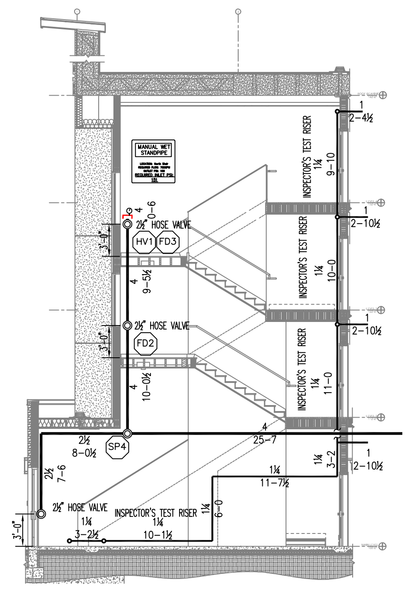
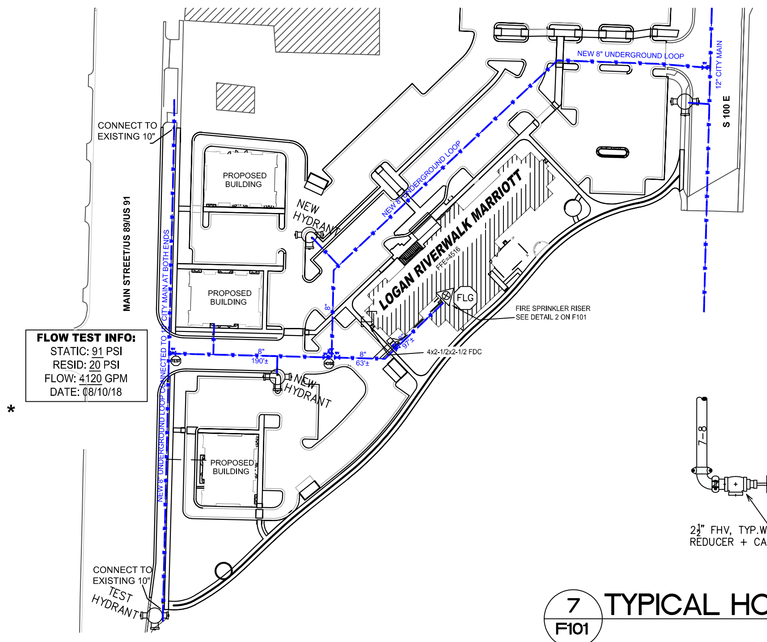
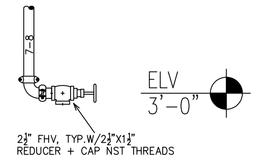


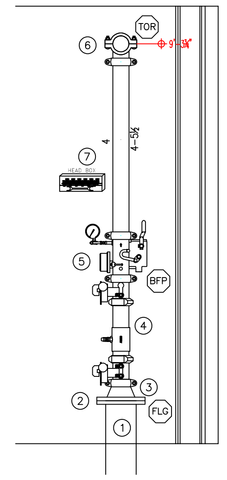
3 F101 NORTH STAIR STANDPIPE SECTION
SCALE: 1/8" = 1'



5 F101 FIRE SPRINKLER SITE PLAN
SCALE: 1" = 100'



7 F101 TYPICAL HOSE VALVE DETAIL
SCALE: 1/2" = 1'



2 F101 MAIN FIRE SYSTEM RISER
SCALE: 1/2" = 1'

RISER LEGEND

1. 8" UNDERGROUND WATER SERVICE (BY OTHERS)
   (FLUSHING & TESTING OF THE UNDERGROUND SHALL BE COMPLETED PRIOR TO THE SPRINKLER SYSTEM HOOKUP. UNDERGROUND PAPERS ARE TO BE SUPPLIED TO THE "FP" CONTRACTOR BY THE G.C.)
2. 8" GROOVE FLANGED ADAPTER
3. 8"x4" GROOVED CONC. REDUCER
4. 4" AMES COLT C200 BACKFLOW GxG BFV w/ TAMPERS
5. 4" GROOVED COMMERCIAL RISER MANIFOLD w/ PRESSURE RELIEF VALVE
6. 4" TO STANDPIPE FEEDMAIN
7. SPARE HEAD BOX CONTAINING: EXTRA SPRINKLERS PER NFPA 13 HEAD WRENCH FOR EACH TYPE OF SPRINKLER

