

PLUMBING SPECIFICATIONS:

PLUMBING GENERAL REQUIREMENTS:

1. PROVIDE MATERIALS AND EQUIPMENT AND EXECUTE THE WORK, INCLUDING ALL TESTING AND INSPECTIONS, IN COMPLIANCE WITH THE APPLICABLE PROVISIONS OF FEDERAL, STATE AND LOCAL GOVERNMENT LAWS, ORDINANCES, REFERENCED CODES AND STANDARDS CURRENT AS OF THE ISSUE DATE OF THESE DRAWINGS. ALL MORE STRINGENT REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL MODIFY, SUPPLEMENT AND SUPERSEDE APPLICABLE PORTIONS OF GOVERNING LAWS, ORDINANCES, CODES AND STANDARDS.
2. CONTRACTOR SHALL PRESENT CERTIFICATE TO THE TENANT AND LANDLORD THAT ALL APPLICABLE BUILDING PERMITS HAVE BEEN SECURED PRIOR TO STARTING ANY WORK, AND PROVIDE THE TENANT AND LANDLORD WITH ALL REQUIRED CERTIFICATES OF FINAL APPROVAL FROM THE GOVERNING JURISDICTIONS AT COMPLETION OF THE WORK. PROVIDE ALL SHOP DRAWINGS AS REQUIRED IN FOLLOWING SECTIONS.
3. COORDINATE EXACT LOCATION OF CONSTRUCTION TO PRECLUDE ANY INTERFERENCES BETWEEN PIPING, WIRING, LIGHTING FIXTURES, DUCTWORK, BUILDING EQUIPMENT, PROCESS EQUIPMENT AND OTHER CONSTRUCTION.
4. PROVIDE LABOR, INCLUDING FIELD ERECTION AND SUPERVISION, MATERIALS, EQUIPMENT AND ANCILLARIES, AND COORDINATE, PROCURE, FABRICATE, DELIVER, ERECT OR INSTALL, INTERFACE WITH EXISTING WORK, START, DEBUG AND TEST ALL SYSTEMS AS NECESSARY TO PROVIDE THE OWNER WITH A COMPLETE, OPERATING FACILITY IN CONFORMANCE WITH THE CONSTRUCTION BID DOCUMENTS.
5. ALL CUTTING AND PATCHING THAT MAY BE NECESSARY FOR THE INSTALLATION OF THE MECHANICAL CONTRACTOR'S WORK SHALL BE PERFORMED AND REPAIRED BY THE TRADE WHOM NORMALLY PERFORMS THAT WORK AND PAID FOR BY THE MECHANICAL CONTRACTOR. NO CUTTING / ALTERATION OF THE BUILDING STRUCTURAL SYSTEM SHALL BE PERFORMED WITHOUT THE WRITTEN CONSENT OF THE LANDLORD AFTER ARCHITECT HAS APPROVED AND SIGNED OFF.
6. THE PLUMBING CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING HIS BID TO FAMILIARIZE HIMSELF WITH THE ACTUAL PROJECT CONDITIONS AND TO CHECK FOR ANY INTERFERENCES BETWEEN HIS WORK AND THAT OF THE OTHER TRADES, AND/OR ANY APPARENT VIOLATIONS OF LOCAL OR STATE CODES, LAWS, ORDINANCES AND REGULATIONS. SHOULD ANY VIOLATIONS OR INTERFERENCES APPEAR AND DEPARTURE FROM THE DESIGN INTENT OF THE CONTRACT DOCUMENTS IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO ENTERING INTO A CONTRACT WITH THE OWNER. FAILURE TO PROVIDE THE ARCHITECT WITH THE AFOREMENTIONED NOTIFICATION SHALL RESULT IN THE CONTRACTOR BEING HELD RESPONSIBLE TO COMPLETE ALL WORK TO MEET THE INTENT OF THE CONTRACT DOCUMENTS WITH NO ADDITIONAL EXPENSES BEING INCURRED BY THE OWNER.
7. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL LOCATIONS AND ARRANGEMENTS OF ALL THE EQUIPMENT AND PLUMBING. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS BUILDING CONSTRUCTION AND ALL OTHER WORK WILL PERMIT. DO NOT SCALE DRAWINGS FOR EXACT MEASUREMENTS.
8. SHOULD THE CONTRACTOR SUBMIT ANY SHOP DRAWINGS FOR REVIEW THAT VARY FROM WHAT THE CONSTRUCTION BID DOCUMENTS INDICATE, THE CONTRACTOR SHALL PAY THE ENGINEER FOR REVIEWING HIS SUBMISSION.

