



REI GLENWOOD SPRINGS, CO#235

TENANT IMPROVEMENT

3216 S. GLEN AVENUE

GLENWOOD SPRINGS, CO 81601

FIRE ALARM SYSTEM REPLACEMENT

CLIENT STORE NUMBER
#235

CLIENT INFORMATION
REI CO-OP

ARCHITECT INFORMATION
CALLISONRTKL

CONSULTANT INFORMATION
NRG FIRE CONSULTING

PROJECT INFORMATION
REI-GLENWOOD SPRINGS

SIGNATURE REAL
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Expires: December 31, 2023

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3216 S. GLEN AVENUE
GLENWOOD SPRINGS,
CO, 81601

006-132864.81

DRAWING SHEET INDEX

SHEET	DESCRIPTION
FA001	INFORMATION SHEET
FA101	DEVICE PLACEMENT PLAN
FA201	RISER DIAGRAM AND CALCULATIONS
FA501	PANEL DETAILS
FA701	TYPICAL DETAILS

FIRE ALARM CABLE LEGEND

CABLE TYPE	NFPA 72 CIRCUIT TYPE	TYPICAL DEVICES	CONDUCTORS
A	SIGNALING LINE CIRCUIT (SLC)	ADDRESSABLE INITIATING DEVICES	18/2"
B	FIRE ALARM ANNUNCIATOR CIRCUIT (FAAC)	FIRE ALARM ANNUNCIATOR	18/2"
C	24VDC POWER CIRCUIT	DEVICES REQUIRING 24VDC TO OPERATE	14/2" SOLID
D	DOOR HOLDER CIRCUIT	DOOR HOLDER DEVICES REQUIRING 24VDC	14/2" SOLID
E	SERIAL COMMUNICATION CIRCUIT (RS232)	INTERNAL/EXTERNAL PRINTERS	18/2"
H	AUDIBLE CIRCUIT (HORN ONLY)	AUDIBLE DEVICES (HORNS)	14/2" SOLID
K	REMOTE TEST SWITCH CIRCUIT (RTS)	REMOTE TEST SWITCH	14/2" SOLID
N	NETWORK COMMUNICATION CIRCUIT (RS485)	MULTIPLE FACP NODES	18/2"
R	RELAY CIRCUIT	AC UNIT/FAN FAN	14/2" SOLID
S	SPEAKER APPLIANCE CIRCUIT (SPK)	SPEAKER DEVICES (SPEAKERS)	18/2"
V	NOTIFICATION APPLIANCE CIRCUIT (NAC)	AUDIBLE/VISUAL DEVICES (HORNS/STROBES)	14/2" SOLID
Z	ZONE INDICATING DEVICE CIRCUIT (IDC)	CONVENTIONAL FIRE ALARM APPLIANCES	18/2"

FIRE ALARM CABLE NOTES:
1. WIRE TYPE FOR ALL FIRE ALARM EQUIPMENT (INITIATING, NOTIFICATION, ETC) SHALL BE INSTALLED PER MANUFACTURER REQUIREMENTS, CODE REQUIREMENTS & SPECIFICATIONS. WIRE TYPES SHALL BE: FPL, FPLR, & FPLR. INSTALLING CONTRACTOR TO DETERMINE TYPE OF WIRE TO BE USED.

CONDUIT PERCENTAGE FILL CALCULATIONS

PER NFPA 70 TABLE 1 40% FILL (FOR REFERENCE ONLY)

DESCRIPTION	DIA IN.	AREA SQ. IN.	40% AREA
1/2" EMT CONDUIT	0.622	0.304	0.122
3/4" EMT CONDUIT	0.824	0.533	0.213
1" EMT CONDUIT	1.049	0.664	0.346
1-1/4" CONDUIT	1.380	1.496	0.598
1-1/2" EMT CONDUIT	1.610	2.036	0.814
2" EMT CONDUIT	2.067	3.356	1.342

SITE PLAN



SITE MAP

FIRE ALARM SYMBOL LEGEND

QTY	SYMBOL	DESCRIPTION	BRAND	MODEL	BOX	WIRE	CODE	TYPE
PANELS & ANNUNCIATORS								
1	FACP	FIRE ALARM CONTROL PANEL	FIRELITE	ES-200X	MFG	N/A		
1	TAC	COMMERCIAL FIRE 4G COMMUNICATOR	HONEYWELL	HWF2V-COM	MFG	N/A		
1	DOC	FIRE ALARM DOCUMENT ENCLOSURE	SPACE AGE	SSU00689	MFG	N/A		
1	TAA	FIRE ALARM REMOTE ANNUNCIATOR	FIRELITE	ANN-100	MFG	B		
INITIATING DEVICES								
1	P	MANUAL PULL STATION, DOUBLE ACTION	FIRELITE	BG-12LX	4A	A		
1	SD	PHOTOELECTRIC SMOKE DETECTOR	FIRELITE	SD365	4K	A		
7	SDH	PHOTOELECTRIC SMOKE DETECTOR HOUSING	FIRELITE	SD355	MDW	A		
MODULES & RELAYS								
6	IMM	INDIVIDUAL ADDRESSABLE MODULE	FIRELITE	MMF-300	4D	A		
6	IMM-D	DUAL ADDRESSABLE MODULE	FIRELITE	MDF-300	4D	A		
7	IR	ADDRESSABLE RELAY IAM	FIRELITE	CRF-300	4D	A		
1	ICM	NOTIFICATION CONTROL MODULE	FIRELITE	CMF-300	4D	A		
NOTIFICATION APPLIANCES								
6	ST	STROBE ONLY, WALL MOUNT, WHITE	SYSTEM SENSOR	SWL	4B	V		
6	SC	STROBE ONLY, CEILING MOUNT, WHITE	SYSTEM SENSOR	SCWL	4B	V		
2	HS	HORN/STROBE, WALL MOUNT, WHITE	SYSTEM SENSOR	P2WL	4B	V		
12	PC	HORN/STROBE, CEILING MOUNT, WHITE	SYSTEM SENSOR	PC2WL	4B	V		
1	WSP	WET STROBE ONLY, WALL MOUNT, WHITE WEATHERPROOF METAL BACK BOX, WHITE	SYSTEM SENSOR	SWK SA-WBBW	MFG	V		
1	WHP	WET HORN/STROBE, WALL MOUNT, WHITE WEATHERPROOF METAL BACK BOX, WHITE	SYSTEM SENSOR	P2WK SA-WBBW	MFG	V		
7	RTS	REMOTE TEST STATION	FIRELITE	RTS151KEY	4B	K		
MISCELLANEOUS DEVICES								
1	W	WET SPRINKLER SYSTEM RISER	BY OTHERS	BY OTHERS	NR	N/A		
2	WF	WET SPRINKLER WATERFLOW SWITCH	BY OTHERS	BY OTHERS	FBO	Z		
11	WS	WET/DRY SPRINKLER TAMPER SWITCH	BY OTHERS	BY OTHERS	FBO	Z		
1	LT	LOW TEMPERATURE SENSOR	BY OTHERS	BY OTHERS	FBO	Z		
1	P	FIRE PUMP	BY OTHERS	BY OTHERS	FBO	Z		
1	PC	FIRE PUMP CONTROLLER	BY OTHERS	BY OTHERS	FBO	Z		
1	TEST	FIRE PUMP TEST HEADER	BY OTHERS	BY OTHERS	FBO	Z		
1	PV	POST INDICATOR VALVE	BY OTHERS	BY OTHERS	FBO	Z		
1	BKFL	BACKFLOW PREVENTOR	BY OTHERS	BY OTHERS	FBO	Z		
7	HVAC	HVAC ROOFTOP UNIT	BY OTHERS	BY OTHERS	FBO	R		
1	END-OL	END-OF-LINE RELAY	FIRELITE	EOLR-1	MFG	N/A		
-	EOL	END-OF-LINE RESISTOR	-	-	-	-		

BACKBOX CODES

CODE	BOX SPECIFICATIONS	CODE	BOX SPECIFICATIONS
4A	4" SQUARE BOX	FBO	FURNISHED BY OTHERS
4B	4" SQ. BOX 1 1/2" DEEP	MFG	MFG SUPPLIED BY MANUFACTURER
4D	4" SQ. BOX 2 1/8" DEEP	MDW	MOUNTS TO DUCTWORK
4K	4" OCT. BOX 1 1/2" DEEP	NR	NO BACKBOX REQUIRED

FOR ADDITIONAL BACK BOX OPTIONS, REFER TO THE PRODUCT DATA SHEETS AND INSTALLATION INSTRUCTIONS.

ABBREVIATIONS LEGEND

AC = ABOVE CEILING	NEC = NATIONAL ELECTRIC CODE
AFF = ABOVE FINISHED FLOOR	NFPA = NATIONAL FIRE PROTECTION ASSOCIATION
AHJ = AUTHORITY HAVING JURISDICTION	NIC = NOT IN CONTRACT
ALM = ALARM	NIP = NETWORK PROCESSING UNIT
ANN = ANNUNCIATOR	NTS = NOT TO SCALE
BMS = BUILDING MANAGEMENT SYSTEM	PAP = FIRE-ACTION PANEL
C = CEILING MOUNTED	PC = EXISTING TO REMOVE AND COVER
CD = CANDELA RATING	RD = EXISTING DEVICE TO BE RELOCATED
DET = DETECTOR	RL = RELOCATED DEVICE
DGP = DATA GATHERING PANEL	RR = REMOVE EXISTING & REPLACE WITH NEW
E = EXISTING TO REMAIN	SCC = STATUS COMMAND CENTER
EOL = END OF LINE	SC = SIGNALING LINE CIRCUIT
EPO = EMERGENCY POWER OFF	SMK = SMOKE
FAC = FIRE ALARM ANNUNCIATOR	SUPV = SUPERVISORY
FACP = FIRE ALARM CONTROL PANEL	TAC = TRUAlert ADDRESSABLE CONTROLLER
FACB = FIRE ALARM TERMINAL CABINET	TRBL = TROUBLE
FBO = FURNISHED BY OTHERS	TS = TAMPER SWITCH
FCC = FIRE COMMAND CENTER	TYP = TYPICAL
FSD = FIRE SMOKE DAMPER	UDN = UNLESS OTHERWISE NOTED
FR = FIRE ALARM TRANSDUCER	VCC = VOICE COMMAND CENTER
H = HIGH HUMIDITY	VT = VALVE TAMPER
HT = HEIGHT	W = WATKAGE
HVAC = HEATING VENTILATION & AIR CONDITIONING	W = WITH
IMS = INFORMATION MANAGEMENT SYSTEM	W/O = WITHOUT
MAX = MAXIMUM	WF = WATERFLOW
MIN = MINIMUM	WG = WIRE GUARD
N/A = NOT APPLICABLE	WP = WEATHERPROOF
NAC = NOTIFICATION APPLIANCE CIRCUIT	XP = EXPLOSION PROOF
NDU = NETWORK DISPLAY UNIT	

APPLICABLE CODES AND STANDARDS

AUTHORITY HAVING JURISDICTION: GLENWOOD SPRINGS FIRE DEPARTMENT

PROJECT BUILDING DATA:
 BUILDING STORES: 1 STORY
 OCCUPANCY TYPE: M
 CONSTRUCTION TYPE: TYPE II-B FULLY SPRINKLED
 FIRE PROTECTION:

CODE REFERENCES:
 2015 INTERNATIONAL BUILDING CODE (IBC)
 2015 INTERNATIONAL FIRE CODE WITH LOCAL AMENDMENTS (IFC)
 2015 INTERNATIONAL MECHANICAL CODE (IMC)
 GLENWOOD SPRINGS MUNICIPAL CODES AND STANDARDS
 TITLE 060 - CONSTRUCTION BUILDING CODES AND REGULATIONS

STANDARDS:
 2019 NFPA 72 - NATIONAL FIRE ALARM & SIGNALING CODE
 2020 NFPA 70 - NATIONAL ELECTRICAL CODE
 2012 NFPA 1 - LIFE SAFETY CODE

PROJECT CONTACT INFORMATION

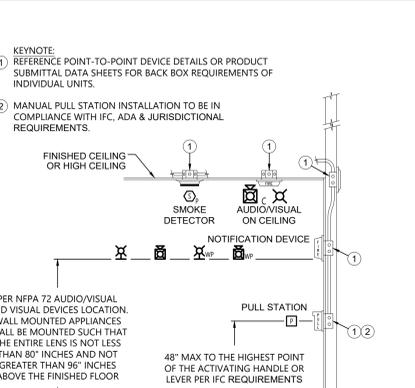
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 NICET #: 93223
 EXPIRATION DATE: DECEMBER 2023

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DEVICE MOUNTING REQUIREMENTS