* ALL WIRING/INTERFACING OF ALARMS BY OTHERS

* ALL PIPING PENETRATING THE EXTERIOR WALL TO BE GALVANIZED

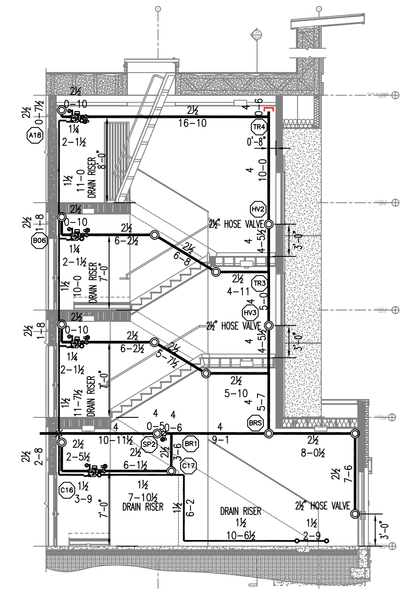
GENERAL NOTES

1. INTERNATIONAL BUILDING CODE (2015)
   1.1. OCCUPANCY: RESIDENTIAL (R-1) ASSEMBLY (A-2)
   1.2. TYPE OF CONSTRUCTION: V-A (1HR RATED PROTECTED, COMBUSTIBLE CONSTRUCTION)
   1.3. SPRINKLERED AREAS (APPROXIMATE – SEE ARCHITECTURAL PLANS FOR ACTUAL)
   MAIN LEVEL = 17,763 S.F.
   2ND–4TH LEVEL = 14,106 S.F.
   1.4. INSTALLATION STANDARDS:
   SPRINKLER SYSTEM DESIGNED AND INSTALLED PER NFPA–13, (2013)
2. SPRINKLER PIPE TYPES:
   –WET–
   2.1. 1" BRANCH LINES TO BE BLAZEMASTER CPVC PIPING WITH CEMENTED FITTINGS
   2.2. 1¼" THROUGH 2" MAIN & BRANCH LINES TO BE BLAZEMASTER CPVC PIPING WITH CEMENTED FITTINGS
   2.3. 1" BRANCH LINES TO BE BLK SCHEDULE 40 PIPING WITH THREADED FITTINGS
   2.4. 1¼" THROUGH 4" MAIN & BRANCH LINES TO BE BLK SCHEDULE 10 PIPING WITH GROOVED FITTINGS
3. DESIGN CRITERIA
   3.1. LIGHT HAZARD AREAS DESIGNED TO DELIVER 0.10 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.
   3.2. ORDINARY HAZARD GROUP 1 AREA DESIGNED TO DELIVER 0.15 GPM/S.F. OVER THE MOST DEMANDING 1500 S.F.
   3.2. SPECIAL DESIGN APPROACHES: RESIDENTIAL SPRINKLERS
   DESIGNED FOR 4 ADJACENT SPRINKLERS THAT PRODUCE THE GREATEST HYDRAULIC DEMAND WITH MINIMUM REQUIRED DISCHARGE THAT IS THE GREATER OF THE LISTED MINIMUM FLOW RATE OR 0.10 GPM OVER THE DESIGN AREA.
   3.3. REMOTE AREA REDUCTIONS HAVE BEEN TAKEN WHERE APPLICABLE PER NFPA 13 SEC. 11.2.3.2.3
4. NOTES:
   4.1. ALL MATERIAL TO BE NEW AND MEET U.L. STANDARDS
   4.2. HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 (2013) – SEE PLAN FOR HANGING REQUIREMENTS
5. SYMBOLS USED ON DRAWINGS:
   PIPE ELEVATION A.F.F
   PIPE ELEVATION BELOW B.O.D
   ROOM HAZARD CLASSIFICATION (ALL ROOMS ARE CONSIDERED LIGHT HAZARD UNLESS NOTED)
   EL. 10'-0" HYDRAULIC CALCULATION JUNCTION POINT
   ℄ 1'-0" CEILING HEIGHT
6. OH1 SCOPE OF WORK:
   WILL BE INSTALLING A NEW FIRE SPRINKLER SYSTEM TO COVER THE ENTIRE NEW LOGAN RIVERWALK MARRIOTT TOWNEPLACE. THE BUILDING WILL BE PROTECTED BY 4 WET SYSTEMS ZONED PER FLOOR.
   ALL AREAS OF THE BUILDING TO BE INSTALLED AND COVERED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND PER NFPA 13 (2013)

