

APPENDIX M

HOME DAY CARE — R-3 OCCUPANCY

WOOD DECKS

*This appendix is a North Carolina addition and not part of the 2015 International Residential Code. There will be no underlined text.
(The provisions contained in this appendix are adopted as part of this code.)*

(The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.)

SECTION AM101 GENERAL

AM101.1 General.

~~This appendix shall apply to a home day care operated within a dwelling. It is to include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians or relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for.~~

SECTION AM102 DEFINITION

~~**EXIT ACCESS.** That portion of a means of egress system that leads from any occupied point in a building or structure to an exit.~~

SECTION AM103 MEANS OF EGRESS

AM103.1 Exits required.

~~If the occupant load of the residence is more than nine, including those who are residents, during the time of operation of the day care, two exits are required from the ground-level story. Two exits are required from a home day care operated in a *manufactured home* regardless of the occupant load. Exits shall comply with Section R311.~~

AM103.1.1 Exit access prohibited.

~~An exit access from the area of day care operation shall not pass through bathrooms, bedrooms, closets, garages, fenced rear yards or similar areas.~~

~~**Exception:** An exit may discharge into a fenced yard if the gate or gates remain unlocked during day care hours. The gates may be locked if there is an area of refuge~~

located within the fenced yard and more than 50 feet (15 240 mm) from the dwelling.
The area of refuge shall be large enough to allow 5 square feet (0.5 m²) per occupant.

AM103.1.2 Basements.

If the basement of a dwelling is to be used in the day care operation, two exits are required from the basement regardless of the occupant load. One of the exits may pass through the dwelling and the other must lead directly to the exterior of the dwelling.

Exception: An emergency and escape window complying with Section R310 and which does not conflict with Section AM103.1.1 may be used as the second means of egress from a basement.

AM103.1.3 Yards.

If the yard is to be used as part of the day care operation it shall be fenced.

AM103.1.3.1 Type of fence and hardware.

The fence shall be of durable materials and be at least 6 feet (1529 mm) tall, completely enclosing the area used for the day care operations. Each opening shall be a gate or door equipped with a self-closing and self-latching device to be installed at a minimum of 5 feet (1528 mm) above the ground.

Exception: The door of any dwelling which forms part of the enclosure need not be equipped with self-closing and self-latching devices.

AM103.1.3.2 Construction of fence.

Openings in the fence, wall or enclosure required by this section shall have intermediate rails or an ornamental pattern that do not allow a sphere 4 inches (102 mm) in diameter to pass through. In addition, the following criteria must be met:

1. The maximum vertical clearance between grade and the bottom of the fence, wall or enclosure shall be 2 inches (51 mm).
2. Solid walls or enclosures that do not have openings, such as masonry or stone walls, shall not contain indentations or protrusions, except for tooled masonry joints.
3. Maximum mesh size for chain-link fences shall be $4 \frac{1}{4}$ inches (32 mm) square, unless the fence has slats at the top or bottom which reduce the opening to no more than $4 \frac{3}{4}$ inches (44 mm). The wire shall be not less than 9 gage [0.148 inch (3.8 mm)].

AM103.1.3.3 Decks.

Decks that are more than 12 inches (305 mm) above grade shall have a guard in compliance with Section R312.

AM103.2 Width and height of an exit.

The minimum width of a required exit is 36 inches (914 mm) with a net clear width of 32 inches (813 mm). The minimum height of a required exit is 6 feet, 8 inches (2032 mm).

AM103.3 Type of lock and latches for exits.

Regardless of the occupant load served, exit doors shall be openable from the inside without the use of a key or any special knowledge or effort. When the occupant load is 10 or less, a night latch, dead bolt or security chain may be used, provided such devices are openable from the inside without the use of a key or tool, and mounted at a height not to exceed 48 inches (1219 mm) above the finished floor.

AM103.4 Landings.

Landings for stairways and doors shall comply with Section R311, except that landings shall be required for the exterior side of a sliding door when a home day care is being operated in a Group R-3 occupancy.

**SECTION AM104
SMOKE DETECTION**

AM104.1 General.

Smoke detectors shall be installed in *dwelling* units used for home day care operations. Detectors shall be installed in accordance with the approved manufacturer's instructions. If the current smoke detection system in the *dwelling* is not in compliance with the currently adopted code for smoke detection, it shall be upgraded to meet the currently adopted code requirements and Section AM103 before day care operations commence.

AM104.2 Power source.

Required smoke detectors shall receive their primary power from the building wiring when that wiring is served from a commercial source and shall be equipped with a battery backup. The detector shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Required smoke detectors shall be interconnected so if one detector is activated, all detectors are activated.

AM104.3 Location.

A detector shall be located in each bedroom and any room that is to be used as a sleeping room, and centrally located in the corridor, hallway or area giving access to each separate sleeping area. When the *dwelling* unit has more than one *story*, and in *dwelling*s with *basements*, a detector shall be installed on each *story* and in the *basement*. In *dwelling* units where a *story* or *basement* is split into two or more levels, the smoke detector shall be installed on the upper level, except that when the lower level contains a sleeping area, a detector shall be installed on each level. When sleeping rooms are on the upper level, the detector shall be placed at the ceiling of the upper level in close proximity to the stairway. In *dwelling* units where the ceiling height of a room open to the hallway serving the bedrooms or sleeping areas exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and the adjacent room. Detectors shall sound an alarm audible in all sleeping areas of the *dwelling* unit in which they are located.

**SECTION AM101
GENERAL**

AM101.1 General.

A deck is an exposed exterior wood floor structure which is permitted to be attached to the structure or freestanding. Roofed porches (open or screened-in) are permitted to be constructed using these provisions.

