

UNIVERSITY OF OREGON EARL HALL FIRE SPRINKLER ADDITIONS AND WATER LINE REPLACEMENT PROJECT

LEGEND:

- FIRE SPRINKLER PIPING
- DOMESTIC COLD WATER CW
- DOMESTIC HOT WATER HW
- DOMESTIC HOT WATER RETURN HWR
- EXISTING (E)
- NEW (N)
- ////// PIPING TO BE REMOVED

CONTACT INFORMATION:

BUILDING LOCATION
 EARL HALL
 UNIVERSITY OF OREGON
 1333 EAST 15TH AVENUE
 EUGENE, OR 97403

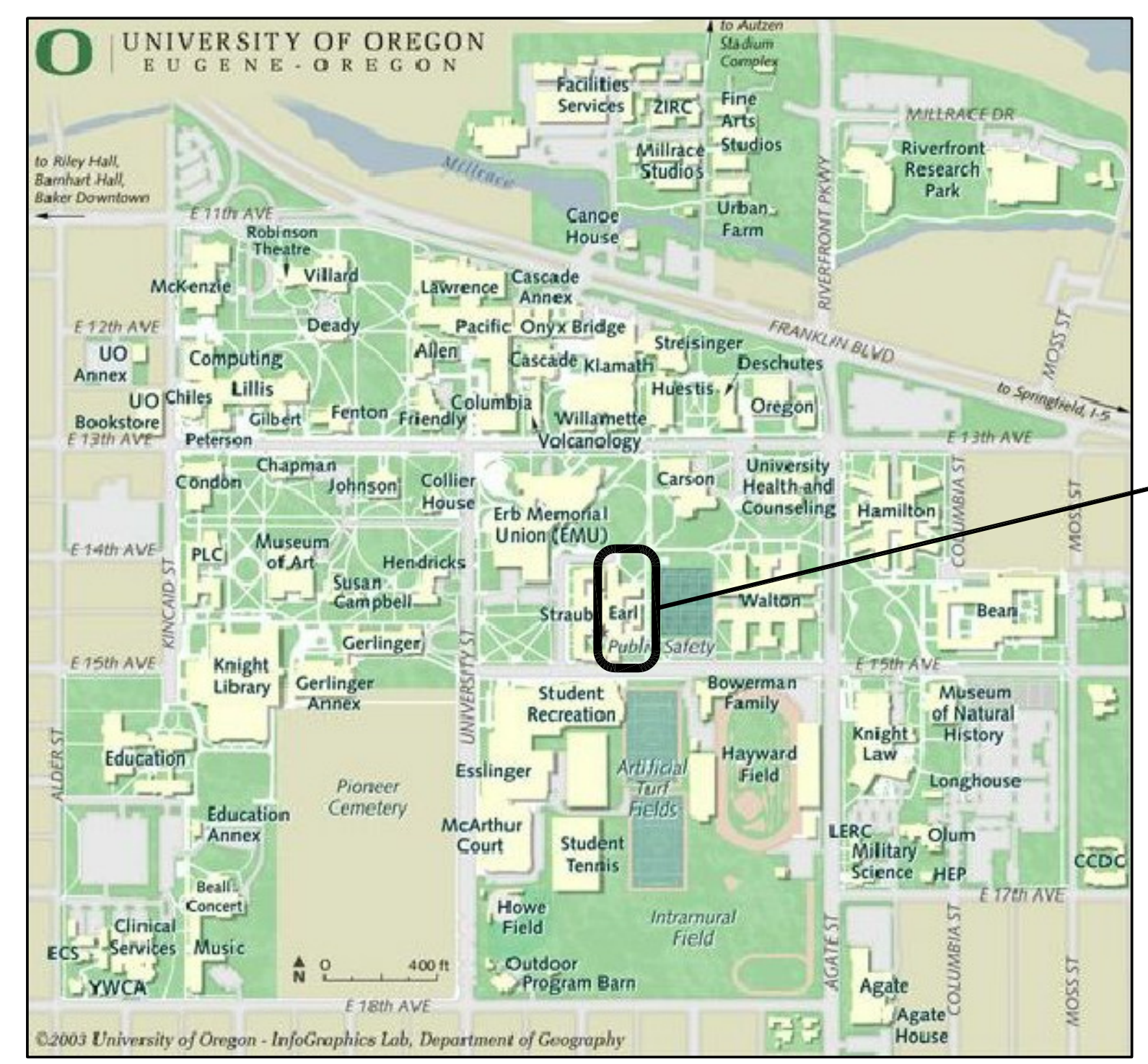
BUILDING OWNER
 UNIVERSITY OF OREGON HOUSING
 CONTACT: DAVID OPP-BECKMAN
 1595 EAST 15TH AVENUE
 EUGENE, OREGON 97403-1220
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 E-MAIL: dbeckman@uoregon.edu

ENGINEERING
 EVERGREEN ENGINEERING
 CONTACT: RICK SMITH
 1740 WILLOW CREEK CIRCLE
 EUGENE, OREGON 97402
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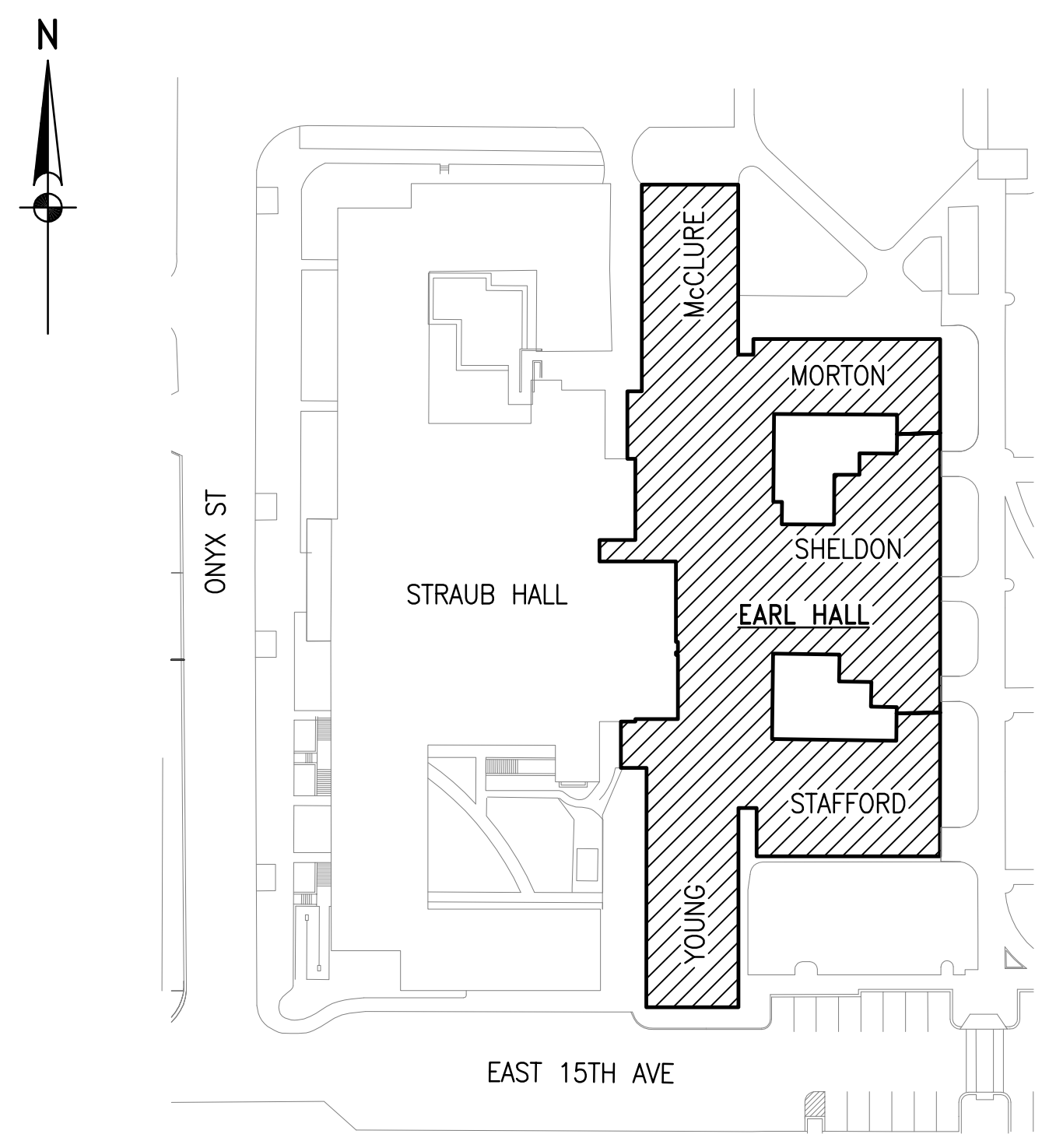
ENVIRONMENTAL HEALTH AND SAFETY
 UNIVERSITY OF OREGON
 FIRE SYSTEM MANAGER
 CONTACT: DREW STANDRIDGE
 1318 FRANKLIN BOULEVARD
 EUGENE, OR 97403-5224
 PHONE: (541) 346-2849
 E-MAIL: des@uoregon.edu

DRAWING INDEX:

- GENERAL**
- 1000G01 DRAWING INDEX AND VICINITY MAP
 - 1000G02 GENERAL NOTES AND SPRINKLER HYDRAULIC DESIGN SUMMARY
- FIRE PROTECTION**
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 - 900F03 FIRST FLOOR DEMO PLAN
 - 900F04 SECOND THRU FOURTH FLOOR DEMO PLAN
 - 1000F01 SUB-BASEMENT FLOOR FIRE PROTECTION PIPING PLAN
 - 1000F02 BASEMENT FLOOR FIRE PROTECTION PIPING PLAN
 - 1000F03 FIRST FLOOR FIRE PROTECTION PIPING PLAN
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- PLUMBING**
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 - 1000P04 THIRD FLOOR PLUMBING PLAN
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VICINITY MAP
NOT TO SCALE



SITE MAP
1"=60'

ISSUED FOR PERMIT

EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON www.evergreenengineering.com	
<p>CLIENT: UNIVERSITY OF OREGON LOCATION: EUGENE, OREGON</p> <p>DRAWING #: 1000G01 JOB #: 2620.0</p> <p>REV: 1</p>	<p>DATE: 11/2/12 DATE: 11/2/12</p> <p>ISSUED FOR PERMIT: 2/19/13 ISSUED FOR BID: 12/12/12</p> <p>APPD: [Signature] BY: [Signature]</p>

GENERAL NOTES:

- A. THESE NOTES APPLY TO THE DRAWINGS LISTED IN THE INDEX SHOWN ON 1000G01.
- B. COORDINATE WITH OTHER TRADES AND FIELD VERIFY ALL DIMENSIONS, CLEARANCES AND ROUTING PRIOR TO FABRICATION AND INSTALLATION. ANY DISCREPANCIES BETWEEN DRAWINGS, DIMENSIONS AND EXISTING CONDITIONS SHOULD BE RECORDED IN WRITING AND REPORTED TO THE ENGINEERING FIRM FOR RESOLUTION PRIOR TO COMMENCEMENT OF THE JOB.
- C. ALL NEW WORK SHALL COMPLY WITH LOCAL AND STATE BUILDING CODES INCLUDING:
 - 2010 OREGON STRUCTURAL SPECIALTY CODE (OSSC)
 - 2010 OREGON MECHANICAL SPECIALTY CODE (OMSC)
 - 2010 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC)
 - 2011 OREGON PLUMBING SPECIALTY CODE (OPSC)
 - 2011 OREGON ELECTRICAL SPECIALTY CODE (OESC)
 - 2010 OREGON FIRE CODE (OFC)
 - 2011 UNIVERSITY OF OREGON CAMPUS CONSTRUCTION STANDARDS
 - 2010 NFPA 72 NATIONAL FIRE ALARM CODE
 - 2010 NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
- D. THIS SYSTEM IS CALCULATED PER NFPA-13 (SEE CALCULATION DESIGN INFORMATION).
- E. COORDINATE ALL INSPECTIONS AND TESTS WITH THE FIRE SYSTEM MANAGER, DREW STANDRIDGE, (541) 346-2849, des@uoregon.edu, 10 DAYS IN ADVANCE.
- F. ALL WET SYSTEM PIPING SHALL BE HYDROSTATICALLY TESTED @200 PSI FOR TWO HOURS. DRY & PNEUMATIC SYSTEM PIPING SHALL BE TESTED AT 40 AND 100 PSI RESPECTIVELY FOR 24 HOURS.
- G. FIRE DEPARTMENT CONNECTIONS SHALL BE VISIBLE, ACCESSIBLE, WITH NATIONAL STANDARD THREADS, FEMALE OUTLETS, PROTECTIVE CAPS AND A CHECK VALVE LOCATED IN THE MAIN LINE. CHECK VALVE IS TO BE LOCATED INSIDE BUILDING. OUTLET CONNECTIONS TO BE LOCATED 3'-6" A.F.F. OR GRADE. (BY OTHERS)
- H. EACH VALVE SHALL HAVE A PERMANENTLY AFFIXED SIGN INDICATING ITS FUNCTION. ALL VALVE HANDLES TO BE LOCATED 7'-0" MAX. A.F.F.
- I. STOCK OF SPARE SPRINKLERS, NOT LESS THAN 6, OF EACH STYLE AND TEMPERATURE RATING, WITH A SPRINKLER WRENCH, SHALL BE LOCATED NEAR EACH RISER WHERE THE TEMPERATURE TO WHICH THEY ARE SUBJECTED WILL NOT EXCEED 100°F.
- J. WHEN SYSTEM SERVES 20 OR MORE SPRINKLERS, THE SYSTEM IS TO BE SUPERVISED BY AN APPROVED CENTRAL, PROPRIETARY OR REMOTE STATION SERVICE OR A LOCAL ALARM WHICH WILL GIVE AN AUDIBLE SIGNAL AT A CONSTANTLY ATTENDED LOCATION.
- K. ALL MATERIALS USED IN THE INSTALLATION OF THIS SYSTEM(S) SHALL BE NEW, DOMESTICALLY MADE AND OF CURRENT ISSUE. ALL MATERIALS SHALL BE APPROVED BY U.L. (UNDERWRITERS LAB) AND BE IN CONFORMANCE WITH THE MOST CURRENT ISSUE OF THE NFPA-13 AS WELL AS THE AUTHORITY HAVING JURISDICTION.
- L. JOINING OF PIPE AND FITTINGS WILL BE IN ACCORDANCE WITH NFPA-13.
- M. WELDING SHALL BE PERFORMED IN STRICT ACCORDANCE WITH NFPA-13.
- N. ALL SYSTEM PIPING TO HAVE A CORROSION RESISTANCE RATIO (CRR) OF 1.00 MIN. ALL SYSTEM PIPING INCLUDING MAINS, GRID LINES AND BRANCH LINES TO MEET SPECIFICATION CRITERIA.
- O. SYSTEM PIPING WILL BE SUPPORTED WITH HANGERS IN ACCORDANCE WITH NFPA-13 AND THE TRUSS MANUFACTURER'S REQUIREMENTS.
- P. ALL HVAC OVER 4'-0" WILL BE EVALUATED AFTER INSTALLATION OF SAID HVAC AND SPRINKLERS ADDED TO THESE AREAS WHERE EXPOSED TO REQUIRED COVERAGE.
- Q. ALL SPRINKLER HEADS WILL BE INSTALLED PARALLEL TO SLOPES HAVING MORE THAN A 2 IN 12 PITCH.
- R. ALL LOW POINTS WILL BE PROVIDED WITH DRAINS AND INCORPORATED ON THE FINAL "AS-BUILT" DRAWINGS.

HANGERS:

- A. PIPE HANGERS SHALL BE INSTALLED AS REQUIRED BY NFPA-13 FOR SUPPORTING SPRINKLER PIPING.
- B. NO OTHER PIPING AND/OR DEVICES ARE TO BE ATTACHED TO THE SPRINKLER PIPE HANGER SYSTEM UNLESS THE HANGER HAS BEEN SPECIFICALLY DESIGNED FOR THE ADDITIONAL LOADING.
- C. THIS CONTRACT DOES NOT INCLUDE ANY MATERIAL OR DEVICE TO IMPROVE THE STRUCTURAL STRENGTH OF THE BUILDING TO ENABLE IT TO CARRY THE LOAD OF THE FIRE PROTECTION SYSTEM.
- D. PROVISIONS OF SEISMIC SWAY BRACING FOR BULK, CROSS MAINS AND BRANCH LINES WHERE NECESSARY SHALL BE IN ACCORDANCE WITH NFPA-13.

SCOPE OF WORK:

FIRE PROTECTION SUMMARY:
 THE PROJECT CONSISTS OF DESIGNING AND INSTALLING A COMPLETE WET SPRINKLER SYSTEM FOR EARL HALL. THE PROJECT ENCOMPASSES ALL FLOORS FROM SUB-BASEMENT TO 4TH FLOOR AND INCLUDES FULL FIRE SPRINKLER COVERAGE AND PROTECTION OF ALL CORRIDORS, STUDENT ROOMS, CLOSETS, LOUNGES, STUDIES, CLASSROOMS, AND ALL OTHER SPACES WITHIN ALL WINGS (YOUNG, STAFFORD, SHELDON, MORTON, AND McCLURE).

PLUMBING SUMMARY:
 THE PROJECT CONSISTS OF REPLACING ALL THE VERTICAL GALVANIZED DOMESTIC HOT WATER SUPPLY, RETURN AND DOMESTIC COLD WATER RISERS WITH INSULATED COPPER PIPING IN ALL WINGS OF EARL HALL (YOUNG, STAFFORD, SHELDON, MORTON, AND McCLURE).
 THE DOMESTIC HOT WATER SUPPLY AND RETURN PIPING REPLACEMENT INCLUDES ALL EXISTING VERTICAL AND HORIZONTAL GALVANIZED PIPING FROM THE EXISTING HOT WATER HEATERS IN THE BASEMENT TO THE CONNECTION POINT AT THE EXISTING HORIZONTAL PIPING RUNS SERVING EACH FLOOR. THIS PROJECT DOES NOT ADDRESS THE BRANCH PIPING AT EACH FLOOR OR TO INDIVIDUAL PLUMBING FIXTURES.
 THE DOMESTIC COLD WATER PIPING REPLACEMENT INCLUDES THE PIPING FROM THE CITY WATER SUPPLY TO THE CONNECTION POINT SERVING EACH FLOOR. THIS PROJECT DOES NOT ADDRESS THE BRANCH PIPING AT EACH FLOOR OR TO THE INDIVIDUAL PLUMBING FIXTURES.

ELECTRICAL SUMMARY:
 THE PROJECT CONSISTS OF REMOVING THE SURFACE MOUNTED FLUORESCENT LIGHT FIXTURES IN THE CORRIDORS, AND ROTATING THEM 90° SUCH THAT THE FIXTURES ARE PARALLEL WITH THE CORRIDOR. THIS WORK OCCURS IN ALL FIVE WINGS ON FLOORS 1 THROUGH 4.

CODE SUMMARY:

BUILDING STORIES: 4 + BASEMENT
 OCCUPANCY TYPE: MIXED B AND R2
 CONSTRUCTION TYPE: TYPE II
 FIRE PROTECTION: FULLY SPRINKLED

FLOW TEST DATA:

STATIC PRESSURE: 75.0 PSI
 RESIDUAL PRESSURE: 68.0 PSI
 QUANTITY FLOWING: 1,886.0 GPM
 DATE OF TEST: 8/12/12, HYDRANT #5056, 1455 EAST 15TH AVENUE

SPRINKLER QUANTITIES:

ZONE	FLOOR						TOTAL
	SUB-BASEMENT	BASEMENT	1	2	3	4	
1	11	24	-	-	-	-	35
2	19	20	-	-	-	-	39
3	14	27	-	-	-	-	41
4	-	-	35	26	26	26	113
5	-	-	19	23	23	23	88
6	-	-	38	25	25	25	113
7	-	-	36	-	-	-	36
8	-	-	19	23	23	23	88
9	-	-	35	26	26	26	113
FLOOR TOTALS	44	71	182	123	123	123	666

TABLE 9.2.2.1 (a) MAXIMUM DISTANCE BETWEEN HANGERS (FT-IN.)

NOMINAL PIPE SIZE (IN)	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	4"	6"	8"
STEEL PIPE	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHTWALL	N/A	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A
COPPER TUBE	8-0	8-0	10-0	10-0	12-0	12-0	15-0	15-0	15-0
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	N/A	N/A	N/A

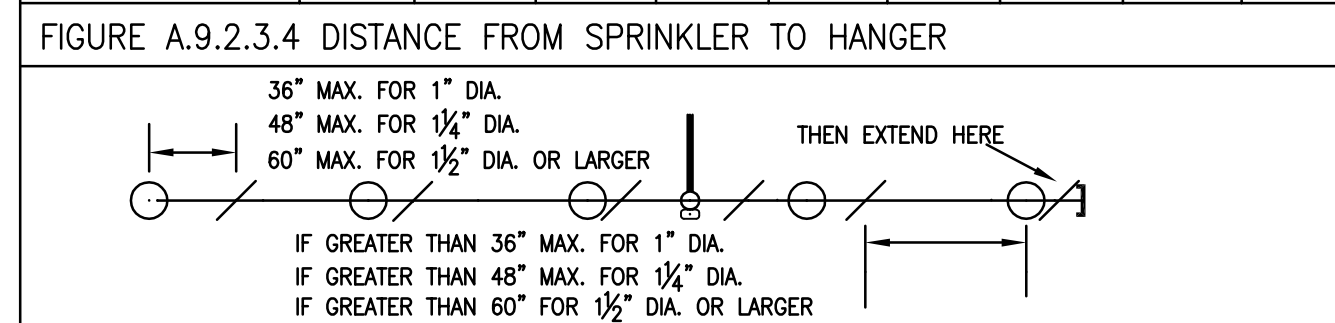


TABLE 9.1.2.1 HANGER ROD SIZE

PIPE SIZE	DIA OF ROD	PIPE SIZE	DIA OF ROD
UP TO AND INCLUDING 4"	3/8"	5", 6" AND 8"	1/2"

HYDRAULIC DESIGN SUMMARY:

HYDRAULIC DESIGN INFORMATION-BASEMENT LOUNGE

ZONE#: 1	CODE: FACTORY MUTI	HAZARD: LIGHT	SYSTEM TYPE: WET
REMOTE AREA SQ FT	5 EC-AS	DENSITY GPM/SQ FT 0.10	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 100
			AREA PER SPRINKLER 80 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

HYDRAULIC DESIGN INFORMATION-BASEMENT STORAGE

ZONE#: 2	CODE: FACTORY MUTI	HAZARD: ORDINARY II	SYSTEM TYPE: WET
REMOTE AREA SQ FT	RM DESIGN	DENSITY GPM/SQ FT 0.20	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 250
			AREA PER SPRINKLER 54 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

HYDRAULIC DESIGN INFORMATION-BASEMENT LOUNGE

ZONE#: 3	CODE: FACTORY MUTI	HAZARD: LIGHT	SYSTEM TYPE: WET
REMOTE AREA SQ FT	5 EC-AS	DENSITY GPM/SQ FT 0.10	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 100
			AREA PER SPRINKLER 80 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

HYDRAULIC DESIGN INFORMATION-FIRST LEVEL LOUNGE

ZONE#: 4	CODE: FACTORY MUTI	HAZARD: LIGHT	SYSTEM TYPE: WET
REMOTE AREA SQ FT	CORRIDOR	DENSITY GPM/SQ FT 0.10	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 100
			AREA PER SPRINKLER 80 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

HYDRAULIC DESIGN INFORMATION-FOURTH LEVEL CORRIDOR

ZONE#: 5	CODE: FACTORY MUTI	HAZARD: LIGHT	SYSTEM TYPE: WET
REMOTE AREA SQ FT	CORRIDOR	DENSITY GPM/SQ FT 0.10	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 100
			AREA PER SPRINKLER 80 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

HYDRAULIC DESIGN INFORMATION-FIRST LEVEL LOUNGE

ZONE#: 6	CODE: FACTORY MUTI	HAZARD: LIGHT	SYSTEM TYPE: WET
REMOTE AREA SQ FT	900	DENSITY GPM/SQ FT 0.10	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 100
			AREA PER SPRINKLER 17.5 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

HYDRAULIC DESIGN INFORMATION-FIRST LEVEL LOUNGE

ZONE#: 7	CODE: FACTORY MUTI	HAZARD: LIGHT	SYSTEM TYPE: WET
REMOTE AREA SQ FT	900	DENSITY GPM/SQ FT 0.10	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 100
			AREA PER SPRINKLER 32.7 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

HYDRAULIC DESIGN INFORMATION-FOURTH LEVEL CORRIDOR

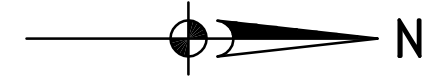
ZONE#: 8	CODE: FACTORY MUTI	HAZARD: LIGHT	SYSTEM TYPE: WET
REMOTE AREA SQ FT	CORRIDOR	DENSITY GPM/SQ FT 0.10	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 100
			AREA PER SPRINKLER 74.7 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

HYDRAULIC DESIGN INFORMATION-FIRST LEVEL LOUNGE

ZONE#: 9	CODE: FACTORY MUTI	HAZARD: LIGHT	SYSTEM TYPE: WET
REMOTE AREA SQ FT	5 EC-AS	DENSITY GPM/SQ FT 0.10	INSIDE HOSE ALLOWANCE 0
			OUTSIDE HOSE ALLOWANCE 100
			AREA PER SPRINKLER 80 FT ²
TOTAL SYSTEM REQUIREMENTS	75 PSI, 1,886 GPM AT HYDRANT		

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TITLE: UO EARL HALL GENERAL NOTES AND SPRINKLER HYDRAULIC DESIGN SUMMARY
 CLIENT: UNIVERSITY OF OREGON
 LOCATION: EUGENE, OREGON
 DESIGN: NONE
 DRAWING #: 1000G02
 JOB #: 2620.0
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 EUGENE, OREGON
 ENGINEERING AND CONSTRUCTION SERVICES
 EVERGREEN ENGINEERING
 1235 UNION STREET, SUITE 111
 EUGENE, OREGON 97401
 (541) 485-3288
 www.evergreenengineering.com



KEYED NOTES:

- ① REMOVE 4" STANDPIPE AND 2½" HOSE VALVE.
- ② 4"x2½"x2½" FIRE DEPARTMENT CONNECTION TO REMAIN.
- ③ 4"x2½"x2½" FIRE DEPARTMENT CONNECTION TO BE REMOVED. PROVIDE PAINTED STEEL COVER PLATE TO CONCEAL OPENING. COORDINATE COLOR WITH OWNER.
- ④ REMOVE FIRE HOSE CABINET AND 2½" RISER IN WALL CHASE. PATCH WALL TO MATCH ADJACENT FINISH. OWNER TO PROVIDE PRIME AND FINISH PAINTING.
- ⑤ ATTACH METAL PLATE TO UNDERSIDE OF FLOOR AND PATCH OPENING WITH NON-SHRINK EPOXY GROUT.

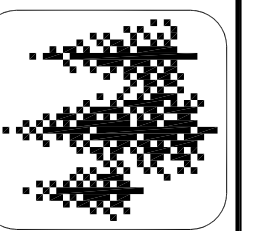
FIRST FLOOR DEMO PLAN

3/32"=1'-0"

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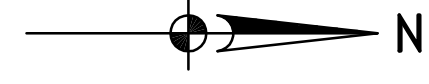
**BDH
FIRE PROTECTION
SYSTEMS, INC.**
1235 CHARLETON STREET, SUITE 11
EUGENE, OREGON 97401
(541) 485-3286

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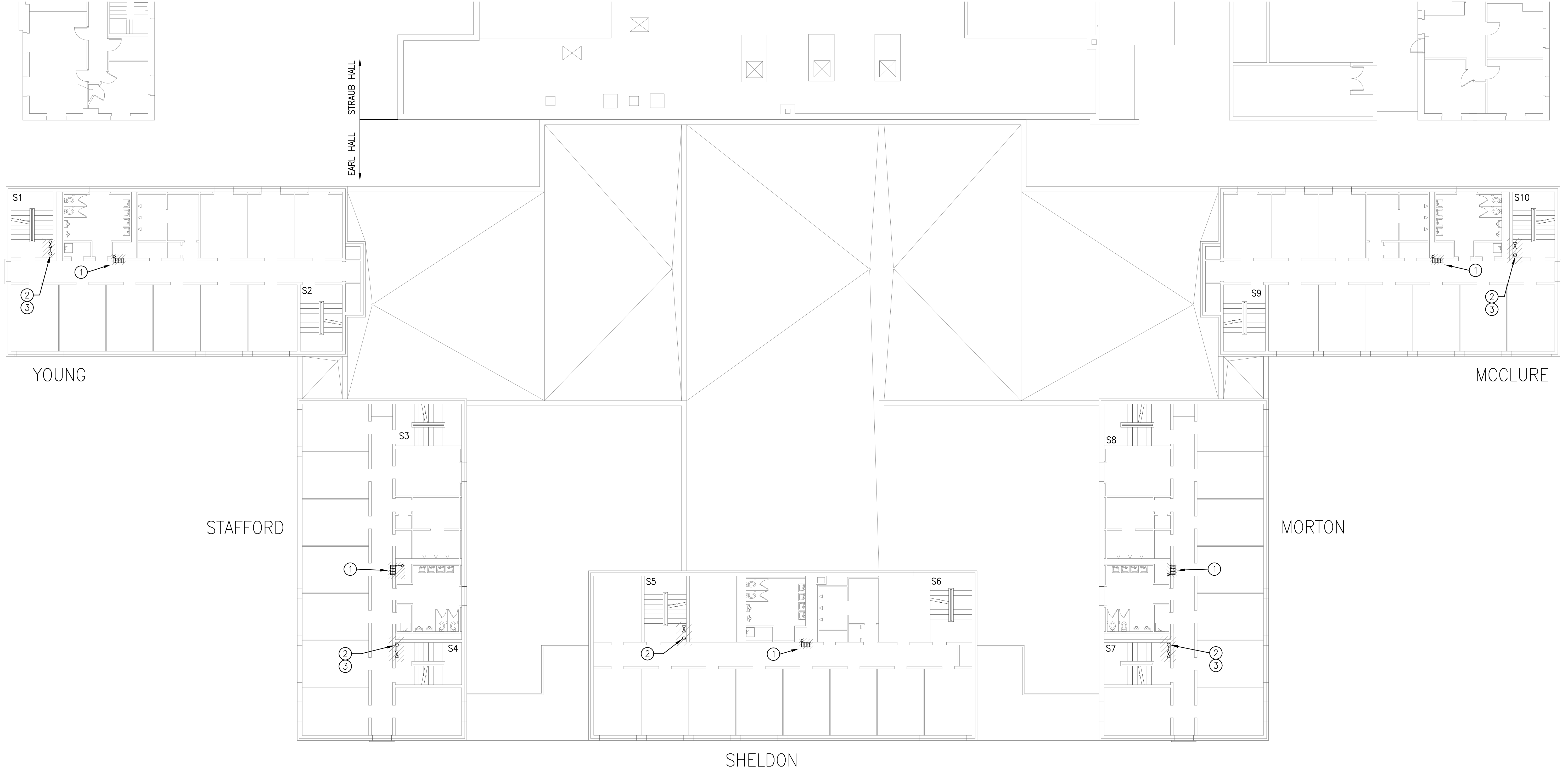
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CLIENT	EUGENE, OREGON
LOCATION	EUGENE, OREGON
DESIGN	DESIGN: PLS
CHECK	CHECK: PLS
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APPD	APPD: PLS
DATE	DATE: 12/5/12
REV	1
DRAWING #	900F03
JOB #	2620.0
CLIENT REF #	

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KEYED NOTES:

- ① REMOVE FIRE HOSE CABINET AND 2½" RISER IN WALL CHASE. PATCH WALL TO MATCH ADJACENT FINISH. OWNER TO PROVIDE PRIME AND FINISH PAINTING.
- ② REMOVE 4" STANDPIPE AND 2½" HOSE VALVE.
- ③ ATTACH METAL PLATE TO UNDERSIDE OF FLOOR AND PATCH OPENING WITH NON-SHRINK EPOXY GROUT.



