



January 6, 2021

Dennis Shultz, PE  
Flynn Engineering  
241 Commercial Blvd.  
Lauderdale-By-The-Sea, FL 33308

Subject: **WATER AND WASTEWATER CAPACITY AVAILABILITY LETTER**  
**1007 East Las Olas Blvd. – DRC Case No. PLN-REZ-20080001**  
**1007 East Las Olas Blvd., Fort Lauderdale FL 33301**


Dear Dennis Shultz,

According to the information submitted, the project consists of constructing a new 138-room hotel with 5,963 SF ground floor retail area and two-level basement parking. The proposed water connections to City of Fort Lauderdale (City) utilities are along SE 2<sup>nd</sup> Court and the sewer connection utilizes a proposed 8-inch ductile iron gravity pipe to connect to sanitary sewer manhole 5367 (SSMH-5367). This project lies within the City's Pump Station (PS) A-8 basin and will increase the average day water demand by approximately 0.0274 million gallons per day (MGD) and the average day sewer demand by approximately 0.0207 MGD. The existing water and sewer infrastructure have the capacity to support the proposed development and no improvements are needed. The existing gravity line connected to sewer manhole 5367 (SSGM-2669) is made of vitrified clay pipe (VCP). A closed circuit television video (CCTV) of this pipe must be taken before and after construction to ensure the integrity of the pipe and manhole is not affected.

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 a permit has been issued and all fees have been paid. The City reserves the right to re-evaluate the availability of capacities at the time of 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.

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

Sincerely,

  
Dronix Suarez, E.I.  
Project Manager II

Enclosures: Water and Wastewater Capacity Analysis

cc: Raj Verma, P.E., Public Works Director  
Talal Abi-Karam, P.E., Assistant Public Works Director  
Omar Castellon, P.E., Chief Engineer  
Dennis Girisgen, 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

**1007 East Las Olas Blvd. – DRC Case No. PLN-REZ-20080001  
1007 East Las Olas Blvd., Fort Lauderdale FL 33301**

**PROJECT AND DESCRIPTION**

Construction of a new 138-room hotel with 5,963 SF ground floor retail area and two-level basement parking.

**DESCRIPTION OF EXISTING UTILITIES**

**Water:** The site is currently served by a 6-inch water main along SE 2nd Court (See Figure 1).

**Wastewater:** The sewer connection utilizes a proposed 8-inch ductile iron gravity pipe to connect to sanitary sewer manhole 5367 (SSMH-5367).

**Pumping Station:** The site is served by PS A-8 which is located west of the project site on SE 8th Avenue.

**SUMMARY OF ANALYSIS AND REQUIRED ACTION**

The existing water and sewer infrastructure has the capacity to support the proposed development. No improvements are needed, however, cctv of the existing gravity sewer line connected to manhole 5367 (SSGM-2669) must be taken before and after construction to ensure the integrity of the system.

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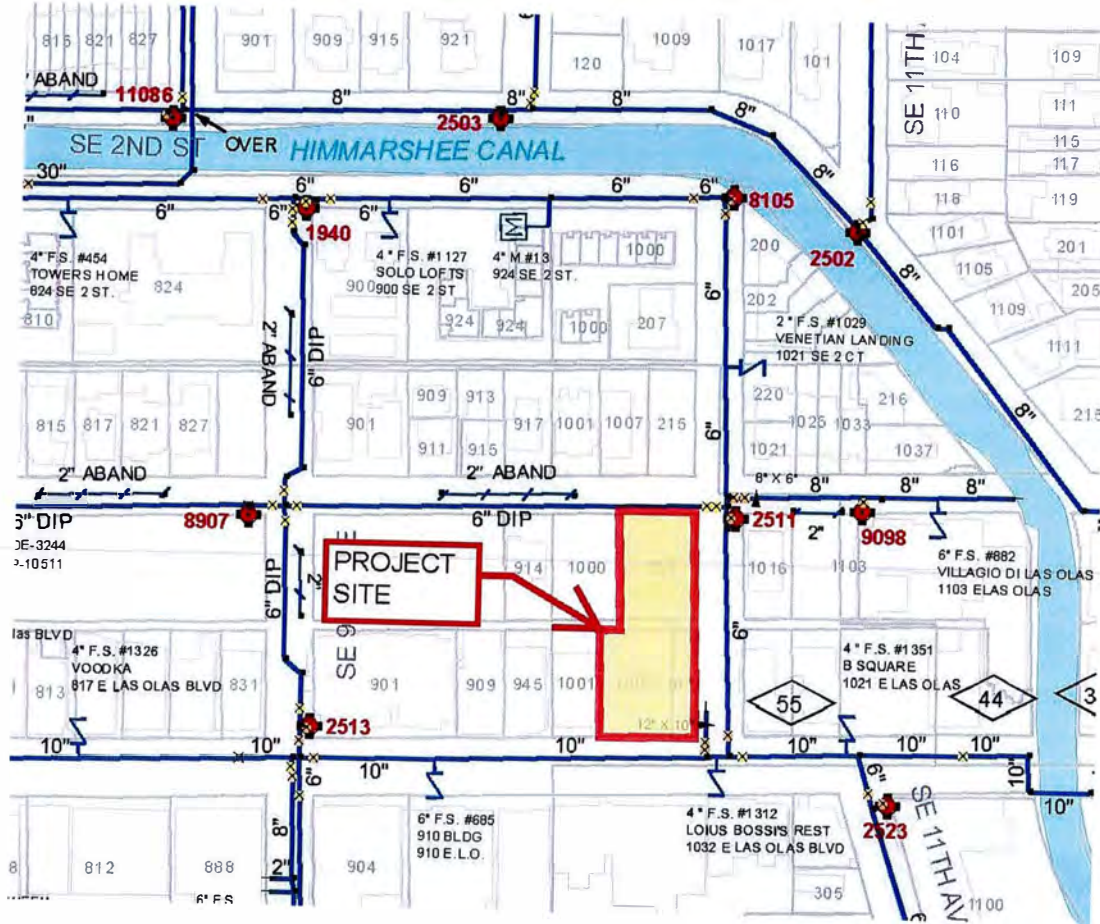
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Figure 1 – City Water Atlas



