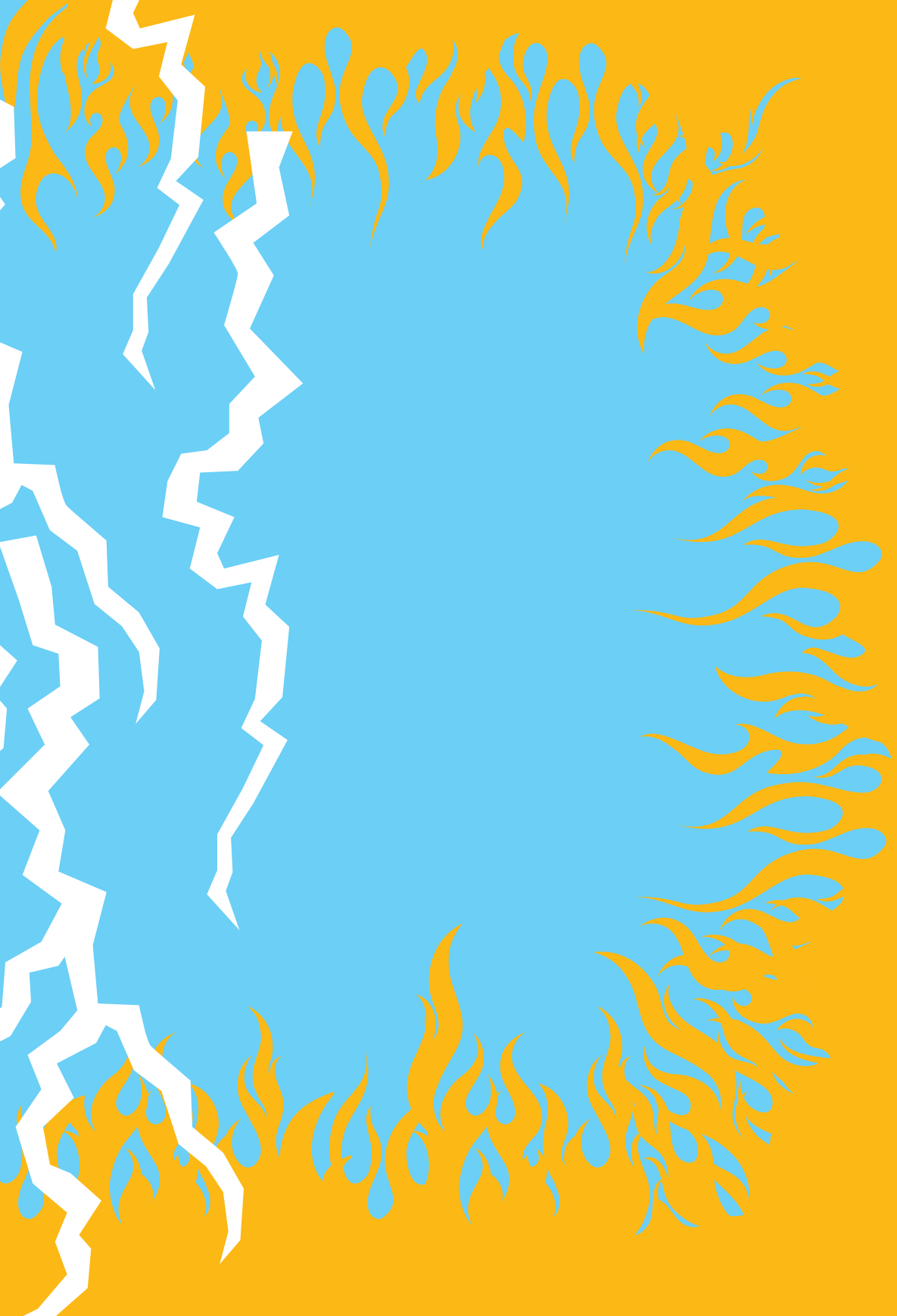

Prepared School
School
Hazards Document



# In The Name Of God


Tehran Education and Training and Head Office

Firefighting and Safety Services Organization of Tehran Municipality

Tehran Municipality

Tehran Disaster Management and Mitigation Organisation

Title: School Non-structural Hazards Document

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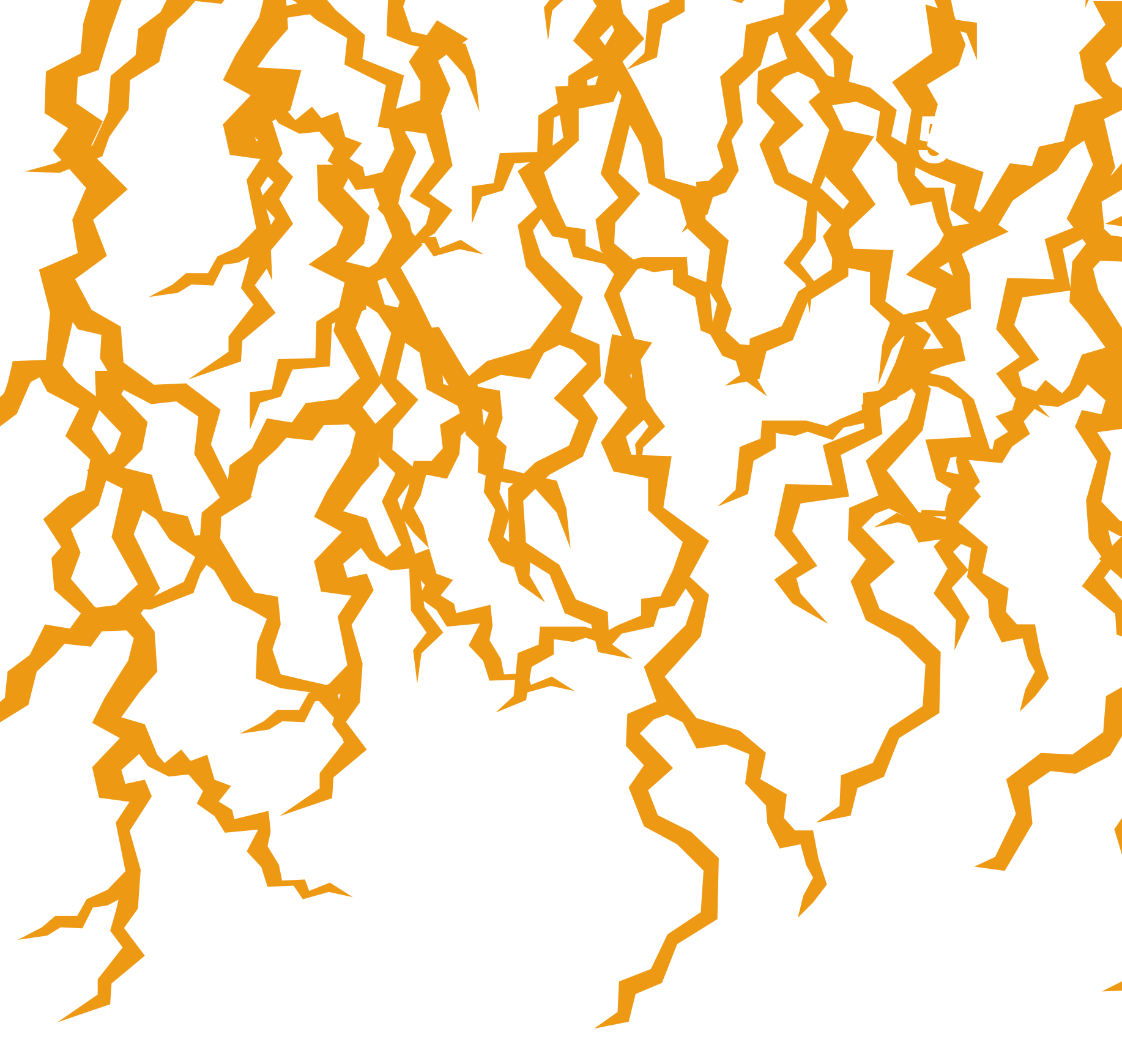

It is not a slogan or overstatement that the path to the realization of development perspectives passes through safe, dynamic and happy learning environments. When we look at the high educational costs as a viable investment for the future of the country, maintenance of educational environments and reducing their threatening risks, reveal their true significance. Although the document ahead has the least degree of complexity in form and content, in order to provide easy assessment conditions, but it is the result of a consistent and steady efforts of a series of experts from Tehran Disaster Management and Mitigation Organization, Firefighting and Safety Services Organization of Tehran Municipality.

