

**PLUMBING NOTES**

- THE GENERAL CONDITIONS AND SUPPLEMENT GENERAL CONDITIONS ISSUED BY THE ARCHITECT SHALL GOVERN WHERE APPLICABLE.
- THIS CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE PLANS AND SHALL VERIFY EXISTING SITE CONDITIONS AT THE JOB SITE BEFORE SUBMITTING BID. FAILURE TO RECOGNIZE WORK REQUIRED SHALL BE AT THE EXPENSE OF THIS SUB-CONTRACTOR. NO CONSIDERATION SHALL BE GIVEN FOR ADDITIONAL COMPENSATION AFTER THE LETTING OF BIDS.
- ENTIRE INSTALLATION SHALL BE PERFORMED IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEMS SHALL BE FULLY OPERATIONAL, ACCEPTANCE BY THE OWNER SHALL BE A CONDITION OF THE CONTRACT. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCES, PRESERVE MAXIMUM HEADROOM, AND AVOID OMISSIONS.
- THIS CONTRACTOR TO MAKE ALL NECESSARY TAPS, AS CALLED FOR ON THE DRAWINGS.
- ALL WORK SHOWN OR INDICATED ON THE PLAN SHALL BE LEFT CLEAN AND IN FULL OPERATING CONDITION AND FULLY TESTED.
- INSULATE ALL HOT AND COLD WATER LINES. PIPE COVERING SHALL BE 1" THICK-2-1/2 LBS. DENSITY FIBERGLASS WITH MOLDED FITTINGS AND BUTT JOINTS AND VAPOR BARRIER.
- IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO START UP, ADJUST AND CHECK FOR PROPER OPERATION ALL EQUIPMENT INSTALLED UNDER HIS CONTRACT.
- THIS CONTRACTOR SHALL ALLOW IN HIS INITIAL BID THE COST OF SERVICE ON ALL EQUIPMENT INSTALLED UNDER HIS CONTRACT FOR A PERIOD OF ONE (1) YEAR TO DATE OF FINAL ACCEPTANCE OF THE WORK.
- ALL WATER PIPING SHALL BE TESTED WITH WATER UNDER PRESSURE OF 150 PSI, AND MADE TIGHT AT THIS PRESSURE.
- ALL SOIL, WASTE AND VENT SHALL BE SUBJECTED TO A HYDROSTATIC TEST OF NOT LESS THAN 10 FEET OF WATER COLUMN, AND PROVEN TO BE WATER TIGHT.
- BEFORE TURNING PLUMBING SYSTEM OVER TO THE OWNER, CHLORINATE ALL DOMESTIC WATER PIPING FOR A PERIOD OF 24 HOURS. AFTER CHLORINATION HAS BEEN COMPLETED, FLUSH ALL PIPING UNTIL WATER RUNS CLEAR AND IS RESIDUAL CHLORINE FREE.
- ALL WORK SHALL CONFORM TO ALL LOCAL CODES, AUTHORITIES AND INDUSTRY STANDARDS INCLUDING, BUT NOT LIMITED TO, THE CITY OF CHICAGO, STATE OF ILLINOIS, AND UL AS APPLICABLE. ALL WORK AND MATERIALS SHALL MATCH EXISTING UNLESS OTHERWISE NOTED.
- ANY MINOR CHANGES IN LOCATION OF PIPING AND EQUIPMENT FROM THOSE SHOWN ON THE DRAWINGS SHALL BE MADE WITHOUT COST TO THE OWNER IF SO DIRECTED BY THE ARCHITECT/OWNER BEFORE INSTALLATION.
- PROVIDE DIELECTRIC FITTINGS BETWEEN DISSIMILAR METAL PIPING MATERIALS.
- SLEEVE AND/OR FIRESTOP ALL PENETRATIONS THROUGH RATED WALLS, CEILINGS, AND FLOORS WITH U/L LISTED ASSEMBLIES SHALL BE EQUAL TO OR EXCEED THE RATING OF THE WALL, CEILING OR FLOOR.
- FLASH AND COUNTER-FLASH ROOF PENETRATIONS.
- ALL FIXTURES SHALL BE NEW AND FREE FROM FLAWS OR BLEMISHES. ALL FINISHED SURFACES SHALL BE CLEAR, SMOOTH AND BRIGHT AND GUARANTEED NOT TO CRAZE, DISCOLOR, OR SCALE. ALL FIXTURES, INCLUDING FAUCETS, ESCUTCHEON, WASTES, STRAINERS, TRAPS, SUPPLIES, STOPS, ETC., SHALL BE HEAVILY CHROME PLATED.