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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 27350 gallons per day (GPD), which equates to 0.0274 MGD. Average day water use demands are calculated by reducing the calculated max day water use demands by a factor of 1.3 as determined in the City's Comprehensive Utility Strategic Master Plan. 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 (condition & capacity):** According to the site plan, the applicant is proposing to utilize the 6-inch water main along SE 2nd Court. The InfoWater hydraulic model was analyzed to determine the impact of this project on the existing 6-inch water main and it was determined that it has capacity to serve the project.

**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 37.55 MGD. The previously committed demand from development projects in the permitting or the construction stage is 4.78 MGD. Combining these figures with the demand from the proposed project of 0.0274 MGD, the required production would be 42.36 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.

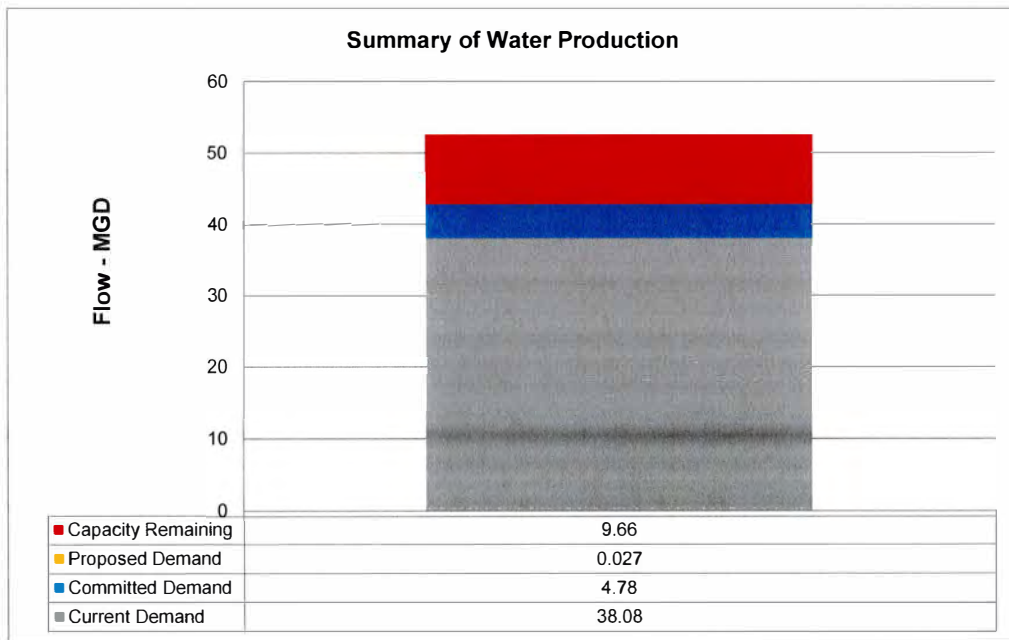


Figure 3

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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 20741 GPD, which equates to 0.0207 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 (condition and capacity):** According to the site plan, the applicant is proposing construct an 8-inch ductile iron pipe to connect to sanitary sewer manhole 5367 (SSMH-5367). City staff, recommends that pipe diameters 15-inch or less be designed to flow half full during peak flows. 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 ASCE-recommended 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-8 has a duty point of 500 gallons per minute (GPM) and has a Nominal Average Pumping Operating Time (NAPOT) of approximately 4.00 hours per day. Based on projected sewage flows, the pumping run times would increase approximately 41 minutes per day. Additionally, there are other committed flows from proposed developments within the PS A-8 basin resulting in 91.95 minutes of additional runtime. PS A-8 will have a NAPOT of 6.22 hours once the proposed developments are complete, less than the recommended average of 10 hours per day. See Figure 4 below.

