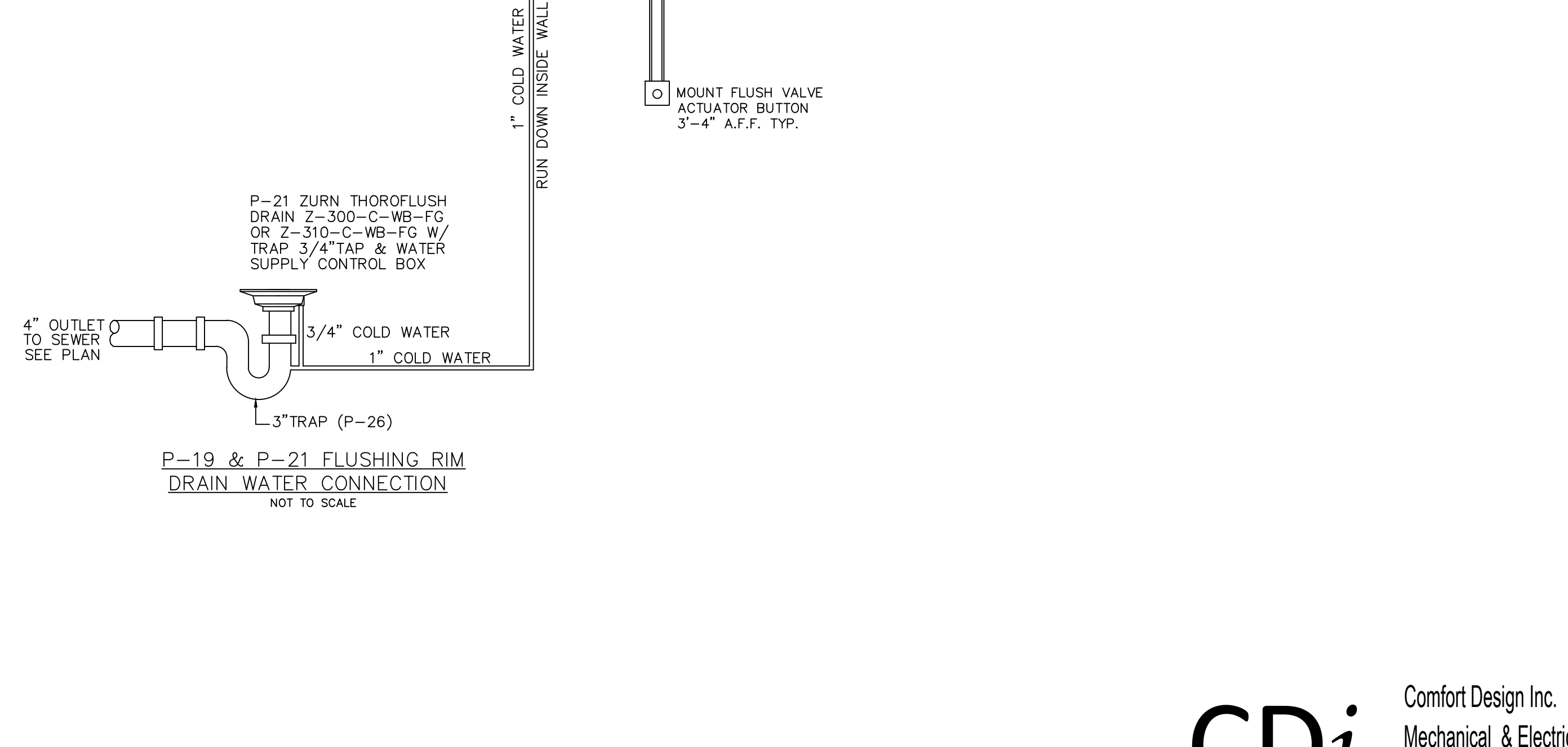
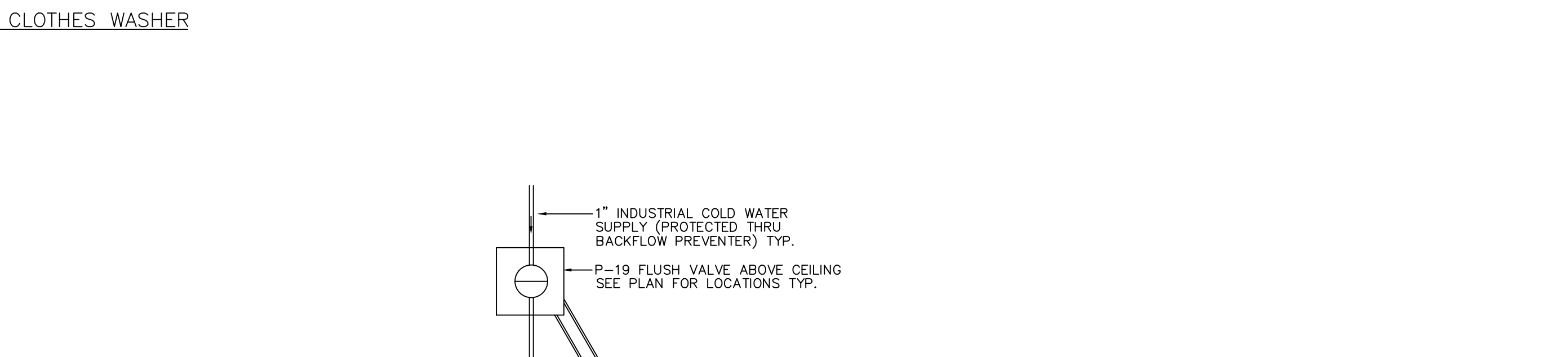
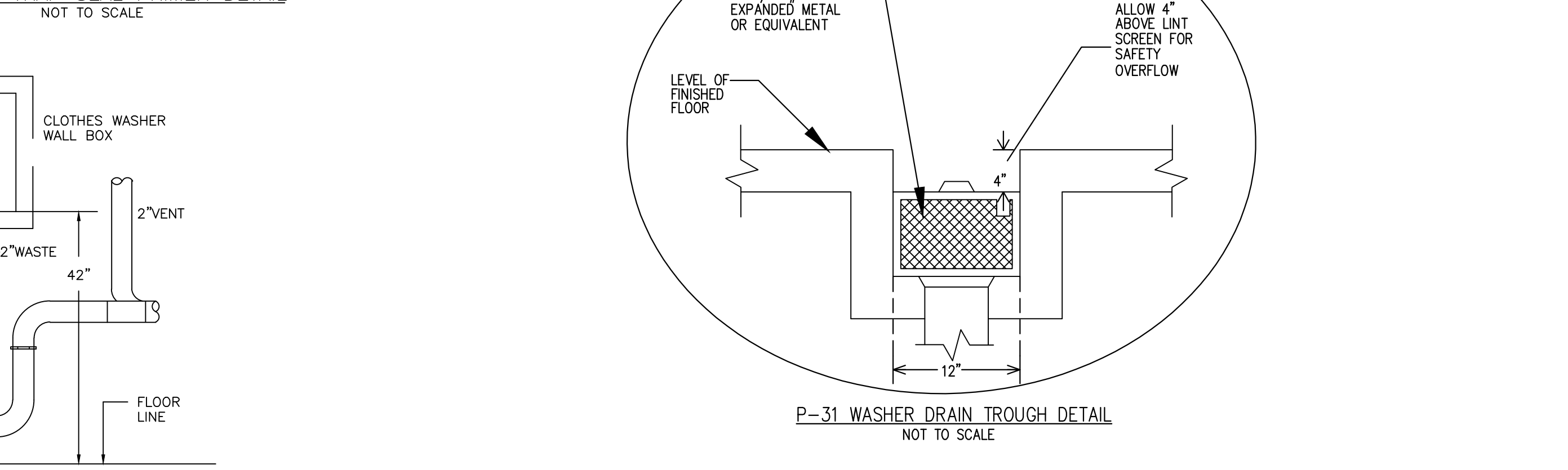
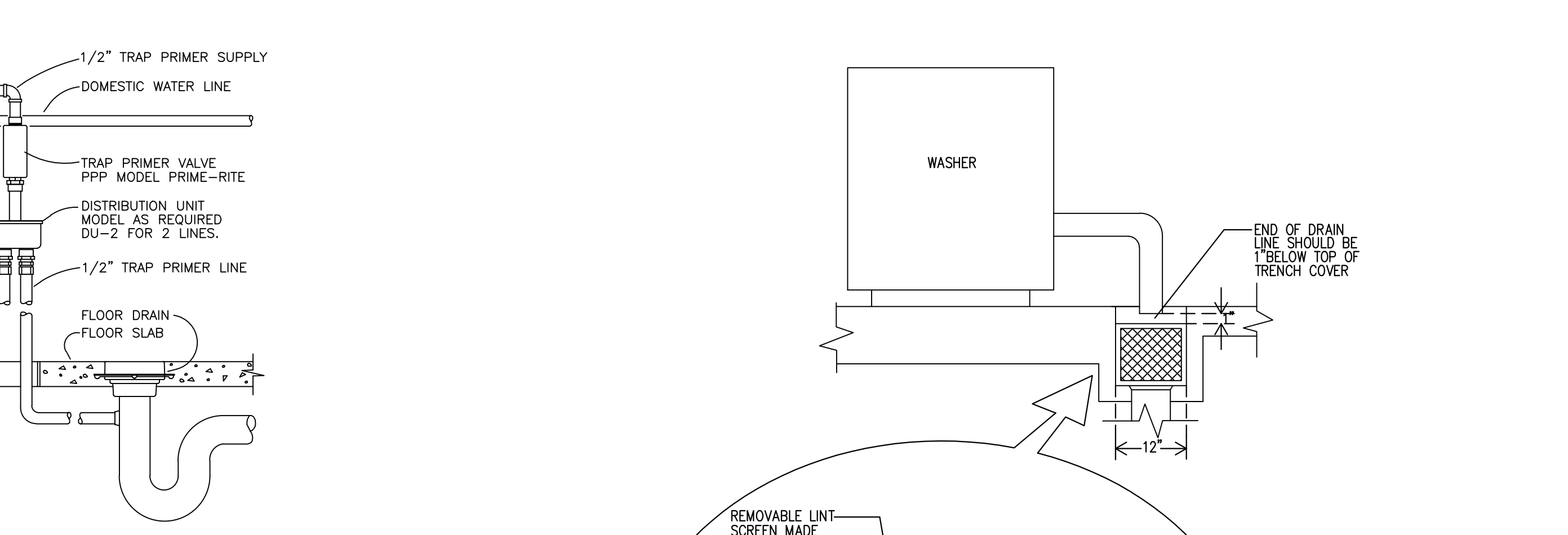
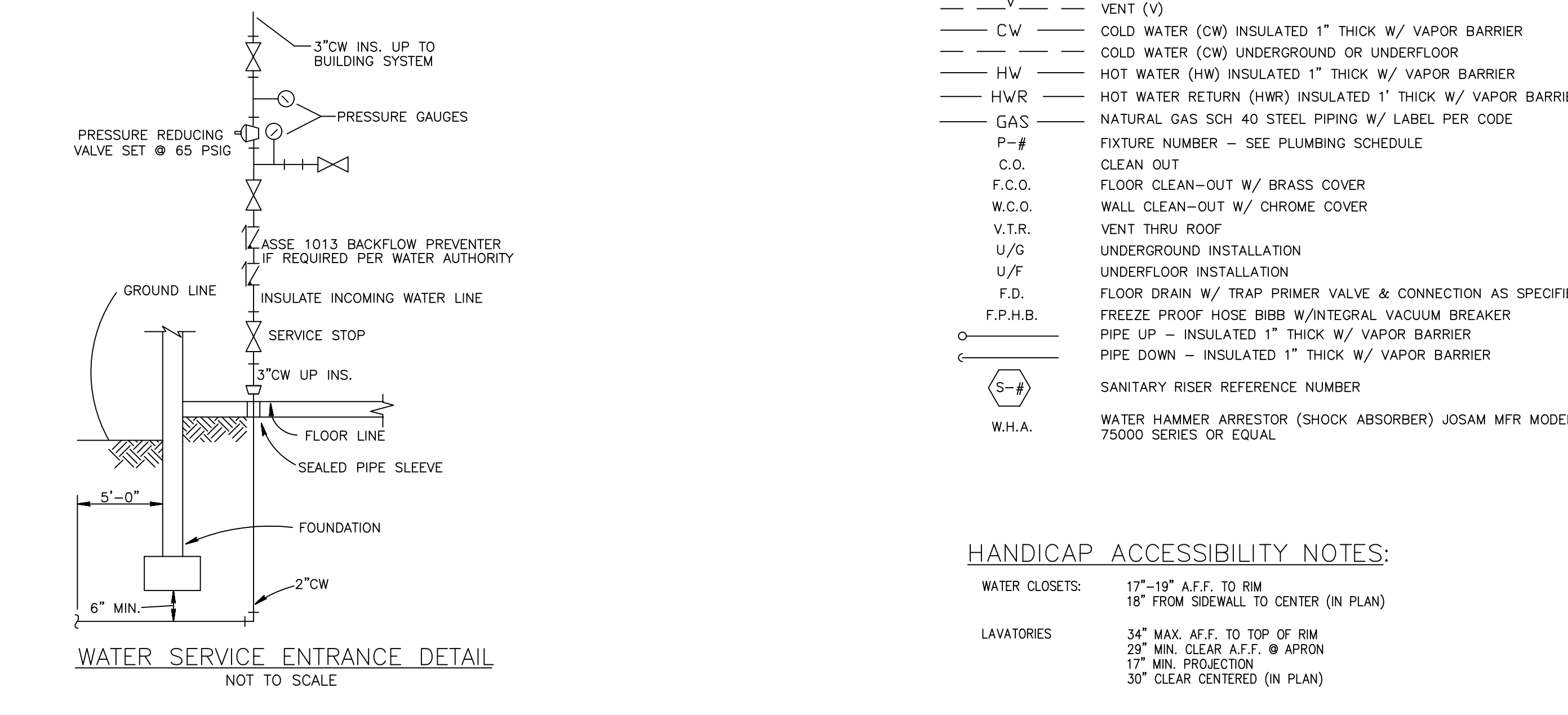
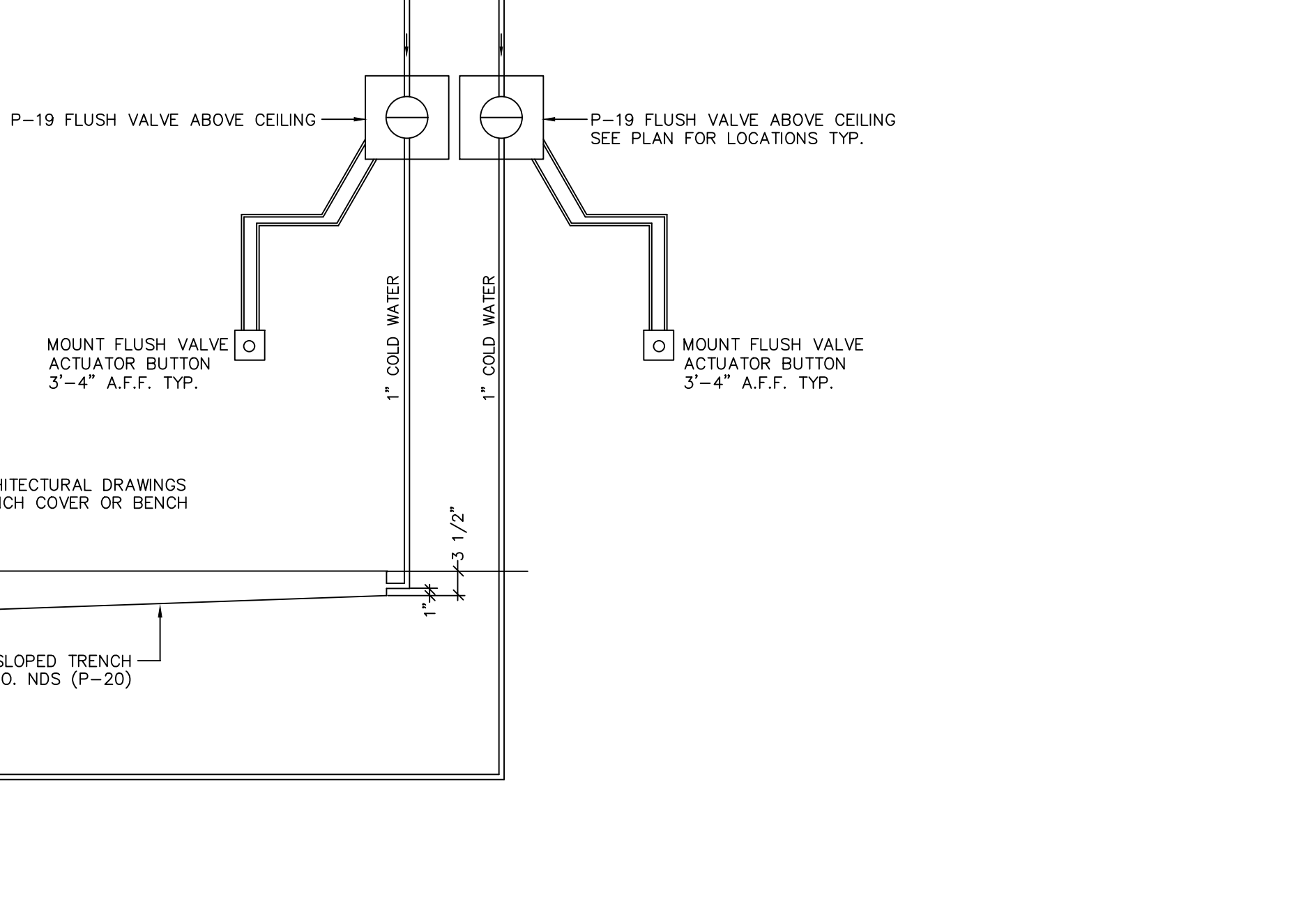
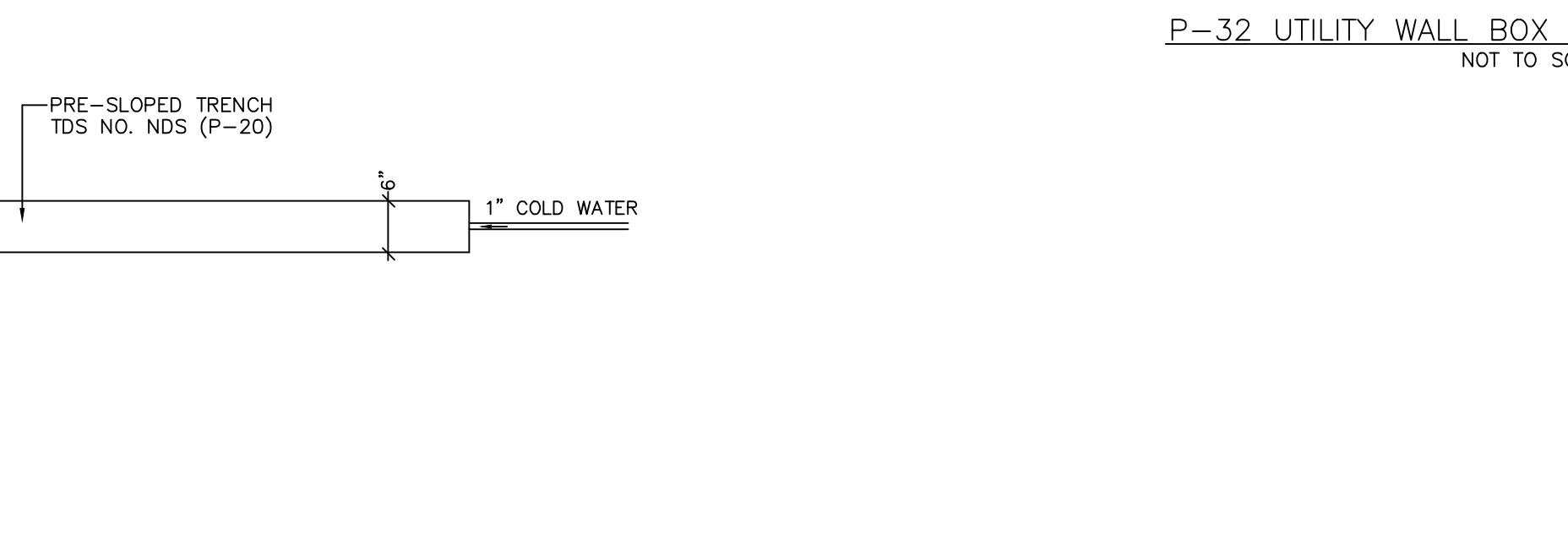
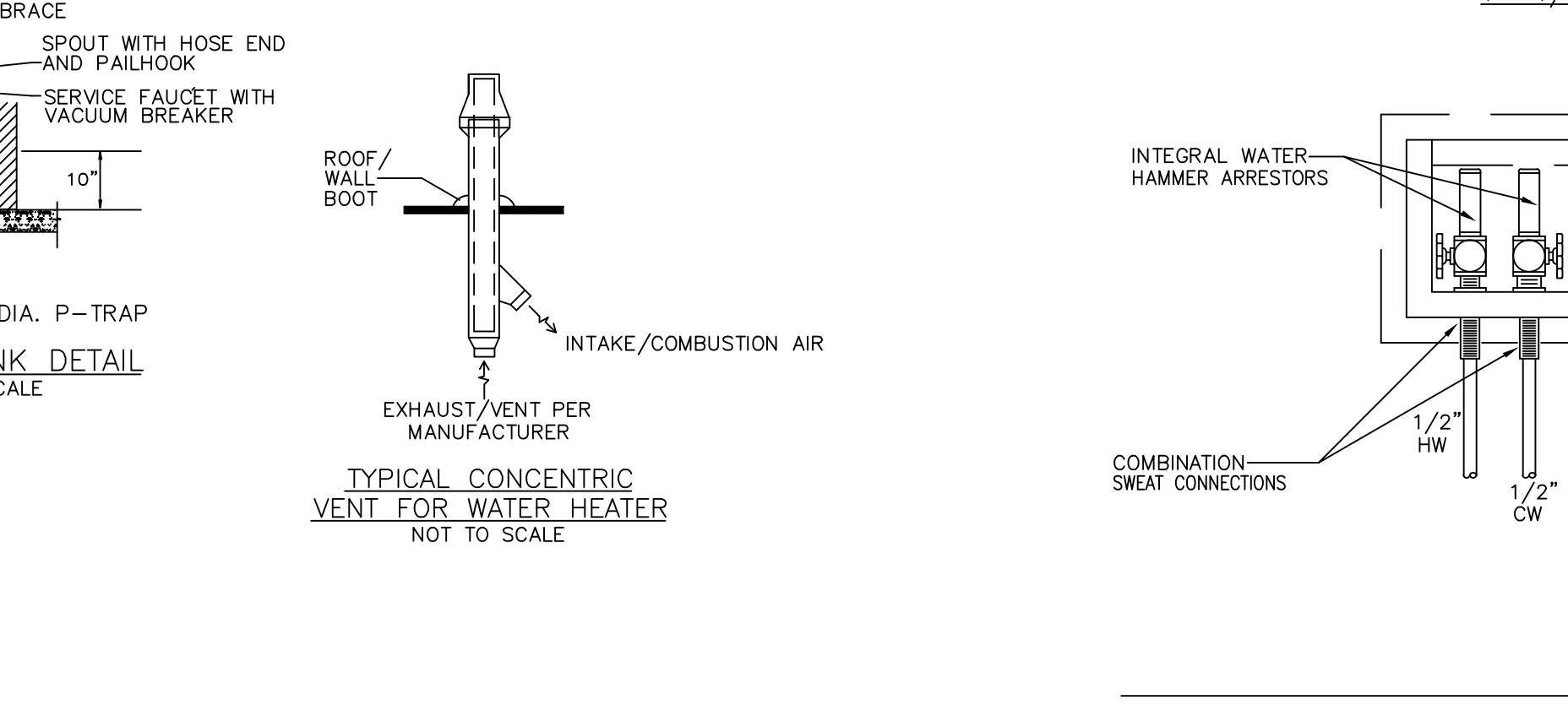
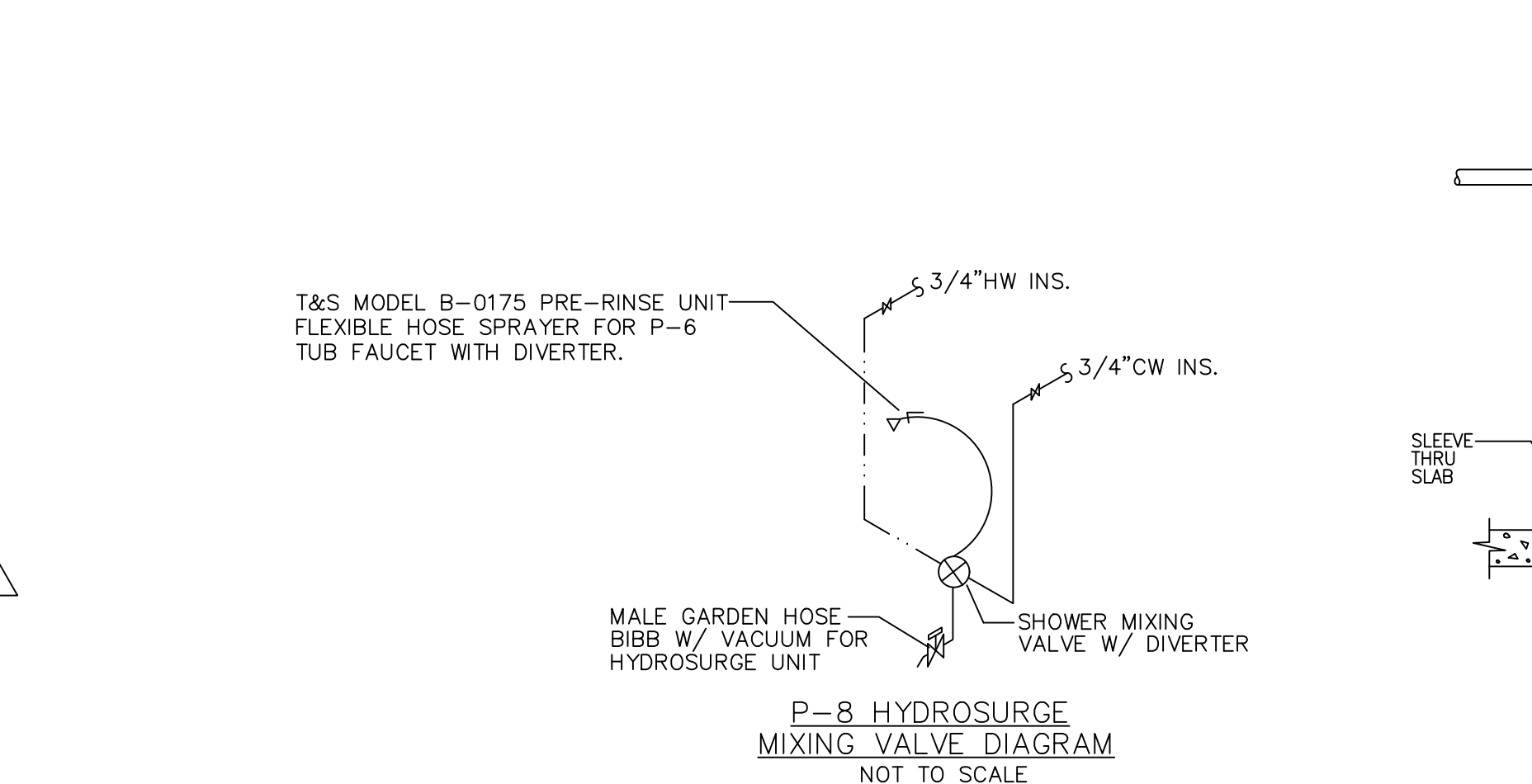
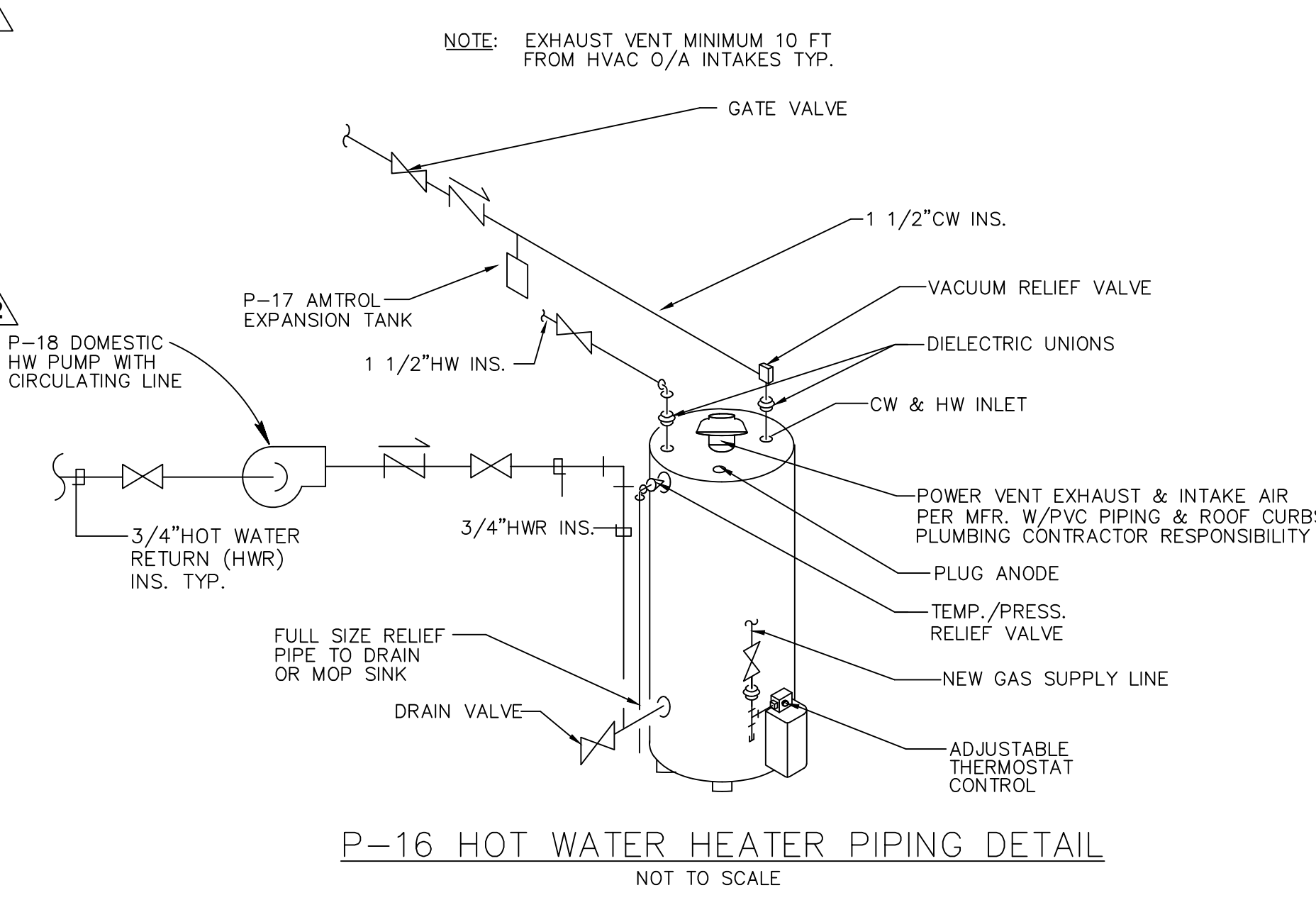


