

MARK	DESCRIPTION	COLD	HOT	WASTE	VENT
P1H	WATER CLOSET	1"	3"	2"	
P1AH	WATER CLOSET	1/2"	3"	2"	
P2H-P2AH	WALL MOUNTED LAVATORY	1/2"	1/2"	2"	1 1/4"
P2BH	CABINET LAVATORY	1/2"	1/2"	2"	1 1/4"
P3H	SHOWER	3/4"	3/4"	2"	
P4H	WHIRLPOOL	3/4"	3/4"	3"	2"
P5	SINK	1/2"	1/2"	2"	1 1/2"
P5H	SINK	1/2"	1/2"	2"	1 1/2"
P7	HAND SINK	1/2"	1/2"	2"	1 1/4"
P8	SHAMPOO SINK	1/2"	1/2"	2"	1 1/4"
P9	ELECTRIC WATER COOLER	1/2"		2"	1-1/4"
P10	MOP SINK	1/2"	1/2"	3"	2"
P11	BED PAN WASH	1-1/2"	1/2"	4"	2"
P13	UTILITY SINK	1/2"	1/2"	3"	1 1/2"
P18	CAN WASH	3/4"	3/4"	3"	2"
P14	GREASE INTERCEPTOR			4"	2"
FPWH, FPH	WALL HYDRANT	3/4"			

MOUNTING HEIGHT SCHEDULE

FIXTURE / ACCESSORY	DIM.	REMARKS
TOILET SEATS (STANDARD)	14"	15" TO RM MAX.
TOILET SEATS (ACCESSIBLE)	17"	19" TOP OF SEAT MAX.
LAVATORIES (STANDARD)	34"	TO TOP OF FRONT RM.
LAVATORIES (ACCESSIBLE)	32"	TO TOP OF FRONT RM.
WATER COOLER (STANDARD)	40"	TO SPOUT
WATER COOLER (ACCESSIBLE)	38"	TO SPOUT
SHOWER SEAT	18"	TO TOP
SHOWER VALVE CONTROL	42"	TO CENTER LINE
SHOWER HEAD	84"	TO CENTER LINE

WATER CALCULATION NOTES

THIS CALCULATION BASED ON THE 2008 EDITION OF THE ARKANSAS PLUMBING CODE.
 VERIFY PRESSURE AT TIME OF CONSTRUCTION. IF GREATER THAN 80 PSI, PROVIDE AND INSTALL PRESSURE REDUCING VALVE TO REDUCE WATER PRESSURE TO 80 PSI MAXIMUM.

