

Plot 6317313 Dubai Hills — Duplex Stair: Governing Regulations

Oct 4, 2026 · @Evgeny Chernikov

Project basis

DDA is the permitting authority, and the stair is governed by the Dubai Building Code 2021 general parts (not Part K), the DDA guardrail code and the UAE Fire & Life Safety Code.

Item	Value	Source
Building	Proposed B+G+24 residential/commercial tower, Plot 6317313, Dubai Hills Estate	LACASA title block, 679-LAC-PLN-L21-ARC-0118E
Status	Issued for Construction, Rev C2, 09-06-2026	Title block
Permitting authority	Dubai Development Authority (DDA)	Final design submissions to DDA, 25-06-2024 and 13-05-2026
Master developer / client	Emaar / M/s SLON Properties	Title block
Lead consultant	LACASA Architects & Engineering Consultants (project DXB/24/679)	Title block
CAworks scope (assumed)	Internal stair linking the two levels of one duplex apartment, with a glass guard around the slab opening	To confirm

Part K is out: it covers detached villas and townhouses of up to three storeys only, and this is a high-rise apartment building. Its scope clause is reproduced below for the record.

DBC A.5.1 and Table A.1 — the DBC and UAE FLSC apply to the fit-out of a unit ("Modification" row). Code page A 9.

A.5 Scope and application of the DBC

A.5.1 General

The DBC applies to new buildings and changes to existing buildings as described in Table A.1, except where an alternative solution is permitted (see A.8).

Change to an existing building	Description	Applicable codes
Renovation	Change to linings/finishes or strengthening of structure. It does not involve any reconfiguration of internal spaces.	DBC and UAE FLSC [Ref. A.1] apply to interior finish changes or building envelope changes.
Modification	Fit-out of a space/unit, or change to a service system or building element.	DBC and UAE FLSC [Ref. A.1] apply to the fit-out or change.
Reconstruction	Modification that is not stand-alone. It affects adjacent egress routes or systems that are not part of the reconstruction area such that a larger part of the building might need to be closed down or not occupied for a period of time.	DBC and UAE FLSC [Ref. A.1] apply to the reconstruction and any areas of the building which are impacted by the reconstruction.
Change of use	Change of use or occupancy of part or all of the building.	DBC and UAE FLSC [Ref. A.1] apply to the change of use and any areas of the building which are impacted by the change of use, e.g. existing exit stairs and routes, vertical transport, quantity and type of sanitary provisions.
Addition	An increase in the building's gross area or built-up area, and/or height or depth.	DBC and UAE FLSC [Ref. A.1] apply to the addition. If the addition relies on the remainder of the existing building for escape, vertical transport, etc., the existing building shall also be assessed against the DBC and UAE FLSC [Ref. A.1].

Table A.1 Existing building and application of the DBC

DBC K.4 Scope — Part K is limited to detached villas and townhouses of up to three storeys. Code page K 26.

K.4 Scope

This standalone Part details the requirements for the design of detached villas and townhouses of not more than three stories in height.

Cross-references to other Parts relate to the design of systems or spaces such as elevators, prayer rooms, assembly areas, electrical or IT rooms and underground parking which may be added to a villa/townhouse but it is not common practice.

Villas and townhouses converted to retail, restaurant, clinics or other non-residential use shall conform to **Parts A to J**.

DBC C.4.1 — Part C applies to common parts and accessible residential units, not to individual dwellings. Code page C 8.

C.4 Accessibility general requirements

C.4.1 General

This Part specifies requirements for building elements, assemblies and components that make up a building. The requirements relate to building use and circulation, and to some elements of the exterior building environment, such as the accessibility of public spaces.

This Part is applicable to common parts of multi-occupancy residential buildings and accessible residential units within. It is not applicable to individual dwellings, villas or townhouses. Requirements for individual dwellings are specified in **Part K**.

Stated dimensions are primarily based on adults, with additional specifications given to suit children and people of varying heights. Where a facility is intended to serve children, dimensions and other provisions can be adjusted to make them suitable for children.

All areas of newly designed and newly constructed buildings and facilities shall conform to these requirements.

Where a site, building, facility or space contains more than one use, each portion shall conform to the applicable requirements for that application.

Regulation register

Twenty clauses from three documents govern or bound the stair: DBC 2021 (Parts A, B, E), DDA Circular 239, and the UAE FLSC by reference. Two will drive the design: a 1,200 mm minimum clear stair width (B.6.4.1.3) and a 1,200 mm minimum guard height at the stair and the slab opening (B.6.4.1.8, B.4.2.5.2, DDA C239).

