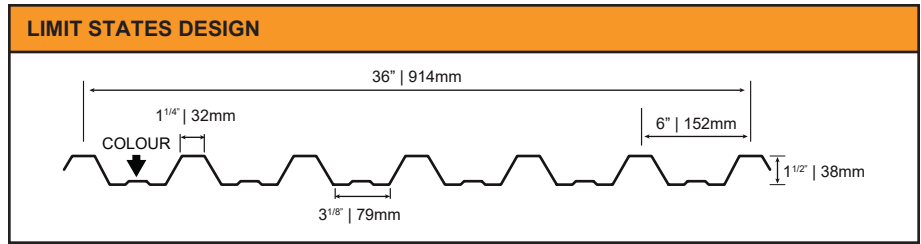


1. Based on ASTM A 653 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculation. See example.
5. Limit States Design principles were used in accordance with CSA Standard S136-16.



SECTION PROPERTIES | Per Foot of Width

Base Steel Thickness (in.)	Weight [G90] (psf)	Yield Stress (ksi)	Section Modulus		Deflection Moment of Inertia (in ⁴)	Specified Web Crippling Data			
			Midspan (in ³)	Support (in ³)		Pe1 End (lb)	Pe2 End (lb)	Pi1 Interior (lb)	Pi2 Interior (lb)
0.0180	1.04	33	0.0942	0.0892	0.0988	58.0	14.5	113	19.1
0.0180	1.04	50	0.0886	0.0822	0.0961	87.9	22.0	171	29.0
0.0240	1.36	33	0.136	0.129	0.133	109	27.3	211	35.8
0.0300	1.69	33	0.177	0.165	0.166	177	44.2	341	57.9

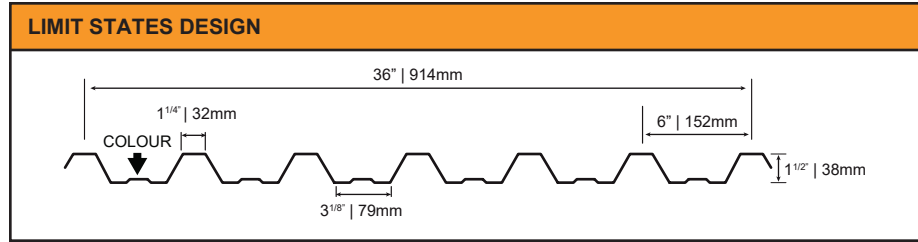
LLF = 1.40; IMPF = 0.75; NORMAL OCCUPANCY = 1.0

LOAD TABLE | 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.)			
		0.0180	0.0180	0.0240	0.0300	0.0180	0.0180	0.0240	0.0300	0.0180	0.0180	0.0240	0.0300
Y.S.* (ksi)		33	50	33	33	33	50	33	33	33	50	33	33
3.0	S	148	211	214	278	140	196	203	260	175	245	253	324
3.0	D	426	414	573	715	1021	993	1375	1715	804	782	1082	1351
3.5	S	109	155	157	205	103	144	149	191	129	180	186	238
3.5	D	268	261	361	450	643	626	866	1080	507	493	682	851
4.0	S	83	119	120	157	79	110	114	146	99	138	143	182
4.0	D	180	175	242	301	431	419	580	724	339	330	457	570
4.5	S	66	94	95	124	62	87	90	115	78	109	113	144
4.5	D	126	123	170	212	303	294	407	508	238	232	321	400
5.0	S	53	76	77	100	50	70	73	93	63	88	91	117
5.0	D	92	89	124	154	221	215	297	370	174	169	234	292
5.5	S	44	63	64	83	42	58	60	77	52	73	75	97
5.5	D	69	67	93	116	166	161	223	278	131	127	176	219
6.0	S	37	53	54	70	35	49	51	65	44	61	63	81
6.0	D	53	52	72	89	128	124	172	214	101	98	135	169
6.5	S	32	45	46	59	30	42	43	55	37	52	54	69
6.5	D	42	41	56	70	100	98	135	169	79	77	106	133
7.0	S	27	39	39	51	26	36	37	48	32	45	47	60
7.0	D	34	33	45	56	80	78	108	135	63	62	85	106
7.5	S	24	34	34	45	22	31	32	42	28	39	41	52
7.5	D	27	26	37	46	65	64	88	110	51	50	69	86
8.0	S	21	30	30	39	20	28	29	36	25	34	36	46
8.0	D	22	22	30	38	54	52	72	90	42	41	57	71
8.5	S	18	26	27	35	17	24	25	32	22	30	32	40
8.5	D	19	18	25	31	45	44	60	75	35	34	48	59
9.0	S	16	23	24	31	16	22	23	29	19	27	28	36
9.0	D	16	15	21	26	38	37	51	64	30	29	40	50
9.5	S	15	21	21	28	14	20	20	26	17	24	25	32
9.5	D	13	13	18	23	32	31	43	54	25	25	34	43
10.0	S	13	19	19	25	13	18	18	23	16	22	23	29
10.0	D	11	11	15	19	28	27	37	46	22	21	29	36

*Y.S. = Yield Stress

1. Based on ASTM A 653M structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculation. See example.
5. Limit States Design principles were used in accordance with CSA Standard S136-16.



SECTION PROPERTIES Per Metre of Width									
Base Steel Thickness (mm)	Mass [Z275] (kg/m ²)	Yield Stress (MPa)	Section Modulus		Deflection Moment of Inertia (x10 ⁶ mm ⁴)	Specified Web Crippling Data			
			Midspan (x10 ³ mm ³)	Support (x10 ³ mm ³)		Pe1 End (kN)	Pe2 End (kN)	Pi1 Interior (kN)	Pi2 Interior (kN)
0.457	5.06	230	5.06	4.78	0.135	0.856	0.214	1.66	0.282
0.457	5.06	345	4.76	4.42	0.131	1.28	0.321	2.49	0.423
0.610	6.66	230	7.32	6.93	0.182	1.61	0.402	3.11	0.529
0.762	8.26	230	9.53	8.87	0.227	2.61	0.652	5.03	0.855

LLF = 1.40; IMPF = 0.75; NORMAL OCCUPANCY = 1.0

LOAD TABLE Maximum Uniformly Distributed Specified Loads (kPa).													
Span Length (m)		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
YS.* (MPa)		230	345	230	230	230	345	230	230	230	345	230	230
1.0	S	5.98	8.45	8.65	11.3	5.66	7.84	8.20	10.5	7.07	9.80	10.3	13.1
1.0	D	15.6	15.2	21.0	26.2	37.4	36.4	50.3	62.8	29.4	28.6	39.6	49.4
1.2	S	4.15	5.87	6.01	7.83	3.93	5.44	5.69	7.29	4.91	6.80	7.12	9.11
1.2	D	9.01	8.77	12.1	15.1	21.6	21.0	29.1	36.3	17.0	16.6	22.9	28.6
1.4	S	3.05	4.31	4.41	5.75	2.89	4.00	4.18	5.35	3.61	5.00	5.23	6.69
1.4	D	5.67	5.52	7.64	9.53	13.6	13.3	18.3	22.9	10.7	10.4	14.4	18.0
1.6	S	2.34	3.30	3.38	4.40	2.21	3.06	3.20	4.10	2.76	3.83	4.00	5.12
1.6	D	3.80	3.70	5.12	6.39	9.12	8.88	12.3	15.3	7.18	6.99	9.67	12.1
1.8	S	1.85	2.61	2.67	3.48	1.75	2.42	2.53	3.24	2.18	3.02	3.16	4.05
1.8	D	2.67	2.60	3.60	4.49	6.41	6.24	8.63	10.8	5.05	4.91	6.79	8.48
2.0	S	1.50	2.11	2.16	2.82	1.41	1.96	2.05	2.62	1.77	2.45	2.56	3.28
2.0	D	1.95	1.89	2.62	3.27	4.67	4.55	6.29	7.85	3.68	3.58	4.95	6.18
2.2	S	1.24	1.75	1.79	2.33	1.17	1.62	1.69	2.17	1.46	2.02	2.12	2.71
2.2	D	1.46	1.42	1.97	2.46	3.51	3.42	4.73	5.90	2.76	2.69	3.72	4.64
2.4	S	1.04	1.47	1.50	1.96	0.98	1.36	1.42	1.82	1.23	1.70	1.78	2.28
2.4	D	1.13	1.10	1.52	1.89	2.70	2.63	3.64	4.54	2.13	2.07	2.87	3.58
2.6	S	0.89	1.25	1.28	1.67	0.84	1.16	1.21	1.55	1.05	1.45	1.52	1.94
2.6	D	0.89	0.86	1.19	1.49	2.13	2.07	2.86	3.57	1.67	1.63	2.25	2.81
2.8	S	0.76	1.08	1.10	1.44	0.72	1.00	1.05	1.34	0.90	1.25	1.31	1.67
2.8	D	0.71	0.69	0.96	1.19	1.70	1.66	2.29	2.86	1.34	1.30	1.81	2.25
3.0	S	0.66	0.94	0.96	1.25	0.63	0.87	0.91	1.17	0.79	1.09	1.14	1.46
3.0	D	0.58	0.56	0.78	0.97	1.38	1.35	1.86	2.33	1.09	1.06	1.47	1.83
3.2	S	0.58	0.83	0.85	1.10	0.55	0.77	0.80	1.02	0.69	0.96	1.00	1.28
3.2	D	0.48	0.46	0.64	0.80	1.14	1.11	1.54	1.92	0.90	0.87	1.21	1.51
3.4	S	0.52	0.73	0.75	0.97	0.49	0.68	0.71	0.91	0.61	0.85	0.89	1.13
3.4	D	0.40	0.39	0.53	0.67	0.95	0.93	1.28	1.60	0.75	0.73	1.01	1.26

*Y.S. = Yield Stress