SCOPE OF WORK

- THIS PROJECT SHALL CONSIST OF THE INSTALLATION OF A NEW FIRE ALARM SYSTEM. THE NEW FIRE ALARM PANEL SHALL BE A FIRE-LITE ES-200X OR A SILENT KNIGHT 8808. CONTRACTOR TO VERIFY ALL FIRE ALARM EQUIPMENT PRIOR TO INSTALLATION.
 - 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.
 - CONTRACTOR SHALL FURNISH ALL EQUIPMENT, MATERIALS, TOOLS, LABOR, ENGINEERING, SUBMITTAL DRAWINGS, SCHEDULES, PERMITS, PERMIT FEES, APPROVALS, ETC., NECESSARY FOR A COMPLETE FIRE ALARM SYSTEM FOR THE TENANT IMPROVEMENT AREAS ONLY AS DESCRIBED WITHIN THESE DRAWINGS AND AS REQUIRED BY ALL LOCAL AND NATIONAL CODES AND ORDINANCES. CONTRACTOR SHALL NOT DELETE OR ADD ANY EQUIPMENT OR DEVICES WITHOUT WRITTEN DIRECTIVE OF THE OWNER AND ENGINEER.
 - CONTRACTOR SHALL FULLY TEST ALL FIRE ALARM EQUIPMENT, DEVICES, AND CIRCUITS UPON COMPLETION OF INSTALLATION AND PREPARE NEW UL CERTIFICATE. ALL DOCUMENTATION SHALL BE COPIED TO PROJECT ENGINEER AS PART OF THE REQUIRED PROJECT CLOSE-OUT DOCUMENTATION.
 - CONTRACTOR IS RESPONSIBLE TO COORDINATE INSTALLATION WITH ALL TRADES AND TO MEET ALL PROJECT SCHEDULES AND DEADLINES.
 - CONTRACTOR SHALL PROVIDE COMPLETE SITE SURVEY TO THE BUILDING PRIOR TO BID IN ORDER TO FAMILIARIZE THEMSELVES WITH THE PROPOSED SCOPE OF WORK AREA.
 - CONTRACTOR TO BE A LICENSED VENDOR OF THE FIRE ALARM SYSTEM EQUIPMENT AND BE FULLY CAPABLE OF MODIFYING AND REPROGRAMMING THE FACP AND RELATED EQUIPMENT.
1. THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS AND/OR WIRING IS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
2. THE FIRE ALARM SYSTEM SHALL BE MONITORED BY AN APPROVED UL-CENTRAL STATION MONITORING SERVICE. INTERFACE WILL BE FULLY LISTED AND APPROVED FOR THIS PURPOSE.
3. SIGNALING LINE CIRCUITS SHALL BE CLASS A, PER NFPA 72. CURRENT ADOPTED ADDITION. NOTIFICATION AND INITIATING CIRCUITS SHALL BE CLASS B, PER NFPA 72. CURRENT ADOPTED EDITION. A MINIMUM OF 10% EXCESS CAPACITY IS REQUIRED ON ALL NOTIFICATION CIRCUITS.
4. 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.
5. ALL WIRE SHALL BE SOLID CONDUCTORS OR COPPER, MINIMUM SIZE OF NO. 18 AWG, AND INSULATION RATED AT 600V. ALL WIRING SHALL COMPLY WITH MANUFACTURER'S RECOMMENDATIONS AND BE INSTALLED ACCORDING TO APPLICABLE ELECTRICAL CODES. ALL WIRING SHALL BE APPROPRIATELY COLOR-CODED, AND PERMANENT WIRE MARKERS SHALL BE USED TO IDENTIFY THE TERMINATIONS FOR EACH CIRCUIT AT THE CONTROL PANEL. REFER TO APPLICABLE CODES & STANDARDS FOR SPECIFIC CODE REFERENCES.
6. ALL CONDUITS, BOXES, FITTINGS, ETC. WITHIN FINISHED AREAS SHALL BE CONCEALED BEHIND DRYWALL, DROP CEILING OR OTHER FINISHED SURFACES. EXPOSED WIRING IS ACCEPTABLE AT THE CEILING LEVEL ONLY IF ALLOWABLE BY THE AHJ. HOWEVER, UNDER NO CIRCUMSTANCES IS EXPOSED WIRING ACCEPTABLE IN ENCLOSED SPACES OR ON ANY WALL SURFACE. PLENUM CABLE WILL BE REQUIRED IF INSTALLED IN A PLENUM SPACE. ALL WIRING SHALL BE BOUND SECURELY TO STRUCTURAL BUILDING ELEMENTS AND NOT TO CONDUIT, PIPING, OR OTHER BUILDING SYSTEMS. ALL EXPOSED WIRING TO BE KEPT IN A SINGLE TAUGHT BUNDLE RUN AND NO WIRING IS TO BE INSTALLED BELOW THE BOTTOM CHORD OF THE JOISTS. CONTRACTOR SHALL MAINTAIN ALL AREAS OF THE BUILDING IN A NEAT AND WORKMANLIKE MANNER.
7. ALL WIRING, CONDUIT, BOXES (UNLESS OTHERWISE INDICATED), FITTINGS, COUPLINGS, CONNECTORS, STRAPS, SUPPORTS, PULL-LINES, BUSHINGS, ETC. SHALL BE PROVIDED AND INSTALLED BY A LICENSED ELECTRICAL CONTRACTOR. ALL CONDUIT SIZES AND BACK BOX SIZES SHALL BE CONFIRMED WITH THE FIRE ALARM EQUIPMENT SUPPLIER. ALL WORK SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
8. MAINTAIN THE FIRE RESISTANCE INTEGRITY OF ALL WALL, CEILING, AND ROOF ASSEMBLIES ANY TIME THAT WORK IS NOT ACTIVELY BEING PERFORMED.
9. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LINE VOLTAGE (120 V. MAX.) AND LOW-VOLTAGE (UP TO 50 VAC/VDC) CIRCUITING IN SEPARATE CONDUIT. CONDUIT FILLS SHALL BE NOT MORE THAN 75% OF THAT ALLOWED BY THE NATIONAL ELECTRICAL CODE.
10. SYSTEM OPERATION, TESTING, TURN OVER, WARRANTY, COMPLIANCE, AND AFTER MARKET SERVICE SHALL BE PROVIDED BY THE APPROVED FIRE ALARM VENDOR.
11. NRG FIRE CONSULTING OR THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NOR SHALL THEY BE REQUIRED TO SUPERVISE THE CONDUCT OF THE CONSTRUCTION PROCEDURES FOLLOWED BY THE CONTRACTOR, SUBCONTRACTORS, THEIR RESPECTIVE EMPLOYEES OR ANY OTHER PERSON AT THE JOB SITE OTHER THAN NRG FIRE CONSULTING, LLC REPRESENTATIVES AND/OR THE ENGINEER OF RECORD.
12. THE DESIGNER AND/OR THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO OR USE OF THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE PROJECT ARCHITECT.
13. THE FIRE ALARM VENDOR AND/OR INSTALLING CONTRACTOR SHALL CONTACT THE ARCHITECT WITH COMMENTS OR EXCEPTIONS TO THE APPROVED PLANS AND SPECIFICATIONS PRIOR TO BID. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR ALL WORK SHOWN ON THE APPROVED PLANS AND MODIFICATIONS SHALL NOT BE ALLOWED WITHOUT APPROVAL FROM THE PROJECT ARCHITECT.
14. THE INSTALLATION CONTRACTOR SHALL COORDINATE ALL FINAL EQUIPMENT LOCATIONS WITH THE LATEST PROJECT FIXTURE PLANS PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE ALL WIRING, CONDUITS, BOXES, AND EQUIPMENT WITH OTHER SYSTEM CONTRACTORS TO AVOID POTENTIAL CONFLICTS AND EQUIPMENT OBSTRUCTIONS.
15. ANY DISCREPANCIES BETWEEN PLANS WILL REQUIRE THE MORE STRINGENT TO BE BID ON AND INSTALLED.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY REQUIRED MECHANICAL LIFTS TO PERFORM INSTALLATION OF THE FIRE ALARM SYSTEM.
17. CONTRACTOR SHALL UPDATE THE AS-BUILT DRAWING SET DAILY WITH JOB PROGRESS. RETURN THE AS-BUILT DRAWING SET TO THE BUILDING OWNER NO LATER THAN 7 DAYS AFTER FINAL TEST.
18. CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY OLD FIRE ALARM EQUIPMENT, PANELS, BOXES, CONDUIT, WIRING, ETC. FROM THE BUILDING PRIOR TO COMPLETION OF THE PROJECT. THESE REMOVED ITEMS SHALL BE REMOVED FROM JOB SITE AND DISPOSED OF PROPERLY ACCORDING TO THE LOCAL JURISDICTION.

SEQUENCE OF OPERATIONS

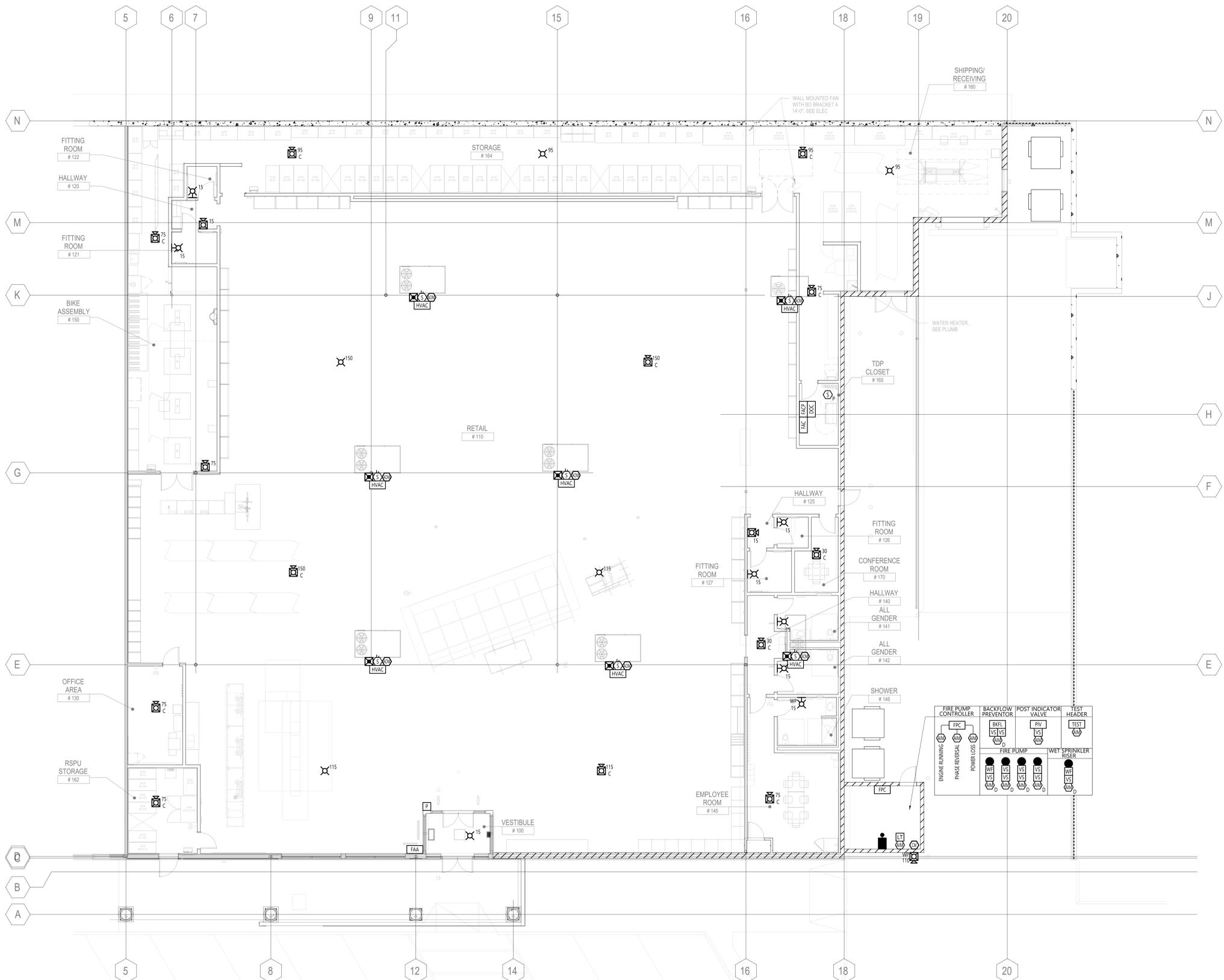
NOTES:
 1. TROUBLE CONDITIONS INCLUDING: WIRING SHORT, OPEN CIRCUIT, GROUND FAULT, LOW BATTERY, BATTERY FAILURE, AC LOSS, MISSING DEVICE, EQUIPMENTAL FUNCTION, EQUIPMENT FAILURE.
 2. THIS GENERAL ALARM SEQUENCE OF OPERATIONS IS SHOWN FOR REFERENCE ONLY. THE EXISTING SEQUENCE OF OPERATIONS IS TO REMAIN THE SAME. AUTHORIZED CONTRACTOR TECHNICIAN SHALL BECOME FAMILIAR WITH THE EXISTING SEQUENCE OF OPERATIONS AND SHALL PROGRAM THE NEW DEVICES ACCORDINGLY.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	REMARKS
1. SMOKE DETECTOR																
2. MANUAL PULL STATION																
3. DUCT DETECTOR																
4. WET SPRINKLER SYSTEM WATERFLOW SWITCH																
5. WET/DRY SPRINKLER SYSTEM TAMPER SWITCH																
6. DRY SPRINKLER SYSTEM ALARM PRESSURE SWITCH																
7. DRY SPRINKLER SYSTEM HIGH/LOW PRESSURE SWITCH																
8. POST INDICATOR VALVE SWITCH																
9. BACKFLOW PREVENTOR																
10. KITCHEN HOOD SUPPRESSION SYSTEM																
11. FIRE PUMP RUNNING																
12. FIRE PUMP POWER LOSS																
13. FIRE PUMP PHASE REVERSAL																
14. TROUBLE (SEE NOTE 1)																

FOR REFERENCE ONLY

SHEET TITLE:
INFORMATION SHEET

SHEET NUMBER:
FA001



GENERAL NOTES:

- COORDINATE INSTALLATION OF ALL CEILING MOUNTED DEVICES WITH OTHER TRADES.
- PROVIDE DUCT SMOKE DETECTION ON THE RETURN DUCTS OF ALL HVAC UNITS OVER 2000 CFM AND ON BOTH RETURN AND SUPPLY DUCTS OVER AND INCLUDING 15000 CFM.
- INSTALL ALL RELAYS WITHIN THREE FEET OF THE DEVICE BEING CONTROLLED PER NFPA 72.
- INSTALL ALL REMOTE TEST SWITCHES WITHIN 50 FEET OF THE INSTALLED DUCT SMOKE DETECTOR, AT AN ACCESSIBLE LOCATION, CEILING MOUNT IF NECESSARY. ALL REMOTE TEST SWITCHES SHALL BE LABELED WITH THE APPROPRIATE NUMBER.
- MANUAL PULL STATIONS ARE NOT REQUIRED THROUGHOUT SINCE THIS IS A FULLY SPRINKLERED BUILDING WITH COMPLETE OCCUPANT NOTIFICATION PER IBC/IFC 907.2.7, EXCEPTION 2.
- DO NOT INSTALL ANY SMOKE DETECTOR CLOSER THAN 5 FEET FROM A DIFFUSER OR 12 INCHES FROM A LIGHTING FIXTURE.
- AREAS WITH OPEN CEILING ABOVE 30'-0" A.F.F., INSTALL ALL NOTIFICATION DEVICES WITH THE DEVICE LENS AT 30'-0" A.F.F. MINIMUM.
- ANY FIRE ALARM SYSTEM WIRING SHOWN ON THE PLANS IS FOR REFERENCE ONLY. THE INSTALLING CONTRACTOR SHALL VERIFY EXACT WIRE AND ROUTING REQUIREMENTS PRIOR TO INSTALLATION.
- COORDINATE ALL LOCATION AND QUANTITY OF SPRINKLER SYSTEM EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.

