

# Harnett County Inspection Department

## Manufactured Homes

### **PERMIT CARD (& PLANS IF ANY) SHALL BE ON SITE ON THE DAY OF INSPECTION**

- Home is to be unlocked so the inspector can go in and check the panel box. If home is locked there will be a Re-inspection fee that will have to be paid in the office or by phone before rescheduling the inspection. **Inspector will not accept money at the site.**
- If final inspection is approved, inspector will leave a brown envelope in the meter box for the power company (Central or South River). DO NOT remove this envelope. If your power company is Duke/Progress, we must have a valid 8 digit premise number to call in your inspection to the power company.

PLEASE CALL FOR INSPECTION ONLY AFTER WORK HAS BEEN COMPLETED

### **1<sup>st</sup> Inspection #501**

Footings, piers, tie downs, and anchoring. Marriage wall inspection required on multi-section homes before siding and interior trim is installed. Mechanical crossover, drain waste under home and water service piping shall be tested; cut off and check valve exposed to inspector. Dryer vent shall be connected. If the home is 2009 and newer, a 6 mil vapor barrier must be installed at this inspection. If it is older, you may choose to use the vapor barrier, or have proper ventilation per Section 3.10 of the NC Manufactured Housing Code. All junction boxes and grounding shall be completed if it is a multi-sectional home.

### **2<sup>nd</sup> Inspection #818 & #814**

*Zoning Inspection* – Compliance with zoning requirements or mobile home park design standards. Examples such as: underpinning (must be designed for mobile home), setbacks, etc. Excessive junk (such as trash, cars, and appliances) must be removed per zoning ordinance.

*911 Address:* After first inspection is approved, go online or call Voice Permitting (893-7525 option 1) to request an address. **This will be your physical address and shall be posted on your home in 4" numbers, on mailbox and at the road if you are more than 100 feet from the road or home is not visible from the road for Emergency Services. Number shall remain on your home even after the final inspection. You will not get any further inspections until you have been given an address.**

### **3<sup>rd</sup> Inspection #507**

Water & sewer shall be connected. Electrical wiring from meter base to house panel. Steps and/or porches at all doors, guardrails and handrails, if required (See notes). Must have operations permit for new septic tanks. Address must be posted as required.

Note: All permits shall be purchased before work begins. Inspections scheduled before 2:00 pm available next business day. Inspections can be cancelled online or on IVR by 2:00 pm on the day before inspection. Cancellations can also be called in at 910-893-7525 ext 3, or by calling the inspector directly, by 8:30 am on the day of inspection.

*Inspections can be scheduled & status checked by phone at 910-893-7525 ext 1 or online on Click2Gov ([www.harnett.org](http://www.harnett.org) then Services Online then Click2Gov)*

### **Handrails, Guardrails, & Porches for Manufactured Homes**

- Handrails having a minimum height of 30" and maximum height of 38", measured vertically from the nosing of the treads, shall be provided on any open sides of stairways of four or more risers.
- Porches or raised floor surfaces more than 30" above the grade shall have guardrails not less than 36" in height.
- Open sides of stairs leading from a porch or deck with a rise of more than 30" above grade shall have guardrails not less than 30" and not more than 38" measured vertically from the nosing of the treads.
- A 3'x3' platform shall be required if exit/entrance door swings out.
- Stairs, where built or wood, shall be constructed of approved durable or treated wood or painted.
- Landings which are 36 feet square or less in area may be constructed according to the provisions of the N.C. Manufactured Home Regulations Code. Over 36 feet square in area are considered decks and shall meet the N.C. Residential Code.

## **3.11 EGRESS REQUIREMENTS**

### **3.11.1 Egress – General Requirements**

Federal regulations require that each manufactured home have a minimum of two exterior egress doors that are located remotely from each other. Where any means of egress from a manufactured home, including sliding glass doors, is not substantially level with grade, such differences in elevation shall be negotiated by stairs or ramps which are constructed in accordance with Sections 3.11.2 and 3.11.3. Landings shall comply with Section 3.11.4. Egress stairs, ramps, and landings shall be provided and installed by the selling party unless specifically contracted otherwise by the homeowner.

