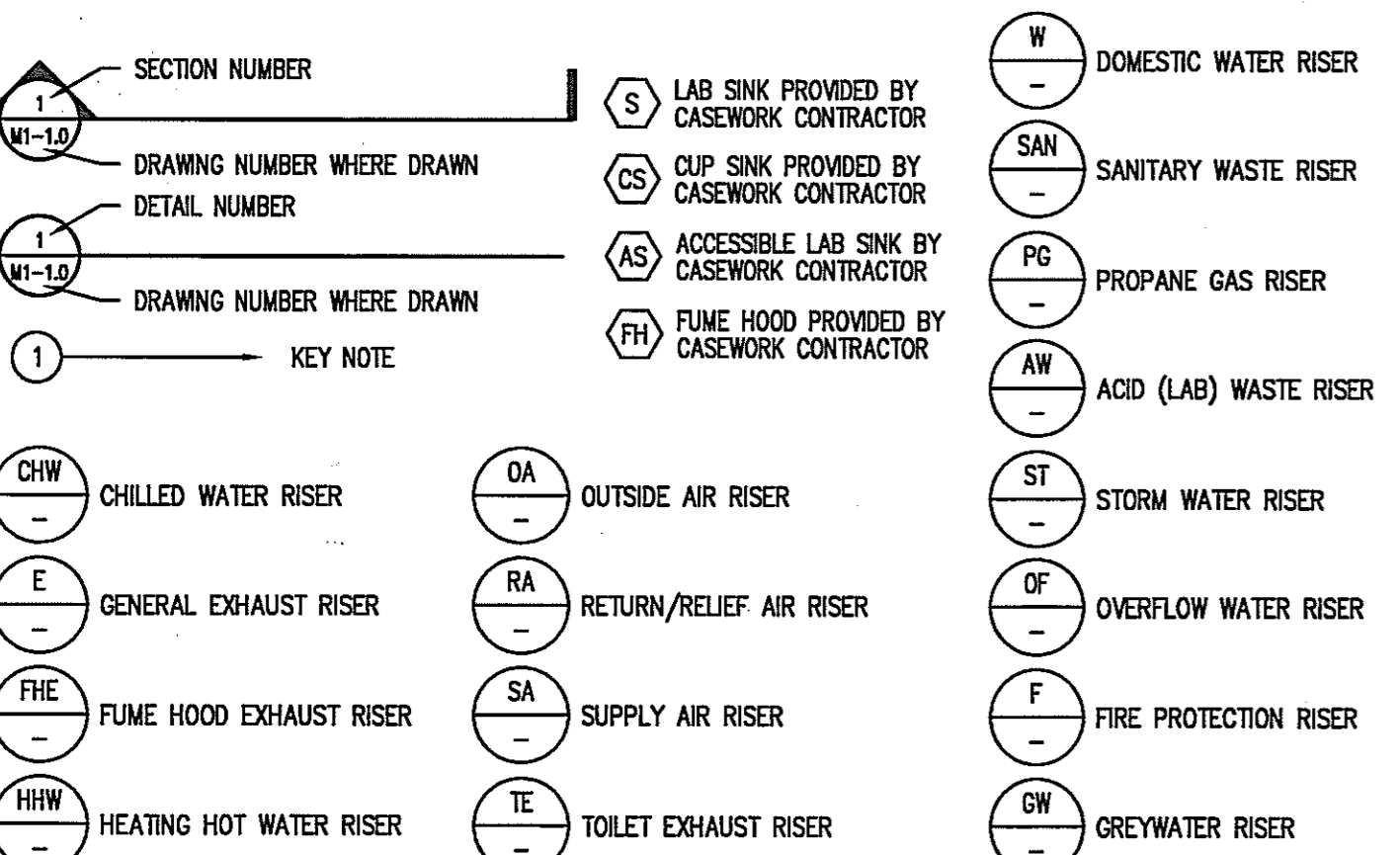


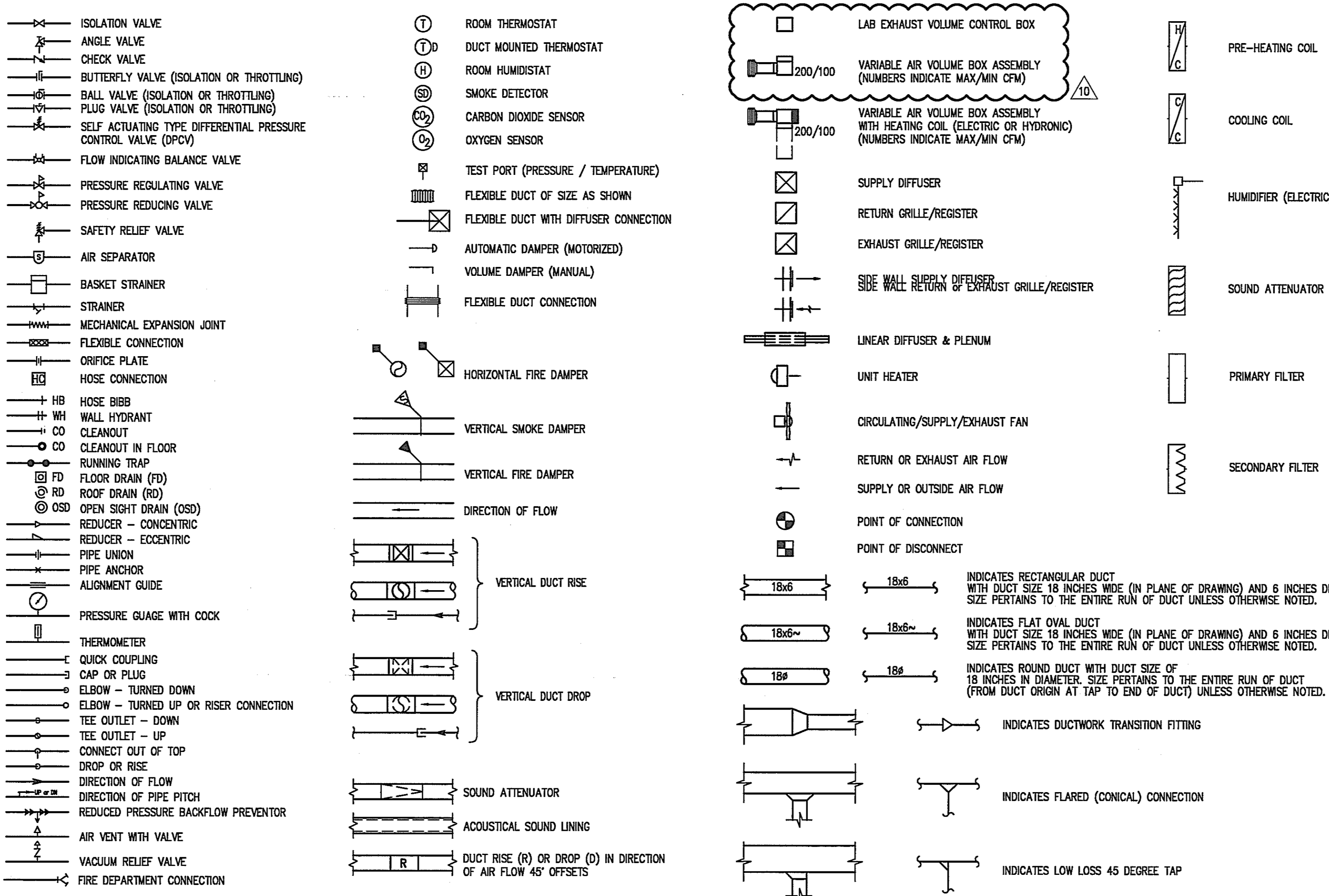
ABBREVIATIONS

Table of abbreviations including terms like ACCESS DOOR, ABSOLUTE CUBIC FEET PER MINUTE, ADJUSTABLE FREQUENCY MOTOR CONTROLLER, etc., along with their corresponding symbols and units.

DRAWING NOTATIONS



SYMBOLS



GENERAL NOTES

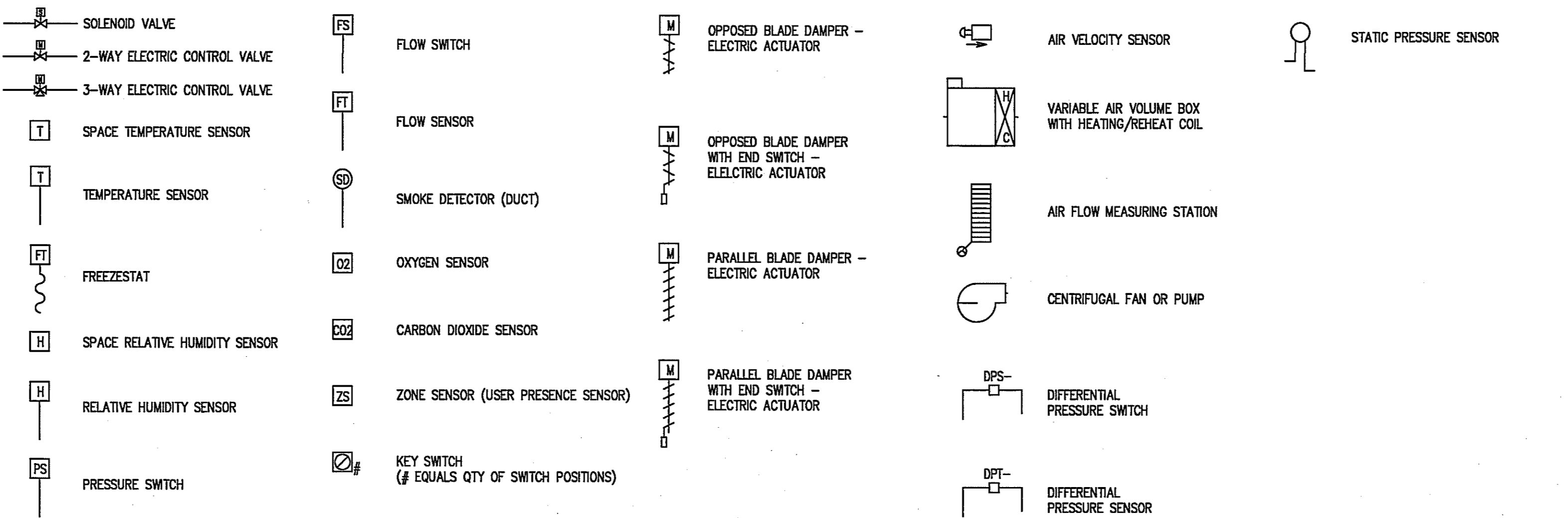
(NOTES APPLY TO ALL MECHANICAL & PLUMBING DRAWINGS.)
1. ALL DIMENSIONS SHOWN FOR DUCTWORK ARE NET INSIDE DIMENSIONS.
2. COORDINATE DIFFUSER & REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS.
3. THOUGH SOME OFFSETS & TRANSITIONS ARE SHOWN IN PIPING & SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM, IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING & SHEET METAL OFFSETS & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF & WITH THE WORK OF ALL TRADES TO PROVIDE COMPLETE & OPERABLE SYSTEMS WITHOUT INTERFERENCES.

DUCT STATIC PRESSURE CONSTRUCTION CLASS CHART (REFER TO NOTES)

Table with columns for DUCT SYSTEM, LOCATION (FROM, TO), and DUCT STATIC PRESSURE CLASS (IN. WG). Rows include OUTSIDE AIR, SUPPLY, RETURN, TOILET EXHAUST, and LABORATORY EXHAUST with various locations like AIR INTAKE, AHU/ERU, ERU, AHU, SUPPLY RISER, VOLUME CONTROL BOX, AIR OUTLET, etc.

NOTES
1. ALL SUPPLY DUCTWORK NOT INDICATED ABOVE SHALL BE CONSTRUCTED TO 4-INCH PRESSURE CLASS.
2. ALL RETURN/EXHAUST DUCTWORK NOT INDICATED ABOVE SHALL BE CONSTRUCTED TO NEGATIVE 4-INCH PRESSURE CLASS.

CONTROL SYMBOLS

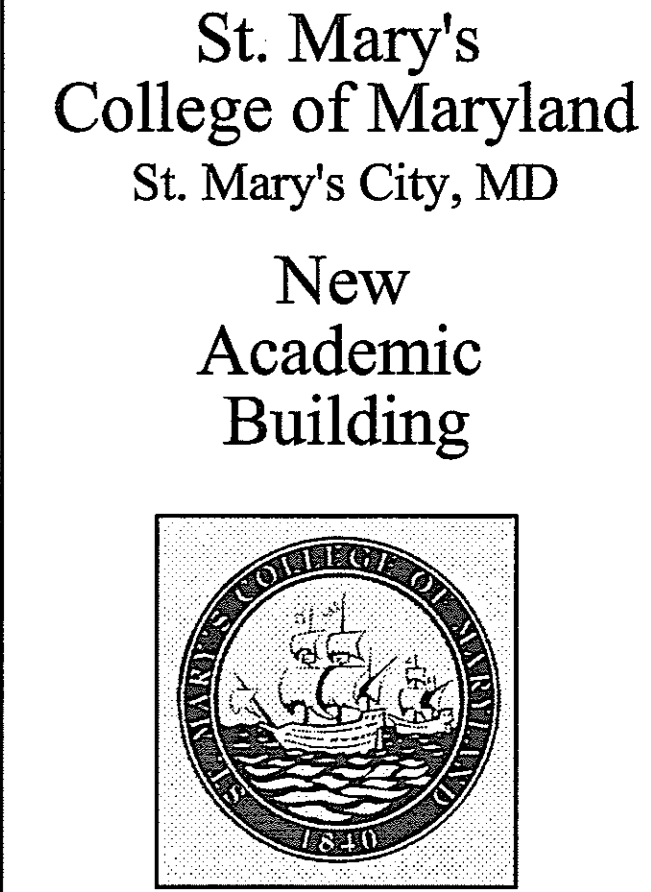


HVAC & PIPING LEGEND

Table showing HVAC & PIPING LEGEND with symbols for atmospheric vent, chilled water supply, heating hot water return, condensate drain, heating hot water supply, heating hot water return, low pressure steam, low pressure condensate return, pumped condensate, refrigerant liquid, refrigerant suction, general exhaust, fume hood exhaust, outside air, return/relief air, supply air, toilet exhaust.

PLUMBING & FIRE PROTECTION PIPING LEGEND

Table showing PLUMBING & FIRE PROTECTION PIPING LEGEND with symbols for fire line, sprinkler, domestic cold/hot water, greywater supply/return, plumbing vent, acid resistant vent/pump discharge, sanitary drain, storm drain, storm drain pump discharge, overflow drainage piping, acid resistant waste, laboratory compressed air, laboratory vacuum, nitrogen/argon gas, propane gas, foundation drainage, inert gas piping, non-potable cold water, fuel oil fill, fuel oil vent.



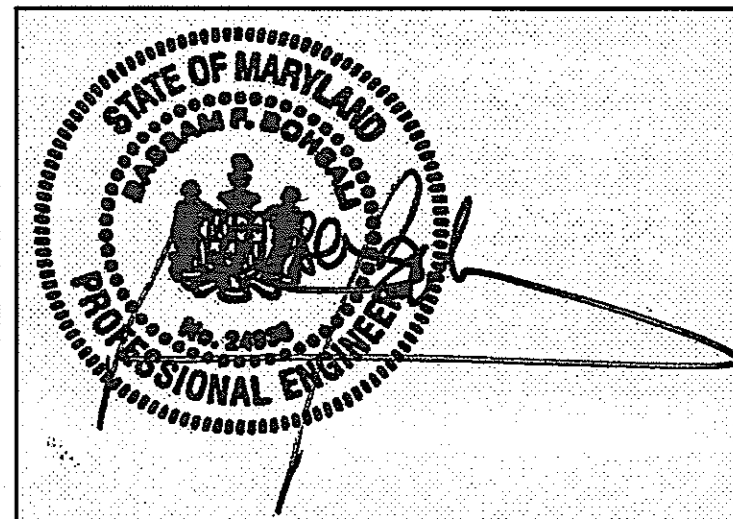
SmithGroup
SmithGroup Incorporated
1823 Eye Street NW
Suite 250
Washington, DC 20006
Tel: 202.942.2100
Fax: 202.974.4500
www.smithgroup.com

USING AGENCY APPROVAL

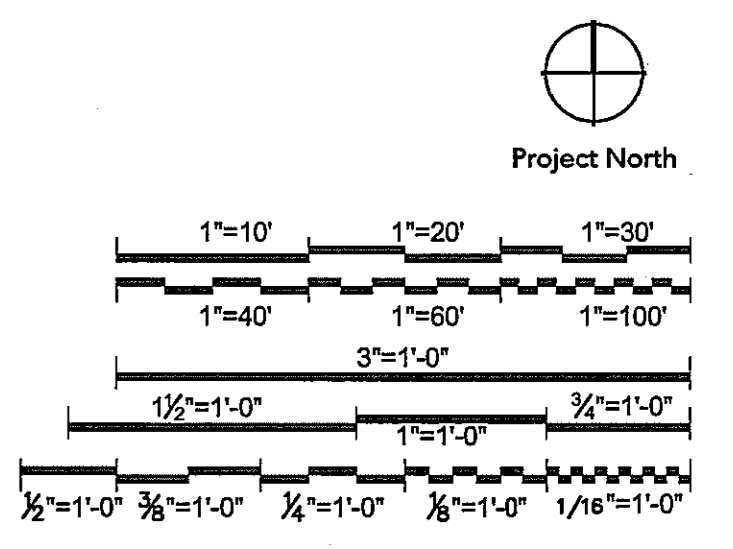
Form for agency approval with fields for NAME, TITLE, and DATE.

DEPT. OF GENERAL SERVICES APPROVAL

Table for DEPT. OF GENERAL SERVICES APPROVAL with columns for PROJECT MANAGER, DATE, CHIEF - PROJ. MGT. & DSGN., DATE, Issued for, Rev, Date, and ADDENDUM PB-10.



01/05/05
Graphic Scales DATE



ABBREVIATIONS, SYMBOLS & GENERAL NOTES

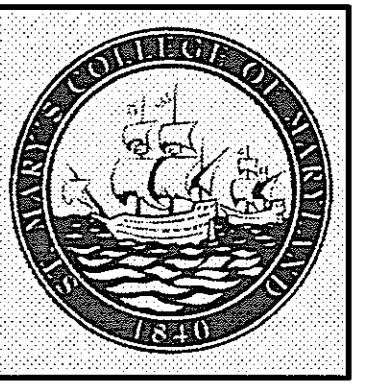
NO SCALE
Scale J-494-020-002 25379.000
DGS Project Number SG Project Number
Drawing Number P0.1

SHEET NOTES

- ALL PIPING BELOW GRADE SHALL HAVE A MINIMUM DIAMETER OF 2".
- ALL FOUNDATION DRAINAGE PIPING SHALL BE 6" IN DIAMETER, SLOPED AT 0.1%.

St. Mary's
College of Maryland
St. Mary's City, MD

New
Academic
Building



SmithGroup

SmithGroup Incorporated
1825 Eye Street NW
Suite 250
Washington, DC 20006
E 202.842.2100
E 202.874.4500
www.smithgroup.com

USING AGENCY
APPROVAL

KEY NOTES

NAME _____
TITLE _____ DATE _____

DEPT. OF GENERAL
SERVICES APPROVAL

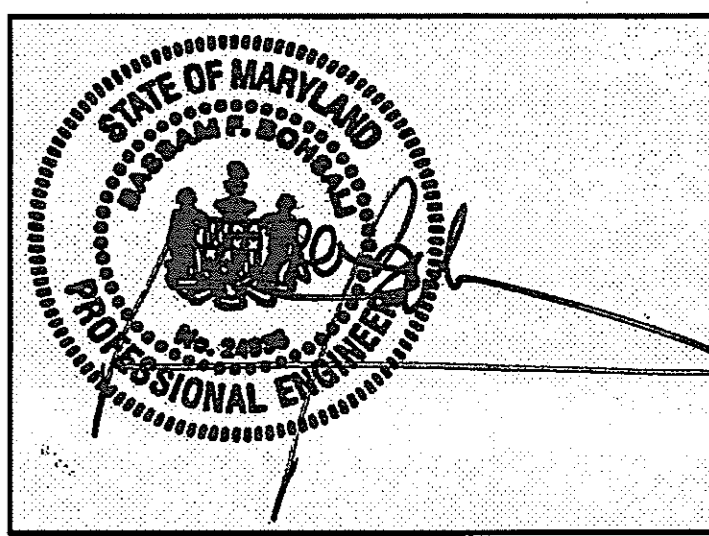
PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev Date _____

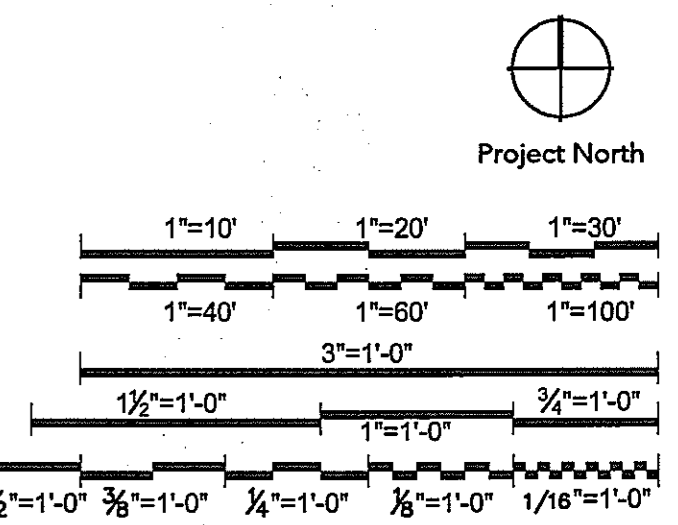
Issued for	Rev	Date

Seals and Signatures



01/05/05

DATE



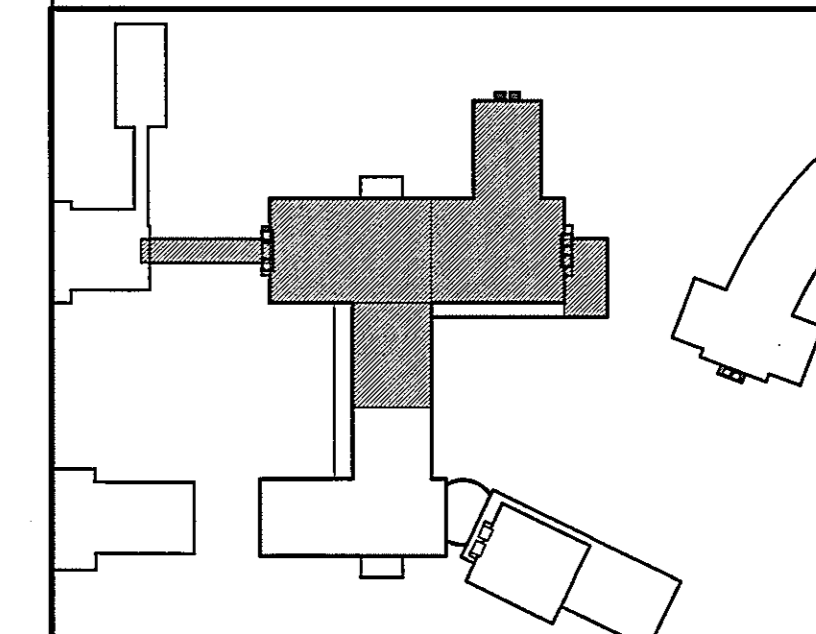
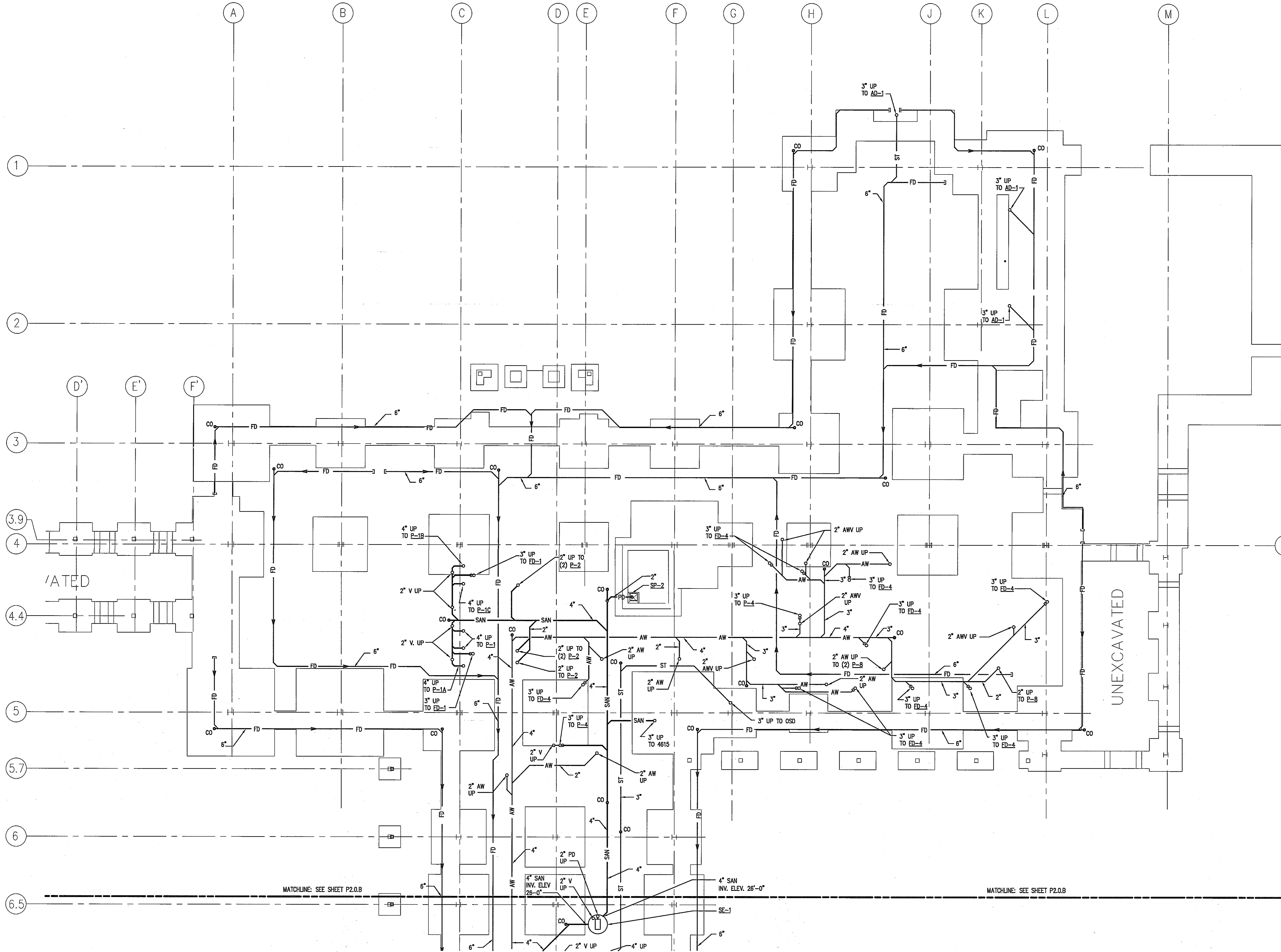
Drawing Title
**PLUMBING
UNDERSLAB
PLAN NORTH**

