

PLUMBING SPECIFICATIONS

PART 1 - GENERAL

- PROJECT SHALL CONSIST OF PROVIDING COMPLETE PLUMBING SYSTEMS INCLUDING SANITARY & STORM SEWERS, WATER PIPING, PLUMBING FIXTURES & EQUIPMENT, HOT WATER HEATER & CONNECTIONS TO EQUIPMENT BY OTHERS AS SHOWN ON THE DRAWINGS.
- SYSTEMS ARE TO BE COMPLETE & WORKABLE IN ALL RESPECTS, PLACED IN OPERATION, & PROPERLY ADJUSTED.
- EACH CONTRACTOR SHALL PROVIDE FOR HIS OWN CLEAN-UP, REMOVAL & LEGAL DISPOSAL OF ALL RUBBISH ON A DAILY BASIS.
- FULLY COORDINATE ALL WORK WITH OTHER CONTRACTORS, SUBCONTRACTORS, THE OWNER, & COOPERATE COMPLETELY.
- PROJECT SHALL CONSIST OF PROVIDING COMPLETE PLUMBING SYSTEMS INCLUDING SANITARY & STORM SEWERS, GAS & WATER PIPING, PLUMBING FIXTURES & EQUIPMENT & CONNECTIONS TO EQUIPMENT BY OTHERS AS SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL COORDINATE ANY & ALL SHUTDOWNS WITH THE OTHER TRADES, COORDINATE WORK WITH OTHER TRADES TO AVOID ANY INTERFERENCE IN THE FIELD. ADJUST LOCATION OF WORK AS REQUIRED.
- CONTRACTOR SHALL EXAMINE THE FIELD CONDITIONS AS WELL AS THE DRAWINGS & SHALL MAKE HIS OWN DETERMINATION AS TO THE EXTENT OF THE WORK & CONDITIONS IT IS TO BE PERFORMED IN. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY TO THE SUCCESSFUL BIDDER FOR ANY ERROR OR NEGLIGENCE ON HIS PART.
- COORDINATE LOCATION OF NEW EQUIPMENT WITH EXISTING EQUIPMENT IN FIELD. SUBMIT TWO (2) COPIES (OR ELECTRONIC COPY) OF SHOP DRAWINGS COVERING EQUIPMENT TO BE FURNISHED INCLUDE WIRING DIAGRAMS, PLUMBING FIXTURES & ACCESSORIES, PIPE INSULATION & HOT WATER TANK.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS, LICENSES & INSPECTIONS & SHALL PAY ALL LEGAL & PROPER FEES & CHARGES IN CONNECTION WITH THIS WORK.
- PROVIDE FOUR (4) SETS OF OPERATING & MAINTENANCE MANUALS & INSTRUCT OWNER'S PERSONNEL IN OPERATION OF EQUIPMENT & SYSTEMS.
- PROVIDE A COMPLETE SET OF RECORD DRAWINGS. RECORD DRAWINGS SHALL CONSIST OF TWO (2) SETS OF BLACK LINE PRINTS OF THE CONTRACT DRAWINGS WITH ALL MODIFICATIONS OR ADJUSTMENTS INDICATED. CONTRACTOR SHALL PAY ALL ASSOCIATED COSTS.
- ELECTRICAL CONTRACTOR TO PROVIDE CONNECTIONS TO ALL EQUIPMENT AS MAY BE REQUIRED IN THIS CONTRACT.
- AFTER INSTALLATION HAS BEEN COMPLETED, CONTRACTOR SHALL CLEAN ALL SYSTEMS. EQUIPMENT SHALL BE THOROUGHLY CLEANED OF ALL STAIN, PAINT SPOTS, DIRT & DUST. ALL TEMPORARY LABELS, NOT USED FOR INSTRUCTION OR OPERATION SHALL BE REMOVED.
- THE CONTRACTOR SHALL PERSONALLY SUPERVISE THE WORK OR DELEGATE THE RESPONSIBILITY TO A COMPETENT SUPERINTENDENT WHOSE QUALIFICATIONS ARE ACCEPTABLE TO THE OWNER & ARCHITECT.

PART 2 - CODES & STANDARDS

- INSTALLATION OF PLUMBING EQUIPMENT & SYSTEMS SHALL BE IN FULL COMPLIANCE WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION, INCLUDING PLUMBING, MECHANICAL & FUEL GAS CODES & ALL LOCAL CODES HAVING JURISDICTION. ALL FIXTURES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. ALL GAS PIPING SHALL CONFORM TO ANSI CODE 221.30 "GAS INSTALLATION", LOCAL GAS CORPORATION REQUIREMENTS OR AUTHORITY HAVING JURISDICTION.

PART 3 - BASE EQUIPMENT & SUBSTITUTIONS

- ALL EQUIPMENT & MATERIALS SHALL BE NEW & FREE OF DEFECTS & HOLD A U.L. LABEL.
- BASE EQUIPMENT, MANUFACTURER, MODEL, & CAPACITY OF EQUIPMENT ARE LISTED IN SCHEDULE ON DRAWING. ANY OTHER MANUFACTURER OR MODEL IS CONSIDERED A SUBSTITUTION.
- SUBSTITUTIONS ARE SUBJECT TO THE APPROVAL OF THE OWNER. IF A SUBSTITUTION IS SUBMITTED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO EVALUATE IT & CERTIFY THAT THE SUBSTITUTION IS EQUIVALENT IN ALL RESPECTS TO THE BASE SPECIFICATIONS.
- IF SUBSTITUTIONS ARE APPROVED, NOTIFY ALL OTHER CONTRACTORS, SUBCONTRACTORS OR TRADES AFFECTED BY SUBSTITUTION A FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION, WHETHER BY CONTRACTOR OR OTHERS, SHALL BE RESPONSIBILITY OF & PAID FOR BY SUBSTITUTING CONTRACTOR.
- ALL EQUIPMENT SHALL BE INSTALLED IN FULL ACCORDANCE WITH THE MANUFACTURERS DATA & INSTALLATION INSTRUCTIONS. IT IS THIS CONTRACTOR'S RESPONSIBILITY TO CHECK & CONFORM TO THESE REQUIREMENTS PRIOR TO START OF WORK.

PART 4 - CHECK, START, ADJUST, & BALANCING INSTRUCTIONS

- AFTER INSTALLATION & SERVICING, CHECK ALL EQUIPMENT & PERFORM START UP IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ALL PIPING SHALL BE FULLY TESTED & MADE FREE OF LEAKS.
- INSTRUCT OWNER IN OPERATION OF SYSTEMS & SUBMIT OPERATING & MAINTENANCE MANUAL ON ALL EQUIPMENT & SYSTEMS.

PART 5 - CUTTING, PATCHING, & DRILLING

- THIS CONTRACTOR SHALL COORDINATE ALL PIPING & EQUIPMENT WITH STRUCTURE, DUCTWORK, PIPING, ETC. DO NOT CUT ANY STRUCTURAL COMPONENTS.
- PATCH & FINISH TO MATCH ADJACENT AREAS THAT HAVE BEEN CUT, DAMAGED OR MODIFIED AS A RESULT OF THE INSTALLATION OF PLUMBING EQUIPMENT. FIRE STOP ALL PENETRATIONS OF FIRE RATED CONSTRUCTION IN A CODE APPROVED MANNER IN ORDER TO MAINTAIN A FIRE RATING.
- ALL CUTTING, FITTING, REPAIRING, PAINTING & FINISHING OF WALLS & FLOORS, METAL & CARPENTRY WORK, ETC., THAT MAY BE NECESSARY FOR THE OPERATIONS REQUIRED BY THIS CONTRACTOR SHALL BE DONE BY CRAFTSMEN SKILLED IN THEIR RESPECTIVE TRADES & AT THE EXPENSE OF THE CONTRACTOR UNLESS OTHERWISE INDICATED, IN A MANNER APPROVED BY THE ARCHITECT.

PART 6 - PIPE SLEEVES & SEALS

- PROVIDE SLEEVES FOR ALL PIPING PASSING THRU FLOORS, WALLS OR CEILINGS & SEAL OPENING.
- FIRESTOP ALL PIPING PENETRATIONS THROUGH RATED FLOORS, WALLS & PARTITIONS.
- PROVIDE WATERTIGHT SEAL ON ALL PIPES PASSING THRU EXTERIOR WALLS, FOUNDATIONS OR WATERPROOF FLOORS.
- PROVIDE PIPE SLEEVES AT ALL WALL PENETRATIONS. 1" LARGER THAN INSULATION OR PIPE. SEAL WITH FIRESTOPPING. ALL PIPES PASSING THROUGH WALLS & FLOORS WHERE EXPOSED SHALL BE FITTED WITH SPLIT RING FINISHING PLATES WITH SET SCREWS TO HOLD PIPES SECURE.
- PROVIDE CHROME ESCUTCHEON PLATES ON ALL EXPOSED PIPING PASSING THRU FLOORS, WALLS OR CEILINGS.
- AT PLUMBING FIXTURES - POLISHED CHROME FINISH, SOLID TYPE WITH SET SCREWS.
- OTHERS - SPLIT TYPE, POLISHED CHROME FINISH, SET SCREW.

PART 7 - WARRANTY

- FULLY WARRANT ALL MATERIALS, EQUIPMENT & WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.
- REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD.

PART 8 - SCOPE

- FURNISH & INSTALL PLUMBING FIXTURES, EQUIPMENT & MATERIAL INDICATED & SHOWN ON DRAWINGS & INSTALL COMPLETE & PLACE IN PROPER OPERATION.
- PLUMBING SYSTEMS CONSISTS OF, BUT LIMITED TO THE FOLLOWING:
 - PLUMBING FIXTURES WITH ALL REQUIRED TRIM.
 - PLUMBING SPECIALTIES AS REQUIRED FOR COMPLETE INSTALLATION.
 - COLD/HOT WATER, WASTE & VENT PIPING.
 - INSULATION OF PIPING ITEMS AS NOTED.

PART 9 - SANITARY SEWERS/DRAINAGE SYSTEMS

- INSTALL SANITARY SEWERS, STACKS, VENTS, FLOOR DRAINS & CLEANOUTS FOR PROJECT & EXTEND AS INDICATED ON THE DRAWINGS.
- STORM/SANITARY DRAINAGE & VENT PIPING BELOW ABOVE FLOOR: SERVICE WEIGHT TARRED CAST IRON PIPE & FITTINGS. JOINTS SHALL BE NEOPRENE GASKET TYPE. VENT PIPING 2" & SMALLER MAY BE DWV COPPER W/ DWV SWEAT FITTINGS. PVC SCHEDULE 40 PIPING MEETING ASTM D-1785 FOR WASTE & VENT MAY BE USED IF APPROVED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO CONSTRUCTION.
- PROVIDE DRAIN VALVES AT ALL LOW POINTS IN SYSTEM.

PART 10 - FIXTURES

- FIXTURES & TRIM SHALL BE AS LISTED IN SCHEDULE.
- INSTALL IN FULL ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS & PLACE IN SATISFACTORY OPERATION.
- PROVIDE ALL NECESSARY TRAPS & SUPPLIES TO ALL FIXTURES & EQUIPMENT.

PART 11 - VALVES

- PROVIDE BALL VALVES AT ALL NEW FIXTURES, CHECK VALVES OR BALANCING VALVES AS INDICATED OR WHERE REQUIRED FOR PROPER MAINTENANCE, ISOLATION & SAFETY.
- DOMESTIC WATER BALL VALVES SIMILAR TO MILWAUKEE NO. BA-100S THREADED OR NO. BA-150S SOLDERED WITH BUNANN SEATS, PACKING & GASKETS, 300 PSIG W.O.S. WORKING PRESSURE OR EQUIVALENT APOLLO, GRINNELL OR WATTS.
- PROVIDE UL LISTED & AGA APPROVED LUBRICATED PLUG VALVES ON ALL PIPING, OR WHERE CALLED OUT FOR IN THE DESIGN DOCUMENTS.

PART 12 - PIPING INSULATION

- INSULATION PRODUCTS & INSULATION SHALL COMPLY WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- HOT WATER PIPING INSULATION SHALL BE PERFORMED, SNAP-ON FIBERGLASS INSULATION WITH PAINTABLE WHITE KRAFT OR ALUMINUM FOIL JACKET.
- DOMESTIC COLD WATER INSULATION SHALL BE SIMILAR TO HOT WATER WITH VAPOR BARRIER.
- RUNOUTS AS DEFINED BY THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION CAN BE 1/2" THICK UP TO 140 DEGREES FAHRENHEIT.
- INSULATE THE FOLLOWING:
 - HOT WATER PIPING.
 - COLD WATER PIPING.
 - STORM (ROOF DRAIN) WATER PIPING (HORIZONTAL ONLY)

PART 13 - WATER PIPING

- DOMESTIC WATER SERVICE & DOMESTIC WATER PIPING BELOW FLOOR: TYPE "K" COPPER WITH BRASS COUPLINGS.
- DOMESTIC WATER ABOVE FLOOR: TYPE "L" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS, & SOLDER CONTAINING NOT OVER 0.2% LEAD.
- INCLUDE UNIONS, OR OTHER DISCONNECT MEANS, STOPS OR VALVES FOR ISOLATION OF FIXTURES & EQUIPMENT. VALVES TO BE FULLY COMPATIBLE WITH PIPING FOR SERVICE INTENDED AS MANUFACTURED BY NBC, CRANE OR OTHER APPROVED MANUFACTURER.
- INSTALL SHOCK ABSORBERS AT EACH FIXTURE OR WHERE REQUIRED TO PREVENT WATER HAMMER, SHOCK ABSORBERS TO BE PRECISION PLUMBING PRODUCTS SC SERIES, OR EQUAL.

PART 14 - STERILIZATION OF WATER PIPING

- THE WATER SUPPLY & DISTRIBUTION SYSTEM SHALL BE STERILIZED WITH CHLORINE IN SOLUTION IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION PUBLICATION C-601-1954 & LOCAL ORDINANCES.
- ALL WORK & CERTIFICATION OF PERFORMANCE SHALL BE DONE BY APPROVED APPLICATIONS OR QUALIFIED PERSONNEL WITH CHEMICAL & LABORATORY EXPERIENCE. SUBMIT A CERTIFICATE OF STERILIZATION.

PART 15 - PIPING TEST

- ALL PIPING SYSTEMS INCLUDING VALVES & ACCESSORIES SHALL BE AS FOLLOWS: TEST PRESSURE SHALL BE MAINTAINED WITH NO LEAKS FOR DURATION SPECIFIED.
- SOIL, WASTE, & VENT - FILL WITH WATER TO 10 FT. ABOVE HIGHEST FIXTURE, TEST FOR 8 HOURS.
- HOT & COLD WATER - 150 PSIG HYDROSTATIC TEST FOR 4 HOURS.
- NATURAL GAS PIPING - TEST AT 15 PSIG AIR PRESSURE FOR MINIMUM OF 1 HOUR.
- LEAKS, DAMAGE OR DEFECTS DISCOVERED RESULTING FROM TESTS SHALL BE REPAIRED OR REPLACED TO A LIKE NEW CONDITION. LEAKY PIPE JOINTS, ETC. SHALL BE REMOVED & REPLACED WITH ACCEPTABLE MATERIALS & WORKMANSHIP.

PART 16 - SUPPORTS & HANGERS

- HANGERS & SUPPORTS ARE TO BE PROVIDED TO PROPERLY SUPPORT, SECURE & ALIGN PIPING & TO MEET CONDITIONS. SPACING TO COMPLY WITH LOCAL CODE REQUIREMENTS.
- DOMESTIC WATER: SPLIT RING OR CLEVIS TYPE WITH NON-FERROUS SEATING SURFACES SPACED AT 7 FOOT CENTERS.
- DRAINAGE & VENT PIPING: CLEVIS TYPE SPACED AT 5 FOOT CENTERS & LOCATED NEAR A HUB.

PART 17 - CONNECTION TO EQUIPMENT PROVIDED BY OTHERS

- THE PLUMBING CONTRACTOR SHALL COMPLETELY CONNECT THE FOLLOWING EQUIPMENT FURNISHED BY OTHERS.
- EXTEND GAS PIPING TO & CONNECT GAS FIRED ROOF TOP UNITS FURNISHED BY HVAC CONTRACTOR.
- PIPING TO ALL GAS FIRED EQUIPMENT TO INCLUDE DIRT LEG & SHUT OFF VALVE.
- SEE HVAC DRAWINGS FOR ADDITIONAL INFORMATION.

PART 18 - CLEANOUTS

- PROVIDE CLEAN OUTS FOR SANITARY SEWER PIPING AT ALL CHANGES IN DIRECTION AND WHERE SHOWN ON SHEET P1. MANUFACTURER SHALL BE WADE/JOSAM OR EQUAL.

PART 19 - VENTS THRU ROOF

- FLASH VENT PIPING WITH FOUR POUND LEAD OR NOBLE COMPANY FLASHING. TURN FLASHING DOWN INTO PIPE OPENING. COORDINATE ROOFING MANUFACTURERS REQUIRED TERMINATIONS.

PLUMBING PLAN KEY NOTES

GENERAL NOTES:

- PROVIDE & INSTALL PLUMBING FIXTURES PER FIXTURE SCHEDULE. ALL FIXTURES TO BE INSTALLED PER MANUFACTURER'S RECOMMENDED INSTALLATION INSTRUCTIONS. PROVIDE ALL ACCESSORIES AS REQUIRED TO ALLOW PROPER FUNCTION.
- PLUMBING CONTRACTOR SHALL VERIFY ALL WATER SUPPLY LINE SIZES AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- MODIFY EXISTING HOT WATER PIPING TO PROVIDE COMPLETE RE-CIRCULATING HOT WATER SYSTEM IF DISTANCE FROM EXISTING HOT WATER HEATER TO FURTHEST FIXTURE IS AT OR ABOVE 50'-0".
- PROVIDE ARCHITECT WITH SHOP DRAWINGS & SUBMITTALS FOR APPROVAL PRIOR TO WORK EFFORTS.
- ALL DOMESTIC SUPPLY PIPING SHALL BE 1/2" IN DIAMETER UNLESS OTHERWISE NOTED.

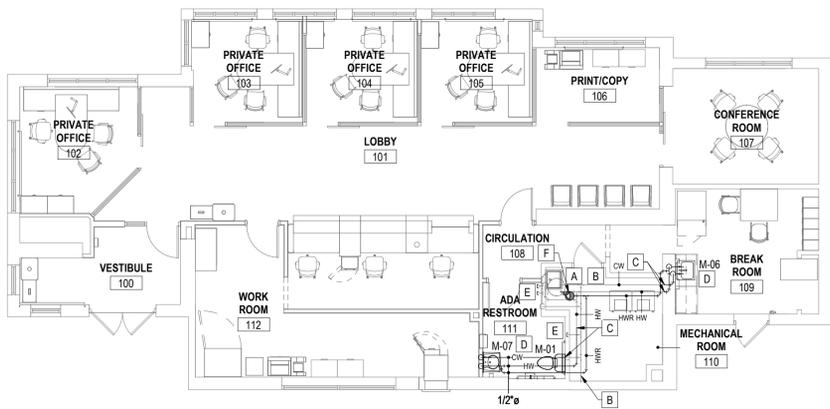
- LOCATION OF EXISTING WATER HEATER TO REMAIN. VERIFY CONDITION & NOTIFY ARCHITECT IF EXISTING WATER HEATER IS INSUFFICIENT.
- APPROXIMATE LOCATION OF EXISTING WATER LINE TO REMAIN. EXACT SIZE AND LOCATION SHALL BE VERIFIED IN FIELD.
- POINT OF CONNECTION. CONTRACTOR SHALL VERIFY EXACT POINT OF CONNECTION IN FIELD. PROVIDE ALL TRANSITIONS AND FITTINGS AS REQUIRED.
- NEW PLUMBING FIXTURE PER SCHEDULE. EXTEND WATER AND SUPPLY LINES AND SANITARY PIPING AS REQUIRED. PROVIDE TRANSITIONS, FITTINGS & SHUT OFF VALVES AS REQUIRED.
- CAP EXISTING WATER LINES AFTER REMOVAL OF PLUMBING FIXTURE.
- PROVIDE AND INSTALL NEW TACO' PLUMB N' PLUG 003-SC4-1P-NP HOT WATER RECIRCULATING PUMP WITH INTEGRAL 7 DAY DIGITAL TIMER (265-3) AND COMPATIBLE IN-LINE CHECK VALVE PER MANUFACTURER'S RECOMMENDATION. CONNECT HWR INTO WATER HEATER AT BOTTOM DRAIN. RELOCATE BOTTOM DRAIN HOSE-BIB PER TACO' INSTALLATION INSTRUCTIONS.

SANITARY PLAN KEY NOTES

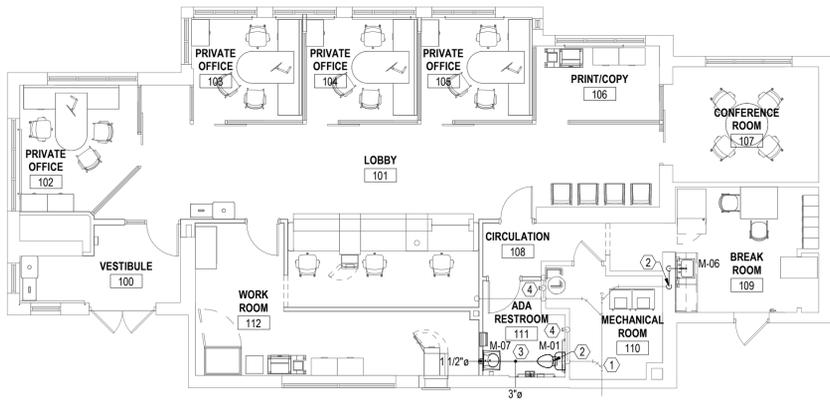
GENERAL NOTES:

- PROVIDE & INSTALL PLUMBING FIXTURES PER FIXTURE SCHEDULE. ALL FIXTURES TO BE INSTALLED PER MANUFACTURER'S RECOMMENDED INSTALLATION INSTRUCTIONS. PROVIDE ALL ACCESSORIES AS REQUIRED TO ALLOW PROPER FUNCTION.
- PLUMBING CONTRACTOR SHALL VERIFY ALL SANITARY LINE SIZES AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- ALL SANITARY PIPING SHALL BE PITCHED AT 1/8" PER FOOT MIN.
- WASTE & VENT NOT SHOWN FOR CLARITY. PROVIDE NEW VENT PIPING AS REQUIRED FOR NEW PLUMBING FIXTURES. ROUTE TO EXISTING VENT THROUGH ROOF.
- WASTE LINES ARE INDICATED AS SCHEMATIC. PLUMBING CONTRACTOR TO PROVIDE AND INSTALL ALL WASTE & VENT PIPING AS MAY BE REQUIRED IN STRICT ACCORDANCE WITH THE REGULATIONS SPECIFIC TO THE LOCALE.

