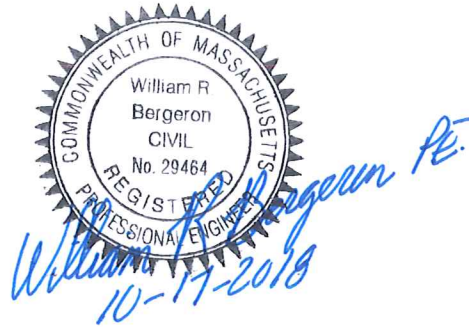


To: David J. Hickey, Jr. P.E.
Town Engineer
Department of Public Works
20 Municipal Way
Wellesley, Ma 02481

J. Derenzo & Associates LLC
(#680 Worcester Rd. LLC.)
43 Charles Street
Needham, Ma. 02494
jd@jderenzoproperties.com
tel 781-449-0300



From: William R. Bergeron, P.E.
Project Engineer

Date: October 17, 2018

Subject: #680 Worcester Street, Wellesley, Massachusetts Existing Sewer Main

Dear Mr. Hickey,

The property located at #680 Worcester Street has been purchased by J. Derenzo & Associates LLC under the name of #680 Worcester Rd, LLC.

As you know Mr. Derenzo will be pursuing the development of this lot as a 40B site. The plan will be to request that a portion of the existing sewers, drains or utilities easement be modified by reducing the limits of the easement to be within eight to ten feet of the property line. I understand from our meeting on October 4, 2018 in your office that Public Works still has no objection to the removal of this easement after it goes through the appropriate review process since it serves no practical purpose. I believe that we will pursue the adjustment of the easement limits as we move further along in the approval process.

I also understand that it is the desire of the Board of Public Works to replace 6 inch sewer mains with 8 inch mains when possible. I have reviewed the existing plans for the sewer main constructed from 680 Worcester Street to Francis Road in the rear yards of the existing homes. There are currently four homes and 13 bedrooms connected to this sewer line. The existing average daily flow would be approximately 1 gallon per minute. Applying a peaking factor of 5 would bring the potential peak flow to 5 gallons per minute.

The proposed project will add 38 new bedrooms to the sewer main. (41 new-3 existing) which will potentially have an average daily flow of 3.9 gallon per minutes. Applying the peaking factor of 5 results in a potential peak flow of 19.5 gallons per minute. The capacity of the existing 6 inch sewer main is approximately 138 gallons per minute. Therefore there is no hydraulic capacity reason to require the replacement of this existing sewer main. The existing sewer main easement is also narrow and the abutters have encroached with items that would make

replacement of the main unduly disruptive to them. As I indicated we would offer to TV the existing sewer main to insure its condition and repair any leaks through an approved sealing method.

I must also point out that the sewer generation rates that I have used is consistent with the required use of 110 gallons per bedroom per day that have been in place for over 40 years. The plumbing fixtures and appliances have significantly become more efficient through the years. I conducted a review of actual water use for a 132 unit condominium complex in Reading Massachusetts very similar in building style to this proposal consisting of 1, 2 and 3 bedroom units. The average daily flow per unit by actual water readings was found to be 111.6 gallons per day. This would result in the new project adding only 1.55 gallons per minute average daily flow and a peaking factor of 7.75 gallons per day. This is probably a more accurate actual condition that will exist after the new structure is completed.

Therefore it is my professional opinion that there are no capacity issues with the existing sewer main that would require replacement.

I would be pleased to meet with you and your staff regarding this matter at your convenience. Thank you for your assistance on this matter.



William R. Bergeron, P.E.
Project Engineer
Hayes Engineering, Inc.

cc

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