SPRINGHILL SUITES COLUMBUS

1421 OLENTANGY RIVER ROAD
COLUMBUS, OH 43212

GENERAL NOTES:

1. Contractors work shall consist of all necessary labor and material to design and install new automatic fire sprinkler sytems.
2. Contractors work excludes all electrical work.
3. Sprinkler System design and installation shall conform to NFPA 13
4. All material to be UL/FM approved for fire services.
5. All piping shall be Black Schedule 40 steel pipe (uon). All threaded fittings shall be Malleable Iron Class 300 (uon).
6. Sprinkler equipment room components shall be properly indentified.
7. All hangers shall be in accordance with NFPA 13 and the hanger listing requirements.
8. All systems shall be tested at 200 PSI or 50 PSI above maximum working pressure, which ever is greater, for 2 hours and witnessed by the UT Fire Marshal's Office inspector. Any leaks shall be repaired.
9. The systems have been hydraulically calculated per NFPA 13.
10. Owner or tenant is responsible for maintaining adequate thermostatically controlled heat (Min. 40 degrees F.) throughout the area protected by a wet system.

INSTALLATION / REVIEW NOTES:

1) Field verify all sprinkler and pipe locations prior to installation.
2) All pipe dimensions shown are center of the fitting.
3) Install wire guards on all sprinklers less than 6'-8" high in exposed ceilin areas – Mech./Elect. rooms
4) Route 1" Auxilliary Drains (as needed) for unforseen trapped areas.
5) The length of an unsupported armover to a sprinkler in the pendent position shall not exceed 24" in length.
6) End line sprinklers in the pendent position shall be supported by a hanger that prevents upward movement of the piping.
7) All ceiling heights are 9'-0" (uon).

FIRST FLOOR FIRE SPRINKLER PLAN

SCALE 1/8"=1'-0"

* LIGHT HAZARD OCCUPANCY UNLESS OTHERWISE NOTED *
* 18 X 18 SQ. FT. MAXIMUM PROTECTION AREA FOR RESIDENTIAL PENDENT SPRINKLERS *
* ALL UNDERGROUND WORK & WIRING BY OTHERS *

SCOPE OF WORK

INSTALL A NEW FIRE SPRINKLER SYSTEM & RELATED EQUIPMENT INCLUDING, WET & DRY PIPE SYSTEMS, (2) STANDPIPES WITH HOSE VALVES & FLOOR CONTROL VALVES IN BUILDING OF COMBUSTIBLE & NON–COMBUSTIBLE UNOBSTRUCTED CONSTRUCTION.

FIRE SPRINKLER NOTES

SYSTEM DESIGNED AS PER NFPA #13 2002 EDITION

166 TOTAL SPRINKLER HEADS W/ DEFLECTORS @ 1"–12" FROM BOTTOM OF CEILING/ DECK & PARALLEL

18,531 SQ. FT. TOTAL AREA PROTECTED ON WET SYSTEM

CONTRACTOR SHALL:

PROVIDE REQUIRED SIGNS & FLUSHING CONNECTIONS.

CONTRACTORS MATERIAL AND TEST CERTIFICATES FOR ABOVE GROUND AND UNDERGROUND

PIPE SHALL BE SUBMITTED TO THE FIRE MARSHALL PRIOR TO APPROVAL OF THE INSTALLATION.

