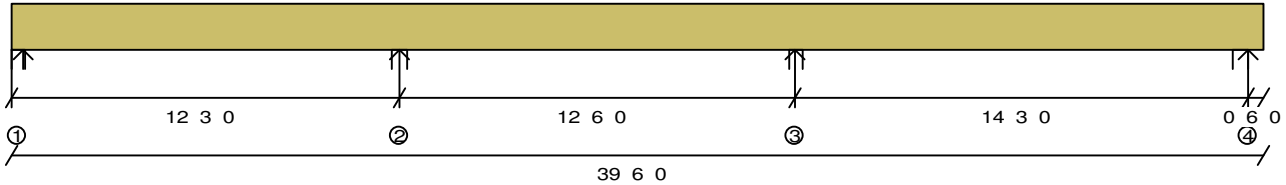


KeyBeam® 4.504a
kmBeamEngine 4.505d
Materials Database 956

Member Data

Description: Beam 1	Member Type: Beam	Application: Floor
Standard Load:	Lateral Bracing: Continuous Top	Building Code: IBC / IRC
Dead Load: 131 PLF	Moisture Condition: Dry	Deflection Criteria: L/360 live, L/240 total 0.330" max. LL
Live Load: 526 PLF	Deck Connection: Nailed	Member Weight: 14.8 PLF
	Filename: b1.KYB	



Bearings and Reactions

	Location	Type	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	5.500"	1.500"	3584#	--
2	11' 10.375"	Wall	5.500"	2.434"	9583#	--
3	24' 4.375"	Wall	5.500"	2.740"	10790#	--
4	38' 7.375"	Wall	5.500"	1.500"	4487#	--

Maximum Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Dead	Live
1	701#	2884#
2	1884#	7699#
3	2226#	8564#
4	918#	3569#

Design spans

11' 10.375" 12' 6.000" 14' 3.000" 0' 6.000" (right cant)

Product: 2.0 RigidLam LVL 5-1/4 x 11-1/4 1 ply
Component Member Design has Passed Design Checks.**
Design assumes continuous lateral bracing along the top chord.

Allowable Stress Design

	Actual	Allowable	Capacity	Location	Loading
Positive Moment	12720. #	26979. #	47%	32.2'	Odd Spans D+L
Negative Moment	14224. #	26979. #	52%	24.36'	Adjacent 2 D+L
Negative Unbrcd	14224. #	26509. #	53%	24.36'	Adjacent 2 D+L
Shear	5162. #	11222. #	45%	24.37'	Adjacent 2 D+L
Max. Reaction	10790. #	21656. #	49%	24.36'	Adjacent 2 D+L
TL Deflection	0.3383"	0.7125"	L/505	32.2'	Odd Spans D+L
LL Deflection	0.2788"	0.3300"	L/613	32.2'	Odd Spans L
TL Defl., Rt.	-0.0409"	0.2000"	2L/293	39.11'	Odd Spans D+L
LL Defl., Rt.	-0.0334"	0.2000"	2L/359	39.11'	Odd Spans L

Control: LL Deflection

DOLs: Live=100% Snow=115% Roof=125% Wind=133%

All product names are trademarks of their respective owners



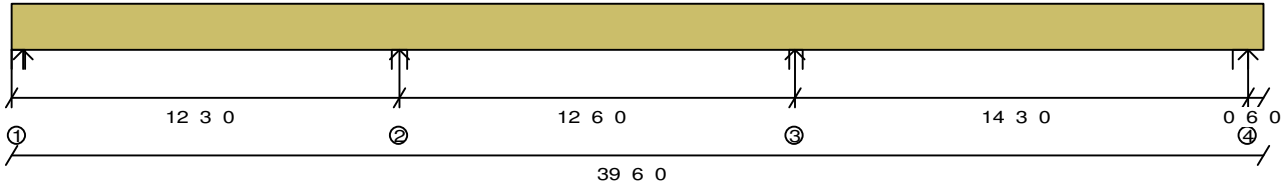
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KeyBeam® 4.504a
kmBeamEngine 4.505d
Materials Database 956

Member Data

Description:	Member Type: Beam	Application: Floor
Standard Load:	Lateral Bracing: Continuous Top	
Dead Load: 131 PLF	Moisture Condition: Dry	Building Code: IBC / IRC
Live Load: 395 PLF	Deflection Criteria: L/360 live, L/240 total	0.250" max. LL
	Deck Connection: Nailed	Member Weight: 14.8 PLF
	Filename: b2.KYB	



