ICC-ES Evaluation Report

ESR-5364

Issued *February 2024*

Subject to renewal February 2025

This report also contains:

- LABC Supplement

- CBC Supplement

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DIVISION: 05 00 00 – METALS **Section: 05 31 00 – Steel Decking** **Section: 05 31 13 – Steel Floor Decking** **Section: 05 31 23 – Steel Roof Decking**	**REPORT HOLDER: METROLL**	**EVALUATION SUBJECT: B-DECK**	

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021 *International Building Code*® (IBC)

Property evaluated:

- Structural

For evaluation for compliance with codes adopted by *Los Angeles Department of Building and Safety* (LADBS), see ESR-5364 LABC Supplement.

2.0 USES

B-Deck is used as roof and floor decks to support code-required vertical loads, and as horizontal diaphragms to resist lateral loads due to wind and seismic forces.

3.0 DESCRIPTION

3.1 Steel Decks:

B-Deck is cold-rolled from steel sheets complying with ASTM A653 SS Grade 40 or 50 with a G60 or G90 galvanized coating. The deck is available in widths of 36 inches (914 mm) and four thicknesses: 22, 20, 18 and 16 gauges, for which the design base metal thicknesses are 0.0295 inch (0.75 mm), 0.0358 inch (0.91 mm), 0.0474 inch (1.2 mm), and 0.0598 (1.52 mm) respectively.

The B-decks names have a four part identification code that indicates the depth (inches), the surface type (smooth or embossed), the seam type (interlock or nestable) and the yield strength (ksi). See Figure 1 for steel deck profiles with or without concrete fill, as applicable.

3.2 Concrete fill:

Concrete must be in accordance with the IBC and must have a minimum 28-day compressive strength of 3,000 psi (20.7 MPa). Normal weight concrete fill must be 145 pcf (2,323 kg/m^3).

3.3 Connections:

Weld connections to steel supports and steel deck side laps must be in accordance with AISI S100, AISI S310 and AWS D1.3 as applicable.

4.0 DESIGN AND INSTALLATION

4.1 Design:

The design values included in the tables of this evaluation report have been determined in accordance with the North American Specification for Design of Cold-formed Streel Structural Members (AISI S100-16 w/S1-18 and S2-20 and AISI S310-20 w/S1-22) and the American National Standard Institute/Steel Deck Institute (ANSI-SDI-C 2017), as required by IBC Section 2210.

Section properties of B-Deck are provided in Table 1. Web crippling capacities of B-Deck to resist support reactions and concentrated loads are provided in Table 2. Allowable uniform vertical loads are provided in Table 3. Maximum unshored clear span and allowable superimposed loads of B-deck with concrete fill are provided in Tables 4 and 5. Allowable diaphragm shear values are provided in Tables 6.

4.2 Installation:

B-Deck must be installed at locations in accordance with the plans and specifications approved by the code official. The steel deck panels must be installed in accordance with this evaluation report and the Metroll published installation guidelines and instructions. If there is a conflict between the Metroll published installation guidelines and instructions and this report, this report governs.

5.0 CONDITIONS OF USE

The B-Deck described in this report comply with, or is a suitable alternative to what is specified in, the codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The base metal thickness for steel deck panels delivered to the jobsite must be at least 95 percent of the base (design) metal thickness.

5.2 Special inspection must be provided in accordance with IBC Chapter 17.

5.3 The construction documents prepared or reviewed by a registered design professional, where required by the statutes of the jurisdiction in which the project is to be constructed, specifying the B-Deck, must indicate compliance with this evaluation report and applicable codes and must be submitted to the code official for approval.

5.4 The minimum loads and deflection limits of IBC Chapter 16 in addition to the construction loads required by the reference in IBC 2210.1.1 must be considered by the registered design professional, as applicable.

5.5 When the steel deck panels are used as roof decks, the panels must be covered with an approved code-complying roof covering.

5.6 Concrete-filled sections must not be used to support loads that are predominantly vibratory, such as those for operation of heavy machinery, reciprocating motors and moving loads.

5.7 Fasteners used in connections are outside the scope of this report.

5.8 The B-Deck is fabricated under an approved quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Steel Deck Roof and Floor Systems (AC43), dated August 2022.

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-5364) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.

7.2 In addition, the B-Deck is identified by the label in a bundle, with the following information: Customer's name, name of product manufactured, material gage and grade, product specifications (length, profile, finish), number of pieces in the bundle and a bundle number.

7.3 The report holder's contact information is the following:

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TABLE 1—SECTION PROPERTIES (PER FOOT OF WIDTH)

Deck Panel	Material Properties					Gross Section Properties					Effective Section Properties for Bending at F_y					Section Properties for Deflection at Service Load		
	Gage	Base metal Thickness[1]	Weight	Yield Strength	Tensile Strength	Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus	Radius of Gyration	Area	Section Modulus Bottom Fiber	Distance to N.A. from Bottom	Section Modulus Top Fiber	Distance to N.A. from Top	Moment of Inertia	Uniform Load	
																	Single span	Multi Span
		t	w	F_y	F_u	A_g	I_g	y_b	$S_{g,b}$	r	A_e	$S_{e,b}$	y_b	$S_{e,t}$	y_t	I_{eff+}	$I_d = I_{eff+}$	$I_d = (I_g+2I_{eff+})/3$
		(in)	(psf)	(ksi)	(ksi)	(in^2/ft)	(in^4/ft)	(in)	(in^3/ft)	(in)	(in^2/ft)	(in^3/ft)	(in)	(in^3/ft)	(in)	(in^4/ft)	(in^4/ft)	(in^4/ft)
1.5SD-IS-40	22	0.0295	1.7	40	55	0.504	0.190	0.921	0.208	0.617	0.504	0.170	0.921	0.258	0.605	0.157	0.157	0.168
	20	0.0358	2.1	40	55	0.612	0.233	0.924	0.252	0.617	0.612	0.220	0.924	0.335	0.608	0.203	0.203	0.213
	18	0.0474	2.8	40	55	0.810	0.307	0.930	0.331	0.617	0.810	0.323	0.93	0.490	0.614	0.300	0.300	0.302
	16	0.0598	3.5	40	55	1.021	0.390	0.936	0.415	0.617	1.021	0.415	0.936	0.627	0.62	0.390	0.390	0.390
1.5SD-IS-50	22	0.0295	1.7	50	65	0.504	0.190	0.921	0.208	0.617	0.504	0.162	0.921	0.246	0.605	0.150	0.150	0.163
	20	0.0358	2.1	50	65	0.612	0.233	0.924	0.252	0.617	0.612	0.210	0.924	0.319	0.608	0.193	0.193	0.207
	18	0.0474	2.8	50	65	0.810	0.307	0.930	0.331	0.617	0.810	0.308	0.93	0.467	0.614	0.287	0.287	0.293
	16	0.0598	3.5	50	65	1.021	0.390	0.936	0.415	0.617	1.021	0.415	0.936	0.627	0.62	0.390	0.390	0.390
1.5SD-NS-40	22	0.0295	1.7	40	55	0.498	0.197	0.915	0.215	0.628	0.498	0.170	0.915	0.255	0.611	0.157	0.157	0.170
	20	0.0358	2.1	40	55	0.605	0.237	0.918	0.260	0.628	0.605	0.221	0.918	0.331	0.614	0.203	0.203	0.214
	18	0.0474	2.7	40	55	0.801	0.317	0.924	0.342	0.628	0.801	0.325	0.924	0.484	0.62	0.300	0.300	0.306
	16	0.0598	3.4	40	55	1.010	0.400	0.930	0.428	0.628	1.010	0.428	0.93	0.636	0.626	0.400	0.400	0.400
1.5SD-NS-50	22	0.0295	1.7	50	65	0.498	0.197	0.915	0.215	0.628	0.498	0.162	0.915	0.243	0.611	0.150	0.150	0.166
	20	0.0358	2.1	50	65	0.605	0.237	0.918	0.260	0.628	0.605	0.211	0.918	0.315	0.614	0.193	0.193	0.208
	18	0.0474	2.7	50	65	0.801	0.317	0.924	0.342	0.628	0.801	0.309	0.924	0.461	0.62	0.287	0.287	0.297
	16	0.0598	3.4	50	65	1.010	0.400	0.930	0.428	0.628	1.010	0.426	0.93	0.632	0.626	0.397	0.397	0.398
1.5ED-IS-40	22	0.0295	1.7	40	55	0.504	0.190	0.921	0.208	0.617	0.504	0.170	0.921	0.258	0.605	0.157	0.157	0.168
	20	0.0358	2.1	40	55	0.612	0.233	0.924	0.252	0.617	0.612	0.220	0.924	0.335	0.608	0.203	0.203	0.213
	18	0.0474	2.8	40	55	0.810	0.307	0.930	0.331	0.617	0.810	0.323	0.93	0.490	0.614	0.300	0.300	0.302
	16	0.0598	3.5	40	55	1.021	0.390	0.936	0.415	0.617	1.021	0.415	0.936	0.627	0.620	0.390	0.390	0.390
1.5ED-IS-50	22	0.0295	1.7	50	65	0.504	0.190	0.921	0.208	0.617	0.504	0.162	0.921	0.246	0.605	0.150	0.150	0.163
	20	0.0358	2.1	50	65	0.612	0.233	0.924	0.252	0.617	0.612	0.210	0.924	0.319	0.608	0.193	0.193	0.207
	18	0.0474	2.8	50	65	0.810	0.307	0.930	0.331	0.617	0.810	0.308	0.93	0.467	0.614	0.287	0.287	0.293
	16	0.0598	3.5	50	65	1.021	0.390	0.936	0.415	0.617	1.021	0.415	0.936	0.627	0.620	0.390	0.390	0.390

