

PLUMBING GENERAL NOTES

- FURNISH ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL SYSTEMS IN THIS SECTION OF WORK IN ACCORDANCE WITH ALL APPLICABLE CODES.
- ALL PLUMBING FIXTURES AND PLUMBING SYSTEM EQUIPMENT SHALL BE PROVIDED COMPLETE WITH ALL ACCESSORIES, HANGERS, VALVES, STOPS, TAILPIECES, TRAPS, FAUCETS, STRAINERS, ETC. SEE FIXTURE SCHEDULE.
- FURNISH AND INSTALL COMPLETE SYSTEMS OF SOIL, WASTE, VENT, HOT AND COLD WATER PIPING FROM ALL PLUMBING FIXTURES, AND/OR OTHER EQUIPMENT.
- CLEANOUT PLUGS SHALL BE INSTALLED IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS. PROVIDE CLEANOUTS AT THE BASE OF ALL WASTE STACKS, AT EVERY FOUR (4) DEGREE TURNS, AND AT EVERY 100 FEET. CLEANOUTS SHALL BE PLACED IN READILY ACCESSIBLE LOCATIONS.
- ALL SOIL, WASTE, AND VENT LINES SHALL BE CONCEALED IN THE BUILDING CONSTRUCTION.
- COPPER PIPING SHALL BE PROTECTED AGAINST CONTACT WITH MASONRY OR DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS, AND CLIPS SHALL BE COPPER OR COPPER PLATED. WHERE COPPER PIPING IS CARRIED ON IRON TRAPEZE HANGERS WITH OTHER PIPING, SATISFACTORY AND PERMANENT ELECTROLYTIC ISOLATION MATERIAL SHALL PROTECT THE COPPER AGAINST CONTACT WITH OTHER METALS.
- WHERE COPPER PIPING IS SLEEVED THROUGH MASONRY, SLEEVES SHALL BE COPPER OR RED BRASS. WHERE COPPER MUST BE CONCEALED IN A MASONRY PARTITION OR AGAINST MASONRY, CONTACT SHALL BE PREVENTED BY COATING THE COPPER HEAVILY WITH ASPHALTIC ENAMEL AND PROVIDING 5/8" ASPHALT SATURATED FELT BETWEEN THE PIPE AND MASONRY.
- THE PLUMBING CONTRACTOR SHALL COORDINATE CLOSELY WITH THE MECHANICAL AND THE ELECTRICAL CONTRACTORS TO AVOID CONFLICT WITH OTHER TRADES.
- CEILING AREA HAS LIMITED SPACE. CONTRACTOR MUST COORDINATE WITH OTHER TRADES FOR ALL STRUCTURES, PIPING, CONDUIT, DUCTWORK, LIGHTING, ETC. TO PROPERLY BE INSTALLED.
- ALL PIPE INSULATION SHALL RUN CONTINUOUSLY THROUGH FLOORS, WALLS, AND PARTITIONS.
- PROVIDE DRAIN VALVES IN THE HOT AND COLD WATER SYSTEM AT ALL LOW POINTS TO ALLOW FOR COMPLETE DRAINAGE.
- VACUUM BREAKERS SHALL BE PROVIDED FOR ALL FIXTURES TO WHICH HOSES MAY BE ATTACHED. VACUUM BREAKERS SHALL BE PERMANENTLY ATTACHED.
- WASTE AND VENT PIPING SHALL BE AS FOLLOWS:
BELOW SLAB: SCHEDULE 40, PVC SOLID WALL PIPE, PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED FITTINGS.
ABOVE SLAB: SCHEDULE 40, PVC SOLID WALL PIPE, PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED FITTINGS. 1/2" INSULATION IS REQUIRED ON ALL HORIZONTAL RUNS ABOVE NOISE SENSITIVE AREAS.
- STORM PIPING SHALL BE AS FOLLOWS:
BELOW SLAB: SCHEDULE 40, PVC SOLID WALL PIPE, PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED FITTINGS.
ABOVE SLAB: SERVICE HEIGHT NO-HUB CAST IRON PIPING WITH HEAVY DUTY COUPLINGS. INSULATION IS REQUIRED ON ALL ROOF DRAIN BODIES AND HORIZONTAL RUNS (ABOVE SLAB). INSULATE WITH 1/2" CLOSED-CELL ELASTOMERIC MATERIAL.
