



# RESIDENTIAL CONSTRUCTION REGULATIONS

For

CLAY COUNTY, MISSOURI

Revised

March 10, 2020

# Table of Contents

INTRODUCTION .....	4
REQUIREMENTS, PERMITS AND FEES .....	4
New Residential Construction: .....	5
Permits for Additions to Residential Dwellings: .....	6
Permits for Accessory Building, Residential Deck, Swimming Pool and Fence Construction:.....	7
Inspections:.....	8
FOOTINGS AND FOUNDATIONS.....	9
FRAMING GUIDELINES.....	10
FIREPLACES .....	11
PLUMBING GUIDELINES .....	12
Sewers: .....	12
General: .....	12
MECHANICAL GUIDELINES .....	12
Equipment:.....	13
ELECTRICAL GUIDELINES.....	13
Services: .....	13
Counter Tops:.....	14
Bathrooms: .....	14
Outdoor Outlets: .....	14
Basements and Garages:.....	14
General: .....	15
Exceptions: .....	15
Clothes Closets: .....	15
Recessed Fixtures: .....	15
Smoke Detectors:.....	15
GROUND-FAULT PROTECTION FOR PERSONNEL .....	16
Bathrooms: .....	16
Basement:.....	16

Outdoors: .....	16
Kitchens: .....	16
Spa or Hot Tub: .....	16
Accessory Building: .....	16
OCCUPANCY GUIDELINES .....	16
Site .....	17
GENERAL REQUIREMENTS FOR RESIDENTIAL DECKS .....	18

# CLAY COUNTY, MISSOURI PLANNING AND ZONING DEPARTMENT

---

## INTRODUCTION

The following regulations are provided to assist property owners and contractors with the orderly construction of residential structures and accessory buildings, in keeping with the provisions of the Clay County Building Codes, and Land Development Code. Please read these regulations carefully and understand that it is **summarized** in the interest of simplicity. Not all regulations are listed, please refer to the following publications for any questions.

On September 10, 2012 the County Commission of Clay County adopted: the 2012 International Building Code and the 2012 International Residential Code, the 2012 International Plumbing Code; the 2012 International Fire Code; the 2011 National Electric Code and the 2012 International Mechanical Code.

**\*Please refer to 2012-ORD-24 Building and Construction Ordinance for all changes in Residential Construction Codes.**

## REQUIREMENTS, PERMITS AND FEES

Clay County requires permits and inspections for almost all types of construction. Please call **407-3380** to find out if your project requires a permit. Plan Submittal checklists are available at our office or on our website. Due to limited department staff and the frequency of scheduled inspections, ***appointments must be made with the Building Inspector to obtain permits. Submit plans and paperwork prior to permitting*** at <https://www.claycountymo.gov/departments/commission-departments/planning-zoning/planning-zoning-online-applications-permits>. Drop-ins for permit pick up, in most cases, are not possible.

*Please be aware that County Regulations prohibit anyone from living in an RV, mobile home, accessory building, or temporary structure. Application for Temporary use of an RV during construction is available with certain guidelines.*

## **New Residential Construction:**

**To obtain a building permit for new residential construction, please submit the following items on-line at <https://www.claycountymo.gov/departments/commission-departments/planning-zoning/planning-zoning-online-applications-permits> :**

**Call (407-3380) if you have any questions**

1. Drawings of what you are going to construct. After plan review, a set with any written comments made by the Building Inspector will be returned to the applicant, and the drawings will be digitally retained for at Planning and Zoning office. The drawings should include floor plans, a foundation plan, building elevations and a building cross section. Trusses, structural elements and suspended slab drawings must be stamped by an engineer licensed in the State of Missouri.
2. A plot plan of the property **prepared by a registered land surveyor** showing the legal description, the property dimensions, all easements, existing and proposed buildings with their dimensions and distances between **all** structures and **all** property lines. If the parcel contains floodplain please contact the Floodplain Administrator at 407-3380.
3. A receipt for the water meter from the pertinent public water supply district that serves your area, stating that arrangements have been made for the provision of water service. If you do not know what water district serves your area, contact the Planning and Zoning Department at **407-3380**.
4. A driveway permit from either the Clay County Highway Department (**407-3300**) or if on a state highway, the State of Missouri (Stephen Holloway, **stephen.holloway@modot.mo.gov** or **927-9581**) is required.
5. A septic system permit from the Environmental Division of the Clay County Health Department (**595-4350**) or approval from private sewer company if applicable.
6. **All new single family construction in the Smithville or Kearney Area Fire Protection district must have their construction plans reviewed and approved by that district. Prior to a Certificate of Occupancy being issued, a letter of compliance is required from that fire district.**