KEYED NOTES:

- NEW FIRE ALARM CONTROL PANEL LOCATE SMOKE DETECTOR WITHIN 5'-0" OF FACP. CONNECT TO 120VAC PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. INSTALLING CONTRACTOR TO VERIFY LOCATION OF FACP WITH OWNER.
- CONFIRM LOCATION OF THE FIRE ALARM DOCUMENT CABINET AND CELLULAR COMMUNICATOR WITH THE OWNER.
- INTERFACE DEVICE WITH THE EXTERIOR NOTIFICATION APPLIANCE AS INDICATED. HOMERUN SIC AND 24VDC WIRING TO THE FACP LOCATED IN THE TDP CLOSET #165. INSTALLING CONTRACTOR TO VERIFY THE LOCATION AND MOUNTING HEIGHT OF THE EXTERIOR NOTIFICATION APPLIANCE WITH THE AHJ PRIOR TO INSTALLATION.
- INTERFACE DEVICES WITH THE ASSOCIATED HVAC UNIT. COORDINATE HVAC LOCATIONS AND DEVICE INSTALLATION WITH THE MECHANICAL CONTRACTOR.
- WET SPRINKLER SYSTEM RISER. COORDINATE EXACT QUANTITY AND LOCATION WITH THE MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
- BACKFLOW PREVENTOR, TEST HEADER, AND PIV. COORDINATE EXACT LOCATION AND QUANTITY WITH THE MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
- FIRE PUMP AND FIRE PUMP CONTROLLER. COORDINATE FIRE PUMP LOCATION AND QUANTITY OF MONITORING POINTS WITH THE SPRINKLER CONTRACTOR PRIOR TO INSTALLATION.
- LOW TEMPERATURE SENSOR. CONTRACTOR TO COORDINATE LOCATION WITH SPRINKLER CONTRACTOR PRIOR TO INSTALLATION.
- FIRE ALARM REMOTE ANNUNCIATOR. COORDINATE EXACT LOCATION WITH THE AHJ PRIOR TO INSTALLATION.
- RISER DIAGRAM IS FOR DIAGRAMMATICAL PURPOSES ONLY. CONTRACTOR TO COORDINATE ANY REQUIRED WIRE ROUTING AND ASSOCIATED REQUIREMENTS PRIOR TO INSTALLATION. REFER TO FA101 FOR DEVICE PLACEMENT.
- CONTRACTOR SHALL PROVIDE NEW FACP BATTERY CALCULATIONS AND NEW VOLTAGE DROP CALCULATIONS FOR THE CIRCUITS THAT THEY CREATE. CALCULATION EXAMPLES ARE SHOWN FOR REFERENCE ONLY AND DO NOT REFLECT ANY ACTUAL FIRE ALARM CALCULATIONS RELATED TO THIS SPECIFIC PROJECT.

CLIENT INFORMATION: **#235**



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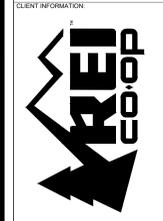
REV	DATE	DESCRIPTION
-	09.24.2021	PA REVIEW SET
-	10.01.2021	PO REVIEW SET
-	10.20.2021	OWNER REVIEW SET
-	11.05.2021	PERMIT SET

SHEET TITLE:
DEVICE PLACEMENT PLAN

SHEET NUMBER:
FA101

1 DEVICE PLACEMENT PLAN
SCALE 1/8" = 1'-0"
0 4 8 16 IN FEET

FOR REFERENCE ONLY



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SIGNATURE:

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 NCEET Registration Number: 18021
 Expires: December 1, 2022
 Authority Signature Date: 11.05.2021

REV#	DATE	DESCRIPTION
-	09.24.2021	PA REVIEW SET
-	10.01.2021	PO REVIEW SET
-	10.20.2021	OWNER REVIEW SET
-	11.05.2021	PERMIT SET

- GENERAL NOTES:**
- COORDINATE INSTALLATION OF ALL CEILING MOUNTED DEVICES WITH OTHER TRADES.
 - PROVIDE DUCT SMOKE DETECTION ON THE RETURN DUCTS OF ALL HVAC UNITS OVER 2000 CFM AND ON BOTH RETURN AND SUPPLY DUCTS OVER AND INCLUDING 15000 CFM.
 - INSTALL ALL RELAYS WITHIN THREE FEET OF THE DEVICE BEING CONTROLLED PER NFPA 72.
 - INSTALL ALL REMOTE TEST SWITCHES WITHIN 50 FEET OF THE INSTALLED DUCT SMOKE DETECTOR AT AN ACCESSIBLE LOCATION. CEILING MOUNT IF NECESSARY. ALL REMOTE TEST SWITCHES SHALL BE LABELED WITH THE APPROPRIATE NUMBER.
 - MANUAL PULL STATIONS ARE NOT REQUIRED THROUGHOUT SINCE THIS IS A FULLY SPRINKLERED BUILDING WITH COMPLETE OCCUPANT NOTIFICATION PER IBC/IFC 907.2.7, EXCEPTION 2.
 - DO NOT INSTALL ANY SMOKE DETECTOR CLOSER THAN 5 FEET FROM A DIFFUSER OR 12 INCHES FROM A LIGHTING FIXTURE.
 - AREAS WITH OPEN CEILINGS ABOVE 30'-0" A.F.F., INSTALL ALL NOTIFICATION DEVICES WITH THE DEVICE LENS AT 30'-0" A.F.F. MINIMUM.
 - ANY FIRE ALARM SYSTEM WIRING SHOWN ON THE PLANS IS FOR REFERENCE ONLY. THE INSTALLING CONTRACTOR SHALL VERIFY EXACT WIRE AND ROUTING REQUIREMENTS PRIOR TO INSTALLATION.
 - COORDINATE ALL LOCATION AND QUANTITY OF SPRINKLER SYSTEM EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.

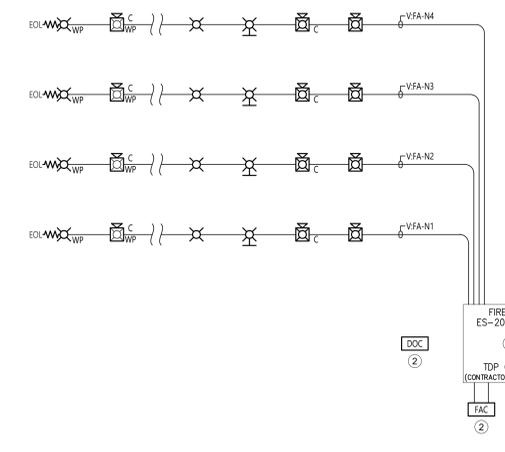
- KEYED NOTES:**
- NEW FIRE ALARM CONTROL PANEL. LOCATE SMOKE DETECTOR WITHIN 5'-0" OF FAC. CONNECT TO 120VAC PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. INSTALLING CONTRACTOR TO VERIFY LOCATION OF FACP WITH OWNER.
 - CONFIRM LOCATION OF THE FIRE ALARM DOCUMENT CABINET AND CELLULAR COMMUNICATOR WITH THE OWNER.
 - INTERFACE DEVICE WITH THE EXTERIOR NOTIFICATION APPLIANCE AS INDICATED. HOMERUN SLC AND 24VDC WIRING TO THE FACP LOCATED IN THE TDP CLOSET #165. INSTALLING CONTRACTOR TO VERIFY THE LOCATION AND MOUNTING HEIGHT OF THE EXTERIOR NOTIFICATION APPLIANCE WITH THE AHJ PRIOR TO INSTALLATION.
 - INTERFACE DEVICES WITH THE ASSOCIATED HVAC UNIT. COORDINATE HVAC LOCATIONS AND DEVICE INSTALLATION WITH THE MECHANICAL CONTRACTOR.
 - WET SPRINKLER SYSTEM RISER. COORDINATE EXACT QUANTITY AND LOCATION WITH THE MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
 - BACKFLOW PREVENTOR, TEST HEADER AND PIV. COORDINATE EXACT LOCATION AND QUANTITY WITH THE MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
 - FIRE PUMP AND FIRE PUMP CONTROLLER. COORDINATE FIRE PUMP LOCATION AND QUANTITY OF MONITORING POINTS WITH THE SPRINKLER CONTRACTOR PRIOR TO INSTALLATION.
 - LOW TEMPERATURE SENSOR. CONTRACTOR TO COORDINATE LOCATION WITH SPRINKLER CONTRACTOR PRIOR TO INSTALLATION.
 - FIRE ALARM REMOTE ANNUNCIATOR. COORDINATE EXACT LOCATION WITH THE AHJ PRIOR TO INSTALLATION.
 - RISE RING IS FOR DIAGRAMMATICAL PURPOSES ONLY. CONTRACTOR TO COORDINATE ANY REQUIRED WIRE ROUTING AND ASSOCIATED REQUIREMENTS PRIOR TO INSTALLATION. REFER TO FA101 FOR DEVICE PLACEMENT.
 - CONTRACTOR SHALL PROVIDE NEW FACP BATTERY CALCULATIONS AND NEW VOLTAGE DROP CALCULATIONS FOR THE CIRCUITS THAT THEY CREATE. CALCULATION EXAMPLES ARE SHOWN FOR REFERENCE ONLY AND DO NOT REFLECT ANY ACTUAL FIRE ALARM CALCULATIONS RELATED TO THIS SPECIFIC PROJECT.

FIRE ALARM CONTROL PANEL VOLTAGE DROP WORKSHEET FOR NOTIFICATION APPLIANCE CIRCUITS						
Job Name: REI#XXX Glenwood Springs, CO - Calculation Examples						
Formula: $R = V/I$ *Color - R=Red; W=White						
Notification Appliances						
Device:	Wall Horn/Strobe 30cd	System Sensor P2*L	Current Each:	0.074 A	1	
Device:	Wall Horn/Strobe 75cd	System Sensor P2*L	Current Each:	0.121 A	2	
Device:	Wall Horn/Strobe 110cd	System Sensor P2*L	Current Each:	0.162 A	1	
Device:	Ceiling Horn/Strobe 30cd	System Sensor PC2*L	Current Each:	0.090 A	2	
Device:	Ceiling Horn/Strobe 75cd	System Sensor PC2*L	Current Each:	0.143 A	6	
Device:	Ceiling Horn/Strobe 115cd	System Sensor PC2*L	Current Each:	0.187 A	1	
Device:	Ceiling Horn/Strobe 150cd	System Sensor PC2*L	Current Each:	0.217 A	1	
Device:	Wall Strobe 15cd	System Sensor S*L	Current Each:	0.043 A	4	
Device:	Ceiling Strobe 30cd	System Sensor SC*L	Current Each:	0.063 A	1	
Device:	Ceiling Strobe 75cd	System Sensor SC*L	Current Each:	0.111 A	1	
Device:	Ceiling Strobe 115cd	System Sensor SC*L	Current Each:	0.158 A	1	
Device:	Ceiling Strobe 150cd	System Sensor SC*L	Current Each:	0.189 A	1	
Device:	Notif. Module (NAC Draw)	Fire-Lite CMF-300	Current Each:	0.002 A	1	
Device:	WP Horn/Strobe 110cd	System Sensor P2*K	Current Each:	0.212 A	1	
Device:	Weatherproof Strobe 30cd	System Sensor S*K	Current Each:	0.094 A	1	
Wire:	12Awg Stranded (NAC Circuits)	1.98ohms per 1000' per NEC				
Wire:	14Awg Solid (NAC Circuits)	3.07ohms per 1000' per NEC				
Wire:	16Awg (ADA Circuits)	4.89ohms per 1000' per NEC				
Resistance per Notification Circuit						
Circuit #	Length	Wire Resistance	Nominal Voltage	Current on Circuit	Resistance from Device	Total Resist. on Circuit
FA-N1	647	1.986	20.40	1.417	0.069	2.056
FA-N2	431	1.323	20.40	0.561	0.028	1.351
FA-N3	318	0.976	20.40	0.729	0.036	1.012
FA-N4	0	0.000	20.40	0.000	0.000	0.000
FACM-N1	50	0.154	20.40	0.214	0.010	0.164
Vdrop = I * R Assumptions: Voltage is 24VDC Entire Load Is Applied at End of Circuit						
Voltage Drop per Notification Appliance Circuit						
Circuit #	Current on Circuit	Total Resist. on Circuit	Voltage Loss	Final Voltage	Circuit Within Device Operating Range 16-33 VDC	Wire Gauge
FA-N1	1.417	2.056	2.91	17.49	Yes	14AWG
FA-N2	0.561	1.351	0.76	19.64	Yes	14AWG
FA-N3	0.729	1.012	0.74	19.66	Yes	14AWG
FA-N4	0.000	0.000	0.00	20.40	Yes	SPARE
FACM-N1	0.214	0.164	0.04	20.36	Yes	14AWG

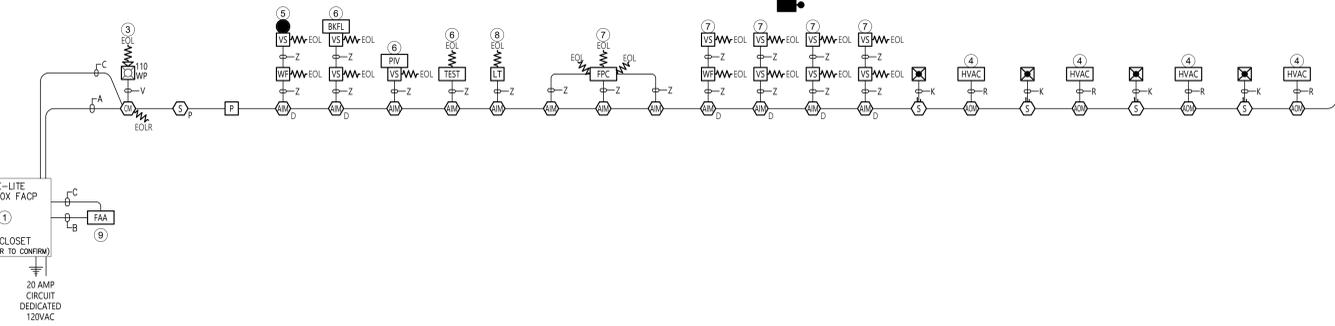
BATTERY CALCULATIONS FOR 24VDC FIRE ALARM CONTROL PANEL		
Job Name: REI#XXX Glenwood Springs, CO - Calculation Examples		
Identification: FACP		
DEVICE TYPE ABBREVIATIONS:		
Panel & Components		
ES-200X	Fire Alarm Control Panel (w/Communicator)	Fire-Lite ES-200X
PWR EXP	Power Expander Module	Fire-Lite PWRMOD24
CELL	Cellular Fire Alarm Communicator	Honeywell HWF2V-COM
ANN-100	Fire Alarm Annunciator	Fire Lite ANN-100
Initiating Devices		
SDP	Smoke Detector (Photoelectric)	Fire-Lite SD365
DS	Duct Smoke Detector	Fire-Lite D355PL
RTS	Remote Test Switch	Fire-Lite RTS151
MPS	Manual Pull Station	Fire-Lite BG-12LX
CMF	Addr. Notification Module (SLC Draw)	Fire-Lite CMF-300
AIM	Single Input Module	Fire-Lite MMF-300
AIM-2	Dual Input Module	Fire-Lite MDF-300
ARM	Addressable Relay Module	Fire-Lite CRF-300
EOLR	End of Line Relay	System Sensor EOLR-1
Notification Appliances		
A/V 30	Wall Horn/Strobe 30cd	System Sensor P2*L
A/V 75	Wall Horn/Strobe 75cd	System Sensor P2*L
A/V 110	Wall Horn/Strobe 110cd	System Sensor P2*L
CA/V 30	Ceiling Horn/Strobe 30cd	System Sensor PC2*L
CA/V 75	Ceiling Horn/Strobe 75cd	System Sensor PC2*L
CA/V 115	Ceiling Horn/Strobe 115cd	System Sensor PC2*L
CA/V 150	Ceiling Horn/Strobe 150cd	System Sensor PC2*L
V15	Wall Strobe 15cd	System Sensor S*L
CV30	Ceiling Strobe 30cd	System Sensor SC*L
CV75	Ceiling Strobe 75cd	System Sensor SC*L
CV115	Ceiling Strobe 115cd	System Sensor SC*L
CV150	Ceiling Strobe 150cd	System Sensor SC*L
NAC MOD	Notif. Module (NAC Draw)	Fire-Lite CMF-300
WP A/V 110	WP Horn/Strobe 110cd	System Sensor P2*K
WP V 30	Weatherproof Strobe 30cd	System Sensor S*K
OTHER ABBREVIATIONS USED:		
mA	Current in Milli-amperes	
I	Current in Amperes	
AH	Amp-Hours	

