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ICC-ES Evaluation Report

ESR-2408*

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DIVISION: 05 00 00—METALS
Section: 05 31 00—Steel Decking
Section: 05 31 13—Steel Floor Decking

REPORT HOLDER:

ASC STEEL DECK, A DIVISION OF ASC PROFILES INC.
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(800) 360-2477
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EVALUATION SUBJECT:

ASC STEEL FLOOR DECK SYSTEMS

1.0 EVALUATION SCOPE

Compliance with the following codes:

2009 and 2006 *International Building Code*® (IBC)

Properties evaluated:

- Structural
- Fire resistance

2.0 USES

ASC steel floor deck systems are used as horizontal diaphragms, and as a component of composite floor assemblies.

3.0 DESCRIPTION

3.1 General:

The ASC steel deck panels described in this report are cold-formed from galvanized steel sheets conforming to ASTM A653 SS Grade 40 or ASTM A1003-12 ST40H, or from bare mill finish steel conforming to ASTM A1008-12 SS Grade 40 Type 1 or 2. The decks are available with optional prime paint.

3.2 Deck Types:

3.2.1 Hi-Form® Composite Floor Decks NN-32, N-32, DGN-32, NF-32, DGNF-32, BN-36, B-36, DGB-36, BF-36, DGBF-36, 2W-36, DG2W-36, 2WF-36, DG2WF-36, 3W-36, DG3W-36, 3WF-36, and DG3WF-36: The Hi-Form decks have web embossments for composite action between concrete fill and the deck. The Hi-form decks denoted by the letter "F" are cellular decks which have flat sheets welded to the bottom side of the deck. See Figure 2 for deck profiles, Figure 3 for web embossment details, and Table 1 for flat sheet thicknesses of the cellular decks.

3.2.2 Acustadek™ Perforations: NF-32A, DGNF-32A, BF-36A, DGBF-36A, 2WF-36A, DG2WF-36A, 3WF-36A, and DG3WF-36A: The Acustadek decks are identical to the cellular decks described in Section 3.2.1, except that the bottom sheet is perforated for acoustical effects and is denoted by the letter "A". See Figure 7 for Acustadek perforation patterns.

3.2.3 Legacy 2W-36 and Legacy 2WF-36 Composite Floor Decks: The Legacy 2W-36 and Legacy 2WF-36 composite floor decks are identical to the 2W-36 and 2WF-36 Hi-Form decks, respectively, except for the web embossment patterns. See Table 15 for deck profiles and web embossment detail.

3.3 DeltaGrip™ System:

The DeltaGrip System connection is comprised of three triangular tabs produced by $^3/_8$-inch-wide (10 mm), 60-degree triangular punches, that clinch the sidelap standing seam interlock. See Figure 5 for details.

3.4 Welds:

Welds must be made using E60 or E70 filler metal and must comply with AWS D1.3.

3.5 Welded Shear Stud Connectors:

Welded shear stud connectors must be $^3/_4$ inch (19.1 mm) in diameter and have lengths complying with Figure 8. Shear studs must conform to the requirements of the Structural Welding Code - Steel, AWS D1.1, and have a minimum tensile strength of 65,000 psi (448 MPa).

3.6 Support and Sidelap Fasteners/ Connections:

Support and sidelap fasteners/ connections not mentioned in this report, must be recognized in an ICC-ES evaluation report with evidence submitted of compliance with the ICC-ES Acceptance Criteria for Steel Deck Roof and Floor Systems (AC43), with the exception of screw fasteners.

Screw fasteners must either be recognized in an ICC-ES evaluation report with evidence submitted of compliance with AC43, or must comply with the requirements of ASTM C1513 and be recognized in an evaluation report with evidence submitted of compliance with the ICC-ES Acceptance Criteria for Tapping Screw Fasteners (AC118).

3.7 Concrete:

Concrete must be either lightweight (LTWT) or normal weight (NW) in accordance with the IBC and must have a minimum 28-day compressive strength of 3,000 psi (20.68 MPa). LTWT concrete must be 110 pcf (1760 kg/m^2) and NW concrete must be 145 pcf (2320 kg/m^2).

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4.0 DESIGN INSTALLATION, AND SPECIAL INSPECTIONS:

4.1 Design and Installation:

Section Properties: Deck panel section properties are provided in Table 1 and adjustment factors for the Acustadek deck panels are provided in Table 2.

Support Reactions: Before concrete fill is applied, support reactions must not exceed the allowable reactions based on web crippling of the bare decks provided in Table 3.

Weld Capacities: Nominal weld capacities in accordance with AISI S100 for arc spot (puddle) welds and arc seam welds are provided in Table 4.

Diaphragm Classification: Diaphragms must be classified as flexible or rigid in accordance with Chapter 16 of the IBC.

Diaphragm Stiffness: The diaphragm stiffness (G′) is ≥ 1000 and the flexibility factor (F) is ≤ 1 for Tables 7 through 15, and this applies to concrete filled deck panels attached to supports with arc spot (puddle welds) or arc seam welds and sidelaps attached with button punches, top seam welds, or the DeltaGrip System.

For any other combination of support and sidelap attachments, diaphragm stiffness may be determined in accordance with Section 4.2.

Diaphragm Flexibility Limitations: Diaphragm span/depth limitations based on diaphragm flexibility must comply with Table 6.

Diaphragm Shears: Diaphragm shears due to earthquake loads must be distributed in accordance with ASCE 7.

Diaphragm shears due to wind, earthquake, or other load combinations must not exceed the allowable diaphragm shears for concrete filled deck panels attached to supports with arc spot (puddle welds) or arc seam welds and sidelaps attached with button punches, top seam welds, or the DeltaGrip System as sown in Tables 7, 8, 9, 10, and 15.

Diaphragm shears due to wind, earthquake, or other load combinations must not exceed the allowable diaphragm shears for concrete filled ASC deck panels attached to supports with welded shear studs as shown in Tables 11 and 12.

For any other combination of support and sidelap attachments, allowable diaphragm shears must be determined in accordance with Section 4.2.

Diaphragm Deflections: Diaphragm deflection (Δ) must be calculated using the equation noted in Table 6. For seismic design, diaphragm deflection limits must comply with Chapter 12 of ASCE 7.

Superimposed Loads: Superimposed loads must not exceed the allowable superimposed loads of deck panels shown in Tables 7, 8, 9, 10, 14, and 15.

Unshored Spans: Unshored deck panel spans must not exceed the values shown in Tables 7, 8, 9, 10, and 15, which are based on the following:

- The dead load of the deck and the dead load of the concrete.
- A dead load deflection less than $^1/_{180}$ of the span length or $^3/_4$ inch (19.1 mm), whichever is smaller.
- A construction uniform live load of 20 psf (960 Pa) or a concentrated construction live load of 150 pounds (670 N), whichever produced the greatest effect.

4.2 Diaphragm Strength and Stiffness of Concrete Filled ASC Deck Panels Based on Design Equations per DDM03:

4.2.1 General: The design equation numbers in Sections 4.2.2 through 4.2.4 correspond to the design equations provided in the Steel Deck Institute Diaphragm Design Manual, 3rd edition, September 2004 (SDI DDM03). All other equations not listed, except for F, also correspond to DDM03 equations. See Section 4.2.5 for definitions of symbols in the equations.

For any combination of support and sidelap attachments not covered in Section 4.1 and Tables 7 through 15, the allowable diaphragm shear (S_n/Ω) must be determined in accordance with Section 4.2.2 and diaphragm stiffness (G′) or flexibility (F) must be determined in accordance with Section 4.2.3.

The nominal support connector strength (Q_f) and flexibility factor (S_f) and the nominal sidelap connector strength (Q_s) and flexibility factor (S_S) must be determined in accordance with Section 4.2.4.

The minimum depth of concrete (d_c) must not be less than 2 inches (51 mm) and the sidelap fastener spacing must not be greater than 36 inches (914 mm) on center.

4.2.2 Diaphragm Strength (S_n) Design Equation:

$$S_n = \frac{BQ_f}{l} + kbd_c\sqrt{f'c}, \text{ kips/ft (kN/m)}$$

[Ref. DDM03 Eq. 5.3-1]

where:

$$B = n_s \propto_s + \frac{1}{w^2}\left[2n_p \sum(x_p^2) + 4\sum(x_e^2)\right]$$

[Ref. DDM03 Section 2.2]

$$k = \frac{w_c^{1.5}}{585(10^3)} \text{ For SI: } k = \frac{w_c^{1.5}}{452(10^3)}$$

[Ref. DDM03 Section 5.3]

$$\propto_s = \frac{Q_s}{Q_f}$$

[Ref. DDM03 Section 2.2]

Allowable diaphragm shear = S_n/Ω where Ω = 3.25 for concrete filled deck diaphragms subjected to wind, earthquake, or other combinations.

4.2.3 Concrete Filled ASC Steel Deck Diaphragm Stiffness (G′) or Flexibility (F) Equations:

$$G' = \frac{Et}{2.6\left(\frac{s}{d}\right)+C} + 3.5d_c(f_c')^{0.7}, \text{ kip/in}$$

For **SI:** $G' = \frac{Et}{2.6\left(\frac{s}{d}\right)+C} + 0.786d_c(f_c')^{0.7}$, kN/mm

[Ref. DDM03 Eq. 5.6-1]

$$F = \frac{1000}{G'}, \text{ micro-inches/lbs}$$

where:

$$C = E\frac{t}{w}S_f\left(\frac{2}{2 \propto_1 + n_p \propto_2 + 2n_s\frac{S_f}{S_s}}\right)l$$

[DDM03 Eq. 3.3-1]

$$\propto_1 = \frac{\sum x_e}{w}$$

$$\propto_2 = \frac{\sum x_p}{w}$$

[Ref. DDM03 Section 2.2]

$s = f_t + 2h_w + 2e$, in (mm)

[Ref. DDM03 Section 2.3]

4.2.4 Nominal Support Connector Strengths (Q_f) and Flexibility Factors (S_f) and Nominal Sidelap Connector Strengths (Q_s) and Flexibility Factors (S_s): Q_f, S_f, Q_s, and S_s for connections where design equations are not listed under this section, must be clearly recognized in an ICC-ES evaluation report with evidence submitted under AC43 for decks with a minimum specified yield strength of ≤ 40 ksi (275 MPa) and a minimum specified tensile strength of ≤ 55 (360 MPa). Adjustments are not permitted for materials strengths, correlation factors, etc.

4.2.4.1 Arc Spot Welds Used in Support Connections (Q_f and S_f): Design equations for Q_f and S_f of arc spot welds used in the attachment of deck panels to supports are provided as follows:

Welds must comply with Section 3.4, and the average visible diameter (d) must not be less than 0.50 inch [13 mm].

$Q_f = 2.2tF_u(d - t)$, kip

For **SI:** $Q_f = 2.2tF_u(d - t)/1000$, kN

[Ref. DDM03 Eq. 4.2.1-1]

where:

0.028 inch (0.71mm) < t < 0.064 inch (1.63mm)

$S_f = \frac{1.15}{1000\sqrt{t}}$, in/kip

For **SI:** $S_f = \frac{33.1}{1000\sqrt{t}}$,mm/kN

[Ref. DDM03 Eq. 4.4-1]

4.2.4.2 Screws Used in Support and Sidelap Connections (Q_f, S_f, Q_s, and S_s): Design equations for Q_f, S_f, Q_s, and S_s of screw connections are provided as follows:

In order to use the following design equations, screws must be shown to comply with ASTM C1513 and be recognized in an ICC-ES evaluation report with evidence submitted of compliance with the ICC-ES Acceptance Criteria for Tapping Screw Fasteners (AC 118).

Support Connections: Screws used in the attachments of deck panels to supports must be either #12 or #14 screws and must be installed in supports not less than 0.0385 inch (0.9 mm) thick.

$Q_f = 1.25F_y t(1 - 0.005Fy)$, kip

For SI: $Q_f = \frac{F_y t}{31.5}(1 - \frac{Fy}{1380})$, kN

[Ref. DDM03 Eq. 4.5-1]

$S_f = \frac{1.3}{1000\sqrt{t}}$, in/kip

For **SI:** $S_f = \frac{37.4}{1000\sqrt{t}}$, mm/kN

[Ref. DDM03 Eq. 4.5.1-1]

Sidelap Connections: Screws used in the attachments of deck panel sidelaps must be #8, #10, #12, or #14.

$Q_s = 115dt$, kip

For SI: $Q_s = 0.793dt$, kN

[Ref. DDM03 Eq. 4.5-2]

$S_s = \frac{3.0}{1000\sqrt{t}}$, in/kip

For **SI:** $S_s = \frac{86.3}{1000\sqrt{t}}$, mm/kN

[Ref. DDM03 Eq. 4.5.1-2]

4.2.4.3 Button Punches use in Sidelap Connections (Q_s and S_s): Design equations for Q_s and S_s of button punches used in the attachments of deck panel sidelaps are provided as follows:

$Q_s = 240t^2$, kip

For **SI:** $Q_s = 1.67t^2$, kN

[Ref. DDM03 Eq. 4.7-1]

$S_s = \frac{30}{1000\sqrt{t}}$, in/kip

For **SI:** $S_s = \frac{863}{1000\sqrt{t}}$, mm/kN

[Ref. DDM03 Eq. 4.7-2]

4.2.5 Definitions:

b = unit width, 12in/ft (1000 mm/m)

d = corrugation pitch of panel, in (mm) [For use with Section 4.2.3, see Figure 1]

d = average visible diameter, in (mm) [For use with Section 4.2.4.1, the average visible diameter is equal to the effective diameter divided by 0.7 plus 1.5 times the design base steel thickness.

d = major diameter of the screw, in (mm) [For use with Section 4.2.4.2]

d_c = depth of concrete above the panel's top flange, in (mm)

e = ½ width of the panel's bottom flange, in (mm)

E = modulus of elasticity, 29500 ksi (210 kN/mm^2)

F = diaphragm flexibility factor, micro-inches/lbs

f'_c = specified minimum concrete strength, psi (MPa)

F_u = specified minimum tensile strength of the deck, ksi (MPa)

F_y = specified minimum yield strength of the deck, ksi (MPa)

f_t = width of the panel's top flange, in (mm) [See Figure 1]

G' = diaphragm shear stiffness, kip/in (kN/mm)

h_w = web length of panel, in (mm)

l = panel length, ft (m)

n_p = number of intermediate supports

n_s = number of side seam connections per panel length

Q_f = nominal support connector strength, kip (kN)

Q_s = nominal sidelap connector strength, kip (kN)

s = developed width of corrugation per pitch d, in (mm) [See Figure 1]

S_n = nominal diaphragm shear strength, kip/ft (kN/m)

S_f = support connector flexibility factor, in/kip (mm/kN)

S_s = sidelap connector flexibility factor, in/kip (mm/kN)

t = design base steel thickness of deck, in (mm)

w = panel width, in (mm)

w_c = unit weight of concrete, pcf (kg/m^3)

x_e = distance from centerline of panel to support connector at panel intermediate supports, in (mm) [See Figure 1]

x_p = distance from centerline of panel to support connector at panel ends supports, in (mm) [See Figure 1]

4.3 Restrained Fire-resistance Ratings:

Hi-Form® Types B, BF, N, NF, 2W, 2WF, 3W, and 3WF, when used with a concrete fill, have a two-hour fire-resistance rating with exposed soffits provided:

a. The maximum clear span for the B, and BF decks is 12 feet (3.7 m), and for the N, NF, 2W, 2WF, 3W, 3WF decks is 13 feet, 2 inches (4.01 m).

b. Minimum steel gage must be No. 22 for fluted deck panels and No. 20/20 for cellular deck panels. Deck panels must be galvanized.

c. Minimum attachments to supports must be as follows:

   1. All welds at each support are $^1/_2$-inch-effective-diameter (13 mm) arc spot (puddle) welds. Weld patterns include three welds at 12 inches (305 mm) on center (maximum) for 24-inch-wide (610 mm) units, and four welds, at 12 inches (305 mm) on center (maximum), for 30-inch- or 36-inch-wide (762 or 914 mm) units. Where welded shear connectors coincide with arc spot welds, the arc spot welds may be eliminated.

   2. Attachments to chords or struts are as specified in the "General Table Notes."

   3. Sidelaps must be button-punched at a maximum of 3 feet (914.4 mm) on center for interlocking deck Types B, N, NF, 2W, 2WF, 3W, and 3WF. Sidelaps of interlocking deck types may also be connected with the DeltaGrip™ side seam attachment described in Section 3.3, spaced at a maximum of 3 feet (914 mm) on center; or, for nestable deck Types B, and N , with $1^1/_2$-inch (38 mm) seam welds at 3 feet (914.4 mm) on center. When using a blend of interlocking and nestable decks, $1^1/_2$-inch (38 mm) seam welds must be used at 3 feet (914 mm) on center.

d. The concrete fill above the top flange must be either $3^1/_4$ inches (83 mm) thick for 110-pound-per-cubic-foot (1762 kg/m^3) lightweight concrete with f'_c = 3,000 psi (20.68 MPa) or greater, or $4^1/_2$ inches (114 mm) thick for 145-pound-per-cubic-foot (2320 kg/m^3) normal-weight concrete with f'_c = 3,500 psi (24.13 MPa) or greater.

e. The concrete fill is reinforced with minimum 6x6 W1.4xW1.4 welded-wire fabric, placed at the center of the fill.

f. Conduits or pipes must not be embedded in the concrete.

The interior spans of continuous steel-framed construction slabs may be assumed to be restrained for fire-resistance-rated construction. The perimeter spans are assumed unrestrained unless restraint is substantiated by the structural designer and approved by the code official.

For additional restrained fire-resistance ratings, see Table 5.

4.4 Unrestrained Fire-resistance Ratings:

Types B, BF, N, NF, 2W, 2WF, 3W and 3WF decks with a concrete fill are one- or two-hour fire-resistance-rated roof or floor decks with exposed soffits, provided:

a. The minimum deck thickness is No. 22 gage.

b. Attachments are in accordance with item c of Section 4.3.

c. The concrete fill is lightweight with expanded shale or slate aggregate and 4 to 7 percent entrained air. Other concrete properties include 110-pound-per-cubic-foot (1762 kg/m^3) density, minimum 3,000 psi (20.68 MPa) compressive strength at 28 days, and $3^1/_4$-inch-thick (83 mm) fill above the top flange of the deck.

d. The unrestrained assembly is assigned a one-hour fire-resistance rating when the supports are minimum W8x18 steel beams, and a two-hour fire-resistance rating when the supports are minimum W8x28 steel beams.

e. Conduits or pipes are not embedded in the concrete.

Fire-resistance ratings when fireproofing material is spray-applied to the deck soffit are provided in current ICC-ES evaluation reports ESR-1649 and ESR-1186.

4.5 Special Inspection:

4.5.1 Concrete: Continuous special inspection for concrete placement and periodic inspection of concrete reinforcement is required in accordance with Section 1704.4 of the IBC. The inspector's duties must include sampling and testing, and verification of concrete mixes, reinforcement types and placement, and concrete placement.

4.5.2 Jobsite Welding: Periodic special inspection for welding of deck panels is required in accordance with Section 1704.3 of the IBC. Prior to proceeding, the welder must demonstrate his ability to produce the prescribed weld to the special inspector's satisfaction. The inspector's other duties include verification of materials, weld preparation, welding procedures, and welding processes.

4.5.3 Additional Requirements for Installation of Connectors:

4.5.3.1 Periodic Special Inspections: Periodic special inspections in accordance with Section 1706.3 of the 2009 IBC are required where the steel deck systems are used as part of the main wind force–resisting system in structures assigned to Wind Exposure Category B, where the 3-second-gust basic wind speed is 120 miles per hour (52.8 m/sec) or greater or Wind Exposure Categories C or D, where the 3-second-gust basic wind speed is 110 miles per hour (49 m/sec) or greater.

Periodic special inspections in accordance with Section 1707.4 of the IBC are required where the steel deck systems are used as part of a seismic-force-resisting system in structures assigned to Seismic Design Category C, D, E or F. Periodic special inspections apply to connections such as screws, power-actuated fasteners, DeltaGrip™ side seam attachments and button punches. Periodic special inspections also apply where noted in Tables 1704.3 and 1704.4 of the IBC.

4.5.3.2 Continuous Special Inspections: Continuous special inspections must be provided where noted in Tables 1704.3 and 1704.4 of the IBC.

4.5.3.3 Statement of Special Inspections A statement of special inspections must be prepared by the registered design professional in charge and submitted to the code official as set forth in IBC Section 1705. The statement must include the inspector's duties as noted in this section (Section 4.5).

5.0 CONDITIONS OF USE

The steel deck panels described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The design base-metal thickness for all decks is indicated in Table 1. The thickness delivered to the jobsite must be at least 95 percent of the thickness noted in the tables.

5.2 Vibratory loads are outside the scope of this report.

5.3 A one-third stress increase (or 0.75 reduction of the resulting forces) must not be permitted for Allowable Stress Design for load combinations containing wind or seismic forces for shear values in the diaphragm tables.

5.4 Fire-resistive ratings are as described in Sections 4.3 and 4.4 or are as set forth in Table 720.1(3) of the IBC, provided the fill type, thickness, metal gage and construction are as specified therein.

5.5 Calculations and details demonstrating that the loads applied to the decks comply with this report must be submitted to the code official for approval. Calculations and drawings must be prepared, signed, and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

5.6 Bundles marked in accordance with Section 7.0 of this report provide the material traceability required to conform with the requirements of Table 1704.3, Item 3, of the 2009 IBC.

5.7 All cellular deck types are fabricated in West Sacramento, California, under a quality program with inspections by Kleinfelder, Inc. (AA-558).

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Steel Deck Roof and Floor Systems (AC43), dated October 2010 (editorially revised September 2013).

6.2 Reports of testing in accordance with ASTM E119.

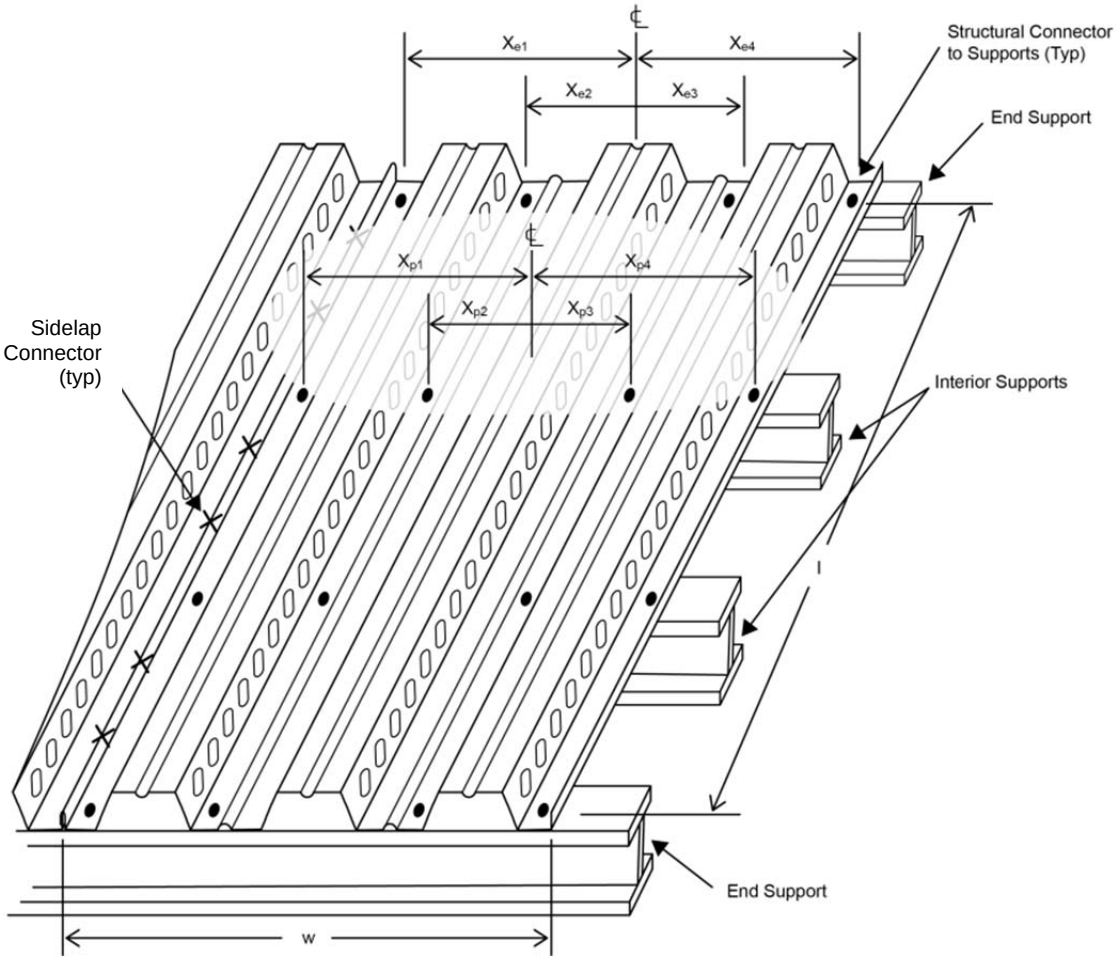
7.0 IDENTIFICATION

Each bundle of ASC steel floor and roof deck panels is identified by labeling bearing the manufacturer's name (ASC Steel Deck); the steel deck panel profile name; the design thickness; the minimum specified yield strength; the finish; the manufacturing location (West Sacramento, California, or Fontana, California); the cover width of the panel; and the ICC-ES evaluation report number (ESR-2408). In addition, cellular deck panels bear the name of the inspection agency, Kleinfelder, Inc.

