

Professional Seal

Owner Proj. #
**Hook
Brannock
Barney
Residence
(HBB) Hall
Renovation,
Elon University**

214 East Lebanon Av., Elon, NC 27244

Key Plan

Revisions
No. Date Description

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Project Number: 22-009
Drawn: LDH
Checked: CTC
Date: 12/09/2022
Sheet Title

Sheet Number

P100

FIXTURE SCHEDULE					
SYMBOL	FIXTURE	CW	HW	WASTE	REMARKS
P-1	WATER CLOSET	1"	--	4"	FLOOR MTD., FLUSH VALVE, 15" TO UP MIN.
P-2	WATER CLOSET *	1"	--	4"	FLOOR MTD., FLUSH VALVE, ADA, 17-1/2" TO UP MIN.
P-3	MOP BASIN	3/4"	3/4"	3"	
P-4	LAVATORY	1/2"	1/2"	1-1/2"	UNDERMOUNT
P-5	BATHTUB	1/2"	1/2"	2"	
P-6	SHOWER **	1/2"	1/2"	2"	36" x 36" - STANDARD
P-7	SHOWER **	1/2"	1/2"	2"	36" x 36" - ADA
P-8	SHOWER **	1/2"	1/2"	2"	30" x 60" - ADA
P-9	SINK	1/2"	1/2"	2"	SINGLE BOWL UNDERMOUNT - ADA
P-10	WASHING MACHINE BOX	3/4"	3/4"	2"	34" AFF
P-11	HOSE BIBB	1/2"	--	--	18" AFF WITH WALL BOX
P-12	HOSE BIBB	1/2"	--	--	18" AFF
P-13	ANTI-FREEZE HYDRANT	3/4"	--	--	18" AFG

* INSTALL ADA FIXTURE WITH FLUSH HANDLE ON WIDE SIDE OF ROOM.

** REFER TO ARCHITECTURAL DETAILS FOR SHOWER AND LAVATORY INSTALLATIONS.

** SHOWERS MAY REQUIRE AN OFF-SET DRAIN PAN TO COORDINATE WITH EXIST. BUILDING STEEL LOCATIONS. GENERAL CONTRACTOR WILL DO EXPLORATORY CUTTING IN CEILINGS/FLOORS TO VERIFY LOCATION OF BUILDING STEEL VS SHOWER DRAIN LOCATIONS.

PLUMBING LOAD SUMMARY						
	SANITARY SEWER DEMAND (PL)	SANITARY SEWER LINE SIZE	DOMESTIC WATER DEMAND (PL)	DOMESTIC WATER DEMAND (SPM)	COLD WATER LINE SIZE	HOT WATER LINE SIZE
EXISTING	--	--	--	--	--	--
NEW	283	6"	544	150	3"	1-1/2"

FLOOR DRAIN & CLEANOUT SCHEDULE	
NUMBER	MODEL NUMBER
FD-A	ZURN ZN-415B: DURA COATED CAST IRON BODY ADJUSTABLE 6" B-TYPE NICKEL BRONZE STRAINER, BOTTOM OUTLET, TRAP PRIMER CONNECTION, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS. PROVIDE AND INSTALL WITH DEEP SEAL TRAP. SET STRAINER 1/4" BELOW FINISHED FLOOR.
FD-B	ZURN ZN-415I: DURA COATED CAST IRON BODY ADJUSTABLE 8" I-TYPE NICKEL BRONZE RECESSED STRAINER, BOTTOM OUTLET, TRAP PRIMER CONNECTION, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS. PROVIDE AND INSTALL WITH DEEP SEAL TRAP. SET STRAINER 1/4" BELOW FINISHED FLOOR.
INTERIOR CLEANOUT	ZURN Z1400-BP: EXTRA HEAVY DUTY "LEVEL-TROL" ADJUSTABLE FLOOR CLEANOUT, DURACOATED CAST IRON BODY WITH GAS & WATER TIGHT BRONZE TAPER THREADED PLUG AND ROUND SCORAIATED POLISHED BRONZE TOP.
EXTERIOR CLEANOUT GRADE AREAS	SCHEDULE 40 PVC PIPE AND CLEANOUT CAPS WITH PREFAB CONCRETE PADS TO MATCH SMITH HALL AND CAROLINA HALL.
EXTERIOR CLEANOUT	ZURN ZS1400-K-BP: "LEVEL-TROL" ADJUSTABLE FLOOR CLEANOUT, DURA COATED CAST IRON BODY WITH ANCHOR FLANGE, GAS & WATER TIGHT BRONZE TAPER PLUG AND ROUND SCORAIATED CAST IRON HEAVY DUTY SECURED TOP WITH ACID RESISTING EPOXY COATED FINISH. (IN FINISHED CONCRETE AREAS)

OR PIRE APPROVED EQUAL PRODUCTS BY:
1. SMITH 2. JOSAM

NOTE:
ASBESTOS CONTAINING MATERIALS (ACM)
REFERRED FROM ARCHITECTURAL PLANS

ASBESTOS CONTAINING MATERIALS (ACM) ARE PRESENT IN THE SPACE TO BE DEMOLISHED. SEE FIELD REPORT FOR ACM LOCATIONS. IF CONTRACTOR ENCOUNTERS WHAT HE SUSPECTS TO BE ACM, HE SHOULD NOT DISTURB IT AND NOTIFY THE OWNER IMMEDIATELY.

GENERAL PLUMBING DEMOLITION NOTES:

- ALL PIPING AND FIXTURES ARE TO BE REMOVED AS SHOWN WITHIN DEMOLITION HATCH AREAS.
- NO EXISTING PIPING SHALL BE LEFT OPEN AFTER PARTIAL REMOVAL. PIPES SHALL BE CAPPED OR EITHER MADE READY FOR CONNECTION TO NEW WORK.
- VERIFY THAT ALL EXISTING FLOOR PENETRATIONS (ABOVE & BELOW) ARE PROPERLY FIRE STOPPED AFTER THE DEMOLITION. THE U.C. SHALL FIRE STOP ALL EXISTING PENETRATIONS EXCEPT OPENINGS LEFT BY THE REMOVAL OF P, M & E PIPES, DUCTS, ETC. P, M & E CONTRACTORS SHALL FIRE STOP ALL THESE PENETRATIONS. NEW PENETRATIONS TO BE FIRE STOPPED BY RESPECTIVE TRADES.
- FIELD VERIFY ALL EXISTING PIPE LOCATIONS, SIZES, AND INVERTS. THIS IS TO INCLUDE ALL COLD, HOT AND HOT WATER RESIN PIPING, DRAIN WASTE AND VENT PIPING. REVIEW ALL NEW WORK PLANS THOROUGHLY PRIOR TO STARTING DEMOLITION.
- REMOVE EXISTING ABANDONED PIPE HANGERS, RODS, AND SUPPORTS DURING DEMOLITION.
- ALL LINES THAT ARE TO BE REMOVED SHALL BE CAPPED AT A MAIN LINE, RISER OR STACKS.
- ALL WALL CUTTING, CONCRETE DEMOLITION, CUTTING, AND REMOVAL FOR PLUMBING WORK SHALL BE COMPLETED AS PART OF THE PLUMBING CONTRACT. ALL CONCRETE FLOOR AND WALL PATCHING SHALL BE COMPLETED UNDER THE GENERAL CONTRACT.
- COORDINATE ALL SYSTEM SHUTDOWNS FOR DEMOLITION AND NEW WORK WITH OWNER.
- FIELD VERIFY THE CURRENT CONDITION OF ALL EXISTING SEWER LINES PRIOR TO CONNECTION. THIS SHALL BE COMPLETED BY MEANS OF CAMERA-JACK-SIZES. WASTE PIPING SHALL BE DEMED IN GOOD WORKING CONDITION AND USABLE FOR CONNECTION OF NEW WASTE PIPING PRIOR TO MAKING ANY FINAL CONNECTIONS.

GENERAL PLUMBING NOTES:

- OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS.
- DO NOT SCALE DRAWING. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL FIXTURES AND EQUIPMENT. DRAWINGS ARE DIAGRAMMATIC. ALL INSTALLED PIPING SHALL BE COORDINATED WITH EXISTING STRUCTURE AND OTHER TRADES.
- FIELD VERIFY THE LOCATION OF EXISTING WASTE AND WATER PIPING SIZES AND LOCATIONS FEEDING THIS BUILDING PRIOR TO STARTING ROUTING OF NEW PIPING.
- ALL WATER AND VENT PIPING SHALL BE INSTALLED ABOVE CEILING OR IN CHASE WALLS U.N.O.
- ALL WASTE PIPING SHALL BE INSTALLED BELOW SLAB, IN CRAWLSPACE, OR ABOVE CEILING AS NOTED ON PLANS. VERIFY BAR JOIST/EXISTING BEAMS LOCATIONS PRIOR TO FLOOR CUTTING.
- SET FLOOR DRAINS WITH LIP SET 1/2" BELOW FINISHED FLOOR ELEVATION.
- PROVIDE ALL OFFSETS IN PIPING AS REQUIRED TO AVOID STRUCTURE AND MECHANICAL EQUIPMENT ABOVE CEILING.
- ALL PLUMBING PIPING SHALL REMAIN CAPPED DURING ROUGH-IN INSTALLATIONS.
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE, LOCAL CODES, PLANS, AND THE PROJECT SPECIFICATIONS. THIS WORK SHALL INCLUDE CLEANOUTS, AND VACUUM BREAKERS REQUIRED FOR A COMPLETE OPERATIONAL PLUMBING SYSTEM.
- ALL PIPING PENETRATIONS THROUGH FIRE RATED FLOORS OR PARTITIONS/WALLS SHALL BE SEALED IN ACCORDANCE WITH THE PROPER UL LISTED SYSTEMS. ALL PENETRATIONS SHALL BE SEALED ABOVE AND BELOW FLOOR SLABS. ALL PENETRATIONS THROUGH NON-RATED WALLS SHALL BE SEALED TO PREVENT SOUND TRANSFER.
- THE LOCATION OF BALL VALVES SHALL BE COORDINATED WITH OTHER TRADES. VALVES SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION WITHIN CRAWLSPACE OR 24" ABOVE CEILING.
- SEE RISER DIAGRAMS FOR ADDITIONAL INFORMATION NOT SHOWN ON FLOOR PLANS.
- ALL ABOVE CEILING PLUMBING PIPING SHALL BE INSTALLED TIGHT TO STRUCTURE WHERE POSSIBLE. ALL NECESSARY CHANGES IN ELEVATIONS OF PIPING NOT SHOWN SHALL BE PROVIDED AS PART OF THIS CONTRACT DUE TO FIELD COORDINATION.
- ALL SEWER VENTS SHALL BE COORDINATED WITH EXISTING ROOF PENETRATIONS. CONNECT AND ROUTE TO EXISTING ROOF PENETRATIONS.
- ALL PLUMBING WATER PIPING INSTALLED IN OR PENETRATING BLOCK WALLS SHALL BE INSULATED WITH MINIMUM 1/2" ARMACELL ELASTOMERIC THERMAL TYPE INSULATION. NO POLYURETHAN/POLYETHYLENE THERMAL INSULATION WILL BE ALLOWED.
- IN THE EVENT THE CONTRACTOR CHOOSES TO USE PRODUCTS OTHER THAN THE BASIS OF DESIGN, HE ASSUMES FULL RESPONSIBILITY FOR COORDINATION AND INTEGRATION OF SUCH ITEMS. THE FUNCTIONAL DESIGN INTEGRITY OF ALL SYSTEMS AND COMPONENTS SHALL BE MAINTAINED. VOLTAGES, LOADS, WIRE SIZES AND QUANTITIES, DISCONNECT SWITCHES AND FUSE SIZES, PHYSICAL SIZE, LOCATIONS, CLEARANCES, ETC. SHALL BE FULLY COORDINATED BY THE CONTRACTOR AND SHALL BE HIS RESPONSIBILITY. ANY ADDITIONAL COST RESULTING FROM SAID SUBSTITUTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

PLUMBING SYMBOLS LEGEND	
W	WASTE
V	VENT
VIR	VENT THRU ROOF
CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER RECIRCULATING
SD	STORM DRAIN
CLG	CEILING
DN	DOWN
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BFF	BELOW FINISHED FLOOR
U.N.O.	UNLESS NOTED OTHERWISE
	PLUMBING FIXTURE
	SANITARY SEWER PIPING
	VENT PIPING
	COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RECIRCULATING PIPING
	STORM/RAIN LEADER PIPING
	EXISTING SANITARY SEWER PIPING
	EXISTING VENT PIPING
	EXISTING STORM SEWER PIPING
	EXISTING COLD WATER PIPING
	EXISTING HOT WATER PIPING
	CONNECT TO EXISTING
	TERMINATION POINT OF DEMOLITION
	EXISTING TO BE REMOVED
	FLOOR DRAIN
	HOSE BIBB
	CLEAN OUT - FINISHED FLOOR
	CLEAN OUT - END OF LINE, STACK OR WALL
	SHOCK ARRESTOR
	PIPE RISER UP
	PIPE RISER DOWN
	PIPE CAP
	UNION
	SERVICE (BALL) VALVE
	BALANCING VALVE (CIRCUIT SETTER) W/ CHECK VALVE
	CHECK VALVE
	PRESSURE REDUCING VALVE
	DIRECTION OF FLOW
	DIRECTION OF SLOPE
	TEE OFF TOP
	TEE OFF BOTTOM
	CONCENTRIC REDUCER
	BALL VALVE
	BUTTERFLY VALVE
	STRAINER WITH BLOW DOWN
	PRESSURE GAUGE WITH SHUT-OFF COCK
	UNION

PROJECT PHASING:

- SEE ARCHITECTURAL SHEET A006 & P201 FOR ADDITIONAL PROJECT PHASING NOTES.

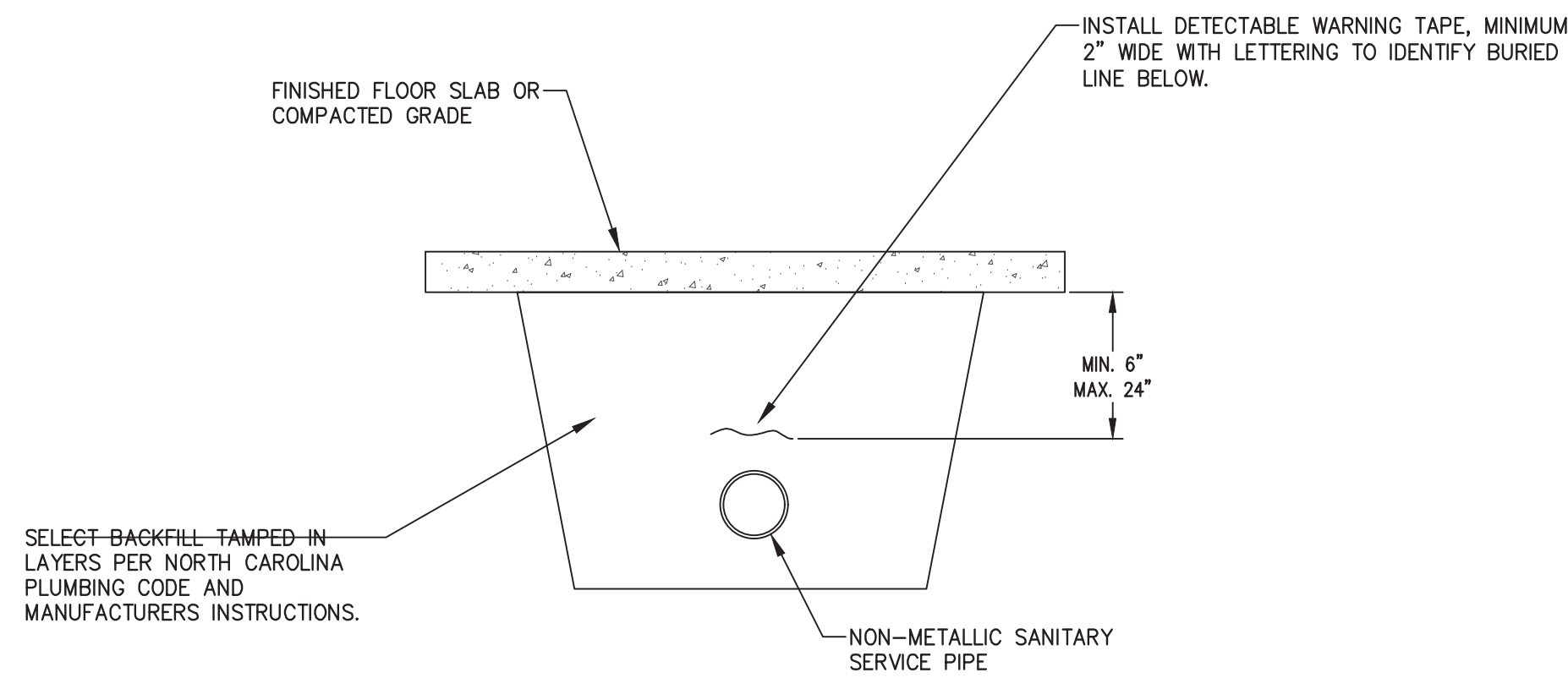
PHASE 1:

- REPLACE ALL WASTE AND WATER PIPING IN CRAWLSPACE.
- REPLACE ALL TOILET FIXTURES.
- RELOCATE EXIST. WATER HEATERS.
- SEE FLOOR PLANS FOR ADDITIONAL PHASING INFORMATION.

PHASE 2:

- UPFIT FACILITY AND GRAD STUDENT APARTMENTS AS SHOWN IN HATCHED AREA.
- SEE FLOOR PLANS FOR ADDITIONAL PHASING INFORMATION.

PLUMBING SHEET INDEX	
P001	PLUMBING LEGENDS, NOTES AND SCHEDULES
P101	PLUMBING DEMOLITION PLAN - LEVEL 1 & 2
P102	PLUMBING DEMOLITION PLAN - LEVEL 3 & ATTIC
P201	PLUMBING RENOVATION PLAN - LEVEL 1 - WASTE, VENT & WATER
P202	PLUMBING RENOVATION PLAN - LEVEL 2, 3 & ATTIC
P301	PLUMBING ENLARGED PLANS
P302	PLUMBING ENLARGED PLANS
P401	PLUMBING WASTE & VENT RISER DIAGRAM
P500	PLUMBING DETAILS SHEET
P501	PLUMBING DETAILS SHEET
P502	PLUMBING DETAILS SHEET



Exterior Non Metallic Plumbing Piping

SCALE: NONE

NOTES:

TRACER WIRE SHALL BE INSTALLED OVER PIPING THROUGHOUT BUILDING AND TERMINATE AT THE EXTERIOR CLEANOUT. INSTALL PER NPCC SECTION 306.2.4.

1 Buried Plumbing Pipe Identification

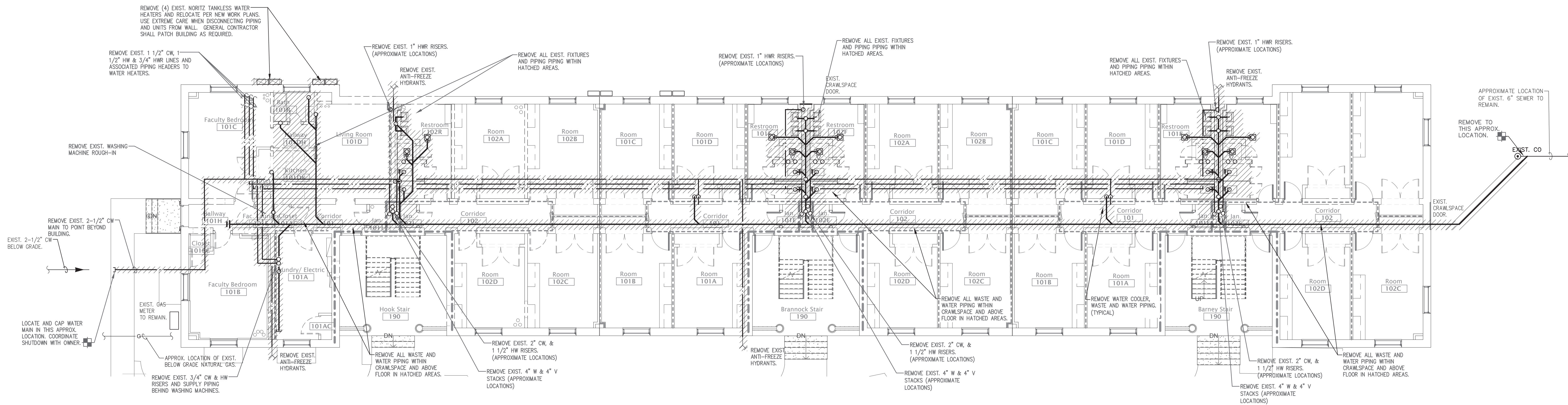
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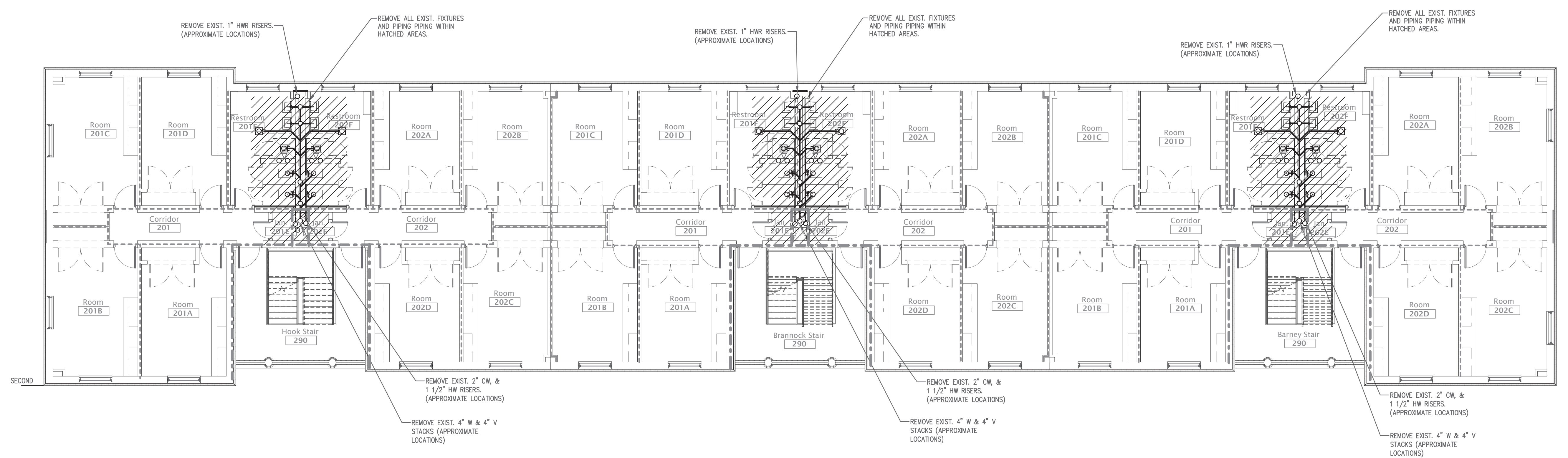
P100

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Key Plan



1 Plumbing Demolition Plan - Level 1
P101 SCALE: 1/8" = 1'-0" Phase 1



2 Plumbing Demolition Plan - Level 2
P101 SCALE: 1/8" = 1'-0" Phase 1

Revisions

No.	Date	Description

- PROJECT PHASING:**
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 - SEE FLOOR PLANS FOR ADDITIONAL PHASING INFORMATION.
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- UPFIT FACULTY AND GRAD STUDENT APARTMENTS AS SHOWN IN HATCHED AREA
 - SEE FLOOR PLANS FOR ADDITIONAL PHASING INFORMATION.

