

Architect's Supplemental Instructions

Architect's Project No:
04561.01

Architect's ASI No: 019

Project:
Webster University
Interdisciplinary Science
Building

Date Issued: 07/29/2016

Contract Date:

Reason Code: 05 A/E Scope

Discipline Code: 11 Plumbing

Owner:
Webster University

Architect:
Cannon Design
1100 Clark Avenue
St. Louis, MO 63102

Contractor:
Paric Construction

Contract For: General construction

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Indicate your acceptance of these instructions for minor change to the Work as consistent with the Contract Documents and return a copy to the Architect within fourteen (14) business days of the date of issuance of these instructions. If you feel a change in Contract Sum or Contract Time is warranted, please submit an itemized quotation for the changes for approval within fourteen (14) business days of the date of issuance of these instructions prior to proceeding on the Work. Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change.

Attachments:

Drawings:

FP0501 – Details – Fire Protection
P0103.A - Level 03 Area A Floor Plan – Plumbing Plan
P0104.A - Level 04 Area A Floor Plan – Plumbing Plan
P0407 – Risers - Plumbing
P0409 – Risers – Plumbing
P0502 – Details – Plumbing
P0601 – Schedules - Plumbing

<End of Drawing List>

1100 Clark Avenue
St. Louis, Missouri
63102
T: 314.241.6250
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www.cannondesign.com

Reason Codes:
#1. Jurisdictional Agency
#2. Constructor Driven
#3. Document Inconsistency
#4. Fast Track Driven
#5. A/E Scope
#6. Owners Scope
#7. Unforeseeable Conditions
#8. Other

Discipline Codes
#1. Demo-demolition
#2. Div1-Division 1 items on the spec book
(this item is not used)
#3. Electrical
#4. Elevator
#5. Equipment (Changes in equipment,
Owner Purchased)
#6. Fire Protection

Discipline Codes
#7. General Construction (Architectural)
#8. General Conditions (Div. 1)
#9. HVAC
#10. Other
#11. Plumbing
#12. Site Work/Landscaping
#13. Structural

Architect's Supplemental Instructions

Page 2

Description: ASI – 019 (RFI-193,RFI-208 & RFI-212)

ASI-019 is being issue for the purpose addressing RFI-150, RFI-193, RFI-208 & RFI-212.

RFI-150, (FP0501); request verification that the 2-inch main drain can handle test flows. The 2-inch main drain needs to drain to exterior of the building, not to area way. The discharge is to be located and directed to allow runoff away from the building. Consideration is to be given to prevent ground erosion or damage to the surrounding area by use of concrete splash block, slab block, slab or other means. Coordination location of drain with the architect, civil engineer, landscape architect and other building trades as required. Refer to drawing FP0501, detail 7 and also see detail 2 for similar modifications.

RFI-193, (P0502/P0601); request that additional information be provide for the purpose of adding a pressure reducing valve to the Domestic Water Backflow Preventer. Refer to drawing P0502, detail 6 for all modifications and drawing P0601, Schedule- Plumbing for specifications.

RFI-208,(P0103.A/P0407/P0409); request that attention be bought to the issue of length of the hot water run serving the island sink in Room 472 Chem Lab-General and Room 480 Chem Lab-Organic. The run of non-recirculated dead-end piping from the main to the sink would result in a long wait for hot water. As result water supplier to sinks were removed from the 4th Floor Level and moved to the 3rd Floor Level. In Room 478, some alignments were shorten, reducing the amount of 1-inch diameter piping by approximately 84 linear feet and in Room 472, alignments were shorten reducing amount of 1-inch diameter by 54 linear feet. Other pipe sizes were modified as well. Refer to drawing P0104.A and drawing P0409 for all associated modifications.

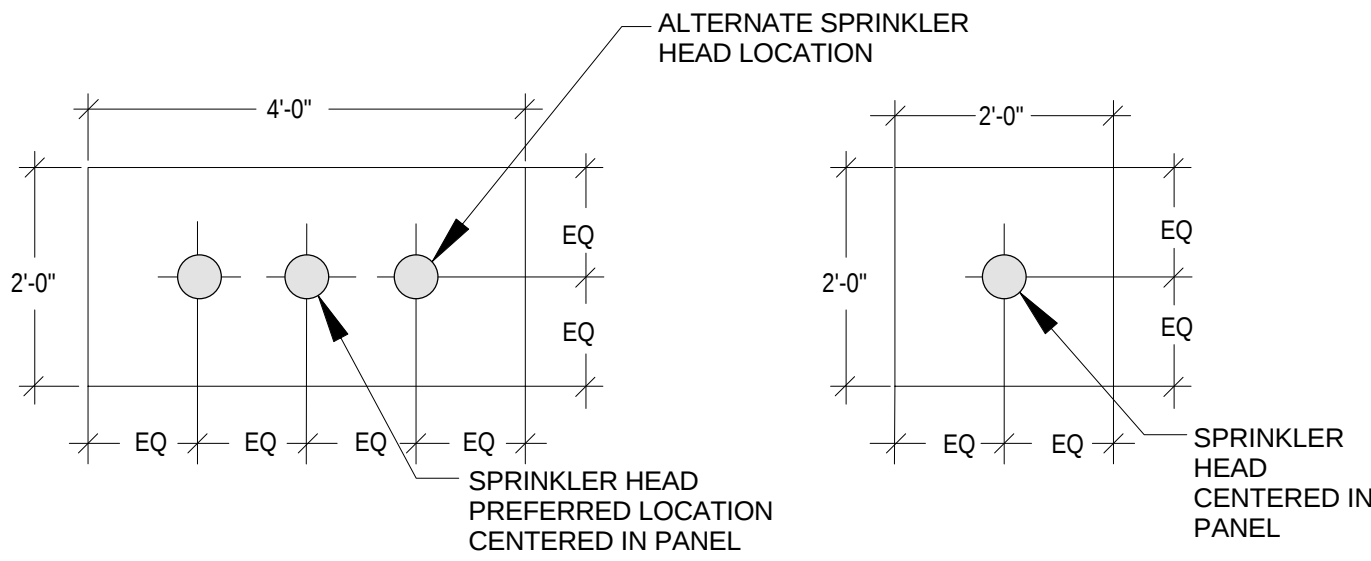
RFI-212,(P0103.A); request clarification on the installation of an emergency fixture located in Room 389 Bio Lab Prep Room A. There is an emergency shower is located in Room 389 and the piping and fixture tags were inadvertently left out, however the shower was shown on drawing P0405 Riser Plumbing. Refer to drawing P0103.A for all associated modifications.

Please submit an itemized proposal for changes in contract Sum and Contract Time for proposed modifications to the Contract Documents described herein:

Issued by Architect:

Michael Whitworth, Webb Engineering.

Accepted by Contractor:

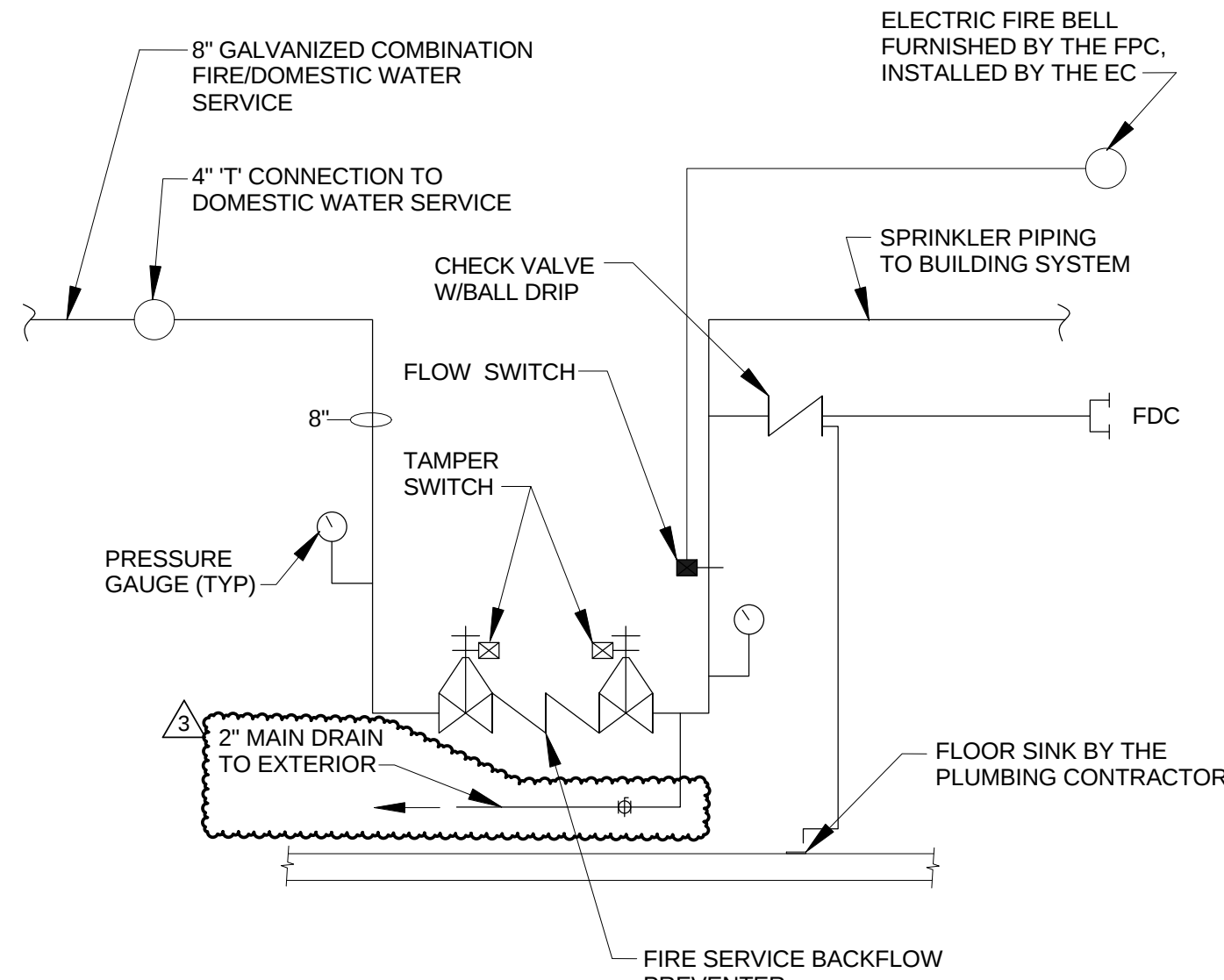


- NOTES:
- PENETRATIONS OF 1x4 OR 2x4 CEILING PANELS BY SPRINKLER HEADS SHALL BE CENTERED IN THE SHORT DIMENSION AND EITHER CENTERED OR AT 1/4 POINTS IN THE LONG DIMENSION.
 - CEILING TILES THAT ARE CUT ALONG A PARTITION THE PENETRATION FOR SPRINKLER HEADS SHALL BE CENTERED BETWEEN THE GRID AND THE PARTITION.
 - FOR A 2x2 CEILING TILE, THE PENETRATIONS FOR SPRINKLER HEADS SHALL BE CENTERED IN THE PANEL.
 - MAINTAIN CLEARANCES BETWEEN THE SPRINKLER HEAD AND OTHER CEILING MOUNTED OR RECESSED OBJECTS AS REQUIRED BY NFPA 13.

1 TYPICAL CEILING PANEL PENETRATION DETAIL

FP0501

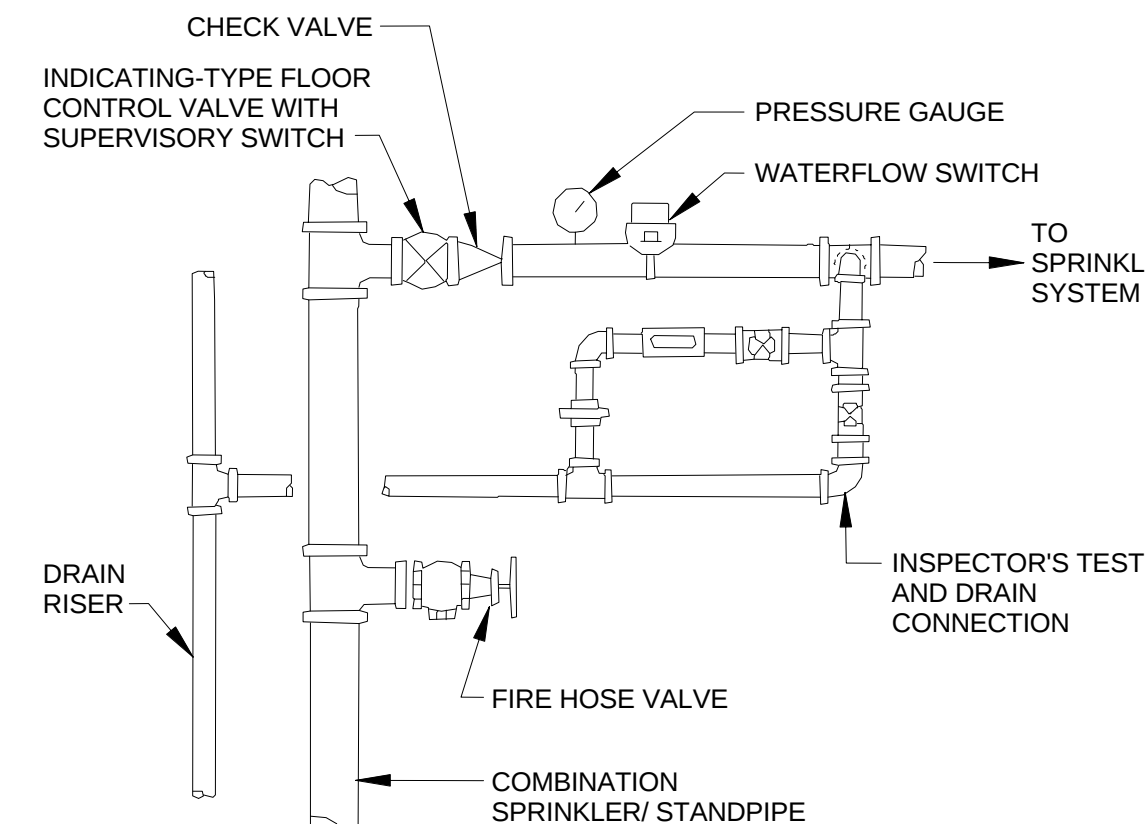
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2 TYPICAL FIRE SERVICE ENTRANCE DETAIL

FP0501

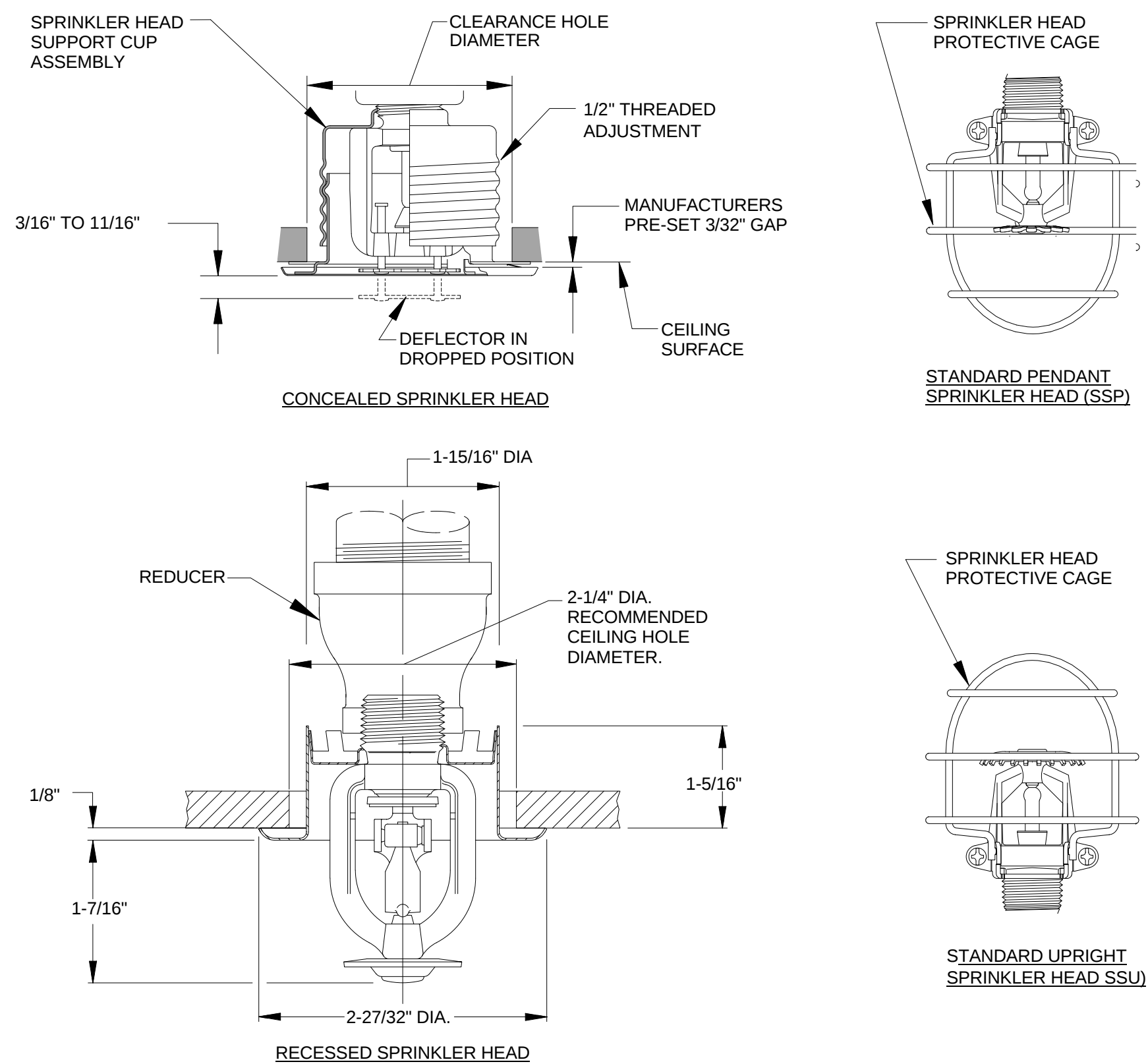
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3 TYPICAL COMBINED SERVICE DETAIL

FP0501

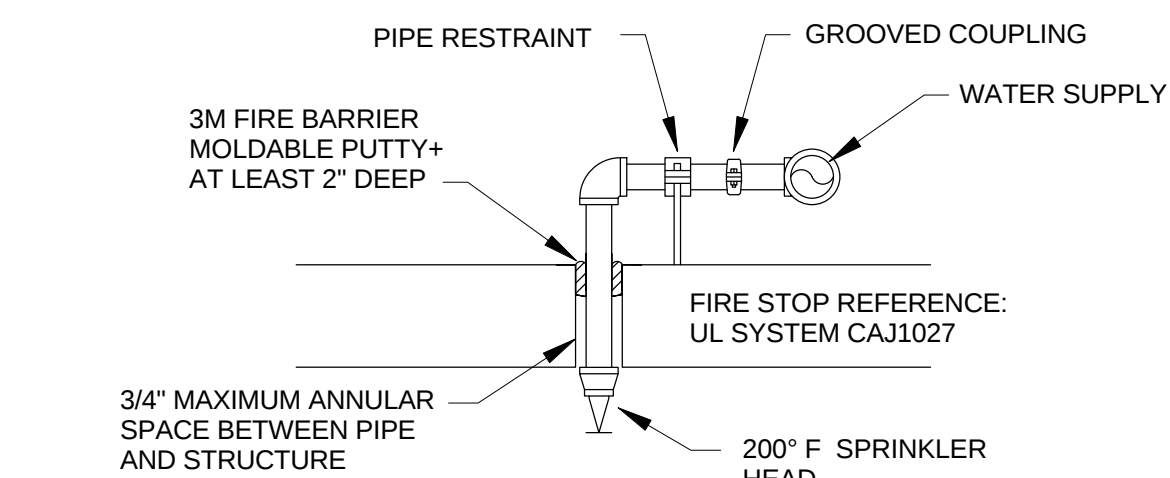
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4 TYPICAL FIRE SPRINKLER HEAD DETAIL

FP0501

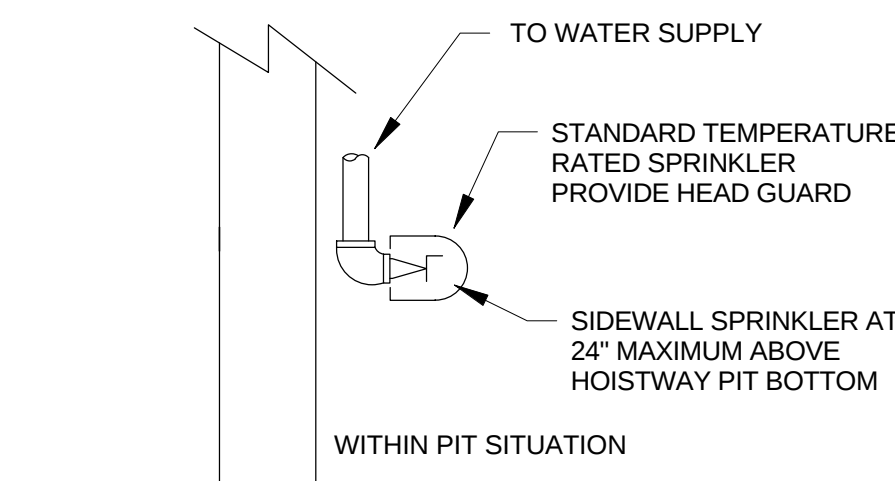
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5 TOP OF ELEVATOR HOISTWAY SPRINKER

