HARDIN COUNTY
PLANNING AND DEVELOPMENT COMMISSION
Building Code Clarification Handout, #2008.016-A, October 2008

NAME: _____

LOCATION: _____

DATE: _____

INSPECTOR: _____

FRAMING WALK – THRU CHECKLIST OF SINGLE & TWO FAMILY DWELLINGS

Directions: If an item has a "X", a checkmark, or an "OK" next to it, this is APPROVED. If an item has been "circled" or says "No" next to it, it requires immediate correction within 30 days, and the Owner is required to call the office to setup a recheck inspection date. Pre-payment of recheck inspection fees will be required.

NOTICE OF VIOLATIONS: If the inspection made this date reveals violations of the Kentucky Building Code, the Kentucky Residential Code or other referenced codes and regulations, pursuant to 815 KAR 7:010 and 815 KAR 7:025, you are to promptly complete the changes or repairs listed below. Additional items may be required as construction progresses.

A CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL ALL ITEMS ARE CORRECTED.

A. Structural support, stairways installed, and framing members a re still exposed

B. Rough-in heating and cooling ducts are installed, the location of the furnace has been established, and the grilles and register openings are cut-in. The HVAC rough-in inspection has been completed and approved.

C. The electrical rough-in has been completed and the inspection approved with an orange sticker on-site.

D. The plumbing rough-in has been completed and the green sticker is on-site.

E. The exterior sheathing and house wrap are completed. The wall insulation and vapor retarders may or may not have already been installed in walls.

F. The caulking and fire stopping, and fire rated caulking have been installed.

G. No interior finishes (drywall, metal, lath, wallboard, finish flooring, or other finishes used to cover the structural framing) have been installed.

H. The attic and roof ventilation have been installed. The exterior vapor barrier has been installed on exterior sheathing.

I. If foam continuous board is used for insulation, then prior to the brick veneer having been installed.

J. The brick veneer has been installed or is in progress.

K. The temporary construction entrance and road tile and any required silt fencing and temporary drainage ditches have been installed and maintained in compliance with Storm Water Runoff Ordinances.

L. Decks or porches. After framing is completed, decking is installed, stairs, guardrails and handrails are installed, If the deck or porch is covered with a roof, the framing inspection is required prior to installing any ceiling or wall finishes.

M. Owners have supplied ladders for hard to reach areas. Owner has supplied temporary entry steps or temporary ramp for entry.

N. Hurricane tie downs have been installed on roof rafters, and roof trusses. Joist hangars have been installed on floor and ceiling joists. Foundation bolts with washers and nuts have been installed.

O. The exterior doors and windows have been installed.

A. Special Conditions:

1. Access required to project is to be furnished by Owner (R109.3), Owner required to call for inspections

2. Permits posted on site.

3. Floodplain management.

4. Planning & Zoning Requirements completed

5. Driveway Encroachment Permit.

6. Storm Water Runoff Ordinances and Erosion Prevention and Sediment Control Ordinances

B. Exterior of House or Structure:

7. House numbers must be installed. (If yet available).

8. Site Grading. Lots graded to drain away from foundation walls. The grade shall fall 6 inches within the first ten lineal feet.

9. Earth Clearance maintained

10. Seeding and Strawing required.

11. Retaining Walls and Foundation Walls.

12. Guards at Retaining Walls

13. Roof drainage

14. Termite Treatment Required

15. Intake /Exhaust Master Vents (grilled diffusers) visible from exterior

16. Dryer vent discharge

17. Construction Debris Removal Required

C. Crawl spaces

18. Masonry. The weep holes located

19. Access Opening to Crawlspace. (R408.4) An access opening through a floor 18" by 24"

19. a. An access opening through a perimeter wall 16" by 24" shall be provided to the under-floor space