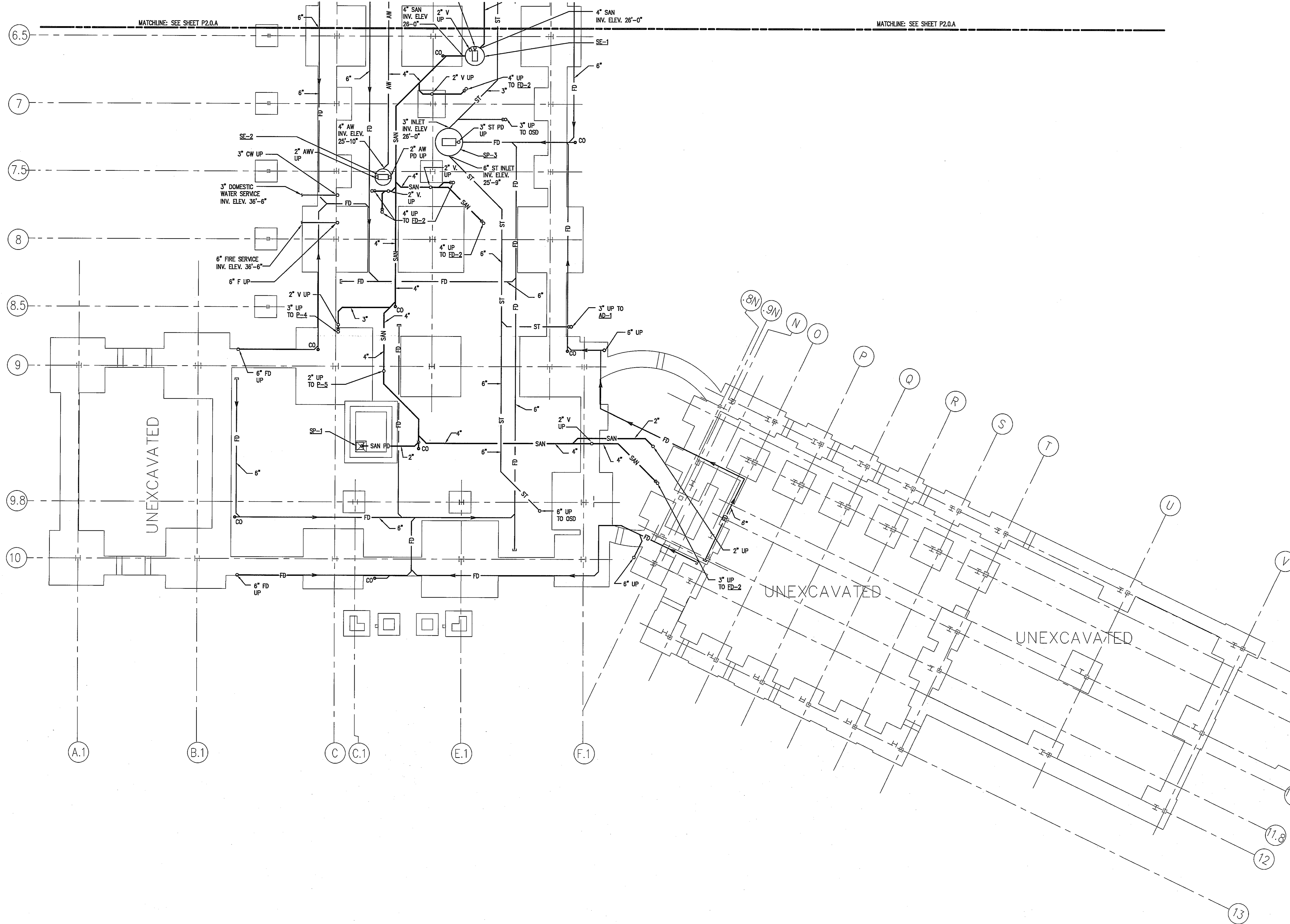
1/8"=1'-0"

Scale
J-494-020-002 25379.000
DGS Project Number SG Project Number

P2.0.A

Drawing Number



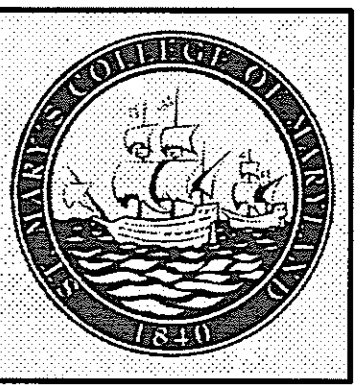


SHEET NOTES

1. ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M0.1.
2. ALL PIPING BELOW GRADE SHALL HAVE A MINIMUM DIAMETER OF 2".
3. ALL FOUNDATION DRAINAGE PIPING SHALL BE 6" WITH AN INVERT ELEVATION AS INDICATED BY OTHERS.

St. Mary's
College of Maryland
St. Mary's City, MD

New
Academic
Building



SmithGroup

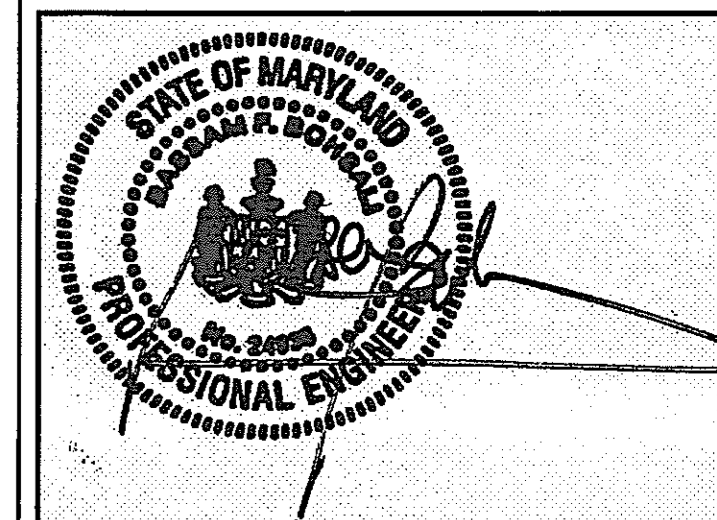
SmithGroup Incorporated
1825 Eye Street NW
Suite 230
Washington, DC 20006
T 202.842.2100
F 202.974.4300
www.smithgroup.com

**USING AGENCY
APPROVAL**

KEY NOTES

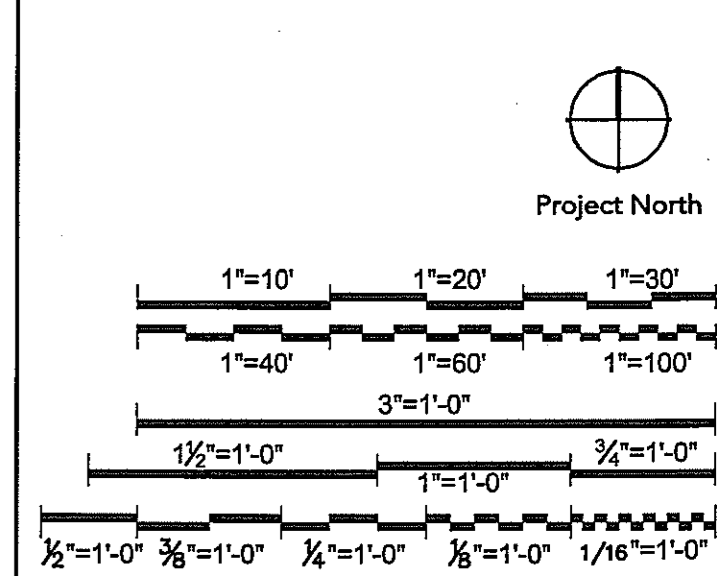
NAME	DATE
TITLE	DATE
DEPT. OF GENERAL SERVICES APPROVAL	
PROJECT MANAGER	DATE
CHIEF - PROJ. MGT. & DSGN.	DATE
Issued for	Rev Date

Seals and Signatures



01/05/05

DATE



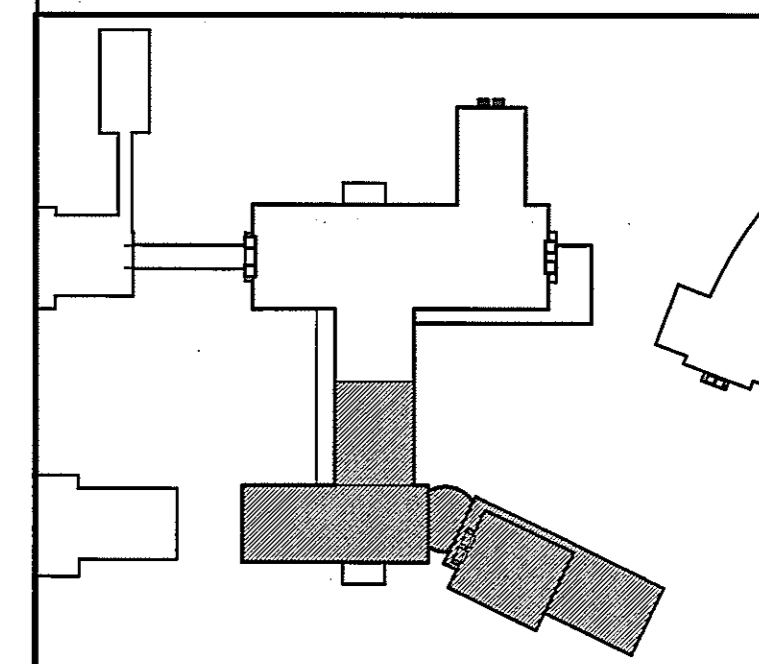
**PLUMBING
UNDERSLAB
PLAN SOUTH**

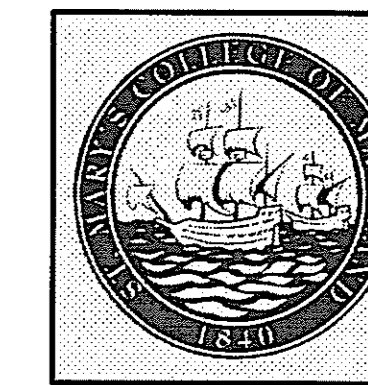
1/8"=1'-0"

J-494-020-002 25379.000
DGS Project Number SG Project Number

P2.0.B

Drawing Number





USING AGENCY APPROVAL

NAME _____
TITLE _____ DATE _____

DEPT. OF GENERAL SERVICES APPROVAL

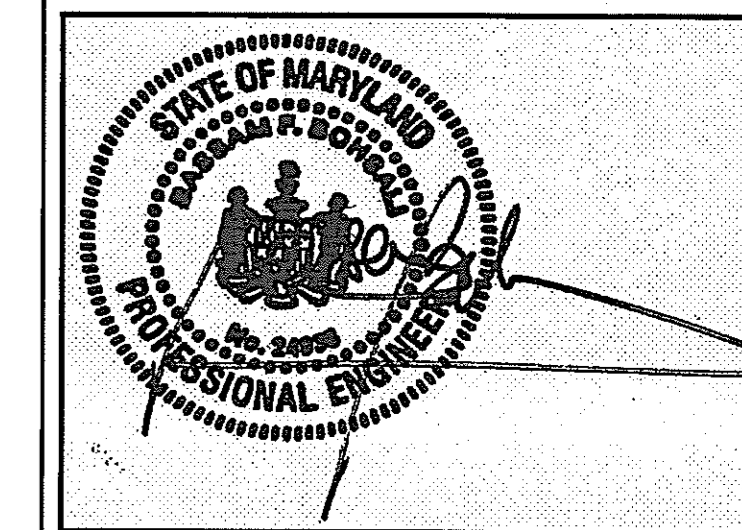
PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev Date _____

Issued for	Rev	Date

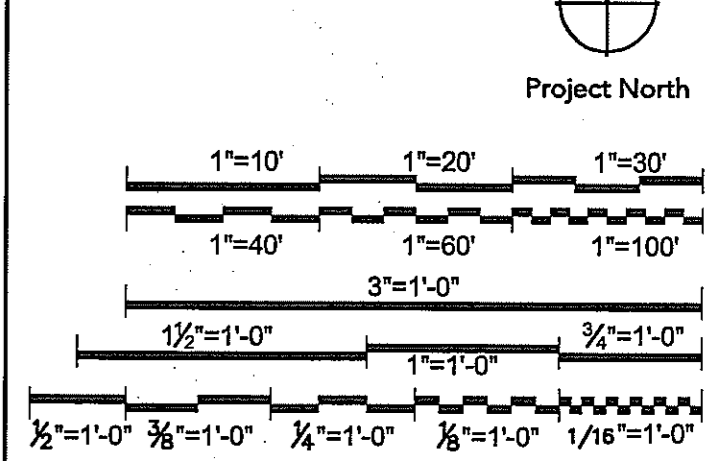
Seals and Signatures



01/05/05

Graphic Scales _____ DATE _____

Project North



Drawing Title

PLUMBING BASEMENT PLAN SOUTH

1/8" = 1'-0"

Scale J-494-020-002 25379.000
DGS Project Number SG Project Number

P2.1B

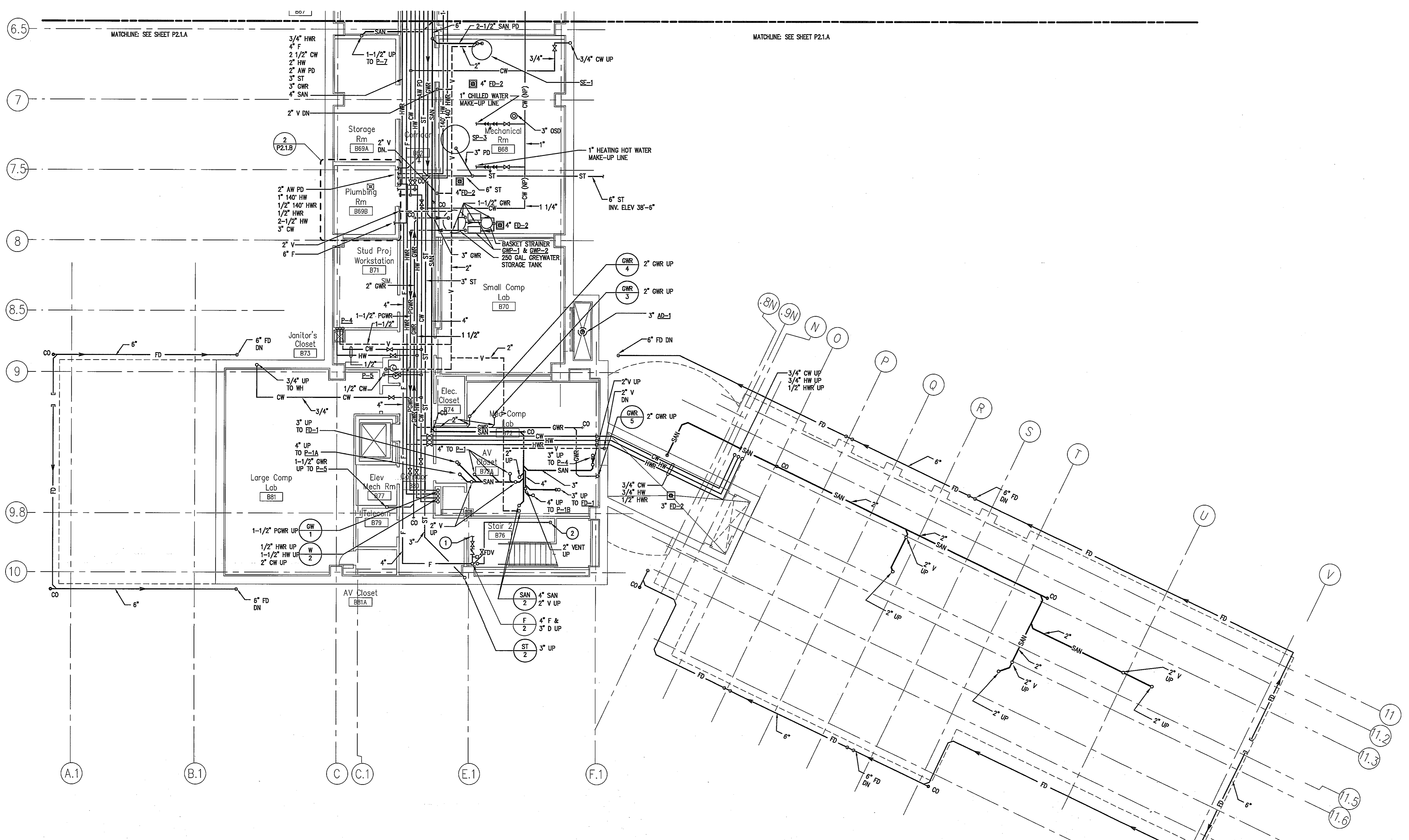
Drawing Number

SHEET NOTES

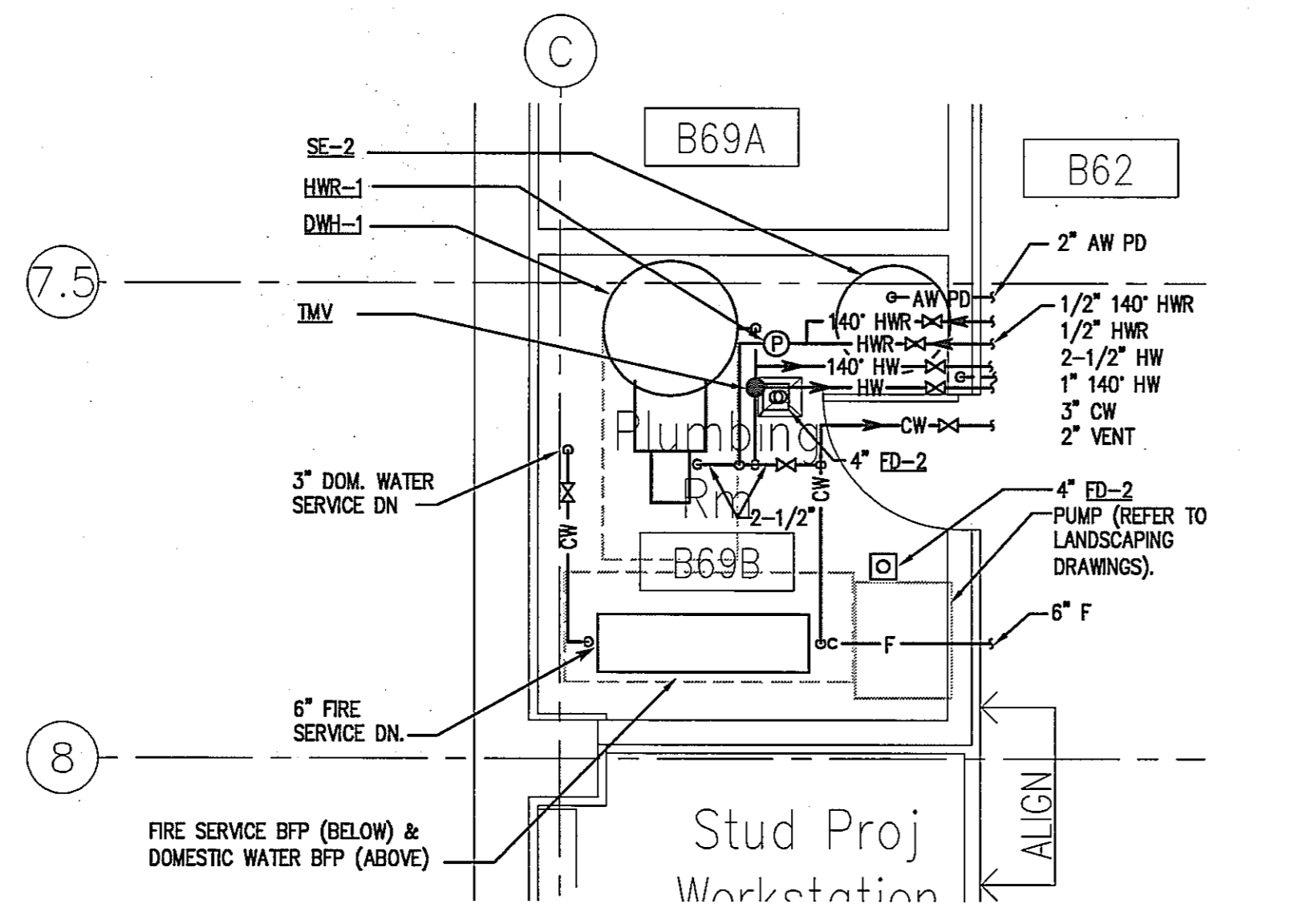
1. ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M0.1.
2. LIGHT HAZARD OCCUPANCY IN ALL ROOMS UNLESS OTHERWISE INDICATED.
3. ORDINARY HAZARD GROUP I OCCUPANCY IN THE FOLLOWING ROOMS:
A. MECHANICAL ROOM (ROOM B66)
B. ELEVATOR MACHINE ROOM (ROOM B77)
C. STORAGE ROOM (ROOM B69)
D. ELECTRICAL CLOSET (ROOM B74)
E. AV CLOSET (ROOM B72A)
F. TELECOM (ROOM B78)
4. PROVIDE SPRINKLERS AT BOTTOM OF ELEVATOR SHAFT.
5. FIRE DEPARTMENT VALVES (FDV) SHALL BE MOUNTED 4'-0" A.F.F.
6. FOUNDATION DRAINAGE PIPING SHOWN ON THIS SHEET IS FOR SLAB ON GRADE FOUNDATIONS. PIPING SHALL TIE INTO FOUNDATION DRAINAGE PIPING AT LOWER LEVEL AND SLOPE WITH FOUNDATION WALL AS REQUIRED. COORDINATE WITH STRUCTURAL DRAWINGS.

KEY NOTES

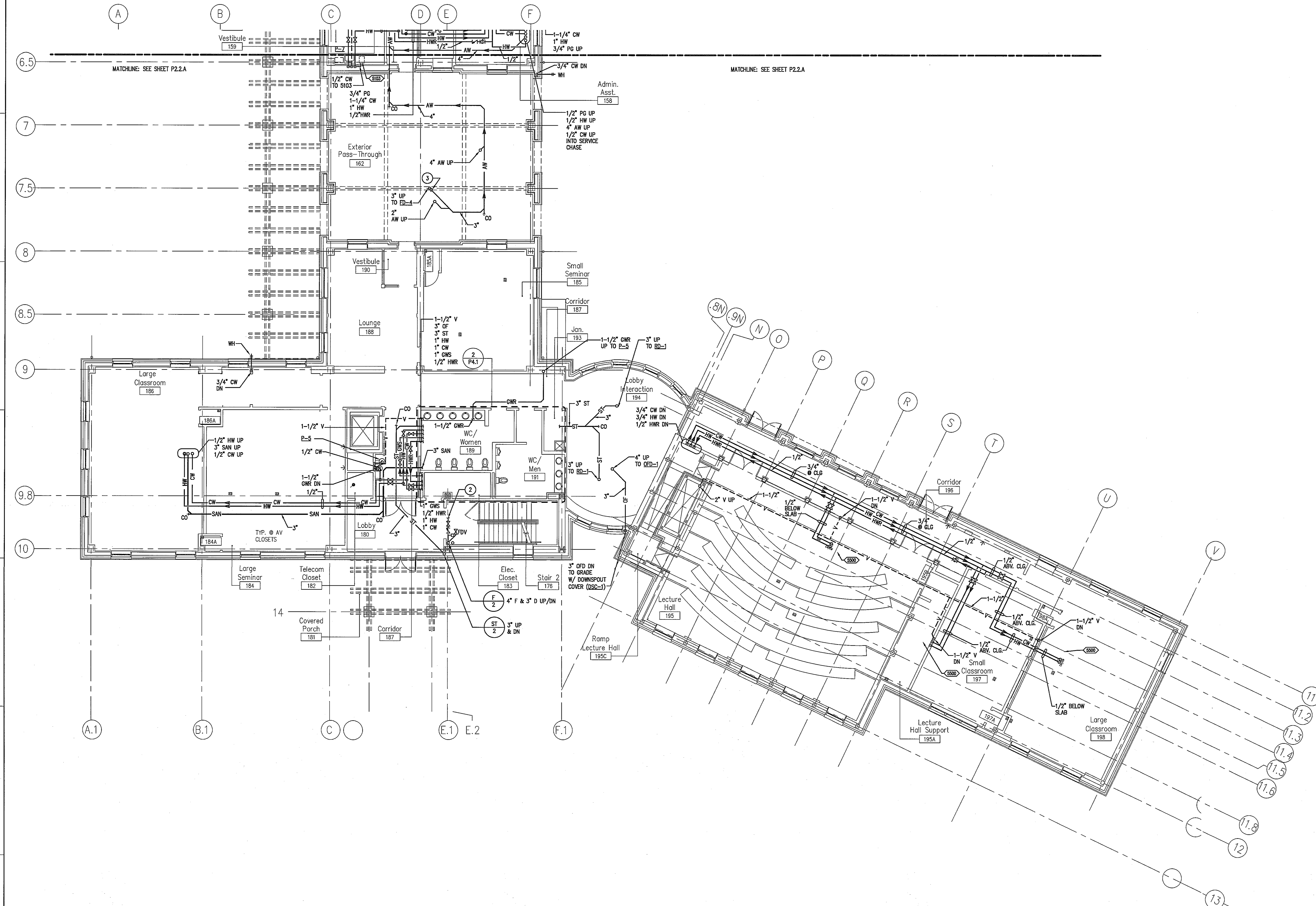
- 1 SPRINKLER SYSTEM CONNECTION FOR BASEMENT.
- 2 3" D FROM SPRINKLER TEST CONNECTION TO 6" OSD PIPE. EXTEND 6" PIPE TO 4'-0" A.F.F. EXTEND 2" D INTO 6" OSD.



1 PLUMBING BASEMENT PLAN SOUTH
SCALE: 1/8"=1'-0"



2 ENLARGED PLUMBING ROOM B69B
SCALE: 1/4"=1'-0"



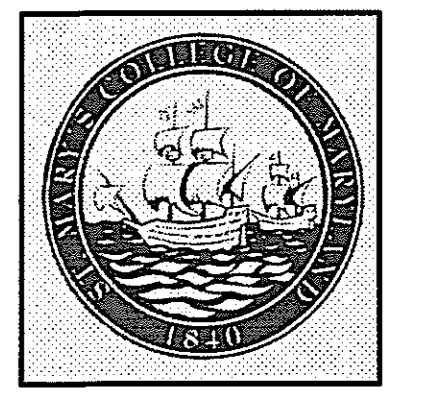
SHEET NOTES

1. ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M0.1.
2. LIGHT HAZARD OCCUPANCY IN ALL ROOMS UNLESS OTHERWISE INDICATED.
3. ORDINARY HAZARD GROUP 1 OCCUPANCY IN THE FOLLOWING ROOMS:
A. ELECTRICAL CLOSET (ROOM 183)
B. TELECOM (ROOM 182)
4. PROVIDE DRY TYPE SPRINKLER HEADS FOR EXTERIOR PASS THROUGH (ROOM 162). HEAT TRACE SPRINKLER PIPING ABOVE EXTERIOR PASS THROUGH (ROOM 162).
5. STORM AND OVERFLOW DRAINAGE PIPING SHALL BE WITHIN COLUMN ENCLOSURE AND/OR CAVITY PROVIDED BY ARCHITECT. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
6. HEAT TRACE ANY DOMESTIC WATER PIPING LOCATED IN THE PLENUM ABOVE THE EXTERIOR PASS THROUGH (ROOM 162).

