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GA21013

PLUMBING: EQUIPMENT SCHEDULES

ASPIRE BREWING TAP ROOM & BREWERY
FOR SONNY PATIL BREWING COMPANY, INC.
400/600 NORTH GALLERIA DRIVE LOWER LEVEL
MIDDLETOWN, NY 10941

Job No. 4.1552.01

File No. 4155201 P701

P7.01

PLUMBING PIPING FITTING SCHEDULE

SERVICE	SIZE (IN)	MATERIAL	TYPE/WEIGHT	STANDARD
WATER PIPE (ABOVE GROUND)	3" AND LESS	COPPER	LEAD-FREE SOLDER ASTM B828	ASTM B 16.22
WATER PIPE (ABOVE GROUND)	4" AND UP	DUCTILE IRON	MECHANICAL OR PUSH-ON	AWWA C110
WATER PIPE (BELOW GROUND)	2½" AND LESS	COPPPER	LEAD FREE SOLDER ASTM B828	ASTM B 16.22
SANITARY AND VENT (ABOVE GROUND)	ALL	SERVICE WEIGHT CAST IRON	NO-HUB ASTM C1277 ASTM C564	ASTM A 74
SANITARY AND VENT (BELOW GROUND)	ALL	EXTRA-HEAVY CAST IRON	HUB AND SPIGOT ASTM C564	ASTM A 74
SANITARY AND VENT (BELOW GROUND SERVING BREWERY)	ALL	TYPE 316L STAINLESS STEEL	PUSH-ON	ASME A 112.3.1
PUMP DISCHARGE	ALL	DUCTILE IRON	THREADED	AWWA C110
GAS PIPING (ABOVE GROUND)	4" AND LESS	MALLEABLE IRON	THREADED OR WELDED	ASTM B 16.3
GAS PIPING (ABOVE GROUND)	6" AND UP	MALLEABLE IRON	WELDED	ASTM B 16.3

PLUMBING PIPING MATERIAL SCHEDULE

SERVICE	SIZE (IN)	MATERIAL	TYPE/WEIGHT	STANDARD
WATER PIPE (ABOVE GROUND)	3" AND LESS	COPPER	TYPE L TUBE	ASTM B 88
WATER PIPE (ABOVE GROUND)	4" AND UP	DUCTILE IRON	MECHANICAL OR PUSH-ON	AWWA C151
WATER PIPE (BELOW GROUND)	2½" AND LESS	COPPER	TYPE K SOFT	ASTM B 88
SANITARY AND VENT (ABOVE GROUND)	ALL	CAST IRON	SERVICE WEIGHT	ASTM A 74
SANITARY AND VENT (BELOW GROUND)	ALL	CAST IRON	EXTRA-HEAVY WEIGHT	ASTM A 74
SANITARY AND VENT (BELOW GROUND SERVING BREWERY)	ALL	STAINLESS STEEL	TYPE 316L	ASME A 112.3.1
PUMP DISCHARGE	ALL	DUCTILE IRON	THREADED	AWWA C110
GAS PIPING (ABOVE GROUND)	ALL	BLACK STEEL	SCHEDULE 40	ASTM A 53

PLUMBING PIPE INSULATION SCHEDULE

SERVICE	INSULATION THICKNESS (INCHES)	
	PIPE SIZE (INCHES)	
	BELOW 1½"	1½" AND OVER
COLD WATER	½"	1"
HOT WATER	1"	1½"
HOT WATER RECIRCULATION	1"	1½"
EXTERIOR PUMP DISCHARGE	1"	1"

1. PIPE COVERING SHALL BE FIBERGLASS PIPE INSULATION WITH: FIRE RETARDANT VAPOR BARRIER JACKET, 0.23 K-FACTOR AT 75°F MEAN TEMPERATURE, FLAME SPREAD = 25, SMOKE DEVELOPED = 50.

2. FITTINGS AND VALVES SHALL BE PROVIDED WITH PREMOLDED FITTING COVERS WITH PVC JACKETING OVAL IN THICKNESS AND MATERIAL TO ADJOINING PIPE INSULATION.