PLUMBING FIXTURE SCHEDULE					
MARK	DESCRIPTION	MINIMUM CONNECTIONS INCHES			REMARKS
		COLD	HOT	WASTE / VENT	
P-1	WATER CLOSET - HANDICAP	1	---	3 1/2	A.D.A. COMPLIANT
P-2	WALL HUNG LAVATORY - HANDICAP	1/2	1/2	2 1/2	A.D.A. COMPLIANT
P-3	MOP SERVICE SINK	3/4	3/4	3 1/2	W/ VACUUM BREAKER
P-4	FLOOR DRAIN W/ TRAP PRIMER	1/2	---	4	---
P-5	FLOOR DRAIN W/ TRAP PRIMER	1/2	---	3 1/2	---
P-6	BATHING TUB AND SURROUND	3/4	3/4	2 1/2	---
P-7	HAIR TRAP	---	---	2	---
P-8	HYDROSURGE UNIT	3/4	3/4	---	---
P-9	EGG-CRIB HOSE BIBB	3/4	---	---	W/ VACUUM BREAKER
P-10	S.S. SINGLE BOWL SINK	1/2	1/2	2 1/2	W/ TEMPERING VALVE
P-11	S.S. SINGLE BOWL SINK	1/2	1/2	2 1/2	W/ TEMPERING VALVE
P-12	S.S. DOUBLE BOWL SINK	1/2	1/2	2 1/2	W/ TEMPERING VALVE
P-13	GARBAGE DISPOSAL	---	---	1 1/2	---
P-14	BOWLWASHER	---	---	2	---
P-15	SCRUB SINK	1/2	1/2	2 1/2	---
P-16	100 GALLON GAS WATER HEATER	2	2	---	---
P-17	HOT WATER EXPANSION TANK	3/4	---	---	---
P-18	HOT WATER CIRCULATOR PUMP	---	3/4	---	---
P-19	FLUSH VALVE (3.5 G.P.F.)	1	---	---	---
P-20	TRENCH DRAIN W/ BENCH	---	---	4	W/ RECESSED SLAB
P-21	FLUSHING RIM/TRAP DRAIN	1	---	2	---
P-22	REFRIGERATOR ICE BOX/VALVE	1/2	---	---	---
P-23	WET TABLE	3/4	3/4	3 1/2	W/ P-Y HAIR TRAP
P-24	DRY CENTRAL VACUUM SYSTEM	---	---	---	W/ DRY INTERCEPTOR
P-25	DRY VACUUM REMOTE OUTLET	---	---	---	---
P-26	WET/DRY CENTRAL VACUUM SYSTEM	3/4	---	3 1/2	---
P-27	WET/DRY VACUUM REMOTE OUTLET	---	---	---	---
P-28	CENTRAL WASHDOWN SYSTEM	3/4	---	---	---
P-29	WALL MOUNTED SMT CONTROL UNIT	---	---	---	---
P-30	PRESSURE WASHER HOSE REEL	3/8	---	---	---
P-31	COMMERCIAL WASHER CONNECTIONS	1	1	6 3	SEE DRAIN TROUGH DETAIL ON DWG PD.01
P-32	WASHER CONNECTIONS	3/4	3/4	3 1/2	---
P-33	BOWL WASHING TABLE/SINK/FAUCET	3/4	3/4	2 1/2	---
P-34	CAT CARRIER DUNK SINK	1/2	1/2	2 1/2	---
P-35	CAT BATHING TUB	1/2	1/2	2 1/2	W/ P-7 HAIR TRAP & TEMPERING VALVE
P-36	OXYGEN CEILING OUTLET	---	---	---	---
P-37	SCAVENGER CEILING OUTLET	---	---	---	---
P-38	SUCTION CEILING OUTLET	---	---	---	---
P-39	COMBINATION ANESTHESIA SCAVENGER LIQUID SUCTION MACHINE	---	---	---	---
P-40	BI-LEVEL WATER COOLER	1/2	---	2 1/2	A.D.A. COMPLIANT
P-41	OUTDOOR FLOOR DRAIN	1/2	---	3 1/2	---
P-42	DECK MOUNTED EYEWASH	1/2	1/2	---	---
P-43	COMBINATION ROOF/OVERFLOW DRAIN	---	---	4	---
P-44	DOWNSPOUT NOZZLE	---	---	---	---
P-45	WATER SUBMETER	3/4	---	---	---