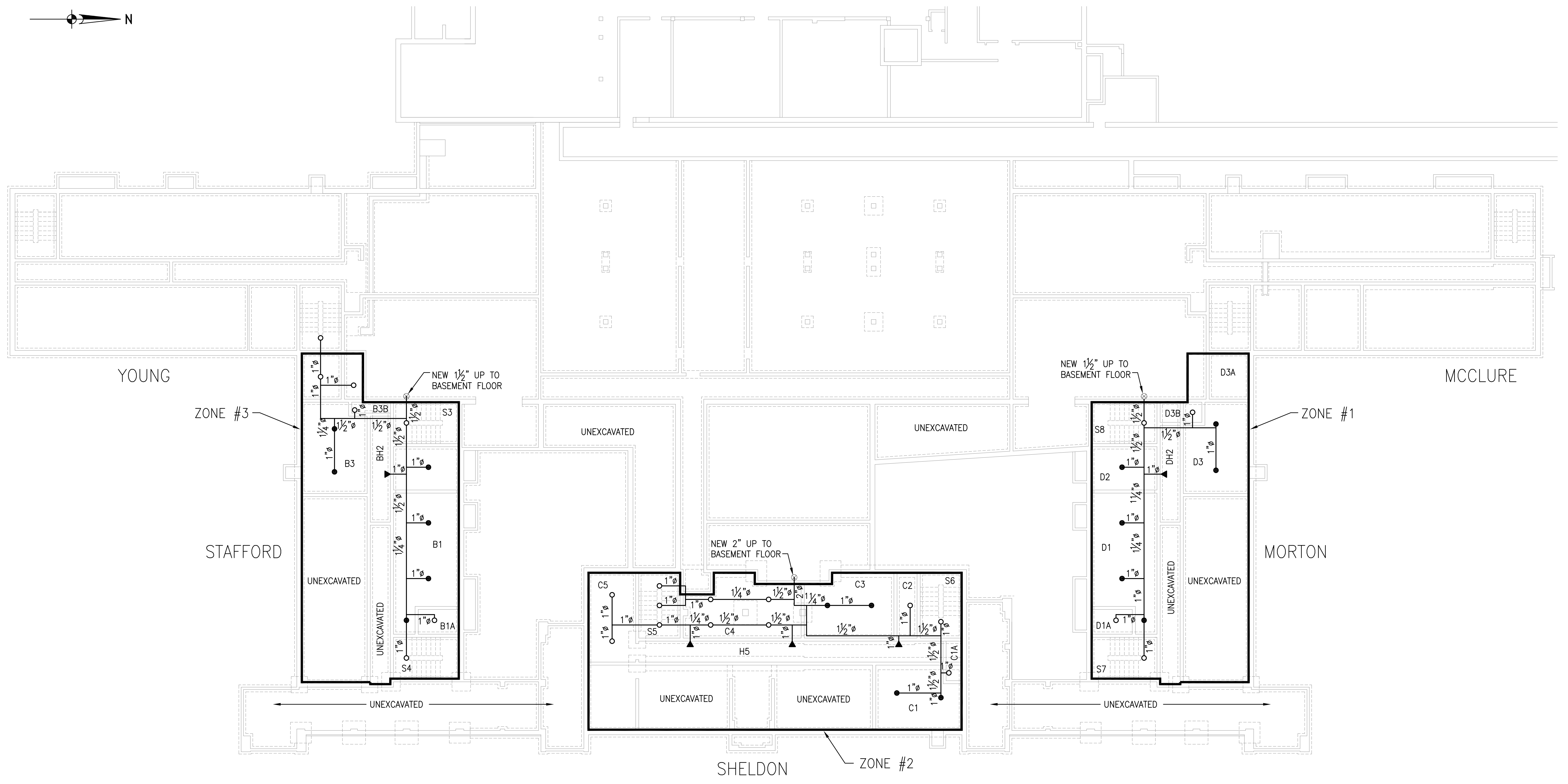
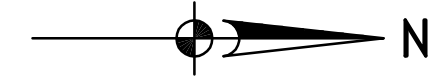
SECOND FLOOR DEMO PLAN (3RD & 4TH FLOORS SIMILAR)

3/32"=1'-0"

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<p>UNIVERSITY OF OREGON EUGENE, OREGON</p>	<p>EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON www.evergreenengineering.com</p>	<p>BDH FIRE PROTECTION SYSTEMS, INC. 1235 CHARLETON STREET, SUITE 11 EUGENE OR 97401 (541) 485-3886</p>
<p>TITLE: UO EARL HALL SECOND FLOOR FIRE PROTECTION DEMO PLAN</p>	<p>CLIENT: UNIVERSITY OF OREGON</p>	<p>ISSUED FOR PERMIT</p>
<p>REV: 1 DRAWING #: 900F04 JOB #: 2620.0 CLIENT REF #:</p>	<p>LOCATION: EUGENE, OREGON</p>	<p>ISSUED FOR BID</p>
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LEGEND

- (23) UPRIGHT SPRINKLER, STANDARD COVERAGE, QUICK RESPONSE
- (16) UPRIGHT SPRINKLER, EXTENDED COVERAGE, QUICK RESPONSE
- ▶ (5) HORIZONTAL SIDEWALL, EXTENDED COVERAGE, QUICK RESPONSE, RELIABLE #DH56
- ⊗ FIRE PROTECTION PIPE RISER
- 44 = TOTAL HEAD COUNT

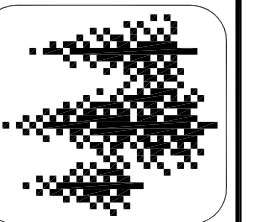
SUB-BASEMENT FLOOR PLAN

3/32"=1'-0"

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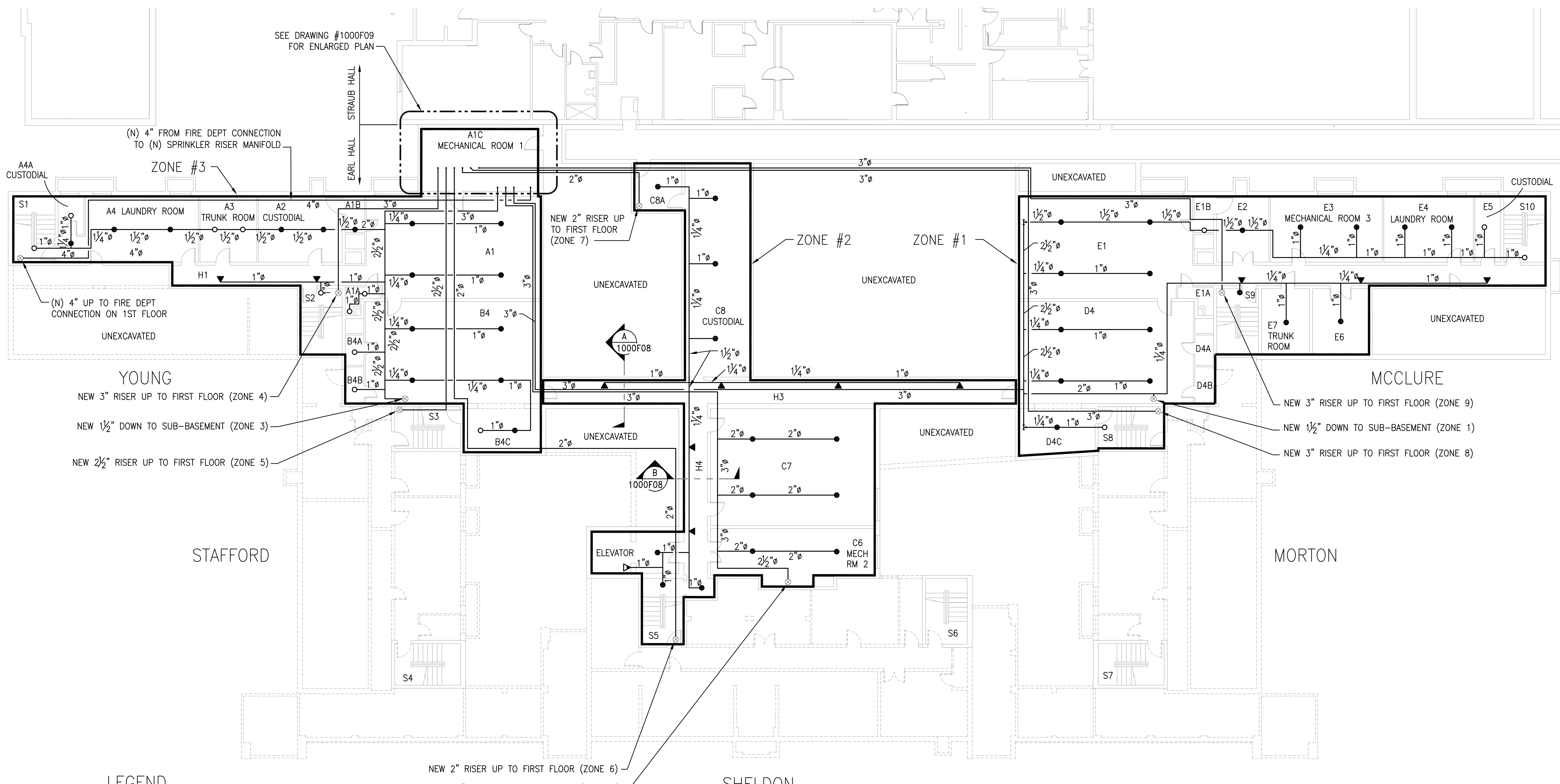
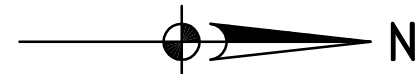
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UNIVERSITY OF OREGON		CLIENT:	
EUGENE, OREGON		LOCATION:	
DESIGN:	DATE:	DESIGN:	DATE:
SCALE:	SCALE:	SCALE:	SCALE:
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1000F01	1000F01	1000F01	1000F01
2620.0	2620.0	2620.0	2620.0
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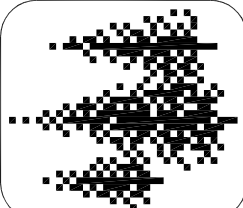
LEGEND

- (14) UPRIGHT SPRINKLER, STANDARD COVERAGE, QUICK RESPONSE
- (45) UPRIGHT SPRINKLER, EXTENDED COVERAGE, QUICK RESPONSE
- ▶ (11) HORIZONTAL SIDEWALL, EXTENDED COVERAGE, QUICK RESPONSE, RELIABLE #DH56
- ▼ (1) PENDANT SIDEWALL, STANDARD COVERAGE, QUICK RESPONSE
- ⊗ FIRE PROTECTION PIPE RISER
- 71 = TOTAL HEAD COUNT

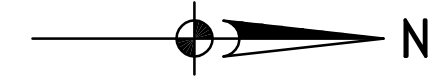
BASEMENT FLOOR PLAN

3/32"=1'-0"

ISSUED FOR PERMIT

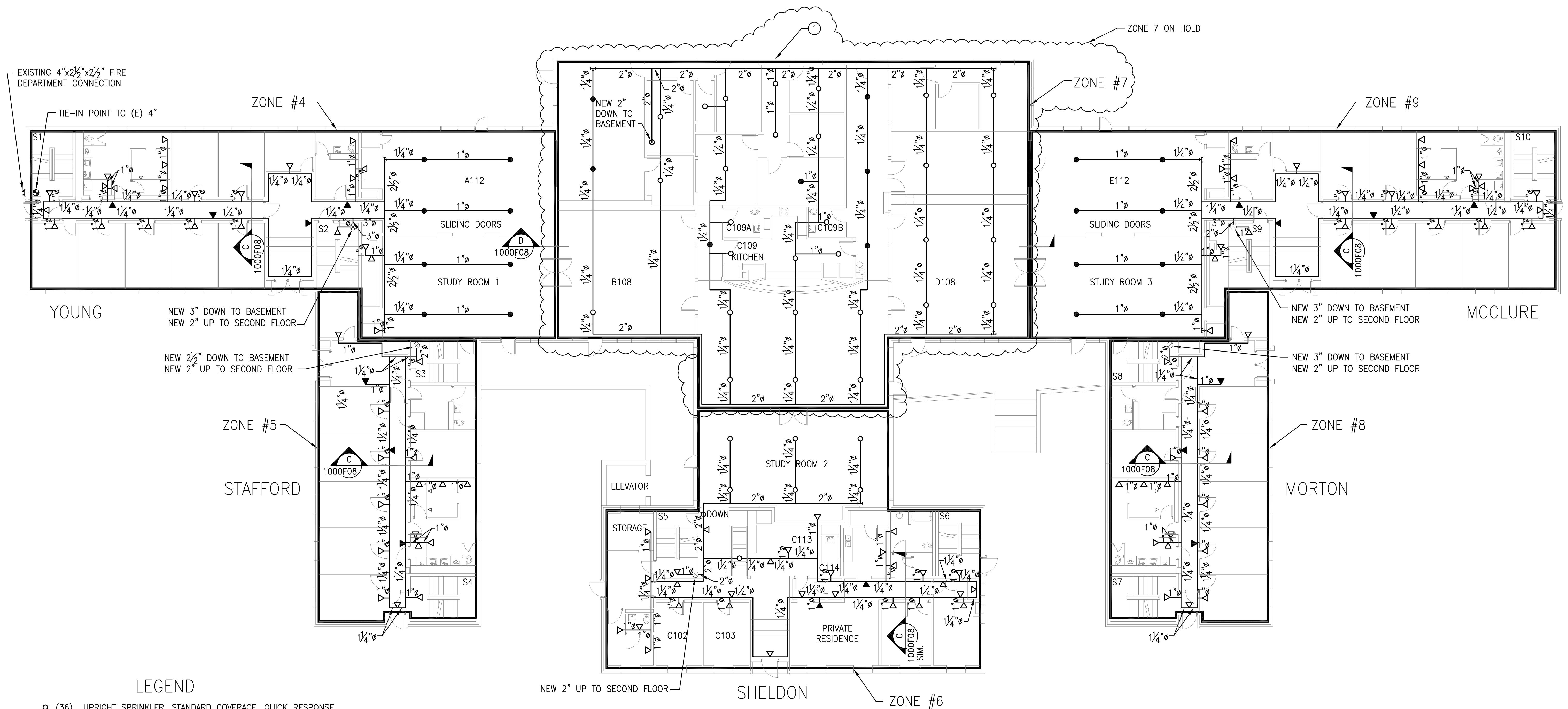
TITLE	UNIVERSITY OF OREGON 110 EARL HALL BASEMENT FLOOR FIRE PROTECTION PIPING PLAN	CLIENT	UNIVERSITY OF OREGON EUGENE, OREGON
REV	DRAWING # 1000F02	JOB #	CLIENT REF #
	2620.0	2620.0	2620.0
REV	DATE	BY	DATE
1	4/18/12	WCE	RES
2	12/12/12	PLS	RES
3	2/19/13	PLS	RES
4	12/12/12	PLS	RES
5	12/12/12	PLS	RES
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EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON www.ewgreenengineering.com			
BDH PROTECTION FIRE SYSTEMS, INC. 1235 CHARLETON STREET, SUITE 111 EUGENE OR 97401 (541) 485-3888			

A:\Data 2620-2625\2620-02-1010-1.dwg (Rev) User: P:\admin\1101121013.dwg (Rev) Date: 4/18/12 11:54:58 AM Plot Date: 4/18/12 11:54:58 AM Plot By: jk



KEYED NOTES:

- ① CONTRACTOR TO REMOVE AND REINSTALL EXISTING LAY-IN CEILING PANELS FOR PIPING INSTALLATION IN ZONE 7.



LEGEND

- (36) UPRIGHT SPRINKLER, STANDARD COVERAGE, QUICK RESPONSE
 - (23) UPRIGHT SPRINKLER, EXTENDED COVERAGE, QUICK RESPONSE
 - ▷ (107) HORIZONTAL SIDEWALL, STANDARD COVERAGE, QUICK RESPONSE
 - ◁ (16) HORIZONTAL SIDEWALL, EXTENDED COVERAGE, QUICK RESPONSE, RELIABLE #DH56
 - ⊗ FIRE PROTECTION PIPE RISER
- 182 = TOTAL HEAD COUNT

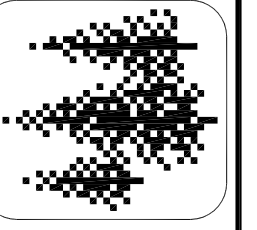
FIRST FLOOR PLAN

3/32"=1'-0"

UNIVERSITY OF OREGON		EUGENE, OREGON	
CLIENT:		LOCATION:	
UNIVERSITY OF OREGON		EUGENE, OREGON	
LOCATION:		DESIGN:	
100 EARL HALL		DRAWN: WCE	
FIRST FLOOR		CHECK:	
FIRE PROTECTION PIPING PLAN		DATE: 4/10/12	
JOB #:		APPD:	
2620.0			
DRAWING #:		CLIENT REF #:	
1000F03		2620.0	
REV:		DATE:	
1		4/10/12	
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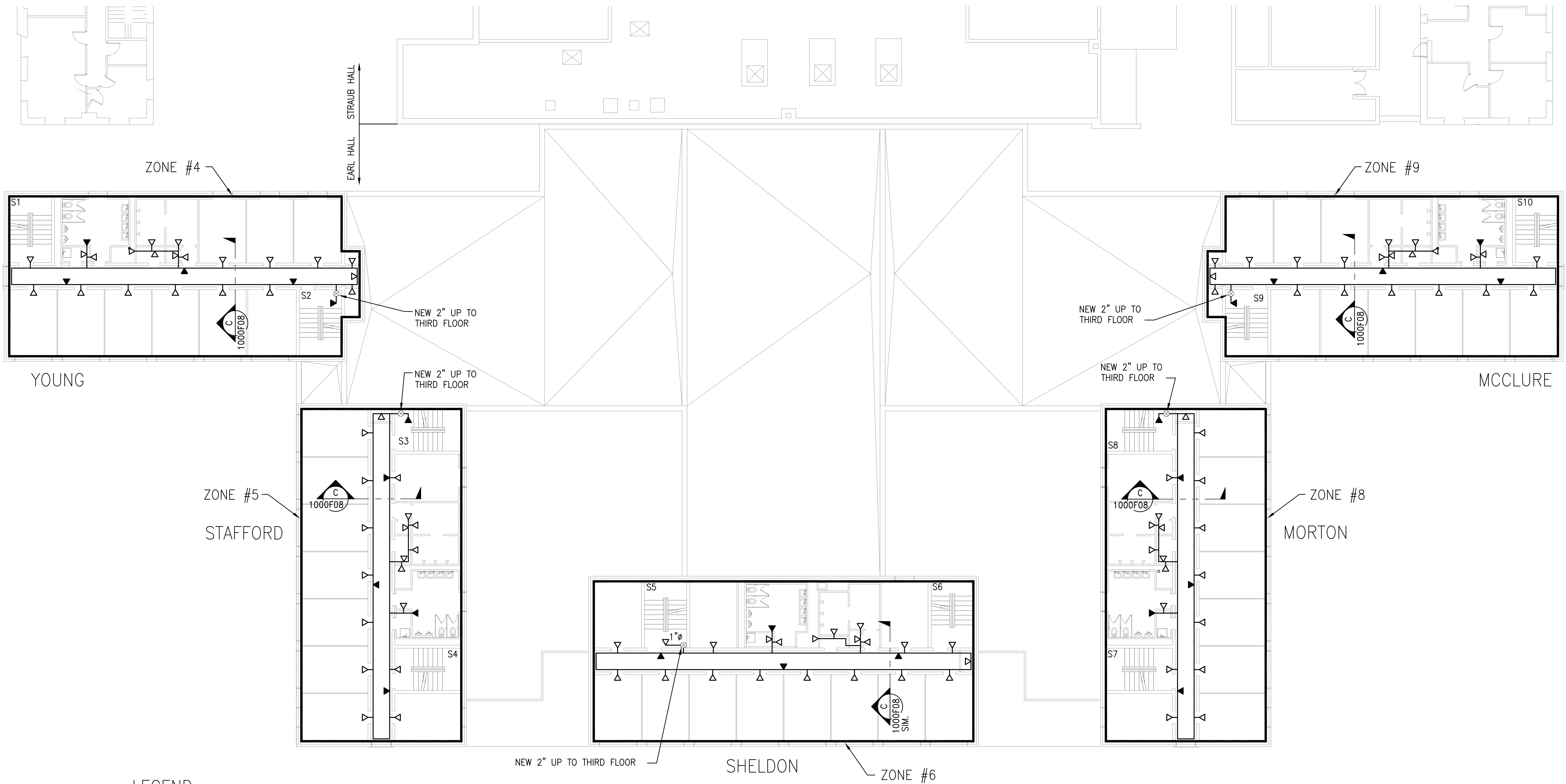


UNIVERSITY OF OREGON		EUGENE, OREGON	
CLIENT:		LOCATION:	
UNIVERSITY OF OREGON		EUGENE, OREGON	
LOCATION:		DESIGN:	
100 EARL HALL		DRAWN: WCE	
FIRST FLOOR		CHECK:	
FIRE PROTECTION PIPING PLAN		DATE: 4/10/12	
JOB #:		APPD:	
2620.0			
DRAWING #:		CLIENT REF #:	
1000F03		2620.0	
REV:		DATE:	
1		4/10/12	
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ISSUED FOR PERMIT



GENERAL NOTES:
 A. FOR DETAILS OF FIRE PROTECTION PIPING SEE DRAWING #1000F07.



LEGEND

- ▷ (99) HORIZONTAL SIDEWALL, STANDARD COVERAGE, QUICK RESPONSE
- ▶ (24) HORIZONTAL SIDEWALL, EXTENDED COVERAGE, QUICK RESPONSE, RELIABLE #DH56
- ⊗ FIRE PROTECTION PIPE RISER
- 123 = TOTAL HEAD COUNT

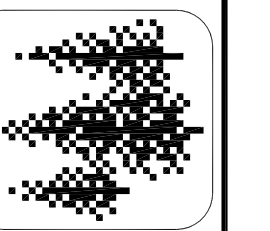
SECOND FLOOR PLAN

3/32" = 1'-0"

ISSUED FOR PERMIT

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 FIRE SYSTEMS, INC.**
 1235 CHARLETON STREET, SUITE 11
 EUGENE, OREGON 97401
 (541) 485-3286

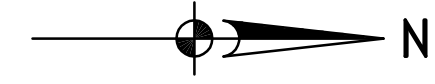
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UNIVERSITY OF OREGON
 CLIENT: EUGENE, OREGON
 LOCATION: EUGENE, OREGON
 DESIGN: WCE
 DRAWN: WCE
 CHECK: WCE
 DATE: 4/18/12
 APPD: WCE