For **SI** Units: 1 inch = 25.4 mm; 1 ksi = 6.89 Mpa; 1 psf = 47.88 N/m^2.

[1]The uncoated base-metal thickness is the design thickness of the deck panel.
[2]Effective properties are based on yield strength (F_y).

Gage (design base metal thickness)
A_e – Effective cross-sectional area.
A_g – Gross cross-sectional area.
F_u – Tensile strength.
F_y – Yield strength.
r – Radius of gyration.
t – Base metal thickness.
y_b – Distance to neutral axis from bottom.
y_t – Distance to neutral axis from top.
w – Deck self-weight
I_d – Moment of inertia for deflection due to uniform load.
I_{eff+} – Moment of inertia, normal position.
I_g – Gross moment of inertia based on gross properties.
$S_{e,b}$ – Effective section modulus for the bottom fiber.
$S_{e,t}$ – Effective section modulus for the top fiber.
$S_{g,b}$ – Gross section modulus for the bottom fiber.

TABLE 2—ASD ALLOWABLE REACTIONS AT SUPPORTS BASED ON WEB CRIPPLING (lbs. / ft width)[1,2]

Deck Panel	Gage	Location	Bearing Length							
			One Flange Loading				Two Flange Loading			
			2”	2.5”	3”	3.5”	2”	2.5”	3”	3.5”
1.5SD-IS-40	22	End	741	800	853	902	765	814	857	898
		Interior	1094	1169	1238	1300	1346	1447	1538	1621
	20	End	1054	1135	1208	1275	1153	1222	1285	1343
		Interior	1579	1683	1778	1865	1963	2105	2233	2350
	18	End	1752	1880	1996	2102	2065	2181	2286	2382
		Interior	2681	2847	2998	3136	3374	3603	3811	4002
	16	End	2668	2854	3023	3178	3321	3497	3655	3801
		Interior	4151	4394	4614	4816	5262	5603	5911	6194
1.5SD-IS-50	22	End	927	1000	1067	1128	957	1017	1072	1122
		Interior	1368	1462	1547	1625	1683	1808	1922	2027
	20	End	1317	1418	1510	1594	1441	1528	1606	1679
		Interior	1974	2104	2222	2331	2454	2631	2791	2938
	18	End	2190	2350	2495	2628	2581	2726	2857	2978
		Interior	3352	3560	3747	3920	4217	4504	4764	5003
	16	End	3336	3568	3779	3972	4152	4371	4569	4752
		Interior	5189	5493	5768	6020	6578	7004	7389	7743
1.5SD-NS-40	22	End	741	800	853	902	765	814	857	898
		Interior	1094	1169	1238	1300	1346	1447	1538	1621
	20	End	1054	1135	1208	1275	1153	1222	1285	1343
		Interior	1579	1683	1778	1865	1963	2105	2233	2350
	18	End	1752	1880	1996	2102	2065	2181	2286	2382
		Interior	2681	2847	2998	3136	3374	3603	3811	4002
	16	End	2668	2854	3023	3178	3321	3497	3655	3801
		Interior	4151	4394	4614	4816	5262	5603	5911	6194
1.5SD-NS-50	22	End	927	1000	1067	1128	957	1017	1072	1122
		Interior	1368	1462	1547	1625	1683	1808	1922	2027
	20	End	1317	1418	1510	1594	1441	1528	1606	1679
		Interior	1974	2104	2222	2331	2454	2631	2791	2938
	18	End	2190	2350	2495	2628	2581	2726	2857	2978
		Interior	3352	3560	3747	3920	4217	4504	4764	5003
	16	End	3336	3568	3779	3972	4152	4371	4569	4752
		Interior	5189	5493	5768	6020	6578	7004	7389	7743
1.5ED-IS-40	22	End	741	800	853	902	765	814	857	898
		Interior	1094	1169	1238	1300	1346	1447	1538	1621
	20	End	1054	1135	1208	1275	1153	1222	1285	1343
		Interior	1579	1683	1778	1865	1963	2105	2233	2350
	18	End	1752	1880	1996	2102	2065	2181	2286	2382
		Interior	2681	2847	2998	3136	3374	3603	3811	4002
	16	End	2668	2854	3023	3178	3321	3497	3655	3801
		Interior	4151	4394	4614	4816	5262	5603	5911	6194
1.5ED-IS-50	22	End	927	1000	1067	1128	957	1017	1072	1122
		Interior	1368	1462	1547	1625	1683	1808	1922	2027
	20	End	1317	1418	1510	1594	1441	1528	1606	1679
		Interior	1974	2104	2222	2331	2454	2631	2791	2938
	18	End	2190	2350	2495	2628	2581	2726	2857	2978
		Interior	3352	3560	3747	3920	4217	4504	4764	5003
	16	End	3336	3568	3779	3972	4152	4371	4569	4752
		Interior	5189	5493	5768	6020	6578	7004	7389	7743

For **SI** Units: 1 inch = 25.4 mm; 1 ft. = 305 mm; 1 lb. = 4.45 N

[1]Flange is attached to support.
[2]Linear foot is across width of panel.