KEY NOTES

- 1 1" HW AND 1" CW UP TO INLET OF THERMOSTATIC MIXING VALVE FOR EMERGENCY SHOWER/EYEWASH.
- 2 SPRINKLER LINE FOR FLOOR.
- 3 EHT-2 ON PD-4 TRAP. REFER TO M7.2 FOR ELECTRIC HEAT TRACE SCHEDULE.

St. Mary's College of Maryland
St. Mary's City, MD
New Academic Building



SmithGroup
SmithGroup Incorporated
1825 Eye Street NW
Suite 250
Washington, DC 20006
t 202.842.2100
e 202.274.4500
www.smithgroup.com

USING AGENCY APPROVAL

NAME _____
TITLE _____ DATE _____

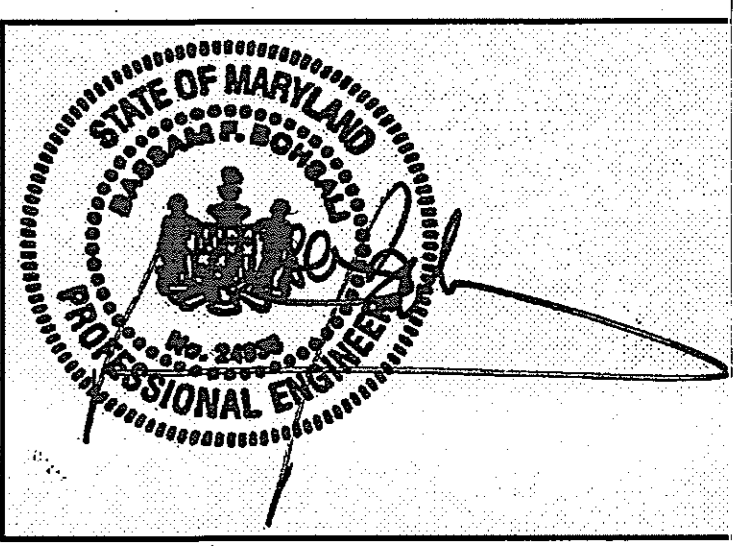
DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

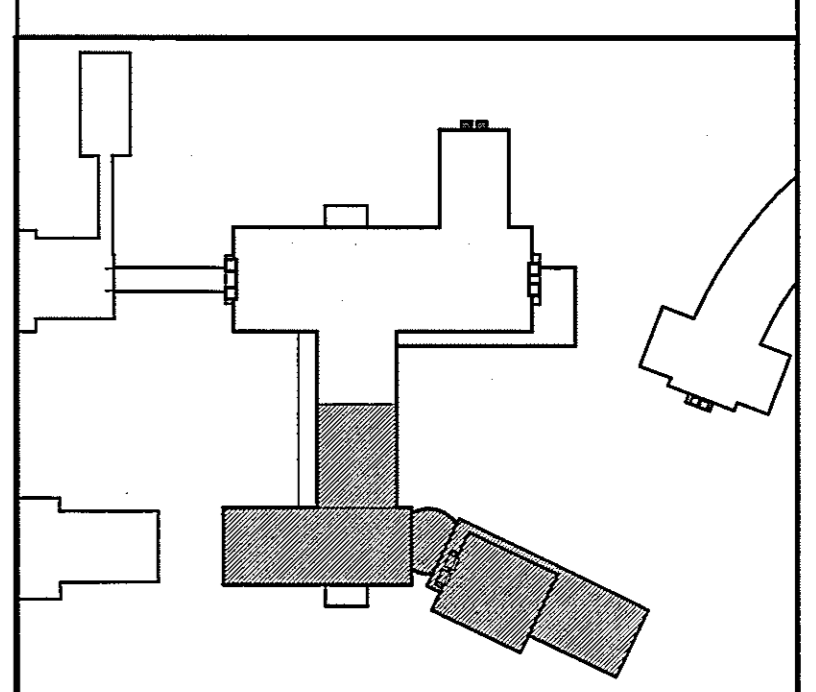
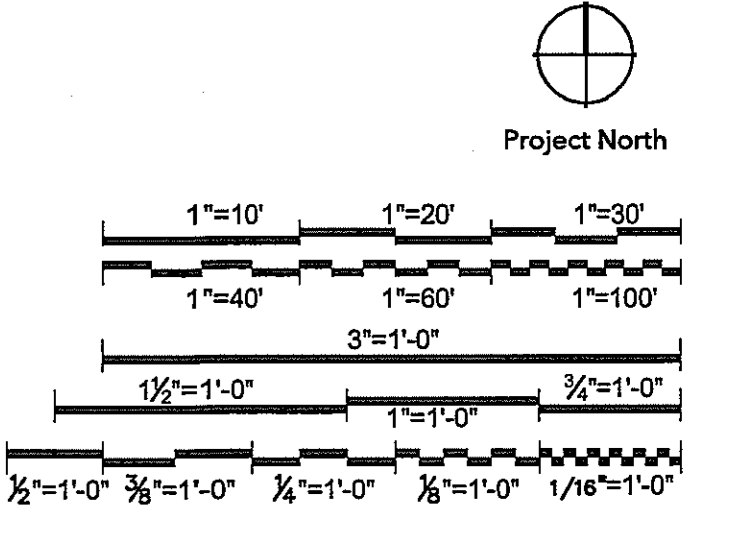
Issued for	Rev	Date

Seals and Signatures



01/05/05
DATE

Graphic Scales



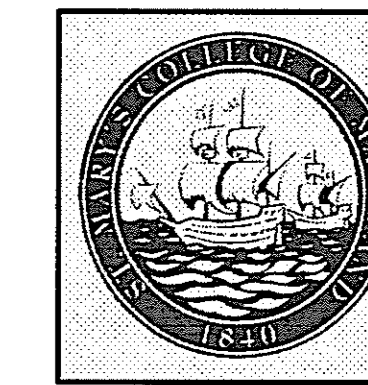
Drawing Title
**PLUMBING
FIRST FLOOR
PLAN SOUTH**

1/8"=1'-0"

Scale
J-494-020-002 25379.000
DGS Project Number SG Project Number

P2.2.B

Drawing Number



SmithGroup

SmithGroup Incorporated
1825 Eye Street NW
Suite 250
Washington, DC 20006
E 202.842.2100
E 202.874.4500
www.smithgroup.com

USING AGENCY
APPROVAL

NAME _____
TITLE _____ DATE _____

DEPT. OF GENERAL
SERVICES APPROVAL

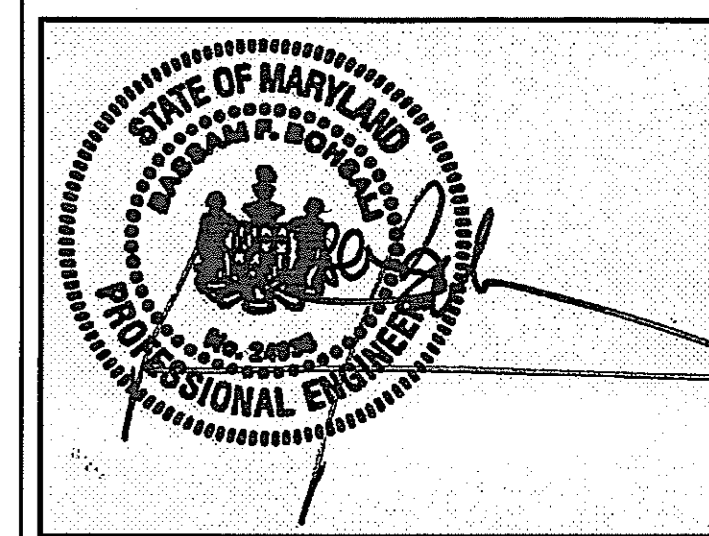
PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev. Date _____

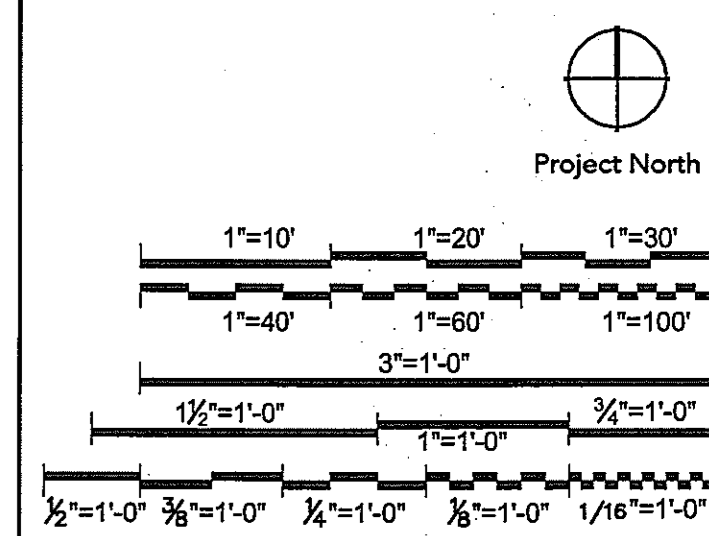
APPENDIX PB-10 05/19/05

Seals and Signatures _____



01/05/05
DATE

Graphic Scales



PLUMBING
SECOND FLOOR
PLAN NORTH

1/8"=1'-0"

Scale

J-494-020-002 25379.000
DGS Project Number SG Project Number

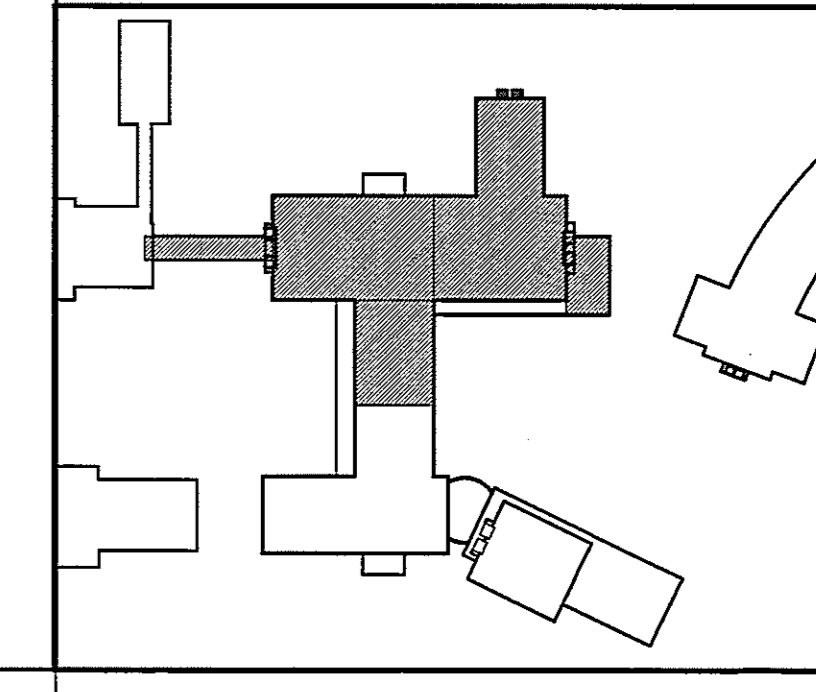
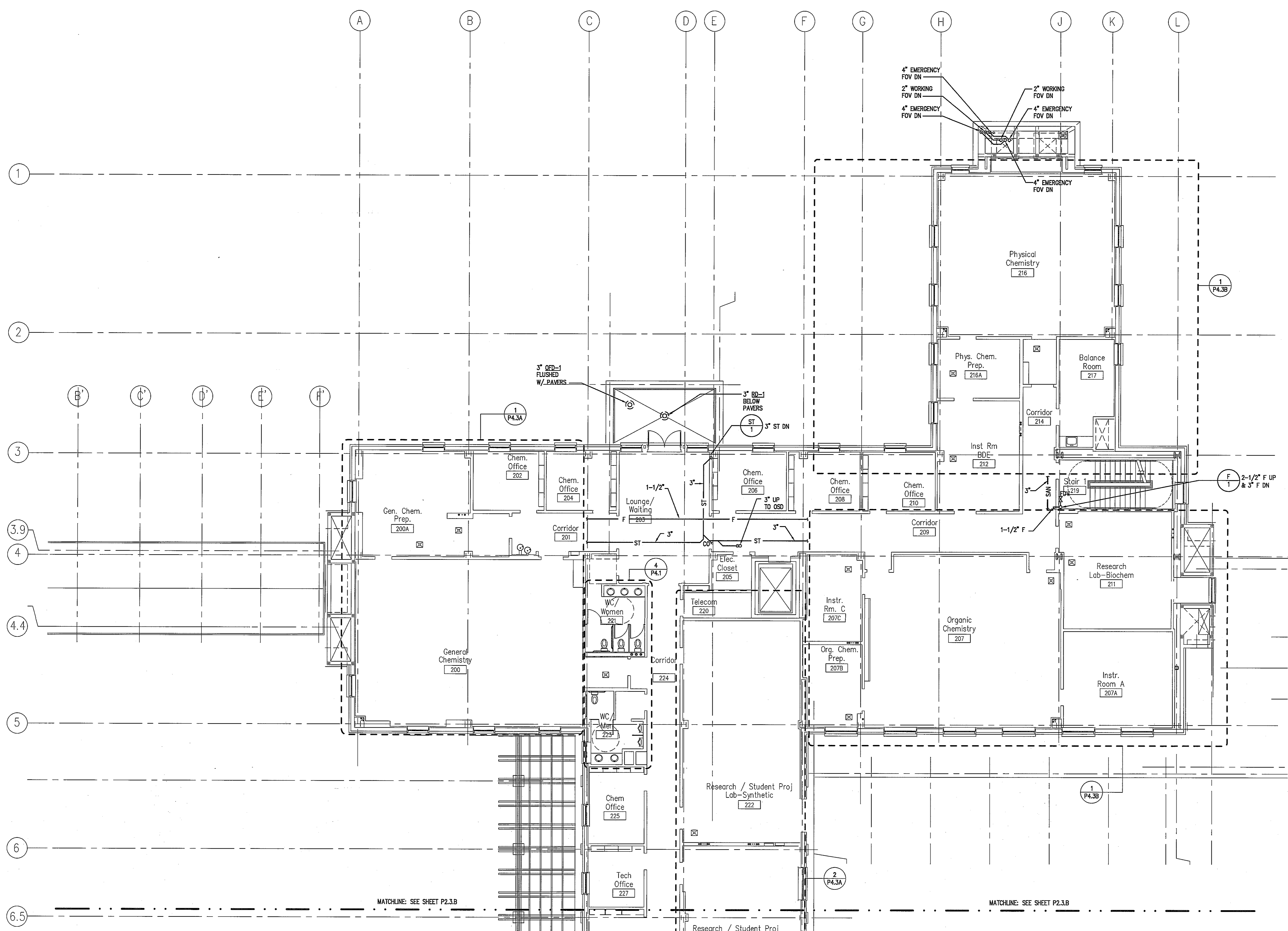
P2.3.A

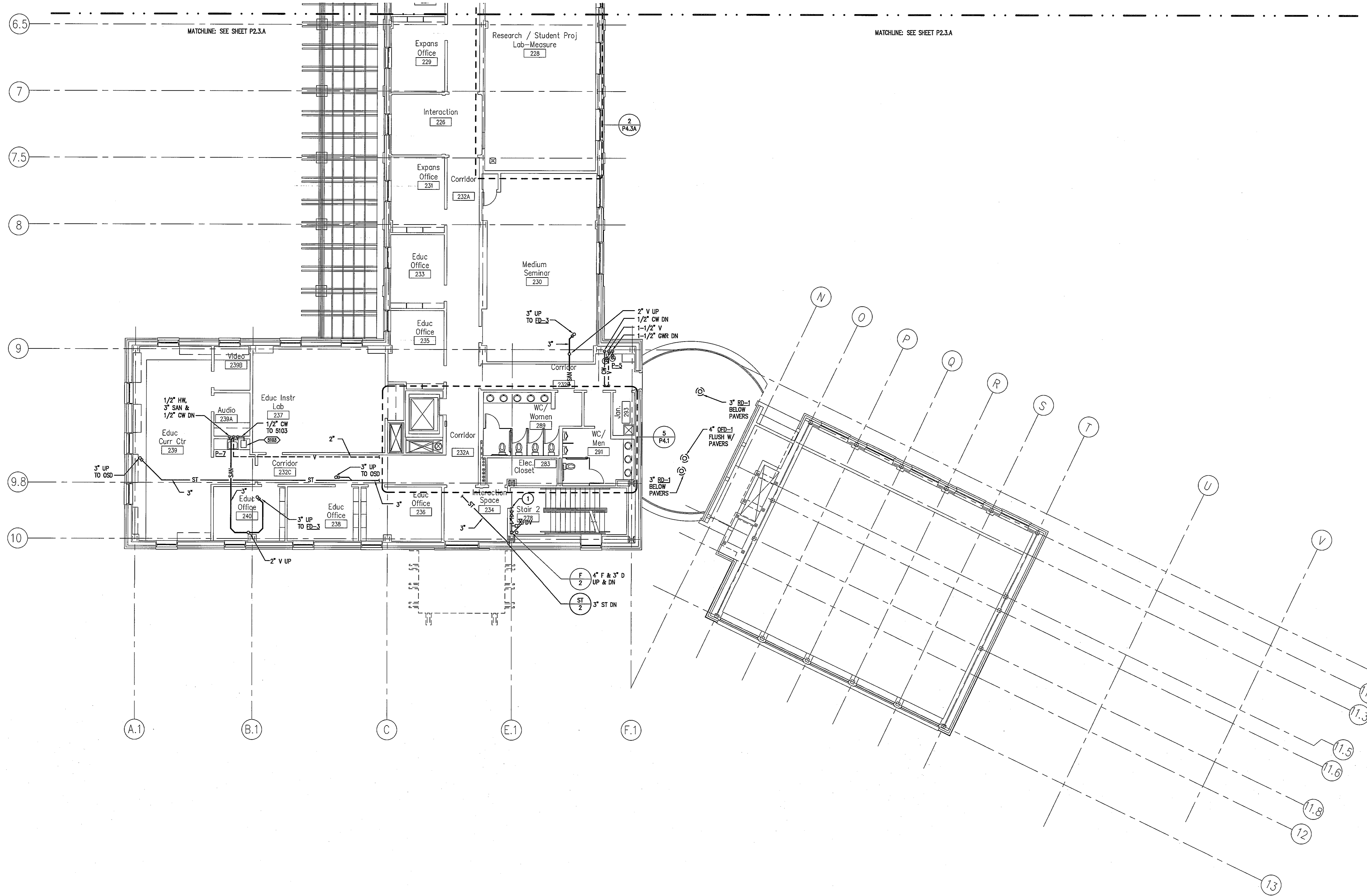
Drawing Number _____

SHEET NOTES

1. ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M0.1.
2. LIGHT HAZARD OCCUPANCY IN ALL ROOMS UNLESS OTHERWISE INDICATED.
3. ORDINARY HAZARD GROUP I OCCUPANCY IN THE FOLLOWING ROOMS:
A. ELECTRICAL CLOSET (ROOM 205)
B. TELECOM (ROOM 220)
4. ORDINARY HAZARD GROUP II OCCUPANCY WITH PREACTION SUPPRESSION IN INSTR. ROOM A (ROOM 207A, 222). PREACTION SYSTEM CABINET LOCATED IN PENTHOUSE/ATTIC.

KEY NOTES





SHEET NOTES

1. ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING MO.1.
2. LIGHT HAZARD OCCUPANCY IN ALL ROOMS UNLESS OTHERWISE INDICATED.
3. ORDINARY HAZARD GROUP 1 OCCUPANCY IN THE ELECTRICAL CLOSET (ROOM 283).

KEY NOTES

- 1 SPRINKLER SYSTEM CONNECTION FOR SECOND FLOOR.

St. Mary's College of Maryland
St. Mary's City, MD

New Academic Building

SmithGroup
SmithGroup Incorporated
1825 Eye Street NW
Suite 220
Washington, DC 20006
E 202.842.2100
F 202.974.4500
www.smithgroup.com

USING AGENCY APPROVAL

NAME _____ DATE _____

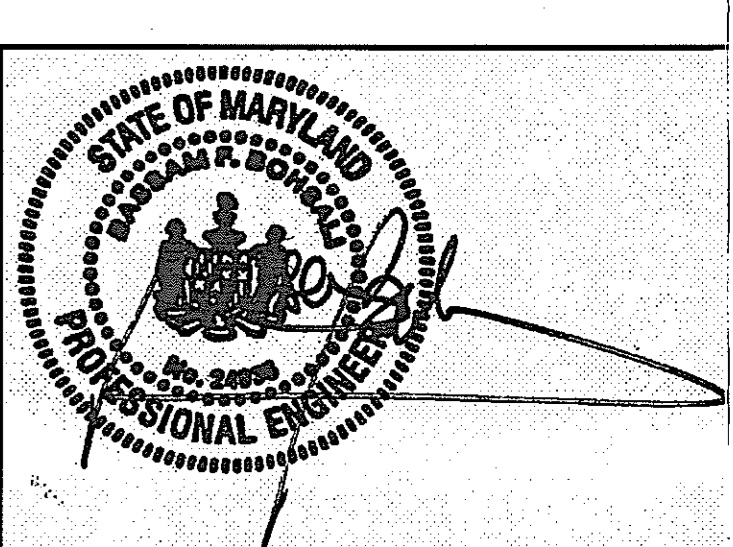
TITLE _____

DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

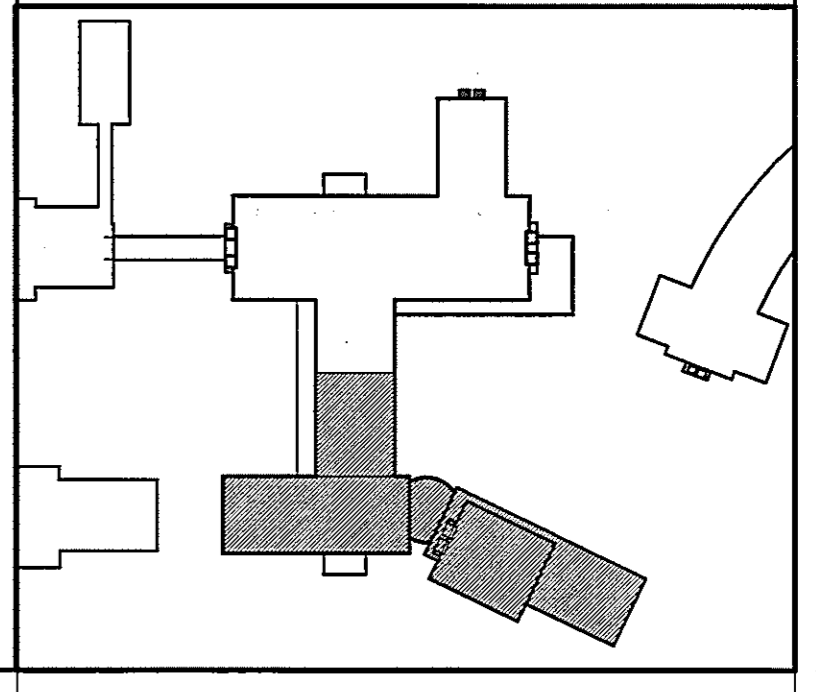
Issued for	Rev	Date



01/05/05
DATE

Graphic Scales

Project North



PLUMBING SECOND FLOOR PLAN SOUTH

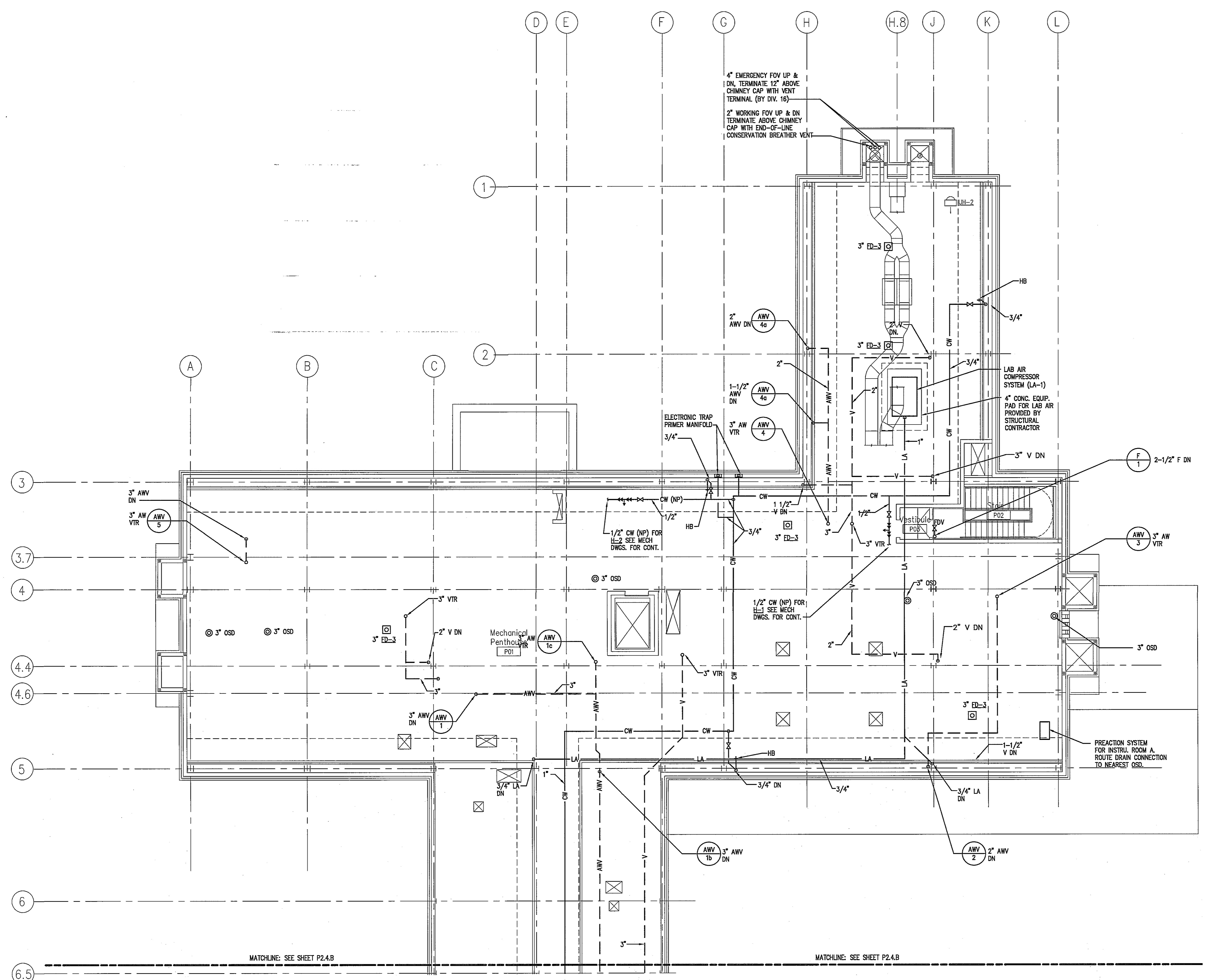
1/8"=1'-0"

