

7/27/2020

A permit is required for any of the following conditions: Decks that are more than 30" above grade, attached to the house, or serve the front exit door.

Option #1: The Deck is Engineered

Plans are provided and stamped by a Colorado Licensed Structural Engineer. (check options on page 4)

Option #2: I am designing to code (current adopted International Residential Code)

I have used the code link below to design my plans per code to the best of my ability. (Fill out page 4)

Plans that do not meet code, will need to be re-designed / re-submitted or engineered.

Will the deck be attached to the house or self-supported?

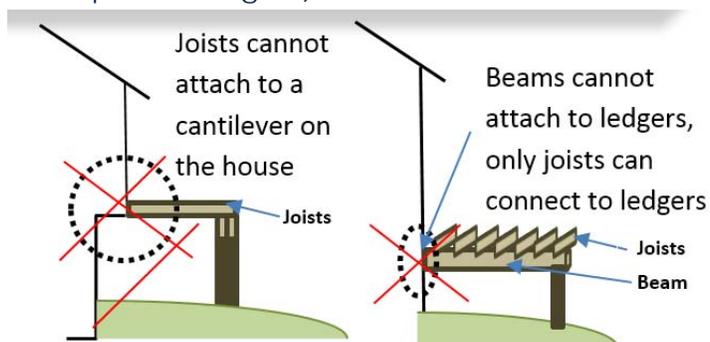
What is the area (square feet) of the proposed deck?

Code Access (2018 IRC & local amendments)

- <https://codes.iccsafe.org/content/IRC2018>
Chapter 5 - Section 507 Exterior Decks
- <https://www.fcgov.com/building/codes.php>

Engineered and stamped structural plans or letter is required for the following conditions:

1. Beam supported by hangers
2. Ledger attached to a cantilever/overhang on the existing house such as a bay window
3. Kits or pre-manufactured designs
4. Designs other than those presented in code.
5. Decks attached to brick, masonry or veneer.
6. Decks supporting a hot tub/pool.
7. Multi-story stacked decks
8. Steel decks that do not conform to section R505, including the use of steel beams, or steel decks for properties located West of Overland Trail (>140 mph wind region)



Submittal Checklist

Permit Application

Builder: Contractor or Homeowner Affidavit

Deck info filled out (page 4)

Site Plan (2 copies)

Floor Plan (2 copies)

Side view / elevation (2 copies)

Connection details (2 copies)

At least 1 before photo showing where the deck will be located.

Payment (check, cash, credit card)

Required Inspections

1. Setback and Footing (Pier Hole)
2. Foundation (post connections)
3. Rough Frame & Rough Electric
4. Final Inspection

Step A: Draw a site to scale (i.e.: 1" = 20'-0")

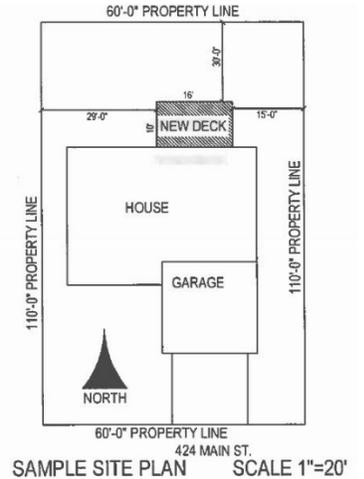
Show location of the new structure in relation to the house

