TOWN OF WILTON
22 TRAVER ROAD
GANSEVOORT, NY 12831-9127

(518) 587-1939, Ext. 503
FAX (518) 587-2837
Website: www.townofwilton.com
Email: building@townofwilton.com

John Herlihy
Senior Building Inspector
Code Enforcement Officer
Zoning Officer

Marcus Hart
Assistant Building Inspector
Code Enforcement Officer

BUILDING APPLICATION REQUIREMENTS FOR DECKS

The Building Inspector has up to twenty-eight (28) business days, not including weekends and/or holidays, to review permit applications.

SUBMISSION

1. Application for Building Permit for each permit requested on Building Department forms.
2. Description of Materials Specification sheet required for each permit.
3. Two sets of building plans (drawings), showing footings, post, beams, floor joist, decking, spindles and steps with railings.
4. Site plan showing location of existing house with proposed deck location and setbacks to property lines.

DECK INSPECTIONS

1. Footings before poured or backfilled. Footings must be 48" below grade.
2. Framing before decking is applied if closer than 4' to grade.
3. Final when deck is completed with steps and handrails.

A minimum of twenty-four (24) hours notice is required for inspections.

TOWN OF WILTON
22 TRAVER ROAD
GANSEVOORT, NY 12831-9127

(518) 587-1939, Ext. 603
FAX (518) 587-2837
Website: www.townofwilton.com
E-mail: buildingdept@townofwilton.com

Mark Mykins
Senior Building Inspector
Code Enforcement Officer
Zoning Officer

John Herlihy
Building Inspector
Code Enforcement Officer

January 5, 2007

Dear Contractor/Applicant:

As of January 1, 2007, **all** building permit applications shall require plans stamped by an architect or engineer.

The **only** exceptions are:

1. Detached residential storage buildings of less than 250 square feet.
2. Decks of less than 250 square feet.

Buildings with a cellar or basement shall be required to have a perimeter drain and the interior of the foundation shall be fully stoned, under the entire slab, with a sump pit. A vapor barrier is required under the slab. An inspection of the basement slab, prior to pouring, shall be done to verify these items.

In addition, the actual basement floor elevation is required to be certified as meeting the required separation from season high groundwater. The same engineer that preformed the original groundwater tests and certification shall do this certification. This certification shall be submitted to the building department **prior** to inspection of the basement slab. I would recommend that the certification be completed prior to the framing of the structure, while the area is accessible and changes, which may be needed, can be accomplished.

Sincerely,

John Herlihy
Building Inspector

TOWN OF WILTON
22 TRAVER ROAD
GANSEVOORT, NY 12831-9127

(518) 587-1939, Ext. 603
FAX (518) 587-2837
Website: www.townofwilton.ny.gov
E-Mail: buildingdept@townofwilton.com

John Herlihy
Senior Building Inspector
Code Enforcement Officer
Zoning Officer

Marcus Hart
Building Inspector
Code Enforcement Officer

APPLICATION FOR BUILDING AND ZONING PERMIT

DATE:	**PERMIT NUMBER:**
APPLICATION IS HEREBY MADE to the Town of Wilton Building Department for the issuance of a Building and Zoning Permit pursuant to the New York State Building Code for the construction of buildings, additions or alterations, or for the removal or demolition, as herein described. The applicant or owner agrees to comply with all applicable laws, ordinances, regulations and all conditions expressed on the back of this application which are part of these requirements, and will allow all inspectors to enter the premises for the required inspections.	

NOTE – READ INSTRUCTIONS ON THE REVERSE SIDE

Applicant's Name:	**ZONING DISTRICT:**		
Applicants Address:	Lot Size:	Area (sq. ft.):	
	Existing Structure Size (sq. ft.):		
Applicant's Phone Number:	Existing Structure Use:		
Owner's Name:	New Structure Size (sq. ft.):		
Owner's Address:	Kind of Structure:		
	NEW STRUCTURE YARDS:		
Owner's Phone Number:	Front Yard Distance: (in feet):		
Contractor's Name:	Right Side Yard Distance (in feet):		
Contractor's Address:	Left Side Yard Distance (in feet):		
	Rear Yard Distance (in feet):		
Contractor's Phone Number:	Height (in feet):		
	ACCESSORY STRUCTURE LOCATION:		
Street Address of Property	Left Side Yd.	Right Side Yd.	Rear Yd.
Tax Map Number:	Estimated Cost $:		
Existing Use:	Living Space (sq. ft.)	Porches (sq. ft.)	
Intended Use:	Decks (sq. ft.)	Other	
Name of Workers Compensation Carrier:	Garage (sq. ft.)	Number of Stalls	
Policy Number (forms must be attached)	**Total Square Footage:**		
	Fee $		
Note: THIS BUILDING PERMIT IS EFFECTIVE FOR (1) YEAR FROM DATE OF ISSUANCE.	***ALL ELECTRICAL WORK MUST BE INSPECTED BY AND A CERTIFICATE OF APPROVAL OBTAINED FROM A NEW YORK STATE CERTIFIED INSPECTION AGENCY.***		
Signature of Owner	Date		
Signature of Applicant	Date		
Signature of Contractor	Date		

The application of_____ dated_____, 20_____ is hereby approved (disapproved) and permission granted (refused) for the construction or alteration of a building and/or accessory structure as set forth above.

Reason for refusal of permit:_____

_____

Dated_____, 20_____

Superintendent of Buildings

BUILDING APPLICATION REQUIREMENTS

TOWN OF WILTON

22 Traver Road
Gansevoort, New York 12831
(518) 587-1939 Ext: 603
FAX (518)587-2837

THE BUILDING DEPARTMENT MAY TAKE 8 WEEKS OR MORE, NOT INCLUDING WEEKENDS AND/OR HOLIDAYS, TO REVIEW PERMITS.

SUBMISSION

1. Application for Building and Zoning Permit required for each permit requested on Building Department Forms.
2. Description of Materials specification sheet required for each permit requested. (Photocopies are not allowed, plans and spec. sheets shall match and be completely filled out for each application.)
3. A minimum of two sets of Building Plans with original stamp and signature of a New York State licensed Engineer or Architect. (One set shall be returned to the applicant to be located on site for the use of the building department.)
4. Building plans shall include:
   a. Construction documents shall show the size, section and relative locations of structural members with floor levels, column centers and offsets fully dimensioned. The design loads and other information pertinent to the structural design required by §1603.1.1 through §1603.1.8 of the Building Code of New York State shall be clearly indicated on the construction documents for parts of the building or structure.
   b. Mechanical Plans as required to determine compliance with the applicable code of New York State.
   c. Plumbing diagrams as required to determine compliance with the applicable code of New York State.
   d. Electrical Plans as required to determine compliance with the applicable code of New York State.
   e. Energy Code Compliance check list, including ResCheck or ComCheck.
   f. Light & Ventilation Schedule - room by room, including emergency egress when required.
   g. Stair and guard detail
5. Survey showing proposed house location with all setbacks, finished basement floor elevation, finished foundation elevation and road/street elevation.

6. Certification of Seasonal High Groundwater Elevation by a licensed professional (P.E. or P.L.S.)
7. Well tests for individual lots including water flow and coliform bacteria testing, per New York State Department of Health standards.
8. Septic system designed by a Licensed Professional.
9. Certificate of Insurance Liability/Worker's Compensation with Town of Wilton listed as certificate holder.

FEES

Residential: $.20 sf. Minimum Fee $50.00
(Total sq. ft. including garages, decks, porches and any covered area)

Commercial $.30 sf. Minimum Fee $150.00

GENERAL REQUIREMENTS

1. Minimum of three (3) #4 or two (2) #5 reinforcement bar in footings, to be determined by Building Department.
2. Basement floor elevation must be minimum 3' above seasonal high ground water.
3. Poured foundations must be keyed or pinned.
4. Minimum 10" block or 8" poured foundations for all main structures.
5. Block foundations must be parged and tarred or other acceptable equivalent.
6. Poured foundations must be tarred or other acceptable equivalent.
7. All foundations must be pitched from the block or poured wall to the edge of the footing to ensure water run-off.
8. Finished floor elevation must meet approved subdivision requirements or minimum 2' above road elevation unless prior written approval by the building department.
9. All exhaust fans must be vented directly to outdoors.
10. Only ONE heating appliance per masonry chimney flue.
11. All single wall steel pipes must be at least 24 gauge.
12. Factory built chimney must be "listed" by national testing agency.
13. "Listed" chimney must be triple insulated as it passes through the structure.
14. Wall nearest stovepipe must be protected by a non-combustible material with 1" min. air space.
15. Non-combustible flooring for woodstoves must extend 18" beyond ash door and extend 6" beyond sides and back.
16. Fireplace hearth minimum width 16" and extend at least 8" beyond each side of the fireplace opening. (Where opening is six square feet or larger hearth shall have a minimum width 20" and extend at least 12" beyond each side of the fireplace, R1003.10)
17. All "fuel chimneys" must maintain a 2" clearance from all combustibles.
18. Masonry chimney clay flue must be 5/8" thick minimum.

19. Chimneys, factory built and/or masonry, must extend 3' above highest point that it passes through, and minimum 2' higher than any portion of the building within 10'.
20. Factory built chimneys - if in chase - must have a fire stop every 8' maximum.
21. All fireplaces must have fresh air, glass doors, and a clean out.
22. **Written Certification by the installer of the chimney, fireplace, insert, and/or woodstove certifying the installation was done to NFPA 211 and State and Local Codes.**
23. A copy of the manufacturer's installation manual MUST be submitted for all woodstoves, inserts and/or factory built fireplaces.
24. Minimum 3" vent pipe as it passes through the roof.
25. Water supply system copper piping must be K or L.
26. Basement/Cellar Walls - Minimum depth of insulation **below grade:**
27. Basement/Cellar Wall Insulation Minimum R-11 consisting of either:
28. Leach field must be a minimum 4' above seasonal high ground water.
    a. Vapor barrier and 15 minute thermal barrier
    b. 0-25 flame spread rating foil faced
29. Septic System Diagram showing actual location on minimum 8 1/2" X 11" or larger sheet which shall include:
    a. Delineating property lines, street lines, building location and dimensions, and driveway and/or parking area.
    b. Lot number and street address.
    c. Distance of septic tank, distribution box, and leach field from foundation.
    d. Diagonals to clean out of septic tank and distribution box from foundation corners.
    e. Distance of well location from house, septic tank and leach fields.
    f. Name, address, and phone number of the Septic System Contractor.
    g. Signature of actual installer of the septic system.
30. Septic System Diagram designed by an Engineer showing actual location on minimum 8 1/2" X 11" or larger sheet which shall include:
    a. Delineating property lines, street lines, building location and dimensions, and driveway and/or parking area.
    b. Lot number and street address.
    c. Distance of septic tank, distribution box, and leach field from foundation.
    d. Diagonals to clean out of septic tank and distribution box from foundation corners.
    e. Distance of well location from house, septic tank and leach fields.
    f. Name, address, and phone number of the Septic System Contractor.
    g. Signature of actual installer of the septic system.

INSPECTIONS

By the Building Department are required at the following schedule (a **MINIMUM** 24 hours notice for all required inspections, voice mail inspection requests are not allowed). Additional inspections will not be scheduled until the prior inspection passes. The Building Department may impose a fine on contractors who make appointments for inspections and then do not notify said Department if, for some reason (including work not being completed), the inspection should have been cancelled or postponed:

1. Footings - before pouring.
2. Foundation - prior to backfill (foundations shall be capped or properly braced prior to inspection.)
3. Slab before pour.
4. Framing, Rough Plumbing and Heating. (Truss certificates are required to be provided prior to framing inspection. Will also be checking for house wrap.) Approved plans shall be located on site to the inspector's use during inspection.
5. Ice and Water Barrier
6. Insulation and Vapor Barrier, to be completed in conjunction with the MecCheck or ResCheck as provided with application.
7. Other inspections deemed necessary by the Building Department.
8. Septic system to be inspected and certified by the designing engineer and the building inspector.
9. Final Inspection for Certificate of Occupancy.

Building Permits and Building Plans are to be posted on the site, covered for protection against the weather and accessible to the Building Inspector. If the permit and plans are not available, the inspection will not be performed.

CERTIFICATE OF OCCUPANCY - Prior to scheduling an inspection the following items must be on file with Town of Wilton Building Department:

1. **For Commercial Applications:**
   a. Truss certificates.
   b. Water test results: quality and quantity. (New test)
   c. Written certification, by a Licensed Professional Engineer, that the septic system has been installed as per the Town of Wilton and the New York State Department of Health Appendix 75-A.9
   d. A registered design professional shall provide to the code enforcement official a written certification that the required HVAC tests, system balancing, etc., have been performed and that, in the professional opinion of the registered design professional, the system is operating as designed. The registered design professional shall retain copies of the test reports to be provided to the code enforcement official, if requested.
   e. Certification from the plumbing, sprinkler, fire alarm and other building system installers that the system was installed and tested as per the requirements of the code and the system is operating as required.
   f. Certification from the roofing contractor that an ice barrier was installed as per the requirements of the code.
   g. Stamped as-built plans for the building.
   h. Stamped as-built site plan with certification from the designing engineer that the site substantially complies with the approved site plan.

i. List of all interior finishes with a manufacturer's specification sheet indicating the flame spread.
j. Proof of final electrical inspection.
k. Such other information and/or certification deemed necessary by the Building Inspector to establish compliance of work performed.
l. Premises identification as required by code.

2. **For Residential Applications:**
   a. Truss certificates. (Provided prior to framing inspection.)
   b. Water test results: quality and quantity. (Tested within four weeks of submission for C.O.))
   c. Written certification, by a Licensed Professional Engineer, that the septic system has been installed as per the Town of Wilton and the New York State Department of Health Appendix 75-A.9
   d. Manufacturer's installation manual for woodstove, insert and/or factory-built fireplace (if applicable)
   e. Written certification by the installer certifying the installation of the chimney, fireplace, factory-built fireplace, insert and/or woodstove.
   f. Stamped final survey.
   g. Proof of final electrical inspection.
   h. Premises identification as required by code.

TOWN OF WILTON
22 TRAVER ROAD
GANSEVOORT, NY 12831-9127

(518) 587-1939, Ext. 603
FAX (518) 587-2837
Website: www.townofwilton.ny.gov
E-Mail: buildingdept@townofwilton.com

John Herlihy
Senior Building Inspector
Code Enforcement Officer
Zoning Officer

Marcus Hart
Building Inspector
Code Enforcement Officer

DESCRIPTION OF MATERIALS

SUBMIT WITH CORRESPONDING PLANS AND APPLICATION FOR BUILDING AND ZONING PERMIT ALL APPLICABLE SECTIONS MUST BE COMPLETED **BEFORE** BUILDING PERMIT CAN BE ISSUED.

