NFPA 170

Standard for Fire Safety Symbols

2002 Edition

NFPA, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101
An International Codes and Standards Organization

IMPORTANT NOTICE ABOUT THIS DOCUMENT

NFPA codes, standards, recommended practices, and guides, of which the document contained herein is one, are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together volunteers representing varied viewpoints and interests to achieve consensus on fire and other safety issues. While the NFPA administers the process and establishes rules to promote fairness in the development of consensus, it does not independently test, evaluate, or verify the accuracy of any information or the soundness of any judgments contained in its codes and standards.

The NFPA disclaims liability for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from the publication, use of, or reliance on this document. The NFPA also makes no guaranty or warranty as to the accuracy or completeness of any information published herein.

In issuing and making this document available, the NFPA is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is the NFPA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

The NFPA has no power, nor does it undertake, to police or enforce compliance with the contents of this document. Nor does the NFPA list, certify, test or inspect products, designs, or installations for compliance with this document. Any certification or other statement of compliance with the requirements of this document shall not be attributable to the NFPA and is solely the responsibility of the certifier or maker of the statement.

NOTICES

All questions or other communications relating to this document and all requests for information on NFPA procedures governing its codes and standards development process, including information on the procedures for requesting Formal Interpretations, for proposing Tentative Interim Amendments, and for proposing revisions to NFPA documents during regular revision cycles, should be sent to NFPA headquarters, addressed to the attention of the Secretary, Standards Council, National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

Users of this document should be aware that this document may be amended from time to time through the issuance of Tentative Interim Amendments, and that an official NFPA document at any point in time consists of the current edition of the document together with any Tentative Interim Amendments then in effect. In order to determine whether this document is the current edition and whether it has been amended through the issuance of Tentative Interim Amendments, consult appropriate NFPA publications such as the *National Fire Codes*® Subscription Service, visit the NFPA website at www.nfpa.org, or contact the NFPA at the address listed above.

A statement, written or oral, that is not processed in accordance with Section 5 of the Regulations Governing Committee Projects shall not be considered the official position of NFPA or any of its Committees and shall not be considered to be, nor be relied upon as, a Formal Interpretation.

The NFPA does not take any position with respect to the validity of any patent rights asserted in connection with any items which are mentioned in or are the subject of this document, and the NFPA disclaims liability for the infringement of any patent resulting from the use of or reliance on this document. Users of this document are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Users of this document should consult applicable federal, state, and local laws and regulations. NFPA does not, by the publication of this document, intend to urge action that is not in compliance with applicable laws, and this document may not be construed as doing so.

NFPA 170

Standard for

Fire Safety Symbols

2002 Edition

This edition of NFPA 170, *Standard for Fire Safety Symbols*, was prepared by the Technical Committee on Fire Safety Symbols and acted on by NFPA at its May Association Technical Meeting held May 19–23, 2002, in Minneapolis, MN. It was issued by the Standards Council on July 19, 2002, with an effective date of August 8, 2002, and supersedes all previous editions.

This edition of NFPA 170 was approved as an American National Standard on July 19, 2002.

Origin and Development of NFPA 170

The 1994 edition of NFPA 170 represented the completion of an effort to combine four previously separate documents that covered fire safety symbols for different purposes. These documents included the following:

NFPA 171, *Public Firesafety Symbols*

NFPA 172, *Fire Protection Symbols for Architectural and Engineering Drawings*

NFPA 174, *Fire Protection Symbols for Risk Analysis Diagrams*

NFPA 178, *Symbols for Fire Fighting Operations*

The Technical Committee on Fire Safety Symbols believed that placing all fire safety symbols in one document made it easier for users of symbols to find the one(s) most appropriate for their application. It also eliminated duplication between these and eventually other NFPA documents.

The first edition of NFPA 170 placed these four documents in one document but did not combine them, except for definitions that were in each document.

For the second edition of NFPA 170, the Technical Committee on Fire Safety Symbols completely restructured the text into a logical and cohesive arrangement. The duplication of symbols that occurred during the aforementioned consolidation of documents was eliminated. New symbols added included those for *campfire prohibitions, smoke barriers, illuminated exit signs,* and *belowground tanks.*

For the third edition of NFPA 170, changes included the following:

(1) Upgrading recommendations on *pre-incident planning* to requirements
(2) Adding new symbols for *pull station, area of refuge,* and *cooking prohibition*
(3) Clarifying the symbols for *smoke detectors, battery-powered emergency lights,* and *fire service/emergency telephone station*
(4) Recognizing the phaseout of Halon now taking place and the introduction of *clean agents*

The fourth edition further recognized the introduction of clean agents by adding new symbols for *clean agent* and *water mist systems.* A new appendix (Appendix C) was added to include symbols that can be used for life safety planning.

The fifth edition has been reformatted to conform to the NFPA *Manual of Style.* Symbols for fire alarm system components have been added for consistency with *NFPA 72®, National Fire Alarm Code®.*

Technical Committee on Fire Safety Symbols

Thomas R. Wood, *Chair*
Boca Raton Fire Rescue Services, FL [E]

Phillip Brown, American Fire Sprinkler Association, Inc., TX [IM]
Randal G. Brown, Randal Brown & Associates, Limited, Canada [SE]
Randall S. Chaney, LMG Property Engineering, CA [I]
Rep. Alliance of American Insurers
David C. Cox, Fire Safety Displays Company, MI [M]
August F. DiManno, Jr., Fireman's Fund Insurance Company, NY [I]
James M. Mundy, Jr., Siemens Fire Safety, NY [IM]
Rep. Automatic Fire Alarm Association, Inc.
Edward P. Quinn, Jr., General Accident Insurance, NY [I]
Brad Schiffer, Brad Schiffer/Taxis, Inc., FL [SE]
James J. Vorce, Johnson Controls Inc., WI [IM]
Harry J. Walsh, Pennsylvania Lumbermens Mutual Insurance Co., PA [I]
Don N. Whittaker, Bechtel BWXT Idaho, LLC (BBWI), ID [U]
Jo A. Ziegler, Duke Engineering & Services, NV [SE]

Alternate

David Johnson, Randal Brown & Associates Limited, Canada [SE]
(Alt. to R. G. Brown)

David R. Hague, NFPA Staff Liaison

Committee Scope: This Committee shall have primary responsibility for documents on fire safety symbols including those for building design plans, investigation diagrams, maps, and for public fire safety. It shall coordinate its work with NFPA technical committees and other groups dealing with subjects to which fire safety symbols apply.

This list represents the membership at the time the Committee was balloted on the final text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the back of the document.

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.

Contents

Chapter 1 General **170–** 4
1.1 Scope **170–** 4
1.2 Purpose **170–** 4
1.3 Retroactivity **170–** 4
1.4 Equivalency **170–** 4
1.5 Units **170–** 4

Chapter 2 Referenced Publications **170–** 4
2.1 General **170–** 4
2.2 NFPA Publication **170–** 4
2.3 Other Publications **170–** 4

Chapter 3 Definitions **170–** 4
3.1 General **170–** 4
3.2 NFPA Official Definitions **170–** 4
3.3 General Definitions **170–** 5

Chapter 4 Symbols for General Use **170–** 5
4.1 Introduction **170–** 5
4.2 Symbols for General Use **170–** 5
4.3 Class of Fire Symbols **170–** 9

Chapter 5 Symbols for Use by the Fire Service **170–** 9
5.1 Introduction **170–** 9
5.2 Symbols for Use by the Fire Service **170–** 9

Chapter 6 Symbols for Use in Architectural and Engineering Drawings and Insurance Diagrams **170–**12
6.1 Introduction **170–**12
6.2 Symbols for Site Features **170–**12
6.3 Symbols for Building Construction **170–**12
6.4 Water Supply and Distribution Symbols ... **170–**14
6.5 Symbols for Control Panels **170–**16
6.6 Symbols Related to Means of Egress **170–**17
6.7 Symbols for Fire Alarms, Detection, and Related Equipment **170–**17
6.8 Symbols for Fire Extinguishing Systems ... **170–**20
6.9 Symbols for Portable Fire Extinguishers ... **170–**22
6.10 Symbols for Fire-Fighting Equipment **170–**23
6.11 Symbols for Smoke/Pressurization Control **170–**23
6.12 Miscellaneous Symbols **170–**24

Chapter 7 Symbols for Use in Pre-Incident Planning Sketches **170–**24
7.1 Introduction **170–**24
7.2 Access Features, Assessment Features, Ventilation Features, and Utility Shutoffs **170–**24
7.3 Detection/Extinguishing Equipment **170–**25
7.4 Water Flow Control Valves and Water Sources **170–**26
7.5 Equipment Rooms **170–**26
7.6 Identification of Hazardous Materials **170–**26

Annex A Explanatory Material **170–**26

Annex B Additional Explanatory Information on Chapters 1 Through 6 ..... **170–**30

Annex C Symbols for Life Safety Planning **170–**34

Annex D Informational References **170–**36

Index **170–**38

NFPA 170

Standard for

Fire Safety Symbols

2002 Edition

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

Changes other than editorial are indicated by a vertical rule beside the paragraph, table, or figure in which the change occurred. These rules are included as an aid to the user in identifying changes from the previous edition. Where one or more complete paragraphs have been deleted, the deletion is indicated by a bullet between the paragraphs that remain.

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, Annex D lists the complete title and edition of the source documents for both mandatory and nonmandatory extracts. 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 appropriate technical committee.

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

Chapter 1 General

1.1 Scope. This standard presents symbols used for fire safety and associated hazards.

1.2 Purpose. The purpose of this standard is to standardize the symbols used in representing fire and associated hazards.

1.3 Retroactivity. The provisions of this standard reflect a consensus of what is necessary to provide an acceptable degree of protection from the hazards addressed in this standard at the time the standard was issued.

1.3.1 Unless otherwise specified, the provisions of this standard shall not apply to facilities, equipment, structures, or installations that existed or were approved for construction or installation prior to the effective date of the standard. Where specified, the provisions of this standard shall be retroactive.

1.3.2 In those cases where the authority having jurisdiction determines that the existing situation presents an unacceptable degree of risk, the authority having jurisdiction shall be permitted to apply retroactively any portions of this standard deemed appropriate.

1.3.3 The retroactive requirements of this standard shall be permitted to be modified if their application clearly would be impractical in the judgment of the authority having jurisdiction, and only where it is clearly evident that a reasonable degree of safety is provided.

1.4 Equivalency. 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 over those prescribed by this standard.

1.4.1 Technical documentation shall be submitted to the authority having jurisdiction to demonstrate equivalency.

1.4.2 The system, method, or device shall be approved for the intended purpose by the authority having jurisdiction.

1.5 Units. Metric units of measurement used in this standard shall be in accordance with the International System of Units (SI). One unit (liter), outside of but recognized by SI, is commonly used in international fire protection. For conversion factors, see Table 1.5.

Table 1.5 Metric Conversion Factors

Name of Unit	Unit Symbol	Conversion Factor
Liter	L	1 gal = 3.785 L
Cubic decimeter	dm^3	1 gal = 3.785 dm^3
Pascal	Pa	1 psi = 6894.757 Pa
Meter	m	1 ft = 0.3048 m
Millimeter	mm	1 in. = 25.4 mm

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 Publication. National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 704, *Standard System for the Identification of the Hazards of Materials for Emergency Response,* 2001 edition.

2.3 Other Publications.

2.3.1 ANSI Publications. American National Standards Institute, Inc., 11 West 42nd Street, 13th floor, New York, NY 10036.

ANSI A117.1, *Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People,* 1992.

ANSI Z535.1, *Safety Color Code,* 1991.

2.3.2 NECA Publication. National Electrical Contractors Association, 3 Bethesda Metro Center, Suite 1100, Bethesda, MD 20814.