Scale

J-494-020-002 25379.000
DGS Project Number SG Project Number

P2.3.B

Drawing Number



MATCHLINE: SEE SHEET P2.4.B

MATCHLINE: SEE SHEET P2.4.B

- ### SHEET NOTES
- ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M0.1.
 - ORDINARY HAZARD GROUP I OCCUPANCY IN THE PENTHOUSE MECHANICAL ROOM.
 - MINIMUM SIZE OF VENT THROUGH ROOF TO BE 3\"/>

KEY NOTES

NAME _____ DATE _____

TITLE _____ DATE _____

DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____


CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for	Rev	Date

Seals and Signatures

St. Mary's College of Maryland
 St. Mary's City, MD

New Academic Building



SmithGroup
 SmithGroup Incorporated
 1825 Eye Street, N.W.
 Suite 250
 Washington, DC 20006
 E 202.242.2100
 F 202.974.4500
 www.smithgroup.com

USING AGENCY APPROVAL

NAME _____ DATE _____

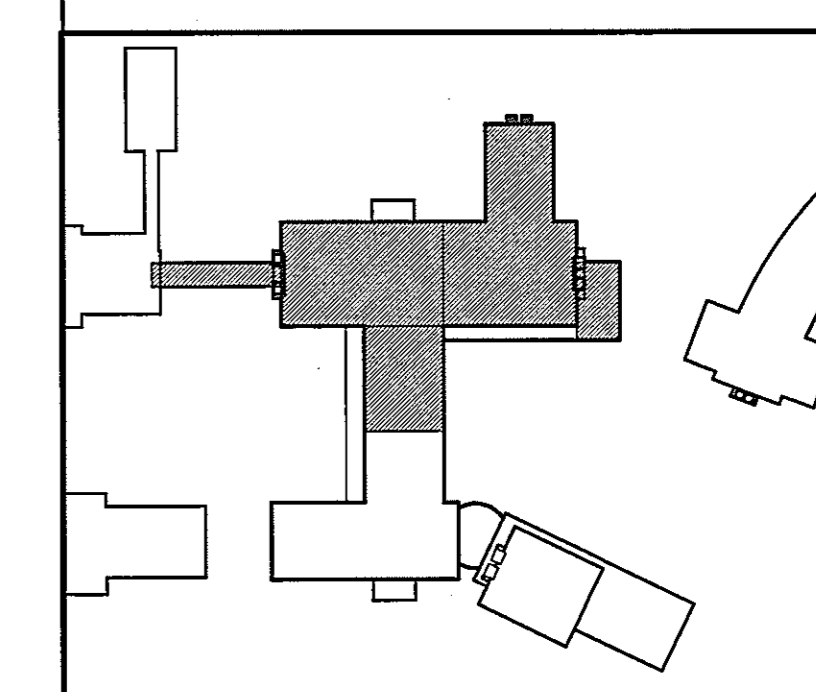
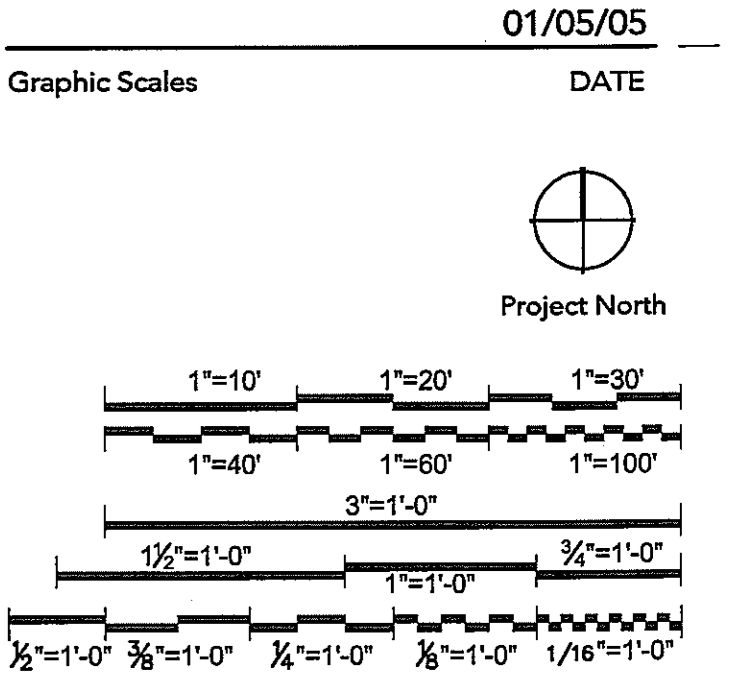
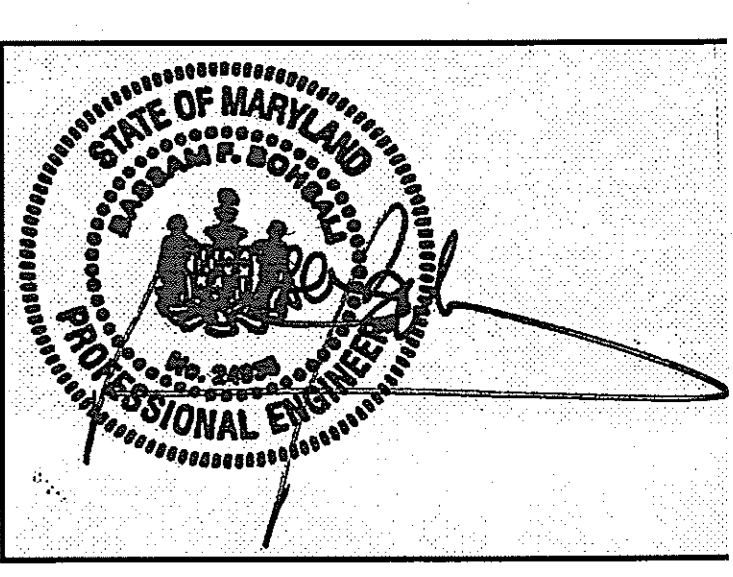
TITLE _____ DATE _____

DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev _____ Date _____



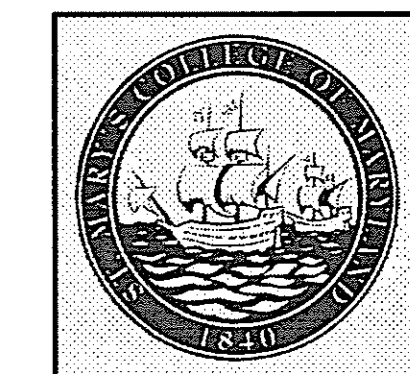
Drawing Title
PLUMBING PENTHOUSE PLAN NORTH

Scale
 1/8" = 1'-0"

Scale
 J-494-020-002 25379.000
 DGS Project Number SG Project Number

P2.4.A

Drawing Number



SmithGroup
SmithGroup Incorporated
1825 Eye Street NW
Suite 250
Washington, DC 20006
t: 202.842.2100
e: 202.274.4500
www.smithgroup.com

USING AGENCY
APPROVAL

NAME _____
TITLE _____ DATE _____

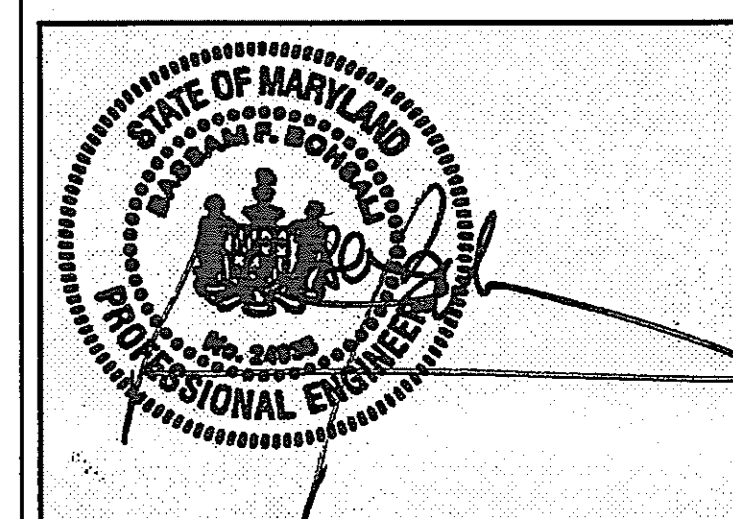
DEPT. OF GENERAL
SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

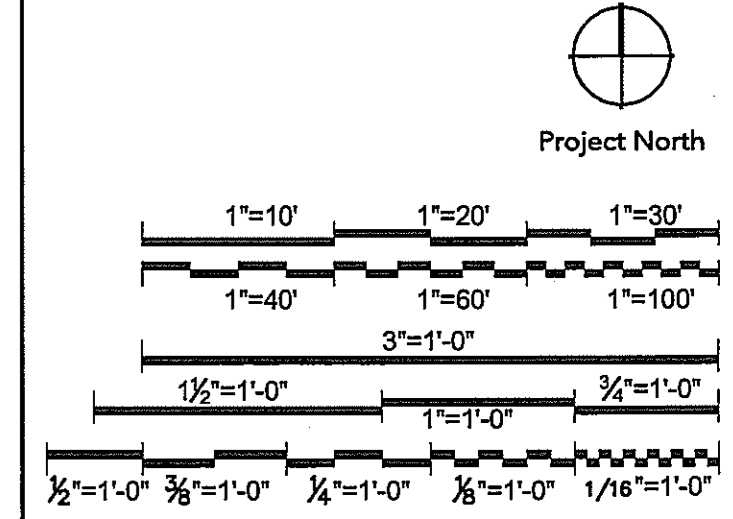
Issued for	Rev	Date

Seals and Signatures



01/05/05
DATE

Graphic Scales



Drawing Title

**PLUMBING
PENTHOUSE
PLAN SOUTH**

1/8"=1'-0"

J-494-020-002 25379.000
DGS Project Number SG Project Number

P2.4.B

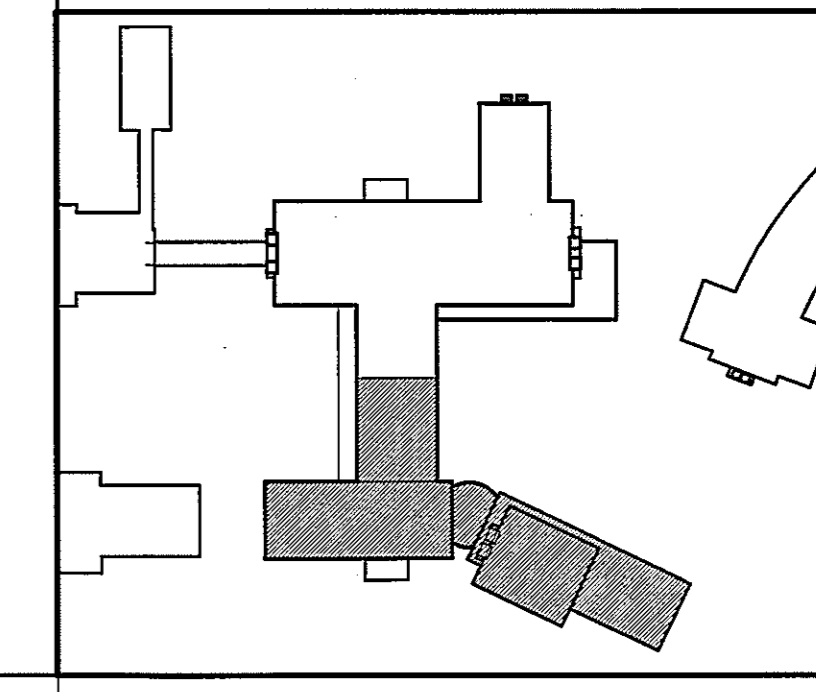
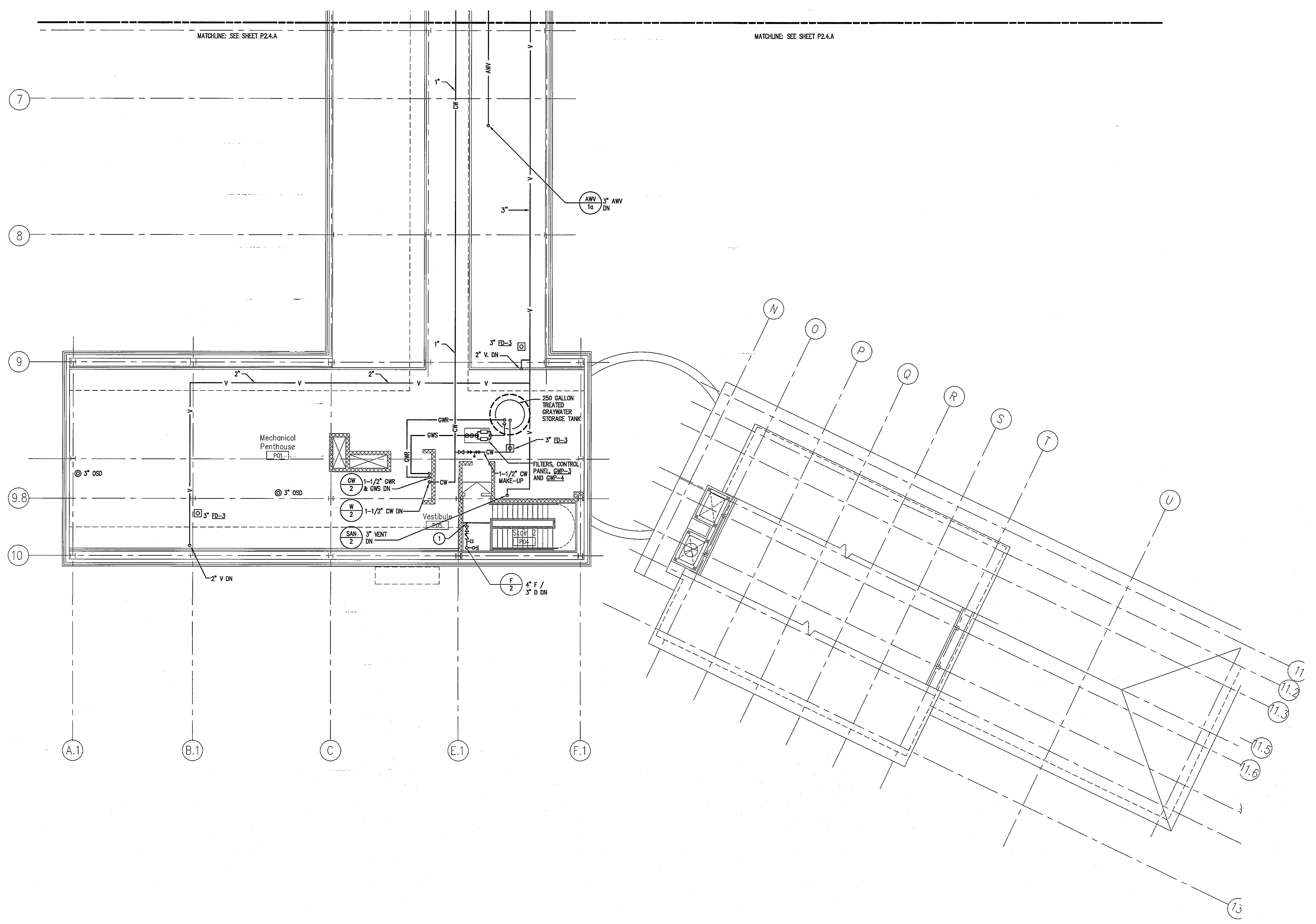
Drawing Number

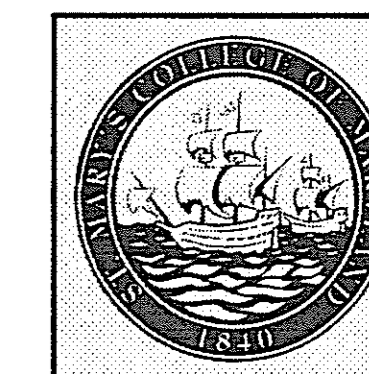
SHEET NOTES

1. ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M0.1.
2. ORDINARY HAZARD GROUP I OCCUPANCY IN THE PENTHOUSE MECHANICAL ROOM.

KEY NOTES

- 1 SPRINKLER CONNECTION FOR PENTHOUSE/ATTIC.





USING AGENCY
APPROVAL

DEPT. OF GENERAL
SERVICES APPROVAL

PROJECT MANAGER DATE

CHIEF - PROJ. MGT. & DSGN. DATE

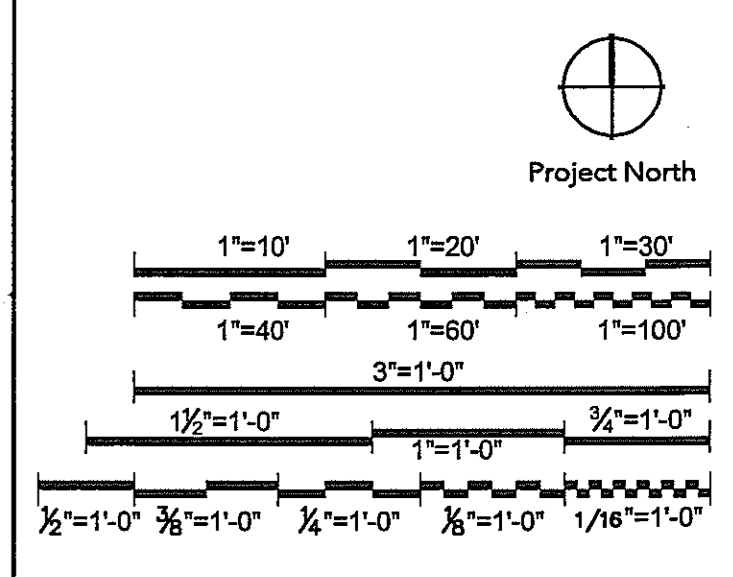
Issued for	Rev	Date

Seals and Signatures



01/05/05
DATE

Graphic Scales
DATE



Drawing Title
**PLUMBING
LABORATORY PLAN
BASEMENT FLOOR
NORTH**
1/4"=1'-0"

Scale
J-494-020-002 25379.000
DGS Project Number SG Project Number
P4.2

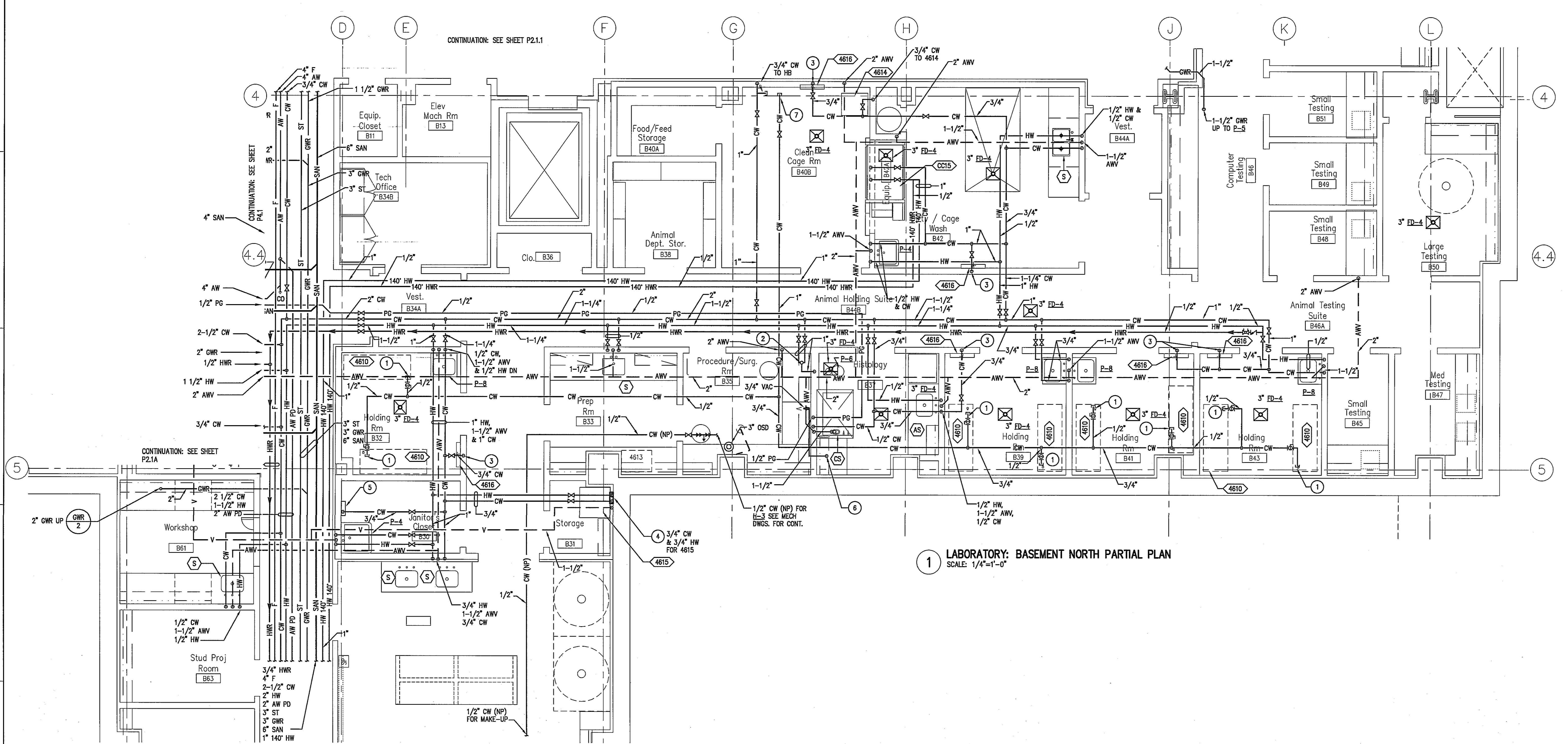
Drawing Number

SHEET NOTES

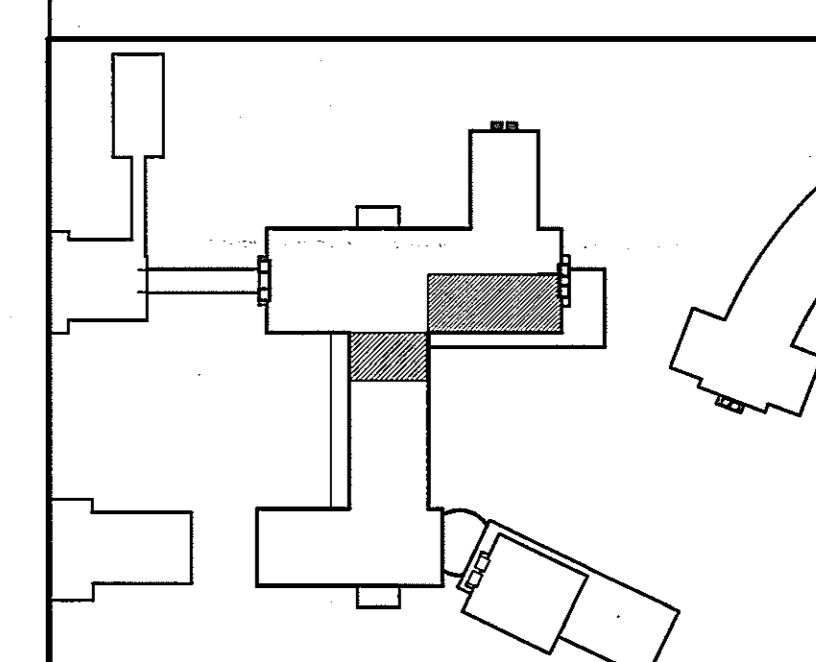
1. ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M0.1.
2. TAP OFF OF THE WATER SUPPLY LINES FOR THE LABORATORY SINKS TO PROVIDE 1/2" HOT AND COLD WATER TO THE EMERGENCY TEMPERING VALVE FOR EACH CASEWORK MOUNTED LABORATORY SINK.
3. VACUUM SERVICE TO FIXTURES PROVIDED FROM VACUUM PUMP CABINET (TAG: C003). ROUTE VAC PIPING FROM PUMP (TAG: 1010) TO FIXTURES WITHIN THE CASEWORK CHASE PROVIDED. REFER TO ARCHITECTURAL "AQ" DRAWING SERIES FOR DETAILS OF CASEWORK.

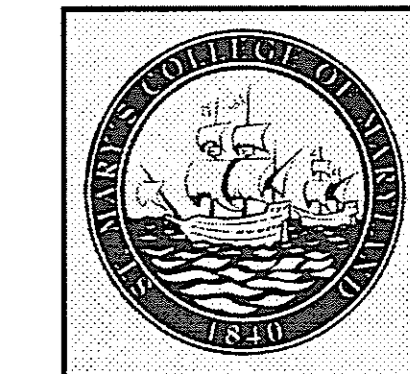
KEY NOTES

- 1 1/2" CW CAPPED AT CEILING W/ SHUTOFF VALVE FOR FUTURE CONNECTION TO STATIC CAGES, (TAG: 4610).
- EMERGENCY SHOWER/EYEWASH THERMOSTATIC MIXING VALVE.
- 3/4" CW TO HB AT HOSE AND HOSE REEL STATIONS (TAG: 4616).
- LAUNDRY BOX OULET.
- ELECTRONIC TRAP PRIMER TO SERVE 10 FLOOR DRAIN TRAPS WITHIN THE LABORATORY SPACES. ONE 1/2" CW LINE TO EACH TRAP. MOUNTING HEIGHT OF PRIMING MANIFOLD SHALL BE PER MANUFACTURER'S RECOMMENDATION.
- 3/4" FROM VACUUM PUMP CABINET (TAG: C003) TO OULET IN LABORATORY CASEWORK.