INDEX TO TABLES AND FIGURES

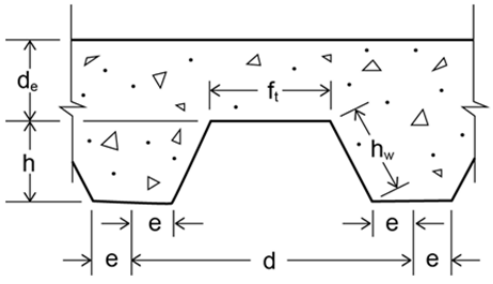
Table No.	Subject	Page No.
1	Section Properties	12
2	Acustadek Section Property Adjustment Factors	13
3	Allowable Reactions Based on Web Crippling	14
4	Nominal Weld Capacities	15
5	Fire Resistive Ratings	16
6	Diaphragm Flexibility Limitations	16
	Allowable Superimposed Loads and Allowable Diaphragm Shears for Concrete Fill Decks	
7	B-36, DGB-36, BN-36, BF-36, DGBF-36, BF-36A, DGBF-36A	17-20
8	NN-32, N-32, DGN-32, NF-32, DGNF-32, NF-32A, DGNF-32A	21-24
9	2W-36, DG2W-36, 2WF-36, DG2WF-36, 2WF-36A, DG2WF-36	25-28
10	3W-36, DG3W-36, 3WF-36, DG3WF-36, 3WF-36A, DG3WF-36A	29-33
	Allowable Diaphragm Shears for Concrete Fill Decks with Welded Shear Studs	
11	B-36, DGB-36, BN-36, BF-36, DGBF-36, BF-36A, DGBF-36A, NN-32, N-32, DGN-32, NF-32, DGNF-32, NF-32A, DGNF-32A	34
12	2W-36, DG2W-36, 2WF-36, DG2WF-36, 2WF-36A, DG2WF-36, 3W-36, DG3W-36, 3WF-36, DG3WF-36, 3WF-36A, DG3WF-36A	35
13	Reinforcement Options for Tables 11 and 12	36
14	Allowable Superimposed Load - 2W-36 and DG2W-36 Concrete Filled Deck with Welded Shear Studs	36
15	Allowable Superimposed Loads and Allowable Diaphragm Shears for Concrete Fill Decks - Legacy 2W-36 and Legacy 2WF-36 Concrete Filled Decks	37-41

Figures	Subject	
1	Design Information for Use with Section 4.2	7
2	ASC Deck Panel Profiles	9
3	Hi-Form Web Embossment Details	10
4	Support Attachment Patterns	10
5	DeltaGrip Sidelap Connection and Offset Table	11
6	Sidelap and Support Connections	11
7	Acustadek Perforation Patterns	13
8	Welded Shear Stud Details	35



For example, in the above figure:

$n_p = 2$
$n_e = 2 * 3 = 6$
$\sum x_p^2 = (x_{p1})^2 + (x_{p2})^2 + (x_{p3})^2 + (x_{p4})^2$
$\sum x_p = x_{p1} + x_{p2} + x_{p3} + x_{p4}$
$\sum x_e^2 = (x_{e1})^2 + (x_{e2})^2 + (x_{e3})^2 + (x_{e4})^2$
$\sum x_e = x_{e1} + x_{e2} + x_{e3} + x_{e4}$



$$s = f_t + 2h_w + 2e$$

FIGURE 1—DESIGN INFORMATION FOR USE WITH SECTION 4.2

GENERAL TABLE NOTES:

1. **Support Fasteners:** Steel deck panels must be connected to supports with arc spot (puddle) welds or arc seam welds. Support attachments must be in accordance with Figure 4.

   Arc seam or spot (puddle) welds must have a minimum effective fusion area to supporting members at least $^3/_8$ inch (10 mm) wide by 1 inch (25 mm) long or $^1/_2$ inch (13 mm) in diameter, respectively. Welds must be made using E60 or E70 filler metal and must comply with AWS D1.3.

2. **Sidelap Fasteners:** Steel deck panel sidelaps must be connected with button punches, top seam welds, or the DeltaGrip System and must not be spaced greater than 36 inches (914 mm) on center.

   Top seam welds must have a minimum length of 1.5 inches (38 mm).

3. **Weld Spacings**: Spacing of marginal welds to members parallel to flutes must comply with the following, unless otherwise noted:

   a. Arc seam or spot (puddle) welds to members such as chords and to collector elements such as struts or ties must have a spacing in feet (mm) equal to 35,000(t)/v (For **SI:** 6,130(t)/v), where:

      t = Uncoated base-metal thickness of fluted steel deck, in inches (mm).

      v = Actual diaphragm shear at marginal supports or actual shear transferred to collector, in pounds per foot (N/m).

   b. Fillet welds to members such as diaphragm chords must have a spacing in feet (mm) equal to 480 (l_w)/v (For **SI:** 84 (l_w)/v), where:

      l_w = Length of weld, in inches (mm) [not less than $1^1/_2$ inches (38 mm)].

      v = Actual diaphragm shear to be transferred to chords, in pounds per foot (N/m).

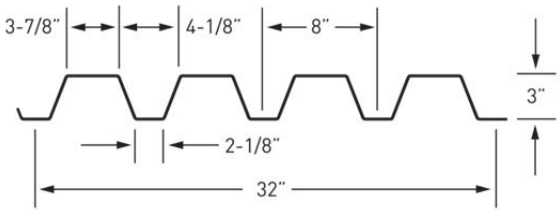
   c. Fillet welds attaching the diaphragms to struts, ties or other collector elements must have a spacing in feet (mm) equal to 300 (l_w)/v (For **SI:** 52.5 l_w/v), where:

      v = Actual shear to be transferred to the collector element, in pounds per foot (N/m).

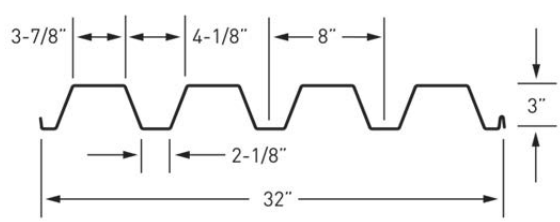
4. Regarding attachments at interior lines of shear transfer perpendicular to deck corrugations: The shear transfer from a diaphragm to interior tie or strut lines perpendicular to deck corrugations must not exceed the shear values indicated in the tables. Two lines of puddle welds may be used to develop the actual shear transfer to these collector elements.

5. Where individual panels are cut, the partial panel must be fastened in a manner to fully transfer the shears at the point of the diaphragm to the adjacent full panels for the values specified in the tables.

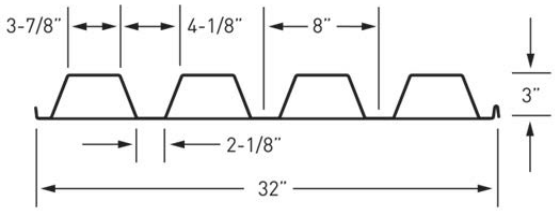
6. For **SI** dimensions: 1 inch = 25.4 mm, 1 plf = 14.6 N/m, 1 inch^2 = 645.16 mm^2, 1 inch^3 = 16.4 x 10^3 mm^3, 1 inch^4 = 41.6 x 10^4 mm^4, 1 psf = 4.88 kg/m^2, 1 pcf = 16.018 kg/m^3, 1 inch-kip = 0.113 kN-m, 1 kip = 4.448 kN, 1 ksi = 6.89 MPa, 1 foot = 304.8 mm.



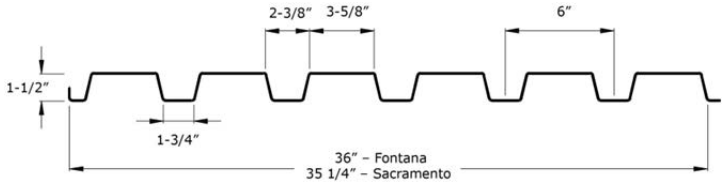
NN-32



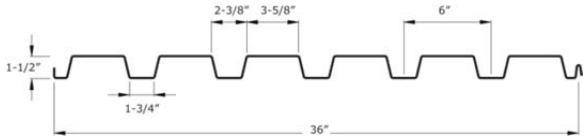
N-32, DGN-32



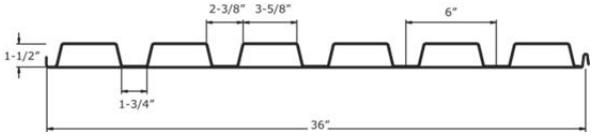
NF-32 & DGNF-32 or
NF-32A & DGNF-32A



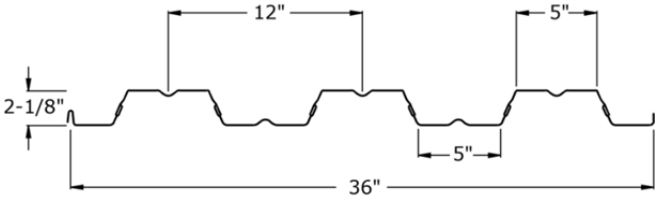
BN-36



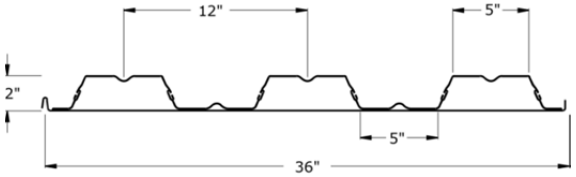
B-36 & DGB-36



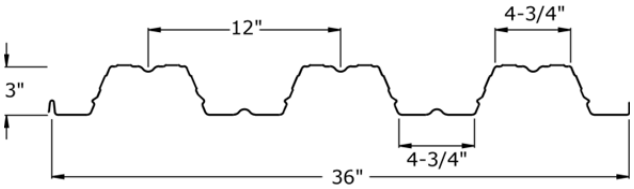
BF-36 & DGBF-36 or
BF-36A & DGBF-36A



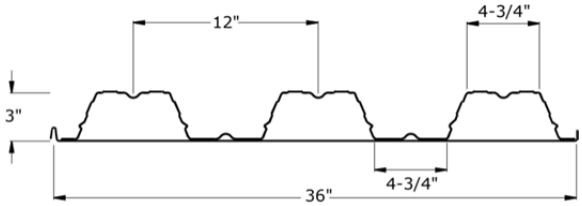
2W-36 & DG2W-36



2WF-36 & DG2WF-36 or
2WF-36A & DG2WF-36A



3W-36 & DG3W-36



3WF-36 & DG3WF-36 or
3WF-36A & DG3WF-36A

FIGURE 2—ASC DECK PANEL PROFILES

A - Denotes Acustadek deck panels
F - Denotes cellular deck panels

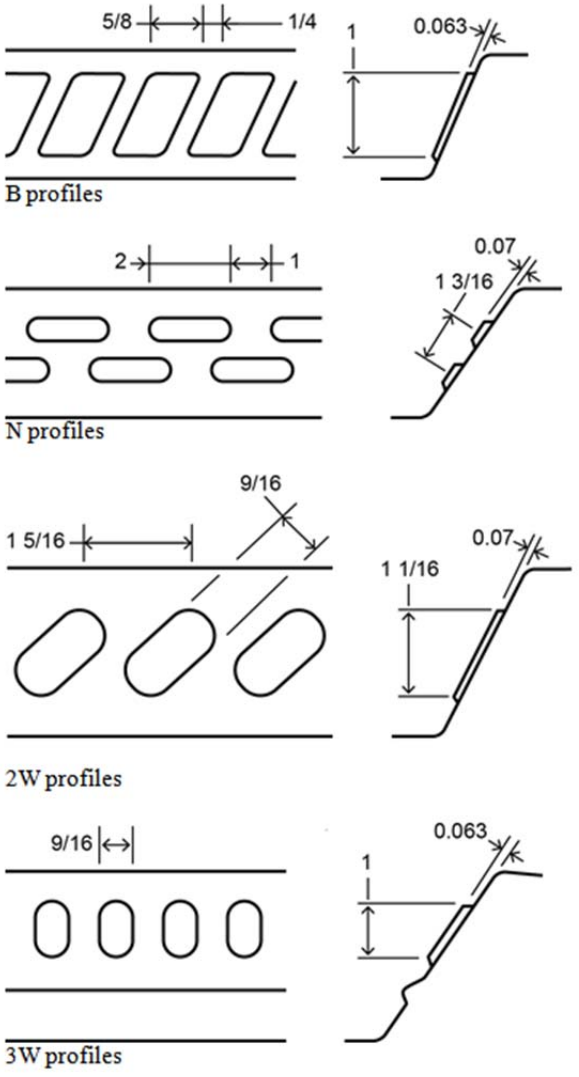
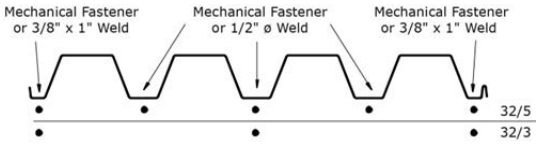
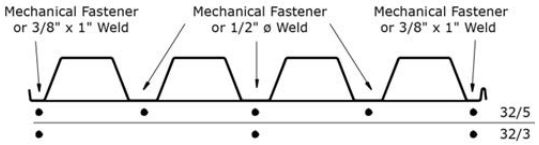


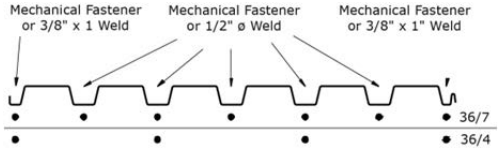
FIGURE 3—HI-FORM WEB EMBOSSMENT DETAILS
(For the embossment pattern of the Legacy 2W profiles, see Table 15)



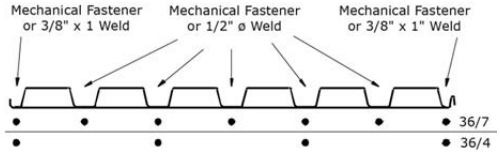
N-32, DGN-32, & NN-32
(applies to Table 8)



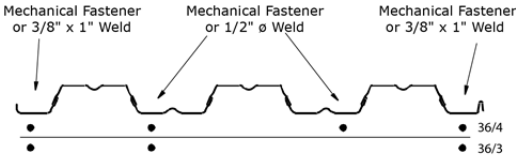
NF-32, DGNF-32, NF-32A, & DGNF-32A
(applies to Table 8)



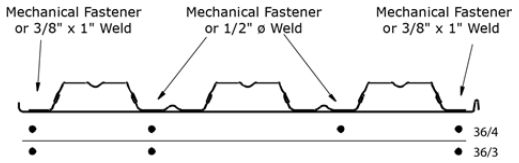
B-36, BN-36 & DGB-36
(applies to Table 7)



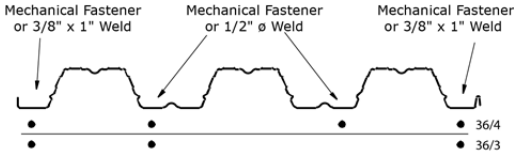
BF-36, DGBF-36, BF-36A, & DGBF-36A
(applies to Table 7)



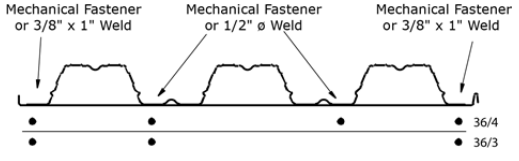
2W-36, DG-2W36
(applies to Tables 9 and 15)



2WF-36, DG2WF-36 2WF-36A, & DG2WF-36A
(applies to Tables 9 and 15)

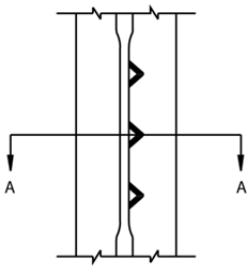


3W-36, DG3W-36
(applies to Table 10)

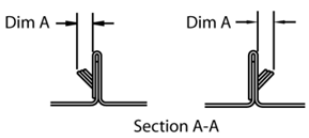


3WF-36, DG3WF-36, 3WF-36A, & DG3WF-36A
(applies to Table 10)

FIGURE 4—SUPPORT ATTACHMENT PATTERNS



Schedule Minimum Offset	
Gage	Dim A (in)
22	0.197
20	0.197
18	0.161
16	0.161
For SI 1 inch = 25.4 mm	



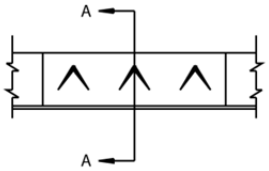
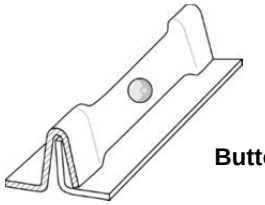
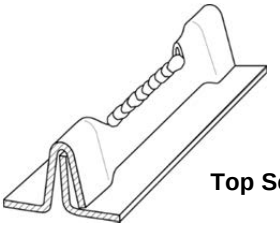


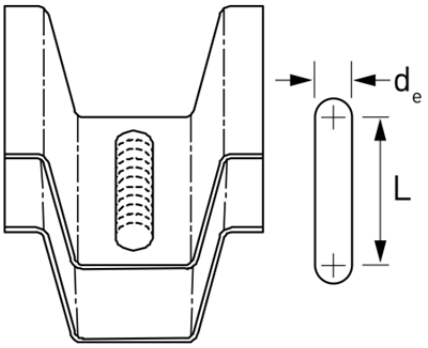
FIGURE 5—DELTAGRIP SIDELAP CONNECTION AND OFFSET TABLE



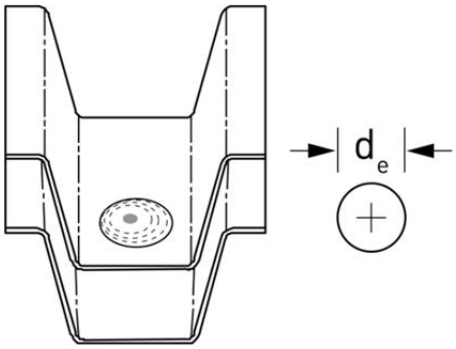
Button Punch



Top Seam Weld



Arc Seam Weld



Arc Spot (puddle) Weld

FIGURE 6—SIDELAP AND SUPPORT CONNECTIONS

TABLE 1—SECTION PROPERTIES[1]

DECK TYPE	GAGE	DESIGN BASE METAL THICKNESS	GROSS MOMENT OF INERTIA	POSITIVE EFFECTIVE MOMENT OF INERTIA	NEGATIVE EFFECTIVE MOMENT OF INERTIA	DESIGN MOMENT OF INERTIA	POSITIVE EFFECTIVE SECTION MODULUS	NEGATIVE EFFECTIVE SECTION MODULUS
		t (in)	I_{gross} (in^4/ft)	I_e^+ (in^4/ft)	I_e^- (in^4/ft)	I_D (in^4/ft)	S_e^+ (in^3/ft)	S_e^- (in^3/ft)
NN-32 N-32 DGN-32	16	0.0598	1.575	1.519	1.575	1.538	0.891	0.931
	18	0.0478	1.275	1.155	1.275	1.195	0.693	0.734
	20	0.0359	0.968	0.810	0.953	0.863	0.466	0.521
	22	0.0299	0.814	0.645	0.773	0.701	0.363	0.415
NF-32[2] DGNF-32[2] NF-32A[2,3] DGNF-32A[2,3]	16/16	0.0598/0.059	2.923	2.779	2.604	2.711	1.19	1.34
	16/18	0.0598/0.047	2.733	2.602	2.327	2.462	1.17	1.29
	16/20	0.0598/0.036	2.530	2.410	2.024	2.192	1.14	1.13
	18/16	0.0478/0.059	2.488	2.209	2.220	2.302	0.889	1.10
	18/18	0.0478/0.047	2.330	2.076	1.978	2.095	0.872	1.06
	18/20	0.0478/0.036	2.156	1.928	1.703	1.854	0.853	0.950
	20/16	0.0359/0.059	2.016	1.622	1.801	1.753	0.614	0.846
	20/18	0.0359/0.047	1.894	1.543	1.600	1.660	0.580	0.811
	20/20	0.0359/0.036	1.756	1.389	1.358	1.491	0.581	0.748
BN-36 B-36 DGB-36	16	0.0598	0.383	0.383	0.383	0.383	0.396	0.404
	18	0.0478	0.313	0.297	0.313	0.302	0.315	0.330
	20	0.0359	0.240	0.207	0.240	0.218	0.232	0.244
	22	0.0299	0.200	0.163	0.200	0.176	0.185	0.194
BF-36[2] DGBF-36[2] BF-36A[2,3] DGBF-36A[2,3]	16/16	0.0598/0.059	0.778	0.754	0.730	0.746	0.626	0.736
	18/16	0.0478/0.059	0.665	0.598	0.625	0.620	0.460	0.604
	18/18	0.0478/0.047	0.618	0.558	0.581	0.578	0.451	0.581
	18/20	0.0478/0.036	0.568	0.515	0.496	0.520	0.441	0.505
	20/16	0.0359/0.059	0.541	0.433	0.510	0.469	0.310	0.467
	20/18	0.0359/0.047	0.505	0.407	0.475	0.440	0.303	0.450
	20/20	0.0359/0.036	0.465	0.378	0.407	0.407	0.297	0.423
2W-36 DG-2W36	16	0.059	0.723	0.723	0.723	0.723	0.655	0.654
	18	0.047	0.580	0.580	0.580	0.580	0.527	0.526
	19	0.042	0.523	0.523	0.520	0.521	0.457	0.464
	20	0.035	0.437	0.437	0.430	0.432	0.361	0.361
	21	0.033	0.413	0.413	0.403	0.407	0.335	0.335
	22	0.029	0.363	0.350	0.347	0.352	0.282	0.281
2WF-36[2] DG2WF-36[2] 2WF-36A[2,3] DG2WF-36A[2,3]	16/16	0.059/0.059	1.253	1.365	1.000	1.084	0.789	0.733
	18/16	0.047/0.059	1.041	1.077	0.845	0.910	0.573	0.593
	18/18	0.047/0.047	0.987	1.021	0.804	0.865	0.565	0.569
	18/20	0.047/0.036	0.927	0.959	0.737	0.800	0.557	0.463
	20/16	0.035/0.059	0.818	0.766	0.680	0.726	0.375	0.450
	20/18	0.035/0.047	0.777	0.730	0.648	0.691	0.370	0.432
	20/20	.035/.036	0.731	0.689	0.570	0.624	0.364	0.385
3W-36 DG3W-36	16	0.059	1.493	1.493	1.493	1.493	0.958	0.958
	18	0.047	1.200	1.200	1.200	1.200	0.771	0.768
	19	0.042	1.077	1.077	1.073	1.074	0.683	0.687
	20	0.035	0.900	0.900	0.890	0.893	0.544	0.567
	21	0.033	0.850	0.850	0.837	0.841	0.505	0.526
	22	0.029	0.750	0.733	0.723	0.732	0.429	0.445
3WF-36[2] DG3WF-36[2] 3WF-36A[2,3] DG3WF-36A[2,3]	16/16	0.059/0.059	2.635	2.819	2.087	2.269	1.195	1.108
	18/16	0.047/0.059	2.196	2.238	1.643	1.827	0.876	0.896
	18/18	0.047/0.047	2.081	2.122	1.632	1.782	0.864	0.860
	18/20	0.047/0.036	1.956	1.995	1.484	1.641	0.852	0.701
	20/16	0.035/0.059	1.730	1.609	1.424	1.526	0.581	0.681
	20/18	0.035/0.047	1.644	1.533	1.318	1.426	0.574	0.654
	20/20	0.035/0.036	1.547	1.450	1.154	1.285	0.561	0.575

Notes:

[1]Effective properties are based on a yield stress of 40 ksi.

