

SEE UNDERGROUND PLAN AND
FIXTURE UNIT SCHEDULE THIS
SHEET FOR RUNOUT TRAP SIZE
TO FIXTURE.

WASTE AND VENT ISOMETRIC
NO SCALE

FIXTURE UNITS

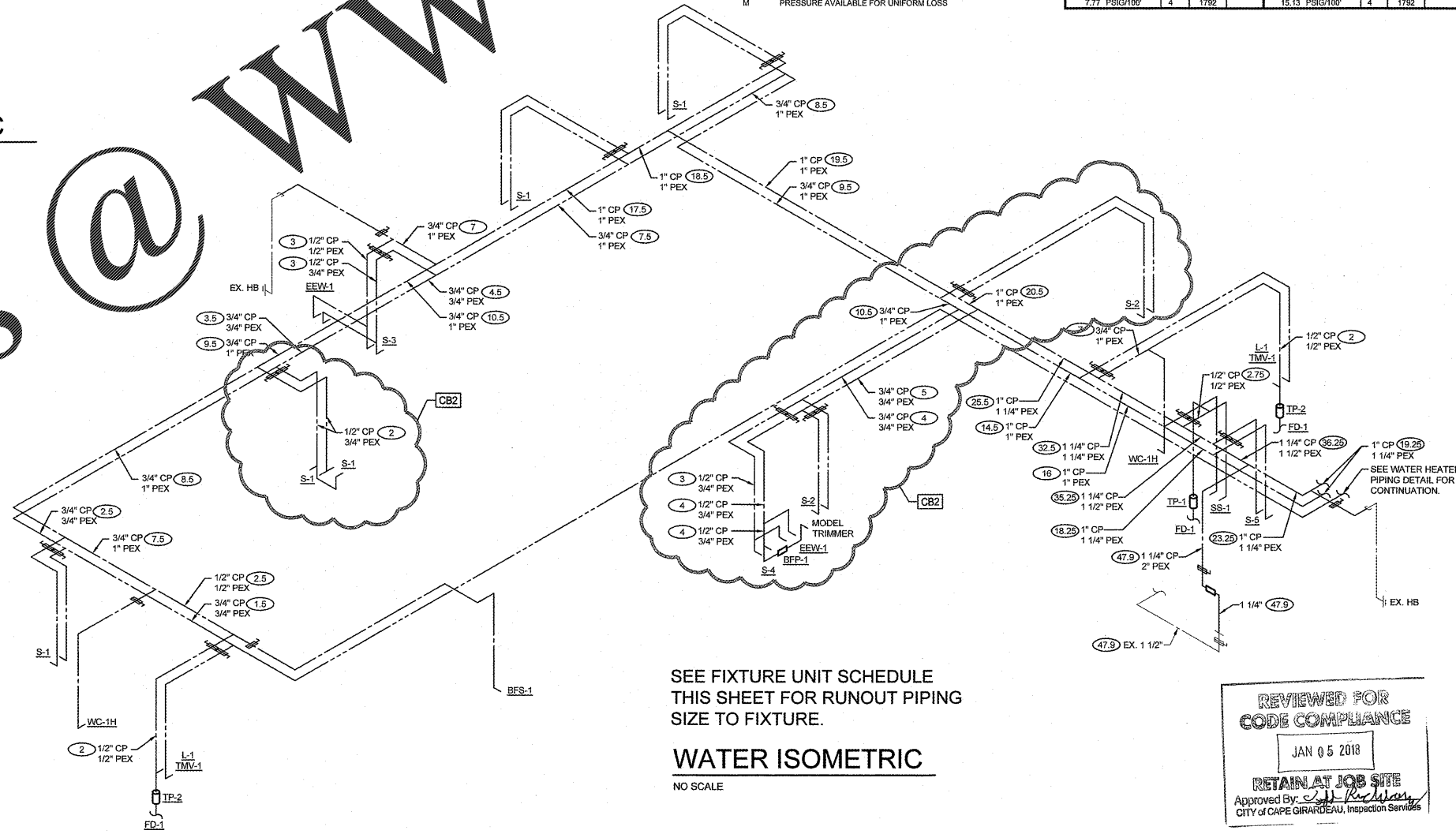
NO.	FIXTURE	WASTE		COLD WATER			HOT WATER			TOTAL WATER	
		UNITS	TOTAL	UNITS	TOTAL	BRANCH SIZE	UNITS	TOTAL	BRANCH SIZE	UNITS	TOTAL
2	EX. HOSE BIBB	-	-	-	4	3/4"	-	-	-	4	3/4"
1	BOTTLING STATION	1	1 1/4"	0.5	0.5	1/2"	-	-	-	0.5	0.5
3	FLOOR DRAIN-3"	5	3"	-	-	-	-	-	-	-	-
1	HUB OUTLET-2"	3	3"	-	-	-	-	-	-	-	-
1	HUB OUTLET-3"	5	5"	-	-	-	-	-	-	-	-
2	LAV	1	2 1/4"	1.5	3	1/2"	1.5	3	1/2"	3	1/2"
7	SINK S-1 & 2	2	14 1/2"	1	7	1/2"	1	7	1/2"	1.9	10.5
2	SINK S-3 & 4	2	4 1/2"	3	6	1/2"	3	6	1/2"	4	3
1	SINK S-5	2	2 1/2"	1	1	1/2"	1	1	1/2"	1.4	3
1	SINK SERVICE-2"	2	2"	2.25	2.25	1/2"	2.25	2.25	1/2"	3	3
2	WATER CLO-TANK	4	8"	-	5	1/2"	-	-	-	5	1/2"
3	TRAP PRIMER	-	-	0.5	1.5	1/2"	-	-	-	1.5	1/2"
1	MODEL TRIMMER	-	-	-	1	1/2"	-	-	-	1	1/2"
27	TOTAL	-	56	-	40.25	-	19.25	-	-	47.9	-

