



The Southern Portion of the Infrastructure Improvement Project was the second of three infrastructure improvement projects funded using 70% grant funds provided under the American Recovery and Reinvestment Act (ARRA) by Rural Development of USDA. The project combined sewer separation and combined sewer overflow (CSO) elimination work as ordered by the Environmental Protection Agency with recommended water main improvements with complete sidewalk, curb and roadway infrastructure improvement project.

Final design activities were enhanced using Civil 3D® design which allowed for integrated pipe design for water, sewer and stormwater using pipe networks. In addition, the stormwater treatment design analysis was easily performed in Civil 3D® using the storm and sanitary sewer analysis extension. Existing combined sewer was evaluated for use as storm drain using TV inspection. Although adjoining customers could not comment to separation of sanitary sewer and stormwater, separate services were installed to the edge of the right-of-way to allow for separation activities in the future by private landowners.

## PROJECT COMPONENTS

- Dufresne Group assisted Town in obtaining **70% grant funds from RD.**
- Dufresne Group estimated construction cost at **\$5,500,000 and the low bid amount \$5,368,215.**
- DG assisted in obtaining **93 easements** for project.
- DG worked with Four Seasons Neighborhood Organization on design criteria.
- DG completed TV inspection of existing sewers to define improvements.
- Stormwater system design by DG based on HydroCAD®.
- Water system design by DG based on WaterGEM's®.
- Full depth roadway design by DG using AutoCAD Civil 3D®.
- Complete sidewalk and curb design by using ADA design criteria.
- Temporary water distribution system design by DG allowed removal of all old water main during construction.
- DG allowed larger water main cleaned and lined rather than replaced at a project savings.
- DG provided coordination with commercial businesses for parking during construction.
- Installation of new storm water services to edge of ROW.
- Project included 5,800 lf of roadway infrastructure replacement.
- Two large retaining walls installed as part of the project.