NECA 100, *Symbols for Electrical Construction Drawings,* 1999.

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 included, common usage of the terms shall apply.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). The organization, office, or individual responsible 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.

3.3 General Definitions.

3.3.1 Pre-Incident Planning. A written document resulting from the gathering of general and detailed information/data to be used by public emergency response agencies and private industry for determining the response to reasonable anticipated emergency incidents at a specific facility.

3.3.2* Referent. An object or concept (message) represented by a symbol.

3.3.3 Self-Luminous. A type of sign that is self-energized with respect to luminosity and requires no external power source.

3.3.4* Supplementary Indicators. Figures, numbers, subscripts, or letter abbreviations used to enhance the effectiveness of symbols.

3.3.5* Symbol. A graphic representation of a referent.

Chapter 4 Symbols for General Use

4.1 Introduction.

4.1.1 This chapter presents general referents and symbols for fire prevention and visual alerting that shall be used for fire and related life safety emergencies.

4.1.2 Purpose.

4.1.2.1 This chapter shall provide uniform fire safety symbols to improve communication wherever signs and symbols are employed to provide fire safety information.

4.1.2.2 This chapter provides uniformity in the selection of symbols that shall be designed to assist in locating exits, fire safety alerting equipment, and safe areas.

4.1.2.3* The fundamental imagery for symbols, as well as their background color and shape, is designated in this chapter.

4.1.2.4* This chapter does not specify viewing distance, size, or optimal combinations of symbols, words, or other presentations.

4.1.3* Symbol Presentation.

4.1.3.1 The orientation for prohibition symbols shall not be altered from that shown in this chapter.

4.1.3.2 The symbol background shape shall be square.

4.1.3.2.1* For prohibition symbols, a circle and diagonal slash (at 45 degrees from upper left to lower right) shall be used.

4.1.3.3 Symbol Color The symbol color shall meet the requirements of ANSI Z535.1, *Safety Color Code.*

4.2* Symbols for General Use. See Table 4.2.

Table 4.2 Symbols for General Use

Symbol	Characteristics	Application	Example
Emergency Exit 	Square field Background green Door opening white Image in green or black	The identification and location of an emergency exit	The location of exit for use in a fire emergency
Emergency Exit 	Painted version — Background color white Arrows red or black Backlit version — Doorway and arrows to be green or red	The identification and location of a route to an emergency exit	

Table 4.2 *Continued*

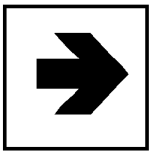
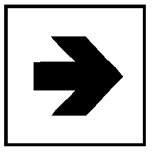
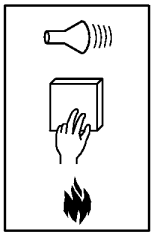
Symbol	Characteristics	Application	Example
Emergency Exit Route (Combination of Two Symbols)  	Square field Background green Door opening white Image in green or black For arrows — Square field Background white Arrow in green or black	The identification and location of a route to be used in an emergency	The direction to a fire exit
Accessible Emergency Exit (Combination of Two Symbols)  	Square field Background green Door opening white Image in green or black International symbol of accessibility per ANSI A117.1, *Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People*	The identification of an emergency exit that is accessible to disabled users, as specified by ANSI A117.1, *Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People*	The location of a fire exit that is accessible to disabled users
Accessible Emergency Exit Route (Combination of Three Symbols)   	Square field Background green Door opening white Image in green or black International symbol of accessibility per ANSI A117.1, *Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People* For arrows — Square field Background white Arrow in green or black	The identification of a route that leads to an emergency exit that is accessible to disabled users	The location of the route toward a fire exit that is accessible to disabled users

Table 4.2 *Continued*

Symbol	Characteristics	Application	Example
Not an Exit 	Square field Background white Door frame green Door opening white Image in green or black Red circle and diagonal slash	The identification of doors that do NOT lead to an exit	The location of an interior door such as one leading to a closet, interior courtyard, or basement
Use Stairs in Case of Fire 	Square field Red flame Black figure White background	An instruction to the user to use stairs (downward egress) in case of fire	The identification that stairs are to be used in case of fire
Use Stairs in Case of Fire 	Square field Red flame Black figure White background	An instruction to the user to use stairs (upward egress) in case of fire	The identification that stairs are to be used in case of fire
Do Not Use Elevator in Case of Fire 	Rectangular field Red flame Black figures White background Red circle and slash	An instruction not to use elevators in case of fire	Posted near elevator call button
No Smoking 	Circular field Red circle and slash Black image White background	The identification of areas in which smoking is prohibited	The identification of areas, such as those for flammable liquid storage, where smoking could lead to fire or explosion
No Campfires 	Circular field Red circle and slash Black image White background	The identification of areas, such as municipal parks, where campfires are not permitted	

Table 4.2 *Continued*

Symbol	Characteristics	Application	Example
Manually Activated Alarm Initiating Device (Manual Pull Station) 	Rectangular field White background Red flame Black hand Red box Red horn Red wave	An instruction to actuate an alarm initiating device in a fire emergency	Posted above a manually activated initiating device
No Cooking 	Square field White background Red flame Black pot and steam Red circle and slash	An instruction not to cook food in an area	Posted inside a guest room in a hotel or a student room in a college dormitory
Area of Refuge 	Square field White background Red flame	The identification of an area of refuge	A designated area of refuge to be used in a fire emergency
No Hanger 	Red circle and slash Black image	To prohibit hanging clothes or other items from sprinklers	

4.3 Class of Fire Symbols. See Figure 4.3(a) and Figure 4.3(b).

Note: Recommended colors, per PMS (Pantone Matching System) include the following:

BLUE — 299

RED — Warm Red

FIGURE 4.3(a) Recommended Marking System. [10:Figure B.2.1]

Extinguishers suitable for Class A fires should be identified by a triangle containing the letter "A." If colored, the triangle is colored green.*

Extinguishers suitable for Class B fires should be identified by a square containing the letter "B." If colored, the square is colored red.*

Extinguishers suitable for Class C fires should be identified by a circle containing the letter "C." If colored, the circle is colored blue.*

Extinguishers suitable for fires involving metals should be identified by a five-pointed star containing the letter "D." If colored, the star is colored yellow.*

* Recommended colors, per PMS (Pantone Matching System) include the following:

GREEN — Basic Green
RED — 192 Red
BLUE — Process Blue
YELLOW — Basic Yellow

FIGURE 4.3(b) Letter-Shaped Symbol Markings. [10:Figure B.2.2]

Chapter 5 Symbols for Use by the Fire Service

5.1 Introduction.

5.1.1* This chapter presents standard referents and symbols that shall be used for visually alerting fire fighters and other emergency responders during fire and related emergencies.

5.1.2* Fundamental shapes of symbols, as well as the background color and shape, are designated in this chapter.

5.1.3* Symbol Presentation.

5.1.3.1* Symbol Shapes. The shape of symbols shall be as illustrated in Section 5.2.

5.1.3.2 Symbol Background.

5.1.3.2.1 The symbol background shall be square.

5.1.3.2.2 The symbol background color shall be red, white, or blue as designated and shall meet the requirements of ANSI Z535.1, *Safety Color Code,* for safety red, white, or blue.

5.1.3.3 Symbol Color. The symbol color shall be safety white or blue and shall meet the requirements of ANSI Z535.1, *Safety Color Code,* for safety white or blue.

5.1.3.4 Symbol Orientation. Symbol orientation shall not be altered from that shown in this chapter.

5.2* Symbols for Use by the Fire Service. See Table 5.2.

Table 5.2 Symbols for Use by the Fire Service

Symbol	Characteristics	Application	Examples
Fire Department Automatic Sprinkler Connection — Siamese 	Square field Red background White symbol	The identification and location of a fire department automatic sprinkler connection	The location of siamese automatic sprinkler connections on buildings The location of siamese freestanding automatic sprinkler connections
Fire Department Automatic Sprinkler Connection — Single 	Square field Red background White symbol	The identification and location of a fire department automatic sprinkler connection	The location of a single automatic sprinkler connection on buildings The location of a single freestanding automatic sprinkler connection
Fire Department Standpipe Connection 	Square field Red background White symbol	The identification and location of a fire department standpipe connection	The location of standpipe connections on buildings and structures The location of freestanding standpipe connections
Fire Department Combined Automatic Sprinkler/ Standpipe Connection 	Square field Red background White symbol	The identification and location of a fire department combined automatic sprinkler/standpipe connection	The location of combined sprinkler/standpipe connections on buildings The location of freestanding combined sprinkler/ standpipe connections
Fire Hydrant (All Types) 	Square field Red background White symbol	The identification and location of a fire hydrant	The location of fire hydrants, wall hydrants, underground hydrants, or other fire-fighting water supplies
Automatic Sprinkler Control Valve 	Square field Red background White symbol	The identification and location of an automatic sprinkler control valve	The location of control valves for automatic sprinkler systems On doors of rooms containing control valves

Table 5.2 *Continued*

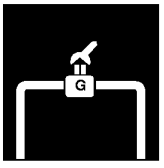
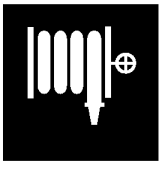
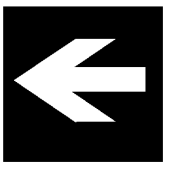
Symbol	Characteristics	Application	Examples
Electric Panel or Electric Shutoff 	Square field Blue background White symbol	The identification and location of an electrical panel or other electric shutoff device	The location of electric panels or other electric control devices that can be located in basements or mechanical rooms
Gas Shutoff Valve 	Square field Red background White symbol Red letter G	The location of a gas shutoff valve	The location of gas shutoff valves On doors of rooms containing gas shutoff valves
Fire-Fighting Hose or Standpipe Outlet 	Square field Red background White symbol	The location of a fire-fighting hose or a standpipe outlet	The location of interior fire-fighting hose stations and standpipe outlets in buildings and structures The location on bridges or elevated highways
Fire Extinguisher 	Square field Red background White symbol	The location of a fire extinguisher	The location of fire extinguishers in buildings and exterior locations
Directional Arrow 	Square field Background (red or blue) to correspond to accompanying sign White symbol	Direction to the location of fire-fighting equipment or utility; always used in conjunction with, and adjacent to, another symbol indicating the particular equipment or utility	
Diagonal Directional Arrow 	Square field Background (red or blue) to correspond to accompanying sign White symbol	Direction to the location of fire-fighting equipment or utility; always used in conjunction with, and adjacent to, another symbol indicating the particular equipment or utility	

Table 5.2 *Continued*

Symbol	Characteristics	Application	Examples
Child Care Center 	Square field Blue infant and hands White background	The identification and location of child care centers	On the door opening into child care centers At a fire department command or access point indicating presence and location of child care centers
Emergency Telephone 	Red background White phone	The identification and location of fire service or emergency telephone system	

Chapter 6 Symbols for Use in Architectural and Engineering Drawings and Insurance Diagrams

6.1* Introduction.

6.1.1 This chapter presents symbols that shall be used in drawings and diagrams.

6.1.2* Symbol Presentation.

6.1.2.1* Symbol Shapes. The shape of symbols shall be as illustrated in Sections 6.2 through 6.12.

6.1.2.2 Screened Lines. Screened lines in the chapter shall not be considered part of the symbol, but shall be used to represent the piping, wiring, or mounting surface associated with the symbol.

6.1.2.3 Symbol Scale. All scales for symbols on any one drawing shall be the same relative size.

6.1.2.4* Symbol Orientation. Symbols shall be oriented to the walls, piping, electrical lines, and so forth to which they are attached.

6.2 Symbols for Site Features.

6.2.1 Buildings.

6.2.1.1 The exterior walls of buildings shall be outlined in single thickness lines if other than fire rated and double thickness lines if fire rated.

