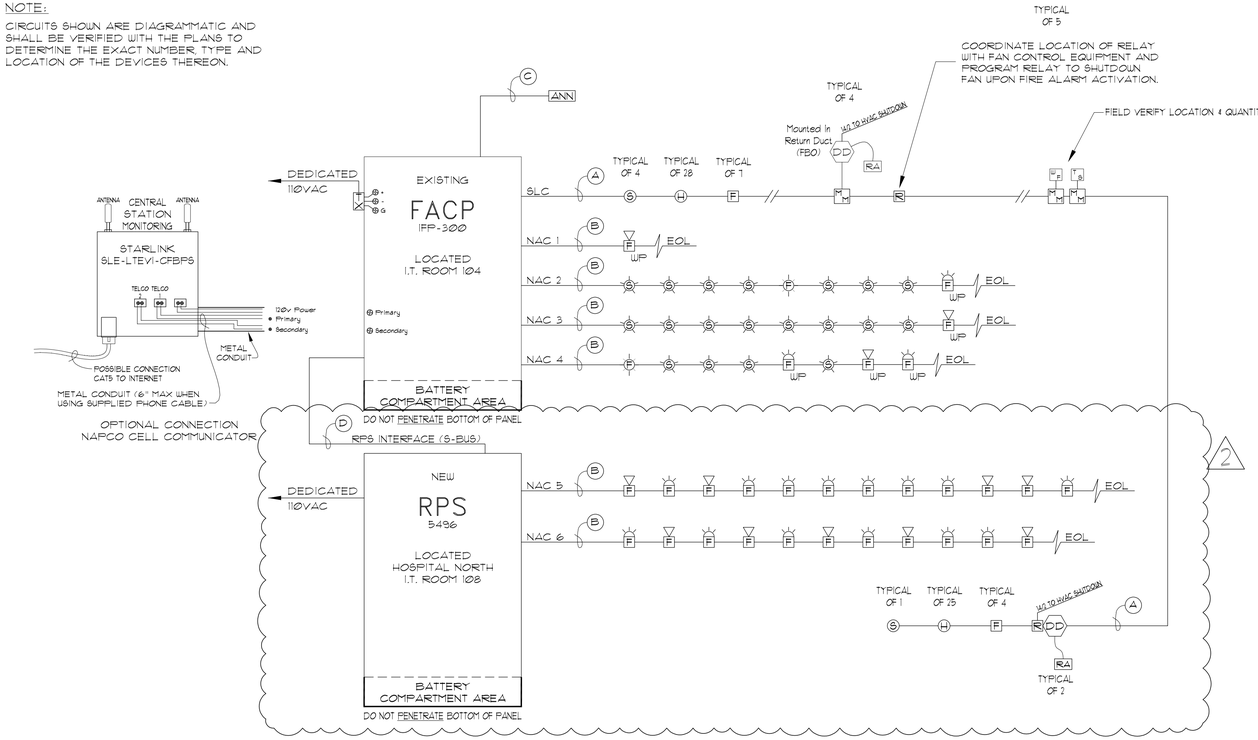
NOTE:

CIRCUITS SHOWN ARE DIAGRAMMATIC AND SHALL BE VERIFIED WITH THE PLANS TO DETERMINE THE EXACT NUMBER, TYPE AND LOCATION OF THE DEVICES THEREON.



RISER DIAGRAM DETAIL

SCALE N.T.S.

NAC VOLTAGE DROP

#	STANDBY CURRENT	ALARM CURRENT	AWG	MAX WIRE RUN	ACTUAL OHMS	VOLTS @EOL	% DROP
1	0	0.176	14	175	0.88	20.31	0.43
2	0	0.563	14	275	1.39	19.62	3.83
3	0	0.435	14	300	1.51	19.74	3.22
4	0	0.361	14	325	1.64	18.83	7.72
5	0	0.977	14	195	0.98	19.44	4.71
6	0	1.021	14	215	1.08	19.29	5.42

