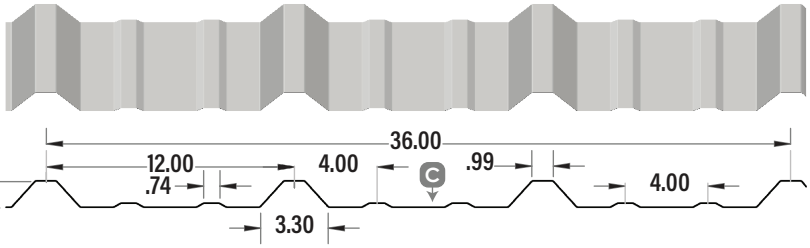
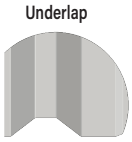
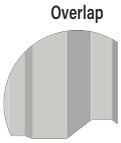
WF-12-36 WALL







All dimensions are in inches

SECTION PROPERTIES (PER FOOT OF WIDTH)

	Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Sec. Modulus Midspan (in^3)	Sec. Modulus Support (in^3)	Deflection Moment of Inertia (in^4)	Specified Web Crippling Data P_{e1} End (lb)	P_{e2} End (lb)	P_{i1} Interior (lb)	P_{i2} Interior (lb)
IMPERIAL	0.018	0.934	80	0.0379	0.0315	0.0428	45.2	11.3	90.8	15.4
	0.018	0.934	33	0.0410	0.0347	0.0438	24.9	6.22	49.9	8.49
	0.024	1.23	33	0.0580	0.0481	0.0584	46.7	11.7	92.8	15.8
	0.030	1.52	33	0.0722	0.0620	0.0728	75.7	18.9	149	25.4

Live load factor = 1.4; Importance factor = 0.75; Importance Category = 1.0

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOADS (PSF)

SPAN LENGTH (ft)		1-SPAN BASE STEEL THICKNESS (in.)				2-SPAN BASE STEEL THICKNESS (in.)				3-SPAN BASE STEEL THICKNESS (in.)			
		0.018	0.018	0.024	0.030	0.018	0.018	0.024	0.030	0.018	0.018	0.024	0.030
2.0	S	244	145	205	255	203	123	170	219	253	153	213	274
	D	622	637	848	1059	1493	1529	2036	2542	1176	1204	1604	2002
2.5	S	156	93	131	163	130	78	109	140	162	98	136	175
	D	319	326	434	542	765	783	1043	1302	602	617	821	1025
3.0	S	108	64	91	113	90	55	76	97	113	68	94	122
	D	184	189	251	314	442	453	603	753	348	357	475	593
3.5	S	80	47	67	83	66	40	56	72	83	50	69	89
	D	116	119	158	198	279	285	380	474	219	225	299	374
4.0	S	61	36	51	64	51	31	43	55	63	38	53	69
	D	78	80	106	132	187	191	255	318	147	151	200	250
4.5	S	48	29	41	50	40	24	34	43	50	30	42	54
	D	55	56	74	93	131	134	179	223	103	106	141	176
5.0	S	39	23	33	41	32	20	27	35	41	25	34	44
	D	40	41	54	68	96	98	130	163	75	77	103	128
5.5	S	32	19	27	34	27	16	22	29	34	20	28	36
	D	30	31	41	51	72	74	98	122	57	58	77	96
6.0	S	27	16	23	28	23	14	19	24	28	17	24	30
	D	23	24	31	39	55	57	75	94	44	45	59	74
6.5	S	23	14	19	24	19	12	16	21	24	15	20	26
	D	18	19	25	31	43	45	59	74	34	35	47	58
7.0	S	20	12	17	21	17	10	14	18	21	13	17	22
	D	15	15	20	25	35	36	47	59	27	28	37	47
7.5	S	17	10	15	18	14	9	12	16	18	11	15	19
	D	12	12	16	20	28	29	39	48	22	23	30	38
8.0	S	15	9	13	16	13	8	11	14	16	10	13	17
	D	10	10	13	17	23	24	32	40	18	19	25	31

Notes:

1. Based on ASTM A 653 structural steel. Coating can also be AZ50.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of L/180.
4. For L/240, multiply values in row "D" by 0.75.
5. Web crippling not included in strength calculations. See Example.
6. Limit States Design principles were used in accordance with CSA S136-16.
7. Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.