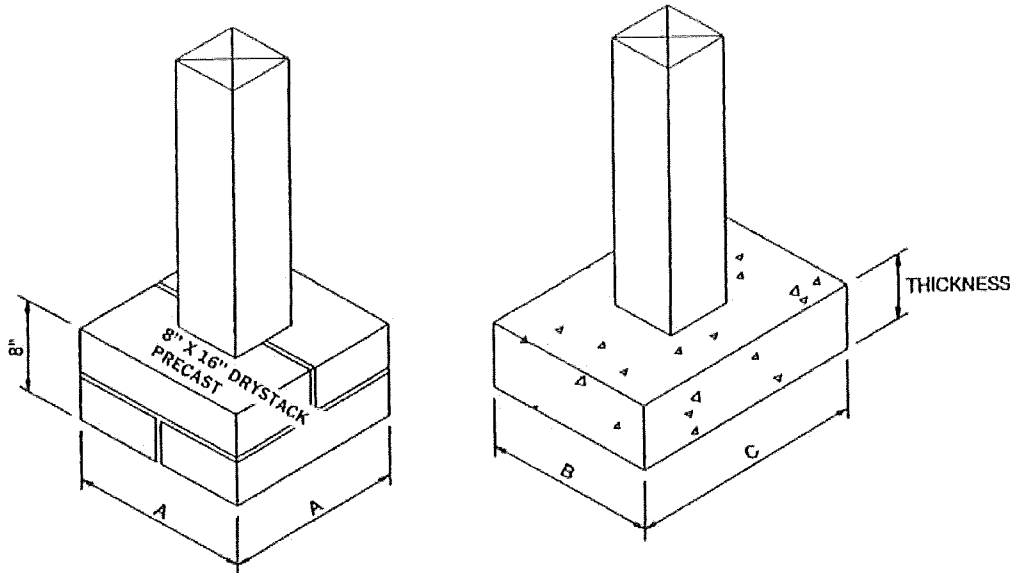
AM101.2 Deck design.

Computer deck design programs are permitted to be accepted by the code official.

**SECTION AM102
FOOTINGS**

AM102.1 Footings.

Support posts shall be supported by a minimum footing in accordance with Figure AM102.1(1) and Table AM102.1. Minimum footing depth shall be 12 inches (305 mm) below finished grade in accordance with Section R403.1.4. Tributary area is calculated as shown in Figure AM102.1(2).



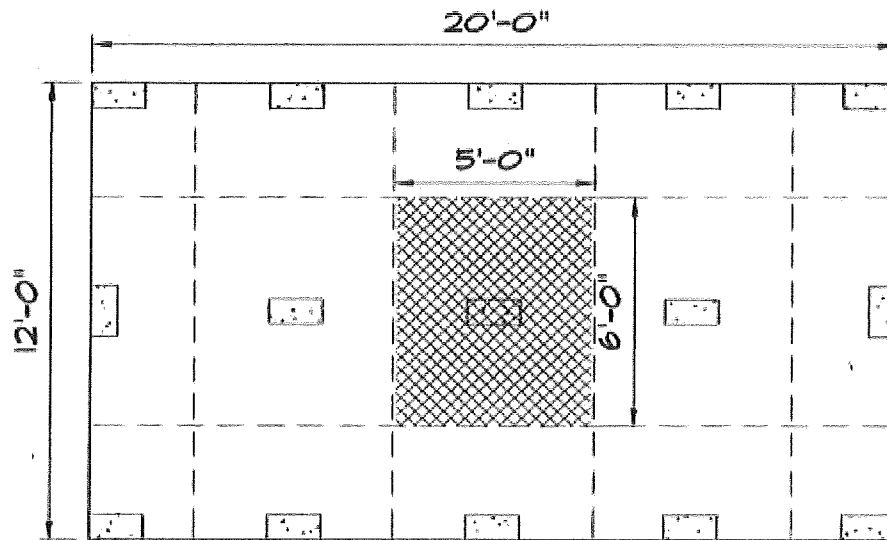
**FIGURE AM102.1(1)
SUPPORT POST FOOTING
TABLE AM102.1
FOOTING TABLE^{a,b,c}**

SIZE (inches)		TRIBUTARY AREA (sq. ft.)	THICKNESS (inches)	
A x A	B x C		Precast	Cast-In-Place
8 x 16	8 x 16	36	4	6
12 x 12	12 x 12	40	4	6
16 x 16	16 x 16	70	8	8
-	16 x 24	100	-	8
-	24 x 24	150	-	8

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929m².

a. Footing values are based on single floor and roof loads.

- b. Support post must rest in center 1/3 of footing.
- c. Top of footing shall be level for full bearing support of post.



For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929m².