Bearings and Reactions

	Location	Type	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	5.500"	1.500"	2864#	--
2	11' 10.375"	Wall	5.500"	1.945"	7658#	--
3	24' 4.375"	Wall	5.500"	2.197"	8649#	--
4	38' 7.375"	Wall	5.500"	1.500"	3595#	--

Maximum Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Dead	Live
1	701#	2163#
2	1884#	5774#
3	2226#	6423#
4	918#	2677#

Design spans

11' 10.375" 12' 6.000" 14' 3.000" 0' 6.000" (right cant)

Product: 2.0 RigidLam LVL 5-1/4 x 11-1/4 1 ply
Component Member Design has Passed Design Checks.**
Design assumes continuous lateral bracing along the top chord.

Allowable Stress Design

	Actual	Allowable	Capacity	Location	Loading
Positive Moment	10137. #	26979. #	37%	32.2'	Odd Spans D+L
Negative Moment	11380. #	26979. #	42%	24.36'	Adjacent 2 D+L
Negative Unbrcd	11380. #	26508. #	42%	24.36'	Adjacent 2 D+L
Shear	4148. #	11222. #	36%	24.37'	Adjacent 2 D+L
Max. Reaction	8649. #	21656. #	39%	24.36'	Adjacent 2 D+L
TL Deflection	0.2686"	0.7125"	L/636	32.2'	Odd Spans D+L
LL Deflection	0.2091"	0.2500"	L/817	32.2'	Odd Spans L
TL Defl., Rt.	-0.0326"	0.2000"	2L/368	39.11'	Odd Spans D+L
LL Defl., Rt.	-0.0251"	0.2000"	2L/478	39.11'	Odd Spans L

Control: LL Deflection

DOLs: Live=100% Snow=115% Roof=125% Wind=133%

All product names are trademarks of their respective owners



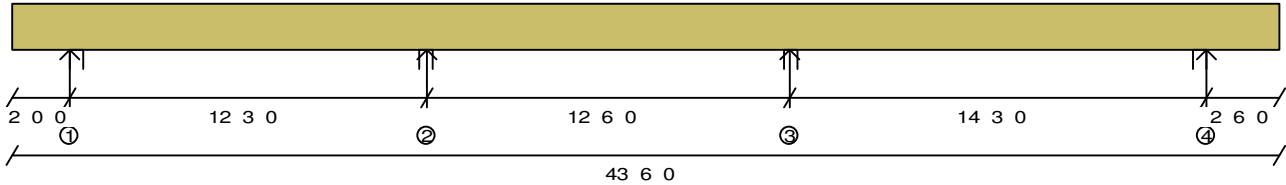
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KeyBeam® 4.504a
kmBeamEngine 4.505d
Materials Database 956

Member Data

Description: Ridge beam	Member Type: Beam	Application: Roof
Standard Load:	Lateral Bracing: Continuous Top	Slope: 0.00 / 12
Dead Load: 197 PLF	Moisture Condition: Dry	Building Code: IBC / IRC
Snow Load: 855 PLF	Deflection Criteria: L/360 live, L/240 total	Member Weight: 14.8 PLF
	Deck Connection: Nailed	
	Filename: b3.KYB	



Bearings and Reactions

	Location	Type	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	2' 0.000"	Wall	5.500"	1.939"	7635#	--
2	14' 3.000"	Wall	5.500"	3.523"	13870#	--
3	26' 9.000"	Wall	5.500"	4.021"	15834#	--
4	41' 0.000"	Wall	5.500"	2.317"	9124#	--

Maximum Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Dead	Snow
1	1518#	6117#
2	2757#	11113#
3	3147#	12687#
4	1814#	7311#

Design spans

2' 0.000" (left cant) 12' 3.000" 12' 6.000" 14' 3.000" 2' 6.000" (right cant)

Product: 2.0 RigidLam LVL 5-1/4 x 11-1/4 1 ply
Component Member Design has Passed Design Checks.**
 Design assumes continuous lateral bracing along the top chord.

