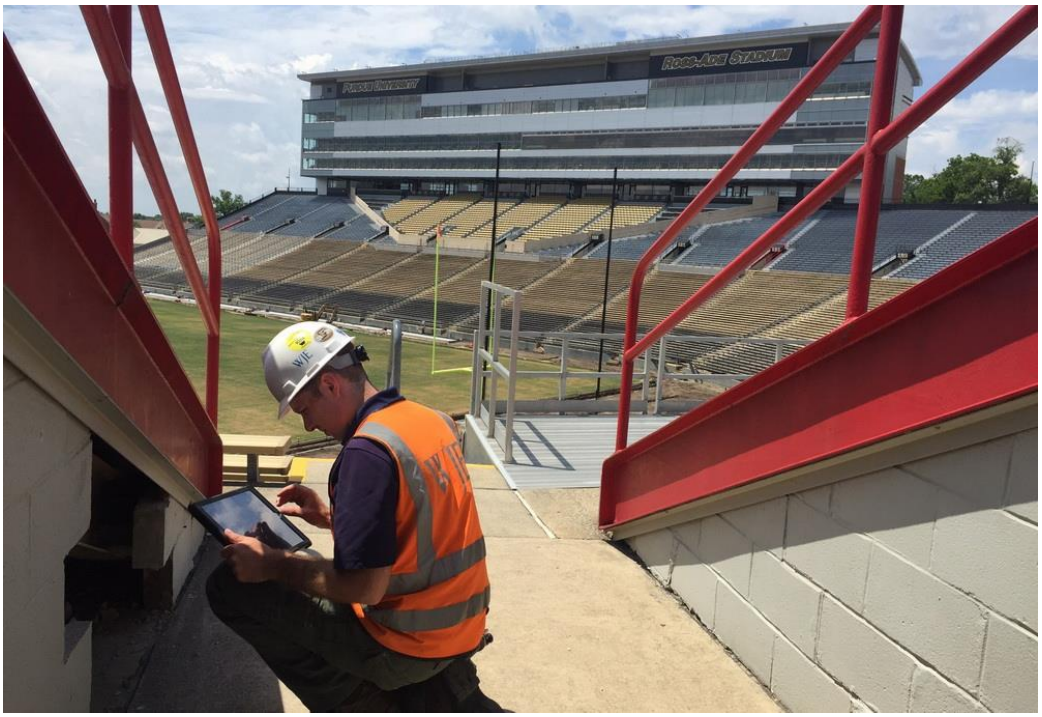
PROJECT PROFILE

Purdue University, Ross-Ade Stadium

Grandstand Framing Evaluation | West Lafayette, IN



CLIENT

Purdue University

BACKGROUND

Constructed in multiple phases, Ross-Ade Stadium consists of horseshoe-shaped grandstands on the north, east, and west sides of the field, with a plaza on the south side of the field. The upper portion of the grandstands on the north, east, and west sides of the field are supported by steel framing members constructed in 1969, 1955, and 1949, respectively. A renovation and addition of the press box on the west side of the stadium was completed in 2003, which modified areas of the west grandstands. The lower bowl of Ross-Ade Stadium is constructed of reinforced concrete.

Purdue University requested WJE's services to perform a condition assessment of the existing steel grandstand framing on the north, east, and west sides of the stadium. The purpose of this study was to evaluate and document the general condition of the existing steel framing; identify the types and extent of visually obvious structural distress; and to develop general remedial options for addressing and/or monitoring identified deficiencies and maintaining the grandstands, with an emphasis on identifying potential long-term structural issues as well as general maintenance costs.

SOLUTION

WJE's evaluation consisted of hands-on assessment of the entire grandstand structure using areal lifts. WJE utilized proprietary tablet software to photographically document conditions on the grandstands and prioritize the severity of observed conditions and distress. Additionally, the coatings on the grandstands were evaluated to determine possible recoating repair options.

Based on WJE's findings, recommendations for repair and maintenance were provided with estimates of probable costs over the ten-year term. Recommendations included options for repair as well as monitoring of the structure.

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