

Sizing of Water Service Pipe in a House Containing One Dwelling Unit

In accordance with Sentence 7.6.3.4.(6), of Division B, of the Ontario Building Code (OBC) where both hot and cold water is supplied to fixtures in a house containing only one dwelling unit, the water service pipe is permitted to be a minimum of ¾ in. in size provided,

- (a) a minimum ¾ in. water supply piping located in the basement or lower level is extended 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, and
- (b) the total hydraulic load is not more than 26 fixture units, using the values given in Table 7.6.3.2.A.

Address	Date
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PART 1 - Hydraulic Load (Fixture Unit Calculation)

Fixture or Device	Fixture Units	Quantity	Total Hydraulic Load (Fixture Units x Quantity)
Bathroom Group with 6 LPF or less flush tank*	3.6		
Bathtub with or without shower head	1.4		
Clothes washer	1.4		
Dishwasher (domestic)	1.4		
Hose bibb (1/2")	2.5		
Lavatory	0.7		
Shower head	1.4		
Shower, spray, multi-head, fixture unit per head	1.4		
Sink, bar	1		
Sink, kitchen	1.4		
Sink, laundry	1.4		
Water Closet (6 LPF or less with flush tank)	2.2		
Other:			
Total Fixture Units			

(Fixture Units from Table 7.6.3.2.A, of Division B of the OBC)

* Bathroom group consists of 1 water closet, 1 basin (lavatory), and 1 bathtub or 1 shower.

PART 2 - Sizing of Water Service Pipe

Size of Water Pipe	Water Velocity (m/s)	
	2.4 (copper piping, cold water)	Other Pipe Material*:
	Hydraulic Load (Fixture Units)	
1/2"	Up to 7	
3/4"	7.1 to 26	
1"	26.1 to 31	
1¼"	31.1 to 57	

(Above information obtained from Sentence 7.6.3.4.(6) and Table 7.6.3.4, of Division B of the OBC)

* If a water velocity of other than 2.4 m/s is proposed, provide documentation showing maximum permitted water velocity with maximum hydraulic loads for each water pipe size as recommended by the pipe and fitting manufacturer.

PART 3 - Design of Water Service Pipe

Total Hydraulic Load (fixture units):	Water Meter Size 3/4" Water Service Pipe = 5/8" (16 mm) Water Meter 1" Water Service Pipe = 3/4" (21 mm) Water Meter 1¼" Water Service Pipe = 1" (25 mm) Water Meter	
Water Service Pipe size (inches):		
Designer Information		
Name	BCIN	Signature