

A

B

C

D

E

F

A

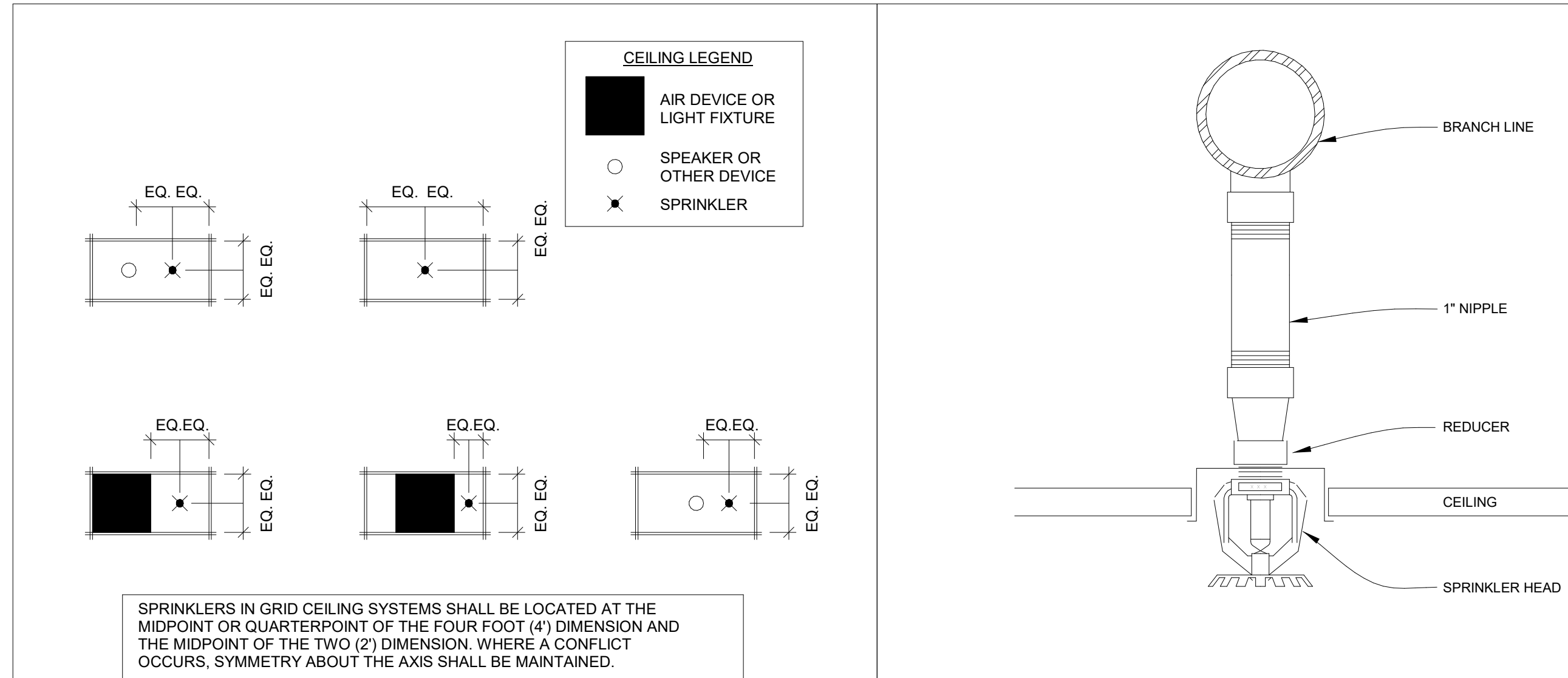
B

