

2016 SINEWAVE LOAD TABLES

2.67 x 1/2", 2.67 x 3/4" 2.67 x 7/8" SINEWAVE PROFILES

WITH

GALVANIZED/COLD-ROLLED GRADE 30 KSI STEEL

(24 GA, 22 GA, 20 GA, 18 GA, & 16 GA)

3004-H14 ALUMINUM, F_{TY} = 17 KSI

(0.032 ALUM, 0.040 ALUM & 0.050 ALUM)

STAINLESS STEEL GRADE 30 KSI

(24 GA, 22 GA, 20 GA, 18 GA, & 16 GA)

HIGH STRENGTH GRADE 45 KSI STEEL

(24 GA, 22 GA, 20 GA, 18 GA, & 16 GA)

FOR

CORRUGATED METALS, INC.

APRIL 25, 2016



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Expires: 11/30/2016

WHA # 1194D13



WILLETT HOFMANN
& ASSOCIATES INC

ENGINEERING ARCHITECTURE LAND SURVEYING

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T. 815-284-3381 DESIGN FIRM: #184-000918

CORRUGATED METALS PRODUCTS: SINEWAVE (3/4 x 2.67) -

Galvanized / Cold-rolled & Aluminum Alloy

Section	Weight		Total Cross-Sectional Area	Allowable Stress	Top Flat in Compression			Bottom Flat in Compression				
	Sheet	Area			Moment of Inertia	Section Modulus	Allowable Moment	Inertia	Section Modulus	Allowable Moment		
					lb/ft	lb/sf	A (in ²)	Fa (psi)	I (in ⁴ /ft)	S (in ³ /ft)	Ma (lb·ft/ft)	I (in ⁴ /ft)
24 Ga Sinewave	4.54	1.30	1.33	17964	0.026	0.034	50	0.026	0.034	50		
22 Ga Sinewave	5.21	1.50	1.53	17964	0.030	0.038	57	0.030	0.038	57		
20 Ga Sinewave	6.72	1.93	1.98	17964	0.039	0.049	73	0.039	0.049	73		
18 Ga Sinewave	8.40	2.41	2.47	17964	0.048	0.060	90	0.048	0.060	90		
16 Ga Sinewave	10.41	2.99	3.06	17964	0.060	0.074	111	0.060	0.074	111		
0.032 Alum.	1.87	0.54	1.58	9273	0.031	0.039	30	0.031	0.039	30		
0.040 Alum.	2.34	0.67	1.98	9273	0.039	0.049	38	0.039	0.049	38		
0.050 Alum.	2.92	0.84	2.47	9273	0.048	0.060	47	0.048	0.060	47		

