WATER HEATER SIZING

Storage Tank Water Heater Sizing Calculator						
Developed by the Plan Review Unit of the Environmental Health Services						
Facility Name:	18187 FGUY					
Address:	Augusta, GA					
EQUIPMENT						GPH CALCULATED
Enter the description, and number and size of compartments for each sink below	Description	Number of compartments	Length (inches)	Width (inches)	Depth (inches)	Gallons Per Hour (GPH)
Largest Sink #1	4-COMP	4	24	20	14	88
Sinks are calculated at 75% capacity					Total	88
Enter type of prep sink and number of sink compartments for each sink below	Type of prep sink (vegetable, meat, seafood)	Number of compartments				Gallons Per Hour (GPH)
4 Comp	Fries	4				20
						0
						0
Prep sinks are calculated at 5 gallons per compartment					Total	20
Enter the quantity of equipment below	Quantity					Gallons Per Hour (GPH)
Hand sinks	3					15
Mop sink	1					5
Lavatories	2					10
Enter a description and estimated gallon per hour (GPH) usage for other equipment below	Description	Estimated gallons per hour (GPH) usage				
						0
Hand sinks and mop sinks are calculated at 5 GPH each, can washes at 10 GPH each. Hose reels are calculated at 5 GPH, clothes washers at 15 GPH, other equipment at the usage entered					Total	30
Enter the make, model and Final Rinse Usage in gallons per hour (GPH) for dishmachines	Make	Model	Final Rinse Usage (GPH) Found in "Dishmachine Specs" sheet below or on manufacturer's spec sheet			Gallons Per Hour (GPH)
						0
Enter the quantity of pre-rinse u	Quantity					Gallons Per Hour (GPH)
Pre-rinse	1					45
Dishmachines are calculated at 70% of the final rinse usage specified by the manufacturer. Pre-rinses are calculated at 45 GPH					Total	45
					Recovery Rate Needed (GPH):	183

Water Heater Input (BTU or kW) Needed:

Gas Water Heater	Electric Water Heater
160 ,000 BTU at 80°F rise	36 kW at 80°F rise
180 ,000 BTU at 90°F rise	40 kW at 90°F rise
200 ,000 BTU at 100°F rise	45 kW at 100°F rise

PLUMBING FIXTURE UNIT SCHEDULE

DRAINAGE

ITEM	#	IND. F.U.	TOT. F.U.
GREASE DRAINAGE			
4-COMP SINK	2	5.0	10.0
HAND SINK	3	2.0	6.0
CAN WASH	1	5.0	5.0
AREA FLOOR DRAIN	2	2.0	4.0
TRENCH DRAIN	1	2.0	2.0
INDIRECT RECEPTOR	4	5.0	20.0
SUBTOTAL GREASE			47.0
SANITARY SEWER			
WATER CLOSET, 1.6 GPF	2	4.0	8.0
URINAL, 1.0 GPF	1	4.0	4.0
LAVATORY	2	2.0	4.0
AREA FLOOR DRAIN	2	2.0	4.0
SUBTOTAL S.S.			20.0
TOTALS			67.0

WATER SUPPLY

ITEM	#	IND. F.U.	TOT. F.U.
WATER CLOSET FLUSH VALVE	2	10.00	20.00
URINAL	1	4.00	4.00
LAV	2	2.00	4.00
HAND SINK	3	2.00	6.00
4-COMP SINK	2	4.00	8.00
PRE-RINSE SPRAYER	2	4.00	8.00
MOP SINK	1	3.00	3.00
ICE MACHINE	3	0.50	1.50
DRINK SYSTEM	2	0.50	1.00
TEA BREWER	1	0.50	0.50
TRAP PRIMER	2	0.25	0.50
TOTAL C.W. F.U.			56.5
SUBTOTAL DEMAND GPM -			51.0
TOTAL DEMAND GPM -			51.0
C.W. MAIN SIZE - (VEL. 6-8 FPM)		1 1/2" FLUSH VALVE	

