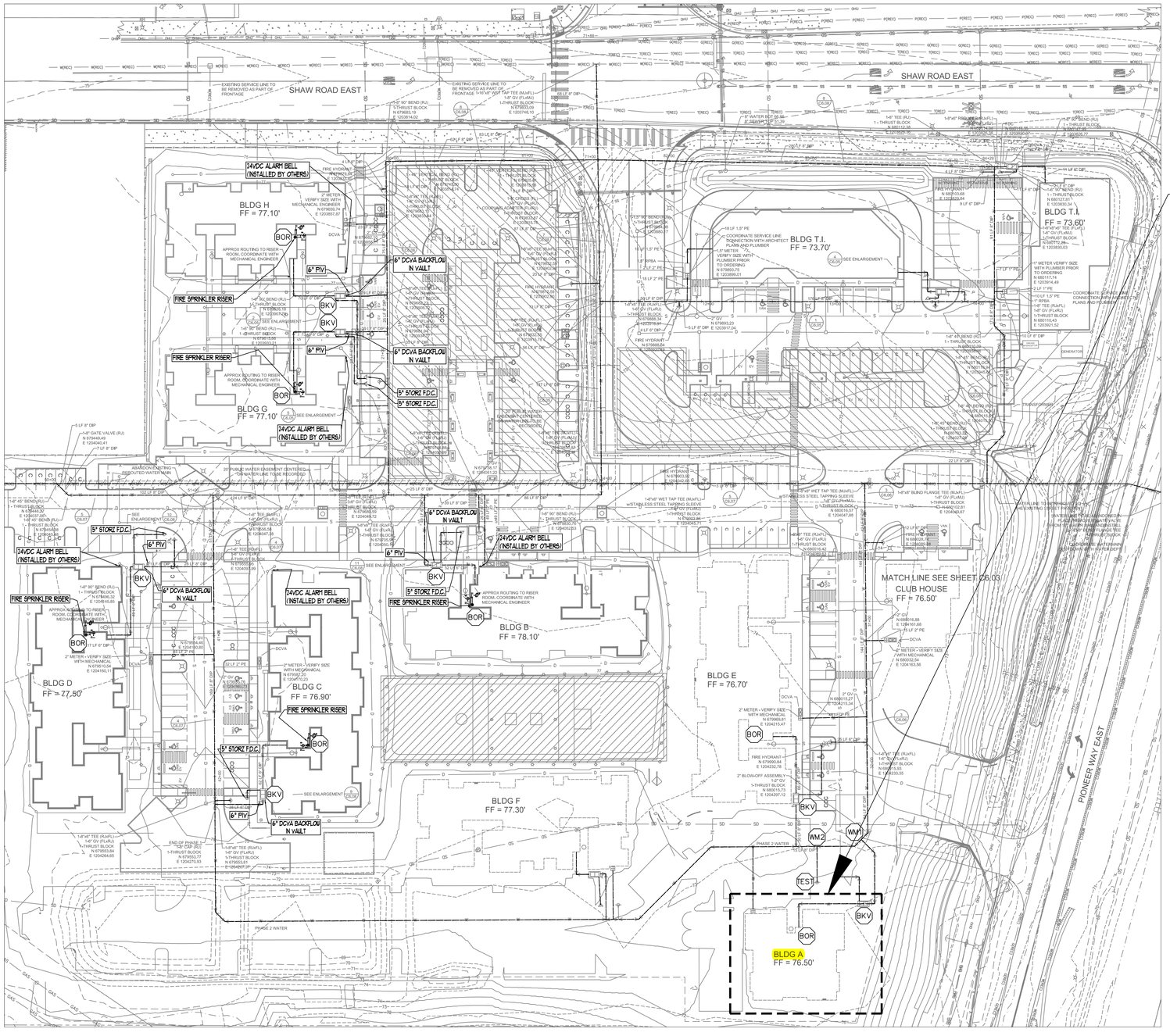
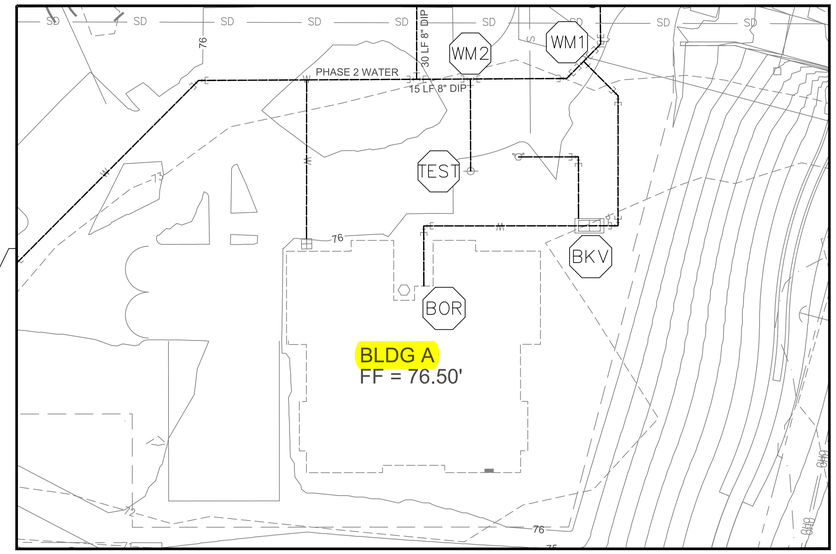


SITE PLAN
SCALE: 1" = 40'-0"

0 20' 40' 80'



BUILDING-A SITE PLAN
SCALE: 1" = 20'-0"

0 10' 20' 40'

PROJECT NORTH

VICINITY MAP
SCALE: NTS

PROJECT NORTH

FLOW TEST INFORMATION

STATIC	40 PSI
RESIDUAL	25 PSI
FLOWING	1560 GPM
LOCATION	AT SITE
BY WHO	CITY OF PUYALLUP WATER DIVISON

City of Puyallup Development & Permitting Services ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

City of Puyallup Fire REVIEWED FOR COMPLIANCE
DDrake
09/05/2025
1:55:32 PM

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

SPRINKLER HEAD SCHEDULE

SYMBOL	COUNT	THREAD	K-FACTOR	DESCRIPTION	NOTE
⦿	96	1/2"	4.9	HEAD1= VIKING VK468 WHITE RESIDENTIAL RECESSED PENDENT 175°F.	on Drop
◀	29	1"	5.6	SIDE1= VIKING VK178 QR CHROME DRY HORIZONTAL SIDEWALL 200°F.	
125 = TOTAL NUMBER OF HEADS BUILDING A					

PROJECT: EAST TOWN CROSSING BUILDING A
ADDRESS: 2902 E PIONEER
CITY: PUYALLUP, WA 98372
TITLE: FIRE SPRINKLER SITE PLAN DRAWING

SPRINX FIRE PROTECTION
A Fire Sprinkler Contractor Cont. Lic. # SPRINFP01
2709 JAHN AVE. NW, SUITE H2, Gig Harbor, WA. 98335-1735, Phone 253.853.7980, Fax 253.853.3898, EST. 1999

Date: 12/03/2024 Drawn: AJP Page 1 of 4

REVISIONS		
DATE	DESCRIPTION	BY

GENERAL: R & R CONSTRUCTION CONSULTING LLC
ADDRESS: 7809 PACIFIC AVE
CITY: TACOMA, WA 98408
SUPER.: ADAM RAYGOR
JOB PHONE #: 253-961-9976

NAME: CITY OF PUYALLUP FIELD INSPECTIONS
PHONE #: (253) 864-4165

STANDARD SYMBOLS

	Pipe Coupling
	Pipe Drop
	Pipe Rise
	Pipe End Cap
	2-WAY EARTHQUAKE BRACE
	4-WAY EARTHQUAKE BRACE
	PIPE HANGER
[x ea]	Hydraulic Reference Points
[x ea]	Elev. Below Top of Steel
[x ea]	Elev. Above Finished Floor Ceiling Height

WA. STATE LEVEL 3 STAMP

Expires DEC 31, 25
WASHINGTON STATE CERTIFICATE OF COMPETENCY FIRE SPRINKLER SYSTEMS
Joseph G. Faulkner
9491-0699-CEG Level 3
Sprinx Fire Protection, Inc.
SPRINFP011LS
Signature Date 09/25/2025

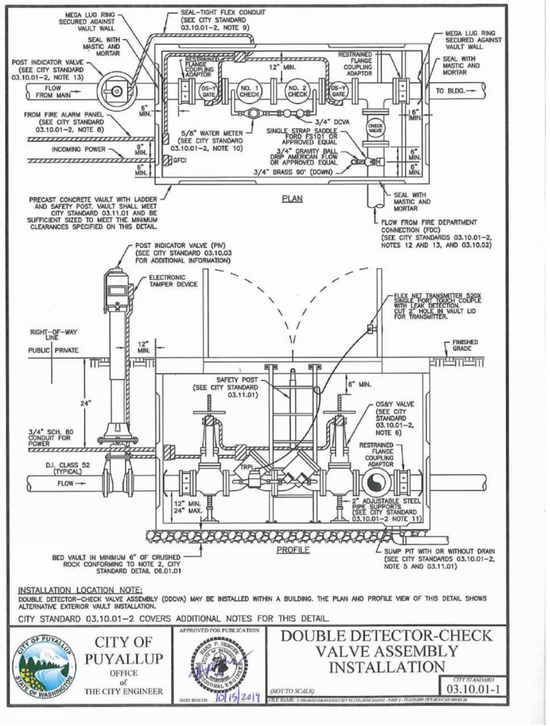
N
SCALE: 1" = 40'-0"