Table 1			Applied Load (PSF)					
Allowable Spans			10	20	30	40	50	60
Section	Span Limit	Span Type	Allowable Spans (ft)					
24 Ga Sinewave	L/60	1 Span	5'-11" *	4'-4" *	3'-7" *	3'-1" *	2'-10" *	2'-7" *
		2 Span	5'-11" *	4'-4" *	3'-7" *	3'-1" *	2'-10" *	2'-7" *
		3 Span	6'-2" *	4'-6" *	3'-8" *	3'-3" *	2'-11" *	2'-8" *
	L/240	1 Span	5'-4"	4'-3"	3'-7"	3'-1"	2'-10"	2'-7"
		2 Span	5'-11"	4'-4"	3'-7"	3'-1"	2'-10"	2'-7"
		3 Span	5'-10"	4'-6"	3'-8"	3'-3"	2'-11"	2'-8"
22 Ga Sinewave	L/60	1 Span	6'-4" *	4'-7" *	3'-10" *	3'-4" *	3'-0" *	2'-9" *
		2 Span	6'-4" *	4'-7" *	3'-10" *	3'-4" *	3'-0" *	2'-9" *
		3 Span	6'-6" *	4'-9" *	3'-11" *	3'-5" *	3'-1" *	2'-10" *
	L/240	1 Span	5'-6"	4'-6"	3'-10"	3'-4"	3'-0"	2'-9"
		2 Span	6'-2"	4'-7"	3'-10"	3'-4"	3'-0"	2'-9"
		3 Span	6'-0"	4'-9"	3'-11"	3'-5"	3'-1"	2'-10" *
20 Ga Sinewave	L/60	1 Span	7'-0" *	5'-2" *	4'-3" *	3'-9" *	3'-4" *	3'-1" *
		2 Span	7'-0" *	5'-2" *	4'-3" *	3'-9" *	3'-4" *	3'-1" *
		3 Span	7'-3" *	5'-4" *	4'-5" *	3'-10" *	3'-6" *	3'-2" *
	L/240	1 Span	5'-11"	4'-10"	4'-3"	3'-9"	3'-4"	3'-1" *
		2 Span	6'-8"	5'-2" *	4'-3" *	3'-9"	3'-4" *	3'-1" *
		3 Span	6'-6"	5'-4"	4'-5" *	3'-10" *	3'-6" *	3'-2" *
18 Ga Sinewave	L/60	1 Span	7'-8" *	5'-8" *	4'-9" *	4'-2" *	3'-9" *	3'-5" *
		2 Span	7'-8" *	5'-8" *	4'-9" *	4'-2" *	3'-9" *	3'-5" *
		3 Span	7'-11" *	5'-10" *	4'-11" *	4'-3" *	3'-10" *	3'-6" *
	L/240	1 Span	6'-4"	5'-2"	4'-7"	4'-2" *	3'-9" *	3'-5" *
		2 Span	7'-1"	5'-8" *	4'-9" *	4'-2" *	3'-9" *	3'-5" *
		3 Span	6'-11"	5'-8"	4'-11" *	4'-3" *	3'-10" *	3'-6" *
16 Ga Sinewave	L/60	1 Span	8'-3" *	6'-2" *	5'-2" *	4'-6" *	4'-1" *	3'-9" *
		2 Span	8'-3" *	6'-2" *	5'-2" *	4'-6" *	4'-1" *	3'-9" *
		3 Span	8'-6" *	6'-5" *	5'-4" *	4'-8" *	4'-3" *	3'-11" *
	L/240	1 Span	6'-8"	5'-6"	4'-11"	4'-6"	4'-1" *	3'-9" *
		2 Span	7'-6"	6'-2"	5'-2" *	4'-6" *	4'-1" *	3'-9" *
		3 Span	7'-4"	6'-1"	5'-4" *	4'-8" *	4'-3" *	3'-11" *
0.032 Alum.	L/60	1 Span	4'-10" *	3'-5" *	2'-10" *	2'-5" *	2'-2" *	2'-0" *
		2 Span	4'-10" *	3'-5" *	2'-10" *	2'-5" *	2'-2" *	2'-0" *
		3 Span	5'-0" *	3'-7" *	2'-11" *	2'-6" *	2'-3" *	2'-1" *
	L/240	1 Span	4'-0"	3'-3"	2'-10" *	2'-5" *	2'-2" *	2'-0" *
		2 Span	4'-6"	3'-5" *	2'-10" *	2'-5" *	2'-2" *	2'-0" *
		3 Span	4'-5"	3'-6"	2'-11" *	2'-6" *	2'-3" *	2'-1" *
0.040 Alum.	L/60	1 Span	5'-4" *	3'-10" *	3'-2" *	2'-9" *	2'-5" *	2'-3" *
		2 Span	5'-4" *	3'-10" *	3'-2" *	2'-9" *	2'-5" *	2'-3" *
		3 Span	5'-6" *	3'-11" *	3'-3" *	2'-10" *	2'-6" *	2'-4" *
	L/240	1 Span	4'-4"	3'-6"	3'-1"	2'-9" *	2'-5" *	2'-3" *
		2 Span	4'-10"	3'-10" *	3'-2" *	2'-9" *	2'-5" *	2'-3" *
		3 Span	4'-9"	3'-10"	3'-3" *	2'-10" *	2'-6" *	2'-4" *
0.050 Alum.	L/60	1 Span	5'-10" *	4'-3" *	3'-6" *	3'-0" *	2'-9" *	2'-6" *
		2 Span	5'-10" *	4'-3" *	3'-6" *	3'-0" *	2'-9" *	2'-6" *
		3 Span	6'-1" *	4'-5" *	3'-7" *	3'-2" *	2'-10" *	2'-7" *
	L/240	1 Span	4'-8"	3'-9"	3'-3"	3'-0"	2'-9" *	2'-6" *
		2 Span	5'-3"	4'-2"	3'-6" *	3'-0" *	2'-9" *	2'-6" *
		3 Span	5'-1"	4'-1"	3'-7" *	3'-2" *	2'-10" *	2'-7" *

Sinewave Profile
Sample Calculation

Required Load = 40 psf
Required Deflection Limit = L / 240
Span Type = 2 Span

Allowable Span = 3'-9" (20 Ga Steel)
Allowable Span = 2'-9" (0.040 Alum.)

GENERAL NOTES

- An asterix (*) indicates allowable stress is reached.
- For structural roofing & siding made of formed metal sheets, the total load deflection shall not exceed L/60.
- Refer to Table 1604.3 limits & footnotes of the International Building Code (IBC) for additional guidance.
- Allowable spans & loads DO include self-weight of panel.
- All values are for one foot of panel width unless noted otherwise.

STEEL NOTES

- Yield stress = Fy = 30,000 psi
- Loads & spans for steel are based on the AISI Standard for Design of Cold-Formed Steel Structural Members (2007 Edition)

ALUMINUM NOTES (3003-H14)

- Yield stress = Fy = 17,000 psi & Fcy = 15,300 psi
- Loads & spans for aluminum are based on the Aluminum Design Manual (January 2015).