### **3.11.2 Exterior Steps and Stairways**

#### **3.11.2.1 General**

All stairs and landing constructed in accordance with this Code shall be entirely self-supporting unless designed and approved by a registered Engineer or Architect. *Adequate bracing of stairway and landing structures shall be provided as required for lateral stability.*

#### **3.11.2.2 Footings for Stairway and Landing Structures**

All support posts for exterior stairway and landing structures shall rest on a minimum 8" x 16" x 4" thick concrete masonry or 8" x 16" x 6" thick poured in place concrete footing. The bottom of such footings shall be below the frost line or a minimum of 4" below grade, whichever is greater.

EXCEPTION: Stair or landing structures designed specifically to be set directly on the ground do not require footings as described above.

#### **3.11.2.3 Width**

Stairways shall not be less than 36" (914mm) in clear width. The minimum width at and below the handrail height shall not be less than 32" (813mm) where a handrail is installed on one side and 28" (711mm) where handrails are provided on both sides.

#### **3.11.2.4 Treads and risers**

The maximum riser height shall be 8 1/4" (210mm) and the minimum tread depth shall be 9" (228mm), exclusive of nosing. The riser height shall be measured vertically between leading edges of the adjacent treads. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The walking surface of treads and landings of a stairway shall be sloped no steeper than one unit vertical in 48 units horizontal (2-percent slope). The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8" (9.5mm). The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8" (9.5mm). The height from the top tread or top of a landing (when a landing is present) to the door threshold shall not exceed 8 1/4". Where the bottom riser of an exterior stair adjoins an exterior walk, porch, driveway, patio, garage floor, or finish grade, the height of the riser may be less than the height of the adjacent risers. **See Figure 3.11.**

#### **3.11.2.5 Profile**

The radius of curvature at the leading edge of the tread shall be no greater than 9/16" (14.3mm). A nosing not less than 3/4" (19mm) but not more than 1 1/4" (32mm) shall be provided on stairways with solid risers. Beveling of nosing shall not exceed 1/2" (12.7mm). Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees from the vertical.

**Exception:** A nosing is not required where the tread depth is a minimum of 11" (279mm).

#### **3.11.2.6 Handrails**

Handrails having minimum and maximum heights of 30" and 38" (762mm and 965mm), respectively, measured vertically from the nosing of the treads, shall be provided on all open sides of stairways of four or more risers (when the elevation of the top of the uppermost riser is more than 30" above floor or grade below) that lead to a door, platform, porch, terrace, or entrance landing. All required handrails shall be continuous the full length of the stairs. Ends shall be returned or shall terminate in newel posts or safety terminals. **See Figure 3.11.**

#### **3.11.2.7 Handrail grip size**

The handgrip portion of the handrails shall not be more than 3 1/2" in cross sectional dimension, or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners.

#### **3.11.2.8 Guardrails**

Porches, balconies or raised floor surfaces located more than 30" (762mm) above the floor or grade below shall have guardrails not less than 36" (914mm) in height.

#### **3.11.2.9 Guardrail and handrail opening limitations**

Guardrails and handrails as required on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of an object 6" (152mm) or more in diameter. Horizontal spacing between the vertical members in required guardrails shall be a maximum of 4" (102mm) at the nearest point between the members. **See Figure 3.11.**

**Exception:** The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway may be of such a size that a sphere 6" (153mm) cannot pass through.

### 3.11.2.10 STRUCURAL REQUIREMENTS

#### 3.11.2.10 Structural Requirements

Guardrails and handrails shall be capable of withstanding a single concentrated load of 200lbs applied in any direction at any point along the top. Material for stairs and landings constructed of wood shall be No. 2 or better treated Southern Pine or equivalent. The minimum thickness of stair treads and decking for landings shall be as follows:

Support Spacing	Tread or Decking (nominal)
12" o.c.	1" S4S
16" o.c.	1" T&G
24" o.c.	1-1/4" S4S
32" o.c.	2" S4S

As an alternate, an engineered design certified by a Registered Engineer or Architect may be provided. In this design the stair tread or floor deck shall be capable of supporting either a uniformly distributed live load of 40 psf or a 300lb concentrated load ating over an area of 4 square inches, whichever produces the greater stresses. Maximum allowable deflection under these loads shall be  $L/240$ . Notched stairs stringers shall have a minimum effective depth at each notch of not less than  $3\frac{1}{2}$ " unless an alternate design certified by a Registered Engineer or Architect is provided.