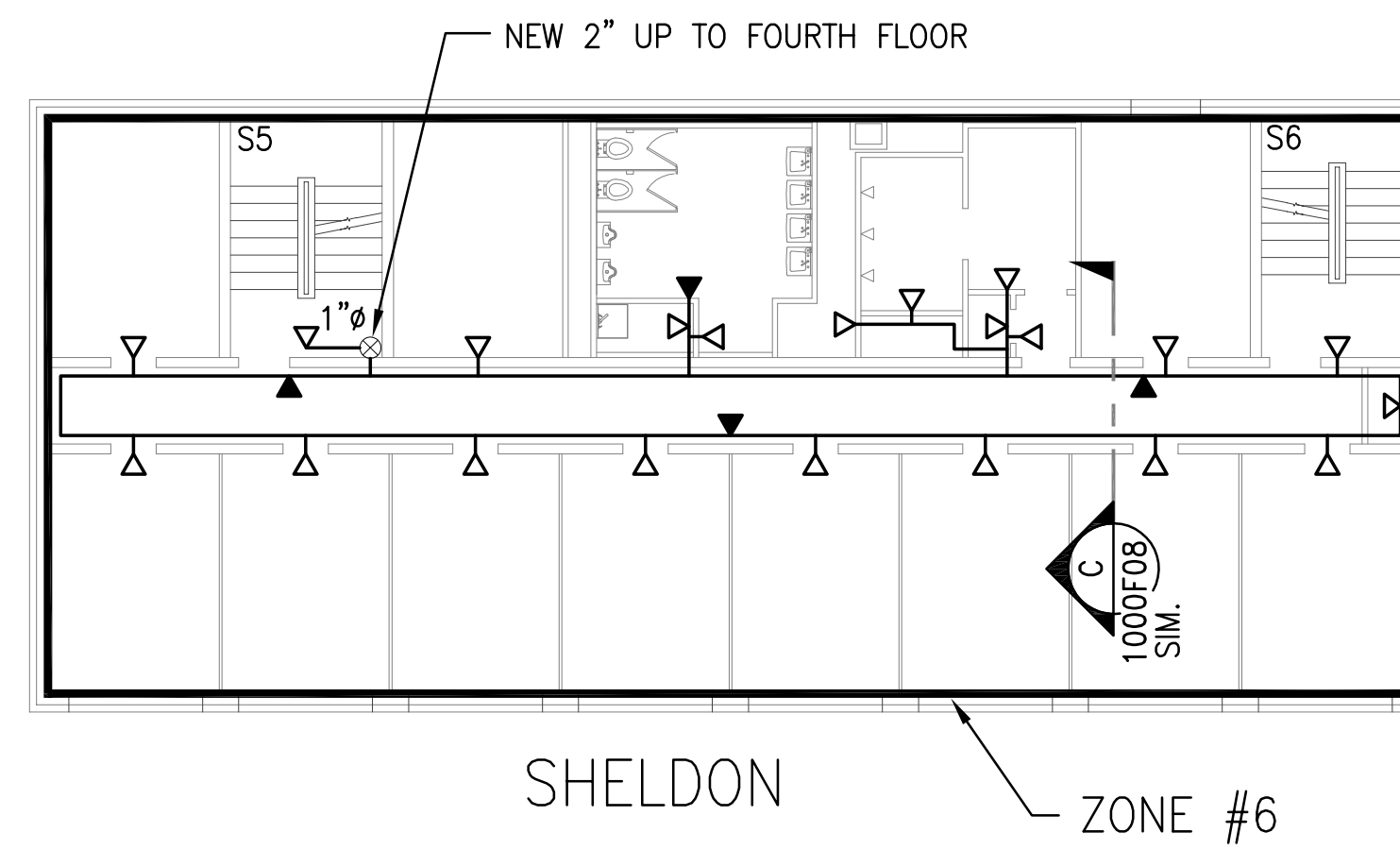
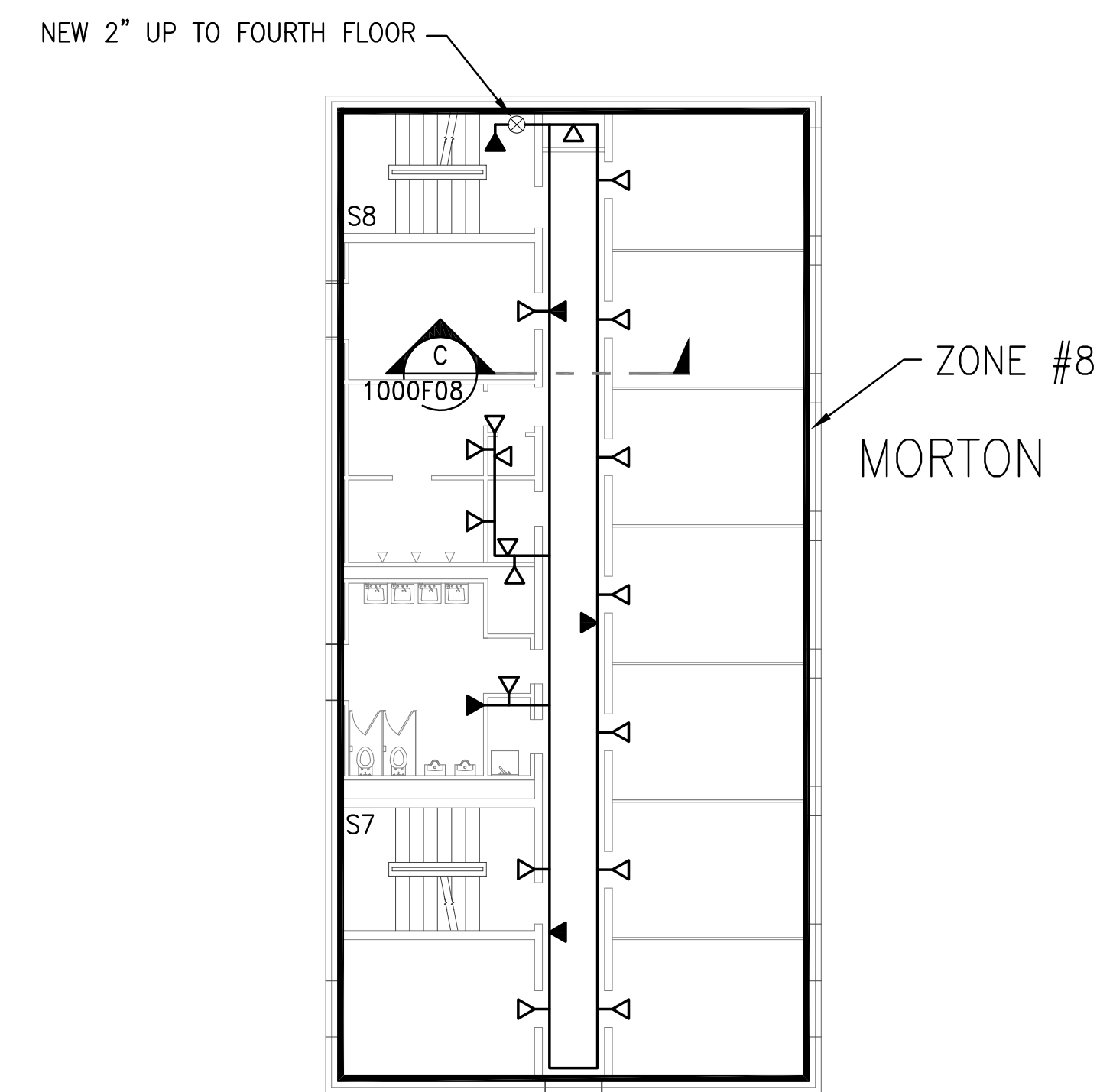
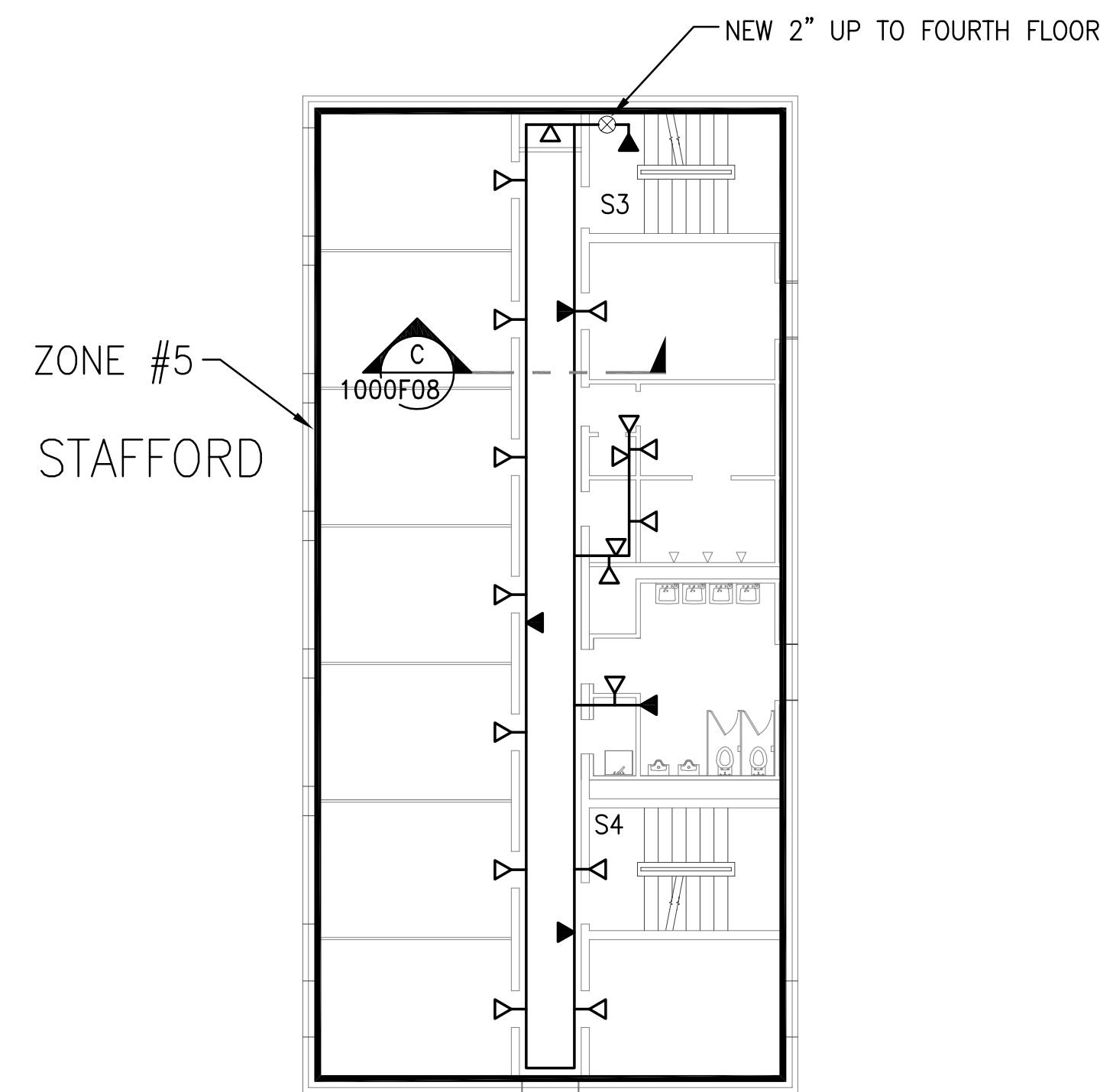
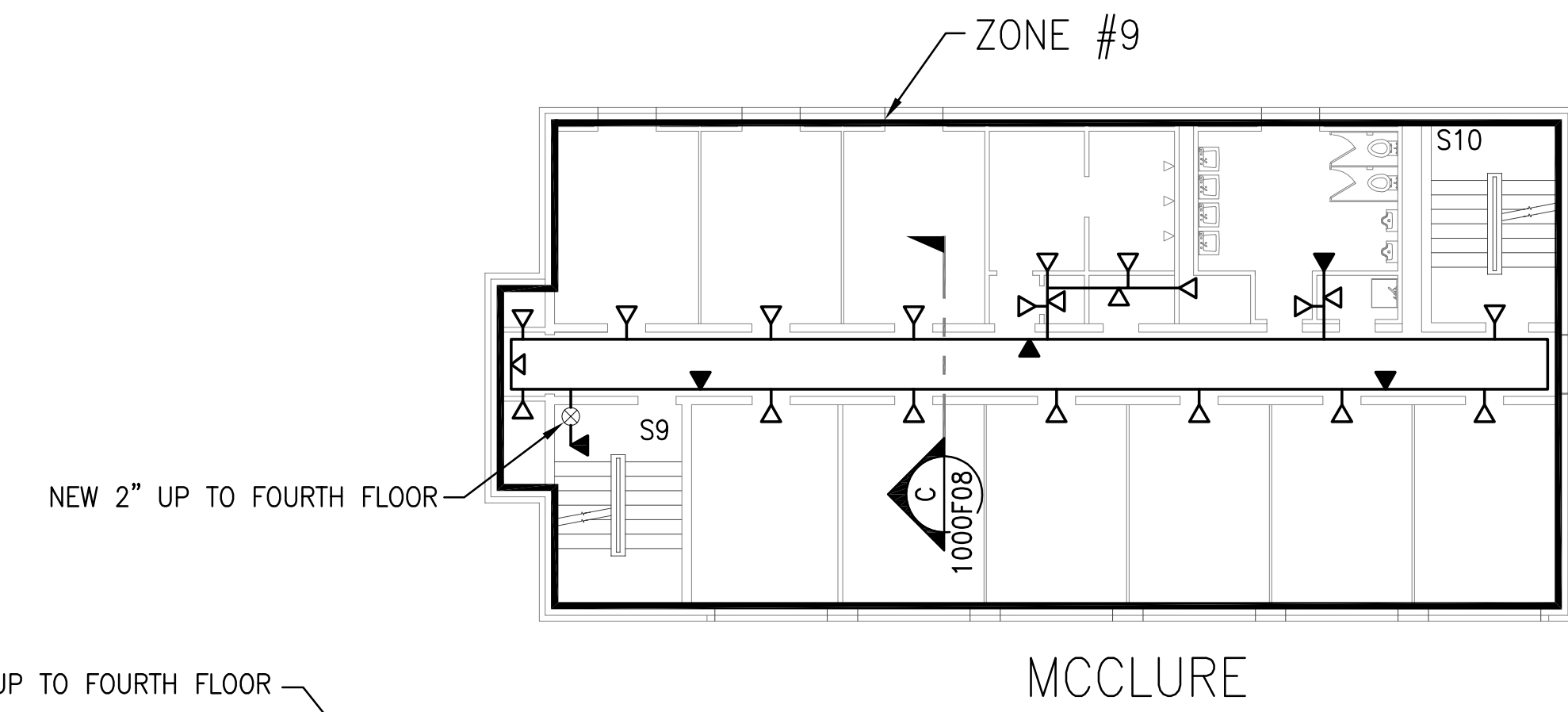
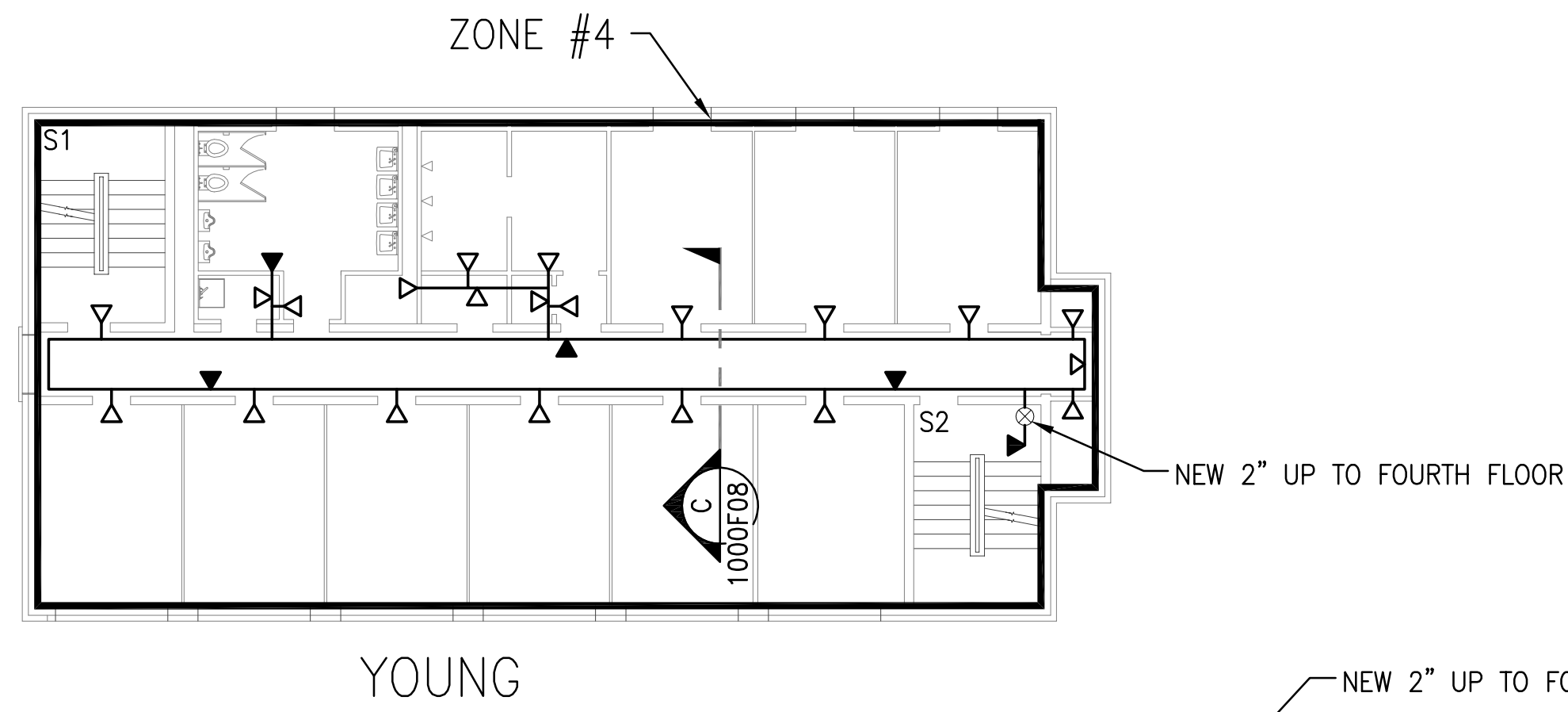
TITLE	JOB #	CLIENT REF #
10. EARL HALL SECOND FLOOR FIRE PROTECTION PIPING PLAN	2620.0	
REV: 1	DRAWING #: 1000F04	

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GENERAL NOTES:

A. FOR DETAILS OF FIRE PROTECTION PIPING SEE DRAWING #1000F07.



LEGEND

- ▷ (99) HORIZONTAL SIDEWALL, STANDARD COVERAGE, QUICK RESPONSE
- ▶ (24) HORIZONTAL SIDEWALL, EXTENDED COVERAGE, QUICK RESPONSE, RELIABLE #DH56
- ⊗ FIRE PROTECTION PIPE RISER
- 123 = TOTAL HEAD COUNT

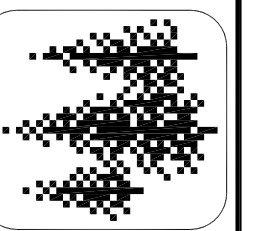
THIRD FLOOR PLAN

3/32"=1'-0"

ISSUED FOR PERMIT

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FIRE PROTECTION
SYSTEMS, INC.**
1235 CHARNELTON STREET, SUITE 11
EUGENE OR 97401

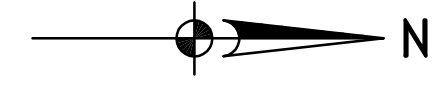
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Engineering and Construction Services
EUGENE, OREGON
www.evergreenengineering.com



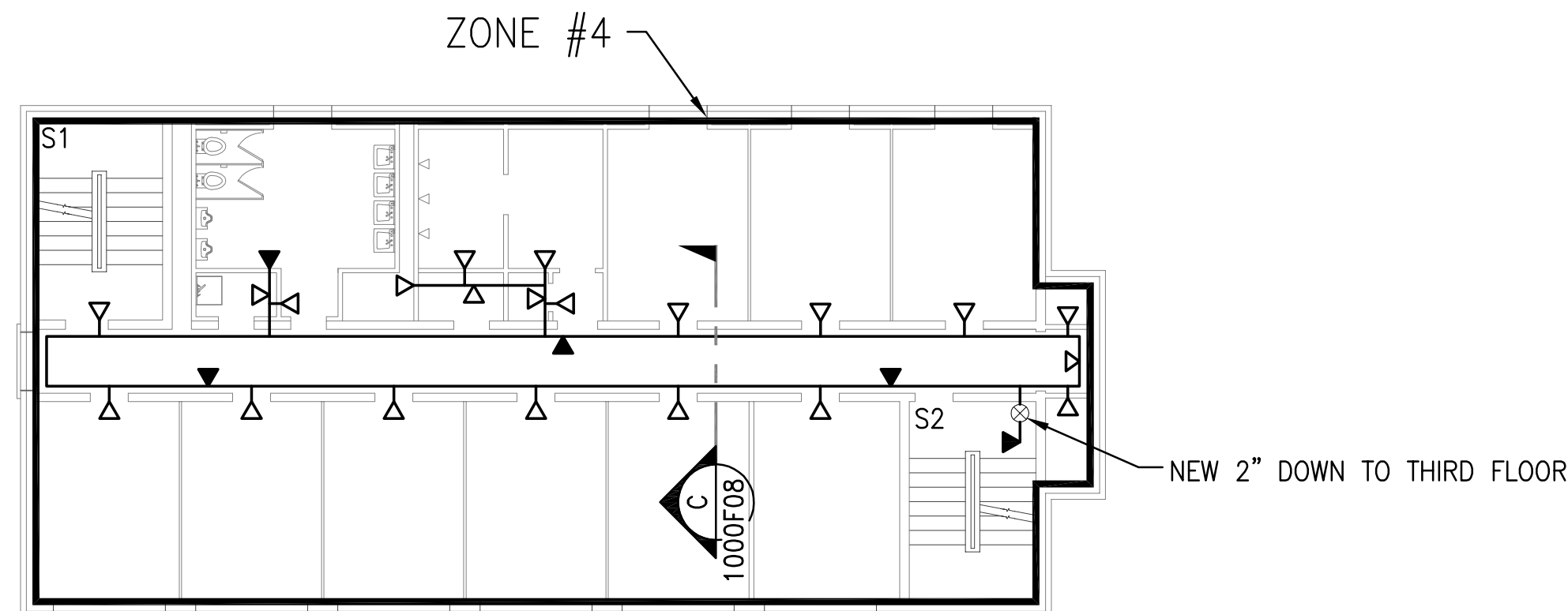
CLIENT:	UNIVERSITY OF OREGON
LOCATION:	EUGENE, OREGON
DESIGN:	WCE
DATE:	4/18/12
CHECK:	
APPD:	

TITLE:	UO EARL HALL THIRD FLOOR FIRE PROTECTION PIPING PLAN
REV:	1
DRAWING #:	1000F05
JOB #:	2620.0
CLIENT REF #:	

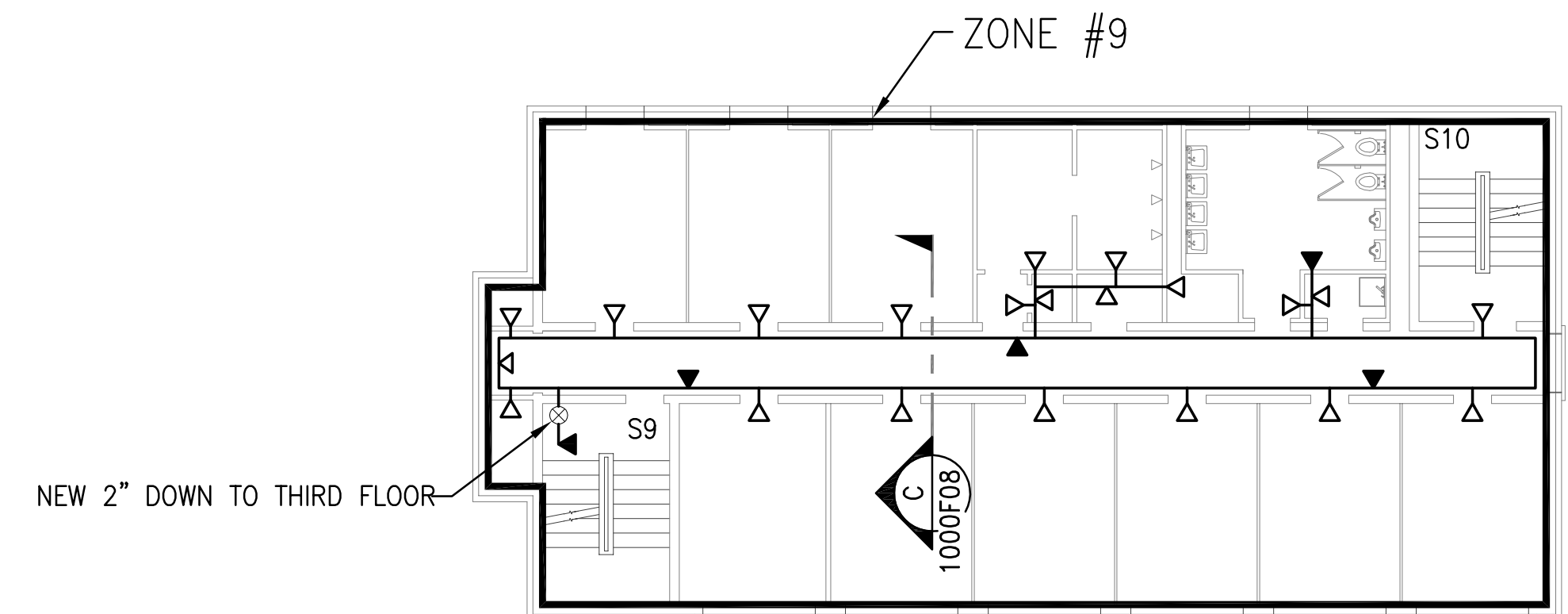
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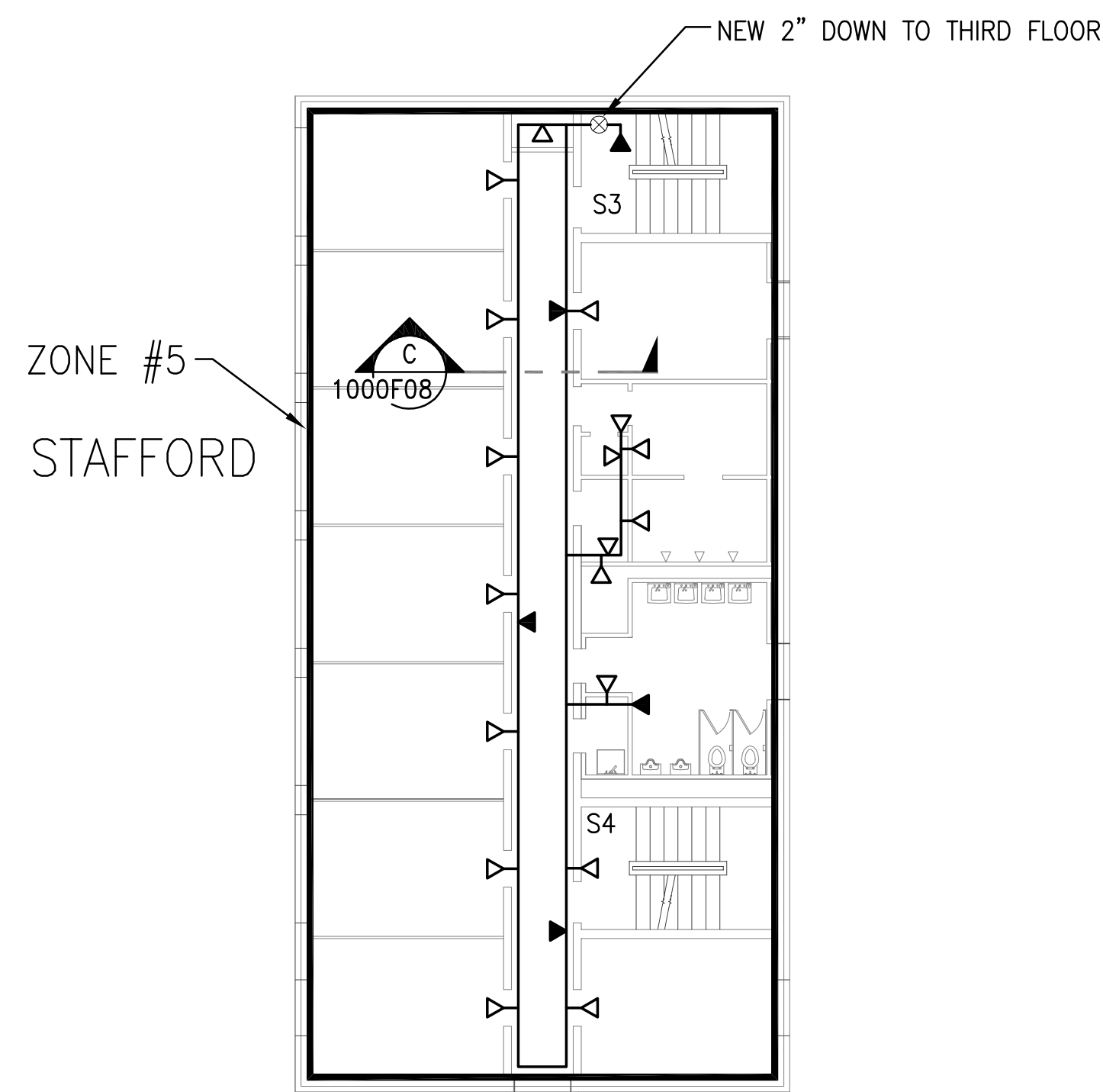
GENERAL NOTES:
 A. FOR DETAILS OF FIRE PROTECTION PIPING SEE DRAWING #1000F07.



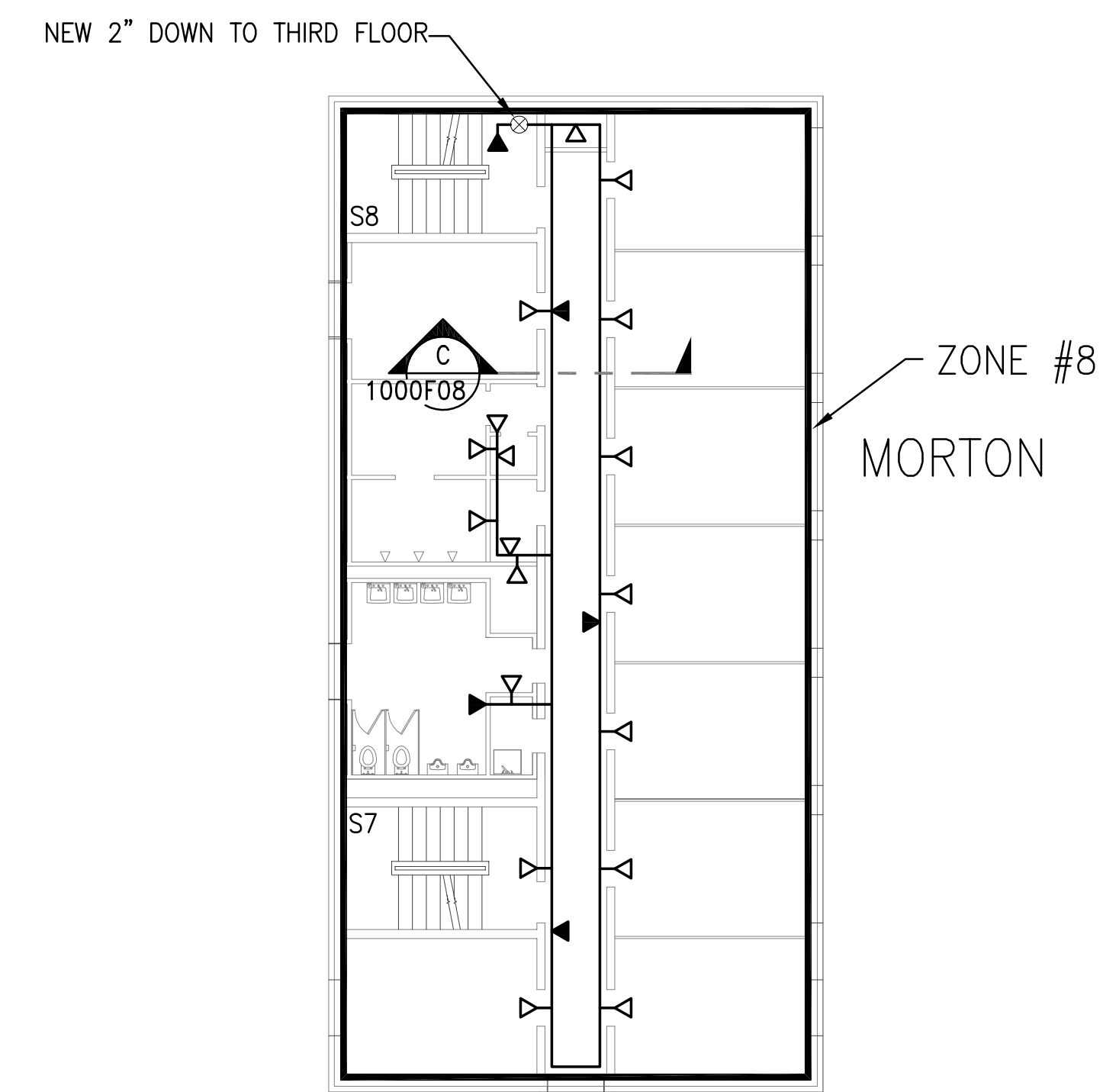
YOUNG



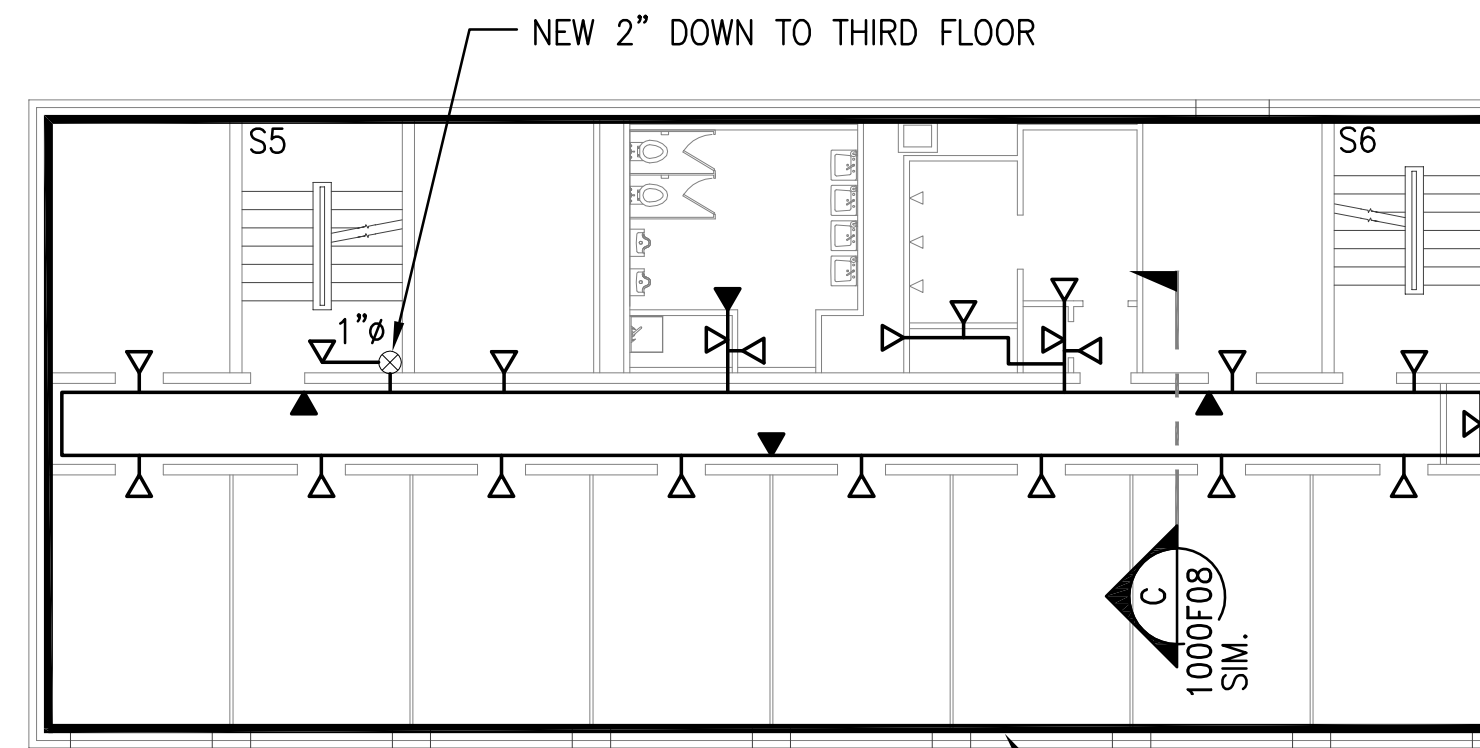
MCCLURE



ZONE #5
STAFFORD



ZONE #8
MORTON



SHELDON

LEGEND

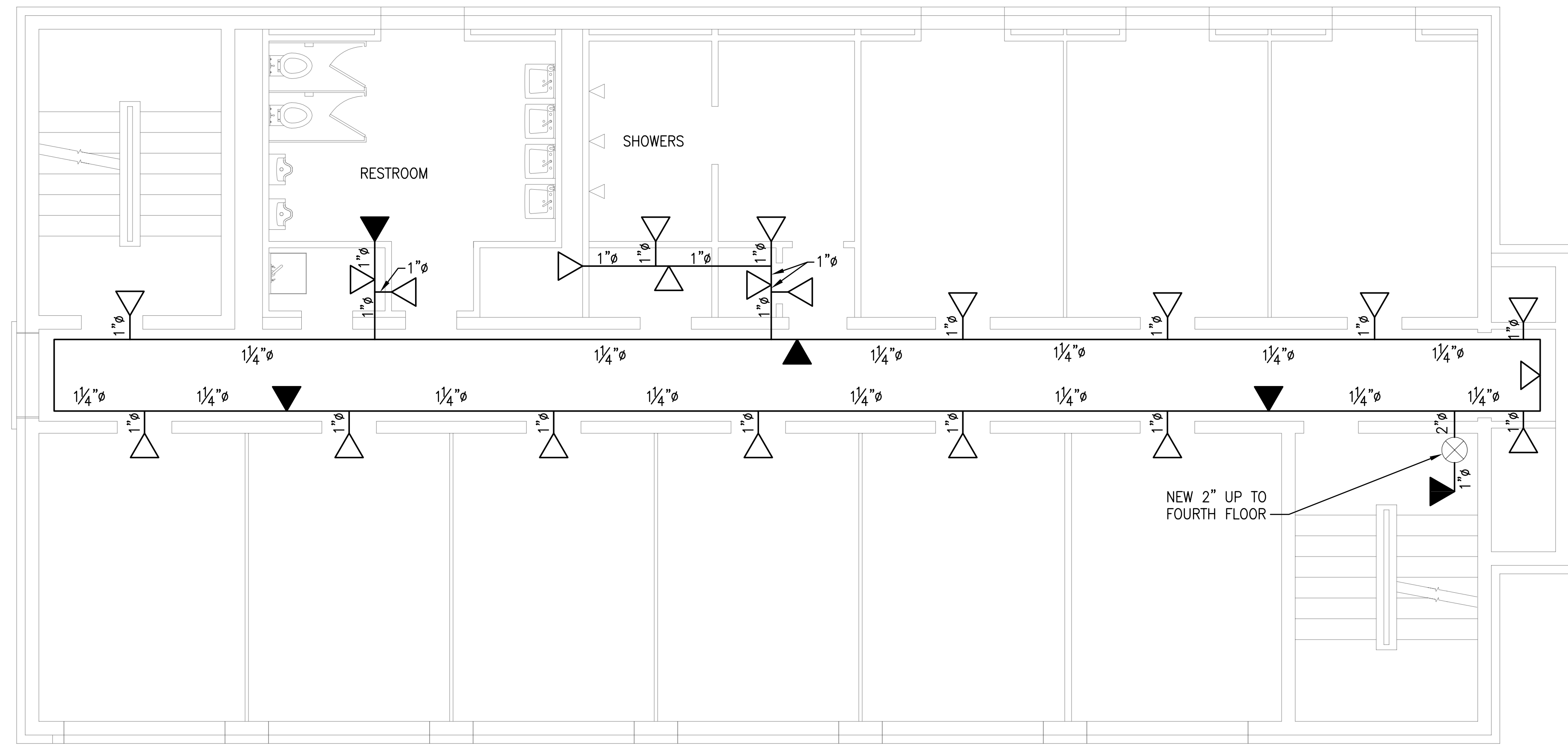
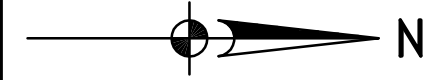
- ▷ (99) HORIZONTAL SIDEWALL, STANDARD COVERAGE, QUICK RESPONSE
- ▶ (24) HORIZONTAL SIDEWALL, EXTENDED COVERAGE, QUICK RESPONSE, RELIABLE #DH56
- ⊗ FIRE PROTECTION PIPE RISER
- 123 = TOTAL HEAD COUNT