#	Regulation and clause	Key requirement	Status
1	DBC A.5.1, Table A.1	Fit-out of a unit ("Modification"): DBC and UAE FLSC apply to the fit-out	Applies
2	DBC K.4 Scope	Part K covers detached villas/townhouses up to three storeys only	Does not apply
3	DBC C.4.1	Part C covers common parts and accessible units; not individual dwellings	Does not apply, unless the unit is a designated accessible unit
4	DBC B.6.4.1.1	Exit stairs per UAE FLSC Ch. 3; B.6.4.1 sets the architectural stair requirements	Applies
5	DBC B.6.4.1.3 Stairway width	All stairways $\geq 1,200$ mm clear, wall to clear width of step; handrails may project ≤ 100 mm each side at 865–965 mm	Applies — critical
6	DBC B.6.4.1.4 Risers and treads	Riser 100–180 mm; tread ≥ 280 mm; ≤ 10 mm variation per flight; tread slope $\leq 2\%$	Applies
7	DBC B.6.4.1.5 Landings	$\leq 3,660$ mm rise between landings; landing width $\geq$ stair width	Applies
8	DBC B.6.4.1.6 Regular use stairs	Recommended: tread ≥ 300 , riser 150–165, 2–14 steps per flight. Required: 30 LRV contrast at step edge	Applies (daily-use stair)

#	Regulation and clause	Key requirement	Status
9	DBC B.6.4.1.7 Handrails	Both sides at 865–965 mm; second rail at 650–750 mm on regular use stairs; $\leq 1,065$ mm where part of a guard; ≥ 57 mm wall clearance; $\varnothing 32$ –51 mm or 100–160 mm perimeter; continuous; 30 LRV contrast	Applies
10	DBC B.6.4.1.8 Guardrails	Required where drop > 760 mm; $\geq 1,200$ mm from nosing (1,065 mm where the handrail forms the guard top); 100 mm sphere up to 865 mm; 150 mm sphere at the riser/tread triangle; landings per B.4.2.5.2	Applies — critical
11	DBC B.6.4.1.12 Winders, spiral, curved	Allowed in non-exit stairs. Winders ≥ 150 mm narrow end, ≥ 280 mm at 305 mm. Spiral ≥ 660 clear, ≤ 240 riser, ≥ 190 tread at 305 mm. Curved ≥ 255 mm at 305 mm	Applies if used
12	DBC B.6.4.1.14 Surfaces	No trip lips; consistent traction; marking strip rules where marking is applied	Applies
13	DBC B.6.4.1.15 Headroom	$\geq 2,030$ mm above the nosing plane; $\geq 2,300$ mm above landings	Applies
14	DBC B.4.2.5.2 Guardrails for fall protection	Guard at the slab opening $\geq 1,200$ mm; 100 mm sphere; no climbable elements within 865 mm; ≤ 100 mm bottom gap; ASCE/SEI 7-16 loads; glass to provide containment	Applies — critical
15	DBC E.9.1 Safety glazing	EN 12600 classes per Table E.9 (Class 1 in low-level areas)	Applies to guard glass
16	DBC E.9.2 Containment	Glass below 800 mm protecting a drop > 760 mm provides containment; whole panel if it crosses 800 mm	Applies to guard glass

#	Regulation and clause	Key requirement	Status
17	DBC E.9.3 Manifestation	Marking 750–1,500 mm AFL where people may walk into glass; exempt if glass is ≤ 850 mm high or < 500 mm wide	Check for glazed guards
18	DBC E.10.1	UAE FLSC Ch. 1 §2.17 (guards) and §5.4.2–5.4.4 (safety glazing) superseded by B.4.2.5.2 and E.9	Cite DBC, not FLSC, for guards
19	DDA Circular 239 (29 Sep 2016)	Guards incl. at stair openings: $\geq 1,200$ mm; ≤ 100 mm openings; no climbable elements below 760 mm; ≤ 100 mm bottom gap; 0.89 kN point load any direction; glass per UAE FLSC	Applies (DDA area)
20	DBC A.8 Alternative solutions	Route if a prescriptive item cannot reasonably be met; the Authority decides, the consultant demonstrates equivalence	Fallback route

Where DDA C239 and the DBC differ, design to the stricter figure: 865 mm climb-free zone (DBC) and ASCE/SEI 7-16 loads (which include C239's 0.89 kN point load). UAE FLSC Ch. 3 governs exit stairs and the fire strategy for the slab opening; that is LACASA's and DCD's to confirm and is not extracted here.

DBC Part B — stair geometry and handrails

The stair needs at least 1,200 mm clear width, 100–180 mm risers, treads of at least 280 mm, handrails on both sides at 865–965 mm, and 2,030 mm headroom. Part B has no relaxation for a stair inside a dwelling.

B.6.4.1.1–B.6.4.1.3 General, exit stairs, width. All stairways at least 1,200 mm clear; handrails may project up to 100 mm each side. Code page B 43.

B.6.4 Vertical circulation in buildings

B.6.4.1 Stairways

B.6.4.1.1 General

The minimum number of exit stairways, stairway width, stairway separation, exit discharge arrangements and fire resistance rating of the staircase shall be determined in accordance with Ch. 3 of UAE FLSC [Ref. B.1].

The architectural requirements of a stairway design in this subsection align with or exceed UAE FLSC [Ref. B.1].

At least one protected exit stairway shall extend to all roofs.

B.6.4.1.2 Exit staircase construction

Exit stairways shall be enclosed in fire resistance rated reinforced concrete (RCC) staircase construction when required by Table 3.4, Ch. 3 of UAE FLSC [Ref. B.1], except staircases serving low-rise buildings or low-depth underground buildings where 2 h fire resistance rated blockwork construction is permitted.

RCC staircases with separate cores but a common RCC divider are acceptable only in low-rise and mid-rise buildings, provided that the whole staircase conforms to building construction type and separation distance between exits.

B.6.4.1.3 Stairway width

All stairways shall have a clear width of not less than 1,200 mm. The minimum width of an exit stair shall be determined in accordance with Section 4, Ch. 3 of UAE FLSC [Ref. B.1] depending upon the number of occupants it serves.

The required width of a stairway shall be measured from wall to the clear available width of the step (see Figure B.28). The maximum projections of handrails allowed in this required width is 100 mm on each side, at a height of 865 mm to 965 mm (see Figure B.28).

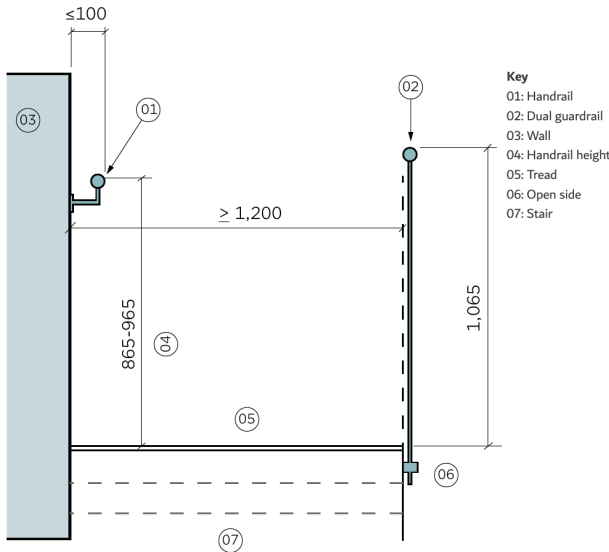


Figure B.28 Handrail encroachment

B.6.4.1.4 Risers and treads. Riser 100–180 mm, tread at least 280 mm, no more than 10 mm variation within a flight. Code page B 44.

B.6.4.1.4 Stair risers and treads

Stair riser height as measured in Figure B.29 shall be in the range 100 mm to 180 mm.

Riser heights shall be as uniform as possible throughout each stair flight between landings. Where riser heights are adjusted to meet acceptable stair treads, flights and arrangements, there shall be no more than 10 mm difference in riser height within a single flight.

Stair treads shall have a depth of not less than 280 mm.

The tread slope shall not exceed 21 mm/m (2% slope).

Tread depth shall be as uniform as possible throughout the stair. There shall be no more than 10 mm difference in tread depth within a single flight.

Further recommendations on riser height and tread depth provided for regular use stairs and external steps are given in B.6.4.1.6.

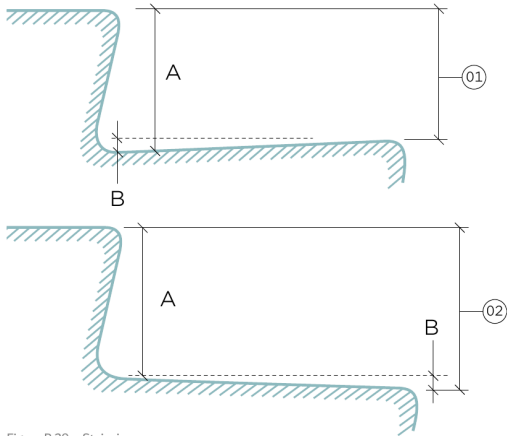


Figure B.29 Stair risers

Key
01: Stair risers = A - B
02: Stair risers = A + B

B.6.4.1.5 Landings. No more than 3,660 mm rise between landings; landing at least as wide as the stair. Code page B 45.

B.6.4.1.5 Landings

The height between landings shall be not more than 3,660 mm.

Every stair shall have a landing at the door opening. The landing width shall be not less than the required stairway width.

A staircase door shall not encroach in its swing into more than one half of the landing width (see Figure B.30).

The landing width shall not decrease in width along the direction of egress travel.

The landing width is not required to exceed 1,200 mm in the direction of travel, provided that the stairway has a straight run.

The landing slope shall not exceed 21 mm/m 2% slope.

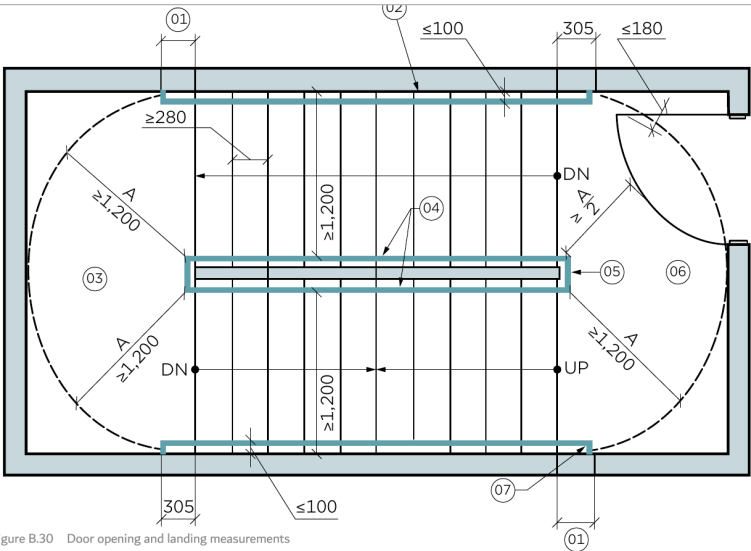


Figure B.30 Door opening and landing measurements

- Key**
- 01: Greater than or equal to tread depth
 - 02: Finish wall
 - 03: Intermediate landing
 - 04: Dual guardrail
 - 05: Continuous handrail
 - 06: Top landing
 - 07: Return of handrail to wall required
 - A: Minimum stairway width

B.6.4.1.6 Regular use stairs. The stair is used for daily circulation, so the 30 LRV step-edge contrast is required; Table B.6 dimensions are recommended. Code page B 46.

B.6.4.1.6 Regular use and external stairs

The following requirements and recommendations apply to stairs used for daily circulation and external stepping.

- a) Building entrance steps, landscaping steps and external circulation shall meet the requirements given in Table B.6.
- b) For regular use stairs in buildings, where the stairs serve as a primary means of vertical circulation, conformity to Table B.6 is recommended.

Stair element	Requirement for stairs
Tread depth	≥300 mm
Riser height	150 mm to 165 mm (see Figure B.31)
Number of steps	2 steps min. 14 steps max.

Table B.6 Stair flight and steps

The step edge shall present a slip-resistant surface with a minimum reflectance contrast of 30 LRV points against the step surface (see Figure B.32).

It is recommended that a warning surface is provided at the descending edge of each stair flight, in accordance with B.6.4.1.14 and as shown in Figure B.32. The warning surface shall conform to the requirements in **Part C**.

Illumination along the whole flight of stairs should be not less than 200 lux.

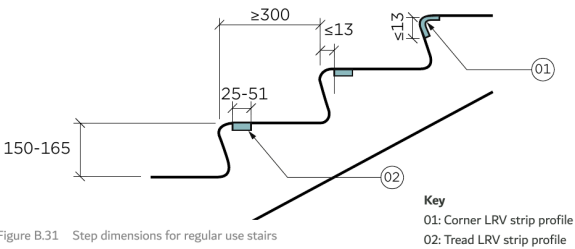
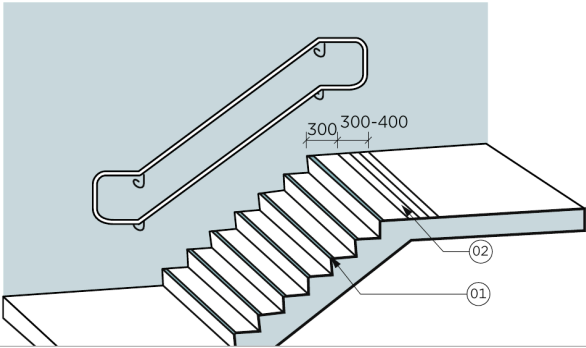


Figure B.31 Step dimensions for regular use stairs

- Key**
- 01: Corner LRV strip profile
 - 02: Tread LRV strip profile



B.6.4.1.7 Handrails. Both sides at 865–965 mm; a second rail at 650–750 mm on regular use stairs; no higher than 1,065 mm where the handrail forms part of a guard; at least 57 mm wall clearance; Ø32–51 mm. Code page B 47.

B.6.4.1.7 Handrails

Stairs shall have handrails on both sides in accordance with the arrangement and dimensions shown in Figure B.33.

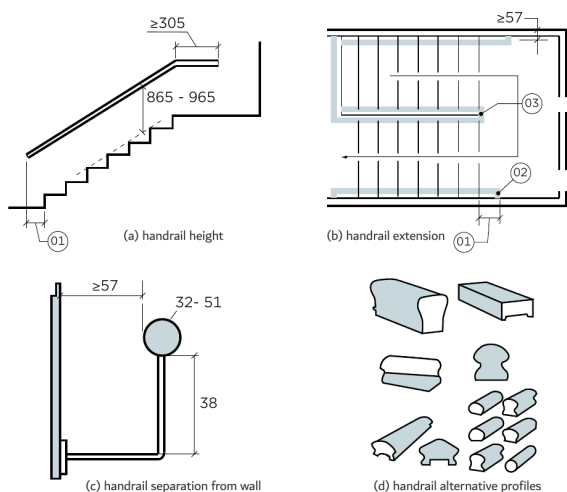


Figure B.33 Handrail specifications

Key

- 01: One tread depth handrail extension
- 02: Return of handrail to wall required
- 03: Handrail turn required

Handrails on stairs shall be located between 865 mm and 965 mm above the surface of the tread, measured vertically to the top of the rail from the leading edge of the tread.

Regular use stairs and external steps shall have an additional handrail, mounted at a height between 650 mm and 750 mm, to facilitate use by children and people of short stature.

Handrails forming part of a guardrail can exceed 965 mm, but shall not exceed 1,065 mm (see B.6.4.1.8), measured vertically to the top of the rail from the leading edge of the tread.

Handrails shall be installed to provide a clearance of not less than 57 mm between the handrail and the wall to which it is fastened.

Handrails shall be provided within 760 mm of all portions of the required means of egress width in stairs. Where intermediate handrails are provided, the clear width between handrails shall be a minimum of 760 mm along the natural path of travel.

Handrails shall continue for the full length of each flight of stair.

Inside handrails shall be continuous and graspable between flights at landings.

Handrails shall have circular cross-section with an outside diameter of not less than 32 mm and not more than 51 mm.

B.6.4.1.12 Winders, spiral or curved stairs. Allowed because this is not an exit stair. Winders need at least 150 mm at the narrow end and 280 mm at 305 mm; curved stairs need at least 255 mm at 305 mm. Code page B 50.

B.6.4.1.12 Winders, spiral or curved stairs

Winders, spiral or curved stairs (see Figure B.38) are not permitted in means of egress, with the following exceptions:

- a) industrial occupancies where the winders provide access/egress from equipment areas;
- b) storage occupancies where the winders provide access/egress from mezzanines which are only used for storage and not office space; and
- c) retail areas where the winders provide access/egress from mezzanines where goods are stored.

Winders may be used in stairs which are not exit stairs.

Winders shall have a minimum tread depth of 150 mm at their narrowest, and a minimum tread depth of 280 mm when measured 305 mm from the narrowest edge.

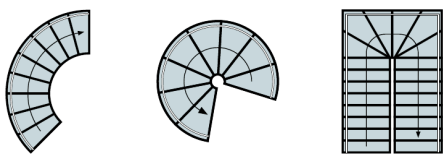


Figure B.38 Examples of curved stairs, spiral stairs and winders

Spiral stairs shall meet the following requirements.

- 1) Spiral stairs shall have:
 - i) a minimum clear width of 660 mm;
 - ii) a minimum headroom of 2,030 mm;
 - iii) a maximum riser height of 240 mm.
- 2) Treads shall have a depth not less than 190 mm at a point 305 mm from the narrower edge (see Figure B.39).

- 3) All treads shall be identical.
- 4) Handrails shall be provided in accordance with B.6.4.1.7.
- 5) The turn of the stairway shall be such that the outer handrail is at the right side of descending users.

Curved stairs shall have tread depth of not less than 255 mm at a point 305 mm from narrowest edge (see Figure B.40).

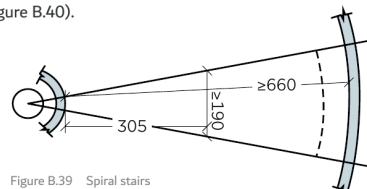


Figure B.39 Spiral stairs

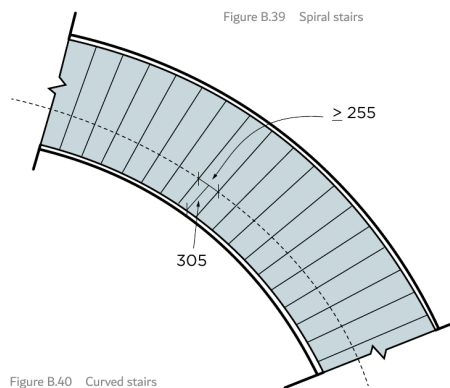


Figure B.40 Curved stairs

B.6.4.1.14 Surfaces and B.6.4.1.15 Headroom. No trip lips and consistent traction. Headroom at least 2,030 mm above the nosing plane and 2,300 mm above landings. Code page B 51.

B.6.4.1.14 Surfaces and floor markings

Stair treads and landings shall be free of projections or lips that could trip stair users.

Stair treads and landings within the same stairway shall have consistent surface traction.

Where contrasting marking is applied to stairs, such marking shall meet the following requirements.

- Exit stair treads shall incorporate a marking strip that is applied as a paint/coating or be made from a material that is integral with the nosing of each step.
- Surface-applied marking strips using adhesive-backed tapes shall not be used.
- The marking strip shall be installed along the horizontal leading edge of the step and shall extend the full width of the step.
- The marking strip shall have a horizontal width between 25 mm and 51 mm.

- The marking strip shall be not more than 13 mm from the leading edge of each step and shall not overlap the leading edge of the step by more than 13 mm down the vertical face of the step. See Figure B.32.

B.6.4.1.15 Minimum headroom

Head room in stairways shall be not less than 2.03 m, measured vertically above a plane, parallel to the most forward projection of the stair tread (see Figure B.41), and not less than 2.3 m above landings.

Key

- 01: 1 tread depth extension for handrail
02: Handrail

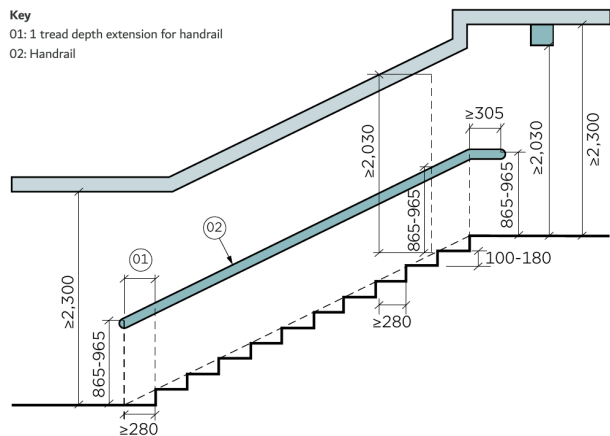


Figure B.41 Staircase arrangement

A.8 Alternative solutions. If an item such as the 1,200 mm width cannot reasonably be met, this is the only route. The Authority decides; the consultant must show equivalent performance. Code page A 16.