FACP BATTERY CALCULATIONS 2

TOTAL STANDBY CURRENT (AMPS)	0.239	2.697	TOTAL ALARM CURRENT (AMPS)
STANDBY TIME IN HOURS	24	0.083	ALARM TIME IN MINUTES/ 60 (5 MIN)
TOTAL STANDBY AH REQUIRED	5.737	0.225	TOTAL ALARM AH REQUIRED
TOTAL COMBINED AH REQUIRED	5.96		
MULTIPLY BY THE DERATING FACTOR	1.20		
MINIMUM BATTERY AMPHOURS REQUIRED	7.15		18 amp Hour Batteries Provided

NEW RPS BATTERY CALCULATIONS 2

TOTAL STANDBY CURRENT (AMPS)	0.040	2.158	TOTAL ALARM CURRENT (AMPS)
STANDBY TIME IN HOURS	24	0.083	ALARM TIME IN MINUTES/ 60 (5 MIN)
TOTAL STANDBY AH REQUIRED	0.960	0.180	TOTAL ALARM AH REQUIRED
TOTAL COMBINED AH REQUIRED	1.14		
MULTIPLY BY THE DERATING FACTOR	1.20		
MINIMUM BATTERY AMPHOURS REQUIRED	1.37		7 amp Hour Batteries Provided

WIRING LEGEND 2

A SIGNALING LINE CIRCUIT
16 GAUGE 2 CONDUCTOR

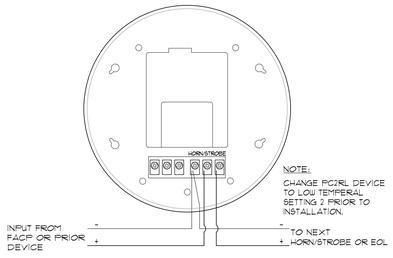
B NOTIFICATION APPLIANCE CIRCUIT
14 GAUGE 2 CONDUCTOR

C ANNUNCIATOR CIRCUIT
18 GAUGE 4 CONDUCTOR

D RPS INTERFACE CIRCUIT (S-BUS)
18 GAUGE 4 CONDUCTOR

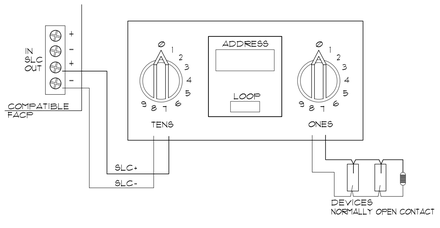
DO NOT T-TAP NOTIFICATION CIRCUITS

SYSTEM INPUTS	SYSTEM OUTPUTS: PANEL ALARM INDICATOR	PANEL TROUBLE INDICATOR	PANEL SUPERVISORY INDICATOR	ACTIVATE NOTIFICATION DEVICES	TRANSMIT DIGITAL DIALER CENTRAL STATION	AIR HANDLER SHUTDOWN		
MANUAL FIRE ALARM STATION	X			X	X			
SMOKE DETECTOR	X			X	X			
HEAT DETECTOR	X			X	X			
AC POWER FAIL		X			X			
LOW BATTERY		X			X			
OPEN/SHORT CIRCUIT		X			X			
TAMPER SWITCH			X		X			
WATER FLOW SWITCH	X			X	X			
DUCT DETECTOR			X		X	X		



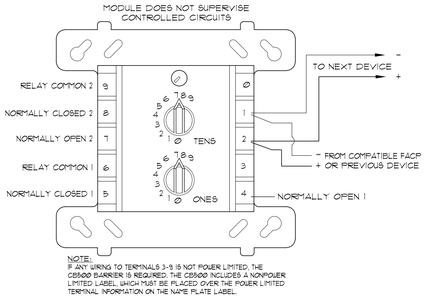
SYSTEM SENSOR PC2RL CEILING MOUNTED HORN/STROBE

SCALE N.T.S.



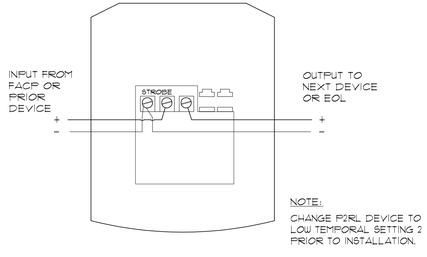
MONITORING MODULE IDP-MINIMON

SCALE N.T.S.