[2]For the cellular deck panels, denoted by “F”, the first number is the gage thickness of the deck and the second number is the gage thickness of the bottom flat sheet.

[3]For Acustadek deck panel section properties, denoted by “A”, multiply the tabulated values by the adjustment factors noted in Table 2.

TABLE 2—ACUSTADEK SECTION PROPERTY ADJUSTMENT FACTORS[1]

DECK TYPE	I	POSITIVE S	NEGATIVE S	PERFORATION DIAMETER (in)	PERORATION SPACING, a
BF, NF	0.94	0.97	0.90	0.157	16 spaces @ 0.2165" = 3.464"
NF	0.94	0.97	0.90	0.157	24 spaces @ 0.2165" = 5.196"
2WF, 3WF	0.97	1.00	1.00	0.157	30 spaces @ 0.2165" = 6.495"

[1]See Figure 7 for AcustaDek Perforation Patterns.

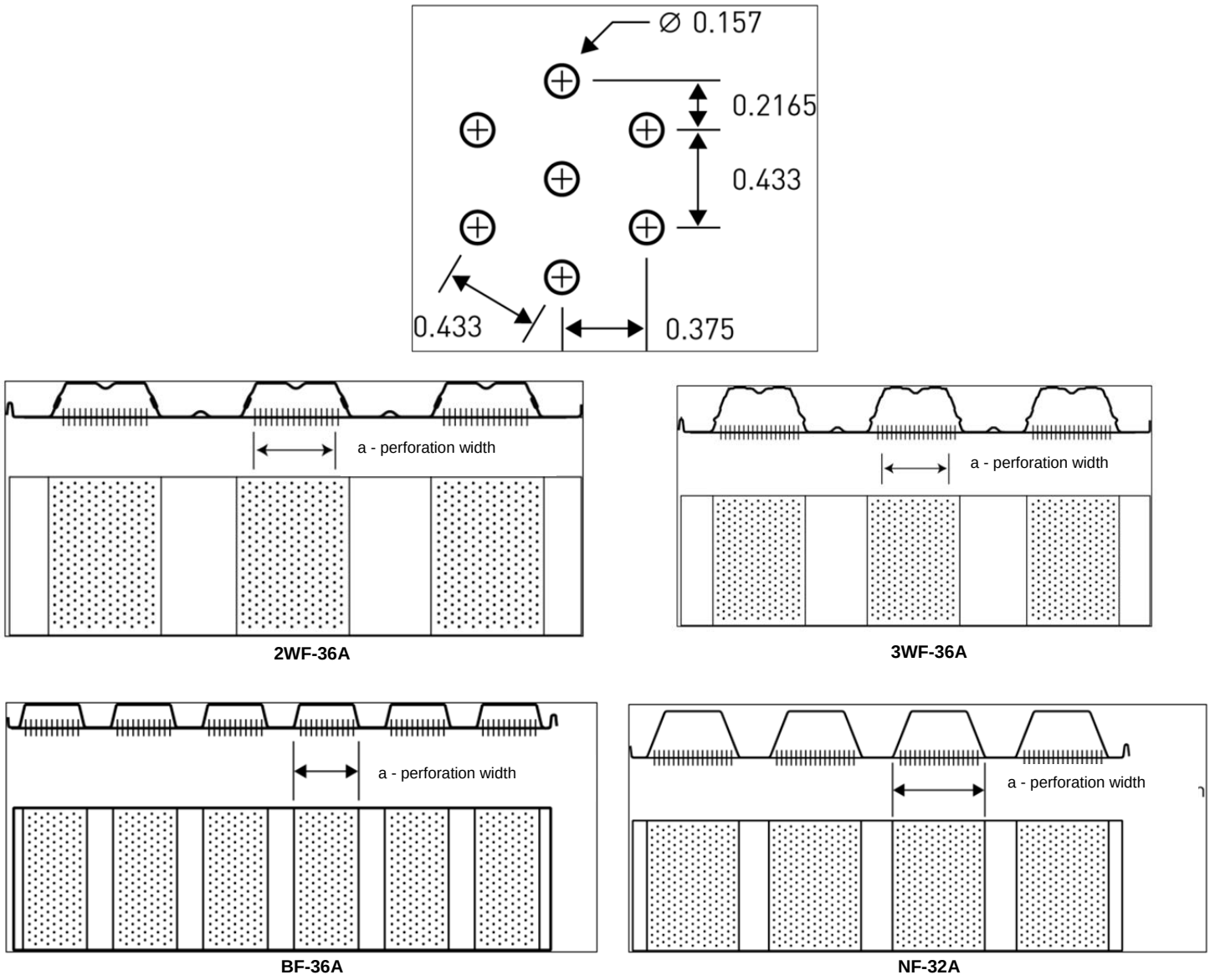


FIGURE 7—ACUSTADEK PERFORATION PATTERNS

TABLE 3—ALLOWABLE REACTIONS OF BARE DECK PANELS BASED ON WEB CRIPPLING (ASD)[1,2,3,4](plf)

DECK TYPE	GAGE[4]	BEARING LENGTH (in)					
		END OF DECK			INTERIOR		
		1.5"	2"	3"	1.5"	2"	3"
NN-32, N-32, DGN-32, NF-32, DGNF-32, NF-32A, DGNF-32A	16	1660	1803	2043	2848	3051	3391
	18	1094	1192	1358	1874	2015	2253
	20	640	701	803	1097	1186	1335
	22	453	498	573	779	845	955
B-36, DGB-36, BF-36, DGBF-36, BF-36A, DGBF-36A	16	2345	2547	2885	3781	4050	4501
	18	1561	1701	1938	2491	2679	2994
	20	927	1016	1164	1461	1579	1778
	22	664	730	840	1038	1126	1273
2W-36, DG-2W36, 2WF-36, DG2WF-36, 2WF-36A, DG2WF-36A	16	1011	1098	1244	1683	1803	2005
	18	665	725	826	1101	1184	1324
	19	540	590	674	893	962	1079
	20	386	423	485	635	687	773
	21	346	379	436	569	616	695
	22	272	299	344	447	485	548
3W-36, DGW-36, 3WF-36, DG3WF-36, 3WF-36A, DG3WF-36A	16	1002	1089	1234	1716	1839	2044
	18	656	716	815	1122	1207	1350
	19	532	581	664	909	980	1099
	20	378	414	475	646	699	788
	21	338	371	426	579	627	707
	22	265	291	335	454	493	558

Notes:
[1]Tabulated values based on a yield stress of 40 ksi and one-flange loading with fasteners at supports.
[2]For AcustaDek™, the allowable reaction must be multiplied by 0.90.
[3]Support reactions must not be greater than the tabulated values.
[4]For cellular deck, the thickness of the top sheet (deck panel) is applicable.

TABLE 4—NOMINAL WELD CAPACITIES[1]

DECK PROFILE	GAGE	ARC SPOT (PUDDLE) WELD ($^1/_2$ inch EFFECTIVE DIAMETER)		ARC SEAM WELD ($^3/_8$ inch X 1 inch EFFECTIVE WIDTH AND LENGTH)
		Shear (lbf)[2]	Tensile (lbf)	Shear (lbf)[2]
NN-32, N-32, DGN-32	22	2187	2187	3277
	20	3052	2608	3967
BN-36, B-36, DGB-36	18	4982	3425	5368
	16	6145	4225	6824
2W-36, DG-2W36, 3W-36, DG3W-36	22	2070	2123	3174
	21	2616	2405	3632
	20	2913	2545	3863
	19	4078	3030	4680
	18	4903	3371	5272
	16	6069	4172	6725
NF-32, DGNF-32, NF-32A, DGNF-32A **BF-36, DGBF-36 BF-36A, DGBF-36A**	20/20	7283	5007	8222
	20/18	8287	5698	9632
	20/16	8836	6495	11211
	18/20	8368	5753	9762
	18/18	8836	6487	11211
	18/16	8836	7430	12834
	16/20	8836	6565	11345
	16/18	8836	7430	12834
	16/16	8836	8401	14501
2WF-36, DG2WF-36, 3WF-36, DG3WF-36, 2WF-36A, DG2WF-36A, 3WF-36A, DG3WF-36A	20/20	7200	4950	8336
	20/18	8206	5642	9749
	20/16	8836	6425	11332
	18/20	8269	5704	9866
	18/18	8836	6425	11318
	18/16	8836	7367	12944
	16/20	8836	6503	11452
	16/18	8836	7367	12944
	16/16	8836	8335	14614

[1]Calculated in accordance with AISI S100 including the 2004 Supplement
[2]Not for use with Section 4.2.

TABLE 5—FIRE RESISTIVE RATINGS[1,2]

TYPE OF DECK	CONCRETE TYPE	CONCRETE THICKNESS[3]	RESTRAINED FIRE RESISTIVE RATING
Hi-Form Type: B-36, BF-36, 2W-36, 2WF-36, 3W-36, & 3WF-36	Normal Weight 145 pcf 3500 psi	$3^1/_2$ inches $4^1/_2$ inches $5^1/_4$ inches	1 hour 2 hour 3 hour
	Lightweight 110 pcf 3000 psi	$2^1/_2$ inches $3^1/_4$ inches $4^3/_{16}$ inches	1 hour 2 hour 3 hour

[1]For maximum clear spans, steel requirements, attachments and concrete reinforcing see Section 4.3 of this report.
[2]For reduced concrete thickness, see ESR-1649.
[3]Thickness of concrete above top of deck flute.

TABLE 6—DIAPHRAGM FLEXIBILITY LIMITATION[1,2,3,4,5]

F	MAXIMUM SPAN FOR MASONRY OR CONCRETE WALLS (feet)	SPAN-DEPTH LIMITATION			
		Rotation Not Considered In Diaphragm		Rotation Considered In Diaphragm	
		Masonry or Concrete Walls	Flexible Walls[4]	Masonry or Concrete Walls	Flexible Walls[4]
More than 150	Not used	Not used	2:1	Not used	$1^1/_2$:1
70-150	200	2:1 or as required for deflection	3:1	Not used	2:1
10-70	400	$2^1/_2$:1 or as required for deflection	4:1	As required for deflection	$2^1/_2$:1
1-10	No limitation	3:1 or as required for deflection	5:1	As required for deflection	3:1
Less than 1	No limitation	As required for deflection	No limitation	As required for deflection	$3^1/_2$:1

[1]Diaphragms shall be investigated regarding their flexibility and recommended span-depth limitations. Refer to above table for determination of value of F.
[2]Diaphragms supporting masonry or concrete walls shall have their deflections limited to the following amount:

$$\Delta wall = \frac{H^2 f_c}{0.01Et}$$

where:

H = Unsupported height of wall in feet.
t = Thickness of wall in inches.
E = Modulus of elasticity of wall material for deflection determination in pounds per square inch.
f_c = Allowable compressive strength of wall material in flexure in pounds per square inch. For concrete, $f_c = 0.45f'_c$. For masonry, $f_c = F_b = 0.33f'_m$.

[3]The total deflection Δ of the diaphragm may be computed from the equation: $\Delta = \Delta_f + \Delta_w$
where:

Δ_f = Flexural deflection of the diaphragm determined in the same manner as the deflection of beams.
Δ_w = The web deflection may be determined by the equation:

$$\Delta_w = \frac{q_{ave} LF}{10^6}$$

where:

L = Distance in feet between vertical resisting element (such as shear wall) and the point to which the deflection is to be determined.
q_{ave} = Average shear in diaphragm in pounds per foot over length L.
F = Flexibility factor: The average microinches a diaphragm web will deflect in a span of 1 foot under a shear of 1 pound per foot.

[4]When applying these limitations to cantilevered diaphragms, the allowable span-depth ratio will be half that shown.
[5]Diaphragm classification (flexible or rigid) and deflection limits must comply with Section 4.1.2.

TABLE 7—B-36, DGBN-36, BN-36, BF-36, DGBF-36, BF-36A, AND DGBF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)												
			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"
$3^1/_2$" SLAB DEPTH	22	1	230	184	163	145	130	117	105	96	87	80	70	61	54
		2	230	204	183	165	130	117	105	96	87	80	70	61	54
		3	230	204	183	145	130	117	105	96	87	80	70	61	54
		q (36/4)	1501	1462	1429	1401	1376	1354	1334	1317	1301	1287	1274	1262	1251
		q (36/7)	1710	1656	1609	1569	1533	1502	1474	1449	1427	1407	1388	1372	1356
CON-CRETE TYPE:	20	1	301	267	239	196	176	159	138	117	100	87	75	66	58
		2	301	267	239	216	196	179	138	117	100	87	75	66	58
		3	301	267	239	216	196	179	138	117	100	87	75	66	58
		q (36/4)	1568	1522	1483	1448	1419	1392	1369	1348	1329	1312	1296	1282	1269
		q (36/7)	1820	1754	1698	1650	1607	1570	1537	1507	1480	1456	1434	1413	1395
LTWT 110 PCF	18	1	301	267	239	215	196	179	143	131	114	99	86	75	66
		2	301	267	239	215	196	179	164	151	140	99	86	75	66
		3	301	267	239	215	196	179	164	151	140	130	86	75	66
		q (36/4)	1721	1660	1607	1562	1522	1487	1456	1428	1403	1380	1359	1340	1323
		q (36/7)	2056	1969	1895	1830	1774	1724	1679	1639	1604	1571	1542	1515	1491
SLAB WT. 23.0 PSF	16	1	300	266	238	215	195	178	163	151	140	109	95	83	73
		2	300	266	238	215	195	178	163	151	140	130	121	83	73
		3	300	266	238	215	195	178	163	151	140	130	121	113	106
		q (36/4)	1890	1813	1748	1691	1641	1597	1558	1523	1492	1463	1437	1414	1392
		q (36/7)	2309	2201	2107	2026	1955	1893	1838	1788	1743	1703	1666	1632	1602

	Gage	No. of Spans	SPAN (ft-in)												
			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"
4" SLAB DEPTH	22	1	245	214	189	168	151	136	122	111	101	92	84	77	71
		2	268	238	213	168	151	136	122	111	101	92	84	77	71
		3	268	238	213	168	151	136	122	111	101	92	84	77	71
		q (36/4)	1659	1620	1587	1559	1534	1512	1492	1475	1459	1445	1432	1420	1409
		q (36/7)	1868	1814	1767	1727	1691	1660	1632	1607	1585	1565	1546	1530	1514
CON-CRETE TYPE:	20	1	350	311	254	227	204	184	167	152	139	128	117	108	100
		2	350	311	278	251	228	208	167	152	139	128	117	108	100
		3	350	311	278	251	228	208	167	152	139	128	117	108	100
		q (36/4)	1726	1680	1641	1606	1577	1550	1527	1506	1487	1470	1454	1440	1427
		q (36/7)	1978	1912	1856	1808	1765	1728	1695	1665	1638	1614	1591	1571	1553
LTWT 110 PCF	18	1	349	309	277	250	227	183	166	151	138	126	116	107	99
		2	349	309	277	250	227	207	190	175	138	126	116	107	99
		3	349	309	277	250	227	207	190	175	162	126	116	107	99
		q (36/4)	1879	1818	1765	1720	1680	1645	1614	1586	1561	1538	1517	1498	1481
		q (36/7)	2214	2127	2053	1988	1931	1882	1837	1797	1762	1729	1700	1673	1649
SLAB WT. 27.5 PSF	16	1	347	307	275	248	225	206	189	174	136	125	115	106	98
		2	347	307	275	248	225	206	189	174	161	150	115	106	98
		3	347	307	275	248	225	206	189	174	161	150	140	131	98
		q (36/4)	2048	1971	1906	1849	1799	1755	1716	1681	1650	1621	1595	1572	1550
		q (36/7)	2467	2359	2265	2184	2113	2051	1995	1946	1901	1861	1824	1790	1760

(continued)

Notes:
[1]See General Table Notes.
[2]Shoring is required at midspan for superimposed load values to the right of the heavy lines in shaded boxes
[3]Total slab depth is nominal depth from top of concrete to bottom of steel deck.

TABLE 7—B-36, DGBN-36, BN-36, BF-36, DGBF-36, BF-36A, AND DGBF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)												
			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"
4 3/4" SLAB DEPTH	22	1	299	262	231	206	184	165	149	136	123	113	103	94	87
		2	328	291	231	206	184	165	149	136	123	113	103	94	87
		3	328	291	231	206	184	165	149	136	123	113	103	94	87
		q (36/4)	1895	1857	1824	1796	1771	1749	1729	1712	1696	1682	1669	1657	1646
		q (36/7)	2105	2051	2004	1964	1928	1897	1869	1844	1822	1802	1783	1767	1751
CON-CRETE TYPE:	20	1	428	380	311	277	249	225	204	186	170	156	143	132	122
		2	428	380	340	306	278	225	204	186	170	156	143	132	122
		3	428	380	340	306	278	225	204	186	170	156	143	132	122
		q (36/4)	1963	1917	1878	1843	1813	1787	1764	1743	1724	1707	1691	1677	1664
		q (36/7)	2215	2149	2093	2045	2002	1965	1931	1902	1875	1851	1828	1808	1790
LTWT110 PCF	18	1	425	377	337	304	246	222	202	184	168	154	141	130	120
		2	425	377	337	304	276	252	231	184	168	154	141	130	120
		3	425	377	337	304	276	252	231	213	168	154	141	130	120
		q (36/4)	2116	2055	2002	1957	1917	1882	1851	1823	1798	1755	1754	1735	1718
		q (36/7)	2451	2364	2290	2225	2168	2119	2074	2034	1999	1966	1937	1910	1886
SLAB WT. 34.4 PSF	16	1	421	374	334	301	274	250	229	181	166	152	139	128	119
		2	421	374	334	301	274	250	229	211	196	152	139	128	119
		3	421	374	334	301	274	250	229	211	196	182	170	128	119
		q (36/4)	2285	2208	2143	2086	2036	1992	1953	1918	1886	1858	1832	1808	1787
		q (36/7)	2704	2595	2502	2421	2350	2288	2232	2183	2138	2098	2061	2027	1996

	Gage	No. of Spans	SPAN (ft-in)												
			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"
5 11/16" SLAB DEPTH	22	1	370	324	286	254	227	205	185	168	152	139	127	117	107
		2	405	359	286	254	227	205	185	168	152	139	127	117	107
		3	405	324	286	254	227	205	185	168	152	139	127	117	107
		q (36/4)	2192	2153	2121	2092	2067	2045	2026	2008	1992	1978	1965	1953	1943
		q (36/7)	2401	2347	2300	2260	2224	2193	2165	2141	2118	2098	2080	2063	2047
CON-CRETE TYPE:	20	1	529	433	384	343	308	278	252	230	210	192	177	163	151
		2	529	469	420	343	308	278	252	230	210	192	177	163	151
		3	529	469	420	378	308	278	252	230	210	192	177	163	151
		q (36/4)	2259	2213	2174	2140	2110	2083	2060	2039	2020	2003	1987	1973	1960
		q (36/7)	2511	2446	2390	2341	2298	2261	2228	2198	2171	2147	2125	2104	2086
LTWT 110 PCF	18	1	525	465	416	339	304	275	249	227	207	190	175	161	149
		2	525	465	416	375	341	311	249	227	207	190	175	161	149
		3	525	465	416	375	341	311	286	227	207	190	175	161	149
		q (36/4)	2412	2351	2299	2253	2213	2178	2147	2119	2094	2071	2050	2031	2014
		q (36/7)	2748	2661	2586	2521	2465	2415	2370	2331	2295	2263	2233	2206	2182
SLAB WT. 42.1 PSF	16	1	519	461	412	372	337	308	246	224	204	187	172	159	146
		2	519	461	412	372	337	308	283	261	204	187	172	159	146
		3	519	461	412	372	337	308	283	261	241	224	172	159	146
		q (36/4)	2581	2505	2439	2382	2332	2288	2249	2214	2183	2154	2128	2105	2083
		q (36/7)	3001	2892	2798	2717	2647	2584	2529	2479	2434	2394	2357	2323	2293

(continued)

TABLE 7—B-36, DGBN-36, BN-36, BF-36, DGBF-36, BF-36A, AND DGBF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)												
			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"
		1	205	179	157	139	124	111	100	90	81	74	67	61	55
$3^1/_2$"		2	230	204	183	139	124	111	100	90	81	74	67	61	55
SLAB	22	3	230	204	157	139	124	111	100	90	81	74	67	61	55
DEPTH		q (36/4)	1825	1787	1754	1725	1700	1678	1659	1641	1626	1611	1599	1587	1576
		q (36/7)	2035	1980	1934	1893	1858	1826	1799	1774	1751	1731	1713	1696	1681
CON-		1	301	267	213	190	170	153	138	125	114	104	95	83	73
CRETE		2	301	267	239	216	196	153	138	125	114	104	95	83	73
TYPE:	20	3	301	267	239	216	196	153	138	125	114	104	95	83	73
		q (36/4)	1893	1847	1807	1773	1743	1717	1693	1672	1653	1636	1621	1606	1593
		q (36/7)	2144	2079	2023	1974	1932	1894	1861	1831	1804	1780	1758	1738	1719
		1	301	267	239	215	196	152	137	125	113	104	95	87	80
NW		2	301	267	239	215	196	179	164	151	113	104	95	87	80
145	18	3	301	267	239	215	196	179	164	151	140	104	95	87	80
PCF		q (36/4)	2046	1984	1932	1886	1847	1811	1780	1752	1727	1704	1684	1665	1647
		q (36/7)	2381	2294	2219	2155	2098	2048	2004	1964	1928	1896	1866	1840	1815
SLAB		1	300	266	238	215	195	178	163	124	113	103	94	86	79
WT.		2	300	266	238	215	195	178	163	151	140	130	94	86	79
30.3	16	3	300	266	238	215	195	178	163	151	140	130	121	113	79
		q (36/4)	2215	2138	2072	2015	1965	1921	1882	1847	1816	1787	1762	1738	1716
PSF		q (36/7)	2634	2525	2432	2351	2280	2217	2162	2112	2068	2027	1990	1957	1926
	Gage	No. of Spans	SPAN (ft-in)												
			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"
		1	238	207	182	161	144	128	115	104	94	85	77	70	64
4"		2	268	238	182	161	144	128	115	104	94	85	77	70	64
SLAB	22	3	268	238	182	161	144	128	115	104	94	85	77	70	64
DEPTH		q (36/4)	2064	2026	1993	1964	1940	1918	1898	1881	1865	1851	1838	1826	1815
		q (36/7)	2274	2219	2173	2132	2097	2066	2038	2013	1991	1970	1952	1935	1920
CON-		1	350	280	247	220	197	177	160	145	132	121	110	101	93
CRETE		2	350	311	278	251	197	177	160	145	132	121	110	101	93
TYPE:	20	3	350	311	278	251	197	177	160	145	132	121	110	101	93
		q (36/4)	2132	2086	2046	2012	1982	1956	1932	1911	1892	1875	1860	1846	1833
		q (36/7)	2383	2318	2262	2213	2171	2133	2100	2070	2043	2019	1997	1977	1958
		1	349	309	277	250	195	176	159	144	131	119	109	100	92
NW		2	349	309	277	250	227	207	190	144	131	119	109	100	92
	18	3	349	309	277	250	227	207	190	175	131	119	109	100	92
145		q (36/4)	2285	2223	2171	2125	2086	2050	2019	1991	1966	1943	1923	1904	1887
PCF		q (36/7)	2620	2533	2458	2394	2337	2287	2243	2203	2167	2135	2106	2079	2054
SLAB		1	347	307	275	248	225	206	157	142	129	118	108	99	91
WT.		2	347	307	275	248	225	206	189	174	161	118	108	99	91
36.3	16	3	347	307	275	248	225	206	189	174	161	150	108	99	91
		q (36/4)	2454	2377	2311	2254	2205	2161	2121	2087	2055	2027	2001	1977	1955
PSF		q (36/7)	2873	2764	2671	2590	2519	2457	2401	2351	2307	2266	2229	2196	2165
	Gage	No. of Spans	SPAN (ft-in)												
			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"
		1	308	269	236	209	186	166	149	135	122	110	100	91	82
5"		2	348	269	236	209	186	166	149	135	122	110	100	91	82
SLAB	22	3	348	269	236	209	186	166	149	135	122	110	100	91	82
DEPTH		q (36/4)	2542	2504	2471	2443	2418	2396	2376	2359	2343	2329	2316	2304	2293
		q (36/7)	2752	2697	2651	2610	2575	2544	2516	2491	2469	2449	2430	2413	2398
CON-		1	414	363	321	285	255	229	207	188	171	156	143	131	120
CRETE		2	455	403	361	285	255	229	207	188	171	156	143	131	120
TYPE:	20	3	455	403	361	285	255	229	207	188	171	156	143	131	120
		q (36/4)	2610	2564	2524	2490	2460	2434	2410	2389	2371	2353	2338	2324	2311
		q (36/7)	2862	2796	2740	2692	2649	2612	2578	2548	2522	2497	2475	2455	2437
		1	451	400	358	282	252	227	205	186	169	154	141	129	118
NW		2	451	400	358	323	293	227	205	186	169	154	141	129	118
145	18	3	451	400	358	323	293	268	205	186	169	154	141	129	118
PCF		q (36/4)	2763	2702	2649	2604	2564	2529	2497	2469	2444	2422	2401	2382	2365
		q (36/7)	3098	3011	2936	2872	2815	2765	2721	2681	2645	2613	2584	2557	2532
SLAB		1	447	396	355	320	290	224	202	183	166	152	139	127	116
WT.		2	447	396	355	320	290	265	243	183	166	152	139	127	116
48.4	16	3	447	396	355	320	290	265	243	224	208	152	139	127	116
		q (36/4)	2932	2855	2789	2733	2683	2639	2600	2565	2533	2505	2479	2455	2434
PSF		q (36/7)	3351	3242	3149	3068	2997	2935	2879	2830	2785	2744	2708	2674	2643

