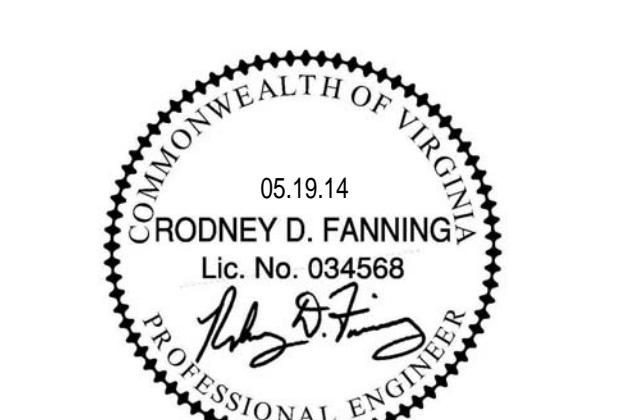
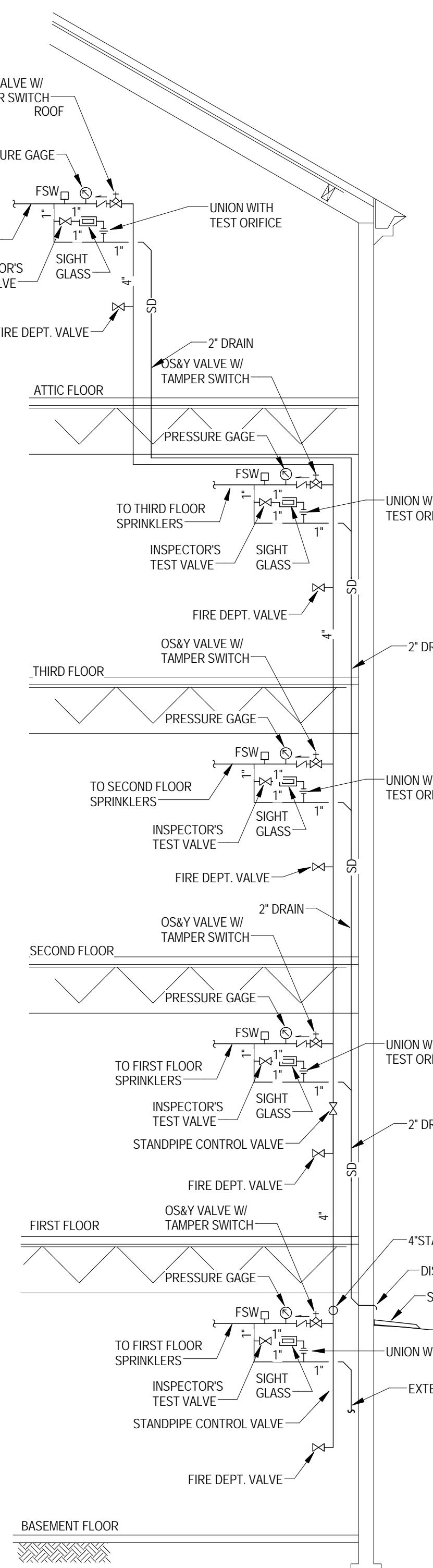
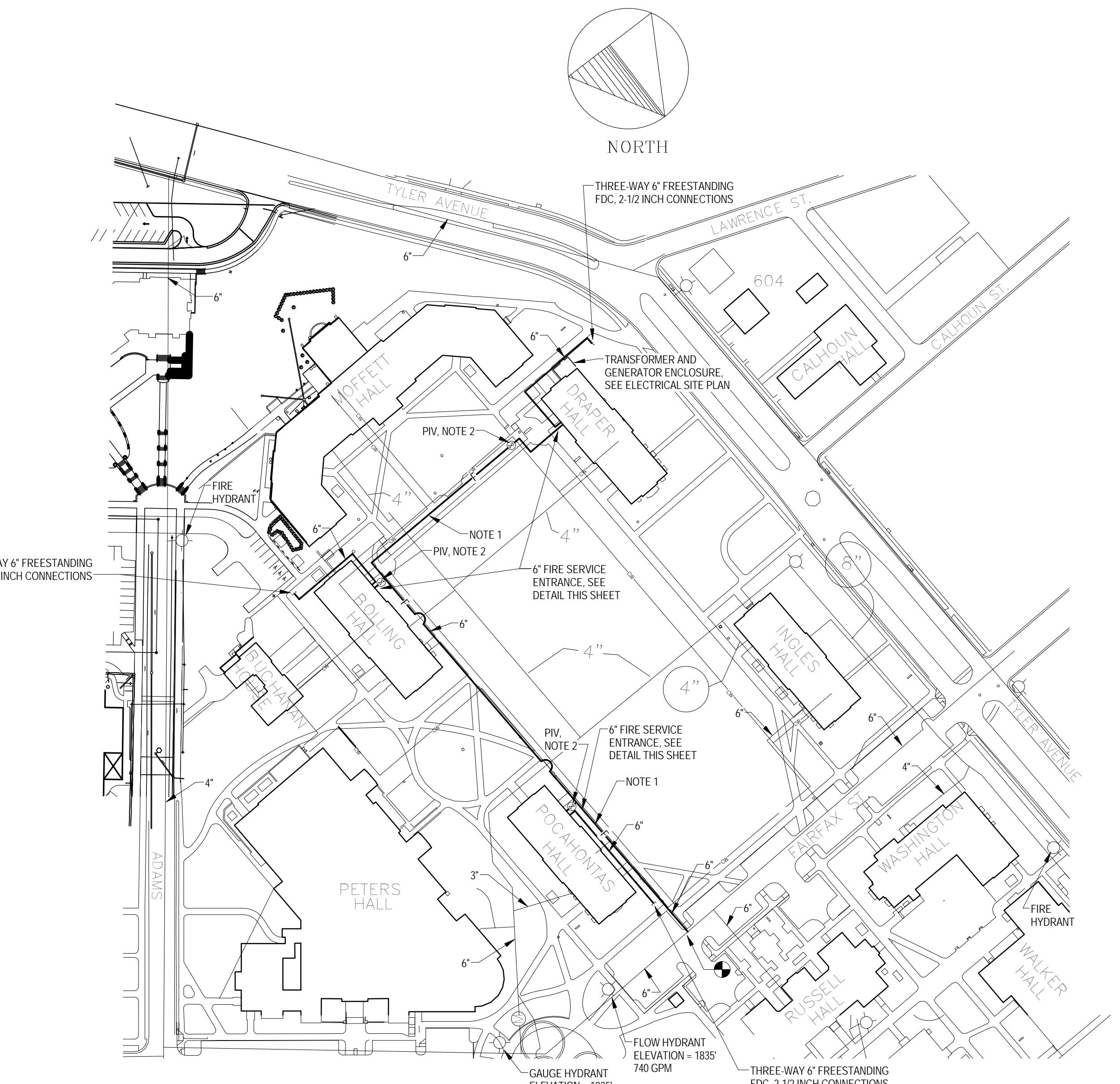