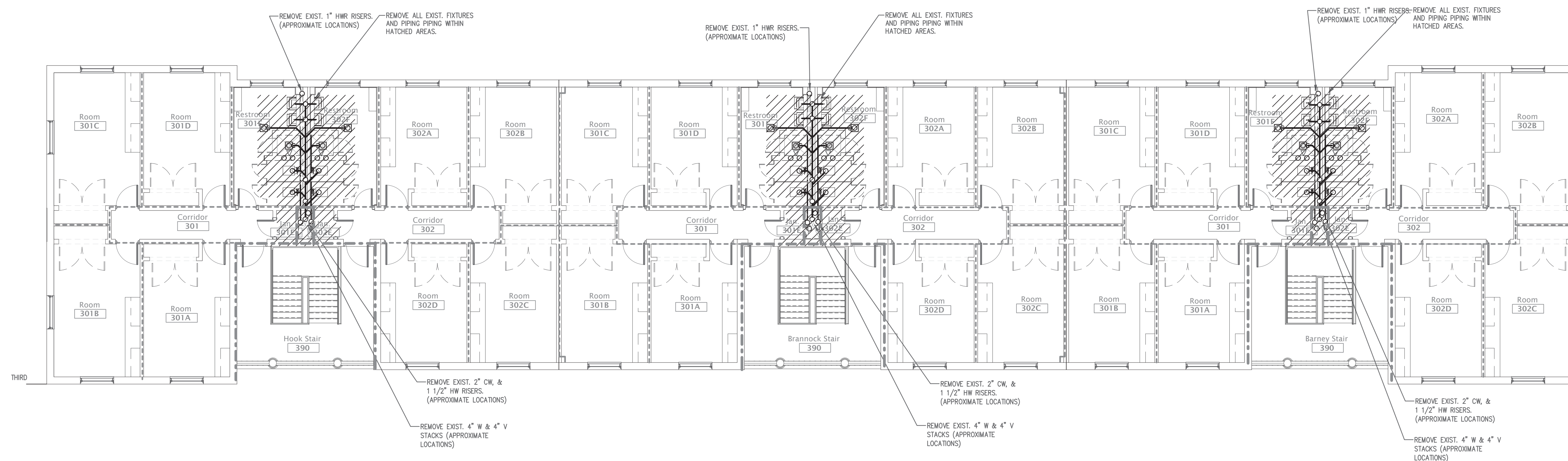
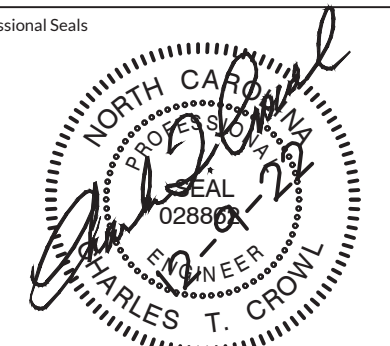
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Sheet Title

RATED WALL LEGEND	
	1 HOUR-RATED FIRE BARRIER
	1 HOUR-RATED FIRE PARTITIONS

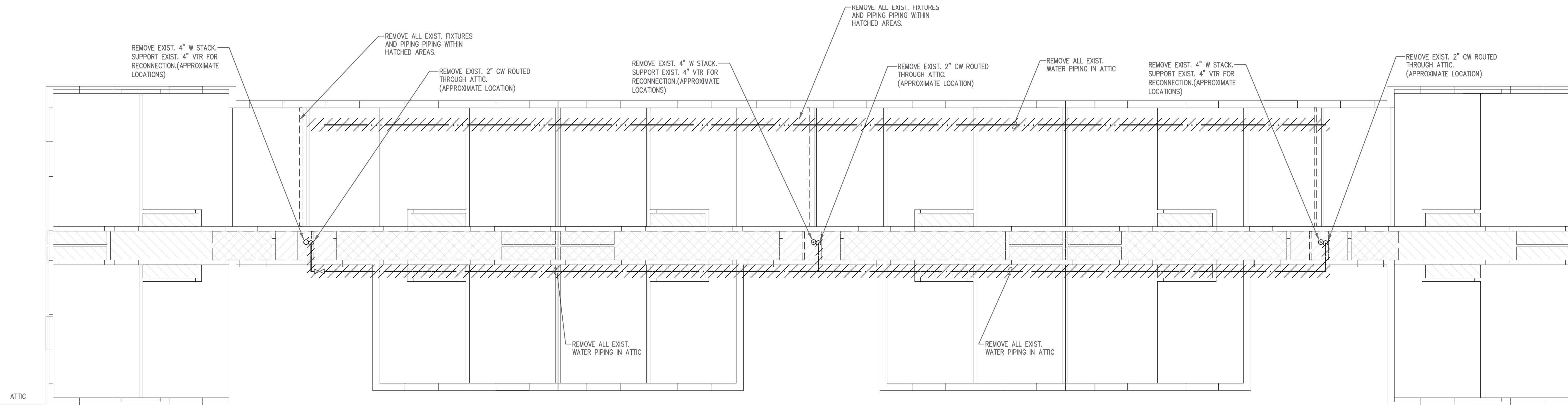


Plumbing Demolition Plans
Sheet Number
P101

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1 Plumbing Demolition Plan - Level 3
P102 SCALE: 1/8" = 1'-0" Phase 1



2 Plumbing Demolition Plan - Attic
P102 SCALE: 1/8" = 1'-0" Phase 1

RATED WALL LEGEND	
	1 HOUR-RATED FIRE BARRIER
	1 HOUR-RATED FIRE PARTITIONS

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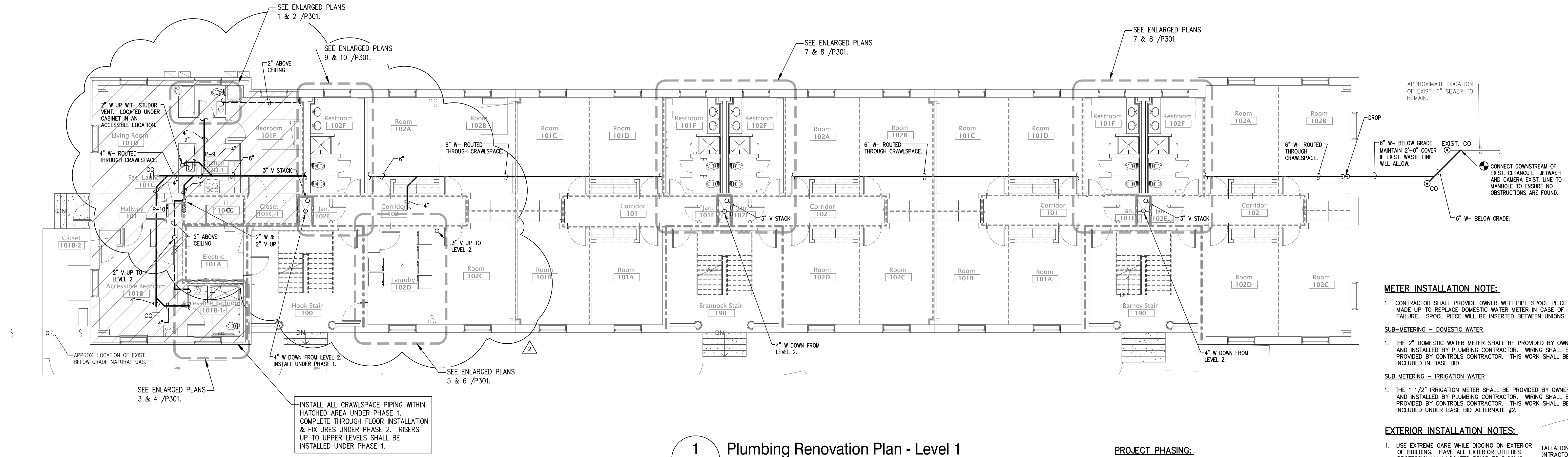
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Sheet Title
Plumbing Demolition Plans
Sheet Number



P102

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1 Plumbing Renovation Plan - Level 1
SCALE: 1/8" = 1'-0"
Waste & Vent

METER INSTALLATION NOTE:

- CONTRACTOR SHALL PROVIDE OWNER WITH PIPE SPOOL PIECE MADE UP TO REPLACE DOMESTIC WATER METER IN CASE OF FAILURE. SPOOL PIECE WILL BE INSERTED BETWEEN UNIONS.

EXTERIOR INSTALLATION NOTES:

- USE EXTREME CARE WHILE DIGGING ON EXTERIOR OF BUILDING. HAVE ALL EXTERIOR UTILITIES PROFESSIONALLY LOCATED PRIOR TO DIGGING.
- INVERTS FOR NEW SEWER LINE ARE APPROXIMATE 98%.
- USE EXTREME CAUTION WHILE WORKING AROUND THE EXISTING STEAM LINES AS NOT TO CAUSE ANY DAMAGE TO EXISTING PIPING OR PIPING INSULATION. DAMAGES SHALL BE RECTIFIED AT THIS CONTRACTORS EXPENSE.

PROJECT PHASING:

PHASE 1:

- REPLACE ALL WASTE & WATER PIPING IN CRAWLSPACE.
- REPLACE ALL TOILET FIXTURES.
- RELOCATE EXIST. WATER HEATERS.
- SEE FLOOR PLANS FOR ADDITIONAL PHASING INFORMATION.

PHASE 2:

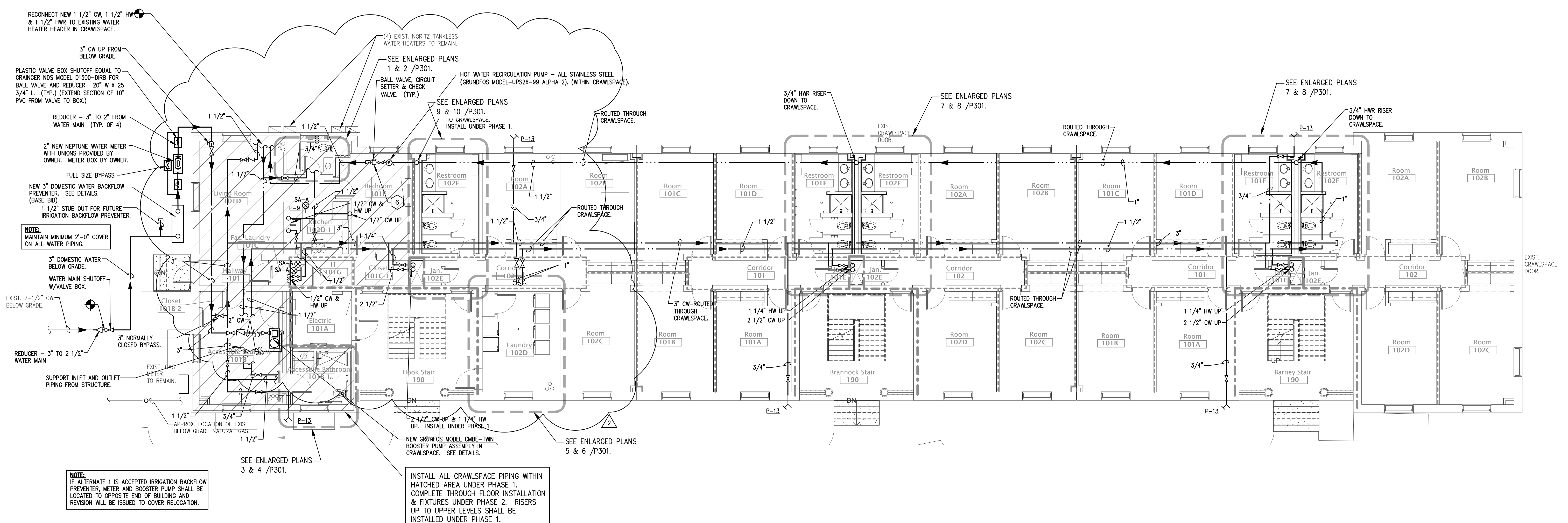
- UPFIT FACILITY AND GRAD STUDENT APARTMENTS AS SHOWN IN HATCHED AREA.
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BALANCE VALVE SCHEDULE			
VALVE	SIZE	MODEL	FLOW
1	3/4"	B&G CB-1/2S	1/2 GPM
2	3/4"	B&G CB-1/2S	1 GPM
3	3/4"	B&G CB-1/2S	1 1/2 GPM
4	3/4"	B&G CB-1/2S	3 GPM
5	1"	B&G CB-1/2S	9 GPM
6	1"	B&G CB-1/2S	12 GPM

Revisions		
No.	Date	Description
1	1/13/2023	ADDENDUM #6, ALT 1
2	4/14/2023	DH Bulletin #1

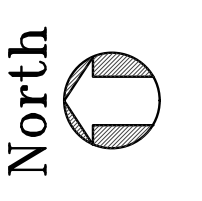


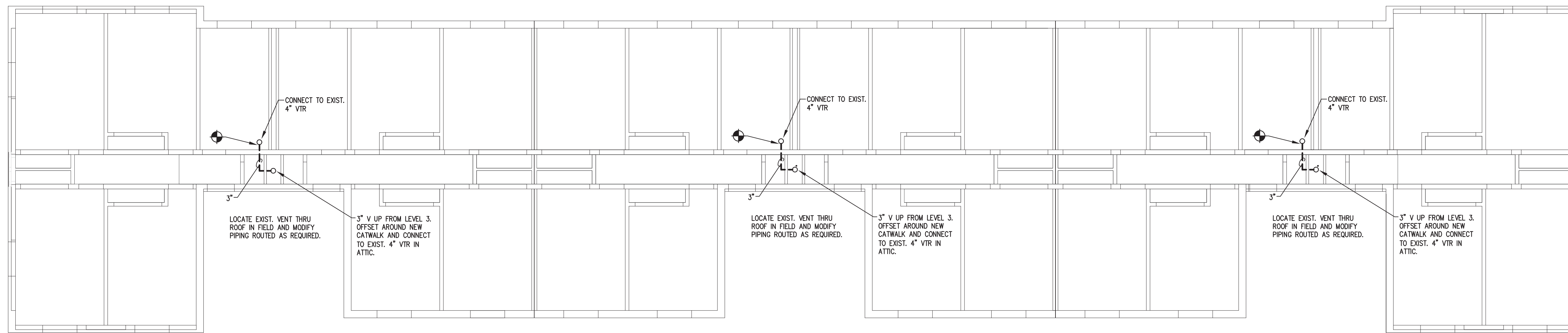
2 Plumbing Renovation Plan - Level 1
SCALE: 1/8" = 1'-0"
Water

RATED WALL LEGEND	
(Symbol)	1 HOUR-RATED FIRE BARRIER
(Symbol)	1 HOUR-RATED FIRE PARTITIONS

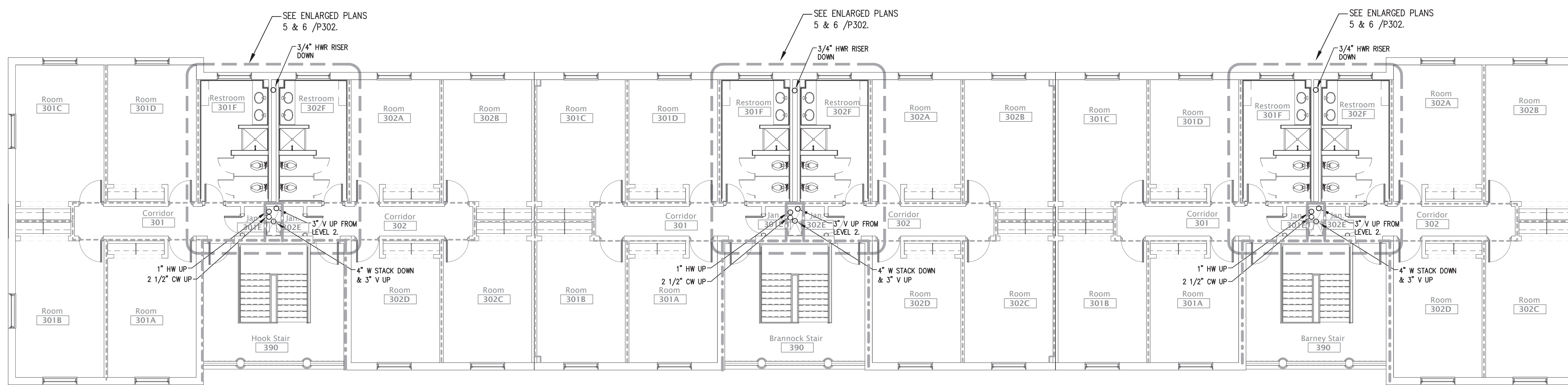
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Plumbing Renovation Plans - Level 1
Sheet Number

P201

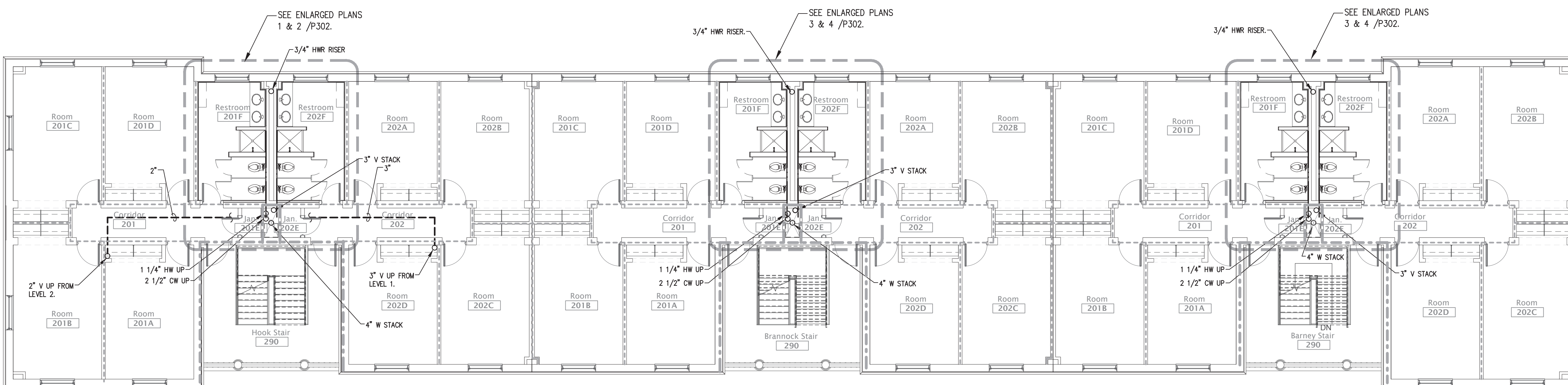




1 Plumbing Renovation Plan - Attic
P202 SCALE: 1/8" = 1'-0"



2 Plumbing Renovation Plan - Level 3
P202 SCALE: 1/8" = 1'-0"



3 Plumbing Renovation Plan - Level 2
P202 SCALE: 1/8" = 1'-0"

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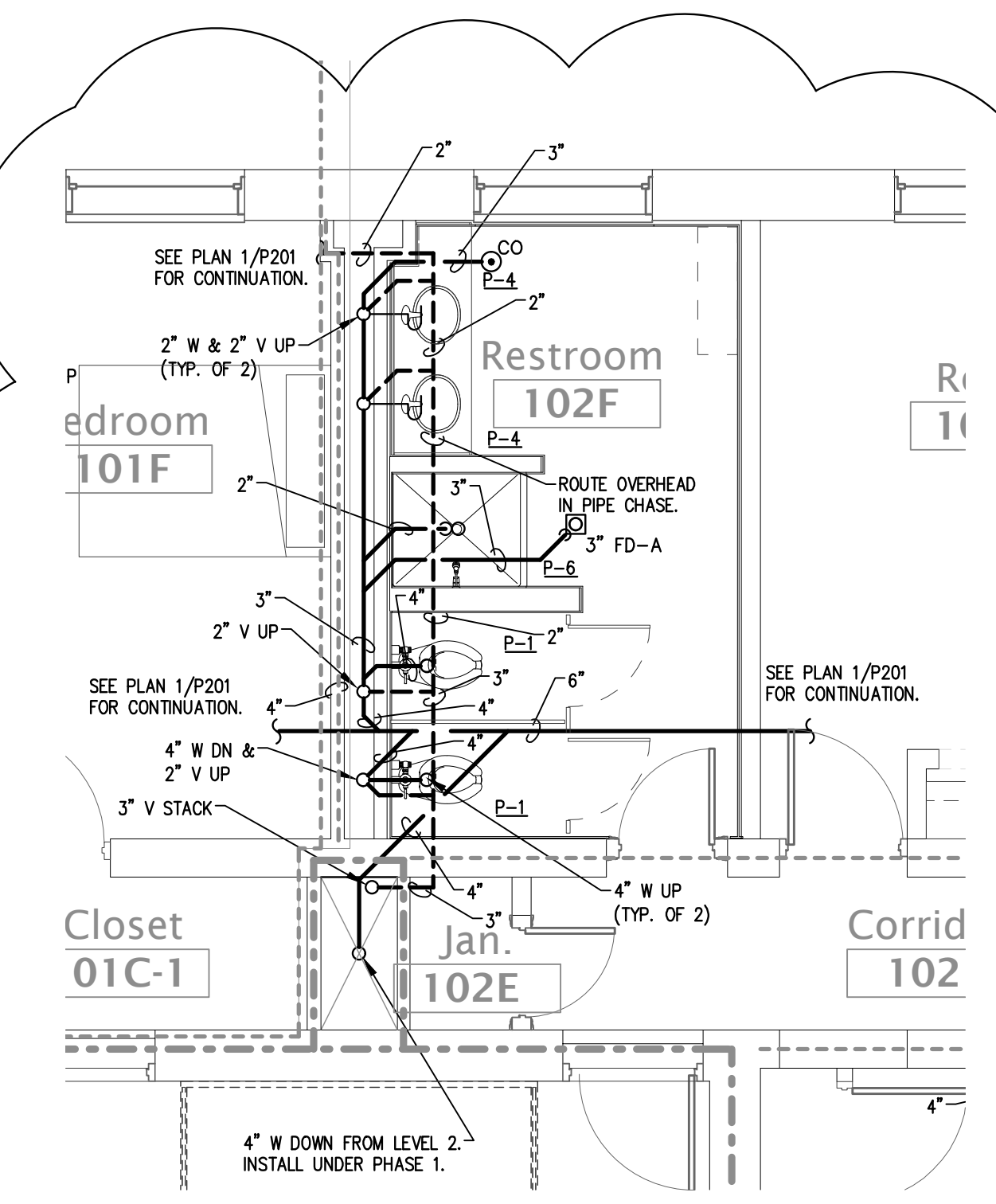
**Plumbing
Renovation Plans -
Levels 2, 3 & Attic**

