



**S. LLEWELLYN & ASSOCIATES LIMITED**  
CONSULTING ENGINEERS

September 27, 2017

File: 17086

City of Hamilton  
71 Main St. West  
Hamilton, Ontario  
L8P 4Y5

**RE: Water Usage Assessment**  
**154 Main Street East**  
**City of Hamilton**

The proposed development consists of constructing a 25-storey mixed-use condominium building. Refer to the Site Plan prepared by WZMH Architects for details.

The following is an estimate of the water usage for the proposed condominium building. Water usage for the site was calculated based on the "Fixture Unit Method" as per Table 7.6.3.2.A. forming part of sentences 7.6.3.1(1) to (3) and 7.6.3.4.(2), (3) and (5) of the 2012 Ontario Building Code. See Table 1 and 2 for fixture unit (FU) calculations.

Component	No. of Fixtures/Unit	FU/ Fixture	No. of Units	Total FU
Lavatory (8.3L/min or less per head) (Private)	1	0.7	188	131.6
	2		69	96.6
	3		10	21.0
Shower Head (9.5L/min or less per head) (Private)	1	1.4	188	263.2
	2		69	193.2
	3		10	42.0
Water Closet (6 LPF or less with flush tank) (Private)	1	2.2	188	413.6
	2		69	303.6
	3		10	66.0
Dishwasher (Domestic)	1	1.4	267	373.8
Sink, Kitchen, (Domestic, 8.3L/min or less)	1	1.4	267	373.8
Clothes Washer (3.5 kg)	1	1.4	267	373.8
<b>Total FU:</b>				<b>2652.2</b>

<b>Table 2 Fixture Unit Calculations (Common Areas, Retail Space &amp; Storage Area)</b>			
Component	No. of Fixtures	FU/ Fixture	Total FU
Lavatory (8.3L/min or less per head) (Public)	16	2	32
Shower Head (9.5L/min or less per head) (Public)	5	4	20
Water Closet (6 LPF or less with flush tank) (Public)	22	2.2	48.4
Dishwasher (Domestic)	3	1.4	4.2
Sink, Kitchen, (Commercial)	6	4	24
Sink, (Service or mop basin)	6	3	18
<b>Total FU:</b>			<b>146.6</b>

Total peak water usage for the site was derived below from the fixture unit count as per Table 7.4.10.5 of the Ontario Building Code.

**Total Fixture Unit Count = 2652.2 + 146.6 = 2798.8 FU**

**Water Usage: 332 IGPM (25.15 L/s)**

We trust that the information provided addresses the City of Hamilton requirements.

Prepared by:

**S.LLEWELLYN & ASSOCIATES LIMITED**



*M. Colosimo*

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