

PLUMBING SYSTEM NOTES

- A. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE ORDINANCES, CODES AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION. ALL PLUMBING WORK SHALL BE INSPECTED AND APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL NECESSARY FEES AND PERMITS, INCLUDING THE CERTIFICATE OF PLUMBING INSPECTION.
- B. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SAFETY. ARCHITECT AND/OR ENGINEER SHALL ASSUME NO RESPONSIBILITY FOR WORKMANS, OR RESIDENTS SAFETY. NOTHING IN THE CONTRACT DOCUMENTS SHALL BE CONSTRUED TO INSTRUCT OR PROVIDE OR COMPONENTS FOR PROJECT SAFETY.
- C. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL BE CONSTRUED TO CONFLICT WITH ANY NATIONAL, STATE, MUNICIPAL, OR LOCAL LAWS OR REGULATIONS GOVERNING THE WORK INDICATED OR SPECIFIED. ALL SUCH REQUIREMENTS SHALL BE SATISFIED BY THE PLUMBING CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- D. WHERE A CONFLICT ARISES BETWEEN PLANS, SPECIFICATIONS, DETAILS, SCHEDULES, APPLICABLE CODES OR REGULATIONS, THE MOST STRINGENT SHALL APPLY.
- E. THE CONTRACT DOCUMENTS ARE COMPRISED OF DRAWINGS AND SPECIFICATIONS. EACH PLUMBING BIDDER SHALL VISIT SITE TO DETERMINE EXISTING CONDITIONS PRIOR TO SUBMITTING BID PROPOSAL. BIDS SHALL BE BASED ON THE COMPLETE EXAMINATION OF THE DRAWINGS, SPECIFICATIONS AND EXISTING CONDITIONS. NO CONSIDERATION WILL BE GIVEN ANY CONTRACTOR WHO FAILS TO DO SO.
- F. THE WORK UNDER THIS CONTRACT SHALL INCLUDE THE FURNISHING OF ALL NECESSARY MATERIALS, TOOLS, AND LABOR FOR A COMPLETE, AND WORKING INSTALLATION AS DERIVED BY THE PLANS AND SPECIFICATIONS. THE PLUMBING CONTRACTOR SHALL WARRANT THE WORK INDICATED AND SPECIFIED. THE WORK SHALL FUNCTION AS INTENDED, BE COMPLETE IN ALL DETAILS, AND SHALL INCLUDE ALL INDICATED, SPECIFIED, OR REQUIRED ACCESSORIES FOR A FUNCTIONING SYSTEM.
- G. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES.
- H. CONTRACTOR SHALL REMOVE DEMOLITION DEBRIS COMPLETELY. CONTRACTOR SHALL SCHEDULE WITH THE CONSTRUCTION MANAGER THE TIME, LOCATION, ELEVATOR AND HAULING ROUTE.
- I. THE PLUMBING CONTRACTOR SHALL CLEAN UP ALL DEBRIS AT THE END OF EACH WORK DAY.
- J. HORIZONTAL DRAINAGE PIPING SHALL BE INSTALLED IN UNIFORM ALIGNMENT AT UNIFORM SLOPES NOT LESS THAN 1/4 INCH PER FOOT FOR THREE (3) INCH DIAMETER AND LESS, AND NOT LESS THAN 1/8 INCH PER FOOT FOR DIAMETERS OF FOUR (4) INCHES OR MORE.
- K. ALL PIPING IS SCHEMATIC; SUPPORTS, UNIONS, VIBRATION ISOLATION, VALVES, INSULATION, ETC. SHALL BE AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.
- L. ALL PIPING IS TO BE CONCEALED IN WALLS OR ABOVE CEILING UNLESS NOTED OTHERWISE.
- M. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR PRIOR TO AND FOR SCHEDULING ANY INTERRUPTION OF ANY BUILDING UTILITY.
- N. ALL EQUIPMENT PROVIDED OR INSTALLED BY THIS CONTRACTOR SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- O. ALL PIPING SHALL BE RUN AT THE INVERTS INDICATED. WHERE ELEVATIONS ARE NOT INDICATED, COORDINATE THE PIPE ROUTING WITH THE DUCT ROUTING INDICATED ON THE MECHANICAL PLANS, AS WELL AS ALL OTHER TRADES.
- P. FINAL LOCATION OF ALL PLUMBING FIXTURES, SINKS, ELECTRIC WATER COOLERS, CLEANOUTS, AND THE LIKE, SHALL BE VERIFIED AND COORDINATED WITH THE ARCHITECTURAL DRAWINGS.
- Q. ALL WORK SHOWN ON THE PLUMBING DRAWINGS SHALL BE BY THE PLUMBING CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
- R. ALL SANITARY PIPING CONNECTIONS TO FIXTURES SHALL BE SIZED AS SCHEDULED. ALL OTHER SANITARY PIPING SHALL BE 4" UNLESS NOTED OTHERWISE.
- S. ALL SANITARY INVERTS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO INSTALLATION.
- T. PROVIDE CLEANOUTS AT LEAST EVERY 100 FT IN SANITARY PIPING IN ADDITION TO THOSE SHOWN ON THE DRAWINGS. PROVIDE A CLEANOUT AT EACH CHANGE IN DIRECTION OF 90 DEGREES IN A SINGLE FITTING.
- U. PROVIDE A CLEAN OUT AT EACH CHANGE IN DIRECTION GREATER THEN 45 DEGREES.
- V. ALL VENT PIPING CONNECTIONS TO FIXTURES SHALL BE SIZED AS SCHEDULED. ALL OTHER VENT PIPING SHALL BE 2" UNLESS NOTED OTHERWISE.
- W. PROVIDE 1/4 TURN STOP VALVES AT ALL FIXTURES.
- X. PROVIDE APPROPRIATE BACKFLOW PREVENTION DEVICES WHERE REQUIRED BY CODE.
- Y. SEE SPECIFICATION SECTION 011000 FOR TIMING OF ALL WORK AND COORDINATE.
- Z. CONTRACTOR SHALL PROVIDE POINT OF USE THERMOSTATIC MIXING VALVE FOR EACH SINK/LAVATORY IN COMPLIANCE WITH ASSE 1070.

