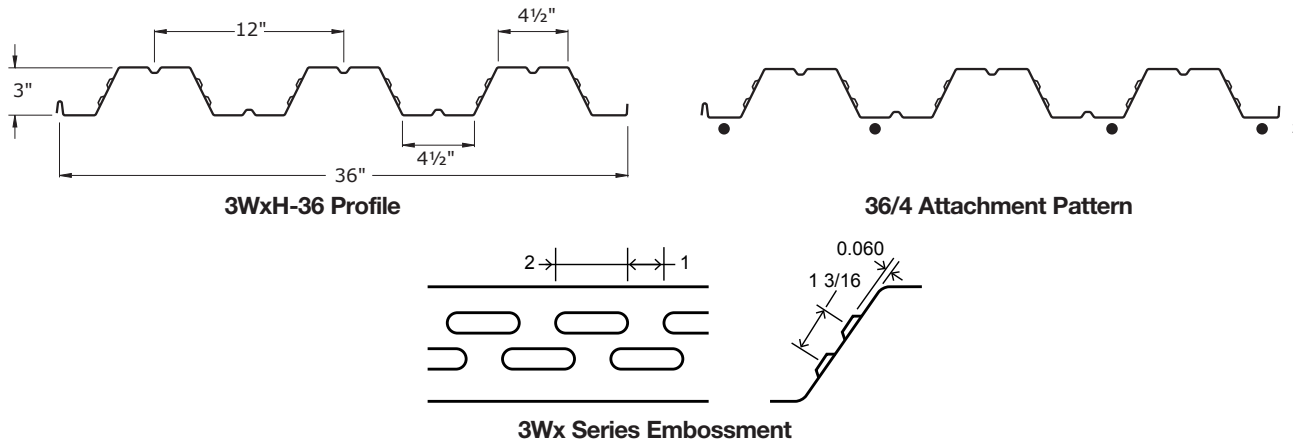


2.1 3WxH-36



Panel Properties

Gage	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus	Radius of Gyration
	w psf	t in	F _y ksi	F _u ksi	A _g in ² /ft	I _g in ⁴ /ft	y _b in	S _g in ³ /ft	r in
22	1.70	0.0290	50	65	0.504	0.770	1.48	0.497	1.236
21	1.92	0.0330	50	65	0.556	0.850	1.48	0.548	1.236
20	2.09	0.0359	50	65	0.605	0.927	1.48	0.595	1.236
19	2.43	0.0420	50	65	0.708	1.083	1.48	0.695	1.236
18	2.76	0.0478	50	65	0.806	1.233	1.49	0.789	1.236
16	3.43	0.0598	50	65	1.008	1.540	1.49	0.984	1.236

Gage	Effective Section Modulus at F _y					Effective Moment of Inertia for Deflection			
	Compression	Bending					Uniform Load Only		
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	I _d = (2I _e +I _g)/3	
								I _e ⁺	I _e ⁻
A _e in ² /ft	S _e ⁺ in ³ /ft	y _b in	S _e ⁻ in ³ /ft	y _b in	I _e ⁺ in ⁴ /ft	I _e ⁻ in ⁴ /ft	I _e ⁺ in ⁴ /ft	I _e ⁻ in ⁴ /ft	
22	0.309	0.392	1.33	0.404	1.63	0.727	0.720	0.741	0.737
21	0.362	0.452	1.36	0.465	1.61	0.823	0.813	0.832	0.826
20	0.414	0.510	1.39	0.524	1.59	0.910	0.900	0.916	0.909
19	0.532	0.636	1.43	0.654	1.55	1.083	1.073	1.083	1.077
18	0.651	0.761	1.46	0.781	1.52	1.233	1.230	1.233	1.231
16	0.887	0.984	1.49	0.982	1.50	1.540	1.540	1.540	1.540

Reactions at Supports (plf) Based on Web Crippling

Gage	Condition	Bearing Length of Webs							
		Allowable (R _n /Ω)				Factored (Φ _{Rn})			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	296	368	471	550	452	564	721	842
	Interior	522	630	783	900	776	937	1164	1338
21	End	379	470	598	697	580	719	915	1066
	Interior	667	801	990	1135	993	1191	1472	1688
20	End	424	524	666	775	649	802	1020	1186
	Interior	746	893	1101	1261	1110	1329	1638	1876
19	End	600	737	930	1078	918	1127	1423	1650
	Interior	1054	1252	1532	1747	1568	1863	2280	2599
18	End	743	908	1141	1320	1137	1389	1746	2020
	Interior	1305	1542	1878	2136	1941	2294	2794	3178
16	End	1143	1383	1723	1983	1749	2116	2636	3034
	Interior	2008	2350	2834	3206	2986	3495	4216	4768

Web Crippling Constraints

h=2.16"

r=0.125"

θ=54.4°

Edge Form

Edge form is an integral part of a composite or non-composite deck installation. The edge form provides containment of the concrete at the perimeter of the composite deck-slab system and around openings. Edge form also provides a screed at the edge to help maintain slab thickness. Edge forms may be manufactured from bent plate, cold-formed sheet steel, and hot roll steel angles or channels. ASC Steel Deck manufactures cold-formed sheet steel flashings used for edge forms and other flashing conditions. Section 1.17 shows typical installation conditions for common flashing types.

Edge Form Flashings

Galvanized steel edge form flashings are custom manufactured by ASC Steel Deck to meet project requirements. The flashings are formed from ASTM A653 SS Grade 33 minimum galvanized steel sheets. Flashings are available in most common structural shapes in 7 gages. (See figures 1.15.1 and 1.15.2) The standard length flashing is 10'-0", shorter lengths available upon request. The minimum width of any stiffener or flat cross section is $\frac{3}{4}$ ". For Hat and Channel shapes, the web width must be at least $\frac{3}{4}$ " wider than the flange width.

Design of Edge Form

Edge forms may be rationally designed to support concrete and construction loads using the methods in the SDI Floor Deck Design Manual based on engineering mechanics and confirmatory testing. The SDI edge form table provided in figure 1.15.3 provides an easy to use design aid without the need to detailed calculations for common edge form conditions.

FLASHING THICKNESS BY GAGE	
Gage	Base Steel Thickness
22	0.0290
20	0.0350
18	0.0470
16	0.0590
14	0.0700
12	0.1050
10	0.1350

Figure 1.15.1

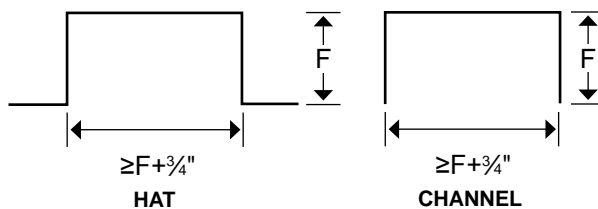
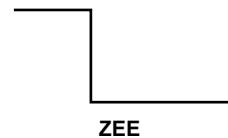
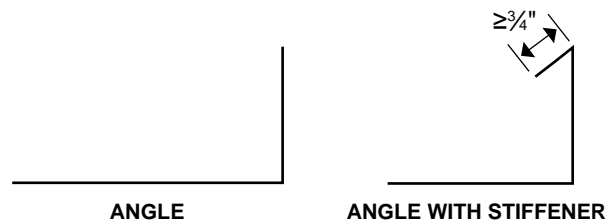
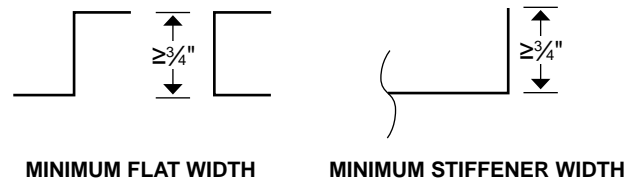


Figure 1.15.2