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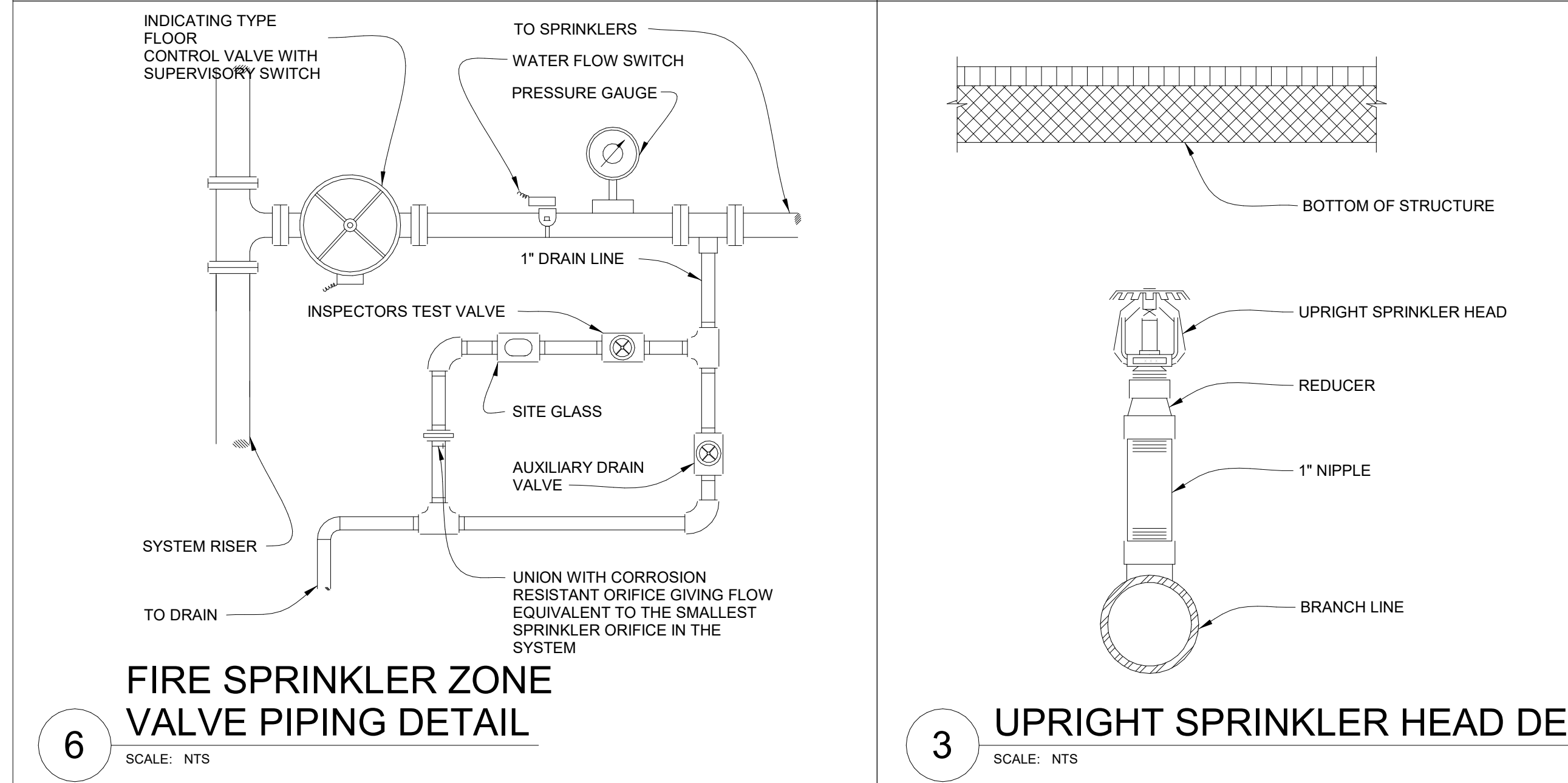


