

SECTION 324. Findings in Support of Adoption of More Restrictive Building Standards.

The provisions of this ordinance contain various changes, modifications, and additions to the 2016 California Fire Code. Some of those changes are administrative in nature in that they do not constitute changes or modifications to requirements contained in the building standards adopted by the State Fire Marshall and published in the California Building Standards Code. Pursuant to Health and Safety Code Sections 17958.5, 17958.7, and 18941.5, the Board of Supervisors hereby expressly finds and determines that all of the changes and modifications to requirements contained in the building standards published in the California Building Standards Code, contained in this ordinance, which are not administrative in nature, are reasonably necessary because of local climatic, geological, or topographical conditions in the County of Los Angeles and in the Consolidated Fire Protection District of Los Angeles County. This expressed finding is supported and based upon the following more specific determinations:

CLIMATIC - The County of Los Angeles is located in an area subject to climatic conditions with long periods of low humidity and hot weather, combined with unpredictable seasonal high winds (Santa Ana wind conditions), resulting in increased exposure to fire risk. This combination of events creates an environment that is conducive to rapidly spreading fires. Control of such fires requires rapid response. With the time that is required to deal with potential obstacles from the wind, such as fallen trees, street lights, and utility poles, in addition to the time required to climb 75 feet vertically up flights of stairs, the ability to respond rapidly is negatively impacted.

Additionally, there is a significant increase in the amount of wind at 60 feet above the ground. Use of aerial-type firefighting apparatus above this height would place rescue personnel at increased risk of injury. High winds will also cause burning embers to become airborne resulting in the rapid spread of a fire to nearby structures. Immediate containment of a fire is the only method by which it can be controlled during high wind conditions. In high fire severity zones, a unique combination of low humidity, strong winds, and dry vegetation exists.

GEOLOGICAL - The County of Los Angeles is located in the middle of the seismically active area identified as Seismic Zone 4. The viability of the public water system would be questionable at best after a major seismic event. Tall buildings would become vulnerable to uncontrolled fires due to a lack of available water and an inability to pump sufficient quantities of any available water to floors above the 55-foot level. A severe seismic event has the potential to negatively impact any rescue or fire suppression activities because it is likely to create significant physical obstacles and logistical challenges. With the probability of strong aftershocks, there exists a need to provide increased protection for anyone on upper floors.

Geological conditions created by the numerous faults will result in increased fire danger to structures, delayed Fire Department response, and unique rescue challenges. Seismic events of sufficient magnitude will cause substantial damage to structures. These damages are likely to be accompanied by a substantial number of fires that may exceed the Fire Department suppression capabilities. Accordingly, built-in fire suppression systems provide the only adequate measure to mitigate the potential hazards from and damage caused by such fires.

The County of Los Angeles is subject to occasional severe rainstorms. The impacts from these rainstorms are exacerbated if hillside areas have been burned by wildland fires because significant mud and debris flows can occur. Mud and debris flows can impair Fire Department access or delay response times if access roads are obstructed by mud or debris.

TOPOGRAPHICAL - The topographical conditions of the County of Los Angeles includes many mountains, hills, and canyons which tend to accelerate the periodic high-velocity winds by means of a venturi effect. These canyon winds and the significant growth of vegetation of a combustible nature increase the fire danger. Additionally, long periods of dry, hot weather, combined with unpredictable seasonal winds (Santa Ana wind conditions) result in increased exposure to fire risk. The hillside areas have access roads that are narrow, steep, and contain many sharp curves, all of which makes timely response by large fire apparatus difficult.

The specific sections of this code that constitute more restrictive building standards are identified in the table set forth below. The more restrictive building standards contained in this code and identified in the table below shall be applicable only in those cities served by the District which have ratified the aforesaid sections in accordance with California Health and Safety Code Section 13869.

Section	Local Condition	Explanation and Findings
304.1.2 – Vegetation	Climatic and Topographical	Local amendment requiring brush clearance to maintain defensible space for fire operations that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize the spreading of fire to structures.