PLUMBING SYMBOLS

○	PIPE DROP	○	PIPE UP	●	HOSE BIBB
—	WALL HYDRANT	●	WATER VALVE BOX	●	AREA DRAIN (No. indicates type)
—	MEDICAL COMPRESSED AIR OUTLET	●	FLOOR DRAIN (No. indicates type)	●	FLOOR SINK (No. indicates type)
—	MEDICAL VACUUM OUTLET W/SLIDE	●	ROOF DRAIN	○	CLEAN OUT
—	OXYGEN OUTLET	○	FLOOR CLEANOUT	○	WATER HAMMER ARRESTOR
—	FIRE HYDRANT	○	WATER HAMMER ARRESTOR	○	ACID VENT THRU ROOF
—	MANHOLE	○	CLINIC SERVICE SINK	○	DECK DRAIN (No. indicates type)
—	GAS VALVE BOX	○	DRINKING FOUNTAIN (No. indicates type)	○	DOMESTIC COLD WATER
—	WATER VALVE BOX	○	DOMESTIC HOT WATER	○	DOMESTIC HOT WATER RETURN (120")
—	ALUMINUM (ALL SIZES)	○	DOMESTIC HOT WATER SUPPLY (140")	○	INSTRUMENT AIR
—	CAST IRON (ALL SIZES)	○	LABORATORY AIR	○	LABORATORY VACUUM
—	CPVC, 1/4 INCH AND LARGER	○	LABORATORY VACUUM	○	LIQUEFIED PETROLEUM GAS (PROPANE)
—	CPVC, 1/4 INCHES AND SMALLER	○	CLINIC SERVICE SINK	○	MEDICAL COMPRESSED AIR
—	COPPER TUBE, 1/4 INCHES AND SMALLER	○	DECK DRAIN (No. indicates type)	○	MEDICAL VACUUM / SUCTION
—	COPPER TUBE, 1/2 - 1 1/2 INCHES AND LARGER	○	DRINKING FOUNTAIN (No. indicates type)	○	NITROGEN GAS
—	FIBERGLASS	○	DOMESTIC COLD WATER	○	NITROUS OXIDE GAS
—	GLASS	○	DOMESTIC HOT WATER	○	OVERFLOW RAIN CONDUCTOR
—	POLYBUTYLENE	○	DOMESTIC HOT WATER RETURN (140")	○	MEDICAL OXYGEN GAS
—	POLYPROPYLENE	○	INSTRUMENT AIR	○	PRESSURE SANITARY SEWER
—	PVC (ALL SIZES)	○	LABORATORY AIR	○	PUMP DISCHARGE
—	STEEL, 3 INCHES AND SMALLER	○	LABORATORY VACUUM	○	RAIN WATER CONDUCTOR
—	STEEL, 4 INCHES AND LARGER	○	LIQUEFIED PETROLEUM GAS (PROPANE)	○	SANITARY SEWER BELOW GRADE
		○	MEDICAL COMPRESSED AIR	○	SANITARY SEWER ABOVE GRADE
		○	MEDICAL VACUUM / SUCTION	○	SANITARY VENT PIPING
		○	NITROGEN GAS	○	STORM SEWER ABOVE GRADE
		○	NITROUS OXIDE GAS	○	STORM SEWER BELOW GRADE
		○	OVERFLOW RAIN CONDUCTOR	○	TEMPERED WATER
		○	MEDICAL OXYGEN GAS	○	VACUUM LINE
		○	PRESSURE SANITARY SEWER	○	WASTE ANESTHETIC GAS DISPOSAL
		○	PUMP DISCHARGE		
		○	RAIN WATER CONDUCTOR		
		○	SANITARY SEWER BELOW GRADE		
		○	SANITARY SEWER ABOVE GRADE		
		○	SANITARY VENT PIPING		
		○	STORM SEWER ABOVE GRADE		
		○	STORM SEWER BELOW GRADE		
		○	TEMPERED WATER		
		○	VACUUM LINE		
		○	WASTE ANESTHETIC GAS DISPOSAL		
▲	AIR VENT	○	PLUG VALVE		
○	BALANCING VALVE	○	P.G.		
—	BACKFLOW PREVENTER	○	PRESSURE REGULATING VALVE		
○	BALL VALVE	○	P-TRAP		
○	BUTTERFLY VALVE	○	RELIEF VALVE		
○	CAPPED CONNECTION	○	SOLENOID VALVE		
○	CHECK VALVE	○	STRAINER		
○	GAS PRESSURE REGULATOR	○	THERMOMETER		
○	GATE VALVE	○	UNION		
○	MIXING VALVE	○	VALVE IN RISER		