1. EXCAVATION:

Type of Soil

2. FOUNDATION:

All concrete to be a min. 3000 P.S.I.

Footing Sizes:		Portland Cement Coat:	Yes No
Foundation wall size & material:		Damp proofing material:	
Column Footing Size:		Termite Protection:	
Column size & material:	/Spacing	Anchor Bolts:	O.C.
Girder size & material:		Footing drainage size (3"min. if req'd.)	
Footing depth: (min. 48" from grade to top of footing)			

3. SLAB ON GRADE:

Vapor barrier:	Perimeter insulation:
	Size & type:

4. CRAWL SPACE:

Clearance (30" min.):		Vapor barrier:	Yes
Insulation:		Ventilation:	Yes No
Footing depth:		Concrete Floor:	Yes No

5. CHIMNEY'S:

Material:	masonry	metal	Flue size:		
Thimble size:			Flue lining:	clay	metal
Prefabricated:	Single	Double Triple (wall)	Cleanout:	yes	no

6. FIREPLACES:

Type:	solid fuel	gas burning	Type:	masonry		prefabricated
Flue lining:	clay	metal	Fresh air:	yes	no	
Flue size:			Ash dump & cleanout:			
Hearth:	yes	no	Distance from firebox opening:		Width	Distance beyond each side
Fireplace facing:						

7. WOODSTOVES:

Woodstove:	yes	no	Insert:	yes	no	
Make & Model:				New	Used	

NOTE: A COPY OF THE MANUFACTURES INSTALLATION MANUAL **MUST** BE SUBMITTED WITH APPLICATION.

8. FLOOR FRAMING:

SILL:

Size:	Type:	Sealant:	Yes	No

1st FLOOR:

Joist grade:	Size & spacing:	OC	Bridging:	
Sub-floor (material & size):		Finish floor material:		

2nd FLOOR:

Joist grade:	Size & spacing:	OC	Bridging:	
Sub-floor (material & size):		Finish floor material:		

9. EXTERIOR WALLS:

Wood frame grade & species:		Stud size & spacing:		OC
Corner bracing: Yes	No	Material	Sheathing (thickness & type):	
Building paper:		Siding:		
Masonry veneer:		Brick ties:		

10. INSULATION and VAPOR BARRIER (See also N.Y.S. Energy Code)

(Size, material & R-factor)

Roof:		Ceiling:	
Walls:		Slab (Perimeter):	
Foundation Walls:		Proper Vent:	Yes No
Floors over unheated basement or garage:			

11. PARTITION FRAMING:

Stud grade:	Size & spacing:	OC

12. CEILING JOIST:

Grade:	Size &spacing:	OC	Bridging:

13. ROOF FRAMING: Minimum design for 50 lb. per sq. foot ground snow load:

Rafters, size & grade:			Ridge size:			
Collar ties:	size	OC	Trusses:	OC	H Clip:	Yes No
Sheathing (thickness & type):						

14. ROOFING:

Material:		Weight:	
Felt (15# min.):		Ice and water barrier required:	

15. INTERIOR FINISH (Sheetrock, size, etc.):

Walls:		Ceiling:	

16. STAIRS:

Main:	Width:	Rise:	Run:	Headroom:
Basement:	Width:	Rise:	Run:	Headroom:
Other:	Width:	Rise:	Run:	Headroom:
	Width:	Rise:	Run:	Headroom:

NOTE: Maximum rise 8-¼ Minimum Run 9"+ 1-⅛ nosing.

17. PLUMBING: (Vent size through roof minimum 3")

Sink drain size:	Vent size:	Lavatory drain size:	Vent size:
Water closet drain size:	Vent size:	Bathtub drain size:	Vent size:
Stall shower drain size:	Vent size:	Laundry drain size:	Vent size:

Water system piping: Copper K L Plastic

Water heater: Electric Gas Other

BUILDING HOUSE DRAIN – SIZE & MATERIAL:

4" House trap location (also show on plans):

18. SEWAGE DISPOSAL:

County/Town Sewer Engineered and approved septic system:

19. HEATING

BTUH RATING Flue type & size:

Type:	Heat Pump	Electric	Hot Water	Other
Fuel:	Electric	Gas	Oil	Other

20. ATTIC VENTILATION:

Ridge Vent:	Yes	No	Gable:	Yes	No
Soffit:	Yes	No	Other (description):		

21. EXTERIOR DOORS:

Main Entry Door size (min. 36")

House Door to Attached Garage size (min. ¾ hr. fire rated, self closing & latching):

Other (specify type & size): 1.

2.

3.

22. ELECTRICAL WIRING – Outside agency inspection by town approved agency:

Safety switch for oil / gas burner: Yes No

Number of smoke and CO detectors (show on plans):

23. PORCHES:

Footing size: Footing Depth:

Foundation: Size:

24. GARAGE:

Attached Detached Under living space No. of stalls:

Footing size: Footing Depth:

Foundation size: Poured Block

Sheetrock (size & fire rating): Wall: Ceiling:

House Door to Attached Garage size (min. ¾ hr. fire rated, self closing & latching):

REMARKS:

I, THE UNDERSIGNED, DO HEREBY AGREE TO FURNISH, SUPPLY AND INSTALL THE AFOREMENTIONED MATERIALS AND COMPLY WITH THE SPECIFICATIONS SET FORTH ABOVE IN CONJUNCTION WITH THE ERECTION AND CONSTRUCTION OF THE BUILDING(S) FOR WHICH PLANS WERE SUBMITTED AND APPROVED. ALL ITEMS COMPLY WITH THE NEW YORK STATE UNIFORM FIRE PREVENTION & BUILDING CODE AND THE TOWN OF WILTON BUILDING APPLICATION REQUIREMENTS.

Date: 20

Applicant

SECTION R507—EXTERIOR DECKS

R507.1 Decks.

Wood-framed decks shall be in accordance with this section. Decks shall be designed for the *live load* required in Section R301.5 or the ground snow load indicated in Table R301.2, whichever is greater. For decks using materials and conditions not prescribed in this section, refer to Section R301.

R507.2 Materials.

Materials used for the construction of decks shall comply with this section.

R507.2.1 Wood materials.

Wood structural members shall be protected from decay where required by Sections R304.1 and R304.1.2, and protected from termites where required by Section R305.1. Where design in accordance with Section R301 is provided, wood structural members shall be designed using the wet service factor defined in AWC NDS. Sawn lumber for joists, beams and posts shall be No. 2 or better. Cuts, notches and drilled holes of preservative-treated wood members shall be treated in accordance with Section R304.1.1.

R507.2.1.1 Engineered wood products.

Engineered wood products shall be in accordance withSection R502.

R507.2.2 Plastic composite deck boards, stair treads, guards or handrails.

Plastic composite exterior deck boards, stair treads, *guards* and *handrails* shall comply with the requirements of ASTM D7032 and this section.

R507.2.2.1 Labeling.

Plastic composite deck boards and stair treads, or their packaging, shall bear a *label* that indicates compliance with ASTM D7032 and includes the allowable load and maximum allowable span determined in accordance with ASTM D7032. Plastic or composite *handrails* and *guards*, or their packaging, shall bear a *label* that indicates compliance with ASTM D7032 and includes the maximum allowable span determined in accordance with ASTM D7032.

R507.2.2.2 Flame spread index.

Plastic composite deck boards, stair treads, *guards*, and *handrails* shall exhibit a *flame spread index* not exceeding 200 when tested in accordance with ASTM E84 or UL 723 with the test specimen remaining in place during the test.

Exception: *Plastic composites* determined to be noncombustible.

R507.2.2.3 Decay resistance.

Plastic composite deck boards, stair treads, *guards* and *handrails* containing wood, cellulosic or other biodegradable materials shall be decay resistant in accordance with ASTM D7032.

R507.2.2.4 Termite resistance.

Where required by Section 305, *plastic composite* deck boards, stair treads, *guards* and *handrails* containing wood, cellulosic or other biodegradable materials shall be termite resistant in accordance with ASTM D7032.

R507.2.2.5 Installation of plastic composites.

Plastic composite deck boards, stair treads, *guards* and *handrails* shall be installed in accordance with this code and the manufacturer's instructions.

R507.2.3 Fasteners and connectors.

Metal fasteners and connectors used for all decks shall be in accordance withSection R304.3 and Table R507.2.3. Holes for through bolts shall be drilled to a diameter of $^{1}/_{32}$ inch to $^{1}/_{16}$ inch larger than the bolt diameter. Connectors shall be installed in accordance with the manufacturer's *approved* instructions.

TABLE R507.2.3—FASTENER AND CONNECTOR SPECIFICATIONS FOR DECKS[a, b]

ITEM	MATERIAL	MINIMUM FINISH/COATING	ALTERNATE FINISH/COATING[c]
Nails and glulam rivets	In accordance with ASTM F1667	Hot-dipped galvanized per ASTM A153, Class D or ASTM A641 Class 3S for $^{3}/_{8}$-inch diameter and less	Stainless steel, silicon bronze or copper

Bolts Lag screws (including nuts and washers)	In accordance with ASTM A307 (bolts), ASTM A563 (nuts), ASTM F844 (washers)	Hot-dipped galvanized per ASTM A153, Class C (Class D for $^3/_8$-inch diameter and less) or mechanically galvanized per ASTM B695, Class 55 or 410 stainless steel	Stainless steel, silicon bronze or copper
Metal connectors	Per manufacturer's specification	ASTM A653 type G185 zinc-coated galvanized steel or post hot-dipped galvanized per ASTM A123 providing a minimum average coating weight of 2.0 oz./ft^2 (total both sides)	Stainless steel

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Equivalent materials, coatings and finishes shall be permitted.

b. Fasteners and connectors exposed to salt water or located within 300 feet of a salt water shoreline shall be stainless steel.

c. Stainless-steel-driven fasteners shall be in accordance with ASTM F1667.

R507.2.4 Flashing.

Flashing shall be corrosion-resistant metal of nominal thickness not less than 0.019 inch (0.48 mm) or *approved* nonmetallic material that is compatible with the substrate of the structure and the decking materials. Self-adhered membranes used as flashing and counterflashing shall comply with FGIA 711.

R507.2.5 Alternate materials.

Alternative materials, including glass and metals, shall be permitted.

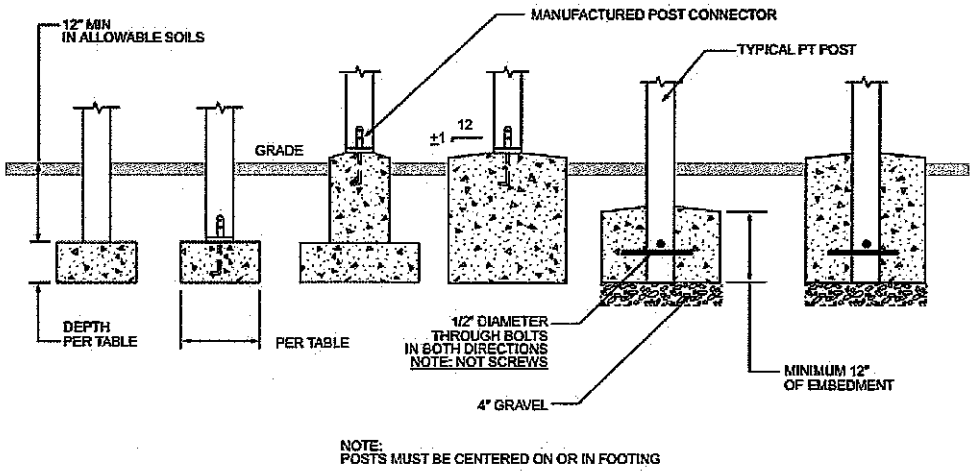
R507.3 Footings.

Decks shall be supported on concrete footings or other*approved* structural systems designed to accommodate all loads in accordance with Section R301. Deck footings shall be sized to carry the imposed loads from the deck structure to the ground as shown in Figure R507.3.

Exceptions:

1. Footings shall not be required for free-standing decks consisting of joists directly supported on grade over their entire length.
2. Footings shall not be required for free-standing decks that meet all of the following criteria:
   2.1. The joists bear directly on*precast concrete* pier blocks at grade without support by beams or posts.
   2.2. The area of the deck does not exceed 200 square feet (18.6 m^2).
   2.3. The walking surface is not more than 20 inches (508 mm) above grade at any point within 36 inches (914 mm) measured horizontally from the edge.

FIGURE R507.3—DECK POSTS TO DECK FOOTING CONNECTION



For SI: 1 inch = 25.4 mm.

R507.3.1 Minimum size.

The minimum size of deck footings shall be in accordance with Table R507.3.1, based on the tributary area and allowable soil-bearing pressure in accordance with Table R401.4.1(1).

TABLE R507.3.1—MINIMUM FOOTING SIZE FOR DECKS

LIVE OR GROUND SNOW LOAD[b] (psf)	TRIBUTARY AREA[e] (ft^2)	LOAD-BEARING VALUE OF SOILS[a, c, d] (psf)								
		1,500			2,000			≥ 3,000		
		Side of a square footing (inches)	Diameter of a round footing (inches)	Plain concrete thickness (inches)	Side of a square footing (inches)	Diameter of a round footing (inches)	Plain concrete thickness (inches)	Side of a square footing (inches)	Diameter of a round footing (inches)	Plain concrete thickness (inches)
40	5	7	8	6	7	8	6	7	8	6
	20	10	12	6	9	9	6	7	8	6
	40	14	16	6	12	14	6	10	12	6
	60	17	19	6	15	17	6	12	14	6
	80	20	22	7	17	19	6	14	16	6
	100	22	25	8	19	21	6	15	17	6
	120	24	27	9	21	23	7	17	19	6
	140	26	29	10	22	25	8	18	21	6
	160	28	31	11	24	27	9	20	22	7
50	5	7	8	6	7	8	6	7	8	6
	20	11	13	6	10	11	6	8	9	6
	40	15	17	6	13	15	6	11	13	6
	60	19	21	6	16	18	6	13	15	6
	80	21	24	8	19	21	6	15	17	6
	100	24	27	9	21	23	7	17	19	6
	120	26	30	10	23	26	8	19	21	6
	140	28	32	11	25	28	9	20	23	7
	160	30	34	12	26	30	10	21	24	8
60	5	7	8	6	7	8	6	7	8	6
	20	12	14	6	11	12	6	9	10	6
	40	16	19	6	14	16	8	12	14	6
	60	20	23	7	17	20	6	14	16	6
	80	23	26	9	20	23	7	16	19	6
	100	26	29	10	22	25	8	18	21	6
	120	28	32	11	25	28	9	20	23	7
	140	31	35	12	27	30	10	22	24	8
	160	33	37	13	28	32	11	23	26	9
70	5	7	8	6	7	8	6	7	8	6
	20	12	14	6	11	13	6	9	10	6
	40	18	20	6	15	17	6	12	14	6
	60	21	24	8	19	21	6	15	17	6
	80	25	28	9	21	24	8	18	20	6
	100	28	31	11	24	27	9	20	22	7
	120	30	34	12	26	30	10	21	24	8
	140	33	37	13	28	32	11	23	26	9
	160	35	40	15	30	34	12	25	28	9

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m^2, 1 pound per square foot = 0.0479 kPa.

a. Interpolation permitted, extrapolation not permitted.

b. Based on highest load case: Dead + Live or Dead + Snow.

c. Footing dimensions shall allow complete bearing of the post.

d. If the support is a brick or CMU pier, the footing shall have a minimum 2-inch projection on all sides.

e. Area, in square feet, of deck surface supported by post and footings.

