



**PROJECT ADDRESS: 600 N Andrews Ave**

**Date request was received: 1/18/2023**

**DRC CASE#: UDP-S23006**

**Project Name: The Gallery at Flagler Village**

**IF NO DRC CASE NUMBER PROVIDED, WATER & SEWER AVAILABILITY LETTER TO BE PROVIDED UPON PAYMENT OF ENCLOSED A/R INVOICE.**

**\*\*\*\*\*IMPORTANT INFORMATION\*\*\*\*\***

**The following analysis is only VALID FOR A PERIOD OF ONE YEAR FROM THE DATE OF ISSUANCE. After which point, a reanalysis must be conducted to ensure adequate availability for projects.**

- ☐ Water and Sanitary Sewer Capacity Allocation Letter (Small Project) .....\$960
- ☐ Modifications to small project that require capacity re-analysis.....\$960
- ☐ Water and Sanitary Sewer Capacity Allocation Letter (Large Project) .....\$2,400
- ☒ Modifications to large project that require capacity re-analysis.....\$2,400

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March 17, 2023

Nathan Lewis P.E.  
Botek Thurlow Engineering, Inc.  
3409 NW 9th Ave  
Fort Lauderdale, FL 33309

Subject: **WATER AND WASTEWATER CAPACITY AVAILABILITY LETTER**  
**The Gallery at Flagler Village – DRC Case No. UDP-S23006**  
**600 N Andrews Ave, Fort Lauderdale, FL 33311**

Dear Nathan Lewis,

According to the information submitted, the project consists of 263 Residential Units with 2,500 SF of retail space. This analysis is for the increase of 68 Residential Units of the previously approved site plan, which was 195 Residential Units and 2,500 SF of retail. There are proposed water and sewer connections to City of Fort Lauderdale (City) utilities along NE 1<sup>st</sup> Ave. This project lies within the City's Pump Station (PS) A-21 basin and will increase the average day water demand by approximately 0.0139 million gallons per day (MGD) and the average day sewer demand by approximately 0.0096 MGD. The sewer infrastructure, once Pump Station A-24 is constructed, will have the capacity to support the proposed development.

*The following project is the City's major initiative within basin A-21:*  
*Project # 12605 – New Pumping Station Flagler Village A-24*  
*Estimated Construction Completion: Fiscal Year 2024*

Currently, the existing sewer infrastructure does not have the capacity to support the proposed development. However, upcoming CIP project # 12605 will create Pump Station A-24 which will divide the sewer flows and will handle the increased demand in committed NAPOT to pump station A-21 as well as existing flows. Once the new pump station is constructed, this project will be discharging to pump station A-21.

Please be advised that the proposed Flagler Village Pump Station A-24 is estimated to become operational sometime during Fiscal Year 2024 provided unforeseen circumstances are not encountered. Therefore, the timeline of all improvements must be coordinated well in advance with the City. Any Certificate of Occupancy will not be issued until the expanded wastewater system is fully functional.

If there are changes to the proposed development after issuance of this capacity availability letter, the Owner or Owner's authorized representative shall submit a revised request based on the updated plans. Failure to seek approval prior to changing the plans may result in revocation of permit and capacity allocation. The determination of capacity availability is based upon tools and data analysis as of the date of this letter. Availability of capacities, as calculated in the attached analysis, is not guaranteed and no existing system capacity shall be considered "committed" for this project until development approval and all fees have been paid. The City reserves the right to re-evaluate the availability of capacities at the time of building permit application. If sufficient capacities are not available, the City may deny the permit application or ask the Owner/Developer to submit an alternate design prior to approval. Information contained in this letter will expire one year from the date issued.

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Should you have any questions or require any additional information, please contact me at (954) 828-6982.

Sincerely,

Roberto I. Betancourt, P.E.  
Project Manager II

Enclosures: Water and Wastewater Capacity Analysis

cc: Alan Dodd, P.E., Public Works Director  
Talal Abi-Karam, P.E., Assistant Public Works Director  
Omar Castellon, P.E., Assistant Public Works Director  
Daniel Rey, P.E., City Engineer  
File: Water and Sewer Capacity Letters

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City of Fort Lauderdale  
Public Works Department  
Water and Wastewater Capacity Analysis

**The Gallery at Flagler Village – DRC Case No. UDP-S23006  
600 N Andrews Ave, Fort Lauderdale, FL 33311**

**PROJECT AND DESCRIPTION**

The project consists of 263 Residential Units with 2,500 SF of retail space. This analysis is for the increase of 68 residential units of the previously approved site plan, which was 195 Residential Units and 2,500 SF of retail.