A.8 Alternative solutions

The DBC is intended to be a prescriptive design code. Performance statements are provided at the start of each Part to describe the outcomes that the completed building is expected to achieve.

The performance statements form a set of overarching regulations that convey the requirements of the DBC (see A.6.2).

The preferred method of meeting the performance statements of the DBC is to follow the prescriptive design requirements in each Part.

The inclusion of performance statements sets out the intent of the DBC and future-proofs it, supporting a possible transition to a more performance-based regulatory system in the future.

Alternative solutions which meet the performance statements of the DBC are permitted:

- a) for projects that cannot reasonably meet the prescribed requirements; and
- b) for changes to existing buildings where the requirements of the DBC would result in a disproportionate cost to the Owner/Developer.

The Authority will decide if an alternative solution is permitted.

An alternative solution shall meet the intent of the performance statements and provide at least an equivalent level of performance to all of the prescriptive design requirements.

Alternative solutions shall be applied to a performance-based design holistically such that a change from one Part of the DBC does not reduce the building's performance in other aspects.

Alternative solutions for changes to existing buildings shall demonstrate that the existing conditions are maintained to the current level of compliance or improved to meet the safety levels of the DBC and UAE FLSC [Ref. A.1].

The Authority will decide whether or not a performance-based design is equivalent to the prescriptive design requirements. The responsibility is on the Consultant to demonstrate that the performance-based design is required and that it is at least equivalent to the prescriptive design requirements.

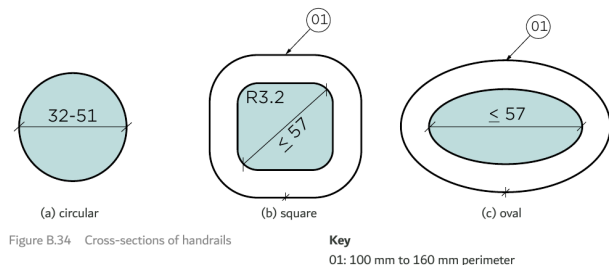
The DBC lists preferred international codes and standards in each Part (see A.4.2). Where permitted by the Authority, alternative standards can be used provided that the comparable standard meets the intent of the DBC.

DBC — guardrails at the stair and the slab opening

Guards along the stair and around the opening must be at least 1,200 mm high. The stair guard can drop to 1,065 mm only where the handrail forms its top. Both follow the 100 mm sphere rule and ASCE/SEI 7-16 loads.

B.6.4.1.7 (cont.) and B.6.4.1.8 Guardrails. Required where the drop exceeds 760 mm; at least 1,200 mm above the nosing, or 1,065 mm where the handrail forms the guard top; 100 mm sphere up to 865 mm. Code page B 48.

Handrail shape that is other than circular (see Figure B.34) shall be with a perimeter dimension of not less than 100 mm, but not more than 160 mm, and with the largest cross-sectional dimension not more than 57 mm, provided that graspable edges are rounded so as to provide a radius of not less than 3.2 mm.



Handrail brackets shall not project horizontally beyond the sides of the handrail within 38 mm of the bottom of the handrail and provided that, for each additional 13 mm of handrail perimeter dimension greater than 100 mm, the vertical clearance dimension of 38 mm is reduced by 3.2 mm.

Handrail brackets shall have edges with radius not less than 0.25 mm.

Handrails shall have a reflectance contrast of not less than 30 points LRV against its background.

Handrail materials exposed to the sun shall not reach temperatures that can harm the users.

B.6.4.1.8 Guardrails

Guardrails as shown in Figure B.35 shall be provided for every stairway where the elevated surface is more than 760 mm from finished ground level.

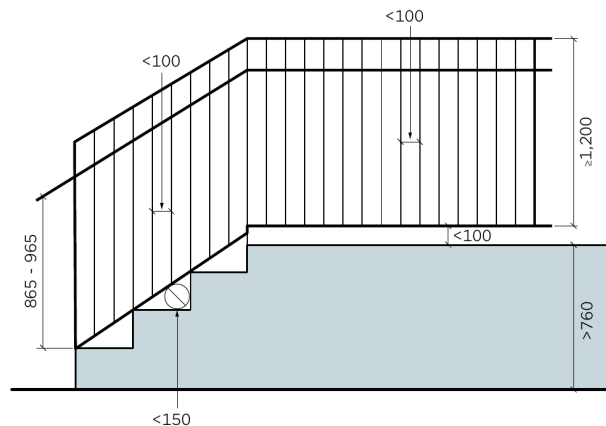


Figure B.35 Guardrail to a stairway

Such guardrails shall not encroach on the required clear width of the stairway.

Guardrails shall be not less than 1,200 mm high, measured vertically to the top of the guardrail from the leading edge of the tread.

In case of stairway or ramp handrails that form part of a guardrail, the height of the guardrail can be reduced to 1,065 mm.

Open guardrails shall have intermediate rails or an ornamental pattern up to a height of 865 mm, such that a sphere 100 mm in diameter is not able to pass through any opening.

B.6.4.1.8 (cont.). 150 mm sphere at the riser/tread/guard triangle. Guards at landings and over stairways must also meet B.4.2.5.2. Code page B 49.

The triangular openings formed by the riser, tread, and bottom element of a guardrail at the open side of a stair shall be of such size that a sphere 150 mm in diameter is not able to pass through the triangular opening.

Guardrails at landings or balconies over stairways shall also conform to B.4.2.5.2.

B.4.2.5.2 Guardrails for fall protection. This governs the guard around the slab opening on the upper level:

- at least 1,200 mm high;
- 100 mm sphere rule;
- no climbable elements within 865 mm;
- bottom gap no more than 100 mm;
- ASCE/SEI 7-16 loads;
- glass must provide containment (E.9.2).

Code pages B 29–B 30.

B.4.2.5.2 Guardrails for fall protection

Guardrails are required for any space, walking or standing which is elevated 760 mm above the FFL, with the exception of:

- a) the loading side of loading docks;
- b) the audience side of stages and raised platforms, including stairs leading up to the stage and raised platforms;
- c) raised stage and platform floor areas, such as runways, ramps and side stages;
- d) vertical openings in the performance area of stages and platforms;
- e) elevated walking surfaces associated with stages and platforms for access/use of special lighting or equipment; and
- f) along vehicle service pits not accessible to the public.

The guardrail height from FFL (or lowest stepping feature, A in Figure B.18) shall be not less than 1,200 mm.

The separation distance between vertical posts or members (see Figure B.18), curved frames or design features, of balcony, guardrail or handrail shall not allow the passage of a 100 mm diameter sphere.

Horizontal climbable elements are not permitted within 865 mm height of the bottom of the guardrail, i.e. (B) in Figure B.18.

If the design requires any gap between finished floor surface and the bottommost horizontal component of the railing (see Figure B.18), the gap shall be not more than 100 mm.

The balcony, handrail, guardrail assembly shall be able to withstand the loads specified in ASCE/SEI 7-16.

If the design demands usage of glass panels in the balcony construction, such glass shall provide containment and withstand the loads specified in ASCE/SEI 7-16 (see E.9.2).

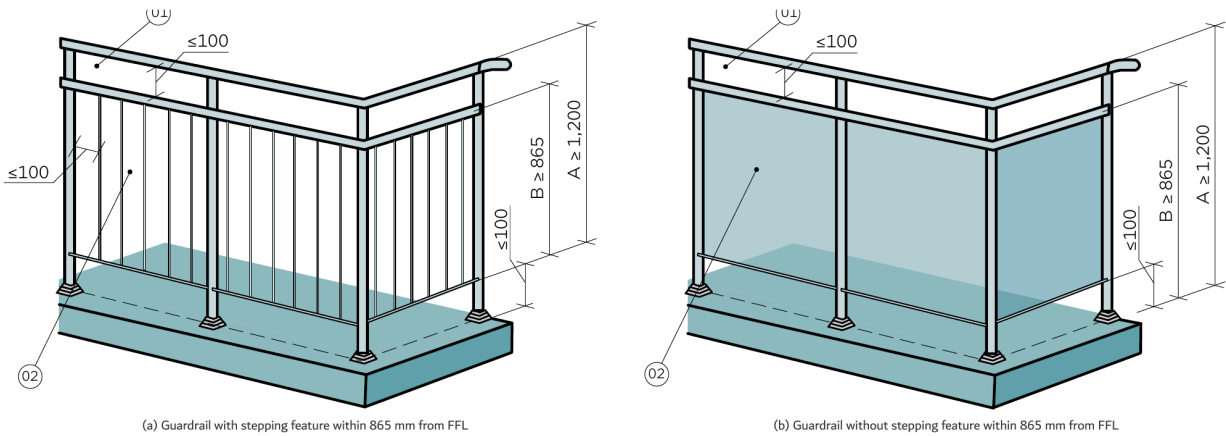


Figure B.18 Guardrail specifications

Key

- 01: Gaps more than 100 mm not acceptable
02: Stepping feature within 865 mm of base of guardrail not acceptable

DDA Circular 239 — guardrails for accessible elevated areas

DDA's own guardrail code names "an opening for a stairway" in its definition, so it applies to the guard around the duplex void. Its numbers match the DBC except for the climb-free zone: 760 mm here, 865 mm in the DBC. Design to 865 mm.

Item	DDA C239	DBC	Design to
Guard height	≥1,200 mm (3.2)	≥1,200 mm (B.4.2.5.2)	1,200 mm
Openings	≤100 mm (3.3)	100 mm sphere	100 mm

Item	DDA C239	DBC	Design to
Climb-free zone	760 mm (3.4)	865 mm	865 mm
Bottom gap	≤100 mm (3.6)	≤100 mm	100 mm
Load	0.89 kN point load, any direction (4.2, 4.3)	ASCE/SEI 7-16	ASCE/SEI 7-16 (includes the 0.89 kN point load)
Glass	Per UAE FLSC (4.5)	Containment, E.9 (FLSC §2.17 superseded, E.10.1)	Laminated, EN 12600 classified

Circular 239, page 1 — definition and minimum design parameters 3.1–3.8. Issued 29 Sep 2016 by DDA's predecessor, Dubai Creative Clusters Authority.

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:

Guardrails are to be installed in order to provide safety and protection for the building occupants. Guardrail 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 accidentally 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.

Circular 239, page 2 — Figure 1 and Material clauses 4.1–4.5.