R507.3.2 Minimum depth.

Deck footings shall be placed not less than 12 inches (305 mm) below the undisturbed ground surface.

R507.3.3 Frost protection.

Where decks are attached to a frost-protected structure, deck footings shall be protected from frost by one or more of the following methods:

1. Extending below the frost line specified in Table R301.2.
2. Erecting on solid rock.
3. Other *approved* methods of frost protection.

R507.4 Deck posts.

For single-level decks, wood post size shall be in accordance with Table R507.4.

TABLE R507.4—DECK POST HEIGHT

LOADS (psf)[b]	POST SPECIES[c]	POST SIZE[d]	TRIBUTARY AREA (ft^2)[g, h]							
			20	40	60	80	100	120	140	160
			MAXIMUM DECK POST HEIGHT[a] (feet-inches)							
40 live load	Southern pine	4 × 4	14-0	13-8	11-0	9-5	8-4	7-5	6-9	6-2
		4× 6	14-0	14-0	13-11	12-0	10-8	9-8	8-10	8-2
		6 × 6	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Douglas fir[e] Hem-fir[e] Spruce-pine-fir[e]	4 × 4	14-0	13-6	10-10	9-3	8-0	7-0	6-2	5-3
		4 × 6	14-0	14-0	13-10	11-10	10-6	9-5	8-7	7-10
		6 × 6	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Redwood[f] Western cedars[f] Ponderosa pine[f] Red pine[f]	4 × 4	14-0	13-2	10-3	8-1	5-8	NP	NP	NP
		4 × 6	14-0	14-0	13-6	11-4	9-9	8-4	6-9	4-7
		6 × 6	14-0	14-0	14-0	14-0	14-0	14-0	13-7	9-7
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
50 ground snow load	Southern pine	4 × 4	14-0	12-2	9-10	8-5	7-5	6-7	5-11	5-4
		4 × 6	14-0	14-0	12-6	10-9	9-6	8-7	7-10	7-3
		6 × 6	14-0	14-0	14-0	14-0	14-0	14-0	14-0	13-4
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Douglas fir[e] Hem-fir[e] Spruce-pine-fir[e]	4 × 4	14-0	12-1	9-8	8-2	7-1	6-2	5-3	4-2
		4 × 6	14-0	14-0	12-4	10-7	9-4	8-4	7-7	6-11
		6 × 6	14-0	14-0	14-0	14-0	14-0	14-0	14-0	12-10
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Redwood[f] Western cedars[f] Ponderosa pine[f] Red pine[f]	4 × 4	14-0	11-8	9-0	6-10	3-7	NP	NP	NP
		4 × 6	14-0	14-0	12-0	10-0	8-6	7-0	5-3	NP
		6 × 6	14-0	14-0	14-0	14-0	14-0	14-0	10-8	2-4
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
60 ground snow load	Southern pine	4 × 4	14-0	11-1	8-11	7-7	6-7	5-10	5-2	4-6
		4 × 6	14-0	14-0	11-4	9-9	8-7	7-9	7-1	6-6
		6 × 6	14-0	14-0	14-0	14-0	14-0	14-0	12-9	11-2
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Douglas fir[e] Hem-fir[e] Spruce-pine-fir[e]	4 × 4	14-0	10-11	8-8	7-3	6-2	5-0	3-7	NP
		4 × 6	14-0	13-11	11-2	9-7	8-4	7-5	6-8	5-11
		6 × 6	14-0	14-0	14-0	14-0	14-0	14-0	12-2	10-2
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Redwood[f] Western cedars[f] Ponderosa pine[f] Red pine[f]	4 × 4	14-0	10-6	7-9	4-7	NP	NP	NP	NP
		4 × 6	14-0	13-7	10-9	8-9	7-0	4-9	NP	NP
		6 × 6	14-0	14-0	14-0	14-0	14-0	9-9	NP	NP
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Southern pine	4 × 4	14-0	10-2	8-2	6-11	5-11	5-2	4-4	3-4
		4 × 6	14-0	12-11	10-5	8-11	7-10	7-1	6-5	5-10
		6 × 6	14-0	14-0	14-0	14-0	14-0	12-9	10-11	8-7

70 ground snow load		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Douglas fir[e] Hem-fir[e] Spruce-pine-fir[e]	4 × 4	14-0	10-1	7-11	6-6	5-3	3-7	NP	NP
		4 × 6	14-0	12-10	10-3	8-9	7-7	6-8	5-10	4-11
		6 × 6	14-0	14-0	14-0	14-0	14-0	12-2	9-9	5-9
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0
	Redwood[f] Western cedars[f] Ponderosa pine[f] Red pine[f]	4 × 4	14-0	9-5	6-5	NP	NP	NP	NP	NP
		4 × 6	14-0	12-6	9-8	7-7	5-3	NP	NP	NP
		6 × 6	14-0	14-0	14-0	14-0	10-8	NP	NP	NP
		8 × 8	14-0	14-0	14-0	14-0	14-0	14-0	14-0	14-0

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

NP = Not Permitted.

a. Measured from the underside of the beam to the top of footing or pier.
b. 10 psf dead load. Snow load not assumed to be concurrent with live load.
c. No. 2 grade, wet service factor included.
d. Notched deck posts shall be sized to accommodate beam size in accordance with Section R507.5.2.
e. Includes incising factor.
f. Incising factor not included.
g. Area, in square feet, of deck surface supported by post and footings.
h. Interpolation permitted. Extrapolation not permitted.

R507.4.1 Deck post to deck footing connection.

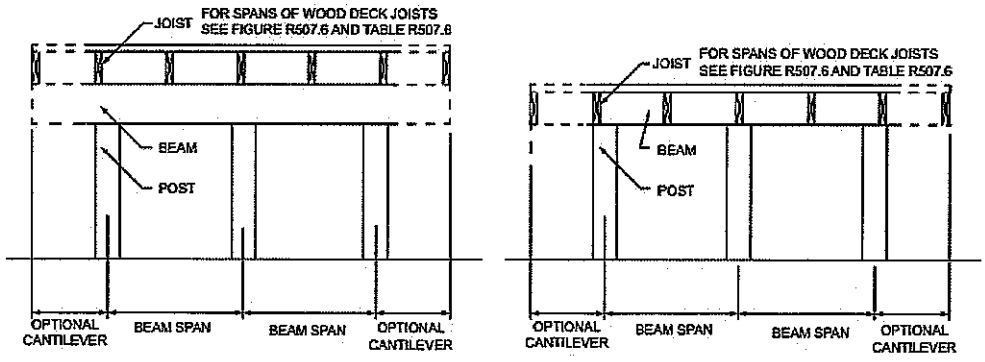
Where posts bear on concrete footings in accordance withSection R403 and Figure R507.3, lateral restraint shall be provided by *approved* connectors or a minimum post embedment of 12 inches (305 mm) in surrounding soils or concrete piers.

Exception: Where expansive, compressible, shifting or other questionable soils are present, surrounding soils shall not be relied on for lateral support.

R507.5 Deck beams.

Maximum allowable spans for wood deck beams, as shown inFigure R507.5, shall be in accordance with Tables R507.5(1) through R507.5(4) and based on the joist span length and cantilever length as shown in Figure R507.6. Beam plies shall be fastened together with two rows of 10d (3-inch × 0.128-inch) nails minimum at 16 inches (406 mm) on center along each edge. Deck beams of other materials shall be permitted where designed in accordance with accepted engineering practices.

FIGURE R507.5—TYPICAL DECK BEAM SPANS



DROPPED BEAM FLUSH BEAM

TABLE R507.5(1)—MAXIMUM DECK BEAM SPAN—40 PSF LIVE LOAD[c]

	JOIST SPAN	JOIST SPAN LENGTH AND JOIST CANTILEVER LENGTH[a, i] (feet & feet)									
	6	6 & 0	6 & 1.5	—	—	—	—	—	—	—	—
	8	—	8 & 0	8 & 1	8 & 2	—	—	—	—	—	—
	8	—	—	10 & 0	10 & 1	10 & 2.5	—	—	—	—	—
	12	—	—	—	12 & 0	12 & 1	12 & 2	12 & 3	—	—	—
	14	—	—	—	—	14 & 0	14 & 1	14 & 2	14 & 3.5	—	—
	16	—	—	—	—	—	16 & 0	16 & 1	16 & 2.5	16 & 4	—
	18	—	—	—	—	—	—	18 & 0	18 & 1.5	18 & 3	18 & 4.5
BEAM SPECIES[d]	**BEAM SIZE[e]**	**MAXIMUM DECK BEAM SPAN LENGTH[a, b, f] (feet-inches)**									
Southern pine	1 – 2 × 6	4-10	4-7	4-3	4-0	3-7	3-5	3-3	3-0	2-10	2-8
	1 – 2 × 8	6-4	5-11	5-6	5-1	4-7	4-4	4-2	3-10	3-7	3-5
	1 – 2 × 10	7-6	7-0	6-6	6-0	5-5	5-2	4-11	4-7	4-3	4-0
	1 – 2 × 12	8-8	8-3	7-8	7-1	6-4	6-1	5-10	5-5	5-0	4-9
	2 – 2 × 6	7-4	6-11	6-5	5-11	5-4	5-1	4-10	4-6	4-3	4-0
	2 – 2 × 8	9-4	8-9	8-2	7-7	6-9	6-5	6-2	5-9	5-4	5-0
	2 – 2 × 10	11-0	10-4	9-8	9-0	8-0	7-8	7-4	6-9	6-4	6-0
	2 – 2 × 12	13-0	12-2	11-4	10-7	9-5	9-0	8-7	8-0	7-5	7-0
	3 – 2 × 6	9-0	8-6	7-11	7-5	6-8	6-4	6-1	5-8	5-3	4-11
	3 – 2 × 8	11-7	10-11	10-3	9-6	8-6	8-1	7-9	7-2	6-8	6-4
	3 – 2 × 10	13-11	13-0	12-1	11-2	10-0	9-7	9-2	8-6	7-11	7-6
	3 – 2 × 12	16-3	15-3	14-3	13-3	11-10	11-3	10-9	10-0	9-4	8-10
Douglas fir-larch[g] Hem-fir[g] Spruce-pine-fir	1 – 2 × 6	4-5	4-1	3-9	3-6	3-0	2-10	2-8	2-5	2-3	2-1
	1 – 2 × 8	5-11	5-6	5-1	4-8	4-0	3-9	3-6	3-2	2-11	2-9
	1 – 2 × 10	7-1	6-8	6-3	5-10	5-1	4-9	4-6	4-1	3-9	3-6
	1 – 2 × 12	8-3	7-9	7-3	6-9	6-0	5-9	5-6	5-0	3-9	3-6
	2 – 2 × 6	6-6	6-1	5-8	5-3	4-9	4-6	4-4	3-11	3-7	3-3
	2 – 2 × 8	8-8	8-2	7-7	7-1	6-4	6-0	5-9	5-2	4-8	4-4
	2 – 2 × 10	10-8	10-0	9-3	8-7	7-9	7-4	7-0	6-6	6-0	5-6
	2 – 2 × 12	12-4	11-7	10-9	10-0	8-11	8-6	8-2	7-7	7-1	6-8
	3 – 2 × 6	8-2	7-8	7-2	6-8	6-0	5-9	5-6	5-1	4-9	4-6
	3 – 2 × 8	10-11	10-3	9-6	8-10	7-11	7-7	7-3	6-8	6-3	5-11
	3 – 2 × 10	13-4	12-6	11-8	10-10	9-8	9-3	8-10	8-2	7-8	7-2
	3 – 2 × 12	15-6	14-6	13-6	12-7	11-3	10-9	10-3	9-6	8-11	8-5
Redwood[h] Western cedars[h] Ponderosa pine[h] Red pine[h]	1 – 2 × 6	4-5	4-2	3-10	3-7	3-1	2-11	2-9	2-6	2-3	2-2
	1 – 2 × 8	5-8	5-4	4-11	4-7	4-1	3-10	3-7	3-3	3-0	2-10
	1 – 2 × 10	6-11	6-6	6-0	5-7	5-0	4-9	4-7	4-2	3-10	3-7
	1 – 2 × 12	8-0	7-6	7-0	6-6	5-10	5-7	5-4	4-11	4-7	4-4
	2 – 2 × 6	6-7	6-2	5-9	5-4	4-10	4-7	4-5	4-0	3-8	3-4
	2 – 2 × 8	8-4	7-10	7-4	6-10	6-1	5-10	5-7	5-2	4-10	4-5
	2 – 2 × 10	12-2	9-7	8-11	8-4	7-5	7-1	6-9	6-3	5-10	5-6
	2 – 2 × 12	11-9	11-1	10-4	9-8	8-7	8-2	7-10	7-3	6-10	6-5
	3 – 2 × 6	8-1	7-8	7-2	6-9	6-0	5-9	5-6	5-1	4-9	4-6
	3 – 2 × 8	10-6	9-10	9-2	8-6	7-7	7-3	6-11	6-5	6-0	5-8
	3 – 2 × 10	12-9	12-0	11-2	10-5	9-4	8-11	8-6	7-10	7-4	6-11
	3 – 2 × 12	14-10	13-11	13-0	12-1	10-9	10-3	9-10	9-1	8-6	8-1

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa, 1 pound = 0.454 kg.

a. Interpolation permitted for conditions with zero joist cantilever length. Extrapolation not permitted.

b. Beams supporting a single span of joists with or without cantilever.

c. Dead load = 10 psf, $L/\Delta = 360$ at main span, $L/\Delta = 180$ at cantilever. Snow load is not assumed to be concurrent with live load.

d. No. 2 grade, wet service factor included.

e. Beam depth shall be equal to or greater than the depth of intersecting joist for a flush beam connection.

f. Beam cantilevers are limited to the adjacent beam's span divided by 4.

g. Includes incising factor.

h. Incising factor not included.

i. Deck joist span as shown in Figure R507.5.

