

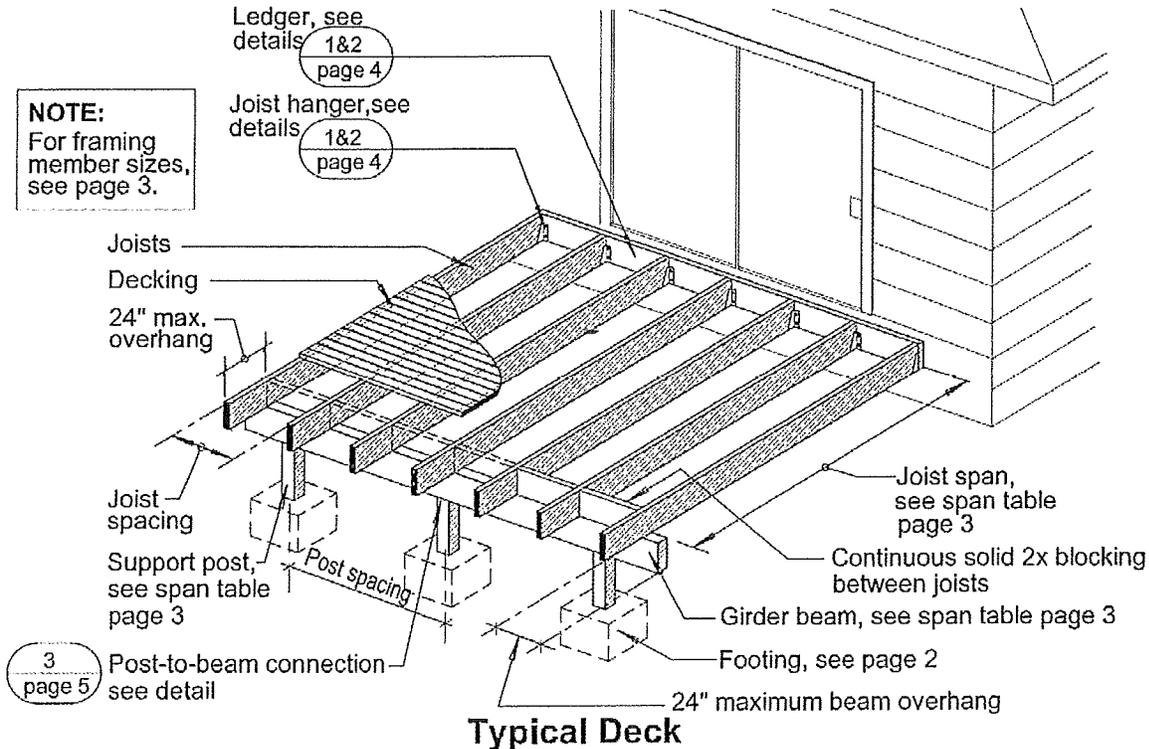


# BUILDING DEPARTMENT TIP SHEET

## BASIC DECKS

### Submittal Requirements:

1. Two Site Plans showing dimensions of your deck and its relationship to existing buildings or structures on the property and the distance to exiting property lines drawn to scale. Include the project address on the drawings.
2. Two Plans showing the framing layout of your deck.
3. Fill out a building permit application.
4. If your deck will occur on a steep slope, please contact your local building department for additional requirements.



