

ENGINEER'S REPORT – SANITARY SEWER

**Proposed Warehouse Facility
1980 Route 1
Township of North Brunswick
Middlesex County, New Jersey
November 19, 2021
BENJ File No. J200616**

Project Definition:

The proposed project consists of sewer service to be provided to the proposed warehouse via a proposed 6" sanitary lateral which connects into a proposed 8" sanitary main within Excelsior Street. The new main connects into the existing 8" sewer main within Thalia Street. The proposed 8" PVC SCH 40 lateral will tie into a proposed manhole.

The proposed utility layout is depicted on the enclosed Utility Plan 'A' prepared by Bohler, dated August 11, 2021, last revised November 19, 2021 (rev #3).

System Design:

The proposed sewer lateral will consist of Schedule 40 PVC with elastometric ring rubber gaskets, as required. Pipe joints will be designed and constructed in accordance with the manufacturers specifications. The lateral will have an approximate ground cover of 4' and will be installed with dense-graded aggregate base course (DGABC), stone bedding from 6" below to 12" above the top of the pipe. Prior to completion of backfilling, sanitary line marking tape shall be placed along the entire length of the excavation, 2' below grade above the top of the main and proposed lateral. Trenches will be back filled with select fill, excavated material, compacted in lifts to 95% compaction.

The system will be constructed as shown on the Site Plan documents. As depicted, the proposed water main lateral shall be installed to provide the required separation from sanitary sewer lines and appurtenances as specified in NJAC 7:10-11:10 (e) 5 (10' horizontal and 18" vertical separation, where the water main is over the sewer main). Where such separation is not possible, the proposed sanitary sewer line will be encased in concrete for a distance of 10' on each side of the crossing.

Estimated Demand in accordance with NJAC 7:14A-23.3

Demand: Estimated number of employees: 1 per 3,000 sf of building = ±62 employees
Warehouse: 25 gpd/employee = 25 gpd * 62 employees = 1,550 gpd
Office: 0.1 gpd/sf of office space = 0.1 * 7,591 = 759.1 gpd

Total Demand Flow: 2,309.1 gpd

Prepared by:



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