



Why should you obtain a building permit?

Your home is an investment. If your construction project does not comply with codes adopted by your community, the value of your investment could be reduced. Property insurers may not cover work done without building permits and inspections. If you decide to sell your home that has modifications without a permit, you may be required to do costly repairs or alterations.

A property owner who can show that code requirements were strictly and consistently met with each construction project or major repair made to his/her property (as demonstrated by the City's building department's carefully maintained records) could have a strong ally if something happens to cause a potentially destructive and costly lawsuit.

For more information on the benefits of building permits, visit the City of Merriam's website, www.merriam.org or call the Merriam Community Development Department at (913) 322-5520.



CITY OF MERRIAM COMMUNITY DEVELOPMENT DEPT.

9001 W. 62nd St.
Merriam, Kansas 66202-2815
(913) 322-5520 • (913) 322-5505 fax
www.merriam.org • ComDev@merriam.org

RESIDENTIAL DECKS



*Guidelines for construction
and maintenance of
residential decks*





Residential Decks

The following information is provided as a service to the community to assist in the proper construction of residential decks. This is not intended to be a complete list of requirements. Complete information may be found in the City of Merriam Municipal Code and in the International Building Code books. Both of these publications are available for review at City Hall and in the public library. The owner or owners' representative is responsible for full compliance with local ordinances and regulations as adopted by the City of Merriam.

A handout on deck construction published by the Johnson County Contractor Licensing Program is also available (and highly recommended) in the Community Development Department at Merriam City Hall.

Permits

A building permit is required to construct, repair or replace a deck. A drawing showing the structural members of the deck must be provided as well as a site plan to show the location of the deck with respect to the property lines and the building. Permits may be obtained in the Community Development Department at City Hall. Fees are based on the fair market value of the work being done (labor and materials).

Setbacks

The following setbacks are the minimum requirements for R-1, R-2, R-3, and R-4 zoning districts and are measured from the property line:

- Front Yard — 30 feet
- Rear Yard — 25 feet
- Side Yard — 7 feet

Yards abutting a street as in the case of a corner lot are defined as front yards by City ordinance and must meet front yard setbacks.

Building Code Requirements

Decks must be constructed of a naturally decay-resistant material or a pressure-treated lumber (ACQ), and be designed to support a life load of 40 psf.

All overhead power lines must be located at least 10 feet above and 3 feet horizontally from the deck floor.

Decks are required to bear on concrete footings or piers that extend 36 inches below ground level.

Any deck surface, or the open side of any stairway, measuring 30 inches or more above the ground shall be provided with a guardrail no less than 36 inches in height. If steps are provided, the width must be 36 inches minimum. The maximum rise of each step is 7-3/4 inches and the minimum tread depth is 11 inches. The largest tread run without a single flight of stairs may not exceed the smallest by more than 3/8 inch. If a stairway includes 3 or more risers, a handrail placed 34 to 38 inches above the tread shall be provided.

Handrails and guardrails must also conform to requirements state in the section below (Other Requirements).

Inspections

Required inspections:

- Footings or Piers — prior to concrete placement
- Framing & Final — A separate framing inspection is not necessary if the under floor framing and connections can be easily inspected during the final inspection.

Inspections are scheduled with the Community Development Department at (913)322-5520.

Inspections are scheduled with the Community

Floor Joist Spans

Maximum unsupported length –feet-inches 2006 IRC Span 502.3.1(2)

Floor Joist Spacing	ACQ Treated Lumber No. 2				Western Cedar No. 2			
	2 x 6	2 x 8	2 x 10	2 x 12	2 x 6	2 x 8	2 x 10	2 x 12
12 inches	10'-9"	14'-2"	18'-0"	21'-9"	9'-2"	12'-1"	15'-5"	28'-1"
16 inches	9'-9"	12'-10"	16'-1"	18'-10"	8'-4"	11'-0"	12'-6"	15'-10"
24 inches	8'-6"	11'-0"	13'-1"	15'-5"	7'-3"	8'-11"	NA	NA

Ledger Attachment to House Connections

Nails not permitted without engineered design.

- 3/8" lag screws or bolts may be used at 16" o.c. with floor joist spans not exceeding 7"-2".
- 3/8" lag screws or bolts may be used at 12" o.c. with floor joist spans not exceeding 9"-7".
- 1/2" lag screws or bolts may be used at 16" o.c. with floor joist spans not exceeding 10"-6".
- 1/2" lag screws or bolts may be used at 12" o.c. with floor joist spans not exceeding 14"-0".
- Ledger boards shall be attached directly against the rim joist or hardboard siding.
- Lag screws shall provide full penetration of the rim joist with a minimum length of 5 inches.
- Pilot holes 65% - 85% of the shank diameter required for lag screws larger than 3/8 inches.
- Minimum spacing between bolts and lag screws: 4 diameters (D) from ends, 4D between fasteners in a row 1.5 D between rows of fasteners, and 4D from edges.
- Doubling the number of fasteners will double the allowable span.

Other Requirements

- Guardrail minimum height is 36".
- Guardrails are not required where the deck is less than 30" above the grade.
- A 4" diameter sphere shall not pass through the space between the guardrail and the stair stringer.
- Heights for stair handrails are 34" minimum to 38" maximum.
- Columns are to be anchored to the pier (placing columns within the concrete may be accepted, but the wood will not last as long).