ZONE CONTROL LEGEND

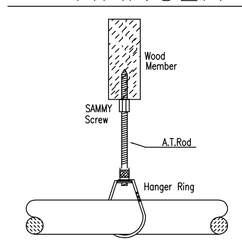
1. 2½" MAIN FROM STANDPIPE
2. 2½" GR BUTTERFLY VALVE W/TAMPER
3. 2½" GR Check valve
4. 2½" RISER MANIFOLD w/ FLOW SWITCH, GAUGE, & TEST–AN–DRAIN w/ RELIEVE VALVE
5. 2½" MAIN TO SYSTEM
6. 1¼" TO DRAIN RISER

6 F101 TYPICAL ZONE CONTROL DETAIL
SCALE: 1/2" = 1'

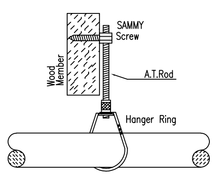


4 F101 SOUTH STAIR STANDPIPE SECTION
SCALE: 1/8" = 1'

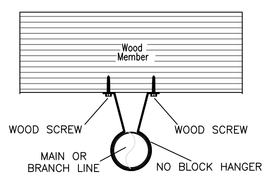
HANGER DETAILS



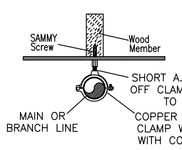
IPS AUTOGRIP HANGER (SAMMY SCREW)



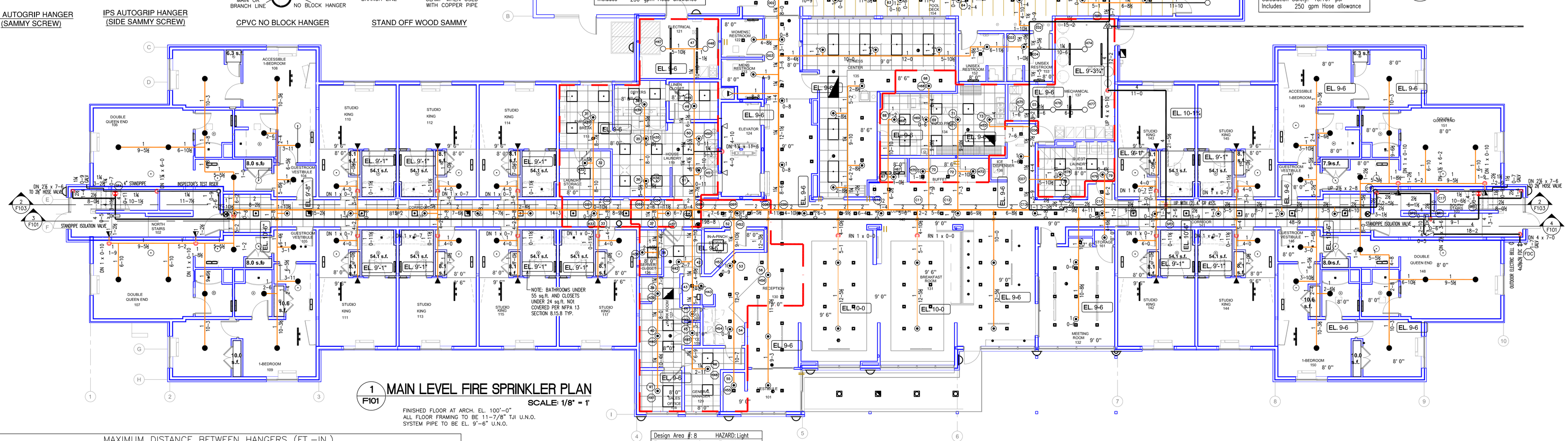
IPS AUTOGRIP HANGER (SIDE SAMMY SCREW)



CPVC NO BLOCK HANGER



STAND OFF WOOD SAMMY



1 F101 MAIN LEVEL FIRE SPRINKLER PLAN
SCALE: 1/8" = 1'

FINISHED FLOOR AT ARCH. EL. 100'-0"
ALL FLOOR FRAMING TO BE 11-7/8" TJI U.N.O.
SYSTEM PIPE TO BE EL. 9'-6" U.N.O.

MAXIMUM DISTANCE BETWEEN HANGERS (FT.–IN.)