GENERAL NOTES: PLUMBING

1. ALL PLUMBING SHALL BE CONCEALED UNLESS OTHERWISE NOTED. EXPOSING OF ANY PLUMBING MUST HAVE APPROVAL OF THE ARCHITECT.
2. THE PLUMBING SYSTEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL STATE AND LOCAL PLUMBING CODES. THE PLUMBING CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY FOR ALL FEES, AND ARRANGE FOR ALL INSPECTIONS FOR HIS WORK. AT THE COMPLETION OF THE PROJECT, THE PLUMBING CONTRACTOR SHALL FURNISH THE OWNER WITH CERTIFICATES OF FINAL INSPECTIONS AND APPROVALS.
3. PLUMBING SHALL BE AS FOLLOWS:
 - A. SANITARY AND VENT PIPING:
 - 1) ALL 1-1/2" AND LARGER WASTE AND VENT PIPING ABOVE GROUND SHALL BE STANDARD WEIGHT CAST IRON SOIL PIPE WITH NO-HUB FITTINGS AND HEAVY DUTY BANDS.
 - 2) ALL WASTE PIPING BELOW GRADE SHALL BE SERVICE WEIGHT CAST IRON SOIL PIPE WITH COMPRESSION TYPE FITTINGS, OR SCHEDULE 40 PVC WHERE LOCAL CODE PERMITS.
 - B. DOMESTIC WATER PIPING:
 - 1) ALL ABOVE GROUND DOMESTIC WATER PIPING SHALL BE TYPE "L" HARD DRAWN COPPER TUBING WITH WROUGHT COPPER OR CAST RED BRONZE FITTINGS OR CROSS LINKED POLYETHYLENE PIPING (PEX). ALL SOLDERED FITTINGS SHALL BE MADE WITH SIL-FOS SOLDER OR AN APPROVED NON-TOXIC SOLDER. MECHANICAL TYPE FITTINGS EQUAL TO "PROPRESS SYSTEMS" ARE APPROVED IN LIEU OF SOLDERED FITTINGS.
 - 2) ALL UNDERGROUND PIPING SHALL BE TYPE "K" COPPER OR PEX. PIPE FITTINGS ARE NOT ALLOWED BELOW FLOOR SLAB.
 - C. VALVES:
 - 1) BALL VALVES SHALL BE TWO PIECE FULL PORT BRONZE BALL VALVES WITH STAINLESS STEEL TRIM, THE SEATS WITH 316 STAINLESS STEEL BALL AND STEM. THREADED BODY PACK NUT DESIGN WITH ADJUSTABLE STEM PACKING WITH THREADED OR SOLDERED ENDS. RATED FOR 150 PSIG SWP AND 600 PSIG CWP.
 - 2) CHECK VALVES SHALL BE SWING CHECK WITH BRONZE DISC, CLASS 150, 1/2" NPT M 6022 Y-PATTERN DESIGN WITH THREADED OR SOLDERED ENDS. RATED FOR 300 PSIG SWP.
 - D. PIPING INSULATION:
 - 1) DOMESTIC HOT, COLD & HOT WATER RETURN PIPING SHALL BE INSULATED WITH MINIMUM THICK FIBERGLASS INSULATION, WITH A FIRE RESISTANT PACKAGING AND A MINIMUM R VALUE OF 3.45. COLD WATER PIPING INSULATION SHALL BE PACKED WITH A VAPOR BARRIER, PROVIDE PREFORMED SEALS WITH FLOORS COVERS ALL JOINTS.