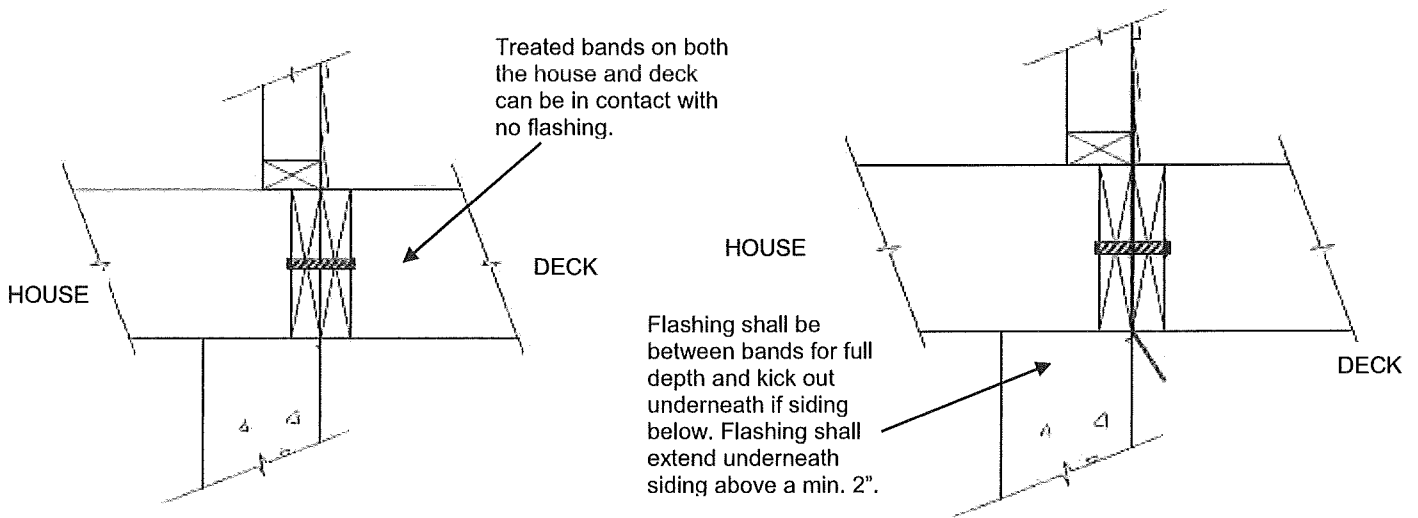
Note: Tributary area of shaded section on the free standing deck shown is 5' x 6' = 30 sq. ft.(2.79 m²) Code will require a minimum footing of 8" x 16" (203 mm x 406 mm) in accordance with Table AM102.1.

**FIGURE AM102.1(2)
CALCULATED TRIBUTARY AREA**

**SECTION AM103
FLASHING**

AM103.1 Flashing.

When attached to a structure, the structure to which attached shall have a treated wood band for the length of the deck, or corrosion-resistant flashing shall be used to prevent moisture from coming in contact with the untreated framing of the structure. Aluminum flashing shall not be used in conjunction with deck construction. The deck band and the structure band shall be constructed in contact with each other except on brick veneer structures and where plywood sheathing is required and properly flashed. Siding shall not be installed between the structure and the deck band. If attached to a brick structure, neither the flashing nor a treated band for brick structure is required. In addition, the treated deckband shall be constructed in contact with the brick veneer. Flashing shall be installed per Figure AM103.1.



NO FLASHING - TREATED

FLASHING BETWEEN

For SI: 1 inch = 25.4 mm

**FIGURE AM103.1
FLASHING FOR DECK ATTACHED TO STRUCTURE**

**SECTION AM104
DECK ATTACHMENT**

AM104.1 Deck attachment.

When a deck is supported at the structure by attaching the deck to the structure, Tables AM104.1(1) and AM104.1(2) shall apply for attaching the deck band to the structure.

**TABLE AM104.1(1)
DECK ATTACHMENT FOR ALL STRUCTURES EXCEPT BRICK VENEER**

FASTENERS	8' MAX JOIST SPAN^a	16' MAX JOIST SPAN^a
5/8" Hot dip galvanized bolts with nut and washer ^b and 12d Common hot dip galvanized nails ^c	1 @ 3'-6" o.c. and 2 @ 8" o.c.	1 @ 1'-8" o.c. and 3 @ 6" o.c.
OR		
Self-Drilling Screw Fastener ^d	12" o.c. staggered	6" o.c. staggered

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

- a. Attachment interpolation between 8 foot and 16 foot joists span is allowed.
- b. Minimum edge distance for bolts is 2 ½ inches.
- c. Nails must penetrate the supporting structure band a minimum of 1 ½ inches.

- d. Self-drilling screw fastener having a minimum shank diameter of 0.195 inches and a length long enough to penetrate through the supporting structure band. The structure band shall have a minimum depth of 1-1/8 inches. Screw shall be evaluated by an approved testing agency for allowable shear load for Southern Pine to Southern Pine lumber of 250 pounds and shall have a corrosion resistant finish equivalent to hot dip galvanized. Minimum edge distance for screws is 1-7/16 inches. A maximum of 1/2 inch thick wood structural panel is permitted to be located between the deck ledger and the structure band.

**TABLE AM104.1(2)
DECK ATTACHMENT FOR BRICK VENEER STRUCTURES**

FASTENERS	8' MAX JOIST SPAN ^a	16' MAX JOIST SPAN ^a
5/8" Hot dip galvanized bolts with nut and washer ^b	1 @ 2'-4" o.c.	1 @ 1'-4" o.c.

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

a. Attachment interpolation between 8 foot and 16 foot joist span is allowed.

b. Minimum edge distance for bolts is 2 1/2 inches.

AM104.1.1 Masonry ledge support.

If the deck band is supported by a minimum of 1/2 inch (13 mm) masonry ledge along the foundation wall, 5/8 inch (16 mm) hot dip galvanized bolts with washers spaced at 48 inches (1219 mm) o.c. are permitted to be used for support.

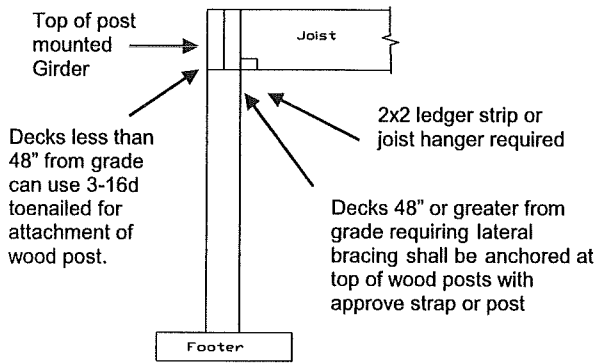
AM104.1.2 Other means of support.

