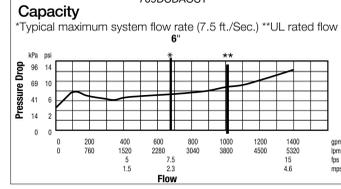


# HOME 2 SUITES BY HILTON 4-STORY HOTEL CONSTRUCTION FIRE PROTECTION

475 Hospitality Blvd, Greenwood, SC 29649



2 6" WATTS 709DCDAOSY BACKFLOW  
FP-01 SCALE: N.T.S. LOCATED AT VAULT - (BY OTHERS) FOR HYDRAULIC REFERENCE ONLY

**DRAWING INDEX**

SHEET NO.	SHEET TITLE
FP-01	SITE PLAN & DESIGN NOTES
FP-02	SEISMIC & GENERAL NOTES
FP-03	FIRE PUMP DETAILS
FP-04	FIRE SUPPRESSION PLAN - FIRST FLOOR
FP-05	FIRE SUPPRESSION PLAN - SECOND FLOOR
FP-06	FIRE SUPPRESSION PLAN - THIRD FLOOR
FP-07	FIRE SUPPRESSION PLAN - FOURTH FLOOR
FP-08	STANDPIPE HYDRAULIC CALCULATION REFERENCE

**OVERALL FIRE SPRINKLER DESIGN CRITERIA**

SYMBOL	OCCUPANCY	TYPE	DENSITY (GPM/SF)	REMOTE AREA (SQFT)	HOSE ALLOWANCE
LH	LIGHT HAZARD RESIDENTIAL	WET	0.10	REMOTE 4 HEADS	100
LH	LIGHT HAZARD OTHERS	WET	0.10	1500	100
OH-1	ORDINARY HAZARD GROUP I	WET	0.15	1500	250
OH-1D	ORDINARY HAZARD GROUP I	DRY	0.15	387 ENTIRE CANOPY	250

**MAX COVERAGE PER SPRINKLER (SF)**

LIGHT HAZARD	225 STANDARD COVERAGE / 400 EXT COVERAGE
ORDINARY HAZARD GROUP I	130
RESIDENTIAL SPRINKLERS	400 **

\* AREA REDUCTIONS ALLOWED FOR QUICK-RESPONSE SPRINKLERS PER NFPA 13 19.3.3.2.3.1  
OR USE ROOM DESIGN METHOD PER NFPA 13 19.3.3.3 WHERE APPLICABLE  
\*\* 98 PER LISTING OF RESIDENTIAL HEAD

**FIRE SPRINKLER DESIGN CRITERIA**

SYSTEM TYPE	AREA OF APPLICATION	HOSE ALLOWANCE	RESIDENTIAL AREA OF APPLICATION	RESIDENTIAL HOSE ALLOWANCE	FACILITY USAGE
WET & DRY SYSTEMS	1500 SQ. FT. (AREA REDUCTIONS ALLOWED PER NFPA 13)	98'-0" SHOWN ON PLAN	100 GPM FOR LIGHT HAZARD / 250 FOR ORDINARY HAZARD	100 GPM	RESIDENTIAL

**CODE SUMMARY**

REFERENCE	YEAR
NFPA 13	2019
NFPA 24	2019
NFPA 20	2019
NFPA 24 (UNDERGROUND BY OTHERS)	2019
NFPA 72	2019
NFPA 25	2020
NFPA 101	2021
INTERNATIONAL BUILDING CODE W/ SC AMENDMENTS	2021
INTERNATIONAL FIRE CODE W/ SC AMENDMENTS	2021

**USE GROUP & CONSTRUCTION**

CONSTRUCTION TYPE	OCCUPANCY GROUP	BUILDING HEIGHT IN FEET	NUMBER OF STORIES	SPRINKLER SYSTEM	STANDPIPE SYSTEM
V-A	PRIMARY R-1 W/ ADA 3 B & B	4	4	WET & DRY	YES (W/ STANDPIPE CLASS 1)

**ZONE AREA OF PROTECTION**

ZONE NUMBER	LOCATION	TOTAL SQFT
ZONE P	PUMP ROOM	232 SQFT
ZONE 1	1ST FLOOR	14,372 SQFT
ZONE 1D	FRONT CANOPY	387 SQFT
ZONE 2	2ND FLOOR	14,564 SQFT
ZONE 3	3RD FLOOR	14,564 SQFT
ZONE 4	4TH FLOOR	14,564 SQFT
PROJECT TOTAL		58,683 SQFT

- SEISMIC NOTES**
- PIPES GOING THRU BLOCK WALLS OR FLOORS TO HAVE FLEXIBLE COUPLINGS ON EACH SIDE OF THE WALLS/FLOORS OR PROVIDE OVERSIZED HOLES PER NFPA 13 18.4.2.
  - 1" - 3/8" PIPE THE OVERSIZED HOLE SHALL BE 2" LARGER THAN THE DIAMETER.
  - A LARGER PIPE THE OVERSIZED HOLE SHALL BE 4" LARGER THAN THE DIAMETER.
  - RISER NIPPLES BETWEEN 3'-0" AND 7'-0" IN LENGTH TO HAVE ONE FLEXIBLE COUPLING WITHIN 24" OF THE TOP OR BOTTOM OF THE RISER NIPPLE.
  - BRANCH LINES SUPPORTED BY RODS LESS THAN 6" LONG SHALL NOT REQUIRE ADDITIONAL RESTRAINT PER NFPA 13 18.6.5.
  - ALL RISERS OVER 3' LONG TO HAVE A-WAY BRACE.
  - CIRISERS DO NOT INCLUDE RISER NIPPLES AS DEFINED IN NFPA 13.
  - RETAINING STRAPS TO BE INSTALLED ON ALL C - TYPE CLAMPS.

**SEISMIC DESIGN INFORMATION**

REFERENCE USED:	GENERAL NOTES
IBC-2021 / ASCE 7-16	(REFERENCE 5-001 GENERAL NOTES)
SITE CLASS:	D
SEISMIC DESIGN CATEGORY (s):	C
SEISMIC OCCUPANCY CATEGORY (b):	III
SEISMIC RISK CATEGORY (c):	II
SEISMIC COEFFICIENT (S <sub>s</sub> = 0.30) / C <sub>p</sub> = 0.35	

**OWNERS RESPONSIBILITY**

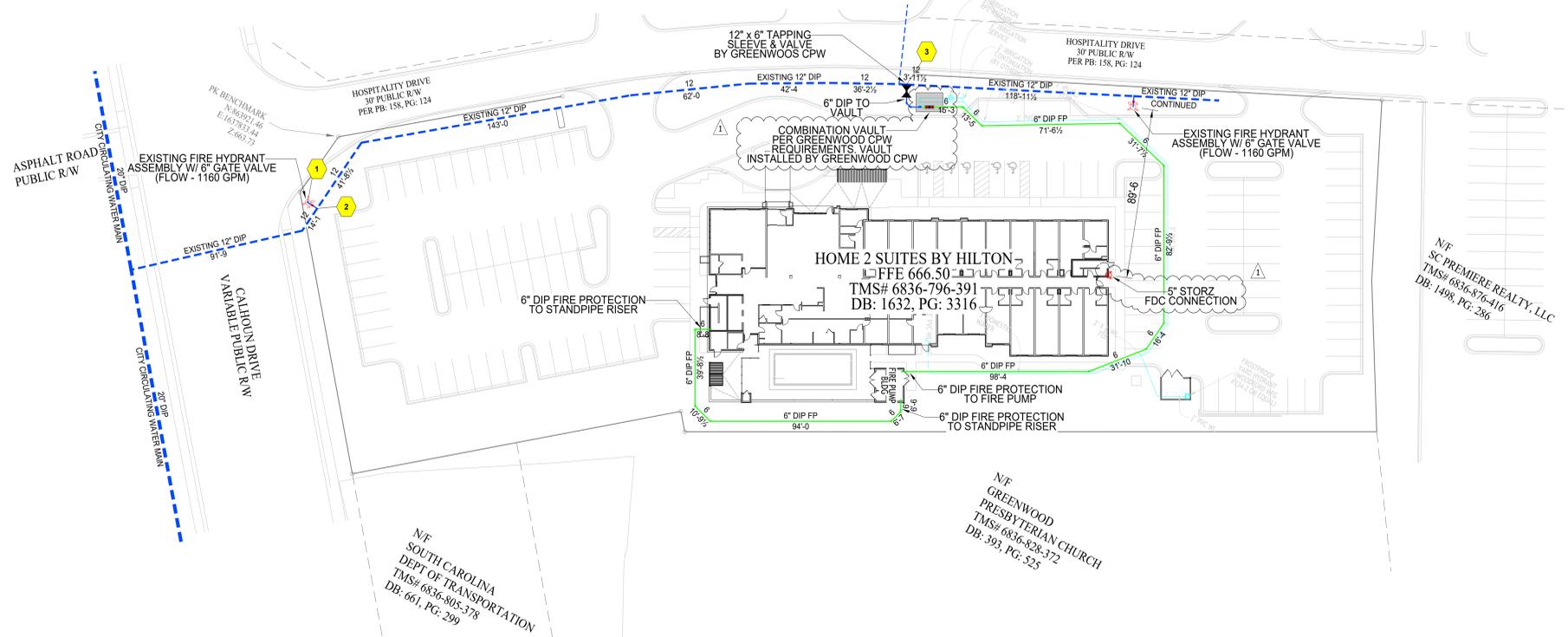
PROVIDE ADEQUATE WATER VOLUME AND PRESSURE TO THE SPRINKLER SYSTEM.  
PROVIDE BUILDING STRUCTURE CAPABLE OF HANDLING ALL REQUIRED LIVE LOADS AND SEISMIC LOADS AS REQUIRED BY CODE.

NOTIFY SPRINKLER CONTRACTOR IN WRITING OF PROJECT SCHEDULE, CHANGES TO SCHEDULE, CHANGES TO SITE CONDITIONS AND STRUCTURE THAT COULD IMPACT OUR DESIGN AND INSTALLATION.

OWNER SHALL MAINTAIN BUILDING TEMPERATURES ABOVE 40 DEGREES FAHRENHEIT WHERE WET PIPE SYSTEMS ARE INSTALLED TO PREVENT FREEZING OF PIPE.

**CONTRACT RESPONSIBILITIES**

ITEM	HILLER	EXIST/OTHERS
STREET WATER CONNECTION	<input type="checkbox"/>	<input checked="" type="checkbox"/>
UNDERGROUND WATER MAINS TO 5'-0" OUTSIDE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
AT STUB-UP 1'-0" ABOVE FINISHED FLOOR	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WIRING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PIPE IDENTIFICATION MARKERS OR PAINTING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
FIRE EXTINGUISHERS AND/OR HOSE RACKS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
FIRE DEPARTMENT CONNECTION	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CUTTING & PATCHING OF CEILING	<input type="checkbox"/>	<input checked="" type="checkbox"/>

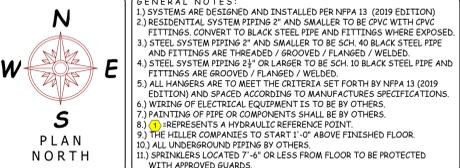


1 SITE PLAN (FOR HYDRAULIC REFERENCE ONLY)  
SCALE: 1" = 32'-0"

**SITE PLAN GENERAL NOTES**

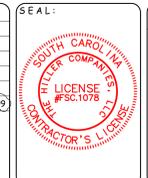
- ALL UG PIPING AND UNDERGROUND APPURTENANCES BY OTHERS THE HILLER COMPANIES TO START 1'-0" ABOVE FINISHED FLOOR.
- UNDERGROUND PIPE, INCLUDING FIRE SPRINKLER FLANGED SPIGOT PIPE, SHALL BE HYDROSTATICALLY TESTED FOR TWO HOURS AT 200 PSI OR 50 PSI IN EXCESS OF NORMAL WORKING PRESSURE WHEN NORMAL WORKING PRESSURE EXCEEDS 100 PSI PER NFPA 24 10.10.2.2 AND FLUSHED PER 24 10.10.2.1 PRIOR TO CONNECTION TO SPRINKLER RISER. (TEST CONDUCTED BY OTHERS)

It is the sole responsibility of owner and owners representative to insure that this building/buildings has proper heat and insulation to prevent fire sprinkler pipe, fittings and devices from freezing.



**WATER SUPPLY INFORMATION**

STATIC PRESSURE	53	FIRE PUMP	YES
RESIDUAL PRESSURE	51	SIZE GPM @ PSI	300 @ 60
FLOW 6 P.M.	160	TYPE OF DRIVER	VIP
DATE OF TEST	09/30/2025	ELECTRICAL REQ.S	208V
HYDRANT LOCATION	@ TEST NODE (SEE SITE PLAN)	TEST TAKEN BY	GREENWOOD CPW (864) 942-8199



**NICET REVIEW STAMP**

JUAN OCHOA  
NICET #139445  
LEVEL IV  
WATER BASED SYSTEMS LAYOUT

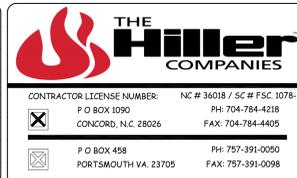
SIGNED: *Juan Ochoa*  
VALID THROUGH 01/01/2027

**Sprinkler Legend - Total Project**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
⊗	Viking	VK360	Microfast	9	5.6	Upright	1/2"	Quick	Brass	200°F	Exposed	130R' OH / 225R' LH
⊙	Viking	VK421	Concealed	55	5.6	Concealed Pendant	1/2"	Quick	Brass	155°F	White Coverplate	130R' OH / 225R' LH
⊙	Viking	VK302	Microfast	33	5.6	Pendant	1/2"	Quick	Chrome	200°F	White Coverplate	130R' OH / 225R' LH
⊙	Viking	VK421	Concealed	1	5.6	Concealed Pendant	1/2"	Quick	Brass	200°F	White Coverplate	130R' OH / 225R' LH
⊙	Viking	VK494	Freedom	59	4.9	Concealed Pendant	1/2"	Fast	Brass	155°F	White Coverplate	16 x 18 / 324R'
⊙	Generic	MFO	Chute Head	4	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connet Chute Head	100R' OH / 196R' LH
⊙	Viking	VK305	Microfast	3	5.6	Horizontal Sidewall	1/2"	Quick	Chrome	200°F	Chrome Res Esc	100R' OH / 196R' LH
⊙	Viking	VK460	Freedom	104	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 18 ft / 256R'
⊙	Viking	VK482	Dry	7	5.6	Pendant	1"	Quick	White Polyester	205°F	White Flat Esc	130R' OH / 225R' LH
⊙	Viking	VK468	Freedom	208	4.9	Pendant	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 18 / 324R'
				<b>Total = 483</b>								

**REVISION DISCUSSION**

NO.	DATE	REVISION DISCUSSION	BY
1	12/18/25	ENGINEER'S COMMENTS	TWH



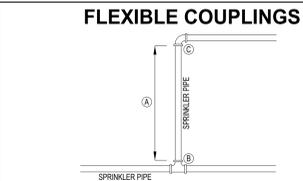
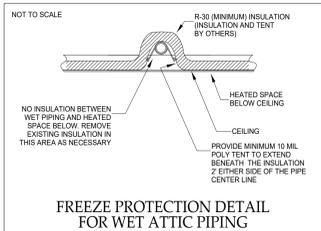
**SUBMITTALS**

JOB NAME: Home 2 Suites  
475 Hospitality Blvd  
Greenwood, SC 29649

CONTRACT WITH: John M. Campbell Company  
102 Winchester Avenue  
Monroe, NC 28110

PHONE: (704) 254-3214  
DRAWING NAME: SITE PLAN & DESIGN NOTES  
DRAWN BY: TWH  
DATE: 12/18/25  
SCALE: AS NOTED  
CONTRACT NO.: CFS088

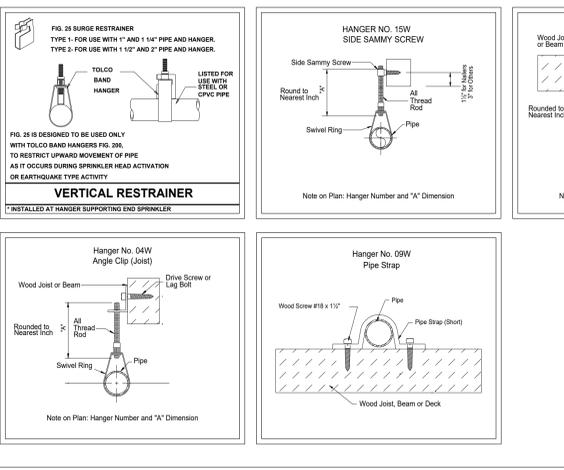
FP-01 of 08



**FLEXIBLE COUPLINGS**

**FLEXIBLE COUPLING NOTES:**  
 1. INSTALL WITHIN 12" ABOVE AND WITHIN 24" BELOW THE FLOOR IN MULTISTORY BUILDINGS.  
 2. INSTALL ON BOTH SIDES OF MASONRY OR CONCRETE WALL WITHIN 12" OF THE WALL SURFACE UNLESS CLEARANCE HAS BEEN PROVIDED.  
 3. INSTALL WITHIN 24" OF BUILDING EXPANSION JOINTS.  
 4. LENGTHS OF PIPE WITH MORE FLEXIBLE COUPLINGS THAN REQUIRED SHALL HAVE ADDITIONAL SWAY BRACING INSTALLED.  
 5. COUPLINGS SHALL BE RIGID UNLESS WHERE REQUIRED.  
 6. SYMBOL DENOTES FLEXIBLE COUPLING.  
**FLEXIBLE COUPLINGS TO BE INSTALLED ON ALL VERTICAL PIPES 1/2" AND LARGER AS FOLLOWS:**  
 1. WHEN "X" IS LESS THAN 3'-0", NO COUPLINGS REQUIRED.  
 2. WHEN "X" IS MORE THAN 3'-0" BUT LESS THAN 7'-0", INSTALL FLEXIBLE COUPLING AT "B".  
 3. WHEN "X" IS GREATER THAN 7'-0", INSTALL FLEXIBLE COUPLINGS AT "B" AND "C".