- NOTES:**
- ALL FIXTURES SHALL BE WHITE UNLESS NOTED OTHERWISE.
 - ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE GOVERNING CODES AND PERMITS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PLUMBING PERMITS AND INSTALL PER LOCAL CODE AND STATE PERMIT REQUIREMENTS.
 - ALL INTERIOR HOT AND COLD WATER LINES SHALL BE INSULATED. HOT WATER LINES AND EXPOSED DRAINS SHALL BE INSULATED W/ WHITE PLASTIC JACKET (INSULATION TO PREVENT TOUCH BY HANDICAP (TRUBRO LAV GUARD OR EQUAL)). ALL ABOVE GRADE SANITARY AND STORM DRAINAGE LINES SHALL BE CAST IRON. ALL HORIZONTAL STORM DRAINAGE LINES SHALL BE INSULATED.
 - CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, FIXTURES, & VALVES TO MAKE A COMPLETE AND OPERATING SYSTEM. ALL PIPING SHALL BE RUN INSIDE WALLS OR ABOVE CEILING UNLESS SHOWN OTHERWISE. ALL EXPOSED PIPING SHALL BE CHROME PLATED. ALL PIPE PENETRATIONS OF FIRE RATED CEILINGS AND WALLS SHALL HAVE FIRE RATED SEALANT/CAULKING PER MANUFACTURER'S AND CODE.
 - CONTRACTOR SHALL COORDINATE CONNECTION OF WATER, NATURAL GAS, AND SEWER SYSTEMS W/ SITE CONTRACTOR AND LOCAL UTILITY COMPANIES.
 - CONTRACTOR SHALL PROVIDE ALL MOUNTING HARDWARE AND ACCESSORIES TO INSTALL ALL FIXTURES. INSTALL HANDICAP FIXTURES IN COMPLIANCE W/ ADA AND LOCAL CODES.
 - PLUMBER/INSTALLER SHALL ENSURE THAT PIPES ARE ADEQUATELY INSULATED TO PREVENT FREEZING. PLUMBER SHALL USE FIBERGLASS INSULATION W/ VAPOR BARRIER (OWENS CORNING OR EQUAL). COLD WATER LINES SHALL HAVE MINIMUM 1/2" THICK INSULATION AND HOT WATER AND HOT WATER RETURN LINES SHALL HAVE MINIMUM 1" THICK INSULATION.
 - PLUMBING CONTRACTOR SHALL FIELD COORDINATE FINAL LOCATION OF WATER, SANITARY SEWER, GAS, AND VENT, PIPING W/ G.C., STRUCTURAL, MECHANICAL, AND ELECTRICAL CONTRACTORS AND ADJUST FINAL LOCATIONS BASED ON FINAL FIELD CONDITIONS TO AVOID INTERFERENCES.
 - PROVIDE AND INSTALL MEDIUM (2 PS) PRESSURE GAS ALL NEW GAS FIRED EQUIPMENT. PROVIDE SHUTOFF VALVES, MEDIUM PRESSURE (2 PS) REGULATORS, AND DRIP LEGS (ON UNITS IN CONDITIONED SPACE ONLY).
 - PERFORM A WATER ANALYSIS. IF HARDNESS EXCEEDS 7 GRAINS PER GALLON, PROPOSE A WATER SOFTENING SYSTEM TO PROVIDE WATER W/ HARDNESS LESS THAN 7 GRAINS PER GALLON BASED ON THE WATER ANALYSIS RESULTS AND B2 GPM PEAK FLOW.
 - MEDICAL GAS SYSTEM DESIGN (INCLUDING EQUIPMENT AND PIPE SIZING) TO BE CONFIRMED AND ADJUSTED AS REQUIRED BY MEDICAL GAS SUPPLIER/INSTALLER.