Sheet Number
P202

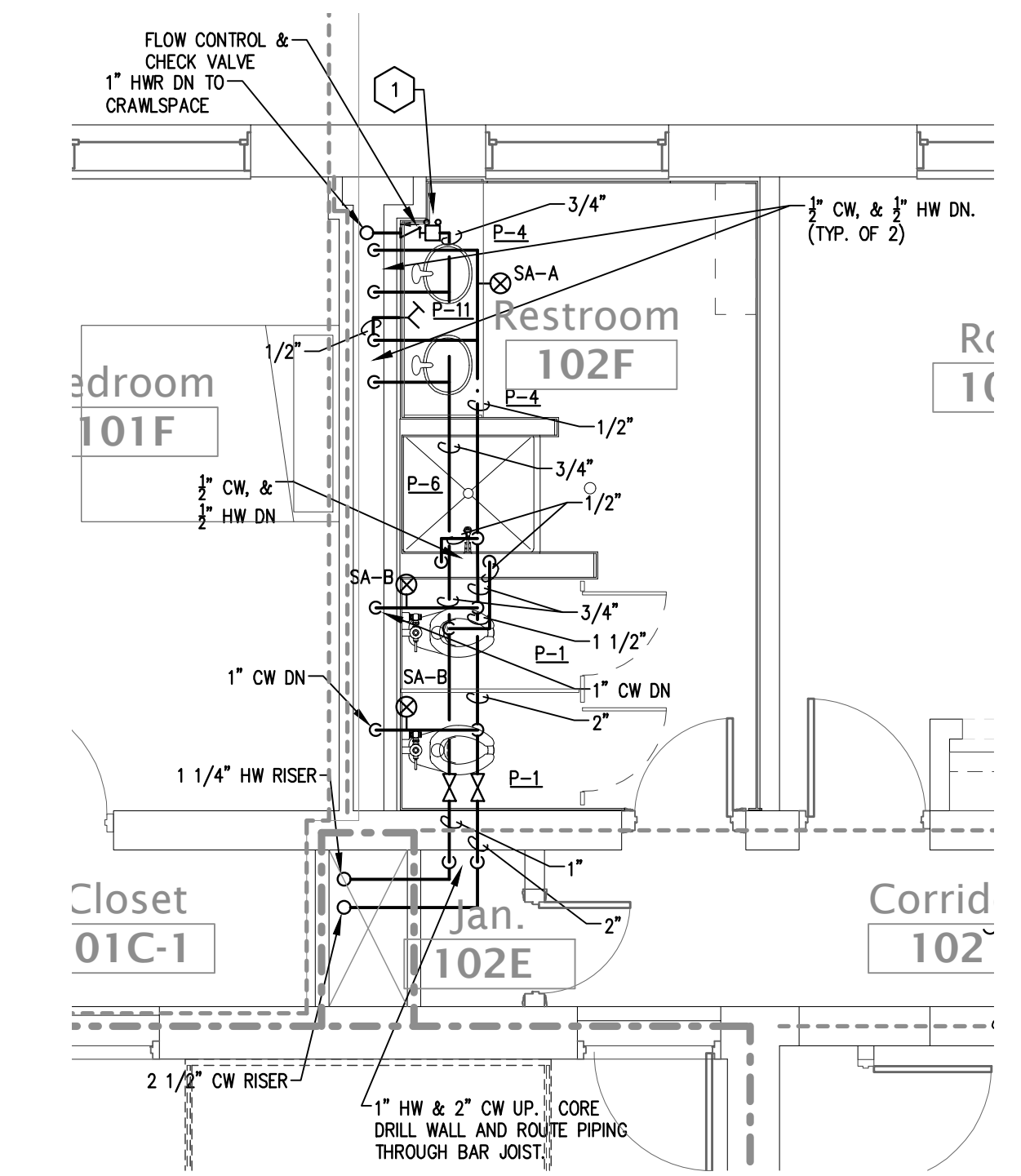
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	1 HOUR-RATED FIRE BARRIER
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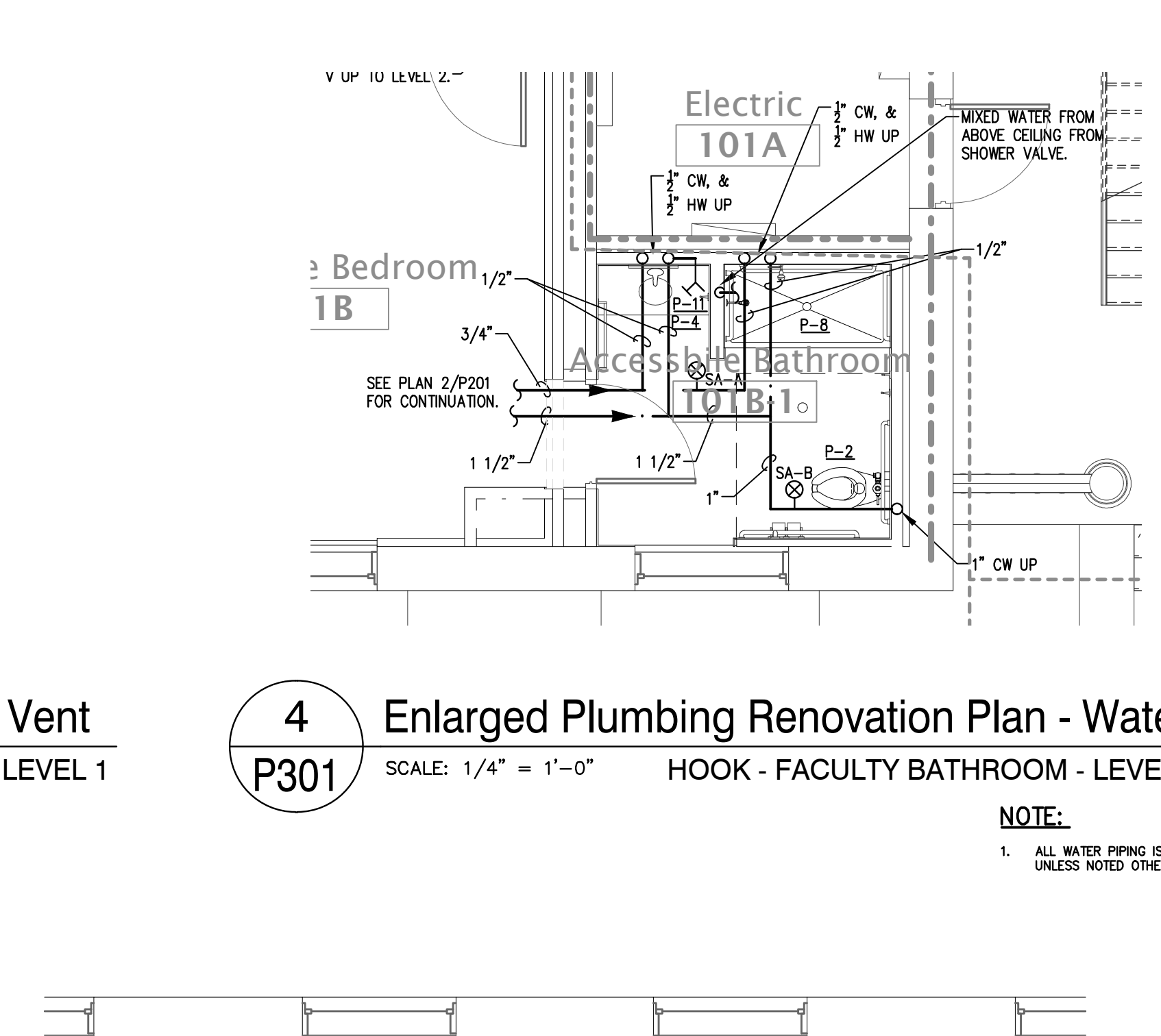
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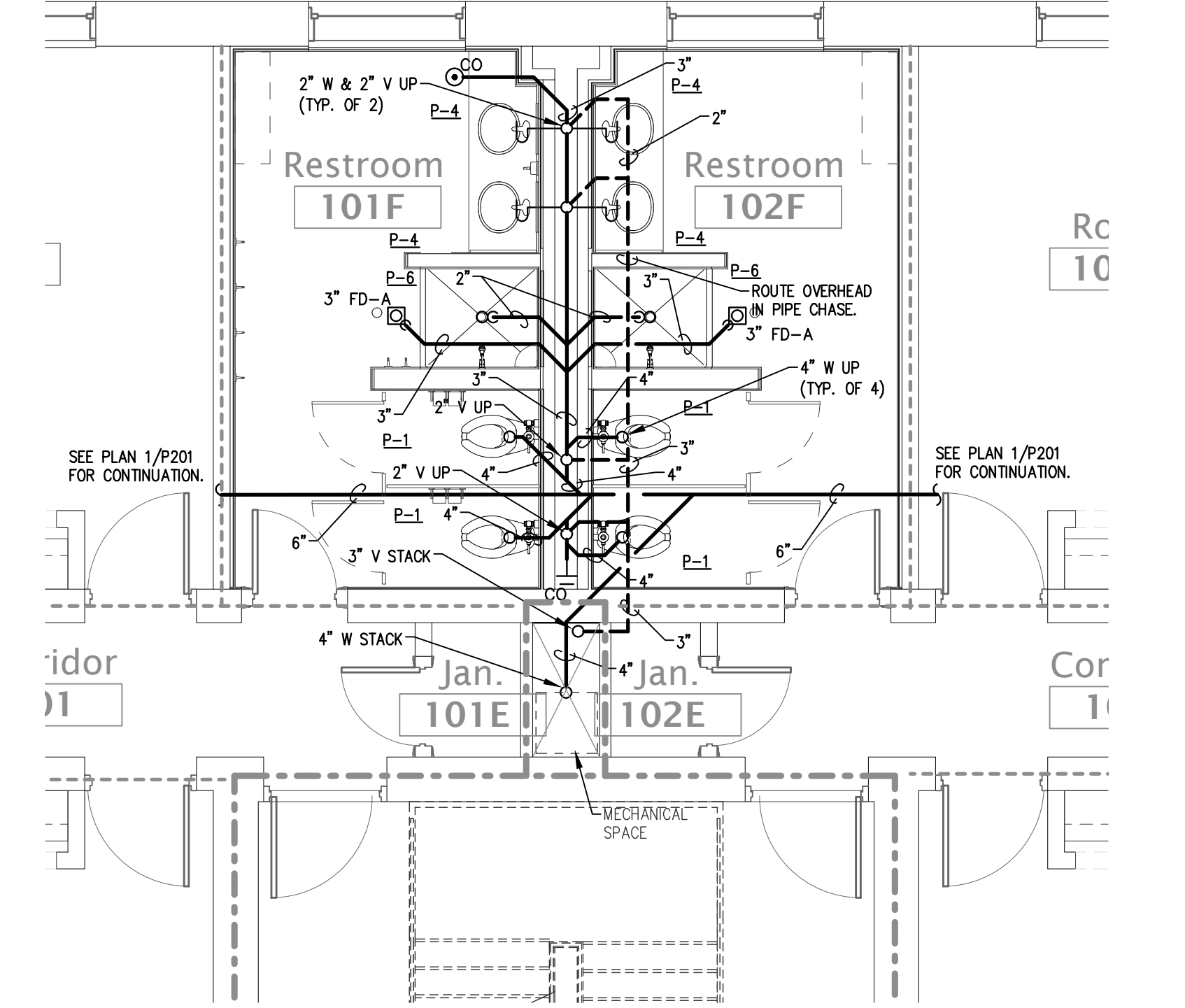
9 Enlarged Plumbing Renovation Plan - Waste & Vent
P301 SCALE: 1/4" = 1'-0" HOOK - FACULTY BATHROOM - LEVEL 1



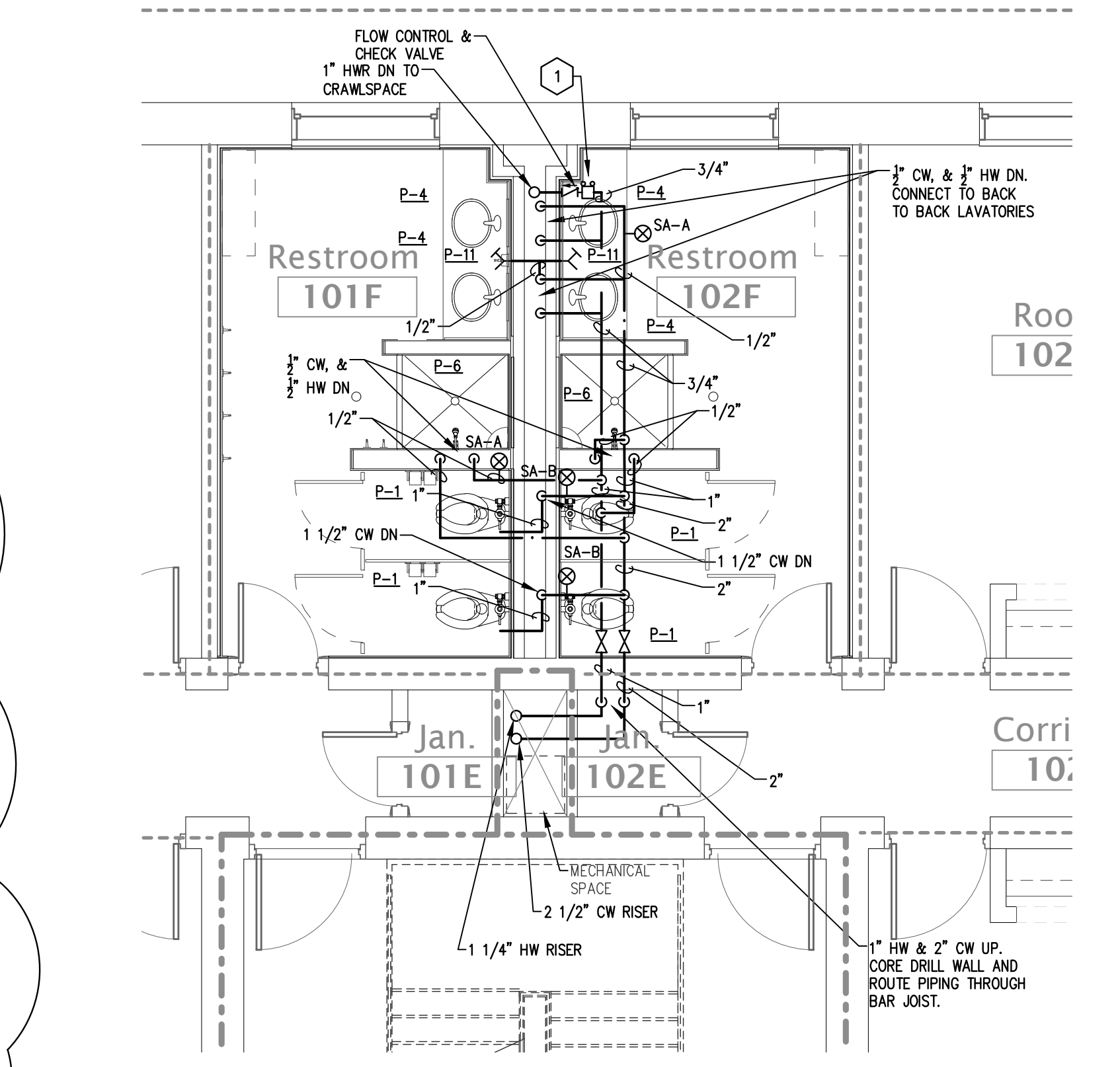
10 Enlarged Plumbing Renovation Plan - Water
P301 SCALE: 1/4" = 1'-0" HOOK - FACULTY BATHROOM - LEVEL 1



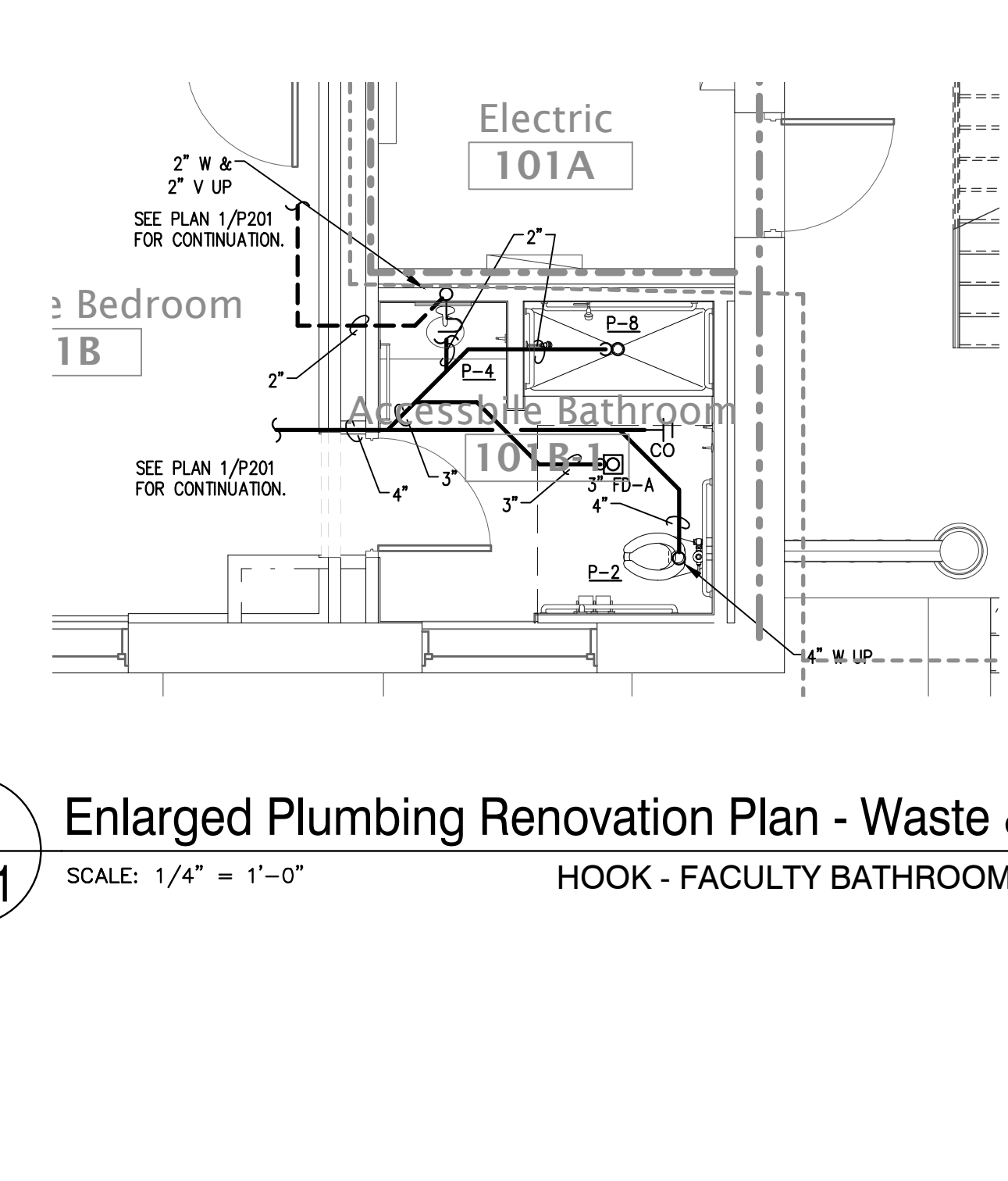
4 Enlarged Plumbing Renovation Plan - Water
P301 SCALE: 1/4" = 1'-0" HOOK - FACULTY BATHROOM - LEVEL 1



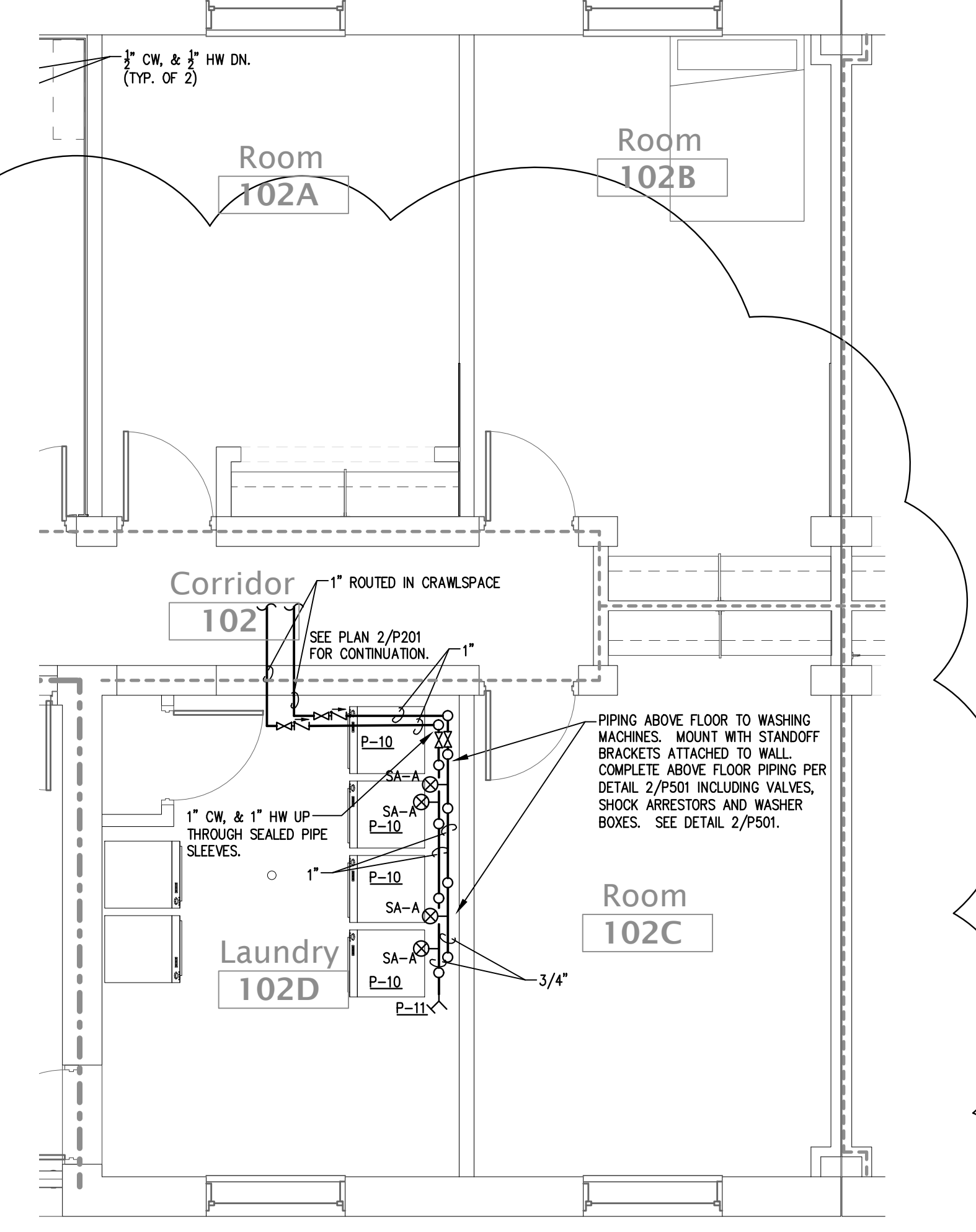
7 Enlarged Plumbing Renovation Plan - Waste & Vent
P301 SCALE: 1/4" = 1'-0" BRANNOCK/BARNEY - RESTROOM 102R - LEVEL 1