GAS DEMAND AND NOTES

DEMAND (MBH) ITEM	IND. DEMAND
E240 FRYER	80.00
E240 FRYER	80.00
E230 36" GRIDDLE	90.00
E231 60" GRIDDLE	150.00
SUBTOTAL KITCHEN	400.00
RTU-1	130.00
RTU-2	180.00
SUBTOTAL HEATING	310.00
SF-1	215.90
SUBTOTAL SUPPLY FAN HEATING	215.90
WATER HEATER	199.99
SUBTOTAL WTR. HTR.	199.99
TOTAL DEMAND	1125.89
MOST REMOTE FIXTURE DIST.(FT.)	125'
BUILDING GAS MAIN SIZE	[illegible]

NOTES:

1. ALL VALVES SHALL BE SAME SIZE AS PIPING SERVED (MIN.).
2. ALL GAS PIPE SIZES BASED ON NATURAL GAS, 2.0 PSI (MAX.), 1.0 PSI PRESSURE DROP 0.6 SPECIFIC GRAVITY. P.C. SHALL VERIFY THAT GAS SYSTEM PRESSURE DOES NOT EXCEED ALLOWABLE LIMITS OF GAS UTILIZATION EQUIPMENT. P.C. SHALL SELECT AND PROVIDE INDIVIDUAL PRESSURE REGULATORS FOR APPLIANCES TO REDUCE PRESSURE FROM 2 PSI TO THE REQUIRED UTILIZATION PRESSURE OF EQUIPMENT UNLESS NOTED OTHERWISE. (SEE NAMEPLATE DATA). REGULATORS (MAXITROL SERIES 325) SHALL BE USED FOR ALL EQUIPMENT AND INSTALLED IN A HORIZONTAL POSITION. REGULATORS INSTALLED INSIDE BUILDING ARE TO BE PROVIDED WITH VENT LIMITING DEVICES (MAXITROL SERIES 12A39) OR APPROVED EQUAL.
3. SEE SHEETS P301 AND P401 FOR GAS PIPING PLAN.
4. P.C. SHALL INSTALL FLEXIBLE GAS HOSE WITH QUICK DISCONNECTS (PROVIDED BY FEC) BETWEEN GAS PIPING AND APPLIANCES. FLEXIBLE HOSE SHALL BE SAME SIZE AS BRANCH PIPE.
5. CONTRACTOR SHALL RUN FULL DIAMETER PIPE FROM GAS METER. ANY REDUCTION IN SIZE WILL NOT BE ACCEPTABLE.
6. TOTAL DEVELOPED LENGTH OF PIPING SYSTEM: 125 FEET.

LEGEND

LINE TYPE

(solid line)	WASTE PIPING
(dashed line)	VENT PIPING
(long dash - short dash line)	COLD WATER PIPING
—HW140—	HOT WATER PIPING (140°)
—HW110—	HOT WATER PIPING (110°)
—G—G—	GAS PIPING
—F—F—	FILTERED WATER PIPING
—C—C—	CONDENSATE PIPING
—RETURN—	HOT WATER RETURN PIPING

SYMBOLS

- FLOOR CLEAN-OUT
- WALL CLEANOUT
- FLOOR DRAIN
- FLOOR SINK
- TRENCH DRAIN
- VENT THRU ROOF
- GATE VALVE
- CHECK VALVE
- MIXING VALVE
- BACKFLOW PREVENTER
- HOSE BIBB
- TRAP PRIMER
- GAS COCK AND UNION
- PLUG CLEAN OUT
- NEW TO EXISTING

ABBREVIATIONS

BFP	BACKFLOW PREVENTER
CP	CONDENSATE PUMP
CO	CLEANOUT
DFU	DRAINAGE FIXTURE UNIT
EF	EXHAUST FAN
EX.	EXISTING
FD	FLOOR DRAIN
FS	FLOOR SINK
GC	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
HS	HAND SINK
ID	INSIDE DIA.
LAV	LAVATORY
MS	MOP SINK
MV	MIXING VALVE
NE	NEW TO EXISTING
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIA.
O/F	OWNER/FRANCHISEE
PC	PLUMBING CONTRACTOR
PRV	PRESSURE REDUCING VALVE
RTU	ROOF TOP EQUIPMENT (HVAC)
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
WC	WATER CLOSET
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR

PLUMBING FIXTURE SCHEDULE

BFP-1 BACKFLOW PREVENTER
A. SEE DETAIL 5 ON SHEET P801

CO-1 FLOOR CLEANOUT (SQUARE)
A. SIOUX CHIEF #834-4PNQ
B. TOP SHALL BE FLUSH WITH FLOOR.

CO-2 WALL CLEANOUT
A. SIOUX CHIEF #873-240
B. COVER SHALL BE FLUSH WITH WALL

FD-1 FLOOR DRAIN (SQUARE)
A. FLOOR DRAIN - SIOUX CHIEF # 833-35PNQ, PVC, SQUARE.
B. 2" TRAP
C. BRONZE TAP
D. PROVIDE TRAP PRIMER AND CONNECTION AS SPECIFIED ON PLANS.

FS-1 FLOOR SINK
A. FLOOR SINK - JAY R SMITH 3120-12 (8" DEEP) W/ 1/2 GRATE AND DOME STRAINER

L-1 LAVATORY, WALL HUNG
A. LAVATORY - ZURN MODEL: Z5344
B. SENSOR FAUCET - ZURN MODEL: Z6915-XL-15CT (WALL MTD)
C. SUPPLIES - McGUIRE 167
D. STRAINER - McGUIRE 155A
E. TRAP - McGUIRE 8902
F. PROVIDE TRUEBRO (OR EQUAL) PIPING PROTECTION ON EXPOSED HOT WATER, COLD WATER, AND DRAIN PIPING BELOW SINK.

MS-1 MOP SINK
A. BASIN - FIAT MODEL: MSB-3624 (36X24X10)
B. FAUCET - FIAT MODEL: 830-AA
C. HOSE AND HOSE BRACKET - FIAT MODEL: 832-AA
D. PROVIDE 3" P-TRAP
E. FLOOR DRAIN - FD-1
F. CAULK TO PARTITION

MV-1 MIXING VALVE
A. SYMMONS - MODEL #7-225-CK-MS, B. MOUNT IN AN ACCESSIBLE LOCATION.
C. INSTALL PER MANUFACTURES RECOMMENDATION.

TD-1 TRENCH DRAIN
J.R. SMITH #9818, 4 OUTLET, END CAP AND REMOVABLE STAINLESS STEEL SLOTTED GRATE. 4" DEEP-SEAL P-TRAP. (1.2 METER LONG)

TP-1 TRAP PRIMER
A. TRAP PRIMER - SIOUX CHIEF #[illegible]-01
B. MOUNT ABOVE CEILING IN AN ACCESSIBLE LOCATION.
C. INSTALL PER MANUFACTURES RECOMMENDATION.

RP-1 HOT WATER RECIRCULATION PUMP & ACCESSORIES
A. TACO MODEL [illegible]09, 4.0 GPM, @ 23.29 FT. OF HEAD, OR EQUAL
B. 1/8 HP, 120V, 1 PH
C. ALL BRONZE CONSTRUCTION
D. P.C. SHALL PROVIDE AND INSTALL THE FOLLOWING:
1.) FLOW SWITCH (TACO #IFSW1/W2)
2.) CLOCK TIMER (TACO #265-3)
3.) TEMP. AQUASTAT (HONEYWELL #L606C1018) SET TO TURN OFF PUMP AT 140°F AND TURN ON AT 135°F.
E. E.C. SHALL PROVIDE ELECT. CONNECTIONS.

