

PLUMBING NOTES:

GENERAL DESCRIPTION OF WORK: THE EXTENT OF PLUMBING WORK INCLUDES ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO COMPLETE THE PLUMBING SYSTEM SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. ALL WORK SHALL BE DONE IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE GOOD PRACTICE, MANUFACTURER'S RECOMMENDATIONS AND IN COMPLIANCE WITH THE 2007 BUILDING CODE AND 2009 AMENDMENTS. THE CONTRACTOR SHALL PAY ALL RELATED EXPENSES AND OBTAIN ALL PERMITS. ALL EQUIPMENT AND WORK SHALL BE GUARANTEED FOR ONE YEAR AFTER DATE OF ACCEPTANCE.

QUALITY ASSURANCE: FIRMS REGULARLY ENGAGED IN MANUFACTURE OF PLUMBING FIXTURES AND EQUIPMENT, DOMESTIC WATER, WASTE AND STORM PIPING SYSTEM PRODUCTS OF TYPES, MATERIALS AND SIZES REQUIRED, WHOSE PRODUCTS HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR NOT LESS THAN FIVE (5) YEARS.

THE SUBCONTRACTOR FOR THE PLUMBING SYSTEM INSTALLATION SHALL BE LICENSED BY THE STATE OF FLORIDA AND THE LOCAL AUTHORITY, REGULARLY ENGAGED IN THE INSTALLATION OF PLUMBING SYSTEMS AND CODES RELATED EQUIPMENT AND FULLY FAMILIAR WITH ALL LOCAL CONDITIONS, CODES AND REQUIREMENTS WITH AT LEAST 5 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON SIMILAR PROJECTS.

SUBMITTALS
SUBMIT MANUFACTURER'S SPECIFICATIONS AND DATA SHEETS AND INSTALLATION INSTRUCTIONS FOR DOMESTIC HOT AND COLD WATER, SOIL AND VENT AND STORM PIPING MATERIALS, INCLUDING ALL PLUMBING FIXTURES, TRIM, PLUMBING EQUIPMENT PRODUCTS SPECIFIED HEREIN AND ON THE CONTRACT DOCUMENTS.

ALSO, INCLUDE OTHER DATA AS NECESSARY TO SHOW COMPLIANCE WITH THESE SPECIFICATIONS AND DISTRIBUTE ONE ADDITIONAL COPY OF THIS INFORMATION TO INSTALLER IN THE FIELD.

GENERAL: COMPLY WITH APPROPRIATE DIVISION 15 SECTIONS FOR PRODUCT REQUIREMENTS OF PIPING MATERIALS. FOR EACH SERVICE, PROVIDE THE PIPING MATERIALS INDICATED INCLUDING PIPE, FITTINGS, JOINTS, HANGERS, SUPPORTS, ANCHORS AND ACCESSORIES, WHERE MORE THAN ONE TYPE IS INDICATED, SELECTION IS INSTALLER'S OPTION, WHERE TYPE IS NOT OTHERWISE INDICATED, PROVIDE MATERIALS COMPLYING WITH GOVERNING REGULATIONS.

SANITARY SYSTEMS: SCHEDULE 40 PVC-DWV PIPE AND FITTINGS WITH NSF SEAL OF APPROVAL, ASTM D2665-82 (PVC) AND ASTM D2661-82 (DWV), AS MANUFACTURED BY G.S.R. CHARLOTTE PLASTIC PIPE & FOUNDRY CO., OR EQUAL. MAKE PVC JOINTS W/ PVC-DWV SOLVENT CEMENT, ASTM D2864-80 'UNI-WEILD' 1200 UP TO 6" PIPE DIA. AND 1" UNI-WEILD' 1500 UP TO 8" DIA. MAKE ABS JOINTS W/ ABS-DWV SOLVENT CEMENT, ASTM D2235-81 'UNI-WEILD' 4400 (UNITED EL CHEM INDUSTRIES, INC.) PIPING AND FITTINGS FOR OUTSIDE OUTSIDE BUILDING SEWERS AND STORM DRAINS MAY BE TYPE PSM PVC PER ASTM D3034-81.

