

Acceptable Spans for Girders and Joists

- **GIRDERS:** Note - Any joints in girder must be directly above the support columns.
Southern Pine # 2, Pressure Treated:

MAXIMUM SPAN FOR ONE STORY		TWO STORY
2 (2" X 6")	5' - 0"	4' - 0"
3 (2" X 6")	6' - 0"	5' - 2"
2 (2" X 8")	6' - 4"	5' - 6"
3 (2" X 8")	8' - 0"	7' - 0"
2 (2" X 10")	8' - 0"	7' - 0"
3 (2" X 10")	9' - 0"	8' - 0"
2 (2" X 12")	9' - 0"	8' - 0"

- **FLOOR JOIST:**

Southern Pine # 2, Pressure Treated: Live load = 40 psf, Dead load = 10 psf, L/360

Size	Spacing	Maximum Clear Span
2" X 6"	16" on center	8'-9"
2" X 6"	12" on center	9'-8"
2" X 8"	16" on center	11'-6"
2" X 8"	12" on center	12'-9"
2" X 10"	16" on center	14'-9"
2" X 10"	12" on center	16'-1"
2" X 12"	16" on center	16'-11"
2" X 12"	12" on center	19'-6"

CANTILEVERS:

Cantilever Spans for Floor Joists Supporting Exterior Decks

Member Size	Spacing	Maximum Cantilever Span (Uplift Force at Backspan Support in lb) ≤ 30 psf Ground Snow Load
2 X 8	12"	36" (139#)
2 X 8	16"	30" (151#)
2 X 10	12"	50" (164#)
2 X 10	16"	45" (180#)

Ratio of Backspan to Cantilever span shall be at least 2:1. Connections capable of resisting the indicated uplift force shall be provided at the Backspan support. Solid blocking shall be provided at the cantilevered support.

- **LEDGER:** Board against house securely attached with ½ inch diameter galvanized lag screws of sufficient length to bolt firmly into rim joist, sill, studs or foundation. Holes drilled or bored in ledger shall not be within 2 inches of the top or bottom of the ledger. Lag screws shall be spaced in a staggered pattern per the table below. Provide two lag screws one above the other, at each end. Provide galvanized washers between

heads of lag screws and wood. Thru bolts with washers and nuts and washers on the inside are also acceptable.

On-center spacing of fasteners - Ledger Board to house				
Fastener	Joist Span			
	10 Feet	12 Feet	14 feet	16 Feet
1/2 Inch Hot Dipped Galvanized or Stainless Steel Lag Screw w/ washer	18"	15"	13"	11"
1/2 Inch Hot Dipped Galvanized or Stainless Steel Through Bolt w/ washers	34"	29"	24"	21"

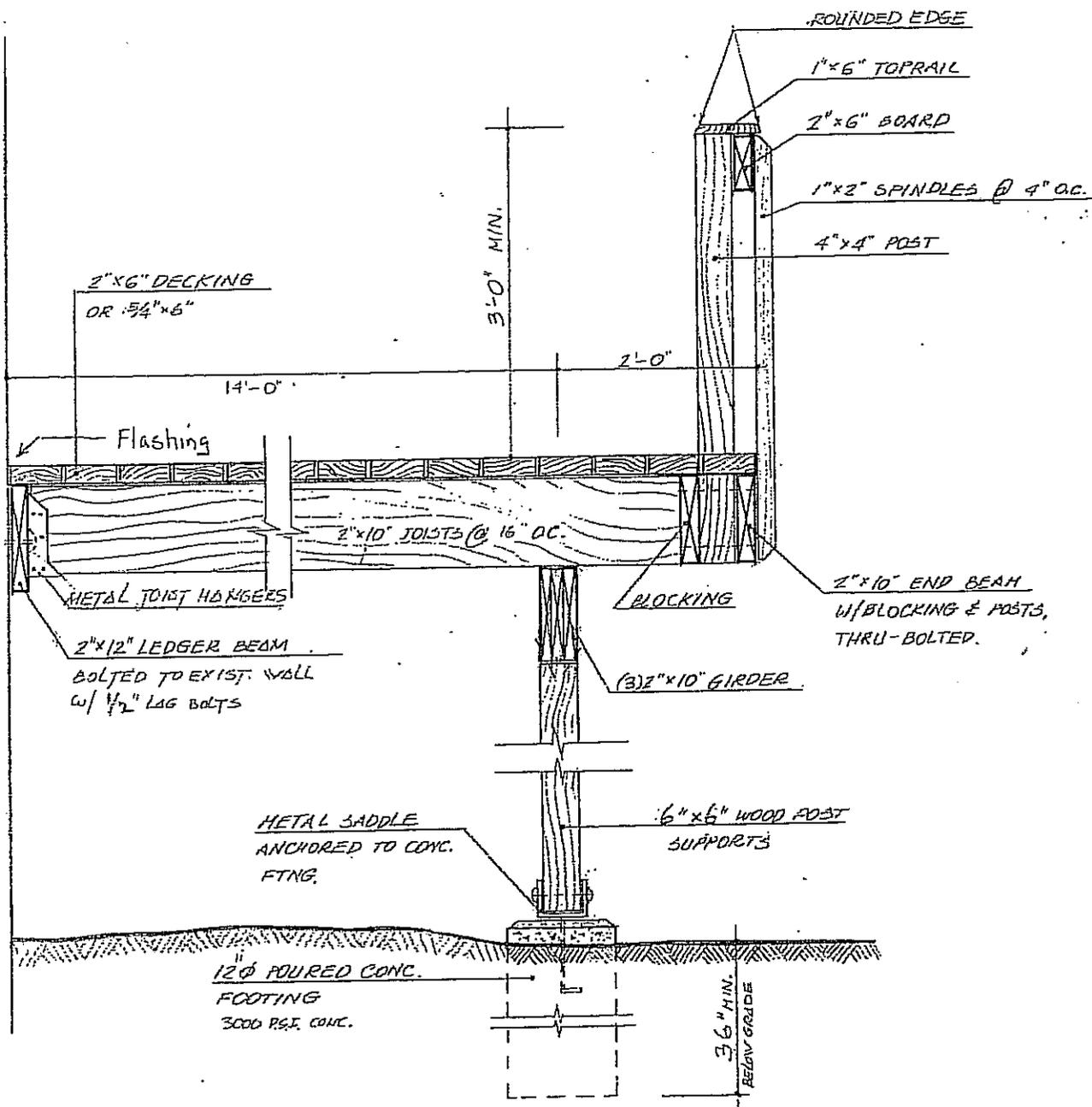
- FLASHING:** Provide continuous corrosion-resistive flashing along ledger in such a manner as prevent the passage of moisture into the wall of any untreated wood or wood siding. Non-clad aluminum flashing can no longer be used with ACQ treated lumber. Copper, copper clad, stainless steel or heavy UV resistant plastic may be used.