- ALL FIXTURES AND EQUIPMENT SHALL BE SUPPLIED AND MANUFACTURED AS NOTED IN THE "PLUMBING FIXTURE AND EQUIPMENT SCHEDULE". NO SUBSTITUTIONS WILL BE ALLOWED TO THE FIXTURES AND EQUIPMENT NOTED UNLESS PRIOR APPROVE IS GIVEN BY ARCHITECT/OWNER.
- BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF UTILITIES AND PIPING AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH OWNER FOR WATER, SEWER, SERVICE AND CONNECTIONS AND SHALL PAY FOR ALL FEES, CHARGES, AND PERMITS.
- INSTALL ALL PLUMBING TO AVOID INTERFERENCE WITH ELECTRICAL AND MECHANICAL EQUIPMENT AND STRUCTURAL FRAMING. WATER AND DRAIN LINES ARE NOT PERMITTED OVER OR UNDER ELECTRICAL PANELS.
- DO NOT SCALE DRAWINGS. PIPE ROUTING SHOW IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT ROUTING. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL OFFSETS AND FITTINGS REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES. VERIFY STRUCTURAL, MECHANICAL AND ELECTRICAL INSTALLATIONS AND OTHER POTENTIAL OBSTRUCTIONS AND ROUTE PIPING TO AVOID INTERFERENCES.
- DURING THE PROCESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF ALL CHANGES MADE IN THE PLUMBING SYSTEMS. THE RECORD DRAWING SHALL SHOW CHANGES IN MANUFACTURER (WITH NUMBERS AND TRADE NAMES), MATERIALS, SIZES, AND HOOK-UP POINTS.
- UPON COMPLETION OF PROJECT, THE PLUMBING CONTRACTOR SHALL INSPECT ALL EXPOSED PORTIONS OF THE PLUMBING FIXTURE INSTALLATION AND COMPLETELY REMOVE ALL EXPOSED SOIL, MARKINGS AND FOREIGN MATERIAL EXCEPT PRODUCT LABELS AND THOSE REQUIRED BY LAW.
- UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE GIVEN CONSIDERATION FOR ADDITIONAL COMPENSATION DUE TO HIS NEGLIGENCE TO COMPLY WITH ALL OF THE FOREGOING REQUIREMENTS.
- WHERE DRAWINGS, SPECIFICATIONS, AND NOTES CONFLICT WITH ONE ANOTHER THE CONTRACTOR SHALL IMMEDIATELY ADVISE THE ARCHITECT OF SUCH PENDING UPON WRITTEN RECEIPT OF ANY DIRECTION TO THE CONTRARY. THE CONTRACTOR SHALL INCLUDE IN HIS PROPOSAL THE MORE EXPENSIVE ALTERNATE DESCRIBED.
- PROVIDE FOUNDATION PAD PENETRATION SLEEVES. ALLOW 1" MINIMUM CLEARANCE BETWEEN SLEEVE INSIDE SURFACE AND PIPE EXTERIOR.
- BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF UTILITIES AND PIPING AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- PROTECT EXISTING BUILDING STRUCTURE AND GROUNDS FROM ANY DAMAGE WHICH MAY OCCUR DURING INSTALLATION OF NEW WORK. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED, REPLACED OR RESTORED TO THE ORIGINAL CONDITION AND SATISFACTION OF THE OWNER.
- WHERE EXISTING EQUIPMENT PREVENTS PROPER INSTALLATION OF PROPOSED EQUIPMENT, REROUTE OR ALTER EXISTING EQUIPMENT SO AS TO ACCOMMODATE PROPOSED WORK REQUIREMENTS.

