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FA SYMBOLS & LEGEND

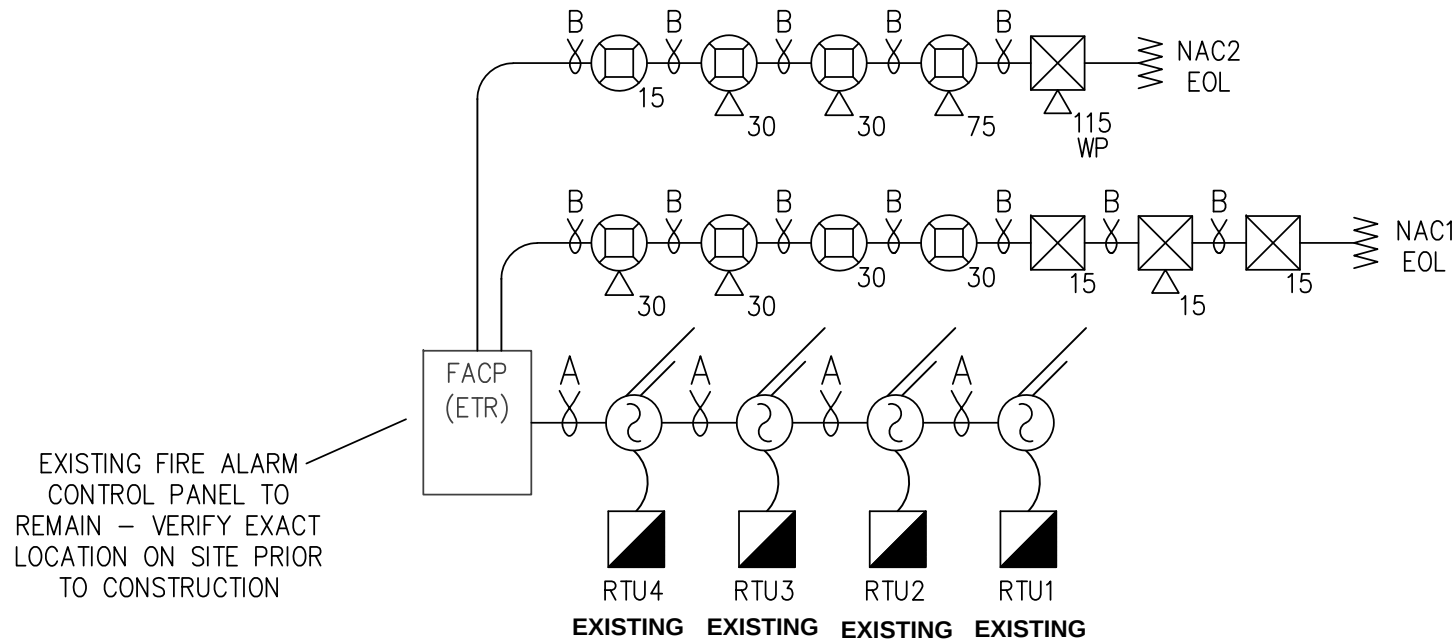
- DUCT SMOKE DETECTOR
- HORN / STROBE CEILING MOUNT, 15cd UNLESS NOTED OTHERWISE.
- STROBE CEILING MOUNT, 15cd UNLESS NOTED OTHERWISE.
- WALL HORN STROBE, 15cd UNLESS NOTED OTHERWISE.
- WALL STROBE, 15cd UNLESS NOTED OTHERWISE.
- RELAY MODULE
- 18/2 SLC
- 14/2 NAC

CODE INFORMATION

- APPLICABLE CODES:
- BUILDING CODE - 2018 INTERNATIONAL BUILDING CODE
 - ELECTRICAL CODE - 2017 NEC
 - FIRE CODE - 2018 IFC (INCLUDING REFERENCED NFPA CODE)
 - NFPA 72-2016