ALTERNATE ABOVE SLAB: SCHEDULE 40, PVC SOLID WALL PIPE, PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED FITTINGS. INSULATION IS REQUIRED ON ALL ROOF DRAIN BODIES AND HORIZONTAL RUNS (ABOVE SLAB). INSULATE WITH 1/2" CLOSED-CELL ELASTOMERIC MATERIAL.
- DOMESTIC WATER PIPING SHALL BE AS FOLLOWS:
BELOW SLAB: TYPE "K" COPPER.
ABOVE SLAB: CPVC "FLONGUARD GOLD".
ABOVE SLAB: TYPE "L" COPPER MUST BE USED IN MECHANICAL/WATER HEATER ROOMS.
ALTERNATE: PEX-A "UPONOR" (OR EQUAL) WITH "UPONOR, PROPEX" FITTINGS (OR EQUAL).
- INSULATION IS REQUIRED ON HOT WATER RECIRC SYSTEM PIPING. PROVIDE IN ACCORDANCE WITH STATE ENERGY CODE OR PER LOCAL JURISDICTION. INSULATE WITH CLOSED-CELL ELASTOMERIC MATERIAL.
- INVERT ELEVATIONS SHALL BE ESTABLISHED AND VERIFIED BEFORE WASTE PIPING IS INSTALLED SO THAT PROPER SLOPES WILL BE MAINTAINED.
- THE PLUMBING CONTRACTOR SHALL PROVIDE WATER HAMMER PROTECTION ON ALL WATER DISTRIBUTION PIPING WHERE QUICK-CLOSING VALVES ARE UTILIZED. INSTALLATION OF AIR CHAMBERS OR SHOCK ARRESTORS SHALL BE IN ACCORDANCE WITH FDI-HR201. SEE SHOCK ARRESTOR SCHEDULE (IF PROVIDED).
- PROVIDE FULL PORT VALVES IN ALL BRANCH LINES OF THE HOT AND COLD WATER DISTRIBUTION SYSTEM ON 1/2" AND LARGER CH & HH AND AS SHOWN ON PLANS, RISERS, AND SCHEMATIC DETAILS.
- REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS OF PLUMBING FIXTURES.
- PROVIDE ACCESS DOORS FOR ALL VALVES AND DEVICES REQUIRING ACCESS WHEN LOCATED IN WALLS OR ABOVE INACCESSIBLE CEILING CONSTRUCTION.
- PROVIDE DEEP SEAL TRAPS FOR ALL FLOOR DRAINS.
- REFER TO APPENDIX B FOR SITE SEISMIC CLASSIFICATION. A COMPLETE SYSTEM OF SEISMIC RESTRAINTS SHALL BE DESIGNED BY MASON INDUSTRIES (OR EQUAL) & SEALED BY THEIR REGISTERED ENGR & INSTALLED BY THIS CONTR. AS REQUIRED BY APPLICABLE CODES FOR THE LOCALITY OF THIS PROJECT. SEISMIC RESTRAINTS FOR SEISMIC CLASSES D, E, AND F SHALL BE SUBMITTED TO THE DESIGN PROFESSIONAL FOR REVIEW PRIOR TO INSTALLATION.
- PROVIDE A U.L. LISTED ASSEMBLY FOR ALL PENETRATIONS THRU FIRE RATED WALLS AND FLOORS.
- PROVIDE PRESSURE REDUCING VALVE SET AT 80 PSI.
- ALL SUSPENDED MATERIALS AND EQUIPMENT SHALL BE INDIVIDUALLY SUPPORTED FROM THE BUILDING STRUCTURE. DO NOT SUSPEND ITEMS FROM THE CEILING OR ITS SUPPORT SYSTEM.
- PVC DRAINAGE WASTE/VENT (DWV) & STORM STACKS OVER TWO(2) STORIES IN HEIGHT SHALL BE PROVIDED WITH RISER CLAMPS (ABV & BLN FL) ANCHORS & CODE APPROVED EXPANSION FITTINGS AS REQUIRED PER THE MANUFACTURER'S INSTRUCTIONS AND/OR DESIGN GUIDES. PIPE PENETRATIONS SHALL BE 1/2" LARGER THAN THE OUTSIDE PIPE DIAMETER. AS OTHERWISE RECOMMENDED PER MANUFACTURER. CONSULT PIPE MANUFACTURER FOR CLARIFICATION PRIOR TO ANY INSTALLATION.

