



RANDAL FRIESEN  
ARCHITECTURE<sub>LLC</sub>

**ARCHITECTS SUPPLEMENTAL INSTRUCTION (ASI)**

ASI #: **Four**

PROJECT:               HORAN AND McCONATY MORTUARY  
                              DARTMOUTH GARAGE AND STORAGE ADDITION

CONTRACTOR:       HIMMELMAN CONSTRUCTION, INC.

DATE:                October 16, 2015

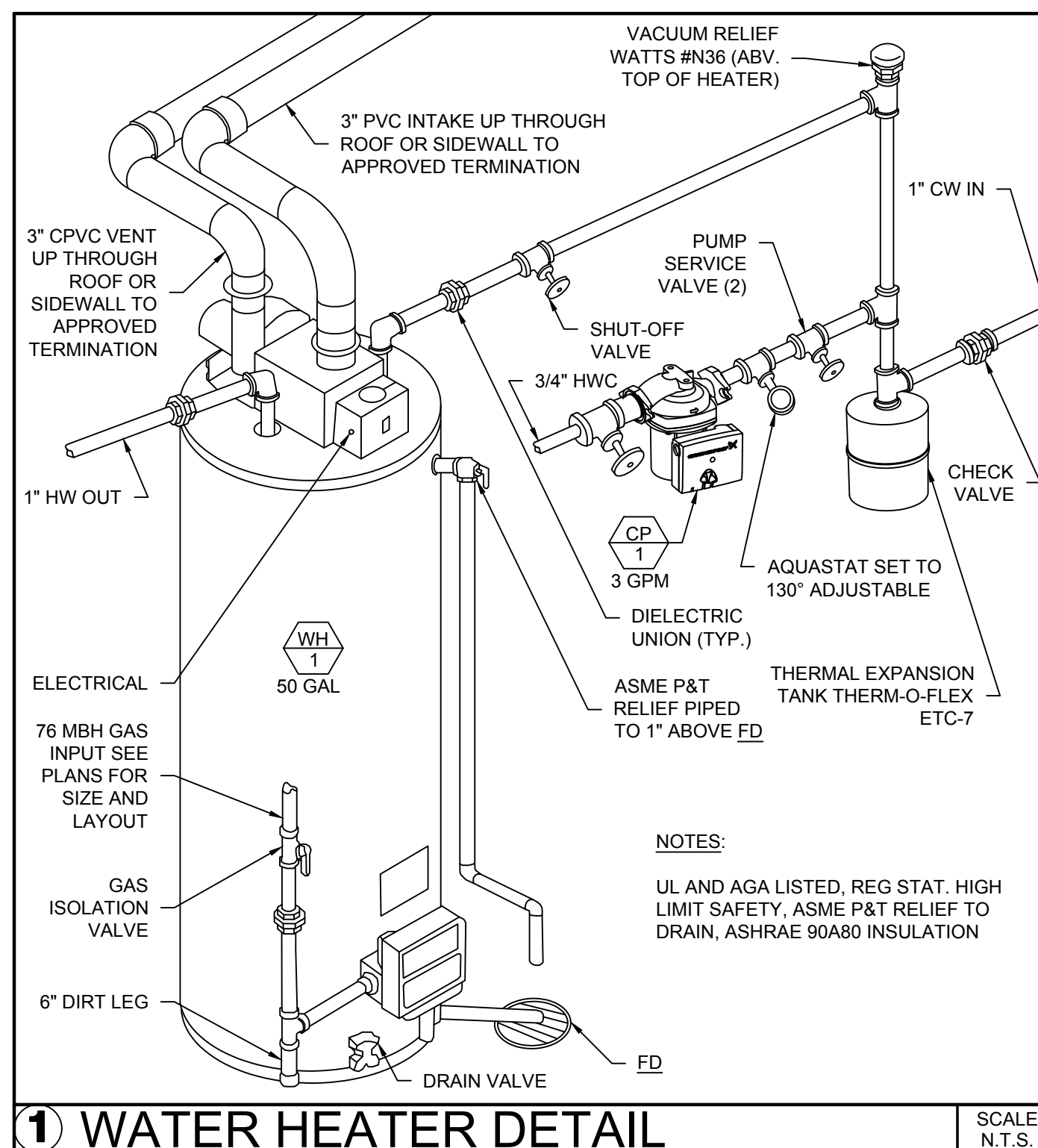
INSTRUCTION:

1. REVISE: Water entry as shown on the attached revised drawings P0.1 and P3.0 clouded with Delta 5. Cap and abandon existing water line which is below the building addition.