DOMESTIC WATER SYSTEM
HOT AND COLD WATER PIPING ABOVE AND BELOW SLAB/GRADE, PIPE SIZE 1/2" TO 3" SHALL BE SCHEDULE 80 CPVC 2344T-9 OR BETTER PER ASTM F441-82 AND FITTINGS PER ASTM F431-82 AND ASTM F437-82 WITH NSF SEAL OF APPROVAL. EXCEPTION: QUESTPEX TUBING MAY BE USED IN ABOVE GRADE APPLICATIONS AS AN EQUAL REPLACEMENT FOR SCHEDULE 80 CPVC.

MAKE JOINTS WITH SOLVENT CEMENT PER ASTM D2564-82 WITH NSF SEAL OF APPROVAL. PIPE ENDS SHALL BE BEVELED FROM 1/8" TO 3/32" USING A COURSE FILE OR SPECIAL BEVELING TOOL PRIOR TO JOINTING. PRIMERS AND CEMENTS SHALL BE APPLIED WITH DAUBERS AND SPECIAL ROLLERS. FOR CEMENTING AND PRIMING, A DAUBER IS TO BE USED ON PIPE AND FITTINGS THROUGH 2" TYPE 'L' COPPER PIPING SHALL BE USED FOR RUNOUTS TO PLUMBING FIXTURES, MINIMUM 2'-0" LONG, WITH COMPLETE THREADED BRASS CONNECTION FROM CPVC TO COPPER ADAPTERS. THERMAL EXPANSION COMPENSATION SHALL BE RESPONSIBILITY OF CONTRACTOR.

1" INSULATION FOR PIPE SIZES 3/8" THRU 2". HOT WATER PIPING ABOVE AND BELOW SLAB/GRADE. ALSO INSULATE COLD WATER MAKE-UP LINES SUCH AS POOL MAKE-UP EQUIPMENT EXPOSED TO COLD WEATHER BELOW 55°F. (IF ANY) 1/2" THICK, FLEXIBLE, CLOSED CELL POLYETHYLENE PIPE INSULATION APPLIED AS RECOMMENDED BY THE MANUFACTURER, MONACO, INC., 'ARMSTRONG INDUSTRY' SELF-SEAL ARMAFLEX 2000 (55A2000) [ASTM E54-94(A)] INSULATION BURIED BELOW GRADE/SLAB SHALL BE COVERED WITH 3" TO 5" CLEAN SAND PRIOR TO BACKFILLING. USE 'RUBATEX CORP.' R-180-F5, 1 1/2" THICKNESS FOR PIPE SIZES 2-1/2" THRU 8".

HANGERS AND SUPPORTS SHALL BE PROVIDED TO PROPERLY SUPPORT THE PIPING AND EQUIPMENT IN COMPLIANCE WITH STANDARD PLUMBING CODE. NO TEMPORARY TAPE OR DAILING WIRE SHALL BE USED, ALLOWED OR PERMITTED FOR ANY REASON ON THIS PROJECT. PLASTIC INSERTS REPRESENTATIVE DURAN DETAILS ON DRAWINGS FOR MAXIMUM HORIZONTAL AND VERTICAL SPACING.

ALL PIPE PROTRUSIONS INSIDE CABINETS AND AT EXPOSED LOCATIONS SHALL HAVE POLISHED CHROME FLATED BRASS ESCUTCHEONS, MCGUIRE OR ONE-PIECE, SHALLOW TYPE WHERE POSSIBLE.

PIPING ROUGH-IN POINTS TO ALL PLUMBING FIXTURES SHALL BE SECURED BY USE OF 'HOLDRITE SUPPORT SYSTEM' INCLUDING INSERTS REPRESENTATIVE DURAN SALES AGENCY, 12605 AUTOMOBILE, N. CLEARWATER, FL 33520, (813) 578-1855.

NO SWEAT PLUMBING CONNECTORS, TO SIMPLIFY PROJECT, SHALL BE AS MANUFACTURED BY AQUAFLO, 375 RANDY RD. CAROL STREAM, IL 60188, (800) 532-7717. CONNECTORS MAY BE USED IN LIEU OF RIGID/FLEXIBLE RISERS ON TYPE CONNECTIONS SUCH AS LAVATORY SINK FAUCETS, WATER CLOSET, WATER HEATERS, DISHWASHERS, ICE MACHINES, ETC.

