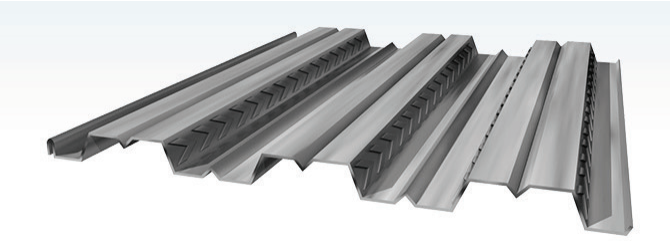
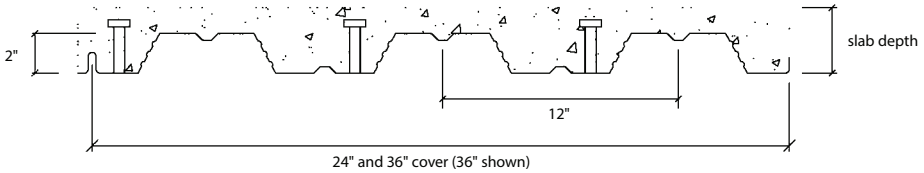
REDBIRD ENGINEERING SALES
SAINT LOUIS, MO
314-965-3136
WWW.REDBIRDENGINEERINGSALES.COM



2" LOK-FLOOR

2" x 12" deck F_y = 40 ksi f'_c = 3 ksi 145 pcf concrete

S tuds are not required for composite slab action. S tuds on the cross-section indicate that it is possible to install studs at the beams.



DECK PROPERTIES										
Gage	t	w	A_s	I_p	S_p	S_n	R_{be}	R_{bi}	V_n	studs
22	0.0295	1.5	0.440	0.312	0.251	0.262	700	1190	2160	0.43
20	0.0358	1.8	0.540	0.390	0.332	0.345	800	1360	2930	0.53
19	0.0418	2.1	0.630	0.455	0.413	0.424	1060	1800	3410	0.61
18	0.0474	2.4	0.710	0.517	0.480	0.483	1340	2270	3860	0.70
16	0.0598	3.1	0.900	0.653	0.611	0.611	2040	3460	4860	0.70

COMPOSITE PROPERTIES													
	S lab Depth	M_{nf} in.k	A_c in^2	Vol. ft^3/ft^2	W psf	S_c in^3	I_{av} in^4	M_{no} in.k	V_{nt} lbs.	Max Unshored S pan, ft. 1 span	2 span	3 span	A_{wwf} in^2/ft
22 gage	4.50	48.06	32.6	0.292	42	1.04	5.9	35.55	5200	6.07	8.14	8.28	0.023
	5.00	55.54	37.5	0.333	48	1.22	8.0	41.78	5650	5.78	7.76	7.89	0.027
	5.50	63.02	42.6	0.375	54	1.41	10.5	48.19	6130	5.52	7.42	7.56	0.032
	6.00	70.50	48.0	0.417	60	1.61	13.5	54.74	6630	5.31	7.12	7.27	0.036
	6.50	77.98	53.6	0.458	66	1.80	17.1	61.40	7150	5.18	6.85	7.02	0.041
	7.00	85.46	59.5	0.500	73	2.00	21.2	68.15	7700	5.05	6.53	6.79	0.045
	7.25	89.20	61.9	0.521	76	2.10	23.5	71.55	7920	5.00	6.32	6.58	0.047
	7.50	92.94	64.3	0.542	79	2.20	26.0	74.96	8140	4.94	6.12	6.38	0.050
20 gage	4.50	57.78	32.6	0.292	42	1.25	6.3	42.94	5970	7.21	9.36	9.67	0.023
	5.00	66.96	37.5	0.333	48	1.48	8.5	50.48	6420	6.84	8.92	9.22	0.027
	5.50	76.14	42.6	0.375	54	1.71	11.2	58.25	6900	6.53	8.54	8.82	0.032
	6.00	85.32	48.0	0.417	60	1.94	14.4	66.21	7400	6.27	8.20	8.47	0.036
	6.50	94.50	53.6	0.458	66	2.18	18.2	74.31	7920	6.11	7.89	8.16	0.041
