United States Department of Agriculture

USDA RD MO
August 16, 2016

MFH SAFETY & ACCESSIBILITY REGULATIONS UPDATE

New construction and repairs to existing USDA Rural Development (RD) financed Multi-Family Housing (MFH) properties are required to meet the International Building Code (IBC) 2009. We would consider expenses associated with completing the following items as an allowable use of project reserve funds on a case-by-case basis. Regardless of the source of funds being used (reserves or operating), these items must meet the following requirements and RD must review the proposed scopes of work prior to any work being completed.

Please note that the following requirements pertain to new construction as well as properties performing repairs or alterations or undergoing substantial rehabilitation, unless otherwise noted. We strongly recommend that you check with your local municipalities to see if there are other requirements that must be met.

A. **GFCI Receptacles** (NEC 2008, 210(A)(1) and (6)): Any RD financed MFH property replacing kitchen cabinets in a dwelling unit shall be required to install GFCI (ground fault circuit interrupter) receptacles per NEC 2008 requirements at the kitchen counters and at the bathroom(s) in that dwelling unit.

B. **Smoke Detectors** (IBC 2009, 907.2.11.2): Any RD financed MFH properties performing alterations or repair work in a dwelling unit that requires a permit, RD review – or includes the replacement of the kitchen cabinets – are required to install smoke detectors in the dwelling unit per IBC 2009 requirements.

   Smoke detectors are required to be provided at each of the following locations (**see diagram below**):

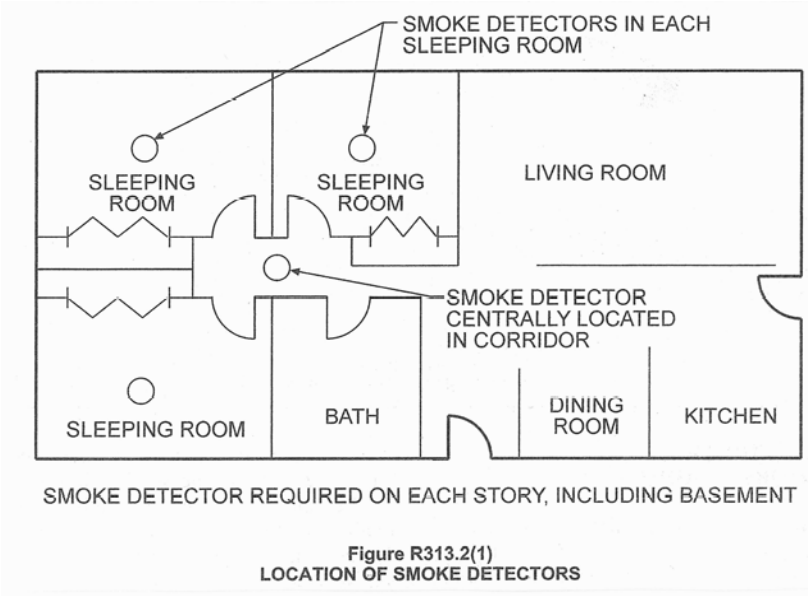
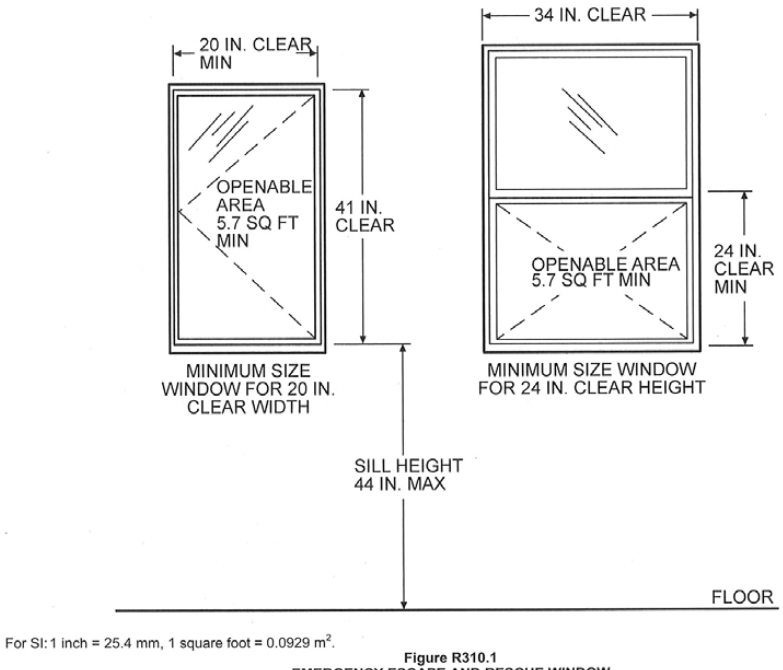


Figure R313.2(1)
LOCATION OF SMOKE DETECTORS

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. In each story within a dwelling unit, including basements, but not including crawl spaces and uninhabitable attics.

Smoke alarms for new construction are required to be AC/DC and interconnected within each dwelling unit. Smoke alarms in existing buildings are not required to be interconnected and may be battery operated when building wiring is not exposed during repair/alteration or accessible via an attic or crawl space.

C. **Egress Windows** (IBC 2009, Section 1029): When bedroom windows are replaced in any RD MFH financed property, they must meet IBC 2009's egress requirements. (**see diagram below**).



For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m^2.

Figure R310.1
EMERGENCY ESCAPE AND RESCUE WINDOW

The IBC 2009 requires that each bedroom be provided with an egress window with a minimum net clear opening of 5.7 square feet, a minimum width of 20" and a minimum height of 24". Windows within 44" of the exterior grade may provide 5.0 square feet net clear area. The bottom of the clear opening (i.e., top of sill or fixed frame) of any egress window must be 44" maximum above adjacent floor level. This means that windows that do not fully open (i.e., awning windows not opening a full 90 degrees) may not allow adequate egress from a unit.

Note: IBC 2009, 1109.12.1 states that apartments in Group R-2 buildings requires at least one operable window in each room in an accessible unit. This is an additional requirement to UFAS. This needs to be considered when addressing retrofits/replacements - crank or slider windows are generally considered "accessible", single- and double-hung windows are not.

D. **Guard Rails** (IBC 2009, Section 1013): all walkways, balconies, decks, porches, landings and/or their rails that are more than 30" above the floor or grade below that are built, repaired or replaced, are required to have a guardrail meeting IBC 2009 requirements. RD financed properties are encouraged to update all existing guardrails not requiring repairs or replacement at this time to meet the following requirements (**see diagram below**).

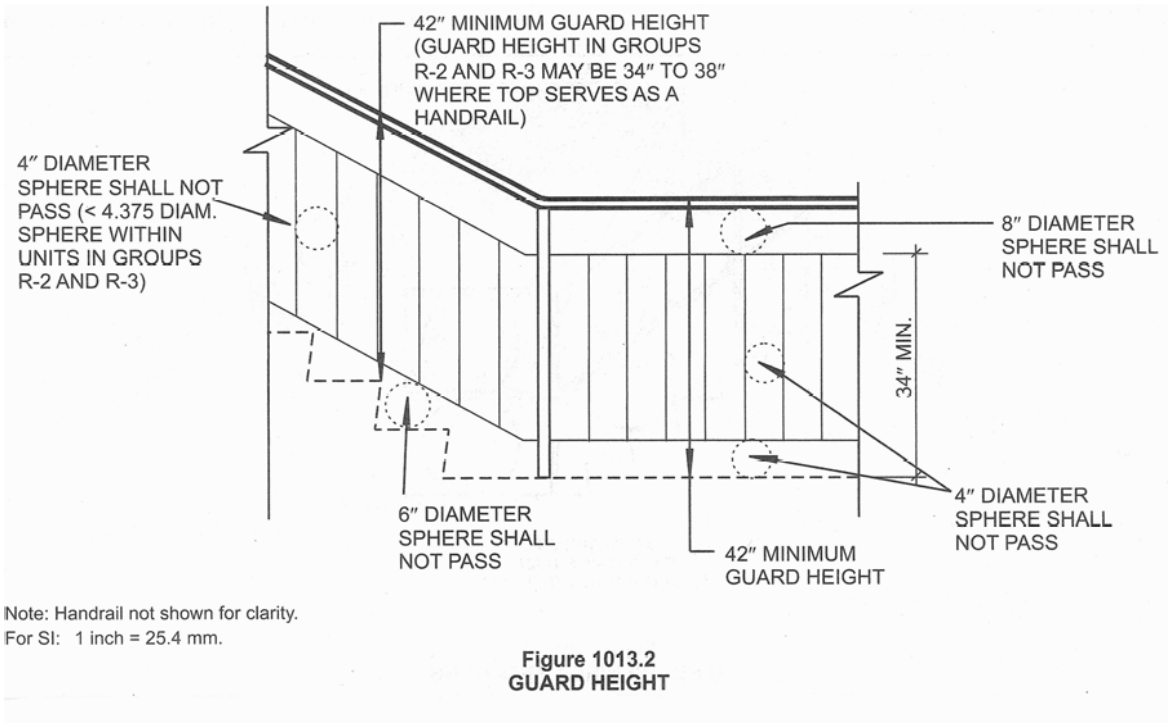


Figure 1013.2
GUARD HEIGHT

NOTE: Apartments are defined as Group R-2 buildings. The guard height and rail opening exceptions noted in Figure 1013.2 apply to guard rails within individual dwelling units in Group R-2 buildings only.

Guardrail requirements:

1. **Location**: Any walkway, balcony, deck, porch, landing or stairway that is located more than 30" above the floor or grade below.
2. **Height**: All common area guardrails shall form a protective barrier not less than 42" above the leading edge of the tread or adjacent walking surface. NOTE: Guardrails within dwelling units may be between 34" and 38" high.
3. **Opening limitation**: Guardrails with balusters or ornamental railings shall not have openings that allow the passage of a 4" sphere below 34" and an 8" sphere between 34" and 42" above the adjacent walking surface. At stairways, the triangular opening formed by the riser, tread and bottom rail shall not allow the passage of a 6" sphere.

E. **Stair Risers** (IBC 2009, 1009.4.5, Exception 1): Any stair that has been altered, repaired or replaced is required to meet the following regulation. All RD financed properties are encouraged to have all stairs meet the following requirement (**see diagram below**).

Stair risers (the vertical portion of each step in a stair) are required to be solid in all stairs except for stairs meeting one of the following:

1. Stairways serving or contained within a single dwelling unit

2. A stairway serving an occupant load of less than 10
   NOTE: Occupancy should be based on the maximum potential number of occupants allowed in each unit, not the actual number of occupants at any one time, i.e., if 2 people is the maximum number of occupants allowed in a 1-bedroom unit, a staircase serving 4 1-bedroom units would be considered to serve 8 people. If three people are allowed in a 1-bedroom unit, the same staircase would be considered to serve 12 people.
3. Stairways in buildings equipped throughout with an automatic sprinkler system

If provided with an "open riser", the opening of the riser may not exceed 4" in one direction (**see diagram below**).

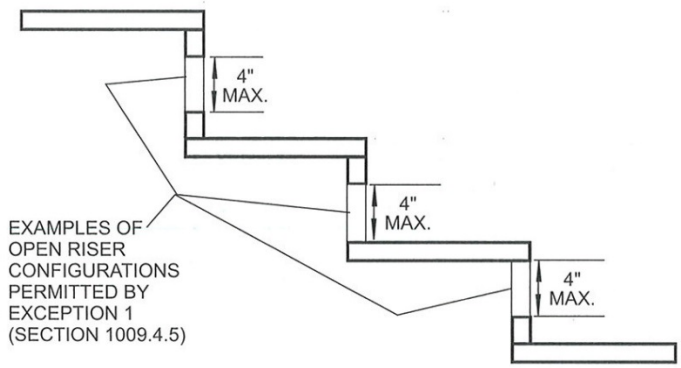


Figure 1009.4.5(2)
TREAD/RISER PROFILE
(OPEN RISER)

F. **<u>Stairs: Rise & Run</u>** (IBC 2009, 1009.4.2): Any common area stair (i.e.: a stair not located within a dwelling unit) that is being altered, repaired or replaced is required to meet the following regulation if the existing building's structure and layout allow changes to the stair rise and run to be made. If the building's existing structure or layout do not allow the location or size (length) of the stair to be modified, the stairway is not required to comply within the new dimensional requirements (**see diagram below**).

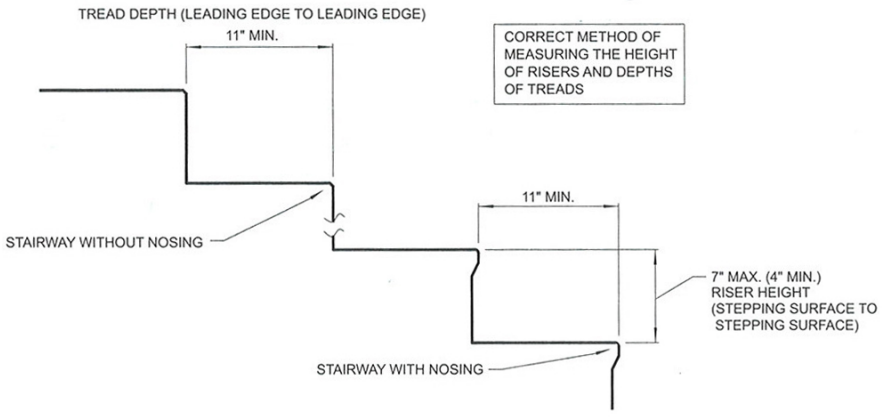


Figure 1009.4.2
TREAD/RISER DIMENSIONS

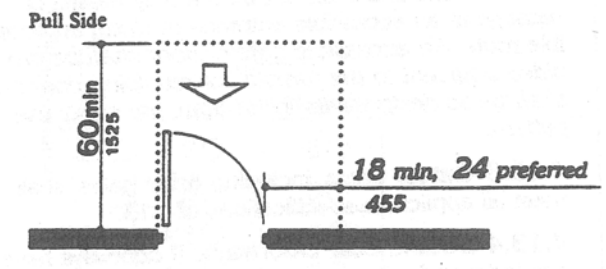
Common area stairs are to have a minimum tread depth of 11", a maximum riser height of 7" and a minimum riser height of 4".

NOTE: For new or replaced stairs within a dwelling unit, the maximum riser height is 7 ¾" and the minimum tread is 11" or 10" with a .75"-1.25" nosing.

G. **Ramps** (IBC 2009, Section 1010): Any ramps (permanent or impermanent, at accessible or non-accessible routes and entrances) that have been built, altered or repaired, are required to meet the following regulation. Please note that because of the wide range of potential ramp locations, we are not able to provide a drawing for every possible ramp layout. RD highly recommends verifying accessibility requirements prior to installing any ramp – and requires submitting a Scope of Work for any accessibility work to RD for review prior to beginning the work. Please contact the RD Area Specialist or State Architect if you have any questions regarding ramp requirements.

Ramp requirements:

1. Any walkway sloped more than 1:20 (5%) is considered a ramp.
2. Ramps used as part of a means of egress (i.e., dwelling unit entrances) or at an accessible route or entrance shall not be sloped more than 1:12 (8.33%). All other non-accessible ramps (i.e., ramped walk at secondary and non-accessible entrances) shall not be sloped more than 1:8 (12.5%).
   NOTE: In existing buildings where it isn't possible to achieve a 1:12 (5%) slope at an accessible route/entrance or along an egress route, ramps with a rise not higher than 3" may have a slope of 1:8 (12.5%) and ramps with a rise of 3"-6" may be 1:10 (10%).
3. The minimum width of a ramp is 36".
4. Landings are required at the top and bottom of all ramps, at any turn in the ramp and at doors. Landings shall not have a slope greater than 2% (1:48) in any direction. The landing shall be as wide as the ramp. The minimum running length of the landing shall be 60". If the landing includes turning/a change of direction, then the minimum size is: 60" X 60".
5. Accessible entrances require 18" of clear landing area to the side of the door on the pull side of a door.



6. Ramps with a rise of more than 6" and not located at a curb cut must have handrails on both sides. Handrails must be 34" max. high at accessible routes/entrances.
7. Edge protection is required on all ramps requiring handrails and ramp landings with drop-offs of more than ½". Edge protection may be provided by installing a railing within 4" of the ramp surface or providing a 4" minimum high curb along the edge of the ramp.
8. The ramp surface shall be of slip-resistant materials that are securely attached. Outdoor ramps shall be designed to minimize the accumulation of water, snow and ice.