 - 2) ABOVE GROUND STORM DRAIN (HORIZONTAL) PIPING (INCLUDING FITTINGS) AND ROOF SUMP BODIES SHALL BE INSULATED WITH MINIMUM THICK FIBERGLASS INSULATION WITH A VAPOR BARRIER.
 - 3) PIPE INSULATION SHALL HAVE A FLAME SPREAD AND SMOKE DENSITY RATING NOT EXCEEDING 25/50, AS TESTED PER ASTM STANDARD E-84.
 - 4) DOMESTIC HOT WATER AND HOT WATER RETURN PEX PIPING MUST BE INSULATED.
4. PIPING SHALL BE SUPPORTED FROM HANGERS OR TRAYS AT AN ADEQUATE DISTANCE WITH SUPPORTING HANGERS BEING FASTENED TO THE BUILDING FRAMING. HANGERS FASTENED DIRECTLY TO THE ROOF OR FLOOR ARE NOT ALLOWED.
5. ISOLATION PIPING AND EQUIPMENT FROM THE BUILDING STRUCTURE WITH INSULATING HANGERS AND FITTINGS IS REQUIRED TO PREVENT GALVANIC CORROSION OF THE BUILDING PIPING SYSTEMS.
6. BEST PRACTICE WATER METERS SHALL BE EQUIPPED WITH A S.M.E. RATED TEMPERATURE AND PRESSURE REDUCING VALVE, LOCATED TO FLOOR. ROUTE DRAIN LINE TO NEAREST FLOOR DRAIN.
7. ALL FITTINGS SHALL BE PROPERLY SLEEVED WHEN ROUTED THROUGH FLOORS AND WALLS. CONTRACTOR TO PROVIDE FIRE RESISTANT ROPE PACKING FOR ALL PIPES PENETRATING FIRE RATED WALLS. CONTRACTOR SHALL OBTAIN A COPY OF THE ARCHITECTURAL DRAWINGS TO IDENTIFY FIRE RATED WALLS. CONTRACTOR SHALL PROVIDE A WEATHERPROOF SEAL FOR PIPING PENETRATING EXTERIOR WALLS.
8. FURNISH AND INSTALL ISOLATION VALVES AT ALL SERVICE POINTS OR EQUIPMENT CONNECTIONS. PROVIDE VACUUM BREAKERS AND ANTI-SIPHON FITTINGS ON WATER PIPING SYSTEMS BEFORE EQUIPMENT CONNECTIONS, AND AT ALL HOSE END SPIGOTS AND HOSE CONNECTIONS, ETC. INSTALL REDUCED PRESSURE BACKFLOW PREVENTERS ON ALL MAKE-UP WATER LINES TO FOOD SERVICE EQUIPMENT AND ON BUILDING DOMESTIC WATER SERVICE WHERE LOCAL CODE REQUIRES. THE INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH LOCAL CODES AND/OR AUTHORITIES FOR THE PROTECTION OF THE WATER SUPPLY SYSTEM. INSTALL STRAINER UP STREAM OF REDUCED PRESSURE BACKFLOW PREVENTER.