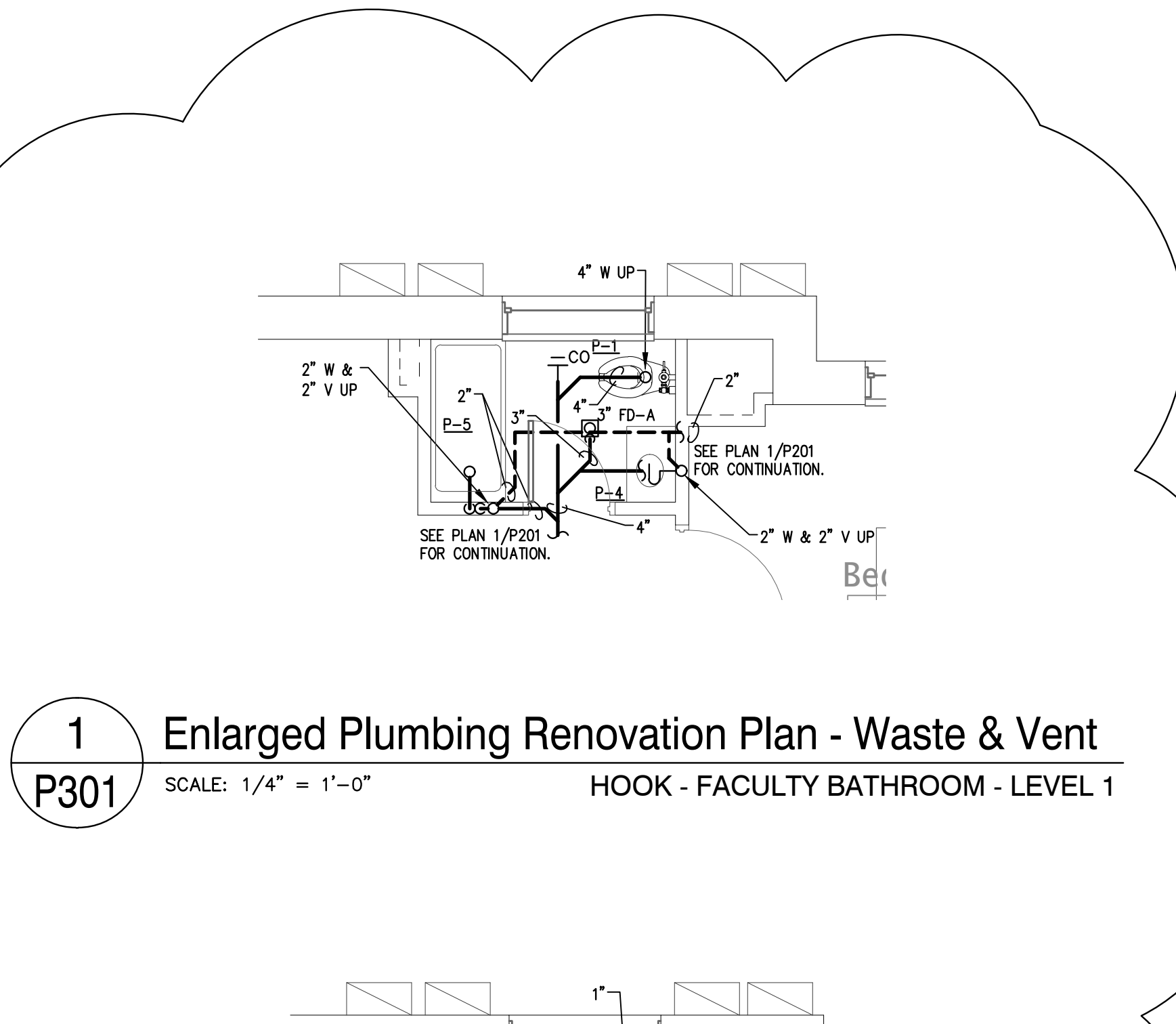
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P301 SCALE: 1/4" = 1'-0" BRANNOCK/BARNEY - RESTROOM 102R - LEVEL 1



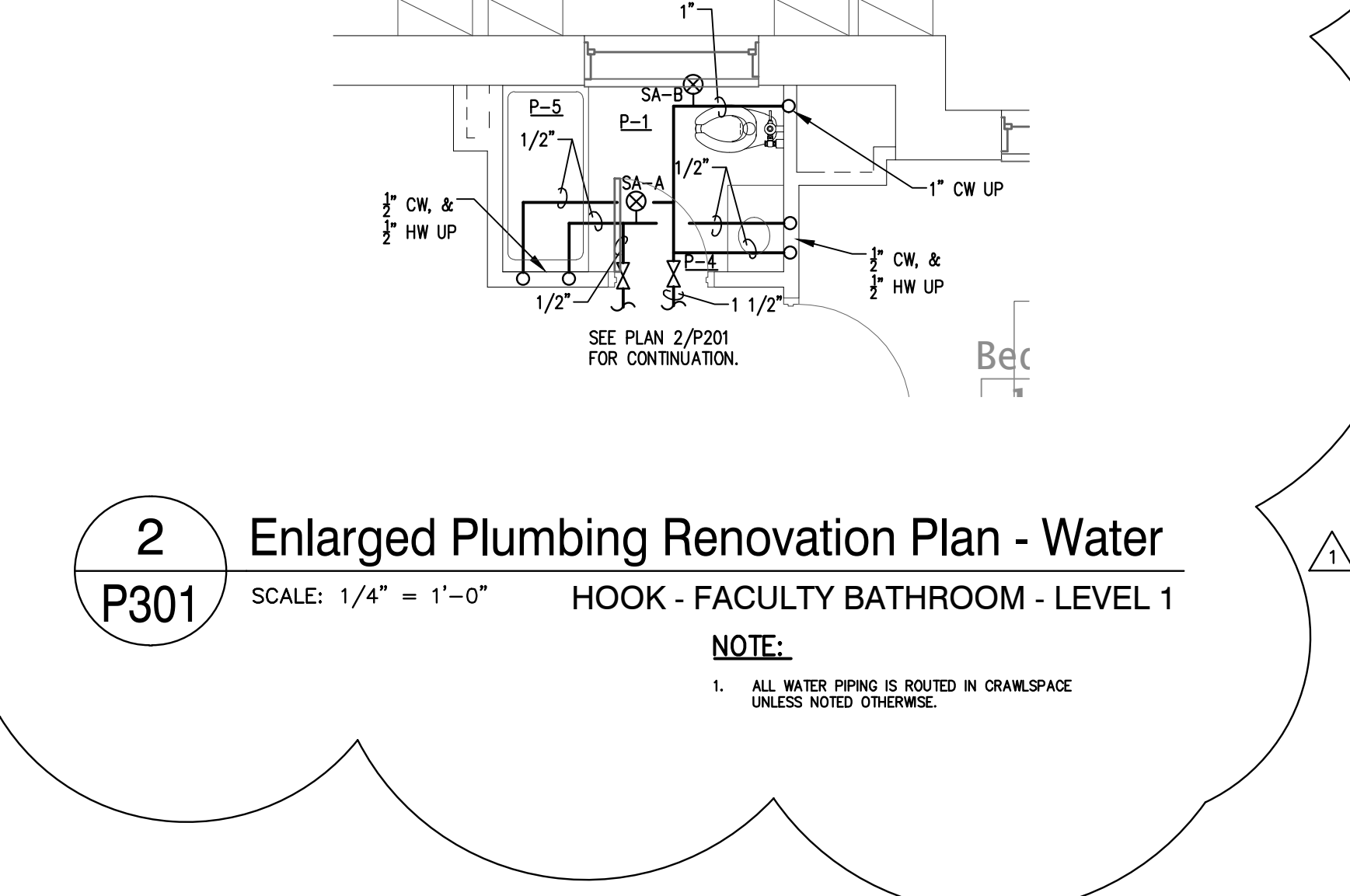
3 Enlarged Plumbing Renovation Plan - Waste & Vent
P301 SCALE: 1/4" = 1'-0" HOOK - FACULTY BATHROOM - LEVEL 1



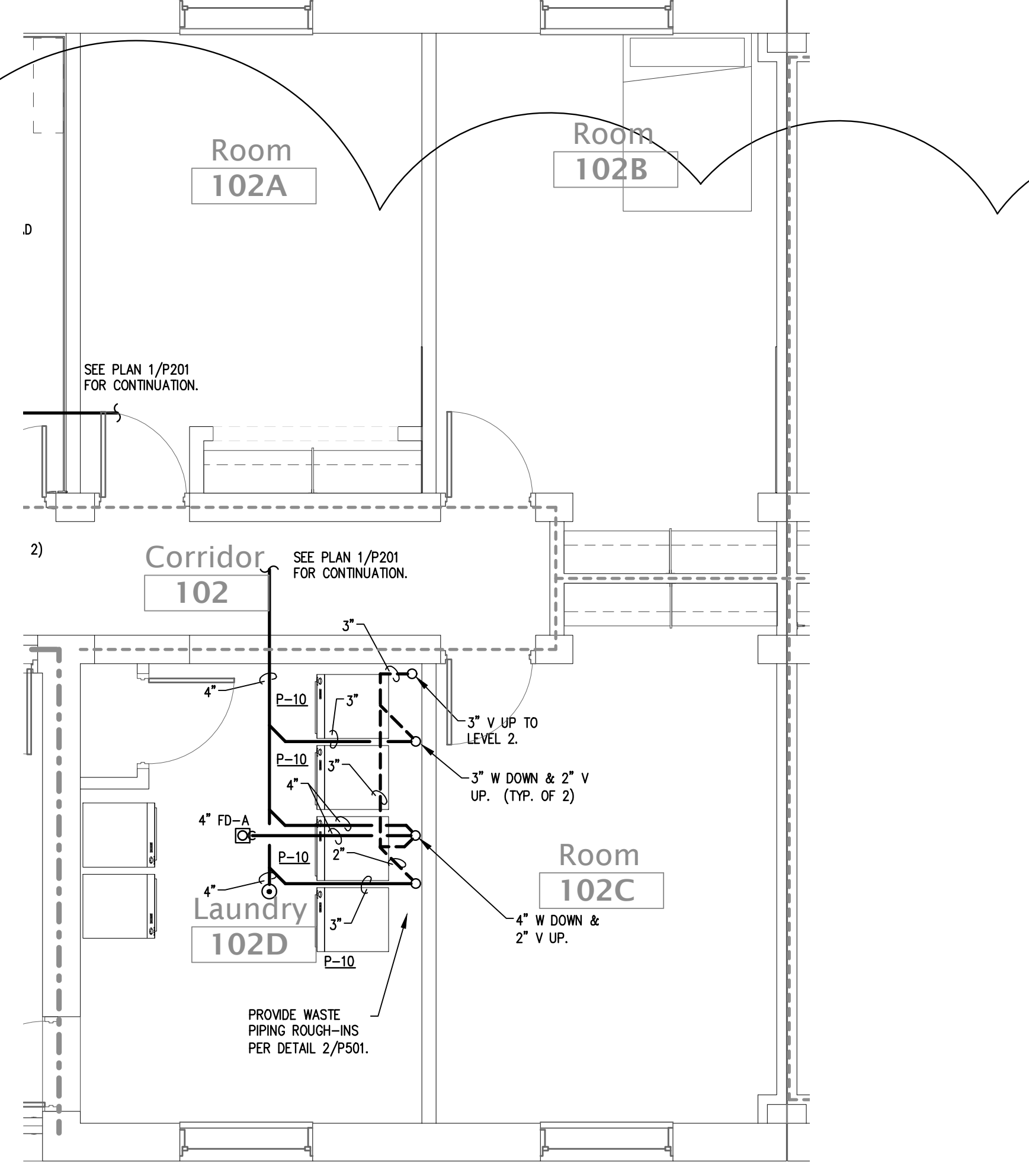
6 Enlarged Plumbing Renovation Plan - Water
P301 SCALE: 1/4" = 1'-0" HOOK - RESTROOM 102R/LAUNDRY - LEVEL 1



1 Enlarged Plumbing Renovation Plan - Waste & Vent
P301 SCALE: 1/4" = 1'-0" HOOK - FACULTY BATHROOM - LEVEL 1



2 Enlarged Plumbing Renovation Plan - Water
P301 SCALE: 1/4" = 1'-0" HOOK - FACULTY BATHROOM - LEVEL 1



5 Enlarged Plumbing Renovation Plan - Waste & Vent
P301 SCALE: 1/4" = 1'-0" HOOK - RESTROOM 102R/LAUNDRY - LEVEL 1

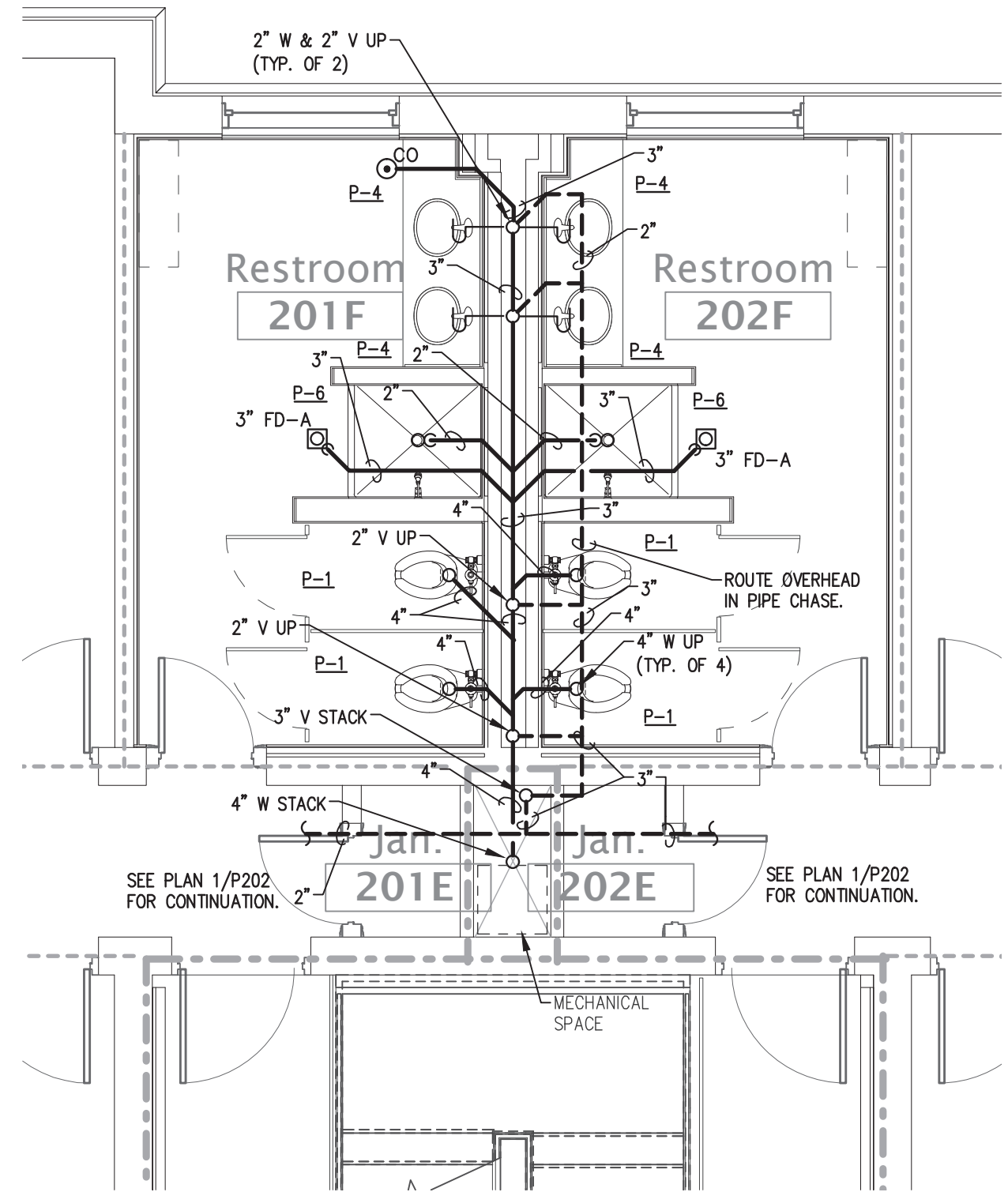
BALANCE VALVE SCHEDULE			
VALVE	SIZE	MODEL	FLOW
1	3/4"	B&G CB-1/2S	1/2 GPM
2	3/4"	B&G CB-1/2S	1 GPM
3	3/4"	B&G CB-1/2S	1 1/2 GPM
4	3/4"	B&G CB-1/2S	3 GPM
5	1"	B&G CB-1/2S	9 GPM
6	1"	B&G CB-1/2S	12 GPM

RATED WALL LEGEND	
	1 HOUR-RATED FIRE BARRIER
	1 HOUR-RATED FIRE PARTITIONS

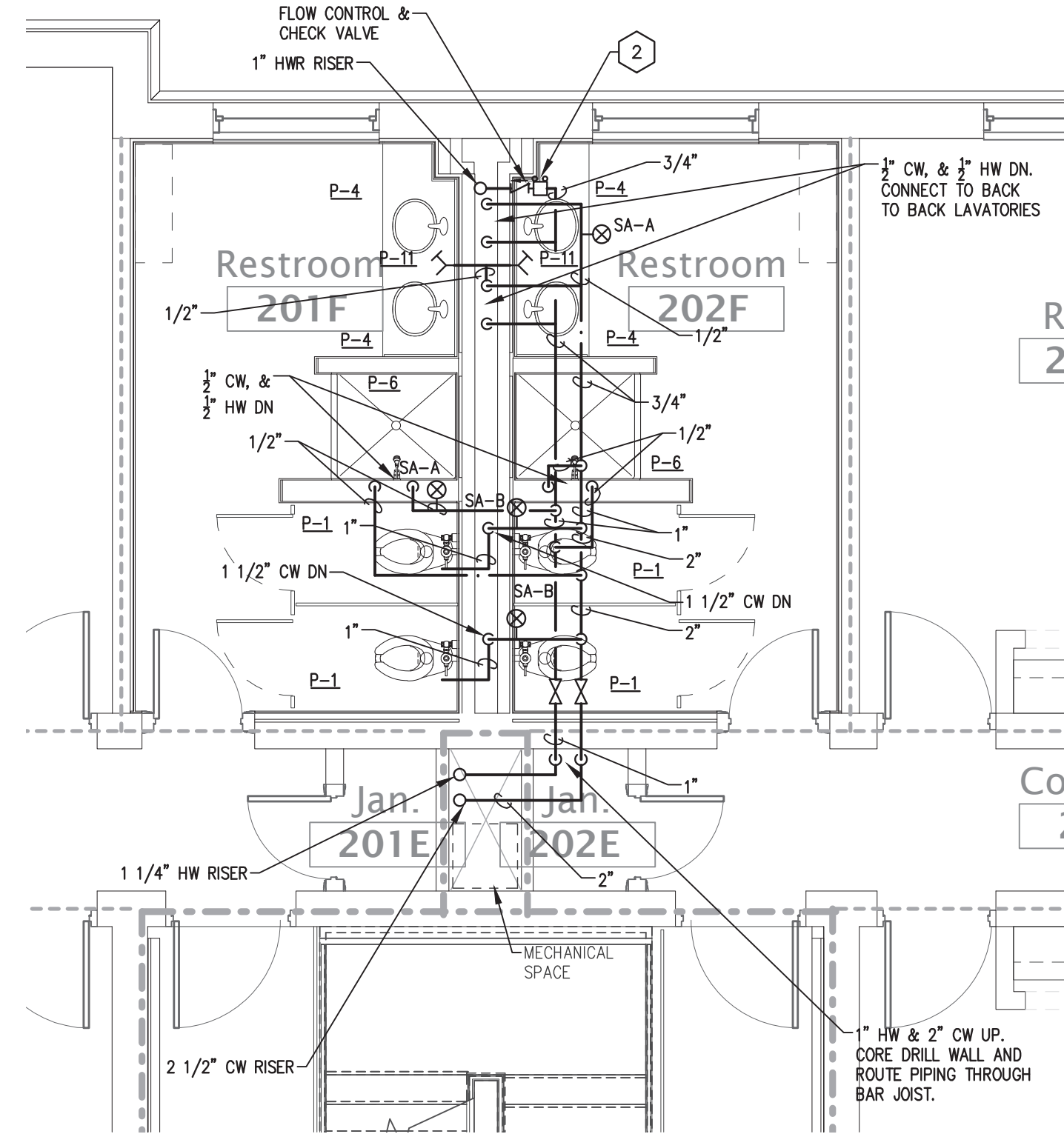


Owner Proj. #
**Hook
Brannock
Barney
Residence
(HBB) Hall
Renovation,
Elon University**