1 LABORATORY: BASEMENT NORTH PARTIAL PLAN
SCALE: 1/4"=1'-0"





SmithGroup
SmithGroup Incorporated
1825 Eye Street, NW
Suite 250
Washington, DC 20006
E 202.842.2100
E 202.874.6590
www.smithgroup.com

USING AGENCY
APPROVAL

NAME _____
TITLE _____ DATE _____

DEPT. OF GENERAL
SERVICES APPROVAL

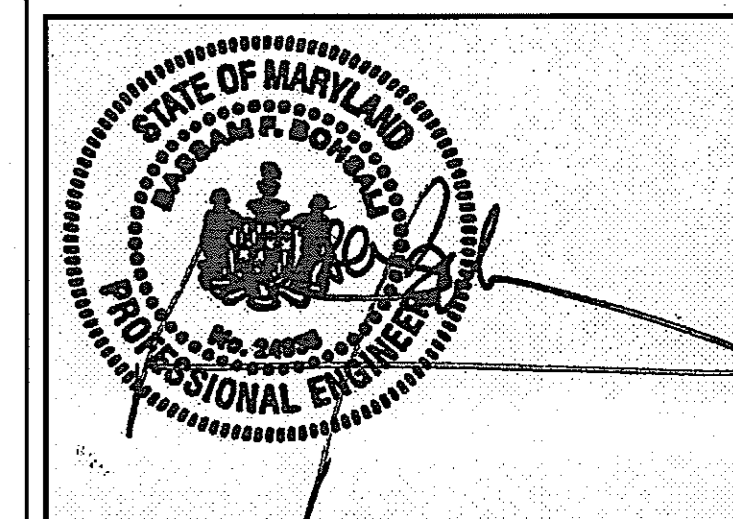
PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev Date _____

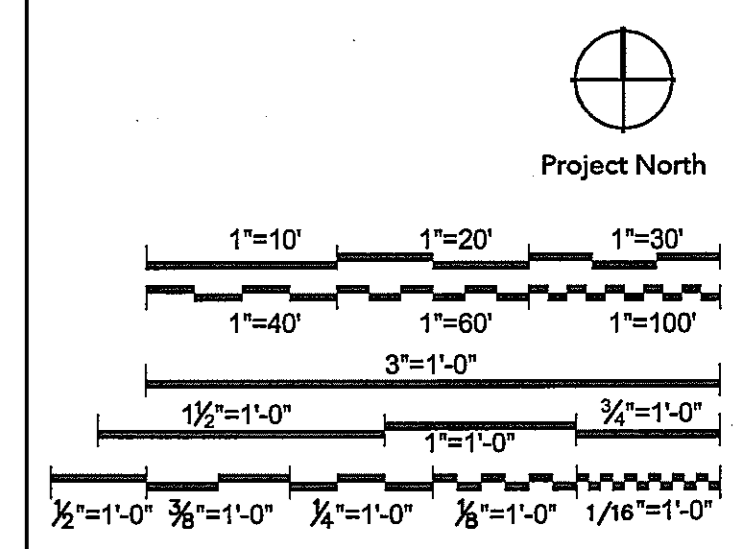
Issued for	Rev	Date

Seals and Signatures



01/05/05
DATE

Graphic Scales

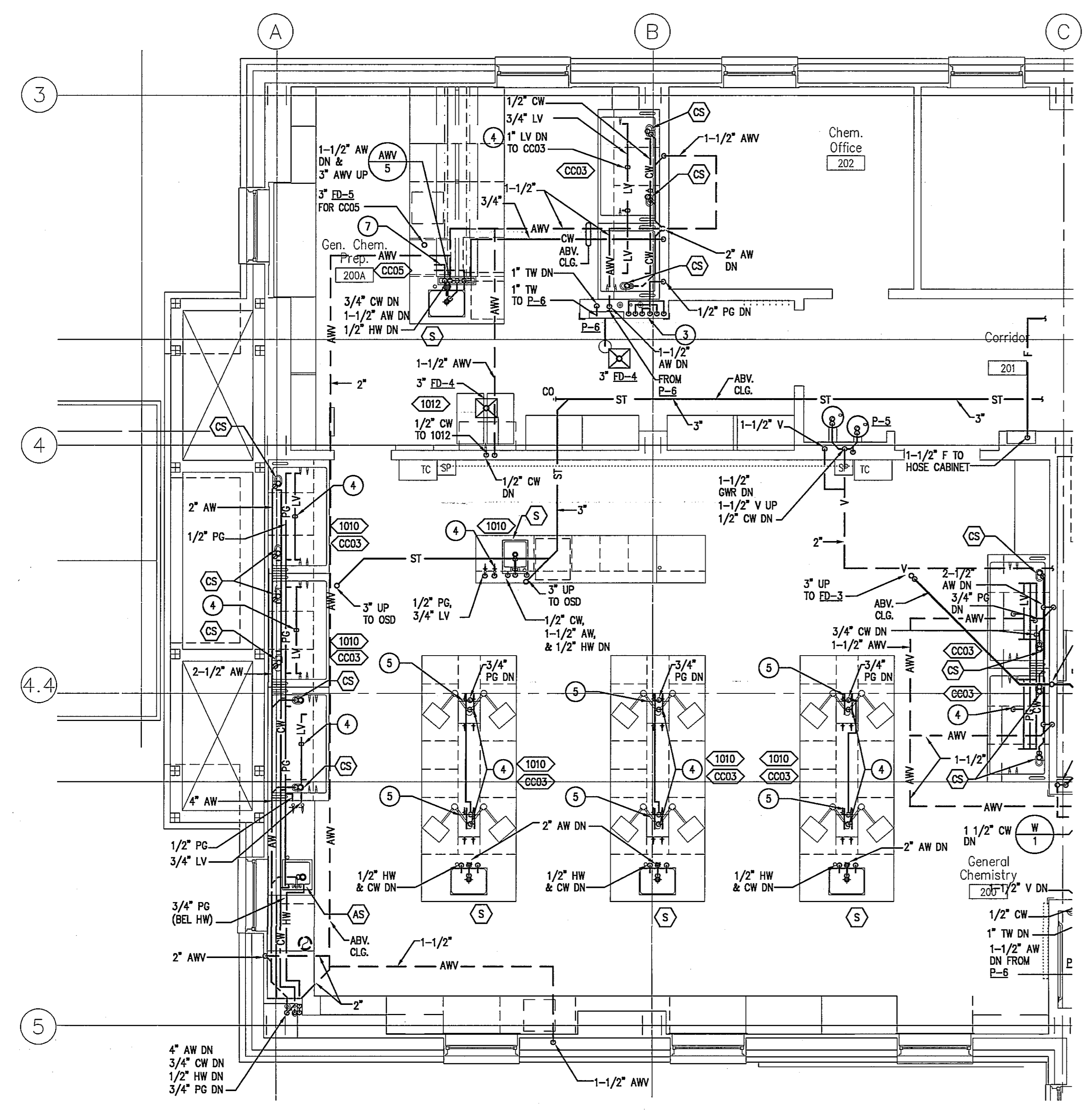


SHEET NOTES

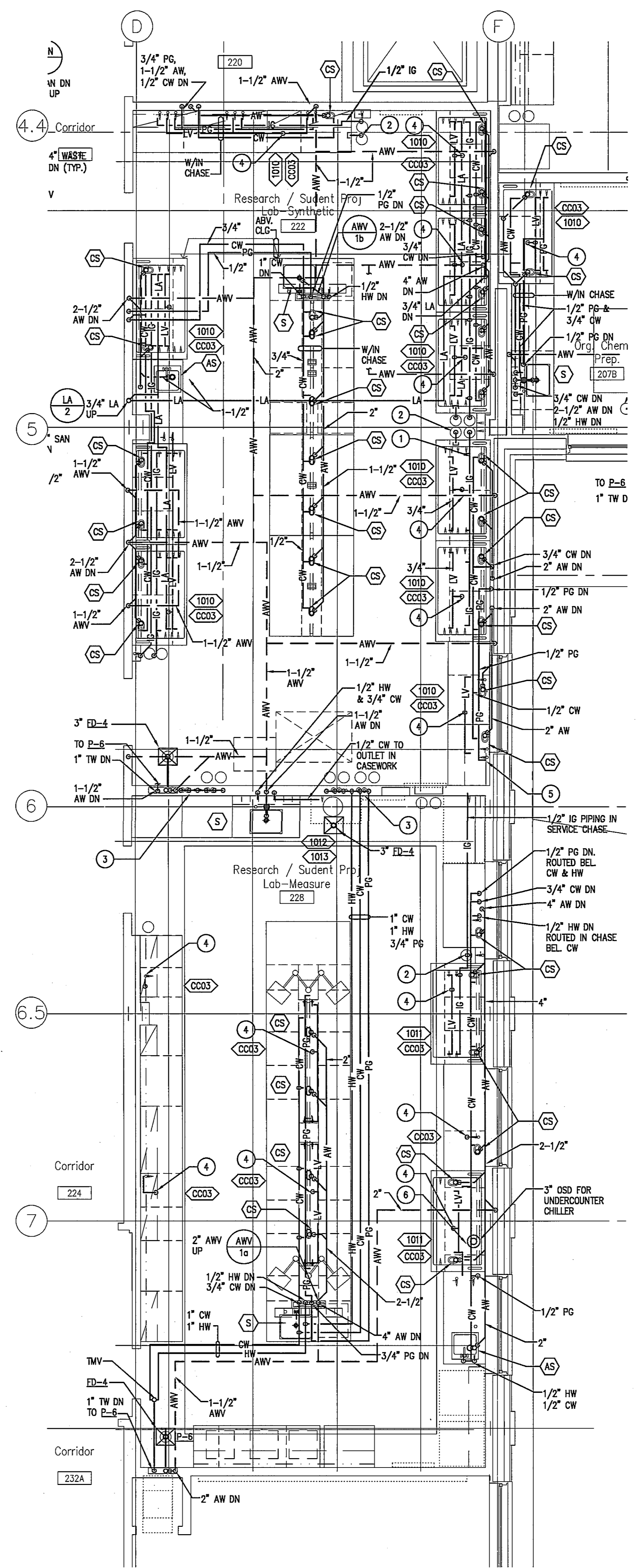
- ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M.O.I.
- PROVIDE 1/2" HOT AND COLD WATER TO EMERGENCY TEMPERING VALVE THAT SERVICES DECK-MOUNTED EYEWASHES (EW) FROM LABORATORY SINK WATER SUPPLY LINES.
- VACUUM SERVICE TO FIXTURES PROVIDED FROM VACUUM PUMP CABINET (TAG: CC03). ROUTE VAC PIPING FROM PUMP (TAG: 1010) TO FIXTURES WITHIN THE CASEWORK CHASE PROVIDED. REFER TO ARCHITECTURAL "AQ" DRAWING SERIES FOR DETAILS OF CASEWORK.
- CW, PG, AW, AWW AND LA PIPING SHOWN IN FUMEHOODS SHALL BE RACKED AND ROUTED WITHIN THE CASEWORK CHASE. UNLESS OTHERWISE NOTED, REFER TO ARCHITECTURAL "AQ" SERIES DRAWINGS FOR ROUTING.
- PIPING FOR LABORATORY SINKS, CUPBINKS AND GAS/VACUUM OUTLETS SHALL BE ROUTED WITHIN CHASE PROVIDED IN CASEWORK, THEN ROUTED TO APPROPRIATE FIXTURES AS INDICATED.
- ALL FLOOR DRAINS IN LABORATORY AREAS SHALL BE PRIMED BY ELECTRONIC TRAP PRIMING MANIFOLD LOCATED IN JANITOR'S CLOSET (ROOM 293).

KEY NOTES

- PROVIDE 1/2" IG (N2) ABOVE AND 1/2" IG2 (AR) IN FUMEHOOD TO OUTLETS IN FUMEHOOD.
- PROVIDE STANDARD GAS COOK AT CYLINDERS AND FUMEHOODS WITH SHUT OFF VALVES FOR EACH IG1(N2) AND IG2(AR) LINE. ROUTE PIPING FROM CYLINDER RESTRAINT TO EACH FUMEHOOD THROUGH CHASE IN CASEWORK.
- CW, HW AND PG VALVES IN WALL WITHIN ACCESS PANEL. REFER TO ARCHITECTURAL DRAWING AB1.7 FOR THE EXACT LOCATION AND OTHER DETAILS FOR THE ACCESS PANELS, AND DETAIL 2, SHEET P2.2.A FOR PIPE ROUTING.
- CONNECT 3/4" VACUUM PIPING FROM VACUUM PUMP (TAG: 1010) LOCATED WITHIN CABINETS (TAG: CC03) TO CASEWORK GAS COOKS AND/OR TO FUMEHOOD OUTLETS AS INDICATED. EACH VACUUM PUMP SUPPLIES TWO OUTLETS.
- CONNECT 1/2" PG TO EACH GAS COOK IN LABORATORY CASEWORK AND/OR FUMEHOODS.
- 1/2" CW CONNECTION FOR UNDERCOUNTER CHILLER (TAG: 1011).
- 1/2" HW & 1/2" CW FOR LABORATORY GLASSWARE WASHER (TAG: CC05). PROVIDE SHUT-OFF VALVES ON LINE.



1 ENLARGED LAB PLAN: GENERAL CHEMISTRY
SCALE: 1/4"=1'-0"



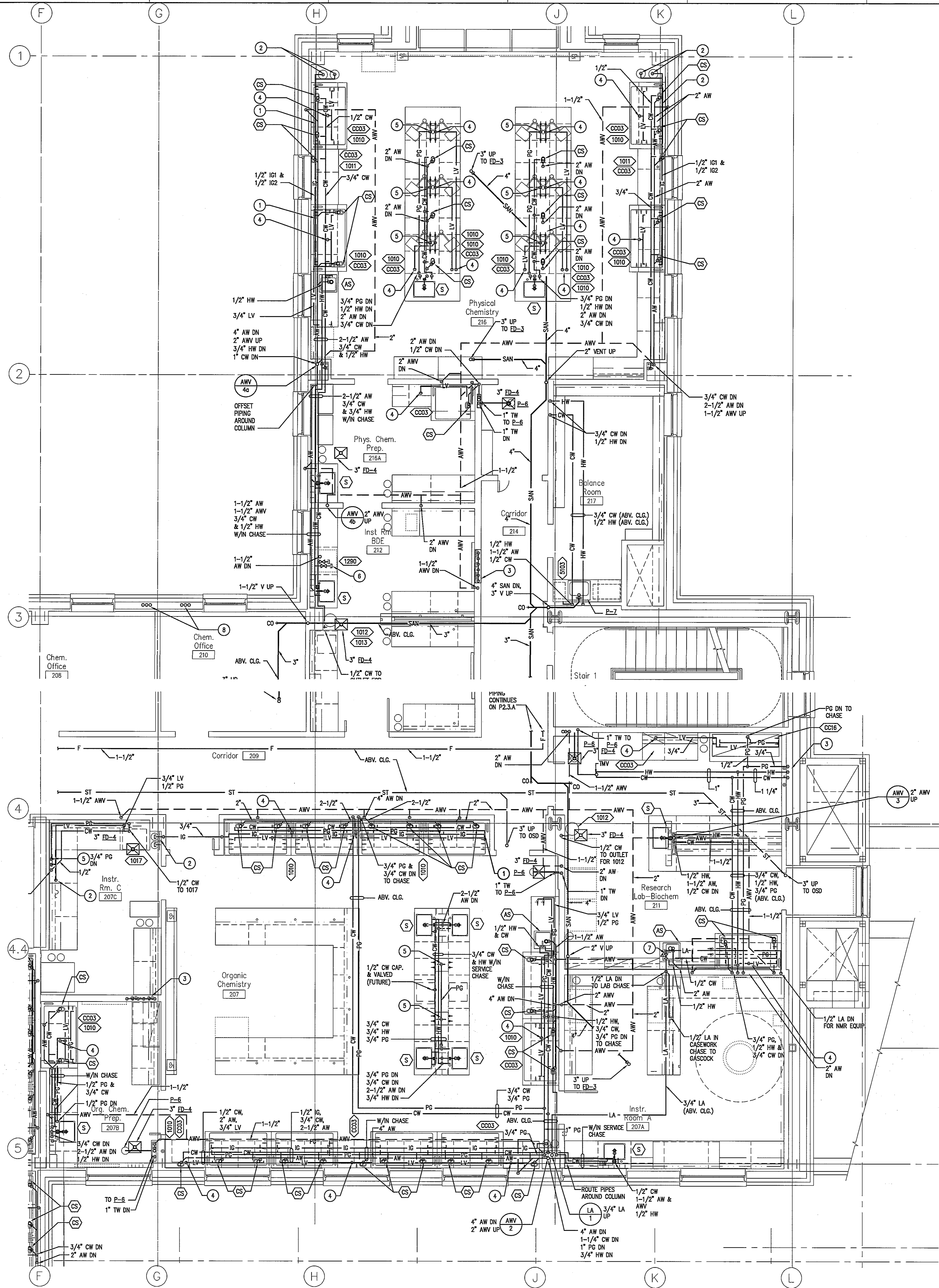
2 ENLARGED LAB PLAN: RESEARCH LABS
SCALE: 1/4"=1'-0"

Drawing Title
**PLUMBING
LABORATORY PLAN
SECOND FLOOR
NORTH WING - WEST**
1/4"=1'-0"

Scale
J-494-020-002 25379.000
DGS Project Number SG Project Number

P4.3.A

Drawing Number _____



SHEET NOTES

1. PROVIDE 1/2" HOT AND COLD WATER TO EMERGENCY TEMPERING VALVE THAT SERVICES DECK-MOUNTED EYEWASHES (EW) FROM LABORATORY SINK WATER SUPPLY LINES.
2. VACUUM SERVICE TO FIXTURES PROVIDED FROM VACUUM PUMP CABINET (TAG: CC03). ROUTE VAC PIPING FROM PUMP (TAG: 1010) TO FIXTURES WITHIN THE CASEWORK CHASE PROVIDED, UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL "AQ" DRAWING SERIES FOR DETAILS OF CASEWORK.
3. PIPING FOR LABORATORY SINKS, CUPSINKS AND GAS/VACUUM OUTLETS SHALL BE ROUTED WITHIN CHASE PROVIDED IN CASEWORK, THEN ROUTED TO APPROPRIATE FIXTURES AS INDICATED.
4. CW, PG, AW, HW AND LA PIPING SHOWN IN FUMEHOODS SHALL BE RACKED AND ROUTED WITHIN THE CASEWORK CHASE. REFER TO ARCHITECTURAL "AQ" SERIES DRAWINGS FOR ROUTING.
5. ALL PLUMBING ABBREVIATIONS AND SYMBOLS ARE INDICATED ON THE MECHANICAL ABBREVIATION AND SYMBOLS SHEET, DRAWING M0.1.
6. ALL FLOOR DRAINS IN LABORATORY AREAS SHALL BE PRIMED BY ELECTRONIC TRAP PRIMING MANIFOLD, MANIFOLD LOCATED IN JANITOR'S CLOSET (ROOM 293).

KEY NOTES

- 1 1/2" IG (N2) ABOVE AND 1/2" IG2 (AR) IN FUMEHOOD. 1/2" PIPING TO OUTLETS IN FUMEHOOD.
- 2 PROVIDE STANDARD GAS COCK AT CYLINDERS AND FUMEHOODS WITH SHUT OFF VALVES FOR EACH IG1(N2) AND IG2(AR) LINE. ROUTE PIPING FROM CYLINDER RESTRAINT TO EACH FUMEHOOD THROUGH CHASE IN CASEWORK.
- 3 CW, HW AND PG VALVES IN WALL WITHIN ACCESS PANEL. REFER TO ARCHITECTURAL DRAWING AB.1.7 FOR EXACT LOCATION AND DETAILS OF ACCESS PANELS. AND DETAIL 2, SHEET P2.2.A FOR PIPE ROUTING.
- 4 CONNECT 3/4" VACUUM PIPING FROM VACUUM PUMP IN CABINET (TAG CC03) TO CASEWORK GAS COCKS AND/OR TO FUMEHOOD OUTLETS. EACH VACUUM PUMP SUPPLIES TWO OUTLETS.
- 5 CONNECT 1/2" PG TO EACH GAS COCK IN LABORATORY CASEWORK AND/OR FUMEHOODS ARE INDICATED.
- 6 1/2" CW & 1/2" HW (VALVED & CAPPED) FUTURE CONNECTION FOR DISHWASHER.
- 7 PRESSURE REGULATING VALVE (PRV) SET TO 22 PSI FOR NMR EQUIPMENT.
- 8 CW LINES DOWN FROM TRAP PRIMING MANIFOLD TO SERVICE FLOOR DRAIN TRAPS.

NAME _____ DATE _____

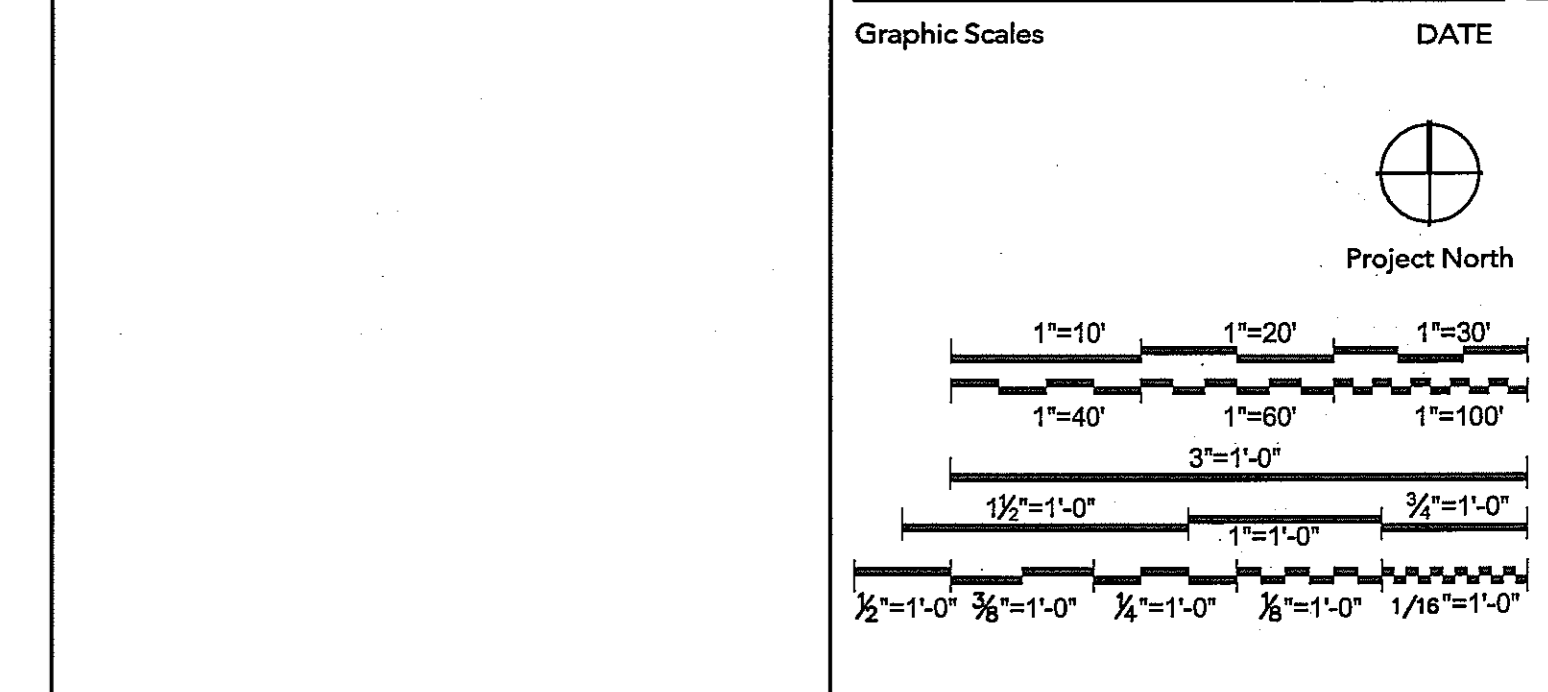
TITLE _____

DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev Date _____



Drawing Title
**PLUMBING
 LABORATORY PLAN
 SECOND FLOOR
 NORTH WING - EAST**
 1/4"=1'-0"

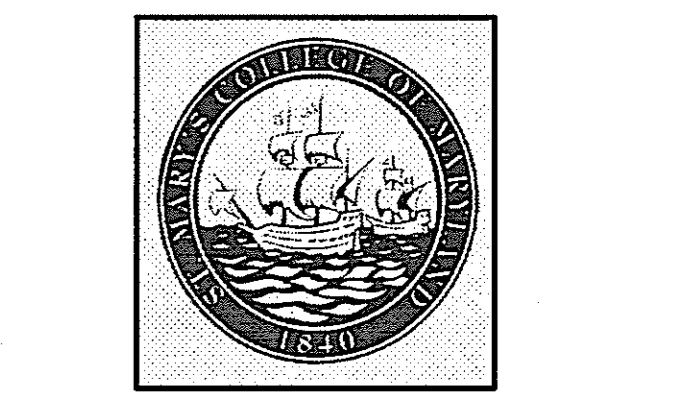
Scale
 J-494-020-002 25379.000
 DGS Project Number SG Project Number

P4.3.B

Drawing Number

St. Mary's
 College of Maryland
 St. Mary's City, MD

New
 Academic
 Building

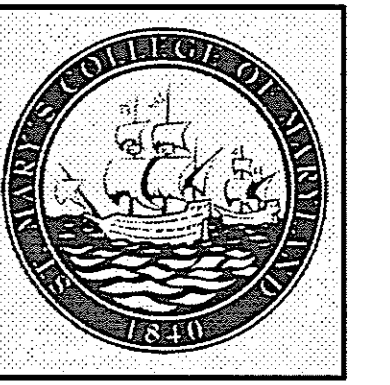


SmithGroup
 SmithGroup Incorporated
 1825 Eye Street NW
 Suite 250
 Washington, DC 20006
 T 202.842.2100
 F 202.374.4500
 www.smithgroup.com

USING AGENCY
 APPROVAL

DEPT. OF GENERAL
 SERVICES APPROVAL

1 ENLARGED LAB PLANS: ORGANIC & PHYSICAL CHEMISTRY
 SCALE: 1/4"=1'-0"



USING AGENCY
APPROVAL

NAME _____
TITLE _____ DATE _____

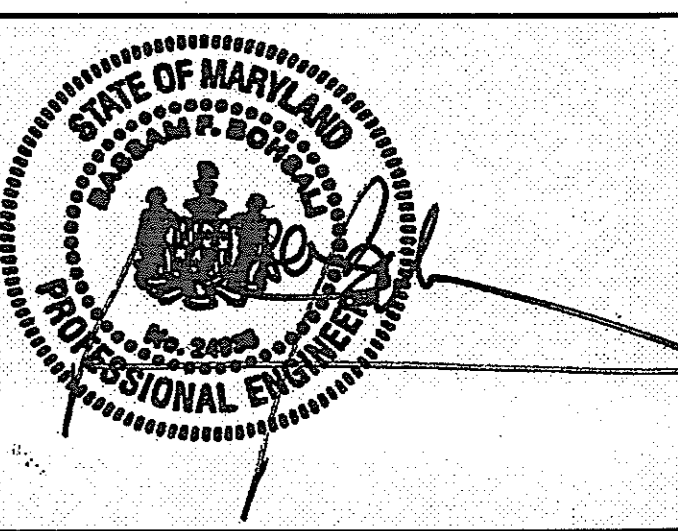
DEPT. OF GENERAL
SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev _____ Date _____

