

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
1202 Mail Service Center, Raleigh, NC 27699-1202
919-647-0000**

Log Structures

Code: 2018 Residential Code
Section: R301.1.1

Date: March 20, 2019

Question:

Can a log home be constructed to the structural requirements of ICC 400-12 and the NC Residential Code (NCRC)?

Answer:

Yes, as far as those codes and standards allow. ICC 400-12 is adopted by reference in NCRC, Section 301.1.1. Both the NCRC and ICC-400 require elements that cannot be prescriptively designed from those documents to be designed by a NC registered design professional. Some of the prescriptive calculations in ICC-400 are complex but do not require a registered design professional. A log home manufacturer that certifies compliance with ICC-400 for materials, elements and methods that are prescriptively included in that document will not require further design by a registered NC design professional. Log materials, elements, and methods that are not prescriptively covered in ICC-400 are required by ICC-400 to be designed by an engineer; in NC that is a NC registered engineer.

Example: A log home design may have logs used for roof rafters spaced 4' on center with purlins. Neither NCRC or ICC-400 address such a design; so, engineering of the spans and fastening will be required.

Keywords:

House, wood