CORRUGATED METALS PRODUCTS: SINEWAVE (3/4 x 2.67) -

Galvanized / Cold-rolled & Aluminum Alloy

Table 2

			Trial Span (ft)									
Allowable Loads			3	4	5	6	7	8	9	10	11	12
Section	Span	Span	Allowable Loads (PSF)									
24 Ga Sinewave	L/60	1 Span	43 *	23 *	14 *	9 *	6 *	4 *	3 *	2 *	2 *	1 *
		2 Span	43 *	23 *	14 *	9 *	6 *	4 *	3 *	2 *	2 *	1 *
		3 Span	46 *	25 *	15 *	10 *	7 *	5 *	3 *	2 *	2 *	1 *
	L/240	1 Span	43 *	23 *	12	6	3	1	0	0	1	1
		2 Span	43 *	23 *	14 *	9	5	3	1	1	0	0
		3 Span	46 *	25 *	15 *	8	5	3	1	0	0	1
	L/60	1 Span	49 *	27 *	16 *	11 *	7 *	5 *	4 *	3 *	2 *	1 *
		2 Span	49 *	27 *	16 *	11 *	7 *	5 *	4 *	3 *	2 *	1 *
		3 Span	52 *	29 *	18 *	12 *	8 *	6 *	4 *	3 *	2 *	1 *
	L/240	1 Span	49 *	27 *	13	7	4	2	1	0	1	1
		2 Span	49 *	27 *	16 *	11	6	3	2	1	0	0
		3 Span	52 *	29 *	18 *	10	5	3	1	1	0	1
20 Ga Sinewave	L/60	1 Span	63 *	34 *	21 *	14 *	10 *	7 *	5 *	3 *	2 *	2 *
		2 Span	63 *	34 *	21 *	14 *	10 *	7 *	5 *	3 *	2 *	2 *
		3 Span	67 *	37 *	23 *	15 *	10 *	7 *	5 *	4 *	3 *	2 *
	L/240	1 Span	63 *	34 *	17	9	5	2	1	0	1	1
		2 Span	63 *	34 *	21 *	14 *	8	4	2	1	0	0
		3 Span	67 *	37 *	23 *	13	7	4	2	1	0	1
18 Ga Sinewave	L/60	1 Span	77 *	42 *	26 *	17 *	12 *	8 *	6	4 *	3 *	2 *
		2 Span	77 *	42 *	26 *	17 *	12 *	8 *	6	4 *	3 *	2 *
		3 Span	83 *	45 *	28 *	19 *	13 *	9 *	7 *	5 *	3 *	2 *
	L/240	1 Span	77 *	42 *	22	12	6	3	1	0	1	1
		2 Span	77 *	42 *	26 *	17 *	10	6	3	1	0	0
		3 Span	83 *	45 *	28 *	16	9	5	3	1	0	1
16 Ga Sinewave	L/60	1 Span	95 *	52 *	32 *	21 *	15 *	10 *	7 *	5 *	4 *	3 *
		2 Span	95 *	52 *	32 *	21 *	15 *	10 *	7 *	5 *	4 *	3 *
		3 Span	102 *	56 *	34 *	23 *	16 *	11 *	8 *	6 *	4 *	3 *
	L/240	1 Span	95 *	52 *	27	14	8	4	2	0	1	1
		2 Span	95 *	52 *	32 *	21 *	12	7	4	2	1	0
		3 Span	102 *	56 *	34 *	20	11	6	3	2	0	1
0.032 Alum.	L/60	1 Span	26 *	14 *	9 *	6 *	4 *	3 *	2 *	1 *	1 *	1
		2 Span	26 *	14 *	9 *	6 *	4 *	3 *	2 *	1 *	1 *	1
		3 Span	28 *	15 *	9 *	6 *	4 *	3 *	2 *	2 *	1 *	1
	L/240	1 Span	25	10	5	2	1	0	0	0	1	1
		2 Span	26 *	14 *	7	4	2	1	0	0	0	0
		3 Span	28 *	13	6	3	2	1	0	0	0	1
0.040 Alum.	L/60	1 Span	32 *	18 *	11 *	7 *	5 *	4 *	3 *	2 *	1 *	1
		2 Span	32 *	18 *	11 *	7 *	5 *	4 *	3 *	2 *	1 *	1
		3 Span	35 *	19 *	12 *	8 *	5 *	4 *	3 *	2 *	1 *	1
	L/240	1 Span	31	12	6	3	1	1	0	0	1	1
		2 Span	32 *	18 *	9	5	2	1	1	0	0	0
		3 Span	35 *	17	8	4	2	1	0	0	0	1
0.050 Alum.	L/60	1 Span	40 *	22 *	14 *	9 *	6 *	4 *	3 *	2 *	2 *	1
		2 Span	40 *	22 *	14 *	9 *	6 *	4 *	3 *	2 *	2 *	1
		3 Span	43 *	24 *	15 *	10 *	7 *	5 *	4 *	3 *	2 *	1
	L/240	1 Span	39	16	7	4	2	1	0	0	1	1
		2 Span	40 *	22 *	11	6	3	2	1	0	0	0
		3 Span	43 *	21	10	5	3	1	1	0	0	1

GENERAL NOTES

- An asterix (*) indicates allowable stress is reached.
- A Strikethrough (~~100~~) indicates less than 10 psf ASCE minimum.
- For structural roofing & siding made of formed metal sheets, the total load deflection shall not exceed L/60.
- Refer to Table 1604.3 limits & footnotes of the International Building Code (IBC) for additional guidance.
- Allowable spans & loads DO include self-weight of panel.
- All values are for one foot of panel width unless noted otherwise.

STEEL NOTES

- Yield stress = Fy = 30,000 psi
- Loads & spans for steel are based on the AISI Standard for Design of Cold-Formed Steel Structural Members (2007 Edition)

ALUMINUM NOTES (3003-H-14)

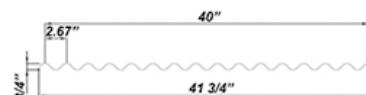
- Yield stress = Fty = 17,000 psi & Fcy = 15,300 psi
- Loads & spans for aluminum are based on the Aluminum Design Manual (January 2015).