TABLE 3—ASD TOTAL ALLOWABLE UNIFORM LOADS BASED ON BENDING STRESS AND DEFLECTIONS (psf)

1.5SD-IS-40											
Gage	No. of Spans	Criteria[1,2,3,4]	Panel Span (Support Spacing)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	f_b / Ω_b	169	108	75	55	42	33	27	22	18
		L/360	107	55	32	20	13	9	7	5	4
		L/240	160	82	48	30	20	14	10	8	6
		L/180	---	---	63	40	27	19	14	10	8
	Double	f_b / Ω_b	169	108	75	55	42	33	27	22	18
		L/360	---	---	---	51	34	24	18	13	10
		L/240	---	---	---	---	---	---	26	20	15
		L/180	---	---	---	---	---	---	---	---	---
	Triple	f_b / Ω_b	211	135	94	69	52	41	33	27	23
		L/360	---	111	64	40	27	19	14	10	8
		L/240	---	---	---	61	41	28	21	16	12
		L/180	---	---	---	---	---	38	28	21	16
20	Single	f_b / Ω_b	219	140	97	71	54	43	35	29	24
		L/360	139	71	41	26	17	12	9	7	5
		L/240	208	107	62	39	26	18	13	10	8
		L/180	---	---	82	52	35	24	18	13	10
	Double	f_b / Ω_b	219	140	97	71	54	43	35	29	24
		L/360	---	---	---	65	44	31	22	17	13
		L/240	---	---	---	---	---	---	34	25	19
		L/180	---	---	---	---	---	---	---	---	---
	Triple	f_b / Ω_b	274	175	122	89	68	54	43	36	30
		L/360	---	141	81	51	34	24	18	13	10
		L/240	---	---	---	77	52	36	26	20	15
		L/180	---	---	---	---	---	48	35	26	20
18	Single	f_b / Ω_b	322	206	143	105	80	63	51	42	35
		L/360	205	105	61	38	26	18	13	10	8
		L/240	307	157	91	57	38	27	20	15	11
		L/180	---	---	121	76	51	36	26	20	15
	Double	f_b / Ω_b	322	206	143	105	80	63	51	42	35
		L/360	---	---	---	93	62	44	32	24	18
		L/240	---	---	---	---	---	---	48	36	28
		L/180	---	---	---	---	---	---	---	---	---
	Triple	f_b / Ω_b	403	258	179	131	100	79	64	53	44
		L/360	389	199	115	73	49	34	25	19	14
		L/240	---	---	173	109	73	51	37	28	22
		L/180	---	---	---	---	97	68	50	37	29
16	Single	f_b / Ω_b	414	265	184	135	103	81	66	54	46
		L/360	266	136	79	50	33	23	17	13	10
		L/240	399	205	118	75	50	35	26	19	15
		L/180	---	---	158	99	67	47	34	26	20
	Double	f_b / Ω_b	414	265	184	135	103	81	66	54	46
		L/360	---	---	---	120	80	56	41	31	24
		L/240	---	---	---	---	---	---	62	46	36
		L/180	---	---	---	---	---	---	---	---	---
	Triple	f_b / Ω_b	518	331	230	169	129	102	82	68	57
		L/360	502	257	149	94	63	44	32	24	19
		L/240	---	---	223	141	94	66	48	36	28
		L/180	---	---	---	---	126	88	64	48	37

For **SI** Units: 1 ft = 305 mm; 1 psf = 47.88 N/m^2.

[1] f_b / Ω_b = Allowable uniform load (including w) based on allowable flexural stress in deck.

[2] Symbol --- indicates that allowable uniform load based on deflection exceeds f_b / Ω_b.

[3] Ω_b = Safety factor for bending strength = 1.67.

[4] L/360, L/240, L/180 = Allowable uniform load (including w) which results in this deck deflection.

TABLE 3—ASD TOTAL ALLOWABLE UNIFORM LOADS BASED ON BENDING STRESS AND DEFLECTIONS (psf) (continued)

1.5SD-IS-50										
Gage	No. of Spans	Criteria[1,2,3,4]	Panel Span (Support Spacing)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	f_b / Ω_b	201	128	89	65	50	39	32	26	22
		L/360	102	52	30	19	13	9	7	5	4
		L/240	154	79	46	29	19	13	10	7	6
		L/180	---	105	61	38	26	18	13	10	8
	Double	f_b / Ω_b	201	128	89	65	50	39	32	26	22
		L/360	---	---	80	50	34	24	17	13	10
		L/240	---	---	---	---	---	35	26	19	15
		L/180	---	---	---	---	---	---	---	26	20
	Triple	f_b / Ω_b	251	161	111	82	62	49	40	33	27
		L/360	210	108	62	39	26	18	13	10	8
		L/240	---	---	94	59	39	28	20	15	12
		L/180	---	---	---	79	53	37	27	20	16
20	Single	f_b / Ω_b	261	167	116	85	65	51	41	34	29
		L/360	132	68	39	25	17	12	8	6	5
		L/240	198	101	59	37	25	17	13	10	7
		L/180	---	135	78	49	33	23	17	13	10
	Double	f_b / Ω_b	261	167	116	85	65	51	41	34	29
		L/360	---	---	101	63	42	30	22	16	13
		L/240	---	---	---	---	64	45	33	25	19
		L/180	---	---	---	---	---	---	---	33	25
	Triple	f_b / Ω_b	327	209	145	106	81	64	52	43	36
		L/360	266	136	79	50	33	23	17	13	10
		L/240	---	204	118	75	50	35	26	19	15
		L/180	---	---	---	99	67	47	34	26	20
18	Single	f_b / Ω_b	384	245	170	125	96	75	61	50	42
		L/360	196	100	58	37	24	17	13	9	7
		L/240	294	150	87	55	37	26	19	14	11
		L/180	---	200	116	73	49	34	25	19	15
	Double	f_b / Ω_b	384	245	170	125	96	75	61	50	42
		L/360	---	---	143	90	60	42	31	23	18
		L/240	---	---	---	---	90	64	46	35	27
		L/180	---	---	---	---	---	---	---	46	36
	Triple	f_b / Ω_b	480	307	213	156	120	94	76	63	53
		L/360	378	193	112	71	47	33	24	18	14
		L/240	---	290	168	106	71	50	36	27	21
		L/180	---	---	---	141	94	66	48	36	28
16	Single	f_b / Ω_b	518	331	230	169	129	102	82	68	57
		L/360	266	136	79	50	33	23	17	13	10
		L/240	399	205	118	75	50	35	26	19	15
		L/180	---	273	158	99	67	47	34	26	20
	Double	f_b / Ω_b	518	331	230	169	129	102	82	68	57
		L/360	---	328	190	120	80	56	41	31	24
		L/240	---	---	---	---	120	84	62	46	36
		L/180	---	---	---	---	---	---	---	62	48
	Triple	f_b / Ω_b	647	414	287	211	161	127	103	85	71
		L/360	502	257	149	94	63	44	32	24	19
		L/240	---	386	223	141	94	66	48	36	28
		L/180	---	---	---	188	126	88	64	48	37

For **SI** Units: 1 ft = 305 mm; 1 psf = 47.88 N/m^2.

[1] f_b / Ω_b = Allowable uniform load (including w) based on allowable flexural stress in deck.

[2] Symbol --- indicates that allowable uniform load based on deflection exceeds f_b / Ω_b.

[3] Ω_b = Safety factor for bending strength = 1.67.