TABLE R507.5(2)—MAXIMUM DECK BEAM SPAN—50 PSF GROUND SNOW LOAD[c]

	JOIST SPAN	JOIST SPAN LENGTH AND JOIST CANTILEVER LENGTH[a, i] (feet & feet)									
	6	6 & 0	6 & 1.5	—	—	—	—	—	—	—	—
	8	—	8 & 0	8 & 1	8 & 2	—	—	—	—	—	—
	10	—	—	10 & 0	10 & 1	10 & 2.5	—	—	—	—	—
	12	—	—	—	12 & 0	12 & 1	12 & 2	12 & 3	—	—	—
	14	—	—	—	—	14 & 0	14 & 1	14 & 2	14 & 3.5	—	—
	16	—	—	—	—	—	16 & 0	16 & 1	16 & 2.5	—	—
	18	—	—	—	—	—	—	18 & 0	18 & 1.5	18 & 3	18 & 4.5
BEAM SPECIES[d]	**BEAM SIZE[e]**	**MAXIMUM DECK BEAM SPAN LENGTH[a, b, f] (feet-inches)**									
Southern pine	1 – 2 × 6	4-9	4-6	4-2	3-11	3-6	3-4	3-2	2-11	2-9	2-7
	1 – 2 × 8	6-2	5-9	5-4	4-11	4-5	4-2	4-0	3-9	3-6	3-3
	1 – 2 × 10	7-2	6-9	6-3	5-10	5-3	5-0	4-9	4-5	4-2	3-11
	1 – 2 × 12	8-6	8-0	7-5	6-11	6-2	5-11	5-8	5-3	4-11	4-7
	2 – 2 × 6	7-1	6-8	6-2	5-9	5-2	4-11	4-9	4-4	4-1	3-10
	2 – 2 × 8	9-1	8-6	7-11	7-4	6-7	6-3	6-0	5-7	5-2	4-11
	2 – 2 × 10	10-9	10-1	9-5	8-9	7-10	7-5	7-1	6-7	6-2	5-10
	2 – 2 × 12	12-9	11-11	11-1	10-3	9-2	8-9	8-5	7-9	7-3	6-10
	3 – 2 × 6	8-3	7-11	7-6	7-2	6-6	6-2	5-11	5-6	5-1	4-10
	3 – 2 × 8	11-0	10-5	9-10	9-3	8-3	7-10	7-6	6-11	6-6	6-2
	3 – 2 × 10	13-6	12-8	11-9	10-11	9-9	8-4	8-11	8-3	7-9	7-3
	3 – 2 × 12	15-11	14-11	13-11	12-11	11-6	11-0	10-6	9-9	9-1	8-7
Douglas fir-larch[g] Hem-fir[g] Spruce-pine-fir[g]	1 – 2 × 6	4-3	4-0	3-8	3-5	2-11	2-9	2-7	2-4	2-2	2-0
	1 – 2 × 8	5-9	5-4	4-11	4-7	3-11	3-8	3-5	3-1	2-10	2-8
	1 – 2 × 10	7-0	6-7	6-1	5-8	4-11	4-8	4-5	4-0	3-8	3-5
	1 – 2 × 12	8-1	7-7	7-1	6-7	5-11	5-7	5-4	4-10	4-6	4-2
	2 – 2 × 6	6-5	6-0	5-7	5-2	4-7	4-4	4-2	3-10	3-5	3-2
	2 – 2 × 8	8-6	8-0	7-5	6-11	6-2	5-11	5-8	5-0	4-7	4-2
	2 – 2 × 10	10-5	9-9	9-1	8-5	7-7	7-3	6-11	6-4	5-10	5-4
	2 – 2 × 12	12-1	11-4	10-7	9-10	8-9	8-4	8-0	7-5	6-11	6-6
	3 – 2 × 6	8-0	7-6	7-0	6-6	5-9	5-6	5-3	4-11	4-7	4-4
	3 – 2 × 8	10-8	10-0	9-4	8-8	7-9	7-5	7-1	6-6	6-1	5-8
	3 – 2 × 10	13-1	12-3	11-5	10-7	9-6	9-1	8-8	8-0	7-6	7-0
	3 – 2 × 12	15-2	14-3	13-3	12-4	11-0	10-6	10-1	9-4	8-9	8-3
Redwood[h] Western cedars[h] Ponderosa pine[h]	1 – 2 × 6	4-4	4-1	3-9	3-6	3-0	2-10	2-8	2-5	2-3	2-1
	1 – 2 × 8	5-6	5-2	4-10	4-6	4-0	3-9	3-6	3-2	2-11	2-9
	1 – 2 × 10	6-9	6-4	5-11	5-6	4-11	4-8	4-6	4-1	3-9	3-6
	1 – 2 × 12	7-10	7-4	6-10	6-4	5-8	5-5	5-2	4-10	4-6	4-3
	2 – 2 × 6	6-6	6-1	5-8	5-3	4-8	4-6	4-4	3-11	3-6	3-3
	2 – 2 × 8	8-2	7-8	7-2	6-8	5-11	5-8	5-5	5-0	4-8	4-3

Ponderosa pine Red pine[h]	2 – 2 × 10	10-0	9-5	8-9	8-2	7-3	6-11	6-8	6-2	5-9	5-5
	2 – 2 × 12	11-8	10-11	10-2	9-5	8-5	8-0	7-8	7-2	6-8	6-3
	3 – 2 × 6	7-5	7-1	6-9	6-5	5-11	5-8	5-5	5-0	4-8	4-5
	3 – 2 × 8	9-10	9-4	8-10	8-4	7-5	7-1	6-10	6-4	5-11	5-7
	3 – 2 × 10	12-6	11-9	10-11	10-2	9-1	8-8	8-4	7-8	7-2	6-9
	3 – 2 × 12	14-7	13-8	12-9	11-10	10-7	10-1	9-8	8-11	8-4	7-10

For SI: 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa, 1 pound = 0.454 kg.

a. Interpolation permitted for conditions with zero joist cantilever length. Extrapolation not permitted.

b. Beams supporting a single span of joists with or without cantilever.

c. Dead load = 10 psf, L/Δ = 360 at main span, L/Δ = 180 at cantilever. Snow load not assumed to be concurrent with live load.

d. No. 2 grade, wet service factor included.

e. Beam depth shall be equal to or greater than the depth of intersecting joist for a flush beam connection.

f. Beam cantilevers are limited to the adjacent beam's span divided by 4.

g. Includes incising factor.

h. Incising factor not included.

i. Deck joist span as shown in Figure R507.5.

TABLE R507.5(3)—MAXIMUM DECK BEAM SPAN—60 PSF GROUND SNOW LOAD[c]

	JOIST SPAN	JOIST SPAN LENGTH AND JOIST CANTILEVER LENGTH[a, i] (feet & feet)									
	6	6 & 0	6 & 1.5	—	—	—	—	—	—	—	—
	8	—	8 & 0	8 & 1	8 & 2	—	—	—	—	—	—
	10	—	—	10 & 0	10 & 1	10 & 2.5	—	—	—	—	—
	12	—	—	—	12 & 0	12 & 1	12 & 2	12 & 3	—	—	—
	14	—	—	—	—	14 & 0	14 & 1	14 & 2	14 & 3.5	—	—
	16	—	—	—	—	—	16 & 0	16 & 1	16 & 2.5	16 & 4	—
	18	—	—	—	—	—	—	—	—	18 & 3	18 & 4.5
BEAM SPECIES[d]	**BEAM SIZE[e]**	**MAXIMUM DECK BEAM SPAN LENGTH [a, b, f] (feet-inches)**									
Southern pine	1 – 2 × 6	4-5	4-2	3-10	3-7	3-3	3-1	2-11	2-9	2-6	2-5
	1 – 2 × 8	5-7	5-3	4-11	4-7	4-1	3-11	3-9	3-5	3-3	3-0
	1 – 2 × 10	6-8	6-3	5-10	5-5	4-10	4-7	4-5	4-1	3-10	3-7
	1 – 2 × 12	7-11	7-5	6-11	6-5	5-9	5-6	5-3	4-10	4-6	4-3
	2 – 2 × 6	6-7	6-2	5-9	5-4	4-9	4-6	4-4	4-0	3-9	3-7
	2 – 2 × 8	8-4	7-10	7-4	6-10	6-1	5-10	5-7	5-2	4-10	4-6
	2 – 2 × 10	9-10	9-4	8-8	8-1	7-3	6-11	6-7	6-1	5-8	5-4
	2 – 2 × 12	11-9	11-0	10-3	9-6	8-6	8-1	7-9	7-2	6-9	6-4
	3 – 2 × 6	7-9	7-5	7-1	6-9	6-0	5-9	5-6	5-1	4-9	4-6
	3 – 2 × 8	10-4	9-9	9-1	8-6	7-8	7-3	6-11	6-5	6-0	5-8
	3 – 2 × 10	12-5	11-8	10-11	10-2	9-1	8-8	8-3	7-8	7-2	6-9
	3 – 2 × 12	14-8	13-9	12-10	11-11	10-8	10-2	9-9	9-0	8-5	7-11
Douglas fir-larch[g]	1 – 2 × 6	3-11	3-8	3-4	3-1	2-8	2-6	2-4	2-2	2-0	1-10
	1 – 2 × 8	5-5	5-0	4-6	4-1	3-6	3-3	3-1	2-10	2-7	2-5
	1 – 2 × 10	6-6	6-1	5-7	5-2	4-6	4-3	4-0	3-7	3-4	3-2
	1 – 2 × 12	7-7	7-1	6-7	6-1	5-5	5-1	4-10	4-5	4-1	3-10
	2 – 2 × 6	5-10	5-6	5-1	4-9	4-3	4-0	3-10	3-5	3-1	2-10

Douglas fir-larch[g] Hem-fir[g] Spruce-pine-fir[g]	2 – 2 × 8	7-11	7-5	6-11	6-5	5-9	5-4	5-0	4-6	4-1	3-9
	2 – 2 × 10	9-7	9-0	8-5	7-10	7-0	6-8	6-4	5-9	5-2	4-10
	2 – 2 × 12	11-2	10-6	9-9	9-1	8-1	7-9	7-5	6-10	6-4	5-10
	3 – 2 × 6	7-4	6-11	6-5	6-0	5-4	5-1	4-11	4-6	4-2	3-10
	3 – 2 × 8	9-10	9-3	8-7	8-0	7-2	6-10	6-6	6-1	5-6	5-0
	3 – 2 × 10	12-1	11-4	10-7	9-10	8-9	8-4	8-0	7-5	6-11	6-5
	3 – 2 × 12	13-6	13-2	11-9	11-5	10-2	9-9	9-4	8-7	8-1	7-7
Redwood[h] Western cedars[h] Ponderosa pine[h] Red pine[h]	1 – 2 × 6	4-0	3-9	3-5	3-2	2-9	2-7	2-5	2-2	2-0	1-11
	1 – 2 × 8	5-2	4-10	4-6	4-2	3-7	3-4	3-2	2-11	2-8	2-6
	1 – 2 × 10	6-2	5-10	5-5	5-1	4-6	4-3	4-1	3-8	3-5	3-3
	1 – 2 × 12	7-3	6-10	6-4	5-11	5-3	5-0	4-10	4-5	4-2	3-11
	2 – 2 × 6	5-11	5-7	5-2	4-10	4-4	4-1	3-11	3-6	3-2	2-11
	2 – 2 × 8	7-6	7-1	6-7	6-2	5-6	5-3	5-0	4-7	4-2	3-10
	2 – 2 × 10	9-3	8-8	8-1	7-6	6-9	6-5	6-2	5-8	5-4	4-11
	2 – 2 × 12	10-8	10-1	9-5	8-9	7-10	7-6	7-2	6-7	6-2	5-10
	3 – 2 × 6	6-11	6-8	6-4	6-1	5-5	5-2	5-0	4-7	4-3	3-11
	3 – 2 × 8	9-3	8-9	8-3	7-9	6-22	6-7	6-4	5-20	5-5	5-3
	3 – 2 × 10	11-8	10-11	10-2	9-5	8-5	8-0	7-8	7-3	6-8	6-3
	3 – 2 × 12	13-6	12-8	11-9	10-11	9-9	8-4	8-11	8-3	7-9	7-3

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa, 1 pound = 0.454 kg.

a. Interpolation permitted for conditions with zero joist cantilever length. Extrapolation not permitted.

b. Beams supporting a single span of joists with or without cantilever.

c. Dead load = 10 psf, L/Δ = 360 at main span, L/Δ = 180 at cantilever. Snow load not assumed to be concurrent with live load.

d. No. 2 grade, wet service factor included.

e. Beam depth shall be equal to or greater than the depth of intersecting joist for a flush beam connection.

f. Beam cantilevers are limited to the adjacent beam's span divided by 4.

g. Includes incising factor.

h. Incising factor not included.

i. Deck joist span as shown in Figure R507.5.