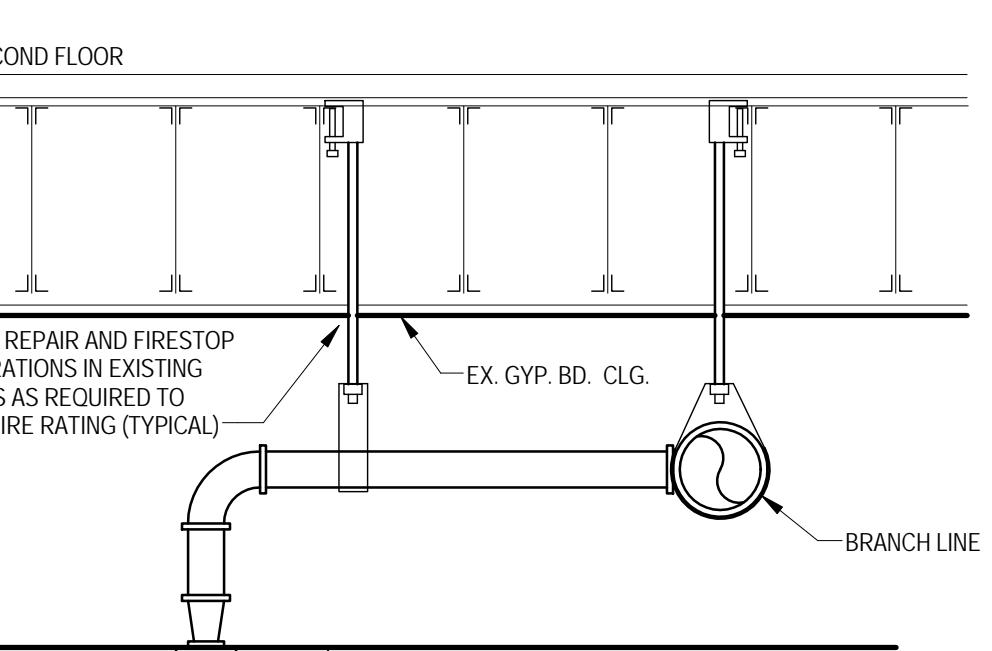
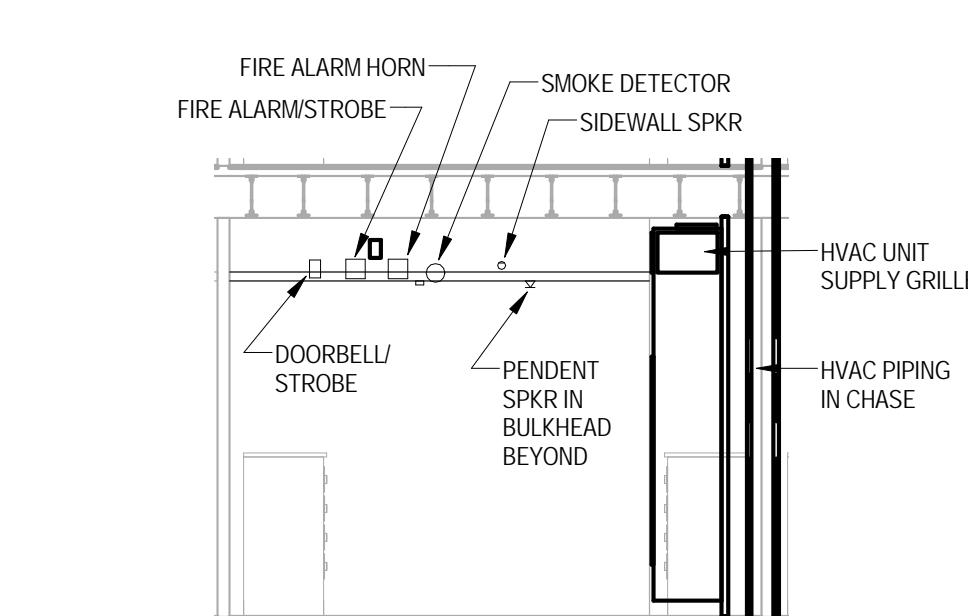