Undoubtedly, field evaluations without using such worksheets are an unfinished, arbitrary and infected human error action. In fact, what converts the results of such surveys into a reliable data in set of urban policies and decision makings, is «comprehensive review» and attention to the details; especially in the field of prevention and risk reduction that neglecting the smallest cases can lead to irreparable damage.

Roads to the prepared schools becomes possible by the correct completion of the Nonstructural Hazards Document; It is hoped that this important issue, which has been started with the efforts of the respected authorities of Tehran Education Department as well as Urban Managers, in order to the implementation of the School Risk Reduction Program, lead to take a major step in the school safety area. To be taken is a major step in the safety of schools.

**Ahmad Sadeghi**

**Head of TDMMO**

In the enlightening school that the salvation of a person is considered as the salvation of a nation, the salvation of a school must be equivalent with the effort to save the future and the destiny of a nation. Undoubtedly, among the news and unpleasant events that fill the event pages of newspapers and news agencies every day, what is the most disturbing public opinion, is the events threatening the health and safety of students in the school environment.

From this perspective, moving towards the safe and secure schools can be feasible by spreading a culture of safety and risk prevention on the one hand and intersectional cooperation among stakeholder agencies on the other hand. The process of completing the forthcoming document worksheets will be carried out by the assessors of Firefighting and Safety Services Organization of Tehran Municipality to be accurately identified the safety defects of each of the capital›s schools.

Of course, not to be forgotten that identifying threats does not mean repelling and removing them. In other words, the School Hazards Document can only be effective if the data from the completion and processing of its worksheets takes into consideration by school administrators and authorities and leads a set of necessary measures to provide the safety of educational spaces.

**Saeed Sharifzadeh**
**Managing Director of Firefighting and Safety Services Organization of Tehran Municipality**

Name of the evaluator: Date of completion of the document:

School profile

School Name Grade

School Manager Name Boys Girls

School Address

School build year Ten digit school postcode

Number of floors Total school area (square meter)

Number of Students School Infrastructure Area (square meter)

Number of administrative staff School yard area (square meter)

**This section will be completed by TDMMO:**
**(Please do not take notes in the below table)**

| Safety Considerations | Yes | No | Weight and Importance |
|---|---|---|---|
| **The school is located out of bounds of the riparian area and floodways.** | | | **3** |
| **The school is outside the Qanats route.** | | | **2** |
| **The school is outside the fault zone.** | | | **2** |
| **The school is located out of bounds of high voltage power cables, telecommunication antennas, gas pressure relief stations and CNG and gas stations.** | | | **3** |

## A: Being Familiar with School Hazards Document

One of the important points in the implementation of Prepared School plan is to identify the hazards and threats in schools; because as long as schools' managers and officials do not have adequate and accurate knowledge about the safety deficiencies and potential threats to the educational environment; they will certainly not succeed in providing safe space in a successful learning environment.

With regard to the above, the experts of the Disaster Management Headquarters with the serious participation of the experts of the Tehran Firefighting Organization, have prepared a document known as **School Hazards Document**, which as a result it will be placed each school in one of the three states of **green, yellow or red** in terms of safety.

It should be noted that each of the safety items in the checklist carry weight which indicates its importance in the document and among these, red items are of great importance and are critical to the school.

## B: Document completion guide

■ After examining each of the safety factors from the document (in the checklist), the following four conditions are possible:

**1)** The de- sired option in the school does not apply (for example, the school does not have elevator). In this case, mark the column **(not in this school)**.

**2)** The desired option can be checked only if **yes or no**. (For example, the school has a central heating system.) In such cases, the column (to a certain extent) is disabled (in black) and in this case mark one of the Yes or No columns.

**3)** In some cases, the answer to the options can be "**Some Extent**". (For example, each gas valve has only one gas-fired connected). In this case, mark one of the columns Yes, to Some extent or No.

**4)** In cases that due to the importance of the subject, the exact location of the places where the desired factor is not observed should be mentioned; the option **"Non-conformance"** must be completed. (For example, there are at least two exits away from each other in every floor.) In this case, if answer was Yes, mark the Yes column, otherwise note "Non-conformance" in the corresponding column.