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316.6.1 – Structures	Climatic, Geological, and Topographical	Imposes additional requirements for the grounding of construction under high-voltage transmission lines to protect property, the public, and firefighters responding to emergencies. Necessary due to Los Angeles County's unique climate and topography to reduce risk of fire, to reduce the possibility of fires being caused by downed high-voltage transmission lines, to minimize the spreading of fires that may begin under transmission lines, and to protect firefighters responding to emergencies under transmission lines. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
326.7 – Fire Protection Facilities Required	Climatic, Geological, and Topographical	Local amendment to require fire safety measures including but not limited to water supply, firebreaks, posting of fire watchers, access roads, restriction of activities during high fire hazard and other conditions to maintain reasonable fire safety. Necessary due to Los Angeles County's unique climate and topography to reduce risk of fire, to reduce the possibility of wildland fires spreading to structures, and to minimize impacts of fire. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
326.12.2 – Chimneys	Climatic and Topographical	Local amendment to reduce the threat of fires by requiring spark arrestors on chimneys that is necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize impacts of fire. Such spark arrestors reduce the likelihood of embers exiting a chimney and igniting a fire.
326.14 – Roadway Clearance	Climatic and Topographical	Local amendment requiring clearance of roadways to provide adequate access for firefighting apparatus, to create defensible space for fire operations, and to reduce the possibility of wildland fires spreading to structures. Necessary due to Los Angeles County's unique climate and topography.
503.1.2 – Additional Access	Climatic, Geological, and Topographical	Provides for additional access requirements necessary because of terrain, climate, or other factors that limit access. Necessary to ensure adequate response times due to the unique climatic and topographical conditions that

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		increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.2.1 – Dimensions	Climatic, Geological, and Topographical	Requires unobstructed clearance to sky on fire apparatus access roads with exception for protected tree species. Necessary to prevent obstruction of access roads by tree limbs or other obstructions and thus allow for quick response times to fires and other emergencies. Necessary to ensure adequate response times due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.2.5 – Dead-Ends	Climatic, Geological, and Topographical	Provides for more stringent width, turning radius, and grade specifications for access roads to ensure access for fire apparatus. Necessary due to unique climatic and topographical conditions that increase the risk of fires. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.4 – Obstruction of Fire Apparatus Access Roads	Climatic, Geological, and Topographical	Adds speed bumps and speed humps to list of prohibited obstructions to fire apparatus access roads. Speed bumps and speed humps reduce response times to fires and other emergencies because fire apparatus have to slow down to pass over them or drive around them. Necessary to ensure adequate response times due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.4.1 – Traffic-Calming Devices	Climatic, Geological, and Topographical	Requires fire code official approval to install traffic calming devices such as speed bumps and speed humps. Such devices can reduce response times to fires and other emergencies. Necessary to ensure adequate response times due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. This section is necessary because the risk of fire is increased due to the

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		prevalence of earthquakes in Los Angeles County.
503.7 – Fire Apparatus Access Roads in Recreational Vehicle, Mobile Home, Manufactured Housing, Sales Lots, and Storage Lots	Climatic, Geological, and Topographical	Requires fire apparatus access roads in recreational vehicle, mobile home, manufactured housing, sales lots, and storage lots. Necessary to ensure adequate water supply and access to such locations due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because the risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
503.7.1 – Fire Apparatus Access Roads in Mobile Home Parks and Special Occupancy Parks	Climatic, Geological, and Topographical	Requires additional fire apparatus access roads in mobile home parks and special occupancy parks. Necessary to ensure adequate water supply and access to such locations due to the unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
504.5 – Roof Top Barriers and Parapets	Climatic, Geological, and Topographical	Provides various design and location requirements for solar photovoltaic systems installed on roofs of buildings for residential and commercial structures. Access and spacing requirements ensure firefighter access to the roof, provide access pathways to specific areas of the roof, provide for venting cut-out areas, and to provide emergency egress from the roof. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
507.5.1.2 – Pool Draft System in Fire Hazard Severity Zones	Climatic, Geological, and Topographical	Requires a draft hydrant for swimming pools and spas located in the fire hazard severity zone to provide a source of water to fight fires. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
507.5.10 – Draft System	Climatic, Geological, and	Provides posting of sign to notify Fire Department of draft hydrant for swimming pools and spas in