CORRUGATED METALS PRODUCTS: SINEWAVE (3/4 x 2.67) -

Stainless Steel

Section	Weight		Total Cross-Sectional Area	Allowable Stress	Top Flat in Compression			Bottom Flat in Compression				
	Sheet	Area			Moment of Inertia	Section Modulus	Allowable Moment	Moment of Inertia	Section Modulus	Allowable Moment		
					lb/ft	lb/sf	A (in ²)	Fa (psi)	I (in ⁴ /ft)	S (in ³ /ft)	Ma (lb-ft/ft)	
24 Ga Sinewave SS	4.54	1.30	1.33		17964	0.026	0.034	50	0.026	0.034	50	
22 Ga Sinewave SS	5.21	1.50	1.53		17964	0.030	0.038	57	0.030	0.038	57	
20 Ga Sinewave SS	6.72	1.93	1.98		17964	0.039	0.049	73	0.039	0.049	73	
18 Ga Sinewave SS	8.40	2.41	2.47		17964	0.048	0.060	90	0.048	0.060	90	
16 Ga Sinewave SS	10.41	2.99	3.06		17964	0.060	0.074	111	0.060	0.074	111	

Table 1			Applied Load (PSF)					
Allowable Spans			10	20	30	40	50	60
Section	Span Limit	Span Type	Allowable Spans (ft)					
24 Ga Sinewave SS	L/60	1 Span	5'-11" *	4'-4" *	3'-7" *	3'-1" *	2'-10" *	2'-7" *
		2 Span	5'-11" *	4'-4" *	3'-7" *	3'-1" *	2'-10" *	2'-7" *
		3 Span	6'-2" *	4'-6" *	3'-8" *	3'-3" *	2'-11" *	2'-8" *
	L/240	1 Span	4'-11"	4'-0"	3'-6"	3'-1" *	2'-10" *	2'-7" *
		2 Span	5'-7"	4'-4" *	3'-7" *	3'-1" *	2'-10" *	2'-7" *
		3 Span	5'-5"	4'-5"	3'-8" *	3'-3" *	2'-11" *	2'-8" *
22 Ga Sinewave SS	L/60	1 Span	6'-4" *	4'-7" *	3'-10" *	3'-4" *	3'-0" *	2'-9" *
		2 Span	6'-4" *	4'-7" *	3'-10" *	3'-4" *	3'-0" *	2'-9" *
		3 Span	6'-6" *	4'-9" *	3'-11" *	3'-5" *	3'-1" *	2'-10" *
	L/240	1 Span	5'-2"	4'-2"	3'-8"	3'-4" *	3'-0" *	2'-9" *
		2 Span	5'-10"	4'-7" *	3'-10" *	3'-4" *	3'-0" *	2'-9" *
		3 Span	5'-8"	4'-7"	3'-11" *	3'-5" *	3'-1" *	2'-10" *
20 Ga Sinewave SS	L/60	1 Span	7'-0" *	5'-2" *	4'-3" *	3'-9" *	3'-4" *	3'-1" *
		2 Span	7'-0" *	5'-2" *	4'-3" *	3'-9" *	3'-4" *	3'-1" *
		3 Span	7'-3" *	5'-4" *	4'-5" *	3'-10" *	3'-6" *	3'-2" *
	L/240	1 Span	5'-7"	4'-6"	4'-0"	3'-8"	3'-4" *	3'-1" *
		2 Span	6'-3"	5'-1"	4'-3" *	3'-9" *	3'-4" *	3'-1" *
		3 Span	6'-1"	5'-0"	4'-5"	3'-10" *	3'-6" *	3'-2" *
18 Ga Sinewave SS	L/60	1 Span	7'-8" *	5'-8" *	4'-9" *	4'-2" *	3'-9" *	3'-5" *
		2 Span	7'-8" *	5'-8" *	4'-9" *	4'-2" *	3'-9" *	3'-5" *
		3 Span	7'-11" *	5'-10" *	4'-11" *	4'-3" *	3'-10" *	3'-6" *
	L/240	1 Span	5'-11"	4'-10"	4'-3"	3'-11"	3'-8"	3'-5" *
		2 Span	6'-8"	5'-5"	4'-9" *	4'-2" *	3'-9" *	3'-5" *
		3 Span	6'-6"	5'-4"	4'-8"	4'-3" *	3'-10" *	3'-6" *
16 Ga Sinewave SS	L/60	1 Span	8'-3" *	6'-2" *	5'-2" *	4'-6" *	4'-1" *	3'-9" *
		2 Span	8'-3" *	6'-2" *	5'-2" *	4'-6" *	4'-1" *	3'-9" *
		3 Span	8'-6" *	6'-5" *	5'-4" *	4'-8" *	4'-3" *	3'-11" *
	L/240	1 Span	6'-3"	5'-2"	4'-7"	4'-2"	3'-11"	3'-8"
		2 Span	7'-0"	5'-10"	5'-2"	4'-6" *	4'-1" *	3'-9" *
		3 Span	6'-10"	5'-8"	5'-0"	4'-7"	4'-3" *	3'-11" *



Sinewave Profile

Sample Calculation

Required Load = 40 psf

Required Deflection Limit = L / 240

Span Type = 2 Span

Allowable Span = 3'-9" (20 Ga Steel)