PIPE MATERIAL

DRY PIPE SHALL BE GALVANIZED

1"–2" SCH. 40 THREADED BLACK STEEL W/ THREADED CAST IRON FITTINGS

1"–2" BLAZMASTER CPVC PIPE & FITTINGS

2½"–4" SCH. 10 GROOVED BLACK STEEL W/ GROOVED FITTINGS W/ WELDED OUTLETS

ALL DIMENSIONS & ELEVATIONS ARE CENTERLINE OF PIPE & STEEL UNLESS NOTED OTHERWISE

PITCH DRY SYSTEM PIPE BACK TO RISER

MIN: 1/4" PER 10'–0" FOR MAINS

MIN: 1/2" PER 10'–0" FOR BRANCHLINES

4" COMBINATION STANDPIPE–SPRINKLER RISER UP
4" GROOVED BUTTERFLY VALVE W/ TAMPER SWITCH WIRED BY OTHERS
2½ HOSE VALVE
2" GROOVED BUTTERFLY VALVE W/ TAMPER SWITCH WIRED BY OTHERS
2" FLOW SWITCH WIRED BY OTHERS
SOUTH STAIR ST001
STEEL–CPVC ADAPTATOR
SEE RISER DETAIL ON FP–01
6" UNDERGOUND FIRE SERVICE AS PER NFPA #24 BY OTHERS SEE SITE PLAN ON FP–01 FOR CONTINUATION
10'–0" ENTRY VESTIBULE 100A
ORDINARY GROUP 1 POOL EQUIP. 112A
ORDINARY GROUP 1 MECHANICAL 110
10" ELECTRIC BELL WIRED BY OTHERS
HYDRAULIC CALCULATION #1
POOL 9'–0" 112
EXERCISE 120 9'–0"
ENTRY VEST. 100E
POOL VEST 118
MEN 120A
CORRIDOR 100G
MENS RR 114 9'–0"
WOMENS RR 116 9'–0"
ELEVATOR 1 ELOO1
ELEVATOR 2 EL002
SPRINKLER AT BOTTOM OF ELEVATOR PIT 2 TYPICAL
HOUSEKEEPING 114C
ELEVATOR LOBBY 122
CORRIDOR 100C
WORK RM 113 9'–0"
ICE 119B 10'–0"
EMPL. RR 111A 9'–0"
SALES 113 9'–0"
EMPL DINING 111 9'–0"
RECEPTION 115A 10'–0"
GREAT ROOM 115 10'–0"
MARKET 115B 10'–0"
ENTRY VEST. 115C 9'–0"
GEN. MGR. 113B 9'–0"
BUSINESS LIBRARY 119
LOUNGE 117 11'–4"
COMMUNAL CIRCLE 117A 11'–4"
NETWORK ZONE 117B 10'–0"
BAR 123 9'–0"
BUFFET 125
FOOD PREP 127 9'–0"
ORDINARY GROUP 1 126
STORAGE 126
LAUNDRY 124 10'–0"
DRYER 124A
ORDINARY GROUP 1 LAUNDRY STOR. 124B
MEETING 129 10'–0"
4" DRY VALVE SEE DETAIL ON FP–01
4" DRY RISER UP
SPRINKLER IN CHUTE
STEEL–CPVC ADAPATOR
ROLL PIPE W/ ROOF SLOPE
PORTE–COCHERE
KING 101, 102, 103, 104, 105, 106, 107, 108, 109
KING 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 143

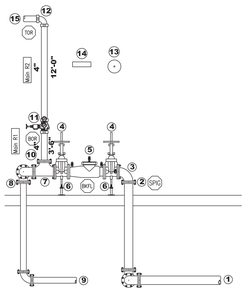
* TYPICAL KING DIMENSIONS & ELEVATIONS

SPRINKLER SYSTEM LEGEND:

- HYDRAULIC REFERENCE POINT
- HYDRAULIC REMOTE AREA
- VERTICAL PIPE (UP or DN)
- WET PIPE
- GALVANIZED PIPE
- CPVC PIPE
- HANGER LOCATION
- [0'–0"] PIPE ELEVATION ABOVE FINISHED FLOOR

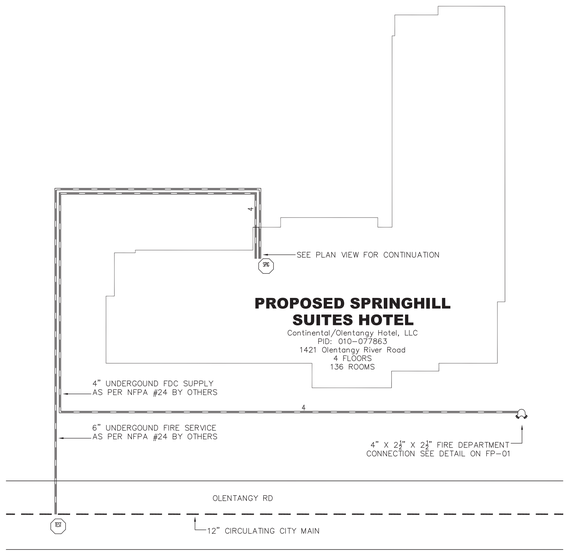
DESIGN DATA: CALCULATION #1
AREA: FIRST FLOOR EXERCISE, HALL, RR
HAZARD: LIGHT
OCCUPANCY: COMMERCIAL
DENSITY: .10 GPM/FT. 900 SQ. FT.
AREA REDUCED BY 40% AS PER NFPA #13 FOR QUICK RESPONSE SPRINKLERS
NO. SPRINKLERS CALCULATED: 10
MAX AREA PER SPRINKLER: 144 SQ. FT.
HOSE ALLOWANCE: 100 GPM
TOTAL WATER REQUIRED: 269.822 GPM
TOTAL PRESSURE REQUIRED: 57.082 PSI
SAFETY FACTOR: 16.532 PSI

