

CONSULTANTS:

MARK	DATE	DESCRIPTION
00	NOV 3, 2023	90% NFC

JONATHAN R. MURATORE, P.E.
NJ PROFESSIONAL ENGINEER LIC. NO. 2466998300


DESIGNED BY: **CRG** DRAWN BY: **CRG** CHECKED BY: **JRM** REVIEWED BY: **JRM**

PROJECT No: **BOME2201** DATE: **NOV 3, 2023** SCALE: **AS SHOWN**

CLIENT

Borough of Metuchen

EMERGENCY SERVICES CENTER

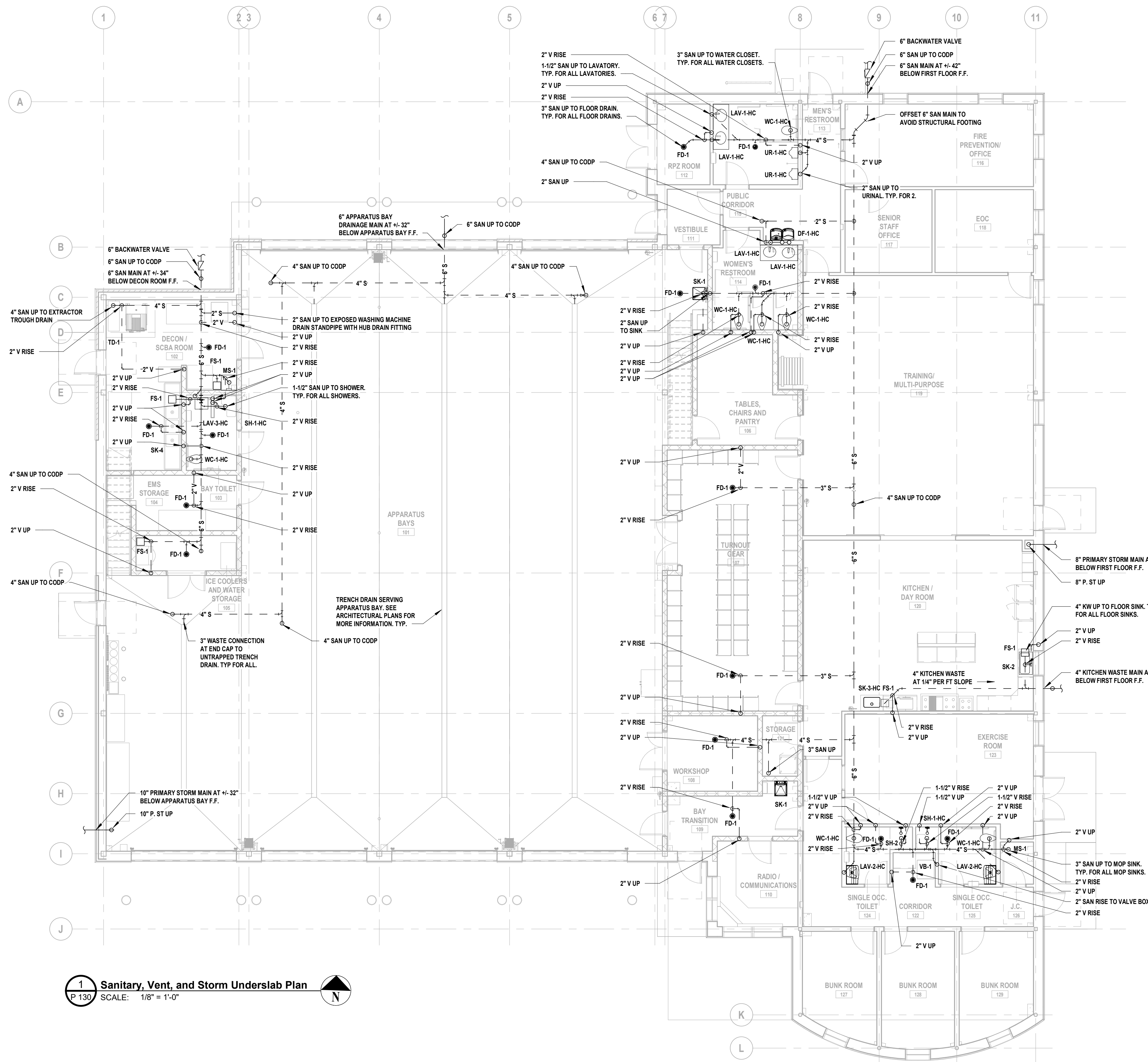


**1 SAFETY PLACE
METUCHEN, NJ 08840
BOROUGH OF METUCHEN
COUNTY OF MIDDLESEX
NEW JERSEY**

STATUS **90% - NFC**

SHEET TITLE
SANITARY, VENT & STORM UNDERSLAB PLAN

DRAWING No. **P 130.00**



1 Sanitary, Vent, and Storm Underslab Plan
P 130 SCALE: 1/8" = 1'-0"

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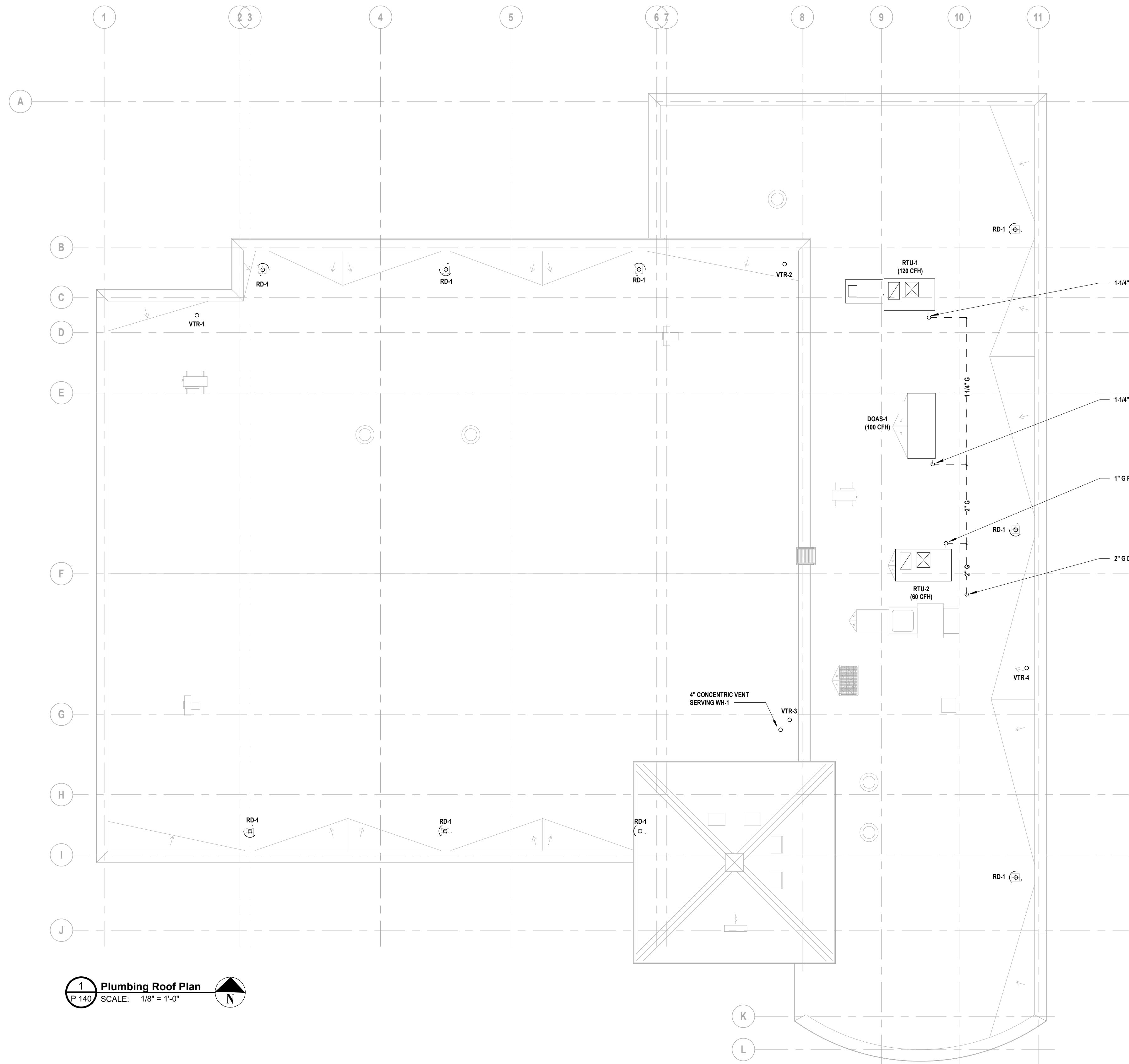
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SHEET TITLE
PLUMBING ROOF PLAN