GENERAL NOTES

- An asterix (*) indicates allowable stress is reached.
- For structural roofing & siding made of formed metal sheets, the total load deflection shall not exceed L/60.
- Refer to Table 1604.3 limits & footnotes of the International Building Code (IBC) for additional guidance.
- Allowable spans & loads DO include self-weight of panel.
- All values are for one foot of panel width unless noted otherwise.
- "SS" indicates Stainless Steel

STEEL NOTES

- Yield stress = Fy = 30,000 psi
- Loads & spans for steel are based on the ASCE "Specification for the Design of Stainless Steel Cold-Formed Structural Members" (ASCE 8-02) and AISC Steel Design Guide 27 for "Structural Stainless Steel"



CORRUGATED METALS PRODUCTS: SINEWAVE (3/4 x 2.67) -

Stainless Steel

Table 2

			Trial Span (ft)									
Allowable Loads			3	4	5	6	7	8	9	10	11	12
Section	Span	Span	Allowable Loads (PSF)									
24 Ga Sinewave SS	L/60	1 Span	43 *	23 *	14 *	9 *	6 *	4 *	3 *	2 *	2 *	1 *
		2 Span	43 *	23 *	14 *	9 *	6 *	4 *	3 *	2 *	2 *	1 *
		3 Span	46 *	25 *	15 *	10 *	7 *	5 *	3 *	2 *	2 *	1 *
	L/240	1 Span	43 *	20	9	5	2	1	0	0	1	1
		2 Span	43 *	23 *	14	7	4	2	1	0	0	1
		3 Span	46 *	25 *	13	7	3	2	1	0	0	1
	L/60	1 Span	49 *	27 *	16 *	11 *	7 *	5 *	4 *	3 *	2 *	1 *
		2 Span	49 *	27 *	16 *	11 *	7 *	5 *	4 *	3 *	2 *	1 *
		3 Span	52 *	29 *	18 *	12 *	8 *	6 *	4 *	3 *	2 *	1 *
	L/240	1 Span	49 *	23	11	5	3	1	0	0	1	1
		2 Span	49 *	27 *	16	8	5	2	1	0	0	1
		3 Span	52 *	29 *	15	8	4	2	1	0	0	1
22 Ga Sinewave SS	L/60	1 Span	63 *	34 *	21 *	14 *	10 *	7 *	5 *	3 *	2 *	2 *
		2 Span	63 *	34 *	21 *	14 *	10 *	7 *	5 *	3 *	2 *	2 *
		3 Span	67 *	37 *	23 *	15 *	10 *	7 *	5 *	4 *	3 *	2 *
	L/240	1 Span	63 *	29	14	7	4	2	0	0	1	1
		2 Span	63 *	34 *	21	11	6	3	2	0	0	1
		3 Span	67 *	37 *	19	10	5	3	1	0	0	1
	L/60	1 Span	77 *	42 *	26 *	17 *	12 *	8 *	6 *	4 *	3 *	2 *
		2 Span	77 *	42 *	26 *	17 *	12 *	8 *	6 *	4 *	3 *	2 *
		3 Span	83 *	45 *	28 *	19 *	13 *	9 *	7 *	5 *	3 *	2 *
	L/240	1 Span	77 *	37	18	9	5	2	1	0	1	1
		2 Span	77 *	42 *	26 *	14	8	4	2	1	0	1
		3 Span	83 *	45 *	24	13	7	4	2	0	0	1
16 Ga Sinewave SS	L/60	1 Span	95 *	52 *	32 *	21 *	15 *	10 *	7 *	5 *	4 *	3 *
		2 Span	95 *	52 *	32 *	21 *	15 *	10 *	7 *	5 *	4 *	3 *
		3 Span	102 *	56 *	34 *	23 *	16 *	11 *	8 *	6 *	4 *	3 *
	L/240	1 Span	95 *	46	22	11	6	3	1	0	1	2
		2 Span	95 *	52 *	32 *	17	10	5	3	1	0	1
		3 Span	102 *	56 *	30	16	9	5	2	1	0	1

GENERAL NOTES

1. An asterix (*) indicates allowable stress is reached.
2. A Strikethrough (~~100~~) indicates less than 10 psf ASCE minimum.
3. For structural roofing & siding made of formed metal sheets, the total load deflection shall not exceed L/60.
4. Refer to Table 1604.3 limits & footnotes of the International Building Code (IBC) for additional guidance.
5. Allowable spans & loads DO include self-weight of panel.
6. All values are for one foot of panel width unless noted otherwise.
7. "SS" indicates Stainless Steel

STEEL NOTES

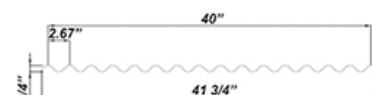
1. Yield stress = Fy = 30,000 psi
2. Loads & spans for steel are based on the ASCE "Specification for the Design of Stainless Steel Cold-Formed Structural Members" (ASCE 8-02) and AISC Steel Design Guide 27 for "Structural Stainless Steel"