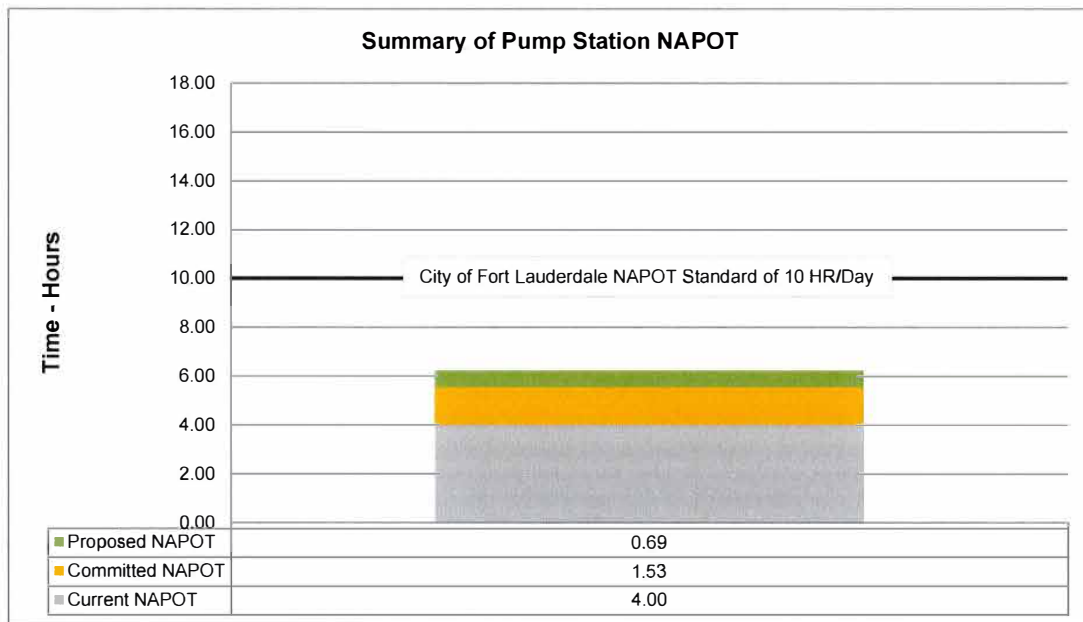


Figure 4

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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 41.81 MGD. Combining the committed flows for previously approved projects of 4.62 MGD plus the 0.0207 MGD net contribution from the project results in a total projected flow of 46.45 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:** No improvements required.

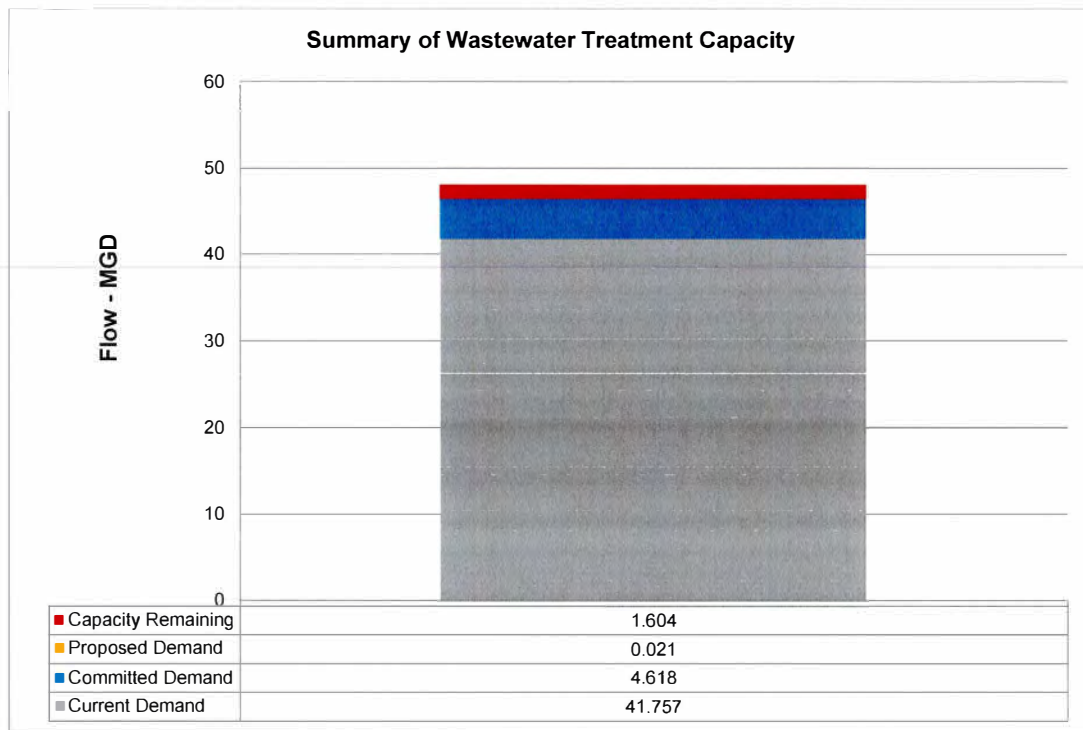


Figure 5

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