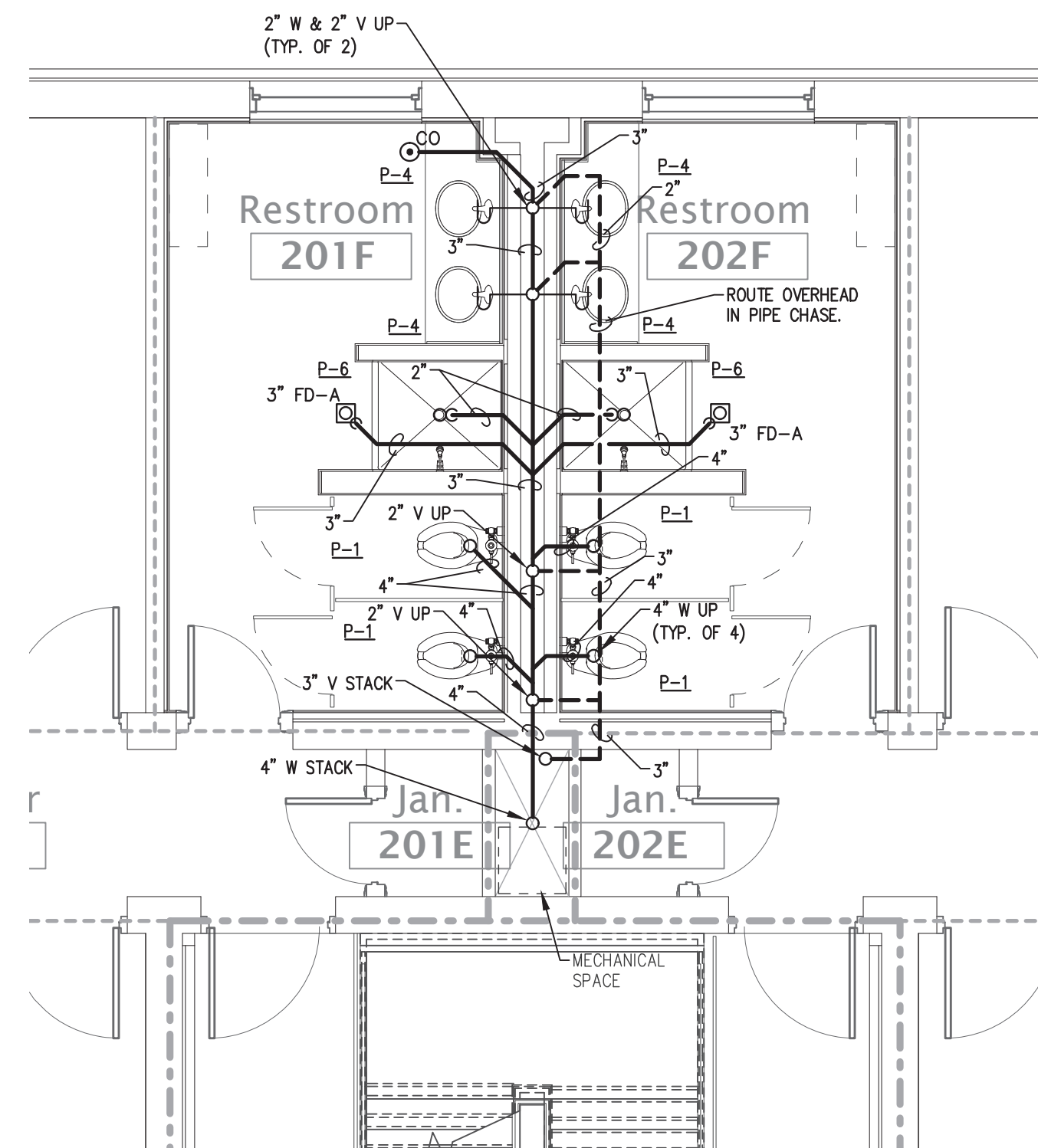
214 East Lebanon Av., Elon, NC 27244
Key Plan



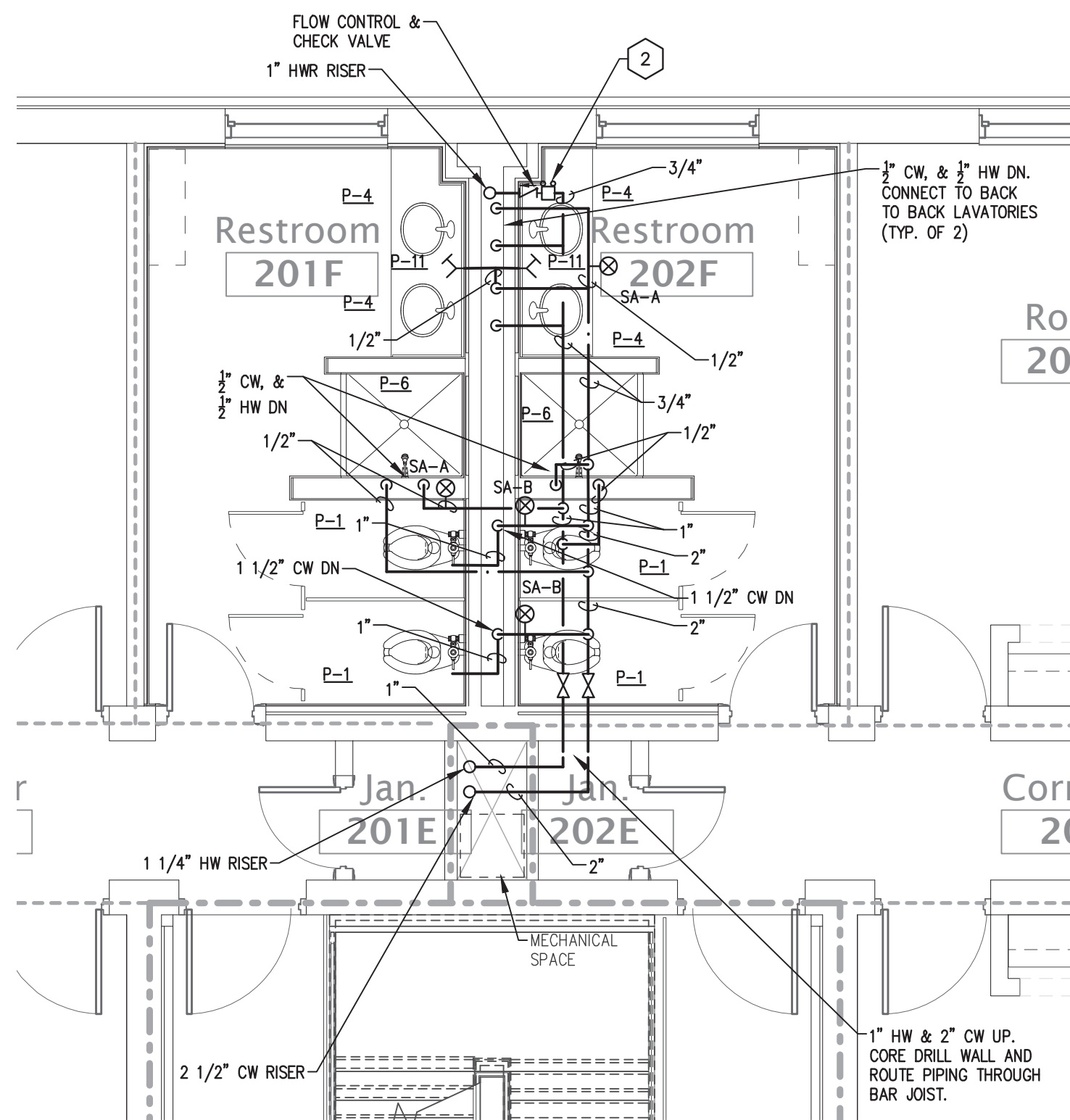
1 Enlarged Plumbing Renovation Plan - Waste & Vent
P302 SCALE: 1/4" = 1'-0" HOOK - RESTROOMS - LEVEL 2



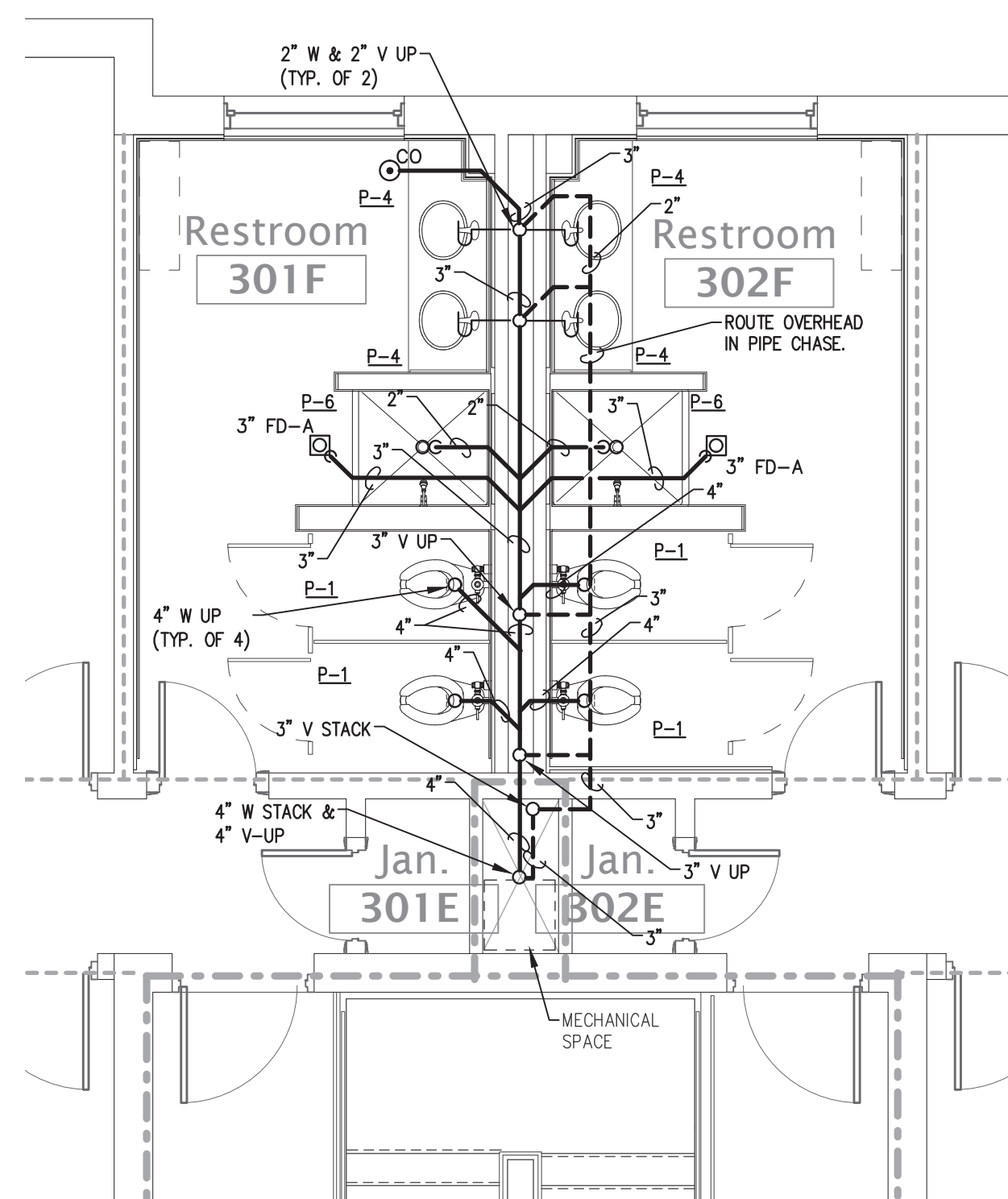
2 Enlarged Plumbing Renovation Plan - Water
P302 SCALE: 1/4" = 1'-0" HOOK - RESTROOMS - LEVEL 2



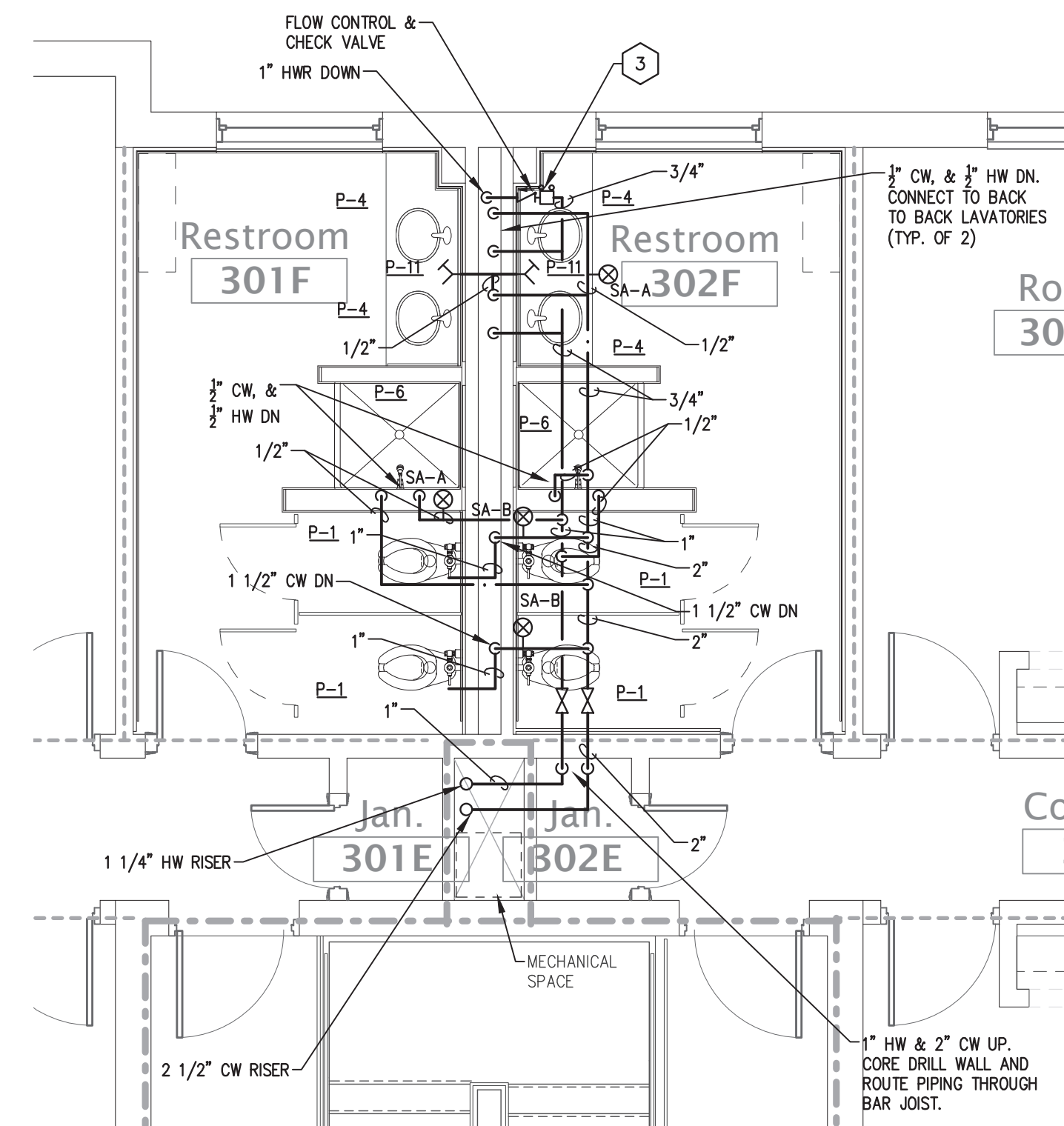
3 Enlarged Plumbing Renovation Plan - Waste & Vent
P302 SCALE: 1/4" = 1'-0" BRANNOCK/BARNEY - RESTROOMS - LEVEL 2



4 Enlarged Plumbing Renovation Plan - Water
P302 SCALE: 1/4" = 1'-0" BRANNOCK/BARNEY - RESTROOMS - LEVEL 2



5 Enlarged Plumbing Renovation Plan - Waste & Vent
P302 SCALE: 1/4" = 1'-0" HOOK/BRANNOCK/BARNEY RESTROOMS - LEVEL 3



6 Enlarged Plumbing Renovation Plan - Water
P302 SCALE: 1/4" = 1'-0" HOOK/BRANNOCK/BARNEY RESTROOMS - LEVEL 3

BALANCE VALVE SCHEDULE			
VALVE	SIZE	MODEL	FLOW
①	3/4"	B&G CB-1/2S	1/2 GPM
②	3/4"	B&G CB-1/2S	1 GPM
③	3/4"	B&G CB-1/2S	1 1/2 GPM
④	3/4"	B&G CB-1/2S	3 GPM
⑤	1"	B&G CB-1/2S	9 GPM
⑥	1"	B&G CB-1/2S	12 GPM

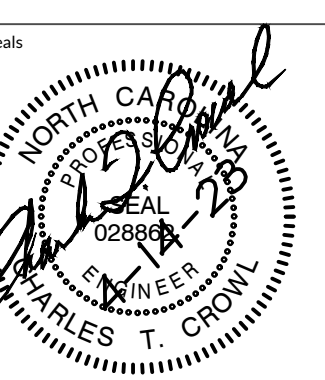
Revisions		
No.	Date	Description

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Original drawings: 30" x 42" Drawn scale contents of this drawing:
Project Number: 22-009
Drawn: LDH
Checked: CTC
Date: 12/09/2022
Sheet Title

Enlarged Plumbing Renovation Plans - Levels - 1 & 2

Sheet Number
P302

RATED WALL LEGEND	
	1 HOUR-RATED FIRE BARRIER
	1 HOUR-RATED FIRE PARTITIONS



Owner Proj. #
**Hook
Brannock
Barney
Residence
(HBB) Hall
Renovation,
Elon University**

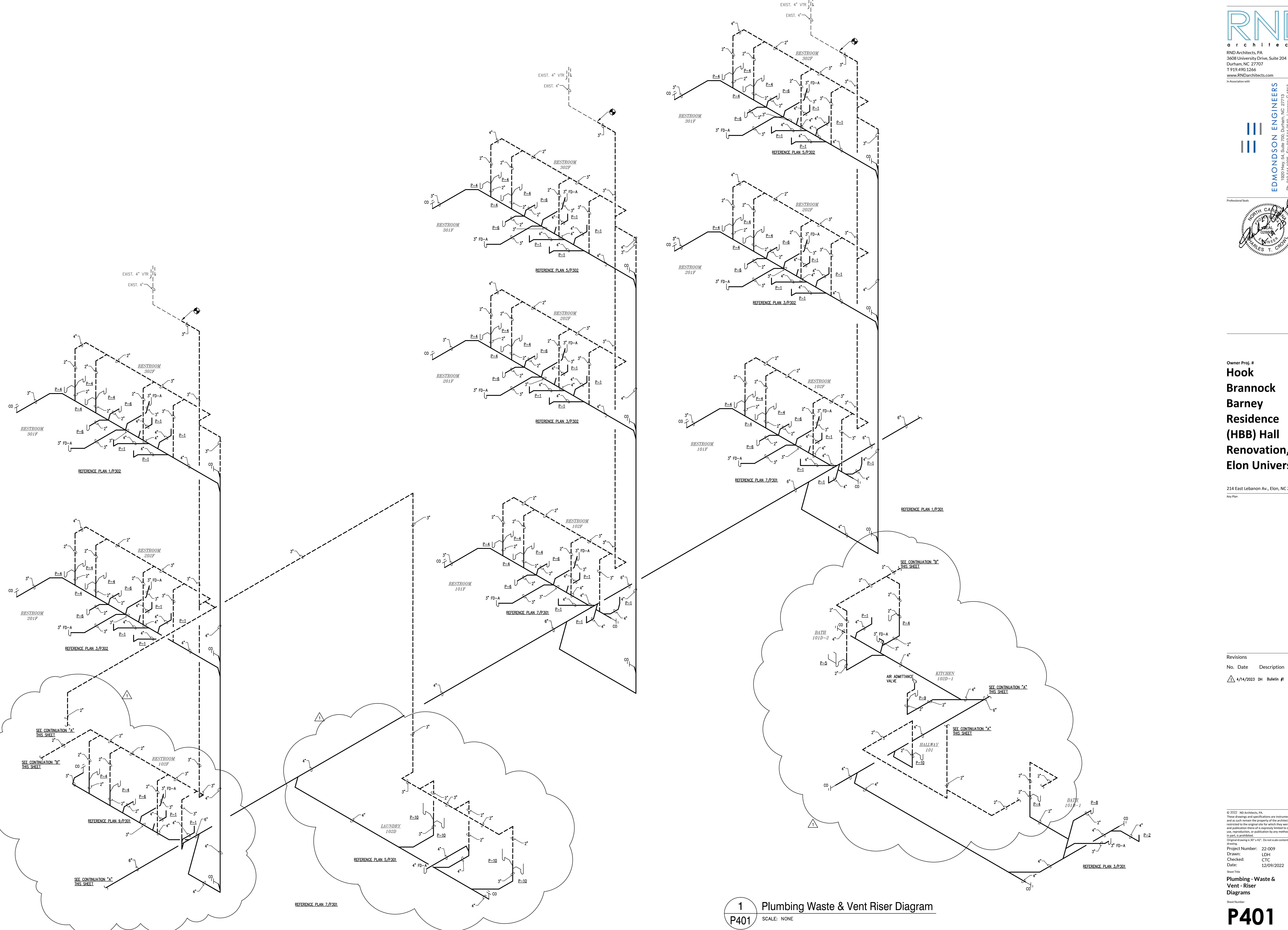
214 East Lebanon Av., Elon, NC 27244
Key Plan

Revisions	No.	Date	Description
△	1	4/14/2023	DH Bulletin #1

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Original drawing is 36" x 42". Do not scale contents of this drawing.
Project Number: 22-009
Drawn: LDH
Checked: CTC
Date: 12/09/2022

