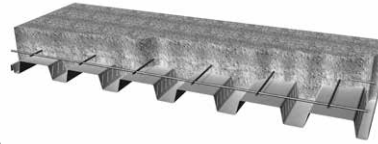


# 4.4 BH-36 Composite Deck

3 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 0.776yd<sup>3</sup>/100ft<sup>2</sup>



Maximum Unshored Span (in)

Gage	Single	Double	Triple	Gage	Single	Double	Triple
22	6' - 7"	6' - 11"	7' - 10"	18	8' - 11"	10' - 7"	11' - 2"
20	7' - 10"	8' - 6"	9' - 4"	16	9' - 8"	11' - 11"	11' - 9"

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω		620	508	423	357	304	262	227	199	170	145	124	107	93	82	72
	LRFD, φW		837	685	569	480	408	351	303	264	232	204	180	160	142	127	113
	L/360		-	-	-	-	-	-	-	-	170	145	124	107	93	82	72
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia		2634	2570	2517	2489	2449	2414	2384	2358	2334	2324	2305	2287	2271	2256	2243
	PAF Base Steel ≥ .25"		2318	2283	2254	2246	2223	2204	2187	2172	2159	2158	2147	2137	2127	2119	2111
	PAF Base Steel ≥ 0.125"		2294	2261	2234	2227	2206	2188	2172	2158	2145	2145	2135	2125	2116	2108	2101
	#12 Screw Base Steel ≥ .0385"		2271	2241	2215	2210	2190	2173	2158	2144	2133	2133	2123	2114	2106	2098	2092
	Concrete + Deck = 32.1 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 26.57 in <sup>4</sup> /ft						I <sub>cr</sub> = 17.4 in <sup>4</sup> /ft I <sub>u</sub> = 35.7 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 21.5 kip-in/ft φM <sub>no</sub> = 32.8 kip-in/ft				V <sub>r</sub> /Ω = 1.90 kip/ft φ V <sub>n</sub> = 2.85 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω		728	597	498	421	359	310	259	216	182	155	132	114	100	87	77
	LRFD, φW		984	806	671	566	483	416	361	315	277	244	217	193	172	154	139
	L/360		-	-	-	-	-	-	259	216	182	155	132	114	100	87	77
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia		2783	2705	2640	2609	2560	2518	2481	2448	2419	2410	2385	2364	2344	2326	2309
	PAF Base Steel ≥ .25"		2398	2355	2319	2313	2285	2261	2240	2222	2206	2207	2193	2180	2169	2158	2149
	PAF Base Steel ≥ 0.125"		2369	2328	2295	2290	2264	2242	2222	2205	2189	2192	2178	2166	2156	2146	2136
	#12 Screw Base Steel ≥ .0385"		2344	2306	2274	2271	2247	2225	2207	2190	2176	2179	2166	2155	2144	2135	2126
	Concrete + Deck = 32.5 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 28.33 in <sup>4</sup> /ft						I <sub>cr</sub> = 19.8 in <sup>4</sup> /ft I <sub>u</sub> = 36.9 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 25.1 kip-in/ft φM <sub>no</sub> = 38.4 kip-in/ft				V <sub>r</sub> /Ω = 1.90 kip/ft φ V <sub>n</sub> = 2.85 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω		760	691	631	533	427	347	286	238	201	171	146	126	110	96	85
	LRFD, φW		1141	1021	852	720	615	531	462	404	356	316	281	251	225	203	183
	L/360		-	-	-	533	427	347	286	238	201	171	146	126	110	96	85
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia		3091	2984	2895	2861	2794	2735	2684	2639	2598	2591	2558	2527	2499	2474	2450
	PAF Base Steel ≥ .25"		2563	2504	2455	2456	2417	2384	2354	2328	2305	2314	2294	2276	2259	2244	2231
	PAF Base Steel ≥ 0.125"		2525	2469	2423	2426	2390	2358	2330	2306	2284	2293	2275	2257	2242	2228	2215
	#12 Screw Base Steel ≥ .0385"		2498	2445	2401	2406	2370	2340	2314	2290	2269	2279	2261	2245	2230	2216	2203
	Concrete + Deck = 33.2 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 31.31 in <sup>4</sup> /ft						I <sub>cr</sub> = 23.6 in <sup>4</sup> /ft I <sub>u</sub> = 39.0 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 31.5 kip-in/ft φM <sub>no</sub> = 48.1 kip-in/ft				V <sub>r</sub> /Ω = 1.90 kip/ft φ V <sub>n</sub> = 2.85 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω		760	691	634	580	464	377	311	259	218	186	159	137	120	105	92
	LRFD, φW		1141	1037	951	868	742	641	559	490	433	385	343	307	276	250	226
	L/360		-	-	-	580	464	377	311	259	218	186	159	137	120	105	92
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia		3419	3281	3166	3135	3047	2971	2904	2845	2793	2791	2747	2707	2670	2637	2606
	PAF Base Steel ≥ .25"		2740	2664	2600	2613	2562	2518	2480	2446	2416	2434	2407	2383	2361	2342	2323
	PAF Base Steel ≥ 0.125"		2666	2597	2539	2556	2509	2469	2434	2402	2375	2395	2370	2348	2328	2309	2293
	#12 Screw Base Steel ≥ .0385"		2679	2609	2551	2568	2522	2481	2446	2415	2387	2407	2383	2360	2340	2322	2305
	Concrete + Deck = 33.8 psf (I <sub>cr</sub> +I <sub>u</sub> )/2 = 34.04 in <sup>4</sup> /ft						I <sub>cr</sub> = 27.0 in <sup>4</sup> /ft I <sub>u</sub> = 41.0 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 37.6 kip-in/ft φM <sub>no</sub> = 57.6 kip-in/ft				V <sub>r</sub> /Ω = 1.90 kip/ft φ V <sub>n</sub> = 2.85 kip/ft		

