

BUILDING CODE

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Significant Changes To the International Residential Code

Comparison Between the 2012 IRC and 2021 IRC Editions
The following 2021 code changes will take effect on January 1, 2023.

Grade Floor Emergency Escape and Rescue Opening: (Definition R 202)

2012 - Defines a grade floor opening as a window or opening located such that the sill height of the opening is not more than 44 inches above or below the finished ground level adjacent to the opening.

2021 - An emergency escape and rescue opening located such that the bottom of the clear opening is not more than 44 inches above or below the finished ground level adjacent to the opening.

Conclusion - Requirements are the same, just now requires the measurement to be taken from the clear opening and not the sill height.

Wind Design Criteria: R301.2.1

2012 - Buildings and portions thereof shall be constructed in accordance with the wind provisions of this code using the basic wind speed in Table R301.2(1) as determined from Figure R301.2(4)A

2021 - Buildings and portions thereof shall be constructed in accordance with the wind provisions of this code using the ultimate wind speed in Table R301.2 as determined from Figure R301.2(2).

Conclusion - This changes the current basic design wind speeds of 100 to less than 110 mph to the ultimate design wind speeds of 115 to less than 130 mph. No new requirements are needed.



Dwelling/Garage Opening Protection: R302.5

2012 – The door between the dwelling and house requires a self-closing device.

2021 - The door between the dwelling and house requires a self-closing device and to self-latch.

Conclusion – The self-closing device must be adjusted strong enough to bring the door to a close and self-latch.

Minimum Room Areas: R304

2012 – Every dwelling unit shall have at least one habitable room that shall not have less than 120 square feet of gross floor area.

2021 – Habitable rooms shall have a floor area of not less than 70 square feet.

Conclusion – The code has deleted the requirement of one habitable room to have a minimum floor area of 120 square feet and will now require all habitable rooms to be only 70 square feet in area.

Hazardous Locations: R308.4

Glazing adjacent to doors – R308.4.2

2012 – Glazing in an individual fixed or operable panel adjacent to a door where the nearest vertical edge of the glazing is within a 24-inch arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60 inches above the floor or walking surface shall be considered a hazardous location.

2021 - Glazing in an individual fixed or operable panel adjacent to a door shall be considered to be a hazardous location where the bottom exposed edge of the glazing is less than 60 inches above the floor or walking surface and it meets either of the following conditions:

1. Where the glazing is within 24 inches of either side of the door in the plane of the door in a closed position.
2. Where the glazing is on a wall less than 180 degrees from the plane of the door in a closed position and within 24 inches of the hinge side of an in-swinging door.

Conclusion – The 2021 code only requires safety glazing for glazing adjacent to doors on the hinge side as per item 2.

Glazing and Wet Surfaces – R308.4.5

2012 - Glazing in walls, enclosures of fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs and showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches measured vertically above any standing or walking surface shall be considered a hazardous location.

Exception: Glazing that is more than 60 inches, measured horizontally and in a straight line to from the water's edge.

2021 - Glazing in walls, enclosures of fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs and showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches measured vertically above any standing or walking surface shall be considered a hazardous location.

Exception: Glazing that is more than 60 inches, measured horizontally from the water's edge.

Conclusion – The measuring in a straight line has been deleted from the exception. The code now would require any glazing within 60 inches horizontally, from the water's edge of a bathtub, hot tub, spa, whirlpool or swimming pool or from the edge of a shower, sauna or steam room would have to be safety glazed. (tempered glass)

Floors and Landing at Exterior Doors: R311.3.2

2012 – There shall be a landing or floor on each side of the exterior door. An exception was adopted allowing a landing to be exempted for sliding glass doors.

2021 - There shall be a landing or floor on each side of the exterior door. No exemption was adopted for sliding glass doors.

Conclusion – A landing shall be required on both sides of all exterior doors, including sliding glass doors.

Stair Treads and Risers: R311.7.5

2012 – County adopted Minimum 9-inch treads and maximum 8.25-inch risers and allowed a maximum of a 5/8-inch difference in risers height at the top and bottom of interior stairs.

2021 – Requires minimum 10-inch tread and a maximum 7.75-inch riser and a maximum 3/8-inch difference between the smallest and the largest riser height within any flight of stairs.

Conclusion – New code requires minimum 10-inch tread and a maximum 7.75-inch riser. A maximum 3/8-inch difference in riser height is now required.

Automatic Fire Sprinkler Systems: R313

2012 – Adopted to exempt fire sprinklers from one & two-family dwellings and townhouses.

2021 - An automatic residential fire sprinkler system shall be installed in townhouses and in one-and two-family dwellings, 3-stories or less in height. **Exception:** An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing townhouses and to one-and two-family dwellings that are not already provided with an automatic residential fire sprinkler system.

Conclusion – County Council adopted to exclude mandatory sprinklers for one & two-family dwellings and townhouses, 3-stories or less in height.

Footings: R403 & Table R403.1(1)

2012 – Require minimum 8-inch-thick x 16-inch-wide footings. (Unless designed by a Delaware architect or engineer)

2021 – Table R403.1 (1) would allow certain type of foundations to have a minimum 6-inch-thick x 12-inch-wide footings.

Conclusions – Newer code allows smaller footing sizes on certain types of foundations.

Foundation Anchorage: R403.1.6

2012 – Anchor bolts are required to be with 12 inches of a corner and maximum 6 feet on center. County exempted minimum 12 inches of plate end.

2021 – Anchor bolts are required to be spaced not greater than 6 feet on center and have no less than two bolts per plate section with not more than 12 inches from corners or plate ends.

Conclusion: The exemption for omitting an anchor bolt within 12 inches of plate ends will no longer apply and must be installed as required.

Vapor Retarders: R506.2.3

2012 – Requires a minimum 6-mil vapor retarder under concrete slabs.

2021 – Requires a minimum 10-mil vapor retarder under concrete slabs.

Conclusion – New code requires a minimum 10 mil thick barrier.

Deck Beams: R507.5

2012 – Section did not exist.

2021 – Beam plies for decks must be fastened together.

Conclusion: Split single girders/beams on each side of supports are no longer permitted, unless designed by a Delaware engineer or architect. Beams must be fastened together.

Any questions regarding these updates may be directed to the Sussex County Building Code Office at (302) 855-7860 or awright@sussexcountyde.gov.