FOURTH FLOOR PLAN

3/32"=1'-0"

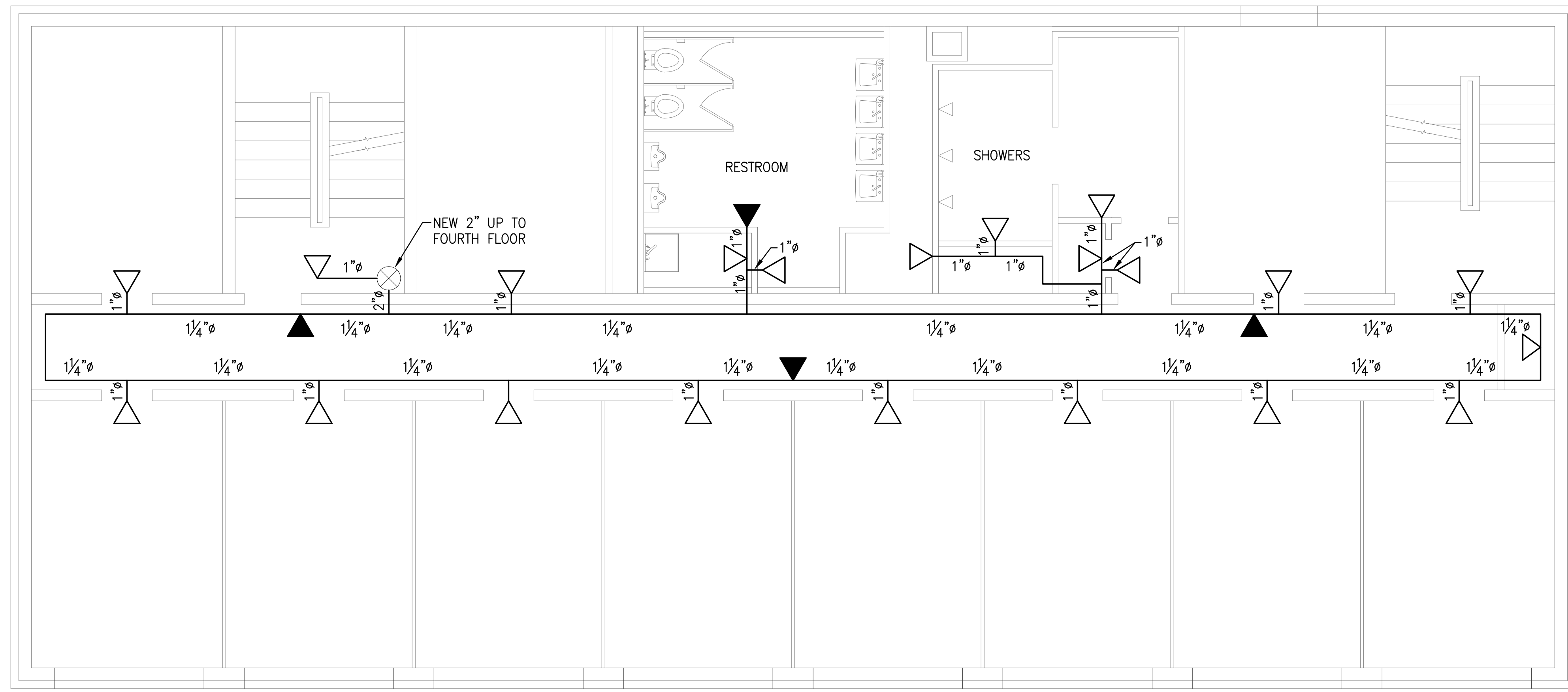
ISSUED FOR PERMIT

TITLE	UNIVERSITY OF OREGON	CLIENT	EUGENE, OREGON	DATE	
REV	DRAWING #	JOB #	CLIENT REF #	APPD	DATE
1	1000F06	2620.0			
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BDH PROTECTION FIRE SYSTEMS, INC. 1235 CHARLETON STREET, SUITE 11 EUGENE OR 97401 (541) 485-3286					
	PLS	RES	2/19/13	ISSUED FOR PERMIT	
	0	PLS	RES	12/12/12	ISSUED FOR BID
		REV	BY	APPD	DATE



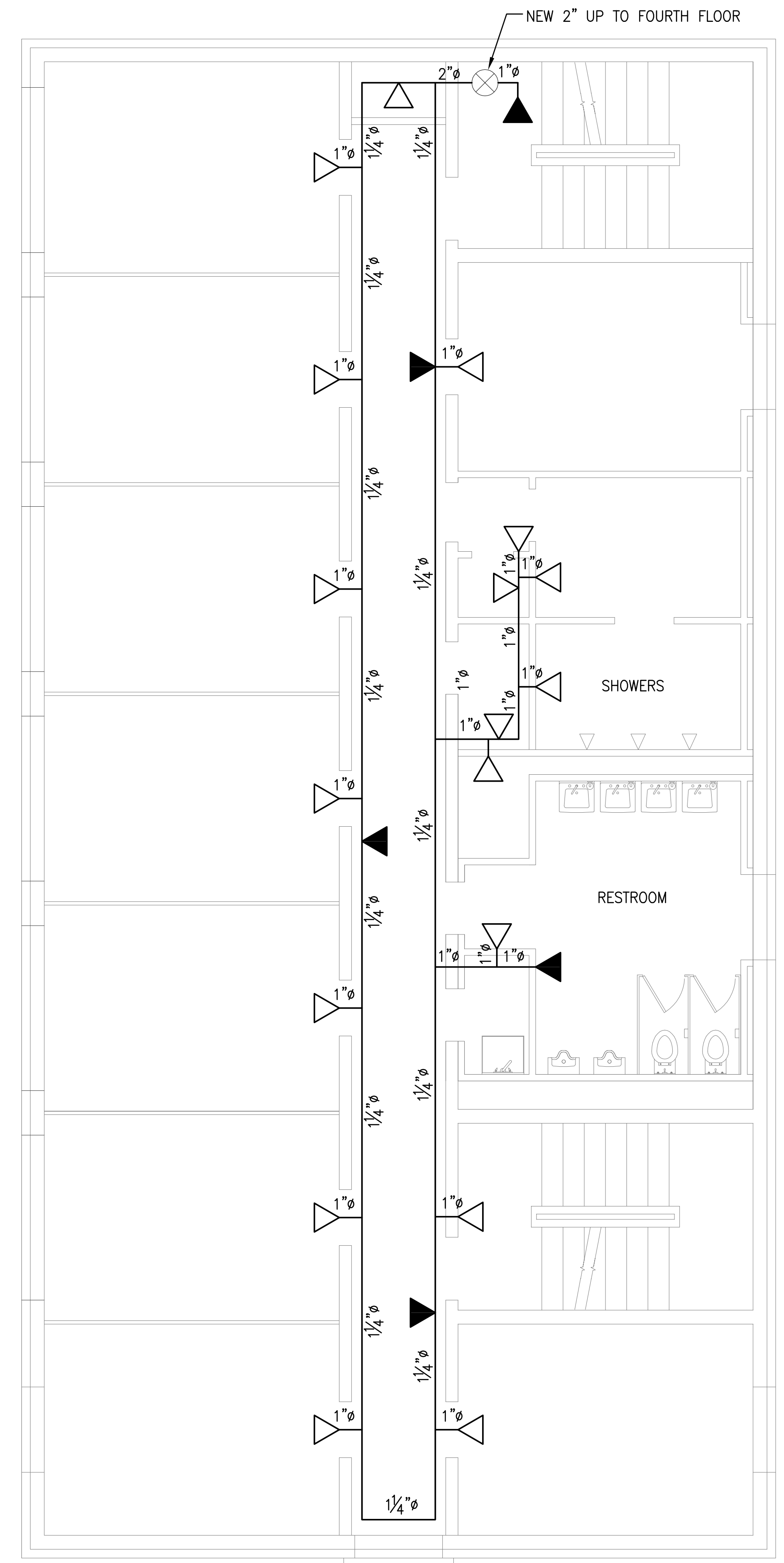
YOUNG AND MCCLURE FIRE PROTECTION PLAN

1/4"=1'-0" TYPICAL FOR SECOND, THIRD AND FOURTH FLOORS



SHELDON FIRE PROTECTION PLAN




1/4"=1'-0" TYPICAL FOR SECOND, THIRD AND FOURTH FLOORS



STAFFORD AND MORTON FIRE PROTECTION PLAN

1/4"=1'-0" TYPICAL FOR SECOND, THIRD AND FOURTH FLOORS

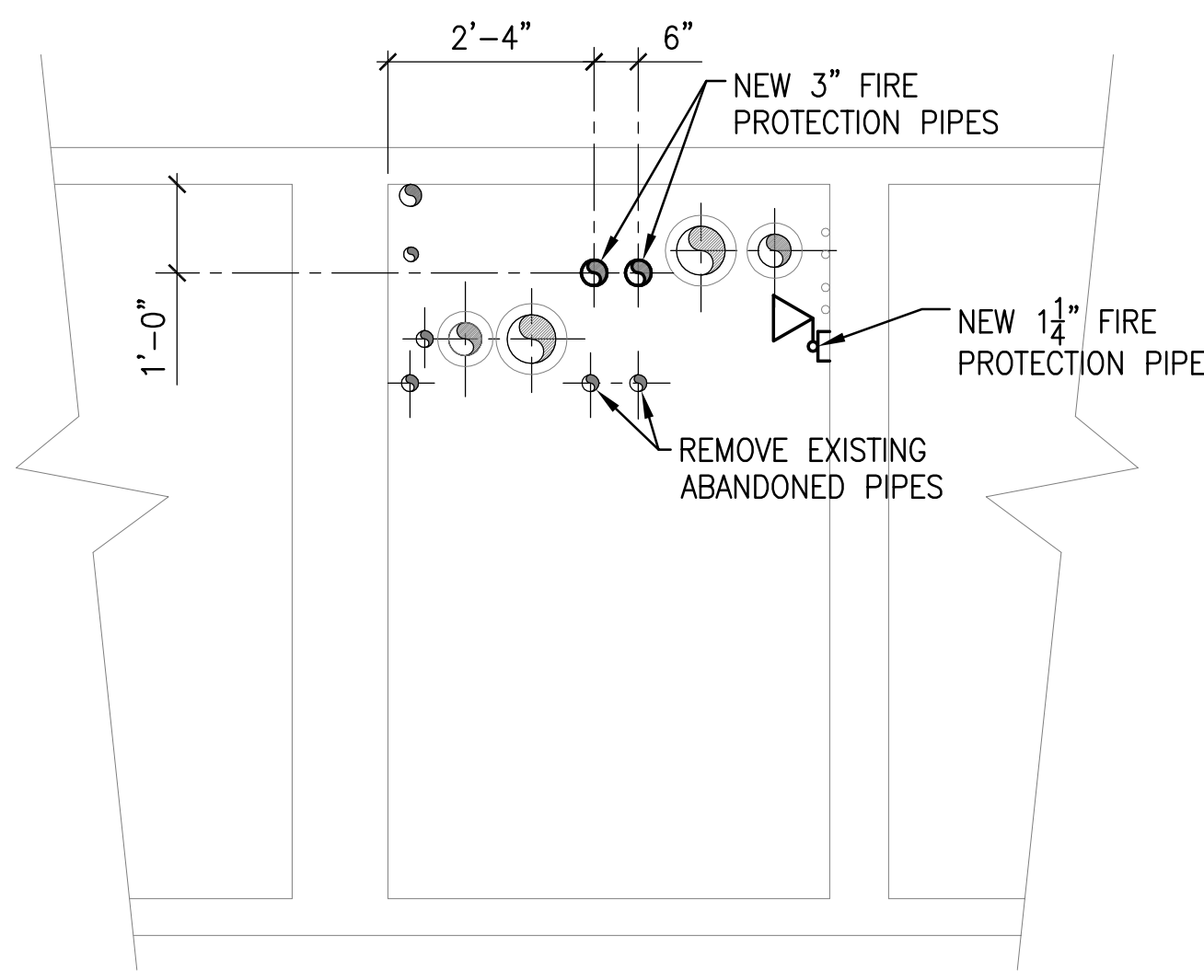
LEGEND

-  HORIZONTAL SIDEWALL, STANDARD COVERAGE, QUICK RESPONSE
-  HORIZONTAL SIDEWALL, EXTENDED COVERAGE, QUICK RESPONSE, RELIABLE #DH56
-  FIRE PROTECTION PIPE RISER

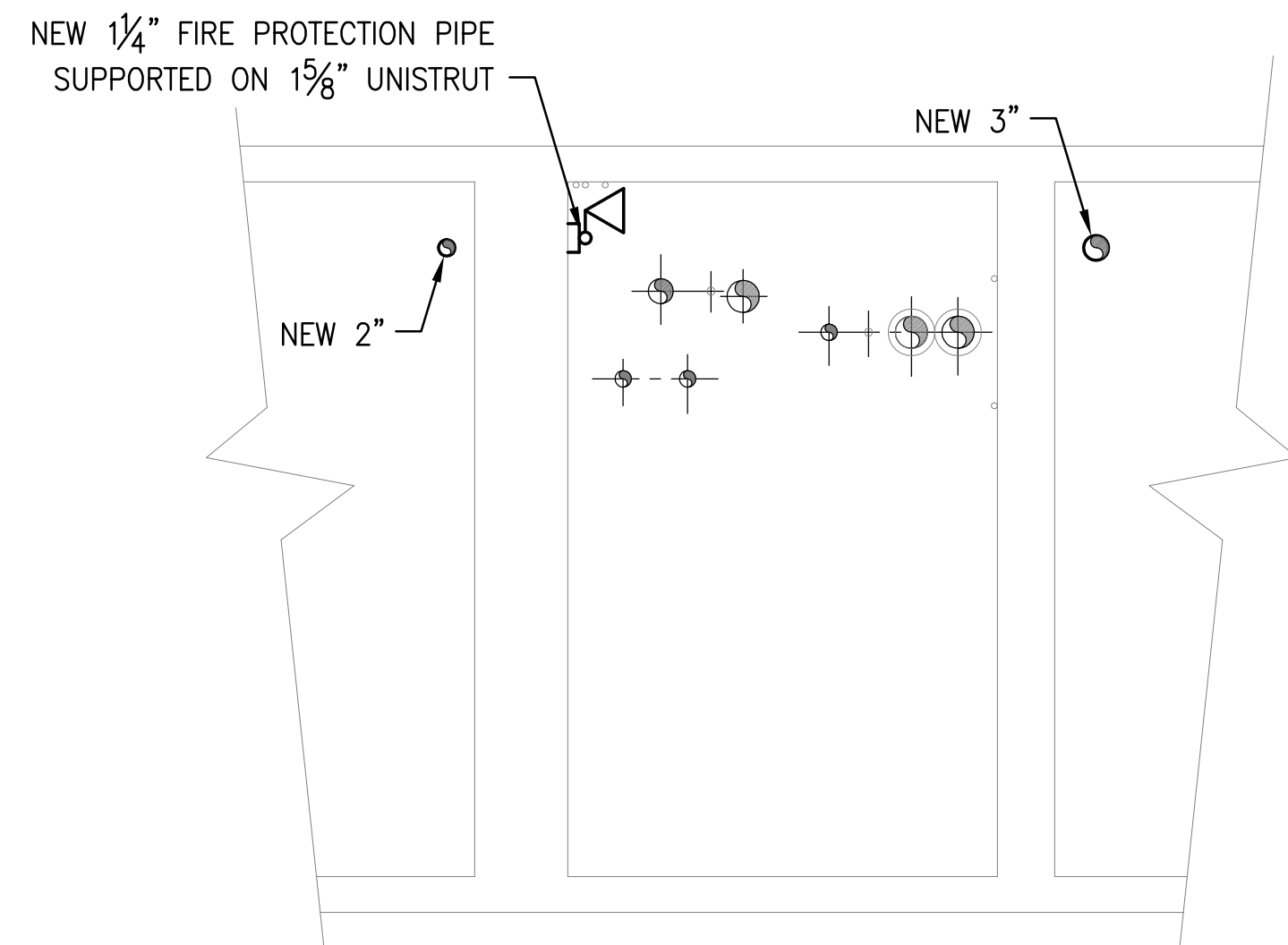
ISSUED FOR PERMIT

TITLE 110 EARL HALL TYPICAL DORMITORY FIRE PROTECTION PIPING PLAN	CLIENT: UNIVERSITY OF OREGON LOCATION: EUGENE, OREGON DESIGN: WCE DRAWN: WCE SCALE: 1/4"=1'-0" DATE: 4/18/12	CHECK: [blank] DATE: [blank]	APPD: [blank]	REV: 1 DRAWING #: 1000F07 JOB #: 2620.0	CLIENT REF #: 1000F07
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BDH PROTECTION FIRE SYSTEMS, INC. 1235 CHARLETON STREET, SUITE 11 EUGENE OR 97401 (541) 485-3288					
1 PLS RES 2/19/13 ISSUED FOR PERMIT 0 PLS RES 12/12/12 ISSUED FOR BID					
REV BY DATE DESCRIPTION					

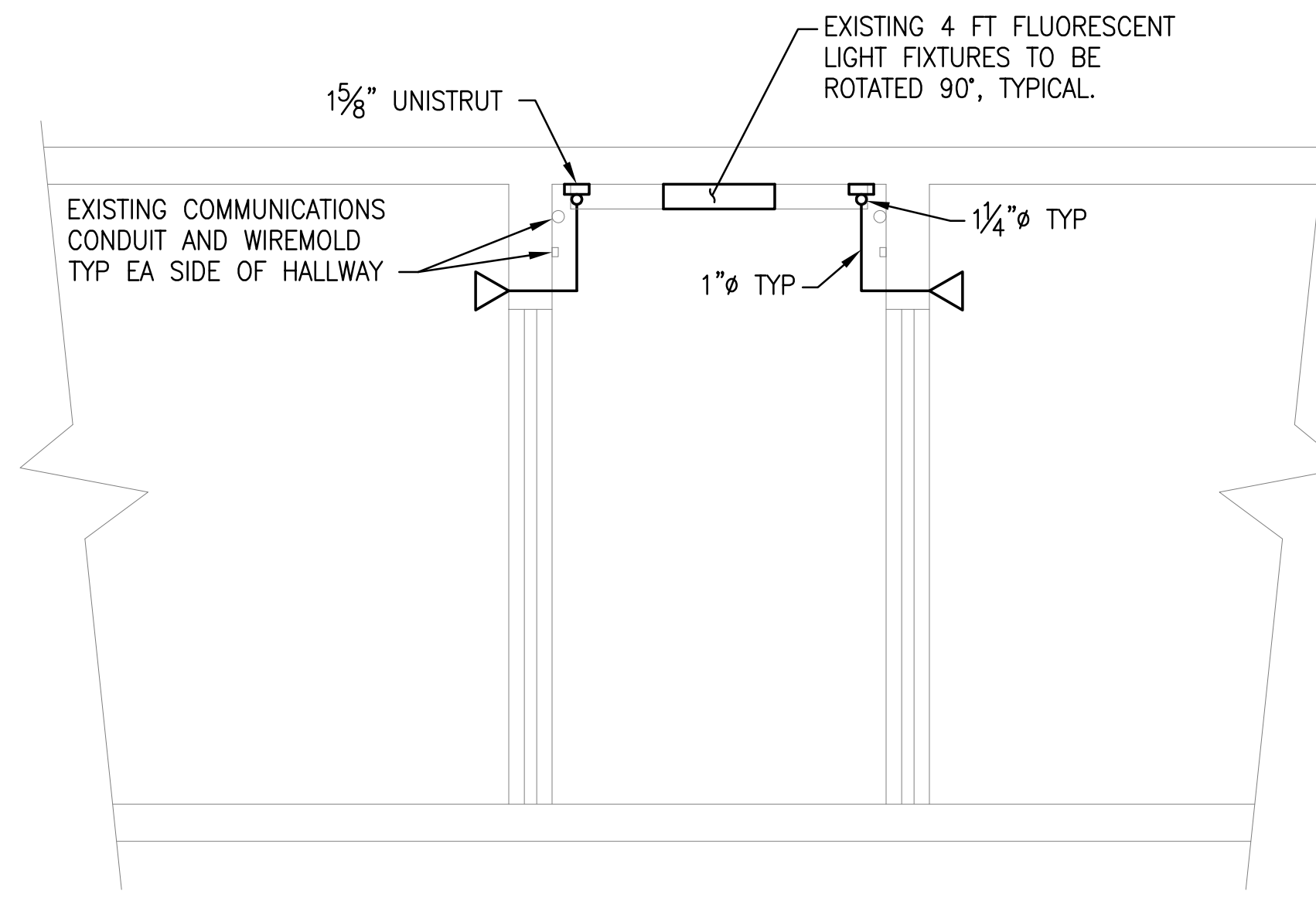
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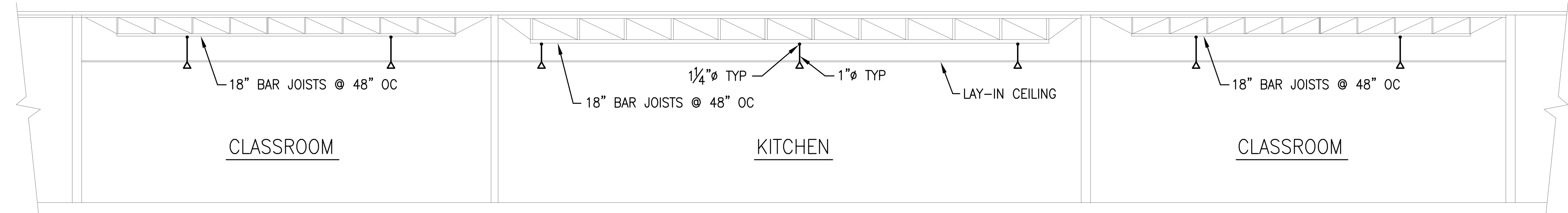
SECTION A
1000F02 1/2"=1'-0"



SECTION B
1000F02 1/2"=1'-0"



SECTION C
1000F03
1000F04
1000F05
1000F06
1/2"=1'-0"
TYPICAL IN ALL WINGS, FLOORS 1 THROUGH 4

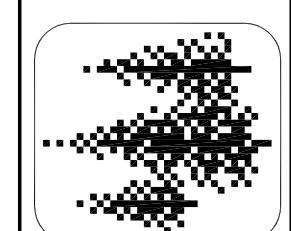


SECTION D
1000F03 3/16"=1'-0"

REV	BY	APPD	DATE	DESCRIPTION
1	PLS	RES	2/19/13	ISSUED FOR PERMIT
0	PLS	RES	12/12/12	ISSUED FOR BID

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FIRE PROTECTION SYSTEMS, INC.
1235 CHARNELTON STREET, SUITE 11
EUGENE, OREGON 97401

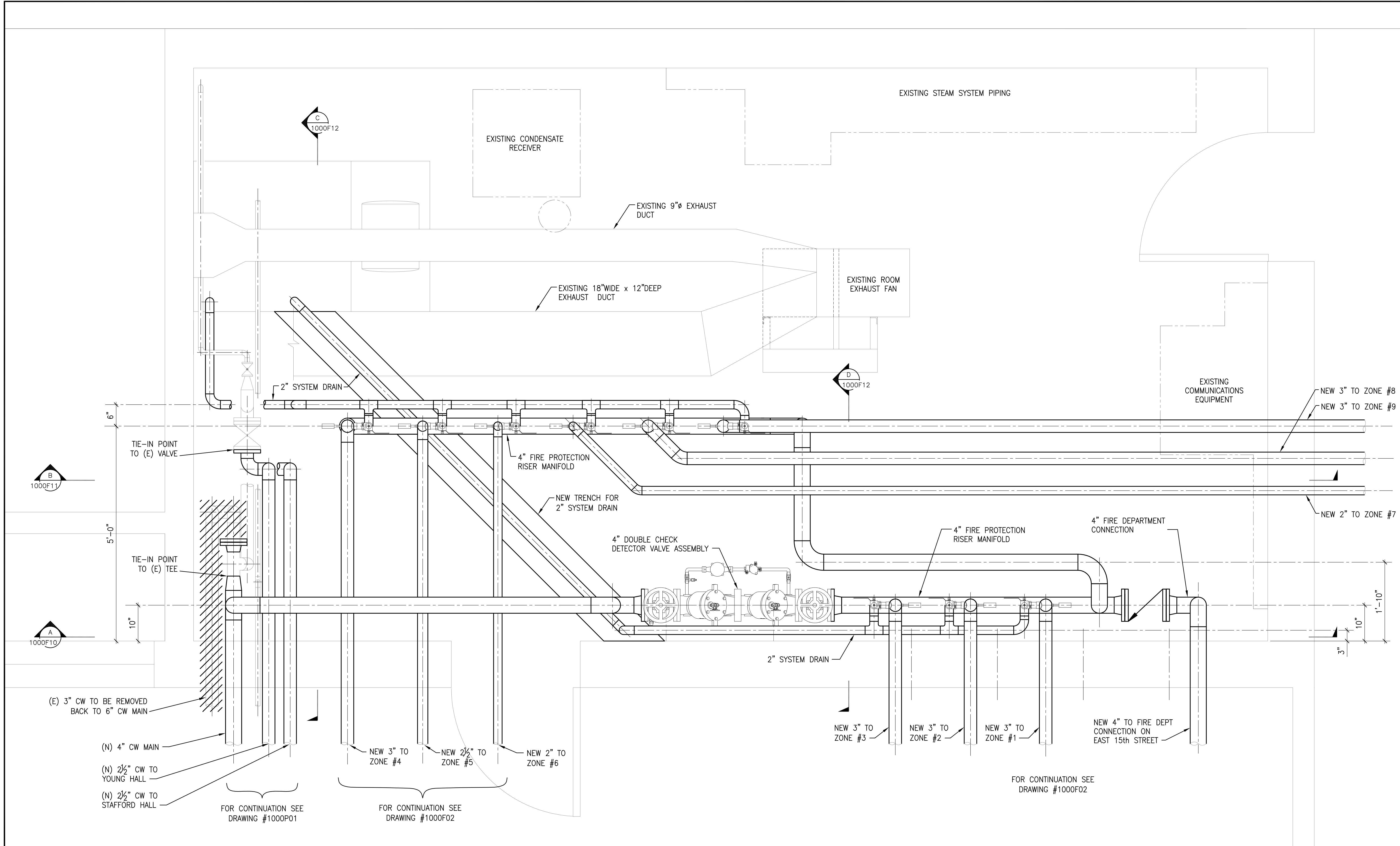
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Engineering and Construction Services
EUGENE, OREGON
www.evergreenengineering.com