All Gages	LRFD - Diaphragm Shear, φS <sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width						
	3/4" Welded Shear Studs	6x6 W1.4xW1.4		6x6 W2.9xW2.9		6x6 W4.0xW4.0	
		A <sub>s</sub> = 0.028 in <sup>2</sup> /ft	A <sub>s</sub> = 0.058 in <sup>2</sup> /ft	A <sub>s</sub> = 0.080 in <sup>2</sup> /ft	A <sub>s</sub> = 0.120 in <sup>2</sup> /ft	A <sub>s</sub> = 0.180 in <sup>2</sup> /ft	
	6 in o.c.	3200	4550	5540	7340	10040	
	12 in o.c.	3200	4550	5540	7340	10040	
18 in o.c.	3200	4550	5540	7340	8790		

# BH-36 Composite Deck 4.4

4" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 0.931yd<sup>3</sup>/100ft<sup>2</sup>



Maximum Unshored Span (in)

Gage	Single	Double	Triple	Gage	Single	Double	Triple
22	6' - 3"	6' - 8"	7' - 5"	18	8' - 6"	10' - 1"	10' - 8"
20	7' - 6"	8' - 2"	8' - 10"	16	9' - 2"	11' - 4"	11' - 4"

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	785	643	536	453	386	333	289	253	222	197	175	156	138	121	107
	LRFD, φW	1060	868	722	609	518	446	386	337	295	261	231	205	183	163	146
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	138	121	107
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3124	3061	3008	2979	2939	2905	2875	2848	2825	2815	2795	2777	2761	2747	2733
	PAF Base Steel ≥ .25"	2809	2774	2745	2736	2714	2695	2678	2663	2649	2649	2637	2627	2618	2609	2602
	PAF Base Steel ≥ 0.125"	2784	2752	2724	2717	2696	2678	2662	2648	2636	2636	2625	2615	2607	2599	2591
	#12 Screw Base Steel ≥ .0385"	2762	2731	2705	2700	2680	2663	2648	2635	2623	2624	2614	2605	2596	2589	2582
	Concrete + Deck = 38.2 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 39.42 in <sup>4</sup> /ft						l <sub>cr</sub> = 25.4 in <sup>4</sup> /ft l <sub>u</sub> = 53.4 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 27.1 kip-in/ft φM <sub>no</sub> = 41.5 kip-in/ft			V <sub>r</sub> /Ω = 2.26 kip/ft φ V <sub>n</sub> = 3.40 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	906	758	632	534	457	394	343	300	265	229	196	170	148	129	114
	LRFD, φW	1248	1024	853	720	614	529	459	402	353	312	277	247	221	198	179
	L/360	-	-	-	-	-	-	-	-	-	229	196	170	148	129	114
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3273	3195	3130	3099	3050	3008	2971	2939	2910	2900	2876	2854	2834	2816	2799
	PAF Base Steel ≥ .25"	2888	2845	2810	2803	2776	2752	2731	2712	2696	2698	2684	2671	2659	2649	2639
	PAF Base Steel ≥ 0.125"	2859	2819	2785	2781	2755	2732	2713	2695	2680	2682	2669	2657	2646	2636	2627
	#12 Screw Base Steel ≥ .0385"	2834	2796	2765	2762	2737	2716	2697	2681	2666	2669	2657	2645	2635	2625	2617
	Concrete + Deck = 38.5 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 42 in <sup>4</sup> /ft						l <sub>cr</sub> = 28.8 in <sup>4</sup> /ft l <sub>u</sub> = 55.2 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 31.7 kip-in/ft φM <sub>no</sub> = 48.5 kip-in/ft			V <sub>r</sub> /Ω = 2.26 kip/ft φ V <sub>n</sub> = 3.40 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	906	823	755	681	583	504	424	353	298	253	217	187	163	143	126
	LRFD, φW	1358	1235	1087	919	786	679	591	518	457	405	361	323	290	262	237
	L/360	-	-	-	-	-	-	424	353	298	253	217	187	163	143	126
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3581	3474	3385	3352	3284	3226	3174	3129	3089	3082	3048	3017	2990	2964	2941
	PAF Base Steel ≥ .25"	3053	2995	2945	2946	2907	2874	2845	2819	2796	2804	2784	2766	2750	2735	2721
	PAF Base Steel ≥ 0.125"	3015	2960	2913	2916	2880	2848	2821	2796	2774	2784	2765	2748	2732	2718	2705
	#12 Screw Base Steel ≥ .0385"	2988	2935	2891	2896	2861	2831	2804	2780	2760	2770	2752	2735	2720	2706	2694
	Concrete + Deck = 39.8 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 46.4 in <sup>4</sup> /ft						l <sub>cr</sub> = 34.6 in <sup>4</sup> /ft l <sub>u</sub> = 58.2 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 40.0 kip-in/ft φM <sub>no</sub> = 61.3 kip-in/ft			V <sub>r</sub> /Ω = 2.26 kip/ft φ V <sub>n</sub> = 3.40 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	906	823	755	697	647	559	461	384	323	275	236	204	177	155	136
	LRFD, φW	1358	1235	1132	1045	952	823	717	630	557	495	442	396	357	323	292
	L/360	-	-	-	-	-	559	461	384	323	275	236	204	177	155	136
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3910	3772	3657	3626	3538	3461	3395	3336	3283	3282	3237	3197	3161	3127	3097
	PAF Base Steel ≥ .25"	3230	3154	3091	3103	3053	3009	2970	2936	2906	2924	2898	2874	2852	2832	2814
	PAF Base Steel ≥ 0.125"	3157	3087	3029	3046	3000	2959	2924	2893	2865	2885	2861	2839	2818	2800	2783
	#12 Screw Base Steel ≥ .0385"	3169	3100	3042	3059	3012	2972	2936	2905	2877	2898	2873	2851	2830	2812	2795
	Concrete + Deck = 39.2 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 50.4 in <sup>4</sup> /ft						l <sub>cr</sub> = 39.8 in <sup>4</sup> /ft l <sub>u</sub> = 61.1 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 48.0 kip-in/ft φM <sub>no</sub> = 73.5 kip-in/ft			V <sub>r</sub> /Ω = 2.26 kip/ft φ V <sub>n</sub> = 3.40 kip/ft		