9. IDENTIFICATION:

- A. LABEL ALL PIPING SYSTEMS WITH MANUFACTURED SELF ADHESIVE OR PRE-TENSIONED PIPE MARKERS. MARKERS SHALL INDICATE SERVICE AND DIRECTION OF FLOW, MARK PIPE NEAR VALVES, BRANCH CONNECTIONS, PENETRATIONS, ACCESS DOORS AND NEAR MAJOR PIECES OF EQUIPMENT. MARKER SPACING SHALL NOT EXCEED 50'.
10. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PITCH OF PIPES FOR DRAINAGE AND AIR VENTING OF PIPING SYSTEMS AND SHALL PROVIDE DRAINS TO RECEIVE THE PIPING SYSTEMS' CONTENTS OF INDIRECT WASTE AND CONDENSATE DRAINAGE FROM ALL MECHANICAL DRAINS.
11. THE PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND PROVIDE ROUGH-INS FOR ALL EQUIPMENT FURNISHED BY OTHER CONTRACTORS. AFTER ALL EQUIPMENT HAS BEEN INSTALLED BY OTHER CONTRACTORS, THE PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS AND SHALL INCLUDE IN HIS BASE BID ALL VALVES, UNIONS, COUPLINGS, VACUUM BREAKERS, ETC., THAT ARE REQUIRED TO MAKE FINAL CONNECTIONS.
12. THE PLUMBING CONTRACTOR SHALL OBTAIN OTHER TRADES DRAWINGS AND COORDINATE HIS WORK WITH THE TOTAL PROJECT AS IT RELATES TO ALL TRADES AND VISIT THE PROJECT SITE PRIOR TO SUBMITTING HIS BID TO FAMILIARIZE HIMSELF WITH THE ACTUAL PROJECT CONDITIONS AND TO CHECK FOR ANY INTERFERENCES BETWEEN HIS SCOPE OF WORK AND THAT OF THE OTHER TRADES, AND/OR ANY APPARENT VIOLATIONS OF LOCAL OR STATE BUILDING CODES, LAWS, ORDINANCES, AND REGULATIONS. IF ANY INTERFERENCES OR VIOLATIONS APPEAR AND DEPARTURE FROM THE INITIAL DESIGN INTENT OF THE CONSTRUCTION BID DOCUMENTS IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO ENTERING INTO A CONTRACT WITH THE OWNER. FAILURE TO PROVIDE THE ARCHITECT WITH THE AFOREMENTIONED NOTIFICATION SHALL RESULT IN THE CONTRACTOR BEING HELD RESPONSIBLE TO COMPLETE ALL WORK TO MEET THE INTENT OF THE CONSTRUCTION BID DOCUMENTS WITH NO ADDITIONAL COSTS BEING INCURRED BY THE OWNER.
13. FURNISH AND INSTALL AN INDIVIDUAL COMBINATION PRESSURE BALANCING AND THERMOSTATIC CONTROL VALVE THAT CONFORMS TO A.S.S.E. # 1070 WITH TEMPERED WATER PIPING CONNECTIONS FOR ALL ACCESSIBLE PLUMBING FIXTURES. SET VALVE FOR A MAXIMUM OF 110°F.
14. THE CONTRACTOR SHALL SUBMIT EQUIPMENT SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW PRIOR TO INSTALLATION OF ANY OF THE FOLLOWING EQUIPMENT:
 - A. PLUMBING FIXTURES
 - B. SUMP PUMP PACKAGE
 - C. PLUMBING PIPE, FITTINGS AND HANGERS
 - D. DOMESTIC WATER HEATER
 - E. DOMESTIC HOT WATER PUMP
 - F. FLOOR DRAINS, HUB OUTLETS, CLEANOUTS, ETC.
15. THE CONTRACTOR SHALL GUARANTEE ALL WORK INSTALLED UNDER THIS CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER THE ACCEPTANCE OF THE BUILDING BY THE OWNER, AND SHOULD DEFECTS OCCUR WITHIN THIS PERIOD, REPAIR AND/OR REPLACE DEFECTIVE ITEMS AND ANY DAMAGE RESULTING FROM FAILURE OF THESE ITEMS, AT NO EXPENSE TO THE OWNER.
16. PROVIDE PRE-MANUFACTURED SUPPORTS EQUAL TO MIRO INDUSTRIES 3-R SPACED 10'-0" ON CENTER AND AT ALL FITTINGS OR SUPPORT OF ALL GAS PIPING RUN ON ROOF. FASTEN GAS PIPING SECURELY TO EACH SUPPORT AND PROVIDE SPACERS AS REQUIRED TO ADJUST FOR ROOF SLOPE WITHOUT STRESSING THE PIPING.
17. THE CONTRACTOR SHALL COORDINATE LOCATIONS OF HIS EQUIPMENT AND WORK WITH OTHER BUILDING TRADES TO AVOID ANY INTERFERENCES BETWEEN HIS WORK AND THE WORK OF OTHER TRADES.
18. ANY CUTTING AND/OR PATCHING, THAT MAY BE REQUIRED FOR THE INSTALLATION OF THE PLUMBING AND PIPING SYSTEMS, SHALL BE PERFORMED BY THE ARCHITECTURAL TRADES AND PAID FOR BY THE CONTRACTOR. NO CUTTING OF THE BUILDING STRUCTURAL SYSTEM SHALL BE PERFORMED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT BEING OBTAINED.
19. WATER HAMMER ARRESTORS SHALL BE INSTALLED ON BOTH COLD AND HOT WATER LINES. INSTALLED IN AN UPRIGHT POSITION AT ALL QUICK CLOSING VALVES, SOLENOIDS, AND PLUMBING FIXTURES. MANUFACTURED WATER HAMMER ARRESTORS SHALL BE SMITH CO. 3000 SERIES "WATROL"™, JOSAM, ZURN, OR AS APPROVED BY THE ARCHITECT, LOCAL CODE, SIZED, AND INSTALLED IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD B10.WH201.
20. A SEPARATE REFRIGERATION CONTRACTOR SHALL INSTALL COILS AND FREEZER REFRIGERATION SYSTEMS, COMPRESSORS, COILS, CONDENSING WATER AND CONDENSING UNITS, AND VALVES SHALL BE FURNISHED BY THE REFRIGERATION EQUIPMENT SUPPLIER. THIS CONTRACTOR SHALL INCLUDE PROVIDING REFRIGERATION LINE NECESSARY FITTINGS, CHARGING SYSTEM WITH REFRIGERANT, INSULATION, AND CONNECTIONS TO CONDENSORS AND COILS.
21. THE CONTRACTOR SHALL COORDINATE HIS ROUGH-IN WORK WITH THE DIMENSIONED DRAWINGS FURNISHED BY THE FOOD SERVICE EQUIPMENT CONTRACTOR.