END OF: **ASI # Four**

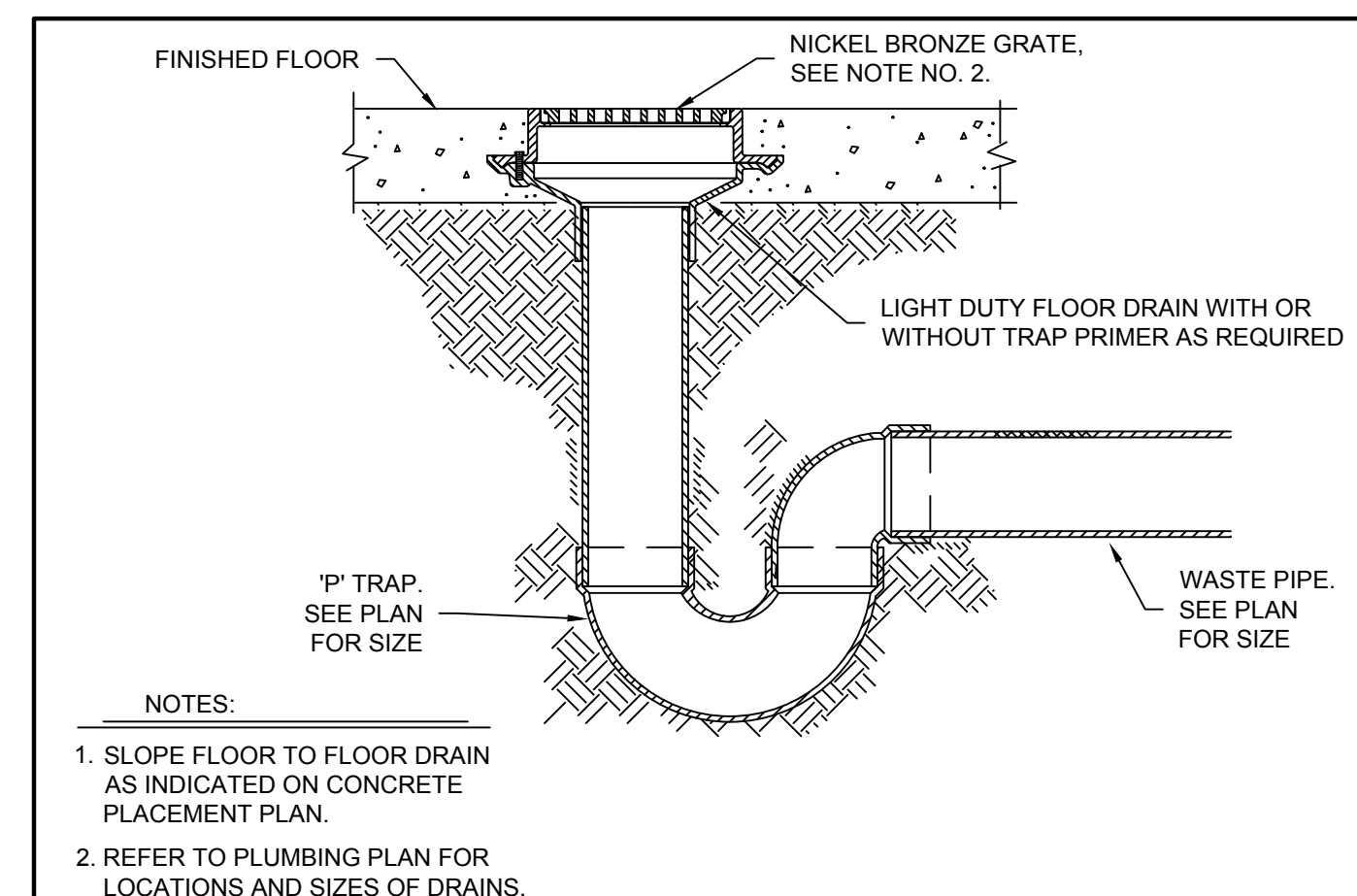
**SPECIFICATIONS**

- Follow all Local and state codes/ordinances and general conditions of contract. Pay all required fees and obtain all required permits. Submit these plans to building department for plan review. Implement all code review required changes into installation.
- Equipment, insulation and controls shall be provided as required by the Adopted energy code.
- Visit site to verify existing conditions prior to ordering equipment, providing price quote or fabricating piping. Change orders for non-compliance will not be accepted.
- Plumbing drawings are schematic and not to be scaled. Refer to architectural, certified drawings, and site measurements for all dimensions prior to duct and piping fabrication.
- Contractor shall purchase, receive, uncrate, assemble, insure, and install in conformance to manufacturer's recommendations all Plumbing equipment. Plumbing Contractor shall install and final connect owner furnished equipment as indicated.
- Provide 2 operating manuals to owner and engineer for all systems and equipment including manufacturer's maintenance manuals. Include lubrication, filter types and sizes, starting and stopping procedures. List contractor's telephone numbers.
- Supports and anchors shall be provided for plumbing work. No chain, tape, or wire.
- Sleeves shall be provided for all pipe thru walls, floors, and ceilings. Provide chrome plated escutcheons for piping penetrations in finished areas.
- Conceal all work in finished areas.
- Cut and patch to match adjacent areas. No structural member shall be cut or notched.
- Electrical: confirm voltage, phase, and ampacity with electrical contractor prior to ordering equipment. All 24v controls including interlock wiring for plumbing equipment by division 15 contractor. Provide magnetic starters for all 3-phase motors with protection on all three leads. Electrical equipment to automatically restart after power failure. All wire in conduit per NEC latest edition.
- Excavate for all mechanical work. Compact to 95% AASHTO or proctor density in 6" maximum lifts at optimum moisture content. Rework if any settlement within first years guarantee.
- Valves shall be provided to isolate each piece of equipment and for all rough-ins excluding waste and vent. Water valves shall be apollo ball valve line-size rated for 200 psig wog. Gas valves shall be AGA listed line-size lubricated.
- Waste and vent piping shall be cast iron no-hub listed for location installed. Schedule-40 plastic PVC may be used if code approved. Provide cleanouts 50'-0" min oc of appropriate type inside buildings. Vent thru roof with a total cross sectional area to equal to or greater than building sewer main shall be provided.
- Pipe each evaporative pan drain with p-trap 3/4" minimum to waste.
- Water piping shall be no-lead ASTM B32 solder and ASMT B813 flux soldered joint type-L, copper above grade. Buried piping or piping within 6" of grade shall be 15% silver sil-phos brazed joint type-K. Insulate all hot and cold water lines routed in ceiling or crawl space with 1/2" thick preformed fiberglass (1" for circulated Hot Water lines) with UL-181 class-1 plenum rated jacket. Route all piping inboard of building insulation to avoid freezing. Electric heat trace all piping located in unheated areas with chromalox 7.0 watts/ft mi cable and 1" thick fiberglass piping insulation with cover.
- Insulate all horizontal roof drain piping with 1.5" fiberglass insulation with UL-181 class-1 plenum rated jacket.
- Gas piping shall be schedule 40 black iron with malleable screwed fittings inside building and from meter to building where not buried. Verify gas line routing with architect and building department prior to installation. Costs involved in gas service shall be included in bid. Provide line size valve immediately prior to entering building. Provide equipment regulators to suit pressure supplied and gas equipment requirements. Gas piping on roof shall run on B-Line C-Port supports per code. Paint all exposed gas piping per code. Prior to each piece of equipment, provide gas valve, union, dirt leg, all accessible per code.
- Pressure test all piping per code but to at least 150% max working pressure.
- Fire caulk fire rated wall/ceiling/floor penetrations with HILTI or equal listed fire caulk.
- Guarantee all labor and new equipment for one year from the date of acceptance by owner.
- See bound specifications.