All Gages	LRFD - Diaphragm Shear, φS <sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width										
	3/4" Welded Shear Studs	6x6 W1.4xW1.4		6x6 W2.9xW2.9		6x6 W4.0xW4.0		4x4 W4xW4		4x4 W6xW6	
		A <sub>s</sub> = 0.028 in <sup>2</sup> /ft		A <sub>s</sub> = 0.058 in <sup>2</sup> /ft		A <sub>s</sub> = 0.080 in <sup>2</sup> /ft		A <sub>s</sub> = 0.120 in <sup>2</sup> /ft		A <sub>s</sub> = 0.180 in <sup>2</sup> /ft	
	6 in o.c.	3700		5050		6040		7840		10540	
	12 in o.c.	3700		5050		6040		7840		10540	
	18 in o.c.	3700		5050		6040		7840		8790	

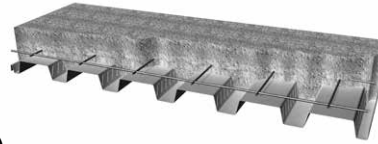
B PANELS

# 4.4 BH-36 Composite Deck

4 1/2" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.085yd<sup>3</sup>/100ft<sup>2</sup>



Maximum Unshored Span (in)

Gage	Single	Double	Triple
22	6' - 0"	6' - 6"	7' - 1"
20	7' - 2"	7' - 10"	8' - 5"

Gage	Single	Double	Triple
18	8' - 2"	9' - 8"	10' - 2"
16	8' - 9"	10' - 10"	10' - 11"

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	958	786	655	553	472	407	354	310	273	241	214	191	172	154	139
	LRFD, φW	1294	1060	883	744	634	546	473	413	363	320	284	252	225	202	181
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3615	3551	3498	3469	3430	3395	3365	3339	3315	3305	3286	3268	3252	3237	3223
	PAF Base Steel ≥ .25"	3299	3264	3235	3227	3204	3185	3168	3153	3140	3139	3128	3118	3108	3100	3092
	PAF Base Steel ≥ 0.125"	3275	3242	3215	3208	3187	3169	3153	3139	3126	3126	3115	3106	3097	3089	3082
	#12 Screw Base Steel ≥ .0385"	3252	3221	3196	3191	3171	3154	3139	3125	3114	3114	3104	3095	3087	3079	3072
	Concrete + Deck = 44.2 psf (l <sub>cr</sub> +l <sub>o</sub> )/2 = 55.87 in <sup>4</sup> /ft			l <sub>cr</sub> = 35.2 in <sup>4</sup> /ft l <sub>o</sub> = 76.6 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 33.0 kip-in/ft φM <sub>no</sub> = 50.5 kip-in/ft				V <sub>r</sub> /Ω = 2.65 kip/ft φV <sub>n</sub> = 3.97 kip/ft				

20	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1060	927	773	654	559	483	420	369	325	288	257	230	207	183	161
	LRFD, φW	1527	1252	1044	881	753	649	564	493	434	384	342	305	273	245	221
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	183	161
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	3763	3686	3621	3590	3541	3499	3462	3429	3400	3390	3366	3344	3325	3306	3290
	PAF Base Steel ≥ .25"	3379	3336	3300	3294	3266	3242	3221	3203	3186	3188	3174	3161	3150	3139	3130
	PAF Base Steel ≥ 0.125"	3349	3309	3276	3271	3245	3223	3203	3186	3170	3173	3159	3147	3136	3126	3117
	#12 Screw Base Steel ≥ .0385"	3325	3287	3255	3252	3228	3206	3188	3171	3156	3160	3147	3136	3125	3116	3107
	Concrete + Deck = 44.6 psf (l <sub>cr</sub> +l <sub>o</sub> )/2 = 59.46 in <sup>4</sup> /ft			l <sub>cr</sub> = 40.0 in <sup>4</sup> /ft l <sub>o</sub> = 78.9 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 38.7 kip-in/ft φM <sub>no</sub> = 59.3 kip-in/ft				V <sub>r</sub> /Ω = 2.65 kip/ft φV <sub>n</sub> = 3.97 kip/ft				

