

**PLUMBING PIPES:**

---	DOMESTIC COLD WATER
---	DOMESTIC HOT WATER
---	DOMESTIC HOT WATER RECIRCULATION
140---	DOMESTIC HOT WATER - 140 DEGREES
180---	DOMESTIC HOT WATER - 180 DEGREES
---	DOMESTIC TEMPERED WATER
DW---	DOMESTIC CHILLED DRINKING WATER
---	DOMESTIC WATER SERVICE
---	WASTE PIPING - ABOVE FLOOR
---	WASTE PIPING - BELOW FLOOR
RD---	ROOF DRAIN - ABOVE FLOOR
---	ROOF DRAIN - BELOW FLOOR
AW---	ACID WASTE - ABOVE FLOOR
---	ACID WASTE - BELOW FLOOR
GW---	GREASE WASTE - ABOVE FLOOR
---	GREASE WASTE - BELOW FLOOR
---	VENT PIPING
AV---	ACID VENT PIPING
CA---	COMPRESSED AIR
G---	NATURAL GAS
LPG---	LIQUEFIED PETROLEUM GAS

**FIRE PROTECTION PIPES:**

F---	FIRE SERVICE
SP---	FIRE PROTECTION STANDPIPE
---	FIRE SPRINKLER - WET
FD---	FIRE SPRINKLER - DRY
FP---	FIRE SPRINKLER - PREACTION
FG---	FIRE SPRINKLER - GASEOUS

**ABBREVIATIONS:**

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
C	CONDUIT
CO	CLEANOUT
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CW	DOMESTIC COLD WATER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
DF	DRINKING FOUNTAIN
DN	DOWN
EF	EXHAUST FAN
EW	ELECTRIC WATER COOLER
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FFCO	FINISHED FLOOR CLEANOUT
FGCO	FINISHED GRADE CLEANOUT
FTR	FIN TUBE RADIATION
FWCO	FINISHED WALL CLEANOUT
G	GROUND WIRE
HHP	HYDRONIC HEAT PUMP
HP	HEAT PUMP
HW	DOMESTIC HOT WATER
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
OA	OUTSIDE AIR
OC	ON CENTER
RA	RETURN AIR
SA	SUPPLY AIR
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
UV	UNIT VENTILATOR
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE

**PIPE FITTINGS AND VALVES:**

[Symbol]	SHUT-OFF VALVE (BALL OR GATE AS SPECIFIED)
[Symbol]	CHECK VALVE
[Symbol]	BALANCING VALVE WITH PRESSURE PORTS
[Symbol]	TRIPLE DUTY VALVE WITH PRESSURE PORTS
[Symbol]	PLUG VALVE
[Symbol]	SOLENOID VALVE
[Symbol]	MOTORIZED TWO-WAY VALVE
[Symbol]	MOTORIZED THREE-WAY VALVE
[Symbol]	AUTOMATIC FLOW CONTROL VALVE
[Symbol]	DOMESTIC WATER MIXING VALVE
[Symbol]	TEMPERATURE REGULATING VALVE
[Symbol]	PRESSURE REDUCING VALVE
[Symbol]	RELIEF VALVE
[Symbol]	TEMPERATURE AND PRESSURE RELIEF VALVE
[Symbol]	THERMOMETER
[Symbol]	TEMPERATURE SENSOR
[Symbol]	PRESSURE GAUGE
[Symbol]	FLOW SWITCH
[Symbol]	STRAINER
[Symbol]	FLOAT TRAP
[Symbol]	FLOAT AND THERMOSTATIC TRAP
[Symbol]	BUCKET TRAP
[Symbol]	IMPULSE TRAP
[Symbol]	SLIDING EXPANSION JOINT
[Symbol]	BELLOWS EXPANSION JOINT
[Symbol]	PIPE GUIDE
[Symbol]	PIPE ANCHOR
[Symbol]	PIPING SUPPORT ON ROOF
[Symbol]	UNION
[Symbol]	REDUCER
[Symbol]	CAP
[Symbol]	BREAK
[Symbol]	ELBOW UP
[Symbol]	ELBOW DOWN
[Symbol]	TEE UP
[Symbol]	TEE DOWN
[Symbol]	SIAMESE CONNECTION
[Symbol]	SHOCK ABSORBER
[Symbol]	METER
[Symbol]	BACKFLOW PREVENTER