DRAWING No. **P 140.00**

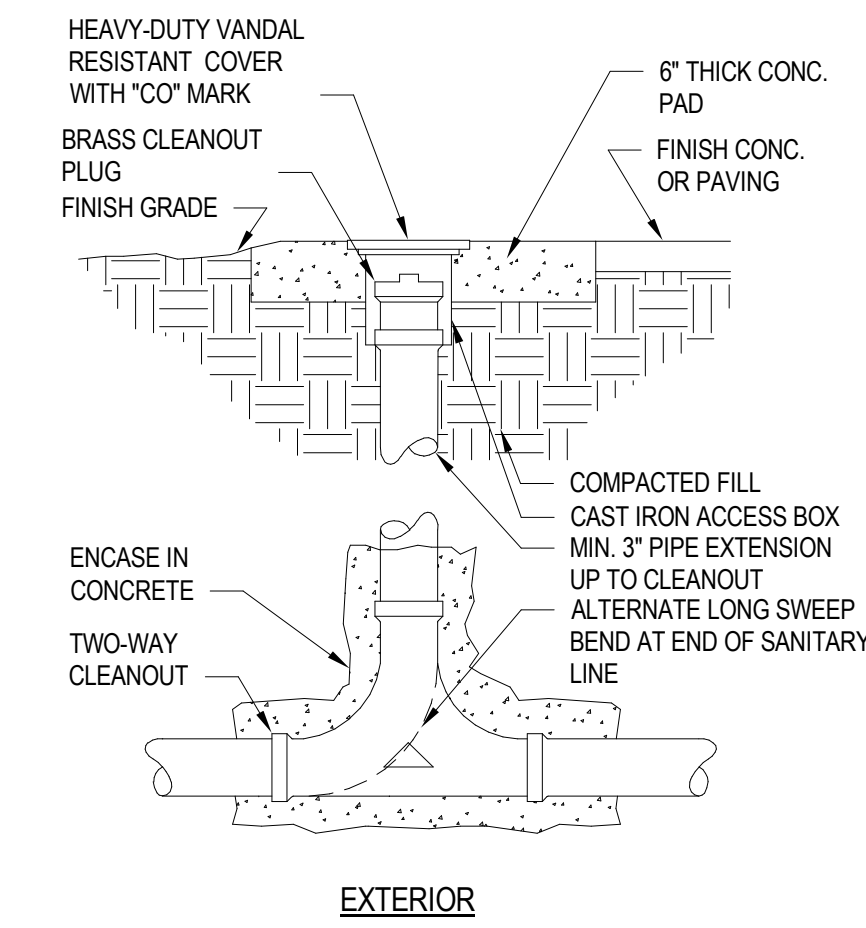
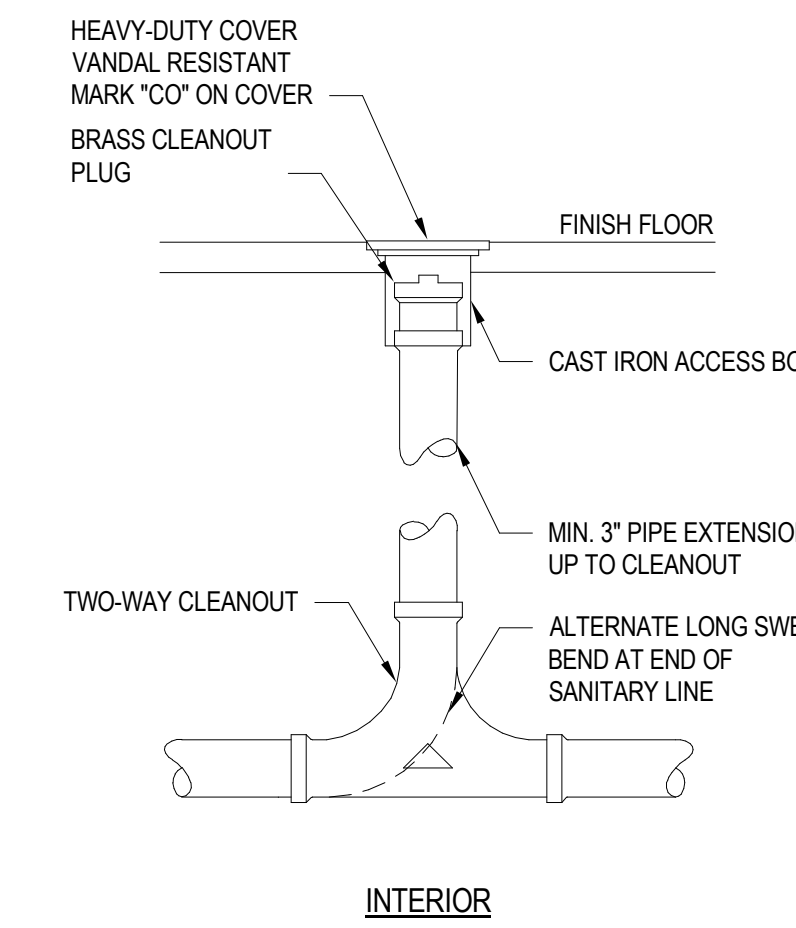
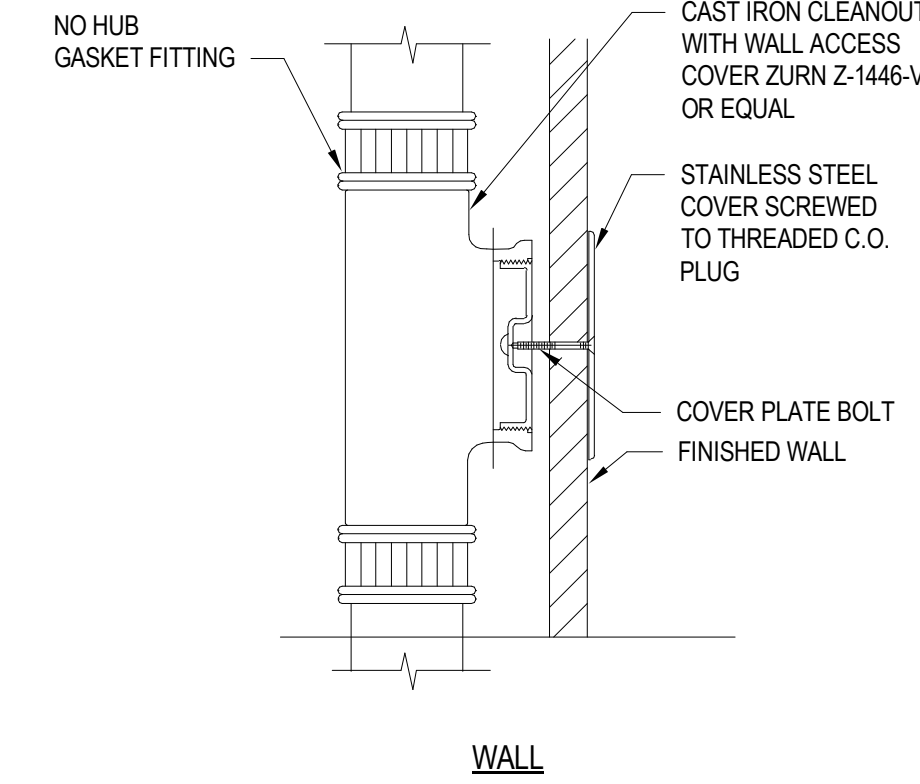
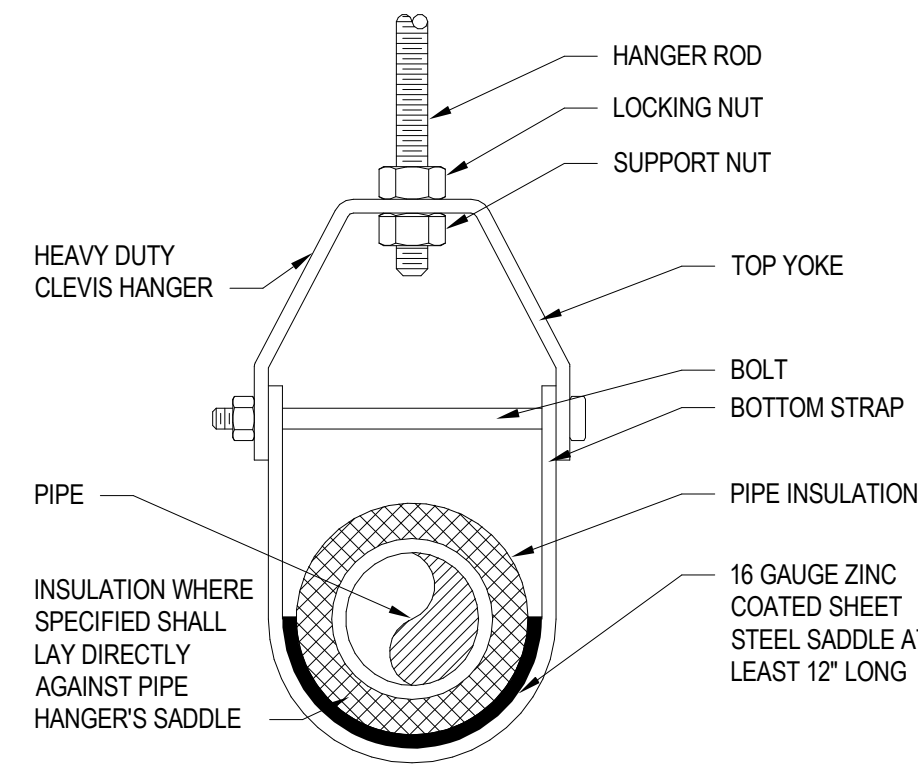
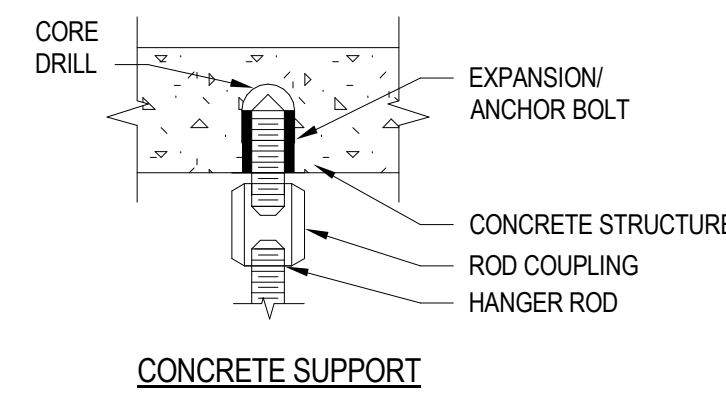
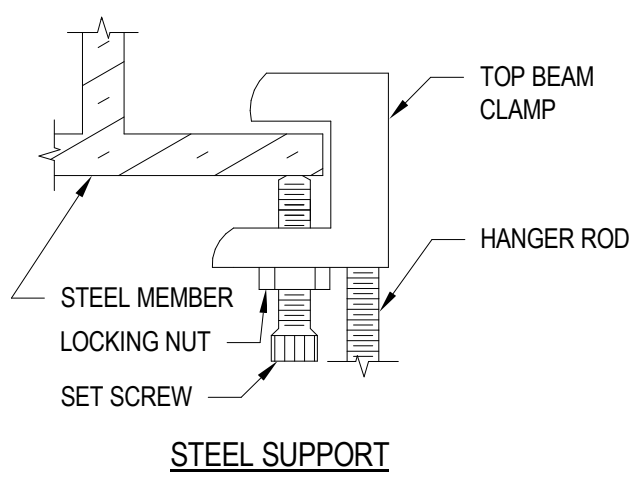
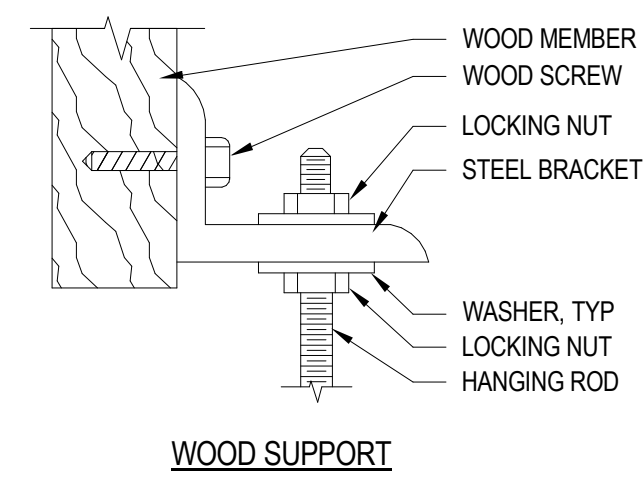
- # KEYED PLUMBING NOTES**
- 1" GAS PIPING TO GAS-FIRED EQUIPMENT. REDUCE PIPE SIZE AT CONNECTION POINT TO MATCH EQUIPMENT MANUFACTURER'S REQUIREMENTS. FOR TYPICAL GAS CONNECTION, SEE DETAIL ON SHEET P 500.
 - 1-1/4" GAS PIPING TO GAS-FIRED EQUIPMENT. REDUCE PIPE SIZE AT CONNECTION POINT TO MATCH EQUIPMENT MANUFACTURER'S REQUIREMENTS. FOR TYPICAL GAS CONNECTION, SEE DETAIL ON SHEET P 500.



