



COUNTY OF DUTCHESS

DEPARTMENT OF BEHAVIORAL AND COMMUNITY HEALTH
DIVISION OF ENVIRONMENTAL HEALTH SERVICES

June 26th, 2017

Scott Bryant, P.E.
Town of East Fishkill Hall
330 Route 376
Hopewell Junction, NY 12601

Re.: Montage and Summit Woods Subdivisions
Parcel Numbers: 132800-6556-00-802836-0000, 132800-6656-00-045715-0000, 132800-6656-00-233608-0000 and 132800-6656-00-349637-0000
Town of East Fishkill

Dear Mr. Bryant:

In response to your letter dated June 20th, 2017, this Department encourages the Town of East Fishkill to consolidate water and sewer infrastructure as long as there is adequate infrastructure capacity.

During a meeting held on June 20th, 2017, you indicated that you felt that an average day design flow of 275 gallons per day per 4 bedroom home should be used for the purpose of allocating sanitary sewer flow capacity from the Montage and Summit Woods Subdivisions to the Hopewell Hamlet Wastewater Treatment Facility in lieu of using the New York State Design Standards for Intermediate Sized Wastewater Treatment Systems design flows of 440 gallons per day per 4 bedroom home.

In an effort to support this design flow, you provided actual average daily sanitary usage per household for various existing communities including Hopewell Glen, Four Corners, the Legends and Sagamor.

Project design flows are not dictated by this Department. The project design engineer has the burden of determining the design flows for the project based on engineering judgement. There are various methods of determining design flows for residential projects served by a sewage collection system and wastewater treatment facility. The simplest method is to multiply the number of homes by the design flows provided in Table B-3 of the New York State Design Standards for Intermediate Sized Wastewater Treatment Systems. A second method is using census records to estimate the number of people and using the New York State Recommended Standards for Wastewater Facilities average daily design flow of 100 gallons per capita per day. The third method is using metered use data from existing similar projects.

As we also discussed water and wastewater design flows may differ for the same project and design flows may vary between projects. Average day flows are generally attenuated for larger projects since not all homes use the same amount of water. Projects which use large scale irrigation systems will need more water. Projects with private wells may use more water and generate more wastewater due to point of use


treatment. Older projects may use more water due to leaks. Older projects may generate more wastewater due to inflow and infiltration.

As you know in 2016 plans by Paul Cabral, P.E. of CDM Smith for the proposed Hopewell North Water District approved by the New York State Department of Health used an average day design flow of 250 gallons per day per future single family residential property and this flow was also increased by 20% for unaccounted water use resulting in 300 gallons per day per home.

Based on recent water use studies of similar projects in the Town of East Fishkill and based on information provided in the meeting, for a project of approximately 300 homes with central water and central sewer, with no excessive irrigation needs, an average day design flow of 275 gallons per day per home does not appear to be unrealistic.

I hope that this information will help you and the project engineer agree upon design flows for this project. Should you need to discuss this further I may be reached at (845) 486-3404.

Sincerely,



Marie-Pierre Brulé, P.E.
Senior Public Health Engineer
Environmental Health Services

copy: Mark Day, P.E. via email (MDay@madayengineering.com)
Mark Cannuli, AICP/PP via email (mcannuli@sharbell.com)

③ M Peter Marlow, P.E. → File 0037036