

NFPA® 1141

Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas

2008 Edition



NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471
An International Codes and Standards Organization

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Standard for

Fire Protection Infrastructure for Land Development in Suburban and Rural Areas

2008 Edition

This edition of NFPA 1141, *Standard for Fire Protection Infrastructure for Land Development in Suburban and Rural Areas*, was prepared by the Technical Committee on Forest and Rural Fire Protection. It was issued by the Standards Council on June 4, 2007, with an effective date of June 24, 2007, and supersedes all previous editions.

This edition of NFPA 1141 was approved as an American National Standard on June 24, 2007.

Origin and Development of NFPA 1141

Work on this standard was begun in 1972 by the former Technical Committee on Suburban and Rural Fire Prevention and Promotion in response to needs expressed by several members. Several drafts were prepared and a document was adopted by the Correlating Committee on Suburban and Rural Fire Protection and Prevention (predecessor to present committee) for presentation at the 1977 Annual Meeting. Due to technical problems, the standard was withdrawn from the meeting agenda. Following reorganization of the committee in 1982, a task group undertook a review and update of the 1977 document, which resulted in the 1985 edition prepared by the committee. The current committee revised the 1985 edition, resulting in the 1990 edition.

The committee's proposed revision for the 1995 edition was returned to the committee to clarify specific issues on conflicting requirements between this document and NFPA 1144, and other requirements and NFPA 1 and NFPA 101®. The requisite changes resulted in moving the document to a 1998 revision cycle.

In the 1998 edition, the committee was able to resolve many issues in clarity and consistency by bringing this document into concert with NFPA 1 and NFPA 101. Because of specific fire protection circumstances found in rural areas (as listed in the revised scope and purpose of the document), the committee continued to require that some elements remain more restrictive than comparable elements referenced in other NFPA documents.

In the 2003 edition, the technical committee responded to the rapid development of structures into areas that present unusual characteristics to responding fire agencies and worked extensively on making NFPA 1141 current with other documents and more usable by adopting jurisdictions. The committee was particularly interested in keeping the flexibility in the application of the standard by jurisdictions so that it works with existing codes and standards that may or may not adequately cover planned building groups.

The scope of the document was revised to focus on providing guidance on the development of the community infrastructure necessary to eliminate fire protection problems that result from rapid growth and change. The title change from "Fire Protection in Planned Building Groups" to "Fire Protection Infrastructure for Land Development in Suburban and Rural Areas" also reflects this broader look at the challenges facing suburban and rural areas. While creating this edition, the technical committee concurrently revised NFPA 1144 to provide complementary documents for fire protection in suburban and rural development, including special considerations for wildland interface areas. As a result, the requirements for community infrastructure (e.g., roads, water supplies) were moved from the 2001 edition of NFPA 1144 to this document, and additional guidance was taken from the USDA Forest Service and the National Wildland/Urban Interface Fire Program (Firewise Communities), as well as input from several committee members and outside experts.



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NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

Committee Scope: This Committee shall have primary responsibility for documents on fire protection for rural, suburban, forest, grass, brush, and tundra areas. This Committee shall also have primary responsibility for documents on Class A foam and its utilization for all wildland and structural fire fighting. This excludes fixed fire protection systems.



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NOTICE: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

A reference in brackets [] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex B. Editorial changes to extracted material consist of revising references to an appropriate division in this document or the inclusion of the document number with the division number when the reference is to the original document. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

Information on referenced publications can be found in Chapter 2 and Annex B.

Chapter 1 Administration

1.1* Scope. This standard covers the requirements for the fire protection infrastructure in suburban and rural areas where there is an intended change of land use or intended land development.

1.2 Purpose. The purpose of this standard is to develop fire protection and emergency services infrastructure to reduce the impact of land use changes in suburban and rural areas.

1.3 Application.

1.3.1* This standard shall apply to land development or changes in land use in suburban and rural areas.

1.3.2 If the authority having jurisdiction (AHJ) determines that additions to existing structures or new structures have a negative impact on the fire protection of existing land use, the requirements of this standard shall be permitted to be imposed.

1.3.3 Equivalencies, Alternatives, and Modifications.

1.3.3.1 Equivalencies. Nothing in this standard is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety to those prescribed by this standard, provided technical documentation is submitted to the AHJ to demonstrate equivalency and the system, method, or device is approved for the intended purpose.

1.3.3.2 Alternatives. The specific requirements of this standard shall be permitted to be altered by the AHJ to allow alternative methods that will secure equivalent fire safety, but in no case shall the alternative afford less fire safety, in the judgment of the AHJ, than that which would be provided by compliance with the provisions contained in this standard.

1.3.3.3 Modifications. The AHJ is authorized to modify any of the provisions of this standard upon application in writing by the owner, a lessee, or a duly authorized representative where there are practical difficulties in the way of carrying out the provisions of the standard, provided that the intent of the standard shall be complied with, public safety secured, and substantial justice done.

1.3.3.4 Buildings with equivalency, alternatives, or modifications approved by the AHJ shall be considered as conforming with this standard.

1.3.3.5 Each application for an alternative fire protection feature shall be filed with the AHJ and shall be accompanied by such evidence, letters, statements, results of tests, or other supporting information as required to justify the request. The AHJ shall keep a record of actions on such applications, and a signed copy of the AHJ's decision shall be provided for the applicant.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 10, *Standard for Portable Fire Extinguishers*, 2007 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2007 edition.

NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*, 2007 edition.

NFPA 13R, *Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height*, 2007 edition.

NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*, 2007 edition.

NFPA 24, *Standard for the Installation of Private Fire Service Mains and Their Appurtenances*, 2007 edition.

NFPA 30, *Flammable and Combustible Liquids Code*, 2008 edition.

NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*, 2003 edition.

NFPA 54, *National Fuel Gas Code*, 2006 edition.

NFPA 58, *Liquefied Petroleum Gas Code*, 2008 edition.

NFPA 72®, *National Fire Alarm Code*®, 2007 edition.

NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*, 2004 edition.

NFPA 291, *Recommended Practice for Fire Flow Testing and Marking of Hydrants*, 2007 edition.

NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*, 2007 edition.

NFPA 1144, *Standard for Reducing Structure Ignition Hazards from Wildland Fire*, 2008 edition.

NFPA 1561, *Standard on Emergency Services Incident Management System*, 2005 edition.



2.3 Other Publications.

2.3.1 AWWA Publications. American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

AWWA Manual 31, *Distribution System Requirements for Fire Protection*, 1998.

2.3.2 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections.

NFPA 914, *Code for Fire Protection of Historic Structures*, 2007 edition.

NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*, 2007 edition.

NFPA 5000®, *Building Construction and Safety Code*®, 2006 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

3.2.4* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.5 Shall. Indicates a mandatory requirement.

3.2.6 Should. Indicates a recommendation or that which is advised but not required.

3.2.7 Standard. A document, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements and which is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions shall be located in an

appendix or annex, footnote, or fine-print note and are not to be considered a part of the requirements of a standard.

3.3 General Definitions.

3.3.1 Accessory Building. Any building used incidentally to another building.

3.3.2 Adjacent Ground Elevation. The reference plane representing the average elevation of the finished ground level measured at a distance of 10 ft (3 m) from all exterior walls of the building.

3.3.3 Area.

3.3.3.1 Built-Out Area. Those portions of a development that have been populated to planned capacity with structures.

3.3.3.2 Gross Floor Area. The floor area within the inside perimeter of the outside walls of the building under consideration with no deduction for basements, hallways, stairs, closets, thickness of interior walls, columns, or other features.

3.3.3.3 Unbuilt Area. Those portions of a development intended to be built on that have not yet been populated with structures.

3.3.4 Building. A structure, usually enclosed by walls and a roof, constructed to provide support or shelter for an intended occupancy.

3.3.5 Combustible. Capable of reacting with oxygen and burning if ignited.

3.3.6* Curb Cut. Reduced curb height to facilitate vehicle passage over or across a curb.

3.3.7 Dwelling Unit. One or more rooms arranged for complete, independent housekeeping purposes, with space for eating, living, and sleeping; facilities for cooking; and provisions for sanitation. [5000, 2006]

3.3.8 Fire Department. The governmental or other organization that is responsible for providing fire protection and other emergency services to an area.

3.3.9 Fire Flow. The flow rate of a water supply, measured at 20 psi (138 kPa) residual pressure, that is available for fire fighting.

3.3.10 Fire Hazard. Any situation, process, material, or condition that, on the basis of applicable data, can cause a fire or explosion or that can provide a ready fuel supply to augment the spread or intensity of a fire or explosion, all of which pose a threat to life or property. [914, 2007]

3.3.11 Fire Hydrant. A valved connection on a water supply system having one or more outlets and that is used to supply hose and fire department pumpers with water.

3.3.12 Fire Lane. An approved means of access or other passageway designated and identified to provide access for emergency apparatus where parking is prohibited.

3.3.13* Fire Protection. All measures taken to reduce the burden of fire on the quality of life.

3.3.14 Fire Protection System. Any fire alarm device or system or fire-extinguishing device or system, or combination thereof, that is designed and installed for detecting, controlling, or extinguishing a fire or otherwise alerting occupants, or the fire department, or both, that a fire has occurred.