Johnson Controls			Ū	IAKN PFIT 2N IRE ALA	ID
DRAWING INDEX			LEGEN	DS	
Sheet List Table	Sheet Title		SYMBOL D	LARM SYMBOL L DESCRIPTION 009 IDNET NAC EXTENDER PANEL, 120 VA	
FA-001	COVER SHEET		(S) SI	MOKE SENSOR, ADDRESSABLE, PHOTOEI DDRESSABLE	LECTRIC
FA-101	DEVICE PLACEMENT PLAN			UCT SMOKE DETECTOR, ADDRESSABLE AMPLING TUBE, 49"	
FA-601	CALCULATIONS AND SCHEDU	JLES	MODULES AND		
FA-701	WIRING TYPICALS		(AOM)	UAL RELAY IAM, ADDRESSABLE	
			NOTIFICATION		
			<u> </u>	TROBE, CONVENTIONAL, WALL MOUNT, M ED, FIRE LETTERING	
				ORN/STROBE, CONVENTIONAL, WALL MO ENS, RED, FIRE LETTERING	
				ORN/STROBE, CONVENTIONAL, CEILING M ENS, RED, FIRE LETTERING	MOUNT, M
				EMOTE TEST STATION W/ LED AND KEY S	WITCH
GENERAL NOTES					
CONDUITS IS TO BE DETERMINED IN TH	DCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. E IE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDI			CIRCUIT DESCRIPTION K REMOTE TEST SWITCH/LED	(2) 2
	RECORD DRAWINGS. DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS W E CONTRACTOR SHALL CONTACT JOHNSON CONTROLS IN A			M IDNET	
NOT TO IMPAIR THE CONSTRUCTION SO 3. CONTRACTOR IS RESPONSIBLE FOR M	CHEDULE. AKING AND OBTAINING APPROVAL FOR ALL NECESSARY AE	DJUSTMENTS IN		R RELAY	2
BY ANY AUTHORIZED CHANGE. ALL CH	IODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES ANGES SHALL BE CLEARLY INDICATED ON THE RECORD DR	AWINGS.		V VISUAL	2 (
INSTALLATION.	ARM DRAWINGS SHALL BE AT THE JOB SITE AND SHALL BE			CONDUIT SIZE 1/2"	
BRANCH CIRCUIT BREAKER, AND SHAL	L HAVE A RED MARKING, LOCK-ON PROVISION AND SHALL BE I HAVE A RED MARKING, LOCK-ON PROVISION AND SHALL E TION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAD	BE IDENTIFIED AS "FIRE		<u>3/4"</u> 1"	
PERMANENTLY IDENTIFIED AT THE FIRI		,			

CONTROLS NO LATER THAN 7 DAYS AFTER FINAL TEST.

ASSEMBLIES ANY TIME THAT WORK IS NOT ACTIVELY BEING PERFORMED.

12. ALL WIRING SHALL BE INSTALLED ACCORDING TO APPLICABLE ELECTRICAL CODES.

18. ALL WIRING, INCLUDING SHIELDS MUST BE DRY AND FREE OF SHORTS AND GROUNDS.

22. MAINTAIN MAXIMUM CONDUIT FILL RATIO AS PER APPLICABLE ELECTRICAL CODES REQUIREMENTS.

MAKES NO STATEMENTS WRITTEN OR VERBAL AS TO THE CONDITION OF EXISTING CONDUITS.

19. ALL SHIELDED WIRE MUST HAVE SHIELD CONTINUITY AT FULL LENGTH OF THE WIRE.

21. 120VAC IS NOT PERMITTED IN THE SAME CONDUIT WITH LOW VOLTAGE WIRING.

REPRESENTATIVE.

LIMITED WIRE.

LOCATIONS.

such unauthorized use.

FPLP.

FIRE ALARM INSTALLER.

FOR SPECIFIC CODE REFERENCES.

IN VERTICAL RUNS IN SHAFTS SHALL BE TYPE FPLR.

APPLICABLE ELECTRICAL CODES, WHERE APPLICABLE.

20. ONLY SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.

THE CONTRACTOR WILL MAINTAIN ALL AREAS OF THE BUILDING IN A NEAT AND WORKMANLIKE MANNER.