TABLE R507.5(4)—MAXIMUM DECK BEAM SPAN—70 PSF GROUND SNOW LOAD[c]

	JOIST SPAN	JOIST SPAN LENGTH AND CANTILEVER LENGTH[a, i] (feet & feet)									
	6	6 & 0	6 & 1.5	—	—	—	—	—	—	—	—
	8	—	8 & 0	8 & 1	8 & 2	—	—	—	—	—	—
	10	—	—	10 & 0	10 & 1	10 & 2.5	—	—	—	—	—
	12	—	—	—	12 & 0	12 & 1	12 & 2	12 & 3	—	—	—
	14	—	—	—	—	14 & 0	14 & 1	14 & 2	14 & 3.5	—	—
	16	—	—	—	—	—	16 & 0	16 & 1	16 & 2.5	16 & 4	—
	18	—	—	—	—	—	—	—	—	18 & 3	18 & 4.5
BEAM SPECIES[d]	**BEAM SIZE[e]**	**MAXIMUM DECK BEAM SPAN LENGTH[a, b, f] (feet-inches)**									
	1 – 2 × 6	4-2	3-11	3-7	3-4	3-0	2-10	2-9	2-6	2-4	2-3
	1 – 2 × 8	5-4	4-11	4-8	4-3	3-10	3-8	3-6	3-3	3-0	2-10
	1 – 2 × 10	6-2	5-10	5-5	5-1	4-6	4-4	4-2	3-10	3-7	3-4
	1 – 2 × 12	7-4	6-11	6-5	6-0	5-4	5-1	4-11	4-6	4-3	4-0

Southern pine	2 – 2 × 6	6-3	5-9	5-4	5-0	4-6	4-3	4-1	3-9	3-6	3-4
	2 – 2 × 8	7-10	7-4	6-10	6-4	5-8	5-5	5-2	4-10	4-6	4-3
	2 – 2 × 10	9-6	8-9	8-2	7-7	6-9	6-5	6-2	5-8	5-4	5-0
	2 – 2 × 12	10-11	10-3	9-7	8-11	8-0	7-7	7-3	6-9	6-3	5-11
	3 – 2 × 6	7-4	7-0	6-7	6-3	5-7	5-4	5-1	4-9	4-5	4-2
	3 – 2 × 8	9-10	9-3	8-7	8-0	7-2	6-10	6-6	6-0	5-8	5-4
	3 – 2 × 10	11-7	10-11	10-2	9-6	8-6	8-1	7-9	7-2	6-8	6-4
	3 – 2 × 12	13-9	12-11	12-0	11-2	10-0	9-6	9-1	8-5	7-11	7-5
Douglas fir-larch[g] Hem-fir[g] Spruce-pine-fir[g]	1 – 2 × 6	3-8	3-5	3-1	2-10	2-5	2-3	2-2	2-0	1-10	1-9
	1 – 2 × 8	4-10	4-7	4-1	3-8	3-2	3-0	2-10	2-7	2-5	2-4
	1 – 2 × 10	6-1	5-8	5-2	4-9	4-1	3-10	3-8	3-4	3-1	2-11
	1 – 2 × 12	7-0	6-7	6-1	5-8	5-0	4-9	4-6	4-1	3-10	3-7
	2 – 2 × 6	5-6	5-2	4-10	4-6	4-0	3-8	3-5	3-1	2-10	2-7
	2 – 2 × 8	7-4	6-11	6-5	6-0	5-3	4-11	4-7	4-1	3-8	3-5
	2 – 2 × 10	8-11	8-5	7-10	7-4	6-6	6-2	5-10	5-2	4-9	4-5
	2 – 2 × 12	10-6	9-10	9-2	8-6	7-7	7-3	6-11	6-4	5-9	5-4
	3 – 2 × 6	6-11	6-6	6-0	5-7	5-0	4-9	4-7	4-2	3-9	3-5
	3 – 2 × 8	9-3	8-8	8-1	7-6	6-8	6-4	6-1	5-6	5-0	4-7
	3 – 2 × 10	11-3	10-7	9-10	9-2	8-2	7-10	7-6	6-11	6-4	5-10
	3 – 2 × 12	13-2	12-4	11-6	10-8	9-7	9-2	8-9	8-1	7-7	7-1
Redwood[h] Western cedars[h] Ponderosa pine[h] Red pine[h]	1 – 2 × 6	3-9	3-6	3-2	2-11	2-6	2-4	2-3	2-0	1-11	1-9
	1 – 2 × 8	4-10	4-6	4-2	3-10	3-3	3-1	2-11	2-8	2-6	2-4
	1 – 2 × 10	5-10	5-6	5-1	4-9	4-2	3-11	3-9	3-5	3-2	3-0
	1 – 2 × 12	6-9	6-4	5-11	5-6	4-11	4-8	4-6	4-2	3-11	3-8
	2 – 2 × 6	5-7	5-3	4-11	4-7	4-1	3-9	3-6	3-2	2-11	2-8
	2 – 2 × 8	7-1	6-8	6-2	5-9	5-2	4-11	4-8	4-2	3-10	3-6
	2 – 2 × 10	8-8	8-2	7-7	7-1	6-4	6-0	5-9	5-4	4-10	4-6
	2 – 2 × 12	10-0	9-5	8-9	8-2	7-4	7-0	6-8	6-2	5-9	5-5
	3 – 2 × 6	6-8	6-4	6-0	5-8	5-1	4-10	4-8	4-3	3-10	3-6
	3 – 2 × 8	8-10	8-4	7-9	7-3	6-5	6-2	5-11	5-5	5-1	4-8
	3 – 2 × 10	10-10	10-2	9-6	8-10	7-11	7-6	7-2	6-8	6-3	5-11
	3 – 2 × 12	12-7	11-10	11-0	10-3	9-2	8-9	8-4	7-9	7-3	6-10

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa, 1 pound = 0.454 kg.

a. Interpolation permitted for conditions with zero joist cantilever length. Extrapolation not permitted.

b. Beams supporting a single span of joists with or without cantilever.

c. Dead load = 10 psf, L/Δ = 360 at main span, L/Δ = 180 at cantilever. Snow load not assumed to be concurrent with live load.

d. No. 2 grade, wet service factor included.

e. Beam depth shall be equal to or greater than the depth of intersecting joist for a flush beam connection.

f. Beam cantilevers are limited to the adjacent beam's span divided by 4.

g. Includes incising factor.

h. Incising factor not included.

i. Deck joist span as shown in Figure R507.5.

R507.5.1 Deck beam bearing.

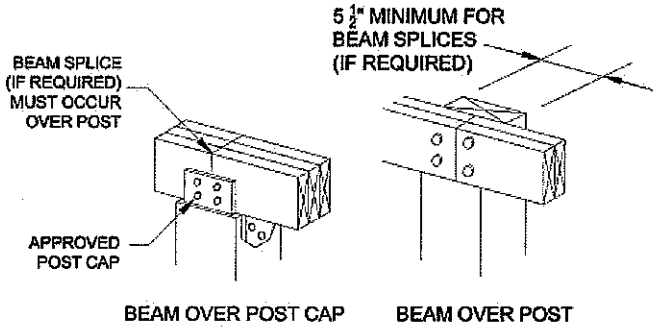
Beams and individual beam plies of built-up beams shall be continuous between bearing locations and continuous across bearing locations supporting beam cantilevers. Beams shall be permitted to cantilever beyond bearing locations up to

one-fourth of the actual beam span. The ends of beams shall have not less than $1^1/_2$ inches (38 mm) of bearing length on wood or metal and not less than 3 inches (76 mm) of bearing length on concrete or masonry for the entire width of the beam.

R507.5.2 Deck beam connection to supports.

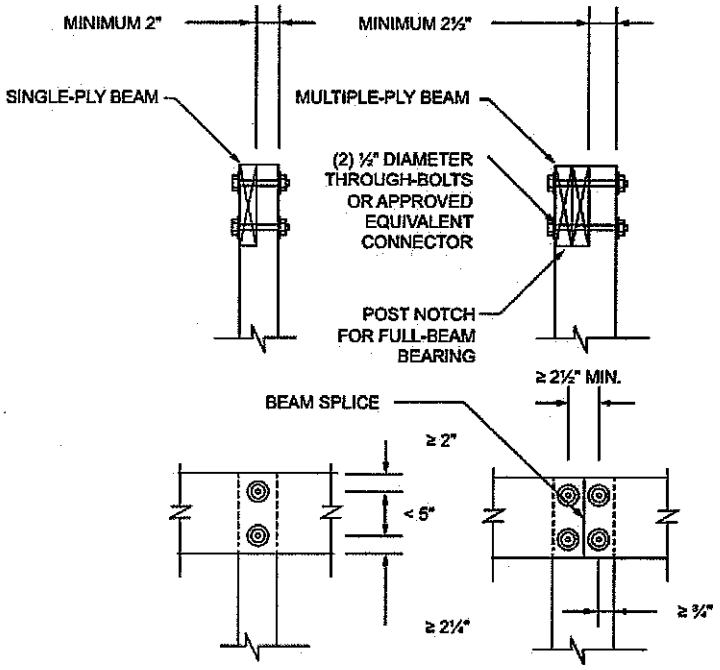
Deck beams shall be connected to supporting members to prevent lateral displacement. Deck beam connections to wood posts shall be in accordance with Figures R507.5.2(1)) and R507.5.2(2). Manufactured post-to-beam connectors shall be sized for the post and beam sizes. Bolts shall have washers under the head and nut.

FIGURE R507.5.2(1)—DECK BEAM TO DECK POST



For SI: 1 inch = 25.4 mm.

FIGURE R507.5.2(2)—NOTCHED POST-TO-BEAM CONNECTION

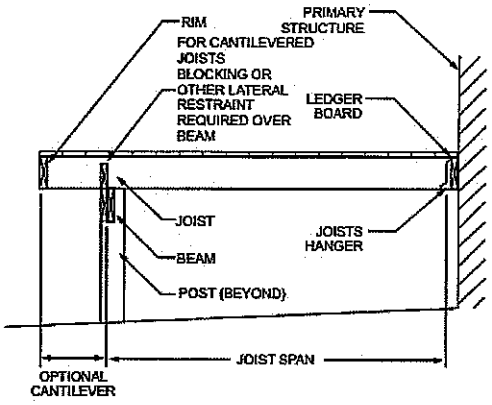


For SI: 1 inch = 25.4 mm.

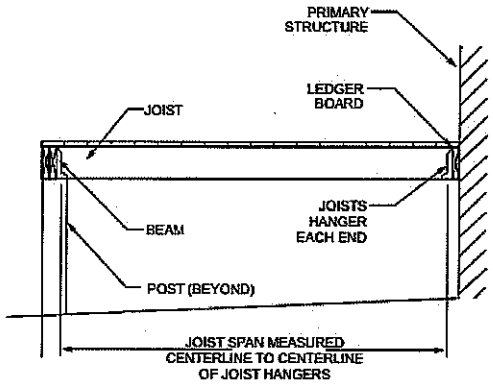
R507.6 Deck joists.

Maximum allowable spans for wood deck joists, as shown inFigure R507.6, shall be in accordance with Table R507.6. The maximum joist spacing shall be limited by the decking materials in accordance with Table R507.7.

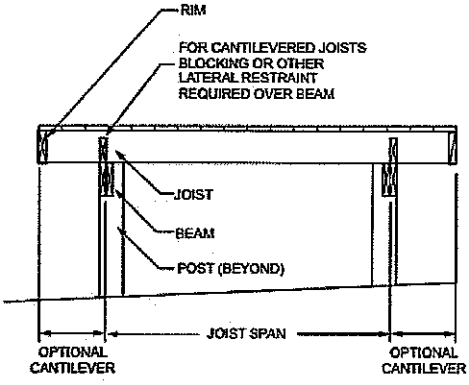
FIGURE R507.6—TYPICAL DECK JOIST SPANS



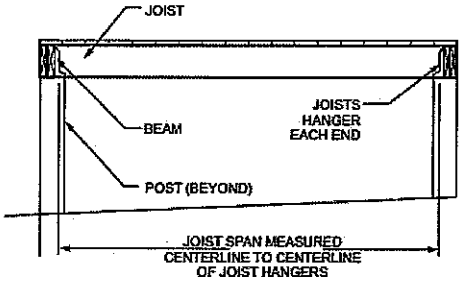
CANTILEVERED JOISTS WITH DROPPED BEAM



JOISTS WITH FLUSH BEAM



JOISTS ON FREE-STANDING DECK WITH DROPPED BEAM



JOISTS ON FREE-STANDING DECK WITH FLUSH BEAM

TABLE R507.6—MAXIMUM DECK JOIST SPANS

LOAD[a] (psf)	JOIST SPECIES[b]	JOIST SIZE	ALLOWABLE JOIST SPAN[b, c] (feet-inches)			MAXIMUM CANTILEVER[d, f] (feet-inches)							
			Joist spacing (inches)			Joist back span[g] (feet)							
			12	16	24	4	6	8	10	12	14	16	18
40 live load	Southern pine	2 × 6	9-11	9-0	7-7	1-0	1-6	1-5	NP	NP	NP	NP	NP
		2 × 8	13-1	11-10	9-8	1-0	1-6	2-0	2-6	2-3	NP	NP	NP
		2 × 10	16-2	14-0	11-5	1-0	1-6	2-0	2-6	3-0	3-4	3-4	NP
		2 × 12	18-0	16-6	13-6	1-0	1-6	2-0	2-6	3-0	3-6	4-0	4-1
	Douglas fir-larch[e] Hem-fir[e] Spruce-pine-fir[e]	2 × 6	9-6	8-4	6-10	1-0	1-6	1-4	NP	NP	NP	NP	NP
		2 × 8	12-6	11-1	9-1	1-0	1-6	2-0	2-3	2-0	NP	NP	NP
		2 × 10	15-8	13-7	11-1	1-0	1-6	2-0	2-6	3-0	3-3	NP	NP
		2 × 12	18-0	15-9	12-10	1-0	1-6	2-0	2-6	3-0	3-6	3-11	3-11
	Redwood[f] Western cedars[f] Ponderosa pine[f] Red pine[f]	2 × 6	8-10	8-0	6-10	1-0	1-4	1-1	NP	NP	NP	NP	NP
		2 × 8	11-8	10-7	8-8	1-0	1-6	2-0	1-11	NP	NP	NP	NP
		2 × 10	14-11	13-0	10-7	1-0	1-6	2-0	2-6	3-0	2-9	NP	NP
		2 × 12	17-5	15-1	12-4	1-0	1-6	2-0	2-6	3-0	3-6	3-8	NP
50 ground snow load	Southern pine	2 × 6	9-2	8-4	7-4	1-0	1-6	1-5	NP	NP	NP	NP	NP
		2 × 8	12-1	11-0	9-5	1-0	1-6	2-0	2-5	2-3	NP	NP	NP
		2 × 10	15-5	13-9	11-3	1-0	1-6	2-0	2-6	3-0	3-1	NP	NP
		2 × 12	18-0	16-2	13-2	1-0	1-6	2-0	2-6	3-0	3-6	3-10	3-10
	Douglas fir-larch[e] Hem-fir[e] Spruce-pine-fir[e]	2 × 6	8-10	8-0	6-8	1-0	1-6	1-4	NP	NP	NP	NP	NP
		2 × 8	11-7	10-7	8-11	1-0	1-6	2-0	2-3	NP	NP	NP	NP
		2 × 10	14-10	13-3	10-10	1-0	1-6	2-0	2-6	3-0	3-0	NP	NP
		2 × 12	17-9	15-5	12-7	1-0	1-6	2-0	2-6	3-0	3-6	3-8	NP