**Typical Deck**

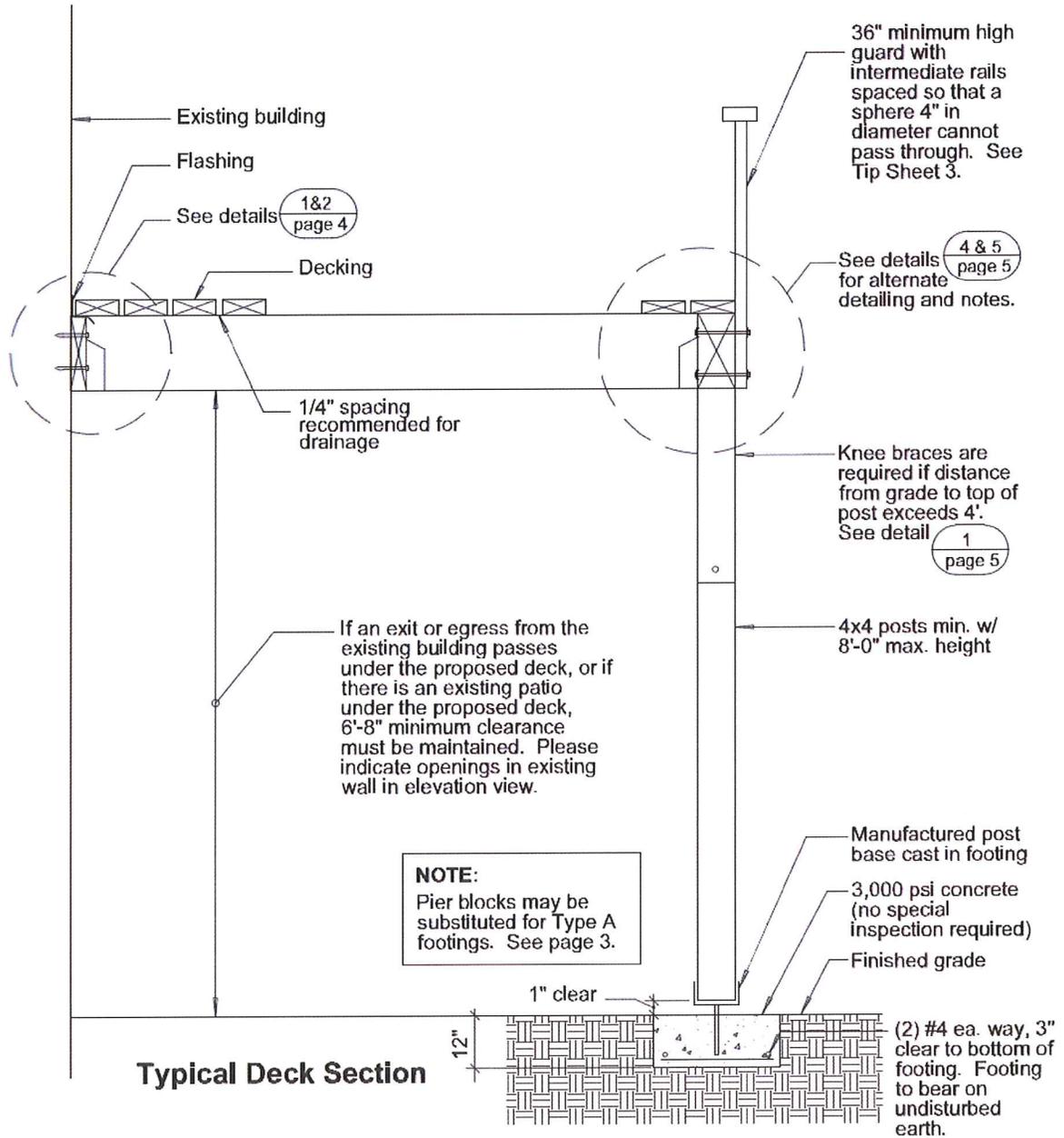
### Deck Construction Notes:

1. The illustrations and information in this tip sheet may be used for decks whether or not they require a permit.
2. All wood must be pressure treated or naturally resistant to decay. Treat all cut ends with end-cut solution. Use ground contact treated wood.
3. Fasteners, hangers, nails, etc., must be stainless steel, hot-dipped galvanized, or as specifically required for the specified wood preservative used. The coating weights for zinc-coated fasteners to be in accordance with ASTM A 153. Provide documentation in the field showing the required fastener protection considering the wood chosen for your deck.
4. You may modify any components of the tip sheet with justification by analysis or calculation. Any modifications must be reviewed prior to permit issuance.
5. See Tip Sheet 1 for stairs, 2 for handrails, and 3 for guards.
6. This tip sheet is intended to represent good construction practices for deck construction and related IRC requirements.
7. All wood assumed to be Hem-Fir #2 or better.