(continued)

TABLE 7—B-36, DGBN-36, BN-36, BF-36, DGBF-36, BF-36A, AND DGBF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)												
			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"
$5^1/_2$" SLAB DEPTH	22	1	345	301	264	234	208	186	167	151	136	123	112	101	92
		2	389	301	264	234	208	186	167	151	136	123	112	101	92
		3	345	301	264	234	208	186	167	151	136	123	112	101	92
		q (36/4)	2781	2743	2710	2682	2657	2635	2615	2598	2582	2568	2555	2543	2532
		q (36/7)	2991	2937	2890	2849	2814	2783	2755	2730	2708	2688	2669	2652	2637
CON-CRETE TYPE:	20	1	464	406	359	319	285	257	232	210	191	174	159	146	134
		2	509	451	359	319	285	257	232	210	191	174	159	146	134
		3	509	451	404	319	285	257	232	210	191	174	159	146	134
		q (36/4)	2849	2803	2763	2729	2699	2673	2649	2628	2610	2593	2577	2563	2550
		q (36/7)	3101	3035	2979	2931	2888	2851	2817	2787	2761	2736	2714	2694	2676
	18	1	504	447	355	315	282	254	229	208	189	172	157	144	132
NW 145 PCF		2	504	447	400	361	328	254	229	208	189	172	157	144	132
		3	504	447	400	361	328	254	229	208	189	172	157	144	132
		q (36/4)	3002	2941	2888	2843	2803	2768	2737	2709	2683	2661	2640	2621	2604
		q (36/7)	3337	3250	3176	3111	3054	3004	2760	2920	2885	2852	2823	2796	2771
SLAB WT. 54.4	16	1	500	443	396	357	278	250	226	205	186	169	155	142	130
		2	500	443	396	357	324	296	226	205	186	169	155	142	130
		3	500	443	396	357	324	296	272	251	186	169	155	142	130
		q (36/4)	3171	3094	3029	2972	2922	2878	2839	2804	2772	2744	2718	2694	2673
PSF		q (36/7)	3590	3481	3388	3307	3236	3174	3118	3069	3024	2983	2947	2913	2882

	Gage	No. of Spans	SPAN (ft-in)												
			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"
6" SLAB DEPTH	22	1	382	333	293	259	231	206	185	167	153	136	124	112	100
		2	382	333	293	259	231	206	185	167	151	136	124	112	100
		3	382	333	293	259	231	206	185	167	151	136	124	112	100
		q (36/4)	3020	2982	2949	2921	2896	2874	2854	2837	2821	2807	2794	2782	2771
		q (36/7)	3230	3176	3129	3088	3053	3022	2994	2969	2947	2927	2908	2892	2876
CON-CRETE TYPE:	20	1	513	450	397	353	316	284	257	233	212	193	177	162	149
		2	563	499	397	353	316	284	257	233	212	193	177	162	149
		3	563	499	397	353	316	284	257	233	212	193	177	162	149
		q (36/4)	3088	3042	3002	2968	2928	2912	2889	2868	2849	2832	2816	2802	2789
		q (36/7)	3340	3274	3218	3170	3127	3090	3056	3027	3000	2975	2953	2933	2915
	18	1	559	495	393	349	312	281	254	230	209	191	174	160	147
NW 145 PCF		2	559	495	443	400	312	281	254	230	209	191	174	160	147
		3	559	495	443	400	363	281	254	230	209	191	174	160	147
		q (36/4)	3241	3180	3127	3082	3042	3007	2976	2948	2923	2900	2879	2860	2843
		q (36/7)	3576	3489	3415	3350	3293	3243	3199	3159	3124	3091	3062	3035	3010
SLAB WT. 60.4	16	1	553	490	439	396	308	277	250	227	206	188	172	157	144
		2	553	490	439	396	359	328	250	227	206	188	172	157	144
		3	553	490	439	396	359	328	301	227	206	188	172	157	144
		q (36/4)	3410	3333	3268	3211	3161	3117	3078	3043	3011	2983	2957	2933	2912
PSF		q (36/7)	3829	3720	3627	3546	3475	3413	3357	3308	3263	3223	3186	3152	3121

	Gage	No. of Spans	SPAN (ft-in)												
			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"
$6^3/_4$" SLAB DEPTH	22	1	438	382	336	297	265	237	213	191	173	157	142	127	112
		2	438	382	336	297	265	237	213	191	173	157	142	127	112
		3	438	382	336	297	265	237	213	191	173	157	142	127	112
		q (36/4)	3379	3341	3308	3279	3254	3232	3213	3195	3180	3166	3153	3141	3130
		q (36/7)	3589	3534	3488	3447	3412	3380	3353	3328	3306	3285	3267	3280	3235
CON-CRETE TYPE:	20	1	589	516	456	405	363	326	295	267	243	222	203	186	171
		2	646	516	456	405	363	326	295	267	243	222	203	186	171
		3	646	516	456	465	363	326	295	267	243	222	203	186	171
		q (36/4)	3447	3401	3361	3327	3297	3271	3247	3226	3207	3190	3175	3160	3147
		q (36/7)	3698	3633	3577	3528	3486	3448	3415	3385	3358	3334	3312	3292	3273
	18	1	641	511	451	401	359	322	291	264	240	219	200	184	168
NW 145 PCF		2	641	568	509	401	359	322	291	264	240	219	200	184	168
		3	641	568	509	459	359	322	291	264	240	219	200	184	168
		q (36/4)	3600	3538	3486	3440	3401	3365	3334	3306	3281	3258	3238	3219	3201
		q (36/7)	3935	3848	3773	3709	3652	3602	3588	3518	3482	3450	3421	3394	3369
SLAB WT. 69.5	16	1	634	563	503	396	354	318	287	260	237	216	197	181	166
		2	634	563	503	454	412	318	287	260	237	216	197	181	166
		3	634	563	503	454	412	376	287	260	237	216	197	181	166
		q (36/4)	3769	3692	3626	3569	3519	3476	3436	3401	3370	3342	3316	3292	3270
PSF		q (36/7)	4188	4079	3986	3905	3834	3772	3716	3666	3622	3581	3544	3511	3480

TABLE 8—NN-32, N-32, DGN-32, NF-32, DGNF-32, NF-32A, AND DGNF-32A DECKS WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOADS (psf) AND DIAPHRAGM SHEAR (plf)[1-3]

5" SLAB DEPTH CONC-RETE TYPE: LTWT 110 PCF SLAB WT. 29.7 PCF	Gage	No. of Spans	SPAN (ft-in) 8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	22	1, 2 or 3	208	182	160	141	125	111	99	89	79	71	64	58	52	47	42
		q (32/5)	1014	1000	988	985	975	966	957	950	943	942	936	931	925	921	916
		q (32/3)	1001	988	977	974	965	956	948	941	935	934	928	923	918	914	909
	20	1, 2 or 3	247	216	190	168	150	133	119	107	97	87	79	71	65	59	53
		q (32/5)	1064	1047	1033	1030	1017	1006	996	987	978	978	971	964	957	951	946
		q (32/3)	1049	1033	1019	1017	1005	995	985	976	968	968	961	955	949	943	938
	18	1, 2 or 3	318	279	246	219	195	174	157	141	128	116	105	96	87	80	73
		q (32/5)	1171	1148	1127	1126	1109	1093	1079	1066	1054	1056	1046	1036	1027	1018	1010
		q (32/3)	1150	1128	1109	1109	1093	1078	1064	1052	1040	1043	1033	1024	1015	1007	999
	16	1, 2 or 3	387	340	301	267	239	214	193	175	158	144	131	120	110	101	92
		q (32/5)	1287	1257	1230	1234	1211	1190	1171	1154	1138	1145	1131	1117	1105	1094	1083
		q (32/3)	1262	1233	1207	1212	1190	1171	1153	1136	1121	1128	1115	1102	1090	1079	1069

Maximum Unshored Span PCF	Gage	Number of spans 1	2	3	Gage	Number of spans 1	2	3
	22	9' - 5"	10' - 4"	11' - 2"	18	13' - 7"	14' - 8"	15' - 2"
	20	11' - 0"	12' - 3"	12' - 10"	16	14' - 5"	16' - 5"	16' - 11"

5½" SLAB DEPTH CONC-RETE TYPE: LTWT 110 PCF SLAB WT. 34.3 PCF	Gage	No. of Spans	SPAN (ft-in) 8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	22	1, 2 or 3	247	216	189	167	148	132	118	106	95	85	77	69	62	56	51
		q (32/5)	1213	1200	1188	1184	1174	1165	1157	1149	1143	1142	1136	1130	1125	1120	1116
		q (32/3)	1200	1188	1176	1173	1164	1155	1148	1141	1134	1133	1128	1122	1118	1113	1109
	20	1, 2 or 3	293	257	226	200	178	159	142	128	115	104	94	85	77	70	64
		q (32/5)	1263	1247	1232	1229	1217	1206	1195	1186	1178	1178	1170	1163	1157	1151	1145
		q (32/3)	1248	1232	1219	1216	1205	1194	1184	1176	1168	1168	1161	1154	1148	1142	1137
	18	1, 2 or 3	378	332	293	260	232	208	187	168	152	138	126	115	105	96	87
		q (32/5)	1370	1347	1326	1326	1309	1293	1278	1265	1253	1256	1245	1235	1226	1218	1210
		q (32/3)	1350	1328	1308	1309	1292	1277	1264	1251	1240	1243	1233	1223	1214	1206	1199
	16	1, 2 or 3	460	404	358	318	284	255	230	208	189	172	157	143	131	120	110
		q (32/5)	1487	1457	1430	1434	1411	1390	1371	1354	1338	1344	1330	1317	1304	1293	1282
		q (32/3)	1461	1432	1407	1412	1390	1370	1352	1336	1320	1328	1314	1301	1290	1279	1269

Maximum Unshored Span PCF	Gage	Number of spans 1	2	3	Gage	Number of spans 1	2	3
	22	9' - 0"	9' - 11"	10' - 8"	18	13' - 2"	14' - 1"	14' - 6"
	20	10' - 6"	11' - 9"	12' - 4"	16	13' - 11"	15' - 9"	16' - 3"

(continued)

Notes:

[1]See General Table Notes.
[2]Shoring is required when the maximum unshored span exceeds the tabulated values.
[3]The slab depth is measured from top of concrete to bottom of steel deck.

TABLE 8—NN-32, N-32, DGN-32, NF-32, DGNF-32, NF-32A, AND DGNF-32A DECKS WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOADS (psf) AND DIAPHRAGM SHEAR (plf)[1-3]

$6^1/_4$"	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
SLAB		1, 2 or 3	310	271	238	211	187	167	149	133	120	108	97	88	80	72	65
DEPTH	22	q (32/5)	1512	1499	1487	1483	1473	1464	1456	1449	1442	1441	1435	1429	1424	1419	1415
		q (32/3)	1500	1487	1476	1472	1463	1455	1447	1440	1433	1433	1427	1422	1417	1412	1408
CONC-		1, 2 or 3	369	323	285	252	224	201	180	162	146	132	119	108	99	90	82
RETE	20	q (32/5)	1562	1546	1531	1528	1516	1505	1495	1485	1477	1477	1469	1462	1456	1450	1444
TYPE:		q (32/3)	1547	1532	1518	1515	1504	1493	1483	1475	1467	1467	1460	1453	1447	1441	1436
		1, 2 or 3	477	418	370	328	293	263	236	213	193	176	160	146	133	122	112
LTWT	18	q (32/5)	1669	1646	1626	1625	1608	1592	1578	1565	1553	1555	1544	1534	1525	1517	1509
110		q (32/3)	1649	1627	1607	1608	1591	1576	1563	1550	1539	1542	1532	1522	1514	1505	1498
PCF		1, 2 or 3	581	511	452	402	360	323	291	264	240	218	199	182	167	153	141
	16	q (32/5)	1786	1756	1729	1733	1710	1689	1670	1653	1637	1643	1629	1616	1604	1592	1582
SLAB		q (32/3)	1760	1731	1706	1711	1689	1669	1651	1635	1620	1627	1613	1601	1589	1578	1568

WT.	Maximum Unshored Span	Gage	Number of spans				Gage	Number of spans		
41.3			1	2	3			1	2	3
PCF		22	8' - 6"	9' - 5"	10' - 0"		18	12' - 7"	13' - 4"	13' - 9"
		20	9' - 11"	11' - 1"	11' - 8"		16	13' - 5"	14' - 11"	15' - 5"

$7^3/_{16}$"	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
SLAB		1, 2 or 3	396	346	305	269	239	213	191	171	154	139	126	114	103	93	85
DEPTH	22	q (32/5)	1886	1873	1861	1857	1847	1838	1830	1822	1816	1815	1809	1803	1798	1793	1789
		q (32/3)	1873	1861	1849	1846	1837	1828	1821	1814	1807	1806	1801	1796	1791	1786	1782
CONC-		1, 2 or 3	471	413	364	323	288	257	231	208	188	170	154	140	128	116	106
RETE	20	q (32/5)	1936	1920	1905	1902	1890	1879	1869	1859	1851	1851	1843	1836	1830	1824	1818
TYPE:		q (32/3)	1921	1906	1892	1889	1878	1867	1857	1849	1841	1841	1834	1827	1821	1815	1810
		1, 2 or 3	611	537	474	422	377	338	304	275	249	227	207	189	173	158	145
LTWT	18	q (32/5)	2043	2020	2000	1999	1982	1966	1951	1938	1926	1929	1918	1908	1899	1891	1883
110		q (32/3)	2023	2001	1981	1982	1965	1950	1937	1924	1913	1916	1906	1896	1887	1879	1872
PCF		1, 2 or 3	747	657	582	518	463	417	376	341	310	282	258	236	217	199	184
	16	q (32/5)	2160	2130	2103	2107	2084	2063	2044	2027	2011	2017	2003	1990	1978	1966	1955
SLAB		q (32/3)	2134	2105	2080	2085	2063	2043	2025	2009	1993	2001	1987	1974	1963	1952	1942

WT.	Maximum Unshored Span	Gage	Number of spans				Gage	Number of spans		
34.3			1	2	3			1	2	3
PCF		22	7' - 11"	8' - 11"	9' - 4"		18	11' - 9"	12' - 6"	12' - 11"
		20	9' - 3"	10' - 5"	10' - 10"		16	12' - 10"	14' - 0"	14' - 6"

(continued)

TABLE 8—NN-32, N-32, DGN-32, NF-32, DGNF-32, NF-32A, AND DGNF-32A DECKS WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOADS (psf) AND DIAPHRAGM SHEAR (plf)[1-3]

5" SLAB DEPTH CONC-RETE TYPE: NW 145 PCF SLAB WT. 39.1 PCF	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	22	1, 2 or 3	213	185	162	142	125	111	98	87	78	69	62	55	49	43	39
		q (32/5)	1417	1404	1392	1388	1378	1369	1361	1353	1347	1346	1340	1334	1329	1324	1320
		q (32/3)	1404	1392	1380	1377	1368	1359	1352	1345	1338	1337	1332	1326	1322	1317	1313
	20	1, 2 or 3	255	222	195	172	152	135	120	107	96	86	77	69	62	56	50
		q (32/5)	1466	1450	1435	1432	1420	1408	1398	1389	1381	1380	1373	1366	1359	1353	1348
		q (32/3)	1451	1435	1421	1419	1407	1397	1387	1378	1370	1371	1363	1357	1351	1345	1340
	18	1, 2 or 3	332	290	256	226	201	179	161	144	130	117	106	96	87	79	72
		q (32/5)	1570	1547	1527	1526	1509	1493	1479	1466	1454	1456	1446	1436	1426	1418	1410
		q (32/3)	1550	1528	1509	1509	1492	1477	1464	1451	1440	1443	1433	1424	1415	1407	1399
	16	1, 2 or 3	407	357	315	280	249	223	200	181	163	148	134	122	111	102	93
		q (32/5)	1685	1655	1628	1631	1608	1588	1569	1551	1536	1542	1528	1515	1502	1491	1480
		q (32/3)	1659	1630	1605	1610	1588	1568	1550	1533	1518	1526	1512	1499	1488	1477	1466

Maximum Unshored Span	Gage	Number of spans		
		1	2	3
	22	8' - 7"	9' - 6"	10' - 1"
	20	10' - 0"	11' - 3"	11' - 9"

Maximum Unshored Span	Gage	Number of spans		
		1	2	3
	18	12' - 8"	13' - 5"	13' - 11"
	16	13' - 6"	15' - 0"	15' - 6"

6½" SLAB DEPTH CONC-RETE TYPE: NW 145 PCF SLAB WT. 57.6 PCF	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	22	1, 2 or 3	339	295	258	227	201	178	158	141	126	113	101	90	81	72	65
		q (32/5)	2322	2309	2297	2293	2284	2275	2266	2259	2252	2251	2245	2239	2234	2229	2225
		q (32/3)	2310	2297	2286	2283	2273	2265	2257	2250	2244	2243	2237	2232	2227	2222	2218
	20	1, 2 or 3	407	355	312	275	244	217	194	174	156	140	126	114	103	93	84
		q (32/5)	2372	2355	2340	2337	2325	2314	2304	2294	2286	2286	2278	2271	2265	2259	2253
		q (32/3)	2356	2341	2327	2324	2313	2302	2293	2284	2276	2276	2269	2262	2256	2250	2245
	18	1, 2 or 3	532	466	411	364	324	290	260	234	211	191	173	157	143	130	119
		q (32/5)	2476	2453	2432	2432	2414	2399	2384	2371	2359	2362	2351	2341	2332	2323	2315
		q (32/3)	2455	2433	2414	2414	2398	2383	2369	2357	2345	2349	2338	2329	2320	2312	2304
	16	1, 2 or 3	655	575	508	451	403	361	325	293	266	241	219	200	183	167	153
		q (32/5)	2590	2560	2533	2537	2514	2493	2474	2457	2441	2448	2433	2420	2408	2396	2386
		q (32/3)	2564	2536	2510	2515	2493	2473	2455	2439	2424	2431	2417	2405	2393	2382	2372

Maximum Unshored Span	Gage	Number of spans		
		1	2	3
	22	7' - 6"	8' - 6"	8' - 10"
	20	8' - 9"	9' - 11"	10' - 3"

Maximum Unshored Span	Gage	Number of spans		
		1	2	3
	18	11' - 1"	11' - 10"	12' - 3"
	16	12' - 5"	13' - 3"	13' - 9"

(continued)

TABLE 8—NN-32, N-32, DGN-32, NF-32, DGNF-32, NF-32A, AND DGNF-32A DECKS WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOADS (psf) AND DIAPHRAGM SHEAR (plf)[1-3]

$7^1/_2$"	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
SLAB		1, 2 or 3	432	377	330	291	257	228	203	181	162	145	130	117	105	94	84
DEPTH	22	q (32/5)	2926	2913	2901	2897	2887	2878	2870	2862	2856	2855	2849	2843	2838	2833	2829
		q (32/3)	2913	2901	2889	2886	2877	2868	2861	2854	2847	2846	2841	2836	2831	2826	2822
CONC-		1, 2 or 3	519	454	399	352	313	279	249	223	201	181	163	147	133	120	109
RETE	20	q (32/5)	2975	2959	2944	2941	2929	2917	2907	2898	2890	2889	2882	2875	2869	2863	2857
TYPE:		q (32/3)	2960	2944	2930	2928	2916	2906	2896	2887	2879	2880	2872	2866	2860	2854	2849
		1, 2 or 3	681	597	527	467	416	373	335	301	272	247	224	204	186	169	155
NW	18	q (32/5)	3079	3056	3036	3035	3018	3002	2988	2975	2963	2965	2955	2945	2935	2927	2919
145		q (32/3)	3059	3037	3018	3018	3001	2986	2973	2960	2949	2952	2942	2933	2924	2916	2908
PCF		1, 2 or 3	841	738	653	580	518	465	419	378	343	312	284	259	237	218	200
	16	q (32/5)	3194	3164	3137	3140	3117	3097	3078	3060	3045	3051	3037	3024	3011	3000	2989
SLAB		q (32/3)	3168	3139	3114	3119	3097	3077	3059	3042	3027	3035	3021	3008	2997	2986	2975

WT.	Maximum Unshored Span	Gage	Number of spans				Gage	Number of spans		
34.3			1	2	3			1	2	3
PCF		22	7' - 0"	7' - 11"	8' - 3"		18	10' - 3"	11' - 1"	11' - 5"
		20	8' - 2"	9' - 3"	9' - 7"		16	11' - 10"	12' - 5"	12' - 10"

$8^1/_4$"	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
SLAB		1, 2 or 3	505	440	386	340	301	268	238	213	191	171	153	138	124	111	100
DEPTH	22	q (32/5)	3379	3365	3353	3350	3340	3331	3323	3315	3308	3307	3301	3296	3291	3286	3281
		q (32/3)	3366	3353	3342	3339	3330	3321	3313	3306	3300	3299	3293	3288	3283	3279	3274
CONC-		1, 2 or 3	607	531	467	413	367	327	292	262	236	213	192	174	157	142	129
RETE	20	q (32/5)	3428	3411	3397	3394	3381	3370	3360	3351	3342	3342	3335	3328	3321	3315	3310
TYPE:		q (32/3)	3413	3397	3383	3381	3369	3358	3349	3340	3332	3332	3325	3319	3312	3307	3301
		1, 2 or 3	798	700	618	548	489	438	393	355	321	291	264	240	219	200	183
NW	18	q (32/5)	3532	3509	3489	3488	3471	3455	3441	3427	3415	3418	3407	3397	3388	3380	3372
145		q (32/3)	3512	3490	3470	3471	3454	3439	3426	3413	3402	3405	3395	3385	3376	3368	3361
PCF		1, 2 or 3	987	867	767	682	609	547	493	446	404	368	335	306	280	257	236
	16	q (32/5)	3646	3616	3589	3593	3570	3549	3530	3513	3497	3504	3490	3476	3464	3453	3442
SLAB		q (32/3)	3621	3592	3566	3571	3549	3530	3512	3495	3480	3487	3474	3461	3449	3438	3428

WT.	Maximum Unshored Span	Gage	Number of spans				Gage	Number of spans		
79.1			1	2	3			1	2	3
PCF		22	6' - 9"	7' - 7"	7' - 10"		18	9' - 9"	10' - 7"	10' - 11"
		20	7' - 9"	8' - 10"	9' - 1"		16	11' - 3"	11' - 10"	12' - 3"

