

**NC Dept of Insurance
Office of the State Fire Marshal – Engineering Division
1202 Mail Service Center, Raleigh, NC 27699-1202
919-661-5880**

Windborne Debris Protection

Code: 2006 Residential Code
Section: R301.2.1.2

Date: November 30, 2007

Question:

Is windborne debris protection required for windows, doors and glazing in exterior walls of coastal dwellings?

Answer:

Yes. See illustrations on next page for requirements.

Question:

For an existing dwelling, are windows that are replaced required to be protected?

Answer:

Yes, the windows that are replaced must comply with the current code requirements. However, existing windows that are not being altered or replaced may remain as installed originally as permitted.

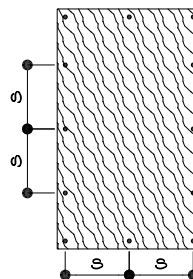
Question:

If the dwelling is added to, such as a sunroom, bathroom, bedroom, etc, it is required to bring the whole building up to code?

Answer:

No, the new addition must comply with the current code requirements. The unaffected existing portion of the building may remain as-is, assuming it complied with the code under which it was originally built.

WOOD STRUCTURAL PANEL FASTENER SCHEDULE			
FASTENER TYPE	FASTENER SPACING "s"		
	PANEL SPAN ≤ 4'-0"	4'-0" < PANEL SPAN ≤ 6'-0"	6'-0" < PANEL SPAN ≤ 8'-0"
#6 WOOD SCREWS	16" O.C.	12" O.C.	9" O.C.
#8 WOOD SCREWS	16" O.C.	16" O.C.	12" O.C.

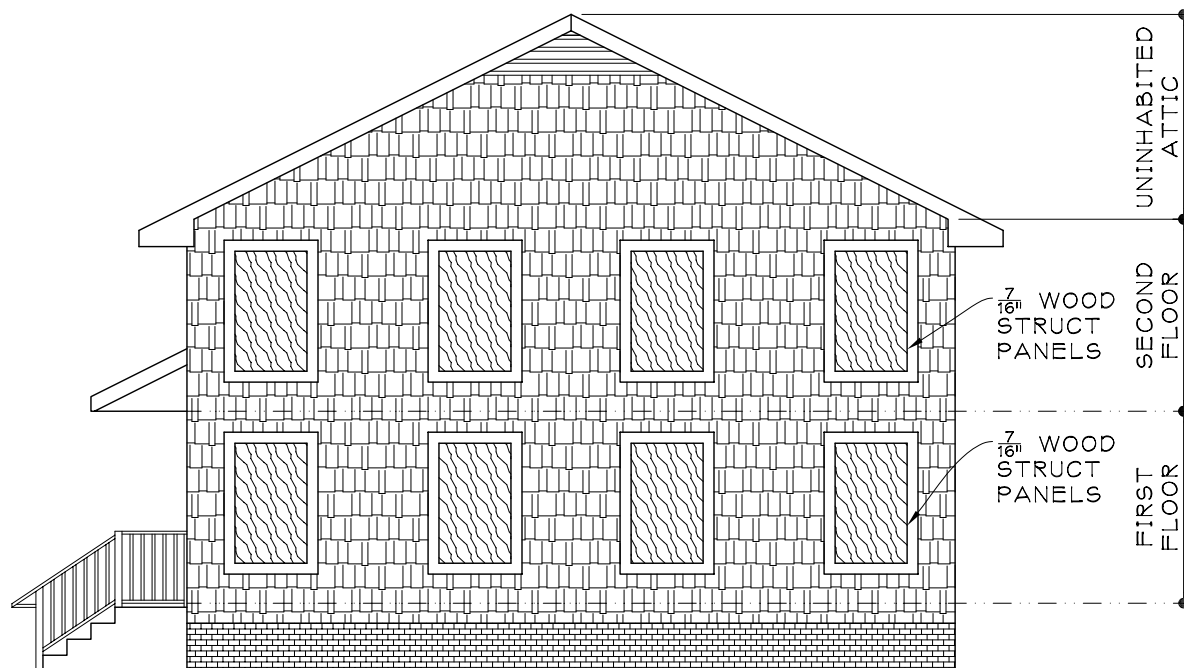


FASTENER NOTES:

- THIS TABLE IS BASED ON 130 MPH MAXIMUM WIND SPEED (3 SEC. GUST) AND A 33 FOOT MEAN ROOF HEIGHT OR LESS.
- FASTENERS SHALL BE INSTALLED AT OPPOSING ENDS OF THE WOOD STRUCTURAL PANEL. FASTENERS SHALL BE LOCATED A MINIMUM OF 1" FROM THE PANEL EDGE. SPECIFIED FASTENERS ARE MINIMUM. PRACTICAL CONSIDERATIONS MAY DICTATE ADDITIONAL FASTENERS.
- FASTENERS SHALL BE LONG ENOUGH TO PENETRATE THROUGH THE EXTERIOR WALL COVERING A MINIMUM OF 1.75" INTO THE WOOD WALL FRAMING, A MINIMUM OF 1.25" INTO CONCRETE BLOCK OR CONCRETE, OR INTO STEEL FRAMING BY AT LEAST THREE THREADS. FASTENERS SHALL BE LOCATED A MINIMUM OF 2.5" FROM THE EDGE OF CONCRETE BLOCK OR CONCRETE.
- WHERE SCREWS ARE ATTACHED TO MASONRY OR MASONRY/STUCCO, THEY SHALL BE ATTACHED UTILIZING VIBRATION-RESISTANT ANCHORS HAVING A MINIMUM ULTIMATE WITHDRAWAL CAPACITY OF 490 LBS.

ALTERNATES TO IMPACT RESISTANT GLAZING:

- DESIGN THE BUILDING AS A PARTIALLY ENCLOSED BUILDING IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE.
- PROVIDE STORM SHUTTERS EVALUATED BY THE ICC-ES. INSTALL THE SHUTTERS IN ACCORDANCE WITH THE EVALUATION REPORT AND THE MANUFACTURER'S INSTRUCTIONS.



NC DEPT OF INSURANCE

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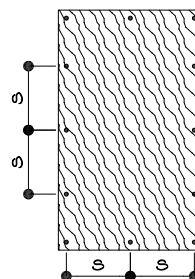


