



**CITY OF HELENA**  
**Community Development Department**

**DECK POLICY**

As applicable to One- and Two-Family Dwellings  
International Residential Code

\*Decks relating to structures other than single family or duplex structures shall comply with requirements of current edition of the International Building Code and City of Helena Zoning regulations.\*

**RESIDENTIAL DECKS SHALL BE SUBJECT TO THE FOLLOWING  
RESTRICTION AND REQUIREMENTS.**

*DECK – (Definition, Section R202): An exterior floor system supported on at least two opposing sides by an adjoining structure and/or posts, piers, or other independent supports.*

*BALCONY – (Definition, Section R202): An exterior floor projecting from and supported by a structure without additional independent supports.*

**SETBACKS:**

- o (City Code 11-4-2, B.1) – No portion of any building, including decks, (covered or uncovered) and excepting roof eaves, fences, stair steps and landscaping ornaments may be located in any lot line setback. This also includes balconies. See the City Code, Title 11 for specific setback requirements per zone the structure is located in. Contact the City Planning Division office to confirm what zone the subject property is in.
- o Setback measurements shall be taken from lot line to the nearest projecting element of the building.

**LOT COVERAGE:**

- o (City Code 11-4-1) – The portion of a lot, stated in terms of percentage, that is covered by all buildings and structures located on the lot but does not include uncovered decks, fences, walls or pools.
- o If deck is covered with any type of solid roof covering, the lot coverage requirements will apply. Pergolas and roll-up shading devices are not considered as solid roof covering.

**Deck structure must comply with all required setbacks from property line and lot coverage requirements, regardless if a building permit is required or not.**

**BUILDING PERMIT:**

For decks to be exempt from a building permit, it must meet ALL of the following requirements:

- \* Deck must be less than 120 square feet (with or without a roof),
- \* Deck must be less than or equal to 30 inches above adjacent grade(s),
- \* Deck must be independently supported. (If the dwelling supports any portion of the deck, i.e. a ledger board, a building permit is required.)

**DECK PERMIT REQUIREMENTS:**

Decks not meeting all 3 (\*) items above must comply with all building code requirements and a permit shall be obtained from the City of Helena Building Division. Drawings shall provide adequate construction details, including, foundation, framing, connections, railings and stairs to determine compliance with building code and zoning requirements. Decks will require a Structural Engineer’s analysis if the structure does not comply with prescriptive requirements of the building code for lateral and gravity loads.

See Building Division “Residential One- and Two-Family Dwelling Plan Submittal Requirements” for required documents to be submitted at time of permit application.

Website link to City Code Title 11 and City of Helena Zoning Map -

<http://www.ci.helena.mt.us/departments/community-development/planning/zoning.html>



## CITY OF HELENA

# DECK LEDGER CONNECTION REQUIREMENTS:

To assist the building community, the City of Helena Building Division retained the services of Stahly Engineering & Associates to assist in developing a table that depicts connection requirements of deck ledger boards to residential structures.

The table provides the basic requirement of ½” dia lag bolts fastened to 1¼” rim board for deck spans between 4’ and 16’ with 2x6 through 2x12 ledger boards. In addition, the table provides connection requirements for other connectors such as screws, nails, bolts, etc. The table compares the different connectors to each other thus allowing the substitution of connectors as listed. Nails shall only be used in combination with other fasteners, (Section R502.2.2 – “Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal.)