Joist hangers or other means of attachment are permitted to be connected to the house band and shall be properly flashed.

**SECTION AM105
GIRDER SUPPORT AND SPAN**

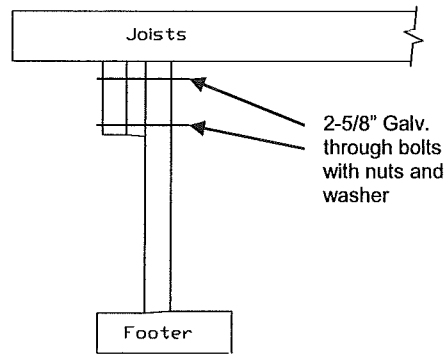
AM105.1 General.

Girders shall bear directly on the support post with the post attached at top to prevent lateral displacement or be connected to the side of the posts with two 5/8 inch (16 mm) hot dip galvanized bolts with nut and washer. Girder support is permitted to be installed in accordance with Figure AM105.1(1) for top mount; Figure AM105.1(2) for side mount and Figure AM105.1(3) for split girders. See Figure AM105.1(4) for cantilevered girders.



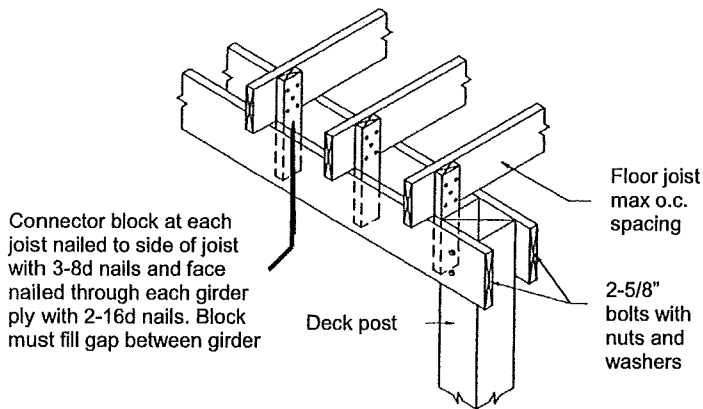
For SI: 1 inch = 25.4 mm.

**FIGURE AM105.1(1)
TOP MOUNT/FLUSH GIRDER**



For SI: 1 inch = 25.4 mm

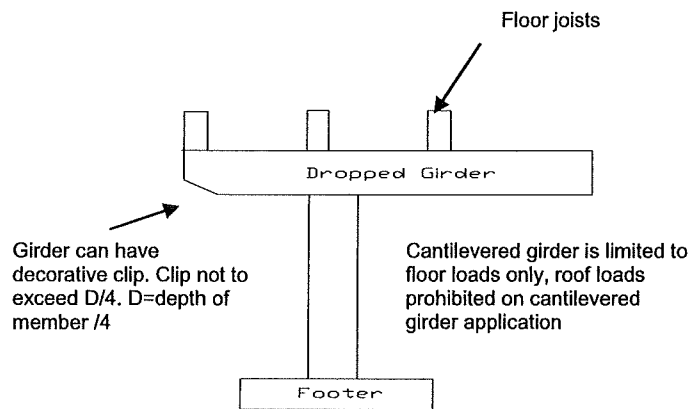
**FIGURE AM105.1(2)
SIDE MOUNT DROPPED GIRDER**



Split girder limited to floor loads only and cantilever girder ends allowed per Figure AM105.1(4)

For SI: 1 inch = 25.4 mm.

**FIGURE AM105.1(3)
SPLIT GIRDER**



For SI: 1 inch = 25.4 mm.

**FIGURE AM105.1(4)
CANTILIEVERED DROPPED GIRDER**

AM105.2 Girder span for uncovered porches and decks.

Maximum allowable spans for wood deck girders, as shown in Figure AM105.2, shall be in accordance with Table AM105.2. Girder plies shall be fastened with two rows of 10d (3-inch x 0.128-inch) nails minimum at 16 inches (406 mm) on center along each edge. Girders shall be

permitted to cantilever at each end up to one-fourth of the actual beam span. Splices of multispan beams shall be located at interior post locations.

TABLE AM105.2
DECK GIRDER SPAN LENGTHS^{a, b} (ft. - in.)