CORRUGATED METALS PRODUCTS: SINEWAVE (3/4 x 2.67) -

High-Strength Steel

Section	Weight		Total Cross-Sectional Area	Allowable Stress	Top Flat in Compression			Bottom Flat in Compression				
	Sheet	Area			Moment of Inertia	Section Modulus	Allowable Moment	Moment of Inertia	Section Modulus	Allowable Moment		
					lb/ft	lb/sf	A (in ²)	Fa (psi)	I (in ⁴ /ft)	S (in ³ /ft)	Ma (lb-ft/ft)	
24 Ga Sinewave	4.54	1.30	1.33	26946	0.026	0.034	75	0.026	0.034	75		
22 Ga Sinewave	5.21	1.50	1.53	26946	0.030	0.038	86	0.030	0.038	86		
20 Ga Sinewave	6.72	1.93	1.98	26946	0.039	0.049	110	0.039	0.049	110		
18 Ga Sinewave	8.40	2.41	2.47	26946	0.048	0.060	136	0.048	0.060	136		
16 Ga Sinewave	10.41	2.99	3.06	26946	0.060	0.074	166	0.060	0.074	166		

Table 1			Applied Load (PSF)					
Allowable Spans			10	20	30	40	50	60
Section	Span Limit	Span Type	Allowable Spans (ft)					
24 Ga Sinewave	L/60	1 Span	7'-4" *	5'-4" *	4'-5" *	3'-10" *	3'-5" *	3'-2" *
		2 Span	7'-4" *	5'-4" *	4'-5" *	3'-10" *	3'-5" *	3'-2" *
		3 Span	7'-7" *	5'-6" *	4'-6" *	3'-11" *	3'-6" *	3'-3" *
	L/240	1 Span	5'-4"	4'-3"	3'-9"	3'-5"	3'-2"	3'-0"
		2 Span	5'-11"	4'-10"	4'-3"	3'-10" *	3'-5" *	3'-2" *
		3 Span	5'-10"	4'-8"	4'-2"	3'-9"	3'-6"	3'-3" *
22 Ga Sinewave	L/60	1 Span	7'-9" *	5'-8" *	4'-8" *	4'-1" *	3'-8" *	3'-4" *
		2 Span	7'-9" *	5'-8" *	4'-8" *	4'-1" *	3'-8" *	3'-4" *
		3 Span	8'-0" *	5'-10" *	4'-10" *	4'-2" *	3'-9" *	3'-5" *
	L/240	1 Span	5'-6"	4'-6"	3'-11"	3'-7"	3'-4"	3'-2" *
		2 Span	6'-2"	5'-0"	4'-5"	4'-0"	3'-8" *	3'-4" *
		3 Span	6'-0"	4'-11"	4'-4"	3'-11"	3'-8"	3'-5" *
20 Ga Sinewave	L/60	1 Span	8'-7" *	6'-4" *	5'-3" *	4'-7" *	4'-1" *	3'-9" *
		2 Span	8'-7" *	6'-4" *	5'-3" *	4'-7" *	4'-1" *	3'-9" *
		3 Span	8'-10" *	6'-6" *	5'-5" *	4'-9" *	4'-3" *	3'-11" *
	L/240	1 Span	5'-11"	4'-10"	4'-3"	3'-11"	3'-8"	3'-5"
		2 Span	6'-8"	5'-5"	4'-10"	4'-5"	4'-1"	3'-9" *
		3 Span	6'-6"	5'-4"	4'-8"	4'-3"	4'-0"	3'-9" *
18 Ga Sinewave	L/60	1 Span	9'-4" *	6'-11" *	5'-9" *	5'-1" *	4'-7" *	4'-2" *
		2 Span	9'-4" *	6'-11" *	5'-9" *	5'-1" *	4'-7" *	4'-2" *
		3 Span	9'-8" *	7'-2" *	6'-0" *	5'-3" *	4'-8" *	4'-4" *
	L/240	1 Span	6'-4"	5'-2"	4'-7"	4'-2"	3'-11"	3'-8"
		2 Span	7'-1"	5'-10"	5'-2"	4'-8"	4'-5"	4'-2"
		3 Span	6'-11"	5'-8"	5'-0"	4'-7"	4'-3"	4'-0"
16 Ga Sinewave	L/60	1 Span	10'-1" *	7'-7" *	6'-4" *	5'-7" *	5'-0" *	4'-7" *
		2 Span	10'-1" *	7'-7" *	6'-4" *	5'-7" *	5'-0" *	4'-7" *
		3 Span	10'-5" *	7'-10" *	6'-7" *	5'-9" *	5'-2" *	4'-9" *
	L/240	1 Span	6'-8"	5'-6"	4'-11"	4'-6"	4'-2"	3'-11"
		2 Span	7'-6"	6'-2"	5'-6"	5'-0"	4'-8"	4'-5"
		3 Span	7'-4"	6'-1"	5'-4"	4'-11"	4'-7"	4'-4" *



Sinewave Profile

Sample Calculation

Required Load = 40 psf
 Required Deflection Limit = L / 240
 Span Type = 2 Span

Allowable Span = 4'-5" (20 Ga Steel)

GENERAL NOTES

1. An asterix (*) indicates allowable stress is reached.
2. For structural roofing & siding made of formed metal sheets, the total load deflection shall not exceed L/60.
3. Refer to Table 1604.3 limits & footnotes of the International Building Code (IBC) for additional guidance.
4. Allowable spans & loads DO include self-weight of panel.
5. All values are for one foot of panel width unless noted otherwise.