1 Plumbing Roof Plan
P 140 SCALE: 1/8" = 1'-0"

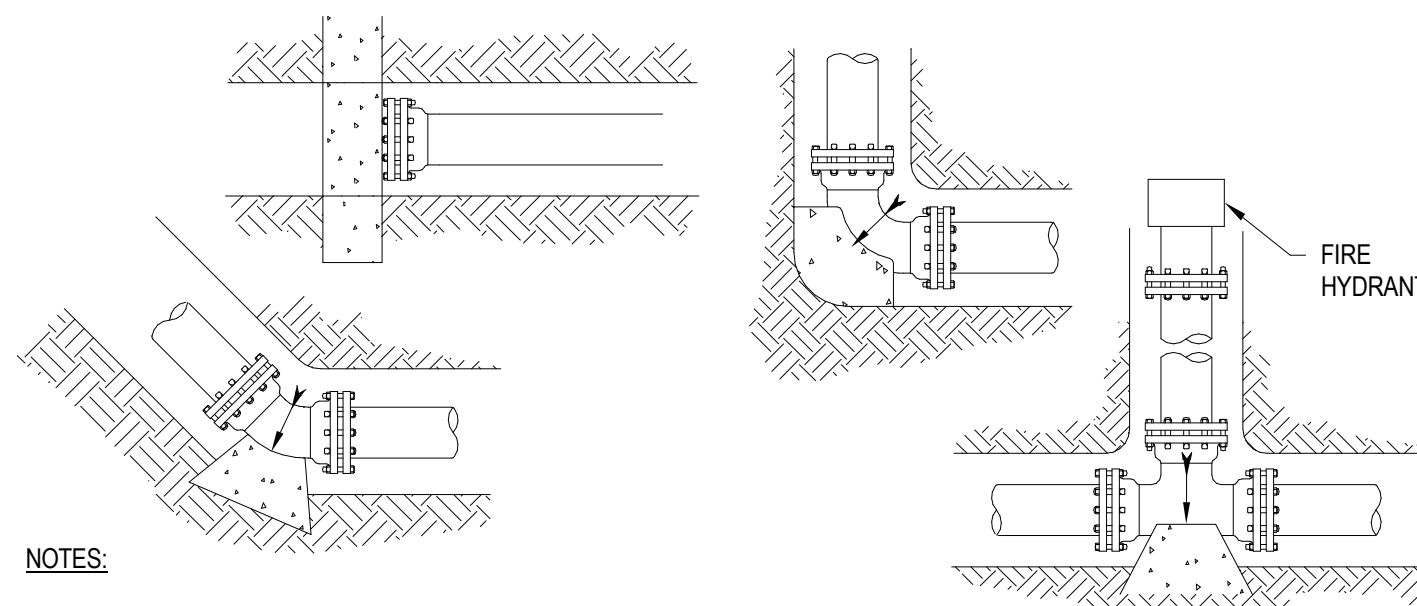
HANGER SPACING		
PIPING MATERIAL	MAX. HORIZONTAL (FT)	MAX. VERTICAL (FT)
POLYETHYLENE	2.67	4
PEX	2.67	10
CPVC 1" OR SMALLER	3	10
ABS/PVC/CPVC (>1")	4	10
CAST-IRON	5	15
COPPER (<1-1/2)	6	10
COPPER (≥ 1-1/2)/BRASS	10	10
STEEL	12	15

HANGER ROD SCHEDULE			
PIPE SIZE	ROD SIZE (DIA.)	PIPE SIZE	ROD SIZE (DIA.)
≤ 2"	3/8"	4" THRU 5"	5/8"
2 1/2" THRU 3 1/2"	1/2"	6" THRU 8"	3/4"



