
PROVIDE (2) 12V 7AH BATTERIES								

BPS-1 N1 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.19363
Min. Operational Voltage:	16	End Of Line Voltage:	20.20638
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.95 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	1.1157
Total Circuit Length (Ft):	33	Spare Current (A):	1.8843
Total Circuit Resistance (Ω):	0.173546	Spare Current (A) Percent:	62.81 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	1.1157	1.1157

NAC 1 N1 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	1.71119
Min. Operational Voltage:	16	End Of Line Voltage:	18.68881
Max. Circuit Current (A):	2	Voltage Drop Percent:	8.39 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	1.114
Total Circuit Length (Ft):	295	Spare Current (A):	0.886
Total Circuit Resistance (Ω):	1.536076	Spare Current (A) Percent:	44.30 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123
		SCWL	Strobe, White 15cd	2	0.041	0.082
		SPSCWL	Speaker/Strobe Ceiling Mount, White 30cd	3	0.063	0.189
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	1	0.066	0.066
		SPSCWL	Speaker/Strobe Ceiling Mount, White 75cd	1	0.111	0.111
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 95cd	3	0.181	0.543

BPS-1 N2 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.13119
Min. Operational Voltage:	16	End Of Line Voltage:	20.26881
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.64 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.8157
Total Circuit Length (Ft):	31	Spare Current (A):	2.1843
Total Circuit Resistance (Ω):	0.160828	Spare Current (A) Percent:	72.81 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.8157	0.8157

NAC 2 N2 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.26881	Max. Voltage Drop:	1.29135
Min. Operational Voltage:	16	End Of Line Voltage:	18.97746
Max. Circuit Current (A):	2	Voltage Drop Percent:	6.37 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.814
Total Circuit Length (Ft):	305	Spare Current (A):	1.186
Total Circuit Resistance (Ω):	1.58643	Spare Current (A) Percent:	59.30 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SCWL	Strobe, White 15cd	2	0.041	0.082
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	1	0.041	0.041
		SPSCWL	Speaker/Strobe Ceiling Mount, White 30cd	2	0.063	0.126
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	2	0.066	0.132
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 30cd	1	0.094	0.094
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 75cd	1	0.158	0.158
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 95cd	1	0.181	0.181

BPS-1 N3 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03349
Min. Operational Voltage:	16	End Of Line Voltage:	20.36651
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.16 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.0535
Total Circuit Length (Ft):	120	Spare Current (A):	2.9465
Total Circuit Resistance (Ω):	0.625993	Spare Current (A) Percent:	98.22 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SSM24-8	Alarm Bell 8" 24VDC, red	1	0.0535	0.0535

BPS-1 N4 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.05842
Min. Operational Voltage:	16	End Of Line Voltage:	20.34158
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.29 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.2917
Total Circuit Length (Ft):	39	Spare Current (A):	2.7083
Total Circuit Resistance (Ω):	0.200263	Spare Current (A) Percent:	90.28 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.2917	0.2917

NAC 4 N4 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.34158	Max. Voltage Drop:	0.25492
Min. Operational Voltage:	16	End Of Line Voltage:	20.08667
Max. Circuit Current (A):	2	Voltage Drop Percent:	1.25 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.29
Total Circuit Length (Ft):	169	Spare Current (A):	1.71
Total Circuit Resistance (Ω):	0.879025	Spare Current (A) Percent:	85.50 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	4	0.041	0.164
		SPSCWL	Speaker/Strobe Ceiling Mount, White 30cd	2	0.063	0.126

BPS-2 N6 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03657
Min. Operational Voltage:	16	End Of Line Voltage:	20.36344
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.18 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	1.0017
Total Circuit Length (Ft):	7	Spare Current (A):	1.9983
Total Circuit Resistance (Ω):	0.036503	Spare Current (A) Percent:	66.61 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	1.0017	1.0017

NAC 6 N6 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.36344	Max. Voltage Drop:	2.00317
Min. Operational Voltage:	16	End Of Line Voltage:	18.36027
Max. Circuit Current (A):	2	Voltage Drop Percent:	9.84 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	1
Total Circuit Length (Ft):	385	Spare Current (A):	1
Total Circuit Resistance (Ω):	2.003168	Spare Current (A) Percent:	50.00 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	7	0.041	0.287
		SCWL	Strobe, White 15cd	3	0.041	0.123
		SPSCWL	Speaker/Strobe Ceiling Mount, White 30cd	3	0.063	0.189
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	2	0.066	0.132
		SPSCWL	Speaker/Strobe Ceiling Mount, White 75cd	1	0.111	0.111
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 75cd	1	0.158	0.158

BPS-2 N7 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.14842
Min. Operational Voltage:	16	End Of Line Voltage:	20.25158
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.73 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.6677
Total Circuit Length (Ft):	43	Spare Current (A):	2.3323
Total Circuit Resistance (Ω):	0.222285	Spare Current (A) Percent:	77.74 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.6677	0.6677

NAC 7 N7 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.25158	Max. Voltage Drop:	0.78103
Min. Operational Voltage:	16	End Of Line Voltage:	19.47055
Max. Circuit Current (A):	2	Voltage Drop Percent:	3.86 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.666
Total Circuit Length (Ft):	226	Spare Current (A):	1.334
Total Circuit Resistance (Ω):	1.172723	Spare Current (A) Percent:	66.70 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123
		SCWL	Strobe, White 15cd	4	0.041	0.164
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	1	0.066	0.066
		SPSCWL	Speaker/Strobe Ceiling Mount, White 75cd	1	0.111	0.111
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 110cd	1	0.202	0.202

BPS-2 N8 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.14172
Min. Operational Voltage:	16	End Of Line Voltage:	20.25828
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.69 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.5167
Total Circuit Length (Ft):	53	Spare Current (A):	2.4833
Total Circuit Resistance (Ω):	0.274285	Spare Current (A) Percent:	82.78 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.5167	0.5167

NAC 8 N8 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.25828	Max. Voltage Drop:	0.59773
Min. Operational Voltage:	16	End Of Line Voltage:	19.66055
Max. Circuit Current (A):	2	Voltage Drop Percent:	2.95 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.515
Total Circuit Length (Ft):	223	Spare Current (A):	1.485
Total Circuit Resistance (Ω):	1.160642	Spare Current (A) Percent:	74.25 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	4	0.041	0.164
		SCWL	Strobe, White 15cd	2	0.041	0.082
		SCWL	Strobe, White 75cd	1	0.111	0.111
		SPSCWL	Speaker/Strobe Ceiling Mount, White 115cd	1	0.158	0.158

BPS-2 N9 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.06744
Min. Operational Voltage:	16	End Of Line Voltage:	20.33256
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.33 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.2067
Total Circuit Length (Ft):	63	Spare Current (A):	2.7933
Total Circuit Resistance (Ω):	0.326285	Spare Current (A) Percent:	93.11 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.2067	0.2067

NAC 9 N9 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.33256	Max. Voltage Drop:	0.16904
Min. Operational Voltage:	16	End Of Line Voltage:	20.16352
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.83 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.205
Total Circuit Length (Ft):	159	Spare Current (A):	1.795
Total Circuit Resistance (Ω):	0.82456	Spare Current (A) Percent:	89.75 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123
		SCWL	Strobe, White 15cd	2	0.041	0.082

BPS-2 N10 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.47842
Min. Operational Voltage:	16	End Of Line Voltage:	19.92158
Max. Circuit Current (A):	3	Voltage Drop Percent:	2.35 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	1.2647
Total Circuit Length (Ft):	73	Spare Current (A):	1.7353
Total Circuit Resistance (Ω):	0.378285	Spare Current (A) Percent:	57.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	1.2647	1.2647

NAC 10 N10 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	19.92158	Max. Voltage Drop:	2.46777
Min. Operational Voltage:	16	End Of Line Voltage:	17.45381
Max. Circuit Current (A):	2	Voltage Drop Percent:	12.39 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	1.263
Total Circuit Length (Ft):	376	Spare Current (A):	0.737
Total Circuit Resistance (Ω):	1.953898	Spare Current (A) Percent:	36.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	2	0.041	0.082
		SCWL	Strobe, White 15cd	5	0.041	0.205
		SPSCWL	Speaker/Strobe Ceiling Mount, White 30cd	3	0.063	0.189
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	5	0.066	0.33
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 30cd	2	0.094	0.188
		SPSCWL	Speaker/Strobe Ceiling Mount, White 75cd	1	0.111	0.111
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 75cd	1	0.158	0.158

BPS-3 N11 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.00738
Min. Operational Voltage:	16	End Of Line Voltage:	20.39262
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.04 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	11	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.059217	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 11 N11 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.39262	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.32235
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

BPS-3 N12 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03002
Min. Operational Voltage:	16	End Of Line Voltage:	20.36998
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.15 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	46	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.240749	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 12 N12 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.36998	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.29971
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

BPS-3 N13 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.12462
Min. Operational Voltage:	16	End Of Line Voltage:	20.27538
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.61 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.4257
Total Circuit Length (Ft):	56	Spare Current (A):	2.5743
Total Circuit Resistance (Ω):	0.292749	Spare Current (A) Percent:	85.81 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.4257	0.4257

NAC 13 N13 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.27538	Max. Voltage Drop:	0.5257
Min. Operational Voltage:	16	End Of Line Voltage:	19.74968
Max. Circuit Current (A):	2	Voltage Drop Percent:	2.59 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.424
Total Circuit Length (Ft):	238	Spare Current (A):	1.576
Total Circuit Resistance (Ω):	1.239858	Spare Current (A) Percent:	78.80 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	7	0.043	0.301

BPS-3 N14 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.04299
Min. Operational Voltage:	16	End Of Line Voltage:	20.35701
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.21 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	66	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.344749	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 14 N14 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.35701	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.28674
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

Calculation Methods:

Total Resistance (Ω) = Wire Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)

Total Voltage Drop = Total Resistance (Ω) x Total Circuit Current (A)

BPS-4 N16 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.00738
Min. Operational Voltage:	16	End Of Line Voltage:	20.39262
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.04 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	11	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.059217	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 16 N16 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.39262	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.32235
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

BPS-4 N17 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03002
Min. Operational Voltage:	16	End Of Line Voltage:	20.36998
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.15 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	46	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.240749	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 17 N17 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.36998	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.29971
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

BPS-4 N18 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.12421
Min. Operational Voltage:	16	End Of Line Voltage:	20.2758
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.61 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.4257
Total Circuit Length (Ft):	56	Spare Current (A):	2.5743
Total Circuit Resistance (Ω):	0.291767	Spare Current (A) Percent:	85.81 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.4257	0.4257

NAC 18 N18 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.27579	Max. Voltage Drop:	0.52563
Min. Operational Voltage:	16	End Of Line Voltage:	19.75016
Max. Circuit Current (A):	2	Voltage Drop Percent:	2.59 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.424
Total Circuit Length (Ft):	238	Spare Current (A):	1.576
Total Circuit Resistance (Ω):	1.239696	Spare Current (A) Percent:	78.80 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	7	0.043	0.301

BPS-4 N19 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.04299
Min. Operational Voltage:	16	End Of Line Voltage:	20.35701
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.21 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	66	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.344749	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 19 N19 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.35701	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.28674
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

BPS-5 N21 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.00738
Min. Operational Voltage:	16	End Of Line Voltage:	20.39262
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.04 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	11	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.059217	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 21 N21 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.39262	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.32235
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

BPS-5 N22 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03002
Min. Operational Voltage:	16	End Of Line Voltage:	20.36998
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.15 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	46	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.240749	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 22 N22 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.36998	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.29971
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

BPS-5 N23 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03651
Min. Operational Voltage:	16	End Of Line Voltage:	20.36349
Max. Circuit Current (A):	3	Voltage Drop Percent:	0.18 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Total Circuit Length (Ft):	56	Spare Current (A):	2.8753
Total Circuit Resistance (Ω):	0.292749	Spare Current (A) Percent:	95.84 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247

NAC 23 N23 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.3635	Max. Voltage Drop:	0.07027
Min. Operational Voltage:	16	End Of Line Voltage:	20.29323
Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Total Circuit Length (Ft):	110	Spare Current (A):	1.877
Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123

BPS-5 N24 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.30894
Min. Operational Voltage:	16	End Of Line Voltage:	20.09106
Max. Circuit Current (A):	3	Voltage Drop Percent:	1.51 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.8987
Total Circuit Length (Ft):	66	Spare Current (A):	2.1013
Total Circuit Resistance (Ω):	0.343767	Spare Current (A) Percent:	70.04 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.8987	0.8987

NAC 24 N24 LUMP SUM REPORT

Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.09106	Max. Voltage Drop:	1.88026
Min. Operational Voltage:	16	End Of Line Voltage:	18.21079
Max. Circuit Current (A):	2	Voltage Drop Percent:	9.36 %
Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.897
Total Circuit Length (Ft):	403	Spare Current (A):	1.103
Total Circuit Resistance (Ω):	2.09617	Spare Current (A) Percent:	55.15 %

DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	18	0.043	0.774

BPS-6 N26 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.00738
				Min. Operational Voltage:	16	End Of Line Voltage:	20.39262
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.04 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	11	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.059217	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 26 N26 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.39262	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.32235
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-6 N27 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03002
				Min. Operational Voltage:	16	End Of Line Voltage:	20.36998
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.15 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	46	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.240749	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 27 N27 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.36998	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.29971
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-6 N28 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03651
				Min. Operational Voltage:	16	End Of Line Voltage:	20.36349
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.18 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	56	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.292749	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 28 N28 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.3635	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.29323
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-6 N29 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.04299
				Min. Operational Voltage:	16	End Of Line Voltage:	20.35701
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.21 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	66	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.344749	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 29 N29 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.35701	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.28674
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-7 N31 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.02266
				Min. Operational Voltage:	16	End Of Line Voltage:	20.37734
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.11 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.3827
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	11	Spare Current (A):	2.6173
				Total Circuit Resistance (Ω):	0.059217	Spare Current (A) Percent:	87.24 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.3827	0.3827	

NAC 31 N31 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.37734	Max. Voltage Drop:	0.40899
				Min. Operational Voltage:	16	End Of Line Voltage:	19.96835
				Max. Circuit Current (A):	2	Voltage Drop Percent:	2.01 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.381
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	206	Spare Current (A):	1.619
				Total Circuit Resistance (Ω):	1.073456	Spare Current (A) Percent:	80.95 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	6	0.043	0.258	

BPS-7 N32 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03002
				Min. Operational Voltage:	16	End Of Line Voltage:	20.36998
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.15 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	46	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.240749	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 32 N32 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.36998	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.29971
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-7 N33 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03651
				Min. Operational Voltage:	16	End Of Line Voltage:	20.36349
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.18 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	56	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.292749	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 33 N33 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.3635	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.29323
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-7 N34 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.04299
				Min. Operational Voltage:	16	End Of Line Voltage:	20.35701
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.21 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	66	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.344749	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 34 N34 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.35701	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.28674
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-8 N36 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.00738
				Min. Operational Voltage:	16	End Of Line Voltage:	20.39262
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.04 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	11	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.059217	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 36 N36 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.39262	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.32235
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-8 N37 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.1439
				Min. Operational Voltage:	16	End Of Line Voltage:	20.2561
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.71 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.5977
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	46	Spare Current (A):	2.4023
				Total Circuit Resistance (Ω):	0.240749	Spare Current (A) Percent:	80.08 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.5977	0.5977	

NAC 37 N37 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.25611	Max. Voltage Drop:	1.02997
				Min. Operational Voltage:	16	End Of Line Voltage:	19.22614
				Max. Circuit Current (A):	2	Voltage Drop Percent:	5.08 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.596
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	332	Spare Current (A):	1.404
				Total Circuit Resistance (Ω):	1.728133	Spare Current (A) Percent:	70.20 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	11	0.043	0.473	

BPS-8 N38 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.03651
				Min. Operational Voltage:	16	End Of Line Voltage:	20.36349
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.18 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	56	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.292749	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 38 N38 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.3635	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.29323
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-8 N39 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.04299
				Min. Operational Voltage:	16	End Of Line Voltage:	20.35701
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.21 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	66	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.344749	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 39 N39 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.35701	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.28674
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.35 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-9 N41 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.00738
				Min. Operational Voltage:	16	End Of Line Voltage:	20.39262
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.04 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.1247
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	11	Spare Current (A):	2.8753
				Total Circuit Resistance (Ω):	0.059217	Spare Current (A) Percent:	95.84 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.1247	0.1247	

NAC 41 N41 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.39262	Max. Voltage Drop:	0.07027
				Min. Operational Voltage:	16	End Of Line Voltage:	20.32235
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.34 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.123
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	110	Spare Current (A):	1.877
				Total Circuit Resistance (Ω):	0.571274	Spare Current (A) Percent:	93.85 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	

BPS-9 N42 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.1646
				Min. Operational Voltage:	16	End Of Line Voltage:	20.2354
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.81 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.6837
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	46	Spare Current (A):	2.3163
				Total Circuit Resistance (Ω):	0.240749	Spare Current (A) Percent:	77.21 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.6837	0.6837	

NAC 42 N42 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.2354	Max. Voltage Drop:	1.10954
				Min. Operational Voltage:	16	End Of Line Voltage:	19.12586
				Max. Circuit Current (A):	2	Voltage Drop Percent:	5.48 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.682
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	313	Spare Current (A):	1.318
				Total Circuit Resistance (Ω):	1.626891	Spare Current (A) Percent:	65.90 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	13	0.043	0.559	

BPS-9 N43 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.12421
				Min. Operational Voltage:	16	End Of Line Voltage:	20.2758
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.61 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.4257
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	56	Spare Current (A):	2.5743
				Total Circuit Resistance (Ω):	0.291767	Spare Current (A) Percent:	85.81 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.4257	0.4257	

NAC 43 N43 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.27579	Max. Voltage Drop:	0.51311
				Min. Operational Voltage:	16	End Of Line Voltage:	19.76269
				Max. Circuit Current (A):	2	Voltage Drop Percent:	2.53 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.424
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	233	Spare Current (A):	1.576
				Total Circuit Resistance (Ω):	1.210155	Spare Current (A) Percent:	78.80 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	7	0.043	0.301	

BPS-9 N44 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.23571
				Min. Operational Voltage:	16	End Of Line Voltage:	20.1643
				Max. Circuit Current (A):	3	Voltage Drop Percent:	1.16 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.6837
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	66	Spare Current (A):	2.3163
				Total Circuit Resistance (Ω):	0.344749	Spare Current (A) Percent:	77.21 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.6837	0.6837	

NAC 44 N44 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.1643	Max. Voltage Drop:	1.10522
				Min. Operational Voltage:	16	End Of Line Voltage:	19.05908
				Max. Circuit Current (A):	2	Voltage Drop Percent:	5.48 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.682
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	312	Spare Current (A):	1.318
				Total Circuit Resistance (Ω):	1.620554	Spare Current (A) Percent:	65.90 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	13	0.043	0.559	

BPS-10 N46 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.04049
				Min. Operational Voltage:	16	End Of Line Voltage:	20.35951
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.20 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.6837
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	11	Spare Current (A):	2.3163
				Total Circuit Resistance (Ω):	0.059217	Spare Current (A) Percent:	77.21 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.6837	0.6837	

NAC 46 N46 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.35951	Max. Voltage Drop:	1.10522
				Min. Operational Voltage:	16	End Of Line Voltage:	19.2543
				Max. Circuit Current (A):	2	Voltage Drop Percent:	5.43 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.682
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	312	Spare Current (A):	1.318
				Total Circuit Resistance (Ω):	1.620554	Spare Current (A) Percent:	65.90 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	3	0.041	0.123	
		SPSWL	Speaker/Strobe Wall Mount, White 15cd	13	0.043	0.559	

BPS-10 N47 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.13177
				Min. Operational Voltage:	16	End Of Line Voltage:	20.26823
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.65 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.6117
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	41	Spare Current (A):	2.3883
				Total Circuit Resistance (Ω):	0.215409	Spare Current (A) Percent:	79.61 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.6117	0.6117	

NAC 47 N47 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.26823	Max. Voltage Drop:	0.67156
				Min. Operational Voltage:	16	End Of Line Voltage:	19.59668
				Max. Circuit Current (A):	2	Voltage Drop Percent:	3.31 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.61
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	212	Spare Current (A):	1.39
				Total Circuit Resistance (Ω):	1.100913	Spare Current (A) Percent:	69.50 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	2	0.041	0.082	
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	8	0.066	0.528	

BPS-10 N48 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.22033
				Min. Operational Voltage:	16	End Of Line Voltage:	20.17967
				Max. Circuit Current (A):	3	Voltage Drop Percent:	1.08 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.9127
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	46	Spare Current (A):	2.0873
				Total Circuit Resistance (Ω):	0.241409	Spare Current (A) Percent:	69.58 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.9127	0.9127	

NAC 48 N48 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.17967	Max. Voltage Drop:	1.12643
				Min. Operational Voltage:	16	End Of Line Voltage:	19.05323
				Max. Circuit Current (A):	2	Voltage Drop Percent:	5.58 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.911
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	238	Spare Current (A):	1.089
				Total Circuit Resistance (Ω):	1.236479	Spare Current (A) Percent:	54.45 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	2	0.041	0.082	
		SCWL	Strobe, White 15cd	3	0.041	0.123	
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	5	0.066	0.33	
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 30cd	4	0.094	0.376	

BPS-10 N49 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.09087
				Min. Operational Voltage:	16	End Of Line Voltage:	20.30913
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.45 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.3097
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	56	Spare Current (A):	2.6903
				Total Circuit Resistance (Ω):	0.293409	Spare Current (A) Percent:	89.68 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.3097	0.3097	

NAC 49 N49 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.30913	Max. Voltage Drop:	0.16504
				Min. Operational Voltage:	16	End Of Line Voltage:	20.14409
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.81 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.308
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	103	Spare Current (A):	1.692
				Total Circuit Resistance (Ω):	0.535846	Spare Current (A) Percent:	84.60 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	2	0.041	0.082	
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	2	0.066	0.132	
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 30cd	1	0.094	0.094	

BPS-10 N50 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.4	Max. Voltage Drop:	0.10716
				Min. Operational Voltage:	16	End Of Line Voltage:	20.29284
				Max. Circuit Current (A):	3	Voltage Drop Percent:	0.53 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.3067
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	67	Spare Current (A):	2.6933
				Total Circuit Resistance (Ω):	0.349391	Spare Current (A) Percent:	89.78 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
	CM	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	1	0.3067	0.3067	

NAC 50 N50 LUMP SUM REPORT				CIRCUIT SETTINGS		TOTALS	
				Starting Calculation Voltage:	20.29284	Max. Voltage Drop:	0.16137
				Min. Operational Voltage:	16	End Of Line Voltage:	20.13147
				Max. Circuit Current (A):	2	Voltage Drop Percent:	0.80 %
				Wire Resistance (Ω/kFt):	2.6	Total Circuit Current (A):	0.305
Circuit Wiring Properties: 'V' 14/2 FPLP (NAC) 14 AWG, NAC - 2 Cond. Solid Copper FPLP Analog Unshielded				Total Circuit Length (Ft):	102	Spare Current (A):	1.695
				Total Circuit Resistance (Ω):	0.529076	Spare Current (A) Percent:	84.75 %
DEVICE TOTALS	Symbol	Part No.	Description	Qty.	Device Current (A)	Total Current (A)	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 15cd	2	0.041	0.082	
		SPSCWL	Speaker/Strobe Ceiling Mount, White 30cd	1	0.063	0.063	
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 15cd	1	0.066	0.066	
	WP	SPSWK	Outdoor Speaker Strobe, Standard cd 30cd	1	0.094	0.094	

FACU-1 A1 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	25	Max. dB Loss:	-1.312894
Min. Operational Voltage:	22.3	End Of Line Voltage:	21.49292
Max. Circuit Watts:	120	Voltage Drop Percent:	14.03 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	54
Total Circuit Length (Ft):	356	Spare Watts:	66 W
Total Circuit Resistance (Ω):	2.922857 Ω	Spare Watts Percent:	55.00 %

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
A1•01	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	6.5	0.26	54	58	0.478753	1.03411	23.96589	1.03411	4.14 %	-0.366927	-0.366927
A1•02	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	9.5	0.38	47.5	72	0.593954	1.12851	22.83738	2.16262	8.65 %	-0.418947	-0.785874
A1•03	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	6.5	0.26	38	2	0.017402	0.02645	22.81093	2.18907	8.76 %	-0.010066	-0.79594
A1•04	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	3.5	0.14	31.5	40	0.152215	0.19179	22.39762	2.60239	10.41 %	-0.074061	-0.870001
A1•05	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	10.5	0.42	28	42	0.152215	0.17048	22.01073	2.98927	11.96 %	-0.067016	-0.937017
A1•06	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	6.5	0.26	17.5	47	0.152215	0.10655	21.74023	3.25977	13.04 %	-0.042466	-0.979484
A1•07	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	6	0.24	11	47	0.152215	0.06698	21.5702	3.4298	13.72 %	-0.026928	-1.006411
A1•08 EOL	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	5	0.2	5	47	0.152215	0.03044	21.49292	3.50709	14.03 %	-0.012294	-1.018705

SPK 1 S1 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	22.83738	Max. dB Loss:	-0.332373
Min. Operational Voltage:	22.3	End Of Line Voltage:	21.98
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.75 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	9.5
Total Circuit Length (Ft):	529	Spare Watts:	
Total Circuit Resistance (Ω):	4.335115 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S1•01	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	9.5	38	0.312092	0.1186	22.71879	0.1186	0.52 %	-0.045224	-0.045224
S1•02	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	9	26	0.214121	0.07708	22.6417	0.19568	0.86 %	-0.029521	-0.074745
S1•03	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	8.5	20	0.163047	0.05544	22.58627	0.25112	1.10 %	-0.021293	-0.096037
S1•04	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	8	19	0.153639	0.04916	22.5371	0.30028	1.31 %	-0.018927	-0.114965
S1•05	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	7.5	27	0.219145	0.06574	22.47136	0.36602	1.60 %	-0.025375	-0.14034
S1•06	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	7	32	0.265562	0.07436	22.397	0.44038	1.93 %	-0.028789	-0.169129
S1•07	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	6.5	28	0.226649	0.05893	22.33807	0.49931	2.19 %	-0.022884	-0.192012
S1•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	6	26	0.213695	0.05129	22.28679	0.5506	2.41 %	-0.019965	-0.211977
S1•09	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	5.5	11	0.089139	0.01961	22.26717	0.57021	2.50 %	-0.007646	-0.219624
S1•10	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	5	42	0.34157	0.06831	22.19886	0.63852	2.80 %	-0.026689	-0.246313
S1•11	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	4.5	17	0.143097	0.02576	22.1731	0.66428	2.91 %	-0.010084	-0.256396
S1•12	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	4	26	0.216618	0.03466	22.13844	0.69894	3.06 %	-0.013588	-0.269984
S1•13	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	3.5	46	0.374486	0.05243	22.08602	0.75137	3.29 %	-0.020594	-0.290578
S1•14	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	3	27	0.221468	0.02658	22.05944	0.77794	3.41 %	-0.010458	-0.301036
S1•15	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	2.5	49	0.402403	0.04024	22.0192	0.81818	3.58 %	-0.015859	-0.316895
S1•16	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	2	21	0.170518	0.01364	22.00556	0.83182	3.64 %	-0.005383	-0.322278
S1•17	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.021894	1.5	30	0.245697	0.01474	21.99082	0.84656	3.71 %	-0.005821	-0.328099
S1•18	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	1	22	0.178859	0.00715	21.98366	0.85372	3.74 %	-0.002826	-0.330925
S1•19 EOL	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.021894	0.5	22	0.18331	0.00367	21.98	0.85738	3.75 %	-0.001449	-0.332373

SPK 1.5 S1.5 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	22.39762	Max. dB Loss:	-0.120366
Min. Operational Voltage:	22.3	End Of Line Voltage:	22.08938
Max. Circuit Watts:	n/a	Voltage Drop Percent:	1.38 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	3.5
Total Circuit Length (Ft):	373	Spare Watts:	
Total Circuit Resistance (Ω):	3.05735 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S1.5•01	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.022324	3.5	110	0.901225	0.12617	22.27144	0.12617	0.56 %	-0.049068	-0.049068
S1.5•02	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022324	3	105	0.857874	0.10295	22.1685	0.22912	1.02 %	-0.040242	-0.08931
S1.5•03	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022324	2.5	31	0.253496	0.02535	22.14315	0.25447	1.14 %	-0.009938	-0.099248
S1.5•04	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022324	2	26	0.215131	0.01721	22.12594	0.27168	1.21 %	-0.006753	-0.106002
S1.5•05	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022324	1.5	45	0.372379	0.02234	22.1036	0.29402	1.31 %	-0.008776	-0.114777
S1.5•06	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022324	1	31	0.253568	0.01014	22.09345	0.30416	1.36 %	-0.003987	-0.118764
S1.5•07 EOL	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022324	0.5	25	0.203677	0.00407	22.08938	0.30824	1.38 %	-0.001602	-0.120366

SPK 2 S2 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	22.01073	Max. dB Loss:	-0.428219
Min. Operational Voltage:	22.3	End Of Line Voltage:	20.95191
Max. Circuit Watts:	n/a	Voltage Drop Percent:	4.81 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	10.5
Total Circuit Length (Ft):	611	Spare Watts:	
Total Circuit Resistance (Ω):	5.011597 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S2•01	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.022716	10.5	4	0.036797	0.01546	21.99528	0.01546	0.07 %	-0.006101	-0.006101
S2•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	10	38	0.315655	0.12626	21.86902	0.14172	0.64 %	-0.050004	-0.056105
S2•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	9.75	0	0.003331	0.0013	21.86772	0.14302	0.65 %	-0.000516	-0.056621
S2•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	9.5	18	0.149229	0.05671	21.81101	0.19972	0.91 %	-0.022553	-0.079175
S2•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	9.25	24	0.197219	0.07297	21.73804	0.27269	1.24 %	-0.029108	-0.108283
S2•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	9	0	0.003331	0.0012	21.73684	0.27389	1.24 %	-0.000479	-0.108762
S2•07	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	8.75	25	0.208159	0.07286	21.66398	0.34675	1.58 %	-0.029162	-0.137924
S2•08	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	8.25	37	0.30094	0.09931	21.56467	0.44606	2.03 %	-0.039909	-0.177832
S2•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	8	0	0.003338	0.00107	21.56361	0.44713	2.03 %	-0.00043	-0.178262
S2•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	7.75	19	0.159279	0.04938	21.51423	0.4965	2.26 %	-0.019912	-0.198174
S2•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	7.5	18	0.151017	0.04531	21.46893	0.54181	2.46 %	-0.01831	-0.216484
S2•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	7.25	26	0.213073	0.06179	21.40713	0.6036	2.74 %	-0.025035	-0.24152
S2•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	7	0	0.003331	0.00093	21.4062	0.60453	2.75 %	-0.000379	-0.241898
S2•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	6.75	27	0.218795	0.05908	21.34713	0.66361	3.01 %	-0.024004	-0.265902
S2•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	6.5	0	0.003331	0.00087	21.34626	0.66447	3.02 %	-0.000352	-0.266254
S2•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011358	6.25	20	0.160678	0.04017	21.30609	0.70464	3.20 %	-0.016361	-0.282615
S2•17	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	6	30	0.244751	0.05874	21.24735	0.76338	3.47 %	-0.02398	-0.306595
S2•18	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.022716	5.5	15	0.125808	0.02768	21.21967	0.79106	3.59 %	-0.011322	-0.317917
S2•19	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.022716	5	34	0.274759	0.05495	21.16472	0.84601	3.84 %	-0.022523	-0.34044
S2•20	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	4.5	35	0.285905	0.05146	21.11326	0.89748	4.08 %	-0.021146	-0.361585
S2•21	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	4	29	0.234664	0.03755	21.07571	0.93502	4.25 %	-0.01546	-0.377045
S2•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	3.5	14	0.11386	0.01594	21.05977	0.95096	4.32 %	-0.006572	-0.383617
S2•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	3	28	0.227215	0.02727	21.03251	0.97823	4.44 %	-0.011253	-0.39487
S2•24	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	2.5	32	0.261613	0.02616	21.00634	1.00439	4.56 %	-0.010811	-0.405681
S2•25	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	2	38	0.310818	0.02487	20.98148	1.02925	4.68 %	-0.010287	-0.415968
S2•26	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	1.5	21	0.175703	0.01054	20.97094	1.0398	4.72 %	-0.004365	-0.420333
S2•27	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	1	39	0.32256	0.0129	20.95804	1.0527	4.78 %	-0.005345	-0.425679
S2•28 EOL	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022716	0.5	37	0.306438	0.00613	20.95191	1.05883	4.81 %	-0.00254	-0.428219

SPK 3 S3 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	21.74023	Max. dB Loss:	-0.207637
Min. Operational Voltage:	22.3	End Of Line Voltage:	21.22669
Max. Circuit Watts:	n/a	Voltage Drop Percent:	2.36 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	6.5
Total Circuit Length (Ft):	466	Spare Watts:	
Total Circuit Resistance (Ω):	3.819544 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S3•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	6.5	40	0.329884	0.08577	21.65446	0.08577	0.39 %	-0.034336	-0.034336
S3•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	6.25	0	0.003331	0.00083	21.65363	0.0866	0.40 %	-0.000334	-0.03467
S3•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	6	18	0.149229	0.03582	21.61781	0.12242	0.56 %	-0.014378	-0.049048
S3•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	5.75	24	0.197219	0.04536	21.57245	0.16778	0.77 %	-0.018244	-0.067292
S3•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	5.5	0	0.003331	0.00073	21.57172	0.16851	0.78 %	-0.000295	-0.067588
S3•06	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022999	5.25	25	0.206347	0.04333	21.52839	0.21184	0.97 %	-0.017466	-0.085053
S3•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	4.75	37	0.305436	0.05803	21.47035	0.26988	1.24 %	-0.023446	-0.108499
S3•08	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	4.5	0	0.003338	0.0006	21.46975	0.27048	1.24 %	-0.000243	-0.108742
S3•09	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022999	4.25	36	0.295092	0.05017	21.41959	0.32064	1.47 %	-0.020319	-0.129061
S3•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	3.75	30	0.243826	0.03657	21.38301	0.35722	1.64 %	-0.014844	-0.143905
S3•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	3.5	18	0.151017	0.02114	21.36187	0.37836	1.74 %	-0.008592	-0.152497
S3•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	3.25	26	0.213073	0.0277	21.33417	0.40606	1.87 %	-0.01127	-0.163767
S3•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	3	0	0.003331	0.0004	21.33377	0.40646	1.87 %	-0.000163	-0.16393
S3•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	2.75	27	0.218795	0.02407	21.30971	0.43053	1.98 %	-0.009804	-0.173734
S3•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	2.5	0	0.003331	0.00033	21.30937	0.43086	1.98 %	-0.000136	-0.17387
S3•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011499	2.25	20	0.160678	0.01446	21.29491	0.44532	2.05 %	-0.005896	-0.179767
S3•17	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.022999	2	34	0.276326	0.02211	21.27281	0.46743	2.15 %	-0.009021	-0.188788
S3•18	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.022999	1.5	65	0.535083	0.03211	21.2407	0.49953	2.30 %	-0.013119	-0.201907
S3•19	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022999	1	22	0.179577	0.00718	21.23352	0.50671	2.33 %	-0.002938	-0.204844
S3•20 EOL	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.022999	0.5	42	0.3413	0.00683	21.22669	0.51354	2.36 %	-0.002793	-0.207637

SPK 4 S4 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	21.5702	Max. dB Loss:	-0.14868
Min. Operational Voltage:	22.3	End Of Line Voltage:	21.20412
Max. Circuit Watts:	n/a	Voltage Drop Percent:	1.70 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	6
Total Circuit Length (Ft):	364	Spare Watts:	
Total Circuit Resistance (Ω):	2.98136 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S4•01	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02318	6	10	0.08336	0.02001	21.5502	0.02001	0.09 %	-0.00806	-0.00806
S4•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	5.5	41	0.334992	0.0737	21.4765	0.0937	0.43 %	-0.029755	-0.037815
S4•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	5.25	0	0.003331	0.0007	21.4758	0.0944	0.44 %	-0.000283	-0.038098
S4•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	5	18	0.149229	0.02985	21.44595	0.12425	0.58 %	-0.01208	-0.050178
S4•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	4.75	24	0.197219	0.03747	21.40848	0.16172	0.75 %	-0.01519	-0.065368
S4•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	4.5	0	0.003331	0.0006	21.40788	0.16232	0.75 %	-0.000243	-0.065611
S4•07	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02318	4.25	26	0.215372	0.03661	21.37127	0.19894	0.92 %	-0.014868	-0.080479
S4•08	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	3.75	37	0.300522	0.04508	21.32619	0.24401	1.13 %	-0.01834	-0.098819
S4•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	3.5	0	0.003338	0.00047	21.32572	0.24448	1.13 %	-0.00019	-0.099009
S4•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	3.25	19	0.159279	0.02071	21.30502	0.26519	1.23 %	-0.008438	-0.107447
S4•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	3	18	0.151017	0.01812	21.28689	0.28331	1.31 %	-0.007391	-0.114838
S4•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	2.75	26	0.213073	0.02344	21.26346	0.30675	1.42 %	-0.009569	-0.124407
S4•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	2.5	0	0.003331	0.00033	21.26312	0.30708	1.42 %	-0.000136	-0.124543
S4•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	2.25	27	0.218795	0.01969	21.24343	0.32677	1.51 %	-0.008048	-0.132591
S4•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	2	0	0.003331	0.00027	21.24316	0.32704	1.52 %	-0.000109	-0.1327
S4•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01159	1.75	20	0.160678	0.01125	21.23192	0.33828	1.57 %	-0.0046	-0.1373
S4•17	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02318	1.5	22	0.178914	0.01074	21.22118	0.34902	1.62 %	-0.004393	-0.141692
S4•18	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02318	1	31	0.251087	0.01004	21.21114	0.35906	1.66 %	-0.004112	-0.145804
S4•19 EOL	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02318	0.5	43	0.351161	0.00702	21.20412	0.36609	1.70 %	-0.002876	-0.14868

SPK 5 S5 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	21.49292	Max. dB Loss:	-0.116864
Min. Operational Voltage:	22.3	End Of Line Voltage:	21.20568
Max. Circuit Watts:	n/a	Voltage Drop Percent:	1.34 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	5
Total Circuit Length (Ft):	310	Spare Watts:	
Total Circuit Resistance (Ω):	2.545021 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S5•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	5	40	0.329884	0.06598	21.42694	0.06598	0.31 %	-0.026704	-0.026704
S5•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	4.75	0	0.003331	0.00063	21.42631	0.06661	0.31 %	-0.000257	-0.026961
S5•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	4.5	18	0.149229	0.02686	21.39944	0.09347	0.43 %	-0.010896	-0.037857
S5•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	4.25	24	0.197219	0.03353	21.36592	0.127	0.59 %	-0.013619	-0.051476
S5•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	4	0	0.003331	0.00053	21.36538	0.12753	0.59 %	-0.000217	-0.051692
S5•06	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.023263	3.75	27	0.219573	0.03294	21.33245	0.16047	0.75 %	-0.0134	-0.065093
S5•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	3.25	36	0.295794	0.03845	21.294	0.19892	0.93 %	-0.015671	-0.080763
S5•08	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	3	0	0.003338	0.0004	21.29359	0.19932	0.93 %	-0.000164	-0.080927
S5•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	2.75	19	0.159279	0.01752	21.27607	0.21684	1.01 %	-0.00715	-0.088077
S5•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	2.5	18	0.151017	0.0151	21.26097	0.23194	1.08 %	-0.006168	-0.094245
S5•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	2.25	26	0.213073	0.01918	21.24179	0.25112	1.17 %	-0.007838	-0.102083
S5•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	2	0	0.003331	0.00027	21.24153	0.25139	1.17 %	-0.000109	-0.102191
S5•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	1.75	27	0.218795	0.01532	21.22621	0.2667	1.24 %	-0.006265	-0.108456
S5•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	1.5	0	0.003331	0.0002	21.22601	0.2669	1.24 %	-0.000082	-0.108538
S5•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011632	1.25	20	0.160678	0.00803	21.21798	0.27494	1.28 %	-0.003288	-0.111827
S5•16	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.023263	1	22	0.181321	0.00725	21.21073	0.28219	1.31 %	-0.00297	-0.114796
S5•17 EOL	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.023263	0.5	31	0.252497	0.00505	21.20568	0.28724	1.34 %	-0.002068	-0.116864

FACU-1 A2 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	25	Max. dB Loss:	-3.85833
Min. Operational Voltage:	22.3	End Of Line Voltage:	16.03332
Max. Circuit Watts:	120	Voltage Drop Percent:	35.87 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	79.5
Total Circuit Length (Ft):	579	Spare Watts:	40.5 W
Total Circuit Resistance (Ω):	4.750898 Ω	Spare Watts Percent:	33.75 %

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
A2•01	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7	0.28	79.5	98	0.152215	0.48404	22.43154	2.56846	10.27 %	-0.185437	-0.185437
A2•02	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	72.5	57	0.152215	0.44142	21.07309	3.92691	15.71 %	-0.180066	-0.365503
A2•03	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	65.25	47	0.152215	0.39728	20.06451	4.93549	19.74 %	-0.170302	-0.535805
A2•04	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	58	47	0.152215	0.35314	19.16799	5.83201	23.33 %	-0.158567	-0.694372
A2•05	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	50.75	47	0.152215	0.309	18.38354	6.61646	26.47 %	-0.144782	-0.839154
A2•06	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	43.5	47	0.152215	0.26485	17.71115	7.28885	29.16 %	-0.128928	-0.968082
A2•07	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	36.25	47	0.152215	0.22071	17.15083	7.84917	31.40 %	-0.111065	-1.079146
A2•08	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	29	47	0.150668	0.17478	16.70436	8.29564	33.18 %	-0.090407	-1.169553
A2•09	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	21.75	47	0.152215	0.13243	16.36952	8.63049	34.52 %	-0.069985	-1.239538
A2•10	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	14.5	47	0.152215	0.08829	16.14539	8.85462	35.42 %	-0.047366	-1.286904
A2•11 EOL	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	7.25	47	0.152215	0.04414	16.03332	8.96668	35.87 %	-0.023881	-1.310785

SPK 6 S6 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	22.43154	Max. dB Loss:	-0.162991
Min. Operational Voltage:	22.3	End Of Line Voltage:	22.01454
Max. Circuit Watts:	n/a	Voltage Drop Percent:	1.86 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7
Total Circuit Length (Ft):	350	Spare Watts:	
Total Circuit Resistance (Ω):	2.871287 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S6•01	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.02229	7	8	0.068085	0.01906	22.41248	0.01906	0.08 %	-0.007385	-0.007385
S6•02	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02229	6.5	27	0.225073	0.05852	22.35396	0.07758	0.35 %	-0.022709	-0.030094
S6•03	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02229	6	33	0.273789	0.06571	22.28825	0.14329	0.64 %	-0.02557	-0.055663
S6•04	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02229	5.5	33	0.267661	0.05889	22.22936	0.20218	0.90 %	-0.022978	-0.078641
S6•05	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.02229	5	21	0.168438	0.03369	22.19567	0.23587	1.05 %	-0.013173	-0.091815
S6•06	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.02229	4.5	14	0.11539	0.02077	22.1749	0.25664	1.14 %	-0.008132	-0.099946
S6•07	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02229	4	41	0.333487	0.05336	22.12155	0.30999	1.38 %	-0.020925	-0.120872
S6•08	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.02229	3.5	16	0.129291	0.0181	22.10345	0.32809	1.46 %	-0.00711	-0.127982
S6•09	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.02229	3	31	0.254665	0.03056	22.07289	0.35865	1.60 %	-0.012017	-0.139999
S6•10	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.02229	2.5	18	0.143988	0.0144	22.05849	0.37305	1.66 %	-0.005668	-0.145667
S6•11	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.02229	2	26	0.210827	0.01687	22.04162	0.38992	1.74 %	-0.006644	-0.152311
S6•12	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02229	1.5	29	0.236642	0.0142	22.02742	0.40412	1.80 %	-0.005597	-0.157908
S6•13	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02229	1	24	0.200336	0.00801	22.01941	0.41213	1.84 %	-0.00316	-0.161069
S6•14 EOL	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.02229	0.5	30	0.243615	0.00487	22.01454	0.417	1.86 %	-0.001922	-0.162991

SPK 8 S8 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	21.07309	Max. dB Loss:	-0.225385
Min. Operational Voltage:	22.3	End Of Line Voltage:	20.53331
Max. Circuit Watts:	n/a	Voltage Drop Percent:	2.56 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S8•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	7.25	22	0.182535	0.05294	21.02016	0.05294	0.25 %	-0.021846	-0.021846
S8•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	7	0	0.003331	0.00093	21.01922	0.05387	0.26 %	-0.000386	-0.022232
S8•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	6.75	30	0.241908	0.06532	20.95391	0.11918	0.57 %	-0.027033	-0.049264
S8•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	6.5	0	0.003331	0.00087	20.95304	0.12005	0.57 %	-0.000359	-0.049623
S8•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	6.25	18	0.149229	0.03731	20.91574	0.15736	0.75 %	-0.015479	-0.065102
S8•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	6	24	0.197219	0.04733	20.8684	0.20469	0.97 %	-0.019679	-0.084781
S8•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	5.75	0	0.003331	0.00077	20.86764	0.20546	0.97 %	-0.000319	-0.0851
S8•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.023727	5.5	25	0.20778	0.04571	20.82192	0.25117	1.19 %	-0.019048	-0.104148
S8•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	5	37	0.300014	0.06	20.76192	0.31117	1.48 %	-0.025066	-0.129214
S8•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	4.75	0	0.003338	0.00063	20.76129	0.3118	1.48 %	-0.000265	-0.129479
S8•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	4.5	19	0.159279	0.02867	20.73262	0.34047	1.62 %	-0.012003	-0.141482
S8•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	4.25	18	0.151017	0.02567	20.70694	0.36615	1.74 %	-0.010762	-0.152245
S8•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	4	26	0.213073	0.03409	20.67285	0.40024	1.90 %	-0.014312	-0.166557
S8•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	3.75	0	0.003331	0.0005	20.67235	0.40074	1.90 %	-0.00021	-0.166767
S8•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	3.5	27	0.218795	0.03063	20.64172	0.43137	2.05 %	-0.01288	-0.179647
S8•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	3.25	0	0.003331	0.00043	20.64129	0.4318	2.05 %	-0.000182	-0.179829
S8•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	3	20	0.160678	0.01928	20.62201	0.45108	2.14 %	-0.008117	-0.187946
S8•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	2.75	26	0.209206	0.02301	20.59899	0.4741	2.25 %	-0.009698	-0.197645
S8•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	2.5	0	0.003331	0.00033	20.59866	0.47443	2.25 %	-0.00014	-0.197785
S8•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	2.25	32	0.264394	0.0238	20.57487	0.49823	2.36 %	-0.010039	-0.207825
S8•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	2	0	0.003331	0.00027	20.5746	0.49849	2.37 %	-0.000112	-0.207937
S8•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.023727	1.75	36	0.295992	0.02072	20.55388	0.51921	2.46 %	-0.008751	-0.216688
S8•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.023727	1.25	31	0.250828	0.01254	20.54134	0.53175	2.52 %	-0.005301	-0.221989
S8•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	0.75	22	0.179932	0.0054	20.53594	0.53715	2.55 %	-0.002283	-0.224272
S8•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	0.5	12	0.100043	0.002	20.53394	0.53915	2.56 %	-0.000846	-0.225119
S8•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.011863	0.25	8	0.062927	0.00063	20.53331	0.53978	2.56 %	-0.000266	-0.225385

SPK 9 S9 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	20.06451	Max. dB Loss:	-0.23687
Min. Operational Voltage:	22.3	End Of Line Voltage:	19.52473
Max. Circuit Watts:	n/a	Voltage Drop Percent:	2.69 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S9•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	7.25	22	0.182535	0.05294	20.01157	0.05294	0.26 %	-0.022946	-0.022946
S9•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	7	0	0.003331	0.00093	20.01064	0.05387	0.27 %	-0.000405	-0.023351
S9•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	6.75	30	0.241908	0.06532	19.94533	0.11918	0.59 %	-0.028397	-0.051748
S9•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	6.5	0	0.003331	0.00087	19.94446	0.12005	0.60 %	-0.000377	-0.052125
S9•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	6.25	18	0.149229	0.03731	19.90715	0.15736	0.78 %	-0.016263	-0.068388
S9•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	6	24	0.197219	0.04733	19.85982	0.20469	1.02 %	-0.020677	-0.089065
S9•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	5.75	0	0.003331	0.00077	19.85905	0.20546	1.02 %	-0.000335	-0.0894
S9•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02492	5.5	25	0.20778	0.04571	19.81334	0.25117	1.25 %	-0.020016	-0.109416
S9•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	5	37	0.300014	0.06	19.75334	0.31117	1.55 %	-0.026344	-0.13576
S9•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	4.75	0	0.003338	0.00063	19.75271	0.3118	1.55 %	-0.000279	-0.136039
S9•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	4.5	19	0.159279	0.02867	19.72404	0.34047	1.70 %	-0.012616	-0.148655
S9•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	4.25	18	0.151017	0.02567	19.69836	0.36615	1.82 %	-0.011313	-0.159968
S9•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	4	26	0.213073	0.03409	19.66427	0.40024	1.99 %	-0.015046	-0.175014
S9•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	3.75	0	0.003331	0.0005	19.66377	0.40074	2.00 %	-0.000221	-0.175235
S9•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	3.5	27	0.218795	0.03063	19.63314	0.43137	2.15 %	-0.013541	-0.188776
S9•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	3.25	0	0.003331	0.00043	19.63271	0.4318	2.15 %	-0.000192	-0.188967
S9•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	3	20	0.160678	0.01928	19.61343	0.45108	2.25 %	-0.008534	-0.197502
S9•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	2.75	26	0.209206	0.02301	19.59041	0.4741	2.36 %	-0.010197	-0.207699
S9•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	2.5	0	0.003331	0.00033	19.59008	0.47443	2.36 %	-0.000148	-0.207847
S9•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	2.25	32	0.264394	0.0238	19.56628	0.49823	2.48 %	-0.010557	-0.218404
S9•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	2	0	0.003331	0.00027	19.56602	0.49849	2.48 %	-0.000118	-0.218522
S9•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02492	1.75	36	0.295992	0.02072	19.5453	0.51921	2.59 %	-0.009203	-0.227724
S9•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02492	1.25	31	0.250828	0.01254	19.53276	0.53175	2.65 %	-0.005575	-0.233299
S9•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	0.75	22	0.179932	0.0054	19.52736	0.53715	2.68 %	-0.002401	-0.2357
S9•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	0.5	12	0.100043	0.002	19.52536	0.53915	2.69 %	-0.00089	-0.23659
S9•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01246	0.25	8	0.062927	0.00063	19.52473	0.53978	2.69 %	-0.00028	-0.23687

SPK 10 S10 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	19.16799	Max. dB Loss:	-0.248143
Min. Operational Voltage:	22.3	End Of Line Voltage:	18.62814
Max. Circuit Watts:	n/a	Voltage Drop Percent:	2.82 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S10•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	7.25	22	0.182535	0.05294	19.11506	0.05294	0.28 %	-0.02402	-0.02402
S10•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	7	0	0.003331	0.00093	19.11412	0.05387	0.28 %	-0.000424	-0.024444
S10•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	6.75	30	0.241908	0.06532	19.04881	0.11918	0.62 %	-0.029731	-0.054176
S10•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	6.5	0	0.003331	0.00087	19.04794	0.12005	0.63 %	-0.000395	-0.054571
S10•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	6.25	18	0.149229	0.03731	19.01064	0.15736	0.82 %	-0.017029	-0.071599
S10•06	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.013043	6	24	0.197496	0.0474	18.96324	0.20476	1.07 %	-0.021683	-0.093283
S10•07	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.013043	5.75	0	0.003331	0.00077	18.96247	0.20552	1.07 %	-0.000351	-0.093634
S10•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.026085	5.5	25	0.207503	0.04565	18.91682	0.25117	1.31 %	-0.020936	-0.11457
S10•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	5	37	0.300014	0.06	18.85682	0.31118	1.62 %	-0.027595	-0.142165
S10•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	4.75	0	0.003338	0.00063	18.85618	0.31181	1.63 %	-0.000292	-0.142457
S10•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	4.5	19	0.159279	0.02867	18.82751	0.34048	1.78 %	-0.013217	-0.155673
S10•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	4.25	18	0.151017	0.02567	18.80184	0.36615	1.91 %	-0.011852	-0.167525
S10•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	4	26	0.213073	0.03409	18.76775	0.40024	2.09 %	-0.015764	-0.183289
S10•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	3.75	0	0.003331	0.0005	18.76725	0.40074	2.09 %	-0.000231	-0.183521
S10•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	3.5	27	0.218795	0.03063	18.73662	0.43138	2.25 %	-0.014188	-0.197709
S10•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	3.25	0	0.003331	0.00043	18.73618	0.43181	2.25 %	-0.000201	-0.19791
S10•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	3	20	0.160678	0.01928	18.7169	0.45109	2.35 %	-0.008943	-0.206853
S10•18	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.013043	2.75	26	0.210572	0.02316	18.69374	0.47425	2.47 %	-0.010756	-0.217608
S10•19	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.013043	2.5	0	0.003331	0.00033	18.69341	0.47459	2.48 %	-0.000155	-0.217763
S10•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	2.25	32	0.263028	0.02367	18.66973	0.49826	2.60 %	-0.011007	-0.22877
S10•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013043	2	0	0.003331	0.00027	18.66947	0.49852	2.60 %	-0.000124	-0.228894
S10•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.026085	1.75	36	0.295992	0.02072	18.64875	0.51924	2.71 %	-0.009645	-0.238538
S10•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.026085	1.25	31	0.250828	0.01254	18.63621	0.53178	2.77 %	-0.005843	-0.244381
S10•24	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.013043	0.75	22	0.179932	0.0054	18.63081	0.53718	2.80 %	-0.002516	-0.246898
S10•25	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.013043	0.5	13	0.104143	0.00208	18.62873	0.53927	2.81 %	-0.000971	-0.247869
S10•26 EOL	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.013043	0.25	7	0.058827	0.00059	18.62814	0.53985	2.82 %	-0.000274	-0.248143

SPK 11 S11 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	18.38354	Max. dB Loss:	-0.258855
Min. Operational Voltage:	22.3	End Of Line Voltage:	17.84376
Max. Circuit Watts:	n/a	Voltage Drop Percent:	2.94 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S11•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	7.25	22	0.182535	0.05294	18.3306	0.05294	0.29 %	-0.025047	-0.025047
S11•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	7	0	0.003331	0.00093	18.32967	0.05387	0.29 %	-0.000442	-0.025489
S11•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	6.75	30	0.241908	0.06532	18.26436	0.11918	0.65 %	-0.031006	-0.056495
S11•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	6.5	0	0.003331	0.00087	18.26349	0.12005	0.65 %	-0.000412	-0.056907
S11•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	6.25	18	0.149229	0.03731	18.22618	0.15736	0.86 %	-0.017761	-0.074668
S11•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	6	24	0.197219	0.04733	18.17885	0.20469	1.11 %	-0.022586	-0.097254
S11•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	5.75	0	0.003331	0.00077	18.17808	0.20546	1.12 %	-0.000366	-0.09762
S11•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.027198	5.5	25	0.20778	0.04571	18.13237	0.25117	1.37 %	-0.02187	-0.11949
S11•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	5	37	0.300014	0.06	18.07237	0.31117	1.69 %	-0.028791	-0.148281
S11•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	4.75	0	0.003338	0.00063	18.07174	0.3118	1.70 %	-0.000305	-0.148585
S11•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	4.5	19	0.159279	0.02867	18.04307	0.34047	1.85 %	-0.013791	-0.162376
S11•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	4.25	18	0.151017	0.02567	18.01739	0.36615	1.99 %	-0.012368	-0.174744
S11•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	4	26	0.213073	0.03409	17.9833	0.40024	2.18 %	-0.016451	-0.191195
S11•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	3.75	0	0.003331	0.0005	17.9828	0.40074	2.18 %	-0.000242	-0.191436
S11•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	3.5	27	0.218795	0.03063	17.95217	0.43137	2.35 %	-0.014808	-0.206244
S11•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	3.25	0	0.003331	0.00043	17.95174	0.4318	2.35 %	-0.00021	-0.206453
S11•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	3	20	0.160678	0.01928	17.93246	0.45108	2.45 %	-0.009334	-0.215787
S11•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	2.75	26	0.209206	0.02301	17.90944	0.4741	2.58 %	-0.011154	-0.226941
S11•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	2.5	0	0.003331	0.00033	17.90911	0.47443	2.58 %	-0.000162	-0.227103
S11•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	2.25	32	0.264394	0.0238	17.88531	0.49823	2.71 %	-0.011548	-0.238651
S11•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	2	0	0.003331	0.00027	17.88505	0.49849	2.71 %	-0.000129	-0.23878
S11•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.027198	1.75	36	0.295992	0.02072	17.86433	0.51921	2.82 %	-0.010068	-0.248848
S11•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.027198	1.25	31	0.250828	0.01254	17.85179	0.53175	2.89 %	-0.0061	-0.254948
S11•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	0.75	22	0.179932	0.0054	17.84639	0.53715	2.92 %	-0.002627	-0.257575
S11•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	0.5	12	0.100043	0.002	17.84439	0.53915	2.93 %	-0.000974	-0.258549
S11•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.013599	0.25	8	0.062927	0.00063	17.84376	0.53978	2.94 %	-0.000306	-0.258855

SPK 12 S12 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	17.71115	Max. dB Loss:	-0.268836
Min. Operational Voltage:	22.3	End Of Line Voltage:	17.17137
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.05 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S12•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	7.25	22	0.182535	0.05294	17.65822	0.05294	0.30 %	-0.025999	-0.025999
S12•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	7	0	0.003331	0.00093	17.65728	0.05387	0.30 %	-0.000459	-0.026458
S12•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	6.75	30	0.241908	0.06532	17.59197	0.11918	0.67 %	-0.032189	-0.058647
S12•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	6.5	0	0.003331	0.00087	17.5911	0.12005	0.68 %	-0.000428	-0.059075
S12•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	6.25	18	0.149229	0.03731	17.5538	0.15736	0.89 %	-0.01844	-0.077515
S12•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	6	24	0.197219	0.04733	17.50646	0.20469	1.16 %	-0.023453	-0.100968
S12•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	5.75	0	0.003331	0.00077	17.5057	0.20546	1.16 %	-0.00038	-0.101348
S12•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.028231	5.5	25	0.20778	0.04571	17.45998	0.25117	1.42 %	-0.022711	-0.124059
S12•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	5	37	0.300014	0.06	17.39998	0.31117	1.76 %	-0.029901	-0.15396
S12•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	4.75	0	0.003338	0.00063	17.39935	0.3118	1.76 %	-0.000316	-0.154277
S12•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	4.5	19	0.159279	0.02867	17.37068	0.34047	1.92 %	-0.014324	-0.168601
S12•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	4.25	18	0.151017	0.02567	17.345	0.36615	2.07 %	-0.012847	-0.181448
S12•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	4	26	0.213073	0.03409	17.31091	0.40024	2.26 %	-0.017089	-0.198537
S12•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	3.75	0	0.003331	0.0005	17.31041	0.40074	2.26 %	-0.000251	-0.198788
S12•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	3.5	27	0.218795	0.03063	17.27978	0.43137	2.44 %	-0.015383	-0.214171
S12•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	3.25	0	0.003331	0.00043	17.27935	0.4318	2.44 %	-0.000218	-0.214389
S12•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	3	20	0.160678	0.01928	17.26007	0.45108	2.55 %	-0.009697	-0.224086
S12•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	2.75	26	0.209206	0.02301	17.23705	0.4741	2.68 %	-0.011589	-0.235675
S12•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	2.5	0	0.003331	0.00033	17.23672	0.47443	2.68 %	-0.000168	-0.235843
S12•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	2.25	32	0.264394	0.0238	17.21293	0.49823	2.81 %	-0.011999	-0.247842
S12•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	2	0	0.003331	0.00027	17.21266	0.49849	2.81 %	-0.000134	-0.247976
S12•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.028231	1.75	36	0.295992	0.02072	17.19194	0.51921	2.93 %	-0.010462	-0.258437
S12•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.028231	1.25	31	0.250828	0.01254	17.1794	0.53175	3.00 %	-0.006338	-0.264776
S12•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	0.75	22	0.179932	0.0054	17.174	0.53715	3.03 %	-0.00273	-0.267506
S12•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	0.5	12	0.100043	0.002	17.172	0.53915	3.04 %	-0.001012	-0.268518
S12•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014115	0.25	8	0.062927	0.00063	17.17137	0.53978	3.05 %	-0.000318	-0.268836

SPK 13 S13 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	17.15083	Max. dB Loss:	-0.277761
Min. Operational Voltage:	22.3	End Of Line Voltage:	16.61105
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.15 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S13•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	7.25	22	0.182535	0.05294	17.09789	0.05294	0.31 %	-0.02685	-0.02685
S13•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	7	0	0.003331	0.00093	17.09696	0.05387	0.31 %	-0.000474	-0.027324
S13•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	6.75	30	0.241908	0.06532	17.03164	0.11918	0.69 %	-0.033246	-0.06057
S13•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	6.5	0	0.003331	0.00087	17.03078	0.12005	0.70 %	-0.000442	-0.061012
S13•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	6.25	18	0.149229	0.03731	16.99347	0.15736	0.92 %	-0.019048	-0.080059
S13•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	6	24	0.197219	0.04733	16.94614	0.20469	1.19 %	-0.024227	-0.104287
S13•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	5.75	0	0.003331	0.00077	16.94537	0.20546	1.20 %	-0.000393	-0.104679
S13•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029153	5.5	25	0.20778	0.04571	16.89966	0.25117	1.46 %	-0.023463	-0.128142
S13•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	5	37	0.300014	0.06	16.83966	0.31117	1.81 %	-0.030895	-0.159036
S13•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	4.75	0	0.003338	0.00063	16.83902	0.3118	1.82 %	-0.000327	-0.159364
S13•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	4.5	19	0.159279	0.02867	16.81035	0.34047	1.99 %	-0.014801	-0.174165
S13•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	4.25	18	0.151017	0.02567	16.78468	0.36615	2.13 %	-0.013275	-0.18744
S13•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	4	26	0.213073	0.03409	16.75059	0.40024	2.33 %	-0.01766	-0.2051
S13•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	3.75	0	0.003331	0.0005	16.75009	0.40074	2.34 %	-0.000259	-0.205359
S13•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	3.5	27	0.218795	0.03063	16.71946	0.43137	2.52 %	-0.015898	-0.221258
S13•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	3.25	0	0.003331	0.00043	16.71902	0.4318	2.52 %	-0.000225	-0.221483
S13•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	3	20	0.160678	0.01928	16.69974	0.45108	2.63 %	-0.010023	-0.231506
S13•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	2.75	26	0.209206	0.02301	16.67673	0.4741	2.76 %	-0.011978	-0.243483
S13•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	2.5	0	0.003331	0.00033	16.6764	0.47443	2.77 %	-0.000173	-0.243657
S13•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	2.25	32	0.264394	0.0238	16.6526	0.49823	2.90 %	-0.012402	-0.256059
S13•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	2	0	0.003331	0.00027	16.65234	0.49849	2.91 %	-0.000139	-0.256198
S13•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029153	1.75	36	0.295992	0.02072	16.63162	0.51921	3.03 %	-0.010814	-0.267012
S13•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029153	1.25	31	0.250828	0.01254	16.61908	0.53175	3.10 %	-0.006552	-0.273564
S13•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	0.75	22	0.179932	0.0054	16.61368	0.53715	3.13 %	-0.002822	-0.276386
S13•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	0.5	12	0.100043	0.002	16.61168	0.53915	3.14 %	-0.001046	-0.277432
S13•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014577	0.25	8	0.062927	0.00063	16.61105	0.53978	3.15 %	-0.000329	-0.277761

SPK 14 S14 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	16.70436	Max. dB Loss:	-0.284956
Min. Operational Voltage:	22.3	End Of Line Voltage:	16.16524
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.23 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	435	Spare Watts:	
Total Circuit Resistance (Ω):	3.566716 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S14•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	7.25	22	0.181424	0.05261	16.65175	0.05261	0.31 %	-0.027401	-0.027401
S14•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	7	0	0.003331	0.00093	16.65082	0.05355	0.32 %	-0.000487	-0.027887
S14•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	6.75	30	0.241908	0.06532	16.5855	0.11886	0.71 %	-0.034139	-0.062026
S14•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	6.5	0	0.003331	0.00087	16.58464	0.11973	0.72 %	-0.000454	-0.062479
S14•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	6.25	18	0.149229	0.03731	16.54733	0.15703	0.94 %	-0.019561	-0.08204
S14•06	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014966	6	24	0.197753	0.04746	16.49987	0.2045	1.22 %	-0.024949	-0.106989
S14•07	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014966	5.75	0	0.003331	0.00077	16.4991	0.20526	1.23 %	-0.000403	-0.107392
S14•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029932	5.5	25	0.206136	0.04535	16.45375	0.25061	1.50 %	-0.023907	-0.131299
S14•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	5	37	0.301119	0.06022	16.39353	0.31084	1.86 %	-0.03185	-0.16315
S14•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	4.75	0	0.003338	0.00063	16.39289	0.31147	1.86 %	-0.000336	-0.163486
S14•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	4.5	19	0.157445	0.02834	16.36455	0.33981	2.03 %	-0.015029	-0.178515
S14•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	4.25	18	0.151017	0.02567	16.33888	0.36548	2.19 %	-0.013637	-0.192152
S14•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	4	26	0.213455	0.03415	16.30473	0.39964	2.39 %	-0.018175	-0.210327
S14•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	3.75	0	0.003331	0.0005	16.30423	0.40014	2.40 %	-0.000266	-0.210594
S14•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	3.5	27	0.218795	0.03063	16.2736	0.43077	2.58 %	-0.016334	-0.226927
S14•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	3.25	0	0.003331	0.00043	16.27316	0.4312	2.58 %	-0.000231	-0.227158
S14•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	3	20	0.160678	0.01928	16.25388	0.45048	2.70 %	-0.010297	-0.237456
S14•18	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014966	2.75	26	0.209206	0.02301	16.23087	0.47349	2.83 %	-0.012307	-0.249762
S14•19	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014966	2.5	0	0.003331	0.00033	16.23054	0.47383	2.84 %	-0.000178	-0.249941
S14•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	2.25	32	0.264394	0.0238	16.20674	0.49762	2.98 %	-0.012743	-0.262684
S14•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014966	2	0	0.003331	0.00027	16.20648	0.49789	2.98 %	-0.000143	-0.262827
S14•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029932	1.75	36	0.294882	0.02064	16.18583	0.51853	3.10 %	-0.01107	-0.273897
S14•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029932	1.25	31	0.250828	0.01254	16.17329	0.53107	3.18 %	-0.006733	-0.280629
S14•24	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014966	0.75	22	0.178822	0.00537	16.16793	0.53644	3.21 %	-0.002882	-0.283511
S14•25	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014966	0.5	13	0.105891	0.00212	16.16581	0.53855	3.22 %	-0.001138	-0.284649
S14•26 EOL	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014966	0.25	7	0.057079	0.00057	16.16524	0.53912	3.23 %	-0.000307	-0.284956

SPK 15 S15 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	16.36952	Max. dB Loss:	-0.291243
Min. Operational Voltage:	22.3	End Of Line Voltage:	15.82974
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.30 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S15•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	7.25	22	0.182535	0.05294	16.31658	0.05294	0.32 %	-0.028134	-0.028134
S15•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	7	0	0.003331	0.00093	16.31565	0.05387	0.33 %	-0.000497	-0.02863
S15•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	6.75	30	0.241908	0.06532	16.25033	0.11918	0.73 %	-0.034841	-0.063471
S15•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	6.5	0	0.003331	0.00087	16.24947	0.12005	0.73 %	-0.000463	-0.063934
S15•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	6.25	18	0.149229	0.03731	16.21216	0.15736	0.96 %	-0.019965	-0.083899
S15•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	6	24	0.197219	0.04733	16.16483	0.20469	1.25 %	-0.025396	-0.109296
S15•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	5.75	0	0.003331	0.00077	16.16406	0.20546	1.26 %	-0.000412	-0.109707
S15•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030545	5.5	25	0.20778	0.04571	16.11835	0.25117	1.53 %	-0.024599	-0.134306
S15•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	5	37	0.300014	0.06	16.05835	0.31117	1.90 %	-0.032395	-0.166701
S15•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	4.75	0	0.003338	0.00063	16.05771	0.3118	1.90 %	-0.000343	-0.167043
S15•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	4.5	19	0.159279	0.02867	16.02904	0.34047	2.08 %	-0.015522	-0.182565
S15•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	4.25	18	0.151017	0.02567	16.00337	0.36615	2.24 %	-0.013923	-0.196488
S15•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	4	26	0.213073	0.03409	15.96928	0.40024	2.45 %	-0.018523	-0.215012
S15•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	3.75	0	0.003331	0.0005	15.96878	0.40074	2.45 %	-0.000272	-0.215284
S15•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	3.5	27	0.218795	0.03063	15.93815	0.43137	2.64 %	-0.016677	-0.231961
S15•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	3.25	0	0.003331	0.00043	15.93771	0.4318	2.64 %	-0.000236	-0.232197
S15•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	3	20	0.160678	0.01928	15.91843	0.45108	2.76 %	-0.010514	-0.242711
S15•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	2.75	26	0.209206	0.02301	15.89542	0.4741	2.90 %	-0.012566	-0.255277
S15•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	2.5	0	0.003331	0.00033	15.89509	0.47443	2.90 %	-0.000182	-0.255459
S15•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	2.25	32	0.264394	0.0238	15.87129	0.49823	3.04 %	-0.013013	-0.268472
S15•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	2	0	0.003331	0.00027	15.87102	0.49849	3.05 %	-0.000146	-0.268617
S15•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030545	1.75	36	0.295992	0.02072	15.85031	0.51921	3.17 %	-0.011346	-0.279964
S15•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030545	1.25	31	0.250828	0.01254	15.83776	0.53175	3.25 %	-0.006875	-0.286839
S15•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	0.75	22	0.179932	0.0054	15.83237	0.53715	3.28 %	-0.002961	-0.2898
S15•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	0.5	12	0.100043	0.002	15.83037	0.53915	3.29 %	-0.001098	-0.290898
S15•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015272	0.25	8	0.062927	0.00063	15.82974	0.53978	3.30 %	-0.000345	-0.291243

SPK 16 S16 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	16.14539	Max. dB Loss:	-0.295355
Min. Operational Voltage:	22.3	End Of Line Voltage:	15.60561
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.34 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S16•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	7.25	22	0.182535	0.05294	16.09245	0.05294	0.33 %	-0.028525	-0.028525
S16•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	7	0	0.003331	0.00093	16.09152	0.05387	0.33 %	-0.000504	-0.029028
S16•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	6.75	30	0.241908	0.06532	16.0262	0.11918	0.74 %	-0.035328	-0.064356
S16•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	6.5	0	0.003331	0.00087	16.02534	0.12005	0.74 %	-0.000469	-0.064825
S16•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	6.25	18	0.149229	0.03731	15.98803	0.15736	0.97 %	-0.020244	-0.08507
S16•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	6	24	0.197219	0.04733	15.9407	0.20469	1.27 %	-0.025753	-0.110823
S16•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	5.75	0	0.003331	0.00077	15.93993	0.20546	1.27 %	-0.000417	-0.11124
S16•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030969	5.5	25	0.20778	0.04571	15.89422	0.25117	1.56 %	-0.024945	-0.136185
S16•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	5	37	0.300014	0.06	15.83422	0.31117	1.93 %	-0.032853	-0.169037
S16•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	4.75	0	0.003338	0.00063	15.83358	0.3118	1.93 %	-0.000348	-0.169385
S16•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	4.5	19	0.159279	0.02867	15.80491	0.34047	2.11 %	-0.015742	-0.185127
S16•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	4.25	18	0.151017	0.02567	15.77924	0.36615	2.27 %	-0.014121	-0.199248
S16•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	4	26	0.213073	0.03409	15.74515	0.40024	2.48 %	-0.018787	-0.218034
S16•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	3.75	0	0.003331	0.0005	15.74465	0.40074	2.48 %	-0.000276	-0.21831
S16•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	3.5	27	0.218795	0.03063	15.71402	0.43137	2.67 %	-0.016915	-0.235225
S16•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	3.25	0	0.003331	0.00043	15.71358	0.4318	2.67 %	-0.000239	-0.235464
S16•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	3	20	0.160678	0.01928	15.6943	0.45108	2.79 %	-0.010664	-0.246129
S16•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	2.75	26	0.209206	0.02301	15.67129	0.4741	2.94 %	-0.012746	-0.258874
S16•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	2.5	0	0.003331	0.00033	15.67096	0.47443	2.94 %	-0.000185	-0.259059
S16•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	2.25	32	0.264394	0.0238	15.64716	0.49823	3.09 %	-0.013199	-0.272258
S16•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	2	0	0.003331	0.00027	15.64689	0.49849	3.09 %	-0.000148	-0.272405
S16•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030969	1.75	36	0.295992	0.02072	15.62618	0.51921	3.22 %	-0.011509	-0.283914
S16•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030969	1.25	31	0.250828	0.01254	15.61363	0.53175	3.29 %	-0.006974	-0.290888
S16•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	0.75	22	0.179932	0.0054	15.60824	0.53715	3.33 %	-0.003003	-0.293892
S16•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	0.5	12	0.100043	0.002	15.60624	0.53915	3.34 %	-0.001114	-0.295005
S16•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015484	0.25	8	0.062927	0.00063	15.60561	0.53978	3.34 %	-0.00035	-0.295355