SPECIES ^c	SIZE ^d	DECK JOIST SPAN LESS THAN OR EQUAL TO: (feet)						
		6	8	10	12	14	16	18
Southern pine	2 - 2 x 6	6-11	5-11	5-4	4-10	4-6	4-3	4-0
	2 - 2 x 8	8-9	7-7	6-9	6-2	5-9	5-4	5-0
	2 - 2 x 10	10-4	9-0	8-0	7-4	6-9	6-4	6-0
	2 - 2 x 12	12-2	10-7	9-5	8-7	8-0	7-6	7-0
	3 - 2 x 6	8-2	7-5	6-8	6-1	5-8	5-3	5-0
	3 - 2 x 8	10-10	9-6	8-6	7-9	7-2	6-8	6-4
	3 - 2 x 10	13-0	11-3	10-0	9-2	8-6	7-11	7-6
	3 - 2 x 12	15-3	13-3	11-10	10-9	10-0	9-4	8-10
Douglas fir-larch ^e , hem-fir ^e , spruce-pine-fir ^e , redwood, western cedars, ponderosa pine ^f , red pine ^f	3 x 6 or 2 - 2 x 6	5-5	4-8	4-2	3-10	3-6	3-1	2-9
	3 x 8 or 2 - 2 x 8	6-10	5-11	5-4	4-10	4-6	4-1	3-8
	3 x 10 or 2 - 2 x 10	8-4	7-3	6-6	5-11	5-6	5-1	4-8
	3 x 12 or 2 - 2 x 12	9-8	8-5	7-6	6-10	6-4	5-11	5-7
	4 x 6	6-5	5-6	4-11	4-6	4-2	3-11	3-8
	4 x 8	8-5	7-3	6-6	5-11	5-6	5-2	4-10
	4 x 10	9-11	8-7	7-8	7-0	6-6	6-1	5-8
	4 x 12	11-5	9-11	8-10	8-1	7-6	7-0	6-7
	3 - 2 x 6	7-4	6-8	6-0	5-6	5-1	4-9	4-6
	3 - 2 x 8	9-8	8-6	7-7	6-11	6-5	6-0	5-8
3 - 2 x 10	12-0	10-5	9-4	8-6	7-10	7-4	6-11	
3 - 2 x 12	13-11	12-1	10-9	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. Ground snow load, live load = 40 psf, dead load = 10 psf, L/Δ = 360 at main span, L/Δ = 180 at cantilever with a 220-pound point load applied at the end.
- b. Girders supporting deck joists from one side only.
- c. No. 2 grade, wet service factor.
- d. Girder depth shall be greater than or equal to depth of joists with a flush beam condition.
- e. Includes incising factor.
- f. Northern species. Incising factor not included.

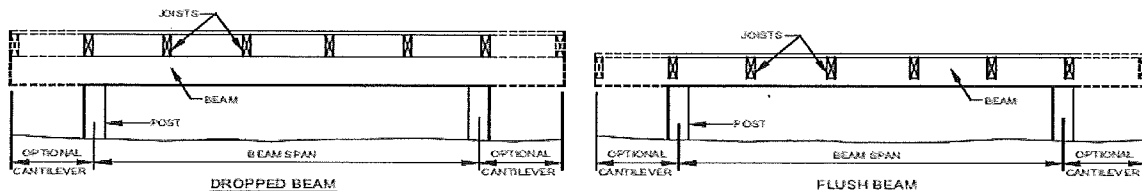


FIGURE AM105.2
TYPICAL DECK GIRDER SPANS

AM105.3 Girder span for roofed porches and decks.

Girder spans for covered decks shall be in accordance with Tables R602.7(1) and (2).

SECTION AM106
JOIST SPANS AND CANTILEVERS

AM106.1 Joist spans for uncovered porches and decks.

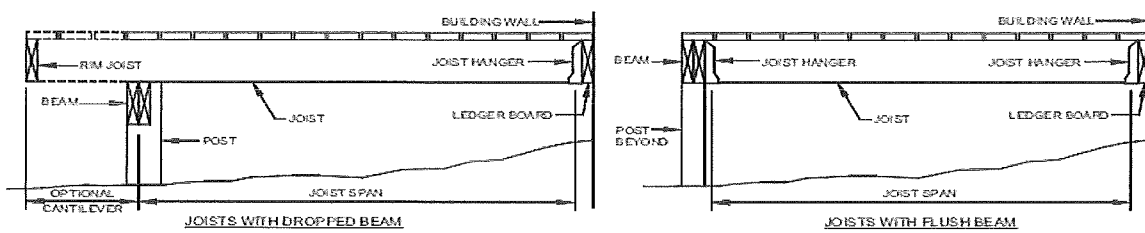
Maximum allowable spans for wood deck joists, as shown in Figure AM106.1, shall be in accordance with Table AM106.1. Deck joists shall be permitted to cantilever not greater than one-fourth of the actual, adjacent joist span.

**TABLE AM106.1
DECK JOIST SPANS FOR COMMON LUMBER SPECIES^f (ft. - in.)**

SPECIES ^a	SIZE	SPACING OF DECK JOISTS WITH NO CANTILEVER ^b (inches)			SPACING OF DECK JOISTS WITH CANTILEVERS ^c (inches)		
		12	16	24	12	16	24
Southern pine	2 x 6	9-11	9-0	7-7	6-8	6-8	6-8
	2 x 8	13-1	11-10	9-8	10-1	10-1	9-8
	2 x 10	16-2	14-0	11-5	14-6	14-0	11-5
	2 x 12	18-0	16-6	13-6	18-0	16-6	13-6
Douglas fir-larch ^d , hem-fir ^d , spruce-pine-fir ^d	2 x 6	9-6	8-8	7-2	6-3	6-3	6-3
	2 x 8	12-6	11-1	9-1	9-5	9-5	9-1
	2 x 10	15-8	13-7	11-1	13-7	13-7	11-1
	2 x 12	18-0	15-9	12-10	18-0	15-9	12-10
Redwood, western cedars, ponderosa pine ^e , red pine ^e	2 x 6	8-10	8-0	7-0	5-7	5-7	5-7
	2 x 8	11-8	10-7	8-8	8-6	8-6	8-6
	2 x 10	14-11	13-0	10-7	12-3	12-3	10-7
	2 x 12	17-5	15-1	12-4	16-5	15-1	12-4

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. No. 2 grade with wet service factor.
- b. Ground snow load, live load = 40 psf, dead load = 10 psf, L/D = 360.
- c. Ground snow load, live load = 40 psf, dead load = 10 psf, L/D = 360 at main span, L/D = 180 at cantilever with a 220-pound point load applied to end.
- d. Includes incising factor.
- e. Northern species with no incising factor
- f. Cantilevered spans not exceeding the nominal depth of the joist are permitted.



