



8-21-25

Quest Management
1929 Old Valley Road
Stevenson, Md. 21153

RE: 209@Pickwick
2700 Fallstaff Road Baltimore, Md.
Poor Water Flow / Water Usage

Mr. Steve Rosenbaum;

I performed fire hydrant maintenance and flow testing at the above referenced property on 3-18-25. During flow testing the fire hydrants along Fallstaff Road performed very well, over 1,247gpm@34psi. However, the fire hydrants along Clarks Lane performed very poorly, under 766gpm@40psi.

I submitted my fire hydrant flow test report to Mr. Steve Rosenbaum by email on 3-18-25 with an outline of the fire hydrants that are underperforming. Mr. Rosenbaum retained my services on 4-25-25 to investigate why the hydrants are underperforming. During my investigation, Mr. Rosenbaum asked me to also look into a potential water leak. The property has suffered significant water bills and have no idea as to why. I was told by the maintenance supervisor all the apartment units have been checked and verified and no leaks or toilet overrun exists. I informed Mr. Rosenbaum I would try my best to located the leak.

General Information:

At the time of retainment, I had no information on the property utilities. I requested a site plan and was provided with one that only showed waterlines and water meters along the property line. During my investigation, I found three water meters, two of them are considered fire water meters (fire hydrants connected to the waterline). I was able to isolate what water meters feed what hydrants. There is a (6) inch water meter located by the Recreational Facilities / Maintenance Shop near Gage Court, along Fallstaff Road. There are (3) fire hydrants on this water meter, all of the fire hydrants are performing well. There is a (6) inch water meter located on Clarks Lane and Kim Drive, there are (5) fire hydrants on this water meter. These fire hydrants are the ones that are underperforming.

City of Baltimore:

I asked Mr. Rosenbaum to call the City of Baltimore Department of Public Works (DPW) and request a flow test on a public fire hydrant behind 6426 Elray Drive along Clarks Lane. Mr. Bob Suri, Fire Flow Engineer for DPW, emailed Mr. Rosenbaum a water flow test report on 7-23-25. On July 18, 2025, DPW performed a flow test on the requested public fire hydrant. The flow test device used a single 2.5-inch outlet. Test Results: Static 50psi Residual 46psi flowing 1007gpm (1007gpm@46psi). That is a substantial flow test considering the waterline along Clarks Lane is only (8) inch and the flow device was only 2.5 inch. There must be a significant amount of pressure at 50psi to push all that water through that small port.

Early August I contacted the water meter department to request access to the meter vault. Accessing the water meter vault is dangerous and, in most jurisdictions, restricted. I explained my goal to place a water gage



on the discharge side of the meter. This way I can decipher if the water restricted flow is before or after the water meter. I asked for assistance with their service team and my request was rejected immediately. I explained how urgent this issue was and the operator clearly stated, I was cleared to enter the meter vault and do what I needed to do without any help from DPW.

Investigation:

Before I point fingers towards the water authority as property owners typically do, my goal is to first rule out the water source being the DPW water meter. As stated above, the City of Baltimore refused to provide assistance. This forced me to request service from McDevitt and Sons, a very reputable and professional plumbing company. On 8-18-25, we accessed the 6-inch meter vault on Clarks Lane and Kim Drive to see where we could place a water gage. We found a 2-inch plug on the discharge side of the bypass check valve. The plug seemed to be fused to the check valve flange. We could not locate another place on the discharge side of the meter to place the water gage. The only way I can verify is to have the check valve replaced and to add an outlet on top of the check valve so I can place my water gage.

Additional Water Flow testing:

We verified the main water isolation valve was fully opened. I placed a water gage on the public fire hydrant located behind 6426 Elray Drive along Clarks Lane (the exact hydrant used to record residual pressure for the DPW flow test). I flowed a private hydrant in front of 2807 Kim Drive, DPW test report states reference #227P009134. Static pressure was 48psi. flow was 766gpm and the residual pressure dropped to 41psi. When I first opened the fire hydrant, the residual pressure moved significantly between 25psi to 65psi. This is typical when flowing a fire hydrant on the discharge side of a private water meter but not so much on the public side of the water meter. Although, the city waterline along Clarks Lane is (8) inch. What really concerns me is the drop in residual pressure. Knowing DPW reported a strong waterflow pushing 1007gpm out of a 2.5-inch outlet with a residual pressure drop of only 4psi, the residual pressure should not have moved so rapidly when the hydrant was first opened, and the residual pressure should only have dropped maybe 1psi to 2psi. During my flow testing this morning, the residual pressure dropped 7psi. flowing only 766gpm.