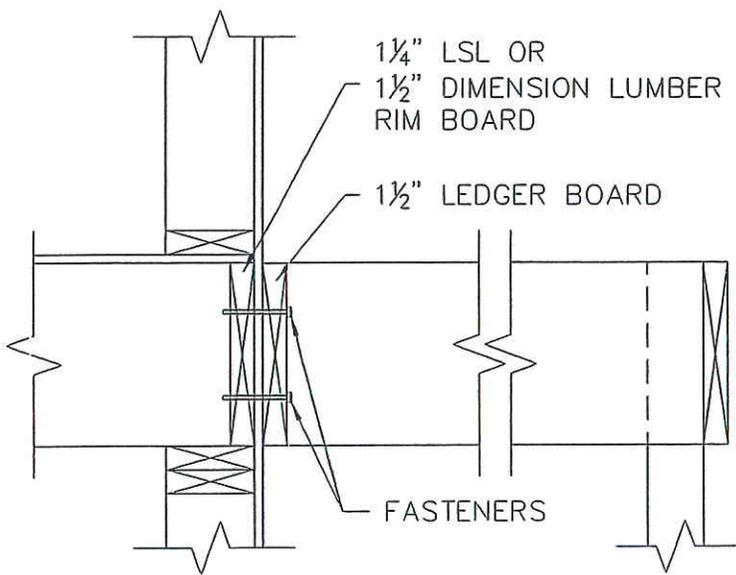
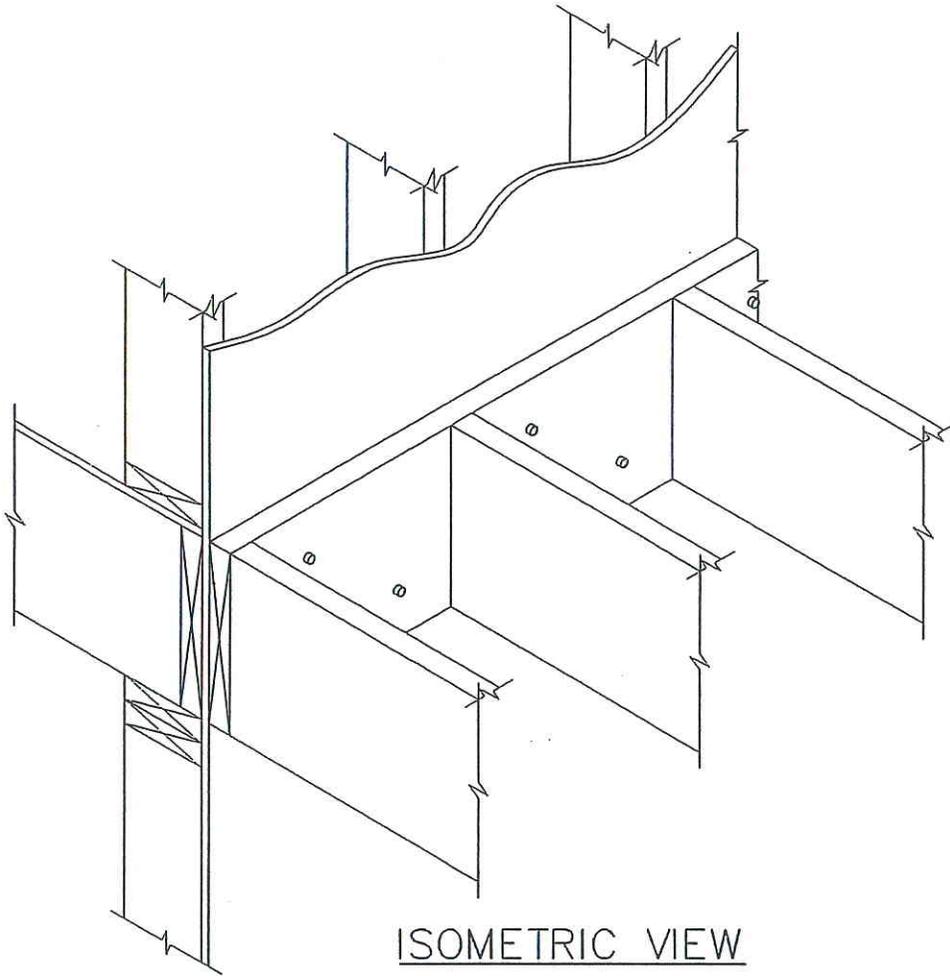
There are specific footnotes listed at the bottom of the table that must be understood and adhered to as required. **(Note – lateral forces have not been evaluated in this table. A separate lateral analysis may be required based on project specific conditions.)**

The detail sheet provided is to be used only in association with the provided table.

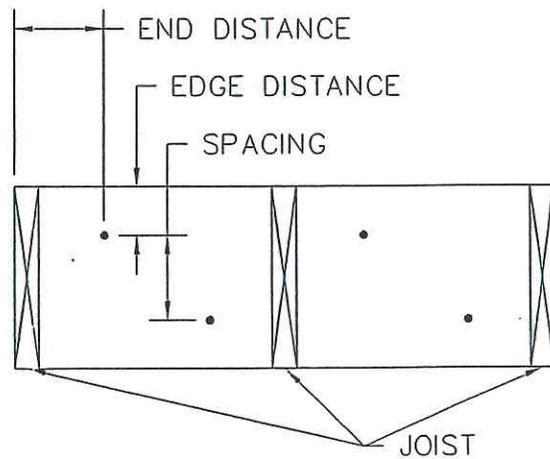
The use of this table is not mandatory. If the data provided is not used, the owner or builder shall retain the services of a Montana Licensed Engineer to design the connections details for their specific project. The engineered, stamped and signed design shall be submitted to the Building Division at time of building permit application for the deck. The permit may be a stand-alone deck permit or in association with a new or remodeled residential structure.

Should you have any questions in regards to the table or details, contact the City of Helena Building Division office at 447-8437 or 447-8438.

