

WATER SERVICE PIPE SIZING

PART 9 – RESIDENTIAL

Water service pipe sizes for residential buildings containing one or more dwelling units may be sized using this form. Refer to the Ontario Building Code, as amended, Division B, Article 7.6.3.4. for additional requirements.

Part 1 – Hydraulic Load (fixture unit) Calculation

Fixture or Device	Minimum Size of Supply Pipe	Private Use Hydraulic Load (fixture units)	Quantity	Total Hydraulic Load (fixture units)
Bathroom group ^(a) with 6 LPF flush	N/A	3.6		
Bathtub with or without shower head	1/2"	1.4		
Bathtub with 3/4 in. spout	3/4"	10		
Bidet	3/8"	2		
Clothes washer	1/2"	1.4		
Dishwasher	3/8"	1.4		
Water closet, 6 LPF or less with flush	3/8"	2.2		
Hose bibb:				
1/2" supply	1/2"	2.5		
3/4" supply	3/4"	3		
Combination hot and cold	1/2"	2.5		
Shower head:				
Single head	1/2"	1.4		
Multi-head, fixture unit per head	1/2"	1.4		
Sink:				
Bathroom (lavatory)	3/8"	0.7		
Bar	3/8"	1		
Kitchen	3/8"	1.4		
Laundry	3/8"	1.4		
Other:				
Total:				

(a) Bathroom group means a group of plumbing fixtures installed in the same room, consisting of one lavatory, one water closet and either one bathtub, with or without a shower, or one one-handed shower

Part 2 – Sizing of the Water Service

Maximum Hydraulic Load (fixture units) ^(a)	Maximum Allowable Length (m)	Water Service (in)	Water Distribution System (in)
26 ^(b)	-	3/4	3/4
17	30	3/4	3/4
19	24		
21	18		
36	30	1	1
41	24		
42	18		
83	30	1-1/2	1-1/4

(a) Refer to Ontario Building Code Tables 7.6.3.4. and A-7.6.3.1. for additional total fixture units.

(b) May only apply to a single dwelling unit house. Minimum 3/4 in. water supply piping located in the basement to extend to the base of every hot and cold riser that serves a maximum of one bathroom group and to the last water supply branch serving any basement bathroom group, fixture supply or hose bibb.

Proposed water pipe size: _____ in. Water service length: _____ m.

Municipal Address: _____

Name:	BCIN (if applicable)	Signature:	Date:
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