UR-1 URINAL, WALL MOUNTED, FLUSH VALVE (HANDICAP)
ZURN Z575.190.00, 0.5 GPF WHITE, RIM 17" A.F.F.
ZURN FLUSH VALVE - Z6003AV-EWS

WC-1 WATER CLOSET, FLOOR MOUNTED, FLUSH VALVE (HANDICAP), 17" A.F.F.
ZURN Z5665, 1.28 GPF WHITE VITREOUS CHINA WITH ELONGATED BOWL, ZURN Z5955SS-EL OPEN FRONT SEAT, ZURN Z6000AV-WS1-DF DUAL FLOW MANUAL FLUSH VALVE, HERCULES 10191 WAX RING (90241), JONES CO2-993 ANCHOR BOLT PACKAGE,

WH-1 INTERIOR GAS WATER HEATER
A. WATER HEATER - BRADFORD WHITE MODEL EF-60T-199E-3N(A) GAS FIRED WATER HEATER WITH 60GAL. STORAGE AND 223 GPH RECOVERY AT 100° F RISE.
B. 199,999 BTU/HR NATURAL GAS INPUT (MODULATING MAX.)
C. PROVIDE CONCENTRIC VENT TERMINAL KIT AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
D. PROVIDE FLAT ROOF FLASHING AND VENT PIPE AS REQUIRED
E. SET FOR OPERATION AT 140°F

PLUMBING GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR. CONTRACTOR SHALL INSTALL SYSTEMS, EQUIPMENT & COMPONENTS IN ACCORDANCE WITH MINIMUM REQUIREMENTS SHOWN IN THESE PLANS. ANY DEVIATION FROM THE DESIGN PLANS SHALL ONLY BE PERFORMED IF APPROVED BY THE OWNER REPRESENTATIVE OR DESIGN ENGINEER. ALL WORK SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF ALL APPLICABLE CODES AND STANDARDS. HOWEVER, ANY DEVIATION FROM THE DESIGN PLANS IMPLIED BY LOCAL CODES THAT SUGGESTS INSTALLATION OF LESS THAN THE REQUIREMENTS SPECIFIED IN THESE DESIGN PLANS SHALL NOT BE ALLOWED WITHOUT APPROVAL BY THE OWNER REPRESENTATIVE OR THE DESIGN ENGINEER.
2. IT WILL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO INSURE THAT ITEMS TO BE FURNISHED UNDER PLUMBING CONTRACT WILL FIT THE SPACE AVAILABLE. PLUMBING CONTRACTOR SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
3. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR WATER, VENT, AND WASTE SYSTEM TESTS, PER LOCAL CODE REQUIREMENTS. ALL HVAC AND EXHAUST SYSTEMS MUST BE RUNNING WHILE THESE WASTE/VENT TESTS ARE BEING PERFORMED. A CERTIFICATE WILL BE REQUIRED FROM THE PLUMBING CONTRACTOR CERTIFYING COMPLIANCE AND ACCEPTANCE OF THESE TESTS.
4. INSTALL ALL PLUMBING FIXTURES TO BE FULLY ACCESSIBLE TO INDIVIDUALS WITH DISABILITIES IN ACCORDANCE 'WITH THE AMERICANS WITH DISABILITIES ACT OF 1990'. FIXTURES AND THEIR INSTALLATION SHALL ALSO COMPLY WITH AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) PUBLICATION A117.1 - 'PROVIDING ACCESSIBILITY AND USABILITY FOR PHYSICALLY HANDICAPPED PEOPLE' AND/OR GOVERNING CODES. ALL PLUMBING FIXTURES EQUIPMENT, TRIM, & FITTINGS SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS AND CODES, INCLUDING, BUT NOT LIMITED TO, WATER AND ENERGY CONSERVATION CODES.
5. THE SCHEDULED AND/OR SPECIFIED PLUMBING FIXTURES AND EQUIPMENT REPRESENT THE MINIMUM CRITERIA AND SHALL BE THE BASIS FOR THE CONTRACTOR'S BASE BID. IF THE SCHEDULED OR SPECIFIED FIXTURES OR EQUIPMENT DO NOT COMPLY WITH GOVERNING CODES OR REGULATIONS IN ALL RESPECTS, THE CONTRACTOR SHALL PROVIDE AN ALTERNATE BID FOR COMPLYING FIXTURES, EQUIPMENT, TRIM, OR FITTINGS. THE ABSENCE OF AN ALTERNATE BID SHALL BE CONSTRUED TO MEAN THAT THE CONTRACTOR'S BID INCLUDES ALL COSTS NECESSARY TO MEET ALL REGULATIONS & CODES.
6. GENERAL CONTRACTOR SHALL PROVIDE ALL OPENINGS IN WALLS, FLOORS, AND ROOF WITH EACH CONTRACTOR BE RESPONSIBLE FOR VERIFYING LOCATION AND SIZES OF ALL OPENINGS REQUIRED UNDER HIS CONTRACT, UNLESS NOTED OTHERWISE ON THE PLANS.
7. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO KITCHEN EQUIPMENT THAT REQUIRES A WATER AND/OR WASTE CONNECTIONS, ALONG WITH ALL PIPE, VALVES, WATER HAMMER ARRESTORS, PRESSURE REGULATORS, ETC., REQUIRED FOR A COMPLETE INSTALLATION.
8. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR APPROVED FLOOR PLAN AND DIMENSIONS. DO NOT SCALE PLUMBING DRAWINGS.
9. ANY DEVIATIONS FROM SPECIFIED PLUMBING FIXTURES AND LISTED IN FIXTURE SCHEDULE SHALL OBTAIN PRIOR APPROVAL FROM THE OWNER'S REPRESENTATIVE.