WIND BORNE DEBRIS PROTECTION 2006 NC RESIDENTIAL CODE CODE SECTION R301.2.1.2

ONE OR TWO STORY BUILDING

DATE	DWG NO.	SCALE	REV
10/01/07	1	1/8"=1'-0"	N/A

WOOD STRUCTURAL PANEL FASTENER SCHEDULE			
FASTENER TYPE	FASTENER SPACING "S"		
	PANEL SPAN ≤ 4'-0"	4'-0" < PANEL SPAN ≤ 6'-0"	6'-0" < PANEL SPAN ≤ 8'-0"
#6 WOOD SCREWS	16" O.C.	12" O.C.	9" O.C.
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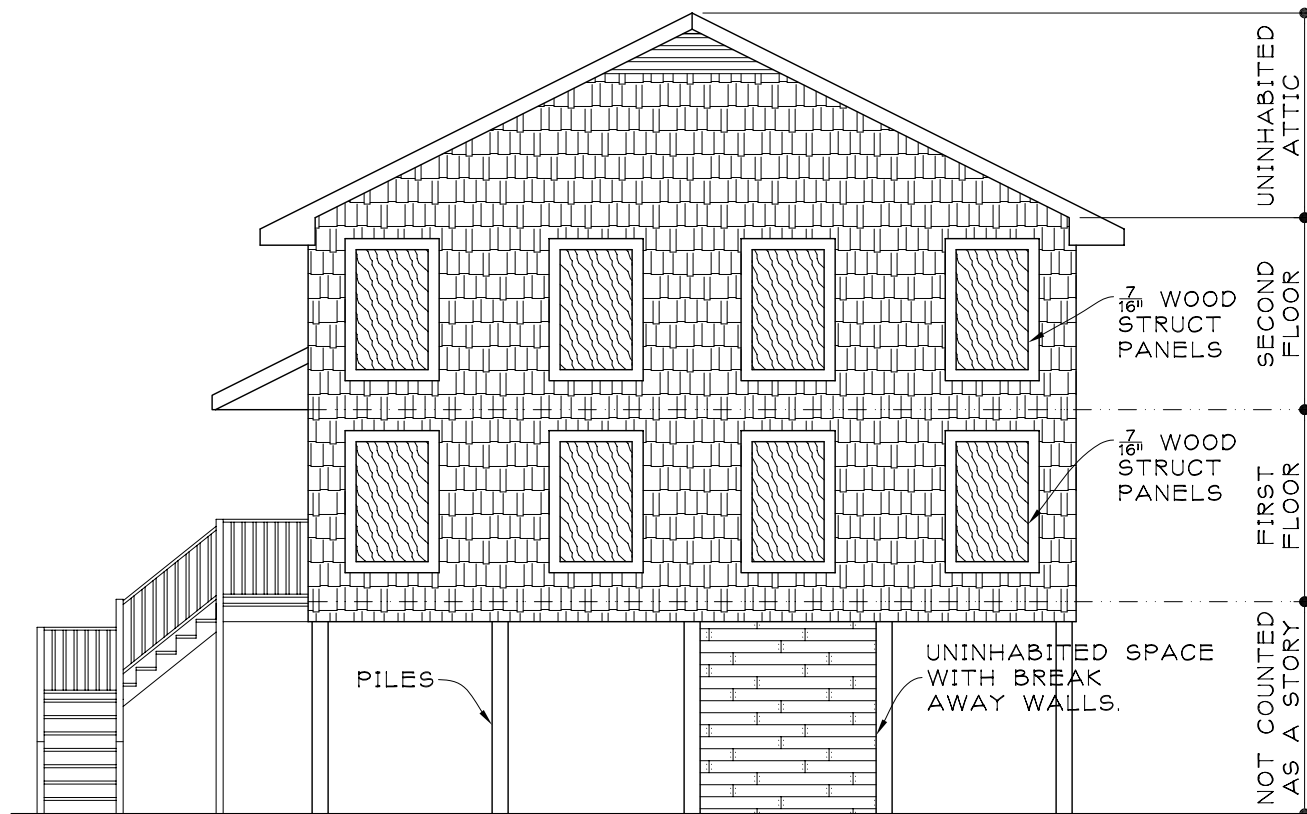


FASTENER NOTES:

- THIS TABLE IS BASED ON 130 MPH MAXIMUM WIND SPEED (3 SEC. GUST) AND A 35 FOOT MEAN ROOF HEIGHT OR LESS.
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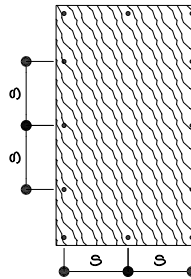