18	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1060	963	883	815	717	621	541	476	421	358	307	265	231	202	178
	LRFD, φW	1590	1445	1325	1131	968	836	728	639	564	501	446	400	360	324	293
	L/360	-	-	-	-	-	-	-	-	-	358	307	265	231	202	178
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	4071	3964	3875	3842	3775	3716	3665	3620	3579	3572	3538	3508	3480	3455	3431
	PAF Base Steel ≥ .25"	3544	3485	3436	3436	3398	3364	3335	3309	3286	3295	3275	3257	3240	3225	3211
	PAF Base Steel ≥ 0.125"	3505	3450	3404	3407	3370	3339	3311	3287	3265	3274	3255	3238	3223	3208	3195
	#12 Screw Base Steel ≥ .0385"	3479	3426	3382	3386	3351	3321	3294	3271	3250	3260	3242	3226	3211	3197	3184
	Concrete + Deck = 45.2 psf (l <sub>cr</sub> +l <sub>o</sub> )/2 = 65.67 in <sup>4</sup> /ft			l <sub>cr</sub> = 48.2 in <sup>4</sup> /ft l <sub>o</sub> = 83.1 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 49.1 kip-in/ft φM <sub>no</sub> = 75.1 kip-in/ft				V <sub>r</sub> /Ω = 2.65 kip/ft φV <sub>n</sub> = 3.97 kip/ft				

16	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1060	963	883	815	757	707	652	543	458	389	334	288	251	219	193
	LRFD, φW	1590	1445	1325	1223	1136	1016	886	779	689	613	547	491	443	400	363
	L/360	-	-	-	-	-	-	652	543	458	389	334	288	251	219	193
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	4400	4262	4147	4116	4028	3952	3885	3826	3774	3772	3728	3688	3651	3618	3587
	PAF Base Steel ≥ .25"	3721	3645	3581	3594	3543	3499	3461	3427	3397	3415	3388	3364	3342	3322	3304
	PAF Base Steel ≥ 0.125"	3647	3578	3520	3537	3490	3450	3414	3383	3356	3376	3351	3329	3309	3290	3273
	#12 Screw Base Steel ≥ .0385"	3660	3590	3532	3549	3503	3462	3427	3396	3368	3388	3363	3341	3321	3302	3285
	Concrete + Deck = 45.9 psf (l <sub>cr</sub> +l <sub>o</sub> )/2 = 71.36 in <sup>4</sup> /ft			l <sub>cr</sub> = 55.6 in <sup>4</sup> /ft l <sub>o</sub> = 87.1 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 59.1 kip-in/ft φM <sub>no</sub> = 90.4 kip-in/ft				V <sub>r</sub> /Ω = 2.65 kip/ft φV <sub>n</sub> = 3.97 kip/ft				

All Gages	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width</b>																
	3/4" Welded Shear Studs	6x6 W1.4xW1.4				6x6 W2.9xW2.9				6x6 W4.0xW4.0				4x4 W4xW4		4x4 W6xW6	
		A <sub>s</sub> = 0.028 in <sup>2</sup> /ft		A <sub>s</sub> = 0.058 in <sup>2</sup> /ft		A <sub>s</sub> = 0.080 in <sup>2</sup> /ft		A <sub>s</sub> = 0.120 in <sup>2</sup> /ft		A <sub>s</sub> = 0.180 in <sup>2</sup> /ft		A <sub>s</sub> = 0.280 in <sup>2</sup> /ft		A <sub>s</sub> = 0.480 in <sup>2</sup> /ft			
	6 in o.c.	4190		5540		6530		8330		11030		14030		18030			
	12 in o.c.	4190		5540		6530		8330		11030		14030		18030			
18 in o.c.	4190		5540		6530		8330		11030		14030		18030				

# BH-36 Composite Deck 4.4

5" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.239yd<sup>3</sup>/100ft<sup>2</sup>

1 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple	Gage	Single	Double	Triple
22	5' - 9"	6' - 3"	6' - 10"	18	7' - 10"	9' - 3"	9' - 9"
20	6' - 10"	7' - 7"	8' - 1"	16	8' - 5"	10' - 5"	10' - 6"

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1136	933	778	657	561	484	421	369	325	288	256	229	205	184	166
	LRFD, φW	1536	1259	1048	884	754	649	563	492	432	382	339	302	270	241	217
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	4105	4042	3988	3960	3920	3886	3856	3829	3805	3796	3776	3758	3742	3727	3714
	PAF Base Steel ≥ .25"	3790	3755	3725	3717	3695	3675	3658	3643	3630	3629	3618	3608	3599	3590	3582
	PAF Base Steel ≥ 0.125"	3765	3732	3705	3698	3677	3659	3643	3629	3616	3617	3606	3596	3588	3580	3572
	#12 Screw Base Steel ≥ .0385"	3743	3712	3686	3681	3661	3644	3629	3616	3604	3605	3595	3586	3577	3570	3563
	Concrete + Deck = 50.3 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 76.31 in <sup>4</sup> /ft						l <sub>cr</sub> = 46.8 in <sup>4</sup> /ft l <sub>u</sub> = 105.8 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 39.1 kip-in/ft φM <sub>no</sub> = 59.9 kip-in/ft			V <sub>r</sub> /Ω = 3.06 kip/ft φ V <sub>n</sub> = 4.59 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1223	1102	920	778	666	575	501	439	388	344	307	275	247	223	201
	LRFD, φW	1815	1489	1242	1049	896	773	672	588	518	459	408	365	327	294	265
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	4254	4176	4111	4080	4031	3989	3952	3920	3891	3881	3857	3835	3815	3797	3780
	PAF Base Steel ≥ .25"	3869	3826	3791	3784	3757	3733	3712	3693	3677	3678	3664	3652	3640	3630	3620
	PAF Base Steel ≥ 0.125"	3840	3800	3766	3762	3736	3713	3693	3676	3661	3663	3650	3638	3627	3617	3608
	#12 Screw Base Steel ≥ .0385"	3815	3777	3746	3743	3718	3697	3678	3662	3647	3650	3637	3626	3616	3606	3597
	Concrete + Deck = 50.6 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 81.12 in <sup>4</sup> /ft						l <sub>cr</sub> = 53.4 in <sup>4</sup> /ft l <sub>u</sub> = 108.9 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 46.0 kip-in/ft φM <sub>no</sub> = 70.3 kip-in/ft			V <sub>r</sub> /Ω = 3.06 kip/ft φ V <sub>n</sub> = 4.59 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1223	1112	1019	941	857	742	647	569	503	448	400	360	315	275	242
	LRFD, φW	1835	1668	1529	1351	1156	999	871	764	675	600	535	480	432	390	353
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	315	275	242
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	4562	4455	4366	4333	4265	4206	4155	4110	4070	4063	4029	3998	3970	3945	3922
	PAF Base Steel ≥ .25"	4034	3975	3926	3927	3888	3855	3826	3800	3777	3785	3765	3747	3731	3716	3702
	PAF Base Steel ≥ 0.125"	3996	3940	3894	3897	3861	3829	3801	3777	3755	3765	3746	3729	3713	3699	3686
	#12 Screw Base Steel ≥ .0385"	3969	3916	3872	3877	3842	3811	3785	3761	3741	3751	3732	3716	3701	3687	3675
	Concrete + Deck = 51.3 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 89.54 in <sup>4</sup> /ft						l <sub>cr</sub> = 64.6 in <sup>4</sup> /ft l <sub>u</sub> = 114.5 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 58.5 kip-in/ft φM <sub>no</sub> = 89.5 kip-in/ft			V <sub>r</sub> /Ω = 3.06 kip/ft φ V <sub>n</sub> = 4.59 kip/ft		

