

Proper planning of any construction project is essential to assure enjoyment of the finished product. This bulletin is designed to assist the builder in planning the construction of an open wood deck. The question that is most often asked concerns the foundation and above ground support for the project. Many times it becomes a problem when, at some future date, the owner decides to install a roof over an open deck or to make a room by enclosing the area.

Building Permits are **not** required for open decks that do not exceed 200 square feet in area, are not more than 30 inches above grade at any point, are not attached to the dwelling and do not serve the exit door required by Section R311.4 of the 2018 IRC. However, you would have to contact the Pinal County Community Development Zoning Division (520-866-6442) for their requirements prior to construction. With the lack of approved drawings, permit and inspection, there is often no way for Building Safety to advise prospective builders of the minimum requirements for any loads, such as enclosure walls and roof structures, which the deck may be asked to support at a future date. **Enclosure walls and roof structures as well as decks that are over 30 inches above finished grade do require building permits, see Figure C page 3.** *Bulletin 004, Submittal Requirements*, describes what is necessary to obtain a permit.

Because of the many and varied ways of constructing a deck, the following is only a suggested method, but it should give you an idea of what to plan for. Figures A and B on page 2 refer only to projects that will not be covered or enclosed. If the deck is supporting a roof load or an enclosure load, a whole different foundation system is usually required. Different spans of framing members, sizes of posts, beams, joists and decking may require additional planning. If there are questions about your particular project, be sure to call the Building Safety division or visit an office for assistance.

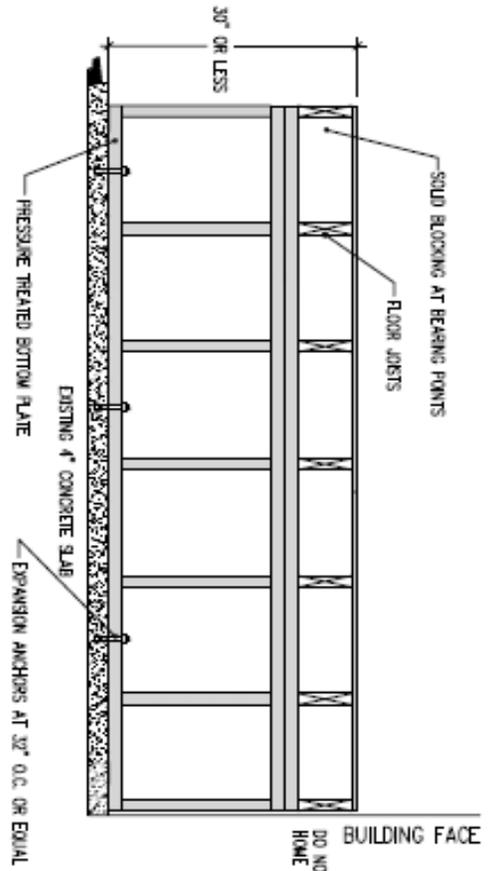
A

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PINAL COUNTY BUILDING SAFETY

BULLETIN 013

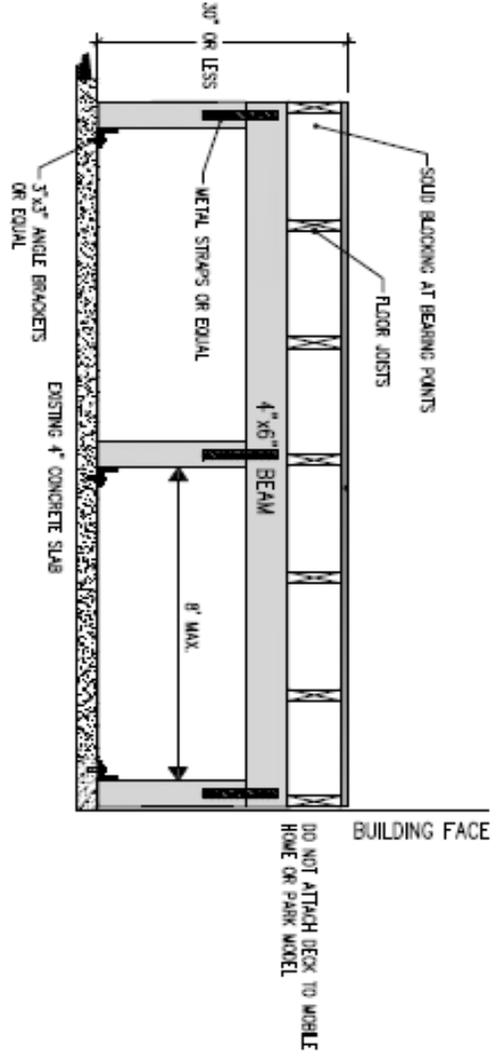
OPEN DECK 30" OR LESS ABOVE GRADE



STANDARD RESIDENTIAL DECK 30" OR LESS ABOVE FINISH GRADE FOUNDATION WALL DESIGN SCALE: N.T.S.