[4] L/360, L/240, L/180 = Allowable uniform load (including w) which results in this deck deflection.

TABLE 3—ASD TOTAL ALLOWABLE UNIFORM LOADS BASED ON BENDING STRESS AND DEFLECTIONS (psf) (continued)

1.5SD-NS-40										
Gage	No. of Spans	Criteria[1,2,3,4]	Panel Span (Support Spacing)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	fb / Ωb	170	108	75	55	42	33	27	22	18
		L/360	107	55	32	20	13	9	7	5	4
		L/240	160	82	48	30	20	14	10	8	6
		L/180	---	---	63	40	27	19	14	10	8
	Double	fb / Ωb	170	108	75	55	42	33	27	22	18
		L/360	---	---	---	52	35	25	18	13	10
		L/240	---	---	---	---	---	---	27	20	16
		L/180	---	---	---	---	---	---	---	---	---
	Triple	fb / Ωb	212	136	94	69	53	41	34	28	23
		L/360	---	112	65	41	27	19	14	11	8
		L/240	---	---	---	61	41	29	21	16	12
		L/180	---	---	---	---	---	38	28	21	16
20	Single	fb / Ωb	220	141	98	72	55	43	35	29	24
		L/360	139	71	41	26	17	12	9	7	5
		L/240	208	107	62	39	26	18	13	10	8
		L/180	---	---	82	52	35	24	18	13	10
	Double	fb / Ωb	220	141	98	72	55	43	35	29	24
		L/360	---	---	---	66	44	31	23	17	13
		L/240	---	---	---	---	---	---	34	25	20
		L/180	---	---	---	---	---	---	---	---	---
	Triple	fb / Ωb	276	176	122	90	69	54	44	36	30
		L/360	---	141	82	52	35	24	18	13	10
		L/240	---	---	---	77	52	36	27	20	15
		L/180	---	---	---	---	---	49	35	27	20
18	Single	fb / Ωb	324	207	144	105	81	64	51	42	36
		L/360	205	105	61	38	26	18	13	10	8
		L/240	307	157	91	57	38	27	20	15	11
		L/180	---	---	121	76	51	36	26	20	15
	Double	fb / Ωb	324	207	144	105	81	64	51	42	36
		L/360	---	---	---	94	63	44	32	24	19
		L/240	---	---	---	---	---	---	48	36	28
		L/180	---	---	---	---	---	---	---	---	---
	Triple	fb / Ωb	405	259	180	132	101	80	64	53	45
		L/360	394	202	117	73	49	35	25	19	15
		L/240	---	---	175	110	74	52	38	28	22
		L/180	---	---	---	---	98	69	50	38	29
16	Single	fb / Ωb	427	273	189	139	106	84	68	56	47
		L/360	273	140	81	51	34	24	17	13	10
		L/240	410	210	121	76	51	36	26	20	15
		L/180	---	---	162	102	68	48	35	26	20
	Double	fb / Ωb	427	273	189	139	106	84	68	56	47
		L/360	---	---	---	123	82	58	42	32	24
		L/240	---	---	---	---	---	---	63	47	37
		L/180	---	---	---	---	---	---	---	---	---
	Triple	fb / Ωb	534	341	237	174	133	105	85	70	59
		L/360	515	264	153	96	64	45	33	25	19
		L/240	---	---	229	144	97	68	49	37	29
		L/180	---	---	---	---	129	90	66	50	38

For **SI** Units: 1 ft = 305 mm; 1 psf = 47.88 N/m^2.

[1] fb / Ωb = Allowable uniform load (including w) based on allowable flexural stress in deck.

[2] Symbol --- indicates that allowable uniform load based on deflection exceeds fb / Ωb.

[3] Ωb = Safety factor for bending strength = 1.67.

[4] L/360, L/240, L/180 = Allowable uniform load (including w) which results in this deck deflection.

TABLE 3—ASD TOTAL ALLOWABLE UNIFORM LOADS BASED ON BENDING STRESS AND DEFLECTIONS (psf) (continued)

1.5SD-NS-50										
Gage	No. of Spans	Criteria[1,2,3,4]	Panel Span (Support Spacing)								
			4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	fb / Ωb	202	129	89	66	50	39	32	26	22
		L/360	102	52	30	19	13	9	7	5	4
		L/240	154	79	46	29	19	13	10	7	6
		L/180	---	105	61	38	26	18	13	10	8
	Double	fb / Ωb	202	129	89	66	50	39	32	26	22
		L/360	---	---	81	51	34	24	17	13	10
		L/240	---	---	---	---	---	36	26	20	15
		L/180	---	---	---	---	---	---	---	---	20
	Triple	fb / Ωb	252	161	112	82	63	49	40	33	28
		L/360	213	109	63	40	27	19	14	10	8
		L/240	---	---	95	60	40	28	20	15	12
		L/180	---	---	---	80	53	37	27	21	16
20	Single	fb / Ωb	263	168	116	85	65	51	42	34	29
		L/360	132	68	39	25	17	12	8	6	5
		L/240	198	101	59	37	25	17	13	10	7
		L/180	---	135	78	49	33	23	17	13	10
	Double	fb / Ωb	263	168	116	85	65	51	42	34	29
		L/360	---	---	101	64	43	30	22	16	13
		L/240	---	---	---	---	64	45	33	25	19
		L/180	---	---	---	---	---	---	---	33	25
	Triple	fb / Ωb	329	210	146	107	82	64	52	43	36
		L/360	268	137	79	50	33	24	17	13	10
		L/240	---	206	119	75	50	35	26	19	15
		L/180	---	---	---	100	67	47	34	26	20
18	Single	fb / Ωb	385	246	171	126	96	76	61	51	42
		L/360	196	100	58	37	24	17	13	9	7
		L/240	294	150	87	55	37	26	19	14	11
		L/180	---	200	116	73	49	34	25	19	15
	Double	fb / Ωb	385	246	171	126	96	76	61	51	42
		L/360	---	---	145	91	61	43	31	23	18
		L/240	---	---	---	---	91	64	47	35	27
		L/180	---	---	---	---	---	---	---	47	36
	Triple	fb / Ωb	482	308	214	157	120	95	77	63	53
		L/360	382	196	113	71	48	34	24	18	14
		L/240	---	294	170	107	72	50	37	28	21
		L/180	---	---	---	143	96	67	49	37	28
16	Single	fb / Ωb	531	339	236	173	132	104	84	70	59
		L/360	271	139	80	51	34	24	17	13	10
		L/240	406	208	120	76	51	36	26	20	15
		L/180	---	277	161	101	68	48	35	26	20
	Double	fb / Ωb	531	339	236	173	132	104	84	70	59
		L/360	---	335	194	122	82	57	42	31	24
		L/240	---	---	---	---	123	86	63	47	36
		L/180	---	---	---	---	---	---	84	63	48
	Triple	fb / Ωb	663	424	295	216	165	131	106	87	73
		L/360	512	262	152	96	64	45	33	25	19
		L/240	---	394	228	143	96	67	49	37	28
		L/180	---	---	---	191	128	90	66	49	38

For **SI** Units: 1 ft = 305 mm; 1 psf = 47.88 N/m^2.

[1] f_b / Ω_b = Allowable uniform load (including w) based on allowable flexural stress in deck.

[2] Symbol --- indicates that allowable uniform load based on deflection exceeds f_b / Ω_b.

[3] Ω_b = Safety factor for bending strength = 1.67.