**FIGURE AM106.1
TYPICAL DECK JOIST SPANS**

AM106.1.1 Lateral restraint at supports.

Joist ends and bearing locations shall be provided with lateral restraint 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 less than (3) 10d (3-inch x 0.128-inch) nails or (3) No. 10 x 3-inch (76 mm) long wood screws.

AM106.2. Roofed porches and decks.

Joists spans shall be in accordance with Table R502.3.1(2) with 40 lbs per sq. ft. live load and 10 lbs per sq. ft. dead load. Cantilevered floor joists shall be in accordance with Table R502.3.3 (1).

**SECTION AM107
FLOOR DECKING**

AM107.1 Floor decking.

Floor decking shall be No. 2 grade treated Southern Pine or equivalent. The minimum floor decking thickness shall be in accordance with Table AM107.1.

**TABLE AM107.1
FLOOR DECKING THICKNESS**

SPACING	DECKING (nominal)
12" o.c.	1" S4S
16" o.c.	1" T&G
19.2" o.c.	1 1/4" S4S
24"-36" o.c.	2" S4S

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

**SECTION AM108
POST HEIGHT**

AM108.1 Post height.

Maximum height of deck support posts shall be in accordance with Table AM108.1.

**TABLE AM108.1
DECK SUPPORT POST HEIGHT**

POST SIZE ^a	MAXIMUM POST HEIGHT ^{b,c}
4" x 4"	8'-0"
6" x 6"	20'-0"

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

a. This table is based on No. 2 Southern Pine posts.

b. From top of footing to bottom of girder.

c. Decks with post heights exceeding these requirements shall be designed by a registered design professional.

SECTION AM109 DECK BRACING

AM109.1 Deck bracing.

Decks shall be braced to provide lateral stability. Lateral stability shall be provided in accordance with one of the methods in Sections AM109.1.1 through AM109.1.5.

AM109.1.1. Lateral bracing not required.

When the deck floor height is less than 4 feet (1219 mm) above finished grade as shown in Figure AM109.1(1) and the deck is attached to the structure in accordance with Section AM104, lateral bracing is not required. Lateral bracing is not required for freestanding decks with a deck floor height 30 inches (762 mm) or less above finished grade.

AM109.1.2. Knee bracing.

4x4 wood knee braces are permitted to be provided on each column in both directions. The knee braces shall attach to each post at a point not less than 1/3 of the post length from the top of the post, and the braces shall be angled between 45 degrees (0.79 rad) and 60 degrees (1.05 rad) from the horizontal. Knee braces shall be bolted to the post and the girder/double band with one 5/8 inch (16 mm) hot dip galvanized bolt with nut and washer at both ends of the brace as shown in Figure AM109.1(2)

AM109.1.3. Post embedment.

For free standing decks without knee braces or diagonal bracing, lateral stability is permitted to be provided by embedding the post in accordance with Figure AM109.1(3) and Table AM109.1.

**TABLE AM109.1
POST EMBEDMENT FOR FREE STANDING DECKS**

POST SIZE	MAXIMUM TRIBUTARY AREA	MAXIMUM POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4" x 4"	48 SF	4'-0"	2'-6"	1'-0"
6" x 6"	120 SF	6'-0"	3'-6"	1'-8"

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929m².

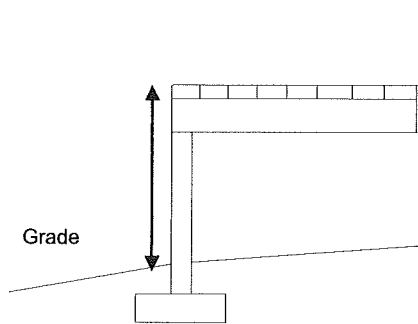
AM109.1.4. Cross bracing.

2x6 diagonal vertical cross bracing is permitted to be provided in two perpendicular directions for free standing decks or parallel to the structure at the exterior column line for attached decks. The 2x6 bracing shall be attached to the posts with one 5/8 inch (16 mm)

hot dip galvanized bolt with nut and washer at each end of each bracing member per Figure AM109.1(4).

AM109.1.5. Piles in coastal regions.

For embedment of piles in coastal regions, see Chapter 46.



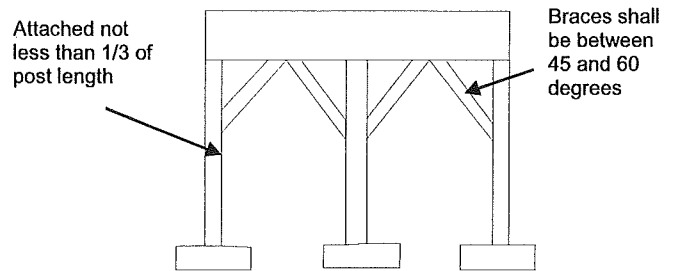
Less than 4' (decking to grade) and attached to structure no bracing required

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

**FIGURE AM109.1(1)
NO LATERAL BRACING**

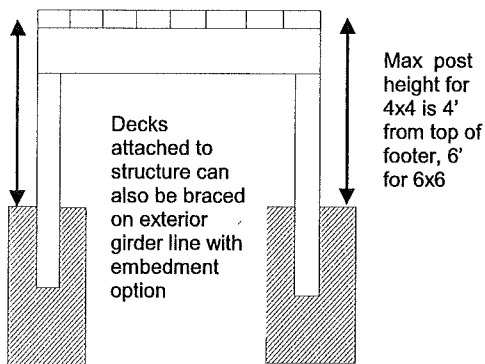
Freestanding decks requiring bracing shall be installed in both directions off each post