TITLE 100 EARL HALL FIRE PROTECTION PIPING SECTIONS	CLIENT: UNIVERSITY OF OREGON	LOCATION: EUGENE, OREGON
	DESIGN: SCALE: AS SHOWN	DATE: 4/16/12
REV: 1	DRAWING #: 1000F08	JOB #: 2620.0
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J:\Users\26134\26134\26134-01-16-12\16-12-01\16-12-01-01\16-12-01-01-01.dwg 10/20/12 10:55:18 AM 1000F08 1/4/2013 10:55:18 AM standard 111 *'Punished' and Printed @ 01/05/2013 Engineering - Eugene, OR

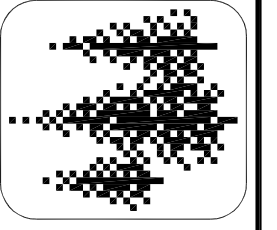


MECHANICAL ROOM #A1C FLOOR PLAN
1" = 1'-0"

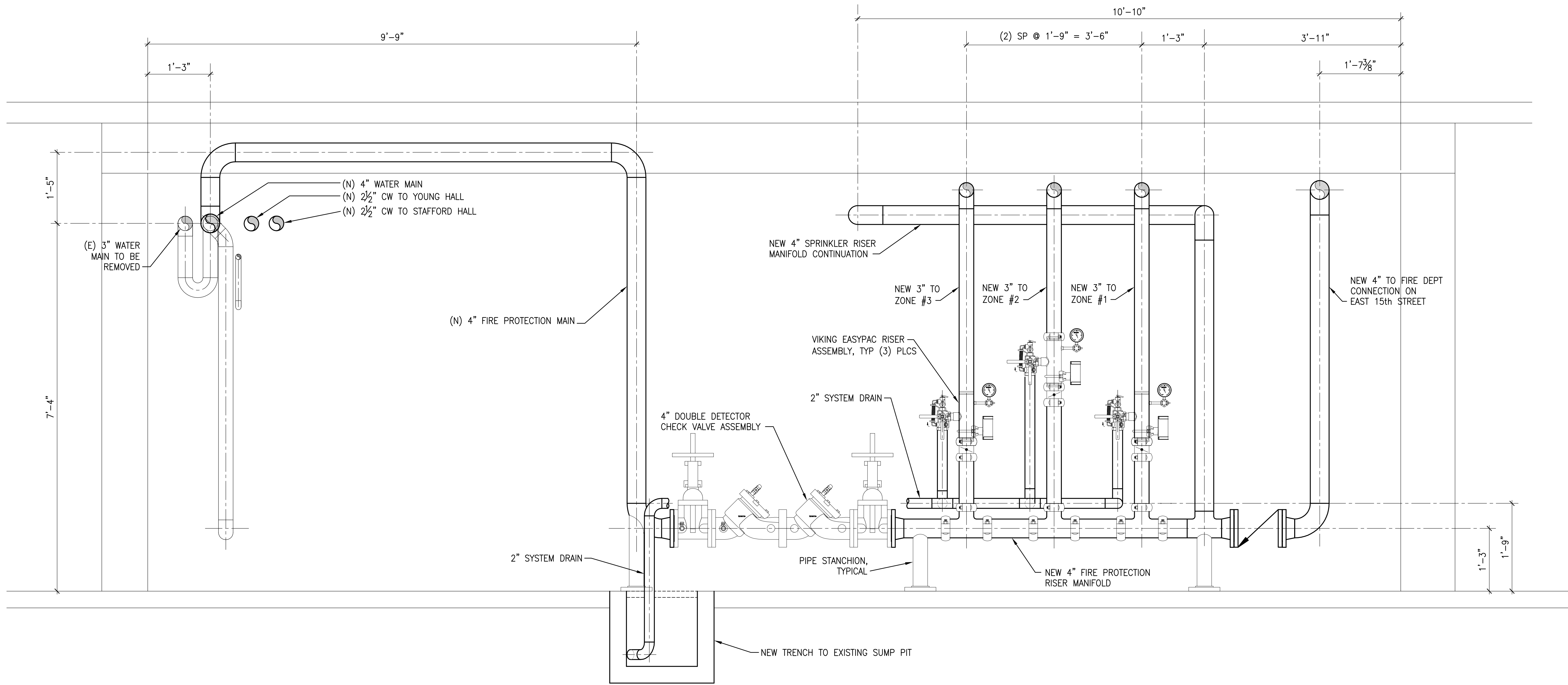
ISSUED FOR PERMIT

TITLE	UNIVERSITY OF OREGON	CLIENT	UNIVERSITY OF OREGON
PROJECT	BASEMENT FLOOR MECHANICAL ROOM #A1C PLAN	LOCATION	EUGENE, OREGON
REV	DRAWING #	DATE	SCALE
1	1000F09	2620.0	1" = 1'-0"
DESIGN	WCE	DATE	4/18/12
CHECK	WCE	DATE	4/18/12
APPD	WCE	DATE	4/18/12
REV	BY	DATE	DESCRIPTION
0	PLS	12/12/12	ISSUED FOR BID
1	PLS	2/19/13	ISSUED FOR PERMIT

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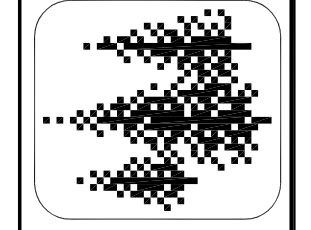
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SECTION
1000F09
1"=1'-0"

ISSUED FOR PERMIT

TITLE	UNIVERSITY OF OREGON
CLIENT	EUGENE, OREGON
LOCATION	EUGENE, OREGON
DESIGNER	WCE
SCALE	DATE: 4/16/12
DRAWING #	1000F10
JOB #	2620.0
CLIENT REF #	
REV	1

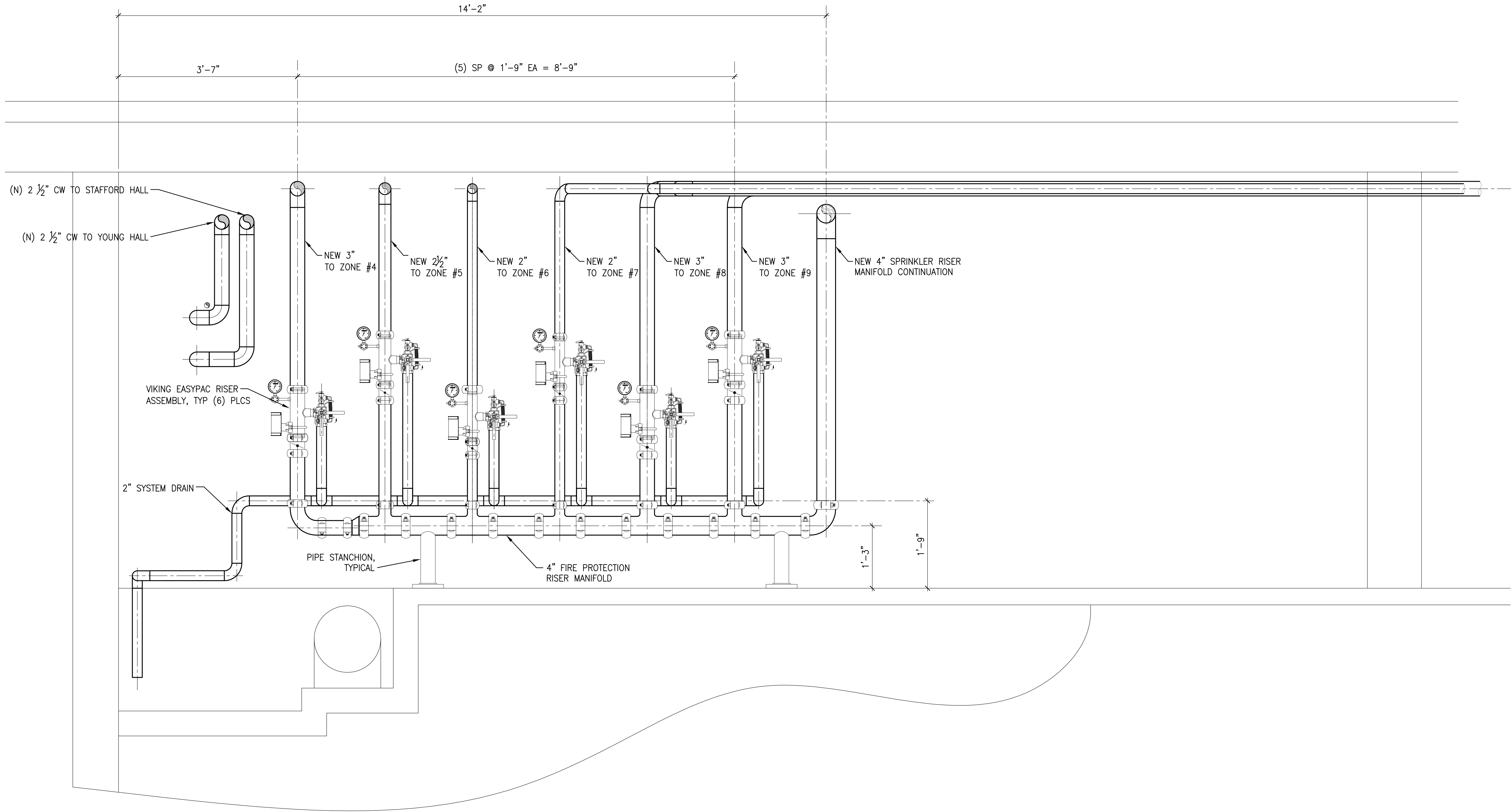


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1235 CHARNELTON STREET, SUITE 11
EUGENE OR 97401

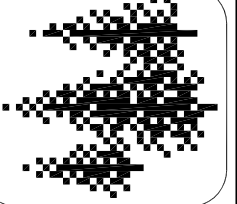
REV	BY	DATE	DESCRIPTION
1	PLS	2/19/13	ISSUED FOR PERMIT
0	PLS	12/12/12	ISSUED FOR BID

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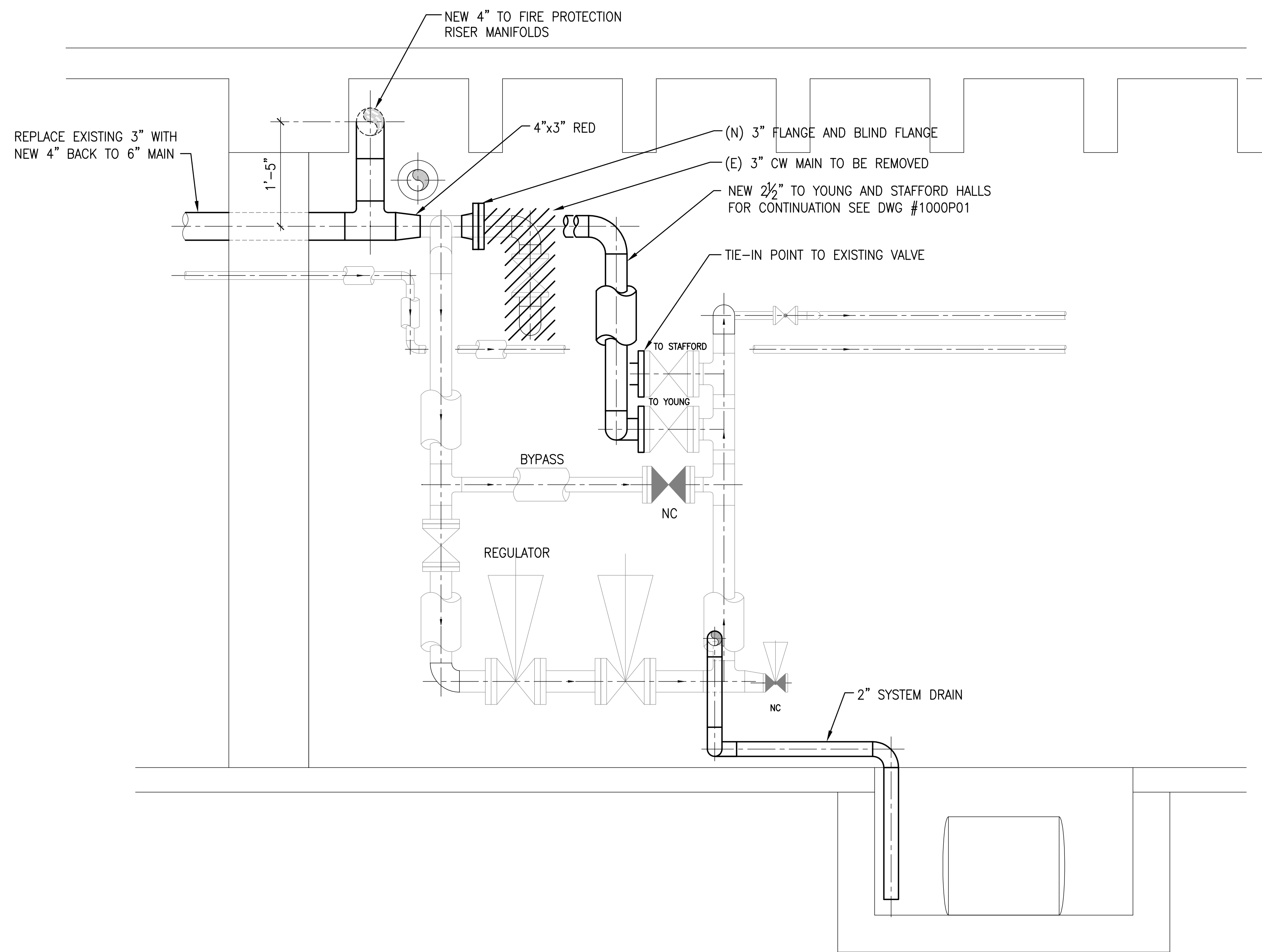


SECTION
1000F09 1"=1'-0"

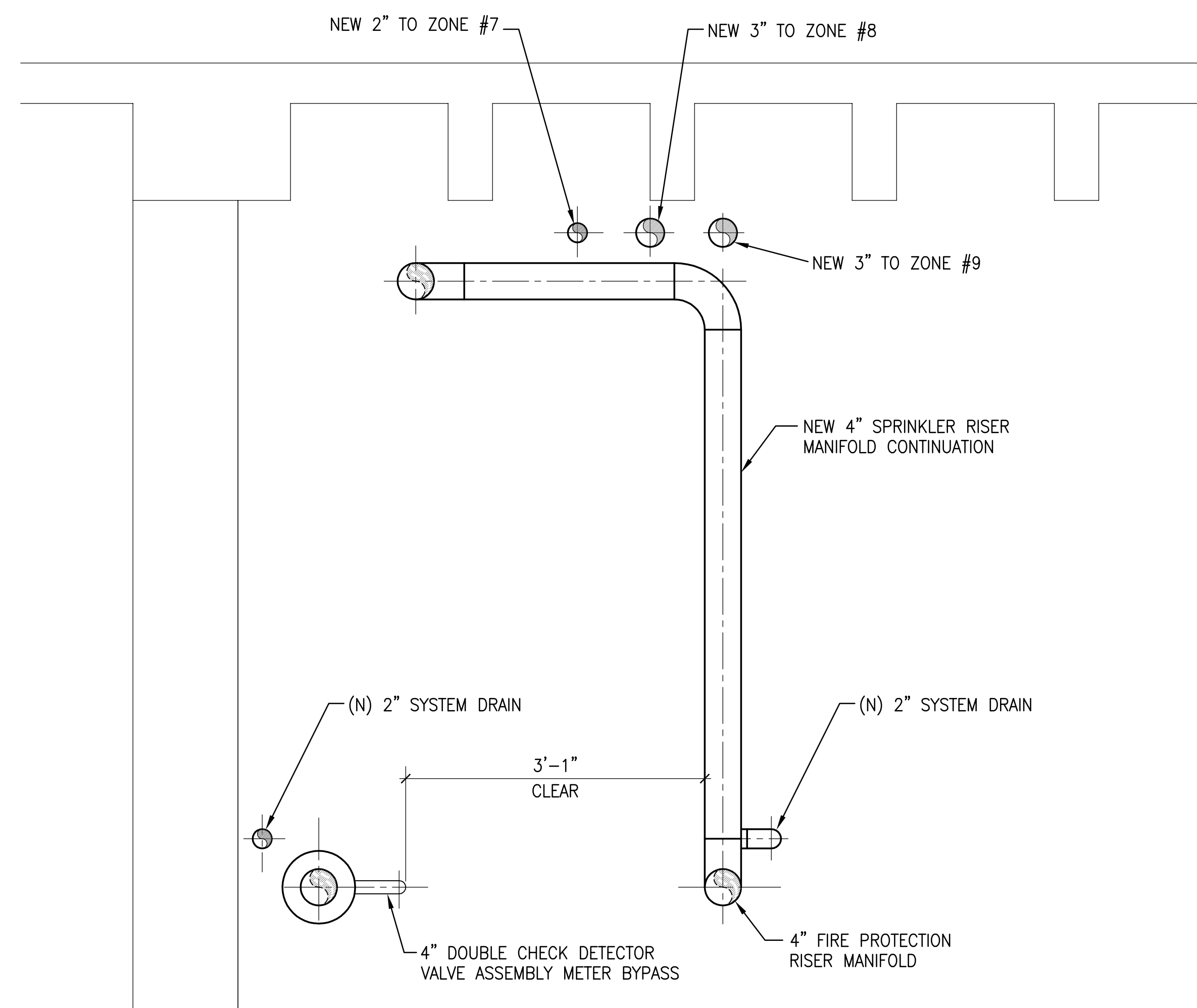
ISSUED FOR PERMIT

UNIVERSITY OF OREGON EUGENE, OREGON	EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON <small>www.evergreenengineering.com</small>		BDH PROTECTION FIRE SYSTEMS, INC. <small>1235 CHARLTON STREET, SUITE 11 EUGENE OR 97401 (541) 485-5886</small>
TITLE: 100 EARL HALL BASEMENT FLOOR MECHANICAL ROOM #A1C SECTION REV: 1 DRAWING #: 1000F11 JOB #: 2620.0 CLIENT REF #: 1000F11	CLIENT: UNIVERSITY OF OREGON LOCATION: EUGENE, OREGON DESIGN: WCE SCALE: 1/4" = 1'-0" DATE: 4/16/12	CHECK: WCE DATE: 4/16/12	APPROVED FOR PERMIT: RES 2/19/13 APPROVED FOR BID: RES 12/12/12 BY: [Signature] DATE:
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A:\Work\2620\2620\52102-01\010-01\010-01.dwg, 1000F11, 3/27/2013 9:48:28 AM, Standard: 11, "Punchmark" and Printed: 8/15/2012 10:46:40 AM, Standard: 11, "Punchmark" and Printed: 8/15/2012 10:46:40 AM



C SECTION
 1000F09
 1"=1'-0"

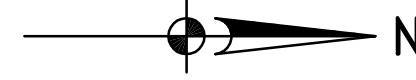


D SECTION
 1000F09
 1"=1'-0"

ISSUED FOR PERMIT

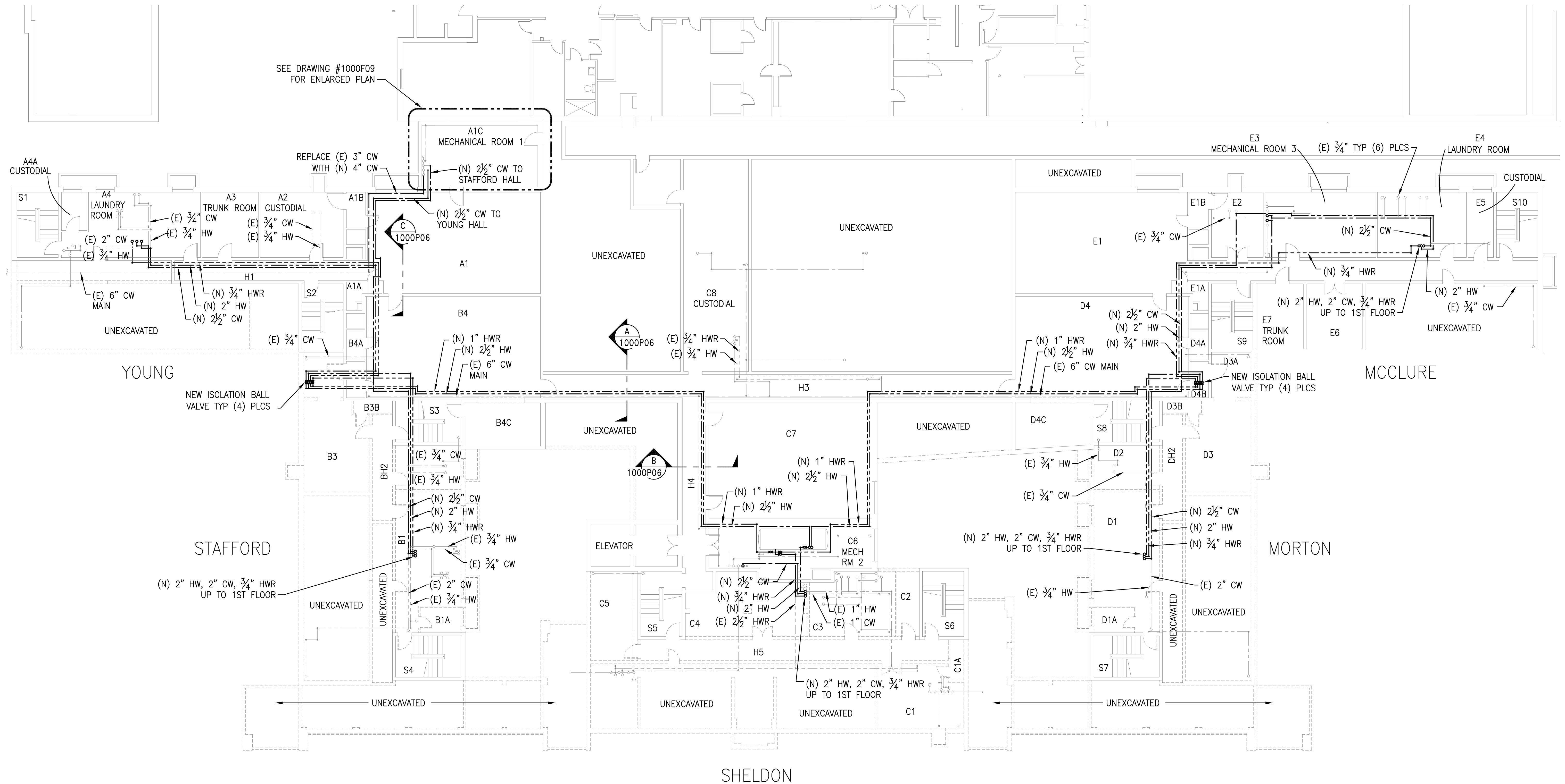
TITLE	UNIVERSITY OF OREGON	CLIENT	UNIVERSITY OF OREGON
	BASEMENT FLOOR	LOCATION	EUGENE, OREGON
	MECHANICAL ROOM #A1C SECTIONS	DESIGN	WCE
REV: 1	DRAWING #: 1000F12	SCALE: 1"=1'-0"	DATE: 4/16/12
	JOB #: 2620.0	CLIENT REF #:	
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		CHECKER	
		DATE	4/16/12
		APPD	
		DATE	
		REV	BY
		0	PLS
		1	RES
		2/19/13	RES
		12/12/12	RES
			APPD
			DATE
			DESCRIPTION
EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON www.evergreenengineering.com			
BDH FIRE PROTECTION SYSTEMS, INC. 1235 CHARNELTON STREET, SUITE 11 EUGENE OR 97401 (541) 485-3886			

11.10.2012 2:52:53 PM C:\Users\jared\Documents\1000F12\1000F12.dwg 1000F12.dwg 4/16/12 3:47:23 PM standard 11.1.1 "Purchased" and Printed. © 2012 BDH Engineering - Eugene, OR.



GENERAL NOTES:

- A. RECONNECT ALL EXISTING BRANCH PIPING TO THE NEW REPLACED MAIN PIPING.
- B. ROUTE NEW REPLACED PIPES IN THE SAME LOCATION AS THE EXISTING PIPING.



BASEMENT FLOOR PLAN

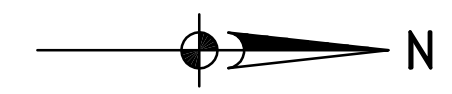
3/32"=1'-0"

EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON www.evergreenengineering.com	
CLIENT: UNIVERSITY OF OREGON LOCATION: EUGENE, OREGON	DRAWN: WCE CHECK: [blank] DATE: 4/16/12
TITLE: UO EARL HALL BASEMENT FLOOR PLUMBING PLAN	APPD: [blank]
REV: 1 DRAWING #: 1000P01 JOB #: 2620.0	CLIENT REF #: [blank]
<small>THIS DRAWING, INCLUDING ENGINEERING DESIGN AND PERMIT SPECIFICATION, IS INTENDED SOLELY FOR THE PROJECT STATED IN THE TITLE BLOCK. IF ANY NOT BE SHOWN OR SAFE FOR OTHER PURPOSES AND OTHER USE OF THIS DRAWING WITHOUT WRITTEN CONSENT OF EVERGREEN ENGINEERING IS PROHIBITED.</small>	

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GENERAL NOTES:

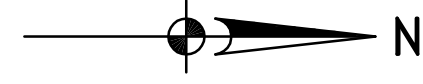
- A. RECONNECT ALL EXISTING BRANCH PIPING TO THE NEW REPLACED MAIN PIPING.
- B. ROUTE NEW REPLACED PIPES IN THE SAME LOCATION AS THE EXISTING PIPING.
- C. CONTRACTOR TO LIMIT DOWNTIME OF DOMESTIC WATER SUPPLY TO PRIVATE RESIDENCE IN SHELDON HALL. COORDINATE TIMING AND DOWNTIME WITH OWNER.



FIRST FLOOR PLAN
3/32"=1'-0"

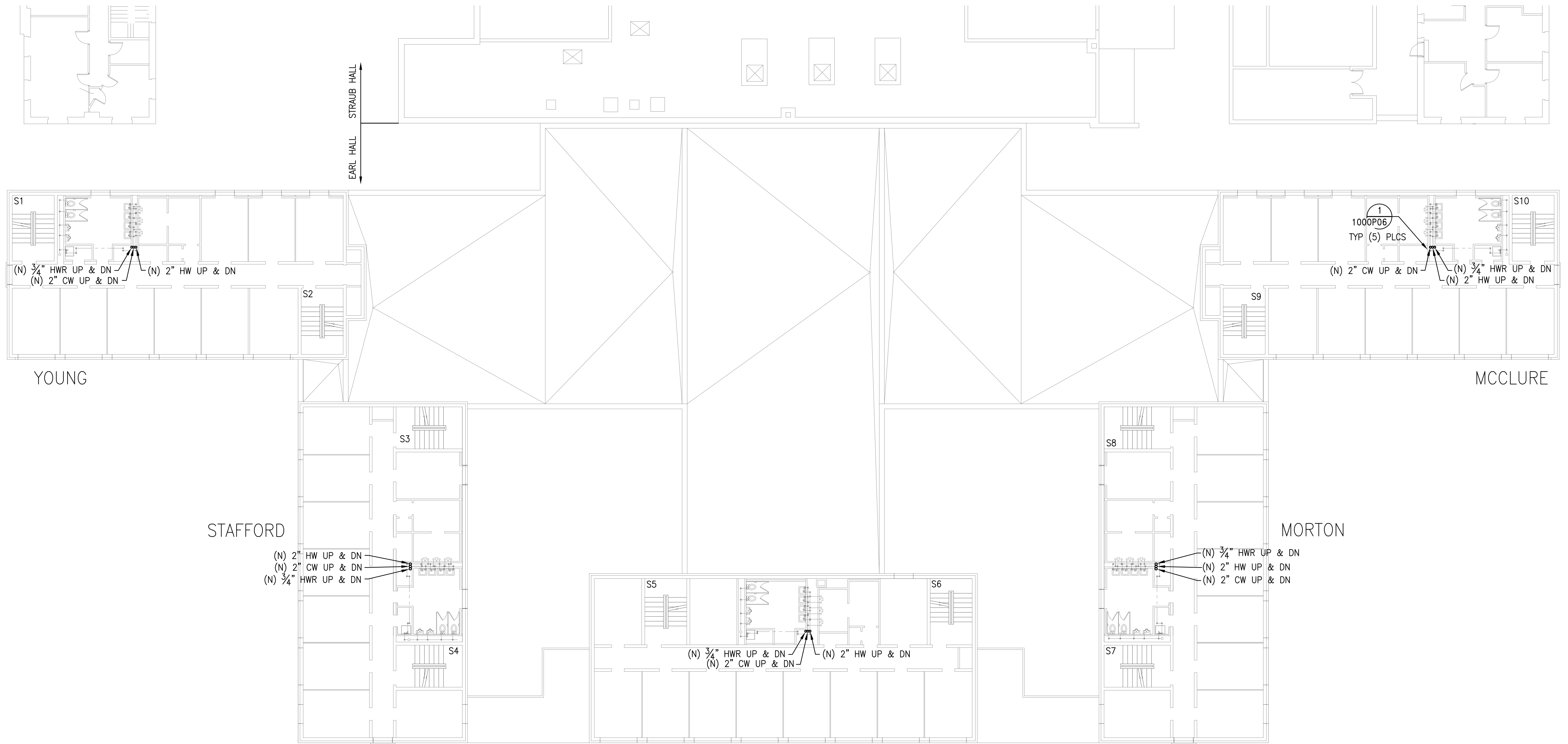
EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON www.evergreenengineering.com	
UNIVERSITY OF OREGON EUGENE, OREGON	CLIENT: UNIVERSITY OF OREGON LOCATION: EUGENE, OREGON
DRAWING #: 1000P02 JOB #: 2620.0	CLIENT REF #: DATE: 4/10/12
REV: 1 DATE: 3/12/12	CHECK: WCE DATE: 4/10/12
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GENERAL NOTES:

- A. RECONNECT ALL EXISTING BRANCH PIPING TO THE NEW REPLACED MAIN PIPING.
- B. ROUTE NEW REPLACED PIPES IN THE SAME LOCATION AS THE EXISTING PIPING.