- APPROXIMATE LOCATION OF SANITARY LINE. CONTRACTOR SHALL CAMERA EXISTING LINES TO CONFIRM INTEGRITY OF THE EXISTING SANITARY PIPING & DETERMINE LOCATIONS, SIZE & INVERT OF PROPOSED THE POINT.
- POINT OF CONNECTION. TIE INTO EXISTING SANITARY LINE. PROVIDE ALL REQUIRED TRANSITIONS & FITTINGS.
- NEW U.G. SANITARY LINE: SAWCUT EXISTING SLAB, EXCAVATE TO REQUIRED DEPTH, INSTALL NEW SANITARY LINE AS INDICATED. INSTALL R.O.C. STONE AND COMPACT TO 95% M.P.D. INSTALL 4" CONCRETE SLAB OVER NEW VAPOR BARRIER. PIN NEW SLAB TO EXISTING WITH 12' LONG, No. 4 DEFORMED BAR AT 16" O.C.
- CAP EXISTING SANITARY LINE INSIDE WALL AFTER REMOVAL OF EXISTING FIXTURE.



1 PLUMBING PLAN
SCALE: 1/8" = 1'-0"



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

PLUMBING FIXTURE SCHEDULE

TAG	QTY	FIXTURE	DRAINAGE		WATER		MAKE, MODEL AND ACCESSORIES
			SAN	VENT	CW	HW	
M-01	1	WATER CLOSET - ADA	3"	2"	1/2"		'KOHLER' MODEL NO. HIGHLINE K-3493-SS. PROVIDE WITH OPEN FRONT ELONGATED SEAT
M-06	1	KITCHENETTE SINK	1 1/2"	1 1/2"	1/2"	1/2"	'ELKAY' MODEL NO. LR2219PD MAX HEIGHT TO SINK RIM=34" A.F.F. PROVIDE 'MOEN' 7906 KITCHEN FAUCET
M-07	1	WALL MOUNT LAV	1 1/2"	1 1/2"	1/2"	1/2"	'AMERICAN STANDARD' MODEL NO. 0955.001EC. MURRO UNIVERSAL DESIGN WALL-HUNG LAVATORY IN WHITE FINISH W/ SHROUD / KNEE CONTACT GUARD (MODEL NO. 0059.020EC). 'SLOAN' MODEL NO. ETF-880-4-B-BDT CP. OPTIMA SENSOR FAUCET SINGLE HOLE POLISHED CHROME FAUCET W/ BELOW DECK THERMOSTATIC MIXING VALVE

PIPING MATERIAL SCHEDULE

SERVICE	PIPE MATERIALS	FITTINGS	CONNECTION
WATER	TYPE 'L' COPPER	WROUGHT COPPER PRO-PRESS	NO-LEAD SOLDER MECHANICAL PRESS
SANITARY & STORM (BELOW GRADE)	SERVICE WEIGHT CAST IRON SCHEDULE 40 PVC	HUB & SPIGOT SCHEDULE 40 PVC	THREADED SOLVENT WELD
SANITARY & STORM (ABOVE GRADE)	SERVICE WEIGHT CAST IRON DWV COPPER	NO-HUB OR HUB & SPIGOT WROUGHT COPPER	THREADED NO-LEAD SOLDER
INDIRECT DRAIN	DWV COPPER	WROUGHT COPPER	NO-LEAD SOLDER

PIPE INSULATION SCHEDULE

SERVICE	INSULATION THICKNESS FOR PIPE SIZES			
	1" AND LESS	1 1/4" TO 2"	3" TO 4"	OVER 4"
DOMESTIC COLD WATER	1/2"	1"	1"	1"
DOMESTIC HOT WATER	3/4"	1"	1"	1"

PIPE INSULATION NOTES

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- ALL WATER PIPING INSULATION SHALL BE PRE-FORMED, SNAP-ON FIBERGLASS INSULATION WITH PAINTABLE WHITE KRAFT OR ALUMINUM FOIL JACKET.
- RUNOUTS AS DEFINED BY THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION CAN BE 1/2" THICK UP TO 140 DEGREES FAHRENHEIT.
- INSULATE THE FOLLOWING: HOT WATER PIPING, COLD WATER PIPING, HORIZONTAL STORM (ROOF DRAIN) WATER PIPING, TRAP & WATER SUPPLIES.