NOTES:
- AIR ADMITTANCE VALVES NOT PERMITTED (I.E. STUDOR VENT).

- IF PEX IS USED IN LIEU OF COPPER, P.C. SHALL PROVIDE COMPLETE MATERIAL SUBMITTALS (PIPE, FITTINGS, ETC.) TO ASPEN DENTAL MANAGEMENT INC. FOR APPROVAL PRIOR TO INSTALLATION.

- SEE UNDERGROUND PLAN AND FIXTURE UNIT SCHEDULE THIS SHEET FOR RUNOUT TRAP SIZE TO FIXTURE.

Order Plans



SEE FIXTURE UNIT SCHEDULE
THIS SHEET FOR RUNOUT PIPING
SIZE TO FIXTURE.

WATER ISOMETRIC
NO SCALE

WATER CALCULATIONS

WATER PRESSURE DATA

1	STATIC PRESSURE AT MAIN	80 PSIG
2	RESIDUAL PRESSURE AT MAIN	62 PSIG
3	RESIDUAL FLOW AT MAIN	1321 GPM
4	BUILDING FIXTURE UNITS	47.9 F.U.
5	PREDOMINATE FLUSH TYPE	TANK
6	CONTINUOUS FLOW GPM	0 GPM
7	BUILDING DEMAND	28.8 GPM
8	RESIDUAL PRESSURE AT BUILDING DEMAND	80.0 PSIG
9	SAFETY FACTOR	5 PSIG
10	PRESSURE AVAILABLE FOR DOMESTIC USE	75.0 PSIG

WATER SERVICE AND DISTRIBUTION SIZING DATA

11	ELEVATION OF RESIDUAL TEST HYDRANT	100.00 FEET
12	ELEVATION OF BLDG. CONTROL VALVE (C.V.)	105.00 FEET
13	ELEVATION DIFFERENCE TEST HYDRANT TO METER	5.00 FEET
14	EX. EXTERIOR WATER METER SIZE	1 INCHES
15	DEVELOPED LENGTH MAIN TO BLDG. C.V.	200 FEET
16	WATER SERVICE SIZE	1 1/2 INCHES

PRESSURE AVAILABLE AFTER METER

17	PRESSURE DROP BETWEEN MAIN AND BLDG. C.V.	6.85 PSIG/100'
18	FRICITION PRESSURE LOSS BETWEEN MAIN AND BLDG. C.V.	13.7 PSIG
19	ELEVATION PRESSURE LOSS BETWEEN MAIN AND BLDG. C.V.	2.2 PSIG
20	EX. EXTERIOR WATER METER PRESSURE LOSS	1.0 PSIG
21	BACKFLOW PREVENTER PRESSURE LOSS	1.0 PSIG
22	PRESSURE AVAILABLE FOR DISTRIBUTION	4.8 PSIG