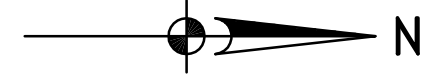


SECOND FLOOR PLAN

3/32"=1'-0"

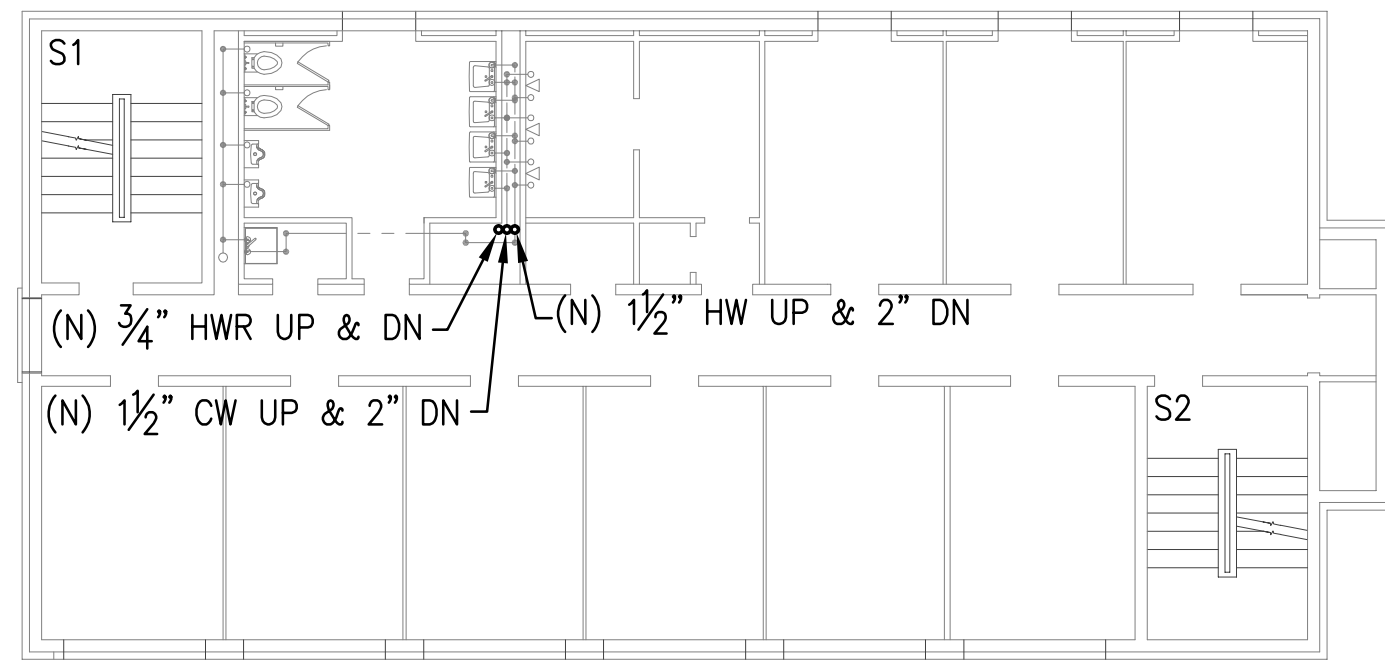
EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON www.evergreenengineering.com	
CLIENT: UNIVERSITY OF OREGON LOCATION: EUGENE, OREGON	DRAWN: WCE CHECK: [blank] DATE: 4/16/12
TITLE: UO EARL HALL SECOND FLOOR PLUMBING PLAN	CLIENT REF #: JOB #: DRAWING #: REV:
1000P03 1	2620.0 3/32"=1'-0" 1000P03rev1
0 1 1	PLS RES RES
0 1 1	BY APPD DATE
12/12/13 2/19/13	ISSUED FOR BID ISSUED FOR PERMIT
1 0	REV DATE
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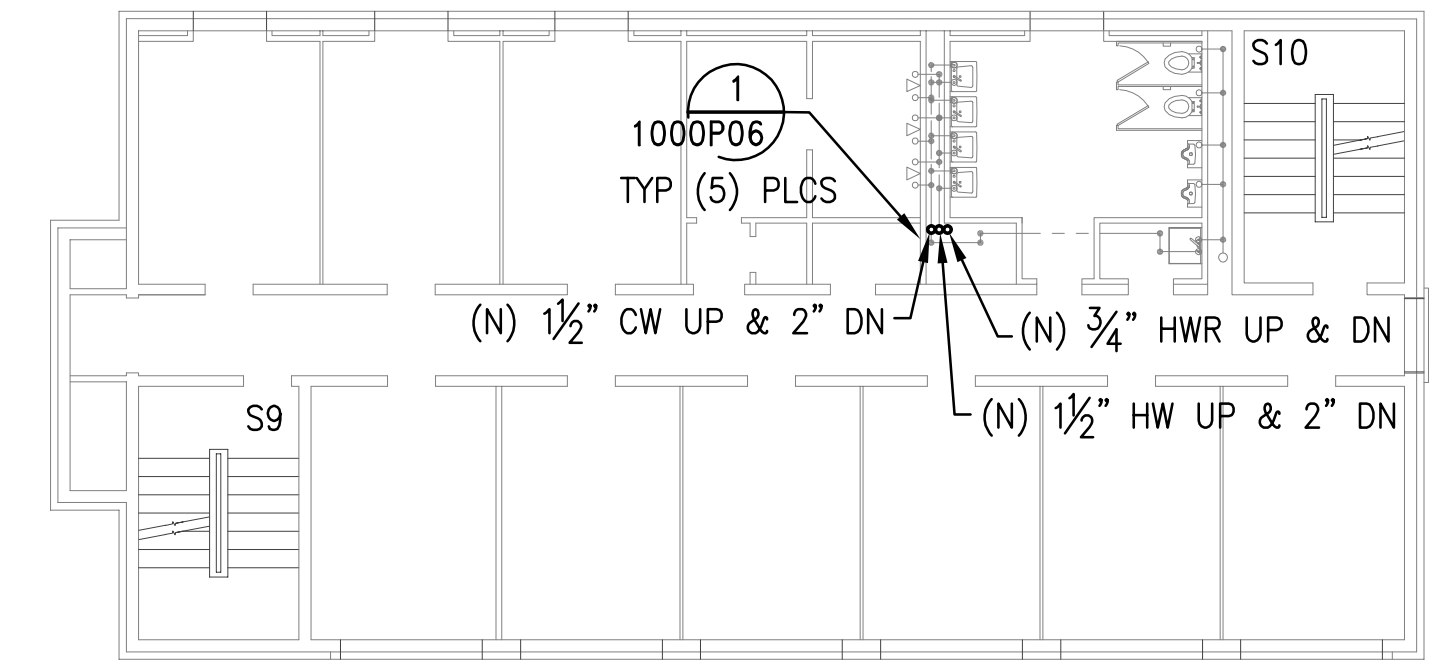


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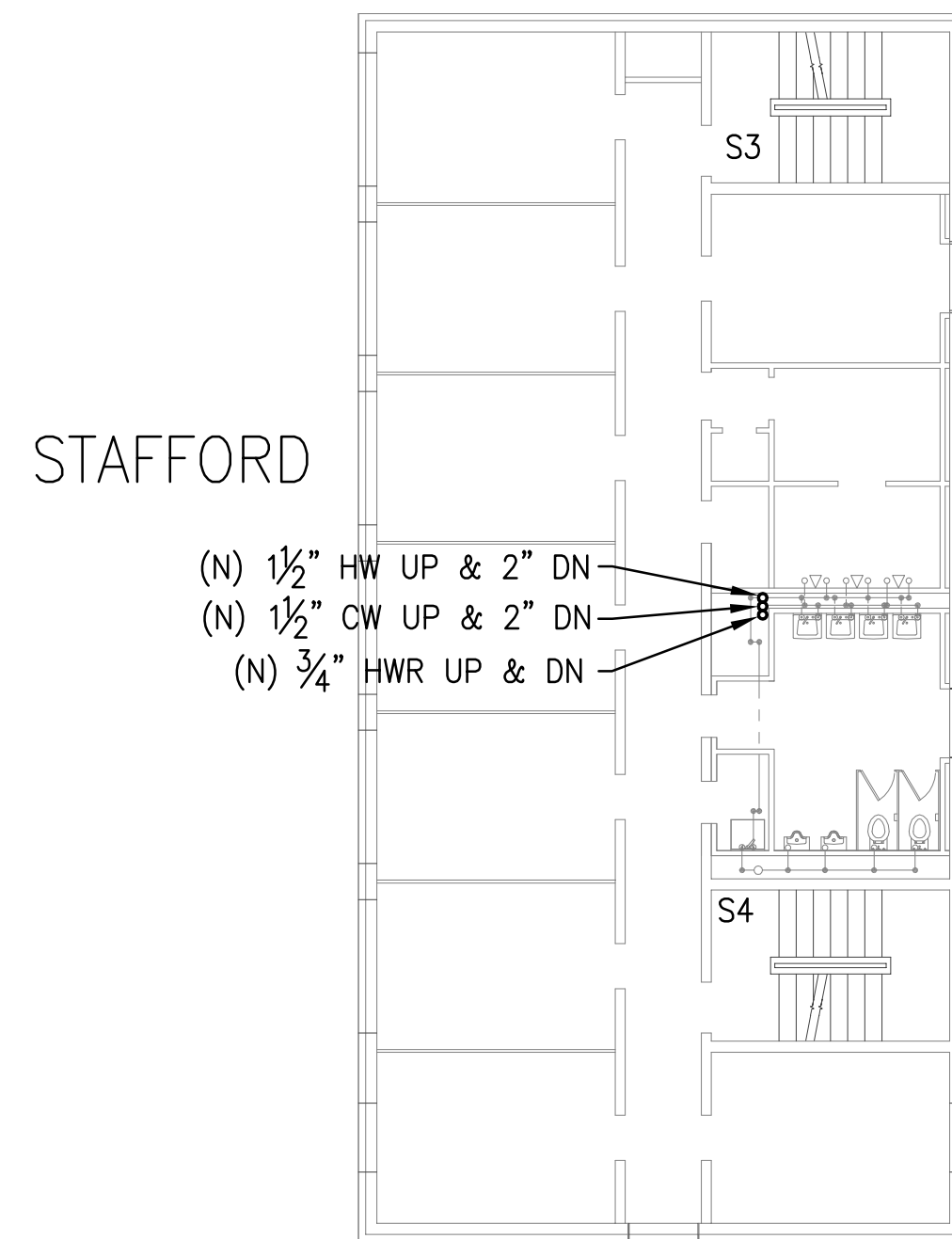
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- B. ROUTE NEW REPLACED PIPES IN THE SAME LOCATION AS THE EXISTING PIPING.



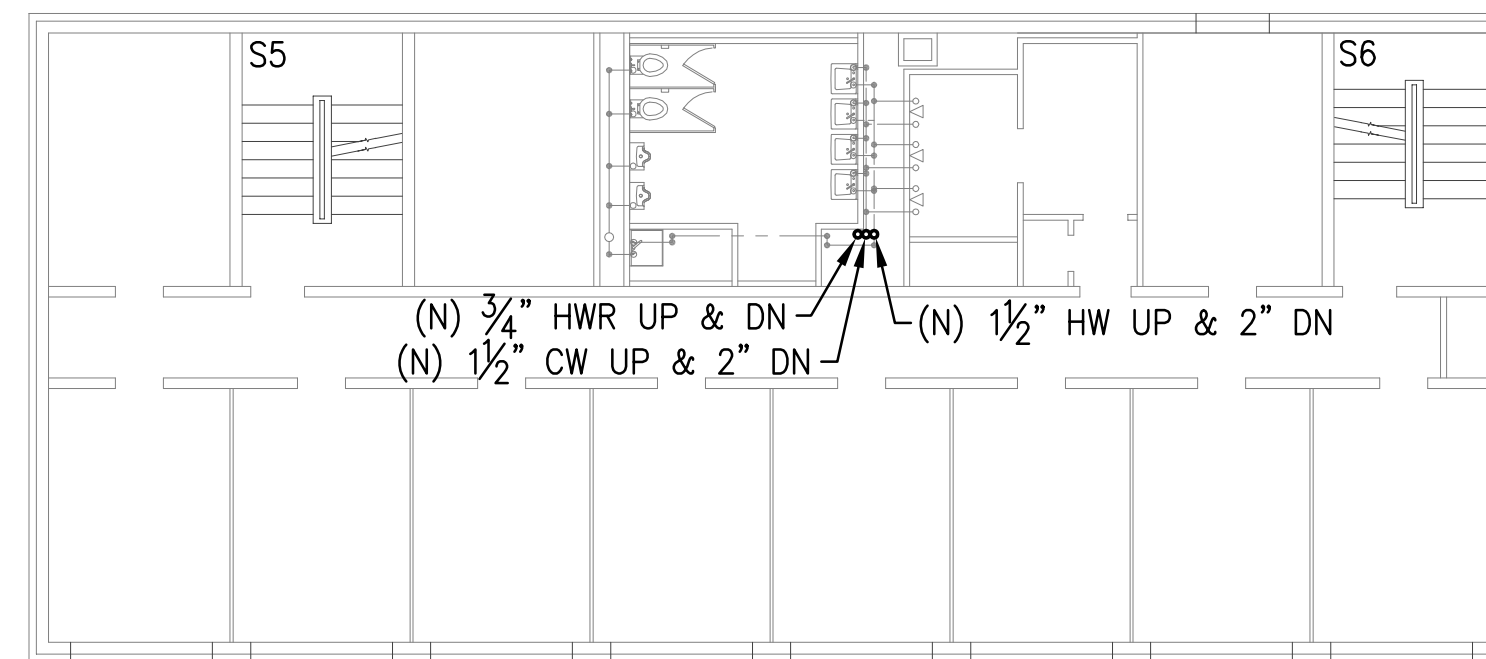
YOUNG



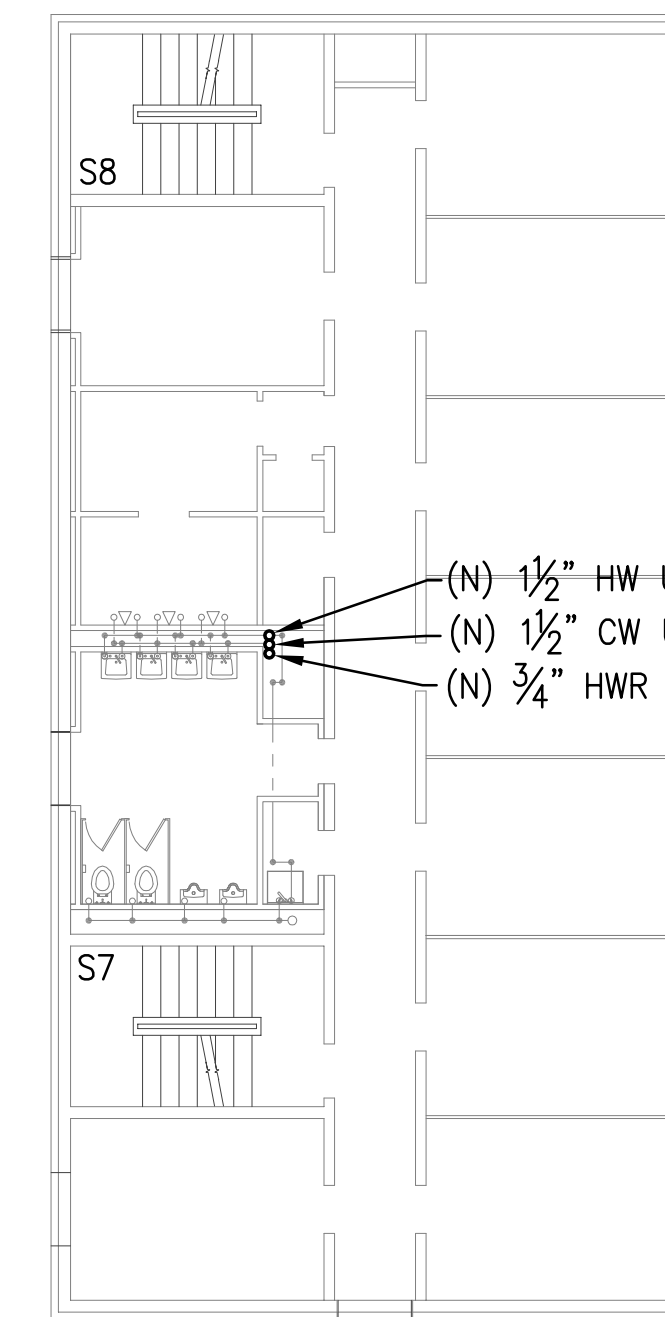
MCCLURE



STAFFORD



SHELDON



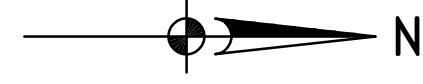
MORTON

THIRD FLOOR PLAN

3/32" = 1'-0"

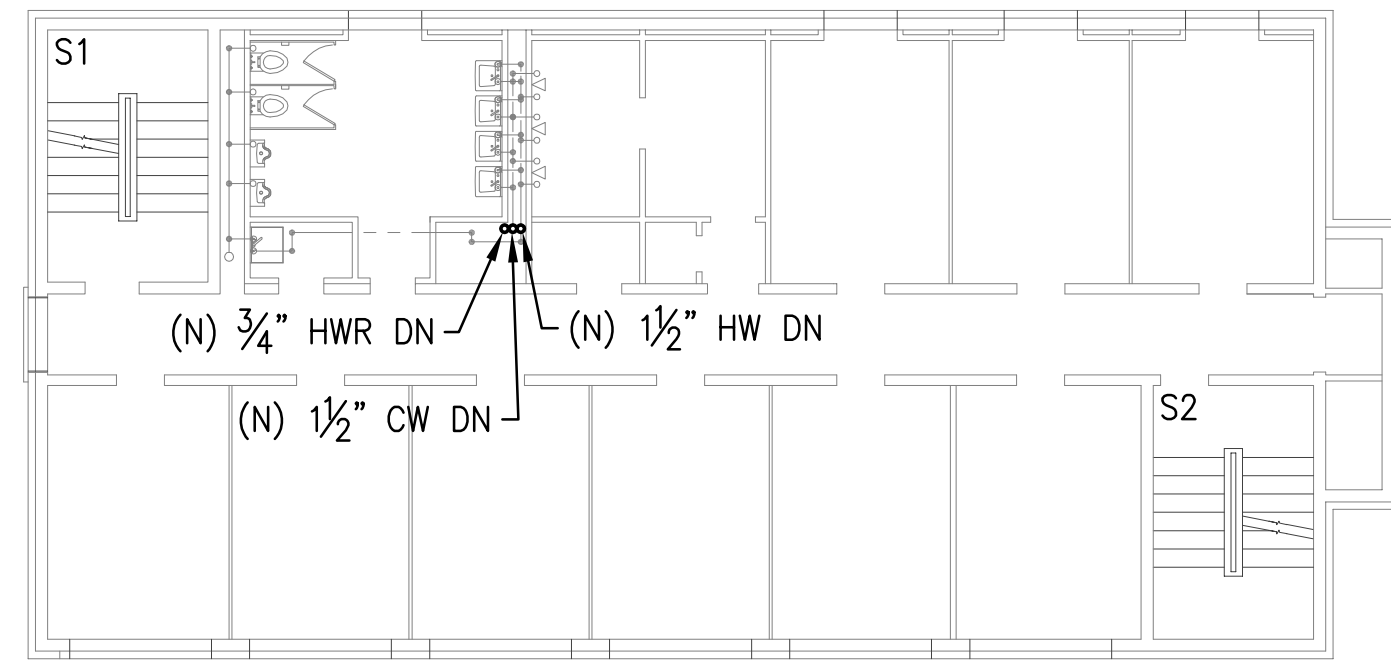
EVERGREEN ENGINEERING Engineering and Construction Services EUGENE, OREGON www.evergreenengineering.com	
CLIENT: UNIVERSITY OF OREGON LOCATION: EUGENE, OREGON	DRAWN: WCE CHECK: WCE DATE: 4/16/12
TITLE: UO EARL HALL THIRD FLOOR PLUMBING PLAN	JOB #: 2620.0 CLIENT REF #:
REV: 1 DRAWING #: 1000P04	DATE: 3/22/12 DATE: 4/16/12
<small>THIS DRAWING, INCLUDING ENGINEERING DESIGN AND PERMIT SPECIFICATION, IS INTENDED SOLELY FOR THE PROJECT STATED IN THE TITLE BLOCK. IT MAY NOT BE SUITABLE OR SAFE FOR OTHER PROJECTS AND OTHER USES OF THIS DRAWING WITHOUT WRITTEN CONSENT OF EVERGREEN ENGINEERING, INC.</small>	
CAD FILE: 1000P04rev1	APPD: [Signature] DATE:

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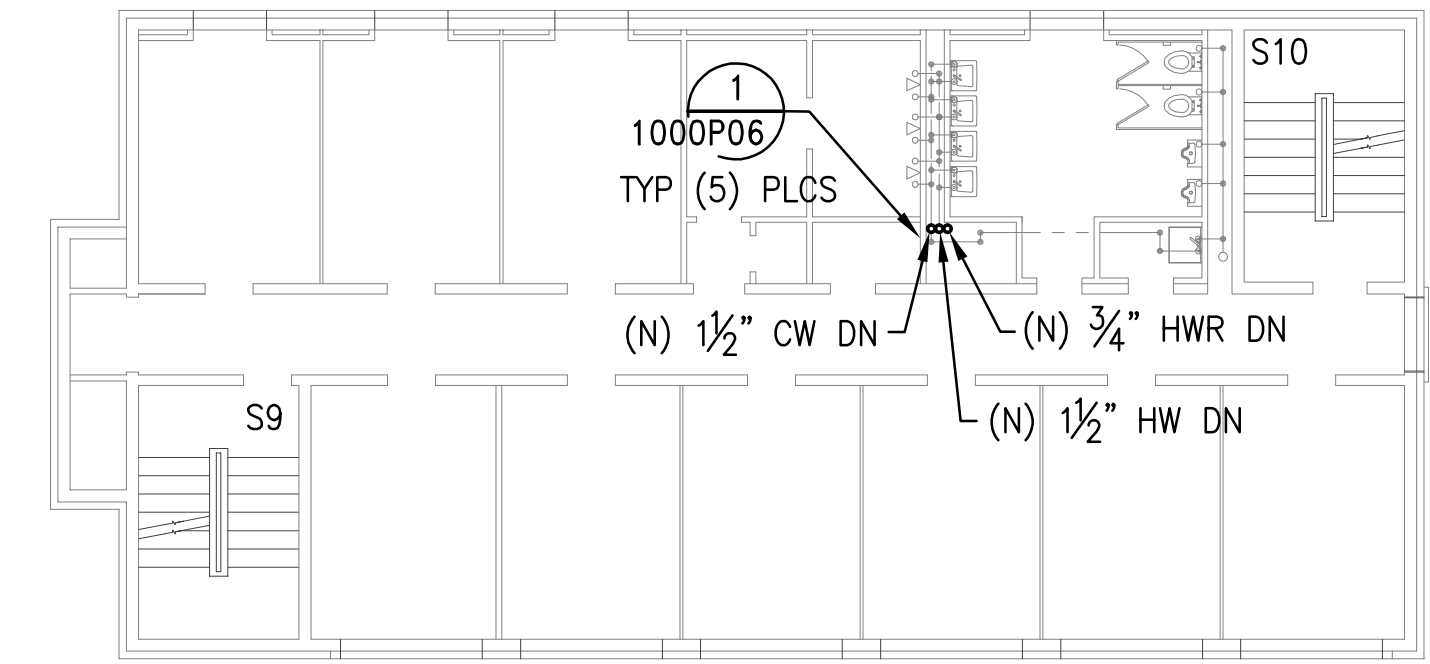


GENERAL NOTES:

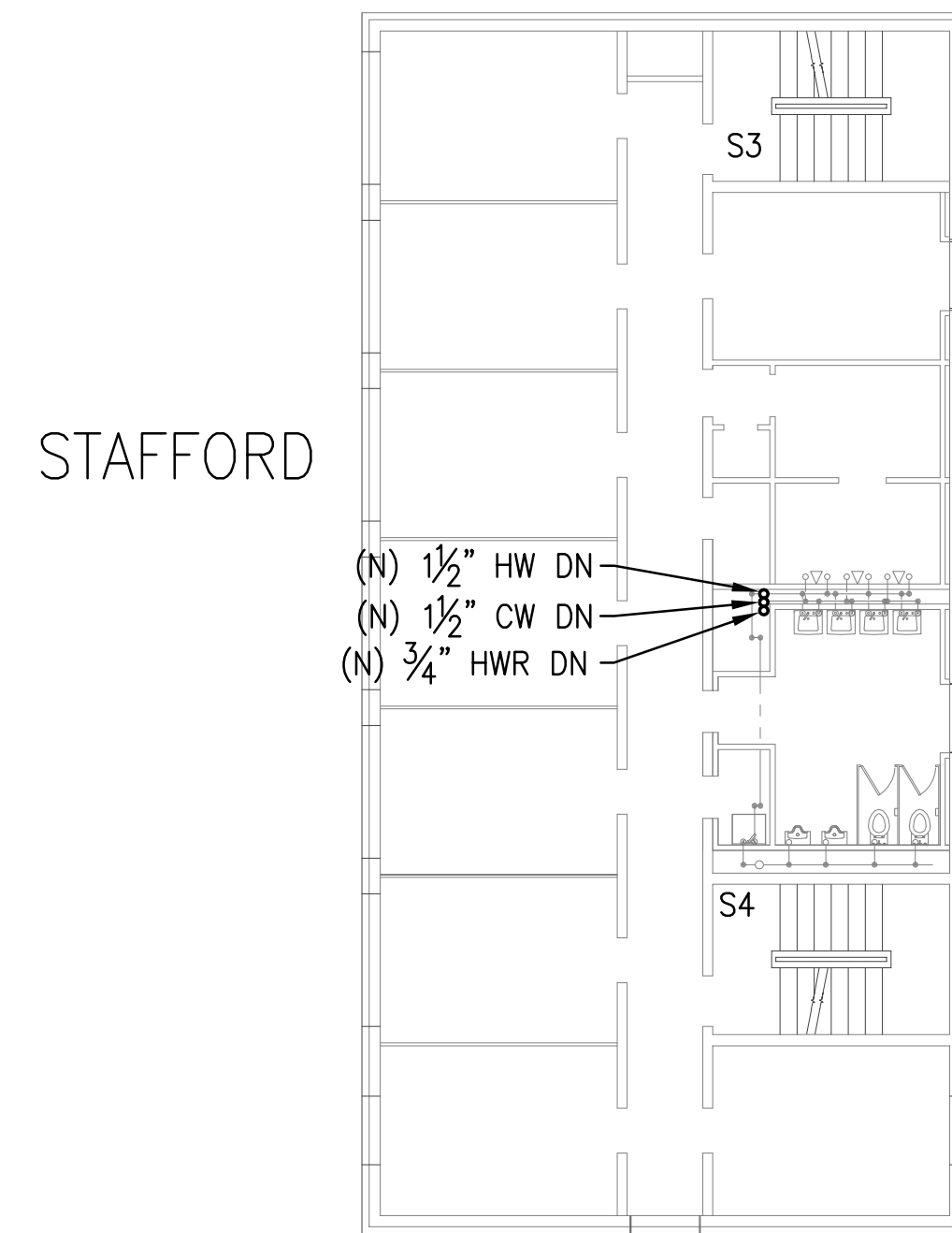
- A. RECONNECT ALL EXISTING BRANCH PIPING TO THE NEW REPLACED MAIN PIPING.
- B. ROUTE NEW REPLACED PIPES IN THE SAME LOCATION AS THE EXISTING PIPING.