Provide measurements from deck to property lines

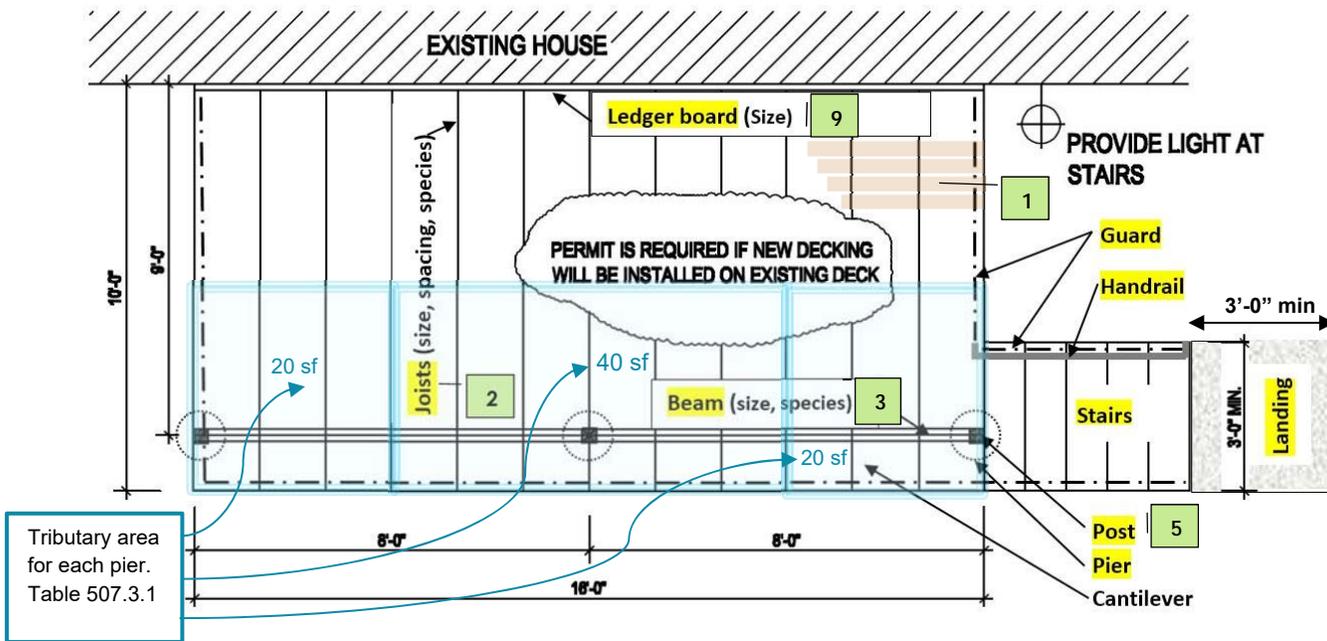
8.5x11 or 8.5x14 page size

Newer homes may have an existing site plan available through public records, which can be used to create the NEW site plan.

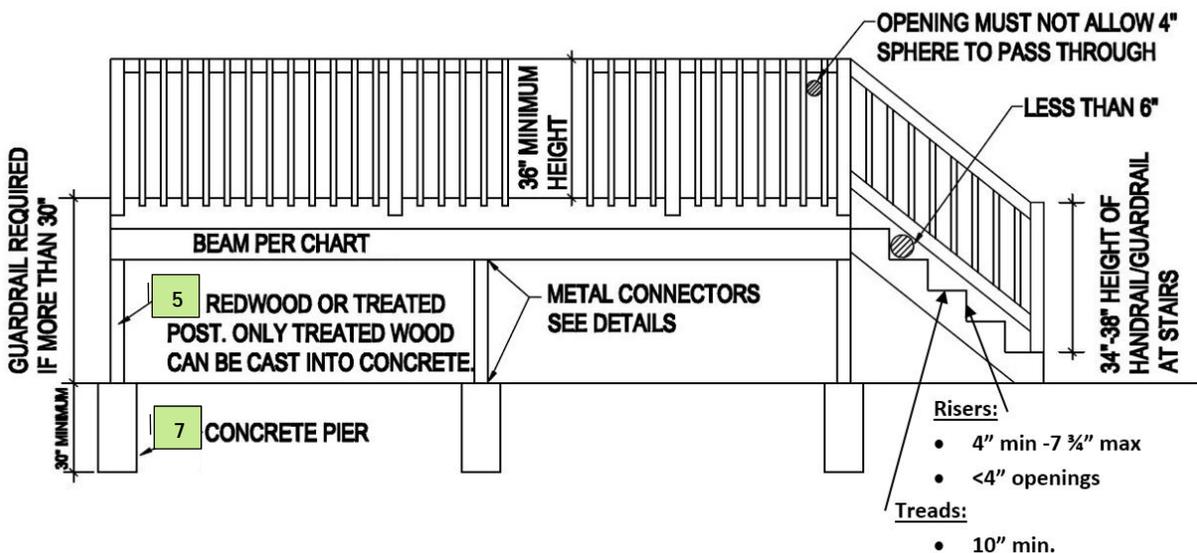
<http://citydocs.fcgov.com/>



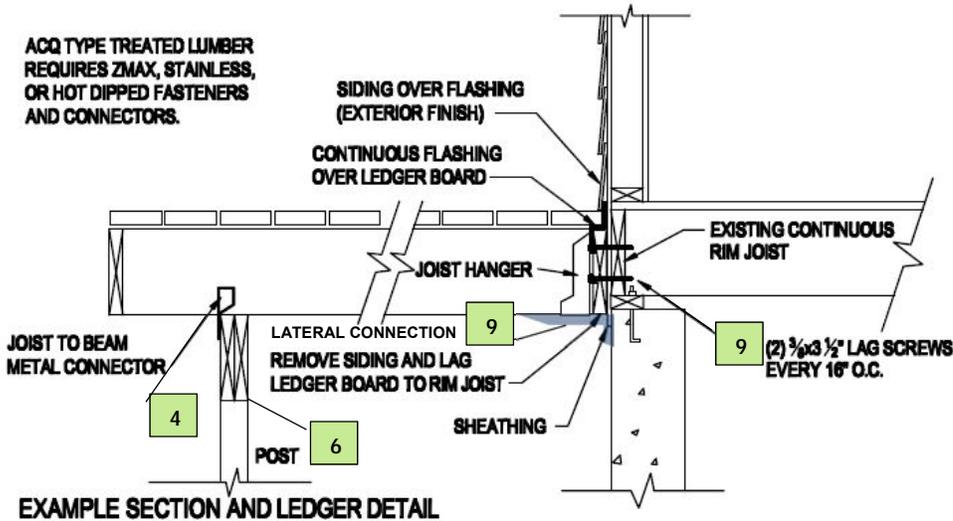
Step B: Draw a floor plan as if looking down from above.



