

PENNDOT e-Notification

Bureau of Information Systems
Application Development Division



ABLRFD

No. 009

April 14, 2008

Release of Version 1.7.0.0

The Department's LRFD Abutment and Retaining Wall Analysis and Design (ABLRFD) program has been revised as described in the attached "Summary of February 2008 Revisions – Version 1.7.0.0".

The new version has been placed on PENNDOT servers for use by the Districts. Consultants and others, who have a current license agreement for **ABLRFD Version 1.6.0.0**, can obtain the updated version by submitting an Update Request form along with an **update fee of \$500 for private organizations and \$50 for governmental agencies**. Updates for **ABLRFD Version 1.5.x.x or earlier** will require an **additional fee**. For ABLRFD update fee details, refer to the following link: <http://penndot.engrprograms.com/home/Ordering/ABLRFD.htm>.

The Software Update Request form can be obtained on the PENNDOT Engineering Software Support website at <http://penndot.engrprograms.com> by clicking on "Ordering/Updating" and, then on, "Update Form".

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 FEBRUARY 2008 REVISIONS - VERSION 1.7.0.0

Since the release of ABLRFD Version 1.6.0.0 several revision requests and user requested enhancements have been received. This release of ABLRFD Version 1.7.0.0 contains the following revisions and enhancements.

Input Revisions

1. A new input has been added to the OUI command to show the Factored Forces and Moment Axial Interaction Forces for each designed stem bar at the cutoff location. Previously the program would only show these forces for the largest cutoff stem bar. (Request 184k)
2. The program has been revised to allow up to 512 characters to be entered on an input command line. (Request 194)
3. The program has been revised so a warning message is shown if the Datum is set on the CTL command for an analysis run. (Request 221)
4. New input items for the "Loads on Retaining Wall (LRT)" command have been added to the program. The new loads allow for the addition of dead load due to a noise wall and wind on an external structure. (Request 224)
5. The upper limit of the DC load on the LAB command has been increased to accommodate higher loads. (Request 246)
6. The program has been revised to properly calculate the default minimum footing width when the toe and/or heel projection inputs on the FTG command are left blank for pile/caisson design runs. Previously, under certain conditions, the calculated minimum footing width could be incorrect which would cause the program to stop with an error. (Request 262)

Output Revisions

7. The program has been revised so cutoff information will not be shown in the "Reinforcement Design Details" Table for stem bars which cannot be cutoff. (Request 184j)
8. The "Reinforcement Summary for Design" output table for pedestal foundations has been restored in the program. This output table was accidentally disabled starting with ABLRFD Version 1.4. (Request 191)

9. A Specification Check Warning and Specification Check Error Table have been added to the ABLRFD program. (Request 222)
10. The program has been enhanced so the eccentricity check will now be shown in the output tables as an allowable eccentricity and an eccentricity performance ratio. (Request 223)
11. An error message relating to footing width in the output has been revised so the message will not be truncated. (Request 226)

Stem Cutoff Changes

12. The program has been modified so the Type II Abutment will now set stem locations at quarter points using the seat level as the top of stem. Previously the program would set Stem Location A at the stem notch and then set the remaining stem locations at third points. (Request 184h)
13. The program has been enhanced to consider the weight of stem bars including cutoffs when determining the most economical bar size and spacing during a design run. (Request 184i)

User Manual Changes

14. A typographical error has been fixed in User Manual Section 3.4.1.3.1 to correct a referenced DM-4 Article. (Request 234)
15. Documentation has been added to Users Manual to describe the Footing Stem Increment parameter on the FTG Command. (Request 250)
16. The DM-4 and AASHTO Section 10 references in the ABLRFD program have been updated. (Request 261)