In Conclusion:

The entire property was constructed around the same time, 1971. It is probable the entire project was performed by the same site utility contractor. Thus, using the same materials, same manufactures and same installation methods. Knowing the water flow and pressure is good on part of the property there is no reason why it should not be performing the same on the other part of the property. Unless the property is not sharing the same waterline service from DPW. This could be the case here. However, the flow test results along Clarks Lane provided by DPW reported a favorable flow and pressure.

The DPW test flowed fire hydrant #018942 and placed the residual pressure gage on fire hydrant #227C009049 (Hard to read the number). Both fire hydrants appear to be on the same 8-inch waterline. The static pressure was 50psi with a residual pressure of 46psi, a 4psi drop. When I flowed fire hydrant #019904 (766@41psi), the residual pressure dropped 7psi. This is very strange to drop 7psi on the public side of the water meter, 3psi more drop compared to DPW flow test, and flowing 241gpm less water. The two flow tests do not match each other. It is possible the DPW flow hydrant may be closer to a larger feed main and why the hydrant was able



to flow 1007gpm@49psi. From what I can gather with the information I have retained so far, the lack of performance found seems to be a combination of two facts. One, the water meter may not be fully opening and two, the DPW water demand at this meter location is providing what it was designed to provide.

My investigation thus far, I believe the underground waterlines on this property are not restricted to limit the flow of water and should be able to perform acceptably (minimum of 1,000gpm@20psi), based on the service water provided by DPW. My belief is based on the 7psi residual pressure drop flowing @766gpm, the rapid movement of the residual pressure gage when the hydrant was first opened and the DPW waterline and private waterline are the same size (8-inch).

Water Usage Concern:

I did not see any evidence of any water leakage underground or from the hydrants themselves. It was also discussed with your maintenance supervisor all the apartment units have been checked and verified with no leaks or toilet overrun. During my investigation of the water meter and vault, I found there is no testing port on the meter. This is very concerning because there is no way to accurately calibrate the water usage meter. To verify calibration, you need to flow a measured water. There is no port to flow water therefore it is impossible to know if the meter is recording usage properly. If this property is experiencing a spike in water usage, the problem may be the meter itself. It is possible DPW removes the meter and performs repairs and calibration at their shop. That seem likely. However, very labor intensive. Each vault has two meters.

Property DPW Request

1. Request DPW to flow the public hydrant #227C009049 to see the actual performance at that location, closest to the property water meter at Clarks Lane and Kim Drive. I will need to be present for this test to witness the flow.
2. Request to have a port on the discharge side of the water meter so I can place a water gage to factually confirm restriction of flow (meter/property), if any exists.
3. Request DPW to have the water meter repaired and verified the fire flow check valve is fully opening and clear of any obstructions.
4. Request DPW to calibrate and verify all water meters assigned to this property. To confirm water usage is billed accurately.

This concludes my investigation report. Once DPW is able to meet your requests listed above, I will be able to conclude my investigation.

Sincerely

Randy Earle
President
NICET-CFPS



Baltimore City DPW - Office of Asset Management
Water Analyzer Office



Fire Flow Test Report

* RESULTS VALID FOR ONE (1) YEAR FROM DATE OF TEST *

From Header	Date of Test	July 18, 2025	Flow Hydrant Make	Mueller
	Work Order No.	1459504	Flow Hydrant Year	
	Property Address	Clarks Lane, Baltimore, Maryland	Outlet Diameter	2.5 inches
	District	City of Baltimore-Baltimore County	Main Size (inch)	8 inches
	Plat No.	S-16	Flow Hydrant Opened	turns
	Balto City/Co	Baltimore City	Flow Hydrant Extent	
	Water Zone	Western Third Zone	Flow Hydrant Elev.	
	Applicant Name	PICKWICK HOLDCO LLC	Residual Hydrant Make	
	Applicant Number	443-451-4916	Residual Hydrant Year	
	Applicant Company	Quest Management Group	Residual Hydrant Elev.	
	Reason for Test	Other	Main Size (inch)	8 inches
	Comments:			

Report Prepared By: BOB S BOBS

QA/QC By:

Test Data	Residual Hydrant "R" or "RES"			Flow Hydrant "F" or "FLOW"		
	Asset Location:	Static Pressure (psi):	50	Asset Location:	Measured Flow (gpm):	1007
	FH-Clarks Ln @ Fallstaff Manor Ct	Residual Pressure (psi):	46	FH-Clarks Ln @ Marnat Rd	Calculated Flow at 20 psi (gpm):	2989.252311
	Asset Number: 227C009049	Pressure Drop:	4	Asset Number: 018942	$Flow\ Calculation: Q_{max} = Q \times \frac{(P_{static} - 20)^{.54}}{(P_{static} - P_{residual})^{.54}}$	
		Pressure Drop to 20 psi:	30			