EXECUTION
PREPARATION: DO ALL EXCAVATING FOR INSTALLING THE NECESSARY SYSTEMS, WHEN WORK HAS BEEN TESTED AND APPROVED, REFILL EXCAVATIONS AND TAMP THE AFFICABLE PROVISIONS OF THE SPECIFICATIONS.

INSTALLATION
PIPING LAYOUT: THE DRAWINGS ARE PARTLY DIAGRAMMATIC AND NOT INTENDED TO SHOW IN DETAIL ALL FEATURES OF THE WORK. ALL PIPING SHALL BE CONCEALED EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.

CONTRACTOR SHALL VISIT SITE AND VERIFY DATA ON EXISTING ITEMS SUPERIOR TO BIDDING AND ADVISE ARCHITECT OF ANY DISCREPANCIES. AFTER SITE PREPARATION AND CONSTRUCTION IS COMPLETED, SERVICE LINES ARE TO BE INSTALLED.

DO NOT SCALE DRAWINGS. SEE ARCHITECT FOR EXACT LOCATION OF ALL EQUIPMENT.

PLUMBING FIXTURES: PROVIDE FACTORY-FABRICATED FIXTURES OF THE TYPE, STYLE AND MATERIAL INDICATED ON THE DRAWINGS. FOR EACH TYPE FIXTURE, PROVIDE MANUFACTURER'S STANDARD TRIM, SEATS, AND VALVES AS INDICATED BY THEIR PUBLISHED PRODUCT INFORMATION. EITHER AS DESIGNED AND CONSTRUCTED OR AS RECOMMENDED BY THE MANUFACTURER, AND AS REQUIRED FOR A COMPLETE INSTALLATION. COMPLY WITH APPLICABLE ANSI AND WH-P-541 STANDARDS PERTAINING TO PLUMBING FIXTURES AND SYSTEMS.

WATER HEATERS: PROVIDE AUTOMATIC WATER HEATER WHERE SHOWN AS INDICATED ON THE DRAWINGS.

PIPING SPECIALTIES:
ALL VALVES SHALL BE BRONZE BODY, UNION BONNET, 125 LBS. S.M.P., 200 LBS. W.O.G., MANUFACTURED BY STOCKHAM, MILWAUKEE, CRANE, HAMMOND, NIBCO, OR APPROVED EQUAL, EXCEPT AS NOTED HEREIN.

VALVES SHOWN ON PLANS AS 'GATE VALVE' OR 'GLOBE VALVE' SHALL BE HAMMOND VALVE CORP. #8401/8411 BALL VALVE, TEFLON SEATS, 600 PSI WOG NON-SHOCK, 1/4" THRU 2" BRONZE BODY WITH THREADED OR SOLDER ENDS, FED. SPEC. HWY-35B, 2-1/2" AND 3" TO BE #8504/8514.

CHECK VALVES 1/4" THRU 3", SCREWED OR SOLDER ENDS, CLASS 125, BRONZE BODY, SCREENED CAP, HORIZONTAL SWING, RENEWABLE BRONZE DISC, HAMMOND VALVE CORP. 1B940/1B941, FED. SPEC. HWY51, TYPE IV, CLASS A.

DIELECTRIC UNIONS SHALL BE PROVIDED AT ALL CONNECTIONS BETWEEN COPPER AND FERROUS PIPE AND EQUIPMENT, SUCH AS WATER HEATERS, ETC. HANGERS 3000 SERIES.

FLOOR DRAINS:
INSTALL DRAINS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND IN LOCATIONS INDICATED. SEE PLUMBING EQUIPMENT SCHEDULE ON DRAWINGS. INSTALL DRAINS IN THE LOW POINTS OF THE SURFACE AREAS TO BE DRAINED. SET TOPS OF DRAINS FLUSH WITH FINISHED FLOOR. INSTALL DRAIN FLASHING COLLAR OR FLANGE SO THAT NO LEAKAGE OCCURS BETWEEN DRAIN AND ADJOINING ROOFING OR FLOORING. MAINTAIN INTEGRITY OF WATERPROOF

MEMBRANES, WHERE PENETRATED, POSITION DRAINS SO THAT THEY ARE ACCESSIBLE AND EASY TO MAINTAIN. THE INSTALLER OF THE DRAINS ADVISE THE CONTRACTOR OF REQUIRED PROTECTION FOR THE DRAINS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD TO AVOID CLOGGING WITH CONSTRUCTION MATERIALS AND DEBRIS AND TO PREVENT DAMAGE FROM TRAFFIC AND CONSTRUCTION WORK. USE OF COMMON DUCT TAPE IS TO BE DISCOURAGED DUE TO DIFFICULTY OF REMOVAL AT A LATER DATE.

