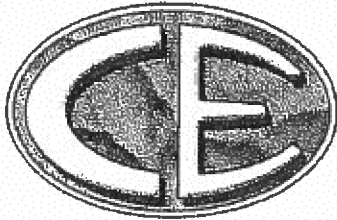


Attachment 13
(July 9, 2013 Letter to DEQ)



CE GROUP

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RALEIGH, NC 27603

Phone: (919) 367-8790

E-Mail: mark@cegroupinc.com

July 9, 2013

Mr. Michael Leggett
NCDENR (PERCS) Unit
512 North Salisbury Street
Raleigh, NC 27604

Re: **Adjusted Daily Sewage Flow Design Rate (flow Reduction) Request**
Briar Chapel Utilities, LLC Permit # WQ0028552
Chatham County

Dear Mr. Leggett:

In response to your letter dated January 28, 2013, please find attached the following information for your review:

Question 1: Brief Explanation on Request for Flow Reduction

Prior to initiating the project, our client sought and received a flow reduction based upon each residential unit generating 250 GPD. Since that time over 300 homes have been built and occupied. We have been tracking the actual flow rates since the inception of the project. Briar Chapel is marketed as a green community with emphasis on sustainability and conservation of resources. All the homes have been constructed with low flow fixtures (a project requirement). As a result the monthly DMR reports reflect average daily wastewater generation below 125 GPD per residential unit. The original flow reduction allowed our client to project future infrastructure requirements for the project. This further flow reduction allows refinement of future reuse spray area and storage requirements as the project continues to build out. The enclosed information supports a residential flow reduction of 56 GPD/bedroom for the project.

Question 2: Flow Meter Calibration During Evaluation

Meter Calibration Information is attached. There were no adjustments required.

Question 3: Historical Information on Bedroom Data for project

We have received detailed information from Chatham County Inspections (attached) regarding quantity of bedrooms for each residential unit. The project is predominantly 3 and 4 bedroom units. The actual weighted average based upon this data is 3.35 bedrooms per unit.

Question 4: Inflow / Infiltration Issues and Infrastructure Capacity

The data provided reflects all current inflow and infiltration. The monthly DMR reports when compared with rainfall data show no significant I&I issues. Presently all of the developed project's wastewater is collected and pumped to the WWTP from PS-A. A second regional pump station has recently been permitted to convey wastewater from the school sites and development planned on the southern side of the project back to the WWTP in a separate forcemain. There are no capacity limitations now or in the future.

July 9, 2013

Question 5: Flow Projections Based upon Assumption of All Homes Occupied.

Spec Homes and Pre-Sales are not included in the summary unless they are occupied. The Briar Chapel HOA provided a recent monthly sample of all existing homes and found that 12 units were unoccupied as a result of someone moving and now listing as a resale. We have reviewed the highest (3) day peak month with and without the 12 vacant units accounted for; the resulting impact is that the flow rate per bedroom increases from 54 GPD to 56 GPD.

Please contact us if you have any questions.

Respectfully submitted,

CE Group, Inc.

A handwritten signature in black ink, appearing to read 'Mark P. Ashness', is written over a faint, larger signature that appears to be 'Mark P. Ashness'.

Mark P. Ashness, PE ASLA
LEED AP

cc: Lee Bowman, Briar Chapel Utilities, LLC

Attachments:

1. Monthly DMR Reports (May 2012 – April 2013)
2. (12) Month Wastewater Data Summary
3. Chatham County Inspections Bedroom Report
4. WWTP Flowmeter Calibration Report

OFFICIAL COPY

Nov 29 2023