Enclosures: “Deck Ledger board Bolting Requirements – 2/2/07”  
“Ledger Board Connection Details – 1 of 1”



SECTION



ELEVATION

# DECK LEDGERBOARD BOLTING REQUIREMENTS

2/21/2007

## Deck Joist Span

Ledgerboard Size	4'		6'		8'		10'		12'		14'	
	A - 4" o.c.	B - 13.5" o.c.	A - 2.8" o.c.	B - 9" o.c.	N/A		N/A		N/A		N/A	
2x6	C - 6" o.c.	D - 5" o.c.	C - 4.4" o.c.	D - 3.5" o.c.	N/A		N/A		N/A		N/A	
	E - 6" o.c.	F - 15" o.c.	E - 4.5" o.c.	F - 10" o.c.	N/A		N/A		N/A		N/A	
	A - 4" o.c.	B - 13.5" o.c.	A - 2.8" o.c.	B - 9" o.c.	A - 2.1" o.c.	B - 6.8" o.c.	A - 1.7" o.c.	B - 5.5" o.c.	N/A		N/A	
2x8	C - 6" o.c.	D - 5" o.c.	C - 4.4" o.c.	D - 3.5" o.c.	C - 3.3" o.c.	D - 2.6" o.c.	C - 2.6" o.c.	D - 2" o.c.	N/A		N/A	
	E - 6" o.c.	F - 15" o.c.	E - 4.5" o.c.	F - 10" o.c.	E - 3.3" o.c.	F - 7.7" o.c.	E - 2.7" o.c.	F - 6.2" o.c.	N/A		N/A	
	A - 4" o.c.	B - 13.5" o.c.	A - 2.8" o.c.	B - 9" o.c.	A - 2.1" o.c.	B - 6.8" o.c.	A - 1.7" o.c.	B - 5.5" o.c.	A - 1.4" o.c.	B - 4.5" o.c.	N/A	
2x10	C - 6" o.c.	D - 5" o.c.	C - 4.4" o.c.	D - 3.5" o.c.	C - 3.3" o.c.	D - 2.6" o.c.	C - 2.6" o.c.	D - 2" o.c.	C - 2.2" o.c.	D - 1.4" o.c.	N/A	
	E - 6" o.c.	F - 15" o.c.	E - 4.5" o.c.	F - 10" o.c.	E - 3.3" o.c.	F - 7.7" o.c.	E - 2.7" o.c.	F - 6.2" o.c.	E - 2.2" o.c.	F - 5" o.c.	N/A	
	A - 4" o.c.	B - 13.5" o.c.	A - 2.8" o.c.	B - 9" o.c.	A - 2.1" o.c.	B - 6.8" o.c.	A - 1.7" o.c.	B - 5.5" o.c.	A - 1.4" o.c.	B - 4.5" o.c.	A - 1.2	B - 3.9" o.c.
2x12	C - 6" o.c.	D - 5" o.c.	C - 4.4" o.c.	D - 3.5" o.c.	C - 3.3" o.c.	D - 2.6" o.c.	C - 2.6" o.c.	D - 2" o.c.	C - 2.2" o.c.	D - 1.4" o.c.	C - 1.9" o.c.	D - 1.5" o.c.
	E - 6" o.c.	F - 15" o.c.	E - 4.5" o.c.	F - 10" o.c.	E - 3.3" o.c.	F - 7.7" o.c.	E - 2.7" o.c.	F - 6.2" o.c.	E - 2.2" o.c.	F - 5" o.c.	E - 1.9" o.c.	F - 4.4" o.c.
	A - 4" o.c.	B - 13.5" o.c.	A - 2.8" o.c.	B - 9" o.c.	A - 2.1" o.c.	B - 6.8" o.c.	A - 1.7" o.c.	B - 5.5" o.c.	A - 1.4" o.c.	B - 4.5" o.c.	A - 1.2	B - 3.9" o.c.

### NOTES:

Design 40 psf Live Load  
 Loads 15 psf Dead Load

End Distance = 4D  
 Edge Distance = 4D  
 Spacing Distance = 6D  
 Ledgerboard Material - Doug Fir-Larch or Hem Fir

All lags or through bolts shall be predrilled to prevent wood splitting  
 Stagger bolts on ledgerboard - Edge distance requirements must still be satisfied  
 All lags and bolts shall be installed with washers  
 Chart based on vertical loading. Lateral forces have not been analyzed.  
 All bolting requirements are based upon 1.5" ledgerboard connecting into 1.25" LSL or 1.5" Hem-Fir Rimboard (See attached drawing)  
 All fasteners shall fully penetrate through the rimboard, therefore based upon sheathing thickness and siding some fasteners may need to be long than anticipated.  
 Corrosivity of fasteners has not been checked

A = 3/8" Dia Lag  
 B = 1/2" Dia Through Bolt  
 C = #14 Wood Screw (0.242" dia)  
 D = #7 Wood Screw (0.151" dia)  
 E = 16d Box or 12d Sinkers Nail  
 F = 1/4" Dia Ledger Lok Screw