DEVICES STANDBY/ALARM CURRENT DRAW CALCULATIONS:					
Device	Qty.	Per-Unit Standby in mA	Sub-Total Standby in mA	Per-Unit Alarm in mA	Sub-Total Alarm in mA
Panel & Components					
ES-200X	1	141	141	257	257
PWR EXP	1	7	7	8	8
CELL	1	55	55	100	100
ANN-100	1	20	20	25	25
Initiating Devices					
SDP	1	0.300	0.300	0.300	0.300
DS	7	0.300	2.100	0.300	2.100
RTS	7	0.000	0.000	10.000	70.000
MPS	1	0.300	0.300	0.300	0.300
CMF	1	0.390	0.390	0.390	0.390
AIM	1	0.400	0.400	0.400	0.400
AIM-2	4	0.750	3.000	0.750	3.000
ARM	7	0.270	1.890	0.270	1.890
EOLR	1	0.020	0.020	0.020	0.020
Notification Appliances					
A/V 30	1	0	0	74	74
A/V 75	2	0	0	121	242
A/V 110	1	0	0	162	162
CA/V 30	2	0	0	90	180
CA/V 75	6	0	0	143	858
CA/V 115	1	0	0	187	187
CA/V 150	1	0	0	217	217
V15	4	0	0	43	172
CV30	1	0	0	63	63
CV75	1	0	0	111	111
CV115	1	0	0	158	158
CV150	1	0	0	189	189
NAC MOD	1	0	0	2	2
WP A/V 110	1	0	0	212	212
WP V 30	1	0	0	94	94
CALCULATIONS SUMMARY:					
0.231		= Total Standby Current in Amperes			
24		= Standby Time in Hours			
Total Standby Current Requirement Amp/Hours =				5.55	
3.389		= Total Alarm Ring Current in Amperes			
5		= Ring Time in Minutes			
0.083		= Ring Time in Hours			
Total Alarm Ring Curr. Requirement Amp/Hours =				0.28	
Total Standby/Alarm Ring Current Amp/Hours =				5.84	
Twenty Percent Safety Margin =				1.17	
Total Standby Battery Requirement in Amp/Hours =				7.00	
Minimum Battery Amp/Hour Provided =				8.00	

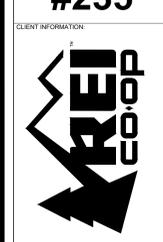
1 NAC CIRCUIT VOLTAGE DROP CALCULATIONS



2 FACP BATTERY CALCULATIONS



RISER DIAGRAM
SCALE: NOT TO SCALE



ARCHITECT INFORMATION
CALLISONRTKL
CallisonRTKL, Inc.
U.S. Bank Centre
2400 Seattle, WA 98101
006.1.32964.81

CONSULTANT INFORMATION
NRG FIRE CONSULTING

7511 Greenwood Avenue, #600
Seattle, WA 98103
(206) 759-0100
nrgfireconsulting.com

PROJECT INFORMATION
REI-GLENWOOD SPRINGS

3216 S. GLEN AVENUE
GLENWOOD SPRINGS,
CO, 81601

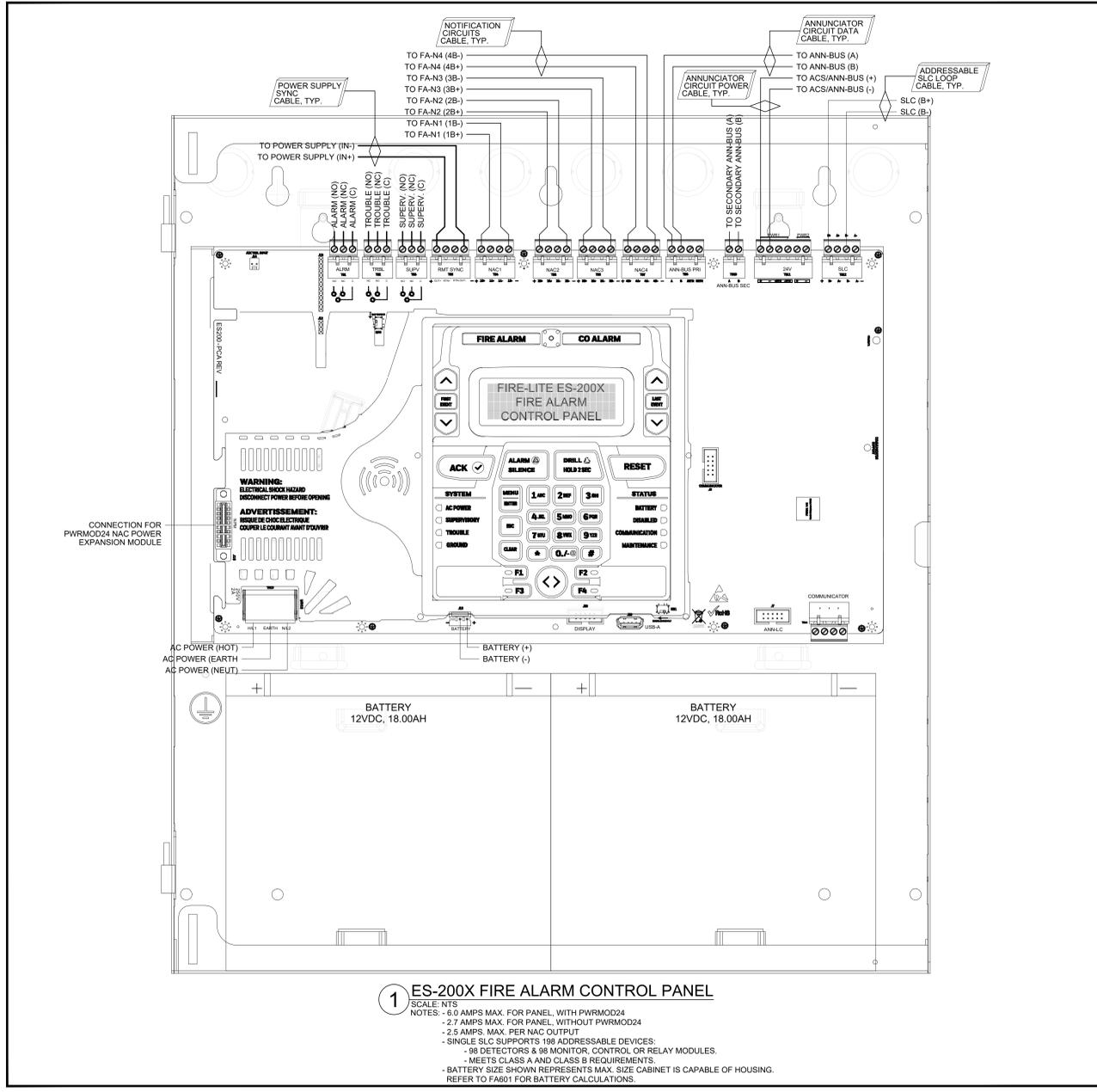
SIGNATURE/SEAL

REVISIONS LOG

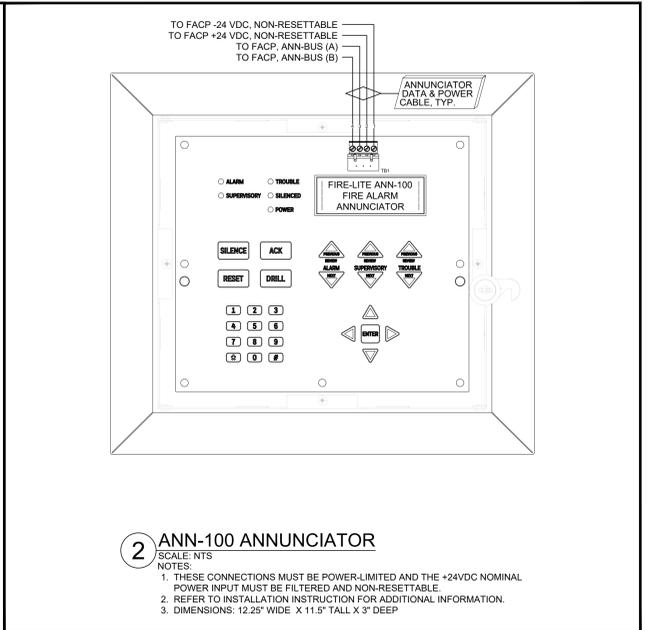
REV	DATE	DESCRIPTION
-	09.24.2021	PA REVIEW SET
-	10.01.2021	PO REVIEW SET
-	10.20.2021	OWNER REVIEW SET
-	11.05.2021	PERMIT SET

SHEET TITLE
PANEL DETAILS

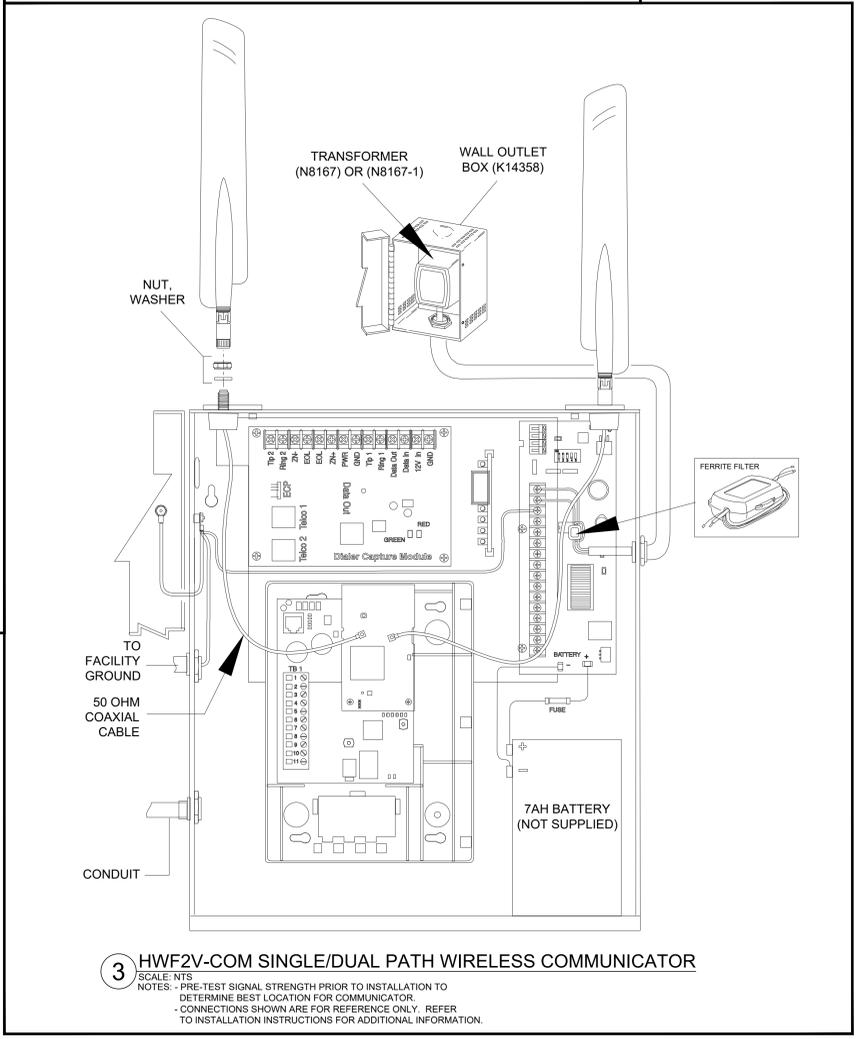
SHEET NUMBER
FA501



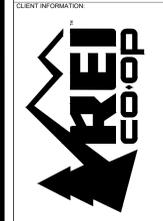
1 ES-200X FIRE ALARM CONTROL PANEL
SCALE: NTS
NOTES:
- 6.0 AMPS MAX. FOR PANEL, WITH PWRMOD24
- 2.7 AMPS MAX. FOR PANEL, WITHOUT PWRMOD24
- 2.5 AMPS, MAX. PER NAC OUTPUT
- SINGLE SLC SUPPORTS 198 ADDRESSABLE DEVICES.
- 98 DETECTORS & 98 MONITOR, CONTROL OR RELAY MODULES.
- MEETS CLASS A AND CLASS B REQUIREMENTS.
- BATTERY SIZE SHOWN REPRESENTS MAX. SIZE CABINET IS CAPABLE OF HOUSING. REFER TO FA601 FOR BATTERY CALCULATIONS.



2 ANN-100 ANNUNCIATOR
SCALE: NTS
NOTES:
1. THESE CONNECTIONS MUST BE POWER-LIMITED AND THE +24VDC NOMINAL POWER INPUT MUST BE FILTERED AND NON-RESETTABLE.
2. REFER TO INSTALLATION INSTRUCTION FOR ADDITIONAL INFORMATION.
3. DIMENSIONS: 12.25" WIDE X 11.5" TALL X 3" DEEP



3 HWF2V-COM SINGLE/DUAL PATH WIRELESS COMMUNICATOR
SCALE: NTS
NOTES:
- PRE-TEST SIGNAL STRENGTH PRIOR TO INSTALLATION TO DETERMINE BEST LOCATION FOR COMMUNICATOR.
- CONNECTIONS SHOWN ARE FOR REFERENCE ONLY. REFER TO INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION.