SECTION 22 07 19 - PLUMBING PIPING INSULATION

1. **MANUFACTURERS**
1.1. APPROVED MANUFACTURERS: ARMSTRONG, CERTAINTED CORPORATION, KNAUF, JOHNS-MANVILLE CORPORATION, OWENS-CORNING FIBERGLASS CORPORATION.
2. **PRODUCTS**
2.1. **FIBERGLASS INSULATION**: MINIMUM 1" THICK 4 PCF DENSITY, K FACTOR .23 MAXIMUM AT 75 DEGREES F MEAN, WITH FACTORY APPLIED ASJ JACKET, SELF-SEALING LAP AND BUTT STRIP. FOR TEMPERATURES: -20 DEGREES F TO + 500 DEGREES F.
2.2. **FLEXIBLE FOAM ELASTOMERS**: CLOSED CELL, 1/2" THICK MINIMUM NOMINAL 6 PCF DENSITY, K FACTOR .27 MAXIMUM AT 75 DEGREES F MEAN, 0.17 PERMEANCE. PROVIDE COATING FOR FLEXIBLE CLOSED CELL, AS RECOMMENDED BY INSULATION MANUFACTURER. SHALL BE 2950 RATED FOR FLAME/SMOKE SPREAD.
2.3. **ALL SERVICE JACKET**: UNMATTED, GLASS-FIBER-REINFORCED, FLAME-RETARDANT KRAFT PAPER AND ALUMINUM FOL.
2.4. **VAPOR BARRIER COATING**: 20 X 20 WHITE GLASS OR NYLON CLOTH REINFORCING MEMBRANE TO DEVELOP 31-MIL DRY FILM THICKNESS, .05 MAXIMUM PERMEANCE.
2.5. **MINI ACRYLIC BREATHABLE MASTIC**: 10 X 10 WHITE GLASS OR NYLON CLOTH REINFORCING MEMBRANE TO DEVELOP 31-MIL DRY FILM THICKNESS.
3. **INSTALLATION**
3.1. APPLY INSULATION OVER FITTINGS AND SPECIALTIES, WITH CONTINUOUS THERMAL AND VAPOR-RETARDER INTEGRITY, UNLESS OTHERWISE INDICATED.
3.2. APPLY INSULATION AFTER PIPES HAVE BEEN INSPECTED, TESTED, AND RELEASED BY THE OWNER'S REPRESENTATIVE. CLEAN AND DRY PIPE SURFACES PRIOR TO INSULATION INSTALLATION.
3.3. INSULATION SHALL BE APPLIED WITH END AND LONGITUDINAL JOINTS STAGGERED WITH ALL JOINTS TIGHTLY BUTTED.
3.4. ALL INSULATION AND FINISH/VAPOR BARRIER SHALL BE CONTINUOUS THROUGH HANGERS, WALL AND ROOF OPENINGS AND SLEEVES.
3.5. ALL INSULATION INSTALLED IN MECHANICAL EQUIPMENT ROOMS SHALL BE FINISHED WITH GLASS CLOTH, CANVAS, OR NYLON CLOTH.
3.6. INSULATION IN PIPE TUNNELS, TRENCHES AND MANHOLES SHALL BE WEATHERPROOFED WITH ASPHALT SATURATED AND COATED FELT, DOUBLE COATED.
3.7. INSULATION COLOR LABELING SHALL MEET BLUE RIDGE STANDARDS. THE SAME STANDARD SHALL BE USED FOR ALL BLUE RIDGE FACILITIES. COLOR LABELING SHALL BE COORDINATED WITH OWNER.
3.8. PROTECTION OF ALL EXPOSED PIPING UNDER FIXTURES IN ACCORDANCE WITH ANSI AND ADA GUIDELINES. WATER SUPPLY AND DRAIN PIPES UNDER LAVS AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS.

PIPE SIZES

1. SEE FIXTURE SCHEDULE, FLOOR PLANS, SYMBOL LEGEND, FOR PIPE SIZING INFORMATION.
2. SEE FLOOR PLANS FOR BUILDING DRAIN AND MAIN WATER SERVICE SIZES; SEE FIXTURE SCHEDULE FOR FIXTURE WATER LINE, DRAIN AND TRAP SIZES.
3. ALL PIPING IS SIZED ACCORDING TO THE CHARACTERISTICS OF THE PREFERRED PIPING MATERIALS. IF ALTERNATE PIPING IS USED THEN THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT THE VELOCITIES ARE MAINTAINED TO THE ORIGINAL DESIGN INTENT. PROVIDE FOR ALLOWANCE FOR EXPANSION FOR HOT WATER CPVC.

PIPE HANGERS AND SUPPORTS

1. PLACE HANGERS WITHIN 12 INCHES OF EACH HORIZONTAL ELBOW.
2. USE HANGERS WITH 1-1/2 INCH MINIMUM VERTICAL ADJUSTMENT. DESIGN HANGERS FOR PIPE MOVEMENT WITHOUT DISENGAGEMENT OF SUPPORTED PIPE.
3. SUPPORT VERTICAL PIPING AT EVERY FLOOR. SUPPORT RISER PIPING INDEPENDENTLY OF CONNECTED HORIZONTAL PIPING.
4. PROVIDE HANGERS ADJACENT TO EQUIPMENT SO THE EQUIPMENT DOES NOT SUPPORT ANY PIPING.
5. SUPPORT CAST IRON DRAINAGE PIPING AT EVERY JOINT.

PIPE MATERIAL	MAXIMUM HANGER SPACING FEET	HANGER ROD DIAMETER INCHES
ABS (ALL SIZES)	4	3/8
ALUMINUM (ALL SIZES)	10	1/2
CAST IRON (ALL SIZES)	5	5/8
CAST IRON (ALL SIZES) WITH LENGTH OF PIPE 10 FOOT	10	5/8
CPVC, 1 INCH AND SMALLER	3	1/2
CPVC, 1-1/4 INCHES AND LARGER	4	1/2
COPPER TUBE, 1/4 INCHES AND SMALLER	6	1/2
COPPER TUBE, 1/2 - 1 1/2 INCHES AND LARGER	10	1/2
FIBERGLASS	4	1/2
GLASS	8	1/2
POLYBUTYLENE	2.67	3/8
POLYPROPYLENE	4	3/8
PVC (ALL SIZES)	4	3/8
STEEL, 3 INCHES AND SMALLER	12	1/2
STEEL, 4 INCHES AND LARGER	12	5/8