Exception: Not required if against vinyl siding, metal siding or masonry. In this case provide shims as not to crush siding when bolts are tightened.
- FASTENERS and CONNECTORS:** All fasteners, nails, screws, bolts, related hardware and framing connectors used with ACQ lumber must be hot dipped zinc coated galvanized steel, stainless steel, silicon bronze or copper. Electroplated galvanized fasteners and connectors are not to be used with ACQ lumber.
- GUARDS:** To be at least 36" above decking that is 30 inches or more above grade, and have balusters or other construction such that sphere with a diameter of 4 inches cannot pass through any opening. Exception: Openings for required guards on the sides of stairs treads shall not allow a sphere 4 3/8 inches to pass through. Guards shall be designed and constructed for a concentrated load of 200 pounds applied at any point and in any direction along the top railing member. The in-fill area of a guard system shall be designed and constructed for a horizontal concentrated load of 50 pounds applied on a one square foot area at any point in the system, including intermediate rails or other elements serving this purpose. All stairways with a vertical rise of more than 30 inches are required to have guards on both sides measuring 34 inches or more in height above the leading edge of the tread. The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such size that a sphere 6 inches cannot pass through.
- STAIRWAYS:** Minimum stairway width is 36 inches. Maximum riser height is 8 1/4 inches. Minimum tread depth shall be 9 inches with a one inch nosing.(10"minimum.) A nosing of not less than 3/4 inches but not more than 1 1/4 inches shall be provided on stairways with a solid riser where the thread depth is less than 11 inches. Solid risers are not required provided that the opening between treads does not permit the passage of a sphere with a diameter of four (4) inches. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches or less.

- **DIMENSIONAL UNIFORMITY:** There shall not be a variation exceeding 3/8" in the depth of adjacent treads or in the height of adjacent risers. The tolerance between the largest and smallest riser or between the largest and smallest tread shall not exceed 3/8" in any flight of stairs.
- **LATERAL BRACING:** If deck is far enough above ground to cause it to sway, diagonal bracing is to be installed between girder and posts.
- **HANDRAILS:** All exterior stairways with four or more risers require a continuous handrail on at least one side of the stairway. All stairway handrails shall have a cross section not greater than 2 5/8 inches or must provide equivalent graspability that will enable the thumb and other fingers to go around the handrail and oppose each other. Handrails to be smooth and free of any sharp edges or splinters. Handrails shall be continuous the full length of the stairs. The handrail ends shall be returned to a flat surface or terminate at a post. A handrail and any wall or other surface adjacent to the handrail shall be free of any sharp or abrasive elements. The clear space between the handrail and adjacent wall or surface shall not be less than 1 1/2 inches. Edges shall have a minimum radius of 1/8 inch. Exterior handrails shall not be less than 30 inches nor more than 38 inches, measured vertically, above the leading edge of the treads.
- **SLOPES:** The grade away from foundation walls shall fall a minimum of 6 inches within the first 10 feet. Exception: Where slopes or other physical barriers prohibit 6 inches of fall within 10 feet drains or swales shall be provided to ensure drainage away from the structure.
- **EXIT FACILITIES:** Exterior exit balconies, stair or similar exit facilities shall be positively anchored to the primary structure to resist both vertical and lateral forces. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal.

