Abstract: The replacement of the Thames River Railroad Bridge was a challenging task on many levels, some of them anticipated, some of them not. The effort culminated with an outage which for four days stopped the most heavily used passenger rail service in the United States and blocked navigation for industrial and national defense waterway users. Unanticipated foundation problems added an additional set of challenges. All challenges were successfully overcome with a spirit of cooperation and innovation by all involved. Advances in information technology after completion of the project led to the discovery of lost information which could have warned the project team of problems to come had that knowledge been available at the start of the project.