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Identification Sign	Topographical	fire hazard severity zone. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
901.6.3.1 – Above-Ground Water Control Valve Signs	Climatic, Geological, and Topographical	Provides signage requirements for water control valves to facilitate firefighter identification and use of said valves in an emergency. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
901.6.3.4 – Clear Space Around Above-Ground Water Control Valve	Climatic, Geological, and Topographical	Provides clearance requirements for water control valves to facilitate firefighter identification and use of said valves in an emergency. Necessary because of unique climatic and topographical conditions that increase the risk of fires in fire hazard severity zones. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
903.2.11.7 – Occupancies in Fire Hazard Severity Zones and in the Malibu-Santa Monica Mountains or San Gabriel Southface Areas	Climatic, Geological, and Topographical	Provides an additional level of protection to occupancies in case of a fire by requiring installation of automatic fire sprinklers. Necessary because of unique climatic and topographical conditions that increase the risk of catastrophic fires in fire hazard severity zones and due to the topography that reduces response times to fires. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
903.4.2 – Alarms	Climatic and Geological	Requires installation of exterior fire alarm visual device. Visual alarms are necessary to warn both disabled and non-disabled persons. Necessary because of increased likelihood of fires due to climatic conditions. Further necessary because risk of fire is increased due to the prevalence of earthquakes in the Los Angeles County.
905.2.1 –	Climatic	Construction and installation requirements for

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Class I Standpipes; 905.2.1.1, 905.2.1.2 905.2.1.3		Class I standpipes to ensure adequate fire protection systems and water supply due to fires in Los Angeles County's hot and windy climate.
905.4 – Location of Class I Standpipe Hose Connections	Climatic	Installation/Regulation of Fire Protection System to ensure proper location of hose connection to control fires in Los Angeles County's hot and windy climate.
905.5.3 – Class II System 1½-Inch Hose	Climatic	Installation and regulation of interior wet standpipes to ensure adequate fire protection system due to fires in Los Angeles County's hot and windy climate.
905.6.1 – Protection	Climatic	Local amendment regarding installation and regulation of Fire Protection System to ensure proper location of hose connection to control fires. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
905.6.1.1 – Size	Climatic	Size requirements for Class III standpipes to ensure adequate fire protection system. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
905.9 – Riser Shutoff Valve Supervision and Drain	Climatic	Additional requirements to fire protection system for testing, maintenance, and operation. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
910.2 – Where Required	Climatic and geological	Requires smoke and heat removal for buildings. Necessary to increase ability of firefighters to respond to, and fight, fires in buildings. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions and the prevalence of earthquakes in Los Angeles County.
910.2.1.1 – Group S-2	Climatic and geological	Requires smoke and heat removal for basement level parking garages. Necessary to increase ability of firefighters to respond to fires in parking garages. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions and the prevalence of earthquakes in Los Angeles County.

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910.3 – Design and installation 910.3.2 910.3.2.1 910.3.2.2 910.3.2.2.1 910.3.2.2.2 910.3.2.2.3 910.3.2.3 910.3.3 910.3.4 910.3.5 910.3.5.1 910.3.5.2 Table 910.3	Geological	Requirements for smoke and heat vents and mechanical smoke removal systems in buildings. Necessary because of increased danger of fire in Los Angeles County due to seismic concerns with potential water supply issues.
910.4.3 910.4.4	Geological	Requirements for smoke and heat vents and mechanical smoke removal systems in buildings. Necessary because of increased danger of fire in Los Angeles County due to seismic concerns with potential water supply issues.
912.2.1 – Visible Location	Climatic, Topographical, Geological	Requires Fire Department connections to be located within 150 feet of a public fire hydrant and at a safe distance from the building. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions. Further necessary because the risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
912.8 – Identification	Climatic, Topographical	Requires red paint on Fire Department connections subject to rust or corrosion to identify them to firefighters and protect from the elements. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
912.9 – Breakable Caps or Plugs	Climatic, Topographical	Requires breakable caps or plugs for fire hose couplings to protect them from the elements and to ensure easy access to the Fire Department connection during fires. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.

