The AASHTO LRFD Bridge Design Specifications: Moving Forward

by Dr. Oguzhan Bayrak, University of Texas at Austin

The annual meeting of the American Association of State Highway and Transportation Officials (AASHTO) Subcommittee on Bridges and Structures (SCOBS—but soon to be the Committee on Bridges and Structures) took place in June 2017 in Spokane, Wash. During that meeting, the AASHTO Technical Committee T-10, Concrete Design, met to further its work towards improving Section 5 of the AASHTO LRFD Bridge Design Specifications.

This column in the Fall issue typically reports on changes related to concrete design that were approved by AASHTO SCOBS at their annual meeting. However, there were no concrete-related items on the ballot this year because of the major effort required to complete the reorganization of Section 5 that was approved in 2016. Therefore, this article focuses on the upcoming work of the T-10 committee on improving concrete bridge design provisions.

The eighth edition of the AASHTO LRFD specifications will soon be published (they were not published at the time of this writing). This edition contains the complete reorganization of Section 5 to streamline the design provisions that had been modified as new research was completed since the specifications were introduced in 1994. Moving forward, a new edition of the AASHTO LRFD specifications will be published every three years, and no interims will be published. The reduced frequency with which the design provisions will be revised and published will make it easier to keep track of the changes and to implement them in design software and training materials.

For its work in the near term, the T-10 committee decided to consider at least these five working agenda items:

- Shear design provisions for the design of precast concrete girders with ducts in their webs (such as spliced girders and segmental construction)
- Design provisions for welded-wire reinforcement
- Stability of precast concrete girders during storage, transportation, and erection
- Clear-cover requirements applicable to bridge sub- and superstructures
- New approaches to strand debonding limits and bottom flange confinement

These items will be worked on through the course of next year and, if the T-10 committee comes to an agreement, will be balloted during the next SCOBS annual meeting. In the new cycle, the items balloted in June 2018, if approved by the committee, will be published in June 2020 and no interim revisions will be published before this date. The adoption of the balloted/approved agenda items into the state design manuals prior to their publication by AASHTO is at the discretion of each state.

After the 2018 annual meeting, ASPIRE will inform its readers of design provisions that have been approved in the AASHTO LRFD specifications.

Readers are encouraged to send in their questions or concerns to the ASPIRE team and we will provide the necessary clarifications in this corner, as appropriate. We hope you find this update useful. Stay well until the next issue.

For more information on the reorganization of Section 5, see the Winter 2017 issue of ASPIRE for the LRFD article by Montgomery, Bhide, and Freely.

Photo of an old concrete arch bridge in Spokane, Wash., taken by the author in June 2017 while he was attending the American Association of State Highway and Transportation Officials Subcommittee on Bridges and Structures meeting. Photo: Oguzhan Bayrak.