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>															
	ASD, W/Ω	1223	1112	1019	941	874	815	765	694	615	530	455	393	342	299	263
	LRFD, φW	1835	1668	1529	1411	1311	1218	1063	934	827	735	658	591	533	482	438
	L/360	-	-	-	-	-	-	-	-	-	530	455	393	342	299	263
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>															
	Arc Spot Weld 1/2" Effective Dia	4890	4753	4638	4607	4519	4442	4376	4317	4264	4263	4218	4178	4142	4108	4078
	PAF Base Steel ≥ .25"	4211	4135	4072	4084	4033	3989	3951	3917	3887	3905	3879	3855	3833	3813	3795
	PAF Base Steel ≥ 0.125"	4137	4068	4010	4027	3981	3940	3905	3874	3846	3866	3842	3819	3799	3781	3764
	#12 Screw Base Steel ≥ .0385"	4150	4081	4023	4040	3993	3953	3917	3886	3858	3879	3854	3832	3811	3793	3776
	Concrete + Deck = 52.0 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 97.25 in <sup>4</sup> /ft						l <sub>cr</sub> = 74.7 in <sup>4</sup> /ft l <sub>u</sub> = 119.8 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 70.6 kip-in/ft φM <sub>no</sub> = 108.0 kip-in/ft			V <sub>r</sub> /Ω = 3.06 kip/ft φ V <sub>n</sub> = 4.59 kip/ft		

All Gages	LRFD - Diaphragm Shear, φS <sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width										
	3/4" Welded Shear Studs	6x6 W1.4xW1.4		6x6 W2.9xW2.9		6x6 W4.0xW4.0		4x4 W4xW4		4x4 W6xW6	
		A <sub>s</sub> = 0.028	in <sup>2</sup> /ft	A <sub>s</sub> = 0.058	in <sup>2</sup> /ft	A <sub>s</sub> = 0.080	in <sup>2</sup> /ft	A <sub>s</sub> = 0.120	in <sup>2</sup> /ft	A <sub>s</sub> = 0.180	in <sup>2</sup> /ft
	6 in o.c.	n/a		6030		7020		8820		11520	
	12 in o.c.	n/a		6030		7020		8820		11520	
18 in o.c.	n/a		6030		7020		8790		8790		

B PANELS

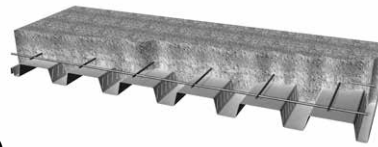
# 4.4 BH-36 Composite Deck

6" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.548yd<sup>3</sup>/100ft<sup>2</sup>

2 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple	Gage	Single	Double	Triple
22	5' - 4"	5' - 11"	6' - 4"	18	7' - 4"	8' - 8"	9' - 0"
20	6' - 4"	7' - 1"	7' - 6"	16	7' - 11"	9' - 8"	9' - 10"

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω		1505	1236	1031	872	745	643	560	490	432	383	341	305	274	247	223
	LRFD, φW		2036	1670	1391	1174	1002	863	750	656	577	510	453	404	361	324	292
	L/360		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld ½" Effective Dia		5086	5022	4969	4941	4901	4867	4836	4810	4786	4776	4757	4739	4723	4708	4695
	PAF Base Steel ≥ .25"		4771	4736	4706	4698	4676	4656	4639	4624	4611	4610	4599	4589	4580	4571	4563
	PAF Base Steel ≥ 0.125"		4746	4713	4686	4679	4658	4640	4624	4610	4597	4597	4587	4577	4568	4560	4553
	#12 Screw Base Steel ≥ .0385"		4724	4693	4667	4662	4642	4625	4610	4597	4585	4586	4576	4566	4558	4551	4544
	Concrete + Deck = 62.4 psf (I <sub>cr</sub> +I <sub>o</sub> )/2 = 130.7 in <sup>4</sup> /ft						I <sub>cr</sub> = 75.7 in <sup>4</sup> /ft I <sub>o</sub> = 185.8 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 51.7 kip-in/ft φM <sub>no</sub> = 79.2 kip-in/ft			V <sub>r</sub> /Ω = 3.94 kip/ft φV <sub>n</sub> = 5.92 kip/ft			