20. **Crawl space area piers**. The unsupported height of masonry piers shall not exceed 10 times their least dimension. **When structural clay tile or hollow concrete masonry units are used for isolated piers to support beams and girders, the cellular spaces shall be filled solidly with concrete of Type M or S mortar, except that unfilled hollow piers may be used if their unsupported height is not more than 4 times their least dimension.** Where hollow masonry units are solidly filled with concrete or Type M, S or N mortar, the allowable compressive stress shall be permitted to be increased as provided in Table R606.5. (R606.6 Piers)

20. a. **Pier Caps**. Hollow piers shall be capped with 4 inches of solid masonry or concrete or shall have cavities of the top course filled with concrete or grout or other approved methods. (R606.6.1)

21. Openings for under-floor ventilation

22. Unvented Crawl Space

23. Removal of debris

24. Underfloor Central Forced-Air Furnace

25. Crawl space Areas: Soil clearance to untreated wood joists: minimum 18 inches; untreated wood beams: minimum 12inches

26. Finished Grade

27. Flood Resistance

28. Underfloor insulation must be properly installed and supported

29. Crawl space walls insulation: R-10

30. Foam Plastic

31. Pressure preservative treated wood floors on ground

32. Protection against decay

33. Wood column protection

34. Allowable Joist Spans. Spans for floor joists shall be in accordance with Tables R502.3.1(1) and R502.3.1(2).

35. Structural requirements (R407.3). The columns shall be restrained to prevent lateral displacement at the bottom end

36. Steel Column Protection (painted)

37. All required exterior exits, stairs, guardrails, handrails, landings and decks (R502.2.2) shall be complete, prior to the final inspection

38. Materials.

39. Decks. (R502.2.2)

40. Stairways Width. Stairways shall not be less than 36 inches in clear width

41. Stairways Treads and Risers: maximum riser height shall be 8 ¼ inches; minimum tread depth shall be 9 inches

42. Stairway Profile. (R311.5.3.3) The radius of curvature is no greater than 9/16 inch.

43. Stairway nosing profile...nosing not less than ¾ inch but not more than 1 ¼ inches

44. Stairway Headroom...not less than 6'-8" measured vertically from the sloped plane

45. Stairway Winders...minimum width of any tread is not less than 6 inches

46. Spiral stairways...Minimum headroom of 6 feet 6 inches shall be provided.

47. Stairway Handrails...minimum heights of 34" and maximum heights of 38", measured vertically from nosing of the treads,

48. Handrails required...on at least one side of each continuous run of treads or flight with 4 or more risers.

49. Handrail Ends shall be returned or shall terminate in newel posts or safety terminals**.**

50. Handrail Grip Size...shall have a circular cross section of 1 ¼ inches minimum to 2 5/8 inches maximum

51. Stair Handrails...permitted to be discontinuous ...ends of discontinued rails is not greater than 4 inches

52. Guards Required...raised floor surfaces...more than 30 inches ...guards not less than 36 inches in height. Porches and decks which are enclosed with insect screening

53. Guard Opening Limitations...do not allow passage of a sphere 4 inches in diameter.

54. Landings. There shall be a floor or landing at the top and bottom of each stairway

55. Landing Size...minimum dimension of 36 inches...landing at the door shall not be more than 1.5 inches below top of threshold

56. Attachment of decks or porches...(Use lag screws or combination through bolts approved for use with pressure treated wood).

57. Exterior safe entrance required...The required exit door is a minimum 3 feet wide side-hinged door

58. Emergency escape windows under decks and porches...a path not less than 36 inches in height to yard or court.

59. Concrete or masonry foundation wall to extend 6 inches above exterior finished grade, 4 inches OK if masonry veneer

D. Two-Family Dwellings

60. 2-Family Dwellings requires 1-hour rated construction at common walls & floor/ceiling

61. A 1-hour rated floor/ceiling assembly must extend to exterior walls

62. Need not extend through attic if ceilings 5/B Type X gypsum board & an attic draft stop constructed per (R502.12)

63. The structural framing supporting the ceiling shall also be protected by ½" gypsum board or equivalent

64. One-Hour rated wall assemblies shall extend to underside of roof sheathing

65. Gypboard on frame supporting the ceiling & attic is draft stopped

E. Energy Code Requirements

66. The required energy code requirements yellow sticker must be completed and signed off …in electric main panel
The new 2007 Kentucky Residential Code became mandatory on November 1, 2007;
it was actually adopted by the state on May 15, 2007.

67. Underfloor insulation must be properly installed and supported...Under-Floor between floor joists insulation: R-19.

68. Crawlspace walls insulation: R-10**.**

69. Basements Walls: Exterior R-5 insulation board...R-13 required when installed in a framed wall cavity

70. Mass walls: R-5 insulation value required considered walls of concrete block, concrete insulated concrete form (ICF), masonry cavity, brick (other than brick veneer), earth (adobe, compressed earth block, rammed earth) and solid timber/logs.

71. Roof / ceiling insulation: R-38. If insulation contains a vapor retarder, the retarder is installed on the warm-in-winter side of the ceiling.

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72. Frame Walls Exterior or adjoining interior Unconditioned room spaces: R-13.

73. Slab on Grade. Slab edge insulation R-4 for a depth of 2 feet.

74. Windows and doors glass (fenestration): maximum U.40**.** Leave sticker on windows until after final inspection is approved

F. Utilities Rough Inspections Required:

75. Plumbing Contractors and inspections... under the supervision of a Kentucky Licensed Master Plumber...Kentucky Plumbing Code.

76. Propane gas installations and natural gas installations...Installation per the current International Fuel Gas Code

77. The septic tank system must be inspected and approved by the Environmental Services Office through the local health department

78. The electrical wiring and associated electrical systems ...current governing code is the NEC 2005 NFPA 70 National Electrical Code.

79. The mechanical systems (heating, ventilation and air conditioning) installed 2006 International Mechanical Code. Licensed Master HVAC Contractor

G. Interior of House or Structure:

80. Room finishes and other items listed are exempt from permit and are not inspected

81. Required interior exits, stairs, guardrails, handrails, landings, porches and decks (R502.2.2) shall be complete

82. Ceiling Height. (R305) Habitable rooms, hallways, corridors, bathrooms, toilet rooms and basements...not less than 7 feet

83. Hallways minimum width of a hallway shall be not less than 3 feet.

84. Bathroom exhaust fans required. Intake /Exhaust Master Vents (grilled diffusers) visible from exterior

85. Illumination at Stairs...All stairs shall be provided with illumination in accordance with Section R303.6.

86. Chimneys, Fireplaces, and woodstoves must be installed, including hearth, combustion air ducts, and metal or glass doors, Installer and homeowner responsible for clearances from combustibles on these installations, per the specific requirements of the manufacturer's specifications.

87. Foam Plastic shall be separated from the interior of a building by an approved thermal barrier

88. Masonry or Concrete Walls

89. Roofing. thermal barrier is not required when …

90. Attics. thermal barrier is not required where attic access is required by R807.1 and where the space is entered only for service of utilities

H. FLOORS (R501) (Wood Floor Framing, Wood Roof Trusses, Site-Built Rafters and Ceiling Joists, etc.)

91. Ground Contact...shall be approved pressure-preservative-treated wood suitable for ground contact use…

92. Quality Mark. All wood shall bear the quality mark of an approved inspection agency…

93. Fasteners pressure-preservative-treated and fire-retardant treated wood shall be of hot-dipped zinc-coated, galvanized steel, stainless steel, silicon bronze or copper.

94. Foundation Anchorage required...anchor bolts spaced a maximum of 6 feet on center, one bolt not more than 12 inches from end

95. Retrofit type foundation bolts are required …

96. Framing at Braced Wall Lines

97. Attachment of decks or porches. (Use lag screws or combination through bolts approved for use with pressure treated wood).

98. Allowable Joist Spans Spans for floor joists shall be in accordance with Tables R502.3.1(1) and R502.3.1(2).

99. Bearing Floor Systems...lap a minimum of 3 inches

100.Bearing Joist Framing into the side of a wood girder shall be supported by approved framing anchors (joist hangers) or on ledger strips not less than a nominal 2 inches by 2 inches.