ARCHITECT INFORMATION
CALLISONRTKL
CallisonRTKL, Inc.
U.S. Bank Center
2400 Seattle, WA 98101
006.1.32964.81

CONSULTANT INFORMATION
NRG FIRE CONSULTING
7511 Greenwood Avenue, #600
Seattle, WA 98103
(206) 759-0100
nrgfireconsulting.com

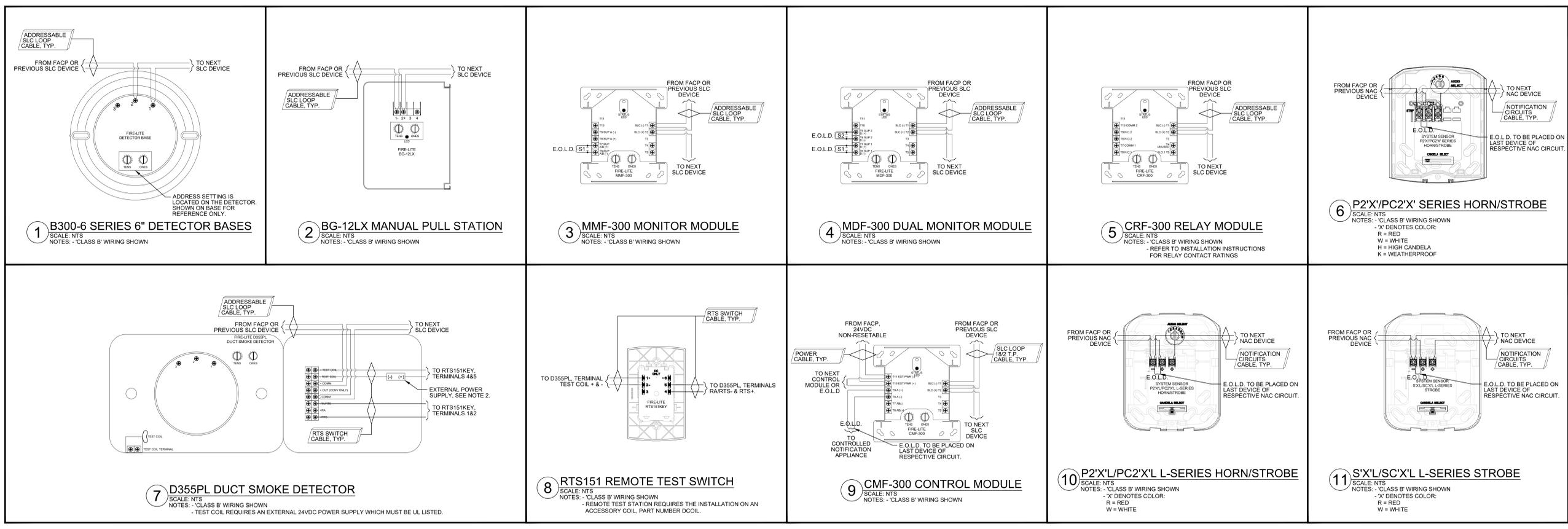
PROJECT INFORMATION
REI-GLENWOOD SPRINGS
3216 S. GLEN AVENUE
GLENWOOD SPRINGS,
CO, 81601



REV	DATE	DESCRIPTION
-	09.24.2021	PA REVIEW SET
-	10.01.2021	PO REVIEW SET
-	10.20.2021	OWNER REVIEW SET
-	11.05.2021	PERMIT SET

SHEET TITLE
TYPICAL DEVICE DETAILS

SHEET NUMBER
FA701



REI GLENWOOD

3216 S. GLEN AVENUE
GLENWOOD SPRINGS, CO, 81601
TENANT IMPROVEMENT

FIRE PROTECTION CONSULTING FIRM:

NRG FIRE CONSULTING, LLC
7511 GREENWOOD AVENUE NORTH #600
SEATTLE, WA 98103
PHONE: 206.789.0165
WWW.NRGFIRECONSULTING.COM

FIRE SPRINKLER DESIGNER:

DESIGNER OF RECORD: RICHARD G. ANDERSON III, CET, CFPS
NICET #: 123390
EXPIRATION DATE: SEPTEMBER 01, 2023

AUTHORITY HAVING JURISDICTION:

GLENWOOD SPRINGS FIRE DEPARTMENT
806 COOPER AVENUE
GLENWOOD SPRINGS, CO 81604
GARY.TILLOTSON@COGUS.CO
970.384.6480

FOR REFERENCE ONLY

FIRE PUMP TEST INFORMATION



1960 Highway 6 & 50
Pueblo, CO 81021
(970) 434-4803

Fire Pump Evaluation for Electric or Diesel Fire Pumps		Owner Phone #	Job Number
Owner:	Pegasus Realty Corp	(303) 721-1818	
Owner Address:	3989 E Arapahoe Rd, Suite 300, Centennial, CO 80122		
Property Name/Location:	Office Depot 952		
Property Address:	3216 S Glen Avenue, Glenwood Springs, CO 81601		
Date of Work:	1-Oct-19		
Inspector:	Steven Cook, Colton Bar		
Pump #	1 of 1	Pump Driver:	Electric
Serial #	06-1919536	Pump Type:	Centrifugal
Model #	548175	Impeller Diameter:	13.375
Mfg:	AP	Disch Pipe Diam:	8
Rating:	Churn 10 GPM @ 57 psi	Suction Pipe Diam:	8
	100% 1000 GPM @ 96 psi	Pump Elevation:	0
	150% 1500 GPM @ 52 psi	Disch Gauge Elev:	0
		Suction Gauge Elev:	0
B.H.P. at Capacity:	64.5	Pump RPM:	1770
Max. P. at Positive Suct.:	27 psi	Good	
Maximum Allowable Discharge Pressure:	N/A psi	Disch. Hosepower:	60
Driver:	Type # Electric	RPM:	
	Mfg. VEG		
Diesel # of Cylinders:	N/A	Fire Tank Size:	N/A
Tank Location:	N/A	Gallons:	N/A
Electric: Amperage:	40	S.F.:	Frame #
Fire Pump Controller:	Fire Pump Pressure:	Start:	60 psi
Serial #:	281247	Run Time:	15 Minutes
Model #:	0351644		
Mfg.:	Jockey Clark		
Jockey Pump:	Serial # 06L10528-1	Horsepower:	1 RPM 2450
Model #:	TY1BF	Mfg.:	3.2 gpm @ 1.5 psi
Mfg.:	MTH Pumps	Size:	Y
Jockey Pump Controller:	Serial #	Start:	40 psi
Model #:		Run Time:	15 Minutes
Relief Valve Settings: Pressure:	200 psi	Circulation:	375 psi
Atmospheric Pressure:	30.1 inHg	Date:	1-Oct-19

OVERALL BUILDING PLAN

1" = 20'-0"

FIRE PROTECTION SPECIFICATIONS

SECTION 15300 - FIRE PROTECTION SPECIFICATION (WET AUTOMATIC SPRINKLER SYSTEM - TENANT IMPROVEMENT/REMODEL)	1.4 QUALITY ASSURANCE	E. PIPE HANGERS SHALL BE SPACES AS SHOWN AND/OR PER NFPA-13.	(WET AUTOMATIC SPRINKLER SYSTEM - TENANT IMPROVEMENT/REMODEL)
PART 1 GENERAL	A. INSTALLER QUALIFICATIONS: INSTALLATION AND ALTERATIONS OF FIRE PROTECTION PIPING, EQUIPMENT, SPECIALTIES, ACCESSORIES, AND REPAIR OF SERVICING OF EQUIPMENT SHALL BE PERFORMED ONLY BY A QUALIFIED INSTALLER WHOSE TERM QUALIFIES MEANS EXPERIENCES IN SUCH WORK (EXPERIENCED SHALL MEAN HAVING A MINIMUM OF 5 PREVIOUS PROJECT SIMILAR IN SIZE AND SCOPE TO THIS PROJECT), FAMILIAR WITH ALL REQUIREMENTS, APPENDICES AND ADDENDUMS APPLY TO THE WORK UNDER THIS SECTION AS DEPICTED IN PROJECT SPECIFICATION MANUAL OR THESE PLANS.	2.2 SPRINKLERS	G. CONTRACTOR IS RESPONSIBLE FOR: FIELD FIT OF PIPING, ACCURACY OF PRE-FABRICATED PIPE, LOCATION OF SPRINKLERS (PET NPA AND INSPECTIONS), PIPING ELEVATIONS AND ALL DIMENSIONING.
1.1 GENERAL CONDITIONS AND SPECIAL CONDITIONS	A. BIDDING REQUIREMENTS, GENERAL CONDITIONS, GENERAL REQUIREMENTS, APPENDICES AND ADDENDUMS APPLY TO THE WORK UNDER THIS SECTION AS DEPICTED IN PROJECT SPECIFICATION MANUAL OR THESE PLANS.	B. SPRINKLERS REQUIRED DUE TO CEILING PROJECTIONS/OBSTRUCTIONS AND DUCTWORK ARE NOT CONSIDERED ABOVE SPRINKLERS. CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING THESE LOCATIONS.	H. CONTRACTOR SHALL COORDINATE LOCATION OF PIPING AND SPRINKLERS WITH STRUCTURE, DUCTWORK, MECHANICAL EQUIPMENT, CEILING, LIGHTING, ETC. MAKE FIELD ADJUSTMENTS NECESSARY TO COMPLY WITH CODE SPACING PER NFPA-13.
1.2 GENERAL DESCRIPTION	A. PROVIDE A COMPLETE WET PIPE AUTOMATIC SPRINKLER (A.S.) SYSTEM FOR THE ENTIRE PROJECT BY CONNECTING INTO THE EXISTING SYSTEM AND INSTALLING NEW SPRINKLERS, MODIFICATIONS SUCH AS RELOCATING SPRINKLERS AND PIPING MAY ALSO BE REQUIRED TO MEET SPACING REQUIREMENTS.	C. SPRINKLERS IN FINISHED CEILING AREAS SHALL BE SPRINKLERS IN PENDENT POSITION WITH ESCUTCHEON ASSEMBLY OR EQUAL TYPE TO THAT OF EXISTING SPRINKLERS.	I. POST ALL PILE STORAGE AREAS LIMITING THE STOCK PILE HEIGHTS, AS REQUIRED FOR THIS DESIGN, FROM FLOOR TO TOP OF STORAGE. STORAGE HEIGHT NOT TO EXCEED 12'-0" A.F.F.
A. CONTRACTOR SHALL VERIFY PRIOR TO PREPARATION OF ANY DOCUMENTS, INSURANCE CARRIER AND THEIR REQUIREMENTS FOR THIS PROJECT.	B. PROVIDE: FURNISH AND INSTALL.	3.2 INSTALLATION OF PIPING AND SPRINKLERS	J. PROVIDE 18" MINIMUM CLEARANCE FROM SPRINKLER DEFLECTORS TO TOP OF STORAGE.
C. CONTRACTOR WILL BE HELD TO HAVING VISITED THE SITE TO DETERMINE EXISTING CONDITIONS AND EXTENT OF WORK PRIOR TO SUBMITTING BID, BE FULLY INFORMED REGARDING ALL REGULATIONS AND LIMITATIONS OF THE SPACES AVAILABLE FOR THE INSTALLATION/REMODEL OF THE A.S. SYSTEM.	C. FURNISH: PURCHASE AND DELIVER TO THE OTHER TRADES OR OWNER FOR INSTALLATION.	A. WHERE SPRINKLER PIPING IS INSTALLED IN FINISHED AREAS, THE CONTRACTOR SHALL INSTALL ALL NEW PIPING SO THAT IT IS CONCEALED ABOVE FINISHED CEILINGS, PROVIDE A MINIMUM SEPARATION OF 12" BETWEEN THE CEILING HEIGHT AND THE BOTTOM OF THE SPRINKLER PIPE. PIPE INSTALLED IN THE UNFINISHED AREAS MAY BE EXPOSED.	K. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
D. CONTRACTOR SHALL PROVIDE A THOROUGH AND COMPLETE INSPECTION OF EXISTING SYSTEM IN ACCORDANCE WITH NFPA 25A; INCLUDING, BUT NOT LIMITED TO:	D. CONCEALED: WHERE USED IN CONNECTION WITH INSTALLATION OF PIPING AND ACCESSORIES, SHALL MEAN THAT HIDDEN FROM SIGHT AS IN CHASED, FURRED SPACES, PIPE SHAFTS, OR SUSPENDED CEILINGS. 'EXPOSED' SHALL MEAN 'NOT CONCEALED' AS DEFINED ABOVE.	B. ALL EXPOSED PIPE WHICH PASSES THROUGH A WALL, CEILING OR FLOOR SHALL BE PROVIDED WITH EXCUTHEON PLATES.	L. IF, WHEN THE OWNER'S CONSULTANT OR ANY OTHER AUTHORITY HAVING JURISDICTIONS VISIT THE JOBSITE FOR THIS PURPOSE, AFTER BEING ADVISED BY THE CONTRACTOR THAT THE WORK IS COMPLETED AND READY FOR TEST, THE WORK HAS NOT BEEN COMPLETED, OR THE FINAL ACCEPTANCE TESTS ARE UNSATISFACTORY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSULTANT'S EXTRA TIME AND EXPENSES FOR REINSPECTION AND WITNESSING THE RETESTING OF THE WORK. SUCH EXTRA FEES SHALL BE DEDUCTED FROM PAYMENTS BY THE OWNER TO THE CONTRACTOR.
1. PIPING	1.6 SUBMITTALS	C. ALL PIPING SHALL BE INSTALLED SO AS NOT TO OBSTRUCT ANY PORTION OF A WINDOW, DOORWAY, STAIRWAY OR PASSAGEWAY, AND SHALL NOT INTERFERE WITH THE OPERATION OF ACCESSIBILITY OF ANY MECHANICAL, PLUMBING, OR ELECTRICAL EQUIPMENT. RUN PIPING HORIZONTALLY AND AT RIGHT ANGLES TO WALLS AND CEILINGS.	M. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
2. SPRINKLERS	A. WITHIN 30 DAYS AFTER AWARD OF CONTRACT, THE CONTRACTOR SHALL SUBMIT SIX (6) MANUFACTURER'S DATA SHEETS, CATALOG CUT SHEETS AND DATA ON DEVICES FOR ALL NECESSARY APPROVALS PRIOR TO FABRICATION OF ANY MATERIALS AND/OR PIPING.	D. ALL NEW 1/2 INCH DROPS SHALL BE CONNECTED TO EXISTING OR NEW 1" OUTLETS.	N. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
3. VALVES	B. CONTRACTOR SHALL SUBMIT COMPLETE PACKAGES, PARTIAL SUBMITTALS WILL BE RETURNED WITHOUT FURTHER EXPLANATION.	E. MAKE ADDITIONAL TAP(S), AS NECESSARY, INTO CROSS MAINS ONLY FOR NEW SPRINKLERS. ROUTE NEW BRANCH LINES AS NECESSARY PER NFPA-13.	O. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
4. FIRE DEPARTMENT CONNECTIONS.	C. NO EXTENSION OF THE CONTRACT TIME WILL BE GRANTED FOR THE CONTRACTOR'S FAILURE TO ALLOW SUFFICIENT TIME FOR REVIEW AND PROCESSING, OR FOR SUBMITTALS WHICH HAVE BEEN RETURNED FOR IMPROPER SUBMISSION.	F. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	P. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
5. FIRE HOSE RACKS.	D. THE CONTRACTOR WILL NOT BE AUTHORIZED TO START ANY PORTION OF THE WORK UNTIL THE CATALOG CUTS AND OTHER REQUIRED SUBMITTALS FOR THAT PORTION ARE RECEIVED, REVIEWED, AND APPROVED BY ALL REQUIRED PARTIES.	G. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	Q. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
6. HANGERS.	1.7 PART 1 PRODUCTS	H. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	R. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
A. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE PORTIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS AND RECOMMENDED PRACTICES (INCLUDING APPENDICES) LISTED HEREIN:	2.1 SPRINKLER SYSTEM COMPONENTS - GENERAL	I. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	S. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
B. NFPA-13 2013 EDITION, 'STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS'.	A. ALL EQUIPMENT AND SYSTEM COMPONENTS FURNISHED AND INSTALLED SHALL BE NEW AND UNUSED, OF FIRST QUALITY, AND BE LISTED BY UNDERWRITERS LABORATORIES INC. AND APPROVED BY FACTORY MUTUAL FOR THEIR INTENDED USE. ALL SUCH EQUIPMENT AND SYSTEM COMPONENTS SHALL BE INSTALLED WITHIN THE LIMITATIONS OF THE RESPECTIVE UL LISTINGS OR FM APPROVALS.	J. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	T. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
C. INTERNATIONAL FIRE CODE 2012 EDITION.	B. ADDITIONAL WORK THAT MAY BE REQUIRED, DUE TO FIELD INSPECTIONS (BY AUTHORITY HAVING JURISDICTIONS) AND UNKNOWN FIELD CONDITIONS ABOVE AND BEYOND WHAT IS SHOWN IN THIS DESIGN, IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.	K. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	U. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
D. ALL WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO ALL LOCAL, AND PROVINCIAL CODES AS WELL AS ALL OTHER AUTHORITY HAVING JURISDICTIONS. IF MORE CURRENT EDITIONS OF ABOVE MENTIONED STANDARDS, OR ADDITIONAL STANDARDS ARE REQUIRED, THEN THEY SHALL BE APPLIED.	C. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND MAKE FIELD ADJUSTMENTS AS NECESSARY FOR FIELD ACCEPTANCE BY ALL AUTHORITY HAVING JURISDICTIONS.	L. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	V. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
E. IF THERE IS A CONFLICT BETWEEN THE REFERENCES STANDARDS, CODES, OR AUTHORITY HAVING JURISDICTIONS THEN IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BRING THE CONFLICT TO THE ATTENTION OF THE OWNER IMMEDIATELY FOR RESOLUTION PRIOR TO COMMENCEMENT OF ANY ADDITIONAL WORK. THIS CONFLICT SHALL BE RESOLVED AT NO ADDITIONAL COST TO THE OWNER.	D. ENTIRE A.S. SYSTEM SHALL BE INSTALLED PER NFPA-13, C.B.C., AND ALL AUTHORITY HAVING JURISDICTIONS' REQUIREMENTS.	M. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	W. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.
F. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING ALL DOCUMENTS, PAYING ALL FEES AND SECURING ALL PERMITS, INSPECTIONS AND APPROVALS NECESSARY FOR CONDUCTING THIS WORK.		N. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.	X. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL AUTHORITY HAVING JURISDICTION FOR FINAL INSPECTION AND WITNESSING THE FINAL ACCEPTANCE TESTS.

