



What are the NFIP Technical Bulletins?

FEMA Technical Bulletins (TBs) provide guidance for complying with the minimum National Flood Insurance Program's (NFIP) floodplain management requirements pertaining to building performance. Eleven Bulletins, covering a range of topics, were released from 1993 to 2010. The Bulletins are primarily for use by state and local officials responsible for interpreting and enforcing building codes and NFIP regulations. They are also helpful to design professionals, builders, and homeowners.

How are the NFIP Technical Bulletins changing?

The Bulletins are changing to modernize and streamline their content and presentation. The updated TBs will:

- incorporate relevant information from the latest International Codes® (I-Codes®) and American Society of Civil Engineers (ASCE) Standards,
- provide updated guidance and best practices observed from post-disaster assessments, and
- update known issues based on input from a wide range of stakeholders.

These changes are intended to improve the TBs' usability, credibility, and content while presenting them in a streamlined format.

Overarching additions will include new introductory text, updated tables, figures, photos and references along with a section on applicable codes and standards. All updated TBs will have tables comparing codes/standards to the NFIP regulations. The 2018 I-Codes and ASCE 24-14 are currently being used as the base codes and standards with the changes from the 2015 and 2012 I-Codes and ASCE 24-05 referenced. Incorporating information and references from the most recent consensus codes and standards keep the Technical Bulletins current and aligned with the field's latest concepts and advances.

In recognition of the variety of users of these valuable documents, the TB update process is managed by FEMA Building Science, in coordination with Floodplain Management and Risk Insurance with input from numerous stakeholders. Stakeholders include: FEMA Headquarters, FEMA Regional staff, NFIP State Coordinators, community floodplain management officials, Association of State Floodplain Managers

(ASFPM) representatives, subject matter experts, and industry partners.

The following TBs have been recently updated:

TB 0, User's Guide to Technical Bulletins (2020)



TB 0 describes the purpose and intended use of the Technical Bulletin series, includes common concepts and terms, lists useful resources and contains a subject index.

New features in TB 0 include:

- Sections on how to use the TBs;
- A crosswalk between the NFIP Regulations and TBs;
- A compilation of key terms, useful resources, and supplemental information from succeeding TBs;
- Discussion on four key concepts and requirements for structures: Special Flood Hazard Areas, lowest floor/enclosure/basement, Substantial Improvement/Substantial Damage and coastal waves.

TB 1, Openings in Foundation Walls and Walls of Enclosures Below Elevated Buildings in Special Flood Hazard Areas (2020)

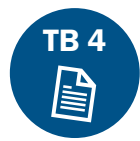


TB 1 explains the NFIP requirements for openings in exterior walls and walls of enclosures below elevated buildings. Flood openings equalize flood forces by allowing the entry and exit of floodwaters. The TB describes two options for satisfying the requirements, referred to as engineered openings and non-engineered openings. In addition to illustrating enclosures that require openings and those that do not, TB 1 covers the requirements and guidance for installation of openings.

Updates to TB 1 include:

- New tables comparing NFIP opening requirements with related building code requirements;
- Unusual configurations such as sloping sites, multiple enclosed areas, large enclosed areas, and sites with shallow flooding;
- New guidance on above-grade enclosed areas and two-level enclosures;
- Expanded discussion on completing the FEMA Elevation Certificate (EC) and the documentation required for certification of engineered openings.

TB 4, Elevators in Buildings Located in Special Flood Hazard Areas (2019)



TB 4 discusses the NFIP requirements for elevator machinery and equipment that serve buildings and provides guidance on the installation of elevators in special flood hazard areas. Elevator types and their associated equipment are described, along with practical methods of protecting elevators from flood damage.

The updated TB 4 includes:

- Expanded discussion on the primary types of elevators and other conveyance mechanisms used in residential and commercial buildings, hydraulic elevators and traction elevators, pneumatic elevators, chair lifts, and platform lifts;
- Clarification of the definition of “basement” as it relates to the construction of elevator pits;
- Tables summarizing elevator system components, their physical location, and recommended flood protection techniques.

TB 5, Free of Obstruction Requirements for Buildings Located in Coastal High Hazard Areas (2020)



TB 5 provides guidance on the NFIP free-of-obstruction requirements in Coastal High Hazard Areas (Zone V), as well as general construction methods that minimize flood damage potential in Zone V. TB 5 describes methods for avoiding potential building and site obstructions that could divert or obstruct floodwater and waves below elevated buildings which could impose additional flood loads on foundation systems or adjacent buildings.

Updates to TB 5 include:

- Clarification of the requirements for design certification in Zone V;
- Revised guidance of below-BFE building elements;
- New guidance on enclosed areas below elevated buildings, including louvers/lattice, above-grade enclosures, and two-level enclosures)
- Revised guidance of site development practices such as accessory storage structures, the use of fill, swimming pools and spas, erosion control structures and others;
- New guidance on detached garages.

TB 8, Corrosion Protection for Metal Connectors and Fasteners in Coastal Areas (2019)



TB 8 provides guidance on the NFIP requirement for maintaining a building’s load paths. It also provides readers with an understanding of the importance of connectors and fasteners with proper corrosion protection in coastal areas.

New features in TB 8 includes guidance for:

- How to select an appropriate connector and fastener material based on its intended location on the building;
- How preservative treated wood can impact corrosion protection and a sample wood product identification tag;
- Expanded descriptions of connector and fastener materials, corrosion protection coatings and maintenance, including inspection and scheduled replacement;
- Guidance for the selection of connectors and fasteners with various corrosion resistant materials and treatments and how combining dissimilar metals can cause premature corrosion.

User's Guide to Technical Bulletins
Developed in Accordance with the National Flood Insurance Program
NFIP Technical Bulletin 0 / July 2019
FEMA

Requirements in Foundation and Walls of Buildings in Special Flood Hazard Areas
NFIP Technical Bulletin 8 / July 2019
FEMA

Access the current Technical Bulletins and stay updated by visiting our website at www.fema.gov/nfip-technical-bulletins.