IDP RELAY

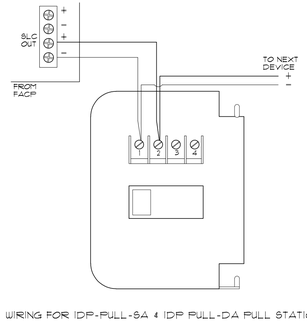
SCALE N.T.S.



SYSTEM SENSOR HORN/STROBE P2RL & STROBE SRL CONNECTIONS

SCALE N.T.S.

TYPICAL ROUGH-IN 4 x 4 x 1½ DOUBLE GANG BOX. SEE MOUNTING CHART FOR ADDITIONAL OPTIONS.

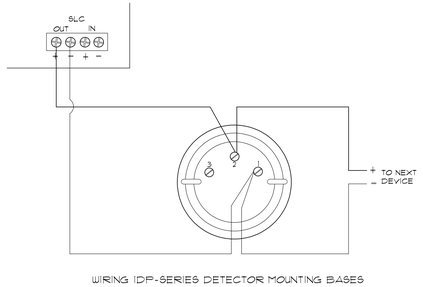


WIRING FOR IDP-PULL-SA & IDP PULL-DA PULL STATION

PULL STATION IDP-PULL

SCALE N.T.S.

TYPICAL ROUGH-IN 4 x 4 x 1½ DOUBLE GANG BOX. SEE MOUNTING CHART FOR ADDITIONAL OPTIONS.

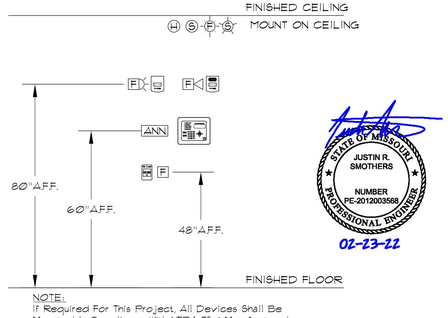


WIRING IDP-SERIES DETECTOR MOUNTING BASES

SMOKE & HEAT DETECTOR IDP-PHOTO

SCALE N.T.S.

TYPICAL ROUGH-IN 4 x 4 x 1½ DOUBLE GANG BOX. SEE MOUNTING CHART FOR ADDITIONAL OPTIONS.



NOTE:
If Required For This Project, All Devices Shall Be Mounted In Compliance With NFPA 72 & Manufacturer's Specification, Unless Otherwise Directed By The AHJ (Authority Having Jurisdiction)

MOUNTING HEIGHTS OF DEVICES

SCALE N.T.S.

LSS Life Safety Systems, LLC
Life Safety Systems, LLC
10143 ROYALTON ROAD, SUITE R
NORTH ROYALTON, OHIO 44133
PHONE: 440 888-7960
FAX: 440 888-7961
www.lifesafetyllc.com

FIRE ALARM DESIGN BY:
DAMON G. LEWIS, SET
NICET CER. LEVEL IV #102567
OHIO FIRE ALARM DESIGNER #3191

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REVISIONS

1	11/16/2021	PLAN REVIEW/PERMIT
2	12/28/2021	ADDED ANIMAL HOSPITAL NORTH

FIRE ALARM GENERAL NOTES

A. ALL DEVICES, COMBINATIONS OF DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LISTED FOR THE PURPOSE FOR WHICH THEY ARE USED AND SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.

B. APPLICABLE CODES AND STANDARDS SHALL BE, BUT NOT LIMITED TO, THE CURRENT ISSUES OF O.B.C., O.F.C., N.E.C., N.F.P.A. 72, AND ANY LOCAL REQUIREMENTS.

C. NO EQUIPMENT SHALL BE SUBSTITUTED FOR, OR LOCATIONS AND QUANTITIES DEVIATED FROM ON THE APPROVED PLANS WITHOUT WRITTEN PERMISSION FROM THE SYSTEM DESIGN ENGINEER.

