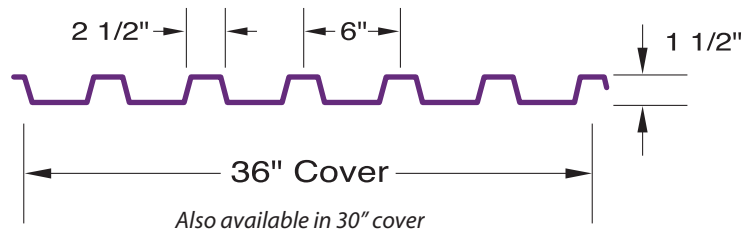
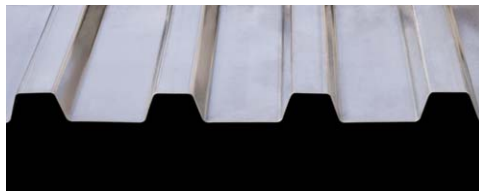


TYPE "BI" FORM DECK

(NORMAL WEIGHT CONCRETE - 145 PCF)



Type "BI" inverted form deck is used when the spans and loads exceed the capability of standard and heavy duty form decks.



Section Properties and Flexural Resistance ($F_y = 40$ ksi)

Gage	Design Thickness	Weight (psf)	A_s (In ²)	I_p (In ⁴)	I_n (In ⁴)	S_p (In ³)	S_n (In ³)	Allowable Moment M_p/Ω inch-lbs	Allowable Moment M_n/Ω inch-lbs	Allowable Shear V_n/Ω lbs
22	0.0295	1.61	0.485	0.1833	0.1500	0.1796	0.1744	4300	4177	2243
20	0.0358	2.04	0.588	0.2267	0.1933	0.2309	0.2228	5533	5337	2714
18	0.0474	2.70	0.778	0.3000	0.2833	0.3147	0.0307	7540	7270	3572
16	0.0598	3.20	0.982	0.3800	0.3800	0.3957	0.3900	9477	9340	4479

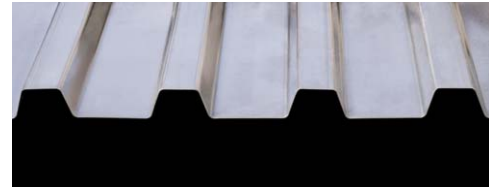
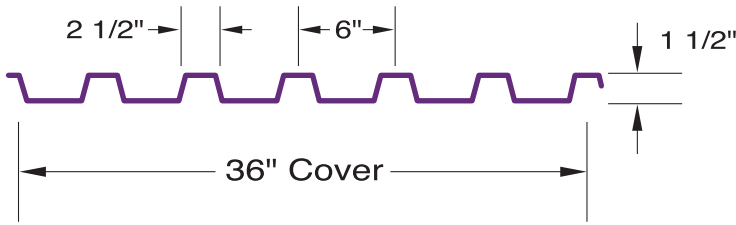
- Notes:
- All section properties and strengths are reported per foot of panel width.
 - All section properties and ASD flexural strengths are calculated in accordance with ANSI/SDI C-2011, Section 2.4.A.1; p = Property in positive bending; n = Property in negative bending.
 - Moments of Inertia are calculated at 0.60F_y.

Slab Thickness	Gage	Allowable Superimposed Load (ASD) Clear Span (ft. - 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"
3-1/2" (t=2.00) 36 PSF	22	378	308	254	213	180	153	131	113	98	85	74	65	57
	20	400	370	306	257	218	186	160	139	121	106	93	82	72
	18	400	371	308	258	219	187	161	140	122	107	94	82	73
	16	400	360	298	250	212	181	156	135	117	103	90	79	70
4" (t=2.50) 44 PSF	22	400	390	322	270	228	194	167	144	125	109	95	83	73
	20	400	400	388	326	277	237	204	177	154	135	119	105	92
	18	400	400	392	329	279	239	206	179	156	137	120	106	93
	16	400	400	380	319	271	232	200	173	151	132	116	102	90
4-1/2" (t=3.00) 50 PSF	22	400	400	395	331	280	239	206	178	155	135	118	104	91
	20	400	400	400	400	340	292	252	219	191	168	148	130	116
	18	400	400	400	400	345	295	255	222	194	170	150	132	117
	16	400	400	400	395	335	287	248	215	188	165	145	128	113
5" (t=3.50) 56 PSF	22	400	400	400	395	335	286	246	213	186	162	142	125	110
	20	400	400	400	400	400	349	301	262	229	201	178	157	140
	18	400	400	400	400	400	354	306	266	233	205	181	160	142
	16	400	400	400	400	400	345	298	260	227	199	176	156	138
5-1/2" (t=4.00) 62 PSF	22	400	400	400	400	390	334	288	250	218	190	167	147	130
	20	400	400	400	400	400	400	352	306	268	236	209	185	164
	18	400	400	400	400	400	400	359	312	274	241	213	189	168
	16	400	400	400	400	400	400	350	305	267	235	208	184	163
6" (t=4.50) 68 PSF	22	400	400	400	400	400	382	330	286	250	219	193	170	150
	20	400	400	400	400	400	400	400	352	308	271	240	213	189
	18	400	400	400	400	400	400	400	359	315	277	245	218	194
	16	400	400	400	400	400	400	400	352	308	271	240	213	190