	Redwood[f] Western cedars[f] Ponderosa pine[f] Red pine[f]	2 × 6	8-3	7-6	6-6	1-0	1-4	1-1	NP	NP	NP	NP	NP
		2 × 8	10-10	9-10	8-6	1-0	1-6	2-0	1-11	NP	NP	NP	NP
		2 × 10	13-10	12-7	10-5	1-0	1-6	2-0	2-6	2-9	NP	NP	NP
		2 × 12	16-10	14-9	12-1	1-0	1-6	2-0	2-6	3-0	3-5	3-5	NP
60 ground snow load	Southern pine	2 × 6	8-8	7-10	6-10	1-0	1-6	1-5	NP	NP	NP	NP	NP
		2 × 8	11-5	10-4	8-9	1-0	1-6	2-0	2-4	NP	NP	NP	NP
		2 × 10	14-7	12-9	10-5	1-0	1-6	2-0	2-6	2-11	2-11	NP	NP
		2 × 12	17-3	15-0	12-3	1-0	1-6	2-0	2-6	3-0	3-6	3-7	NP
	Douglas fir-larch[e] Hem-fir[e] Spruce-pine-fir[e]	2 × 6	8-4	7-6	6-2	1-0	1-6	1-4	NP	NP	NP	NP	NP
		2 × 8	10-11	9-11	8-3	1-0	1-6	2-0	2-2	NP	NP	NP	NP
		2 × 10	13-11	12-4	10-0	1-0	1-6	2-0	2-6	2-10	NP	NP	NP
		2 × 12	16-6	14-3	11-8	1-0	1-6	2-0	2-6	3-0	3-5	3-5	NP
	Redwood[f] Western cedars[f] Ponderosa pine[f] Red pine[f]	2 × 6	7-9	7-0	6-2	1-0	1-4	NP	NP	NP	NP	NP	NP
		2 × 8	10-2	9-3	7-11	1-0	1-6	2-0	1-11	NP	NP	NP	NP
		2 × 10	13-0	11-9	9-7	1-0	1-6	2-0	2-6	2-7	NP	NP	NP
		2 × 12	15-9	13-8	11-2	1-0	1-6	2-0	2-6	3-0	3-2	NP	NP
70 ground snow load	Southern pine	2 × 6	8-3	7-6	6-5	1-0	1-6	1-5	NP	NP	NP	NP	NP
		2 × 8	10-10	9-10	8-2	1-0	1-6	2-0	2-2	NP	NP	NP	NP
		2 × 10	13-9	11-11	9-9	1-0	1-6	2-0	2-6	2-9	NP	NP	NP
		2 × 12	16-2	14-0	11-5	1-0	1-6	2-0	2-6	3-0	3-5	3-5	NP
	Douglas fir-larch[e] Hem-fir[e] Spruce-pine-fir[e]	2 × 6	7-11	7-1	5-9	1-0	1-6	NP	NP	NP	NP	NP	NP
		2 × 8	10-5	9-5	7-8	1-0	1-6	2-0	2-1	NP	NP	NP	NP
		2 × 10	13-3	11-6	9-5	1-0	1-6	2-0	2-6	2-8	NP	NP	NP
		2 × 12	15-5	13-4	10-11	1-0	1-6	2-0	2-6	3-0	3-3	NP	NP
	Redwood[f] Western cedars[f] Ponderosa pine[f] Red pine[f]	2 × 6	7-4	6-8	5-10	1-0	1-4	NP	NP	NP	NP	NP	NP
		2 × 8	9-8	8-10	7-4	1-0	1-6	1-11	NP	NP	NP	NP	NP
		2 × 10	12-4	11-0	9-0	1-0	1-6	2-0	2-6	2-6	NP	NP	NP
		2 × 12	14-9	12-9	10-5	1-0	1-6	2-0	2-6	3-0	3-0	NP	NP

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa, 1 pound = 0.454 kg.

NP = Not Permitted.

a. Dead load = 10 psf. Snow load not assumed to be concurrent with live load.
b. No. 2 grade, wet service factor included.
c. $L/\Delta = 360$ at main span.
d. $L/\Delta = 180$ at cantilever with a 220-pound point load applied to end.
e. Includes incising factor.
f. Incising factor not included.
g. Interpolation allowed. Extrapolation is not allowed.

R507.6.1 Deck joist bearing.

The ends of joists shall have not less than $1\frac{1}{2}$ inches (38 mm) of bearing length on wood or metal and not less than 3 inches (76 mm) of bearing length on concrete or masonry over its entire width. Joists bearing on top of a multiple-ply beam or ledger shall be fastened in accordance with Table R602.3(1). Joists bearing on top of a single-ply beam or ledger shall be attached by a mechanical connector. Joist framing into the side of a beam or ledger board shall be supported by *approved* joist hangers.

R507.6.2 Deck joist lateral restraint.

Joist ends and bearing locations shall be provided with lateral resistance to prevent rotation. Where lateral restraint is provided by joist hangers or blocking between joists, their depth shall equal not less than 60 percent of the joist depth. Where lateral restraint is provided by rim joists, they shall be secured to the end of each joist with not fewer than three 10d (3-inch by 0.128-inch) (76 mm by 3.3 mm) nails or three No. 10 x 3-inch-long (76 mm) wood screws.

R507.7 Decking.

Maximum allowable spacing for joists supporting wood decking, excluding stair treads, shall be in accordance with Table R507.7. Wood decking shall be attached to each supporting member with not less than two 8d deformed shank nails or two No. 8 wood screws. Maximum allowable spacing for joists supporting *plastic composite* decking shall be in accordance with Section R507.2. Other *approved* decking or fastener systems shall be installed in accordance with the manufacturer's installation requirements.

TABLE R507.7—MAXIMUM JOIST SPACING FOR WOOD DECKING

DECKING MATERIAL TYPE AND NOMINAL SIZE	DECKING PERPENDICULAR TO JOIST		DECKING DIAGONAL TO JOIST[a]	
	Single span[c]	Multiple span[c]	Single span[c]	Multiple span[c]
	Maximum on-center joist spacing (inches)			
$1\frac{1}{4}$-inch-thick wood[b]	12	16	8	12
2-inch-thick wood	24	24	18	24

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.01745 rad.

a. Maximum angle of 45 degrees from perpendicular for wood deck boards.

b. Other maximum span provided by an accredited lumber grading or inspection agency also allowed.

c. Individual wood deck boards supported by two joists shall be considered single span and three or more joists shall be considered multiple span.

R507.8 Vertical and lateral supports.

Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal. For decks with cantilevered framing members, connection to exterior walls or other framing members shall be designed and constructed to resist uplift resulting from the full *live load* specified in Table R301.5 acting on the cantilevered portion of the deck. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self-supporting.

R507.9 Vertical and lateral supports at band joist.

Vertical and lateral supports for decks shall comply with this section.

R507.9.1 Vertical supports.

Vertical loads shall be transferred to band joists with ledgers in accordance with this section.

R507.9.1.1 Ledger details.

Deck ledgers shall be a minimum 2-inch by 8-inch (51 mm by 203 mm) nominal, No. 2 grade or better pressure-preservative-treated Southern pine, incised pressure-preservative-treated hem-fir, or decay-resistant, *naturally durable wood*. Deck ledgers shall not support concentrated loads from beams or girders. Deck ledgers shall not be supported on stone or masonry veneer.

R507.9.1.2 Band joist details.

Band joists supporting a ledger shall be a minimum 2-inch-nominal (51 mm), solid-sawn, spruce-pine-fir or better lumber or a minimum 1-inch (25 mm) nominal engineered wood rim boards in accordance with Section R502.1.7. Band joists shall bear fully on the primary structure capable of supporting all required loads.

R507.9.1.3 Ledger to band joist details.

Where ledgers are fastened in accordance with Table R507.9.1.3(1), fasteners shall comply with Section R507.2.3 and shall be installed in accordance with Table R507.9.1.3(2) and Figures R507.9.1.3(1) and R507.9.1.3(2). Holes for $\frac{1}{2}$-inch (12.7 mm) lag screws shall be predrilled with two drill bits so that a hole $\frac{1}{2}$ inch (12.7mm) in diameter is drilled through the ledger and sheathing, if present, and a hole $\frac{5}{16}$ inch (7.9 mm) to $\frac{3}{8}$ inch (9.5mm) in diameter is drilled through the band joist.

TABLE R507.9.1.3(1)—DECK LEDGER CONNECTION TO BAND JOIST

LOAD[c] (psf)	JOIST SPAN[a] (feet)	ON-CENTER SPACING OF FASTENERS[b] (inches)		
		$\frac{1}{2}$-inch diameter lag screw with $\frac{1}{2}$-inch maximum sheathing[d, e]	$\frac{1}{2}$-inch diameter bolt with $\frac{1}{2}$-inch maximum sheathing[e]	$\frac{1}{2}$-inch diameter bolt with 1-inch maximum sheathing[f]

40 live load	6	30	36	36
	8	23	36	36
	10	18	34	29
	12	15	29	24
	14	13	24	21
	16	11	21	18
	18	10	19	16
50 ground snow load	6	29	36	36
	8	22	36	35
	10	17	33	28
	12	14	27	23
	14	12	23	20
	16	11	20	17
	18	9	18	15
60 ground snow load	6	25	36	36
	8	18	35	30
	10	15	28	24
	12	12	23	20
	14	10	20	17
	16	9	17	15
	18	8	15	13
70 ground snow load	6	22	36	35
	8	16	31	26
	10	13	25	21
	12	11	20	17
	14	9	17	15
	16	8	15	13
	18	7	13	11

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

a. Interpolation permitted. Extrapolation is not permitted.

b. Ledgers shall be flashed in accordance with Section R703.4 to prevent water from contacting the house band joist.

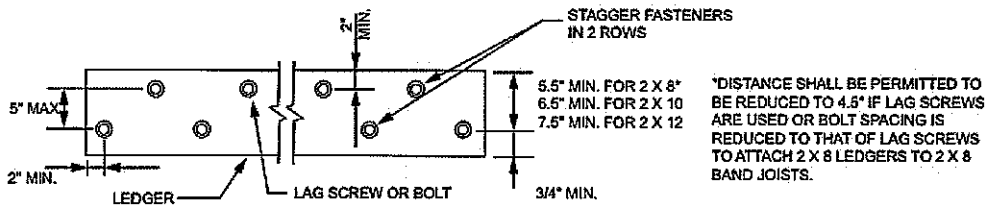
c. Dead Load = 10 psf. Snow load shall not be assumed to act concurrently with live load.

d. The tip of the lag screw shall fully extend beyond the inside face of the band joist. Lag screws shall be full-body diameter screws.

e. Sheathing shall be wood structural panel or solid sawn lumber.

f. Sheathing shall be permitted to be wood structural panel, gypsum board, fiberboard, lumber or foam sheathing. Up to $^1/_2$-inch thickness of stacked washers shall be permitted to substitute for up to $^1/_2$ inch of allowable sheathing thickness where combined with wood structural panel or lumber sheathing.

FIGURE R507.9.1.3(1)—PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS



For SI: 1 inch = 25.4 mm.

TABLE R507.9.1.3(2)—PLACEMENT OF LAG SCREWS AND BOLTS IN DECK LEDGERS AND BAND JOISTS

	MINIMUM END AND EDGE DISTANCES AND SPACING BETWEEN ROWS			
	TOP EDGE	BOTTOM EDGE	ENDS	ROW SPACING
Ledger[a]	2 inches[d]	3/4 inch	2 inches[b]	1 5/8 inches[b]
Band Joist[c]	3/4 inch	2 inches	2 inches	1 5/8 inches[b]

For SI: 1 inch = 25.4 mm.

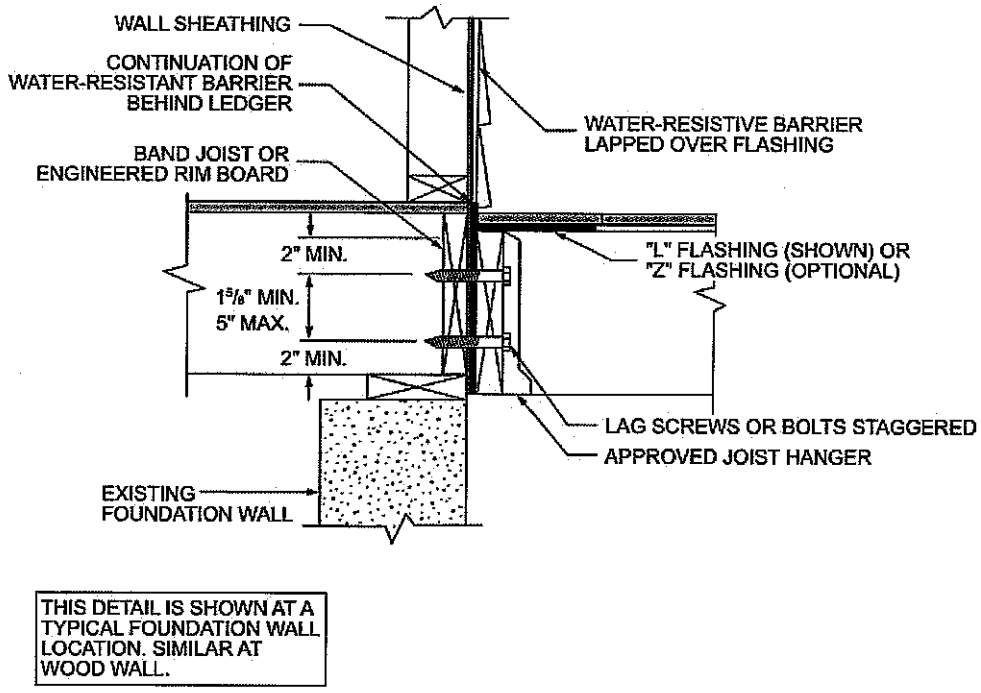
a. Lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger in accordance with Figure R507.9.1.3(1).

b. Maximum 5 inches.

c. For engineered rim joists, the manufacturer's recommendations shall govern.

d. The minimum distance from bottom row of lag screws or bolts to the top edge of the ledger shall be in accordance with Figure R507.9.1.3(1).