RENOVATION OF THREE RESIDENCE HALLS
POCAHONTAS, BOLLING, &
DRAPER HALLS
 RADFORD UNIVERSITY
 RADFORD, VIRGINIA
217-17565
1115Checked By
Drawn ByMGW
NMF
**COMBINATION SPRINKLER/
STANDPIPE RISER DETAIL**
 NO SCALE

SPRINKLER SITE PLAN

SCALE: 1" = 100'-0"

NOTE 1: COORDINATE NEW FIRE SERVICE LINES WITH NEW CHILLED WATER LOOP.

NOTE 2: COORDINATE FINAL PIV LOCATION WITH OWNER AND ARCHITECT.


PIPE SUPPORT DETAIL
 NO SCALE

TYPICAL BEDROOM SECTION
 SP01

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

THRUST BLOCK DETAILS
 NO SCALE

ANCHOR BLOCK SCHEDULE				
FITTING	A	B	C	D
90° & TEE	36"	18"	24"	38"
45°	29"	14"	24"	29"
22 1/2°	36"	18"	24"	40"
11 1/4°	36"	30"	45"	24"
BLIND FLANGE	36"	18"	24"	38"

FIRE PROTECTION LEGEND	
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ADR	ACCESS DOOR
BEL	BACK FLOW PREVENTER
BET	BETWEEN
CLG	CEILING
DN	DOWN
FDC	FIRE DEPARTMENT CONNECTION
FDV	FIRE DEPARTMENT VALVE
FH	FIRE HYDRANT
FL	FIRE PROTECTION SUPPLY PIPE (EXTERIOR)
FSW	FLOW SWITCH
FR	FROM
GV	GATE VALVE
PIV	PIPE INDICATION WITH RESPECT TO WATER FLOW
NOTE 1	CONNECTION (BOTTOM,TEE OR TOP)
NOTE 2	TOP TAKEOFF
NOTE 3	TURN DOWN OR FROM BELOW
NOTE 4	TURN UP OR FROM ABOVE
NOTE 5	POST INDICATOR VALVE
OSAY	OSAY VALVE
PIV	PIPING INDICATION WITH RESPECT TO WATER FLOW
SD	PR ACTION SPRINKLER
SPR	SPRINKLER DRAIN PIPE
SP	SPRINKLER PIPE
SDP	STANDPIPE