FIELD QUALITY CONTROL:
BUILDING DRAIN AND SEWER: INSTALL PER FLORIDA PLUMBING CODE.
INSPECTION AND TEST: SHALL BE PER FLORIDA PLUMBING CODE.

DISINFECTION: DISINFECTATION OF POTABLE WATER SYSTEM PIPING SHALL BE PER FLORIDA PLUMBING CODE.

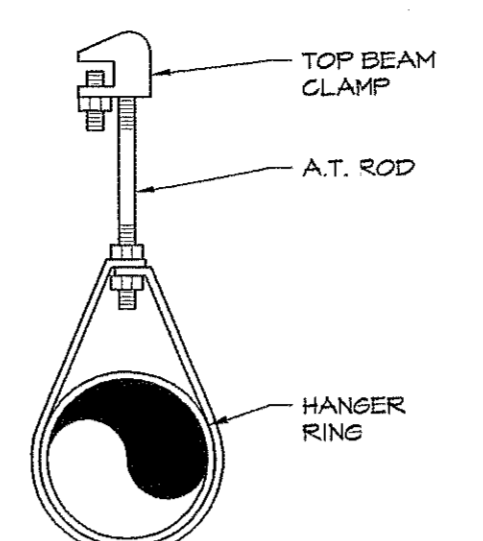
SANITARY AND VENT PIPING:
THE INSTALLATION OF PIPING SHALL BE CAREFULLY PLANNED. PIPING SHALL BE INSTALLED IN SUCH A MANNER AS TO PREVENT THE FORMING OF SAGS OR POCKETS.

VENT PIPING THRU ROOF SHALL HAVE FLASHING SLEEVE WITH 3 LBS. SHEET LEAD TERMINATED WITHIN THE SLEEVE AND THE REMAINING ANNUAL SPACE CAULKED WITH MOLTEN LEAD. BASE FLASHING 12" SQUARE ON THE ROOF. OFFSET PIPING TO AVOID STRUCTURAL MEMBERS, CANTS, FLASHING, MECHANICAL, AND ELECTRICAL EQUIPMENT, ETC.

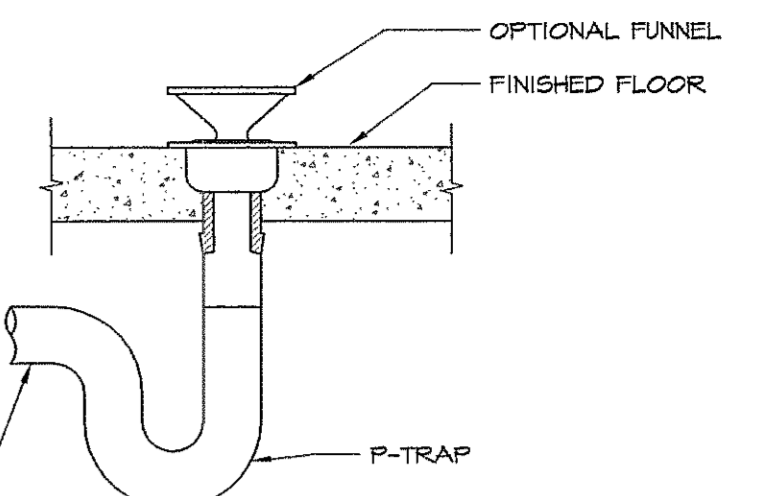
ALL VENTS THRU ROOF SHALL BE INSTALLED OFFSET MINIMUM OF 2'-0" FROM EDGE OF ROOF LINES, PARAPETS AND ALL OTHER FLASHING. VENT PIPING SHALL BE COLLECTED SO ROOF WILL BE PIERCED A MINIMUM NUMBER OF TIMES. EXPOSED PVC WASTE ARMS SHALL BE SPRAY PAINTED WITH TWO COATS OF SILVER VENT PIPING INSTALLED ON SLOPING METAL ROOFS SHALL HAVE A "STANDARD VENT PIPE FLASHING ACCESSORY" AS MANUFACTURED BY METAL ROOF MFG. CO. OR EQUAL. VENTS THROUGH ROOF, EXPOSED TO VIEW, SHALL BE PAINTED TO MATCH EXACT COLOR OF ADJACENT ROOFING ON SLOPING ROOFS BY THIS SECTION.