### **The building permit fee is determined as follows:**

First, calculate the home valuation by taking the number of square feet of finished living space and multiply that figure by \$100.00. The fee is \$12.00 for the first \$1,000.00 of home valuation as calculated above, plus \$9.00 for each additional \$1,000.00 of valuation, plus a fee for the required inspections at \$50.00 each. (Additional inspections and inspection fees are required in some special circumstances. See the Building Official for details). Additional fees for Park Impact Fees at \$150.00 and Road Impact Fees at \$350.00 are also included in the building permit fee.

*FOR EXAMPLE: 2000 square feet times \$100.00 equals a \$200,000.00 valuation. \$12.00 for the first \$1,000.00 of valuation plus \$9.00 for the remaining \$199,000.00 of valuation equals  $(199 \times \$9 + \$12) = \$1,803.00$ , plus \$250.00 for the five inspection, plus \$150.00 Park Impact Fees and \$350.00 Road Impact Fees equals \$2,553.00 building permit fee.*

## Permits for Remodels and Additions to Residential Dwellings:

1. **To obtain a building permit for additions to residential construction, please submit the following items on-line at <https://www.claycountymo.gov/departments/commission-departments/planning-zoning/planning-zoning-online-applications-permits>:**
2. Drawings of the proposed construction (may be hand drawn). Trusses, structural load bearing elements and suspended slab drawings must be stamped by an engineer or architect licensed in the State of Missouri.
3. If the exterior of a structure is being added to or expanded, a plot plan is required showing the exact location of the structure on the property including the area and dimensions of the expansion. A preexisting plot plan with the addition hand-drawn onto the structure is sufficient unless determined by the Building Inspector that a surveyed Plot Plan is required. **This must be approved by the Environmental Division of the Clay County Public Health Center (595-4350) or Private Sewer Company.**
4. If parcel contains floodplain , contact the Floodplain Administrator, an elevation certificate will be required if the structure is being added to or expanded and the value of the addition is greater than 50% of the current home value.
5. A site approval from Clay County Public Health Center for septic improvements, if adding bedrooms or expanding the footprint of the house.
6. Permit fees are \$200.00 for minor improvements under \$1,000.00. For improvements \$1,000.00 and over that do not expand the square footage of the home (For example, finishing an existing attic or basement), and additions that create additional rooms or otherwise expand the roof and/or foundation area of the home are permitted as follows: First, calculate the improvement valuation by taking the number of square feet of finished living space and multiply that figure by \$50.00. The fee is \$6.00 for the first \$1,000.00 of the improvement as calculated above, plus \$4.50 for each additional \$1,000.00 of valuation, plus a fee for the required inspections at \$50.00 each. (Additional inspections and inspection fees are required in some special circumstances. See the Building Official for details).

*FOR EXAMPLE: 2000 square feet times \$50.00 equals a \$100,000.00 valuation. \$6.00 for the first \$1,000.00 of valuation plus \$4.50 for the remaining \$99,000.00 of valuation equals  $(99 \times \$4.50 + \$6) = \$451.00$ , plus \$200.00 for the four inspections equals \$651.00 building permit fee.*

## **Permits for Accessory Building, Residential Deck, Swimming Pool and Fence Construction:**

**NOTE: An accessory building shall not be constructed prior to the principal structure (see Land Development Code, Sec. 6.3-5-A)**

**To obtain a building permit please submit the following items on-line at <https://www.claycountymo.gov/departments/commission-departments/planning-zoning/planning-zoning-online-applications-permits>:**

