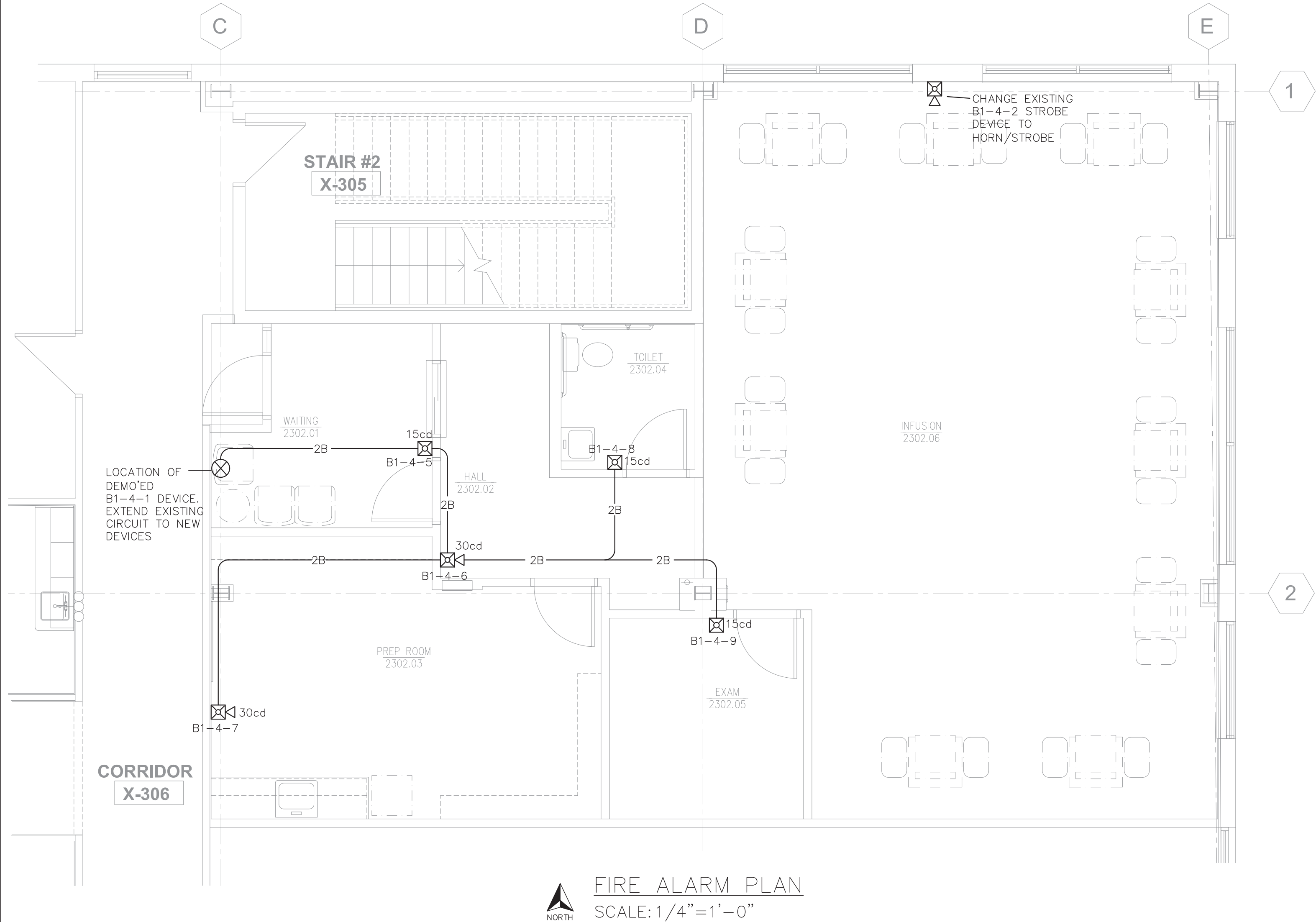




GENERAL NOTES

- ELECTRICAL CONDUIT AND WIRING SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE NATIONAL ELECTRIC CODE, NFPA STANDARD, STATE AND LOCAL BUILDING REQUIREMENTS.
- REFER TO THE WIRE LEGEND FOR APPLICABLE CONDUCTOR TYPE AND SIZE.
- SIGNALING LINE CIRCUITS MAY BE "TEE-TAPPED" ONLY WHERE SHOWN ON DRAWING OR APPROVED OF BY SYSTEM ENGINEER. NOTIFICATION CIRCUITS, NO "TEE-TAPPING" IS ALLOWED.
- POWER LIMITED CIRCUITS SHALL BE ISOLATED FROM NON-POWER LIMITED CIRCUITS, ELECTRIC LIGHTS, OR POWER CIRCUITS BY A MINIMUM OF 2 INCHES. POWER LIMITED CIRCUITS SHALL NOT BE PLACED IN THE SAME CONDUIT, ENCLOSURE, RACEWAY, ETC.. WITH NON-POWER LIMITED CIRCUITS.
- ALL FIRE RATED WALL AND/OR FLOOR PENETRATIONS SHALL BE SEALED WITH AN APPROVED FIRE STOPPING COMPOUND.
- ALL FIRE ALARM JUNCTION BOX COVERS SHALL BE PAINTED RED OR LABELED FOR DISTINCT IDENTIFICATION.
- ALL FIRE ALARM CONDUIT SHALL BE SIZED PER NEC, 3/4" MINIMUM.
- FACP MONITORING - LOOP START PHONE LINES TO FIRE ALARM PANEL DACT SHALL BE PER 2016 EDITION OF NFPA 72, SECTION 8.6.3.2
- ALL FIRE ALARM CONTROL PANELS REQUIRE A DEDICATED 120VAC CIRCUIT. CONNECT A 12AWG COPPER GROUND WIRE FROM SAFETY GROUND IN THE ELECTRICAL DISTRIBUTION PANEL TO ALL FIRE ALARM CONTROL PANELS.
- INSTALL NOTIFICATION APPLIANCES 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER. THE ENTIRE LENS OF ALL STROBES MUST BE WITHIN THIS AREA UNLESS OTHERWISE NOTED.
- ALL SMOKE DETECTORS SHALL BE MOUNTED NO CLOSER THAN 3 FEET FROM ANY SUPPLY AIR DUCT.
- HVAC SHUTDOWN WIRING FROM RELAY TO UNIT CONTROLS BY OTHERS
- PER NFPA 72, SMOKE DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER FINAL CLEAN UP. UNLESS AUTHORIZED BY THOSE TAKING RESPONSIBILITY FOR DIRTY DETECTORS.
- SYSTEM DESIGN BASED ON COMPLIANCE WITH 2016 EDITION OF NFPA 72 & 2018 EDITION OF IBC.

SYMBOL LEGEND

SYMBOL	PART NO.	DESCRIPTION	BACK BOX	MOUNTING HGT
[FACP]	IO1000	IO SERIES FIRE ALARM PANEL	INCLUDED	72" AFF TO TOP
[BPS]	BPS6	NAC POWER SUPPLY	INCLUDED	N/A
[ANN]	RS ANN	REMOTE SYSTEM ANNUNCIATOR	CUSTOM	TBD
[SIGA-PD]	SIGA-PD	SMOKE DETECTOR	4" OCTAGON	CEILING
[SIGA-PD W/ SIGA-AB4G-LF]	SIGA-PD W/ SIGA-AB4G-LF	SMOKE DETECTOR WITH 520 HZ LOW FREQ. SOUNDER	SINGLE GANG x 2-1/2" DEEP	CEILING
[SIGA-HFD]	SIGA-HFD	HEAT DETECTOR	4" OCTAGON	CEILING
[SIGA-SD]	SIGA-SD	DUCT DETECTOR	N/A	N/A
[SIGA-278]	SIGA-278	MANUAL PULL STATION	SINGLE GANG x 2-1/2" DEEP	BOTTOM OF J-BOX 46" AFF
[SIGA-CT1]	SIGA-CT1	MONITOR MODULE	4" SQUARE 1 GANG RING	N/A
[SIGA-CR]	SIGA-CR	ADDRESSABLE RELAY	4" SQUARE 1 GANG RING	N/A
[G4LFWN-H]	G4LFWN-H	520 HZ LOW FREQ HORN C=CEILING MOUNT	4" SQUARE x 2-1/8" DEEP	LOCATIONS VARY
[G1VRF]	G1VRF	MULTI CANDELA STROBE WALL MOUNT	SINGLE GANG x 2-1/2" DEEP	BOTTOM OF J-BOX 82" AFF
[GCAVRF]	GCAVRF	MULTI CANDELA HORN/STROBE CEILING MOUNT LED	4" SQUARE x 2-1/8" DEEP	N/A
[CS405-8A-T]	CS405-8A-T	OUTDOOR 110CD STROBE	4" SQUARE WP CUSTOM	BOTTOM OF J-BOX 82" AFF
[GCVRF]	GCVRF	CEILING MOUNT LED STROBE	4" SQUARE	N/A
[G4LFWM-VMH]	G4LFWM-VMH	MULTI. CANDELA SPEAKER/STROBE 520HZ LOW FREQ	4" SQUARE x 2-1/8" DEEP	BOTTOM OF J-BOX 82" AFF
[SIGA-WTM]	SIGA-WTM	WATERFLOW AND TAMPER DUAL INPUT MONITOR MODULE	4" SQUARE 1 GANG RING	N/A
[757-8A-T]	757-8A-T	WALL MOUNT HORN / STROBE WG = WIRE GUARD	4" SQUARE WP CUSTOM	BOTTOM OF J-BOX 82" AFF
[G1AVRF]	G1AVRF	WALL MOUNT HORN / STROBE WG = WIRE GUARD	SINGLE GANG x 2-1/2" DEEP	BOTTOM OF J-BOX 82" AFF
[BY OTHERS]	BY OTHERS	120VAC BELL	B.O.	B.O.
[BY OTHERS]	BY OTHERS	WATERFLOW SWITCH	B.O.	B.O.
[BY OTHERS]	BY OTHERS	TAMPER SWITCH	B.O.	B.O.
[FIRE PHONE WALL JACK]		FIRE PHONE WALL JACK	SINGLE GANG x 2-1/2" DEEP	
[MR101]	MR101	CONVENTIONAL RELAY		
[SD-TRK]	SD-TRK	REMOTE TEST / RESET SWITCH	SINGLE GANG	

IO 1000 SERIES

STANDARD WIRE LEGEND

A	SIGNATURE DEVICE CIRCUIT - SLC 18AWG SOLID, 2 CONDUCTOR, TWSTD. CABLE
B	NOTIFICATION APPLIANCE CIRCUIT 14AWG SOLID, 2 CONDUCTOR, TWSTD. CABLE
C	NOTIFICATION APPLIANCE CIRCUIT 14AWG SOLID, 2 CONDUCTOR, TWSTD. CABLE
D	DOOR HOLDER 14AWG SOLID, 2 CONDUCTOR, TWSTD. CABLE
F	FIRE PHONE COMMUNICATION RISER 16AWG SOLID, 2 CONDUCTOR, TWSTD, SHLD CABLE
G	GENESIS SYNC. CIRCUIT 14AWG SOLID, 2 CONDUCTOR, TWSTD.
K	REMOTE MIC KEY CIRCUIT 18AWG SOLID, 2 CONDUCTOR, TWSTD
M	IDC CIRCUIT 18AWG SOLID, 2 CONDUCTOR, TWSTD.
N	FACP NETWORK COMMUNICATIONS CIRCUIT - RS485 18AWG SOLID, 2 CONDUCTOR, TWSTD. CABLE
P	24VDC POWER CIRCUIT 14AWG SOLID, 2 CONDUCTOR, TWSTD. CABLE
Q	REMOTE MICROPHONE INPUT 18AWG SOLID, 2 CONDUCTOR, TWSTD, SHLD CABLE
R	RELAY CONTROL CIRCUIT 14AWG SOLID, 2 CONDUCTOR, TWSTD. CABLE
S	VOICE NOTIFICATION APPLIANCE CIRCUIT 16AWG SOLID, 2 CONDUCTOR, TWSTD
T	REMOTE TEST CIRCUIT 2 X 18AWG SOLID, 2 CONDUCTOR, TWSTD CABLES
W	AUDIO RISER CHANNEL 1 (EVAC) 16AWG SOLID, 2 CONDUCTOR, TWSTD
X	AUDIO RISER CHANNEL 2 (ALERT) 16AWG SOLID, 2 CONDUCTOR, TWSTD
Y	BACK UP AUDIO RISER CHANNEL 1 (EVAC) 16AWG SOLID, 2 CONDUCTOR, TWSTD
Z	BACK UP AUDIO RISER CHANNEL 2 (ALERT) 16AWG SOLID, 2 CONDUCTOR, TWSTD

HORIZONTAL EMT RECOMMENDED CONDUIT SIZING CHART

NO. OF CABLES	CONDUIT SIZE
4 OR LESS	3/4"
5 TO 7	1"
8 TO 12	1-1/4"
13 TO 16	1-1/2"
17 TO 27	2"

SIZING IS BASED ON EACH CABLES MAXIMUM OVERALL DIAMETER OF .215

Edwards System Builder									
Smalley Building Analog Systems									
Job Name: LEE'S SUMMIT MOB									
9 Entries on this sheet									
0 Module Addresses this sheet									
1 System Brand									
0 Color									
Standby Specifications									
24	Enter battery standby supervision time in hours								
15	Enter standby fire alarm time on batteries in minutes								
Analog Control Panel									
1	0105000	FACP, 1-2 Loop, 1000pt max, 4 C/B NACs, gray, w/tiler, 120v	288	433					
System Module									
1	0-SDC1	Expansion Analog Loop, 250pt	55	128					
1	BA-232	RS232 Interface Card	13	13					
Panel Battery									
Battery AH = De-rating Factor*Supervisory Hours*Standby Current + De-rating Factor*Alarm Minutes*90*Alarm Current									
1.20 Battery De-rating Factor									
9.92 Calculated Ampere Hours for Fire									
8.92 Total Calculated Battery Ampere Hours									
2	12V10A	11 AH Battery	336	644					

Fire Alarm System Outputs		Activate Digital Alarm Communicator	Activate DACT - Trouble	Activate DACT - Supervisory	Activate Horn Strobes & Strobos	Shutdown All Air Handlers	Unlock Doors	Display Information on Assoc.	Activate Display on EACP	Silence Horns & Strobos	Silence Annunciator Audible	Silence EACP Audible	Activate Fire Smoke Dampers
1													
2	Fire Alarm System Inputs												
3	Manual pull station	X			X	X	X	X					X
4	Smoke detector	X			X	X	X	X					X
5	CO Detector		X	X	X	X	X	X					X
6	Duct smoke detector AHU				X	X	X	X					
7	Kitchen Hood	X			X	X	X	X				X	
8	Water flow sw.	X			X	X	X	X				X	
9	Supervisory Tamper sw.		X				X	X					
10	Fire Alarm Panel trouble		X				X	X					
11	Annunciator trouble		X				X	X					
12	FACP Alarm Silence sw.							X					
13	FACP Trouble Silence sw.								X				
14	Annunciator Alarm Sil. sw.								X				
15	Annunciator Trouble Sil. sw.									X			
16	All system device troubles	X					X	X					
17	All system wiring troubles	X					X	X					
18	All system power troubles	X					X	X					
19													