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω		1577	1434	1222	1035	886	765	667	586	517	459	410	367	331	299	270
	LRFD, φW		2366	1979	1651	1396	1193	1030	896	785	692	613	546	489	438	395	356
	L/360		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld ½" Effective Dia		5235	5157	5092	5061	5012	4970	4933	4900	4871	4862	4838	4816	4796	4778	4761
	PAF Base Steel ≥ .25"		4850	4807	4771	4765	4737	4714	4693	4674	4658	4659	4645	4633	4621	4610	4601
	PAF Base Steel ≥ 0.125"		4821	4781	4747	4743	4717	4694	4674	4657	4641	4644	4631	4619	4608	4598	4589
	#12 Screw Base Steel ≥ .0385"		4796	4758	4726	4724	4699	4678	4659	4642	4628	4631	4618	4607	4597	4587	4578
	Concrete + Deck = 62.7 psf (I <sub>cr</sub> +I <sub>o</sub> )/2 = 138.6 in <sup>4</sup> /ft						I <sub>cr</sub> = 86.6 in <sup>4</sup> /ft I <sub>o</sub> = 190.6 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 60.9 kip-in/ft φM <sub>no</sub> = 93.2 kip-in/ft			V <sub>r</sub> /Ω = 3.94 kip/ft φV <sub>n</sub> = 5.92 kip/ft			

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω		1577	1434	1315	1213	1127	993	867	762	675	601	538	483	436	395	359
	LRFD, φW		2366	2151	1972	1808	1548	1339	1167	1025	907	806	720	646	582	526	477
	L/360		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld ½" Effective Dia		5543	5436	5347	5314	5246	5187	5136	5091	5051	5043	5010	4979	4951	4926	4903
	PAF Base Steel ≥ .25"		5015	4956	4907	4908	4869	4836	4806	4781	4758	4766	4746	4728	4711	4696	4683
	PAF Base Steel ≥ 0.125"		4977	4921	4875	4878	4842	4810	4782	4758	4736	4746	4727	4710	4694	4680	4667
	#12 Screw Base Steel ≥ .0385"		4950	4897	4853	4858	4823	4792	4766	4742	4721	4732	4713	4697	4682	4668	4656
	Concrete + Deck = 63.4 psf (I <sub>cr</sub> +I <sub>o</sub> )/2 = 152.7 in <sup>4</sup> /ft						I <sub>cr</sub> = 105.7 in <sup>4</sup> /ft I <sub>o</sub> = 199.7 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 78.0 kip-in/ft φM <sub>no</sub> = 119.4 kip-in/ft			V <sub>r</sub> /Ω = 3.94 kip/ft φV <sub>n</sub> = 5.92 kip/ft			

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω		1577	1434	1315	1213	1127	1052	986	928	827	738	661	595	538	488	444
	LRFD, φW		2366	2151	1972	1820	1690	1577	1430	1258	1114	992	888	798	720	652	593
	L/360		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld ½" Effective Dia		5871	5734	5619	5587	5499	5423	5356	5298	5245	5244	5199	5159	5122	5089	5058
	PAF Base Steel ≥ .25"		5192	5116	5053	5065	5014	4970	4932	4898	4868	4886	4859	4835	4814	4794	4775
	PAF Base Steel ≥ 0.125"		5118	5049	4991	5008	4962	4921	4886	4855	4827	4847	4823	4800	4780	4762	4745
	#12 Screw Base Steel ≥ .0385"		5131	5061	5004	5021	4974	4933	4898	4867	4839	4859	4835	4812	4792	4774	4757
	Concrete + Deck = 64.0 psf (I <sub>cr</sub> +I <sub>o</sub> )/2 = 165.6 in <sup>4</sup> /ft						I <sub>cr</sub> = 122.9 in <sup>4</sup> /ft I <sub>o</sub> = 208.3 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 94.5 kip-in/ft φM <sub>no</sub> = 144.7 kip-in/ft			V <sub>r</sub> /Ω = 3.94 kip/ft φV <sub>n</sub> = 5.92 kip/ft			

All Gages	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width</b>																
	¾" Welded Shear Studs	6x6 W1.4xW1.4				6x6 W2.9xW2.9				6x6 W4.0xW4.0				4x4 W4xW4		4x4 W6xW6	
		A <sub>s</sub> = 0.028 in <sup>2</sup> /ft				A <sub>s</sub> = 0.058 in <sup>2</sup> /ft				A <sub>s</sub> = 0.080 in <sup>2</sup> /ft				A <sub>s</sub> = 0.120 in <sup>2</sup> /ft		A <sub>s</sub> = 0.180 in <sup>2</sup> /ft	
	6 in o.c.	n/a				7020				8010				9810		12510	
	12 in o.c.	n/a				7020				8010				9810		12510	
18 in o.c.	n/a				7020				8010				8790		8790		

# BH-36 Composite Deck 4.4

6 3/4" Total Slab Depth

Normal Weight Concrete (145 pcf)

Concrete Volume 1.780yd<sup>3</sup>/100ft<sup>2</sup>

3 Hour Fire Rating



Maximum Unshored Span (in)