WATER CALCULATION

P#	FIXTURE TYPE:	QUAN.	F.U.	TOTAL F.U.
	BATHROOM GROUP (TANK TYPE)		115 X 3.6 =	414 F.U.
P1H,P2H	WATER CLOSET	7 X	5 =	35 F.U.
P3H,P4H,P5H	LAVATORY	7 X	2 =	14 F.U.
P6,P6H,P7,P7H	SHOWER	2 X	1.5 =	3 F.U.
P8	URINAL	1 X	5 =	5 F.U.
P9H	SINK	1 X	2 =	2 F.U.
P10H	ELECTRIC WATER COOLER	2 X	1 =	2 F.U.
P11	MOP SINK	1 X	3 =	3 F.U.
FPWH	FIRST HOSE BIBB	1 X	2 =	2 F.U.
FPWH	ADDITIONAL HOSE BIBBS	0 X	1 =	0 F.U.
	WASHING MACHINE(RES.)	3 X	4 =	12 F.U.
	WASHING MACHINE(COMM.)	2 X	10 =	20 F.U.
	DISHWASHER (RES.)	0 X	1.5 =	0 F.U.
0	DISHWASHER (COMM.)	1 X	6 =	6 F.U.
0	CONVECTION STEAMER	0 X	0.5 =	0 F.U.
0	DISPOSER (COMM.)	0 X	0 =	0 F.U.
0	COFFEE BREWER	0 X	0.5 =	0 F.U.
0	TEA BREWER	0 X	0.5 =	0 F.U.
0	ICE MAKER	3 X	0.5 =	1.5 F.U.
0	TRIPLE SINK (KITCHEN)	1 X	5 =	5 F.U.
0	DOUBLE SINK (KITCHEN)	1 X	5 =	5 F.U.
0	DUMP SINK (KITCHEN)	1 X	2 =	2 F.U.
0	SINGLE SINK (KITCHEN)	3 X	2 =	6 F.U.
FS	FLOOR SINK	11 X	0 =	0 F.U.
FD	FLOOR DRAIN	3 X	0 =	0 F.U.
	TOTAL FIXTURE UNITS			537.5 F.U.
	538 FIXTURE UNITS			140 GPM
	HORIZ. PIPE LENGTH TAP TO METER (ASSUMPTION)			0 FT.
	HORIZ. PIPE LENGTH METER TO BUILDING (ASSUMPTION)			0 FT.
	HORIZ. PIPE LENGTH BUILDING TO LAST FIXTURE			0 FT.
	HORIZ. PIPE LENGTH BLDG. RISE TO HIGHEST FIXTURE			10 FT.
	T-TOTAL PIPE LENGTH			10 FT.
	F-FITTING LOSS			1.25
	TOTAL DEVELOPED LENGTH (T + F)			12.5 FT.
	PRESSURE AT THE STREET			105 PSI*
	P = REDUCED PRESSURE AT BUILDING			80 PSI
	O = PRESSURE NEEDED TO OPERATE FIXTURE			25 PSI
	M = METER PRESSURE LOSS (2" NEPTUNE METER)			7 PSI
	E = ELEVATION DIFFERENCE OF METER TO BUILDING			10 FT.
	B = BFP PRESSURE LOSS (3" WATTS LP95Z)			8 PSI
	L = TOTAL DEVELOPED LENGTH			12.5 FT.
	MPDA=MAX. PRESSURE DROP ALLOWABLE / 100 FT OF PIPE LENGTH			
	MPDA=[P - (O + (E x .43) + M+B)] x 100 / L			285.6 PSI
	PER TABLE 610.3 & CHART A-2 OF THE 2012 EDITION OF THE UNIFORM PLUMBING CODE W/ LOCAL AMENDMENTS. USE 2" WATER METER & 3" DOMESTIC WATER TO BLDG.			

DRAINAGE CALCULATION

P#	FIXTURE TYPE:	QUAN.	D.F.U.	TOTAL D.F.U.
	BATHROOM GROUP (TANK TYPE)		115 X 5 =	575 D.F.U.
P1H,P2H	WATER CLOSET	7 X	4 =	28 D.F.U.
P3H,P4H,P5H	LAVATORY	7 X	1 =	7 D.F.U.
P6,P6H,P7,P7H	SHOWER	2 X	2 =	4 D.F.U.
P8	URINAL	1 X	2 =	2 D.F.U.
P9H	SINK	1 X	2 =	2 D.F.U.
P10H	ELECTRIC WATER COOLER	2 X	1 =	2 D.F.U.
P11	MOP SINK	1 X	3 =	3 D.F.U.
FPWH	FIRST HOSE BIBB	1 X	0 =	0 D.F.U.
FPWH	REST OF HOSE BIBBS	0 X	0 =	0 D.F.U.
	WASHING MACHINE(RES.)	3 X	3 =	9 D.F.U.
	WASHING MACHINE(COMM.)	2 X	8 =	16 D.F.U.
	DISHWASHER (RES.)	0 X	2 =	0 D.F.U.
	DISHWASHER (COMM.)	1 X	0 =	0 D.F.U.
	CONVECTION STEAMER	0 X	0 =	0 D.F.U.
	DISPOSER (COMM.)	0 X	3 =	0 D.F.U.
	COFFEE BREWER	0 X	0 =	0 D.F.U.
	TEA BREWER	0 X	0 =	0 D.F.U.
	ICE MAKER	3 X	0 =	0 D.F.U.
	TRIPLE SINK (KITCHEN)	1 X	0 =	0 D.F.U.
	DOUBLE SINK (KITCHEN)	1 X	0 =	0 D.F.U.
	DUMP SINK (KITCHEN)	1 X	2 =	2 D.F.U.
	SINGLE SINK (KITCHEN)	3 X	2 =	6 D.F.U.
FS	FLOOR SINK	11 X	2 =	22 D.F.U.
FD	FLOOR DRAIN	3 X	2 =	6 D.F.U.
	TOTAL DRAINAGE FIXTURE UNITS			684 D.F.U.
	PROVIDE 6" SS LINE TO NEW MANHOLE.			
	PER TABLES 702.1, 703.2 OF THE 2012 EDITION OF THE UNIFORM PLUMBING CODE W/ LOCAL AMENDMENTS.			