**DESCRIPTION OF EXISTING UTILITIES**

**Water:** The site is currently served by an 8-inch water main along NE 1<sup>st</sup> Ave, east of the project site. See Figure 1.

**Wastewater:** The site is currently served by a 10-inch gravity sewer main to the east of the project site along NE 1<sup>st</sup> Ave. See Figure 2.

**Pumping Station:** The site is served by PS A-21 which is located along NE 2<sup>nd</sup> Ave.

**SUMMARY OF ANALYSIS AND REQUIRED ACTION**

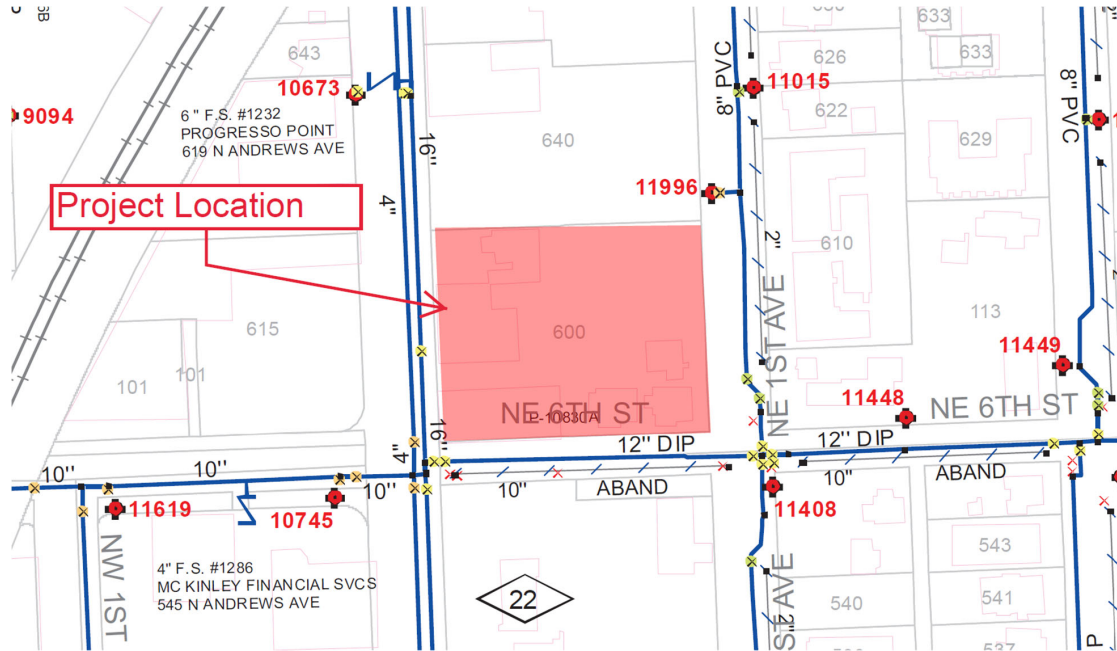
Currently, the existing sewer infrastructure does not have the capacity to support the proposed development. However, upcoming CIP project # 12605 will construct Pump Station A-24 to handle the committed NAPOT as well as some of the existing flows. Once pump station A-24 is constructed, this project will be within Basin A-21. The proposed PS A-24 shall be constructed and on-line prior to the proposed development seeking a Certificate of Occupancy.