8. DO NOT APPLY POWER EXCEPT IN THE PRESENCE OF A FACTORY TRAINED JOHNSON CONTROLS TECHNICAL

10. THE FIRE ALARM INSTALLER WILL MAINTAIN THE FIRE RESISTANCE INTEGRITY OF ALL WALL, CEILING, AND ROOF

9. ANY SMOKE DETECTOR HEAD INSTALLED BEFORE THE BUILDING IS CLEANED AND ACCEPTED SHALL BE COVERED TO PROTECT FROM DUST. ANY FALSE ALARMS DUE TO DIRT CONTAMINATED HEADS SHALL BE THE RESPONSIBILITY OF THE

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 AND APPLICABLE ELECTRICAL CODES. REFER TO 'APPLICABLE CODES & STANDARDS'

13. FIRE ALARM CIRCUITS SHALL BE IDENTIFIED IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES. MARK ALL FIRE ALARM WIRES IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODE SECTIONS FOR POWER LIMITED AND NON-POWER

14 FIRE ALARM CABLE INSTALLED IN DUCTS, PLENUM, AND OTHER SPACES USED FOR ENVIRONMENTAL AIR SHALL BE TYPE

15. FIRE ALARM CABLE INSTALLED IN THE VERTICAL RUNS AND PENETRATING MORE THAN ONE FLOOR OR CABLES INSTALLED

16. FIRE ALARM CABLE INSTALLED IN UNDERGROUND CONDUIT OR OTHER WET LOCATIONS SHALL BE UL LISTED FOR WET

17. FIRE ALARM CIRCUITS EXTENDING BEYOND ONE BUILDING AND RUN OUTDOORS SHALL BE INSTALLED IN ACCORDANCE

23. EXISTING CONDUITS MAY BE USED BY THE INSTALLATION CONTRACTOR AS DEEMED NECESSARY; HOWEVER, ANY

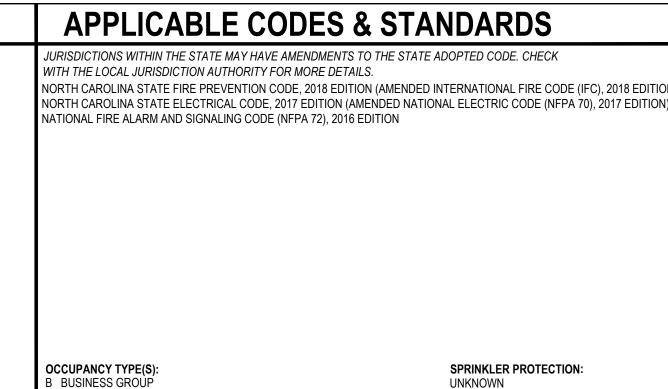
EXISTING CONDUIT WILL BE USED ONLY IF CONDUITS MEET CURRENT STANDARDS AND CODES. JOHNSON CONTROLS

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C	IRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	FPLR	FPLP	THHN	TFFN	OUTI	C.I.
к	REMOTE TEST SWITCH/LED	IOTE TEST SWITCH/LED (2) 2 COND. SOLID 14 AWG			х	х				
M IDNET		UTP SOLID	18 AWG	0.60µF MAX TOTAL LINE CAPACITANCE	х	х				
R RELAY		2 COND. SOLID	14 AWG		х	Х	х	х		
v	VISUAL	2 COND. SOLID	14 AWG		Х	х				
CONDUIT SIZE		MAX CONDUCTOR AREA		CONDUIT SIZE	M	AX CO	ONDU	сто	R ARE	A
	1/2"	0.122 SQ. INCH*		1-1/4"	0.598 SQ INCH*		CH*			
	3/4"	0.213 SQ INCH*		1-1/2"	1-1/2" 0.814 SQ		Q INCH*			
	1"	0.346 SQ INCH*		2" 1.342 S		342 S	Q INC	Ή*		
* 40% CONDUIT FILL PER N.E.C.										
STP = SHIELDED TWISTED PAIR										
UTP = UNSHIELDED TWISTED PAIR										

HARNETT COUNTY DSS **D FLOOR RM SYSTEM**



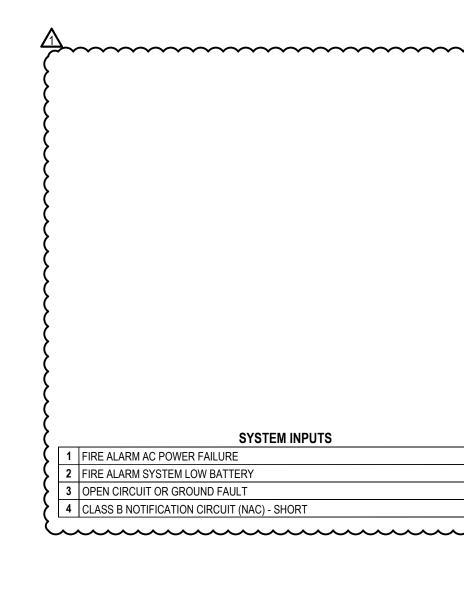
SCOPE OF WORK

NODIFY EXISTING FIRE ALARM SYSTEM: PROVIDE NEW DEVICES, RELOCATE AND DEMO EXISTING DEVICES AS SHOWN (ALL NEW WIRING IS TO BE CLASS B FOR NOTIFICATION APPLIANCE CIRCUITS, CLASS A FOR INITIATING DEVICE CIRCUITS, CIRCUITS.

THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE DISCONNECTED OR TAKEN OUT OF SERVICE WITHOUT WRITTEN PERM OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE OWNER THE TIMING OF ANY EXISTING FIR DEMOLITION WORK.

ABBREVIATIONS LEGEND

- AC = ABOVE CEILING AFF = ABOVE FINISHED FLOOR
- AHJ = AUTHORITY HAVING JURISDICTION ALM = ALARM
- ANN = ANNUNCIATOR BMS = BUILDING MANAGEMENT SYSTEM
- C = CEILING MOUNTED CD = CANDELA RATING
- DET = DETECTOR DGP = DATA GATHERING PANEL
- E = EXISTING TO REMAIN EOL = END OF LINE
- EPO = EMERGENCY POWER OFF ER = ELEVATOR RECALL
- FAA = FIRE ALARM ANNUNCIATOR
- FACP = FIRE ALARM CONTROL PANEL FATC = FIRE ALARM TERMINAL CABINET
- FBO = FURNISHED BY OTHERS FCC = FIRE COMMAND CENTER
- FSD = FIRE SMOKE DAMPER FTR = FIRE ALARM TRANSPONDER
- H = HIGH HUMIDITY HT = HFIGHT
- HVAC = HEATING VENTILATION & AIR CONDITIONING IMS = INFORMATION MANAGEMENT SYSTEM
- MAX = MAXIMUM
- MIN = MINIMUM N/A = NOT APPLICABLE
- NAC = NOTIFICATION APPLIANCE CIRCUIT
- NDU = NETWORK DISPLAY UNIT SYSTEM SEQUENCE OF OPERATIONS



GEND

LIND			
	BRAND / MODEL	BACKBOX	WIRE TYPE(S)
E	4009-9201	SIMPLEX CABINET	
W/ STANDARD BASE,	4098-9714 HEAD 4098-9792 BASE	4" OCT, 1-1/2" D	М
	4098-9755	MOUNTS TO DUCTWORK	М
	4098-9856		
	4090-9008	4" SQ. 2-1/8" D W/ COVER	M,R
	#N/A		
NDELA, CLEAR LENS,	4906-9101	SINGLE GANG 1-1/2" D	V
ILTI CANDELA, CLEAR	4906-9127	4" SQ. 1-1/2" D	V
MULTI CANDELA, CLEAR	4906-9128	4" SQ. 1-1/2" D	V
	2098-9806	SINGLE GANG 2" D	к