1. Drawings of the proposed construction (may be hand drawn or a photograph). The plans must show construction design and materials in sufficient detail to determine the structure meets the building code requirements of 90 mph. wind load and 20 lb. per sq. ft. snow load include foundation/pier details. For swimming pools you will need the motor, filter, and heater specifications.
2. A plot plan of the property to be built upon (may be hand drawn), showing the location of the new structure and any existing structures. The Clay County Public Health Center (**595-4350**) or **Private Sewer Company** must approve the location of the new building on the property to assure it is not being constructed over an existing sewer line or septic field. Permit applications for fences require the plot plan but do not require Clay County Public Health Center review.
3. A driveway permit if structure is not accessible by existing driveway. (Clay County Highway Department 407-3300) or (State of Missouri 927-9581, if on a state highway).
4. The established permit fees for accessory buildings, decks, swimming pools, and fences are as follows:
  - A. Accessory Buildings (Non-Farm)
    1. Type I           \$250.00 (Includes footer/pad & final inspection)
    2. Type II         \$300.00 (Includes footer/pad, ground rough & final inspection)
    3. Pre-Fab         \$90.00 (includes anchor system)
  - Accessory Buildings
  - B. Swimming Pools \$175.00 (Includes bonding inspection and final)  
(In ground & Above ground)
  - C. Subdivision Ponds         \$150.00 (Includes one inspection)
  - D. Fences (over 6 feet high)   \$125.00 (Includes one inspection)
  - C. Decks (over 120 sq. ft. or 30" above grade)   \$100.00 (Includes two inspections)

**Please be advised that many subdivisions in Clay County have covenants and restrictions that regulate construction specifications and types. These documents are filed with the County Recorder's office. We recommend that you review any that may pertain to your property before applying for a building permit.**

**Any excavation in a County road right-of-way requires a permit from the Clay County Highway Department. Bonding is also required. For details, please contact the Clay County Highway Department at 407-3300.**

## Inspections:

*The following inspections are performed prior to and during residential home construction. **It is the permit holder's responsibility to ensure all inspections are scheduled properly.***

Driveway Inspection: An inspection is needed for driveway approaches to determine driveway location and construction requirements. This inspection will be conducted by the driveway permit authorizer Clay County Highway Department or MODOT and will be completed prior to issuance of the driveway permit.

Footing Inspection: A footing inspection is required after all steel is in place and before the concrete is poured. (Performed by the County Building Inspector)

Pier Inspection: A pier inspection is required prior to post or cement is added to the pier hole.

Ground Rough Plumbing: Including **Radon** (Performed by the County Building Inspector)

Septic System Inspection: A septic system inspection is required by the Clay County Public Health Center from 2 feet outside the foundation through the on-site system. (Performed by the Clay County Public Health Center).

Sewer System Inspection: A "ground rough" inspection will be required.

Water Inspection: As per respective public water supply district (PWSD) requirements. (Performed by the PWSD or their designate)

Suspended Slab: An inspection of the suspended slab prior to cement being poured, is required.

Top Rough Inspection (Performed by the County Building Inspector):

- a) Plumbing Inspection: All rough plumbing must be inspected when drain, waste, vent and water piping is roughed in and prior to insulating or drywall stocking.
- b) Framing Inspection: Building framing must be inspected after all framing and furring is completed, prior to insulating or drywall stocking. This inspection includes fireplaces and egress.
- c) Electrical Rough Inspection: The electrical wiring must be inspected after all wiring, boxes and recessed fixtures are installed. Boxes should be made up and home runs should extend to service location. The inspection must be approved prior to insulation or drywall stocking.
- d) Mechanical Rough Inspection: Mechanical vents, ducts and return air spaces require inspection prior to insulating or drywall stocking.
- e) Gas Inspection: All gas piping on the building side of the gas meter needs to be inspected after all piping is installed and before the gas company will install a gas meter. A 10 psi air test shall be witnessed by



an inspector. A 60 psi air test is required for welded piping.

