

SCOPE OF WORK

PROVIDE ALL PLUMBING FOR SWEATHOUZ INCLUDING ALL WATER, SANITARY LINES AND CONNECT TO EXISTING UTILITIES. PROVIDE NEW ELECTRIC STORAGE TANK WATER HEATER.

COORDINATE WITH GC AND MECH CONTRACTOR FOR ANY REQUIRED CONDENSING WATER LINES.

PLUMBING NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
2. PLUMBING CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING OR PRECEDING WITH WORK.
3. ALL EQUIPMENT WHICH IS TO REMAIN MUST BE REFURBISHED TO A LIKE NEW CONDITION.
4. PLUMBING CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS.
5. ALL MATERIALS SHALL BE NEW.
6. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE. ALL EXCAVATION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
7. REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
8. PLUMBING CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTION AND TESTS. PLUMBING CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT. PLUMBING CONTRACTOR MUST BE PRESENT FOR ALL INSPECTIONS OF HIS WORK BY REGULATORY AUTHORITIES.
9. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC.
10. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION. REPORT ANY DISCREPANCY TO ENGINEER/ARCHITECT PRIOR TO BEGINNING CONSTRUCTION.
11. VERIFY LOCATION, SIZE, DIRECTION OF FLOW AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.
12. EXPOSED WATER PIPING SHALL BE TYPE "L" COPPER FOR 2" AND UNDER. WATER PIPING IN WALLS AND UNDERGROUND MAY BE "PEX" TYPE PIPING THAT MEETS ANSI/NSF STANDARD 61.
13. SOIL, WASTE, VENT AND RAINWATER PIPING SHALL BE PVC BUT MAY NOT RUN THRU RATED ASSEMBLIES OR IN PLENUMS.
14. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS AND APPROPRIATELY MARKED ACCESS PANELS. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
15. FURNISH AND INSTALL APPROVED AIR CHAMBERS AT EACH PLUMBING FIXTURE GROUP AS PER CODE AND WITH GOOD ENGINEERING PRACTICE.
16. DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL IN PIPING AND EQUIPMENT CONNECTIONS; EXCEPT AT WATER HEATER AS PER CODE.
17. ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PAD.
18. ALL FIRE RATED FLOOR AND WALL PENETRATIONS SHALL BE PROPERLY PROTECTED FROM FIRE, SMOKE AND WATER PENETRATION BY FILLING VOIDS BETWEEN PIPE AND WALL/FLOOR SLEEVES WITH FIRE RATED FOAM, TO ACHIEVE THE SAME RATING AS WALLS OR FLOORS AS PART OF THE PLUMBER'S WORK.
19. PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF CERTIFICATE OF OCCUPANCY. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE WITHIN 72 HOURS OF NOTIFICATION AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED.
20. STUDDOR MINI/MAXI AIR ADMITTANCE VALVES MAY NOT BE USED AS AN ALTERNATE TO VENT PIPING THRU ROOF.
21. PROVIDE CHROME PLATED COMBINATION COVER PLATE AND CLEAN OUT PLUG OR ACCESS PANEL FOR ALL CLEANOUTS.
22. NO COMBUSTIBLE MATERIAL TO BE USED IN MECHANICAL ROOMS OR IN CEILING SPACES WHERE USED AS RETURN AIR PLENUMS.
23. NO WATER, SANITARY OR DRAINAGE PIPING PERMITTED IN ELECTRICAL OR ELEVATOR EQUIPMENT ROOMS.
24. WATER PIPING INSULATION SHALL BE 1" THICK ARMAFLEX INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR ALL HOT WATER PIPING. WHERE DOMESTIC WATER TEMPERATURES CAN CAUSE SWEATING, ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION.
25. CONDENSATE DRAIN LINES TO BE RUN UNDER SLAB IN PVC SCH40 PIPE AND STUBBED OUT OF WALL TO UNIT. TIE-IN OF A/C TO BE BY OTHERS. PVC PIPING WITH 1/2" THICK ARMAFLEX INSULATION MAY BE USED IN LOCATIONS WHERE ALLOWED BY LOCAL CODES. SEE PLUMBING DRAWINGS FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40 FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40.
26. PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.
27. NO JOINTS UNDERGROUND FOR COPPER.
28. PLUMBING FIXTURES SHALL COMPLY WITH SEATTLE PLUMBING CODE.
29. WATER HAMMER ARRESTORS AS PER SEATTLE PLUMBING CODE.
30. PLUMBING CONTRACTOR TO PROVIDE ANTI-SCALDING VALVE FOR TUBS AND SHOWERS.
31. PLUMBING CONTRACTOR SHALL REVIEW ALL BID DOCUMENTATION.
32. PLUMBING CONTRACTOR SHALL REVIEW WALL FINISHES @ LOCATION REQUIRING BARRIER-FREE COMPLIANCE (EXAMPLE: CENTER LINE TO TOILET).
33. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE.
34. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.
35. EXISTING SLAB SITS ON TOP OF A LAYER OF A RIGID FOAM INSULATION, WITH A STRUCTURAL SLAB BELOW. STRUCTURAL SLAB BELOW SHALL NOT BE DISTURBED. THE STRUCTURAL SLAB MUST BE X-RAYED PRIOR TO PERFORMING ANY PENETRATIONS.