### GENERAL INFORMATION:

- Consult with your local planning department regarding required setbacks.
- Obtain a building permit before starting construction.
- The intent of this tip sheet is to address the basics of private residential deck construction only and does not address the subject in great detail. Additional information can be found at your local building department, home improvement store, or library.

## Residential Deck Requirements #R13



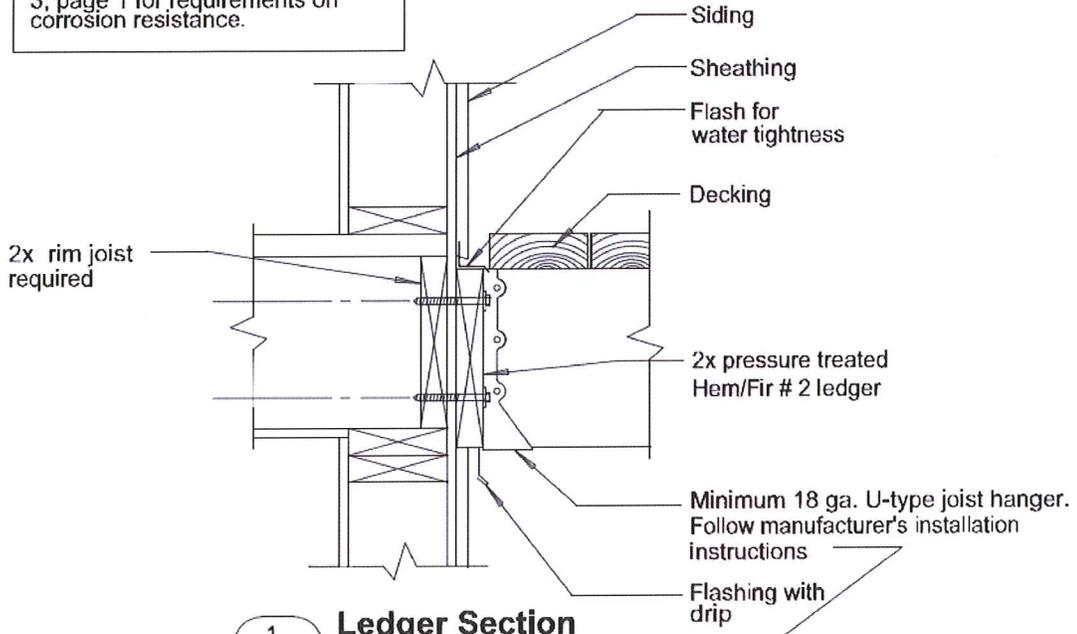
### Construction Tip Sheet—Basic Decks

## Residential Deck Requirements #R13

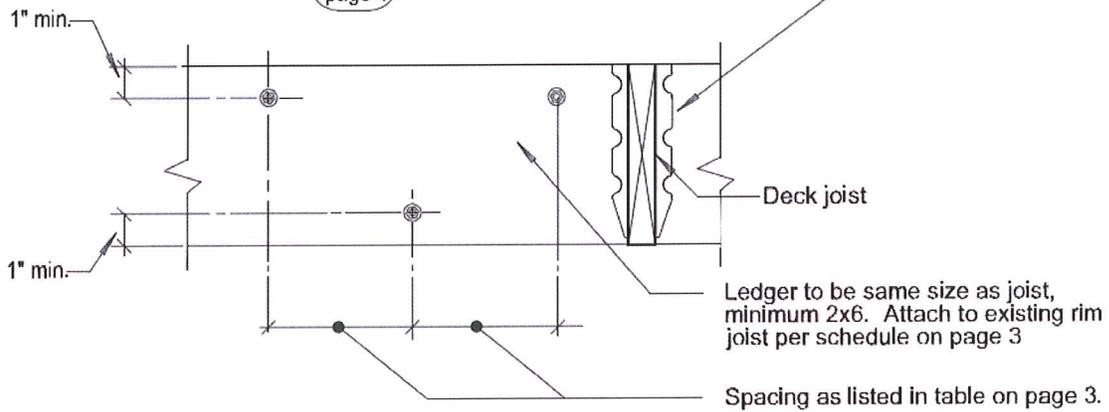
<b>Span Table Footing Schedule For Outside Decks</b>									
Spans based on use of No.2 Hem-Fir or better									
50 p.s.f. loading (10 p.s.f. Dead Load, + 40 p.s.f. Live Load, + 20 p.s.f. Snow Load)									
Beam spans and footings assume maximum 24" overhang									
Joist size	Spacing of joists	Max. span of joists	3/8 x 4 1/2" lag screw max. spacing on 2x ledger	Max. span of girder beams between posts / footing type					
				4x6	Footing	4x8	Footing	4x10	Footing
2X6	@ 12 in	9 ft - 10 in	5 in	5 ft - 5 in	B	7 ft - 2 in	B	8 ft - 10 in	C
	@ 16 in	8 ft - 9 in	6 in	5 ft - 8 in	B	7 ft - 6 in	B	9 ft - 2 in	B
