EMERGENCY STRUCTURAL ENGINEERING

Restoring infrastructure for recovering communities

Michael Baker
INTERNATIONAL

George Washington Bridge Replacement of ITS Devices
Fort Lee, New Jersey

OVERVIEW

For decades, Michael Baker International has provided emergency engineering evaluation, inspection and retrofit design services for damaged and failed bridges resulting from natural and man-made hazards, hidden defects and environmental deterioration.

Our organized teams of technical experts, certified bridge inspectors, and civil and structural engineers can rapidly assess damage and assist in restoring bridges and other structures to service. We are a member of the Structural Engineers Association of California Disaster Emergency Services (SEAOC DES), and our company regularly assists FEMA, Office of Emergency Services, and state and local agencies across the U.S.

Our rapid response helps to restore infrastructure to safe operating condition so communities can return to normalcy following a structural emergency.

CAPABILITIES

Emergency Inspection

Non-Destructive Testing and Evaluation

Structural Analysis and Assessment

Emergency Repair and Retrofit Plans

Construction Oversight

Structural Health Monitoring Implementation

We Make a Difference

Zoo Interchange Emergency Replacement Structure Reviews

As part of an emergency bridge replacement project, Michael Baker provided design reviews, constructability reviews, plan reviews, shop drawing reviews and erection drawing reviews for the replacement of structures in the core of the Zoo Interchange. This junction of I-41, I-94 and I-894 is the busiest interchange in Wisconsin.

Milwaukee, Wisconsin

Eggner's Ferry Bridge Emergency Replacement Design

Michael Baker provided design and engineer of record services for the emergency replacement of a 322-foot span of the Eggner's Ferry Bridge, which carries U.S. 68 and Kentucky Route 80 across Kentucky Lake on the Tennessee River. The bridge span had been destroyed after being struck by a cargo ship.

Trigg and Marshall Counties, Kentucky

I-43 Leo Frigo Emergency Bridge Repair

Michael Baker served as the lead consultant for the emergency repair of the I-43 Leo Frigo Bridge and provided the forensic evaluation of the cause of sudden, unexpected pier settlement. The team also prepared an investigation report; developed plans for temporary stabilization; provided construction services for the stabilization contract and provided structural design services and construction plans for the recommended repairs.

Green Bay, Wisconsin

Brent Spence Bridge Repairs

Michael Baker performed an emergency inspection to determine the extent of damage after a November 2020 collision, which resulted in a chemical fire that caused damage to the upper deck floor system steel, drainage, concrete and electrical components. Subsequently, Michael Baker developed emergency repair plans and assisted the owner with oversight of repairs, quickly returning to service this critical structure carrying I-71 and I-75 over the Ohio River.

Covington, Kentucky to Cincinnati, Ohio

Delaware River Bridge Emergency Response

Michael Baker provided emergency field and office support, including engineering analysis, design and plans review, after a full-depth fracture discovered in the top chord of a four-span continuous deck truss unit on the Pennsylvania approach resulted in an immediate closure of I-76 at the Pennsylvania and New Jersey border.

Burlington Township, New Jersey
and Bristol Township, Pennsylvania

Sherman Minton Bridge Emergency Rehabilitation

Michael Baker developed emergency repair plans and provided construction management and inspection services for the rehabilitation of the 2,053-foot-long Sherman Minton Bridge, a double-deck tied-arch structure, carrying I-64 over the Ohio River between Louisville, Kentucky, and New Albany, Indiana.

New Albany, Indiana and Louisville, Kentucky

#5

2021 ENR RANKING – BRIDGES

300+

BRIDGE PRACTICE EMPLOYEES

125

BRIDGE SAFETY INSPECTORS

100

OFFICES NATIONWIDE

Visit mbakerintl.com/practices/bridge for more information about our capabilities and iconic projects.

