

PLUMBING NOTES

- The plumbing system with fixtures, drains, vents, water piping, insulation, gas piping, etc., shall be by the plumbing contractor in accordance with the contract documents.
- All plumbing shall be in accordance with the local plumbing codes and/or ordinances, including but not limited to pipe sizes.
- Domestic water piping shall be type "L" hard drawn copper with wrought copper sweat fittings. Use only Canfield 100% water safe solder (95% tin, 4% copper, 1% silver) or approved equal. DO NOT USE LEAD OR ANTIMONY SOLDERS
- Copper tubing installed within a building and in or under a concrete floor shall be installed without joints. Where joints are permitted, they shall be brazed and fittings shall be wrought copper.
- Interior soil and waste piping above grade shall be service weight iron soil pipe and no-hub fittings approved manufacturers ABB1 Foundry, Charlotte Pipe, and Tyler Pipe bearing the trademark of CISPI. PVC schedule-40 plastic pipe and fittings may be used where approved by owner and allowed by the building department. Install all PVC pipe per ASTM D2321 requirements and recommendations. Provide alternate add to owner for C.I. pipe and secure written authorization to use PVC before install begins.
- Interior soil and waste piping below grade shall be service weight cast iron hub and spigot soil pipe and fittings with neoprene gaskets approved manufacturers ABB1 Foundry, Charlotte Pipe, and Tyler Pipe bearing the trademark of CISPI. PVC schedule-40 plastic pipe and fittings may be used where allowed by the building department. Install all PVC pipe per ASTM D2321 requirements and recommendations.
- Gas piping 2" and smaller shall be threaded schedule 40 steel pipe with malleable iron fittings. Interior gas piping in concealed locations shall be welded. All gas pipe over 2" shall be welded. Paint all exterior exposed gas piping with two heavy coats of outdoor enamel. Support gas piping above the roof as required by local authorities and details on drawings. At contractor's option gas pipe may be TracPipe PSII pipe and fittings for interior gas pipe and TracPipe Counter Strike pipe and fittings with UV protection for exterior gas pipe. If TracPipe Counter Strike is used no painting is required. Provide CSA approved hardened striker plates listed for CSST systems at all locations where tubing is concealed and puncture from nails or screws is a possible threat. Support all pipe per details, building code, and manufacturer requirements.
- Insulate all piping, valves and fittings for non recirculated domestic hot and cold water with 1" preformed fiberglass with "K" factor of 0.23 maximum at 75-deg F mean temperature. Jacket shall be ASJ with Zeston fittings and with vapor barrier on all cold surface pipes. All insulation materials shall conform to ASTM B4, NFPA 50A and 255, and UL 723 not to exceed ratings of 25 Flame Spread and 50 Smoke Developed. All installed insulation shall meet or exceed ASHRAE Standard 90.1-2001.
- Mount lavatory at required elevation for handicap usage where required. Insulate all exposed piping supplies and drains per ADA requirements and drawing specifications.
- Weatherproof all plumbing roof penetrations per codes and roofing manufacturer recommendations
- Provide line size shut-off valve, malleable union, and dirt leg on all gas equipment. Pipe reducer shall occur after valve and dirt leg.
- All materials and equipment provided and installed under this section shall be new and in clean and bright condition. The Contractor shall take any measure necessary to ensure and maintain the quality of the installation. All piping shall be flushed with clean water prior to being placed into service to ensure that any residual cutting oil, slag, thread tape, flux or dirt has been purged. In addition to flushing, the domestic water piping shall be sterilized to eliminate any contamination in accordance with current IPC recommendations.
- All piping, equipment, etc. shall be identified. All piping is to be tested in accordance with accepted codes and standard of care practices.
- Label all piping in accessible areas
- All piping to be hung on adjustable split ring hangers of similar material as the pipe unless otherwise noted. Pipe hanger spacing in feet to be as follows:

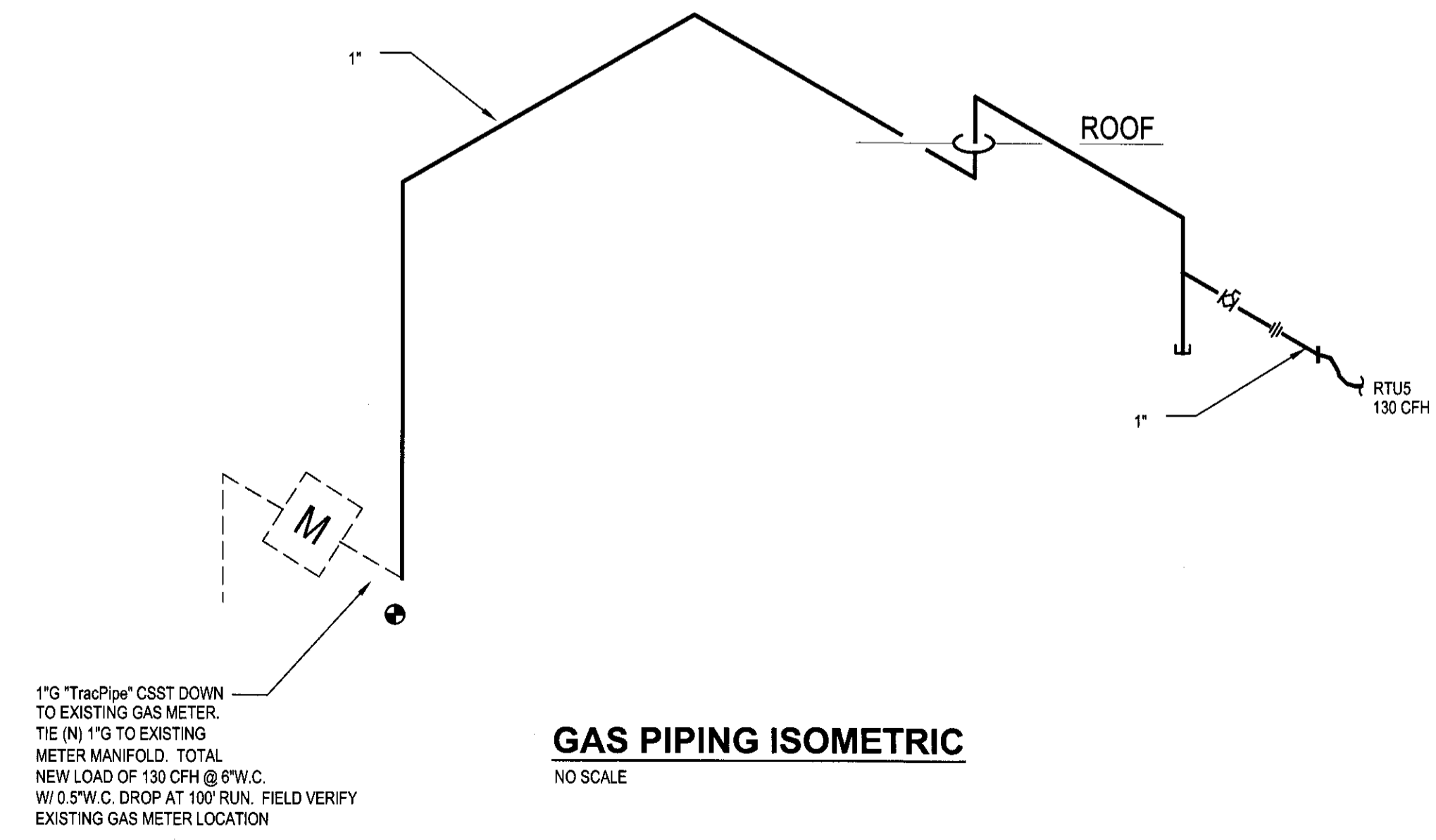
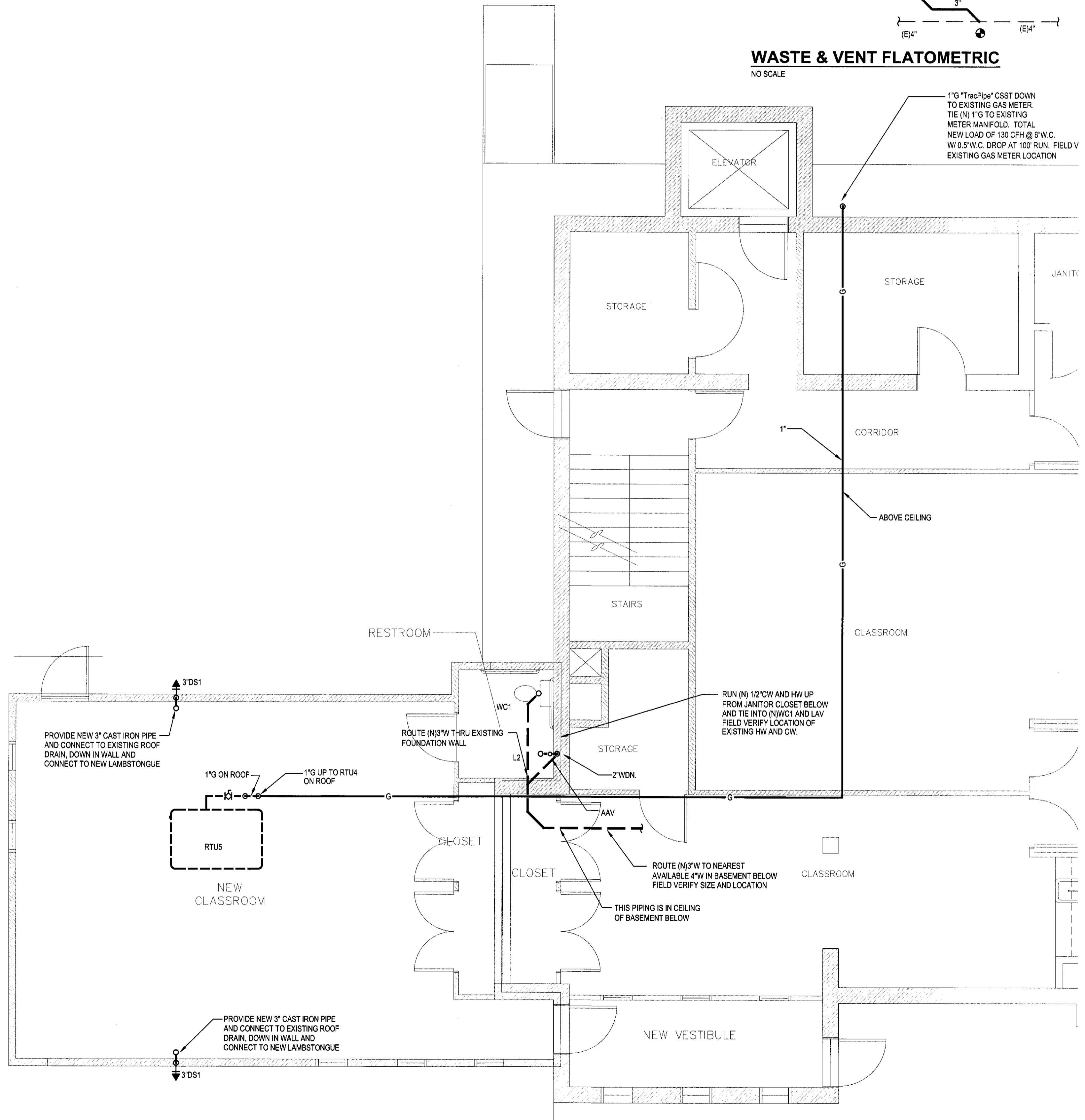
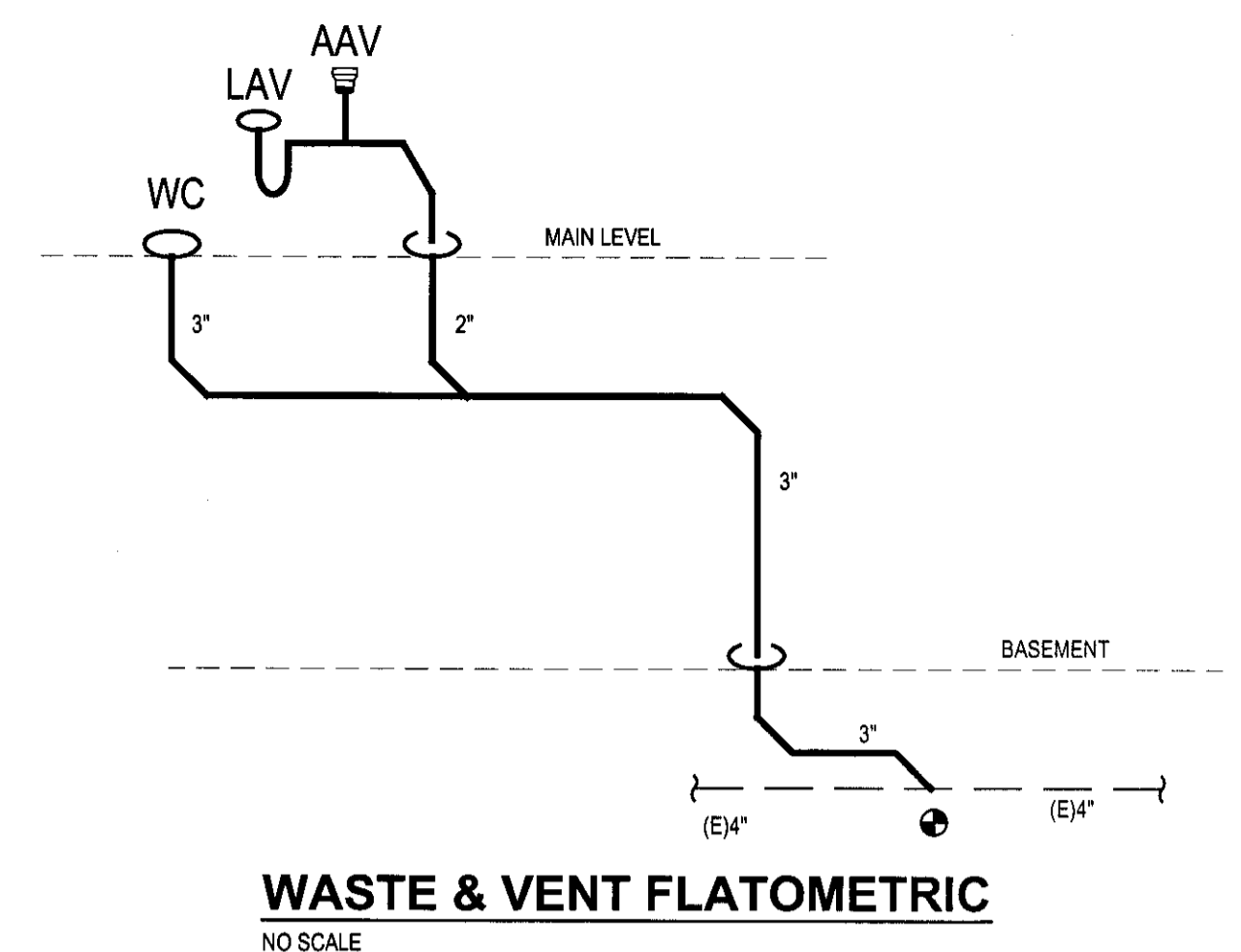
PIPE TYPE/SIZE	1/2	3/4	1	1-1/4	1-1/2	2
Copper	6	6	6	6	6	10
Cast Iron	per Section 308, table 308.5 of the 2008 IPC					
Steel (Screwed Pipe-IPS)	12	12	12	12	12	12
Plastic - Waste and Vent	4	4	4	4	4	4
TracPipe CSST	6	8	8	8	8	8

