PENNDOT e-Notification

Bureau of Design
Bridge Quality Assurance Division

PAPIER

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Issues Involving Use of UCL Command

The following two issues have been recently identified in Version 1.1 of the PAPIER computer program involving use of the UCL command:

1) If user-specified loads are applied to the solid shaft portion of a 'SS' type pier (via the UCL command with Parameter 2 entered as 'SS') and if loads for only one user load case are specified, the program will terminate with the following error message: `"FE load case number is zero – LDEGFTYP"`.

2) If user-specified **concentrated** loads are applied near the bottom of a column or solid shaft (via the UCL command with Parameter 5 entered as 'C'), the program may terminate with the following error message: `"# of f.e. load cases not in sync-CPRUCLC2"`.

Issue 1 is the result of a simple typographical error in the source code handling the application of user-specified loads on a solid shaft. The fix has been made and will be incorporated in the next program release.

Issue 2 is the result of the program inadvertently using the integer form of the column member length instead of the double precision form when determining to which column element the load is applied (a column can be made up of multiple F.E. elements, such as when there is a cross-section change.) Note that this error only affects concentrated loads and not distributed loads. The fix has already been made and will be incorporated into the next program release.

No release date has been set yet for the next program version.

WORK-AROUND

The following work-arounds have been identified:

- For Issue 1, specify user loads for both User Load Case 1 and User Load Case 2. The loads for User Load Case 2 can be considered dummy loads since they will not be considered by the program unless explicitly included in a limit state/group load via the LFR or LFF command.

- For Issue 2, convert the concentrated load into an "equivalent" (approximately) distributed load. For example, if a 400-kip concentrated load is to be applied at the base of a column, then specify it as an 8000 kip/ft uniform load distributed over 0.05 ft.

Direct any questions concerning the above issues to:

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