RISER DETAIL 1/4"=1'-0"



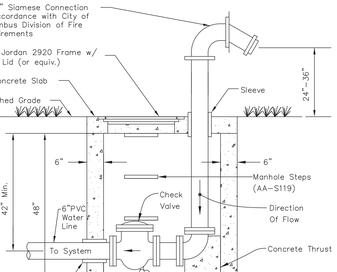
RISER LEGEND
1. 6" UNDERGROUND BY OTHERS SEE SITE PLAN FOR CONTINUATION
2. 6" FLANGE @ 12" AFF START OF CONTRACT
3. 6" FLANGED 90° ELBOW
4. 6" OS&Y VALVE W/ TAMPER SWITCH WIRED BY OTHERS
5. 6" AMES 2000SS BACKFLOW PREVENTOR ASSEMBLY
6. 6" PIPE STAND AS PER NFPA #13
7. 6" FLANGED TEE
8. 6" X 4" REDUCING FLANGE
9. 4" UNDERGROUND BY OTHERS TO FREESTANDING FDC
10. 6" FLANGE X GROOVE ADAPTER
11. 4" GROOVED RELIABLE MODEL G RISER CHECK VALVE
12. 4" GROOVED 90° ELBOW
13. 12 SPARE HEAD BOX W/ SPARE HEADS & WRENCH
14. 10" POTTER ROEMER 6230 RED ELECTRIC BELL WIRED BY OTHERS
15. 4" TO SYSTEM SEE FIRST FLOOR PLAN FOR CONTINUATION

SITE PLAN N.T.S.



EXISTING FIRE HYDRANT DETAIL N.T.S.

WATER FLOW TEST INFORMATION
BY: COLUMBUS WATER STATIC: 74 PSI
DATE: 10–06–2008 RESIDUAL: 59 PSI
TIME: 1:50 PM FLOW: 1,950 GPM



FIRE DEPARTMENT CONNECTION DETAIL N.T.S.

FDC shall be FM approved and shall meet the requirements of the City of Columbus Division of Fire.

Contractor to provide fittings as needed to connect to the 2–2½" Siamese Connection and structure large enough to accommodate the equipment. Cost to be included in the price bid for the Fire Department Connection, Complete, As Per Plan.

EXISTING FIRE HYDRANT DETAIL N.T.S.

FDC shall be FM approved and shall meet the requirements of the City of Columbus Division of Fire.

Contractor to provide fittings as needed to connect to the 2–2½" Siamese Connection and structure large enough to accommodate the equipment. Cost to be included in the price bid for the Fire Department Connection, Complete, As Per Plan.

FIRE DEPARTMENT CONNECTION DETAIL N.T.S.

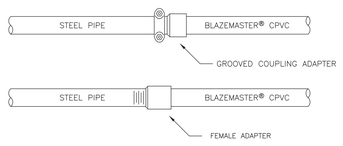
FIRE DEPARTMENT VALVE (FDV)

EQUAL TO POTTER ROEMER NO. 4033 2 1/2" CAST BRASS PRESS. REGULATING (FIELD ADJUSTABLE) ANGLE VALVE FURN'D. W/ THREADED FEMALE INLET, THREADED MALE OUTLET, WHEEL HANDLE OPERATOR, 400 PSIG INLET PRESS. RATING & NATURAL BRASS FINISH. OUTLET THREADS TO BE AS SPEC'D. BY THE LOCAL FIRE DEPT., VERIFIED IN ADVANCE BY THE FP CONTRACTOR. PROVIDE W/ NO. 4625 CAP AND CHAIN WITH NATURAL BRASS FINISH.

