



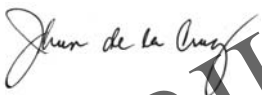
FEMA

W-08086

NFIP Underwriting Bulletin

October 23, 2008

MEMORANDUM TO: WYO Principal Coordinators
and NFIP Servicing Agent

FROM: Jhun de la Cruz 
Chief, Underwriting

SUBJECT: Openings in Foundation Walls and Walls of Enclosures

The purpose of this memorandum is to clarify the alternative measures listed in the *Flood Insurance Manual* for meeting the National Flood Insurance Program (NFIP) openings requirement. This policy memorandum replaces W-08001 issued on January 8, 2008.

The Lowest Floor Guide section of the *Flood Insurance Manual* describes how an enclosure with proper openings can be rated using the elevated floor as the lowest floor. One option for meeting the openings requirement is as follows: "A minimum of two openings, with positioning on at least two walls, having a total net area of not less than one square inch for every square foot of enclosed area." Openings meeting this requirement may be called "non-engineered openings."

The NFIP allows an alternative to such openings, which may be called "engineered openings." For more information about openings, refer to Technical Bulletin 1-08, "Openings in Foundation Walls and Walls of Enclosures Below Elevated Buildings in Special Flood Hazard Areas."

The following text replaces the "Alternative to the Openings Requirement" subsection on page 1 of the Lowest Floor Guide. It describes acceptable alternatives and details the certification and documentation required when engineered openings are used.

2. Alternative to the Openings Requirement Above

For architectural or other reasons, a designer or builder may use an alternative to satisfy the requirement for a building to have openings that provide one square inch per square foot of enclosed area below the BFE. These alternatives, which may be referred to as "engineered openings," must be certified as having been designed to provide automatic equalization of hydrostatic flood forces by allowing for the entry and exit of flood waters. Design requirements and specifications for certification statements are outlined in Technical Bulletin 1-08, "Openings in Foundation Walls and

Walls of Enclosures Below Elevated Buildings in Special Flood Hazard Areas, at
<http://www.fema.gov/library/viewRecord.do?id=1579>.

If engineered openings are used as an alternative, the Write Your Own (WYO) Company or NFIP Servicing Agent must obtain a copy of the following documentation for their underwriting files:

- For engineered openings designed for installation in a specific building, a copy of the certification is required. This certification will verify to community officials that the openings are designed in accordance with the requirements of the NFIP, applicable building codes, and accepted standards of practice. The original certification statement must include the design professional's name, title, address, type of license, license number, the state in which the license was issued, and the signature and applied seal of the certifying registered design professional. In addition, this certification shall identify the building in which the engineered openings will be installed and it shall address the following: (a) a statement certifying that the openings are designed to automatically equalize hydrostatic flood loads on exterior walls by allowing the automatic entry and exit of floodwaters; (b) description of the range of flood characteristics tested or computed for which the certification is valid, such as rates of rise and fall of floodwaters; and (c) description of the installation requirements or limitations that, if not followed, will void the certification; *or*
- For engineered openings for which the ICC Evaluation Service, Inc., has issued an Evaluation Report, a copy of the Evaluation Report is required. This report is required to assure community officials that the openings are designed in accordance with the requirements of the NFIP, applicable building codes, and accepted standards of practice. The Evaluation Report identifies the model numbers of the engineered openings addressed in the report, specifies the number of engineered openings that are required for a specified square footage of enclosed area below the BFE, and lists installation requirements.

If you should have any questions, please contact your Business Analyst.

cc: Vendors, IBHS, FIPNC, and Government Technical Monitor

Suggested Routing: Underwriting, Marketing