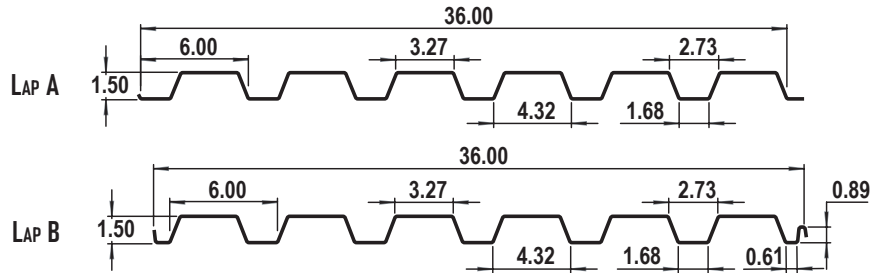




WF-636 ROOF DECK



All dimensions are in inches

SECTION PROPERTIES (PER FOOT OF WIDTH)										
IMPERIAL	Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Sec. Modulus		Deflection Moment of Inertia (in ⁴)	Specified Web Crippling Data			
				Midspan	Support		P _{e1} End (lb)	P _{e2} End (lb)	P _{i1} Interior (lb)	P _{i2} Interior (lb)
				(in ³)	(in ³)					
	0.030	1.72	40	0.183	0.183	0.164	216	54.0	393	66.9
	0.036	2.06	40	0.223	0.232	0.206	320	79.9	584	99.4
	0.048	2.72	40	0.304	0.314	0.285	590	147	1084	184
	0.060	3.39	40	0.384	0.388	0.356	945	236	1742	296

Live load factor = 1.5; Importance factor = 0.90; Importance Category = 1.0

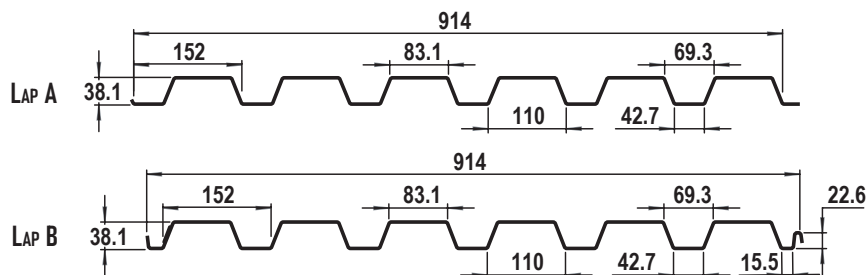
MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (PSF)														
SPAN LENGTH (ft)		1-SPAN				2-SPAN				3-SPAN				
		BASE STEEL THICKNESS (in.)				BASE STEEL THICKNESS (in.)				BASE STEEL THICKNESS (in.)				
		0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	
4.0	S	183	223	304	383	183	232	314	388	229	290	392	484	
	D	248	312	432	540	596	748	1037	1295	470	589	816	1020	
4.5	S	144	176	240	303	144	183	248	306	181	229	310	383	
	D	175	219	303	379	419	525	728	910	330	414	573	716	
5.0	S	117	143	194	245	117	148	201	248	146	185	251	310	
	D	127	160	221	276	305	383	531	663	240	302	418	522	
5.5	S	97	118	161	203	97	123	166	205	121	153	207	256	
	D	96	120	166	208	229	288	399	498	181	227	314	392	
6.0	S	81	99	135	170	81	103	139	172	102	129	174	215	
	D	74	92	128	160	177	222	307	384	139	174	242	302	
6.5	S	69	85	115	145	69	88	119	147	87	110	148	183	
	D	58	73	101	126	139	174	242	302	109	137	190	238	
7.0	S	60	73	99	125	60	76	102	127	75	95	128	158	
	D	46	58	81	101	111	140	193	242	88	110	152	190	
7.5	S	52	63	86	109	52	66	89	110	65	82	111	138	
	D	38	47	66	82	90	113	157	197	71	89	124	155	
8.0	S	46	56	76	96	46	58	78	97	57	72	98	121	
	D	31	39	54	67	75	93	130	162	59	74	102	128	
8.5	S	40	49	67	85	40	51	69	86	51	64	87	107	
	D	26	32	45	56	62	78	108	135	49	61	85	106	
9.0	S	36	44	60	76	36	46	62	77	45	57	77	96	
	D	22	27	38	47	52	66	91	114	41	52	72	90	
9.5	S	32	40	54	68	32	41	56	69	41	51	69	86	
	D	19	23	32	40	45	56	77	97	35	44	61	76	
10.0	S	29	36	49	61	29	37	50	62	37	46	63	78	
	D	16	20	28	35	38	48	66	83	30	38	52	65	
10.5	S	26	32	44	56	27	34	46	56	33	42	57	70	
	D	14	17	24	30	33	41	57	72	26	33	45	56	
11.0	S	24	30	40	51	24	31	41	51	30	38	52	64	
	D	12	15	21	26	29	36	50	62	23	28	39	49	

- Notes:**
- 1 Based on ASTM A 653 Grade 40 structural steel.
 - 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 Standard S136-16.
 - 7 Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.