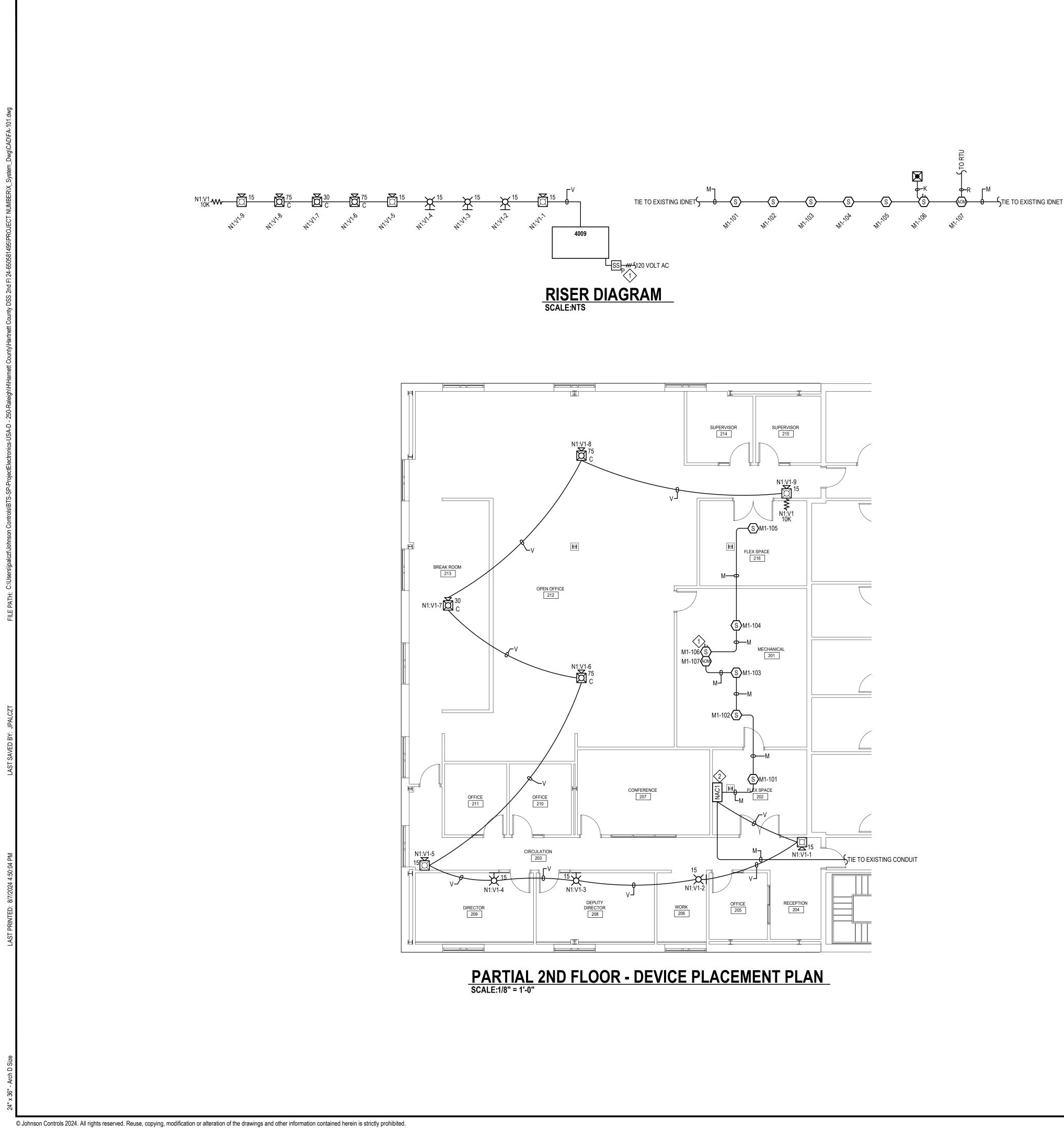
ACCEPTABLE

CABLE TYPES

LEGEND

ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO THE CIRCUIT DESIGN OF THIS SYSTEM INSTALLATION. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR SELECTING AND INSTALLING CABLE MANUFACTURER AND MODEL THAT MEETS OR EXCEEDS THE ABOVE REQUIREMENTS. RECOMMENDED CABLE MANUFACTURERS AND MODEL NUMBERS ARE AVAILABLE UPON REQUEST.