TENANT IMPROVEMENT NOTES

- CONTRACTOR MUST VISIT THE BUILDING SITE TO DETERMINE THE FULL EXTENT OF THE EXISTING FIRE PROTECTION WORK AND EXISTING CONDITIONS. BECOME TOTALLY FAMILIAR WITH THE DISCONNECTIONS, REMOVALS, RELOCATIONS AND/OR RECONNECTIONS OF EXISTING FIRE PROTECTION EQUIPMENT REQUIRED, AND CONDITIONS IN THE PROPOSAL FOR THIS PROJECT. NO EXTRA COMPENSATION WILL BE PAID FOR LACK OF SUCH DETERMINATION, FAMILIARIZATION, AND/OR ALLOWANCE.
- THE INFORMATION CONCERNING THE EXISTING FIRE PROTECTION CONTAINED ON THESE DRAWINGS IS PRESENTED HERE AS A GENERAL GUIDE ONLY. WITH NO GUARANTEE AS TO ACCURACY. VISIT THE SITE TO VERIFY EXACTLY HOW THE EXISTING CONDITIONS WILL AFFECT THE COMPLETION OF THE WORK REQUIRED FOR THIS PROJECT, AND INCLUDE THE CORRESPONDING COSTS IN THE PROPOSAL.
- CONSULT THE GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS, AND ALL OTHER SECTIONS OF THE DRAWINGS AND SPECIFICATIONS, IN DETAIL FOR INSTRUCTIONS PERTAINING TO THIS WORK.
- WITH THE SUBMISSION OF THIS PROPOSAL, GIVE WRITTEN NOTICE TO THE OWNER OF ANY MATERIALS OR APPARATUS BELIEVED INADEQUATE OR UNSUITABLE, BELIEVED IN VIOLATION OF LAWS, ORDINANCES, AND/OR RULES AND OF ANY NECESSARY ITEMS OF WORK OMITTED. IN THE ABSENCE OF SUCH WRITTEN NOTICE, PROVIDE ALL SUCH MATERIALS AND APPARATUS, AND BE RESPONSIBLE FOR THE APPROVED SATISFACTORY FUNCTIONING OF THE ENTIRE FIRE PROTECTION SYSTEM, WITHOUT EXTRA COMPENSATION.
- BEFORE SUBMITTING THE PROPOSAL, ASK THE OWNER FOR A DECISION CONCERNING ANY AND ALL PLACES WHERE DRAWINGS, SPECIFICATIONS, STANDARDS, AND/OR CODES CONFLICT, OR THAT ARE NOT CLEARLY UNDERSTOOD. IN THE ABSENCE OF OBTAINING SUCH A DECISION, ABIDE BY THE DECISION OF THE OWNER, IF THE NECESSITY FOR A DECISION ARISES AFTER THE SIGNING OF THE CONTRACT.
- COORDINATE THE LOCATIONS OF ALL FIRE PROTECTION WORK WITH THE WORK OF OTHER TRADES.
- NOTE CAREFULLY THAT THE FIRE PROTECTION DRAWINGS ARE INTENDED TO INDICATE, ONLY DIAGRAMMATICALLY, THE EXTENT AND THE GENERAL CHARACTER AND LOCATIONS OF THE WORK INCLUDED. PROVIDE ALL WORK, OBVIOUSLY INTENDED, BUT HAVING MINOR DETAILS OMITTED OR NOT SHOWN. COMPLETE AS REQUIRED TO PERFORM THE FUNCTIONS INTENDED. FOLLOW THE ARCHITECTURAL AND/OR CONSTRUCTION SET OF DRAWINGS AND SPECIFICATIONS FOR BUILDING DETAILS AND FIT THE WORK OF THE FIRE PROTECTION DRAWINGS AND SPECIFICATIONS THERE TO.
- REMOVE ALL DEBRIS TO AN APPROVED DUMPING SITE AND CLEAN ALL FIRE PROTECTION WORK PRIOR TO THE PROJECT COMPLETION.
- PERFORM ALL WORK ACCORDING TO THE PROJECT PHASING SCHEDULE FOR THIS PROJECT. PROVIDE ALL NECESSARY FIRE PROTECTION WORK, TEMPORARY AND/OR OTHERWISE, AND USE WHATEVER MEANS NECESSARY, TO CONFORM TO THE REQUIRED CONSTRUCTION PHASE OF THIS PROJECT.
- CONTRACTOR TO BE RESPONSIBLE FOR REPAIRING OR REPLACING ITEMS DAMAGED DURING CONSTRUCTION.
- CONTRACTOR IS TO PATCH ALL HOLES TO MATCH ADJACENT SURFACES LEFT UNUSED AFTER EXISTING SPRINKLER PIPING OR EQUIPMENT TO BE REMOVED IS VACATED FROM THESE HOLES.
- CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.
- ALL SYSTEMS TO BE LEFT IN SERVICE PRIOR TO THE END OF EACH WORKDAY.

DEMOLITION NOTES

- CONTRACTOR MUST VISIT THE BUILDING SITE TO DETERMINE THE FULL EXTENT OF THE EXISTING FIRE PROTECTION WORK AND EXISTING CONDITIONS. BECOME TOTALLY FAMILIAR WITH THE DISCONNECTIONS, REMOVALS, RELOCATIONS AND/OR RECONNECTIONS OF EXISTING FIRE PROTECTION EQUIPMENT REQUIRED, AND CONDITIONS IN THE PROPOSAL FOR THIS PROJECT. NO EXTRA COMPENSATION WILL BE PAID FOR LACK OF SUCH DETERMINATION, FAMILIARIZATION, AND/OR ALLOWANCE.
- THE INFORMATION CONCERNING THE EXISTING FIRE PROTECTION CONTAINED ON THESE DRAWINGS IS PRESENTED HERE AS A GENERAL GUIDE ONLY. WITH NO GUARANTEE AS TO ACCURACY. VISIT THE SITE TO VERIFY EXACTLY HOW THE EXISTING CONDITIONS WILL AFFECT THE COMPLETION OF THE WORK REQUIRED FOR THIS PROJECT, AND INCLUDE THE CORRESPONDING COSTS IN THE PROPOSAL.
- CONSULT THE GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS, AND ALL OTHER SECTIONS OF THE DRAWINGS AND SPECIFICATIONS, IN DETAIL FOR INSTRUCTIONS PERTAINING TO THIS WORK.
- WITH THE SUBMISSION OF THIS PROPOSAL, GIVE WRITTEN NOTICE TO THE OWNER OF ANY MATERIALS OR APPARATUS BELIEVED INADEQUATE OR UNSUITABLE, BELIEVED IN VIOLATION OF LAWS, ORDINANCES, AND/OR RULES AND OF ANY NECESSARY ITEMS OF WORK OMITTED. IN THE ABSENCE OF SUCH WRITTEN NOTICE, PROVIDE ALL SUCH MATERIALS AND APPARATUS, AND BE RESPONSIBLE FOR THE APPROVED SATISFACTORY FUNCTIONING OF THE ENTIRE FIRE PROTECTION SYSTEM, WITHOUT EXTRA COMPENSATION.
- BEFORE SUBMITTING THE PROPOSAL, ASK THE OWNER FOR A DECISION CONCERNING ANY AND ALL PLACES WHERE DRAWINGS, SPECIFICATIONS, STANDARDS, AND/OR CODES CONFLICT, OR THAT ARE NOT CLEARLY UNDERSTOOD. IN THE ABSENCE OF OBTAINING SUCH A DECISION, ABIDE BY THE DECISION OF THE OWNER, IF THE NECESSITY FOR A DECISION ARISES AFTER THE SIGNING OF THE CONTRACT.
- COORDINATE THE LOCATIONS OF ALL FIRE PROTECTION WORK WITH THE WORK OF OTHER TRADES.
- UNLESS INDICATED OTHERWISE, DISCONNECT AND REMOVE ALL EXISTING FIRE PROTECTION COMPONENTS NOT INTENDED TO BE REUSED.
- NOTE CAREFULLY THAT THE FIRE PROTECTION DRAWINGS ARE INTENDED TO INDICATE THE GENERAL CHARACTER AND LOCATIONS OF THE WORK INCLUDED. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.
- REMOVE ALL DEMOLITION MATERIALS AND DEBRIS TO AN APPROVED DUMPING SITE AND CLEAN ALL FIRE PROTECTION WORK PRIOR TO THE PROJECT COMPLETION.
- PERFORM ALL WORK ACCORDING TO THE PROJECT PHASING SCHEDULE FOR THIS PROJECT. PROVIDE ALL NECESSARY FIRE PROTECTION WORK, TEMPORARY AND/OR OTHERWISE, AND USE WHATEVER MEANS NECESSARY, TO CONFORM TO THE REQUIRED CONSTRUCTION PHASE OF THIS PROJECT.
- CONTRACTOR TO BE RESPONSIBLE FOR REPAIRING OR REPLACING ITEMS DAMAGED DURING DEMOLITION AND CONSTRUCTION.
- CONTRACTOR IS TO PATCH ALL HOLES TO MATCH ADJACENT SURFACES LEFT UNUSED AFTER EXISTING SPRINKLER PIPING OR EQUIPMENT TO BE REMOVED IS VACATED FROM THESE HOLES.
- CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING AND MAINTAINING FIRE DEPARTMENT ACCESS ROADS THROUGHOUT THE PROJECT.
- SPRINKLER SYSTEMS NOT ASSOCIATED WITH THE DEMOLITION SHALL BE LEFT IN SERVICE.
- ALL SYSTEMS TO BE LEFT IN SERVICE PRIOR TO THE END OF EACH WORKDAY.