MAINTAIN PROPER SLOPE FOR INTERIOR AND EXTERIOR PIPE

1. SLOPES AND INVERT ELEVATIONS OF EXTERIOR SEWERS, MANHOLES, ETC. SHALL BE ESTABLISHED AND VERIFIED, BY THE PLUMBING CONTRACTOR, BEFORE ANY PIPING IS INSTALLED SO THAT PROPER SLOPES WILL BE MAINTAINED AND NECESSARY INVERT ELEVATIONS OBTAINED.
2. SLOPES AND INVERT ELEVATIONS OF ALL INTERIOR PIPES SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED.
3. ALL SANITARY SEWER AND STORM DRAINAGE PIPING 4-INCH AND LARGER SHALL BE INSTALLED WITH A SLOPE OF 1/8-INCH PER FOOT UNLESS NOTED OTHERWISE.
4. SANITARY SEWER AND STORM DRAINAGE PIPING LESS THAN 4-INCH SHALL BE INSTALLED WITH A MINIMUM SLOPE OF 1/4-INCH PER FOOT.
5. DOMESTIC HOT AND COLD WATER PIPING SHALL BE SLOPED FOR DRAINAGE WITH DRAIN VALVES INSTALLED AT LOW POINTS. ACCESS PANELS SHALL BE PROVIDED AT CONCEALED VALVES, WATER HAMMER ARRESTORS AND OTHER DEVICES.

PIPE LABELING AND PAINTING

1. ALL UTILITIES MUST BE LABELED ACCORDING TO ATRIUM HEALTH WAKE FOREST BAPTIST STANDARDS AND PAINTED AS REQUIRED.

PLUMBING SHEET INDEX

NO.	DESCRIPTION
P001	PLUMBING DATA SHEET
P101	PLUMBING - LEVEL 1 - PRESSURE PLAN
P102	PLUMBING - LEVEL 2 - PRESSURE PLAN
P103	PLUMBING - LEVEL 3 - PRESSURE PLAN
P111	PLUMBING - LEVEL 1 - SANITARY PLAN
P112	PLUMBING - LEVEL 2 - SANITARY PLAN
P113	PLUMBING - LEVEL 3 - SANITARY PLAN
P114	PLUMBING - ROOF PLAN
P300	PLUMBING - DETAILS
P301	PLUMBING - DETAILS

CODES/STANDARDS

- NBC, NPC - 2018 EDITION
- "GUIDELINES FOR DESIGN AND CONSTRUCTION OF HEALTHCARE FACILITIES" - 2018 EDITION AND APPLICABLE NFPA SECTIONS

NATURAL GAS SYSTEMS

GAS DISTRIBUTION GENERAL NOTES

1. The maximum design operating pressure for piping systems located inside buildings shall not exceed 5 psig.
2. A drip shall be provided at any point in the line of pipe where condensate could collect. Drips shall be protected in areas that will be readily accessible for emptying and cleaning. Drips shall be adequately protected from freezing conditions.
3. Line pressure regulators shall be marked by a metal tag or other permanent means, designating the building or the part of the building being supplied. An independent vent to the outside of the building, in accordance with the regulator manufacturer's instructions, shall be provided where the location of a regulator is such that a ruptured diaphragm will cause a hazard.
4. An accessible gas shutoff valve shall be provided upstream of each gas pressure regulator. Shutoff valves shall be listed and approved for the pressure, service and reliability of operation.
5. Each aboveground portion of a gas piping system upstream from the equipment shutoff valve shall have a continuous electrical bond to a grounding electrode, as defined ANSIPFPA 70. Electrical circuits shall not utilize gas piping or components as conductors.
6. Gas equipment shall be installed so that burners and burner ignition devices are located not less than 18 in. above the floor.
7. All gas equipment shall be located so as to permit access to the equipment with sufficient clearance to permit cleaning, maintenance and replacement of heating surfaces, burners, pilots, controls, and vents.
8. Gas equipment and their vent connectors shall be installed with clearances from combustible material so that their operation will not create a hazard to persons or property.
9. The Contractor shall be responsible for providing sway bracing and restraints to resist the earthquake effects on the system in accordance with state and local codes and ordinances. Refer to the Designer Building Code Summary of this project for the Seismic Performance Category and Seismic Design Parameters. Where seismic restraints are necessary then the restraints shall be designed and inspected by individuals specifically qualified in structural restraint methods.

QUALITY ASSURANCE

1. Gas pipe or tubing and fittings shall be clear and free from cutting burrs and defects in structure or threading, and shall be thoroughly brushed, and chip and scale blown. Defects in pipe or tubing or fittings shall not be repaired. When defective pipe, tubing, or fittings are located in a system, the defective material shall be replaced.
2. All gas piping is to be pressure tested. The test pressure to be used shall be no less than 1 1/2 times the proposed maximum working pressure, but not less than 3 psig. Test duration shall be not less than 1/2 hr for each 500 cu ft of pipe volume.

GAS PIPING SPECIAL CONDITIONS

PIPING UNDERGROUND BENEATH BUILDINGS.

1. Gas piping should not be installed for extended lengths below the floor of the building. Where the installation of gas piping underground beneath the building is unavoidable, the piping shall be encased in an approved conduit designed to withstand the estimated loads above. Underground piping, where installed below grade through the outer foundation or basement wall of a building, shall be encased in a protective pipe. The space between the gas piping and the sleeve shall be sealed to prevent entry of gas or water. The conduit shall extend into a normally usable and accessible portion of the building and the space between the conduit and the gas piping shall be sealed to prevent the possible entrance of gas leakage where the conduit terminates. The conduit shall extend at least 4 in. outside the building, be vented above grade to the outside, and be installed so it prevents the entrance of water and insects.