FIGURE R507.9.1.3(2)—PLACEMENT OF LAG SCREWS AND BOLTS IN BAND JOISTS



For SI: 1 inch = 25.4 mm.

R507.9.1.4 Alternate ledger details.

Alternate framing configurations supporting a ledger constructed to meet the load requirements of Section R301.5 shall be permitted.

R507.9.1.5 Ledger flashing.

Where ledgers are attached to wood-frame construction, flashing shall be installed above the ledger to prevent the entry of water into the wall cavity or behind the ledger. Flashing shall extend vertically not less than 2 inches (51 mm) above the ledger. Flashing shall extend horizontally not less than 4 inches (102 mm) beyond the ledger face or shall extend to the ledger face and not less than 1/4 inch down the ledger face.

Exceptions:

1. Where a window or door opening is located less than 2 inches (51 mm) above the ledger, flashing shall extend to the bottom of the wall opening.
2. Flashing is not required where the ledger is spaced horizontally from the *exterior wall covering* not less than 1/4 inch (6.4 mm) to allow for drainage and ventilation behind the ledger.

R507.9.1.6 Water-resistive barrier.

The water-resistive barrier required by Section R703.2 shall be lapped over a vertical leg of the ledger flashing or counterflashing extending up the wall by not less than 2 inches (51 mm) or the height of the vertical flashing leg, whichever is less. The *water-resistive barrier* shall continue from the top of the ledger flashing down the wall and behind the ledger flashing and ledger.

Exceptions:

1. Flashing shall be permitted to be placed against the face of the *water-resistive barrier* where a self-adhering membrane counterflashing is installed not less than 2 inches (51 mm) over the vertical leg of the flashing and not less than 2 inches (51 mm) onto the *water-resistive barrier.*
2. Flashing shall be permitted to be placed in front of the *water-resistive barrier* and behind the *exterior wall covering* where ledgers are spaced horizontally from the exterior wall not less than $^1/_4$ inch (6.4 mm) to allow for drainage and ventilation behind the ledger.

R507.9.1.7 Existing walls.

Where ledgers are attached to existing walls without water-resistive barriers, a *water-resistive barrier* shall be installed behind the ledger and ledger flashing. The *water-resistive barrier* shall extend to the top of the ledger flashing vertical leg and not less than $^1/_2$ inch (12.7 mm) beyond the sides and bottom of the ledger. A self-adhering membrane counterflashing shall be installed not less than 2 inches (51 mm) over the vertical leg of the ledger flashing and not less than 2 inches (51 mm) onto the existing sheathing.

Exceptions:

1. Where a window or door opening is located less than 2 inches (51 mm) above the ledger, flashing shall extend to the bottom of the wall opening.
2. Flashing is not required where the ledger is spaced horizontally from the *exterior wall covering* not less than $^1/_4$ inch (6.4 mm) to allow for drainage and ventilation behind the ledger.

R507.9.1.8 Exterior wall coverings.

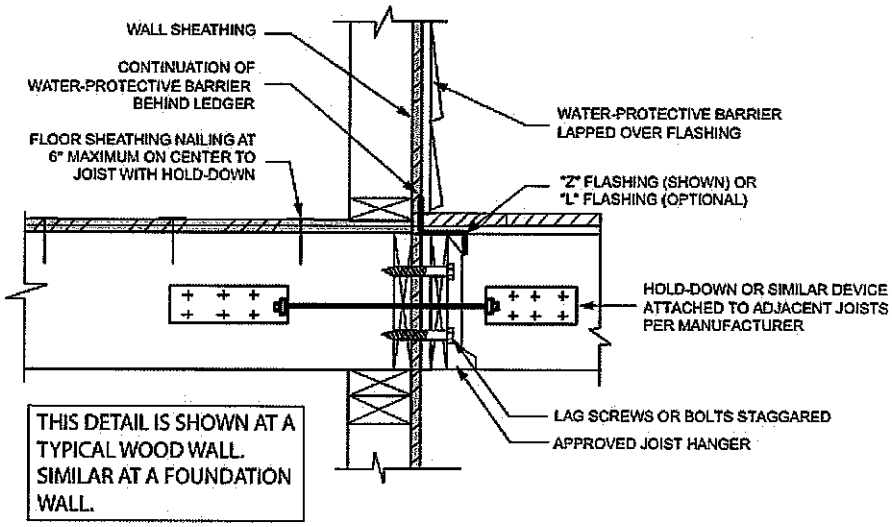
Exterior wall coverings shall be terminated above the finished deck surface in accordance with the covering manufacturer's requirements and Chapter 7, as applicable to the type of covering.

Exception: *Exterior wall coverings* shall be permitted behind ledgers in accordance with Section R507.9.1.5 where capable of resisting compression forces from the ledger attachment.

R507.9.2 Lateral connection.

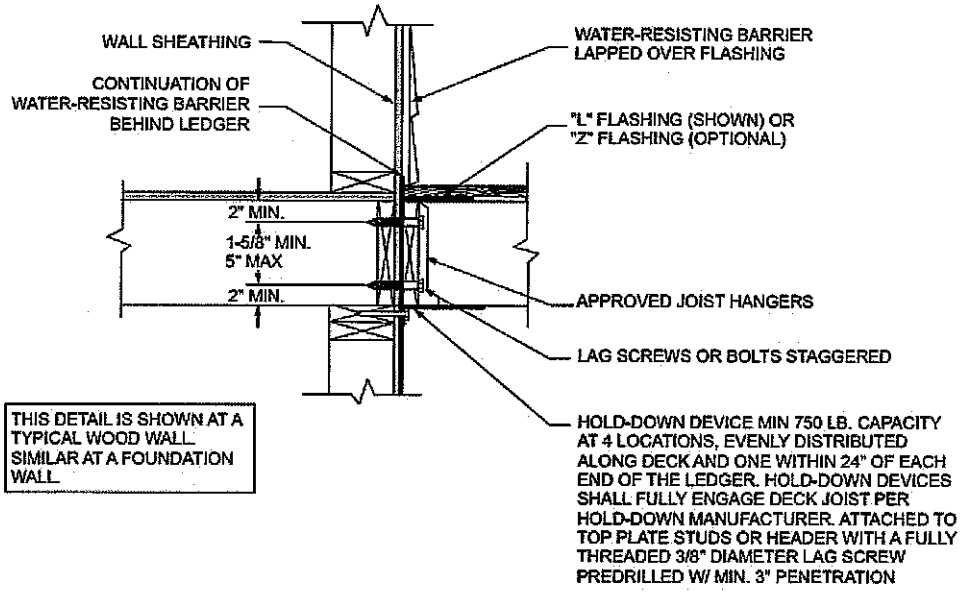
Lateral loads shall be transferred to the ground or to a structure capable of transmitting them to the ground. Where the lateral load connection is provided in accordance with Figure R507.9.2(1), hold-down tension devices shall be installed in not less than two locations per deck, within 24 inches (610 mm) of each end of the deck. Each device shall have an allowable stress design capacity of not less than 1,500 pounds (6672 N). Where the lateral load connections are provided in accordance with Figure R507.9.2(2), the hold-down tension devices shall be installed in not less than four locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds (3336 N).

FIGURE R507.9.2(1)—DECK ATTACHMENT FOR LATERAL LOADS



For SI: 1 inch = 25.4 mm.

FIGURE R507.9.2(2)—DECK ATTACHMENT FOR LATERAL LOADS



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

R507.10 Exterior guards.

Guards shall be constructed to meet the requirements ofSections R301.5 and R321, and this section.

R507.10.1 Support of guards.

Where *guards* are supported on deck framing,*guard* loads shall be transferred to the deck framing with a continuous load path to the deck joists.

R507.10.1.1 Guards supported by side of deck framing.

Where *guards* are connected to the interior or exterior side of a deck joist or beam, the joist or beam shall be connected to the adjacent joists to prevent rotation of the joist or beam. Connections relying only on fasteners in end grain withdrawal are not permitted.

R507.10.1.2 Guards supported on top of deck framing.

Where *guards* are mounted on top of the decking, the *guards* shall be connected to the deck framing or blocking and installed in accordance with manufacturer's instructions to transfer the *guard* loads to the adjacent joists.

R507.10.2 Wood posts at deck guards.

Where 4-inch by 4-inch (102 mm by 102 mm) wood posts support guard loads applied to the top of the *guard*, such posts shall not be notched at the connection to the supporting structure.

R507.10.3 Plastic composite guards.

Plastic composite guards shall comply with the provisions ofSection R507.2.2.

R507.10.4 Other guards.

Other *guards* shall be in accordance with either manufacturer's instructions or accepted engineering principles.

R318.7 Stairways.

Where required by this code or provided, *stairways* shall comply with this section.

Exceptions:

1. 1.*Stairways* not within or serving a *building*, porch or deck.
2. 2.*Stairways* leading to nonhabitable attics.
3. 3.*Stairways* leading to *crawl spaces*.

R318.7.1 Width.

Stairways shall be not less than 36 inches (914 mm) in clear width at all points above the permitted *handrail* height and below the required headroom height. The clear width of *stairways* at and below the *handrail* height, including treads and landings, shall be not less than $31^1/_2$ inches (787 mm) where a *handrail* is installed on one side and 27 inches (698 mm) where *handrails* are installed on both sides.

R318.7.3 Vertical rise.

A *flight* of stairs shall not have a vertical rise greater than 12 feet 7 inches (3835 mm) between floor levels or landings.

R318.7.5 Stair treads and risers.

Stair treads and *risers* shall meet the requirements of this section. For the purposes of this section, dimensions and dimensioned surfaces shall be exclusive of carpets, rugs or runners.

[NY] R318.7.5.1 Risers.

The *riser* height shall be not more than $8^1/_4$ inches (209 mm). The riser height shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any *flight* of stairs shall not exceed the smallest by more than $^3/_8$ inch (9.5 mm). *Risers* shall be vertical or sloped from the underside of the *nosing* of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. At open *risers*, openings located more than 30 inches (762 mm), as measured vertically, to the floor or *grade* below shall not permit the passage of a 4-inch-diameter (102 mm) sphere.

Exceptions:

1. 1.The opening between adjacent treads is not limited on *spiral stairways*.

2. 2.The riser height of *spiral stairways* shall be in accordance with Section R318.7.11.1.

[NY] R318.7.5.2 Treads.

The tread depth shall be not less than 9 inches (229 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any *flight* of stairs shall not exceed the smallest by more than $^{3}/_{8}$ inch (9.5 mm).

R318.7.5.3 Nosings.

Treads, landings and floors of *stairways* shall have a radius of curvature at the *nosing* not greater than $^{9}/_{16}$ inch (14 mm) or a bevel not greater than $^{1}/_{2}$ inch (12.7 mm).
A *nosing* projection not less than $^{3}/_{4}$ inch (19 mm) and not more than $1^{1}/_{4}$ inches (32 mm) shall be provided on *stairways*. The greatest *nosing* projection shall not exceed the smallest *nosing* projection by more than $^{3}/_{8}$ inch (9.5 mm) within a flight of stairs and the landings at the top of the flight.

Exceptions:

1. 1.A *nosing* projection is not required where the tread depth is not less than 11 inches (279 mm).
2. 2.Where *risers* are open, the maximum *nosing* projection shall be permitted to exceed $1^{1}/_{4}$ inches (32 mm).

R318.7.5.4 Exterior plastic composite stair treads.

Plastic composite exterior stair treads shall comply with the provisions of this section and Section R507.2.2.

[NY] R318.7.6 Landings for stairways.

There shall be a floor or landing at the top and bottom of each *flight* of stairs. The width perpendicular to the direction of travel shall be not less than the width of the *flight* served. For landings of shapes other than square or rectangular, the depth at the walk line and the total area shall be not less than that of a quarter circle with a radius equal to the required landing width. Where the *stairway* has a straight run, the depth in the direction of travel shall be not less than 36 inches (914 mm).

Exceptions:

1. 1.The top landing of an interior *stairway*, including those in an enclosed garage, shall be permitted to be on the other side of a door located at the top of the *stairway*, provided that the door does not swing over the stairs.
2. 2.At an enclosed garage, the top landing at the *stair* shall be permitted to be not more than $8^1/_4$ inches (209 mm) below the top of the threshold.
3. 3.At exterior doors, a top landing is not required for an exterior stairway of not more than two risers, provided that the door does not swing over the *stairway*.
4. 4.Exterior *stairways* to grade with three or fewer *risers* serving a deck, porch or patio shall have a bottom landing width of not less than 36 inches (914 mm), provided that the stairway is not the required access to grade serving the required egress door.

R318.7.7 Stairway walking surface.

The walking surface of treads and landings of *stairways* shall be sloped not steeper than 1 unit vertical in 48 units horizontal (2-percent slope).

Exception: Where the surface of a landing is required elsewhere in the code to drain surface water, the walking surface of the landing shall be sloped not steeper than 1 unit vertical in 20 units horizontal (5-percent slope) in the direction of travel.

R318.7.8 Handrails.

Handrails shall be provided on not less than one side of each *flight* of stairs with four or more *risers*.

R318.8 Ramps.

Where required by this code or provided, *ramps* shall comply with this section.

Exception: *Ramps* not within or serving a *building*, porch or deck.

R318.8.1 Maximum slope.

Ramps serving the egress door required by Section R318.2 shall have a slope of not more than 1 unit vertical in 12 units horizontal (8.3-percent slope).

Other *ramps* shall have a slope of not more than 1 unit vertical in 8 units horizontal (12.5 percent).

Exception: Where it is technically infeasible to comply because of site constraints, *ramps* shall have a slope of not more than 1 unit vertical in 8 units horizontal (12.5 percent).

R318.8.2 Landings required.

There shall be a floor or landing at the top and bottom of each *ramp*, where doors open onto *ramps*, and where *ramps* change directions. The width of the landing perpendicular to the *ramp* slope shall be not less than the width of the *ramp*. The depth of the landing in the direction of the ramp slope shall be not less than 36 inches (914 mm).

R318.8.3 Handrails required.

Handrails shall be provided on not less than one side of *ramps* exceeding a slope of 1 unit vertical in 12 units horizontal (8.33-percent slope) and shall comply with Section R320.

Affidavit of Exemption to Show Specific Proof of Workers' Compensation Insurance Coverage for a 1, 2, 3 or 4 Family, Owner-occupied Residence

This form cannot be used to waive the workers' compensation rights or obligations of any party.