### 5 SPRINKLER MOUNTING DETAIL

SCALE: NTS

### 2 RECESSED PENDENT SPRINKLER HEAD DETAIL

SCALE: NTS

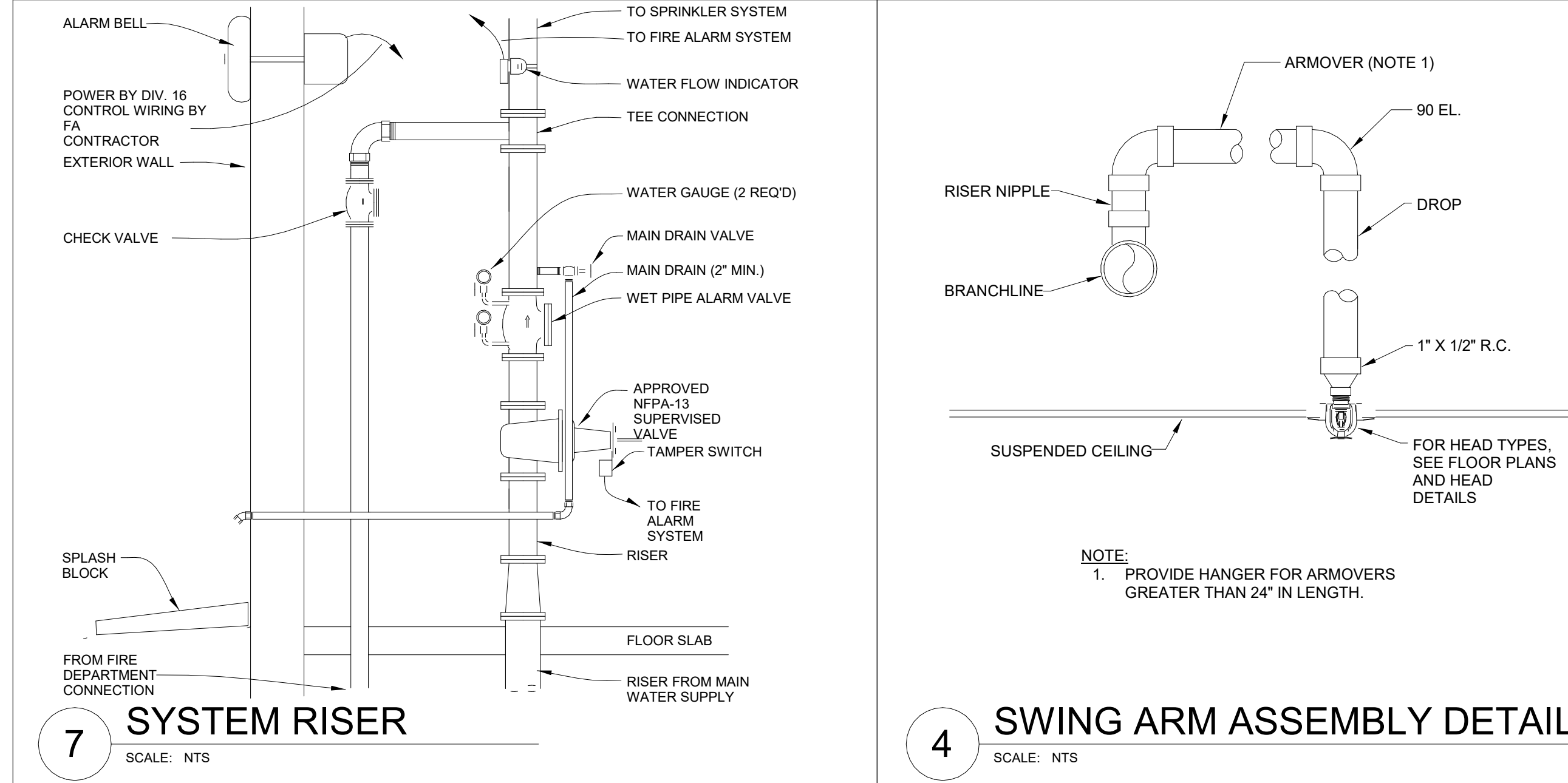


### 6 FIRE SPRINKLER ZONE VALVE PIPING DETAIL

SCALE: NTS

### 3 UPRIGHT SPRINKLER HEAD DETAIL

SCALE: NTS

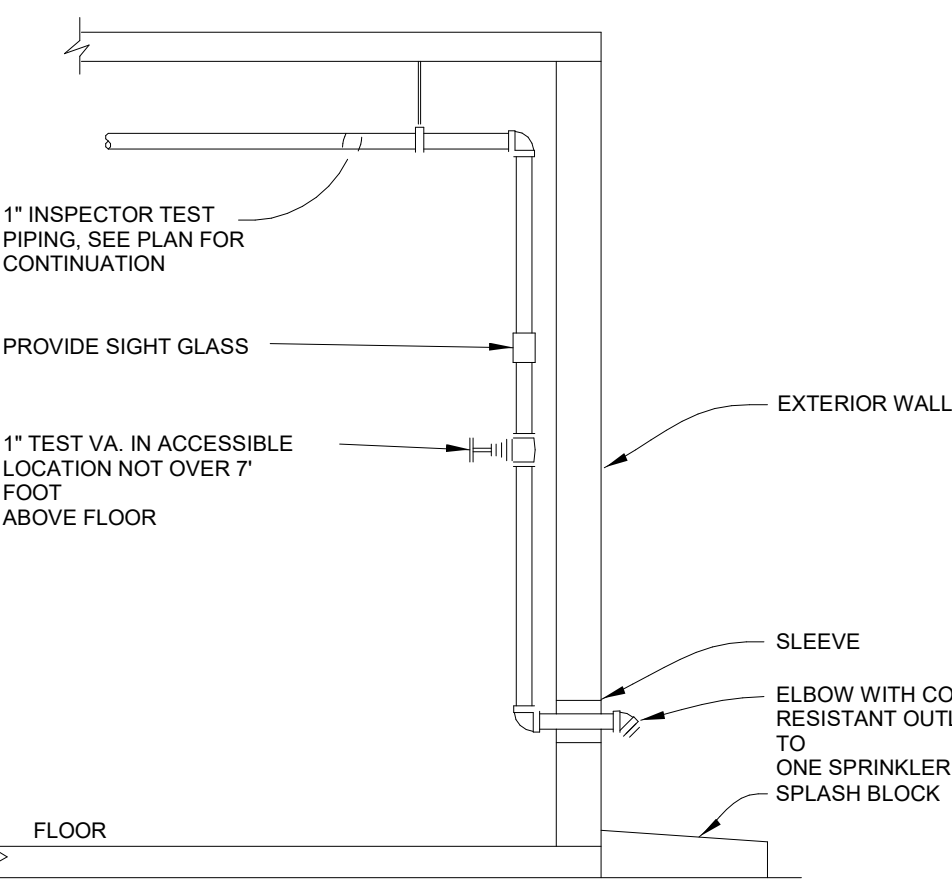


### 7 SYSTEM RISER

SCALE: NTS

### 4 SWING ARM ASSEMBLY DETAIL

SCALE: NTS



### 1 INSPECTORS TEST AND DRAIN DETAIL

SCALE: NTS

## FIRE PROTECTION SPRINKLER SYSTEM DESIGN CRITERIA

HAZARD SYMBOL	SPACE TYPE	HAZARD CLASSIFICATION	SYSTEM TYPE	DISCHARGE DENSITY	REMOTE AREA	MAXIMUM COVERAGE AREA PER SPRINKLER	MAXIMUM SPACING	WATER SUPPLY DURATION	OUTSIDE HOSE ALLOWANCE	TEMPERATURE CLASSIFICATION	SPRINKLER TYPE	NOTES
				GPM/FT²	FT²	FT²	FT.	MINUTES	GPM			
	GENERAL, EXCEPT AS LISTED BELOW	LIGHT HAZARD	WET PIPE	0.10	1,500	225	15	30	100	ORDINARY	SEMI-RECESSED PENDENT, QUICK RESPONSE, FACTORY MUTUAL APPROVED, UL LISTED	1
	STORAGE	ORDINARY HAZARD GROUP 2	WET PIPE	0.20	1,500	130	15	60-90	250	ORDINARY	SEMI-RECESSED PENDENT OR UPRIGHT, QUICK RESPONSE, FACTORY MUTUAL APPROVED, UL LISTED	1
	EQUIPMENT ROOM	ORDINARY HAZARD GROUP 1	WET PIPE	0.15	1,500	130	15	60-90	250	INTERMEDIATE	QUICK RESPONSE UPRIGHT, FACTORY MUTUAL APPROVED, UL LISTED	1
	HOUSEKEEPING CLOSET	ORDINARY HAZARD GROUP 1	WET PIPE	0.15	1,500	130	15	60-90	250	ORDINARY	PENDENT OR UPRIGHT, QUICK RESPONSE, FACTORY MUTUAL APPROVED, UL LISTED	1