Seals and Signatures



Graphic Scales _____ DATE 01/05/05

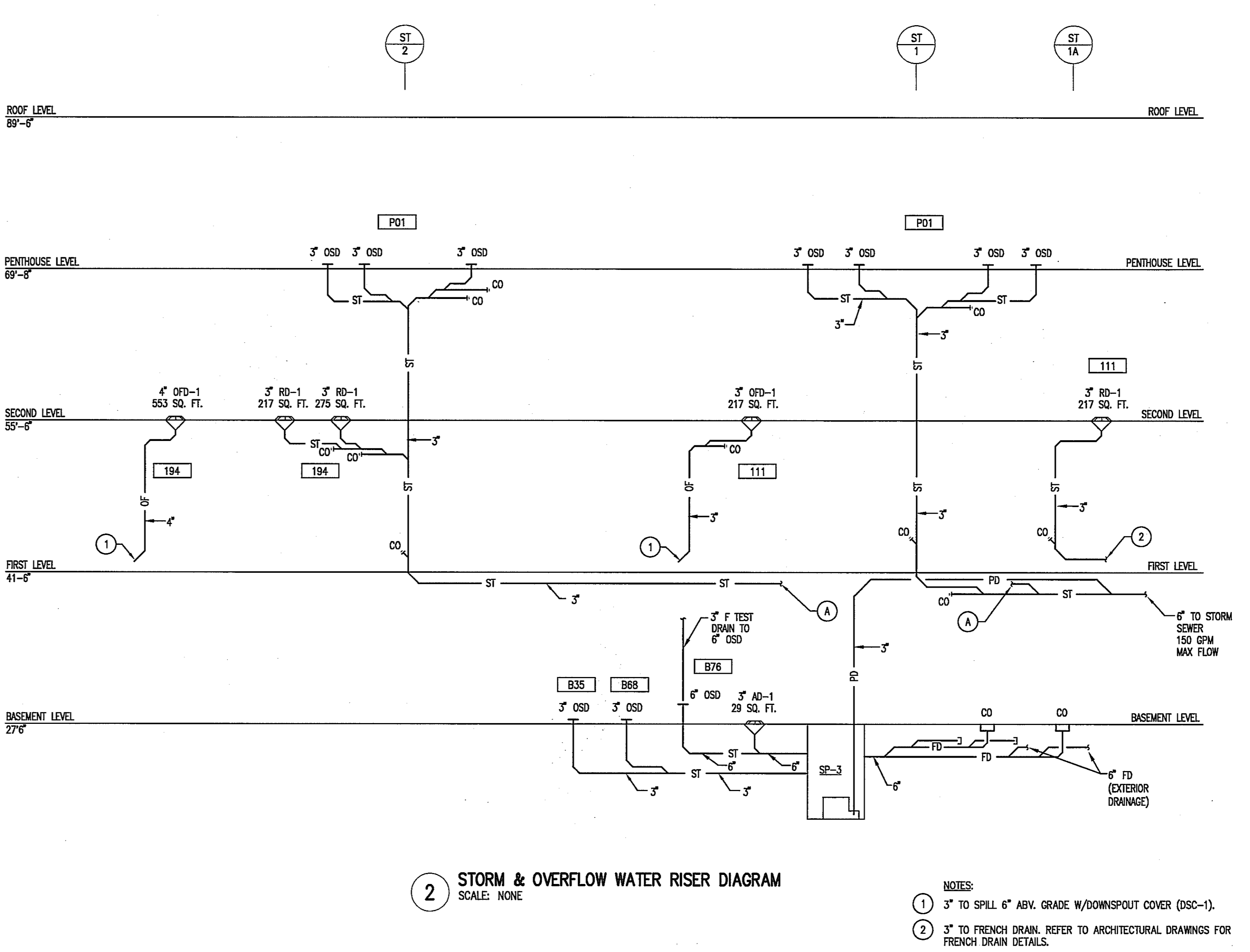
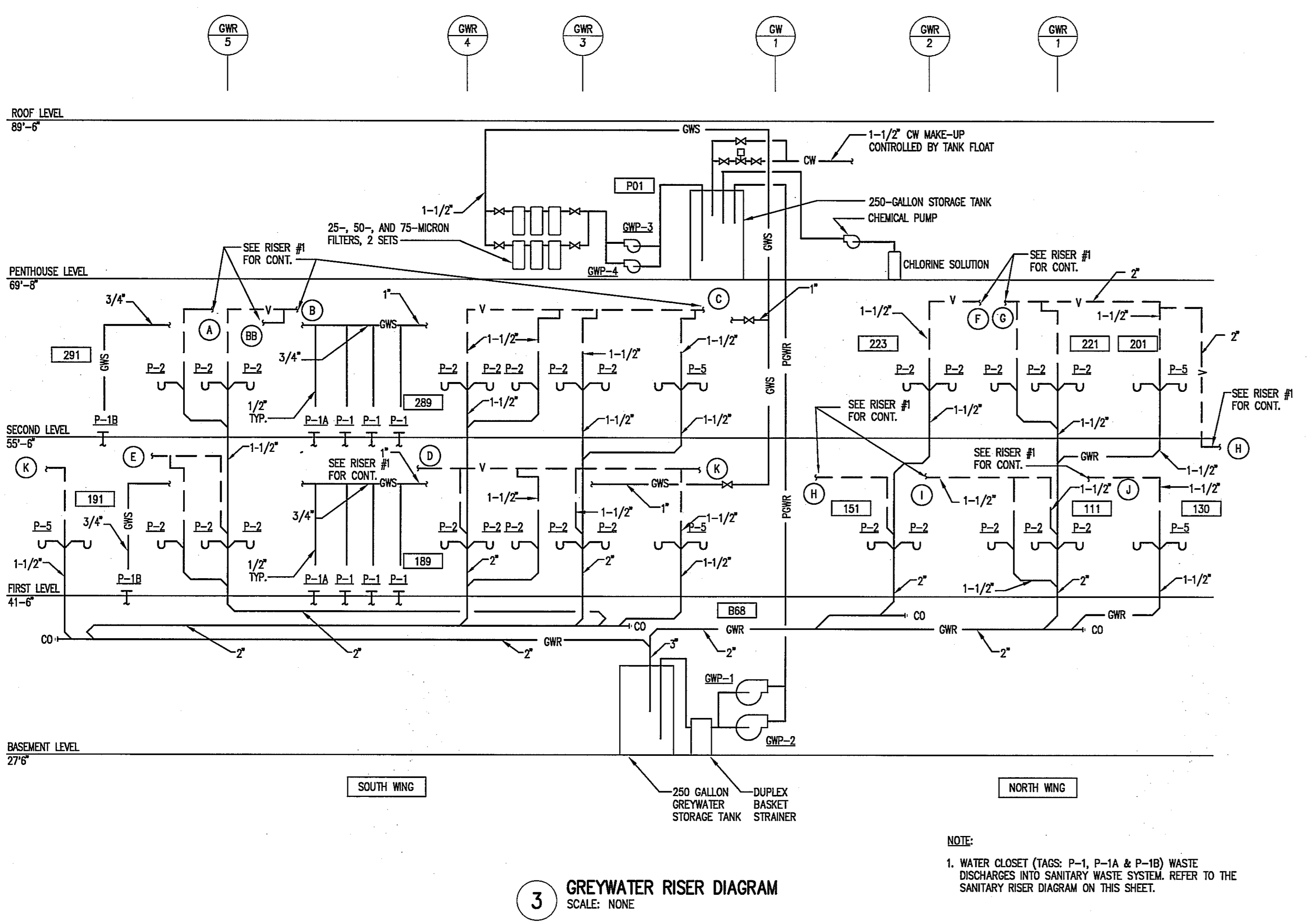
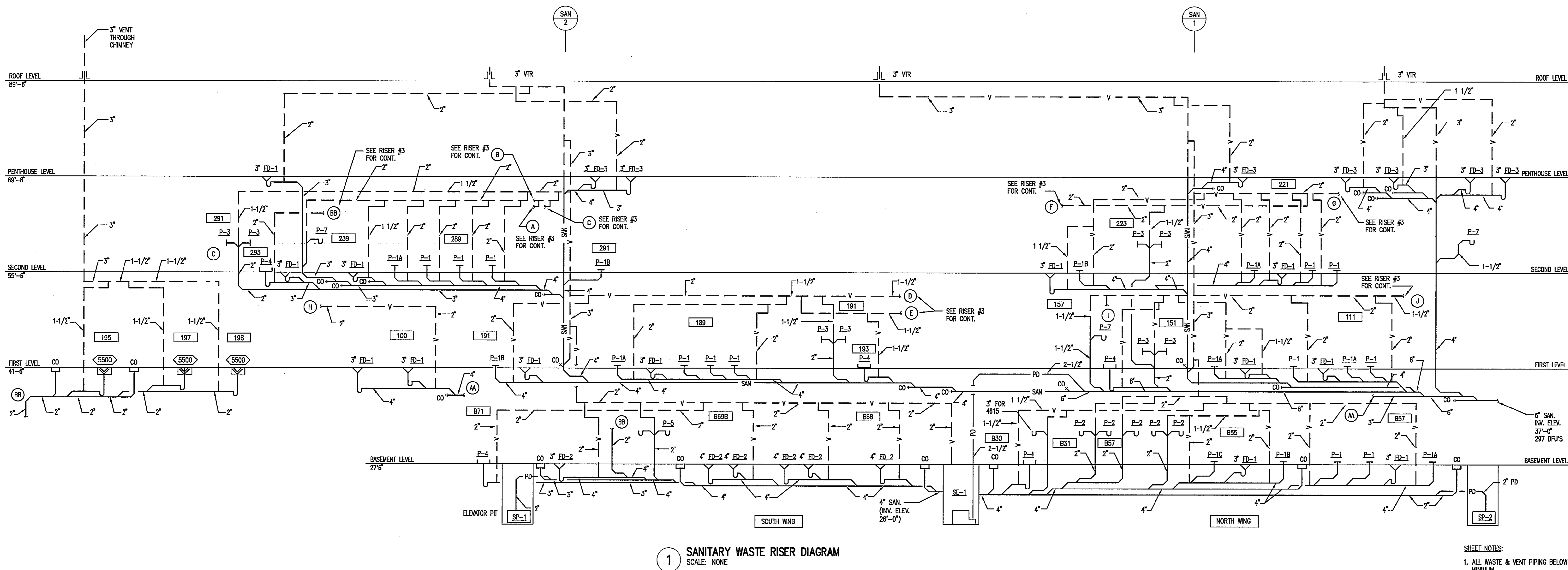
Project North

Drawing Title
**SANITARY WASTE/VENT
AND STORM WATER
RISER DIAGRAMS**

NO SCALE
Scale
J-494-020-002 25379.000
DGS Project Number SG Project Number

P5.1A

Drawing Number





SmithGroup

SmithGroup Incorporated
1825 Eye Street NW
Suite 250
Washington, DC 20006
E 202.842.2100
E 302.374.4500
www.smithgroup.com

USING AGENCY
APPROVAL

NAME _____ DATE _____
TITLE _____

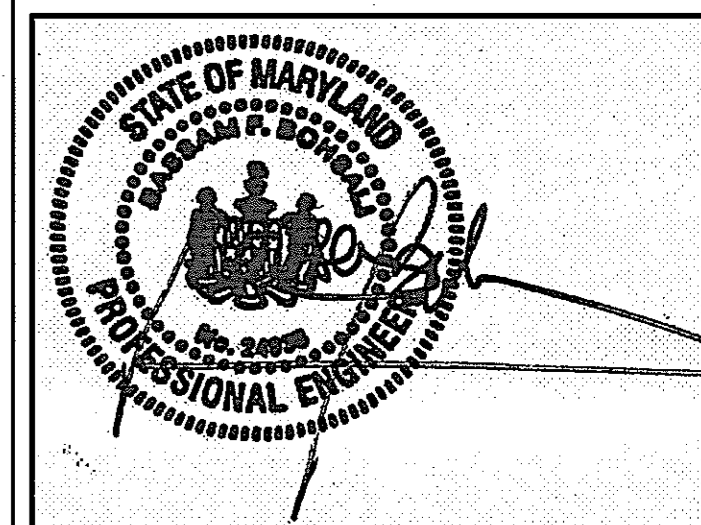
DEPT. OF GENERAL
SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for	Rev	Date

Seals and Signatures

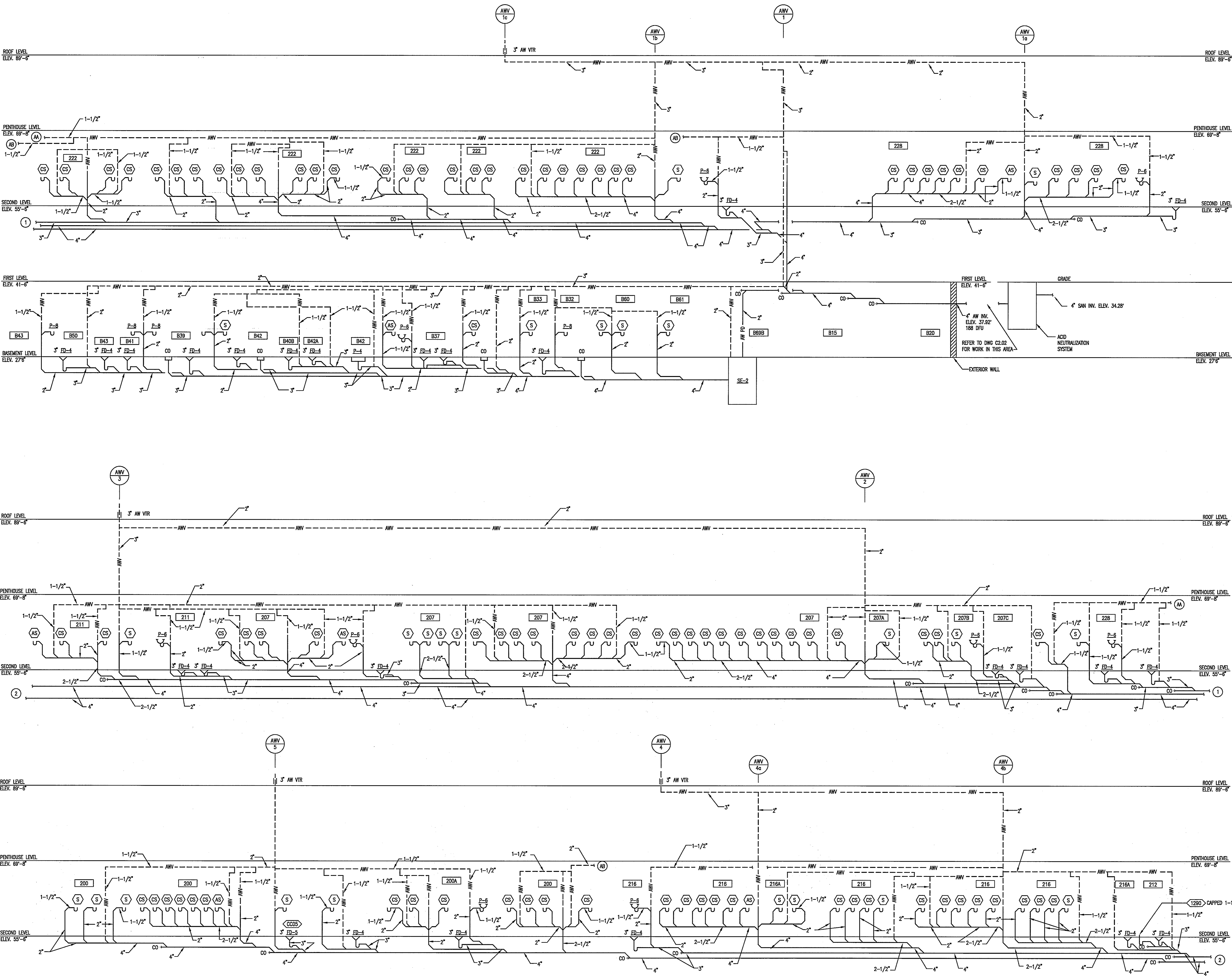


01/05/05
DATE

Graphic Scales



Project North



1 LABORATORY WASTE RISER DIAGRAM
SCALE: NONE

Drawing Title
**LABORATORY WASTE
AND VENT
RISER DIAGRAM**

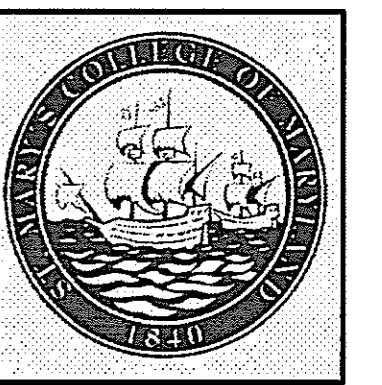
NOT TO SCALE

Scale
J-494-020-002 25379.000
DGS Project Number SG Project Number

P5.1B

Drawing Number

New
Academic
Building



SmithGroup

SmithGroup Incorporated
1825 Eye Street NW
Suite 250
Washington, DC 20006
t: 202.842.2100
e: 202.274.4500
www.smithgroup.com

USING AGENCY
APPROVAL

NAME _____ DATE _____
TITLE _____

DEPT. OF GENERAL
SERVICES APPROVAL

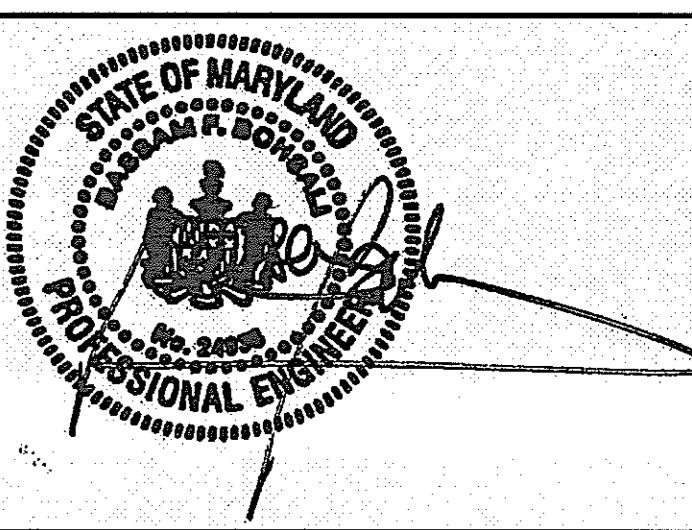
PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev. Date _____

Issued for	Rev. Date

Seals and Signatures



01/05/05

Graphic Scales

DATE



Project North

Drawing Title

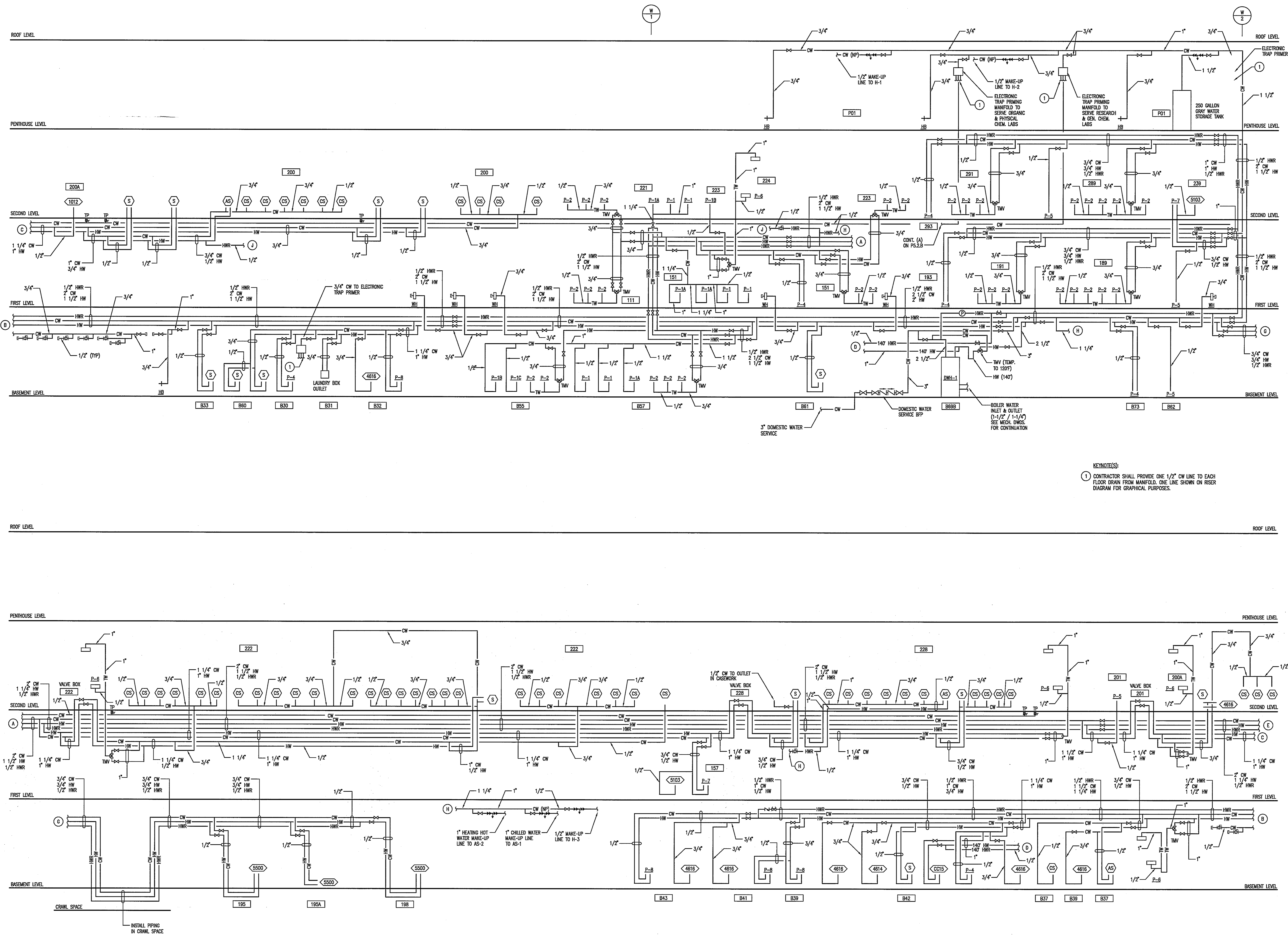
DOMESTIC WATER
RISER DIAGRAM

NOT TO SCALE

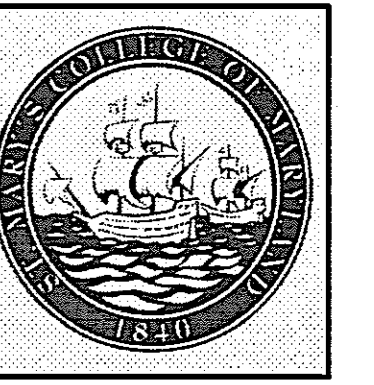
Scale J-494-020-002 25379.000
DGS Project Number SG Project Number

P5.2.A

Drawing Number



1 DOMESTIC WATER RISER DIAGRAM
SCALE: NOT TO SCALE



SmithGroup

SmithGroup Incorporated
1825 Eye Street NW
Suite 250
Washington, DC 20006
E 202.842.2100
E 202.874.4500
www.smithgroup.com

USING AGENCY
APPROVAL

NAME
TITLE

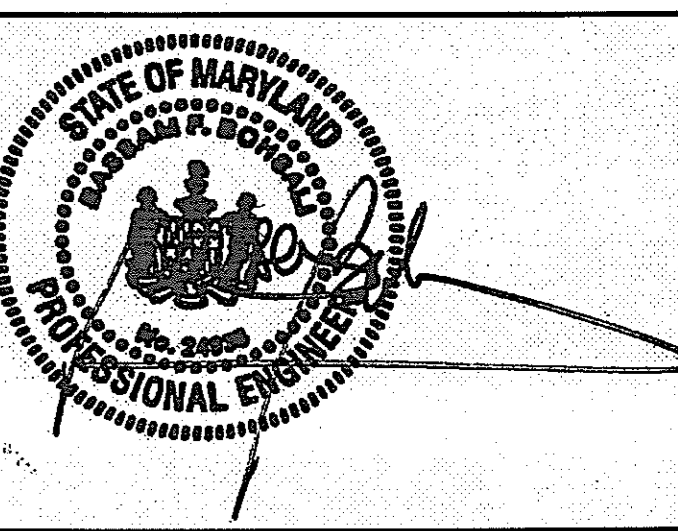
DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER DATE

CHIEF - PROJ. MGT. & DSGN. DATE

Issued for	Rev	Date

Seals and Signatures



01/05/05

Graphic Scales DATE

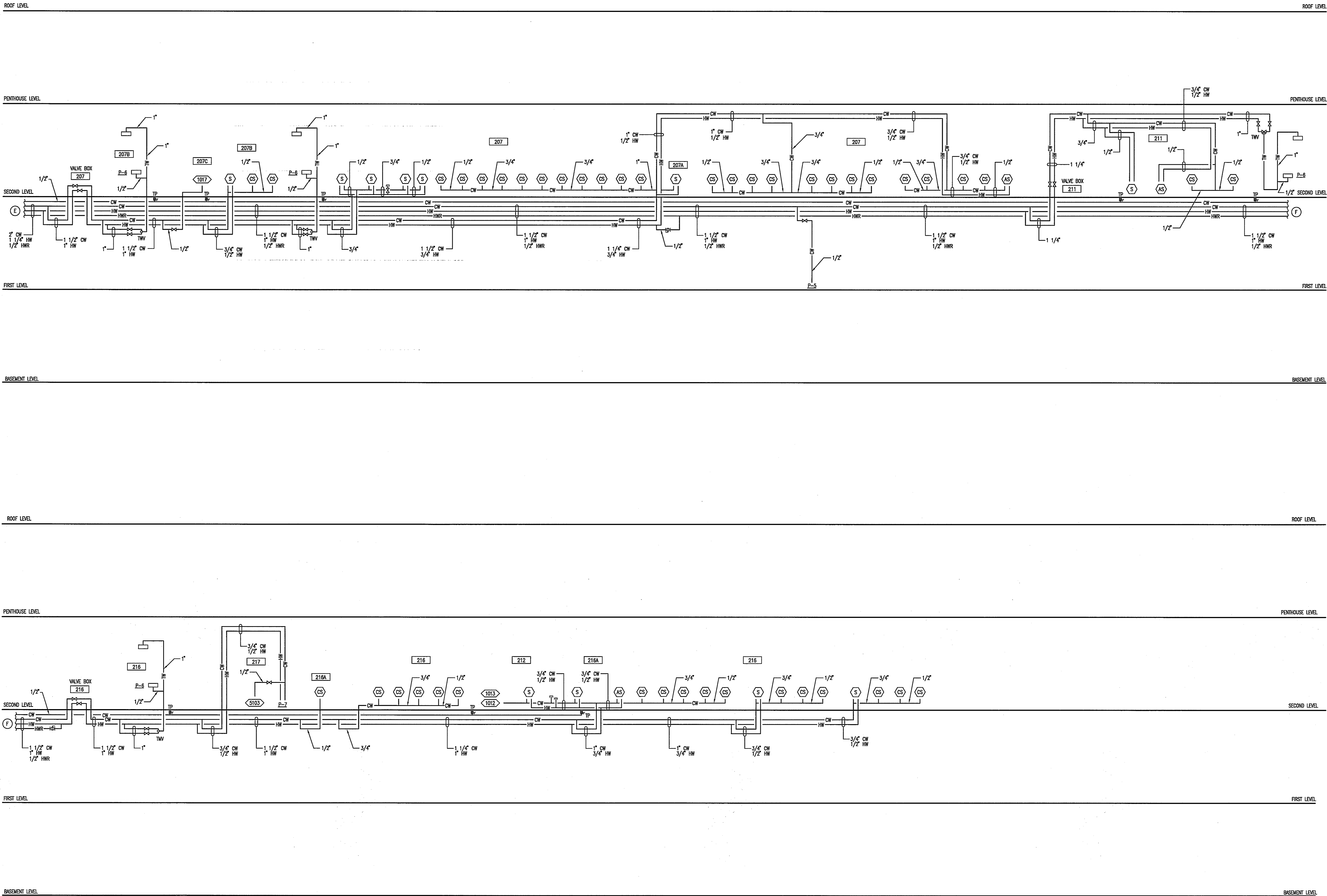


Drawing Title
DOMESTIC WATER RISER DIAGRAM

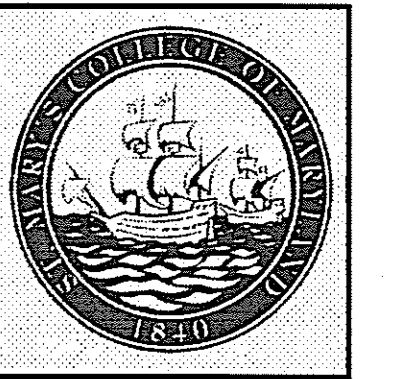
NOT TO SCALE
Scale
J-494-020-002 25379.000
DGS Project Number SG Project Number

