ERRATA

to the 2012 Edition of Commentary for the
National Design Specification (NDS) for Wood Construction

(All prior PDF and print versions)

Page  Revision
243  Revise equation C11.2.2-2 as shown in red below:

\[ K_w = 1.2 \left( \frac{14250}{6} \right) \]  \hspace{1cm} \text{(C11.2.2-2)}
January 2021

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to the 2018 and Prior Editions of
the National Design Specification® (NDS®) for Wood Construction

Page 91  Revise footnote 1 in Table 12.5.1D as follows:

1. The $\ell/D$ ratio used to determine the minimum edge distance spacing between rows shall be the lesser of:
   (a) length of fastener in wood main member/D $= \ell_m/D$
   (b) total length of fastener in wood side member(s)/D $= \ell_s/D$
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Page 166

Clarifies that the following calculations in Example E.7 Sample Solution of Row of Bolts is intended for a single-row bolted connection with a 3-1/2" thick main member and 1-1/2" thick side member:

E.7 Sample Solution of Row of Bolts

Calculate the net section area tension and row tear-out adjusted ASD design capacities for the single-shear single-row bolted connection represented in Figure E2.

Main and Side Members:
#2 grade Hem-Fir 2x4 lumber. See NDS Supplement Table 4A – Visually Graded Dimension Lumber for reference design values. Adjustment factors C_D, C_T, C_M, and C_i are assumed to equal 1.0 in this example for calculation of adjusted design values.

F_t' = 525 psi (C_T) = 525(1.5) = 788 psi
F_v' = 150 psi

Connection Details:
Bolt diameter, D: 1/2 in.
Bolt hole diameter, D_h: 0.5625 in.
Adjusted ASD bolt design value, Z||': 550 lbs
(See NDS Table 12A for 3-1/2” main member thickness and 1-1/2” side member thickness. For this trial design, the group action factor, C_g, is taken as 1.0).

Adjusted ASD Connection Capacity, n Z||':

nZ||' = (3 bolts)(550 lbs) = 1,650 lbs

Adjusted For side member, adjusted ASD Net Section Area Tension Capacity, Z_NT':

\[ Z_{NT}' = F_t' \cdot (w - n_{row} \cdot D_h) \]
\[ Z_{NT}' = (788 \text{ psi})(3.5'' - 1(0.5625'')) = 3,470 \text{ lbs} \]

Adjusted For side member, adjusted ASD Row Tear-Out Capacity, Z_RT':

\[ Z_{RT}' = nF_v' \cdot t_{critical} \]
\[ Z_{RT}' = 3(150 \text{ psi})(1.5'')(2'') = 1,350 \text{ lbs} \]

In this sample calculation, the adjusted ASD connection capacity is limited to 1,350 pounds by row tear-out, Z_RT'.
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Page 40

Revise $K_{rs}$ as described in Equation (5.4-3) as follows (replace $d_e$ with $d_c$):

\[
K_{rs} = \text{empirical radial stress factor}
\]

\[
= 0.29\frac{d_c d_c}{R_m} + 0.32 \tan^{1.2} \theta_T
\]
ERRATA to the 2012 Edition of *the National Design Specification® (NDS®) for Wood Construction* (web versions dated 11-11 and 10-12, printed version 10-12)

Page 38  
Revise Equations 5.3-4 and 5.3-5 as follows:

\[
C_i = \frac{1}{\sqrt{\left(\frac{F_t \tan \theta}{F_c} \right)^2 + \left(\frac{F_b \tan \theta}{F_c} \right)^2}} \quad (5.3-4)
\]

\[
C_i = \frac{1}{\sqrt{\left(\frac{F_t \tan \theta}{F_c} \right)^2 + \left(\frac{F_b \tan \theta}{F_c} \right)^2}} \quad (5.3-5)
\]

Page 82  
Revise the last sentences in Section 11.3.5.2 as follows:

“Where p includes the length of a tapered tip, E, the dowel bearing length, \( e_s \) or \( e_m \), shall not exceed p – E/2.

a) For Lag screws, \( E \) is permitted to be taken from Appendix L, Table L2.

b) For wood screws, nails, and spikes, \( E \) is permitted to be taken as 2D.
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Nails and spikes shall not be loaded in withdrawal from end grain of wood.