FIRE PROTECTION SCOPE OF WORK:
OBTAIN THE SERVICES OF A STATE QUALIFIED AND LICENSED SPRINKLER CONTRACTOR TO DESIGN, OBTAIN NECESSARY STATE AND LOCAL APPROVALS OF DESIGN, AND REVISE THE EXISTING FIRE PROTECTION SPRINKLER SYSTEM PER LOCAL AND NFPA 13 CODE. FIRE PROTECTION CONTRACTOR SHALL SUBMIT 3 COPIES OF THE DESIGN CALCULATIONS, FLOW TESTS, ETC. FOR ARCHITECT/ENGINEER APPROVAL AND SUBMIT REQUIRED COPIES TO LOCAL FIRE AUTHORITIES FOR APPROVAL PRIOR TO INSTALLATION OF SYSTEM. FIRE PROTECTION CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR, MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTOR TO ADJUST FOR INTERFERENCES AND ADJUST SPRINKLER DESIGN AND LAYOUT ACCORDINGLY. FIRE PROTECTION CONTRACTOR SHALL FIELD TEST THE SPRINKLER SYSTEM PER STATE AND LOCAL CODE AND NFPA 13 STANDARD.



PLUMBING LEGEND

W	SANITARY SEWER (W) UNDERGROUND
W	SANITARY SEWER (W) ABOVE GRADE
V	VENT (V)
CW	COLD WATER (CW) INSULATED 1" THICK W/ VAPOR BARRIER
U/G	COLD WATER (CW) UNDERGROUND OR UNDERLOOR
HW	HOT WATER (HW) INSULATED 1" THICK W/ VAPOR BARRIER
HWR	HOT WATER RETURN (HWR) INSULATED 1" THICK W/ VAPOR BARRIER
GAS	NATURAL GAS SCH 40 STEEL PIPING W/ LABEL PER CODE
P-#	FIXTURE NUMBER - SEE PLUMBING SCHEDULE
C.O.	CLEAN OUT
F.C.O.	FLOOR CLEAN-OUT W/ BRASS COVER
W.C.O.	WALL CLEAN-OUT W/ CHROME COVER
V.T.R.	VENT THRU ROOF
U/G	UNDERGROUND INSTALLATION
U/F	UNDERLOOR INSTALLATION
F.D.	FLOOR DRAIN W/ TRAP PRIMER VALVE & CONNECTION AS SPECIFIED
F.P.H.B.	FREEZE PROOF HOSE BIBB W/ INTEGRAL VACUUM BREAKER
---	PIPE UP - INSULATED 1" THICK W/ VAPOR BARRIER
---	PIPE DOWN - INSULATED 1" THICK W/ VAPOR BARRIER
---	SANITARY RISER REFERENCE NUMBER
W.H.A.	WATER HAMMER ARRESTOR (SHOCK ABSORBER) JOSAM MFR MODEL 75000 SERIES OR EQUAL

HANDICAP ACCESSIBILITY NOTES:

WATER CLOSETS: 17"-19" A.F.F. TO RIM
18" FROM SIDEWALL TO CENTER (IN PLAN)

LAVATORIES: 34" MAX. AFF. TO TOP OF RIM
29" MIN. CLEAR A.F.F. @ APRON
17" MIN. PROJECTION
30" CLEAR CENTERED (IN PLAN)

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CAPITAL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DRIVE, POMONA, NY 10970