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MANUFACTURER	CATALOG	TRIM
P1H	TANK TYPE WATER CLOSET	AMERICAN STANDARD	CA2E13 215A.004.HC	OLSONITE 10CT SEAT W/O COVER & BRASS COIFT 3/8" ANGLE SUPPLY. THE FLUSH LEVER SHALL BE LOCATED ON THE NON-CRAB BAR SIDE OF THE WATER CLOSET.
P2H	FLUSH VALVE WATER CLOSET	AMERICAN STANDARD	MADERA 2854.016	OLSONITE 10CT SEAT W/O COVER & SLOW 110-SHD BATTERY POWERED FLUSHMETER.
P3H	CABINET LAVATORY GUESTROOM	AMERICAN STANDARD	STUDIO 0614.000.020	W/ CRABE 34/1001 FAUCET W/ 1-1/4" MODULE PROGRAM GRID DRAIN. MODURE 1-1/4" 8072 P-TRAP W/ CLEANOUT & BRASSCRAFT 3/8" ANGLE SUPPLY. INSULATE ALL EXPOSED DRAIN & WATER PIPING UNDER LAVATORY PER ADA REQUIREMENTS W/ TRUEBRO MODEL #102.
P4H	CABINET LAVATORY	AMERICAN STANDARD	AQUALYN 0476.028	W/ AMERICAN STANDARD RELIANT 3 #7385.004 FAUCET W/1-1/4 PROGRAM GRID DRAIN. MODURE 1-1/4" 8072 P-TRAP W/ CLEANOUT & BRASSCRAFT 3/8" ANGLE SUPPLY. INSULATE ALL EXPOSED DRAIN & WATER PIPING UNDER LAVATORY PER ADA REQUIREMENTS W/ TRUEBRO MODEL #102.
P5H	WALL MOUNTED LAVATORY HANDWASH	AMERICAN STANDARD	LUCERNE 0356.012	W/ AMERICAN STANDARD HERITAGE 7402.000.127H FAUCET W/ NOISE BLADE HANDLES & 1-1/4" MODULE 150C OFFSET LAVATORY GRID STRAINER. MODURE 1-1/4" 8072 P-TRAP W/ CLEANOUT. BRASSCRAFT 3/8" ANGLE SUPPLY. & 1/2" SMITH 700 CONTROLLED SHOWER ARM CARRIER. INSTALL P-TRAP AGAINST RJ. WALL. INSULATE ALL EXPOSED DRAIN & WATER PIPING UNDER LAVATORY PER ADA REQUIREMENTS W/ TRUEBRO MODEL #102.
P6	TUB	AMERICAN STANDARD	NEW SALEM 0256.112.020 0256.212.020	W/ WINCEY MARBLE TS-TV/CHEVRON SURROUND & SS-05 ACCESSORIES LEDES. PROVIDE BLOCKING FOR FOLD DOWN SEAT. CRAB BARS. MESH 1219.94H/82370 SHOWER SYSTEM W/ 3638P SHOWER HEAD. DRAIN SHALL REQUIRE A RECESS INTO FLOOR. (VERIFY DEPTH OF RECESS) SHOWER VALVE & SHOWER HEAD SHALL COMPLY W/ ALL STATE & LOCAL ADA CODES.
P6H	TUB HANDICAPPED	AMERICAN STANDARD	NEW SALEM 0256.112.020 0256.212.020	W/ WINCEY MARBLE TS-TV/CHEVRON SURROUND & SS-05 ACCESSORIES LEDES. PROVIDE BLOCKING FOR FOLD DOWN SEAT. CRAB BARS. MESH 1219.94H/82370 SHOWER SYSTEM W/ 3638P SHOWER HEAD. DRAIN SHALL REQUIRE A RECESS INTO FLOOR. (VERIFY DEPTH OF RECESS) SHOWER VALVE & SHOWER HEAD SHALL COMPLY W/ ALL STATE & LOCAL ADA CODES.