FIRE PROTECTION SYSTEM SPECIFICATIONS:

1. THE FIRE PROTECTION CONTRACTOR SHALL DESIGN, FURNISH, AND INSTALL A COMPLETE SYSTEM OF AUTOMATIC WET SPRINKLERS IN ALL AREAS OF THE RENOVATED SPACE. DESIGN SHALL BE BASED UPON DESIGN CRITERIA AND HAZARD ESTABLISHED BY THE OWNER'S INSURANCE UNDERWRITERS, THE LOCAL FIRE MARSHAL, AND/OR OTHER AUTHORITIES HAVING JURISDICTION. THE ENTIRE SYSTEM SHALL BE HYDRAULICALLY CALCULATED IN A MANNER SET FORTH AND APPROVED BY N.F.P.A. IN GENERAL, THE SYSTEM SHALL BE TESTED AT A WATER PRESSURE OF 200 PSIG FOR A PERIOD OF TWO (2) HOURS AND SHALL HAVE ALL FACILITIES FOR PROPER DRAINAGE AND ANY NECESSARY TEST VALVES, OFFICES, OR EQUIPMENT REQUIRED BY AUTHORITIES HAVING JURISDICTION.
2. ALL WORK RELATED TO THE SPRINKLER SYSTEM SHALL BE IN ACCORDANCE WITH THE OWNER'S FIRE INSURANCE UNDERWRITER'S FIRE RATING INSPECTION BUREAU STANDARDS AND SPECIFICATIONS, THE REQUIREMENTS OF NFPA, THE LOCAL FIRE MARSHAL, AND ALL GOVERNING LOCAL OR STATE CODES, LAWS, ORDINANCES, AND REGULATIONS.
3. THE FIRE PROTECTION CONTRACTOR SHALL OBTAIN OTHER TRADES DRAWINGS AND COORDINATE HIS WORK WITH THE TOTAL PROJECT AS IT RELATES TO ALL TRADES AND VISIT THE JOB SITE BEFORE HE SUBMITS HIS BID TO FAMILIARIZE HIMSELF WITH ACTUAL JOB CONDITIONS AND TO CHECK FOR ANY INTERFERENCES BETWEEN HIS WORK AND THAT OF OTHER TRADES, AND/OR ANY APPARENT VIOLATIONS OF LOCAL OR STATE CODES, LAWS, ORDINANCES, AND REGULATIONS. IF ANY VIOLATIONS OR INTERFERENCES APPEAR AND DEPARTURE FROM THE DESIGN INTENT OF THE CONTRACT DOCUMENTS IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT BEFORE ENTERING INTO CONTRACT. FAILURE TO PROVIDE THE ARCHITECT WITH THE AFOREMENTIONED NOTIFICATION WILL RESULT IN THE CONTRACTOR BEING HELD RESPONSIBLE TO COMPLETE ALL WORK TO MEET THE INTENT OF THE CONTRACT DRAWINGS WITH NO ADDITIONAL EXPENSES ("EXTRAS") BEING INCURRED BY THE OWNER.
4. BEFORE PROCEEDING WITH ANY INSTALLATION WORK, THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT A SET OF COMPLETE SHOP DRAWINGS, INCLUDING HYDRAULIC CALCULATIONS, TO THE ARCHITECT. SHOP DRAWINGS SHALL BEAR THE WRITTEN APPROVAL OF THE OWNER'S FIRE INSURANCE UNDERWRITER'S FIRE RATING INSPECTION BUREAU, THE LOCAL FIRE MARSHAL, AND ALL OTHER AUTHORITIES HAVING JURISDICTION.
5. UPON COMPLETION OF THE SYSTEM, AND ON POSSESSION OF THE PREMISES, THE FIRE PROTECTION CONTRACTOR SHALL SUBMIT A WRITTEN CERTIFICATE TO THE OWNER FROM THE UNDERWRITER STATING THAT THE ENTIRE SYSTEM WAS INSPECTED AND APPROVED.
6. THE FIRE PROTECTION CONTRACTOR SHALL GUARANTEE ALL WORK INSTALLED UNDER HIS CONTRACT TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS, FOR A PERIOD OF ONE (1) YEAR AFTER THE ACCEPTANCE OF THE BUILDING BY THE OWNER, AND SHOULD DEFECTS OCCUR WITHIN THIS PERIOD, REPAIR AND/OR REPLACE DEFECTIVE ITEMS AND ANY DAMAGE RESULTING FROM FAILURE OF THESE ITEMS, AT NO EXPENSE TO THE OWNER.
7. THE FIRE PROTECTION CONTRACTOR SHALL COORDINATE LOCATIONS OF HIS EQUIPMENT AND WORK WITH OTHER BUILDING TRADES TO AVOID ANY INTERFERENCES BETWEEN HIS WORK AND THE WORK OF OTHER TRADES.
8. ANY CUTTING AND PATCHING, THAT MAY BE REQUIRED FOR THE INSTALLATION OF THE FIRE PROTECTION SYSTEM, SHALL BE DONE AND REPAIRED BY THE FIRE PROTECTION CONTRACTOR. NO CUTTING OF THE STRUCTURAL SYSTEM SHALL BE DONE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT BEING PREVIOUSLY OBTAINED.
9. THE EXISTING FIRE PROTECTION RISER AND SIAMESE CONNECTION ARE TO REMAIN IN THEIR EXISTING LOCATIONS. MODIFICATIONS TO THESE ITEMS SHOULD NOT BE NECESSARY.

PLUMBING GENERAL NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL NEW PLUMBING FIXTURES.
2. ALL PLUMBING RELATED CORING THROUGH FLOORS SHALL BE BY PLUMBING CONTRACTOR.
3. COORDINATE ALL NEW LOCATIONS, SIZES AND ELEVATIONS OF SLEEVES THROUGH WALLS SLABS AND FOUNDATIONS WITH STRUCTURAL DRAWINGS AND EXISTING FIELD CONDITIONS.
4. COORDINATE ALL PIPE ROUTING WITH SITE CONDITIONS, EQUIPMENT MANUFACTURER RECOMMENDATIONS AND ALL OTHER TRADES TO AVOID INTERFERENCES. PROVIDE ACCESS AROUND ALL NEW EQUIPMENT PER MANUFACTURERS RECOMMENDATIONS.
5. ALL OVERHEAD DOMESTIC WATER AND STORM PIPING SHALL BE INSULATED AND LABELED IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS.
6. ALL PIPING SHALL BE CONCEALED IN WALLS, CEILING SPACES OR ARCHITECTURAL SOFFITS.
7. SEAL ALL PENETRATIONS THROUGH WALLS AND FLOORS AIR AND WATERTIGHT. COORDINATE LOCATIONS AND ELEVATIONS OF ALL NEW UNDERGROUND UTILITIES WITH CIVIL SITE PLANS PRIOR TO START OF CONSTRUCTION.
8. CONTRACTOR SHALL MAINTAIN ADEQUATE CLEARANCES (PER N.E.C.) ABOVE AND AROUND ANY NEW ELECTRICAL PANELS, EQUIPMENT AND TRANSFORMERS WHEN ROUTING OVERHEAD DOMESTIC WATER AND STORM PIPING.
9. FAUCETS AND PLUMBING FIXTURES SHALL BE OF WATER CONSERVATION TYPE AND COMPLY WITH THE STATE ENERGY STANDARDS.
10. RUN ALL UNDERGROUND SANITARY AND STORM PIPING LARGER THAN 2" AT 1/8" PER FOOT MINIMUM PITCH RELATIONS NOTED OTHERWISE. SANITARY PIPING LESS THAN 2" SHALL BE PITCHED AT 1/4" PER FOOT MINIMUM, UNLESS NOTED OTHERWISE.

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
	GATE VALVE
	GLOBE VALVE
	BALL VALVE
	CHECK VALVE
	BALANCING VALVE
	BALANCING VALVE WITH TEST PORTS
	PLUG VALVE
	UNION
	PIPE TURNED UP
	PIPE TURNED DOWN
	PIPE OUT TOP
	PIPE OUT BOTTOM
	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER PIPING
	DOMESTIC HOT WATER RETURN PIPING
	VENT PIPING
	FIRE PROTECTION PIPING
	NATURAL GAS PIPING
	RAIN CONDUCTOR PIPING
	SANITARY PIPING
	STORM PIPING

ABBREVIATIONS

FF	FINISHED FLOOR
FR	AUTOMATIC SPRINKLER RISER
CL	CLEAN OUT
CW	COLD WATER (DOMESTIC)
DIA/Ø	DIAMETER
(E)	EXISTING
FD-1	FLOOR DRAIN
F.F. ELV.	FINISHED FLOOR ELEVATION
FP	FIRE PROTECTION
FPWH-#	FROST PROOF WALL HYDRANT
FS-#	FLOOR SINK
GPM	GALLONS PER MINUTE
HW	HOT WATER (DOMESTIC)
HWR	HOT WATER RETURN (DOMESTIC)
I.E.	INVERT ELEVATION
L-# / LAV-#	LAVATORY
ORD-#	OVERFLOW ROOF DRAIN
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
RD-#	ROOF DRAIN
S-#	SINK
SP-#	SUMP PUMP
(TYP)	TYPICAL
V	VENT
V.T.R.	VENT-THRU-ROOF
WC-#	WATER CLOSET
W.C.O.	WALL CLEANOUT
WH-#	WATER HEATER

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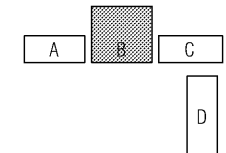
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CONSULTANT



KEY PLAN



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PROJECT NAME

**Suwanee Grocery, LLC
Building-B Build-Out**

3230 Caliber Street
Suwanee, GA 30024

PROJECT NO.

16-177

ISSUES / REVISIONS

Bidding - Construction 04/30/18

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**PLUMBING NOTES,
SYMBOLS &
ABBREVIATIONS**

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