DATE: 11/11/21
NO. 2

REVISION: DESCRIPTION: ADDENDUM #1
NO. 1

CRS: J.C.
CHECKED BY: AS NOTED
SCALE: AS NOTED
DATE: 20 OCT. 2021
PROJECT NO.: 2019

PLUMBING SCHEDULES AND DETAILS
PERMIT SET
CONSTRUCTION SET
BID SET

CDi
620 Pennsylvania Ave
Winchester, VA 22601
Phone 540-665-2846
Fax 540-667-3284

Comfort Design Inc.
Mechanical & Electrical Engineers
Job # E2119
P0.01

NOTES:

GENERAL

- A. SEE MECHANICAL COVER SHEET – GENERAL PROJECT NOTES FOR ADDITIONAL REQUIREMENTS.
- B. BEFORE COMMENCING ANY WORK, THE CONTRACTOR SHALL VERIFY ALL GOVERNING DIMENSIONS AT THE SITE AND EXAMINE ADJOINING WORK ON WHICH ITS WORK WILL BE DEPENDENT AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ARCHITECT /ENGINEER.
- C. PROVIDE ALL WORK INDICATED ON THE CONTRACT DOCUMENTS.
- D. THE DRAWINGS SHALL BE CONSIDERED AS DIAGRAMMATIC. ATTENTION IS CALLED TO THE FACT THAT WHILE THE DRAWINGS ARE GENERALLY TO SCALE AND ARE AS ACCURATE AS THE SCALE WILL PERMIT, ALL IMPORTANT DIMENSIONS SHALL BE DETERMINED IN THE FIELD. THE DRAWINGS ARE NOT TO BE CONSIDERED AS CONSTRUCTION DRAWINGS. THE DRAWINGS DO NOT INDICATE EVERY FITTING, ELBOW, OFFSET, VALVE OR SIMILAR COMPONENTS WHICH ARE REQUIRED TO COMPLETE THE WORK.
- E. THE CONTRACTOR SHALL INSTALL AND CONNECT ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND UNLESS OTHERWISE INDICATED SHALL FOLLOW THE MANUFACTURER’S PUBLISHED INSTRUCTIONS AND RECOMMENDATIONS. FURNISH AND INSTALL ALL REQUIRED AUXILIARY ITEMS TO PROVIDE A COMPLETE & OPERABLE SYSTEM.
- F. WITHIN THIRTY (30) DAYS OF CONTRACT AWARD, THE CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE ARCHITECT ALL DEVICES TO BE USED IN THE WORK. SUBMITTALS SHALL INCLUDE PIPE, FITTINGS, HANGERS AND SUPPORTS, INSULATION, FIXTURES AND RELATED EQUIPMENT.
- G. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS -- USE DIMENSIONED ARCHITECTURAL DRAWINGS. REFER TO MANUFACTURER’S STANDARD ROUGH–IN DRAWINGS FOR PLUMBING FIXTURES AND TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
- H. COORDINATE WITH THE WORK OF OTHER SECTIONS AND TRADES, WITH EQUIPMENT FURNISHED BY OTHERS, AND WITHIN THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.
- I. MISCELLANEOUS EXPENSES SUCH AS HOOK –UP CHARGES, PERMITS, INSPECTIONS, AND OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING SYSTEM ARE INCLUDED AS PART OF THIS SECTION.
- J. ACCESS PANELS SHALL BE PROVIDED IN CEILINGS OR WALLS WHERE CONCEALED DEVICES ARE LOCATED, EXCEPT WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH OTHER MEANS.
- K. PIPING SYSTEMS, GENERAL: ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK INCLUDING DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIELECTRIC UNION. SEAL PIPE PENETRATIONS OF FIRE FLOORS AND FIREWALLS WITH FIREPROOF PUTTY OR GROUT. PROVIDE SUMNER OR EQUIVALENT PIPE HANGING SYSTEM IN CHASES. PROVIDE HANGERS AS RECOMMENDED BY HANGER MANUFACTURER.
- L. ALL SINK INSTALLATION WILL BE EQUIPPED WITH HOT AND COLD RUNNING WATER THROUGH A MIXING VALVE OR COMBINATION FAUCET. ALL HANDICAP (ADA) SINK INSTALLATION SHALL BE EQUIPPED WITH ASSE 1070 TEMPERING VALVE ON THE HOT WATER. SET LIMIT AT 109F.
- M. (IF APPLICABLE) ALL WASTEWATER FROM FOOD SERVICE EQUIPMENT WILL BE INDIVIDUALLY PLUMBED TO AN OPEN SITE DRAIN WITH A MIN. OF 1” AIR GAP.
- N. WHERE PIPING PENETRATES FIRE–RATED WALLS, PIPING SHALL BE INSTALLED AT 90 DEGREE ANGLE. PIPE SLEEVES SHALL NOT BE INSTALLED AT 45 DEGREE ANGLE.
- O. ALL FIXTURES SHALL BE PROPERLY VENTED TO THE ATMOSPHERE.
- P. WATER AND VENT PIPING SHALL BE RUN HIGH AS POSSIBLE UNLESS OTHERWISE NOTED.
- Q. THE WORK INCLUDES CONNECTION OF PLUMBING UTILITIES TO PUBLIC UTILITIES AND INSTALLATION OF A COMPLETE PLUMBING SYSTEM WITHIN THE BUILDING. PROVIDE NEW MATERIALS, FITTINGS, ACCESSORIES, FIXTURES AND EQUIPMENT NECESSARY FOR A COMPLETE AND PROPERLY FUNCTIONING SYSTEM AS SHOWN ON THE PLANS AND AS REQUIRED. THE WORK INCLUDES FINAL CONNECTIONS TO EQUIPMENT AND FIXTURES PROVIDED BY OTHERS. FURNISH ALL NEW MATERIALS. WORK SHALL BE PERFORMED BY EXPERIENCED TRADESMEN, AND THEIR WORKMANSHIP SHALL BE HIGH STANDARD & ACCEPTABLE TO THE ARCHITECT, GENERAL CONTRACTOR, AND OWNER.
- R. ALL PLUMBING VENTS IN EXTERIOR WALLS SHALL BE OFFSET A MINIMUM OF 3’ –0” IN CEILING AT ROOF BEFORE PENETRATION.
- S. ALL PLUMBING VENTS WITHIN A 10’–0” RADIUS OF EXHAUST VENTS SHALL BE EXTENDED TO A HEIGHT OF 3’ –0” ABOVE EXHAUST VENT CROWN.
- T. ALL PLUMBING VENTS WITHIN A 10’ –0” RADIUS OF ANY ROOFTOP UNIT OR INTAKE LOUVER SHALL BE EXTENDED TO A HEIGHT OF 3’–0” ABOVE FRESH AIR INTAKE.
- U. ALL HOSE BIBS SHALL BE MOUNTED 18” ABOVE FINISHED FLOOR, UNLESS OTHERWISE SPECIFIED.
- V. ALL WALL HYDRANTS SHALL BE MOUNTED 24” ABOVE FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
- W. SLOPES AND INVERT ELEVATIONS OF ALL INTERIOR PIPING SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED IN ORDER THAT PIPE SHALL BE LOCATED AND DETERMINED WHERE TO BE RUN TO AVOID CONFLICT WITH OTHER TRADES.
- X. CLEANOUTS SHALL BE PROVIDED NEAR BASE OF EACH VERTICAL WASTE OR SOLID STACK. PROVIDE 18” MINIMUM CLEARANCE FOR ACCESS.
- Y. UNLESS OTHERWISE NOTED, HORIZONTAL SANITARY PIPING SHALL BE PITCHED PER A.1.a.
- Z. LABEL ALL NEW PIPING. LABEL TO DESCRIBE SERVICE AND DIRECTION OF FLOW.
- AA. FLOOR SLABS SHALL BE X–RAYED BEFORE ANY CORE DRILLING IS COMMENCED.
- AB. ALL BUILDING SYSTEMS SHALL REMAIN IN SERVICE UNLESS INDICATED OTHERWISE. ALL OUTAGES OR INTERRUPTIONS SHALL BE KEPT TO MINIMUM DURATION. NOTIFY THE OWNER 48 HOURS IN ADVANCE OF ANY OUTAGE OR INTERRUPTION.
- AC. THE CONTRACTOR SHALL REPAIR ALL WALL, CEILING, FLOOR, OR ROOF OPENINGS WHICH ARE CREATED BY DEMOLITION OR PENETRATION. THE REPAIRS SHALL BE WITH MATERIALS AND FINISHES TO MATCH EXISTING. ALL FIRE RATED PENETRATIONS SHALL BE SEALED WITH SUITABLE MATERIALS TO PRESERVE FIRE RATED INTEGRITY.
- AD. ALL EQUIPMENT INSTALLED SHALL BE NEW AND SHALL CONFORM IN ALL RESPECTS TO THE LATEST APPROVED STANDARDS OF IEEE, ANSI, NEMA AND UNDERWRITERS LABORATORIES, INC., UNLESS INDICATED OTHERWISE. SUBSTITUTIONS SHALL ONLY BE ACCOMPLISHED AT THE DISCRETION OF THE ENGINEER.
- AE. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER DEMOLITION OPERATIONS ARE COMPLETE.
- AF. THE WORK SHALL CONFORM TO THE LATEST STATE AND LOCAL PLUMBING CODES.

PRODUCTS:

A. PIPING AND FITTINGS:

1. WASTE PIPING:

- a. SHALL BE TYPE PVC OR CAST IRON. FITTINGS SHALL BE TYPE PVC OR CAST IRON. ABS CAN BE USED IF SHELL BUILDING SEWER & VENT PIPES ARE ABS. MUST BE APPROVED BY LOCAL CODES. PROVIDE ALL DRAIN, WASTE AND SEWER PIPING WITHIN THE PROJECT SPACE WITH CONNECTION TO THE PUBLIC SANITARY WASTE SYSTEM ON SITE. ALL PIPING BELOW FLOOR SLAB SHALL BE PVC OR SERVICE WEIGHT HUB AND SPIGOT PIPE AND FITTINGS WITH NEOPRENE GASKET JOINTS, OR HUBLESS PIPE WITH CAST IRON COUPLINGS AND STAINLESS STEEL BOLTS COATED WITH MASTIC. ALL WASTE PIPING ABOVE FLOOR SHALL BE PVC OR SERVICE WEIGHT COPPER HUBLESS PIPE, CONNECTORS AND FITTINGS. ALL PIPING SHALL BE SLOPED UNIFORMLY AT 1.04% (3” AND ABOVE) OR 2.08% (2” AND BELOW) UNLESS OTHERWISE REQUIRED BY EXISTING CONDITIONS. ALL INDOOR ABOVE GRADE SANITARY PIPING SHALL BE CAST IRON OR PVC INSULATED FOR SOUND.
- b. HUB–AND–SPIGOT, CAST –IRON SOIL PIPE AND FITTINGS
 - b.a.a. Pipe and Fittings: ASTM A 74,[Service] class.
 - b.a.b. Gaskets: ASTM C 564, rubber.
 - b.a.c. Caulking Materials: ASTM B 29, pure lead and oakum or hemp fiber.
- c. HUBLESS, CAST –IRON SOIL PIPE AND FITTINGS
 - c.a.a. Pipe and Fittings: ASTM A 888 or CISPI 301.
 - c.a.a.1. Standards: ASTM C 1277 and CISPI 310.
 - c.a.a.2. Description: Stainless–steel corrugated shield with stainless–steel bands and tightening devices; and ASTM C 564, rubber sleeve with integral, center pipe stop.
 - c.a.a.3. Description: Stainless–steel shield with stainless–steel bands and tightening devices; and ASTM C564, rubber sleeve with integral, center pipe stop.
- d. COPPER TUBE AND FITTING
 - d.a. Copper DWV Tube: ASTM B 306, drainage tube, drown temper.
 - d.b. Copper Drainage Fittings: ASME B16.23, cast copper or ASME B16.29, wrought copper, solder–joint fittings.
 - d.c. Copper Ranges: ASME B16.24, Class 150, cast copper with solder–joint end.
 - d.d. Solder. ASTM B 32, lead free with ASTM B 813, water–flushable flux.