STEEL NOTES

1. Yield stress = Fy = 45,000 psi
2. Loads & spans for steel are based on the AISI Standard for Design of Cold-Formed Steel Structural Members (2007 Edition)



CORRUGATED METALS PRODUCTS: SINEWAVE (3/4 x 2.67) -

High-Strength Steel

Table 2

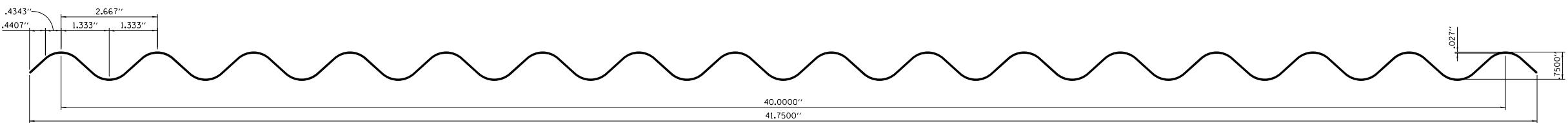
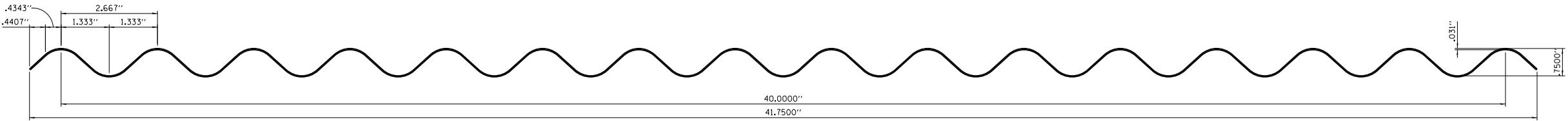
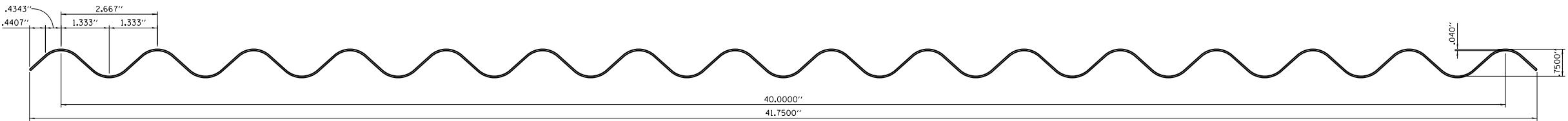
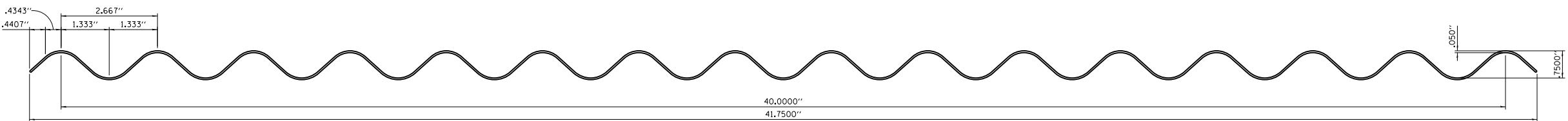
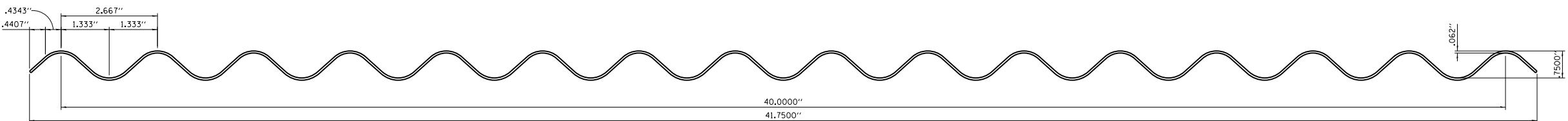
Allowable Loads			Trial Span (ft)									
Section	Span	Span	3	4	5	6	7	8	9	10	11	12
24 Ga Sinewave	L/60	1 Span	65 *	36 *	22 *	15 *	10 *	8 *	6 *	4 *	3 *	2
		2 Span	65 *	36 *	22 *	15 *	10 *	8 *	6 *	4 *	3 *	2 *
		3 Span	70 *	38 *	24 *	16 *	11 *	8 *	6 *	5 *	4 *	3 *
	L/240	1 Span	60	24	12	6	3	1	0	0	1	1
		2 Span	65 *	35	17	9	5	3	1	1	0	0
		3 Span	70 *	33	16	8	5	3	1	0	0	1
	L/60	1 Span	74 *	41 *	26 *	17 *	12 *	9 *	6 *	5 *	4 *	2
		2 Span	74 *	41 *	26 *	17 *	12 *	9 *	6 *	5 *	4 *	3 *
		3 Span	80 *	44 *	27 *	18 *	13 *	9 *	7 *	5 *	4 *	3 *
	L/240	1 Span	69	28	13	7	4	2	1	0	1	1
		2 Span	74 *	41	20	11	6	3	2	1	0	0
		3 Span	80 *	38	18	10	5	3	1	1	0	1
20 Ga Sinewave	L/60	1 Span	95 *	52 *	33 *	22 *	15 *	11 *	8 *	6 *	5 *	3
		2 Span	95 *	52 *	33 *	22 *	15 *	11 *	8 *	6 *	5 *	4 *
		3 Span	102 *	56 *	35 *	24 *	17 *	12 *	9 *	7 *	5 *	4 *
	L/240	1 Span	90	36	17	9	5	2	1	0	1	1
		2 Span	95 *	52 *	26	14	8	4	2	1	0	0
		3 Span	102 *	49	24	13	7	4	2	1	0	1
	L/60	1 Span	118 *	65 *	40 *	27 *	19 *	14 *	10 *	8 *	6 *	4
		2 Span	118 *	65 *	40 *	27 *	19 *	14 *	10 *	8 *	6 *	5 *
		3 Span	126 *	70 *	43 *	29 *	21 *	15 *	11 *	9 *	7 *	5 *
	L/240	1 Span	112	46	22	12	6	3	1	0	1	1
		2 Span	118 *	65 *	32	17	10	6	3	1	0	0
		3 Span	126 *	61	30	16	9	5	3	1	0	1
16 Ga Sinewave	L/60	1 Span	144 *	80 *	50 *	33 *	24 *	17 *	13 *	10 *	7 *	5
		2 Span	144 *	80 *	50 *	33 *	24 *	17 *	13 *	10 *	7 *	6 *
		3 Span	154 *	85 *	53 *	36 *	25 *	19 *	14 *	11 *	8 *	6 *
	L/240	1 Span	140	57	27	14	8	4	2	0	1	1
		2 Span	144 *	80 *	40	22	12	7	4	2	1	0
		3 Span	154 *	76	37	20	11	6	3	2	0	1

