

# STATE OF TENNESSEE DEPARTMENT OF COMMERCE AND INSURANCE

**DIVISION OF FIRE PREVENTION** STATE FIRE MARSHAL'S OFFICE CODES ENFORCEMENT SECTION 500 James Robertson Pkwy.

Nashville, TN 37243-0577 615.741.7190

# Memorandum

Date: September 20, 2014, Rev. 1

To: Owners, Designers and Contractors of Transient Rental Homes

From: Chris Bainbridge, Director

Re: Requirements for Plans and Inspections of Transient Rental Homes

In April 2014, the State Fire Marshal's Office was informed that transient rental cabins were improperly classified as one- and two-family dwellings. The following is offered to provide clarification of the plans review and inspection processes of these buildings.

One- and two-family dwellings are required by law to be built in compliance with the International Residential Code (IRC) and are intended to be occupied by individuals accustomed to the building. The occupants are familiar with the building and are better able to escape in the event of an emergency.

Rental homes occupied on a transient basis (for no more than 30 days) are required to be built in compliance with the International Building Code (IBC) and have additional safety features not found in a one- and two- family dwelling. These transient rental homes are classified as R1 in the 2006 edition of the IBC. The design and construction of these buildings requires familiarity with the IBC and with plan submission requirements of the State Fire Marshal's Office.

Only plans for those rental homes located outside of an Exempt Jurisdiction must be submitted to the State Fire Marshal's Office. A list of Exempt Jurisdictions can be found at http://www.tn.gov/fire/documents/exemptjurisdictions1125.pdf. Rental homes located in an Exempt Jurisdiction must be permitted by that jurisdiction.

The requirements for new transient rental homes issued improper local permits as one- and twofamily dwellings are:

- 1. Plans may be submitted online at http://apps.tn.gov/tnsfmo/;
- 2. The plans must be designed to the 2006 IBC and 2006 IFC;
- 3. A fee must be paid for plans required to be submitted the State Fire Marshal's Office. A fee calculator can be found at
  - http://www.tn.gov/commerce/sfm/documents/FeeCalculator.pdf;
- 4. Rental homes which are more than two (2) stories or five thousand (5,000) gross square feet or more must have a full set of plans submitted by a Tennessee registered architect or engineer. Gross square feet is the area of all stories within the outside perimeter of the exterior walls. Gross square feet includes any finished or occupied basements. A

basement counts as a story if: 1) The finished surface of the floor above the basement is more than six (6) feet above *grade plane*; or 2) The finished floor surface of the floor above the basement is more than twelve (12) feet above finished ground level at any point. *Grade plane* is a reference plane representing the average finished ground level adjoining the building at exterior walls. See <a href="http://publicecodes.cyberregs.com/icod/ibc/2006f2/icod\_ibc\_2006f2\_5\_sec002.htm">http://publicecodes.cyberregs.com/icod/ibc/2006f2/icod\_ibc\_2006f2\_5\_sec002.htm</a> for more information;

- 5. The State Fire Marshal's Office will accept the submission of plans not sealed by an architect or engineer for rental homes which are one (1) or two (2) stories and less than five thousand (5,000) gross square feet. The requirements for these plans are attached.
- 6. Single unit rental homes may be three (3) stories if it is less than five thousand (5,000) gross square feet, has an exterior stair installed on all occupied floors *and* the maximum occupant load is set to ten (10) occupants by the building owner;
- 7. Rental homes must contain a fire sprinkler system. An NFPA 13 or 13R fire sprinkler system is required by 2006 IBC 903.3.1;

**Exception:** A NFPA 13D fire sprinkler system is allowed in single unit homes which are up to three (3) stories and less than five thousand (5,000) gross square feet which have single station, interconnected and hardwired smoke alarms located in all occupiable rooms. The sprinkler system must automatically notify the fire department if activated. Balconies and decks are not required to be sprinklered per 2006 IBC 903.3.1.2.1.

8. A fire alarm system is required per 2006 IBC 907.2.8;

**Exception**: Single unit homes that are up to three (3) stories and less than five thousand (5,000) gross square feet with a maximum occupant load set to ten (10) occupants by the building owner are not required to have a fire alarm system.