Gage	Single	Double	Triple	Gage	Single	Double	Triple
22	5' - 1"	5' - 8"	6' - 0"	18	7' - 0"	8' - 3"	8' - 7"
20	6' - 1"	6' - 10"	7' - 1"	16	7' - 7"	9' - 2"	9' - 5"

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
22	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	1789	1469	1226	1037	887	765	666	584	515	457	407	364	327	295	266	
	LRFD, φW	2420	1986	1655	1397	1193	1028	893	781	688	609	541	483	432	388	349	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia	5822	5758	5705	5676	5637	5602	5572	5546	5522	5512	5492	5475	5459	5444	5430	
	PAF Base Steel ≥ .25"	5506	5471	5442	5434	5411	5392	5375	5360	5347	5346	5335	5324	5315	5307	5299	
	PAF Base Steel ≥ 0.125"	5482	5449	5422	5415	5394	5376	5360	5346	5333	5333	5322	5313	5304	5296	5289	
	#12 Screw Base Steel ≥ .0385"	5459	5428	5403	5397	5378	5361	5345	5332	5320	5321	5311	5302	5294	5286	5279	
	Concrete + Deck = 71.4 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 184.9 in <sup>4</sup> /ft						l <sub>cr</sub> = 102.5 in <sup>4</sup> /ft l <sub>u</sub> = 267.4 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 61.4 kip-in/ft φM <sub>no</sub> = 94.0 kip-in/ft			V <sub>n</sub> /Ω = 4.67 kip/ft φ V <sub>n</sub> = 7.00 kip/ft			

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
20	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	1867	1697	1455	1232	1055	912	795	698	617	548	490	439	395	357	324	
	LRFD, φW	2801	2357	1967	1663	1422	1228	1068	937	826	733	653	584	525	473	427	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia	5970	5893	5828	5797	5748	5706	5669	5636	5607	5597	5573	5551	5532	5513	5497	
	PAF Base Steel ≥ .25"	5586	5543	5507	5501	5473	5449	5428	5410	5393	5395	5381	5368	5357	5346	5336	
	PAF Base Steel ≥ 0.125"	5556	5516	5483	5478	5452	5430	5410	5393	5377	5380	5366	5354	5343	5333	5324	
	#12 Screw Base Steel ≥ .0385"	5532	5494	5462	5459	5435	5413	5395	5378	5363	5367	5354	5343	5332	5323	5314	
	Concrete + Deck = 71.8 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 195.7 in <sup>4</sup> /ft						l <sub>cr</sub> = 117.5 in <sup>4</sup> /ft l <sub>u</sub> = 273.9 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 72.4 kip-in/ft φM <sub>no</sub> = 110.8 kip-in/ft			V <sub>n</sub> /Ω = 4.67 kip/ft φ V <sub>n</sub> = 7.00 kip/ft			

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
18	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	1867	1697	1556	1436	1334	1187	1036	912	808	719	644	579	523	474	430	
	LRFD, φW	2801	2546	2334	2154	1851	1601	1397	1227	1085	965	863	774	698	631	572	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia	6278	6171	6082	6049	5982	5923	5872	5826	5786	5779	5745	5715	5687	5661	5638	
	PAF Base Steel ≥ .25"	5751	5692	5643	5643	5605	5571	5542	5516	5493	5501	5482	5464	5447	5432	5418	
	PAF Base Steel ≥ 0.125"	5712	5657	5611	5614	5577	5546	5518	5494	5472	5481	5462	5445	5430	5415	5402	
	#12 Screw Base Steel ≥ .0385"	5686	5633	5589	5593	5558	5528	5501	5478	5457	5467	5449	5433	5418	5404	5391	
	Concrete + Deck = 72.4 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 215.1 in <sup>4</sup> /ft						l <sub>cr</sub> = 144.0 in <sup>4</sup> /ft l <sub>u</sub> = 286.1 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 93.1 kip-in/ft φM <sub>no</sub> = 142.4 kip-in/ft			V <sub>n</sub> /Ω = 4.67 kip/ft φ V <sub>n</sub> = 7.00 kip/ft			

GA	Vertical Load Span (in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	
16	<b>ASD &amp; LRFD - Superimposed Load, W (psf)</b>																
	ASD, W/Ω	1867	1697	1556	1436	1334	1245	1167	1098	992	885	793	714	646	586	534	
	LRFD, φW	2801	2546	2334	2154	2000	1867	1714	1508	1336	1190	1066	958	865	784	713	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<b>LRFD - Diaphragm Shear, φS<sub>n</sub> (plf / ft) 36/4 Attachment Pattern</b>																
	Arc Spot Weld 1/2" Effective Dia	6607	6469	6354	6323	6235	6159	6092	6033	5981	5979	5935	5895	5858	5825	5794	
	PAF Base Steel ≥ .25"	5928	5852	5788	5801	5750	5706	5668	5634	5603	5622	5595	5571	5549	5529	5511	
	PAF Base Steel ≥ 0.125"	5854	5785	5727	5744	5697	5657	5621	5590	5562	5583	5558	5536	5516	5497	5480	
	#12 Screw Base Steel ≥ .0385"	5866	5797	5739	5756	5710	5669	5634	5602	5575	5595	5570	5548	5528	5509	5492	
	Concrete + Deck = 73.1 psf (l <sub>cr</sub> +l <sub>u</sub> )/2 = 232.9 in <sup>4</sup> /ft						l <sub>cr</sub> = 168.1 in <sup>4</sup> /ft l <sub>u</sub> = 297.7 in <sup>4</sup> /ft				M <sub>no</sub> /Ω = 113.1 kip-in/ft φM <sub>no</sub> = 173.0 kip-in/ft			V <sub>n</sub> /Ω = 4.67 kip/ft φ V <sub>n</sub> = 7.00 kip/ft			