P5.2.B

Drawing Number



1 DOMESTIC WATER RISER DIAGRAM
SCALE: NOT TO SCALE



SmithGroup

SmithGroup Incorporated
1825 Eye Street NW
Suite 220
Washington, DC 20006
t: 202.842.2100
e: 302.974.4500
www.smithgroup.com

USING AGENCY APPROVAL

NAME _____
TITLE _____ DATE _____

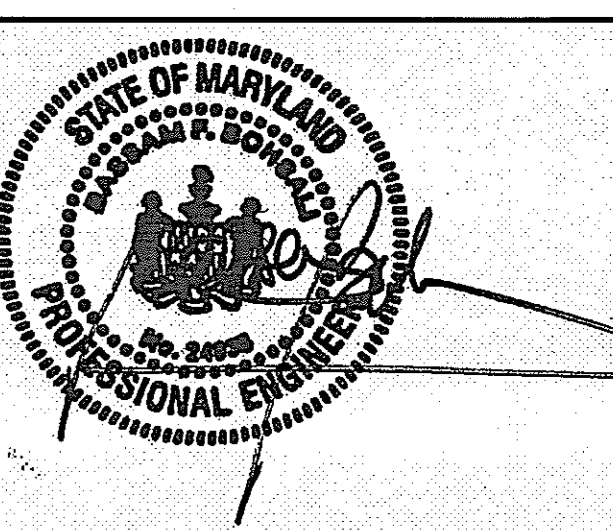
DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

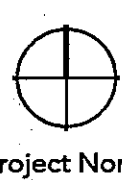
Issued for _____ Rev Date _____

Seals and Signatures



01/05/05

Graphic Scales DATE



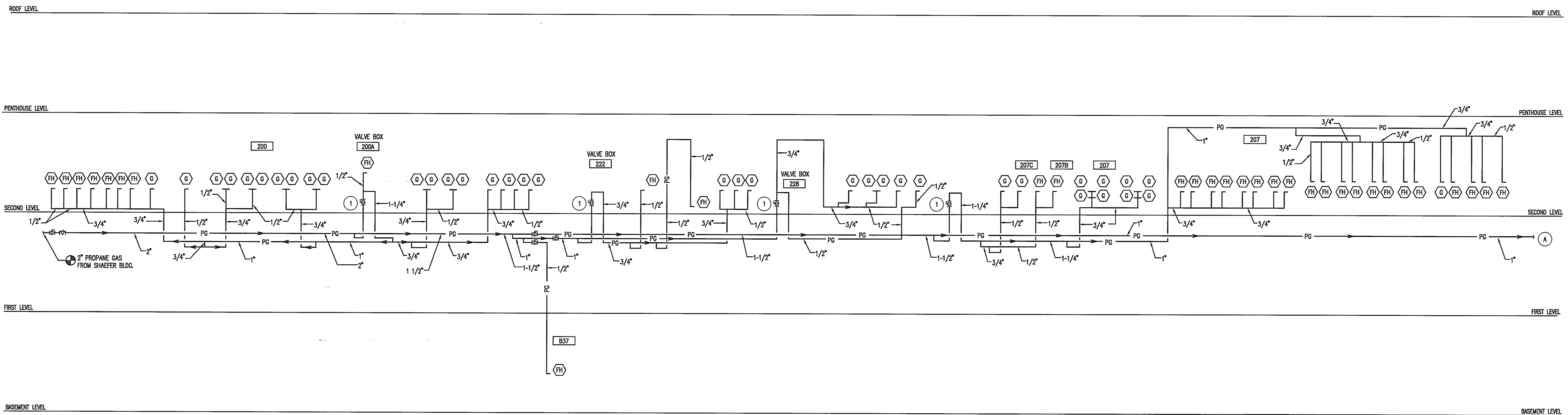
Drawing Title
LABORATORY GAS RISER DIAGRAM

NOT TO SCALE

Scale: J-494-020-002 25379.000
DGS Project Number SG Project Number

P5.3

Drawing Number

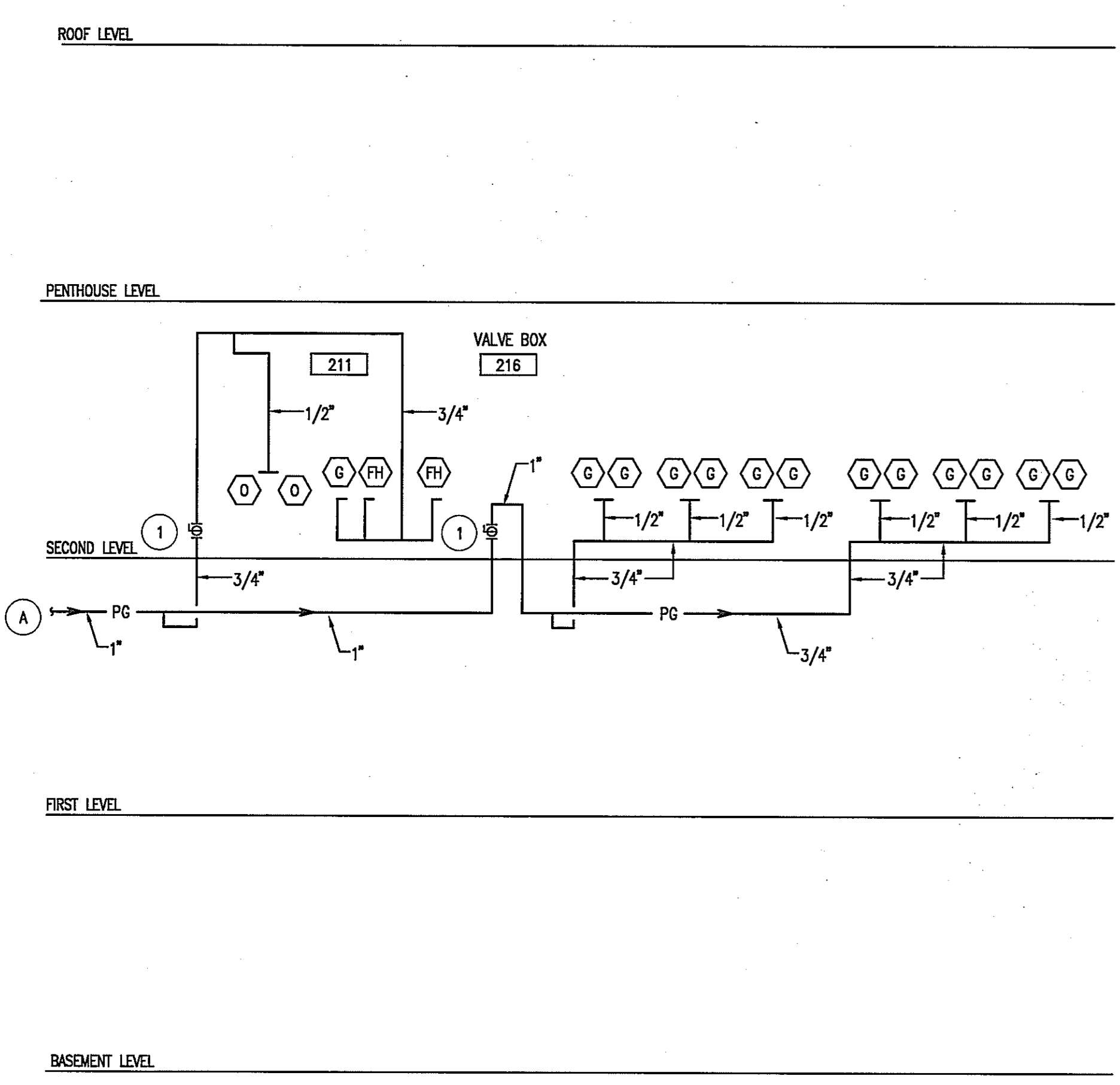


1 LABORATORY PROPANE GAS RISER DIAGRAM
SCALE: NOT TO SCALE

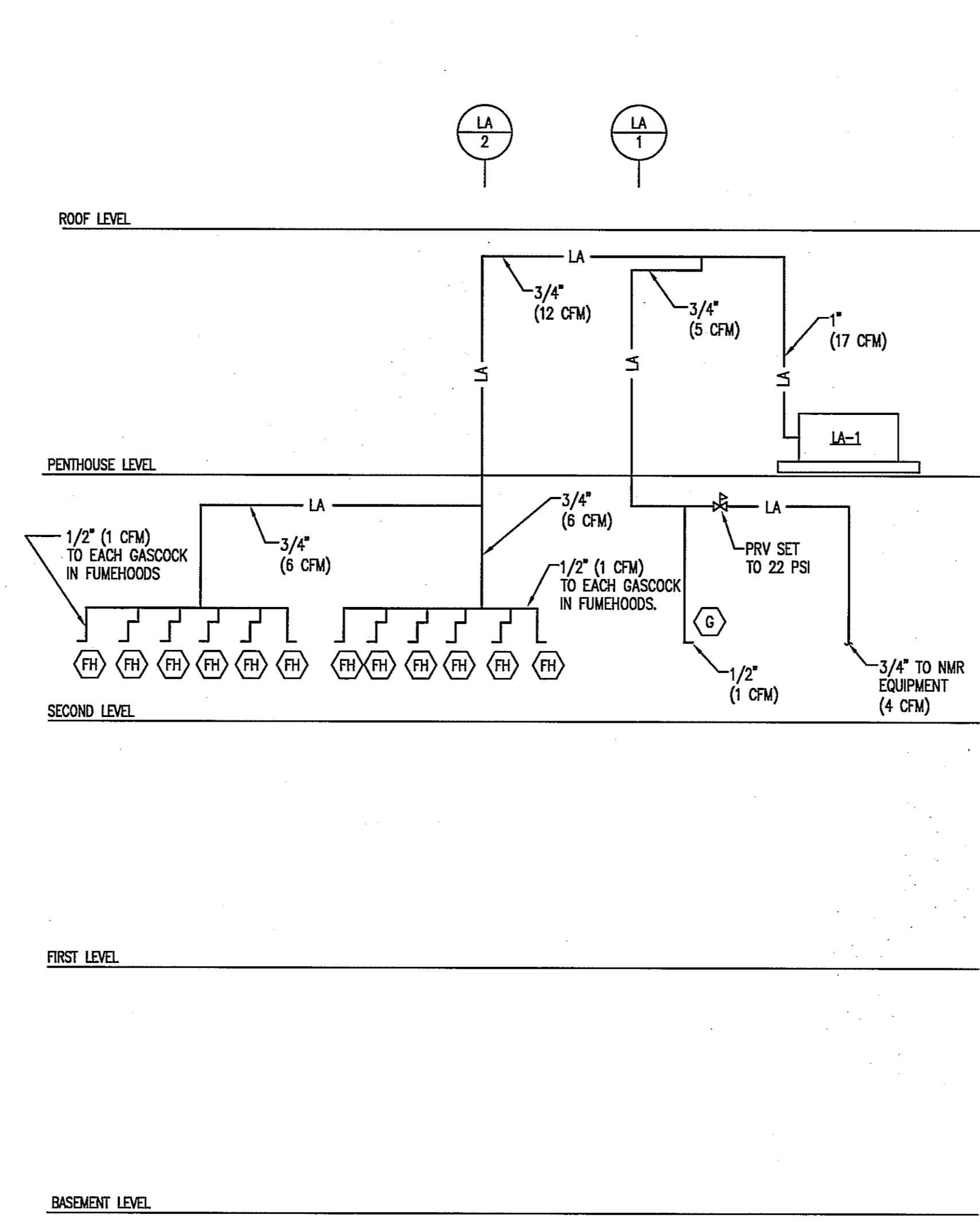
PROPANE GAS RISER NOTES:
LONGEST LENGTH OF RUN: ~ 450 FT
TOTAL NUMBER OF OUTLETS: 86
FLOW PER OUTLET: 2 CFH
DIVERSITY FACTOR: 50%
MINIMUM FLOW: 103 CFH
MAXIMUM FLOW: 172 CFH

SYMBOLS:
(FH) GAS OUTLET IN FUMEHOOD (1/2" PG SUPPLY)
(E) OUTLET ON CASEWORK (1/2" PG SUPPLY)
(O) OUTLET AT OTHER EQUIPMENT (1/2" PG SUPPLY)

KEYNOTES:
1 VALVE LOCATED IN LAB SHUTOFF VALVE BOX



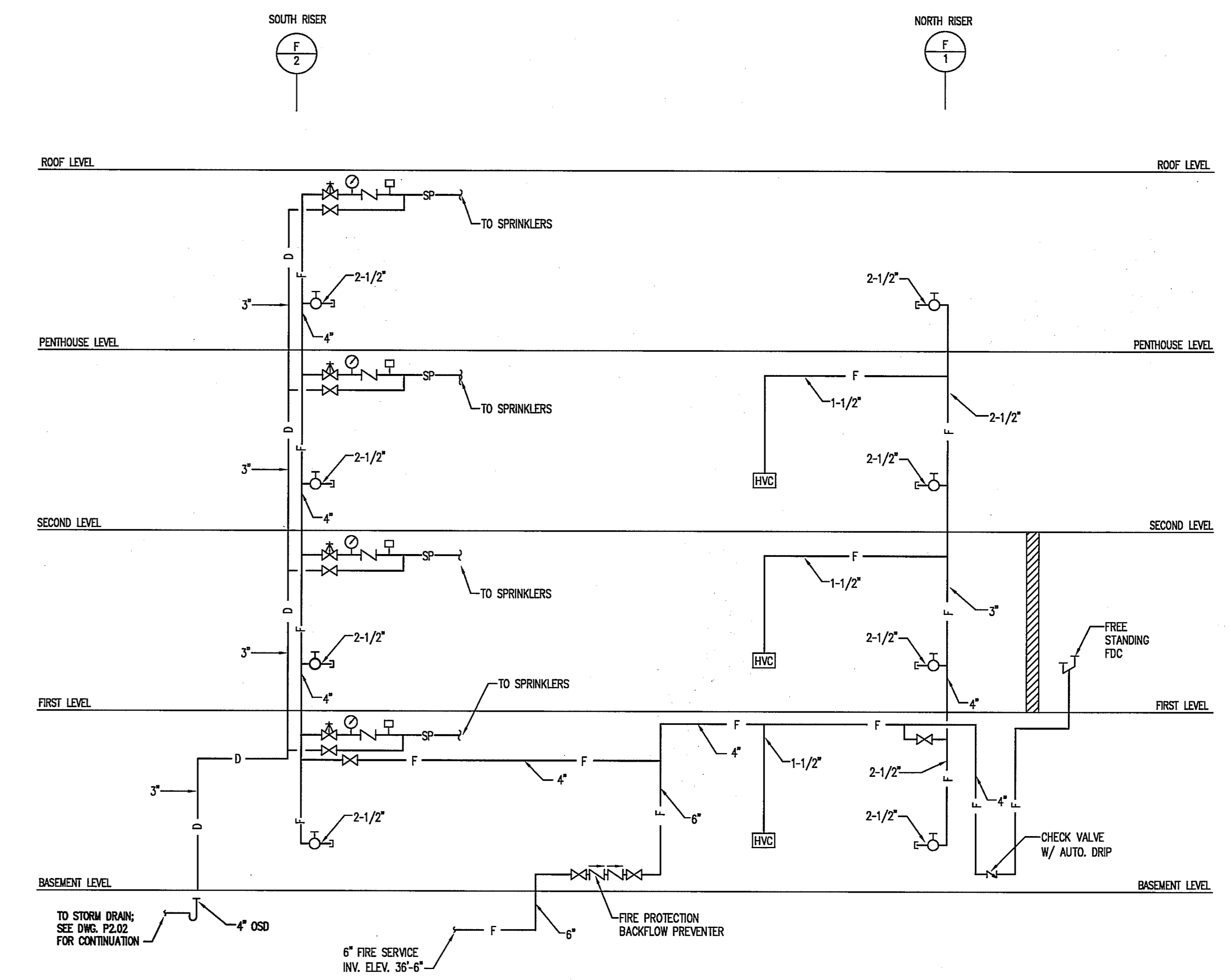
1a LABORATORY PROPANE GAS RISER DIAGRAM (CONT.)
SCALE: NOT TO SCALE



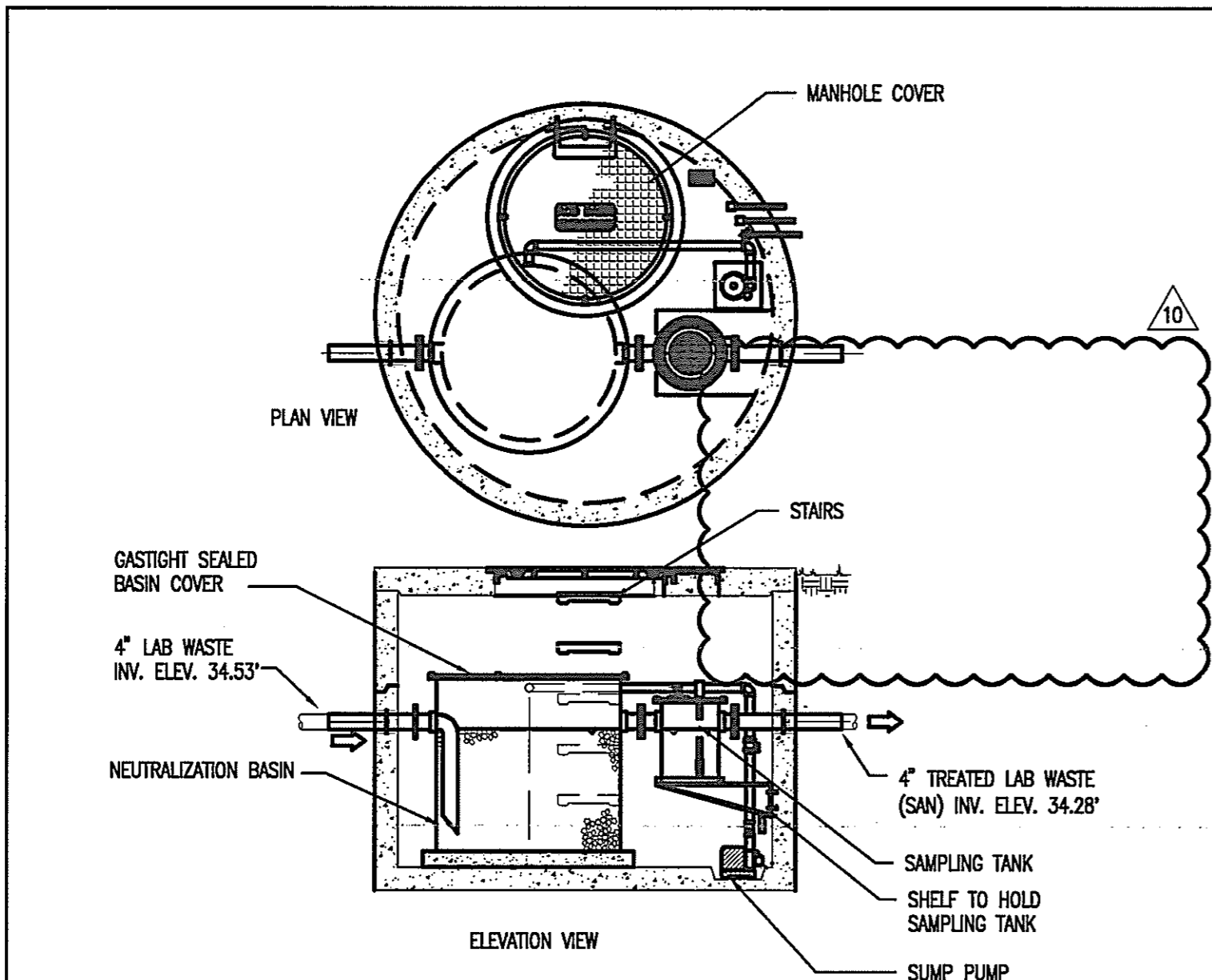
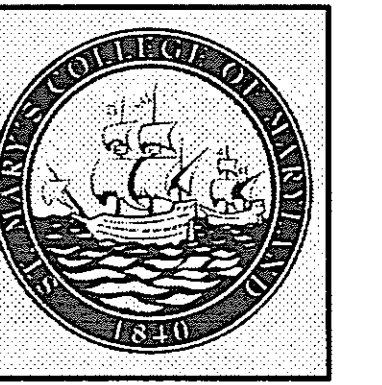
2 LABORATORY COMPRESSED AIR RISER DIAGRAM
SCALE: NOT TO SCALE

COMPRESSED AIR RISER NOTES:
FLOW PER OUTLET: 1 CFM
MAXIMUM ALLOWABLE PRESSURE DROP: 5 PSI
DIVERSITY FACTOR: 80%
MINIMUM SYSTEM FLOW: 12 CFM
MAXIMUM SYSTEM FLOW: 17 CFM

SYMBOLS:
(FH) GAS COCK IN FUMEHOOD (1/2" LA SUPPLY)
(E) GAS COCK ON CASEWORK (1/2" LA SUPPLY)

