The exterior envelope of the structure was showing signs of distress and deterioration. The City of Milwaukee retained WJE to perform a study of the structure that addressed all exterior elements and materials, including copper and slate roofing, brick, terra cotta, sandstone, and the structural steel frame of the bell tower. The study also included interior plaster elements, clay tile, and windows.

SOLUTION

WJE’s comprehensive investigation of the structure included a condition survey of the entire facade, inspection openings, sample removal, laboratory materials studies, cleaning studies, water infiltration testing, and instrumentation monitoring.

Based on the investigation, WJE developed a historically sensitive approach to the exterior restoration that was consistent with the Secretary of the Interior’s Standards. A comprehensive report documented the existing conditions and the observed long-term effects of masonry cleaning and repairs performed in the 1970s. Cost estimates were also developed for repair or replacement of damaged, missing, or altered facade elements as well as for repair and supplemental reinforcement of the bell tower structure.