EXISTING CONTIDITONS NOTES

STOP AND READ

THE CONTRACTOR AND SUB-CONTRACTORS SHALL NOT INITIATE ANY WORK UNTIL EXISTING FIELD CONDITIONS ARE PROPERLY VERIFIED. THIS SHALL HOLD TRUE FOR FIRST GENERATION AND 2ND GENERATION SPACES. WHEN DEMOLITION IS REQUIRED, THAT WILL BE PERMITTED TO EXPOSE CONDITIONS. THESE VERIFICATIONS SHALL INCLUDE BUT NOT LIMITED TO: DIMENSIONS BOTH HORIZONTALLY AND VERTICAL, ELECTRICAL SERVICE /PANELS LOCATION AND VOLTS/PHASE, LOCATION/QUY OF ROOF MOUNTED HVAC EQUIPMENT, CONFIRM THAT INTERIOR HVAC HUNG UNITS HAVE PROPER SUPPORT CONNECTIONS FOR EXISTING STRUCTURE, FIRE SPRINKLER MAIN RUNS, TOILET ROOM DIMENSIONS, DOOR SWING FOR DOORS TO REMAIN AND ETC. IF NOT VERIFIED AND DISCOVERED AT A LATER TIME, THE CONTRACTOR SHALL REIMBURSE THE ARCHITECT FOR THE REDESIGN FEE. THIS DOES NOT INCLUDE HIDDEN WORK I.E. PITCH OF SANITARY LINES, ACTUAL CONDITIONS OF EXISTING HVAC EQUIPMENT, STRUCTURAL COLUMNS/BEARING WALLS OR CONDITIONS OF GREASE INTERCEPTORS AND ETC.

ENERGY CONSERVATION NOTES

1. AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.5. PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.11.3 OF MINIMUM PIPE INSULATION THICKNESS.
2. HOT WATER SYSTEM PIPING IS DESIGNED AS PER MAXIMUM ALLOWED PIPE LENGTH METHOD AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE. THE HOT WATER VOLUME FROM THE NEAREST SOURCE OF HEATED WATER TO THE TERMINATION OF THE FIXTURE SUPPLY PIPE SHALL BE AS PER MAXIMUM PIPING LENGTH TABLE.
3. AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE. WATER HEATING EQUIPMENT AND HOT WATER STORAGE TANKS SHALL MEET THE REQUIREMENTS OF TABLE C404.2. THE EFFICIENCY SHALL BE VERIFIED THROUGH THE DATA FURNISHED BY THE MANUFACTURER.
4. AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.6.1. CONTROLS FOR CIRCULATING HOT WATER SYSTEM PUMPS SHALL START THE PUMP BASED ON THE IDENTIFICATION OF A DEMAND FOR HOT WATER WITHIN THE OCCUPANCY. THE CONTROLS SHALL AUTOMATICALLY TURN OFF THE PUMP WHEN THE WATER IN THE CIRCULATION LOOP IS AT THE DESIRED TEMPERATURE AND WHEN THERE IS NOT DEMAND FOR HOT WATER.
5. AS PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE C404.7. THE CONTROLS SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD-WATER PIPING TO NOT GREATER THAN 104°F (40°C).

FIXTURE BRANCH SCHEDULES

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
4" WATER CLOSET (TANK)	3/4"	1"	4"	2"
2" LAVATORY	1/2"	1/2"	2"	1 1/2"-2"
3" SERVICE SINK	1/2"	1/2"	3"	1 1/2"-2"
FLOOR DRAIN / SINK	--	--	3"	1 1/2"-2"

PLUMBING LEGEND

	SANITARY SEWER PIPING
	VENT PIPING
	DOMESTIC COLD WATER PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	PIPE RISE OR DROP
	PIPE RISER UP
	BALANCING VALVE
	CLEAN OUT
	P-TRAP
	SHUT-OFF VALVE
	CLEAN OUT TO GRADE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RETURN
	VENT THRU ROOF
	GATE VALVE
	CHECK VALVE
	FLOOR DRAIN
	FILTERED WATER
	BACKFLOW PREVENTOR
	THERMOSTATIC MIXING VALVE