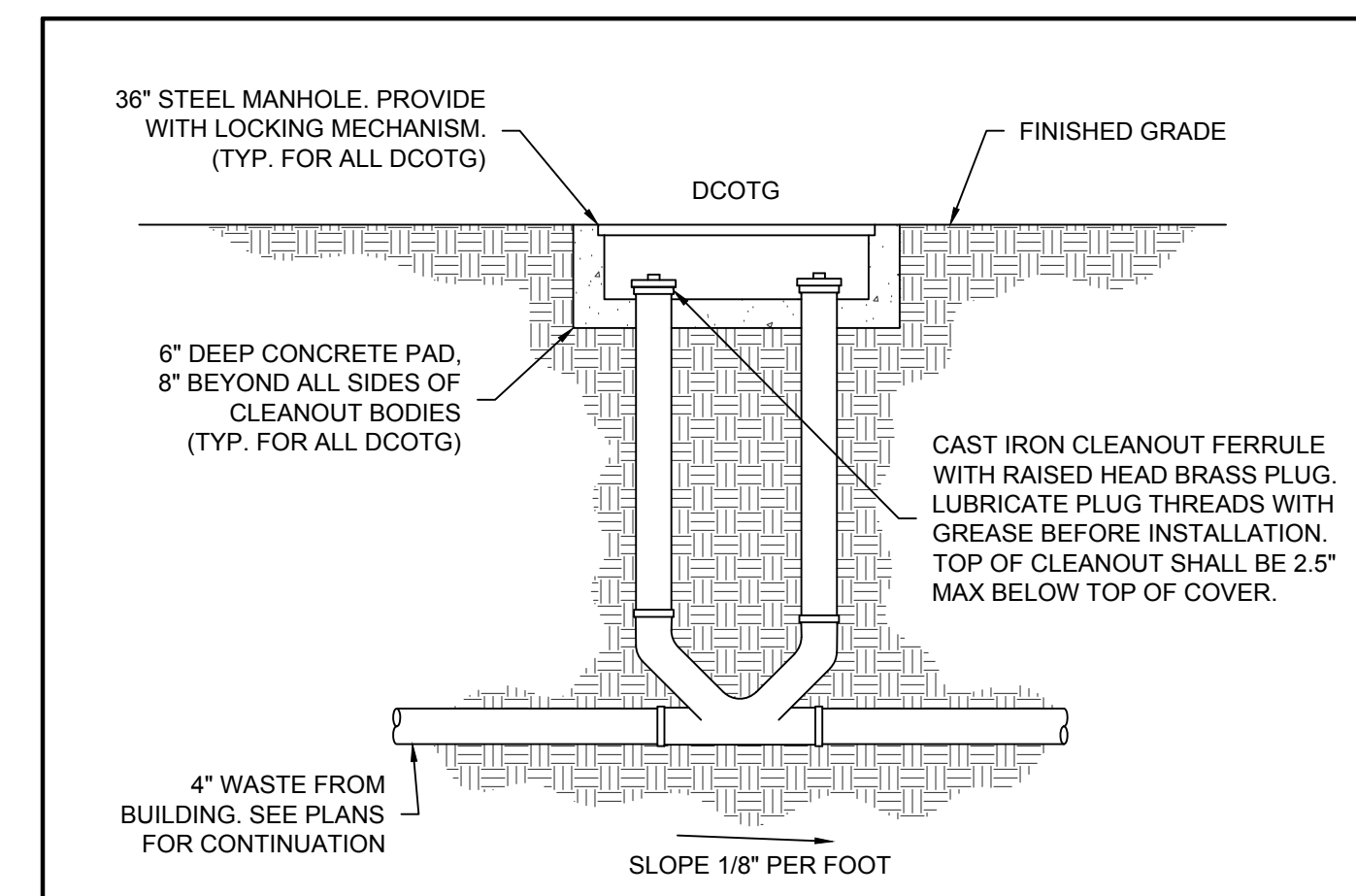


PLUMBING FIXTURE SCHEDULE									
ITEM	FIXTURE	MANUFACTURER	MODEL NO.	CW	HW	WASTE	VENT	REMARKS	NOTES
WC1	WATER CLOSET - TANK	ZURN	Z5550	1/2"	-	3"	2"	1.6 GPF, TRIM KIT, ADA COMPLIANT	1, 5, 6, 10, 12
L1	LAVATORY	ZURN	Z5820	1/2"	1/2"	1.5"	1.5"	SELF RIMMING, DELTA 520 FAUCET, VANDAL RESISTANT AERATOR	4, 7, 8, 10, 11, 12
S1	UTILITY SINK	ELKAY	SS8136	1/2"	1/2"	1.5"	1.5"	SYMMONS S-249 FAUCET VANDAL RESISTANT AERATOR	4, 7, 8, 10, 11, 12
SV	SHOWER MIXING VALVE	BRADLEY	S59-2005	3/4"	3/4"	-	-	MOUNT ON WALL, PROVIDE FLEXIBLE PLATED METAL HOSE WITH SHOWER HEAD AT CENTER OF ROOM. HEAD SHALL REACH DEEP SINK	
FD	FLOOR DRAIN	ZURN	Z400 TYPE N	-	-	SEE PLAN	SEE PLAN	DEEP SEAL TRAP, BRASS GRATE	
TD	TRENCH DRAIN	ZURN	Z-886-HD	-	-	3"	1.5"	VEHICULAR RATED	
HC	HOSE CONNECTION	WOODFORD	C22	1/2"	1/2"	-	-	WITH VACUUM BREAKER HOT AND COLD WATER	VERIFY LOCATION
WH 1	WATER HEATER	STATE	SHE 50 76N	3/4"	3/4"	-	-	50 GALLON, 76 MBH S.L. NAT GAS INPUT SEE DETAIL, 120V/1Ø, 22"DIA X 70.62"H	12, 13 3"Ø PVC/CPVC COMBUSTION AIR INTAKE AND VENT
CP 1	CIRCULATION PUMP	GRUNDFOS	UP 15-10 B7	-	1/2"	-	-	3 GPM @ 3 FT HD, 115V/1Ø, 1/25 HP. SEE DETAIL	