	NOMINAL PIPE SIZE (IN.)									
	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12–0	12–0	15–0	15–0	15–0	15–0	15–0	15–0	15–0
THREADED LIGHTWALL STEEL PIPE	NA	12–0	12–0	12–0	12–0	NA	NA	NA	NA	NA
COPPER TUBE	8–0	8–0	10–0	10–0	12–0	12–0	12–0	NA	NA	NA
BLAZEMASTER CPVC	5–6	6–0	6–6	7–0	8–0	9–0	10–0	NA	NA	NA

NFPA 13 HANGER SPACING

SYMBOLS LEGEND

- WET SYSTEM RISER
- DRY PIPE/DELUGE SYSTEM RISER
- FIRE HYDRANT
- ELECTRIC ALARM BELL
- WATER MOTOR GONG
- PIPE "RISE"
- PIPE "DROP"
- PIPE "CAP"
- SWAY BRACING
- PIPE HANGER (SEE CHART)
- POINT OF CONNECTION
- EXISTING SPRINKLER PIPE
- SPRINKLER HEAD(SECTION VIEW)
- FLEXIBLE GROOVED COUPLING
- RIGID GROOVED COUPLING
- REDUCING GROOVED COUPLING
- THREADED PIPE COUPLING
- CONTROL VALVE
- VALVE WITH TAMPER SWITCH
- KEY VALVE WITH ROAD BOX
- AUXILIARY DRAIN/PLUG
- CHECK VALVE
- FLOW SWITCH
- BUTTERFLY VALVE WITH TAMPER SWITCH
- FDC FIRE DEPARTMENT CONNECTION
- A–1 MAIN PIPE NUMBER
- 21–0 MAIN PIPE LENGTH
- 00 BRANCHLINE NUMBER
- 00 HYDRAULIC CALC. REFERENCE
- 0–0 < OF PIPE BELOW DECK / CEILING
- 0–0 < OF PIPE ABOVE FINISHED FLOOR
- 00–00 CPP. CEILING ELEVATION AND TYPE
- ELEVATION–DATUM ELEV: XXX'–XX" ELEVATION DATUM
- 1 DNC(BRS-00) HEAD/DROP CUT LENGTHS

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	ESCUTCHEON	HEAD BOX (2 min)
	47	PEND	CHROME	155	4.90	1/2"	V2740	VICTAULIC	V27 RESI	SEMI–RECESSED	2
	91	PEND	CHROME	155	5.60	1/2"	V2708	VICTAULIC	V27	SEMI–RECESSED	2
	8	UPRIGHT	CHROME	200	5.60	1/2"	V2704	VICTAULIC	V27	N/A	2
	2	SIDE	BRASS	200	5.60	1/2"	V2710	VICTAULIC	V27	N/A	2
	11	SIDE	CHROME	155	4.20	1/2"	V2738	VICTAULIC	V27 RESI	N/A	2
	1	DRY SIDE	BRASS	200	5.60	1"	V3612	VICTAULIC	V36	SEMI–RECESSED	N/A
	10	SIDE	CHROME	155	5.60	1/2"	V2710	VICTAULIC	V27	SEMI–RECESSED	2
	170	TOTAL									

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500 SOUTH MAIN STTREET
LOGAN, UT 84321

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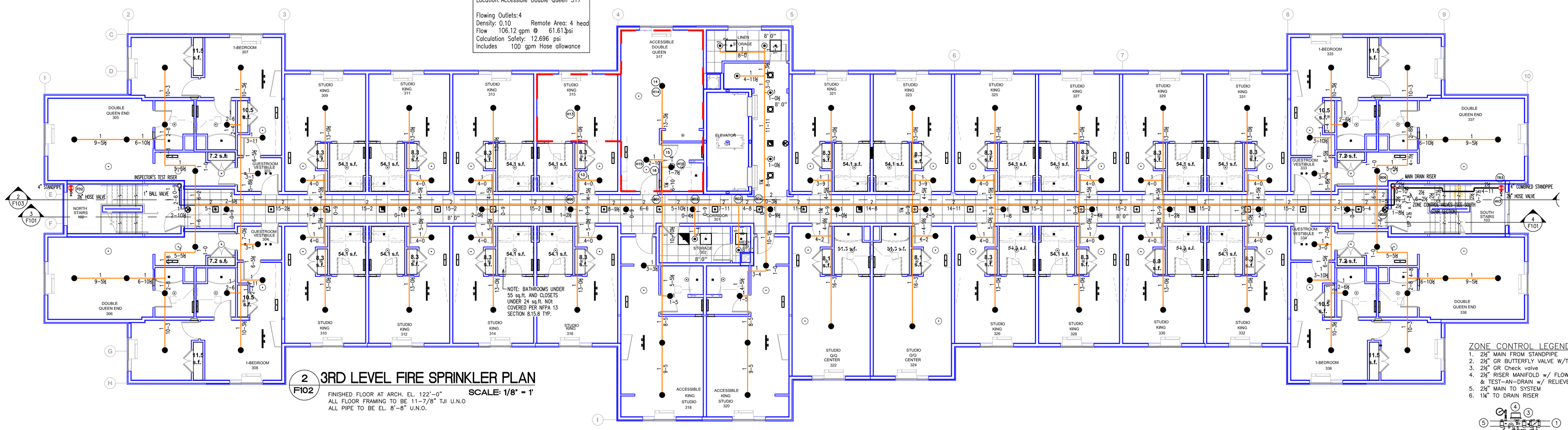
910 N. SYCAMORE AVENUE; SIOUX FALLS, SD 57110 PHONE: (605)-444-9290

