

University of North Carolina Bell Tower

Completed in 2011, the UNC Bell Tower at the University of North Carolina (UNC) is one of the largest building projects ever constructed on campus. The mixed-use sustainable development includes a 710-car parking deck, a renovated 25,000-ton chilled water plant, an elevated pedestrian walkway, and the Genome Science Laboratory Building.

PROJECT RESULTS

Working closely with the client, project designers, and contractors, Kleinfelder provided oversight that proved instrumental in keeping this complex construction project on schedule. Using proactive planning strategies and thorough testing and tracking processes, Kleinfelder delivered timely solutions to address construction, technical, and staffing challenges for the UNC Bell Tower development.



COMPLEX CONDITIONS, TIGHT TIMELINE

The mixed-use UNC Bell Tower development is a large project involving various construction methods in a robust foundation system. Subsurface conditions demanded innovative strategies to meet the foundation requirements needed to support the massive structure. A tight construction schedule, combined with the complexities of simultaneously addressing large concrete requirements on four separate structures, posed technical and staffing challenges.

COMPREHENSIVE INVESTIGATIONS AND OVERSIGHT

Kleinfelder provided real-time foundation design recommendations and extensive onsite geotechnical investigations throughout construction. A full-scale, onsite soil and concrete testing laboratory addressed the vast amount of concrete being placed concurrently on four distinct construction packages. To avoid construction delays, Kleinfelder helped develop a program of mass-concrete mockups to assess several different mixes, using Intellirock concrete maturity meters to continually monitor the internal temperature of the mockups to aid development of new high strength mix designs.

Location:

Chapel Hill, North Carolina

Owner:

University of North Carolina