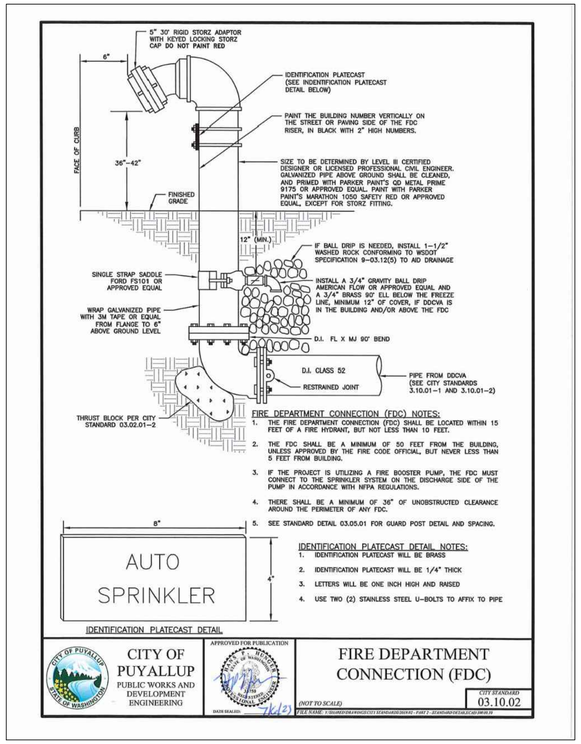
Project No. 24-093CM

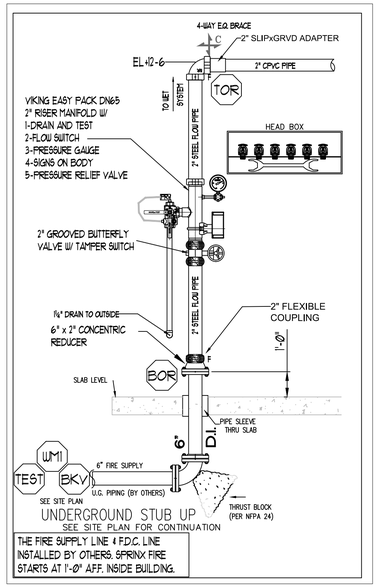
Sheet Title: SITE PLAN

Sheet Number: FP-1.0

File Name: ETC SITE PLAN.dwg



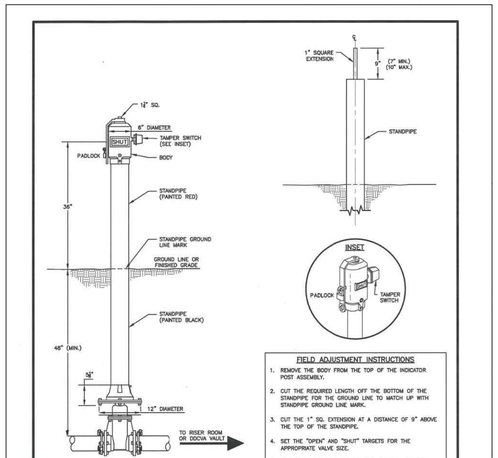




City of Puyallup Development & Permitting Services ISSUED PERMIT	
Building	Planning
Engineering	Public Works
Fire	Traffic

UNDERGROUND NOTES:

1) ALL UNDERGROUND BY OTHERS. CONTRACTOR TO BE STATE LICENSED AND CERTIFIED TO INSTALL UNDERGROUND PIPING PER WAC 212-80.
2) PIPE TYPE AND CLASS TO MEET LOCAL JURISDICTION APPROVAL.
3) ALL UNDERGROUND PIPING SHALL HAVE A MINIMUM 3'-0" BURY.
4) ALL UNDERGROUND PIPING SHALL BE U.L. LISTED AND/OR FM APPROVED FOR FIRE PROTECTION.
5) ALL UNDERGROUND PIPING SHALL BE RODDED AND/OR BLOCKED IN ACCORDANCE WITH THE SPECIFICATIONS AND NFPA 24.
6) ALL UNDERGROUND PIPING SHALL BE HYDROSTATICALLY TESTED AT NOT LESS THAN 200 PSI FOR TWO HOURS IN ACCORDANCE WITH NFPA 24.
7) ALL UNDERGROUND PIPING SHALL BE FLUSHED IN ACCORDANCE WITH NFPA 24. FLOW THE REQUIRED RATE UNTIL WATER IS CLEAR AS INDICATED BY NO COLLECTION OF FOREIGN MATERIAL IN BURLAP BAGS AT OUTLETS.
   4" - 390 GPM 10" - 2,400 GPM
   6" - 880 GPM 12" - 3,520 GPM
   8" - 1,560 GPM
8) ALL UNDERGROUND INSTALLATION AND TESTING TO BE WITNESSED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
9) WHERE PIPES PASSES THROUGH HOLES IN FOUNDATIONS, WALLS, OR FLOORS, THE HOLES OR SLEEVE SHALL BE SIZED 4 IN. LARGER THAN THE SUPPLY PIPE SIZE ON PIPES SIZED 4" OR LARGER.



STANDARD POST INDICATOR VALVE

CITY OF PUYALLUP
OFFICE of THE CITY ENGINEER
APPROVED FOR PUBLICATION
DATE SIGNED 2/5/2018
POST INDICATOR VALVE
(NOT TO SCALE)
CITY STANDARD 03.10.03

SPRINKLER HEAD SCHEDULE					
SYMBOL	COUNT	THREAD	K-FACTOR	DESCRIPTION	NOTE
⊙	96	1/2"	4.9	HEAD1= VIKING VK468 WHITE RESIDENTIAL RECESSED PENDENT 175°F.	on Drop
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125 = TOTAL NUMBER OF HEADS BUILDING A					

PROJECT: EAST TOWN CROSSING BUILDING A
ADDRESS: 2902 E PIONEER
CITY: PUYALLUP, WA 98372
TITLE: SITE DETAILS

SPRINX FIRE PROTECTION
A Fire Sprinkler Corporation
Cont. Lic. # SPRINFP01
2709 JAHN AVE. NW, SUITE H2
Gig Harbor, WA. 98335-1735
Phone 253.853.7980
Fax 253.853.0898
EST. 1999

Date: 12/03/2024 Drawn: AJP Page 2 of 4

REVISIONS

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	Pipe Drop
	Pipe Rise
	Pipe End Cap
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	4-WAY EARTHQUAKE BRACE
	PIPE HANGER
	Hydraulic Reference Points
[el ing]	Elev. Below Top of Steel
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CH	Ceiling Height