SPK 17 S17 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	16.03332	Max. dB Loss:	-0.297455
Min. Operational Voltage:	22.3	End Of Line Voltage:	15.49354
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.37 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S17•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	7.25	22	0.182535	0.05294	15.98039	0.05294	0.33 %	-0.028724	-0.028724
S17•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	7	0	0.003331	0.00093	15.97945	0.05387	0.34 %	-0.000507	-0.029232
S17•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	6.75	30	0.241908	0.06532	15.91414	0.11918	0.74 %	-0.035576	-0.064807
S17•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	6.5	0	0.003331	0.00087	15.91327	0.12005	0.75 %	-0.000473	-0.06528
S17•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	6.25	18	0.149229	0.03731	15.87597	0.15736	0.98 %	-0.020387	-0.085667
S17•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	6	24	0.197219	0.04733	15.82863	0.20469	1.28 %	-0.025935	-0.111602
S17•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	5.75	0	0.003331	0.00077	15.82787	0.20546	1.28 %	-0.00042	-0.112022
S17•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.031185	5.5	25	0.20778	0.04571	15.78215	0.25117	1.57 %	-0.025122	-0.137144
S17•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	5	37	0.300014	0.06	15.72215	0.31117	1.94 %	-0.033086	-0.17023
S17•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	4.75	0	0.003338	0.00063	15.72152	0.3118	1.94 %	-0.00035	-0.170581
S17•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	4.5	19	0.159279	0.02867	15.69285	0.34047	2.12 %	-0.015854	-0.186435
S17•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	4.25	18	0.151017	0.02567	15.66717	0.36615	2.28 %	-0.014221	-0.200656
S17•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	4	26	0.213073	0.03409	15.63308	0.40024	2.50 %	-0.018921	-0.219578
S17•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	3.75	0	0.003331	0.0005	15.63258	0.40074	2.50 %	-0.000278	-0.219855
S17•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	3.5	27	0.218795	0.03063	15.60195	0.43137	2.69 %	-0.017036	-0.236892
S17•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	3.25	0	0.003331	0.00043	15.60152	0.4318	2.69 %	-0.000241	-0.237133
S17•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	3	20	0.160678	0.01928	15.58224	0.45108	2.81 %	-0.010741	-0.247874
S17•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	2.75	26	0.209206	0.02301	15.55922	0.4741	2.96 %	-0.012837	-0.260711
S17•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	2.5	0	0.003331	0.00033	15.55889	0.47443	2.96 %	-0.000186	-0.260897
S17•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	2.25	32	0.264394	0.0238	15.5351	0.49823	3.11 %	-0.013294	-0.274191
S17•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	2	0	0.003331	0.00027	15.53483	0.49849	3.11 %	-0.000149	-0.27434
S17•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.031185	1.75	36	0.295992	0.02072	15.51411	0.51921	3.24 %	-0.011592	-0.285932
S17•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.031185	1.25	31	0.250828	0.01254	15.50157	0.53175	3.32 %	-0.007024	-0.292956
S17•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	0.75	22	0.179932	0.0054	15.49617	0.53715	3.35 %	-0.003025	-0.295981
S17•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	0.5	12	0.100043	0.002	15.49417	0.53915	3.36 %	-0.001122	-0.297103
S17•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015593	0.25	8	0.062927	0.00063	15.49354	0.53978	3.37 %	-0.000353	-0.297455

FACU-1 A3 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	25	Max. dB Loss:	-5.593857
Min. Operational Voltage:	22.3	End Of Line Voltage:	13.12947
Max. Circuit Watts:	120	Voltage Drop Percent:	47.48 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	79.75
Total Circuit Length (Ft):	689	Spare Watts:	40.25 W
Total Circuit Resistance (Ω):	5.652898 Ω	Spare Watts Percent:	33.54 %

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
A3•01	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	79.75	218	0.152215	0.48557	19.2845	5.7155	22.86 %	-0.215995	-0.215995
A3•02	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	72.5	47	0.150668	0.43694	18.16834	6.83166	27.33 %	-0.206418	-0.422413
A3•03	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	65.25	47	0.152215	0.39728	17.1638	7.8362	31.34 %	-0.198756	-0.621169
A3•04	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	58	47	0.152215	0.35314	16.26728	8.73272	34.93 %	-0.186541	-0.807709
A3•05	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	50.75	47	0.152215	0.309	15.48283	9.51717	38.07 %	-0.17164	-0.979349
A3•06	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	43.5	47	0.152215	0.26485	14.81044	10.18956	40.76 %	-0.153957	-1.133306
A3•07	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	36.25	47	0.152215	0.22071	14.25012	10.74989	43.00 %	-0.1335	-1.266805
A3•08	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	29	47	0.152215	0.17657	13.80186	11.19814	44.79 %	-0.110415	-1.37722
A3•09	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	21.75	47	0.152215	0.13243	13.46566	11.53434	46.14 %	-0.085003	-1.462224
A3•10	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	14.5	47	0.152215	0.08829	13.24153	11.75847	47.03 %	-0.057719	-1.519943
A3•11 EOL	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	7.25	47	0.152215	0.04414	13.12947	11.87053	47.48 %	-0.029153	-1.549096

SPK 18 S18 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	19.2845	Max. dB Loss:	-0.246588
Min. Operational Voltage:	22.3	End Of Line Voltage:	18.74472
Max. Circuit Watts:	n/a	Voltage Drop Percent:	2.80 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S18•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	7.25	22	0.182535	0.05294	19.23157	0.05294	0.27 %	-0.023875	-0.023875
S18•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	7	0	0.003331	0.00093	19.23063	0.05387	0.28 %	-0.000421	-0.024297
S18•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	6.75	30	0.241908	0.06532	19.16532	0.11918	0.62 %	-0.029551	-0.053848
S18•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	6.5	0	0.003331	0.00087	19.16445	0.12005	0.62 %	-0.000392	-0.05424
S18•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	6.25	18	0.149229	0.03731	19.12715	0.15736	0.82 %	-0.016925	-0.071165
S18•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	6	24	0.197219	0.04733	19.07981	0.20469	1.06 %	-0.021521	-0.092686
S18•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	5.75	0	0.003331	0.00077	19.07905	0.20546	1.07 %	-0.000349	-0.093035
S18•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.025928	5.5	25	0.20778	0.04571	19.03334	0.25117	1.30 %	-0.020836	-0.113871
S18•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	5	37	0.300014	0.06	18.97333	0.31117	1.61 %	-0.027426	-0.141296
S18•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	4.75	0	0.003338	0.00063	18.9727	0.3118	1.62 %	-0.00029	-0.141587
S18•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	4.5	19	0.159279	0.02867	18.94403	0.34047	1.77 %	-0.013135	-0.154722
S18•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	4.25	18	0.151017	0.02567	18.91836	0.36615	1.90 %	-0.011779	-0.166501
S18•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	4	26	0.213073	0.03409	18.88426	0.40024	2.08 %	-0.015667	-0.182168
S18•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	3.75	0	0.003331	0.0005	18.88376	0.40074	2.08 %	-0.00023	-0.182398
S18•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	3.5	27	0.218795	0.03063	18.85313	0.43137	2.24 %	-0.014101	-0.196498
S18•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	3.25	0	0.003331	0.00043	18.8527	0.4318	2.24 %	-0.000199	-0.196698
S18•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	3	20	0.160678	0.01928	18.83342	0.45108	2.34 %	-0.008888	-0.205586
S18•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	2.75	26	0.209206	0.02301	18.81041	0.4741	2.46 %	-0.01062	-0.216206
S18•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	2.5	0	0.003331	0.00033	18.81007	0.47443	2.46 %	-0.000154	-0.216359
S18•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	2.25	32	0.264394	0.0238	18.78628	0.49823	2.58 %	-0.010995	-0.227354
S18•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	2	0	0.003331	0.00027	18.78601	0.49849	2.58 %	-0.000123	-0.227477
S18•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.025928	1.75	36	0.295992	0.02072	18.76529	0.51921	2.69 %	-0.009585	-0.237062
S18•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.025928	1.25	31	0.250828	0.01254	18.75275	0.53175	2.76 %	-0.005807	-0.242869
S18•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	0.75	22	0.179932	0.0054	18.74735	0.53715	2.79 %	-0.002501	-0.245369
S18•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	0.5	12	0.100043	0.002	18.74535	0.53915	2.80 %	-0.000927	-0.246297
S18•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.012964	0.25	8	0.062927	0.00063	18.74472	0.53978	2.80 %	-0.000291	-0.246588

SPK 19 S19 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	18.16834	Max. dB Loss:	-0.26152
Min. Operational Voltage:	22.3	End Of Line Voltage:	17.62947
Max. Circuit Watts:	n/a	Voltage Drop Percent:	2.97 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	435	Spare Watts:	
Total Circuit Resistance (Ω):	3.564446 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S19•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01376	7.25	22	0.181424	0.05261	18.11573	0.05261	0.29 %	-0.02519	-0.02519
S19•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01376	7	0	0.003331	0.00093	18.1148	0.05355	0.29 %	-0.000447	-0.025637
S19•03	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	6.75	29	0.24127	0.06514	18.04965	0.11869	0.65 %	-0.031292	-0.056929
S19•04	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	6.5	0	0.003331	0.00087	18.04879	0.11956	0.66 %	-0.000417	-0.057346
S19•05	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	6.25	18	0.147901	0.03698	18.01181	0.15653	0.86 %	-0.017812	-0.075158
S19•06	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	6	24	0.199719	0.04793	17.96388	0.20446	1.13 %	-0.023146	-0.098304
S19•07	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	5.75	0	0.003331	0.00077	17.96311	0.20523	1.13 %	-0.00037	-0.098674
S19•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02752	5.5	25	0.206136	0.04535	17.91776	0.25058	1.38 %	-0.021956	-0.12063
S19•09	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	5	36	0.292391	0.05848	17.85928	0.30906	1.70 %	-0.028394	-0.149025
S19•10	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	4.75	0	0.003331	0.00063	17.85865	0.30969	1.70 %	-0.000308	-0.149332
S19•11	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	4.5	20	0.16473	0.02965	17.829	0.33934	1.87 %	-0.014433	-0.163766
S19•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01376	4.25	18	0.151017	0.02567	17.80333	0.36501	2.01 %	-0.012516	-0.176282
S19•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01376	4	26	0.213455	0.03415	17.76917	0.39917	2.20 %	-0.016679	-0.192961
S19•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01376	3.75	0	0.003331	0.0005	17.76867	0.39967	2.20 %	-0.000244	-0.193205
S19•15	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	3.5	28	0.232471	0.03255	17.73613	0.43221	2.38 %	-0.015924	-0.209129
S19•16	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	3.25	0	0.003331	0.00043	17.7357	0.43265	2.38 %	-0.000212	-0.209341
S19•17	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	3	18	0.14764	0.01772	17.71798	0.45036	2.48 %	-0.008681	-0.218022
S19•18	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	2.75	25	0.208568	0.02294	17.69504	0.47331	2.61 %	-0.011254	-0.229276
S19•19	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	2.5	0	0.003331	0.00033	17.6947	0.47364	2.61 %	-0.000163	-0.22944
S19•20	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	2.25	32	0.263984	0.02376	17.67094	0.4974	2.74 %	-0.011671	-0.24111
S19•21	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	2	0	0.003331	0.00027	17.67068	0.49766	2.74 %	-0.000131	-0.241241
S19•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02752	1.75	36	0.294472	0.02061	17.65007	0.51828	2.85 %	-0.010138	-0.251379
S19•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.02752	1.25	31	0.250828	0.01254	17.63752	0.53082	2.92 %	-0.006174	-0.257553
S19•24	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	0.75	22	0.178822	0.00537	17.63216	0.53618	2.95 %	-0.002642	-0.260196
S19•25	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	0.5	13	0.105891	0.00212	17.63004	0.5383	2.96 %	-0.001043	-0.261239
S19•26 EOL	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.01376	0.25	7	0.057079	0.00057	17.62947	0.53887	2.97 %	-0.000281	-0.26152

SPK 20 S20 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	17.1638	Max. dB Loss:	-0.277547
Min. Operational Voltage:	22.3	End Of Line Voltage:	16.62402
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.14 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S20•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	7.25	22	0.182535	0.05294	17.11086	0.05294	0.31 %	-0.02683	-0.02683
S20•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	7	0	0.003331	0.00093	17.10993	0.05387	0.31 %	-0.000474	-0.027303
S20•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	6.75	30	0.241908	0.06532	17.04461	0.11918	0.69 %	-0.033221	-0.060524
S20•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	6.5	0	0.003331	0.00087	17.04375	0.12005	0.70 %	-0.000441	-0.060965
S20•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	6.25	18	0.149229	0.03731	17.00644	0.15736	0.92 %	-0.019033	-0.079999
S20•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	6	24	0.197219	0.04733	16.95911	0.20469	1.19 %	-0.024209	-0.104207
S20•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	5.75	0	0.003331	0.00077	16.95834	0.20546	1.20 %	-0.000392	-0.1046
S20•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029131	5.5	25	0.20778	0.04571	16.91263	0.25117	1.46 %	-0.023445	-0.128044
S20•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	5	37	0.300014	0.06	16.85263	0.31117	1.81 %	-0.030871	-0.158915
S20•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	4.75	0	0.003338	0.00063	16.85199	0.3118	1.82 %	-0.000327	-0.159242
S20•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	4.5	19	0.159279	0.02867	16.82332	0.34047	1.98 %	-0.01479	-0.174032
S20•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	4.25	18	0.151017	0.02567	16.79765	0.36615	2.13 %	-0.013265	-0.187297
S20•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	4	26	0.213073	0.03409	16.76356	0.40024	2.33 %	-0.017647	-0.204943
S20•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	3.75	0	0.003331	0.0005	16.76306	0.40074	2.33 %	-0.000259	-0.205202
S20•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	3.5	27	0.218795	0.03063	16.73243	0.43137	2.51 %	-0.015886	-0.221089
S20•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	3.25	0	0.003331	0.00043	16.73199	0.4318	2.52 %	-0.000225	-0.221313
S20•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	3	20	0.160678	0.01928	16.71271	0.45108	2.63 %	-0.010015	-0.231328
S20•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	2.75	26	0.209206	0.02301	16.6897	0.4741	2.76 %	-0.011969	-0.243297
S20•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	2.5	0	0.003331	0.00033	16.68937	0.47443	2.76 %	-0.000173	-0.24347
S20•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	2.25	32	0.264394	0.0238	16.66557	0.49823	2.90 %	-0.012393	-0.255863
S20•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	2	0	0.003331	0.00027	16.66531	0.49849	2.90 %	-0.000139	-0.256002
S20•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029131	1.75	36	0.295992	0.02072	16.64459	0.51921	3.03 %	-0.010805	-0.266807
S20•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029131	1.25	31	0.250828	0.01254	16.63205	0.53175	3.10 %	-0.006547	-0.273354
S20•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	0.75	22	0.179932	0.0054	16.62665	0.53715	3.13 %	-0.002819	-0.276173
S20•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	0.5	12	0.100043	0.002	16.62465	0.53915	3.14 %	-0.001045	-0.277219
S20•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014566	0.25	8	0.062927	0.00063	16.62402	0.53978	3.14 %	-0.000329	-0.277547

SPK 21 S21 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	16.26728	Max. dB Loss:	-0.293104
Min. Operational Voltage:	22.3	End Of Line Voltage:	15.7275
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.32 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S21•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	7.25	22	0.182535	0.05294	16.21434	0.05294	0.33 %	-0.028311	-0.028311
S21•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	7	0	0.003331	0.00093	16.21341	0.05387	0.33 %	-0.0005	-0.02881
S21•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	6.75	30	0.241908	0.06532	16.1481	0.11918	0.73 %	-0.035061	-0.063872
S21•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	6.5	0	0.003331	0.00087	16.14723	0.12005	0.74 %	-0.000466	-0.064338
S21•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	6.25	18	0.149229	0.03731	16.10992	0.15736	0.97 %	-0.020091	-0.084429
S21•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	6	24	0.197219	0.04733	16.06259	0.20469	1.26 %	-0.025558	-0.109987
S21•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	5.75	0	0.003331	0.00077	16.06182	0.20546	1.26 %	-0.000414	-0.110401
S21•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030737	5.5	25	0.20778	0.04571	16.01611	0.25117	1.54 %	-0.024755	-0.135156
S21•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	5	37	0.300014	0.06	15.95611	0.31117	1.91 %	-0.032602	-0.167758
S21•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	4.75	0	0.003338	0.00063	15.95548	0.3118	1.92 %	-0.000345	-0.168104
S21•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	4.5	19	0.159279	0.02867	15.92681	0.34047	2.09 %	-0.015622	-0.183725
S21•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	4.25	18	0.151017	0.02567	15.90113	0.36615	2.25 %	-0.014012	-0.197737
S21•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	4	26	0.213073	0.03409	15.86704	0.40024	2.46 %	-0.018643	-0.21638
S21•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	3.75	0	0.003331	0.0005	15.86654	0.40074	2.46 %	-0.000274	-0.216654
S21•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	3.5	27	0.218795	0.03063	15.83591	0.43137	2.65 %	-0.016785	-0.233438
S21•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	3.25	0	0.003331	0.00043	15.83548	0.4318	2.65 %	-0.000238	-0.233676
S21•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	3	20	0.160678	0.01928	15.8162	0.45108	2.77 %	-0.010582	-0.244258
S21•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	2.75	26	0.209206	0.02301	15.79318	0.4741	2.91 %	-0.012647	-0.256906
S21•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	2.5	0	0.003331	0.00033	15.79285	0.47443	2.92 %	-0.000183	-0.257089
S21•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	2.25	32	0.264394	0.0238	15.76905	0.49823	3.06 %	-0.013097	-0.270185
S21•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	2	0	0.003331	0.00027	15.76879	0.49849	3.06 %	-0.000147	-0.270332
S21•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030737	1.75	36	0.295992	0.02072	15.74807	0.51921	3.19 %	-0.01142	-0.281752
S21•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.030737	1.25	31	0.250828	0.01254	15.73553	0.53175	3.27 %	-0.00692	-0.288672
S21•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	0.75	22	0.179932	0.0054	15.73013	0.53715	3.30 %	-0.00298	-0.291652
S21•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	0.5	12	0.100043	0.002	15.72813	0.53915	3.31 %	-0.001105	-0.292757
S21•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.015368	0.25	8	0.062927	0.00063	15.7275	0.53978	3.32 %	-0.000347	-0.293104

SPK 22 S22 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	15.48283	Max. dB Loss:	-0.308221
Min. Operational Voltage:	22.3	End Of Line Voltage:	14.94305
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.49 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S22•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	7.25	22	0.182535	0.05294	15.42989	0.05294	0.34 %	-0.029747	-0.029747
S22•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	7	0	0.003331	0.00093	15.42896	0.05387	0.35 %	-0.000525	-0.030273
S22•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	6.75	30	0.241908	0.06532	15.36364	0.11918	0.77 %	-0.036848	-0.067121
S22•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	6.5	0	0.003331	0.00087	15.36278	0.12005	0.78 %	-0.00049	-0.06761
S22•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	6.25	18	0.149229	0.03731	15.32547	0.15736	1.02 %	-0.021118	-0.088729
S22•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	6	24	0.197219	0.04733	15.27814	0.20469	1.32 %	-0.026868	-0.115597
S22•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	5.75	0	0.003331	0.00077	15.27737	0.20546	1.33 %	-0.000435	-0.116032
S22•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.032294	5.5	25	0.20778	0.04571	15.23166	0.25117	1.62 %	-0.026028	-0.14206
S22•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	5	37	0.300014	0.06	15.17166	0.31117	2.01 %	-0.034284	-0.176345
S22•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	4.75	0	0.003338	0.00063	15.17102	0.3118	2.01 %	-0.000363	-0.176708
S22•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	4.5	19	0.159279	0.02867	15.14235	0.34047	2.20 %	-0.01643	-0.193138
S22•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	4.25	18	0.151017	0.02567	15.11668	0.36615	2.36 %	-0.014739	-0.207877
S22•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	4	26	0.213073	0.03409	15.08259	0.40024	2.59 %	-0.019611	-0.227488
S22•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	3.75	0	0.003331	0.0005	15.08209	0.40074	2.59 %	-0.000288	-0.227776
S22•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	3.5	27	0.218795	0.03063	15.05146	0.43137	2.79 %	-0.017659	-0.245434
S22•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	3.25	0	0.003331	0.00043	15.05102	0.4318	2.79 %	-0.00025	-0.245684
S22•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	3	20	0.160678	0.01928	15.03174	0.45108	2.91 %	-0.011134	-0.256818
S22•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	2.75	26	0.209206	0.02301	15.00873	0.4741	3.06 %	-0.013308	-0.270126
S22•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	2.5	0	0.003331	0.00033	15.0084	0.47443	3.06 %	-0.000193	-0.270319
S22•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	2.25	32	0.264394	0.0238	14.9846	0.49823	3.22 %	-0.013782	-0.284101
S22•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	2	0	0.003331	0.00027	14.98434	0.49849	3.22 %	-0.000154	-0.284255
S22•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.032294	1.75	36	0.295992	0.02072	14.96362	0.51921	3.35 %	-0.012018	-0.296274
S22•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.032294	1.25	31	0.250828	0.01254	14.95108	0.53175	3.43 %	-0.007283	-0.303556
S22•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	0.75	22	0.179932	0.0054	14.94568	0.53715	3.47 %	-0.003137	-0.306693
S22•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	0.5	12	0.100043	0.002	14.94368	0.53915	3.48 %	-0.001163	-0.307856
S22•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.016147	0.25	8	0.062927	0.00063	14.94305	0.53978	3.49 %	-0.000366	-0.308221

SPK 23 S23 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	14.81044	Max. dB Loss:	-0.322477
Min. Operational Voltage:	22.3	End Of Line Voltage:	14.27066
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.64 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S23•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	7.25	22	0.182535	0.05294	14.7575	0.05294	0.36 %	-0.0311	-0.0311
S23•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	7	0	0.003331	0.00093	14.75657	0.05387	0.36 %	-0.000549	-0.03165
S23•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	6.75	30	0.241908	0.06532	14.69126	0.11918	0.80 %	-0.038531	-0.07018
S23•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	6.5	0	0.003331	0.00087	14.69039	0.12005	0.81 %	-0.000512	-0.070692
S23•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	6.25	18	0.149229	0.03731	14.65308	0.15736	1.06 %	-0.022086	-0.092778
S23•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	6	24	0.197219	0.04733	14.60575	0.20469	1.38 %	-0.028103	-0.120881
S23•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	5.75	0	0.003331	0.00077	14.60498	0.20546	1.39 %	-0.000456	-0.121337
S23•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03376	5.5	25	0.20778	0.04571	14.55927	0.25117	1.70 %	-0.027229	-0.148565
S23•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	5	37	0.300014	0.06	14.49927	0.31117	2.10 %	-0.035871	-0.184436
S23•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	4.75	0	0.003338	0.00063	14.49864	0.3118	2.11 %	-0.00038	-0.184816
S23•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	4.5	19	0.159279	0.02867	14.46997	0.34047	2.30 %	-0.017193	-0.202009
S23•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	4.25	18	0.151017	0.02567	14.44429	0.36615	2.47 %	-0.015424	-0.217433
S23•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	4	26	0.213073	0.03409	14.4102	0.40024	2.70 %	-0.020525	-0.237958
S23•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	3.75	0	0.003331	0.0005	14.4097	0.40074	2.71 %	-0.000301	-0.23826
S23•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	3.5	27	0.218795	0.03063	14.37907	0.43137	2.91 %	-0.018483	-0.256743
S23•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	3.25	0	0.003331	0.00043	14.37864	0.4318	2.92 %	-0.000262	-0.257005
S23•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	3	20	0.160678	0.01928	14.35936	0.45108	3.05 %	-0.011655	-0.26866
S23•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	2.75	26	0.209206	0.02301	14.33634	0.4741	3.20 %	-0.013932	-0.282592
S23•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	2.5	0	0.003331	0.00033	14.33601	0.47443	3.20 %	-0.000202	-0.282793
S23•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	2.25	32	0.264394	0.0238	14.31221	0.49823	3.36 %	-0.014429	-0.297222
S23•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	2	0	0.003331	0.00027	14.31195	0.49849	3.37 %	-0.000161	-0.297384
S23•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03376	1.75	36	0.295992	0.02072	14.29123	0.51921	3.51 %	-0.012583	-0.309967
S23•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03376	1.25	31	0.250828	0.01254	14.27869	0.53175	3.59 %	-0.007625	-0.317593
S23•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	0.75	22	0.179932	0.0054	14.27329	0.53715	3.63 %	-0.003284	-0.320877
S23•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	0.5	12	0.100043	0.002	14.27129	0.53915	3.64 %	-0.001218	-0.322095
S23•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01688	0.25	8	0.062927	0.00063	14.27066	0.53978	3.64 %	-0.000383	-0.322477