**NOTE:** *Top rough Plumbing, Framing, Electrical, Mechanical, and Gas inspections need to be called in by the builder to be inspected in one visit when **all** rough-ins are ready. **Schedule inspections a minimum of 24 hours in advance.***

Electrical Service Inspection: Electrical service inspection as per power company requirements. (Performed by the Electrical Utility).

Occupancy (Final) Inspection: An occupancy (final) inspection is required prior to any occupancy of a building, addition or pool. All electrical connections, face plates, panels and fixtures, mechanical equipment, final grade, driveways, guardrails, including fence for pools, floor coverings and smoke detectors must be completed. (Performed by the County Building Inspector). **NOTE: The County Building Inspector reserves the right to levy a fine at his discretion for violations of the occupancy permit.**

**NOTE:** In accordance with Clay County Ordinance 2007-ORD-23, a fee of \$60.00 will be charged for each re-inspection. There are five (5) normal inspections included in the building permit fee, and one (1) re-inspection will usually be made free of charge. After one, however, the \$60.00 per re-inspection fee will be charged.

## **FOOTINGS AND FOUNDATIONS**

A footing inspection is required after the steel is in place, and before the concrete is poured.

The following regulations are provided to assist in meeting the requirements of the 2012 International Residential Code for typical residential footings. The items in parentheses ( ) are specifications in the 2012 IRC code book. Where questions arise, please contact the Building Inspector.

1. When completed, the bottom of all footings must be thirty-six (36) inches below the ground surface adjoining it. (Table R301.20 (1))
2. The minimum width of any footing is twelve (12) inches. (Table 1 R403.1)
3. Footings supporting a two story structure must be at least fifteen (15) inches wide. (Table R403.1)
4. Footings supporting a three story structure must be at least twenty three (23) inches wide. (Table R403.1)
5. Concrete:
  - a) No less than 2,500 lbs. concrete may be used for footings, basement slabs or interior slabs on grade, except garage floor slabs on grade. Except for garage floor slabs, 5% air entrainment is required if the concrete is exposed to freezing and thawing. (Table No. 402.2)
  - b) No less than 3,000 lb. air entrained concrete may be used for foundation walls. (Table No. 402.2)

- c) No less than 3,000 lb. air entrained concrete may be used for concrete slabs exposed to the weather and 4000 lb. for garage floor slabs. (Table No. 402.2)
6. Pads under masonry fireplaces must be twelve (12) inches thick and extend six (6) inches on each side of the fireplace wall. (Section No. 1001.1.1)
7. Anchor bolts are required at six foot spacing intervals and within twelve (12) inches of the any break in the plate. (Section R 403.1.6)
8. Drains shall be provided around foundations enclosing habitable or usable spaces located below grade and which are subject to groundwater conditions. Drains shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system. (Section R405)
9. Exterior foundation walls of masonry construction enclosing basements shall be damp proofed. (Section R406)
10. Vapor Retarder will be installed before basement floor is poured (prior to placing reinforcing). (Section R405.2.2)

## **FRAMING REGULATIONS**

A framing inspection will be done in conjunction with the plumbing, electrical, mechanical and gas inspections.

The following regulations are provided to assist in meeting the requirements of the 2012 International Residential Code for Typical residential buildings. The items in parentheses ( ) are specifications in the 2012 IRC code book. Where questions arise, please contact the Building Inspector.

1. Treated wood is needed for plates, columns or posts on concrete foundations or floors and for joist crawl spaces with less than eighteen (18) inches of clearance to ground level. (Section R317.1)
2. Washers and nuts shall be placed on all anchor bolts. (Section R403.1.6)
3. Joists under and parallel to bearing walls shall be doubled. (Section R502.4)
4. Six (6) inches of separation is required between finished grade and any untreated wood, framing or siding. (Section R404.1.6)
5. Wall Support:
  - a) 2x4 utility grade studs 16 inches on center shall support no more than a ceiling and a roof. (Table R602.3.1)
  - b) 2x6 utility grade studs (16) inches on center shall be used for support of buildings over two stories. (Table 602.3(5))
6. All interior headers in bearing walls see (Table R502.5 (2)), headers in exterior bearing walls see (Table R502.5.1).
7. Purlins may be used to extend the span of rafters. Supporting struts shall extend to bearing walls. (Tables 802.5.1(1) thru R802.5.1 (8))

