SANITARY FLOW CALCULATIONS

RE: Proposed Three-Story Mixed-Use Building
Block 33, Lot 18
440 North Avenue (N.J. State Highway 28)
Borough of Dunellen, Middlesex County, New Jersey

DATE: June 16, 2021

PROJECT ENGINEER: Joshua H. Kline, PE
New Jersey Professional Engineer License #54347

SANITARY SEWER PROJECTED FLOW CALCULATIONS

Per N.J.A.C. 5:21-5.2 “Projected Flow Criteria”, the projected average flow for a 2-bedroom unit is 225 GPD and a store is 0.1 GPD per square foot.

The proposed three-story mixed-use building quantities for this application are as follows:
• (9) 2-Bedroom Units
• 1,155 SF Store

Projected Sanitary Demand:
• Residences: 2-Bedroom Unit = (9 Units) (225 GPD / Units) = 2,025 GPD
• Miscellaneous: Stores / Shopping Center = (1,155 SF Store) (0.1 GPD / SF) = 116 GPD

Projected Total Sanitary Sewer = 2,141 GPD
DOMESTIC WATER DEMAND CALCULATIONS

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DOMESTIC WATER PROJECTED FLOW CALCULATIONS

Per N.J.A.C. 7:10-12.6 “Water Volume Requirements”, the projected average demand for a 2-bedroom garden apartment is 175 GPD and a store is 0.125 GPD per square foot.

The proposed three-story mixed-use building quantities for this application are as follows:
- (9) 2-Bedroom Dwellings
- 1,155 SF Store

Projected Domestic Water Demand:
- Garden Apartment: 2-Bedroom = (9 Dwellings) (175 GPD / Dwelling) = 1,575 GPD
- Store, Office Building = (1,155 SF Store) (0.125 GPD / SF) = 144 GPD

Projected Total Domestic Water = 1,719 GPD