GENERAL NOTES

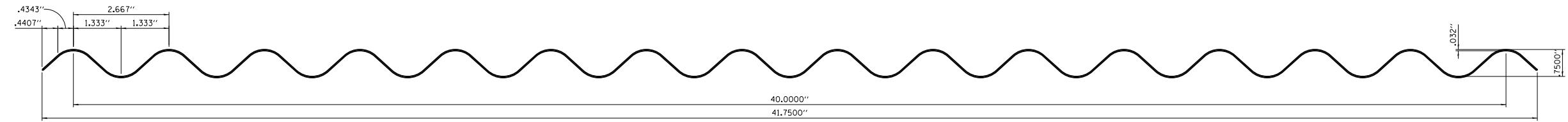
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- Allowable spans & loads DO include self-weight of panel.
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STEEL NOTES

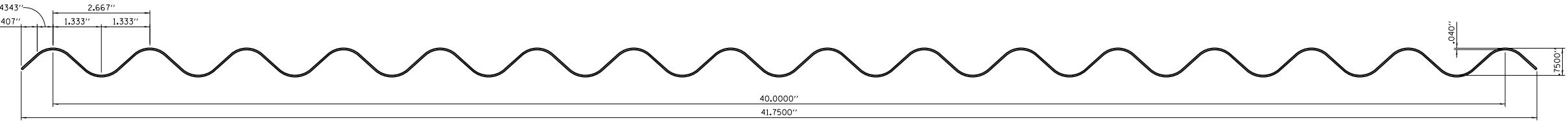
- Yield stress = Fy = 45,000 psi
- Loads & spans for steel are based on the AISI Standard for Design of Cold-Formed Steel Structural Members (2007 Edition)

24 GA. (40 COVER)22 GA. (40 COVER)20 GA. (40 COVER)18 GA. (40 COVER)16 GA. (40 COVER)

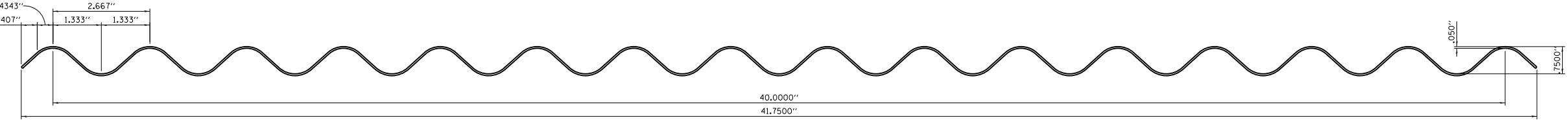
CORRUGATED METALS, INC.		WILLET HOFMANN	
6550 REVOL DRIVE		ASSOCIATES, INC.	
BELVIDERE, ILLINOIS 61008		ENGINEERING, ARCHITECTURE, LAND SURVEYING	
		809 EAST 2ND STREET, DICKSON, TN 37052-0367 T: 815-284-3381 DESIGN FIRM: #184-100918	
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WHA No. 1194D13			
DATE: MAR. 2016			
TOTAL No. 2			
SHEET No. 1			



0.032 GA. (40 COVER)



0.040 GA. (40 COVER)



0.050 GA. (40 COVER)

CORRUGATED METALS, INC.		WILLET HOFMANN		CONTRACTOR	
6550 REVOL DRIVE		ASSOCIATES INC.		GENERAL CONTRACTOR	
BELVIDERE, ILLINOIS 61008		ENGINEERING, ARCHITECTURE, LAND SURVEYING			
SINWAVE (24" x 2.67") PROFILE DRAWING - 0.032, 0.040 & 0.050 GA.		809 EAST 2ND STREET, DICKSON, IL 61021-0367		T: 815-284-3381 DESIGN FIRM: #184-10091 B	
				Copyright 2016 Willett, Hofmann & Associates, Inc.	
PHASE:	<input checked="" type="checkbox"/> PRELIMINARY	<input type="checkbox"/> FINAL	<input type="checkbox"/> RECORD	REMARKS	
WHA No.					
DATE:					
TOTAL No.					2
SHEET No.					2