SPRINKLER SYSTEM GENERAL NOTES

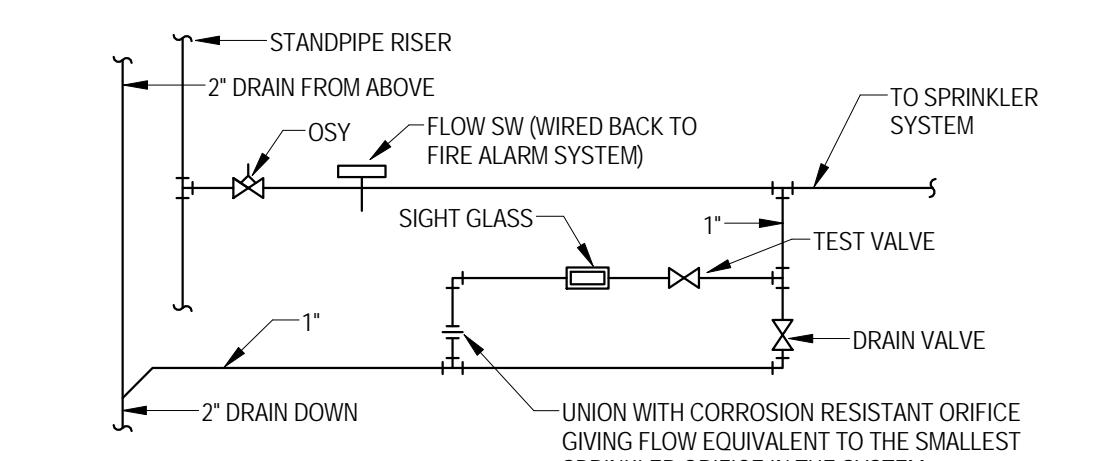
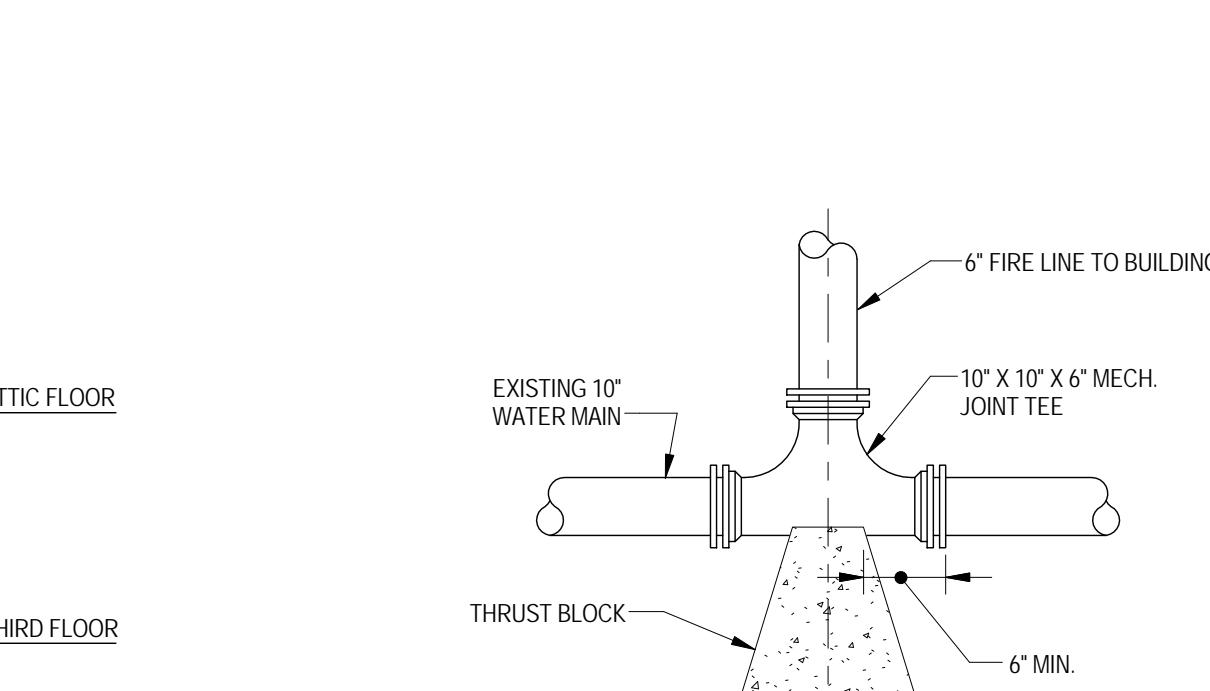
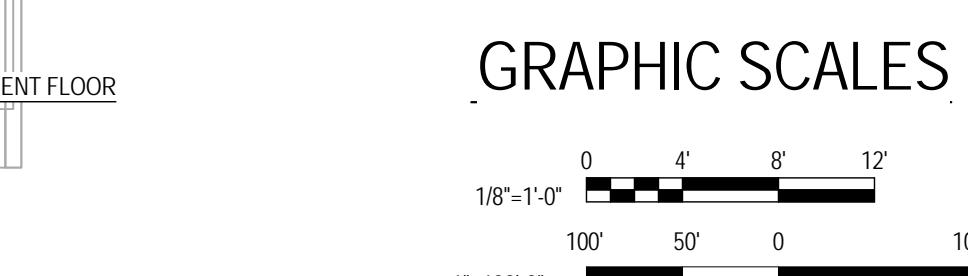
1. THE ENTIRE BUILDING SHALL BE FULLY SPRINKLED WITH A HYDRAULICALLY CALCULATED SPRINKLER/STANDPIPE SYSTEM. ALL SYSTEMS SHALL COMPLY WITH NFPA 13-2007 AND THE 2009 VIRGINIA CONSTRUCTION CODE.
2. CONTRACTOR SHALL COORDINATE THE LOCATIONS OF ALL SPRINKLERS AND SPRINKLER PIPING WITH OTHER MECHANICAL, LIGHTS, EQUIPMENT, CONDUIT, STRUCTURAL SYSTEMS, CEILING, SUPPORTS, AND FRAMING BEFORE INSTALLATION. SPRINKLER PIPING SHALL NOT BE INSTALLED WHERE ITS LOCATION INHIBITS ACCESS TO FILTER AND MAINTAIN ACCESS ON THE EXTERIOR. ALL SPRINKLER PIPING SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13, SECTION 6.5.2.1.3.
3. PROVIDE FIRESTOPPING AT ALL LOCATIONS WHERE PIPES PENETRATE RATED WALL AND RATED FLOOR ASSEMBLIES IN ACCORDANCE WITH SPECIFICATION SECTION 22.0000, PARAGRAPH 2.4.1.
4. SPRINKLERS IN BEDROOM CLOSETS SHALL BE LOCATED ABOVE THE OPEN SPACE BETWEEN THE SHELF AND THE DOOR OPENING. MINIMUM 4 INCHES AND MAXIMUM 6 INCHES FROM FRONT WALL.
5. SPRINKLERS IN BEDROOMS SHALL BE INSTALLED WITH DEFLECTORS BELOW OR AT THE SAME HEIGHT AS THE BOTTOM OF THE SURFACE MOUNTED LIGHT FIXTURE.
6. COORDINATE EXTERIOR FIRE MAIN BELOW GRADE WITH OTHER PIPES, CONDUIT, CABLE, ETC. REFER TO DRAWINGS 1.1, P2.1, P2.1A AND OTHER DRAWINGS AS APPLICABLE FOR EXACT LOCATIONS.
7. PROVIDE A STANDPIPE IN STAIRS WITH HOSE CONNECTIONS AT EACH FLOOR LEVEL, AND PROVIDE A READILY AVAILABLE WATER SUPPLY SOURCE DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 30.1 OF THE 2009 VIRGINIA CONSTRUCTION CODE.
8. RETAIN EXISTING PIV LOCATIONS. ALL NEW PIV LOCATIONS IN EXISTING SPACES SHALL MEET THE REQUIREMENTS OF THE INTERNATIONAL MECHANICAL CODE, SECTION 402.2.1.
9. PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. COORDINATE INSTALLATION OF PIPES WITH ELECTRICAL PANELS WHEN SHOWN NEAR PANELS OR OVER ELECTRICAL ROOMS.
10. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH RADFORD UNIVERSITY AND/OR THE CITY OF RADFORD FOR FIRE SERVICE CONNECTION AND INCLUDE ALL CHARGES FOR THIS WORK IN HIS/HER TRADE.
11. THE FOLLOWING SPACES ARE ORDINARY HAZARD GROUP 1 OCCUPANCY: ALL CLOSETS, LAUNDRY (0.2 MECHANICAL, MOD. ELEVATOR EQUIPMENT ROOM, MOD. ELECTRICAL MODA, HOUSEKEEPING 108, TRASH 112, HOUSEKEEPING 205, TRASH 207, HOUSEKEEPING 305, TRASH 307 AND STORAGE 330). ALL OTHER SPACES ARE LIGHT HAZARD.
12. WATER TESTS FOR SPRINKLER SYSTEMS SHALL BE CONDUCTED IN ACCORDANCE BASED ON A FLOW TEST DATED AUGUST 6, 2013 AT 9:30 A.M. CONTRACTOR SHALL PERFORM ADDITIONAL FLOW TESTS AS REQUIRED TO VERIFY DATA FOR USE IN DESIGN CALCULATIONS.