PLUMBING FIXTURE LIST

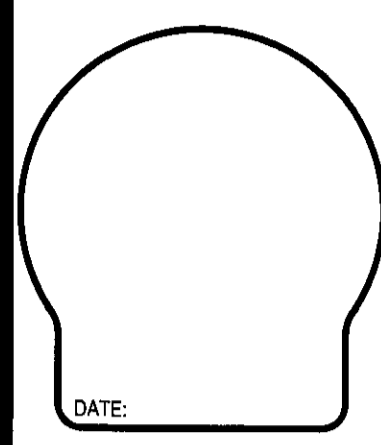
- AAV - AIR ADMITTANCE VALVE
 BRAND = STUODOR MINI VENT (NO SUBSTITUTIONS)
- DS1 - DOWNSPOUT NOZZLE
 BRAND = ZURN ZAR8199
 OTHER = ROUGH BRONZE DOWNSPOUT NOZZLE WITH WALL FLANGE
- L2 - LAVATORY
 TYPE = CHINA, WALL MOUNTED
 BRAND = ZURN ZS344.066.1.07.170.0 (ZURN ONE SYSTEM)
 WASTE = ZURN Z8700 1-1/4" SEMI-CAST TRAP W/CLEANOUT, GRID STRAINER
 SUPPLIES = ZURN Z904LRQ-LK-8860-12-PC 1/4 TURN STOP, LOOSE KEY WISS FLEX HOSES
 TRIM = ZURN Z81103-3M FAUCET, ZURN Z1231 CONCEALED ARM CARRIER
 OTHER = 0.5 GPM AERATOR VANDAL RESISTANT SPRAY WISILICONE WALL SEALANT
- WC1 - WATER CLOSET (COMFORT HEIGHT, HIGH EFFICIENCY GRAVITY FLUSH MAP CERTIFIED TEST OF 800) (ADA COMPLIANT)
 TYPE = 1.6 GAL. FLUSH TANK PER ASSE1037 AND ALL ANSI REQUIREMENTS
 BRAND = ZURN Z5551.000.03.46.03 (ZURN ONE SYSTEM) 2-1/2" HPT HIGH PERFORMANCE, 1.6 GPF ELONGATED, SIPHON JET TOILET
 SUPPLIES = ZURN Z8804CRK-PC (LOOSE KEY)
 OTHER = ZURN MODEL Z596SS-EL ELONGATED, PREMIUM WHITE, OPEN FRONT TOILET SEAT LESS COVER WITH SS CHECK HINGE

GENERAL REQUIREMENTS:

- ALL TOILET ROOM FIXTURES SHALL BE WHITE, VITREOUS CHINA UNLESS DESIGNATED OTHERWISE IN SCHEDULE.
- PROVIDE SUITABLE REINFORCEMENTS FOR WALL HANGERS & SUPPORTS.
- APPROVED EQUALS:
 - DRAINS: ZURN, WADE JOSAM, SMITH
 - TRAP PRIMERS: MIFAB, PFP, JOSAM, ZURN
 - CHINA: WESTERN, ZURN, KOHLER, AMERICAN STANDARD
 - FIBERGLASS/ACRYLIC: AQUARIUS, AQUAGLASS, KOHLER
 - WATER COOLERS: ELKAY, SUNROC, HAWS
 - MOLDED STONE/TERRAZO: FLORESTONE, STERN WILLIAMS, FIAT
 - STAINLESS SINKS: ELKAY, JUST
 - FAUCETS: SYMMONS, CHICAGO, DELTA
 - SEATS: OLSONITE, CHURCH, BEMIS (OR BY WC MFG)
 - FLUSH VALVES: ZURN, SLOAN, AMTC
 - WALL HYDRANTS: CHICAGO, WOODFORD, WADE
 - BRASS: DEARBORN, CS&B, BRASS-CRAFT, MAGUIRE (P-TRAP & TRAP ARM, ESCUTCHION)
 - STOPS: ALL MUST BE 1/4 TURN BALL VALVE TYPE.



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NO.	DATE	DESCRIPTION
1	10/09/09	ISSUED FOR CONSTRUCTION

DRAWN BY: JDW
 CHECKED BY: DJM
 ISSUE DATE: 9/30/09

SHEET NO.
P1.0