Under penalty of perjury, I certify that I am the owner of the 1, 2, 3 or 4 family, **owner-occupied** residence (including condominiums) listed on the building permit that I am applying for, and I am not required to show specific proof of workers' compensation insurance coverage for such residence because (please check the appropriate box):

☐ I am performing all the work for which the building permit was issued.

☐ I am not hiring, paying or compensating in any way, the individual(s) that is(are) performing all the work for which the building permit was issued or helping me perform such work.

☐ I have a homeowner's insurance policy that is currently in effect and covers the property listed on the attached building permit AND am hiring or paying individuals a total of less than 40 hours per week (aggregate hours for all paid individuals on the jobsite) for which the building permit was issued.

I also agree to either:

- acquire appropriate workers' compensation coverage and provide appropriate proof of that coverage on forms approved by the Chair of the NYS Workers' Compensation Board to the government entity issuing the building permit if I need to hire or pay individuals a total of 40 hours or more per week (aggregate hours for all paid individuals on the jobsite) for work indicated on the building permit, or if appropriate, file a WC/DB-100 exemption form; OR
- have the general contractor, performing the work on the 1, 2, 3 or 4 family, **owner-occupied** residence (including condominiums) listed on the building permit that I am applying for, provide appropriate proof of workers' compensation coverage or proof of exemption from that coverage on forms approved by the Chair of the NYS Workers' Compensation Board to the government entity issuing the building permit if the project takes a total of 40 hours or more per week (aggregate hours for all paid individuals on the jobsite) for work indicated on the building permit.

_____ _____

(Signature of Homeowner) (Date Signed)

_____ Home Telephone Number _____

(Homeowner's Name Printed)

Property Address that requires the building permit:

_____

_____

_____

_____

Sworn to before me this _____ day of

_____, _____.

_____

(County Clerk or Notary Public)

Once notarized, this Form BP-1 serves as an exemption for both workers' compensation and disability benefits insurance coverage.

LAWS OF NEW YORK, 1998
CHAPTER 439

The **general municipal law is amended by adding a new section 125** to read as follows:

125. ISSUANCE OF BUILDING PERMITS. NO CITY, TOWN OR VILLAGE SHALL ISSUE A BUILDING PERMIT WITHOUT OBTAINING FROM THE PERMIT APPLICANT EITHER:

1. PROOF DULY SUBSCRIBED THAT WORKERS' COMPENSATION INSURANCE AND DISABILITY BENEFITS COVERAGE ISSUED BY AN INSURANCE CARRIER IN A FORM SATISFACTORY TO THE CHAIR OF THE WORKERS' COMPENSATION BOARD AS PROVIDED FOR IN SECTION FIFTY-SEVEN OF THE WORKERS' COMPENSATION LAW IS EFFECTIVE; OR

2. AN AFFIDAVIT THAT SUCH PERMIT APPLICANT HAS NOT ENGAGED AN EMPLOYER OR ANY EMPLOYEES AS THOSE TERMS ARE DEFINED IN SECTION TWO OF THE WORKERS' COMPENSATION LAW TO PERFORM WORK RELATING TO SUCH BUILDING PERMIT.

Implementing Section 125 of the General Municipal Law

1. General Contractors – Business Owners and Certain Homeowners

For **businesses and certain homeowners listed as the general contractors on building permits,** proof that they are in compliance with Section 57 of the Workers' Compensation Law (WCL) is **ONE** of the following forms that indicate that they are:

- insured (C-105.2 or U-26.3),
- a Board-approved self-insured employer (SI-12), or
- are exempt (WC/DB-100),

under the mandatory coverage provisions of the WCL. Any residence that is not a **1, 2, 3 or 4 Family, Owner-occupied Residence** is considered a business (income or potential income property) and must prove compliance by filing one of the above forms.

2. Owner-occupied Residences

For homeowners of a **1, 2, 3 or 4 Family, Owner-occupied Residence,** proof of their exemption from the mandatory coverage provisions of the Workers' Compensation Law when applying for a building permit is to file Form BP-1.

- Form BP-1 shall be filed if the homeowner of a **1, 2, 3 or 4 Family, Owner-occupied Residence** is listed as the general contractor on the building permit, and the homeowner:
  - ◊ is performing all the work for which the building permit was issued him/herself,
  - ◊ is not hiring, paying or compensating in any way, the individual(s) that is(are) performing all the work for which the building permit was issued or helping the homeowner perform such work, or
  - ◊ has a homeowner's insurance policy that is currently in effect and covers the property for which the building permit was issued AND the homeowner is hiring or paying individuals a total of less than 40 hours per week (aggregate hours for all paid individuals on the jobsite) for the work for which the building permit was issued.
- If the homeowner of a **1, 2, 3 or 4 Family, Owner-occupied Residence** is hiring or paying individuals a total of **40 hours or MORE** in any week (aggregate hours for all paid individuals on the jobsite) for the work for which the building permit was issued, then the homeowner may not file the "Affidavit of Exemption" Form BP-1, but shall either:
  - ◊ acquire appropriate workers' compensation coverage and provide appropriate proof of that coverage on forms approved by the Chair of the NYS Workers' Compensation Board to the government entity issuing the building permit (Form C-105.2 or Form U-26.3), OR
  - ◊ have the general contractor, performing the work on the 1, 2, 3 or 4 family, **owner-occupied** residence (including condominiums) listed on the building permit, provide appropriate proof of workers' compensation coverage, or proof of exemption from that coverage on forms approved by the Chair of the NYS Workers' Compensation Board to the government entity issuing the building permit.

NEW YORK STATE Workers' Compensation Board **Forms**

Workers' Compensation Forms

Applicant Instructions for Form CE-200 – Effective December 1, 2008

Form CE-200 reflects a totally new process for granting exemptions from workers' compensation and disability benefits insurance coverage requirements. Effective December 1, 2008, **exemptions** will no longer be valid for multiple permits, licenses or contracts for which the applicant applied. Further, exemptions no longer have to be notarized; nor do they have to be stamped by the NYS Workers' Compensation Board. (Please note that **government agencies may continue to use insurance and Self-Insurance certificates** for multiple permits, licenses or contracts issued to a specific legal entity during the coverage period listed on insurance/self-insurance related certificates).

Starting December 1, 2008, ONLY applicants eligible for **exemptions** must file a **new CE-200** for **each** and **every** new or renewed permit, license or contract issued by a government agency. Each CE-200 will specifically list the issuing government agency and the specific type of permit, license or contract requested by the applicant. Applicants for building permits will also need to supply additional information including identifying the specific job location and the estimated cost of the project.

Please ensure that the legal entity name on Form CE-200 exactly matches the legal entity name that is applying for the permit, license or contract. Please also ensure that the applicant signs and dates Form CE-200.

Each CE-200 will have a certificate number printed on it. Form CE-200s may be verified on the Board's web site at www.wcb.state.ny.us.

The applicant attests under penalty of perjury that the information contained in the CE-200 is accurate – the Board does not initially verify this information. However, Board staff may investigate applicants filing Form CE-200.

Government agencies have the authority to verify that the business is eligible for the workers' compensation and/or disability benefits exemption reason described on the CE-200 and notify the Board's investigative staff if there are discrepancies. For example, if you are applying for a license for a 150 seat restaurant and indicate on the CE-200 exemption form that you are a sole proprietor with no employees, this may indicate a problem.

To make this process as easy and as efficient as possible for business owners, the vast majority of these forms will be processed electronically on-line. Applicants having access to the internet will be able to fill out the CE-200 on the internet and **immediately** upon completion, **be able to print out a hard copy of the CE-200** that they will then submit to the government agency issuing the permit, license or contract. Computers with internet access will also be available for CE-200 electronic application processing at Customer Service Centers located in Workers' Compensation Board District Offices.

Filling out the electronic Form CE-200 on the internet is very similar to filling out a hotel reservation request on the internet for frequent travelers. The applicant will create a pin and password so that they can easily access their information. Once an applicant enters his/her basic information on the Board's web site, it can be retrieved by that applicant in the future by using that pin number and password when the applicant is applying for another permit, license or contract.

Applicants without access to a computer may obtain a paper application for the CE-200 by writing or visiting the Customer Service Center at any District Office of the Workers' Compensation Board. Applicants using the manual process may wait up to four weeks before receiving a CE-200. Once the applicant receives the CE-200, the applicant can then submit that CE-200 to the government agency from which he/she is getting the permit, license or contract. This delay results from Workers' Compensation Board staff having to manually enter information from the applicant's paper application into the web based application.

Employees of the Workers' Compensation Board cannot assist applicants in answering questions about this form. Please contact an attorney if you have any questions regarding Form CE-200.

However, if you have questions regarding workers' compensation coverage requirements, please call the Bureau of Compliance at (866) 546-9322.

(3) **Metallic Components.** All metallic parts of the pool structure, including reinforcing metal not addressed in 680.26(B)(1)(a), shall be bonded. Where reinforcing steel is encapsulated with a nonconductive compound, the reinforcing steel shall not be required to be bonded.

(4) **Underwater Lighting.** All metal forming shells and mounting brackets of no-niche luminaires shall be bonded.

Exception: Listed low-voltage lighting systems with nonmetallic forming shells shall not require bonding.

(5) **Metal Fittings.** All metal fittings within or attached to the pool structure shall be bonded. Isolated parts that are not over 100 mm (4 in.) in any dimension and do not penetrate into the pool structure more than 25 mm (1 in.) shall not require bonding.

(6) **Electrical Equipment.** Metal parts of electrical equipment associated with the pool water circulating system, including pump motors and metal parts of equipment associated with pool covers, including electric motors, shall be bonded.

Exception: Metal parts of listed equipment incorporating an approved system of double insulation shall not be bonded.

(a) *Double-Insulated Water Pump Motors.* Where a double-insulated water pump motor is installed under the provisions of this rule, a solid 8 AWG copper conductor of sufficient length to make a bonding connection to a replacement motor shall be extended from the bonding grid to an accessible point in the vicinity of the pool pump motor. Where there is no connection between the swimming pool bonding grid and the equipment grounding system for the premises, this bonding conductor shall be connected to the equipment grounding conductor of the motor circuit.

(b) *Pool Water Heaters.* For pool water heaters rated at more than 50 amperes and having specific instructions regarding bonding and grounding, only those parts designated to be bonded shall be bonded and only those parts designated to be grounded shall be grounded.

(7) **Metal Wiring Methods and Equipment.** Metal-sheathed cables and raceways, metal piping, and all fixed metal parts shall be bonded.

Exception No. 1: Those separated from the pool by a permanent barrier shall not be required to be bonded.

Exception No. 2: Those greater than 1.5 m (5 ft) horizontally of the inside walls of the pool shall not be required to be bonded.

Exception No. 3: Those greater than 3.7 m (12 ft) measured vertically above the maximum water level of the pool, or as measured vertically above any observation stands, towers, or platforms, or any diving structures, shall not be required to be bonded.

(C) Pool Water. An intentional bond of a minimum conductive surface area of 5806 mm^2 (9 in.^{2}) shall be installed in contact with the pool water. This bond shall be permitted to consist of parts that are required to be bonded in 680.26(B).

680.27 Specialized Pool Equipment.

(A) Underwater Audio Equipment. All underwater audio equipment shall be identified for the purpose.

(1) **Speakers.** Each speaker shall be mounted in an approved metal forming shell, the front of which is enclosed by a captive metal screen, or equivalent, that is bonded to, and secured to, the forming shell by a positive locking device that ensures a low-resistance contact and requires a tool to open for installation or servicing of the speaker. The forming shell shall be installed in a recess in the wall or floor of the pool.

(2) **Wiring Methods.** Rigid metal conduit of brass or other identified corrosion-resistant metal, liquidtight flexible nonmetallic conduit (LFNC-B), rigid polyvinyl chloride conduit, or reinforced thermosetting resin conduit shall extend from the forming shell to a listed junction box or other enclosure as provided in 680.24. Where rigid polyvinyl chloride conduit, reinforced thermosetting resin conduit, or liquidtight flexible nonmetallic conduit is used, an 8 AWG insulated solid or stranded copper bonding jumper shall be installed in this conduit. The bonding jumper shall be terminated in the forming shell and the junction box. The termination of the 8 AWG bonding jumper in the forming shell shall be covered with, or encapsulated in, a listed potting compound to protect such connection from the possible deteriorating effect of pool water.

(3) **Forming Shell and Metal Screen.** The forming shell and metal screen shall be of brass or other approved corrosion-resistant metal. All forming shells shall include provisions for terminating an 8 AWG copper conductor.

(B) Electrically Operated Pool Covers.

(1) **Motors and Controllers.** The electric motors, controllers, and wiring shall be located not less than 1.5 m (5 ft) from the inside wall of the pool unless separated from the pool by a wall, cover, or other permanent barrier. Electric motors installed below grade level shall be of the totally enclosed type. The device that controls the operation of the motor for an electrically operated pool cover shall be located such that the operator has full view of the pool.

FPN No. 1: For cabinets installed in damp and wet locations, see 312.2.

FPN No. 2: For switches or circuit breakers installed in wet locations, see 404.4.

FPN No. 3: For protection against liquids, see 430.11.

ELECTRICAL INSPECTION AGENCY

COMMONWEALTH ELECTRICAL INSPECTION SERVICE, INC.

Scott Honsinger
(518) 225-2538 Cell

Damon Dzembo (Residential Only)
(518) 858-4253 Cell

Ronald Mumblo (Residential Only)
(518) 791-1348 Cell
(518) 798-0905 Office

THE INSPECTOR, LLC

David Irwin
(518) 797-3520 Direct Line
(518) 788-6235 Cell

Ken Vanderhoef
(518) 674-2097 Direct Line
(518) 339-4798 Cell

William McPartlon
(518) 481-5300 Office
(518) 229-7733 Cell

MIDDLE DEPARTMENT, INC.

Joseph Holmes
(518) 860-5705 Cell
(518) 854-9290 Office

Martin Sawyer
(518) 703-1244 Cell
(518) 273-0861 Office

Z3 CONSULTANTS INC. Main Office (845) 471-9370

Jon Ariel
(518) 584-2189 Home
(518) 527-5728 Cell

Gary E. Beck, Jr.
(845) 518-2142 Cell

James Greaves (Residential Only)
(914) 456-2221 Cell

THIS IS A LIST OF THE INSPECTION AGENCIES APPROVED BY THE TOWN BOARD TO WORK IN THE TOWN OF WILTON. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF ANY SPECIFIC AGENCY.

Last Modified: 01_20_23 T. Morgan