Allowable Stress Design

	Actual	Allowable	Capacity	Location	Loading
Positive Moment	16098. #	31026. #	51%	35.3'	Total load D+S
Negative Moment	19816. #	31026. #	63%	26.75'	Total load D+S
Negative Unbrcd	19816. #	30487. #	64%	26.75'	Total load D+S
Shear	7765. #	12905. #	60%	27.46'	Total load D+S
Max. Reaction	15834. #	21656. #	73%	26.75'	Total load D+S
TL Deflection	0.3920"	0.7125"	L/436	34.59'	Total load D+S
LL Deflection	0.3141"	0.4750"	L/544	34.59'	Total load S
TL Defl., Lt.	-0.1153"	0.2000"	2L/416	0'	Total load D+S
LL Defl., Lt.	-0.0924"	0.2000"	2L/519	0'	Total load S
TL Defl., Rt.	-0.2212"	0.2500"	2L/271	43.5'	Total load D+S
LL Defl., Rt.	-0.1772"	0.2000"	2L/338	43.5'	Total load S

Control: LL Defl., Rt.

DOLs: Live=100% Snow=115% Roof=125% Wind=133%

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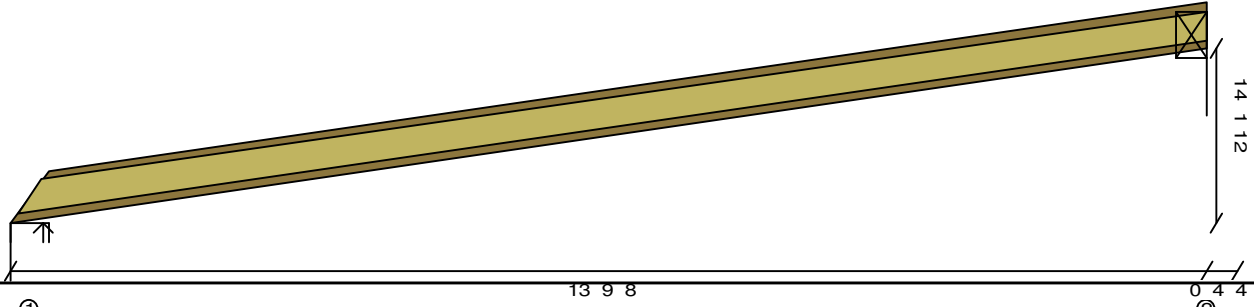
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KeyBeam® 4.504a
kmBeamEngine 4.505d
Materials Database 956

Member Data

Description: Member Type: Joist Application: Roof
Lateral Bracing: Continuous Both Slope: 12.00 / 12
Standard Load: Moisture Condition: Dry Building Code: IBC / IRC
Dead Load: 21 PSF Deflection Criteria: L/240 live, L/180 total 0.500" max. LL
Snow Load: 65 PSF Deck Connection: Nailed
Filename: 24oc 40 11 7

Left End: Fire Cut



Bearings and Reactions

	Location	Type	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	5.500"	1.750"	1269#	--
2	13' 4.875"	Girder	4.250"	N/A	1338#	--

Maximum Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Dead	Snow
1	398#(199plf)	871#(435plf)
2	419#(210plf)	918#(459plf)

Design spans

18' 11.500" 0' 6.000" (right cant)

Actual Length

21' 2.062"

Product: 14" RFPI-40 24.0" O.C.
Component Member Design has Passed Design Checks.**
NOTE: Do not fire cut past inside face of bearing

Allowable Stress Design

	Actual	Allowable	Capacity	Location	Loading
Moment	4249.#	4910.#	86%	6.7'	Total load D+S
Shear	897.#	1966.#	45%	13.4'	Total load D+S
Cant. Shear, Rt	47.#	1966.#	2%	13.41'	Cants Only D+S
End Reaction	1269.#	1782.#	71%	0'	Total load D+S
TL Deflection	0.6262"	1.2640"	L/363	6.7'	Total load D+S
LL Deflection	0.4298"	0.5000"	L/529	6.7'	Total load S
TL Defl., Rt.	-0.0481"	0.2000"	2L/249	13.76'	Total load D+S
LL Defl., Rt.	-0.0330"	0.2000"	2L/363	13.76'	Total load S

Control: Moment

DOLs: Live=100% Snow=115% Roof=125% Wind=133%

Right cantilever allowable shear is for joist only

Web stiffener and minimum bearing length requirements at hanged connections depend on the connection style and are not included in this design.