#### 3.11.3 Ramps

Ramps shall be at least three feet (3') wide. Ramps shall have a maximum slope of one unit vertical in eight units horizontal. Handrails shall be provided on at least one side of all ramps exceeding a slope of one unit vertical in 12 units horizontal. A minimum 3ft x 3ft landing shall be provided: 1) at the top and bottom of ramps, 2) where doors open onto ramps, and 3) where ramps change direction.

#### 3.11.4 Landings

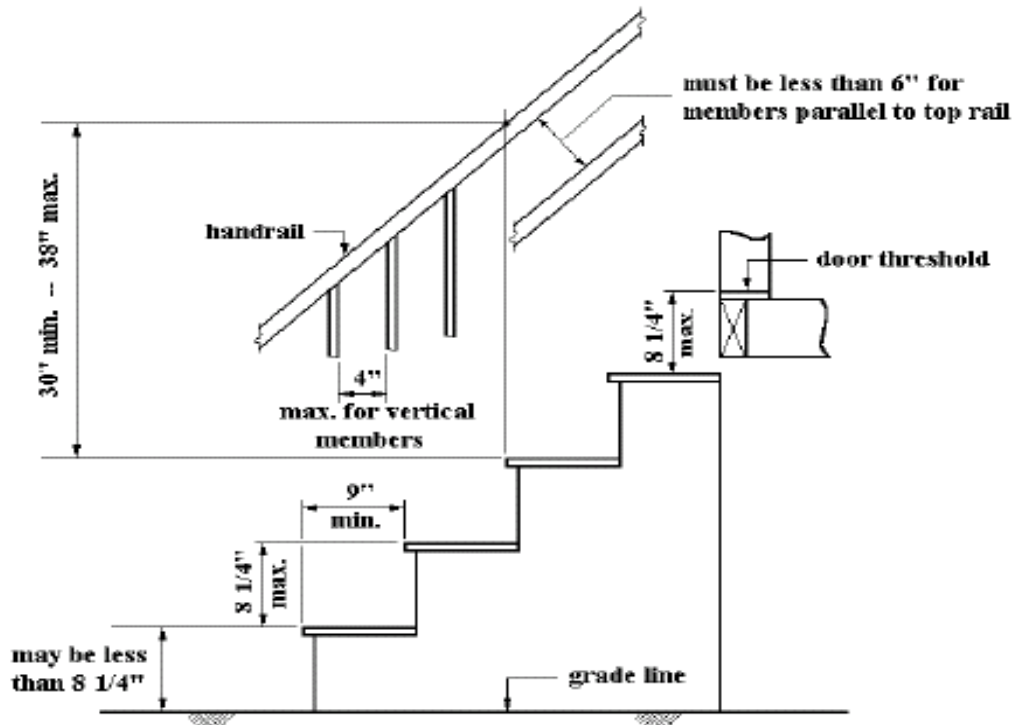
A minimum 3' x 3' landing shall be required at the top of all exterior stairs where any egress door (not screen or storm door) swings outward over the stairs. Landings which are thirty-six (36) square feet or less in area may be constructed according to the provisions of this code. All such landings, whether at the top or bottom of stairs, which are greater than thirty-six (36) square feet in area are considered to be "decks" and shall be constructed in accordance with the North Carolina Residential Code (current Edition).

#### 3.11.5 Fasteners

Fasteners used in the construction of stairs, handrails, guardrails, ramps, and landings shall be hot-dipped, zinc coated galvanized or stainless steel.

#### 3.11.6 Auxiliary Structures

All auxiliary structures (such as porches, decks, awning, cabanas, etc.) not provided or approved by the home manufacturer, shall be entirely self-supporting unless designed and approved by a Registered Engineer or architect. All such structures shall be constructed in accordance with the North Carolina Residential Code (current Edition).



**FIGURE 3.11**  
Stair and Rail Geometry