P7	SHOWER	WINCEY MARBLE	SP-4260-C/SF	W/ WINCEY MARBLE TS-TV/CHEVRON SURROUND & SS-05 ACCESSORIES LEDES. PROVIDE BLOCKING FOR FOLD DOWN SEAT. CRAB BARS. MESH 1219.94H/82370 SHOWER SYSTEM W/ 3638P SHOWER HEAD. DRAIN SHALL REQUIRE A RECESS INTO FLOOR. (VERIFY DEPTH OF RECESS) SHOWER VALVE & SHOWER HEAD SHALL COMPLY W/ ALL STATE & LOCAL ADA CODES.
P7H	ROLL-IN SHOWER	WINCEY MARBLE	SP-3162-C/SF	W/ WINCEY MARBLE TS-TV/CHEVRON SURROUND & SS-05 ACCESSORIES LEDES. PROVIDE BLOCKING FOR FOLD DOWN SEAT. CRAB BARS. MESH 1219.94H/82370 SHOWER SYSTEM W/ 3638P SHOWER HEAD. DRAIN SHALL REQUIRE A RECESS INTO FLOOR. (VERIFY DEPTH OF RECESS) SHOWER VALVE & SHOWER HEAD SHALL COMPLY W/ ALL STATE & LOCAL ADA CODES.
P8	URINAL	AMERICAN STANDARD	WASHBROOK 6590.001.020	W/ SLOW ROTAL 156-SHD BATTERY POWERED 1/2 GPF FLUSHMETER & ZURN 2122 CARRIER.
P9H	SINK	ELKAY	CELEBRITY GE2P2521	LXE-4121 SINGLE LEVER FAUCET. 8" SPING SPOUT. 1-1/2" MODURE 8812 P-TRAP, 151 BASKET STRAINER. & 3/8" ANGLE SUPPLY.
P10H	ELECTRIC WATER COOLER	ELKAY	EZ218C	8" LEVEL WALL MOUNTED BARRIER FREE ELECTRIC WATER COOLER W/ GRAY BRASS FINISH. PROVIDE & INSTALL LXR SMITH 0254 CARRIER.
P11	MOP SINK	STEIN WILLIAMS	MIB-2424	715-160 FITTINGS. T-35 WDS & HOOK. T-40 MOP HANGER. BP SPLASH CATCHER PANEL. W/ 1" P-TRAP.
CS	CIRCUIT SETTER	BELL & GOSSETT	CB-3745	FINISH & INSTALL AS SHOWN ON PLANS W/ MANUFACTURER RECOMMENDATIONS MODEL CB OR RECALIBRATED BALANCE VALVES.
FPWH	FREEZE PROOF WALL HYDRANT	WOODFORD	#65	AUTOMATIC DRAINING FREEZE PROOF WALL HYDRANT
FD	FLOOR DRAIN	ZURN	Z-415	CAST IRON DRAIN WITH ROUND BRONZE HEAD WITH POLISHED TOP & DEEP SEAL TRAP. (SLOPE 3" FLOOR AREA TO DRAIN)
FS-1	FLOOR SINK	ZURN	FZ3278-N62-I	PVC FLOOR SINK - 8" X 8" X 6" DEEP W/ SQUARE SLOTTED LIGHT DUTY 1/2" GRATE & BOTTOM DOME STRAINER. 2" P-TRAP
FS-2	FLOOR SINK	ZURN	FZ3278-N62-Y	PVC FLOOR SINK - 8" X 8" X 6" DEEP W/ SQUARE SLOTTED LIGHT DUTY 1/2" GRATE & BOTTOM DOME STRAINER. 2" P-TRAP.
FS-3	FLOOR SINK	ZURN	FZ3278-N62-H	PVC FLOOR SINK - 8" X 8" X 6" DEEP W/ SQUARE SLOTTED LIGHT DUTY 1/2" GRATE & BOTTOM DOME STRAINER. 2" P-TRAP.
WCO	WALL CLEANOUT	ZURN	Z-1441	WITH POLISHED BRONZE COVER.
FDD	FLOOR CLEANOUT	ZURN	Z-1400	WITH NICKEL BRONZE SCORATED BRONZE COVER.
COTG	CLEANOUT TO GRADE	ZURN	Z-1445	WITH POLISHED SCORATED BRONZE COVER.
TWOO	TWO WAY CLEANOUT	ZURN	Z-1445	WITH POLISHED SCORATED BRONZE COVER.
BFP-1	BACKFLOW PREVENTER	WATTS	LF957ZPDA-05T	LEAD FREE 3" BFP WITH WYE STRAINER & AIR GAP. SHALL BE INSTALLED PER CITY CODE.

