

Illinois Department of Transportation
Bureau of Bridges and Structures

Prequalified Structural System (PQSS) List
MODULAR EXPANSION JOINTS
February 16, 2024

This list supersedes the 1/19/2024 list.
For Guide Bridge Special Provision GBSP18

For information regarding new system submittals, see pages 2 through 4.

<p>D.S. Brown Company 300 East Cherry Street North Baltimore, Ohio 45872 T1 Date Approved: August 28, 2023 T2 Date Approved: January 18, 2024 Contact Name: Adam Wellington Phone Number: 419-257-5472 Systems: "Steelflex IL-23" T1 "Maurer IL-23" T2</p>	<p>Watson Bowman Acme Corp. 95 Pineview Drive Amherst, NY 14228 T1 Date Approved: October 19, 2023 T2 Date Approved: January 3, 2024 Contact Name: Paul Pumm Phone Number: 716-817-5494 Systems: "WaboModular STM" T1 "WaboModular Beta" T1 "WaboModular BetaPlus" T2</p>
<p>D.S. TechStar Inc. 1219 West Main Cross Street Findlay, Ohio 45840 T1 Date Approved: January 18, 2024 T2 Date Approved: February 8, 2024 Contact Name: Del Brown Phone Number: 419-424-0888 Systems: "MEJ T1" T1 "MEJ T2" T2</p>	

Note: T1 = Standard Modular Joint Type
T2 = Swivel Modular Joint Type

Domestic Steel Act Applies:

All iron and steel products, which are to be incorporated into state projects shall be domestically manufactured or produced and fabricated. The Contractor shall obtain from the iron or steel producer and/or fabricator, in addition to the mill analysis, a certification that all iron or steel materials meet these domestic source requirements. The application of all coatings, epoxy, galvanizing, painting, etc., to metal products shall be domestically applied.

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Submittal Requirements for Evaluation and Pre-Qualification

A. Scope

Before a modular expansion joint can be used on a Department project, the system shall be reviewed and pre-qualified for general use, and the manufacturer/supplier shall have a producer/supplier number assigned to their facility (see approval procedures at <https://idot.illinois.gov/doing-business/material-approvals/producer-and-supplier-approval.html>). The following guidelines are provided to clarify the submittal requirements and expedite the process. Any modifications to the requirements below, such as detail updates and updates to applicable code requirements will require resubmittal and recertification.

B. Procedure

Companies interested in being considered pre-qualified to supply modular expansion joints as specified in the Guide Bridge Special Provision for Modular Expansion Joints (GBSP18) shall provide an electronic copy of a system review package to the Department at DOT.Bridge.ProductEvaluations@Illinois.gov for review and evaluation. As a minimum, the system review package should contain the following:

1. Acknowledgement by Company Form [BMPR 101](#) (locate the form [here](#), right-click and "Save link as..." to download a working copy and open in a separate PDF editor). If your company does not already have a product included on an IDOT PQSS, please submit a signed copy of the company acknowledgement form with your product submittal.
2. Modular expansion joint name and company name to be listed on the specification and other contact/address information.
3. Contact information (name, email address, and phone number) for an engineer or other knowledgeable representative that is available to assist designers during the design phase.
4. A copy of your company's current AISC certification.
5. Weld Procedures Specifications & supporting Procedure Qualification Records.
6. A list of past projects which used your company's modular expansion joint system, including owner's name and phone number.
7. *Evidence and documentation of passing opening movement and vibration testing per Section 19, Appendix A19, Article 5.1 of the AASHTO LRFD Bridge Construction Specifications, [4th edition and interims](#).
8. *Evidence and documentation of passing a seal Push-out test per Section 19, Appendix A19, Article 5.2 of the AASHTO LRFD Bridge Construction Specifications, [4th edition and interims](#).
9. *Evidence and documentation of passing Fatigue testing per Section 19, Appendix A19, Article 5.3 of the AASHTO LRFD Bridge Construction Specifications, [4th edition and interims](#).

[*Note \(Items 7, 8, and 9\):](#) if the Company has existing evidence/documentation previously on file with the Department for AASHTO LRFD Bridge Construction Specifications tests, Company Quality Verification Statements (Form [BBS 2755](#); see Step 1 above for form instructions) may be submitted in lieu of items 7, 8, and 9. The Department reserves the right to request brand new testing for future pre-qualification or re-certification.

10. Typical shop drawings, notes and plan details including:
 - a. The support box configuration and details.
 - b. Support box spacing.
 - c. Fabrication, handling details.
 - d. All material specifications.
 - e. Center beam and support bar connection details.

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- f. Any center beam splicing details.
 - g. Minimum deck blockout requirements to accommodate the joint system.
 - h. All relevant cross sections of joint system and its major components.
 - i. Joint opening adjustment procedures.
 - j. Sidewalk, median, and parapet detailing.
 - k. Coating details.
11. Design Standards and computations: All example computations shall be sealed by an Illinois Licensed Structural Engineer and shall be according to the latest IDOT Bridge Manual requirements, Guide Bridge Special Provision, and the AASHTO LRFD Bridge Design Specifications. As a minimum, the following should be addressed:
- a. Maximum vertical, transverse, and horizontal rotations, and displacements.
 - b. All material design strength assumptions.
 - c. Concrete anchorage design assumptions and calculations for both the support boxes and the edge beams.
 - d. Minimum deck reinforcement requirements.
 - e. Any design limitations such as maximum, skew, support bar spacing, etc.
12. Any test data or research to support the computations and use of specific values.
13. All materials specifications.
14. A Construction Manual with erection sequence guidance.
15. Any design manuals, case histories, and brochures should be included to provide insight into the system and applications.
16. To complete your pre-qualification process, the [material code you propose to utilize at the fabrication plant\(s\) supplying your product](#) needs to be approved by the Bureau of Materials and Physical Research. The material code is 62106.

Please see the following link:

<https://idot.illinois.gov/doing-business/material-approvals/producer-and-supplier-approval/obtain-approval.html>

If you have any questions concerning the specification or the requested information, please contact the Policies, Standards and [Final Plan Control](#) Unit at DOT.Bridge.ProductEvaluations@Illinois.gov.

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C. Recertification

Companies are required to recertify their joint systems on a five-year cycle in order to remain on the prequalified product list. It is the responsibility of the modular joint producer to monitor when their joint system prequalification expires and to resubmit for approval 3 months prior to the expiration date. Each joint system submitted for recertification shall have some sort of version tracking included in the name (e.g. ver. 12-2022). This is applicable for the standard five-year recertification and any recertification required due to joint detail or code modifications. This will allow the Department to easily verify that the joints shown in shop drawings are the currently approved version. The Department reserves the right to remove any system based on past performance. In addition, it is the responsibility of the manufacturer/supplier to inform the Department of any changes in design or component information, contact information, etc. If it is discovered that changes have been made without informing the Department, the Department reserves the right, depending on the severity of the omission, to remove that system from the pre-qualified list.

Presence on this list does not exempt the manufacturer/supplier from meeting all the job specific submittal requirements and all the material requirements specified including component testing and/or material certifications as applicable.