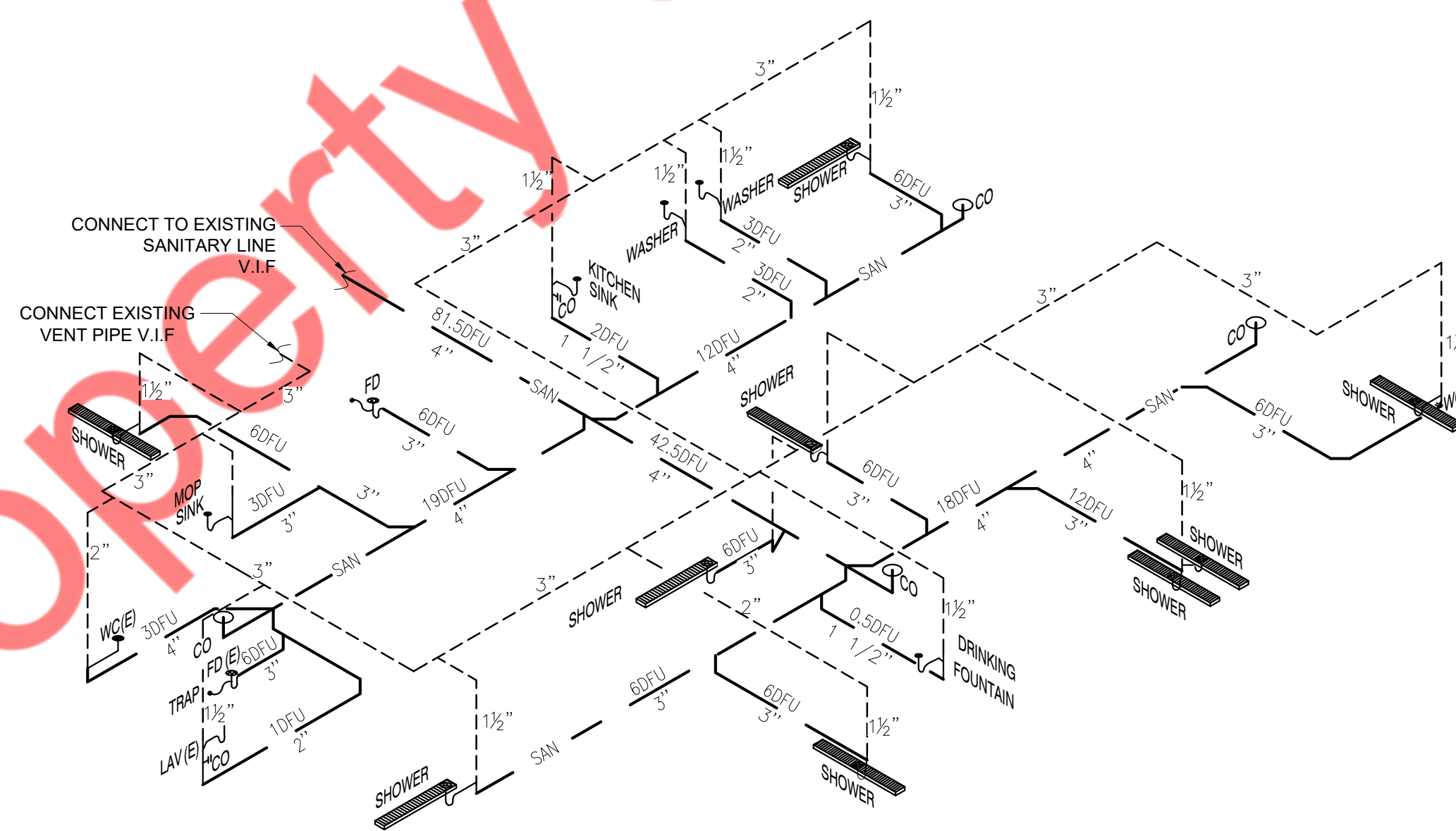
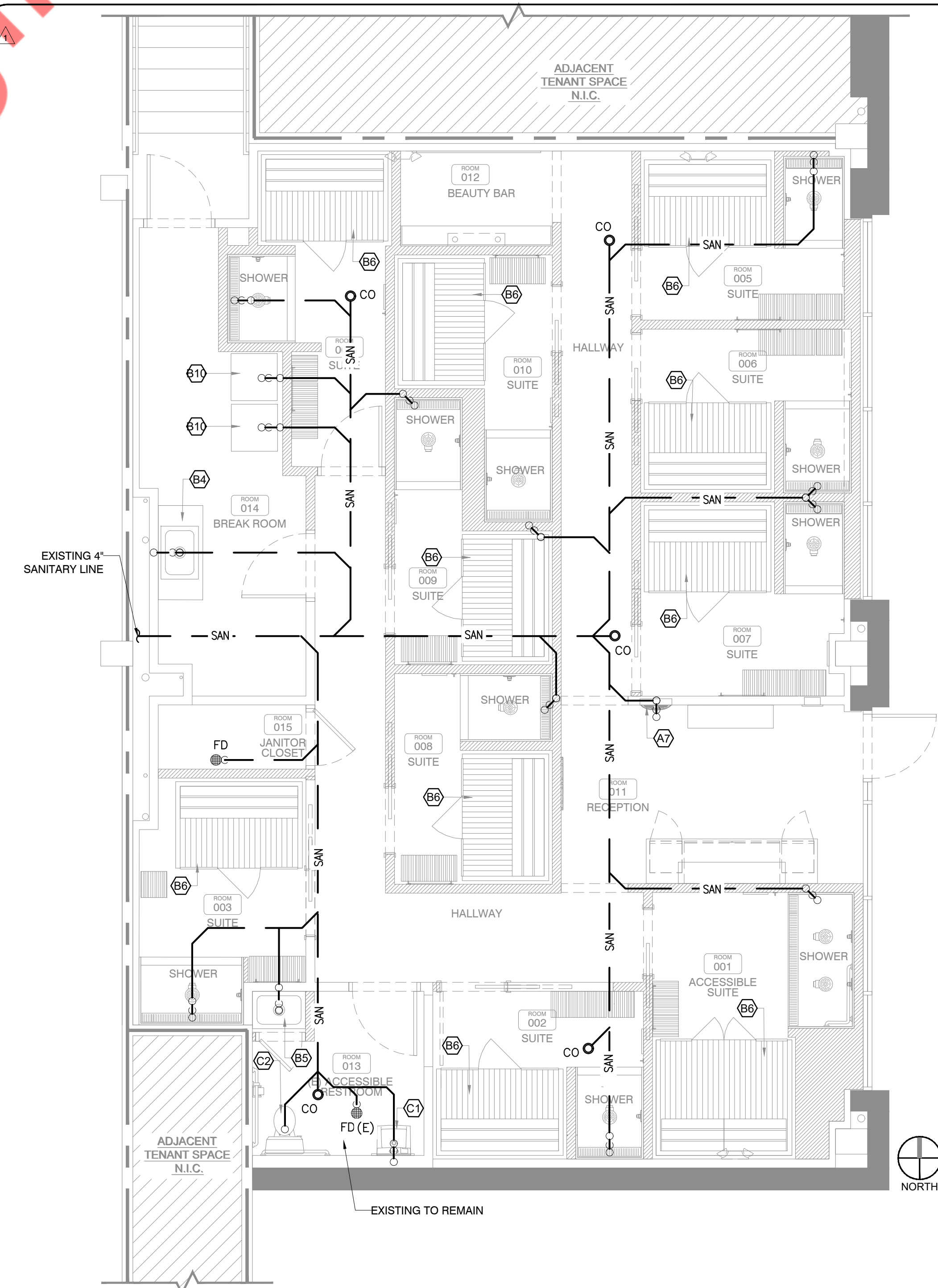
RESTROOM FIXTURE SCHEDULE

