

Potable Water and Sanitary Sewer Engineer's Report

For

Ben-Hur of Brunswick, LLC

Proposed Warehouse Expansion

*2400 U.S. Route 1
Block 148, Lot 5.03
Township of North Brunswick, Middlesex County, NJ*

Prepared by:



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TABLE OF CONTENTS

	Page
I. INTRODUCTION	2
II. PROPOSED WATER SYSTEM	2
III. PROPOSED SANITARY SEWER SYSTEM	3
IV. CONCLUSION	4

I. INTRODUCTION

The project area is comprised of Block 148, Lot 5.03 in the Township of North Brunswick, Middlesex County, New Jersey. The site presently is developed as an existing 246,049 SF warehouse. The project includes demolishing a small portion of the existing building and constructing a 46,6915 SF warehouse expansion. Existing utilities within the expansion area will be relocated through coordination with and design from an MEP (Mechanical, Electrical and Plumbing) Engineer, however utilities serving the existing building will remain mostly undisturbed.

II. PROPOSED WATER SYSTEM

The domestic and fire water services for the building will be maintained and are provided via a connection to the existing water main located within NJSH Route 1. The existing water service, which runs adjacent to the northeasterly building corner, will be relocated and designed by an outside Mechanical, Electrical and Plumbing company, which will be coordinated by the applicant. The existing and proposed water demands have been calculated based on the requirements of NJAC 7:10-12.6, Water Volume Requirements as follows:

a) DOMESTIC WATER DEMANDS

In accordance with N.J.A.C. 7:10-12.6(2) 2 – Table 1, the NJDEP Standard for Domestic Water Demand is:

Industrial Facility – 25 gallons per day per person

Store, Office Building – 0.125 gallons per square foot

Estimated domestic water demand can be calculated as follows:

Existing:

Industrial Facility – 50 employees x 25 GPD = 1,250 GPD

Store, Office Building – 16,016 SF x 0.125 GPD = 2,002 GPD

Total Existing Domestic Water Demand = 3,252 GPD

Proposed:

Industrial Facility – 40 employees x 25 GPD = 1,000 GPD

Store, Office Building – 6,316 SF x 0.125 GPD = 790 GPD

Total Proposed Domestic Water Demand = 1,790 GPD

Net Decrease in Domestic Water Demand = 1,462 GPD

b) PROPOSED FIRE PROTECTION

The project will consist of a fire suppression system that shall be designed in accordance with the International Fire Code. Fire protection for the proposed building will be provided by the proposed water service connection. A Fire Sprinkler Contractor has not yet been determined; however, the proposed fire services shall be designed to provide sufficient water capacity for the proposed sprinkler system within the building. Calculations will be provided upon application for building permits by the sprinkler designer.

III. PROPOSED SANITARY SEWER SYSTEM

Sanitary sewer service for the building will be maintained and is provided via a lateral connection to the existing pump station located adjacent to the northwesterly building corner.

a) SANITARY SEWER DEMANDS

In accordance with N.J.A.C. 7:14A-23.3(a), the existing and proposed sanitary sewer demands for the project are estimated as follows:

Factories/Warehouses – 25 gallons per day per employee

Office Buildings - 0.100 gallons per day per square foot

Average Daily Flow

Existing:

Warehouse – 50 employees x 25 GPD/employee = 1,250 GPD

Office Buildings – 16,016 SF x 0.1 GPD = 1,602 GPD

Total Existing Sanitary Sewer Demand = 2,852 GPD

Proposed:

Warehouse – 40 employees x 25 GPD/employee = 1,000 GPD

Office Buildings – 6,316 SF x 0.1 GPD = 632 GPD

Total Proposed Sanitary Sewer Demand = 1,632 GPD

Net Decrease in Sanitary Sewer Demand = 1,220 GPD

IV. CONCLUSION

In summary, this report has been prepared to further expand on the anticipated decrease in water and sanitary sewer demands when comparing the existing operations to the proposed development as seen within the accompanying site plan drawings. It is the intention of this report that the water and sewer demand generated from this final build out will not exceed the approved demands and allocated flows based on the actual usages. Further, it does not appear the proposed development will have a negative impact on the existing infrastructure.