"STUDOR VENTS" MAY BE USED AT THE DISCRETION OF THE PLUMBING CONTRACTOR IN LIEU OF VENTS THRU ROOF WHERE PHYSICAL OBSTRUCTIONS MAKE VENTS IMPRACTICAL.

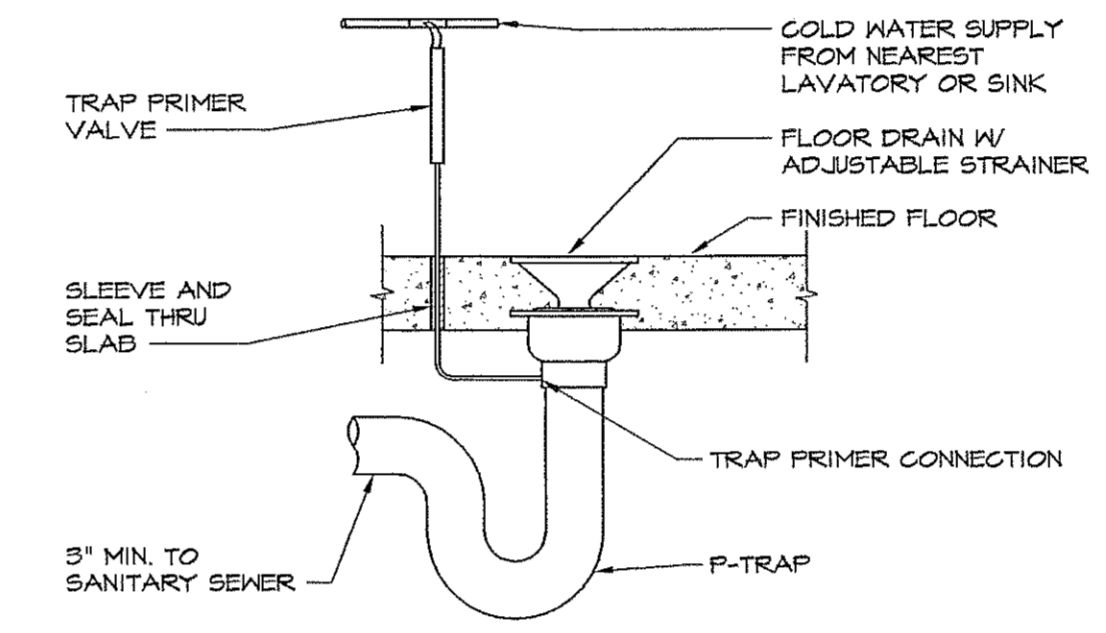
WATER PIPING:
CONNECT TO ALL WATER SUPPLIED FIXTURES OR EQUIPMENT THAT ARE SHOWN, SPECIFIED OR PROVIDED BY OTHERS. CARE MUST BE EXERCISED TO INSURE THAT COPPER PIPING OR QUESTPEX TUBING WILL NOT COME INTO DIRECT CONTACT WITH ANY FIRE TREATED LUMBER OR METAL STUDS. PROVIDE PIPE INSULATION AS A PROTECTIVE SLEEVE (AGAINST COPPER DETERIORATION RESULTING FROM FIRE TREATMENT SALTS) COMPLETELY THROUGH ANY LUMBER PENETRATION INCURRED BY COPPER PIPING. EXTEND WATER SERVICE PIPING, OF SIZE AND LOCATION INDICATED, TO WATER SERVICE ENTRANCE AT BUILDING. PROVIDE BALL VALVE AT WATER SERVICE ENTRY AT 5'-0" OUTSIDE BUILDING IN VALVE BOX, MAXIMUM BURY IS 2'-0".