1 Pipe Hanger Detail

SCALE: NTS

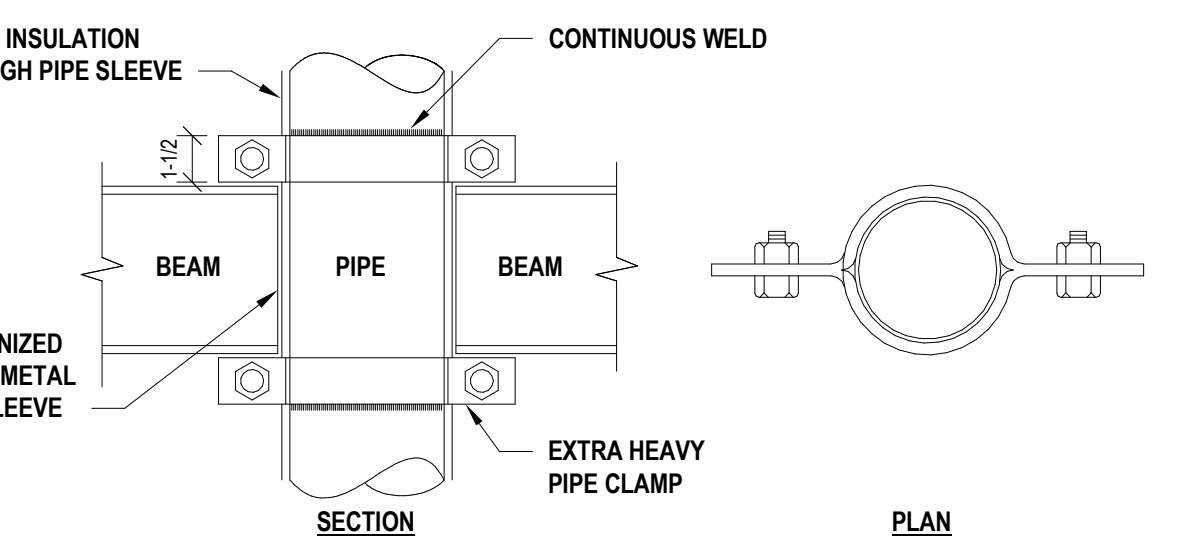


- NOTES:**
- CONCRETE BLOCKING SHALL BE APPLIED ON ALL PIPE LINES 4-INCH IN DIAMETER AND LARGER AT ALL TEES, PLUGS, CAPS, AND AT BENDS DEFLECTING 22 1/2 DEGREES OR MORE. BLOCKING SHALL BE OF CONCRETE OF A MIX HAVING A COMPRESSIVE STRENGTH OF NOT LESS THAN 4,000 PSI, AND BLOCKING SHALL BE PLACED BETWEEN SOLID GROUND AND THE FITTING TO BE ANCHORED. THE BLOCKING SHALL BE SO PLACED THAT THE PIPE AND FITTING JOINTS WILL BE ACCESSIBLE FOR REPAIR.