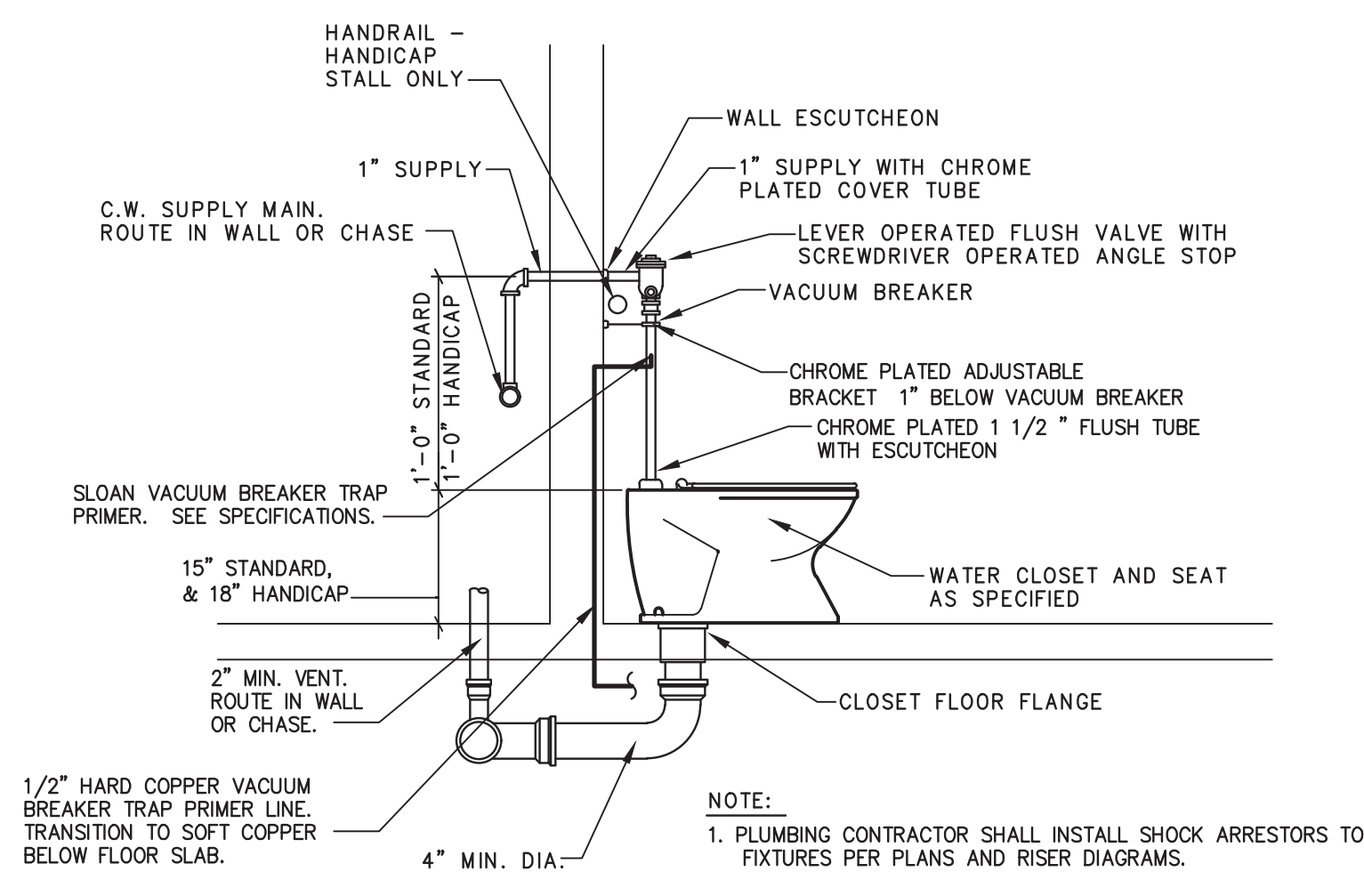
Sheet Title
Plumbing - Waste & Vent - Riser Diagrams

Sheet Number
P401

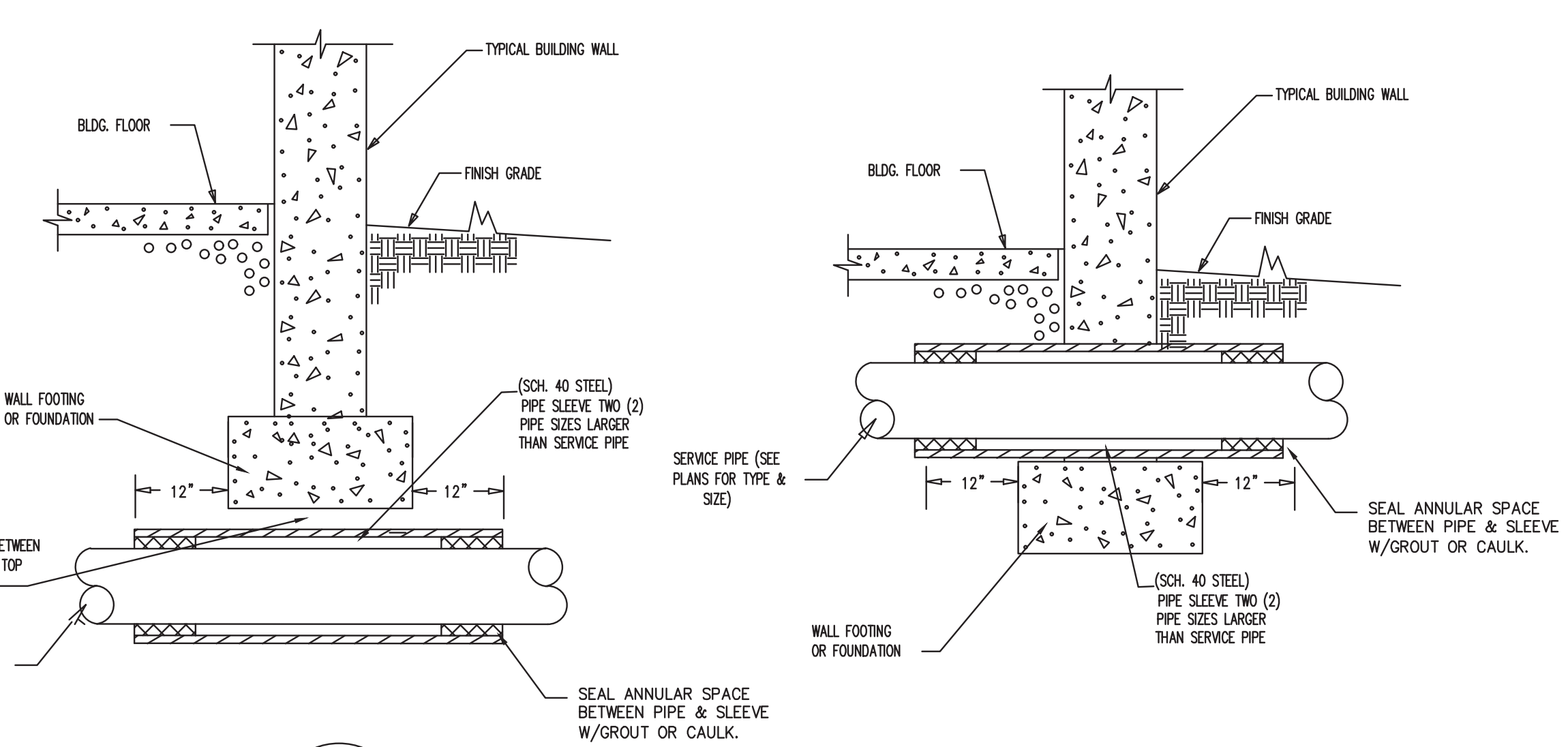


1 Plumbing Waste & Vent Riser Diagram
SCALE: NONE

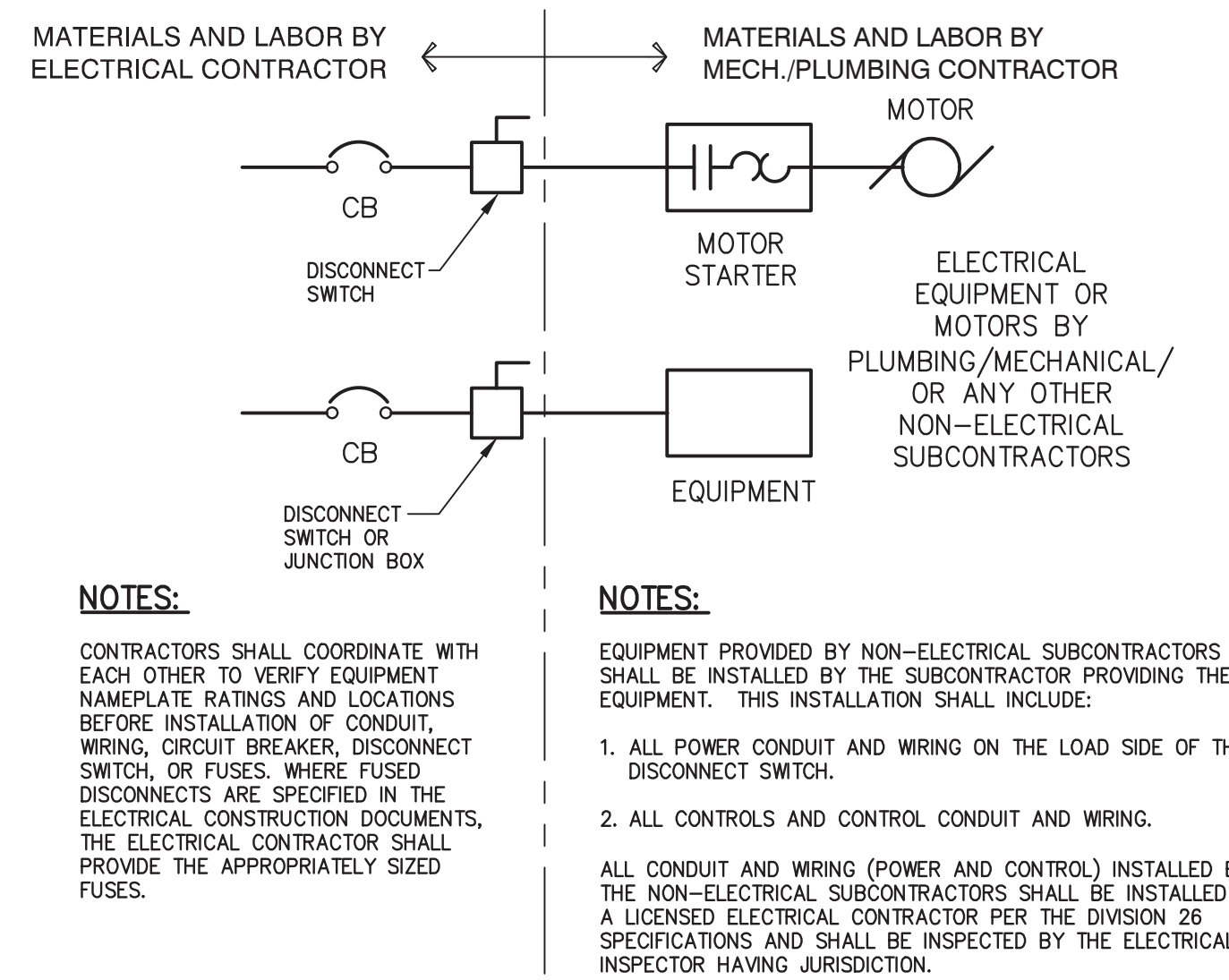
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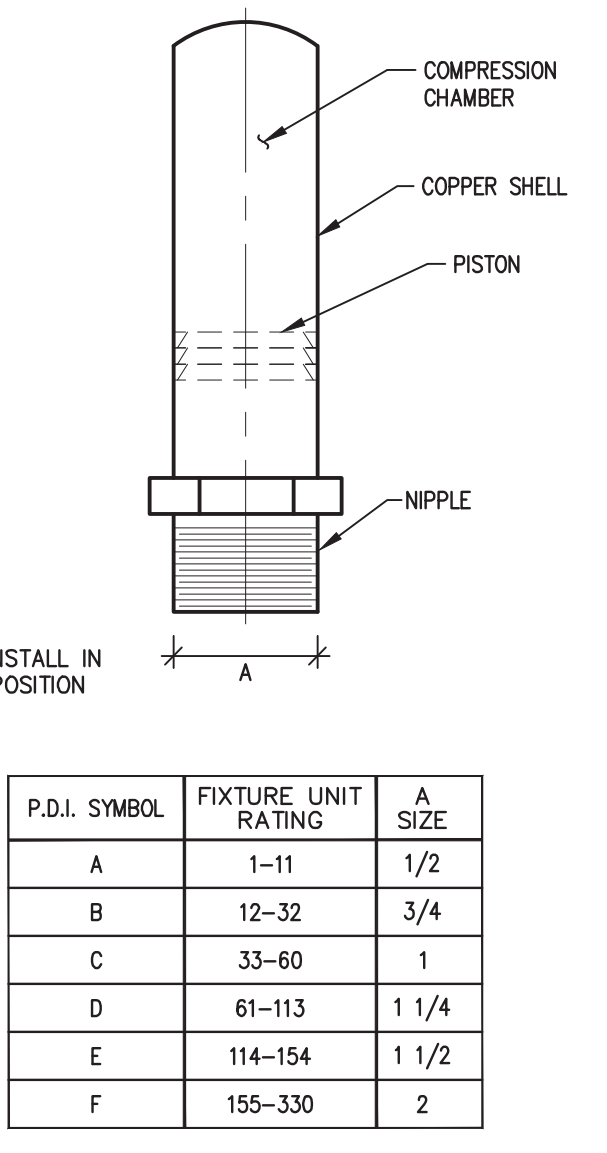
2 Floor Mounted Water Closet Detail
SCALE: NONE
P500



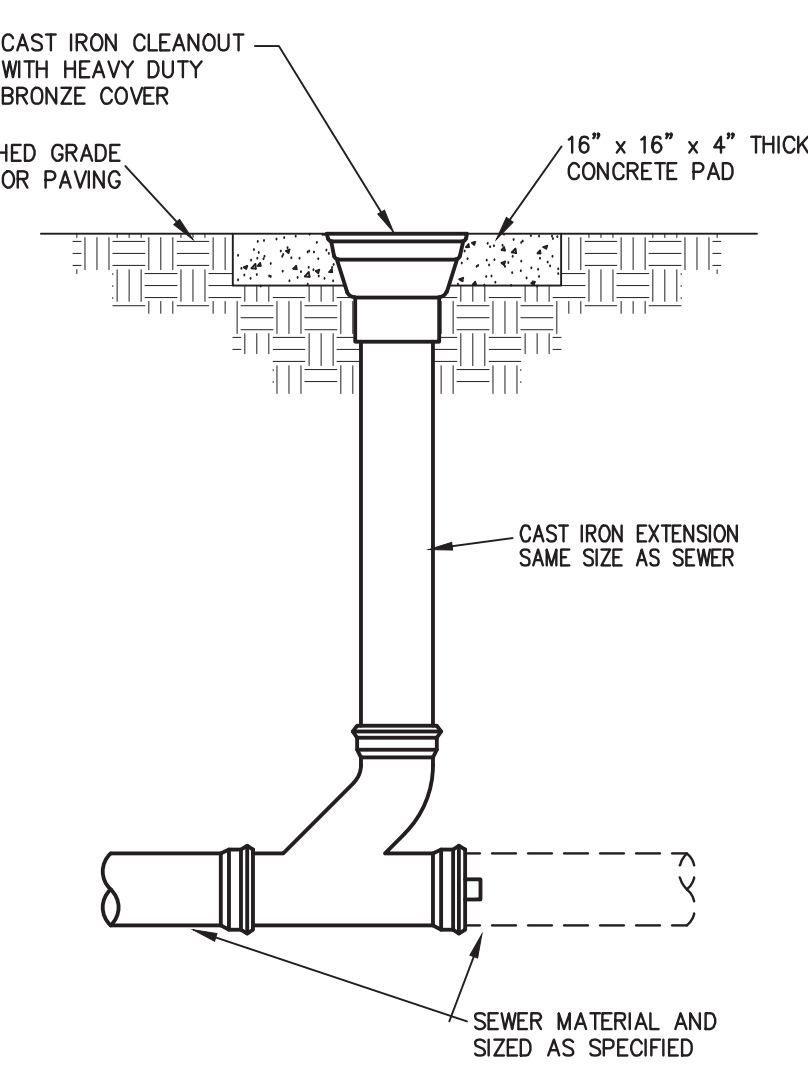
1 Typical Pipe Sleeve Detail
SCALE: NONE
P500



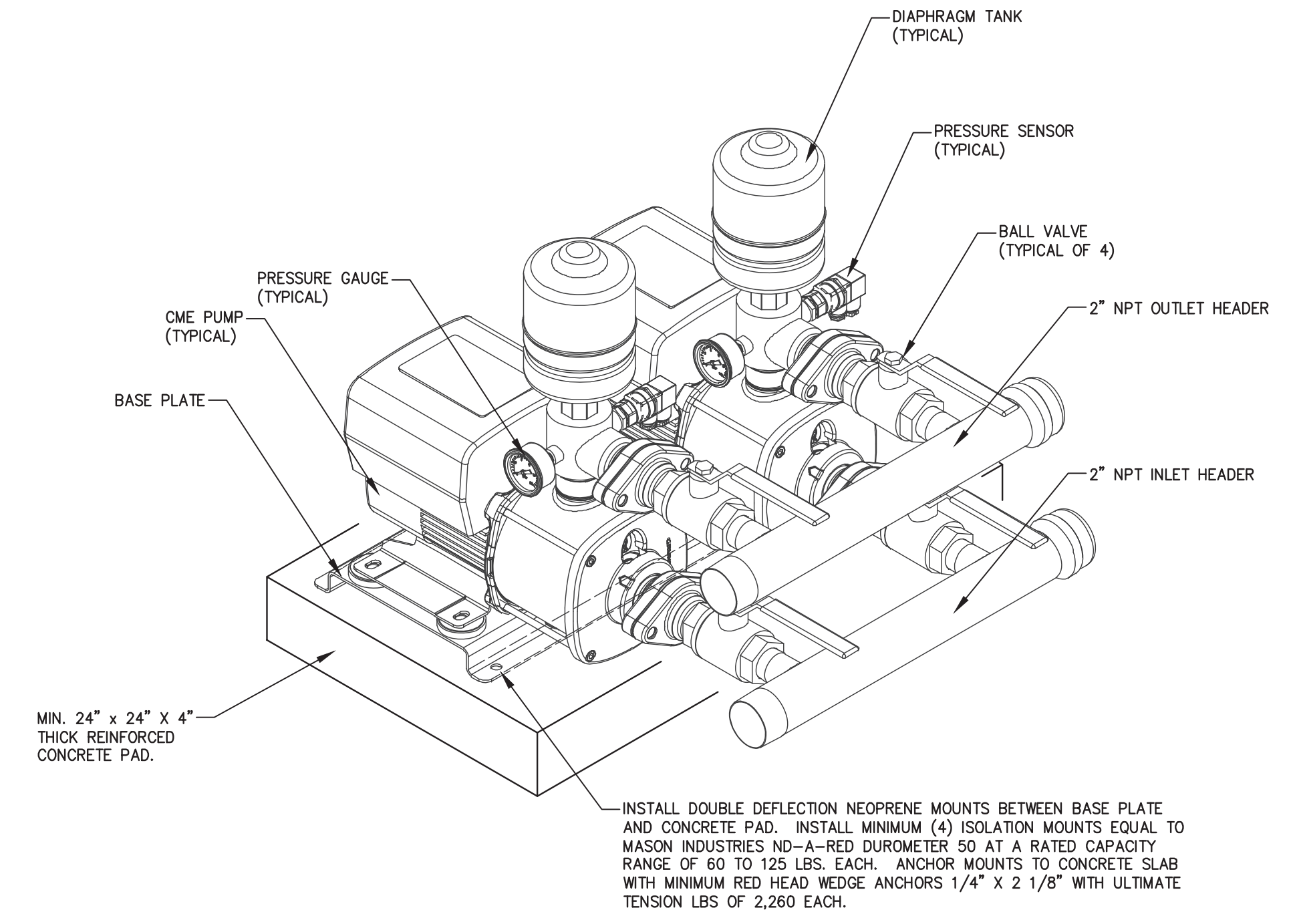
3 Motor / Equipment Installation - Division of Work
SCALE: NONE
P500