D. THE INSTALLING CONTRACTOR SHALL PROVIDE QUALIFIED EXPERIENCED INSTALLERS THAT ARE CURRENTLY LICENSED TO INSTALL FIRE ALARMS IN THE STATE OF MISSOURI. ALL PERSONS WORKING ON THE FIRE ALARM SYSTEM ARE TO BE LICENSED FOR SUCH WORK.

E. THE INSTALLING CONTRACTOR SHALL MAINTAIN ON THE SITE AN APPROVED SET OF THE FIRE ALARM PLANS, NOTED JUNCTION BOX LOCATIONS, ETC., AND ANY OTHER INFORMATION NEEDED DURING THE INSTALLATION PROCESS. THESE MARKED-UP PLANS SHALL BE THE RECORD DRAWINGS WHICH ARE REQUIRED TO BE PROVIDED TO THE OWNER UPON COMPLETION OF THE WORK.

F. ALL FIRE ALARM SYSTEM WIRING SHALL BE IN COMPLIANCE WITH N.E.C. ARTICLE 760. CONDUCTOR JACKET SHALL BE FPL, FPLR, OR FPLP (AS APPLICATION DICTATES) FOR OPEN WIRING. THHN OR EQUIVALENT MAY BE USED IN CONDUIT.

G. ALL FIRE ALARM JUNCTION BOXES SHALL BE PAINTED RED, AND ALL CONDUCTORS AND CIRCUITS SHALL BE CLEARLY MARKED/ IDENTIFIED WITH CIRCUIT COLOR CODING BEING MAINTAINED THROUGHOUT THE INSTALLATION IF REQUIRED BY LOCAL AUTHORITY.

H. ALL FIRE ALARM CONTROL PANELS SHALL RECEIVE ITS OPERATING POWER FROM A DEDICATED 120VAC SOURCE. THIS BREAKER SHALL BE IDENTIFIED AND MECHANICALLY LOCKED IN THE "ON" POSITION.

I. MANUAL PULL STATIONS SHALL BE MOUNTED AT 48" A.F.F.

J. HORN/ STROBES AND STROBES SHALL BE MOUNTED AT 80" A.F.F. AT THE BOTTOM OF THE DEVICE UNLESS OTHERWISE NOTED, OR CEILING MOUNT DEVICES ARE TO BE USED. ALL STROBE DEVICES SHALL BE SET AT 75 CANDELA UNLESS OTHERWISE NOTED.

K. PROVIDE FIRE STOPPING AT ALL PENETRATIONS OF FIRE OR SMOKE PARTITIONS.

L. UPON COMPLETION, THE INSTALLING CONTRACTOR SHALL PERFORM A 100% TEST OF THE SYSTEM BEFORE THE LOCAL AUTHORITIES HAVING JURISDICTION ARE CONTACTED FOR THE REQUIRED ACCEPTANCE TEST.

M. THE ACCEPTANCE TEST SHALL BE ACCOMPLISHED WITH THE AUTHORITIES HAVING JURISDICTION, AND THE REQUIRED RECORD OF COMPLETION, OWNERS MANUAL, AND AS-BUILT DRAWINGS SHALL BE FURNISHED TO THE OWNER.

N. PER CODE, ALL REQUIRED FIRE ALARM SYSTEMS SHALL BE MONITORED. CONTACT LIFE SAFETY SYSTEMS, LLC FOR TECHNICAL ASSISTANCE IN ENSURING THE F.A.C.P. IS PROPERLY TIED INTO TWO PHONE LINES FOR THE OFF-PREMISES MONITORING.

STATE OF MISSOURI
JUSTIN R. SMOTHERS
NUMBER PE-2012003568
PROFESSIONAL ENGINEER
02-23-22

JOB NAME:
PetSuites of America
250 NW McNary Court
Lee's Summit, MO 64086
FIRE ALARM RISER & DETAILS

DRAWN BY: Jacob A.	DATE: 04/25/2021
CHECKED BY: .	DATE: .

FA-02

Q:/LSS- JOBS/PetSuites/Lee's Summit, MO/NEW FA-01 Lee's Summit