**NOTES:**

- WATER DEMAND REQUIREMENTS ARE FOR HYDRAULIC CALCULATION METHOD. IF OTHER METHOD IS USED ADJUST VALUES ACCORDING TO NFPA 13 REQUIREMENTS.

## WATER FLOW TEST DATA

TEST DATA:		
STATIC PRESSURE:	---	PSI
MEASURED FLOW:	1190	GPM
RESIDUAL PRESSURE:	50	PSI
DATE OF TEST:	10/24/2020	
RESIDUAL HYDRANT LOCATION:	---	
FLOW HYDRANT LOCATION:	Hydrant #15	

## DELEGATED DESIGN REQUIREMENTS

- THESE FIRE PROTECTION SYSTEM ENGINEERING DOCUMENTS REPRESENT THE OVERALL SCOPE, DESIGN INTENT, AND COVERAGE AREA FOR THE FIRE PROTECTION SYSTEM WITHIN THE PROJECT SCOPE. DELEGATED ENGINEER IS RESPONSIBLE FOR DESIGNING A FIRE PROTECTION SYSTEM FOR THE ENTIRE BUILDING, PERMITTED AND APPROVED PER NFPA AND BY THE AUTHORITY HAVING JURISDICTION.
- DELEGATED ENGINEER SHALL PROVIDE FIRE PROTECTION SYSTEM LAYOUT DOCUMENTS TO THE ENGINEER OF RECORD AND AUTHORITY HAVING JURISDICTION, INCLUDING THE FOLLOWING AS APPLICABLE, BUT NOT LIMITED TO:
  - SPRINKLER SYSTEM DRAWINGS, INCLUDING SPRINKLER SYSTEM LAYOUT, NODE IDENTIFICATION AND NODE SPOT ELEVATIONS.
  - HYDRAULIC CALCULATIONS AND PIPE SIZES. SIZE PIPING TO PROVIDE AN EXCESS RESIDUAL PRESSURE OF 10 PSI AT THE HYDRAULICALLY MOST DEMANDING POINT AT SYSTEM DESIGN FLOW.
  - SPRINKLER SYSTEM DESIGN, CALCULATIONS, DETAILED WORKSHEETS, WATER SUPPLY CURVE, AND SPRINKLER SYSTEM DEMAND CURVE.
  - SPRINKLER HEAD PRODUCT DATA SHEETS WITH SPECIFIC SYSTEM COMPONENTS IDENTIFIED.
  - ADDITIONAL SPRINKLER SYSTEM SPECIFICATIONS AS REQUIRED FOR COMPLIANCE WITH NFPA 13, CHAPTER 8 PLANS AND CALCULATIONS, PRIOR TO AUTOMATIC SPRINKLER SYSTEMS INSTALLATION.
  - ALL NECESSARY COMPONENTS, SYSTEMS MATERIALS, ASSEMBLIES, EQUIPMENT, AND SUPPORT SYSTEMS REQUIRED.
- FIRE SPRINKLER CONTRACTOR SHALL COORDINATE THE LOCATION OF RISERS, CROSS MAINS, BRANCH LINES, AND SPRINKLER HEADS WITH ALL OTHER TRADE SYSTEMS TO AVOID CONFLICTS AND MAINTAIN ARCHITECTURAL ELEMENTS OF THE BUILDING.
- COORDINATE SPRINKLER HEAD TYPES AND LOCATIONS WITH ARCHITECTURAL FINISHES AND OTHER CEILING MOUNTED DEVICES.

