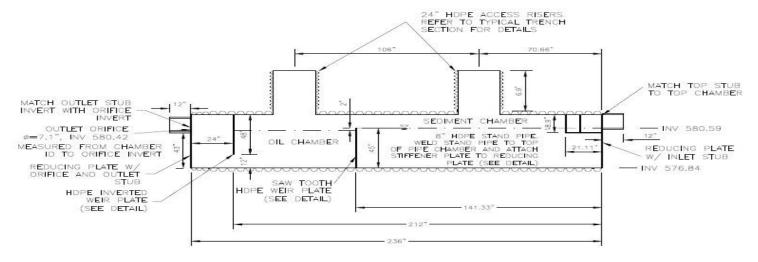
■ WESTSIDE PROJECT - STORMWATER

TOWN OF ST. JOHNSBURY, VERMONT





STORM WATER TREATMENT UNIT TYPICAL SECTION

As part of the Northern portion of the Westside Infrastructure Project, Dufresne Group provided final design and permitting assistance for a stormwater treatment system to treat runoff from both the Northern and Southern portions of the project. Dufresne Group met with the Watershed Management Division – Stormwater Program to discuss the project. The project consisted mostly of redevelopment of existing impervious area with a small increase of less than 10% in new impervious area. After discussions with the Stormwater Program, Dufresne Group utilized the "Stormwater Procedure for Public Linear Transportation Projects". Under this procedure, this project only required treatment for 30% of the Water Quality Volume since the project was considered a minor expansion.

Runoff was collected from the Westside area via the new storm drain system and conveyed through the existing storm drain system on Cliff Street to a discharge point on Sleeper's Brook. A Hancor Storm Water Quality Unit was chosen for the treatment device, with a total suspended solids removal rate of 80%. This unit was installed off-line just upstream of the discharge point with a main line bypass to handle larger flows. This unit was sized to provide treatment for 0.496 acrefeet, which was well above the minimum required treatment volume of 0.226 acre-feet.

KEY FEATURES:

- Coordination with the Stormwater Program to identify a stormwater treatment solution to meet current regulations and fit within the urban Westside area.
- Design for the entire project minimized new impervious area for a net increase of less than 10%.
- Reduction of treatment requirements using "Stormwater Procedure for Public Linear Transportation Projects".
- Provided more than double the required treatment volume with a single treatment unit.