101 Lateral Restraint at Supports Joists shall be supported laterally at the ends by full depth solid blocking not less than 2" thick, or by attachment to a header, band, or rim joist, or to adjoining studs, or shall be otherwise provided with lateral support

102. Holes Bored in Sawn Lumber...shall not exceed 1/3 depth of member…not be closer than 2 inches to top, bottom, or to other holes

103 Stud Shoes required when holes for utilities drilled within the bottom 2 inches of a floor joists or ceiling joist

104 Wood Floor Framing shall be identified by a grade mark of a lumber grading or inspection agency

105 Bridging of Joists...Joists exceeding a nominal 2" by 12" shall be supported laterally at intervals not exceeding 8 feet.

106. Lateral Restraint At Supports. (Blocking of Joists)

107 Floor Cantilevers at exterior balconies. Uplift force is for a backspan to cantilever ratio of 2:1. Solid blocking shall be provided at the cantilevered support

108. Floor Cantilevers at exterior bearing wall and roof only...Uplift force is for a backspan to cantilever ratio of 3:1

I. WALLS

109.Uplift Resistance. (R802.11.1) .(e.g. hurricane ties). Roof assemblies which are subject to wind uplift roof rafters or trusses attached to their supporting wall assemblies by connections

110. Hurricane Ties required. Table (R602.3) at all locations of the top sill plates when engineered roof trusses are used in wood framing construction as well as when standard roof rafters are used

111. Specific Approval. Foam plastic not meeting the requirements of Sections R314.3 through R314.5 shall be specifically approved

112. Fireblocking. (R602.8) Fire rated caulking is required at all holes

113. Top plate lap required at corners and bearing wall intersections

114. Nail guards (stops) required...and the hole is within 5/8 inch of drywall edge of stud or plate. Attach with 8d commons.

115. Double studs (R502.4) are required to be located directly under double trusses, or other types of double wood structural members (girders, beams, walls, etc.)

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J. Windows and Doors

116. Glazed openings (Windows & doors with glass) are required to be greater than 8% of floor area

117. Glazing. Glass in Windows & Doors...at hazardous locations ask for the handout ***Windows and Doors - Safety Glazing, 2008.007*** from our office.

118. Window Glazing (Glass) in Fixed Panels: when the following conditions exist:

- **a**. With panes exceeding nine square feet, AND
- **b**. Where the lowest edge is less than 18 inches off the floor, AND
- **c**. Where the top edge is greater than 36 inches above the floor, AND
- **d**. The walking surface is within 36 inches of glazing.

119. Emergency Escape and Rescue Openings...Every sleeping room

120. Minimum net clear opening area 2nd Flr: 5.7 square feet. Grade floor openings: min.net clear opening of 5 square feet.

121. Operational constraints...operational from the inside of the room without the use of keys, tools or special knowledge

122. Door (at interior stair only) may open at but not swing over the top step

123. **Smoke Alarms**. (R313.1) All smoke alarms shall be listed in accordance with UL 217 and installed in accordance with the provisions of this code

124. **Location of Smoke Alarms:**

1. In each sleeping room.
2. Outside each sleeping area in the immediate vicinity of the bedrooms
3. On each additional story of the dwelling, including basements, but not including crawl spaces
4. When more than one smoke alarm is required to be installed ...the alarm devices shall be interconnected

125. Required Smoke alarms shall receive their primary power from building wiring & when the power is interrupted, shall receive power from battery

K. Attics

126. Appliances in Attic…must meet 7 listed requirements

127. Attics with limited storage must have been completed per requirements of (Table R301.5).

128. Attic vents. Roof Ventilation. Must meet three requirements

129. Where eave or cornice vents are installed, insulation shall not block the free flow of air.

130. Attic Access. (R807.1) Buildings with combustible ceilings or roof construction shall have attic access opening to attic areas that exceed 30 SF

131. Water heater located in attic: –Watertight, corrosion-resistant pan required

L. Garages and Carports (Sec. R309)

132. Carports….must meet minimum requirements. Open on at least 2 sides, carport floor surface shall be of approved noncombustible materials. The floor area used for storage of autos shall be sloped to move liquids to a drain or be sloped toward the main vehicle entry doorway. (R309.4). Exception: Asphalt surfaces permitted at ground level in carports.