FP0501

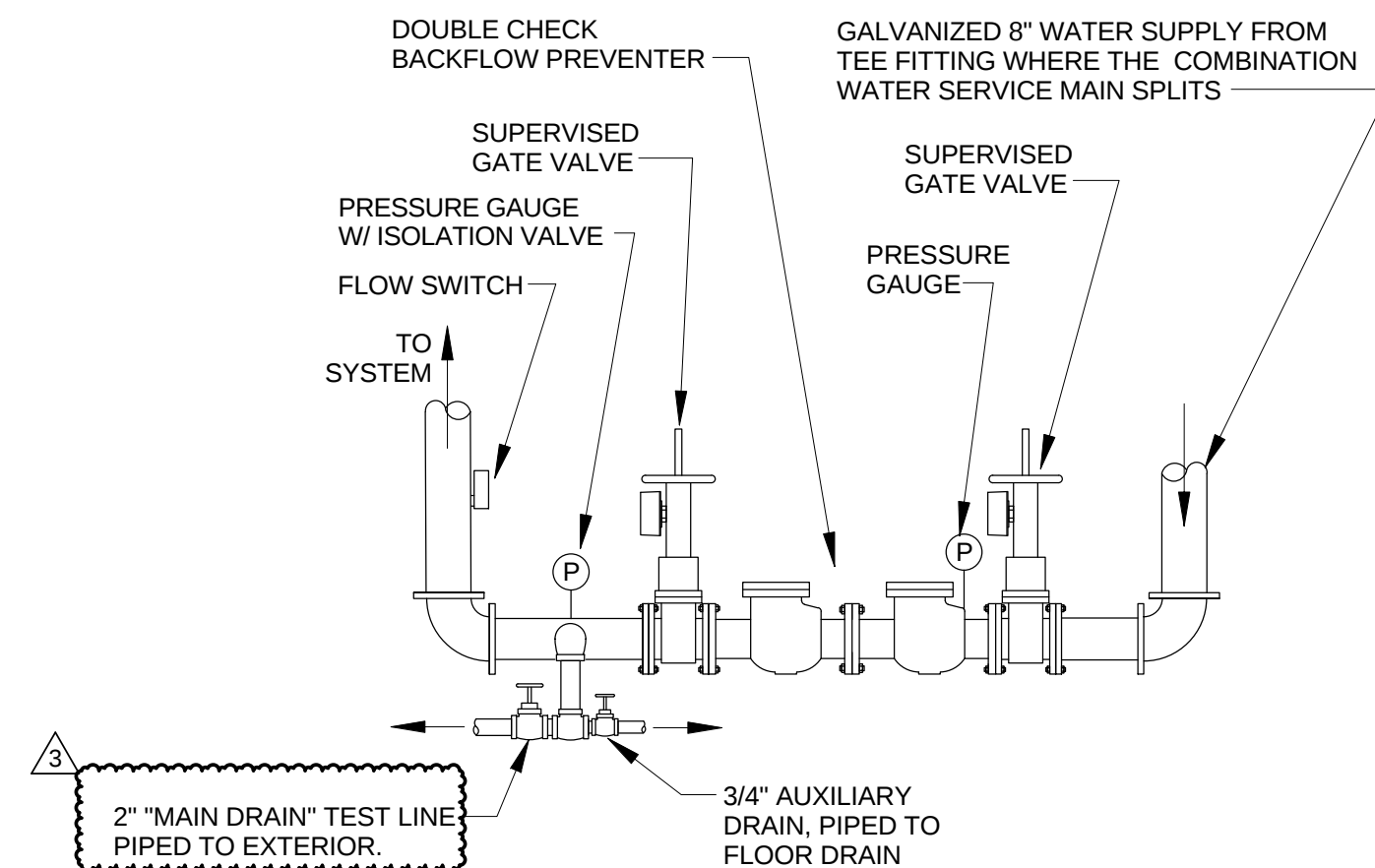
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6 ELEVATOR PIT SPRINKLER

FP0501

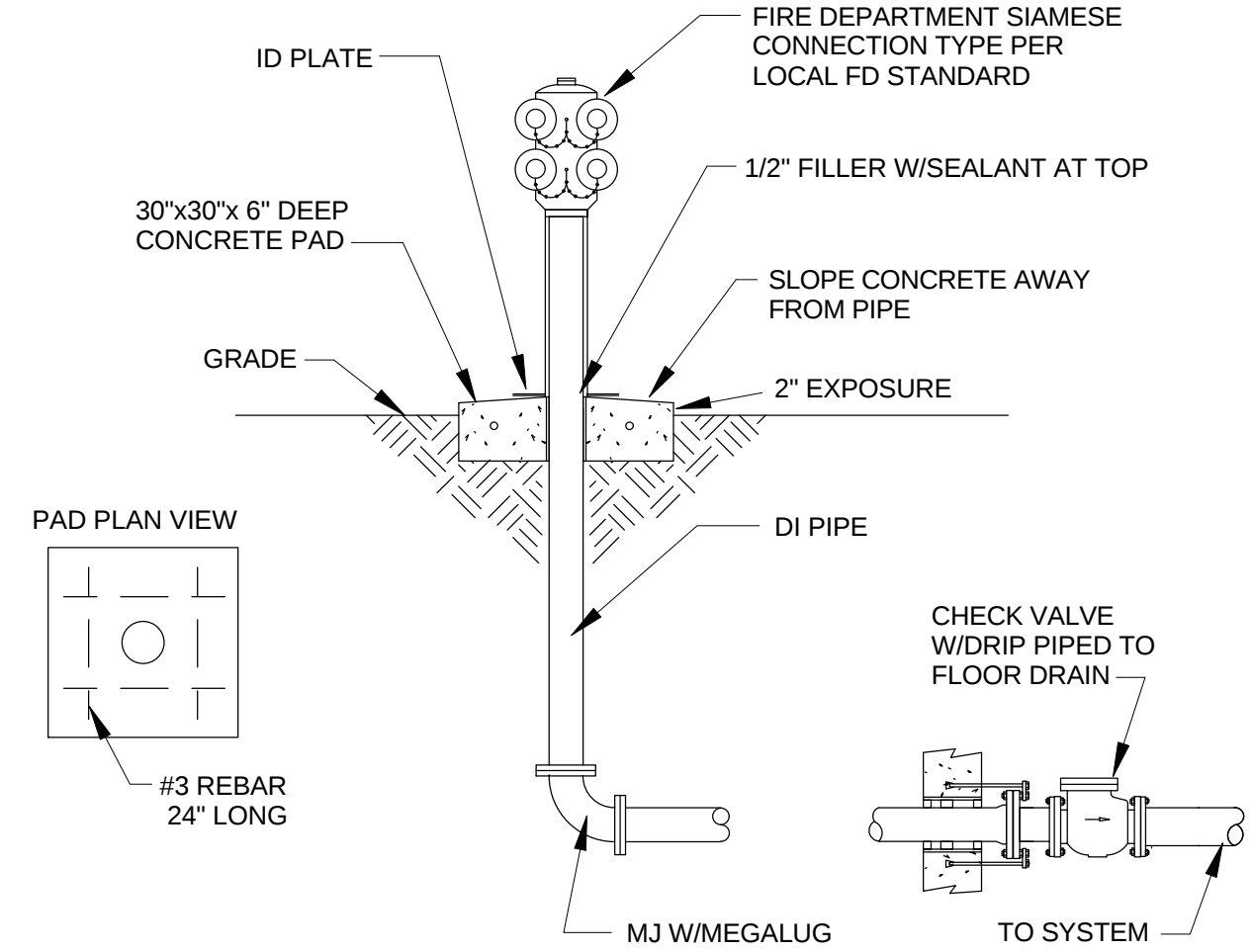
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7 BACKFLOW PREVENTER ASSEMBLY

FP0501

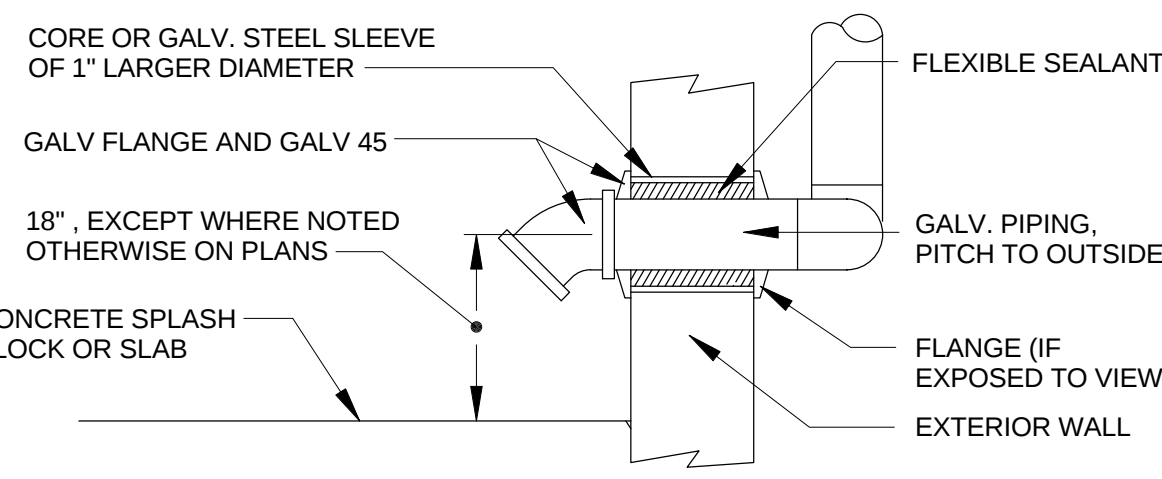
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8 SIAMESE CONNECTION

FP0501

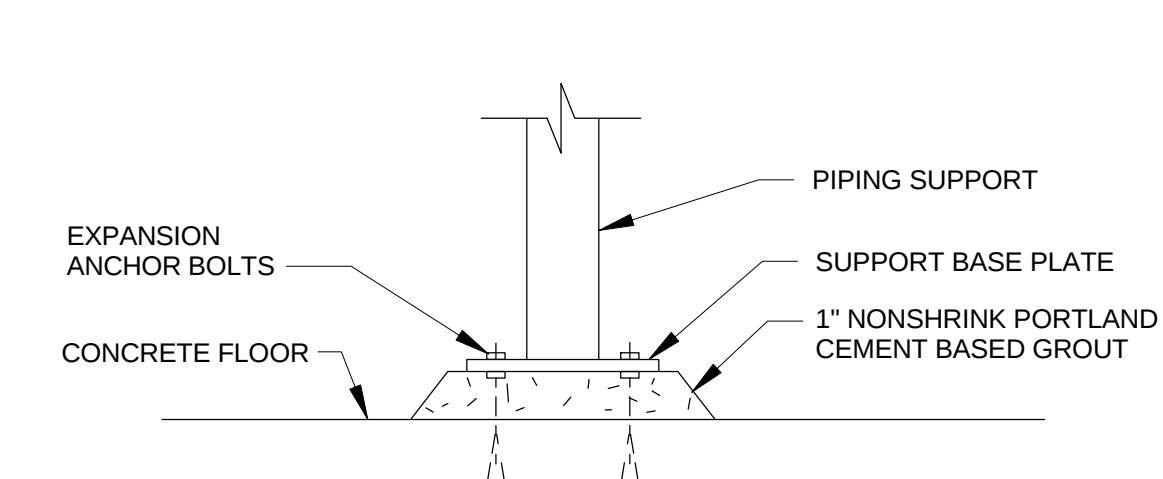
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9 "MAIN DRAIN" TEST DISCHARGE THROUGH EXTERIOR WALL

FP0501

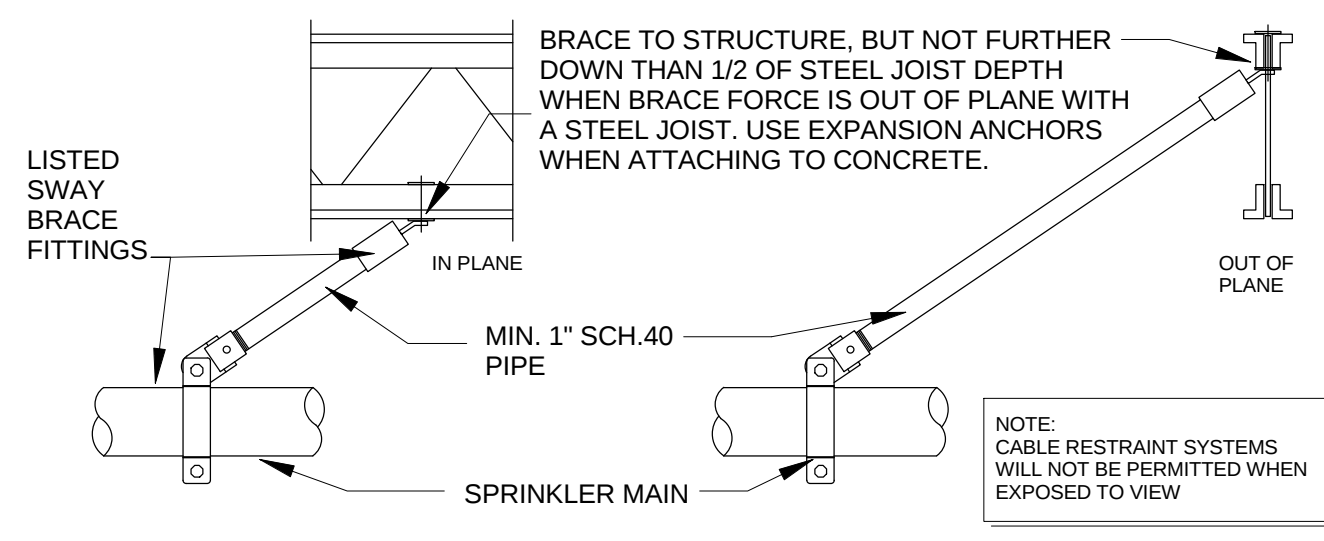
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10 PIPING SUPPORT BASE DETAIL

FP0501

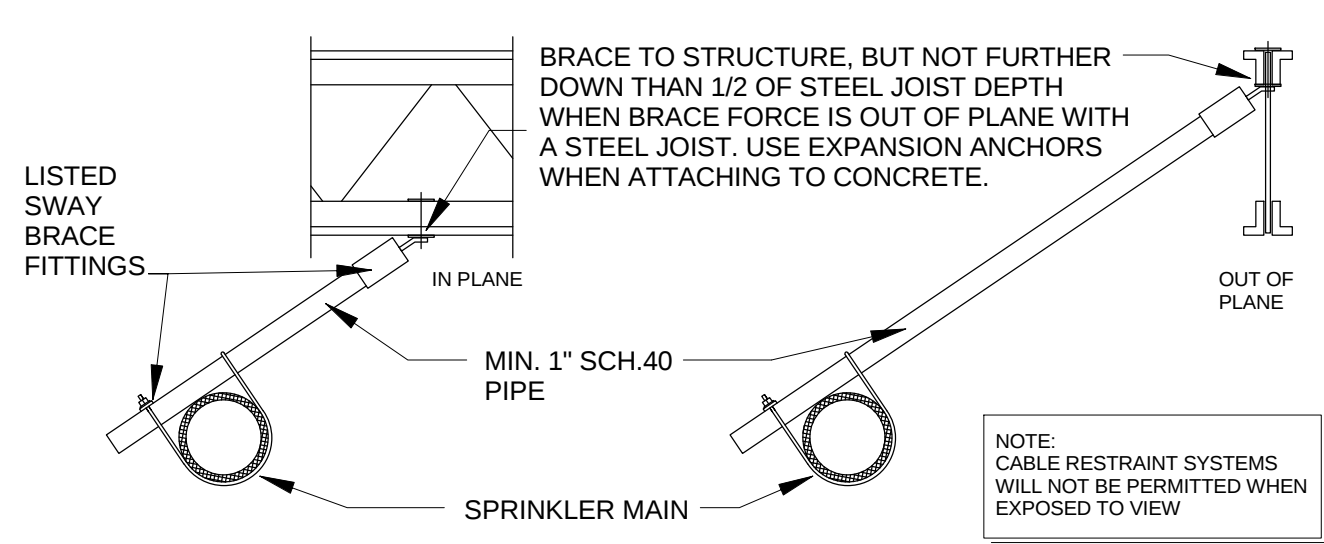
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11 LONGITUDINAL SWAY BRACE DETAIL

FP0501

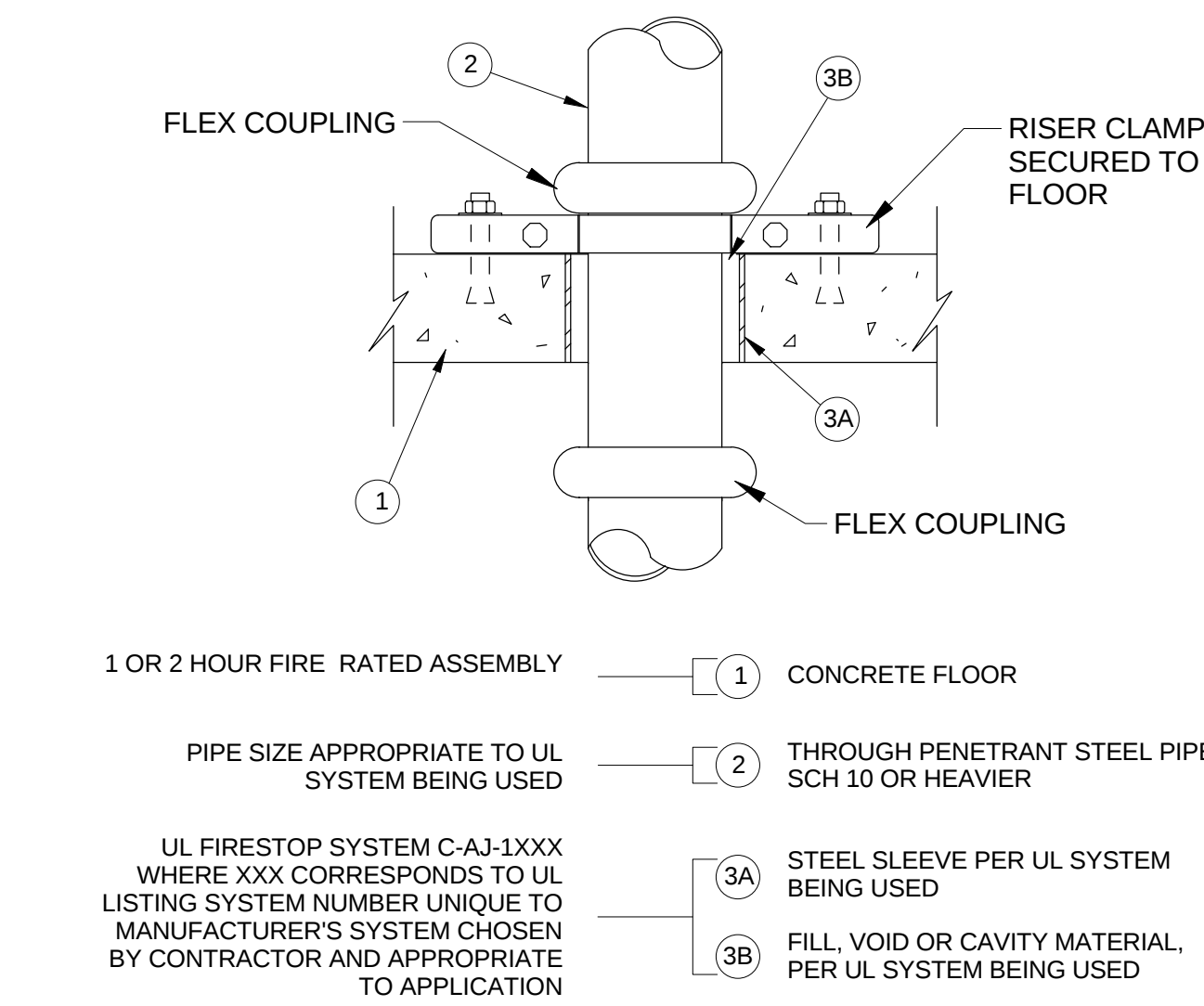
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12 LATERAL SWAY BRACE CETAIL

