

WATER MAIN IMPROVEMENTS

PETERBOROUGH, NEW HAMPSHIRE



Tuberculated Old Water Main



Replacement Box Culvert

Dufresne Group (DG) provided the design engineering, construction management and oversight for a project to upgrade the existing water distribution system in Peterborough, NH which included 4,300 lf of new 8-inch water main to replace existing 4-inch and 6-inch water main, 30 water services, a pressure reducing valve, and the replacement of an existing culvert.

The culvert was a deteriorated corrugated metal arch pipe and the outlet was perched above the stream bed due to ongoing erosion and scour.

The new 4' X 7' precast concrete box culvert was constructed in conjunction with the water main project and funded separately by the Town highway department. 100 feet of water main installed under the old culvert was removed and replaced with new 8-inch main installed over the new structure.

The new pressure reducing and regulating valve (PRV) was installed on Route 101 to provide a constant pressure downstream in the central zone and allows fire flow volumes to reach the central zone during emergency situations.

KEY FEATURES

- Provided additional fire flow to customers within the project area as well as in the Central Zone (as a result of the PRV installation).
- The work required coordination with several Town departments including Fire, Police and Water to detour traffic on the heavily traveled route to the Town's Hospital and nearby attractions.
- The project provided accurate record drawings to depict actual system conditions.
- Coordination with an adjacent water main cleaning and lining project.
- Traffic relocation for one month during construction.