WA. STATE LEVEL 3 STAMP

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Signature
Date 07/25/2025

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

Project No. 24-093CM

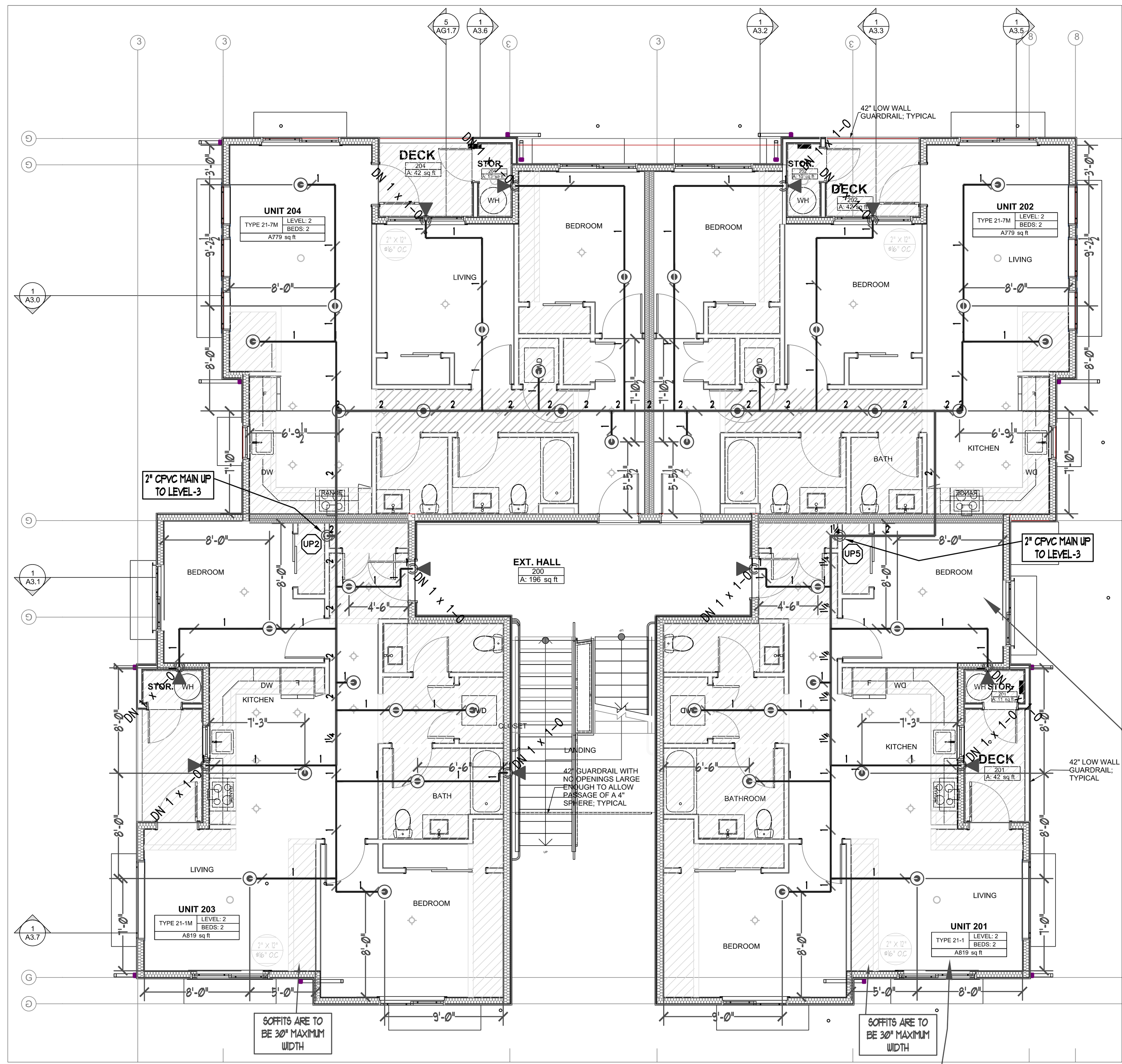
Sheet Title: DETAILS

Sheet Number: FP-1.1

File Name: ETC SITE PLAN.dwg

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic



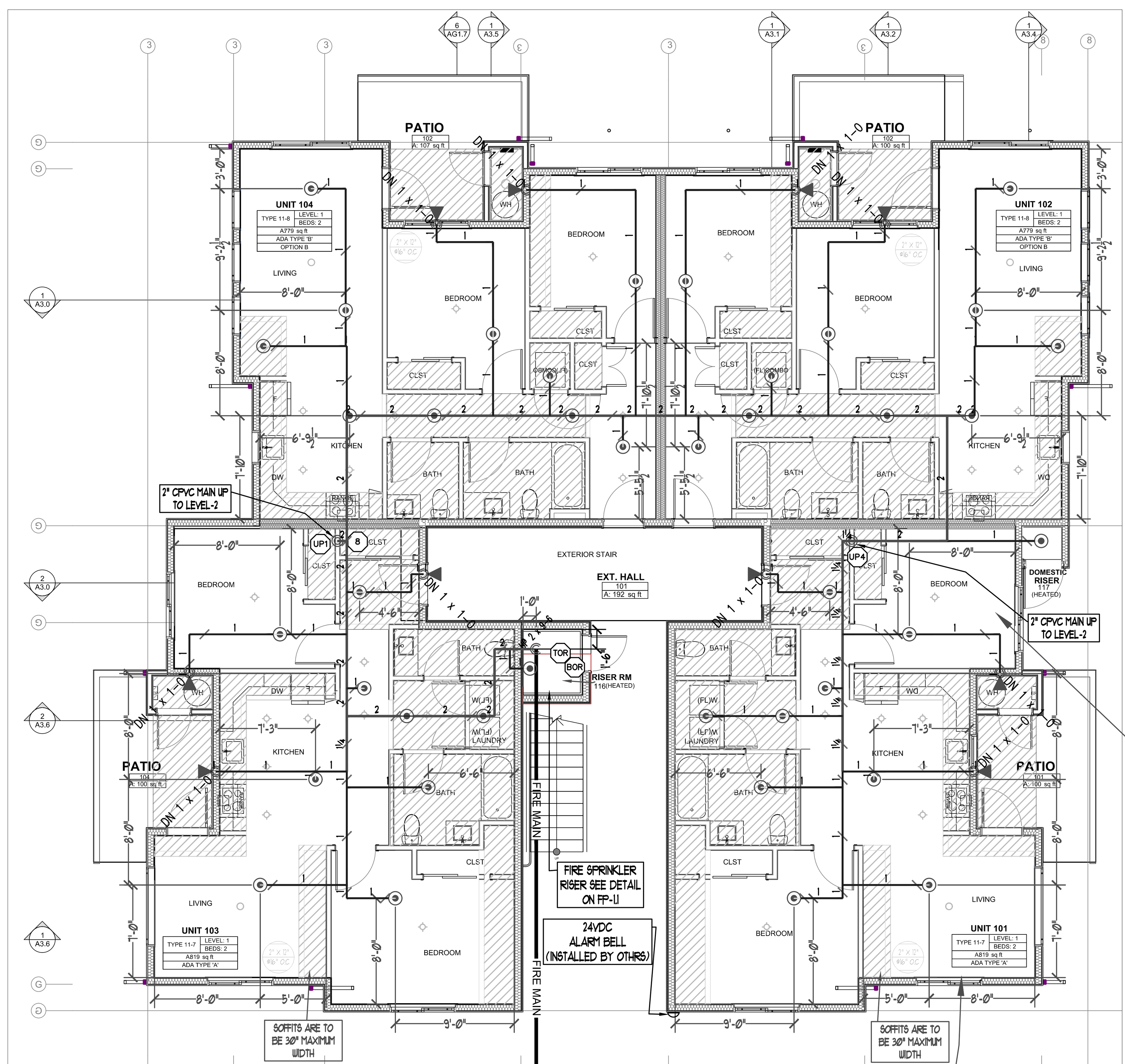
LEVEL-2 FIRE SPRINKLER PLAN

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

PROJECT NORTH

CONTRACTOR TO POSITION 2-4 LIGHTS IN ALL BEDROOMS OFF CENTER BY MINIMUM OF 3'-0" TO ALLOW PROPER CLEARANCES TO FIRE SPRINKLERS.

CONTRACTOR TO POSITION ALL COMMON SPACE LIGHTING IN ACCORDANCE WITH NFPA 13



LEVEL-1 FIRE SPRINKLER PLAN

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

PROJECT NORTH

DROPPED CEILING

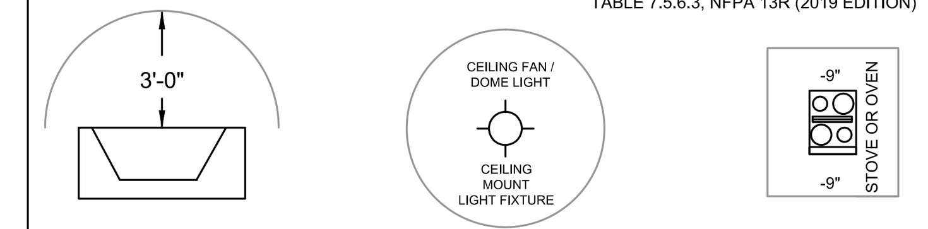
CONTRACTOR TO POSITION 2-4 LIGHTS IN ALL BEDROOMS OFF CENTER BY MINIMUM OF 3'-0" TO ALLOW PROPER CLEARANCES TO FIRE SPRINKLERS.

CONTRACTOR TO POSITION ALL COMMON SPACE LIGHTING IN ACCORDANCE WITH NFPA 13

MINIMUM DISTANCES FROM HEAT SOURCES	Minimum Distance from Edge of. Source to Ordinary Temp Sprinkler	Minimum Distance from Edge of Source to Intermediate Temp Sprinkler
SIDE OF OPEN OR RECESSED FIREPLACE	36"	12"
FRONT OF RECESSED FIREPLACE	60"	36"
COAL-OR WOOD-BURNING STOVE	42"	12"
KITCHEN RANGE	18"	9"
WALL OVEN	18"	9"
HOT AIR FLUES	18"	9"
UNINSULATED HEAT DUCTS	18"	9"
UNINSULATED HOT WATER PIPES	12"	6"
SIDE OF CEILING OR WALL MOUNTED HOT AIR DIFFUSERS	24"	12"
FRONT OF WALL-MOUNTED HOT AIR DIFFUSERS	36"	18"
HOT WATER HEATER OR FURNACE	6"	3"
LIGHT FIXTURE		
0W - 250W	6"	3"
250W - 499W	12"	6"

SPRINKLER HEAD DISTANCES FROM HEAT SOURCE

TABLE 7.5.6.3, NFPA 13R (2019 EDITION)



NOTE: SPRINKLER HEADS TO MAINTAIN A MINIMUM DISTANCE OF 3'-0 FROM FIREPLACE(S).

NOTE: SPRINKLER HEADS TO MAINTAIN A MINIMUM DISTANCE OF 3'-0 FROM DOMED LIGHTING, CEILING FANS OR SIMILAR OBSTRUCTIONS.

NOTE: SPRINKLER HEADS TO MAINTAIN A MINIMUM DISTANCE OF 9" FROM THE FACE OF HEAT SOURCE.

RESIDENTIAL PENDENT SPRINKLER OBSTRUCTION

DISTANCE FROM SRPINKLERS TO SIDE OF OBSTRUCTION	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION
LESS THAN 1 FOOT	0
1 FT TO LESS THAN 1 FT 6 IN.	0
1 FT 6 IN. TO LESS THAN 2 FT	1
2 FT TO LESS THAN 2 FT 6 IN	1
2 FT 6 IN TO LESS THAN 3 FT	1
3 FT TO LESS THAN 3 FT 6 IN	3
3FT 6 IN TO LESS THAN 4 FT	3
4 FT TO LESS THAN 4 FT 6 IN	5
4 FT 6 IN TO LESS THAN 5 FT	7
5 FT TO LESS THAN 5 FT 6IN	7
5FT 6 IN TO LESS THAN 6 FT	7
6FT TO LESS THAN 6 FT 6IN	9
6 FT 6IN TO LESS THAN 7 FT	11
7 FT OR GREATER	14

Note:Minimum Cure Prior To Pressure Testing (200 PSI)

	Ambient Temperature During Cure Period		
Pipe Size	60 TO 120 Deg. F	40 TO 59 Deg. F	0 TO 39 Deg. F
3/4"	45 MINUTES	1 1/2 HOURS	24 HOURS
1"	45 MINUTES	1 1/2 HOURS	24 HOURS
1 1/4" & 1 1/2"	1 1/2 HOURS	16 HOURS	120 HOURS
2"	6 HOURS	36 HOURS	*
2 1/2" & 3"	8 HOURS	72 HOURS	*

* Solvent Cement can be applied at a temperature below 40 deg. F for 2" and larger, however the the temperature of the system must be raised to 40 deg. F or higher and allowed to cure per the aboved recommendations prior to pressure testing. When bringing cement, pipe or fittings in from the outside, be certain they are brought up to room temperature before using the 60 to 120 deg. F cure schedule.

CPVCCURE.DWG

SCOPE OF WORK

INSTALL AUTOMATIC WET FIRE SPRINKLER SYSTEM FOR MULTI FAMILY DWELLING IN ACCORDANCE WITH NFPA 13R 2019 EDITION AND LOCAL AUTHORITY.

GENERAL NOTES

1. ALL PIPING AND SPRINKLERS SHALL BE U.L. LISTED AND/OR F.M. APPROVED. AND SHALL BE NEW AND FREE OF DEFECTS.
2. HANGER TYPES AND SPACING SHALL BE INSTALLED PER NFPA 13R AND MANUFACTURER'S LISTING.
3. SPRINKLER LOCATIONS AND SPACING PER NFPA 13R AND MANUFACTURERS LISTING.
4. ANY AND ALL ALARM SYSTEM WIRING AND INSTALLATION IS BY OTHERS.
5. ALL DRILLING AND BORING OF HOLES SHALL BE DONE IN STRICT ACCORDANCE WITH THE STRUCTURAL ENGINEER'S REQUIREMENTS. DO NOT UNDER ANY CIRCUMSTANCES CUT OR MODIFY PRE-MANUFACTURED TRUSSES.
6. INSTALLER SHALL VERIFY FINISH CEILING ELEVATION, OBSTRUCTIONS, LIGHT FIXTURES, CABINETS, ETC PRIOR TO INSTALLATION OF SPRINKLER HEADS.
7. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRE STOPPED. FIRE STOPPING MATERIAL SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTION BY OTHERS.
8. SPRINKLER PIPE SIZING HAS BEEN ESTABLISHED BY HYDRAULIC CALCULATIONS.
9. IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE A RELIABLE WATER SUPPLY THAT IS CAPABLE OF MEETING THE MOST DEMANDING AREA.

PROJECT DETAILS

NFPA CODE: 13R 2019
SYSTEM TYPE: WET SYSTEM
PIPE TYPE: BLAZEMASTER CPVC
MAX SPRINKLER SPACING REQUIREMENTS: 16'x16' @13 GPM, 18'x18' @17 GPM (1 HEAD RM.)
MINIMUM SPRINKLER SPACING: 8' BETWEEN SPRINKLERS
MINIMUM DESIGN DENSITY: 0.05 GPM/SQ.FT.

NFPA & AHJ REQUIREMENTS

1. THE DESIGN DISCHARGE SHALL BE ALL OF THE SPRINKLERS WITHIN A SINGLE COMPARTMENT, UP TO A MAXIMUM OF FOUR SPRINKLERS, THAT REQUIRE THE GREATEST HYDRAULIC DEMAND.
2. SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS OF 55 SQ. FT. AND LESS.
3. SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES THAT DO NOT EXCEED 24 SQ. FT. AND HAVE WALLS AND CEILINGS SURFACED WITH NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIALS.
4. SPRINKLERS SHALL NOT BE REQUIRED IN ATTICS OR CRAWLSPACES.
5. SPRINKLER HEADS SHALL BE AT LEAST 3 FT. AWAY FROM CEILING FANS AND SURFACE MOUNTED LIGHT FIXTURES.
6. ALL SPRINKLERS SHALL MAINTAIN THE MINIMUM REQUIRED DISTANCES FROM HEAT SOURCES IN ACCORDANCE WITH NFPA 13R.
7. SPRINKLER HEADS UNDER SLOPE CEILINGS TO BE MEASURED ALONG THE SLOPE.

CPVC FIRE SPRINKLER PIPE GUIDELINES

INSTALLING CONTRACTOR TO PROVIDE AN INSTALLATION THAT IS IN 100% COMPLIANCE WITH THESE GUIDELINES. RESIDENTIAL DESIGN CANNOT BE RESPONSIBLE FOR THE WILLFUL OR NEGLIGENT ACTIONS OF OTHER PARTIES THAT DO NOT FOLLOW THE BELOW GUIDELINES.

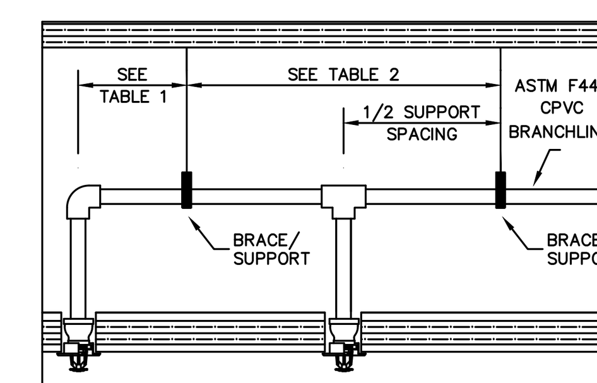
THESE GUIDELINES ARE:

- DO NOT STACK, SUPPORT, HANG EQUIPMENT, OR HANG FLEXIBLE WIRE/CABLE, ESPECIALLY COMMUNICATIONS CABLE, OR OTHER MATERIAL ON THE FIRE SPRINKLER
- DO NOT EXPOSE CPVC PRODUCTS TO INCOMPATIBLE SUBSTANCES, SUCH AS CUTTING OILS, NON-WATER-BASED PAINTS, PACKING OILS, TRADITIONAL PIPE THREAD PASTE AND DOPE, FUNGICIDES, TERMITICIDES, INSECTICIDES, DETERGENTS, BULKING CAULKING, ADHESIVE TAPE, SOLDER FLUX, FLEXIBLE WIRE/CABLE (WITH SPECIAL CONSIDERATION FOR COMMUNICATIONS CABLING), AND NON-APPROVED SPRAY FOAM INSULATION MATERIALS.
- DO NOT EXPOSE CPVC PRODUCTS TO EDIBLE OILS, SOLVENTS, OR GLYCOL-BASED ANTI-FREEZE FLUIDS.
- DO NOT EXPOSE CPVC PRODUCTS TO OPEN FLAME, SOLDER, AND SOLDERING FLUX.
- DO NOT DROP, DISTORT, OR IMPACT CPVC PRODUCTS OR ALLOW OBJECTS TO BE DROPPED ON THEM.
- DO NOT HANDLE CPVC PRODUCTS WITH GLOVES CONTAMINATED WITH OILS (HYDROCARBONS) OR OTHER INCOMPATIBLE MATERIALS.
- DO NOT INJECT SYSTEM WITH M.I.C. INHIBITORS UNLESS THEY ARE LISTED IN COMBINATION WITH THIS SYSTEM.

FAILURE TO FOLLOW THIS NOTICE MAY CAUSE CRACKS OR FRACTURES TO DEVELOP IN CPVC PRODUCTS RESULTING IN PROPERTY DAMAGE DUE TO LEAKS OR FLOODING. THE PRESENCE OF ANY VISIBLE CRACKS MAY REQUIRE PARTIAL OR FULL SYSTEM REPLACEMENT.

FREEZE PROTECTION

THIS SYSTEM IS A WET SYSTEM, PRECAUTION MUST BE TAKEN TO PROTECT THE PIPING FROM EXTREME FREEZING TEMPERATURES. IT IS THE RESPONSIBILITY OF THE OWNER AND INSULATION INSTALLER TO ENSURE SUFFICIENT INSULATION IS PROVIDED AND INSTALLED CORRECTLY TO MAINTAIN ALL PIPING AT 40 DEG MINIMUM IN ALL AREAS. THE METHOD TO ACHIEVE THIS CONTROL OF TEMPERATURE SHALL BE IN ACCORDANCE WITH NFPA 13R. DESIGNER AND ENGINEER OF RECORD WILL NOT BE RESPONSIBLE FOR ANY FREEZING PIPE OR DAMAGE CAUSED BY FREEZING PIPING.



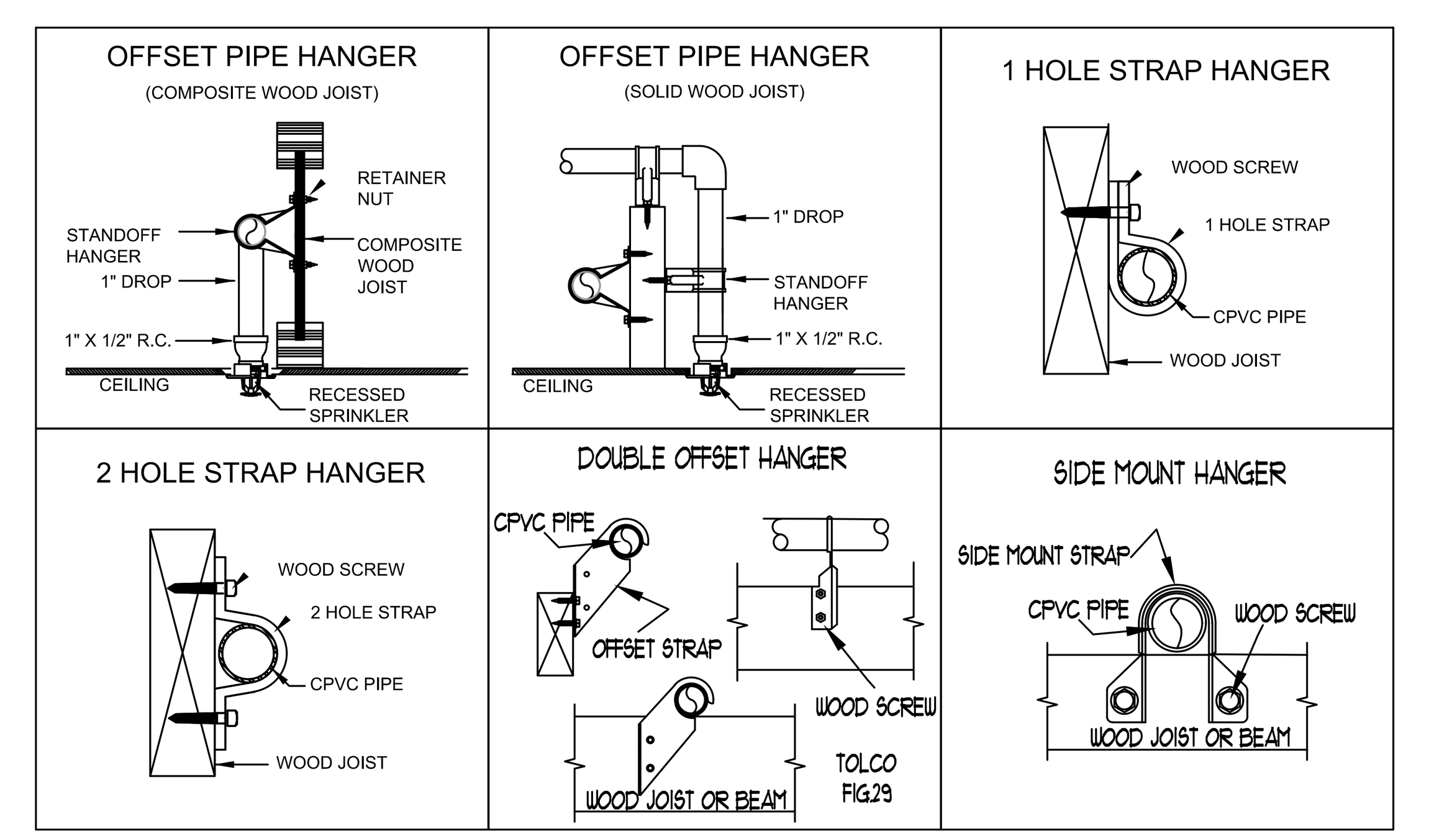
CPVC HANGER SCHEDULE AND DETAIL

TABLE 1
MAXIMUM SUPPORT SPACING DISTANCE
END LINE SPRINKLER HEAD DROP ELBOW

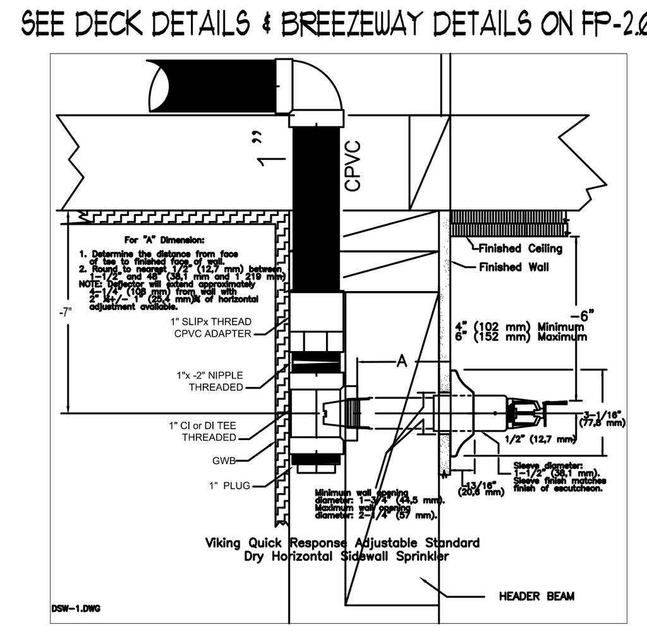
PIPE SIZE inches	SYSTEM PRESSURE < 100 psi	SYSTEM PRESSURE > 100 psi
3/4"	9"	6"
1"	12"	9"
1¼"	16"	12"
1½"-3"	24"	12"

TABLE 2
SDR 13.5 (ASTM F442)
HANGER SPACING

NOMINAL SIZE inches	(mm)	MAX SPACING feet	(m)
3/4"	(20.0)	5.5'	(1.7)
1"	(25.0)	6.0'	(1.8)
1-1/4"	(32.0)	6.5'	(2.0)
1-1/2"	(40.0)	7.0'	(2.1)
2"	(50.0)	8.0'	(2.4)
2-1/2"	(65.0)	9.0'	(2.7)
3"	(80.0)	10.0'	(3.0)



* DO NOT STUB DOWN DSW'S ON LEVELS 1&2
SEE DECK DETAILS & BREEZEWAY DETAILS ON FP-2.0



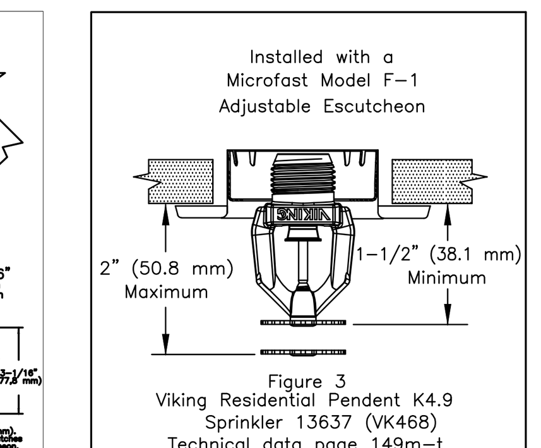


Figure 3
Viking Residential Pendent K4.9 Sprinkler 13637 (VK468)
Technical data page 149m-t

VIKING VK-468
RESIDENTIAL RECESSED PENDENT

SPRINKLER HEAD SCHEDULE

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125 = TOTAL NUMBER OF HEADS BUILDING A					

PROJECT: EAST TOWN CROSSING BUILDING A
ADDRESS: 2902 E PIONEER
CITY: PUYALLUP, WA 98372
TITLE: FIRE SPRINKLER LEVELS 1 & 2 DRAWING

SPRINX FIRE PROTECTION EST. 1999
A Fire Sprinkler Corporation
Cont. Lic. # SPRINFP01
2709 JAHN AVE, NW, SUITE H2
Gig Harbor, WA. 98335-1735
Phone 253.853.7780
Fax 253.853.5890

Date: 8/20/2025 Drawn: AJP

REVISIONS		
DATE	DESCRIPTION	BY

GENERAL: MKM LEGACY LLC
ADDRESS: 7809 PACIFIC AVE
CITY: TACOMA, WA 98408
SUPER.: ADAM RAYGOR
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WA. STATE LEVEL 3 STAMP

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Signature 08/25/2025 Date

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

Project No. 24-093CM

Sheet Title: BLDG-A LEVELS 1 & 2

Sheet Number: FP-2.0

File Name: ETC Building A.dwg

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
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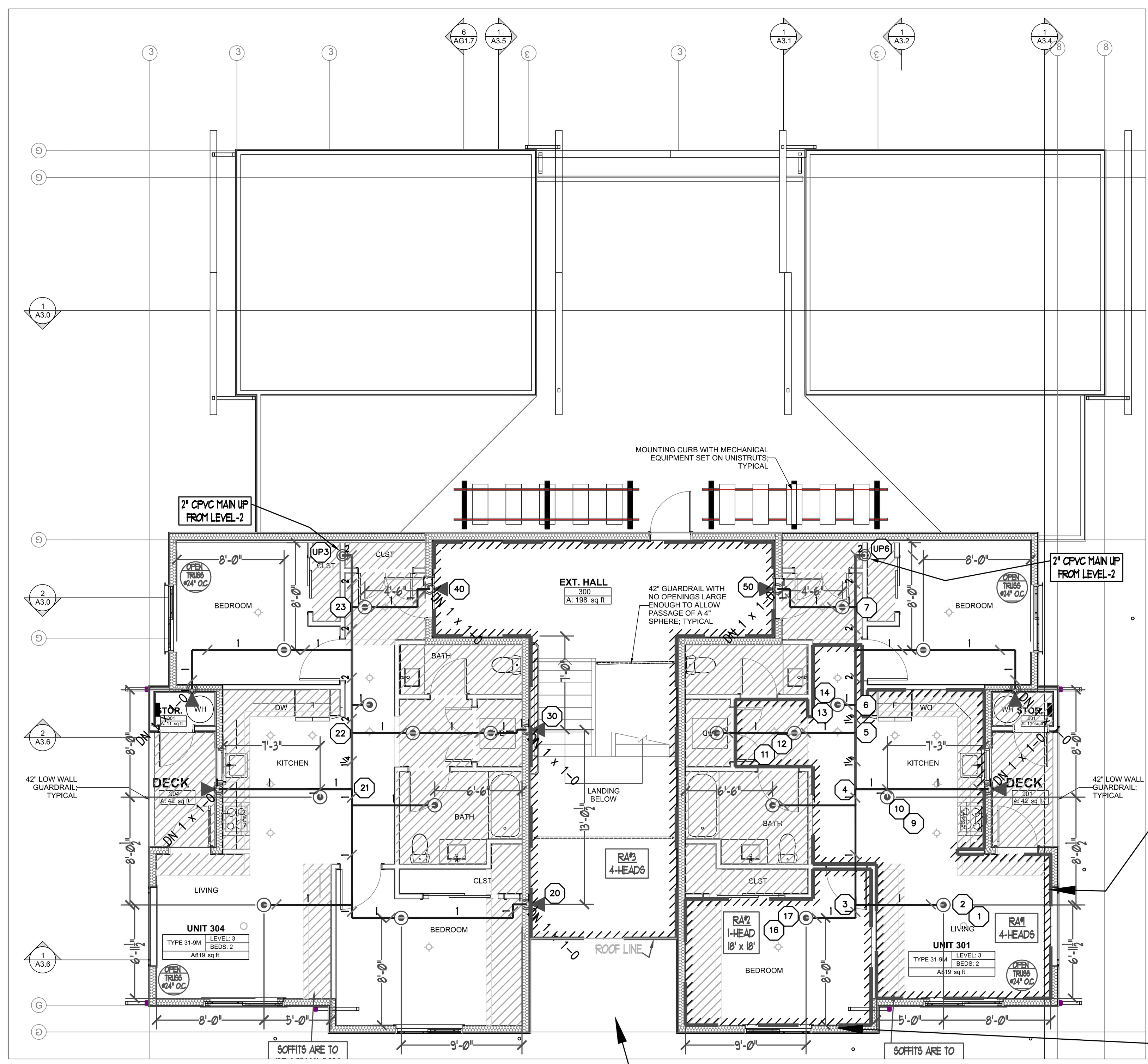


LEVEL-3 FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'-0"
PROJECT NORTH

Hydraulically Calculated System

This system as shown on SPRINX FIRE PROTECTION company print no FP-3.0 dated 8/20/2025 for REMOTE AREA 01 - LEVEL-3 UNIT 301 at ETC APTS. BUILDING-A contract no 24-093CM is designed to discharge at a rate of .05 GPM (Lmin) per sq ft (m2) of floor area over a maximum area of 16' x 16' MAX SPACING sq ft (m2) when supplied with water at the rate of 53.895 GPM (L/min) at 24.465 psi (bars) at the base of the riser Hose stream allowance of 0 GPM (L/min) is included in the above.

Occupancy Classification: NFPA-13R (2019)
Commodity Classification: N/A
Maximum Storage Height: N/A
Installed By: SPRINX FIRE PROTECTION, INC.

Hydraulic Calculation Data

Design Area Number: RA#1
Design Area Location: LEVEL-3 UNIT 301
Hazard/Occupancy: RESIDENTIAL NFPA 13R
Design Density: 0.05
Design Area: 256
Number of Sprinklers in Design Area: 4

System Flow: 53.895 @ TEST
System Pressure: 32.080 SAFETY FACTOR = 7.89 PSI @ 19.7%
Hose Allowance (Included): 0

Hydraulic Calculation Data

Design Area Number: RA#3
Design Area Location: LEVEL-3 STAIRWELL
Hazard/Occupancy: LIGHT HAZARD
Design Density: 0.10
Design Area: 273sqft
Number of Sprinklers in Design Area: 4

System Flow: 62.990
System Pressure: 33.471 SAFETY FACTOR = 6.49 PSI @ 16.2%
Hose Allowance (Included): 0

Hydraulically Calculated System

This system as shown on SPRINX FIRE PROTECTION company print no FP-3.0 dated 8/20/2025 for REMOTE AREA 03 - LEVEL-3 SOUTH STAIRWELL at ETC APTS. BUILDING-A contract no 24-093CM is designed to discharge at a rate of .10 GPM (Lmin) per sq ft (m2) of floor area over a maximum area of 4 HEAD SIDEWALL CALC sq ft (m2) when supplied with water at the rate of 62.990 GPM (L/min) at 25.966 psi (bars) at the base of the riser Hose stream allowance of 0 GPM (L/min) is included in the above.

Occupancy Classification: NFPA-13R (2019)
Commodity Classification: N/A
Maximum Storage Height: N/A
Installed By: SPRINX FIRE PROTECTION, INC.

Hydraulic Calculation Data

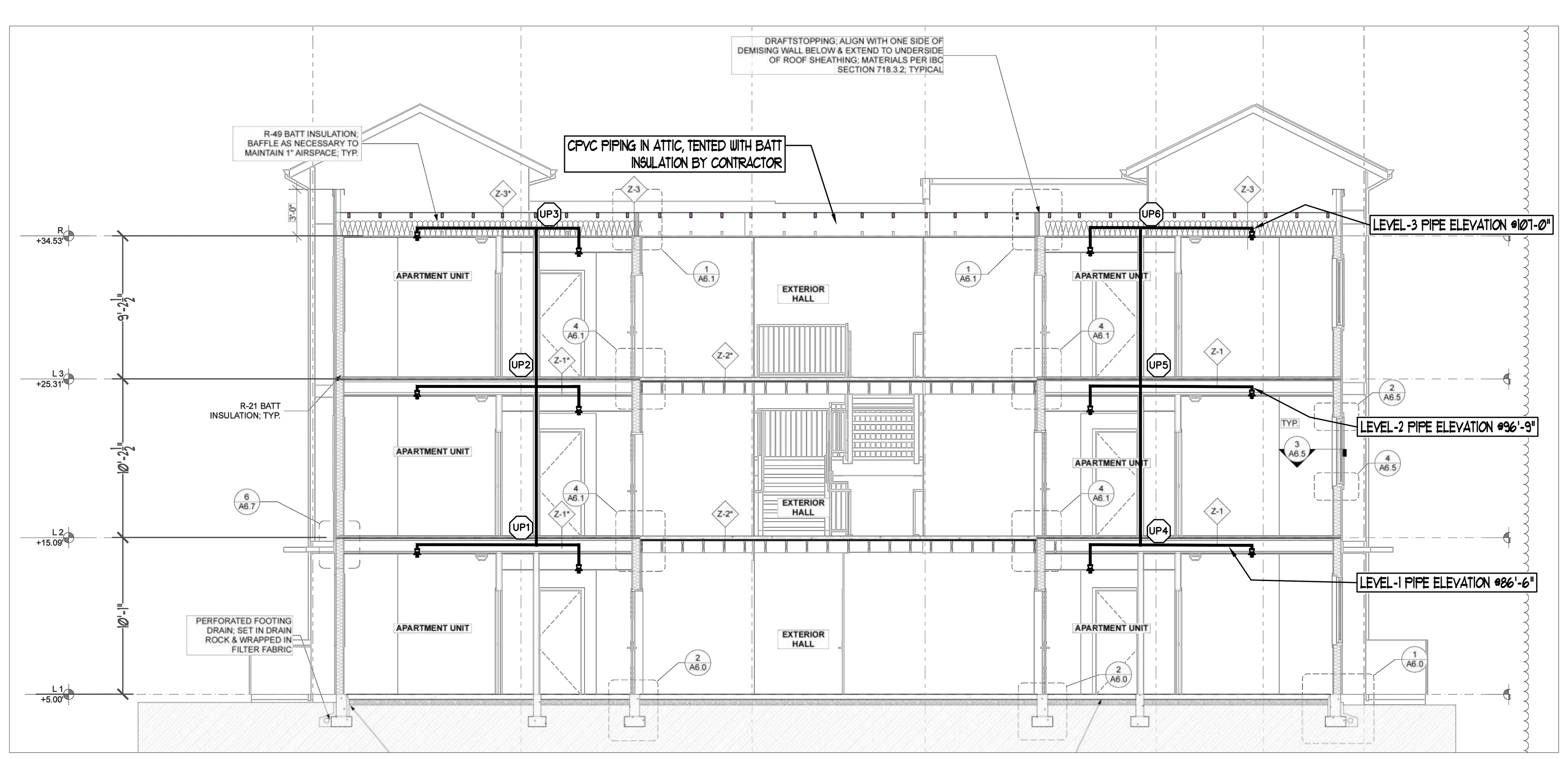
Design Area Number: RA#2
Design Area Location: LEVEL-3 UNIT 301 BEDROOM
Hazard/Occupancy: RESIDENTIAL NFPA 13R
Design Density: 0.05
Design Area: 324
Number of Sprinklers in Design Area: 1

System Flow: 17.00 @ TEST
System Pressure: 33.765 SAFETY FACTOR = 6.23 PSI @15.6%
Hose Allowance (Included): 0

Hydraulically Calculated System

This system as shown on SPRINX FIRE PROTECTION company print no FP-3.0 dated 8/20/2025 for REMOTE AREA 02 - LEVEL-3 UNIT 301 BEDROOM at ETC APTS. BUILDING-A contract no 24-093CM is designed to discharge at a rate of .05 GPM (Lmin) per sq ft (m2) of floor area over a maximum area of 18' x 18' MAX SPACING sq ft (m2) when supplied with water at the rate of 17.00 GPM (L/min) at 25.689 psi (bars) at the base of the riser Hose stream allowance of 0 GPM (L/min) is included in the above.

Occupancy Classification: NFPA-13R (2019)
Commodity Classification: N/A
Maximum Storage Height: N/A
Installed By: SPRINX FIRE PROTECTION, INC.

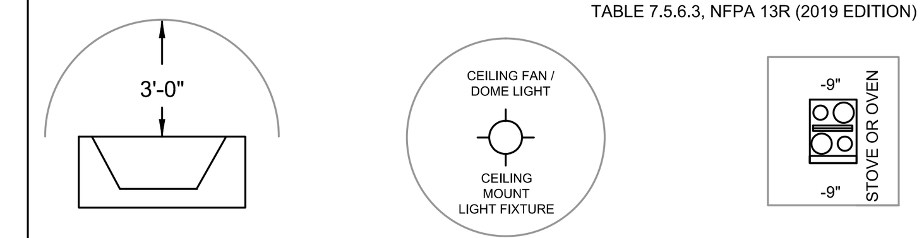


BUILDING SECTION 2
SCALE: 1/8" = 1'-0"

MINIMUM DISTANCES FROM HEAT SOURCES	Minimum Distance from Edge of Source to Ordinary Temp Sprinkler	Minimum Distance from Edge of Source to Intermediate Temp Sprinkler
SIDE OF OPEN OR RECESSED FIREPLACE	36"	12"
FRONT OF RECESSED FIREPLACE	60"	36"
COAL-OR WOOD-BURNING STOVE	42"	12"
KITCHEN RANGE	18"	9"
WALL OVEN	18"	9"
HOT AIR FLUES	18"	9"
UNINSULATED HEAT DUCTS	18"	9"
UNINSULATED HOT WATER PIPES	12"	6"
SIDE OF CEILING OR WALL MOUNTED HOT AIR DIFFUSERS	24"	12"
FRONT OF WALL-MOUNTED HOT AIR DIFFUSERS	36"	18"
HOT WATER HEATER OR FURNACE	6"	3"
LIGHT FIXTURE		
0W - 250W	6"	3"
250W - 499W	12"	6"

SPRINKLER HEAD DISTANCES FROM HEAT SOURCE

TABLE 7.5.6.3, NFPA 13R (2019 EDITION)



NOTE: SPRINKLER HEADS TO MAINTAIN A MINIMUM DISTANCE OF 3'-0 FROM FIREPLACE(S).

NOTE: SPRINKLER HEADS TO MAINTAIN A MINIMUM DISTANCE OF 3'-0 FROM DOMED LIGHTING, CEILING FANS OR SIMILAR OBSTRUCTIONS.

NOTE: SPRINKLER HEADS TO MAINTAIN A MINIMUM DISTANCE OF 9" FROM THE FACE OF HEAT SOURCE.

RESIDENTIAL PENDENT SPRINKLER OBSTRUCTION

DISTANCE FROM SRPINKLERS TO SIDE OF OBSTRUCTION	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION
LESS THAN 1 FOOT	0
1 FT TO LESS THAN 1 FT 6 IN.	0
1 FT 6 IN. TO LESS THAN 2 FT	1
2 FT TO LESS THAN 2 FT 6 IN	1
2 FT 6 IN TO LESS THAN 3 FT	1
3 FT TO LESS THAN 3 FT 6 IN	3
3FT 6 IN TO LESS THAN 4 FT	3
4 FT TO LESS THAN 4 FT 6 IN	5
4 FT 6 IN TO LESS THAN 5 FT	7
5 FT TO LESS THAN 5 FT 6IN	7
5FT 6 IN TO LESS THAN 6 FT	7
6FT TO LESS THAN 6 FT 6IN	9
6 FT 6IN TO LESS THAN 7 FT	11
7 FT OR GREATER	14

Note:Minimum Cure Prior To Pressure Testing (200 PSI)

	Ambient Temperature During Cure Period		
Pipe Size	60 TO 120 Deg. F	40 TO 59 Deg. F	0 TO 39 Deg. F
3/4"	45 MINUTES	1 1/2 HOURS	24 HOURS
1"	45 MINUTES	1 1/2 HOURS	24 HOURS
1 1/4" & 1 1/2"	1 1/2 HOURS	16 HOURS	120 HOURS
2"	6 HOURS	36 HOURS	*
2 1/2" & 3"	8 HOURS	72 HOURS	*

* Solvent Cement can be applied at a temperature below 40 deg. F for 2" and larger, however the the temperature of the system must be raised to 40 deg. F or higher and allowed to cure per the aboved recommendations prior to pressure testing. When bringing cement, pipe or fittings in from the outside, be certain they are brought up to room temperature before using the 60 to 120 deg. F cure schedule.

CPVCCURE.DWG

SCOPE OF WORK

INSTALL AUTOMATIC WET FIRE SPRINKLER SYSTEM FOR MULTI FAMILY DWELLING IN ACCORDANCE WITH NFPA 13R 2019 EDITION AND LOCAL AUTHORITY.

GENERAL NOTES

1. ALL PIPING AND SPRINKLERS SHALL BE U.L. LISTED AND/OR F.M. APPROVED. AND SHALL BE NEW AND FREE OF DEFECTS.
2. HANGER TYPES AND SPACING SHALL BE INSTALLED PER NFPA 13R AND MANUFACTURER'S LISTING.
3. SPRINKLER LOCATIONS AND SPACING PER NFPA 13R AND MANUFACTURERS LISTING.
4. ANY AND ALL ALARM SYSTEM WIRING AND INSTALLATION IS BY OTHERS.
5. ALL DRILLING AND BORING OF HOLES SHALL BE DONE IN STRICT ACCORDANCE WITH THE STRUCTURAL ENGINEER'S REQUIREMENTS. DO NOT UNDER ANY CIRCUMSTANCES CUT OR MODIFY PRE-MANUFACTURED TRUSSES.
6. INSTALLER SHALL VERIFY FINISH CEILING ELEVATION, OBSTRUCTIONS, LIGHT FIXTURES, CABINETS, ETC PRIOR TO INSTALLATION OF SPRINKLER HEADS.
7. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRE STOPPED. FIRE STOPPING MATERIAL SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTION BY OTHERS.
8. SPRINKLER PIPE SIZING HAS BEEN ESTABLISHED BY HYDRAULIC CALCULATIONS.
9. IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE A RELIABLE WATER SUPPLY THAT IS CAPABLE OF MEETING THE MOST DEMANDING AREA.

PROJECT DETAILS

NFPA CODE: 13R 2019
SYSTEM TYPE: WET SYSTEM
PIPE TYPE: BLAZEMASTER CPVC
MAX SPRINKLER SPACING REQUIREMENTS: 16'x16' @13 GPM, 18'x18' @17 GPM (1 HEAD RM.)
MINIMUM SPRINKLER SPACING: 8' BETWEEN SPRINKLERS
MINIMUM DESIGN DENSITY: 0.05 GPM/SQ.FT.

NFPA & AHJ REQUIREMENTS

1. THE DESIGN DISCHARGE SHALL BE ALL OF THE SPRINKLERS WITHIN A SINGLE COMPARTMENT, UP TO A MAXIMUM OF FOUR SPRINKLERS, THAT REQUIRE THE GREATEST HYDRAULIC DEMAND.
2. SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS OF 55 SQ. FT. AND LESS.
3. SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES THAT DO NOT EXCEED 24 SQ. FT. AND HAVE WALLS AND CEILINGS SURFACED WITH NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE MATERIALS.
4. SPRINKLERS SHALL NOT BE REQUIRED IN ATTICS OR CRAWLSPACES.
5. SPRINKLER HEADS SHALL BE AT LEAST 3 FT. AWAY FROM CEILING FANS AND SURFACE MOUNTED LIGHT FIXTURES.
6. ALL SPRINKLERS SHALL MAINTAIN THE MINIMUM REQUIRED DISTANCES FROM HEAT SOURCES IN ACCORDANCE WITH NFPA 13R.
7. SPRINKLER HEADS UNDER SLOPE CEILINGS TO BE MEASURED ALONG THE SLOPE.

CPVC FIRE SPRINKLER PIPE GUIDELINES

INSTALLING CONTRACTOR TO PROVIDE AN INSTALLATION THAT IS IN 100% COMPLIANCE WITH THESE GUIDELINES. RESIDENTIAL DESIGN CANNOT BE RESPONSIBLE FOR THE WILLFUL OR NEGLIGENT ACTIONS OF OTHER PARTIES THAT DO NOT FOLLOW THE BELOW GUIDELINES.

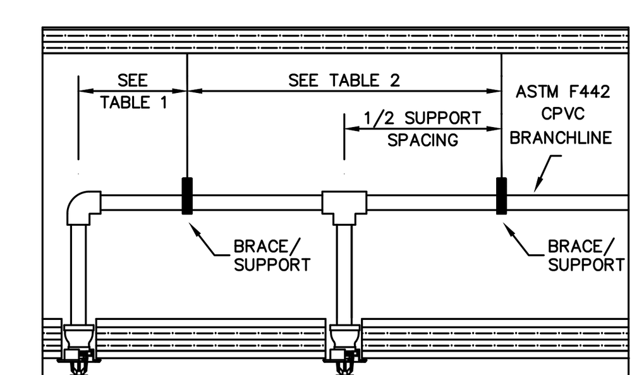
THESE GUIDELINES ARE:

- DO NOT STACK, SUPPORT, HANG EQUIPMENT, OR HANG FLEXIBLE WIRE/CABLE, ESPECIALLY COMMUNICATIONS CABLE, OR OTHER MATERIAL ON THE FIRE SPRINKLER
- DO NOT EXPOSE CPVC PRODUCTS TO INCOMPATIBLE SUBSTANCES, SUCH AS CUTTING OILS, NON-WATER-BASED PAINTS, PACKING OILS, TRADITIONAL PIPE THREAD PASTE AND DOPE, FUNGICIDES, TERMITICIDES, INSECTICIDES, DETERGENTS, BULKING CAULKING, ADHESIVE TAPE, SOLDER FLUX, FLEXIBLE WIRE/CABLE (WITH SPECIAL CONSIDERATION FOR COMMUNICATIONS CABLING), AND NON-APPROVED SPRAY FOAM INSULATION MATERIALS.
- DO NOT EXPOSE CPVC PRODUCTS TO EDIBLE OILS, SOLVENTS, OR GLYCOL-BASED ANTI-FREEZE FLUIDS.
- DO NOT EXPOSE CPVC PRODUCTS TO OPEN FLAME, SOLDER, AND SOLDERING FLUX.
- DO NOT DROP, DISTORT, OR IMPACT CPVC PRODUCTS OR ALLOW OBJECTS TO BE DROPPED ON THEM.
- DO NOT HANDLE CPVC PRODUCTS WITH GLOVES CONTAMINATED WITH OILS (HYDROCARBONS) OR OTHER INCOMPATIBLE MATERIALS.
- DO NOT INJECT SYSTEM WITH M.I.C. INHIBITORS UNLESS THEY ARE LISTED IN COMBINATION WITH THIS SYSTEM.

FAILURE TO FOLLOW THIS NOTICE MAY CAUSE CRACKS OR FRACTURES TO DEVELOP IN CPVC PRODUCTS RESULTING IN PROPERTY DAMAGE DUE TO LEAKS OR FLOODING. THE PRESENCE OF ANY VISIBLE CRACKS MAY REQUIRE PARTIAL OR FULL SYSTEM REPLACEMENT.

FREEZE PROTECTION

THIS SYSTEM IS A WET SYSTEM, PRECAUTION MUST BE TAKEN TO PROTECT THE PIPING FROM EXTREME FREEZING TEMPERATURES. IT IS THE RESPONSIBILITY OF THE OWNER AND INSULATION INSTALLER TO ENSURE SUFFICIENT INSULATION IS PROVIDED AND INSTALLED CORRECTLY TO MAINTAIN ALL PIPING AT 40 DEG MINIMUM IN ALL AREAS. THE METHOD TO ACHIEVE THIS CONTROL OF TEMPERATURE SHALL BE IN ACCORDANCE WITH NFPA 13R. DESIGNER AND ENGINEER OF RECORD WILL NOT BE RESPONSIBLE FOR ANY FREEZING PIPE OR DAMAGE CAUSED BY FREEZING PIPING.



CPVC HANGER SCHEDULE AND DETAIL

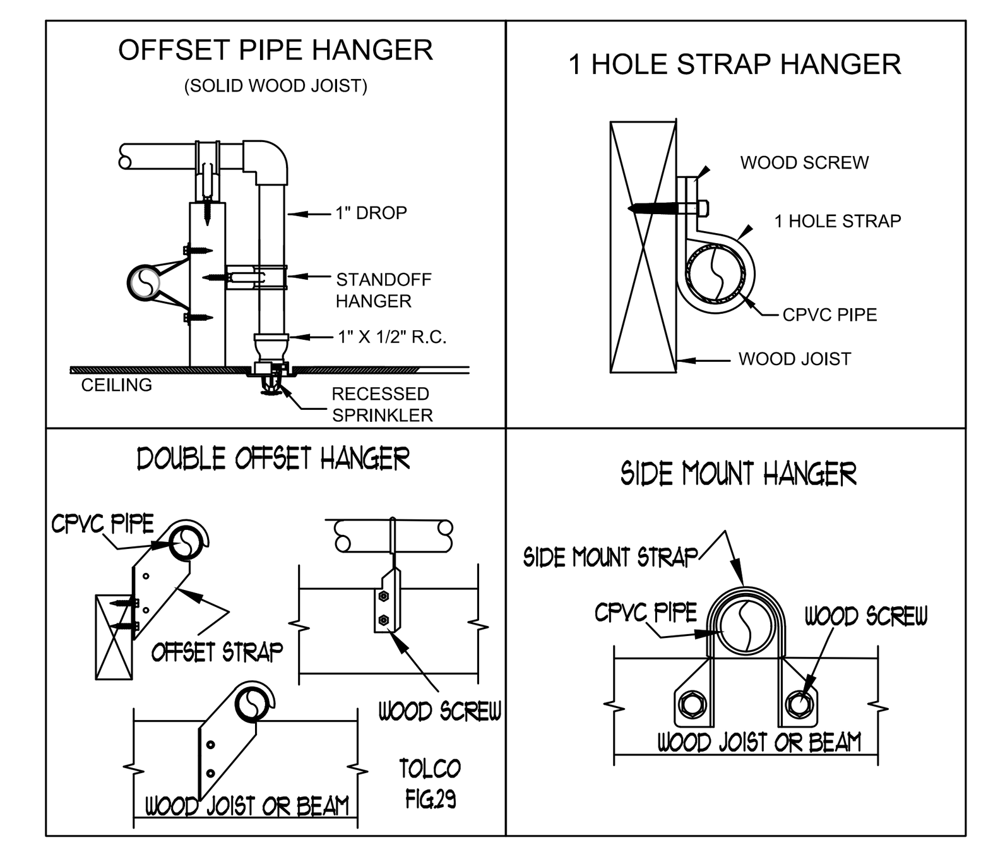
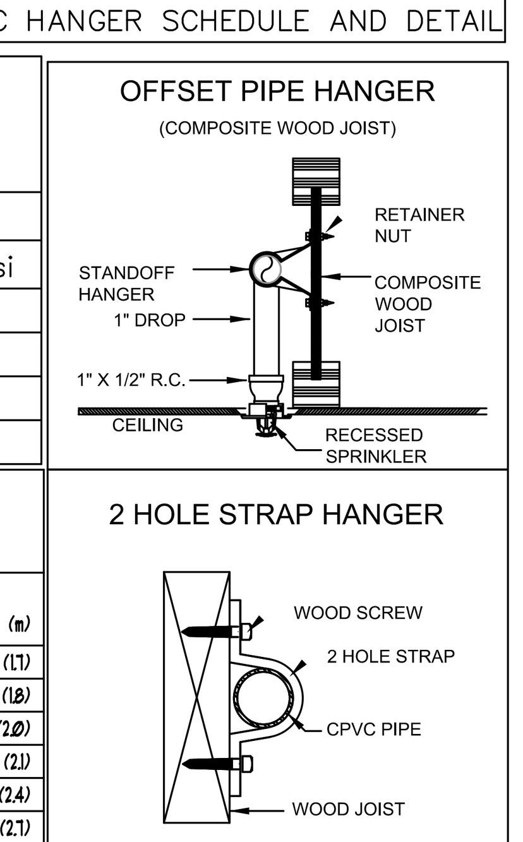


TABLE 1
MAXIMUM SUPPORT SPACING DISTANCE
END LINE SPRINKLER HEAD DROP ELBOW

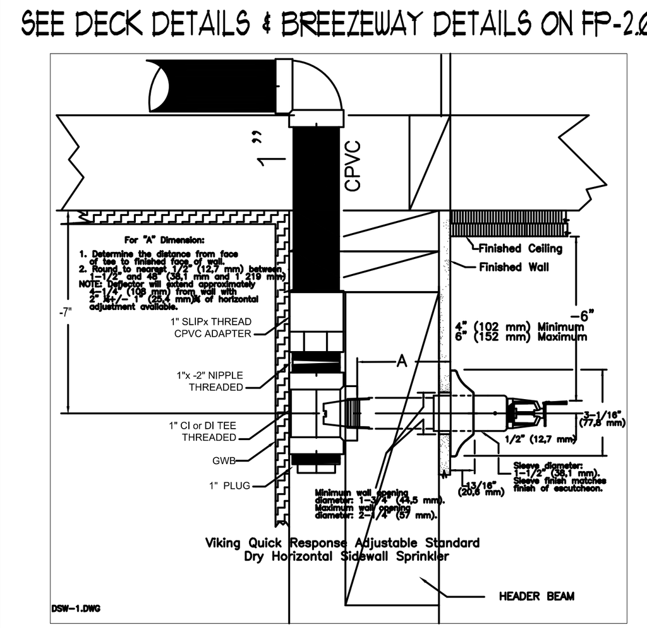
PIPE SIZE inches	SYSTEM PRESSURE	
	< 100 psi	> 100 psi
3/4"	9"	6"
1"	12"	9"
1¼"	16"	12"
1½"-3"	24"	12"

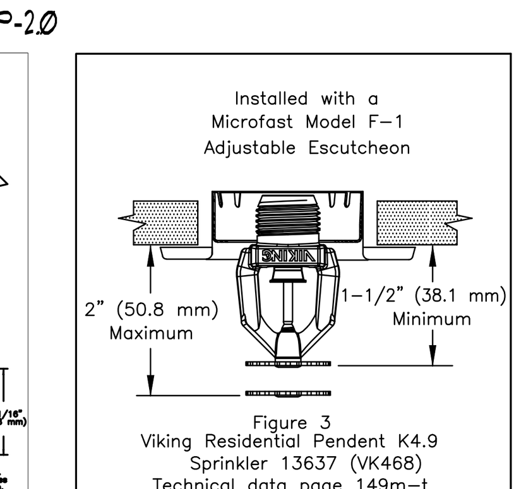
TABLE 2
SDR 13.5 (ASTM F442)
HANGER SPACING

NOMINAL SIZE inches	(mm)	MAX SPACING feet	(m)
3/4"	(20.0)	5.5'	(1.7)
1"	(25.0)	6.0'	(1.8)
1-1/4"	(32.0)	6.5'	(2.0)
1-1/2"	(40.0)	7.0'	(2.1)
2"	(50.0)	8.0'	(2.4)
2-1/2"	(65.0)	9.0'	(2.7)
3"	(80.0)	10.0'	(3.0)



* DO NOT STUB DOWN DSW'S ON LEVELS 1&2
SEE DECK DETAILS & BREEZEWAY DETAILS ON FP-2.0





VIKING VK-468
RESIDENTIAL RECESSED PENDENT

SPRINKLER HEAD SCHEDULE

SYMBOL	COUNT	THREAD	K-FACTOR	DESCRIPTION	NOTE
◉	96	1/2"	4.9	HEAD1= VIKING VK468 WHITE RESIDENTIAL RECESSED PENDENT 175°F.	on Drop
◀	29	1"	5.6	SIDE1= VIKING VK178 QR CHROME DRY HORIZONTAL SIDEWALL 200°F.	
				125 = TOTAL NUMBER OF HEADS BUILDING A	

PROJECT: EAST TOWN CROSSING BUILDING A
ADDRESS: 2902 E PIONEER
CITY: PUYALLUP, WA 98372
TITLE: FIRE SPRINKLER LEVEL 3 DRAWING

SPRINX FIRE PROTECTION EST. 1999
2709 JAHN AVE. NW, SUITE H2
Gig Harbor, WA. 98335-1735
Phone 253.853.7780
Fax 253.853.5890
A Fire Sprinkler Corporation
Cont. Lic. # SPRINFP01

Date: 8/20/2025
Drawn: AJP

REVISIONS

DATE	DESCRIPTION	BY

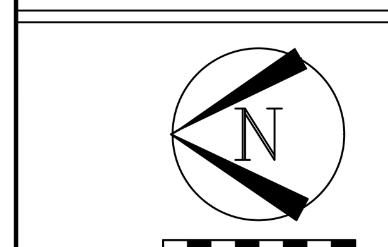
GENERAL: MKM LEGACY LLC
ADDRESS: 7809 PACIFIC AVE
CITY: TACOMA, WA 98408
SUPER.: ADAM RAYGOR
JOB PHONE #: 253-961-9976

FIELD INSPECTIONS
NAME: CITY OF PUYALLUP
PHONE #: (253) 864-4165

STANDARD SYMBOLS
Pipe Coupling
Pipe Drop
Pipe Rise
Pipe End Cap
2-WAY EARTHQUAKE BRACE
4-WAY EARTHQUAKE BRACE
PIPE HANGER
Hydraulic Reference Points
[18 Btm] Elev. Below Top of Steel
[8-6] Elev. Above Finished Floor
(10-0) Ceiling Height

WA. STATE LEVEL 3 STAMP

Expires DEC 31, 25
WASHINGTON STATE CERTIFICATE OF COMPETENCY FIRE SPRINKLER SYSTEMS
Joseph G. Faulkner
9491-0699-CEG Level 3
Sprinx Fire Protection, Inc.
SPRINFP011LS
Signature: [signature] Date: 08/25/2025



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

Project No.: 24-093CM
Sheet Title: BLDG-A LEVELS 3
Sheet Number: FP-3.0
File Name: ETC Building A.dwg