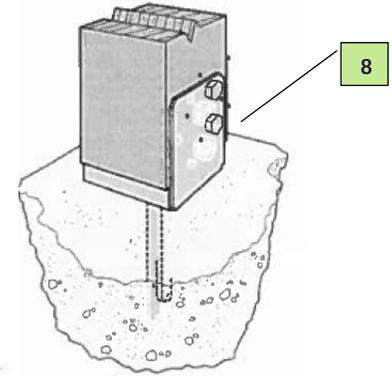
Step C: Draw an Elevation view (Side View)



Step D: Draw connection details showing how beams, joists, posts and piers are connected (see section 5 for code sections and examples)



Example - Post Base Connector



Code Safety List

1. Handrails are required on at least one side of the stairs where there are 4 or more risers (landing to landing) and must be graspable.

IRC Section: R311.7.8 – R311.7.8.6

2. Guards are required for fall protection where the deck is 30" or more above grade (measured at a point 5 ft away from the deck edge – local amendment to definition of grade).

Openings in guards cannot exceed 4 inches

IRC Section: R312.1.1 - R312.1.4 (For cable railing use

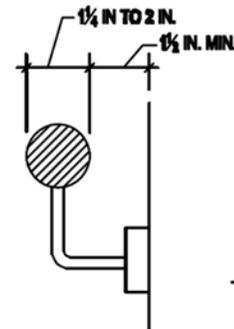
3" max spacing and a maximum of 4ft on center support post spacing).

3. Where decks are built over window wells that serve the required emergency escape and rescue opening (egress windows), a clear access height of 36" is required (measured from the top of the window well to the underside of the deck structure). **IRC R310.2.4**

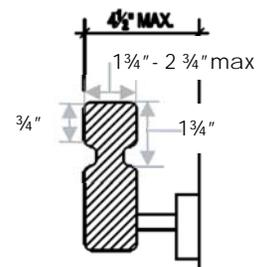
4. Exterior wet listed light is required at the top landing to illuminate stairs. **IRC Section R311.7.9**

5. A solid level landing is required at the bottom of exterior deck stairs sized 36" min deep (in the path of travel) x 36" min wide (or width of stair) level concrete landing is required at the bottom of exterior deck stairs. **IRC Section: R311.7.6**

Type I



Type II



Check one of the following:

I am submitting professionally engineered, stamped deck plans. I have confirmed that all of the following required fields are provided on the engineered plans. Any fields not provided on the plans have been filled out in the form fields below as needed (ie. deck height/ materials).

I am designing to code. All fields below must be filled out *and* noted on plans.

<https://codes.iccsafe.org/content/IRC2018> (chapter 5) <https://www.fcgov.com/building/codes.php>

Topic	Code Section	Fill in required items
1 Decking		
Material and orientation to joists	Table R507.7	
2 Joists		
Species and size of joists	Table 507.6	
Span/length of joists	Table & Figure R507.6	
Do the joists cantilever? If so, how far?	Figure & Table R507.6 (right column in table)	
Spacing of joists (measured center to center)	Table R507.6	
3 Beams		
Wood Species and size of beam	Table R507.5	
Span/ length of beam between posts	Table R507.5	
Does the beam cantilever? How far?	Text Section R507.5	
4 Joists to beam connections (See Step D)		
Draw connection detail with fasteners	Figures R507.5.1- R507.5.2	Show on Plans
5 Posts		
What is the height of the deck	Table R507.4	
What is the size of the post	Table R507.4	
6 Beam to post connections (See Step D)		
Draw connection detail with fasteners	R507.5.1 & R507.5.1(2)	Show on Plans
7 Pier/Footing size (See Steps B & C)		
Required 30" min deep below grade	Local Frost Depth	30 inches min. Deep
Type of footing/piers	Text R507.3 & Figure R507.3	Show on plans
Size of footing/piers	Table R507.3.1 Use 40psf snow load Use 1,500 psf Soil Bearing	
8 Post to pier/footing connections (See Step C)		
Show connection details on plans	R507.4.1 & R507.3	Show on plans
9 Ledger /Band joist Connection		
How will the joists connect to the house?	Section R507.8 - 507.9.2 & Table R507.2.3	Show on plans