Item No.	Qty.	Description	Manufacturer	Model	WATER		WASTE		Usage	Spec
					Hot	Cold	Waste	Usage		
C1	1	LAVATORY	EXISTING TO REMAIN	EXISTING TO REMAIN			2"			
	1	THERMAL MIXING VALVES	EXISTING TO REMAIN	EXISTING TO REMAIN	1/2"	1/2"				
C2	1	WATER CLOSET	EXISTING TO REMAIN	EXISTING TO REMAIN			3/4"	4"	1.28	GPF

KITCHEN EQUIPMENT PLUMBING SCHEDULE

Item No.	Qty.	Description	MANUFACTURER	MODEL	WATER		WASTE	
					Hot	Cold	Direct	Indirect
A7	1	DRINKING FOUNTAIN	ELKAY	EMASMB			1 1/2"	1 1/2"
B4	1	KITCHEN SINK & FAUCET	REGENCY	600D112812			1 1/2"	1 1/2"
B5	1	MOP SINK	-	-				3"
B5A	1	MOP SINK FAUCET	-	-	1/2"+	1/2"		
B10	2	STACKED WASHER-DRYER	ALLIANCE SPEED QUEEN	SF7	1/2"+	1/2"	2"	
B3	11	SHOWERHEAD	JACLO	6" ROUND RAIN MACHINE	1/2"	1/2"		
	11	THERMOSTATIC MIXING VALVE	AMERICAN STANDARD	R111	1/2"	1/2"		
	11	CONTROL VALVE	DESIGN PACKAGE 2.0	AC-11	1/2"	1/2"		
C8	1	WATER HEATER	SEE SCHEDULE	SEE SCHEDULE	1-1/4"	1-1/4"		
		TRENCH DRAIN	ZURN	ZS880				3"
		FLOOR SINKS	ZURN	Z1900-23-31 (ZS1900 IF IN EXPOSED AREAS)				3"
		FLOOR DRAINS*	ZURN	ZS415 W/ TYPE BS STRAINER				3"

* HOT WATER 140 DEG. *PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS



SANITARY RISER

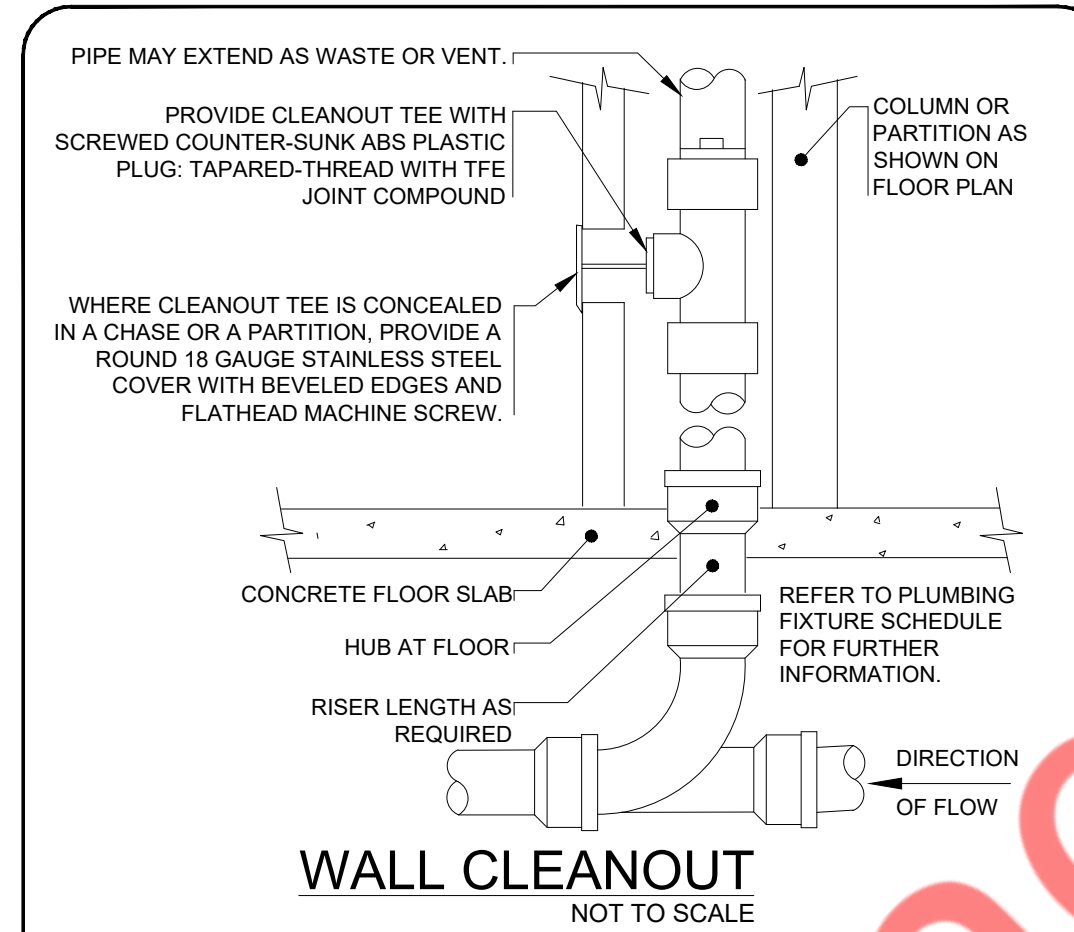
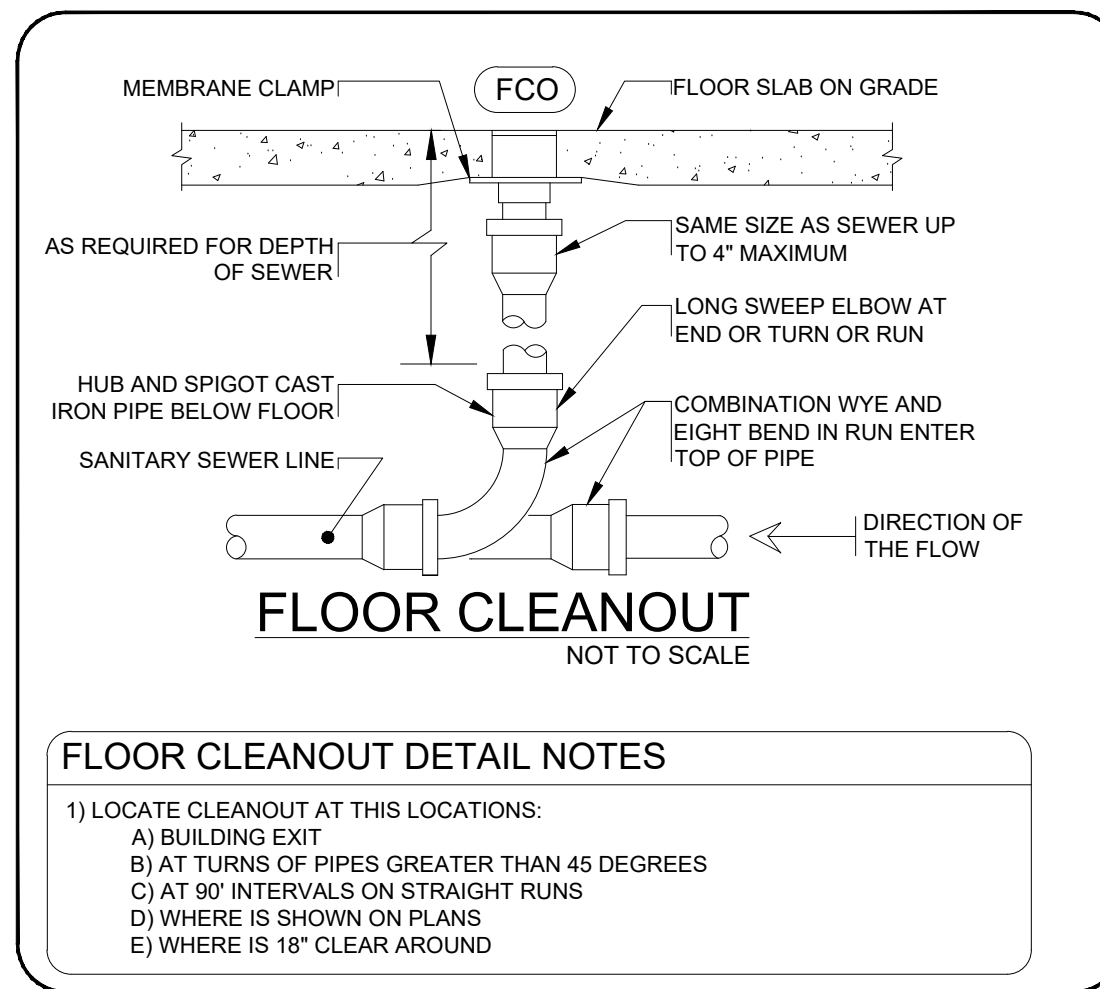
SCALE
N.T.S.