SPK 26 S26 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	13.46566	Max. dB Loss:	-0.35535
Min. Operational Voltage:	22.3	End Of Line Voltage:	12.92588
Max. Circuit Watts:	n/a	Voltage Drop Percent:	4.01 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S26•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	7.25	22	0.182535	0.05294	13.41273	0.05294	0.39 %	-0.034212	-0.034212
S26•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	7	0	0.003331	0.00093	13.4118	0.05387	0.40 %	-0.000604	-0.034817
S26•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	6.75	30	0.241908	0.06532	13.34648	0.11918	0.89 %	-0.042403	-0.07722
S26•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	6.5	0	0.003331	0.00087	13.34561	0.12005	0.89 %	-0.000564	-0.077784
S26•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	6.25	18	0.149229	0.03731	13.30831	0.15736	1.17 %	-0.024315	-0.102099
S26•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	6	24	0.197219	0.04733	13.26097	0.20469	1.52 %	-0.030948	-0.133046
S26•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	5.75	0	0.003331	0.00077	13.26021	0.20546	1.53 %	-0.000502	-0.133548
S26•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.037131	5.5	25	0.20778	0.04571	13.2145	0.25117	1.87 %	-0.029995	-0.163543
S26•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	5	37	0.300014	0.06	13.15449	0.31117	2.31 %	-0.03953	-0.203073
S26•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	4.75	0	0.003338	0.00063	13.15386	0.3118	2.32 %	-0.000419	-0.203491
S26•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	4.5	19	0.159279	0.02867	13.12519	0.34047	2.53 %	-0.018952	-0.222444
S26•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	4.25	18	0.151017	0.02567	13.09952	0.36615	2.72 %	-0.017006	-0.23945
S26•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	4	26	0.213073	0.03409	13.06542	0.40024	2.97 %	-0.022635	-0.262085
S26•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	3.75	0	0.003331	0.0005	13.06492	0.40074	2.98 %	-0.000332	-0.262417
S26•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	3.5	27	0.218795	0.03063	13.03429	0.43137	3.20 %	-0.020388	-0.282805
S26•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	3.25	0	0.003331	0.00043	13.03386	0.4318	3.21 %	-0.000289	-0.283094
S26•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	3	20	0.160678	0.01928	13.01458	0.45108	3.35 %	-0.012859	-0.295952
S26•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	2.75	26	0.209206	0.02301	12.99157	0.4741	3.52 %	-0.015372	-0.311325
S26•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	2.5	0	0.003331	0.00033	12.99123	0.47443	3.52 %	-0.000223	-0.311547
S26•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	2.25	32	0.264394	0.0238	12.96744	0.49823	3.70 %	-0.015924	-0.327471
S26•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	2	0	0.003331	0.00027	12.96717	0.49849	3.70 %	-0.000178	-0.327649
S26•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.037131	1.75	36	0.295992	0.02072	12.94645	0.51921	3.86 %	-0.013889	-0.341539
S26•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.037131	1.25	31	0.250828	0.01254	12.93391	0.53175	3.95 %	-0.008418	-0.349957
S26•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	0.75	22	0.179932	0.0054	12.92851	0.53715	3.99 %	-0.003626	-0.353583
S26•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	0.5	12	0.100043	0.002	12.92651	0.53915	4.00 %	-0.001344	-0.354927
S26•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018566	0.25	8	0.062927	0.00063	12.92588	0.53978	4.01 %	-0.000423	-0.35535

SPK 24 S24 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	14.25012	Max. dB Loss:	-0.334963
Min. Operational Voltage:	22.3	End Of Line Voltage:	13.71103
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.78 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	435	Spare Watts:	
Total Circuit Resistance (Ω):	3.568596 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S24•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	7.25	22	0.182535	0.05294	14.19718	0.05294	0.37 %	-0.032326	-0.032326
S24•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	7	0	0.003331	0.00093	14.19625	0.05387	0.38 %	-0.000571	-0.032896
S24•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	6.75	30	0.241908	0.06532	14.13093	0.11918	0.84 %	-0.040055	-0.072951
S24•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	6.5	0	0.003331	0.00087	14.13007	0.12005	0.84 %	-0.000532	-0.073484
S24•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	6.25	18	0.149229	0.03731	14.09276	0.15736	1.10 %	-0.022963	-0.096447
S24•06	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.017544	6	24	0.197219	0.04733	14.04543	0.20469	1.44 %	-0.029222	-0.125669
S24•07	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.017544	5.75	0	0.003331	0.00077	14.04466	0.20546	1.44 %	-0.000474	-0.126143
S24•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.035087	5.5	25	0.20778	0.04571	13.99895	0.25117	1.76 %	-0.028317	-0.154459
S24•09	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.017544	5	36	0.291285	0.05826	13.94069	0.30942	2.17 %	-0.036222	-0.190681
S24•10	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.017544	4.75	0	0.003331	0.00063	13.94006	0.31006	2.18 %	-0.000394	-0.191076
S24•11	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.017544	4.5	20	0.165107	0.02972	13.91034	0.33978	2.38 %	-0.018537	-0.209613
S24•12	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.017544	4.25	18	0.151017	0.02567	13.88467	0.36545	2.56 %	-0.016046	-0.225659
S24•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	4	26	0.213073	0.03409	13.85057	0.39954	2.80 %	-0.021353	-0.247012
S24•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	3.75	0	0.003331	0.0005	13.85007	0.40004	2.81 %	-0.000314	-0.247326
S24•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	3.5	27	0.218795	0.03063	13.81944	0.43067	3.02 %	-0.019231	-0.266557
S24•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	3.25	0	0.003331	0.00043	13.81901	0.43111	3.03 %	-0.000272	-0.266829
S24•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	3	20	0.160678	0.01928	13.79973	0.45039	3.16 %	-0.012127	-0.278956
S24•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	2.75	26	0.209206	0.02301	13.77672	0.4734	3.32 %	-0.014497	-0.293453
S24•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	2.5	0	0.003331	0.00033	13.77638	0.47373	3.32 %	-0.00021	-0.293663
S24•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	2.25	32	0.264394	0.0238	13.75259	0.49753	3.49 %	-0.015016	-0.308679
S24•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	2	0	0.003331	0.00027	13.75232	0.49779	3.49 %	-0.000168	-0.308847
S24•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.035087	1.75	36	0.295992	0.02072	13.7316	0.51851	3.64 %	-0.013096	-0.321943
S24•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.035087	1.25	31	0.250828	0.01254	13.71906	0.53105	3.73 %	-0.007936	-0.329879
S24•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	0.75	22	0.179932	0.0054	13.71366	0.53645	3.76 %	-0.003418	-0.333297
S24•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	0.5	12	0.100043	0.002	13.71166	0.53845	3.78 %	-0.001267	-0.334565
S24•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017544	0.25	8	0.062927	0.00063	13.71103	0.53908	3.78 %	-0.000398	-0.334963

SPK 27 S27 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	13.24153	Max. dB Loss:	-0.361491
Min. Operational Voltage:	22.3	End Of Line Voltage:	12.70175
Max. Circuit Watts:	n/a	Voltage Drop Percent:	4.08 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S27•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	7.25	22	0.182535	0.05294	13.1886	0.05294	0.40 %	-0.034793	-0.034793
S27•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	7	0	0.003331	0.00093	13.18767	0.05387	0.41 %	-0.000614	-0.035407
S27•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	6.75	30	0.241908	0.06532	13.12235	0.11918	0.90 %	-0.043126	-0.078533
S27•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	6.5	0	0.003331	0.00087	13.12148	0.12005	0.91 %	-0.000573	-0.079106
S27•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	6.25	18	0.149229	0.03731	13.08418	0.15736	1.19 %	-0.024731	-0.103837
S27•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	6	24	0.197219	0.04733	13.03684	0.20469	1.55 %	-0.031479	-0.135316
S27•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	5.75	0	0.003331	0.00077	13.03608	0.20546	1.55 %	-0.00051	-0.135826
S27•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03776	5.5	25	0.20778	0.04571	12.99037	0.25117	1.90 %	-0.030511	-0.166338
S27•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	5	37	0.300014	0.06	12.93036	0.31117	2.35 %	-0.040213	-0.206551
S27•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	4.75	0	0.003338	0.00063	12.92973	0.3118	2.35 %	-0.000426	-0.206977
S27•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	4.5	19	0.159279	0.02867	12.90106	0.34047	2.57 %	-0.019281	-0.226258
S27•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	4.25	18	0.151017	0.02567	12.87539	0.36615	2.77 %	-0.017302	-0.24356
S27•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	4	26	0.213073	0.03409	12.84129	0.40024	3.02 %	-0.023029	-0.26659
S27•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	3.75	0	0.003331	0.0005	12.84079	0.40074	3.03 %	-0.000338	-0.266928
S27•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	3.5	27	0.218795	0.03063	12.81016	0.43137	3.26 %	-0.020744	-0.287672
S27•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	3.25	0	0.003331	0.00043	12.80973	0.4318	3.26 %	-0.000294	-0.287966
S27•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	3	20	0.160678	0.01928	12.79045	0.45108	3.41 %	-0.013084	-0.30105
S27•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	2.75	26	0.209206	0.02301	12.76744	0.4741	3.58 %	-0.015642	-0.316692
S27•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	2.5	0	0.003331	0.00033	12.7671	0.47443	3.58 %	-0.000227	-0.316918
S27•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	2.25	32	0.264394	0.0238	12.74331	0.49823	3.76 %	-0.016204	-0.333122
S27•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	2	0	0.003331	0.00027	12.74304	0.49849	3.76 %	-0.000181	-0.333303
S27•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03776	1.75	36	0.295992	0.02072	12.72232	0.51921	3.92 %	-0.014134	-0.347437
S27•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03776	1.25	31	0.250828	0.01254	12.70978	0.53175	4.02 %	-0.008566	-0.356003
S27•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	0.75	22	0.179932	0.0054	12.70438	0.53715	4.06 %	-0.00369	-0.359693
S27•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	0.5	12	0.100043	0.002	12.70238	0.53915	4.07 %	-0.001368	-0.361061
S27•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01888	0.25	8	0.062927	0.00063	12.70175	0.53978	4.08 %	-0.00043	-0.361491

SPK 25 S25 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	13.80186	Max. dB Loss:	-0.346519
Min. Operational Voltage:	22.3	End Of Line Voltage:	13.26208
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.91 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S25•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	7.25	22	0.182535	0.05294	13.74892	0.05294	0.38 %	-0.033378	-0.033378
S25•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	7	0	0.003331	0.00093	13.74799	0.05387	0.39 %	-0.000589	-0.033967
S25•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	6.75	30	0.241908	0.06532	13.68267	0.11918	0.86 %	-0.041364	-0.075331
S25•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	6.5	0	0.003331	0.00087	13.68181	0.12005	0.87 %	-0.00055	-0.075881
S25•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	6.25	18	0.149229	0.03731	13.6445	0.15736	1.14 %	-0.023717	-0.099597
S25•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	6	24	0.197219	0.04733	13.59717	0.20469	1.48 %	-0.030184	-0.129781
S25•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	5.75	0	0.003331	0.00077	13.5964	0.20546	1.49 %	-0.000489	-0.130271
S25•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.036227	5.5	25	0.20778	0.04571	13.55069	0.25117	1.82 %	-0.029252	-0.159522
S25•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	5	37	0.300014	0.06	13.49069	0.31117	2.25 %	-0.038547	-0.198069
S25•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	4.75	0	0.003338	0.00063	13.49005	0.3118	2.26 %	-0.000408	-0.198477
S25•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	4.5	19	0.159279	0.02867	13.46138	0.34047	2.47 %	-0.01848	-0.216957
S25•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	4.25	18	0.151017	0.02567	13.43571	0.36615	2.65 %	-0.016581	-0.233538
S25•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	4	26	0.213073	0.03409	13.40162	0.40024	2.90 %	-0.022068	-0.255606
S25•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	3.75	0	0.003331	0.0005	13.40112	0.40074	2.90 %	-0.000324	-0.25593
S25•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	3.5	27	0.218795	0.03063	13.37049	0.43137	3.13 %	-0.019876	-0.275806
S25•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	3.25	0	0.003331	0.00043	13.37005	0.4318	3.13 %	-0.000281	-0.276087
S25•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	3	20	0.160678	0.01928	13.35077	0.45108	3.27 %	-0.012535	-0.288622
S25•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	2.75	26	0.209206	0.02301	13.32776	0.4741	3.44 %	-0.014985	-0.303607
S25•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	2.5	0	0.003331	0.00033	13.32743	0.47443	3.44 %	-0.000217	-0.303824
S25•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	2.25	32	0.264394	0.0238	13.30363	0.49823	3.61 %	-0.015522	-0.319346
S25•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	2	0	0.003331	0.00027	13.30337	0.49849	3.61 %	-0.000174	-0.31952
S25•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.036227	1.75	36	0.295992	0.02072	13.28265	0.51921	3.76 %	-0.013538	-0.333058
S25•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.036227	1.25	31	0.250828	0.01254	13.27011	0.53175	3.85 %	-0.008205	-0.341263
S25•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	0.75	22	0.179932	0.0054	13.26471	0.53715	3.89 %	-0.003534	-0.344797
S25•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	0.5	12	0.100043	0.002	13.26271	0.53915	3.91 %	-0.00131	-0.346107
S25•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018114	0.25	8	0.062927	0.00063	13.26208	0.53978	3.91 %	-0.000412	-0.346519

SPK 28 S28 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	13.12947	Max. dB Loss:	-0.364643
Min. Operational Voltage:	22.3	End Of Line Voltage:	12.58969
Max. Circuit Watts:	n/a	Voltage Drop Percent:	4.11 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S28•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	7.25	22	0.182535	0.05294	13.07653	0.05294	0.40 %	-0.03509	-0.03509
S28•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	7	0	0.003331	0.00093	13.0756	0.05387	0.41 %	-0.00062	-0.03571
S28•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	6.75	30	0.241908	0.06532	13.01029	0.11918	0.91 %	-0.043496	-0.079206
S28•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	6.5	0	0.003331	0.00087	13.00942	0.12005	0.91 %	-0.000578	-0.079785
S28•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	6.25	18	0.149229	0.03731	12.97211	0.15736	1.20 %	-0.024944	-0.104729
S28•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	6	24	0.197219	0.04733	12.92478	0.20469	1.56 %	-0.031751	-0.13648
S28•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	5.75	0	0.003331	0.00077	12.92401	0.20546	1.56 %	-0.000515	-0.136995
S28•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.038082	5.5	25	0.20778	0.04571	12.8783	0.25117	1.91 %	-0.030776	-0.167771
S28•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	5	37	0.300014	0.06	12.8183	0.31117	2.37 %	-0.040564	-0.208335
S28•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	4.75	0	0.003338	0.00063	12.81767	0.3118	2.37 %	-0.00043	-0.208765
S28•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	4.5	19	0.159279	0.02867	12.789	0.34047	2.59 %	-0.01945	-0.228215
S28•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	4.25	18	0.151017	0.02567	12.76332	0.36615	2.79 %	-0.017454	-0.245669
S28•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	4	26	0.213073	0.03409	12.72923	0.40024	3.05 %	-0.023232	-0.268901
S28•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	3.75	0	0.003331	0.0005	12.72873	0.40074	3.05 %	-0.000341	-0.269242
S28•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	3.5	27	0.218795	0.03063	12.6981	0.43137	3.29 %	-0.020927	-0.290169
S28•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	3.25	0	0.003331	0.00043	12.69767	0.4318	3.29 %	-0.000296	-0.290465
S28•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	3	20	0.160678	0.01928	12.67839	0.45108	3.44 %	-0.013199	-0.303665
S28•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	2.75	26	0.209206	0.02301	12.65537	0.4741	3.61 %	-0.01578	-0.319445
S28•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	2.5	0	0.003331	0.00033	12.65504	0.47443	3.61 %	-0.000229	-0.319673
S28•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	2.25	32	0.264394	0.0238	12.63124	0.49823	3.79 %	-0.016347	-0.336021
S28•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	2	0	0.003331	0.00027	12.63098	0.49849	3.80 %	-0.000183	-0.336204
S28•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.038082	1.75	36	0.295992	0.02072	12.61026	0.51921	3.95 %	-0.014259	-0.350463
S28•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.038082	1.25	31	0.250828	0.01254	12.59772	0.53175	4.05 %	-0.008642	-0.359106
S28•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	0.75	22	0.179932	0.0054	12.59232	0.53715	4.09 %	-0.003723	-0.362828
S28•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	0.5	12	0.100043	0.002	12.59032	0.53915	4.11 %	-0.00138	-0.364209
S28•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019041	0.25	8	0.062927	0.00063	12.58969	0.53978	4.11 %	-0.000434	-0.364643

FACU-1 A4 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	25	Max. dB Loss:	-6.670273
Min. Operational Voltage:	22.3	End Of Line Voltage:	11.59916
Max. Circuit Watts:	120	Voltage Drop Percent:	53.60 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	74.5
Total Circuit Length (Ft):	838	Spare Watts:	45.5 W
Total Circuit Resistance (Ω):	6.8729 Ω	Spare Watts Percent:	37.92 %

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
A4•01	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	74.5	328	0.152215	0.4536	16.9728	8.0272	32.11 %	-0.229084	-0.229084
A4•02	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	67.25	47	0.152215	0.40946	15.9333	9.0667	36.27 %	-0.220392	-0.449477
A4•03	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	60	47	0.152215	0.36532	15.00587	9.99413	39.98 %	-0.208924	-0.6584
A4•04	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.25	0.29	52.75	47	0.152215	0.32117	14.1905	10.8095	43.24 %	-0.194396	-0.852797
A4•05	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.5	0.3	45.5	47	0.152215	0.27703	13.4872	11.5128	46.05 %	-0.176603	-1.0294
A4•06	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.5	0.3	38	47	0.150668	0.22902	12.90218	12.09782	48.39 %	-0.152823	-1.182223
A4•07	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.5	0.3	30.5	47	0.152215	0.1857	12.43262	12.56738	50.27 %	-0.128779	-1.311002
A4•08	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	7.5	0.3	23	47	0.152215	0.14004	12.07711	12.9229	51.69 %	-0.100136	-1.411138
A4•09	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	5	0.2	15.5	42	0.153257	0.09502	11.86229	13.13771	52.55 %	-0.069298	-1.480436
A4•10	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	5.5	0.22	10.5	42	0.153257	0.06437	11.71634	13.28366	53.13 %	-0.047589	-1.528025
A4•11	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	2.5	0.1	5	47	0.153257	0.03065	11.63864	13.36137	53.45 %	-0.022845	-1.55087
A4•12 EOL	FCM-1	Addressable Control Module W/ FlashScan, 1 Class A or 1 Class B	2.5	0.1	2.5	48	0.159535	0.01595	11.59916	13.40085	53.60 %	-0.011939	-1.562808

SPK 29 S29 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	16.9728	Max. dB Loss:	-0.280359
Min. Operational Voltage:	22.3	End Of Line Voltage:	16.43371
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.18 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	435	Spare Watts:	
Total Circuit Resistance (Ω):	3.568596 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S29•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	7.25	22	0.182535	0.05294	16.91986	0.05294	0.31 %	-0.027132	-0.027132
S29•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	7	0	0.003331	0.00093	16.91893	0.05387	0.32 %	-0.000479	-0.027611
S29•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	6.75	30	0.241908	0.06532	16.85362	0.11918	0.70 %	-0.033596	-0.061207
S29•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	6.5	0	0.003331	0.00087	16.85275	0.12005	0.71 %	-0.000446	-0.061654
S29•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	6.25	18	0.149229	0.03731	16.81544	0.15736	0.93 %	-0.019249	-0.080903
S29•06	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	6	24	0.197219	0.04733	16.76811	0.20469	1.21 %	-0.024484	-0.105387
S29•07	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	5.75	0	0.003331	0.00077	16.76734	0.20546	1.21 %	-0.000397	-0.105784
S29•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029459	5.5	25	0.20778	0.04571	16.72163	0.25117	1.48 %	-0.023712	-0.129496
S29•09	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	5	36	0.291285	0.05826	16.66337	0.30942	1.82 %	-0.030314	-0.15981
S29•10	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	4.75	0	0.003331	0.00063	16.66274	0.31006	1.83 %	-0.00033	-0.16014
S29•11	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	4.5	20	0.165107	0.02972	16.63302	0.33978	2.00 %	-0.015506	-0.175646
S29•12	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	4.25	18	0.151017	0.02567	16.60735	0.36545	2.15 %	-0.013417	-0.189063
S29•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	4	26	0.213073	0.03409	16.57326	0.39954	2.35 %	-0.017849	-0.206912
S29•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	3.75	0	0.003331	0.0005	16.57276	0.40004	2.36 %	-0.000262	-0.207174
S29•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	3.5	27	0.218795	0.03063	16.54213	0.43067	2.54 %	-0.016069	-0.223242
S29•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	3.25	0	0.003331	0.00043	16.54169	0.43111	2.54 %	-0.000227	-0.22347
S29•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	3	20	0.160678	0.01928	16.52241	0.45039	2.65 %	-0.01013	-0.2336
S29•18	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	2.75	26	0.209206	0.02301	16.4994	0.4734	2.79 %	-0.012106	-0.245706
S29•19	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	2.5	0	0.003331	0.00033	16.49907	0.47373	2.79 %	-0.000175	-0.245882
S29•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	2.25	32	0.264394	0.0238	16.47527	0.49753	2.93 %	-0.012536	-0.258418
S29•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.014729	2	0	0.003331	0.00027	16.47501	0.49779	2.93 %	-0.00014	-0.258558
S29•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029459	1.75	36	0.295992	0.02072	16.45429	0.51851	3.05 %	-0.01093	-0.269488
S29•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.029459	1.25	31	0.250828	0.01254	16.44175	0.53105	3.13 %	-0.006623	-0.276111
S29•24	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	0.75	22	0.179932	0.0054	16.43635	0.53645	3.16 %	-0.002852	-0.278963
S29•25	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	0.5	12	0.101154	0.00202	16.43432	0.53847	3.17 %	-0.001069	-0.280032
S29•26 EOL	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.014729	0.25	8	0.061816	0.00062	16.43371	0.53909	3.18 %	-0.000327	-0.280359

SPK 30 S30 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	15.9333	Max. dB Loss:	-0.299355
Min. Operational Voltage:	22.3	End Of Line Voltage:	15.39352
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.39 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S30•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	7.25	22	0.182535	0.05294	15.88037	0.05294	0.33 %	-0.028905	-0.028905
S30•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	7	0	0.003331	0.00093	15.87943	0.05387	0.34 %	-0.00051	-0.029415
S30•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	6.75	30	0.241908	0.06532	15.81412	0.11918	0.75 %	-0.0358	-0.065216
S30•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	6.5	0	0.003331	0.00087	15.81325	0.12005	0.75 %	-0.000476	-0.065691
S30•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	6.25	18	0.149229	0.03731	15.77595	0.15736	0.99 %	-0.020516	-0.086208
S30•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	6	24	0.197219	0.04733	15.72861	0.20469	1.28 %	-0.0261	-0.112307
S30•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	5.75	0	0.003331	0.00077	15.72785	0.20546	1.29 %	-0.000423	-0.11273
S30•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.031381	5.5	25	0.20778	0.04571	15.68214	0.25117	1.58 %	-0.025282	-0.138012
S30•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	5	37	0.300014	0.06	15.62213	0.31117	1.95 %	-0.033298	-0.17131
S30•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	4.75	0	0.003338	0.00063	15.6215	0.3118	1.96 %	-0.000353	-0.171662
S30•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	4.5	19	0.159279	0.02867	15.59283	0.34047	2.14 %	-0.015956	-0.187618
S30•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	4.25	18	0.151017	0.02567	15.56716	0.36615	2.30 %	-0.014313	-0.201931
S30•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	4	26	0.213073	0.03409	15.53306	0.40024	2.51 %	-0.019043	-0.220974
S30•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	3.75	0	0.003331	0.0005	15.53256	0.40074	2.52 %	-0.00028	-0.221253
S30•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	3.5	27	0.218795	0.03063	15.50193	0.43137	2.71 %	-0.017146	-0.238399
S30•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	3.25	0	0.003331	0.00043	15.5015	0.4318	2.71 %	-0.000243	-0.238642
S30•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	3	20	0.160678	0.01928	15.48222	0.45108	2.83 %	-0.01081	-0.249452
S30•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	2.75	26	0.209206	0.02301	15.45921	0.4741	2.98 %	-0.01292	-0.262373
S30•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	2.5	0	0.003331	0.00033	15.45887	0.47443	2.98 %	-0.000187	-0.26256
S30•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	2.25	32	0.264394	0.0238	15.43508	0.49823	3.13 %	-0.01338	-0.27594
S30•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	2	0	0.003331	0.00027	15.43481	0.49849	3.13 %	-0.00015	-0.276089
S30•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.031381	1.75	36	0.295992	0.02072	15.41409	0.51921	3.26 %	-0.011667	-0.287757
S30•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.031381	1.25	31	0.250828	0.01254	15.40155	0.53175	3.34 %	-0.00707	-0.294827
S30•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	0.75	22	0.179932	0.0054	15.39615	0.53715	3.37 %	-0.003045	-0.297871
S30•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	0.5	12	0.100043	0.002	15.39415	0.53915	3.38 %	-0.001129	-0.299
S30•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01569	0.25	8	0.062927	0.00063	15.39352	0.53978	3.39 %	-0.000355	-0.299355

SPK 31 S31 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	15.00587	Max. dB Loss:	-0.3182
Min. Operational Voltage:	22.3	End Of Line Voltage:	14.46609
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.60 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S31•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	7.25	22	0.182535	0.05294	14.95294	0.05294	0.35 %	-0.030695	-0.030695
S31•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	7	0	0.003331	0.00093	14.952	0.05387	0.36 %	-0.000542	-0.031237
S31•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	6.75	30	0.241908	0.06532	14.88669	0.11918	0.79 %	-0.038026	-0.069262
S31•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	6.5	0	0.003331	0.00087	14.88582	0.12005	0.80 %	-0.000505	-0.069768
S31•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	6.25	18	0.149229	0.03731	14.84851	0.15736	1.05 %	-0.021796	-0.091564
S31•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	6	24	0.197219	0.04733	14.80118	0.20469	1.36 %	-0.027732	-0.119296
S31•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	5.75	0	0.003331	0.00077	14.80042	0.20546	1.37 %	-0.00045	-0.119746
S31•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03332	5.5	25	0.20778	0.04571	14.7547	0.25117	1.67 %	-0.026868	-0.146614
S31•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	5	37	0.300014	0.06	14.6947	0.31117	2.07 %	-0.035395	-0.182009
S31•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	4.75	0	0.003338	0.00063	14.69407	0.3118	2.08 %	-0.000375	-0.182384
S31•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	4.5	19	0.159279	0.02867	14.6654	0.34047	2.27 %	-0.016964	-0.199348
S31•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	4.25	18	0.151017	0.02567	14.63972	0.36615	2.44 %	-0.015219	-0.214566
S31•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	4	26	0.213073	0.03409	14.60563	0.40024	2.67 %	-0.020251	-0.234817
S31•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	3.75	0	0.003331	0.0005	14.60513	0.40074	2.67 %	-0.000297	-0.235114
S31•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	3.5	27	0.218795	0.03063	14.5745	0.43137	2.87 %	-0.018236	-0.25335
S31•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	3.25	0	0.003331	0.00043	14.57407	0.4318	2.88 %	-0.000258	-0.253608
S31•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	3	20	0.160678	0.01928	14.55479	0.45108	3.01 %	-0.011499	-0.265107
S31•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	2.75	26	0.209206	0.02301	14.53177	0.4741	3.16 %	-0.013744	-0.278851
S31•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	2.5	0	0.003331	0.00033	14.53144	0.47443	3.16 %	-0.000199	-0.279051
S31•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	2.25	32	0.264394	0.0238	14.50765	0.49823	3.32 %	-0.014235	-0.293285
S31•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	2	0	0.003331	0.00027	14.50738	0.49849	3.32 %	-0.000159	-0.293444
S31•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03332	1.75	36	0.295992	0.02072	14.48666	0.51921	3.46 %	-0.012414	-0.305858
S31•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.03332	1.25	31	0.250828	0.01254	14.47412	0.53175	3.54 %	-0.007523	-0.313381
S31•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	0.75	22	0.179932	0.0054	14.46872	0.53715	3.58 %	-0.00324	-0.316621
S31•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	0.5	12	0.100043	0.002	14.46672	0.53915	3.59 %	-0.001201	-0.317822
S31•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.01666	0.25	8	0.062927	0.00063	14.46609	0.53978	3.60 %	-0.000378	-0.3182

SPK 32 S32 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	14.1905	Max. dB Loss:	-0.336842
Min. Operational Voltage:	22.3	End Of Line Voltage:	13.65072
Max. Circuit Watts:	n/a	Voltage Drop Percent:	3.80 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.25
Total Circuit Length (Ft):	436	Spare Watts:	
Total Circuit Resistance (Ω):	3.571504 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S32•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	7.25	22	0.182535	0.05294	14.13757	0.05294	0.37 %	-0.032462	-0.032462
S32•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	7	0	0.003331	0.00093	14.13663	0.05387	0.38 %	-0.000573	-0.033035
S32•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	6.75	30	0.241908	0.06532	14.07132	0.11918	0.84 %	-0.040224	-0.073259
S32•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	6.5	0	0.003331	0.00087	14.07045	0.12005	0.85 %	-0.000535	-0.073794
S32•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	6.25	18	0.149229	0.03731	14.03315	0.15736	1.11 %	-0.023061	-0.096854
S32•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	6	24	0.197219	0.04733	13.98581	0.20469	1.44 %	-0.029347	-0.126201
S32•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	5.75	0	0.003331	0.00077	13.98505	0.20546	1.45 %	-0.000476	-0.126677
S32•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.035235	5.5	25	0.20778	0.04571	13.93934	0.25117	1.77 %	-0.028437	-0.155114
S32•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	5	37	0.300014	0.06	13.87933	0.31117	2.19 %	-0.03747	-0.192584
S32•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	4.75	0	0.003338	0.00063	13.8787	0.3118	2.20 %	-0.000397	-0.192981
S32•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	4.5	19	0.159279	0.02867	13.85003	0.34047	2.40 %	-0.017961	-0.210942
S32•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	4.25	18	0.151017	0.02567	13.82436	0.36615	2.58 %	-0.016115	-0.227058
S32•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	4	26	0.213073	0.03409	13.79026	0.40024	2.82 %	-0.021447	-0.248504
S32•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	3.75	0	0.003331	0.0005	13.78976	0.40074	2.82 %	-0.000315	-0.248819
S32•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	3.5	27	0.218795	0.03063	13.75913	0.43137	3.04 %	-0.019315	-0.268134
S32•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	3.25	0	0.003331	0.00043	13.7587	0.4318	3.04 %	-0.000273	-0.268408
S32•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	3	20	0.160678	0.01928	13.73942	0.45108	3.18 %	-0.012181	-0.280588
S32•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	2.75	26	0.209206	0.02301	13.71641	0.4741	3.34 %	-0.014561	-0.295149
S32•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	2.5	0	0.003331	0.00033	13.71607	0.47443	3.34 %	-0.000211	-0.29536
S32•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	2.25	32	0.264394	0.0238	13.69228	0.49823	3.51 %	-0.015082	-0.310442
S32•21	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	2	0	0.003331	0.00027	13.69201	0.49849	3.51 %	-0.000169	-0.31061
S32•22	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.035235	1.75	36	0.295992	0.02072	13.67129	0.51921	3.66 %	-0.013154	-0.323764
S32•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.035235	1.25	31	0.250828	0.01254	13.65875	0.53175	3.75 %	-0.007971	-0.331735
S32•24	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	0.75	22	0.179932	0.0054	13.65335	0.53715	3.79 %	-0.003433	-0.335169
S32•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	0.5	12	0.100043	0.002	13.65135	0.53915	3.80 %	-0.001273	-0.336442
S32•26 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.017617	0.25	8	0.062927	0.00063	13.65072	0.53978	3.80 %	-0.0004	-0.336842

SPK 33 S33 SPEAKER SCHEDULE

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	13.4872	Max. dB Loss:	-0.369552
Min. Operational Voltage:	22.3	End Of Line Voltage:	12.92541
Max. Circuit Watts:	n/a	Voltage Drop Percent:	4.17 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.5
Total Circuit Length (Ft):	441	Spare Watts:	
Total Circuit Resistance (Ω):	3.614203 Ω	Spare Watts Percent:	

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S33•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	7.5	22	0.182535	0.05476	13.43244	0.05476	0.41 %	-0.035338	-0.035338
S33•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	7.25	0	0.003331	0.00097	13.43147	0.05573	0.41 %	-0.000625	-0.035963
S33•03	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	7	30	0.241908	0.06773	13.36374	0.12346	0.92 %	-0.043913	-0.079876
S33•04	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	6.75	0	0.003331	0.0009	13.36284	0.12436	0.92 %	-0.000584	-0.080461
S33•05	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	6.5	18	0.149229	0.0388	13.32404	0.16316	1.21 %	-0.025257	-0.105717
S33•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	6.25	24	0.197219	0.04931	13.27474	0.21247	1.58 %	-0.032201	-0.137919
S33•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	6	0	0.003331	0.0008	13.27394	0.21326	1.58 %	-0.000523	-0.138442
S33•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.037072	5.75	25	0.205876	0.04735	13.22659	0.26062	1.93 %	-0.03104	-0.169481
S33•09	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	5.25	37	0.301055	0.06322	13.16336	0.32384	2.40 %	-0.041617	-0.211099
S33•10	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	5	0	0.003338	0.00067	13.1627	0.32451	2.41 %	-0.000441	-0.21154
S33•11	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	4.75	28	0.227299	0.04319	13.11951	0.36769	2.73 %	-0.028545	-0.240085
S33•12	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	4.5	0	0.003331	0.0006	13.11891	0.36829	2.73 %	-0.000397	-0.240482
S33•13	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	4.25	14	0.116321	0.01978	13.09913	0.38807	2.88 %	-0.013103	-0.253585
S33•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	4	26	0.210156	0.03363	13.06551	0.42169	3.13 %	-0.022325	-0.27591
S33•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	3.75	0	0.003331	0.0005	13.06501	0.42219	3.13 %	-0.000332	-0.276242
S33•16	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	3.5	27	0.218795	0.03063	13.03438	0.45282	3.36 %	-0.020388	-0.29663
S33•17	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	3.25	0	0.003331	0.00043	13.03394	0.45326	3.36 %	-0.000289	-0.296919
S33•18	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	3	20	0.160678	0.01928	13.01466	0.47254	3.50 %	-0.012858	-0.309777
S33•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	2.75	26	0.209206	0.02301	12.99165	0.49555	3.67 %	-0.015372	-0.32515
S33•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	2.5	0	0.003331	0.00033	12.99132	0.49588	3.68 %	-0.000223	-0.325372
S33•21	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	2.25	32	0.264394	0.0238	12.96752	0.51968	3.85 %	-0.015924	-0.341296
S33•22	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.018536	2	0	0.003331	0.00027	12.96726	0.51994	3.86 %	-0.000178	-0.341474
S33•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.037072	1.75	37	0.302375	0.02117	12.94609	0.54111	4.01 %	-0.014189	-0.355664
S33•24	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.037072	1.25	31	0.251378	0.01257	12.93352	0.55368	4.11 %	-0.008437	-0.364101
S33•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	0.75	22	0.182823	0.00549	12.92804	0.55916	4.15 %	-0.003684	-0.367785
S33•26	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	0.5	12	0.100043	0.002	12.92604	0.56117	4.16 %	-0.001345	-0.369129
S33•27 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.018536	0.25	8	0.062927	0.00063	12.92541	0.56179	4.17 %	-0.000423	-0.369552

SPK 34 S34 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	12.90218	Max. dB Loss:	-0.385914
Min. Operational Voltage:	22.3	End Of Line Voltage:	12.34148
Max. Circuit Watts:	n/a	Voltage Drop Percent:	4.35 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.5
Total Circuit Length (Ft):	441	Spare Watts:	
Total Circuit Resistance (Ω):	3.613389 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S34•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	7.5	22	0.181424	0.05443	12.84775	0.05443	0.42 %	-0.036718	-0.036718
S34•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	7.25	0	0.003331	0.00097	12.84679	0.05539	0.43 %	-0.000653	-0.037371
S34•03	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	7	29	0.24127	0.06756	12.77923	0.12295	0.95 %	-0.045796	-0.083168
S34•04	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	6.75	0	0.003331	0.0009	12.77833	0.12385	0.96 %	-0.000611	-0.083779
S34•05	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	6.5	18	0.149229	0.0388	12.73953	0.16265	1.26 %	-0.026414	-0.110192
S34•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	6.25	24	0.197856	0.04946	12.69007	0.21211	1.64 %	-0.033791	-0.143983
S34•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	6	0	0.003331	0.0008	12.68927	0.21291	1.65 %	-0.000547	-0.14453
S34•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.038753	5.75	25	0.204765	0.0471	12.64217	0.26001	2.02 %	-0.032298	-0.176827
S34•09	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	5.25	37	0.301506	0.06332	12.57886	0.32332	2.51 %	-0.043611	-0.220438
S34•10	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	5	0	0.003338	0.00067	12.57819	0.32399	2.51 %	-0.000461	-0.2209
S34•11	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	4.75	28	0.228004	0.04332	12.53487	0.36731	2.85 %	-0.029967	-0.250867
S34•12	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	4.5	0	0.003338	0.0006	12.53427	0.36791	2.85 %	-0.000416	-0.251283
S34•13	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	4.25	14	0.113836	0.01935	12.51491	0.38727	3.00 %	-0.013421	-0.264704
S34•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	4	25	0.207637	0.03322	12.48169	0.42049	3.26 %	-0.023088	-0.287792
S34•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	3.75	0	0.003331	0.0005	12.48119	0.42099	3.26 %	-0.000348	-0.28814
S34•16	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	3.5	27	0.222735	0.03118	12.45001	0.45217	3.50 %	-0.021728	-0.309868
S34•17	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	3.25	0	0.003331	0.00043	12.44958	0.4526	3.51 %	-0.000302	-0.31017
S34•18	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.019377	3	19	0.157376	0.01889	12.43069	0.47149	3.65 %	-0.013186	-0.323356
S34•19	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.019377	2.75	25	0.203369	0.02237	12.40832	0.49386	3.83 %	-0.015646	-0.339002
S34•20	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.019377	2.5	0	0.003331	0.00033	12.40799	0.49419	3.83 %	-0.000233	-0.339235
S34•21	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.019377	2.25	33	0.269593	0.02426	12.38372	0.51846	4.02 %	-0.017001	-0.356236
S34•22	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.019377	2	0	0.003331	0.00027	12.38346	0.51872	4.02 %	-0.000187	-0.356423
S34•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.038753	1.75	37	0.301264	0.02109	12.36237	0.53981	4.18 %	-0.014804	-0.371227
S34•24	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.038753	1.25	31	0.251378	0.01257	12.3498	0.55238	4.28 %	-0.008836	-0.380062
S34•25	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.019377	0.75	23	0.189184	0.00568	12.34412	0.55805	4.33 %	-0.003993	-0.384055
S34•26	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.019377	0.5	12	0.101154	0.00202	12.3421	0.56008	4.34 %	-0.001424	-0.385479
S34•27 EOL	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.019377	0.25	8	0.061816	0.00062	12.34148	0.5607	4.35 %	-0.000435	-0.385914

SPK 35 S35 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	12.43262	Max. dB Loss:	-0.401634
Min. Operational Voltage:	22.3	End Of Line Voltage:	11.87083
Max. Circuit Watts:	n/a	Voltage Drop Percent:	4.52 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.5
Total Circuit Length (Ft):	441	Spare Watts:	
Total Circuit Resistance (Ω):	3.614203 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S35•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	7.5	22	0.182535	0.05476	12.37786	0.05476	0.44 %	-0.038343	-0.038343
S35•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	7.25	0	0.003331	0.00097	12.37689	0.05573	0.45 %	-0.000678	-0.03902
S35•03	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	7	30	0.241908	0.06773	12.30916	0.12346	0.99 %	-0.047665	-0.086686
S35•04	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	6.75	0	0.003331	0.0009	12.30826	0.12436	1.00 %	-0.000634	-0.08732
S35•05	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	6.5	18	0.149229	0.0388	12.26946	0.16316	1.31 %	-0.027424	-0.114744
S35•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	6.25	24	0.197219	0.04931	12.22016	0.21247	1.71 %	-0.034975	-0.149719
S35•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	6	0	0.003331	0.0008	12.21936	0.21326	1.72 %	-0.000568	-0.150287
S35•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.040217	5.75	25	0.205876	0.04735	12.17201	0.26062	2.10 %	-0.033724	-0.184011
S35•09	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	5.25	37	0.301055	0.06322	12.10878	0.32384	2.60 %	-0.045233	-0.229243
S35•10	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	5	0	0.003338	0.00067	12.10812	0.32451	2.61 %	-0.000479	-0.229722
S35•11	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	4.75	28	0.227299	0.04319	12.06493	0.36769	2.96 %	-0.031036	-0.260758
S35•12	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	4.5	0	0.003331	0.0006	12.06433	0.36829	2.96 %	-0.000432	-0.26119
S35•13	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	4.25	14	0.116321	0.01978	12.04455	0.38807	3.12 %	-0.014249	-0.275439
S35•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	4	26	0.210156	0.03363	12.01093	0.42169	3.39 %	-0.024282	-0.299722
S35•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	3.75	0	0.003331	0.0005	12.01043	0.42219	3.40 %	-0.000362	-0.300083
S35•16	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	3.5	27	0.218795	0.03063	11.9798	0.45282	3.64 %	-0.022181	-0.322264
S35•17	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	3.25	0	0.003331	0.00043	11.97937	0.45326	3.65 %	-0.000314	-0.322578
S35•18	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	3	20	0.160678	0.01928	11.96008	0.47254	3.80 %	-0.013991	-0.336569
S35•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	2.75	26	0.209206	0.02301	11.93707	0.49555	3.99 %	-0.016729	-0.353298
S35•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	2.5	0	0.003331	0.00033	11.93674	0.49588	3.99 %	-0.000242	-0.353541
S35•21	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	2.25	32	0.264394	0.0238	11.91294	0.51968	4.18 %	-0.017332	-0.370873
S35•22	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.020108	2	0	0.003331	0.00027	11.91268	0.51994	4.18 %	-0.000194	-0.371067
S35•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.040217	1.75	37	0.302375	0.02117	11.89151	0.54111	4.35 %	-0.015446	-0.386513
S35•24	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.040217	1.25	31	0.251378	0.01257	11.87894	0.55368	4.45 %	-0.009186	-0.395699
S35•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	0.75	22	0.182823	0.00549	11.87346	0.55916	4.50 %	-0.004012	-0.39971
S35•26	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	0.5	12	0.100043	0.002	11.87146	0.56117	4.51 %	-0.001464	-0.401174
S35•27 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.020108	0.25	8	0.062927	0.00063	11.87083	0.56179	4.52 %	-0.00046	-0.401634

SPK 36 S36 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	12.07711	Max. dB Loss:	-0.413743
Min. Operational Voltage:	22.3	End Of Line Voltage:	11.51531
Max. Circuit Watts:	n/a	Voltage Drop Percent:	4.65 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	7.5
Total Circuit Length (Ft):	441	Spare Watts:	
Total Circuit Resistance (Ω):	3.614203 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S36•01	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	7.5	22	0.182535	0.05476	12.02234	0.05476	0.45 %	-0.039474	-0.039474
S36•02	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	7.25	0	0.003331	0.00097	12.02138	0.05573	0.46 %	-0.000698	-0.040172
S36•03	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	7	30	0.241908	0.06773	11.95364	0.12346	1.02 %	-0.049079	-0.08925
S36•04	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	6.75	0	0.003331	0.0009	11.95275	0.12436	1.03 %	-0.000653	-0.089904
S36•05	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	6.5	18	0.149229	0.0388	11.91395	0.16316	1.35 %	-0.028241	-0.118145
S36•06	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	6.25	24	0.197219	0.04931	11.86464	0.21247	1.76 %	-0.036021	-0.154166
S36•07	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	6	0	0.003331	0.0008	11.86384	0.21326	1.77 %	-0.000585	-0.15475
S36•08	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.041401	5.75	25	0.205876	0.04735	11.81649	0.26062	2.16 %	-0.034737	-0.189487
S36•09	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	5.25	37	0.301055	0.06322	11.75327	0.32384	2.68 %	-0.046597	-0.236084
S36•10	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	5	0	0.003338	0.00067	11.7526	0.32451	2.69 %	-0.000494	-0.236578
S36•11	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	4.75	28	0.227299	0.04319	11.70941	0.36769	3.04 %	-0.031977	-0.268554
S36•12	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	4.5	0	0.003331	0.0006	11.70881	0.36829	3.05 %	-0.000445	-0.268999
S36•13	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	4.25	14	0.116321	0.01978	11.68904	0.38807	3.21 %	-0.014682	-0.283681
S36•14	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	4	26	0.210156	0.03363	11.65541	0.42169	3.49 %	-0.025022	-0.308704
S36•15	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	3.75	0	0.003331	0.0005	11.65491	0.42219	3.50 %	-0.000373	-0.309076
S36•16	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	3.5	27	0.218795	0.03063	11.62428	0.45282	3.75 %	-0.022858	-0.331934
S36•17	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	3.25	0	0.003331	0.00043	11.62385	0.45326	3.75 %	-0.000324	-0.332258
S36•18	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	3	20	0.160678	0.01928	11.60457	0.47254	3.91 %	-0.01442	-0.346677
S36•19	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	2.75	26	0.209206	0.02301	11.58156	0.49555	4.10 %	-0.017242	-0.363919
S36•20	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	2.5	0	0.003331	0.00033	11.58122	0.49588	4.11 %	-0.00025	-0.364169
S36•21	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	2.25	32	0.264394	0.0238	11.55743	0.51968	4.30 %	-0.017865	-0.382034
S36•22	SPSWL	Speaker/Strobe Wall Mount, White 0.25w	0.25	0.0207	2	0	0.003331	0.00027	11.55716	0.51994	4.31 %	-0.0002	-0.382234
S36•23	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.041401	1.75	37	0.302375	0.02117	11.536	0.54111	4.48 %	-0.015922	-0.398156
S36•24	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.041401	1.25	31	0.251378	0.01257	11.52343	0.55368	4.58 %	-0.009469	-0.407624
S36•25	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	0.75	22	0.182823	0.00549	11.51794	0.55916	4.63 %	-0.004135	-0.41176
S36•26	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	0.5	12	0.100043	0.002	11.51594	0.56117	4.65 %	-0.001509	-0.413269
S36•27 EOL	SPWL	Speaker Wall Mount, White 0.25w	0.25	0.0207	0.25	8	0.062927	0.00063	11.51531	0.56179	4.65 %	-0.000474	-0.413743

SPK 36.5 S36.5 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	11.86229	Max. dB Loss:	-0.168697
Min. Operational Voltage:	22.3	End Of Line Voltage:	11.63413
Max. Circuit Watts:	n/a	Voltage Drop Percent:	1.92 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	5
Total Circuit Length (Ft):	214	Spare Watts:	
Total Circuit Resistance (Ω):	1.757103 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S36.5•01	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04215	5	43	0.351103	0.07022	11.79207	0.07022	0.59 %	-0.05157	-0.05157
S36.5•02	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04215	4.5	31	0.250532	0.0451	11.74698	0.11532	0.97 %	-0.033281	-0.084851
S36.5•03	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04215	4	29	0.235099	0.03762	11.70936	0.15293	1.29 %	-0.027858	-0.11271
S36.5•04	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.04215	3.5	13	0.110395	0.01546	11.69391	0.16839	1.42 %	-0.011472	-0.124182
S36.5•05	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04215	3	14	0.116899	0.01403	11.67988	0.18242	1.54 %	-0.010426	-0.134608
S36.5•06	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04215	2.5	29	0.240834	0.02408	11.65579	0.2065	1.74 %	-0.017928	-0.152536
S36.5•07	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04215	2	11	0.093936	0.00752	11.64828	0.21401	1.80 %	-0.005602	-0.158138
S36.5•08	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04215	1.5	13	0.104024	0.00624	11.64204	0.22026	1.86 %	-0.004655	-0.162793
S36.5•09	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.04215	1	17	0.141273	0.00565	11.63639	0.22591	1.90 %	-0.004217	-0.16701
S36.5•10 EOL	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04215	0.5	14	0.113008	0.00226	11.63413	0.22817	1.92 %	-0.001687	-0.168697

SPK 37 S37 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	11.71634	Max. dB Loss:	-0.150749
Min. Operational Voltage:	22.3	End Of Line Voltage:	11.51475
Max. Circuit Watts:	n/a	Voltage Drop Percent:	1.72 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	5.5
Total Circuit Length (Ft):	209	Spare Watts:	
Total Circuit Resistance (Ω):	1.714594 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S37•01	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	5.5	18	0.146685	0.03227	11.68407	0.03227	0.28 %	-0.023957	-0.023957
S37•02	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	5	12	0.097087	0.01942	11.66465	0.05169	0.44 %	-0.014447	-0.038404
S37•03	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.042675	4.5	12	0.09681	0.01743	11.64722	0.06911	0.59 %	-0.012986	-0.051389
S37•04	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	4	18	0.149425	0.02391	11.62332	0.09302	0.79 %	-0.017848	-0.069237
S37•05	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	3.5	10	0.08521	0.01193	11.61139	0.10495	0.90 %	-0.008919	-0.078156
S37•06	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	3	35	0.286224	0.03435	11.57704	0.1393	1.19 %	-0.025731	-0.103887
S37•07	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	2.5	37	0.304913	0.03049	11.54655	0.16979	1.45 %	-0.022907	-0.126794
S37•08	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	2	26	0.213428	0.01707	11.52947	0.18686	1.59 %	-0.012853	-0.139647
S37•09	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.042675	1.5	21	0.170494	0.01023	11.51924	0.19709	1.68 %	-0.00771	-0.147358
S37•10	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	1	7	0.060544	0.00242	11.51682	0.19952	1.70 %	-0.001826	-0.149184
S37•11 EOL	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.042675	0.5	13	0.103774	0.00208	11.51475	0.20159	1.72 %	-0.001565	-0.150749