SHEET CONTENTS
MAIN LEVEL FIRE SPRINKLER PLANS, NOTES AND DETAILS

F101

Design Area #: 6 HAZARD: Light
Zone: 3rd level System Type:Wet
Location: Accessible Double Queen 317

Flowing Outlets:4
Density: 0.10 Remote Area: 4 head
Flow 106.12 gpm @ 61.61psi
Calculation Safety: 12.696 psi
Includes 100 gpm Hose allowance



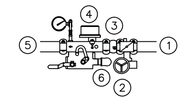
2 / F102 3RD LEVEL FIRE SPRINKLER PLAN

SCALE: 1/8" = 1'

FINISHED FLOOR AT ARCH. EL. 122'-0"
ALL FLOOR FRAMING TO BE 11-7/8" TJI U.N.O
ALL PIPE TO BE EL. 8'-8" U.N.O.

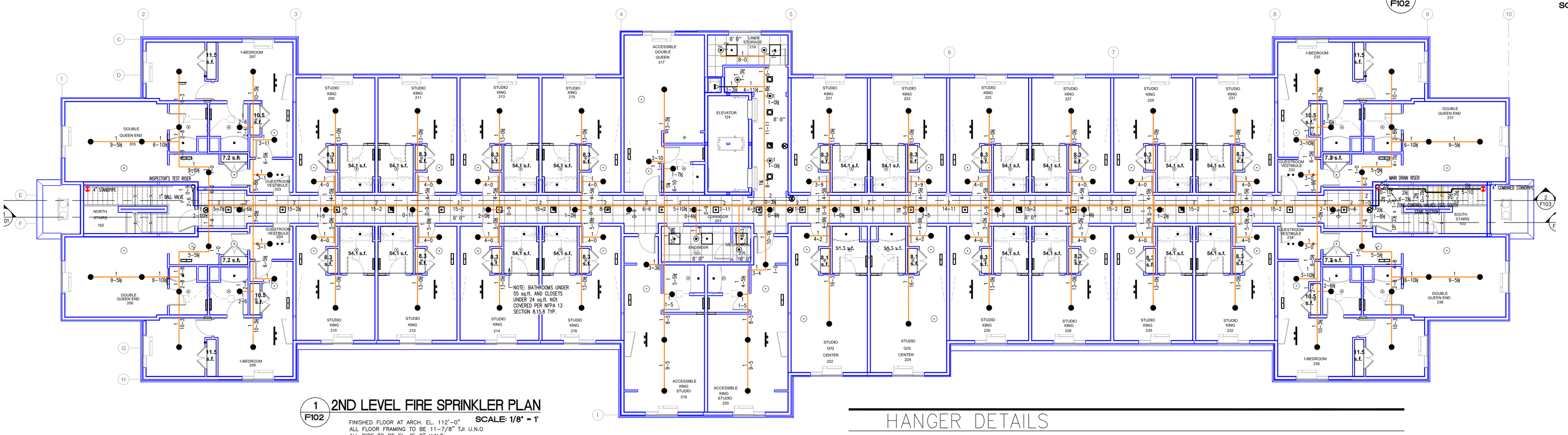
ZONE CONTROL LEGEND

1. 2½" MAIN FROM STANDPIPE
2. 2½" GR BUTTERFLY VALVE W/TAMPER
3. 2½" GR Check valve
4. 2½" RISER MANIFOLD w/ FLOW SWITCH, GAUGE, & TEST-AN-DRAIN w/ RELIEVE VALVE
5. 2½" MAIN TO SYSTEM
6. 1¼" TO DRAIN RISER



3 / F102 TYPICAL ZONE CONTROL DETAIL

SCALE: 1/2" = 1'

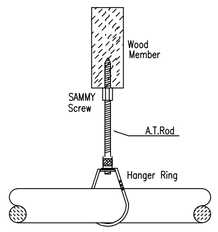


1 / F102 2ND LEVEL FIRE SPRINKLER PLAN

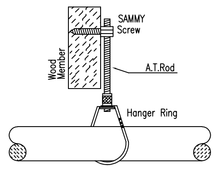
SCALE: 1/8" = 1'

FINISHED FLOOR AT ARCH. EL. 112'-0"
ALL FLOOR FRAMING TO BE 11-7/8" TJI U.N.O
ALL PIPE TO BE EL. 8'-8" U.N.O.