B

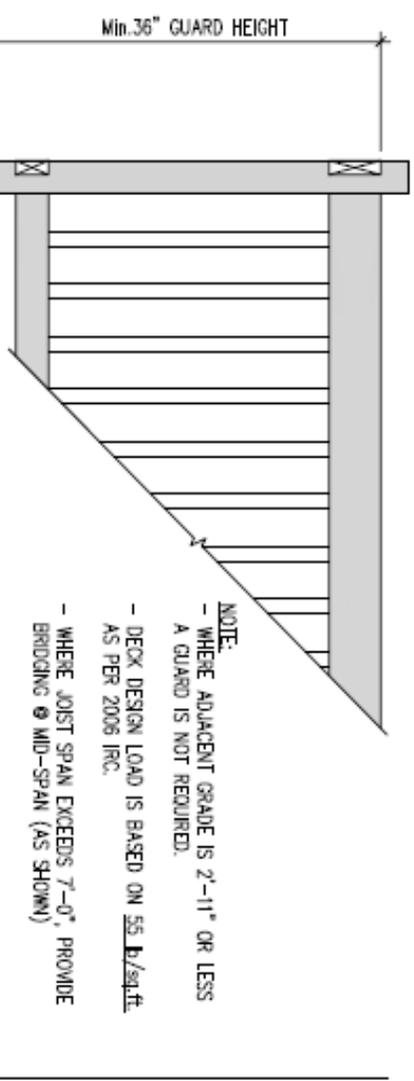
OPEN DECK 30" OR LESS ABOVE GRADE



STANDARD RESIDENTIAL DECK 30" OR LESS ABOVE FINISH GRADE POST AND BEAM DESIGN SCALE: N.T.S.

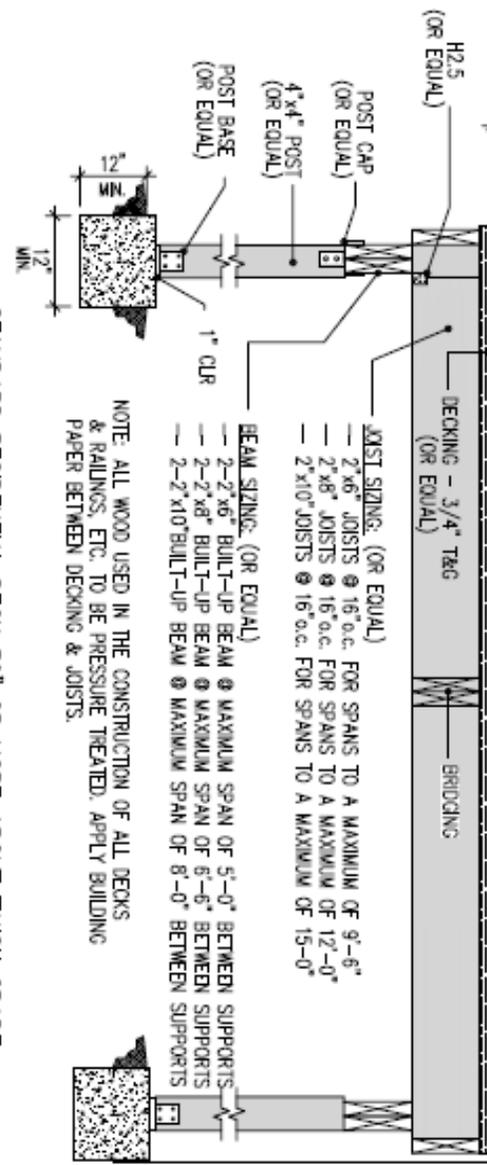
**C**

**NOTE:**  
 Continuous handrails shall be installed full length, a minimum height of 34" and a maximum height of 38" above the nose of the tread at stairs with four or more risers. The minimum rise per step is 7 3/4" and the minimum depth is 10". The greatest riser height in any one set of steps shall not exceed the smallest by more than 3/8".



**NOTE:**  
 - WHERE ADJACENT GRADE IS 2'-11" OR LESS A GUARD IS NOT REQUIRED.  
 - DECK DESIGN LOAD IS BASED ON 55 lb/sqft. AS PER 2006 IRC.  
 - WHERE JOIST SPAN EXCEEDS 7'-0", PROVIDE BRIDGING @ MID-SPAN (AS SHOWN)

BUILDING FACE  
 DO NOT ATTACH DECK TO MOBILE HOME OR PARK MODEL



**JOIST SIZING: (OR EQUAL)**  
 - 2x6" JOISTS @ 16" o.c. FOR SPANS TO A MAXIMUM OF 9'-6"  
 - 2x8" JOISTS @ 16" o.c. FOR SPANS TO A MAXIMUM OF 12'-0"  
 - 2x10" JOISTS @ 16" o.c. FOR SPANS TO A MAXIMUM OF 15'-0"

**BEAM SIZING: (OR EQUAL)**  
 - 2-2x6" BUILT-UP BEAM @ MAXIMUM SPAN OF 5'-0" BETWEEN SUPPORTS  
 - 2-2x8" BUILT-UP BEAM @ MAXIMUM SPAN OF 6'-6" BETWEEN SUPPORTS  
 - 2-2x10" BUILT-UP BEAM @ MAXIMUM SPAN OF 8'-0" BETWEEN SUPPORTS

**NOTE: ALL WOOD USED IN THE CONSTRUCTION OF ALL DECKS & RAILINGS, ETC. TO BE PRESSURE TREATED. APPLY BUILDING PAPER BETWEEN DECKING & JOISTS.**

STANDARD RESIDENTIAL DECK 30" OR MORE ABOVE FINISH GRADE  
 SCALE: N.T.S.