

TOWN OF VASSALBORO

MUBEC Building Plan Application Form #4

Date: _____

Decks and Porches on posts

General Information

Owner _____ Phone No. _____
 Contractor _____ Phone No. _____
 Address _____
 Map _____ Lot _____
 Zoning District _____
 Shoreland _____ Resource Protection _____ Rural _____ Str Protection _____

Description of Proposed Structure _____

Are any walls of the proposed structure within 15 feet of an ascending slope or 40 feet of a descending slope greater than 3:1? (R403.17) (Answer yes or no) _____

Is the proposed building within 5 ft of a property line or existing building? (R302.1) (Y or N) _____

Are any proposed structures are within 100 year flood zone? (Answer yes or no). _____

Fill out for Deck or Porch

Size _____ ft x _____ ft Area _____ sf Maximum Height of floor off ground _____ ft

Will the deck or porch be used to support heavy items such as a hot tub? (Y or N) _____

Footing

Type _____ Concrete pad _____ Square _____ Round _____
 _____ Other Describe _____

Size For recommended footing sizes see table below.

_____ Width or diameter (min 12") _____ Thickness (min 6") _____ Depth (min 12")

Recommended Footing Sizes (Source American Wood Council)

Beam Span ft	Joist span ft	Round footing dia	Square footing dia	Footing Thickness
6'	≤ 10'	15"	13"	6"
	≤ 14'	17"	15"	6"
	≤ 18'	20"	18"	7"
8'	≤ 10'	17"	15"	6"
	≤ 14'	20"	18"	8"
	≤ 18'	23"	21"	9"
10'	≤ 10'	19"	17"	7"
	≤ 14'	22"	20"	9"

	≤ 18'	25"	23"	10"
12'	≤ 10'	21"	19"	8"
	≤ 14'	24"	22"	10"
	≤ 18'	28"	26"	11"
14'	≤ 10'	22"	20"	9"
	≤ 14'	26"	24"	11"
	≤ 18'	30"	28"	12"
16'	≤ 10'	24"	22"	9"
	≤ 14'	28"	26"	12"
	≤ 18'	32"	30"	13"
18'	≤ 10'	25"	23"	10"
	≤ 14'	30"	28"	12"
	≤ 18'	34"	32"	14"

Frost Protection of Footings

_____ Footings a minimum of 4 ft below grade

_____ Footings 12" below grade with rigid closed cell foam directly beneath extending at least 1 ft beyond footing edge in all directions

_____ Footing 12" below grade with no frost protection (allowed for independently supported decks)

Framing

Wood Type _____ Pressure Treated Southern Pine Other _____

Post _____ Size (minimum 4x4) _____ Number _____

Arrangement – Sketch Footprint and indicate location of posts with a X.

Type of Post

_____ Concrete footing and pressure treated ground rated post

_____ Premade concrete bell (tapered) pier

_____ Bigfoot system footing and sono tube

_____ Concrete footing and sono tube

_____ Techno Metal Adjustable Post

_____ Other Describe _____

Beam _____ Number 2 x's _____ Size _____ Span _____ Spacing
 Joist _____ Size _____ Span _____ Spacing _____ Overhang (not > than ¼ span)
 Ledger _____ Size _____

Diagonal Bracing of beams to post (required if decking is > 2 ft above grade)

_____ minimum requirement 2x4 at 45 angle 2 ft parallel and perpendicular to beam

Other _____

Note: For sizing of beam and joists see tables below.

Beam Sizing Table – Maximum allowable span between posts for Southern Pine

Joist spans → Beam Size ↓	6	8	10	12	14	16	18
2-2x6	7'1"	6'2"	5'6"	5'0"	4'8"	4'4"	4'1"
2-2x8	9'2"	7'11"	7'1"	6'6"	6'0"	5'7"	5'3"
2-2x10	11'10"	10'3"	9'2"	8'5"	7'9"	7'3"	6-10"
2-2x12	13'11"	12'0"	10'9"	9'10"	9'1"	8'6"	8'0"
3-2x6	8'7"	7'8"	6'11"	6'3"	5'10"	5'5"	5'2"
3-2x8	11'4"	9'11"	8'11"	8'1"	7'6"	7'0"	6'7"
3-2x10	14'5"	12'10"	11'6"	10'6"	9'9"	9'1"	8'7"
3-2x12	17'5"	15'1"	13'6"	12'4"	11'5"	10'8"	10'1"

Maximum Joist Spans for 40 psf Live Load and 10 psf Dead Load for Southern Pine

Size ↓ Joist spacing	Joist without overhang			Joist with overhang		
	12"	16"	24"	12"	16"	24"
2x8	13'8"	12'5"	10'2"	10'9"	10'9"	10'2"
2x10	17'5"	15'10"	13'1"	15'6"	15'6"	13'1"
2x12	18'0"	18'0"	15'5"	18'0"	18'0"	15'5"

Decking _____

Note: Decking should bear on a minimum of four joists to adequately brace the framing

Stairways – Fill this out if your deck has a stairway

_____ Width (minimum 36" clear width)

_____ Riser height (7 3/4" maximum) _____ Tread depth (10" minimum)

Note: The difference between rise and run from step to step may not vary by more than 3/8".