APPLICABLE CODES AND STANDARDS

AUTHORITY HAVING JURISDICTION:	CITY OF TOWN AND COUNTRY FIRE DEPARTMENT - OFFICE OF THE FIRE MARSHAL
PROJECT BUILDING DATA:	
BUILDING STOREYS:	1 STORY
CONSTRUCTION TYPE:	M
CONSTRUCTION TYPE:	TYPE II-B
FIRE PROTECTION:	FULLY SPRINKLERED
CODE REFERENCED:	
2018 INTERNATIONAL BUILDING CODE W/ AMENDMENTS	
2018 INTERNATIONAL FIRE CODE W/ AMENDMENTS	
STATE OF MISSOURI AMENDMENTS	
CITY OF TOWN AND COUNTRY AMENDMENTS	
CITY OF TOWN AND COUNTRY MUNICIPAL CODES AND STANDARDS	
STANDARDS:	
2016 NFPA 13 - NATIONAL STANDARD FOR FIRE SPRINKLER INSTALLATION	

SHEET LIST

Sheet Number	Sheet Name
FP1.0	FIRE PROTECTION COVER SHEET AND NOTES
FP2.0	FIRE PROTECTION DEMO PLAN
FP3.0	FIRE PROTECTION PIPING PLAN - TENANT IMPROVEMENTS
FP4.0	FIRE PROTECTION DETAILS

GENERAL FIRE PROTECTION NOTES

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ACCEPTED EDITIONS OF NFPA-13 AND THE INTERNATIONAL FIRE CODE, INCLUDING ALL APPLICABLE APPENDICES. INSTALLATION SHALL ALSO CONFORM TO ALL AUTHORITY HAVING JURISDICTION (AHJ'S) INCLUDING LOCAL AND STATE FIRE MARSHAL REQUIREMENTS.
- THE ELECTRONIC FILE SET OF THE APPROVED ENGINEERED CONSTRUCTION DOCUMENTS IS AVAILABLE TO THE INSTALLING FIRE PROTECTION CONTRACTOR AT NO COST. THIS SET IS MADE SOLELY AVAILABLE FOR THE FABRICATION PORTION OF THE PROJECT. CONTACT NRG FIRE CONSULTING IN WRITING TO REQUEST. FP CONTRACTOR SHALL PROVIDE PROOF THAT PROJECT IS UNDER CONTRACT FOR INSTALLATION. THE DETAILS, DRAWINGS AND OTHER DATA INCLUDED IN THE CONSTRUCTION SET OF DOCUMENTS ARE FOR INFORMATION PURPOSES ONLY AND ARE SPECIFIC TO THIS PROJECT. ALL DRAWINGS, CONCEPTS, DETAIL INFORMATION AND DATA CONTAINED HEREIN SHALL REMAIN THE SOLE PROPERTY OF NRG FIRE CONSULTING AND SHALL NOT BE UTILIZED FOR ANY OTHER PROJECT OR PURPOSE WITHOUT THE EXPRESSED WRITTEN CONSENT OF NRG FIRE CONSULTING.
- THE INTENT OF THIS SET OF ENGINEERED CONSTRUCTION DOCUMENTS IS TO MEET THE LOCAL AND STATE OF WASHINGTON REQUIREMENTS FOR A PROFESSIONALLY DESIGNED AUTOMATIC FIRE SPRINKLER SYSTEM. THE INSTALLING CONTRACTOR SHALL SUBMIT 'PRODUCT DATA' SUBMITTALS AS REQUIRED IN THE PROJECT MANUAL FOR THE INSTALLATION RECORD. THE INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND/OR OBTAINING ALL PERMITS ASSOCIATED WITH THIS SET OF DOCUMENTS, INCLUDING ARIZONA STATE FIRE MARSHAL APPROVAL FOR EDUCATIONAL OR INSTITUTIONAL FACILITIES.
- ALL WIRING OF ELECTRIC INITIATION DEVICES (HORN-STROBES, WATER SUPERVISORY AND TAMPER DEVICES) SHALL BE BY THE ELECTRICAL AND/OR ALARM CONTRACTOR.
- THE PIPING HEREIN HAS BEEN DESIGNED TO MEET UNDERWRITERS LABORATORIES (UL) CORROSION RESISTANCE RATIO (CRR) MINIMUM OF 1.00. REFER TO PIPING PLANS, HYDRAULIC CALCULATIONS AND SPECIFICATIONS FOR SPECIFIC PIPE HEIGHTS AND WALL THICKNESS ASSOCIATED WITH THIS SPECIFIC PROJECT. THE UTILIZATION OF A CRR LESS THAN 1.00 IS NOT ACCEPTABLE UNDER ANY CIRCUMSTANCES. THE USE OF SUCH PIPING SUBJECTS THE CONTRACTOR TO POTENTIAL REMOVAL AND REPLACEMENT OF ALL PIPING AT HISHER COST.
- A MINIMUM 10% SAFETY FACTOR HAS BEEN INCLUDED IN THE WATER SUPPLY FOR THIS PROJECT. ADDITIONAL SAFETY FACTORS, AS REQUIRED BY LOCAL, AHJ, FIELD INSPECTION, OR RESERVE, NRG FIRE CONSULTING IS NOT RESPONSIBLE FOR ADDITIONAL CHANGES IN WATER SUPPLY (GPM OR PRESSURE) THAT MAY ADVERSELY AFFECT THIS AUTOMATIC FIRE SPRINKLER SYSTEM IN THE FUTURE.
- THE FIRE PROTECTION CONTRACTOR IS FULLY RESPONSIBLE FOR THE FIELD FIT OF ALL SPRINKLERS AND PIPING. THE ACCURACY OF SCALED CONSTRUCTION DOCUMENTS IS NOT ASCERTAINABLE. ALL POSSIBLE ATTEMPTS HAVE BEEN MADE TO INCLUDE SLOPED PIPE LENGTHS AND TO MINIMIZE VARIATIONS. THEREFORE, THE FP CONTRACTOR IS RESPONSIBLE FOR THE ACCURACY OF FIELD CUT AND PRE-FABRICATED PIPING.
- THE FP CONTRACTOR IS RESPONSIBLE FOR GENERAL WORKMANSHIP, DIMENSIONING, COORDINATION WITH OTHER TRADES AND THE ACCEPTANCE OF THE FIELD INSPECTIONS. THE COORDINATION OF FIELD INSTALLED PIPING AND SPRINKLERS TO STRUCTURAL COMPONENTS, DUCTWORK, EQUIPMENT, CEILING, LIGHTS, ETC., IS THE RESPONSIBILITY OF THIS LICENSED CONTRACTOR.
- FIELD VERIFY ALL CONDITIONS PRIOR TO THE INSTALLATION OF ANY PIPING. FIELD ADJUSTMENTS MAY BE MADE TO THESE DOCUMENTS AS REQUIRED FOR FIELD ACCEPTANCE BY THE AHJ.
- THE FIRE PROTECTION CONTRACTOR SHALL VERIFY THE SPRINKLER SPACING TO THE STRUCTURAL MEMBERS OF THE DECK AND/OR OBSTRUCTIONS. PROVIDE ADDITIONAL OR RESERVE SPRINKLERS WHERE REQUIRED TO AVOID SUCH UNFORESEEN OBSTRUCTIONS TO SPRINKLER DISCHARGE PATTERNS.
- CORRECT SPRINKLER LOCATIONS AND/OR QUANTITIES ARE THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR. COORDINATE PIPING WITH ALL OTHER TRADES. REVIEW ALL OTHER TRADE(S) DRAWINGS. CONTRACTOR SHALL PLACE IN THEIR BID AS A SEPARATE LINE ITEM EXTRA QUANTITY OF SPRINKLERS. COST OF EXTRA SPRINKLERS SHALL BE ACCOUNTED FOR AT TIME OF BID. CONTRACTOR WILL NOT BE AWARDED COST OF EXTRA SPRINKLERS AFTER BID APPROVAL, UNLESS OWNER CHANGES INDICATED OTHERWISE.
- CORES THROUGH FLOORS OR CEILINGS. PACK WITH SEALANT COMMENSURATE WITH THE WALL CONSTRUCTION AND APPROVAL OF ALL AUTHORITY HAVING JURISDICTION.
- BACKFLOW DEVICE IS EXISTING, BUT SHALL BE TESTED AND APPROVED BY A CERTIFIED TECHNICIAN LICENSED TO PERFORM SUCH WORK IN THIS PARTICULAR MUNICIPALITY.
- THIS FP CONTRACTOR SHALL PROVIDE THE OWNER WITH A COPY OF NFPA-25 AND A DETAILED DESCRIPTION OF THE MAINTENANCE REQUIRED FOR THIS PROJECT. SUCH A MAINTENANCE SUMMARY SHALL BE PROVIDED, AS IT WOULD APPEAR IN AN INDUSTRY STANDARD MAINTENANCE CONTRACT. IN ADDITION, AS A MINIMUM, TWO (2) SETS OF THE APPROVED 'RECORD DRAWINGS' AND ASSOCIATED EQUIPMENT SUBMITTALS SHALL BE PROVIDED TO THE OWNER.
- THIS FP CONTRACTOR SHALL INSTALL A SYSTEM DESIGN PLACARD FOR EACH REMOTE AREA OF OPERATION AS INDICATED ON THE APPROVED CONSTRUCTION DOCUMENTS. SYSTEM DEMAND AT THE BASE OF THE RISER IN PSI AND GPM SHALL BE PROVIDED WITH THE AREA OF OPERATION SQUARE FOOTAGE AND NUMBER OF OPERATING SPRINKLERS. EACH DESIGN PLACARD SHALL BE PERMANENTLY EMBROSSED SUCH THAT DATA MAY BE AVAILABLE FOR FUTURE USE. THE UTILIZATION OF PERMANENT MARKING PENS IS NOT APPROPRIATE OR ACCEPTABLE.
- THE SPARE SPRINKLER CABINET IS EXISTING, IN AN APPROVED LOCATION. F.P. CONTRACTOR SHALL VERIFY THAT ALL REQUIRED SPARE SPRINKLERS AND TWO (2) SETS OF SPRINKLER WRENCHES FOR EACH SPRINKLER TYPE AS REQUIRED.
- THIS FP CONTRACTOR SHALL BE LICENSED TO PERFORM THIS PARTICULAR TYPE OF WORK WITH THE STATE REGISTRAR OF CONTRACTORS AND WITH LOCAL AND STATE AUTHORITIES HAVING JURISDICTION. IN ADDITION, CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH ALL PLAN REVIEW AND AHJ FIELD INSPECTIONS AS NECESSARY FOR A COMPLETELY APPROVED WORKING SYSTEM.
- WHERE REQUIRED, THIS AUTOMATIC FIRE SPRINKLER SYSTEM SHALL BE MONITORED BY A UL LISTED CENTRAL STATION SYSTEM. ALL SYSTEMS OVER 100 SPRINKLERS SHALL BE MONITORED FOR TAMPER, TROUBLE AND FLOW.
- ALL CONTROL VALVES SHALL BE CHAIN-LOCKED AND SECURED INCLUDING MAIN DRAIN ANGLE VALVES. ALL EXTERIOR FIRE RISERS SHALL BE LOCATED IN A SECURED AREA TO PREVENT DAMAGE DUE TO VANDALISM.
- COMBUSTIBLE CONTENTS SHALL NOT BE MOVED INTO THE BUILDING WITHOUT THE APPROVAL OF AUTHORITY HAVING JURISDICTION. IN ADDITION, THIS FP CONTRACTOR SHALL ENSURE THAT TEMPORARY INTERIOR FIRE PROTECTION IS IN PLACE PER AUTHORITY HAVING JURISDICTION. THIS INCLUDES PROVISIONS FOR TEMPORARY FIRE DEPARTMENT WATER SUPPLIES, HOSE CONNECTIONS, ETC.
- THE GENERAL CONTRACTOR SHALL PROVIDE A FIRE DEPARTMENT LOCK BOX FOR ALL NEW CONSTRUCTION AS DELINEATED ON THE ARCHITECTURAL DOCUMENTS. DEVICES SHALL BE SIMILAR OR EQUIVALENT TO KNOX MANUFACTURING.
- WHERE SCOPE INTERSECTS EXISTING STRUCTURAL CONDITIONS:
EXISTING PRIMARY STEEL UTILIZES INTUMESCENT FIREPROOFING SPRAY - 2 HOUR
SECONDARY STEEL UTILIZES CEMENTICIOUS FIREPROOFING SPRAY - 1 HOUR
RETAIN EXISTING RATING AT ALL STRUCTURAL AND DECKING, COORDINATE WORK WITH SHELL TEAM.

DESIGN CRITERIA

- LIGHT HAZARD (VESTIBULES, HALLS, RESTROOMS, OFFICES, COMPUTER LABS, TELECOMMUNICATION ROOMS)**
- 10/1500, 225 SQUARE FEET MAX SPACING, 50 GPM INSIDE HOSE PROVISION AND 50 OUTSIDE HOSE PROVISION (TOTAL OF 100 GPM HOSE PROVISION), LIGHT HAZARD, PER 2016 EDITION NFPA 13, SECTION 5.2 WITH TABLE 8.6.2.2 (1A).
- ** IN COMBUSTIBLE CONCEALED SPACES ABOVE CEILINGS WITH STRUCTURAL MEMBERS FURTHER THAN 3 FT ON CENTER, A MAXIMUM SPACING OF 168 SQUARE FEET SHALL APPLY. CONTRACTOR SHALL VERIFY CONDITIONS AND SPACING REQUIREMENTS PER NFPA 13 2016 EDITION, TABLE 10.2.4.2 (1A).
- ORDINARY HAZARD GROUP 1 (ELECTRICAL ROOMS, MECHANICAL ROOMS, JANITOR'S CLOSET, STORAGE ROOMS)**
- 15/1500, 130 SQUARE FEET MAX SPACING, 150 GPM OUTSIDE HOSE PROVISION WITH 100 GPM HOSE PROVISION TAKEN INSIDE FOR SYSTEMS WITH INTERIOR HOSE VALVES (FOR A TOTAL OF 250 GPM HOSE PROVISION) TO PROTECT ORDINARY GROUP 1, PER NFPA 13 2016 EDITION, SECTION 5.3.1 AND FIGURE 11.2.3.1.1 WITH TABLE 8.6.2.2 (1B). CONTRACTOR SHALL VERIFY CORRECT SECTIONS PER CURRENTLY ADOPTED STANDARD AS REQUIRED BY AHJ.
- ORDINARY HAZARD GROUP 2 (MAIN RETAIL AREA)**
- 20/1500, 130 SQUARE FEET MAX SPACING, 100 GPM INSIDE HOSE PROVISION AND 150 OUTSIDE HOSE PROVISION (TOTAL OF 250 GPM HOSE PROVISION), ORDINARY GROUP II, PER 2016 EDITION NFPA 13, SECTION 5.3.2 AND FIGURE 11.2.3.1.1 WITH TABLE 8.6.2.2 (1B).
- RSPU STORAGE & SHIPPING/RECEIVING AREA W/ CEILINGS**
- 30/2000, 100 SQUARE FEET MAX SPACING, 100 GPM INSIDE HOSE PROVISION AND 400 OUTSIDE HOSE PROVISION (TOTAL OF 500 GPM HOSE PROVISION) TO PROTECT NON-EXPANDED, STABLE, CARTONED PLASTIC COMMODITIES PER 2016 EDITION OF NFPA 13, FIGURE 15.2.2 AND TABLE 15.2.6(A) WITH COLUMN C UP TO 12-FEET OF STORAGE HEIGHT WITH A MAXIMUM 15-FT CEILING HEIGHT.