**10 Location, Access and Façade**


**11 Yard**


**12 Classes and Administrative Offices**


**13 Pantry and Kitchen**


**14 Library and Meeting Hall**


**15 Electrical Installations**


**16 Fire**


**17 Heating Facilities**


**18 Laboratories and Workshops**


**19 Boiler Room**


**20 Warehouse**


**21 Corridors and Emergency Exit Routes**


**22 Elevator**

**Note: At the end of some safety cases, the asterisk (*) is inserted, these require documents review, so carefully check the relevant documents and attach a copy of it to the document.**

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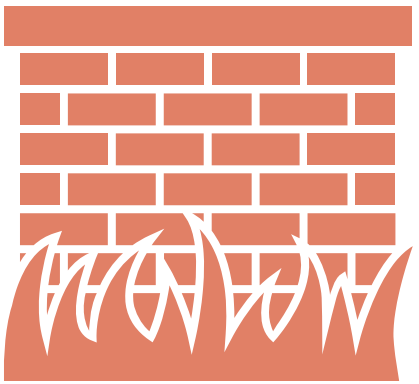
# Location, access and Facade



| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| A speed limit sign is installed around the school entrance area. | 2 | | | | |
| The school entrance street has a pedestrian-crossing or pedestrian bridge. | 2 | | | | |
| The school sign is fixed in its place (top of the ward or ...). | 1 | | | | |
| The Stone facades is stabilized and secured with the proper methods. | 3 | | | | |
| Objects such as coolers, pots, etc. which are likely to fall from height, have been retrofitted. | 1 | | | | |
| The school has a maximum of three floors. | 2 | | | | |
| School tall and high windows have necessary standards. * | 2 | | | | |
| All vertical and horizontal shafts are classified. | 3 | | No, Non-conformance..... ..... | | |
| There are the updated first aid boxes in the school and are available to the responsible personnel. | 3 | | | | |

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# Yard

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| If there are play equipment in the school such as swing, see-saw, slides, etc., it is used soft flooring or sandy below them. | 2 | | | | |
| The school yard is without any pits. | 2 | | | | |
| If there is a well in the school, its location is specifically marked. | 2 | | | | |
| If you use the school yard as a car parking, this place is in the right place and away from the students. | 1 | | | | |

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# Classes and Administrative Offices

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| Class doors have a good handle. | 1 | | | | |
| Class doors are without glass-inscribed. | 1 | | | | |
| All windows overlooking the courtyard or street have fence barrier. | 2 | | | | |
| The height of the windows from the ground are at least ۱۱۰ centimeters. | 3 | | No, Non-conformance..... ..... | | |
| Doors and windows are without large non-resistant glasses. | 2 | | | | |
| Classrooms are without portable fans. | 1 | | | | |
| Class doors are without lock. | 2 | | | | |
| Classrooms are without balconies or terraces. | 2 | | | | |
| Classes are without electric heaters. | 1 | | | | |
| The classroom gas heater is installed in the corner outside of the student's path. | 3 | | No, Non-conformance..... ..... | | |
| If there is a class in the basement, proper ventilation is anticipated. | 3 | | | | |
| If the school has a source of fuel, the source is located safely away from classes. | 1 | | | | |

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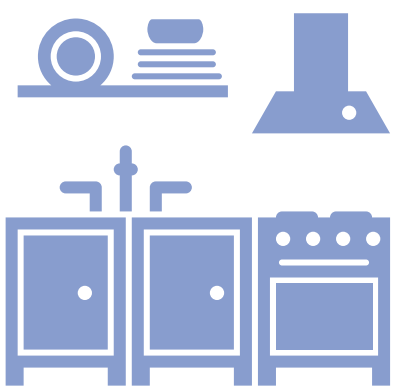
# The Kitchen & Pantry



| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| Kitchen/pantry electric and gas-fired equipment are safe and standard. * | 2 | | | | |
| Kitchen/pantry is out of the exit path. | 3 | | | | |
| Kitchen/pantry has a proper ventilation system. | 2 | | | | |

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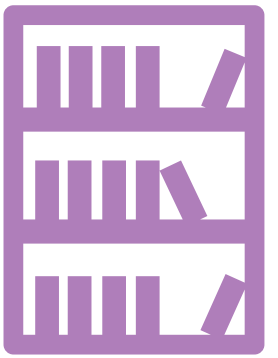
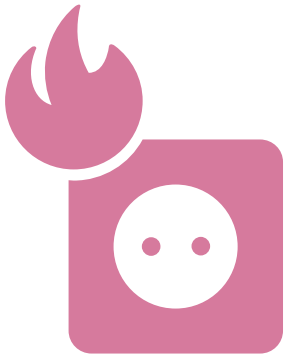
# The library &Auditorium



| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| Setting of seats are appropriate and the number of corridors is sufficient for the emergency exit of people. | 3 | | | | |
| Flammability in the auditorium is at the standard level. (acceptable) | 3 | | | | |
| The Sprinkler system has been used in the auditorium and library. | 3 | | | | |
| Book shelves have been tightened to the wall. | 2 | | | | |