Stringer _____ Number _____ Size _____

Guards _____ Height (34" to 38") required if more than 30" above grade with balusters < 4" apart

Handrails type - required on one side of a stairway with 4 or more risers

_____ Guards meet graspable requirements

_____ Handrail attached to guard

Note: Dimensional (2 x) lumber does not meet requirements of a handrail.

Deck Connections

1. Connection of Deck Ledger to existing structure

- _____ Not applicable; deck self supporting
- _____ Deck ledger attached to band joist or rim board with threshold flashed or caulked
- _____ Deck ledger attached to concrete foundation with use of embedded expansion anchors per manufacturers recommendations
- _____ Deck ledger attached to floor trusses (requires detail provided by truss designer, architect, or structural professional engineer). **Not Recommended**

Other _____

Note: The code prohibits the attachment of the deck ledger through siding or through brick or other masonry veneers but may be attached through sheathing.

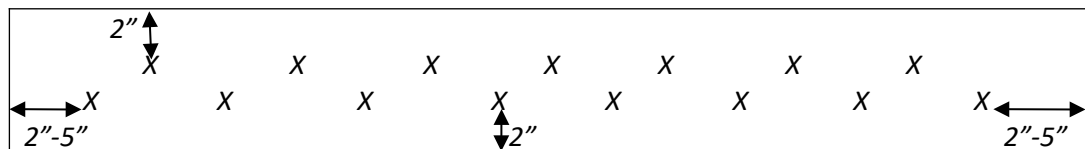
Hardware Type for Deck Ledger Connections – must be either stainless steel or hot dipped galvanized

- _____ ½ “ diameter carriage bolts through a band joist or concrete foundation with nuts and washers on receiving end (Preferred Option)
- _____ ½ “ lag bolts with washers
- _____ Simpson Strong Drive SDWS or SDWH
- _____ Other wood structural screw minimum diameter 0.22”
- _____ Length of Fastener (minimum 4”) *Note: The structural screw must penetrate beyond the band joist a minimum of ½”.*
- _____ On Center Spacing of Ledger Bolts or Screws (see table below) (R502.2.2.1.1)

Fastener Spacing (inches) for Deck Ledger Attachment – 40 psf live load + 10 psf dead load

Joist span	→ ≤ 6'	6'1" - 8'	8'1" – 10	10'1-12'	12'1"-14'	14'1"-16'	16'1"-18'
½" dia lag screw	30	23	18	15	13	11	10
½" dia bolt + nut	36	36	34	29	24	21	19
Simpson 0.22 dia	22	16	13	11	9	8	7
Ledger LOK .22d	12	9	7	6	5		

Arrangement of fasteners – Deck Ledger

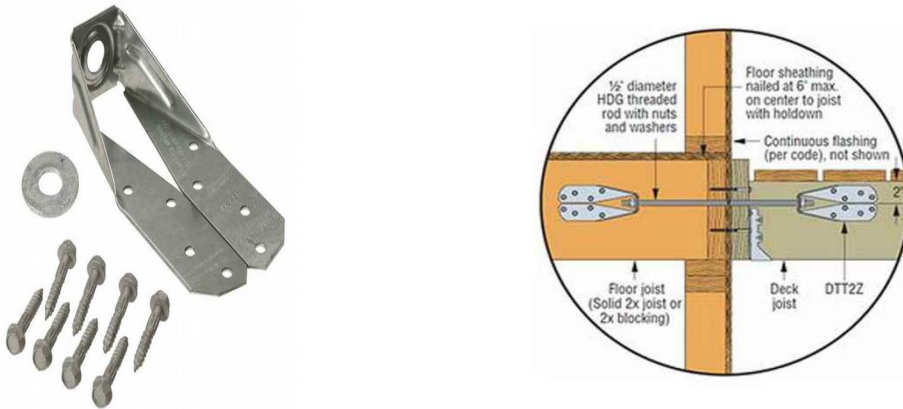


- _____ Alternating pattern 2” from top and bottom of ledger and 2” to 5” from ends(SEE ABOVE)