TABLE 9—2W-36, DG2W-36, 2WF-36, DG2WF-36, 2WF-36A, AND DG2WF-36A DECKS WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOADS (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)														
			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"	12'-6"	13'-0"
4" SLAB DEPTH	22	1, 2 or 3	306	258	219	188	163	141	124	109	96	85	76	67	60	54	48
		q (36/4)	1027	1014	994	977	962	949	937	933	923	914	906	899	892	891	885
		q (36/3)	1005	994	976	960	946	934	923	919	910	902	894	887	881	880	875
	21	1, 2 or 3	340	287	244	210	182	159	139	123	108	96	86	77	69	62	55
		q (36/4)	1069	1056	1033	1013	996	980	967	963	951	941	932	923	915	915	908
		q (36/3)	1045	1033	1012	994	977	963	950	948	937	927	918	911	903	903	896
CONC-RETE TYPE:	20	1, 2 or 3	358	302	257	221	191	167	147	129	115	102	91	81	73	65	59
		q (36/4)	1091	1077	1053	1031	1013	996	982	978	966	955	945	936	927	927	919
		q (36/3)	1065	1053	1031	1011	994	978	965	962	951	940	931	922	915	915	908
	19	1, 2 or 3	426	360	307	265	230	201	177	157	139	124	111	100	90	81	73
		q (36/4)	1169	1155	1125	1098	1075	1055	1037	1035	1020	1006	993	982	972	972	963
		q (36/3)	1137	1126	1098	1074	1052	1033	1016	1015	1001	988	976	966	956	957	949
LTWT 110 PCF	18	1, 2 or 3	457	386	329	284	247	216	190	168	150	134	120	108	97	88	78
		q (36/4)	1226	1213	1178	1148	1122	1099	1078	1077	1060	1044	1030	1017	1005	1007	996
		q (36/3)	1191	1181	1148	1120	1096	1074	1055	1055	1039	1024	1011	998	987	990	980
	16	1, 2 or 3	562	476	407	352	306	269	237	210	188	164	143	125	110	97	86
		q (36/4)	1370	1360	1314	1275	1241	1210	1183	1186	1163	1142	1123	1106	1090	1096	1082
		q (36/3)	1326	1319	1277	1240	1208	1179	1154	1158	1137	1117	1099	1083	1068	1075	1061

SLAB WT. 27.5 PCF	Maximum Unshored Span	Gage	Number of spans			Gage	Number of spans		
			1	2	3		1	2	3
		22	8' - 1"	8' - 8"	9' - 8"	19	11' - 1"	11' - 11"	12' - 3"
		21	9' - 1"	9' - 10"	10' - 6"	18	11' - 7"	12' - 9"	13' - 2"
		20	9' - 7"	10' - 5"	11' - 0"	16	12' - 1"	14' - 0"	14' - 2"

	Gage	No. of Spans	SPAN (ft-in)														
			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"	12'-6"	13'-0"
4½" SLAB DEPTH	22	1, 2 or 3	371	313	266	228	198	172	151	133	117	104	93	82	74	66	59
		q (36/4)	1226	1213	1193	1176	1161	1148	1136	1132	1122	1113	1105	1098	1091	1090	1084
		q (36/3)	1205	1194	1175	1159	1145	1133	1122	1119	1110	1101	1094	1087	1081	1080	1074
	21	1, 2 or 3	411	346	295	254	220	192	169	149	132	117	104	93	84	75	68
		q (36/4)	1269	1255	1232	1212	1195	1180	1166	1162	1151	1141	1131	1123	1115	1114	1107
		q (36/3)	1244	1233	1211	1193	1177	1163	1150	1147	1136	1127	1118	1110	1103	1102	1096
CONC-RETE TYPE:	20	1, 2 or 3	435	367	313	269	234	204	179	158	140	125	111	100	89	80	72
		q (36/4)	1290	1277	1252	1231	1212	1196	1181	1178	1166	1154	1144	1135	1127	1126	1119
		q (36/3)	1264	1253	1230	1210	1193	1178	1164	1161	1150	1140	1130	1122	1114	1114	1107
	19	1, 2 or 3	514	434	371	319	278	243	214	189	168	150	135	121	109	99	89
		q (36/4)	1368	1354	1324	1298	1275	1255	1237	1234	1219	1205	1193	1181	1171	1172	1162
		q (36/3)	1337	1326	1297	1273	1252	1233	1216	1215	1200	1188	1176	1165	1155	1157	1148
LTWT 110 PCF	18	1, 2 or 3	558	471	403	347	302	265	233	207	184	164	147	133	120	108	98
		q (36/4)	1425	1412	1378	1348	1321	1298	1278	1277	1259	1243	1229	1216	1204	1206	1195
		q (36/3)	1390	1380	1348	1320	1295	1274	1255	1255	1238	1224	1210	1198	1187	1189	1179
	16	1, 2 or 3	684	578	495	428	373	327	289	257	229	205	184	167	151	135	120
		q (36/4)	1569	1559	1514	1474	1440	1410	1383	1386	1362	1342	1323	1305	1289	1295	1281
		q (36/3)	1525	1518	1476	1439	1407	1378	1353	1358	1336	1316	1299	1282	1267	1274	1261

SLAB WT. 32.1 PCF	Maximum Unshored Span	Gage	Number of spans			Gage	Number of spans		
			1	2	3		1	2	3
		22	7' - 9"	8' - 5"	9' - 2"	19	10' - 7"	11' - 5"	11' - 9"
		21	8' - 8"	9' - 6"	10' - 1"	18	11' - 2"	12' - 2"	12' - 7"
		20	9' - 2"	10' - 1"	10' - 6"	16	11' - 9"	13' - 5"	13' - 9"

(continued)

Notes:
[1]See General Table Notes.
[2]Shoring is required when the maximum unshored span exceeds the tabulated values.
[3]Total slab depth is nominal depth from top of concrete to bottom of steel deck.

TABLE 9—2W-36, DG2W-36, 2WF-36, DG2WF-36, 2WF-36A, AND DG2WF-36A DECKS WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOADS (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)														
			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"	12'-6"	13'-0"
5¼" SLAB DEPTH	22	1, 2 or 3	475	401	341	293	254	221	194	171	151	135	120	107	96	86	77
		q (36/4)	1525	1512	1493	1475	1460	1447	1435	1431	1421	1413	1404	1397	1390	1389	1383
		q (36/3)	1504	1493	1474	1458	1444	1432	1421	1418	1409	1400	1393	1386	1380	1379	1373
	21	1, 2 or 3	525	443	377	325	282	246	216	191	169	151	135	121	108	97	88
		q (36/4)	1568	1554	1531	1512	1494	1479	1465	1461	1450	1440	1430	1422	1414	1413	1406
		q (36/3)	1543	1532	1511	1492	1476	1462	1449	1446	1435	1426	1417	1409	1402	1401	1395
CONC-RETE TYPE:	20	1, 2 or 3	560	472	403	347	301	263	231	205	182	162	145	130	117	105	95
		q (36/4)	1589	1576	1551	1530	1511	1495	1480	1477	1465	1454	1444	1434	1426	1425	1418
		q (36/3)	1564	1552	1529	1509	1492	1477	1463	1461	1449	1439	1429	1421	1413	1413	1406
	19	1, 2 or 3	656	554	473	408	355	311	274	243	216	193	173	156	141	127	115
		q (36/4)	1667	1653	1623	1597	1574	1554	1536	1533	1518	1504	1492	1481	1470	1471	1462
		q (36/3)	1636	1625	1597	1572	1551	1532	1515	1514	1499	1487	1475	1464	1455	1456	1447
LTWT 110 PCF	18	1, 2 or 3	721	609	521	450	392	343	303	268	239	214	192	173	156	142	129
		q (36/4)	1724	1711	1677	1647	1621	1598	1577	1576	1558	1543	1528	1515	1503	1505	1495
		q (36/3)	1690	1679	1647	1619	1594	1573	1554	1554	1537	1523	1509	1497	1486	1488	1478
	16	1, 2 or 3	881	746	639	552	481	423	374	332	297	266	239	216	196	178	162
		q (36/4)	1868	1858	1813	1774	1739	1709	1682	1685	1662	1641	1622	1604	1588	1594	1580
		q (36/3)	1824	1818	1775	1738	1706	1678	1652	1657	1635	1615	1598	1581	1566	1573	1560

SLAB WT. 39.2 PCF	Maximum Unshored Span	Gage	Number of spans			Gage	Number of spans		
			1	2	3		1	2	3
		22	7' - 4"	8' - 0"	8' - 8"	19	9' - 11"	10' - 9"	11' - 1"
		21	8' - 2"	9' - 0"	9' - 6"	18	10' - 6"	11' - 6"	11' - 11"
		20	8' - 7"	9' - 7"	9' - 11"	16	11' - 3"	12' - 8"	13' - 1"

	Gage	No. of Spans	SPAN (ft-in)														
			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"	12'-6"	13'-0"
6³/₁₆" SLAB DEPTH	22	1, 2 or 3	613	517	441	379	329	287	252	222	197	175	156	140	125	113	101
		q (36/4)	1899	1886	1866	1849	1834	1821	1809	1805	1795	1786	1778	1771	1764	1763	1757
		q (36/3)	1878	1867	1848	1832	1818	1806	1795	1792	1783	1774	1767	1760	1754	1753	1747
	21	1, 2 or 3	675	570	486	419	364	318	280	247	219	195	175	157	141	127	115
		q (36/4)	1942	1928	1905	1885	1868	1853	1839	1835	1824	1814	1804	1796	1788	1787	1780
		q (36/3)	1917	1906	1885	1866	1850	1836	1823	1820	1809	1800	1791	1783	1776	1775	1769
CONC-RETE TYPE:	20	1, 2 or 3	724	611	522	450	391	342	301	266	237	211	189	170	153	138	125
		q (36/4)	1963	1950	1925	1904	1885	1869	1854	1851	1839	1828	1817	1808	1800	1799	1792
		q (36/3)	1937	1926	1903	1883	1866	1851	1837	1835	1823	1813	1803	1795	1787	1787	1780
	19	1, 2 or 3	845	714	611	527	459	402	355	314	280	250	225	203	183	166	150
		q (36/4)	2041	2027	1997	1971	1948	1928	1910	1907	1892	1878	1866	1854	1844	1845	1835
		q (36/3)	2010	1999	1970	1946	1925	1906	1889	1888	1873	1861	1849	1838	1828	1830	1821
LTWT 110 PCF	18	1, 2 or 3	937	793	678	586	510	448	395	351	313	280	252	227	206	187	170
		q (36/4)	2098	2085	2051	2021	1995	1971	1951	1950	1932	1916	1902	1889	1877	1879	1868
		q (36/3)	2063	2053	2021	1993	1968	1947	1928	1928	1911	1897	1883	1871	1860	1862	1852
	16	1, 2 or 3	1145	970	831	719	627	551	487	433	387	348	313	283	257	234	213
		q (36/4)	2242	2232	2187	2148	2113	2083	2056	2059	2036	2015	1996	1978	1962	1968	1954
		q (36/3)	2198	2191	2149	2112	2080	2052	2026	2031	2009	1989	1972	1955	1940	1947	1934

SLAB WT. 47.9 PCF	Maximum Unshored Span	Gage	Number of spans			Gage	Number of spans		
			1	2	3		1	2	3
		22	6' - 10"	7' - 7"	8' - 1"	19	9' - 3"	10' - 1"	10' - 5"
		21	7' - 8"	8' - 6"	8' - 11"	18	9' - 11"	10' - 9"	11' - 2"
		20	8' - 1"	9' - 0"	9' - 3"	16	10' - 7"	11' - 11"	12' - 4"

(continued)

TABLE 9—2W-36, DG2W-36, 2WF-36, DG2WF-36, 2WF-36A, AND DG2WF-36A DECKS WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOADS (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)														
			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"	12'-6"	13'-0"
4" SLAB DEPTH	22	1, 2 or 3	315	264	224	191	165	143	124	108	95	84	74	65	57	51	45
		q (36/4)	1405	1392	1372	1355	1340	1327	1315	1311	1301	1292	1284	1277	1270	1269	1263
		q (36/3)	1383	1372	1354	1338	1324	1312	1301	1297	1288	1280	1272	1265	1259	1258	1253
	21	1, 2 or 3	351	295	250	214	185	161	140	123	108	95	84	75	66	59	52
		q (36/4)	1446	1433	1410	1390	1373	1357	1344	1340	1329	1318	1309	1300	1293	1292	1285
		q (36/3)	1422	1411	1389	1371	1355	1340	1328	1325	1314	1304	1296	1288	1280	1280	1274
CONC-RETE TYPE:	20	1, 2 or 3	371	312	265	227	196	170	149	131	115	102	90	80	71	63	56
		q (36/4)	1468	1454	1430	1408	1390	1373	1359	1355	1343	1332	1322	1313	1304	1304	1296
		q (36/3)	1442	1430	1407	1388	1370	1355	1341	1339	1327	1317	1308	1299	1291	1291	1284
	19	1, 2 or 3	442	373	317	273	236	206	181	159	141	125	111	99	89	80	72
		q (36/4)	1544	1530	1500	1474	1451	1431	1413	1410	1395	1381	1369	1357	1347	1348	1338
		q (36/3)	1513	1502	1473	1449	1427	1409	1392	1390	1376	1363	1352	1341	1331	1333	1324
NW 145 PCF	18	1, 2 or 3	478	403	344	296	256	224	196	173	153	136	122	109	98	88	79
		q (36/4)	1600	1587	1553	1523	1496	1473	1453	1452	1434	1418	1404	1391	1379	1381	1370
		q (36/3)	1565	1555	1523	1495	1470	1449	1429	1429	1413	1398	1385	1373	1362	1364	1354
	16	1, 2 or 3	592	500	427	368	320	280	246	218	194	173	155	139	125	113	103
		q (36/4)	1742	1732	1686	1647	1613	1582	1555	1558	1535	1514	1495	1478	1462	1468	1453
		q (36/3)	1698	1691	1648	1612	1579	1551	1526	1530	1508	1489	1471	1455	1440	1447	1433

SLAB WT. 36.2 PCF	Maximum Unshored Span	Gage	Number of spans				Gage	Number of spans		
			1	2	3			1	2	3
		22	7' - 5"	8' - 1"	8' - 10"		19	10' - 1"	10' - 11"	11' - 3"
		21	8' - 4"	9' - 2"	9' - 8"		18	10' - 8"	11' - 8"	12' - 1"
		20	8' - 9"	9' - 8"	10' - 1"		16	11' - 4"	12' - 11"	13' - 4"

	Gage	No. of Spans	SPAN (ft-in)														
			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"	12'-6"	13'-0"
5½" SLAB DEPTH	22	1, 2 or 3	523	440	373	320	276	239	209	183	161	142	126	112	99	88	78
		q (36/4)	2310	2297	2277	2260	2245	2232	2220	2216	2206	2197	2189	2182	2175	2174	2168
		q (36/3)	2289	2278	2259	2243	2229	2217	2206	2203	2194	2185	2178	2171	2165	2164	2158
	21	1, 2 or 3	579	487	414	355	307	267	234	205	181	160	142	127	113	101	90
		q (36/4)	2352	2338	2315	2296	2278	2263	2249	2245	2234	2224	2214	2206	2198	2197	2190
		q (36/3)	2327	2316	2295	2276	2260	2246	2233	2230	2219	2210	2201	2193	2186	2185	2179
CONC-RETE TYPE:	20	1, 2 or 3	620	522	444	382	330	288	252	222	196	174	155	138	123	110	99
		q (36/4)	2373	2359	2335	2314	2295	2279	2264	2261	2248	2237	2227	2218	2210	2209	2202
		q (36/3)	2347	2336	2313	2293	2276	2260	2247	2244	2233	2223	2213	2205	2197	2197	2190
	19	1, 2 or 3	728	614	524	451	391	341	300	265	235	209	187	167	150	135	122
		q (36/4)	2449	2436	2405	2379	2356	2336	2318	2316	2300	2287	2274	2263	2252	2253	2244
		q (36/3)	2418	2407	2379	2354	2333	2314	2297	2296	2282	2269	2257	2247	2237	2238	2229
NW 145 PCF	18	1, 2 or 3	808	682	582	501	435	381	335	296	263	235	210	188	170	153	138
		q (36/4)	2506	2493	2458	2428	2402	2379	2358	2357	2340	2324	2309	2296	2284	2286	2276
		q (36/3)	2471	2460	2428	2400	2376	2354	2335	2335	2319	2304	2290	2278	2267	2270	2260
	16	1, 2 or 3	993	839	718	620	539	473	417	370	329	295	265	238	215	195	177
		q (36/4)	2647	2637	2592	2552	2518	2488	2461	2463	2440	2419	2400	2383	2367	2373	2359
		q (36/3)	2603	2596	2554	2517	2485	2456	2431	2436	2414	2394	2376	2360	2345	2352	2338

SLAB WT. 54.7 PCF	Maximum Unshored Span	Gage	Number of spans				Gage	Number of spans		
			1	2	3			1	2	3
		22	6' - 6"	7' - 3"	7' - 8"		19	8' - 9"	9' - 7"	9' - 11"
		21	7' - 3"	8' - 2"	8' - 5"		18	9' - 6"	10' - 3"	10' - 7"
		20	7' - 8"	8' - 6"	8' - 10"		16	10' - 1"	11' - 4"	11' - 9"

(continued)

TABLE 9—2W-36, DG2W-36, 2WF-36, DG2WF-36, 2WF-36A, AND DG2WF-36A DECKS WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOADS (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)														
			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"	12'-6"	13'-0"
6½" SLAB DEPTH	22	1, 2 or 3	673	566	481	412	356	309	270	237	209	185	164	146	129	115	103
		q (36/4)	2914	2901	2881	2864	2849	2836	2824	2820	2810	2801	2793	2786	2779	2778	2772
		q (36/3)	2892	2881	2863	2847	2833	2821	2810	2806	2797	2789	2781	2774	2768	2767	2762
	21	1, 2 or 3	743	625	532	457	395	344	302	265	234	208	185	165	147	131	118
		q (36/4)	2955	2942	2919	2899	2882	2866	2853	2849	2838	2827	2818	2809	2802	2801	2794
		q (36/3)	2931	2920	2898	2880	2864	2849	2837	2834	2823	2813	2805	2797	2789	2789	2783
CONC-RETE TYPE:	20	1, 2 or 3	800	674	574	493	427	372	327	288	255	226	201	180	161	144	130
		q (36/4)	2977	2963	2939	2917	2899	2882	2868	2864	2852	2841	2831	2822	2813	2813	2805
		q (36/3)	2951	2939	2916	2897	2879	2864	2850	2848	2836	2826	2817	2808	2800	2800	2793
	19	1, 2 or 3	936	790	674	580	504	440	387	342	304	271	242	217	195	176	158
		q (36/4)	3053	3039	3009	2983	2960	2940	2922	2919	2904	2890	2878	2866	2856	2857	2847
		q (36/3)	3022	3011	2982	2958	2937	2918	2901	2900	2885	2872	2861	2850	2840	2842	2833
NW 145 PCF	18	1, 2 or 3	1046	883	754	650	565	495	436	386	343	306	274	246	222	201	181
		q (36/4)	3109	3096	3062	3032	3005	2982	2962	2961	2943	2927	2913	2900	2888	2890	2879
		q (36/3)	3074	3064	3032	3004	2979	2958	2938	2938	2922	2907	2894	2882	2871	2873	2863
	16	1, 2 or 3	1285	1087	930	803	700	614	542	481	429	384	345	311	281	255	232
		q (36/4)	3251	3241	3195	3156	3122	3091	3064	3067	3044	3023	3004	2987	2971	2977	2962
		q (36/3)	3207	3200	3157	3121	3088	3060	3035	3039	3017	2998	2980	2964	2949	2956	2942

SLAB WT. 67 PCF	Maximum Unshored Span											
	Gage	Number of spans				Gage	Number of spans		
		1	2	3			1	2	3
	22	6' - 1"	6' - 10"	7' - 2"		19	8' - 2"	8' - 11"	9' - 3"
	21	6' - 9"	7' - 7"	7' - 10"		18	8' - 11"	9' - 6"	9' - 10"
	20	7' - 1"	7' - 11"	8' - 2"		16	9' - 6"	10' - 7"	10' - 11"

	Gage	No. of Spans	SPAN (ft-in)														
			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"	12'-6"	13'-0"
7¼" SLAB DEPTH	22	1, 2 or 3	788	663	563	483	418	363	318	279	246	218	193	172	153	136	122
		q (36/4)	3366	3354	3334	3317	3302	3288	3276	3272	3263	3254	3246	3238	3232	3230	3224
		q (36/3)	3345	3334	3316	3300	3286	3273	3262	3259	3250	3242	3234	3227	3221	3220	3215
	21	1, 2 or 3	870	733	624	536	464	404	354	312	276	245	218	194	174	155	139
		q (36/4)	3408	3395	3372	3352	3335	3319	3306	3302	3290	3280	3271	3262	3254	3253	3247
		q (36/3)	3384	3372	3351	3332	3316	3302	3289	3286	3276	3266	3257	3249	3242	3242	3235
CONC-RETE TYPE:	20	1, 2 or 3	938	791	674	579	502	438	384	339	300	267	238	213	190	171	154
		q (36/4)	3429	3416	3391	3370	3351	3335	3320	3317	3305	3294	3284	3274	3266	3265	3258
		q (36/3)	3404	3392	3369	3349	3332	3317	3303	3301	3289	3279	3269	3261	3253	3253	3246
	19	1, 2 or 3	1097	926	790	681	591	517	455	402	357	318	285	256	230	207	187
		q (36/4)	3506	3492	3462	3435	3413	3392	3374	3372	3357	3343	3330	3319	3309	3309	3300
		q (36/3)	3475	3463	3435	3411	3389	3370	3354	3352	3338	3325	3313	3303	3293	3294	3286
NW 145 PCF	18	1, 2 or 3	1230	1039	888	766	666	583	513	455	405	361	324	291	263	238	215
		q (36/4)	3562	3549	3514	3484	3458	3435	3414	3413	3396	3380	3366	3353	3341	3343	3332
		q (36/3)	3527	3517	3484	3456	3432	3410	3391	3391	3375	3360	3347	3334	3323	3326	3316
	16	1, 2 or 3	1512	1279	1095	946	824	723	639	567	506	453	408	368	333	302	275
		q (36/4)	3704	3693	3648	3609	3574	3544	3517	3520	3497	3476	3457	3439	3424	3429	3415
		q (36/3)	3659	3653	3610	3573	3541	3513	3487	3492	3470	3451	3433	3416	3401	3408	3395

SLAB WT. 76.3 PCF	Maximum Unshored Span											
	Gage	Number of spans				Gage	Number of spans		
		1	2	3			1	2	3
	22	5' - 10"	6' - 7"	6' - 10"		19	7' - 9"	8' - 6"	8' - 10"
	21	6' - 6"	7' - 3"	7' - 6"		18	8' - 6"	9' - 1"	9' - 5"
	20	6' - 9"	7' - 7"	7' - 10"		16	9' - 2"	10' - 1"	10' - 5"

TABLE 10—3W-36, DG3W-36, 3WF-36, DG3WF-36, 3WF-36A, AND DG3WF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
5" SLAB DEPTH	22	1	249	228	209	193	151	139	128	118	109	101	93	87	81	74	68
		2	249	228	209	193	178	166	149	118	109	101	93	87	81	74	68
		3	249	228	209	193	178	166	149	133	120	101	93	87	81	74	68
		q (36/3)	1281	1269	1259	1249	1241	1233	1226	1220	1214	1208	1203	1199	1195	1191	1187
		q (36/4)	1372	1351	1332	1315	1299	1285	1273	1261	1251	1241	1232	1224	1216	1209	1202
CON-CRETE TYPE:	21	1	272	248	228	210	194	181	141	131	121	112	104	97	90	84	79
		2	272	248	228	210	194	181	169	155	139	112	104	97	90	84	79
		3	272	248	228	210	194	181	169	155	139	126	113	97	90	84	79
		q (36/3)	1281	1267	1255	1245	1235	1226	1218	1211	1204	1198	1193	1187	1182	1178	1174
		q (36/4)	1399	1374	1353	1333	1316	1300	1286	1273	1261	1250	1239	1230	1221	1213	1205
LTWT[9]	20	1	283	258	237	218	202	188	169	137	127	117	109	102	95	89	83
		2	283	258	237	218	202	188	175	164	149	117	109	102	95	89	83
		3	283	258	237	218	202	188	175	164	149	134	122	110	95	89	83
		q (36/3)	1283	1268	1256	1244	1234	1225	1216	1208	1201	1195	1189	1183	1178	1173	1169
		q (36/4)	1414	1388	1365	1344	1326	1309	1294	1280	1267	1255	1245	1235	1225	1217	1209
110 PCF	19	1	320	292	268	247	229	213	198	186	167	145	127	118	110	103	97
		2	320	292	268	247	229	213	198	186	174	164	150	136	110	103	97
		3	320	292	268	247	229	213	198	186	174	164	150	136	124	113	97
		q (36/3)	1296	1279	1263	1250	1237	1226	1216	1207	1198	1191	1183	1177	1171	1165	1159
		q (36/4)	1471	1440	1413	1388	1366	1346	1328	1311	1296	1282	1269	1257	1246	1235	1225
SLAB WT. 32.0 PSF	18	1	345	315	289	267	247	230	214	200	188	171	150	130	121	114	106
		2	345	315	289	267	247	230	214	200	188	177	167	154	141	114	106
		3	345	315	289	267	247	230	214	200	188	177	167	154	140	128	117
		q (36/3)	1310	1291	1274	1259	1245	1232	1221	1211	1201	1192	1184	1177	1170	1164	1158
		q (36/4)	1517	1482	1452	1424	1399	1377	1356	1338	1320	1305	1290	1277	1264	1253	1242
	16	1	403	368	338	312	287	258	232	209	189	172	156	142	129	122	112
		2	403	368	338	312	287	258	232	209	189	172	156	142	129	122	112
		3	403	368	338	312	287	258	232	209	189	172	156	142	129	122	112
		q (36/3)	1356	1332	1310	1291	1274	1258	1244	1231	1219	1208	1198	1189	1180	1172	1164
		q (36/4)	1636	1592	1554	1519	1488	1460	1434	1411	1389	1369	1351	1334	1319	1304	1290
	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
$5^1/_2$" SLAB DEPTH	22	1	273	249	229	211	165	151	139	128	118	109	101	94	87	81	76
		2	273	249	229	211	195	181	139	128	118	109	101	94	87	81	76
		3	273	249	229	211	195	181	169	152	118	109	101	94	87	81	76
		q (36/3)	1439	1427	1417	1407	1399	1391	1384	1378	1372	1366	1361	1357	1353	1349	1345
		q (36/4)	1530	1509	1490	1473	1457	1443	1431	1419	1409	1399	1390	1382	1374	1367	1360
CON-CRETE TYPE:	21	1	297	271	249	230	213	195	153	142	131	121	113	105	97	91	85
		2	297	271	249	230	213	198	184	172	131	121	113	105	97	91	85
		3	297	271	249	230	213	198	184	172	159	143	113	105	97	91	85
		q (36/3)	1439	1425	1413	1403	1393	1384	1376	1369	1362	1356	1351	1345	1340	1336	1332
		q (36/4)	1557	1532	1511	1491	1474	1453	1444	1431	1419	1408	1397	1388	1379	1371	1363
LTWT[9]	20	1	309	282	259	239	221	205	161	148	137	127	118	110	102	96	89
		2	309	282	259	239	221	205	192	179	137	127	118	110	102	96	89
		3	309	282	259	239	221	205	192	179	168	154	139	110	102	96	89
		q (36/3)	1441	1426	1414	1402	1392	1383	1374	1366	1359	1353	1347	1341	1336	1331	1327
		q (36/4)	1571	1546	1523	1502	1484	1467	1452	1438	1425	1413	1403	1393	1383	1375	1366
110 PCF	19	1	348	318	292	269	249	232	216	202	179	147	137	128	119	111	104
		2	348	318	292	269	249	232	216	202	190	178	168	128	119	111	104
		3	348	318	292	269	249	232	216	202	190	178	168	156	142	111	104
		q (36/3)	1454	1437	1421	1408	1395	1384	1374	1365	1356	1349	1341	1335	1329	1323	1317
		q (36/4)	1629	1598	1571	1546	1524	1504	1486	1469	1454	1440	1427	1415	1404	1393	1383
SLAB WT. 36.6 PSF	18	1	375	343	315	290	269	250	233	218	204	184	150	140	131	122	115
		2	375	343	315	290	269	250	233	218	204	192	181	171	131	122	115
		3	375	343	315	290	269	250	233	218	204	192	181	171	162	148	135
		q (36/3)	1468	1449	1432	1417	1403	1390	1379	1369	1359	1350	1342	1335	1328	1322	1316
		q (36/4)	1675	1640	1610	1582	1557	1535	1514	1496	1478	1463	1448	1435	1422	1411	1400
	16	1	437	399	366	338	313	291	271	253	238	224	211	199	157	147	138
		2	437	399	366	338	313	291	271	253	238	224	211	199	189	179	170
		3	437	399	366	338	313	291	271	253	238	224	211	199	189	179	170
		q (36/3)	1514	1490	1468	1449	1432	1416	1402	1389	1377	1366	1356	1347	1338	1330	1322
		q (36/4)	1794	1750	1712	1677	1646	1618	1592	1569	1547	1527	1509	1492	1477	1462	1448

(continued)

Notes:
[1]See General Table Notes.
[2]Shoring is required at midspan for superimposed load values to the right of the heavy lines in shaded boxes.
[3]Total slab depth is nominal depth from top of concrete to bottom of steel deck.

TABLE 10—3W-36, DG3W-36, 3WF-36, DG3WF-36, 3WF-36A, AND DG3WF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)															
			8'- 0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
6¼" SLAB DEPTH	22	1	311	284	261	205	187	171	157	145	133	123	114	106	98	91	85
		2	311	284	261	241	223	171	157	145	133	123	114	106	98	91	85
		3	311	284	261	241	223	207	193	145	133	123	114	106	98	91	85
		q (36/3)	1676	1664	1654	1644	1636	1628	1621	1615	1609	1603	1598	1594	1589	1586	1582
		q (36/4)	1767	1746	1726	1709	1694	1680	1668	1656	1646	1636	1627	1619	1611	1604	1597
CON-CRETE TYPE:	21	1	338	309	284	262	206	189	174	160	148	137	127	118	110	102	95
		2	338	309	284	262	242	225	210	160	148	137	127	118	110	102	95
		3	338	309	284	262	242	225	210	196	184	137	127	118	110	102	95
		q (36/3)	1676	1662	1650	1640	1630	1621	1613	1606	1599	1593	1587	1582	1577	1573	1569
		q (36/4)	1794	1769	1748	1728	1711	1695	1681	1668	1656	1644	1634	1625	1616	1608	1600
LTWT[9]	20	1	352	321	295	272	252	198	182	168	155	144	133	124	115	108	100
		2	352	321	295	272	252	234	218	168	155	144	133	124	115	108	100
		3	352	321	295	272	252	234	218	204	191	180	133	124	115	108	100
		q (36/3)	1678	1663	1650	1639	1629	1620	1611	1603	1596	1590	1584	1578	1573	1568	1564
		q (36/4)	1808	1783	1760	1739	1721	1704	1689	1675	1662	1650	1639	1629	1620	1612	1603
110 PCF	19	1	396	361	332	306	283	263	245	227	179	166	154	144	134	125	117
		2	396	361	332	306	283	263	245	230	215	166	154	144	134	125	117
		3	396	361	332	306	283	263	245	230	215	203	191	181	134	125	117
		q (36/3)	1691	1674	1658	1645	1632	1621	1611	1602	1593	1586	1578	1572	1565	1560	1554
		q (36/4)	1866	1835	1808	1783	1761	1741	1723	1706	1691	1677	1664	1652	1641	1630	1620
SLAB WT. 43.6 PSF	18	1	426	389	357	329	305	283	264	247	232	181	169	157	147	137	129
		2	426	389	357	329	305	283	264	247	232	218	206	157	147	137	129
		3	426	389	357	329	305	283	264	247	232	218	206	194	184	137	129
		q (36/3)	1705	1686	1669	1654	1640	1627	1616	1606	1596	1587	1579	1572	1565	1559	1553
		q (36/4)	1912	1877	1847	1819	1794	1772	1751	1733	1715	1700	1685	1672	1659	1648	1637
	16	1	494	451	414	382	353	328	306	287	269	253	238	188	176	165	155
		2	494	451	414	382	353	328	306	287	269	253	238	225	213	202	155
		3	494	451	414	382	353	328	306	287	269	253	238	225	213	202	192
		q (36/3)	1751	1727	1705	1686	1669	1653	1639	1626	1614	1603	1593	1584	1575	1567	1559
		q (36/4)	2031	1987	1949	1914	1883	1885	1829	1806	1784	1764	1746	1729	1714	1699	1685
	Gage	No. of Spans	SPAN (ft-in)															
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
7³/₁₆" SLAB DEPTH	22	1	363	288	261	237	217	198	182	167	154	143	132	122	114	105	98
		2	363	331	304	280	217	198	182	167	154	143	132	122	114	105	98
		3	363	331	304	280	259	241	182	167	154	143	132	122	114	105	98
		q (36/3)	1972	1960	1950	1940	1932	1924	1917	1911	1905	1900	1895	1890	1886	1882	1878
		q (36/4)	2063	2042	2023	2006	1990	1976	1964	1952	1942	1932	1923	1915	1907	1900	1893
CON-CRETE TYPE:	21	1	394	360	330	261	239	219	201	185	171	159	147	136	127	118	110
		2	394	360	330	304	282	219	201	185	171	159	147	136	127	118	110
		3	394	360	330	304	282	262	244	228	171	159	147	136	127	118	110
		q (36/3)	1972	1958	1946	1936	1926	1917	1909	1902	1895	1889	1884	1878	1874	1869	1865
		q (36/4)	2090	2065	2044	2024	2007	1991	1977	1964	1952	1941	1930	1921	1912	1904	1897
LTWT[9]	20	1	409	373	343	316	250	229	210	194	179	166	154	143	133	124	116
		2	409	373	343	316	293	272	210	194	179	166	154	143	133	124	116
		3	409	373	343	316	293	272	254	237	179	166	154	143	133	124	116
		q (36/3)	1974	1959	1947	1935	1925	1916	1907	1900	1893	1886	1880	1875	1869	1865	1860
		q (36/4)	2105	2079	2056	2035	2017	2000	1985	1971	1958	1947	1936	1926	1916	1908	1900
110 PCF	19	1	460	420	385	355	329	306	285	223	207	192	178	166	155	145	135
		2	460	420	385	355	329	306	285	267	207	192	178	166	155	145	135
		3	460	420	385	355	329	306	285	267	250	235	178	166	155	145	135
		q (36/3)	1987	1970	1954	1941	1928	1917	1907	1898	1890	1882	1875	1868	1862	1856	1851
		q (36/4)	2163	2132	2104	2079	2057	2037	2019	2002	1987	1973	1960	1948	1937	1926	1917
SLAB WT. 52.1 PSF	18	1	494	451	414	382	353	328	306	287	225	209	195	182	170	159	149
		2	494	451	414	382	353	328	306	287	269	209	195	182	170	159	149
		3	494	451	414	382	353	328	306	287	269	253	238	225	170	159	149
		q (36/3)	2001	1982	1965	1950	1936	1923	1912	1902	1892	1884	1876	1868	1861	1855	1849
		q (36/4)	2208	2174	2143	2115	2090	2068	2047	2029	2012	1996	1981	1968	1955	1944	1933
	16	1	571	522	479	442	409	380	354	332	311	293	232	216	202	190	178
		2	571	522	479	442	409	380	354	332	311	293	276	261	202	190	178
		3	571	522	479	442	409	380	354	332	311	293	276	261	247	234	178
		q (36/3)	2047	2023	2001	1982	1965	1949	1935	1922	1910	1899	1889	1880	1871	1863	1855
		q (36/4)	2327	2284	2245	2210	2179	2151	2125	2102	2080	2061	2040	2025	2010	1995	1982

(continued)

TABLE 10—3W-36, DG3W-36, 3WF-36, DG3WF-36, 3WF-36A, AND DG3WF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
5" SLAB DEPTH	22	1	249	228	209	158	143	131	120	110	101	92	85	78	72	67	60
		2	249	228	209	193	178	131	120	110	101	92	85	78	72	67	60
		3	249	238	209	193	178	159	141	110	101	92	85	78	72	67	60
		q (36/3)	1605	1594	1583	1574	1565	1557	1550	1544	1538	1533	1528	1523	1519	1515	1511
		q (36/4)	1696	1675	1656	1639	1624	1610	1597	1586	1575	1565	1556	1548	1540	1533	1527
CON-CRETE TYPE:	21	1	272	248	228	210	159	145	133	122	113	104	96	89	82	76	70
		2	272	248	228	210	194	181	165	122	113	104	96	89	82	76	70
		3	272	248	228	210	194	181	165	147	131	104	96	89	82	76	70
		q (36/3)	1605	1592	1580	1569	1559	1551	1543	1535	1529	1523	1517	1512	1507	1502	1498
		q (36/4)	1723	1699	1677	1658	1640	1624	1610	1597	1585	1574	1564	1554	1546	1537	1530
NW[10]	20	1	283	258	237	218	197	153	140	129	118	109	101	93	87	80	74
		2	283	258	237	218	202	188	175	129	118	109	101	93	87	80	74
		3	283	258	237	218	202	188	175	157	141	126	101	93	87	80	74
		q (36/3)	1607	1593	1580	1569	1558	1549	1541	1533	1526	1519	1513	1508	1503	1498	1493
		q (36/4)	1738	1712	1689	1669	1650	1633	1618	1604	1592	1580	1569	1559	1550	1541	1533
145 PCF	19	1	320	292	268	247	229	213	189	160	138	128	119	110	102	95	89
		2	320	292	268	247	229	213	198	186	174	128	119	110	102	95	89
		3	320	292	268	247	229	213	198	186	174	156	141	127	102	95	89
		q (36/3)	1620	1603	1588	1574	1562	1551	1541	1531	1523	1515	1508	1501	1495	1489	1484
		q (36/4)	1796	1765	1737	1713	1690	1670	1652	1635	1620	1606	1593	1581	1570	1560	1550
SLAB WT. 42.3 PSF	18	1	345	315	289	267	247	230	214	192	165	141	131	121	113	105	98
		2	345	315	289	267	247	230	214	200	188	177	160	121	113	105	98
		3	345	315	289	267	247	230	214	200	188	177	160	145	131	105	98
		q (36/3)	1635	1615	1598	1583	1569	1557	1545	1535	1526	1517	1509	1501	1494	1488	1482
		q (36/4)	1842	1807	1776	1748	1724	1701	1681	1662	1645	1629	1615	1601	1589	1577	1566
	16	1	403	368	338	312	289	260	233	209	189	170	153	143	131	119	109
		2	403	368	338	312	289	260	233	209	189	170	153	141	128	116	109
		3	403	368	338	312	289	260	233	209	189	170	153	141	128	116	105
		q (36/3)	1680	1656	1635	1616	1598	1583	1568	1555	1543	1533	1522	1513	1504	1496	1489
		q (36/4)	1960	1917	1878	1843	1812	1784	1758	1735	1714	1694	1676	1659	1643	1628	1615
	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
$5^1/_2$" SLAB DEPTH	22	1	273	249	189	171	155	142	129	118	109	100	92	84	78	72	66
		2	273	249	229	211	155	142	129	118	109	100	92	84	78	72	66
		3	273	249	229	211	195	181	129	118	109	100	92	84	78	72	66
		q (36/3)	1845	1833	1822	1813	1804	1797	1790	1783	1777	1772	1767	1762	1758	1754	1750
		q (36/4)	1936	1914	1895	1878	1863	1849	1836	1825	1814	1804	1796	1787	1780	1772	1766
CON-CRETE TYPE:	21	1	297	271	249	229	173	157	144	132	122	112	103	95	88	81	75
		2	297	271	249	229	213	198	144	132	122	112	103	95	88	81	75
		3	297	271	249	229	213	198	184	168	122	112	103	95	88	81	75
		q (36/3)	1844	1831	1819	1808	1798	1790	1782	1774	1768	1762	1756	1751	1746	1741	1737
		q (36/4)	1962	1938	1916	1897	1879	1864	1849	1836	1824	1813	1803	1793	1785	1777	1769
NW[10]	20	1	309	282	259	239	181	165	151	139	128	118	109	101	93	86	80
		2	309	282	259	239	221	205	151	139	128	118	109	101	93	86	80
		3	309	282	259	239	221	205	192	179	161	118	109	101	93	86	80
		q (36/3)	1846	1832	1819	1808	1797	1788	1780	1772	1765	1755	1752	1747	1742	1737	1732
		q (36/4)	1977	1951	1928	1908	1889	1872	1857	1843	1831	1819	1808	1798	1789	1780	1772
145 PCF	19	1	348	318	292	269	249	232	200	162	149	138	128	118	110	102	95
		2	348	318	292	269	249	232	216	202	149	138	128	118	110	102	95
		3	348	318	292	269	249	232	216	202	190	178	162	118	110	102	95
		q (36/3)	1859	1842	1827	1813	1801	1790	1780	1770	1762	1754	1747	1740	1734	1728	1723
		q (36/4)	2035	2004	1976	1952	1930	1910	1891	1875	1859	1845	1832	1820	1809	1799	1789
SLAB WT. 48.3 PSF	18	1	375	343	315	290	269	250	233	204	172	151	140	130	121	113	105
		2	375	343	315	290	269	250	233	218	204	192	140	130	121	113	105
		3	375	343	315	290	269	250	233	218	204	192	181	168	121	113	105
		q (36/3)	1874	1854	1837	1822	1808	1796	1785	1774	1765	1756	1748	1741	1734	1727	1721
		q (36/4)	2081	2046	2015	1988	1963	1940	1920	1901	1884	1868	1854	1840	1828	1816	1805
	16	1	437	399	366	338	313	291	271	253	238	217	169	158	147	138	129
		2	437	399	366	338	313	291	271	253	238	224	211	199	147	138	129
		3	437	399	366	338	313	291	271	253	238	224	211	199	189	179	164
		q (36/3)	1919	1895	1874	1855	1837	1822	1807	1794	1783	1772	1762	1752	1743	1735	1728
		q (36/4)	2199	2156	2117	2083	2051	2023	1998	1974	1953	1933	1915	1898	1882	1868	1854

(continued)

TABLE 10—3W-36, DG3W-36, 3WF-36, DG3WF-36, 3WF-36A, AND DG3WF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
$6^1/_2$" SLAB DEPTH	22	1	325	247	223	202	183	166	152	139	127	117	107	98	91	83	77
		2	325	296	272	202	183	166	152	139	127	117	107	98	91	83	77
		3	325	296	272	251	183	166	152	139	127	117	107	98	91	83	77
		q (36/3)	2323	2311	2300	2291	2282	2275	2268	2261	2255	2250	2245	2241	2236	2232	2229
		q (36/4)	2414	2392	2373	2356	2341	2327	2314	2303	2292	2283	2274	2265	2258	2251	2244
CON-CRETE TYPE:	21	1	353	322	246	223	203	185	169	155	142	131	121	111	103	95	87
		2	353	322	296	273	203	185	169	155	142	131	121	111	103	95	87
		3	353	322	296	273	253	235	169	155	142	131	121	111	103	95	87
		q (36/3)	2323	2309	2297	2286	2277	2268	2260	2253	2246	2240	2234	2229	2224	2220	2215
		q (36/4)	2440	2416	2394	2375	2357	2342	2327	2314	2302	2291	2281	2272	2263	2255	2247
NW[10]	20	1	367	335	307	234	213	194	178	163	150	138	127	117	108	100	93
		2	367	335	307	283	262	194	178	163	150	138	127	117	108	100	93
		3	367	335	307	283	262	244	227	163	150	138	127	117	108	100	93
		q (36/3)	2324	2310	2297	2286	2276	2266	2258	2250	2243	2237	2231	2225	2220	2215	2211
		q (36/4)	2455	2429	2406	2386	2367	2351	2335	2322	2309	2297	2286	2276	2267	2258	2250
145 PCF	19	1	412	377	346	319	295	224	206	189	174	161	149	138	128	119	110
		2	412	377	346	319	295	274	256	189	174	161	149	138	128	119	110
		3	412	377	346	319	295	274	256	239	224	161	149	138	128	119	110
		q (36/3)	2337	2320	2305	2291	2279	2268	2258	2249	2240	2232	2225	2218	2212	2206	2201
		q (36/4)	2513	2482	2455	2430	2408	2388	2369	2353	2337	2323	2310	2298	2287	2277	2267
SLAB WT. 60.5 PSF	18	1	443	405	372	343	317	295	263	207	191	177	164	152	141	131	122
		2	443	405	372	343	317	295	263	275	257	177	164	152	141	131	122
		3	443	405	372	343	317	295	263	275	257	241	227	152	141	131	122
		q (36/3)	2352	2333	2316	2300	2286	2274	2263	2252	2243	2234	2226	2219	2212	2205	2199
		q (36/4)	2559	2524	2493	2466	2441	2418	2398	2379	2362	2346	2332	2318	2306	2294	2284
	16	1	514	469	431	397	368	342	319	298	278	212	197	183	171	159	149
		2	514	469	431	397	368	342	319	298	278	263	248	183	171	159	149
		3	514	469	431	397	368	342	319	298	278	263	248	234	222	159	149
		q (36/3)	2398	2373	2352	2333	2315	2300	2286	2273	2261	2250	2240	2230	2222	2214	2206
		q (36/4)	2678	2634	2595	2561	2530	2501	2476	2452	2431	2411	2393	2376	2360	2346	2332
	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
7" SLAB DEPTH	22	1	298	267	241	218	198	180	164	150	137	126	115	106	97	90	82
		2	352	321	241	218	198	180	164	150	137	126	115	106	97	90	82
		3	352	321	295	272	198	180	164	150	137	126	115	106	97	90	82
		q (36/3)	2562	2550	2539	2530	2521	2514	2507	2500	2495	2489	2484	2480	2475	2471	2468
		q (36/4)	2653	2631	2612	2595	2580	2566	2554	2542	2531	2522	2513	2504	2497	2490	2483
CON-CRETE : TYPE:	21	1	383	349	266	241	219	200	183	167	154	141	130	120	110	102	94
		2	383	349	321	296	219	200	183	167	154	141	130	120	110	102	94
		3	383	349	321	296	274	254	183	167	154	141	130	120	110	102	94
		q (36/3)	2562	2548	2536	2525	2516	2507	2499	2492	2485	2479	2473	2468	2463	2459	2454
		q (36/4)	2679	2655	2633	2614	2597	2581	2566	2553	2541	2530	2520	2511	2502	2494	2486
NW[10]	20	1	397	363	278	252	230	210	192	176	162	149	137	126	117	108	100
		2	397	363	333	307	230	210	192	176	162	149	137	126	117	108	100
		3	397	363	333	307	284	264	192	176	162	149	137	126	117	108	100
		q (36/3)	2563	2549	2536	2525	2516	2505	2497	2489	2482	2476	2470	2464	2459	2454	2450
		q (36/4)	2694	2668	2645	2625	2606	2590	2574	2561	2548	2536	2525	2515	2506	2497	2489
145 PCF	19	1	447	408	374	345	320	242	222	204	188	174	161	149	138	128	119
		2	447	408	374	345	320	297	222	204	188	174	161	149	138	128	119
		3	447	408	374	345	320	297	277	259	188	174	161	149	138	128	119
		q (36/3)	2577	2559	2544	2530	2518	2507	2497	2488	2479	2471	2464	2457	2451	2446	2440
		q (36/4)	2752	2721	2694	2669	2647	2627	2609	2592	2577	2563	2550	2538	2526	2516	2506
SLAB WT. 66.4 PSF	18	1	480	438	402	371	343	319	243	223	206	191	176	164	152	141	132
		2	480	438	402	371	343	319	298	223	206	191	176	164	152	141	132
		3	480	438	402	371	343	319	298	278	261	246	176	164	152	141	132
		q (36/3)	2591	2572	2555	2539	2526	2513	2502	2491	2482	2473	2465	2458	2451	2444	2438
		q (36/4)	2798	2763	2732	2705	2680	2657	2637	2618	2601	2586	2571	2558	2545	2533	2523
	16	1	556	507	466	429	397	369	345	322	247	229	212	198	184	172	160
		2	556	507	466	429	397	369	345	322	302	284	212	198	184	172	160
		3	556	507	466	429	397	369	345	322	302	284	268	253	184	172	160
		q (36/3)	2637	2613	2591	2572	2555	2539	2525	2512	2500	2489	2479	2469	2461	2453	2445
		q (36/4)	2917	2873	2834	2800	2769	2740	2715	2691	2670	2650	2632	2615	2599	2585	2571

(continued)