6.2.1.2* The perimeter of canopies, loading docks, and other open-walled structures shall be shown by broken lines.

6.2.2 Railroad Tracks. Railroad tracks shall be shown by a single line with cross dashes, as shown in Figure 6.2.2.

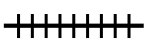


FIGURE 6.2.2 Symbol for Railroad Tracks.

6.2.3* Streets. Streets shall be shown.

6.2.4* Bodies of Water. Rivers, lakes, and so forth shall be outlined.

6.2.5 Fences.

6.2.5.1 Fences shall be shown by lines with x's evenly spaced.

6.2.5.2* Gates shall be shown.

6.2.6 Property Lines. The notation given in Figure 6.2.6 shall indicate property lines.

FIGURE 6.2.6 Notation Indicating Property Lines.

6.2.7 Fire Department Access. The symbol for fire department access shall be as shown in Figure 6.2.7.

FIGURE 6.2.7 Symbol for Fire Department Access.

6.2.8 Other Site Features. For other fire protection site features, see Section 6.4.

6.3 Symbols for Building Construction.

6.3.1* Types of Building Construction. Types of construction shall be shown narratively.

6.3.2* Height. Height shall be shown to indicate number of stories above ground, number of stories below ground, and height from grade to eaves.

6.3.3* Symbols for Walls and Parapets. See Table 6.3.3.

Table 6.3.3 Symbols for Walls and Parapets

Symbol	Description
	Wall — basic shape
	Smoke barrier wall
	½-hour fire-rated wall
	½-hour fire-rated/smoke barrier wall
	¾-hour fire-rated wall
	¾-hour fire-rated/smoke barrier wall
	1-hour fire-rated wall
	1-hour fire-rated/smoke barrier wall
	2-hour fire-rated wall
	2-hour fire-rated/smoke barrier wall
	3-hour fire-rated wall
	3-hour fire-rated/smoke barrier wall
	4-hour fire-rated wall
	4-hour fire-rated/smoke barrier wall
	Parapet — One cross for each 150-mm (6-in.) parapet extends above roof. (Shown is plan view of symbol.)

6.3.4 Symbols for Floor Openings, Wall Openings, Roof Openings, and Their Protection. See Table 6.3.4.

Table 6.3.4 Symbols for Floor Openings, Wall Openings, Roof Openings, and Their Protection

Symbol	Description
	Opening in wall
	Rated fire door in wall (less than 3 hours)
	Fire door in wall (3-hour rated)
	Elevator in combustible shaft
	Elevator in noncombustible shaft
	Open hoistway
	Escalator
	Stairs in combustible shaft
	Stairs in fire-rated shaft
	Stairs in open shaft
	Skylight

6.3.5* Special Symbols for Cross Sections. The symbols shown in Table 6.3.5 shall be used to indicate features of cross sections. It is recognized that descriptive notes often are required.

6.3.6 Miscellaneous Features. A number of features related to fire protection that do not fall under 6.3.1 through 6.3.5 are given in Table 6.3.6.

Table 6.3.5 Special Symbols for Cross Sections

Symbol	Description	Comment
	Fire-resistive floor or roof	
	Wood joisted floor or roof	
(Steel deck on steel joists)	Other floors or roofs	Note construction
	Floor/ceiling or roof/ceiling assembly	Details indicated, as necessary
	Floor on ground	
	Truss roof	Note construction

Table 6.3.6 Miscellaneous Features

Symbol	Description	Comment
	Boiler	
	Chimney	Describe height and construction
	Fire escape	
	Horizontal above-ground tank	Indicate type, dimensions, construction, capacity, pressurization, and content
	Vertical above-ground tank	Indicate type, dimensions, construction, capacity, pressurization, and content
	Below-ground tank	Indicate type, dimensions, construction, capacity, pressurization, and content

6.4* Water Supply and Distribution Symbols. See Table 6.4.

Table 6.4 Water Supply and Distribution Symbols

Symbol	Description	Comments
	Public water main	Indicate pipe size and material
	Private water main	Indicate pipe size and material
	Water main under building	Indicate pipe size and material
	Suction pipe	Indicate pipe size and material
	Thrust block	
	Riser	
	Valves (general)	Basic shape; indicate valve size
	Valve in pit	Indicate valve size
	Post-indicator valve	Indicate valve size
	Key-operated valve	Indicate valve size
	OS&Y valve (outside screw and yoke, rising stem)	Indicate valve size
	Indicating butterfly valve	Indicate valve size
	Nonindicating valve (nonrising-stem valve)	Indicate valve size

Table 6.4 *Continued*

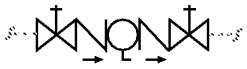
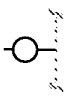
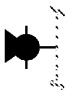
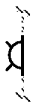
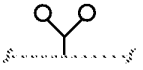
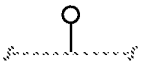
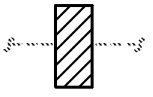
Symbol	Description	Comments
	Check valve	Basic shape; indicate valve size, direction of flow
	Backflow preventer — double check type	Also referred to as a double check valve assembly
	Backflow preventer — reduced pressure zone (RPZ) type	
	Pressure regulating valve	
	Pressure relief valve	
	Float valve	
	Meter	Indicate type
	Private hydrant, one hose outlet	Indicate size, type of thread, or connection
	Public hydrant, two hose outlets	Indicate size, type of thread, or connection
	Public hydrant, two hose outlets, and pumper connection	Indicate size, type of thread, or connection

Table 6.4 *Continued*

Symbol	Description	Comments
	Wall hydrant, two hose outlets	Indicate size, type of thread, or connection
	Private housed hydrant, two hose outlets	Indicate size, type of thread, or connection
	Siamese fire department connection	Specify type, size, and angle
	Freestanding siamese fire department connection	Sidewalk or pit type, specify size
	Single fire department connection	Specify type, size, thread, and angle
	Fire pump with drives	
	Freestanding test header	Freestanding; specify number and sizes of outlets
	Wall-mounted test header	Wall; specify number and sizes of outlets
	Screen/strainer	

6.5 Symbols for Control Panels. See Table 6.5.

Table 6.5 Symbols for Control Panels

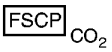
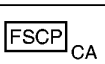
Symbol	Description
	Control panel — basic shape
	Fire alarm control panel
	Fire system annunciator alarm
	Annunciator panel — from NECA 100, symbol 7.006
	Fire alarm transponder or transmitter
	Elevator status/recall
	Fire alarm communicator
	Fire system control panel
	Halon
	Carbon dioxide
	Dry chemical
	Foam
	Wet chemical
	Clean agent

Table 6.5 *Continued*

Symbol	Description
	Water mist
	Deluge sprinkler
	Control panel for heating, ventilation, air-conditioning, exhaust stairwell pressurization, or similar equipment
	Remote MIC for voice evacuation system
	Voice evacuation panel — from NECA 100, symbol 7.008
	Fire alarm terminal cabinet — from NECA 100, symbol 7.009
	Fire command system
	Fire alarm control unit
	Sprinkler alarm panel
	Relay alarm panel
	Data gathering panel
	Amplifier rack
	Purge panel
	Battery pack and charger — from NECA 100, symbol 7.010
	Air sampling control detector panel with associated air sampling piping network — from NECA 100, symbol 7.011

6.6 Symbols Related to Means of Egress. See Table 6.6.

6.7* Symbols for Fire Alarms, Detection, and Related Equipment.

6.7.1* Signal Initiating Devices and Switches. See Table 6.7.1.

Table 6.6 Symbols Related to Means of Egress

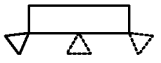
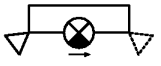
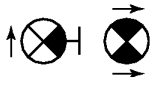
Symbol	Description	Comments
	Emergency light, battery-powered	Number of lamps on unit to be indicated. Indicate whether light head(s) [lamp(s)] is remote from battery
	Illuminated exit sign, single face	Indicate direction of flow for the face
	Illuminated exit sign, double face	Indicate direction of flow for each face
	Combined battery-powered emergency light and illuminated exit sign	Number of lamps on unit to be indicated; indicate whether light head(s) [lamp(s)] is remote from battery; indicate direction of flow for the face
	Exit lighting	Exit lighting fixture, arrows, and exit face as indicated on DWGS (mounting heights to be determined by job specifications) — from NECA 100, symbol 2.005
	Luminaire providing emergency illumination (filled in)	From NECA 100, symbol 2.300

Table 6.7.1 Symbols for Signal Intiating Devices and Switches

Symbol	Description	Comments
	Manual station	Basic shape
	Manual station — Halon	
	Manual station — carbon dioxide	
	Manual station — dry chemical	
	Manual station — foam	
	Manual station — wet chemical	
	Manual station — pull station	
	Manual station — clean agent	
	Manual station — water mist	
	Manual station — deluge sprinkler	
	Fire alarm master box	
	Drill key	
	Preaction system	

Table 6.7.1 *Continued*

Symbol	Description	Comments
	Fire service or emergency telephone station	Basic shape
	Fire service or emergency telephone station — accessible	
	Fire service or emergency telephone station — jack	
	Fire service or emergency telephone station — handset	
	Abort switch	Basic shape
	Abort switch — Halon	
	Abort switch — carbon dioxide	
	Abort switch — dry chemical	
	Abort switch — foam	
	Abort switch — wet chemical	
	Abort switch — clean agent	
	Abort switch — water mist	

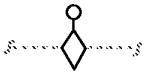
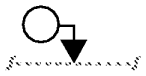
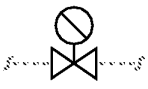
Table 6.7.1 *Continued*

Symbol	Description	Comments
	Abort switch — deluge sprinkler	
	Abort switch — preaction system	
	Abort switch — emergency power off	
	Automatic detection and supervisory devices	Basic shape
	Heat detector (thermal detector)	Symbol orientation not to be changed
	Heat detector — combination: rate of rise and fixed temperature	
	Heat detector — rate compensation	
	Heat detector — fixed temperature	
	Heat detector — rate of rise only	
	Heat detector — line-type detector (heat-sensitive cable)	
	Smoke/heat detector	
	Smoke detector	Symbol orientation not to be changed

Table 6.7.1 *Continued*

Symbol	Description	Comments
	Smoke detector — photoelectric products of combustion detector	
	Smoke detector — ionization products of combustion detector	
	Smoke detector — beam transmitter	
	Smoke detector — beam receiver	
	Smoke detector — air sampling	
	Smoke detector for duct	
	Gas detector	
	Flame detector	Indicate ultraviolet (UV), infrared (IR), ultraviolet/infrared (UV/IR), or visible radiation-type detectors; symbol orientation not to be changed
	Flame	
	Ultraviolet	
	Infrared	

Table 6.7.1 *Continued*

Symbol	Description	Comments
	Combination ultraviolet/infrared	
	Visible radiation	
	Flow detector/switch	
	Pressure detector/switch	Specify type — water, low air, high air, and so forth; symbol orientation not to be changed
	Level detector/switch	Symbol orientation not to be changed
	Tamper detector	Alternate term — tamper switch
	Valve with tamper detector/switch	
	Output relay	
	Temperature switch — high temperature	
	Temperature switch — low temperature	

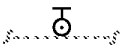
6.7.2 Indicating Appliances. See Table 6.7.2.

Table 6.7.2 Symbols for Indicating Appliances

Symbol	Description	Comments
	Speaker/horn (electric horn)	
	Mini-horn	
	Gong	
	Water motor alarm (water motor gong)	Shield optional
	Bell — vibrating	
	Bell — vibrating/strobe	
	Bell — single stroke gong	
	Bell — single stroke gong/ strobe	
	Bell — trouble	
	Bell — chime	
	Horn with light as separate assembly	
	Horn with light as one assembly	
	Light (lamp, signal light, indicator lamp, strobe)	
	Rotating beacon to indicate emergency response points	
	Remote alarm indicating and test switch	

6.7.3 Related Equipment. See Table 6.7.3.

Table 6.7.3 Symbols for Related Equipment

Symbol	Description
	Door holder
	Addressable input module
	Addressable output module

6.8* Symbols for Fire Extinguishing Systems.