Other _____

2. Lateral Load Connection (R502.2.2.3)

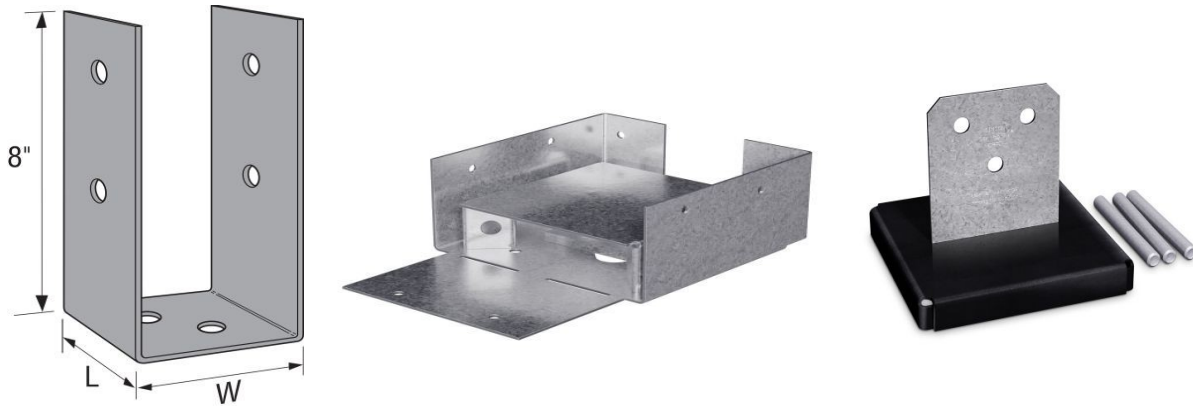
_____ Simpson Strong Tie DTT2Z with threaded rod, nuts and washers near ends of deck



_____ Other with allowable stress design of 1500 pounds

3. Post bottom end attachment to footing

_____ Cast in concrete with anchor and wrap around hardware (see examples below)



_____ Imprint of post imbedded in footing

_____ Footing buried minimum of 12" below grade, connection not required

4. Post to beam connection

_____ Post end cap

_____ Post notched to beam width and attached with carriage bolts, nuts, and washers

Figure 8. Post-to-Beam Attachment Requirements

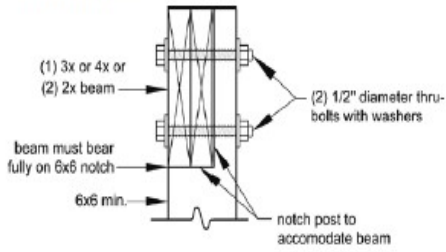


Figure 10. Alternate Approved Post-to-Beam Post Cap Attachment

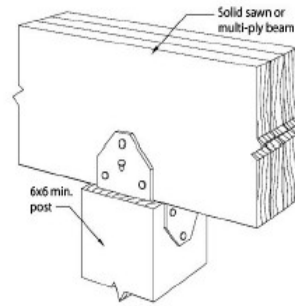
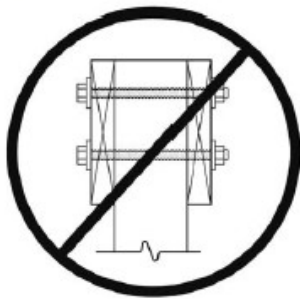
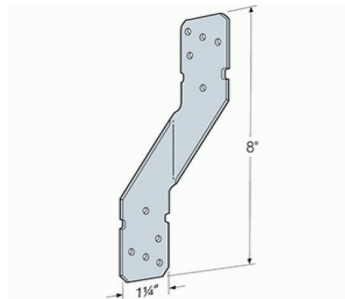
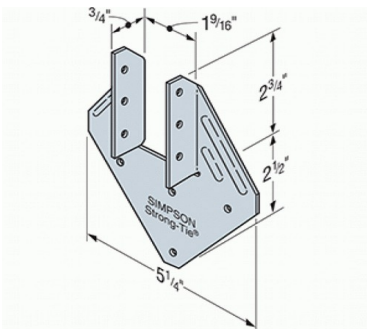


Figure 9. Prohibited Post-to-Beam Attachment Condition



5. Joist attachment to beams

- _____ Hurricane clips (see below)
- _____ Joist hangers
- _____ 3- 8d threaded nails (2 one side, 1 on the opposite side)



6. Joist attachment to deck ledger

- _____ Joist hanger
- Other _____

7. Railing post attachment

- _____ (2) 1/2" diameter through bolts with nuts and washers

Other

Fill out the following section if the proposed addition is a porch or is enclosed with walls and/or a roof.

Framing

Wall Studs (R602.3.1) Size _____ Height _____ Spacing _____

Headers – Windows / doors – Indicate size, number, and span for each window or door (Table R502.5)

Roof Rafters (R802.5) Size _____ Span _____ Spacing _____ Species/grade _____

Will the proposed room be heated on a permanent basis? (yes or no) _____

By virtue of the signature below, I hereby verify that all materials contained within this application are true and accurate to the best of my knowledge. I understand that the information contained within this application will be used as a basis for determining compliance with the Maine Uniform Building and Energy Code. Failure to follow the Building Plan Application, as submitted, could result in ordered corrections and / or removal of unauthorized work. All subsequent work shall not be authorized until the required corrections are made. I understand that I am responsible for contacting the Town for all required building and energy code inspections.

Signature of Contractor

Date

Signature of Applicant

Date

Approval of Plans

By virtue of this signature, the plans submitted are complete and are consistent with the Maine Uniform Building and Energy Code.

Building Inspector

Date

Plans Not Approved

The submitted plans are incomplete due to the following

The following sections of the application do not meet code.

Building Inspector

Date