

CEE 595 – Geotechnical Engineering Seminar

Friday, January 19, 2018
11:00AM, Newmark Lab 3310

The Miller Park Crane Collapse – Geotechnical Aspects

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Abstract

On July 14, 1999, while lifting a roof panel during construction of the retractable roof for the Miller Park stadium in Milwaukee, Wisconsin, the Lampson Transi-Lift mobile crane (“Big Blue”) collapsed, taking the lives of three ironworkers, causing over \$100 million damage to the partially completed stadium, and delaying the opening of the stadium for one year. Civil litigation after the failure resulted in a Milwaukee jury awarding approximately \$100 million to the families of the victims. The panel being lifted was a space truss approximately 250 feet long by 100 feet wide by 10 feet high that weighed nearly 500 tons (1 million pounds). Big Blue was one of ten cranes of its type operating in the world and the biggest in North America with a boom length of almost 600 feet.

The behavior of the ground was a contributing factor in the accident. This lecture will focus on: 1) the pre-accident subsurface investigation and recommendations for the support of Big Blue; and 2) the post-failure subsurface investigation and settlement analyses. Throughout the lecture important factors such as the responsibility of the geotechnical engineer in addressing construction-related questions will be discussed.