 - THE SQUARE FOOT BEARING AREA OF THE BLOCKING ON SOLID GROUND SHALL BE INDICATED IN THE TABLE SHOWN TO THE RIGHT OR AS INDICATED BY THE ENGINEER.
 - FOR ALL VERTICAL BENDS, 3/4-INCH DIAMETER TIE RODS AND PIPE CLAMPS OR RETAINER GLANDS SHALL BE PROVIDED IN ADDITION TO THE CONCRETE BLOCKING SPECIFIED ABOVE FOR BENDS DEFLECTING 22-1/2 DEGREES OR MORE.

PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	22 1/2° BEND
4"	1	1-1/2	3/4	1/2
6"	2	3	2	1
8"	4	5-1/2	3	1
10"	6	8-1/2	4-1/2	2-1/2
12"	9	12	6-1/2	3-1/2
16"	12	15-1/2	8-1/2	4-1/2

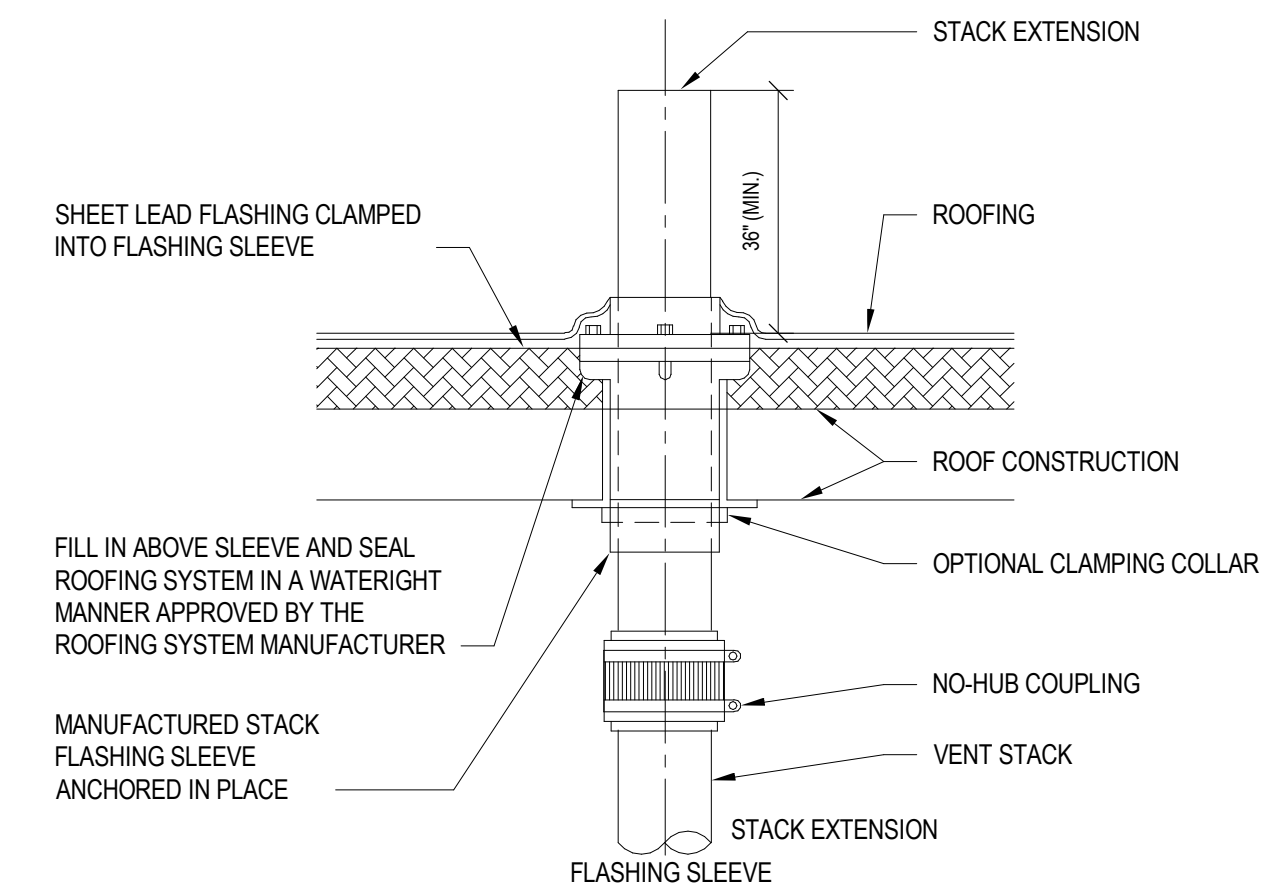
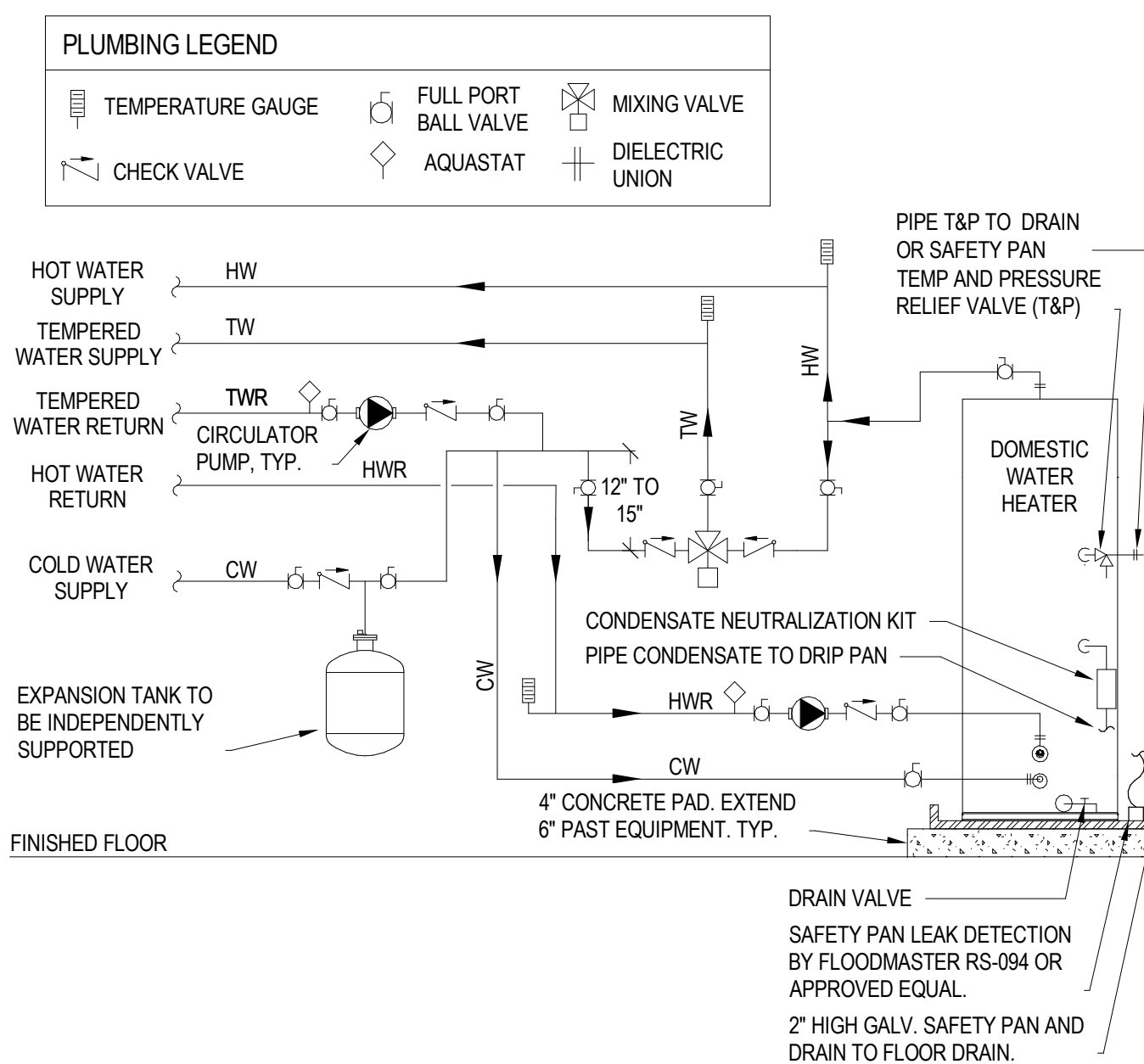
4 Typical Kitchen Emergency Gas Solenoid Valve