8. When ceiling joists run in the opposite direction to rafters, rafter ties are needed 4'-0" on center. (Section No. 802.5.1)
9. Rafters shall be framed directly opposite each other at the ridge. The ridge board must be equal or greater in depth to the end cut of the rafter. (Section No. 802.5.1)
10. Joist framing from opposite sides of a beam shall overlap three (3) inches. (Section No. 502.6.1)
11. Holes bored in joist shall not be within two (2) inches of the top or bottom. The diameter shall not exceed 1/3rd. of the depth of the joist. Notches in the top or bottom of joist shall not exceed 1/6th of the depth and shall not be located in the middle 1/3 rd. of the span. (Section R502.8)
12. Top and bottom plates cut for plumbing or mechanical shall be strapped with 1/8th x 1-1/2 inch metal ties with 4-10d nails. (Section R 302.11)
13. Firestopping must be provided to seal off all concealed draft openings between stories and between the top story and attic. (Section No. 602.8)
14. Access to each attic shall be provided by an opening at least twenty (22) inches x thirty (30) inches. Thirty (30) inches of head room is required above the opening. (Section R807)
15. One layer of fifteen (15) pound felt is required beneath all asphalt shingles. (Section 905)
16. Stairways shall meet the requirements of (Section R311.7)
17. Handrails are required for all stairways and must be graspable. Handrails shall be continuous for the full length of the stairs. The top of the handrail shall be thirty (30) to thirty eight (38) inches above the nosing of the treads. (Section R311.7.8)
18. Guardrails shall be built to meet the requirements of (Section R312).
19. The maximum spans of floor joists and rafters are shown in "Span Tables" (Table R502.3.1)
20. The fireplace chimney or metal vent opening must be two (2) feet above any roof within ten (10) feet. (Section R1003.9)
21. Basements, habitable attics, and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room. Windows must have at least 5.7 square feet of net clear opening. The minimum net clear opening height is twenty four (24) inches and the minimum net clear opening width is twenty (20) inches. The finished sill height shall be no more than forty four (44) inches above the floor. (Section R 310).

## **FIREPLACES**

Fireplaces shall comply with Chapter 10 of the International Residential Code.

# PLUMBING REGULATIONS

The following regulations are provided to assist in meeting the requirements of the 2012 International Residential Code for typical residential buildings. The items in parentheses ( ) are specifications contained in the 2012 IRC code book. Where questions arise, please contact the Building Inspector.

**Note: All persons doing plumbing work in this jurisdiction for hire must be licensed in a local jurisdiction.**

*The following inspections are required at each dwelling:*

1. Sewer (Septic) Inspection – Clay County Public Health Center
2. Top Rough Inspection (Includes framing, electrical, mechanical, plumbing and gas)
3. Ground Rough Plumbing Inspection
  1. Standpipes for automatic clothes washers shall extend a minimum of eighteen (18) inches and a maximum of forty two (42) inches above the trap weir. Access shall be provided to all standpipe traps and drains for rodding. (P2706.2)
  2. Every vent stack or stack vent shall extend outdoors and terminate not less than six (6) inches above roof or six (6) inches above anticipated snow accumulations whichever is greater. (P3103.1)
  3. A floor drain shall have a waste outlet not less than two (2) inches in diameter and have a removable strainer. (P2719)
  4. All air admittance valves shall be readily accessible. The valve shall be located in a ventilation space that allows air to enter the valve. (P3114.5)
  5. “S” traps are prohibited. (P3201.5)
  6. No gas piping will be permitted in the HVAC cold air return areas. (M1602)
  7. Pasive Radon system is required (AF 103.6)

# MECHANICAL REGULATIONS

The following regulations are provided to assist in meeting the requirements of the 2012 International Residential Code for typical residential buildings. The items in parentheses ( ) are specifications in the 2012 IRC code book. Where questions arise please contact the Building Inspector.

**Note: All persons doing mechanical work in this jurisdiction for hire must be licensed in a local jurisdiction.**

A mechanical inspection will be conducted by the Building Inspector at the **same time** as the framing, electrical, and plumbing inspections.