Decks attached to structure require diagonal bracing only at outside girder line parallel with



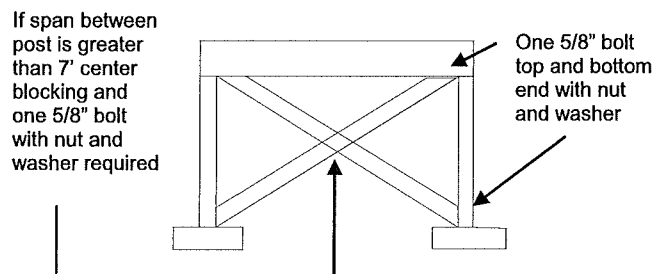
For SI: 1 inch = 25.4, 1 foot = 304.8 mm

**FIGURE AM109.1(2)
KNEE BRACING**



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

**FIGURE AM109.1(3)
POST EMBEDMENT**



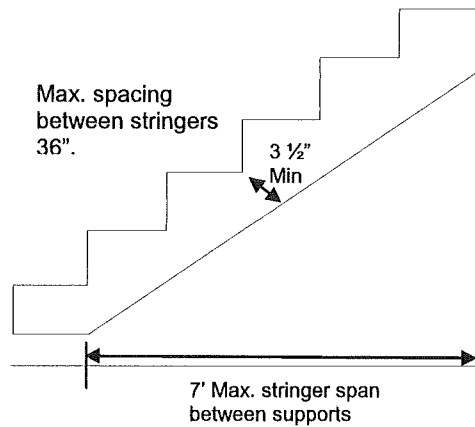
For SI: 1 inch = 25.4, 1 foot = 304.8 mm.

**FIGURE AM109.1(4)
CROSS BRACING**

**SECTION AM110
STAIRS**

AM110.1 Stair construction.

Stringer spans shall be no greater than 7 feet (2134 mm) between supports. Spacing between stringers shall be based upon decking material used in accordance with AM107.1. Each stringer shall have a minimum of 3 ½ inches (89 mm) between step cut and back of stringer. If used, suspended headers shall be attached with 3/8 inch (9.5 mm) galvanized bolts with nuts and washers to securely support stringers at the top. See Figure AM 110.1.



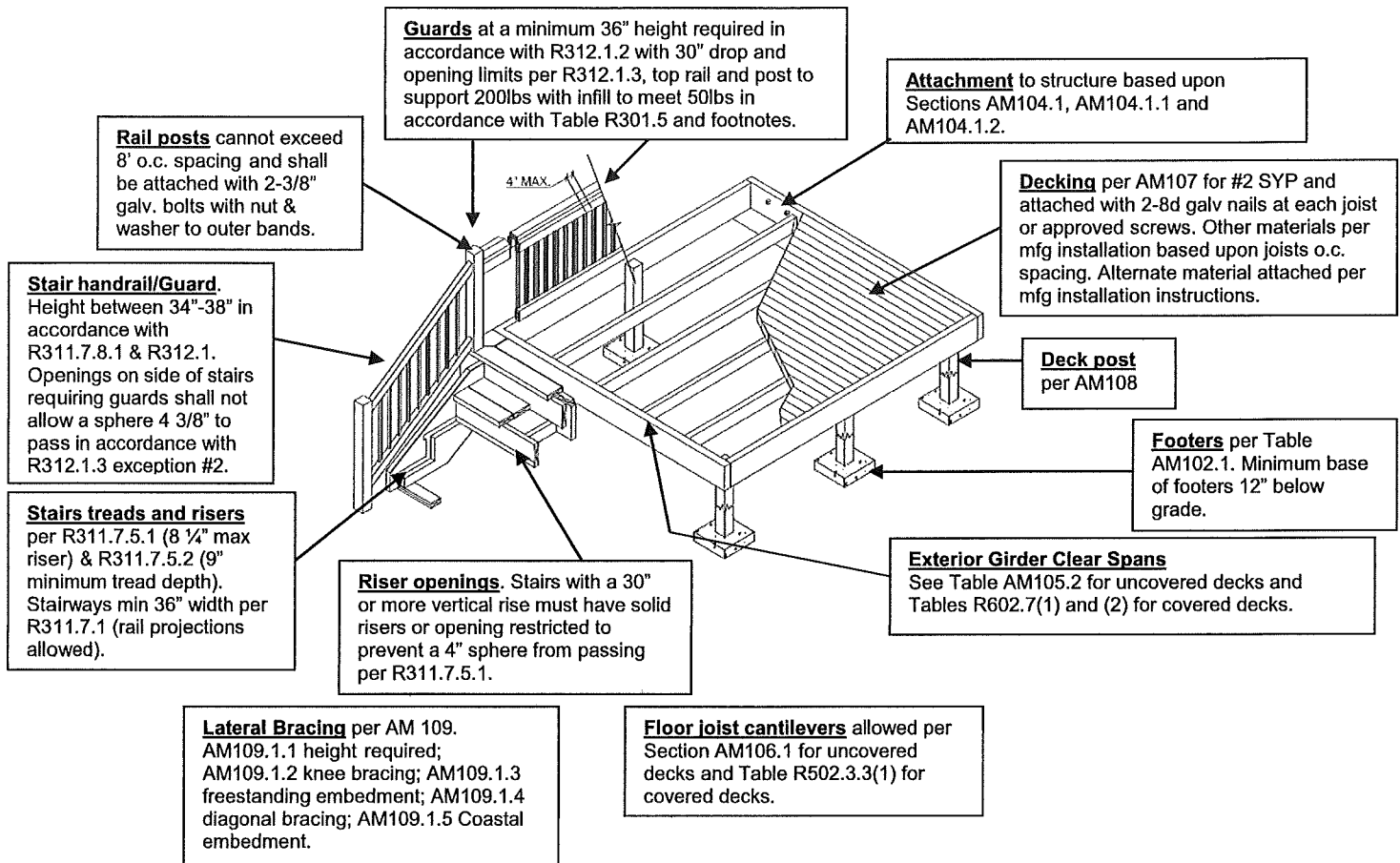
For SI: 1 inch = 25.4, 1 foot = 304.8 mm.

