



Houston Fire Department Life Safety Bureau (LSB)



LSB Standard No. 08, Rev. 06

Fire Drills

Supersedes: LSB Standard No. 08, Rev. 05, 11/02/2021

Effective Date: 01/01/2024



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.

Table of Contents

Section 8.1 – General..... 4

 8.1.1 Scope. 4

 8.1.2 Purpose. 4

 8.1.3 Fire Drill Records. 4

Section 8.2 – Definitions..... 4

 8.2.1 High-Rise Buildings. 4

 8.2.2 Mid-Rise Atrium Buildings..... 4

 8.2.3 Obstructed Drills. 4

 8.2.4 Unobstructed Drills. 5

Section 8.3 – Fire Drills in Schools (Educational Occupancies)..... 5

 8.3.1 Evacuation Plan Required. 5

 8.3.2 Posting of Floor Plans..... 5

 8.3.3 Evacuation Signal. 5

 8.3.4 Staff Training. 5

 8.3.5 Fire Department Notification. 5

 8.3.6 Number of Required Drills..... 5

 8.3.7 General Guidelines for Fire Drills..... 5

 8.3.8 Written Records Required. 6

 8.3.9 Drill Participation..... 6

 8.3.10 Classroom Doors..... 6

 8.3.11 Outside Staging Area..... 6

 8.3.12 Roll Call. 6

 8.3.13 Building Search..... 6

 8.3.14 Mobility Impaired..... 6

Section 8.4 – Fire Drills in High-Rise Buildings 7

 8.4.1 Number of Required Drills..... 7

 8.4.2 Drill Participation..... 7

 8.4.3 Written Records Required. 7

Section 8.5 – Fire Drills in Hospitals and Nursing Homes 7

 8.5.1 Number of Required Drills..... 7

 8.5.2 Frequency of Drills..... 7

 8.5.3 Alarm Signaling..... 7

 8.5.4 Drill Participation..... 7

8.5.5 Written Record Required.	7
Section 8.6 – Day Care Facilities (Child and Adult).....	7
8.6.1 Number of Fire Drills.....	7
8.6.2 Drill Participation.....	8
8.6.3 Written Records Required.	8
8.6.4 Drills Conducted Without Warning.....	8
8.6.5 Prompt Evacuation.	8
8.6.6 Occupants in the Building.	8
8.6.7 Roll-Call and Building Check.	8
8.6.8 Doors to Classrooms.	8
8.6.9 Exit Routes Used.	8
8.6.10 Fire Department Notification.	8
Section 8.7 – Foster Homes.....	8
8.7.1 Emergency Fire Exit Plan.	8
Section 8.8 – Personal Care Facilities.....	9
8.8.1 Drills in Large Personal Care Facilities.....	9
8.8.2 Personal Care Homes.	9
Section 8.9 – Reserved.....	9
Section 8.10 – Fire Drills in Mid-Rise Atrium Buildings.....	9
8.10.1 Number of Required Drills.....	9
8.10.2 Drill Participation.....	9
8.10.3 Written Records Required.....	9
Appendix A – How to Conduct Fire Drills in a High-Rise Building	10
References.....	13

Fire Drills

Section 8.1 – General

8.1.1 Scope.

This standard applies to required fire drills. Fire Code Official is authorized to require fire drills to be conducted in buildings of any occupancy type. Required fire drills shall be conducted in accordance with this standard and the City of Houston *Fire Code*.

8.1.2 Purpose.

This standard shall provide guidance for the preparation and implementation of fire drills.

8.1.3 Fire Drill Records.

A written record shall be kept on file for each fire drill conducted. Fire drill records shall be made available to the Fire Code Official upon request, and shall include the following information:

1. Date and time of each drill.
2. Name of person(s) conducting the drill.
3. Amount of time required to evacuate the building.
4. Any other information required by the Fire Code Official.

Section 8.2 – Definitions

8.2.1 High-Rise Buildings.

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 and used for housing building systems mechanical equipment is not included in the 75 feet measurement.

8.2.2 Mid-Rise Atrium Buildings.

Buildings in which:

1. The highest floor is 75 feet or less above grade plane; and
2. There exists an opening extending vertically that connects three or more stories.

8.2.3 Obstructed Drills.

An obstructed fire drill assumes that one or more exits or evacuation routes have been blocked by fire and cannot be used. In this type of drill, the primary evacuation route for certain rooms is considered “obstructed,” and persons exiting from these areas would utilize the alternate evacuation route from the room or area they occupied at the time the drill was initiated, as outlined in the building evacuation plan.