4 Shock Arrestor Schedule
SCALE: NONE
P500

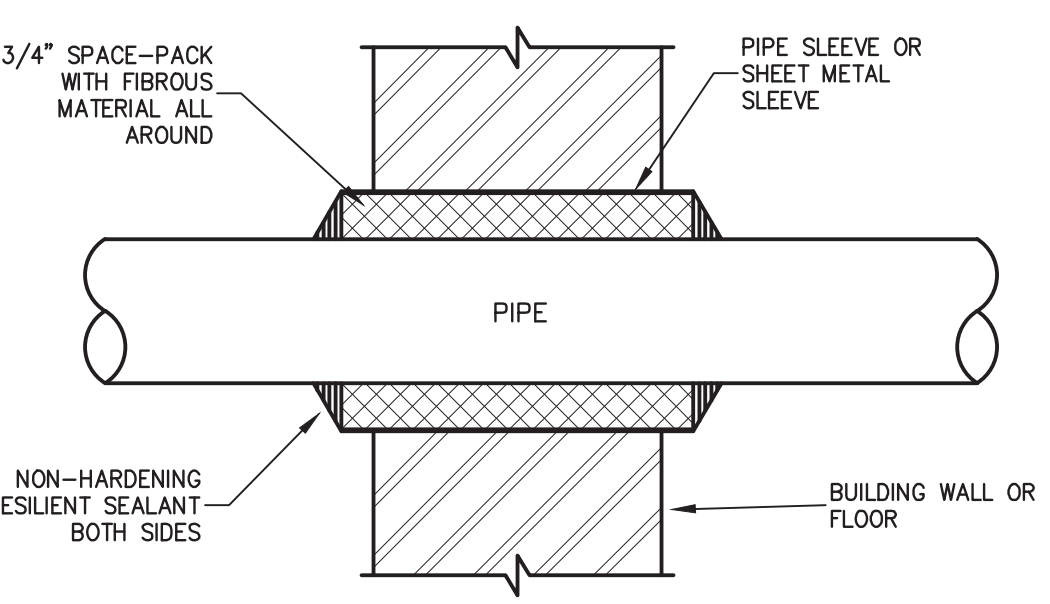


5 Exterior Cleanout Detail
SCALE: NONE
P500

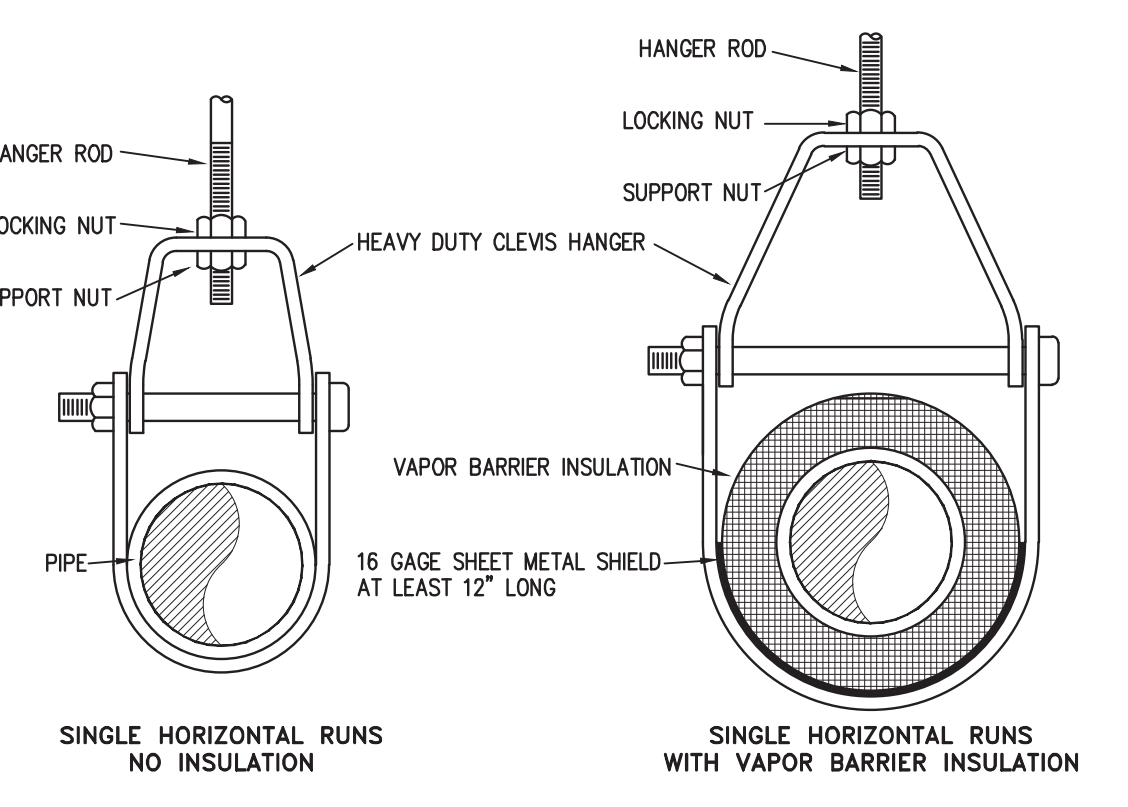


6 Duplex Booster Pump Assembly
SCALE: NONE
P500

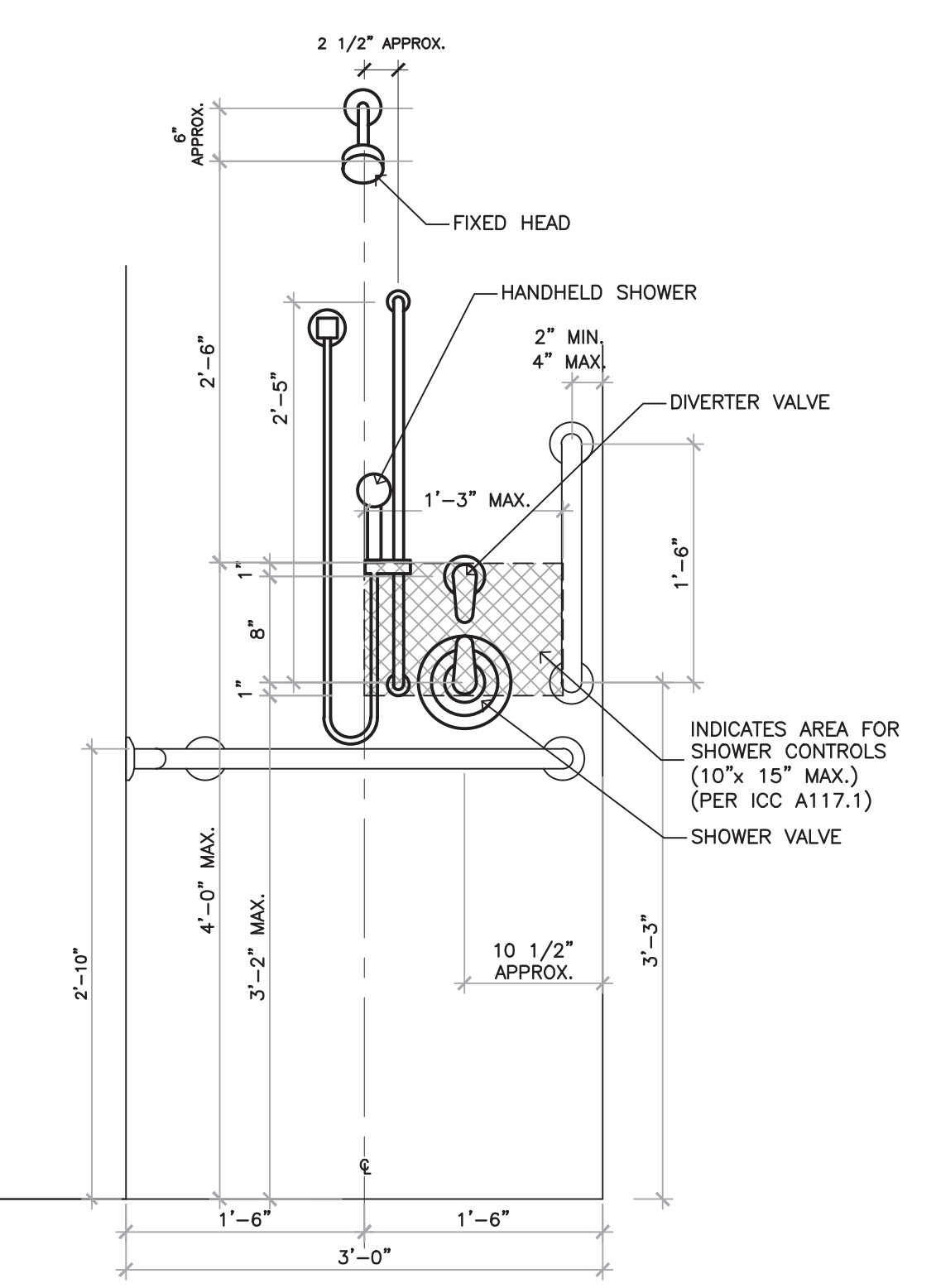
- DUPLEX BOOSTER PUMP NOTES:**
- BOOSTER PUMP ASSEMBLY CONSIST OF COMPACT GRUNDFOSS CMBE TWIN SYSTEM CONSISTING OF TWO CMBE 2 H.P. PUMP/MOTOR ASSEMBLIES MODEL NUMBER CMBE TWIN 10-54 I-U-C-B-D-H CONNECTED IN PARALLEL WITH AUTOMATIC MULTI PUMP OPERATION, CONSTANT PRESSURE CONTROL, COMPACT DESIGN AND EASY INSTALLATION PLUG AND PLAY CONTROL PANEL.
 - EACH CMBE PUMP INCLUDES A GRUNDFOSS INTEGRATED VARIABLE FREQUENCY DRIVE (VFD). EACH CMBE PUMP IS DELIVERED COMPLETE WITH 5-WAY FITTINGS, NON RETURN VALVES, DIAPHRAGM TANK, PRESSURE SENSOR AND PRESSURE GAUGE.
 - ASSEMBLY IS CONNECTED TO A COMMON BASE PLATE WITH 2" INLET/OUTLET PIPES WITH BALL VALVES AND UNIONS.
 - SYSTEM TO PROVIDE TOTAL RATED FLOW OF 108 GPM @ 36 PSI BOOST.
 - ELECTRICAL DATA SHALL CONSIST OF 208V SUPPLY VOLTAGE WITH MAXIMUM CURRENT OF 18.2 AMPS.



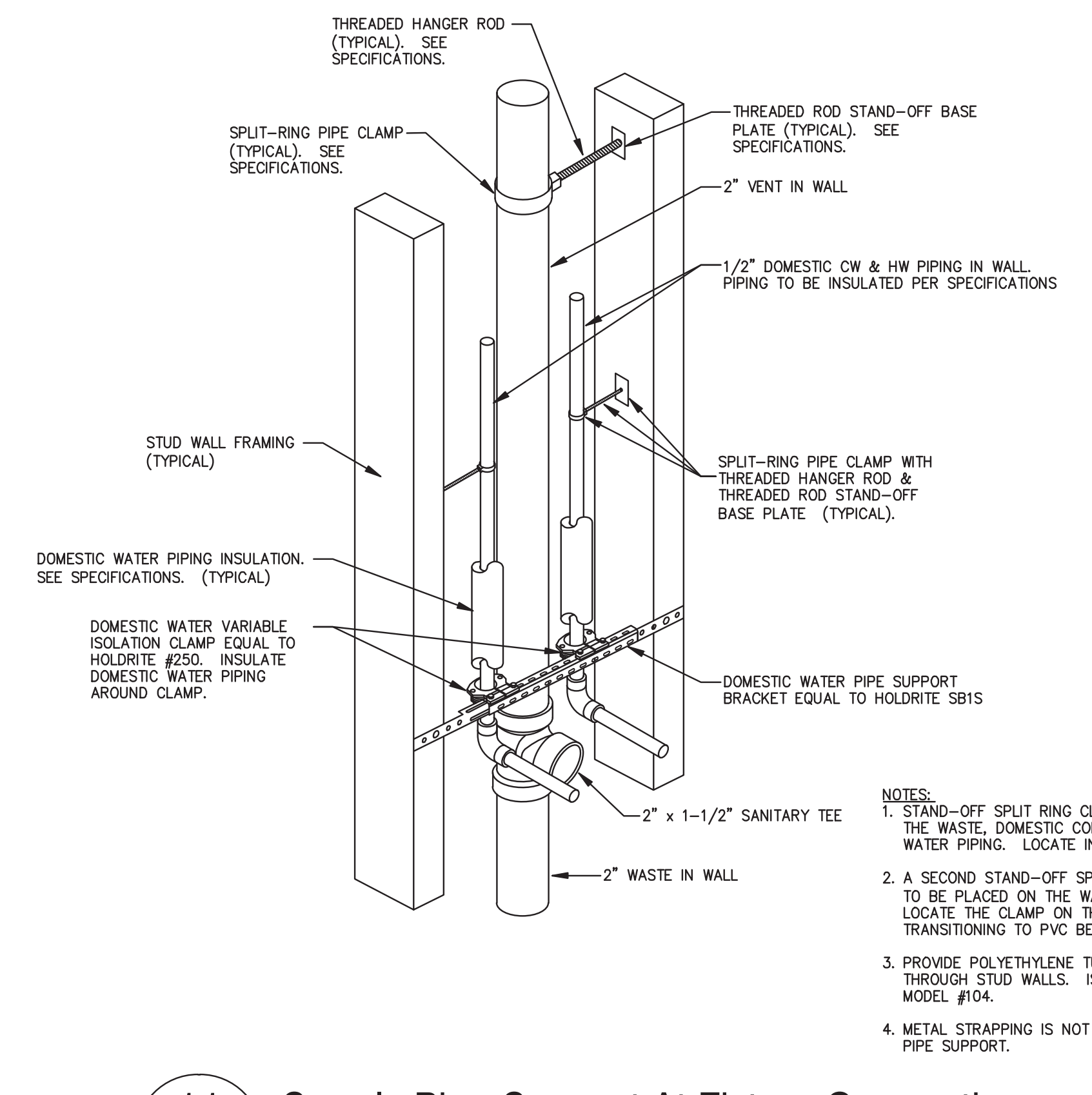
7 Typical Wall Penetration Detail
SCALE: NONE
P500



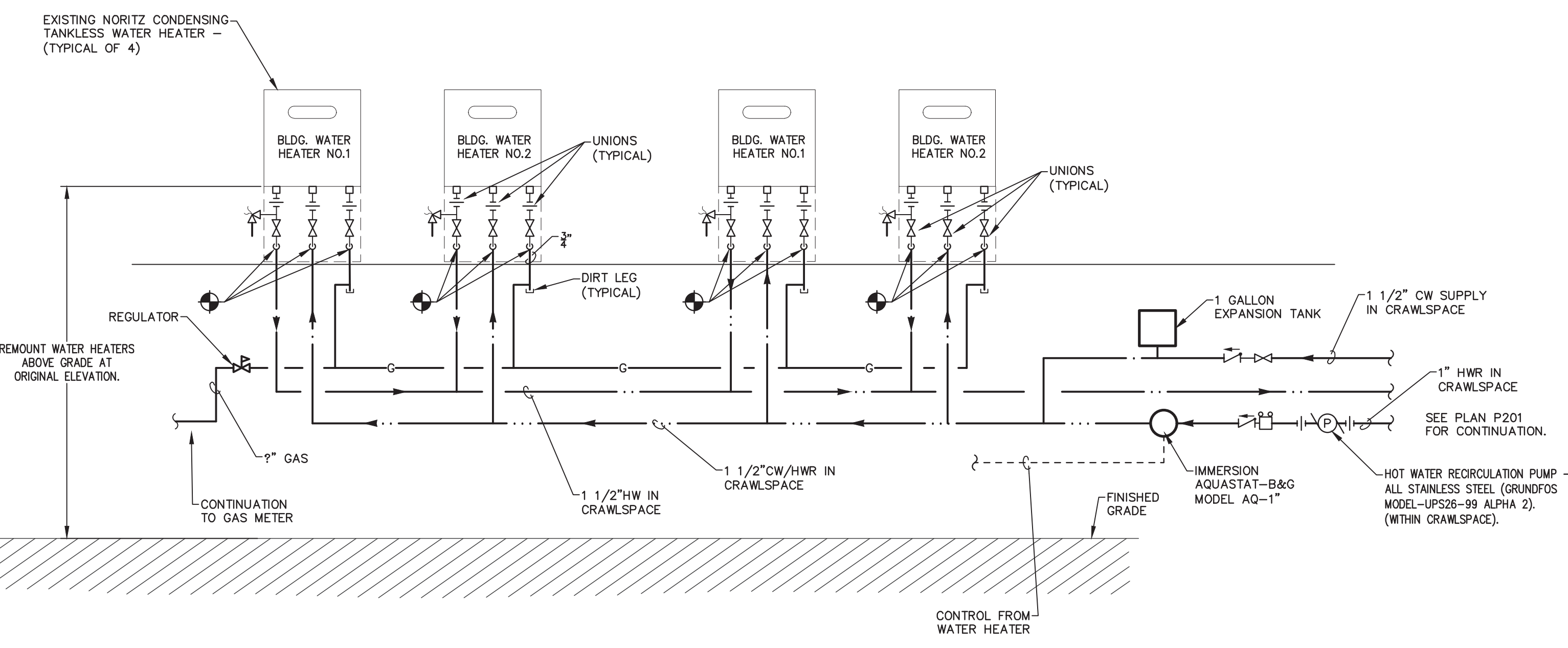
8 Clevis Hanger Detail
SCALE: NONE
P500



10 Transfer Shower Control Wall
SCALE: NONE
P500

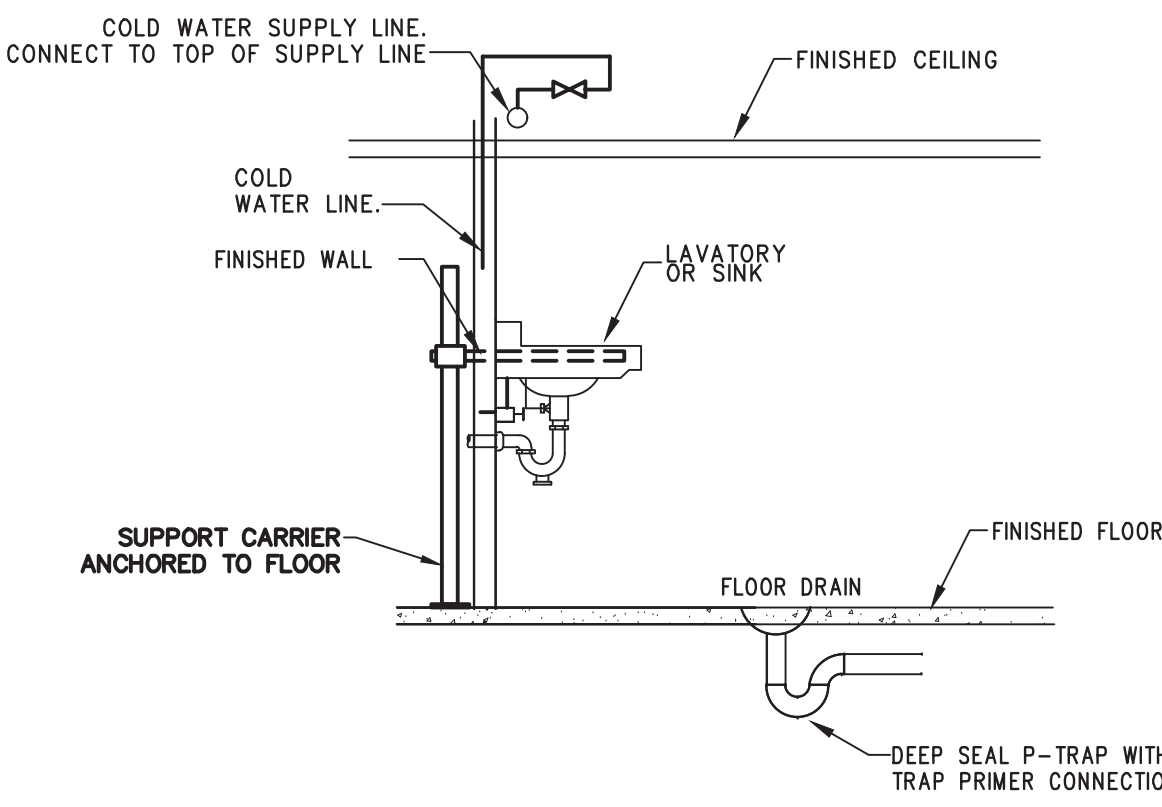


11 Supply Pipe Support At Fixture Connection
SCALE: NONE
P4.2

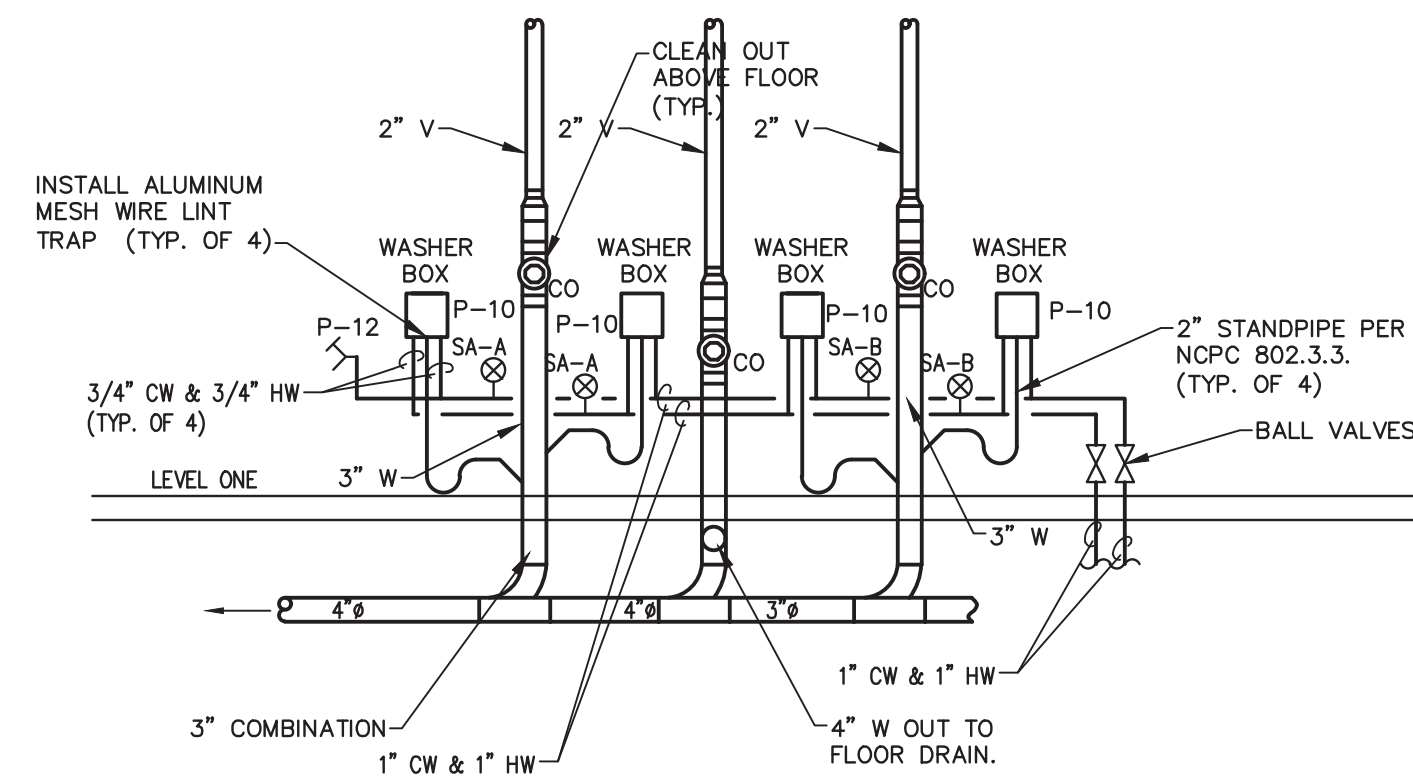


9 Instantaneous Gas Water Heater Detail
SCALE: NONE
P500

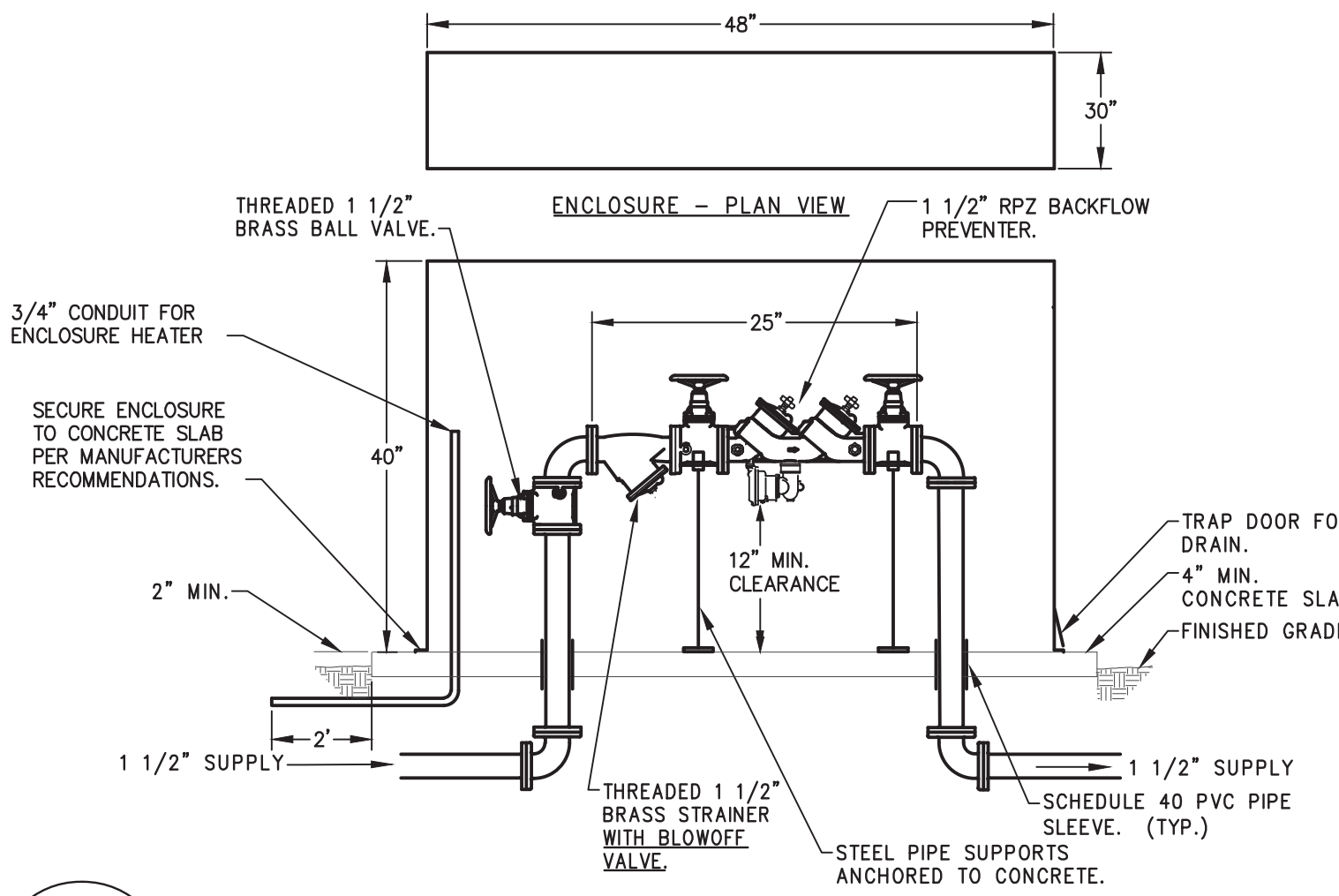
P:\PROJECTS\2022\02-009 ELON HBB RENOVATION\3-D\DWG\500 PLUMBING\5000100.dwg PLOTTED: 12/17/2022 10:41 AM BY: DARREN HESTER