FP0501

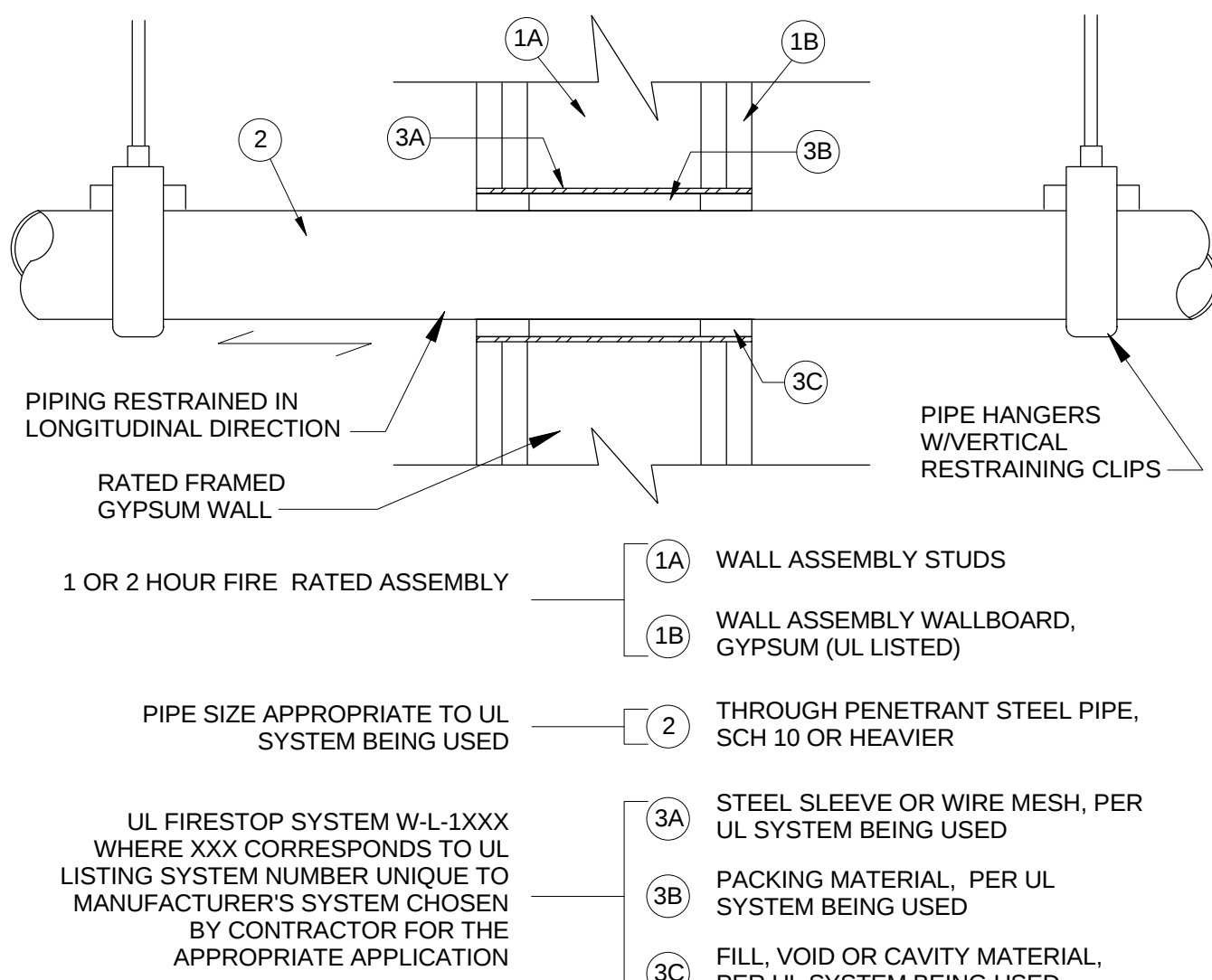
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13 UL FIRESTOP SYSTEM C-AJ-1xxx
1 OR 2 HOUR, THROUGH-PENETRATION
SYSTEM XHEZ FOR METALLIC PIPE

FP0501

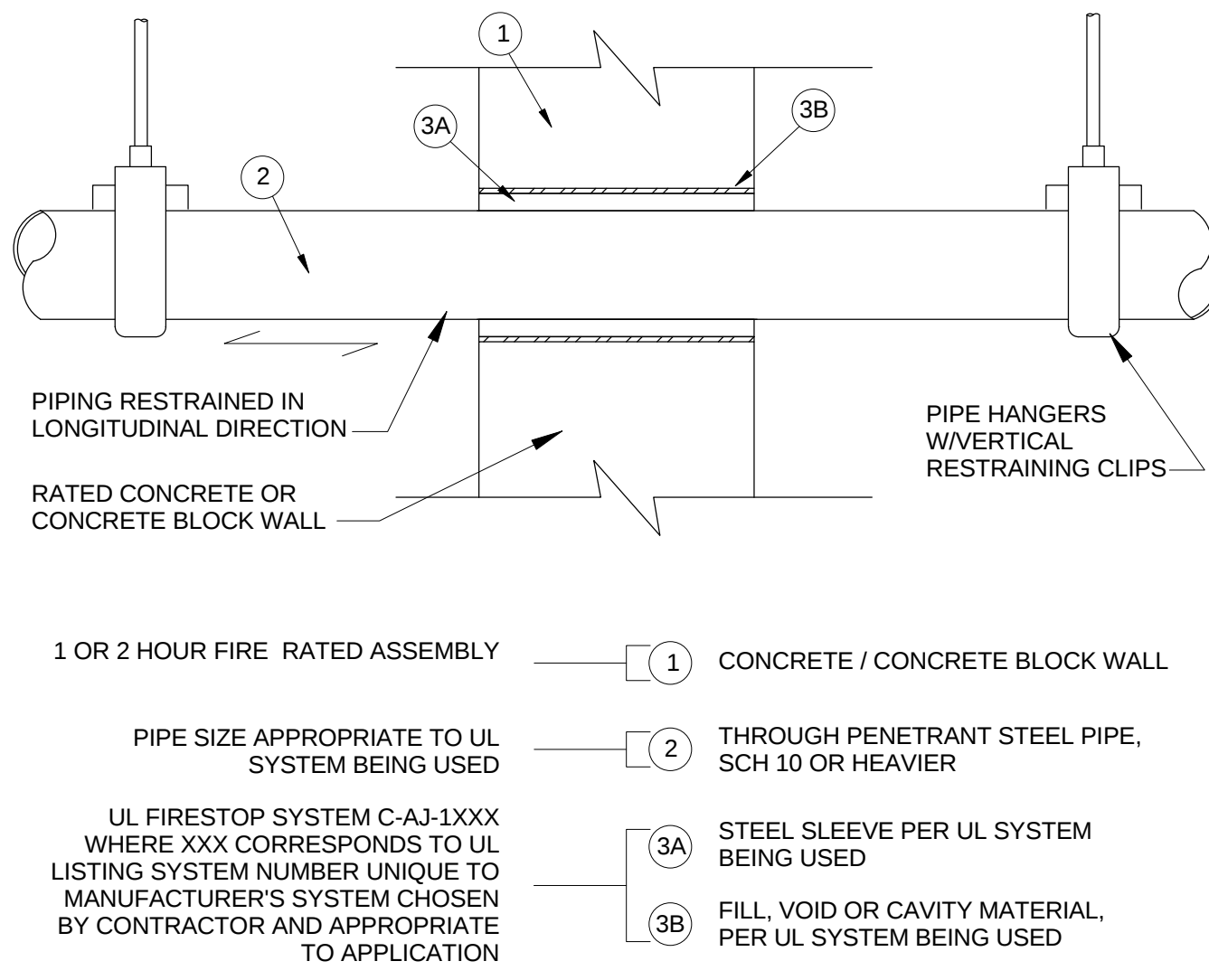
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14 UL FIRESTOP SYSTEM W-L-1xxx
1 OR 2 HOUR, THROUGH-PENETRATION
SYSTEM XHEZ FOR METALLIC PIPE

FP0501

SCALE: N.T.S.



15 UL FIRESTOP SYSTEM C-AJ-1xxx
1 OR 2 HOUR, THROUGH-PENETRATION
SYSTEM XHEZ FOR METALLIC PIPE

FP0501

SCALE: N.T.S.

3	ASI - 019 (RFI-193,208 & 212)	29 JUL 2016
2	ASI - 002 (RFI - 172)	15 JUL 2016
1	ADDENDUM 2-1	17 MAR 2016
-	ISSUED FOR CONSTRUCTION (BP2)	01 MAR 2016
No.	Description	Date

Drawing Title:

DETAILS - FIRE
PROTECTION

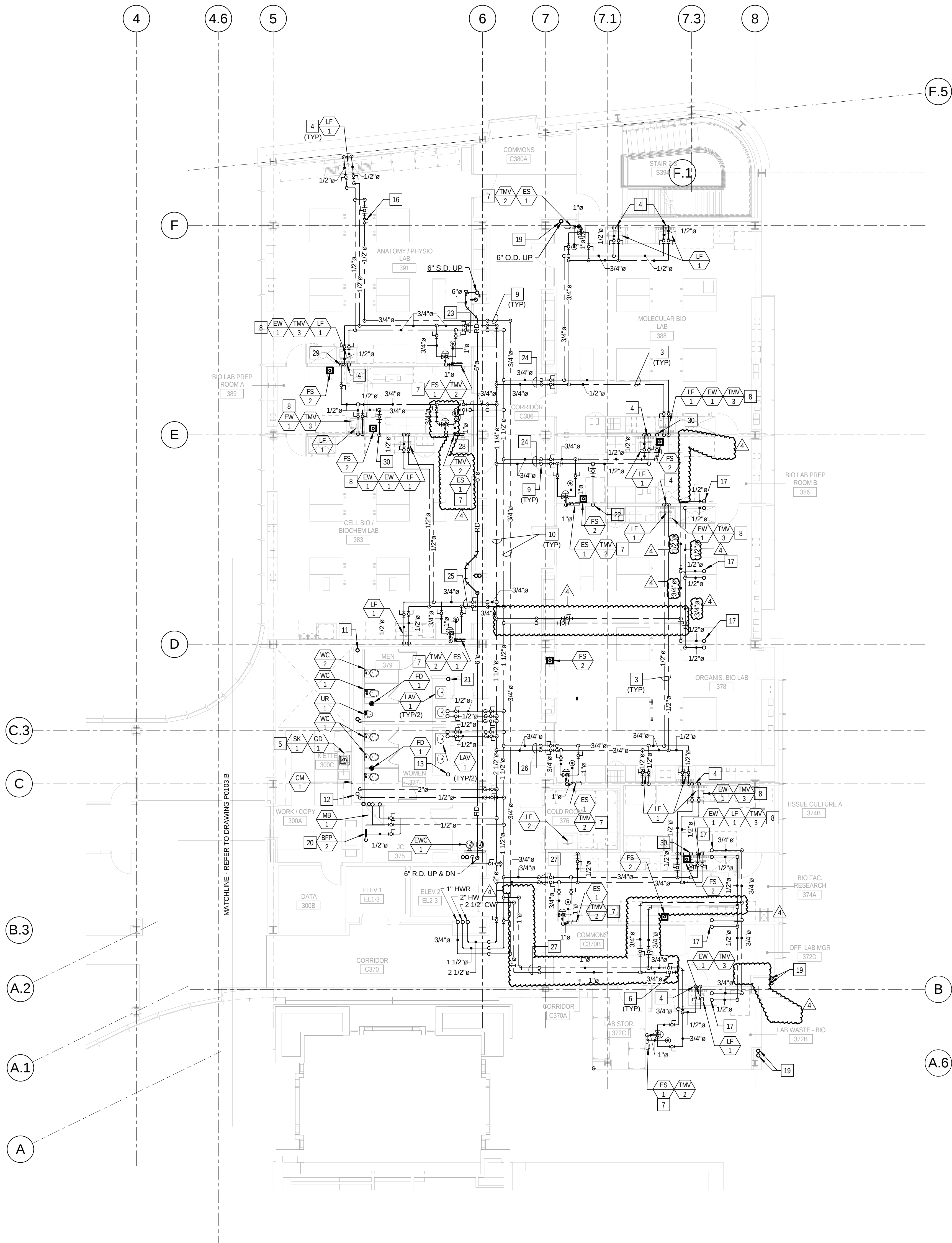
Project No.: 04561.01

Checked by:

FP0501

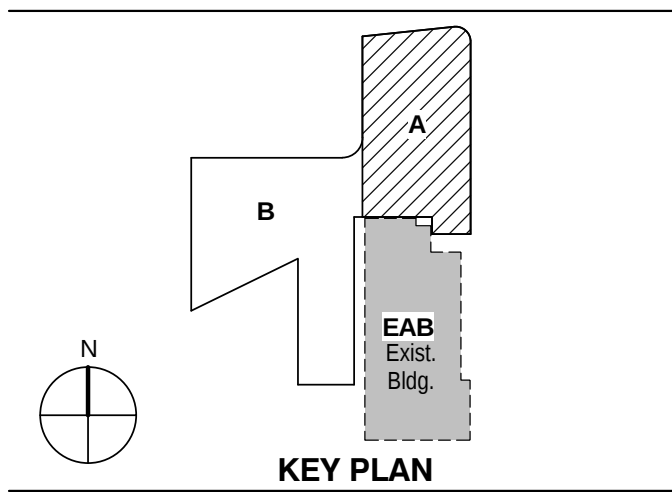
KEYED NOTES: (THIS SHEET ONLY)

- 1 NOT USED.
- 2 NOT USED.
- 3 PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH-IN.
- 4 1/2" CW, 1/2" HW AND 2" VENT DOWN IN WALL TO SERVE FIXTURE.
- 5 BREAKROOM SINKS ARE TO BE SERVED FROM WATER, WASTE AND VENT PIPING IN TOILET ROOM CHASE.
- 6 PROVIDE SHUT-OFF VALVES AT THE ENTRY TO EACH ROOM.
- 7 EMERGENCY SHOWER TO BE SERVED WITH FIELD FURNISHED AND INSTALLED 1" TEMPERED WATER TO SHOWER HEAD FROM WALL RECESSED CABINET. EYEWASH PORTION OF ASSEMBLY TO 2" WASTE AND 2" VENT. TYPICAL FOR ALL INSTALLATIONS. REFER TO DRAWING P0403, DETAIL 3.
- 8 DECK MOUNTED EMERGENCY EYEWASH TO BE LOCATED AT SINK. INSTALL THERMOSTATIC MIXING VALVE IN CABINET SPACE BELOW THE SINK. COORDINATE MOUNTING REQUIREMENTS OF EYEWASH AND TMV WITH THE GENERAL CONTRACTOR. TYPICAL FOR ALL INSTALLATION. REFER TO DRAWING P0403, DETAIL 4.
- 9 DROP PIPING DOWN TO BELOW STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
- 10 PIPING IN CORRIDOR TO BE RUN AT BOTTOM OF STRUCTURAL STEEL CROSS MEMBERS. COORDINATE INSTALLATION WITH AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH-IN.
- 11 4" SANITARY VENT RISER UP.
- 12 4" SANITARY WASTE RISER UP TO SERVE WATER CLOSETS, URINALS AND FLOOR DRAINS ON EACH LEVEL.
- 13 2" SANITARY WASTE RISER UP TO SERVE LAVATORIES ON EACH LEVEL.
- 14 NOT USED.
- 15 NOT USED.
- 16 HOT WATER RETURN CIRCUIT SETTER VALVE. LOCATE IN AN ACCESSIBLE LOCATION ABOVE THE CEILING. REFER TO DRAWING P0502, DETAIL 11/P0502.
- 17 WATER SERVICE UP TO ISLAND LAB BENCH SINKS ON LEVEL 4. COORDINATE WITH CASEWORK.
- 18 NOT USED.
- 19 ROOF DRAIN AND OVERFLOW DRAINS FROM LEVEL 4. REFER TO DRAWING P0104.A FOR CONTINUATION.
- 20 BACKFLOW PREVENTER FOR MECHANICAL MAKE-UP WATER. COORDINATE WITH THE MECHANICAL CONTRACTOR.
- 21 2" SANITARY VENT RISER UP TO SERVE LAVATORIES ON EACH LEVEL.
- 22 3/4" CW DOWN TO AUTOCLAVE. VERIFY SIZE AND CONNECTION POINT. PROVIDE ALL FITTINGS AS REQUIRED.
- 23 REFER TO DRAWING P0405 WATER SUPPLY RISER 7.
- 24 REFER TO DRAWING P0407 WATER SUPPLY RISER 1.
- 25 REFER TO DRAWING P0405 WATER SUPPLY RISER 3.
- 26 REFER TO DRAWING P0407 WATER SUPPLY RISER 5.
- 27 REFER TO DRAWING P0409 WATER SUPPLY RISER 1.
- 28 REFER TO DRAWING P0405 WATER SUPPLY RISER 5.
- 29 1/2" CW DOWN IN WALL TO SERVE ICE MACHINE. VERIFY CONNECTION POINT AND LOCATION. PROVIDE ALL FITTINGS AS REQUIRED.
- 30 1/2" HW DOWN IN WALL TO SERVE UNDERCOUNTER GLASS WASHER. VERIFY CONNECTION POINT TO UNIT AND LOCATION. PROVIDE ALL FITTINGS AS REQUIRED.



1 LEVEL 03 AREA A FLOOR PLAN - PLUMBING
1/8" = 1'-0"

4	ASI - 019 (RFI-193.208 & 212)	29 JUL 2016
3	ADDENDUM 2-4	24 MAY 2015
2	ADDENDUM 2-2	19 APR 2016
1	ADDENDUM 2-1	17 MAR 2016
-	ISSUED FOR CONSTRUCTION (BP2)	01 MAR 2016



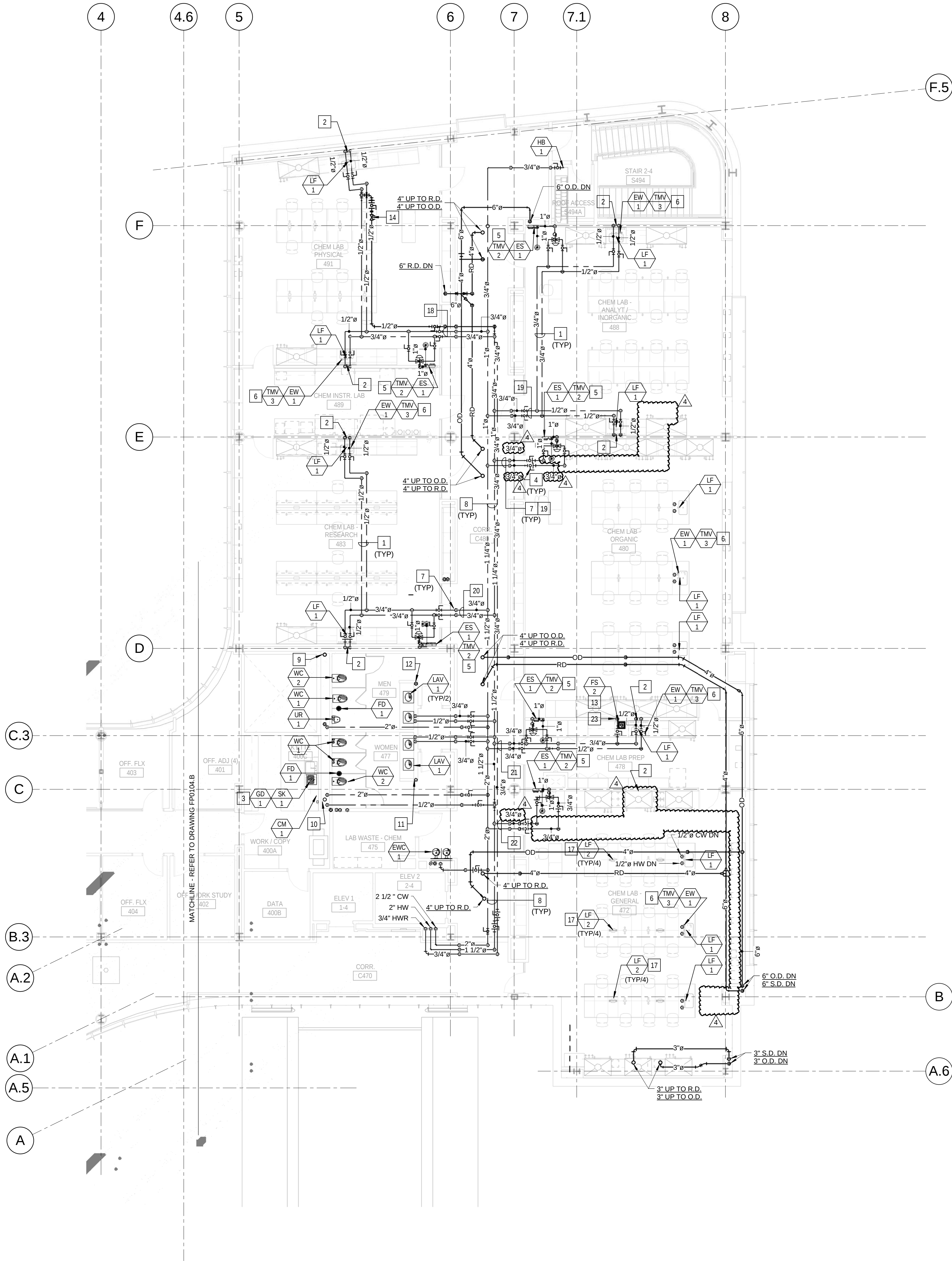
LEVEL 03 AREA A FLOOR
PLAN - PLUMBING

Project No.: 04561.01 Checked by:

P0103.A

KEYED NOTES: (THIS SHEET ONLY)

- 1 PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH-IN.
- 2 1/2" CW, 1/2" HW AND 2" VENT DOWN IN WALL TO SERVE FIXTURE.
- 3 BREAKROOM SINKS ARE TO BE SERVED FROM WATER, WASTE AND VENT PIPING IN TOILET ROOM CHASE.
- 4 PROVIDE SHUT-OFF VALVES AT THE ENTRY TO EACH ROOM.
- 5 EMERGENCY SHOWER TO BE SERVED WITH FIELD FURNISHED AND INSTALLED 1" TEMPERED WATER TO SHOWER HEAD FROM WALL RECESSED CABINET. EYEWASH PORTION OF ASSEMBLY TO 2" WASTE AND 2" VENT. TYPICAL FOR ALL INSTALLATIONS. REFER TO DRAWING P0403, DETAIL 4.
- 6 DECK MOUNTED EMERGENCY EYEWASH TO BE LOCATED AT SINK. INSTALL THERMOSTATIC MIXING VALVE IN CABINET SPACE BELOW THE SINK. COORDINATE MOUNTING REQUIREMENTS OF EYEWASH AND TMV WITH THE GENERAL CONTRACTOR. TYPICAL FOR ALL INSTALLATION. REFER TO DRAWING P0403, DETAIL 3.
- 7 DROP PIPING DOWN TO BELOW STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
- 8 PIPING IN CORRIDOR TO BE RUN AT BOTTOM OF STRUCTURAL STEEL CROSS MEMBERS. COORDINATE INSTALLATION WITH AND ROUTING WITH OTHER TRADES PRIOR TO ROUGH-IN.
- 9 4" SANITARY VENT RISER UP TO SERVE WATER CLOSETS, URINALS AND FLOOR DRAINS ON EACH LEVEL.
- 10 4" SANITARY WASTE RISER UP TO SERVE WATER CLOSETS, URINALS AND FLOOR DRAINS ON EACH LEVEL.
- 11 2" SANITARY WASTE RISER UP TO SERVE LAVATORIES ON EACH LEVEL.
- 12 2" SANITARY VENT UP TO LEVEL 4. REFER TO DRAWING P0104.A FOR VENT PIPING TERMINATION.
- 13 FLOOR SINK UNDER COUNTERTOP WITH IN CASEWORK. VERIFY LOCATION WITH EXACT EQUIPMENT PLACEMENT PRIOR TO ROUGH-IN. COORDINATE FLOOR OPENING WITH THE GENERAL CONTRACTOR.
- 14 HOT WATER RETURN CIRCUIT SETTER VALVE. LOCATE IN AN ACCESSIBLE LOCATION ABOVE THE CEILING. REFER TO DRAWING P0502, DETAIL 11.
- 15 NOT USED
- 16 NOT USED
- 17 LAB FAUCET 1/2" 2" FOR COLD WATER SERVICE ONLY. PROVIDE TWO FAUCETS FOR EACH CUP SINK. EXTEND CW PIPING WITHIN UTILITY CHASE OF EACH SET OF LAB CASEWORK.
- 18 REFER TO DRAWING P0405 WATER SUPPLY RISER 8.
- 19 REFER TO DRAWING P0407 WATER SUPPLY RISER 2.
- 20 REFER TO DRAWING P0405 WATER SUPPLY RISER 4.
- 21 REFER TO DRAWING P0409 WATER SUPPLY RISER 2.
- 22 REFER TO DRAWING P0409 WATER SUPPLY RISER 4.
- 23 1/2" HW DOWN IN WALL TO SERVE UNDERCOUNTER GLASS WASHER. VERIFY CONNECTION POINT TO UNIT AND LOCATION. PROVIDE ALL FITTINGS AS REQUIRED.



1 LEVEL 04 AREA A FLOOR PLAN - PLUMBING
1/8" = 1'-0"

4	ASI - 019 (RFI-193.208 & 212)	29 JUL 2016
3	ADDENDUM 2-4	24 MAY 2015
2	ADDENDUM 2-2	19 APR 2016
1	ADDENDUM 2-1	17 MAR 2016
-	ISSUED FOR CONSTRUCTION (BP2)	01 MAR 2016

No.	Description	Date
1	KEY PLAN	

Drawing Title:

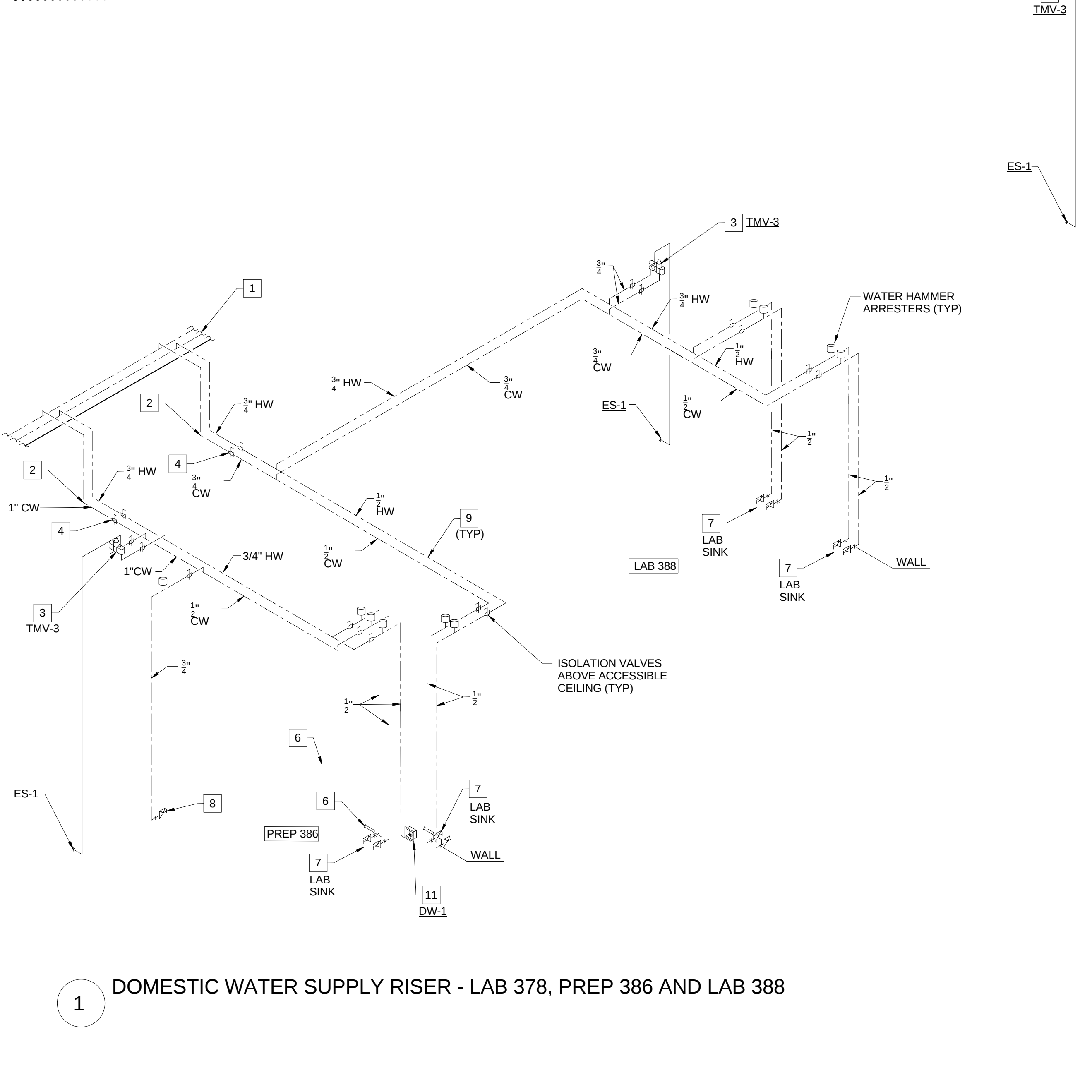
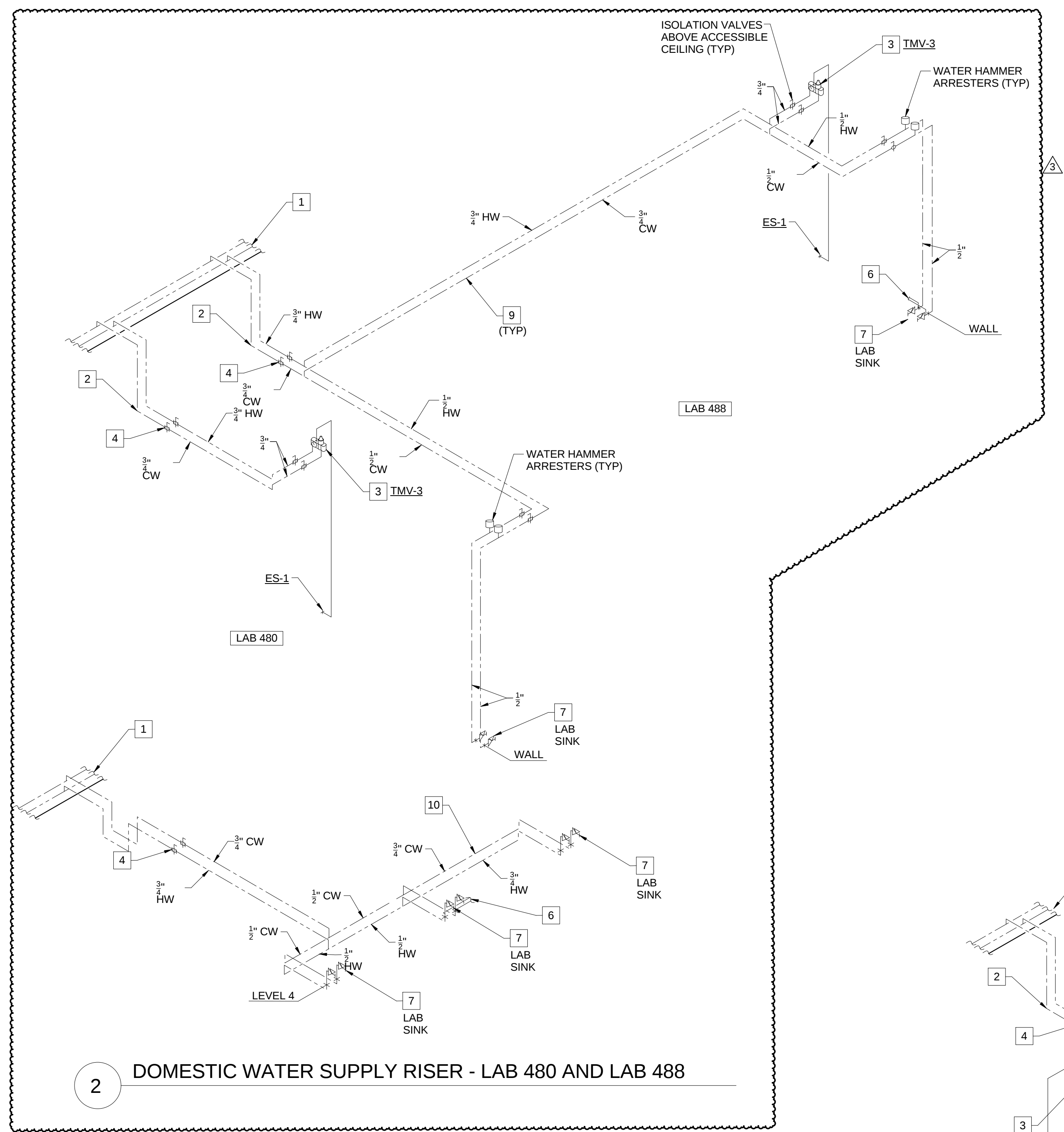
LEVEL 04 AREA A FLOOR
PLAN - PLUMBING

Project No.: 04561.01

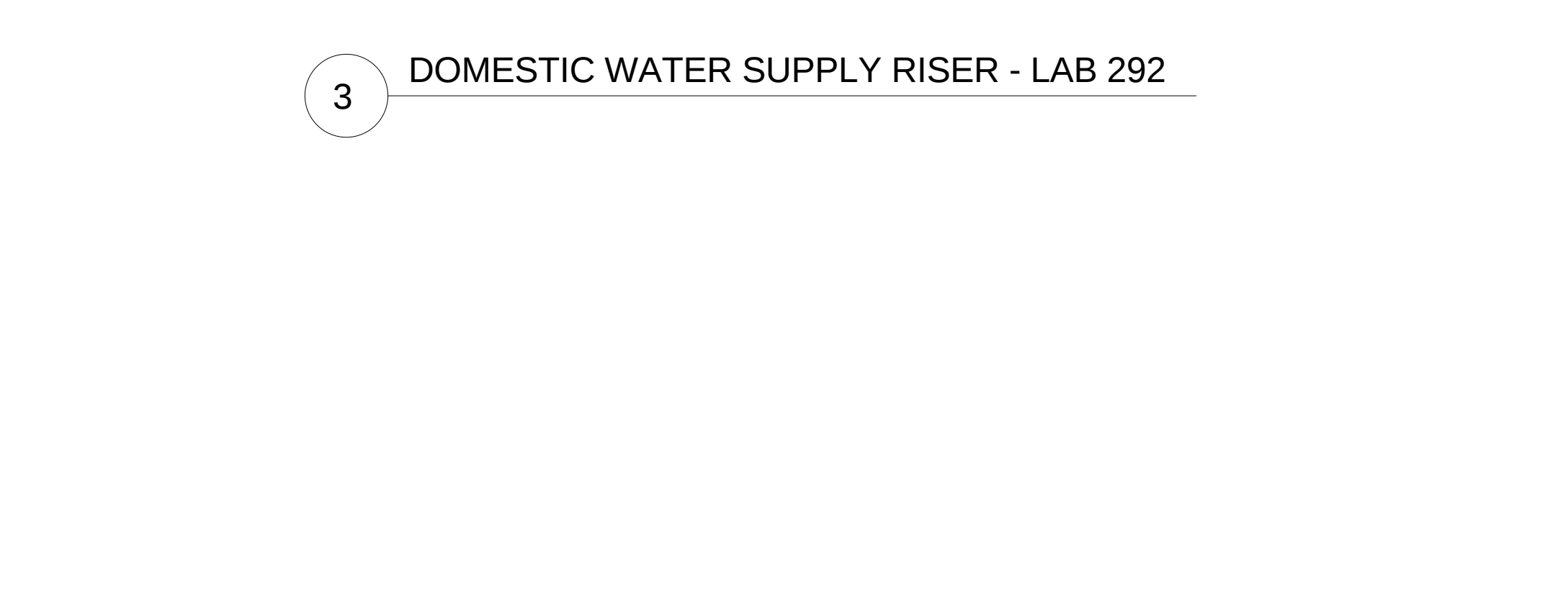
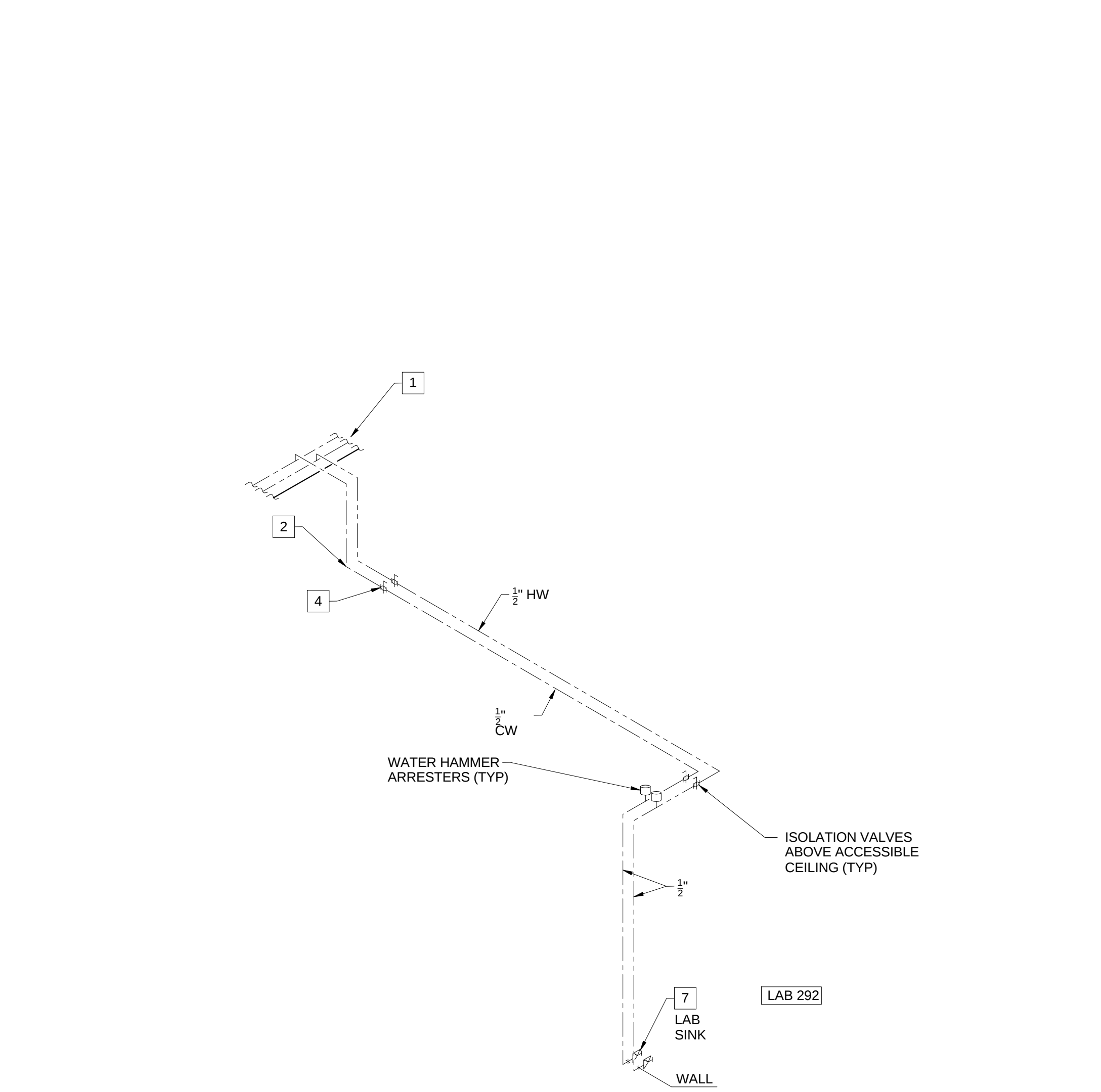
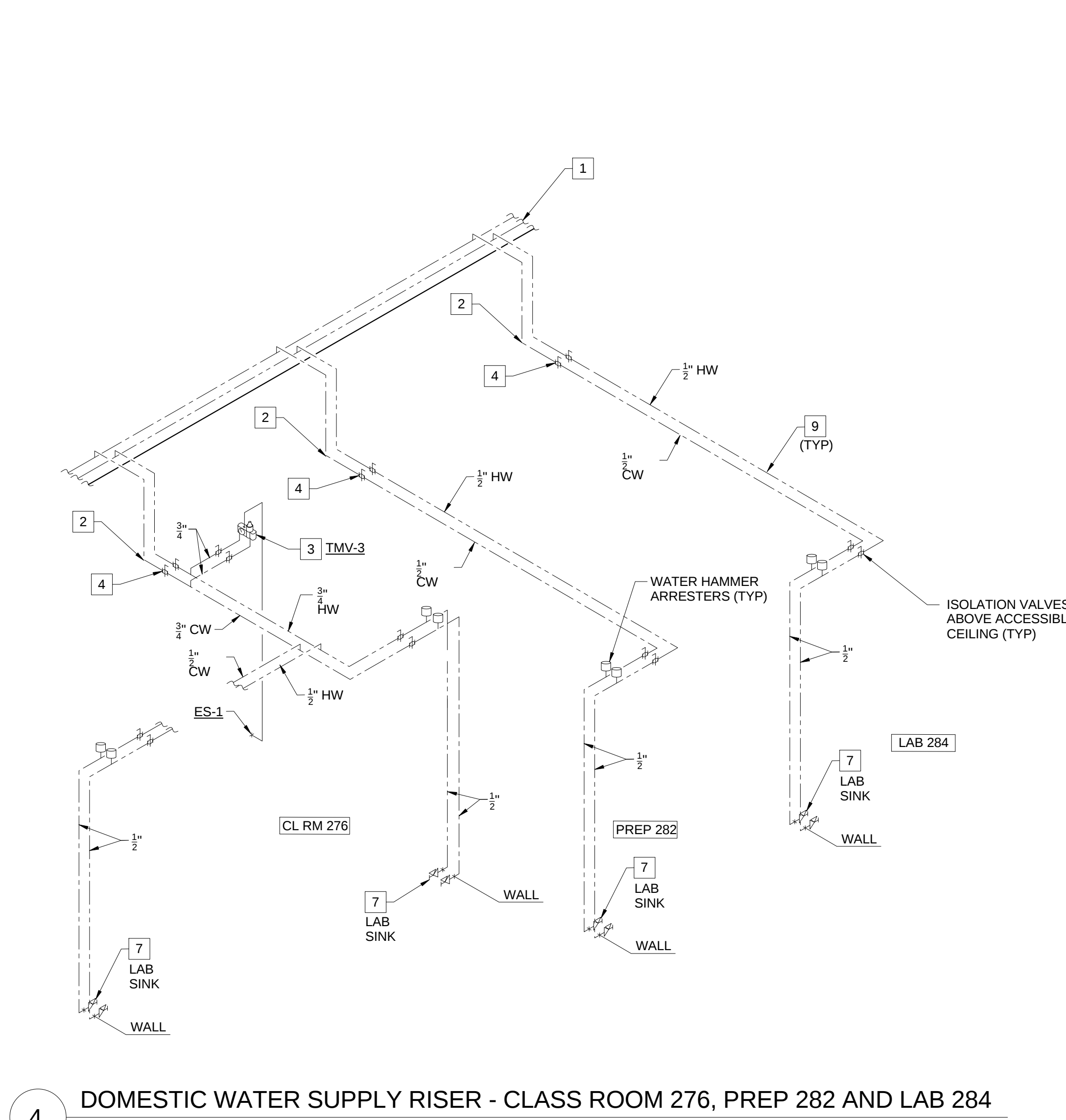
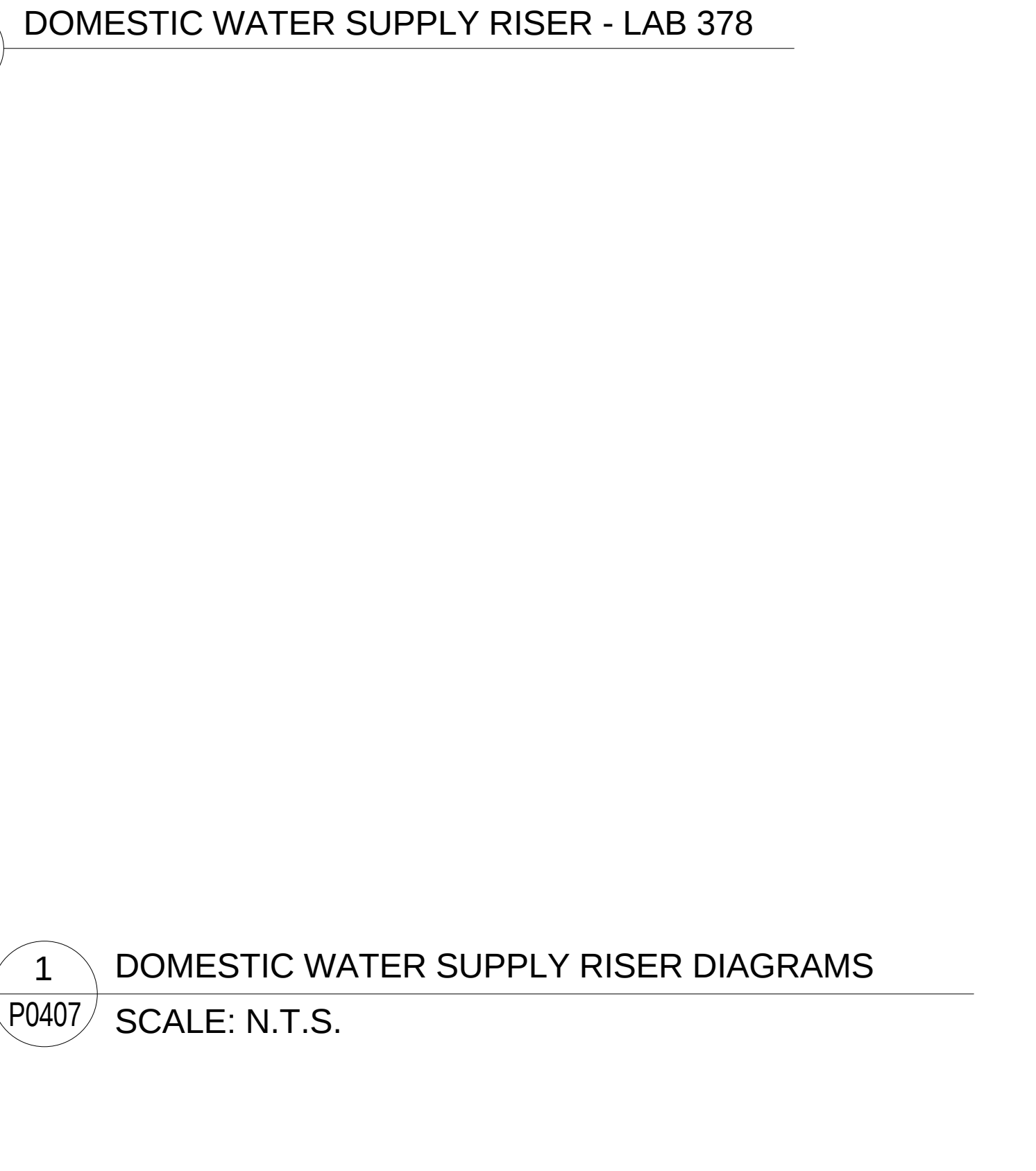
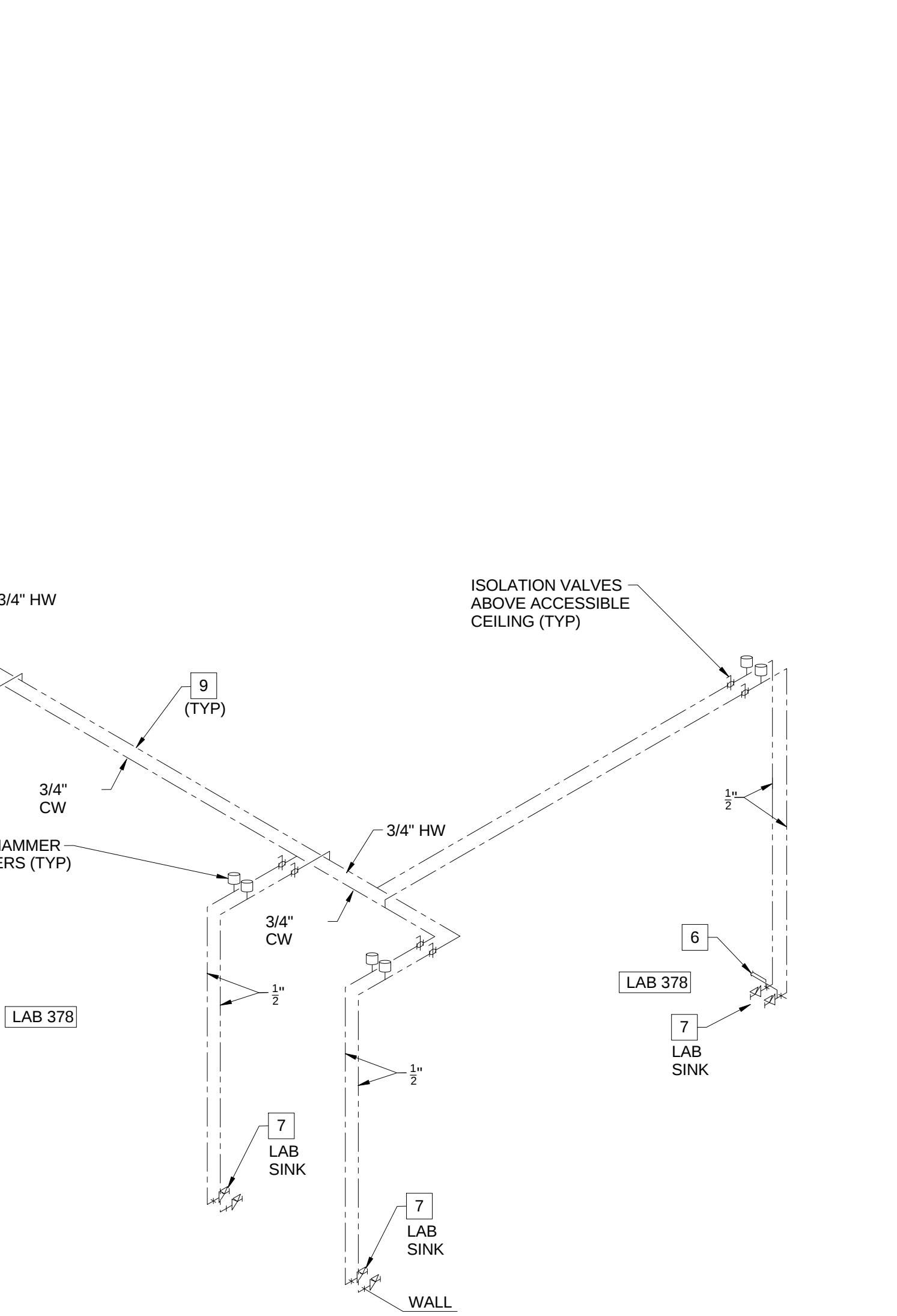
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P0104.A