8.2.4 Unobstructed Drills.

An unobstructed fire drill assumes that all exits and evacuation routes from the building are open and available for use. In this drill, persons exiting the building would utilize the primary evacuation route from the room or area they occupied at the time the drill was initiated, as outlined in the building evacuation plan.

Section 8.3 – Fire Drills in Schools (Educational Occupancies)

8.3.1 Evacuation Plan Required.

The person in charge of any building classified as Educational (Group E) occupancy in accordance with the *Construction Codes* shall prepare an approved emergency evacuation plan for the building. The evacuation plan shall be submitted to the Fire Code Official for review. The person in charge shall also ensure that all students and staff members are properly trained in the evacuation procedures.

8.3.2 Posting of Floor Plans.

A floor plan showing the proper evacuation routes shall be posted in each classroom and in other areas of the building normally occupied by students. This floor plan shall include the primary evacuation route from each room and an alternate route that can be used if the primary route becomes obstructed.

8.3.3 Evacuation Signal.

All fire drills in educational buildings shall be conducted utilizing an approved fire alarm system.

Note: “3-2-1 Bell” systems are no longer approved for use in conducting fire drills.

8.3.4 Staff Training.

All staff members, including temporary office staff assigned to the school office, shall be trained in the procedures for sounding a general alarm should a fire or other emergency make an evacuation necessary.

8.3.5 Fire Department Notification.

All drills shall include provisions for notifying the Fire Department. If the fire alarm system is monitored off-site, the monitoring service shall be notified that a drill is in progress so that no Fire Department apparatus will be dispatched.

8.3.6 Number of Required Drills.

It shall be the duty of the person in charge of each Educational occupancy to conduct at least one (1) fire drill per month. At least one-half of all drills shall be “obstructed” drills as defined in Section 8.2.3 of this standard.

8.3.7 General Guidelines for Fire Drills.

Fire drills are an exercise in discipline, not speed, though the building should be evacuated within a reasonable time period. Drills should be conducted during different times of the day, with some drills being performed during times students occupy areas

such as the cafeteria, auditorium, gym, and library. Drills are not required during periods of inclement weather or when state required testing is being conducted.

8.3.8 Written Records Required.

A written record shall be kept on file for each fire drill performed. Fire drill records shall be made available to the code official upon request and shall include the following information:

1. Date and time of each drill.
2. Whether the drill was “obstructed” or “unobstructed.”
3. If “obstructed,” which exits or routes were obstructed.
4. Name of person(s) conducting the drill.
5. Amount of time required to evacuate the building.

8.3.9 Drill Participation.

All students, staff members, and other occupants of the building shall participate in fire drills and shall immediately exit the building when the evacuation alarm is sounded. No one is permitted to remain in the building while a fire drill is being conducted.

8.3.10 Classroom Doors.

Doors to each classroom shall be closed after the room has been evacuated.

8.3.11 Outside Staging Area.

As part of the evacuation plan, a predetermined “staging area” shall be established outside the building. When the evacuation signal is activated, all staff members and students shall report to the designated staging area and await further instructions.

8.3.12 Roll Call.

Once the building has been evacuated, each teacher shall conduct a roll call of their class to ensure all students are accounted for and communicate this information to the person conducting the drill, as provided in the evacuation plan.

8.3.12.1 Drill Communication The evacuation plan shall include provisions for communicating this information to the person conducting the drill.

8.3.13 Building Search.

After the building has been evacuated, the entire school shall be checked to ensure no students have been left behind. The building search shall be conducted by adult staff members; **students are never to be utilized for this purpose**. The results of the building search shall be communicated to the person conducting the drill.

8.3.14 Mobility Impaired.

If mobility impaired students and/or staff members occupy the building, provisions shall be made for ensuring these persons can safely exit the building during an emergency. These provisions might include assigning staff members to physically assist them or might involve identifying certain areas of the building that can serve as an area of refuge until the Fire Department arrives.

Section 8.4 – Fire Drills in High-Rise Buildings

8.4.1 Number of Required Drills.

The Fire Safety Director for a high-rise building shall conduct a fire exit drill in accordance with the approved Fire Safety Plan for the high-rise building at least every six (6) months. The code official, upon survey of conditions, may require drills until the occupants can fulfill the requirements of the plan in a safe and efficient manner.

8.4.2 Drill Participation.

All occupants of the building shall participate in the fire drills as required by the Fire Code Official and the *Fire Code*.

8.4.3 Written Records Required.

A written record of fire drills shall be kept on the premises and shall be readily available for fire department inspection.

