Reference:

Tomasso Briatico, Principle
Tomasso Briatico Architects
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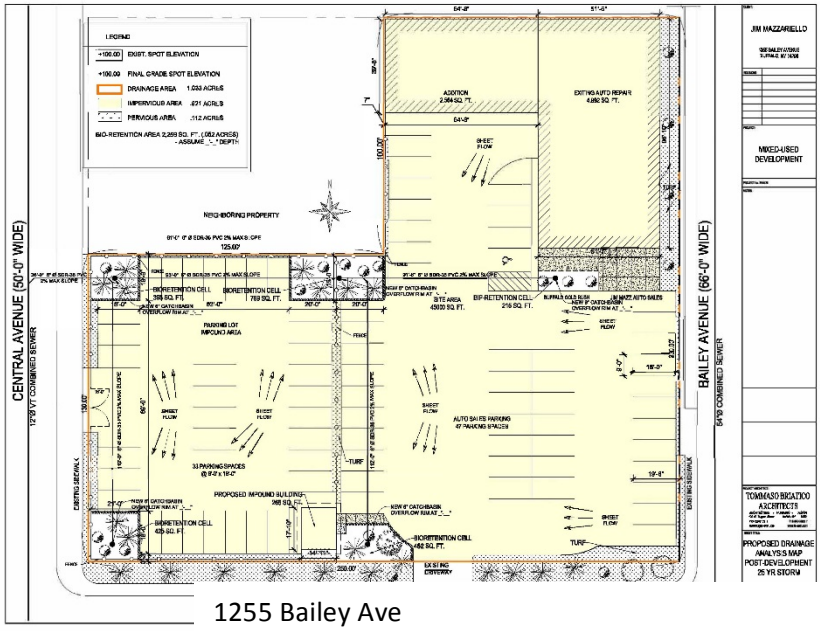
Key Personnel:

Robert Gallucci, PE



1255 Bailey Ave

BSA SWPPP CONFORMANCE

BIORETENTION DRAINAGE PLAN

Tommaso Briatico (TB) Architects engaged BGI to prepare a stormwater analysis for a project located within the combined sewer collection area of the Buffalo Sewer Authority. A conceptual grading and drainage was in-place and this conceptual plan is based upon the construction of bioretention basins. The BSA design guidelines require erosion and sedimentation control during the construction phase of the project. Post construction requirements are based upon the concept of controlling the post development 25 year storm peak flow rate to the predevelopment 2 year storm frequency peak flow rate.

The project has 0.921 acres of parking (40,119 sf) which sheet flows to five individual bioretention beds which are distributed across the site. The total area of the beds is 2259 sf, each having a depth of 3 feet. The maximum ponding depth at each bed is 6 inches. The overflow from all the beds are collected and have a single restricted 6-inch diameter orifice discharging to the combined sewer. The design intent is to reduce volume to the combined sewer via evapotranspiration mechanisms, and to attenuate flows by using the beds as a detention basin.

The project was constructed in the fall of 2014 and has performed well, exceeding all BSA expectations.