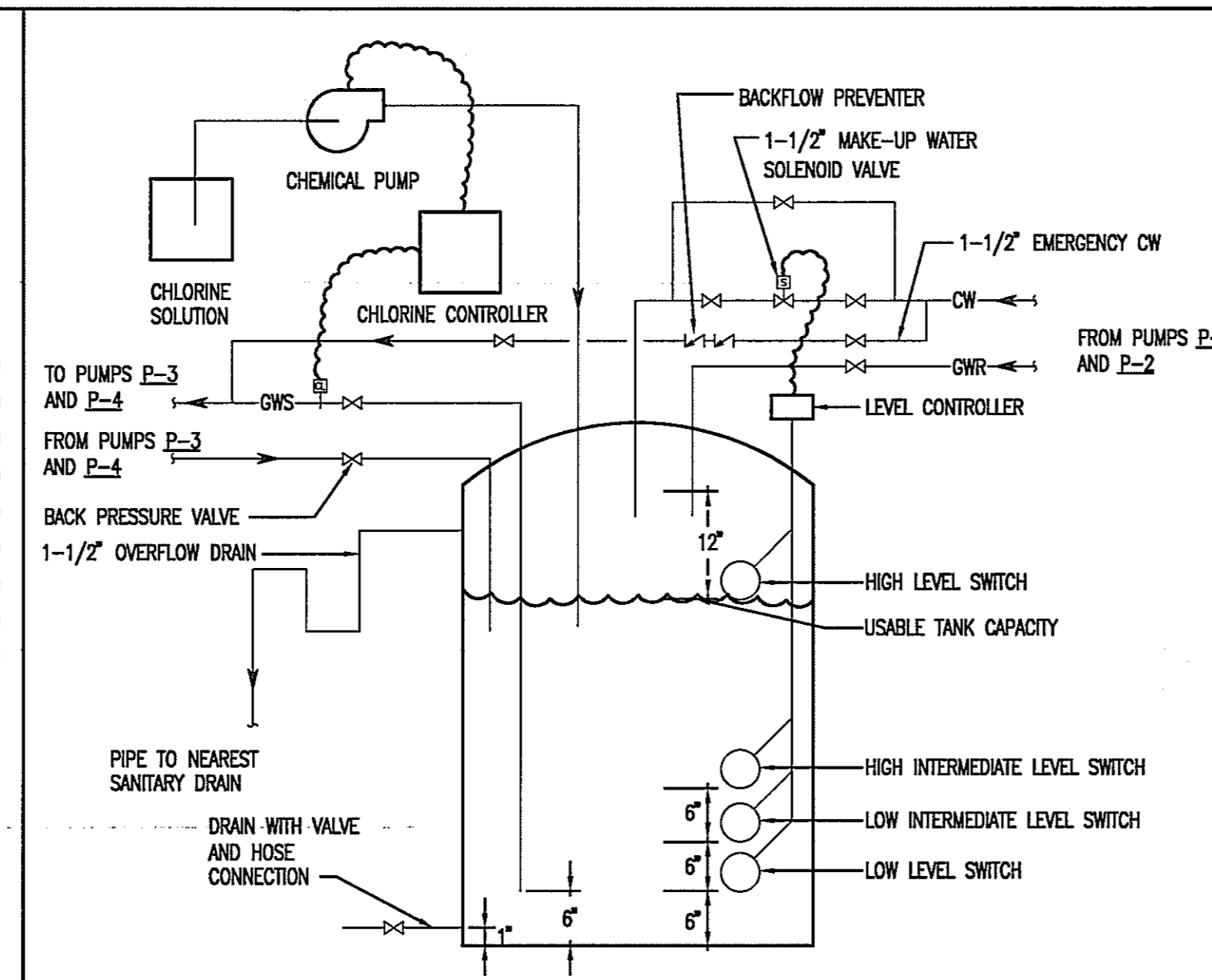


3 FIRE PROTECTION RISER DIAGRAM
SCALE: NOT TO SCALE



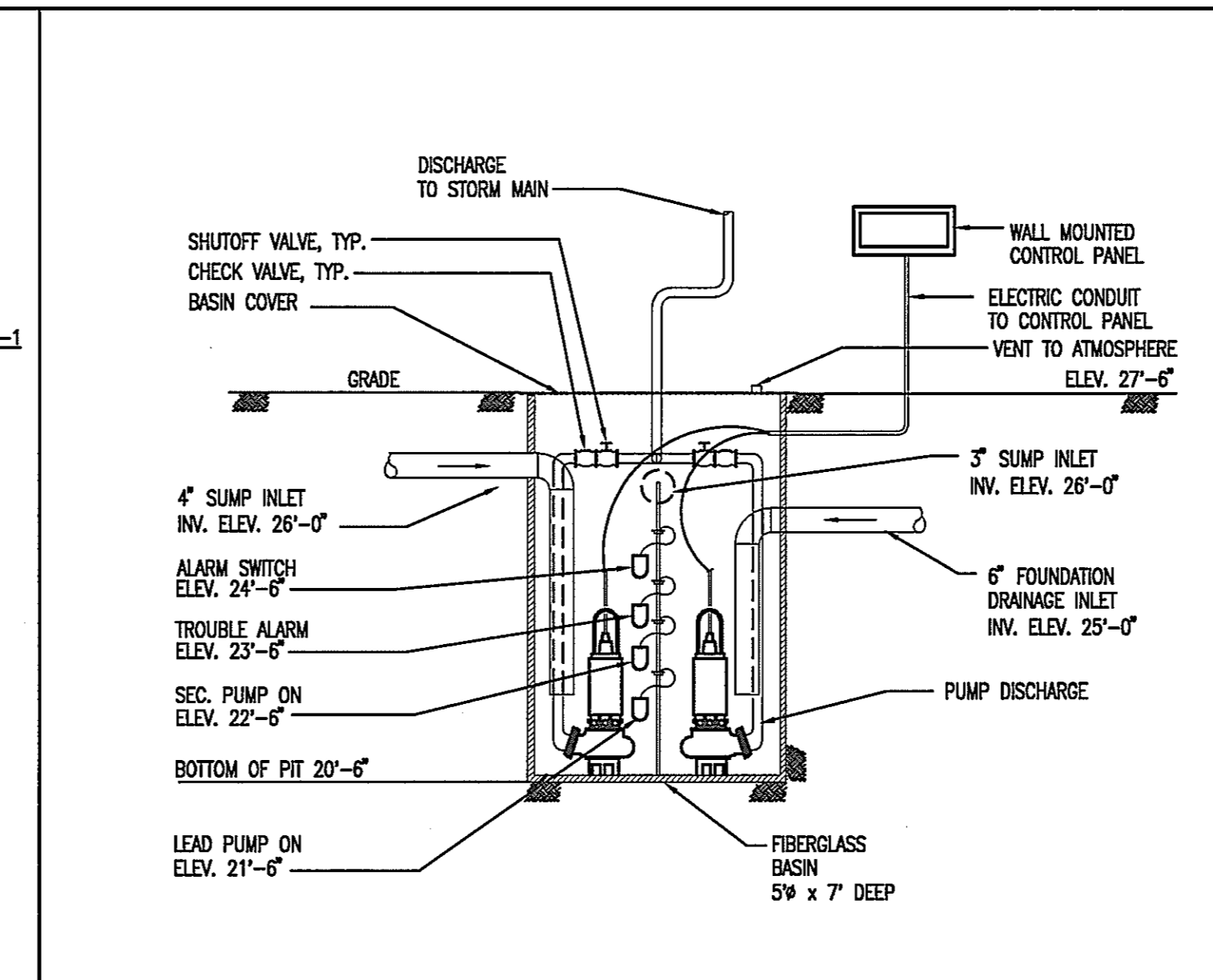
1 PASSIVE ACID NEUTRALIZATION TANK

NOT TO SCALE



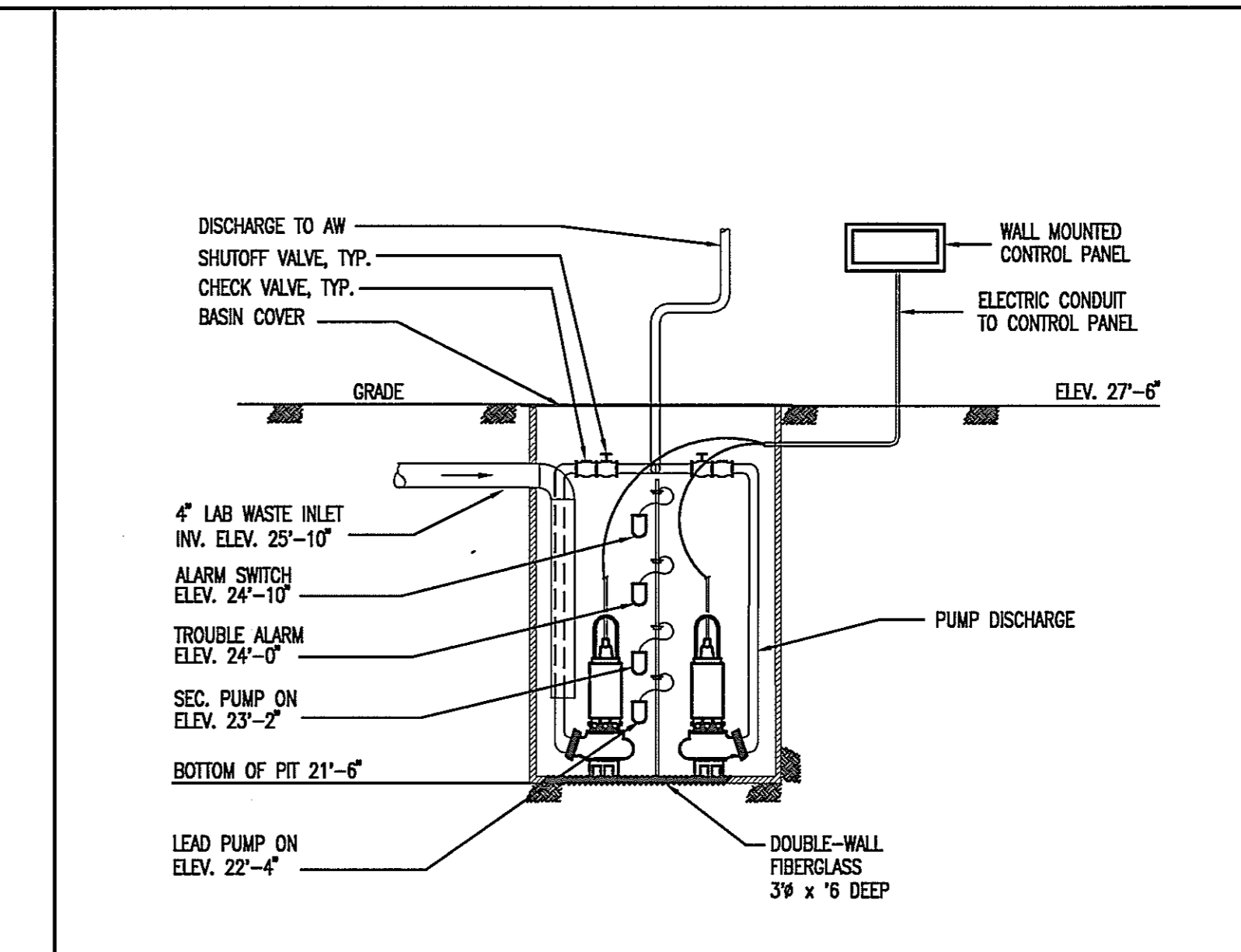
2 GREYWATER MIXING TANK

NOT TO SCALE



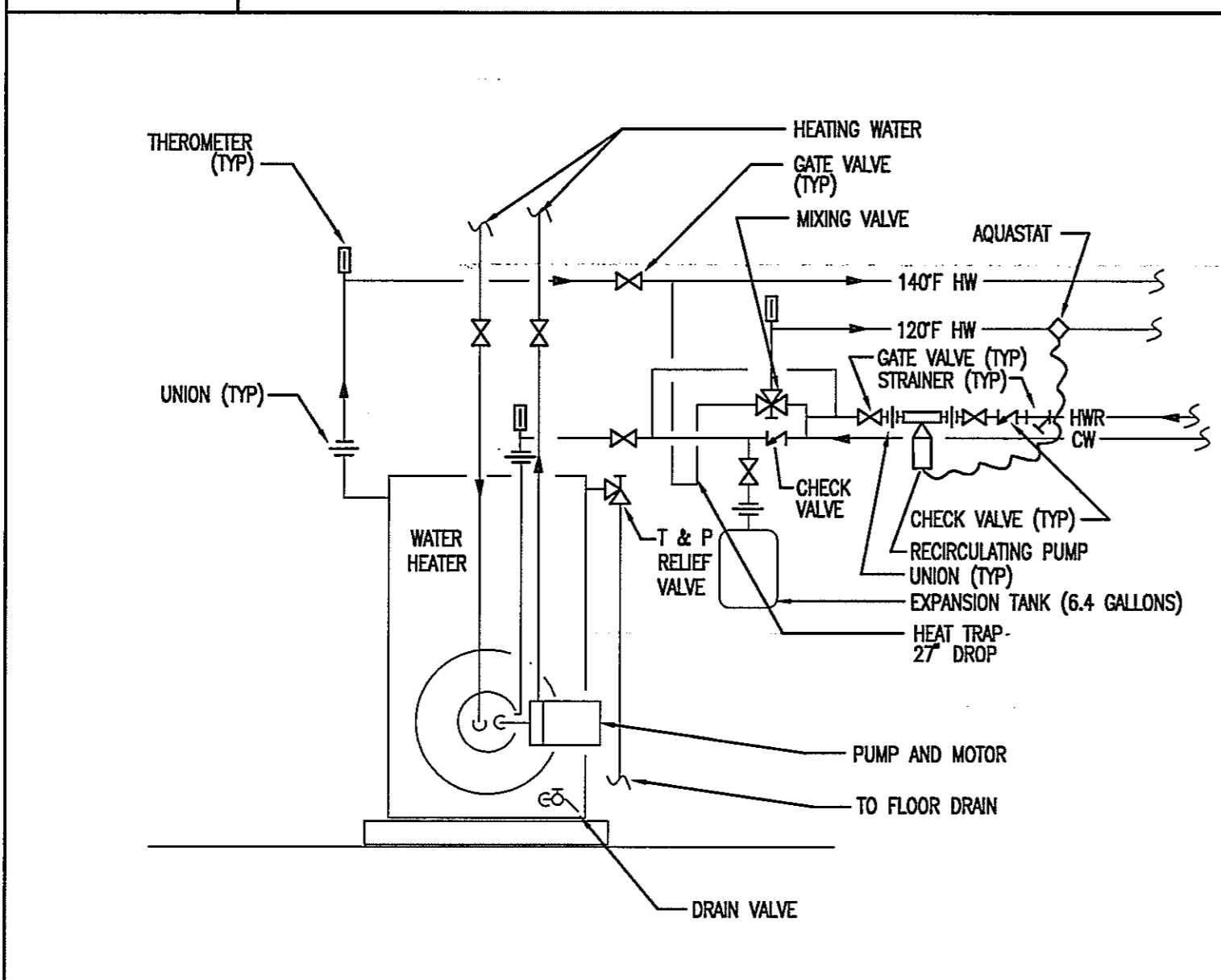
3 DUPLEX SUMP PUMP DETAIL (SP-3)

NOT TO SCALE



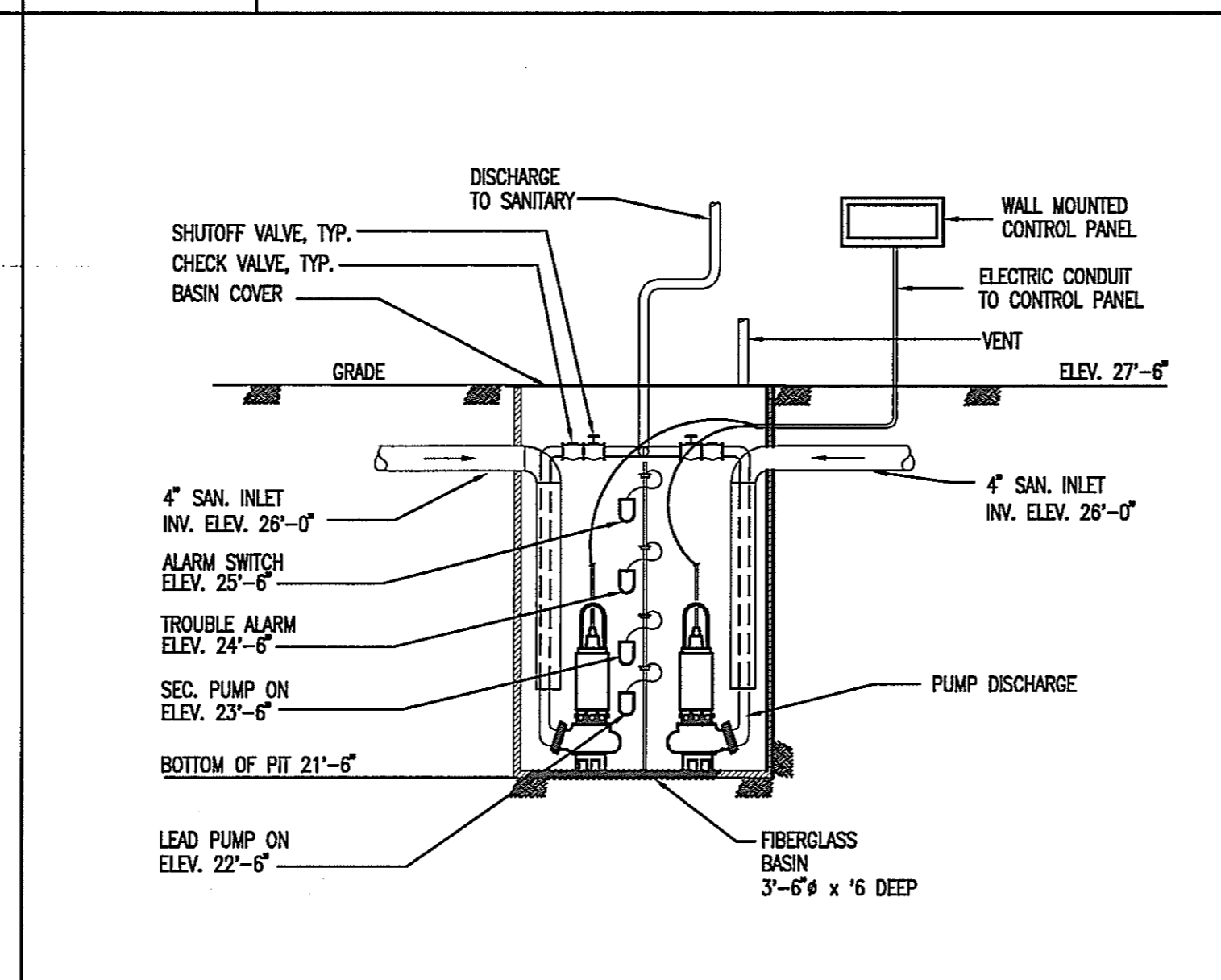
4 ACID WASTE EJECTOR DETAIL (SE-2)

NOT TO SCALE



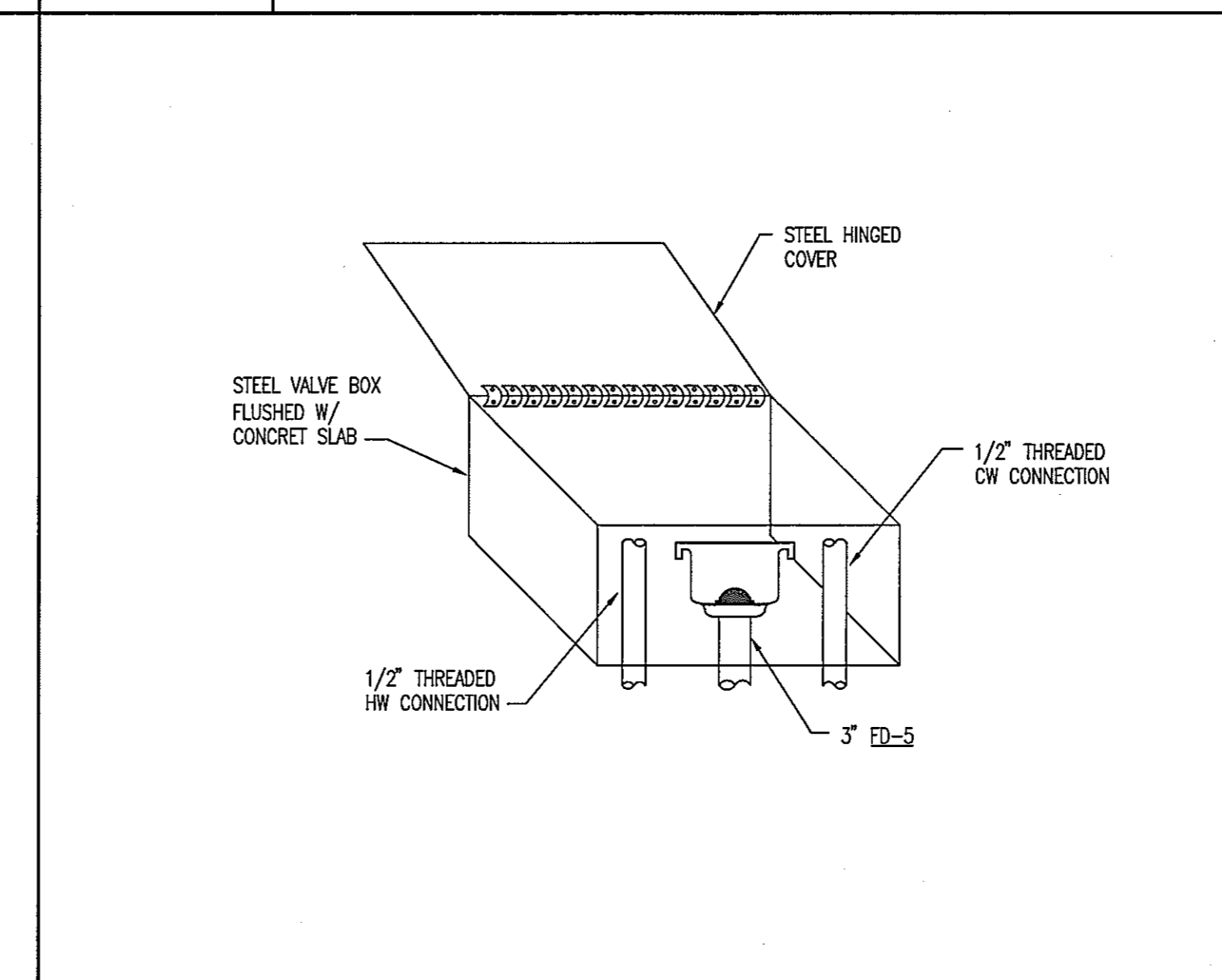
5 HEATING WATER WATER HEATER DETAIL

NOT TO SCALE



6 DUPLEX SEWAGE EJECTOR DETAIL (SE-1)

NOT TO SCALE



7 VALVE BOX FOR MOBILE WORKSTATIONS

NOT TO SCALE

USING AGENCY APPROVAL

NAME _____
TITLE _____ DATE _____

DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev _____ Date _____

APPENDIX PB-10 05/13/05

Seals and Signatures



01/05/05 DATE

Graphic Scales _____ DATE _____



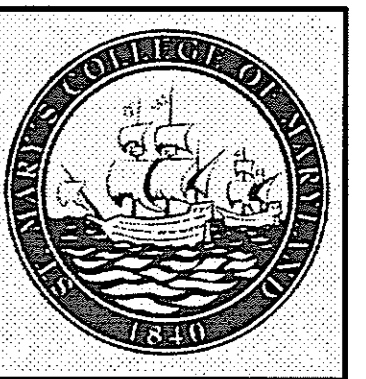
Drawing Title
**PLUMBING
DETAILS**

NOT TO SCALE

Scale J-494-020-002 25379.000
DGS Project Number SG Project Number

P6.1

Drawing Number



USING AGENCY APPROVAL

NAME _____
TITLE _____ DATE _____

DEPT. OF GENERAL SERVICES APPROVAL

PROJECT MANAGER _____ DATE _____

CHIEF - PROJ. MGT. & DSGN. _____ DATE _____

Issued for _____ Rev _____ Date _____

Seals and Signatures



01/05/05

Graphic Scales _____ DATE _____



Project North

Drawing Title
PLUMBING SCHEDULES

NOT TO SCALE

Scale
J-494-020-002 25379.000
DGS Project Number SG Project Number

P7.1

Drawing Number _____

AIR COMPRESSOR & AIR DRYER SCHEDULE															
TAG	SERVICE	LOCATION	CAPACITY CFM (EA. COMP.)	DISCH. PRESS. PSIG	NO. COMP.	ENT. AIR		MAX. CA DP ①	MIN. RECEIVER CAPACITY (GAL.)	RELIEF VALVE PSIG	COMPRESSORS		DRYER		REMARKS
						DB F	WB F				MIN. HP EA.	VOLTS/PHASE	MIN. POWER	VOLTS/PHASE	
LA-1	LABORATORY	PENTHOUSE/ATTIC	23	50	2	85	78	38	80	75	7.5	460/3	0.72 kW	115/1	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

① DP - DIFFERENTIAL PRESSURE.

PUMP SCHEDULE											
TAG	SERVICE	LOCATION	FLUID	TEMP (F.)	GPM (PUMP)	TOTAL HEAD (FT.)	NOMINAL PUMP INLET/OUTLET SIZE (IN.)	MOTOR			REMARKS
								HP	RPM	VOLT/PHASE	
SP-1	SOUTH ELEVATOR	ELEVATOR PIT	WATER	70	10	20	2"	0.4	3600	115/1	OIL MINDER ELEVATOR PUMPS
SP-2	NORTH ELEVATOR	ELEVATOR PIT	WATER	70	10	20	2"	0.4	3600	115/1	OIL MINDER ELEVATOR PUMPS
SP-3	SUMP PUMP	BASEMENT MECHANICAL ROOM	WATER	60	75	25	3" / 3"	1-1/2	1150	460/3	DUPLEX
GWP-1, 2	GRAYWATER RETURN	BASEMENT MECHANICAL ROOM	WATER	60	25	70	2" / 1-1/2"	1-1/2	1750	460/3	ALTERNATING, ONE STAND-BY, TYPE II, B6 SERIES 80
GWP-3, 4	GRAYWATER SUPPLY	ATTIC	WATER	60	25	75	2" / 1-1/2"	2	1750	460/3	ALTERNATING, ONE STAND-BY, TYPE II, B6 SERIES 80
SE-1	SEWAGE EJECTOR	BASEMENT MECHANICAL ROOM	SEWAGE	70	30	30	2" / 2"	3/4	1750	460/3	DUPLEX
SE-2	ACID WASTE SEWAGE EJECTOR	PLUMBING ROOM	LAB WASTE	70	32	38	2" / 2"	1	3600	460/3	DUPLEX
HWR-1	WATER HEATER RECIRCULATION	BASEMENT PLUMBING ROOM	WATER	120	3	25	3/4" / 3/4"	1/8	3250	115/1	

DOMESTIC WATER HEATER SCHEDULE												
TAG	LOCATION	MINIMUM STORAGE CAPACITY (GALLONS)	MAXIMUM UNIT CAPACITY (MBTU/H)	MAXIMUM DESIGN PRES. (PSI)	BOILER WATER			ELECTRICAL		RECOVERY		REMARKS
					GPM	ENT F.	LWT F.	INP. KW	VOLT/PHASE	RATE (GPH)	ΔT	
DWH-1	BASEMENT PLUMBING ROOM	225	320	125	43	160	145	100	480/3	380	100	PRIMARY SOURCE: HEATING HOT WATER, SECONDARY SOURCE: ELECTRICAL
-	-	-	-	-	-	-	-	-	-	-	-	

PLUMBING FIXTURE SCHEDULE						
TAG	FIXTURE	DRAIN	VENT	CW ①	HW ①	REMARKS
P-1	WATER CLOSET - WOMEN'S TOILET ROOM	4"	2"	1/2"	-	
P-1A	WATER CLOSET (ADA) - WOMEN'S TOILET ROOM	4"	2"	1/2"	-	
P-1B	WATER CLOSET - MEN'S TOILET ROOM	4"	2"	1/2"	-	
P-1C	WATER CLOSET (ADA) - MEN'S TOILET ROOM	4"	2"	1/2"	-	
P-2	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	
P-3	URINAL	2"	1-1/2"	-	-	
P-3A	URINAL (ADA)	2"	1-1/2"	-	-	
P-4	SERVICE SINK	3"	1-1/2"	1/2"	1/2"	
P-5	ELECTRIC WATER COOLER	1-1/4"	1-1/2"	1/2"	-	
P-6	EMERGENCY SHOWER/EYEWASH COMBINATION UNIT	1-1/2"	1-1/2"	1"	1"	
P-7	STAINLESS STEEL SINK	1-1/2"	1-1/2"	1/2"	1/2"	
P-8	STAINLESS STEEL LAB SINK	1-1/2"	1-1/2"	1/2"	1/2"	

① PROVIDE SHUTOFF VALVE IN CW AND HW TO EACH FIXTURE OR EACH SERVICE TO A CHASE. VALVES IN SUPPLIES FULFILL THIS REQUIREMENT.

PLUMBING LABORATORY EQUIPMENT CONNECTION SCHEDULE								
TAG	EQUIPMENT NAME	PLUMBING CONNECTION(S) ①						NOTES
		DRAIN	VENT	CW	HW	PG	LA	
CC005	LABORATORY GLASSWARE WASHER	3"	1-1/2"	1"	1"	-	-	-
CC015	CAGE AND BOTTLE WASHER	2"	-	1"	1"	-	-	130F HW (MIN)
CC016	BIO SAFETY CABINET	-	-	1/2"	-	-	-	-
1011	UNDERCOUNTER CHILLER: NESLAB UNIT	1-1/2"	1-1/2"	1/2"	-	-	-	-
1012	REVERSE OSMOSIS UNIT FOR TYPE II WATER	-	-	3/4"	-	-	-	DRAIN PROVIDED WITHIN VICINITY
1013	REVERSE OSMOSIS UNIT FOR TYPE I WATER	-	-	3/4"	-	-	-	DRAIN PROVIDED WITHIN VICINITY
1017	ICE MACHINE	-	-	3/4"	-	-	-	-
1271	NUCLEAR MAGNETIC RESONANCE (NMR)	-	-	-	-	-	-	3/4"
1290	DISHWASHER (FUTURE)	1-1/2"	1-1/2"	1/2"	1/2"	-	-	-
4610	STATIC CAGES W/ ANIMAL RACKS	-	-	1/2"	-	-	-	-
4614	BOTTLE FILLING STATION	-	-	1/2"	-	-	-	-
4615	COMBINATION WASHER / DRYER	3"	-	3/4"	3/4"	-	-	-
4616	HOSE AND HOSE REEL	-	-	3/4"	-	-	-	-
5103	COFFEE MAKER	-	-	1/2"	-	-	-	-
5500	MOBILE TEACHER'S WORKSTATIONS	2"	1-1/2"	1/2"	1/2"	-	-	VALVE BOX W/ ACCESS COVER
S	LABORATORY SINK W/IN CASEWORK	1-1/2"	1-1/2"	1/2"	1/2"	-	-	②
CS	LABORATORY CUPSINK W/IN CASEWORK	1-1/2"	1-1/2"	1/2"	-	-	-	-
AS	ACCESSIBLE LABORATORY SINK W/IN CASEWORK	1-1/2"	1-1/2"	1/2"	1/2"	-	-	②

① PROVIDE SHUT OFF VALVES IN HW, CW, PG AND LA LINES TO EACH PIECE OF EQUIPMENT. ② PROVIDE THERMOSTATIC MIXING VALVE AND PIPING FOR SINK AND ADJACENT DECKMOUNTED EMERGENCY EYEWASH.