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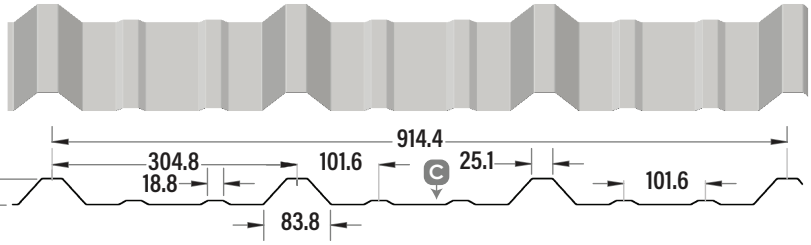

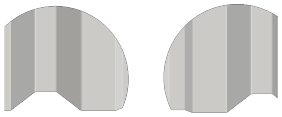

All dimensions are in millimeters

SECTION PROPERTIES (PER METRE OF WIDTH)

	Base Steel Thickness (mm)	Mass Z275 (kg/m^2)	Yield Stress (MPa)	Sec. Modulus Midspan (x10^3 mm^3)	Sec. Modulus Support (x10^3 mm^3)	Deflection Moment of Inertia (x10^{6}mm^4)	Specified Web Crippling Data P_{e1} End (kN)	P_{e2} End (kN)	P_{i1} Interior (kN)	P_{i2} Interior (kN)
METRIC	0.457	4.56	550	2.04	1.70	0.0584	0.658	0.165	1.32	0.225
	0.457	4.56	230	2.20	1.86	0.0598	0.367	0.092	0.737	0.125
	0.610	5.99	230	3.12	2.58	0.0797	0.689	0.172	1.37	0.233
	0.762	7.42	230	3.88	3.33	0.0995	1.12	0.279	2.20	0.374

Live load factor = 1.4; Importance factor = 0.75; Importance Category = 1.0

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOADS (kPa)

SPAN LENGTH (mm)		1-SPAN BASE STEEL THICKNESS (mm)				2-SPAN BASE STEEL THICKNESS (mm)				3-SPAN BASE STEEL THICKNESS (mm)			
		0.457	0.457	0.610	0.762	0.457	0.457	0.610	0.762	0.457	0.457	0.610	0.762
1000	S	4.32	2.60	3.69	4.59	3.60	2.20	3.06	3.94	4.50	2.75	3.82	4.92
	D	6.75	6.91	9.20	11.5	16.2	16.6	22.1	27.6	12.8	13.1	17.4	21.7
1200	S	3.00	1.81	2.56	3.19	2.50	1.53	2.12	2.74	3.12	1.91	2.65	3.42
	D	3.91	4.00	5.33	6.65	9.37	9.60	12.8	16.0	7.38	7.56	10.1	12.6
1400	S	2.21	1.33	1.88	2.34	1.84	1.12	1.56	2.01	2.29	1.41	1.95	2.51
	D	2.46	2.52	3.35	4.19	5.90	6.04	8.05	10.1	4.65	4.76	6.34	7.91
1600	S	1.69	1.02	1.44	1.79	1.41	0.86	1.19	1.54	1.76	1.08	1.49	1.92
	D	1.65	1.69	2.25	2.80	3.95	4.05	5.39	6.73	3.11	3.19	4.25	5.30
1800	S	1.33	0.80	1.14	1.42	1.11	0.68	0.94	1.22	1.39	0.85	1.18	1.52
	D	1.16	1.19	1.58	1.97	2.78	2.84	3.79	4.73	2.19	2.24	2.98	3.72
2000	S	1.08	0.65	0.92	1.15	0.90	0.55	0.76	0.98	1.12	0.69	0.96	1.23
	D	0.84	0.86	1.15	1.44	2.02	2.07	2.76	3.45	1.59	1.63	2.17	2.71
2200	S	0.89	0.54	0.76	0.95	0.74	0.46	0.63	0.81	0.93	0.57	0.79	1.02
	D	0.63	0.65	0.86	1.08	1.52	1.56	2.07	2.59	1.20	1.23	1.63	2.04
2400	S	0.75	0.45	0.64	0.80	0.62	0.38	0.53	0.68	0.78	0.48	0.66	0.85
	D	0.49	0.50	0.67	0.83	1.17	1.20	1.60	1.99	0.92	0.94	1.26	1.57
2600	S	0.64	0.39	0.55	0.68	0.53	0.33	0.45	0.58	0.67	0.41	0.57	0.73
	D	0.38	0.39	0.52	0.65	0.92	0.94	1.26	1.57	0.73	0.74	0.99	1.24
2800	S	0.55	0.33	0.47	0.59	0.46	0.28	0.39	0.50	0.57	0.35	0.49	0.63
	D	0.31	0.31	0.42	0.52	0.74	0.76	1.01	1.26	0.58	0.60	0.79	0.99
3000	S	0.48	0.29	0.41	0.51	0.40	0.24	0.34	0.44	0.50	0.31	0.42	0.55
	D	0.25	0.26	0.34	0.43	0.60	0.61	0.82	1.02	0.47	0.48	0.64	0.80

Notes:

1. Based on ASTM A 653M structural steel. Coating can also be AZM150.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of L/180.
4. For L/240, multiply values in row "D" by 0.75.
5. Web crippling not included in strength calculations. See Example.
6. Limit States Design principles were used in accordance with CSA S136-16.
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