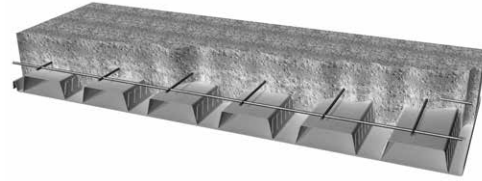
All Gages	LRFD - Diaphragm Shear, φS <sub>n</sub> (plf / ft) for all vertical load spans, WWF Designation or Area of Steel per foot width										
		6x6 W1.4xW1.4		6x6 W2.9xW2.9		6x6 W4.0xW4.0		4x4 W4xW4		4x4 W6xW6	
	3/4" Welded Shear Studs	A <sub>s</sub> = 0.028 in <sup>2</sup> /ft		A <sub>s</sub> = 0.058 in <sup>2</sup> /ft		A <sub>s</sub> = 0.080 in <sup>2</sup> /ft		A <sub>s</sub> = 0.120 in <sup>2</sup> /ft		A <sub>s</sub> = 0.180 in <sup>2</sup> /ft	
	6 in o.c.	n/a		7760		8750		10550		13250	
	12 in o.c.	n/a		7760		8750		10550		13180	
18 in o.c.	n/a		7760		8750		8790		8790		

B PANELS

# 4.3 BHF-36 Cellular Composite Deck

Normal Weight Concrete (145 pcf)

Maximum Unshored Spans



**BHF-36 Cellular Shoring Table**

Total Slab Depth (in)	145 pcf Normal Weight Concrete					
	Volume cy/100sf	Gage	Slab and Deck psf	Maximum Unshored Span		
				Single	Double	Triple
3½	0.776	20/20	34.0	8' - 9"	11' - 2"	10' - 1"
		20/18	34.5	8' - 10"	11' - 3"	10' - 2"
		20/16	35.0	8' - 11"	11' - 4"	10' - 3"
		18/20	34.7	10' - 8"	13' - 5"	12' - 4"
		18/18	35.2	10' - 11"	13' - 9"	12' - 5"
		18/16	35.7	11' - 1"	13' - 10"	12' - 6"
		16/20	35.4	11' - 4"	13' - 11"	13' - 1"
		16/18	35.8	11' - 6"	14' - 3"	13' - 5"
		16/16	36.3	11' - 8"	14' - 7"	13' - 8"
4½	1.085	20/20	46.1	7' - 11"	10' - 2"	9' - 2"
		20/18	46.6	8' - 0"	10' - 3"	9' - 3"
		20/16	47.1	8' - 1"	10' - 3"	9' - 4"
		18/20	46.8	9' - 8"	12' - 4"	11' - 2"
		18/18	47.2	9' - 11"	12' - 6"	11' - 4"
		18/16	47.8	10' - 2"	12' - 7"	11' - 4"
		16/20	47.4	10' - 4"	13' - 0"	12' - 3"
		16/18	47.9	10' - 7"	13' - 4"	12' - 6"
		16/16	48.4	10' - 10"	13' - 7"	12' - 10"
5 1 Hour Fire Rating	1.239	20/20	52.1	7' - 7"	9' - 9"	8' - 10"
		20/18	52.6	7' - 8"	9' - 10"	8' - 11"
		20/16	53.1	7' - 9"	9' - 10"	8' - 11"
		18/20	52.8	9' - 4"	11' - 10"	10' - 9"
		18/18	53.3	9' - 7"	12' - 0"	10' - 10"
		18/16	53.8	9' - 9"	12' - 1"	10' - 11"
		16/20	53.5	9' - 11"	12' - 8"	11' - 11"
		16/18	54.0	10' - 3"	12' - 11"	12' - 2"
		16/16	54.5	10' - 5"	13' - 3"	12' - 5"
6 2 Hour Fire Rating	1.548	20/20	64.2	7' - 0"	9' - 0"	8' - 2"
		20/18	64.7	7' - 1"	9' - 1"	8' - 3"
		20/16	65.2	7' - 2"	9' - 2"	8' - 4"
		18/20	64.9	8' - 9"	11' - 0"	10' - 0"
		18/18	65.4	8' - 11"	11' - 1"	10' - 1"
		18/16	65.9	9' - 2"	11' - 2"	10' - 2"
		16/20	65.6	9' - 4"	12' - 1"	11' - 4"
		16/18	66.0	9' - 7"	12' - 4"	11' - 7"
		16/16	66.6	9' - 10"	12' - 7"	11' - 10"
6¾ 3 Hour Fire Rating	1.780	20/20	73.3	6' - 8"	8' - 7"	7' - 9"
		20/18	73.8	6' - 9"	8' - 8"	7' - 10"
		20/16	74.3	6' - 10"	8' - 9"	7' - 11"
		18/20	73.9	8' - 4"	10' - 6"	9' - 6"
		18/18	74.4	8' - 7"	10' - 7"	9' - 7"
		18/16	74.9	8' - 9"	10' - 8"	9' - 8"
		16/20	74.6	8' - 11"	11' - 8"	10' - 11"
		16/18	75.1	9' - 2"	11' - 11"	11' - 3"
		16/16	75.6	9' - 5"	12' - 3"	11' - 4"

Shaded area the span is governed by maximum deck panel length of 40 feet; 20 feet for double span, 13 feet 4 inches for triple span.