

**CITY OF ROCHESTER HILLS
HYDRANT FLOW TEST**

Date: April 11, 2019 Time: 1:15 PM

Test Performed By: W Rybak R Kotsven

Location: 1400 S LIVERNOIS

Calculations Performed By: Wayne Rybak

Number of Hydrants Flowing:	<u>1</u>	
Number of Outlets Open:	<u>1</u>	
Size of Outlet, D (Inches):	<u>3 3/4</u>	
Friction Loss Coefficient, C_d :	<u>.9</u>	
Static Pressure, P_s (psi):	<u>83</u>	
Residual Pressure, P_r (psi):	<u>74</u>	
Pftg Pressure, P_p (psi):	<u>40</u>	
Residual Flow, Q_r (GPM):	<u>2389/1983*</u>	$Q_r = 29.83 C_d D^2 (P_p)^{.64} \# \text{Outlets}$
Fire Flow at 20 psi, Q_f (GPM):	<u>6832/5671*</u>	$Q_f = Q_r [(P_s - 20) / (P_s - P_r)]^{.64}$
Supply Main Size (plto hydrant):	<u>12"</u>	
Supply Main Size (static hydrant):	<u>12"</u>	

* Multiplied by .83 per NFPA 291
Drawing of Flow Test Site (include location of flow & test hydrant):