6.8.1 Various Types of Fire Extinguishing Systems.

6.8.1.1 Water-Based Systems. See Table 6.8.1.1.

Table 6.8.1.1 Symbols for Water-Based Systems

Symbol	Description
	Wet charged system — automatically actuated
	Wet charged system — manually actuated
	Dry system — automatically actuated
	Dry system — manually actuated
	Foam system — automatically actuated
	Foam system — manually actuated
	Water mist extinguishing system — automatically actuated
	Water mist extinguishing system — manually actuated

6.8.1.2 Dry Chemical Systems. See Table 6.8.1.2.

Table 6.8.1.2 Symbols for Dry Chemical Systems

Symbol	Description
	For liquid, gas, and electrical fires — automatically actuated
	For liquid, gas, and electrical fires — manually actuated
	For fires of all types (except metals) — automatically actuated
	For fires of all types (except metals) — manually actuated

6.8.1.3 Systems Utilizing a Gaseous Medium. See Table 6.8.1.3.

Table 6.8.1.3 Symbols for Systems Utilizing a Gaseous Medium

Symbol	Description
	Carbon dioxide system — automatically actuated
	Carbon dioxide system — manually actuated
	Halon system or clean agent extinguishing system — automatically actuated
	Halon system or clean agent extinguishing system — manually actuated

6.8.1.4 Supplementary Symbols. See Table 6.8.1.4.

Table 6.8.1.4 Supplementary Symbols

Symbol	Description
	Fully sprinklered space
	Partially sprinklered space
	Nonsprinklered space
	Water spray system

6.8.2* Symbols for Fire Sprinklers. See Table 6.8.2.

Table 6.8.2 Symbols for Fire Sprinklers

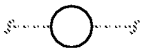
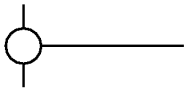
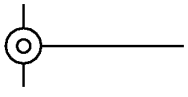
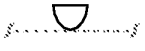
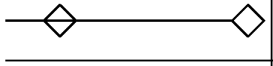
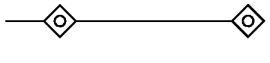
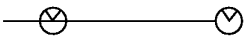
Symbol	Description	Comments
	Upright sprinkler	
	Pendent sprinkler	Note "DP" on drawing and/or in specifications where dry pendent sprinklers are employed
	Upright sprinkler; on sprig	
	Upright sprinkler on top of riser nipple	
	Upright sprinkler on top of riser nipple with sprig	
	Pendent sprinkler; on drop nipple	Note "DP" on drawing and/or in specifications where dry pendent sprinklers are employed
	Sprinkler, with guard	Upright sprinkler head shown
	Sidewall sprinkler	
	Outside sprinkler	Specify type, orifice size; for example, Open sprinkler (window or cornice)
	Open sprinkler on branch line	
	Open sprinkler on branch line with sprig	

Table 6.8.2 *Continued*

Symbol	Description	Comments
	Water spray nozzle	
	Window sprinklers	

6.8.3* Symbols for Piping, Valves, Control Devices, and Hangers. See Table 6.8.3.

Table 6.8.3 Symbols for Piping, Valves, Control Devices, and Hangers

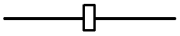
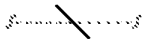
Symbol	Description	Comments
	Sprinkler piping and branch line	Indicate pipe size
	Pipe trace heater	See NECA 100, symbol 5.106
	Mechanical coupling	
	Pipe hanger	This symbol is a diagonal stroke imposed on the pipe that it supports
	Lateral brace (two-way)	
	Lateral brace (four-way)	
	Angle valve (angle hose valve)	Indicate size, type, and other required data
	Check valve (general)	
	Alarm check valve	Specify size, direction of flow

Table 6.8.3 *Continued*

Symbol	Description	Comments
	Dry pipe valve	Specify size
	Dry pipe valve with quick opening device (accelerator or exhauster)	Specify size and type
	Deluge valve	Specify size and type
	Preaction valve	Specify size and type

6.9 Symbols for Portable Fire Extinguishers. See Table 6.9.

Table 6.9 Symbols for Portable Fire Extinguishers

Symbol	Description	Comments
	Portable fire extinguisher	Basic shape
	Water extinguisher	
	Foam extinguisher	
	Dry chemical extinguishers—for liquid, gas, or electrical fires	BC-type
	Dry chemical extinguishers—for fires of all types (except metals)	ABC-type
	CO_2 extinguishers	
	Halon or clean agent extinguishers	
	Extinguisher for metal fires	

6.10 Symbols for Fire-Fighting Equipment. See Table 6.10.

Table 6.10 Symbols for Fire-Fighting Equipment

Symbol	Description	Comments
	Fire-fighting equipment	Basic shape
	CO_2 reel station	
	Dry chemical reel station	
	Foam reel station	
	Hose station, dry standpipe	
	Hose station, wet standpipe	
	Monitor nozzle, dry	Specify orifice size
	Monitor nozzle, charged	Specify orifice size

6.11 Symbols for Smoke/Pressurization Control. See Table 6.11.

Table 6.11 Symbols for Smoke/Pressurization Control

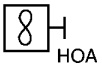
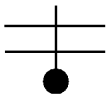
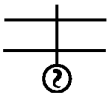
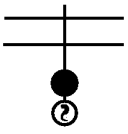
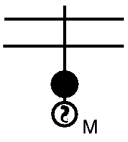
Symbol	Description	Comments
	Purge controls — manual control	
	Hand (manual)/ off-automatic	

Table 6.11 *Continued*

Symbol	Description	Comments
	Fans — general	Arrow indicates direction of flow
	Fans — duct	Arrow indicates direction of flow
	Fans — roof	Arrow indicates direction of flow
	Fans — wall	Arrow indicates direction of flow
	Dampers — fire	
	Dampers — smoke	
	Dampers — fire/smoke	
	Dampers — motorized fire/smoke	
	Dampers — barometric	
	Pressurized stairwell	Orient as required for base or head injection
	Ventilation openings	Orient as required for intake or exhaust

6.12* Miscellaneous Symbols. See Table 6.12.

Table 6.12 Miscellaneous Symbols

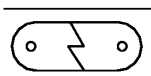
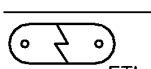
Symbol	Description	Comments
	Agent storage container	Specify type of agent and mounting
	Agent storage container — foam	
	Agent storage container — Halon	
	Agent storage container — carbon dioxide	
	Agent storage container — clean agent	
	Agent storage container — dry chemical	
	Agent storage container — water mist	
	Agent storage container — wet chemical	
	Special spray nozzle	Specify type, orifice, size, other required data (shown here on pipe)
	Fusible link	Specify degrees
	Fusible link with electrothermal feature	Specify degrees
	Solenoid valve	
	End of line device — resistor	

Table 6.12 *Continued*

Symbol	Description	Comments
	End of line device — relay	
	End of line device — capacitor	
	End of line device — diode	
	Transfer switch — automatic with handle	
	Transfer switch — manual with handle	

Chapter 7 Symbols for Use in Pre-Incident Planning Sketches

7.1 Introduction.

7.1.1* This chapter presents symbols that shall be used in pre-incident planning sketches.

7.1.2* Symbol Shapes. The symbol shapes were chosen for their ease of reproduction through either freehand drawing or with the use of templates.

7.2* Access Features, Assessment Features, Ventilation Features, and Utility Shutoffs. See Table 7.2.

Table 7.2 Symbols for Access Features, Assessment Features, Ventilation Features, and Utility Shutoffs

Symbol	Description	Comments
	Access features, assessment features, ventilation features, and utility shutoffs	Basic shape
	Access feature — fire department access point	
	Access feature — fire department key box	
	Access feature — roof access	

Table 7.2 *Continued*

Symbol	Description	Comments
	Assessment feature — fire alarm annunciator panel	
	Assessment feature — fire alarm reset panel	
	Assessment feature — fire alarm voice communication panel	
	Assessment feature — smoke control and pressurization panel	
	Assessment feature — sprinkler system water flow bell	
	Ventilation feature — skylight	
	Ventilation feature — smoke vent	
	Utility shutoff — electric	
	Utility shutoff — domestic water	
	Utility shutoff — gas	
	Specific variations — LP-gas shutoff	
	Specific variations — natural gas shutoff	
	Specific variations — compressed natural gas shutoff	

7.3 Detection/Extinguishing Equipment. See Table 7.3.

Table 7.3 Symbols for Detection/Extinguishing Equipment

Symbol	Description	Comments
	Detection/ extinguishing equipment	Basic shape
	Duct detector	
	Heat detector	
	Smoke detector	
	Flow switch (water)	
	Manual pull station	
	Tamper switch	
	Halon system	
	Dry chemical system	
	Carbon dioxide system	
	Wet chemical system	
	Foam system	
	Clean agent system	
	Beam smoke detector	

7.4 Water Flow Control Valves and Water Sources. See Table 7.4.

Table 7.4 Symbols for Water Flow Control Valves and Water Sources

Symbol	Description	Comments
◯	Water flow control valves and water sources	Basic shape
PIV	Post-indicator valve	
RV	Riser valve	
ZV	Sprinkler zone valve	
SCV	Sectional control valve	
HC	Hose cabinet or connection	
WH	Wall hydrant	
TH	Test header (fire pump)	
TC	Inspector's test connection	
FH	Fire hydrant	
FDC	Fire department connection	
DS	Drafting site	
WT	Water tank	

7.5 Equipment Rooms. See Table 7.5.

Table 7.5 Symbols for Equipment Rooms

Symbol	Description	Comments
□	Equipment rooms	Basic shape
AC	Air-conditioning equipment room	AHUs = air handling units
EE	Elevator equipment room	
EG	Emergency generator room	
FP	Fire pump room	
TE	Telephone equipment room	
BR	Boiler room	
ET	Electrical/ transformer room	

7.6* Identification of Hazardous Materials. NFPA 704, *Standard System for the Identification of the Hazards of Materials for Emergency Response,* shall be permitted to be used to identify the location of hazardous materials within a structure.

Annex A Explanatory Material

Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an

organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.3.2.4 Listed. The means for identifying listed equipment may vary for each organization concerned with product evaluation; some organizations do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

A.3.3.2 Referent. A referent can be abstract such as a condition concept, function, relationship, fact, or action.

A.3.3.4 Supplementary Indicators. Effectiveness of symbols can be supplemented by figures, numbers, subscripts, or letter abbreviations. These supplementary indicators can be placed inside of or adjacent to the symbol as seen fit. A legend of these indicators, with their meaning, should accompany each set of documents on which they are used.

A.3.3.5 Symbol. Ideally, a symbol should be graphically simple, should be readily understood, should have a strong impact, and should be easily remembered.

A.4.1.2.3 Changes in line thickness, scale, or details are not recommended. In practice, symbols can be combined with other symbols or devices such as words and lighted panels to provide optimal visual alerting.

A.4.1.2.4 The user is referred to other standards, such as those prepared by the NFPA Committee on Safety to Life and the ANSI Z535 Committee on Safety Signs and Colors, for such information.

A.4.1.3 Reflective material or self-luminous materials can be used. Consideration needs to be given to the proper mounting of self-luminous symbols in well-lighted locations to ensure charging by exposure to ambient light.

A.4.1.3.2.1 See Figure A.4.1.3.2.1.

A.4.2 Use of the symbols is not restricted to the examples cited.