**PLUMBING ABBREVIATIONS LIST**

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
CI	CAST IRON
CO	CLEANOUT
CW	DOMESTIC COLD WATER
DS	DOWN SPOUT
FD	FLOOR DRAIN
FCO	FLOOR CLEANOUT
FP	FIRE PROTECTION
GPM	GALLONS PER MINUTE
GC	GENERAL CONTRACTOR
HB	HOSE BIBB
HW	HOT WATER
IE	INVERT ELEVATION
KS	KITCHEN SINK
LLAV	LAVATORY
MB	MOP BASIN
NPCW	NON-POTABLE COLD WATER
N.T.S.	NOT TO SCALE
PLBG	PLUMBING
RD	ROOF DRAIN
S.SAN	SANITARY
SK	SINK
SS	SERVICE SINK
SH	SHOWER
TW	TEMPERED WATER
TWR	TEMPERED WATER RETURN
TYP	TYPICAL
V	VENT
VTR	VENT THRU ROOF
WC	WATER CLOSET

NOT ALL ABBREVIATIONS ARE USED IN THIS PROJECT.

**PLUMBING SYMBOLS LIST**

—CW—	COLD WATER
—HW—	HOT WATER
—T—	TEMPERED WATER
—S—	SUSPENDED SANITARY
—ST—	SUSPENDED STORM
—SS—	UNDERGROUND SANITARY
—ST—	UNDERGROUND STORM
---V---	VENT PIPING
→	DIRECTION OF FLOW
○	PIPE ELBOW UP
○	PIPE ELBOW DN.
UP/DN	PITCH PIPE UP OR DN
○	GATE VALVE
○	STRAINER
○	CHECK VALVE
○	RELIEF VALVE
○	BALL VALVE
○	UNION
○	PIPE CAP
○	CLEANOUT
○	THERMOMETER
○	PRESSURE GAUGE W/ COCK
○	SCHEDULED EQUIPMENT
○	POINT OF NEW CONNECTION

NOT ALL SYMBOLS ARE USED IN THIS PROJECT.

**PLUMBING FIXTURE SCHEDULE**

FIXTURE TAG.	MATERIAL	BASIC FIXTURE TYPE W/MODEL NUMBER	REMARKS
WC-1	VITREOUS CHINA	WATER CLOSET BY MANSFIELD "ADRATIC" MODEL # 1319 (OR ENGINEER APPROVED EQUIVALENT)	FLUSH VALVE: SLOAN MODEL # 116 XL MANUAL FLUSHOMETER, LOW CONSUMPTION 1.28 GPF SEAT: BEMIS MODEL # 2155SCT REFER TO ARCHITECTURAL DRAWING FOR MOUNTING HEIGHT.
L-1	VITREOUS CHINA	MANSFIELD "GRAND ISLE" MODEL # 2018HBS-4 (OR ENGINEER APPROVED EQUIVALENT)	FAUCET: MOEN # L64624, CHROME, 1.5 GPM, SINGLE HANDLE REFER TO ARCHITECTURAL DRAWING FOR MOUNTING HEIGHT.
SK-1	STAINLESS STEEL	ELKAY SINGLE BOWL, MODEL # 22130, STAINLESS STEEL, INSIDE DIMENSIONS: 25"x21"-1/4"x4" DEPTH.	FAUCET: MOEN FAUCETS MODEL # 67425 (OR ENGINEER APPROVED EQUIVALENT)
SK-2	STAINLESS STEEL	ELKAY SINGLE BOWL, MODEL # ECTR12179, STAINLESS STEEL	FAUCET: MOEN FAUCETS MODEL # 31479000 (OR ENGINEER APPROVED EQUIVALENT)
MV-1	BRONZE BODY	WATTS MODEL # USG-B POINT OF USE THERMOSTATIC MIXING VALVE.	
FD-1	DUCCO CAST IRON BODY	JAY R. SMITH # 2010-U FLOOR DRAIN WITH ADJUSTABLE STRAINER HEAD, AND VANDAL PROOF SCREWS	REVERSIBLE FLASHING COLLAR PERMITS ADJUSTMENT TO MEET FINISHED FLOOR LEVEL.
BFP-1		WATTS SERIES 007 DOUBLE CHECK VALVE ASSEMBLY.	BACKFLOW PREVENTER SHALL BE OF TESTABLE TYPE WITH 4-TEST PORTS CONNECTIONS PER ASSE 1015.