[4] L/360, L/240, L/180 = Allowable uniform load (including w) which results in this deck deflection.

TABLE 4—MAXIMUM UNSHORED CLEAR SPAN OF B-DECK WITH CONCRETE FILL[1,2,3,4,5] (ft – in)

1.5ED-IS-40			
Gage	**No. of Spans**		
	1	2	3
22	5’-5”	6’-4”	6’-5”
20	6’-6”	7’-7”	7’-9”
18	8’-4”	9’-5”	9’-9”
16	9’-7”	10’-8”	11’-0”
1.5ED-IS-50			
Gage	**No. of Spans**		
	1	2	3
22	6’-1”	7’-2”	7’-3”
20	7’-4”	8’-7”	8’-8”
18	8’-9”	10’-4”	10’-8”
16	9’-7”	11’-11”	11’-8”

For **SI** Units: 1 ft = 305 mm; 1 in = 25.4 mm.

[1] Deck supports dead load of concrete plus 20 psf uniform construction live load or a 150-lb/ft width of panel of concentrated construction live load for flexure.

[2] An additional 4 psf is included to account for ponding due to deck deflection between supporting members.

[3] A dead load deflection limit of L/180, not exceeding 0.75 in. is imposed.

[4] Normal weight concrete shall have a minimum 28-day compressive strength of 3,000 psi.

[5] Minimum bearing at end and interior supports shall be 2 in.

TABLE 5—ASD ALLOWABLE SUPERIMPOSED LOADS ON B-DECK WITH CONCRETE FILL[1,2,3] (psf)

1.5ED-IS-40										
Gage	**No. of Spans**	**Panel Span (Support Spacing)**								
		4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
22	1	400	268	154	104	72	50	34	23	14
	2	400	268	186	104	72	50	34	23	14
	3	400	268	186	104	72	50	34	23	14
20	1	400	340	236	141	100	72	52	37	26
	2	400	340	236	173	100	72	52	37	26
	3	400	340	236	173	100	72	52	37	26
18	1	400	400	332	244	187	114	86	65	47
	2	400	400	332	244	187	147	86	65	47
	3	400	400	332	244	187	147	86	65	47
16	1	400	400	400	323	247	195	120	82	55
	2	400	400	400	323	247	195	154	82	55
	3	400	400	400	323	247	195	154	82	55
1.5ED-IS-50										
Gage	**No. of Spans**	**Panel Span (Support Spacing)**								
		4’-0”	5’-0”	6’-0”	7’-0”	8’-0”	9’-0”	10’-0”	11’-0”	12’-0”
22	1	400	335	233	138	98	71	51	37	26
	2	400	335	233	171	98	71	51	37	26
	3	400	335	233	171	98	71	51	37	26
20	1	400	400	295	216	133	98	73	55	39
	2	400	400	295	216	166	98	73	55	39
	3	400	400	295	216	166	98	73	55	39
18	1	400	400	400	305	233	151	106	71	47
	2	400	400	400	305	233	184	139	71	47
	3	400	400	400	305	233	184	139	71	47
16	1	400	400	400	400	301	212	120	82	55
	2	400	400	400	400	301	212	154	116	55
	3	400	400	400	400	301	212	154	116	55

For **SI** Units: 1 ft = 305 mm; 1 in = 25.4 mm; 1 psf = 47.88 N/m2.

[1] Grey shading means that shoring at midspan of panel is required for that span.

[2] Calculations are based on ANSI-SDI-C-2017 and AISI S100-16.

[3] See Figure 1 steel deck profiles for additional information.

TABLE 6—ASD ALLOWABLE DIAPHRAGM SHEAR (plf)

1.5SD-IS-40										
GAGE	FASTENER LAYOUT[1]	SIDE LAP CONN. PER SPAN[2]	DECK SPAN[3,4] (FT.-IN.)							
			4'-0"		6'-0"		8'-0"		10'-0"	
			Wind	Seismic	Wind	Seismic	Wind	Seismic	Wind	Seismic
22	36/4	2	677	486	537	385	436	312	363	260
		4	806	578	703	503	578	414	463	331
		6	860	616	771	552	578	414	463	331
	36/5	2	825	591	633	453	504	361	413	296
		4	933	669	843	604	636	456	509	365
		6	933	669	849	608	636	456	509	365
	36/7	2	973	698	704	505	537	385	428	307
		4	1146	917	926	664	695	498	556	398
		6	1146	996	926	664	695	498	556	398
	36/9	2	1146	874	894	641	697	500	561	402
		4	1146	1080	1146	826	865	620	692	496
		6	1146	1146	1146	826	865	620	692	496
20	36/4	2	866	621	688	493	559	401	466	334
		4	1029	738	899	644	736	527	589	422
		6	1096	786	981	703	736	527	589	422
	36/5	2	1055	756	811	581	646	463	531	380
		4	1187	851	1079	773	810	580	648	464
		6	1187	851	1080	774	810	580	648	464
	36/7	2	1247	894	903	647	693	497	550	394
		4	1633	1174	1179	845	884	634	707	507
		6	1633	1267	1179	845	884	634	707	507
	36/9	2	1559	1117	1145	820	893	640	719	515
		4	1633	1381	1467	1052	1101	789	880	631
		6	1633	1553	1467	1052	1101	789	880	631
18	36/4	2	1162	832	936	671	767	550	643	461
		4	1363	977	1209	866	955	684	764	548
		6	1442	1033	1273	913	955	684	764	548
	36/5	2	1418	1016	1103	790	885	634	733	525
		4	1541	1104	1402	1005	1051	753	841	603
		6	1541	1104	1402	1005	1051	753	841	603
	36/7	2	1692	1213	1236	886	962	689	766	549
		4	2214	1587	1530	1097	1148	822	918	658
		6	2295	1645	1530	1097	1148	822	918	658
	36/9	2	2091	1499	1547	1109	1210	867	984	705
		4	2588	1855	1905	1365	1428	1024	1143	819
		6	2723	2047	1905	1365	1428	1024	1143	819
16	36/4	2	1474	1056	1203	862	994	712	837	600
		4	1710	1226	1536	1101	1179	845	943	676
		6	1797	1288	1572	1127	1179	845	943	676
	36/5	2	1805	1293	1419	1017	1146	821	952	682
		4	1902	1363	1730	1240	1298	930	1038	744
		6	1902	1363	1730	1240	1298	930	1038	744
	36/7	2	2173	1557	1601	1147	1250	896	1010	724
		4	2827	2026	1889	1354	1417	1015	1133	812
		6	2833	2031	1889	1354	1417	1015	1133	812
	36/9	2	2659	1906	1981	1420	1555	1115	1273	912
		4	3289	2357	2351	1685	1763	1264	1411	1011
		6	3527	2528	2351	1685	1763	1264	1411	1011

For **SI** Units: 1 ft = 305 mm; 1 in = 25.4 mm; 1 plf = 14.6 N/m.

[1]Fasteners at exterior and interior supports are comprised of 5/8" arc spot welds.
[2]Top arc seam side lap welds with 1.5" length.
[3]Total number of spans: 2.
[4]Edge support connections per span: 3.