PLUMBING LEGEND

- DOMESTIC COLD WATER PIPING
- DOMESTIC HOT WATER PIPING
- VENT PIPING
- SAN--- WASTE (SANITARY SEWER)
- OIL--- WASTE (OIL)
- G--- PROPANE GAS PIPING
- SD--- STORM PIPING UNDERSLAB
- |--- FULL PORT VALVE
- |--- CHECK VALVE
- O--- PIPE UP
- D--- PIPE DOWN
- |--- FLOOR DRAIN
- |--- FLOOR SINK
- |--- CONNECT TO EXISTING

- AAV "STUDOR" AIR ADMITTANCE VALVE
- ABV ABOVE
- AFF ABOVE FINISHED FLOOR
- CH COLD WATER
- DN DOWN
- E.C. ELECTRICAL SUB-CONTRACTOR
- FCO FLOOR CLEAN OUT
- FD FLOOR DRAIN
- FR FROM
- FS FLOOR SINK
- G.C. GENERAL CONTRACTOR
- HB HOSE BIBB
- HD HUB DRAIN
- HH HOT WATER
- M.C. MECHANICAL SUB-CONTRACTOR
- P.C. PLUMBING SUB-CONTRACTOR
- V VENT
- W WASTE

SHOCK ARRESTOR SCHEDULE

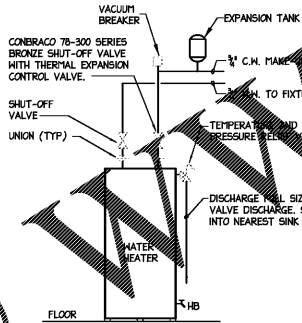
P.D.I. SIZE	FIXTURE UNITS	MANUFACTURER OR EQUAL
SA/A	1 - 11	ZURN, SMITH, PPI, SIOUX-CHEF
SA/B	12 - 32	"
SA/C	33 - 60	"

LOCATE SHOCK ARRESTORS IN AN ACCESSIBLE LOCATION, OR PROVIDE SIOUX-CHEF SHOCK ARRESTORS ONLY. INSULATION IS REQUIRED ON ALL ROOF DRAIN BODIES AND HORIZONTAL RUNS (ABOVE SLAB). INSULATE WITH 1/2" CLOSED-CELL ELASTOMERIC MATERIAL. PROVIDE SHOCK ARRESTORS AS INDICATED PER SCHEDULE. SHOCK ARRESTORS SHALL BE SAME SIZE AS PIPE INSTALLED ON, MINIMUM.

