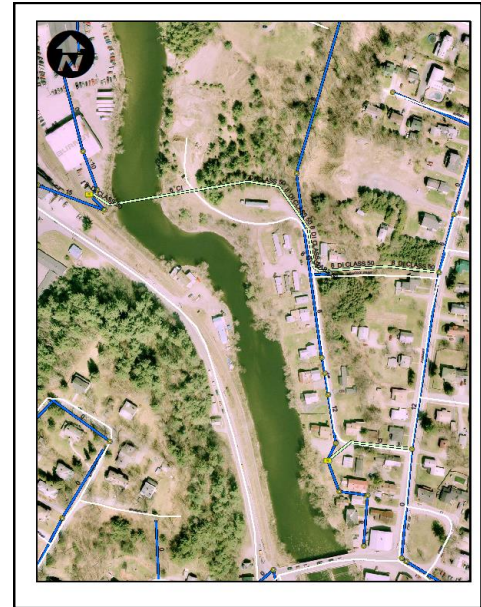
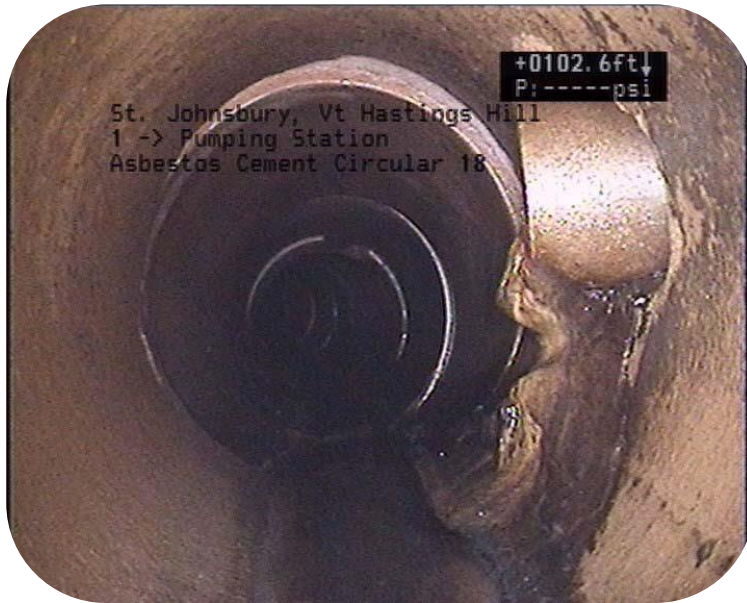


WATER SYSTEM GIS BASED COMPUTER MODEL

TOWN OF ST. JOHNSBURY, VERMONT



The infrastructure improvements projects address State and Environmental Protection Agency mandates to separate storm and sanitary sewer. The projects capitalized on available funding including water main replacement and full road reconstruction. During the planning stage for the multiphased project, Dufresne Group developed a GIS project including the system manholes and catch basins.

Field survey information, including rim elevations, pipe invert elevations and pipe sizes were incorporated as attributes for the structures and piping. The mapping was used as a basis for completing additional field investigations including TV inspections. Individual properties were visited to document sewer service details and locations.

The final designs were based on the detailed mapping and modeling of the stormwater and sewer systems. As part of the construction project, individual storm sewer services were provided to allow for future connections.

The GIS mapping was also utilized for preliminary engineering projects to assess the Oak St. and Hood pump stations and the undersized sewer main river crossing discharges from east of the Oak St. pump station.

KEY FEATURES:

- The project was funded using 70% grant funds provided under the American Recovery and Reinvestment Act (ARRA) by Rural Development of USDA.
- The Town and DG collaborated with Four Seasons Neighborhood Organization on design criteria.
- Project homepage developed on the DG website for communications of project specifics including traffic disruptions during construction.