2. INDIRECT WASTE PIPING (IF APPLICABLE):

- a. HARD DRAWN COPPER TUBE TYPE “M”.

3. VENT PIPING:

- a. PROVIDE A COMPLETE SYSTEM OF VENT PIPING, CONSISTING OF SERVICE WEIGHT CAST IRON HUBLESS PIPE, CONNECTORS AND FITTINGS. COMBINE THE VENT RISERS IN THE CEILING SPACE AND CONNECT TO NEW VENT MAIN.

4. WATER PIPING:

- a. PROVIDE NEW DOMESTIC WATER PIPING SYSTEM INSIDE THE BUILDING AS SHOWN ON DRAWINGS. HOT AND COLD WATER PIPING SHALL BE COPPER TUBING & FITTINGS OR CCPVC PIPING & FITTINGS. PROVIDE WATER HAMMER ARRESTORS AS REQUIRED. LAY OUT WATER PIPING SO THAT ENTIRE SYSTEM CAN BE DRAINED. FLUSH THE WATER PIPING CLEAR OF DEBRIS AND CLEAN THE AERATORS AND STRAINERS AT THE TERMINATION OF THE INSTALLATION.

b. COPPER TUBE AND FITTINGS

- b.a. Hard Copper Tube: ASTM B 88, Type L and ASTM B 88, Type M water tube, drawn temper.
- b.b. Soft Copper Tube: ASTM B 88, Type K and ASTM B 88, Type L water tube, annealed temper.
- b.c. Cast–Copper, Solder–Joint Fittings: ASME B16.18, pressure fittings.
- b.d. Wrought–Copper, Solder–Joint Fittings: ASME B16.22, wrought–copper pressure fittings.
- b.e. Bronze Flanges: ASME B16.24, Class 150, with solder–joint ends.
- b.f. Copper Unions:
 - b.f.1. MSS SP–123.
 - b.f.2. Cast–copper–alloy, hexagonal–stock body.
 - b.f.3. Ball–and–socket, motel–to–motel seating surfaces.
 - b.f.4. Solder–joint or threaded ends.
 - b.f.5. Copper Pressure–Seal–Joint Fittings: Fittings for NPS 2 and Smaller. Wrought–copper fitting with EPDM–rubber, O–ring seal in each end.
 - b.f.6. Fittings for NPS 2–1/2 to NPS 4: Cast–bronze or wrought–copper fitting with EPDM–rubber, D–ring seal in each end.
- b.1. 7. Fittings for NPS 2–1/2 to NPS 4: Cast–bronze or wrought–copper fitting with EPDM–rubber, D–ring seal in each end.

5. PIPE INSULATION:

INSULATE ALL COLD WATER AND CONDENSATE PIPING WITH 1/2”, AND HOT WATER PIPING WITH 1”, PREFORMED FIBERGLASS PER ASTM C335 WITH ALL –SERVICE JACKET AND VAPOR BARRIER (BY CT, OC, JM, PPG, OR KNAUF). INSULATION SHALL COMPLY WITH NFPA 255 AND ASTM EB4 WITH A MAXIMUM FLAME SPREAD OF 25 AND MAXIMUM SMOKE DEVELOPED OF 50. PROVIDE PRE– MOLDED FITTING COVERS EQUAL TO STARR DAVIS. AT CONTRACTOR’S OPTION, PLENUM–RATED ELASTOMERIC INSULATION (BY ARMSTRONG, RUBATEX OR EQUAL) MAY BE USED.

LEED WATER METERING STRATEGY NARRATIVE

PROVIDE A WATER METER TO MEASURE WATER USE ON A MONTHLY AND ANNUAL BASIS, EITHER AUTOMATICALLY OR MANUALLY, AND PROVIDE SUCH INFORMATION TO THE US GREEN BUILDING COUNCIL FOR A PERIOD OF FIVE YEARS AFTER THE BUILDING IS OCCUPIED OR CERTIFIED, WHICHEVER COMES FIRST.

IF ALL WATER COMES FROM A PUBLIC WATER SUPPLY AND THE UTILITY’S WATER METER PROVIDES MONTHLY CONSUMPTION DATA, THAT SYSTEM’S METER MEETS THE PREREQUISITE REQUIREMENTS.
IF METER IS UNACCEPTABLE THEN USE BILLING STATEMENTS AND A PRIVATE METER INSTALLED DOWNSTREAM FROM THE PUBLIC WATER SUPPLY METER.

PROVIDE DOMESTIC HOT WATER SUB–METERING SYSTEM IN ADDITION TO THE MAIN BUILDING METER.

6. SHUT –OFF VALVES:

VALVES WITH UNIONS SHALL BE PROVIDED AT BRANCHES TO GROUPS OF MORE THAN TWO FIXTURES AND AT THE WATER HEATER TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. USE CHROME–FINISHED FORGED BRONZE BODY, FULL PORT BALL VALVES, LEAD FREE, PTFE SEATS AND PACKING, 400 LB. RATING WITH THREADED OR SOLDER ENDS, EQUAL TO NIBCO #FP600. VALVES SHALL BE ALL BRONZE FABRICATED VALVES FOR SCREWED PIPE. BY WALWORTH, ROCKWELL, NORDSTROM OR APPROVED EQUIVALENT.

7. AIR ADMITTANCE VALVE (A.A.V.) (IF REQUIRED):

STUDER MINIVENT, MAXIVENT, REDIVENT, TECVENT AND ULTRAVENT.

8. FLOOR DRAINS, CLEAN OUTS, TRAP SEALERS, HOSE BIBS AND BACKFLOW PREVENTERS:

SEE SCHEDULE ON PLUMBING DRAWINGS.

9. SUPPLIES AND TRAPS:

PROVIDE WATER SEALED TRAPS AND SUPPLIES INSTALLED AS CLOSE AS POSSIBLE TO ALL PLUMBING FIXTURES, DRAINS, AND/OR EQUIPMENT ITEMS FURNISHED BY OTHERS, HAVING A WASTE CONNECTION, OR REQUIRING WATER SERVICE. EXPOSED TRAPS AND SUPPLIES IN EXPOSED AREAS INCLUDING CABINET INTERIORS) SHALL BE CHROME PLATED BRASS.

10. DIELECTRIC FITTINGS:

SHALL BE EQUAL TO EPCO SALES, INC.

EXECUTION

- A. PROVIDE ALL WORK, EQUIPMENT, AND MATERIALS INDICATED.
- B. ALL PIPE SHALL BE INSTALLED ABOVE CEILINGS, INSIDE WALLS OR IN CONCEALED SPACES.
- C. DISINFECTION OF POTABLE WATER SHALL BE PERFORMED IN ACCORDANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION. THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES PER MANUFACTURER’S ROUGH–IN DIMENSIONS. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL, FOR SANITARY JOINT. REPAIR ANY DAMAGE DONE TO EXISTING FEATURES AND RESTORE TO ORIGINAL CONDITIONS. PROVIDE CLEAN CONDITIONS AT TERMINATION OF WORK.
- D. TEST WASTE AND WATER UNDER ACTUAL OPERATING CONDITIONS. REPAIR LEAKS AND RETURN TO SERVICE. TEST WASTE PIPING AT 15 FEET OF HEAD FOR 24 HOURS. TEST WATER PIPING AT 125 PSI FOR 2 HOURS. MAKE REPAIRS WITH NEW MATERIALS. REPLACE LEAKING MATERIALS, DO NOT REPAIR BY PATCHING. REPEAT TEST UNTIL STANDARDS ARE ACHIEVED.
- E. PROVIDE DOMESTIC WATER BACKFLOW PREVENTERS AT ALL COFFEE MAKERS, ICE MAKERS, DISHWASHERS, WATER COOLERS, AIR CONDITIONING UNIT HUMIDIFIERS AND OR ANY OTHER DEVICE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION. BACK FLOW PREVENTERS SHALL BE APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- F. INSULATE ALL DOMESTIC HOT AND COLD WATER PIPING.
- G. PROVIDE DIELECTRIC COUPLINGS AT ALL FERROUS TO NONFERROUS PIPE CONNECTIONS AND FLANGE UNION ISOLATING JOINTS TO PREVENT ANY ELECTROLYTIC ACTION BETWEEN DISSIMILAR METALS.
- H. ALL SAW CUT OF FLOOR SHALL BE PATCHED BACK TO MATCH EXISTING FINISHES. BACKFILL PER SOILS ENGINEER’S RECOMMENDATIONS. SEAL WITH WATERPROOF MEMBRANE ALL SLAB PENETRATIONS 6” OUT FROM AND 6” UP THE DEMISING WALL
- I. GUARANTEE THE WORK AND THE INSTALLATION FOR ONE YEAR AFTER FORMAL ACCEPTANCE BY THE OWNER.
- J. ALL PIPES SHALL BE HUNG FROM BUILDING STRUCTURE WITH INSERTS EMBEDDED NO MORE THAN 2”.