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914.9.1 – Spray Booths	Climatic	Requires spray booths to have automatic fire sprinkler system protection under specified conditions. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions. Further necessary because the risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
1009.9.1 – Signage for High Rise Buildings	Climatic, Geological, and Topographical	Requirements for signage warning against elevator use in an emergency. Necessary to ensure proper notice and evacuation in case of fire or other emergency. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions. Further necessary because risk of fire and need for evacuation is increased due to the prevalence of earthquakes in Los Angeles County.
2007.9 – Emergency Helicopter Landing Facility for High-Rise Buildings	Climatic and Topographical	Provides for additional public safety evacuation/landing area on high-rise buildings. Necessary due to large number of high-rise buildings in Los Angeles County and difficulty in evacuating high-rise buildings in case of fire or other emergency.
2007.10 – Helistops in Fire Hazard Severity Zones; 2007.10.1 - Surface	Climatic and Topographical	Provides for requirements for helistops in fire hazard severity zones to enable helicopters and associated water tenders and support equipment to safely operate to conduct operations to combat fires in those areas. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions and topography that hinders the ability for fire apparatus to gain access to remote portions of the County.

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2007.10.2 – Hydrant	Climatic; Topographical	Requires a hydrant next to helistops in fire hazard severity zones to enable helicopters to fill their tanks to facilitate water drops on wildland fires in those areas. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions and topography that hinders the ability for fire apparatus to gain access to remote portions of the County.
2007.10.3 – Access	Climatic; Topographical	Adopts requirements for fire apparatus access to helistops in fire hazard severity zones to enable support equipment and apparatus associated with helicopter operations to combat fires in those areas. Necessary because of increased danger of fire in the County due to hot and windy conditions and topography that hinders the ability for fire apparatus to gain access to remote portions of the County.
2404.4 – Fire Protection	Climatic	Provides for spray booths to be equipped with automatic fire sprinklers. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
2503, 2504, 2505, 2506, 2507 – Fruit and Crop Ripening	Climatic and Geological	Provides requirements for fruit and crop ripening operations to prevent ignition of ethylene gas and reduce risk of fire and explosion. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions and to reduce risk of fires and explosion from earthquakes.
2810 – Storage of Combustible Idle Pallets	Climatic	Provides requirements for the safe storage of combustible pallets to reduce risk of fire. Necessary because of increased danger of fire in Los Angeles County due to hot and windy conditions.
3104.21 – Combustible Vegetation	Climatic and Topographic	Increased clearance requirements for combustible vegetation near tents and membrane structures. Necessary to increase fire and life safety around such structures and to create defensible space. Necessary because of fire risk due to climate and unique topography of Los Angeles County.

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Table 3206.2	Climatic and Geological	Provides for increased separation for aisles. Necessary because of unique climatic conditions that increase the risk of fires. Further necessary because risk of fire is increased due to the prevalence of earthquakes in Los Angeles County.
3505.9 – Backflash Prevention	Geological	Requires protective devices to be installed on fuel gas and oxygen lines to increase safety and reduce risk of explosion and fire. Necessary because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
4907.1 – General	Climatic and Topographical	Local amendment providing that defensible space requirements shall also comply with Chapter 3 of this code. Necessary due to Los Angeles County's unique climate and topography to reduce risk of fire and to minimize impacts of fire in Fire Hazard Severity Zone.
5003.11.3.8 – Floors	Climatic and Geological	Creates requirements for floors in buildings where hazardous materials are used or stored. Necessary to increase fire and life safety and to minimize fire danger from hazardous materials. Necessary because risk of fire and spillage of hazardous materials is increased due to the prevalence of earthquakes in Los Angeles County.
5704.2.8.3 – Secondary Containment	Geological	Requires secondary containment of flammable and combustible liquids that are necessary to increase fire and life safety and to prevent fires involving flammable and combustible liquids from spreading. Necessary because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
5704.2.8.16.1 – System Requirements	Climatic and Geological	Requires foam deluge system. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.