**PIPE SPECIALTIES:**

[Symbol]	DRAINAGE PIPE SPECIALTY TAG
[Symbol]	X DENOTES PLAN MARK
[Symbol]	4" DENOTES INLET PIPE SIZE (REFERENCE DRAINAGE PIPE SPECIALTY SCHEDULE)
[Symbol]	FLUSH FLOOR CLEANOUT
[Symbol]	FLUSH GRADE CLEANOUT
[Symbol]	ROOF DRAIN
[Symbol]	FLOOR DRAIN
[Symbol]	FLOOR SINK
[Symbol]	FLOOR TROUGH / TRENCH DRAIN
[Symbol]	FINISH WALL CLEANOUT
[Symbol]	FINISH FLOOR CLEANOUT
[Symbol]	ROOF DRAIN
[Symbol]	FLOOR DRAIN
[Symbol]	FLOOR SINK
[Symbol]	FLOOR TROUGH / TRENCH DRAIN

**PLUMBING FIXTURES:**

[Symbol]	PLUMBING FIXTURE PLAN MARK TAG (REFERENCE PLUMBING FIXTURE SCHEDULE)
[Symbol]	FLUSH TANK WATER CLOSET
[Symbol]	FLOOR MOUNT FLUSH VALVE WATER CLOSET
[Symbol]	WALL MOUNT FLUSH VALVE WATER CLOSET
[Symbol]	URINAL
[Symbol]	WALL MOUNTED LAVATORY
[Symbol]	COUNTERTOP LAVATORY
[Symbol]	SINGLE BOWL SINK
[Symbol]	DOUBLE BOWL SINK
[Symbol]	TRIPLE BOWL SINK
[Symbol]	BATHTUB
[Symbol]	SHOWER
[Symbol]	SHOWER HEADS
[Symbol]	DRINKING FOUNTAIN OR ELECTRIC WATER COOLER
[Symbol]	METER
[Symbol]	JANITOR'S BASIN
[Symbol]	EMERGENCY EYEWASH
[Symbol]	EMERGENCY EYEWASH & SHOWER
[Symbol]	EMERGENCY SHOWER
[Symbol]	LAUNDRY SINK
[Symbol]	ROUGH-IN BOX (LAUNDRY OR CONDENSATE DRAIN)
[Symbol]	ROUGH-IN BOX (ICE-MAKER)
[Symbol]	HOSE BIBB
[Symbol]	WALL HYDRANT

**PLAN NOTATIONS:**

[Symbol]	INDICATES DIRECTION OF NORTH
[Symbol]	DETAIL REFERENCE: UPPER NUMBER INDICATES DETAIL NUMBER, LOWER NUMBER INDICATES SHEET NUMBER
[Symbol]	PLAN NOTE REFERENCE
[Symbol]	INDICATES CONNECTION TO EXISTING SYSTEM
[Symbol]	SECTION REFERENCE: UPPER NUMBER INDICATES DETAIL NUMBER, LOWER NUMBER INDICATES SHEET NUMBER
[Symbol]	FIXTURE TAG

