



NC STATE UNIVERSITY

MANN HALL RENOVATION



SKA was retained to design structural repairs for Mann Hall based on the results of an investigative report provided to NCSU by another engineering firm. SKA reviewed the documents provided by NCSU and provided a list of questions that needed to be answered before SKA could proceed with the design. NCSU allowed SKA to perform additional testing and investigation to determine the answers to our questions. SKA was able to determine that the exposed concrete columns were heavily carbonated and in some cases, contaminated with chlorides, resulting in severe corrosion of the embedded reinforcing steel. To accommodate the structural column repairs the windows required replacement. SKA included the design of a new window system in the Bid package. This project includes repair of the deteriorated concrete structure of Mann Hall in order to extend the life of the building. The structure is constructed of concrete cast-in-place columns with a cast-in-place beam-joist system. Phase 1 of a multi-phase project will address damage and deterioration to the concrete structure, enhance the existing brick-masonry water management system, and replace all of the windows in the building.

Key SKA Staff Members: Scott Singleton, PE, RRC; Kevin McCarthy, PE

KEY ELEMENTS

project budget \$6,000,000	location Raleigh, NC
start date May 29, 2019	completed on going (2024)
window replacement	change orders n/a

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