2

SANITARY PLAN

SCALE
1/4" = 1'-0"

1



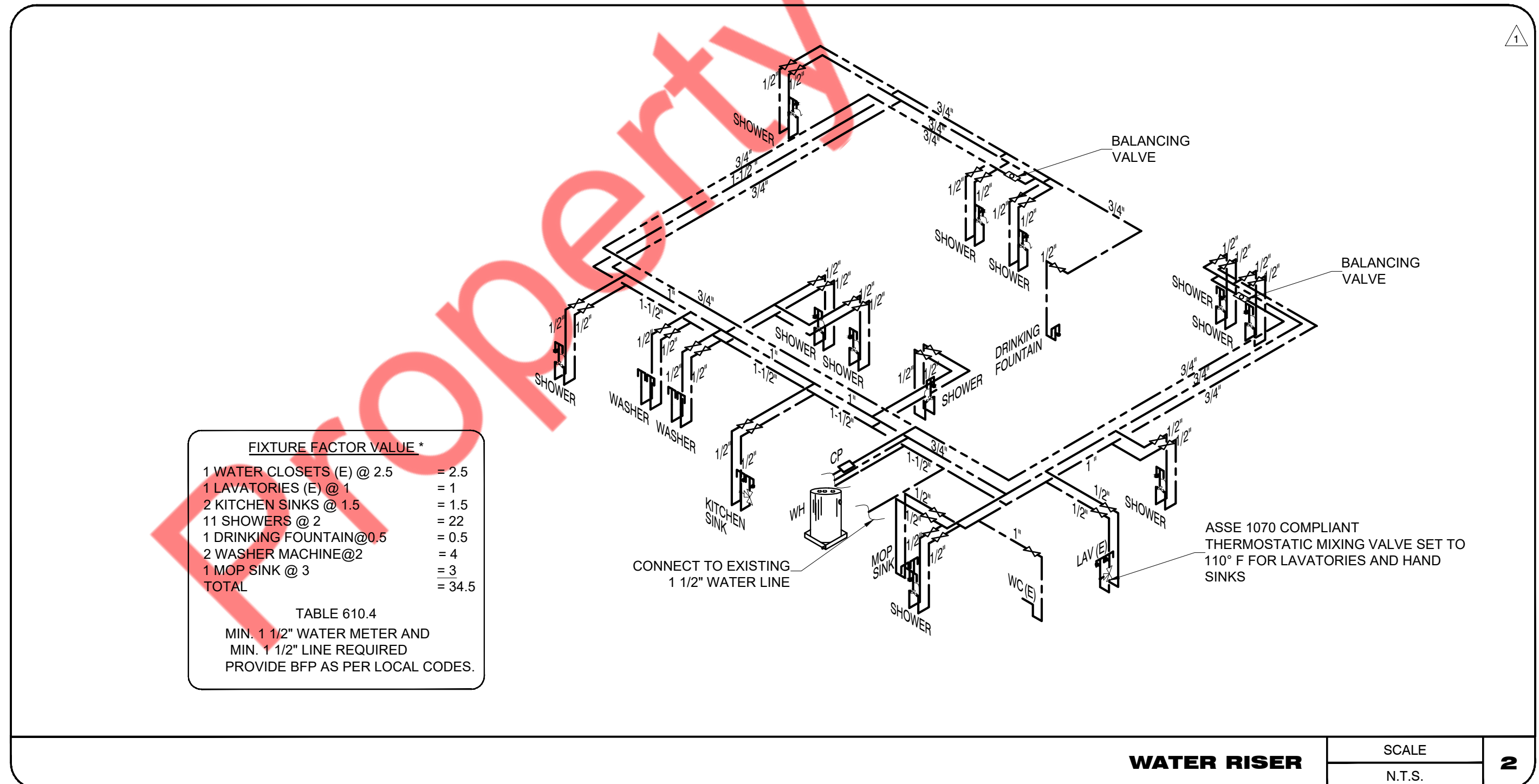