WATER DISTRIBUTION SIZING - COLD WATER

AVAILABLE BUILDING WATER PRESSURE		44.1 PSIG	
START POINT TAG (SEE ISOMETRIC FOR TAG LOCATION)		BLDG. C.V.	
DIST. PREVIOUS START POINT TO THIS START POINT		65 FT	
UNIFORM LOSS PREV. START POINT TO THIS START POINT		10.68 PSIG/100'	
PIPE PRESSURE DROP FROM METER TO START POINT		6.9 PSIG	
CONTROLLING FIXTURE:		ID:	
ROOM NAME & NO.:		ELEV. DIFF. BETW. METER AND CONTROLLING FIXTURE	
PRESSURE REQUIRED		PRESSURE LOSS DUE TO WATER SOFTENER	
ELEV. DIFF. BETW. METER AND CONTROLLING FIXTURE		PRESSURE LOSS DUE TO MIXING VALVE	
PRESSURE LOSS DUE TO WATER SOFTENER		PRESSURE AVAILABLE FOR PIPING PRESSURE DROP	
PRESSURE LOSS DUE TO MIXING VALVE		DEVELOPED LENGTH START PT. TO CONTR. FIXTURE	
PRESSURE AVAILABLE FOR PIPING PRESSURE DROP		EQUIVALENT LENGTH START PT. TO CONTR. FIXTURE	
DEVELOPED LENGTH START PT. TO CONTR. FIXTURE		PRESSURE AVAILABLE FOR UNIFORM LOSS	
EQUIVALENT LENGTH START PT. TO CONTR. FIXTURE			
PRESSURE AVAILABLE FOR UNIFORM LOSS			

WATER DISTRIBUTION SIZING - HOT WATER

AVAILABLE BUILDING WATER PRESSURE		44.1 PSIG	
START POINT TAG (SEE ISOMETRIC FOR TAG LOCATION)		BLDG. C.V.	
DIST. PREVIOUS START POINT TO THIS START POINT		85 FT	
UNIFORM LOSS PREV. START POINT TO THIS START POINT		7.77 PSIG/100'	
PIPE PRESSURE DROP FROM METER TO START POINT		7.4 PSIG	
CONTROLLING FIXTURE:		ID:	
ROOM NAME & NO.:		ELEV. DIFF. BETW. METER AND CONTROLLING FIXTURE	
PRESSURE REQUIRED		PRESSURE LOSS DUE TO WATER SOFTENER	
ELEV. DIFF. BETW. METER AND CONTROLLING FIXTURE		PRESSURE LOSS DUE TO MIXING VALVE	
PRESSURE LOSS DUE TO WATER SOFTENER		PRESSURE AVAILABLE FOR PIPING PRESSURE DROP	
PRESSURE LOSS DUE TO MIXING VALVE		DEVELOPED LENGTH START PT. TO CONTR. FIXTURE	
PRESSURE AVAILABLE FOR PIPING PRESSURE DROP		EQUIVALENT LENGTH START PT. TO CONTR. FIXTURE	
DEVELOPED LENGTH START PT. TO CONTR. FIXTURE		PRESSURE AVAILABLE FOR UNIFORM LOSS	
EQUIVALENT LENGTH START PT. TO CONTR. FIXTURE			
PRESSURE AVAILABLE FOR UNIFORM LOSS			

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COLLABORATION
AspenDental

PROJECT INFORMATION
PROJECT NUMBER 1712680

TENANT BUILD-OUT FOR:
ASPEN DENTAL
3070 WILLIAM STREET • CAPE GIRARDEAU, MO 63703

PROFESSIONAL SEAL
STATE OF MISSOURI
RAYMOND DEL MONTE
NUMBER PE-2009023205
PROFESSIONAL ENGINEER

SHEET DATES
ISSUE DATE JUNE 1, 2017
REVISIONS
AD2 JUNE 22, 2017
ENTIRE SHEET
CB2 DEC. 19, 2017

SHEET INFORMATION
ISOMETRICS & SCHEDULES
SHEET NUMBER
P2.0

REVIEWED FOR
CODE COMPLIANCE
JAN 05 2018
RETAIN AT JOB SITE
Approved By: [Signature]
CITY OF CAPE GIRARDEAU, Inspection Services