	JOHNSON CONTR	ROLS CONTACTS	
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	Project Manager PERRY MILLS	Drawings Reviewed By JOE SIMMONS	PHONE: 91 FAX: 92 19
	PERRY.MILLS@JCI.COM PHONE:919-971-3198	JOE.SIMMONS@JCI.COM PHONE:919-455-9023	
DARDS			
PTED CODE. CHECK	PROJECT DIRECT	ORY	DISTRICT - DISTRICT - DISTRICT - SERVICE: 9
ELECTRIC CODE (NFPA 70), 2017 EDITION)	Site HARNETT COUNTY DSS	Johnson Controls District - 250	
	311 W CORNELIUS HARNETT B LILLINGTON, NC 27546	540 CIVIC BLVD, SUITE 105 RALEIGH, NC 27610 PHONE: 919-279-6400 FAX: 919-255-3401	
		FAX: 919-255-3401 SERVICE: 919-279-6400	
PRINKLER PROTECTION:			
INKNOWN	General Contractor		
D DEMO EXISTING DEVICES AS SHOWN ON DRAWINGS.	1304 WHITE FLASH RD. 800 N. CHURCH ST. MOUNT OLIVE, NC 28365		
ASS A FOR INITIATING DEVICE CIRCUITS, AND SIGNALING LINE			
UT OF SERVICE WITHOUT WRITTEN PERMISSION FROM THE OWNER THE TIMING OF ANY EXISTING FIRE ALARM SYSTEM	DESIGN STATEME THIS PROJECT'S DESIGN IS BASED ON THE ENGIN	ENT EERED PLANS AND SPECIFICATIONS PREPARED BY:	_
	ARCHITECT OR ENGINEER NAME ARCHITECTURAL PLANS DATED:		
	MECHANICAL PLANS DATED: ELECTRICAL PLANS DATED: SPECIFICATIONS DATED: ADDENDUM DATED:		S
	DEVICE TAG LEG	END	
NEC = NATIONAL ELECTRIC CODE NFPA = NATIONAL FIRE PROTECTION ASSOCIATION		SIGNATOR	┤ ┣┏
NIC = NOT IN CONTRACT NPU = NETWORK PROCESSING UNIT NTS = NOT TO SCALE PAP = PRE-ACTION PANEL	• FA: = • #: = 1	FACP (NON-NETWORK) NODE NUMBER TRANSPONDER NUMBER	
RC = EXISTING TO REMOVE AND COVER RD = EXISTING DEVICE TO BE RELOCATED RL = RELOCATED DEVICE	● #:T# ● N#: =	= NODE:TRANSPONDER NUMBER NAC EXTENDER NUMBER DESIGNATOR	FLO IDSS FLO IARNEI 546
RR = REMOVE EXISTING & REPLACE WITH NEW SCC = STATUS COMMAND CENTER SLC = SIGNALING LINE CIRCUIT	• A# = • D# =	IDNAC ¹ CIRCUIT NUMBER DOOR HOLDER CIRCUIT NUMBER FIRE PHONE CIRCUIT	
SMK = SMOKE SUPV = SUPERVISORY TAC = TRUEALERT ADDRESSABLE CONTROLLER TOS = TOP OF SHAFT	• H# = • M# =	AUDIBLE (HORN) CIRCUIT NUMBER IDNET LOOP NUMBER POWER CIRCUIT NUMBER	2NC N, NC
TRBL = TROUBLE TS = TAMPER SWITCH TYP = TYPICAL	• S# = • V# =	SPEAKER CIRCUIT NUMBER VISUAL CIRCUIT NUMBER	
UON = UNLESS OTHERWISE NOTED VCC = VOICE COMMAND CENTER VT = VALVE TAMPER	DEVICE N	ISOLATED LOOP DESIGNATOR:	HARNETT UPFIT 2ND 311 W CORNELIUS LILLINGTON, NC 27
W = WATTAGE W/ = WITH W/O = WITHOUT	• (#) = • (E#:#	= IDNET ISOLATED LOOP NUMBER IDNAC BRANCH NUMBER t) = EPR ² NUMBER:BRANCH NUMBER	H H H H H H H H H H
WF = WATERFLOW WG = WIRE GUARD WP = WEATHERPROOF XP = EXPLOSION PROOF		ADDRESSABLE NOTIFICATION CIRCUIT	symbol
RATIONS			with
NATIONS			MMENTS
			Revisio
			PER REV
			Revisions showr DESCRIPTION REVISED PER REVIEW COMMENTS
			S S S S S S S S S S S S S S S S S S S
	NOE		CAD
DR ICATOR	ATION SING STATION		0G: DATE 08-07-24
OUTPUTS INDICATOR SIGNAL INDI SIGNAL AL INDICATO	SIGNAL ATION INDICATOR UATION SIGNALS JATION SIGNALS SUPERVISING STATION 5NAL TO SUPERVISING STATION TO SUPERVISING STATION		MARK 11 ISSUE L
			REVISION 1
SYSTEN SYSTEN ACTUATE COMMON ALARM SIGNAL ACTUATE AUDIBLE ALARM SIGNAL ACTUATE AUDIBLE SUPERVISORY ACTUATE COMMON SUPERVISORY ACTUATE COMMON TROUBLE SIGN	ACTUATE AUUIBLE IKOUBLE: ACTUATE APPROPRIATE LOC/ ACTUATE ALL VISIBLE EVACU UNUSED DISPLAY CHANGE OF STATUS DISPLAY CHANGE OF STATUS TRANSMIT ALARM SIGNAL TO TRANSMIT ALARM SIGNAL TO TRANSMIT TROUBLE SIGNAL 1 UNUSED UNUSED		DRAWN BY: T PALCZUK CHECKED BY: J SIMMONS
COMMON COMMON COMMON AUDIBLE COMMON COMMON	AUDIBLE APPROPF ALL AUDI ALL VISIB ALL VISIB A		ISSUE DATE: 7/23/24 JOB #: 250581495 PROJECT #: 24:650581495
S ACTUATE COMMON ALARM ACTUATE AUDIBLE ALARM S ACTUATE AUDIBLE ALARM S ACTUATE COMMON SUPERV ACTUATE COMMON TROUBI	ACTUATE AUDIBLE IKOUBL ACTUATE APPROPRIATE LO ACTUATE ALL VISIBLE EVAC UNUSED UNUSED DISPLAY CHANGE OF STATL TRANSMIT ALARM SIGNAL T TRANSMIT SUPERVISORY S TRANSMIT TROUBLE SIGNAL UNUSED UNUSED UNUSED		JOHNSON CONTROLS © 2024 SYSTEM:
CTRL UNIT ANNUNCIA		ONTROL 5	FIRE ALARM SYSTEM
Y X	X X X X X X		
			COVER SHEET
			FA-001