GENERAL NOTES

- TEST KEYS ARE TO BE FIELD LOCATED
- NOTIFICATION DEVICES ARE TO BE SET AT 15CD UNLESS OTHERWISE NOTED



FA RISER

4

	CONTROL UNIT ANNUNCIATION				NOTIFICATION				REQ FIRE SAFETY CONTROL			
	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR	ACTIVATE ALARM SIGNAL INDICATOR
MANUAL PULL STATION												
SMOKE DETECTORS												
DUCT DETECTOR												
MONITOR WATERFLOW SWITCH												
MONITOR TAMPER SWITCHES												
LOSS POWER TO FACP												
GROUND FAULT												

FA MATRIX

3

5495 Power Expander Calculations
Version 02.18.09

Global Project Values:

Project Name: MOD Pizza

Project ID:

Prepared By: Ryan Andersen

Date: 3/3/2022

Standby Hours: 24

Alarm Mins: 5

Derating Factor: 1.2

Voltage Drop Warning Threshold %: 10

Panel ID: Sprinkler Room

Model: 5495 Power Expander

Max NAC Current: 3.0 Amps

Location: Sprinkler Room

Volts: 24 VDC

Max Panel Current: 6.0 Amps

Ckt.#	Circuit Name	Current Draw	Wire AWG	Ohms Per	Length(ft)	Actual	Volts @	%Drop		
		Standby	Alarm	& Type	1000 Ft.	One-Way	Ohms	EOL		
5495	5495 Pwr Module	1	0.075	0.205						
NAC #1	NAC 1	cfg	0.000	0.690	#14 Solid	2.52	250	1.26	19.53	3.55%
NAC #2	NAC 2	cfg	0.000	0.552	#14 Solid	2.52	225	1.13	19.77	2.45%
NAC #3	Spare	cfg	0.000	0.552	#14 Solid	2.52	0	0.00	20.40	0.00%
NAC #4	Spare	cfg	0.000	0.212	#14 Solid	2.52	0	0.00	20.40	0.00%
Aux	Spare	cfg	0.000	0.000	#14 Solid	2.52		0.00	20.40	0.00%
Total Standby Current (Amps)		0.075	2.211	Total Alarm Current (Amps)						
Standby Time In Hours		24	0.083	Alarm Time In Minutes / 60 (5 Mins)						
Total Standby AH Required		1.800	0.184	Total Alarm AH Required						
Total Combined AH Required			1.98							
Multiply By The Derating Factor			1.20							
Minimum Battery AmpHours Required			2.38							

