

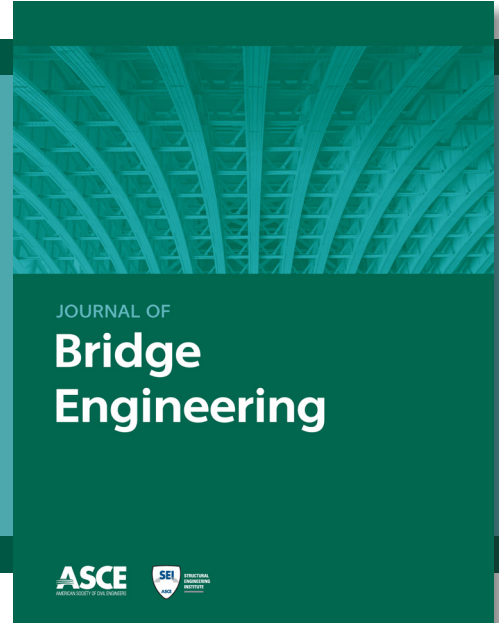
Guest Editors:

Ayman Shama, PhD, PE, F.SEL, F.ASCE, Program Manager, Parsons, Email: Ayman.shama@parsons.com

Jamey Barbas, PE, Director, New York State Thruway, Email: Jamey.Barbas@newNYBridge.com

Call for Papers

Special Collection on Challenges in New Design, Repair, and Strengthening, or Widening of Unusual Bridges



Aims & Scope

Unusual bridges are amongst the largest, most expensive, and most complex structures. They are critical and valuable transportation links for worldwide infrastructure. Each bridge offers several design and construction challenges; in some situations, these challenges are not specifically addressed by design codes. In such cases, structural engineers may use advanced methods and research efforts to verify their assumptions and procedures used in the design. The need to strengthen or widen unusual bridges and viaducts to meet modern performance requirements and address the effects of lack of maintenance has led engineers to develop various rehabilitation techniques. Successful selection and specification of the most appropriate form of rehabilitation is a complicated process that must address several challenges.

According to Federal Highway Administration, there are several conditions under which bridges can be classified as unusual such as unique foundation design, exceptionally long spans, or bridges designed with methodologies that depart from currently recognized acceptable practices. Examples of unusual bridges include cable-stayed, suspension, arch, segmental concrete, and movable or truss bridges.

The main goal of this special collection is to develop in-depth documentation of cases wherein designers, analysts, researchers, and constructors encountered some challenges while building new bridges or repairing and widening existing ones. In some situations, codes, guidelines, and standards do not address an element of the structure or a design condition. Cases, when the designer had to establish a specific criterion for such situations are encouraged and need to be emphasized. This special issue is also open for papers that overview the repair and strengthening design challenges. Papers that address challenges in the repair design of unusual steel bridges for fatigue cracks or hardening for blast loads are strongly encouraged. While this issue is not geared towards seismic retrofit of unusual bridges, papers that cover unprecedented seismic retrofit cases

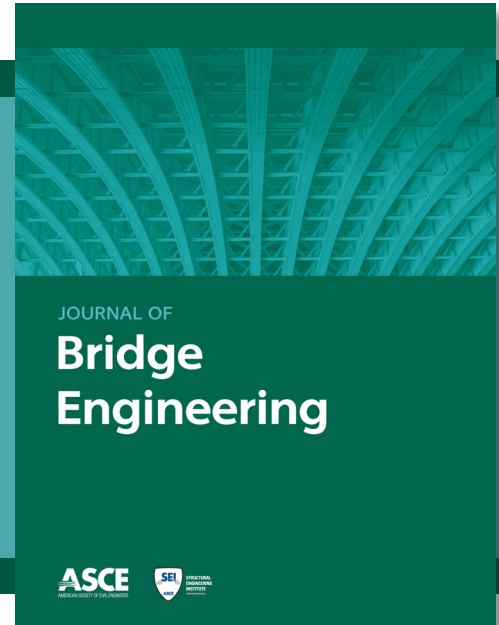
continued on reverse

Guest Editors:

Ayman Shama, PhD, PE, F.SEL, F.ASCE, Program Manager, Parsons, Email: Ayman.shama@parsons.com
Jamey Barbas, PE, Director, New York State Thruway, Email: Jamey.Barbas@newNYBridge.com

Call for Papers

Special Collection on Challenges in New Design, Repair, and Strengthening, or Widening of Unusual Bridges



will also be considered. The unprecedented seismic retrofit includes but is not limited to advanced seismic protective systems such as viscous or friction dampers, installation of sacrificial elements, and advanced methods of seismic base isolation using friction pendulum bearings or equivalent types of bearings. The special issue will also include papers on challenges met during widening of unusual bridges. These challenges usually arise during cable-stayed, suspension, arch, and movable bridge widening.

Please direct any questions regarding this special issue to Dr. Ayman Shama at Ayman.Shama@parsons.com, or Jamey Barbas at Jamey.Barbas@newNYBridge.com.

Submission Guidelines

1. Please submit your manuscript via the ASCE Journal of Bridge Engineering website: <https://www.editorialmanager.com/jrnbeeng>
2. Once on the Editorial Manager website, please indicate that your paper is for the special collection "Special Collection on Challenges in New Design, Repair, and Strengthening, or Widening of Unusual Bridges" edited by Ayman Shama and Jamey Barbas.
3. Detailed information on the submission process is provided in the document "Publishing in ASCE Journals: A Guide for Authors" available at <https://doi.org/10.1061/9780784479018>

Please note that all accepted papers submitted in response to this Call for Papers will be published in regular issues of the Journal of Bridge Engineering and assembled online on a page dedicated to this Special Collection. See <https://ascelibrary.org/page/jbenf2/specialcollections> for the list of Special Collections already published.