 STATIC PRESSURE: 85 PSI
 RESIDUAL PRESSURE: 35 PSI
 FLOW: 740 GPM

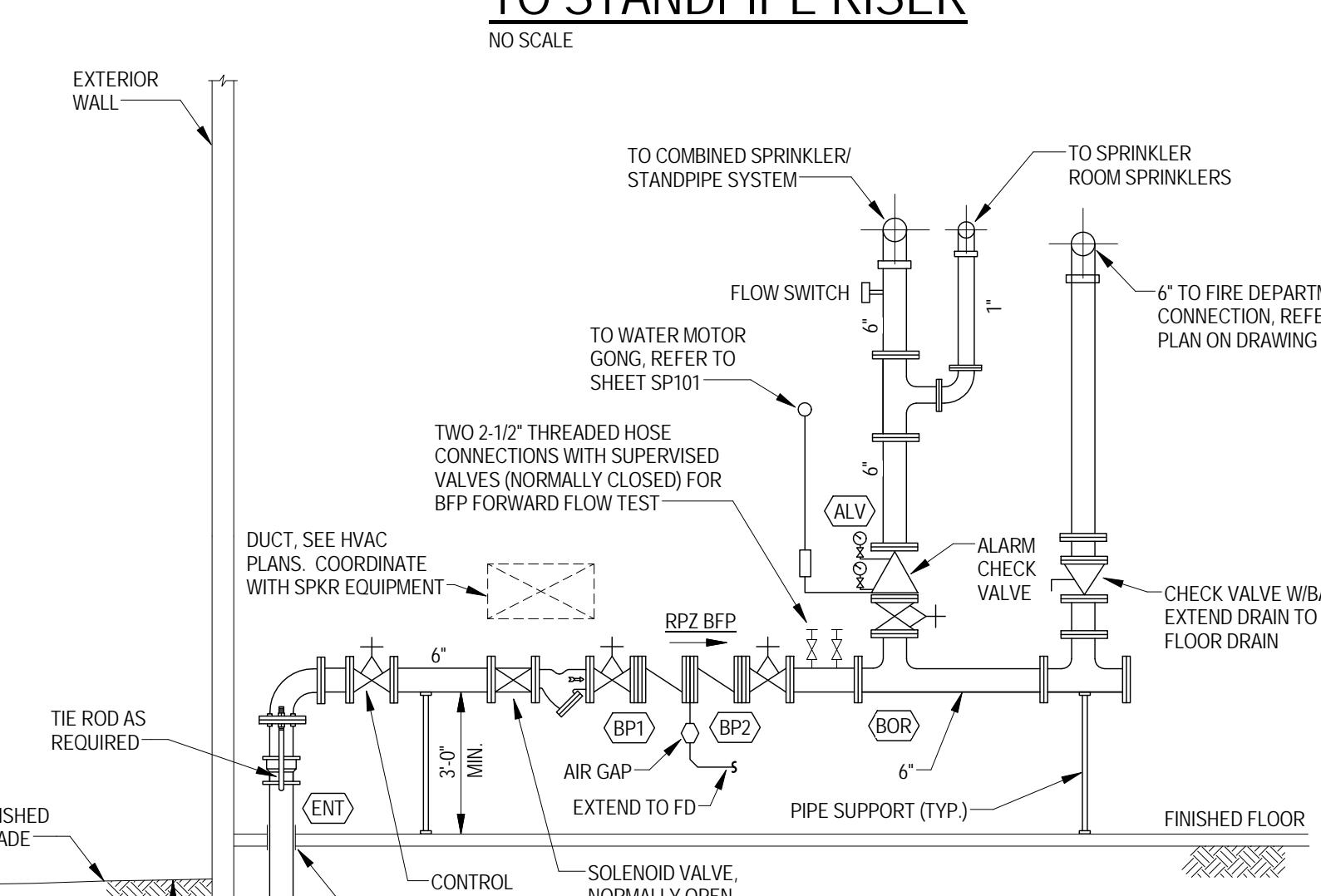
SEE SITE PLAN FOR LOCATIONS OF TEST HYDRANTS

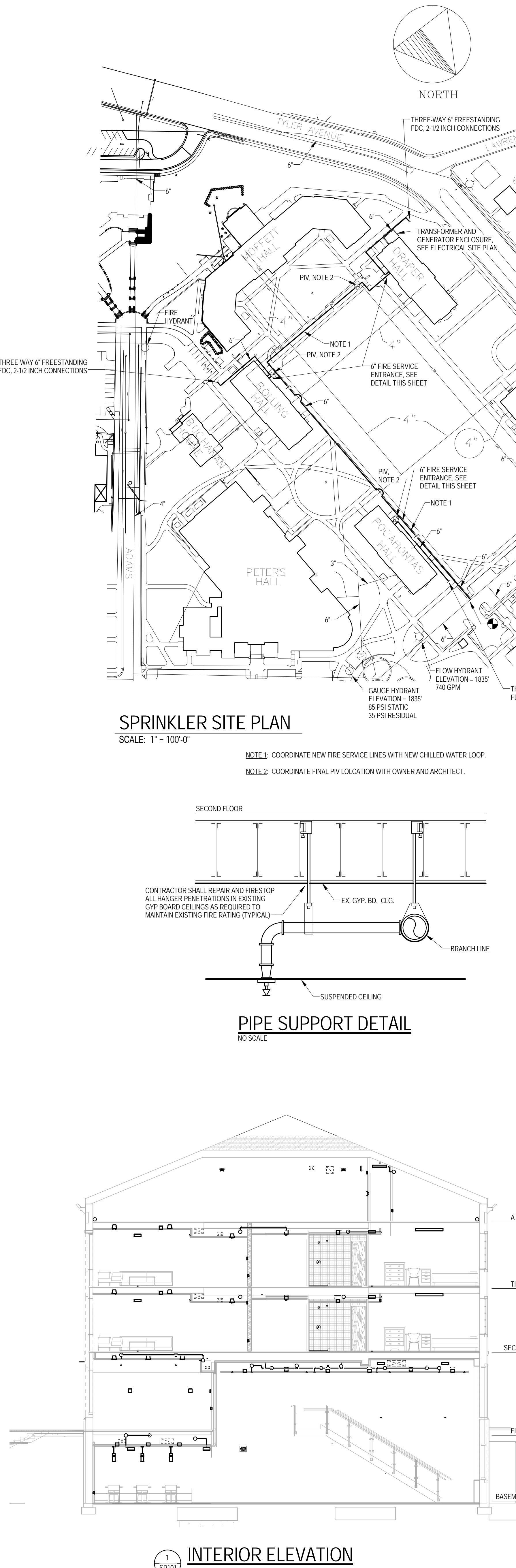
GENERAL CONTRACTOR NOTES:

1. CLEARANCE ABOVE CEILINGS IN MANY AREAS IS LIMITED. CAREFULLY COORDINATE SPRINKLER PIPING AND EQUIPMENT WITH MECHANICAL EQUIPMENT, DUCTWORK, PIPES, STRUCTURE, ELECTRICAL EQUIPMENT, ETC.
2. THE CONTRACTOR SHALL BLOW AND INSTAL L THE FIRE SUPPRESSION SYSTEM AS SHOWN IN THE DOCUMENTS. DEVIATIONS IN MATERIALS, LOCATIONS, CONFIGURATIONS OR SIZES, PROPOSED BY THE CONTRACTOR WILL BE REVIEWED UNDER THE PROVISIONS SECTION 26 OF THE GENERAL CONDITIONS AS A "SUBSTITUTION".
3. ALL FLOOR PLANS ARE FOR POCAHONTAS HALL, BOLLING HALL SIMILAR, DRAPER HALL SIMILAR EXCEPT OPPOSITE END.


**SPRINKLER SYSTEM CONNECTED
TO STANDPIPE RISER**
 NO SCALE
ISSUES AND REVISIONS
NO. SUBMITTAL
5 BID DOCUMENTSDATE
05.19.14
**FIRE MAIN CONNECTION
TO EXISTING WATER MAIN**
 NO SCALE

GRAPHIC SCALES
 SP01

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


SPRINKLER SYSTEMS RISER DETAIL
 NO SCALE

**SPRINKLER SITE PLAN
AND DETAILS**
SP001


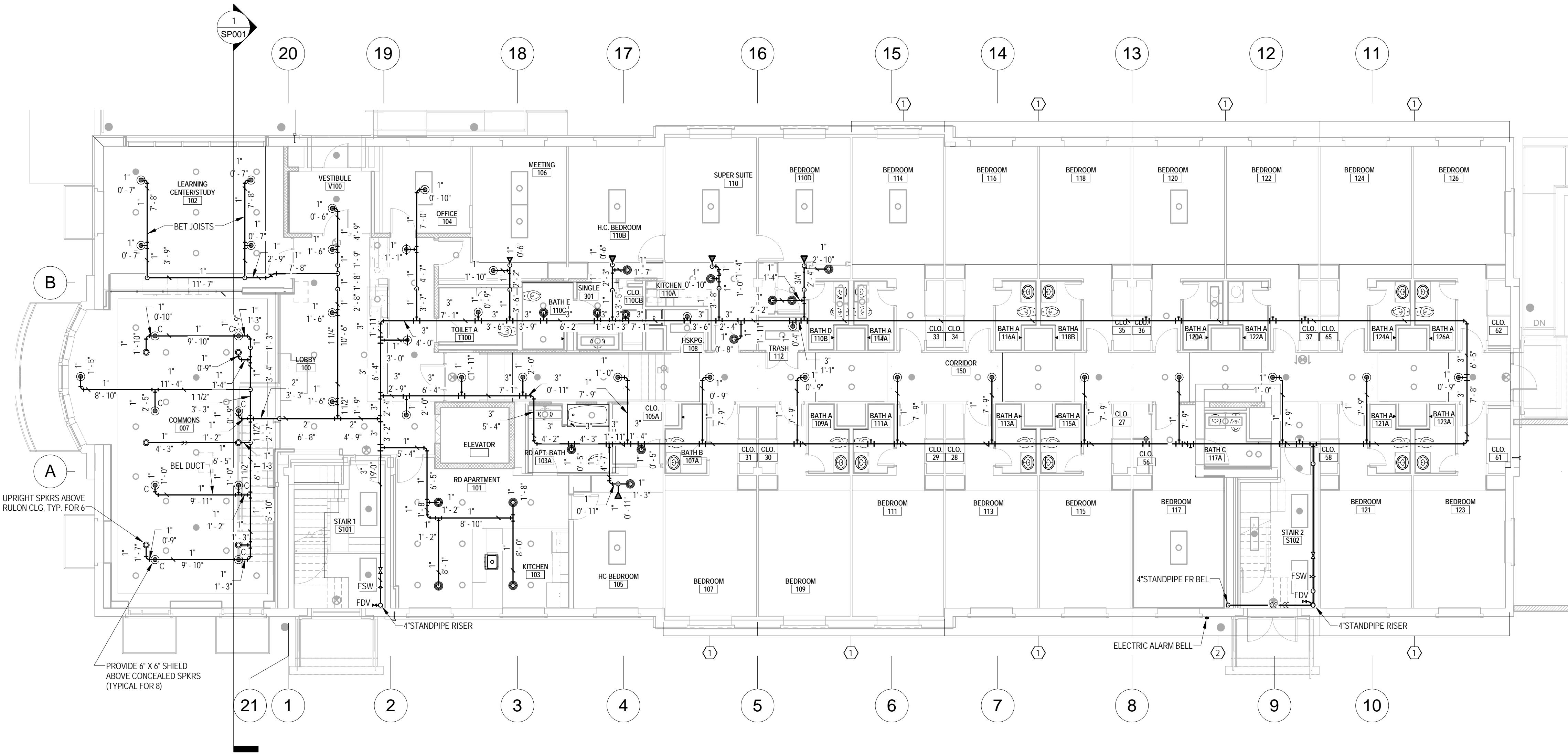


**RENOVATION OF THREE RESIDENCE HALLS
POCAHONTAS, BOLLING, &
DRAPER HALLS**
RADFORD UNIVERSITY
RADFORD, VIRGINIA

Project Code
VMDO Project Number
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1115

