

PENNDOT e-Notification

Bureau of Business Solutions and Services
Highway/Engineering Application Division



BXLRFD

No. 014
July 15, 2013

Release of Version 2.5.0.0

The Department's LRFD Box Culvert Design and Rating Program (BXLRFD) has been revised as described on the attached Summary of May 2013 Revisions.

The new program has been placed on PENNDOT servers for use by the Districts. Consultants, governmental agencies and others, who have a current license agreement for BXLRFD, can obtain Version 2.5.0.0 by submitting a Software Update Request form with the appropriate update fee. Updates for BXLRFD Version 2.4.0.0 require an update fee of \$200 for consultants and \$50 for governmental agencies and educational institutions. Updates for BXLRFD Version 2.3.0.0 or earlier require an additional fee documented on the BXLRFD update fee details page (<http://penndot.engrprograms.com/home/Ordering/BXLRFD.htm>). No update fee is required for Federal and State Transportation Agencies.

The forms for Software Update Request and Request for PennDOT's Engineering Software License can be downloaded from the web site at <http://penndot.engrprograms.com>.

Please note that the software will no longer be provided on a CD. Once payment is received, an e-mail will be sent with download instructions. The new installation will require a License Key that will be provided in the e-mail. A valid e-mail address must be provided on the Update Form in order to receive the download instructions.

Please direct any questions concerning the above to:

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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 MAY 2013 REVISIONS - VERSION 2.5.0.0

Since the release of BXLRFD Version 2.4.0.0 several revision requests and user requested enhancements have been received. This release of BXLRFD Version 2.5.0.0 contains the following revisions and enhancements.

Input Revisions

1. The upper limit for f'c of All Members on the MAT command has been revised to provide input warnings based on whether the structure is Cast-In-Place or Precast. Previously, the program would only issue a warning if the entered f'c would exceed the upper value for Precast only.(Request 214)
2. The default value for "Live Load Code" for design runs of the program has been changed to "E" to ensure inventory rating factors for the ML-80 and TK527 vehicles > 1.0 as specified by DM-4 Sections 3.6.1.2.8P and 3.6.1.2.9P. Additionally, if the user specifies a live load code other than "E" for a design run, a warning message will appear in the program output: The default live load code for analysis runs remains unchanged as code "A". (Request 225)

Output Revisions

3. The program has been revised to generate Live Load Ratings for an analysis run with and without Future Wearing Surface in a single run. Previously, the user would have to generate two sets of rating values by running the program twice.(Request 206)
4. The program has been revised to generate a new output table, named Combined Load Ratings Summary, which shows in one table the controlling rating for each of the different live loads. The table also includes the component and location where the controlling rating occurs. Previously, the user had to review multiple tables to determine the controlling rating for each live load.(Request 210)

Reinforcement Revisions

5. The program has been revised to accommodate the use of high strength reinforcement. When the reinforcement grade exceeds 60 ksi, Chief Bridge Engineer approval is required and limitations are placed on fy for flexure, axial and shear based on the AASHTO LRFD Section C5.4.3.3. Previously, the user could enter values larger than 60 ksi for fy and the program would perform all calculations with the entered reinforcement

SUMMARY OF MAY 2013 REVISIONS - VERSION 2.5.0.0

grade.(Request 204)

Serviceability Revisions

6. The program has been revised to prevent an erroneous serviceability failure on the Serviceability Spacing Summary table which was occurring when the Serviceability Spacing Check table was turned off on the OUR command. (Request 213)