DUFRESNE GROUP
CONSULTING ENGINEERS

GILL TERRACE
BOOSTER PUMP STATION

LUDLOW, VERMONT

Packaged Pump Skid

Pump Station—Exterior

The residents of Upper Gill Terrace are served by the Village of Ludlow's municipal water system. Because they are located remotely from the municipal source and storage reservoirs the water pressure fluctuates greatly depending on Village water consumption.

Dufresne Group developed a computerized hydraulic model of the Village's water system to evaluate system pressures and flows. The modeling results showed that the pressure at Upper Gill Terrace at times dropped below 20 psi. The minimum pressure should never be less than 20 psi according to State regulations. When activities planned for a water storage tank site acquisition failed, DG designed a duplex variable speed water booster pump station that raises the water pressure to a constant 85 psi between flow ranges of 0 to 30 gpm.

The project was constructed with local funds and placed on line in the late summer of 2006. Customers now have reliable water pressure even during high Village demand conditions.

KEY FEATURES

- Pump station blends with architecture of adjacent buildings.
- Pump controls vary pump motor speed to meet constant pump discharge head set points independent of inlet pressure.
- Variable speed pumps coupled with programming logic save operating costs.
- Completed in 3 months using design/build.
- Total project cost of $150,000.

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