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5704.2.9.1.1 – Required Foam Fire Protection Systems	Geological and Climatic	Requires all above-ground tanks exceeding 1,500 square feet of liquid surface area used for the storage of Class I or Class II flammable liquids to be provided with foam fire protection. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
5704.2.9.6.1.3 – Location of Tanks for Boilover Liquids	Geological and Climatic	Provides for additional spacing between tanks to reduce fire danger and help prevent fire from spreading to adjacent tanks. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
5704.3.7.6 – Construction	Geological and Climatic	Construction and fire access requirements for liquid storage rooms. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of explosion or container failure is increased due to the prevalence of earthquakes in Los Angeles County.
5706.5.1.1 – Location	Geological and Climatic	Provides increased distances for bulk transfer and process transfer operations so that they are farther away from the public and other buildings. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
5706.5.1.19 – Liquid Transfer	Geological and Climatic	Class I, II, or III liquids shall be transferred from a tank vehicle or tank car only into an approved atmospheric tank or approved portable tank. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.

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6104.4 – Multiple LP-Gas Container Installations	Geological and Climatic	Requirements for LP gas storage tank distances. Necessary because of increased danger of fire in Los Angeles County due to climatic conditions and because risk of leaks or tank failure is increased due to the prevalence of earthquakes in Los Angeles County.
8104 – Fire Apparatus Access Roads; 8106 – Housekeeping; 8108 – Tires	Climatic and Topographical	Creates requirements for fire access roads and storage requirements for tire storage in automobile wrecking yards. Necessary to enable fire apparatus and firefighters to gain access to fight fires and respond to emergencies. Necessary because risk of fire due to climate and topography in Los Angeles County.
APPENDIX B Section B105.1 – One- and Two-Family Dwellings and Group R-3 Buildings	Topographical and Climatic	Provides for increased fire-flow in fire hazard zones to allow for more water to be available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX B Section B105.4 – Land Subdivision Projects	Topographical and Climatic	Provides for increased fire-flow for subdivisions of land to allow for more water to be available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX C, Section C102.2 – Location on Street	Topographical and Climatic	Provides for hydrant spacing on streets to ensure hydrants are accessible to firefighters. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX C, Section C105.2 – One-family Dwelling	Topographical and Climatic	Provides for hydrant spacing to ensure that water is available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.

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APPENDIX C, Section C105.3 - Buildings Other Than One- and Two-Family Dwellings, and Group R-3 Buildings	Topographical and Climatic	Provides for hydrant spacing for buildings other than One- and Two-family Dwellings, and Group R-3 Buildings to ensure that there is adequate water supply available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX C, Section C105.4 – Cul-de-sac Hydrant Location	Topographical and Climatic	Provides for hydrant spacing for cul-de-sacs to ensure that there is adequate water supply available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX C, Section C106 - On-Site Hydrants	Topographical and Climatic	Provides requirements for on-site hydrants to ensure that there is adequate water supply available to fight fires. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions.
APPENDIX N, Section N103 – General Requirements	Topographical, Geographic, and Climatic	Provides various design and location requirements for temporary haunted houses, ghost walks, and similar amusement uses where the means of egress are not apparent due to decorative materials, confusing sounds, and/or visual effects. Necessary because of increased danger of fire in Los Angeles County due to climatic and topographical conditions and the prevalence of earthquakes in Los Angeles County.