TABLE IBUC-CR1 (RESIDENTIAL)

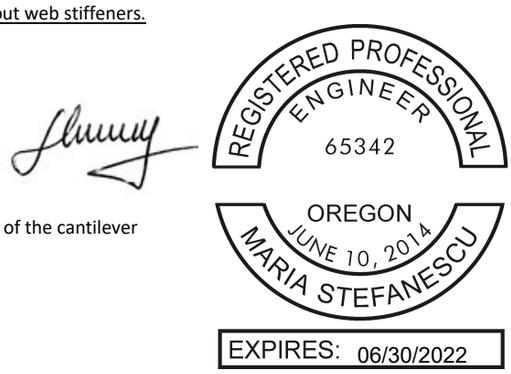
ROOF DESIGN LOADS														
	Joist Depth	Roof Truss Span (ft)	TL = 35 psf (Snow up to 20 psf, DL = Joist Spacing				TL = 45 psf (Snow up to 30 psf, DL = Joist Spacing				TL = 55 psf (Snow up to 40 psf, DL = Joist Spacing			
			12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
RESIDENTIAL	7-7/8"	26	0	0	0	2	0	0	2	x	0	1	x	x
		28	0	0	1	2	0	1	2	x	0	2	x	x
		30	0	0	1	x	0	1	2	x	0	2	x	x
		32	0	0	1	x	0	1	x	x	0	2	x	x
		34	0	0	2	x	0	2	x	x	1	x	x	x
		36	0	1	2	x	0	2	x	x	1	x	x	x
	8-5/8"	26	0	0	0	2	0	0	1	x	0	1	2	x
		28	0	0	1	2	0	1	2	x	0	2	x	x
		30	0	0	1	2	0	1	2	x	0	2	x	x
		32	0	0	1	x	0	1	2	x	0	2	x	x
		34	0	0	2	x	0	1	x	x	1	2	x	x
		36	0	1	2	x	0	2	x	x	1	x	x	x
	9-1/4"	26	0	0	0	2	0	0	1	x	0	1	2	x
		28	0	0	1	2	0	1	2	x	0	1	2	x
		30	0	0	1	2	0	1	2	x	0	2	x	x
		32	0	0	1	2	0	1	2	x	0	2	x	x
		34	0	0	1	x	0	1	2	x	1	2	x	x
		36	0	1	2	x	0	2	x	x	1	2	x	x
	9-1/2"	26	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**	**0**	**1**	**2**	**x**
		28	**0**	**0**	**1**	**2**	**0**	**1**	**1**	**x**	**0**	**1**	**2**	**x**
		30	**0**	**0**	**1**	**2**	**0**	**1**	**2**	**x**	**0**	**1**	**x**	**x**
		32	**0**	**0**	**1**	**2**	**0**	**1**	**2**	**x**	**0**	**2**	**x**	**x**
		34	**0**	**0**	**1**	**x**	**0**	**1**	**2**	**x**	**1**	**2**	**x**	**x**
		36	**0**	**1**	**1**	**x**	**0**	**1**	**2**	**x**	**1**	**2**	**x**	**x**
	11-1/4"	26	0	0	0	1	0	0	0	1	0	0	1	2
		28	0	0	0	1	0	0	1	2	0	0	1	2
		30	0	0	0	1	0	0	1	2	0	1	1	x
		32	0	0	0	1	0	0	1	2	0	1	2	x
		34	0	0	0	1	0	0	1	2	0	1	2	x
		36	0	0	1	2	0	1	1	2	0	1	2	x
		38	0	0	1	2	0	1	2	x	0	1	2	x
	11-7/8"	26	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**
		28	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**
		30	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**2**
		32	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**	**0**	**1**	**1**	**2**
		34	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**	**0**	**1**	**2**	**x**
		36	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**	**0**	**1**	**2**	**x**
		38	**0**	**0**	**1**	**1**	**0**	**1**	**1**	**2**	**0**	**1**	**2**	**x**
	14"	26	**0**	**0**	**0**	**ws**	**0**	**0**	**0**	**ws**	**0**	**0**	**ws**	**1**
		28	**0**	**0**	**0**	**ws**	**0**	**0**	**0**	**1**	**0**	**0**	**ws**	**2**
		30	**0**	**0**	**0**	**ws**	**0**	**0**	**ws**	**1**	**0**	**0**	**ws**	**2**
		32	**0**	**0**	**0**	**ws**	**0**	**0**	**ws**	**1**	**0**	**0**	**1**	**2**
		34	**0**	**0**	**0**	**1**	**0**	**0**	**ws**	**2**	**0**	**ws**	**1**	**2**
		36	**0**	**0**	**0**	**1**	**0**	**0**	**ws**	**2**	**0**	**ws**	**1**	**2**
		38	**0**	**0**	**ws**	**1**	**0**	**0**	**1**	**2**	**0**	**ws**	**2**	**x**
		40	**0**	**0**	**ws**	**1**	**0**	**ws**	**1**	**2**	**0**	**1**	**2**	**x**
	16"	26	**0**	**0**	**0**	**ws**	**0**	**0**	**0**	**ws**	**0**	**0**	**ws**	**2**
		28	**0**	**0**	**0**	**ws**	**0**	**0**	**ws**	**1**	**0**	**0**	**ws**	**2**
		30	**0**	**0**	**0**	**ws**	**0**	**0**	**ws**	**1**	**0**	**ws**	**ws**	**2**
		32	**0**	**0**	**0**	**ws**	**0**	**0**	**ws**	**2**	**0**	**ws**	**1**	**2**
		34	**0**	**0**	**ws**	**1**	**0**	**0**	**ws**	**2**	**0**	**ws**	**2**	**2**
		36	**0**	**0**	**ws**	**1**	**0**	**ws**	**ws**	**2**	**0**	**ws**	**2**	**x**
		38	**0**	**0**	**ws**	**2**	**0**	**ws**	**1**	**2**	**0**	**ws**	**2**	**x**
		40	**0**	**0**	**ws**	**2**	**0**	**ws**	**1**	**2**	**0**	**1**	**2**	**x**
		42	**0**	**0**	**ws**	**2**	**0**	**ws**	**2**	**x**	**0**	**1**	**2**	**x**

Design Notes:

1. Design analysis complies with IBC/IRC 2021 and NDS 2018.
2. Table values are valid for the design spans allowed for the specific joists from the Floor Span Tables.
3. Min. end bearing length is 1.75" without web stiffeners .
4. The floor live load shall not exceed 40 psf ; The floor dead load shall not exceed 15 psf.
5. Maximum cantilever length = 2 ft.
6. The truss span is the out-to-out distance between the exterior bearing walls plus a max. 2 ft. roof overhang.
7. Table values assume a bearing length adjacent to the cantilever of at least 3-1/2" without web stiffeners.
8. Exterior bearing wall weight = 100 plf
9. Minimum 23/32 APA Rated OSB reinforcement.
10. Reinforcement shall match the joist depth.
11. Roof picth <= 12/12
12. I-Joists design properties as per APA PR-L330 (revised August 12, 2021)

Nomenclature:

0 = no web stiffeners or reinforcement required
ws = web stiffeners required at the interior bearing support and at the end of the cantilever
1 = 1 side reinforcement required (without web stiffeners)
2 = 2 sides reinforcement (without web stiffeners)
x = try a deeper joist or closer spacing



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2021-11-02

TABLE IBUC-CR1 (COMMERCIAL)

ROOF DESIGN LOADS														
	Joist Depth	Roof Truss Span (ft)	TL = 35 psf (Snow up to 20 psf, DL = Joist Spacing)				TL = 45 psf (Snow up to 30 psf, DL = Joist Spacing)				TL = 55 psf (Snow up to 40 psf, DL = Joist Spacing)			
			12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
COMMERCIAL	18"	26	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		28	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		30	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		32	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		34	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		36	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		38	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		40	ws	ws	ws	ws	ws	ws	ws	ws+1	ws	ws	ws	ws+1
		42	ws	ws	ws	ws	ws	ws	ws	ws+1	ws	ws	ws	ws+2
		44	ws	ws	ws	ws	ws	ws	ws	ws+1	ws	ws	ws+1	ws+2
	20"	26	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		28	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		30	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		32	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		34	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		36	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		38	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		40	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		42	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		44	ws	ws	ws	ws	ws	ws	ws	ws+1	ws	ws	ws	ws+2
		46	ws	ws	ws	ws	ws	ws	ws	ws+1	ws	ws	ws+1	ws+2
	22"	26	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		28	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		30	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		32	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		34	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		36	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		38	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		40	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		42	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		44	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		46	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
	24"	26	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		28	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		30	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		32	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		34	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		36	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		38	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		40	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws
		42	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		44	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1
		46	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws	ws+1

Design Notes:

1. Design analysis complies with IBC/IRC 2021 and NDS 2018.
2. Table values are valid for the design spans allowed for the specific joists from the Floor Span Tables.
3. Min. end bearing length is 3.5" with web stiffeners .
4. The floor live load shall not exceed 40 psf ; The floor dead load shall not exceed 15 psf.
5. Maximum cantilever length = 2 ft.
6. The truss span is the out-to-out distance between the exterior bearing walls plus a max. 2 ft. roof overhang.
7. Table values assume a bearing length adjacent to the cantilever of at least 3-1/2" with web stiffeners.
8. Exterior bearing wall weight = 100 plf
9. Minimum 23/32 APA Rated OSB reinforcement.
10. Reinforcement shall match the joist depth.
11. Roof picth <= 12/12
12. I-Joists design properties as per APA PR-L330 (revised August 12, 2021)

Nomenclature:

ws = web stiffeners required at the interior bearing support and at the end of the cantilever
ws+1 = ws + 1 side reinforcement required
ws+2 = ws + 2 sides reinforcement
x = try a deeper joist or closer spacing