EXISTING CONDITIONS

10. EXISTING WASTE/VENT AND WATER SUPPLY LINES AND FIXTURES ARE SHOWN IN APPROXIMATE LOCATION. PLUMBING CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND SIZES BEFORE INSTALLATION OF ANY NEW EQUIPMENT. MAKE NECESSARY ADJUSTMENTS AS REQUIRED.

COORDINATION

11. IT WILL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO ENSURE THAT ITEMS TO BE FURNISHED UNDER PLUMBING CONTRACT WILL FIT THE SPACE AVAILABLE. PLUMBING CONTRACTOR SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
12. PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL PRIME CONTRACTORS PRIOR TO INSTALLATION OF HIS WORK.
13. MECHANICAL DUCTWORK SHALL HAVE RIGHT-OF-WAY OVER ALL PLUMBING PIPES AND ELECTRICAL CONDUITS.
14. PLUMBING CONTRACTOR SHALL COORDINATE WITH EQUIPMENT SHEETS.

INSTALLATION

15. ALL PLUMBING LINES ARE TO BE RECESSED WITHIN THE WALL CAVITIES UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS.
16. ALL PLUMBING FIXTURES SHALL BE NEATLY CAULKED WITH SILICONE COMPOUND WHERE FIXTURE MEETS WALL.
17. ALL PIPES PASSING THROUGH FLOOR SLAB OR WALLS SHALL BE INSTALLED WITH FOAM RUBBER INSULATION.
19. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL A BACKFLOW PREVENTER OR VACUUM BREAKER AT ALL FIXTURE CONNECTIONS AND AS REQUIRED BY LOCAL CODES AT ANY POINT WHERE THERE IS DANGER OF NON-POTABLE WATER COMING IN CONTACT WITH THE POTABLE WATER SYSTEM OR ANY DANGER OF BACK-FLOW. COORDINATE WITH LOCAL INSPECTOR.
20. WHERE TUBING PASSES BEHIND STUCCO, PLASTER OR AREAS WHERE STAPLES ARE USED, IT SHALL BE PROTECTED BY CONTINUOUS SLEEVE OR APPROVED SHIELD THAT IS TWICE THE DIAMETER OF THE TUBING BEING PROTECTED.
21. PLUMBING CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR APPROVED FLOOR PLAN AND DIMENSIONS. DO NOT SCALE PLUMBING DRAWINGS.

