

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
1202 Mail Service Center, Raleigh, NC 27699-1202
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Sill Plate Anchor Bolt Hole Size

Code: 2018 Residential Code

Date: April 10, 2019

Section: R403.1.6

Question:

How large can the hole in the sill plate be for the 1/2" anchor bolt?

Answer:

The code does not address this directly. It is assumed that the hole will not exceed the capabilities of the washer and nut to withstand the same tensile strength as the 1/2" anchor bolt. Also, the compression of the wood fiber around the hole must also be considered. With these factors considered the hole should not exceed the diameter of the anchor bolt plus 2 times the washer thickness. The hole may be elongated in one direction for alignment with the anchor bolt. Half of the diameter of the elongated hole can not be more than two times the thickness of the washer from the outside diameter of the anchor bolt.