

Town of Goldston Sewer Capacity - Development on Pittsboro Goldston Road

From: Wicker, Michael (mwicker@withersravenel.com)

To: draftinganddesign@gmail.com

Cc: tjcunnup@gmail.com; redmud@windstream.net; stevecunnup@embarqmail.com

Date: Saturday, April 17, 2021, 09:41 AM EDT

I ran some quick numbers and looked at the permits. The Phase I CDBG Vernie Phillips Pump Station is sized adequately for the addition of the 97 lot subdivision with both 4 bedroom or 3 bedroom homes based on permitted flow. It has a committed permitted flow of 9,360 gpd from the Phase I CDBG project and now another 13,780 gpd from the Phase II project. It is designed for 72,000 gpd with a 2.5 peaking factor. This 97 home subdivision would effectively take all the rest of the pump station capacity for future development for a 4-bedroom flow of 120 gpd per bedroom x 97= 46,560 gpd. (3-bedroom = 34,920.) The 2.5 peaking factor is the minimum however and we would prefer 4 x PF for a smaller station but to date this has not been an issue.

I do see two problems however, the Town's Main Lift Station is designed for a permitted capacity of 115,000 gpd based on 299 3-bedroom homes plus businesses and JS Water School. I believe that the Town has approximately 168 in -Town residential customers plus the 26 Phase I CDBG customers and the proposed 36 Phase II customers (includes about 10 vacant lots) as far as committed flow to this Pump Station on a permitted flow basis. That leaves only 69 remaining 3-bedrooms available on a permitted basis at 120 gpd per bedroom. (DWR may allow for some reduced rate for new development. We will check for adjacent developments in Chatham County) The Town actual numbers of current residential customers may be slightly different. Actually average daily flows to the Pump Station may be less and the flow metered amounts may allow for some flexibility but the NCDWR tracks these tributary flows by the permitted numbers. So there may need to be some adjustment to the Main Lift Station permit. We need to confirm recent pump improvements have increased the pump flow rate to handle more flow.

The 2nd issue is that the Town intermunicipal agreement limits the flow from the Town to the City of Sanford to 65,000 gpd. Current flows will have to be analyzed to see if the additional flow proposed will trigger the need for an amendment to the Town/City agreement. It would seem to create an excess flow even with flow reductions allowed by DWR on new developments.

I will follow up on the flow reduction with some of our other engineers working in Chatham County while the Town updates me on the current customer base.

Michael Wicker, PE



115 MacKenan Drive | Cary, NC 27511
Office: 919.469.3340 | Direct: 919.535.5185
Mobile: 919.337.3951
mwicker@withersravenel.com



[CONFIDENTIALITY AND NONDISCLOSURE](#)

From: Michael Blakley <draftinganddesign@ymail.com>
Sent: Tuesday, April 13, 2021 12:47 PM
To: Wicker, Michael <MWicker@withersravenel.com>
Cc: Tim Cunnup <tcunnup@gmail.com>; Bobby Branch <redmud@windstream.net>
Subject: Development on Pittboro Goldston Road

Michael

I spoke with Tim Cunnup with the Town of Goldston and we were trying to determine if there is enough capacity in the pump station across 421. We have a 97 lot subdivision laid out with public water and sewer. I would like to look at it for a 4 bedroom houses as far as capacity. We can go to 3 if that is what we need to make the pump station work.






I have attached a preliminary layout for reference. If you have any questions or need additional information please feel free to contact me.

Thanks

Michael

Michael T. Blakley
[Drafting and Design Services, Inc.](#)

6728 Carbonton Rd
Sanford, NC 27330
(919) 499-8759

-  Lift Station-Proposed Development Request .pdf
19.7kB
-  Goldston - Sewer Extension WQ0037122.pdf
218.6kB
-  104-DWQ Collection System Permit.pdf
446.7kB
-  53-a Executed Goldston Sanford Agreement.pdf
488kB
-  WQ0041987 Phase II Sewer System Improvements.pdf
290.5kB