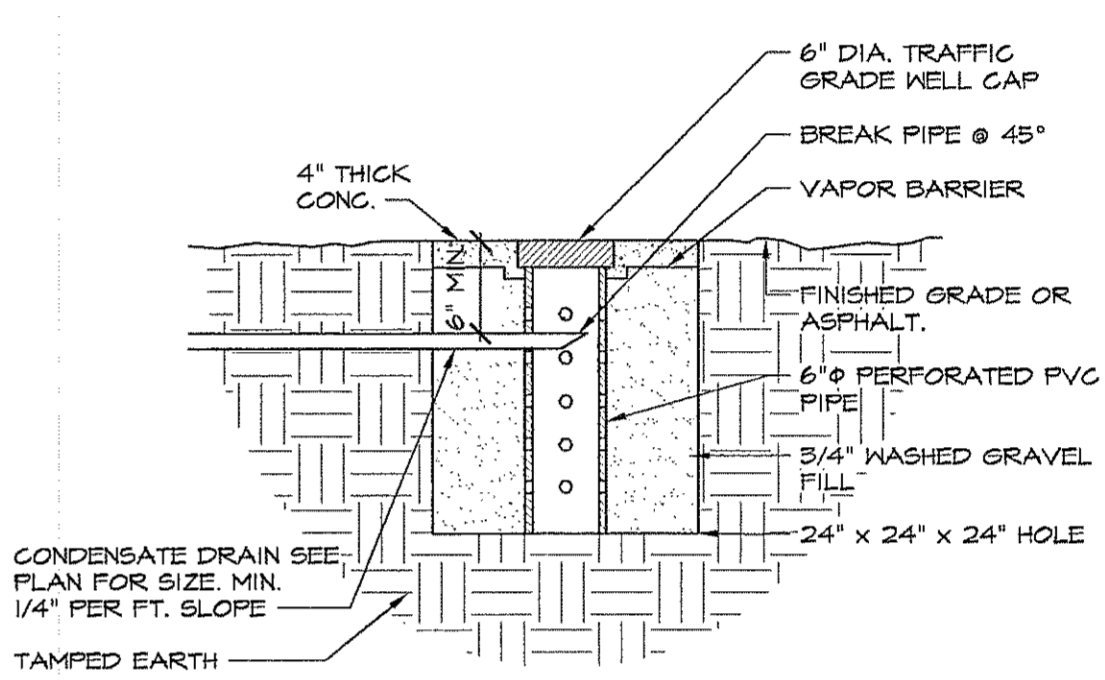
1 HANGER DETAIL
P-2 NOT TO SCALE



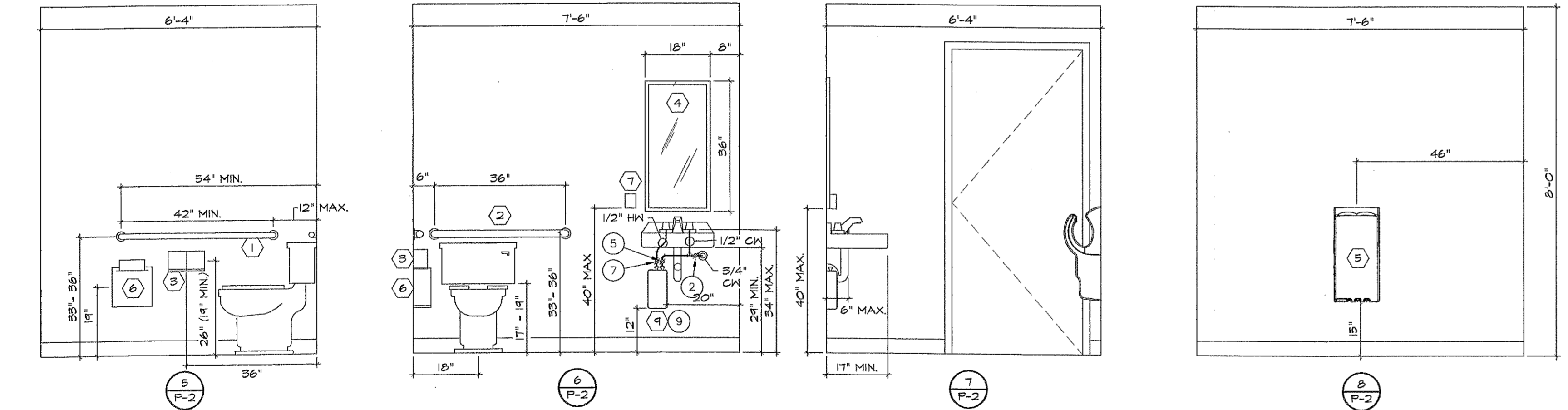
2 FLOOR FUNNEL DRAIN
P-2 NOT TO SCALE