**FIRE PROTECTION NOTES:**

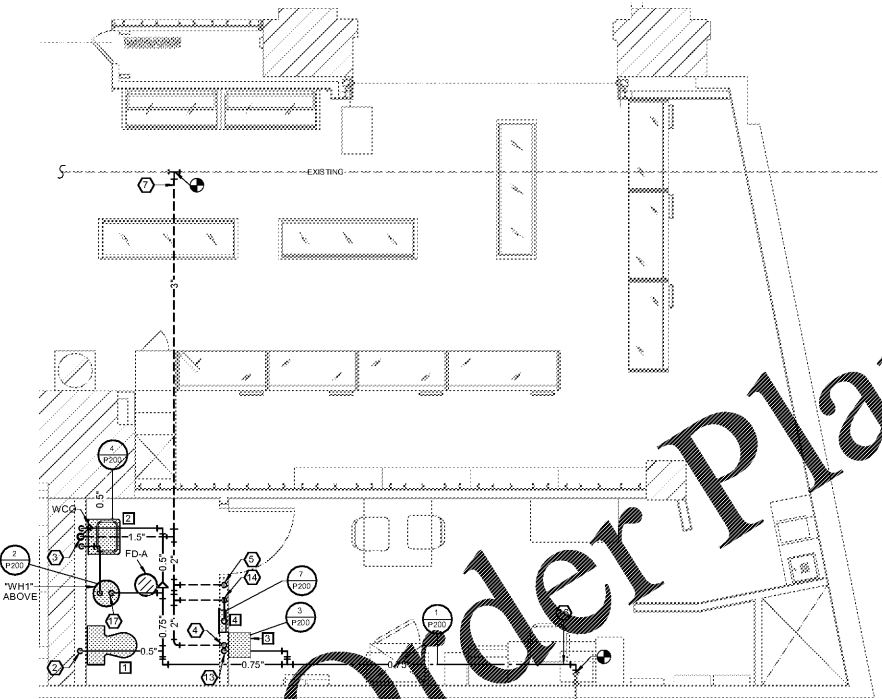
- PROTECT THE BUILDING BY WET PIPE SPRINKLER SYSTEM IN ACCORDANCE WITH SPECIFICATIONS, NATIONAL FIRE CODES, AND THE LOCAL FIRE MARSHAL.
- THE FIRE PROTECTION SYSTEM MATERIALS AND INSTALLATION SHALL COMPLY WITH NFPA 13, STATE AND LOCAL CODES. BASE SYSTEM DESIGN UPON WATER FLOW TEST READINGS. PROVIDE RISER SHUT OFF VALVES (OS&V), BACKFLOW PREVENTER, FIRE DEPARTMENT CONNECTIONS, SUPERVISED FLOW, AND TAMPER SWITCHES AS REQUIRED AND IN LOCATION AS DIRECTED BY LOCAL AHJ.
- LIGHTING, DUCTWORK, AND POWER DROP LOCATIONS TAKE PRECEDENCE OVER FIRE PROTECTION LINES AND SPRINKLER HEAD LOCATIONS. COORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS.
- PROVIDE FIRE SPRINKLER DRAWINGS AND CALCULATIONS. HAVE A PROFESSIONAL ENGINEER SEAL DRAWINGS AND CALCULATIONS WHERE REQUIRED BY AHJ.
- MODIFY SPRINKLER SYSTEM PER NEW LANDLORD PER APPLICABLE CODES. PROVIDE FULLY RECESSED TYPICAL HEADS UNLESS NOT ALLOWED BY LANDLORD. NOTIFY OWNER IF FULLY RECESSED SPRINKLER HEADS ARE NOT GOING TO BE USED PRIOR TO INSTALLATION. COVER PLATE COLOR TO MATCH FINISH SURFACE COLOR.
- USE LANDLORD SPECIFIED CONTRACTOR FOR MODIFICATIONS AND ADDITIONS TO SPRINKLER SYSTEM. CONTRACTOR TO PROVIDE COMPLETE SYSTEM INCLUDING DESIGN AND PERMITS.

**PLAN HEX NOTES:**

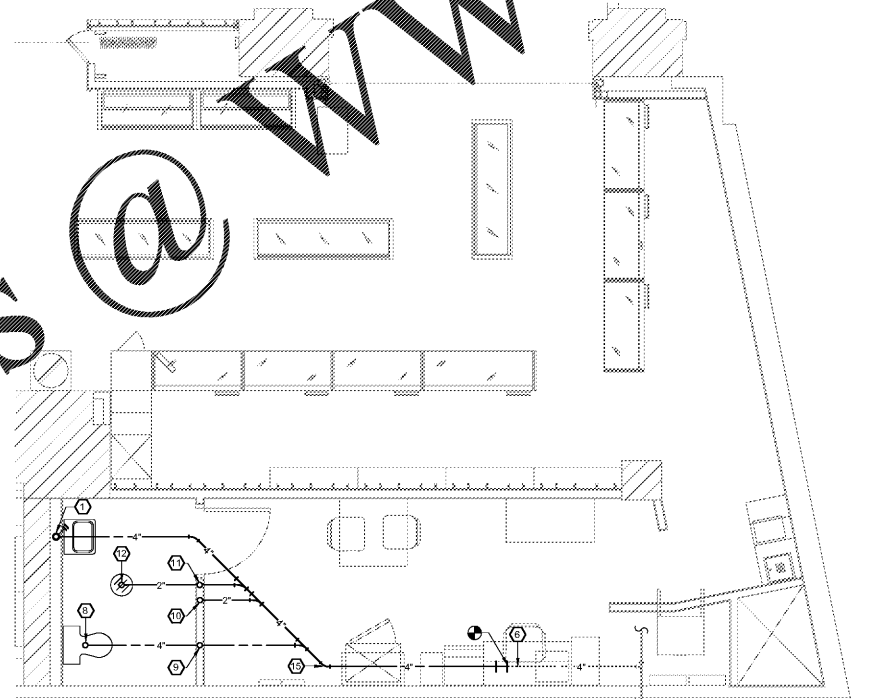
- 4" WASTE UP TO CLEANOUT AND 2" WASTE UP TO LAVATORY.
- 0.5" DOMESTIC COLD WATER DOWN TO WATER CLOSET.
- 0.5" DOMESTIC HOT AND COLD WATER AND 1" VENT DOWN TO LAVATORY.
- 2" VENT DOWN TO WATER CLOSET.
- 1.5" VENT DOWN TO WATER DRAIN.
- CONNECT TO EXISTING SANITARY SEWER. FIELD VERIFY EXACT LOCATION, DIRECTION OF FLOW AND INVERT PRIOR TO CONNECTION. REQUIRED WORK INVOLVED WITH SEWER PIPING WITH LANDLORD PRIOR TO SUBMITTING BID.
- ROUTE NEW VENT PIPING AND CONNECT TO EXISTING VENT PIPE. FIELD VERIFY PIPE LOCATIONS AND SIZING.
- 4" WASTE UP TO WATER CLOSET.
- 2" VENT UP.
- 2" WASTE UP TO TRAPPED CONNECTION ON P-T DRAIN BOX.
- 1.5" VENT UP.
- 2" TRAPPED WASTE UP TO FLOOR DRAIN.
- 0.5" COLD WATER DOWN TO CHILLED WATER DISPENSER.
- 1.5" VENT DOWN TO P-T DRAIN BOX.
- ADD FINISH FLOOR CLEANOUT IF DEVELOPED LENGTH EXCEEDS 40' ON BRANCH LINE.
- EXTEND NEW 0.75" DOMESTIC WATER PIPING AND CONNECT TO EXISTING MAIN DOMESTIC WATER PIPE SERVING TENANT SPACE. FIELD VERIFY PIPE LOCATIONS AND SIZING.
- 0.75" DOMESTIC COLD WATER, 0.75" DOMESTIC HOT WATER DOWN TO WATER HEATER. PROVIDE SHUT OFF VALVE AND UNION AT EACH CONNECTION.

**GENERAL NOTES:**

- ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL PLUMBING CODE AS ADOPTED BY GWINNETT COUNTY, GEORGIA.
- EACH CONTRACTOR IS RESPONSIBLE FOR HAVING THOROUGH KNOWLEDGE OF ALL DRAWINGS AND SPECIFICATIONS AS THEY RELATE TO THIS WORK. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED DUE TO LACK OF THIS KNOWLEDGE.
- PROVIDE ALL MATERIALS FOR A COMPLETE INSTALLATION IN ALL RESPECTS READY FOR INTENDED USE AND IN STRICT ACCORDANCE WITH STATE AND LOCAL CODES AND MANUFACTURER'S REQUIREMENTS.
- COORDINATE SEWER, GAS, AND WATER CONNECTIONS WITH CIVIL AND AHJ. PROVIDE PRESSURE REDUCING VALVE AND BACKFLOW PREVENTER AS SHOWN OR REQUIRED BY AHJ.
- REFER TO PLUMBING FIXTURE SCHEDULE FOR ALL PIPING AND PIPE SIZES NOT SHOWN ON PLAN.
- FIELD ADJUST WATER CLOSET FLUSHING MECHANISM FOR PROPER FLUSHING ACTION.
- SANITARY WASTE AND STORM WATER PIPING SHOWN IS BASED ON 1/4" PER FOOT FALL. ALL PIPE SMALLER THAN 4" DIAMETER SHALL BE 1/4" PER FOOT FALL. PIPE 4" DIAMETER OR LARGER SHALL BE 1/8" PER FOOT FALL.
- WASTE PIPING BELOW GRADE IS TO BE 2" DIAMETER MINIMUM.
- PROVIDE ACCESS DOORS TO ALL CONCEALED VALVES AND CLEAN OUTS, AND NOT ABOVE AN ACCESSIBLE FLOORING.
- PROVIDE TRAP SEAL PRIMERS AS SHOWN OR AS REQUIRED BY AHJ. CONTRACTOR SHALL VERIFY REQUIREMENTS.
- INSTALL VENTS, EXHAUST FANS, AND FLUES A MINIMUM 5'-0" FROM PARAPET OR OUTSIDE WALL AND 1'-0" FROM EQUIPMENT WITH OUTSIDE AIR INTAKE.
- INSTALL WATER PIPE ON INSIDE OF EXTERIOR WALL INSULATION TO PREVENT FREEZING.
- PROVIDE SEISMIC BRACING BASED ON APPROPRIATE SEISMIC ZONE REQUIREMENTS PER LOCAL AND NATIONAL CODES. CONTRACTOR'S RESPONSIBILITY INCLUDES STRUCTURAL ENGINEER'S CERTIFICATION ON DETAILS SUBMITTED FOR PERMITTING.
- PROVIDE FIRE SEAL WHERE PIPES PENETRATE FIRE RATED ASSEMBLY.
- SEAL ALL FLOOR PENETRATIONS WATER TIGHT TO PREVENT SEEPAGE INTO ADJOINING SPACE.
- CONTRACTOR SHALL VIDEO SCOPE AND JET THE EXISTING SANITARY LINES BACK TO THE LANDLORD SYSTEM AND PROVIDE A STATUS REPORT FOR THE OVERALL DISTANCE AND CONDITION DURING THE SECOND WEEK OF CONSTRUCTION AND AGAIN AT THE COMPLETION OF CONSTRUCTION. FURNISH ONE COPY OF THE FINAL REPORT WITH ONE COPY OF THE DVD TO THE OPERATIONS MANAGER AND HELZBERG CONSTRUCTION MANAGER. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- BALL VALVES SHALL BE FULL PORT BALL VALVES WITH LEVER HANDLE TYPICAL OF WILKINS MODEL 850.
- WATER HAMMER ARRESTORS SHALL CONFORM TO PDI WH-201 ASSE 1010. TEMP TO 180 DEGREES F. MAX 125 PSIG WORKING PRESSURE TYPICAL OF ZURN MODEL Z1700.
- CAP OFF AND REMOVE ALL DWV AND WATER PIPING NOT BEING REUSED. COORDINATE ALL DEMOLITION WITH LANDLORD.
- REFERENCE DETAIL 6 ON SHEET P200 FOR WASTE AND VENT RISER.



**2 ABOVE GROUND PLUMBING PLAN**  
SCALE: 1/4" = 1'-0"



**1 UNDERGROUND PLUMBING PLAN**  
SCALE: 1/4" = 1'-0"

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