

**Bureau of Project Delivery
Bridge Design and Technology Division**

BRADD

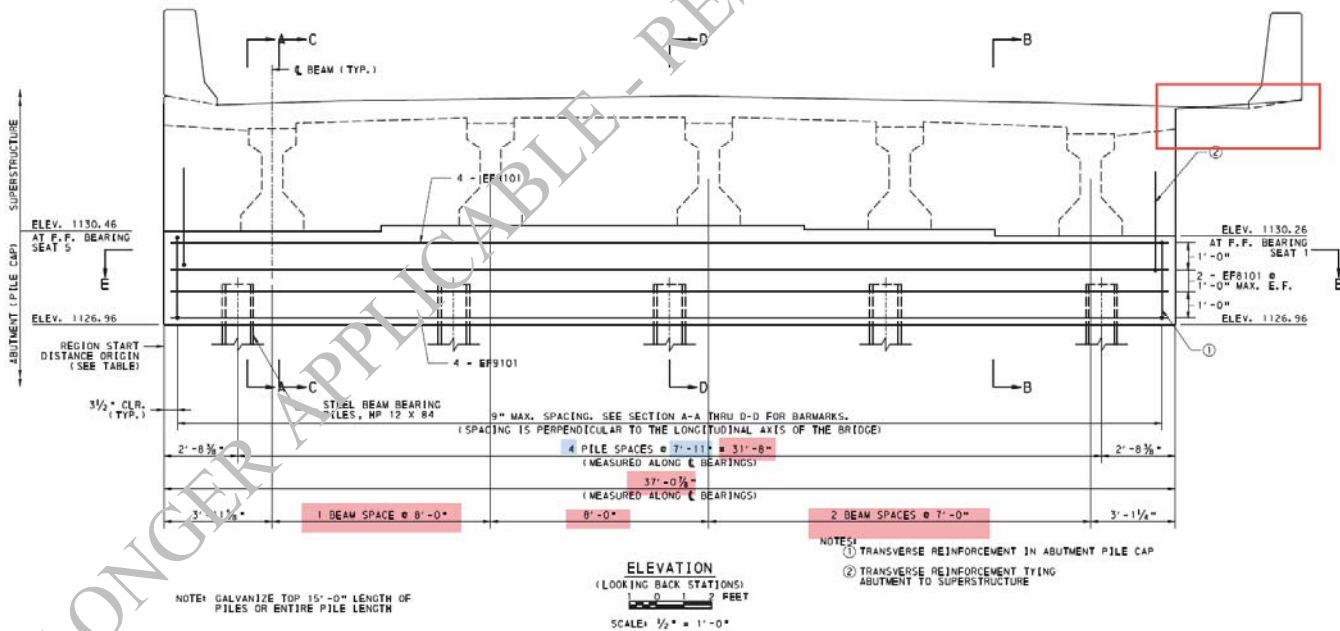
No. 048
March 9, 2018

BRADD v3.2.4.0: Integral Abutments w/ Staged Construction; Abutment Details, Barrier Overhangs Abutment – Patch Available

Problem Statement:

Under certain conditions BRADD version 3.2.4.0 details some integral abutment details incorrectly. For a skewed bridge with integral abutments and a staged construction joint with different beam spacings, BRADD incorrectly details the abutment length perpendicular to the C.L. of bridge instead of parallel to the C.L. of bearing. As a result, on the “Abutment Elevation” detail, the right barrier is detailed overhanging the right end of the abutment and the beam spacings shown are incorrect.

The details shown below were taken from a BRADD job with a 60 degree skew.



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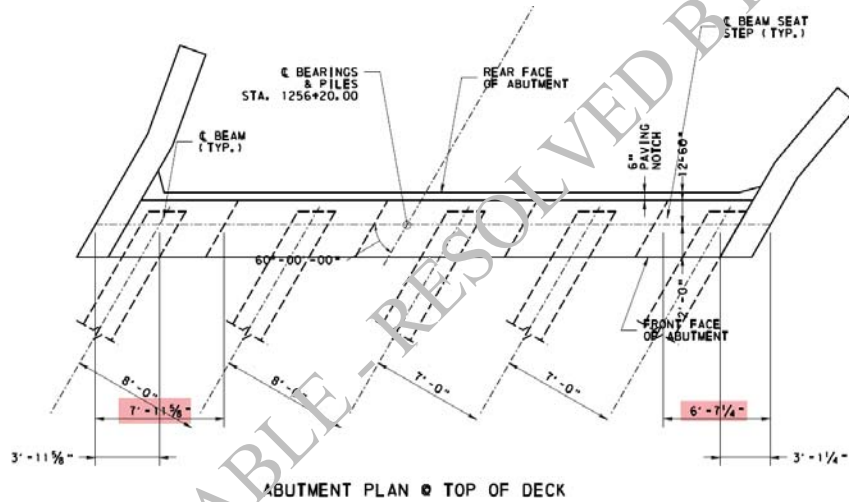
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The overall dimension of the abutment length (measured along the CL Bearing) needs to be revised and some dimensions shown on the “Abutment Plan @ Top of Deck” detail, and the “Pile Cap Transverse Reinforcement Information” table are also impacted. The user input of Number of Piles and Pile Spacing will need to be adjusted accordingly. These pile spacings are displayed on a number of details.