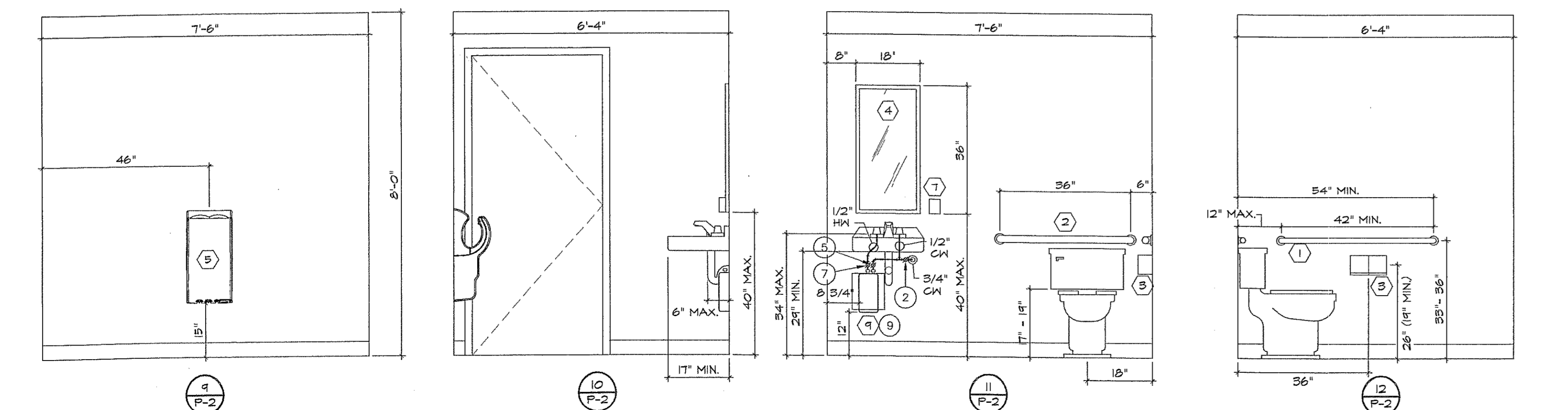
3 FLOOR DRAIN WITH TRAP PRIMER
P-2 NOT TO SCALE



4 DRYWELL DETAIL
P-2 NOT TO SCALE



WOMENS H/C TOILETROOM
SCALE: 1/2" = 1'-0"