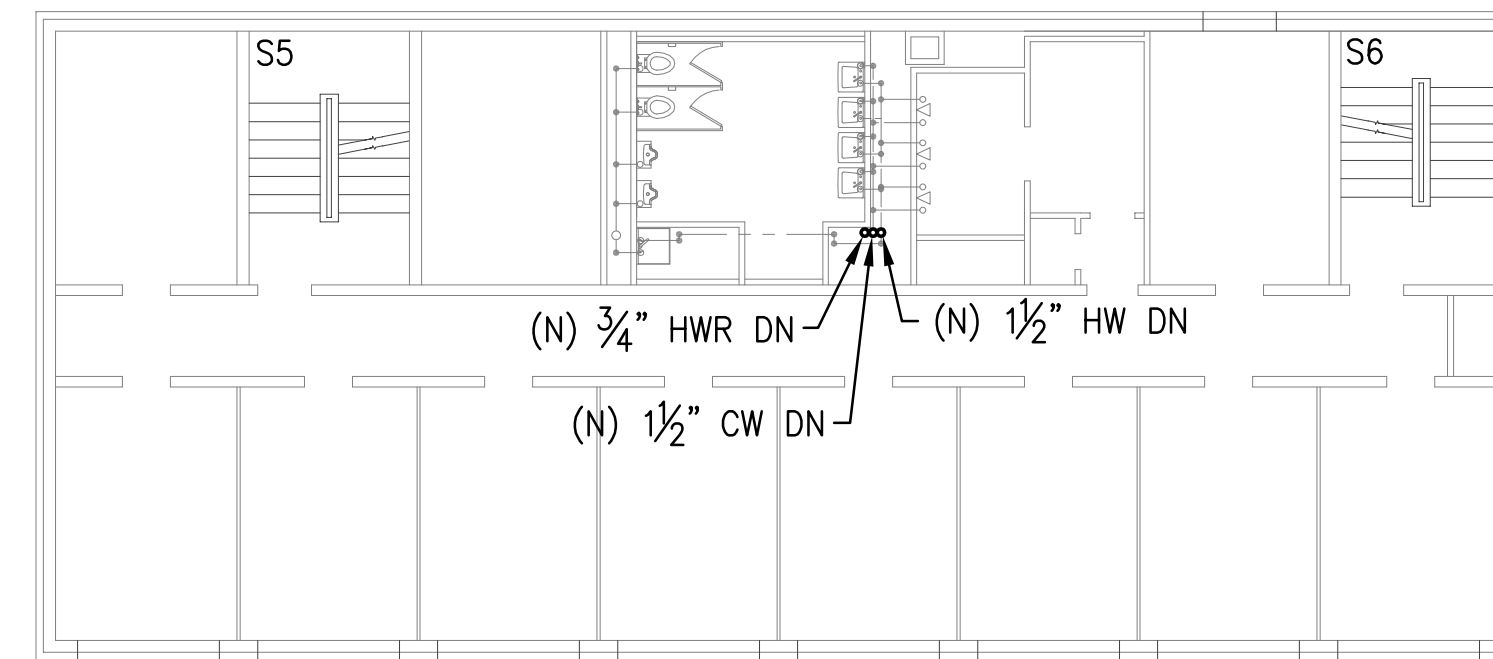
YOUNG



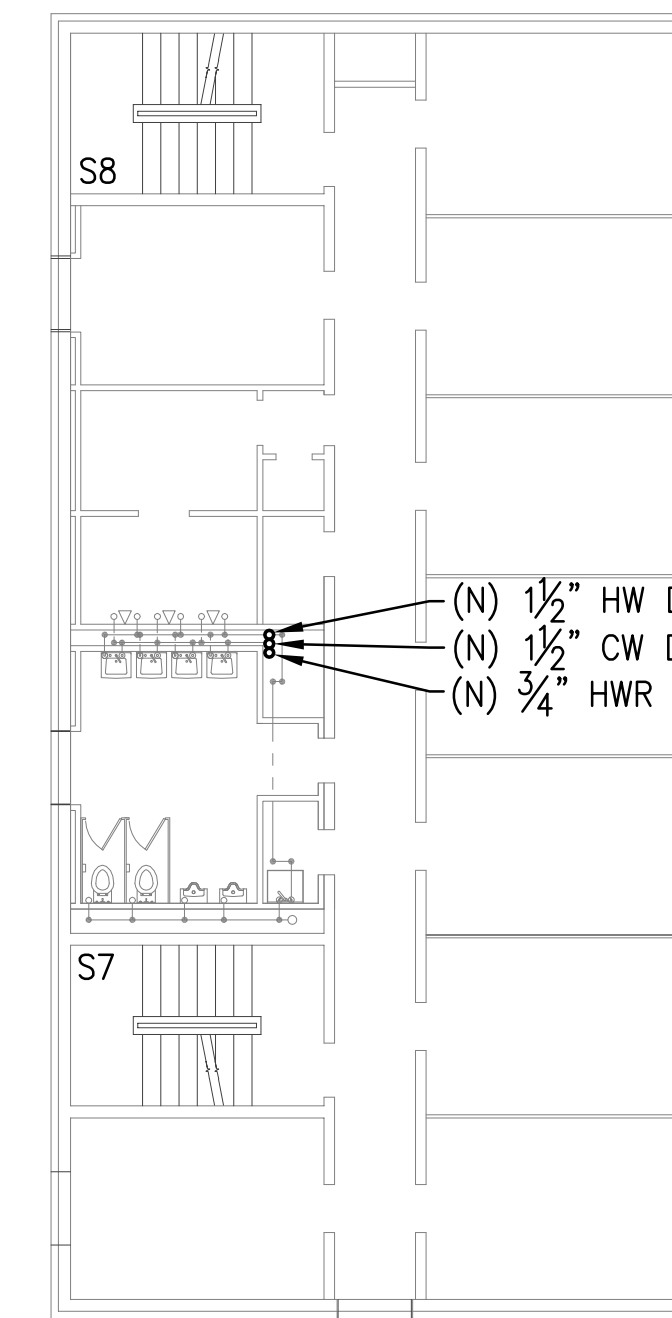
MCCLURE



STAFFORD



SHELDON



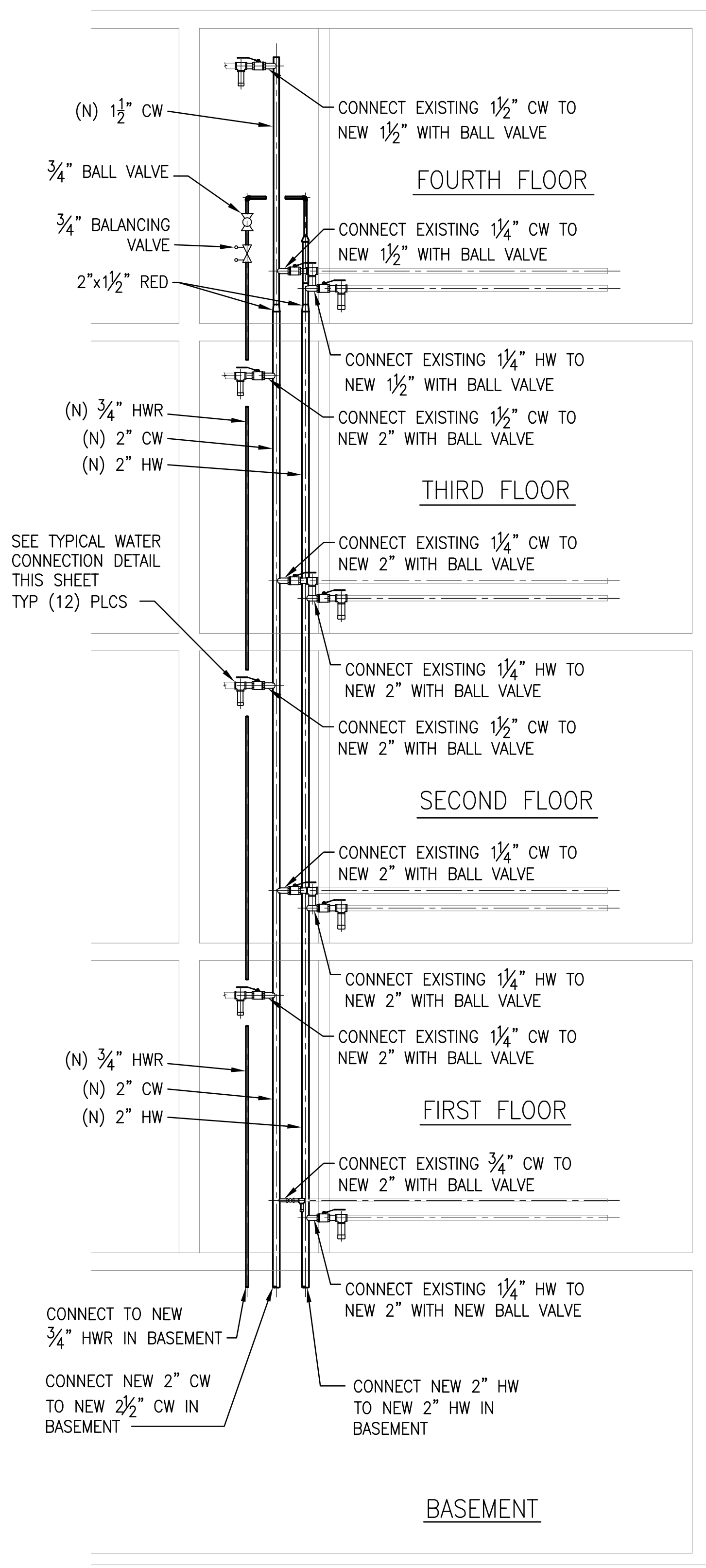
MORTON

FOURTH FLOOR PLAN

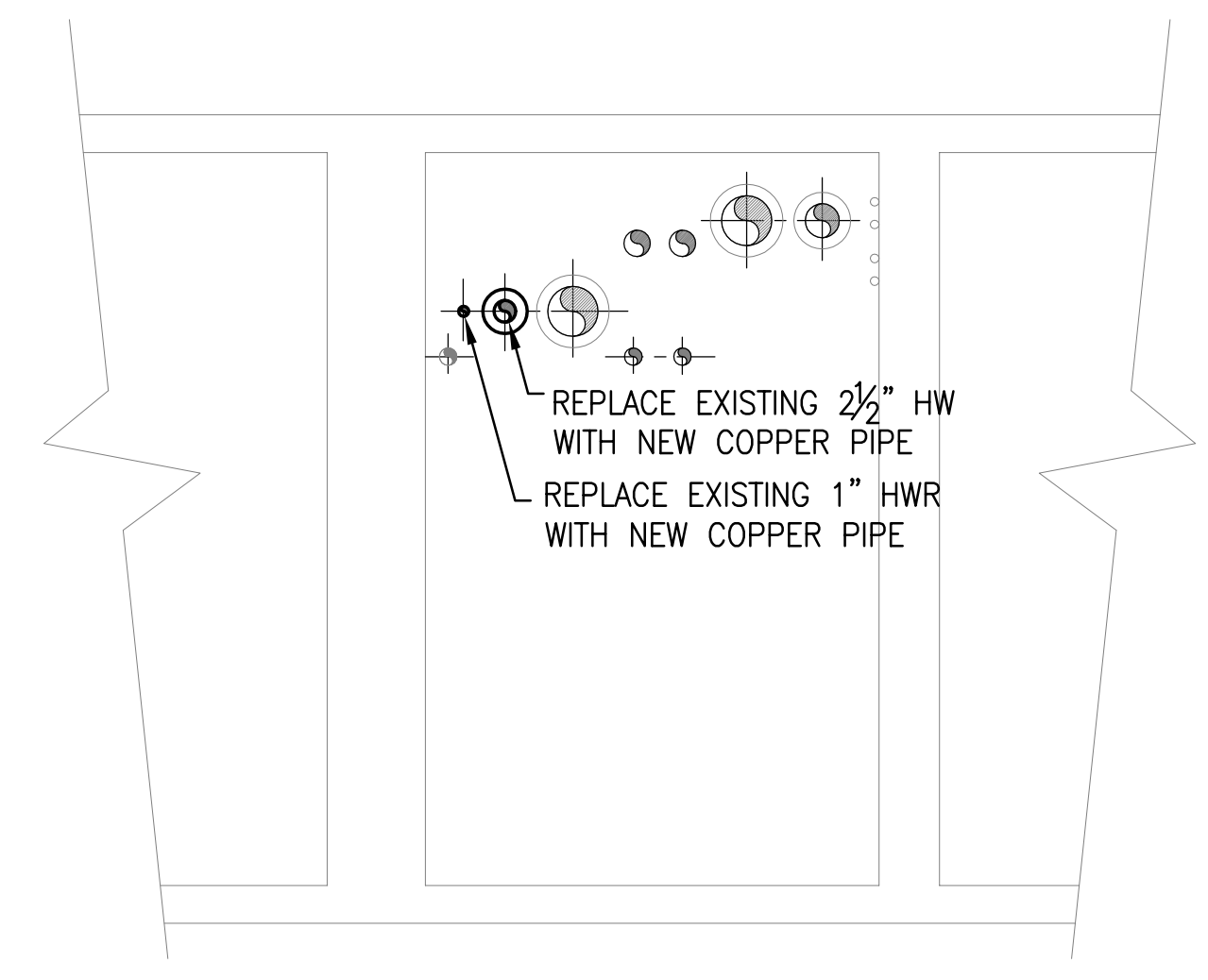
3/32"=1'-0"

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CLIENT: UNIVERSITY OF OREGON LOCATION: EUGENE, OREGON	ISSUED FOR PERMIT: 2/19/13 ISSUED FOR BID: 12/12/13
DRAWING #: 1000P05 JOB #: 2620.0 CLIENT REF #:	REV: 1 DATE: 3/22/13 DATE: 4/16/12
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CAD FILE: 1000P05rev1	

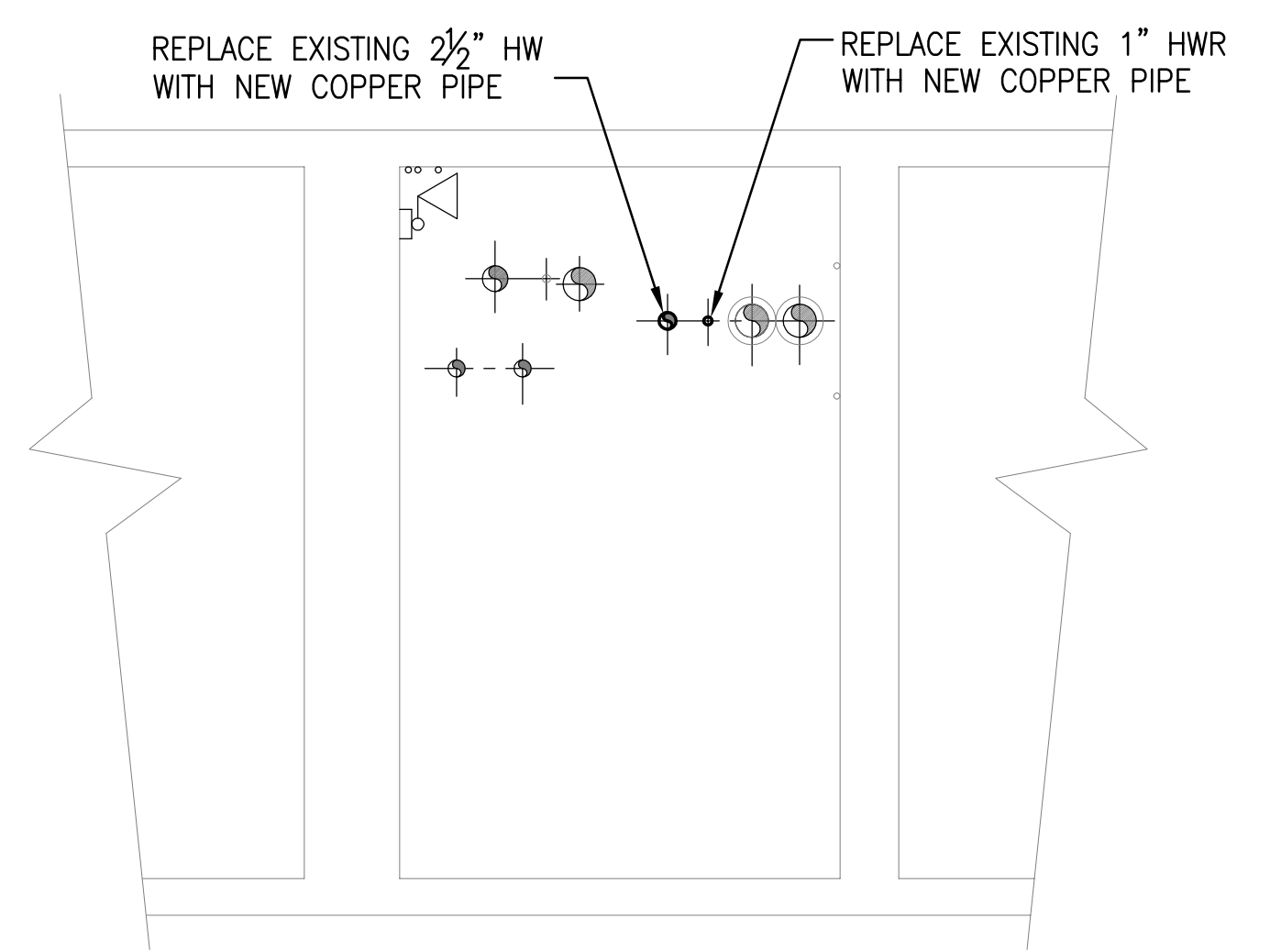
ISSUED FOR PERMIT



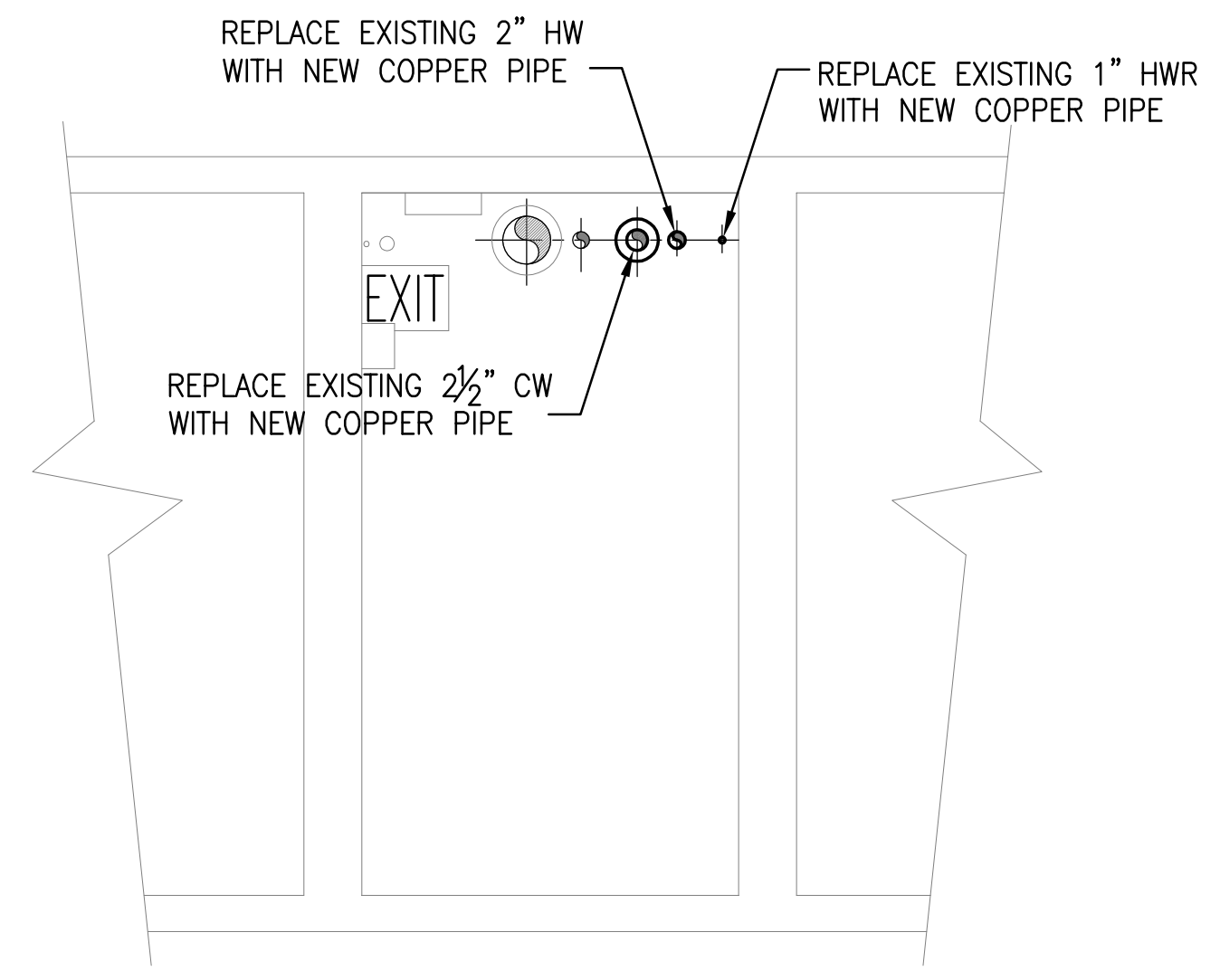
TYPICAL WATER RISER PIPING
3/8"=1'-0"



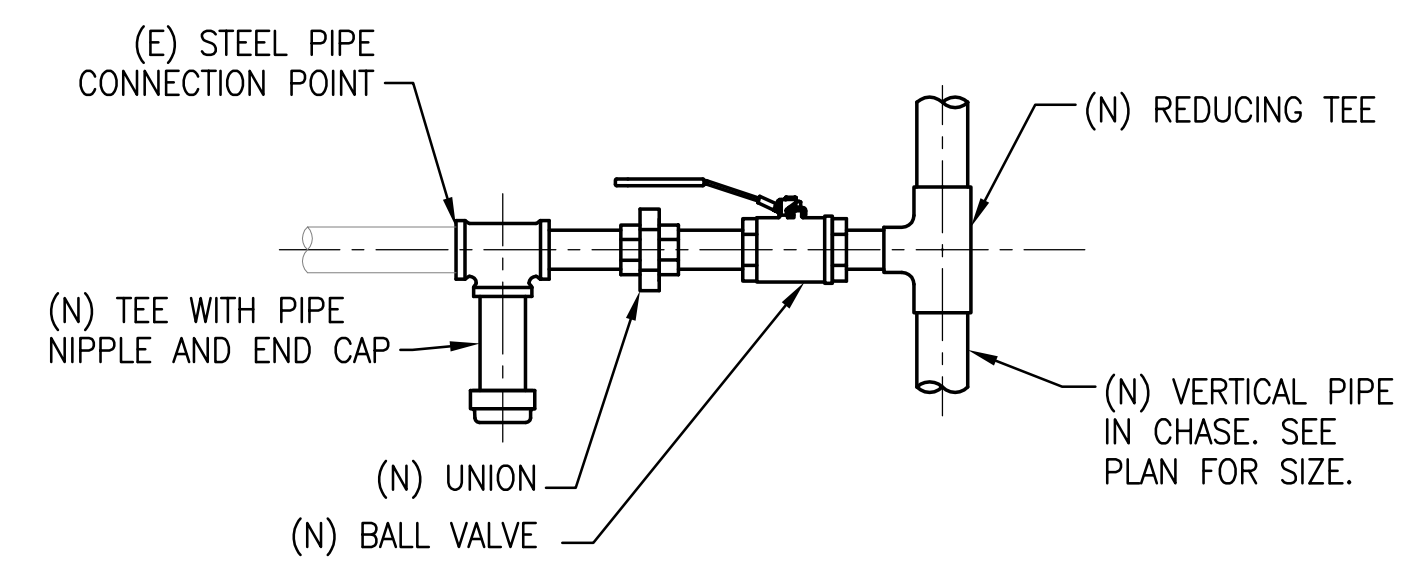
SECTION A
1000P01 1/2"=1'-0"



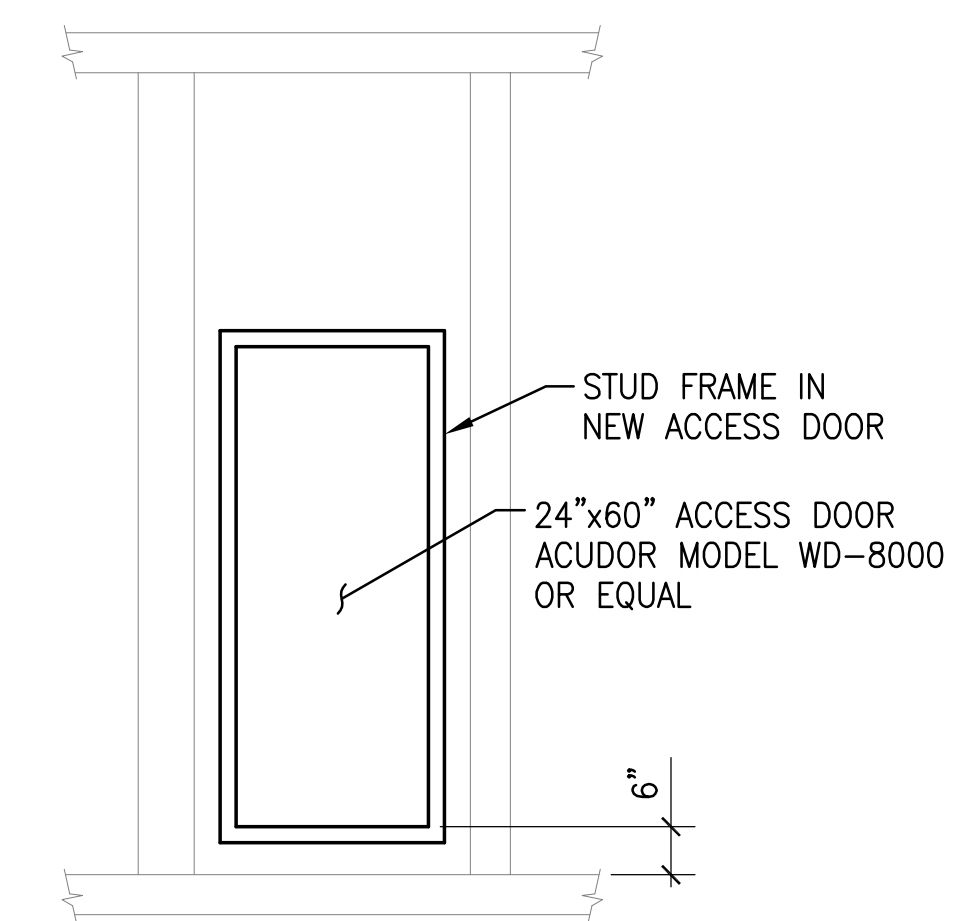
SECTION B
1000P01 1/2"=1'-0"



SECTION C
1000P01 1/2"=1'-0"



TYPICAL WATER CONNECTION
1 1/2"=1'-0"



DETAIL 1
1000P03 1/2"=1'-0"
1000P04
1000P05

NOTE:
DOOR TO BE INSTALLED IN CENTER
OF JANITORIAL CLOSET END WALL.

UNIVERSITY OF OREGON		EUGENE, OREGON		DATE:	APPD:
CLIENT:	UNIVERSITY OF OREGON	LOCATION:	EUGENE, OREGON	DATE:	APPD:
DESIGN:	NOTED	DRAWN:	WCE	DATE:	APPD:
REVISIONS:	1	CLIENT REF #:	2620.0	DATE:	APPD:
<p>TITLE: UO EARL HALL PLUMBING SECTIONS & DETAILS</p> <p>THIS DRAWING, INCLUDING ALL ENGINEERING, DESIGN AND PERMITTING SPECIFICATIONS, IS INTENDED SOLELY FOR THE PROJECT STATED IN THE TITLE BLOCK. IF ANY NOT BE SUITABLE OR SAFE FOR OTHER PROJECTS AND/OR USE OF THIS DRAWING WITHOUT WRITTEN CONSENT OF EVERGREEN ENGINEERING IS PROHIBITED.</p>					
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<p>ISSUED FOR PERMIT</p>					