# The Electrical Installations

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| Electricity meter has a protective box. | 1 | | | | |
| The location of the electricity meter is out of access of students. | 2 | | | | |
| life's protective fuse is installed in various parts. | 3 | | No, Non-conformance..... | | |
| Miniature fuses are used. | 2 | | | | |
| The school has no reinforced fuses. | 2 | | | | |
| The main fuse of the school is located in a convenient place for the authorities. | 2 | | | | |
| The school has an earth system. | 3 | | | | |
| If the school is at a height, the lightning rod is installed. | 2 | | | | |
| If there is, the power generator is automatic (starting at less than 10 seconds). | 2 | | | | |
| Electrical system is no burnout. | 3 | | No, Non-conformance..... | | |
| The school electrical wiring is concealed conduit. | 2 | | | | |
| The school electrical wiring is a surface-mounted and has ducts. | 2 | | | | |
| The electrical appliance wires have not crossed the heat sources and if they pass through, they have shield. | 2 | | | | |
| Wire connections and joints are made using special terminals. | 3 | | No, Non-conformance..... | | |
| Obtaining multiple branches have been avoided from a socket. | 2 | | | | |
| All sockets and junction boxes are equipped with suitable and resistant safety cover and the related connections are completely insulated. | 2 | | | | |
| Box of keys for different parts of the school are in the right place and accessible to the authorities. | 2 | | | | |
| Standard electrical equipment and appliances are used. * | 2 | | | | |
| If there is a swimming pool or fountain, the electrical installation is waterproof.* | 2 | | | | |

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# Fire

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| The school is equipped with an automatic fire alarm system. | 2 | | | | |
| The main panel of the automatic fire alarm system is visible and available. | 1 | | | | |
| The fire alarm chassis is available in an appropriate number, available in all floors. | 1 | | | | |
| There are a necessary number of hand-held -6kg powder and gas extinguishers and 4kg extinguishers of carbon dioxide. | 3 | | No, Non-conformance..... ..... | | |
| Manual extinguishers are installed in a suitable, accessible location and exposed to view. | 2 | | | | |
| Every year, fire extinguishing capsules are inspected and charged. | 3 | | | | |
| The school is equipped with fire hoses attached to the city water. | 2 | | | | |
| There are fire hoses connected to separate supply sources and independent pumps, at the necessary intervals and appropriate locations in the school. | 3 | | | | |
| There is the possibility of access to rescue vehicles and in particular the fire ladder to the school building. | 3 | | | | |
| If there is a staircase (box) without normal opening, a suitable mechanical ventilation system is used. | 3 | | | | |

# The Heating Facilities

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| The school has a central heating system. | 3 | | | | |
| The separation of the gas piping system has been done and it is possible to remove every part of the network in case of emergency. | 2 | | | | |
| Each gas valve has only one gas-fired connected. | 2 | | | | |
| The gas pipe is installed away from the students' access and fitted properly to the wall. | 2 | | | | |
| In schools with radiators, if possible, radiators are installed in cavities inside the wall and otherwise equipped with a shield. | 1 | | | | |
| At the beginning of the cold season, the radiator is serviced by a facilities specialist. | 1 | | | | |
| The school has no oil heater. | 3 | | | | |
| If the school has a gas-fired heater, it is connected to the urban gas. (No capsule used) | 3 | | | | |
| Gas-fired heaters are standard and safety tips are observed in the plumbing, installation, fittings and chimneys. | 3 | | No, Non-conformance..... | | |
| Heaters are connected to the ground by a screw and rawlplug. | 1 | | | | |
| Heaters have metal non-accordion chimneys. | 2 | | | | |
| The school is without direct flame heaters and no chimney heaters. | 3 | | No, Non-conformance..... | | |
| The length and material of the hoses and fittings of the heaters are in accordance with the standard. | 2 | | | | |
| "The flammable materials have a safe distance from the heat sources and chimneys (At least one meter) ". | 2 | | | | |