SPK 38 S38 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	11.63864	Max. dB Loss:	-0.04145
Min. Operational Voltage:	22.3	End Of Line Voltage:	11.58323
Max. Circuit Watts:	n/a	Voltage Drop Percent:	0.48 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	2.5
Total Circuit Length (Ft):	106	Spare Watts:	
Total Circuit Resistance (Ω):	0.866036 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S38•01	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.04296	2.5	20	0.16291	0.01629	11.62234	0.01629	0.14 %	-0.012166	-0.012166
S38•02	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04296	2	20	0.16071	0.01286	11.60949	0.02915	0.25 %	-0.009614	-0.02178
S38•03	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04296	1.5	35	0.285931	0.01716	11.59233	0.0463	0.40 %	-0.012845	-0.034626
S38•04	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.04296	1	24	0.198736	0.00795	11.58438	0.05425	0.47 %	-0.005958	-0.040584
S38•05 EOL	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.04296	0.5	7	0.057749	0.00116	11.58323	0.05541	0.48 %	-0.000866	-0.04145

SPK 39 S39 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	11.59916	Max. dB Loss:	-0.036677
Min. Operational Voltage:	22.3	End Of Line Voltage:	11.55028
Max. Circuit Watts:	n/a	Voltage Drop Percent:	0.42 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	2.5
Total Circuit Length (Ft):	104	Spare Watts:	
Total Circuit Resistance (Ω):	0.85536 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S39•01	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.043107	2.5	20	0.161243	0.01612	11.58303	0.01612	0.14 %	-0.012083	-0.012083
S39•02	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.043107	2	17	0.137506	0.011	11.57203	0.02712	0.23 %	-0.008253	-0.020335
S39•03	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.043107	1.5	26	0.213167	0.01279	11.55924	0.03991	0.34 %	-0.009605	-0.029941
S39•04	SPSWK	Outdoor Speaker Strobe, Standard cd 0.5w	0.5	0.043107	1	13	0.104593	0.00418	11.55506	0.0441	0.38 %	-0.003145	-0.033085
S39•05 EOL	SPSCWL	Speaker/Strobe Ceiling Mount, White 0.5w	0.5	0.043107	0.5	29	0.238851	0.00478	11.55028	0.04888	0.42 %	-0.003592	-0.036677

SPK 40 S40 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	22.81093	Max. dB Loss:	-0.132457
Min. Operational Voltage:	22.3	End Of Line Voltage:	22.46571
Max. Circuit Watts:	n/a	Voltage Drop Percent:	1.51 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	6.5
Total Circuit Length (Ft):	370	Spare Watts:	
Total Circuit Resistance (Ω):	3.034 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

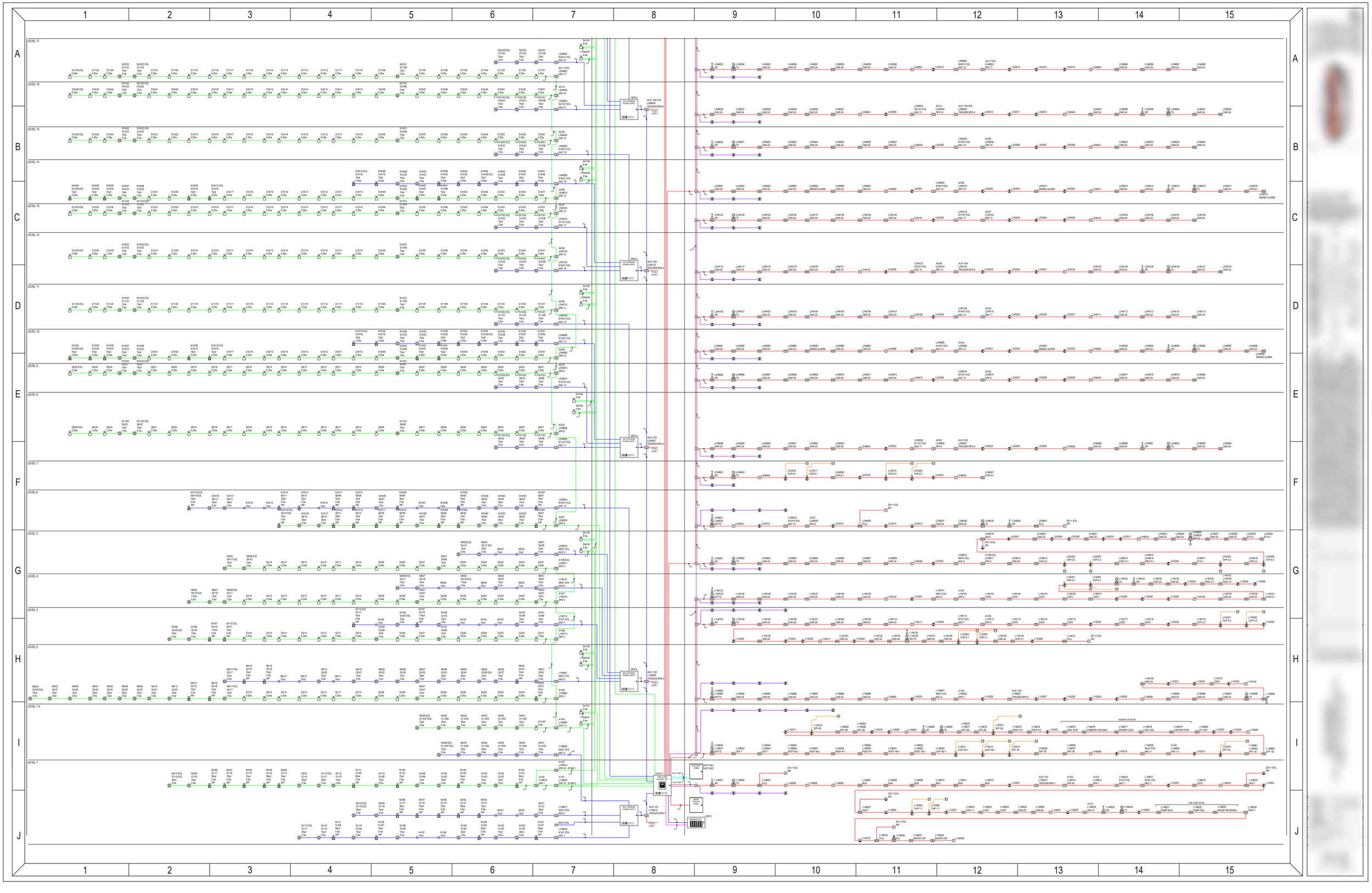
Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S40•01	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	6.5	5	0.041	0.01066	22.80027	0.01066	0.05 %	-0.00406	-0.00406
S40•02	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	6	5	0.041	0.00984	22.79043	0.0205	0.09 %	-0.003749	-0.007809
S40•03	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	5.5	30	0.246	0.05412	22.73631	0.07462	0.33 %	-0.020651	-0.02846
S40•04	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	5	30	0.246	0.0492	22.68711	0.12382	0.54 %	-0.018816	-0.047276
S40•05	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	4.5	30	0.246	0.04428	22.64283	0.1681	0.74 %	-0.016969	-0.064246
S40•06	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	4	30	0.246	0.03936	22.60347	0.20746	0.91 %	-0.015112	-0.079358
S40•07	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	3.5	30	0.246	0.03444	22.56903	0.2419	1.06 %	-0.013244	-0.092602
S40•08	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	3	30	0.246	0.02952	22.53951	0.27142	1.19 %	-0.011368	-0.10397
S40•09	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	2.5	30	0.246	0.0246	22.51491	0.29602	1.30 %	-0.009485	-0.113456
S40•10	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	2	20	0.164	0.01312	22.50179	0.30914	1.36 %	-0.005063	-0.118518
S40•11	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	1.5	30	0.246	0.01476	22.48703	0.3239	1.42 %	-0.005699	-0.124218
S40•12	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	1	30	0.246	0.00984	22.47719	0.33374	1.46 %	-0.003802	-0.12802
S40•13 EOL	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.021919	0.5	70	0.574	0.01148	22.46571	0.34522	1.51 %	-0.004437	-0.132457

SPK 41 S41 SPEAKER SCHEDULE

CIRCUIT SETTINGS		TOTALS	
Starting Calculation Voltage:	23.96589	Max. dB Loss:	-0.126027
Min. Operational Voltage:	22.3	End Of Line Voltage:	23.62067
Max. Circuit Watts:	n/a	Voltage Drop Percent:	1.44 %
Wire Resistance (Ω/kFt):	4.1	Total Circuit Watts:	6.5
Total Circuit Length (Ft):	370	Spare Watts:	
Total Circuit Resistance (Ω):	3.034 Ω	Spare Watts Percent:	

Circuit Wiring Properties: 'S' 16/2 FPLP (SPK) 16 AWG, SPEAKER - 2 Cond. Solid Copper FPLP Analog Shielded

Device Label	Part No.	Description	Device Watts	Watts To Amps Conversion	Remaining Watts	Dist. From Previous (Ft)	Resistance From Previous (Ω)	Voltage Drop From Previous	Voltage At Device	Total Voltage Drop	Voltage Drop Percent	dB Loss From Previous	Total dB Loss
S41•01	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	6.5	5	0.041	0.01066	23.95523	0.01066	0.04 %	-0.003864	-0.003864
S41•02	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	6	5	0.041	0.00984	23.94539	0.0205	0.09 %	-0.003569	-0.007433
S41•03	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	5.5	30	0.246	0.05412	23.89127	0.07462	0.31 %	-0.019654	-0.027087
S41•04	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	5	30	0.246	0.0492	23.84207	0.12382	0.52 %	-0.017906	-0.044992
S41•05	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	4.5	30	0.246	0.04428	23.79779	0.1681	0.70 %	-0.016147	-0.061139
S41•06	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	4	30	0.246	0.03936	23.75843	0.20746	0.87 %	-0.014378	-0.075516
S41•07	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	3.5	30	0.246	0.03444	23.72399	0.2419	1.01 %	-0.0126	-0.088117
S41•08	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	3	30	0.246	0.02952	23.69447	0.27142	1.13 %	-0.010815	-0.098931
S41•09	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	2.5	30	0.246	0.0246	23.66987	0.29602	1.24 %	-0.009023	-0.107954
S41•10	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	2	20	0.164	0.01312	23.65675	0.30914	1.29 %	-0.004816	-0.11277
S41•11	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	1.5	30	0.246	0.01476	23.64199	0.3239	1.35 %	-0.005421	-0.118191
S41•12	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	1	30	0.246	0.00984	23.63215	0.33374	1.39 %	-0.003616	-0.121807
S41•13 EOL	SPWL	Speaker Wall Mount, White 0.5w	0.5	0.020863	0.5	70	0.574	0.01148	23.62067	0.34522	1.44 %	-0.00422	-0.126027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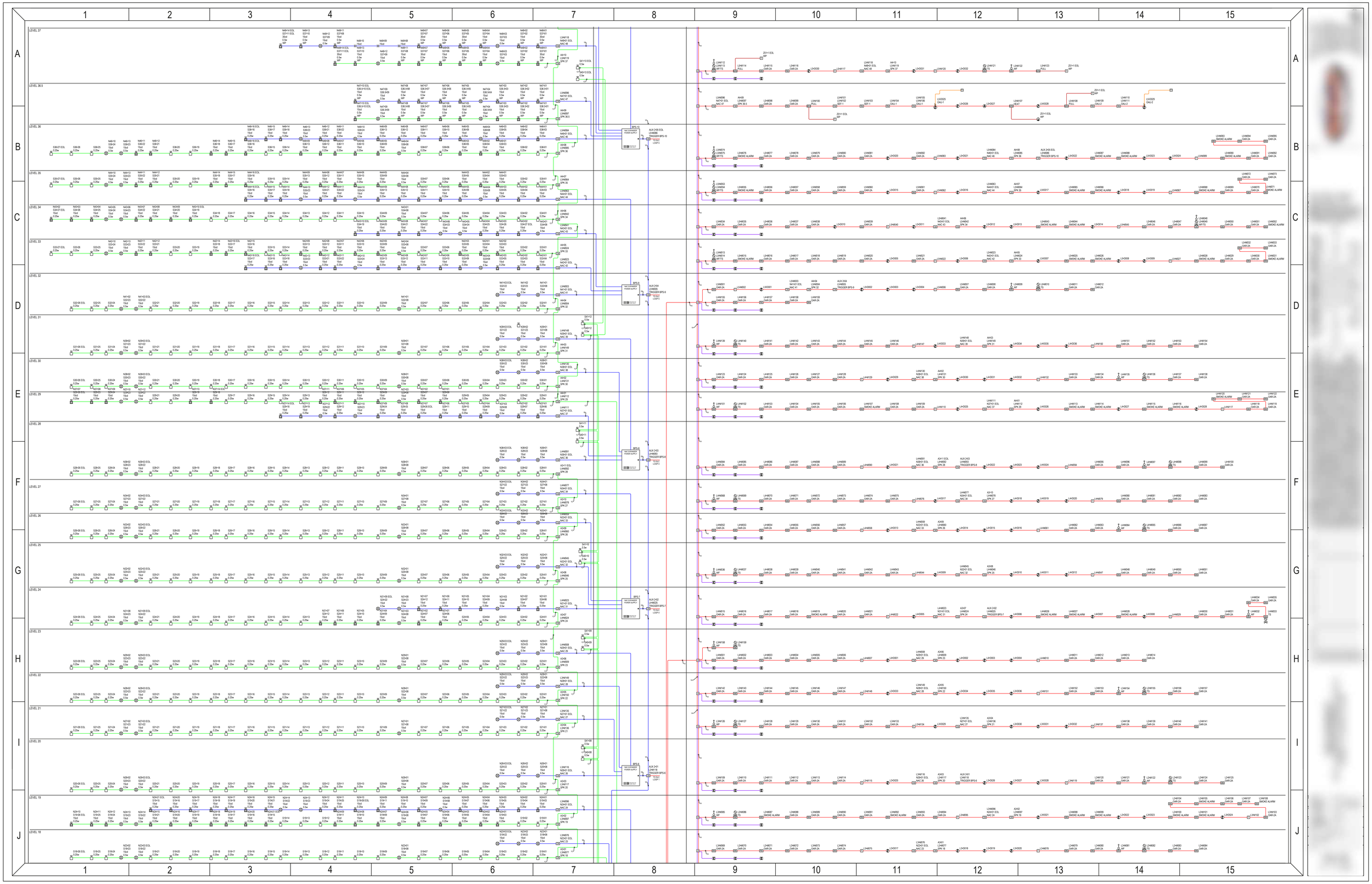
GENERATOR ROOM
FIRE PUMP ROOM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FIRE ALARM INSTALLATION & OPERATION NOTES:

FIRE ALARM SEQUENCE OF OPERATION:
ACTUATION OF ANY MANUAL PULL STATION, SMOKE DETECTOR, HEAT DETECTOR OR WATER FLOW SWITCH SHALL CAUSE THE FOLLOWING OPERATIONS TO OCCUR;

1. GENERAL ALARM ACTIVATION OF ALL PROGRAMMED SIGNAL CIRCUITS FOR ENTIRE BUILDING.

2. LIGHT THE ASSOCIATED INDICATORS CORRESPONDING TO ACTIVE SIGNAL CIRCUITS.

3. A GENERAL ALARM SHALL BE ANNUNCIATED UPON ACTIVATION OF ANY PULL STATION, FLOW SWITCH & DETECTION DEVICE. A TROUBLE SIGNAL SHALL BE ANNUNCIATED UPON FAILURE OR REMOVAL OF A DETECTION OR MANUAL DEVICE. A SUPERVISORY SIGNAL SHALL ANNUNCIATE ANY TAMPER, HVAC, OR DUCT DETECTOR ACTIVATION.

4. IF MULTIPLE FLOORS, EACH ELEVATOR LOBBY, HOIST, AND MACHINE ROOM SMOKE DETECTOR SHALL ALTERNATE AN ALARM CONDITION IN THE BUILDING AND RETURN ALL ELEVATORS TO THE PRIMARY OR ALTERNATE FLOOR OF EGRESS IN COMPLIANCE WITH ANSI ASME A17.1.

5. WATERFLOW SWITCH SHALL ACTIVATE GENERAL ALARM.
A VALVE TAMPER SWITCH SHALL CAUSE A SYSTEM SUPERVISORY ALARM INDICATION.

6. ANNUNCIATION OF THE ACTIVE DEVICE AT THE FIRE ALARM CONTROL PANEL AND ANY ANNUNCIATORS, IN MONITORED BUILDING, SEND A SIGNAL TO THE U.L. MONITORING CENTER FOR ALARM, TROUBLE, WATERFLOW AND SUPERVISORY CONDITIONS.

FIRE ALARM SPECIFICATIONS:
ALL EQUIPMENT TO BE U.L. LISTED FOR FIRE SERVICE AND SHALL BE COMPATIBLE WITH THE SYSTEM BEING USED. SYSTEM IS TO BE POWER LIMITED.

SYSTEM TO BE PLACARDED CENTRAL STATION SERVICE AS PER NFPA-72.

FIRE ALARM PANEL SHALL BE LISTED FOR CENTRAL STATION SERVICE PER NFPA 72, 2016, SECTION 26.3, UNLESS OTHERWISE SPECIFIED.

THE FIRE ALARM PANEL MUST HAVE AN EARTH GROUND CONNECTION AS REQUIRED BY THE SYSTEM MANUFACTURER AND ARTICLE 760 OF THE NATIONAL ELECTRICAL CODE. MINIMUM WIRE SIZE IS 12 AWG FOR GROUND CONNECTION. (NOTE: PANEL NEUTRAL OR CONDUIT GROUND IS NOT ACCEPTABLE).

ALL STROBE LIGHTS SHALL ACTIVATE UPON INITIATION OF THE GENERAL ALARM AND SHALL BE SYNCHRONIZED IN OPEN AREAS. ALL AUDIBLE SIGNALS SHALL HAVE THREE PULSE TEMPORAL PATTERN AND SOUND LEVEL SHALL BE AT LEAST 15 DBA ABOVE AMBIENT SOUND LEVEL AND HAVING A DURATION OF AT LEAST 60 SECONDS MEASURED 5 FT ABOVE THE FLOOR IN OCCUPIED AREAS.

FIRE ALARM CIRCUITS AND DEVICES SHALL BE CLASS "B".

ALL WIRING AND CONDUIT TO CONFORM TO N.F.P.A. AND N.E.C. 760.

CONNECTIONS TO LIGHTS AND POWER SERVICE SHALL BE ON A DEDICATED BRANCH CIRCUIT. THE CIRCUIT AND CONNECTIONS SHALL BE MECHANICALLY PROTECTED. THE CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING AND BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL AND BE PER N.F.P.A. 72 2016 EDITION

THE FIRE ALARM PANEL IS PROVIDED WITH STANDBY BATTERY PER N.F.P.A. 72 WITH 24 HOURS OF STANDBY AND 5 MINUTES OF ALARM (AS REQUIRED). SHOULD LOSS OF NORMAL 120VAC POWER OCCUR, FIRE ALARM PANEL WILL AUTOMATICALLY TRANSFER TO BATTERY.

A CERTIFICATE OF COMPLETION WILL BE PREPARED AND A COPY PROVIDED TO THE OWNER AND THE CITY FIRE RESCUE DEPARTMENT.

OWNER MANUALS, INSTALLATION INSTRUCTIONS, OPERATION INSTRUCTIONS AND RECORD DRAWINGS SHALL BE AT THE SITE ON COMPLETION OF JOB AND FINAL ACCEPTANCE.

INSTALLATION NOTES:
ALL FIRE STOP PENETRATIONS SHALL BE MADE WITH APPROVED N.E.C. ELECTRICAL TUBING AND SHALL BE SEALED WITH U.L. APPROVE FIRE STOP MATERIAL.

COLOR CODING MAY NOT APPLY TO EXISTING WIRE.
(WIRE TO BE LABELED ACCORDINGLY.)

CONDUIT SHALL BE A MINIMUM OF 1/2" AND 40% FILL MAXIMUM.

TWO TELEPHONE LINES SHALL BE PROVIDED TO THE FIRE CONTROL COMMUNICATOR.

ALL FLOW, TAMPER, PIV AND BACKFLOW WILL HAVE MONITOR MODULES; FIRE PROTECTION SPRINKLER PUMP MONITORING. (3 POINTS)
(A).FIRE PUMP RUN (B).FIRE PUMP FAIL (C).FIRE PUMP PHASE REVERSAL.

ROUTING OF THE FIRE ALARM SYSTEM CONDUIT IS DIAGRAMMATIC. VERIFY EXACT LOCATIONS OF DEVICES AND WIRE ROUTING PRIOR TO STARTING WORK.

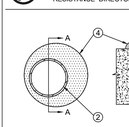
MOUNTING REQUIREMENTS:
MANUAL PULL STATIONS TO BE INSTALLED AT 48" A.F.F.

MOUNT FIRE ALARM SYSTEM STROBES & HORN / STROBES AT 80" A.F.F. FROM BOTTOM OF DEVICE OR 6" BELOW CEILING.
(WHICH EVER IS LOWER)

SMOKE DETECTOR SHALL NOT BE LOCATED WITHIN 3' OF SUPPLY AIR OUTLETS.

SMOKE DETECTORS TO BE INSTALLED AS PER N.F.P.A. 72. WALL MOUNTED SMOKE DETECTORS SHALL BE MOUNTED 4" MINIMUM FROM CEILING WITH 12" MAXIMUM FROM CEILING.

FILL VOID OR CAVITY MATERIALS CLASSIFIED BY UNDERWRITERS LABORATORIES, INC.® FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEMS (XHEZ). SEE CURRENT UL FIRE RESISTANCE DIRECTORY S0L6.90G9



SECTION
A-A

System No. C-AJ-1044
June 15, 2005
F Ratings - 2, 3, and 4 Hr. (See Items 2A and 4)
T Rating - 0 Hr.
L Rating at Ambient - 2 CFM/sq. ft.
L Rating at 400 F - less than 1 CFM/sq. ft.
W Rating - Class I (See Item 4)

1. Floor or Wall Assembly
Lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Except as noted in table under Item 4, min thickness of solid concrete floor or wall assembly is 4-1/2 in. (114 mm). Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow core Precast Concrete Units*. When floor is constructed of hollow core precast concrete units, packing material (Item 3) and caulk fill material (Item 4) to be installed symmetrically on both sides of floor, flush with floor surface. Wall assembly may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is in solid lightweight or normal weight concrete. Floor is 32 in. (813 mm). Max diam of opening in floor constructed of hollow-core precast concrete units is 7 in. (178 mm). See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

1A. Steel Sleeve (Optional, not shown) - Max 15 in. (381 mm) ID (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 2 in. (51 mm) above top of floor or beyond either surface of wall. Max 16 in. (406 mm) ID (or smaller) min 0.028 (0.71 mm) wall thickness (or heavier) galvanized steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 1/2 in. (13 mm) beyond either surface of floor or wall.

2. Through Penetrants - One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Max annular space between pipe, conduit or tubing and edge of through opening or sleeve is dependent on the parameters shown in Item 4. Min annular space between pipe or conduit and edge of through opening is 0 in. (0 mm) (point contact). Pipe conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe - Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe - Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
C. Conduit - Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.
D. Conduit - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.
E. Copper - Tubing Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube.
F. Copper Pipe - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

3. Packing Material - Polyethylene backer rod or nom 1 in. (25 mm) thickness of tightly-packed mineral wool batt or glass fiber insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of caulk fill material (Item 4).