	@ 24 in	7 ft - 1 in	7 in	6 ft - 1 in	B	8 ft - 0 in	B	9 ft - 10 in	B
2X8	@ 12 in	12 ft - 9 in	4 in	4 ft - 11 in	B	6 ft - 6 in	B	8 ft - 0 in	B
	@ 16 in	11 ft - 1 in	5 in	5 ft - 2 in	A	6 ft - 11 in	B	8 ft - 5 in	C
	@ 24 in	9 ft - 0 in	5 in	5 ft - 7 in	B	7 ft - 5 in	B	9 ft - 1 in	B
2X10	@ 12 in	15 ft - 7 in	3 in	4 ft - 7 in	B	6 ft - 0 in	B	7 ft - 5 in	C
	@ 16 in	13 ft - 6 in	3 in	4 ft - 10 in	A	6 ft - 5 in	B	7 ft - 10 in	C
	@ 24 in	11 ft - 0 in	4 in	5 ft - 3 in	B	6 ft - 11 in	B	8 ft - 5 in	B
<b>FOOTING TYPES</b>									
TYPE	SIZE	NOTE:							
A	12" x 12" x 12"	Pier blocks may be substituted for Type A footings							
B	16" x 16" x 12"								
C	18" x 18" x 12"								
Footing sizes based on assumed soil bearing pressure of 2000 p.s.f. Contact your jurisdiction for additional restrictions.									
<b>Deck Construction Connections</b>									
All fasteners, nails, bolts, screw, etc. must be corrosion resistant. See Deck Construction Note 3, page 1.									
Follow manufacturer's instructions for timber connectors.									
Connections								Nailing	
1	Joist on deck beam; toenail each end							(3) 8d	
2	Bridging or blocking to joist; toenail ea. Side, ea. end							(3) 8d	
3	2x decking to joist or deck beam; blind and face nail							(2) 16d	