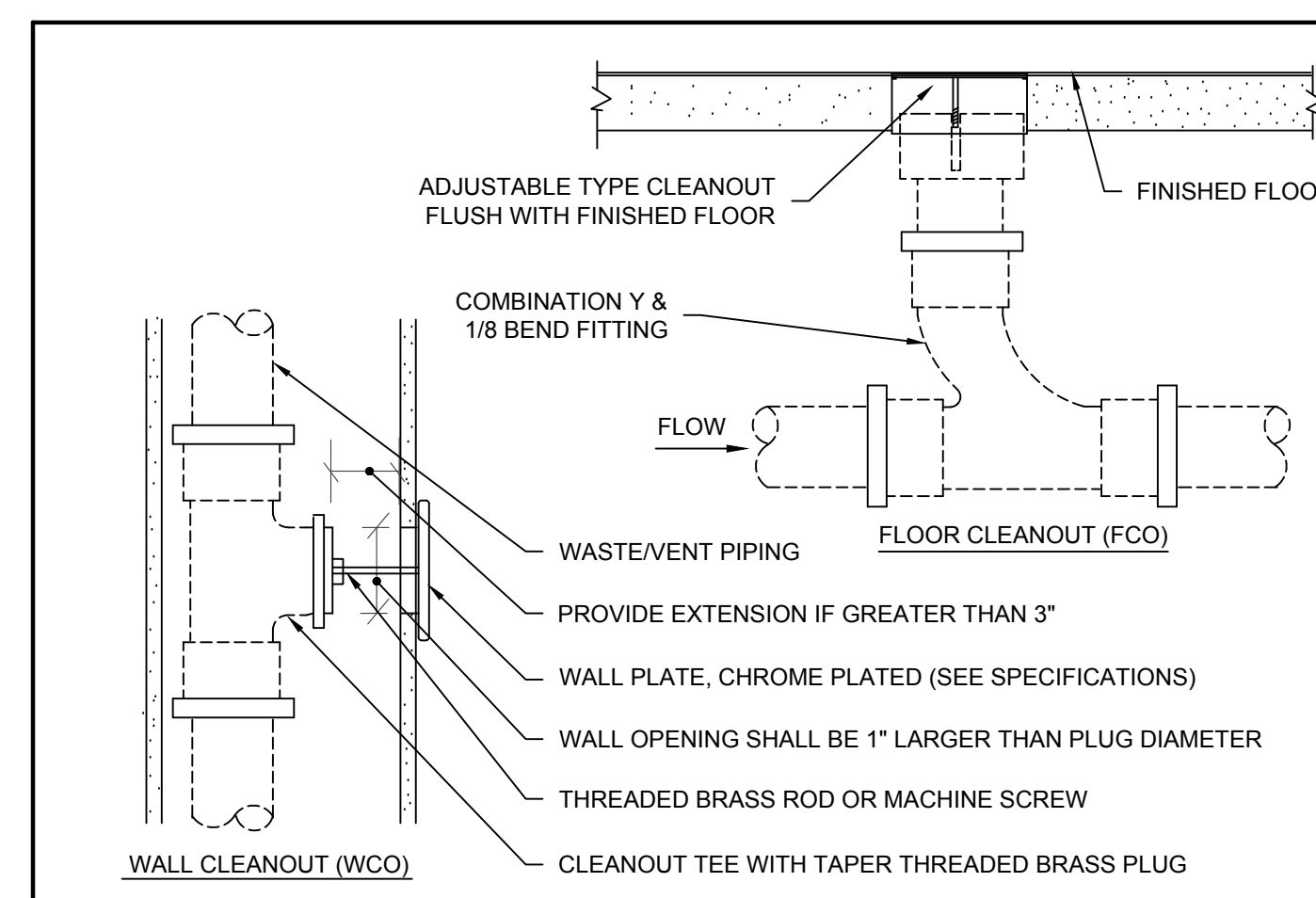
NOTES: 1 - Open Front Seat 2 - Wall Carrier 3 - UL Listed Trap Primer With VAC Breaker 4 - Handicap Trap Wrap 5 - Bolt Caps 6 - Vacuum Breaker  
7 - Chrome Plated Cast Brass P-Trap With Clean-Out 8 - Open Grid Drain 9 - Pop-Drain 10 - Angle Supply With Stops 11 - 1/2 GPM Flow Limiters 12 - Anchors, Supports Trim Complete  
13 - UL and AGA Listed, Reg Stat. High Limit Safety, ASME P&T Relief To Drain, ASHRAE 90A80 Insulation 14 - 2.5 GPM Flow Limiters