SYMBOL	DESCRIPTION	BRAND / MODEL	BACKBOX	WIRE TYPE(S)
NAC#	4009 IDNET NAC EXTENDER PANEL, 120 VAC, BEIGE	4009-9201	SIMPLEX CABINET	
ITIATING	DEVICES			•
S	SMOKE SENSOR, ADDRESSABLE, PHOTOELECTRIC W/ STANDARD BASE, ADDRESSABLE	4098-9714 HEAD 4098-9792 BASE	4" OCT, 1-1/2" D	М
Ś	DUCT SMOKE DETECTOR, ADDRESSABLE	4098-9755	MOUNTS TO DUCTWORK	М
	SAMPLING TUBE, 49"	4098-9856		
ODULES	AND RELAYS			
AOM	DUAL RELAY IAM, ADDRESSABLE	4090-9008	4" SQ. 2-1/8" D W/ COVER	M,R
_	#N/A	#N/A		
OTIFICAT	ION APPLIANCES			
¥ #	STROBE, CONVENTIONAL, WALL MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	4906-9101	SINGLE GANG 1-1/2" D	V
X #	HORN/STROBE, CONVENTIONAL, WALL MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	4906-9127	4" SQ. 1-1/2" D	V
# ۲	HORN/STROBE, CONVENTIONAL, CEILING MOUNT, MULTI CANDELA, CLEAR LENS, RED, FIRE LETTERING	4906-9128	4" SQ. 1-1/2" D	V
IISCELLAN	IEOUS DEVICES			
\mathbf{X}	REMOTE TEST STATION W/ LED AND KEY SWITCH	2098-9806	SINGLE GANG 2" D	К

GENERAL NOTES:

- ALL CEILINGS ARE ASSUMED TO BE 10' A.F.F., SMOOTH CONSTRUCTION UNLESS NOTED OTHERWISE.
 THE DEVICE ADDRESSES INDICATED ON THESE DRAWINGS ARE AN
- ALPHANUMERIC DESCRIPTION OF WHICH CIRCUIT THE DEVICE IS LOCATED ON. DEVICES MAY BE ASSIGNED A DIFFERENT NUMBER WITHIN THE PANEL PROGRAM. CONSULT WITH A JOHNSON CONTROLS TECHNICIAN BEFORE APPLYING A PHYSICAL LABEL TO ANY DEVICES.

Johnson '

919-279-919-255-

PHOI FAX:

SU S10

BLVD NC 27

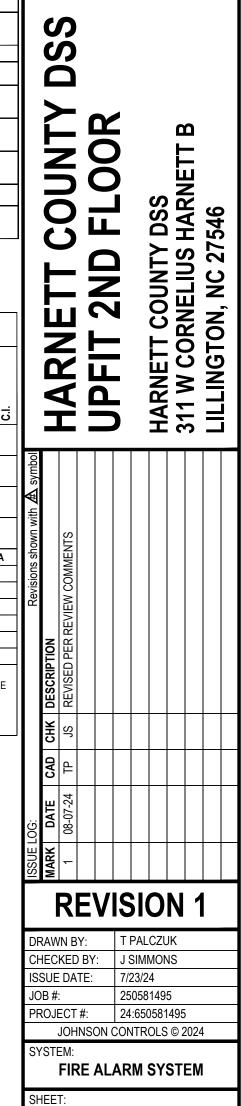
CIVIC EIGH, 540 (BALI)

KEYNOTES:

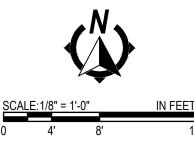
FIELD COORDINATE DUCT DETECTOR LOCATION.

2 FIELD COORDINATE NAC PANEL LOCATION.

						ACCEPTABLE CABLE TYPES				
FIRE ALARM WIRE LEGEND									OOR **	
(CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	FPLR	FPLP	THHN	TFFN	ουτροοκ	c.i.
к	REMOTE TEST SWITCH/LED	(2) 2 COND. SOLID	14 AWG		Х	х				
м	IDNET	UTP SOLID	18 AWG	0.60µF MAX TOTAL LINE CAPACITANCE	х	Х				
R	RELAY	2 COND. SOLID	14 AWG		х	х	х	x		
v	VISUAL	2 COND. SOLID	14 AWG		Х	х				
	CONDUIT SIZE	MAX CONDUCTOR	AREA	CONDUIT SIZE	MAX CONDUCTOR AREA				EA	
	1/2"	0.122 SQ. INCH*		1-1/4"	0.598 SQ INCH*					
	3/4"	0.213 SQ INCH	i *	1-1/2"		0.8	814 S	Q INC	CH*	
1" 0.346 SQ INCH*			i *	2"		1.3	842 S	Q INC	Ή*	
		* 40% CO	NDUIT FILL PE	R N.E.C.						
STP = SHIELDED TWISTED PAIR										
UTP = UNSHIELDED TWISTED PAIR										
THE IN	ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO THE CIRCUIT DESIGN OF THIS SYSTEM INSTALLATION. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR SELECTING AND INSTALLING CABLE MANUFACTURER AND MODEL THAT MEETS OR EXCEEDS THE ABOVE REQUIREMENTS. RECOMMENDED CABLE MANUFACTURERS AND MODEL NUMBERS ARE AVAILABLE UPON REQUEST.									



