

PennDOT e-Notification

Bureau of Solutions Management
Highway Applications Division



BPLRFD

No. 007
August 19, 2019

Release of Version 1.9.0.0

The Department's LRFD Bearing Pad Design and Analysis (BPLRFD) program has been revised as described in the attached "Summary of June 2019 Revisions – Version 1.9.0.0".

The new version has been placed on PennDOT servers for use by the Districts. Consultants and others, who have a current license agreement for **BPLRFD Version 1.8.0.0**, can obtain the updated version by submitting an [Update Request Form](#) along with an **update fee of \$300 for private organizations and \$50 for governmental agencies**. Updates for **BPLRFD Version 1.7.0.0 or earlier** will require an **additional fee**. For BPLRFD update fee details, refer to the [BPLRFD Fee Schedule](#). The update fee is waived for federal and state transportation agencies.

Once payment is received, an e-mail will be sent with download instructions. A valid e-mail address must be provided on the Update Form to receive the download instructions.

Please direct any questions concerning the above to:

Robert F. Yashinsky, P.E.

*PA Office of Administration | Infrastructure and Economic Development
Bureau of Solutions Management | Highway Applications Division
Phone: (717) 787-8407 | Fax: (717) 705-5529
e-mail: ryashinsky@pa.gov*

Attachment

Archived copies of all previously distributed e-Notifications can be obtained from the PENNDOT LRFD and Engineering Programs website at <http://penndot.engrprograms.com/home> and clicking on "e-Notification" and then "Mailing List Archives."

SUMMARY OF JUNE 2019 REVISIONS - VERSION 1.9.0.0

Since the release of BPLRFD Version 1.8.0.0 several revision requests and user requested enhancements have been received. This release of BPLRFD Version 1.9.0.0 contains the following revisions and enhancements.

Program Input Revisions

1. Several new input consistency checks have been added to the ANA command to ensure consistency between the BPD command and ANA command, particularly when creating analysis input files from design run output (Request 113).
2. An input value for elastomer shear modulus has been added to the BPD command. This value can be used to supersede the shear modulus values corresponding to the pad hardness for Method B calculations (Request 120).

Program Output Revisions

3. The echo of the information from the system parameter file to the output file has been revised to add units to the values as well as adding more description to some of the values (Request 105).
4. The program design and analysis output now includes units for all values where it is appropriate (Request 106).
5. A warning will no longer print if the span length applicability limit from DM-4 14.7.6.4P is exceeded for the analysis of a bearing pad with a dowel at the fixed end of a box beam (Request 114).
6. The output for HORIZONTAL SHEAR FORCE DUE TO THERMAL MOVEMENT FOR SUBSTRUCTURE DESIGN now includes units and an advisory that the shear force is the total shear force from both pads when two pads are present (Request 115).

Specification Checking Revisions

7. The user now has the option to design or analyze the bearing pads using design Method B from the LRFD Specifications Section 14.7.5. The user also has the option in a single run to first attempt a design using Method A, then, if a design cannot be found, attempt the design using Method B (Request 072).
8. The minimum shim steel thickness has been changed to 0.1196", equivalent to the actual thickness of 11 gauge carbon steel (Request 121).

User's Manual Revisions

9. The description of the TOL command and its parameters have been clarified to indicate that the input values should also include rotation due to dead loads (Request 116).
10. The contact information and revision request forms in Chapter 9 of the User's Manual have been revised and consolidated into a single form (Requests 119 and 122).