Section 8.5 – Fire Drills in Hospitals and Nursing Homes

8.5.1 Number of Required Drills.

Each shift shall participate in at least one (1) fire drill every third (3) month.

8.5.2 Frequency of Drills.

The Fire Code Official may order the owner, operator, administrator, manager, or person in charge of any hospital or nursing home to hold fire drills as often as may be deemed necessary by the Fire Code Official.

8.5.3 Alarm Signaling.

The alert signal for a fire drill shall be by a predetermined code approved by the Fire Code Official. In the interest of public safety, the words “Fire” or “Fire Drill” shall not be used in a hospital or nursing home.

8.5.4 Drill Participation.

During fire drills or fires in any hospital or nursing home, all on-duty staff personnel shall be activated to participate in the drill.

8.5.5 Written Record Required.

A complete and accurate record shall be kept of all fires and fire drills and shall be readily available for Fire Department inspection upon request.

Section 8.6 – Day Care Facilities (Child and Adult)

8.6.1 Number of Fire Drills.

Fire drills in child and/or adult day care facilities shall be conducted once monthly.

8.6.2 Drill Participation.

All occupants of the building shall participate in the fire drills as required by the Fire Code Official.

8.6.3 Written Records Required.

A written record of fire drills conducted shall be kept on the premises and shall be readily available for fire department inspection upon request.

8.6.4 Drills Conducted Without Warning.

Fire drills shall be conducted without advance warning and should simulate fire conditions.

8.6.5 Prompt Evacuation.

Fire drills are an exercise in discipline, not speed, though reasonably prompt emptying of the building is required.

8.6.6 Occupants in the Building.

No one shall be permitted to remain in the building during a fire drill.

8.6.7 Roll-Call and Building Check.

As part of the drill, each day care counselor shall conduct a roll-call of their class, taken outside the building, to make sure that no one is left behind. A routine complete check of the entire building shall be conducted, including the toilet rooms, to make sure that no one is left behind.

8.6.8 Doors to Classrooms.

Doors to each classroom shall be closed after the room has been evacuated.

8.6.9 Exit Routes Used.

All exits shall be used in drills, but routes should be varied from drill to drill. Occasional drills should be held simulating conditions when one exit door or exit route cannot be used because it is blocked or "obstructed" by fire or smoke. Day care counselors and other personnel shall be instructed as to the use of different exits, and the drills should be conducted at different times of the day.

8.6.10 Fire Department Notification.

All drills shall include provisions to simulate the calling of "9-1-1" to notify the Fire Department.

Section 8.7 – Foster Homes

8.7.1 Emergency Fire Exit Plan.

Every foster home shall have a diagrammed "Fire Emergency Exit Plan (FEED)" identifying the home's exits, exit discharge, and area of safe refuge. The designation of an area of refuge (meeting place) located at a safe distance outside of the house where roll-call shall account for egress of everyone occupying the building, and the notification

of the Fire Department by calling “9-1-1” shall be included in the FEEP. The owner of the foster home or the owner’s authorized agent shall review the fire emergency exit plan with each child and each child's family member(s) so they know what to do in case of fire. This discussion and review shall take place monthly.

Section 8.8 – Personal Care Facilities

8.8.1 Drills in Large Personal Care Facilities.

Fire drills in large personal care facilities shall be conducted in the same manner as for nursing homes. See Section 8.5 of this standard.

8.8.2 Personal Care Homes.

“Family home” type personal care facilities shall provide emergency evacuation exit plans in the same manner as for foster homes. See Section 8.7 of this standard. All staff and responsible residents shall be trained in how to activate the home’s fire system, and the notification of the Fire Department by calling “9-1-1” from a safe location.

Section 8.9 – Reserved.

Section 8.10 – Fire Drills in Mid-Rise Atrium Buildings.

8.10.1 Number of Required Drills.

The Fire Safety Coordinator for a Mid-Rise Atrium Building shall conduct a fire drill in accordance with the approved Fire Safety Plan for the building at least every six (6) months. The Fire Code Official, upon survey of conditions, may require additional drills until the occupants can fulfill the requirements of the plan in a safe and efficient manner.

8.10.2 Drill Participation.

All occupants of the building shall participate in the fire drills, as required by the Fire Code Official and the *Fire Code*.

8.10.3 Written Records Required.

A written record of fire drills shall be kept on the premises and shall be readily available for fire department inspection.

Appendix A – How to Conduct Fire Drills in a High-Rise Building

Fire drills in high-rise buildings are to be conducted *at least every six months*.