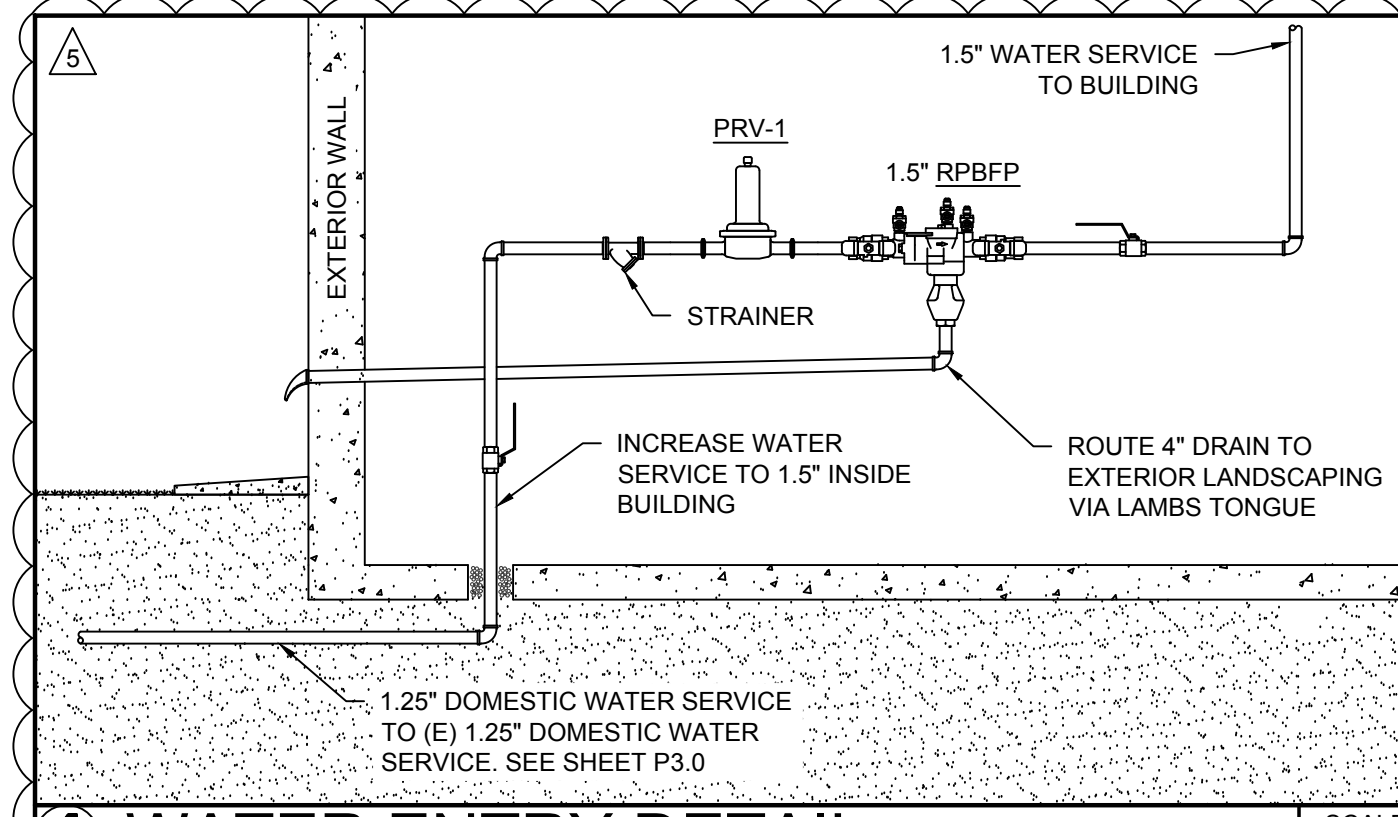
**2 LIGHT DUTY FLOOR DRAIN DETAIL** SCALE N.T.S.



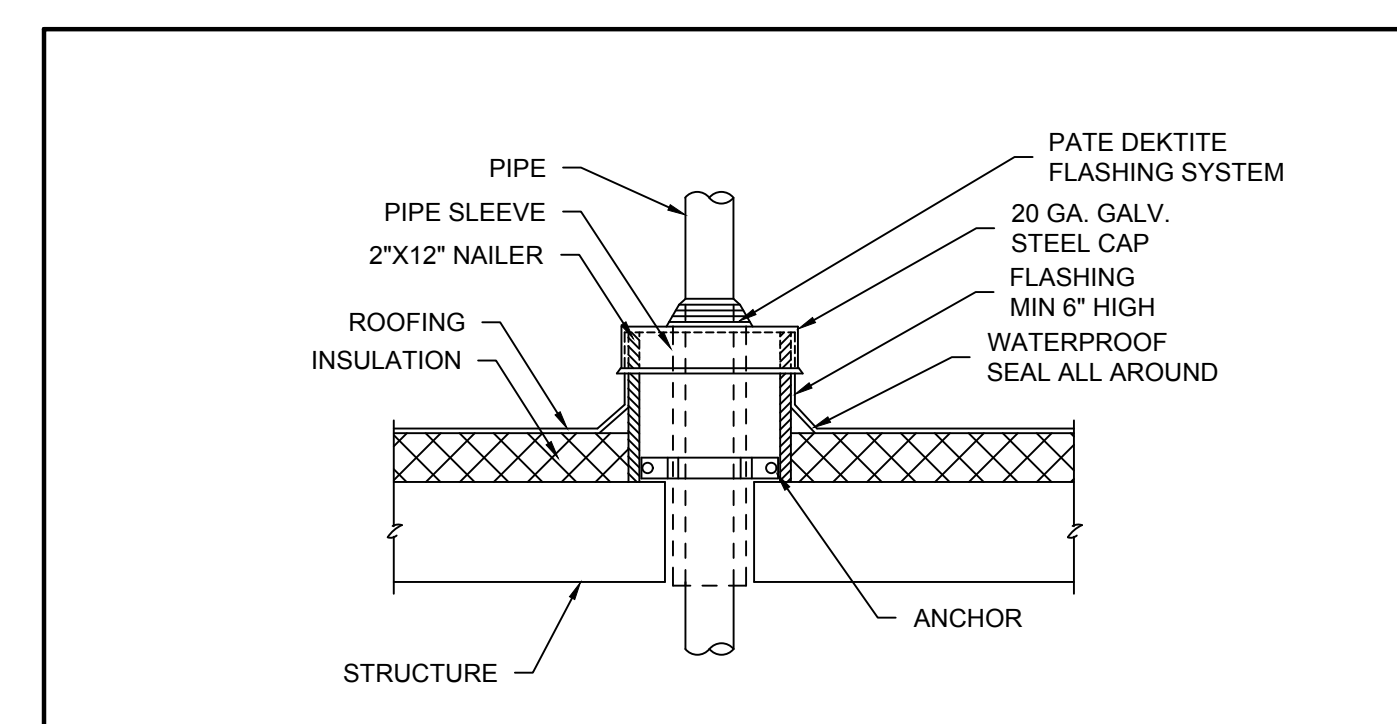
**5 DOUBLE CLEANOUT DETAIL** SCALE N.T.S.