DWV PIPING

22. SOIL, WASTE AND VENT PIPING BELOW SLAB OR GRADE TO 5'-0" OUTSIDE OF BLDG. ALL SANITARY WASTE, GREASE WASTE, AND VENT PIPING SHALL BE ASTM D 1785, ASTM D 2665, SCHEDULE 40 PVC AND FITTINGS. ALL SEWER LINES SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND AS APPROVED BY THE LOCAL AUTHORITIES.
23. INSTALL ALL THREADED CLEANOUT PLUGS WITH PIPE DOPE TO ALLOW EASY REMOVAL IN THE FUTURE.
24. ALL INDIRECT WASTE LINES SHALL HAVE A MINIMUM OF 2" AIR GAP OR TWICE THE EFFECTIVE DRAIN DIAMETER (WHICH EVER IS LARGER) WHERE IT TERMINATES AT THE RECEPTOR.
25. ALL HUB/FLOOR/TRENCH DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH DEEP SEAL TRAPS.
26. SET TOP RIM OF ALL IN-FLOOR FIXTURES (DRAINS, FLOOR SINKS, CLEAN-OUTS, ETC.) FLUSH WITH FINISHED FLOOR UNLESS DRAWINGS EXPLICITLY SPECIFY OTHERWISE.
27. CLEANOUTS LOCATED IN TRAFFIC-BEARING AREAS SHALL BE INSTALLED WITH A VEHICLE TRAFFIC BEARING BOX. THE BOX SHALL BE SET IN CONCRETE SLAB, EXTENDING AT LEAST 12" FROM THE PERIMETER OF THE CLEANOUT. THE SLAB SHALL BE NOT LESS THAN 6" THICK. THE CONCRETE SHALL BE NOT LESS THAN 2,500 PSI.

WATER PIPING

28. PLUMBING CONTRACTOR SHALL INSTALL SHOCK ABSORBERS/WATER HAMMER ARRESTORS TO MEET ALL STATE AND LOCAL CODE REQUIREMENTS.
29. PLUMBING CONTRACTOR SHALL INSTALL WATER SUPPLY PIPES SO THAT NO PIPE JOINTS ARE UNDER FLOOR SLAB- ALL JOINTS WILL BE ABOVE THE FLOOR IN ACCESSIBLE WALLS.
30. ALL NEW HOT AND COLD WATER PIPING IN WALLS, ABOVE CEILINGS, AND EXPOSED SHALL BE INSULATED WITH AN INSULATION HAVING A MAXIMUM K FACTOR OF 0.28 @ 75°F MEAN TEMPERATURE FOR 2" WALL, FLEXIBLE ELASTOMERIC THERMAL TYPE, CLOSED CELL INSULATION SIMILAR TO AP ARMAFLEX TUBE INSULATION (ARMACELL). INSULATE FITTINGS CONTINUOUSLY, BUT DO NOT INSULATE VALVE BODIES, NOR FIXTURE SUPPLIES.
    a. LONGITUDINAL SEAMS SHALL BE SEALED.
    b. LATERAL SEAMS (BUTT JOINTS) SHALL BE SEALED ON COLD WATER PIPES ONLY.
    c. THICKNESS SHALL BE 3/4" FOR COLD WATER PIPES UP TO 1-1/4"ø AND 1" FOR COLD WATER PIPES 1-1/2"ø AND GREATER.
    d. THICKNESS SHALL BE 1" MIN. FOR ALL HOT WATER PIPES.

    P.C. SHALL INSTALL ALL DOMESTIC HOT ANS COLD WATER PIPING LOCATED IN EXTERIOR WALLS ANS CEILING ON HEATED SIDE OF THE INSULATION.

