



Houston Fire Department Life Safety Bureau (LSB)



LSB Standard No. 07, Rev. 07

High-Rise Fire Safety Plans

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LSB Standards are established in accordance with provisions of the City of Houston *Fire Code*. They are subject to the administrative sections covering alternative materials and methods, modifications, and the Board of Appeals.

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High-Rise Fire Safety Plans

Section 7.1 – General

7.1.1 Scope.

This standard shall apply to all high-rise buildings that are located within the City of Houston.

7.1.2 Purpose.

This standard shall provide guidance for all owners, managers, and occupants of high-rise office/mercantile buildings, high-rise condominiums/apartments/dormitories, and high-rise hotels in the creation of fire safety plans required under the City of Houston *Fire Code* and *Building Code* and this standard.

Section 7.2 – Definitions

7.2.1 Fire Safety Director.

A representative of the owner of a high-rise building who is mandated by the Fire Code Official to implement and manage all aspects of the Fire Safety Plan by providing information and proper training to staff, tenants, residents, and guests, as defined herein. The Director is responsible for directing the Fire Safety Plan during and after a fire emergency.

7.2.2 Fire Safety Team.

Building personnel selected and trained to utilize the approved Fire Safety Plan in promoting general fire and life-safety in high-rise buildings. The Fire Safety Team shall include the Fire Safety Director, Assistant Directors, Fire Wardens, and other such personnel included in the approved fire safety plan. The members of the Fire Safety Team shall possess a current certificate signed by the Fire Code Official or an approved training instructor, as defined in Life Safety Bureau (LSB) Standard No. 18 “High-Rise Fire Safety Plan Approval.” Certificates shall be valid for a period of five years.

7.2.3 Fire Warden.

A dependable and responsible representative of a tenant in a high-rise office building who will, when safe to do so, help direct the evacuation of occupants according to the approved fire safety plan.

7.2.4 Guest.

An occupant of a high-rise hotel room.

7.2.5 High-Rise Building.

A building with floors located more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access.

Exception. For the purpose of establishing a building as a high-rise, the uppermost floor located more than 75 feet above the lowest level of fire department access used for housing building systems mechanical equipment is exempt.

7.2.6 Mobility Impaired List.

A list, by name, impairment, and work location, of persons who may have some type of physical condition or hindrance that could encumber their self-evacuation from the floor of incident or the building in the event of an emergency or would need assistance of other personnel or an emergency service in the event of an emergency. Names of persons with a short-term illness or injury need not be placed on this list. Fire Wardens and building security personnel should, however, be knowledgeable of any person who may be in need of assistance in evacuating during an emergency.

7.2.7 Occupant.

Management, staff, tenants, residents, guests, or visitors.

7.2.8 Property Management.

The owner of a building or the authorized agent of the owner.

7.2.9 Resident.

An occupant of a high-rise condominium/apartment/dormitory building.

7.2.10 Tenant.

Lessee or occupant in a high-rise office/mercantile building.

Section 7.3 – Submitting and Implementing a Plan

7.3.1 Process of Receiving Plan.

The process of obtaining approval of a Fire Safety Plan begins with creation of the Plan, which consists of three essential training elements to be conducted by persons, institutions, or companies approved by the Fire Code Official in accordance with established regulations. These training elements are:

- Consultation with building management;

- Certification training for Fire Wardens; and

- A fire drill supervised by persons, institutions, or companies approved by the Fire Code Official.

7.3.2 Possession of Fire Safety Plan.

The owner, management, or designated representative of a high-rise building (office, mercantile, condominium, apartment, dormitories or hotel) shall possess and maintain an approved Fire Safety Plan that meets the requirements of established regulations and applicable city ordinances.

7.3.3 Plan Contents.

The Fire Safety Plan for a high-rise building shall include the following:

1. Identity and contact information of the person or persons responsible for maintenance of facilities and essential personnel required to carry out the plan.
2. Identity and contact information of the responsible person designated as the Fire Safety Director along with an enumeration of the Director's duties.
3. List of sufficient alternates for each Fire Safety Director and Assistant Director.
4. Procedures for reporting fires and/or fire alarms.
5. Instructions for the fire alarm system operations.
6. Life-safety procedures.
7. Identification of the building's fire safety features.
8. Maps showing means of egress that comprise the vertical and horizontal ways of travel to a public way.
9. Maps that indicate those stairwell doors through which re-entry may be made into a corridor during emergency conditions.
10. Maps must also show the locations of any of the following components:
 - a. Fire Alarm Pull Stations
 - b. Fire Extinguishers and Fire Hose Cabinets
 - c. Elevator Lobbies
 - d. Fire Depository Box
 - e. Emergency Generator
 - f. Fire Alarm Annunciator Panel
 - g. Fire Extinguishing Systems
 - h. Smoke Removal Controls
 - i. Public Address System Panels
 - j. Means of Two-Way Communication
 - k. Fire Command or Central Control Room
 - l. Elevator Fire Service Recall Location
 - m. Stairwell Identification
 - n. Air Handlers and Mechanical and Electrical Service Rooms
 - o. Other Emergency Control or Indicating Systems

Section 7.4 – Duties and Responsibilities

7.4.1 Fire Safety Director.

The Fire Safety Director shall have the following duties and responsibilities:

7.4.1.1 Maintain Records.

Maintain current Fire Safety Team training records, records of the maintenance of the fire safety system, records of the contents of fire depository boxes, and records of fire drills. Records shall be made available to the Fire Code Official upon request.

7.4.1.2 Notify Acting Safety Director.

When the Fire Safety Director is or will be unavailable, notify an on-site management representative so that the representative shall serve as the Acting Fire Safety Director; The Acting Fire Safety Director must be capable of managing and implementing the Fire Safety Plan when the Fire Safety Director is not on duty in the building. The Fire Safety Director shall supervise the training and related activities of the Acting Fire Safety Director and must be able to provide a summary of such to the Fire Code Official upon demand for approval. Such activities shall be subject to fire department control.

7.4.1.3 Distribute Plans (Offices/Mercantile Buildings).

Distribute the applicable parts of the approved Fire Safety Plan to all tenants, fire wardens, and building management or contract employees.

7.4.1.4 Distribute Plans (Condominiums/Apartments/Dormitories).

Distribute the applicable parts of the approved Fire Safety Plan to all building management or contract employees and residents.

7.4.1.5 Distribute Plans (Hotels).

Distribute the applicable parts of the approved Fire Safety Plan to all building management or contract employees.

7.4.1.6 Conduct Fire Drills.

Be familiar with the approved Fire Safety Plan and conduct a fire drill at least every six (6) months. The Fire Code Official, upon survey of conditions, may require additional drills. A written record of such drills shall be kept on the premises and shall be readily available for fire department inspection.

7.4.1.7 Implement Training Program (Office/Mercantile Buildings).

Implement an approved training program to provide fire prevention and emergency procedures for, but not limited to, the following person(s): building maintenance personnel, security personnel, custodial personnel, and such other specialized personnel the Fire Code Official deems applicable to each building. Ensure that each employee is familiar with the Fire Safety Plan, the location of exits, and the location and procedures for activation of fire alarm pull stations.

7.4.1.8 Implement Training Program (Condominiums, Apartments, Dormitories).

Implement an approved training program to provide fire prevention and emergency procedures for, but not limited to, the following person(s): the concierge, housekeeping, kitchen personnel, laundry personnel, doormen, building

maintenance personnel, security personnel, custodial personnel, and such other specialized personnel the Fire Code Official deems applicable to each building. Ensure that each employee is familiar with the Fire Safety Plan, the location of exits, and the location and procedures for operation of fire alarm pull stations and any applicable manually operated fire extinguishing systems.

7.4.1.9 Implement Training Program (Hotels).

Implement an approved training program to provide fire prevention and emergency procedures for, but not limited to, the following person(s): the manager on duty (MOD), PBX operators, housekeeping, kitchen personnel, laundry personnel, doormen, building maintenance personnel, security personnel, custodial personnel, and such other specialized personnel the Fire Code Official deems applicable to each building. Ensure that each employee is familiar with the Fire Safety Plan, the location of exits, and the location and procedures for operation of fire alarm pull stations and any applicable manually operated fire extinguishing systems.

7.4.1.10 Fire Depository Box (FDB).

Be responsible for installation and maintenance of the FDB and its contents. See LSB Standard No. 06, "Fire Depository Boxes".

7.4.1.11 Fire Safety Assistance List (Hotels).

Maintain a current guest Fire Safety Assistance List at the front desk and **update it daily**.

7.4.1.12 Assist the Fire Code Official.

Provide facilities and assistance as needed by the Fire Code Official to obtain approval for the Fire Safety Plan.

7.4.1.13 Ensure Method of Reporting Fires (Office/Mercantile Buildings).

Ensure that property management or the owner of a high-rise office or mercantile building, who has employed or contracted with an answering service, provides instructions to the answering service to call "9-1-1" when a fire, the smell of smoke, or a fire alarm is reported to them. Answering services outside of the local City of Houston/Harris County "9-1-1" service area shall call the Houston Fire Department Office of Emergency Communications emergency telephone number (713-884-3143). Answering services shall instruct the caller to dial "9-1-1" to report the conditions as well.

7.4.1.14 Ensure Method of Reporting Fires (Condominiums, Apartments, Dormitories).

Ensure that all employees and the off-site alarm monitoring companies, if applicable, are properly trained in methods of reporting fire and/or fire alarms to the Fire Department whenever there is a fire of any size and/or fire alarm of any nature.

7.4.1.15 Ensure Method of Reporting Fires (Hotels).

Ensure that all employees, the PBX operators, and the off-site alarm monitoring companies, if applicable, are properly trained in methods of reporting fire and/or fire alarms to the Fire Department whenever there is a fire of any size and/or fire alarm of any nature.

7.4.1.16 Individuals Neglecting Responsibilities (Office/Mercantile Buildings).

Notify the tenant when any employee of the tenant or individual is neglecting their responsibilities contained in the Fire Safety Plan. If the tenant fails to correct the condition, the owner or person in charge of the building shall notify the Fire Code Official.

7.4.1.17 Individuals Neglecting Responsibilities (Condominiums, Apartments, Dormitories).

Be responsible for employees performing their responsibilities and duties contained in the Fire Safety Plan.

7.4.1.18 Individuals Neglecting Responsibilities (Hotels).

Notify the general manager when any employee or individual is neglecting their responsibilities contained in the Fire Safety Plan. If the general manager fails to correct the condition, the Fire Safety Director shall notify the Fire Code Official.

7.4.1.19 Fire and Life-Safety Systems.

Understand the purpose and operation of all fire and life-safety systems located in the building under the control of the building owner or property management.

7.4.1.20 Duties in the Event of a Fire or Fire Alarm.

In the event of a fire or fire alarm, the Fire Safety Director shall:

1. Ensure that the fire department has been notified immediately whenever there is a fire of any size and/or fire alarm of any nature.
 - a. Have someone knowledgeable of the building meet the fire department upon their arrival.
 - b. Advise the fire department in the location of the fire command station.
 - c. Report any known conditions on the fire floor or alarm floor to the fire department upon their arrival.
2. Ensure that all elevators serving the floor of incident are removed from service to the general public and made available to the Fire Department. Specific instructions will depend on the individual building. The specific instructions for each building shall be incorporated in the building's Fire Safety Plan.
3. Direct fire safety procedures utilizing the public address system, if available.
 - a. Be familiar with the location of all exits/stairwells and select the safest exit/stairwell to use for evacuation on the basis of the location of the fire and any information available. If an exit/stairwell is affected by smoke, an alternate exit/stairwell shall be selected.

- b. The priority floors for immediate evacuation are the fire floor, one floor above, and one floor below the fire.
- c. Evacuation from other floors shall be instituted when conditions indicate such action or when instructed by the fire department or the Fire Safety Director. Evacuation should be via uncontaminated stairwells.
- d. Relocation to three (3) or more levels below the fire floor is generally adequate.
- e. Be familiar with procedures for assuring safety of mobility-impaired occupants who may require special assistance in the event of an evacuation: Occupants not requiring assistance should evacuate first to lessen the possibility of persons in need of assistance being bumped and/or falling down, thus slowing fire safety and/or causing injury. If there is evidence of fire, Occupants having mobility impairments should move or be moved to a position near the fire exit/stairwell that is located farthest away from the fire. If fire conditions pose a personal threat, the fire warden or person assisting should enter into the fire exit stairwell with the mobility impaired occupants and wait for the Fire Department. If fire conditions pose a personal threat in the stairwell, the fire warden or person assisting should move with the mobility-impaired occupants to a safe location. Fire Wardens shall have someone notify the fire department the location of all mobility-impaired occupants who have required special assistance in evacuating the affected areas of their location.

7.4.2 Fire Wardens (High-Rise Office Buildings Only)

7.4.2.1 Each Floor of a Building.

Each floor of a building shall be under the direction of the Fire Wardens for the fire safety of occupants in the event of a fire or fire alarm.

7.4.2.2 Familiar with Fire Safety Plan and Systems.

Each Fire Warden shall be familiar with the Fire Safety Plan, the location of exits, and the location and procedures for operation of fire alarm pull stations.

7.4.2.3 Duties in the Event of a Fire or Fire Alarm.

In the event of a fire or fire alarm the Fire Warden, **when it can be done safely**, shall:

1. Notify the fire department as specified in the approved Fire Safety Plan.
2. See that all occupants are notified of the fire or fire alarm and instruct occupants as per the Fire Safety Plan.
3. Direct the fire safety of the floor in accordance with directions received and the following guidelines:
 - a. The Fire Warden shall select the nearest fire exit stairwell to use for fire safety on the basis of the location of the fire and any information received. If a fire exit stairwell is affected by smoke, an alternate fire exit stairwell shall be selected.

- b. The priority floors for immediate fire safety are the fire floor, one floor above, and one floor below the fire. In the event of a fire alarm, minimum fire safety response is to prepare to evacuate by relocating occupants to the nearest fire exit stairwell door. Fire safety from other floors shall be instituted when conditions indicate such action or when instructed by the fire department or the Fire Safety Director. Fire safety should be via uncontaminated stairwells.
- c. Relocation to three (3) or more levels below the fire floor is generally adequate.
- d. Fire Wardens on the fire floor shall, as soon as practical, notify the Fire Safety Director of the conditions.
- e. Fire Wardens shall verify that mobility-impaired occupants who are present on the floor have arrived at or near the fire exit stairwell that is located farthest away from the fire and stay with them if no other person is assisting them. If fire conditions pose a personal threat, the Fire Warden or person assisting should enter into the fire exit stairwell with the mobility impaired occupants and wait for the Fire Department. If fire conditions pose a personal threat in the stairwell, the Fire Warden or person assisting should move with the mobility-impaired occupants to a safe location. Fire Wardens shall have someone notify the fire department of the location of all mobility-impaired occupants who have required special assistance in evacuating the affected areas of their location.

7.4.3 Tenants (High-Rise Office Buildings Only)

7.4.3.1 Complying with Approved Fire Safety Plan.

Each tenant shall be required to comply with the approved Fire Safety Plan.

7.4.3.2 Availability of Fire Wardens.

All tenants, upon request of the owner, management, or designated representative, shall make responsible and dependable employees available for Fire Warden certification training towards approval and implementation of the Fire Safety Plan.

1. A Fire Warden shall be provided for each tenancy on each floor. Should the floor area of a tenancy exceeds 7,500 square feet of occupiable space, a Fire Warden shall be assigned for each 7,500 square feet or part thereof.
2. Each floor of a building shall have a minimum of two (2) Fire Wardens.

7.4.3.3 Distribution of Fire Safety Plan.

The applicable parts of the approved Fire Safety Plan shall be distributed by the tenants to all their employees.

7.4.3.4 Occupants Needing Special Assistance.

It is the duty of the tenant to advise the Fire Safety Director of any occupants who may need special assistance in the event of an evacuation so that the Mobility Impaired List can be updated in the Fire Depository Box (FDB).

7.4.3.5 Drill Participation.

When fire drills are conducted, all persons who are subject to the fire drill shall participate in the drill.

Section 7.5 – Fire Drills

7.5.1 Frequency.

A fire drill shall be conducted at least every six (6) months.

7.5.2 Notification.

Prior to the fire drill, all occupants shall be notified of the date and time scheduled for the fire drill.

7.5.3 Participants.

When fire drills are conducted, all persons who are subject to the fire drill shall participate in the drill.

7.5.4 Additional Fire Drills.

The Fire Code Official, upon survey of conditions, may require additional drills.

7.5.5 Fire Drill Records.

A written record of such drills shall be kept on the premises and shall be readily available for Fire Code Official's inspection.

References

1. City of Houston *Fire Code*
2. City of Houston *Building Code*, all editions
3. Life Safety Bureau (LSB) Standard No. 08, "Fire Drills"
4. Life Safety Bureau (LSB) Standard No. 18, "High-Rise Fire Safety Plan Approval"
5. Houston Fire Department LSB, High-Rise Apartment/Condominium Fire Safety Plan
6. Houston Fire Department LSB, High-Rise Hotel Fire Safety Plan
7. Houston Fire Department LSB, High-Rise Office Building Fire Safety Plan

All reference materials used under this Life Safety Bureau standard shall be in accordance with the most current adopted City of Houston *Construction Code*.