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- KEYED NOTES (THIS SHEET ONLY)**
- 1 DOMESTIC WATER PIPING IN THE CORRIDOR TO BE RUN AT THE BOTTOM OF THE STRUCTURAL CROSS MEMBERS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES ON THIS PROJECT.
 - 2 DROP PIPIDROP PIPING BELOW THE STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
 - 3 THERMOSTAT THERMOSTATIC MIXING VALVE (TMV-2) SERVING THE EMERGENCY SHOWER TO BE LOCATED ABOVE THE ACCESSIBLE CEILING. REFER TO DRAWING P0403, DETAIL 3/P0403 FOR PIPING DIAGRAM OF EMERGENCY SHOWER. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
 - 4 PROVIDE SHUT-OFF VALVES AT THE ENTRY TO EACH ROOM.
 - 5 REFER TO DRAWING P0502, DETAIL 11/P0502 FOR HOT WATER RETURN PIPING DIAGRAM.
 - 6 WATER PIPING CONNECTION TO THERMOSTATIC MIXING VALVE (TMV-3) SERVING THE DECK MOUNTED EMERGENCY EYEWASH. REFER TO DRAWING P0403, DETAIL 4/P0403 FOR PIPING DIAGRAM OF EMERGENCY EYEWASH. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
 - 7 LAB SINK WITH LAB FAUCET TYPE 'LF-1'.
 - 8 WATER CONNECTION FOR AUTOCLAVE. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK. VERIFY EQUIPMENT CONNECTIONS AND LOCATION, PROVIDE FITTINGS AND FINAL CONNECTIONS AS REQUIRED. COORDINATE INSTALLATION WITH EQUIPMENT.
 - 9 DOMESTIC WATER PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION WITH OTHER TRADES ON THIS PROJECT PRIOR TO ROUGH-IN.
 - 10 DOMESTIC WATER PIPING IN CEILING SPACE OF LEVEL 3 TO SERVE LAB SINKS ON LEVEL 4. COORDINATE ROUTING AND INSTALLATION WITH SPACE CONDITIONS.
 - 11 WATER CONNECTION FOR UNDER COUNTER GLASS WASHER. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK.



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Structural & Civil Engineer
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Kuhmann Leavitt, Inc.
Environmental Graphics & Signage
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St. Louis, MO 63130
314.725.6316

KWA Architects
Architecture
9721 Litzinger Road
St. Louis, MO 63124
314.962.2560

Spellman Brady & Company
Interior Designer
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St. Louis, MO 63105
314.862.0070

SWT Design
Landscape Architect
7722 Big Bend Blvd
St. Louis, MO 63119
314.644.5700

Webb Engineering Services, Inc.
Planning & Fire Protection
1400 S. 3rd Street, Suite 201
St. Louis, MO 63104
314.588.0600

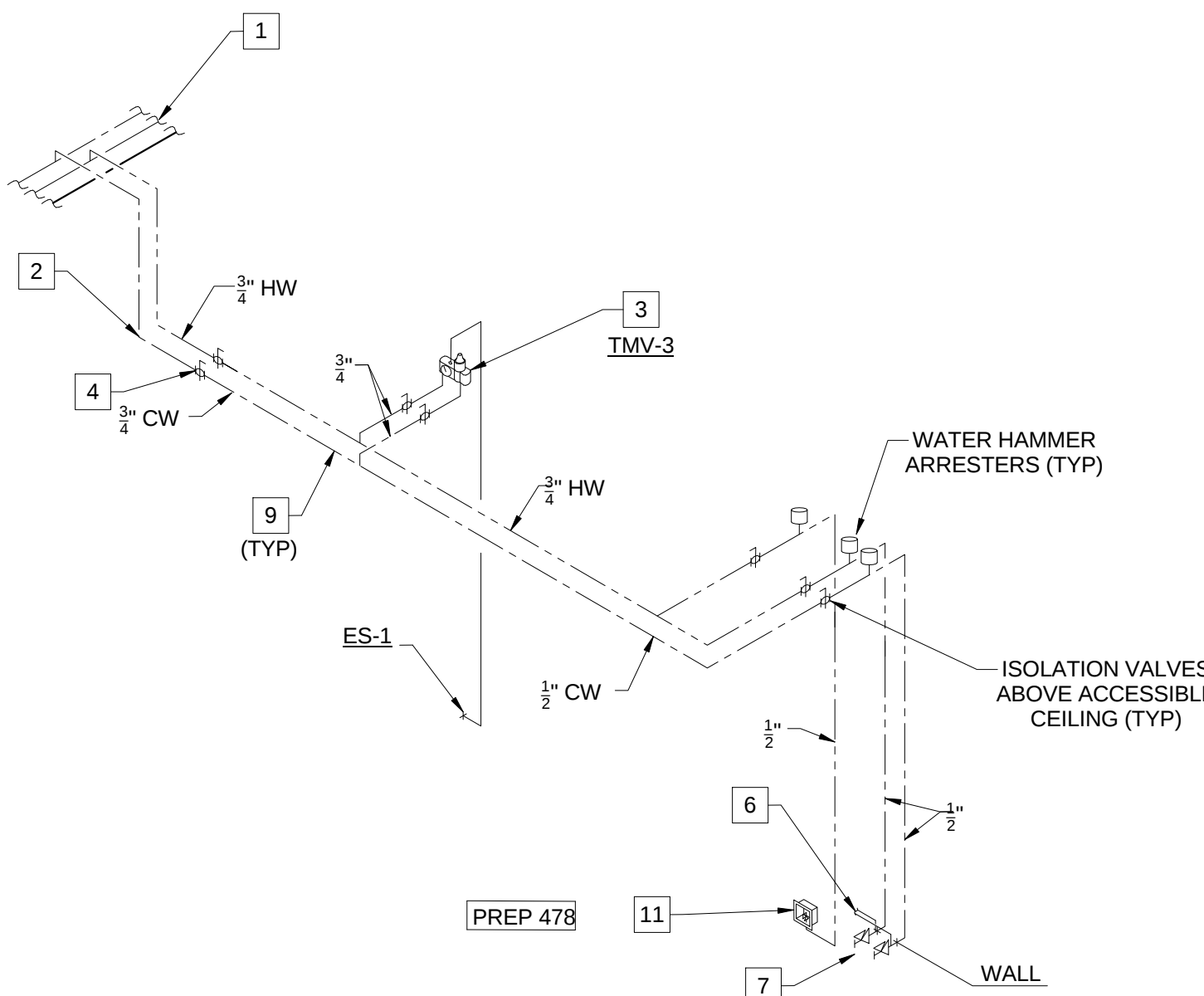
3	ASI - 019 (RFI-193,208 & 212)	29 JUL 2016
2	ADDENDUM 2-4	24 MAY 2016
1	ADDENDUM 2-2	19 APR 2016
-	ISSUED FOR CONSTRUCTION (BP2)	01 MAR 2016
No.	Description	Date

Drawing Title:

RISERS - PLUMBING

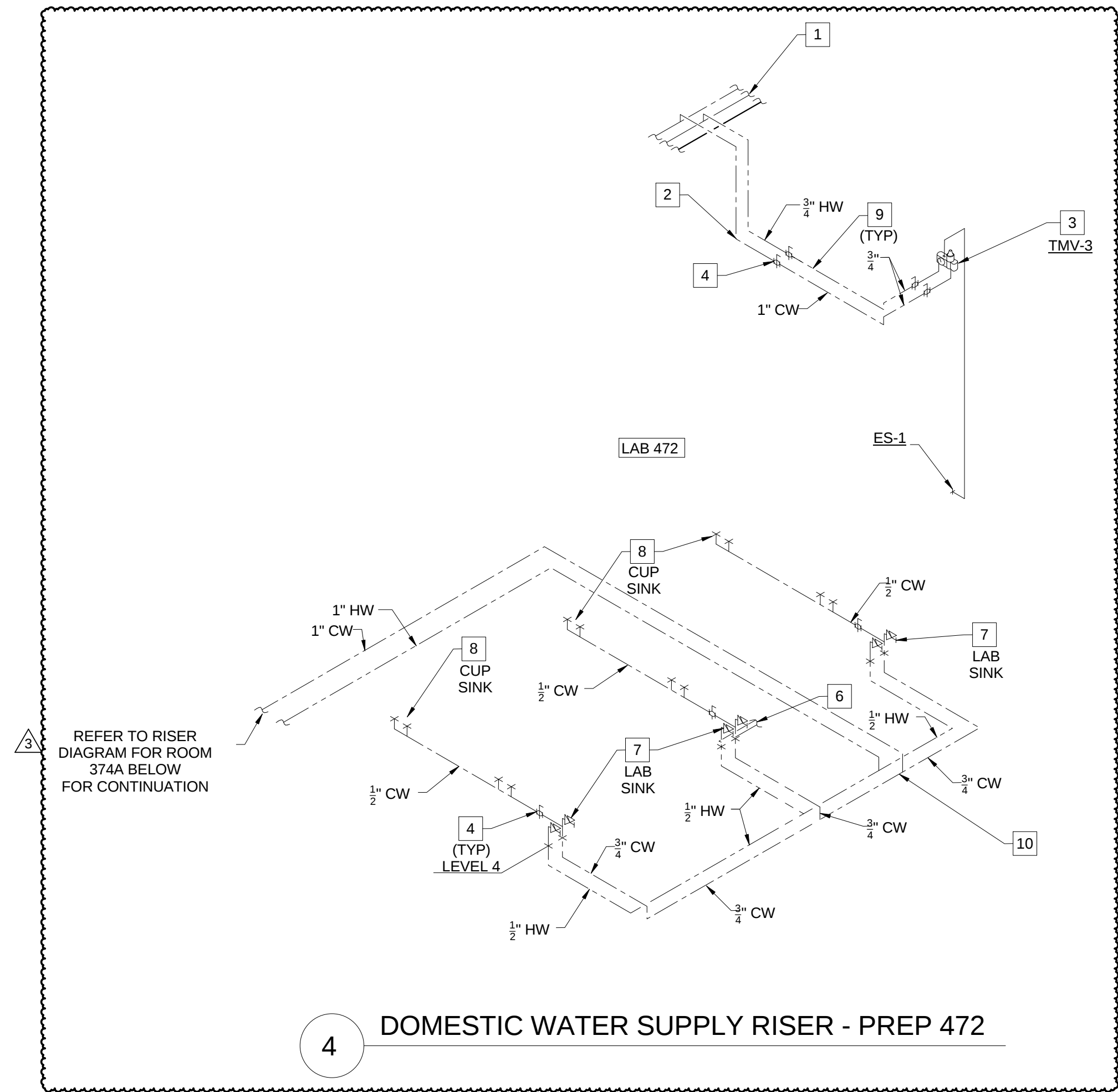
Project No.: 04561.01 Checked by:

P0407

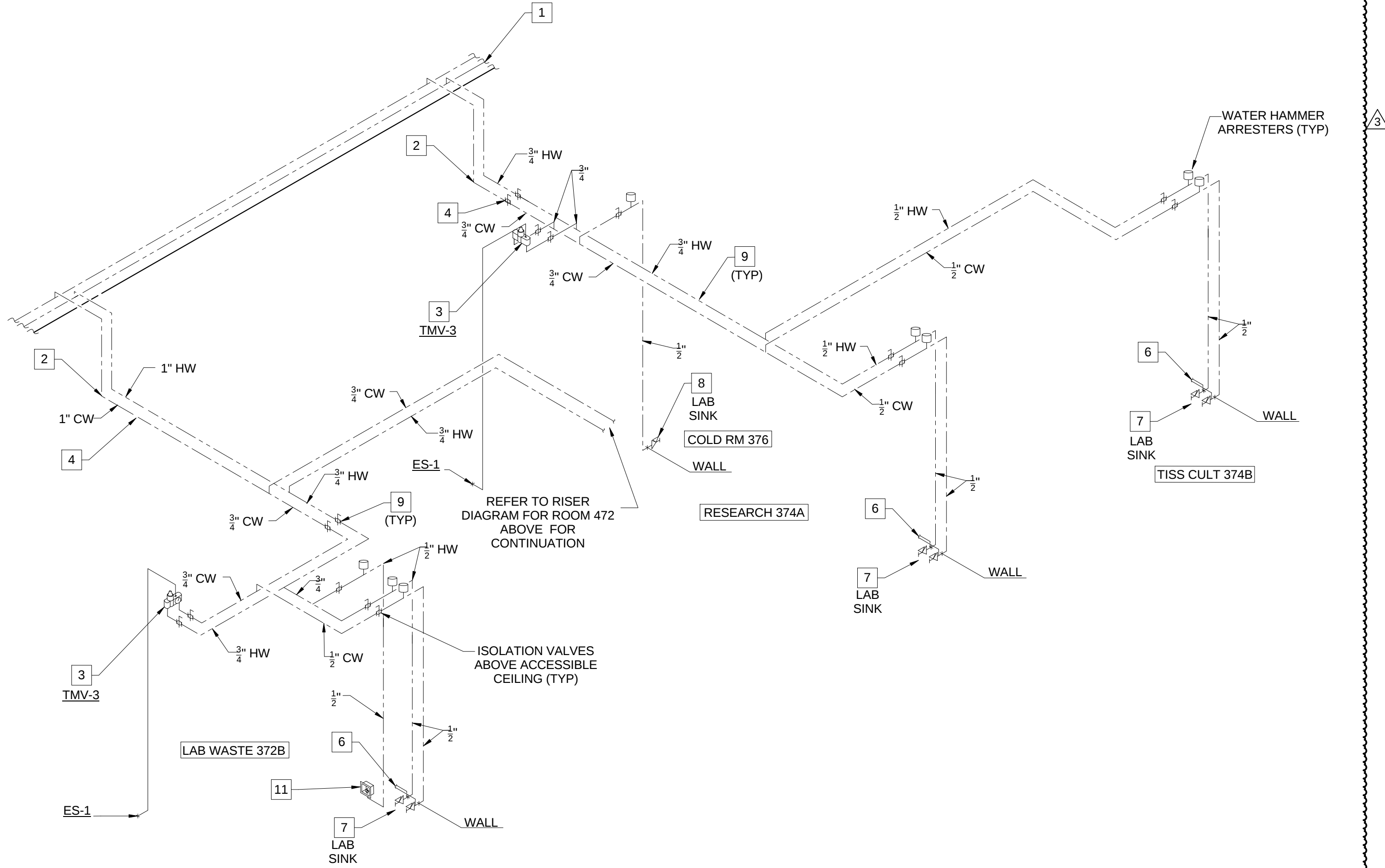


2 DOMESTIC WATER SUPPLY RISER - PREP 478

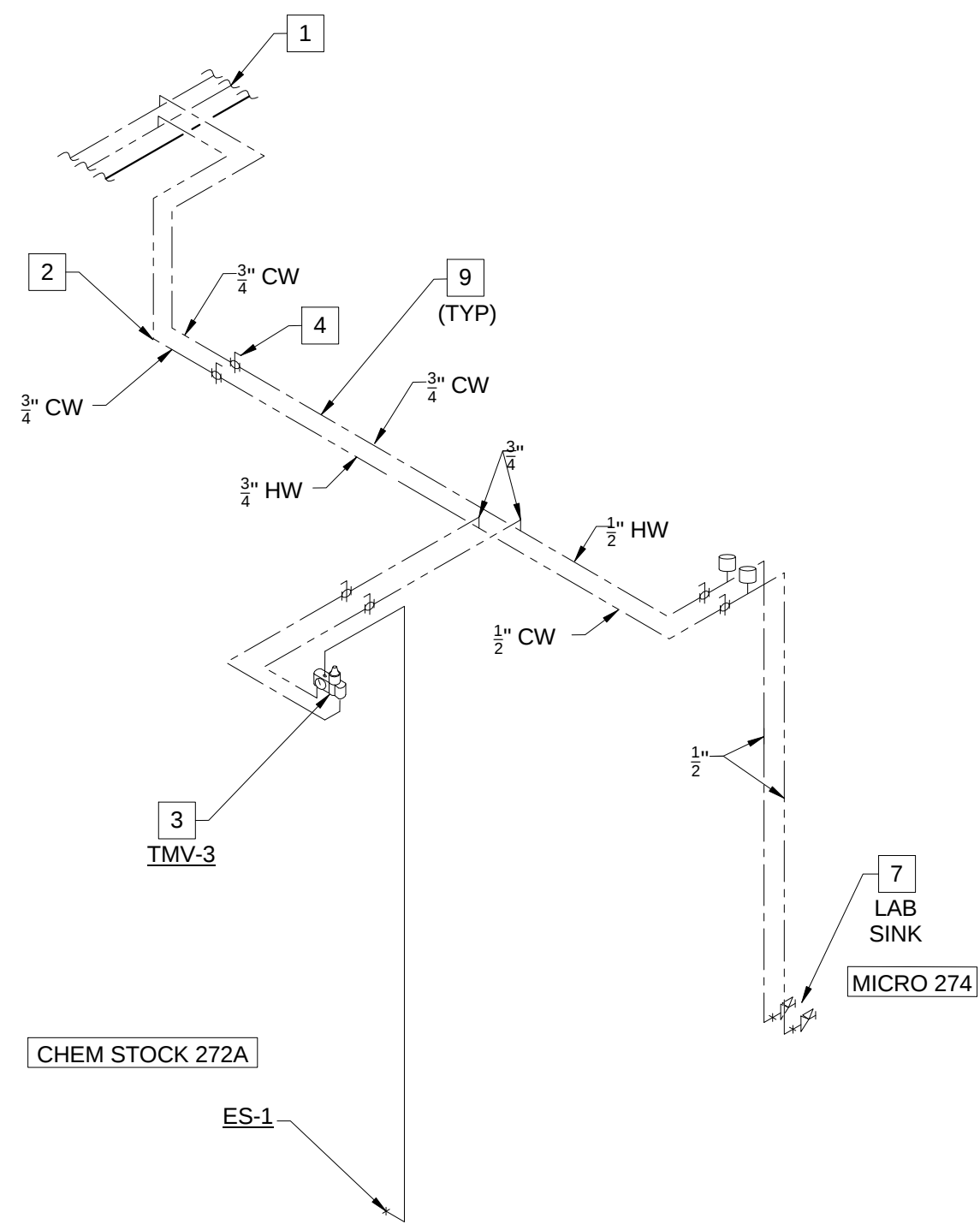
- KEYED NOTES (THIS SHEET ONLY)
- 1 DOMESTIC WATER PIPING IN THE CORRIDOR TO BE RUN AT THE BOTTOM OF THE STRUCTURAL CROSS MEMBERS. COORDINATE INSTALLATION AND ROUTING WITH OTHER TRADES ON THIS PROJECT.
 - 2 DROP PIPING BELOW THE STRUCTURAL STEEL MEMBER. HOLD TIGHT TO BOTTOM OF STEEL.
 - 3 THERMOSTATIC MIXING VALVE (TMV-2) SERVING THE EMERGENCY SHOWER TO BE LOCATED ABOVE THE ACCESSIBLE CEILING. REFER TO DRAWING P0403, DETAIL 3/P0403 FOR PIPING DIAGRAM OF EMERGENCY SHOWER. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
 - 4 PROVIDE SHUT-OFF VALVES AT THE ENTRY TO EACH ROOM.
 - 5 REFER TO DRAWING P0502, DETAIL 11/P0502 FOR HOT WATER RETURN PIPING DIAGRAM.
 - 6 WATER PIPING CONNECTION TO THERMOSTATIC MIXING VALVE (TMV-3) SERVING THE DECK MOUNTED EMERGENCY EYEWASH. REFER TO DRAWING P0403, DETAIL 4/P0403 FOR PIPING DIAGRAM OF EMERGENCY EYEWASH. VERIFY LOCATION AND PIPING CONFIGURATION PRIOR TO ROUGH-IN.
 - 7 LAB SINK WITH LAB FAUCET TYPE 'LF-1'.
 - 8 CUP SINK WITH LAB FAUCET TYPE 'LF-2'. TYPICAL FOR SIX CUPS SINKS AND TWELVE LAB FAUCET 'LF-2'. EXTEND COLD WATER PIPING WITHIN UTILITY CHASE OF CASEWORK. COORDINATE ROUTING AND INSTALLATION WITH OTHER SERVICES IN SPACE.
 - 9 DOMESTIC WATER PIPING IN EACH ROOM TO BE RUN AS HIGH AS POSSIBLE TO AVOID CONFLICTS. COORDINATE INSTALLATION WITH OTHER TRADES ON THIS PROJECT PRIOR TO ROUGH-IN.
 - 10 DOMESTIC WATER PIPING IN CEILING SPACE OF LEVEL 3 TO SERVE LAB AND CUP SINKS ON LEVEL 4. COORDINATE ROUTING AND INSTALLATION WITH SPACE CONDITIONS.
 - 11 WATER CONNECTION FOR UNDER COUNTER GLASS WASHER. COORDINATE LOCATION AND INSTALLATION WITH EQUIPMENT AND CASEWORK.



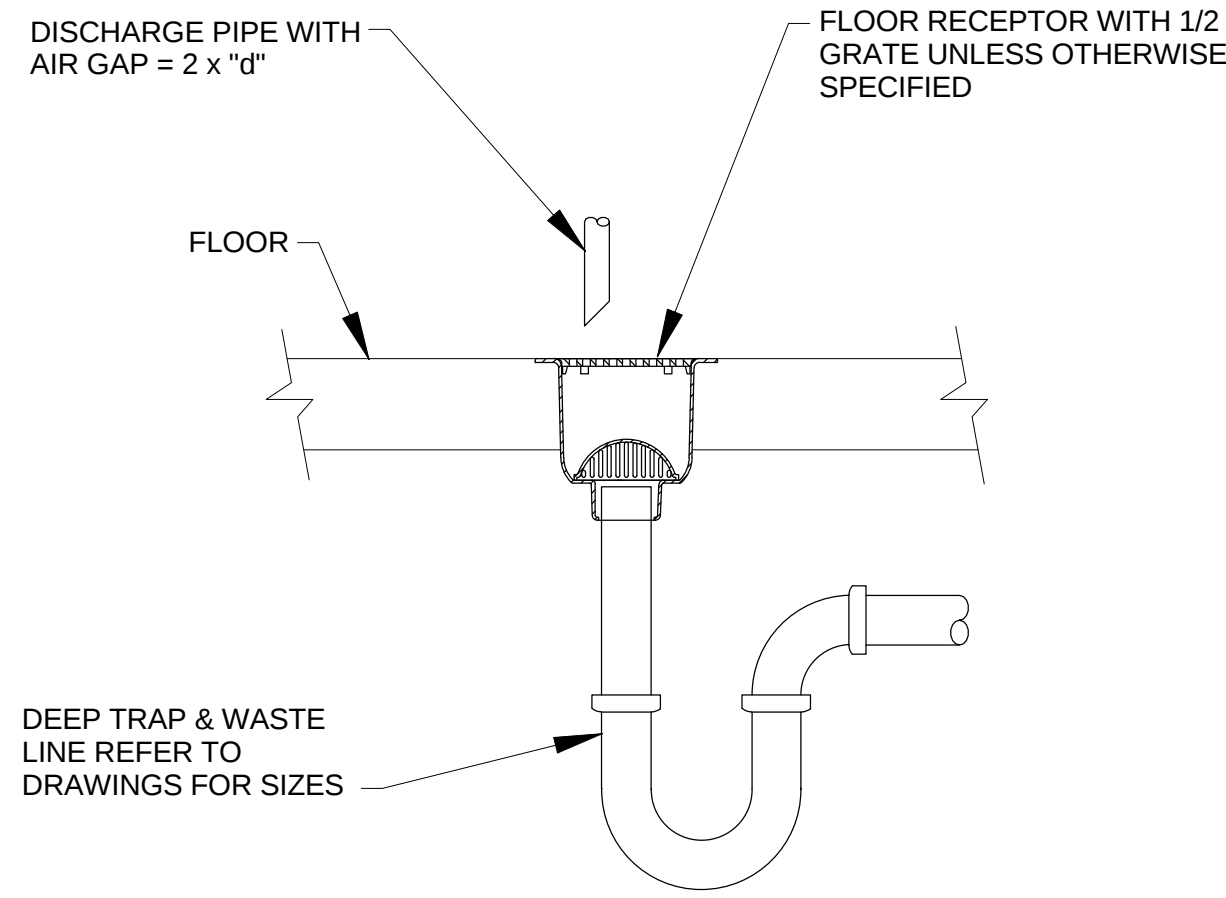
4 DOMESTIC WATER SUPPLY RISER - PREP 472



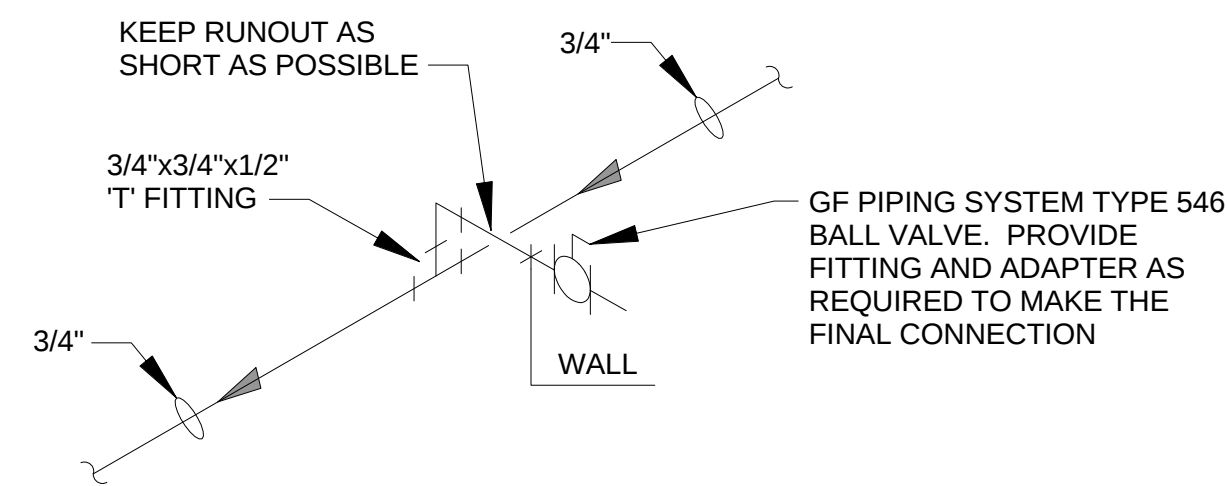
1 DOMESTIC WATER SUPPLY RISER - LAB WASTE 372B, RESEARCH 374A, TISSUE CULTURE 374B AND COLD ROOM 378



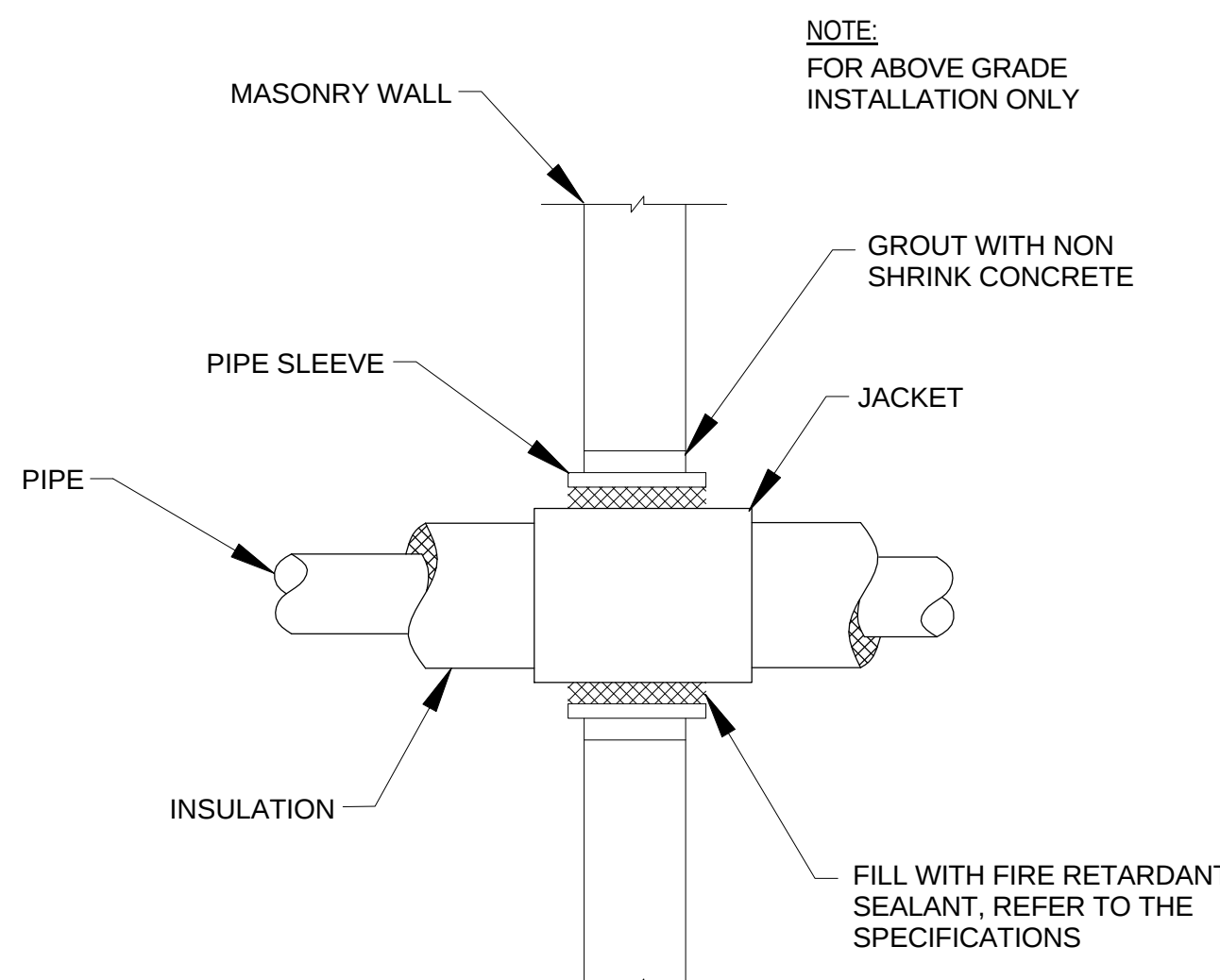
3 DOMESTIC WATER SUPPLY RISER - CHEM STOCK 272A AND MIRCOSCOPY 274



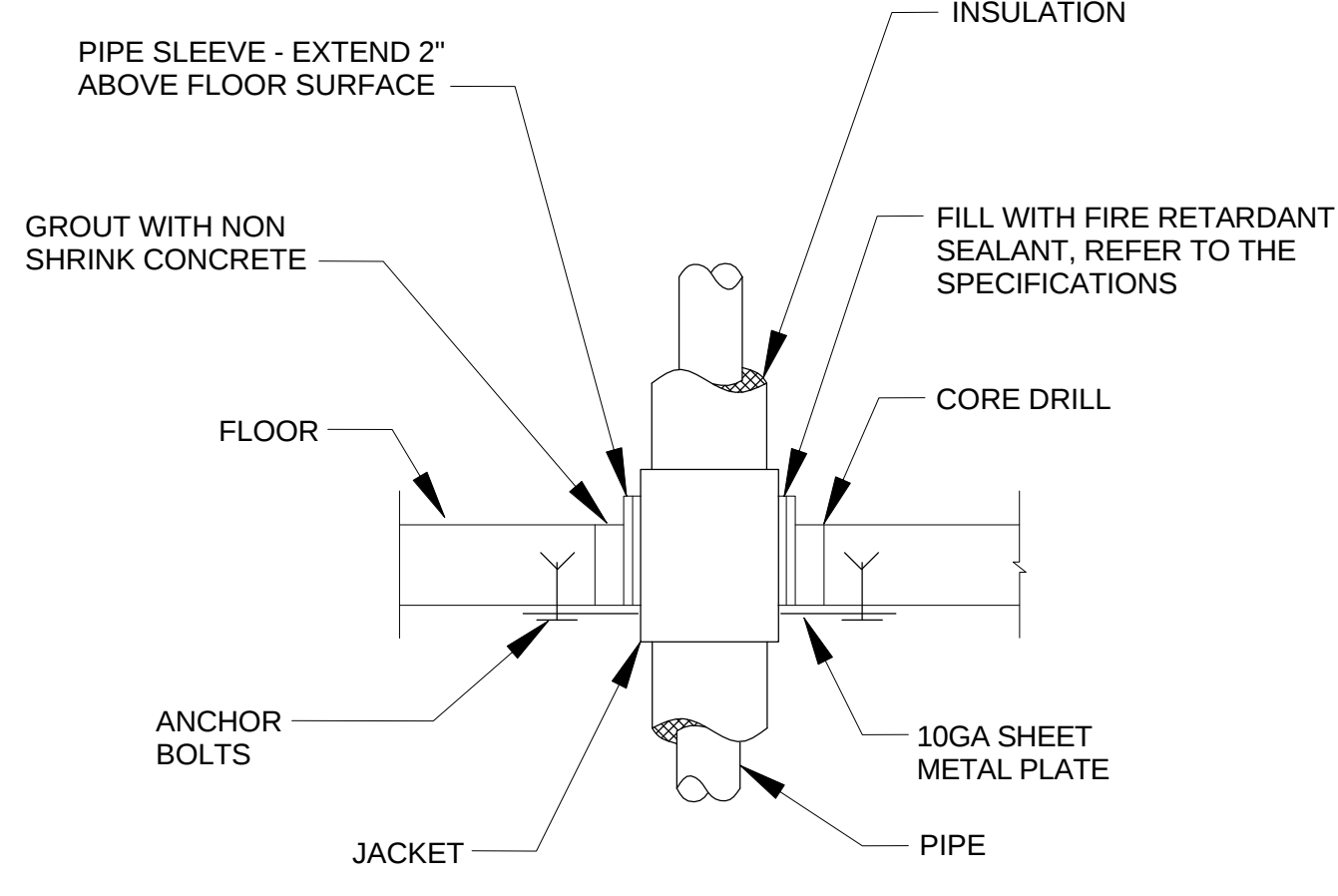
1 FLOOR RECEPTOR/SINK DETAIL
P0502 SCALE: N.T.S.