**Equipment:**

1. A range hood shall be vented to the outdoors by a single-wall duct constructed of galvanized steel, stainless steel or copper. Vents serving range hoods shall not terminate in an attic or crawl space or in any other area inside the building. Listed unvented hoods may be used when installed in accordance with the terms of their listing. (Section M1503.1)
2. Bathroom ventilation per R303.3 or M1507 will be accepted, and inspected during the Top Rough inspection
3. Ducts for exhausting moisture from clothes dryers shall not be constructed with sheet metal screws or other fastening means which extend into the duct no more than 1/8<sup>th</sup> of an inch. Moisture exhaust ducts shall terminate outside the building. Exhaust ducts shall be supported at intervals not to exceed twelve (12) feet and shall be secured in place. Maximum length of exhaust ducts shall be thirty five (35) feet from the connection to the transition duct from the dryer to the outlet terminal. (M1502.4.4.1) Where fittings are used the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.4.1.
4. Protective shield plates shall be placed where nails or screws from finish or other work are likely to penetrate the clothes dryer exhaust duct. Shield plates shall be placed on the finished face of all framing members where there is less than 1 ¼ inches between the duct and the finished face of the framing member. Protective shield plates shall be constructed of steel and shall extend a minimum of two (2) inches above sole plates and below top plates. (M1502.5)

## **ELECTRICAL REGULATIONS**

The following regulations are provided to assist in meeting the requirements of the 2012 International Residential Code for typical residential buildings. The items in parentheses ( ) are specifications in the 2012 IRC code book. Where questions arise please contact the Building Inspector.

**Note: All persons doing electrical work in this jurisdiction for hire must be licensed in a local jurisdiction.**

The following inspections are required at each dwelling:

1. Electrical Service Inspection as per electric company requirements.
2. Electrical Rough Inspection to be done with the framing, mechanical, plumbing, and gas top rough inspections.

**Services:**

1. For a single family residence the main panel shall be grounded, per IRC E3610, to a metal water line which is buried at least ten (10) feet and one eight (8) foot ground rod. If no metal water line is available then two (2) of the ground rods spaced ten (10) feet apart will be required. The ground on the water line shall be

installed where it enters the structure and before the first soldered joint. The 2<sup>nd</sup> ground rod shall be placed away from the structure so it will pick up moisture. If access to the reinforcing steel in the foundation is provided this can be used as ground. (E3608.1.1,E3608.1.4)

2. In every kitchen, family room, dining room, living room, parlor, library, den, sunroom, bedroom, recreation room, guest room or other similar rooms of dwelling units, receptacle outlets shall be installed so that no point along the floor line in any wall space is more than six (6) feet measured horizontally from an outlet in that space including any wall space two (2) feet or more in width and the wall space occupied by sliding panels in exterior walls. The wall space afforded by fixed room dividers, such as free standing bar-type counters, shall be included in the six (6) foot measurement. There should never be more than twelve (12) feet between each receptacle on a continuous wall space. Walls constructed of open guardrails are included as wall space. Where floor receptacles are necessary, they shall be dust proof. For floor receptacles to count for wall space, they must be within eighteen (18) inches of the wall. (E3901)
3. As used herein, a "Wall Space" shall be considered a wall unbroken along the floor line by doorways, fireplaces and similar openings. Each wall space 2' or more wide shall be treated individually and separately from other wall spaces within the room. A wall space shall be permitted to include two (2) or more walls of a room (around corners) where unbroken at the floor line. Receptacle outlets, insofar as is practical, should be placed equal distances apart. (E3901.2.2)

#### ***Counter Tops:***

1. In kitchen and dining areas of dwelling units, a receptacle outlet shall be installed at each counter space wider than twelve (12) inches. Counter tops separated by range tops, refrigerators or sinks shall be considered as separate counter space. Receptacles rendered inaccessible by appliances fastened in place or appliances occupying dedicated space shall not be considered as these required outlets. Island counters shall be required to have receptacle outlets as outlined above. All small appliance outlets in the kitchen shall be of the GFCI type. (E3901.4)