A.5.1.1 The purpose of this chapter is to present uniform fire-fighting symbols in order to improve communication wherever symbology is employed in order to provide information to fire fighters and other emergency responders.

This chapter provides uniformity in the selection of symbols that are intended to assist fire fighters in locating utilities and fire-fighting equipment.

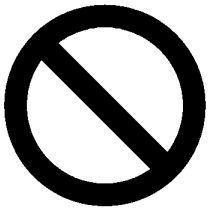


FIGURE A.4.1.3.2.1 Example of a Prohibition Symbol.

A.5.1.2 In practice, symbols can be combined with other devices, such as words and lighted panels, to provide optimal visual alerting. This chapter does not specify viewing distance, size, or optimal combinations of symbols, words, and other presentations.

A.5.1.3 Reflective material or self-luminous materials can be used. Consideration needs to be given to the proper mounting of self-luminous symbols in well-lighted locations to ensure charging by exposure to ambient light.

A.5.1.3.1 Drawing scale, line thickness, and so forth are the subject of standards on drawing practice.

A.5.2 Use of the symbols is not restricted to the examples cited.

The symbol for fire hydrant (all types) shown in Table 5.2 can be of particular use where vehicles or snowfall frequently obscures hydrant locations.

A.6.1 This chapter on architectural and engineering symbols draws heavily on the symbols already developed by various societies, agencies, and industry.

The purpose of this chapter is to provide uniformity in the use of fire safety and related symbols in the preparation of drawings and diagrams.

The symbols in this chapter are intended to be simple, transferable by use of templates, and limited to those referents that are used repetitively in a set of drawings.

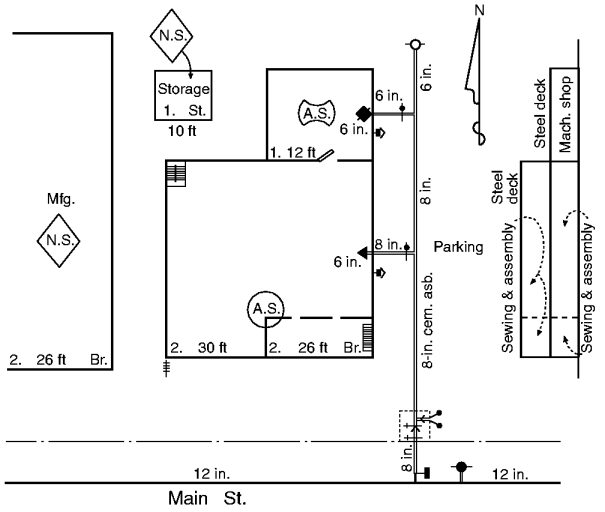
The symbols in this chapter are intended for, but not limited to, architectural and engineering drawings, fire detection and suppression drawings, and fire risk and/or loss analysis diagrams.

The effectiveness of the symbols in this chapter can be enhanced by the use of supplementary figures, subscripts, numbers, or letter abbreviations.

Devices infrequently used in a given set of drawings and diagrams are not standardized by this document. They usually are accompanied by narrative description, either on the drawing or in specifications.

A.6.1.2 *Diagram Preparation and Contents.* Where appropriate, diagrams include, but are not limited to, the following *(see Figure A.6.1.2)*:

(1) Title block indicating the following:
   (a) Name of company or organization.
   (b) Person making drawing and date of drawing.
   (c) Name and location of facility involved.
(2) "North" direction arrow properly oriented to the position of buildings shown.
(3) Scale of diagram, if used, or "not to scale." Scale can be given with a bar measurement if reduction copies are to be made.



For SI units: 1 in. = 25 mm; 1 ft = 0.305 m

FIGURE A.6.1.2 Diagram to Exemplify the Use of Symbols for Risk Analysis Drawing.

A.6.1.2.1 Drawing scale, line thickness, and so forth are the subject of standards on drawing practice.

A.6.1.2.4 See Figure A.6.1.2.4(a) and Figure A.6.1.2.4(b) for examples of symbol orientation.

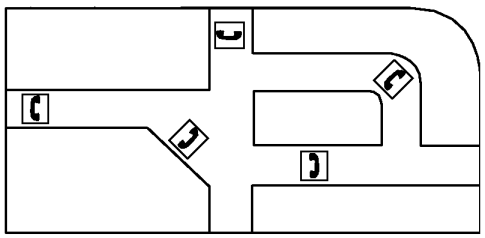


FIGURE A.6.1.2.4(a) Symbol Orientation — Example 1.

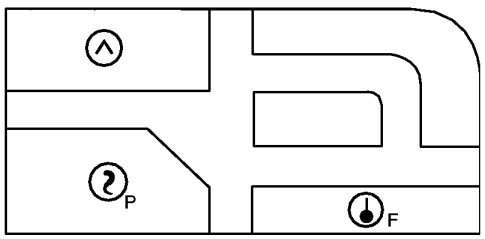


FIGURE A.6.1.2.4(b) Symbol Orientation — Example 2.

A.6.2.1.2 See Figure A.6.2.1.2 for examples of open-walled structures.

A.6.2.3 See Figure A.6.2.3 for an example of a street.

A.6.2.4 See Figure A.6.2.4 for examples of bodies of water.

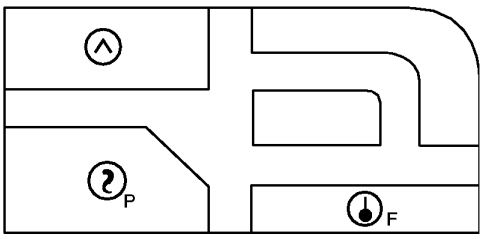


FIGURE A.6.2.1.2 Examples of Open-Walled Structures.

FIGURE A.6.2.3 Example of a Street.

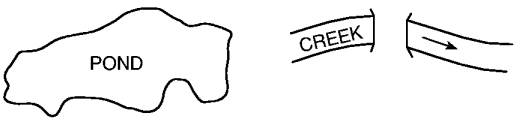


FIGURE A.6.2.4 Examples of Bodies of Water.

A.6.2.5.2 See Figure A.6.2.5.2 for an example of a fence with a gate.

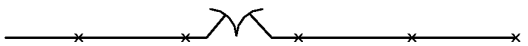


FIGURE A.6.2.5.2 Example of a Fence with a Gate.

A.6.3.1 See Figure A.6.3.1 for an example of building construction identification. *(See NFPA 220, Standard on Types of Building Construction.)*

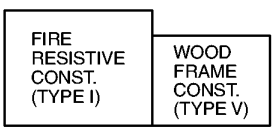


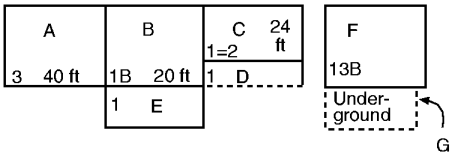
FIGURE A.6.3.1 Example of Building Construction Identification.

A.6.3.2 See Figure A.6.3.2 for an example of height symbols used for a building.

A.6.3.3 See Figure A.6.3.3(a) and Figure A.6.3.3(b) for examples of wall symbols.

See Figure A.6.3.3(a) for examples of parapet symbols used for a building.

A.6.3.5 See Figure A.6.3.5 for an example of cross-section symbols used for a building.



A Three stories, no basement, 40 ft to eaves.
B One story with basement, 20 ft to eaves.
C One-equals-two stories, no basement, 24 ft to eaves.
D One-story open porch or shed.
E One-story addition.
F Thirteen stories with basement.
G Underground structure.

FIGURE A.6.3.2 Examples of Building Height Symbols. (Figure includes copyrighted material of Insurance Services Office with its permission. Copyright, Insurance Services Office, 1975.)

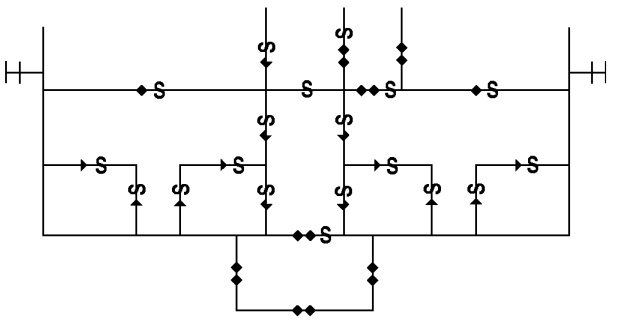


FIGURE A.6.3.3(a) Symbols Used to Note Wall Ratings and Parapets on Life Safety Plans and Risk Analysis Plans/Cross Sections.

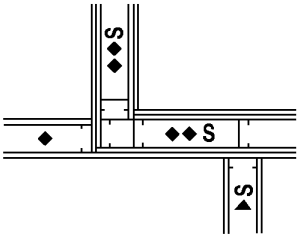


FIGURE A.6.3.3(b) Symbol Used to Note Wall Ratings on Design and Construction Documents.

A.6.4 For private hydrant, one hose outlet; public hydrant, two hose outlets; public hydrant, two hose outlets and pumper connection; wall hydrant, two hose outlets; and private housed hydrant, two hose outlets, all shown in Table 6.4, symbol elements can be utilized in any combination to fit the type of hydrant.

A.6.7 Additional subscript identifiers can be included with a slash after the primary subscript to indicate such things as WP for weather proof or EP for explosion proof or others.

A.6.7.1 For the manual station symbol shown in Table 6.7.1, electrical or mechanical actuation can be shown.

See NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems*, for a generic list of clean agents.

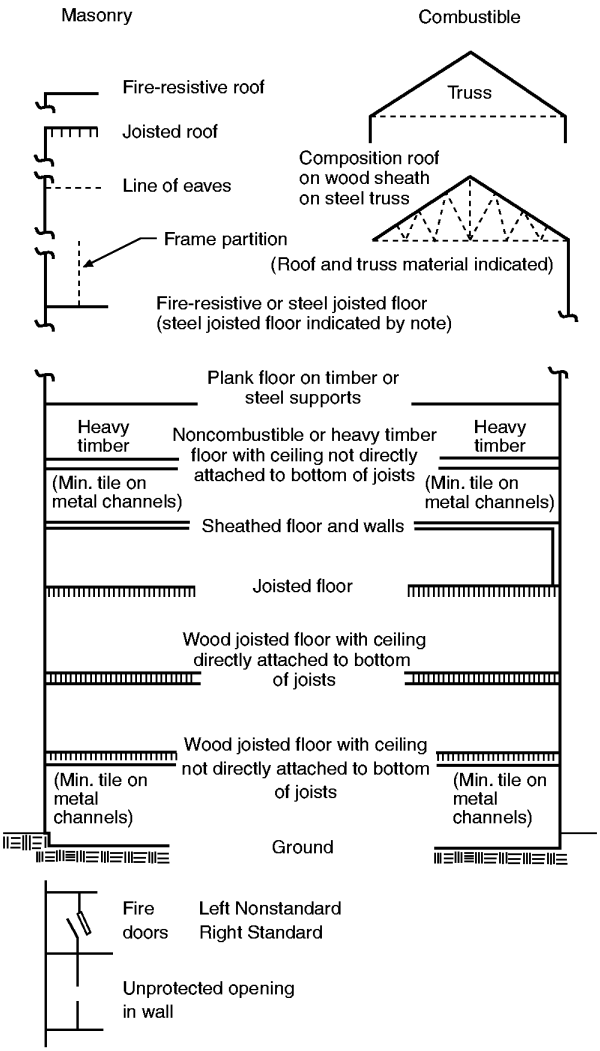


FIGURE A.6.3.5 Examples of Symbols and Notations Used for Fire Risk Analysis Cross Section. (Figure includes copyrighted material of Insurance Services Office with its permission. Copyright, Insurance Services Office, 1975.)