### Construction Tip Sheet—Basic Decks

**NOTE:**  
Refer to Deck Construction Note 3, page 1 for requirements on corrosion resistance.

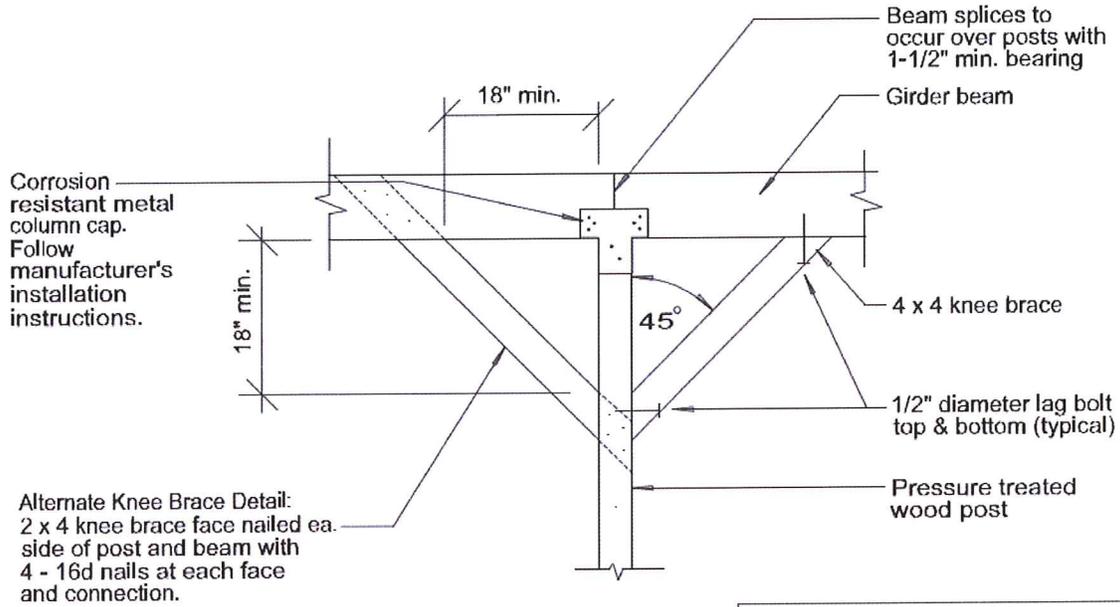


1  
page 4  
**Ledger Section**



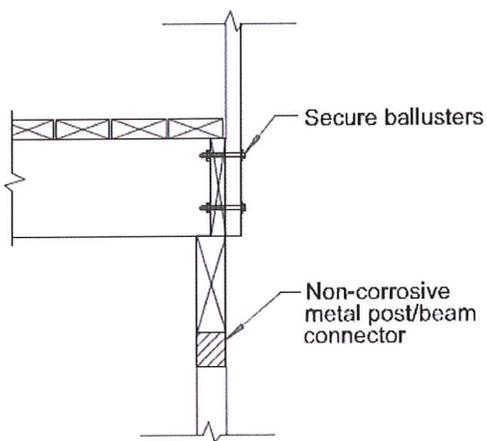
2  
page 4  
**Ledger Elevation**

**Residential Deck Requirements #R13**

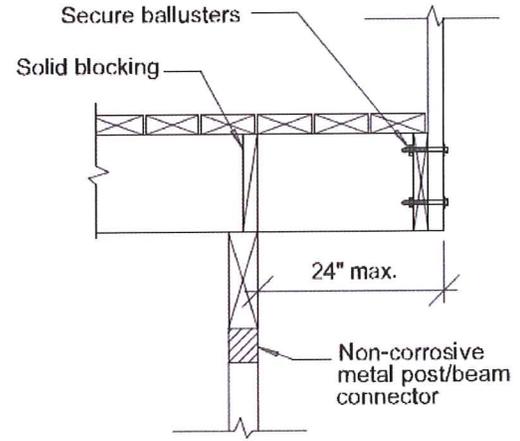


3 **Knee Brace Detail**  
page 5

**NOTE:**  
Knee braces are required if distance from grade to top of post exceeds 4 feet.



4 **Alternate Joist-to-Beam Condition**  
page 5



5 **Alternate Joist-to-Beam Condition**  
page 5

Residential Deck Requirements #R13

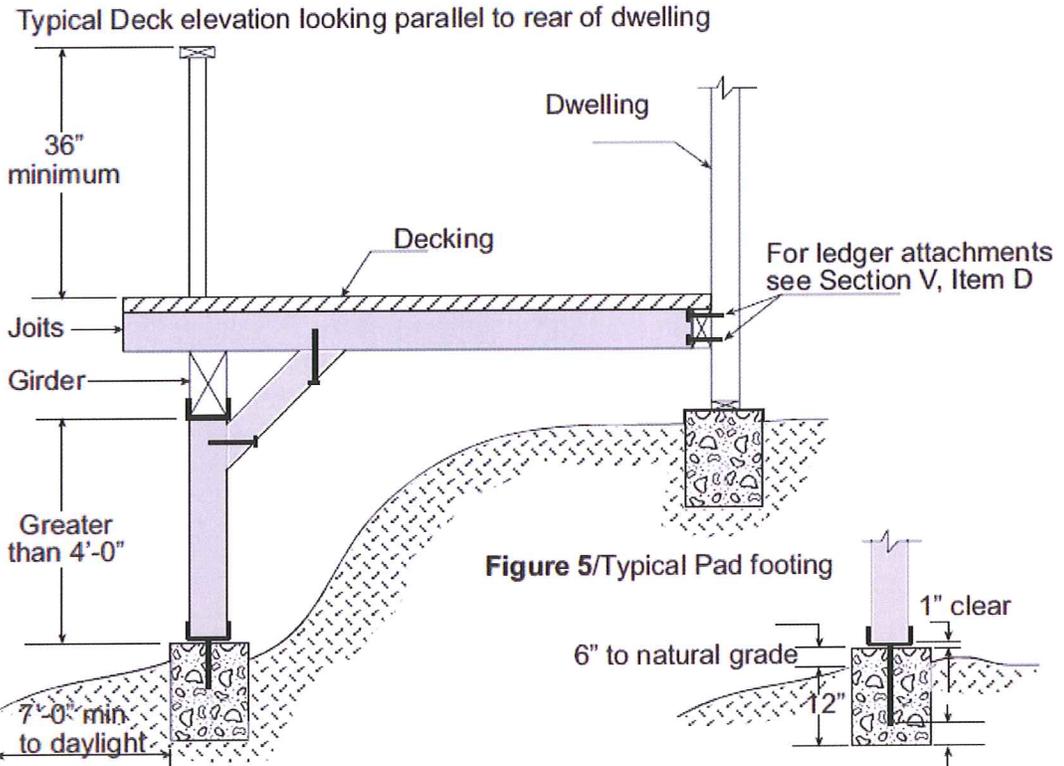


Figure 5/Typical Pad footing

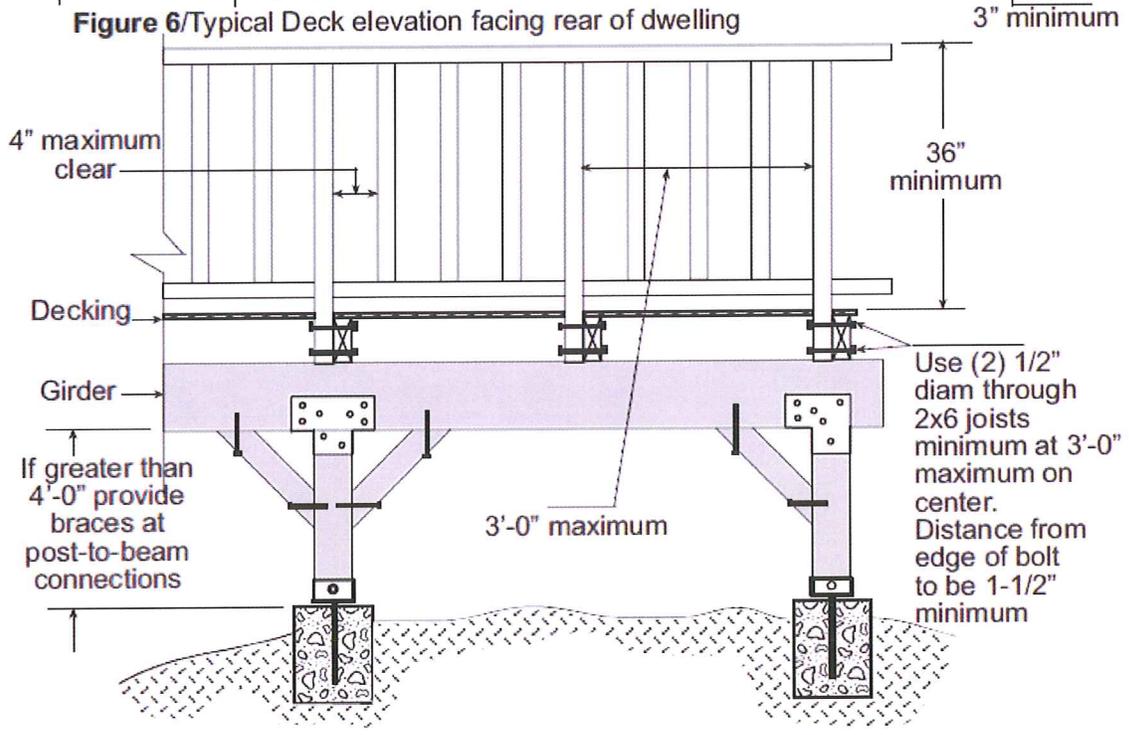