## FIRE SPRINKLER LEGEND

•	PENDENT SPRINKLER
×	UPRIGHT SPRINKLER
<	SIDEWALL SPRINKLER

## ABBREVIATIONS

(E)	EXISTING
ABF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
EXIST	EXISTING
IBC	INTERNATIONAL BUILDING CODE
IE	INVERT ELEVATION
NC	NORMALLY CLOSED
NO	NORMALLY OPEN

## FIRE PROTECTION NOTES

- MODIFY EXISTING SPRINKLER SYSTEM WITHIN THE LIMIT OF CONSTRUCTION AS INDICATED ON THE CONTRACT DRAWINGS FOR THIS PROJECT. PROVIDE TEMPORARY UPRIGHT SPRINKLER HEADS TO PROTECT SPACES WHERE CEILINGS ARE REMOVED FOR CONSTRUCTION AND UNTIL NEW CEILINGS ARE INSTALLED AND NEW DROPS TO NEW PENDENT SPRINKLERS ARE INSTALLED, UNLESS OTHERWISE INDICATED EXISTING FIRE PROTECTION SYSTEMS AND EQUIPMENT ARE TO REMAIN. REFER TO ARCHITECTURAL DRAWINGS FOR PHASING AND WALL CONSTRUCTION.
- THESE DOCUMENTS REPRESENT THE DESIGN INTENT AND COVERAGE AREA FOR THE FIRE SPRINKLER SYSTEM WITHIN THE PROJECT SCOPE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE FIRE SPRINKLER SYSTEM APPROVED PER NFPA AND BY THE AUTHORITY HAVING JURISDICTION. PROVIDE HYDRAULIC CALCULATIONS, SHOP DRAWINGS, AND ANY ADDITIONAL EQUIPMENT NECESSARY TO COMPLETE THE INSTALLATION AND COMPLY WITH THE SPECIFICATIONS AND ALL APPLICABLE CODES AND CRITERIA.
- ALL FIRE PROTECTION WORK SHALL MEET ALL THE REQUIREMENTS OF NFPA 13, 14, AND 101, VA FIRE PROTECTION DESIGN MANUAL, INTERNATIONAL BUILDING CODE 2018, AND APPLICABLE OSHA AND EPA REGULATIONS AND GUIDELINES. WHERE CONFLICTS BETWEEN CODE AND CONSTRUCTION DOCUMENTS OCCUR, THE MOST RESTRICTIVE REQUIREMENTS SHALL GOVERN.
- THE CONTRACTOR SHALL SUBMIT A SEPARATE PERMIT APPLICATION AND PLANS FOR REVIEW ACCORDING TO NFPA 1 (2018 EDITION), SECTION 1.14.
- A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE SHALL BE COMPLETED IN ACCORDANCE WITH NFPA 13 AND FORWARDED TO THE OWNER'S REPRESENTATIVE.
- ALL MATERIAL SHALL BE OF APPROVED QUALITY AND THE WORK SHALL BE DONE IN A THOROUGH AND WORKMANLIKE MANNER. THE WORK, MATERIALS AND TEST SHALL BE IN ACCORDANCE WITH THE CURRENT REQUIREMENTS OF NFPA 13, LATEST EDITION.
- THE SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED THEMSELVES WITH THE PLANS AND BUILDING SITE, CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND LABOR BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED IF THEY COULD HAVE BEEN FORESEEN HAD PROPER EXAMINATION BEEN MADE.
- MAINTAIN THE INTEGRITY OF ALL FIRE AND SMOKE RATED WALLS, PARTITIONS, CEILINGS, AND FLOOR ASSEMBLIES. SEAL ALL PENETRATIONS THROUGH RATED ASSEMBLIES WITH FIRESTOP MATERIAL IN ACCORDANCE WITH UL REQUIREMENTS TO MAINTAIN THE ASSEMBLY RATING. REFER TO ARCHITECTURAL DOCUMENTS FOR LOCATIONS OF SMOKE AND/OR FIRE RATED WALLS. REFER TO PENETRATION DETAILS FOR FIRE PROTECTION PIPING PENETRATIONS THROUGH RATED ASSEMBLIES.