DEVICE PLACEMENT PLAN



FA-101

Madala	Qty	Description	Standby	Total Standby	
Module	QLY		Current	Stanuby	
nel Equipment 4100-9701	1	ES PS Master Controller - English 1	0.2770	0.2770	
4100-2300	1	EXPANSION BAY (PHASE 10 ONLY)	0.0000	0.0000	
4100-2504	1	CONNECTED SERVICES GATEWAY WITH IP COMMUNICATOR - SIDE MOUNT	0.1250	0.1250	
4100-6104	1	ES NET SLOT MOUNT NETWORK INTERFACE CARD	0.1200	0.1200	
4100-6307	1	ES NET DUAL CHANNEL DSL MEDIA CARD	0.1350	0.1350	
4100-5450	1	NAC Card	0.0660	0.0660	
4100-0644	1	120 VAC PDM HARNESS	0.0000	0.0000	
4100-0634	1	POWER DISTRIBUTION MODULE 120V	0.0000	0.0000	
4100-1294	1	LED/SWITCH SLIDE-IN LABEL KIT	0.0000	0.0000	
4100-5131	1	ES-PS Fan Module	0.0000	0.0000	
4100-1284	1	8 SW, 16 RED/GREEN LED MODULE	0.0000	0.0000	
4100-3209	1	8-POINT 3A RELAY CARD WITH FEEDBACK	0.0160	0.0160	
4100-1288	1	64/64 LED/SWITCH CONTROLLER	0.0200	0.0200	
4100-1279	1	2" BLANK DISPLAY MODULE	0.0000	0.0000	
		Panel Totals		0.7590	
Net Addressable De	<u>т`</u>				
4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC *			
4090-9002	4	IDNET RELAY IAM *			
4090-9008	1	ADDRESSABLE DUAL CONTACT RELAY IAM *	Constant current dr	aw of 8mA sta	
4098-9714	40	TRUEALARM PHOTO SMOKE SENSOR	Devices requiring additional cu		
1008-0733	5		labeled "Miscellane	eous Periphera	

Device Address curr	ent draw	included below (See Additional Current Draws):	System T	otals*:	Standby	0.8078
			Address Totals	61	Addresses	0.0488
4099-9006	5	ADDRESSABLE DOUBLE ACTION MANUAL STATION, PUSH *				
4098-9792	45	TRUEALARM SENSOR BASE *				
4098-9755	5	TRUEALARM DUCT SMOKE SENSOR W/O RELAY OUTPUT *				
4098-9733	5	TRUEALARM HEAT SENSOR			labeled "Miscellaned	ous Peripheral De Powe
					q	

IDNet cards include 40mA alarm current for 20 device LEDs in alarm in addition to base current listed on datasheet. 1. Base FACP includes current draw for all included components. See data sheet for details.

				Standby	/	Standby
Battery Set #1 (Cabinet/Charger #1)				Current	t	Total
Select ALL Power Supplies on this battery set:						
ESPS-1						0.7590
				Sub	Total	0.7590
Additional Current Draws: IDNAC Current Boost for 29vdc Regulated Output **						
RUI Connected Periphera	al Devices	0		x 0.0035		= 0.0000
MAPNET/IDNet Device Address Communicatio	on Current	6	1	x 0.000800		= 0.0488
				Sub	Total	0.8078
Spare addressable point capacity	0%	0		x 0.0008		= 0.0000
					Total	0.8078
Standby Time =	24	Hrs		x 0.8078		= 19.3872
Alarm Time =	5	Min		0.08333 x 1.4	64	= 0.1220
						19.5092
Additional Spare Battery Capacity =	0%				+	0.0000
						19.5092
Battery Discharge Factor =	20%				+	3.9018
Minimum Battery Required	2081-9287	25AH	(2x)			23.4110
Battery Supplied	2081-9287	25AH	(2x)			

* System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.

** IDNac Current Boost formula: ((29.5 * IDNac Alarm Current) / .92) / 20.4 = Adjusted Current DC-DC Converter Output = 29.5vdc. Terminal Output is 29vdc due to 0.5vdc internal loss. Converter Worst Case efficiency is 92%, 20.4vdc represents battery output in 85% depleted state

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Alarm	Total
Current	Alarm
0.3210	0.3210
0.0000	0.0000
0.1250	0.1250
0.1200	0.1200
0.1350	0.1350
0.0660	0.0660
0.0000	0.0000
0.0000	0.0000
0.0000	0.0000
0.2000	0.2000
0.0240	0.0240
0.2000	0.2000
0.2120	0.2120
0.0000	0.0000
	1.4030

standby and 1mA alarm per address used. I current are accounted for in the section eripheral Devices Requiring Additional System Power".