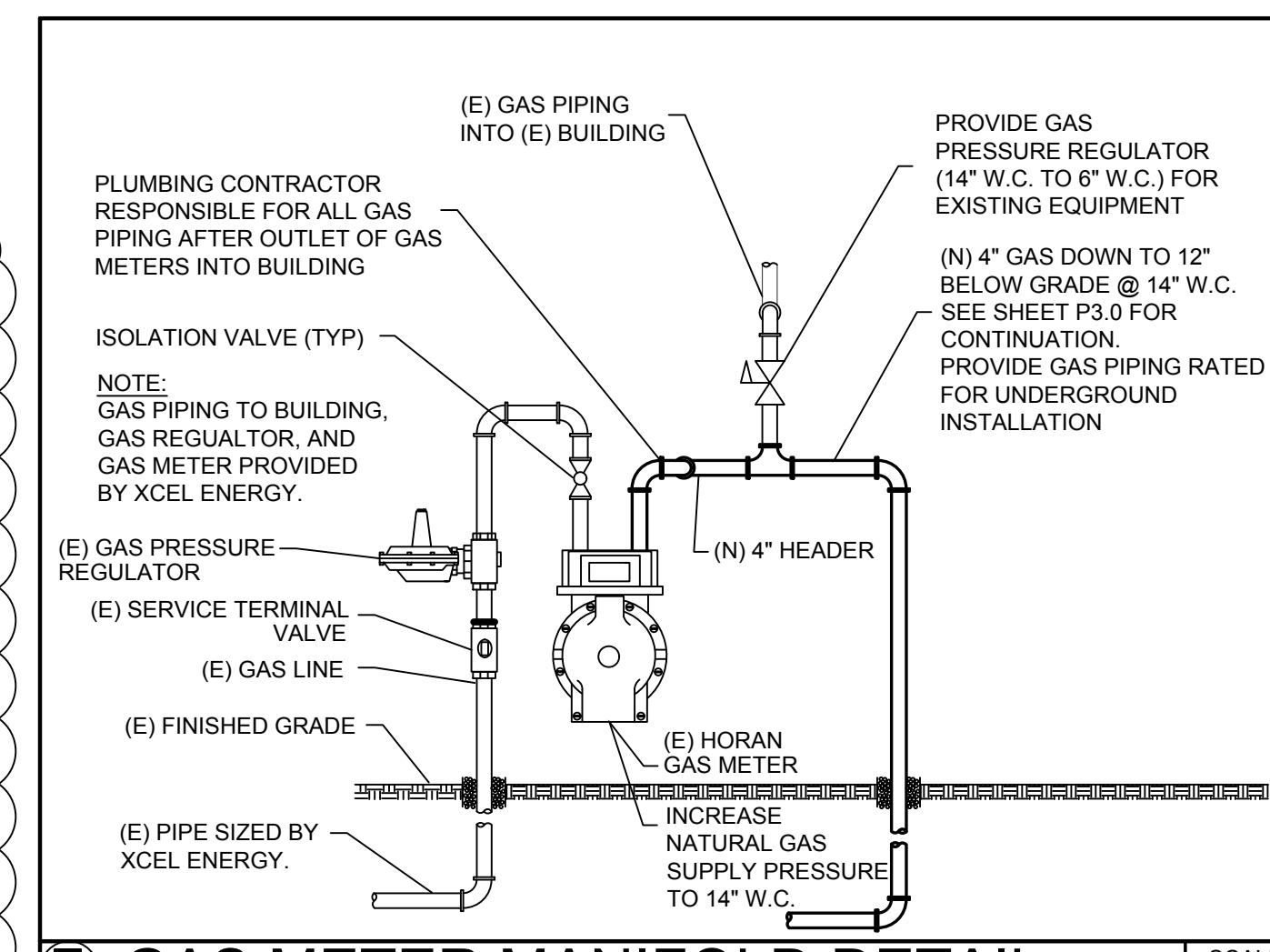
**3 CLEANOUT DETAIL** SCALE N.T.S.