PIPING IN FLOORS

1. Gas piping in solid floors such as concrete shall be laid in channels in the floor and covered to permit access to the piping with a minimum of damage to the building.

ABOVEGROUND PIPING OUTSIDE.

1. Gas piping installed aboveground shall be securely supported and located where it will be protected from physical damage. Where passing through an outside wall, the piping shall also be protected against corrosion by coating or wrapping with an inert material approved for such applications. Where piping is encased in a protective pipe sleeve, the annular space between the gas piping and the sleeve shall be sealed at the wall to prevent the entry of water, insects, or rodents.

PLUMBING FIXTURE CONNECTION/SPECIFICATION SCHEDULE

ITEM	DESCRIPTION	WASTE	VENT	CW	HW	DESCRIPTION	MANUFACTURERS
P-1	ADA COMPLIANT WATER CLOSET	3"	2"	1"	-	FLOOR MOUNTED VITREOUS CHINA FLUSH VALVE TYPE "BOWL" SHALL BE EQUAL TO AMERICAN STANDARD MADIRA WITH TOP STOP. PROVIDE WITH SLOAN 111 3/8" DIA. HARD WIRED ELECTRONIC, DUAL FLUSH, 1.28 GPF. FLUSH VALVE AND HEAVY DUTY OPEN FRONT SEAT. INSTALL ACCORDING TO ANSI AND ADA GUIDELINES. PROVIDE WITH 12" ROUGH IN.	AMERICAN STANDARD, KOHLER, CRANE, MOEN
P-2	ADA COMPLIANT LAVATORY	2"	1-1/2"	1/2"	1/2"	AMERICAN STANDARD LUCERNE MODEL D356-421 ADA COMPLIANT, WALL HUNG, VITREOUS CHINA, FRONT OVERFLOW, PROVIDE WITH SLOAN ETF-80-4 BDT COUNTER MOUNTED HARD WIRED FAUCET. PROVIDE CHROME PLATED BRASS P-TRAP AND 1/4 TURN SHUT OFF SUPPLIES. PROVIDE PRO-WRAP-TRAP AND SUPPLY KIT FOR ALL EXPOSED SINKS.	AMERICAN STANDARD, KOHLER, CRANE, MOEN
P-3	MOPSINK	3"	2"	3/4"	3/4"	FLOOR MOUNTED, MOLDED STONE FIAT M82024 WITH FIAT SERVICE FAUCET 830-AA MOUNTED A MM OF Z.A.F.F. PROVIDE WITH FIAT 1453-BB STRAINER, FIAT HOSE AND BRACKET ASSEMBLY 852-AA, E85AA24 STAINLESS STEEL BUMPER GUARDS AND MSG2424 WALL GUARDS.	AMERICAN STANDARD, ELLER, KOHLER
FPWH	FREEZE PROOF WALL HYDRANT	-	-	3/4"	-	FREEZEPROOF, AUTOMATIC DRAINING, ANTI-SIPHON, ASSE 1019-B COMPLIANT WALL HYDRANT EQUAL TO WOODFORD MODEL 993. COORDINATE FINISH WITH ARCHITECT. PROVIDE WITH 3/4" TYPE C INLET. COORDINATE FINISH AND WALL THICKNESS WITH ARCHITECT.	WOODFORD
FD-1	FLOOR DRAIN W/ TRAP PRIMER CONNECTION	4"	2"	1/2"	-	ZURN Z415-B21 DURACOATED CAST IRON FLOOR DRAIN, ROUND, FIXTURE SHALL BE INSTALLED ACCORDING TO MANUFACTURERS RECOMMENDATIONS. PROVIDE WITH DEEP SEAL P-TRAP DESIGNED FOR 18" WC PRESSURE, ACCESSIBLE CLEANOUT CAP AND 1/2" TRAP PRIMER CONNECTION.	JAY R. SMITH, JOSAM, ZURN, WADE
FCO	FLOOR CLEANOUT	4"	-	-	-	ZURN ZN1454, ADJUSTABLE DURACOATED CAST IRON FLOOR CLEANOUT.	JAY R. SMITH, JOSAM, ZURN, WADE
GCO	GRADE CLEANOUT	4"	-	-	-	ZURN MODEL ZS1400-B21, DURACOATED CAST IRON BODY WITH SMOOTH STAINLESS STEEL ACCESS COVER, TYPE B COVER.	JAY R. SMITH, JOSAM, ZURN, WADE
RD-1	ROOF DRAIN	8"	-	-	-	PROVIDE ZURN Z104 ROOF DRAIN WITH LOW SILHOUETTE DOMES, DURACOATED CAST IRON BODIES WITH COMBINATION MEMBRANE FLASHING CLAMP/GRVEL GUARDS.	ZURN, WADE, JAY R. SMITH, JOSAM
RD-2	ROOF DRAIN	6"	-	-	-	PROVIDE ZURN Z104 ROOF DRAIN WITH LOW SILHOUETTE DOMES, DURACOATED CAST IRON BODIES WITH COMBINATION MEMBRANE FLASHING CLAMP/GRVEL GUARDS.	ZURN, WADE, JAY R. SMITH, JOSAM
RD-3	ROOF DRAIN	2"	-	-	-	PROVIDE ZURN Z125 ROOF DRAIN WITH LOW SILHOUETTE DOMES, DURACOATED CAST IRON BODIES WITH COMBINATION MEMBRANE FLASHING CLAMP/GRVEL GUARDS.	ZURN, WADE, JAY R. SMITH, JOSAM
WCO	WALL CLEANOUT	4"	-	-	-	ZURN MODEL Z1441 HEAVY DUTY, 3/8 SS	ZURN, WADE, JAY R. SMITH, JOSAM