SCALE: NTS



2 Cleanout Details

SCALE: NTS



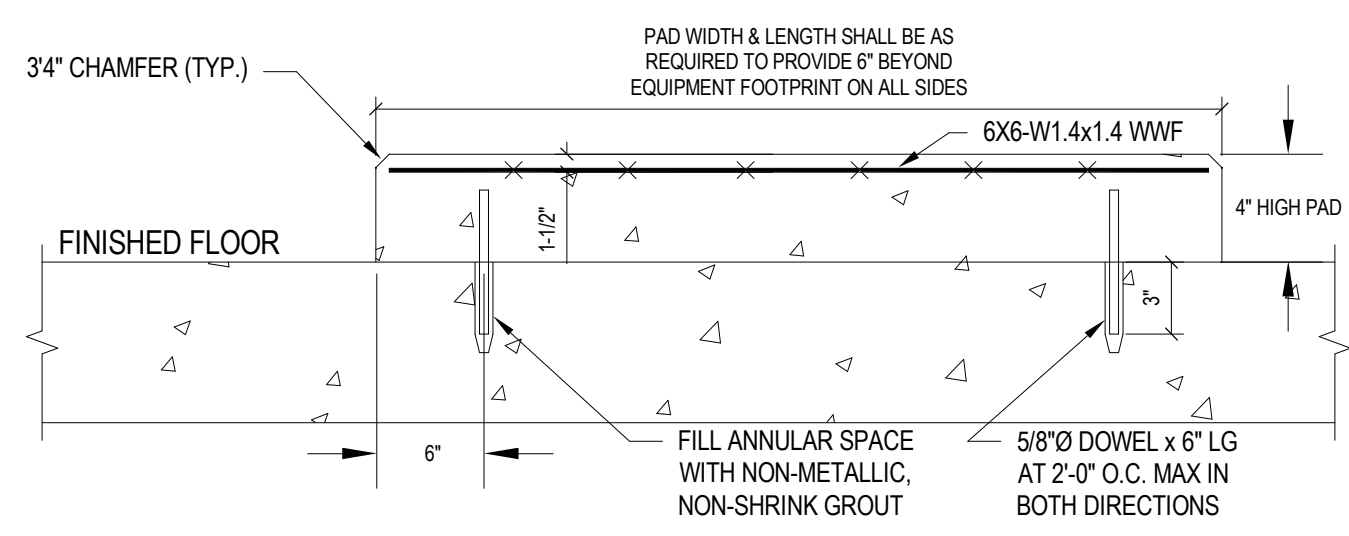
- NOTES:**
- FINAL VENT STACK OUTLET LOCATION TO BE 15 FEET (MIN.) AWAY FROM ANY OUTSIDE VENTILATION AIR INTAKE LOCATION, 10 FEET (MIN.) FROM ANY WALL OR STRUCTURE AND 3 (MIN.) FEET ABOVE STRUCTURE.