133. Garages. Openings from a private garage into a room used for sleeping are not permitted.

134. Garage exterior walls less than 3 feet from property line required to have one-hour construction

135. Garages: Duct Penetration shall be constructed of a minimum No. 26 gage sheet steel or other approved material

136. Garages: Other Penetrations shall be protected by filling the opening around the penetrating item with approved

137. Hot water heaters and furnaces located in garages must be protected from impact by vehicles by means of steel barrier bolted to floor and located near the appliance. Any flame or sparking device must be located greater than 18 inches above the floor. (M1307.3)

138. Garages: Separation Required from the residence and its attic area by not less than ½ inch gypsum board applied to the garage side

139. Garage floor surfaces shall be of approved noncombustible material (example: Concrete).

M. Basements

140. Drilling and Notching of Sawn Lumber

141. Under Stair Protection

142, Floor framing. Floor/ceiling draftstopped if greater than 1000 sq. ft. using open web trusses

143. Bulkhead Enclosure Stairways

144. Basement Sleeping Rooms...emergency egress and rescue openings shall be required in each sleeping room, but

145. Hot water heater location must be roughed in

146. Shut-off for main water line (per Kentucky Plumbing Code), this must be checked by the plumbing inspector.

147. All natural gas, propane gas, and fuel oil appliances and equipment (also including manufactured gas fireplace units)

Subject to the 2006 International Fuel Gas Code shall be rough installed checked and approved by the installer.

N. Floor Construction, Wall Construction and Roof – Ceiling Construction.

148. Girder Spans and Header Spans for Exterior Bearing Walls. (Refer to Table R502.5 (1)

149. Girder Spans and Header Spans for Interior Bearing Walls. (Refer to Table R502.5(2)

150. Allowable Joist Spans. R502.3 Spans for floor joists shall be in accordance with Table R502.3.1 (2) Residential *Living Areas*

151. Allowable Joist Spans. R502.3 Spans for floor joists shall be in accordance with Tables R502.3.1 (1) Residential *Sleeping Areas.*

152. Allowable joist spans for Ceiling Joists shall be in accordance with Tables R802.4 (1) and Table R802.4 (2). For other grades and species and for other loading conditions refer to the AF&PA Span Tables for Joists and Rafters.

153. Allowable rafter spans for Roof Rafters shall be in accordance with Tables R802.5.1 (1) through Table R802.5.1 (8). For other grades and species and for other loading conditions refer to the AF&PA Span Tables for Joists and Rafters. The span for each rafter shall be measured along the horizontal projection of the rafter.

154. Purlins. Installation of purlins to reduce the span of rafters is permitted as shown in Figure R802.5.1. Purlins shall be sized no less than the required size of the rafters they support. Purlins shall be continuous and shall be supported by 2 x 4 braces installed to bearing walls at a slope no greater than 45 degrees from the horizontal. The braces shall be spaced no more than4 feet on center and the unbraced length of braces shall not exceed 8 feet.(R802.5.1)

155. Bearing. The ends of each rafter or ceiling joist shall have not less than 1 ½ inches of bearing on wood or metal and not less than 3 inches on masonry or concrete. (R802.6)

156. Ceiling Joists Lapped. Ends of ceiling joists shall be lapped a minimum of 3 inches or butted over bearing partitions or beams and toe nailed to the bearing member. When ceiling joists are used to provide resistance to rafter thrusts, lapped joists shall be nailed together in accordance with Table R602.3(1) and butted joists shall be tied together in a manner to resist such thrust (R802.3.2).

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