4. Fill,Void or Cavity Material* - Caulk or Sealant - Applied to fill the annular space flush with top surface of floor. In wall assemblies, required caulk thickness to be installed symmetrically on both sides of wall, flush with wall surface. At point contact location between penetrant and sleeve or between penetrant and concrete, a min 1/4 in. (6 mm) diam bead of caulk shall be applied at top surface of floor and at both surfaces of wall. The hourly F Ratings and the min required caulk thicknesses are dependent upon a number of parameters, as shown in the following table:

Min. Floor or Wall Thkns In. (mm)	Nom. Pipe Tube or Conduit Diam in. (mm)	Max Annular Space in. (mm)	Min. Caulk Thkns in. (mm)	F Rating Hour
2-1/2 (64)	1/2-12 (13-305)	1-3/8 (35)	1/2 (13)	2
2-1/2 (64)	1/2-12 (13-305)	3-1/4 (83)	1 (25)	2
4-1/2 (114)	1/2-6 (13-152)	1-3/8 (35)	1/4 (6) (a)	2
4-1/2 (114)	1/2-12 (13-305)	1-1/4 (32)	1/2 (13)	2
4-1/2 (114)	1/2-20 (13-508)	2 (51)	1 (25)	2
4-1/2 (114)	1/2-20 (13-508)	2 (51)	1 (25)	2
4-1/2 (114)	1/2-12 (13-305)	3-1/4 (83)	1 (25)	2
4-1/2 (114)	22-30 (558-762)	2 (51)	1/2 (51)	2
5-1/2 (140)	1/2-6 (13-152)	1-3/8 (35)	1 (25) (b)	2

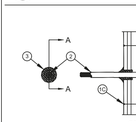
(a)Min 2 in. (51 mm) thickness of mineral wool batt insulation required in annular space.
(b)Min 1 in. (25 mm) thickness of mineral wool batt insulation required in annular space on both sides of floor or wall assembly. Min 1 in. (25 mm) thickness of caulk to be installed flush with each surface of floor or wall assembly.

3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant. (Note: W Rating applies only when FB-3000 WT sealant is used.)

*Bearing the UL Classification Marking

*NOTE
This material was extracted by 3M fire protection products from 2004 edition of the UL fire resistance directory.

FILL VOID OR CAVITY MATERIALS CLASSIFIED BY UNDERWRITERS LABORATORIES, INC.® FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEMS (XHEZ). SEE CURRENT UL FIRE RESISTANCE DIRECTORY S0L6.90G9



SECTION
A-A

System No. W-L-3001
September 07, 2004
F Ratings - 1 and 2 Hr. (See items 1)
T Rating - 3/4, 1, 1-1/2 and 2 Hr. (See Item 2)
L Rating at ambient - 15 CFM/sq. ft. (See item 3)
L Rating at 400 F - less than 1 CFM/sq. ft. (See item 3)

1. Wall Assembly - The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in OC.

B. Gypsum Board* - Nom 1/2 or 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers and sheet orientation shall be as specified in the individual Wall or Partition Design. Diam of circular through opening to be 3/8 in. to 5/8 in. larger than outside diam of cable or cable bundle.

C. Fasteners - When wood stud framing is employed gypsum wallboard layers attached to studs with cement coated nails as specified in the individual Wall or Partition Design. When steel channel stud framing is employed, gypsum wallboard attached to studs with Type S self-drilling, self-tapping bugle-head steel screws as specified in the individual Wall or Partition Design.

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Cables - Individual cable or max 1 in. diam cable bundle installed in through opening with an annular space of min 0 in. (point contact) to max 3/4 in. Cable to be rigidly supported on both sides of wall assembly. The following types and sizes of cables may be used:

A. Max 150 pair No. 24 AWG copper conductor telephone cable with polyvinyl chloride PVC insulation and jacket materials. When max 25 pair telephone cable is used,

T Rating is 2 hr.When 50 to 150 pair telephone cable is used in 1 hr fire rated wall,
T Rating is 3/4 hr.When 50 to 150 pair telephone cable is used in 2 hr fire rated wall,
T Rating is 1 hr.

B. Max No. 10 AWG multiple copper conductor Type NM ("Romex") nonmetallic sheathed cable with PVC insulation and jacket materials. When Type NM cable is used, max T Rating is 1-1/2 hr.

C. Multiple fiber optical communication cable jacketed with PVC and having a max outside diam of 5/8 in. When fiber optic cable is used, max T Rating is 2 hr.

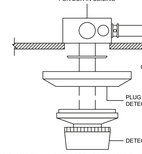
D. Max 12 AWG multi conductor (max seven conductors) power/control cable with cross-linked polyethylene (XLPE) insulation and XLPE or PVC jacket materials. When multi conductor power/control cable is used, max T Rating is 2 hr.

E. Max four conductor with ground No. 2 AWG (or smaller) aluminum SER cables with polyvinyl chloride insulation and jacket materials.

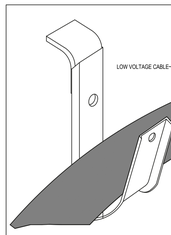
3. Fill,Void or Cavity Materials* - Caulk, Sealant or Putty - Caulk or putty fill material installed to completely fill annular space between cable and gypsum wallboard on both sides of wall and with a min 1/4 in. diam bead of caulk or putty applied to perimeter of cable(s) at its egress from each side of the wall.

3M COMPANY - MP+ Stix putty, CP 25WB+ caulk, FB-3000 WT sealant or Cable Wrap putty (Note: L Ratings apply only when CP 25WB+ caulk or FB-3000 WT sealant is used.)

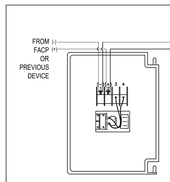
*Bearing the UL Classification Mark



3 BOX MOUNTING REQUIREMENTS
SCALE: N.T.S



CADDY CABLECAT
J-HOOK W/ ANGLE BRACKET
SCALE: N.T.S
CAT12AB OR EQUIVALENT



TYPICAL MANUAL PULL
STATION WIRING DETAIL
SCALE: N.T.S

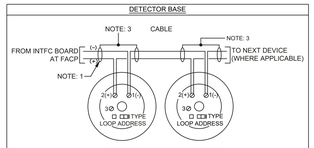
SMOKE CONTROL SYSTEM NOTES :

1. SMOKE CONTROL SYSTEM HARDWARE AND SOFTWARE SHALL BE SELECTED TO ENERGIZE THE SYSTEM AND MODULATE ALL DAMPERS AS FOLLOWS:
   A. SMOKE DETECTORS – SHALL RESPOND (ENERGIZE SYSTEM) WITHIN 30 SECONDS
   B. DAMPERS – SHALL MODULATE TO THEIR PROPER POSITION WITHIN 15 SECONDS OF SYSTEM ENERGIZING.
   C. LIFE SAFETY FANS – SHALL HAVE TIME DELAYS(ADJUSTABLE)
   D. NO FANS SHALL ENERGIZE UNTIL RESPECTIVE DAMPERS HAVE OPERATED TO THEIR DESIGNATED SET POINT. IF ANY DAMPERS FAIL A CAUTION LIGHT WILL INDICATE
2. SYSTEM DAMPERS SHALL BE AS FOLLOWS :
   A. AUTO. FIRE OR SMOKE – CLASS III–350 DEGREES AS PER UL 555S – RUSKIN FSD 60 CLASS 1
   B. PROVIDE END SWITCHES RUSKIN SP–100 BLADE MOUNTED ON ALL CONCEALED DAMPERS. PROVIDE FACTORY SEALED SLEEVES WITH ALL FIRE / FIRE SMOKE DAMPERS.
3. PROVIDE DIFFERENTIAL PRESSURE SWITCHES (D.P. SENSORS) FOR ALL FANS WHICH ARE PART OF THE SMOKE CONTROL SYSTEM. SIGNAL SHALL BE SENT TO INDICATOR AT SMOKE CONTROL STATUS PANEL.
4. PROVIDE VARIABLE FREQUENCY DRIVES FOR ALL FANS THAT ARE PART OF THE SMOKE CONTROL SYSTEM PROVIDE DIFFERENTIAL PRESSURE SENSOR 2/3 DOWN IN THE STAIRWELL & ELEVATOR SHAFT FOR PRESSURIZATION.
6. ALL FIRE, SMOKE OR COMBINATION DAMPERS SHALL BE PROVIDED WITH 285 DEGREES F. FUSIBLE LINKS OR AS REQUIRED BY THE LOCAL BUILDING DEPARTMENT.
7. CONTRACTOR SHALL PROVIDE INDEPENDENT TEST AND BALANCE OF THE SMOKE/FIRE CONTROL SYSTEM AND PROVIDE ALL MANPOWER AND MAKE CORRECTIONS AS REQUIRED TO MEET/PASS ALL CODE REQUIRED TESTS.
8. CONNECT ALL SMOKE EXHAUST FANS TO DUCTWORK WITH 285 DEGREE RATED FLEXIBLE DUCT CONNECTORS (EGGN NEOBESTOS OR EQUAL).
9. PROVIDE A MAX. OF 4 DEVICES CONTROLLED BY ONE E.P. SWITCH WITH SNAP ACTION RELAYS.
10. PROVIDE BUILT–IN TIME DELAYS FOR ALL FANS 0 TO 1 MIN.
11. PROVIDE LINKAGE SENSOR FOR ALL CONCEALED AUTOMATIC DAMPERS TO PROVIDE CONTROL SIGNAL FOR OPEN OR CLOSED POSITION.
12. PROVIDE AUTOMATIC LISTING OF ALL FANS, DAMPERS, ETC. AND THEIR POSITION (ON–OFF OR OPEN–CLOSED).
13. CEILING SMOKE DETECTORS SHALL NOT BE LOCATED IN DIRECT AIR FLOW OR CLOSER THAN 3 FT FROM AN AIR SUPPLY DIFFUSERS.
14. ALL RISER DUCTWORK SHALL BE SHEET METAL RATED FOR THE SYSTEM OPERATING PRESSURES AND TEMPERATURE AS REQUIRED BY SMACNA AND NFPA APPENDIX C FOR MIN SHEET METAL GAUGES OR AS REQUIRED BY THE FLORIDA BUILDING CODE.
15. NO COMBUSTIBLE MATERIALS ARE ALLOWED ABOVE THE CEILING OR IN RETURN PLENUMS.
16. MOUNT ALLMOUCTS AS TIGHT TO STRUCTURE AS POSSIBLE AND COORDINATE LOCATION OF FANS AND DUCTWORK WITH OTHERTRADES SO THAT NO INTERFERENCE OCCUR.
17. PROVIDE ACCESS DOORS OR REMOVABLE CEILING TILES TO ALL EQUIPMENT, FANS, AUTOMATIC DAMPERS, FUSIBLE LINES ETC. AS REQUIRED FOR SERVICE OR VERIFYING PROPER OPERATION OR ROTATION.
18. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
19. SEAL ALL DUCTS IN A APPROVED MANNER AND INSURE AGAINST LEAKAGE.

SMOKE EXHAUST FAN:

A. RATED FOR 285°F CONTINUOUS OPERATION
B. DIRECT DRIVE WITH ADJUSTABLE PITCH VANES OR BELT DRIVEN SEE SPECIFICATION. NUMBER OF BELTS AS PER THE FBC MECHANICAL CODE REQUIREMENTS.
C. NEMA 3R DISCONNECT SWITCH
D. EXTENDED GREASE LEADS
E. TEFC MOTOR OUT OF AIR STREAM.
F. PROVIDE FACTORY SUPPORT LEGS OR HANGING CLIPS
G. PROVIDE FACTORY DRAIN TAPS
H. FAN SHALL BE NON STALLING

DETECTOR BASE



WIRING FOR ADB-FL BASE (STYLE 4)

NOTE 1: DETECTOR (SLC LOOP) TO BE INSTALLED USING TWISTED FPL WIRE

NOTE 2: DO NOT LOOP WIRE UNDER TERMINALS 1 & 2.
BREAK WIRE RUN TO PROVIDE SUPERVISION

NOTE 3: OBSERVE POLARITY. DO NOT GROUND CONTROL WIRES OR SHIELDS. TIE SHIELDS TOGETHER AT EACH DETECTOR.

NOTE 4: SET THE ROTARY DIALS ON THE REAR OF THE DETECTOR HEAD TO CORRESPOND TO THE LAST TWO DIGITS OF THE DEVICE LOOP ADDRESS. REFER TO THE FLOOR PLANS FOR THE DETECTOR DEVICE

NOTE 5: RECORD THE LOOP ADDRESS & DEVICE TYPE IN THE SPACES PROVIDED ON

SMOKE CONTROL NOTES

IN GENERAL THE SMOKE CONTROL SYSTEM SHALL MEET THE MINIMUM REQUIREMENTS OF THE SMOKE CONTROL RATIONAL ANALYSIS REPORT. THE REPORT SHALL DICTATE IF THERE ARE ANY DEVIATIONS ON THE DRAWINGS.

GENERAL:

1. DIVISION 16 FIRE ALARM SUB CONTRACTOR SHALL PROVIDE THE FOLLOWING CONTROL PANELS FOR SUCH SYSTEMS:
   A) MECHANICAL SMOKE CONTROL SYSTEM
2. ALL SYSTEMS SIGNALING THROUGH THE FIRE ALARM SYSTEM SHALL BE INDIVIDUALLY ANNUNCIATED AT THE FIRE COMMAND CENTER; TO INCLUDE, BUT NOT LIMITED TO: STAIRWELL PRESSURIZATION FANS, SMOKE EXHAUST FANS, SMOKE MAKE–UP AIR FANS, FIRE DAMPERS/SMOKE DAMPER.
3. THE FIREMEN'S CONTROL STATION SHALL BE CAPABLE OF MANUALLY OVERRIDING THE AUTOMATIC FUNCTIONS OF THE SMOKE CONTROL SYSTEM; TO INCLUDE, BUT NOT LIMITED TO ALL ZONES(MAKE UP AIR, AND SMOKE EVACUATION).
4. THE ENTIRE SMOKE CONTROL SYSTEM SHALL BE CONNECTED TO EMERGENCY POWER.
5. ALL COMPONENTS OF THE SMOKE CONTROL SYSTEM SHALL BE CAPABLE OF OPERATING AT TEMPERATURES AND PRESSURES NORMALLY ENCOUNTERED IN SMOKE CONTROL SYSTEM OPERATIONS (300 DEGREES FAHRENHEIT).
6. ALL COMPONENTS OF THE SMOKE REMOVAL SYSTEM SHALL FAIL SAFE WHEN ELECTRICAL OR MECHANICAL FAILURE OCCURS.
7. ALL SMOKE CONTROL COMPONENTS ARE TO BE UL 864 LISTED AND APPROVED.

PANEL NOTES:

1. PROVIDE ALL LOGIC FOR THE EMERGENCY SMOKE CONTROL SYSTEM AS PART OF THE FIRE ALARM SYSTEM.
2. THE PANEL SHALL BE COMPLETE WITH GRAPHIC DISPLAY (SMOKE GLASS WITH BACK LIT DISPLAY), INDICATOR LIGHTS, AND H–O–A SWITCHES AT ALL ZONES.
3. ALL PANEL COMPONENTS SHALL BE UL APPROVED FOR FIRE/SMOKE OPERATION.
4. PANEL SHALL BE LOCATED AS DIRECTED BY LOCAL FIRE MARSHALL.

   EMERGENCY SMOKE CONTROL ZONES SHALL BE INDIVIDUALLY OPERABLE FROM THE FIREMEN'S CONTROL PANEL. THE PANEL SHALL CONTROL THE ZONES VIA HAND–OFF–AUTO (HOA) SWITCHES. STATUS OF THE ZONES FANS AND FIRE/SMOKE DAMPERS SHALL BE INDICATED BY LIGHTS PROVIDE FOR EACH ZONE ONE (1) COMMON MANUAL EXHAUST (ON)/OFF SWITCH FOR ZONE EXHAUST FIRE/SMOKE DAMPER WITH STATUS LIGHT. A RED LIGHT SHALL INDICATE DISABLED AND GREEN LIGHT SHALL INDICATE ENABLED.

ACCEPTANCE TESTING:

PRIOR TO TEST BY THE BUILDING DEPARTMENT INSPECTOR THE GENERAL CONTRACTOR OF RECORD AS PER FLORIDA BUILDING CODE SHALL PERFORM AS A MINIMUM THE FOLLOWING:

1. PROVIDE A INDEPENDENT CERTIFIED TEST AND BALANCE REPORT TO THE ENGINEER OF RECORD. THE HVAC SYSTEM SHALL HAVE BEEN TESTED IN ALL MODES OF OPERATION WITH FILTERS IN PLACE TO CONFIRM THE DESIGN AIR FLOW.
2. CORRECT ANY DEFICIENCIES AS DIRECTED BY THE ENGINEER OF RECORD.
3. VERIFY ALL CLOSURES FOR THE INDIVIDUAL SMOKE ZONES SHALL BE IN PLACE.
4. VERIFY ALL FANS ARE OPERATING PROPERLY.
5. CONFIRM ALL APPLICABLE INITIATING DEVICES AND COMPUTER AND MANUAL CONTROLS SHALL HAVE BEEN TESTED TO DESIGN FUNCTION.
6. OPERATE SUCCESSFULLY ON MAIN AND EMERGENCY POWER.
7. VERIFY TRANSFER SWITCHING EQUIPMENT OPERATES WITH THE SMOKE CONTROL SYSTEM AND ALL OTHER FUNCTIONS OF THE EMERGENCY POWER SYSTEM AT MAX LOAD.
8. VERIFY ALL SMOKE DETECTORS ARE FULLY OPERATIONAL AND SHUT DOWN ALL AIR HANDLING DEVICES AS DIRECTED BY THE SEQUENCE OF OPERATION.
9. VERIFY THAT ALL DAMPERS FULLY CLOSE AND FULLY OPEN AS DIRECTED BY THE SEQUENCE OF OPERATION.
10. COORDINATE WITH ALL TRADES AND TENANT FOR A PRELIMINARY TEST CONDUCTED BY THE CONTRACTOR USING THE AUTOMATED SEQUENCE OF OPERATION.
11. COORDINATE WITH ALL TRADES AND TENANT FOR A SECOND TEST WITNESSED BY THE ENGINEER OR RECORD USING THE FULLY AUTOMATED SEQUENCE OF OPERATION.
12. PROVIDE ALL DEVICES FOR ALL TESTS.
13. COORDINATE WITH ALL TRADES AND TENANT FOR A TEST WITNESSED BY THE REVIEWING OFFICIAL; TESTING SHALL CONTINUE UNTIL THE REVIEWING OFFICIAL APPROVES THE SYSTEM.

* PROVIDE: FURNISH & INSTALL

DIFFERENTIAL PRESSURES REQUIRED

–STAIRWELL/CORRIDOR = 0.10"MIN. (.35" MAX.) AS PER FBC 909.20.5
THIS IS ACCOMPLISHED BY A VARIABLE FREQUENCY DRIVE AT THE PRESSURIZATION FANS AND RELIEF/BAROMRAFT DAMPER WITH ADJUSTABLE COUNTERWEIGHTS.
–ELEVATOR/CORRIDOR = 0.10"MIN. (.25" MAX.) AS PER FBC 3006.3.4
–THE MINIMUM PRESSURE DIFFERENCE ACROSS A SMOKE BARRIER SHALL BE 0.05–INCH WATER GAGE (0.0124 KPA) IN FULLY SPRINKLERED BUILDINGS.
SEE RATIONAL ANALYSIS FOR ADDITIONAL INFORMATION.

COORDINATION NOTES:

1. FIRE ALARM CONTRACTOR SHALL PROVIDE ONE DRY CONTACT PER ZONE FOR SMOKE.
2. FIRE ALARM CONTRACTOR SHALL PROVIDE ALL VOLTAGE WIRING AND REQUIRED CONDUITS.
3. FIRE ALARM CONTRACTOR SHALL PROVIDE CONTROL OF ALL FIRE SMOKE DAMPERS, MOTORIZED DAMPERS,AIR HANDLING UNITS AND FANS TO INCLUDE WIRING AND CONDUITS. PROVIDE DAMPERS COMPLETE WITH H–O–A.
4. CONTROLS CONTRACTOR SHALL COORDINATE WITH FIRE ALARM CONTRACTOR INTERFACE REQUIREMENTS OF ALL AIR HANDLING UNITS AND UNIT DAMPER CONTROL TO AFFECT SYSTEM PERFORMANCE AND SMOKE CONTROL.
5. FIRE ALARM CONTRACTOR SHALL PROVIDE FOR INDICATOR LIGHTS, AND ANNUCIATORS AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
6. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL UL 864 LISTED AND APPROVED FOR ALL UL555S AUTOMATIC MOTORIZED DAMPERS.

SMOKE CONTROL OPERATING SEQUENCE

SMOKE CONTROL SEQUENCE OF OPERATION

GENERAL

A SIGNAL FROM THE FIRE ALARM/FIREMAN'S SMOKE CONTROL PANEL THAT IS A FIRE/SMOKE INCIDENCE, ALL STAIR AND ELEVATOR PRESSURIZATION FANS ARE TO BE ENERGIZED TO START.

STAIR PRESSURIZATION (SPF–1A, 2A, 1B, 2B)

STAIR PRESSURIZATION FANS SPF–1A, 2A, 1B, 2B WHEN ENERGIZED TO START, THEIR RESPECTIVE MOTORIZED NORMALLY CLOSED ISOLATION DAMPER IS TO OPEN. STATIC PRESSURE SENSOR FAN CONTROLLER LOCATED ⅓ DISTANCE FROM THE FAN SHALL CONTROL THE FANS VARIABLE FREQUENCY MOTOR SPEED DRIVE TO MAINTAIN STAIRWELL POSITIVE PRESSURE OF 0.10 IN WG TO MAXIMUM OF 0.35 IN. WG. WITH ACCEPTANCE DOOR PULL OF 30 LBS.

EACH STAIRWELL SHALL EMPLOY A FIRE/SMOKE DAMPER & BAROMETRIC RELIEF DAMPER TO MAINTAIN STAIRWELL POSITIVE PRESSURE.

ELEVATOR PRESSURIZATION (EPF–1A, 2A, 1B, 2B)

ELEVATOR PRESSURIZATION FAN EPF–1A, 2A, 1B, 2B WHEN ENERGIZED TO START THEIR RESPECTIVE NORMALLY CLOSED ISLATION DAMPER IS TO OPEN. STATIC PRESSURE SENSOR FAN CONTROLLER LOCATED ⅓ DISTANCE FROM FAN SHALL CONTROL THE FAN'S VARIABLE FREQUENCY MOTOR SPEED DRIVE TO MAINTAIN ELEVATOR SHAFT WELL POSITIVE PRESSURE OF 0.10 TO MAXIMUM OF 0.25 IN. WG..

RESIDENCE FLOOR 8 to 37 LEVELS (OAU–1, 2, SEF–1)

OUTSIDE AIR UNIT OAU–1&2'S SUPPLY FAN IS TO BE ENERGIZED IF NOT OPERATING. ALL NORMALLY OPEN SUPPLY FIRE SMOKE DAMPERS ON OUTSIDE AIR RISER OAR–1 TO CLOSE.

NORMALLY CLOSED FIRE SMOKE DAMPER AND DAMPERS FOUR FLOORS ABOVE AND BELOW THE FLOOR OF INCIDENCE FOI) ON OUTSIDE AIR RISER OAR–1 SHALL OPEN PROVIDING 2300 CFM AT EACH FLOOR.

SMOKE CONTROL FLOOR OF INCIDENCE NORMALLY CLOSED FIRE SMOKE DAMPER SHALL OPEN WITH ALL DAMPERS ON OTHER FLOORS REMAINING CLOSED. SMOKE CONTROL FAN SEF–1 SHALL BE ENERGIZED TO START THROUGH FOI'S STATIC PRESSURE SENSOR CONTROL TRANSDUCER TO MAINTAIN 0.05 IN WG NEGATIVE PRESSURE ON FOI. WHEN SEF–1 IS ENERGIZED TO START, ITS NORMALLY CLOSED ISOLATION MOTORIZED DAMPER IS TO OPEN.

WHEN THE INCIDENCE IS DEEMED CLEARED AND OVER, ALL PRESSURIZATION FANS SHALL BE DE–ENERGIZED AND THEIR RESPECTIVE MOTORIZED ISOLATION DAMPER SHALL CLOSE. ALL FIRE SMOKE DAMPER SHALL REVERT TO THEIR NORMALLY OPEN, OR NORMALLY CLOSED POSITION.

AMENITIES LEVEL 3 (BASKETBALL COURT & MULTIPURPOSE LOUGE), LEVEL 2 (GYM, RACQUETBALL COURT & STUDIO) AND LEVEL 1 (RETAIL, LOBBY, MAILROOM/PACKAGING, MANAGEMENT OFFICE). RESIDENTIAL LEVELS 8 TO 37 (OAU–1,1A,2&2A, OAR–2, PSEF–5–1, PSEF–4–1, PSEF–1M–1).

OUTSIDE AIR UNIT OAU–1&2'S SUPPLY FAN IS TO BE ENERGIZED IF NOT OPERATING. ALL NORMALLY OPEN SUPPLY FIRE SMOKE DAMPERS ON OUTSIDE AIR RISER OAR–1,1A,2,2A TO CLOSE.

NORMALLY CLOSED FIRE SMOKE DAMPER AND DAMPERS ABOVE AND BELOW THE FLOOR OF INCIDENCE ON OUTSIDE AIR RISER OAR–1,1A,2,2A SHALL OPEN.

NORM