**WIND BORNE DEBRIS
PROTECTION
2006 NC RESIDENTIAL CODE**
CODE SECTION R301.2.1.2

**ONE OR TWO STORY BUILDING
ON PILES**

DATE	DWG NO.	SCALE	REV
10/01/07	3	1/8"=1'-0"	N/A

WOOD STRUCTURAL PANEL FASTENER SCHEDULE			
FASTENER TYPE	FASTENER SPACING "s"		
	PANEL SPAN ≤ 4'-0"	4'-0" < PANEL SPAN ≤ 6'-0"	6'-0" < PANEL SPAN ≤ 8'-0"
#6 WOOD SCREWS	16" O.C.	12" O.C.	9" O.C.
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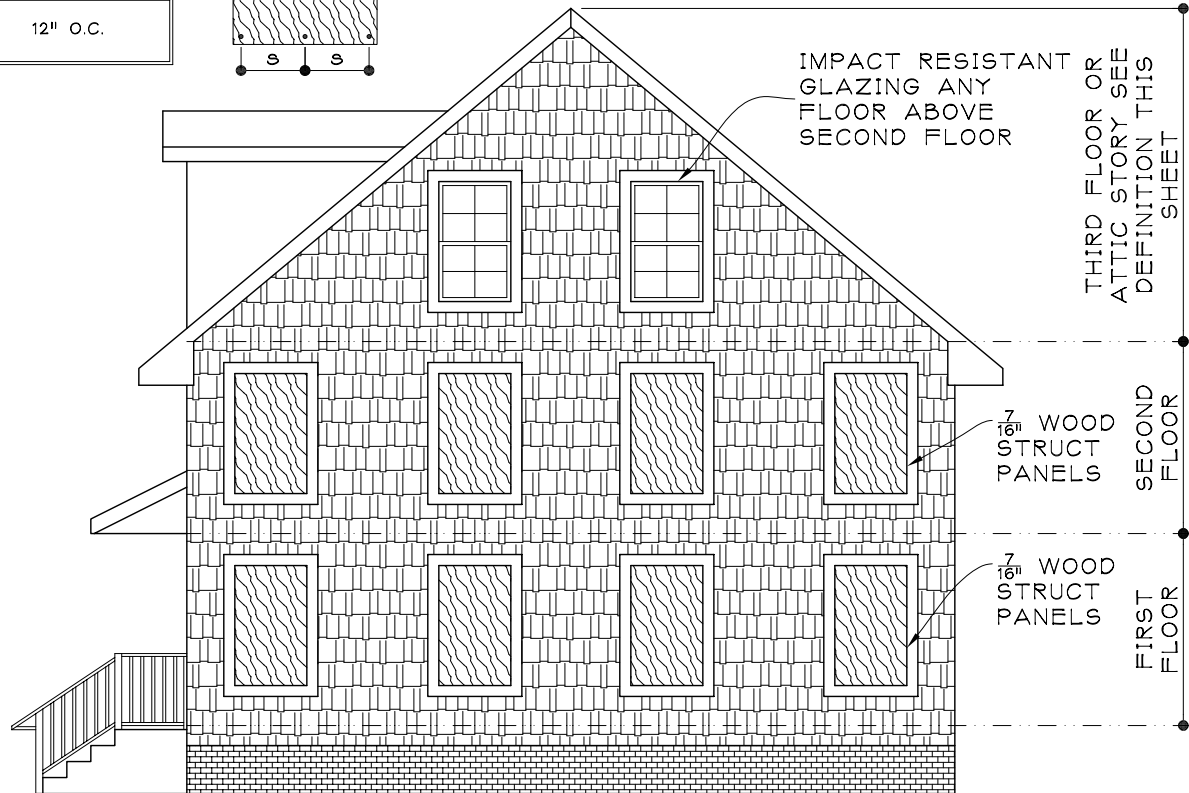
ATTIC STORY:
ANY STORY SITUATED WHOLLY OF PARTLY IN THE ROOF, SO DESIGNATED, ARRANGED, OR BUILT AS TO BE USED FOR STORAGE OR HABITATION. IF AN ATTIC THAT IS ACCESSIBLE BY A FIXED STAIRWAY HAS A SEVEN FOOT CLEAR HEIGHT GREATER THAN 50% OF THE FLOOR AREA OF THE STORY BELOW, THEN THE SPACE SHALL BE CONSIDERED AS A STORY.

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**TWO AND A HALF OR 3
STORY BUILDING**