TABLE 10—3W-36, DG3W-36, 3WF-36, DG3WF-36, 3WF-36A, AND DG3WF-36A DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
$7^1/_2$" SLAB DEPTH	22	1	321	288	260	235	213	194	177	161	148	135	124	114	105	96	88
		2	380	347	260	235	213	194	177	161	148	135	124	114	105	96	88
		3	380	347	319	235	213	194	177	161	148	135	124	114	105	96	88
		q (36/3)	2801	2789	2778	2769	2761	2753	2746	2739	2734	2728	2723	2719	2714	2710	2707
		q (36/4)	2892	2870	2851	2834	2819	2805	2793	2781	2771	2761	2752	2744	2736	2729	2722
CON-CRETE TYPE:	21	1	413	318	287	260	236	215	197	180	165	152	140	129	119	110	101
		2	413	377	346	260	236	215	197	180	165	152	140	129	119	110	101
		3	413	377	346	319	295	215	197	180	165	152	140	129	119	110	101
		q (36/3)	2801	2787	2775	2764	2755	2746	2738	2731	2724	2718	2712	2707	2702	2698	2694
		q (36/4)	2919	2894	2872	2853	2836	2820	2806	2792	2780	2769	2759	2750	2741	2733	2725
NW[10]	20	1	429	391	300	272	247	226	206	189	174	160	147	136	126	116	107
		2	429	391	359	331	247	226	206	189	174	160	147	136	126	116	107
		3	429	391	359	331	307	285	206	189	174	160	147	136	126	116	107
		q (36/3)	2802	2788	2775	2764	2754	2744	2736	2728	2721	2715	2709	2703	2698	2693	2689
		q (36/4)	2933	2908	2885	2864	2846	2829	2814	2800	2787	2775	2764	2754	2745	2736	2728
145 PCF	19	1	482	440	404	372	285	261	239	220	202	187	173	160	148	137	128
		2	482	440	404	372	345	261	239	220	202	187	173	160	148	137	128
		3	482	440	404	372	345	320	299	279	202	187	173	160	148	137	128
		q (36/3)	2816	2798	2783	2769	2757	2746	2736	2727	2718	2710	2703	2697	2690	2685	2679
		q (36/4)	2991	2960	2933	2908	2886	2866	2848	2831	2816	2802	2789	2777	2765	2755	2745
SLAB WT. 72.5 PSF	18	1	517	473	434	400	370	284	261	240	222	205	190	176	163	152	141
		2	517	473	434	400	370	344	261	240	222	205	190	176	163	152	141
		3	517	473	434	400	370	344	321	300	282	205	190	176	163	152	141
		q (36/3)	2830	2811	2794	2778	2765	2752	2741	2731	2721	2712	2704	2697	2690	2683	2677
		q (36/4)	3037	3002	2971	2944	2919	2897	2876	2857	2840	2825	2810	2797	2784	2773	2762
	16	1	598	546	502	462	428	398	371	347	265	246	228	212	198	185	172
		2	598	546	502	462	428	398	371	347	326	246	228	212	198	185	172
		3	598	546	502	462	428	398	371	347	326	306	289	212	198	185	172
		q (36/3)	2876	2852	2830	2811	2794	2778	2764	2751	2739	2728	2718	2709	2700	2692	2684
		q (36/4)	3156	3112	3074	3039	3008	2979	2954	2930	2909	2889	2871	2854	2838	2824	2810
	Gage	No. of Spans	SPAN (ft-in)														
			8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
$8^1/_4$" SLAB DEPTH	22	1	357	320	288	261	236	215	196	179	164	150	138	126	116	107	98
		2	423	320	288	261	236	215	196	179	164	150	138	126	116	107	98
		3	423	386	288	261	236	215	196	179	164	150	138	126	116	107	98
		q (36/3)	3160	3148	3137	3128	3119	3111	3104	3098	3092	3087	3082	3077	3073	3069	3065
		q (36/4)	3250	3229	3210	3193	3178	3164	3151	3140	3129	3119	3111	3102	3095	3087	3081
CON-CRETE TYPE:	21	1	393	353.	319	289	262	239	218	200	183	169	155	143	132	121	112
		2	459	419	319	289	262	239	218	200	183	169	155	143	132	121	112
		3	459	419	385	355	262	239	218	200	183	169	155	143	132	121	112
		q (36/3)	3159	3146	3134	3123	3113	3105	3097	3089	3083	3077	3071	3066	3061	3056	3052
		q (36/4)	3277	3253	3231	3212	3194	3179	3164	3151	3139	3128	3118	3108	3100	3091	3084
NW[10]	20	1	477	369	333	302	275	251	229	210	193	177	163	151	139	128	119
		2	477	435	400	302	275	251	229	210	193	177	163	151	139	128	119
		3	477	435	400	368	341	251	229	210	193	177	163	151	139	128	119
		q (36/3)	3161	3147	3134	3123	3112	3103	3095	3087	3080	3073	3067	3062	3057	3052	3047
		q (36/4)	3292	3266	3243	3223	3204	3187	3172	3158	3146	3134	3123	3113	3104	3095	3087
145 PCF	19	1	536	489	449	347	316	289	265	244	225	207	192	177	164	152	141
		2	536	489	449	414	316	289	265	244	225	207	192	177	164	152	141
		3	536	489	449	414	383	356	332	244	225	207	192	177	164	152	141
		q (36/3)	3174	3157	3142	3128	3116	3105	3095	3085	3077	3069	3062	3055	3049	3043	3038
		q (36/4)	3350	3319	3291	3267	3245	3224	3206	3190	3174	3160	3147	3135	3124	3114	3104
SLAB WT. 81.6 PSF	18	1	575	525	482	445	345	315	290	267	246	227	210	195	181	168	157
		2	575	525	482	445	412	383	290	267	246	227	210	195	181	168	157
		3	575	525	482	445	412	383	357	334	246	227	210	195	181	168	157
		q (36/3)	3189	3169	3152	3137	3123	3111	3100	3089	3080	3071	3063	3055	3049	3042	3036
		q (36/4)	3396	3361	3330	3302	3278	3255	3235	3216	3199	3183	3169	3155	3143	3131	3120
	16	1	665	607	557	514	476	442	412	318	294	272	253	235	219	204	191
		2	665	607	557	514	476	442	412	386	294	272	253	235	219	204	191
		3	665	607	557	514	476	442	412	386	362	340	253	235	219	204	191
		q (36/3)	3234	3210	3189	3170	3152	3137	3122	3109	3098	3087	3076	3067	3058	3050	3043
		q (36/4)	3514	3471	3432	3398	3366	3338	3312	3289	3268	3248	3230	3213	3197	3182	3169

TABLE 11—B-36, DGB-36, BN-36, BF-36, DGBF-36, BF-36A, DGBF-36A, NN-32, N-32, DGN-32, NF-32, DGNF-32, NF-32A, DGNF-32A DECKS WITH CONCRETE FILLALLOWABLE DIAPHRAGM SHEAR VALUES (plf) FOR DECKS WITH ¾-INCH-DIAMETER WELDED SHEAR STUD CONNECTORS[1-10]

Concrete		Spacing of Shear Stud Connectors (in)						
Type	Thickness Above Deck (in)	12	16	18	24	30	32	36
Minimum concrete reinforcement ratio, ρ = 0.0025 times the area of fill above the deck								
NW 145 pcf	2	3340	3340	3340	3340	3340	3290	2920
	2½	4170	4170	4170	4170	3510	3290	2920
	3	5010	5010	5010	4380	3510	3290	2920
	3½	5840	5840	5840	4380	3510	3290	2920
	4	6670	6580	5850	4380	3510	3290	2920
	4½	7510	6580	5850	4380	3510	3290	2920
	5	8340	6580	5850	4380	3510	3290	2920
	6	8770	6580	5850	4380	3510	3290	2920
LTWT 110 pcf	2	3130	3130	3130	3130	3130	3130	2920
	2½	3910	3910	3910	3910	3510	3290	2920
	3	4690	4690	4690	4380	3510	3290	2920
	3¼	5080	5080	5080	4380	3510	3290	2920
	3½	5470	5470	5470	4380	3510	3290	2920
	4	6250	6250	5850	4380	3510	3290	2920
	4¼	6640	6580	5850	4380	3510	3290	2920
	4½	7030	6580	5850	4380	3510	3290	2920
	5	7810	6580	5850	4380	3510	3290	2920
	6	8770	6580	5850	4380	3510	3290	2920
Minimum concrete reinforcement ratio, ρ = 0.00075 times the area of fill above the deck								
NW 145 pcf	2	1990	1990	1990	1990	1990	1990	1990
	2½	2480	2480	2480	2480	2480	2480	2480
	3	2980	2980	2980	2980	2980	2980	2920
	3½	3480	3480	3480	3480	3480	3290	2920
	4	3970	3970	3970	3970	3510	3290	2920
	4½	4470	4470	4470	4380	3510	3290	2920
	5	4970	4970	4970	4380	3510	3290	2920
	6	5960	5960	5850	4380	3510	3290	2920
LTWT 110 pcf	2	1780	1780	1780	1780	1780	1780	1780
	2½	2220	2220	2220	2220	2220	2220	2220
	3	2660	2660	2660	2660	2660	2660	2660
	3¼	2890	2890	2890	2890	2890	2890	2890
	3½	3110	3110	3110	3110	3110	3110	2920
	4	3550	3550	3550	3550	3510	3290	2920
	4¼	3770	3770	3770	3770	3510	3290	2920
	4½	4000	4000	4000	4000	3510	3290	2920
	5	4440	4440	4440	4380	3510	3290	2920
	6	5330	5330	5330	4380	3510	3290	2920

Notes:

[1]Thickness above deck is measured from the top of deck to the top of the concrete.

[2]Reinforcing must have minimum yield strength of 60,000 psi and meet the requirements of ACI 318 for ASTM standard reinforcing bars or WRI standard welded wire reinforcement. See Table 13 for reinforcement options.

[3]Welded shear studs may be used in place of support fasteners or welds when the tabulated values are greater than values in other tables of this report or values determined in accordance with Section 4.2.

[4]Tabulated values are based on the welded shear stud installed in the weak position in the steel deck panel's bottom flute. Reference AISC 360-10 Figure C-I8.1. [AISC 360-05 Figure C-I3.4].

[5]For LRFD, multiply the tabulated values by 1.4.

[6]Reference ACI 318 Section 9.3.4 for additional requirements to be considered in seismic design.

[7]The welded stud shear connector must extend 1½ inches above the top of the steel deck and must have a minimum of ½ inch concrete cover above the top of the installed welded stud shear connector in accordance with Figure 8. Reference AISC360 Section I3.2c.

[8]The supporting structural steel member flange must not be less than 0.3 inch thick unless the welded stud shear connector is welded over the web of the supporting member. Reference AISC 360-10 Section I8.1. [AISC 360-05 Section I3.2d(6)]

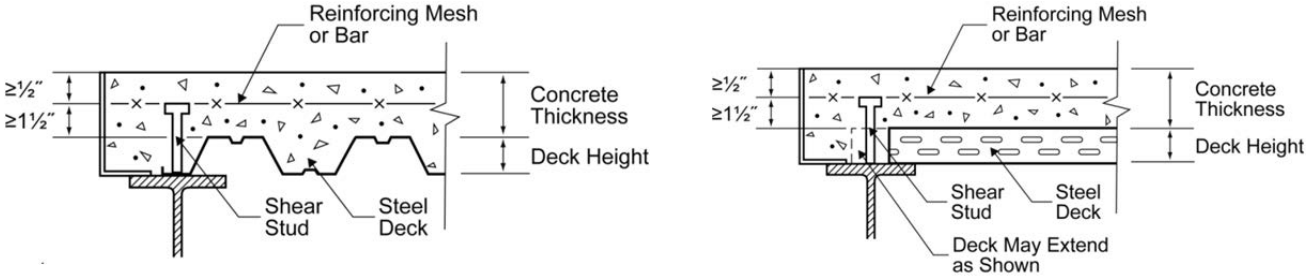
[9]The maximum spacing of welded stud shear connector must not exceed 8 times the total slab thickness or 36 inches. Reference AISC 360-10 Section I8.2d [AISC 360-05 Section I3.2d(6)].

[10]Concrete reinforcement details must be in accordance with ACI318. For local shear transfer the in the field of the diaphragm, ¾-inch-diameter welded shear stud connector must be determined in accordance Section I3.2d of AISC 360-10.

TABLE 12—2W-36, DG2W-36, 2WF-36, DG2WF-36, 2WF-36A, DG2WF-36, 3W-36, DG3W-36, 3WF-36, DG3WF-36, 3WF-36A, DG3WF-36A DECKS WITH CONCRETE FILL - ALLOWABLE DIAPHRAGM SHEAR VALUES (plf) FOR DECKS WITH ¾-INCH-DIAMETER WELDED SHEAR STUD CONNECTORS[1-10]

Concrete		Spacing of Shear Stud Connectors (in)						
Type	Thickness Above Deck (in)	12	16	18	24	30	32	36
Minimum concrete reinforcement ratio, ρ = 0.0025 times the area of fill above the deck								
NW 145 pcf	2	3340	3340	3340	3340	3340	3340	3340
	2½	4170	4170	4170	4170	4130	3870	3440
	3	5010	5010	5010	5010	4130	3870	3440
	3½	5840	5840	5840	5160	4130	3870	3440
	4	6670	6670	6670	5160	4130	3870	3440
	4½	7510	7510	6880	5160	4130	3870	3440
	5	8340	7740	6880	5160	4130	3870	3440
	6	10010	7740	6880	5160	4130	3870	3440
LTWT 110 pcf	2	3130	3130	3130	3130	3130	3130	3130
	2½	3910	3910	3910	3910	3910	3870	3440
	3	4690	4690	4690	4690	4130	3870	3440
	3¼	5080	5080	5080	5080	4130	3870	3440
	3½	5470	5470	5470	5160	4130	3870	3440
	4	6250	6250	6250	5160	4130	3870	3440
	4¼	6640	6640	6640	5160	4130	3870	3440
	4½	7030	7030	6880	5160	4130	3870	3440
	5	7810	7740	6880	5160	4130	3870	3440
	6	9380	7740	6880	5160	4130	3870	3440
Minimum concrete reinforcement ratio, ρ = 0.00075 times the area of fill above the deck								
NW 145 pcf	2	1990	1990	1990	1990	1990	1990	1990
	2½	2480	2480	2480	2480	2480	2480	2480
	3	2980	2980	2980	2980	2980	2980	2980
	3½	3480	3480	3480	3480	3480	3480	3440
	4	3970	3970	3970	3970	3970	3870	3440
	4½	4470	4470	4470	4470	4130	3870	3440
	5	4970	4970	4970	4970	4130	3870	3440
	6	5960	5960	5960	5160	4130	3870	3440
LTWT 110 pcf	2	1780	1780	1780	1780	1780	1780	1780
	2½	2220	2220	2220	2220	2220	2220	2220
	3	2660	2660	2660	2660	2660	2660	2660
	3¼	2890	2890	2890	2890	2890	2890	2890
	3½	3110	3110	3110	3110	3110	3110	3110
	4	3550	3550	3550	3550	3550	3550	3440
	4¼	3770	3770	3770	3770	3770	3770	3440
	4½	4000	4000	4000	4000	4000	3870	3440
	5	4440	4440	4440	4440	4130	3870	3440
	6	5330	5330	5330	5160	4130	3870	3440

Table notes at bottom of Table 11



SHEAR STUDS AT SUPPORTS PERPENDICULAR TO FLUTES **SHEAR STUDS AT SUPPORTS PARALLEL TO FLUTES**

FIGURE 8—SHEAR STUD DETAILS

TABLE 13—REINFORCEMENT OPTIONS FOR TABLES 11 AND 12

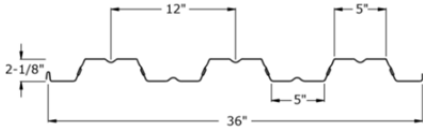
Concrete Thickness	Reinforcement = 0.0025 times area of fill above deck		Reinforcement = 0.00075 times area of fill above deck	
	Area of Steel	Suggested Welded	Area of Steel	Suggested Welded
(in)	(in^2/ft)	Wire Fabric	(in^2/ft)	Wire Fabric
2	0.06	4 x 4 - W2.0 x W2.0	0.028	6 x 6 - W1.4 x W1.4
2 1/2	0.075	4 x 4 - W2.5 x W2.5	0.028	6 x 6 - W1.4 x W1.4
3	0.09	6 x 6 - W4.5 x W4.5	0.028	6 x 6 - W1.4 x W1.4
3 1/4	0.098	6 x 6 - W5.0 x W5.0	0.029	6 x 6 - W2.0 x W2.0
3 1/2	0.105	4 x 4 - W3.5 x W3.5	0.032	6 x 6 - W2.0 x W2.0
4	0.120	6 x 6 - W6.0 x W6.0	0.036	6 x 6 - W2.0 x W2.0
4 1/4	0.128	6 x 6 - W6.5 x W6.5	0.038	6 x 6 - W2.0 x W2.0
4 1/2	0.135	4 x 4 - W4.5 x W4.5	0.041	4 x 4 - W1.4 x W1.4
5	0.150	4 x 4 - W5.0 x W5	0.045	6 x 6 - W2.5 x W2.5
6	0.18	4 x 4 - W6.0 x W6.0	0.054	6 x 6 - W2.9 x W2.9

TABLE 14—2W-36 AND DG2W-36 DECKS WITH ¾-INCH-DIAMETER STUDS INSTALLED AT SUPPORTING BEAMS ALLOWABLE SUPERIMPOSED LOAD (psf)[1,2]

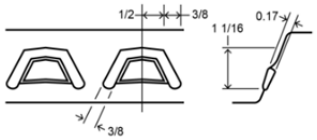
CONCRETE SLAB THICKNESS & TYPE	GAGE	STUDS AT 1'-0" OC							STUDS AT 3'-0" OC						
		SPAN							SPAN						
		6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
4 1/2" LTWT	22	400	320	240	185	145	115	90	345	245	180	160	125	100	80
	20	400	390	295	225	180	145	115	400	280	195	135	155	125	105
	18	400	400	370	295	235	180	140	400	390	280	205	155	115	140
	16	400	400	370	330	265	195	150	400	400	360	270	205	155	120
5 1/4" LTWT	22	400	395	295	225	175	140	115	400	305	260	200	155	120	95
	20	400	400	360	280	220	175	145	400	335	230	170	195	155	125
	18	400	400	400	370	295	235	195	400	400	340	245	175	210	175
	16	400	400	400	400	360	300	235	400	400	400	325	240	180	130
6 1/2" LTWT	22	400	400	385	295	235	185	150	400	400	345	260	200	155	120
	20	400	400	400	370	290	235	190	400	400	295	330	255	200	160
	18	400	400	400	400	390	315	260	400	400	400	290	200	280	230
	16	400	400	400	400	400	400	330	400	400	400	400	290	205	290
4 1/2" NW	22	400	315	230	175	135	105	85	400	290	215	165	125	100	80
	20	400	385	285	220	170	135	110	400	290	215	160	160	125	105
	18	400	400	375	290	230	185	150	400	390	275	200	140	175	140
	16	400	400	400	360	285	230	190	400	400	360	265	195	145	180
5 1/2" NW	22	400	400	305	230	180	140	110	400	380	280	215	165	130	100
	20	400	400	375	290	225	180	145	400	380	280	265	205	165	130
	18	400	400	400	385	305	245	200	400	400	340	235	285	230	185
	16	400	400	400	400	385	310	255	400	400	400	325	235	290	235
6 1/2" NW	22	400	400	375	285	225	175	140	400	400	350	265	205	160	125
	20	400	400	400	360	280	225	180	400	400	400	325	250	195	155
	18	400	400	400	400	380	305	250	400	400	390	260	355	280	225
	16	400	400	400	400	400	390	320	400	400	400	375	255	360	295

[1]See **Table 9** for shoring requirements.
[2]The slab depth is measured from the top of concrete to the bottom of the steel deck.

TABLE 15—LEGACY 2W-36 AND LEGACY 2WF-36 DECK WITH CONCRETE FILL
ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]



STEEL DECK PANEL



EMBOSSMENT DETAIL

Notes:

1. See General Table Notes.

2. Shoring is required at midspan for superimposed load values to the right of the heavy lines in shaded boxes.

3. Total slab depth is nominal depth from top of concrete to bottom of steel deck.

	Gage	No. of Spans	SPAN												
			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"
4" SLAB Depth	22	1	243	210	183	161	119	104	91	80	71	62	55	49	43
		2	243	210	183	161	143	127	115	104	71	62	55	49	43
		3	243	210	183	161	143	127	115	104	71	62	55	49	43
		q (36/3)	1348	1328	1310	1294	1281	1269	1259	1249	1241	1233	1226	1220	1214
		q (36/4)	1493	1456	1424	1396	1372	1351	1332	1315	1299	1285	1273	1261	1251
	21	1	259	223	195	172	153	137	99	88	78	69	61	55	49
		2	259	223	195	172	153	137	123	111	101	69	61	55	49
CON-CRETE TYPE:		3	259	223	195	172	153	137	123	111	101	93	61	55	49
		q (36/3)	1357	1334	1314	1296	1281	1267	1255	1245	1235	1226	1218	1211	1204
		q (36/4)	1537	1494	1458	1426	1399	1374	1353	1333	1316	1300	1286	1273	1261
	20	1	267	231	202	178	158	142	128	92	81	72	64	58	51
		2	267	231	202	178	158	142	128	116	105	96	64	58	51
		3	267	231	202	178	158	142	128	116	105	96	88	58	51
		q (36/3)	1364	1339	1317	1299	1283	1268	1256	1244	1234	1225	1216	1208	1201
LTWT 110 PCF		q (36/4)	1560	1515	1476	1443	1414	1388	1365	1344	1326	1309	1294	1280	1267
	19	1	299	259	227	200	178	160	145	131	120	110	77	69	62
		2	299	259	227	200	178	160	145	131	120	110	93	69	62
		3	299	259	227	200	178	160	145	131	120	110	93	86	62
		q (36/3)	1393	1363	1338	1315	1296	1279	1263	1250	1237	1226	1216	1207	1198
		q (36/4)	1647	1593	1547	1507	1471	1440	1413	1388	1366	1346	1328	1311	1296
SLAB WT. 27.6 PSF	18	1	323	280	246	218	194	175	158	143	131	120	111	78	71
		2	323	280	246	218	194	175	158	143	131	120	111	102	95
		3	323	280	246	218	194	175	158	143	131	120	111	102	
		q (36/3)	1419	1386	1357	1332	1310	1291	1274	1259	1245	1232	1221	1201	1192
		q (36/4)	1714	1653	1601	1556	1517	1482	1452	1424	1399	1377	1356	1338	1320
	16	1	392	342	301	268	240	216	196	179	164	151	139	129	95
		2	392	342	301	268	240	216	196	179	164	151	139	129	120
		3	392	342	301	268	240	216	196	179	164	151	139	129	120
		q (36/3)	1493	1451	1415	1383	1356	1332	1310	1291	1274	1258	1244	1231	1219
		q (36/4)	1883	1807	1742	1685	1636	1592	1554	1519	1488	1460	1434	1411	1389

	Gage	No. of Spans	SPAN												
			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"
$4^1/_2$" SLAB DEPTH	22	1	273	236	205	181	133	116	102	89	79	70	61	54	48
		2	273	236	205	181	160	143	129	89	79	70	61	54	48
		3	273	236	205	181	160	143	129	89	79	70	61	54	48
		q (36/3)	1506	1486	1468	1452	1439	1427	1417	1407	1399	1391	1384	1378	1372
		q (36/4)	1651	1614	1582	1554	1530	1509	1490	1473	1457	1443	1431	1419	1409
	21	1	291	251	219	193	172	126	111	98	86	77	68	61	54
		2	291	251	219	193	172	153	138	125	114	77	68	61	54
CON-CRETE TYPE:		3	291	251	219	193	172	153	138	125	114	77	68	61	54
		q (36/3)	1515	1492	1472	1454	1439	1425	1413	1403	1393	1384	1376	1369	1362
		q (36/4)	1695	1652	1616	1584	1557	1532	1511	1491	1474	1458	1444	1431	1419
	20	1	300	259	226	200	177	159	116	102	91	80	72	64	57
		2	300	259	226	200	177	159	143	130	118	80	72	64	57
		3	300	259	226	200	177	159	143	130	118	108	72	64	57
		q (36/3)	1522	1497	1475	1457	1441	1426	1414	1402	1392	1383	1374	1366	1359
LTWT 110 PCF		q (36/4)	1718	1673	1634	1601	1571	1546	1523	1502	1484	1467	1452	1438	1425
	19	1	335	290	254	224	200	179	162	147	134	95	85	76	69
		2	335	290	254	224	200	179	162	147	134	123	113	76	69
		3	335	290	254	224	200	179	162	147	134	123	113	104	97
		q (36/3)	1551	1521	1495	1473	1454	1437	1421	1408	1395	1384	1374	1365	1356
		q (36/4)	1805	1751	1705	1665	1629	1598	1571	1546	1524	1504	1486	1469	1454
SLAB WT. 32.1 PSF	18	1	361	314	275	244	217	195	177	161	147	135	96	86	78
		2	361	314	275	244	217	195	177	161	147	135	124	115	78
		3	361	314	275	244	217	195	177	161	147	135	124	115	106
		q (36/3)	1577	1544	1515	1490	1468	1449	1432	1417	1403	1390	1379	1369	1359
		q (36/4)	1872	1811	1759	1714	1675	1640	1610	1582	1557	1535	1514	1496	1478
	16	1	437	381	336	299	267	241	219	200	183	168	155	144	105
		2	437	381	336	299	267	241	219	200	183	168	155	144	134
		3	437	381	336	299	267	241	219	200	183	168	155	144	134
		q (36/3)	1651	1609	1573	1541	1514	1490	1468	1449	1432	1416	1402	1387	1377
		q (36/4)	2041	1965	1900	1843	1794	1750	1712	1677	1646	1618	1592	1569	1547