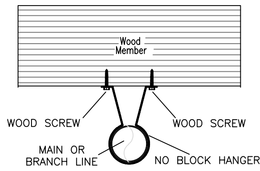
HANGER DETAILS



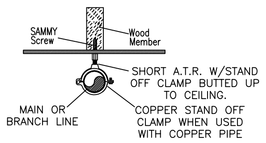
IPS AUTOGRIP HANGER (SAMMY SCREW)



IPS AUTOGRIP HANGER (SIDE SAMMY SCREW)



CPVC NO BLOCK HANGER



STAND OFF WOOD SAMMY

MAXIMUM DISTANCE BETWEEN HANGERS (FT.–IN.)										
	NOMINAL PIPE SIZE (IN.)									
	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12–0	12–0	15–0	15–0	15–0	15–0	15–0	15–0	15–0
THREADED LIGHTWALL STEEL PIPE	NA	12–0	12–0	12–0	12–0	NA	NA	NA	NA	NA
COPPER TUBE	8–0	8–0	10–0	10–0	12–0	12–0	12–0	NA	NA	NA
BLAZEMASTER CPVC	5–6	6–0	6–6	7–0	8–0	9–0	10–0	NA	NA	NA

NFPA 13 HANGER SPACING

SYMBOLS LEGEND

- WET SYSTEM RISER
- DRY PIPE/DELUGE SYSTEM RISER
- FIRE HYDRANT
- ELECTRIC ALARM BELL
- WATER MOTOR GONG
- PIPE "RISE"
- PIPE "DROP"
- PIPE "CAP"
- SWAY BRACING
- PIPE HANGER (SEE CHART)
- POINT OF CONNECTION
- EXISTING SPRINKLER PIPE
- SPRINKLER HEAD(SECTION VIEW)
- FLEXIBLE GROOVED COUPLING
- RIGID GROOVED COUPLING
- REDUCING GROOVED COUPLING
- THREADED PIPE COUPLING
- CONTROL VALVE
- VALVE WITH TAMPER SWITCH
- KEY VALVE WITH ROAD BOX
- AUXILARY DRAIN/PLUG
- CHECK VALVE
- FLOW SWITCH
- BUTTERFLY VALVE WITH TAMPER SWITCH
- FDC — FIRE DEPARTMENT CONNECTION
- A–1 — MAIN PIPE NUMBER
- 21–0 — MAIN PIPE LENGTH
- 00 — BRANCHLINE NUMBER
- 00 — HYDRAULIC CALC. REFERENCE
- D–0 — < OF PIPE BELOW DECK / CEILING
- 0–C — < OF PIPE ABOVE FINISHED FLOOR
- XX–XX CYP. — CEILING ELEVATION AND TYPE
- ELEVATION–DATUM ELEV.: XXX'–XX" — ELEVATION DATUM
- 1 ONLY(REQ) — RISER/DROP CUT LENGTHS

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL #	ESCUTCHEON	HEAD BOX (2 min)
●	204	PEND	CHROME	155	4.90	1/2"	V2740	VICTAULIC	V27 RES	SEMI–RECESSED	2
◉	14	PEND	CHROME	155	5.60	1/2"	V2708	VICTAULIC	V27	SEMI–RECESSED	2
◁	1	DRY SIDE	BRASS	200	5.60	1"	V3612	VICTAULIC	V36	SEMI–RECESSED	N/A
	219	TOTAL									

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SHEET CONTENTS

2ND & 3RD LEVEL SPRINKLER PLANS

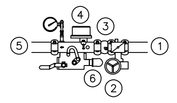
F102

2 / F103 BUILDING SECTION

SCALE: 1/8" = 1'

ZONE CONTROL LEGEND

1. 2½" MAIN FROM STANDPIPE
2. 2½" GR BUTTERFLY VALVE W/TAMPER
3. 2½" GR Check valve
4. 2½" RISER MANIFOLD w/ FLOW SWITCH, GAUGE, & TEST-AN-DRAIN w/ RELIEVE VALVE
5. 2½" MAIN TO SYSTEM
6. 1¼" TO DRAIN RISER