TABLE 6—ASD ALLOWABLE DIAPHRAGM SHEAR (plf) (continued)

1.5SD-IS-50										
GAGE	FASTENER LAYOUT[1]	SIDE LAP CONN. PER SPAN[2]	DECK SPAN[3,4] (FT.-IN.)							
			4'-0"		6'-0"		8'-0"		10'-0"	
			Wind	Seismic	Wind	Seismic	Wind	Seismic	Wind	Seismic
22	36/4	2	744	533	589	422	478	342	398	285
		4	885	635	771	553	636	456	509	365
		6	945	677	848	608	636	456	509	365
	36/5	2	905	649	694	497	522	396	452	324
		4	1026	735	924	662	700	502	560	401
		6	1026	735	933	669	700	502	560	401
	36/7	2	1068	765	772	554	588	421	469	336
		4	1403	1006	1019	730	764	548	611	438
		6	1432	1095	1019	730	746	548	611	438
	36/9	2	1338	959	982	703	765	548	615	441
		4	1432	1185	1268	909	951	682	742	545
		6	1432	1334	1268	909	951	682	742	545
20	36/4	2	1000	717	787	564	636	456	529	379
		4	1197	858	1035	741	870	623	696	499
		6	1283	919	1159	831	870	623	696	499
	36/5	2	1217	872	927	665	736	528	599	429
		4	1403	1005	1237	886	957	686	766	549
		6	1403	1005	1276	915	957	686	766	549
	36/7	2	1429	1024	1030	738	784	562	622	446
		4	1879	1347	1393	998	1045	749	836	599
		6	2041	1498	1393	998	1045	749	836	599
	36/9	2	1802	1291	1317	944	1025	734	821	588
		4	2041	1593	1718	1232	1301	932	1000	746
		6	2041	1797	1734	1243	1301	932	1000	746
18	36/4	2	1342	962	1071	768	872	625	728	522
		4	1589	1139	1394	999	1129	809	903	647
		6	1689	1210	1505	1078	1129	809	903	647
	36/5	2	1636	1172	1261	904	1007	722	832	596
		4	1821	1305	1657	1187	1242	890	994	712
		6	1821	1305	1657	1187	1242	890	994	712
	36/7	2	1938	1389	1408	1009	1092	783	864	619
		4	2544	1823	1808	1296	1356	972	1085	778
		6	2712	1944	1808	1296	1356	972	1085	778
	36/9	2	2415	1731	1777	1274	1387	994	1122	804
		4	2987	2141	2251	1613	1688	1210	1351	968
		6	3354	2404	2251	1613	1688	1210	1351	968
16	36/4	2	1532	1098	1263	905	1049	752	887	636
		4	1764	1264	1598	1145	1204	863	963	690
		6	1846	1323	1605	1150	1204	863	963	690
	36/5	2	1881	1348	1491	1069	1209	867	1008	722
		4	1942	1392	1767	1266	1325	950	1060	760
		6	1942	1392	1767	1266	1325	950	1060	760
	36/7	2	2280	1634	1690	1211	1324	949	1077	772
		4	2893	2074	1929	1382	1447	1037	1157	829
		6	2893	2074	1929	1382	1447	1037	1157	829
	36/9	2	2773	1987	2077	1488	1634	1171	1339	960
		4	3425	2454	2401	1721	1801	1291	1441	1032
		6	3602	2581	2401	1721	1801	1291	1441	1032

For **SI** Units: 1 ft = 305 mm; 1 in = 25.4 mm; 1 plf = 14.6 N/m.

[1]Fasteners at exterior and interior supports are comprised of 5/8" arc spot welds.
[2]Top arc seam side lap welds with 1.5" length.
[3]Total number of spans: 2.
[4]Edge support connections per span: 3.

TABLE 6—ASD ALLOWABLE DIAPHRAGM SHEAR (plf) (continued)

1.5SD-NS-40										
GAGE	FASTENER LAYOUT[1]	SIDE LAP CONN. PER SPAN[2]	DECK SPAN[3,4] (FT.-IN.)							
			4'-0"		6'-0"		8'-0"		10'-0"	
			Wind	Seismic	Wind	Seismic	Wind	Seismic	Wind	Seismic
22	36/4	2	580	416	436	313	336	241	268	192
		4	714	512	580	416	477	342	401	288
		6	789	566	678	486	578	414	463	331
	36/5	2	706	506	519	372	394	283	315	226
		4	874	626	684	490	550	394	457	327
		6	933	669	809	580	636	456	509	365
	36/7	2	807	579	563	404	414	297	330	237
		4	1048	751	769	551	599	429	479	343
		6	1146	882	926	664	695	498	556	398
	36/9	2	1068	766	765	549	579	415	463	332
		4	1146	923	956	685	750	537	611	438
		6	1146	1046	1124	805	865	620	692	496
20	36/4	2	725	520	543	389	418	300	331	237
		4	895	641	721	517	590	423	495	355
		6	992	711	845	606	719	515	589	422
	36/5	2	883	633	647	464	493	353	390	279
		4	1092	783	849	608	681	488	564	404
		6	1187	851	1006	721	810	580	648	464
	36/7	2	1008	722	703	504	517	371	410	294
		4	1303	934	952	682	740	530	588	421
		6	1531	1097	1164	834	884	634	707	507
	36/9	2	1342	962	959	688	728	522	578	414
		4	1610	1154	1191	854	932	668	756	542
		6	1633	1307	1396	1000	1101	789	880	631
18	36/4	2	941	674	704	505	550	394	431	309
		4	1161	832	935	670	766	549	642	460
		6	1288	923	1097	786	933	668	764	548
	36/5	2	1146	821	840	602	646	463	508	364
		4	1418	1016	1102	790	884	634	732	525
		6	1541	1104	1306	936	1051	753	841	603
	36/7	2	1308	938	919	659	678	486	534	383
		4	1691	1212	1235	885	961	689	765	548
		6	1987	1424	1511	1083	1148	822	918	658
	36/9	2	1742	1248	1245	892	951	682	752	539
		4	2090	1498	1546	1108	1210	867	983	705
		6	2368	1697	1812	1299	1428	1024	1143	819
16	36/4	2	1162	832	870	623	684	490	538	386
		4	1433	10247	1155	828	946	678	793	568
		6	1589	1139	1354	971	1152	825	943	676
	36/5	2	1415	1014	1037	743	804	576	633	454
		4	1750	1254	1360	975	1091	782	904	648
		6	1902	1363	1612	1155	1298	930	1038	744
	36/7	2	1615	1157	1135	813	843	604	665	477
		4	2088	1496	1525	1093	1186	850	950	681
		6	2454	1758	1865	1337	1417	1015	1133	812
	36/9	2	2150	1541	1537	1102	1180	846	935	670
		4	2580	1849	1909	1368	1493	1070	1220	874
		6	2923	2095	2237	1603	1763	1264	1411	1011

For **SI** Units: 1 ft = 305 mm; 1 in = 25.4 mm; 1 plf = 14.6 N/m.

[1]Fasteners at exterior and interior supports are comprised of 5/8" arc spot welds.
[2]Side lap welds are 5/8" arc spot welds sheet-to-sheet.
[3]Total number of spans: 2.
[4]Edge support connections per span: 3.