EXPIRES 11/30/2019  
I hereby certify that these plans were prepared under my supervision and that they comply to the best of my knowledge with all the building codes and ordinances of the city of Chicago, Ill.

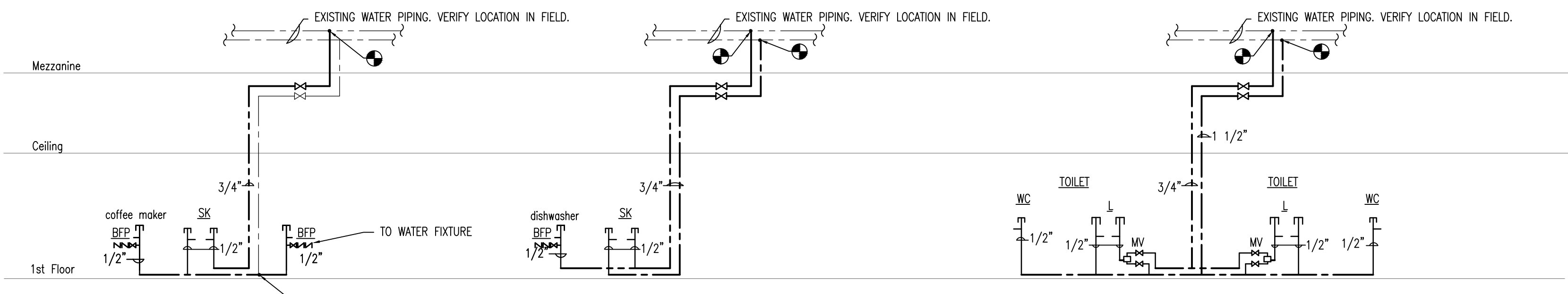
NO.	DATE	DESCRIPTION
1	12.21.17	PROGRESS SET
2	03.30.18	PERMIT SET

**PLUMBING PIPING MATERIAL**

- WASTE, VENT PIPING**
- A. ABOVEGROUND, SOIL AND WASTE PIPING NPS 3" AND SMALLER SHALL BE ANY OF THE FOLLOWING:**
- SERVICE CLASS, CAST-IRON SOIL PIPE AND FITTINGS; LEAD AND OAKUM JOINTS, ASTM A74.
  - COPPER TUBE, COPPER DRAINAGE FITTINGS, AND SOLDERED JOINTS, ASTM B 88, TYPE DWV.
- B. ABOVEGROUND, SOIL, WASTE PIPING NPS 4" AND LARGER SHALL BE THE FOLLOWING:**
- SERVICE CLASS, CAST-IRON SOIL PIPE AND FITTINGS; LEAD AND OAKUM JOINTS, ASTM A74.
- C. ABOVEGROUND, VENT PIPING NPS 3" AND SMALLER SHALL BE ANY OF THE FOLLOWING:**
- SERVICE CLASS, CAST-IRON SOIL PIPE AND FITTINGS; LEAD AND OAKUM JOINTS, ASTM A74
  - COPPER TUBE, COPPER DRAINAGE FITTINGS, AND SOLDERED JOINTS, ASTM B88.
- D. UNDERGROUND, SOIL AND WASTE PIPING NPS 3" AND SMALLER SHALL BE ANY OF THE FOLLOWING:**
- SERVICE CLASS, CAST-IRON SOIL PIPE AND FITTINGS; LEAD AND OAKUM JOINTS, ASTM A74.
  - COPPER TUBE, COPPER DRAINAGE FITTINGS, AND SOLDERED JOINTS, ASTM B 88, TYPE L.
- E. UNDERGROUND, SOIL, WASTE, VENT PIPING NPS 4" AND LARGER SHALL BE THE FOLLOWING:**
- SERVICE CLASS EXTRA-HEAVY (WHERE REQUIRED TO CONNECT TO EXISTING), CAST-IRON SOIL PIPING; GASKETS; AND GASKETED JOINTS, ASTM A74
- DOMESTIC WATER PIPING**
- A. ABOVEGROUND DOMESTIC WATER PIPING: USE THE FOLLOWING PIPING MATERIALS FOR EACH SIZE RANGE:**
- NPS 3" AND SMALLER: HARD COPPER TUBE, ASTM B88, TYPE L; ASTM B88M, TYPE A AND B. COPPER PRESSURE FITTINGS: ASME B16.18, CAST-COPPER-ALLOY OR B16.22, WROUGHT-COPPER, SOLDER-JOINTS FITTINGS.