PUMP SCHEDULE

MARK	DESCRIPTION	CAPACITY (GPM)	HEAD (FEET)	HP	VOLTAGE*	PHASE	AMPS	MANUFACTURER / MODEL
SP-1	ELEVATOR SUMP PUMP	64	20	0.5	115	1	8.0	STANDCOR SE-50 PUMP
SP-2	ELEVATOR SUMP PUMP	64	20	0.5	115	1	8.0	STANDCOR SE-50 PUMP

• SP-1, PUMPS SHALL BE PROVIDED WITH SOFT CABLE AND NEMA 4X JUNCTION BOX, OIL GUARD SYSTEM, AUDIBLE ALARMS AND DRY CONTACTS, AND ALL REQUIRED DEVICES FOR A COMPLETE AND OPERATIONAL SYSTEM. PROVIDE WITH OIL MINDER SYSTEM AND ALARM TO ALERT MAINTENANCE PERSONNEL OF HIGH WATER OR OIL DETECTED CONDITIONS. CONTROL PANEL SHALL BE LOCATED AS INDICATED, SEE PLUMBING FLOOR PLAN. PROVIDE WITH NECESSARY CONTROL AND POWER WIRING OF SUFFICIENT LENGTH.

* REFER TO DIVISION 26 FOR ELECTRICAL SERVICE CHARACTERISTICS.

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LSSP PROJECT: 8403-225630

SHEET NAME: PLUMBING DATA SHEET

ORIG SUBMISSION: 2023-05-12

SHEET: P001

100% CONSTRUCTION DOCUMENTS

THESE DRAWINGS ARE EXACTLY AS SHOWN AND SHALL BE CONSIDERED AS SUCH.

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Designed TDR Drawn JMW
 Checked DJW Date 07/20/23
 Project No. 16607-0028

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THE KEITH CORPORATION

CAPE FEAR VALLEY HEALTH

HARNETT HEALTH

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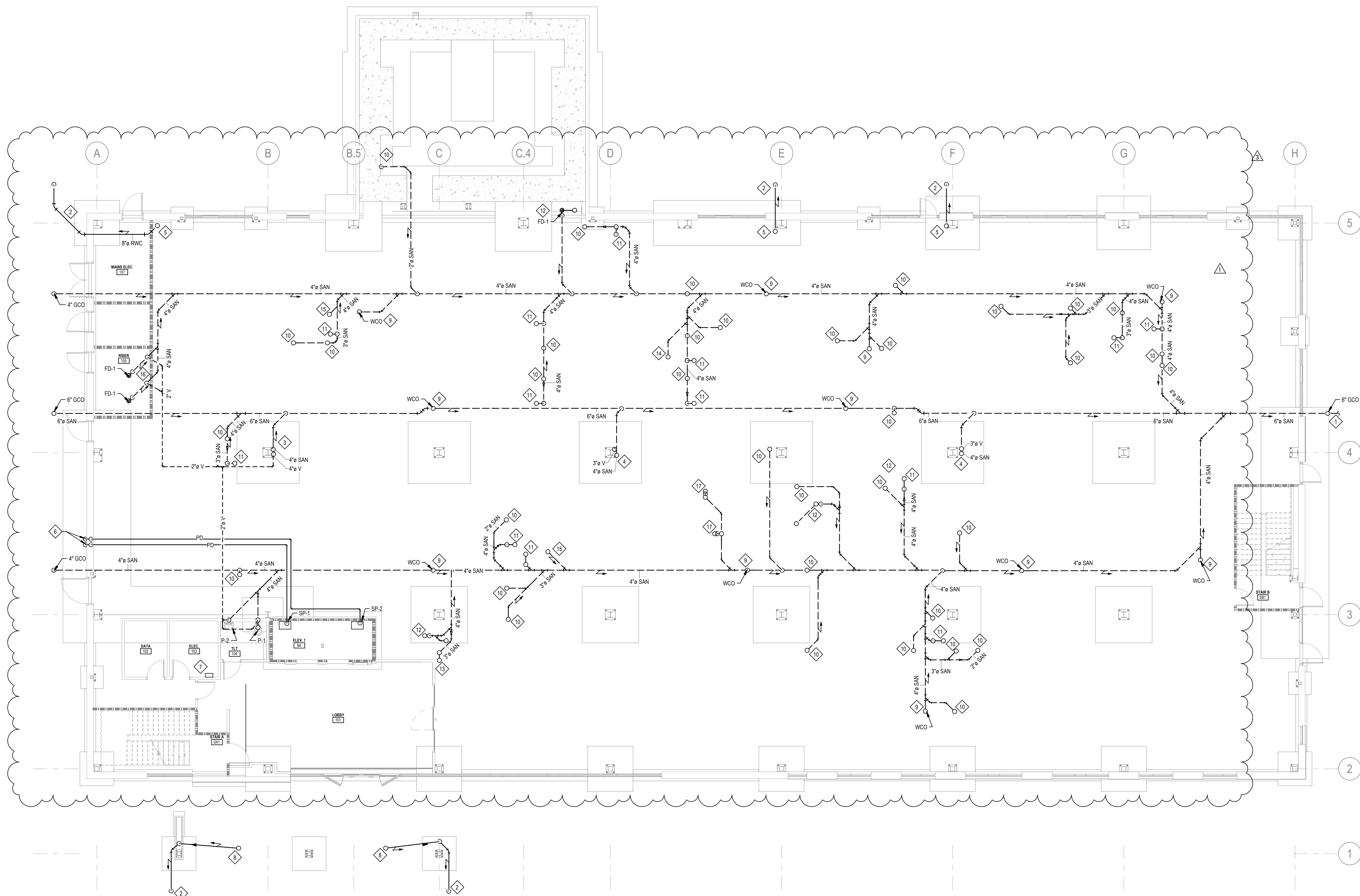
CFVH HARNETT MOB - Core & Shell
 225 Brightwater Drive, Lillington, NC 27546
 LS3P PROJECT: 8403-225630

