Appendix H
CSO 011 Reconfiguration Engineering Memorandum

TECHNICAL MEMORANDUM

CSO 011 Sewer Reconfiguration

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A sewer reconfiguration is planned in the CSO 011 sewershed. Included in this reconfiguration is a new primary regulator upstream of the existing CSO 011 overflow structure. This modification is expected to promote more flows to the HBIS and therefore result in less CSO overflows at 011. This technical memorandum presents the SWMM results of this system change on CSO volume and frequency at CSO 011.

CSO 011 Sewer Reconfiguration

Sewer changes are planned in the CSO 011 sewershed around the Fowler High School track and football field. Included in the reconfiguration, is a new primary sewer underflow to the HBIS and overflow to the existing CSO 011 overflow. The plan view of the design is show below in Figure 1.

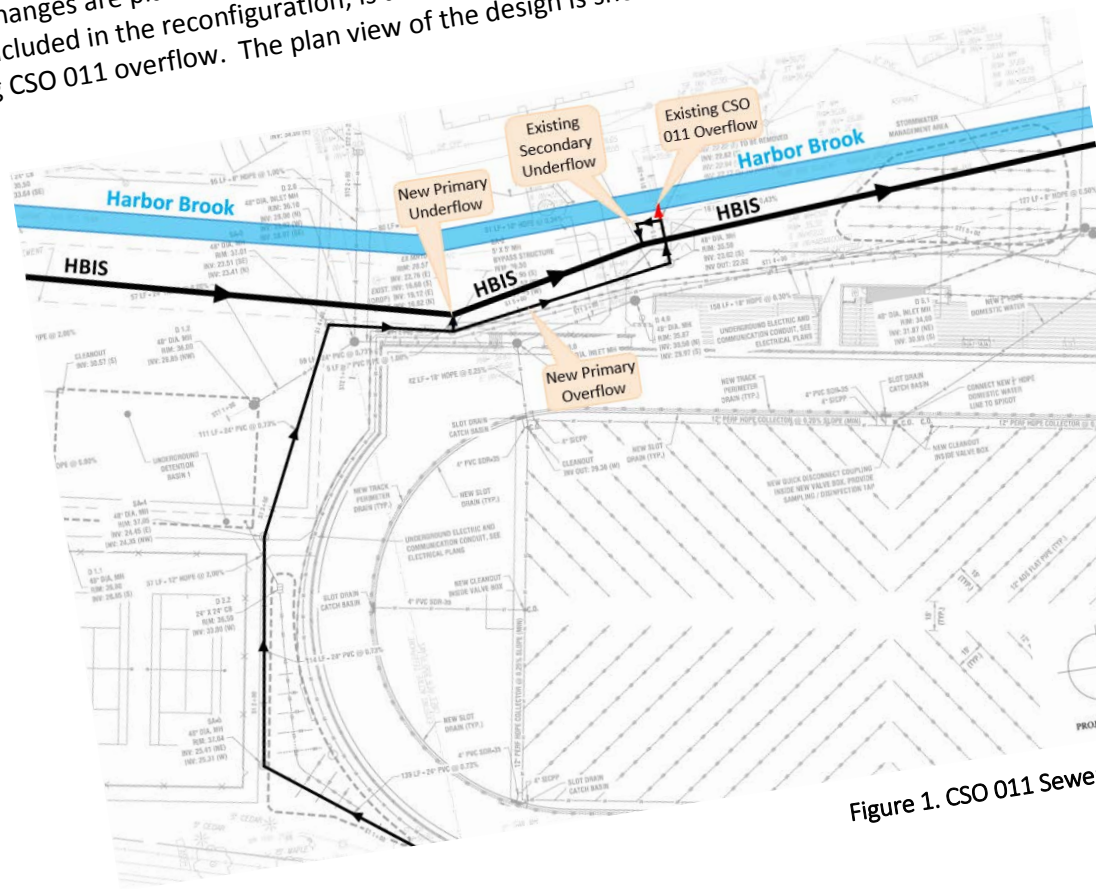

Figure 1. CSO 011 Sewer Reconfiguration

The new regulatory structure includes an 8-inch underflow and an overflow consisting of four 6-inch stop logs with an elevation of 25.52 ft (City of Syracuse Datum); 387.52 (MSEL). The overflow is conveyed to the existing 011 overflow structure and secondary underflow. The new regulator structure is shown below in Figure 2 (Details from LaBella Associates, DPC).

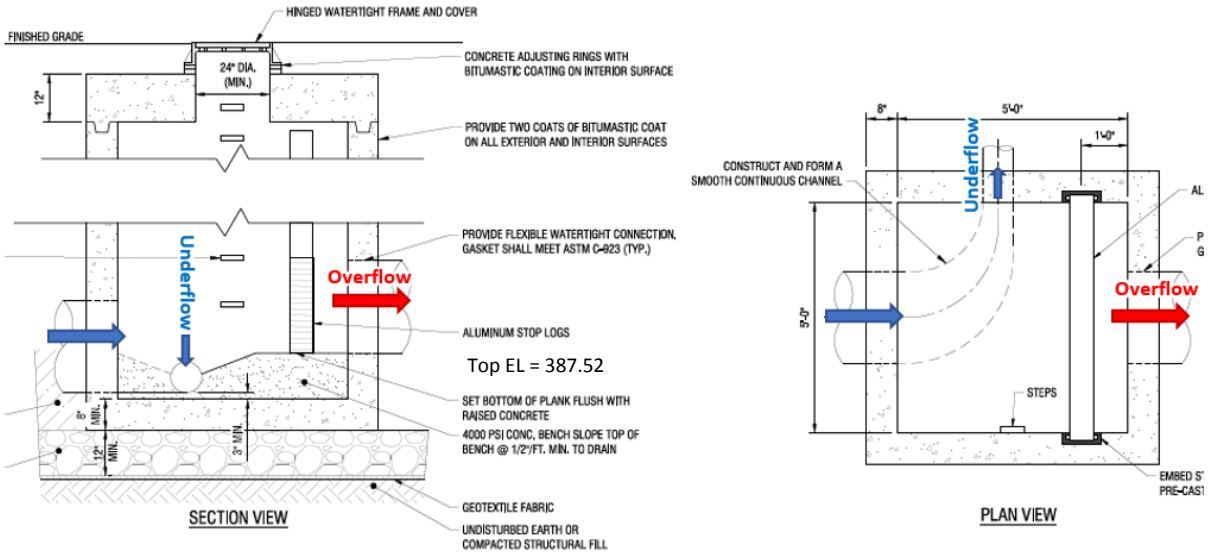

Figure 2. New CSO 011 Primary Regulator

SWMM Results

The 2017 Conditions SWMM model was updated to reflect these changes. These results were compared with the 2017 base conditions. As a result of these proposed changes at CSO 011, during the typical year, the total CSO volume at CSO 011 decreases from 1.4 MG to 0.6 MG, and the discharge frequency decreases from 16 events per typical year to 8.