

Subject: **Important News on Deck Code Options**
Sent: 10/7/2016

Deck Code Options in the UDC Revisited SPS 321.225 Decks

The department continues to receive inquiries regarding acceptable methods of deck construction allowed by the Uniform Dwelling Code for One and Two Family Dwellings (UDC). An Email blast was previously disseminated by the department to describe the 3 design options available for deck construction. We are sending this correspondence to address questions which arise related to the use of “Option 1” aka SPS 321.225(1), or aka “the Old Code” which has not undergone any change in recent years.

Of particular interest is section s. 321.225(1)(d) that calls for load requirements to comply with the standards established in s. 321.02 for *Loads and Materials*. This section s. 321.02, does not establish prescriptive standards with which to satisfy the code. Rather, in many instances this section requires that structural calculations and analysis be used to demonstrate code compliance.

QUESTION: The department has received numerous inquiries asking why if this code section (SPS 321.225(1)) hasn't changed, are they now being asked to provide structural analysis for their deck designs?

ANSWER: While it may be true that few inspectors had not been asking for such calculations in the past, this requirement has actually been in the UDC since its inception in 1980. The introduction of the prescriptive code options for deck construction in the UDC has definitely brought an increased awareness among inspectors of the specific design needs for proper deck design construction. Inspectors are certainly within their right to require such calculations from designers who choose not to use the prescriptive design codes accepted by the UDC. If you as a designer prefer to not provide structural analysis for your deck design, the UDC provides the various prescriptive design options (2) and (3) mentioned below.

“The department has determined that a deck can be built per the following methods effective January 1, 2016:

OPTION 1

SPS 321.225 Decks. (1) Decks attached to dwellings and any detached decks that serve an exit shall comply with the applicable provisions of subchs. II to X of ch. SPS 321, including all of the following:

- (a) Excavation requirements under s. SPS 321.14;*
- (b) Footing requirements under s. SPS 321.15 (2) (f);*
- (c) Frost penetration requirements under s. SPS 321.16;*
- (d) Load requirements under s. SPS 321.02;*

(e) Stair, handrail and guard requirements of s. SPS 321.04.

(f) Decay protection requirements of s. SPS 321.10.

OPTION 2

SPS 321.225(2) A deck that complies with the standards in ch. SPS 320-325 Appendix B, and ch. SPS 320-325 Appendix C, if applicable, shall be considered as complying with sub. (1). Meaning, you would follow Appendix B and C exclusively.

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OPTION 3

Also, the department has determined that a deck designed and constructed to the DCA6 standard, (Prescriptive Residential Deck Construction Guide-2012 IRC version by The American Wood Council,) would be considered code compliant. The decision was based on several factors which included the following:

-Based on prior analysis by the department, the DCA6 standard met or exceeded Wisconsin Uniform Dwelling Code requirements.

-The DCA6 standard is primarily based on NDS standards, which the Department also adopts in SPS 320.24.

-Finally, utilizing the DCA6 standard would in fact be considered a form of structural analysis which is accepted under the scope of SPS321.02(2).

NOTE: You may not "mix and match" the options, meaning take parts from Appendix B then use parts of SPS 321.225(1)."