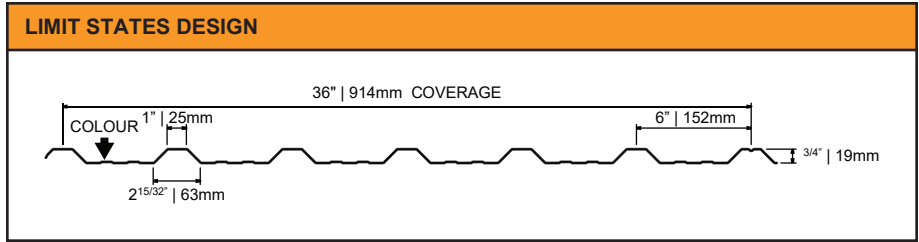


- Based on ASTM A 653 structural steel.
- Values in row "S" are based on strength.
- Values in row "D" are based on deflection of 1/180th span.
- Web crippling not included in strength calculation. See example.
- Limit States Design principles were used in accordance with CSA Standard S136-16.



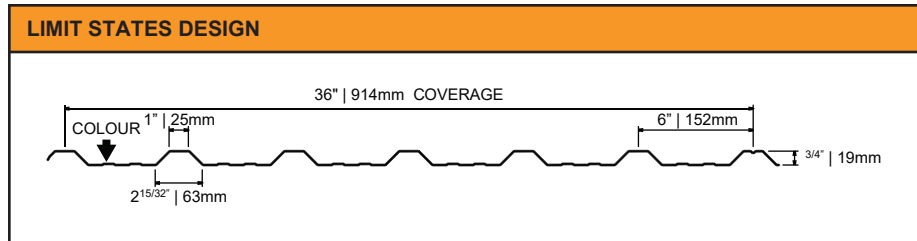
SECTION PROPERTIES Per Foot of Width									
Base Steel Thickness (in.)	Weight [G90] (psf)	Yield Stress (ksi)	Section Modulus		Deflection Moment of Inertia (in ⁴)	Specified Web Crippling Data			
			Midspan (in ³)	Support (in ³)		Pe1 End (lb)	Pe2 End (lb)	Pi1 Interior (lb)	Pi2 Interior (lb)
0.0180	0.93	50	0.0347	0.0325	0.0211	72.6	18.2	138	23.5
0.0180	0.93	80	0.0336	0.0311	0.0208	87.1	21.8	166	28.2

LLF = 1.50; IMPF = 0.90; 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					0.0180	0.0180					0.0180	0.0180				
Y.S.* (ksi)	50	80					50	80					50	80				
2.0 S	173	201					163	187					203	234				
2.0 D	256	252					614	606					484	477				
2.5 S	111	129					104	120					130	149				
2.5 D	131	129					314	310					248	244				
3.0 S	77	89					72	83					90	104				
3.0 D	76	75					182	179					143	141				
3.5 S	57	66					53	61					66	76				
3.5 D	48	47					115	113					90	89				
4.0 S	43	50					41	47					51	58				
4.0 D	32	32					77	76					60	60				
4.5 S	34	40					32	37					40	46				
4.5 D	22	22					54	53					42	42				
5.0 S	28	32					26	30					33	37				
5.0 D	16	16					39	39					31	31				
5.5 S	23	27					22	25					27	31				
5.5 D	12	12					30	29					23	23				
6.0 S	19	22					18	21					23	26				
6.0 D	9	9					23	22					18	18				

*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	4.56	345	1.86	1.75	0.0288	1.06	0.265	2.02	0.343
0.457	4.56	550	1.81	1.68	0.0284	1.27	0.317	2.41	0.410

LLF = 1.50; IMPF = 0.90; 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			0.457	0.457			0.457	0.457		
Y.S.* (MPa)		345	550			345	550			345	550		
0.6	S	8.57	9.93			8.05	9.21			10.1	11.5		
0.6	D	12.9	12.7			30.8	30.4			24.3	24.0		
0.8	S	4.82	5.59			4.53	5.18			5.66	6.48		
0.8	D	5.42	5.35			13.0	12.8			10.2	10.1		
1.0	S	3.08	3.57			2.90	3.32			3.62	4.15		
1.0	D	2.78	2.74			6.66	6.57			5.25	5.17		
1.2	S	2.14	2.48			2.01	2.30			2.51	2.88		
1.2	D	1.61	1.58			3.85	3.80			3.04	2.99		
1.4	S	1.57	1.82			1.48	1.69			1.85	2.12		
1.4	D	1.01	1.00			2.43	2.39			1.91	1.89		
1.6	S	1.20	1.40			1.13	1.30			1.41	1.62		
1.6	D	0.68	0.67			1.63	1.60			1.28	1.26		
1.8	S	0.95	1.10			0.89	1.02			1.12	1.28		
1.8	D	0.48	0.47			1.14	1.13			0.90	0.89		
2.0	S	0.77	0.89			0.72	0.83			0.91	1.04		
2.0	D	0.35	0.34			0.83	0.82			0.66	0.65		

*Y.S. = Yield Stress