#### ***Bathrooms:***

1. At least one 12 gauge 20 amp, GFCI wall receptacle outlet shall be installed adjacent to the basin location
2. An exhaust fan, minimum 50 CFM motor vented directly to outside air is required if there is no operable window in the bathroom. (R303.3)

#### ***Outdoor Outlets:***

1. For one and two family dwellings at least two GFCI receptacle outlets shall be installed outdoors, front and back, for each unit. All outside outlets shall be GFCI type. (E3902.3, E3901.7)

#### ***Basements and Garages:***

1. For a dwelling unit, at least one GFCI receptacle outlet in addition to the outlet for laundry equipment shall be installed in each basement and one in each garage. (E3901.9) All receptacles in unfinished areas of basement with the exception of sump pump and security systems are required to be GFCI Protected. All garage receptacles with the exception of two are required to be GFCI protected.

**General:**

1. At least one wall switch controlled lighting outlet shall be installed in each habitable room, guest room, bathroom, stairway, hallway, and garage provided with electrical power and an outside egress. (E3903)
2. At least one outlet shall be installed in an attic, under floor space, utility room and basement where these spaces are used for storage or contain equipment that might require service. (E3903.4)

**Exceptions:**

1. In habitable rooms, other than kitchens and bathrooms, one or more receptacles controlled by a wall switch shall be permitted in lieu of lighting outlets. (E3903.2)
2. In hallways, stairways and outdoor entrances; remote, central or automatic control of lighting shall be permitted. (E3903.3)

Where installed in a wet or damp location fifteen (15) and twenty (20) ampere and one hundred twenty five (125) and two hundred fifty (250) volt receptacles shall have an enclosure that is weatherproof and shall be listed-weather resistant type. (E4002.8 & E4002.10)

**Clothes Closets:**

1. Lights in closets shall be installed with a minimum of twelve (12) inch, clearance measured horizontally from the front of the top shelf. Incandescent type fixtures must be covered. (E4003.12)
2. Recessed fixtures with solid lenses or fluorescent fixtures may be installed with a minimum of six (6) inch clearance measured horizontally from the front of the top shelf. (E4003.12)

**Recessed Fixtures:**

1. All recessed fixtures shall have thermal protection and shall be identified as thermally protected. (E4003.5)
2. Recessed fixtures installed in thermal insulation shall be identified with the listing label for installation within thermal insulation. (E4003.5)

**Smoke Detectors:**

1. Smoke detectors shall receive their primary power from the building wiring and have a battery back-up. The wiring shall be permanent and without a disconnecting switch other than required for over current protection located at the main service. All detection shall be interconnected. (R314.4)
2. Locations required: In each sleeping room, outside each sleeping room, and each additional story. (R314)
3. For **new construction**, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units within which fuel fired appliances are installed and in dwelling units that have attached garages. (R315)
4. When alterations, repairs, or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual

dwelling unit shall be equipped with smoke alarms and carbon monoxide alarms located as required for new construction.

**Exceptions:**

1. Work involving the exterior surfaces of dwelling, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, are exempt from the requirements of this section.
2. Installation, alteration, or repairs of plumbing or mechanical systems are exempt from the requirements of this section.

## **GROUND-FAULT PROTECTION FOR PERSONNEL**

**Bathrooms:**

All fifteen (15) & twenty (20) amp receptacles installed in bathrooms shall have ground-fault circuit interrupter (GFCI) protections. A bathroom is an area including a basin with one or more of the following: a toilet, a tub and or a shower. A GFCI for a bathroom can serve only bathrooms. It cannot serve any other area. (E3902.1)

**Basement:**

At least all unfinished basement receptacles shall be ground-fault protected and identified as such. (E3901.9 & E3902.5)

**Outdoors:**

All fifteen (15) & twenty (20) amp receptacles installed outdoors shall have GFCI protection for personnel. (E3902.3)

**Kitchens:**

All countertop receptacles for small appliances shall be GFCI protected and the GFCI protector can be used for the kitchen only. (E3902.6)

**Spa or Hot Tub:**

Receptacles for spa or hot tub equipment, receptacles within ten (10) feet of water, and for lighting within five (5) feet (measured horizontally) shall be GFCI protected. (E4203.2 & E4203.1.5)

**Accessory Building:**

All fifteen (15) or twenty (20) amp receptacles installed in outbuildings that are at grade level (below six feet above finish ground) and used for storage or work areas require GFCI protection. (E3902.2)

## **OCCUPANCY REGULATIONS**

The following regulations are provided to assist in meeting the requirements of the 2012 International Residential Code for an occupancy



inspection of a typical residential building. Where questions arise please contact the Building Inspector.