PLUMBING GENERAL NOTES

- 1. THE CONTRACTOR SHALL COMPLY WITH THE BUILDING, MECHANICAL, AND PLUMBING CODES OF THE STATE OF NEW YORK, AND ALL THE LAWS, ORDINANCES, RULES, CODES AND REGULATIONS OF ALL GOVERNMENTAL AUTHORITIES HAVING JURISDICTION AND THE NATIONAL FIRE PROTECTION ASSOCIATION.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND DETERMINING THE EXISTING CONDITIONS IN WHICH THE WORK IS TO BE PERFORMED. PROVIDE ALL WORK INDICATED ON THE CONTRACT DOCUMENTS.
- 3. THE CONTRACTOR SHALL REMOVE AND DISCONNECT ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND UNLESS OTHERWISE INDICATED.
- 4. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE CONTRACT AREA AND ALL OTHER AREAS USED FOR STORAGE, STAGING, ETC. THIS SHALL INCLUDE. BUT NOT BE LIMITED TO: WASHING (AND REPAIRING), REMOVING SPOTS AND STAINS, CLEANING ALL FIXTURES AND WASHING ALL FLOORS, WALLS AND CEILINGS (IF APPROPRIATE).
- 5. REFER TO MECHANICAL SHEETS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND DUCTWORK AND COORDINATE ALL WORK TO BE REMOVED.
- 6. THE CONTRACTOR SHALL PROVIDE NECESSARY PIPING, VALVES, TRAPS, TEMPORARY FEEDS, DRIPS, ETC. AS REQUIRED. DRAIN AND REFILL PIPING SYSTEMS AS OFTEN AS NECESSARY TO ACCOMMODATE PHASING AND TO MINIMIZE TIME LENGTH OF OUTAGES.
- 7. WHERE REQUIRED TO MAINTAIN THE EXISTING SYSTEMS IN OPERATION, THE CONTRACTOR SHALL TEMPORARILY BACKFEED EXISTING SYSTEMS FROM NEW EQUIPMENT. CONTRACTOR SHALL TEMPORARILY EXTEND EXISTING PIPING SYSTEMS TO NEW PIPING SYSTEMS WITH THE APPROPRIATE SHUT –OFF VALVES.
- 8. AT COMPLETION OF PROJECT ALL TEMPORARY PIPING, VALVES, CONTROLS, ETC. SHALL BE REMOVED IN THEIR ENTIRETY.

REVISION	DESCRIPTION	DATE
NO.	ADENDUM #1	11/11/21
1	ADENDUM #2	11/22/21
2		

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CAPITAL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DRIVE, POMONA, NY 10970

CRS	JIC
AS NOTED	AS NOTED
DATE: 20 OCT. 2021	PROJECT NO. 2019

PROGRESS SET	BID SET	PERMIT SET	CONSTRUCTION SET
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P0.02

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Mechanical & Electrical Engineers
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Phone 540-665-2846
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Job # E2119

NO.	REVISION	DESCRIPTION	DATE
1			11/11/21
2			11/22/21

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CAPITAL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DRIVE, POMONA, NY 10970

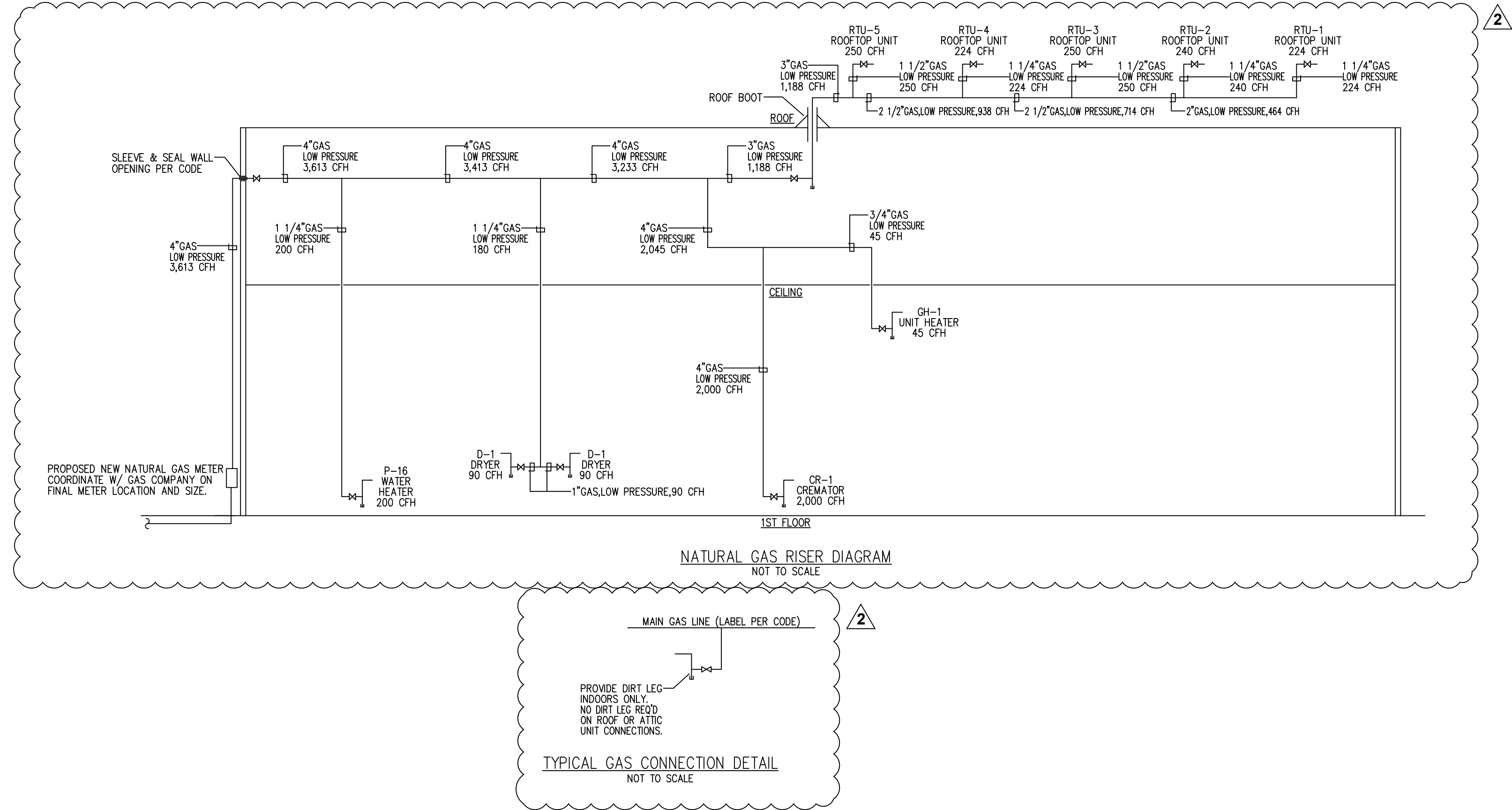
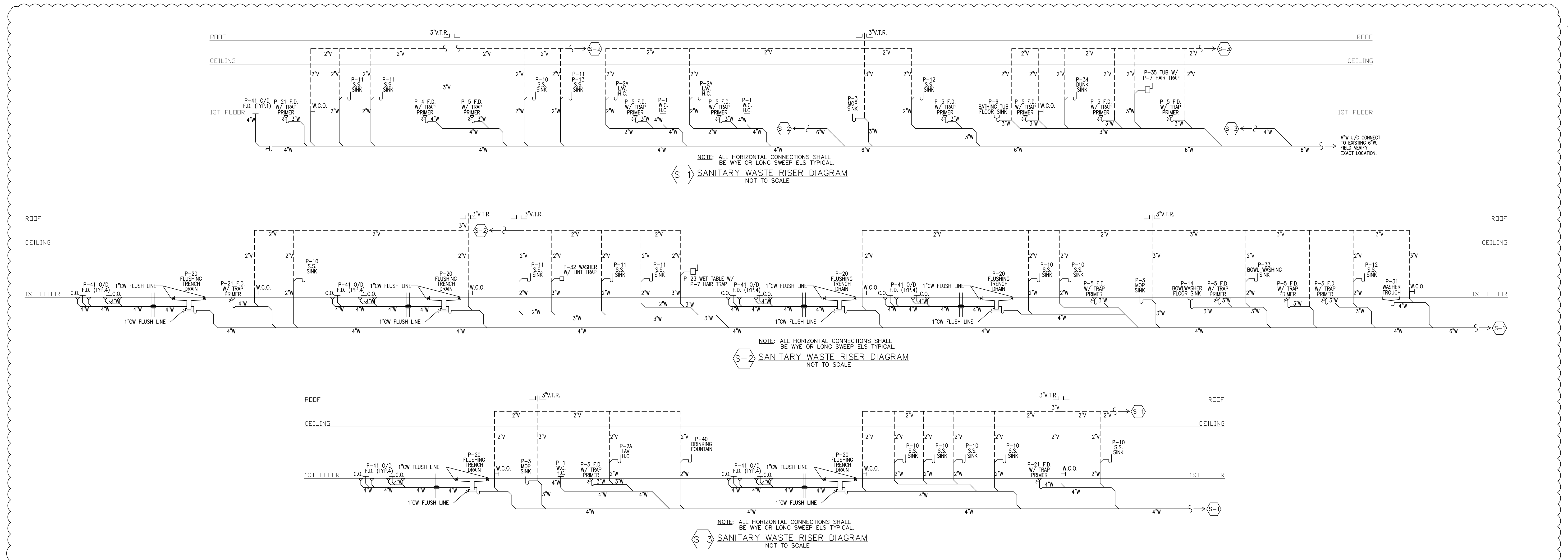
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CHECKED BY: J.C.
SCALE: AS NOTED
DATE: 20 OCT. 2021
PROJECT NO.: 2019