	0.0610
Alarm	1.4640

у	Alarm	Alarm
l	Current	Total
.7590		1.4030
.7590		1.4030
		0.0000
.0000	x 0.0035	= 0.0000
.0488	x 0.001000	= 0.0610
.8078		1.4640
.0000	x 0.001	= 0.0000
.8078		1.4640
.3872	Standby Ah	
.1220	Alarm Ah	
.5092		
.0000		
.5092		
.9018		

				Standby	Total	Alarm	Total
Module	Qty	Description		Current	Standby	Current	Alarm
anel Equipment							
4009-9201	1	4009 IDNET NAC EXTENDER, 120 VAC		0.0850	0.0850	0.1850	0.1850
			Panel Totals		0.0850		0.1850
lotification Applianc	es		Setting				
4606-9101	3	REMOTE LCD ANNUNCIATOR	15	0.0650	0.1950	0.1400	0.420
4906-9127	3	A/V MC NON-ADDRESS, RED, WALL	15	0.0000	0.0000	0.0750	0.225
4906-9128	1	A/V MC NON-ADDRESS, RED CEILING	30	0.0000	0.0000	0.1320	0.1320
4906-9128	2	A/V MC NON-ADDRESS, RED CEILING	75	0.0000	0.0000	0.2500	0.5000
		Peri	oheral Totals		0.1950		1.2770
			System Totals*:	Standby	0.2800	Alarm	1.462

			Standby	Standby	Alarm	Alarm
Battery Set #1 (Cabinet/Charger #1)			Current	Total	Current	Total
Select ALL Power Supplies on this battery set:						
4009				0.2800		1.4620
			Sub Total	0.2800		1.4620
Additional Current Draws:						
RUI Connected Periphera	I Device	s 0	x 0.0035	= 0.0000	x 0.0035	= 0.0000
MAPNET/IDNet Device Address Communication	n Curren	t 0	x 0.000000	= 0.0000	x 0.000000	= 0.0000
			Sub Total	0.2800		1.4620
Spare addressable point capacity	0%	0	x 0	= 0.0000	x 0	= 0.0000
			Total	0.2800		1.4620
Standby Time =	24	Hrs	x 0.2800	- 6 7200	Standby Ah	
			0.08333 x 1.462		Alarm Ah	
Alarm Time = _	5	Min	0.00333 X 1.402	6.8418	Aldini Ali	
Additional Spare Battery Capacity =	00/					
	0%	_	+-	0.0000		
Detters Discharge Frederic				6.8418		
Battery Discharge Factor =	20%		+_	1.3684		
Minimum Battery Required	2081-927	74 10AH (2x)		8.2102		
Battery Supplied	2081-027					

Battery Supplied 2081-9274 10AH (2x) * System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.

NAC 1 4009 NAC VOLTAGE DROPS												PID	4606-9101	4906-9127	4906-9128	4906-9128
												Setting	15cd	15cd	30cd	75cd
WIRE RESISTANCE BASED ON TABLE 8 FROM NATIONAL EL	ECTRICAL C	ODE (UNCO	ATED SOLID	COPPER WIRE	:) @ 75 Celsi	us						Device Type		MC A/V	MC CEIL A/V	MC CEIL A/V
												Supv. Current	0.0650	0.0000	0.0000	0.0000
												Alarm Current	0.1400	0.0750	0.1320	0.2500
	Power	Panel	Plan	Dist. (D)	Wire	Wire Res.	Total	V. Drop	Volt	% Volt	Min Device	Max				
NOTIFICATION CIRCUIT DESCRIPTION	Supply	Circuit	Ckt.	Feet	Gauge	/ Ft. (R)	Alarm (A)	(A*2D*R)	@ End	Drop	Voltage	Distance				
2ND FLOOR	4009	SIG1	V3	300	14ga	0.0031	1.277	2.352	17.148	12.06%	16vdc	446 Ft.	3	3	1	2

NOTE:

LUMP SUM METHOD WAS USED TO CALCULATE ALLOWABLE VOLTAGE DROP. THIS METHOD ALLOWS FOR A SMALL MARGIN OF SAFETY, TAKING INTO CONSIDERATION THAT THE ACTUAL INSTALLED CIRCUIT ROUTING MAY DIFFER FROM WHAT IS SHOWN ON THE SHOP DRAWINGS. IF THE ACTUAL CIRCUIT LENGTH IS GOING TO EXCEED THE MAXIMUM ALLOWABLE CIRCUIT LENGTH, CONTACT YOUR LOCAL JOHNSON CONTROLS DISTRICT OFFICE.

PARICI - 250 BISTRICT - 250 CONTC BL VD, SUITE 105 RALEIGH, NC 27610 SERVICE: 919-279-6400 FAX: 919-255-3401
HARNETT COUNTY DSS UPFIT 2ND FLOOR HARNETT COUNTY DSS 311 W CORNELIUS HARNETT B LILLINGTON, NC 27546
Image:

