

CODES CANADA
Build on expertise

2015

National Building Code of Canada

Canadian Commission on Building
and Fire Codes



National Research
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Canada

9.23.4.2.

Spans for Joists, Rafters and Beams

(See Note A-9.23.4.2.)

1) Except as required in Sentence (2) and Article 9.23.14.10., spans for wood joists and rafters shall conform to the spans shown in Span Tables 9.23.4.2.-A to 9.23.4.2.-G for the uniform *live loads* shown in the Tables. (See Article 9.4.2.2.)

2) Spans for floor joists that are not selected from Span Tables 9.23.4.2.-A and 9.23.4.2.-B and that are required to be designed for the same loading conditions, shall not exceed the design requirements for uniform loading and vibration criteria. (See Note A-9.23.4.2.(2).)

3) Spans for built-up wood and glued-laminated timber floor beams shall conform to the spans in Span Tables 9.23.4.2.-H to 9.23.4.2.-K. (See Article 9.4.2.2.)

4) Spans for roof ridge beams shall conform to the spans in Span Table 9.23.4.2.-L for the uniform snow load shown. (See Articles 9.4.2.2. and 9.23.14.8.)

Table 9.23.4.2.-D
Maximum Spans for Roof Joists – Specified Roof Snow Loads 1.0 to 2.0 kPa
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

Commercial Designation	Grade	Joist Size, mm	Maximum Span, m									
			Specified Snow Load, kPa									
			1.0			1.5			2.0			
			Joist Spacing, mm			Joist Spacing, mm			Joist Spacing, mm			
			300	400	600	300	400	600	300	400	600	
Douglas Fir – Larch (includes Douglas Fir and Western Larch)	Select Structural	38 x 89	2.71	2.46	2.15	2.37	2.15	1.88	2.15	1.95	1.71	
		38 x 140	4.26	3.87	3.38	3.72	3.38	2.95	3.38	3.07	2.68	
		38 x 184	5.60	5.09	4.44	4.89	4.44	3.88	4.44	4.04	3.53	
		38 x 235	7.15	6.49	5.67	6.24	5.67	4.96	5.67	5.15	4.50	
		38 x 286	8.70	7.90	6.91	7.60	6.91	6.03	6.91	6.27	5.48	
	No. 1 and No. 2	38 x 89	2.59	2.36	2.06	2.27	2.06	1.80	2.06	1.87	1.63	
		38 x 140	4.08	3.71	3.24	3.57	3.24	2.83	3.24	2.94	2.57	
		38 x 184	5.36	4.87	4.26	4.69	4.26	3.72	4.26	3.87	3.38	
		38 x 235	6.85	6.22	5.44	5.98	5.44	4.74	5.44	4.94	4.22	
		38 x 286	8.34	7.57	6.40	7.28	6.62	5.50	6.62	6.00	4.90	
	No. 3	38 x 89	2.49	2.16	1.76	2.14	1.85	1.51	1.91	1.65	1.35	
		38 x 140	3.56	3.08	2.51	3.06	2.65	2.16	2.72	2.36	1.92	
		38 x 184	4.33	3.75	3.06	3.72	3.22	2.63	3.31	2.87	2.34	
		38 x 235	5.29	4.58	3.74	4.55	3.94	3.22	4.05	3.51	2.86	
		38 x 286	6.14	5.32	4.34	5.28	4.57	3.73	4.70	4.07	3.32	
	Construction	38 x 89	2.51	2.28	1.99	2.20	1.99	1.74	1.99	1.81	1.58	
	Standard	38 x 89	2.41	2.08	1.70	2.07	1.79	1.46	1.84	1.60	1.30	
	Hem – Fir (includes Western Hemlock and Amabilis Fir)	Select Structural	38 x 89	2.67	2.43	2.12	2.33	2.12	1.85	2.12	1.93	1.68
			38 x 140	4.20	3.82	3.33	3.67	3.33	2.91	3.33	3.03	2.65
			38 x 184	5.52	5.02	4.38	4.82	4.38	3.83	4.38	3.98	3.48
			38 x 235	7.05	6.41	5.60	6.16	5.60	4.89	5.60	5.09	4.44
38 x 286			8.58	7.80	6.81	7.50	6.81	5.95	6.81	6.19	5.41	
No. 1 and No. 2		38 x 89	2.59	2.36	2.06	2.27	2.06	1.80	2.06	1.87	1.63	
		38 x 140	4.08	3.71	3.24	3.57	3.24	2.83	3.24	2.94	2.57	
		38 x 184	5.36	4.87	4.26	4.69	4.26	3.72	4.26	3.87	3.38	
		38 x 235	6.85	6.22	5.44	5.98	5.44	4.75	5.44	4.94	4.32	
		38 x 286	8.34	7.57	6.62	7.28	6.62	5.77	6.62	6.01	5.25	
No. 3		38 x 89	2.51	2.28	1.99	2.20	1.99	1.74	1.99	1.81	1.58	
		38 x 140	3.95	3.59	3.10	3.45	3.14	2.67	3.14	2.85	2.37	
		38 x 184	5.20	4.62	3.77	4.54	3.97	3.24	4.09	3.54	2.89	
		38 x 235	6.53	5.65	4.61	5.61	4.86	3.97	5.00	4.33	3.53	
		38 x 286	7.57	6.56	5.35	6.51	5.64	4.60	5.80	5.02	4.10	
Construction		38 x 89	2.51	2.28	1.99	2.20	1.99	1.74	1.99	1.81	1.58	
Standard		38 x 89	2.43	2.18	1.78	2.12	1.88	1.53	1.93	1.67	1.36	

Table 9.23.4.2.-D (Continued)

Commercial Designation	Grade	Joist Size, mm	Maximum Span, m									
			Specified Snow Load, kPa									
			1.0			1.5			2.0			
			Joist Spacing, mm			Joist Spacing, mm			Joist Spacing, mm			
			300	400	600	300	400	600	300	400	600	
Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	Select Structural	38 x 89	2.55	2.32	2.03	2.23	2.03	1.77	2.03	1.84	1.61	
		38 x 140	4.02	3.65	3.19	3.51	3.19	2.79	3.19	2.90	2.53	
		38 x 184	5.28	4.80	4.19	4.61	4.19	3.66	4.19	3.81	3.33	
		38 x 235	6.74	6.13	5.35	5.89	5.35	4.68	5.35	4.86	4.25	
		38 x 286	8.21	7.46	6.52	7.17	6.52	5.69	6.52	5.92	5.17	
	No. 1 and No. 2	38 x 89	2.47	2.24	1.96	2.16	1.96	1.71	1.96	1.78	1.56	
		38 x 140	3.89	3.53	3.08	3.40	3.08	2.69	3.08	2.80	2.45	
		38 x 184	5.11	4.64	4.05	4.46	4.05	3.54	4.05	3.68	3.22	
		38 x 235	6.52	5.93	5.18	5.70	5.18	4.52	5.18	4.70	4.11	
		38 x 286	7.94	7.21	6.30	6.94	6.30	5.50	6.30	5.73	5.00	
	No. 3	38 x 89	2.43	2.20	1.93	2.12	1.93	1.68	1.93	1.75	1.53	
		38 x 140	3.82	3.47	3.03	3.33	3.03	2.65	3.03	2.75	2.37	
		38 x 184	5.02	4.56	3.77	4.38	3.97	3.24	3.98	3.54	2.89	
		38 x 235	6.41	5.65	4.61	5.60	4.86	3.97	5.00	4.33	3.53	
		38 x 286	7.57	6.56	5.35	6.51	5.64	4.60	5.80	5.02	4.10	
	Construction	38 x 89	2.43	2.20	1.93	2.12	1.93	1.68	1.93	1.75	1.53	
	Standard	38 x 89	2.33	2.12	1.85	2.04	1.85	1.59	1.85	1.68	1.41	
	Northern Species (includes any Canadian species covered by the NLGA Standard Grading Rules)	Select Structural	38 x 89	2.28	2.07	1.81	1.99	1.81	1.58	1.81	1.65	1.44
			38 x 140	3.59	3.26	2.85	3.14	2.85	2.49	2.85	2.59	2.26
			38 x 184	4.72	4.29	3.75	4.12	3.75	3.27	3.75	3.40	2.97
			38 x 235	6.03	5.48	4.79	5.27	4.79	4.18	4.79	4.35	3.80
38 x 286			7.34	6.67	5.82	6.41	5.82	5.09	5.82	5.29	4.62	
No. 1 and No. 2		38 x 89	2.23	2.03	1.77	1.95	1.77	1.55	1.77	1.61	1.41	
		38 x 140	3.51	3.19	2.79	3.07	2.79	2.43	2.79	2.53	2.21	
		38 x 184	4.61	4.19	3.66	4.03	3.66	3.20	3.66	3.33	2.91	
		38 x 235	5.89	5.35	4.68	5.15	4.68	4.09	4.68	4.25	3.68	
		38 x 286	7.17	6.52	5.58	6.26	5.69	4.80	5.69	5.17	4.27	
No. 3		38 x 89	2.18	1.98	1.73	1.90	1.73	1.50	1.73	1.57	1.33	
		38 x 140	3.42	3.05	2.49	2.99	2.62	2.14	2.69	2.33	1.90	
		38 x 184	4.28	3.71	3.03	3.68	3.19	2.60	3.28	2.84	2.32	
		38 x 235	5.23	4.53	3.70	4.50	3.90	3.18	4.01	3.47	2.83	
		38 x 286	6.07	5.26	4.29	5.22	4.52	3.69	4.65	4.03	3.29	
Construction		38 x 89	2.18	1.98	1.73	1.90	1.73	1.51	1.73	1.57	1.37	
Standard		38 x 89	2.09	1.81	1.48	1.80	1.56	1.27	1.60	1.38	1.13	

Table 9.23.4.2.-E
Maximum Spans for Roof Joists – Specified Roof Snow Loads 2.5 and 3.0 kPa
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

Commercial Designation	Grade	Joist Size, mm	Maximum Span, m						
			Specified Snow Load, kPa						
			2.5			3.0			
			Joist Spacing, mm			Joist Spacing, mm			
			300	400	600	300	400	600	
Douglas Fir – Larch (includes Douglas Fir and Western Larch)	Select Structural	38 x 89	1.99	1.81	1.58	1.88	1.71	1.49	
		38 x 140	3.14	2.85	2.49	2.95	2.68	2.34	
		38 x 184	4.12	3.75	3.27	3.88	3.53	3.08	
		38 x 235	5.27	4.79	4.18	4.96	4.50	3.93	
		38 x 286	6.41	5.82	5.09	6.03	5.48	4.79	
	No. 1 and No. 2	38 x 89	1.91	1.74	1.52	1.80	1.63	1.43	
		38 x 140	3.01	2.73	2.39	2.83	2.57	2.25	
		38 x 184	3.95	3.59	3.14	3.72	3.38	2.90	
		38 x 235	5.05	4.59	3.84	4.75	4.32	3.55	
		38 x 286	6.14	5.46	4.46	5.78	5.05	4.12	
	No. 3	38 x 89	1.74	1.50	1.23	1.60	1.39	1.13	
		38 x 140	2.48	2.15	1.75	2.29	1.98	1.62	
		38 x 184	3.01	2.61	2.13	2.79	2.41	1.97	
		38 x 235	3.69	3.19	2.61	3.41	2.95	2.41	
		38 x 286	4.28	3.70	3.03	3.95	3.42	2.79	
	Construction	38 x 89	1.85	1.68	1.47	1.74	1.58	1.38	
	Standard	38 x 89	1.68	1.45	1.19	1.55	1.34	1.10	
	Hem – Fir (includes Western Hemlock and Amabilis Fir)	Select Structural	38 x 89	1.97	1.79	1.56	1.85	1.68	1.47
			38 x 140	3.10	2.81	2.46	2.91	2.65	2.31
			38 x 184	4.07	3.70	3.23	3.83	3.48	3.04
			38 x 235	5.20	4.72	4.12	4.89	4.44	3.88
38 x 286			6.32	5.75	5.02	5.95	5.41	4.72	
No. 1 and No. 2		38 x 89	1.91	1.74	1.52	1.80	1.63	1.43	
		38 x 140	3.01	2.73	2.39	2.83	2.57	2.25	
		38 x 184	3.95	3.59	3.14	3.72	3.38	2.95	
		38 x 235	5.05	4.59	4.01	4.75	4.32	3.72	
		38 x 286	6.14	5.58	4.68	5.78	5.25	4.32	
No. 3		38 x 89	1.85	1.68	1.47	1.74	1.58	1.38	
		38 x 140	2.91	2.65	2.16	2.74	2.45	2.00	
		38 x 184	3.72	3.22	2.63	3.44	2.98	2.43	
		38 x 235	4.55	3.94	3.22	4.20	3.64	2.97	
		38 x 286	5.28	4.57	3.73	4.88	4.22	3.45	
Construction		38 x 89	1.85	1.68	1.47	1.74	1.58	1.38	
Standard		38 x 89	1.76	1.52	1.24	1.62	1.40	1.15	

Table 9.23.4.2.-E (Continued)

Commercial Designation	Grade	Joist Size, mm	Maximum Span, m						
			Specified Snow Load, kPa						
			2.5			3.0			
			Joist Spacing, mm			Joist Spacing, mm			
			300	400	600	300	400	600	
Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	Select Structural	38 x 89	1.88	1.71	1.49	1.77	1.61	1.41	
		38 x 140	2.96	2.69	2.35	2.79	2.53	2.21	
		38 x 184	3.89	3.54	3.09	3.66	3.33	2.91	
		38 x 235	4.97	4.52	3.94	4.68	4.25	3.71	
		38 x 286	6.05	5.50	4.80	5.69	5.17	4.52	
	No. 1 and No. 2	38 x 89	1.82	1.65	1.44	1.71	1.56	1.36	
		38 x 140	2.86	2.60	2.27	2.69	2.45	2.14	
		38 x 184	3.76	3.42	2.99	3.54	3.22	2.81	
		38 x 235	4.81	4.37	3.82	4.52	4.11	3.59	
		38 x 286	5.85	5.31	4.64	5.50	5.00	4.37	
	No. 3	38 x 89	1.79	1.62	1.42	1.68	1.53	1.34	
		38 x 140	2.81	2.56	2.16	2.65	2.40	2.00	
		38 x 184	3.70	3.22	2.63	3.44	2.98	2.43	
		38 x 235	4.55	3.94	3.22	4.20	3.64	2.97	
		38 x 286	5.28	4.57	3.73	4.88	4.22	3.45	
	Construction	38 x 89	1.79	1.62	1.42	1.68	1.53	1.34	
	Standard	38 x 89	1.72	1.56	1.29	1.62	1.46	1.19	
	Northern Species (includes any Canadian species covered by the NLGA Standard Grading Rules)	Select Structural	38 x 89	1.68	1.53	1.34	1.58	1.44	1.26
			38 x 140	2.65	2.40	2.10	2.49	2.26	1.98
			38 x 184	3.48	3.16	2.76	3.27	2.97	2.60
			38 x 235	4.44	4.04	3.53	4.18	3.80	3.32
38 x 286			5.41	4.91	4.29	5.09	4.62	4.04	
No. 1 and No. 2		38 x 89	1.64	1.49	1.31	1.55	1.41	1.23	
		38 x 140	2.59	2.35	2.05	2.43	2.21	1.93	
		38 x 184	3.40	3.09	2.70	3.20	2.91	2.53	
		38 x 235	4.34	3.94	3.35	4.09	3.71	3.10	
		38 x 286	5.28	4.76	3.89	4.97	4.40	3.59	
No. 3		38 x 89	1.60	1.46	1.21	1.51	1.37	1.12	
		38 x 140	2.45	2.12	1.73	2.26	1.96	1.60	
		38 x 184	2.98	2.58	2.11	2.76	2.39	1.95	
		38 x 235	3.65	3.16	2.58	3.37	2.92	2.38	
		38 x 286	4.23	3.66	2.99	3.91	3.39	2.76	
Construction		38 x 89	1.60	1.46	1.27	1.51	1.37	1.20	
Standard		38 x 89	1.46	1.26	1.03	1.34	1.16	0.95	

Table 9.23.4.2-F
Maximum Spans for Roof Rafters – Specified Roof Snow Loads 1.0 to 2.0 kPa
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

Commercial Designation	Grade	Rafter Size, mm	Maximum Span, m									
			Specified Snow Load, kPa									
			1.0			1.5			2.0			
			Rafter Spacing, mm			Rafter Spacing, mm			Rafter Spacing, mm			
			300	400	600	300	400	600	300	400	600	
Douglas Fir – Larch (includes Douglas Fir and Western Larch)	Select Structural	38 x 89	3.41	3.10	2.71	2.98	2.71	2.37	2.71	2.46	2.15	
		38 x 140	5.37	4.88	4.26	4.69	4.26	3.72	4.26	3.87	3.38	
		38 x 184	7.05	6.41	5.60	6.16	5.60	4.89	5.60	5.09	4.44	
		38 x 235	9.01	8.18	7.15	7.87	7.15	6.24	7.15	6.49	5.62	
		38 x 286	10.96	9.96	8.70	9.58	8.70	7.40	8.70	7.90	6.52	
	No. 1 and No. 2	38 x 89	3.27	2.97	2.59	2.86	2.59	2.27	2.59	2.36	2.06	
		38 x 140	5.14	4.67	3.95	4.49	4.08	3.34	4.08	3.60	2.94	
		38 x 184	6.76	5.88	4.80	5.74	4.97	4.06	5.06	4.38	3.58	
		38 x 235	8.30	7.19	5.87	7.02	6.08	4.96	6.19	5.36	4.38	
		38 x 286	9.63	8.34	6.81	8.14	7.05	5.76	7.18	6.22	5.08	
	No. 3	38 x 89	2.65	2.30	1.87	2.24	1.94	1.58	1.98	1.71	1.40	
		38 x 140	3.78	3.28	2.68	3.20	2.77	2.26	2.82	2.44	1.99	
		38 x 184	4.61	3.99	3.26	3.89	3.37	2.75	3.43	2.97	2.43	
		38 x 235	5.63	4.88	3.98	4.76	4.12	3.37	4.20	3.64	2.97	
		38 x 286	6.53	5.66	4.62	5.52	4.78	3.91	4.87	4.22	3.44	
	Construction	38 x 89	3.17	2.88	2.42	2.77	2.50	2.04	2.51	2.21	1.80	
	Standard	38 x 89	2.56	2.22	1.81	2.17	1.88	1.53	1.91	1.65	1.35	
	Hem – Fir (includes Western Hemlock and Amabilis Fir)	Select Structural	38 x 89	3.36	3.06	2.67	2.94	2.67	2.33	2.67	2.43	2.12
			38 x 140	5.29	4.81	4.20	4.62	4.20	3.67	4.20	3.82	3.33
			38 x 184	6.96	6.32	5.52	6.08	5.52	4.82	5.52	5.02	4.38
			38 x 235	8.88	8.07	7.05	7.76	7.05	6.16	7.05	6.41	5.54
38 x 286			10.81	9.82	8.58	9.45	8.58	7.28	8.58	7.80	6.42	
No. 1 and No. 2		38 x 89	3.27	2.97	2.59	2.86	2.59	2.27	2.59	2.36	2.06	
		38 x 140	5.14	4.67	4.08	4.49	4.08	3.50	4.08	3.71	3.08	
		38 x 184	6.76	6.14	5.04	5.90	5.21	4.26	5.31	4.60	3.75	
		38 x 235	8.63	7.54	6.16	7.36	6.37	5.20	6.49	5.62	4.59	
		38 x 286	10.11	8.75	7.15	8.54	7.40	6.04	7.53	6.52	5.33	
No. 3		38 x 89	3.17	2.83	2.31	2.76	2.39	1.95	2.44	2.11	1.72	
		38 x 140	4.67	4.04	3.30	3.95	3.42	2.79	3.48	3.01	2.46	
		38 x 184	5.68	4.92	4.02	4.80	4.16	3.40	4.23	3.67	2.99	
		38 x 235	6.95	6.02	4.91	5.87	5.08	4.15	5.18	4.48	3.66	
		38 x 286	8.06	6.98	5.70	6.81	5.90	4.82	6.01	5.20	4.25	
Construction		38 x 89	3.17	2.88	2.51	2.77	2.51	2.14	2.51	2.28	1.89	
Standard		38 x 89	2.68	2.32	1.90	2.27	1.96	1.60	2.00	1.73	1.41	

Table 9.23.4.2.-F (Continued)

Commercial Designation	Grade	Rafter Size, mm	Maximum Span, m									
			Specified Snow Load, kPa									
			1.0			1.5			2.0			
			Rafter Spacing, mm			Rafter Spacing, mm			Rafter Spacing, mm			
			300	400	600	300	400	600	300	400	600	
Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	Select Structural	38 x 89	3.22	2.92	2.55	2.81	2.55	2.23	2.55	2.32	2.03	
		38 x 140	5.06	4.60	4.02	4.42	4.02	3.51	4.02	3.65	3.19	
		38 x 184	6.65	6.05	5.28	5.81	5.28	4.61	5.28	4.80	4.19	
		38 x 235	8.50	7.72	6.74	7.42	6.74	5.89	6.74	6.13	5.35	
		38 x 286	10.34	9.40	8.21	9.03	8.21	7.17	8.21	7.46	6.52	
	No. 1 and No. 2	38 x 89	3.11	2.83	2.47	2.72	2.47	2.16	2.47	2.24	1.96	
		38 x 140	4.90	4.45	3.89	4.28	3.89	3.40	3.89	3.53	3.08	
		38 x 184	6.44	5.85	5.11	5.62	5.11	4.41	5.11	4.64	3.89	
		38 x 235	8.22	7.47	6.38	7.18	6.52	5.39	6.52	5.82	4.75	
		38 x 286	10.00	9.06	7.40	8.74	7.66	6.25	7.80	6.76	5.52	
	No. 3	38 x 89	3.06	2.78	2.31	2.67	2.39	1.95	2.43	2.11	1.72	
		38 x 140	4.67	4.04	3.30	3.95	3.42	2.79	3.48	3.01	2.46	
		38 x 184	5.68	4.92	4.02	4.80	4.16	3.40	4.23	3.67	2.99	
		38 x 235	6.95	6.02	4.91	5.87	5.08	4.15	5.18	4.48	3.66	
		38 x 286	8.06	6.98	5.70	6.81	5.90	4.82	6.01	5.20	4.25	
	Construction	38 x 89	3.06	2.78	2.43	2.67	2.43	2.12	2.43	2.20	1.93	
	Standard	38 x 89	2.78	2.41	1.97	2.35	2.04	1.66	2.07	1.79	1.47	
	Northern Species (includes any Canadian species covered by the NLGA Standard Grading Rules)	Select Structural	38 x 89	2.88	2.61	2.28	2.51	2.28	1.99	2.28	2.07	1.81
			38 x 140	4.53	4.11	3.59	3.95	3.59	3.14	3.59	3.26	2.85
			38 x 184	5.95	5.40	4.72	5.20	4.72	4.12	4.72	4.29	3.68
38 x 235			7.60	6.90	6.03	6.64	6.03	5.11	6.03	5.48	4.51	
38 x 286			9.25	8.40	7.01	8.08	7.26	5.93	7.34	6.40	5.23	
No. 1 and No. 2		38 x 89	2.81	2.55	2.23	2.46	2.23	1.95	2.23	2.03	1.77	
		38 x 140	4.42	4.02	3.44	3.86	3.51	2.91	3.51	3.14	2.56	
		38 x 184	5.81	5.13	4.19	5.00	4.33	3.54	4.41	3.82	3.12	
		38 x 235	7.24	6.27	5.12	6.12	5.30	4.33	5.40	4.67	3.82	
		38 x 286	8.40	7.27	5.94	7.10	6.15	5.02	6.26	5.42	4.43	
No. 3		38 x 89	2.62	2.27	1.85	2.22	1.92	1.57	1.95	1.69	1.38	
		38 x 140	3.74	3.24	2.65	3.16	2.74	2.24	2.79	2.42	1.97	
		38 x 184	4.56	3.94	3.22	3.85	3.33	2.72	3.40	2.94	2.40	
		38 x 235	5.57	4.82	3.94	4.71	4.08	3.33	4.15	3.60	2.94	
		38 x 286	6.46	5.60	4.57	5.46	4.73	3.86	4.82	4.17	3.41	
Construction		38 x 89	2.74	2.49	2.11	2.40	2.18	1.90	2.18	1.93	1.57	
Standard		38 x 89	2.22	1.93	1.57	1.88	1.63	1.33	1.66	1.44	1.17	

Table 9.23.4.2.-G
Maximum Spans for Roof Rafter – Specified Roof Snow Loads 2.5 and 3.0 kPa
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and 9.23.4.5.(1)

Commercial Designation	Grade	Rafter Size, mm	Maximum Span, m						
			Specified Snow Load, kPa						
			2.5			3.0			
			Rafter Spacing, mm			Rafter Spacing, mm			
			300	400	600	300	400	600	
Douglas Fir – Larch (includes Douglas Fir and Western Larch)	Select Structural	38 x 89	2.51	2.28	1.99	2.37	2.15	1.88	
		38 x 140	3.95	3.59	3.14	3.72	3.38	2.95	
		38 x 184	5.20	4.72	4.12	4.89	4.44	3.83	
		38 x 235	6.64	6.03	5.08	6.24	5.67	4.68	
		38 x 286	8.08	7.23	5.90	7.60	6.65	5.43	
	No. 1 and No. 2	38 x 89	2.41	2.19	1.86	2.27	2.06	1.71	
		38 x 140	3.76	3.26	2.66	3.46	3.00	2.45	
		38 x 184	4.58	3.96	3.24	4.21	3.65	2.98	
		38 x 235	5.60	4.85	3.96	5.15	4.46	3.64	
		38 x 286	6.50	5.63	4.59	5.98	5.17	4.23	
	No. 3	38 x 89	1.79	1.55	1.26	1.64	1.42	1.16	
		38 x 140	2.55	2.21	1.80	2.35	2.03	1.66	
		38 x 184	3.10	2.69	2.20	2.86	2.47	2.02	
		38 x 235	3.80	3.29	2.68	3.49	3.02	2.47	
		38 x 286	4.41	3.82	3.12	4.05	3.51	2.87	
	Construction	38 x 89	2.30	2.00	1.63	2.12	1.84	1.50	
	Standard	38 x 89	1.73	1.50	1.22	1.59	1.38	1.12	
	Hem – Fir (includes Western Hemlock and Amabilis Fir)	Select Structural	38 x 89	2.48	2.25	1.97	2.33	2.12	1.85
			38 x 140	3.90	3.54	3.10	3.67	3.33	2.91
			38 x 184	5.13	4.66	4.07	4.82	4.38	3.77
			38 x 235	6.55	5.95	5.01	6.16	5.60	4.61
38 x 286			7.97	7.12	5.81	7.50	6.55	5.34	
No. 1 and No. 2		38 x 89	2.41	2.19	1.91	2.27	2.06	1.80	
		38 x 140	3.79	3.42	2.79	3.57	3.14	2.57	
		38 x 184	4.80	4.16	3.40	4.42	3.83	3.12	
		38 x 235	5.87	5.08	4.15	5.40	4.68	3.82	
		38 x 286	6.81	5.90	4.82	6.27	5.43	4.43	
No. 3		38 x 89	2.21	1.91	1.56	2.03	1.76	1.43	
		38 x 140	3.15	2.73	2.23	2.90	2.51	2.05	
		38 x 184	3.83	3.32	2.71	3.52	3.05	2.49	
		38 x 235	4.68	4.06	3.31	4.31	3.73	3.05	
		38 x 286	5.43	4.71	3.84	5.00	4.33	3.54	
Construction		38 x 89	2.33	2.09	1.71	2.20	1.93	1.57	
Standard		38 x 89	1.81	1.57	1.28	1.66	1.44	1.18	