SANITARY WASTE & NATURAL GAS RISER DIAGRAMS

PROGRESS SET BID SET PERMIT SET CONSTRUCTION SET

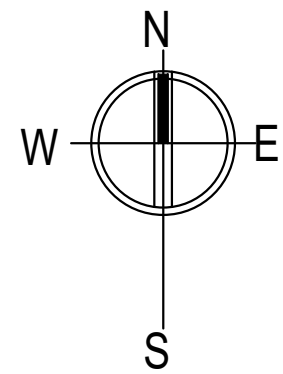
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Comfort Design Inc.
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Engineers
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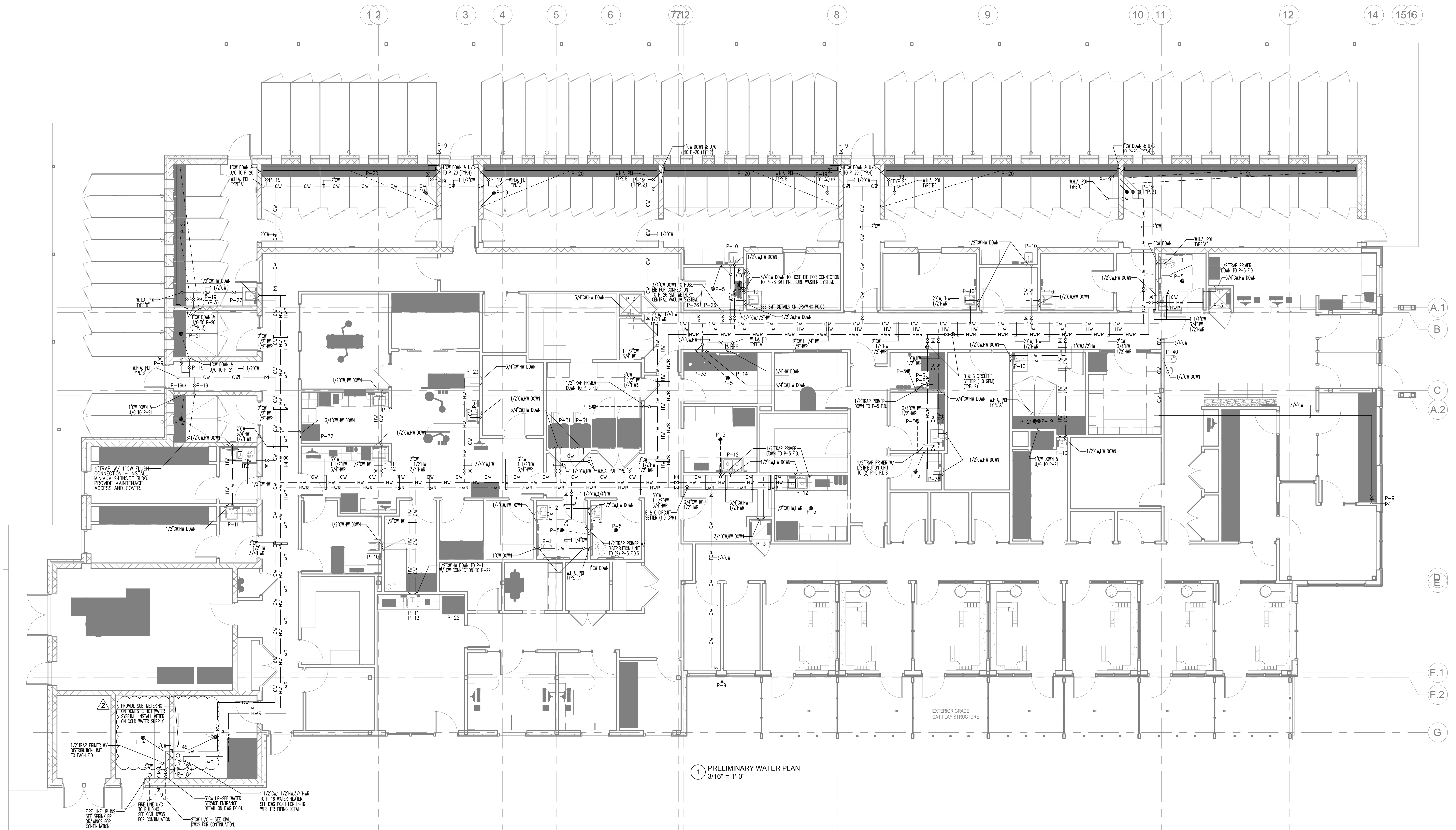
NO.	REVISION	DESCRIPTION	DATE
1		ADDENDUM #1	11/11/21
2		ADDENDUM #2	11/22/21

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1 PRELIMINARY WATER PLAN
3/16" = 1'-0"

CAPITAL PROJECT 1483
CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DRIVE, POMONA, NY 10970

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SCALE:	AS NOTED
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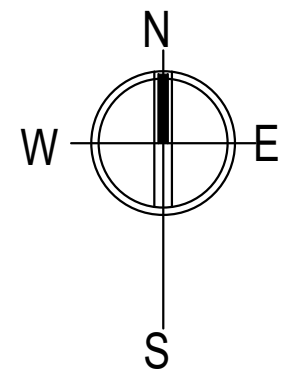
WATER PLAN

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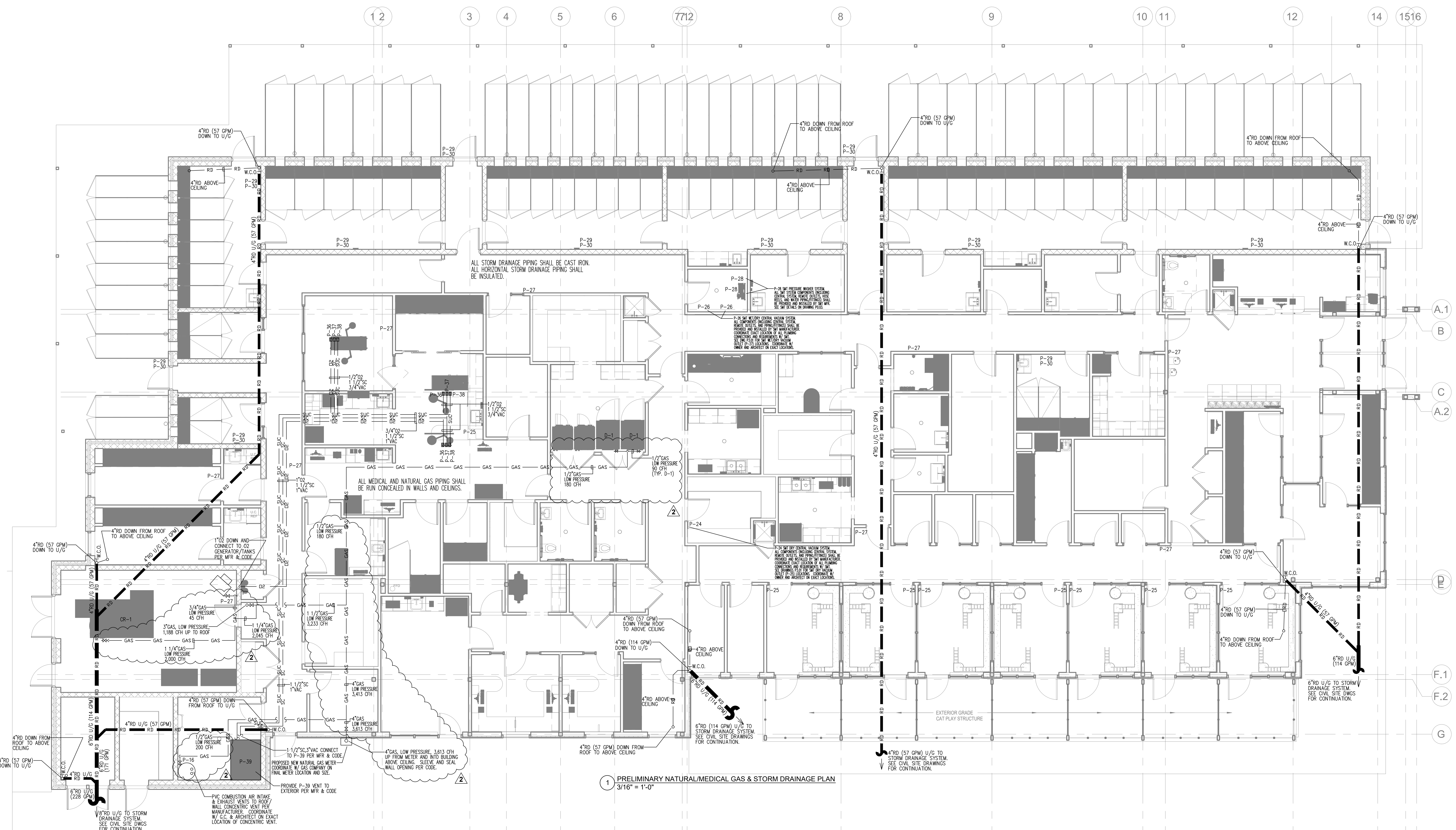
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CONSTRUCTION OF A NEW ANIMAL SHELTER FACILITY
65 FIREMENS MEMORIAL DRIVE, POMONA, NY 10970

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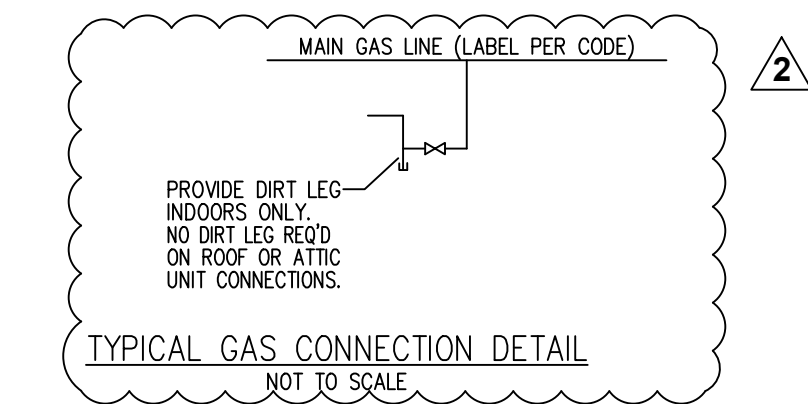
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SCALE: AS NOTED
DATE: 20 OCT 2021
PROJECT NO: 2019



1 PRELIMINARY NATURAL/MEDICAL GAS & STORM DRAINAGE PLAN
3/16" = 1'-0"

NATURAL GAS LOAD TABLE				
MARK	UNIT DESCRIPTION	MFR OR EQUAL	MODEL	INPUT BTU/H
P-16	WATER HEATER	A.O. SMITH	BTH-199	200,000
D-1	COMMERCIAL DRYER	GIRBAU	CG30-40	90,000
D-1	COMMERCIAL DRYER	GIRBAU	CG30-40	90,000
RTU-1	ROOFTOP UNIT	CARRIER	48HCFE08K2AAS5WH	224,000
RTU-2	ROOFTOP UNIT	CARRIER	48HCFE14K2AAS5WH	240,000
RTU-3	ROOFTOP UNIT	CARRIER	48HCFE12K2AAS5WH	250,000
RTU-4	ROOFTOP UNIT	CARRIER	48HCFE08K2AAS5WH	224,000
RTU-5	ROOFTOP UNIT	CARRIER	48HCFE12K2AAS5TH	250,000
GH-1	UNIT HEATER	MODINE	HD45	45,000
CR-1	CREMATION UNIT	MES	IEB-16	2,000,000
SUMMARY TOTALS FOR GAS LOADS				3,613 CFH

NATURAL GAS PIPE SIZING BASED ON THE 2020 FUEL GAS CODE OF NY STATE, TABLE 402.4.1 (1) 2 PSI PRESSURE W/ 0.5 W.C. PRESSURE DROP, GAS = 0.60 SPECIFIC GRAVITY, SCHEDULE 40 PIPE, & 150 FT TOTAL LENGTH. (1000 BTU/H = 1 CFH)



- GAS PIPING LEGEND:**
- O2 — O2 — MEDICAL GAS GRADE COPPER OXYGEN (O2) PIPING W/ HANGERS/SUPPORTS PER CODE.
 - VAC — VAC — MEDICAL GAS GRADE COPPER SUCTION (VAC) PIPING W/ HANGERS/SUPPORTS PER CODE.
 - SC — SC — SCH 40 PVC SCAVENGER (SC) PIPING W/ HANGERS/SUPPORTS PER CODE.
 - GAS — GAS — NATURAL GAS SCH 40 STEEL PIPING W/ LABEL PER CODE.

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