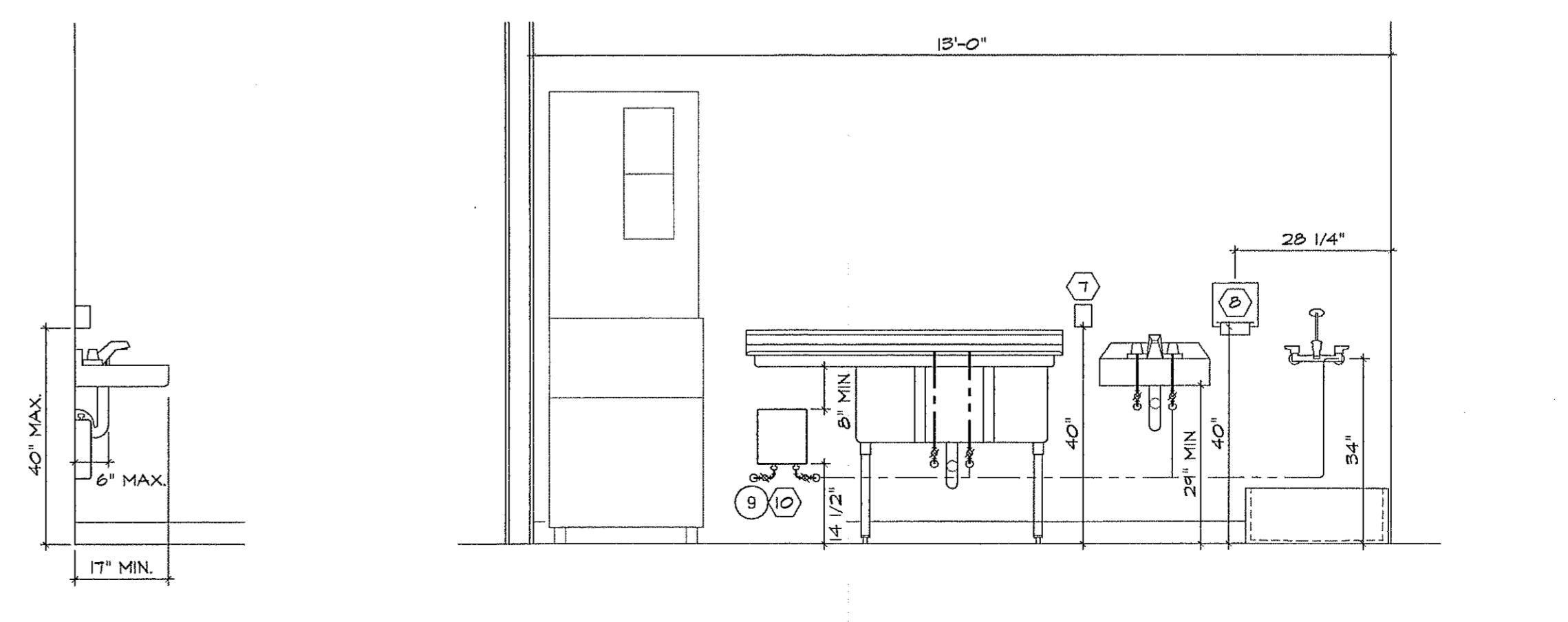
MENS H/C TOILETROOM
SCALE: 1/2" = 1'-0"

PLUMBING FIXTURE SCHEDULE

- 1 H/C GRAB BAR BOBRICK B6206X42
- 2 H/C GRAB BAR BOBRICK B6206X36
- 3 TOILET PAPER DISPENSER, COMPACT 557101 MANUF. BY GEORGIA PACIFIC PROVIDED BY OWNER.
- 4 MIRROR WITH WOOD FRAME
- 5 DYSON AIRBLADE, MODEL AB-04 AUTOMATIC HAND DRYER PROVIDED BY OWNER.
- 6 SANITARY DISPOSAL FOR WOMEN
- 7 SOAP DISPENSER PROVIDED BY OWNER.
- 8 PAPER TOWEL DISPENSER, MERFIN #1001 ARCHEN INTERNATIONAL, CORP.
- 9 WATER HEATER: EEMAX # SP2412 - SEE SHEET P-1 FOR ADD. INFO.
- 10 WATER HEATER: EEMAX # EX1602C - SEE SHEET P-1 FOR ADD. INFO.

PLUMBING ELEVATION KEY NOTES

- 1 1/2" SHUTOFF VALVE - INCOMING COLD WATER
- 2 3/4" SHUTOFF VALVE - INCOMING COLD WATER
- 3 1/2" SHUTOFF VALVE - INCOMING HOT WATER
- 4 3/4" SHUTOFF VALVE - INCOMING HOT WATER
- 5 1/2" SHUTOFF VALVE - COLD WATER TO WATER HEATER (VALVE TO BE FULLY OPENED)
- 6 3/4" SHUTOFF VALVE - COLD WATER TO WATER HEATER (VALVE TO BE FULLY OPENED)
- 7 1/2" SHUTOFF VALVE - HOT WATER FROM WATER HEATER (ADJUST VALVE TO GIVE APPROXIMATE DESIRED TEMPERATURE)
- 8 3/4" SHUTOFF VALVE - HOT WATER FROM WATER HEATER (ADJUST VALVE TO GIVE APPROXIMATE DESIRED TEMPERATURE)
- 9 BACKFLOW PREVENTOR: WATTS SERIES 600, LOCATED ON WATER SUPPLY INLET.



10 STORAGE ELEVATION
SCALE: 1/2" = 1'-0"

REVISIONS	BY

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ABC STORE NO. 43
VERO BEACH CENTURY TOWN CENTER

PLUMBING DETAILS

DRAWN:	M. MAIECO
CHECKED:	S. RIVERA
DATE:	5-15-09
SCALE:	AS NOTED
JOB No:	43
SHEET	

P-2