

CEE 595 – Geotechnical Engineering Seminar

Wednesday, February 7, 2018
11:00AM, Newmark Lab 2310

Construction of the Hoosac Tunnel; 1852 to 1876

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Abstract

The Hoosac Tunnel is one of the most significant tunneling projects in the history of tunneling. Prior to the Hoosac project, tunneling consisted of a mishmash of activities throughout the tunnel. All work was accomplished by hand and was extremely arduous and risky for the workers. For instance, a highway tunnel built in Rome 2000 years ago involved thousands of laborers toiling for ten years. After Hoosac, almost all tunnels anywhere in the world were built utilizing the drill-load-blast-muck method of tunneling until the 1970s when rock TBMS were introduced. Interestingly, the Hoosac Tunnel was built in Dr. Brierley's hometown of North Adams, Mass and Dr. Brierley spearheaded the effort to have the tunnel designated as an ASCE National Historic Landmark in 1976 on the 100 year anniversary of its completion. Dr. Brierley will discuss a host of innovations that were introduced at the "Mighty Hoosac" including compressed air rock drills, surveying accuracy, nitroglycerine, drill carriages, and, even, the experimental use of the world's first steam powered TBM!