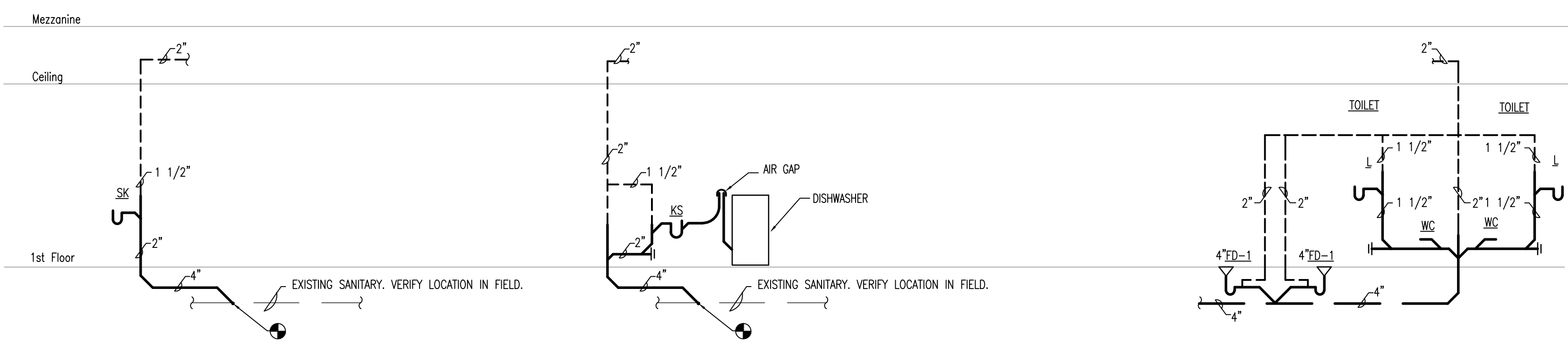
**PLUMBING SPECIFICATION**

- INSULATION**
- DOMESTIC HOT WATER PIPING SHALL BE INSULATED WITH 1" THICK 7# DENSITY, GLASS FIBER PRE-FORMED, ALL PURPOSE FLAME RETARDANT JACKET.
  - COLD WATER PIPING SHALL BE INSULATED WITH AS FOLLOWING:
    - A) PIPING LESS 1 1/2" - WITH 1/2" THICK, 7# DENSITY, GLASS FIBER, PRE-FORMED ALL PURPOSE FLAME RETARDANT VAPOR BARRIER JACKET.
- PLUMBING FIXTURES**
- FURNISH AND INSTALL PLUMBING FIXTURES INDICATED. FIXTURES TO BE FIRST QUALITY, CONNECTED, CLEANED AND READY FOR USE. PROVIDE WOOD BACKING, PROPERLY SECURED TO WALLS AND FLOORS.
  - PROVIDE TRAPS AND SUPPLIES WITH STOPS, MAKE ALL FINAL CONNECTIONS TO EACH FIXTURE, FAUCET, TAILPIECE, SINK FRAMES, ETC. FOR ALL FIXTURES.



**1 WATER PIPING PLUMBING DIAGRAM**

P0.00 Scale: NONE



**2 WASTE AND VENT PIPING PLUMBING DIAGRAM**

P0.00 Scale: NONE

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Drawing Title:  
**1st Floor Upgrade Repairs**  
2101 S. Michigan Avenue  
Chicago, IL

DESCRIPTION:  
**PLUMBING NOTES, ABBREVIATIONS, SCHEDULES, DIAGRAMS**

JOB NO. 1701  
DRAWN BY: -  
CHECKED BY: -  
DATE: 10-06-17

SHEET NO.  
**P0.00**  
MCA #4731