An occupancy (final) inspection is required prior to the occupancy of all buildings. The Building Inspector will check the property and building for code compliance. **The Building Inspector reserves the right to levy a fine at his discretion for violations of the occupancy permit.**

### **Site**

1. Untreated wood must be separated from final grade by no less than six (6) inches. (R408.6)
2. Final grade must drain away from the house six (6) inches in ten (10) feet. (R401.3)
3. A one hour fire rated separation is required between a garage and a dwelling. The occupancy separation includes all garage walls and ceilings. Doors must be at least 1-3/8" solid core wood, a door with a twenty (20) minute fire rating, or equivalent. Hollow core panel doors are not acceptable. Mechanical ducts, furnace flues and plumbing needs are to be furred around so that dry wall can enclose the garage. *Vents in the garage are not allowed for supply air.* **NO RETURN AIR IS ALLOWED!** (R302.5)
4. Each building must be posted with the proper address numbers so they are visible from the street. (R319)
5. Double keyed dead bolts are not permitted. (R311.2)
6. Electrical panels, switches, receptacles and lights must be completed. (IBC 110.3.10)
7. The electrical service must be completed, with panel cover on and all circuits identified. (E3404.12)
8. Electrical face-plates must be on. (IBC 110.3.10)
9. Receptacles, smoke detectors, and ground-fault circuits will be tested. (R314, E3901, & E3902)
10. Plumbing fixtures must be properly connected. (P2503.5.2)
11. Stubbed-in (future) plumbing must be capped off. (P2608)
12. The building sewer clean-out must be accessible. (P2608)
13. The water service shutoff valve must be accessible. (P2608)
14. Perimeter drain tiles that are required around footings for control of surface water shall drain by gravity to grade, or under the footing, into a sump hole where a sump-pump shall eject the water to the outside of the dwelling. The sump-pump may not eject into the sanitary sewers. (P2608)

# GENERAL REQUIREMENTS FOR RESIDENTIAL DECKS

Permits are required for the construction of all decks (over 120 sq. ft. or 30" above grade). A set of building plans showing the following is required:

1. Pier locations, (depth & size)
2. Size and material of posts, beams and joists
3. Size height and spacing of guardrails and spindles
4. A site plan showing the location of the house and location of the new deck;  
**NOTE:** Both plans should be drawn to scale. 1/4" per foot for building plans and 1 inch = 20 feet or 1 inch = 30 feet for site plans are normal.
5. A legal description of the property with address, property dimensions, easements, location of any other permanent structures and distance from deck to property lines.

The following list includes most building code and land use regulations for decks:

1. Side and rear yard setbacks are to be no less than required by the Land Development Code. (LDC 151-6.3)
2. Footings and piers must extend thirty six (36) inches below grade and bear on undisturbed soil. (R403.1, R403.1.4, & Table R301.2(1))
3. Guardrails must extend thirty six (36) inches above the deck unless deck is less than thirty (30) inches above grade. If so, no guardrail is required. (R312.1)
4. Deck ledger shall be attached with ½ inch lag screws or bolts with washers in accordance with Table R507.2 and shall be placed according to Table R507.2.1.

Handrails and stairs railings shall have intermediate rails in an ornamental pattern so that a four (4) inch sphere cannot pass through. Handrails are required on at least one side of the stairs and at all openings. Structural requirements for decks are based upon loads of forty (40) pounds per square foot. (R312.1 & R311.7.8)

The preceding regulations are not an all-encompassing code manual, please refer to the publications listed at the front of the regulations for further code details.