The fire drill is for the management staff and building occupants.

The main purpose of a total building fire drill is to allow people in the building to hear what the fire alarm tone and other devices sound like, hear the public address system (where provided), and to learn where the exits/stairs are located.

Another purpose is to see if management personnel can put the entire building in alarm from the fire alarm control panel, operate the public address system, and properly recall the elevators using the elevator fire service recall keys (Phase I).

Conducting fire drills shall include:

1. Building management must provide advance written notification to all management employees who are on staff and/or contracted and the building's tenants, guests, and/or residences of the date, the exact time, duration, and particulars of the fire drill so that when the alarm is activated for the scheduled fire drill, the fire department is NOT called.
2. Tenants must give the fire drill information to all employees, and to all contractors and visitors who it is known will be in the building on the date/time of a scheduled fire drill.
3. Instruction in the notice must state that during the fire drill all personnel must go to the stairs and stand by outside the stairway, and **not** to go into the stairs.
4. Persons who may be mobility impaired may be excused from the drill with written notification to building management.
5. During the drill if anyone cannot hear the alarm or understand the public address announcement (where provided), they should notify the building management in writing as soon as possible.
6. At least fifteen (15) minutes before the exact time of the fire drill the UL Listed monitoring service should be called and the fire drill information given to the call taker. They must be told that when the alarm comes in for the fire drill that they are **not** to call the fire department.

Note: If the monitoring service or anyone from the building calls the fire department when the fire alarm sounds for the drill, the fire department **will send** a Fire Truck in the emergency mode. This is considered a false alarm.

When the drill is over the alarm monitoring service should be called back as soon as possible to put the building back online.

7. The Fire Department Dispatcher must be contacted no less than two days prior to the fire drill by email at HFD.Dispatch3@houston.tx.gov to inform them of the fire drill particulars. The fire dispatcher may also be contacted when the fire drill has concluded.
8. The fire alarm technician and the elevator technician should be present for the drill to assist management personnel and monitor their equipment. They will not be conducting any phase of the drill.

9. All building elevators should be called down in the Emergency Fire Service Recall mode (Phase I) one minute before the drill. Management should ride the elevators during the drill to spot check floors and check the operation of the elevators in Elevator Fire Service mode (Phase II). The elevator technician should verify elevators are functioning properly in all fire service modes.
10. **Everyone** must participate in the drill (mobility impaired persons may be excused if they have notified building management in writing prior to the drill). Management should conduct drills at a convenient time for tenants, if possible. (Ex. After stock market closes, before doctors' offices become full of patients, etc.)
11. During the fire drill, if some people need to be on duty in the building or where it is difficult for everyone to participate, the drill can be done in shifts. Some people may go to the stairs, and then return to their offices to relieve others so that everyone can participate in the drill. Everyone must participate in the fire drill.
12. Buildings without public address systems should state in their written fire drill announcement that the fire drill will state when the fire alarm has sounded and will conclude when the fire alarm stops. People can then return to their building duties.
13. Pre-recorded messages in fire alarm systems should be bypassed intermittently via keying the microphone during fire drills. The same fire tone must be used during drills that will be sounded when the building is in an actual alarm.

The following is a sample procedure for a 5-minute drill:

Turn fire alarm tones ON in the entire building and allow sounding five (5) times.

Then, key the microphone and state the message below with PA in the "All Call Mode" (100% PA):

FIRE DRILL ANNOUNCEMENT

"At this time we are conducting a required fire drill,

I repeat, this is a drill,

Please proceed to the exit stairwells and stand by,

Do not go into the stairs."

Allow the fire alarm to sound five (5) more times and then repeat the Fire Drill Announcement message.

Allow the fire alarm to continue to sound and repeat the Fire Drill Announcement message at least once every minute during the drill.

After five (5) minutes key the microphone and say:

"This concludes our fire drill,

Thank you for your participation."

(With microphoned keyed, hold to chest to ensure other statements do not go throughout the building and reset the alarm system.)

At the conclusion of the fire drill activities, management should be sure to document in the building's fire drill log: the fire drill's date, time, and particulars, such as any problems encountered and those corrected or needing correction, and the time that the alarm monitoring service and the Fire Department were notified that drill activity had concluded. Include a sample of the fire drill notification letter given to the tenants/quests/residents. The building's fire drill information may be requested by the Fire Code Official during routing building inspections, during fire plan updates, or as part of a fire incident follow-up.

References

1. City of Houston *Fire Code*
2. City of Houston *Building Code*, all editions

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