DATE	DWG NO.	SCALE	REV
10/01/07	2	1/8"=1'-0"	N/A

WOOD STRUCTURAL PANEL FASTENER SCHEDULE

FASTENER TYPE	FASTENER SPACING "s"		
	PANEL SPAN ≤ 4'-0"	4'-0" < PANEL SPAN ≤ 6'-0"	6'-0" < PANEL SPAN ≤ 8'-0"
#6 WOOD SCREWS	16" O.C.	12" O.C.	9" O.C.
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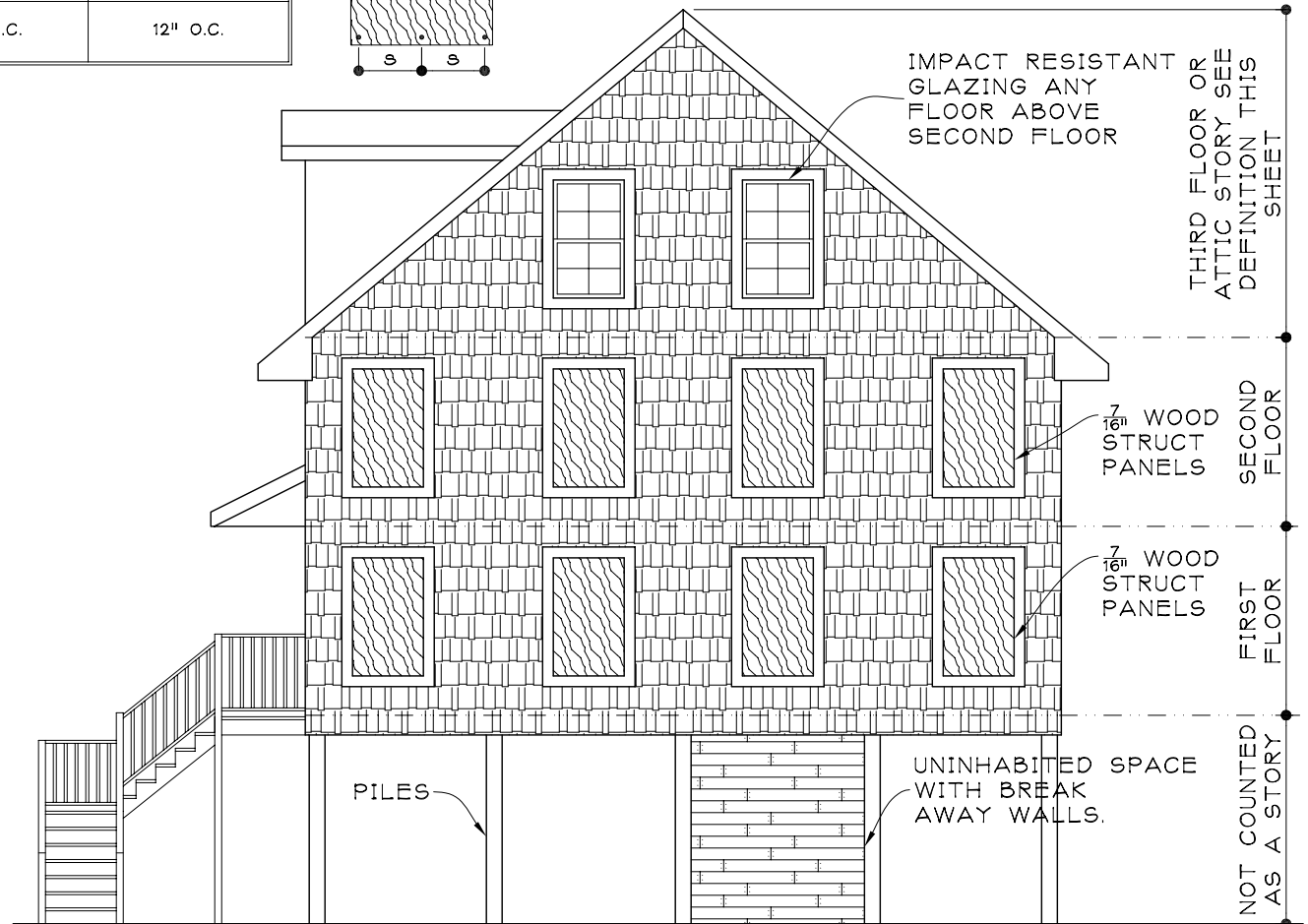
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TWO AND A HALF OR 3 STORY BUILDING ON PILES

DATE	DWG NO.	SCALE	REV
10/01/07	4	1/8"=1'-0"	N/A