TYPICAL HANGER
1 - ALL THREAD ROD
1 - RING
1 - TOP BEAM CLAMP

WOOD HANGER
1 - ALL THREAD ROD
1 - RING
1 - EYE SOCKET
1 - DRIVE SCREW FOR 1" - 2"
1 - PIPE OR LAG BOLT FOR 2½" - 8" PIPE

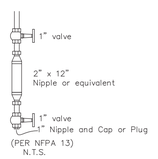
TYPICAL HANGER
1 - PIPE CLIP
2 - #18 WOOD SCREWS



STEEL TO CPVC DETAIL N.T.S.

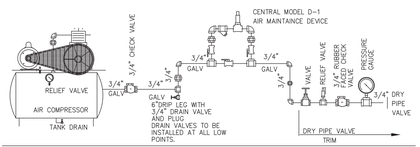
1. Valve Not Smaller than 3/4"
2. Nipple
3. Cap or Plug
(at least one shall be brass)

AUXILIARY DRAIN

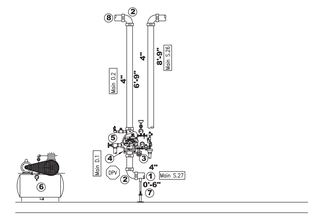


(PER NFPA 13) N.T.S.

DRY SYSTEM LOW POINT DRAIN



SCHEMATIC OF AIR COMPRESSOR N.T.S.



DRY PIPE VALVE DETAIL 1/4"=1'-0"

DRY RISER LEGEND
1. 4" FROM SYSTEM MAIN SEE PLAN VIEW FOR CONTINUATION
2. 4" GROOVED 90° ELBOW
3. 4" GROVVED BUTTERFLY VALVE W/ TAMPER SWITCH WIRED BY OTHERS
4. 4" FLANGE X GROOVE ADAPTER
5. 4" RELIABLE MODEL D FLANGE X GROOVE DRY PIPE VALVE
6. 1/2 HORSEPOWER AIR COMPRESSOR SEE SCHEMATIC
7. 4" PIPE STAND AS PER NFPA #13
8. 4" TO DRY SYSTEM PIPING SEE PLAN VIEW FOR CONTINUATION

PJH FIRE SPRINKLER DESIGN, L.L.C.
36 GINGER COURT, BUILDING 5, SUITE 36
EATONTOWN, NJ 07724
TELEPHONE: 732-440-4657
FACSIMILE: 732-440-4658
WWW.PJHFIRESPRINKLERDESIGN.COM

CONFIDENTIALITY STATEMENT
This drawing, the property of PJH Fire Sprinkler Design, is for exclusive use on the designated project and shall not be loaned, copied or used in any manner detrimental to the interest of PJH Fire Sprinkler Design. All information herein shall be treated as confidential. No reproduction may be made without the prior written consent of PJH Fire's Management.

REVISIONS

DESCRIPTION:	DATE:
ADD AL FOR 3RD FLOOR	166
FOR THIS PROJECT	755
TOTAL FOR 3RD FLOOR:	
TOTAL FOR THIS PROJECT:	

SPRINKLER LEGEND

SYMBOL	MANF.	MODEL	ORIFICE	FINISH	DESCRIPTION
◇	RELIABLE	F1RES PENDENT	R3616 4.9	155°	WHITE
◇	RELIABLE	F1FR PENDENT	R3915 5.6	1/2"	WHITE
○	RELIABLE	F1RES PENDENT	R3825 5.6	1/2"	155° BRONZE
○	RELIABLE	F1FR UPRIGHT	R3825 5.6	1/2"	155° BRONZE
◁	RELIABLE	F1FR SIDEWALL	R3825 5.6	1/2"	155° BRONZE

OWNER:
SPRINGHILL SUITES COLUMBUS
1421 OLENTANGY RIVER ROAD
COLUMBUS, OH 43212

CONTRACTOR:

CONTRACT #: 10–059

DESCRIPTION: NFPA 13 AUTOMATIC FIRE SPRINKLER SYSTEM

SPRINGHILL SUITES COLUMBUS
1421 OLENTANGY RIVER ROAD
COLUMBUS, OH 43212
New Building

CONTRACT NAME:

INSTALLATION PLAN 12-16-2010

SCALE:	1/8" = 1'-0"
DRAWN BY:	P.J.H.
CHECKED BY:	P.J.H.
DATE:	12/13/10
DWG. NO./ SHEET:	FP–01