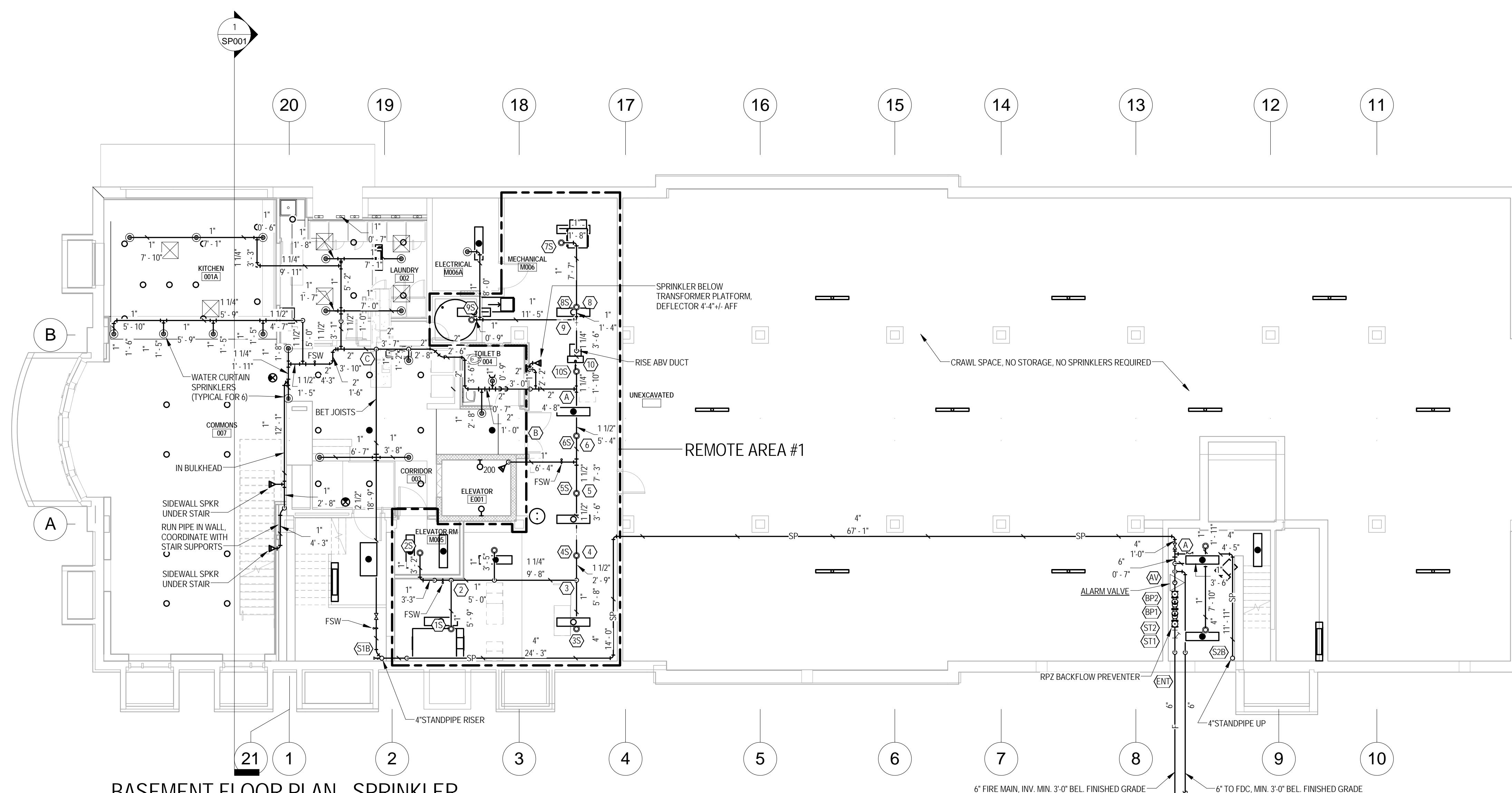


Checked By
Drawn By
MGW
NMF



FIRST FLOOR PLAN - SPRINKLER

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



BASEMENT FLOOR PLAN - SPRINKLER

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

PLAN NOTES: ◊

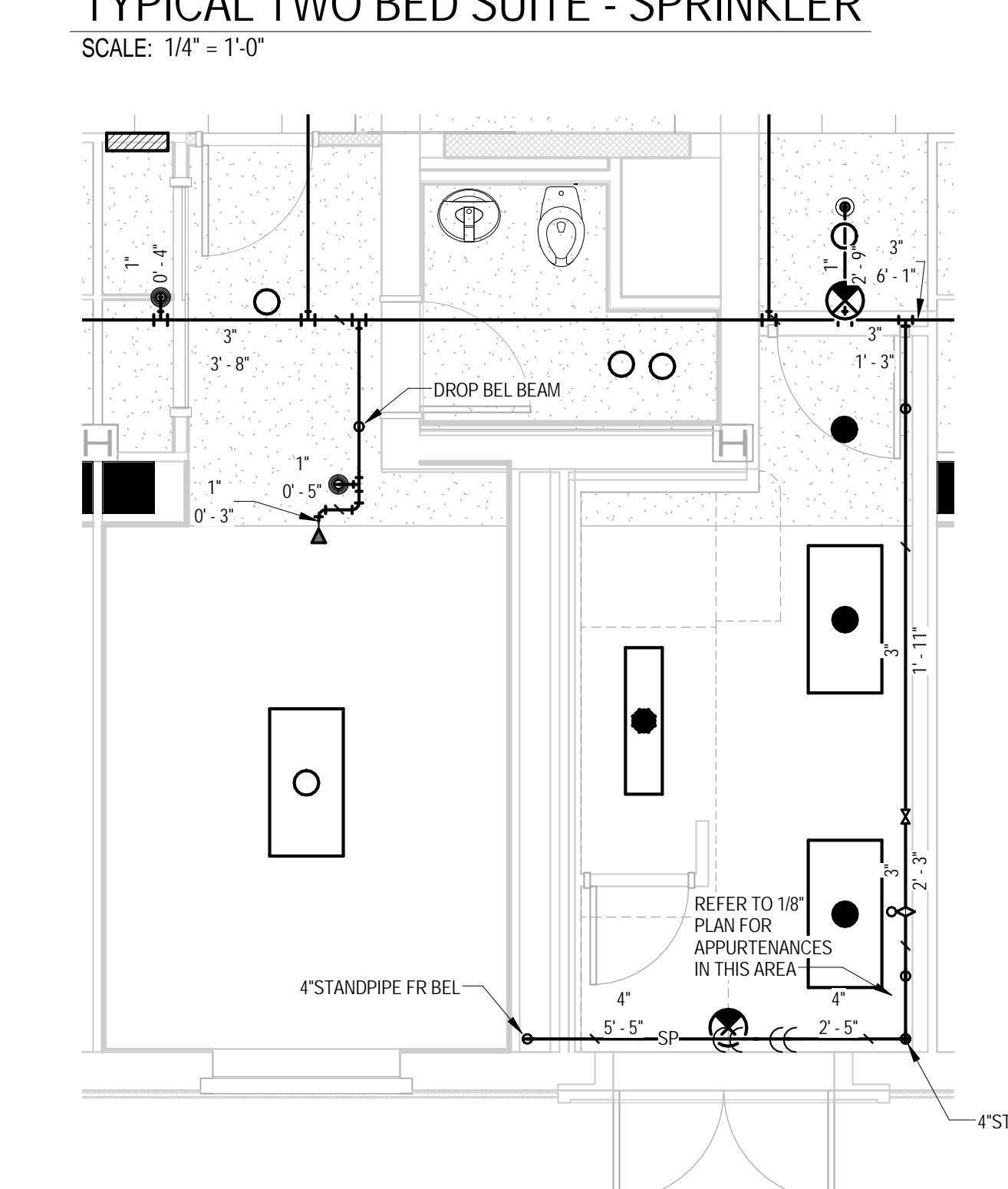
- 1 FOR SPRINKLER LAYOUT THIS AREA, SEE TYPICAL TWO BED SUITE - SPRINKLER, SHEET SP101.
- 2 FOR SPRINKLER LAYOUT THIS AREA, SEE TYPICAL ONE BED SUITE WITH STAIR - SPRINKLER, SHEET SP101.
- 3 REFER TO 1/4 SCALE PLANS FOR PIPE SIZES NOT SHOWN ON 1/8 PLANS.

FIRST FLOOR SPRINKLER HEAD SCHEDULE

QTY.	SYMBOL	DESCRIPTION
29	◎	QUICK RESPONSE PENDENT SPRINKLER - 5.6 "K" FACTOR - RECESSED
1	◀	STANDARD SIDEWALL SPRINKLER - 5.6 "K" FACTOR
76	●	RESIDENTIAL PENDENT SPRINKLER - 5.6 "K" FACTOR-RECESSED
19	◀	RESIDENTIAL SIDEWALL SPRINKLER - 5.6 "K" FACTOR