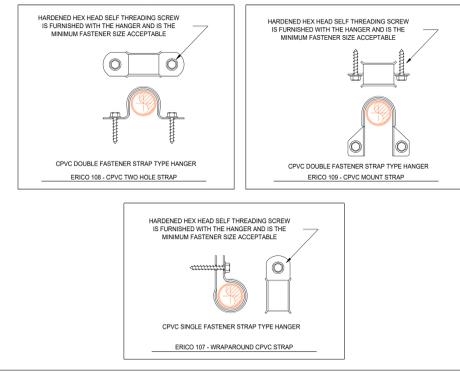
**CONCRETE & WOOD HANGER DETAILS**



**MAXIMUM DISTANCE BETWEEN HANGERS (ft.-in.)**

NOMINAL PIPE SIZE (in.)	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
CPVC	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"	10'-0"	N/A	N/A	N/A	N/A	N/A	N/A

**CPVC PLASTIC HANGER DETAILS**



**SPECIAL FIRE PROTECTION MATERIAL NOTES**

- ALL SYSTEM COMPONENTS AND HARDWARE SHALL BE IN COMPLIANCE WITH NFPA 13.
  - ALL MATERIAL & EQUIPMENT USED SHALL BE LISTED.
  - WHERE NON-METALLIC PIPE IS USED IN COMBINATION SYSTEMS UTILIZING STEEL PIPE THAT IS INTERNALLY COATED WITH CORROSION INHIBITORS, THE STEEL PIPING SHALL BE COMPATIBLE WITH THE NON-METALLIC PIPE MATERIALS.
  - WHERE NON-METALLIC PIPE IS USED IN COMBINATION SYSTEMS UTILIZING STEEL PIPE, CUTTING OILS AND LUBRICANTS USED FOR FABRICATION OF THE STEEL PIPING SHALL BE COMPATIBLE WITH THE NON-METALLIC PIPE MATERIALS.
  - POWER DRIVEN ANCHORS SHALL NOT BE USED. REFER TO THE STRUCTURAL PLANS AND DETAILS FOR ACCEPTABLE LOCATIONS TO ATTACH HANGERS AND SUPPORTS TO THE BUILDING STRUCTURE. HANGERS SHALL NOT ATTACH TO THE ROOF DECK.
  - SPRINKLER PIPE PASSING THROUGH SMOKE/FIRE BARRIERS (INCLUDING WALLS, FLOORS & CEILING) SHALL BE FIRE STOPPED TO MAINTAIN THE INTEGRITY OF THAT BARRIER. PROVIDE ESCUTCHEON PLATES AT EACH SIDE OF PENETRATIONS IN FINISHED AREAS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL SMOKE/FIRE BARRIERS. ALL NON-RATED FLOOR PENETRATIONS SHALL BE SEALED WATER TIGHT WITH A FIRE RATED SEALANT.
  - PIPE AND FITTINGS:
    - CPVC PIPE AND CPVC FITTINGS WHERE ALLOWED BY NFPA 13 AND MDG DATA SHEETS.
    - BLACK SCH. 40 PIPE WITH WELDED OUTLETS AND GROOVED FITTINGS.
    - BLACK SCH. 40 PIPE WITH THREADED DUCTILE IRON FITTINGS.
- FIRE PROTECTION GENERAL NOTES**
- THE HILLER COMPANIES STARTS 1'-0" ABOVE FINISHED FLOOR. ALL UNDERGROUND PIPING BY OTHERS.
  - SPRIGS 4 FT (1.2M) OR LONGER SHALL BE RESTRAINED AGAINST LATERAL MOVEMENT.
  - SYSTEM DRAINS SHALL BE INSTALLED AS REQUIRED PER NFPA 13 AND EXTENDED OUTSIDE THE BUILDING.
  - ALL CORRIDOR CEILING HEIGHTS AT 8'-0" AND UNIFORM CEILING HEIGHTS AT 10'-0" UNLESS NOTED OTHERWISE.
  - FIRE SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS THAT ARE LESS THAN 55 FT<sup>2</sup> IN AREA IN ACCORDANCE WITH NFPA 13, 9.2.4.1.3.
  - FIRE SPRINKLERS ARE NOT REQUIRED PER NFPA 13, 9.2.4.2. IN CLOSETS, LINEN CLOSETS AND PANTRIES WITH DWELLING UNITS THAT MEET ALL THE FOLLOWING CONDITIONS:
    - THE AREA OF THE SPACE DOES NOT EXCEED 24 FT<sup>2</sup>.
    - THE WALLS AND CEILING ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED BY NFPA 220.
  - CPVC USED ABOVE CEILING IN ALL RESIDENTIAL AREAS. CONVENT PIPING TO STEEL IN EXPOSED AREAS AND ROOMS OF ORDINARY HAZARD OCCUPANCIES EXCEEDING 400 FT<sup>2</sup>.
  - SPRINKLERS SHALL BE INSTALLED AT THE TOP OF COMBUSTIBLE STAIR SHAMTS, UNDER THE LANDINGS AT EACH FLOOR LEVEL AND BENEATH THE LOWEST INTERMEDIATE LANDING PER NFPA 13, 9.3.4.1.
  - ALL PIPING VALVES AND APPURTENANCES SHALL BE INSTALLED SUCH AS NOT TO OBSTRUCT ANY PORTION OF WINDOWS, DOORWAYS, STAIRS, PASSAGEWAYS OR ACCESS TO EQUIPMENT.

**RESIDENTIAL AREA NOTES PER NFPA 13 2019:**

- 19.4 SPECIAL DESIGN APPROACHES.**
- 19.4.1 RESIDENTIAL SPRINKLERS.**
- 19.4.1.1 THE DESIGN AREA SHALL BE THE AREA THAT INCLUDES THE FOUR ADJACENT SPRINKLERS THAT PRODUCE THE GREATEST HYDRAULIC DEMAND.
- 19.4.1.3 UNLESS THE REQUIREMENTS OF 19.4.1 ARE MET, THE MINIMUM REQUIRED DISCHARGE FROM EACH DESIGN AREA SPRINKLER SHALL BE THE GREATER OF THE FOLLOWING:
- IN ACCORDANCE WITH MINIMUM FLOW RATES INDICATED IN THE SPRINKLER LISTINGS
  - IN ROOMS OR COMPARTMENTS GREATER THAN 800 FT<sup>2</sup> (74 M<sup>2</sup>), CALCULATED BASED ON DELIVERING A MINIMUM OF 0.1 GPM/FT<sup>2</sup> (4.1 L/MIN/M<sup>2</sup>) OVER THE DESIGN AREA IN ACCORDANCE WITH THE PROVISIONS OF 9.5.2.1
  - IN ROOMS OR COMPARTMENTS GREATER THAN 800 FT<sup>2</sup> (74 M<sup>2</sup>) OR LESS CALCULATED BASED ON DELIVERING A MINIMUM OF 0.1 GPM/FT<sup>2</sup> (4.1 L/MIN/M<sup>2</sup>) OVER THE ROOM OR THE COMPARTMENT USING THE AREA OF THE ROOM DIVIDED BY THE NUMBER OF SPRINKLERS IN THE ROOM
- DESIGN CRITERIA DETERMINATION**  
 SMALL ROOM METHOD  
 COMPARTMENT AREA = 484 FT<sup>2</sup> (KING ONE BEDROOM 429)  
 484 FT<sup>2</sup> = 121 FT X 10 = 121 GPM  
 PER MANUFACTURE CUT SHEET, THIS IS LESS DEMANDING  
 USE TABLE BELOW FOR VK468 RES PENDENT DESIGN CRITERIA.
- CALCULATIONS USED**  
 MAX SPACING 18 x 18  
 17 GPM @ 12.0 PSI

**Approval Chart**  
**Viking VK468, 4.9 K-Factor Residential Pendent Sprinkler**  
 For systems designed to NFPA 13D or NFPA 13R. For systems designed to NFPA 13, refer to the design criteria. For ceiling types refer to current editions of NFPA 13, 13R or 13D.

Sprinkler Base Part Number*	SIN	NPT Thread Size		Nominal K-Factor	Maximum Water Working Pressure	Overall Length	
		Inches	mm			Inches	mm
13637	VK468	1/2	15	4.9	70.8	175 psi (12 bar)	2-1/4 / 58

Max. Coverage Area <sup>1</sup> Ft. X Ft. (m X m)	Ordinary Temp Rating (155°F/68°C)	Intermediate Temp Rating (175°F/78°C)	Pressure <sup>2</sup> PSI (bar)	Deflector to Ceiling	Installation Type	Listings and Approvals <sup>3</sup>		Minimum Spacing Ft. (m)
						C-UL-US-EU*	Vds NSP*	
12 X 12 (3.7 X 3.7)	13	7.0	13	7.0				
14 X 14 (4.3 X 4.3)	(49.2)	(0.48)	(49.2)	(0.48)				
16 X 16 (4.9 X 4.9)	(49.2)	(0.48)	(49.2)	(0.48)	1-1/8 to 2 inch	See Foot-note 6 and 8.	See Foot-note 6 and 8.	8 (2.4)
18 X 18 (5.5 X 5.5)	(64.4)	(0.83)	(64.4)	(0.83)				
20 X 20 (6.1 X 6.1)	(75.7)	(1.15)	(75.7)	(1.15)				

- Footnotes**
- Part number shown is the base part number. For complete part number refer to Viking's current price schedule.
  - Metric K-Factor measurement shown is when pressure is measured in kPa. When pressure is measured in psi, divide the metric K-factor shown by 10.0.
  - This chart shows the listings and approvals available at the time of printing. Other approvals may be in process. Check with the manufacturer for any additional approvals. Refer also to Design Criteria.
  - For areas of coverage smaller than shown, use the "Flow" and "Pressure" for the next larger area listed. Flows and pressures listed are per sprinkler. The distance from sprinkler to walls shall not exceed one-half the sprinkler spacing indicated for the minimum "Flow" and "Pressure" used.
  - Listed by Underwriter's Laboratories, Inc. for use in the U.S., Canada, and European Union.
  - Approved Finishes are: Brass, Chrome, White Polyester, and Black Polyester. Other paint colors are available on request with the same C-UL-US-EU listings as the standard finish colors.
  - UL Classified to: NSF/ANSI/ICC Standard 61, Drinking Water System Components NSF/ANSI 372 (MH48034).
  - Approved finish is Electroless Nickel (ENT). White Polyester, and Black Polyester finishes are C-UL-US-EU Listed as corrosion-resistant. ENT is available with standard surface-mounted escutcheons or the Micromat Model E-1 Recessed Escutcheon.

**DESIGN CRITERIA DETERMINATION**  
 SMALL ROOM METHOD  
 COMPARTMENT AREA = 484 FT<sup>2</sup> (KING ONE BEDROOM 429)  
 484 FT<sup>2</sup> = 121 FT X 10 = 121 GPM  
 PER MANUFACTURE CUT SHEET, THIS IS LESS DEMANDING  
 USE TABLE BELOW FOR VK468 HSW DESIGN CRITERIA.

**CALCULATIONS USED**  
 MAX SPACING 18 x 18  
 20 GPM @ 11.9 PSI

**Approval Chart**  
**Viking VK460, 5.8 K-Factor Residential Horizontal Sidewall Sprinkler**  
 For systems designed to NFPA 13D or NFPA 13R. For systems designed to NFPA 13, refer to the design criteria. For ceiling types refer to current editions of NFPA 13, 13R or 13D.

Sprinkler Base Part Number*	SIN	NPT Thread Size		Nominal K-Factor	Maximum Water Working Pressure	Overall Length	
		Inches	mm			Inches	mm
13033	VK460	1/2	15	5.8	83.6	175 psi (12 bar)	2-1/2 / 63.5

Max. Coverage Area <sup>1</sup> Width X Length Ft. X Ft. (m X m)	Max. Spacing (ft.)	Ordinary Temp Rating (155°F/68°C)	Intermediate Temp Rating (175°F/78°C)	Pressure <sup>2</sup> PSI (bar)	Top of Deflector to Ceiling	Installation Type	Listings and Approvals <sup>3</sup>		Minimum Spacing Ft. (m)
							C-UL-US-EU*	Vds NSP*	
12 X 12 (3.7 X 3.7)	12 (3.7)	16 (0.6)	7.6 (0.52)	16 (0.6)					
14 X 14 (4.3 X 4.3)	14 (4.3)	16 (0.6)	7.6 (0.52)	16 (0.6)					
16 X 16 (4.9 X 4.9)	16 (4.9)	20 (75.7)	11.9 (0.82)	21 (79.5)	13.1 (0.90)				
18 X 18 (5.5 X 5.5)	16 (4.9)	22 (83.3)	14.4 (0.99)	22 (83.3)	14.4 (0.99)				
18 X 20 (4.9 X 6.1)	16 (4.9)	26 (98.4)	20.1 (1.39)	26 (98.4)	20.1 (1.39)				
18 X 22 (4.9 X 6.7)	16 (4.9)	31 (117.3)	26.3 (1.97)	31 (117.3)	26.3 (1.97)				
18 X 18 (5.5 X 5.5)	18 (5.1)	23 (87.1)	15.7 (1.1)	23 (87.1)	15.7 (1.1)	4 to 6 inches	See Foot-note 7 and 10.	See Foot-note 7 and 10.	8 (2.4)
18 X 20 (5.5 X 6.1)	18 (5.1)	29 (109.8)	25.0 (1.7)	29 (109.8)	25.0 (1.7)				
20 X 20 (6.1 X 6.1)	20 (6.1)	30 (113.6)	26.8 (1.8)	30 (113.6)	26.8 (1.8)				
18 X 24 (4.9 X 7.3)	16 (4.9)	38 (143.8)	42.9 (2.96)	38 (143.8)	42.9 (2.96)				
14 X 26 (4.3 X 7.9)	14 (4.3)	42 (159)	52.4 (3.82)	42 (159)	52.4 (3.82)				

It is the sole responsibility of owner and owners representative to insure that this building/buildings has proper heat and insulation to prevent fire sprinkler pipe, fittings and devices from freezing.

**SEISMIC CALCULATIONS - CPVC PIPING**

**LATERAL SEISMIC BRACING CALCULATIONS (CPVC PIPE)**

Project: Home2 Suites By Hilton, 475 Hospitality Blvd, Greenwood, SC 29649  
 Contractor: The Hiller Companies, LLC, 300 Manor Ave SW, Concord, NC 28025  
 Telephone: (704) 784-4218, Fax: (704) 784-4218

**BRACE INFORMATION**  
 Length of brace: 7'-0"  
 Diameter of brace: 1 in.  
 Type of brace: Schedule 40  
 Angle of brace: 45° to 59°  
 Lead radius of gyration: 0.421  
 W value: 200  
 Maximum horizontal load: 1,310 lb.

**SEISMIC BRACE ATTACHMENTS**  
 Structure attachment fittings: Make: AFCON, Model: AF077  
 Listed load rating: 1000 Adj. load rating: 707  
 Sway brace (pipe attachment) fittings: Make: AFCON, Model: AF035  
 Listed load rating: 1000 Adj. load rating: 707

**FASTENER INFORMATION**  
 Orientation of connecting surface: "E"  
 Fastener Type: Through-Bolt w/ Fender Washer  
 Diameter: 3/4"  
 Length: 5-1/2"  
 Maximum load: 620 lb.

**SEISMIC BRACE ASSEMBLY DETAIL**  
 FIG. AF077 TRUSS, FIG. AF035 CLAMP

**LATERAL SEISMIC BRACING CALCULATIONS (STEEL PIPE)**

Project: Home2 Suites By Hilton, 115 Tradehill Blvd, Greenwood, SC 29649  
 Contractor: The Hiller Companies, LLC, 300 Manor Ave SW, Concord, NC 28025  
 Telephone: (704) 784-4218, Fax: (704) 784-4218

**BRACE INFORMATION**  
 Length of brace: 7'-0"  
 Diameter of brace: 1 in.  
 Type of brace: Schedule 40  
 Angle of brace: 45° to 59°  
 Lead radius of gyration: 0.421  
 W value: 200  
 Maximum horizontal load: 1,310 lb.

