

## Master Plan Update Recommends South Myrtle Avenue Relief Sewer

The Village of Villa Park undertook a comprehensive review of their Sanitary Sewer Master Plan for the South Villa Basin. This plan was originally prepared by RJN Group, Inc. in 1981. The update was needed to ensure adequate future capacity from possible annexation of unincorporated areas and to prepare a 10-year capital plan to reduce inflow and infiltration to the system and to provide for reliable long-term service.



The Village retained RJN to develop a detailed sanitary collection system Master Plan with system rehabilitation options. The RJN team undertook a comprehensive system evaluation which incorporated results of field investigations, flow monitoring and existing historical system data. Hydraulic modeling was performed - using XPSWMM software – to pinpoint capacity limitations within the existing system. The revisions to the Master Plan included recommendations for system rehabilitation that would provide the most cost-effective solutions for identified problem areas.

One of the recommendations of the plan was to construct a relief sewer on South Myrtle Avenue to reduce overflows and backups. The RJN team provided design services for the 3,000 linear foot gravity sewer which ranged in size from 8- to 21-inches. Sections of the new sewer line were required to cross recently reconstructed streets and additional design complexities required design of the new sewer under a creek.

Design services included:

- Survey
- XPSWMM Modeling
- Plans and Specification
- IEPA State Revolving Fund Loan Application
- Construction and Stormwater Permit Applications



Design recommendations for construction of the sanitary sewer system involved the evaluation of several types of “no-dig” technologies to overcome specific location obstacles and issues. Alternative analysis was provided for directional boring, pipe bursting and pipe ramming for the sections that required trenchless installation.