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# The Laboratory & Workshop

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| The walls and floor of laboratory and workshop spaces have been made with reinforced construction materials. | 2 | | | | |
| The floor of these spaces is non-slippery. | 2 | | | | |
| The laboratory and the workshop have a ventilation system that is proportional to the size of the hall. | 2 | | | | |
| The gas leak detector is installed in the laboratory. | 2 | | | | |
| If there is a liquid gas cylinder, it should be a maximum of one cylinder and in standard condition. | 2 | | | | |
| Laboratory and workshop shelves are tied to the wall. | 3 | | | | |
| Heavy equipment is located on the lower floors of the shelves. | 1 | | | | |
| The chemicals are in suitable containers in accordance with the laboratory standards and they are fixed in their place. | 2 | | | | |
| All containers contain chemicals have material specifications label. | 2 | | | | |
| The school laboratory and workshop is equipped with an automatic fire extinguishing system. | 2 | | | | |

# The Engine Room

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| The engine room is located in the courtyard, ground floor or below ground floor of the building. | 3 | | | | |
| The engine room is in a safe place and away from the auditorium and classrooms. | 2 | | | | |
| The engine room entrance is through the courtyard without any opening and windows into the school building. | 2 | | | | |
| The engine room door is made of metal and its top two-thirds is solid completely and its lower one-third is latticed. | 1 | | | | |
| The engine room is empty of flammable materials. | 1 | | | | |
| The engine room appliances are fixed and reinforced in their place. | 2 | | | | |
| The gas leak detector is installed in the engine room. | 2 | | | | |
| The suitable mechanical ventilation is embedded in the engine room to dispose of combustion products into open air. | 3 | | | | |

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# The Warehouse

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| The warehouse shelf height is less than ٤ meters and the minimum distance from the ceiling is 0.5 meters. | 2 | | | | |
| The distance between the stored goods to the lighting bulbs is at least 60 centimeters. | 2 | | | | |
| Less than two thirds of the warehouse's volume are filled with goods. | 2 | | | | |

# Corridors & Emergency Exit Paths

| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| The exit doors are without lock. | 2 | | | | |
| The exit route is without sliding and rail doors. | 2 | | | | |
| There are at least two exits away from each other in every floor. | 3 | | No, Non-conformance..... | | |
| On the way to the exit corridors, the length of the impasse is maximum 6 meters. | 3 | | | | |
| The useful width of the access corridors is at least 185 centimeters. | 3 | | | | |
| The school and in particular the emergency exit path has an emergency power generator (generators, rechargeable fluorescents, UPSs, etc.). | 3 | | | | |
| The engine room is out of the exit way. | 3 | | | | |
| The exit path (corridors, classes) is without any sudden level difference. | 2 | | | | |
| The setting of benches is so that in the case of emergency, quick exit is possible. | 3 | | | | |
| "The occupancy level coefficient is proportional to the number of students in the class (Relative to the exit paths). " | 2 | | | | |
| Emergency exit routes are determined with the necessary marks. | 2 | | | | |
| Exit doors open to the outwards. | 3 | | No, Non-conformance..... | | |
| Exit stairs have suitable height and tilt (maximum height 18 cm and minimum width 30 cm). | 2 | | | | |
| The stairs are equipped with the protective fences. | 2 | | | | |
| The young students' classes in the multi-floor schools are located in the lower floors. | 3 | | | | |

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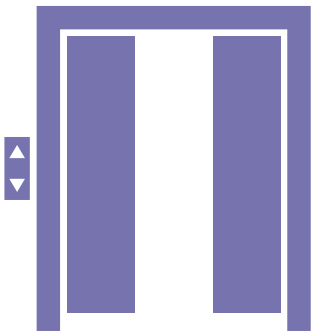
# The Elevator



| Safety Considerations | Weight and Importance | Yes | Some extent | No | Not applicable in this school |
|---|---|---|---|---|---|
| The elevator has an approval from the relevant authorities. * | 3 | | | | |
| Periodic review and servicing of the elevator are carried out every year. | 2 | | | | |
| The elevator is equipped with an automatic pop-up system (Black Out). | 3 | | | | |
| The cabin and the elevator floor door are telescopic (sliding). | 1 | | | | |
| There is a phone alert in the elevator. | 2 | | | | |
| The elevator has air conditioner. | 2 | | | | |



**Balance**
**of school hazards**


# School
## Hazards Document

Prepared by:

primarily confirmed by:

Lastly confirmed by: