

CIRCULAR - 239

Date: September 29, 2016 Ref: DC/HR/166/16

TO : ALL CONSULTANTS & CONTRACTORS

SUBJECT : Updated Building Code for Guardrails for Accessible elevated areas and Openable Windows

As part of our commitment to the continued development and implementation of transparent regulations in line with local and federal laws and guidelines, and to ensure the creation of world-class developments that serve to balance economic and social development needs, Dubai Creative Clusters Authority is providing an update to the existing Development Control Regulations for additional guidance.

A. Building Code: Guardrails for Accessible Elevated Areas

1. Definition:

<u>Guardrails</u> are to be installed in order to provide safety and protection for the building occupants. <u>Guardrail</u> systems are mandatory at the perimeter edge of any opening or accessible surface, such as an opening for a stairway, balconies, decks terraces and podia or at a location where operating conditions require limited access to a designated area in order to guard against accidental falls.

2. Reference:

The below shall be read in conjunction with UAE Fire & Life Safety Code of Practice established by Dubai Civil Defence.

3. Minimum Design Parameters:

- 3.1 Guards are required for any space which is elevated 760mm above the finished grade level.
- 3.2 Height of the balcony balustrade, terrace railings, elevated space railing shall not be less than 1200mm (A). The minimum height is measured from the finished floor level or highest climbable point. If the guardrail system is elevated from the finished floor level through a climbable step, minimum height shall be measured from the tread of the step. (See Figure 1)
- 3.3 Open guards must have balusters, vertical posts or ornamental patterns balustrades, with openings not exceeding 100 millimeters (B). (See Figure 1)
- 3.4 Horizontal elements, bars, climbable features cannot be installed up to 760mm from the finished floor level (C) or the established reference level from which the minimum guardrail height of 1200mm has been measured. (See Item 3.2 and Figure 1)
- 3.5 In case horizontal elements have been installed within 760mm from the finished floor level or the established reference level, additional panels need to be installed to cover the horizontal elements and to ensure the guardrails are not climbable.
- 3.6 If the design demands any gap between the finished floor surface and the bottom most horizontal component of the guardrail (D), such gap shall not be more than 100mm. (See Figure 1)
- 3.7 Balconies and terraces shall not have accesses with self-closing or self-latching doors, which can accidently lock people outside in the balcony or terrace, compelling them to misadventures such as climbing, descending or crossing over to other balconies.
- 3.8 Rooftop equipment that requires servicing, as well as roof hatches require guards. These guards shall be constructed with a railing height of not less than 1200mm, with openings not exceeding 530 millimeters.

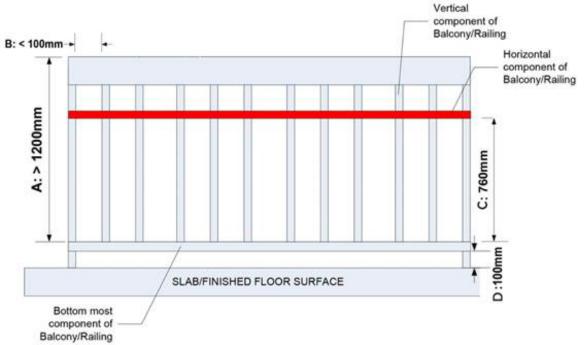


Figure 1 Guardrail Design Parameters

4. Material:

- 4.1 There is no limitation in regards to the material that can be used as the balustrade structure, however the material must be rigid and strong, be able to resist and not bend, buckle or break under pressure.
- 4.2 Guardrails, and their supports must be designed and assembled to withstand a single concentrated load of 90kg/200 lbs (0.89 kN) applied in any direction at any point.
- 4.3 If the design demands usage of glass panels in the balcony construction, such glass shall be reinforced glass which can withstand a load of 90kg/200 lbs (0.89 kN), applied in any direction at any point.
- 4.4 Glazing materials shall not be installed in railings in parking garages/podia, except for pedestrian areas not exposed to impact from vehicles.
- 4.5 For additional material specifications for the use of glass in handrails and guards UAE Fire & Life Safety Code of Practice established by Dubai Civil Defence shall be referenced.

B. Building Code: Openable Windows

1. Definition:

Openable windows are any windows which can be rotated, swung, slid, lifted, or otherwise moved between a sealed position and an open position which allows outside air to enter the building interior. They do not include balcony doors or other kinds of doors.

2. Reference:

The below shall be read in conjunction with UAE Fire & Life Safety Code of Practice established by Dubai Civil Defence and is applicable to all building types.

3. Minimum Design Parameters:

- 3.1 Openable windows shall not be located at a height less than 865mm from the finished floor surface level (E). The minimum height is measured from the finished floor level or highest climbable point. (See Figure 2)
- 3.2 The window pane shall not create a gap more than, 125mm from the wall, when opened (F). (See Figure 2)
- 3.3 The window assembly, shall have reinforced glass and shall be able to withstand a single concentrated load of 90kg/200lbs (0.89 kN), applied in any direction at any point.
- 3.4 There should not be any climbable construction features at the bottom of the window (G). (See figure 2) In case of such feature, minimum height distance of 865mm shall be measured from the highest climbable point. (See Item 3.1)

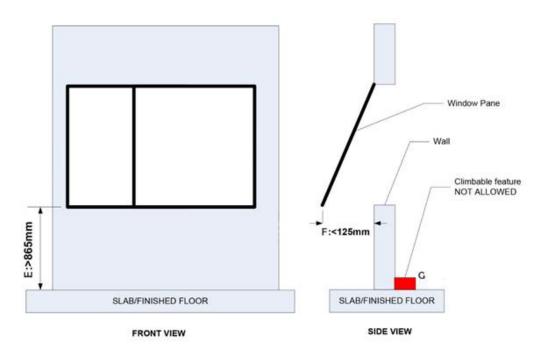


Figure 2 Openable Window Design Parameters

If you have any questions or wish to give feedback, please call DCCA Customer Care on Tel: 800-4-DCCA (3222) or email at info@dcca.gov.ae.