    P.C. SHALL CLOSELY COORDINATE PIPING INSTALLATION WITH GENERAL CONTRACTOR AND VERIFY NO BUILDING INSULATION IS COMPROMISED IN EXTERIOR WALLS.
31. HOT AND COLD WATER PIPING ABOVE GROUND SHALL BE TYPE "M" HARD DRAWN COPPER TUBING ASSEMBLED WITH WROUGHT SWEAT FITTINGS. BRANCH PIPING MAY BE CROSS-LINKED POLYTHYLENE (PEX-a) TUBING AND ASTM F-1960 COLD EXPANSION FITTINGS. ALL WATER PIPING BELOW GRADE OR BELOW CONCRETE SLAB SHALL BE TYPE "L", COPPER TUBING, JOINTS IN COPPER TUBING SHALL BE WITH SILVER SOLDER SIMILAR OR EQUAL TO SIL-PHOS.
32. ALL VALVES SHALL BE SAME SIZE AS PIPING SERVED (MIN.)

GAS PIPING

33. PLUMBING CONTRACTOR SHALL SUPPLY AND INSTALL GAS PIPING AS SHOWN ON PLANS. ALL GAS PIPING SHALL COMPLY WITH LOCAL CODES. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL GAS EQUIPMENT. INSTALL REGULATORS AT EQUIPMENT WHERE REQUIRED BY MANUFACTURER OR CUTS SUPPLIED BY FURNISHING CONTRACTOR.

WATER HAMMER ARRESTOR SCHEDULE

I.P.S.	F.U. RATING	SIOUX CHIEF	UNIT SIZE	REMARKS
3/4"	1 - 11	652-A	A	P.D.I. CERTIFIED
3/4"	12 - 32	653-B	B	P.D.I. CERTIFIED
1"	33 - 60	654-C	C	P.D.I. CERTIFIED
1"	61 - 113	655-D	D	P.D.I. CERTIFIED
1"	114 - 154	656-E	E	P.D.I. CERTIFIED
1"	155 - 330	657-F	F	P.D.I. CERTIFIED

NOTE: ALL WATER HAMMER ARRESTORS PROVIDED MUST MEET ASSE-1010 REQUIREMNETS.

BACKFLOW PREVENTION SCHEDULE

EQUIPMENT	MEDIUM HAZARD APPLICATIONS (SEE NOTE 1)	HIGH HAZARD APPLICATIONS (SEE NOTE 1 & 2)
ICE MACHINE	WATTS MODEL: SD-2	WATTS MODEL: 007-QT
DRINK SYSTEM (CARBONATOR)	WATTS MODEL: SD-3	WATTS MODEL: SD-3
TEA BREWER	WATTS MODEL: SD-3	WATTS MODEL: SD-3
WATER FILTER	WATTS MODEL: 007-QT	WATTS MODEL: 007-QT
CHEMICAL FEED	WATTS MODEL: SD-2	WATTS MODEL: 9D
MOP SINK (MS-1)	WATTS MODEL: SD-2	WATTS MODEL: 9D
COLD WATER MAIN	SEE SHEET P8-01	SEE SHEET P8-01

NOTES:
1. P.C. SHALL VERIFY BACKFLOW REQUIREMENT WITH LOCAL CODE OFFICIALS. USE MEDIUM HAZARD BACKFLOW DEVICES UNLESS LOCAL CODE OFFICIALS CLASSIFY AS HIGH HAZARD.
2. P.C. SHALL INSTALL PER MANUFACTURERS RECOMMENDATIONS, AND PIPE VENT TO DRAIN WHERE NEEDED INDIRECTLY WITH 2" (MIN.) AIR GAP.
3. P.C. SHALL USE PLASTIC TUBING DOWNSTREAM OF THE BACKFLOW PREVENTER FOR THE CARBONATOR.

LMHT Project No. 18187

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PROJECT: *FIVE GUYS BURGERS & FRIES*
630 CRANE CREEK DRIVE
AUGUSTA, GA, 30907

DRAWING: PLUMBING NOTES AND SCHEDULES

Revisions

REVISION DATE

PROJECT DATE 12.3.18

Drawn By SCP

Checked By SDS

Sheet No. P101

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