**FIGURE AM110.1
STAIR STRINGER**

SECTION AM111 HANDRAILS, GUARDS AND GENERAL

AM111.1 Handrails, guards and general.

Deck handrails, guards and general construction shall be as shown in Figure AM111.1.



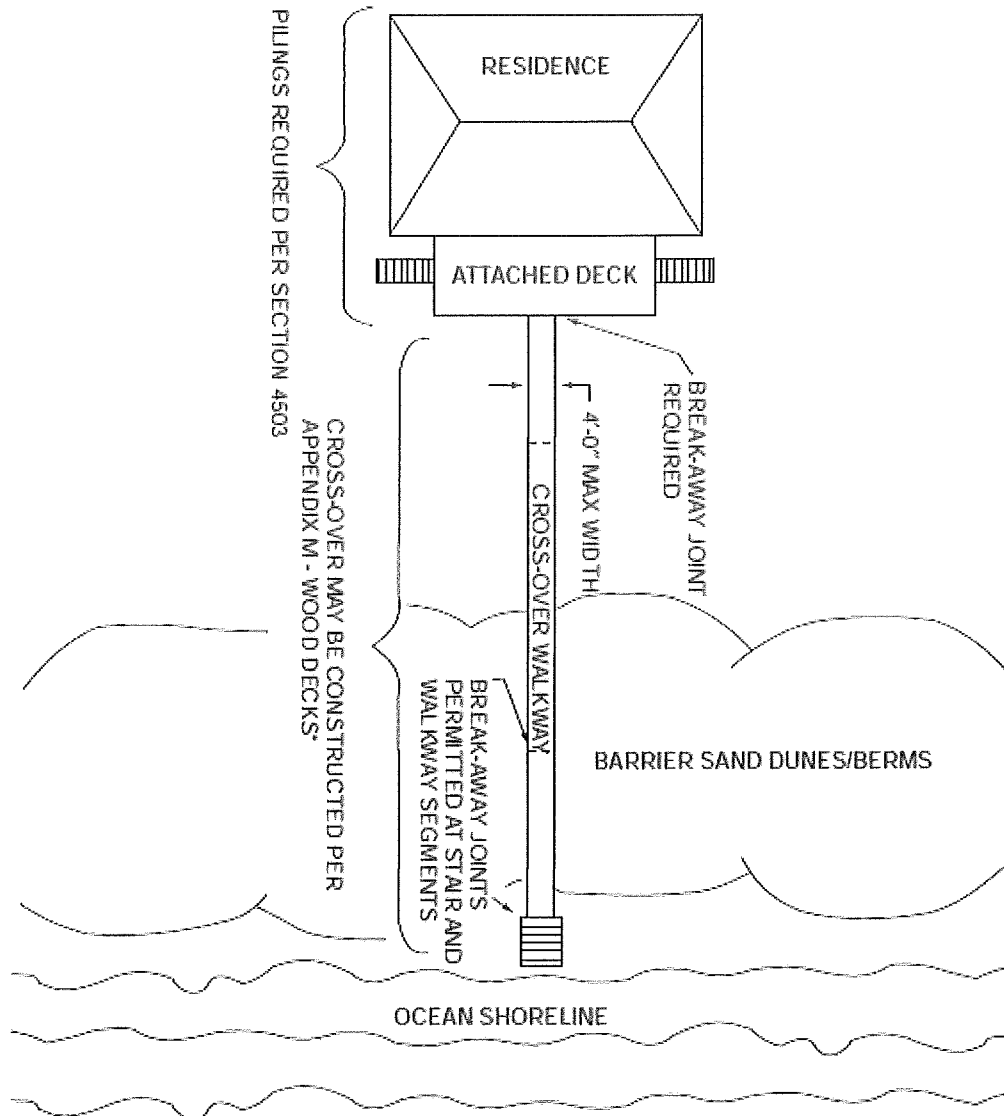
For SI: 1 inch = 25.4, 1 foot = 304.8 mm.

**FIGURE AM111.1
DECK CONSTRUCTION**

SECTION AM112 WALKWAYS IN OCEAN HAZARD AREAS

AM112.1 Walkways over dunes.

Walkways over dunes in ocean hazard areas shall be constructed as shown in Figure AM112.1.



**FIGURE AM112.1
WALKWAYS OVER DUNES OR BERMS IN OCEAN HAZARD AREAS**

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

* Posts for walkways over dunes or berms shall be embedded a minimum depth of 4' - 0" and post heights shall be limited to 5' - 0" above grade for 4x4 and 10' - 0" above grade for 6 x 6. Walkways or portions of walkways over 4' 0" in width shall comply with the requirements of Chapters 45 and 46. Maximum walkway surface height is 30" above grade without guard rails.

**Walkway stair runs are permitted to be greater than 12' without a landing.

***Open risers permitted on ocean shoreline stair.

****Horizontal guards permitted to have maximum 18 inch opening on cross-over walkway and ocean shoreline stair.