HANDBOOK NO. 1

THE NATIONAL BUILDING CODE, 2024

SAFETY AND SPECIAL CONSIDERATIONS IN INTERIORS AND EXTERIORS OF BUILDINGS

NCA
NATIONAL CONSTRUCTION AUTHORITY

OVERVIEW

This handbook covers the following parts of the National Building Code:

Part XX – People Living with Disabilities
Part XXI—Fire Safety and Fire Installation

PART XX-PEOPLE LIVING WITH DISABILITIES

This part comprises paragraphs 352 to 362 of the Code.

It outlines specific regulations and guidelines for ensuring accessibility in buildings for individuals living with disabilities, in accordance with KS ISO 21542. It emphasizes the need for thoughtful design in public spaces, including pathways, ramps, lifts, doors, and restroom facilities to facilitate easy access and usability.

1.1Key Points

1. Design Requirements

Buildings must be designed to enhance accessibility, including appropriate access points and facilities.

2. Access Pathways

Pathways must be free of barriers, with specific guidelines for ramps, kerbs, and lifts.

3. Restroom Accessibility

Regulations specify the number and design of water closet cubicles for individuals with disabilities.

4. Auditorium Provisions

Public auditoriums must include designated wheelchair spaces.

5. Room Accommodations

Buildings classified as H1 must provide accessible rooms for individuals living with disabilities.

1.2 Detailed Breakdown

1. Design Requirements

Buildings must facilitate access in compliance with **KS ISO 21542,** ensuring that individuals with disabilities can use all facilities without hindrance.

A wayfinding system in public spaces is mandated, incorporating warning cues and auditory signals for navigation.

2. Access Pathways

Access must be provided from the boundary to at least one entrance and a lift, with no steps or barriers impeding wheelchair access.
For garages, at least one accessible parking space is required, or at least one percent of total spaces, whichever is greater.

Ramps must be designed with specific dimensions, including a minimum width of 1.5 meters and appropriate landings and gradients to ensure safe use.

3. Restroom Accessibility

Each floor must have a minimum number of water closet cubicles designed for use by individuals with disabilities, with one cubicle for up to twenty total cubicles, or two if the total exceeds twenty.

Accessible cubicles must be strategically located to allow easy maneuverability, with clear space in front to accommodate wheelchair users.

4. Auditorium Provisions

Public auditoriums must allocate one wheelchair space for every four hundred seats, with specific dimensions for these spaces to ensure comfort and accessibility.

5. Room Accommodations

Buildings classified under occupancy category H1 must provide either two accessible rooms or five percent of the total room count, whichever is greater, ensuring adequate facilities for individuals living with disabilities.

1.3 Important Considerations

Ramps must include handrails, with specific height and distance requirements to ensure safety.

Lifts must meet minimum size criteria and include controls accessible to visually impaired users.

Doorways must be designed to accommodate wheelchair access, with clear widths and unobstructed areas around handles.The specifications for dropped kerbs ensure safe transitions between different levels for wheelchair users.

1.4 Conclusion

The provisionsns set forth in this Part are crucial for promoting inclusivity and accessibility in the built environment for individuals living with disabilities. By adhering to these guidelines, designers and builders can create spaces that are not only compliant with legal standards but also enhance the quality of life for all users. Key takeaways include the importance of thoughtful design in public spaces, the necessity of accessible facilities, and the commitment to providing equal access to all individuals, regardless of their physical abilities.

PART XXI-FIRE SAFETY AND FIRE INSTALLATION

This part comprises paragraphs 363 to 450 of the Code.

It delineates comprehensive fire safety and fire installation regulations designed to ensure the safety of occupants in buildings during fire emergencies. The provisions emphasize the importance of architectural design, construction practices, and operational standards to minimize fire risks, facilitate safe evacuation, and maintain structural integrity. Key areas covered include firefighting infrastructure, fire resistance of materials, escape route design, and specific regulations for various types of buildings.

3.1 Key Points

1. Design Requirements
Buildings must be designed for effective occupant evacuation and to limit fire spread while maintaining structural stability.

2. Firefighting Infrastructure
Regulations mandate specific firefighting equipment and access provisions in buildings, particularly those exceeding six storeys.

3. Fire Resistance Standards
Structural components must meet defined fire resistance ratings based on occupancy classification and building height.

4. Escape Route Regulations
Adequate emergency escape routes must be provided, with clear guidelines on their design and maintenance.

5. Material Restrictions
Building materials must adhere to non-combustibility standards to enhance overall fire safety.

3.2 Detailed Breakdown

a. Fire Safety Design Requirements
The design of buildings must prioritize occupant safety during fires, enabling safe evacuation and minimizing fire spread. Multistorey buildings must also control smoke generation and allow access for firefighting operations.

b. Firefighting Infrastructure
Buildings taller than six storeys are required to have firefighting lifts and staircases, ensuring unobstructed access within 60 meters of any area. Public buildings must be equipped with essential firefighting equipment, including hydrants and hoses.

c. Fire Resistance Standards
Different structural elements must comply with specified fire resistance ratings. For instance, external walls of smaller houses require a minimum of 30 minutes of fire resistance, while larger buildings may require up to two hours based on occupancy

classification.

d. Separation of Occupancies

Buildings with mixed occupancy types must incorporate fire division walls to prevent fire spread, with varying fire resistance ratings based on the risk associated with each occupancy type.