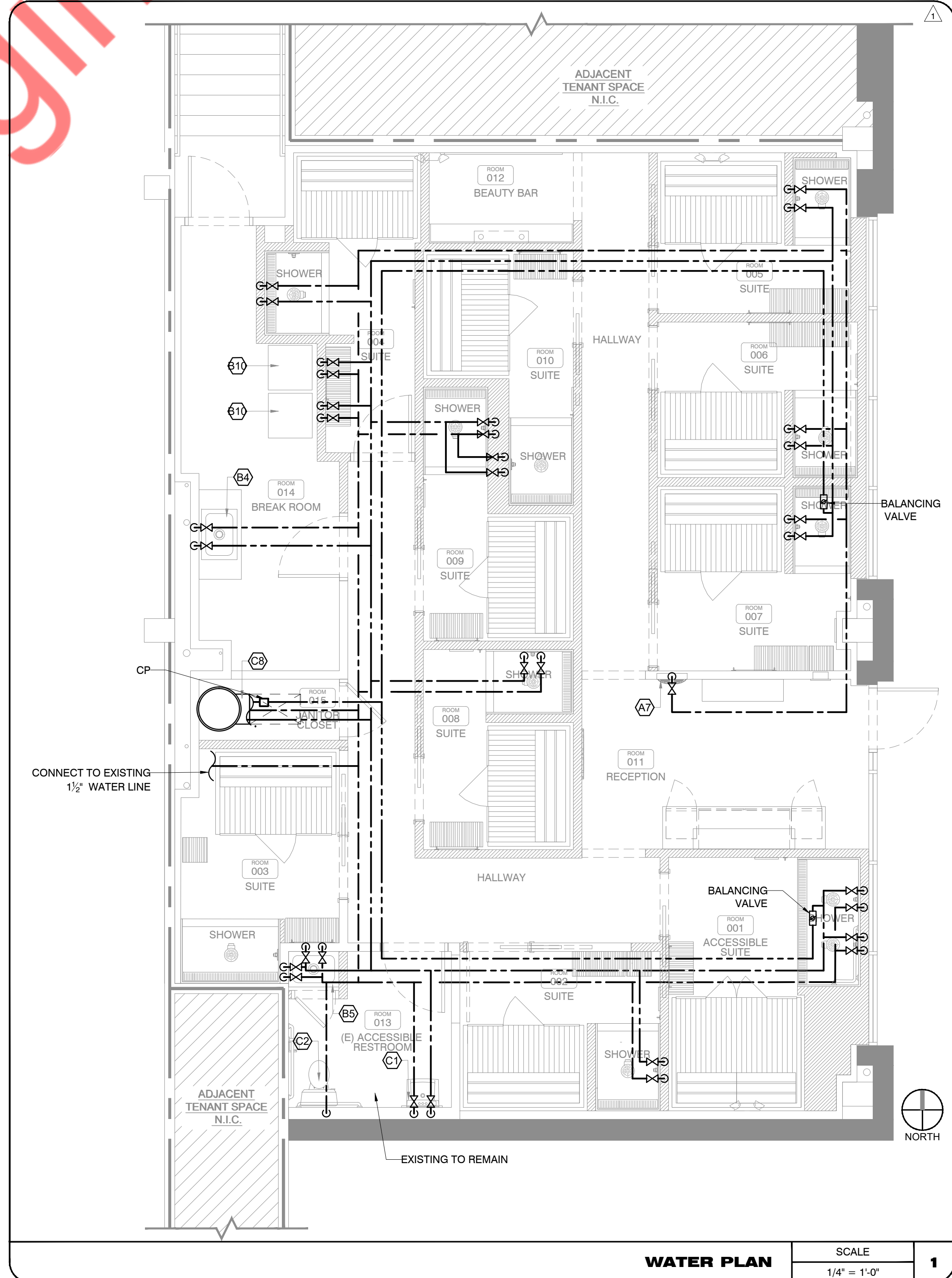
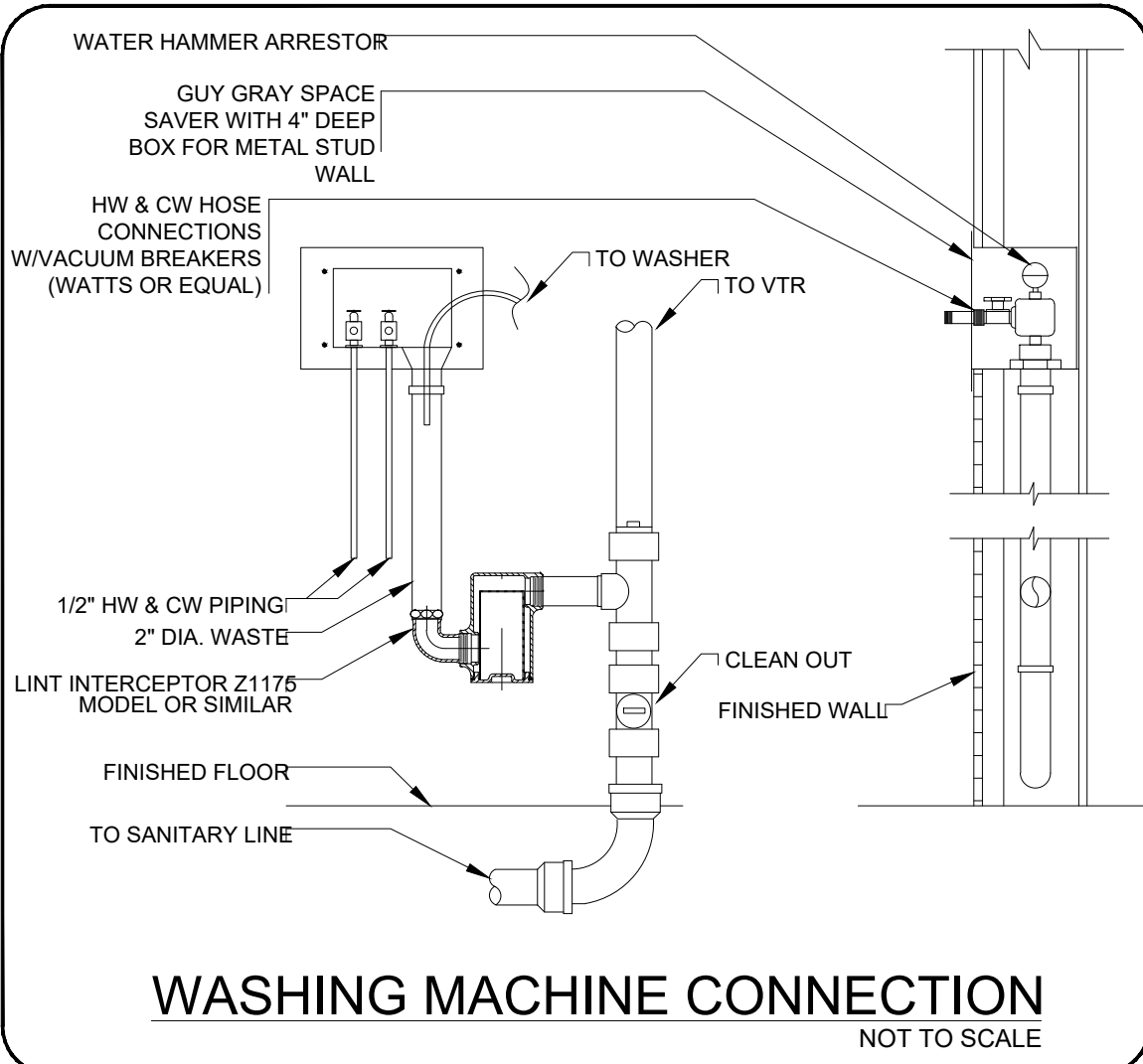