#235

CLIENT INFORMATION:

PROJECT INFORMATION:

CALLISONRTKL Inc.
U.S. Bank Centre
2400 South Main, WA 98101
006-132964-81

CONSULTANT INFORMATION:

7511 Greenwood Avenue, #600
Seattle, WA 98103
(206) 789-0165
nrgfireconsulting.com

PROJECT INFORMATION:

3216 S. GLEN AVENUE
GLENWOOD SPRINGS, CO 81601

REI-GLENWOOD SPRINGS

OWNER/REALTOR:

RICHARD G. ANDERSON III
Registered Professional Engineer
No. 123390
Exp. 09/01/2023
Engineering Signature: [Signature]

ISSUANCE/REVISION LOG:

REV	DATE	DESCRIPTION
09.24.21	PAR REVIEW SET	
10.01.21	PO REVIEW SET	
10.20.21	OWNER REVIEW SET	
11.05.21	PERMIT SET	

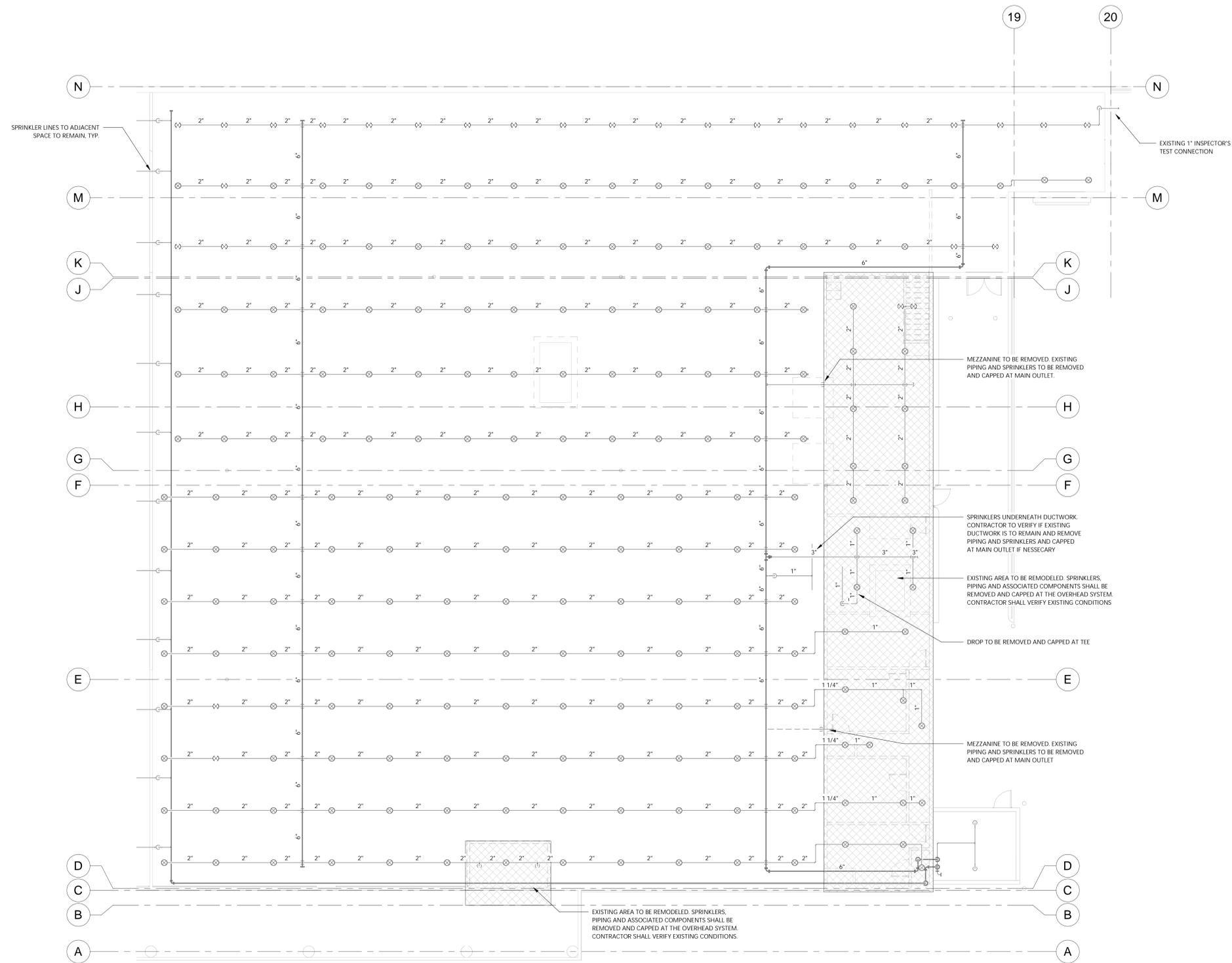
SHEET TITLE:

FIRE PROTECTION COVER SHEET AND NOTES

SHEET NUMBER:

FP1.0

FOR REFERENCE ONLY



1 FIRE PROTECTION DEMOLITION PLAN
1/8" = 1'-0"

CLIENT PROJECT NUMBER
#235



ARCHITECT INFORMATION
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U.S. Bank Centre
2400 South, WA 98101
006-132964.81

CONSULTANT INFORMATION
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PROJECT INFORMATION
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3246 S. GLEN AVENUE
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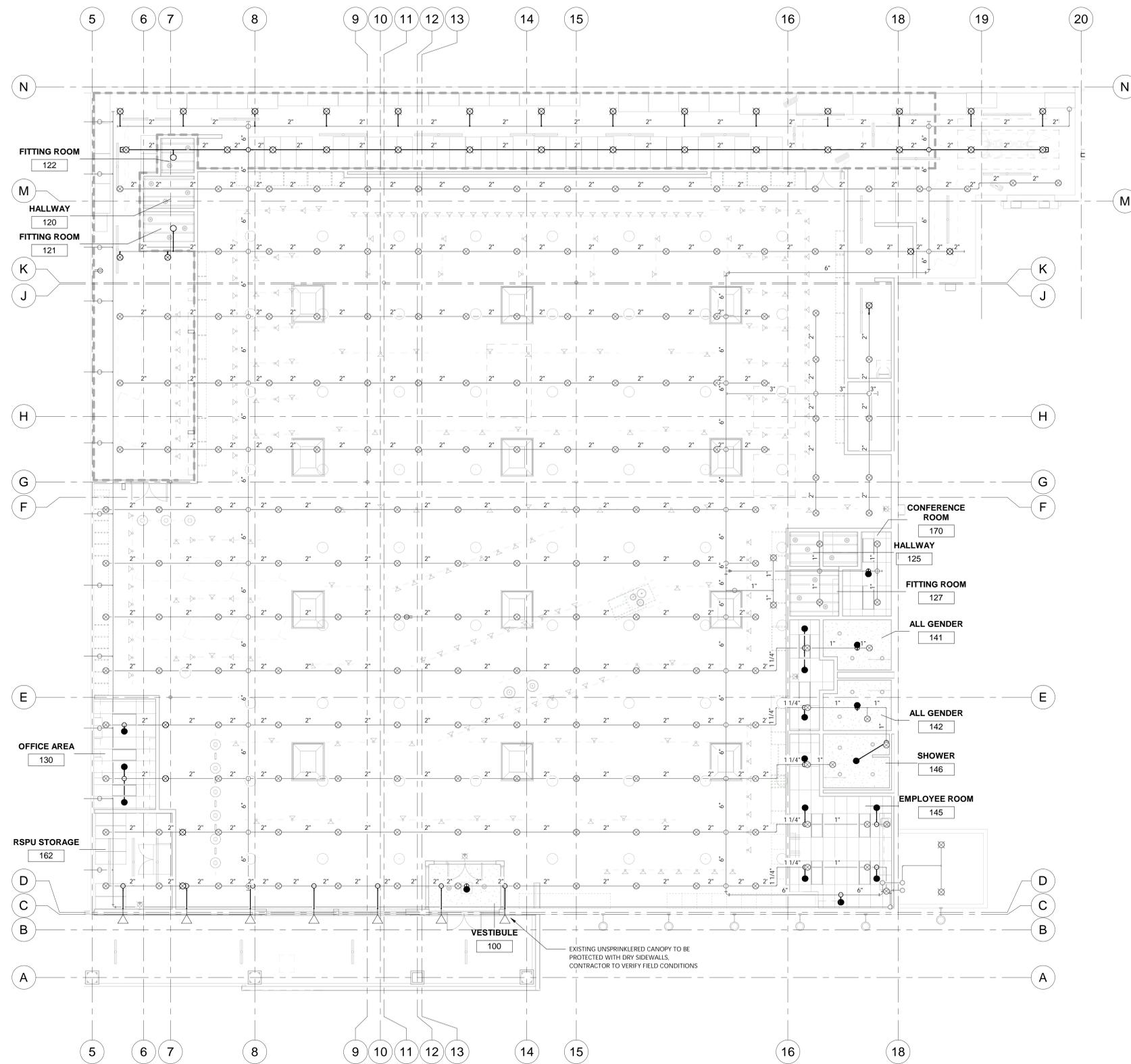
DESIGNER SEAL
RICHARD G. ANDERSON III
Certified Engineering Technician, License
MEP1 Registration Number: 127289
Expiry: September 1, 2021
Drawing Signature: [Signature]
Date: 11/05/2021

REVISION	DATE	DESCRIPTION
09.24.21	09.24.21	PA REVIEW SET
10.01.21	10.01.21	PO REVIEW SET
10.20.21	10.20.21	OWNER REVIEW SET
11.05.21	11.05.21	PERMIT SET

SHEET TITLE
FIRE PROTECTION DEMO PLAN

SHEET NUMBER
FP2.0

FOR REFERENCE ONLY



1 FIRE PROTECTION REFLECTED CEILING PLAN
1/8" = 1'-0"

Sprinkler Schedule								
SYMBOL	MANUF.	S.I.N.	STYLE	FINISH	ESC.	TEMP.	K-FAC	Count
◁			SDWL	Brass	Deep	200 °F	5.6	7
●			SSP	Brass	None	200 °F	5.6	24
○			SSU	Brass	None	200 °F	5.6	2
⊗			SSU	Brass	None	286 °F	11	33
GRAND TOTAL:								66

NOTES TO THE CONTRACTOR

- IN ADDITION TO THE SPRINKLER QUANTITIES NOTED, ADDITIONAL SPRINKLERS OF EACH TYPE WILL BE REQUIRED PER NFPA 13 REQUIREMENTS.
- ARM-OVER PIPING AND/OR DROPS SHALL BE 1-IN. SCHEDULE-40 PIPING, UNLESS NOTED OTHERWISE.
- DROPS TO NEW SPRINKLERS SHALL MATCH EXISTING OVERHEAD LINES, UNLESS CONTRACTORS' CALCULATIONS PROVE SMALLER PIPING WILL SUFFICE.
- THE CUMULATIVE HORIZONTAL LENGTH OF AN UNSUPPORTED ARM-OVER TO A SPRINKLER, SPRINKLER DROP, OR A SPRIG UP SHALL NOT EXCEED 24-IN. FOR STEEL PIPING.
- FIRE PROTECTION CONTRACTOR SHALL COORDINATE ALL PENDENT SPRINKLER LOCATIONS WITH MECHANICAL AND LIGHT/ELECTRICAL CONTRACTORS AS REQUIRED. COORDINATION MAY REQUIRE THE ADJUSTMENT OF EXISTING/NEW SPRINKLERS OR THE RELOCATION OR NEW/EXISTING LIGHTING. A COORDINATION MEETING WITH THE TRADES AND THE GC IS RECOMMENDED.
- *CORRECT SPRINKLER LOCATIONS AND/OR QUANTITIES IS THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR. CONTRACTOR SHALL PLACE IN THEIR BID AS A SEPARATE LINE ITEM EXTRA QUANTITY OF SPRINKLERS. COST OF EXTRA SPRINKLERS SHALL BE ACCOUNTED FOR AT TIME OF BID. CONTRACTOR WILL NOT BE AWARDED COST OF EXTRA SPRINKLERS AFTER BID APPROVAL, UNLESS OWNER CHANGES INDICATE OTHERWISE.

CLIENT PROJECT NUMBER: **#235**

CLIENT INFORMATION:

ARCHITECT INFORMATION:

CALLISONRTKL

CallisonRTKL, Inc.
1155 Bank Center
2400 South, WA 98101
006-132964.81

CONSULTANT INFORMATION:

NRG FIRE CONSULTING

7511 Greenwood Avenue, #100
Seattle, WA 98113
(206) 769-0165
nrgfireconsulting.com

PROJECT INFORMATION:

REI-GLENWOOD SPRINGS

3246 S. GLEN AVENUE
GLENWOOD SPRINGS, CO 81601

REGISTERED:

RICHARD G. ANDERSON III
Professional Engineer License
ME1 License Number: 12298
Expiry: September 1, 2021
Issuing Jurisdiction: CO
Date: 11/05/2021

ISSUING JURISDICTION CODE:

REV	DATE	DESCRIPTION
09.24.21	09.24.21	PA REVIEW SET
10.01.21	10.01.21	PO REVIEW SET
10.20.21	10.20.21	OWNER REVIEW SET
11.05.21	11.05.21	PERMIT SET

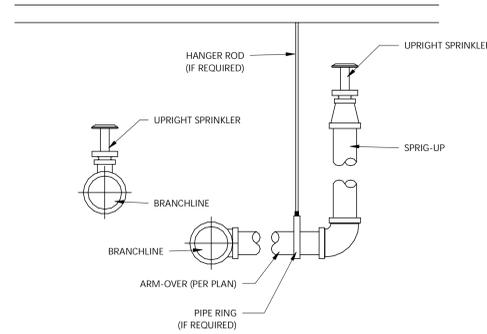
SHEET TITLE:

FIRE PROTECTION PIPING PLAN - TENANT IMPROVEMENTS

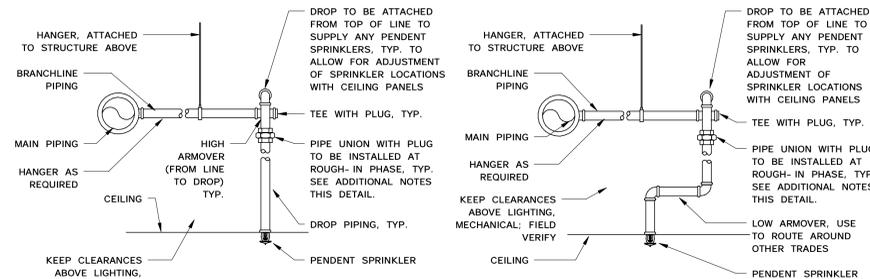
SHEET NUMBER:

FP3.0

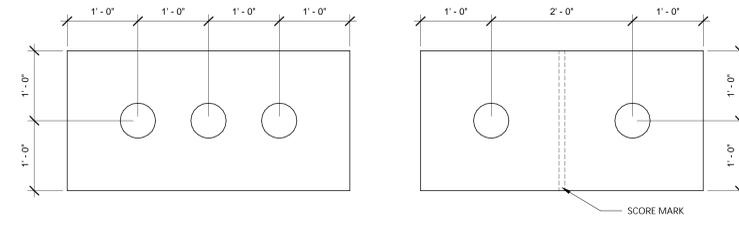
FOR REFERENCE ONLY



SPRINKLER DETAIL - UPRIGHT
NOT TO SCALE



TYPICAL PENDENT SPRINKLER SUPPLY
NOT TO SCALE



TYPICAL PENDENT SPRINKLER PLACEMENT DETAIL
NOT TO SCALE

CLIENT PROJECT NUMBER
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PROJECT INFORMATION
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3216 S. GLEN AVENUE
GLENWOOD SPRINGS, CO 81601

DESIGNER/SEAL:
RICHARD G. ANDERSON, III
Certified Engineering Technician, License
MEP Registration Number: 12298
Expiry: September 1, 2021
Drawing Signature: [Signature]
Date: 11/05/2021

ISSUANCE LOG

REV	DATE	DESCRIPTION
09.24.21	09.24.21	PA REVIEW SET
10.01.21	10.01.21	PO REVIEW SET
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11.05.21	11.05.21	PERMIT SET

SHEET TITLE
FIRE PROTECTION DETAILS

SHEET NUMBER
FP4.0