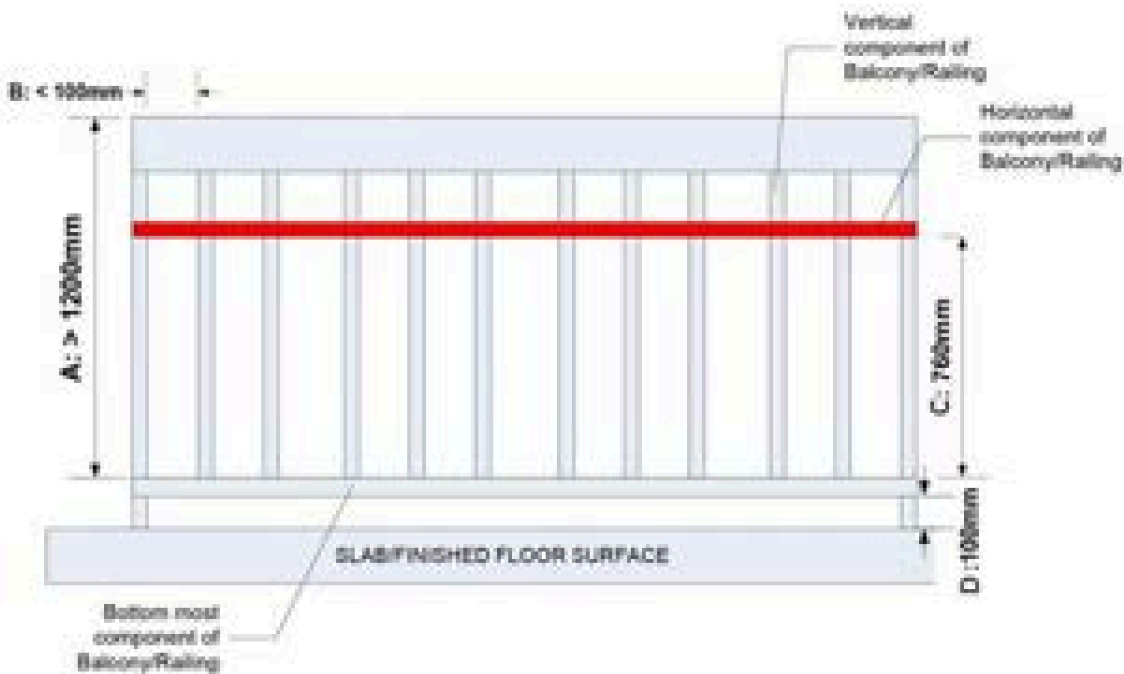


Figure 1 Guardrail Design Parameters

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.

DBC Part E — glass in guards (UAE FLSC superseded)

Glass in the guards is governed by DBC E.9, not the UAE FLSC. E.10.1 replaces FLSC Ch. 1 §2.17 (guards) with B.4.2.5.2 and §5.4.2–5.4.4 (safety glazing) with E.9. Glass protecting the void must provide containment, which in practice means laminated glass classified to

BS EN 12600.

E.10.1 General. The FLSC guard and safety-glazing clauses are superseded by DBC B.4.2.5.2 and E.9. Code page E 26.

Image — DBC E.10.1 General, page E 26

E.9.1 Protection against impact with glazing. Safety glazing classes per BS EN 12600 (Table E.9) or ANSI Z97.1 / CPSC 16 CFR 1201 (Table E.10). Code page E 23.

Image — DBC E.9.1, Tables E.9 and E.10, page E 23

E.9.2 Containment and E.9.3 Manifestation.

- Glazing below 800 mm that protects a drop of more than 760 mm must provide containment.
- A panel crossing 800 mm must provide containment over its whole area.
- Manifestation (visibility marking) is placed 750–1,500 mm above floor level where people may walk into glass.
- It is not needed where the glass is no more than 850 mm high or less than 500 mm wide.

Code page E 24.

Image — DBC E.9.2 Containment and E.9.3 Manifestation, page E 24

Not extracted here: UAE FLSC Ch. 3 (means of egress), which DBC B.6.4.1.1 points to for exit stairs. The duplex stair is not an exit stair. Whether the slab opening between the two floors is acceptable unenclosed within one dwelling unit is a fire-strategy question for LACASA and DCD.

Sources

All screenshots are 200-dpi crops taken directly from the documents below; each caption gives the code's own page number.

Document	Edition	Used for
Dubai Building Code 2021, full PDF (PCFC/Trakhees mirror)	2021 edition	Parts A, B, C, E, K extracts
Decree No. (45) of 2021 Concerning the Dubai Building Code	Issued 18 Nov 2021	DBC applies throughout the Emirate, including Special Development Zones and free zones
DDA Circular 239 — Guardrails for Accessible Elevated Areas and Openable Windows	29 Sep 2016, ref. DC/HR/166/16	Guard height, openings, loads, glass
Dubai Municipality — laws and orders	Current listing	Lists Decision No. 225 of 2024 amending some DBC construction parameters
LACASA title block, drawing 679-LAC-PLN-L21-ARC-0118E (20th floor plan)	Rev C2, IFC 09-06-2026	Building type, authority (DDA), parties

Dubai Municipality's 2024 decision amends some DBC construction parameters. Ask LACASA to confirm that none of the stair or guard clauses above changed before this is issued.