3 / F103 TYPICAL ZONE CONTROL DETAIL

SCALE: 1/2" = 1'

Design Area #: 4 HAZARD: Light
Zone: 4th level System Type:Wet
Location: Studio King 409

Flowing Outlets:4
Density: 0.10 Remote Area: 4 head
Flow 75.48 gpm @ 47.083psi
Calculation Safety: 27.342 psi
Includes 100 gpm Hose allowance

Design Area #: 5 HAZARD: OH1
Zone: 4th level System Type:Wet
Location: Linen Storage 419

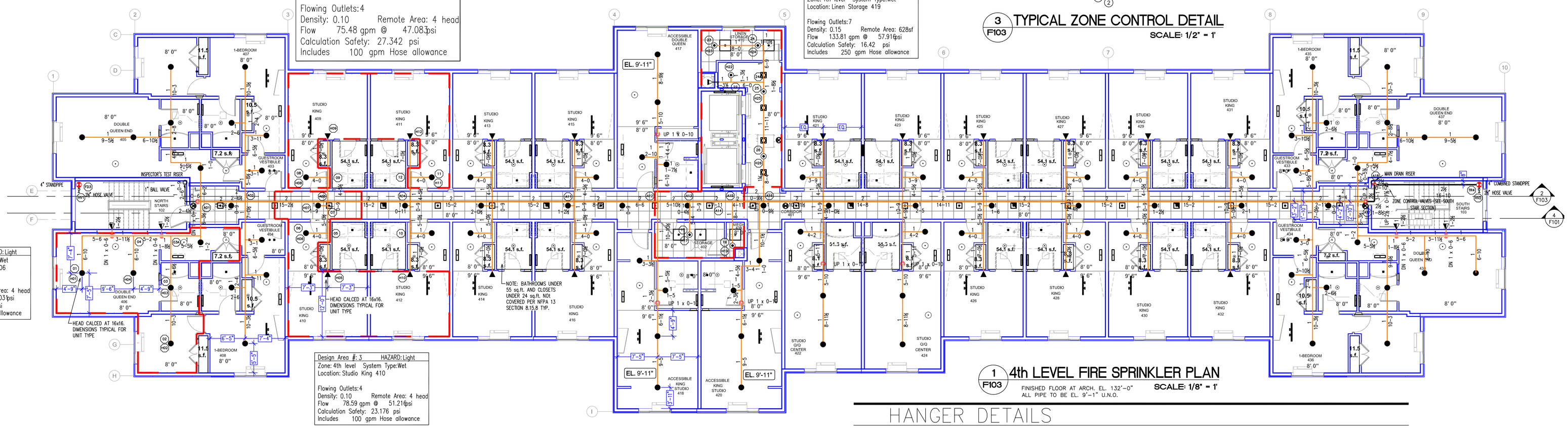
Flowing Outlets:7
Density: 0.15 Remote Area: 628sf
Flow 133.81 gpm @ 57.91fpsi
Calculation Safety: 16.42 psi
Includes 250 gpm Hose allowance

Design Area #: 2 HAZARD: Light
Zone: 4th level System Type:Wet
Location: Double Queen End 406

Flowing Outlets:4
Density: 0.10 Remote Area: 4 head
Flow 58.25 gpm @ 50.03psi
Calculation Safety: 24.554 psi
Includes 100 gpm Hose allowance

Design Area #: 3 HAZARD: Light
Zone: 4th level System Type:Wet
Location: Studio King 410

Flowing Outlets:4
Density: 0.10 Remote Area: 4 head
Flow 78.59 gpm @ 51.21fpsi
Calculation Safety: 23.176 psi
Includes 100 gpm Hose allowance

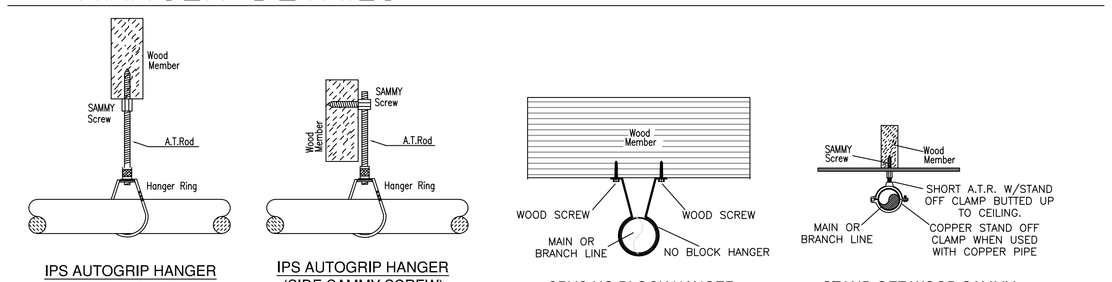


1 / F103 4th LEVEL FIRE SPRINKLER PLAN

FINISHED FLOOR AT ARCH. EL. 132'-0"
ALL PIPE TO BE EL. 9'-1" U.N.O.