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Figure 1 – City Water Atlas



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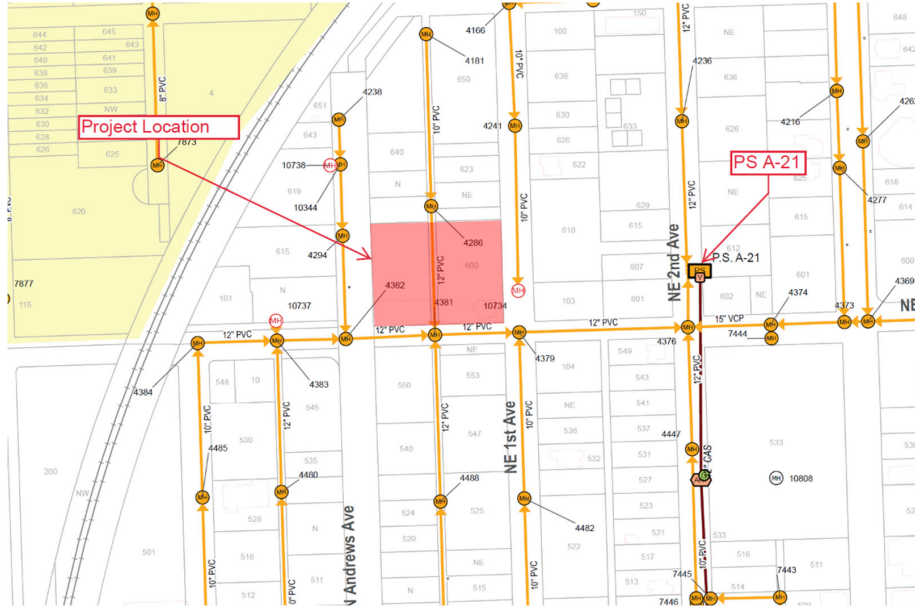
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Figure 2 – City Sewer Atlas



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### WATER CAPACITY ANALYSIS

**Requested Demand:** Based on the applicant's site plan and building use information, the estimated average day potable water demand is approximately 13917 gallons per day (GPD), which equates to 0.0139 MGD. Average day water use demands are calculated by reducing the calculated max day water use demands by a factor of 1.18. The max day water use demands are calculated using the City's Guidelines for the Calculations of Sanitary Sewer Connection Fees and are based on City Ordinance No. C-19-29.

**Evaluation of impact on existing distribution pipe:** According to the site plan, the applicant is proposing to utilize the 8-inch water main along NE 1<sup>st</sup> Ave. The InfoWater hydraulic model was analyzed to determine the impact of this project on the existing water system.

**Evaluation of impact of Permitted Water Plant Capacity:** The Fiveash and the Peele Dixie Water Treatment Plants are designed to treat 70 MGD and 12 MGD of raw water respectively (82 MGD total). The total permitted Biscayne aquifer water withdrawals for these plants is limited to 52.55 MGD per the South Florida Water Management District (SFWMD) permit number 06-00123-W.

The current twelve-month rolling average production at the two plants is 34.90 MGD. The previously committed demand from development projects in the permitting or the construction stage is 4.66 MGD. Combining these figures with the demand from the proposed project of 0.0139 MGD, the required production would be 39.57 MGD. This is less than the allowable withdrawal limit of 52.55 MGD. Therefore, the water plants have sufficient capacity to serve this project. See Figure 3 below.