The telephones referred to in the fire service or emergency telephone station symbols, shown in Table 6.7.1, are those for a dedicated system for fire and related emergencies.

Temperature rating of heat detectors, in Table 6.7.1, can be shown.

Velocity can be shown for the smoke detector for duct symbol shown in Table 6.7.1.

For the gas detector symbol shown in Table 6.7.1, the drawing should show the type of gas or gases being monitored. The drawing should indicate the lower explosive limit (LEL) and/or the upper explosive limit (UEL) of gas or gases.

A.6.8 These symbols are intended for use in identifying the type of system installed to protect an area within a building.

A.6.8.2 For sprinklers shown in Table 6.8.2, the temperature rating of the sprinkler and other characteristics can be shown via legends where a limited number of an individual type of sprinkler is called for by the design.

A.6.8.3 See also Table 6.4 for related symbols.

A.6.12 The electrothermal link (ETL) is a multipurpose dual-response fusible link/release device. These devices are used in various applications, such as smoke/damper control and door closures. The symbol should be shown with its rated thermal point.

A.7.1.1 The purpose of this chapter is to provide uniformity in the use of fire safety and related symbols in the preparation of pre-incident planning sketches.

The symbols in this chapter are provided to assist fire service or emergency response personnel who are responsible for preparing and using pre-incident planning sketches.

A.7.1.2 Triangle symbols are used for access features, assessment features, ventilation features, and utility shutoffs and can point at a specific location or direction. Diamond symbols identify a specific location by touching a wall. Circle symbols are used for all piping system components, such as valves, since most pipes are round.

Square symbols are used for room designations, as they represent most rooms having four sides.

A.7.2 For Sections 7.2 through 7.5, other features to complete the pre-incident planning sketch can be used as appropriate.

A.7.6 Figure A.7.6 shows an example of hazardous identification.

FIGURE A.7.6 Example of Hazardous Identification.

Annex B Additional Explanatory Information on Chapters 1 Through 6

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

B.1 Reserved.

B.2 Reserved.

B.3 Additional Explanatory Information on Chapter 4.

B.3.1 Symbol Testing. Two or more versions of a symbol were developed for the referents listed in Chapter 4. The effectiveness of each of these symbols was evaluated by testing its meaningfulness (i.e., understandability) with groups of different participants. On the basis of these results, a symbol was selected for each referent. In some cases, the symbols were refined graphically to incorporate modifications suggested by the test results. Symbol development and refinement included the efforts of research psychologists, graphic designers, safety engineers, and fire professionals.

The life safety symbols were tested in the course of several different research projects during a 7-year period. These results are referenced in a series of publications by the National Bureau of Standards.

Although a variety of testing procedures were used to assess understandability, the basic method consisted of asking people either to write down short definitions or to pick the correct definition from a set of carefully selected choices. In several studies, data on symbol preference and rated effectiveness also were obtained.

For these testing efforts, one set of participants consisted of 222 industrial personnel and 78 students; another set consisted of 271 miners and mine personnel; and another set consisted of 94 paid volunteers. No major differences between participant groups were observed for the symbols selected for Chapter 4.

In addition to the studies of understandability, a detailed assessment was made of exit symbol visibility. This study used a laboratory optical viewing system to present a set of exit symbols included in a much larger set (108) of safety and information symbols. Three viewing conditions that simulated smoke were used (luminance of 0.085, 0.060, and 0.032 candela/m^2). Forty-two participants were familiarized with a randomly selected set of exit symbols to identify the separate effects of understandability and visibility. The symbol given in Chapter 4 was the symbol that was most frequently identified correctly under all three viewing conditions. In addition, the identification data were virtually the same whether participants had been familiarized with the symbol or not — suggesting that the symbol has high initial understandability. (This suggestion is reinforced by the high percentages of correct identification found in those studies that evaluated understandability.)

The results of the visibility testing program are important because an exit symbol must be both well understood and visible when under degraded viewing conditions such as smoke.

The goal of the overall testing program was to identify versions or elements of symbols for the selected referents that appeared to be most effective in communicating the intended message. It is recognized that further education and/or supplemental word messages can be useful in optimizing the effectiveness of these symbols with the general public. Nevertheless, the symbols selected have demonstrated good initial understandability. Symbols for the referents generally showed good understandability (better than 85 percent correct identification). Symbols that presented some understandability problems included "No Exit" and "Fire Alarm Call Point." The examples shown herein, however, represent the imagery that was best understood. It is hoped that use of these images will strengthen public recognition.

It also should be noted that the symbol for handicapped accessibility was not tested in this program. It is, however, in an existing ANSI standard, A117.1, *Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People,* and has achieved wide use and good recognition.

B.4 Additional Explanatory Information on Chapter 5.

B.4.1 Symbol Testing. At least two versions of a symbol were developed for each of the following referents:

(1) Fire department automatic sprinkler connection — siamese
(2) Fire department standpipe connection
(3) Fire department combined automatic sprinkler/standpipe connection
(4) Fire hydrant (all types)
(5) Automatic sprinkler control valve
(6) Electric panel or electric shutoff

The following referents are discussed in this section:

(1) Gas shutoff valve
(2) Fire-fighting hose or standpipe outlet
(3) Fire extinguisher
(4) Directional arrow
(5) Diagonal directional arrow

Subsequently, the effectiveness of the symbols was evaluated by testing their meaningfulness to groups of fire professionals; the procedures are outlined in this section. On the basis of the test results, a symbol was selected for each referent. This set of symbols was further refined graphically, incorporating modifications suggested by the test results. Symbol development and refinement through a Subcommittee on Visual Alerting Symbols included the efforts of fire professionals, graphic artists and designers, research psychologists, and safety engineers.

Symbols for gas shutoff valve, fire-fighting hose or standpipe outlet, fire extinguisher, directional arrow, and diagonal directional arrow were adapted from International Organization for Standardization (ISO) publications. The fire extinguisher symbol was included in the test procedure. Although the standpipe outlet symbol was not tested in isolation, it was incorporated as an element in two of the tested symbols (fire department standpipe connection and fire department combined automatic sprinkler/standpipe connection).

Participants in the test program included fire professionals attending a national convention or local (Maryland) training classes and totaled 86 participants. The test procedure involved two phases. In the first phase, the participants were shown one symbol at a time, in slide form, and were asked to write down a short definition of what they thought each symbol meant. In the second phase, two symbolic versions of each referent were shown together, and their intended meaning was provided; the participants indicated which version (if either) of each pair they felt better conveyed the meaning. They also were asked to give the reason for their preference and were free to offer any suggestions for improvement.

The goal of the testing program was to identify versions or elements of symbols for the selected referents that were most effective in visually alerting fire fighters. It is recognized that education might be required to optimize the effectiveness of the symbols for fire fighters. Nevertheless, it is important to select symbols that initially are meaningful. Symbols for seven of the nine referents tested showed good recognizability (85 to 100 percent) and no serious confusion with other possible meanings. However, for two referents — wall hydrant and gas control valve — recognition was poor, and confusion was common for both symbolic versions of each message. Therefore, no symbol for these two referents is presented in this standard. Graphic improvements and alternative conceptions are being sought. (A symbol for a gas shutoff valve was accepted for the 1991 edition of NFPA 170.)

B.4.2 The NFPA Committee on Fire Safety Symbols was able to identify a set of shapes for symbols to be used to direct responding fire fighters.

B.5 Additional Explanatory Information on Chapter 6.

B.5.1 Symbol Selection Procedure. See Figure B.5.1 for an example of the procedures involved in selecting fire safety symbols.

B.5.2 Discussion of Basic Symbols.

B.5.2.1 Symbol Testing. Inevitably, when a new standard is introduced to a field in which standardized symbols are not established and everyone is acting independently, controversy looms over the effort as to which (whose) alleged "standard" should be used. Such controversy can only be met with a national logic for meeting the standardization task. Such logic was used in developing former NFPA 172, now incorporated into Chapter 6.

B.5.2.2 This symbology effort ultimately employed the following steps:

(1) Identify problem. Is a standard for fire protection symbols needed?
(2) Identify referents. What devices should be symbolized? Consider applicability to fire protection and frequency of use.
(3) Identify symbols' availability. What symbols exist, and how widely are they used for fire protection and other disciplines?
(4) Develop a system of symbol selection. Can a system be identified so that referents and symbols can be rationally selected or developed? *(See B.5.1.)*
(5) Can a scheme of basic shapes be utilized in developing symbol sets for categories of referents?
(6) Adhere to the scheme. Make exceptions only where an overwhelming level of usage makes changes unreasonable.
(7) Avoid conflicts. Are there other practices and/or standards with which the proposed standard might be in conflict?

B.5.2.3 To accomplish step B.5.2.2(5), two factors had to be considered. First, there is very little agreement on symbols throughout North America. For the most part, various industry segments disagree on symbols and even on basic shapes. Second, the ISO Committee on Fire Protection Symbols for Use on Drawings completed most of its work on this subject before 1980 and proposed a set of basic symbol shapes.

B.5.2.4 With the two foregoing considerations, the NFPA Committee on Fire Safety Symbols was able to develop a set of basic shapes for symbols to be used on fire protection drawings. The basic shapes shown in Table B.5.2.4 were selected by uniting the ISO proposed basic shapes and, where existent, the North American common practice. Thus, the collection of shapes (menu) represents a compromise with the sole major objective of developing a symbols standard aimed at a common language to improve future communication among users of fire protection drawings worldwide.

B.5.2.5 The collection of basic shapes in Table B.5.2.4 is broken down into a major classification of symbol elements and a supplementary set of symbol elements that can be used singly or in combination with other symbol elements. These basic symbol shapes and relative sizes are not exclusive of all the shapes and sizes that were used in developing former NFPA 172 (now incorporated into Chapter 6). They are a guide that was used in developing the family scheme.

It is recognized that former NFPA 172 did not include all the fire safety symbols that can be required on architectural and engineering drawings. Table B.5.2.4 can therefore be used as a basis for future development of Chapter 6 or for the design of specialized symbols by the draftsperson.

Symbol elements have definite meanings and therefore should always be represented at the same relative size when used in different symbols.