NOTES:
 1. PLUMBING FIXTURES, ACCESSORIES, AND INSTALLATION SHALL MEET ALL FEDERAL, STATE, ADA, AND LOCAL CODE REQUIREMENTS.
 2. VERIFY FIXTURES WITH OWNER BEFORE ORDERING.
 3. CLEAN OUTS TO BE OF THE SAME SIZE AS PIPING SERVED.
 4. CONTRACTOR SHALL HAVE THE OPTION TO SUBSTITUTE EQUAL FIXTURES IF APPROVED BY ARCHITECT.
 5. SHOWERS SHALL INCLUDE SHOWER ROD, GRAB BARS, CURTAINS, AND PLUNGE TUB AT ALL UNITS.
 6. VERIFY REQUIREMENT FOR RIGHT HAND AND LEFT HAND SHOWER UNITS AND WATER CLOSETS BEFORE ORDERING FIXTURES.
 7. ALL FIXTURES SHALL BE AS SCHEDULED OR EQUAL. TOR EQUAL. FIXTURES MUST BE APPROVED BY ARCHITECT.
 8. ALL FIXTURES SHALL BE WHITE IN COLOR.
 9. ALL FIXTURES SHALL BE COMPLETE W/ ALL NECESSARY FITTINGS, ANGLES, STOPS, CARRIERS, ETC.