The beam spacing has not been expressed along the C.L. Bearing and all the highlighted numbers above (between the two fascia beams) need to be increased by a factor of 1.155 ($1 / \sin(60^\circ)$)

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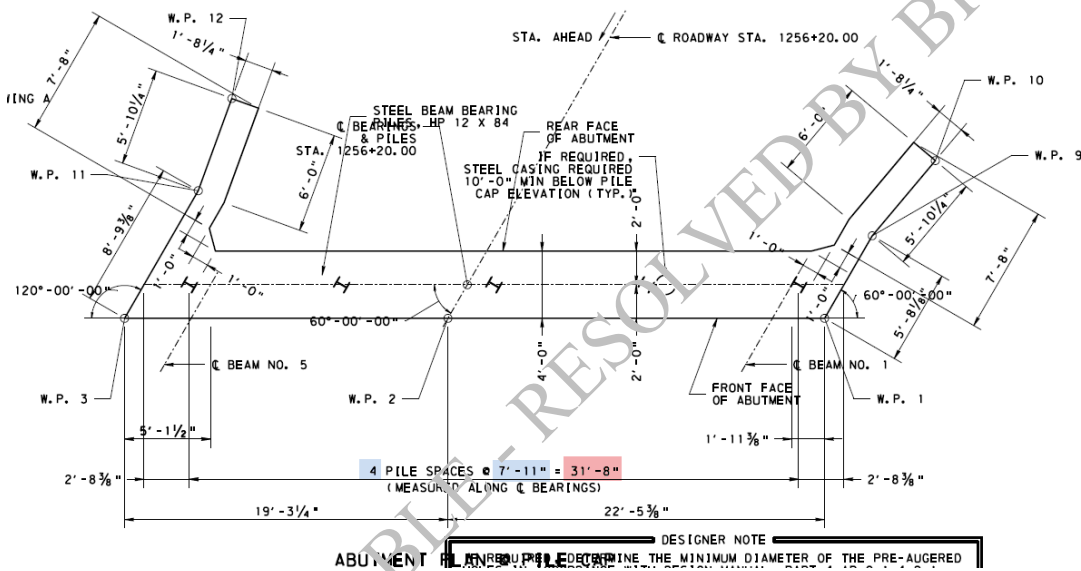
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The overall pile spacing dimensions (measured along the C.L. Bearing) shown on the “Abutment Plan @ Pile Cap” detail also needs to be revised.



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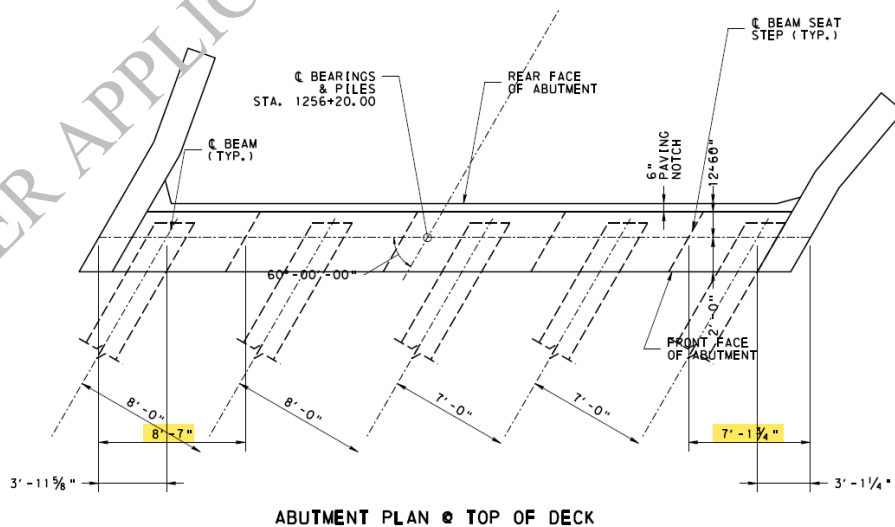
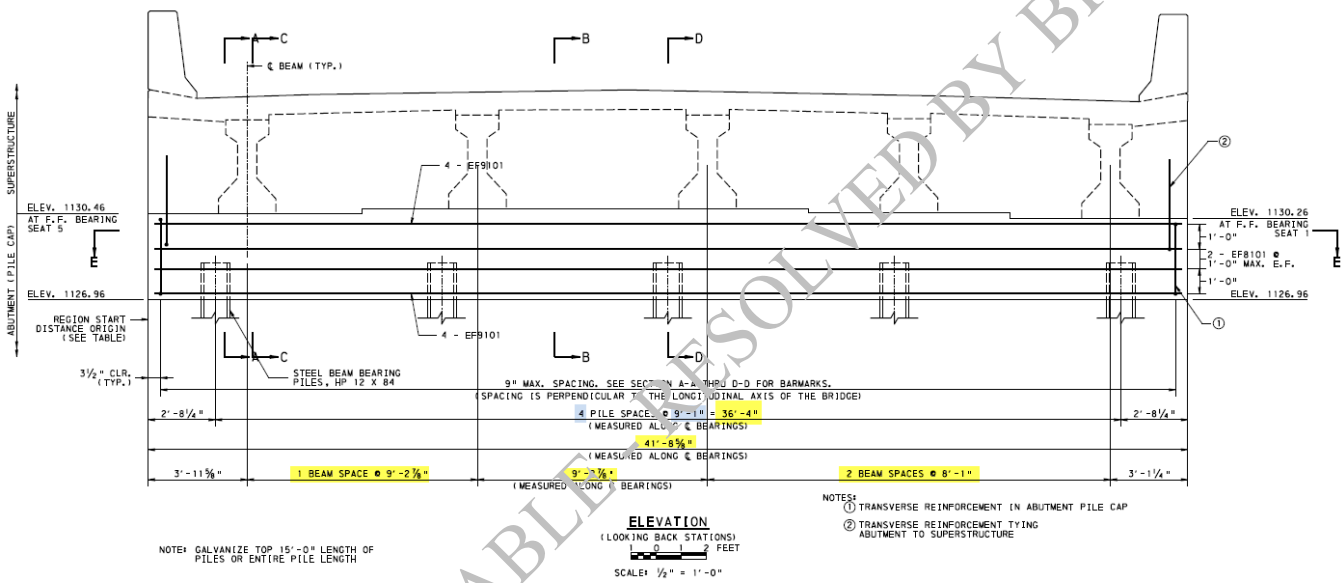
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The details shown below display the corrected dimensions:



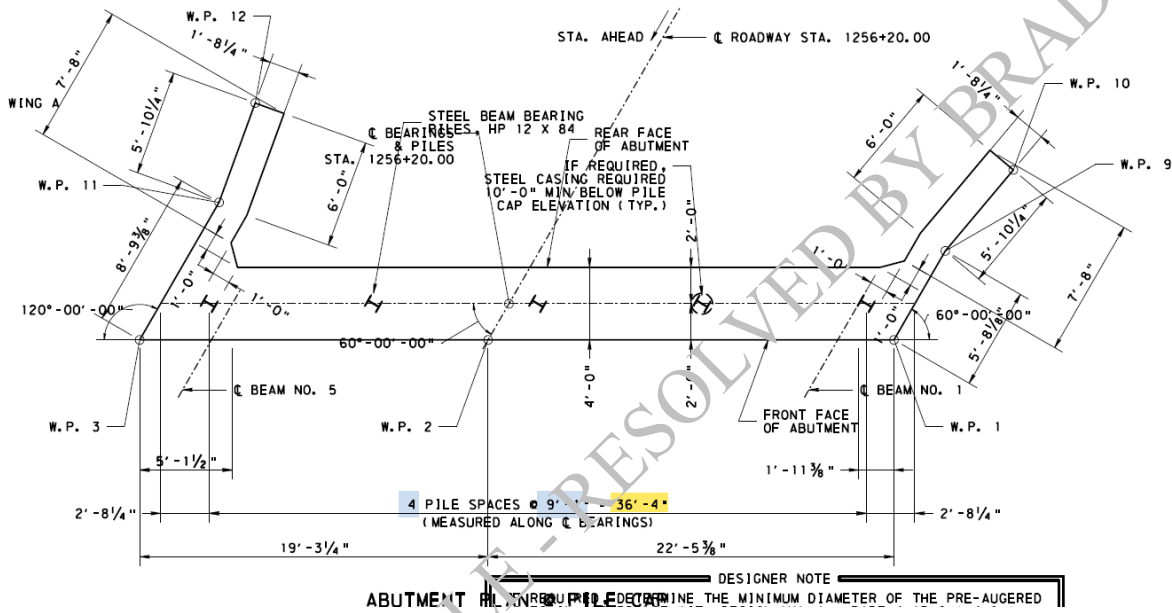
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Problem Workaround:

There is no workaround available because the calculations within the BRADD software are incorrect.

Problem Resolution:

A fix for this problem is available in BRADD patch version 3.2.4.1 which can be downloaded for free as a patch from the BRADD website.

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Downloading and Installing BRADD Version 3.2.4.1 Patch for Licensees:

1. Close any existing instances of the BRADD program.
2. To download the patch, go to the Downloads page on the BRADD web-site at <http://bradd.engrprograms.com> and select to download the BRADD version 3.2.4.1 Patch (BRADD_v3241_Patch.exe).
3. Save the file on the computer with BRADD v3.2.4.0 installed.
4. Run the patch executable, identifying the root folder where BRADD version 3.2.4.0 is installed (like: "C:\Program Files (x86)\BRADD v3.2.4.0\).

Installing BRADD Version 3.2.4.1 Patch for PENNDOT:

PENNDOT's CADD workstations will be updated by CADD Support.

Please direct any questions to:

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