

**KYTC Division of Bridge Maintenance and
ACEC Bridge Design & Maintenance Sub-Committee
Partnering Meeting**

Thursday, April 18, 2013, 10:00 AM – 12:00 PM

Minutes

These minutes provide an outline of discussions at the Division of Bridge Maintenance and ACEC Bridge Subcommittee partnering meeting held at the Transportation Cabinet Office Building. Those in attendance were:

Josh Rogers	Division of Bridge Maintenance
Erin Van Zee	Division of Bridge Maintenance
David Tipton	Division of Bridge Maintenance
David Deitz	Palmer Engineering
Pete Szak	Florence & Hutcheson, Inc.
Aaron Stover	Michael Baker
Craig Klusman	URS
David Depp	Johnson, Depp & Quisenberry
Doug Burton	Lochner
Scott Ribble	Burgess & Niple

Discussion topics included:

1. Design Code Preferences:
 - a. Bridge Rehabilitations: Bridge Maintenance prefers the use of the same design philosophy/code, ASD, LFD, or LRFD, and Live Load, HS-20, HS-25, HL-93, or 1.25*HL-93, that was used in the original design. In some cases, LFD is used for the rehabilitation design of a bridge that was originally designed using ASD.
 - b. Load Ratings: Bridge Maintenance prefers the use of the same design philosophy/code that was used in the original design, LFD or ASD for load ratings. Operating and Inventory Ratings are based on an HS-20 Live Load. The Division has not switched to LRFR yet.
2. Prequalification for Bridge Inspection and Rehabilitation Contracts: In the past, prequalification for the Design of Structures Greater than 500 ft has been required on combined bridge inspection and rehabilitation contracts for long span structures. In some cases, rehabilitations for long span structures might only be required for secondary members, such as floor beams or stringers, instead of main load carrying members. The fact that rehabilitation of secondary members might not require the 500 ft prequalification and the possibility of creating a new prequalification was discussed.

3. **General Maintenance for Specific Bridge Elements:**

- a. Expansion Joints: In general, it is best to avoid/eliminate joints if possible. The Division is moving away from compression seals. They have found that some varieties do not perform well. Strip seals seem to perform better but other options are currently being considered.
- b. Highly Skewed Integral Abutments: Some bridges have been designed and built with skewers on the order of 60 degrees, avoiding the need for expansion joints. The specific districts are assessing the performance of these bridges.
- c. Elastomeric Bearing Pads: The Division has had relatively few problems with this type of bearing.
- d. Masonry Coating/Concrete Sealer: The Cabinet is going to conduct a study with three different types of coating on a bridge in downtown Louisville in the near future.
- e. Preventative Maintenance: The Division is performing more preventative maintenance for bridges such as greasing bearings, sealing decks, powerwashing girders, etc.

4. Future Advertisements: A District 6 joint replacement project will likely be advertised early next year. The possibility of a future Statewide Maintenance or Statewide Inspection/Maintenance/Rehabilitation contract was discussed.

5. Continuing Education:

- a. The Cabinet will be holding climbing school in May at McKee.
- b. A Fracture Critical course will be scheduled soon.
- c. The Cabinet is coordinating an upcoming InRoads Class with ACEC.
- d. The Division requests continuing education information from consultant's Inspection Team Leaders to keep prequalifications up to date. KYTC does not currently have any requirements or require any specific classes at this time.

6. **Miscellaneous Load Rating Topics:**

- a. KYTC is required to rate structures with lengths of 20 ft or longer.
- b. The Division uses LARS software for load ratings.
- c. Bridge Maintenance has discussed the inclusion of load rating information in bridge plans for new bridges with the Division of Structural Design. No formal decisions or procedures have been established regarding this.
- d. The Division prefers to rate structures based on the shop drawings, however, they are not always available. They have had difficulty rating some prestressed concrete bridges due to confusion in the original design plans. Some common difficulties include: Omission of the dimension "z" that denotes vertical strand spacing in beam tables; discrepancies between beam concrete strengths in the general notes and the beam sheet; having different concrete strengths for different spans on multiple

span bridges results difficulties. Designers should be diligent regarding the accuracy of this information in bridge plans.

7. Inspection reports for Fracture Critical bridges must include Fracture Critical Diagrams. These are sometimes omitted from the inspection reports.
8. The Division requested that Consultants be diligent when submitting the necessary paperwork required for prequalification. This includes but is not limited to Inspection Training Certifications and underwater Inspection Credentials.
9. Consultants must be diligent when submitting invoice documentation:
 - a. Verify all paperwork is complete and accurate including correct project numbers
 - b. Include all invoices from sub-consultants
 - c. Hard copies are required for Final Invoices
 - d. Complete all PSC forms.