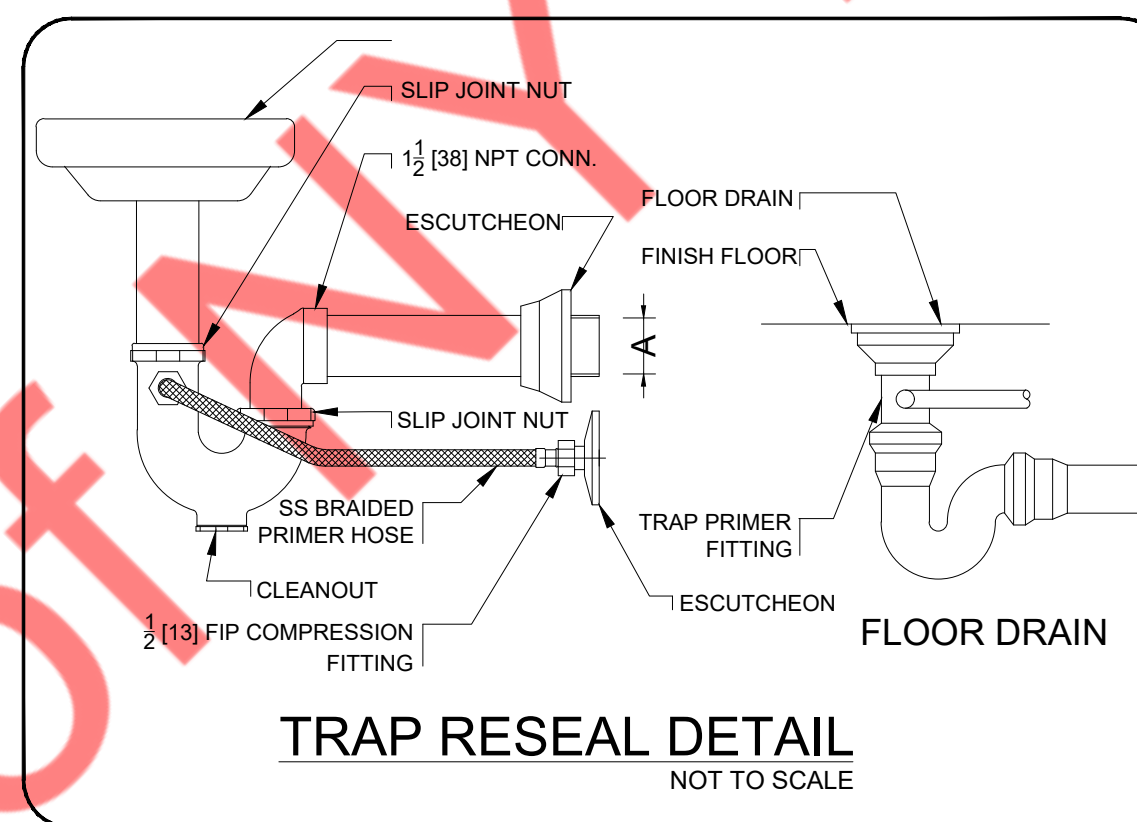
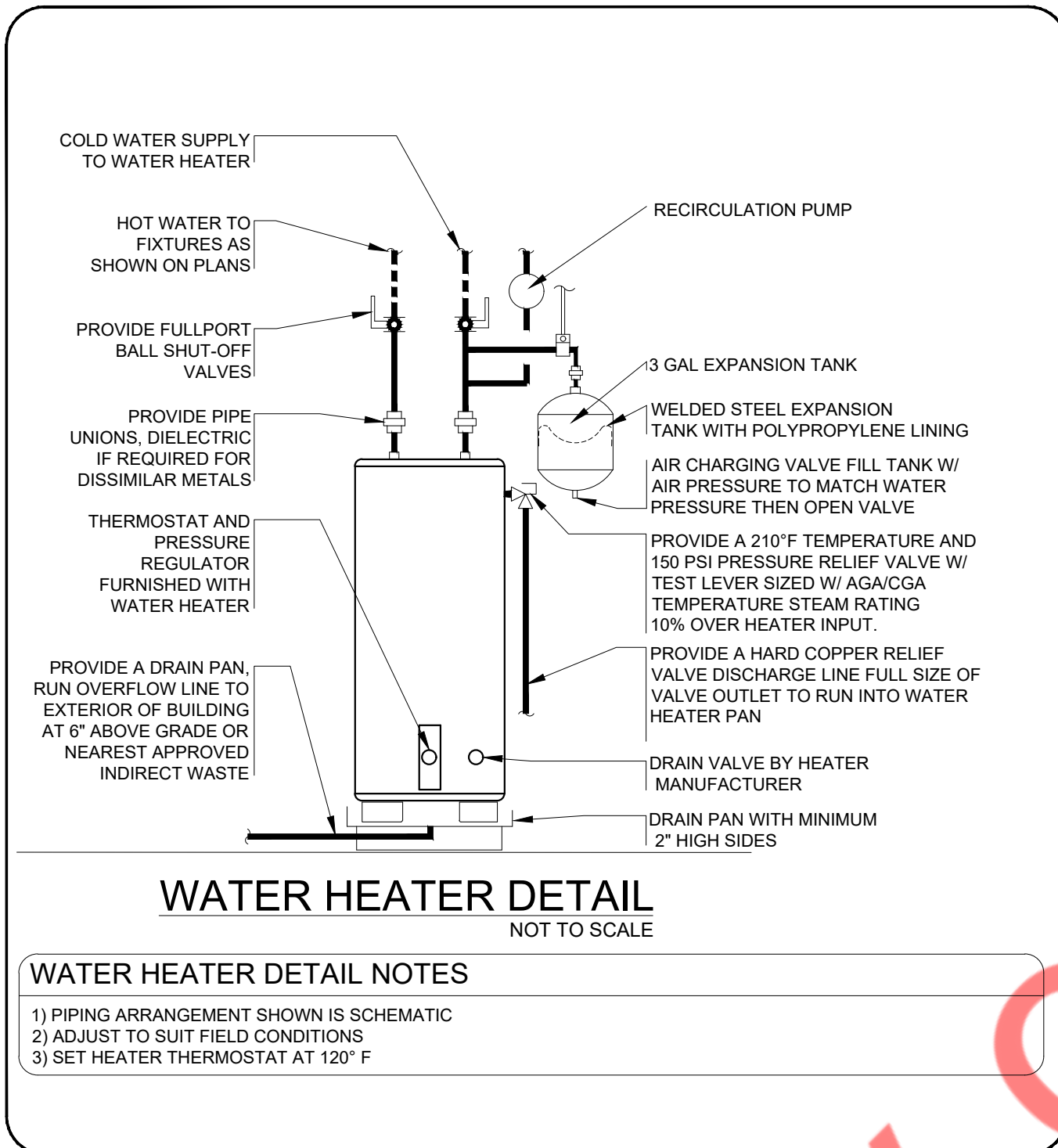
WATER HEATER SCHEDULE