(continued)

TABLE 15—LEGACY 2W-36 AND LEGACY 2WF-36 DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN												
			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"
5 1/4" SLAB DEPTH	22	1	322	278	242	180	156	136	119	105	92	81	72	63	56
		2	322	278	242	213	189	169	119	105	92	81	72	63	56
		3	322	278	242	213	189	169	119	105	92	81	72	63	56
		q (36/3)	1743	1723	1705	1689	1676	1664	1654	1644	1636	1628	1621	1615	1609
		q (36/4)	1888	1851	1819	1791	1767	1746	1726	1709	1694	1680	1668	1656	1646
	21	1	342	295	258	227	169	148	130	114	101	90	79	71	63
		2	342	295	258	227	202	181	163	147	101	90	79	71	63
CON-CRETE TYPE:		3	342	295	258	227	202	181	163	147	101	90	79	71	63
		q (36/3)	1752	1729	1709	1691	1676	1662	1650	1640	1630	1621	1613	1606	1599
		q (36/4)	1932	1889	1853	1821	1794	1769	1748	1728	1711	1695	1681	1668	1656
	20	1	353	305	266	235	209	154	135	119	106	94	84	74	66
		2	353	305	266	235	209	187	168	152	106	94	84	74	66
		3	353	305	266	235	209	187	168	152	139	94	84	74	66
		q (36/3)	1759	1734	1712	1694	1678	1663	1650	1639	1629	1620	1611	1603	1596
LTWT 110 PCF		q (36/4)	1955	1910	1871	1838	1808	1783	1760	1739	1721	1704	1689	1675	1662
	19	1	393	340	298	263	235	210	190	172	124	111	99	89	80
		2	393	340	298	263	235	210	190	172	157	144	99	89	80
		3	393	340	298	263	235	210	190	172	157	144	133	123	80
		q (36/3)	1788	1758	1732	1710	1691	1674	1658	1645	1632	1621	1611	1602	1593
		q (36/4)	2042	1988	1942	1902	1866	1835	1808	1783	1761	1741	1723	1706	1691
SLAB WT 38.9 PSF	18	1	424	368	323	286	255	229	207	188	172	124	112	101	91
		2	424	368	323	286	255	229	207	188	172	158	145	101	91
		3	424	368	323	286	255	229	207	188	172	158	145	134	125
		q (36/3)	1814	1781	1752	1727	1705	1686	1669	1654	1640	1627	1616	1606	1596
		q (36/4)	2109	2048	1996	1951	1912	1877	1847	1819	1794	1772	1751	1733	1715
	16	1	511	445	393	349	313	282	256	233	214	197	182	134	122
		2	511	445	393	349	313	282	256	233	214	197	182	168	157
		3	511	445	393	349	313	282	256	233	214	197	182	168	157
		q (36/3)	1888	1846	1809	1778	1751	1727	1705	1686	1669	1653	1639	1626	1614
		q (36/4)	2278	2202	2137	2080	2031	1987	1949	1914	1883	1855	1829	1806	1784

	Gage	No. of Spans	SPAN												
			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"
6 3/16" SLAB DEPTH	22	1	385	332	250	215	187	162	142	125	110	97	86	76	67
		2	385	332	290	255	226	162	142	125	110	97	86	76	67
		3	385	332	290	255	226	162	142	125	110	97	86	76	67
		q (36/3)	2039	2019	2001	1986	1972	1960	1950	1940	1932	1924	1917	1911	1905
		q (36/4)	2184	2147	2115	2087	2063	2042	2023	2006	1990	1976	1964	1952	1942
	21	1	409	353	308	232	202	176	155	136	121	107	95	84	75
		2	409	353	308	272	241	216	155	136	121	107	95	84	75
CON-CRETE TYPE:		3	409	353	308	272	241	216	194	136	121	107	95	84	75
		q (36/3)	2049	2025	2005	1987	1972	1958	1946	1936	1926	1917	1909	1902	1895
		q (36/4)	2228	2185	2149	2117	2090	2065	2044	2024	2007	1991	1977	1964	1952
	20	1	422	365	318	281	210	184	161	143	126	112	100	89	79
		2	422	365	318	281	250	223	201	143	126	112	100	89	79
		3	422	365	318	281	250	223	201	182	126	112	100	89	79
		q (36/3)	2055	2030	2009	1990	1974	1959	1947	1935	1925	1916	1907	1900	1893
LTWT 110 PCF		q (36/4)	2251	2206	2167	2134	2105	2079	2056	2035	2017	2000	1985	1971	1958
	19	1	469	407	356	315	280	252	227	166	148	132	118	106	95
		2	469	407	356	315	280	252	227	206	188	132	118	106	95
		3	469	407	356	315	280	252	227	206	188	172	159	106	95
		q (36/3)	2084	2054	2029	2006	1987	1970	1954	1941	1928	1917	1907	1898	1890
		q (36/4)	2338	2284	2238	2198	2163	2132	2104	2079	2057	2037	2019	2002	1987
SLAB WT. 47.5 PSF	18	1	506	439	385	341	304	274	247	225	165	148	133	120	108
		2	506	439	385	341	304	274	247	225	205	188	133	120	108
		3	506	439	385	341	304	274	247	225	205	188	174	160	108
		q (36/3)	2110	2077	2048	2023	2001	1982	1965	1950	1936	1923	1912	1902	1892
		q (36/4)	2405	2344	2293	2248	2208	2174	2143	2115	2090	2068	2047	2029	2012
	16	1	609	531	468	416	373	336	305	278	255	235	176	160	146
		2	609	531	468	416	373	336	305	278	255	235	217	201	146
		3	609	531	468	416	373	336	305	278	255	235	217	201	187
		q (36/3)	2184	2142	2106	2074	2047	2023	2001	1982	1965	1949	1935	1922	1910
		q (36/4)	2574	2498	2433	2376	2327	2284	2245	2210	2179	2151	2125	2102	2080

(continued)

TABLE 15—LEGACY 2W-36 AND LEGACY 2WF-36 DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN												
			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"
4" SLAB DEPTH	22	1	243	210	183	130	112	97	84	73	63	55	48	42	36
		2	243	210	183	160	143	127	115	73	63	55	48	42	36
		3	243	210	183	160	143	127	84	73	63	55	48	42	36
		q (36/3)	1673	1652	1634	1619	1605	1594	1583	1574	1565	1557	1550	1544	1538
		q (36/4)	1818	1780	1748	1721	1696	1675	1656	1639	1624	1610	1597	1586	1575
CON-CRETE TYPE:	21	1	259	223	195	172	153	106	92	80	70	62	54	47	41
		2	259	223	195	172	153	137	123	111	70	62	54	47	41
		3	259	223	195	172	153	137	123	111	70	62	54	47	41
		q (36/3)	1682	1658	1638	1621	1605	1592	1580	1569	1559	1551	1543	1535	1529
		q (36/4)	1861	1819	1782	1751	1723	1699	1677	1658	1640	1624	1610	1597	1585
	20	1	267	231	202	178	158	110	96	84	74	65	57	50	44
		2	267	231	202	178	158	142	128	116	74	65	57	50	44
		3	267	231	202	178	158	142	128	116	105	65	57	50	44
		q (36/3)	1688	1663	1642	1623	1607	1593	1580	1569	1558	1549	1541	1533	1526
NW 145 PCF		q (36/4)	1884	1839	1801	1767	1738	1712	1689	1669	1650	1633	1618	1604	1592
	19	1	299	259	227	200	178	160	145	131	88	78	69	62	55
		2	299	259	227	200	178	160	145	131	120	110	69	62	55
		3	299	259	227	200	178	160	145	131	120	110	101	93	55
		q (36/3)	1718	1688	1662	1640	1620	1603	1588	1574	1562	1551	1541	1531	1523
		q (36/4)	1972	1918	1871	1831	1796	1765	1737	1713	1690	1670	1652	1635	1620
SLAB WT 36.4. PSF	18	1	323	280	246	218	194	175	158	143	131	120	79	71	63
		2	323	280	246	218	194	175	158	143	131	120	111	71	63
		3	323	280	246	218	194	175	158	143	131	120	111	102	95
		q (36/3)	1744	1710	1681	1656	1635	1615	1598	1583	1569	1557	1545	1535	1526
		q (36/4)	2038	1978	1926	1881	1842	1807	1776	1748	1724	1701	1681	1662	1645
	16	1	392	342	301	268	240	216	196	179	164	151	139	97	88
		2	392	342	301	268	240	216	196	179	164	151	139	129	120
		3	392	342	301	268	240	216	196	179	164	151	139	129	120
		q (36/3)	1817	1775	1739	1708	1680	1656	1635	1616	1598	1583	1568	1555	1543
		q (36/4)	2207	2131	2066	2010	1960	1917	1878	1843	1812	1784	1758	1735	1714
	Gage	No. of Spans	SPAN												
			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"
$4^1/_2$" SLAB DEPTH	22	1	273	236	170	145	125	108	93	81	70	61	53	46	40
		2	273	236	205	181	160	143	93	81	70	61	53	46	40
		3	273	236	205	181	160	143	93	81	70	61	53	46	40
		q (36/3)	1912	1891	1873	1858	1845	1833	1822	1813	1804	1797	1790	1783	1777
		q (36/4)	2057	2020	1988	1960	1936	1914	1895	1878	1863	1849	1836	1825	1814
CON-CRETE TYPE:	21	1	291	251	219	193	136	118	102	89	78	68	60	52	46
		2	291	251	219	193	172	153	138	89	78	68	60	52	46
		3	291	251	219	193	172	153	138	125	78	68	60	52	46
		q (36/3)	1921	1897	1877	1860	1844	1831	1819	1808	1798	1790	1782	1774	1768
		q (36/4)	2100	2058	2021	1990	1962	1938	1916	1897	1879	1864	1849	1836	1824
	20	1	300	259	226	200	177	123	107	94	82	72	63	56	49
		2	300	259	226	200	177	159	143	94	82	72	63	56	49
		3	300	259	226	200	177	159	143	130	118	72	63	56	49
		q (36/3)	1927	1902	1881	1862	1846	1832	1819	1808	1797	1788	1780	1772	1765
NW 145 PCF		q (36/4)	2123	2078	2040	2006	1977	1951	1928	1908	1889	1872	1857	1843	1831
	19	1	335	290	254	224	200	179	162	111	98	87	77	68	60
		2	335	290	254	224	200	179	162	147	134	87	77	68	60
		3	335	290	254	224	200	179	162	147	134	123	113	68	60
		q (36/3)	1957	1927	1901	1879	1859	1842	1827	1813	1801	1790	1780	1770	1762
		q (36/4)	2211	2157	2110	2070	2035	2004	1976	1952	1930	1910	1891	1875	1859
SLAB WT. 42.3 PSF	18	1	361	314	275	244	217	195	177	161	147	98	87	78	70
		2	361	314	275	244	217	195	177	161	147	135	87	78	70
		3	361	314	275	244	217	195	177	161	147	135	124	115	70
		q (36/3)	1983	1949	1920	1896	1874	1854	1837	1822	1808	1796	1785	1774	1765
		q (36/4)	2277	2217	2165	2120	2081	2046	2015	1988	1963	1940	1920	1901	1884
	16	1	437	381	336	299	267	241	219	200	183	168	118	107	97
		2	437	381	336	299	267	241	219	200	183	168	155	144	134
		3	437	381	336	299	267	241	219	200	183	168	155	144	134
		q (36/3)	2056	2014	1978	1947	1919	1895	1874	1855	1837	1822	1807	1794	1783
		q (36/4)	2446	2370	2305	2249	2199	2156	2117	2083	2051	2023	1998	1974	1953

(continued)

TABLE 15—LEGACY 2W-36 AND LEGACY 2WF-36 DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN												
			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"
$5^1/_2$" SLAB DEPTH	22	1	339	247	209	179	153	132	114	99	86	75	65	56	48
		2	339	292	254	224	153	132	114	99	86	75	65	56	48
		3	339	292	254	224	153	132	114	99	86	75	65	56	48
		q (36/3)	2390	2369	2352	2336	2323	2311	2300	2291	2282	2275	2268	2261	2255
		q (36/4)	2535	2498	2466	2438	2414	2392	2373	2356	2341	2327	2314	2303	2292
CON-CRETE *TYPE:*	21	1	360	311	271	194	167	145	126	109	95	83	73	63	55
		2	360	311	271	239	212	145	126	109	95	83	73	63	55
		3	360	311	271	239	212	190	126	109	95	83	73	63	55
		q (36/3)	2399	2376	2355	2338	2323	2309	2297	2286	2277	2268	2260	2253	2246
		q (36/4)	2578	2536	2499	2468	2440	2416	2394	2375	2357	2342	2327	2314	2302
NW	20	1	371	320	280	201	174	151	132	115	101	88	77	68	59
		2	371	320	280	247	219	196	132	115	101	88	77	68	59
		3	371	320	280	247	219	196	177	115	101	88	77	68	59
		q (36/3)	2405	2380	2359	2341	2324	2310	2297	2286	2276	2266	2258	2256	2243
		q (36/4)	2602	2557	2518	2484	2455	2429	2406	2386	2367	2351	2335	2322	2309
145 PCF	19	1	413	358	313	277	247	221	154	136	120	106	94	83	73
		2	413	358	313	277	247	221	200	181	120	106	94	83	73
		3	413	358	313	277	247	221	200	181	165	152	94	83	73
		q (36/3)	2435	2405	2379	2357	2337	2320	2305	2291	2279	2268	2258	2249	2240
		q (36/4)	2689	2635	2588	2548	2513	2482	2455	2430	2408	2388	2369	2353	2337
SLAB WT. 54.4 PSF	18	1	445	386	339	300	268	241	218	152	135	120	107	95	85
		2	445	386	339	300	268	241	218	198	181	120	107	95	85
		3	445	386	339	300	268	241	218	198	181	166	153	95	85
		q (36/3)	2461	2427	2399	2374	2352	2333	2316	2300	2286	2274	2263	2252	2243
		q (36/4)	2755	2695	2643	2598	2559	2524	2493	2466	2441	2418	2398	2379	2362
	16	1	536	468	412	367	328	296	269	245	224	160	144	130	118
		2	536	468	412	367	328	296	269	245	224	207	191	130	118
		3	536	468	412	367	328	296	269	245	224	207	191	177	164
		q (36/3)	2534	2492	2456	2425	2398	2373	2352	2333	2315	2300	2286	2273	2261
		q (36/4)	2924	2848	2783	2727	2678	2634	2595	2561	2530	2501	2476	2452	2431
	Gage	No. of Spans	SPAN												
			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"
6" SLAB DEPTH	22	1	373	271	230	196	169	145	126	109	94	82	71	61	53
		2	373	321	280	246	169	145	126	109	94	82	71	61	53
		3	373	321	280	246	169	145	126	109	94	82	71	61	53
		q (36/3)	2629	2608	2591	2575	2562	2550	2539	2530	2521	2514	2507	2500	2495
		q (36/4)	2774	2737	2705	2677	2653	2631	2612	2595	2580	2566	2554	2542	2531
CON-CRETE TYPE:	21	1	396	342	248	213	183	159	138	120	105	91	80	70	60
		2	396	342	298	263	233	159	138	120	105	91	80	70	60
		3	396	342	298	263	233	209	138	120	105	91	80	70	60
		q (36/3)	2638	2615	2594	2577	2562	2548	2536	2525	2516	2507	2499	2492	2485
		q (36/4)	2817	2775	2739	2707	2679	2655	2633	2614	2597	2581	2566	2553	2541
NW	20	1	408	352	308	221	191	166	144	126	110	97	85	74	65
		2	408	352	308	271	241	166	144	126	110	97	85	74	65
		3	408	352	308	271	241	216	144	126	110	97	85	74	65
		q (36/3)	2645	2620	2598	2580	2563	2549	2536	2525	2516	2505	2497	2489	2482
		q (36/4)	2841	2796	2757	2724	2694	2668	2645	2625	2606	2590	2574	2561	2548
145 PCF	19	1	454	393	344	304	271	193	169	149	131	116	103	91	80
		2	454	393	344	304	271	243	220	149	131	116	103	91	80
		3	454	393	344	304	271	243	220	199	182	116	103	91	80
		q (36/3)	2674	2644	2618	2596	2577	2559	2544	2530	2518	2507	2497	2488	2479
		q (36/4)	2928	2874	2828	2787	2752	2721	2694	2669	2647	2627	2609	2592	2577
SLAB WT. 60.4 PSF	18	1	489	425	373	330	294	265	188	167	148	131	117	104	93
		2	489	425	373	330	294	265	239	217	148	131	117	104	93
		3	489	425	373	330	294	265	239	217	199	182	117	104	93
		q (36/3)	2700	2666	2638	2613	2591	2572	2555	2539	2526	2513	2502	2491	2482
		q (36/4)	2995	2934	2882	2837	2798	2763	2732	2705	2680	2657	2637	2618	2601
	16	1	589	514	453	403	361	325	295	269	195	175	158	143	129
		2	589	514	453	403	361	325	295	269	246	227	158	143	129
		3	589	514	453	403	361	325	295	269	246	227	210	194	129
		q (36/3)	2773	2731	2695	2664	2637	2613	2591	2572	2555	2539	2525	2512	2500
		q (36/4)	3164	3088	3022	2966	2917	2873	2834	2800	2769	2740	2715	2691	2670

(continued)

TABLE 15—LEGACY 2W-36 AND LEGACY 2WF-36 DECK WITH CONCRETE FILL ALLOWABLE SUPERIMPOSED LOAD (psf) AND DIAPHRAGM SHEAR (plf) [1-3]

	Gage	No. of Spans	SPAN												
			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"
$6\frac{1}{2}$" SLAB DEPTH	22	1	352	296	251	214	184	159	137	119	103	89	77	67	57
		2	407	351	306	214	184	159	137	119	103	89	77	67	57
		3	407	351	306	214	184	159	137	119	103	89	77	67	57
		q (36/3)	2868	2847	2830	2814	2801	2789	2769	2761	2753	2746	2739	2734	2728
		q (36/4)	3013	2976	2944	2916	2892	2870	2851	2834	2819	2805	2793	2781	2771
CON-CRETE TYPE:	21	1	432	373	271	232	200	173	150	131	114	100	87	76	66
		2	432	373	326	287	200	173	150	131	114	100	87	76	66
		3	432	373	326	287	255	173	150	131	114	100	87	76	66
		q (36/3)	2877	2854	2834	2816	2801	2787	2775	2764	2755	2746	2738	2731	2724
		q (36/4)	3057	3014	2978	2946	2919	2894	2872	2853	2836	2820	2806	2792	2780
NW	20	1	446	385	281	242	209	181	158	138	120	105	92	81	70
		2	446	385	336	296	264	181	158	138	120	105	92	81	70
		3	446	385	336	296	264	236	158	138	120	105	92	81	70
		q (36/3)	2884	2859	2837	2819	2802	2788	2775	2764	2754	2744	2736	2728	2721
		q (36/4)	3080	3035	2996	2963	2933	2908	2885	2864	2846	2829	2814	2800	2787
145 PCF	19	1	495	429	376	332	241	210	184	162	143	126	112	99	88
		2	495	429	376	332	296	266	184	162	143	126	112	99	88
		3	495	429	376	332	296	266	240	218	143	126	112	99	88
		q (36/3)	2913	2883	2857	2835	2816	2798	2783	2769	2757	2746	2736	2727	2718
		q (36/4)	3167	3113	3067	3026	2991	2960	2933	2908	2886	2866	2848	2831	2816
SLAB WT. 66.5 *PSF*	18	1	534	464	407	360	321	289	206	182	161	143	128	114	101
		2	534	464	407	360	321	289	261	182	161	143	128	114	101
		3	534	464	407	360	321	289	261	237	217	143	128	114	101
		q (36/3)	2939	2906	2877	2852	2830	2811	2778	2765	2752	2741	2731	2721	2712
		q (36/4)	3234	3173	3121	3076	3037	3002	2971	2944	2919	2897	2876	2857	2840
	16	1	643	561	494	439	394	355	322	294	213	191	172	156	141
		2	643	561	494	439	394	355	322	294	269	191	172	156	141
		3	643	561	494	439	394	355	322	294	269	248	229	212	141
		q (36/3)	3013	2970	2934	2903	2876	2852	2830	2811	2794	2778	2764	2751	2739
		q (36/4)	3403	3327	3262	3205	3156	3112	3074	3039	3008	2979	2954	2930	2909
	Gage	No. of Spans	SPAN												
			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"
$7\frac{1}{2}$" SLAB DEPTH	22	1	398	334	283	242	208	179	155	134	116	101	87	75	65
		2	460	396	345	242	208	179	155	134	116	101	87	75	65
		3	460	396	345	242	208	179	155	134	116	101	87	75	65
		q (36/3)	3227	3206	3188	3173	3160	3148	3137	3128	3119	3111	3104	3098	3092
		q (36/4)	3372	3334	3302	3275	3250	3229	3210	3193	3178	3164	3151	3140	3129
CON-CRETE TYPE:	21	1	488	359	306	262	226	195	170	148	129	112	98	85	74
		2	488	421	368	324	226	195	170	148	129	112	98	85	74
		3	488	421	368	324	226	195	170	148	129	112	98	85	74
		q (36/3)	3236	3212	3192	3175	3159	3146	3134	3123	3113	3105	3097	3089	3083
		q (36/4)	3415	3373	3336	3305	3277	3253	3231	3212	3194	3179	3164	3151	3139
NW	20	1	503	435	317	273	235	204	178	155	136	119	104	91	79
		2	503	435	380	335	235	204	178	155	136	119	104	91	79
		3	503	435	380	335	297	204	178	155	136	119	104	91	79
		q (36/3)	3342	3217	3196	3177	3161	3147	3134	3123	3112	3103	3095	3087	3080
		q (36/4)	3438	3393	3355	3321	3292	3266	3243	3223	3204	3187	3172	3158	3146
145 PCF	19	1	559	484	424	375	272	237	208	183	161	143	126	112	99
		2	559	484	424	375	334	300	208	183	161	143	126	112	99
		3	559	484	424	375	334	300	271	183	161	143	126	112	99
		q (36/3)	3272	3242	3216	3194	3174	3157	3142	3128	3116	3105	3095	3085	3077
		q (36/4)	3526	3472	3425	3385	3350	3319	3291	3267	3245	3224	3206	3190	3174
SLAB WT. 75.6 PSF	18	1	603	523	459	407	363	263	232	205	182	162	144	128	114
		2	603	523	459	407	363	326	232	205	182	162	144	128	114
		3	603	523	459	407	363	326	295	268	182	162	144	128	114
		q (36/3)	3298	3264	3235	3210	3189	3169	3152	3137	3123	3111	3100	3089	3080
		q (36/4)	3592	3532	3480	3435	3396	3361	3330	3302	3278	3255	3235	3216	3199
	16	1	725	633	557	496	444	400	363	268	240	216	195	176	159
		2	725	633	557	496	444	400	363	331	240	216	195	176	159
		3	725	633	557	496	444	400	363	331	303	279	258	176	159
		q (36/3)	3371	3329	3293	3262	3234	3210	3189	3170	3152	3137	3122	3109	3098
		q (36/4)	3761	3685	3620	3564	3514	3471	3432	3398	3366	3338	3312	3289	3268