



Project Title: New Brunswick Department of Transportation (NBDOT)
District 4 Regional Facilities Site Development, St. Stephen, NB

Client: Department of Supply & Services (DSS) / Robert F.M. Phillips Architect

Project Description:

This project demonstrates the strength of the GEMTEC team in providing; geotechnical; environmental; municipal; civil and transportation engineering services; and our ability to manage a project from conception to completion.

The Department of Transportation District 4 Regional Facilities requires the construction of a new facility to meet their service objectives. The new facility when completely developed will contain a maintenance complex, an administration building, a salt and sand storage building, a fuelling depot, and paved parking for a variety of heavy vehicles including school buses. Given the numerous components to be incorporated into the project a fairly large site footprint was required.

A 4-hectare site was selected and GEMTEC was retained to provide geotechnical consultation. After completing the investigation we determined that the site was underlain by bedrock with acid generating potential. The occurrence of this type of rock in road building triggers a number of protocols, the aim being to minimize the exposure of the rock to water and oxygen thereby limiting the potential for acidic discharge to the environment. Existing site topography led the owner to contemplate a mass rock cut and fill scenario. However, owing to acid generating rock protocols a grading scenario whereby rock cuts are minimized was preferred.

Another challenge presented at the site was the nearby proximity of a wetland. The wetland was delineated by GEMTEC's certified wetland biologist.

GEMTEC developed a site-grading plan which minimized rock cuts, maintained an adequate buffer from the wetland and provided functional grades for future building and parking development. GEMTEC also designed a 300 metre long access road to access the site using the same design constraints. Throughout the site grading design, GEMTEC worked closely with the NBDOT, DSS and Robert F.M. Phillips and other consultants to provide a design which was suitable to all stakeholders from both a functional and financial standpoint.

GEMTEC prepared contract drawings and specifications, which were tendered by DSS. The contract value was 1.6 million dollars. GEMTEC provided project management and construction supervision services throughout the execution of the contract.

The project was completed on time and on budget.