DATE	DESCRIPTION
1 2023.07.13	RFP 01
3 2023.08.25	RFP 02

SHEET NAME:
PLUMBING - LEVEL 1 - SANITARY PLAN

ORIG SUBMISSION: 2023-05-12

SHEET: **P111**



1 SANITARY FIRST FLOOR PLAN
 SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES:

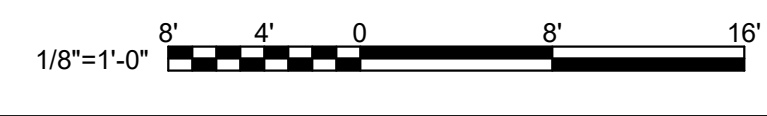
- ALL NEW FIXTURE PIPING SHOWN ON PLANS SHALL BE SIZED AS SPECIFIED IN THE FIXTURE SCHEDULE FOUND ON P001 OR AS NOTED.
- EXTEND ROOF DRAIN PIPING TO A MINIMUM OF 5' FROM BUILDING ENVELOP. INVERT STORM-3 BELOW BUILDING SLAB AND CAP WITH CLEANOUT FOR FUTURE CONNECTION TO UTILITY. SEE CIVIL PLANS FOR CONNECTION.
- 4" SANITARY PIPE AND 4" VENT UP IN WET COLUMN TO UPPER FLOORS. ROUTE PIPING TIGHT TO COLUMN. SEE P112 AND P113 FOR CONTINUATION. PROVIDE CLEANOUT AT BASE OF SANITARY RISER IN ACCORDANCE WITH CHAPTER 7, SECTION 708 OF NCPD.
- 4" SANITARY PIPE AND 3" VENT UP IN WET COLUMN TO UPPER FLOORS. ROUTE PIPING TIGHT TO COLUMN. SEE P112 AND P113 FOR CONTINUATION. PROVIDE CLEANOUT AT BASE OF SANITARY RISER IN ACCORDANCE WITH CHAPTER 7, SECTION 708 OF NCPD.
- PRIMARY ROOF DRAIN LEADER DOWN FROM ROOF TO BELOW SLAB.
- SUMP PUMP DISCHARGE LINE ROUTED DOWN IN WALL AND OUT TO EXTERIOR OF BUILDING. TURN PIPE DOWN, 12" ABOVE FINISHED SLAB TO SPILL ONTO GRADE. GC SHALL PROVIDE WITH SPLASH BLOCK. SEE DETAIL 6P300 FOR ADDITIONAL INFORMATION.
- ELEVATOR SUMP PUMP CONTROLLERS. MOUNT STACKED ON WALL. SEE DETAIL 6P300 FOR ADDITIONAL INFORMATION.

NEW WORK KEYED NOTES:

- 3"x4" DOWNSPOUT, DOWN FROM 2" ROOF DRAIN ABOVE. ROUTE DOWNSPOUT DOWN TIGHT TO COLUMN TO 4" RAIN LEADER BELOW GRADE.
- PROVIDE 3" WALL CLEANOUT ROUGH-IN AT FUTURE WALL. PROVIDE WITH TEMPORARY CAP IN STUB UP.
- 2" SANITARY ROUGH-IN FOR FUTURE HANDWASH SINK/LAVATORY.
- 3" SANITARY ROUGH-IN FOR FUTURE FLANGE CONNECTION TO WATER CLOSET. 2" VENT TAPPED OFF 3" SANITARY PIPING AND STUBBED UP AT FUTURE WALL FOR FUTURE CONNECTION.
- 4" SANITARY ROUGH-IN FOR FUTURE FLOOR DRAIN. 2" VENT TAPPED OFF 4" SANITARY PIPING AND STUBBED UP AT FUTURE WALL FOR FUTURE CONNECTION.
- 3" SANITARY ROUGH-IN FOR FUTURE MOPSINK. 2" VENT TAPPED OFF 3" SANITARY PIPING AND STUBBED UP AT FUTURE WALL FOR FUTURE CONNECTION.
- 3" SANITARY ROUGH-IN FOR FUTURE HANDWASH SINKS, MOUNTED BACK TO BACK.
- 2" SANITARY ROUGH-IN FOR FUTURE ELECTRIC WATER COOLER.
- ROUTE VENT EXPOSED ALONG WALL IN RISER ROOM TO ABOVE CEILING.
- 2" SANITARY ROUGH-IN FOR FUTURE WALL BOX. 2" SANITARY PIPE UP IN WALL. TAP OFF TO FUTURE WALL BOX LOCATION AND PROVIDE WITH PTRAP IN WALL. EXTEND PIPING UP IN WALL FOR FUTURE VENT CONNECTION. SEE DETAIL 13P301 FOR ADDITIONAL INFORMATION.

