

WATER MAIN FLUSHING

PIPE DIAMETER (INCH)	FLOW REQUIRED TO PRODUCE 2.5 F.FPS (APPROX.)	SIZE OF FLUSHING TAP (INCH)			HYDRANT OUTLETS	
		(1")	(1 1/2")	(2")	NUMBER OF PORTS	SIZE IN (INCH)
4"	100	1			1	2 1/2"
6"	220		1		1	2 1/2"
8"	400		2	1	1	2 1/2"
10"	600		3	2	1	2 1/2"
12"	900			2	2	2 1/2"
16"	1600			4	2	2 1/2"
18"	2000			6	1	4 1/2"
20"	2500			8	1	4 1/2"
24"	3500			11	2	4 1/2"
(1)	WITH A 40 PSI RESIDUAL PRESSURE IN THE MAIN WITH THE FIRE HYDRANT OR FLUSH PORT FLOWING TO ATMOSPHERE, A 2 1/2" HYDRANT OUTLET WILL DISCHARGE APPROX. 1000 GPM AND A 4 1/2" HYDRANT NOZZLE WILL DISCHARGE APPROX. 2500 GPM					
(2)	NUMBER OF TAPS ON PIPE BASED ON DISCHARGE RATE THROUGH 5 FEET OF GALVANIZED IRON (GI) PIPE WITH ONE 90 DEGREE ELBOW.					

FLUSHING:

1. MAINS DO NOT NEED TO BE THOROUGHLY FLUSHED PRIOR TO PRESSURE TEST. FLUSH ONLY ENOUGH TO RELEASE ANY TRAPPED AIR. PRESSURE TEST WILL BE CONDUCTED PRIOR TO COLLECTION OF BACTERIA SAMPLES.
2. MUST USE A MINIMUM SCOURING VELOCITY OF 2.5 FEET PER SECOND (FPS).
3. IF NO FIRE HYDRANT IS PROVIDED NEAR THE END OF THE MAIN, PROVIDE A FLUSHING TAP OF THE SIZE SUFFICIENT TO PROVIDE A MINIMUM VELOCITY IN THE MAIN OF 2.5 FPS.
4. REFER TO THE TABLE ABOVE FOR THE MINIMUM VELOCITY REQUIRED THROUGH A FLUSH PORT OR FIRE HYDRANT TO ACHIEVE SCOURING VELOCITY.
5. EXERCISE EXTREME CARE AND CONDUCT A THOROUGH INSPECTION DURING WATER MAIN INSTALLATION TO PREVENT SMALL STONES, CONCRETE, WILDLIFE AND DEBRIS FROM ENTERING THE MAINS.
6. CLEAR LARGE MATERIAL BY FLUSHING AND INSPECTING ALL HYDRANTS ON THE MAINS TO ENSURE THAT ALL VALVES ARE CLEAR AND AND IN GOOD CONDITION.
7. CONTRACTOR MUST RECEIVE APPROVAL FROM THE CDA WATER DEPT. PRIOR TO FLUSHING ANY WATER MAIN.
8. THE CDA WATER DEPT. WILL NOT BE LIABLE FOR ANY DAMAGE CAUSED BY THE CONTRACTOR WHILE FLUSHING A WATER MAIN. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHERE TO DISPOSE OF EXCESS WATER.

REVISION	APPROVED	DATE	CITY OF COEUR d'ALENE STANDARD DRAWING	APPROVED BY:	
				WATER MAIN FLUSHING CHART	<i>Chris Bosley</i> 4/13/18
					CITY ENGINEER, PE 10604
					DWG NO.
					W-34
			DATE:		