**SEISMIC BRACE ATTACHMENTS**  
 Structure attachment fittings: Make: PHD, Model: FIG 030  
 Listed load rating: 2015 Adj. load rating: 1425  
 Sway brace (pipe attachment) fittings: Make: PHD, Model: FIG 015  
 Listed load rating: 1000 Adj. load rating: 707

**FASTENER INFORMATION**  
 Orientation of connecting surface: "E"  
 Fastener Type: Through-Bolt w/ Fender Washer  
 Diameter: 3/4"  
 Length: 5-1/2"  
 Maximum load: 620 lb.

**SEISMIC BRACE ASSEMBLY DETAIL**  
 FIG. PHD TRUSS, FIG. PHD FAST CLAMP

**SEISMIC CALCULATIONS - STEEL PIPING**

**LATERAL SEISMIC BRACING CALCULATIONS (STEEL PIPE)**

Project: Home2 Suites By Hilton, 475 Hospitality Blvd, Greenwood, SC 29649  
 Contractor: The Hiller Companies, LLC, 300 Manor Ave SW, Concord, NC 28025  
 Telephone: (704) 784-4218, Fax: (704) 784-4218

**BRACE INFORMATION**  
 Length of brace: 7'-0"  
 Diameter of brace: 1 in.  
 Type of brace: Schedule 40  
 Angle of brace: 45° to 59°  
 Lead radius of gyration: 0.421  
 W value: 200  
 Maximum horizontal load: 1,310 lb.

**SEISMIC BRACE ATTACHMENTS**  
 Structure attachment fittings: Make: PHD, Model: FIG 030  
 Listed load rating: 2015 Adj. load rating: 1425  
 Sway brace (pipe attachment) fittings: Make: PHD, Model: FIG 015  
 Listed load rating: 1000 Adj. load rating: 707

**FASTENER INFORMATION**  
 Orientation of connecting surface: "E"  
 Fastener Type: Through-Bolt w/ Fender Washer  
 Diameter: 3/4"  
 Length: 5-1/2"  
 Maximum load: 620 lb.

**SEISMIC BRACE ASSEMBLY DETAIL**  
 FIG. PHD TRUSS, FIG. PHD FAST CLAMP

**LONGITUDINAL SEISMIC BRACING CALCULATIONS (STEEL PIPE)**

Project: Home2 Suites By Hilton, 475 Hospitality Blvd, Greenwood, SC 29649  
 Contractor: The Hiller Companies, LLC, 300 Manor Ave SW, Concord, NC 28025  
 Telephone: (704) 784-4218, Fax: (704) 784-4218

**BRACE INFORMATION**  
 Length of brace: 7'-0"  
 Diameter of brace: 1 in.  
 Type of brace: Schedule 40  
 Angle of brace: 45° to 59°  
 Lead radius of gyration: 0.421  
 W value: 200  
 Maximum horizontal load: 1,310 lb.

**SEISMIC BRACE ATTACHMENTS**  
 Structure attachment fittings: Make: PHD, Model: FIG 030  
 Listed load rating: 2015 Adj. load rating: 1425  
 Sway brace (pipe attachment) fittings: Make: PHD, Model: FIG 015  
 Listed load rating: 1000 Adj. load rating: 707

**FASTENER INFORMATION**  
 Orientation of connecting surface: "E"  
 Fastener Type: Through-Bolt w/ Fender Washer  
 Diameter: 3/4"  
 Length: 5-1/2"  
 Maximum load: 620 lb.

**SEISMIC BRACE ASSEMBLY DETAIL**  
 FIG. PHD TRUSS, FIG. PHD FAST CLAMP

**SEISMIC CALCULATIONS - STEEL PIPING**

**4-WAY SEISMIC BRACING CALCULATIONS (STEEL PIPE)**

Project: Home2 Suites By Hilton, 475 Hospitality Blvd, Greenwood, SC 29649  
 Contractor: The Hiller Companies, LLC, 300 Manor Ave SW, Concord, NC 28025  
 Telephone: (704) 784-4218, Fax: (704) 784-4218

**BRACE INFORMATION**  
 Length of brace: 7'-0"  
 Diameter of brace: 1 in.  
 Type of brace: Schedule 40  
 Angle of brace: 45° to 59°  
 Lead radius of gyration: 0.421  
 W value: 200  
 Maximum horizontal load: 1,310 lb.

**SEISMIC BRACE ATTACHMENTS**  
 Structure attachment fittings: Make: PHD, Model: FIG 030  
 Listed load rating: 2015 Adj. load rating: 1425  
 Sway brace (pipe attachment) fittings: Make: PHD, Model: FIG 015  
 Listed load rating: 1000 Adj. load rating: 707

**FASTENER INFORMATION**  
 Orientation of connecting surface: "E"  
 Fastener Type: Through-Bolt w/ Fender Washer  
 Diameter: 3/4"  
 Length: 5-1/2"  
 Maximum load: 620 lb.

**SEISMIC BRACE ASSEMBLY DETAIL**  
 FIG. PHD TRUSS, FIG. PHD FAST CLAMP

**4-WAY SEISMIC BRACING CALCULATIONS (STEEL PIPE)**

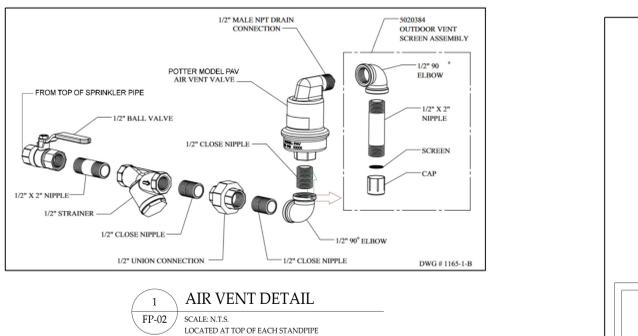
Project: Home2 Suites By Hilton, 475 Hospitality Blvd, Greenwood, SC 29649  
 Contractor: The Hiller Companies, LLC, 300 Manor Ave SW, Concord, NC 28025  
 Telephone: (704) 784-4218, Fax: (704) 784-4218

**BRACE INFORMATION**  
 Length of brace: 7'-0"  
 Diameter of brace: 1 in.  
 Type of brace: Schedule 40  
 Angle of brace: 45° to 59°  
 Lead radius of gyration: 0.421  
 W value: 200  
 Maximum horizontal load: 1,310 lb.

**SEISMIC BRACE ATTACHMENTS**  
 Structure attachment fittings: Make: PHD, Model: FIG 030  
 Listed load rating: 2015 Adj. load rating: 1425  
 Sway brace (pipe attachment) fittings: Make: PHD, Model: FIG 015  
 Listed load rating: 1000 Adj. load rating: 707

**FASTENER INFORMATION**  
 Orientation of connecting surface: "E"  
 Fastener Type: Through-Bolt w/ Fender Washer  
 Diameter: 3/4"  
 Length: 5-1/2"  
 Maximum load: 620 lb.

**SEISMIC BRACE ASSEMBLY DETAIL**  
 FIG. PHD TRUSS, FIG. PHD FAST CLAMP



**BRANCHLINE RESTRAINTS**

**Table 18.6.4(a) NFPA 13 (STEEL PIPE)**

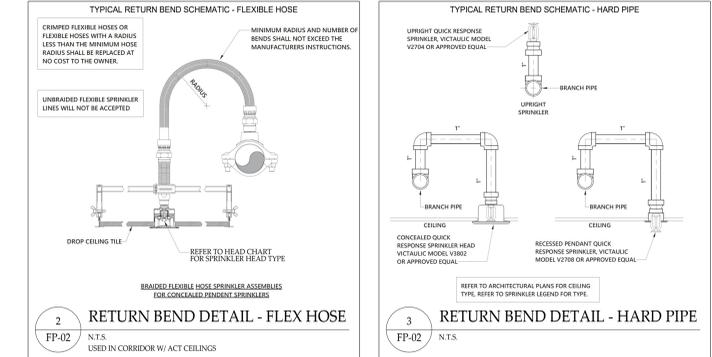
Seismic Coefficient, C <sub>s</sub> for this project	C <sub>s</sub> ≤ 0.50	0.5 < C <sub>s</sub> ≤ 0.71	0.71 < C <sub>s</sub> ≤ 1.40	C <sub>s</sub> > 1.40
1"	43	36	26	22
1 1/2"	49	39	27	24
1 1/2"	49	41	29	25
2"	53	45	31	27

**Table 18.6.4(b) NFPA 13 (CPVC PIPE)**

Seismic Coefficient, C <sub>s</sub> for this project	C <sub>s</sub> ≤ 0.50	0.5 < C <sub>s</sub> ≤ 0.71	0.71 < C <sub>s</sub> ≤ 1.40	C <sub>s</sub> > 1.40
1"	34	28	20	17
1 1/2"	37	31	22	19
1 1/2"	40	34	24	20
2"	45	38	37	23

**BRANCHLINE RESTRAINTS SAMMY METHOD**  
 Diagram showing a branchline restraint using a sammy attachment on a wood truss. Notes include: 'All threaded rod is permitted to be in contact with CPVC', 'Fig. 20 Surge Restraint', and '4 Tight Turns Within 1'-0"'. Dimensions include: 14" x 2-1/2" Eye-Head Lag Screw, 3/8" All Threaded Rod (R = 200), and 4 Tight Turns Within 1'-0" Restraint Wire.

**WIRE BRANCHLINE RESTRAINTS WOOD TRUSS CONNECTION**  
 Diagram showing a wire branchline restraint on a wood truss connection. Notes include: 'All threaded rod is permitted to be in contact with CPVC', 'Fig. 20 Surge Restraint', and '4 Tight Turns Within 1'-0" Restraint Wire'. Dimensions include: 14" x 2-1/2" Eye-Head Lag Screw and 3/8" All Threaded Rod (R = 200).

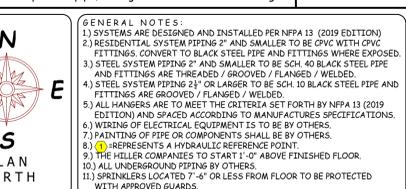


**CURE TIMES WITH ONE STEP SOLVENT CEMENT**

**200 psi (MAXIMUM) TEST PRESSURE**

PIPE SIZE	Ambient Temperature During Cure Period			
	60°F to 120°F	40°F to 59°F	1.5 hr.	0°F to 39°F
3/4"	45 min.	1.5 hr.	24 hr.	24 hr.
1"	45 min.	1.5 hr.	24 hr.	24 hr.
1 1/2"	1.5 hr.	16 hr.	120 hr.	120 hr.
2"	6 hr.	36 hr.	See Note 1	See Note 1
2 1/2"	8 hr.	72 hr.	See Note 1	See Note 1
3"	8 hr.	72 hr.	See Note 1	See Note 1

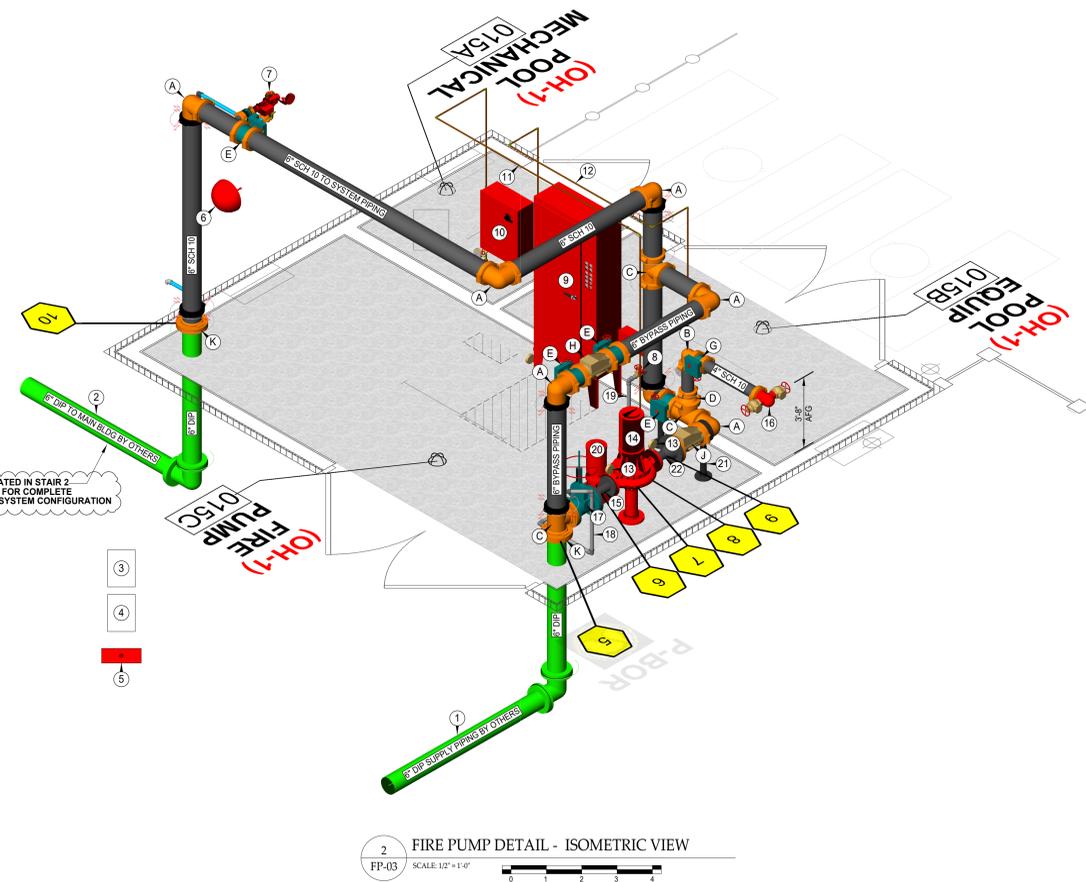
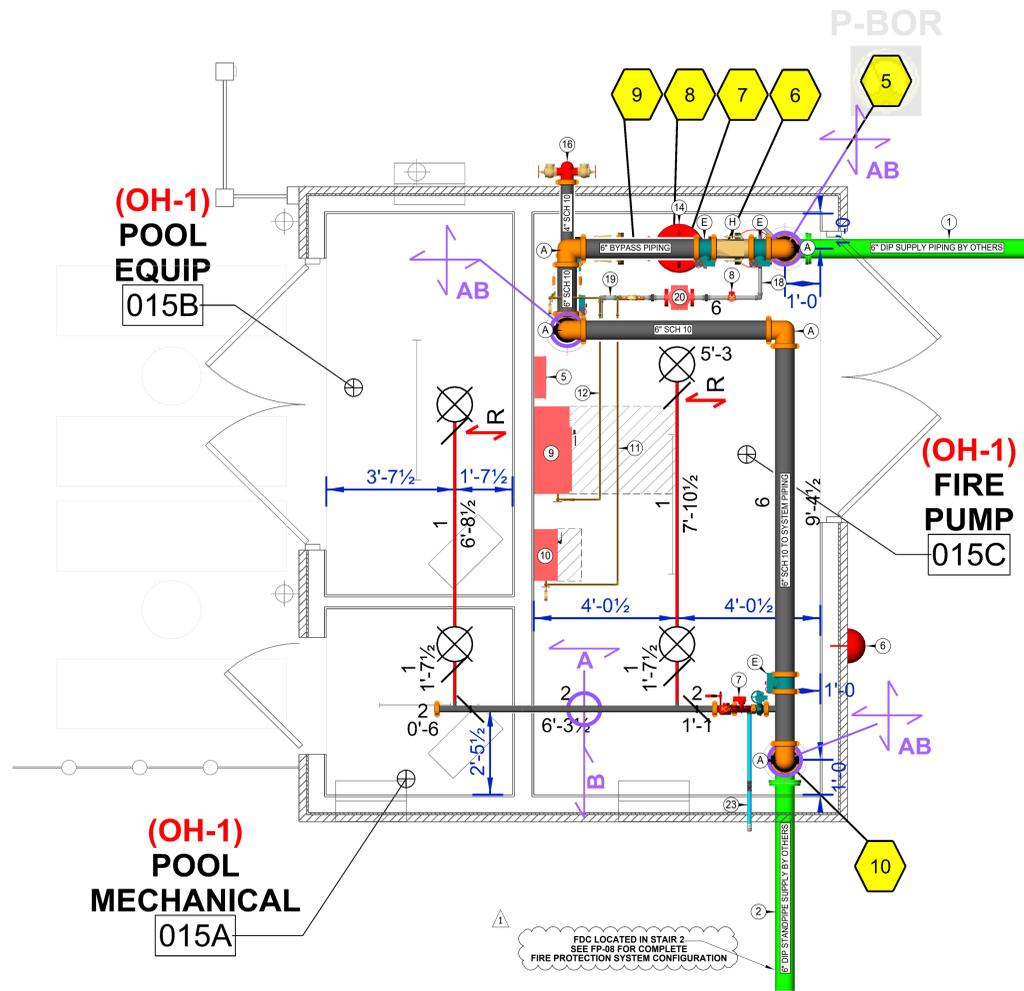
**Note 1:** For these sizes, the solvent cement can be applied at temperatures below 32°F, however, the sprinkler system temperature must be raised to a temperature of 32°F or above and allowed to cure per the above recommendations prior to pressure testing.