UNIVERSITY
OF OREGON

UNIVERSITY OF OREGON

EARL HALL

Eugene, Oregon

SPRINKLER SYSTEM MONITORING INTERFACE

GENERAL NOTES	APPLICABLE CODE	FIRE ALARM SYMBOL LEGEND / MATERIAL LIST INDEX																									
<ol style="list-style-type: none"> IDENTIFYING NUMBER ADJACENT TO DETECTOR SYMBOL DENOTES ANALOG LOOP DEVICE ADDRESS. DEVICE ADDRESS 001-001 IDENTIFIES THE FIRST DETECTOR ON ANALOG LOOP #1. FOR ADDITIONAL INFORMATION, SEE DEVICE NAMING LEGEND AS EXPLAINED IN DETAILS ON THIS SHEET. MINIMUM WIRE SIZE SHALL BE #16 AWG UNLESS OTHERWISE NOTED. ALL WIRE TO INDICATING DEVICES IS ELECTRICALLY SUPERVISED. PARALLEL BRANCHING OF WIRE IS <u>NOT</u> PERMISSIBLE. PARALLEL BRANCHING OF WIRE IS PERMISSIBLE ON <u>ANALOG LOOPS ONLY</u>. ONLY WIRE SHOWN ON DRAWINGS IS PERMITTED IN RACEWAYS LEADING TO THE FIRE PROTECTION DEVICES. OTHER WIRE <u>SHALL NOT</u> BE PERMITTED. ALL WIRE SHALL CONFORM TO NEC LATEST EDITION. SMOKE DETECTORS <u>SHALL NOT</u> BE MOUNTED IN DIRECT AIR STREAM OF SUPPLY AIR DUCTS. FIRE DETECTORS MOUNT IN FOUR (4) INCH OCTAGONAL BOXES UNLESS OTHERWISE NOTED. WIRE DESIGNATIONS: TSP = TWISTED SHIELDED PAIR; TP = TWISTED PAIR (UN-SHIELDED); TYPE FPL, FPLR, OR FPLP AS REQUIRED. ELECTRICAL CONTRACTOR WILL COORDINATE WITH SIEMENS FSS (FIRE SAFETY AND SECURITY) PROJECT MANAGER FINAL CONNECTIONS TO THE FIRE ALARM CONTROL PANEL, SYSTEM, COMMISSIONING AND START-UP AS WELL AS SCHEDULE SYSTEM TESTING AND HAND OVER TO THE AHJ (AUTHORITY HAVING JURISDICTION). 	<p>2010 STATE OF OREGON STRUCTURAL SPECIALTY CODE 2010 STATE OF OREGON FIRE CODE 2011 STATE OF OREGON ELECTRICAL SPECIALTY CODE 2010 STATE OF OREGON MECHANICAL SPECIALTY CODE 2008 STATE OF OREGON PLUMBING SPECIALTY CODE 2010 STATE OF OREGON ENERGY EFFICIENCY CODE 2007 NFPA NATIONAL FIRE ALARM CODE NFPA 704 IDENTIFICATION SYSTEM</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>ITEM NO.</th> <th>SYMBOL</th> <th>MANUFACTURER MODEL NUMBER</th> <th>MANUFACTURER</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>01</td> <td></td> <td>(E) MXL</td> <td>SIEMENS</td> <td>EXISTING FIRE ALARM CONTROL PANEL</td> </tr> <tr> <td>02</td> <td></td> <td>TRI-D</td> <td>SIEMENS</td> <td>DUAL POINT MONITOR MODULE</td> </tr> <tr> <td>03</td> <td></td> <td>----</td> <td>BY OTHERS</td> <td>WATER FLOW SWITCH - SUPPLIED BY SPRINKLER CONTRACTOR</td> </tr> <tr> <td>04</td> <td></td> <td>----</td> <td>BY OTHERS</td> <td>VALVE TAMPER SWITCH - SUPPLIED BY SPRINKLER CONTRACTOR</td> </tr> </tbody> </table>	ITEM NO.	SYMBOL	MANUFACTURER MODEL NUMBER	MANUFACTURER	DESCRIPTION	01		(E) MXL	SIEMENS	EXISTING FIRE ALARM CONTROL PANEL	02		TRI-D	SIEMENS	DUAL POINT MONITOR MODULE	03		----	BY OTHERS	WATER FLOW SWITCH - SUPPLIED BY SPRINKLER CONTRACTOR	04		----	BY OTHERS	VALVE TAMPER SWITCH - SUPPLIED BY SPRINKLER CONTRACTOR
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04		----	BY OTHERS	VALVE TAMPER SWITCH - SUPPLIED BY SPRINKLER CONTRACTOR																							
NOTES TO ELECTRICAL CONTRACTOR:	<p>PROJECT SUMMARY</p> <p>BUILDING ADDRESS: 1333 E 15TH AVE, EUGENE, OR 97403</p> <p>BUILDING STORIES: 4 + BASEMENT</p> <p>OCCUPANCY TYPE: MIXED B AND R2 OCCUPANCY</p> <p>CONSTRUCTION TYPE: TYPE II</p> <p>FIRE PROTECTION: FULLY SPRINKLED</p> <p>ZONING: PL: PUBLIC LAND</p> <p>OWNER: UNIVERSITY OF OREGON</p> <p>ADDRESS: 1276 UNIVERSITY OF OREGON, EUGENE, OR 97403</p>	<p style="text-align: center;">SCOPE OF WORK</p> <p>THE EXISTING FIRE ALARM SYSTEM IS BEING EXPANDED AS PART OF THE EARL HALL AUTOMATIC SPRINKLER SYSTEM RENOVATION/UPGRADE PROJECT.</p> <p>THE SPRINKLER SYSTEM FIELD DEVICES SUCH AS WATER FLOW AND TAMPER SWITCHES, DOUBLE CHECK DETECTOR VALVE ASSEMBLY, AND EXISTING PIV (INSTALLED BY OTHERS) SHALL BE INTERFACED / CONNECTED TO THE SIEMENS MXL ADDRESSABLE FIRE ALARM SYSTEM FOR MONITORING VIA ADDRESSABLE MONITOR MODULES.</p>																									
<ol style="list-style-type: none"> FOR DEVICE WIRING DETAILS, SEE FLOOR PLANS. ALL WIRING INCLUDING SHIELDS MUST BE DRY AND FREE OF ANY SHORTS AND GROUND FAULTS. METALLIC CONTINUITY OF THE SHIELD MUST BE MAINTAINED THROUGHOUT THE ENTIRE LENGTH OF CABLE. ALL WIRE RUNS AND SHIELDS MUST BE MEASURED WITH MEGOHM METER FOR CONTINUITY AND INSULATION CHECKS PRIOR TO DEVICE INSTALLATION. INSULATION RESISTANCE MINIMUM ONE HUNDRED (100) MEGOHMS. FOR INSULATION MEASUREMENTS, USE 500 VOLT MEGOHM METER. WIRE RUNS MUST BE IN CONDUIT. FOR ANY WIRING THAT LEAVES THE BUILDING AND IF THERE IS ANY POSSIBILITY OF WATER ACCUMULATION IN THE CONDUIT, CABLES SUITABLE FOR USE IN WET LOCATIONS AND LISTED FOR SUCH APPLICATIONS MUST BE USED. MAINTAIN FORTY (40) PERCENT CONDUIT FILL RATIO AS PER NEC REQUIREMENTS. 120 VAC 60 HZ INPUT POWER FOR THE FIRE ALARM CONTROL PANEL AND FIRE ALARM POWER SUPPLY SHALL BE A DEDICATED CIRCUIT WITH LOCKING BREAKER PROPERLY LABELED "EMERGENCY POWER FOR FIRE ALARM SYSTEM" FROM THE ELECTRICAL DISTRIBUTION PANEL AND LOCAL LOCKABLE BREAKER AT FACP. DOCUMENT ALL INSTALLATION REDLINE CHANGES ON THE PROJECT AS THEY OCCUR. THE ELECTRICAL CONTRACTOR SHALL PROVIDE SIEMENS WITH TWO SETS OF MARKED AS-BUILT DRAWINGS FOR FINAL CLOSE OUT DOCUMENTS WITHIN TWO WEEKS OF FINAL SYSTEM COMMISSIONING. LABEL EACH ADDRESSABLE DEVICE WITH THE DEVICE ADDRESS AND DATA LOOP DESIGNATION AS SHOWN ON THE DRAWINGS. PLACE ALL LABELS ON THE "FIXED" PORTION OF THE DEVICE I.E. ON THE SMOKE DETECTOR BASE, NOT THE REMOVABLE HEAD AND IN CLEAR VIEW AND RECOGNITION FROM THE FLOOR LEVEL. LABEL EACH NOTIFICATION APPLIANCE WITH THE DEVICE IDENTIFICATION TAG AS SHOWN ON THE DRAWINGS. LOCATE SMOKE DETECTORS A MINIMUM OF THREE (03) FEET AWAY FROM SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLES. IN CASE OF ANY QUESTIONS, PLEASE CALL SIEMENS LOCAL OFFICE AT (503) 207-1900. 	<p style="text-align: center;">VICINITY MAP</p>	<p style="text-align: center;">WIRE LEGEND</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SYMBOL</th> <th>WIRING TYPE</th> </tr> </thead> <tbody> <tr> <td>E</td> <td>THREE CONDUCTOR #12 AWG THHN WIRE FOR 120 VAC DEDICATED POWER CIRCUIT</td> </tr> <tr> <td>M</td> <td>ONE PAIR #16 AWG RED (+) BLACK (-) UL LISTED POWER LIMITED FIRE ALARM CABLE, TWISTED FOR INTERFACE MONITORING OF WATER FLOW ALARM SIGNAL, PIV AND TAMPER SWITCH SUPERVISORY AND OTHER MONITORING SIGNALS NFPA CLASS B, STYLE B INITIATING DEVICE CIRCUIT</td> </tr> </tbody> </table> <p>NOTES: 1. ALL WIRING SHALL BE IN COMPLIANCE WITH THE 2011 OREGON ELECTRICAL SPECIALTY CODE. 2. INSTALLATION OF WIRING INCLUDING ALL CIRCUITS CONTROLLED AND POWERED BY THE FIRE ALARM SYSTEM SHALL BE IN ACCORDANCE WITH ARTICLE 760 OF 2011 OREGON ELECTRICAL SPECIALTY CODE.</p>	SYMBOL	WIRING TYPE	E	THREE CONDUCTOR #12 AWG THHN WIRE FOR 120 VAC DEDICATED POWER CIRCUIT	M	ONE PAIR #16 AWG RED (+) BLACK (-) UL LISTED POWER LIMITED FIRE ALARM CABLE, TWISTED FOR INTERFACE MONITORING OF WATER FLOW ALARM SIGNAL, PIV AND TAMPER SWITCH SUPERVISORY AND OTHER MONITORING SIGNALS NFPA CLASS B, STYLE B INITIATING DEVICE CIRCUIT																			
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SHEET INDEX	<p style="text-align: center;">EQUIPMENT NAMING LEGEND</p> <p style="text-align: center;">SLC DEVICE NUMBERING</p> <p>ALD ANALOG LOOP — DEVICE ADDRESS 001-001</p> <p style="text-align: center;">NAC DEVICE NUMBERING</p> <p>FAPS NUMBER — DEVICE ADDRESS N01-1-01</p> <p style="text-align: center;">NAC NUMBER</p> <p>ABBREVIATIONS: ALD = ANALOG LOOP DRIVER IDC = INITIATING DEVICE CIRCUIT FAPS = FIRE ALARM POWER SUPPLY</p> <p>ABBREVIATIONS: SLC = SIGNALING LINE CIRCUIT NAC = NOTIFICATION APPLIANCE CIRCUIT</p> <p>NIM = NETWORK INTERFACE MODULE (PROVIDES NETWORKING CAPABILITY OF UP TO 63 MXL PANELS). ALLOWS MXL PANELS TO HAVE INTER-PANEL LOGIC, AS WELL AS COMMUNICATE IN A PEER-TO-PEER MANNER.</p> <p>NET-4 = COMMUNICATION MODULE, PROVIDES COMMUNICATION BETWEEN MXL PANEL AND OTHER MXL REMOTE MODULES.</p> <p>NOTES: 1. EACH ALD MODULE PROVIDES TWO (2) INTELLIGENT ANALOG CIRCUITS. UP TO SIXTY (60) PROGRAMMABLE INPUT AND OUTPUT DEVICES MAY BE CONNECTED TO EACH OF ITS TWO (2) CIRCUITS. 2. EACH CIRCUIT MAY BE WIRED AS CLASS B (STYLE 4) OR CLASS A (STYLE 6).</p>	<p style="text-align: center;">SHEET INDEX</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SHEET NUMBER</th> <th>SHEET DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>FA0.00</td> <td>SHEET INDEX, NOTES AND LEGEND</td> </tr> <tr> <td>FA0.30</td> <td>FIRE ALARM SEQUENCE OF OPERATIONS</td> </tr> <tr> <td>FA1.00</td> <td>FIRE ALARM SINGLE LINE RISER DIAGRAM</td> </tr> <tr> <td>FA2.00</td> <td>FIRE ALARM PARTIAL FLOOR PLAN - BASEMENT</td> </tr> <tr> <td>FA9.00</td> <td>FIRE ALARM DEVICE WIRING DETAILS</td> </tr> </tbody> </table>	SHEET NUMBER	SHEET DESCRIPTION	FA0.00	SHEET INDEX, NOTES AND LEGEND	FA0.30	FIRE ALARM SEQUENCE OF OPERATIONS	FA1.00	FIRE ALARM SINGLE LINE RISER DIAGRAM	FA2.00	FIRE ALARM PARTIAL FLOOR PLAN - BASEMENT	FA9.00	FIRE ALARM DEVICE WIRING DETAILS													
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NO.	DATE	REVISION DESCRIPTION	BY
1	07/19/13	PER U. OF O. COMMENTS DATED 12.31.2012	J.C.
2	09/17/12	ISSUED FOR REVIEW	J.C.

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UNIVERSITY OF OREGON
EARL HALL
EUGENE, OREGON

SPRINKLER SYSTEM MONITORING INTERFACE WITH FIRE ALARM

DRAWN BY: JAMES CALHOUN
ENG BY: MOHSIN MALIK
SCALE: NONE
DATE: 09/17/12
JOB NO: 440P-116199
CHECKED BY: -
EARL HALL SHEET INDEX, NOTES AND LEGEND

FA0.00

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SYSTEM OUTPUTS

CONTROL UNIT ANNUNCIATION REQUIRED FIRE SAFETY CONTROL FUNCTIONS

ITEM NO.	SYSTEM INPUTS	ITEM NO.	SYSTEM OUTPUTS																									
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
001	MANUAL PULL STATION	001	●			●						●	●															
002	AREA SMOKE DETECTOR	002	●			●						●	●															
003	AREA HEAT DETECTOR	003	●			●						●	●															
004	ELEVATOR LOBBY SMOKE DETECTOR (LEVEL 1) - DESIGNATED LEVEL	004	●			●						●	●			●												
005	ELEVATOR LOBBY SMOKE DETECTOR - ALTERNATE LEVEL	005	●			●						●	●			●												
006	ELEVATOR MACHINE ROOM SMOKE DETECTOR	006	●			●						●	●			●												
007	ELEVATOR HOIST WAY SMOKE DETECTOR	007	●			●						●	●			●												
008	ELEVATOR MACHINE ROOM HEAT DETECTOR	008	●			●						●	●			●												
009	ELEVATOR HOIST WAY/PIT HEAT DETECTOR	009	●			●						●	●			●												
010	WET SPRINKLER SYSTEM - WATER FLOW SWITCH	010	●			●						●	●			●												
011	WET SPRINKLER SYSTEM - VALVE TAMPER SWITCH	011			●																							
012		012																										
013	SIGNALING LINE CIRCUIT (STYLE 4/CLASS B) - OPEN CIRCUIT	013	●			●						●	●															
014	SIGNALING LINE CIRCUIT (STYLE 4/CLASS B) - GROUND FAULT	014	●			●						●	●															
015	SIGNALING LINE CIRCUIT (STYLE 4/CLASS B) - SHORT CIRCUIT	015	●			●						●	●															
016	INITIATING DEVICE CIRCUIT (STYLE B/CLASS B) - OPEN CIRCUIT	016	●			●						●	●															
017	INITIATING DEVICE CIRCUIT (STYLE B/CLASS B) - GROUND FAULT	017	●			●						●	●															
018	INITIATING DEVICE CIRCUIT (STYLE B/CLASS B) - SHORT CIRCUIT	018	●			●						●	●															
019	NOTIFICATION APPLIANCE CIRCUIT (STYLE Y/CLASS B) - OPEN CIRCUIT	019	●			●						●	●															
020	NOTIFICATION APPLIANCE CIRCUIT (STYLE Y/CLASS B) - GROUND FAULT	020	●			●						●	●															
021	NOTIFICATION APPLIANCE CIRCUIT (STYLE Y/CLASS B) - SHORT CIRCUIT	021	●			●						●	●															
022	FIRE ALARM SYSTEM AC POWER LOSS	022	●			●																						
023	FIRE ALARM SYSTEM LOW BATTERY	023	●			●																						
024	FIRE ALARM POWER SUPPLY TROUBLE SIGNAL	024	●			●																						

GENERAL NOTES:
 1. THIS FUNCTIONAL MATRIX DESCRIBES THE PROGRAMMING AND RESULTING ACTION OF THE PROTECTED PREMISES FIRE ALARM SYSTEM IN RESPONSE TO VARIOUS SYSTEM EVENTS (INPUTS) SUCH AS ALARM, SUPERVISORY, OR TROUBLE CONDITIONS. IT DOES NOT DESCRIBE UNIVERSITY OF OREGON OR SECURITY STAFF RESPONSE.
 2. ALL WIRING, CONNECTIONS, CONDUIT, AND TERMINATIONS SHALL BE PROVIDED AND INSTALLED PER SITE SPECIFIC STANDARDS.
 3. ALL WIRING AND CONDUIT SHALL BE SIZED AND INSTALLED PER 2011 OREGON ELECTRICAL SPECIALTY CODE.

NO.	DATE	REVISION DESCRIPTION	BY
1	01/10/13	PER U. OF O. COMMENTS DATED 12.31.2012	J.C.
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 EUGENE, OREGON

SPRINKLER SYSTEM MONITORING INTERFACE WITH FIRE ALARM

DRAWN BY:
 JAMES CALHOUN

ENG BY:
 MOHSIN MALIK

SCALE:
 NONE

DATE:
 09/17/12

JOB NO:
 440P-116199

CHECKED BY:
 -

EARL HALL
 FIRE ALARM
 SEQUENCE OF
 OPERATIONS

FIRE ALARM SEQUENCE OF OPERATIONS
 SCALE: NONE

FIRE ALARM LEGEND

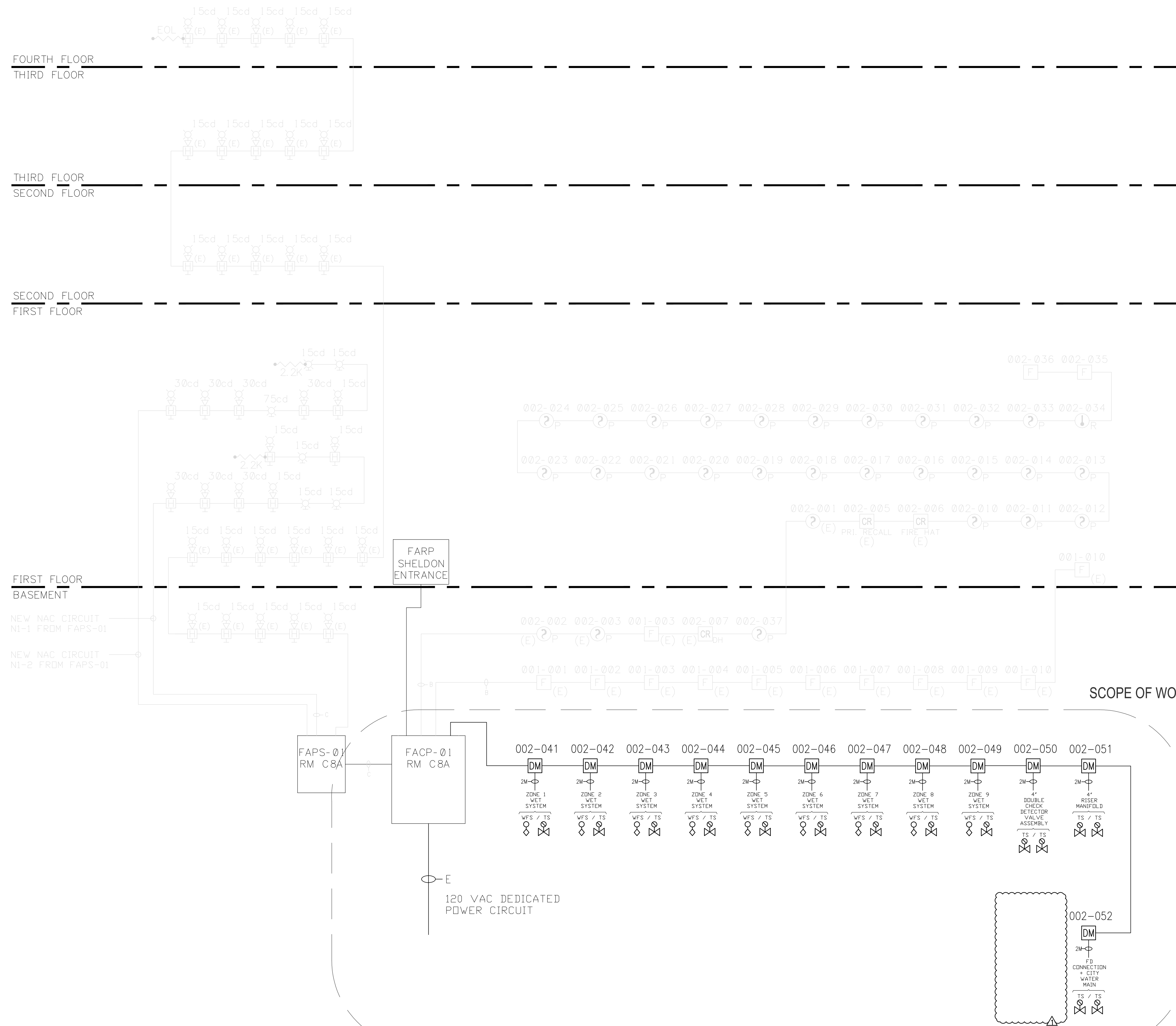
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- FACP** FIRE ALARM PANEL:
FACP: MAIN FIRE ALARM CONTROL PANEL,
FARP: REMOTE FIRE ALARM PANEL,
FAPS: FIRE ALARM BOOSTER POWER SUPPLY,
FATC: FIRE ALARM TERMINAL CABINET.
- F** FIRE ALARM MANUAL PULL STATION, WALL MOUNTED 48" AFF. TO TOP OF PULL STATION, UCN.
- CR** FIRE ALARM CONTROL RELAY MODULE W/MONITOR POINT, MODEL# HTRI-R.
- R** FIRE ALARM NON-ADDRESSABLE RELAY, MODEL# MR-101/T FIRE ALARM.
- DM** SINGLE POINT MONITOR MODULE, MODEL# HTRI-S FIRE ALARM.
- DM** DUAL POINT MONITOR MODULE, MODEL# HTRI-D.
- Ⓟ** ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR, MODEL# HFP-11.
- Ⓡ** ANALOG ADDRESSABLE HEAT DETECTOR, MODEL# HFPT-11 "R" RATE-OF-RISE, "T" 1.35 DEGREE FIXED.
- Ⓡ** DUCT DETECTOR AND HOUSING WITH RELAY FOR HFP-11 DETECTOR MODEL # AD-11XPR.
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GENERAL NOTES

1. NOT USED
2. ALL WIRING SHALL BE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA 70, 2010).
3. NOT USED
4. LOCATE SPOT TYPE SMOKE DETECTORS A MINIMUM OF 3 FEET AWAY FROM SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLS.
5. NOT USED
6. INSTALL ADDRESSABLE CONTROL RELAY MODULES WITHIN 3 FEET OF CONTROLLED DEVICE UNLESS DIRECTED OTHERWISE.
7. APPROVAL REQUIRED FOR JUNCTION BOXES, T-TAPS ALLOWED ONLY IN FIRE ALARM TERMINAL CABINETS.

WIRE LEGEND

- A. RS-485 CIRCUIT - WEST PENN 60990 - PLENUM 16AWG, TWISTED PAIR, SHIELDED
- B. SIGNATURE DATA LOOP - WEST PENN 60991B - PLENUM 16AWG, TWISTED PAIR
- C. STROBE CIRCUIT - WEST PENN 60993B - PLENUM 14AWG, TWISTED PAIR
- D. 24 VDC POWER RISER - WEST PENN 60993B - PLENUM 14AWG, TWISTED PAIR
- E. THREE CONDUCTOR #12 AWG THHN WIRE FOR 120 VAC DEDICATED POWER CIRCUIT
- M. INITIATING DEVICE CIRCUIT - ONE PAIR #16 AWG UL LISTED POWER LIMITED CABLE, TWISTED PAIR



FIRE ALARM ONE LINE RISER DIAGRAM

SCALE: NONE

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1	01/10/13	PER U.G.P. COMMENTS DATED 12.31.2012	J.C.
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EUGENE, OREGON
SPRINKLER SYSTEM MONITORING INTERFACE WITH FIRE ALARM

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EARL HALL FIRE ALARM ONE-LINE RISER DIAGRAM	

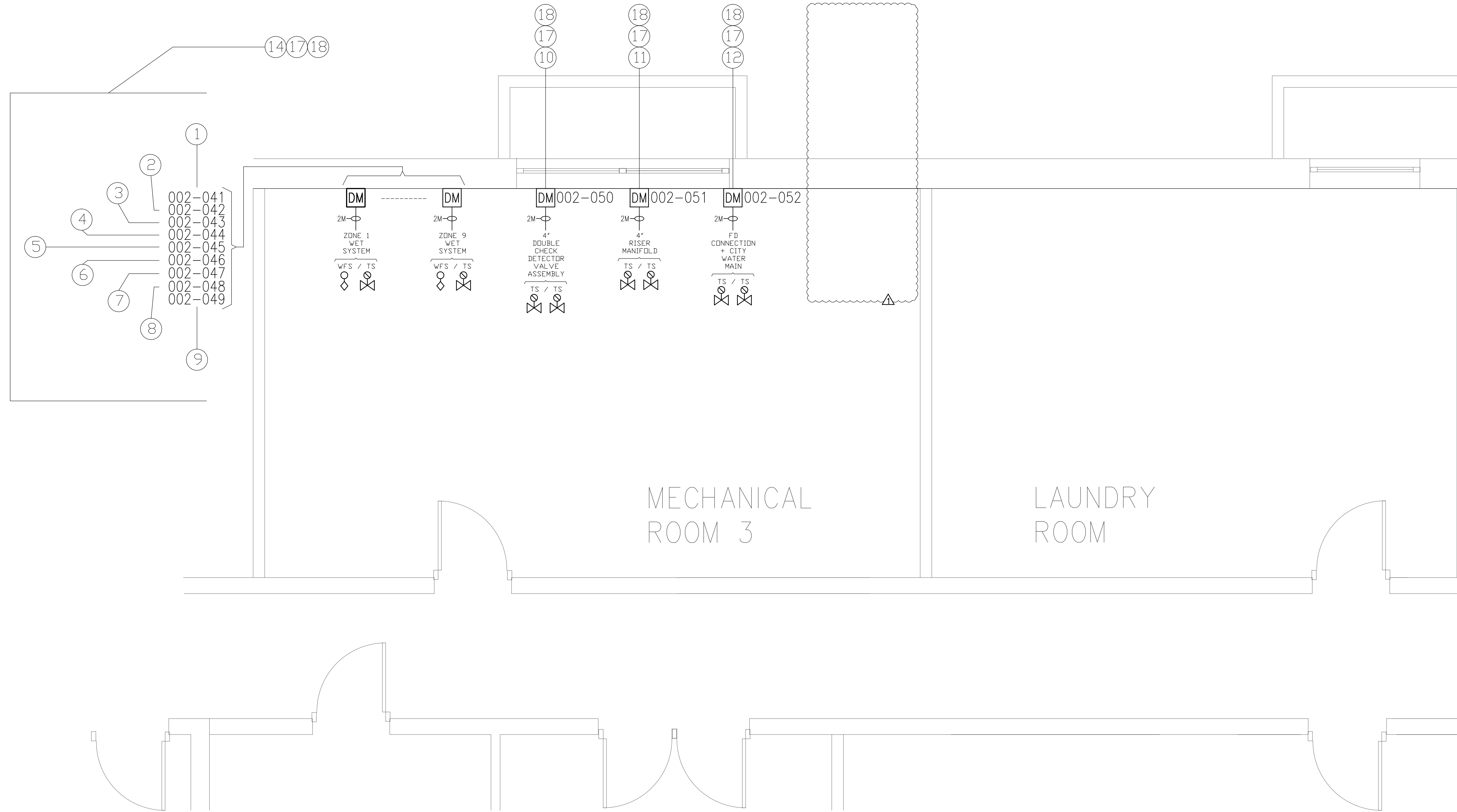
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FIRE ALARM SHEET NOTES:

1. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 1 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
2. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 2 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
3. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 3 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
4. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 4 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
5. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 5 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
6. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 6 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
7. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 7 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
8. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 8 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
9. DUAL MONITOR MODULE PROVIDES MONITORING OF WET PIPE SPRINKLER SYSTEM ZONE 9 WATER FLOW ALARM AND TAMPER SWITCH SUPERVISORY SIGNALS.
10. DUAL MONITOR MODULE PROVIDES SUPERVISION OF 4" DOUBLE CHECK DETECTOR VALVE ASSEMBLY TAMPER SWITCHES.
11. DUAL MONITOR MODULE PROVIDES MONITORING OF 4" RISER MANIFOLD TAMPER SWITCHES.
12. DUAL MONITOR MODULE PROVIDES MONITORING OF THE FOLLOWING:
-FIRE DEPARTMENT CONNECTION
-CITY WATER MAIN

13. NOT USED
14. DEVICE ADDRESSES TO BE FIELD VERIFIED.
15. NOT USED
16. NOT USED
17. PROVIDE AND INSTALL LIQUID TIGHT FLEXIBLE EMT CONNECTIONS FROM EACH DM (DUAL MONITOR) MODULE TO THE RESPECTIVE WATER FLOW AND TAMPER POINTS BEING MONITORED.
18. COORDINATE WITH THE FACILITY OWNER'S REPRESENTATIVE AND FIRE PROTECTION CONTRACTOR AS REQUIRED.



FIRE ALARM PARTIAL FLOOR PLAN - BASEMENT
SCALE: 1/2"=1'-0"

SYMBOL	WIRING TYPE
M	ONE PAIR #16 AWG RED (+) BLACK (-) UL LISTED POWER LIMITED FIRE ALARM CABLE, TWISTED FOR INTERFACE MONITORING OF WATER FLOW ALARM SIGNAL, PIV AND TAMPER SWITCH SUPERVISORY AND OTHER MONITORING SIGNALS. NFPA CLASS B, STYLE B INITIATING DEVICE CIRCUIT

NO.	DATE	REVISION DESCRIPTION	BY
0	08/19/13	PER U. OF O. COMMENTS DATED 12.31.2012	J.L.C.
1	09/17/12	ISSUED FOR REVIEW	J.L.C.

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SPRINKLER SYSTEM MONITORING INTERFACE WITH FIRE ALARM

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ENG BY:
MOHSIN MALIK

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

DATE:
09/17/12

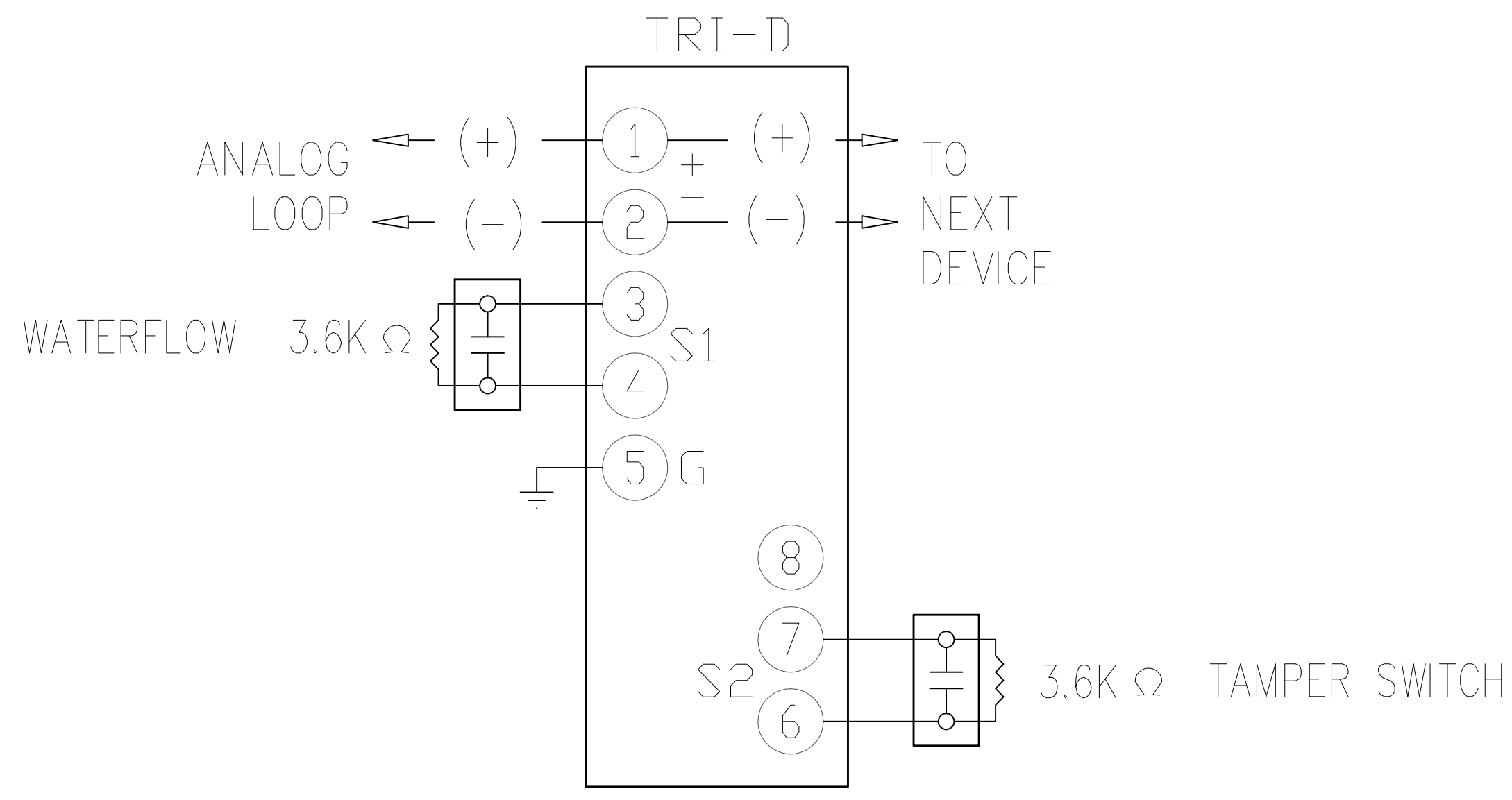
JOB NO:
440P-116199

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EARL HALL
FIRE ALARM
PARTIAL
FLOOR PLAN
BASEMENT

FA2.00

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1 WATER FLOW & TAMPER SWITCH - WIRING DETAILS
SCALE: NONE

NO.	DATE	DESCRIPTION	BY
0	09/17/12	ISSUED FOR REVIEW	A.C.

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SPRINKLER SYSTEM MONITORING INTERFACE WITH FIRE ALARM

DRAWN BY:
JAMES CALHOUN

ENG BY:
MOHSIN MALIK

SCALE:
NONE

DATE:
09/17/12

JOB NO:
440P-116189

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EARL HALL
FIRE ALARM
DEVICE
WIRING DETAILS

FA9.00