6	○	QUICK RESPONSE UPRIGHT SPRINKLER - 5.6 "K" FACTOR
8	◎	QUICK RESPONSE CONCEALED PENDENT SPRINKLER - 5.6 "K" FACTOR

HYDRAULIC DESIGN DATA - REMOTE AREA #1	
THIS WET PIPE SPRINKLER SYSTEM HAS BEEN HYDRAULICALLY DESIGNED TO MEET THE FOLLOWING CRITERIA:	
STANDARD:	NFPA 13, 2007
HAZARD:	ORDINARY GROUP 1
NO. OF SPRINKLERS:	10
DEMAND PER SPRINKLER:	0.10 GPM/SQ. FT.
AREA OF APPLICATION:	1960 SQ. FT.
COMBINED HOSE STREAMS:	250 GPM
TOTAL WATER REQUIRED (AT SOURCE):	1444.6 GPM (AT SOURCE)
WATER DEMAND @ BASE OF RISER:	194.6 GPM (NODE 'ENT')
PRESSURE REQUIRED @ BASE OF RISER:	56.2 PSI (NODE 'ENT')

TYPICAL TWO BED SUITE - SPRINKLER



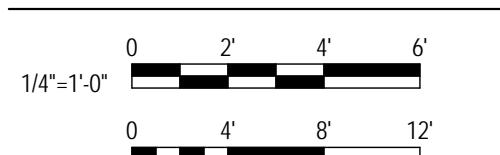
TYPICAL ONE BED SUITE WITH STAIR - SPRINKLER

SCALE: 1/4" = 1'-0"

BASEMENT AND FIRST FLOOR PLANS - SPRINKLER

ISSUES AND REVISIONS
NO. SUBMITTAL
5 BID DOCUMENTS
DATE
05.19.14

GRAPHIC SCALE



SP101