**Recommended Water Infrastructure Improvements:** No improvements required.

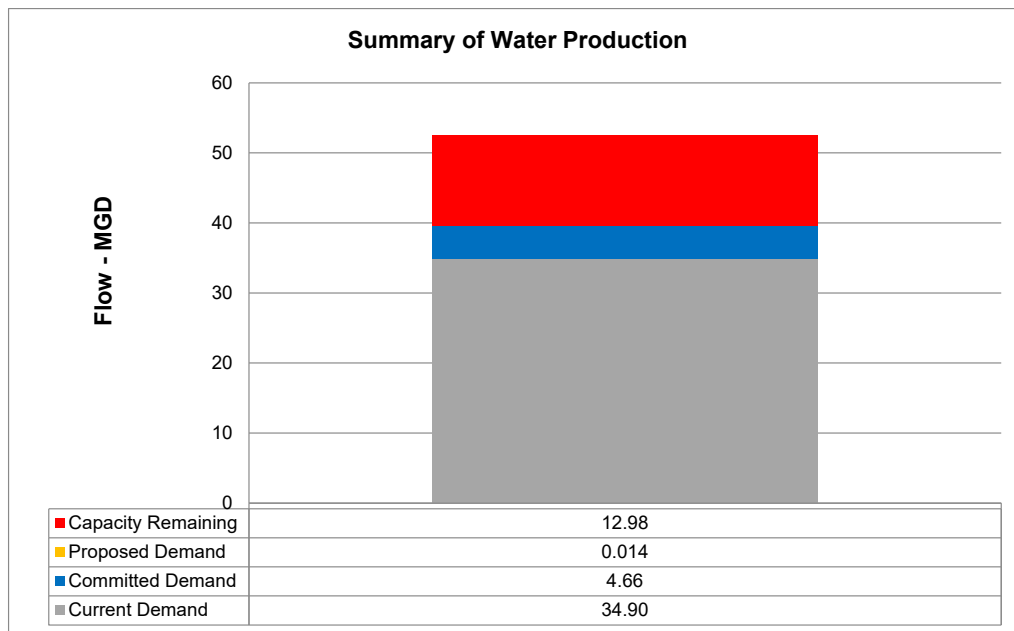


Figure 3

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### **WASTEWATER CAPACITY ANALYSIS**

**Requested Demand:** Based on the applicant's site plan and building use information, the estimated average day sewer use demand is approximately 9580 GPD, which equates to 0.0096 MGD. Average day sewer use demands are calculated using the City's Guidelines for the Calculations of Sanitary Sewer Connection Fees and are based on City Ordinance No. C-19-29.

**Evaluation of impact on existing collection pipe:** According to the site plan, the applicant is proposing to utilize the 10-inch gravity sewer main to the east of the project site along NE 1<sup>st</sup> Ave. The City uses a peak hourly flow factor of 3.0. Accounting for existing flows and based on the tools and information available to the City staff, it has been calculated that the pipes downstream of the proposed development will flow less than the City's governance plan threshold of 70% during peak flows. Therefore, the pipes downstream of the developments are adequate to serve the project.

**Evaluation of impact on pumping station:** PS A-21 has a duty point of 1200 gallons per minute (GPM) and has a Nominal Average Pumping Operating Time (NAPOT) of approximately 2.82 hours per day of equivalent run time for this VFD Pump. Based on projected sewage flows, the pumping run times would increase approximately 8 minutes per day. Additionally, there are other committed flows from proposed developments within the PS A-21 basin resulting in 469.17 minutes of additional runtime. PS A-21 will have a NAPOT of 10.77 hours once the proposed developments are complete, greater than the recommended average of 10 hours per day. However, the current NAPOT of 2.82 reflects the entire A-21 Basin as it is today, prior to the rerouting of the flow to the proposed pump station A-24. It is anticipated that A-21 will receive 1/2 of the existing flows resulting in a current NAPOT of approximately 1.41 hours. This puts the projected NAPOT at 9.36 hours. Note, the below committed flows reflect what will be in Basin A-21 after the construction of A-24. See Figure 4 below.

