

HTE# SFD1902-0040

Harnett County Department of Public Health

25626

PERMIT # NA

Operation Permit

SN 1412

New Installation Septic Tank Nitrification Line Repair Expansion

PROPERTY LOCATION: 88 Old Barn Way (Christian Ct. Ct)

Name: (owner) KB Homes SUBDIVISION Mason Pointe LOT # 42

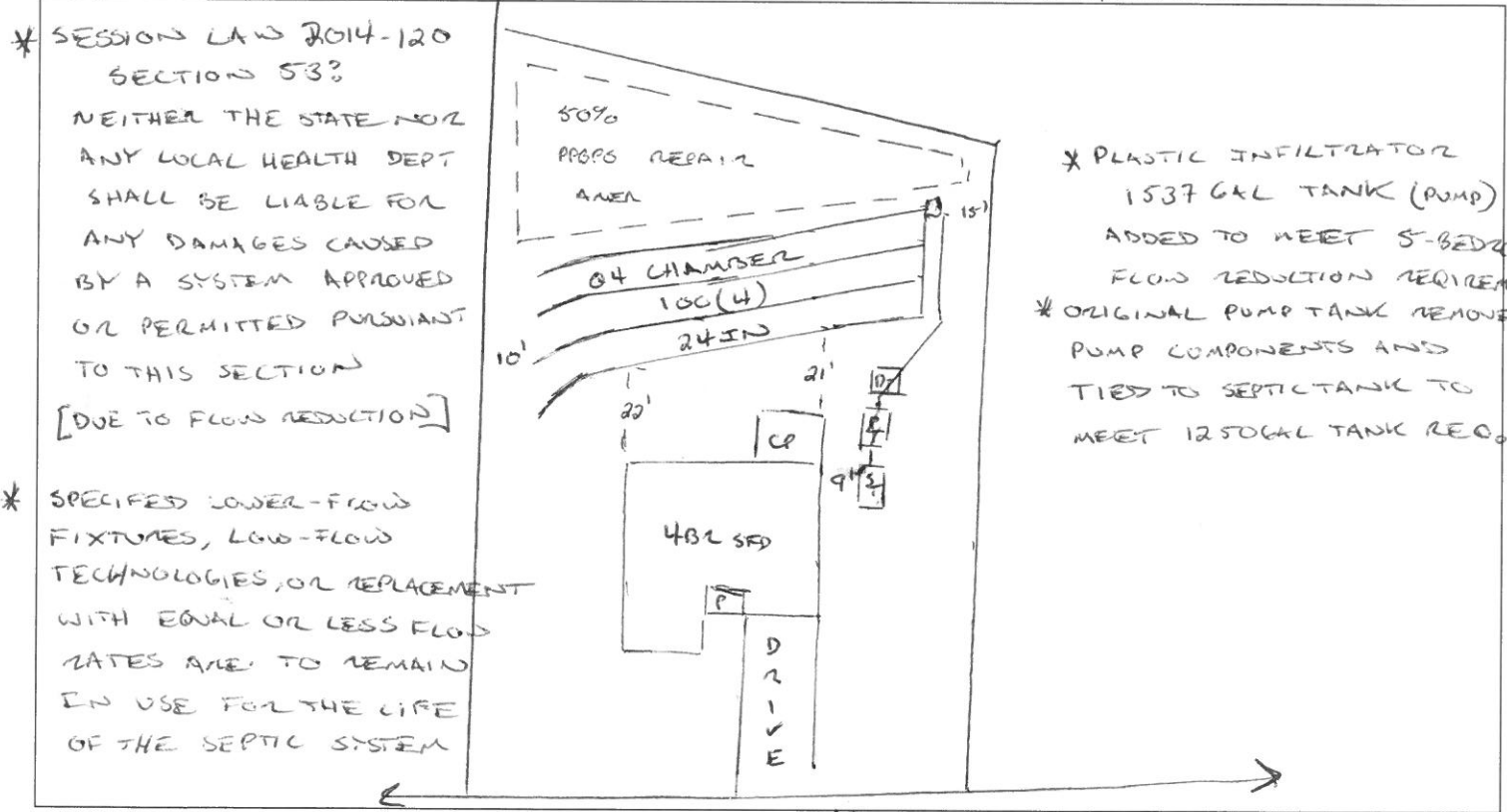
System Installer: Bakeman Civil Survey Co. Registration # _____

Basement with plumbing: Garage Number of Bedrooms 5 Flow Reduction: 480 GPD
Type of Water Supply: Community Public Well Distance from well NA feet MAX

System Type: 25% Reduction Sys IIIb Types V and VI Systems expire in 5 years.

(In accordance with Table V a) Owner must contact Health Department 6 months prior to expiration for permit renewal.

This system has been installed in compliance with applicable North Carolina General Statutes, Rules for Sewage Treatment and Disposal, and all conditions of the Improvement Permit and Construction Authorization.



PERMIT CONDITIONS:

- I. Performance: System shall perform in accordance with Rule .1961.
- II. Monitoring: As required by Rule .1961.
- III. Maintenance: As required by Rule .1961. Other: _____
Subsurface system operator required? Yes No
If yes, see attached sheet for additional operation conditions, maintenance and reporting.