TABLE 6—ASD ALLOWABLE DIAPHRAGM SHEAR (plf) (continued)

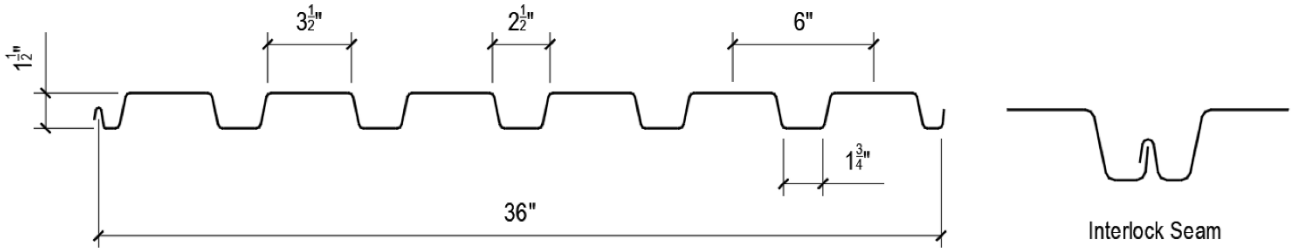
1.5SD-NS-50										
GAGE	FASTENER LAYOUT[1]	SIDE LAP CONN. PER SPAN[2]	DECK SPAN[3,4] (FT.-IN.)							
			4'-0"		6'-0"		8'-0"		10'-0"	
			Wind	Seismic	Wind	Seismic	Wind	Seismic	Wind	Seismic
22	36/4	2	467	494	354	385	276	307	220	467
		4	574	657	471	544	390	459	329	574
		6	632	765	548	636	456	509	365	632
	36/5	2	568	586	420	449	322	358	257	568
		4	704	775	555	627	449	522	374	704
		6	735	916	656	700	502	560	401	735
	36/7	2	652	640	458	470	337	375	269	652
		4	850	876	628	685	491	551	395	850
		6	997	1019	730	764	548	611	438	997
	36/9	2	856	858	615	652	467	521	373	856
		4	1037	1081	775	850	609	696	499	1037
		6	1177	1268	909	951	682	761	545	1177
20	36/4	2	614	641	460	495	354	391	280	614
		4	758	852	610	698	500	585	419	758
		6	840	999	716	849	609	696	499	840
	36/5	2	748	765	548	582	417	461	330	748
		4	925	1003	719	805	577	667	478	925
		6	1005	1189	852	957	686	766	549	1005
	36/7	2	854	831	595	611	438	484	347	854
		4	1103	1125	806	875	627	695	498	1103
		6	1297	1376	986	1045	749	836	599	1297
	36/9	2	1137	1134	813	860	616	683	490	1137
		4	1364	1408	1009	1101	789	894	640	1364
		6	1545	1650	1182	1301	932	1013	746	1545
18	36/4	2	797	833	597	650	466	509	365	797
		4	983	1106	792	905	649	759	544	983
		6	1090	1297	929	1102	790	903	647	1090
	36/5	2	971	993	711	764	547	600	430	971
		4	1201	1302	933	1045	749	865	620	1201
		6	1305	1543	1106	1242	890	994	712	1305
	36/7	2	1108	1086	778	802	574	631	452	1108
		4	1432	1460	1046	1136	814	904	648	1432
		6	1683	1786	1280	1356	972	1085	778	1683
	36/9	2	1475	1472	1055	1124	806	889	637	1475
		4	1770	1827	1310	1430	1024	1162	833	1770
		6	2006	2141	1535	1688	1210	1351	968	2006
16	36/4	2	889	941	674	745	534	595	427	889
		4	1092	1252	897	1038	744	877	628	1092
		6	1200	1456	1043	1204	863	963	690	1200
	36/5	2	1081	1116	800	873	626	692	496	1081
		4	1339	1477	1059	1197	858	996	714	1339
		6	1392	1745	1250	1325	950	1060	760	1392
	36/7	2	1242	1225	878	918	658	725	519	1242
		4	1620	1672	1199	1308	938	1062	761	1620
		6	1899	1929	1382	1447	1037	1157	829	1899
	36/9	2	1628	1632	1170	1261	903	1000	717	1628
		4	1974	2059	1476	1619	1161	1326	951	1974
		6	2239	2401	1721	1801	1291	1441	1032	2239

For **SI** Units: 1 ft = 305 mm; 1 in = 25.4 mm; 1 plf = 14.6 N/m.

[1]Fasteners at exterior and interior supports are comprised of 5/8" arc spot welds.
[2]Side lap welds are 5/8" arc spot welds sheet-to-sheet.
[3]Total number of spans: 2.
[4]Edge support connections per span: 3.

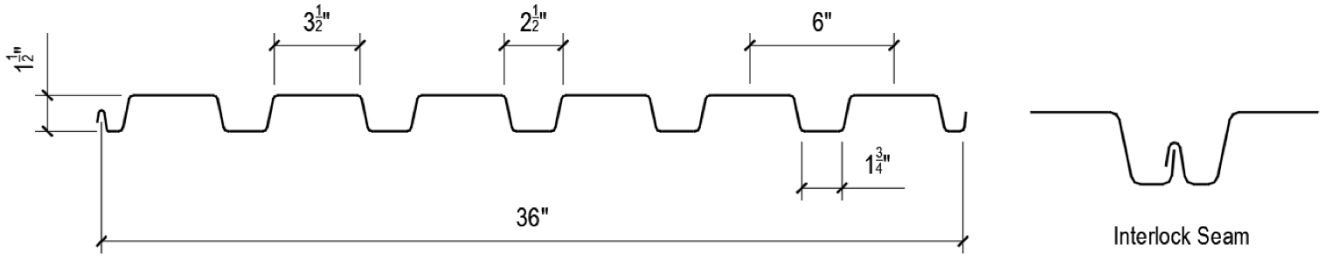
1.5SD-IS-40

- **1 ½" Deep Smooth Deck**
- **Interlock Seam**
- **A653 SS Grade 40**



1.5SD-IS-50

- **1 ½" Deep Smooth Deck**
- **Interlock Seam**
- **A653 SS Grade 50**



1.5SD-NS-40

- **1 ½" Deep Smooth Deck**
- **Nestable Seam**
- **A653 SS Grade 40**

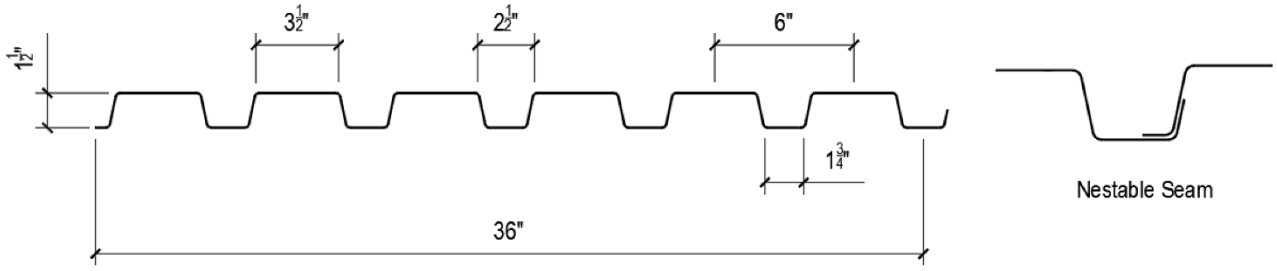
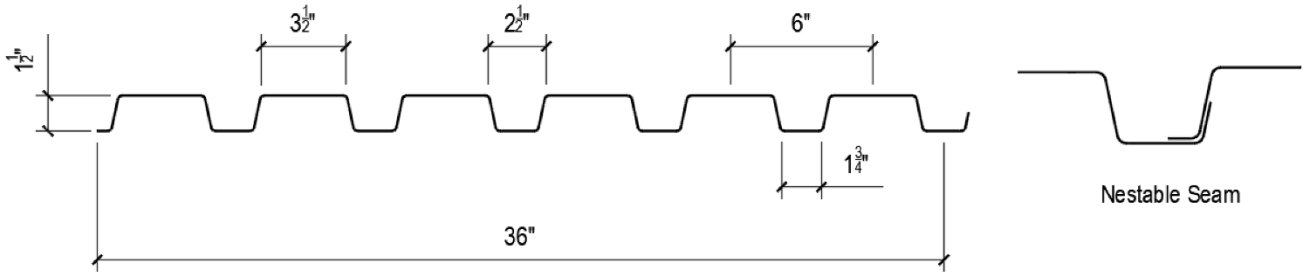


