

City Utilities Design Standards Manual

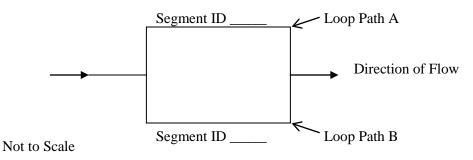
Exhibit W5-8

Friction Losses, Unidirectional Single Loop Worksheet

Created: January 1, 2002 Revised: June 10, 2014

use the higher value.

Step 1: Label the Loop



Step 2: List Variables

<u>Loop Path A</u>		Loop Path B		
Diameter				
Age: New or years			New	or years
C	_		С	
L			L	
Step 3: Converge Loop Path Qs Loop Path A		Loop Path B		
Trial #1	Q			
	$h_{\rm f}$			
Trial #2	Q			After each trial, compare h _f values. If not within 1.0 psi
	$h_{\rm f}$			or less, reduce the corresponding Q of the
Trial #3	Q			higher h _f . Repeat trials until loop path h _f values are within 1.0 psi or less. Then

Repeat trials until loop path h_f values are within 1.0 psi or less. Then use the higher value.

 h_f