

## INFORMATION REQUIRED FOR DECK PLANS

I. Site Plan **DRAWN TO SCALE** Showing:

- A) Distances from property lines to deck
- B) Location relative to house

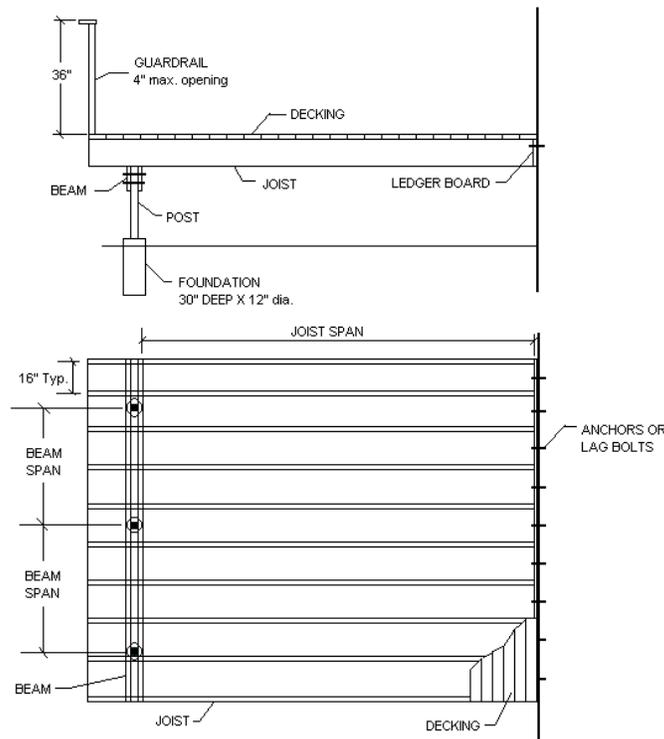
II. Plans **DRAWN TO SCALE** Showing:

- A) Overall Dimensions
- B) Post Locations with Dimensions
- C) Beam Locations and Size
- D) Joist Size, Spacing & Direction
- E) Decking Material (Floor)
- F) Connection to House, Including Bolt Size & Spacing
- G) Foundations for Posts (30" Deep Minimum)
- H) Stair Details:
  - 1) Tread & Riser Dimensions
  - 2) Stringer Size
  - 3) Method of Attaching Treads to Stringers
  - 4) Handrail height & Size
- I) Guardrail Details
  - 1) Height & Size
  - 2) Spindle Size & Spacing or Other Guard Details (Maximum 4" Opening)

# BUILDING A DECK?

## HERE ARE SOME DECK BUILDING BASICS

A deck is basically a floor structure supported on posts. Loads on the deck from people, furniture, snow, etc. are transferred from the decking, onto joists, to beams, down posts, to foundations and into the soil below. All of these components play an important role in the function of the deck and must be sized and constructed properly to make the deck safe. Because we construct a deck from the ground up, let us begin at the bottom.



## SOIL AND FOUNDATIONS

Deck piers must extend down to frost line (30") and be large enough in diameter to support 1000 to 3000 pounds concentrated on them by the posts. The soil must be stiff and water removed from the holes before placing concrete. Deck posts should never be placed on an existing patio. Frost heave and the heavy concentrated loads may cause movement and premature failures.

## POSTS

Typically posts are 4X4 lumber, however on higher decks, many builders will use 4X6 or 6X6 lumber. Posts must be securely anchored to the foundations or embedded in the concrete.

## BEAMS

Because of the flexibility of deck designs, it is difficult to give a basic rule of thumb for sizing beams. The beam size is dependent on the beam span, the number of beams proposed and the span of joists resting on them. Beams rest on top of the posts or are attached to the posts with bolts.

## JOISTS

Joists are spaced at regular intervals; the most common spacing is 16". The following is a joist span table for sizing your joists. This can be used for #2 pressure treated SYP lumber at 16" spacing:

JOIST SIZE @ 16" SPACING	MAXIMUM JOIST SPAN
2x6	9 feet 9 inches
2x8	12 feet 10 inches
2x10	16 feet 1 inch
2x12	18 feet 10 inches

Many times the joists are connected to the house by attaching a ledger board with lag bolts into wood or anchors into concrete. The joists are typically connected to the ledger board using metal joist hangers.

## DECKING

The deck surface is normally constructed of 2X4 or 2X6 lumber or 5/4 X 4 or 5/4 X 6 rounded-edge deck boards butted together. End joints for the decking should fall over a joist.

## GAURDRAILS

All decks that are 30" or more above the ground must have a minimum 36" high guardrail. This guardrail must have intermediate members that prevent the passage of a 4" ball. Guardrails typically use closely spaced balusters (thin vertical members) or criss-crossed lattice to meet this requirement.

## STAIRS

Stairs must be stable and have 8.25" maximum risers (vertical dimension of each step) and 9" minimum treads (the part you step on). If the stair has 3 or more risers

it must have a handrail. Open risers must not permit passage of a 4" sphere where they are 30" or more above grade

### MATERIALS

Decks in our area are typically constructed of pressure treated lumber. Deck surfacing materials are also available in an approved composite material. Both of these types are resistant to rot and decay. Nails, bolts and screws are hot-dipped galvanized or stainless steel to resist rust.

Please remember that the Springdale Building Department requires a permit to construct or replace a deck and we are always available to answer any questions you may have about your deck project.