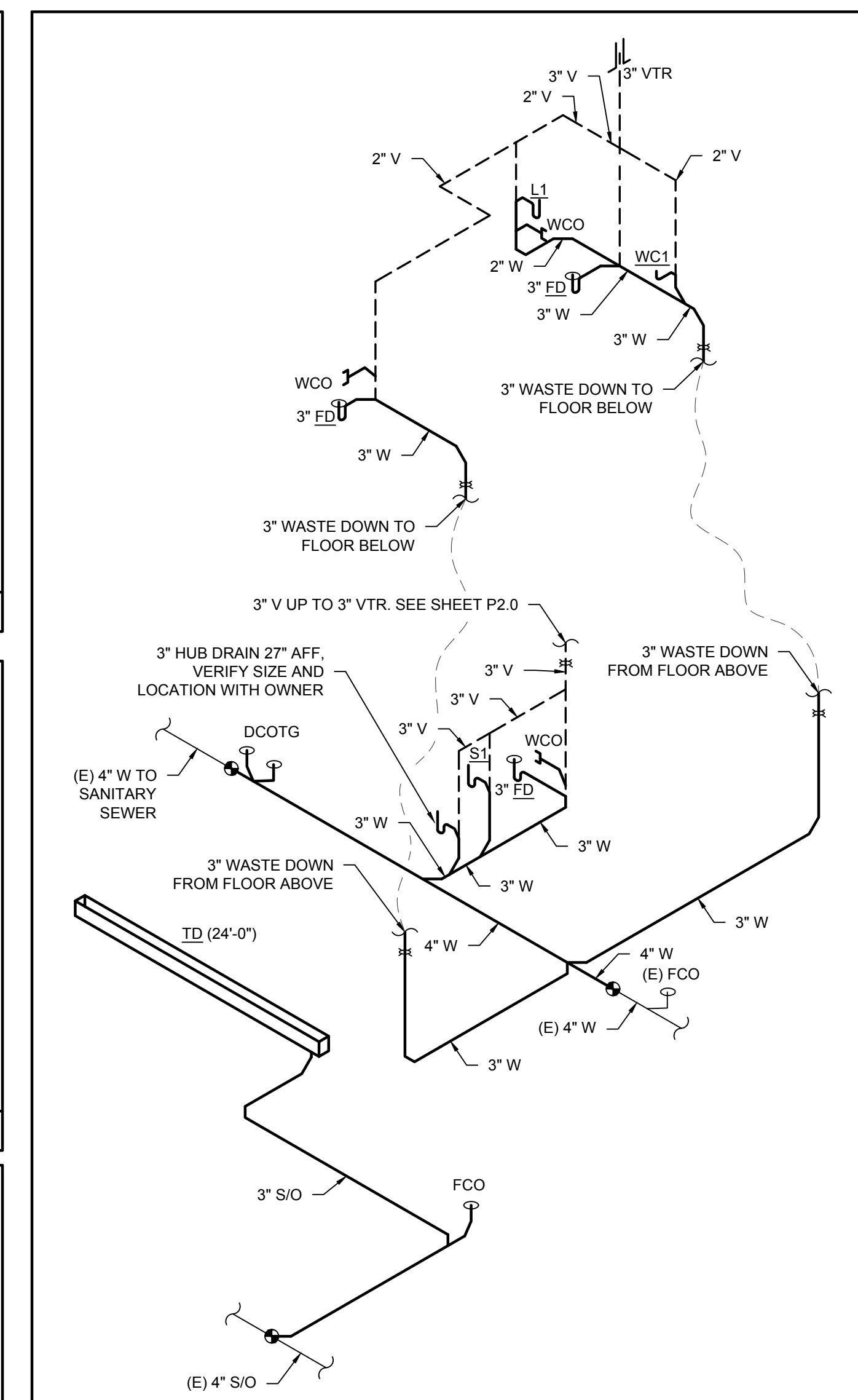
**4 WATER ENTRY DETAIL** SCALE N.T.S.



**6 ROOF PENETRATION DETAIL** SCALE N.T.S.



**7 GAS METER MANIFOLD DETAIL** SCALE N.T.S.



**8 WASTE AND VENT PIPING DIAGRAM** SCALE N.T.S.

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HORAN & MCCONATY MORTUARY  
DARTMOUTH GARAGE &  
STORAGE ADDITION  
1150 EAST DARTMOUTH AVENUE  
DENVER, COLORADO 80014