**GENERAL NOTES:**  
 1) SYSTEMS ARE DESIGNED AND INSTALLED PER NFPA 13 (2019 EDITION)  
 2) RESIDENTIAL SYSTEM PIPING 2" AND SMALLER IS CPVC WITH CPVC FITTINGS. CONVERT TO BLACK STEEL PIPE AND FITTINGS WHERE EXPOSED.  
 3) STEEL SYSTEM PIPING 2" AND SMALLER TO BE SCH. 40 BLACK STEEL PIPE AND FITTINGS ARE THREADED GROOVED/FLANGED/WELDED.  
 4) STEEL SYSTEM PIPING 2" OR LARGER TO BE SCH. 10 BLACK STEEL PIPE AND FITTINGS ARE GROOVED/FLANGED/WELDED.  
 5) ALL HANGERS ARE TO MEET THE CRITERIA SET FORTH BY NFPA 13 (2019 EDITION) AND SPACED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.  
 6) WIZARD OF ELECTRICAL EQUIPMENT IS TO BE BY OTHERS.  
 7) PAINTING OF PIPE OR COMPONENTS SHALL BE BY OTHERS.  
 8) REPRESENTS A HYDRAULIC REFERENCE POINT.  
 9) THE HILLER COMPANIES TO START 1'-0" ABOVE FINISHED FLOOR.  
 10) ALL UNDERGROUND PIPING BY OTHERS.  
 11) SPRINKLERS LOCATED 7'-0" OR LESS FROM FLOOR TO BE PROTECTED WITH APPROVED GUARDS.

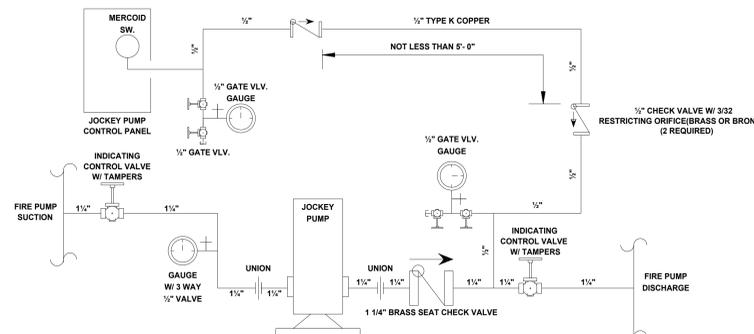
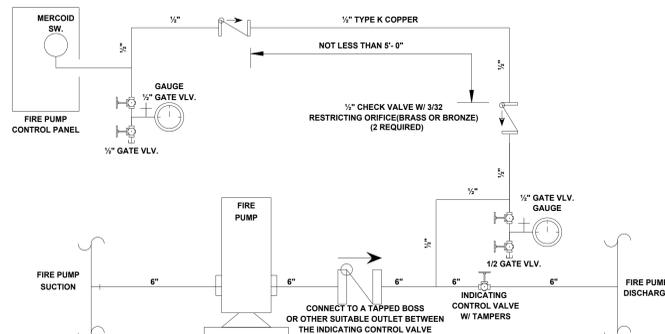
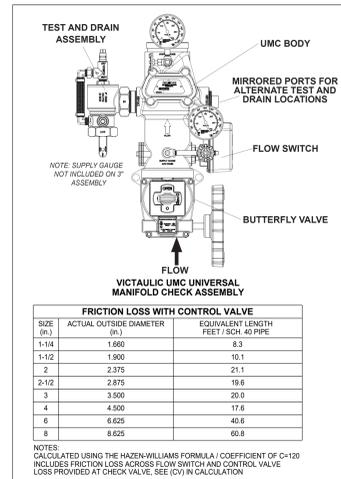
**WATER SUPPLY INFORMATION**

STATIC PRESSURE	53	FIRE PUMP	YES
RESIDUAL PRESSURE	51	SIZE GPM @ PSI	300 @ 60
FLOW P.M.A.	1160	TYPE OF DRIVER	VDP
DATE OF TEST	09/30/2025	ELECTRICAL REQ.	208V
HYDRANT LOCATION	@ TEST NODE (SEE SITE PLAN)	NODE #1	
TEST TAKEN BY	GREENWOOD CFW	PHONE #	(864) 942-8199



1 FIRE PUMP DETAIL - TOP VIEW  
FP-03 SCALE: 1/2" = 1'-0"

2 FIRE PUMP DETAIL - ISOMETRIC VIEW  
FP-03 SCALE: 1/2" = 1'-0"



3 ZONE CONTROL ASSEMBLY DETAIL WITH CONTROL VALVE  
FP-03 SCALE: N.T.S.

4 FIRE PUMP SENSING LINE  
FP-03 SCALE: N.T.S.

5 JOCKEY PUMP SENSING LINE  
FP-03 SCALE: N.T.S.

**FIRE PUMP, JOCKEY PUMP AND CONTROLLER INFORMATION:**

**FIRE PUMP: SYNCROFLO**  
MODEL: SD08LFX  
SIZE: 3" x 3" VERTICAL INLINE  
GPM: 300  
PSI: 60  
MOTOR FRAME: 254JP  
MOTOR: 20 HP, 3600 RPM, 208V/3PH/60HZ, ODP ENCLOSURE

**FIRE PUMP CONTROLLER: FIRETROL**  
MODEL: FTA1000-AM20H  
TYPE: FULL VOLTAGE STARTING  
OPERATING VOLTAGE: 208V/3PH/60HZ  
MAXIMUM MOTOR HORSEPOWER: 20 HP  
ENCLOSURE TYPE: NEMA 2  
PRESSURE SWITCH / TRANSDUCER RANGE: 0-300 PSI  
LOAD TERMINALS TO MOTOR: 208-220V, 20HP MAX  
AUTOMATIC TRANSFER SWITCH: N/A

**JOCKEY PUMP: WEBTROL**  
MODEL: NWSB7FEET  
SIZE: 1 1/2" x 1 1/2"  
GPM: 5  
PSI: 70  
MOTOR: 0.75 HP, 3500 RPM, 220V/3PH/60HZ

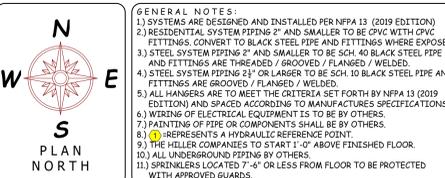
**JOCKEY PUMP CONTROLLER: FIRETROL**  
MODEL: FTA570F-AG034B  
TYPE: ACROSS THE LINE  
OPERATING VOLTAGE: 208V/3PH/60HZ  
MAXIMUM MOTOR HORSEPOWER: 0.75 HP  
ENCLOSURE TYPE: NEMA 2  
PRESSURE SWITCH / TRANSDUCER RANGE: 0-300 PSI  
LOAD TERMINALS TO MOTOR: 208-220V, 20HP MAX

**PUMP ROOM INFORMATION:**

- 6" DUCTILE IRON SUPPLY TO FLANGE 1'-0" AFF. (BY OTHERS, HILLER STARTS 1'-0" AFF)
- 2" VICTALIC UMC CHECK ASSEMBLY FOR ZONE P SYSTEM (SEE DETAIL 3FP-03)
- 1/2" BUTTERBALL VALVE W/ TAMPER SWITCH
- FIRE PUMP CONTROLLER (SEE NOTES THIS SHEET)
- JOCKEY PUMP CONTROLLER (SEE NOTES THIS SHEET)
- PRESSURE SENSING LINE TO JOCKEY PUMP CONTROLLER (SEE DETAIL THIS SHEET)
- PRESSURE SENSING LINE TO FIRE PUMP CONTROLLER (SEE DETAIL THIS SHEET)
- PUMP SUCTION AND DISCHARGE PRESSURE GAUGE W/ 3-WAY VALVE (TYPICAL)
- VERTICAL INLINE FIRE PUMP RATED AT 300 GPM @ 60 PSI (SEE NOTES THIS SHEET)
- 6" x 3" ECCENTRIC PUMP REDUCER
- CLA-VAL TH SERIES (4" (2) x 2 1/2") GROOVED FIRE PUMP TEST HEADER
- 2 1/2" HOSE ANGLE VALVES, CAPS AND CHAINS (OR EQUAL)
- 6" OS&Y W/ TAMPER
- 1 1/2" LINE TO JOCKEY PUMP
- 1 1/2" LINE FROM JOCKEY PUMP
- JOCKEY PUMP (SEE NOTES THIS SHEET)
- PIPE STANDHANGER SUPPORT (TYPICAL)
- 3" x 6" FLANGED PUMP INCREASER
- PUMP ROOM SYSTEM DRAIN TO DISCHARGE AT 12" AGF.

**SUBMITTALS**

It is the sole responsibility of owner and owners representative to insure that this building/buildings has proper heat and insulation to prevent fire sprinkler pipe, fittings and devices from freezing.



**GENERAL NOTES:**

- SYSTEMS ARE DESIGNED AND INSTALLED PER NFPA 13 (2019 EDITION)
- RESIDENTIAL SYSTEM PIPING 2" AND SMALLER TO BE CPVC WITH CPVC FITTINGS. CONVERT TO BLACK STEEL PIPE AND FITTINGS WHERE EXPOSED.
- STEEL SYSTEM PIPING 2" AND SMALLER TO BE SCH. 40 BLACK STEEL PIPE AND FITTINGS ARE THREADED / GROOVED / FLANGED / WELDED.
- STEEL SYSTEM PIPING 2 1/2" OR LARGER TO BE SCH. 10 BLACK STEEL PIPE AND FITTINGS ARE GROOVED / FLANGED / WELDED.
- ALL HANGERS ARE TO MEET THE CRITERIA SET FORTH BY NFPA 13 (2019 EDITION) AND SPACED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- WIRING OF ELECTRICAL EQUIPMENT IS TO BE BY OTHERS.
- PAINTING OF PIPE OR COMPONENTS SHALL BE BY OTHERS.
- REPRESENTS A HYDRAULIC REFERENCE POINT.
- THE HILLER COMPANIES TO START 1'-0" ABOVE FINISHED FLOOR.
- ALL UNDERGROUND PIPING BY OTHERS.
- SPRINKLERS LOCATED 7'-6" OR LESS FROM FLOOR TO BE PROTECTED WITH APPROVED GUARDS.

**WATER SUPPLY INFORMATION**

STATIC PRESSURE	53	FIRE PUMP	YES
RESIDUAL PRESSURE	51	SIZE GPM @ PSI	300 @ 60
FLOW G.P.M.	1160	TYPE OF DRIVER	VIP
DATE OF TEST	09/30/2025	ELECTRICAL REQ.	208V
HYDRANT LOCATION	@ TEST NODE (SEE SITE PLAN)	NODE #1	
TEST TAKEN BY	GREENWOOD CPW	(864) 942-8199	



**NICET REVIEW STAMP**

**JUAN OCHOA**  
NICET #139445  
LEVEL IV  
WATER BASED SYSTEMS LAYOUT

SIGNED: *Juan Ochoa*  
VALID THROUGH 01/01/2027

**Sprinkler Legend - Total Project**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Upright	Size	Response	Finish	Temperature	Note	Max Spacing
●	Viking	VK300	Microfast	9	5.6	Concealed Pendant	1/2	Quick	Brass	200°F	155°F	White Coverplate	130R' OH / 225R' LH
●	Viking	VK4621	Concealed	55	5.6	Concealed Pendant	1/2	Quick	Brass	200°F	155°F	White Coverplate	130R' OH / 225R' LH
●	Viking	VK302	Microfast	33	5.6	Pendent	1/2	Quick	Brass	200°F	155°F	White Coverplate	130R' OH / 225R' LH
●	Viking	VK4621	Concealed	1	5.6	Concealed Pendant	1/2	Quick	Brass	200°F	155°F	White Coverplate	130R' OH / 225R' LH
●	Viking	VK464	Freedom	59	4.9	Concealed Pendant	1/2	Fast	Brass	155°F	100°F	White Coverplate	18 x 18 / 324R'
●	Generic	MFG	Chute Head	4	5.6	Horizontal Sidewall	1/2	Quick	Brass	155°F	100°F	Connect Chute Head	100R' OH / 196R' LH
●	Viking	VK305	Microfast	3	5.6	Horizontal Sidewall	1/2	Quick	Chrome	200°F	155°F	Chrome Res Eac	100R' OH / 196R' LH
●	Viking	VK460	Freedom	104	5.6	Horizontal Sidewall	1/2	Fast	Chrome	155°F	100°F	Chrome Res Eac	16 x 16 ft / 256R' LH
●	Viking	VK482	Dry	7	5.6	Pendent	1	Quick	White Polyester	200°F	155°F	White Flat Eac	130R' OH / 225R' LH
●	Viking	VK468	Freedom	308	4.9	Pendent	1/2	Fast	Chrome	155°F	100°F	Chrome Res Eac	18 x 18 / 324R'
				<b>Total = 483</b>									

NO.	DATE	REVISION DISCRPTION	BY
1	12/18/25	ENGINEER'S COMMENTS	TWH

**THE Hiller COMPANIES**

CONTRACTOR LICENSE NUMBER: NC # 36018 / SC # FSC 1078-B

P O BOX 1090  
CONCORD, N.C. 28026

PH: 704-784-4218  
FAX: 704-784-4405

P O BOX 458  
PORTSMOUTH VA. 23705

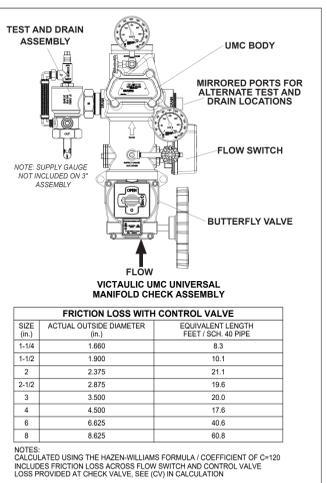
PH: 757-391-0050  
FAX: 757-391-0098

JOB NAME: Home 2 Suites  
475 Hospitality Blvd.  
Greensboro, NC 27449

CONTRACT WITH: John M. Campbell Company  
102 Winchester Avenue  
Monroe, NC 28110

PHONE: (704) 254-3214  
DRAWING NAME: FIRE PUMP DETAILS  
DRAWN BY: TWH  
AHL: LLR / Greenwood FM  
DATE: 12/18/25  
SCALE: AS NOTED  
CONTRACT NO.: CFS088

**FP-03 of 08**



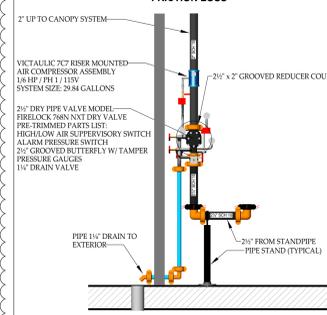
SIZE (IN)	ACTUAL OUTSIDE DIAMETER (IN)	EQUIVALENT LENGTH FEET / SCH. 40 PIPE
1-1/4	1.660	6.3
1-1/2	1.900	10.1
2	2.375	21.1
2-1/2	2.875	39.6
3	3.500	60.0
4	4.500	118.0
6	6.625	406.0
8	8.625	1520.0

NOTE: CALCULATED USING THE HAZEN-WILLIAMS FORMULA / COEFFICIENT OF C=120 INCLUDES FRICTION LOSS ACROSS FLOW SWITCH AND CONTROL VALVE LOSS PROVIDED AT CHECK VALVE. SEE CIVIL CALCULATION.