	7.00	103.68	59.5	0.500	73	2.42	22.6	82.52	8470	5.96	7.44	7.75	0.045
	7.25	108.27	61.9	0.521	76	2.54	25.0	86.66	8690	5.89	7.20	7.50	0.047
	7.50	112.86	64.3	0.542	79	2.67	27.6	90.82	8910	5.82	6.98	7.27	0.050
19 gage	4.50	66.15	32.6	0.292	42	1.44	6.7	49.32	6080	8.21	10.36	10.71	0.023
	5.00	76.86	37.5	0.333	48	1.70	9.0	58.03	6900	7.79	9.88	10.21	0.027
	5.50	87.57	42.6	0.375	54	1.96	11.8	67.03	7380	7.43	9.46	9.77	0.032
	6.00	98.28	48.0	0.417	60	2.23	15.2	76.25	7880	7.12	9.08	9.39	0.036
	6.50	108.99	53.6	0.458	66	2.51	19.2	85.63	8400	6.94	8.75	9.04	0.041
	7.00	119.70	59.5	0.500	73	2.79	23.7	95.15	8950	6.76	8.45	8.73	0.045
	7.25	125.06	61.9	0.521	76	2.93	26.3	99.96	9170	6.68	8.31	8.58	0.047
	7.50	130.41	64.3	0.542	79	3.08	29.0	104.78	9390	6.61	8.18	8.45	0.050
18 gage	4.50	73.29	32.6	0.292	42	1.60	7.0	54.96	6080	8.97	11.05	11.42	0.023
	5.00	85.36	37.5	0.333	48	1.89	9.4	64.68	6980	8.50	10.54	10.89	0.027
	5.50	97.43	42.6	0.375	54	2.19	12.4	74.74	7830	8.10	10.09	10.43	0.032
	6.00	109.50	48.0	0.417	60	2.49	15.9	85.06	8330	7.77	9.69	10.02	0.036
	6.50	121.57	53.6	0.458	66	2.80	20.0	95.58	8850	7.56	9.34	9.65	0.041
	7.00	133.64	59.5	0.500	73	3.12	24.7	106.25	9400	7.37	9.02	9.32	0.045
	7.25	139.67	61.9	0.521	76	3.28	27.3	111.64	9620	7.28	8.87	9.17	0.047
	7.50	145.71	64.3	0.542	79	3.43	30.1	117.05	9840	7.19	8.73	9.02	0.050
16 gage	4.50	73.29	32.6	0.292	42	1.97	7.7	54.96	6080	10.30	12.40	12.79	0.023
	5.00	85.36	37.5	0.333	48	2.33	10.3	64.68	6980	9.75	11.83	12.23	0.027
	5.50	97.43	42.6	0.375	54	2.70	13.5	74.74	7940	9.29	11.58	11.71	0.032
	6.00	109.50	48.0	0.417	60	3.08	17.3	85.06	8940	8.90	10.89	11.26	0.036
	6.50	121.57	53.6	0.458	66	3.47	21.8	95.58	9850	8.66	10.50	10.85	0.041
	7.00	133.64	59.5	0.500	73	3.87	26.9	106.25	10400	8.44	10.14	10.48	0.045
	7.25	139.67	61.9	0.521	76	4.07	29.8	111.64	10620	8.33	9.98	10.31	0.047
	7.50	145.71	64.3	0.542	79	4.27	32.8	117.05	10840	8.23	9.82	10.15	0.050

2" LOK-FLOOR - NW

2" LOK-FLOOR

2" x 12" deck F_y = 40 ksi f'_c = 3 ksi 145 pcf concrete

	Slab Depth	M_n	Span " L" feet, Uniform Live Unfactored Service Loads, psf												
	in.	in.k	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00
22 gage	4.50	48.06	400	400	375	325	280	245	215	190	165	150	135	120	105
	5.00	55.54	400	400	400	375	325	285	250	220	195	175	155	140	125
	5.50	63.02	400	400	400	400	370	320	280	250	220	195	175	155	140
	6.00	70.50	400	400	400	400	400	360	315	280	245	220	195	175	160
	6.50	77.98	400	400	400	400	400	400	350	310	275	245	220	195	175
	7.00	85.46	400	400	400	400	400	400	385	340	300	265	240	215	190
	7.25	89.20	400	400	400	400	400	400	400	355	315	280	250	225	200
	7.50	92.94	400	400	400	400	400	400	400	370	325	290	260	235	210
20 gage	4.50	57.78	400	400	400	395	345	300	265	235	210	185	165	150	135
	5.00	66.96	400	400	400	400	400	350	305	270	240	215	195	175	155
	5.50	76.14	400	400	400	400	400	395	350	310	275	245	220	200	180
	6.00	85.32	400	400	400	400	400	400	390	345	310	275	245	220	200
	6.50	94.50	400	400	400	400	400	400	400	385	345	305	275	245	220
	7.00	103.68	400	400	400	400	400	400	400	400	375	335	300	270	245
	7.25	108.27	400	400	400	400	400	400	400	400	395	350	315	285	255
	7.50	112.86	400	400	400	400	400	400	400	400	400	365	330	295	265
19 gage	4.50	66.15	400	400	400	400	395	350	305	270	240	215	195	175	160
	5.00	76.86	400	400	400	400	400	400	360	315	280	255	225	205	185
	5.50	87.57	400	400	400	400	400	400	400	360	320	290	260	235	210
	6.00	98.28	400	400	400	400	400	400	400	400	365	325	290	265	235
	6.50	108.99	400	400	400	400	400	400	400	400	400	360	325	290	265
	7.00	119.70	400	400	400	400	400	400	400	400	400	395	355	320	290
	7.25	125.06	400	400	400	400	400	400	400	400	400	400	370	335	305
	7.50	130.41	400	400	400	400	400	400	400	400	400	400	390	350	315
18 gage	4.50	73.29	400	400	400	400	400	390	345	305	270	245	220	195	180
	5.00	85.36	400	400	400	400	400	400	400	355	320	285	255	230	210
	5.50	97.43	400	400	400	400	400	400	400	400	365	325	295	265	240
	6.00	109.50	400	400	400	400	400	400	400	400	400	365	330	300	270
	6.50	121.57	400	400	400	400	400	400	400	400	400	400	365	330	300
	7.00	133.64	400	400	400	400	400	400	400	400	400	400	400	365	330
	7.25	139.67	400	400	400	400	400	400	400	400	400	400	400	380	345
	7.50	145.71	400	400	400	400	400	400	400	400	400	400	400	400	360
16 gage	4.50	73.29	400	400	400	400	400	390	345	305	270	245	220	195	180
	5.00	85.36	400	400	400	400	400	400	400	355	320	285	255	230	210
	5.50	97.43	400	400	400	400	400	400	400	400	365	325	295	265	240
	6.00	109.50	400	400	400	400	400	400	400	400	400	365	330	300	270
	6.50	121.57	400	400	400	400	400	400	400	400	400	400	365	330	300
	7.00	133.64	400	400	400	400	400	400	400	400	400	400	400	365	330
	7.25	139.67	400	400	400	400	400	400	400	400	400	400	400	380	345
	7.50	145.71	400	400	400	400	400	400	400	400	400	400	400	400	360
22 gage	4.50	35.55	380	320	270	230	200	170	150	130	115	100	90	80	70
	5.00	41.78	400	375	320	270	235	205	180	155	135	120	105	95	85
	5.50	48.19	400	400	370	315	270	235	205	180	160	140	125	110	100
	6.00	54.74	400	400	400	360	310	270	235	205	180	160	140	125	110
	6.50	61.40	400	400	400	400	350	305	265	235	205	180	160	140	125
	7.00	68.15	400	400	400	400	390	340	295	260	230	200	180	160	140
	7.25	71.55	400	400	400	400	400	355	310	275	240	215	190	170	150
	7.50	74.96	400	400	400	400	400	370	325	285	250	225	200	175	155
20 gage	4.50	42.94	400	390	330	285	245	215	190	165	145	130	115	100	90
	5.00	50.48	400	400	390	335	290	255	220	195	175	155	135	120	110
	5.50	58.25	400	400	400	390	335	295	255	225	200	180	160	140	125
	6.00	66.21	400	400	400	400	385	335	295	260	230	205	180	160	145
	6.50	74.31	400	400	400	400	400	375	330	290	260	230	205	185	165
	7.00	82.52	400	400	400	400	400	400	370	325	290	255	230	205	185
	7.25	86.66	400	400	400	400	400	400	390	340	305	270	240	215	195
	7.50	90.82	400	400	400	400	400	400	400	360	320	285	250	225	205
19 gage	4.50	49.32	400	400	385	330	290	250	220	195	170	155	135	120	110
	5.00	58.03	400	400	400	390	340	295	260	230	205	180	160	145	130
	5.50	67.03	400	400	400	400	395	345	300	265	235	210	190	170	150
	6.00	76.25	400	400	400	400	400	395	345	305	270	240	215	195	175
	6.50	85.63	400	400	400	400	400	400	390	345	305	270	245	220	195
	7.00	95.15	400	400	400	400	400	400	400	385	340	305	270	245	220
	7.25	99.96	400	400	400	400	400	400	400	400	360	320	285	255	230
	7.50	104.78	400	400	400	400	400	400	400	400	375	335	300	270	245
18 gage	4.50	54.96	400	400	400	375	325	285	250	220	195	175	155	140	125
	5.00	64.68	400	400	400	400	385	335	295	260	230	205	185	165	150
	5.50	74.74	400	400	400	400	400	390	340	300	270	240	215	195	175
	6.00	85.06	400	400	400	400	400	400	390	345	305	275	245	220	200
	6.50	95.58	400	400	400	400	400	400	400	390	345	310	275	250	225
	7.00	106.25	400	400	400	400	400	400	400	400	385	345	310	280	250
	7.25	111.64	400	400	400	400	400	400	400	400	400	365	325	295	265
	7.50	117.05	400	400	400	400	400	400	400	400	400	380	340	310	280
16 gage	4.50	54.96	400	400	400	375	325	285	250	220	195	175	155	140	125
	5.00	64.68	400	400	400	400	385	335	295	260	230	205	185	165	150
	5.50	74.74	400	400	400	400	400	390	340	300	270	240	215	195	175
	6.00	85.06	400	400	400	400	400	400	390	345	305	275	245	220	200
	6.50	95.58	400	400	400	400	400	400	400	390	345	310	275	250	225
	7.00	106.25	400	400	400	400	400	400	400	400	385	345	310	280	250
	7.25	111.64	400	400	400	400	400	400	400	400	400	365	325	295	265
	7.50	117.05	400	400	400	400	400	400	400	400	400	380	340	310	280

Studs at 1 foot o.c. No Studs

United Steel Deck