WF-636 ROOF DECK



All dimensions are in millimeters

SECTION PROPERTIES (PER METRE OF WIDTH)																
METRIC		Base Steel Thickness (mm)	Mass Z275 (kg/m ²)	Yield Stress (MPa)	Sec. Modulus		Deflection Moment of Inertia (x10 ⁶ mm ⁴)	Specified Web Crippling Data								
					Midspan	Support		P _{e1} End (kN)	P _{e2} End (kN)	P _{i1} Interior (kN)	P _{i2} Interior (kN)					
					(x10 ³ mm ³)	(x10 ³ mm ³)										
		0.762	8.42	275	9.82	9.84	0.224	3.15	0.786	5.73	0.973					
		0.914	10.1	275	12.0	12.5	0.281	4.65	1.16	8.50	1.45					
		1.22	13.3	275	16.3	16.9	0.390	8.58	2.15	15.8	2.68					
		1.52	16.6	275	20.6	20.8	0.487	13.8	3.44	25.3	4.31					
Live load factor = 1.5; Importance factor = 0.90; Importance Category = 1.0																
MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (kPa)																
SPAN LENGTH (mm)		1-SPAN					2-SPAN					3-SPAN				
		BASE STEEL THICKNESS (mm)					BASE STEEL THICKNESS (mm)					BASE STEEL THICKNESS (mm)				
		0.762	0.914	1.22	1.52		0.762	0.914	1.22	1.52		0.762	0.914	1.22	1.52	
1200	S	9.00	11.0	15.0	18.9		9.02	11.4	15.5	19.1		11.3	14.3	19.3	23.9	
	D	12.5	15.7	21.7	27.1		30.0	37.6	52.1	65.1		23.6	29.6	41.0	51.2	
1400	S	6.61	8.08	11.0	13.9		6.62	8.39	11.4	14.0		8.28	10.5	14.2	17.5	
	D	7.86	9.86	13.7	17.1		18.9	23.7	32.8	41.0		14.9	18.6	25.8	32.3	
1600	S	5.06	6.19	8.42	10.6		5.07	6.42	8.69	10.7		6.34	8.03	10.9	13.4	
	D	5.27	6.60	9.15	11.4		12.6	15.9	22.0	27.4		9.95	12.5	17.3	21.6	
1800	S	4.00	4.89	6.66	8.40		4.01	5.08	6.87	8.49		5.01	6.35	8.58	10.6	
	D	3.70	4.64	6.43	8.03		8.88	11.1	15.4	19.3		6.99	8.76	12.2	15.2	
2000	S	3.24	3.96	5.39	6.80		3.25	4.11	5.56	6.88		4.06	5.14	6.95	8.59	
	D	2.70	3.38	4.69	5.85		6.47	8.11	11.3	14.1		5.10	6.39	8.86	11.1	
2200	S	2.68	3.27	4.46	5.62		2.68	3.40	4.60	5.68		3.35	4.25	5.75	7.10	
	D	2.03	2.54	3.52	4.40		4.86	6.10	8.45	10.6		3.83	4.80	6.65	8.31	
2400	S	2.25	2.75	3.74	4.73		2.25	2.86	3.86	4.77		2.82	3.57	4.83	5.97	
	D	1.56	1.96	2.71	3.39		3.74	4.70	6.51	8.13		2.95	3.70	5.13	6.40	
2600	S	1.92	2.34	3.19	4.03		1.92	2.43	3.29	4.07		2.40	3.04	4.11	5.09	
	D	1.23	1.54	2.13	2.66		2.95	3.69	5.12	6.40		2.32	2.91	4.03	5.04	
2800	S	1.65	2.02	2.75	3.47		1.66	2.10	2.84	3.51		2.07	2.62	3.55	4.38	
	D	0.98	1.23	1.71	2.13		2.36	2.96	4.10	5.12		1.86	2.33	3.23	4.03	
3000	S	1.44	1.76	2.40	3.02		1.44	1.83	2.47	3.06		1.80	2.28	3.09	3.82	
	D	0.80	1.00	1.39	1.73		1.92	2.40	3.33	4.16		1.51	1.89	2.62	3.28	
3200	S	1.27	1.55	2.11	2.66		1.27	1.61	2.17	2.69		1.58	2.01	2.72	3.36	
	D	0.66	0.83	1.14	1.43		1.58	1.98	2.75	3.43		1.24	1.56	2.16	2.70	
3400	S	1.12	1.37	1.87	2.35		1.12	1.42	1.92	2.38		1.40	1.78	2.41	2.97	
	D	0.55	0.69	0.95	1.19		1.32	1.65	2.29	2.86		1.04	1.30	1.80	2.25	
3600	S	1.00	1.22	1.66	2.10		1.00	1.27	1.72	2.12		1.25	1.59	2.15	2.65	
	D	0.46	0.58	0.80	1.00		1.11	1.39	1.93	2.41		0.87	1.10	1.52	1.90	
3800	S	0.90	1.10	1.49	1.88		0.90	1.14	1.54	1.90		1.12	1.42	1.93	2.38	
	D	0.39	0.49	0.68	0.85		0.94	1.18	1.64	2.05		0.74	0.93	1.29	1.61	
4000	S	0.81	0.99	1.35	1.70		0.81	1.03	1.39	1.72		1.01	1.28	1.74	2.15	
	D	0.34	0.42	0.59	0.73		0.81	1.01	1.41	1.76		0.64	0.80	1.11	1.38	
Notes: 1 Based on ASTM A 653M Grade 275 structural steel. 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 Standard S136-16. 7 Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.																
 Fabricator Member																

