

Wood Beam / Header

ASD design per NDS 2015

Mark: B101

Span (ft) = **12.0**

l_u (ft) = **12.0**

LL Deflection < L / **384**

Total Deflection < L / **240**

C_o = **1.00**

Roof Snow Load ? : **Yes**

Reduce Floor LL ? : **No**

	DL(psf)	LL(psf)	trib(ft)	LL w(plf)	TL w(plf)
<i>roof</i>	16	35	6.5	228	332
<i>floor</i>	20	40	0	0	0
<i>wall</i>	15	0	0	0	0
<i>misc.</i>	0	0	0	0	0
				228 plf	332 plf

	DL(lbs)	LL(lbs)	x(ft)
Pt. Load	0	0	0
Pt. Load	0	0	0

RDL = 624 lbs

RLL = 1365 lbs

RTL (left) = **1989 lbs**

RDL = 624 lbs

RLL = 1365 lbs

RTL (right) = **1989 lbs**

M_{max} = **5967 ft-lbs**

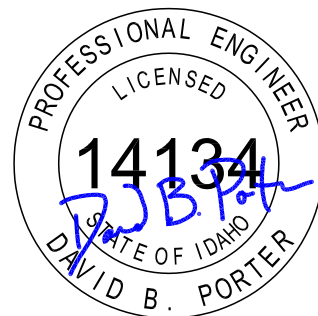
	A (1) 6x10	B 3.125x9 GLB	C 5.125x7.5 GLB	D 8.75x9 GLB	E (2) 1.75x9.5
Wood Species =	Douglas Fir #1	24F-V4	24F-V4	24F-V4	SCL: 26F 2.0E LVL
F _v (psi) = 170 psi		265 psi	265 psi	265 psi	285 psi
f _{v-max} @ d (psi) = 50 psi	29%	93 psi 35%	70 psi 26%	33 psi 13%	78 psi 27%
F _b = 1342 psi		2290 psi	2378 psi	2392 psi	2589 psi
f _{b-max} (psi) = 866 psi	65%	1697 psi 74%	1490 psi 63%	606 psi 25%	1360 psi 53%
E (psi) = 1600000 psi		1800000 psi	1800000 psi	1800000 psi	2000000 psi
LL deflection = 0.17"	45%	0.31" 83%	0.33" 87%	0.11" 30%	0.21" 57%
TL deflection = 0.25"	41%	0.45" 75%	0.48" 79%	0.16" 27%	0.31" 52%
camber (in) = n/a		2/8" std=0.06"	2/8" std=0.06"	1/8" std=0.06"	n/a
	Adequate	Adequate	Adequate	Adequate	Adequate

Selection (A - E): **A** **B101 Use: 6x10 Douglas Fir #1**

CONNECT TO 4x4 POST WITH SIMPSON CBT2Z OR 5/8" DIA LAG W/ 5" MINIMUM EMBEDMENT INTO POST

PLAN CHECK RESPONSE

COMMENT #4 - ROOF CONSTRUCTION: A 6x10 DF#1 BEAM OR ANY OTHER OF THE BEAM TYPES SPECIFIED ABOVE IS ADEQUATE TO SUPPORT THE ROOF FRAMING AT THE BACK COVERED PATIO.



03/29/2019

Project Name: 5134 ROCK HOLLOW RESIDENCE	Eng. : BBC	Date : 03-29-19	FSE
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