DATE: 5/12/15  
REV SET 5/26/15  
6/16/15  
8/1/15  
9/30/15  
10/14/15

ISSUE: BID SET  
REV STAIR  
PERMIT & CONSTRUCTION  
PERMIT & CONSTRUCTION  
STUDY RESPONSE  
WATER LINE RELOCATION

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ENGINEERING

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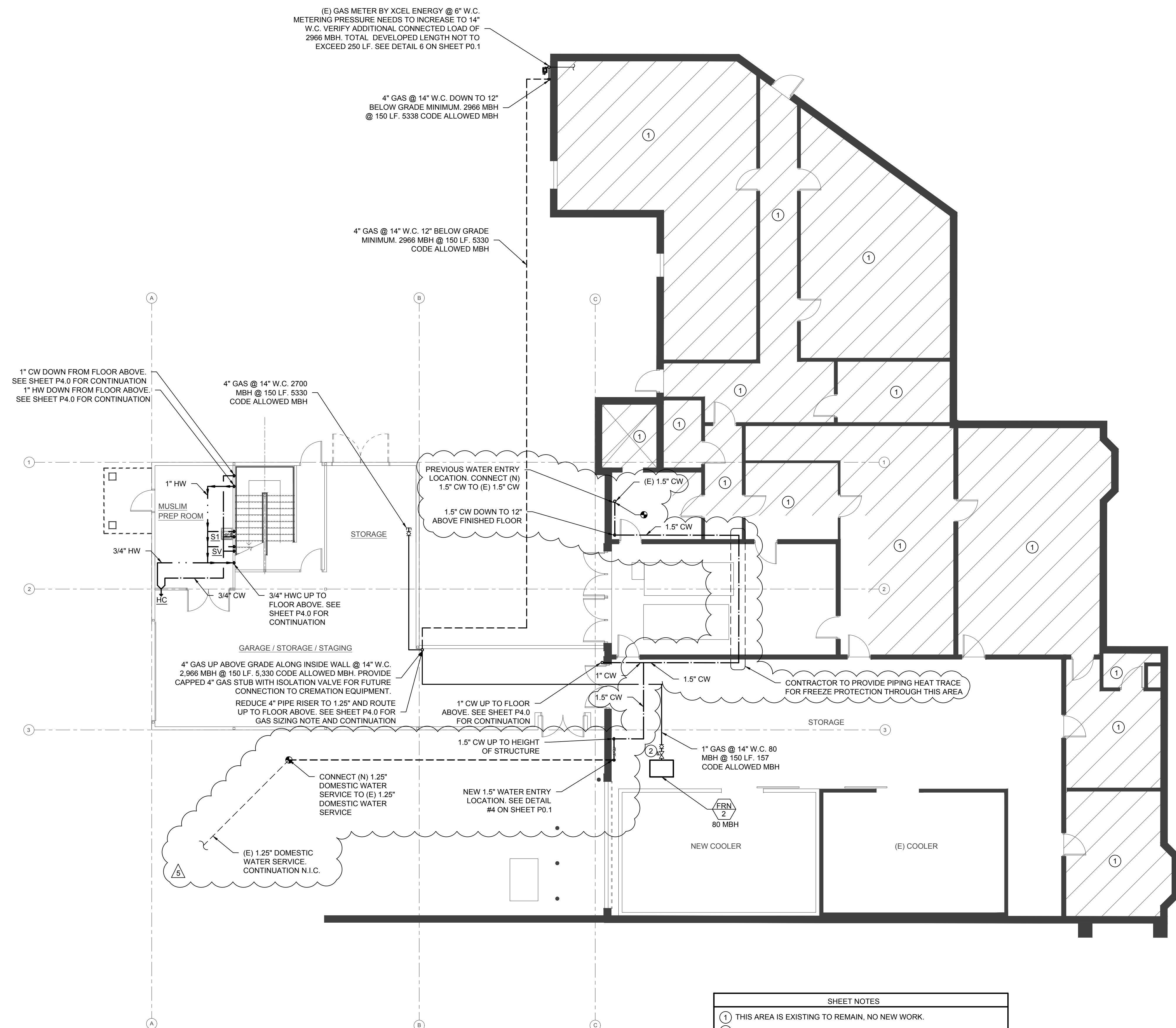
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LITTLETON, COLORADO 80128  
(303) 898-4541

PROJECT NO. 2014-048

PLUMBING  
DETAILS  
AND  
SCHEDULES

**PO.1**

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(E) GAS METER BY XCEL ENERGY @ 6" W.C. METERING PRESSURE NEEDS TO INCREASE TO 14" W.C. VERIFY ADDITIONAL CONNECTED LOAD OF 2966 MBH. TOTAL DEVELOPED LENGTH NOT TO EXCEED 250 LF. SEE DETAIL 6 ON SHEET P0.1

4" GAS @ 14" W.C. DOWN TO 12" BELOW GRADE MINIMUM. 2966 MBH @ 150 LF. 5338 CODE ALLOWED MBH

4" GAS @ 14" W.C. 12" BELOW GRADE MINIMUM. 2966 MBH @ 150 LF. 5330 CODE ALLOWED MBH

1" CW DOWN FROM FLOOR ABOVE. SEE SHEET P4.0 FOR CONTINUATION  
1" HW DOWN FROM FLOOR ABOVE. SEE SHEET P4.0 FOR CONTINUATION

4" GAS @ 14" W.C. 2700 MBH @ 150 LF. 5330 CODE ALLOWED MBH

PREVIOUS WATER ENTRY LOCATION. CONNECT (N) 1.5" CW TO (E) 1.5" CW

GARAGE / STORAGE / STAGING  
4" GAS UP ABOVE GRADE ALONG INSIDE WALL @ 14" W.C. 2 966 MBH @ 150 LF. 5,330 CODE ALLOWED MBH. PROVIDE CAPPED 4" GAS STUB WITH ISOLATION VALVE FOR FUTURE CONNECTION TO CREMATION EQUIPMENT.  
REDUCE 4" PIPE RISER TO 1.25" AND ROUTE UP TO FLOOR ABOVE. SEE SHEET P4.0 FOR GAS SIZING NOTE AND CONTINUATION

CONTRACTOR TO PROVIDE PIPING HEAT TRACE FOR FREEZE PROTECTION THROUGH THIS AREA

(E) 1.25" DOMESTIC WATER SERVICE. CONTINUATION N.I.C.

CONNECT (N) 1.25" DOMESTIC WATER SERVICE TO (E) 1.25" DOMESTIC WATER SERVICE

NEW 1.5" WATER ENTRY LOCATION. SEE DETAIL #4 ON SHEET P0.1

1" GAS @ 14" W.C. 80 MBH @ 150 LF. 157 CODE ALLOWED MBH

**1** FIRST FLOOR DOMESTIC WATER AND NATURAL GAS PIPING PLAN  
SCALE: 1/8" = 1'-0"

**SHEET NOTES**

- THIS AREA IS EXISTING TO REMAIN, NO NEW WORK.
- PROVIDE GAS ISOLATION VALVE AND GAS PRESSURE REGULATOR (14" W.C. TO 7" W.C.) VENT GAS PRESSURE REGULATOR TO ATMOSPHERE ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

**GENERAL NOTES**

- ALL DOMESTIC WATER LINES TO BE 3/4" UNLESS OTHERWISE NOTED. SEE SCHEDULE FOR CONNECTION SIZES.
- WATER PIPING: MINIMUM SIZES 3/4" CW AND HW PIPING SERVING MULTIPLE FIXTURES WITH 1/2" TO A SINGLE FIXTURE. NO 1/2" TEES ALLOWED
- VERIFY ACTUAL SIZE AND LOCATION OF EXISTING WATER PIPING PRIOR TO CONSTRUCTION.

⊕ = CONNECT NEW TO EXISTING

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DRAWN: DA/DZ

PROJECT NO. 2013-048  
**FIRST FLOOR DOMESTIC WATER & GAS PIPING PLAN**

**P3.0**