- The State Fire Marshal's Office will enforce state accessibility standards on single unit homes which are designated accessible on the submitted plans. Compliance with the Americans with Disabilities Act (ADA) is the responsibility of the building owner and state registered designer;
- 10. Rental homes under construction and those constructed under improper permits will have limited inspections focusing on the installation of life safety features such as: egress components, fire alarm/smoke detector systems, fire sprinkler systems and interior finishes. A special Certificate of Occupancy will be issued listing the limited inspections upon approval of the final inspection.

The State Fire Marshal's Office will require that building owners of transient rental homes built after October 2010 which were improperly permitted as one- and two- family dwellings and currently occupied provide a Plan of Corrective Action (POCA). The POCA must identify the work needed to bring the fire and life safety components of the building into compliance with the IBC as R1 occupancy. As long as there are no severe fire safety hazards, owners may continue occupancy of the homes while corrections are being made. Inspections of the fire and life safety features will be conducted accordingly. A special Certificate of Occupancy will be issued listing the limited inspections upon approval of the final inspection.



# GUIDELINES FOR PLAN SUBMITTAL OF 1 OR 2 STORY RESIDENTIAL OCCUPANCIES LESS THAN 5000 GROSS SF (Use Classified as other than 1- or 2- Family Dwelling or Townhouse)

The following guidelines are the minimum standards for submission of plans for these buildings to the State Fire Marshal's Office. There may be circumstances that require a set of plans to be designed by a registered architect or engineer.

# **Submittal Requirements**

- 1. Provide completed Plan Review Submittal Form with the required review fee (based on the estimated cost of construction). [TDCI Rule 0780-02-03-.05(a), 0780-02-03-.04]
- 2. Provide one (1) complete set of plans (Including plot plan and floor plans) with a PDF version on CD accompanied by letter certifying that the PDF version is an exact copy of the paper version submitted. [TDCI Rule 0780-02-03-.03(3)(b)]
- 3. Provide "Letter of Clarification" signed (original) by non-registrant (the person) preparing the plans. [AG Opinion No. 09-188, A & E Manual Appendix B]

#### **General Plan Requirements [IBC 106.1.1]**

- 1. Standard plan size is 24" x 36". The minimum paper size is 18" x 24". Use ink only (no pencil). All plan sheets must be uniform in size, printed on substantial paper, and be of sufficient clarity to indicate the location, nature, and extent of work proposed.
- 2. Site Plan minimum scale is 1"=20 feet. Show the entire parcel if you have a very large parcel, you may use a reduced scale such as 1:50 or 1:100 as long as the grading portion of the site plan is no smaller than 1:20 scale (this method would require two drawings).
- 3. Floor Plan minimum scale is 1/4" per foot.
- 4. Standard architectural symbols should be used and identified in a legend.
- 5. Plans prepared by a non-registered architect or engineer must be signed (original) and dated by the person who prepared them.
- 6. A Tennessee registered architect or engineer must prepare, stamp and sign structural plans that utilize an engineer's design, or any buildings that are outside the limitations of 2006 IBC Chapters 16-23.

# **Cover Sheet [IBC 106.1.1]**

- 1. Provide the following general information on the cover sheet and on title block of each page: job site address, owner's name and mailing address, and the non-registrant's name and address with (original) signature (person preparing the plans).
- The first page of the plans must contain a statement that the construction will comply with the
  adopted codes in effect at the time your application is submitted, currently the following: 2006
  International Building Code, 2006 International Fire Code, 2006 International Fuel Gas Code, 2006
  International Mechanical Code, 2006 International Energy Conservation Code, and NFPA 70
  National Electrical Code, 2008 Edition.
- For buildings that are required to be accessible, the first page of the plans must contain a statement that the construction will comply with the 2010 ADA Standards for Accessible Design. [TCA 68-120-204]
- 4. The first page of the plans must include the following building information: (1) Occupancy Group and Use Classification per Chapter 3, 2006 IBC; (2) Construction type per 2006 IBC Chapter 6; (3) Sprinkler standard used, per 2006 IBC Chapter 9; (4) Number of stories, and/or height of building; and (5) the Gross Area of building.
- 5. The first page of the plans must include the design live load values for wind, roof, floor, stairs, guard and hand railings, seismic, etc., as follows:
  - a. For new buildings, provide design live load values per IBC Section 1603.
  - b. For existing buildings that have not been reviewed and approved by our office, provide an evaluation report sealed, signed, and dated from a Tennessee licensed structural engineer. The evaluation report must show determination of adequacy of the existing structure to support the minimum Chapter 16. [IBC 3410.4.1]