FIRE ALARM SYSTEM - SEQUENCE OF OPERATION MATRIX

Edwards System Builder									
Booster Power Supplies									
All current values are in mA									
Battery Calculations									
Supply Voltage & Battery Periods									
120	Vac Supply Voltage								0 Seismic hardening
24	Standby Hours from IO Series								7 Entries this sheet
15	Fire Alarm Minutes from IO Series								0 Module Addresses this sheet
0	CO Alarm Minutes from IO Series								
Remote: Booster Supplies									
Remote Booster Power Supply Specification # 1									
24	Standby Hours								24 Battery Standby Hours Override, this booster spec only
5	Alarm Minutes								5 Battery Standby Fire Alarm Minutes Override, this booster spec only
1200	Enter NAC #1 Signal Appliance Alarm Current				1200	Ok			
1200	Enter NAC #2 Signal Appliance Alarm Current				1200	Ok			
1200	Enter NAC #3 Signal Appliance Alarm Current				1200	Ok			
1200	Enter NAC #4 Signal Appliance Alarm Current				1200	Ok			
6	Enter the TOTAL load for the 200mA Auxiliary Power Source				6	Ok			
6	Enter Aux STANDBY load delivered during a power fail				6	Ok			
6	Enter Aux ALARM current delivered during a power fail				6				
24	Standby Hours								Battery Standby Hours Override, this booster spec only
15	Alarm Minutes								Battery Standby Fire Alarm Minutes Override, this booster spec only
24	Standby Hours								Battery Standby Hours Override, this booster spec only
15	Alarm Minutes								Battery Standby Fire Alarm Minutes Override, this booster spec only
24	Standby Hours								Battery Standby Hours Override, this booster spec only
15	Alarm Minutes								Battery Standby Fire Alarm Minutes Override, this booster spec only
24	Standby Hours								Battery Standby Hours Override, this booster spec only
15	Alarm Minutes								Battery Standby Fire Alarm Minutes Override, this booster spec only

NAC CIRCUIT and # Dev	DESCRIPTION: LEE'S SUMMIT MOB	TOTAL LOAD (AMPS)	WIRE LENGTH (FEET)	WIRE SIZE (AWG)	RESISTANCE MAX (OHMS)	MAXIMUM LENGTH (FEET)	VOLTAGE DROP (4.4V MAX)
1	N2	0.644	132	14	6.86	1112	0.76
2	N2	0.798	235	14	5.92	898	1.15
3	N3	1.038	157	14	4.24	690	1.00
4	N4	1.107	326	14	3.97	647	2.22
5	B2-1	0.966	202	14	4.55	742	1.20
6	B2-2	1.314	268	14	3.35	545	2.16
7	B2-3 & Suite 2310	0.604	371	14	6.73	1096	1.49
8	B2-4 & Suite 2302	0.620	399	14	10.48	1705	1.08
9	B2-5	0.966	233	14	4.55	742	1.38
10	B2-6	1.107	251	14	3.97	647	1.71
11	B2-3	1.314	139	14	3.35	545	1.12
12	B2-4	0.981	259	14	4.49	790	1.80

CODE COMPLIANCE: IBC 2018



P.O. BOX 815
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REVISION:

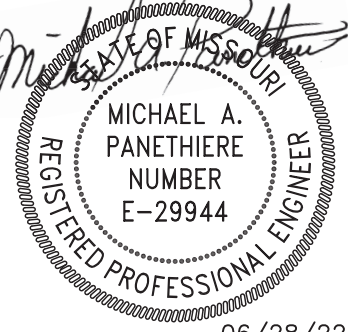
FIRE ALARM PLAN

LEE'S SUMMIT MEDICAL CENTER, MOB - INFUSION CENTER

SUITE 2302, 1980 SE BLUE PARKWAY

LEE' SUMMIT, MO 64063

SEAL



06/28/22

DRAWN BY: DATE:

MPA 06-28-22

REVIEWED BY: DATE:

SHEET NUMBER:

FA 01