6 Vent Through Roof

SCALE: NTS

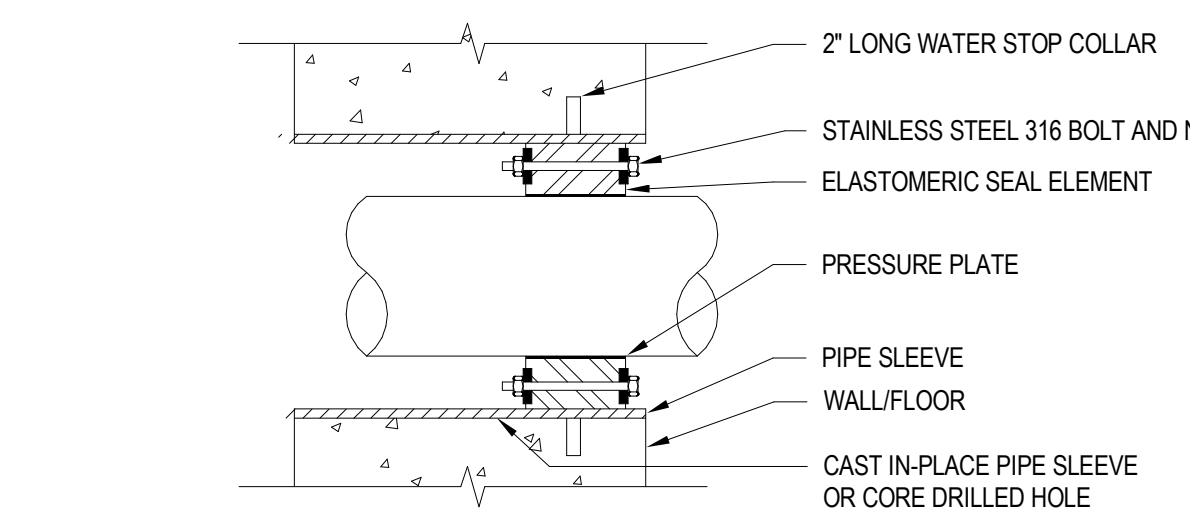
3 Thrust Block Location Detail

SCALE: NTS



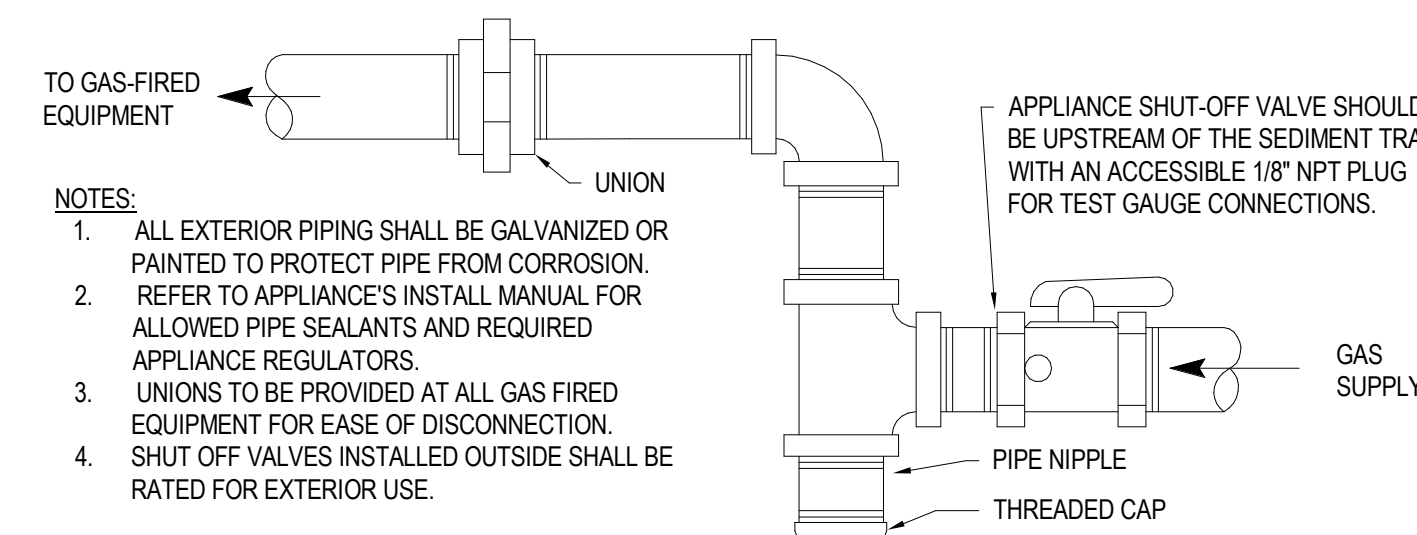
8 Typical Riser Anchor Detail

SCALE: NTS



7 Equipment Pad Detail

SCALE: NTS



- NOTES:**
- ALL EXTERIOR PIPING SHALL BE GALVANIZED OR PAINTED TO PROTECT PIPE FROM CORROSION. REFER TO APPLIANCE'S INSTALL MANUAL FOR ALLOWED PIPE SEALANTS AND REQUIRED APPLIANCE REGULATORS.
 - UNIONS TO BE PROVIDED AT ALL GAS FIRED EQUIPMENT FOR EASE OF DISCONNECTION.
 - SHUT OFF VALVES INSTALLED OUTSIDE SHALL BE RATED FOR EXTERIOR USE.

9 Gas Connection Detail

SCALE: NTS

10 Link-Seal Pipe Penetration Detail

SCALE: NTS

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