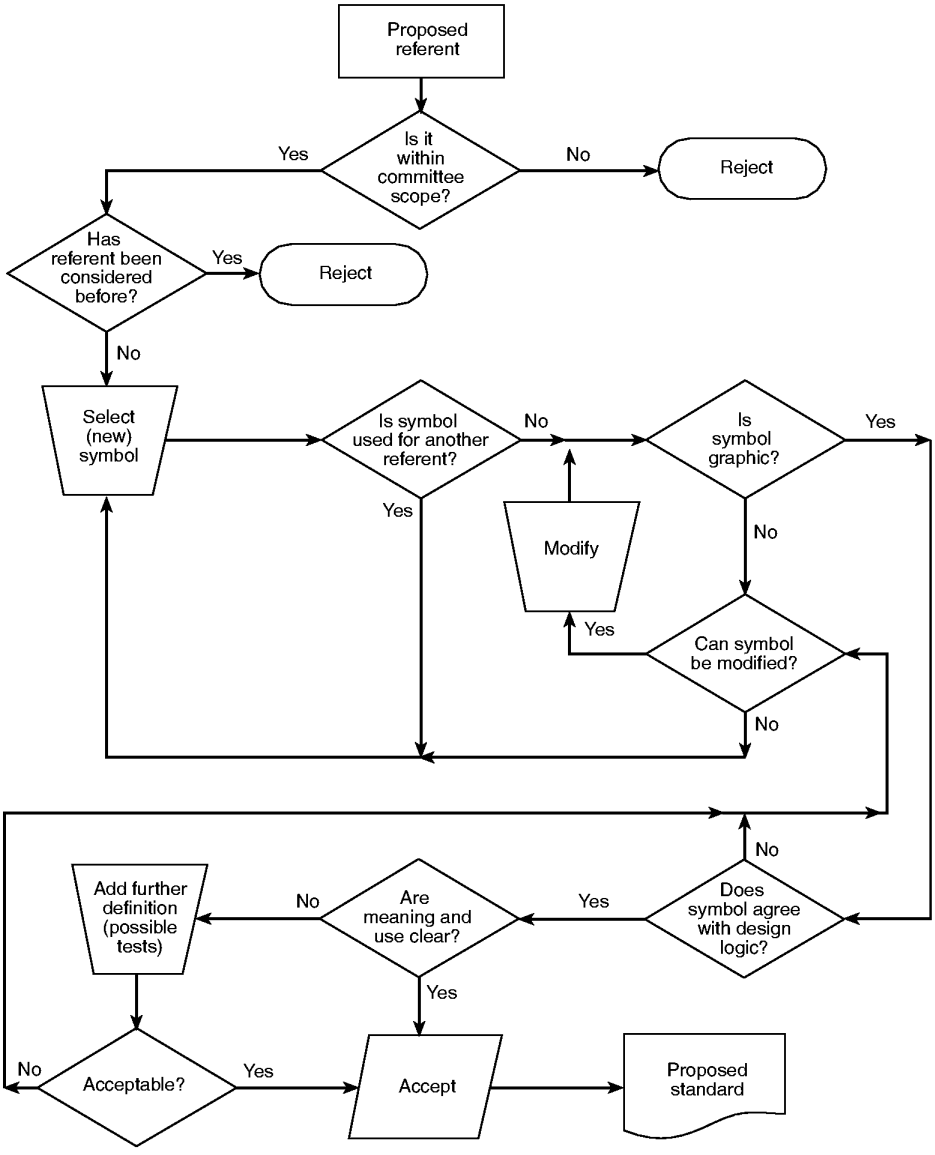


FIGURE B.5.1 Symbol Selection Procedure.

Table B.5.2.4 Basic Symbol Shapes and Relative Sizes

General Referent	Shape	Relative Size*	Comments
Major Elements			
Automatically actuating systems		4 mm (5⁄32 in.) diameter	Detection, extinguishment.
Manually actuating systems		4 mm (5⁄32 in.) square	Manual alarm system.
Control panel		4 mm × 8 mm (5⁄32 in. × 5⁄16 in.)	Supplementary element is used to describe the panel.
Portable fire extinguisher		5 mm (3⁄16 in.) sides	Supplementary element is used to further describe the extinguisher.
Fire-fighting equipment		6 mm (1⁄4 in.) sides	Supplementary element is used to describe a specific device.
Supplementary Elements			
Water system components		2 mm (3⁄32 in.) diameter	General shape, a circle. Shading of this element indicates a wet device.
Foam agent		5 mm (3⁄16 in.) diameter	
Dry chemical agent		2 mm (3⁄32 in.) square	
Gaseous agent		3 mm (1⁄8 in.) sides	
Nozzle			Used on pipe or other symbol.
Pressure notation			Used with another symbol shape, such as a detector or a tank.
Switch (electrical) or contact		2 mm (0.075 in.) diameter	
Valve		4 mm (5⁄32 in.) high	
Check valve		6 mm (1⁄4 in.) high (with arrow)	
Tamper detector		4 mm (5⁄32 in.) diameter	
Heat detector		1 mm (0.05 in.) diameter	
Flow detector		4 mm (5⁄32 in.) high	
1-hour fire rating		5 mm (3⁄16 in.) square	Used to indicate fire rating of walls in hours.

**Relative* is emphasized since it is not the intent here to specify actual dimensions. For comparisons, this column lists the suggested sizes of the symbols presented here.

B.5.2.6 The NFPA Committee on Fire Safety Symbols was able to identify a set of shapes for symbols to be used on fire protection drawings and diagrams *(see Table B.5.2.4)*. The shapes were selected through a reconciliation of the symbols presented in former NFPA 172 (now incorporated into Chapter 6), the general shapes being drafted by ISO, and, where existent, the common practice in North America. Thus, the family of shapes represents a compromise, with the major objective of developing a common language to improve future communication among users of fire protection diagrams worldwide.

B.5.3 Use of Color Coding.

B.5.3.1 General. The use of color coding to indicate various types of building construction is recommended and can be justified. Where used, color coding should be in conformity with this annex to maximize communication. Where color coding is not used, it is necessary to rely on printed detail.

B.5.3.2 Table B.5.3.2 presents a recommended system for color coding.

Table B.5.3.2 Color Coding of Construction Types

Construction Type*	Color
Fire resistive (Type I)	Light brown
Noncombustible/limited combustible (Type II)	Gray (brown border if masonry walls)
Heavy timber and ordinary (Type III and IV)	Pink
Wood frame (Type V)	Yellow

*See NFPA 220, *Standard on Types of Building Construction.*

Annex C Symbols for Life Safety Planning

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

C.1 The symbols shown in Table C.1 are presented for use in developing plans showing life safety–related components. Other features that can be indicated include wall rating *(see Table 6.3.3)*, emergency lighting *(see Table 6.6)*, and so forth.

Table C.1 Symbols for Use in Developing Plans Showing Life Safety–Related Components

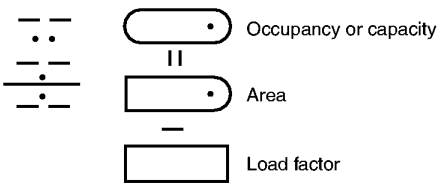
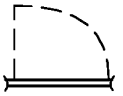
Symbol	Description	Comments
E: _ _	Egress component identifier	Specify egress component: EX# = Exit number HE = Horizontal exit EP = Exit passageway CP = Common path of travel PD = Public discharge RD = Room door ES = Escape
< _ _ >	Egress component capacity	Specify allowable number of persons through egress component (e.g., < 25 >)
<< _ _ >>	Governing component capacity	Specify maximum capacity of the egress path
_ _ > _ _	Travel distance	Left side: Distance to egress component Right side: Egress component identifier
	Occupancy capacity	Top: Specify capacity Middle: Specify area (square meters [square feet]) Bottom: Specify occupant load factor
	Fire door	

Table C.1 *Continued*

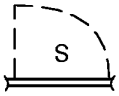
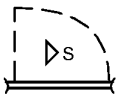
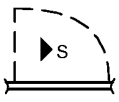
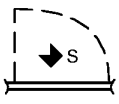
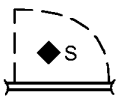
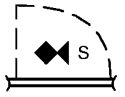
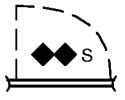
Symbol	Description	Comments
	Non-rated fire door	
	Non-rated smoke-resistant fire door	
	20-minute fire-rated fire door	
	20-minute fire-rated, smoke-resistant fire door	
	½-hour fire-rated fire door	
	½-hour fire-rated, smoke-resistant fire door	
	¾-hour fire-rated fire door	
	¾-hour fire-rated, smoke-resistant fire door	
	1-hour fire-rated fire door	
	1-hour fire-rated, smoke-resistant fire door	

Table C.1 *Continued*

Symbol	Description	Comments
	1½-hour fire-rated fire door	
	1½-hour fire-rated, smoke-resistant fire door	
	2-hour fire-rated fire door	
	2-hour fire-rated, smoke-resistant fire door	
	3-hour fire-rated fire door	
	3-hour fire-rated, smoke-resistant fire door	
	Exit	Wide, black, solid line
	Exit access	Wide, black, dashed line
	Exit discharge	Wide, black, short, dashed line

Annex D Informational References

D.1 Referenced Publications. The following documents or portions thereof are referenced within this standard for informational purposes only and are thus not part of the requirements of this document unless also listed in Chapter 2.

D.1.1 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 220, *Standard on Types of Building Construction,* 1999 edition.

NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems,* 2000 edition.

D.1.2 Other Publications.

D.1.2.1 ANSI Publication. American National Standards Institute, Inc., 11 West 42nd Street, 13th floor, New York, NY 10036.

ANSI A117.1, *Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.*

D.2 Informational References. The following documents or portions thereof are listed here as informational resources only. They are not a part of the requirements of this document.

D.2.1 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

Fire Protection Handbook, 18th edition, 1997.

Inspection Manual, 7th edition, 1997.

National Fire Codes®, 2002.

D.2.2 ANSI Publications. American National Standards Institute, Inc., 11 West 42nd Street, 13th floor, New York, NY 10036.

ANSI Z535.1, *Safety Color Code,* 1998.

ANSI Z535.3, *Criteria for Safety Symbols,* 1998.

ANSI Z535.4, *Production Safety Signs and Labels,* 1998.

D.2.3 IEC Publication. International Electrotechnical Commission, 3 rue de Varembé, P.O. Box 131, 1211 Geneva 20, Switzerland.

IEC, Pub. 117-3, *Graphical Symbols,* 1977.

D.2.4 ISO Publications. International Standards Organization, 1 rue de Varembé, Case Postale 56, CH-1211 Geneva 20, Switzerland.

ISO 3461-1976(E), *General Principles for the Creation of Graphical Symbols,* 1988.

ISO 3864, *Safety Colors and Safety Signs,* 1984.

ISO 6309, *Fire Protection — Safety Signs,* 1987.

ISO 6790, *Equipment for Fire Protection and Fire Fighting Graphical Symbols for Fire Protection Plans — Specification,* 1986.

D.3 References for Extracts. The following documents are listed here to provide reference information, including title and edition, for extracts given throughout this standard as indicated by a reference in brackets [ ] following a section or paragraph. These documents are not a part of the requirements of this document unless also listed in Chapter 2 for other reasons.

NFPA 10, *Standard for Portable Fire Extinguishers,* 2002 edition.

Index

-A-

Aboveground tanks ..... Table 6.3.6
Access, fire department
Drawing and diagram symbols 6.2.7
Pre-incident planning sketch symbols ..... Table 7.2, A.7.2
Access to exits, disabled users ..... Table 4.2
Air-conditioning equipment rooms ..... Table 7.5
Alarms, fire
Control panels ..... Table 6.5
Drawing and diagram symbols ..... Table 6.7.1, A.6.7.1
Manual ..... *see* Manual alarms
Pre-incident planning sketch symbols ..... Table 7.2
Approved (definition) 3.2.1, A.3.2.1
Architectural drawings, symbols used in ..... *see* Drawings and diagrams, symbols used in
Arrows, directional ..... Table 5.2
Authority having jurisdiction (definition) 3.2.2, A.3.2.2

-B-

Boiler rooms ..... Table 7.5
Boilers ..... Table 6.3.6
Building construction, symbols for 6.3, A.6.3
Buildings, symbols for ..... 6.2.1, A.6.2.1.2, Fig. A.6.2.1.2

-C-

Campfires prohibition ..... Table 4.2
Child care center ..... Table 5.2
Chimneys ..... Table 6.3.6
Compressed natural gas shutoff ..... Table 7.2
Connections, fire department ..... *see* Fire department connections
Construction, building, symbols for 6.3, A.6.3.3, A.6.3.5
Control devices, sprinkler system ..... 6.8.3, Table 6.8.3
Control panels ..... Table 6.5, Table B.5.2.5
Cooking prohibition ..... Table 4.2
Cross-sections ..... 6.3.5, A.6.3.5, Table A.6.3.5