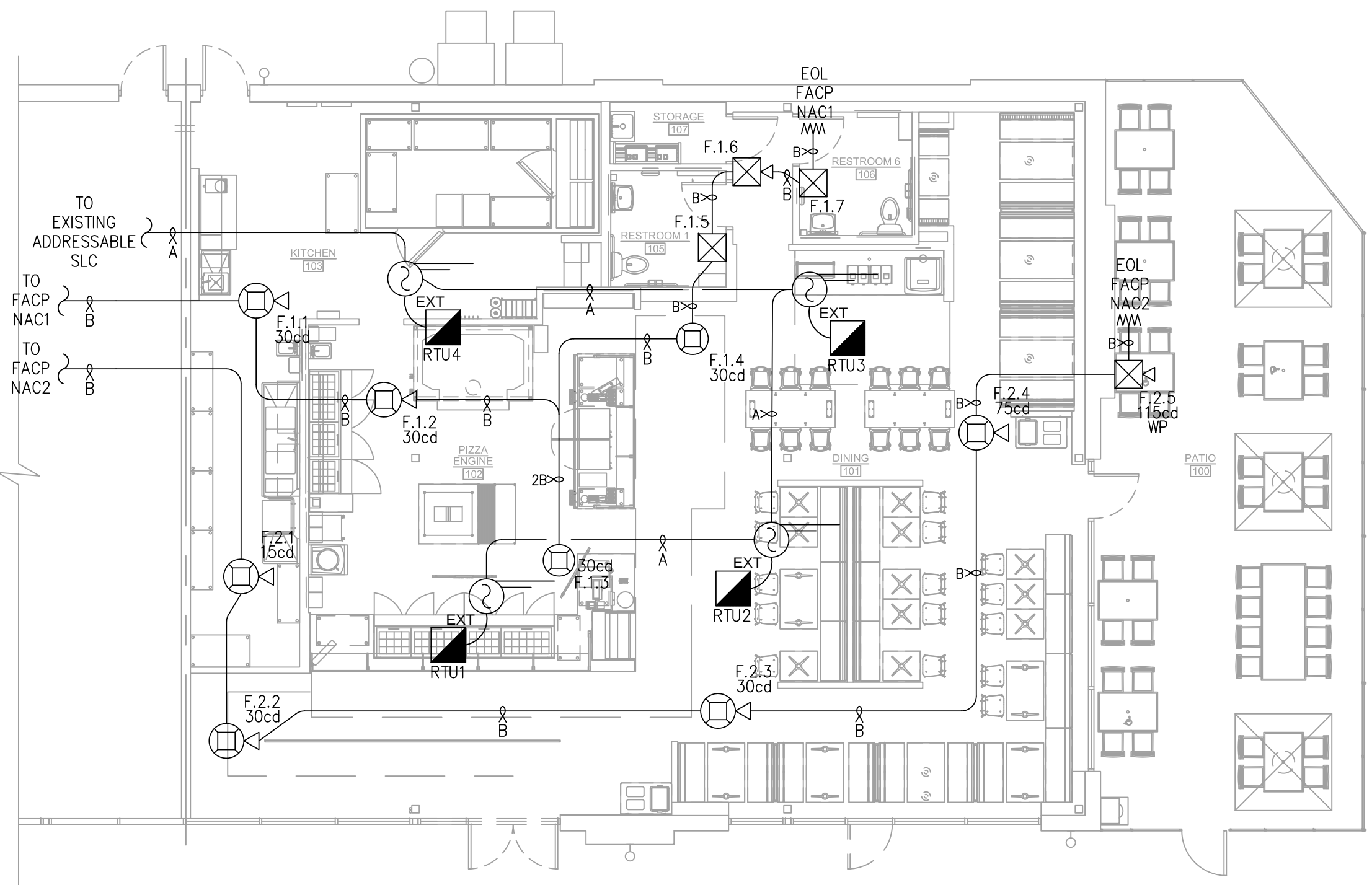
Wire resistances are based upon an ambient temperature of 72 degrees F. Because of the minimal difference between solid and stranded wire no differential was made.

Configure Circuits

Print Page

BATTERY CALCS

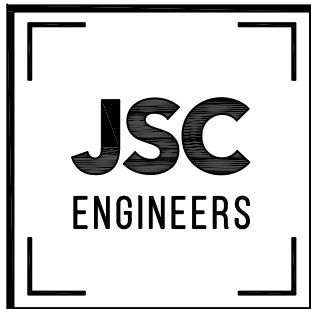
2



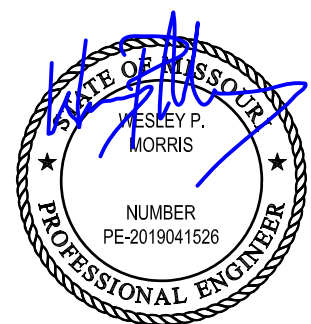
FIRE ALARM PLAN - LEVEL 1

SCALE : 1/8" = 1'-0"

1



MO COA NO. 2019000786 / KS COA NO. E-2818
1925 CENTRAL ST. SUITE #201
KANSAS CITY, MO 64108
phone: (816) 272-5289
email: jsmothers@jscengineers.com



03-03-2022

FIRE ALARM CONTRACTOR:



SYSTEM INTEGRATION GROUP

PROJECT:
MOD LEE'S SUMMIT
460 NW CHIPMAN RD
LEE'S SUMMIT, MO 64086

REVISIONS:	DATE / DESCRIPTION
1	
2	
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4	
5	

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JSC Engineers

ISSUED:

PERMIT

SHEET TITLE:

FIRE ALARM
PLANS

DATE: 03.03.2022

JOB NO.: 22-076

SHEET:

FA1.1