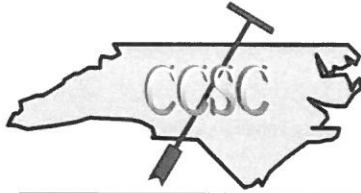
IV. Operation: _____
 V. Other: _____

D-Box Pump Alarm H2O Line PWR Line

Following are the specifications for the sewage disposal system on the above captioned property.

Type of system: Conventional Other 04 Chamber IIIb Septic Tank: 1000 (2) gallons Pump Tank: 1537 (10) gallons
 Subsurface No. of exact length width of depth of
 Drainage Field ditches 4 of each ditch 100 feet ditches 3 feet ditches 24 inches
 French Drain Required: _____ Linear feet

Authorized State Agent [Signature] Date 08/21/2019



Central Carolina Soil Consulting, PLLC

1900 South Main Street, Suite 110
Wake Forest, NC 27587
919-569-6704/fax 919-569-6703

August 20, 2019

Harnett County Staff
Harnett County Environmental Health Department
307 W Cornelius Harnett Blvd, Lillington, NC 27546
RE: Wastewater Daily Flow Calculations
Lot 42 Mason Point Subdivision
88 Old Barn Way
Fuquay-Varina, Harnett County, North Carolina
Project #: 2031

Dear Harnett County Staff:

Central Carolina Soil Consulting (CCSC) in conjunction with Bateman Civil Survey Company are proposing wastewater daily flow calculations for a single-family home located at Lot 42 Mason Point Subdivision pursuant to session law 2014-120 and 2013-413. The proposed home will have **5** bedrooms and under the current flow calculations provided in the state rules would have a daily flow of **600** gallons per day. That would be based on 120 gallons per bedroom.

Household flow rates from the 15 NCAC 18A section of the state rules relied on fixture flow rates from 1982, and calculated the flows for common fixtures to established average flows for the purpose of calculating household daily flows and septic system based on those flows. The data for the historic fixture flows was taken from the EPA 2002 Onsite Wastewater Treatment Systems Manual.

The attached spreadsheet contains the flow reducing fixtures for Lot 42 Mason Point Subdivision. The table includes flow rates for the flow reducing fixtures as well as flow rates from the state rules and the percentage of water savings. On average the proposed fixtures provide a 41% savings.

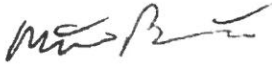
We are requesting a reduction of 20% for the use of low flow fixtures. This will provide an adjusted daily flow of 96 gallons per bedroom per day and a total flow of **480** gallons per day for the proposed 5-bedroom house.

Should you have any questions or comments please contact Matt Burdette at 919-422-2827.

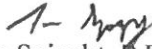
Sincerely,

CENTRAL CAROLINA SOIL CONSULTING PLLC

BATEMAN CIVIL SURVEY COMPANY



Matt Burdette
Environmental Specialist



Tom Spieght, P.E.
(seal)



Attachments



Central Carolina Soil Consulting, PLLC
1900 South Main Street, Suite 110
Wake Forest, NC 27587
919-569-6704/fax 919-569-6703

August 19, 2019

Andrew Currin
Harnett County Environmental Health Department
307 W Cornelius Harnett Blvd
Lillington, NC 27546

RE: Wastewater Daily Flow Calculation Certification
Mason Point Lot 42 – 88 Old Barn Way
Fuquay-Varina, Harnett County, North Carolina
Project #: 2031

Mr Currin:

Central Carolina Soil Consulting (CCSC) in conjunction with Bateman Civil Survey Company have reviewed plumbing receipts from Celey's Quality Services LLC. Based on our review of the fixtures listed the faucets in all of the bath rooms have changed from a Moen 4925 with a 1.5 gallon per minute flow to Moen 6410 with a 1.2 gallon per minute flow rate and the kitchen faucet also changed from a Moen 7430 with a 1.5 gallon per minute flow rate to a Moen 7594srs with a 1.5 gallon per minute flow rate. All other fixtures were installed as proposed. The changes changed the overall flow reduction from 39% to 41%.

With respect to increased effluent strength, we do not believe that the effluent strength will increase with the addition of a bedroom. The fixtures that are currently installed in the home are standard low flow fixtures that are installed in all of the homes built by KB Homes. These fixtures are used in houses all over the country and have been used for several decades. The additional bedroom will increase the volume of effluent, but will not change the strength of the effluent and should be consistent with levels required for residential waste in 15A NCAC 18A .1970 b, table 8.

We have reviewed the design and installation of the system located at 88 Old Barn Way and are satisfied that the tanks and drainfield are installed per the permit and are capable of handling the additional bedroom without modification.


Attached is a revised flow reduction packet with specification sheets for the new fixtures and updated calculations. If the home owner wants to increase the flow rate of any fixture they will need to get approval from Harnett County Environmental Health and the designing Engineer.

Should you have any questions or comments please contact Matt Burdette at 919-422-2827 or Tom Speight with Bateman Civil Survey Company – 2524 Reliance Ave. Apex NC 27539 – (919) 577-1080

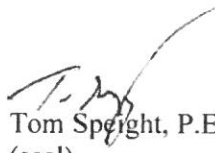
Sincerely,

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BATEMAN CIVIL SURVEY COMPANY



Matt Burdette
Environmental Specialist



Tom Speight, P.E.
(seal)



Attachments