Preliminary Water Report

307 Main MF 2019-Q, LLC
321 Main Street
City of Hackensack, Bergen County, NJ

Prepared for:
307 Main MF 2019-Q, LLC
22 Maple Street
Morristown, New Jersey 07960

July 22, 2020

Prepared by:

Michael E. Dipple, PE
NJ PE No. 24GE04081200
I. PROJECT DESCRIPTION

307 Main MF 2019-Q, LLC proposes a development consisting of one (1) Mixed-Use. SUEZ North America will serve water to the development. The building will be serviced with a 6’’ domestic water via lateral connections to the existing 12’’ water main within Main Street. A dedicated 6’’ private fire service lateral will also service the building from the 12’’ main in Main Street.

II. WATER PURVEYOR

SUEZ North America (formerly United Water) presently provides water and recycling services to over 7.5 million people in the United State and Canada.

III. ESTIMATED WATER DEMAND
(Calculated per NJAC)

EXISTING WATER DEMAND
(Calculated per NJAC 7:10-12.6, Table 1)

<table>
<thead>
<tr>
<th>321 Main Street</th>
<th>Unit Type</th>
<th># of Units</th>
<th>GPD per unit</th>
<th>GPD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3-Story Commercial Building</td>
<td>16,575 SF</td>
<td>0.125</td>
<td>2,072</td>
</tr>
<tr>
<td></td>
<td>1-Story Commercial Building</td>
<td>4,025 SF</td>
<td>0.125</td>
<td>503</td>
</tr>
<tr>
<td></td>
<td>1-Story Commercial Building</td>
<td>3,600 SF</td>
<td>0.125</td>
<td>450 GPD</td>
</tr>
<tr>
<td></td>
<td><strong>Total Existing Demand</strong></td>
<td></td>
<td></td>
<td><strong>3,025 GPD</strong></td>
</tr>
</tbody>
</table>
**PROPOSED WATER DEMAND**
(Calculated per NJAC 5:21, Table 5.1 and NJAC 7:10-12.6, Table 1)

<table>
<thead>
<tr>
<th>Unit Type</th>
<th># of Units</th>
<th>GPD per unit</th>
<th>GPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-Rise Studio</td>
<td>24 Units</td>
<td>120</td>
<td>2,880</td>
</tr>
<tr>
<td>Mid-Rise 1 Bedroom Dwelling</td>
<td>190 Units</td>
<td>120</td>
<td>22,800</td>
</tr>
<tr>
<td>Mid-Rise 2 Bedroom Dwelling</td>
<td>56 Units</td>
<td>175</td>
<td>9,800</td>
</tr>
<tr>
<td>Retail 1</td>
<td>2,760 SF</td>
<td>0.125</td>
<td>345</td>
</tr>
<tr>
<td>Retail 2</td>
<td>5,000 SF</td>
<td>0.125</td>
<td>625</td>
</tr>
<tr>
<td>Bank</td>
<td>2,240 SF</td>
<td>0.125</td>
<td>280</td>
</tr>
<tr>
<td><strong>Total Projected Demand</strong></td>
<td></td>
<td></td>
<td><strong>36,730</strong></td>
</tr>
</tbody>
</table>

**NET DEMAND INCREASE = 36,730 GPD – 3,025 GPD = 33,705 GPD**

**IV. FIRE FLOW**

The development proposes a new 6” fire service. It is anticipated that the retail, banks, and residential building will be sprinklered. Fire hydrant flow tests have been performed to confirm that minimum residual pressures are provided throughout the development. The flow tests have been attached to this report for reference.
APPENDIX A
HYDRANT FLOW TEST RESULTS
As per your request, a flow test has been conducted on 03/05/2020.

Static Pressure = 108 psi  
Residual Pressure = 98 psi  
Flow Hyd. = 24-250.1  
Gauge Hyd. = 24-203.1  
Flow = 1,121 gallons per minute.

If you have any further questions, you may contact me at 201.457.7982

Sincerely,

Lisa Harry

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**Please Note:** All new flow test requests are to be submitted in writing to:

Suez Water New Jersey  
Engineering  
200 Lake Shore Drive  
Haworth, New Jersey 07641

**Please Include:** Caller & Company Name, Phone & E-mail, Reason for Test, Street Address of Test or Specific Location, Check ($455.00) Payable to Suez Water New Jersey

*The attached flow test results represent pressure and flow conditions in the water main to which the proposed or existing building seeks a connection. Please note that these conditions are those that were present at the time of the flow test and do not necessarily represent the lowest pressure and flow conditions that may occur in the main due to normal changes in daily and seasonal water demand. Please note that Suez makes no guarantees about the accuracy of the flow test information and shall not be held liable for operational problems with fire sprinkler systems designed using this information.*
As per your request, a flow test has been conducted on 05/28/2020.

Static Pressure = 115 psi  
Residual Pressure = 110 psi  
Flow Hyd. = 24-238  
Gauge Hyd. =24-237  
Flow = 1,297 gallons per minute.

If you have any further questions, you may contact me at 201.457.7982

Sincerely,

Lisa Harry

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200 Lake Shore Drive  
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