



GUIDELINES & STANDARDS

Guideline C.05 – Fire Rescue Openings and Laddering Pads

C.05.1 PURPOSE

The Newport Beach Fire Department, (NBFD) is required to review architectural plans for compliance with Ch. 1031 of the CBC and CFC in regards to Rescue openings and access to those openings for residential occupancies, in addition to inspecting R-1, R-2 occupancies for fire and life safety requirements on an annual basis. This guideline is to serve as an aid for designers and property owners/managers to understand the requirements and importance of this design factor and ongoing maintenance.

C.05.2 SCOPE

C.05.2.1 NBFD REVIEW – The NBFD reviews and inspects the following types of residential structures, with some exceptions for R-1 and R-2 occupancies based on number of stories and specific design features.

C.05.2.1.1 R-1 Occupancies – R-1 occupancies, which include hotels, motels, short-term boarding houses, and other residential facilities with relatively temporary occupants.

C.05.2.1.2 R-2 Occupancies – R-2 occupancies, which consist primarily of apartments, condominiums, vacation timeshare properties, and other multi-family residential facilities with relatively permanent occupants. Congregate living facilities such as dorms, monasteries, and fraternity/sorority houses with more than 16 occupants are also classified as R-2 occupancies.

C.05.2.1.3 R-2.1 Occupancies – R-2.1 occupancies, which consist of facilities that house clients on a 24-hour basis who live in a supervised environment due to age, mental disability, social rehabilitation, or similar reason. Facilities with this occupancy classification house 7 or more clients; unlike R-4 occupancies, R-2.1 occupancies may house more than 6 occupants who are non-ambulatory and/or bedridden.

C.05.2.1.4 R-3 Occupancies – The NBFD does not perform architectural review of R-3 single family residences or duplexes, or R-3 townhouses constructed in accordance with the California Residential Code, that are not used for care or rehabilitation purposes.



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C.05.2.1.4.1 R-3/R-3.1 Occupancy Licensed Care Facilities – Licensed care in R3 (e.g., Large Family Daycare, Group Home that does not provide medical care) or R-3.1 facilities (e.g., RCFE; drug and alcohol detox and rehabilitation homes providing treatment services; community care homes) shall be reviewed and inspected by NBFD Prevention.

C.05.2.1.5 R-4 Occupancies – R-4 occupancies, which include assisted living, residential care, or social rehabilitation facilities with 7 to 16 clients, no more than 6 of these being bedridden or non-ambulatory.

C.05.3 EGRESS REQUIREMENTS

C.05.3.1 Rescue openings, CBC 1031 – Rescue openings shall be provided for all basements and for sleeping rooms on the first 3 stories above grade unless the building meets the exceptions in CBC 1031.2, such as for R-1 and R-2 occupancies in Type I, IIA, IIIA, or IV buildings protected with an NFPA 13 sprinkler system. Identify each rescue window on the floor plan and elevation and specify the clear opening dimensions provided on the window schedule.

C.05.3.2 Accessing Rescue Openings – An approved access walkway must be provided to enable firefighters to easily and safely reach a clear, flat space beneath each rescue opening from the fire lane. Obstructions including but not limited to shrubs, trees, trellises, carports, raised planters, walls, fences, pools, steeply sloped roofs, overhangs, vegetation, and similar building and site elements shall not impede the use of or access to the walkway or rescue opening. Walkways may consist of hardscape, decomposed granite, or other similar walkable material that does not inhibit access to or use of the area. Trees that encroach on walkways shall provide a minimum 7-foot clearance underneath to allow unhindered passage by firefighters, however, trees and shrubs shall not encroach on areas outside the rescue opening.

C.05.3.3 Laddering Pad and Setback at Rescue Openings of Group R-1, R-2, and R-2.1 Occupancies - A clear, flat space for laddering rescue openings shall be provided beneath each rescue opening. The distance between the nearest edge of this laddering pad and the structure is based on standardized operational procedures and safe practice to achieve a proper laddering angle. The plan provided must demonstrate that the vegetation (at fully-grown sizes), buildings, and site features will not obstruct the access walkways or laddering operations. It is incumbent upon the developer, architect, landscape architect, and facility maintenance personnel to



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collaborate on a design and plant palette that complies with these requirements through the life of the building. Signage may be required by the AHJ prior to final inspection to keep the integrity of the laddering pads intact.

The equation used to determine placement of the foot of the ladder is:

$$d = (h/5)+2$$

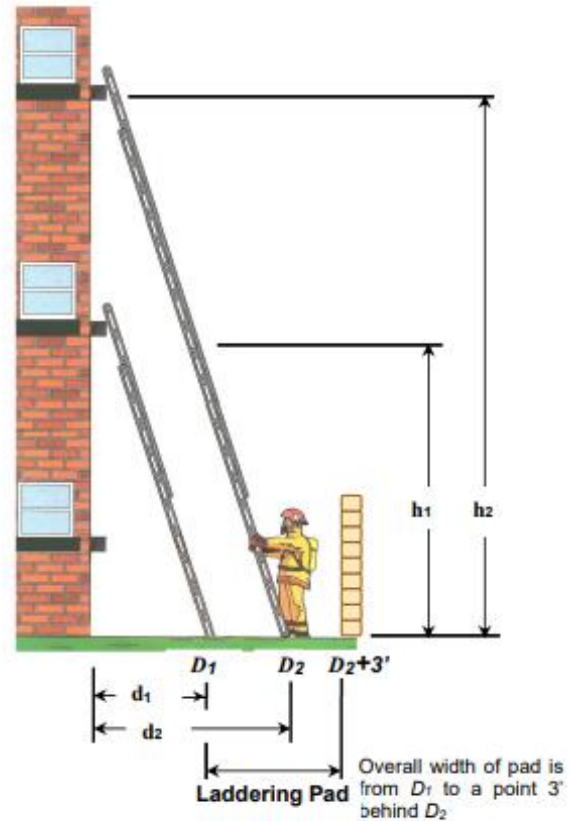
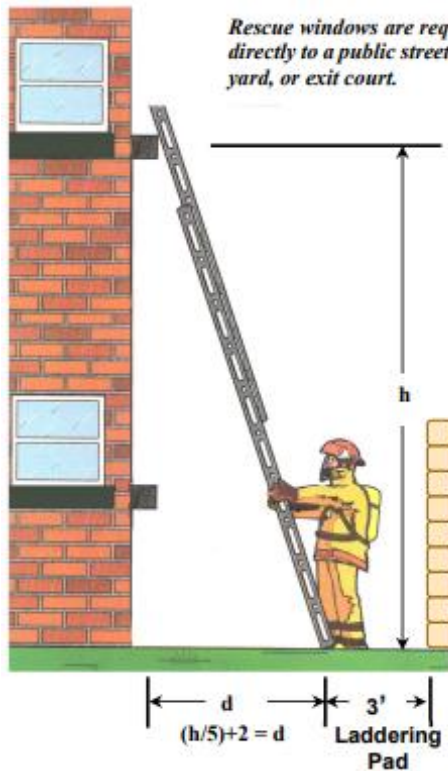
Where h = the height of the windowsill or balcony railing

d = the distance in feet from the edge of the pad nearest the building to a point on the ground directly beneath the rescue windowsill or balcony edge

Refer to the diagram on the next page for a graphic representation of this formula and a table of approximate distances for given windowsill or balcony railing heights.



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Placement of Ladders

Sill Height (h)	Distance (d)
35'	9'-0"
34'	8'-10"
33'	8'-7"
32'	8'-5"
31'	8'-2"
30'	8'-0"
29'	7'-10"
28'	7'-7"
27'	7'-5"
26'	7'-2"

Sill Height (h)	Distance (d)
25'	7'-0"
24'	6'-10"
23'	6'-7"
22'	6'-5"
21'	6'-2"
20'	6'-0"
19'	5'-10"
18'	5'-7"
17'	5'-5"
16'	5'-2"

Sill Height (h)	Distance (d)
15'	5'-0"
14'	4' to 5'
13'	4' to 5'
12'	3' to 5'
11'	3' to 4'
10'	2' to 4'
9'	2' to 4'
8'	2' to 3'
7'	1' to 3'
<7'	1' to 2'