GENERAL PLUMBING NOTES

1. ALL PLUMBING SHALL CONFORM TO THE 2012 INTERNATIONAL PLUMBING CODE W/ LOCAL AMENDMENTS AND ALL OTHER APPLICABLE STATE AND LOCAL LAWS.
 2. ALL PLUMBING MATERIALS TO MEET OR EXCEED MATERIAL SPECIFICATIONS OF THE 2012 INTERNATIONAL PLUMBING CODE W/ LOCAL AMENDMENTS.
 3. ALL SOLID AND WASTE PIPING INSIDE BUILDING AND UNDER SLABS SHALL BE P.V.C., C.R.V., ASTM-02865-77 OR EQUAL.
 4. MATERIALS FOR ALL VENT PIPING SHALL CONFORM TO THE 2012 INTERNATIONAL PLUMBING CODE W/ LOCAL AMENDMENTS.
 5. ALL HORIZONTAL BUILDING DRAINAGE PIPING SHALL BE INSTALLED AT A UNIFORM SLOPE. SLOPE SHALL NOT BE LESS THAN 1/4" PER FOOT FOR DRAINAGE PIPING 3 INCHES IN DIAMETER AND LESS, AND 1/8" PER FOOT FOR DRAINAGE PIPING LARGER THAN 3 INCHES IN DIAMETER.
 6. ALL TRAPS AND CLEAN OUTS TO CONFORM TO THE 2012 INTERNATIONAL PLUMBING CODE W/ LOCAL AMENDMENTS.
 7. PROVIDE INDICENT WASTE CONNECTIONS AND VACUUM BREAKERS TO PLUMBING FIXTURES AS REQUIRED BY THE 2012 INTERNATIONAL PLUMBING CODE W/ LOCAL AMENDMENTS.
 8. CHANGES IN DIRECTION OF DRAINAGE PIPING SHALL BE MADE WITH APPROVED FITTINGS MEETING REQUIREMENTS OF THE 2012 INTERNATIONAL PLUMBING CODE W/ LOCAL AMENDMENTS.
 9. ALL WATER PIPES IN EXTERIOR WALLS & ATIC SHALL BE PROTECTED FROM FREEZING BY WRAPPING PIPES WITH 1 INCH THICK SWA-CM FIBER PIPE INSULATION. ALL HOT WATER RETURN WATER LINES SHALL BE INSULATED WITH 1/2" MIN-A FLEX FOAM AT EXTERIOR WALLS AND BELOW FLOOR SLAB.
 10. ALL LEAD, CHALKING FERRULES, FLUE FLANKING AND CLEAN OUTS SHALL BE IN ACCORDANCE WITH THE 2012 INTERNATIONAL PLUMBING CODE W/ LOCAL AMENDMENTS.
 11. PLUMBING FIXTURES, IF CONSULTED WATER SUPPLY, SHALL BE CAST IRON, STEEL, OR VITREOUS CHINA. SHALL BE DOCUMENTED TO TREATMENT PLANT. CHEMICAL ALL FIXTURE CONNECTIONS AT RESIDENT UNITS SHALL BE IDENTIFY VALVES AND LOCATIONS ON ACCESS PANEL BELOW EACH VALVE. EACH WATERLINE SHALL BE IDENTIFIED BY A COLOR CODED LABEL WITH ARROW INDICATING FLOW DIRECTION AT 10' INTERVALS. ALL HOT AND COLD PIPING SHALL BE INSULATED. GAS PIPING SHALL BE LOCATED IN ATIC SPACE.
 12. CONTRACTOR SHALL RUN ALL HOT AND COLD WATER LINES ABOVE CEILING. PROVIDE SHUT-OFF, ISOLATION VALVE ON EACH HOT AND COLD WATER LINE. AT BEGINNING OF EACH CORRIDOR WITH ACCESS. PLUS A VALVE AND CROSSTIE LINE TO ENABLE BY-PASSING A WING ON BOTH HOT AND COLD WATER. INSTALL A LABEL TO IDENTIFY VALVE AND LOCATIONS ON ACCESS PANEL BELOW EACH VALVE. EACH WATERLINE SHALL BE IDENTIFIED BY A COLOR CODED LABEL WITH ARROW INDICATING FLOW DIRECTION AT 10' INTERVALS. ALL HOT AND COLD PIPING SHALL BE INSULATED. GAS PIPING SHALL BE LOCATED IN ATIC SPACE.