FIRE RATED WALL LEGEND

[Symbol]	30 MIN-RATED PARTITION
[Symbol]	1 HOUR-RATED PARTITION
[Symbol]	2 HOUR-RATED PARTITION
[Symbol]	3 HOUR-RATED PARTITION
[Symbol]	4 HOUR-RATED PARTITION



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Designed TDR Drawn JMW
 Checked DJW Date 07/20/23
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CAPE FEAR VALLEY HEALTH

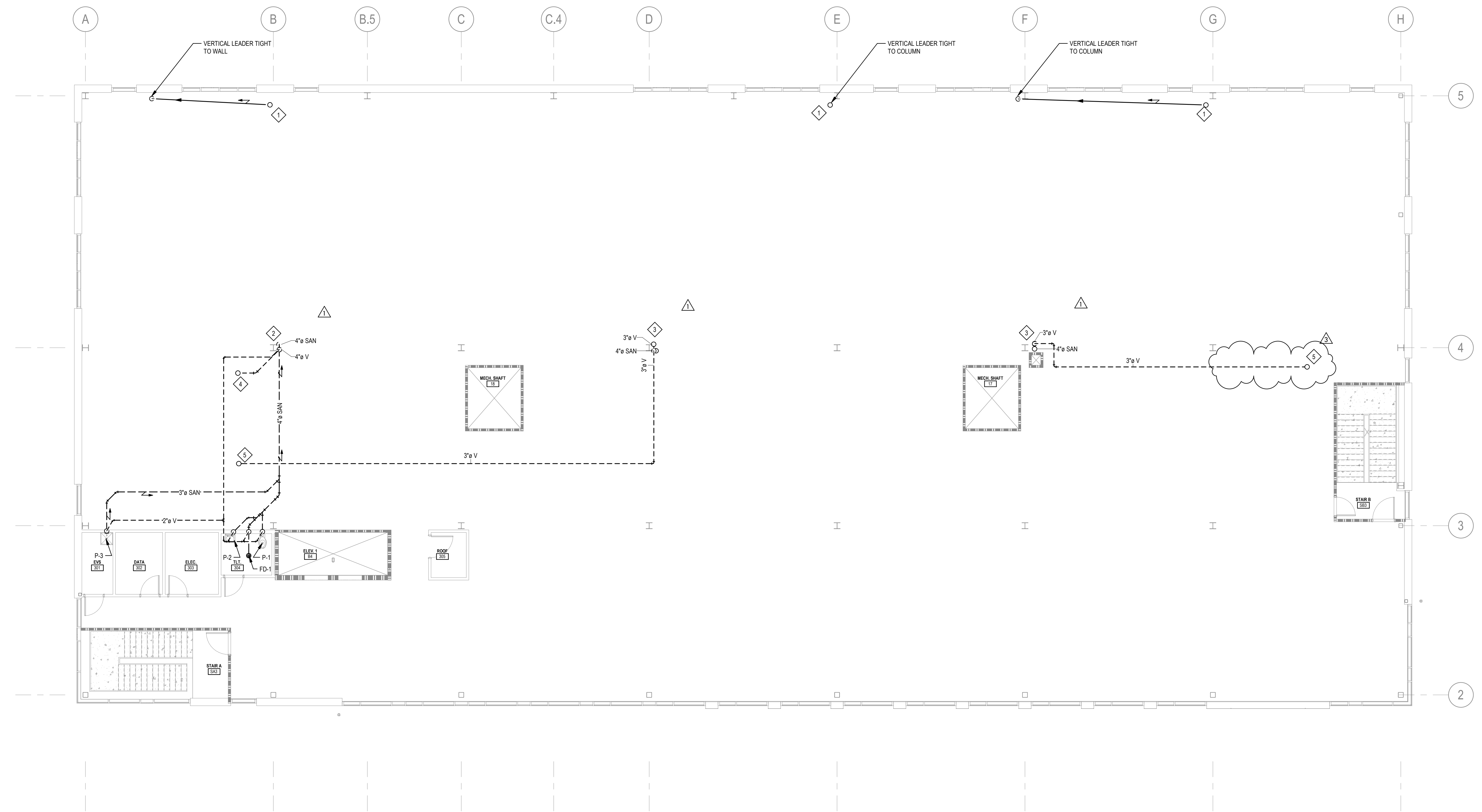
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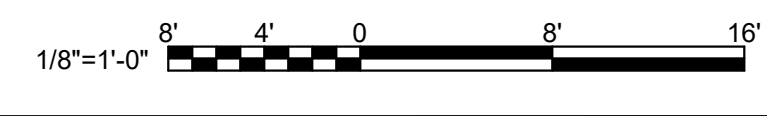


1 SANITARY THIRD FLOOR PLAN
 SCALE: 1/8" = 1'-0"

- GENERAL SHEET NOTES:**
- ALL NEW FIXTURE PIPING SHOWN ON PLANS SHALL BE SIZED AS SPECIFIED IN THE FIXTURE SCHEDULE FOUND ON P001.
- NEW WORK KEYED NOTES:**
- PRIMARY ROOF DRAIN LEADER DOWN FROM ROOF AND ROUTED ABOVE THIRD FLOOR CEILING TO COLUMN. ROUTE AS NOTED AND DOWN TO FIRST FLOOR.
 - 4" SANITARY AND 4" VENT UP IN WET COLUMN FROM FLOOR BELOW. ROUTE PIPING TIGHT TO COLUMN.
 - 4" SANITARY AND 3" VENT UP IN WET COLUMN FROM FLOOR BELOW. ROUTE PIPING TIGHT TO COLUMN.
 - 4" VENT THROUGH ROOF. TRANSITION ABOVE CEILING AS NECESSARY TO AVOID CONFLICTING WITH ROOF SCREEN. SEE P114 FOR ROOF PLAN.
 - 3" VENT THROUGH ROOF. COORDINATE WITH ROOF SCREEN, SEE P114 FOR ROOF PLAN.

FIRE RATED WALL LEGEND

[Symbol]	30 MIN-RATED PARTITION
[Symbol]	1 HOUR-RATED PARTITION
[Symbol]	2 HOUR-RATED PARTITION
[Symbol]	3 HOUR-RATED PARTITION
[Symbol]	4 HOUR-RATED PARTITION



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NO.	DATE	DESCRIPTION
1	2023.07.13	RFP 01
3	2023.08.25	RFP 02

SHEET NAME:
 PLUMBING - LEVEL 3 - SANITARY PLAN

ORIG SUBMISSION: 2023-05-12

SHEET: **P113**