1 Typical Wall Mounted Lavatory Detail
P501 SCALE: NONE



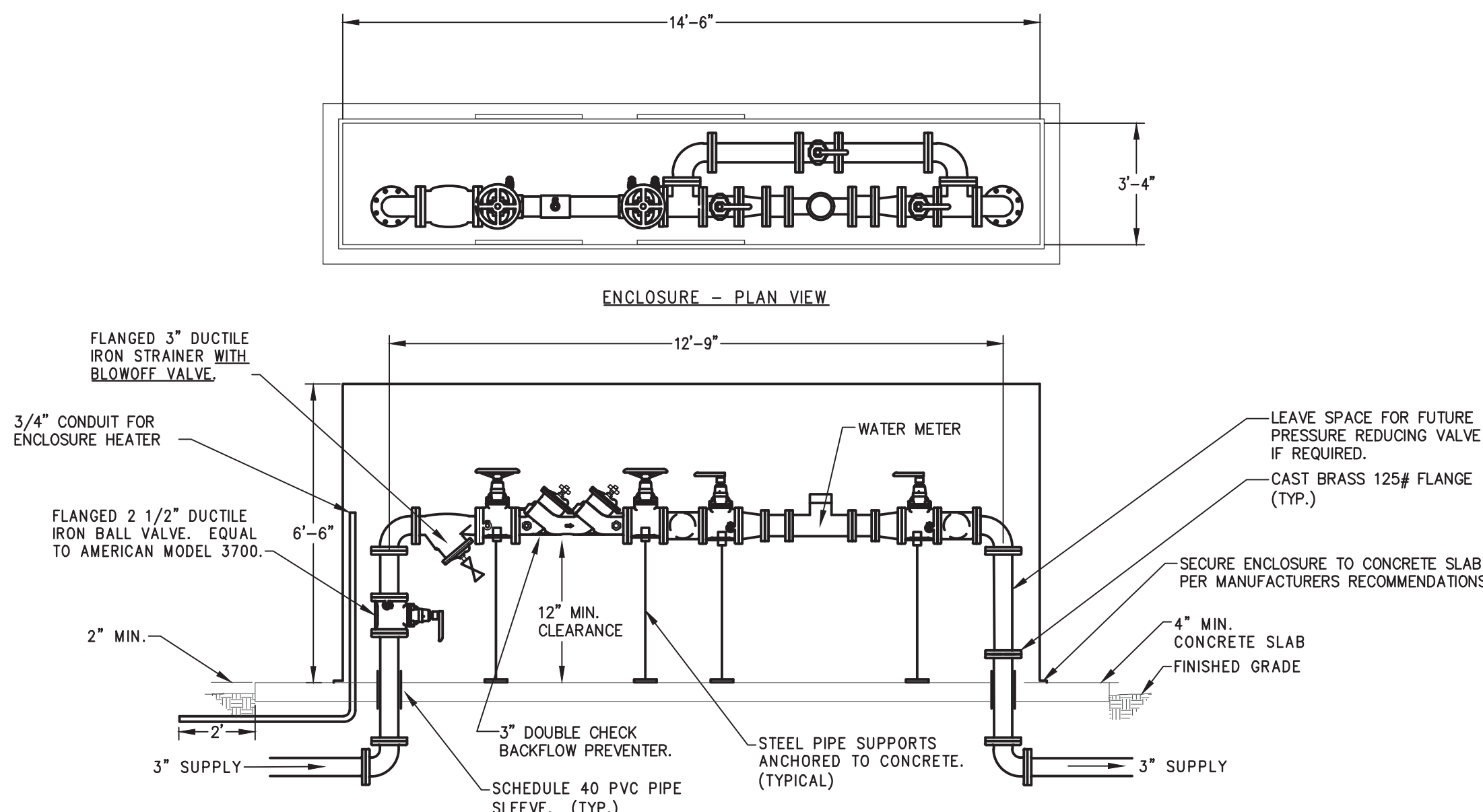
2 Washer Drain & Lint Trap Detail
P501 SCALE: NONE



3 RPZ Backflow Preventer Installation Detail - Irrigation
P501 SCALE: NONE BID ALTERNATE #2

BACKFLOW PREVENTER NOTES:

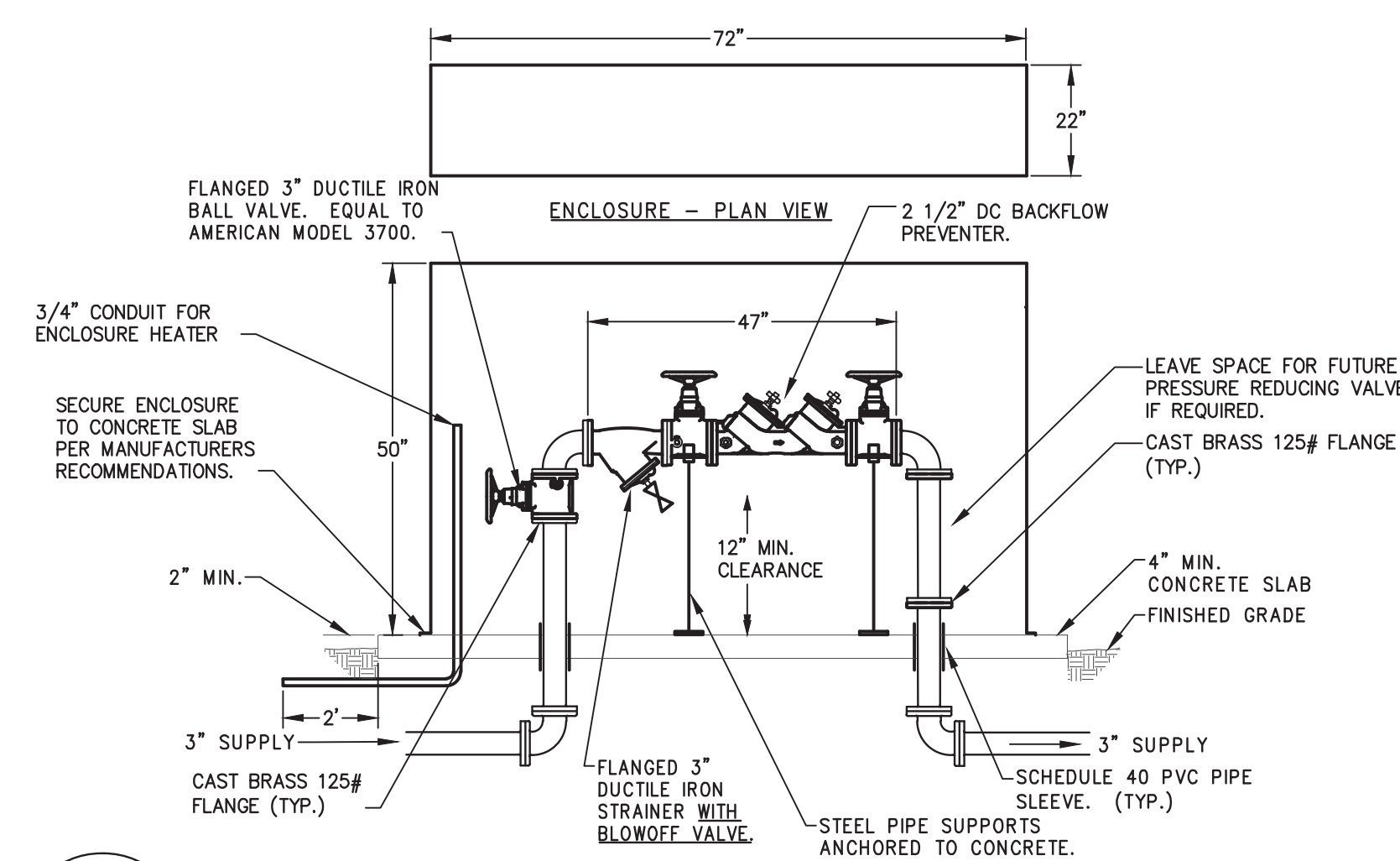
1. INSTALL 1 1/2" WILKINS LEAD FREE MODEL 975XL2-S-AG RPZ BACKFLOW PREVENTER COMPLETE WITH 1 1/2" WYE STRAINER. PIPE AIR GAP TO ENCLOSURE OUTLET.
2. BACKFLOW PREVENTER SHALL BE (LEAD FREE) THREADED ASSEMBLY, BALL VALVES, AND FUNNEL DRAIN ASSEMBLY ROUTED TO HINGED DRAIN.
3. STRAINER AND PRV SHALL BE (LEAD FREE) THREADED ASSEMBLIES.
4. EQUAL PRODUCTS BY WATTS WILL BE CONSIDERED THAT MEET SIZE REQUIREMENTS AND TOWN OF ELON CROSS CONNECTION CONTROL STANDARDS.
5. ENCLOSURE SHALL BE EQUAL TO SAFE-T-COVER BOX MODEL 2000-AL WITH HEATER EQUAL TO CHROMALOX CPHH-50011 UTILITY HEATER Ø 120V, 500 WATTS, AND 4.2 AMPS. ENCLOSURE SHALL BE REINFORCED ALUMINUM COVER WITH NON-WICKING INSULATION LAMINATED TO ALUMINUM FRAME. HINGED DRAIN FLAP WITH VESMIN SCREEN, STAINLESS STEEL MOUNTING HARDWARE AND 2 LOCKABLE ACCESS PANELS. SECURE ENCLOSURE TO CONCRETE SLAB PER MANUFACTURERS RECOMMENDATIONS WITH SUITABLE ANCHORS. ENCLOSURE SHALL BE FACTORY PAINTED IN PAC-CLAD AGED BRONZE COLOR.
6. ALL PIPE GASKET MATERIAL SHALL BE SUITABLE FOR DOMESTIC WATER.
7. ALL DUCTILE IRON VALVES AND STRAINER SHALL HAVE FDA APPROVED EPOXY FINISH SUITABLE FOR DOMESTIC WATER.



4 Double Check Backflow Preventer Installation Detail
P501 SCALE: NONE ALTERNATE #??

BACKFLOW PREVENTER NOTES:

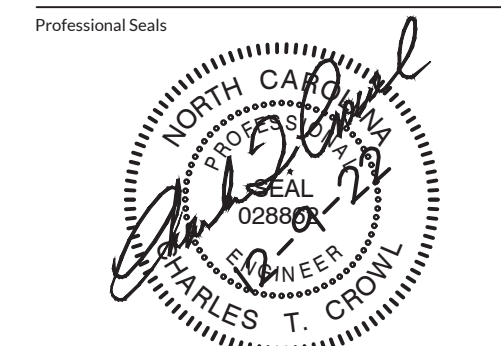
1. INSTALL 3" WILKINS LEAD FREE MODEL 350AST-NRS-FSC DOUBLE CHECK BACKFLOW PREVENTER COMPLETE WITH 3" WYE STRAINER OR APPROVED EQUAL PRODUCTS.
2. BACKFLOW PREVENTER SHALL BE (LEAD FREE) FLANGED ASSEMBLY WITH NON-RISING STEM VALVES.
3. STRAINER SHALL BE (LEAD FREE) FLANGED ASSEMBLY.
4. EQUAL PRODUCTS BY WATTS WILL BE CONSIDERED THAT MEET SIZE REQUIREMENTS AND TOWN OF ELON CROSS CONNECTION CONTROL STANDARDS.
5. ENCLOSURE SHALL BE EQUAL TO SAFE-T-COVER SERIES 1000 PANEL DESIGN MODEL 1000S-AL WITH (2) HEATERS EQUAL TO HC8500-120 SLAB MOUNTED HEATER Ø 120V, 500 WATTS, AND 4.2 AMPS EACH. ENCLOSURE SHALL BE REINFORCED ALUMINUM COVER WITH NON-WICKING INSULATION LAMINATED TO ALUMINUM FRAME, STAINLESS STEEL MOUNTING HARDWARE AND 4 LOCKABLE ACCESS PANELS. SECURE ENCLOSURE TO CONCRETE SLAB PER MANUFACTURERS RECOMMENDATIONS WITH SUITABLE ANCHORS. ENCLOSURE SHALL BE FACTORY PAINTED IN PAC-CLAD AGED BRONZE COLOR.
6. ALL PIPE GASKET MATERIAL SHALL BE SUITABLE FOR DOMESTIC WATER.
7. ALL DUCTILE IRON VALVES AND STRAINER SHALL HAVE FDA APPROVED EPOXY FINISH SUITABLE FOR DOMESTIC WATER.



5 DC Backflow Preventer Installation Detail
P501 SCALE: NONE

BACKFLOW PREVENTER NOTES:

1. INSTALL 3" WILKINS LEAD FREE MODEL 350AST-NRS-FSC DOUBLE CHECK BACKFLOW PREVENTER COMPLETE WITH 3" WYE STRAINER OR APPROVED EQUAL PRODUCTS.
2. BACKFLOW PREVENTER SHALL BE (LEAD FREE) FLANGED ASSEMBLY WITH NON-RISING STEM VALVES.
3. STRAINER SHALL BE (LEAD FREE) FLANGED ASSEMBLY.
4. EQUAL PRODUCTS BY WATTS WILL BE CONSIDERED THAT MEET SIZE REQUIREMENTS AND TOWN OF ELON CROSS CONNECTION CONTROL STANDARDS.
5. ENCLOSURE SHALL BE EQUAL TO SAFE-T-COVER BOX MODEL 300T-AL WITH HEATER EQUAL TO CPHH-50011 UTILITY HEATER Ø 120V, 500 WATTS, AND 4.2 AMPS. ENCLOSURE SHALL BE REINFORCED ALUMINUM COVER WITH NON-WICKING INSULATION LAMINATED TO ALUMINUM FRAME, STAINLESS STEEL MOUNTING HARDWARE AND 2 LOCKABLE ACCESS PANELS. SECURE ENCLOSURE TO CONCRETE SLAB PER MANUFACTURERS RECOMMENDATIONS WITH SUITABLE ANCHORS. ENCLOSURE SHALL BE FACTORY PAINTED IN PAC-CLAD AGED BRONZE COLOR.
6. ALL PIPE GASKET MATERIAL SHALL BE SUITABLE FOR DOMESTIC WATER.
7. ALL DUCTILE IRON VALVES AND STRAINER SHALL HAVE FDA APPROVED EPOXY FINISH SUITABLE FOR DOMESTIC WATER.



Owner Proj. #
**Hook
Brannock
Barney
Residence
(HBB) Hall
Renovation,
Elon University**

214 East Lebanon Av., Elon, NC 27244
Key Plan

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to UL 1479 and CANULC-S115

System No. W-L-1054

ANSI/UL1479 (ASTM E814)	CANULC S115
F Ratings — 1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
	FTH Rating — 0 Hr
	L Rating at Ambient — Less Than 1 CFM/sq ft
	L Rating at 400 F — Less Than 1 CFM/sq ft

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System No. W-L-1054

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
A. Steel Pipe — Nom 30 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe — Nom 30 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) diam steel conduit.
D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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System No. W-L-5029

ANSI/UL1479 (ASTM E814)	CANULC S115
F Ratings — 1, 2 and 3 Hr (See Items 1, 3 and 4)	F Ratings — 1, 2 and 3 Hr (See Items 1, 3 and 4)
T Ratings — 0, 1/2, 1 and 1-1/4 Hr (See Item 3)	FT Ratings — 0, 1/2, 1 and 1-1/4 Hr (See Item 3)
L Rating At Ambient — 4 CFM/Sq Ft	FH Ratings — 1, 2 and 3 Hr (See Items 1, 2 and 4)
L Rating At 400 F — Less Than 1 CFM/Sq Ft	FTH Ratings — 0, 1/2, 1 and 1-1/4 Hr (See Item 3)
	L Rating At Ambient — 4 CFM/Sq Ft
	L Rating At 400 F — Less Than 1 CFM/Sq Ft

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System No. W-L-5029

3. Pipe Covering* — Nom 1, 1-1/2 or 2 in. (25, 38 or 51 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m3) glass fiber units jacketed on the outside with an air-severe jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. For 1 and 2 hr F and FH Ratings, the annular space between insulated penetrant and periphery of opening shall be min 0 in. (point contact) to max 1-7/8 in. (48 mm). For 3 hr F and FH Ratings, the annular space shall be min 0 in. (point contact) to max 1-1/4 in. (32 mm).
See Pipe and Equipment Covering — Materials (BRGU) category in the Building Materials Directory for the names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
The hourly T, FT, FTH Ratings of the firestop system are 1/2 hr for 1 hr rated walls and 1 hr for 2 hr rated walls. For 3 hr rated walls, the hourly T, FT and FTH Ratings when steel and iron pipes are used are 1 hr. For 3 hr rated walls, the hourly T, FT and FTH Ratings when copper penetrants are used are 1-1/4 hr for 2 in. (51 mm) thick pipe covering and 0 hr for pipe covering thickness less than 2 in. (51 mm).
3A. Pipe Covering* — (Not Shown) — As an alternate to Item 3, max 2 in. (51 mm) thick cylindrical calcium silicate (min 14 pcf) units sized to the outside diam of the pipe or tube may be used. Pipe insulation secured with stainless steel bands or min 18 AWG stainless steel wire spaced max 12 in. (305 mm) OC. When the alternate pipe covering is used, the L and FT Rating shall be as specified in Item 3 above.
See Pipe and Equipment Covering — Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
4. Fill, Void or Cavity Material* — Sealant — For 1 and 2 hr F and FH Rating, min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. For 3 hr F and FH Rating, min 1 in. (25 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and gypsum board, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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System No. C-AJ-1149

ANSI/UL1479 (ASTM E814)	CANULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 2 Hr
L Rating At 400 F — 4 CFM/sq ft	FTH Rating — 0 Hr
W Rating — Class 1 (See Item 4)	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — 4 CFM/sq ft

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to UL 1479 and CANULC-S115

System No. C-AJ-5265

F Rating — 2 Hr
T Rating — 0 and 1/2 Hr (See Item 4)

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System No. W-L-1465

ANSI/UL1479 (ASTM E814)	CANULC S115
F Rating — 1 or 2 Hr (See Item 1)	F Ratings — 1 or 2 Hr (See Item 1)
T Rating — 0 and 1/4 Hr (See Item 1)	FT Rating — 0 and 1/4 Hr (See Item 1)
L Rating At Ambient — Less Than 1 CFM/Sq Ft	FH Rating — 1 or 2 Hr (See Item 1)
L Rating At 400 F — Less Than 1 CFM/Sq Ft	FTH Rating — 0 and 1/4 Hr (See Item 1)
	L Rating At Ambient — Less Than 1 CFM/Sq Ft
	L Rating At 400 F — Less Than 1 CFM/Sq Ft

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System No. W-L-1465

3. Through Penetrants — One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of sleeve shall be min 0 in. (point contact) to max 1-7/8 in. (48 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
A. Steel Pipe — Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe — Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.
C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or nom 6 in. (152 mm) steel conduit.
D. Copper Tubing — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
E. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
Configuration A
4. Fill, Void or Cavity Material* — Sealant — Min 1 in. (25 mm) thickness of sealant applied within annulus, flush with both ends of sleeve. A min 1/4 in. (6 mm) diam bead of sealant to be applied at the tubing/sleeve interface at the point contact location and around the entire perimeter of the sleeve at the sleeve/gypsum board interface when the sleeve extends beyond the wall surface.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 Sealant, FS ONE Sealant or FS-ONE MAX Intumescent Sealant
Configuration B
4. Firestop System — The firestop system shall consist of the following items:
A. Packing Material — Min 5/8 in. (16 mm) thickness of min 4 pcf Mineral wool batt insulation compressed and tightly and packed in to each end of the sleeve. Packing material is to be recessed from each end of the sleeve to accommodate fill material.
A1. Packing Material* — Strips — (As an alternate to Config. B Item 4A) - Nom 5/8 in. in. (16 mm) wide precut mineral wool strips. The strips are firmly packed into the gap between penetrant and the steel sleeve Item 2 on both sides of the wall. Packing material is to be recessed from each end of the sleeve to accommodate fill material.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 787 Speed Strips
B. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of sealant applied within annulus, flush with both ends of sleeve. A min 1/4 in. (6 mm) diam bead of sealant to be applied at the tubing/sleeve interface at the point contact location and around the entire perimeter of the sleeve at the sleeve/gypsum board interface when the sleeve extends beyond the wall surface.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 606 Sealant or FS ONE Sealant or FS-ONE MAX Intumescent Sealant
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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Revisions	No.	Date	Description