Table 9.23.4.2.-G (Continued)

Commercial Designation	Grade	Rafter Size, mm	Maximum Span, m						
			Specified Snow Load, kPa						
			2.5			3.0			
			Rafter Spacing, mm			Rafter Spacing, mm			
			300	400	600	300	400	600	
Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	Select Structural	38 x 89	2.37	2.15	1.88	2.23	2.03	1.77	
		38 x 140	3.73	3.39	2.96	3.51	3.19	2.79	
		38 x 184	4.90	4.45	3.89	4.61	4.19	3.66	
		38 x 235	6.26	5.69	4.97	5.89	5.35	4.68	
		38 x 286	7.62	6.92	5.90	7.17	6.52	5.43	
	No. 1 and No. 2	38 x 89	2.29	2.08	1.82	2.16	1.96	1.71	
		38 x 140	3.61	3.28	2.86	3.40	3.08	2.66	
		38 x 184	4.74	4.31	3.52	4.46	3.96	3.23	
		38 x 235	6.06	5.27	4.30	5.59	4.84	3.96	
		38 x 286	7.06	6.11	4.99	6.49	5.62	4.59	
	No. 3	38 x 89	2.21	1.91	1.56	2.03	1.76	1.43	
		38 x 140	3.15	2.73	2.23	2.90	2.51	2.05	
		38 x 184	3.83	3.32	2.71	3.52	3.05	2.49	
		38 x 235	4.68	4.06	3.31	4.31	3.73	3.05	
		38 x 286	5.43	4.71	3.84	5.00	4.33	3.54	
	Construction	38 x 89	2.25	2.05	1.77	2.12	1.93	1.63	
	Standard	38 x 89	1.87	1.62	1.33	1.72	1.49	1.22	
	Northern Species (includes any Canadian species covered by the NLGA Standard Grading Rules)	Select Structural	38 x 89	2.12	1.93	1.68	1.99	1.81	1.58
			38 x 140	3.33	3.03	2.65	3.14	2.85	2.49
			38 x 184	4.38	3.98	3.33	4.12	3.75	3.07
38 x 235			5.60	4.99	4.08	5.27	4.59	3.75	
38 x 286			6.69	5.79	4.73	6.15	5.33	4.35	
No. 1 and No. 2		38 x 89	2.07	1.88	1.62	1.95	1.77	1.49	
		38 x 140	3.26	2.84	2.32	3.02	2.61	2.13	
		38 x 184	3.99	3.46	2.82	3.67	3.18	2.60	
		38 x 235	4.88	4.23	3.45	4.49	3.89	3.17	
		38 x 286	5.66	4.90	4.00	5.21	4.51	3.68	
No. 3		38 x 89	1.77	1.53	1.25	1.63	1.41	1.15	
		38 x 140	2.52	2.19	1.78	2.32	2.01	1.64	
		38 x 184	3.07	2.66	2.17	2.82	2.45	2.00	
		38 x 235	3.76	3.25	2.66	3.45	2.99	2.44	
		38 x 286	4.36	3.77	3.08	4.01	3.47	2.83	
Construction		38 x 89	2.01	1.74	1.42	1.85	1.60	1.31	
Standard		38 x 89	1.50	1.30	1.06	1.38	1.19	0.98	