**ZONE CONTROL ASSEMBLY DETAIL WITH CONTROL VALVE**

FP-04 SCALE: 1/8" = 1'-0"

Nominal Size	Actual Outside Diameter	Equivalent Length of Pipe
1 1/4 DN40	1.900	3.00
2 DN50	2.375	9.00
2 1/2 DN60	2.875	2.743
3 DN80	3.500	8.00
3 DN100	3.900	2.439
4 DN150	4.500	17.00
6 DN150	6.500	51.82
6 DN150	6.625	21.00
8 DN200	8.625	67.06
8 DN200	8.750	15.200



**CANOPY DRY PIPE VALVE DETAIL VICTAULIC FIRELOCK 768N**

FP-04 SCALE: 1/2" = 1'-0"

Remote Area Zone 1 - Laundry	Occupancy Classification
Remote Area Zone 1 - Laundry	Ordinary Group 1
DENSITY (gpm/ft <sup>2</sup> )	0.15 for 1500ft <sup>2</sup> (Actual 661ft <sup>2</sup> )
QUICK RESPONSE REDUCTION	10'-0" Ceiling (40.0% 900ft <sup>2</sup> )
TOTAL HOSE STREAMS	250.00
TOTAL HEADS FLOWING	11
K-FACTOR	5.6
Zone 1 BASE OF RISER (gpm)	233.00
Zone 1 BASE OF RISER (psi)	72.148
P-BOR BASE OF RISER (gpm)	233.00
P-BOR BASE OF RISER (psi)	13.677
SAFETY MARGIN (psi)	+28.895 (54.8%)

**SEISMIC AND BRANCHLINE RESTRAIN NOTE**

- WHERE SHORT RODS AND STRAPS ARE USED - NO LATERAL BRACING REQUIRED PER NFPA 13, 18.5.5.10.2
- WHERE SHORT RODS AND STRAPS ARE USED - NO BRANCHLINE RESTRAINTS REQUIRED PER NFPA 13, 18.5.5.10.1 AND 18.5.5.10.2

**FIRE SUPPRESSION PLAN - FIRST FLOOR**

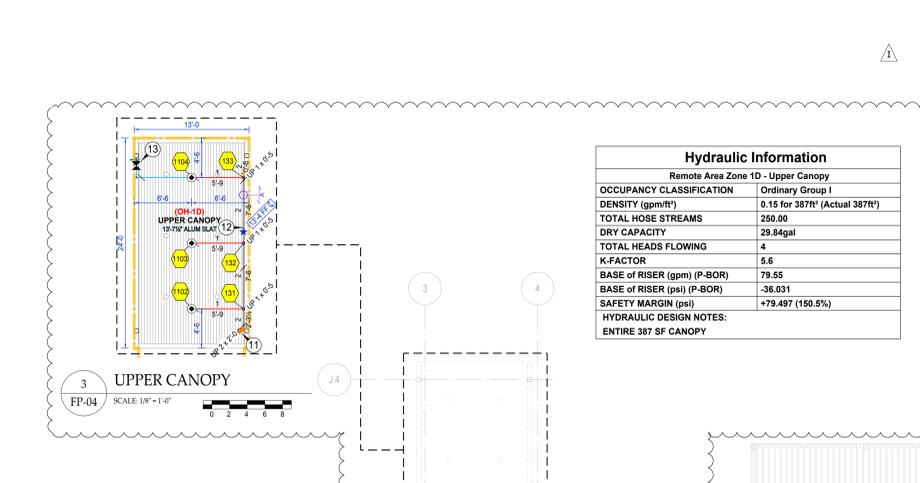
FP-04 SCALE: 1/8" = 1'-0"

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
⊗	Viking	VK300	Microfast	5	5.6	Upright	1/2"	Quick	Brass	200°F	Exposed	130R OH / 225R LH
⊗	Viking	VK4621	Concealed	47	5.6	Concealed Pendant	1/2"	Quick	Brass	155°F	White Coverplate	130R OH / 225R LH
⊗	Viking	VK302	Microfast	24	5.6	Pendant	1/2"	Quick	Chrome	200°F	Chrome Res Esc	130R OH / 225R LH
⊗	Viking	VK4621	Concealed	1	5.6	Concealed Pendant	1/2"	Quick	Brass	200°F	White Coverplate	130R OH / 225R LH
⊗	Viking	VK494	Freedom	8	4.9	Concealed Pendant	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324R
⊗	Generic	MFG	Chute Head	1	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connect Chute Head	100R OH / 196R LH
⊗	Viking	VK305	Microfast	3	5.6	Horizontal Sidewall	1/2"	Quick	Chrome	200°F	Chrome Res Esc	100R OH / 196R LH
⊗	Viking	VK460	Freedom	17	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256R
⊗	Viking	VK462	Dry	4	5.6	Pendant	1"	Quick	White Polyester	200°F	White Flat Esc	130R OH / 225R LH
⊗	Viking	VK468	Freedom	31	4.9	Pendant	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324R
Total = 141												

**GENERAL NOTES**

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- REPRESENTS A HYDRANT REFERENCE POINT.
- HILLER COMPANIES TO START 1'-0" ABOVE FINISHED FLOOR.
- ALL UNDERGROUND PIPING BY OTHERS.
- SPRINKLERS LOCATED 7'-0" OR LESS FROM FLOOR TO BE PROTECTED WITH APPROVED GUARDS.

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Remote Area Zone 1D - Upper Canopy	Occupancy Classification
Remote Area Zone 1D - Upper Canopy	Ordinary Group I
DENSITY (gpm/ft <sup>2</sup> )	0.15 for 387R <sup>2</sup> (Actual 387R <sup>2</sup> )
TOTAL HOSE STREAMS	250.00
DRY CAPACITY	29.84gal
TOTAL HEADS FLOWING	4
K-FACTOR	5.6
BASE OF RISER (gpm) (P-BOR)	79.55
BASE OF RISER (psi) (P-BOR)	-36.031
SAFETY MARGIN (psi)	+79.497 (150.5%)

**FRICITION LOSS WITH CONTROL VALVE**

SIZE (IN)	ACTUAL OUTSIDE DIAMETER (IN)	EQUIVALENT LENGTH FEET / SCH. 40 PIPE
1-1/4	1.660	6.3
1-1/2	1.900	10.1
2	2.375	21.1
2-1/2	2.875	39.6
3	3.500	60.0
4	4.500	118.0
6	6.625	406.0
8	8.625	1520.0

NOTE: CALCULATED USING THE HAZEN-WILLIAMS FORMULA / COEFFICIENT OF C=120 INCLUDES FRICTION LOSS ACROSS FLOW SWITCH AND CONTROL VALVE LOSS PROVIDED AT CHECK VALVE. SEE CIVIL CALCULATION.

**SEISMIC AND BRANCHLINE RESTRAIN NOTE**

- WHERE SHORT RODS AND STRAPS ARE USED - NO LATERAL BRACING REQUIRED PER NFPA 13, 18.5.5.10.2
- WHERE SHORT RODS AND STRAPS ARE USED - NO BRANCHLINE RESTRAINTS REQUIRED PER NFPA 13, 18.5.5.10.1 AND 18.5.5.10.2

**FIRE SUPPRESSION PLAN - FIRST FLOOR**

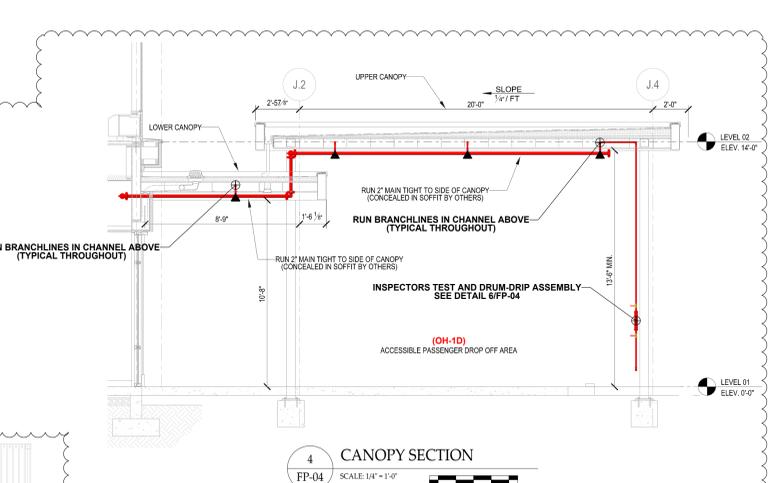
FP-04 SCALE: 1/8" = 1'-0"

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
⊗	Viking	VK300	Microfast	9	5.6	Upright	1/2"	Quick	Brass	200°F	Exposed	130R OH / 225R LH
⊗	Viking	VK4621	Concealed	55	5.6	Concealed Pendant	1/2"	Quick	Brass	155°F	White Coverplate	130R OH / 225R LH
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⊗	Viking	VK4621	Concealed	1	5.6	Concealed Pendant	1/2"	Quick	Brass	200°F	White Coverplate	130R OH / 225R LH
⊗	Viking	VK494	Freedom	59	4.9	Concealed Pendant	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324R
⊗	Generic	MFG	Chute Head	4	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connect Chute Head	100R OH / 196R LH
⊗	Viking	VK305	Microfast	3	5.6	Horizontal Sidewall	1/2"	Quick	Chrome	200°F	Chrome Res Esc	100R OH / 196R LH
⊗	Viking	VK460	Freedom	104	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256R
⊗	Viking	VK462	Dry	7	5.6	Pendant	1"	Quick	White Polyester	200°F	White Flat Esc	130R OH / 225R LH
⊗	Viking	VK468	Freedom	208	4.9	Pendant	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324R
Total = 483												

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- REPRESENTS A HYDRANT REFERENCE POINT.
- HILLER COMPANIES TO START 1'-0" ABOVE FINISHED FLOOR.
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1-1/4	1.660	6.3
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2-1/2	2.875	39.6
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6	6.625	406.0
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**SEISMIC AND BRANCHLINE RESTRAIN NOTE**

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- WHERE SHORT RODS AND STRAPS ARE USED - NO BRANCHLINE RESTRAINTS REQUIRED PER NFPA 13, 18.5.5.10.1 AND 18.5.5.10.2

**FIRE SUPPRESSION PLAN - FIRST FLOOR**

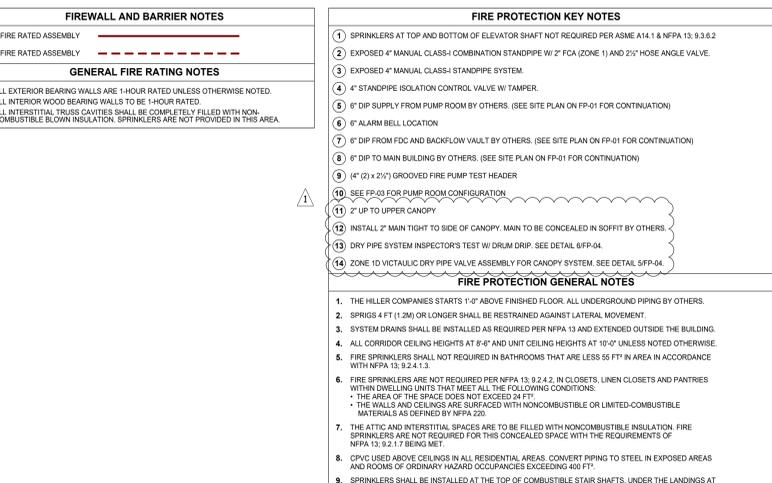
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Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
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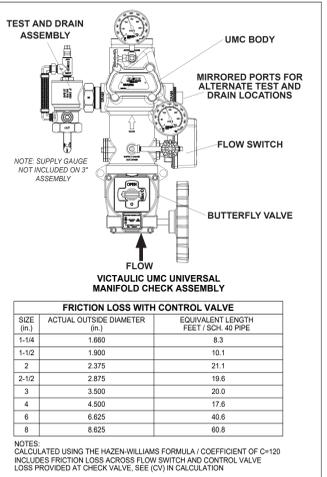
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**ZONE CONTROL ASSEMBLY DETAIL WITH CONTROL VALVE**

SCALE: N.T.S.  
 7' ASSEMBLY USED FOR ZONE 2 (SECOND FLOOR)

**FIREWALL AND BARRIER NOTES**

2-HR FIRE RATED ASSEMBLY  
 1-HR FIRE RATED ASSEMBLY

**GENERAL FIRE RATING NOTES**

- ALL EXTERIOR BEARING WALLS ARE 1-HOUR RATED UNLESS OTHERWISE NOTED.
- ALL INTERIOR WOOD BEARING WALLS TO BE 1-HOUR RATED.
- ALL INTERSTITIAL TRUSS GAVITES SHALL BE COMPLETELY FILLED WITH NON-COMBUSTIBLE BLOWN INSULATION. SPRINKLERS ARE NOT PROVIDED IN THIS AREA.

**Hydraulic Information**

Remote Area Zone 2 - King One Bedroom 229

OCCUPANCY CLASSIFICATION	Residential
DENSITY (gpm/ft <sup>2</sup> )	0.10 for 484ft <sup>2</sup> (Actual 484ft <sup>2</sup> )
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	4
K-FACTOR	5.8, 4.9
P-BOR BASE OF RISER (gpm)	86.42
P-BOR BASE OF RISER (psi)	16.991
Zone 2 BASE OF RISER (gpm)	86.42
Zone 2 BASE OF RISER (psi)	76.556
SAFETY MARGIN (psi)	+28.278 (49.6%)

**HYDRAULIC DESIGN NOTES:**

USE OF VK468 RESIDENTIAL PENDENT HEADS  
 Max Spacing: 18x18  
 Minimum Flow: 17 GPM  
 Minimum Pressure: 12.0 PSI

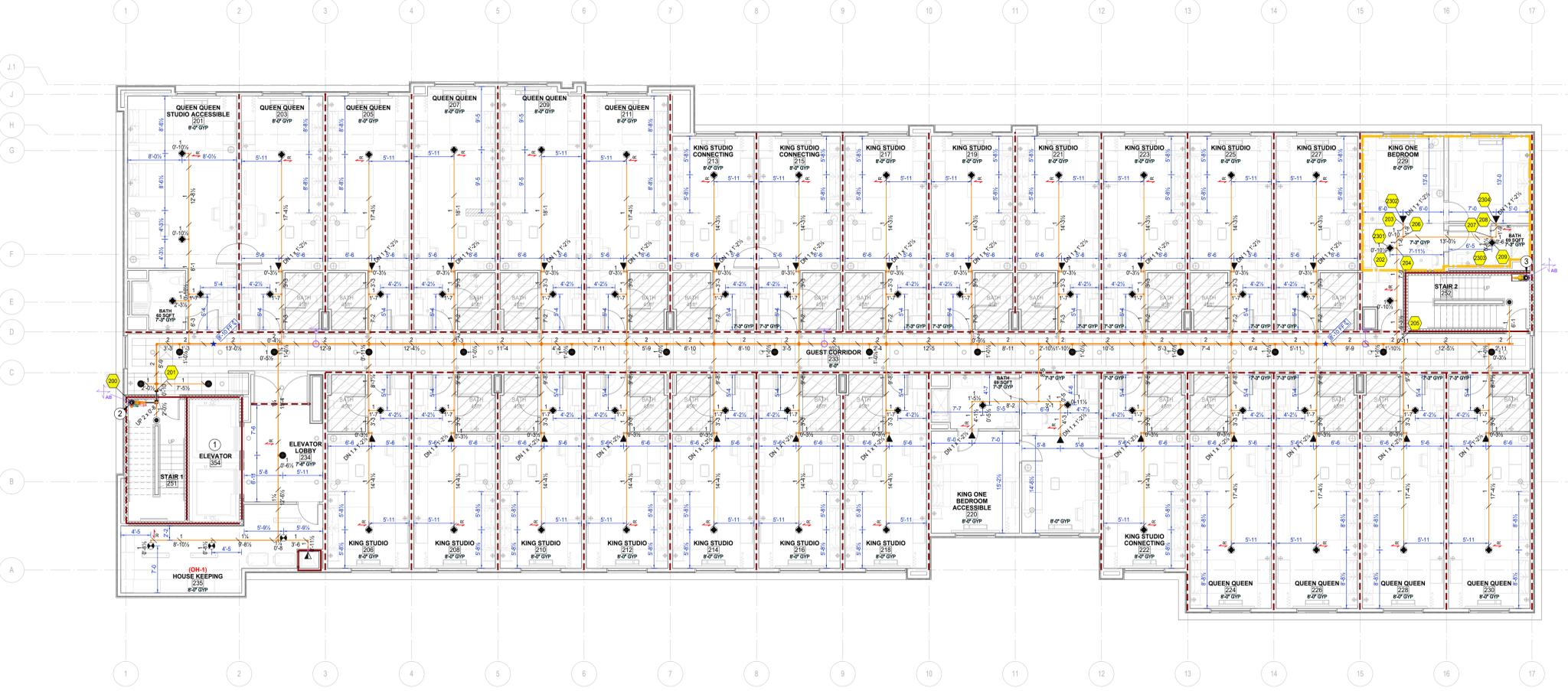
USE OF VK460 RESIDENTIAL SIDEWALL HEADS  
 Max Spacing: 16x16  
 Minimum Flow: 20 GPM  
 Minimum Pressure: 11.9 PSI

**FIRE PROTECTION KEY NOTES**

- SPRINKLERS AT TOP AND BOTTOM OF ELEVATOR SHAFT NOT REQUIRED PER ASME A14.1 & NFPA 13, 9.3.6.2
- EXPOSED 1" MANUAL CLASS-I COMBINATION STANDPIPE W/ 2" FCA (ZONE 1) AND 2 1/2" HOSE ANGLE VALVE.
- EXPOSED 1" MANUAL CLASS-I STANDPIPE SYSTEM.

**FIRE PROTECTION GENERAL NOTES**

- THE HILLER COMPANIES STARTS 1'-0" ABOVE FINISHED FLOOR. ALL UNDERGROUND PIPING BY OTHERS.
- SPRINGS 4 FT (1.2M) OR LONGER SHALL BE RESTRAINED AGAINST LATERAL MOVEMENT.
- SYSTEM DRAINS SHALL BE INSTALLED AS REQUIRED PER NFPA 13 AND EXTENDED OUTSIDE THE BUILDING.
- ALL CORRIDOR CEILING HEIGHTS AT 8'-0" AND UNIT CEILING HEIGHTS AT 10'-0" UNLESS NOTED OTHERWISE.
- FIRE SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS THAT ARE LESS THAN 55 FT<sup>2</sup> IN AREA IN ACCORDANCE WITH NFPA 13, 9.2.4.1.3.
- FIRE SPRINKLERS ARE NOT REQUIRED PER NFPA 13, 9.2.4.2, IN CLOSETS, LINEN CLOSETS AND PANTRIES WITHIN DWELLING UNITS THAT MEET ALL THE FOLLOWING CONDITIONS:
  - THE AREA OF THE SPACE DOES NOT EXCEED 24 FT<sup>2</sup>.
  - THE WALLS AND CEILING ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED BY NFPA 220.
- THE ATTIC AND INTERSTITIAL SPACES ARE TO BE FILLED WITH NONCOMBUSTIBLE INSULATION. FIRE SPRINKLERS ARE NOT REQUIRED FOR THIS CONCEALED SPACE WITH THE REQUIREMENTS OF NFPA 13, 9.2.1.1 BEING MET.
- CPVC USED ABOVE CEILING IN ALL RESIDENTIAL AREAS. CONVERT PIPING TO STEEL IN EXPOSED AREAS AND ROOMS OF ORDINARY HAZARD OCCUPANCIES EXCEEDING 400 FT<sup>2</sup>.
- SPRINKLERS SHALL BE INSTALLED AT THE TOP OF COMBUSTIBLE STAIR SHIFTS, UNDER THE LANDINGS AT EACH FLOOR LEVEL AND BENEATH THE LOWEST INTERMEDIATE LANDING PER NFPA 13, 9.3.4.1.
- ALL PIPING VALVES AND APPURTENANCES SHALL BE INSTALLED SUCH AS NOT TO OBSTRUCT ANY PORTION OF WINDOWS, DOORWAYS, STAIRS, PASSAGEWAYS OR ACCESS TO EQUIPMENT.



**SEISMIC AND BRANCHLINE RESTRAIN NOTE**

- WHERE SHORT RODS AND STRAPS ARE USED - NO LATERAL BRACING REQUIRED PER NFPA 13, 18.5.5.10.2.
- WHERE SHORT RODS AND STRAPS ARE USED - NO BRANCHLINE RESTRAINTS REQUIRED PER NFPA 13, 18.5.5.10.1 AND 18.5.5.

**1 FIRE SUPPRESSION PLAN - SECOND FLOOR**

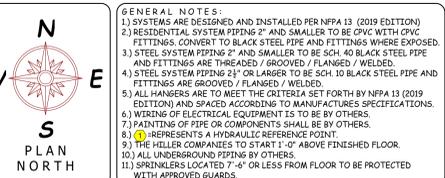
SCALE: 1/8" = 1'-0"

**Sprinkler Legend - Total 2nd Floor**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
●	Viking	VK468	Freedom	59	4.9	Pendent	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324ft <sup>2</sup>
●	Viking	VK460	Freedom	29	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256ft <sup>2</sup>
●	Viking	VK302	Microfast	3	5.6	Pendent	1/2"	Quick	Chrome	200°F	Chrome Res Esc	130ft <sup>2</sup> OH / 228ft <sup>2</sup> LH
●	Viking	VK484	Freedom	17	4.9	Concealed Pendent	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324ft <sup>2</sup>
●	Generic	MFG	Chute Head	1	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connect Chute Head	100ft <sup>2</sup> OH / 196ft <sup>2</sup> LH
●	Viking	VK4621	Concealed	2	5.6	Concealed Pendent	1/2"	Quick	Brass	155°F	White Coverplate	130ft <sup>2</sup> OH / 228ft <sup>2</sup> LH
Total = 111												

It is the sole responsibility of owner and owners representative to insure that this building/buildings has proper heat and insulation to prevent fire sprinkler pipe, fittings and devices from freezing.

**SUBMITTALS**



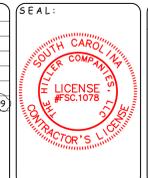
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- SPRINKLERS LOCATED 7'-0" OR LESS FROM FLOOR TO BE PROTECTED WITH APPROVED GUARDS.

**WATER SUPPLY INFORMATION**

STATIC PRESSURE	53	FIRE PUMP	YES
RESIDUAL PRESSURE	51	SIZE GPM @ PSI	300 @ 60
FLOW G.P.M.	1160	TYPE OF DRIVER	VIP
DATE OF TEST	09/30/2025	ELECTRICAL REQS.	208V
HYDRANT LOCATION	① TEST NODE (SEE SITE PLAN)	NODE #1	
TEST TAKEN BY	GREENWOOD CPW	(864) 942-8199	

NOTES:  
 TESTED BY - MIKE PROCTOR  
 WITNESSED BY - RUSSELL HOLLEY  
 CONTACT EMAIL - SHOLLEY@GREENWOODCPW.COM  
 HYDRANT LOCATION - SEE FP-01



**NICET REVIEW STAMP**

**JUAN OCHOA**  
 NICET #139445  
 LEVEL IV  
 WATER BASED SYSTEMS LAYOUT

SIGNED: *Juan Ochoa*  
 VALID THROUGH 01/01/2027

**Sprinkler Legend - Total Project**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
●	Viking	VK300	Microfast	9	5.6	Pendent	1/2"	Quick	Brass	200°F	White Coverplate	130ft <sup>2</sup> OH / 228ft <sup>2</sup> LH
●	Viking	VK4621	Concealed	55	5.6	Concealed Pendent	1/2"	Quick	Brass	155°F	White Coverplate	130ft <sup>2</sup> OH / 228ft <sup>2</sup> LH
●	Viking	VK302	Microfast	33	5.6	Pendent	1/2"	Quick	Chrome	200°F	Chrome Res Esc	130ft <sup>2</sup> OH / 228ft <sup>2</sup> LH
●	Viking	VK4621	Concealed	1	5.6	Concealed Pendent	1/2"	Quick	Brass	200°F	White Coverplate	130ft <sup>2</sup> OH / 228ft <sup>2</sup> LH
●	Viking	VK484	Freedom	59	4.9	Concealed Pendent	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324ft <sup>2</sup>
●	Generic	MFG	Chute Head	4	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connect Chute Head	100ft <sup>2</sup> OH / 196ft <sup>2</sup> LH
●	Viking	VK305	Microfast	3	5.6	Horizontal Sidewall	1/2"	Quick	Chrome	200°F	Chrome Res Esc	100ft <sup>2</sup> OH / 196ft <sup>2</sup> LH
●	Viking	VK460	Freedom	104	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256ft <sup>2</sup>
●	Viking	VK482	Dry	7	5.6	Pendent	1"	Quick	White Polyester	200°F	White Flat Esc	130ft <sup>2</sup> OH / 228ft <sup>2</sup> LH
●	Viking	VK468	Freedom	208	4.9	Pendent	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324ft <sup>2</sup>
Total = 483												

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/25	ENGINEER'S COMMENTS	TWH

**THE Hiller COMPANIES**

CONTRACTOR LICENSE NUMBER: NC # 36018 / SC # FSC 1078-B

P O BOX 1090  
 CONCORD, N.C. 28026  
 PH: 704-784-4218  
 FAX: 704-784-4405

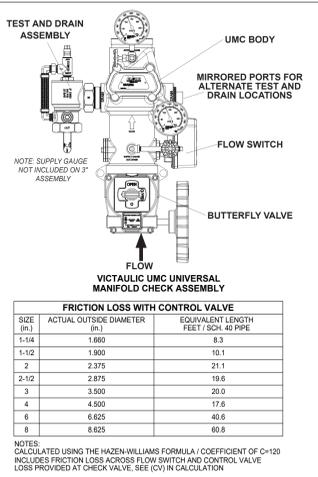
P O BOX 458  
 PORTSMOUTH VA. 23705  
 PH: 757-391-0090  
 FAX: 757-391-0098

**Home 2 Suites**  
 475 Hospitality Blvd.  
 Greenwood, SC 29649

CONTRACT WITH: **John M. Campbell Company**  
 102 Winchester Avenue  
 Monroe, NC 28110

PHONE: (704) 254-3214  
 DRAWING NAME: FIRE SUPPRESSION PLAN - SECOND FLOOR  
 DRAWN BY: TWH  
 AHJ: LLR / Greenwood FM  
 DATE: 12/18/25  
 SCALE: AS NOTED  
 CONTRACT NO.: CFS088

**FP-05 of 08**



**ZONE CONTROL ASSEMBLY DETAIL WITH CONTROL VALVE**

SCALE: N.T.S.  
 2. ASSEMBLY USED FOR ZONE 3 (THIRD FLOOR)

**FIREWALL AND BARRIER NOTES**

2-HR FIRE RATED ASSEMBLY

1-HR FIRE RATED ASSEMBLY

**GENERAL FIRE RATING NOTES**

- ALL EXTERIOR BEARING WALLS ARE 1-HOUR RATED UNLESS OTHERWISE NOTED.
- ALL INTERIOR WOOD BEARING WALLS TO BE 1-HOUR RATED.
- ALL INTERSTITIAL TRUSS CAVITIES SHALL BE COMPLETELY FILLED WITH NON-COMBUSTIBLE BLOWN INSULATION. SPRINKLERS ARE NOT PROVIDED IN THIS AREA.

**Hydraulic Information**

Remoto Area Zone 3 - King One Bedroom 329

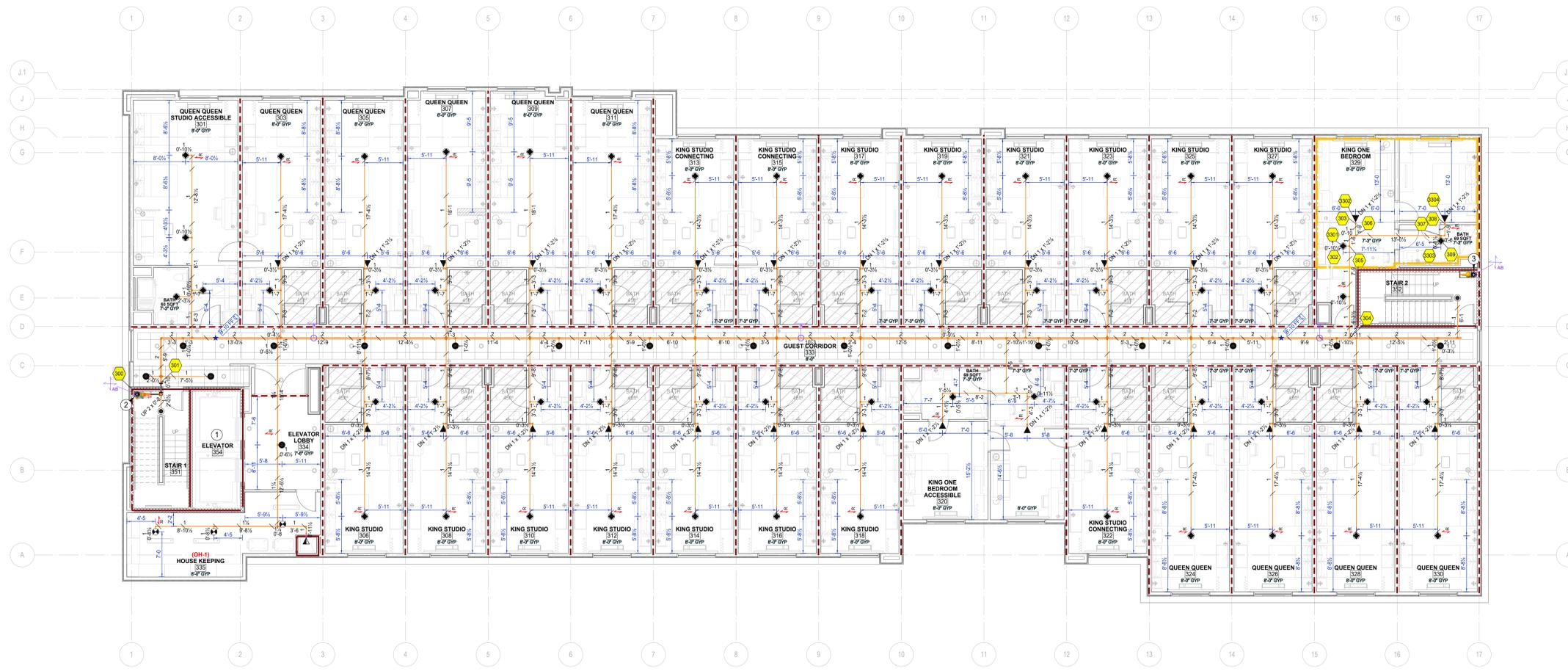
OCCUPANCY CLASSIFICATION	Residential
DENSITY (gpm/ft <sup>2</sup> )	0.10 for 484ft <sup>2</sup> (Actual 484ft <sup>2</sup> )
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	4
K-FACTOR	5.8, 4.9
P-BOR BASE OF RISER (gpm)	86.42
P-BOR BASE OF RISER (psi)	21.783
Zone 2 BASE OF RISER (gpm)	86.42
Zone 2 BASE OF RISER (psi)	81.348
Zone 3 BASE OF RISER (gpm)	86.42
Zone 3 BASE OF RISER (psi)	76.556
SAFETY MARGIN (psi)	+21.486 (40.6%)

**HYDRAULIC DESIGN NOTES:**

USE OF VK468 RESIDENTIAL PENDENT HEADS  
 Max Spacing: 18x18  
 Minimum Flow: 17 GPM  
 Minimum Pressure: 12.0 PSI

USE OF VK460 RESIDENTIAL SIDEWALL HEADS  
 Max Spacing: 16x16  
 Minimum Flow: 20 GPM  
 Minimum Pressure: 11.9 PSI

- FIRE PROTECTION KEY NOTES**
- SPRINKLERS AT TOP AND BOTTOM OF ELEVATOR SHAFT NOT REQUIRED PER ASME A14.1 & NFPA 13, 9.3.6.2
  - EXPOSED 2" MANUAL CLASS-I COMBINATION STANDPIPE W/ 2" FCA (ZONE 1) AND 2 1/2" HOSE ANGLE VALVE.
  - EXPOSED 2" MANUAL CLASS-I STANDPIPE SYSTEM.
- FIRE PROTECTION GENERAL NOTES**
- THE HILLER COMPANIES STARTS 1'-0" ABOVE FINISHED FLOOR. ALL UNDERGROUND PIPING BY OTHERS.
  - SPRINGS 4 FT (1.2M) OR LONGER SHALL BE RESTRAINED AGAINST LATERAL MOVEMENT.
  - SYSTEM DRAINS SHALL BE INSTALLED AS REQUIRED PER NFPA 13 AND EXTENDED OUTSIDE THE BUILDING.
  - ALL CORRIDOR CEILING HEIGHTS AT 8'-0" AND UNIT CEILING HEIGHTS AT 10'-0" UNLESS NOTED OTHERWISE.
  - FIRE SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS THAT ARE LESS THAN 55 FT<sup>2</sup> IN AREA IN ACCORDANCE WITH NFPA 13, 9.2.4.1.3.
  - FIRE SPRINKLERS ARE NOT REQUIRED PER NFPA 13, 9.2.4.2, IN CLOSETS, LINEN CLOSETS AND PANTRIES WITHIN DWELLING UNITS THAT MEET ALL THE FOLLOWING CONDITIONS:
    - THE AREA OF THE SPACE DOES NOT EXCEED 24 FT<sup>2</sup>.
    - THE WALLS AND CEILING ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED BY NFPA 220.
  - THE ATTIC AND INTERSTITIAL SPACES ARE TO BE FILLED WITH NONCOMBUSTIBLE INSULATION. FIRE SPRINKLERS ARE NOT REQUIRED FOR THIS CONCEALED SPACE WITH THE REQUIREMENTS OF NFPA 13, 9.2.1.1 BEING MET.
  - CPVC USED ABOVE CEILING IN ALL RESIDENTIAL AREAS. CONVERT PIPING TO STEEL IN EXPOSED AREAS AND ROOMS OF ORDINARY HAZARD OCCUPANCIES EXCEEDING 400 FT<sup>2</sup>.
  - SPRINKLERS SHALL BE INSTALLED AT THE TOP OF COMBUSTIBLE STAIR SHIFTS, UNDER THE LANDINGS AT EACH FLOOR LEVEL AND BENEATH THE LOWEST INTERMEDIATE LANDING PER NFPA 13, 9.3.4.1.
  - ALL PIPING VALVES AND APPURTENANCES SHALL BE INSTALLED SUCH AS NOT TO OBSTRUCT ANY PORTION OF WINDOWS, DOORWAYS, STAIRS, PASSAGEWAYS OR ACCESS TO EQUIPMENT.



**SEISMIC AND BRANCHLINE RESTRAIN NOTE**

- WHERE SHORT RODS AND STRAPS ARE USED - NO LATERAL BRACING REQUIRED PER NFPA 13, 18.5.5.10.2.
- WHERE SHORT RODS AND STRAPS ARE USED - NO BRANCHLINE RESTRAINTS REQUIRED PER NFPA 13, 18.5.5.10.1 AND 18.5.5.

**1 FIRE SUPPRESSION PLAN - THIRD FLOOR**

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

**Sprinkler Legend - Total 3rd Floor**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
●	Viking	VK494	Freedom	17	4.9	Concealed Pendent	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324ft <sup>2</sup>
●	Viking	VK460	Freedom	29	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256ft <sup>2</sup>
●	Viking	VK461	Freedom	59	4.9	Pendent	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324ft <sup>2</sup>
●	Viking	VK4621	Concealed	2	5.6	Concealed Pendent	1/2"	Quick	Brass	155°F	White Coverplate	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK302	Microfast	3	5.6	Pendent	1/2"	Quick	Chrome	200°F	Chrome Res Esc	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Generic	MFG	Chute Head	1	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connect Chute Head	100ft <sup>2</sup> OH / 196ft <sup>2</sup> LH
				<b>Total = 111</b>								

It is the sole responsibility of owner and owners representative to insure that this building/buildings has proper heat and insulation to prevent fire sprinkler pipe, fittings and devices from freezing.

**GENERAL NOTES:**

- SYSTEMS ARE DESIGNED AND INSTALLED PER NFPA 13 (2019 EDITION)
- RESIDENTIAL SYSTEM PIPING 2" AND SMALLER TO BE CPVC WITH CPVC FITTINGS. CONVERT TO BLACK STEEL PIPE AND FITTINGS WHERE EXPOSED.
- STEEL SYSTEM PIPING 2" AND SMALLER TO BE SCH. 40 BLACK STEEL PIPE AND FITTINGS ARE THREADED / GROOVED / FLANGED / WELDED.
- STEEL SYSTEM PIPING 2 1/2" OR LARGER TO BE SCH. 10 BLACK STEEL PIPE AND FITTINGS ARE GROOVED / FLANGED / WELDED.
- DATE OF TEST: 09/30/2025 ELECTRICAL REQ.S: 206V
- ALL HANGERS ARE TO MEET THE CRITERIA SET FORTH BY NFPA 13 (2019 EDITION) AND SPACED ACCORDING TO MANUFACTURERS SPECIFICATIONS.
- WORKS OF ELECTRICAL EQUIPMENT IS TO BE BY OTHERS.
- PAINTINGS OF PIPE OR COMPONENTS SHALL BE BY OTHERS.
- REPRESENTS A HYDRAULIC REFERENCE POINT.
- THE HILLER COMPANIES TO START 1'-0" ABOVE FINISHED FLOOR.
- ALL UNDERGROUND PIPING BY OTHERS.
- SPRINKLERS LOCATED 7'-0" OR LESS FROM FLOOR TO BE PROTECTED WITH APPROVED GUARDS.

**WATER SUPPLY INFORMATION**

STATIC PRESSURE	53	FIRE PUMP	YES
RESIDUAL PRESSURE	51	SIZE GPM @ PSI	300 @ 60
FLOW G.P.M.	1160	TYPE OF DRIVER	VIP
DATE OF TEST	09/30/2025	ELECTRICAL REQ.S	206V
HYDRANT LOCATION	① TEST NODE (SEE SITE PLAN)	NODE #1	(864) 942-8199
TEST TAKEN BY	GREENWOOD CPW		

**NOTES:**

TESTED BY - MIKE PROCTOR  
 WITNESSED BY - RUSSELL HOLLEY  
 CONTACT EMAIL - SHOLLEY@GREENWOODCPW.COM  
 HYDRANT LOCATION - SEE FP-01

**SEAL:**

**THE HILLER COMPANIES**  
 LICENSE # SC-10718  
 CONTRACTOR'S LICENSE

**NICET REVIEW STAMP**

**JUAN OCHOA**  
 NICET #139445  
 LEVEL IV  
 WATER BASED SYSTEMS LAYOUT

SIGNED: *Juan Ochoa*  
 VALID THROUGH 01/01/2027

**Sprinkler Legend - Total Project**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
●	Viking	VK300	Microfast	9	5.6	Upright	1/2"	Quick	Brass	200°F	White Coverplate	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK4621	Concealed	55	5.6	Concealed Pendent	1/2"	Quick	Brass	155°F	White Coverplate	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK302	Microfast	33	5.6	Pendent	1/2"	Quick	Chrome	200°F	Chrome Res Esc	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK4621	Concealed	1	5.6	Concealed Pendent	1/2"	Quick	Brass	200°F	White Coverplate	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK494	Freedom	59	4.9	Concealed Pendent	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324ft <sup>2</sup>
●	Generic	MFG	Chute Head	4	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connect Chute Head	100ft <sup>2</sup> OH / 196ft <sup>2</sup> LH
●	Viking	VK305	Microfast	3	5.6	Horizontal Sidewall	1/2"	Quick	Chrome	200°F	Chrome Res Esc	100ft <sup>2</sup> OH / 196ft <sup>2</sup> LH
●	Viking	VK460	Freedom	104	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256ft <sup>2</sup>
●	Viking	VK482	Dry	7	5.6	Pendent	1"	Quick	White Polyester	200°F	White Flat Esc	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK468	Freedom	308	4.9	Pendent	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324ft <sup>2</sup>
				<b>Total = 483</b>								

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/25	ENGINEER'S COMMENTS	TWH

**THE Hiller COMPANIES**

CONTRACTOR LICENSE NUMBER: NC # 36018 / SC # FSC 1078-B

P O BOX 1090  
 CONCORD, N.C. 28026  
 PH: 704-784-4218  
 FAX: 704-784-4405

P O BOX 458  
 PORTSMOUTH VA. 23705  
 PH: 757-391-0090  
 FAX: 757-391-0098

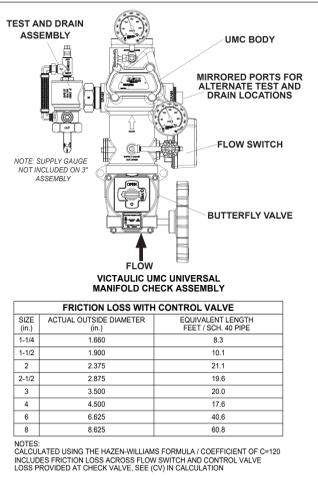
**SUBMITTALS**

TOR NAME: Home 2 Suites  
 475 Hospitality Blvd  
 Greenwood, SC 29649

CONTRACT WITH: John M. Campbell Company  
 102 Winchester Avenue  
 Monroe, NC 28110

PHONE: (704) 254-3214  
 DRAWING NAME: FIRE SUPPRESSION PLAN - THIRD FLOOR  
 DRAWN BY: TWH  
 AHJ: LLR / Greenwood FM  
 DATE: 12/18/25  
 SCALE: AS NOTED  
 CONTRACT NO.: CFS088

**FP-06 of 08**



ZONE CONTROL ASSEMBLY DETAIL WITH CONTROL VALVE

SCALE: N.T.S.  
 2. ASSEMBLY USED FOR ZONE 2 (FOURTH FLOOR)

**FIREWALL AND BARRIER NOTES**

2-HR FIRE RATED ASSEMBLY

1-HR FIRE RATED ASSEMBLY

**GENERAL FIRE RATING NOTES**

- ALL EXTERIOR BEARING WALLS ARE 1-HOUR RATED UNLESS OTHERWISE NOTED.
- ALL INTERIOR WOOD BEARING WALLS TO BE 1-HOUR RATED.
- ALL INTERSTITIAL TRUSS CAVITIES SHALL BE COMPLETELY FILLED WITH NON-COMBUSTIBLE BLOWN INSULATION. SPRINKLERS ARE NOT PROVIDED IN THIS AREA.

**FIRE PROTECTION KEY NOTES**

- SPRINKLERS AT TOP AND BOTTOM OF ELEVATOR SHAFT NOT REQUIRED PER ASME A14.1 & NFPA 13, 9.3.6.2
- EXPOSED 4" MANUAL CLASS-I COMBINATION STANDPIPE W/ 2" FCA (ZONE 1) AND 2 1/2" HOSE ANGLE VALVE.
- EXPOSED 4" MANUAL CLASS-I STANDPIPE SYSTEM.
- ROOF MANIFOLD ASSEMBLY. SEE DETAIL ON FP-08.

**FIRE PROTECTION GENERAL NOTES**

- THE HILLER COMPANIES STARTS 1'-0" ABOVE FINISHED FLOOR. ALL UNDERGROUND PIPING BY OTHERS.
- SPRINGS 4 FT (1.2M) OR LONGER SHALL BE RESTRAINED AGAINST LATERAL MOVEMENT.
- SYSTEM DRAINS SHALL BE INSTALLED AS REQUIRED PER NFPA 13 AND EXTENDED OUTSIDE THE BUILDING.
- ALL CORRIDOR CEILING HEIGHTS AT 8'-0" AND UNIT CEILING HEIGHTS AT 10'-0" UNLESS NOTED OTHERWISE.
- FIRE SPRINKLERS SHALL NOT BE INSTALLED IN BATHROOMS THAT ARE LESS THAN 55 SQ FT IN AREA IN ACCORDANCE WITH NFPA 13, 9.2.4.1.3.
- FIRE SPRINKLERS ARE NOT REQUIRED PER NFPA 13, 9.2.4.2, IN CLOSETS, LINEN CLOSETS AND PANTRIES WITHIN DWELLING UNITS THAT MEET ALL THE FOLLOWING CONDITIONS:
  - THE AREA OF THE SPACE DOES NOT EXCEED 54 SQ FT.
  - THE WALLS AND CEILING ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED BY NFPA 220.
- THE ATTIC AND INTERSTITIAL SPACES ARE TO BE FILLED WITH NONCOMBUSTIBLE INSULATION. FIRE SPRINKLERS ARE NOT REQUIRED FOR THIS CONCEALED SPACE WITH THE REQUIREMENTS OF NFPA 13, 9.2.1.1 BEING MET.
- CPVC USED ABOVE CEILING IN ALL RESIDENTIAL AREAS. CONVERT PIPING TO STEEL IN EXPOSED AREAS AND ROOMS OF ORDINARY HAZARD OCCUPANCIES EXCEEDING 400 SQ FT.
- SPRINKLERS SHALL BE INSTALLED AT THE TOP OF COMBUSTIBLE STAIR SHAFTS, UNDER THE LANDINGS AT EACH FLOOR LEVEL AND BENEATH THE LOWEST INTERMEDIATE LANDING PER NFPA 13, 9.3.4.1.
- ALL PIPING VALVES AND APPURTENANCES SHALL BE INSTALLED SUCH AS NOT TO OBSTRUCT ANY PORTION OF WINDOWS, DOORWAYS, STAIRS, PASSAGEWAYS OR ACCESS TO EQUIPMENT.

**Hydraulic Information**

Remote Area Zone 4 - King One Bedroom 429

Residential	
OCCUPANCY CLASSIFICATION	Residential
DENSITY (gpm/ft <sup>2</sup> )	0.10 for 454ft <sup>2</sup> (Actual 454ft <sup>2</sup> )
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	4
K-FACTOR	5.8, 4.9
P-BOR BASE OF RISER (gpm)	86.42
P-BOR BASE OF RISER (psi)	26.575
Zone 2 BASE OF RISER (gpm)	86.42
Zone 2 BASE OF RISER (psi)	86.140
Zone 3 BASE OF RISER (gpm)	86.42
Zone 3 BASE OF RISER (psi)	81.348
Zone 4 BASE OF RISER (gpm)	86.42
Zone 4 BASE OF RISER (psi)	76.556
SAFETY MARGIN (psi)	+16.694 (31.5%)

**HYDRAULIC DESIGN NOTES:**

USE OF VK468 RESIDENTIAL PENDENT HEADS  
 Max Spacing: 18x18  
 Minimum Flow: 17 GPM  
 Minimum Pressure: 12.0 PSI

USE OF VK460 RESIDENTIAL SIDEWALL HEADS  
 Max Spacing: 16x16  
 Minimum Flow: 20 GPM  
 Minimum Pressure: 11.9 PSI

**Hydraulic Information**

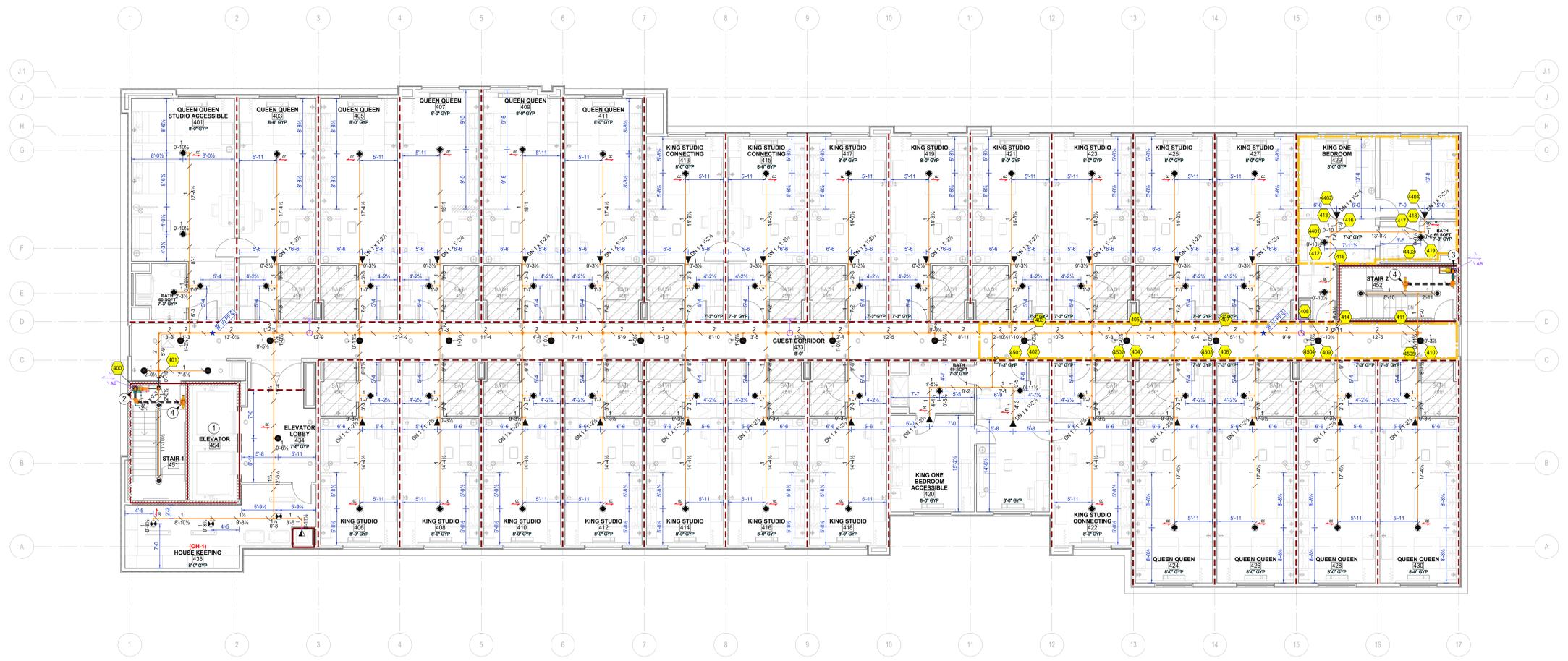
Remote Area Zone 4 - 4th Floor Corridor

Residential	
OCCUPANCY CLASSIFICATION	Residential
DENSITY (gpm/ft <sup>2</sup> )	0.10 for 411ft <sup>2</sup> (Actual 411ft <sup>2</sup> )
TOTAL HOSE STREAMS	100.00
TOTAL HEADS FLOWING	5
K-FACTOR	4.9
P-BOR BASE OF RISER (gpm)	87.78
P-BOR BASE OF RISER (psi)	-20.440
Zone 2 BASE OF RISER (gpm)	87.78
Zone 2 BASE OF RISER (psi)	39.087
Zone 3 BASE OF RISER (gpm)	87.78
Zone 3 BASE OF RISER (psi)	34.294
Zone 4 BASE OF RISER (gpm)	87.78
Zone 4 BASE OF RISER (psi)	29.501
SAFETY MARGIN (psi)	+63.641 (120.2%)

**HYDRAULIC DESIGN NOTES:**

DEMANDING 5 CORRIDOR SPRINKLERS PER NFPA 13 19.3.3.3.6

USE OF VK468 RESIDENTIAL PENDENT HEADS  
 Max Spacing: 18x18  
 Minimum Flow: 17 GPM  
 Minimum Pressure: 12.0 PSI



**SEISMIC AND BRANCHLINE RESTRAIN NOTE**

- WHERE SHORT RODS AND STRAPS ARE USED - NO LATERAL BRACING REQUIRED PER NFPA 13, 18.5.5.10.2.
- WHERE SHORT RODS AND STRAPS ARE USED - NO BRANCHLINE RESTRAINTS REQUIRED PER NFPA 13, 18.5.5.10.1 AND 18.5.5.

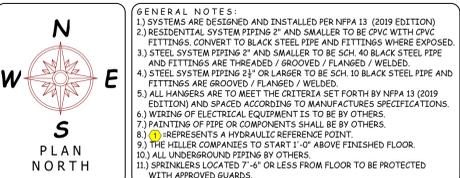
**1 FIRE SUPPRESSION PLAN - FOURTH FLOOR**

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

**Sprinkler Legend - Total 4th Floor**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
●	Viking	VK460	Freedom	29	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256ft <sup>2</sup>
●	Generic	MFG	Chute Head	1	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connect Chute Head	100ft <sup>2</sup> OH / 198ft <sup>2</sup> LH
●	Viking	VK464	Freedom	17	4.9	Concealed Pendant	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324ft <sup>2</sup>
●	Viking	VK4621	Concealed	4	5.6	Concealed Pendant	1/2"	Quick	Brass	155°F	White Coverplate	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK468	Freedom	59	4.9	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324ft <sup>2</sup>
●	Viking	VK302	Microfast	3	5.6	Pendent	1/2"	Quick	Chrome	200°F	Chrome Res Esc	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
Total = 113												

It is the sole responsibility of owner and owners representative to insure that this building/buildings has proper heat and insulation to prevent fire sprinkler pipe, fittings and devices from freezing.



