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June 10, 2022

re: Chestnut Springs Fire Flow Report

ISO: $NFF = (C)(O)[1 + (X + P)] = 1200 * 0.85[1 + (0+0)] = 1020 \rightarrow 1000 \text{ gpm}$

Where:

NFF = Needed Fire Flow

(C) = Construction factor, including effective area: C=1000

(O) = Occupancy factor: C-2=0.85

(X + P) = Exposures and communication (openings) factor: 0

$$C = 18F\sqrt{A} = 18 * 1.5 * \sqrt{1800} = 1145 \rightarrow 1200$$

Where:

F = the coefficient related to the construction type = 1.5

A = the effective building area (assumed) = 1800 sf

NFPA: required flow 1500 gpm

Per the attached Water Flow Report dated 05/17/22, the water flow is 3444 gpm at 20 psi.

Please contact me at 307.680.1772 if you have any questions.

Respectfully,



Digitally signed by
Carol Chadwick
DN: c=US,
o=Florida,
dnQualifier=A01410
D0000017E86D924
CE0005954C,
cn=Carol Chadwick
Date: 2022.06.17
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Carol Chadwick, P.E.

City of Lake City Water flow report

HYDRANT # & LOCATION **1128 NE Washington Street** DATE: **5/17/2022**
TEST BY: **Al/Daniel** Day **Tuesday** Time **8:45** Minutes **2**
WATER SUPPLIED BY: **Municipal**
PURPOSE OF TEST: **request**

DATA

FLOW HYDRANT(S)	A1	A2	A3
SIZE OPENING:	2.5	2.5	2.5
COEFFICIENT:	0.8		
PITOT READING:	40		
GPM:	943	0	0
TOTAL FLOW DURING TEST:	943 GPM		
STATIC READING:	64 PSI		
RESIDUAL:		60 PSI	
RESULTS: AT 20 PSI RESIDUAL	3444 GPM		AT 0 PSI 4216 GPM
ESTIMATED CONSUMPTION:	1887 GAL.		
REMARKS:			