- THE SPACING AND SIZES OF SPRINKLERS AND PIPES SHALL CONFORM TO THE REQUIREMENTS OF NFPA 13. SPRINKLERS SHALL BE INSTALLED BY PERSONNEL WHO HAVE ENGINEERING FACILITIES AND EXPERIENCE IN SUCH WORK AND WHO ARE REGULARLY EMPLOYED TO DO SUCH WORK.
- FIRE SPRINKLER CONTRACTOR SHALL COORDINATE THE LOCATION OF RISERS, CROSS MAINS, BRANCH LINES, AND SPRINKLER HEADS WITH ALL OTHER TRADE SYSTEMS TO AVOID CONFLICTS AND MAINTAIN ARCHITECTURAL ELEMENTS OF THE BUILDING. CONTRACTOR TO PROVIDE COORDINATION DRAWING TO COR PRIOR TO CONSTRUCTION.
- PIPE HANGERS SHALL BE SPACED AND LOCATED ACCORDING TO NFPA 13.
- ALL BRANCH LINES SERVING ONE SPRINKLER SHALL BE 1" MINIMUM, UNLESS OTHERWISE NOTED.
- INSTALL ALL SPRINKLERS ACCORDING TO THEIR LISTINGS, SPACING, AND OBSTRUCTION REQUIREMENTS.
- COORDINATE SPRINKLER HEAD TYPES AND LOCATIONS WITH ARCHITECTURAL FINISHES, CEILING, LIGHTING, DUCTS, PIPING, OTHER CEILING MOUNTED DEVICES, AND STRUCTURAL COMPONENTS.
- LIGHT FIXTURES AND HVAC DIFFUSERS TAKE PRECEDENCE. ADD ADDITIONAL SPRINKLERS AT NO ADDITIONAL COST AND AS NECESSARY TO MEET COVERAGE REQUIREMENTS IN ACCORDANCE WITH NFPA 13.
- INSTALL SPRINKLERS IN THE CENTER OF CEILING TILES WHEN POSSIBLE. PROVIDE RETURN BENDS AT ALL SPRINKLER LOCATIONS TO ALLOW FIELD ADJUSTMENT.
- FOR MECHANICAL ROOMS, DETERMINE THE FINAL LOCATION OF SPRINKLERS AFTER EQUIPMENT AND DUCTWORK ARE INSTALLED. PROVIDE ADDITIONAL SPRINKLERS, IF NECESSARY, TO PROVIDE ADEQUATE COVERAGE IN ACCORDANCE WITH NFPA.
- PROVIDE A UL LISTED SPRINKLER GUARD IN LOCATIONS WHERE SPRINKLERS ARE SUBJECT TO MECHANICAL DAMAGE, INCLUDING IN MECHANICAL ROOMS, ELECTRICAL ROOMS, STAIRWELL LANDINGS, ELEVATOR SHAFTS, AND ON ALL SPRINKLERS INSTALLED BELOW 7'-0" AFF.
- PIPING: SPRINKLER PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE AND FITTINGS CONFORMING TO ASTM A53. MINIMUM SIZE IS ONE (1") INCH. SCHEDULE 10 MAY BE USED FOR 2 1/2" AND LARGER. DO NOT THREAD THINWALL PIPE.
- PIPE SUPPORTS: PROVIDE HANGERS, CLAMPS, RODS AND OTHER ACCESSORIES OF AN APPROVED TYPE AND IN SUFFICIENT NUMBER TO PROPERLY SUPPORT ALL PIPING. PIPING SHALL BE SUPPORTED BY ROUND WROUGHT U-TYPE APPROVED ADJUSTABLE HANGERS.
- SPRINKLERS SHALL BE FM APPROVED QUICK RESPONSE IN ALL AREAS EXCEPT WHERE SPECIFICALLY PROHIBITED, IN COMPLIANCE WITH VA GUIDELINES AND NFPA REQUIREMENTS.
- SPRINKLERS SHALL BE 1/2" ORIFICE TYPE OF ORDINARY DEGREE RATING EXCEPT WHERE EXCESSIVE TEMPERATURES ARE ANTICIPATED. IN THESE LOCATIONS PROVIDE HIGH TEMPERATURE SPRINKLERS INSTALLED IN ACCORDANCE WITH NFPA 13. PROVIDE QUICK RESPONSE SPRINKLERS IN LIGHT HAZARD AREAS.
- PROVIDE AND MAINTAIN A MINIMUM OF 18 INCHES CLEARANCE BETWEEN THE BOTTOM OF THE SPRINKLER DEFLECTOR AND THE TOP OF STORAGE, FILES, ETC.
- PAINT ALL EXPOSED FIRE SPRINKLER PIPING RED.