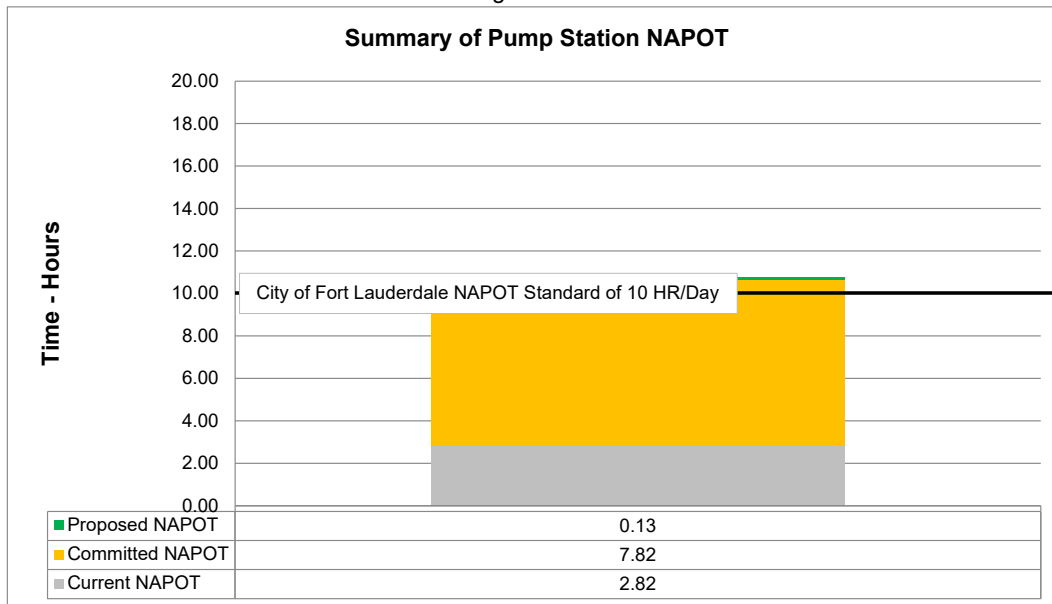


Figure 4

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**Evaluation of impact of Permitted Wastewater Plant Capacity:** The City of Fort Lauderdale owns and operates the George T. Lohmeyer Regional Wastewater Treatment Plant (GTL), which provides wastewater treatment for the City of Fort Lauderdale. The Broward County's Environmental Protection and Growth Management Department's (EPGMD) Environmental Licensing & Building Permitting Division's licensed capacity for GTL is 48 MGD-AADF (Million Gallons per Day – Annual Average Daily Flow). The annual average daily flow (AADF) to the plant is 42.76 MGD. Combining the committed flows for previously approved projects of 3.82 MGD plus the 0.0096 MGD net contribution from the project results in a total projected flow of 46.59 MGD. This is less than the permitted treatment plant capacity of 48 MGD. Therefore, the treatment plant has sufficient capacity to serve this project. See Figure 5 below.

**Recommended Wastewater Infrastructure Improvements:** PS A-21 currently does not have sufficient capacity to handle the proposed development. The proposed PS A-24 shall be constructed and on-line prior to the proposed development seeking a Certificate of Occupancy.

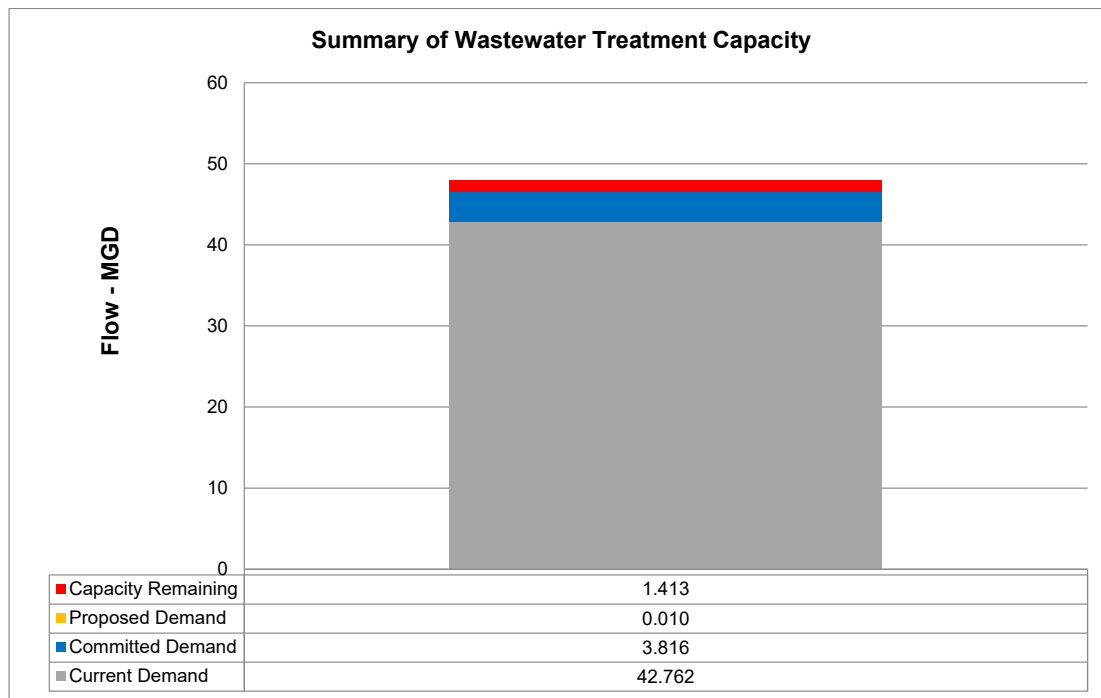


Figure 5

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