- Notes:
- All construction load spans are calculated using loads and load combinations in accordance with ANSI/SDI C-2011, Section 2.4.A. The 20 psf uniform load is the minimum required construction load. Specific construction operations may require greater construction loads.
 - Bending Moment and Deflection formulae are in accordance with ANSI/SDI C-2011, Appendix A.



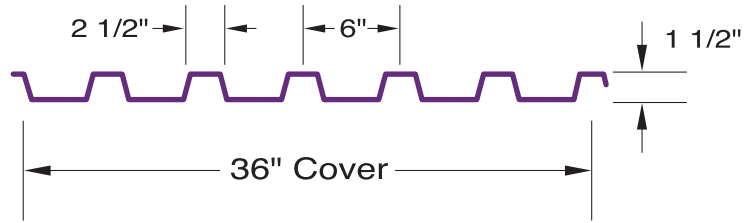
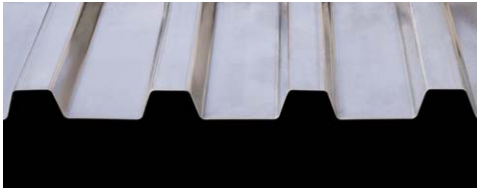
Type "BI" inverted form deck is used when the spans and loads exceed the capability of standard and heavy duty form decks.



Slab Thickness	Gage	Allowable Superimposed Load (ASD)												
		Clear Span (ft. - 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"
3-1/2" (t=2.00) 30 PSF	22	359	293	243	203	172	147	127	110	95	83	73	64	56
	20	400	349	290	244	207	177	153	133	116	102	90	79	70
	18	400	348	289	243	206	177	153	133	116	102	90	79	70
	16	400	335	278	233	198	170	146	127	111	97	86	75	67
4" (t=2.50) 34 PSF	22	400	375	311	261	222	190	164	142	124	109	96	84	75
	20	400	400	371	313	266	229	198	172	151	133	117	104	93
	18	400	400	372	313	266	229	198	172	151	133	117	104	93
	16	400	400	358	301	256	220	190	166	145	128	113	100	89
4-1/2" (t=3.00) 39 PSF	22	400	400	382	321	273	234	202	176	154	135	119	105	93
	20	400	400	400	386	328	282	245	213	187	165	146	130	116
	18	400	400	400	387	330	284	246	214	188	166	147	130	116
	16	400	400	400	374	319	274	237	207	181	160	141	125	112
5" (t=3.50) 43 PSF	22	400	400	400	385	327	281	243	212	185	163	144	128	113
	20	400	400	400	400	394	339	294	257	226	199	177	157	140
	18	400	400	400	400	397	342	296	259	227	201	178	159	142
	16	400	400	400	400	385	331	287	251	220	194	172	153	137
5-1/2" (t=4.00) 48 PSF	22	400	400	400	400	382	328	284	248	217	191	169	150	133
	20	400	400	400	400	400	397	344	301	265	234	207	185	165
	18	400	400	400	400	400	400	348	304	268	236	210	187	167
	16	400	400	400	400	400	390	338	296	260	229	204	181	162
6" (t=4.50) 52 PSF	22	400	400	400	400	400	377	327	285	250	221	195	173	155
	20	400	400	400	400	400	400	396	347	305	270	240	214	191
	18	400	400	400	400	400	400	400	352	309	274	243	217	194
	16	400	400	400	400	400	400	392	342	301	266	237	211	189

- Notes:
1. All construction load spans are calculated using loads and load combinations in accordance with ANSI/SDI C-2011, Section 2.4.A. The 20 psf uniform load is the minimum required construction load. Specific construction operations may require greater construction loads.
 2. Bending Moment and Deflection formulae are in accordance with ANSI/SDI C-2011, Appendix A.

Type "BI" inverted form deck is used when the spans and loads exceed the capability of standard and heavy duty form decks.



Construction Span Table ($F_y = 40\text{ksi}$) - 20 psf Construction Load

Normal Weight Concrete (145 pcf)

Lightweight Concrete (115 pcf)

Total Slab Depth	Gage	SDI Maximum Unshored Clear Span			Cantilever Span
		1 span	2 span	3 span	
3-1/2" (t=2.00) 36 PSF	22	5'-8"	6'-8"	6'-8"	1'-11"
	20	6'-9"	7'-11"	8'-0"	2'-4"
	18	8'-4"	9'-4"	9'-7"	3'-0"
	16	9'-9"	10'-7"	10'-11"	3'-7"
4" (t=2.50) 44 PSF	22	5'-4"	6'-3"	6'-4"	1'-11"
	20	6'-4"	7'-5"	7'-6"	2'-3"
	18	7'-10"	8'-8"	9'-0"	2'-10"
	16	9'-1"	9'-10"	10'-2"	3'-5"
4-1/2" (t=3.00) 50 PSF	22	5'-2"	6'-0"	6'-1"	1'-9"
	20	6'-1"	7'-2"	7'-2"	2'-2"
	18	7'-6"	8'-4"	8'-7"	2'-9"
	16	8'-8"	9'-5"	9'-9"	3'-4"
5" (t=3.50) 56 PSF	22	5'-0"	5'-10"	5'-10"	1'-9"
	20	5'-10"	6'-10"	6'-11"	2'-1"
	18	7'-2"	8'-0"	8'-3"	2'-8"
	16	8'-3"	9'-1"	9'-4"	3'-3"
5-1/2" (t=4.00) 62 PSF	22	4'-10"	5'-7"	5'-8"	1'-9"
	20	5'-8"	6'-7"	6'-8"	2'-1"
	18	6'-11"	7'-8"	7'-11"	2'-7"
	16	8'-0"	8'-9"	9'-0"	3'-2"
6" (t=4.50) 68 PSF	22	4'-8"	5'-5"	5'-6"	1'-8"
	20	5'-6"	6'-4"	6'-5"	2'-0"
	18	6'-8"	7'-5"	7'-8"	2'-7"
	16	7'-8"	8'-5"	8'-8"	3'-1"
7" (t=5.50) 80 PSF	22	4'-5"	5'-2"	5'-2"	1'-7"
	20	5'-2"	6'-0"	6'-1"	1'-11"
	18	6'-3"	7'-0"	7'-2"	2'-5"
	16	7'-2"	7'-11"	8'-2"	2'-11"

Total Slab Depth	Gage	SDI Maximum Unshored Clear Span			Cantilever Span
		1 span	2 span	3 span	
3-1/2" (t=2.00) 30 PSF	22	6'-0"	7'-1"	7'-1"	1'-11"
	20	7'-2"	8'-5"	8'-5"	2'-5"
	18	8'-11"	9'-10"	10'-2"	3'-1"
	16	10'-4"	11'-2"	11'-6"	3'-9"
4" (t=2.50) 34 PSF	22	5'-9"	6'-10"	6'-10"	1'-11"
	20	6'-11"	8'-1"	8'-2"	2'-4"
	18	8'-6"	9'-6"	9'-10"	3'-0"
	16	9'-11"	10'-9"	11'-1"	3'-8"
4-1/2" (t=3.00) 39 PSF	22	5'-7"	6'-6"	6'-7"	1'-10"
	20	6'-7"	7'-9"	7'-9"	2'-3"
	18	8'-2"	9'-1"	9'-4"	2'-11"
	16	9'-5"	10'-3"	10'-7"	3'-7"
5" (t=3.50) 43 PSF	22	5'-5"	6'-4"	6'-4"	1'-11"
	20	6'-5"	7'-6"	7'-6"	2'-4"
	18	7'-10"	8'-9"	9'-1"	3'-0"
	16	9'-2"	9'-11"	10'-3"	3'-6"
5-1/2" (t=4.00) 44 PSF	22	5'-3"	6'-1"	6'-2"	1'-10"
	20	6'-2"	7'-3"	7'-3"	2'-2"
	18	7'-7"	8'-5"	8'-9"	2'-10"
	16	8'-9"	9'-7"	9'-11"	3'-4"
6" (t=4.50) 52 PSF	22	5'-1"	5'-11"	6'-0"	1'-9"
	20	6'-0"	7'-0"	7'-1"	2'-2"
	18	7'-4"	8'-2"	8'-6"	2'-9"
	16	8'-6"	9'-4"	9'-7"	3'-4"
7" (t=5.50) 61 PSF	22	4'-10"	5'-8"	5'-8"	1'-9"
	20	5'-8"	6'-8"	6'-8"	2'-1"
	18	6'-11"	7'-9"	8'-0"	2'-8"
	16	8'-0"	8'-9"	9'-1"	3'-2"

Minimum exterior bearing length required is 1.50 inches.
Minimum interior bearing length required is 3.00 inches.

- Notes:
1. Load tables are calculated using Section Properties based on the steel design thickness shown in the Steel Deck Institute (SDI) design manual.
 2. Span length assumes clear spans. Center-to-center spacing of supports can be used for design as a conservative assumption.