Figure 6/Typical Deck elevation facing rear of dwelling

Construction Tip Sheet—Basic Decks

## Residential Deck Requirements #R13

### Tables

- The tables provide are for simple-span residential decks and include span tables for decks joists and girders, minimum pad footing sizes, and a nailing schedule.

### The following assumptions have been made

- Deck live load is 40 psf, snow load is an additional 20 psf, and deck dead is 8 psf.
- All wood assumed to be Hem-Fir #2 or better with minimum design stresses specified in the tables.
- All posts are to be 4X4 minimum.
- Soil bearing pressure is 1,000 psf minimum.

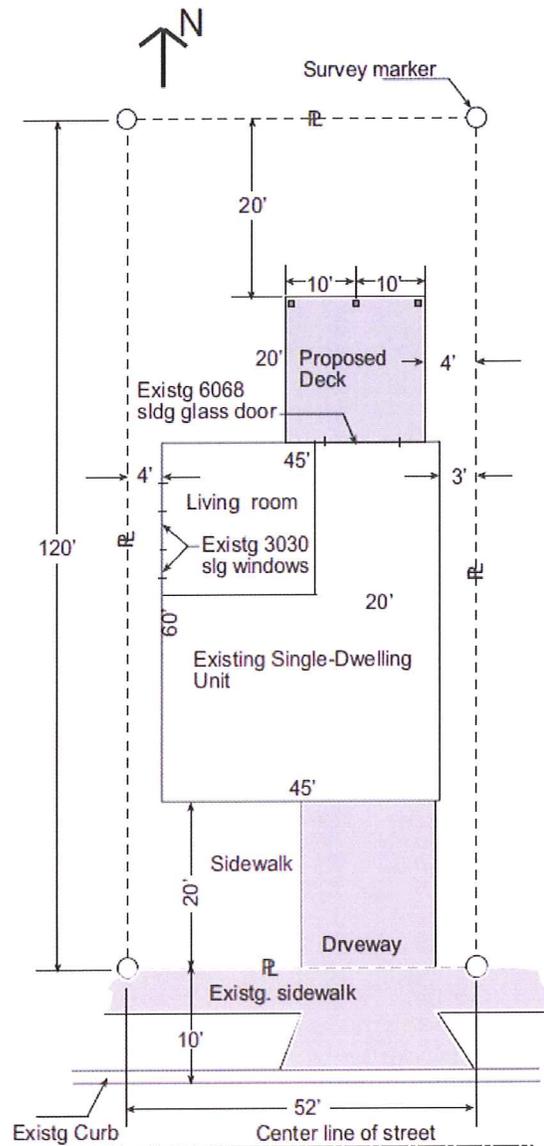
\*When the above assumptions do not apply to the proposed design, values in the tables must be adjusted.

### Table 1

Requirements for deck plot plan and partial floor plan

*Two copies of a site plan are required for a permit. Information on each of the following items must be included on the site plan.*

- Name of owner.
- Address and Accessor's Parcel Number (APN) where deck is to be built.
- North arrow and scale. Suggested scale: 1 inch equals 20 feet.
- Boundaries and dimensions of property.
- Names of bordering streets.
- Location and width of easements, if any.
- Location and dimensions of existing buildings, structures, retaining walls, paved parking, an driveways. Include distance from property line.
- Location and dimensions of proposed deck. Include distance to property line.
- Location and spacing of all posts and supporting deck.



