

# PENNDOT e-Notification

Bureau of Information Systems  
Application Development Division



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## ABLRFD

No. 007

January 17, 2007

**Release of Version 1.5.0.1**

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The Department's LRFD Abutment and Retaining Wall Analysis and Design Program (ABLRFD) has been revised as described in the attached "Summary of January 2007 Revisions – Version 1.5.0.1".

The new program has been placed on PENNDOT servers for use by the Districts. Consultants and others, who have a current license for **ABLRFD Version 1.5.0.0** can download version 1.5.0.1 **free** of charge from our support website at <http://penndot.engrprograms.com>. Installation instructions are provided at the website. Updates for **ABLRFD Version 1.4.x.x** will require an **update fee** of \$500 for private organizations and \$50 for governmental agencies. Updates for ABLRFD Version 1.3 or earlier will require an additional fee. Update Requests and Ordering Forms for PENNDOT's Engineering Software can also be downloaded from the website.

As noted in Item 1 of the attached list of revisions, a problem introduced in ABLRFD v1.5.0.0 may result in an incorrect footing heel shear calculated at the face of the stem. The program computes heel shears at several locations and reports the controlling shear for each limit state. If the incorrect heel shear controls, it will be greater than the actual maximum heel shear so any footing designs produced by ABLRFD v1.5.0.0 will be conservative. Footings designed with previous versions of the program when checked with v1.5.0.0 may result in heel shear performance ratio deficiencies. ABLRFD v1.5.0.1 corrects this problem.

Please direct any questions concerning the above to:

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Attachment

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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 JANUARY 2007 REVISIONS - VERSION 1.5.0.1**

Since the release of ABLRFD Version 1.5.0.0 several revision requests have been received. This release of ABLRFD Version 1.5.0.1 contains the following revisions.

1. The heel shear at the face of the stem has been corrected to use the Vertical component of the partial Horizontal Earth Pressure (EH-V) force. Previously, the program was incorrectly using the EH-V force calculated from the full height of the abutment or wall (Request 233).
2. The program has been modified to prevent debug messages from being displayed while the program is running (Request 231).
3. The program has been revised so 50 points of analysis are now used to determine the maximum shear within the heel of the footing (Request 239).