WATTS WATER HAMMER ARRESTORS

NO. 15 SIZE	FIXTURE UNITS	CROSS REF. PDI STANDARD
1/2" M1	1-11	A
3/4" M1	12-32	B
1" M1	33-60	C
1-1/4" M1	61-113	D
1-1/2" M1	114-154	E
2" M1	155-330	F

SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION	SYMBOL	ABBREVIATION	DESCRIPTION
—	DN.	DOWN		-	HOSE-BIBB
—	GPH	GALLONS PER HOUR		-	WALL HYDRANT
—	GPM	GALLONS PER MINUTE		FD	FLOOR DRAIN
—	TYP.	TYPICAL		PRV	PRESSURE REDUCING VALVE
—	V	VOLTS	-	°F	DEGREES FAHRENHEIT
—	VTR	VENT THROUGH ROOF	-	IN	INCHES
— — — —	CW	DOMESTIC COLD WATER	-	PSIG	POUNDS PER SQUARE INCH
— — — —	HW	DOMESTIC HOT WATER	-	H	HEIGHT
— — — —	HWR	DOMESTIC HOT WATER RETURN	-	W	WIDTH
—LP—	G	PROPANE	-	L	LENGTH
—S—	S	SANITARY		DIA	DIAMETER
- - V - -	V	VENT		-	PIPE CAP
	—	PLUG VALVE	-	MIN	MINIMUM
	—	BALL VALVE	-	MAX	MAXIMUM
	-	MANUAL AIR VENT	-	FT²	SQUARE FEET
	-	THERMOMETER		CO	CLEAN OUT
	-	PRESSURE GAUGE		WCO	WALL CLEAN OUT
	-	UNION	—SD—	SD	STORM DRAIN
	CODP	CLEANOUT DECK PLATE		-	TEE UP
—	NEW	NEW WORK		-	TEE DN
	-	ELBOW UP	-	BFP	BACK FLOW PREVENTION DEVICE
	-	ELBOW DOWN	-	DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
	-	TRAP	-	RPZ	REDUCED PRESSURE ZONE

PIPE HANGER SCHEDULE

PIPE SIZE (INCHES)	MAXIMUM HORIZONTAL SPACING (FEET)			SINGLE STEEL ROD HANGER SIZE (INCHES)		HANGER TYPE STEEL	MAXIMUM VERTICAL SPACING (FEET)				
	COPPER TUBE	CAST IRON	STEEL PIPE	TUBING	PIPING		COPPER TUBE	CAST IRON	STEEL PIPE		
½"	6	5	8 (5)	3	¼"	¾"	BAND	10	15	15	10
¾"	6	5	8 (5)	3	¼"	¾"	BAND	10	15	15	10
1"	6	5	8 (5)	3	¼"	¾"	BAND	10	15	15	10
1¼"	6	5	9 (5)	4	¼"	¾"	CLEVIS	10	15	15	10
1½"	6	5	9 (5)	4	¼"	¾"	CLEVIS	10	15	15	10
2"	10	5	10 (5)	4	¼"	¾"	CLEVIS	10	15	15	10
2½"	10	5	12 (5)	4	¾"	½"	CLEVIS	10	15	15	10
3"	10	5	12 (5)	4	¾"	½"	CLEVIS	10	15	15	10
4"	10	5	12 (5)	4	½"	¾"	CLEVIS	10	15	15	10
5"	10	5	12 (5)	4	½"	¾"	CLEVIS	10	15	15	10
6"	10	5	12 (5)	4	½"	¾"	CLEVIS	10	15	15	10
8"	10	5	12 (5)	4	¾"	½"	CLEVIS	10	15	15	10
10"	10	5	12 (5)	4	¾"	½"	CLEVIS	10	15	15	10
12"	10	5	12 (5)	4	¾"	½"	CLEVIS	10	15	15	10

NOTES:

1. MAXIMUM HORIZONTAL SPACING OF CAST-IRON PIPE HANGERS SHALL BE INCREASED TO 10 FEET WHERE 10 FOOT LENGTHS OF PIPE ARE INSTALLED.

2. INSTALL HANGER OR SUPPORT CLOSE TO THE POINT OF CHANGE OF DIRECTION IN ALL PIPE RUNS.

3. INSTALL ADDITIONAL HANGERS ON SUPPORTS AT CONCENTRATED LOADS.

4. SUPPORT ALL BRANCH PIPING OVER 5'-0" IN LENGTH.

5. ½" PROPANE PIPING SHALL BE SUPPORTED EVERY 6'-0". ¾" AND 1" PROPANE PIPING SHALL BE SUPPORTED EVERY 8'-0". 1¼" AND LARGER PROPANE PIPING SHALL BE SUPPORTED EVERY 10'-0".

6. SUPPORT VERTICAL PIPING AT EVERY FOOT.