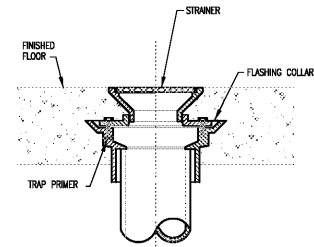
PLUMBING FIXTURE SPECIFICATIONS AND CONNECTION SCHEDULE

MARK	FIXTURE	TYPE	MANUFACTURER	MODEL NO.	MATERIAL	STYLE	MANUFACT. MODEL NO.	FAUCET/VALVE	SPOUT	HANDLES	CENTERS	DRAIN	TYPE	SIZE	SUPPLIES AND STOPS	PIPE SIZES	WASTE/VENT	CH	HH	MOUNTING	REMARKS	
P-1	WATER CLOSET	FLUSH TANK	AMERICAN STANDARD	211AA	VITREOUS CHINA	ADA ELONGATED	-	-	-	-	-	-	-	-	MCQUIRE 85	3"	2"	1/2"	-	FLOOR	PROVIDE WITH OPEN FRONT SEAT WITH NO LID	
P-2	LAVATORY	HALL HUNG	AMERICAN STANDARD	0566-028	VITREOUS CHINA	ADA COMPLIANT	DELTA 501-DST	CENTERSET	SINGLE LEVER	4"	GRID	1/2"	-	-	MCQUIRE 75 WITH PKC/25	2"	1 1/2"	1/2"	1/2"	WALL HUNG	MOUNT AT ADA HEIGHT. PROVIDE AERATOR W/ LAMINAR FLOW	
P-3	SHOWER	PREFAB	FLORESTONE	40-404	FIBERGLASS	ADA 40" x 40"	SYMONS PRES. BALANCE	-	SINGLE LEVER	-	INTEGRAL	2"	-	-	-	2"	1 1/2"	1/2"	1/2"	FLOOR	SEAT, GRAB BAR, PRESS. BAL. VALVE, HAND SPRAY, HOSE, SLIDE BAR, & DRAIN.	
P-4	SERVICE SINK	FLOOR MOUNTED	ADVANCE TABCO	B-OP-16	STAINLESS STEEL	3/4" x 30" x 0"	FIAT 830-AA	THREADED	THD HANDLES	8"	-	-	-	-	-	-	2"	1 1/2"	1/2"	1/2"	FLOOR	PROVIDE WITH TEMPERED WATER (40°F) PER OSHA REQUIREMENTS.
P-5	DRENCH SHOWER AND EYEWASH	FLOOR MOUNTED	HANS	83094C	-	-	-	-	-	-	-	-	-	-	-	-	2"	1 1/2"	1/2"	1/2"	FLOOR	PROVIDE WITH TRAP PRIMER CONNECTION.
FD	FLOOR DRAIN	SQUARE TOP	J.R. SMITH	2010	CAST IRON	NICKALOY TOP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FLOOR	-
TD	TRENCH DRAIN	SINGLE SLOT	NORSTAR	U-DRAIN	GALVANIZED STEEL	COMMERCIAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FLOOR	-
HB	HOSE BIBB	FREEZE PROOF	WOODFORD	67	CAST BRASS	HALL FAUCET	-	-	-	LOOSE KEY	-	-	-	-	-	-	-	-	1/2"	-	WALL	-
FFHB	HOSE BIBB	FREEZE PROOF	WOODFORD	667	CAST BRASS	RECESSED BOX	-	-	-	-	-	-	-	-	-	-	-	-	1/2"	-	WALL	-
MCO	HALL CLEAN-OUT	ROUND COVER	J.R. SMITH	4472	CAST IRON	S.S. COVER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	WALL	-
FCO	FLOOR CLEAN-OUT	SQUARE TOP	J.R. SMITH	4040	CAST IRON	NICKEL BRONZE TOP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FLOOR	-
HCO	HEAVY DUTY CLEAN-OUT	SQUARE TOP	J.R. SMITH	4220	CAST IRON	CAST IRON TOP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FLOOR	-
GCO	GRADE CLEAN-OUT	ROUND TOP	J.R. SMITH	4240	CAST IRON	CAST IRON TOP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GRADE	PROVIDE WITH 2"X2"X1/8" THK CONCRETE PAD AT GRADE.
HH-1	WATER HEATER	ELECTRIC	AO SMITH	DRE-120	GLASS LINED	TALL	-	-	-	-	-	-	-	-	-	-	-	-	SEE PLAN	SEE DETAIL	SEE DETAIL	120 GAL. STORAGE, 60M, 200V, 3/4" GPH REC. AT 80°F RISE. PROVIDE DRAIN PAN.
HH-2	WATER HEATER	ELEC.	EPMAX	EX16	-	TANKLESS	-	-	-	-	-	-	-	-	-	-	-	-	SEE PLAN	SEE DETAIL	SEE DETAIL	240V, 450M, 1/2" GPH REC. AT 49°F RISE.