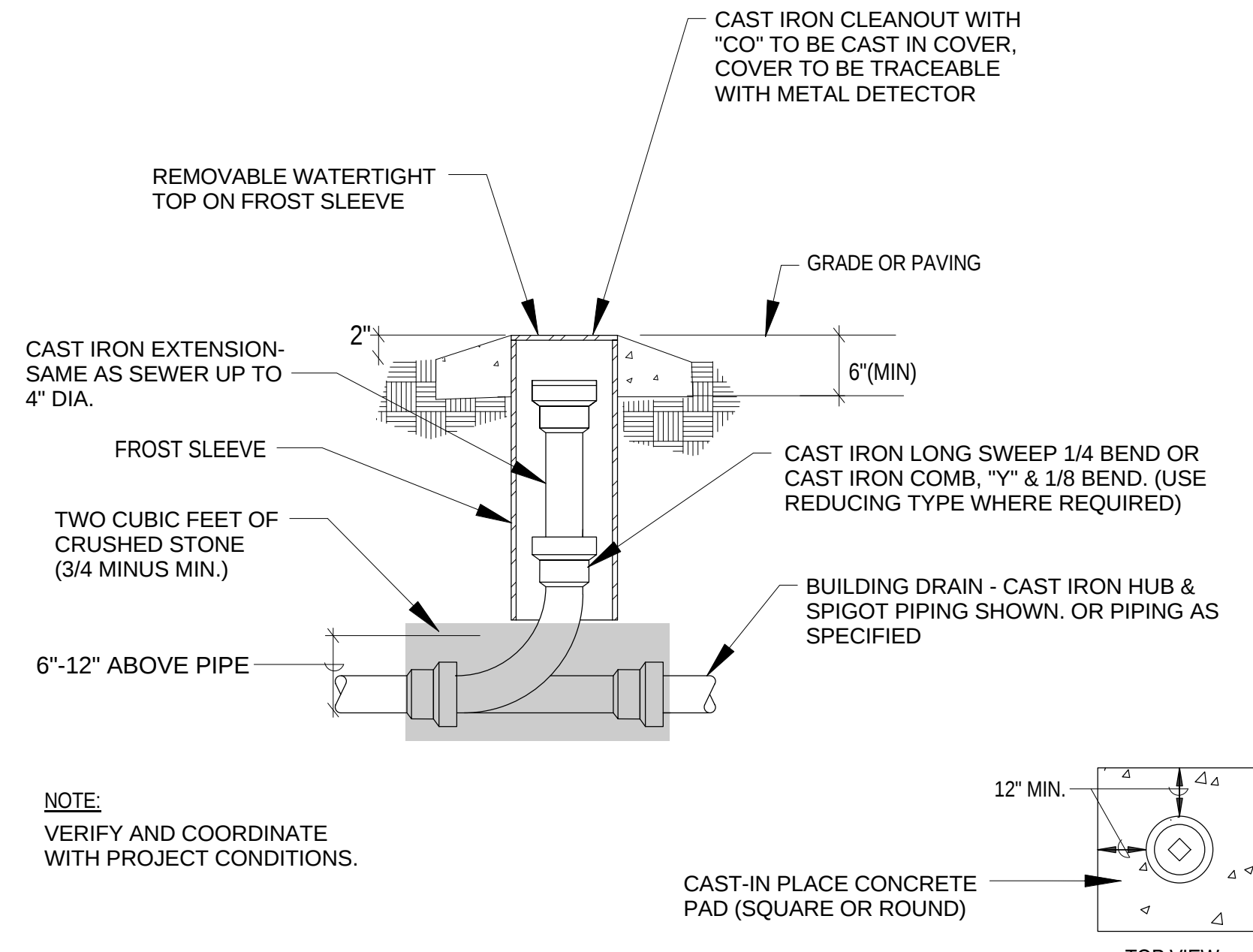
2 DI WATER RUNOUT CONNECTION
P0502 SCALE: N.T.S.



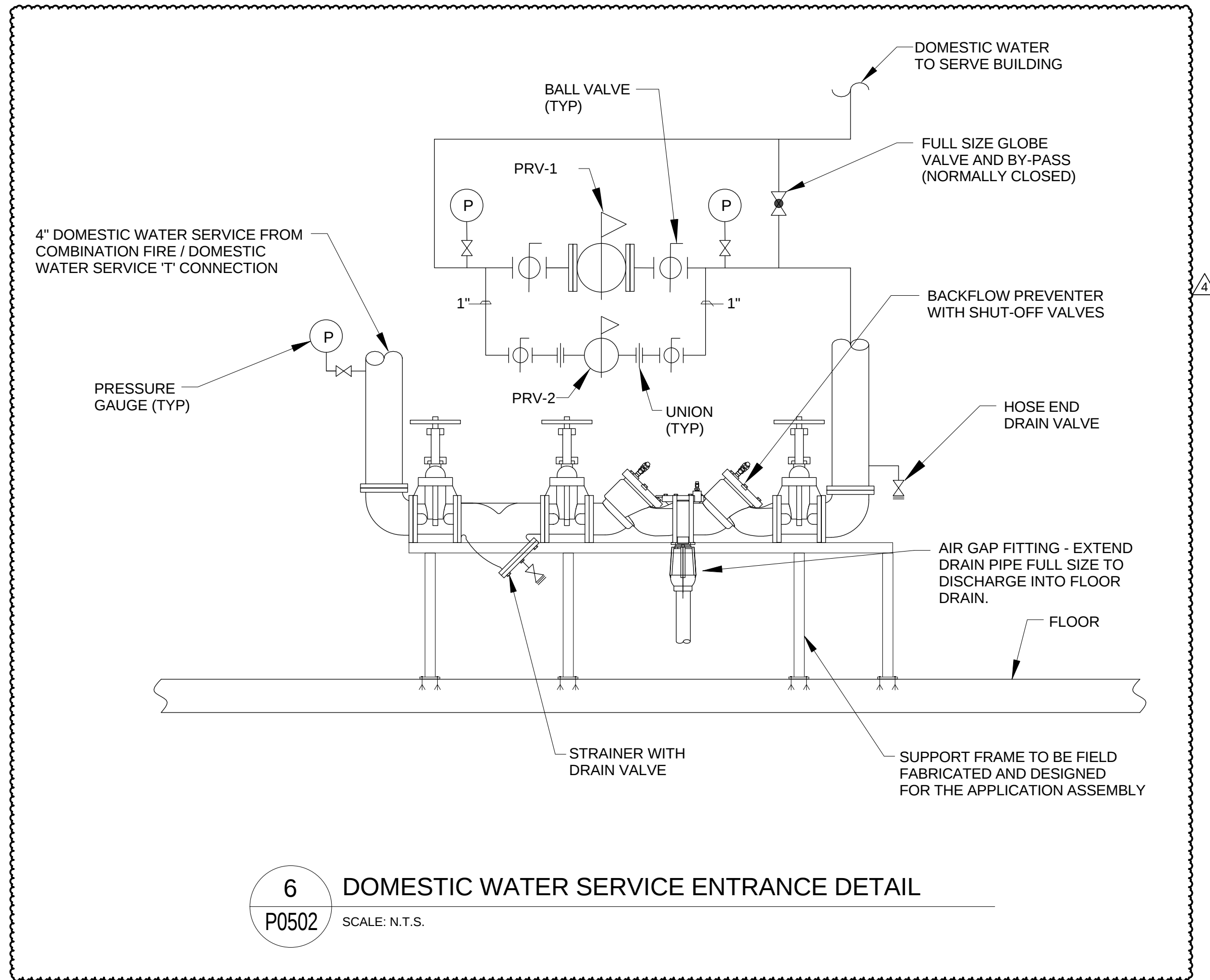
3 PIPING THROUGH MASONRY WALL
P0502 SCALE: N.T.S.



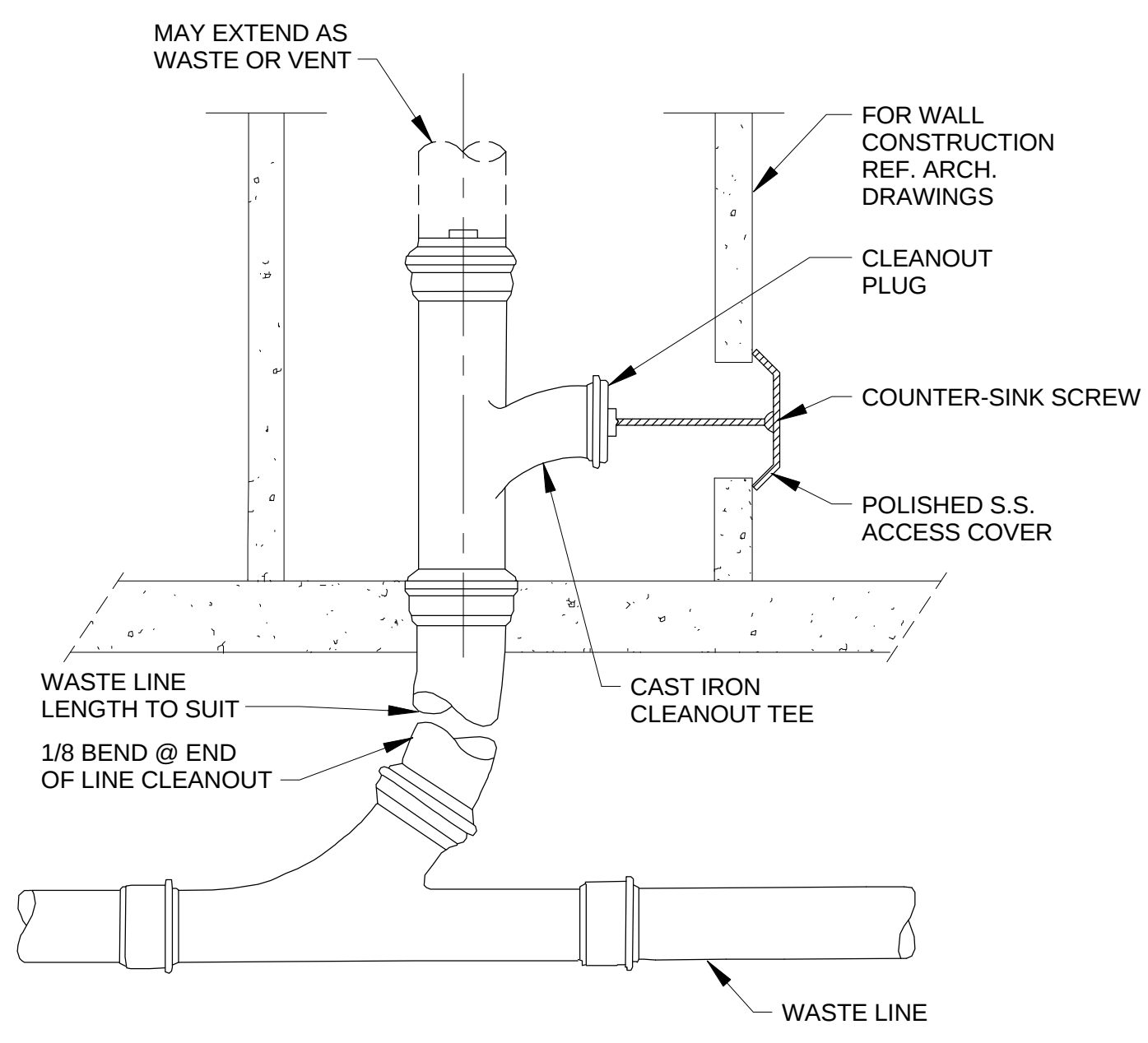
4 PIPING THROUGH CONCRETE FLOOR
P0502 SCALE: N.T.S.



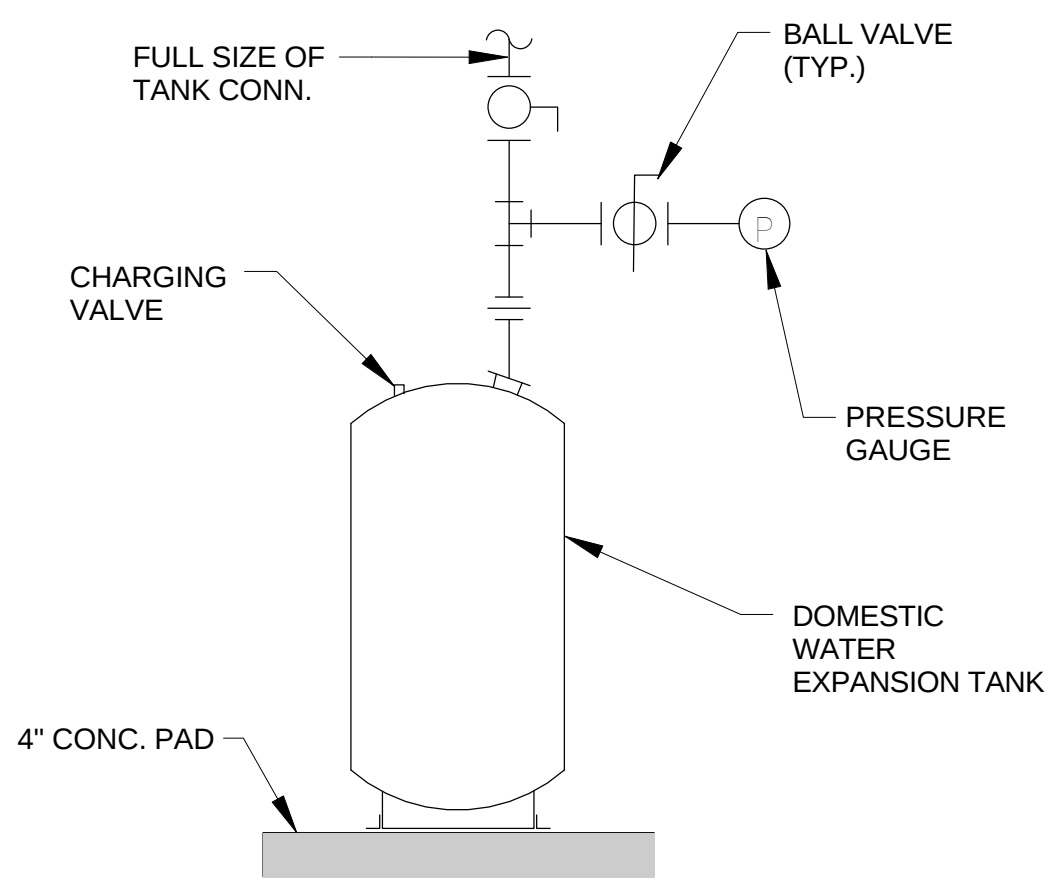
5 TYPICAL GRADE CLEANOUT DETAIL
P0502 SCALE: N.T.S.



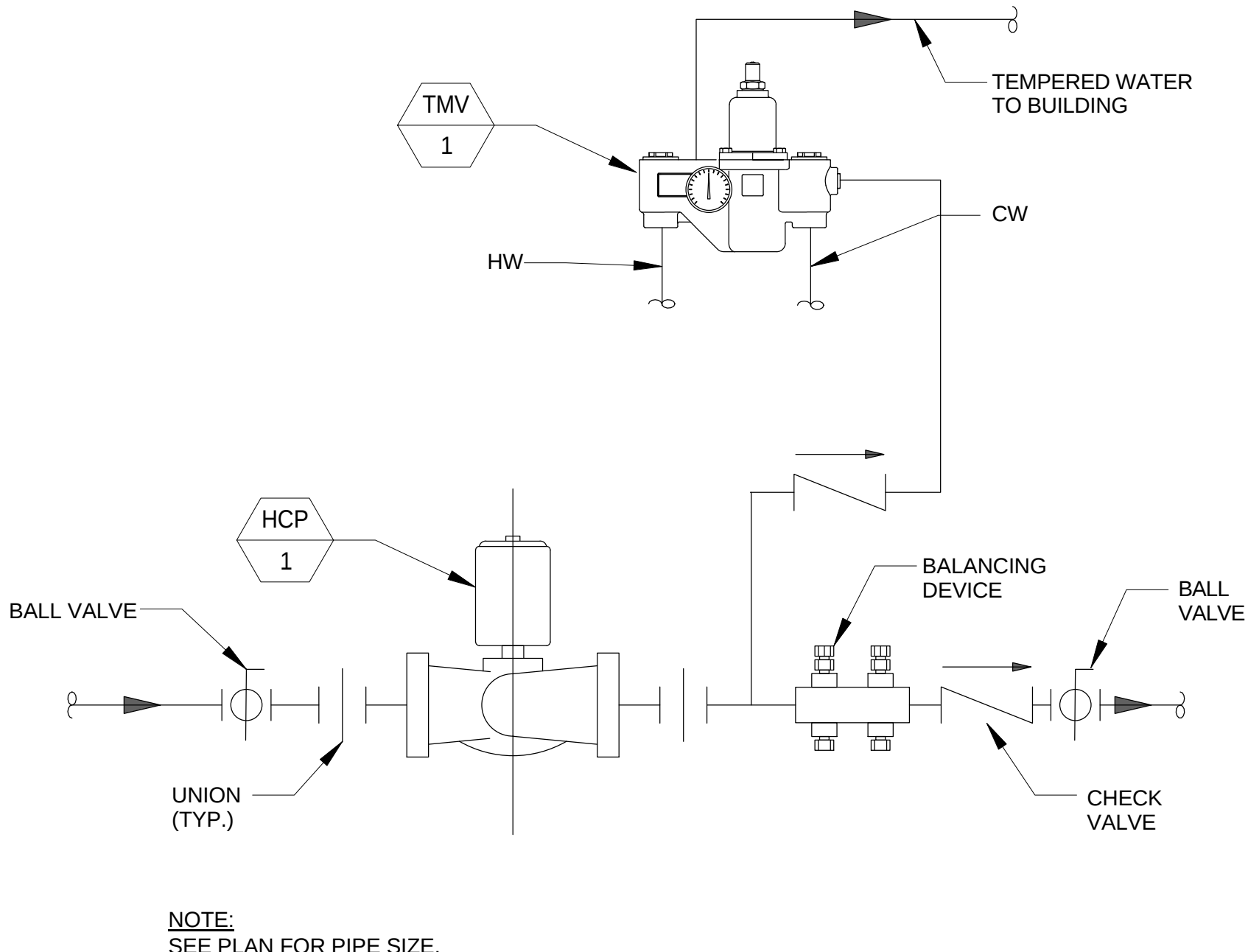
6 DOMESTIC WATER SERVICE ENTRANCE DETAIL
P0502 SCALE: N.T.S.



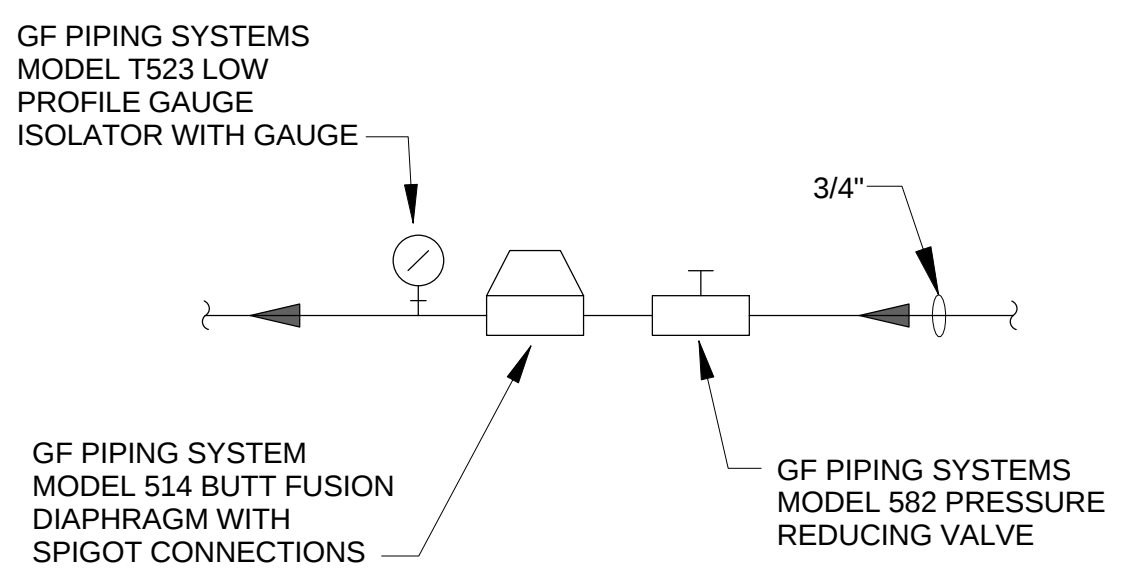
7 WALL CLEANOUT DETAIL
P0502 SCALE: N.T.S.