#### Site Plan

<u>Due to the technical nature of this aspect of the building plans, we recommend that you have a</u> professional

(engineer, architect, landscape architect, surveyor) assist with this portion of your plan preparation.

- Show location and footprint of all existing structures, property lines, water mains and other utilities, fire department access and all ingress/egress to public ways. Include size and location of LP-Gas storage tanks (NFPA 58, 2008 Edition) and any other above ground storage tanks. [IBC 106.2, IFC Section 503]
- 2. Show the location of the fire hydrant(s) used to meet the 600 feet or less hose lay requirement with flow test data next to the hydrant tested. Flow test must have been conducted within the last six months and during peak demand hours. [IFC Section 508, TDEC Rule 1200-05-01-.017(18)]
- 3. Indicate height and location of retaining walls. Note that retaining walls exceeding 4' in height must be designed or approved by a Tennessee registered Engineer or Architect. In the case where retaining walls are part of the foundation system, the wall must be engineered, and designed or approved by a Tennessee registered Engineer or Architect.

#### **Elevations**

1. Provide four exterior elevations (side views) of the proposed structure (North, South, East and West). Show the proposed grade as it will be after final grading. For example, if the building foundation will be stepped to match an existing slope, this must be shown on each elevation.

# **Energy Package**

- 1. Show the climate zone on the plans.
- 2. Provide *ResCheck* Compliance Certificate. The author of the energy documents must sign the package as well as the designer/owner. Free *ResCheck* software is available from the U.S. Department of Energy at <a href="http://www.energycodes.gov/rescheck/">http://www.energycodes.gov/rescheck/</a>.
- 3. Show the R-value of the floor, walls and ceilings sectional details. Show the energy values of doors, windows and other fenestration.

# Foundation Plan [See Inspector Checklist for Specific Code Reference]

- 1. Show all foundation elements (details), including interior footings and piers, on plan. Indicate the type, height, unbalanced backfill, of foundation walls. Note that foundation walls exceeding the prescriptive levels of IBC 1805.5 must be designed or approved by a Tennessee registered Engineer or Architect, if applicable. In the case retaining walls are part of the foundation system the wall must be designed or approved by a Tennessee registered Engineer or Architect.
- 2. Show minimum under floor ventilation of 1 sq. ft. per 150 sq. ft. of floor area with cross-ventilation. Crawl spaces shall be provided with a minimum of one access opening not less than 18"x24". Show minimum 18" clearance from grade to the bottom of floor joists (minimum 12" for girders). Specify foundation bolt size and spacing.
- 3. Provide a cross-section showing typical footing/stem wall or footing/slab dimensions, including placement and size of reinforcement.
- 4. Show hold-down locations, and provide a hold-down schedule on foundation plan. Note on plan that all hold-downs are to be fastened in place prior to foundation inspection.
- 5. For building sites steeper than a 1:10 slope, provide a stepped footing detail (cross section).
- 6. For slab-on-grade construction, show type of slab reinforcement. Also show vapor barrier if it is a habitable area. Be sure that the reinforcement type installed matches the plan engineering.

#### Floor Plan [See Inspector Checklist for Specific Code Reference]

- 1. Provide a fully-dimensioned floor plan for each building level. Label each room or area with its proposed use and dimensions. At least habitable one room within a dwelling unit must have minimum 120 S.F. net floor area. All other habitable rooms shall have a minimum 70 S.F. net floor area.
- 2. Provide a Door & Window Schedule showing all doors and windows with nominal sizes. Show natural light and ventilation calculations.
- 3. Show all fire rated walls and doors for tenant space / dwelling unit separation, in corridors, between or a garage and adjacent living space (including an attic continuous between the garage and

- adjacent living space).
- 4. Show egress window locations in sleeping rooms. (See exception)
- 5. Show safety glazing in hazardous locations.
- 6. Show a minimum 36" x 36" landing on each side of an exterior doorway.
- 7. Show a minimum 22" x 30" access to attic areas that have 30" of headroom.
- 8. Show Stair and handrail details.