*e. Escape Route Regulation*s

Buildings exceeding two storeys must have a minimum of two escape routes, with a maximum travel distance of 30 meters to an escape door. Emergency routes must be clearly marked and constructed from non-combustible materials.

6. Material Restrictions

Combustible materials are restricted in specific areas of buildings, particularly in suspended ceilings and wall finishes. The use of non-combustible materials is emphasized to enhance fire resistance.

7. Emergency Access and Signage

The regulations require clear signage indicating emergency routes and ensure that construction sites provide adequate access for firefighting operations.

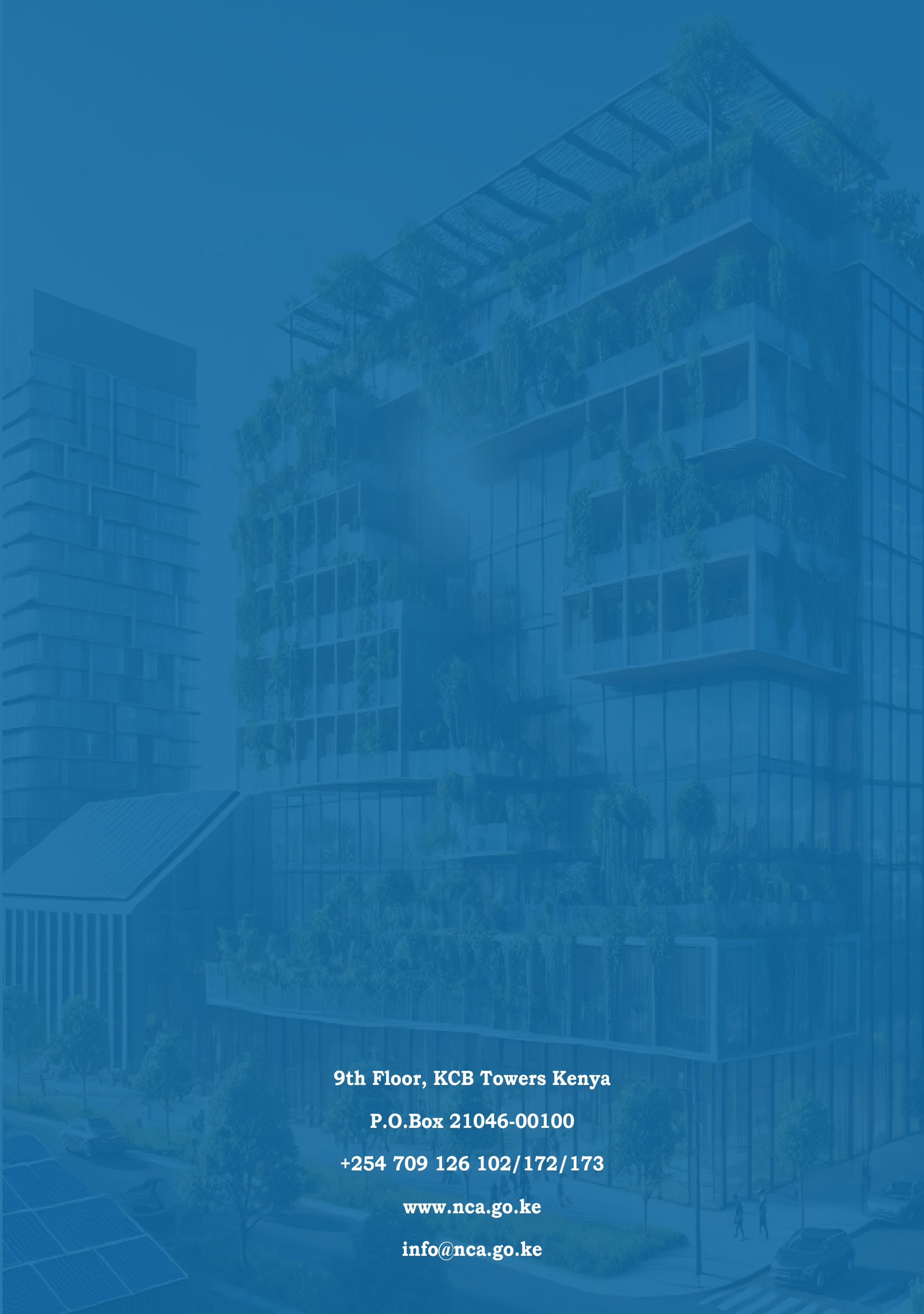
8. Important Considerations

The regulations reference specific standards, such as BS 4764 for non-combustibility testing and BS 9999 for fire safety design. Compliance with these standards is crucial for ensuring the safety of building occupants. Additionally, detailed requirements for the installation and maintenance of fire safety installations are outlined, emphasizing the importance of regular inspections and adherence to operational standards.

3.3 Conclusion

The fire safety regulations outlined in Part XXI of the National Building Code 2024 are comprehensive and essential for protecting occupants while minimizing fire risks in buildings. Key components such as firefighting infrastructure, fire resistance ratings, and the separation of different occupancy types play critical roles in enhancing overall fire safety. Compliance with these regulations is imperative for safeguarding lives and property in the event of a fire, with particular attention needed for buildings of significant height or those housing hazardous materials.

By adhering to these guidelines, architects, builders, and safety inspectors can ensure that buildings are equipped to handle fire emergencies effectively. The emphasis on non-combustible materials, accessible emergency routes, and regular maintenance of fire safety installations fosters a proactive approach to fire safety, ultimately contributing to the well-being of all building occupants.



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