**GENERAL NOTES:**

- SYSTEMS ARE DESIGNED AND INSTALLED PER NFPA 13 (2019 EDITION)
- RESIDENTIAL SYSTEM PIPING 2" AND SMALLER TO BE CPVC WITH CPVC FITTINGS. CONVERT TO BLACK STEEL PIPE AND FITTINGS WHERE EXPOSED.
- STEEL SYSTEM PIPING 2" AND SMALLER TO BE SCH. 40 BLACK STEEL PIPE AND FITTINGS ARE THREADED / GROOVED / FLANGED / WELDED.
- STEEL SYSTEM PIPING 2 1/2" OR LARGER TO BE SCH. 10 BLACK STEEL PIPE AND FITTINGS ARE GROOVED / FLANGED / WELDED.
- ALL HANGERS ARE TO MEET THE CRITERIA SET FORTH BY NFPA 13 (2019 EDITION) AND SPACED ACCORDING TO MANUFACTURERS SPECIFICATIONS.
- WIRING OF ELECTRICAL EQUIPMENT IS TO BE BY OTHERS.
- PAINTINGS OF PIPE OR COMPONENTS SHALL BE BY OTHERS.
- REPRESENTS A HYDRAULIC REFERENCE POINT.
- THE HILLER COMPANIES TO START 1'-0" ABOVE FINISHED FLOOR.
- ALL UNDERGROUND PIPING BY OTHERS.
- SPRINKLERS LOCATED 7'-0" OR LESS FROM FLOOR TO BE PROTECTED WITH APPROVED GUARDS.

**WATER SUPPLY INFORMATION**

STATIC PRESSURE	53	FIRE PUMP	YES
RESIDUAL PRESSURE	51	SIZE GPM @ PSI	300 @ 60
FLOW G.P.M.	160	TYPE OF DRIVER	VIP
DATE OF TEST	09/30/2025	ELECTRICAL REQ.S	206V
HYDRANT LOCATION	① TEST NODE (SEE SITE PLAN)	NODE #1	
TEST TAKEN BY	GREENWOOD CPW	(864) 942-8199	

NOTES:  
 TESTED BY - MIKE PROCTOR  
 WITNESSED BY - RUSSELL HOLLEY  
 CONTACT EMAIL - RHOLLEY@GREENWOODCPW.COM  
 HYDRANT LOCATION - SEE FP-01



**NICET REVIEW STAMP**

**JUAN OCHOA**  
 NICET #139445  
 LEVEL IV  
 WATER BASED SYSTEMS LAYOUT

SIGNED: *Juan Ochoa*  
 VALID THROUGH 01/01/2027

**Sprinkler Legend - Total Project**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
●	Viking	VK300	Microfast	9	5.6	Upright	1/2"	Quick	Brass	200°F	White Coverplate	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK4621	Concealed	55	5.6	Concealed Pendant	1/2"	Quick	Brass	155°F	White Coverplate	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK302	Microfast	33	5.6	Pendent	1/2"	Quick	Chrome	200°F	Chrome Res Esc	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK4621	Concealed	1	5.6	Concealed Pendant	1/2"	Quick	Brass	200°F	White Coverplate	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK464	Freedom	59	4.9	Concealed Pendant	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324ft <sup>2</sup>
●	Generic	MFG	Chute Head	4	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connect Chute Head	100ft <sup>2</sup> OH / 198ft <sup>2</sup> LH
●	Viking	VK305	Microfast	3	5.6	Horizontal Sidewall	1/2"	Quick	Chrome	200°F	Chrome Res Esc	100ft <sup>2</sup> OH / 198ft <sup>2</sup> LH
●	Viking	VK460	Freedom	104	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256ft <sup>2</sup>
●	Viking	VK482	Dry	7	5.6	Pendent	1"	Quick	White Polyester	200°F	White Flat Esc	130ft <sup>2</sup> OH / 225ft <sup>2</sup> LH
●	Viking	VK468	Freedom	308	4.9	Pendent	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324ft <sup>2</sup>
Total = 483												

NO.	DATE	REVISION DESCRIPTION	BY
1	12/18/25	ENGINEER'S COMMENTS	TWH

**THE Hiller COMPANIES**

CONTRACTOR LICENSE NUMBER: NC # 36018 / SC # FSC 1078-B

P O BOX 1090 PH: 704-784-4218  
 CONCORD, N.C. 28026 FAX: 704-784-4405

P O BOX 458 PH: 757-391-0050  
 PORTSMOUTH VA. 23705 FAX: 757-391-0098

**SUBMITTALS**

TOR NAME: Home 2 Suites  
 475 Hospitality Blvd.  
 Greenwood, SC 29649

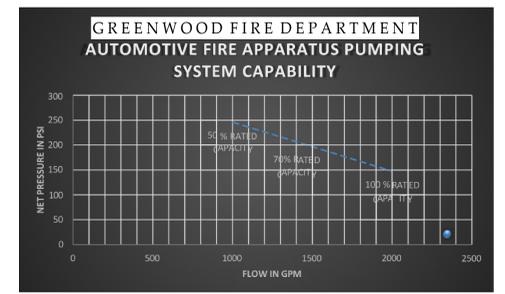
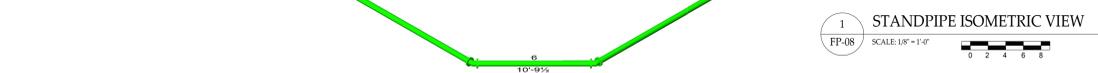
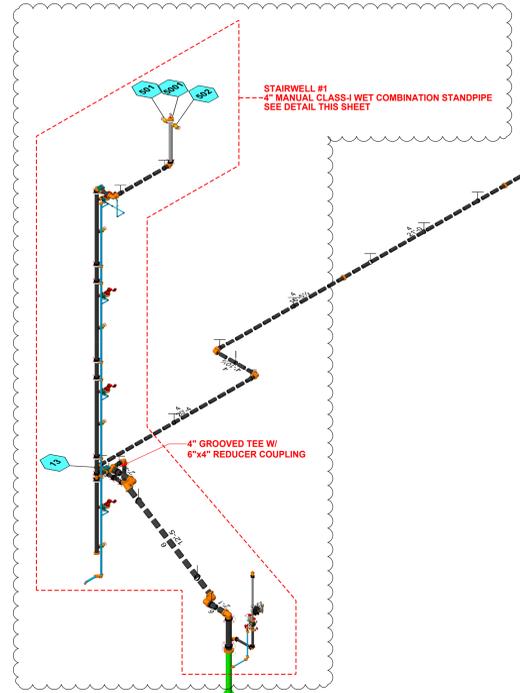
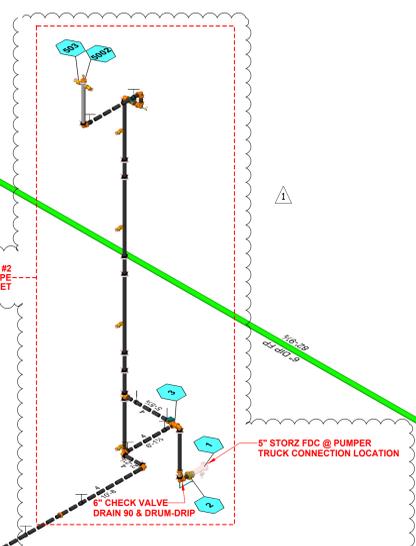
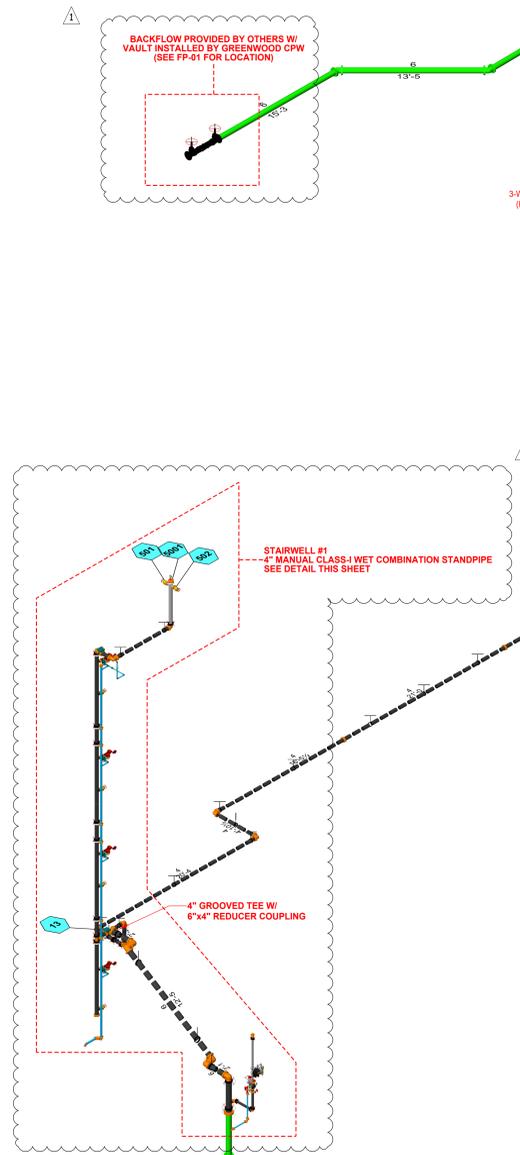
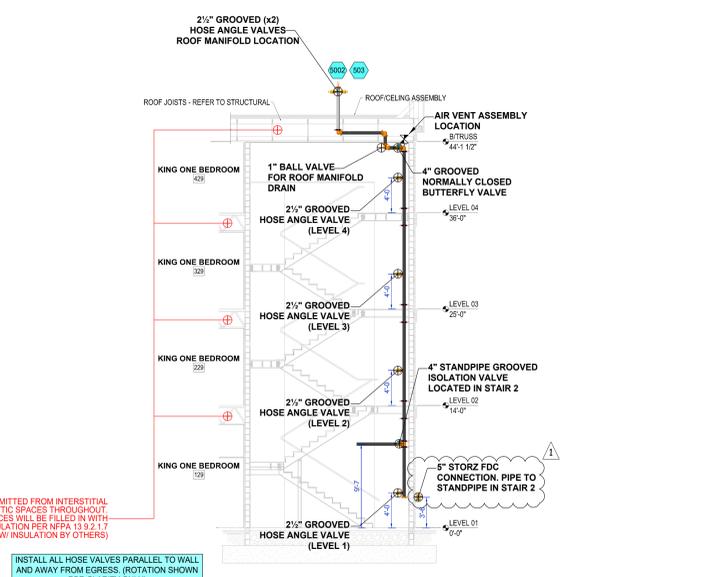
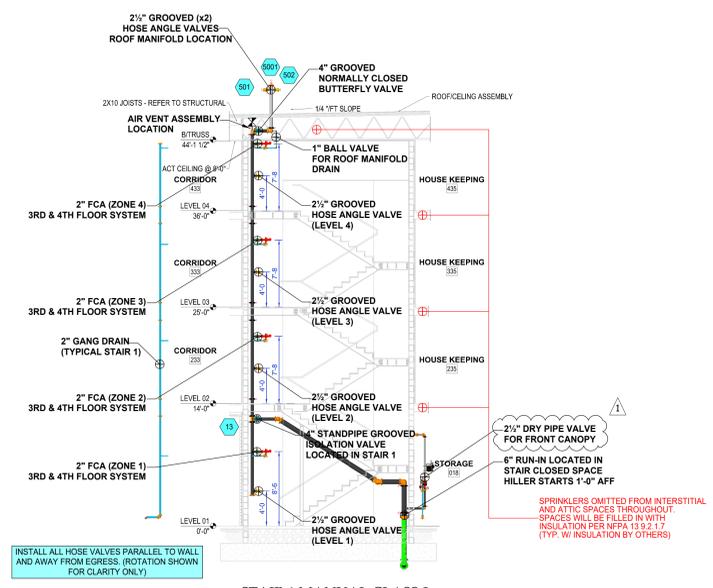
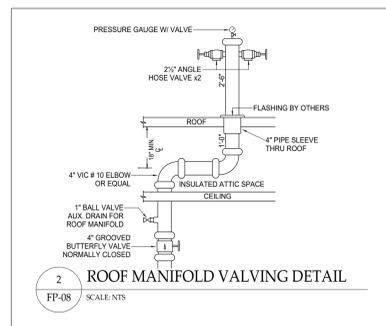
CONTRACT WITH: John M. Campbell Company  
 102 Winchester Avenue  
 Monroe, NC 28110

PHONE: (704) 254-3214  
 DRAWING NAME: FIRE SUPPRESSION PLAN - FOURTH FLOOR  
 DRAWN BY: TWH  
 AHJ: LLR / Greenwood FM  
 DATE: 12/18/25  
 SCALE: AS NOTED  
 CONTRACT NO.: CFS088

**FP-07 of 08**

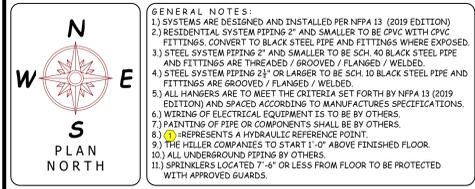
# HOME 2 SUITES BY HILTON 4-STORY HOTEL CONSTRUCTION FIRE PROTECTION

475 Hospitality Blvd, Greenwood, SC 29649



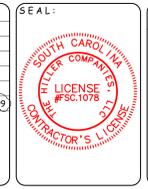
**CLASS 1 WET MANUAL STANDPIPE INFORMATION**  
PUMPER TRUCK USED: 2,000 GPM @ 150 PSI  
FIRE PUMP CONNECTION POINT AT FDC  
DESIGN AREA 3 STANDPIPE CONNECTIONS  
TOTAL STANDPIPE FLOW REQUIRED: 750 GPM @ 165.038 PSI  
500 GPM @ MOST REMOTE, 250 GPM @ ADDITIONAL CONNECTION

It is the sole responsibility of owner and owners representative to insure that this building/buildings has proper heat and insulation to prevent fire sprinkler pipe, fittings and devices from freezing.



**WATER SUPPLY INFORMATION**

STATIC PRESSURE	53	FIRE PUMP	YES
RESIDUAL PRESSURE	51	SIZE GPM @ PSI	300 @ 60
FLOW G.P.M.	1160	TYPE OF DRIVER	VDP
DATE OF TEST	09/30/2025	ELECTRICAL REQS.	208V
HYDRANT LOCATION	@ TEST NODE (SEE SITE PLAN)	NODE #1	(864) 942-8199
TEST TAKEN BY	GREENWOOD CPW		



**NICET REVIEW STAMP**  
JUAN OCHOA  
NICET #139445  
LEVEL IV  
WATER BASED SYSTEMS LAYOUT  
SIGNED: *Juan Ochoa*  
VALID THROUGH 01/01/2027

**Sprinkler Legend - Total Project**

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note	Max Spacing
⊗	Viking	VK360	Microfast	9	5.6	Upright	1/2"	Quick	Brass	200°F	White Coverplate	130R' OH / 225R' LH
⊗	Viking	VK421	Concealed	55	5.6	Concealed Pendant	1/2"	Quick	Brass	155°F	White Coverplate	130R' OH / 225R' LH
⊗	Viking	VK302	Microfast	33	5.6	Pendent	1/2"	Quick	Chrome	200°F	White Coverplate	130R' OH / 225R' LH
⊗	Viking	VK421	Concealed	1	5.6	Concealed Pendant	1/2"	Quick	Brass	200°F	White Coverplate	130R' OH / 225R' LH
⊗	Viking	VK484	Freedom	59	4.9	Concealed Pendant	1/2"	Fast	Brass	155°F	White Coverplate	18 x 18 / 324R'
⊗	Generic	MFC	Chute Head	4	5.6	Horizontal Sidewall	1/2"	Quick	Brass	155°F	Connet Chute Head	100R' OH / 196R' LH
⊗	Viking	VK305	Microfast	3	5.6	Horizontal Sidewall	1/2"	Quick	Chrome	200°F	Chrome Res Esc	100R' OH / 196R' LH
⊗	Viking	VK460	Freedom	104	5.8	Horizontal Sidewall	1/2"	Fast	Chrome	155°F	Chrome Res Esc	16 x 16 ft / 256R'
⊗	Viking	VK482	Dry	7	5.6	Pendent	1"	Quick	White Polyester	205°F	White Flat Esc	130R' OH / 225R' LH
⊗	Viking	VK468	Freedom	208	4.9	Pendent	1/2"	Fast	Chrome	155°F	Chrome Res Esc	18 x 18 / 324R'
				<b>Total = 483</b>								

NO.	DATE	REVISION DISCRPTION	BY
1	12/18/25	ENGINEER'S COMMENTS	TWH

**THE Hiller COMPANIES**  
CONTRACTOR LICENSE NUMBER: NC # 36018 / SC # FSC 1078-B  
P O BOX 1090 CONCORD, N.C. 28026 PH: 704-784-4218 FAX: 704-784-4405  
P O BOX 458 PORTSMOUTH VA. 23705 PH: 757-391-0050 FAX: 757-391-0098

**SUBMITTALS**

JOB NAME: Home 2 Suites  
475 Hospitality Blvd  
Greenwood, SC 29649

CONTRACT WITH: John M. Campbell Company  
102 Winchester Avenue  
Monroe, NC 28110

PHONE: (704) 254-3214  
DRAWING NAME: STANDPIPE HYDRAULIC CALCULATION REFERENCE  
DRAWN BY: TWH  
DATE: 12/18/25  
SCALE: AS NOTED  
CONTRACT NO.: CFS088

**FP-08 of 08**