CONTACT

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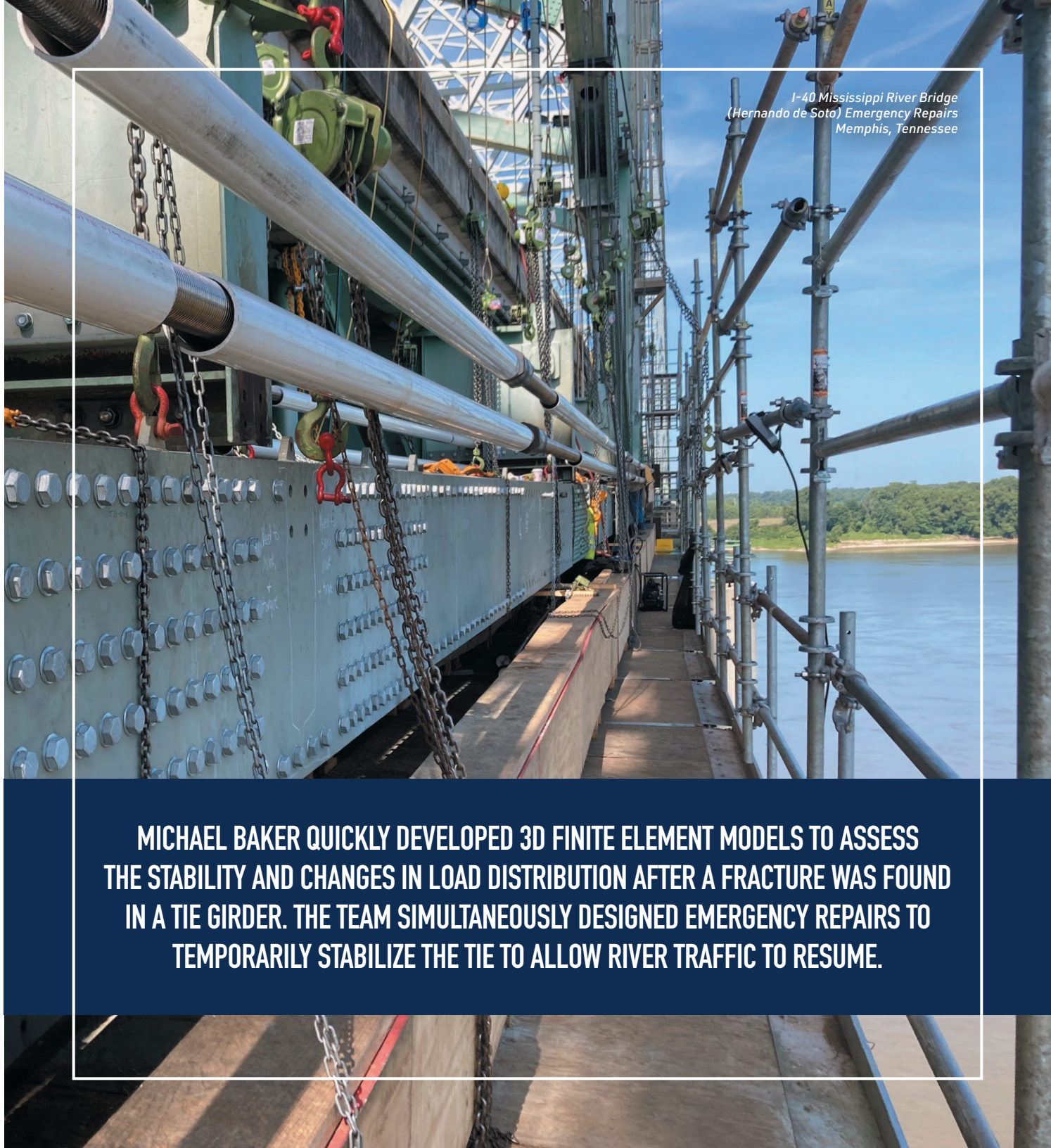
Michael Baker
INTERNATIONAL



I-40 Mississippi River Bridge
(Hernando de Soto) Emergency Repairs
Memphis, Tennessee

MICHAEL BAKER QUICKLY DEVELOPED 3D FINITE ELEMENT MODELS TO ASSESS THE STABILITY AND CHANGES IN LOAD DISTRIBUTION AFTER A FRACTURE WAS FOUND IN A TIE GIRDER. THE TEAM SIMULTANEOUSLY DESIGNED EMERGENCY REPAIRS TO TEMPORARILY STABILIZE THE TIE TO ALLOW RIVER TRAFFIC TO RESUME.