 13. CONTRACTOR SHALL RUN ALL HOT AND COLD WATER LINES ABOVE CEILING. PROVIDE SHUT-OFF, ISOLATION VALVE ON EACH HOT AND COLD WATER LINE. AT BEGINNING OF EACH CORRIDOR WITH ACCESS. PLUS A VALVE AND CROSSTIE LINE TO ENABLE BY-PASSING A WING ON BOTH HOT AND COLD WATER. INSTALL A LABEL TO IDENTIFY VALVE AND LOCATIONS ON ACCESS PANEL BELOW EACH VALVE. EACH WATERLINE SHALL BE IDENTIFIED BY A COLOR CODED LABEL WITH ARROW INDICATING FLOW DIRECTION AT 10' INTERVALS. ALL HOT AND COLD PIPING SHALL BE INSULATED. GAS PIPING SHALL BE LOCATED IN ATIC SPACE.
 14. CONTRACTOR SHALL RUN ALL HOT AND COLD WATER LINES ABOVE CEILING. PROVIDE SHUT-OFF, ISOLATION VALVE ON EACH HOT AND COLD WATER LINE. AT BEGINNING OF EACH CORRIDOR WITH ACCESS. PLUS A VALVE AND CROSSTIE LINE TO ENABLE BY-PASSING A WING ON BOTH HOT AND COLD WATER. INSTALL A LABEL TO IDENTIFY VALVE AND LOCATIONS ON ACCESS PANEL BELOW EACH VALVE. EACH WATERLINE SHALL BE IDENTIFIED BY A COLOR CODED LABEL WITH ARROW INDICATING FLOW DIRECTION AT 10' INTERVALS. ALL HOT AND COLD PIPING SHALL BE INSULATED. GAS PIPING SHALL BE LOCATED IN ATIC SPACE.
 15. DO NOT INSTALL FLOOR DRAINS UNDER H.V.A.C. UNITS OR RETURN AIR IN MECH. ROOMS. SEE MECHANICAL ROOM DETAILS AND PLUMBING PLANS FOR LOCATION OF DRAINS. COORDINATE WITH H.V.A.C. CONTRACTOR.
 16. CONTRACTOR SHALL RUN ALL HOT AND COLD WATER LINES ABOVE CEILING. PROVIDE SHUT-OFF, ISOLATION VALVE ON EACH HOT AND COLD WATER LINE. AT BEGINNING OF EACH CORRIDOR WITH ACCESS. PLUS A VALVE AND CROSSTIE LINE TO ENABLE BY-PASSING A WING ON BOTH HOT AND COLD WATER. INSTALL A LABEL TO IDENTIFY VALVE AND LOCATIONS ON ACCESS PANEL BELOW EACH VALVE. EACH WATERLINE SHALL BE IDENTIFIED BY A COLOR CODED LABEL WITH ARROW INDICATING FLOW DIRECTION AT 10' INTERVALS. ALL HOT AND COLD PIPING SHALL BE INSULATED. GAS PIPING SHALL BE LOCATED IN ATIC SPACE.
 17. CONTRACTOR SHALL RUN ALL HOT AND COLD WATER LINES ABOVE CEILING. PROVIDE SHUT-OFF, ISOLATION VALVE ON EACH HOT AND COLD WATER LINE. AT BEGINNING OF EACH CORRIDOR WITH ACCESS. PLUS A VALVE AND CROSSTIE LINE TO ENABLE BY-PASSING A WING ON BOTH HOT AND COLD WATER. INSTALL A LABEL TO IDENTIFY VALVE AND LOCATIONS ON ACCESS PANEL BELOW EACH VALVE. EACH WATERLINE SHALL BE IDENTIFIED BY A COLOR CODED LABEL WITH ARROW INDICATING FLOW DIRECTION AT 10' INTERVALS. ALL HOT AND COLD PIPING SHALL BE INSULATED. GAS PIPING SHALL BE LOCATED IN ATIC SPACE.
 18. PROVIDE HOT AND COLD WATER TO EACH FIXTURE AS REQUIRED WITH SHUT-OFF VALVES.
 19. HOT WATER TO RESIDENT'S BATHING AND HAND WASHING FIXTURES SHALL MAINTAIN A TEMPERATURE BETWEEN 105 DEGREES AND 110 DEGREES FAHRENHEIT. PLUMBING CONTRACTOR SHALL BALANCE HOT WATER SYSTEMS TO MAINTAIN REQUIRED TEMPERATURES.
 20. PROVIDE SHUT-OFF VALVES FOR HOT AND COLD WATER LINES AT EACH MAIN BRANCH LINE.

