

**CITY OF ROCHESTER HILLS  
HYDRANT FLOW TEST**

Date: Aug 21, 2024 Time: 1:45 PM

Location: 3420 Rochester

Test Performed By: W. Rybak S. Zott M. Greenwood

Calculations Performed By: Wayne Rybak

Number of Hydrants Flowing: 1  
 Number of Outlets Open: 1  
 Size of Outlet, D (inches): 3 3/4  
 Friction Loss Coefficient, C<sub>d</sub>: 9  
 Static Pressure, P<sub>s</sub> (psi): 65  
 Residual Pressure, P<sub>r</sub> (psi): 56  
 Pico Pressure, P<sub>p</sub> (psi): 35  
 Residual Flow, Q<sub>r</sub> (GPM): 2234 / 1854  
 Fire Flow at 20 psi, Q<sub>f</sub> (GPM): 3704 / 3074  
 Supply Main Size (pico hydrant): 8"  
 Supply Main Size (static hydrant): 8"

$$Q_r = 29.83 C_d D^2 (P_r)^{0.54} \text{ #Outlets}$$

$$Q_f = Q_r (P_s + 20) / (P_r + P_p)^{0.54}$$

Drawing of Flow Test Site (include location of flow & test hydrant):

4N