# Floor-framing [See Inspector Checklist for Specific Code Reference]

- Show the type, size, and spacing of girders and floor joists. Identify if manufactured joists are used.
  Note that floor joists must be spaced no further apart than 16" O.C. when the underside forms part of
  a fire separation, such as between a garage and a living space above, otherwise an approved listing
  assembly will be required.
- 2. Show the thickness and span rating of the floor sheathing (for example: 3/4", 20/40 plywood).
- 3. Provide details for additional support under concentrated loads such as brick hearths, rock work, wood stoves, gas stoves, and so forth.

### Wall Framing [See Inspector Checklist for Specific Code Reference]

- 1. Provide one or more typical cross-sections to clearly showing how the structure will be constructed. Provide close-up details to clarify specific connections or other special framing.
- 2. Provide a cross-section showing typical high wall, beams trusses or rafters as applicable.
- 3. Show all header/beam locations and sizes. Note that beam sizes must match the project engineering where required.
- 4. Show method of bracing the structure. Provide fastener size and spacing for shear walls or braced wall panels.
- 5. If a deck is to be built, provide a deck framing plan with a typical cross-section.

#### Roof and Ceiling Framing [See Inspector Checklist for Specific Code Reference]

- 1. For conventional (non-engineered) site-built roofs, show rafter size and ceiling joists, grade, and spacing. Show wall ties a minimum of 48" on center.
- 2. For engineered trusses, provide typical details of the truss & required hardware specifications from the truss manufacturer.
- 3. Show the thickness and span rating of the roof sheathing (for example: 5/8" 24/16 plywood).
- 4. Show location of attic ventilation.
- 5. Specify the type of roof covering.

### Mechanical Plan [See Inspector Checklist for Specific Code Reference]

- 1. The mechanical plan may be included on the floor plan if sufficient clarity is maintained.
- 2. Show the location of HVAC equipments (FAU, A/C, Water heater, Heat pump, Air handler, Exhaust fan, etc.). The equipment shall not be placed within the required side/ rear setbacks.
- 3. In bathrooms and toilet rooms, show mechanical ventilation to outside where required.
- 4. Show where the gas piping enters the building and specify the type of gas to be used (propane or natural gas). If any show the location of LPG tanks.
- 5. Show all gas appliance locations with the rated BTU (input) of each device. Show how gas appliances in confined spaces will receive combustion air. Note the size and location of the openings.
- 6. If a water heater is located in the garage, show the burner assembly located a minimum of 18" above the floor. Appliances installed in garages shall be located behind protective barriers or located out of the normal path of vehicles. Show approved seismic bracing for all water heaters, when applicable.

# Plumbing Plan [See Inspector Checklist for Specific Code Reference]

- 1. The plumbing plan may be included on the floor plan if sufficient clarity is maintained.
- 2. Show the location of plumbing equipment (water closets, sinks, tub, showers, water heater, etc.)

#### Electrical Plan [See Inspector Checklist for Specific Code Reference]

- 1. The electrical plan may be included on the floor plan if sufficient clarity is retained.
- The electrical plan must include the location of the service panel and its rated ampacity. Provide load
  calculations with panel schedule identifying circuits. Show all outlets, switches, light fixtures and
  smoke detectors. Label any 220-volt outlets. Label all required GFCI (ground fault interrupter circuit)
  outlets
- 3. Specify that all bedroom branch circuits are protected by an arc fault circuit interrupter.
- 4. In R-1 & R-2 Occupancy Groups, provide fire alarm details & specification.

#### Fire Sprinkler Plan [See Inspector Checklist for Specific Code Reference]

- 1. A Tennessee Licensed Sprinkler Contractor is required. Sprinkler Shop drawings must be prepared and submitted by a Responsible Managing Employee.
- 2. Identify the type of system to be installed in the building. Provide preliminary hydraulic calculations that show the water supply is adequate to meet the demand of the system.