MANUFACTURER	AO SMITH
MODEL	DRE-80
STATUS	NEW
QUANTITY	1
CAPACITY	80 GAL.
FUEL	ELECTRIC
KW	40.5
TOTAL FLOW RATE	166 GPH
VOLTAGE	208/3/60
AMPERAGE	112.4
WEIGHT (EMPTY)	280 LBS

*@ 100° F TEMPERATURE RISE

HOT WATER RECIRCULATION PUMP

MANUFACTURER	BELL AND GOSSETT
MODEL	NBF 8U/LW
STATUS	NEW
QUANTITY	1
FLOW RATE	2 GPM
HEAD	8 FT
MHP	39 WATTS
VOLTAGE	115/1/60



FIXTURE FACTOR VALUE *

1 WATER CLOSETS (E) @ 2.5	= 2.5
1 LAVATORIES (E) @ 1	= 1
2 KITCHEN SINKS @ 1.5	= 1.5
11 SHOWERS @ 2	= 22
1 DRINKING FOUNTAIN @ 0.5	= 0.5
2 WASKER MACHINE @ 2	= 4
1 MOP SINK @ 3	= 3
TOTAL	= 34.5

TABLE 610.4
MIN. 1 1/2" WATER METER AND
MIN. 1 1/2" LINE REQUIRED
PROVIDE BFP AS PER LOCAL CODES.

FOR REFERENCE ONLY