FIGURE 1—STEEL DECK PROFILES

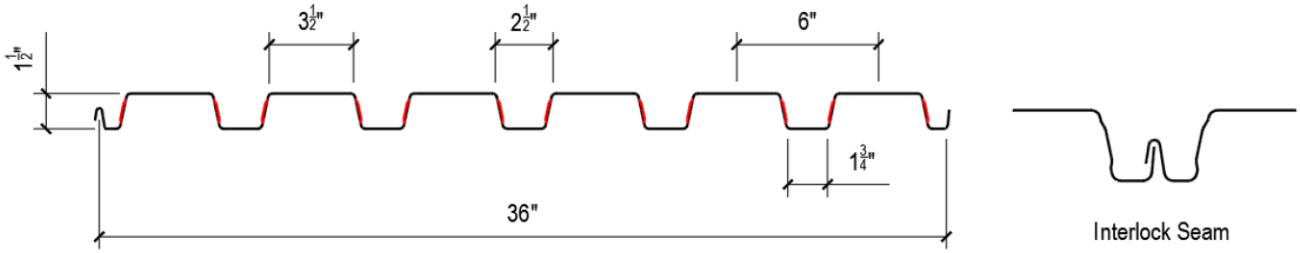
1.5SD-NS-50

- **1 ½" Deep Smooth Deck**
- **Nestable Seam**
- **A653 SS Grade 50**



1.5ED-IS-40

- **1 ½" Deep Embossed Deck**
- **Interlock Seam**
- **A653 SS Grade 40**



1.5ED-IS-40

- **1 ½" Deep Embossed Deck**
- **Interlock Seam**
- **A653 SS Grade 40**
- **3 ½" Total Slab Depth**
- **Normal Weight Concrete (145 pcf)**
- **Concrete Uniform Weight = 30.5 psf**
- **f'_c = 3,000 psi**

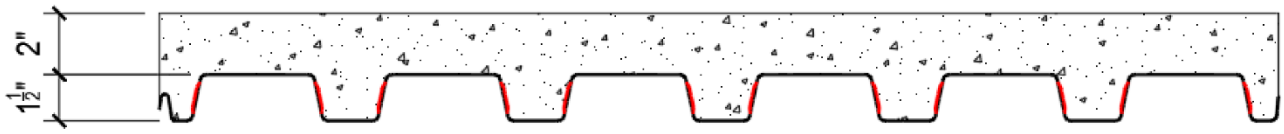
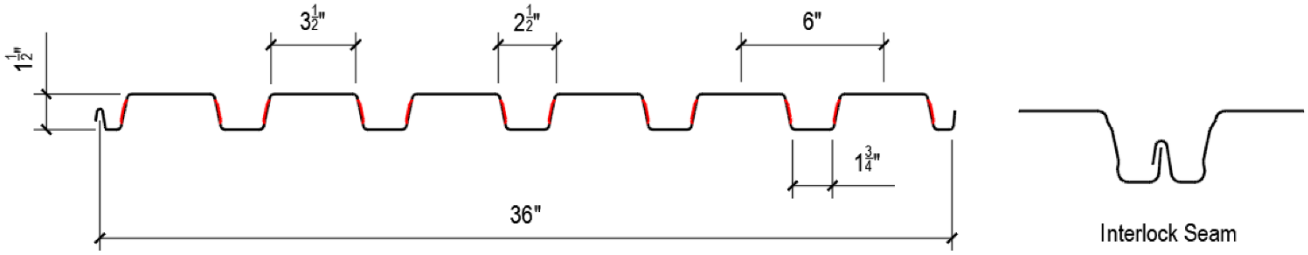


FIGURE 1—STEEL DECK PROFILES (continued)

1.5ED-IS-50

- **1 ½" Deep Embossed Deck**
- **Interlock Seam**
- **A653 SS Grade 50**



1.5ED-IS-50

- **1 ½" Deep Embossed Deck**
- **Interlock Seam**
- **A653 SS Grade 50**
- **3 ½" Total Slab Depth**
- **Normal Weight Concrete (145 pcf)**
- **Concrete Uniform Weight = 30.5 psf**
- **f'_c = 3,000 psi**

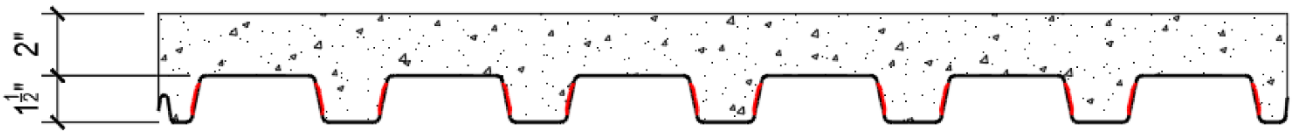


FIGURE 1—STEEL DECK PROFILES (continued)

DIVISION: 05 00 00 - METAL
Section: 05 31 00 – Steel Decking
Section: 05 31 13 – Steel Floor Decking
Section: 05 31 23 – Steel Roof Decking

REPORT HOLDER:

METROLL

EVALUATION SUBJECT:

B-DECK

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that B-deck, described in ICC-ES evaluation report ESR-5364, has also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2023 *City of Los Angeles Building Code* (LABC)

2.0 CONCLUSIONS

The B-Deck, described in Sections 2.0 through 7.0 of the evaluation report ESR-5364, complies with the LABC Chapter 22 and is subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The B-Deck described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report ESR-5364.
- The design, installation, conditions of use and identification of the B-Deck are in accordance with the 2021 *International Building Code®* (IBC) provisions noted in the evaluation report ESR-5364.
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.

This supplement expires concurrently with the evaluation report, issued February 2024.

DIVISION: 05 00 00 - METAL
Section: 05 31 00 – Steel Decking
Section: 05 31 13 – Steel Floor Decking
Section: 05 31 23 – Steel Roof Decking

REPORT HOLDER:

METROLL

EVALUATION SUBJECT:

B-DECK

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that B-Deck, described in ICC-ES evaluation report ESR-5364, has also been evaluated for compliance with the code noted below.

Applicable code edition*(s)*:

- 2022 *California Building Code* (CBC)

For evaluation of applicable Chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

2.0 CONCLUSIONS

2.1 CBC:

The B-Deck, described in Sections 2.0 through 7.0 of the evaluation report ESR-5364, complies with CBC Chapter 22, provided the design and installation are in accordance with the 2021 *International Building Code®* (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 16 and 17, as applicable.

2.1.1 OSHPD: The applicable OSHPD Sections and Chapters of the CBC are beyond the scope of this supplement.

2.1.2 DSA: The applicable DSA Sections and Chapters of the CBC are beyond the scope of this supplement.

This supplement expires concurrently with the evaluation report, issued February 2024.