REQUIRED INSPECTIONS:

1. The bottom of footings before placement of concrete.
2. Frame/Flashing/Ledger Attachment - before covering with decking.
3. Final

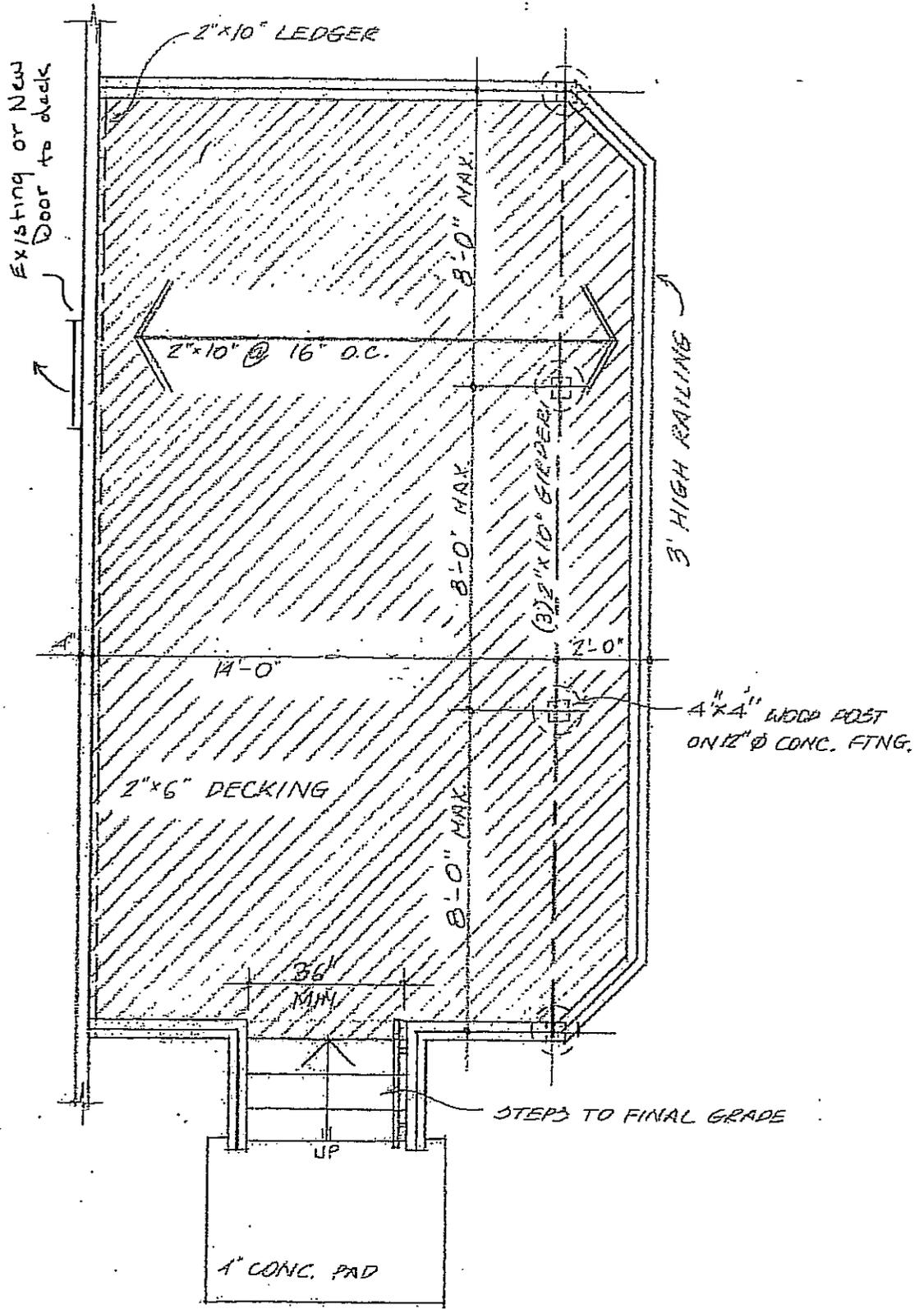


TYPICAL DECK SECTION

- * ALL DECK LUMBER TO BE WOLMANIZED
- * ALL NAILS & METAL PARTS TO BE GALVANIZED

SAMPLE

SAMPLE



TYPICAL DECK PLAN