-D-

Definitions ..... Chap. 3
Detection equipment and systems
Drawing and diagram symbols ..... Table 6.7.2, Table B.5.2.5
Pre-incident planning sketch symbols ..... Table 7.3
Diagrams ..... *see* Drawings and diagrams, symbols used in
Directional arrows ..... Table 5.2
Disabled users, exit access for ..... Table 4.2
Door holders ..... Table 6.7.3
Doors, fire ..... Table 6.3.4, Table C.1
Drawings and diagrams, symbols used in ..... Chap. 6
Alarms, fire ..... Table 6.7.1, A.6.7.1
Building construction 6.3, A.6.3
Color coding, use of B.5.3
Control panels ..... Table 6.5
Descriptions of symbols ..... 6.2 to 6.12, A.6.2 to A.6.4, A.6.7, A.6.8, A.6.12
Detection equipment ..... Table 6.7.2
Development B.5.2
Extinguishers, portable fire ..... Table 6.9
Extinguishing systems 6.8, A.6.8
Fire-fighting equipment ..... Table 6.10
Means of egress ..... Table 6.6
Miscellaneous ..... Table 6.12, A.6.12
Orientation ..... 6.1.2.4, A.6.1.2.4, Fig. A.6.1.2.4(a), Fig. A.6.1.2.4(b)
Presentation 6.1.2, A.6.1.2
Scale 6.1.2.3
Screened lines 6.1.2.2
Selection procedure B.5.1
Shapes ..... 6.1.2.1, A.6.1.2.1, B.5.2.4 to B.5.2.6
Site features 6.2, A.6.2
Sizes, relative ..... Table B.5.2.5
Smoke/pressurization control ..... Table 6.11
Sprinkler ..... Table 6.8.2, A.6.8.2
Testing B.5.2.1
Water supply and distribution ..... Table 6.4, A.6.4
Dry chemical extinguishing systems ..... Table 6.8.1.2, Table 7.3
Dry chemical portable fire extinguishers ..... Table 6.9

-E-

Egress, means of ..... *see* Means of egress
Electrical/transformer rooms ..... Table 7.5
Electric panel or electric shutoff ..... Table 5.2, Table 7.2
Elevators
Building construction symbols ..... Table 6.3.4
Equipment rooms ..... Table 7.5
Prohibition of use ..... Table 4.2
Engineering drawings, symbols used in ..... *see* Drawings and diagrams, symbols used in
Equipment rooms ..... Table 7.5
Equivalency to standard 1.4
Escalators ..... Table 6.3.4
Exits
Disabled users, access for ..... Table 4.2
Drawing and diagram symbols ..... Table 6.3.6, Table 6.6
General use symbols ..... Table 4.2
Symbols for ..... Table C.1
Extinguishers, portable fire
Drawing and diagram symbols ..... Table 6.9, Table B.5.2.5
Fire service symbols ..... Table 5.2
Extinguishing agents ..... Table B.5.2.5
Storage containers ..... Table 6.12
Extinguishing systems
Control panels ..... Table 6.5
Drawing and diagram symbols ..... 6.8, A6.8, Table B.5.2.5
Pre-incident planning sketch symbols ..... Table 7.3

-F-

Fences ..... 6.2.5, A.6.2.5.2, Fig. A.6.2.5.2
Fire department access ..... *see* Access, fire department
Fire department connections
Drawing diagram symbols ..... Table 6.4
Fire service use symbols ..... Table 5.2
Pre-incident planning sketch symbols ..... Table 7.4
Fire doors ..... Table 6.3.4, Table C.1
Fire escapes ..... Table 6.3.6
Fire-fighting equipment ..... Table 6.10, Table B.5.2.5
Fire-fighting hoses ..... Table 5.2
Fire hydrants ..... *see* Hydrants
Fire pumps ..... Table 6.4, Table 7.4
Fire service, symbols for use by ..... Chap. 5
Background 5.1.3.2
Color 5.1.2, 5.1.3.2.2, 5.1.3.3, A.5.1.2
Descriptions of symbols ..... Table 5.2, A.5.2

Fundamental imagery 5.1.2, A.5.1.2
Orientation 5.1.3.4
Presentation 5.1.3, A.5.1.3
Shapes 5.1.2, 5.1.3.1, 5.1.3.2.1, A.5.1.2, A.5.1.3.1, B.4.2
Testing B.4.1
Flame detectors ..... Table 6.7.1
Floor assemblies ..... Table 6.3.5
Floor openings ..... Table 6.3.4
Fusible links ..... Table 6.12, A.6.12

-G-

Gas detectors ..... Table 6.7.1, A.6.7.1
Gaseous mediums, systems utilizing ..... Table 6.8.1.3
Gas shutoff ..... Table 7.2
Gas shutoff valves ..... Table 5.2
General use, symbols for ..... Chap. 4
Color 4.1.2.3, 4.1.3.3
Descriptions of symbols ..... Table 4.2, A.4.2
Fundamental imagery 4.1.2.3, A.4.1.2.3
Presentation 4.1.3, A.4.1.3
Shape 4.1.2.3, 4.1.3.2, A.4.1.2.3
Testing B.3.1
Uniformity in use of 4.1.2, A.4.1.2.3, A.4.1.2.4
Generator rooms, emergency ..... Table 7.5

-H-

Hanger prohibition ..... Table 4.2
Hangers, sprinkler pipe ..... 6.8.3, Table 6.8.3
Hazardous materials, identification of 7.6, A.7.6
Headers ..... Table 6.4
Heat detectors
Drawings and diagrams, symbols used in ..... Table 6.7.1, A.6.7.1, Table B.5.2.5
Pre-incident planning sketch symbols ..... Table 7.3
Height (building), symbols for ..... 6.3.2, A.6.3.2, Fig. A.6.3.2
Hoistways, open ..... Table 6.3.4
Hose cabinets or connections ..... Table 7.4
Hoses, fire fighting ..... Table 5.2
Hydrants
Drawing and diagram symbols ..... Table 6.4, A.6.4
Fire service use symbols ..... Table 5.2
Pre-incident planning sketch symbols ..... Table 7.4

-I-

Indicating appliances ..... Table 6.7.2
Insurance diagrams, symbols used in .....*see* Drawings and diagrams, symbols used in

-L-

Labeled (definition) 3.2.3
Life safety planning symbols ..... Annex C
Lights
Emergency ..... Table 6.6
Indicating ..... Table 6.7.2
Listed (definition) 3.2.4, A.3.2.4
Loss analysis diagrams .....*see* Drawings and diagrams, symbols used in
LP-Gas shutoff ..... Table 7.2

-M-

Mains, pipe ..... Table 6.4
Manual alarms
Drawing and diagram symbols ..... Table 6.7.1, A.6.7.1, Table B.5.2.5
General use symbols ..... Table 4.2
Pre-incident planning sketch symbols ..... Table 7.3
Means of egress .....*see also* Exits
Drawing and diagram symbols ..... Table 6.6
Life safety planning symbols ..... Table C.1
Measurement, units of 1.5
Meters ..... Table 6.4

-N-

Natural gas shutoff ..... Table 7.2

-O-

Openings (floor, wall, roof) ..... Table 6.3.4
Open-walled buildings ..... A.6.2.1.2, Fig. A.6.2.1.2

-P-

Parapets ..... Table 6.3.3
Piping, sprinkler system ..... 6.8.3, Table 6.8.3
Pre-incident planning (definition) 3.3.1
Pre-incident planning sketches, symbols used in ..... Chap. 7
Access features ..... Table 7.2, A.7.2
Assessment features ..... Table 7.2
Detection/extinguishing equipment ..... Table 7.3
Equipment rooms ..... Table 7.5
Hazardous materials, identification of 7.6, A.7.6
Shapes 7.1.2, A.7.1.2
Utility shutoffs ..... Table 7.2
Ventilation features ..... Table 7.2
Water flow control valves and water sources ..... Table 7.4
Pressurization control ..... Table 6.11
Pressurization panel ..... Table 7.2
Prohibition symbols ..... 4.1.3.2, Fig. A.4.1.3.2.1
Orientation 4.1.3.1
Types ..... Table 4.2
Property lines 6.2.6
Pump rooms ..... Table 7.5
Pumps, fire
Drawing and diagram symbols ..... Table 6.4
Pre-incident planning sketch symbols ..... Table 7.4
Purpose of standard 1.2

-R-

Railroad tracks 6.2.2
References ..... Chap. 2, Annex D
Referent (definition) 3.3.2, A.3.3.2
Refuge, area of ..... Table 4.2
Retroactivity of standard 1.3
Riser ..... Table 6.4
Risk analysis drawings ...*see* Drawings and diagrams, symbols used in
Roof assemblies ..... Table 6.3.5
Roof openings ..... Table 6.3.4

-S-

Scope of standard 1.1
Screen/strainer ..... Table 6.4
Self-luminous (definition) 3.3.3
Shall (definition) 3.2.5
Should (definition) 3.2.6
Shutoffs, utility ..... Table 5.2, Table 7.2
Shutoff valves, gas ..... Table 5.2
Siamese fire department connections
Drawing and diagram symbols ..... Table 6.4
Fire service use symbols ..... Table 5.2
SI units 1.5
Skylights ..... Table 6.3.4, Table 7.2
Smoke control
Drawing and diagram symbols ..... Table 6.11
Pre-incident planning sketch symbols ..... Table 7.2
Smoke detectors
Control panels ..... Table 6.5
Drawing and diagram symbols ..... Table 6.7.1, A.6.7.1
Pre-incident planning sketch symbols ..... Table 7.3

Smoke vents ..... Table 7.2
Smoking prohibition ..... Table 4.2
Spray nozzles, special ..... Table 6.12
Sprinkler systems
Drawing and diagram symbols ..... Table 6.8.1.4, Table 6.8.2, Table 6.8.3
Fire service use symbols ..... Table 5.2
Hanger prohibition ..... Table 4.2
Pre-incident planning sketch symbols ..... Table 7.2, Table 7.4
Stairs
Building construction symbols ..... Table 6.3.4
Use in case of fire, symbols for ..... Table 4.2
Standpipes
Fire department connections ..... Table 5.2
Outlets ..... Table 5.2
Streets ..... 6.2.3, A.6.2.3, Fig. A.6.2.3
Suction pipe ..... Table 6.4
Supplementary indicators (definition) 3.3.4, A.3.3.4
Symbols (definition) 3.3.5, A.3.3.5

-T-

Tanks
Drawing and diagram symbols ..... Table 6.3.6
Pre-incident planning sketch symbols ..... Table 7.4
Telephone, emergency ..... Table 5.2
Telephone equipment rooms ..... Table 7.5
Telephone station, emergency ..... Table 6.7.1, A.6.7.1
Testing
Drawing and diagram symbols B.5.2.1
Fire service use symbols B.4.1
General use symbols B.3.1
Thrust block ..... Table 6.4
Transformer rooms ..... Table 7.5

-U-

Underground tanks ..... Table 6.3.6
Units of measurement 1.5
Utility shutoffs ..... Table 5.2, Table 7.2

-V-

Valves ..... Table B.5.2.5
Drawing and diagram symbols ..... Table 6.4
Gas shutoff ..... Table 5.2
Solenoid ..... Table 6.12
Sprinkler control ..... Table 5.2
Sprinkler system ..... 6.8.3, Table 6.8.3
Water flow control ..... Table 7.4
Ventilation features ..... Table 6.5, Table 6.11, Table 7.2
Vents, smoke ..... Table 7.2

-W-

Wall openings ..... Table 6.3.4
Walls ..... Table 6.3.3, A.6.3.3, Fig. A.6.3.3(a), A.6.3.3(b)
Water, bodies of ..... 6.2.4, A.6.2.4, Fig. A.6.2.4
Water-based extinguishing systems ..... Table 6.8.1.1
Water flow control valves ..... Table 7.4
Water flow detectors/alarms
Drawing and diagram symbols ..... Table 6.7.1, Table 6.7.2, Table B.5.2.5
Pre-incident planning sketch symbols ..... Table 7.2, Table 7.3
Water shutoff ..... Table 7.2
Water supply and distribution ..... Table 6.4, Table 7.4, A.6.4, Table B.5.2.5
Water tanks ..... Table 7.4