## DEDUCTIVE ALTERNATE NOTES

- (DEDUCTIVE ALTERNATES ARE CASCADING AND MUST BE EXERCISED IN THE ORDER PRESENTED) FOR A DETAILED DESCRIPTION OF EACH DEDUCTIVE ALTERNATE REFER TO COVER SHEET ON G1000
- DEDUCTIVE ALTERNATE #2: ELIMINATE TUNNEL (EAST LEG).

## DRAWING INDEX - FIRE PROTECTION

F-001	FIRE PROTECTION LEGENDS & NOTES
FS100	FIRE PROTECTION SITE PLAN
FP101	FIRE PROTECTION OVERALL FLOOR PLAN - LEVEL 1
FP101A	FIRE SPRINKLER FLOOR PLAN - LEVEL 1 - AREA A
FP101B	FIRE SPRINKLER FLOOR PLAN - LEVEL 1 - AREA B
FP102	FIRE SPRINKLER OVERALL FLOOR PLAN - PENTHOUSE
FH101A	FIRE PROTECTION HAZARD PLAN - LEVEL 1 - AREA A
FH101B	FIRE PROTECTION HAZARD PLAN - LEVEL 1 - AREA B

## CONSULTANT

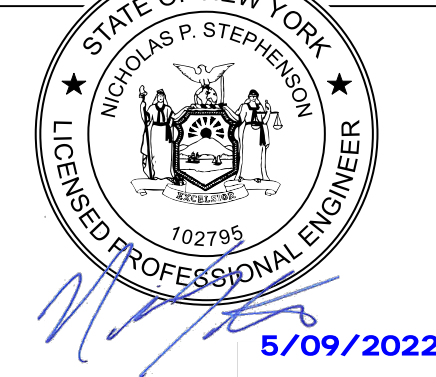
<b>NORRIS DESIGN</b> Landscape Architect 416 North Toole Avenue Tucson, AZ 85701 (520) 622-9565 Josh Orth, PLA	<b>HINMAN</b> Protective Design Specialist 240 West 35th St, Suite 1004 New York, NY 10001 (212) 967-4890 Corrine Tan, SE	<b>C.S. Davidson, Inc.</b> Structural 315 West James Street, Suite 102 Lancaster, PA 17603 (717) 481-2991 Jason Vannoy, SE, PE	<b>MES GROUP</b> MEP 550 North Rex Street, Suite 203 Tampa, FL 33609 (813) 289-4700 Nicholas Stephenson, PE
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## ARCHITECT/ENGINEER OF RECORD

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Syracuse, NY 13202  
(315) 484-5958  
Mat Perkins



## STAMP



Office of  
Construction  
and Facilities  
Management



Drawing Title  
FIRE PROTECTION LEGENDS & NOTES

Approved:

Phase  
ISSUED FOR  
CONSTRUCTION

FULLY SPRINKLERED

Project Title  
NEW COMMUNITY LIVING  
CENTER

Location  
2094 Albany Post Road, Montrose, NY 10548

Issue Date  
05/09/2022

Checked  
CJF/NPS

Drawn  
NS

Project Number  
620-334

Building Number  
CLC

Drawing Number  
F-001