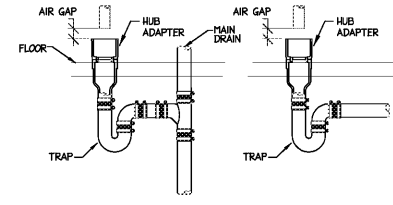
NOTES:
1. CATALOG NUMBERS AND MANUFACTURERS ARE TO INDICATE TYPE AND QUALITY OF FIXTURE DESIRED. SUBMIT CUTSHEETS OF THESE AND ALTERNATE MANUFACTURERS FOR ARCHITECT AND OWNER APPROVAL PRIOR TO PURCHASE OF ANY FIXTURES. INFORMATION ON ALTERNATE FIXTURES PROVIDED BY THE CONTRACTOR SHALL INCLUDE THE ADD/DEDUCT ASSOCIATED WITH ACCEPTANCE OF THAT FIXTURE (OR THE ALTERNATE PACKAGE AS A WHOLE).



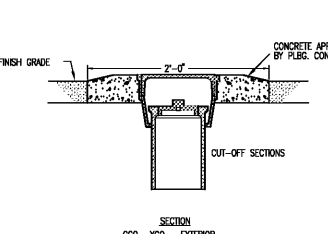
1 WATER HEATER DETAIL
NO SCALE



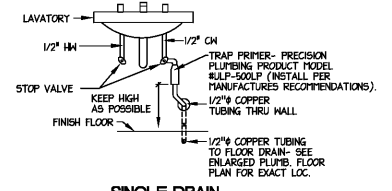
2 FLOOR DRAIN DETAIL
NO SCALE (FD)



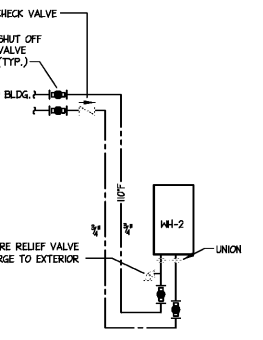
3 HUB DRAIN DETAIL
NO SCALE (HD)



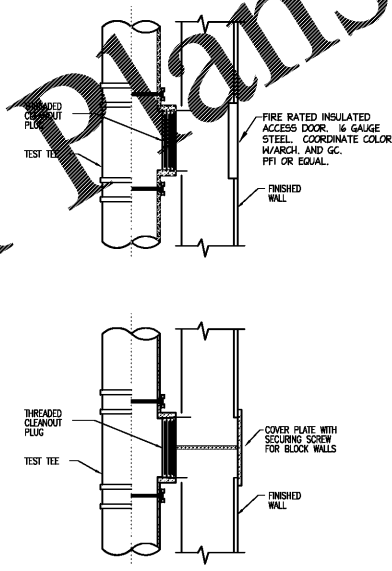
5 EXTERIOR CLEANOUT DETAIL
NO SCALE (GCO)



8 TRAP PRIMER DETAILS
NO SCALE



9 WATER HEATER DIAGRAM
NO SCALE



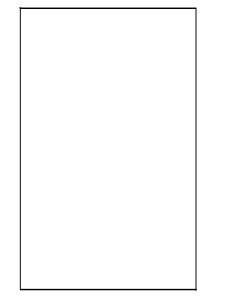
4 WALL CLEANOUT DETAIL
NO SCALE (WCO)

6 INTERIOR CLEANOUT DETAIL
NO SCALE (FCO)

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REVISIONS

NO.	DATE	DESCRIPTION

DATE: AUGUST 2, 2019
PROJECT NUMBER: 9217-000

SHEET TITLE
PLUMBING SCHEDULES, NOTES, AND DETAILS
SHEET NUMBER
P1