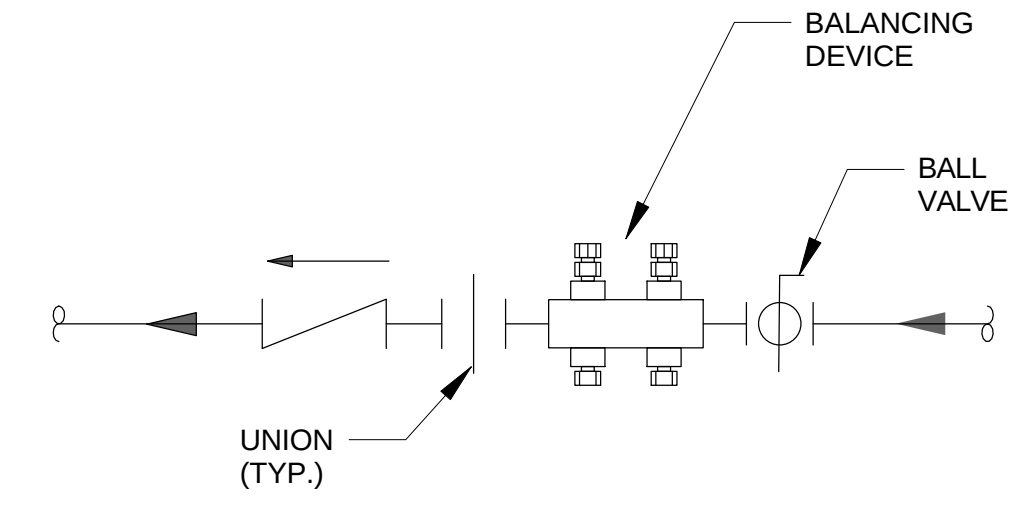
8 DOMESTIC WATER EXPANSION TANK DETAIL
P0502 SCALE: N.T.S.



9 HOT WATER CIRCULATING PUMP DETAIL
P0502 SCALE: N.T.S.



10 DI WATER PIPING SYSTEM DETAIL
P0400 SCALE: N.T.S.



11 HOT WATER CIRCULATING RETURN DETAIL
P0502 SCALE: N.T.S.

4	ASI - 019 (RFI-193.208 & 212)	29 JUL 2016
3	ADDENDUM 2-2	19 APR 2016
2	MSD SUBMITTAL	12 APR 2016
1	ADDENDUM 2-1	17 MAR 2016
-	ISSUED FOR CONSTRUCTION (BP2)	01 MAR 2016
No.	Description	Date

Drawing Title:

DETAILS - PLUMBING

Project No.: 04561.01 Checked by:

P0502

PLUMBING FIXTURES AND EQUIPMENT

[illegible]

PLUMBING FIXTURES AND EQUIPMENT

PLUMBING FIXTURES AND EQUIPMENT	
DOMESTIC WATER HEATER: HW-1 DOMESTIC WTR. SERVICE	RHEM MODEL GHE 100ES-40PSA SPIDER-FIRE HIGH EFFICIENCY COMMERCIAL NATURAL GAS FIRE HOT WATER HEATER. UNIT TO BE SEALED COMBUSTION, ULTRA LOW NOX WITH A THERMAL EFFICIENCY OF 94%. WITH A NATURAL GAS INPUT OF 40.0 MBH AND A RECOVERY RECOVERY RATE OF 445 GALLONS AT 100°F TEMPERATURE RISE. RATED FIRST HOUR DELIVERY OF 156 GALLONS. WATER HEATER SHALL HAVE A STORAGE CAPACITY OF 100 GALLONS, ASME CONSTRUCTION. UNIT TO INCLUDE FACTORY INSTALLED CSA/ASME RATED TEMPERATURE AND PRESSURE RELIEF VALVE. VENTING SHALL BE WITH STANDARD PVC PLASTIC PIPING. CONTROL SYSTEM SHALL BE CAPABLE OF COMPLETE DIAGNOSTIC FEATURES AND AN OPERATIONAL HISTORY. WATER CONNECTIONS TO BE AVAILABLE ON BOTH SIDES OF THE UNIT TO ALLOW FOR FUTURE EXHIBITIVITY AND FLEXIBILITY. A FULLY OPERATIONAL VALVE SHALL BE INSTALLED. GAS IGNITION SHALL BE BY DIRECT SPARK. ASSEMBLY SHALL MEET THE REQUIREMENTS OF CSA AND HAVE CERTIFICATION SEAL ATTACHED. FURNISH AND INSTALL WITH THERMOSTATIC MIXING VALVE TMV-1.
EXPANSION TANK ET-1	WATTS SERIES DETA 80, ASME PRESSURIZED EXPANSION TANK. PRE-CHARGED TO 40 PSI WITH FIXED BUTYL BLADDER. PRESSURE CHARGE IS FIELD ADJUSTABLE. TOP POSITION NPT STAINLESS STEEL CONNECTION AND A STANDARD CHARGING VALVE. TANK TO BE CONSTRUCTED IN ACCORDANCE TO ASME SECTION VIII. EXPANSION TANK TANK VOLUME 26.0 GALLONS, TANK ACCEPTANCE 15.5 GALLONS.
DOMESTIC HOT WATER CIRCULATING PUMP: HWP-1	BELL & GOSSETT MODEL PD-40T HORIZONTAL IN-LINE WET ROTOR CIRCULATION PUMP. SUITABLE FOR OPERATION OF 225°F (CONTINUOUS) AND 125 PSI MAXIMUM WORKING PRESSURE. LEAD FREE BRONZE BODY WITH LEAD FREE BRASS IMPELLER. PERMANENTLY LUBRICATED PUMP AND MOTOR BEARING. FLEXIBLE SLEEVE TYPE COUPLER.
BACKFLOW PREVENTER: BFP-1 DOMESTIC WTR. SERVICE	WATTS REGULATOR SERIES LF909-QT-FAD-S-REDUCED PRESSURE ZONE ASSEMBLY. 4 INCH INLET AND OUTLET. FDA EPOXY COATED QUARTER TURN OPERATING VALVES. BRONZE RELIEF VALVE BODY AND SEATS WITH BRONZE TEST COCK. STAINLESS STEEL TRIM. MAXIMUM OPERATING PRESSURE 175 PSI, TEMPERATURE RANGE 33°F TO 110°F CONTINUOUS. ASSEMBLY TO INCLUDE. FDA EPOXY COATED TETHER FOR EACH TEST COCK. VERIFY REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION.
BACKFLOW PREVENTER: BFP-2 MAKE-UP WATER SERVICE	WATTS REGULATOR SERIES LF909-QT-S-REDUCED PRESSURE ZONE ASSEMBLY. 0.75 INCH INLET AND OUTLET. QUARTER TURN OPERATING VALVES. BRONZE RELIEF VALVE BODY AND SEATS WITH BRONZE TEST COCKS. STAINLESS STEEL TRIM. MAXIMUM OPERATING PRESSURE 175 PSI, TEMPERATURE RANGE 33°F TO 110°F CONTINUOUS. ASSEMBLY TO INCLUDE. BRONZE STRAINER. MODEL 909AG-C AIR GAP FITTING AND RK-SAE-TC-B SAE BRASS CAP, O-RING AND TETHER FOR EACH TEST COCK. VERIFY REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION.
BACKFLOW PREVENTER: BFP-3 DEIONIZED WTR. SERVICE	WATTS REGULATOR SERIES LF909-QT-S-REDUCED PRESSURE ZONE ASSEMBLY. 1 INCH INLET AND OUTLET. QUARTER TURN OPERATING VALVES. BRONZE RELIEF VALVE BODY AND SEATS WITH BRONZE TEST COCKS. STAINLESS STEEL TRIM. MAXIMUM OPERATING PRESSURE 175 PSI, TEMPERATURE RANGE 33°F TO 110°F CONTINUOUS. ASSEMBLY TO INCLUDE. BRONZE STRAINER. MODEL 909AG-X AIR GAP FITTING AND RK-SAE-TC-B SAE BRASS CAP, O-RING AND TETHER FOR EACH TEST COCK. VERIFY REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION.
BACKFLOW PREVENTER: BFP-4 MAKE-UP WATER SERVICE	WATTS REGULATOR SERIES LF909-QT-SOT-S-REDUCED PRESSURE ZONE ASSEMBLY. 1-1/4 INCH INLET AND OUTLET. QUARTER TURN OPERATING VALVES. BRONZE RELIEF VALVE BODY AND SEATS WITH BRONZE TEST COCKS. STAINLESS STEEL TRIM. MAXIMUM OPERATING PRESSURE 175 PSI, TEMPERATURE RANGE 33°F TO 110°F CONTINUOUS. ASSEMBLY TO INCLUDE. BRONZE STRAINER. RK-SAE-TC-B SAE BRASS CAP, O-RING AND TETHER FOR EACH TEST COCK. VERIFY REQUIREMENTS PRIOR TO ORDERING AND INSTALLATION.
FLOOR DRAIN: FD-1 PUBLIC SPACES AND AS INDICATED	JAY R. SMITH MODEL 2005Y-NB-U-P050. DUCO CAST IRON BODY CONSTRUCTION WITH ADJUSTABLE STRAINER HEAD. NO HUB 4 INCH OUTLET. 8 INCH ROUND NICKEL BRONZE STRAINER TOP WITH VANDAL PROOF SCREWS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
FLOOR DRAIN: FD-2 CADAVER LAB	JAY R. SMITH MODEL 2005Y-NB-B-U-P050. DUCO CAST IRON BODY CONSTRUCTION. 4 INCH NO-HUB OUTLET WITH ADJUSTABLE 8 INCH ROUND NICKEL BRONZE STRAINER HEAD. TRAP PRIMER CONNECTION. SEDIMENT BUCKET AND VANDAL PROOF SCREWS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE WITH J.R. SMITH SERIES 2692-04 QUAD CLOSE TRAP SEAL.
FLOOR DRAIN: FD-3 LEVEL 0 AND MECHSERVICE AREAS	JAY R. SMITH MODEL 2360Y- E - H - P. DUCO CAST IRON BODY CONSTRUCTION AND FLASHING COLLAR WITH ADJUSTABLE TOP. GALVANIZED CAST IRON 11.5 INCH BAR GRATE AND DEEP SLOTTED SEDIMENT BUCKET. AND TRAP PRIMER CONNECTION, OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. PROVIDE ADJUSTABLE EXTENSION AND TRANSITION COLLAR AS REQUIRED. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE WITH J.R. SMITH SERIES 2692-04 QUAD CLOSE TRAP SEAL.
SUMP PUMP: SP-3 CONDENSATE DRAINS	WEIL PUMP CO. INC. MODEL 1411 SUBMERSIBLE SUMP PUMP. RATED FOR 25 GPM @ 25 FT OF HEAD. ASSEMBLY SHALL BE COMPLETE WITH HIGH WATER ALARM FLOAT AND SMART CONTROL SYSTEM WITH BUILT-IN AUDIBLE AND VISUAL ALARM TO INDICATE WHEN PUMP IS NOT OPERATING DUE TO HIGH WATER CONDITIONS. ASSEMBLY TO INCLUDE ALL NECESSARY AND REQUIRED FITTINGS, VALVES, ACCESSORIES, PIPE HANGERS AND SUPPORTS AS REQUIRED FOR A COMPLETE SYSTEM. COORDINATE INSTALLATION WITH THE GENERAL CONTRACTOR AND ELECTRICAL CONTRACTOR. PROVIDE SUMP PIT AND COVER SIMILAR TO THAT USED FOR SUMP PUMP SP-1/SP-2.
ROOF DRAIN: RD-1	JAY R. SMITH MODEL 1010Y-R-C-DIC. LARGE GENERAL PURPOSE ROOF DRAIN. DUCO CAST IRON BODY CONSTRUCTION WITH COMBINED FLASHING CLAMP AND GRAVEL STOP. TO INCLUDE SUMP RECEIVER. SIZES AS INDICATED ON THE DRAWINGS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
ROOF DRAIN: RD-2 GREEN ROOF	JAY R. SMITH MODEL 1900Y-R-C. GREEN ROOF MAIN AREA DRAIN WITH STANDPIPE. DUCO CAST IRON BODY CONSTRUCTION FLASHING CLAMP AND STAINLESS STEEL PERFORATED GRAVEL STOP. TO INCLUDE SUMP RECEIVER. UNDER-DECK CLAMP. COORDINATE HEIGHT OF PERFORATED GRAVEL STOP AND STANDPIPE WITH DEPTH OF GREEN ROOF IN-FILL. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS. OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. SIZES AS INDICATED ON THE DRAWINGS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
OVERFLOW ROOF DRAIN: OD-1	JAY R. SMITH MODEL 1070Y-R-C-SP2-DIC. SPECIAL PURPOSE ROOF DRAIN. DUCO CAST IRON BODY CONSTRUCTION WITH COMBINED FLASHING CLAMP AND GRAVEL STOP. TO INCLUDE PVC STANDPIPE, SUMP RECEIVER, UNDER-DECK CLAMP AND CAST IRON DOME STRAINER. OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. SIZES AS INDICATED ON THE DRAWINGS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
DOWNSPOUT NOZZLE: DN-1	JAY R. SMITH MODEL 1775-U-SPECIAL. PURPOSE DOWNSPOUT COVER. TYPE 304 STAINLESS STEEL CONSTRUCTION WITH SECURED HINGED PERFORATED COVER. OUTLET TO ACCEPT NO-HUB CAST IRON PIPING. SIZES AS INDICATED ON THE DRAWINGS. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. COORDINATE LOCATIONS AND ELEVATION WITH THE ARCHITECT.
FLOOR SINK: FS-1	JAY R. SMITH MODEL 3161Y-03-P-13 CAST IRON BODY FLOOR SINK WITH ACID RESISTANT COATED INTERIOR. 10 INCH SUMP DEPTH. SQUARE 12.5 INCH TOP. NICKEL BRONZE RIM WITH 3/4 GRATE. SEDIMENT BUCKET. NO-HUB 3 CONNECTION AND TRAP PRIMER CONNECTION. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
FLOOR SINK: FS-2	JAY R. SMITH MODEL 3461Y-03-C-U-P-13 CAST IRON BODY FLOOR SINK WITH ACID RESISTANT COATED INTERIOR. 10 INCH SUMP DEPTH. SQUARE 12.5 INCH TOP. NICKEL BRONZE RIM WITH 3/4 GRATE. SEDIMENT BUCKET. FLASHING CLAMP. VANDAL PROOF SCREWS AND NO-HUB 3 CONNECTION AND TRAP PRIMER CONNECTION. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
FLOOR SINK: FS-3	JAY R. SMITH MODEL 3451Y-04-C-P-13 CAST IRON BODY FLOOR SINK WITH ACID RESISTANT COATED INTERIOR. 12 INCH SUMP DEPTH. SQUARE 16 INCH SQUARE TOP. ACID RESISTANT COATED CAST IRON 3/4 SEDIMENT BUCKET. NO-HUB 4 CONNECTION. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN. PROVIDE WITH J.R. SMITH SERIES 2692-04 QUAD CLOSE TRAP SEAL.
FLOOR CLEANOUT: FCO-1	FAUCET - CHICAGO FAUCET MODEL 926-317A17KCP. DECK MOUNTED SINGLE HOLE COLD WATER FAUCET WITH VACUUM BREAKER, 6" RIGID/SWING SPOUT, 4" VANDAL PROOF WRIST BLADE HANDLES, FULL FLOW NOZZLE, ATMOSPHERIC VACUUM BREAKER.
FLOOR CLEANOUT: FCO-2	JAY R. SMITH MODEL 4023S-U ROUND CAST IRON BODY FLOOR CLEANOUT WITH TAPER THREAD BRONZE PLUG AND NICKEL BRONZE ADJUSTABLE HEAD WITH SCORATED SOLID NICKEL BRONZE COVER AND VANDAL PROOF SCREWS. COVER TO HAVE 'CO' CAST IN TOP. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
WALL CLEANOUT EXPOSED: WCO-1	JAY R. SMITH MODEL 4512S-Y. CAST IRON BODY STACK CLEANOUT "TEE", TAPER THREAD WITH BRONZE PLUG. NO-HUB PIPE CONNECTIONS ON BOTH ENDS. FOR USE IN AREAS NON PUBLIC AREAS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
WALL CLEANOUT CONCEALED: WCO-2	JAY R. SMITH MODEL 4532S-Y. CAST IRON BODY STACK CLEANOUT "TEE", TAPER THREAD WITH BRONZE PLUG. NO-HUB PIPE CONNECTIONS ON BOTH ENDS. STAINLESS STEEL ROUND COVER WITH CENTER SCREW FOR USE IN AREAS PUBLIC AREAS. VERIFY INSTALLATION REQUIREMENTS PRIOR TO ROUGH-IN.
WATER HAMMER ARRESTER: WHA	J.R. SMITH SERIES 5000 HYDROTROL ENGINEERED WATER HAMMER ARRESTER. LEAD-FREE STAINLESS CONSTRUCTION PLUMBING. CONTRACTOR TO SELECT UNIT FOR SPECIFIC APPLICATION AND FIXTURE UNIT RATINGS.
WALL HYDRANT: WH-1	J.R. SMITH SERIES 551S-WC-K WALL MRESSCED GUARDIAN PLUS DUAL CHECK QUARTER TURN NON-FREEZE HYDRANT WITH AUTOMATIC DRAINING INTEGRAL VACUUM BREAKER. INTEGRAL SERVICE SHUT OFF VALVE, DUAL CHECK VALVE AND STAINLESS STEEL BOX. ASSEMBLY TO INCLUDE ADJUSTABLE WALL CLAMP. CONTRACTOR TO SELECT LENGTH FOR WALL THICKNESS APPLICATION.
LABORATORY SINK FAUCET AND DRAIN ASSEMBLY: LF-1 LABS AND PREP ROOMS	FIXTURE - SINK IS INTEGRAL WITH COUNTERTOP. CONTRACTOR IS TO FURNISH AND INSTALL FAUCET AND DRAIN ASSEMBLY. FAUCET - CHICAGO FAUCET MODEL 926-317A17KCP. DECK MOUNTED SINGLE HOLE HOT AND COLD WATER MIXING FAUCET WITH VACUUM BREAKER, 6" RIGID/SWING SPOUT, 4" VANDAL PROOF WRIST BLADE HANDLES, FULL FLOW NOZZLE, ATMOSPHERIC VACUUM BREAKER. DRAIN - 1-1/2" ACID RESISTANT SINK STRAINER ASSEMBLY. TRAP - 1-1/2" ACID RESISTANT P-TRAP WITH AR WASTE ARM AND WALL FLANGE. STOP & SUPPLY RISERS - 1/2" NPS ANGLE WITH FLEXIBLE RISER, LOOSE KEY ¼ TURN STOPS AND WALL ESCUTCHEONS.
LABORATORY SINK FAUCET AND DRAIN ASSEMBLY: LF-2 LABS	FIXTURE - SINK IS INTEGRAL WITH COUNTERTOP. CONTRACTOR IS TO FURNISH AND INSTALL FAUCET AND DRAIN ASSEMBLY. FAUCET - CHICAGO FAUCET MODEL 926-317A17KCP. DECK MOUNTED SINGLE HOLE COLD WATER FAUCET WITH VACUUM BREAKER, 6" RIGID/SWING SPOUT, 4" VANDAL PROOF WRIST BLADE HANDLES, FULL FLOW NOZZLE, ATMOSPHERIC VACUUM BREAKER. DRAIN - 1-1/2" ACID RESISTANT SINK STRAINER ASSEMBLY. TRAP - 1-1/2" ACID RESISTANT P-TRAP WITH AR WASTE ARM AND WALL FLANGE. STOP & SUPPLY RISERS - 1/2" NPS ANGLE WITH FLEXIBLE RISER, LOOSE KEY ¼ TURN STOPS AND WALL ESCUTCHEONS.
LABORATORY DEIONIZED WATER FAUCET : DL-1	FAUCET - CHICAGO FAUCET MODEL 828-ACP. DECK MOUNTED CHROME PLATED POLYPROPYLENE PURE WATER FAUCET, WITH ¾" POLYPROPYLENE MALE THREAD

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5	ASI - 019 (RFI-193,208 & 212)	29 JUL 2016
5	ASI - 002 (RFI - 172)	15 JUL 2016
4	ADDENDUM 2-5	06 JUN 2016
3	ADDENDUM 2-4	24 MAY 2016
2	ADDENDUM 2-2	19 APR 2016
1	ADDENDUM 2-1	17 MAR 2016
	ISSUED FOR CONSTRUCTION (BP2)	01 MAR 2016
	No.	Description
		Date

Drawing Title:

SCHEDULES - PLUMBING

Project No.: 04561.01

P0601