FIRE SPRINKLER SYSTEM NOTES (WET SYSTEM)

1. THE BUILDING WILL BE REQUIRED TO HAVE SPRINKLER COVERAGE MEETING NFPA 13 SPRINKLER SYSTEM AND STATE BOARD OF INSURANCE STANDARDS. THE SPRINKLER SYSTEM SHALL BE ELECTRICALLY INTERCONNECTED TO THE FIRE ALARM SYSTEM. THE SYSTEM SHALL HAVE A MAIN CONTROL VALVE THAT IS ELECTRICALLY SUPERSEDED, AND INDICATED BY A SEPARATE ZONE ON THE FIRE ALARM PANEL. THE TEMPERATURE RATING OF SPRINKLER HEADS USED SHALL BE IN COMPLIANCE WITH TEMPERATURE RATING TABLE LISTED IN CHAPTER 9 OF NFPA 13 SPRINKLER SYSTEMS. SPRINKLER DRAWINGS APPROVED BY THE STATE BOARD OF INSURANCE SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. ALSO REQUIRED IS A COPY OF THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATION AT THE CONCLUSION OF THE PROJECT.
 2. PROVIDE AND INSTALL A COMPLETE FIRE SPRINKLER SYSTEM IN STRICT ACCORDANCE WITH THE APPROVED SHOP DRAWINGS AND THE REQUIREMENTS OF NFPA 13.
 3. THE ENTIRE FIRE PROTECTION AUTOMATIC SPRINKLER SYSTEM SHALL BE DESIGNED, FABRICATED, INSTALLED, AND TESTED BY AN APPROVED LICENSED SPRINKLER COMPANY.
 4. OBTAIN ALL NECESSARY APPROVALS FROM STATE AND LOCAL AUTHORITIES BEFORE STARTING ANY WORK AT THE JOB SITE.
 5. SPRINKLER CONTRACTOR SHALL VERIFY THAT WATER PRESSURE AT SOURCE HAS SUFFICIENT CAPACITY FOR ADDITIONAL LOAD.
 6. THIS IS A WET SYSTEM AND MUST BE HYDRAULICALLY CALCULATED.
 7. SYSTEM MUST DRAIN BACK TO RISER OR TO OUTSIDE TO PREVENT FREEZING AFTER TESTING OR AFTER SPRINKLER USE.
 8. LIGHT HAZARD AREAS SHALL HAVE 225 SQUARE FEET MAXIMUM SPACING. NORMAL HAZARD AREAS SHALL HAVE 130 SQUARE FEET MAXIMUM SPACING. ATIC SPRINKLERS SHALL HAVE 130 SQUARE FEET MAXIMUM SPACING.
 9. SUCCESSFUL RISER SHALL SUBMIT SHOP DRAWINGS WITHIN 30 DAYS OF BID DATE TO MEET SCHEDULE. SPRINKLER CONTRACTOR SHALL BE INSTALLING SYSTEM WITHIN ONE WEEK AFTER ROOF DECKING HAS BEGUN. COORDINATE SCHEDULE WITH JOB SUPERVISOR/GENERAL CONTRACTOR. IF SCHEDULING, COORDINATE, ETC. HAVE TO BE REDUCED DUE TO THE SPRINKLER CONTRACTORS NOTING BEING INSTALLED FIRST, THE CHANGE SHALL BE AT THE SPRINKLER CONTRACTORS EXPENSE.
 10. SPRINKLER SYSTEM SUBCONTRACTOR SHALL COORDINATE THE SPRINKLER HEAD PLACEMENT WITH ALL OTHER SUBCONTRACTORS.
 11. SPRINKLER HEADS SHALL BE LOCATED AWAY FROM AND/OR BETWEEN FLUORESCENT LIGHT FIXTURES, SPEAKERS, SKYLIGHTS, ETC. SPRINKLER HEADS SHALL BE THE SMALLER STYLE WITH REMOVABLE ESCUTCHEONS FOR CEILING TILE REMOVAL.
 12. SPRINKLER HEADS IN PORTE COCHERE OR IN ATIC SPACE ABOVE A NON-HEATED SPACE REQUIRE SCHOOL PROTECTION FROM FREEZING IN SPRINKLER LINES.

WATER HEATER & EXPANSION TANK SCHEDULE

MARK	FIXTURE	MANUFACTURER	CATALOG	TRIM
WH-10-6	GAS WATER HEATERS	A.O. SMITH	97H-199	86 PERCENT EFFICIENCY TANK TYPE WATER HEATERS, 199 INPUT, 294 OPI RECOVERY @ 80° F RISE. DELIVERY TEMPS. 140° F PROVIDE & INSTALL LEONARD MIXING VALVE TM-1520A-LF-01.
ET-1	EXPANSION TANK	WILKINS	WXP7-120V	32 GALLON

NOTES:
 1. GLASS LINED STORAGE TANK.
 2. FILL TANK PRIOR TO ENERGIZING.
 3. FREE STANDING & WALL MOUNT MODELS.
 4. GAS FIRED & ELECTRIC.
 5. MANUFACTURER & MODEL NUMBERS LISTED ARE TO REPRESENT A STANDARD. APPROVED MANUFACTURERS ARE A.O. SMITH, LOCKHEAVE, NATIONAL, KALOR, OR STATE.
 6. GAS SUPPLY SHALL BE HARD PIPED. FLEX PIPE IS NOT PERMISSIBLE.
 7. ALL EXPOSED WATER PIPING SHALL BE INSULATED W/ ARMSTRONG ARMAFLEX 1/2" THICK INSULATION 1" THRU 3/4" IN SIZE. PROVIDE 3/4" THICK INSULATION 1" SIZE PIPE & LARGER. TAPE ALL JOINTS.

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