

## Work with Historic Masonry Structures

Mr. Hockey has been working with historic masonry throughout his career including historic concrete, brick and stone masonry. Three recent projects include Stabilization of the WWII Battery at Cape Spear; Grand Pré Church; and Saint John Carleton Martello Tower.

In the case of Cape Spear the concrete was spalling in the gun batteries and the walls of the passageways connecting the crew shelters were closing in on each other with fill pressure because of removal of the historic roof. The design solution which he prepared was implemented in house over a five year period. It included design and installation of a wood frame structure to pick up the wall loads and to provide bracing between them; constructing a roof for protection from the elements with glazing to allow light; and various types of repairs of the spalling concrete. The wood roof and frame has been in place for more than five years and appears to have stopped the movement. The repairs to the concrete spalling also appear to have been successful.

The repointing of St. Charles Church in Grand Pré was phased over three seasons because of budget limitations. Work included total repointing of the structure plus repair of the damaged sandstone cut corner stone. Mr. Hockey's responsibilities included preparation of design and construction documents for all three phases of the construction plus project management of the construction.

Saint John CMT was being worked on through a multiyear phased conservation program aimed at incrementally stopping water entry and evaluation the effects of the work, because a previous project to repoint the building had failed in less than 10 years. Work to date had included insulation and reproofing of the flat concrete roofs, repair of the drainage system for the concourse slabs on the tower, and other minor repairs. Design included design of a mortar mix with a much courser aggregate than normal to deal with the wide joints; the strategic addition of small stones in the wide joints to break up the mortar surface; and, raking out and repointing to a minimum depth of 75 mm to provide better founding. Work also included detail for replacement of the severely crazed concrete cap on the tower walls with designed caulked joints to eliminate the potential for cracking in the future. Bill's responsibilities included design, preparation of construction documents, project management during construction, followed by preparation of a post construction evaluation report.



Cape Spear Battery



Grand Pré Church



Saint John CMT