Scale: 1 Inch equals 20 feet

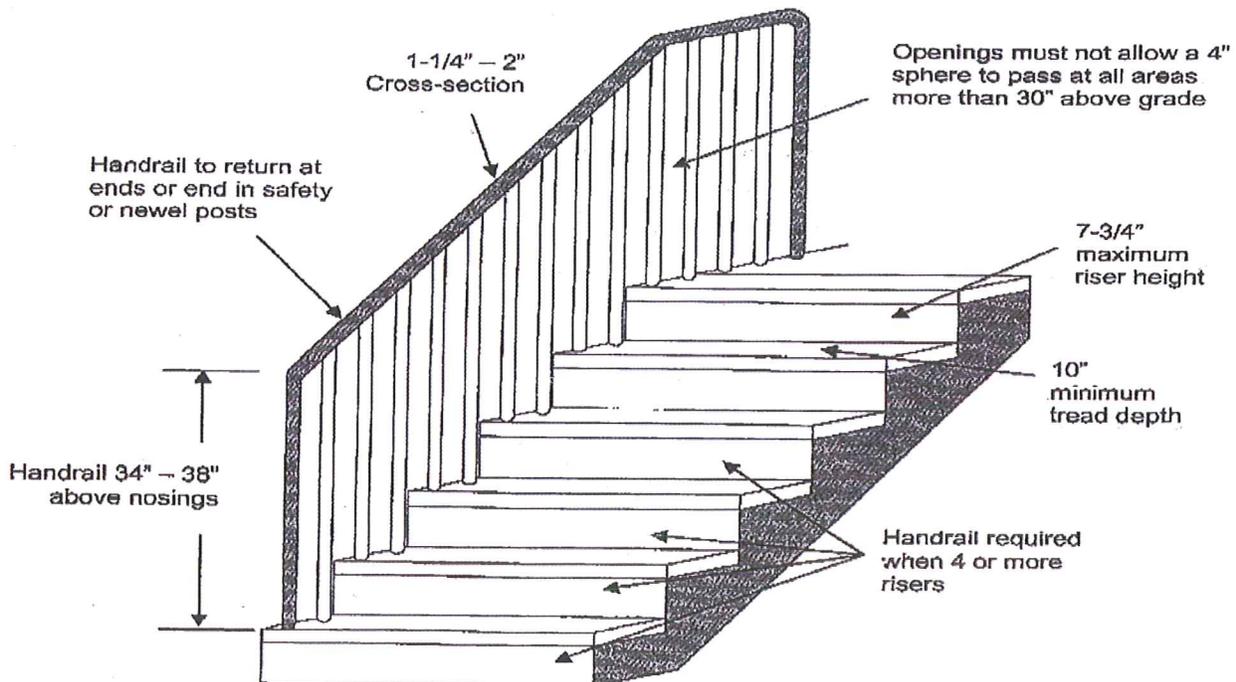
### Construction Tip Sheet—Basic Decks

### Design of Decks and Porches

- **Scope.** Exterior decks and porches that are attached to one and two family dwellings may be designed using this document. Such design is limited to single level structures and does not include roofs.
- **Plans Required.** Projects meeting the scoping section above do not require formally drawn plans and instead may be designed by completing the illustration shown on page two of this document. Projects that incorporate multi-level floor systems or roofs will require formally drawn plans.

### Stairway Geometry

- **Stair riser dimensions.** Riser height is measured vertically between the tops of adjacent treads. Riser heights are to be uniform throughout the stairway. A 3/8 maximum difference is allowed in riser heights.
- **Stair tread dimensions.** Stair treads are measured horizontally between nosings of adjacent treads. Tread depths are to be uniform throughout the stairway. A 3/8 maximum difference is allowed in tread depths.
- **Handrails required.** At least one handrail must be provided when a stairway is installed and when such stairway has four or more risers.



#### Construction Tip Sheet—Basic Decks

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