SCALE: 1/8" = 1'

HANGER DETAILS



IPS AUTOGRIP HANGER (SAMMY SCREW) | IPS AUTOGRIP HANGER (SIDE SAMMY SCREW) | CPVC NO BLOCK HANGER | STAND OFF WOOD SAMMY

MAXIMUM DISTANCE BETWEEN HANGERS (FT.–IN.)

	NOMINAL PIPE SIZE (IN.)									
	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	NA	12–0	12–0	15–0	15–0	15–0	15–0	15–0	15–0	15–0
THREADED LIGHTWALL STEEL PIPE	NA	12–0	12–0	12–0	12–0	NA	NA	NA	NA	NA
COPPER TUBE	8–0	8–0	10–0	10–0	12–0	12–0	12–0	NA	NA	NA
BLAZEMASTER CPVC	5–6	6–0	6–6	7–0	8–0	9–0	10–0	NA	NA	NA

NFPA 13 HANGER SPACING

SYMBOLS LEGEND

- WET SYSTEM RISER
- DRY PIPE/DELUGE SYSTEM RISER
- FIRE HYDRANT
- ELECTRIC ALARM BELL
- WATER MOTOR GONG
- PIPE "RISE"
- PIPE "DROP"
- PIPE "CAP"
- SWAY BRACING
- PIPE HANGER (SEE CHART)
- POINT OF CONNECTION
- EXISTING SPRINKLER PIPE
- SPRINKLER HEAD(SECTION VIEW)
- FLEXIBLE GROOVED COUPLING
- RIGID GROOVED COUPLING
- REDUCING GROOVED COUPLING
- THREADED PIPE COUPLING
- CONTROL VALVE
- VALVE WITH TAMPER SWITCH
- KEY VALVE WITH ROAD BOX
- AUXILIARY DRAIN/PLUG
- CHECK VALVE
- FLOW SWITCH
- BUTTERFLY VALVE WITH TAMPER SWITCH
- FDC — FIRE DEPARTMENT CONNECTION
- A–1 — MAIN PIPE NUMBER
- 21–0 — MAIN PIPE LENGTH
- 00 — BRANCHLINE NUMBER
- 00 — HYDRAULIC CALC. REFERENCE
- 0–0 — < OF PIPE BELOW DECK / CEILING
- 0–0 — < OF PIPE ABOVE FINISHED FLOOR
- 00 CYP. — CEILING ELEVATION AND TYPE
- ELEVATION–DATUM ELEV: XXX'–XX" — ELEVATION DATUM
- 1 DNC(UPRIGHT) 2 DNC(PENDANT) — DROP CUT LENGTHS

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	ESCUTCHEON	HEAD BOX (2 min)
●	87	PEND	CHROME	155	4.90	1/2"	V2740	VICTAULIC	V27 RESI	SEMI–RECESSED	2
◉	7	PEND	CHROME	155	5.60	1/2"	V2708	VICTAULIC	V27	SEMI–RECESSED	2
◁	2	SIDE	BRASS	200	5.60	1/2"	V2710	VICTAULIC	V27	N/A	2
◀	18	SIDE	CHROME	155	4.20	1/2"	V2738	VICTAULIC	V27 RESI	N/A	2
◁	1	DRY SIDE	BRASS	200	5.60	1"	V3612	VICTAULIC	V36	SEMI–RECESSED	N/A
◀	4	SIDE	CHROME	155	5.60	1/2"	V2710	VICTAULIC	V27	SEMI–RECESSED	2
	119	TOTAL									

LOGAN RIVERWALK MARRIOTT TOWNPLACE
500 SOUTH MAIN STTREET
LOGAN, UT 84321

DRIVEN FIRE CONSULTANTS
910 N. SYCAMORE AVENUE; SIOUX FALLS, SD 57110 PHONE: (605)-444-9290

SHEET CONTENTS
4TH LEVEL FIRE SPRINKLER PLANS, BLDG SECTION

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